

Solicitation No. – N° de l’invitaion
EA011-201431/A

Amd. No. - N° de la modif.
7

Buyer ID – Id de l’acheteur
pwd005

Client ref. No. - N° de ref. du client
R.077269.001

File No. N° du dossier
PWD-9-42079 (005)

CCC No./N° CCC – FMS No/N° VME

Maintenance Garage Rehabilitation – St. Anthony Airport. St. Anthony, NL

Addendum #: 4

Project #: R.077269.001

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THE FOLLOWING AMENDMENT TO THE TENDER DOCUMENTS IS EFFECTIVE IMMEDIATELY. THE
ADDENDUM SHALL FORM A PART OF THE CONTRACT DOCUMENTS.
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SPECIFICATIONS:

- 1 In the specifications, add new Section 09 91 99 – Painting attached herewith.
- 2 In the specifications, delete Section 09 91 13 – Exterior Painting in its entirety.
- 3 In the specifications, delete Section 09 91 23 – Interior Painting in its entirety.
- 4 In the specifications, add specification section 23 10 01 – Service Garage Systems attached herewith.

DRAWINGS:

- 1 On Drawing S1, delete Note 2 and replace with new Note 2 to read:
 2. FOR NEW CONCRETE SLAB AREAS BETWEEN GRIDS 5 AND 8, APPLY A LIQUID PENETRATING DENSIFIER AS PER FOR NEW CONCRETE SLAB AREAS BETWEEN GRIDS 5 AND 8, APPLY A LIQUID PENETRATING DENSIFIER AS PER SPECIFICATIONS. ACCEPTABLE PRODUCT SIKAFLOOR 3S, LIQUI-HARD BY W. R. MEADOWS OR APPROVED EQUIVALENT. REFER TO ARCHITECTURAL FOR CONCRETE FLOOR TREATMENT IN OTHER AREAS.
- 2 On Drawing S2, add the following Note:

NOTES

 1. TOP OF SLAB ELEVATION FOR NEW BUILDING PORTION TO MATCH EXISTING. TOP OF SLAB ELEVATION SHALL BE 100MM HIGHER THAN THAT OF THE OUTSIDE CURB ELEVATION. CONTRACTOR SHALL VERIFY EXISTING TOP OF SLAB ELEVATION AND NOTIFY THE OWNER AND CONSULTANT PRIOR TO STARTING WORK.
- 3 On Drawing A10 make the following revisions:
 - .1 Detail #1, for “Structural Member C250x23” and Steel Channel C150x12” add the following text “Galvanized and Painted”.

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- .2 Detail #2, for “Structural Member C250x23” and Steel Channel C150x12” add the following text “Galvanized and Painted”.
 - .3 Detail #5, for “Structural Member C250x23” and Steel Channel “C150x12” add the following text “Galvanized”

 - 4 On Drawing A14, Room Finish Schedule, Maintenance Bay 117A, change finish to south wall to read “FRP/P”.

 - 5 On Drawing E1, detail #1, replace the note 2 with ‘Contractor to supply and install a 90A, 3P breaker in the existing main service entrance board. Breaker to be LGB3KD090B C/W mounting hardware’.

 - 6 On Drawing E1, Electrical Distribution System-Single Line Diagram, delete “See new panel schedule for new breakers”.

 - 7 On Drawing E8, make the following revisions:
 - .1 Detail #1, replace tag ‘New Panel EDP-1’ with ‘Existing Panel EDP-1’.
 - .2 Detail #1, replace tag ‘New 400A, 347/600V main switchboard, c/w 400A main breaker, CT section, distribution section and owner digital metering’ with ‘existing main service entrance board’.
 - .3 Detail #5, delete detail.
 - .4 On existing Panel Board Description, delete panel ‘EDP-1’ and ‘Main Service Board’.

 - 8 On Drawing E9, delete ‘New panel EDP-1’ schedule.

 - 9 On Drawing E1 delete wording for combination disconnect/welding receptacle with ‘Existing combination disconnect/welding receptacle to be removed and replaced. Existing rated 100A, 208V, 1 phase.

 - 10 On Drawing E6 add note ‘23. Hydronic heating valves are controlled by low voltage thermostats.’

 - 11 On Drawing E7 add note ‘19. Hydronic heating valves are controlled by low voltage thermostats.’

 - 12 On Drawing E7 add note ‘20. Existing clocks to remain. Circuit B-6 is existing clock circuits.’

Revise the Specifications and Drawing indices accordingly to reflect revisions made in this addendum.

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By submission of its bid, the bidder confirms that it has read and understands the requirements expressed in all addenda and has included all cost of these requirements in its total bid amount.

All other terms and conditions remain unchanged.

DJB for MK

PART 1 GENERAL

1.1 RELATED SECTIONS

- .1 21 05 05 - Common Work Results for Fire Suppression

1.2 REFERENCES

- .1 Perform the work in accordance with the relevant codes and standards from the regulatory agencies and institutes listed below.
- .2 The latest issue of an individual code, standard or regulation at the time of contract signing shall govern.
- .3 Health Canada/Workplace Hazardous Materials Information System (WHMIS)
 - .1 Material Safety Data Sheets (MSDS).
- .4 Master Painters Institute (MPI)
 - .1 MPI Architectural Painting Specifications Manual.
 - .2 MPI - Maintenance Repainting Manual.
- .5 In the event of conflict between the reference codes and standards, drawings, specifications, and/or the Purchase Order, obtain clarification before proceeding with the work.

1.3 SUBMITTALS

- .1 Submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Product Data:
 - .1 Submit product data and instructions for each paint and coating product to be used.
 - .2 Submit product data for the use and application of paint thinner.
 - .3 Submit two copies of Workplace Hazardous Materials Information System (WHMIS) Material Safety Data Sheets (MSDS) in accordance with Section 01 33 00 - Submittal Procedures. Indicate VOCs during application and curing.
 - .4 Submit certificates signed by manufacturer certifying that materials comply with specified performance characteristics and physical properties.
 - .5 Submit manufacturer's installation and application instructions.

1.4 STORAGE AND HANDLING

- .1 Storage and Protection:
 - .1 Provide and maintain dry, temperature controlled, secure storage.
 - .2 Store materials and supplies away from heat generating devices.
 - .3 Store materials and equipment in well ventilated area within temperature as recommended by manufacturer.
- .2 Fire Safety Requirements:
 - .1 Provide one 9 kg Type ABC dry chemical fire extinguisher adjacent to storage area.

- .2 Store oily rags, waste products, empty containers and materials subject to spontaneous combustion in ULC approved, sealed containers and remove from site on a daily basis.
- .3 Handle, store, use and dispose of flammable and combustible materials in accordance with National Fire Code of Canada requirements.

1.5 WASTE MANAGEMENT AND DISPOSAL

- .1 Separate waste materials for reuse and recycling in accordance with Section 01 74 19 - Construction/Demolition Waste Management and Disposal.
- .2 Remove from site and dispose of packaging materials at appropriate recycling facilities.
- .3 Place materials defined as hazardous or toxic waste, including tubes and containers, in containers or areas designated for hazardous waste.
- .4 Paint, stain and wood preservative finishes and related materials (thinners, and solvents) are regarded as hazardous products and are subject to regulations for disposal. Information on these controls can be obtained from Provincial Ministries of Environment and Regional levels of Government.

1.6 SITE CONDITIONS

- .1 Heating, Ventilation and Lighting:
 - .1 Ventilate enclosed spaces in accordance with Section.
 - .2 Co-ordinate use of existing ventilation system with Departmental Representative and ensure its operation during and after application of paint as required.
 - .3 Provide minimum lighting level of 323 Lux on surfaces to be painted.
- .2 Temperature, Humidity and Substrate Moisture Content Levels:
 - .1 Apply paint finishes when ambient air and substrate temperatures at location of installation can be satisfactorily maintained during application and drying process, within MPI and paint manufacturer's prescribed limits.
 - .2 Test concrete, masonry and plaster surfaces for alkalinity as required.
 - .3 Apply paint to adequately prepared surfaces, when moisture content is below paint manufacturer's prescribed limits.
- .3 Additional application requirements:
 - .1 Apply paint finish in areas where dust is no longer being generated by related construction operations or when wind or ventilation conditions are such that airborne particles will not affect quality of finished surface.
 - .2 Apply paint in occupied facilities during silent hours only. Schedule operations to approval of Departmental Representative such that painted surfaces will have dried and cured sufficiently before occupants are affected.

PART 2 PRODUCTS

2.1 MATERIALS

- .1 Paint materials listed in the MPI Approved Products List (APL) are acceptable for use on this project.
- .2 Provide paint materials for paint systems from single manufacturer.
- .3 Only qualified products with E2 or E3 “Environmentally Friendly” rating are acceptable for use on this project.
- .4 Conform to latest MPI requirements for all painting work including preparation and priming.
- .5 Materials (primers, paints, coatings, varnishes, stains, lacquers, fillers, thinners, solvents, etc.) in accordance with MPI - Architectural Painting Specification Manual and MPI - Maintenance Repainting Manual “Approved Product” listing.
- .6 Provide paint products meeting MPI “Environmentally Friendly” E2 or E3 ratings based on VOC (EPA Method 24) content levels.
- .7 Use MPI listed materials having minimum E2 or E3 rating where indoor air quality (odour) requirements exist.

2.2 COLOURS

- .1 Submit proposed Colour Schedule to Departmental Representative for review.
- .2 Colour schedule will be based upon selection of five base colours and three accent colours.

2.3 MIXING AND TINTING

- .1 Perform colour tinting operations prior to delivery of paint to site, in accordance with manufacturer’s written instructions. Obtain written approval from Departmental Representative for tinting of painting materials.
- .2 Use and add thinner in accordance with paint manufacturer’s recommendations. Do not use kerosene or similar organic solvents to thin water-based paints.
- .3 Thin paint for spraying in accordance with paint manufacturer’s instructions.
- .4 Re-mix paint in containers prior to and during application to ensure break-up of lumps, complete dispersion of settled pigment, and colour and gloss uniformity.

2.4 GLOSS/SHEEN RATINGS

- .1 Paint gloss is defined as sheen rating of applied paint, in accordance with following values:

	Gloss @ 60 degrees	Sheen @ 85 degrees
Gloss Level 1 - Matte Finish (flat)	Max. 5	Max. 10
Gloss Level 2 - Velvet-Like Finish	Max.10	10 to 35
Gloss Level 3 - Eggshell Finish	10 to 25	10 to 35
Gloss Level 4 - Satin-Like Finish	20 to 35	min. 35

	Gloss @ 60 degrees	Sheen @ 85 degrees
Gloss Level 5 - Traditional Semi-Gloss Finish	35 to 70	
Gloss Level 6 - Traditional Gloss	70 to 85	
Gloss Level 7 - High Gloss Finish	More than 85	

- .2 Gloss level ratings of painted surfaces as indicated and as noted on Finish Schedule.

2.5 EXTERIOR PAINTING SYSTEMS

- .1 Structural Steel and Metal Fabrications:
- .1 EXT 5.1J – Pigmented polyurethane finish for use in high contact/high traffic areas, premium grade.
- .2 Galvanized Metal: not chromate passivated (doors, frames, stair, railings, etc.):
- .1 EXT 5.3D - Pigmented polyurethane finish for use in high contact/high traffic areas, premium grade.

2.5 INTERIOR PAINTING

- .1 Concrete horizontal surfaces.
- .1 INT 3.2C – Epoxy, Premium Grade, add silica sand grit (80-425 microns) at ratio of 4 parts paint to 1 part grit in first coat, stir thoroughly until dispersed uniformly. Stir paint often to keep grit evenly suspended through paint. Allow to dry before application of additional coats.
- .2 Concrete masonry units.
- .1 INT 4.2K, W.B. light industrial coating, premium grade, G5 finish.
- .3 Structural steel and metal fabrications: columns, beams, joists, etc.
- .1 INT 5.1K Epoxy Modified latex, G5 finish, premium grade,
- .4 Galvanized metal: doors, frames, railings, misc. steel, pipes, overhead decking, ducts, etc.
- .1 INT 5.3B, W.B. light industrial coating, premium grade, G3 finish.
- .5 Plaster and gypsum board: gypsum wallboard, drywall, “sheet rock” type material, etc.
- .1 INT 9.2 B - High performance architectural latex, G3 finish for walls, premium grade.
- .2 INT 9.2B - High performance architectural latex, G2 finish for ceilings, premium grade.

2.6 INTERIOR RE-PAINTING

- .1 Concrete horizontal surfaces:
- .1 RIN 3.2C – Epoxy, Premium Grade, add silica sand grit (80-425 microns) at ratio of 4 parts paint to 1 part grit in first coat, stir thoroughly until dispersed uniformly. Stir paint often to keep grit evenly suspended through paint. Allow to dry before application of additional coats.

- .2 Structural Steel and Metal Fabrications.
 - .1 RIN 5.1J – Epoxy Modified Latex, G5 Finish, Premium grade.
- .3 Galvanized Metal: high contact/high traffic areas (doors, frames, railings and handrails, etc.).
 - .1 RIN 5.3J – High Performance Architectural Latex, G4 Finish, Premium Grade.
 - .2 RIN 5.3D – Epoxy, Premium Grade.
- .4 Dressed Lumber: (including doors, door and window frames, moldings, etc.)
 - .1 RIN 6.3T – High Performance Architectural Latex, G5 Finish, Premium Grade.
 - .2 RIN 6.3L – Epoxy, Premium Grade.
- .5 Plaster and Gypsum Board: gypsum wallboard, drywall, "sheet rock" type material, etc.
 - .1 RIN 9.2B – High Performance Architectural Latex, G4 Finish, Premium Grade.
 - .2 RIN 9.2D – Epoxy, Premium Grade.

PART 3 EXECUTION

3.1 GENERAL

- .1 Compliance: comply with manufacturer’s written recommendations or specifications, including product technical bulletins, handling, storage and installation instructions, and data sheet.
- .2 Perform preparation and operations for interior painting in accordance with MPI - Architectural Painting Specifications Manual and MPI - Maintenance Repainting Manual except where specified otherwise.

3.2 EXAMINATION

- .1 Investigate existing substrates for problems related to proper and complete preparation of surfaces to be painted. Report to Departmental Representative damages, defects, unsatisfactory or unfavourable conditions before proceeding with work.
- .2 Conduct moisture testing of surfaces to be painted using properly calibrated electronic moisture meter, except test concrete floors for moisture using simple “cover patch test”. Do not proceed with work until conditions fall within acceptable range as recommended by manufacturer.
- .3 Where an assessed degree of surface degradation of DSD-1 to DSD-3 before preparation of surfaces for repainting is revealed to be DSD-4 after preparation, repair or replacement of such unforeseen defects discovered are to be corrected, as mutually agreed, before repainting is started.

3.3 PREPARATION

- .1 Protection:
 - .1 Protect existing building surfaces and adjacent structures from paint spatters, markings and other damage by suitable non-staining covers or masking. If damaged, clean and restore surfaces as directed by Departmental Representative.

- .2 Protect items that are permanently attached such as Fire Labels on doors and frames.
- .3 Protect factory finished products and equipment.
- .2 Surface Preparation:
 - .1 Remove electrical cover plates, light fixtures, surface hardware on doors, bath accessories and other surface mounted equipment, fittings and fastenings prior to undertaking painting operations. Identify and store items in secure location and re-installed after painting is completed.
 - .2 Move and cover furniture and portable equipment as necessary to carry out painting operations. Replace as painting operations progress.
 - .3 Place "WET PAINT" signs in occupied areas as painting operations progress. Signs to approval of Departmental Representative.
 - .4 Let concrete floors cure for 30 days under normal drying conditions.
 - .5 Acid etch or abrasive blast concrete floors in accordance with SSPC-SP13 prior to painting if required by paint manufacturers written instructions.
- .3 Clean and prepare surfaces in accordance with MPI - Architectural Painting Specification Manual and MPI - Maintenance Repainting Manual specific requirements and coating manufacturer's recommendations.
- .4 Prevent contamination of cleaned surfaces by salts, acids, alkalis, other corrosive chemicals, grease, oil and solvents before prime coat is applied and between applications of remaining coats. Apply primer, paint, or pretreatment as soon as possible after cleaning and before deterioration occurs.
- .5 Sand and dust between coats as required to provide adequate adhesion for next coat and to remove defects visible from a distance up to 1000 mm.
- .6 Clean metal surfaces to be repainted by removing rust, dirt, oil, grease and foreign substances in accordance with MPI requirements. Remove such contaminants from surfaces, pockets and corners to be repainted by brushing with clean brushes, blowing with clean dry compressed air, or brushing/vacuum cleaning as required. Touch up of shop primers with primer as specified.
- .7 Do not apply paint until prepared surfaces have been accepted by Departmental Representative.
- .8 Sand and dust between coats as required to provide adequate adhesion for next coat and to remove defects visible from distance up to 1000 mm.

3.4 EXISTING CONDITIONS

- .1 Prior to commencing work, examine site conditions and existing interior substrates to be repainted. Report in writing to Departmental Representative damages, defects, or unsatisfactory or unfavourable conditions or surfaces that will adversely affect this work.
- .2 Conduct moisture testing of surfaces to be painted using properly calibrated electronic moisture meter, except test concrete floors for moisture using simple "cover patch test" and report findings to Departmental Representative. Maximum moisture content not to exceed specified limits.

.3 Do not commence until such adverse conditions and defects have been corrected and surfaces and conditions are acceptable to Painting Subcontractor and Inspection Agency.

.4 Degree of surface deterioration (DSD) to be assessed using MPI Identifiers and Assessment criteria indicated in MPI Maintenance Repainting Manual. MPI DSD ratings and descriptions are as follows:

Condition	Description
DSD-0	Sound Surface (includes visual (aesthetic) defects that do not affect film's protective properties).
DSD-1	Slightly Deteriorated Surface (indicating fading; gloss reduction, slight surface contamination, minor pin holes scratches).
DSD-2	Moderately Deteriorated Surface (small areas of peeling, flaking, slight cracking, and staining).
DSD-3	Severely Deteriorated Surface (heavy peeling, flaking, cracking, checking, scratches, scuffs, abrasion, small holes and gouges).
DSD-4	Substrate Damage (repair or replacement of surface required).

3.4 APPLICATION

- .1 Method of application to be as approved by Departmental Representative. Conform to manufacturer's application instructions unless specified otherwise.
- .2 Apply minimum of two coats of paint (over primer / sealer) for continuous film of uniform thickness. Repaint thin spots or bare areas before next coat of paint is applied.
- .3 Allow surfaces to dry and properly cure after cleaning and between subsequent coats for minimum time period as recommended by manufacturer.
- .4 Sand and dust between coats to remove visible defects.
- .5 Finish surfaces both above and below sight lines as specified for surrounding surfaces, including such surfaces as tops of interior cupboards and cabinets and projecting ledges.
- .6 Finish inside of cupboards and cabinets as specified for outside surfaces.
- .7 Finish closets and alcoves as specified for adjoining rooms.
- .8 Finish top, bottom, edges and cut-outs of doors after fitting as specified for door surfaces.

3.5 MECHANICAL/ELECTRICAL EQUIPMENT

- .1 Paint conduits, piping, hangers, ductwork and other mechanical and electrical equipment exposed in finished areas, to match adjacent surfaces, except as indicated.
- .2 Do not paint over nameplates.
- .3 Paint disconnect switches for fire alarm system and exit light systems in red enamel.

- .4 Paint natural gas piping yellow.
- .5 Paint both sides and edges of backboards for telephone and electrical equipment before installation. Leave equipment in original finish except for touch-up as required, and paint conduits, mounting accessories and other unfinished items.

END OF SECTION

PART 1 - GENERAL

1.1 REFERENCE STANDARDS

- .1 ASTM International
 - .1 ASTM A 53/A 53M, Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc Coated, Welded and Seamless.
 - .2 ASTM A 338, Standard Specification for Malleable Iron Flanges, Pipe Fittings and Valve Parts for Railroad, Marine, and other Heavy Duty Service at Temperatures up to 650 degrees F (345 degrees C).
- .2 Health Canada/Workplace Hazardous Materials Information System (WHMIS)
 - .1 Material Safety Data Sheets (MSDS).
- .3 Society of Automotive Engineers (SAE)

1.2 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Submit in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Product Data:
 - .1 Submit manufacturer's instructions, printed product literature and data sheets for garage systems equipment and include product characteristics, performance criteria, physical size, finish and limitations.
 - .2 Submit 2 copies of WHMIS MSDS in accordance with Section 01 35 29.06 - Health and Safety Requirements.
- .3 Shop Drawings:
 - .1 Indicate on drawings:
 - .1 Equipment including connections, piping and fittings, valves, strainers, control assemblies and ancillaries, identifying factory and field assembled.
 - .2 Complete wiring diagrams including schematics.
 - .3 Dimensions, construction details, materials, recommended installation and support, mounting bolt holes, sizes and locations, and point loads.
- .4 Certificates: submit certificates signed by manufacturer certifying that materials comply with specified performance characteristics and physical properties.

1.3 CLOSEOUT SUBMITTALS

- .1 Submit in accordance with Section 01 78 00 - Closeout Submittals.
- .2 Operation and Maintenance Data: submit operation and maintenance data for garage systems equipment for incorporation into manual.

1.4 QUALITY ASSURANCE

- .1 Regulatory Requirements: Work to be performed in compliance with CEPA, and TDGA.

1.5 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements and with manufacturer's written instructions.
- .2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.
- .3 Storage and Handling Requirements:
 - .1 Store materials indoors in dry location and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
 - .2 Store and protect garage systems equipment from nicks, scratches, and blemishes.
 - .3 Replace defective or damaged materials with new.

PART 2 - PRODUCTS

2.1 LUBRICATING SYSTEM - INDUSTRIAL TYPE

- .1 Compressed air operated lubricating and greasing equipment to consist of pumps, hose, reels with drum adapters, controls and accessories.
- .2 Lubricating equipment:
 - .1 Engine lubricating oil hose and reel assemblies: 15 m of delivery hose, spring operated reel with connecting hose, ball stop hose coupling, 700 mm extension hose, universal swivel assembly and accessories.
 - .2 Chassis lubricating hose and reel assembly: 15 m of high pressure delivery hose and accessories as specified for engine lubricating assembly. Control valve does not require totalizing metre.
 - .3 Gear lubricating hose and reel assembly: 15 m of delivery hose and accessories as specified for chassis lubricating assembly.
 - .4 Complete compressed air hose and reel assembly.
- .3 Pumps:
 - .1 Engine lubricating oil drum pump: for use with standard 205 L refinery drums, complete with air motors, bung bushings, air hose couplers, connecting air and lubricant hoses and low level shut-off valves. Air motors minimum 3 to 1 pressure ratio and capable of pumping of SAE 30 motor oil at 21 degrees C through 15 m of 12 mm nominal of seamless steel tubing at 1 MPa air pressure.
 - .2 Chassis lubricating drum pump: complete with cover adapter for 180 kg drum, air coupler, connecting hoses, drum wiper, air motor, air operated elevator lift units and accessories. Capacity: minimum of 1 kg/min of multi-purpose viscous grease through 2 m of 6 mm nominal id hose, swivel and control valve using 1 MPa air pressure.

- .3 Gear lubricating drum pump: complete with accessories as for chassis lubricating pump of SAE 90 lubricant through 1.5 m of 12 mm nominal id hose, metre and shut-off valve using 1 MPa air pressure.
- .4 Chassis lubricating, power lines, motor and gear oil piping: 20 mm nominal od, 2.5 mm wall thickness seamless steel tubing with tubing fittings.

PART 3- EXECUTION

3.1 EXAMINATION

- .1 Verification of Conditions: verify that conditions of substrate previously installed under other Sections or Contracts are acceptable for garage systems equipment installation in accordance with manufacturer's written instructions.
 - .1 Visually inspect substrate in presence of Departmental Representative.
 - .2 Inform Departmental Representative of unacceptable conditions immediately upon discovery.
 - .3 Proceed with installation only after unacceptable conditions have been remedied and after receipt of written approval to proceed from Departmental Representative.

3.2 INSTALLATION

- .1 Install equipment as indicated and to manufacturer's instructions.
- .2 Install buried tanks as indicated and to manufacturers recommendations.
- .3 Waste oil tank:
 - .1 Grade piping to drain towards tank.
 - .2 Repair bituminous coating before backfilling use same material as original coating.
- .4 Gasoline and diesel pump dispensers.
 - .1 Grade suction, fill and vent piping to drain toward tanks.
 - .2 Use Teflon or pipe dope on male threads.
 - .3 Use swing joints at tank and under pump for suction line, at tank and at base of vent line riser at building and at tank and fill box for fill line.
 - .4 Bury piping minimum 500 mm below surface from tanks to dispensers.
- .5 Install compressors on vibration isolators as recommended by manufacturer.

3.3 IDENTIFICATION

- .1 Install permanently marked identification tags on fill lines of underground storage tanks.

3.4 CLEANING

- .1 Progress Cleaning: clean in accordance with Section 01 74 11 - Cleaning.
 - .1 Leave Work area clean at end of each day.
- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 11 - Cleaning.
- .3 Waste Management: separate waste materials for reuse and recycling in accordance with Section 01 74 19 - Waste Management and Disposal
 - .1 Remove recycling containers and bins from site and dispose of materials at appropriate facility.

END OF SECTION