



Fit-up Accomodations, Office and Garage buildings

Gimli, Manitoba

Division 00 – Procurement And Contracting Requirements

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SUMMARY OF WORK

Project Description

Initial interior and exterior improvements for two existing pre-fabricated buildings, and relocation and renovation of an existing garage on to an existing foundation. Project is located at 95 First Street in Gimli, Manitoba. Total building area is approximately 3640 Sq. Ft.

DIVISION 01 GENERAL REQUIREMENTS

Copyright

The drawings and specifications shall not be reproduced in any form without the permission of the Architect.

Drawing Notes

Specifications shall be read in conjunction with the notes on drawings. All bidders including subcontractors shall examine all documents & shall be responsible for work applicable to their trade regardless of where it appears in the documents. The drawing set must be viewed in its entirety for inclusion of work. If there are any inconsistencies between details or disciplines then the contractor must seek clarification, otherwise shall be bound to provide the item or work shown on any particular section of the drawing set.

Interpretation of Contract Documents Prior to Bidding

Anyone contemplating submitting a bid for the construction of the work who is in doubt as to the true meaning of any part of the proposed Contract Documents, or who finds discrepancies in or omissions from any part of the proposed Contract Documents, or who discovers any conditions on site which, in his opinion, shall require clarifications in the proposed Contract Documents, shall submit to the Architect a written request for interpretation or clarification.

Codes and Standards

All work shall be in accordance with latest issue of the applicable regulations and standards including; Manitoba Building Code, Manitoba Fire Code, Federal, Provincial and Municipal government laws, ordinances and codes, where such standard laws, rules, ordinances and codes are applicable. Work shall meet or exceed requirements of specified standards, codes and referenced documents. Even if permitted by preceding regulations and standards, grade of work shall in no case be lower than specified in the project specifications.

Barrier Free Access

Provide barrier-free access for the disabled as required by the Manitoba Building Code, MGS Schedule F and the Universal Design Institute Access Guidelines including, but not limited to, NBC required washrooms throughout the building, all floors, all plumbing fixtures, elevator controls, mail drop boxes and base building signage. Include automatic door operators at both building entrances with (2) two large contact target control devices, (located at 225 mm (9") AFF and 915 mm (36") AFF and positioned to allow for convenient access and egress.

Reference and Standards:

- Manitoba Government Services (MGS) Colour Coding Requirements for Mechanical and Electrical Systems.
- Manitoba Building Code, latest edition.
- Manitoba Fire Code, latest edition.

Shop Drawings & Submittals

The contractor shall furnish to the Architect all shop drawings of all Architectural Work and submit them electronically. Contractor's responsibility for deviations in submission from requirements of Contract Documents is not relieved by Consultant review.

Contractor to submit to Architect submittals listed for review. Submit promptly and in orderly sequence to not cause delay in Work. Failure to submit in ample time is not considered sufficient reason for extension of Contract Time and no claim for extension by reason of such default will be allowed.

Do not proceed with Work affected by submittal until review is complete.
Present shop drawings, product data, samples and mock-ups in SI Imperial units.
Identify deviations from requirements of Contract Documents stating reasons for deviations.
Keep one reviewed copy of each submission on site.

Allow ten (10) working days for review of each submission.
Adjustments made on shop drawings are not intended to change Contract Price. If adjustments affect value of Work, state such in writing prior to proceeding with Work.

Samples

Submit to Architect samples in duplicate as requested in respective specification sections. Label samples with origin and intended use. Samples are to be delivered prepaid. Notify in writing any deviations in samples from requirements of Contract Documents. Where color, pattern or texture is criterion, submit full range of samples.

Adjustments made on samples are not intended to change Contract price. If adjustments affect value of Work, state such in writing prior to proceeding with Work. Reviewed and accepted samples will become standard of workmanship and material against which installed Work will be verified.

Testing

The testing required by the various divisions shall be carried out by testing laboratories engaged by the Owner and paid for by the Contractor.

Workmanship

Workmanship shall be of the best possible quality executed by experienced workers skilled in the respective duties for which they are employed. Work shall be carried out in accordance with manufacturers' latest printed instructions and recommendations and shall be of the best standard obtainable using contemporary construction methods and materials and shall meet standards imposed and/or recommended by standards associations, trade associations, government agencies, and building regulations.

Contractor Requirements

Due to the nature and complexity of this project, the Contract Documents demand high quality installation by an experienced and qualified Contractor satisfactory to the Owner. Contractors, sub-contractors and sub-trades bidding on this project shall have supervisory personnel with a minimum of five (5) years of experience in field of contracting and shall have successfully performed work of similar nature, complexity and approximate size to that indicated in specification and on drawings

Substantial Completion Requirements

The following are prerequisites to substantial completion. Provide the following;

- Deficiency list prepared by Contractor and subcontractors as applicable. Receive Deficiency list from consultants and incorporate into final list for review and approval.

- Supporting documentation.
- Warranties.
- Certifications.
- As-Built Documents.
- Start-up and testing of building systems.
- Changeover of locks.

Closeout Procedures

- When completion tasks are done, request final inspection of Work by Consultant and Contractor.
- When Work incomplete according to Consultant, complete outstanding items and request re-inspection.
- Declaration of Substantial Performance: when Consultant considers deficiencies and defects corrected and requirements of Contract substantially performed, make application for Certificate of Substantial Performance.
- Commencement of Lien and Warranty Periods: date of Owner's acceptance of submitted declaration of Substantial Performance to be date for commencement for warranty period and commencement of lien period unless required otherwise by lien statute of Place of Work.

SECTION 01 51 00 – TEMPORARY UTILITIES

Temporary Heating and Ventilation

1. Provide temporary heating required during construction period, including attendance, maintenance and fuel.
2. Construction heaters used inside building must be vented to outside or be non-flameless type. Solid fuel salamanders are not permitted.
3. Provide temporary heat and ventilation in enclosed areas as required to:
 - a. Facilitate progress of Work.
 - b. Protect Work and products against dampness and cold.
 - c. Prevent moisture condensation on surfaces.
 - d. Provide ambient temperatures and humidity levels for storage, installation and curing of materials.
 - e. Provide adequate ventilation to meet health regulations for safe working environment.
4. Maintain temperatures of minimum 10 degrees C in areas where construction is in progress.
5. Ventilating:
 - a. Prevent accumulations of dust, fumes, mists, vapours or gases in areas occupied during construction.
 - b. Provide local exhaust ventilation to prevent harmful accumulation of hazardous substances into atmosphere of occupied areas.
 - c. Dispose of exhaust materials in manner that will not result in harmful exposure to persons.
 - d. Ventilate storage spaces containing hazardous or volatile materials.
 - e. Ventilate temporary sanitary facilities.
 - f. Continue operation of ventilation and exhaust system for time after cessation of work process to assure removal of harmful contaminants.
7. Permanent heating system of building, to be used when available. Be responsible for damage to heating system if use is permitted.
8. On completion of Work for which permanent heating system is used, replace all filters.

10. Ensure Date of Substantial Performance and Warranties for heating system do not commence until entire system is in as near original condition as possible and is certified by Consultant.
11. Maintain strict supervision of operation of temporary heating and ventilating equipment to:
 - a. Conform with applicable codes and standards.
 - b. Enforce safe practices.
 - c. Prevent abuse of services.
 - d. Prevent damage to finishes.
 - e. Vent direct-fired combustion units to outside.
12. Be responsible for damage to Work due to failure in providing adequate heat and protection during construction.

SECTION 01 74 11 – CLEANING

Project Cleanliness

1. Maintain Work in tidy condition, free from accumulation of waste products and debris, other than that caused by Owner or other Contractors.
2. Remove waste materials from site at daily regularly scheduled times or dispose of as directed Consultant. Do not burn waste materials on site.
3. Clear snow and ice from access to building, remove from site.
4. Make arrangements with and obtain permits from authorities having jurisdiction for disposal of waste and debris.
6. Provide on-site containers for collection of waste materials and debris.
8. Dispose of waste materials and debris off site.
9. Clean interior areas prior to start of finishing work, and maintain areas free of dust and other contaminants during finishing operations.
10. Store volatile waste in covered metal containers, and remove from premises at end of each working day.
11. Provide adequate ventilation during use of volatile or noxious substances. Use of building ventilation systems is not permitted for this purpose.
12. Use only cleaning materials recommended by manufacturer of surface to be cleaned, and as recommended by cleaning material manufacturer.
13. Schedule cleaning operations so that resulting dust, debris and other contaminants will not fall on wet, newly painted surfaces nor contaminate building systems.

Final Cleaning

1. When Work is Substantially Performed remove surplus products, tools, construction machinery and equipment not required for performance of remaining Work.
2. Remove waste products and debris other than that caused by others, and leave Work clean and suitable for occupancy.
3. Prior to final review remove surplus products, tools, construction machinery and equipment.
4. Remove waste products and debris other than that caused by Owner or other Contractors.
5. Remove waste materials from site at regularly scheduled times or dispose of as directed by. Do not burn waste materials on site.
6. Make arrangements with and obtain permits from authorities having jurisdiction for disposal of waste and debris.
7. Clean and polish glass, mirrors, hardware, wall tile, stainless steel, chrome, porcelain enamel, baked enamel, plastic laminate, and mechanical and electrical fixtures. Replace broken, scratched or disfigured glass.
8. Remove stains, spots, marks and dirt from decorative work, electrical and mechanical fixtures, furniture fitments, walls, floors.

9. Clean lighting reflectors, lenses, and other lighting surfaces.
10. Vacuum clean and dust building interiors, behind grilles, louvres and screens.
11. Wax, seal, shampoo or prepare floor finishes, as recommended by manufacturer.
12. Inspect finishes, fitments and equipment and ensure specified workmanship and operation.
13. Broom clean and wash exterior walks, steps and surfaces; rake clean other surfaces of grounds.
14. Remove dirt and other disfiguration from exterior surfaces.
15. Clean and sweep roofs, gutters, areaways, and sunken wells.
16. Sweep and wash clean paved areas.
17. Clean equipment and fixtures to sanitary condition; clean or replace filters of mechanical equipment.
18. Clean roofs, downspouts, and drainage systems.
19. Remove debris and surplus materials from crawl areas and other accessible concealed spaces.
20. Remove snow and ice from access to building.

SECTION 01 78 00 – CLOSEOUT SUBMITTALS

Action and Informational Submittals

1. Two weeks prior to Substantial Performance of the Work, submit to the Consultant, four final copies of operating and maintenance manuals in English.
2. Provide spare parts, maintenance materials and special tools of same quality and manufacture as products provided in Work.
3. Provide evidence, if requested, for type, source and quality of products supplied.

Format

1. Organize data as instructional manual.
2. Binders: vinyl, hard covered, 3 'D' ring, loose leaf [219 x 279] mm with spine and face pockets.
3. When multiple binders are used correlate data into related consistent groupings.
 - a. Identify contents of each binder on spine.
4. Cover: identify each binder with type or printed title 'Project Record Documents'; list title of project and identify subject matter of contents.
5. Arrange content by systems, under Section numbers and sequence of Table of Contents.
6. Provide tabbed fly leaf for each separate product and system, with typed description of product and major component parts of equipment.
7. Text: manufacturer's printed data, or typewritten data.
8. Drawings: provide with reinforced punched binder tab.
9. Bind in with text; fold larger drawings to size of text pages.

Contents - Project Record Documents

1. Table of Contents for Each Volume: provide title of project;
 - a. Date of submission; names.
 - b. Addresses, and telephone numbers of Consultant and Contractor with name of responsible parties.
 - c. Schedule of products and systems, indexed to content of volume.
2. For each product or system:
 - a. List names, addresses and telephone numbers of subcontractors and suppliers, including local source of supplies and replacement parts.
3. Product Data: mark each sheet to identify specific products and component parts, and data applicable to installation; delete inapplicable information.

4. Drawings: supplement product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams.
5. Typewritten Text: as required to supplement product data.
 - a. Provide logical sequence of instructions for each procedure, incorporating manufacturer's instructions.

As-Built Documents and Samples

1. Maintain, in addition to requirements in General Conditions, at site for Consultant one record copy of:
 - a. Contract Drawings.
 - b. Specifications.
 - c. Addenda.
 - d. Change Orders and other modifications to Contract.
 - e. Reviewed shop drawings, product data, and samples.
 - f. Field test records.
 - g. Inspection certificates.
 - h. Manufacturer's certificates.
2. Store record documents and samples in field office apart from documents used for construction.
 - a. Provide files, racks, and secure storage.
3. Label record documents and file in accordance with Section number listings in List of Contents of this Project Manual.
 - a. Label each document "PROJECT RECORD" in neat, large, printed letters.
4. Maintain record documents in clean, dry and legible condition.
5. Do not use record documents for construction purposes.
 - a. Keep record documents and samples available for inspection by Consultant.

Recording Information On Project Record Documents

1. Record information on set of black line opaque drawings, and in copy of Project Manual, provided by Consultant.
2. Use felt tip marking pens, maintaining separate colours for each major system, for recording information.
3. Record information concurrently with construction progress.
 - a. Do not conceal Work until required information is recorded.
4. Contract Drawings and shop drawings: mark each item to record actual construction, including:
 - a. Measured depths of elements of foundation in relation to finish first floor datum.
 - b. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
 - c. Measured locations of internal utilities and appurtenances, referenced to visible and accessible features of construction.
 - d. Field changes of dimension and detail.
 - e. Changes made by change orders.
 - f. Details not on original Contract Drawings.
 - g. References to related shop drawings and modifications.
5. Specifications: mark each item to record actual construction, including:
 - a. Manufacturer, trade name, and catalogue number of each product actually installed, particularly optional items and substitute items.
 - b. Changes made by Addenda and change orders.
6. Other Documents: maintain manufacturer's certifications, inspection certifications, field test records, as required by individual specifications sections.

7. Provide digital photos, if requested, for site records.

Equipment and Systems

1. For each item of equipment and each system include description of unit or system, and component parts.
 - a. Give function, normal operation characteristics and limiting conditions.
 - b. Include performance curves, with engineering data and tests, and complete nomenclature and commercial number of replaceable parts.
2. Panel board circuit directories: provide electrical service characteristics, controls, and communications.
3. Include installed colour coded wiring diagrams.
4. Operating Procedures: include start-up, break-in, and routine normal operating instructions and sequences.
 - a. Include regulation, control, stopping, shut-down, and emergency instructions.
 - b. Include summer, winter, and any special operating instructions.
5. Maintenance Requirements: include routine procedures and guide for trouble-shooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.
6. Provide servicing and lubrication schedule, and list of lubricants required.
7. Include manufacturer's printed operation and maintenance instructions.
8. Include sequence of operation by controls manufacturer.
9. Provide original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.
10. Provide installed control diagrams by controls manufacturer.
11. Provide Contractor's co-ordination drawings, with installed colour coded piping diagrams.
12. Provide charts of valve tag numbers, with location and function of each valve, keyed to flow and control diagrams.
13. Provide list of original manufacturer's spare parts, current prices, and recommended quantities to be maintained in storage.
15. Aboveground storage tank inspection documentation, registration, forms, decommissioning and removal in accordance with CEPA SOR/2008-197.
16. Additional requirements: as specified in individual specification sections.

Materials and Finishes

1. Building products, applied materials, and finishes: include product data, with catalogue number, size, composition, and colour and texture designations.
 - a. Provide information for re-ordering custom manufactured products.
2. Instructions for cleaning agents and methods, precautions against detrimental agents and methods, and recommended schedule for cleaning and maintenance.
3. Moisture-protection and weather-exposed products: include manufacturer's recommendations for cleaning agents and methods, precautions against detrimental agents and methods, and recommended schedule for cleaning and maintenance.
4. Additional requirements: as specified in individual specifications sections.

Maintenance Materials

1. Spare Parts:
 - a. Provide spare parts, in quantities specified in individual specification sections.
 - b. Provide items of same manufacture and quality as items in Work.
 - c. Deliver to site; place and store.
 - d. Receive and catalogue items.
 - e. Submit inventory listing to Consultant.

- f. Include approved listings in Maintenance Manual.
- g. Obtain receipt for delivered products and submit prior to final payment.
- 2. Extra Stock Materials:
 - a. Provide maintenance and extra materials, in quantities specified in individual specification sections.
 - b. Provide items of same manufacture and quality as items in Work.
 - c. Deliver to site; place and store.
 - d. Receive and catalogue items.
 - i. Submit inventory listing to Consultant.
 - ii. Include approved listings in Maintenance Manual.
 - e. Obtain receipt for delivered products and submit prior to final payment.
- 3. Special Tools:
 - a. Provide special tools, in quantities specified in individual specification section.
 - b. Provide items with tags identifying their associated function and equipment.
 - c. Deliver to site; place and store.
 - d. Receive and catalogue items.
 - i. Submit inventory listing to Consultant.
 - 1. Include approved listings in Maintenance Manual.

Delivery, Storage and Handling

- 1. Store spare parts, maintenance materials, and special tools in manner to prevent damage or deterioration.
- 2. Store in original and undamaged condition with manufacturer's seal and labels intact.
- 3. Store components subject to damage from weather in weatherproof enclosures.
- 4. Store paints and freezable materials in a heated and ventilated room.
- 5. Remove and replace damaged products at own expense and for review by Consultant.

Warranties and Bonds

- 1. Assemble information in binder, submit upon acceptance of work and organize binder as follows:
 - a. Separate each warranty or bond with index tab sheets keyed to Table of Contents listing.
 - b. List subcontractor, supplier, and manufacturer, with name, address, and telephone number of responsible principal.
 - c. Obtain warranties and bonds, executed in duplicate by subcontractors, suppliers, and manufacturers, within [ten] days after completion of applicable item of work.
 - d. Verify that documents are in proper form, contain full information, and are notarized.
 - e. Co-execute submittals when required.
 - f. Retain warranties and bonds until time specified for submittal.
- 2. Except for items put into use with Owner's permission, leave date of beginning of time of warranty until Date of Substantial Performance is determined.
- 3. Include information contained in warranty management plan as follows:
 - a. Roles and responsibilities of personnel associated with warranty process, including points of contact and telephone numbers within the organizations of Contractors, subcontractors, manufacturers or suppliers involved.
 - b. Listing and status of delivery of Certificates of Warranty for extended warranty items.
 - c. Provide list for each warranted equipment, item, feature of construction or system indicating:
 - i. Name of item.
 - ii. Model and serial numbers.
 - iii. Location where installed.

- iv. Name and phone numbers of manufacturers or suppliers.
 - v. Names, addresses and telephone numbers of sources of spare parts.
 - vi. Warranties and terms of warranty: include one-year overall warranty of construction. Indicate items that have extended warranties and show separate warranty expiration dates.
 - vii. Cross-reference to warranty certificates as applicable.
 - viii. Starting point and duration of warranty period.
 - ix. Summary of maintenance procedures required to continue warranty in force.
 - x. Cross-Reference to specific pertinent Operation and Maintenance manuals.
 - xi. Organization, names and phone numbers of persons to call for warranty service.
 - xii. Typical response time and repair time expected for various warranted equipment.
- d. Contractor's plans for attendance at 9 month post-construction warranty inspections.
- 4. Respond in timely manner to oral or written notification of required construction warranty repair work.
 - 5. Written verification to follow oral instructions.
 - a. Failure to respond will be cause for the Consultant to proceed with action against Contractor.

SECTION 02 41 13 – SELECTIVE SITE DEMOLITION

Preparation

- 1. Locate and protect utilities. Preserve active utilities traversing site in operating condition.
- 2. Notify and obtain approval of utility companies before starting demolition.

Removal Operations

- 1. Remove items as indicated.
- 2. Do not disturb items designated to remain in place.
- 3. Removal of pavements, curbs and gutters:
 - a. Square up adjacent surfaces to remain in place by saw cutting or other method approved by Consultant.
 - b. Protect adjacent joints and load transfer devices.
 - c. Protect underlying and adjacent granular materials.

Backfill:

- 1. Do not proceed with backfilling operations until completion of following:
 - a. Inspection, testing, approval, and recording location of underground utilities.
- 2. Areas to be backfilled to be free from debris, snow, ice, water and frozen ground.
- 3. Do not use backfill material which is frozen or contains ice, snow or debris.
- 5. Place backfill material in uniform layers not exceeding 150 mm compacted thickness up to adjacent grade. Compact each layer before placing succeeding layer.

Restoration

- 1. Restore areas and existing works outside areas of demolition to match condition of adjacent, undisturbed areas.
- 2. Use soil treatments and procedures which are not harmful to health, are not injurious to plants, and do not endanger wildlife, adjacent water courses or ground water.

SECTION 02 43 13 – STRUCTURE RELOCATION

Performance Requirements

1. Safe support of existing structure and construction live loads to allow work to be accomplished.
2. Compliance with requirements of municipal, provincial, and federal Authorities regulating construction, shipping and transportation.

Action and Informational Submittals

1. Provide submittals in accordance with Section Submittal Procedures.
2. Provide shop drawings in accordance with Division 01 – General Requirements.
 - a. Shop drawings: submit drawings stamped and signed by professional engineer registered or licensed in Province of Manitoba, Canada.
3. Provide schematic drawings showing suggested alternative specific procedure for transporting structure.
4. Provide drawings of shoring, bracing and temporary framing plans including lifting points to Consultant for review.
5. Provide recording of photographs for components to be temporarily removed.
 - a. Provide to Consultant copies of permits, certificates, and other documents verifying approval of Authorities with Jurisdiction.
6. Provide moving schedule in accordance with Division 01 – General Requirements.
7. Submit record drawings in accordance with Section Division 01 – General Requirements and Section 01 78 00 - Closeout Submittals.

Qualifications

1. Contractor undertaking work in this section is required to have a minimum of 5 years of experience in this field.
2. Submit written information including resumes, Certificates of Qualification, references for review and approval by Consultant before commencing Work.
3. Workers accepted by Consultant will be permitted to execute Work.

SECTION 03 30 00 - CAST-IN-PLACE CONCRETE

Action and Informational Submittals

1. Provide submittals in accordance with Division 01 – General Requirements.
2. Shop Drawings:
 - a. Submit placing drawings prepared in accordance with plans to clearly show size, shape, location and necessary details of reinforcing.
 - b. Submit drawings showing formwork and falsework design to: CSA A23.1/A23.2.
 - c. Submit drawings stamped and signed by professional engineer registered or licensed in Province of Manitoba.

Materials

1. Cement: to CSA A3001.
4. Water: to CSA A23.1/A23.2.
5. Reinforcing bars: to CAN/CSA-G30.18.
6. Welded steel wire fabric: to ASTM A185.
7. Other concrete materials: to CSA A23.1/A23.2.

Finishes

1. Equipment pads: provide smooth trowelled surface.
2. Pavements, walks, curbs and exposed site concrete:
 - a. Screed to plane surfaces.
 - b. Provide round edges and joint spacings using standard tools.
 - c. Trowel smooth to provide lightly brushed non-slip finish.

SECTION 06 08 99 – ROUGH CARPENTRY FOR MINOR WORKS

Materials

1. Lumber: unless specified otherwise, softwood, S4S, moisture content 19% or less in accordance with following standards:
 - a. CAN/CSA-O141.
 - b. NLGA Standard Grading Rules for Canadian Lumber.
2. Furring, blocking, nailing strips, grounds, rough bucks, curbs, fascia backing and sleepers:
 - a. Board sizes: "Standard" or better grade.
 - b. Dimension sizes: "Standard" light framing or better grade.
 - c. Post and timbers sizes: "Standard" or better grade.
3. Panel Materials:
 - a. Douglas fir plywood (DFP): to CSA O121, standard construction.
 - i. Urea-formaldehyde free.
 - b. Canadian softwood plywood (CSP): to CSA O151, standard construction.
 - i. Urea-formaldehyde free.
 - c. Plywood, OSB and wood based composite panels: to CAN/CSA-O325.
 - i. Urea-formaldehyde free.
6. Wood Preservative:
 - a. Surface-applied wood preservative: clear, copper naphthenate or 5% pentachlorophenol solution, water repellent preservative.
 - b. Pentachlorophenol use is restricted to building components that are in ground contact and subject to decay or insect attack only. Where used, pentachlorophenol-treated wood must be covered with two coats of an appropriate sealer.
 - c. Structures built with wood treated with pentachlorophenol and inorganic arsenicals must not be used for storing food nor should the wood come in contact with drinking water.

Accessories

1. Fasteners: to CAN/CSA-G164, for exterior work, interior highly humid areas, pressure-preservative treated lumber.
2. Nails, spikes and staples: to CSA B111.
3. Bolts: 12.5 mm diameter unless indicated otherwise, complete with nuts and washers.
5. Proprietary fasteners: toggle bolts, expansion shields and lag bolts, screws and lead or inorganic fibre plugs, explosive actuated fastening devices, recommended for purpose by manufacturer.

Examination

1. Verification of Conditions: verify conditions of substrates previously installed under other Sections or Contracts are acceptable for rough carpentry installation in accordance with manufacturer's written instructions.
2. Visually inspect substrate
3. Inform Consultant of unacceptable conditions immediately upon discovery.
4. Proceed with installation only after unacceptable conditions have been remedied.

Installation

1. Comply with requirements of NBC, supplemented by the following paragraphs.
2. Install furring and blocking as required to space-out and support casework, cabinets, wall and ceiling finishes, facings, fascia, soffit, siding and other work as required.
3. Align and plumb faces of furring and blocking to tolerance of 1:600.
4. Install rough bucks, nailers and linings to rough openings as required to provide backing for frames and other work.
5. Install wood cants, fascia backing, nailers, curbs and other wood supports as required and secure using galvanized steel fasteners.
6. Install wood backing, dressed, tapered and recessed slightly below top surface of roof insulation for roof hopper.
7. Install sleepers as indicated.
8. Use caution when working with particle board. Use dust collectors and high quality respirator masks.
9. Frame, anchor, fasten, tie and brace members to provide necessary strength and rigidity.
10. Countersink bolts where necessary to provide clearance for other work.

Cleaning

1. Progress Cleaning: clean in accordance with Section 01 74 11 - Cleaning.
 - a. 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.

SECTION 06 15 00 – WOOD DECKING

All Decking to be designed and constructed to meet requirements set by Eastern Interlake Planning District.

Action and Informational Submittals

1. Provide submittals in accordance with Section Submittal Procedures.
2. Provide shop drawings in accordance with Division 01 – General Requirements.

Materials:

1. PVC Decking
 - a. Wolfleader Composite Decking or Approved Equal
 - i. Seaside Collection
 - ii. Colour:
 1. Sand Castle
 - iii. Deck Boards
 1. 1" x 5½" PVC
 2. Deck Boards to run Perpendicular to Path of Travel, Typ.
 - iv. Rimboard:
 1. ½"x11¾"x12' PVC
 - v. Hardware:
 1. Use concealed fasteners where possible.
 2. All Mounting Hardware to be supplied by PVC Deck Manufacturer.
2. Deck Framing
 - a. Use Pressure-Treated Lumber for Deck Framing.
 - b. Refer to Section 06 08 99 – Rough Carpentry for Minor Works.

3. Concrete Pads
 - a. Pre-cast of Site-cast Concrete pads are acceptable.
 - b. Refer to Eastern Interlake Planning District's "Wood Decks & Ramps" Booklet for recommended deck foundation pad sizes, subgrade preparation.
4. Railings
 - a. Westbury Aluminum Railing or Approved Equal
 - i. Style:
 1. Tuscany C10
 - ii. Colour:
 1. White
 - iii. Accessories:
 1. Post Flairs
 2. Flat Caps
 - iv. Handrails
 1. Provide continuous handrails on both sides of all stairways and ramps.
 2. Provide Handrail Extensions as shown on drawings.
 3. Handrails to be mounted to Aluminum Railings.
 4. Handrails to match colour and finish of Aluminum Railings.
5. Detectable Surfaces
 - a. ADA Solutions Surface Applied Tactile Surface or Approved Equal
 - i. Style:
 1. 24"x48" with 2.35" Dome Spacing
 - ii. Colour:
 1. Yellow
 - b. Detectable Surfaces to be installed onto ¾" Pressure Treated Plywood, and installed flush with PVC Decking.
 - i. Pressure Treated Plywood to be mechanically fastened to Deck Framing
 1. Refer to Section 06 08 99 – Rough Carpentry for Minor Works.
 - ii. Attached Detectable Surface to Pressure Treated Plywood with both adhesive and mechanical fasteners per Manufacturer's instructions.
 - iii. Fully Caulk around perimeter of Detectable Surface.

SECTION 06 20 00 – FINISH CARPENTRY

All finish carpentry shall be manufactured and/or installed to the specified AWMAC Custom Quality Standards.

Products

1. Softwood lumber: S4S, moisture content 19% or less in accordance with following standards:
 - a. CSA O141.
 - b. CAN/CSA-Z809 or FSC or SFI certified.
 - c. NLGA Standard Grading Rules for Canadian Lumber.
 - d. AWMAC custom grade, moisture content as specified.
 - e. Machine stress-rated lumber is acceptable.
2. Hardwood lumber: moisture content in accordance with:
 - a. National Hardwood Lumber Association (NHLA).
 - b. AWMAC custom grade, moisture content as specified.

- c. CAN/CSA-Z809 or FSC or SFI certified.
3. Douglas fir plywood (DFP): to CSA O121, standard construction.
4. Canadian softwood plywood (CSP): to CSA O151, standard construction.
5. Hardwood plywood: to ANSI/HPVA HP-1.
6. Poplar plywood (PP): to CSA O153, standard construction.
7. Particleboard: Not accepted
8. Hardboard: to CAN/CGSB-11.3.
9. Medium density fibreboard (MDF): to ANSI A208.2, density 640-800 kg/m³.
10. Accessories
 - a. Nails and staples: to CSA B111; galvanized to ASTM A123/A123M for exterior work, interior humid areas and for treated lumber; stainless steel finish elsewhere.
 - b. Wood screws: type and size to suit application.
 - c. Splines: metal.

Installation

1. Do finish carpentry to Quality Standards of (AWMAC).
2. Scribe and cut as required, fit to abutting walls, and surfaces, fit properly into recesses and to accommodate piping, columns, fixtures, outlets, or other projecting, intersecting or penetrating objects.
3. Form joints to conceal shrinkage.

Construction

1. Fastening:
 - a. Position items of finished carpentry work accurately, level, plumb, true and fasten or anchor securely.
 - b. Design and select fasteners to suit size and nature of components being joined. Use proprietary devices as recommended by manufacturer.
 - c. Set finishing nails to receive filler. Where screws are used to secure members, countersink screw in round smooth cut hole and plug with wood plug to match material being secured.
 - d. Replace items of finish carpentry with damage to wood surfaces including hammer and other bruises.
2. Standing and running trim:
 - a. Butt and cope internal joints of baseboards to make snug, tight, joint. Cut right angle joints of casing and base with mitered joints.
 - b. Fit backs of baseboards and casing snugly to wall surfaces to eliminate cracks at junction of base and casing with walls.
 - c. Make joints in baseboard where necessary using a 45 degree scarf type joint.
 - d. Install door and window trim in single lengths without splicing.
3. Interior and exterior frames:
 - a. Set frames with plumb sides, level heads and sills and secure.
4. Shelving
 - a. Install shelving on as indicated.
5. Hardware:
 - a. Refer to 06 40 00 Architectural Woodwork for cabinet hardware.
 - b. Refer to hardware schedule for door hardware.

Installation of Trim

1. Interior standing and running trim to be solid stock Oak species.

Installation of Frames

1. Interior frames to be solid wood Oak species.

SECTION 06 40 00 – ARCHITECTURAL WOODWORK

All millwork shall be manufactured and/or installed to the specified AWMAC Custom Quality Standards

See Floor Plan for millwork locations.

Products

1. Softwood lumber: unless specified otherwise, S4S, moisture content 15 % or less in accordance with following standards:
 - a. CSA O141.
 - b. CAN/CSA-Z809 or FSC or SFI certified.
 - c. NLGA Standard Grading Rules for Canadian Lumber.
 - d. AWMAC custom grade, moisture content as specified.
2. Hardwood lumber: moisture content in accordance with following standards:
 - a. National Hardwood Lumber Association (NHLA).
 - b. CAN/CSA-Z809 or FSC or SFI certified.
 - c. AWMAC custom grade, moisture content as specified.
3. Hardboard:
 - a. To CAN/CGSB-11.3, CAN/CSA-Z809 or FSC or SFI certified.
 - b. Hardboard resin to contain no added urea-formaldehyde.
4. MDF (medium density fibreboard) core: to ANSI A208.2, AWMAC Custom Grade, 19 mm thick, density 769 kg/m², CAN/CSA-Z809 or FSC or SFI certified.
 - a. Medium density fibreboard performance requirements to: ANSI A208.2.
 - b. MDF resin to contain no added urea-formaldehyde.
5. Laminated plastic for flatwork, postforming work, plastic packing sheet and plastic liner sheet: to NEMA LD3, based on wood grain colour range with fine velvet finish.
6. Thermofused Melamine: Not accepted
7. Nails and staples: to CSA B111.
8. Wood screws: type and size to suit application.
9. Splines: metal.
10. Laminated plastic adhesive:
 - a. Adhesive: polyvinyl adhesive to CSA O112.10.
11. Edge Banding:
 - a. All edges, including edges of shelves, doors, drawers and cabinets to have 3mm pvc edge banding matched to laminate colour and pattern.
12. All casework and door fronts to be plastic laminate finish on all exposed, semi-exposed and hidden surfaces unless otherwise indicated, complete with matching 3mm pvc edge banding.
13. Case bodies, drawer fronts and doors (ends, divisions and bottoms) joints for dowel fasteners or dovetail connection (no dado or but joints).
14. All woodgrain patterns to be applied with grain running vertical unless otherwise noted.
15. Drawers: plastic laminate complete with 3mm pvc edge banding on front (box drawers), sides and back with hardboard bottoms.
16. Cabinet Style: Flush Overlay
17. Inside of casework (semi exposed areas) to be finished in plastic laminate to match door face.
18. Countertops:

- a. Solid Surface countertops to AWMAC.
 - b. Core: Veneer core plywood, Skyply as specified, 19mm thick
 - c. Locations: as shown on plan
 - d. Edge Profile: square
 - e. Backsplashes: Of same material and finish as tops, heights indicated, coved joint.
Provide backsplash returns where counters abut sidewalls.
19. Cabinet hardware:
- a. Hinges: Concealed hinges, self-closing, 110° minimum opening.
 - i. Provide 2 hinges for 0-890mm door height, 3 hinges for 890-1600mm door height, 4 hinges for 1600-1980mm door height and 5 hinges for anything greater.
 - b. Drawer Slides (Typical): side mounted, full extension, soft close feature, 100lbs per pair minimum, steel ball bearing.
 - i. Accuride 3832 or equal
 - c. Door and Drawer bumper:
 - i. Silent bumper, 100% Polyurethane. Provide a minimum of 2 bumpers per door and per drawer.
 - ii. Hafele356.25.434 or equal.
 - d. Adjustable Shelf Supports
 - i. Galvanized steel 16x6
 - ii. Hafele 283.07.011
 - e. Grommets
 - i. Hafele Metal Grommet 429.94.448. 63mm, matte nickel finish.
 - f. Door & Drawer Lock: Cam Lock with Outward-Cranked Lever, 180° Rotation, include Strike Plate.
 - g. Pulls: back mounted pull, 160 mm c.c, 216 x 35 mm overall, stainless steel finish.
 - i. Acceptable Product: Richelieu 2102160170
 - h. Double-Action Spring Hinge
 - i. Location: Reception Desk
 - ii. Acceptable Product: Richelieu 810SCB
 - iii. Colour: Satin Chrome
 - iv. Provide number of hinges required for weight of door.
 - i. Hasp Lock:
 - i. Location: Change Room Lockers
 - ii. Acceptable Product: Richelieu 1973022100
 - iii. Colour: Grey

Manufactured Units

- 1. Casework:
 - a. Fabricate caseworks to AWMAC custom quality grade.
 - b. Furring, blocking, nailing strips, grounds and rough bucks and sleepers.
 - c. Board sizes: "standard" or better grade.
 - d. Dimension sizes: "standard" light framing or better grade.
- 2. Drawers:
 - a. Fabricate drawers to AWMAC custom grade supplemented as follows:
 - i. Sides and Backs.
 - 1. 13mm thick
 - ii. Bottoms:
 - 1. 6mm thick hardboard
 - iii. Fronts:
 - 1. 19mm thick

3. Casework Doors:
 - a. Fabricate doors to AWMAC custom grade supplemented as follows:
 - i. MDF, 19mm thick.

Fabrication

1. Fabricate to AWMAC Custom Grade Standards.
2. Finish all exposed and semi-exposed surfaces, including ledgers, brackets under counters, wood cleats/blocking, and miscellaneous supports with plastic laminate all sides including edge banding as required.
3. All interiors to match exteriors unless otherwise noted.
4. Set nails and countersink screws apply wood filler to indentations, sand smooth and leave ready to receive finish.
5. Shop install cabinet hardware for doors, shelves and drawers. Recess shelf standards unless noted otherwise.
6. Shelving to cabinetwork to be adjustable unless otherwise noted.
7. Provide cutouts for plumbing fixtures, inserts, appliances, outlet boxes and other fixtures. Radius cutout corners as per AWMAC. Verify locations of cutouts from on-site dimensions. Seal cutouts prior to installing fixtures, etc.
8. Shop assemble work for delivery to site in size easily handled and to ensure passage through building openings.
9. Obtain governing dimensions before fabricating items which are to accommodate or abut appliances, equipment and other materials.
10. Ensure adjacent parts of continuous laminate work match in colour and pattern.
11. Veneer laminated plastic to core material in accordance with adhesive manufacturer's instructions. Ensure core and laminate profiles coincide to provide continuous support and bond over entire surface. Use continuous lengths up to 3000 mm. Keep joints 600 mm from sink cutouts.
12. Apply laminate backing sheet to reverse side of all plastic laminate finished surfaces including countertops.
13. Finish underside of wall/upper cabinets in plastic laminate to match door face.
14. Shelves exceeding 900mm length are to be 25mm thick
15. Finish all 6 sides of adjustable shelves to match case bodies.
16. Form shaped profiles and bends as indicated, using postforming grade laminate to laminate manufacturer's instructions.
17. Use straight self-edging laminate strip for flatwork to cover exposed edge of core material. Chamfer exposed edges uniformly at approximately 20 degrees. Do not mitre laminate edges.
18. Apply laminate backing sheet to reverse side of core of plastic laminate work.
19. Apply laminated plastic liner sheet where indicated.

Installation:

1. Do architectural woodwork to Quality Standards of the Architectural Woodwork Manufacturers Association of Canada (AWMAC), except where specified otherwise.
2. Install prefinished millwork at locations shown on drawings. Position accurately, level, plumb straight.
3. Fasten and anchor millwork securely. Provide heavy duty fixture attachments for wall mounted cabinets.
4. Use draw bolts in countertop joints.
5. Scribe and cut as required to fit abutting walls and to fit properly into recesses and to accommodate piping, columns, fixtures, outlets or other projecting, intersecting or penetrating objects.

6. At junction of plastic laminate counter back splash and adjacent wall finish, apply small bead of sealant.
7. Fit hardware accurately and securely in accordance with manufacturer's written instructions.

SECTION 06 47 00 – PLASTIC LAMINATE FINISHING

See Floor Plan for millwork locations.

Products

1. PL-1:
 - a. Wilsonart Monticello Maple 7925-38 Fine Velvet Finish
 - b. Location: all cabinetry.
2. SSF-1:
 - a. Avonite Foundations Solid Surface
 - b. Colour: Avalanche F1-7502 Satin 10/16
 - c. Thickness: ½”
 - d. Location: all countertops and backsplashes.
3. Laminated plastic for flatwork and postforming work: to NEMA LD3.
 - a. Type: general purpose.
 - b. Pattern: woodgrain.
 - c. Finish: fine velvet
4. Plywood core: solid two sides, Custom Grade 19 mm thick.
5. MDF core: refer to Architectural Woodwork.
6. Laminated plastic adhesive: polyvinyl adhesive to CSA O112.10.
7. Sealer: water resistant sealer or glue acceptable to laminate manufacturer.
8. Draw bolts and splines: as recommended by fabricator.

Fabrication

1. Comply with NEMA LD3, Annex A.
2. Obtain governing dimensions before fabricating items which are to accommodate or abut appliances, equipment and other materials.
3. Ensure adjacent parts of continuous laminate work match in colour and pattern.
4. Veneer laminated plastic to core material in accordance with adhesive manufacturer's instructions. Ensure core and laminate profiles coincide to provide continuous support and bond over entire surface. Use continuous lengths up to 3000 mm. Keep joints 600 mm from sink cutouts.
5. Form shaped profiles and bends as indicated, using postforming grade laminate to laminate manufacturer's instructions.
6. Use straight 3mm PVC edge banding for flatwork to cover exposed edge of core material. Chamfer exposed edges uniformly at approximately 20 degrees. Do not mitre laminate edges.
7. Apply laminate backing sheet to reverse side of core of plastic laminate work.
8. Apply laminated plastic liner sheet to interior of cabinetry.
9. All millwork shall be manufactured and/or installed to the specified AWMAC Custom Quality Standards.

SECTION 07 46 12 – PREFORMED METAL SIDING

Materials:

1. Vicwest AD 150 Hidden Fastener System or Approved Equal

- a. Colour
 - i. Stone Grey
- b. Trims
 - i. Provide Manufacturer Suggested Flashing and Trims for AD Series profiles.

Erection:

1. Cladding to be installed Horizontally.
2. Cladding to be installed directly onto existing ICF foundation walls.

SECTION 07 84 00 – FIRESTOPPING

1. Fire stopping and smoke seal systems: in accordance with CAN-ULC-S115.
2. Asbestos-free materials and systems capable of maintaining effective barrier against flame, smoke and gases in compliance with requirements of CAN-ULC-S115 and not to exceed opening sizes for which they are intended.
3. Fire stop system rating: 1hr and 2 hr
4. Service penetration assemblies: systems tested to CAN-ULC-S115
5. Service penetration fire stop components: certified by test laboratory to CAN-ULC-S115.
6. Fire-resistance rating of installed fire stopping assembly in accordance with NBC.
7. Fire stopping and smoke seals at opening intended for ease of re-entry such as cables: elastomeric seal.
8. Fire stopping and smoke seals at openings around penetrations for pipes, ductwork and other mechanical items requiring sound and vibration control: elastomeric seal.
9. Primers: to manufacturer's recommendation for specific material, substrate, and end use.
10. Water (if applicable): potable, clean and free from injurious amounts of deleterious substances.
11. Damming and backup materials, supports and anchoring devices: to manufacturer's recommendations, and in accordance with tested assembly being installed as acceptable to authorities having jurisdiction.
12. Install fire stopping and smoke seal material and components in accordance with manufacturer's certified tested system listing.
13. Seal holes or voids made through penetrations, poke-through termination devices, and unpenetrated openings or joints to ensure continuity and integrity of fire separation are maintained.
14. Provide temporary forming as required and remove forming only after materials have gained sufficient strength and after initial curing.
15. Tool or trowel exposed surfaces to neat finish.
16. Remove excess compound promptly as work progresses and upon completion.

SECTION 08 11 00 – METAL DOORS AND FRAMES

Submittals:

1. Provide submittals in accordance with Division 01 – General Requirements.
2. Submit drawings stamped and signed by professional engineer registered or licensed in Province of Manitoba, Canada.
3. Indicate for each type of frame: material, core thickness, reinforcements, glazing stops, location of anchors and exposed fastenings, fire rating, and finishes.

4. Include schedule identifying each unit, with door marks and numbers relating to numbering on drawings and door schedule.

Materials:

1. Hot dipped galvanized steel sheet: to ASTM A653M, ZF75, minimum base steel thickness in accordance with CSDMA Table 1 - Thickness for Component Parts.
2. Reinforcement channel: to CSA G40.20/G40.21, Type 44W, coating designation to ASTM A653M, ZF75.
3. Composites: balance of core materials used in conjunction with lead: in accordance with manufacturers' proprietary design.
4. Paint:
 - a. Field paint steel door frames. Protect weatherstrips and hardware from paint. Provide final finish free of scratches or other blemishes. Paint all new and all existing doors.
5. Accessories:
 - a. Door silencers: single stud rubber/neoprene type.
6. Fabricate glazing stops as formed channel, minimum 16 mm height, accurately fitted, butted at corners and fastened to frame sections with counter-sunk oval head sheet metal screws.
7. Metallic paste filler: to manufacturer's standard.
8. Doors with fire rating requirements of more than 20 minutes: 1.2 mm (18 gauge) flush hollow metal type, 45 mm (1") thick.
9. Fire labels: metal riveted.

Frames:

1. Fabricate frames in accordance with CSDMA specifications.
2. Fabricate frames to profiles and maximum face sizes as indicated.
3. Interior frames: 1.6 mm welded type construction.
4. Blank, reinforce, drill and tap frames for mortised, templated hardware, and electronic hardware using templates provided by finish hardware supplier. Reinforce frames for surface mounted hardware.
5. Prepare frame for door silencers, 3 for single door, 2 at head for double door.
6. Manufacturer's nameplates on frames and screens are not permitted.
7. Conceal fastenings except where exposed fastenings are indicated.
8. Provide factory-applied touch up primer at areas where zinc coating has been removed during fabrication.
9. Insulate exterior frame components with polyurethane insulation.

Anchorage:

1. Provide appropriate anchorage to floor and wall construction.
2. Locate each wall anchor immediately above or below each hinge reinforcement on hinge jamb and directly opposite on strike jamb.
3. Provide 2 anchors for rebate opening heights up to 1520 mm and 1 additional anchor for each additional 760 mm of height or fraction thereof.
4. Locate anchors for frames in existing openings not more than 150 mm from top and bottom of each jambs and intermediate at 660 mm on centre maximum.

Welded Type:

1. Welding in accordance with CSA W59.
2. Accurately mitre or mechanically joint frame product and securely weld on inside of profile.
3. Cope accurately and securely weld butt joints of mullions, transom bars, centre rails and sills.
4. Grind welded joints and corners to a flat plane, fill with metallic paste and sand to uniform smooth finish.

5. Securely attach floor anchors to inside of each jamb profile.
6. Weld in 2 temporary jamb spreaders per frame to maintain proper alignment during shipment.

Installation:

1. Install all items according to Manufacturer's instructions. Comply with manufacturer's written recommendations or specification, including product technical bulletins, handling, storage and installation instruction, and datasheets.
2. Install doors and frames to CSDMA Installation Guide.
3. Set frames plumb, square, level and at correct elevation.
4. Secure anchorages and connections to adjacent construction.
5. Brace frames rigidly in position while building-in. Install temporary horizontal wood spreader at third points of door opening to maintain frame width. Provide vertical support at centre of head for openings over 1200 mm wide. Remove temporary spreaders after frames are built-in.
6. Make allowances for deflection of structure to ensure structural loads are not transmitted to frames.
7. Caulk perimeter of frames between frame and adjacent material.
8. Provide even margins between doors and jambs and doors and finished floor and thresholds as follows:
 - a. Hinge side: 1.0 mm
 - b. Latchside and head: 1.5 mm
 - c. Finished floor, top of carpet and thresholds: 13 mm
9. Adjust operable parts for correct function.
10. Refer to Door hardware section for hardware set specifications.

SECTION 08 14 16 – WOOD FLUSH DOORS

Products:

1. Solid core: to CAN/CSA-O132.2.1.
2. Construction: Solid particleboard core: stile and rail frame bonded to particleboard core. Stiles: 30 mm total width, 3 mm hardwood or thick veneer laminated to 22 mm hardwood, type 1 structural glue. Rails: 30 mm inwood. Core: Agrifibre, neutral FSC. 5-ply construction. Face Panels: wood veneer: Clear coated. Factory Finish.
3. Veneer: Maple, quarter cut. Stained to match engineered hardwood flooring.
4. Finishing: Factory finish 'Pre-finished' doors. Prefinished. MDF. Factory machine all doors for finish hardware. Adhesive: Type I (waterproof) for interior doors.
5. Acceptable Product:
 - a. Baillargeon 8600-MO-VE, or approved alternate.

SECTION 08 36 00 – SECTIONAL OVERHEAD DOORS

Submittals:

1. Provide submittals in accordance with Division 01 – General Requirements.
2. Submit drawings stamped and signed by professional engineer registered or licensed in Province of Manitoba, Canada.

Products:

1. Overhead Door – Thermacore 593 or Approved Equal
 - a. Panel
 - i. Ribbed, Textured Panel

- b. Colour
 - i. Gray
- c. Glazing
 - i. Aluminum Sash Section with DSB Glazing.
 - ii. Underside of Glazing to be Minimum 7'-0" above Finish Grade.
- d. Chain Drive
- e. Wall Console

SECTION 08 71 10 – DOOR HARDWARE

Product Data:

1. Include with the hardware schedule all product data sheets and catalogue cuts required for any related trades sections.
2. Provide all templates required by related trade sections for the proper preparation of their product.
3. Provide a complete keying schedule. Co-ordinate with the architect and owner the keying requirements for this project.
4. Deliver to the project all hardware in the manufacturers packages with markings corresponding to the hardware schedule clearly shown.
5. Deliver directly to the fabricator any items, which are requested for their use in fabrications.
6. Store all finish hardware in its original packages in a secure, clean, dry and warm area, equipped with sufficient shelving.
7. Warranty all hardware for the period of one year. Door closers to be warranted for five years.

Products:

1. All hardware is to be installed with the standard fasteners supplied by the manufacturer unless called for otherwise in the hardware sets.
2. All hinges shall be Ives and of the size, type, and finish as indicated in the hardware sets.
3. Locks shall be cylindrical or mortise type as specified in the hardware sets. All locks have lever trim.
4. Exit Devices shall be of the flush bar type. All devices whether rim or vertical rod to be surface mounted. All exit devices to be Adams Rite. No substitute.
5. All door closers shall be surface mounted with full covers, unless otherwise specified in the hardware schedule. Manual closers with universal spring size must be adjusted to suit specific opening requirements. Follow manufacturer's instructions. Provide LCN Closers as specified. No Substitutes.
6. Kickplates to be of brass or bronze construction, .050 thick. Provide Ives series as specified. Screw mounted.
7. Pulls to be of brass or bronze construction. All pulls to be thru bolt mounted. Provide Ives as specified.
8. Protective Plates, Push Plates: All plates to be of brass or bronze construction. To be .050 thick. Provide Ives as specified. All kickplates on the push side of the door shall be 1.5" less than the door width. If other hardware interferes with the above recommendations, then the plate size shall be modified at the factory to suit the installation. Kickplates to be mounted behind vertical rod exit devices.
9. Door stops and Holders: All floor stops to be solid brass or bronze with rubber bumpers. Stops fastened to brick or concrete shall have wood screws and lead shields. Stops fastened to walls or floors of wood construction shall have wood screws. Provide Ives stops as specified.

10. Thresholds and Weather-strip: All weatherstrip, sweeps, automatic door bottoms, shall be anodized aluminum construction with polyurethane or neoprene gasketing as specified. All to be screw in mounting. K.N. Crowder as specified.

Keying:

1. All locks shall be provided Masterkeyed from the factory for a new system according to the owner's requirements. All locks and cylinders will be provided with two keys per lock and three master keys. All keys and cylinders shall have a visual key control on the keys and cylinders. Allow for three symbol per key or cylinder.
 - a. Key Control: Provide a wall mounted key control cabinet capable of holding all of the required keys plus 20% for expansion. Provide cabinet complete with three way reference system. Telkee AWC Series or equal.

Installation:

1. Examine all doors and frames prior to installation of hardware to determine if the hardware can be installed correctly. Do not proceed with installation until defects are corrected.
 - a. Install all hardware in accordance with the manufacturer's installation instructions. Install at mounting heights in accordance with the Manitoba Building Code including amendments.
2. Door Hardware Schedule:

SECTION 08 80 50 – GLAZING

Materials:

1. Exterior Glazing
 - a. Insulated Wire Glass Units to CAN/CGSB-12.8, CAN/CGSB-12.11
 - i. Glass polished both sides.
 - ii. Square Style Mesh
 - iii. Dual Pane
 - iv. Low-E
 - v. Argon Fill
2. Interior Glazing (Pass Through)
 - a. Float glass: to CAN/CGSB-12.3
 - i. Dual Pane

SECTION 09 21 16 – GYPSUM BOARD ASSEMBLIES

Products:

1. Regular Gypsum Board: Gypsum core panel solid set core enclosed in paper. Complying with ASTM C1396.
 - a. Basis of Design: ProRoc[®] Regular or Evenwall, manufactured by CertainTeed Gypsum, Inc.; Thickness: 5/8 inch non-rated partitions
2. Fire Rated Gypsum Board: Gypsum core panel with a specially formulated core for use in fire-resistive Type X designs. Complying with ASTM C 1396.
 - a. Basis of Design: ProRoc[®] Type X or Evenwall Type X, manufactured by CertainTeed Gypsum, Inc. Thickness: 5/8 inch
3. Cement board: to ASTM C1288, 13mm thick, 1200 mm wide x maximum practical length.
 - a. Acceptable product: CertainTeed FiberCement Underlayment BackerBoard.
 - b. Cement board all wall and ceiling tile locations in washrooms, showers and wet areas.
4. Metal furring runners, hangers, tie wires, inserts, and anchors.
5. Drywall furring channels: 0.5 mm core thickness galvanized steel channels for screw attachment of gypsum board.
6. Resilient clips: 0.5 mm base steel thickness galvanized steel for resilient attachment of gypsum board.
7. Nails: to ASTM C514.
8. Steel drill screws: to ASTM C1002.
9. Stud adhesive: to CAN/CGSB-71.25.
10. Laminating compound: as recommended by manufacturer, asbestos-free.
11. Casing beads, corner beads, control joints and edge trim: to ASTM C1047, metal, zinc-coated by hot-dip process, 0.5 mm base thickness, perforated flanges, one piece length per location.
12. Sealants: in accordance with Section 07 92 00 - Joint Sealing.
13. Acoustic sealant: in accordance with Section 07 92 00 - Joint Sealing.
14. Polyethylene: to CAN/CGSB-51.34, Type 2.
15. Joint compound: to ASTM C475, asbestos-free.

Erection:

1. Do application and finishing of gypsum board in accordance with ASTM C840 except where specified otherwise.
2. Do application of gypsum sheathing in accordance with ASTM C1280.

3. Erect hangers and runner channels for suspended gypsum board ceilings in accordance with ASTM C840 except where specified otherwise.
4. Erect hangers and runner channels for suspended gypsum board ceilings in accordance with ASTM C840 except where specified otherwise.
5. Support light fixtures by providing additional ceiling suspension hangers within 150 mm of each corner and at maximum 600 mm around perimeter of fixture.
6. Erect hangers and runner channels for suspended gypsum board ceilings in accordance with ASTM C840 except where specified otherwise.
 - a. Install work level to tolerance of 1:1200.
7. Erect hangers and runner channels for suspended gypsum board ceilings in accordance with ASTM C840 except where specified otherwise.
8. Frame with furring channels, perimeter of openings for access panels, light fixtures, diffusers, grilles
9. Erect hangers and runner channels for suspended gypsum board ceilings in accordance with ASTM C840 except where specified otherwise.
10. Install 19 x 64 mm furring channels parallel to, and at exact locations of steel stud partition header track.
11. Erect hangers and runner channels for suspended gypsum board ceilings in accordance with ASTM C840 except where specified otherwise.
12. Furr for gypsum board faced vertical bulkheads within and at termination of ceilings.
13. Furr above suspended ceilings for gypsum board fire and sound stops and to form plenum areas as indicated.
14. Install wall furring for gypsum board wall finishes in accordance with ASTM C840, except where specified otherwise.
15. Furr openings and around built-in equipment, cabinets, access panels on four sides. Extend furring into reveals. Check clearances with equipment suppliers.
16. Furr duct shafts, beams, columns, pipes and exposed services where indicated.

Application:

1. Do not apply gypsum board until bucks, anchors, blocking, sound attenuation, electrical, and mechanical work are approved.
2. Apply double layer gypsum board to metal furring or framing using screw fasteners for first layer, screw fasteners for second layer. Maximum spacing of screws 300 mm on centre.
3. Single-Layer Application:
 - a. Apply gypsum board on ceilings prior to application of walls in accordance with ASTM C840.
 - b. Apply gypsum board vertically or horizontally, providing sheet lengths that will minimize end joints.
4. Double-Layer Application:
 - a. Install gypsum board for base layer and exposed gypsum board for face layer.
5. Apply base layer to ceilings prior to base layer application on walls; apply face layers in same sequence. Offset joints between layers at least 250 mm.
6. Apply base layers at right angles to supports unless otherwise indicated.
7. Apply base layer on walls and face layers vertically with joints of base layer over supports and face layer joints offset at least 250 mm with base layer joints.
8. Apply water-resistant gypsum board where wall tiles, coatings to be applied and adjacent to janitors closets. Apply water-resistant sealant to edges, ends, cutouts which expose gypsum core and to fastener heads. Do not apply joint treatment on areas to receive tile finish.
9. Apply 12 mm diameter bead of acoustic sealant continuously around periphery of each face of partitioning to seal gypsum board/structure junction where partitions abut fixed building

components. Seal full perimeter of cutouts around electrical boxes, ducts in partitions where perimeter sealed with acoustic sealant.

10. Install ceiling boards in direction that will minimize number of end-butt joints. Stagger end joints at least 250 mm.
11. Install gypsum board on walls vertically to avoid end-butt joints. At stairwells and similar high walls, install boards horizontally with end joints staggered over studs, except where local codes or fire-rated assemblies require vertical application.
12. Install gypsum board with face side out.
13. Do not install damaged or damp boards.
14. Locate edge or end joints over supports. Stagger vertical joints over different studs on opposite sides of wall.

Installation:

1. Erect accessories straight, plumb or level, rigid and at proper plane. Use full length pieces where practical. Make joints tight, accurately aligned and rigidly secured. Mitre and fit corners accurately, free from rough edges. Secure at 150 mm on centre.
2. Install casing beads around perimeter of suspended ceilings.
3. Install casing beads where gypsum board butts against surfaces having no trim concealing junction and where indicated. Seal joints with sealant.
4. Construct control joints of preformed units set in gypsum board facing and supported independently on both sides of joint.
5. Provide continuous polyethylene dust barrier behind and across control joints.
6. Locate control joints where indicated and at changes in substrate construction.
7. Install control joints straight and true.
8. Construct expansion joints, at building expansion and construction joints. Provide continuous dust barrier.
9. Install expansion joint straight and true.
10. Install cornice cap where gypsum board partitions do not extend to ceiling.
11. Splice corners and intersections together and secure to each member with 3 screws.
12. Install access doors to electrical and mechanical fixtures specified in respective sections.
13. Rigidly secure frames to furring or framing systems.
14. Finish face panel joints and internal angles with joint system consisting of joint compound, joint tape and taping compound installed according to manufacturer's directions and feathered out onto panel faces.
15. Gypsum Board Finish: finish gypsum board walls and ceilings to following levels in accordance with Association of the Wall and Ceiling Industries (AWCI) International Recommended Specification on Levels of Gypsum Board Finish:
16. Level of finish:
 - a. Level 4: Embed tape for joints and interior angles in joint compound and apply three separate coats of joint compound over joints, angles, fastener heads and accessories; surfaces smooth and free of tool marks and ridges.
17. Finish corner beads, control joints and trim as required with two coats of joint compound and one coat of taping compound, feathered out onto panel faces.
18. Fill screw head depressions with joint and taping compounds to bring flush with adjacent surface of gypsum board so as to be invisible after surface finish is completed.
19. Sand lightly to remove burred edges and other imperfections. Avoid sanding adjacent surface of board.
20. Completed installation to be smooth, level or plumb, free from waves and other defects and ready for surface finish.
21. Apply one coat of white primer sealer over surface to be textured. When dry apply textured finish in accordance with manufacturer's instructions.

22. Mix joint compound slightly thinner than for joint taping.
23. Apply thin coat to entire surface using trowel or drywall broadknife to fill surface texture differences, variations or tool marks.
24. Allow skim coat to dry completely.
25. Remove ridges by light sanding or wiping with damp cloth.
26. Provide protection that ensures gypsum drywall work will remain without damage or deterioration at time of substantial completion.

SECTION 09 22 16 – NON-STRUCTURAL METAL FRAMING

Products:

1. General interior framing: 25 ga. steel core thickness for bulkheads
2. Interior jamb studs at all openings:
 - a. 20 ga steel thickness
 - b. Floor and ceiling tracks: to ASTM C 645-00 galvanized metal, widths to suit stud sizes, 50mm flange height.
 - c. For interior partitions: 25 ga
 - d. Where double top track required outer top track 20 ga.
 - e. Insulating strip: rubberized, moisture resistant 3mm thick foam strip, 12mm wide with self-sticking adhesive on one face, lengths as required.
3. Non-load breaking channel stud framing: to ASTM C645, stud size as scheduled, roll formed from hot dipped galvanized steel sheet. Knock-out service holes at 460mm centers.
4. Floor and ceiling tracks: to ASTM C645, in widths to suit stud sizes.

Erection:

1. Align partition tracks at floor and ceiling and secure at 600mm on centre maximum.
2. Install damp proof course under stud shoe tracks of partitions on slabs on grade.
3. Place studs vertically as indicated on centre and not more than 50mm from abutting walls, and at each side of openings and corners. Position studs in tracks at floor and ceiling. Cross brace steel studs as required to provide rigid installation to manufacturer's instructions.
4. Erect metal studding to tolerance of 1:1000.
5. Attach studs to bottom and ceiling track using screws.
6. Co-ordinate simultaneous erection of studs with installation of service lines. When erecting studs ensure web openings are aligned.
7. Co-ordinate erection of studs with installation of door/window frames and special supports or anchorage for work specified in other Sections.
8. Provide two studs extending from floor to ceiling at each side of openings wider than stud centres specified. Secure studs together, 50mm apart using column clips or other approved means of fastening placed alongside frame anchor clips.
9. Install heavy gauge single jamb studs at openings.
10. Erect track at head of door/window openings and sills of sidelight/window openings to accommodate intermediate studs. Secure track to studs at each end, in accordance with manufacturer's instructions. Install intermediate studs above and below openings in same manner and spacing as wall studs.
11. Frame openings and around built in equipment, cabinets, access panels, on four sides. Extend framing into reveals. Check clearances with equipment suppliers.
12. Provide 75mm GIS plywood backing secured between studs for attachment of fixtures behind lavatory basins, toilet and bathroom accessories, and other fixtures including grab bars and towel rails, attached to steel stud partitions.

13. Coordinate with Section 06 10 00 – Rough Carpentry for installation of blocking to support millwork and other wall mounted equipment.
14. Install steel studs or furring channel between studs for attaching electrical and other boxes.
15. Extend partitions to ceiling height except where noted otherwise on drawings.
16. Install continuous insulating strips to isolate studs from uninsulated surfaces.
17. Install two continuous beads of acoustical sealant under studs and tracks around perimeter of sound control partitions.

SECTION 09 30 13 – CERAMIC TILING

Products:

1. CT-1: Wall Tile/Backsplash
 - a. Olympia Colour & Dimension Series glazed wall tile QT.CD.WWT.0408.MT
 - b. Colour: Warm White
 - c. Size: 4.25" x 8.5"
 - d. Finish: Matte
 - e. Grout Colour: Ardex Polar White 01
2. CT-2: Floor Tile
 - a. Julian Tile Cemento CEMGR1224C
 - b. Colour: Grigio Cassero
 - c. Size: 11.75" x 23.75"
 - d. Grout Colour: Custom Fusion Pro 542 Graystone
 - e. Base: wood to match base throughout.
3. Trim Shapes:
 - a. Schluter Schiene Profile
 - b. Finish: Anodized aluminum with nickel finish.
 - c. To be used at all unfinished tile edges and at all transitions between flooring.
4. Bond Coat:
 - a. As recommended by tile manufacturer and as per TTMAC.
5. Grout:
 - a. As recommended by tile manufacturer and as per TTMAC.
6. Floor Sealer and Protective Coating:
 - a. To tile and grout manufacturers recommendations.

Execution:

1. Do tile work in accordance with TTMAC Tile Installation Manual 2006/2007.
2. Apply tile or backing coats to clean and sound surfaces.
3. Maximum surface tolerance 1:800.
4. Make joints between tile uniform and approximately 1.5mm wide, plumb, straight, true, even and flush with adjacent tile. Ensure sheet layout not visible after installation. Align patterns.

SECTION 09 64 29 – WOOD STRIP AND PLANK FLOORING

Products:

1. WDF-1: Armstrong Performance Plus Lock &Fold Engineered Hardwood Flooring.
 - a. Birch strip engineered hardwood flooring: finished 3/8" thick x 5" wide random lengths, tongue and groove edges and matched ends.
 - b. Colour is Birch Marsh Field ESP5302LG
 - c. Micro-beveled edges and ends

- d. Low gloss
- e. Floating installation
- 2. Subfloor:
 - a. ½" OSB
- 3. Wood Base
 - a. Wood base: ½" thick x 4" in height. Square edge style, Oak species.
 - b. Finish to match flooring.

Ventilation and Temperature:

- 1. Provide continuously during and after installation. Run system 24 hours per day during installation; provide continuous ventilation for 7 days after completion of installation.
- 2. Ensure substrate is within moisture limits prescribed by flooring manufacturer.

Execution

- 1. Verification of Conditions: verify conditions of substrates previously installed under other Sections or Contracts are acceptable for wood strip and plank flooring installation in accordance with manufacturer's written instructions.
- 2. Visually inspect substrate. Inform Consultant of unacceptable conditions immediately upon discovery.
- 3. Proceed with installation only after unacceptable conditions have been remedied.

Preparation:

- 1. Check and record moisture content of both flooring and subflooring before beginning installation.
- 2. Ensure moisture content is within acceptable limits in accordance with manufacturer's written recommendations.

Installation:

- 1. Manufacturer's Instructions: comply with manufacturer's written recommendations, including product technical bulletins, product catalogue installation instructions, product carton installation instructions, and data sheets.
- 2. Install finish flooring, as indicated, parallel to long dimension of room.
- 3. Maintain 50 mm expansion space at perimeter of floor surface.
- 4. Install base continuously at floor perimeter. Secure to wall surface with screws and plugs. Ensure base does not contact floor surface and is not secured to it.
- 5. Install thresholds at openings. Attach threshold to adjacent rigid floor surface. Threshold to act as ramp between floor surfaces over expansion space.

SECTION 09 65 16 – RESILIENT SHEET FLOORING

Products:

- 1. RSF-1
 - a. Tarkett Granit SD
 - b. Colour: 710 Full Moon
 - c. Static Dissipative Flooring
 - d. Base: 4" wood base to match typical areas.
 - e. Seams: Welded
- 2. LVP-1
 - a. Armstrong Natural Creations ArborArt LVT.
 - b. Colour: NA110 Alder Alore Pencilwood

- c. Thickness: 0.125 inches
 - d. Size: 4 inch by 36 inch
 - e. Wear layer: 0.020 inch
 - f. Base: 4" wood base to match typical areas.
 - g. Warranty: 20 year limited warranty
3. TR-1
- a. Johnsonite Heavy Duty Smooth Rubber Stair Tread (GS)
 - b. Colour: 80 Fawn.
 - c. Location: Millwork boot shelves.

Execution:

1. Compliance: comply with manufacturer's written recommendations or specifications, including product technical bulletins, handling, storage and installation instructions, and datasheets.
2. Ensure concrete floors and/or subfloors are clean and dry by using test methods recommended by flooring manufacturer.
3. Clean floor and apply filler as required; trowel and float to leave smooth, flat hard surface. Prohibit traffic until filler cured and dry.
4. Remove sub-floor ridges and bumps. Fill low spots, cracks, joints, holes and other defects with sub-floor filler as required.
5. Prepare subfloor to resilient flooring manufacturer's printed instructions.

Application:

1. Provide high ventilation rate, with maximum outside air, during installation, and for 48 to 72 hours after installation. If possible, vent directly to outside. Do not let contaminated air recirculate through district or whole building air distribution system. Maintain extra ventilation for at least one month following building occupation.
2. Use manufacturer's recommended adhesive.
3. Apply adhesive uniformly using recommended trowel. Do not spread more adhesive than can be covered by flooring before initial set takes place.
4. Lay flooring with seams parallel to building lines to produce a minimum number of seams. Border widths minimum 1/3 width of full material.
5. Run sheets to achieve minimal seams. Provide layout to consultant for review prior to install. Weld seams according to manufacturer's printed instructions.
6. As installation progresses, and after installation, roll flooring with 45 kg minimum roller to ensure full adhesion.
7. Cut flooring around fixed objects excluding millwork.
8. Continue flooring over areas which will be under built in furniture.
9. Terminate flooring at centreline of door in openings where adjacent floor finish or colour is dissimilar.
10. Install metal edge strips at unprotected or exposed edges where flooring terminates.

SECTION 09 91 23 – INTERIOR PAINTING

Samples:

1. Submit duplicate 200 x 300 mm sample panels of each paint, clear coating, special finish with specified paint or coating in colours, gloss/sheen and textures required to MPI Architectural Painting Specification Manual standards submitted on following substrate materials:
2. 3 mm plate steel for finishes over metal surfaces.
3. 13 mm gypsum board for finishes over gypsum board and other smooth surfaces.
4. 10 mm MDF for finishes over MDF surfaces.

5. Retain reviewed samples on-site to demonstrate acceptable standard of quality for appropriate on-site surface.
6. Test reports: submit certified test reports for paint from approved independent testing laboratories, indicating compliance with specifications for specified performance characteristics and physical properties.
7. Lead, cadmium and chromium: presence of and amounts.
8. Mercury: presence of and amounts.
9. Organochlorines and PCBs: presence of and amounts.
10. Certificates: submit certificates signed by manufacturer certifying that materials comply with specified performance characteristics and physical properties.

Manufacturer's Instructions:

1. Submit manufacturer's installation and application instructions.
2. Closeout Submittals: submit maintenance data for incorporation into manual specified in Section 01 78 00 - Closeout Submittals include following:
3. Product name, type and use.
4. Manufacturer's product number.

Colour numbers.

1. MPI Environmentally Friendly classification system rating.
2. Extra Materials:
3. Deliver to extra materials from same production run as products installed. Package products with protective covering and identify with descriptive labels.
4. Quantity: provide one - four litre can of each type and colour of primer, finish coating. Identify colour and paint type in relation to established colour schedule and finish system.
5. Delivery, storage and protection: comply with Consultant requirements for delivery and storage of extra materials.

Products:

1. Schedule:
 - a. PNT-1: Sherwin Williams SW7757 High Reflective White
 - b. PNT-2: Sherwin Williams SW7022 Alpaca
 - c. PNT-3: Sherwin Williams SW7025 Backdrop
 - d. PNT-4: Sherwin Williams SW6615 Peppery
2. Finish: Use satin in washrooms and shower rooms, and eggshell in all other locations

SECTION 10 28 10 – TOILET AND BATH ACCESSORIES

Materials

1. Grab bars (GB)
 - a. To be installed in washrooms as per National Building Code.
 - b. GB-1 36" in length,
 - c. GB-2 24" in length.
2. Mirrors (M):
 - a. Mirror back protected by shock absorbing material. Back of mirror to be galvanized steel. Mirror to have ¼" frame, anodized aluminum finish.
3. Coat Hook (CH-2): Stainless steel finish, Ø 25/32" x 2 3/8" dimensions.
 - a. Acceptable Material: Richelieu Hook, Model 51128170, Finish 170 'Stainless Steel'.
4. Toilet Paper Dispenser (TPD)
 - a. Recessed Hinged Hood Stacking Rolls

- b. Acceptable Manufacturer:
 - i. Bradley 5127
 - ii. Or approved alternate
 - iii. Locations: all washrooms
- 5. Paper Towel Dispenser (PTD)
 - a. Surface mounted stainless steel
 - b. Acceptable manufacturer:
 - i. Bradley
 - ii. Bobrick
 - iii. Or approved Alternate.
 - c. Locations: All sink locations.
- 6. Soap Dispenser (SD):
 - a. Surface mounted stainless steel
 - b. Acceptable manufacturer:
 - i. Bradley
 - ii. Bobrick
 - iii. Or approved Alternate
 - c. Locations: All sink locations.

SECTION 11 40 10 – EQUIPMENT

All Equipment is Not In Contract. List is provided for information purposes only.

Acceptable Products:

- 1. FR-1: Fridge with bottom Freezer
 - a. Kitchenaid KRBL109ESS
 - b. 19 cubic feet 30 inch width refrigerator
 - c. Size: 67" high, 33 3/8" deep, 29 3/4" wide.
 - d. 3 units required. Confirm door swing at time of ordering to suit each location.
- 2. MW-1: Microwave
 - a. Kitchenaid YKCM2155BS
 - b. 1200 watt countertop Microwave oven, Architect Series II
 - c. Cubic foot
- 3. DW-1: Dishwasher
 - a. Kitchenaid KDFE104DSS
 - b. 24" 6-cycle/5 Option Dishwasher with pocket handle
 - c. Energy Star Qualified
 - d. Size: 24.75" deep, 34.5" high, 24" wide.
- 4. R-1: Range
 - a. Kitchenaid KFGG500ESS
 - b. 30 Inch, 5 burner gas convection range
 - c. Stainless steel finish
- 5. RH-1: Range Hood
 - a. Nutone NTM302SS
 - b. 500 CFM, 30", Under-cabinet hood
 - c. Stainless steel finish
- 6. WM-1: Washing Machine
 - a. LG WM3270CW
 - b. Cubic foot front load washer
 - c. Size: 27" wide, 38.75" high, 29.75" deep

7. DR-1: Gas Dryer
 - a. Manufacturer: LG
 - b. Model: DLG3171W
8. DD-1: Direct Drier
 - a. Manufacturer: Williams
 - b. Model: The Chief, PS4/R8
 - c. 110V, 1550W
 - d. Provide with Tork 402A Grounded 24 Hour Mechanical Timer

SECTION 12 22 00 – ROLLER SHADES

Acceptable Products:

1. Sun Project – Deko Lite Lift – Fabric: 3% openness.
 - a. Colour to be Technique Pearl 715-0207.
 - b. On all windows, including door lites unless otherwise noted.
2. Sun Project – Deko Lite Lift Safeguard – Blackout Fabric
 - a. Color to be determined from manufacturer's full product range.
 - b. On all bedroom windows.

SECTION 12 50 00 – FURNITURE

All Furniture is Not In Contract. List is provided for information purposes only.

Acceptable Products:

Workstations and Office Furniture:

1. WS-1: Workstation
 - a. Global Total Office Federal Government Products
 - b. Components:
 - i. Worksurface: Category 1B QTY 1 WSxxHGLHTxxxxxx246030 Transitional with 1 Half and 1 Full Gable (w/ modesty)
 - ii. Return: Category 1B QTY 1 WSxxHGLHRxxxxxx4824 Return 1 Full one Narrow Gable
 - iii. Mobile Pedestal: SPPDWLLxxxxFFxx24
 - iv. Monitor Arm: Category 5 QTY 1 MASMG Single Monitor Arm, Grommet Mount
 - v. Keyboard Tray: Category 5 QTY 1 KMSLFF24 Keyboard and Mouse Support, Lever-free control
 - vi. Furniture dealer to confirm workstation orientation with contract documents with consultant prior to finalizing order.
 - vii. All products by Global Total Office from Federal Government approved products.
2. WS-2: Workstation
 - a. Components:
 - i. Worksurface: WSxxGGLHRxxxxxx4830
 - ii. Mobile Pedestal: SPPDWLLxxxxFFxx24
 - iii. Monitor Arm: Category 5 QTY 1 MASMG Single Monitor Arm, Grommet Mount

- iv. Keyboard Tray: Category 5 QTY 1 KMSLFF24 Keyboard and Mouse Support, Lever-free control
 - v. Furniture dealer to confirm workstation orientation with contract documents with consultant prior to finalizing order.
 - vi. All products by Global Total Office from Federal Government approved products.
3. P-1: Mobile Pedestal
- a. For reception workstations
 - b. Mobile Pedestal by Global Total Office Federal Government Selection: SPPDWLLxxxxFFx24
4. KBT-1: Keyboard Trays
- a. For reception workstations. To be installed at millwork work surface.
 - b. Category 5 QTY 1 KMSLFF24 Keyboard and Mouse Support, Lever-free control keyboard tray by Global Total Office Federal Government Products.
5. S-1: Shelf
- a. For Office Building Office Spaces
 - b. Adaptabilities 48" high Bookcase
 - c. Model ABC48
 - d. Two adjustable shelves
 - e. Size, 36" wide, 12" deep, 72" high
 - f. Consultant to select finishes from manufacturer's full range.
 - g. Finish to be high pressure laminate.

Casegoods:

1. BS-1: Bookshelf
- a. For Accommodation Building living area
 - b. Adaptabilities 72" high Bookcase
 - c. Model ABC72
 - d. One fixed shelf, three adjustable shelves
 - e. Size, 36" wide, 12" deep, 72" high
 - f. Consultant to select finishes from manufacturer's full range.
 - g. Finish to be high pressure laminate.

Seating:

1. SOFA-1: 3 Seater Sofa
- a. For Accommodation Building living area
 - b. Minolo Three Seat Sofa by Global
 - c. Model: 4700-3
 - d. Size: 70" wide, 30" deep, 30" high
 - e. Consultant to select finishes from manufacturer's full range.
 - f. Upholstery to be selected by consultant from manufacturer's full range three grades above base grade. Minimum 100,000 double rubs.
2. SOFA-2: 2 Seater Sofa
- a. For Accommodation Building living area
 - b. Minolo Two Seat Sofa by Global
 - c. Model: 4700-2
 - d. Size: 49" wide, 30" deep, 30" high
 - e. Consultant to select finishes from manufacturer's full range.
 - f. Upholstery to be selected by consultant from manufacturer's full range three grades above base grade. Minimum 100,000 double rubs.
3. CH-1: Task Chair

- a. For Office Building Offices
 - b. Loover Chair by Global Total Office
 - c. Model: CA2661-0-G8
 - d. Consultant to select finishes from manufacturer's full range.
 - e. Upholstery to be selected by consultant from manufacturer's full range three grades above base grade. Minimum 100,000 double rubs.
 - f. Federal Government approved product.
4. CH-2: Meeting Chair
- a. For Office Building Meeting Room
 - b. IBEX Mesh Back Conference Chair by Global Total Office
 - c. Model: CAMVL2801F
 - d. Consultant to select finishes from manufacturer's full range.
 - e. Upholstery to be selected by consultant from manufacturer's full range three grades above base grade. Minimum 100,000 double rubs.
 - f. Federal Government approved product.
5. CH-3: Side Chair
- a. For Accommodation Building Bedrooms
 - b. Sonic Side Chair by Global Total Office
 - c. Model: CA6514MB
 - d. 4 legged base with arms, stacking
 - e. Breathable mesh back with fabric seat upholstery
 - f. Consultant to select finishes from manufacturer's full range.
 - g. Upholstery to be selected by consultant from manufacturer's full range three grades above base grade. Minimum 100,000 double rubs.
 - h. Federal Government approved product.
6. CH-4: Dining Chair
- a. For Accommodation Building Dining Area
 - b. Bakhita Stacking Side Chair with Upholstered Seat, Armless
 - c. Model 6753
 - d. Polymer back
 - e. Consultant to select finishes from manufacturer's full range.
 - f. Upholstery to be selected by consultant from manufacturer's full range three grades above base grade. Minimum 100,000 double rubs.
7. ST-1: Stool
- a. For Accommodation Building
 - b. Apply Low Back Café Stool by KI
 - c. Low Back 24": W17-3/4 D22-1/2 H30
 - d. Include upholstered seat
 - e. Consultant to select finishes from manufacturer's full range.
 - f. Upholstery to be selected by consultant from manufacturer's full range three grades above base grade. Minimum 100,000 double rubs.
8. BENCH-1: Bench
- a. For Office Building Change Rooms
 - b. Free-Standing A Frame Bench as manufactured by Shanahan's.
 - c. Pedestal: powder-coated cold rolled steel, 1" by 1" 16 gauge tubing complete with black PVC tube cap on bottom.
 - d. Seat: S4S kiln-dried cedar
 - e. Size: 9.5" wide, 1.5" thick (seat), 48" long, 16.75" high.

Tables:

- 1. T-1: Occasional Table

- a. For accommodation building living area
 - b. Wind Square Corner Table 3356 by Global Furniture Group
 - c. Size: 17" high, 24" wide, 24" deep
 - d. High pressure laminate top
 - e. Consultant to select finishes from manufacturer's full range.
2. T-2: Coffee Table
 - a. For Accommodation Building living area
 - b. Wind Rectangular Coffee Table 3357 by Global Furniture Group
 - c. Size 15" high, 48" wide, 20" deep
 - d. High pressure laminate top
 - e. Consultant to select finishes from manufacturer's full range.
3. T-3: Dining Table
 - a. For Accommodation Building dining area
 - b. Princeton Table by Global Furniture Group PN603029
 - c. Size: 29" high, 60" wide, 30" deep
 - d. High pressure laminate top
 - e. Consultant to select finishes from manufacturer's full range.
4. T-4: Boardroom Table
 - a. For Office Building dining area
 - b. Princeton Table by Global Furniture Group PN964229
 - c. Size: 29" high, 96" wide, 42" deep
 - d. High pressure laminate top
 - e. Consultant to select finishes from manufacturer's full range.

Bedroom Furniture

1. D-1: Dresser / TV Stand
 - a. For Accommodation Building bedrooms
 - b. Sonoma GCLDR06, by Globalcare
 - c. Size: 37.5 high, 34" wide, 22" deep.
 - d. Construction:
 - e. Three (3) drawers with open storage above
 - f. Three (3) Arc Sierra (A1) handles
 - g. Cord access through grommet in back
 - h. Top and bottom Linear (LN) fascia
2. NS-1: Night Stand
 - a. For Accommodation Building Bedrooms
 - b. Sonoma Three Drawer Dresser
 - c. Similar to model GCLDR02N, modified to be 24" wide.
 - d. Size 30" high, 24" wide, 22" deep
 - e. Consultant to select finishes from manufacturer's full range.
 - f. High pressure laminate finish
 - g. Construction:
 - h. Three (3) drawers
 - i. Three (3) Arc Sierra (A1) handles
 - j. Top and bottom Linear (LN) fascia
3. BED-1: Double Bed
 - a. For Accommodation Building Bedrooms
 - b. Double Headboard
 - i. Acceptable Product: Sonoma Linear Headboard, by Globalcare
 - ii. Mounted to wall with French cleat attachment.
 - iii. Size: 21" high, 57" wide, 2" deep

- iv. Construction:
 - 1. Headboard to be mounted on wall, caulked with clear sealant around edge
- v. Linear (LN) shape
- vi. No footboard required.
- vii. Consultant to select finishes from manufacturer's full range.
- viii. High pressure laminate finish
- c. Double Bed Base
 - i. Acceptable Product: All Steel Full Bed Base #571078, by Leggett & Platt
 - ii. Size: 6" high
 - iii. Bed base must accommodate MD-1 double (full) mattress specified
 - iv. Construction:
 - 1. Steel base frame with steel cross tubes for centre support.
 - 2. Boxspring retainers.
 - v. Finish: brown enamel
 - vi. Warranty: Limited Lifetime Warranty
- d. Double Mattress:
 - i. Acceptable Product: Master Suite Plush – 2 sided Double (Full), by Serta
 - ii. Size: 11.25" high, 53" wide, 75" long
 - iii. Construction:
 - iv. Innerspring: 800 14 3/4 gauge, continuous wire unit, 9 gauge border wife, posturized centre third, perimeter edge foam encasement, head to toe helicals.
 - v. Quilted Panel: 1 layer pillo fill plus, fireblocker, 7/8" zoned convoluted foam, 1/2" quilting foam, patented advanced comfort quilt.
 - vi. Upholstery: 1 3/8" zoned convoluted foam, fireblocker insulator pad.
 - vii. Warranty: 10 years
- e. Double Boxspring:
 - i. Acceptable Product: DuraForce Foundation Double (Full) Box Spring, by Serta
 - ii. Size: Length: 74" long, 52.5" wide, 9" high
 - iii. Construction:
 - 1. Standard two layers of kiln-dried lumber provide durability and strength.
 - 2. 9" double beam foundation.
 - 3. Additional cross slats to provide added durability.
 - 4. Warranty: 10 year non-prorated against manufacturer's defects.

END OF OUTLINE SPECIFICATION