SPECIFICATIONS

NEW ELEVATOR ADDITION
FOR
ST. MARY'S CATHOLIC ELEMENTARY SCHOOL
CAMPBELLFORD

PETERBOROUGH VICTORIA NORTHUMBERLAND AND CLARINGTON CATHOLIC DISTRICT SCHOOL BOARD

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SET NO. ____

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CATHOLIC DISTRICT SCHOOL BOARD

1. GENERAL

1.1 The owner is Peterborough Victoria Northumberland & Clarington Catholic District School Board.

1.2 Construction will be reviewed periodically by the Owner and the Architect. The Architect will be the administrator of the contract.

2. WORK UNDER THIS CONTRACT

Construct new addition for the new elevator including mechanical/electrical systems and related site work.

END OF SECTION 01010

1. Cash allowances shall be expended only on the Architect's/owner's written instructions.
2. The Contractor's charges for overhead and profit on account of Cash Allowance shall be included in the Contract Amount in accordance with G.C. 4.1 of the General Conditions of the Contract as amended.
3. Credit the owner with any unused portion of Cash Allowances in the statement for final payment.
4. If a test made under payment by a specified allowance proves that the material tested is unacceptable, then the subsequent testing and replacement materials shall be at Contractor's expenses.
5. Include in stipulated sum quoted a single Cash Allowance in the amount of $20,000.00.
    - Repair of existing metal stair.

    Return any surplus equipment to the owners.

TOTAL 20,000.00

END OF SECTION 01020

1. GENERAL

1.1. Demolition and/or removal means the complete removal of all items associated work from the site and the making good of all disturbed surfaces to acceptable finishes.

1.2. Electrical and mechanical demolition for installation of heating, ventilation, and electrical lighting including light fixtures and associated systems is the responsibility of respective trade under supervision of the general contractor. See mechanical and electrical drawings.

1.3. Remove existing components as required for installation of new work as noted. Confirm locations of all existing services on site prior to demolition activities.

1.4. Remove existing concrete walkways, asphalt, and other site components as noted on site plans to suit the execution of the work. Cut neatly at adjacent surfaces and damaged areas from over excavation.

1.5. Provide adequate temporary support for existing load bearing components and structural revisions called for.

1.6. Remove existing windows, doors/frames, fixtures, fitments, acoustic tile ceiling, and masonry walls as per demolition plan.

1.7. Remove sections of load bearing masonry walls. New lintels and masonry repair will be by Section 04200.

1.8. Remove existing canopy roof and framing above existing exit doors.

1.9. Remove existing aluminum entry doors, windows, framing and power operators for re-installation as per the drawings.

2. EXECUTION

2.1. Note that work is being performed within an existing building and the contractor is to provide protection of the work and property including neighbouring structures and parking lots in accordance with Part 9 of CCDC 2.

2.2. Keep access areas to work reasonably clean during work and on completion perform final cleaning is specified.

2.3. Hoard off work and storage areas in a secure, safe manner.

END OF SECTION 02000

1. GENERAL

1.1. Comply with General Requirements Division 01 and co-ordinate with Section 02800 Site Improvements.

1.2. Levels indicated on drawings and other such information are furnished in good faith for guidance of contractor, but shall in no way relieve him of responsibility for ascertaining nature of conditions at site. Confirm existing grades shown.

1.3. Give Architect sufficient advance notice so as top afford him reasonable opportunity to inspect work. Co-ordinate review by inspection and testing company.

1.4. Protect bank sides of excavation. In freezing weather protect surfaces on which footings and slabs are to be constructed with insulation material capable of preventing formation of ice and frost.

1.5. Contractor shall be responsible for good housekeeping during work on this section. Remove refuse from the site weekly. Keep surrounding public roads free of soil deposits from material hauling trucks. Load trucks carefully to prevent spillage and wind carrying.

1.6. Repair settled fills in manner satisfactory to Architect. This responsibility shall apply for a period of one year from date of completion of buildings as certified by Architect.

2. MATERIALS

2.1. Import granular fill shall be Granular A+B to M.T.O. standards.

2.2. Use the above specified imported granular fill for backfilling in the following locations:

Granular A

- Fill under concrete floors and walkways supported on grade.

Granular B

- Fill at column footings, trenches, and other vertical elements within confines of building.
- Fill at both sides of interior and exterior foundation walls.

2.3. Tender on the basis of imported fill as above – use native on site backfill will be determined during excavation, subject to price adjustments.

3. EXECUTION

3.1. Remove backfill completely from areas on which work of building foundations and exterior work and structures, slab, surfacing, regarding or construction traffic is executed. Note: excavate and underpin existing foundations strictly in accordance with structural drawings and details.

3.2. Remove subgrade from areas under structures.

3.3. Remove soil containing humus, sod, roots, and which is unstable or unsuitable for use.

3.4. Excavate to extent and levels required for construction; to undisturbed, level, firm, dry surfaces free of excess loose material; and for foundations to a depth of at least 4’-0” below finish grade.

3.5. Rough grade site exterior to building to levels required for specified surfaces.

3.6. Raise subgrade exterior to building to rough grade levels where required, deposited in maximum layers of 8”, each compacted before placing of subsequent layers.

3.7. Remove excess material completely from site.

3.8. Backfill at walls, foundations, trenches, asphalt and concrete walkway areas only after preceding work has been completed and approved, and is adequately braced and supported. Backfill in maximum layers of 12” unless approval is given to layers of greater thickness that the subcontractor demonstrates can be compacted to specified density. Compact each layer before the next is placed. Backfill both sides of the walls simultaneously where such backfilling is required. Ensure that waterproofing and perimeter insulation is not damaged by backfilling.

3.9. Compact subgrade, backfill and base courses under slabs and paving to a minimum compaction density of 95% standard proctor; and other locations to 85% standard proctor.

3.10. Make good over-excavation by approved methods.

END OF SECTION 02200

1. GENERAL

1.1. Comply with requirements of Division 1 and co-ordinate with Section 02000 Site Work as well as review by inspection and testing company.

2. MATERIALS & EXECUTION

2.1 Concrete Walkways

2.1.1 5" thick concrete slab size noted with minimum compressive strength of 30 MPA at 28 days, 5-7% air entrainment, maximum 3"slump.
2.1.2 Welded steel mesh 6 x 6 - 9/9.
2.1.3 Excavate and remove existing grade sufficiently to place 6" compacted granular 'B' fill.
2.1.4 Install slab minimum 2% slope to grade and provide broom finish.
2.1.5 Provide control and expansion joints and all work to Municipal standards.

2.2 Sod & Topsoil

2.2.1 Use nursery sod on minimum 6" topsoil for landscaped areas as noted on site. Water and provide first cut.

2.3 Asphalt Repairs

2.3.1 Asphalt paving for repairs to be 2" HL 3 or 4 surface course on 6" compacted granular 95% Proctor.

END OF SECTION 02800

1. GENERAL

1.1. Comply with requirements of Division 01.

1.2. Work of this section includes supply and placing of concrete, supply and installing of reinforcing steel, supply and installation of form work, and building in of other items supplied under other sections.

1.3. Related sections:

- Excavation & Backfilling 07200
- Unit Masonry 04200

1.4. Conform to Ontario building Code - latest regulations.

1.5. All workmanship to be performed by skilled and experienced workmen with a competent supervisor to be on site continuously throughout each work day.

1.6. Protect existing new construction and adjoining buildings. Be responsible for repair and/or replacement of items damaged in the construction of this work.

2. MATERIALS

2.1. The ultimate 28 day compressive strength of concrete unless noted otherwise, shall be 20 MPA with air entrainment content of 0% to 2% and maximum water/cement ratio by mass of 0.55.

2.2. The concrete supplier shall be responsible for concrete mix design - conform to CSA A23.

2.3. Only read mix concrete is permitted on this job.

2.4. Waterproof membrane to be Blue Skin SA by Henry/Baker or equal.

2.5. Joint filler to be non-extruded pre-moulded fibre type saturated in bituminous binder.

2.6. Curing/sealing compounds to ASTM C309.

3. **EXECUTION**

3.1. Supply and install concrete, including placing, finishing and curing as shown in accordance with CSA A23 and CSA G30.

3.2. Install pre-moulded joint filler at all junctions of slab with foundation wall. Install Blue Skin self-adhesive membrane over existing and new foundations including under pit slab for a continuous waterproof enclosure.

3.3. Match existing footing level and install new footings on undisturbed ground capable of supporting 1,500 lbs./sq. ft. Provide underpinning of existing footings as per structural drawings.

3.4. Provide new concrete work, as noted on the drawings, with steel trowel finish and two coats of clear sealer for pit floor.

END OF SECTION 03300

1. **GENERAL**

1.1. Comply with General Requirements Division 01.

1.2. Submit samples of block and brick before delivery to site.

1.3. Building in all miscellaneous inserts, anchors, blocking sleeves, lintels, conduit and other accessories as required.

2. **MATERIALS**

2.1. Concrete Block: All hollow concrete block shall be autoclave block having a minimum compressive strength of 7.5 MPa on the gross area, standard metric to sizes as indicated on the drawings and details. Concrete block to be 10" thick in locations noted to Atlas Block Co. Ltd. or equal.

2.2. Mortar shall be type N grey colour conforming to CSA CAN 3-5304-M78 and type S for load bearing walls to CSA standard A179, mortar and grout for unit masonry.

2.3. Non Shrink Grout: M-bed by Sternson Ltd.

2.4. Flexible Membrane: Damp proof course and through wall flashing. Blue Skin TWF S.A. as manufactured by Bakor.

2.5. Joint Reinforcement: Heavy Duty ladder type reinforcing for all single wythe masonry walls and extra heavy duty ladder type Blok-Lok for all walls with 2 wythes.

2.6. Flexible anchors for cavity wall to be hot dipped galvanized 3/16" wire type BL 42 with adjustable Econo-Cavity Lock II complete with wedgelock insulation retainers as manufactured by Blok-Lok Ltd.

2.7. Cavity Wall Ventilators: shall be PVC Weephole Ventilators (brick type, approx. 60 mm high) as supplied by Goodco Ltd., Form & Build Supply Inc., Blok-Lok or approved equal.

2.8. Cavity wall insulation to be 3" thick polyisocyanurate R7/inch (conditioned R value) to C.G.S.B-51.26-M86 Type 1.

2.9. Self Adhesive Air Barrier: Blue Skin S.A. and Blue Skin primer as manufactured by Henry/Bakor or equal.

2.10. Provide control joints maximum 25'-0" o/c or as indicated on drawings.

2.11. Provide masonry units for interior partitions to height and locations in thicknesses as indicated on the drawings.

2.12. Brick to be 4" clay metric modular to Brampton Brick or equal. Colour to be chosen later from standard manufacturer's colour range to match existing brick colour as close as possible.

2.13. Mort Mat for Cavity Wall: Mortar dropping control device (cavity drainage mat) - high density polyethylene or nylon mesh in trapezoidal configuration designed to facilitate effective drainage of moisture to weep holes; thickness to suit air space: "The Mortar Net" by JV Building Supply (905) 851-3744, or "Mortar Maze" by Form & Build Supply.

3. EXECUTION

3.1. Give other trades notice of intention to proceed and incorporate anchors and other components to ensure proper installation of later work.

3.2. Lay block in running bond (half-bond) pattern. Select units randomly from cubes so as not to create a defined pattern.

3.3. Provide and maintain protection for masonry walls at all times when work is interrupted or temporarily ceased to prevent moisture from entering unfinished walls.

3.4. Comply with CSA A371-94 and use CSA A224 for cold weather requirements.

3.5. Joints shall be neatly tooled to produce concave joints. All interior surfaces ready for paint finishes.

3.6. Masonry shall be carried up solid between joints and built tight around beams and lintels with all voids full. Provide minimum 6" bearing for steel lintels bearing on masonry. Bearing shall be on solid masonry 8" deep and projecting 8" on each side of beam or base plate.

3.7. Install reinforcing continuously at every second course securely fastened to substrate unless noted otherwise.

3.8. Brace and support work as required during operation until final set is achieved.

3.9. Install masonry reinforcing in 2 consecutive courses above and below all openings in walls, extending not less than 600 mm (2') on each side of opening. Install metal angles for all door and window opening perimeters as per details and fasten securely to block for support of door/window framing.

3.10. Build in hollow metal frames and ensure that anchors are solidly bedded. Fill hollow metal frames completely with grout. Install pressure treated wood blocking and securely anchor as per details.

3.11. Set lintels and other members that lay on masonry. Group them accurately in place and fill voids solid under joist and beam bearings, vertical reinforcing, and as noted on the drawings.

3.12. Install damp proof courses and through wall flashings on smooth bed, lap joints minimum 6" (see details) with mortar mat at base of all cavity walls.

3.13. Install through wall flashings at heads of all exterior openings, over shelf angles and loose lintels.

3.14. For cavity walls install primer by brush, roller or spray and let dry for minimum 30 minutes followed by self-adhesive membrane over all block surfaces returning into all openings around all metal supports behind door/window frames and over parapets for continuous air/vapour barrier system. Lap all joints minimum 2" and cut/fit neatly around all masonry anchors sealing with Air-Bloc 21. Install insulation boards horizontally with staggered vertical joints and fill all joints. Install hook ties and wedgelock fasteners to secure insulation boards.

3.15. Carry through wall flashing note less than (8") back-up material before turning into joint and through back-up wall. Keep flashing (1") from the exterior face. Lay flashings in full mortar bed. Maintain all flashings and keep cavity clean during construction. Install vents at 2' o/c for all lintels and base flashings.

3.16. Install cavity wall ventilators at 800 mm o/c at the following locations:
- at the top and bottom of all exterior cavity walls
- at the bottom of junction of low roofs and walls up to higher roofs
- at heads of openings in exterior cavity walls
- elsewhere as indicated on wall section details

3.17. Install brick neatly in running bond pattern to align with openings in block substrate using solider course pattern for opening heads as per elevations. Re-locate existing date stone as indicated on the drawings.

3.18. Clean masonry surfaces with water, detergent or proprietary masonry cleaner and brushes. Do not use muriatic acid.

END OF SECTION 04200

1. GENERAL

1.1. Conform to the General Conditions as applicable.

1.2. Performance of installed insulation shall comply with requirements of O.B.C. Section 9.26, Thermal Insulation and Vapour Barriers, or greater as may be indicated.

2. MATERIALS

2.1. Foundations - below grade - 2" rigid polystyrene meeting CGSB 51-GP-20M Type 4, square edged, R5 per inch.

2.2. Masonry Cavity Walls - by Division 4 - 04200 Masonry.

2.3. Roofing insulation by Section 07530 Single Ply Membrane Roofing.

3. EXECUTION

3.1. Examine preceding work before commencing installation to ensure that space is provided for insulation in thickness as indicated and specified, and to ensure that specified performance requirements are met, supports are adequate, surfaces for adhesive applied insulation are smooth, free of projections, dirt and grease, and are otherwise acceptable for adhesive application.

3.2. Install insulation in locations indicated on drawings and where required to completely envelop insulated areas with no breaks or voids in continuity of insulation, or in air and vapour barriers.

3.3. Install insulation with a minimum number of joints and to fill all voids. Cut and fit tightly around penetrating elements. Butt insulation boards in moderate contact.

3.4. Support and anchor insulation to prevent movement and breaking of seals, air barriers and vapour barriers. Ensure continuity of all air and vapour barriers - lap and seal as per details with tape. Seal around all penetrations for air tight seal.

3.5. Perimeter Insulation - securely glued in place sufficiently that boards are not displayed before or during backfilling.

END OF SECTION 07200

1. GENERAL

1.1. Conform to the General Conditions as applicable.

1.2. Supply and installation of fully adhered membrane, insulation/sloped insulation and mechanically fastened to steel deck including metal cap flashing.

1.3. All products and workmanship shall combine to provide Class A roof covering. Products shall meet ULC S126-M82 test for fire spread without need for thermal barrier on top of steel deck.

1.4. All roofing will be inspected by the owner, architect and separate testing/inspection co. paid for by the owner. Inform owner prior to commencement giving sufficient time to allow for inspection. Roofing subtrade shall bear costs of all cut tests and other tests required due to failure to notify for inspection as above.

1.5. Contractor shall have minimum of five (5) years proven first-class experience in this type of work and shall be a member in good standing of the C.R.C.A. and manufacturer of roof membrane.

1.6. Specification is based upon fully adhered system with heat welded seams.

1.7. Deliver to the Architect two (2) pieces of all materials specified. Each sample shall be identified on back with manufacturer's name, thickness and name of project.

1.8. Submit to the Architect a written 10 year "watertight" warranty on form designed by C.R.C.A. from the date of Substantial Performance covering all aspects of roofing system, flashing, and caulking against defects in materials or workmanship.

2. MATERIALS

2.1. General: Use materials recommended by manufacturer.

2.2. Membrane: Shall be Hi-tuff TPO 60 mils thick as manufactured by Lexcan Industrial Supply Ltd. or equal including all related adhesives, tape, flashings, etc. Colour to be grey. All products shall be of one manufacturer and certified by same to be compatible when used together to form a complete system.

2.3. Cap and wall flashing to be 26 gauge pre-painted steel from standard 8000 series colour range as selected by owner to shapes as per details – match existing colour.

2.4. Insulation: poly isocyanurate R7/inch equivalent to Celotex. Minimum 5" over all areas. Top layer to have fiber reinforced facers integrally laminated to adhere to - Isolex by Lexan or equal - see roof plan and details.

2.5. Mechanical fasteners adhesives and caulking compounds as recommended by manufacturer.

2.6. Vapour barrier - as recommended by manufacturer.

2.7. Soffit panels for canopy to be 26 gauge pretin metal HF-11f30 by Aqway Metals or equal. Colour to be white.

3. EXECUTION

3.1. The work under this contract shall include the supply of all labour, materials, plant, equipment, and services (unless herein specifically excluded) necessary for the execution and completion to the satisfaction of the work herein specified as follows.

3.2. Ensure that membrane manufacturer's Technical Representative is present to review installation procedures and to inspect the completed application to verify compliance with all specifications and details.

3.3. Deliver and store materials undamaged in original containers with manufacturer's label and seals intact. Store membrane rolls flat and protected from moisture. Store solvent base liquids away from excessive heat and open flame.

3.4. Roofing shall never be carried out during any wet or foggy period.

3.5. Do not roof over damp, frozen or unsuitable deck surface.

3.6. Contractor shall adequately protect walls, lawns, driveways, etc., under hoisting part to the satisfaction of the Architect.

3.7. Provide adequate protection of materials and work of this trade from damage by weather, traffic and other causes. At the end of each day's work, seal exposed edges of roofing members with building paper. Protect work of other trades from damage resulting from work of this trade. Make good such damage at own expense to the satisfaction of the Architect.

3.8. Install vapour barrier, base and layers of insulation to all areas as per layout. Mechanically fasten to steel deck. Lap and seal to provide continuity to wall vapour barrier under parapet framing.

3.9. Remove existing metal cap flashing at overlap with existing building and install blocking as per details for overlap/tie in to existing single ply roofing.

3.10. Install membrane in full sheets with minimum seams in strict accordance with manufacturer's directions, fully adhered at all area including parapets and heat weld all joints/seams. Remove gravel from adjacent roof and install new single ply membrane over minimum 2' overlap strictly in accordance with the manufacturer's details.

3.11. Flash all corners, vent pipes and curbs in accordance with manufacturer's details. Mechanically fasten at roof drains.

3.12. Install metal cap flashing to details using lock seam slip connections and invisible fastenings.

3.13. Ensure water tightness of all roof areas during construction.

3.14. At completion of work, remove all debris from site.

3.15. Install pretin metal soffit for canopy on metal furring to suit.

END OF SECTION 07530

1. **GENERAL**

1.1. Comply with General Requirements Division 01.

1.2. Thoroughly clean all sealant smears from adjacent surfaces upon completion.

1.3. Proven written warranty covering making good of defects in materials and workmanship for a period of 2 years.

1.4. Execute work in accordance with manufacturer's instructions.

2. **MATERIALS**

2.1. To O.B.C. Section 9.28 and CAN2-19.24-M80.

2.2. Equivalent to Tremco products or equal.

2.3. Type 1: Two component urethane for moving joints.

2.4. Type 2: One component, urethane base solvent covering for static joints.

2.5. Sealant Backing: Extruded, foamed, close cell, round polyethylene rod 25% wider than joint.

3. **EXECUTION**

3.1. Exterior Caulking:

- control joints
- metal at wood
- metal to metal
- masonry at wood
- concrete at wood
- perimeter of steel door and screen frames inside and outside
- pipes and equipment passing through exterior walls
- full length of exterior door thresholds
- perimeter of louvers - inside and outside

3.2. Interior Caulking:
- exposed control joints
- metal at wood
- concrete at wood
- concrete at metal

3.3. Joints to be caulked shall be cleaned of dust, oil, grease, water, frost, loose mortar and other foreign matter. Cleaning shall ensure a clean, sound base surface for sealant adhesion.

3.4. When air temperature is below 40 deg. F. consult sealant manufacturer for recommendations regarding application.

3.5. Joints ¼" or more wide shall be packed with pre-moulded backup rope. Install a bond breaker behind sealer in joints less than ¼" in width. Caulked joints must have pre-moulded back or bond breaker behind sealant.

3.6. Apply sealant under pressure with hand actuated guns. Gun nozzle shall be of proper size to fit and fill and seal joint.

3.7. Remove all excess materials and debris from site.

END OF SECTION 07900

1. GENERAL

1.1. Comply with General Requirements Division 01.

1.2. Submit shop drawings in accordance with Division 01.

1.3. Verify door and frame sized by site measures. Rated assemblies as called for.

1.4. Tag frames and doors and deliver to site with identification marks indicating proper locations.

1.5. Co-ordinate work of this section with other sections.

1.6. Prepare for all hardware.

2. MATERIALS

2.1. Hollow metal door frames shall be fabricated of 18 ga. wipe coat galvanized steel welded type. Mitred corners shall have heavy reinforcements with four integrate tabs for solid mitred locking of joints and head. Minimum 6 anchors per frame.

2.2. Hollow metal doors shall be Type D-18 series as manufactured by S.W. Flemming Ltd., or equivalent, fabricated of 18 ga. wipe coat galvanized steel with no visible seams complete with 16 ga. end channels welded to top and bottom door insulated for exterior doors.

- Shall be shop primed paste filled and sanded smooth, stiffened, insulation and sound deadened.
- Shall be mortised, reinforced, drilled and tapped for hardware as scheduled.

2.3. Use metric doors and frames in masonry. Rated assemblies and sizes as per Door Schedule.

3. **EXECUTION**

3.1. Installation of frames Division 4 - Section 04200 and Doors - Division 6, Section 06200.

3.2. Locate and anchor frames in alignment with other work. Anchor frames to retain position and clearance during construction of walls and partitions.

3.3. Brace frames solidly in position while being built in. Install temporary wood spreader at mid-height of frame to maintain width until adjacent wall work is completed.

3.4. Generally, anchorage of frames shall be by means of standard anchors. Where standard anchors cannot be used, provide suitable anchors to ensure proper installation. Method of anchorage shall not be visible when frames are installed.

END OF SECTION 08100

1. **GENERAL**

1.1 Comply with General Requirements Division 01.

1.2 Submit shop drawings in accordance with Division 01.

1.3 Provide 5 year extended warranty against all leaks, faulty workmanship and materials including caulking. 10 years on all hermetically sealed glazed units.

1.4 Work of this section shall be executed by skilled, experience personnel working for firm with a minimum of five (5) years proven first class experience that is thoroughly conversant with laws and regulations which governs and that is capable of workmanship of best grade of modern shop and field practice.

2. **MATERIALS**

2.1 Aluminum Finish: All aluminum extrusions shall be anodized to CAN3-A440-M90 Class 1, 18mm.(0.004") thick. Finish to be clear anodized – see drawings for locations. Note – use anodized aluminum framing for all locations – see drawings for finish type/locations.

2.2 Glass Units: Shall be hermetically sealed Low E argon insulating glass units fabricated in accordance with CAN2-12.8 M76 (25mm) for all window locations 5mm annealed clear glass for interior light and 5mm annealed clear glass for exterior light.

2.3 Foam Sealant: Shall be Polycel as manufactured by I.F. Industries (416) 827-6538.

2.4 Caulking: Shall be "Dymeric" by Tremco, EP-6000 by CGE, or approved equal multi-component chemical curing sealant meeting CAN2-19.24-M80.

3. **Windows**:

3.1 Aluminum windows shall be Windspec 5400 Series or Equal, 2" wide thermally broken framing, curtain wall window sections typically for all windows (see drawings for locations, frame depths and finishes) with thermally broken hopper vents, bottom hinged, projected in, placed at bottom of window as indicated on drawings.

3.2 Each opening vent shall be equipped with two (2) heavy duty Anderberg arms, one (1) allen key operated security lock, standard 4-sided weather stripping and aluminum mesh insect screen on exterior side of vent, complete with two (2) CAM handles for lower operating units. Limits all operator opening to maximum 200mm.

3.3 Provide matching extruded aluminum sills to sizes and profiles as detailed. Provide matching L shaped end caps at each end and covers at 135 degree junctions.

3.4 Insect Screens – All Locations for All Operators
Screen cloth shall be furnished by manufacturer. The screen cloth shall be aluminum mesh, factory installed in prebowed tubular extruded aluminum held securely into position by means of vinyl spline. Screen cloth shall be mounted in a manner to allow easy replacement.

3.5 Doors: Re-install existing entry doors/windows as well as power operators in locations called for.

4. **Execution:**

4.1 Set in correct location, level, square, plumb and proper alignment to other work using appropriate finishing components with sills. Foam all perimeters completely.

4.2 Aluminum surfaces adjacent to masonry or other dissimilar materials be given a heavy coat bituminous paint on contacting surfaces.

End of Section 08520

1. GENERAL

1.1. Comply with General Requirements Division 01.

1.2. Submit shop drawings, schedule, and samples in accordance with Division 01 for review prior to ordering materials.

1.3. Co-ordinate rough in of Doors & Frames with Section 08100.

1.4. Supply all hardware called for to Section 06200 Finished Carpentry for installation. Pack securely and label all material by door location.

1.5. Provide 10 year warranty for door closers and 1 year warranty for all other products from date of Substantial Performance.

1.6. Note keying and cylinders will be by owner later using Best System.

2. MATERIALS

See Attached List

3. EXECUTION

3.1. See attached schedule for mounting heights and locations for rough in.

3.2. Take inventory of all materials and confirm locations, door swing, and rough in for all points prior to start of installation.

3.3. Installation of hardware by Section 06200 Finished Carpentry.

END OF SECTION 08700

1. GENERAL

1.1. Conform to the General Conditions as applicable.

1.2. Provide an additional 5% quantity of each acoustic board installed, in sealed and labeled cartons, for owners use, and deliver as directed.

1.3. Submit samples of acoustical tile to Architect for approval, prior to ordering.

1.4. Deliver materials in their original wrappings or containers with manufacturer's labels and seals intact and store in a dry area under cover and clear ground.

1.5. Ship grid members and moulding in rigid crates and avoid damage. Bent or deformed materials will be rejected.

2. MATERIALS

2.1. Suspension systems: equivalent to C.G.C. ceiling system for 2' x 4' grid assembly – fire rated.

2.2. Basic Steel Material & Finish: Commercial quality cold rolled steel (0.179") (26 ga.) (0.455 mm) thick, galvanized zinc coating designation (G90) Z275. Exposed surface of metal products shall be factory finished with satin white enamel.

2.3. Hangers: Minimum .1084" (12 gsg.) overall thickness galvanized to zinc coating designation G90 (Z275).

2.4. Main Tees: 12'-0" long, zinc-coated steel, double web design, 1-½" web height, 15/16" face width.

2.5. Main Tee Splices: Designed to lock lengths of main tees together so that joined lengths of tee function structurally as a single unit tee faces at joint perfectly aligned and presenting a tight seam.

2.6. Cross Tees: 2'-0" and 4'-0" long at 2'-0" o.c., 1" web height structural cross-section design same as main tees, designed to connect at main tees forming positive lock without play, loss or gain in grid dimensions with offset over-ride of face flange over main tee flange to provide flush joint.

2.7. Edge Moulding: M7 wall moulding.

2.8. Tile:

- 2’ x 4’ x 5/8” medium textured non-directional panels 763 Georgian lay in

All tiles NRC Range .5 - .55 as manufactured by C.G.C. Ceiling Systems. Flame spread 25, colour white. Match existing fire rated.

2.9. Tire Wire: 1.20 mm (18 gs.) nominal diameter galvanized soft annealed steel.

2.10. Inserts and Fasteners: Galvanized and of size suited for loading conditions.

3. EXECUTION

1.1. Install acoustic ceilings using tradesmen skilled in this class of work, in strict accordance with manufacturer’s instructions and as specified herein.

1.2. Neatly and symmetrically fit and run suspended ceiling to true lines, evenly balance in all areas to pattern shown on the Drawings or as directed.

1.3. Centre ceiling system on room axis leaving equal full border tiles. Co-ordinate drywall bulkhead size to allow for full ceiling tiles as per reflected ceiling plan layout.

1.4. Recessed items shall replace or be centred on acoustical panels; except where indicated otherwise. Consult with Mechanical and Electrical Divisions to co-ordinate work. Provide additional supports where required.

1.5. Space hangers for suspended ceilings to support the grillage independent of walls, columns, pipes and ducts at maximum 4’-0” centres along the support grillage and not more than 6” from ends. Attach hangers to the overhead structure by hanger clips. Bend top of hangers at right angles, turn down and securely fasten. Turn bottom of hangers upwards and securely wrap three times.

1.6. Provide written conformations to Divisions 15 and 16, when requested by the Architect, that the suspended ceiling is capable to supporting the additional weight of mechanical and electrical fixtures required by Divisions 15 and 16.

1.7. Run main tees right angles to length of light fixtures.

1.8. Space main tees 4’-0” in one direction and securely tie to hangers.

1.9. Space cross tees 2’-0” o.c. at right angles to the main tees and properly lock at intersections.

1.10. Level the suspended systems with a maximum tolerance of 0.18” over 12’-0”.

1.11. Use the longest practical lengths of tees, furring and running channels to minimize joints. Make joints square, tight, flush and reinforced with concealed splines. Assemble framework to form a rigid interlocking system.

1.12. Design suspension system to accommodate movement caused by thermal expansion or contraction.

1.13. Design and space hangers and carrying members to support the entire ceiling system, including lighting fixtures, diffusers and equipment openings in locations shown on Drawings.

1.14. Use edge moulding where ceiling abuts vertical surface and bulkheads.

1.15. Enclose all light fixtures on all sides in the ceiling space.

END OF SECTION 09510

1. **GENERAL**

1.1 Comply with requirements of Division 1.

1.2 Fully protect the work of others from damage arising out of the execution of the work.

1.3 Cover floors with heavy kraft paper and remove just before final cleaning.

2. **MATERIALS**

2.1 Ceramic tile: Floor tile to be 12”x12” porcelain Regal Collection matte finish. Use same Material for 4” matching base.

2.2 Adhesive: Primer, grout, cements, self-levelling and waterproof products to Kiesel system distributed by Halton Imports or approved equal.

2.3 Grout shall be made with Flextile Polymer modified wall grout admixture, or approved alternate to manufacturer’s printed instructions, waterproof, self-curing, non-dusting, dry-set cement type, non-absorbent, capable of being colours, suitable “thin-set” method of tile installation. Colour to be selected later from standard colour list for suites. Match existing grout colour at repair areas.

2.4 Resilient Base: Cove bottom ¼” thick, 4” high by Johnsonite Industries Limited or equal as approved by Architect in colours as selected by Architect from manufacturer’s standard range. See drawings for locations.

EXECUTION

3.1 Prepare surfaces and install tile in strict accordance with the manufacturer’s directions. Remove paints and other impurities. Apply primer and self levelling products and waterproofing system for all floors and all wall/shower floor strictly in accordance with manufacturer’s recommendations.

3.2 Perform work neatly and carefully by persons skilled in this trade.

3.3 Note that backing surface shall be sound, well-cured and dry and surface variation shall not exceed 6mm in 2.4 (1/4" in 8-0"). Wall substrates to be concrete block installed by other Divisions.

3.4 Apply adhesive in accordance with manufacturer's instructions.

3.5 Layout tile so that fields or patterns are centred and so that tile is less than one half size. Joints to run through. Faces and joints shall be plumb and true. Form intersections, corners and returns accurately. Butt internal vertical intersections. Install matching base.

3.6 Sound tiles after setting and replace hollow-sounding units to obtain full bond.

3.7 Clean with cloths dampened with mineral spirits and allow to dry overnight before grouting and grout with dry-set cement forcing grout well in joints and remove excess and polish with clean cloths.

3.8 Do not permit any foot traffic for 48 hours following installation.

3.9 Install vinyl base in locations called for.

3.10 Provide full maintenance and cleaning instructions for maintenance manuals.

Cleaning

3.11 Clean tile immediately after grouting. Stainless steel wool may be used to remove spots of grout which have set on surface.

3.12 If acid cleaning is deemed necessary, obtain written permission from architect before proceeding.

END OF SECTION 09300

1. **GENERAL**

1.1. Comply with General Requirements Division 01.

1.2. Meet standards specified in Architectural Painting Specification Manual, Ontario Edition published by the Canadian Painters Contractor's Association.

1.3. Submit samples of each specified paint, colour and wood finish.

1.4. Submit list of all materials, manufacturer catalogue numbers, etc.

1.5. Deliver to Owner on completion of work, one quart of each colour, clearly labeled.

1.6. Cover or make surfaces adjacent to those being finished and protect work of others from damage and/or paint spills.

1.7. Repainting of existing repaired surfaces shall extend to closest edge(s) if proper match not obtainable.

1.8. Concrete block to be painted to be allowed to cure for 30-60 days depending on drying conditions.

2. **MATERIALS**

2.1. Manufacturers approved for supply of materials are:

- Canadian Industries Ltd. (CIL)
- Dulux
- Pratt & Lambert Inc.
- Canadian Pittsburgh Industries Ltd.
- Benjamin Moore
- Glidden

2.2. Supply only the best quality material for each specified line.

2.3. Materials used shall meet or exceed CGSB Specifications.

3. **EXECUTION**

3.1. Examine surfaces prior to application for moisture content and acid alkali balance. Acceptance of surfaces signifies responsibility for finished products.

3.2. Clean all surfaces and remove foreign materials, fill cracks, holes and depression and smooth for finish.

3.3. Paint piping, conduit, grilles, duct work exposed to view to match background colour.

3.4. Patch, repair and paint all new duct penetrations. Paint all new and existing concrete block, metal deck/joists, ductwork, doors and frames.

3.5. Colours will be provided by Architect upon award of contract.

3.6. Finishes:

Interior & Exterior Metal Work
- 1 coat primer
- 2 coats of acrylic latex semi-gloss finish

Interior Painted Concrete Block
- 1 coat of X-Per 250 Gripper
- 2 coats of acrylic latex eggshell finish

Interior Existing Concrete Block
- 1 coat of X-Per Gripper
- 2 coats of acrylic latex eggshell finish

3.7. Clean-Up

3.7.1. Clean up daily. All paint rags, empty cans shall be removed from the site upon completion of each day's work. Upon Total Completion provide total clean up.

END OF SECTION 09900

1. GENERAL

1.1. Scope of Work

1. Review the preliminary working drawings for the general renovation contract and coordinate the elevator equipment requirements to be incorporated into the contract documents for the general contractor's work.
2. As a sub-contractor to the renovation general contractor, supply, install and commission a new hydraulic passenger elevator as detailed in this specification and as per the quotation instructions and quotation form.

1.2. Reference Standards:

1. Elevator must meet or exceed the requirements of standards CSA B-11-10 and ANSI A17.1-2010, including local codes and regulations except where specified otherwise.

1.3. Welding

a) Manufacturer of Elevator must be fully certified as per the requirements of the Canadian Welding Bureau.
b) Where deemed necessary by the engineer, welds to be subjected to radiographic or other non-destructive examination.

1.4. Approved Manufacturers:

Savaria
2 Walker Drive
Brampton, Ontario
L6T 5E1
(800) 265-5416

Or equal.

1.5. **Shop Drawings**

1. Submit shop drawing to Consultant for approval prior to ordering any components or commencement of manufacturing.
2. Indicate on drawings:
    1) Plan view of hoistway at each landing; plan view of machine room and elevation view of hoistway. Show all pertinent dimensio0ns and sizes.
    2) Pit depth, floor heights, normal travel and available clear overhead.
    3) Platform size including inside platform dimension. Location of all control stations. Location of all main and cab light, disconnect switches, controller and pumping unit including legal clearances for all equipment.
    4) Location of all rail bracket fastening and rail bracket spacing.
    5) Hand and size of each entrance.
    6) All loads which the elevator will impose on the building structure.

1.6. **Elevator Maintenance**

1. Provide a recommended schedule for elevator maintenance.
2. Provide a description of elevator method of operation.
3. Provide manufacturer's instructions covering maintenance procedures and a parts catalogue giving a complete list of repair and replacement parts.
4. Provide legible schematic wiring diagrams of all electrical equipment as supplied and installed including all changes made in final work, with all symbols listed corresponding to markings on equipment.

1.7. **Warranty, Service and Maintenance Contract**

1. Provide extended service contract covering parts and labour during normal business hours for a total period of 12 months from the date of Substantial Performance of the contract as per the Construction Lien Act.
2. Provide an additional (5) year labour and material warranty on the entire elevator and all components, for a total of 6 years. (Separate Price)

1.8. **Licensing**

1. Arrange and pay for all licensing, permits and inspections on the owner's behalf.

1.9 **Other**

1. Confirm power requirements and shut off locations with Division 16. Confirm/co-ordinate work by others as listed under Execution in this Section to ensure a complete working installation to meet all Code requirements.

2. MATERIALS

2.1 Technical Data

Hydraulic lift to be LU/LA Orion Model 4260 by Savaria or equal. 1400lb capacity with platform 42”x60”, 2 levels with automatic sliding 2 speed doors.

2.2 Major Components:

1. Use major components from standard product line of one manufacturer. Minor components of another manufacturer may be included in the elevator package provided such items are designed and produced under coordinated specifications to ensure high grade, safe and smooth operating systems.

2. Use only compatible components that have performed satisfactorily together under conditions of normal use in twenty or more installations of similar design and for a period of at least four years.

2.3 Platform – Orion 17 Car Enclosure

1. Construct platform of welded or formed steel and/or structural steel shapes and plates.
2. Limit platform deflection, with rated load, to that specified in the applicable Code.
3. Walls to be constructed from plywood base/later from standard line covered with Plastic Laminate sheets in a colour and finish to be chosen by the Consultant. Panels to be trimmed with
   #4 finish, type 304 stainless steel. Front returns and transom to be finished in matching stainless steel. Flooring shall be 100” (2.54mm) gauge rubberized sheet flooring. One (1) solid oak handrail on car station side full length of cab. Size: 2” x 6”.
4. Emergency power unit for emergency light and alarm button. Light intensity as required by Code.
5. Main cab lighting to consist of two pot lights. The extinction of one of the lights shall not affect the other. Lights to be mounted on a while plastic laminate board.
6. Use guide shoes of adequate strength equipped with wear resistant non-metallic liners.

7. Vertical members (stiles) of the platform structure to be minimum C6 x 8.2 lb/ft or formed cold rolled steel equivalent thereto. The horizontal load carrying members of sub-platform to be minimum C5 x 7.1 lb/ft reinforced using minimum 3" x 3" HSS bracing members, or formed cold rolled steel equivalent thereto.

8. Cab entrance: automatic sliding 2 speed cab doors provided in conjunction with hall entrances. Doors to be operated by way of a passenger elevator style door operator located on top of the car. Finish to be stainless steel.

2.4 **Entrances (2 required)**

1. Sliding 2-speed, passenger elevator style, with frames 1 ½ hr. fire rated, all finished in stainless steel cladding. All components must have been designed and tested for use in passenger elevators.

2.5 **Hoistway:**

1. At each entrance line, ensure hoistway wall is flush and smooth. Contractor to patch up any holes or depressions left as a result of installing elevator equipment in order to ensure that maximum distance from elevator sill to hoistway is maintained as per paragraph 9 Platform.

2.6 **Pumping Unit:**

1. Provide a combination pumping unit consisting of motor, pump, unit valve and shut off valve, all mounted on a common base, on top of the oil reservoir. The reservoir must have a minimum reserve of 50% of oil used for lift travel. Provide an air breather with dipstick oil level gauge, and a plug at the bottom of the reservoir.
2. Provide valve for manual lowering valve at pump unit.

2.7 **Controller:**

1. Supply fully **non-proprietary** controller, relay-logic based in an approved sheet metal enclosure using only UJL/CSA certified components properly sized using good engineering practice. Safety circuits to be arranged to meet all code requirements. No printed circuit boards shall be located in any locations other than the main controller box.

2.8 **Control System:**

1. Control elevator using heavy duty, passenger elevator style, floor selective push-button stations located as required by Code for barrier free performance.
2. Push-buttons to be clearly and permanently identified using international symbols.
3. Provide accurately controlled stopping in both up and down directions and maintain platform in any position at which it is stopped until direction button is pressed.
4. Provide a non-interference timer that will allow the hall push-buttons to be active only when a predetermined time has elapsed after a car push-button has been released.
5. Provide approved limit switches at terminal landings. The limit switches shall have positive opening contacts not dependent on spring action.
6. If required by local authorities, each push-button station is to be equipped with a key switch non-removable in the active position.
7. Provide an emergency lowering circuit that will operate in the event of loss of normal power.

2.9 **Fixtures**

Supply and install a car station consisting of:

1. Minimum 1/8" thick stainless steel plate with #4 brush finish. The plate shall be mounted so that push-buttons are located at a height consistent with handicap use. It shall include a push-button for each floor, an emergency stop push button, an alarm button, necessary key switches and a power door opening push-button. Digital position indicator to be flush mounted above push buttons in panel.
2. Hall stations shall have call push-button.
3. Automatic car light control. Car lights to go on upon user's entrance to cab and to automatically extinguish after a predetermined time period following the user's exit.
4. Automatic emergency cab lighting in the event of a building power failure.

2.10 **Electrical Wiring, Conduit and Fittings:**

1. Use rigid, EMT or metal armoured flexible conduit.
2. EMT fittings with set screws are acceptable.
3. Do not parallel conductors to increase current carrying capacity, unless individually fused.
4. Do not use armoured flexible metal conduit as grounding conductor.

5. Provide proper strain relief for traveling cable and ensure that traveling cable does not rub on any equipment or hoistway wall.

2.11 **Inspections and Acceptance Test:**

1. Test stop ring and hydraulic system by operating platform with rated load in up direction against stop ring at rated speed.
2. Conduct and pay for all tests and repairs of deficiencies as required by TSSA. Provide proof of successful test to Owner of his Consultant.
3. Elevator License fee will be paid for by this Section.

2.12 **Optional Features:**

1. Provide the following optional features:

    1) Multi-Path LED Infra-Red safety ray.
    2) Emergency communication in the elevator with line connections in the machine room controller.

3. MATERIALS

3.1 **Work by Others – General contractor to provide**

1. Approved auxiliary contact in the main disconnect switch.
2. Machine room, elevator door openings and elevator hoistway plump and capable of supporting all equipment loads. Meet requirements of local codes and elevator manufacturer. **Construction tolerances for hoistway, travel, pit depth and overhead clearance is ¼".**
3. A self-closing fire rated machine room door.
4. Heating and cooling of machine room.
5. Hoistway reinforcing to suit layout of elevator components.
6. Brackets: provide adequate supports for rail fastening.
7. Finish entrance walls after entrance frames have been installed.

8. Elevator feeders including lockable, fused disconnect circuit breakers.
9. Sleeves and conduit for hydraulic hose and electrical conduits between machine room and hoistway. No conduit, wiring, or piping other than the elevator is allowed in the hoistway.
10. Heat detector in hoistway and connect to separate zone on existing fire alarm panel.
11. Barricades outside the elevator hoistway for the protection of building occupants.
12. HMD, hardware and pressed steel frame for the machine room.
13. Board to provide telephone line for in-car phone.

3.2 Complete installation to satisfy inspection and obtain licensing for owners. Provide demonstration of operation to owners on site and 2 copies of manuals/warranties to general contractor.

END OF SECTION 14200

ST. MARY'S CATHOLIC ELEMNTARY SCHOOL
PETERBOROUGH VICTORIA NORTHUMBERLAND AND CLARINGTON
CATHOLIC DISTRICT SCHOOLBOARD

HARDWARE LIST

Door #1 – New Stair Addition to Now Storage & Elevator Machine Rooms

1	Lever Lockset	93K7R14D	626	
3	Hinges	FBB168	114 X 101	C15
1	Floor Stop	6SH 218		
1	Closer	4041 x681		

APPENDIX

NEW ELEVATOR ADDITION TO **January 2026**
ST. MARY'S CATHOLIC ELEMENTARY SCHOOL **Page 1 of 2**
CAMPBELLFORD

ROOM FINISH SCHEDULE

		WALLS					**FLOOR & BASE**			**CEILING**		
		North	East	South	West	Comments	Floor	Base	Comments	Type	Fin.	Comments
Rm. Name	Room #	NEW U.O.N.					NEW U.O.N.			NEW U.O.N.		
NEW LOBBY	101	EX BRICK / PT	NEW CB/ PT	NEW CB/ PT	NEW CB/ PT	----------	CT.	CT	----------	AT	-----	HT 9'4"
NEW STO. RM	102	EX BRICK / PT	NEW CB/ PT	NEW CB/ PT	NEW CB/ PT	----------	CONC/ CLR SEALER	V	----------	AT	-----	HT 9'4"
EX STAIRS	103	EX CB/ PT	EX CB/ PT	EX CB/ PT	EX CB/ PT	----------	EX TERR.	EX	----------	EX AT	-----	HT VARIES
NEW LOBBY	201	EX BRICK / PT	NEW CB/ PT	NEW CB/ PT	NEW CB/ PT	----------	CT.	CT	----------	AT	-----	HT 8'8"

APPENDIX

NEW ELEVATOR ADDITION TO
ST. MARY'S CATHOLIC ELEMENTARY SCHOOL
CAMPBELLFORD

January 2026
Page 1 of 2

ROOM FINISH SCHEDULE

		WALLS					FLOOR & BASE			CEILING		
		North	East	South	West	Comments	Floor	Base	Comments	Type	Fin.	Comments
Rm. Name	Room #	NEW U.O.N.					NEW U.O.N.			NEW U.O.N.		
NEW MACH RM	202	EX BRICK/ PT	NEW CB/ PT	NEW CB/ PT	NEW CB/ PT	----------	CONC/ CLR SEALER	V	----------	AT	-----	HT 8'8"

A	ARC	ADJ	Adjustable
AB	Air Barrier	AL, ALUM	Aluminum
ABV	Above	ARCH	Architectural
A.C.	Air Condition	A.T.	Acoustic Tile
BL, BLK.	Block	BR ANOD	Bronze Anodized
BLDG	Building	B/S	Both Sides
BLKHD.	Bulkhead	BTM, B/	Bottom Of
BLW	Below	B.U.R.	Built-Up Roof
BM.	Beam, Beams		
CAB.	Cabinet	COL	Column
CABS	Cabinets	CONC.	Concrete
CAR	Carpet	CONT.	Continuous
C.B.	Catch Basin	CRS	Course
CB	Concrete Block	CS	Concrete Slab
CCS	Clear Concrete Sealer	CT	Ceramic Tile
CLF	Chain Link Fence	CTNG	Coating
CLG	Ceiling	CTOP	Counter Top
CLOS	Closet	C/W	Complete With
CNR	Corner		
D.C.	Display Case	DN	Down
DIA	Diameter	DR	Door
D/G	Double Glazed	DW	Drywall
E	East	EQ	Equal
EL	Elevation	E/S	Each Side
ELEC,ELEC'L	Electrical	EX., EXIST	Existing
ELEV	Elevator	EXT.	Exterior
ENCL	Enclosed	EPXY	Epoxy

F	Female	FIN	Finish
FD	Floor Drain	FL	Floor
FND	Foundation	FLS	Flood Lights
F.E.	Fire Extinguisher	F.P.	Fire Protection
FFL	Finish Floor Level	FR.	Frame
F/G	Fixed Glazing	F.R.	Fire Rated; Fire Rating
F.H.	Fire Hydrant	FTG.	Footing
GALV.	Galvanized	GR	Grade
GL	Glazing	GWG	Georgian Wired Glass
H.C.	Handicap	HORIZ	Horizontal
HD	Head	H.P.	Hydro Pole
HDWRE	Hardware	HR	Hour
H.M.	Hollow Metal	HT, HGT.	Height
H.O.	Hold Open	HTR.	Heater
ID	Inside Diameter	INSUL	Insulation
INC/	Including	INT.	Interior
IND	Indicates	I/S	Inside
INFO	Information		
J	Joist		
LBL	Label		
LOC	Location		
LWR	Lower		

M	Male	MIR	Mirror
MANF	Manufacture	M.L.B.	Micro-Lam-Beam
MAT.	Material	MT	Minute
MAX	Maximum	MTD	Mounted
MECH,MECH'L	Mechanical	MTL	Metal
M.H.	Manhole	M.U.A.	Make-Up-Air Mechanical Unit
MIN	Minimum		
N.	North	N.I.C.	Not In Contract
OA	Overall	OH	Overhead
O.B.C.	Ontario Building Code	OPNG	Opening
O/H	Overhang	O.S.	Over Size
PART'N	Partition	POL.	Polyethylene
P.C.	Pre-Cast	PR	Pair Prefinished
PL	Plate	PREFORM	Preformed
P.LAM	Plastic Laminate	P.T.	Pressure Treated
PLY, PLYWD	Plywood	PT	Paint
R	Radius	REF.	Reference
R.D.	Roof Drain	REV	Reversed
REF	Refrigerator	R.S.O.	Rough Stud Opening
REQ'D	Required	R & S	Rod and Shelf
RES	Resistance	R.W.L.	Rain Water Leader

S	South	S.P.	Splash Pad
S.A.B.	Sound Attenuation Blanket	S.P.M.	Single Ply Membrane
SAN.	Sanitary	S.S.	Stop Sink
SC	Solid Core	ST	Stain
SCR	Screen	STD	Standard
SEP	Separation	STL	Steel
S/G	Single Glazing	STR	Stringers
SHLVS	Shelves	STRUCT`L	Structural
SHTG	Sheating	ST.S	Storm Sewer
S.O.G.	Slab On Grade		
T/	Top Of	T.T.	Terrazzo Tile
T.B.	Thermal Broken	T. & WD	Towel & Waste Disposal
T. & B.	Top And Bottom		
TEX	Textured	TYP	Typical
T. & G.	Tongue & Groove		
U/C	Under Counter	UPR	Upper
U.O.N.	Unless Otherwise Noted	U/S	Underside
V.	Vinyl	VERT	Vertical
VAL	Valance	V.T.	Vinyl Tile
VAN	Vanity	V.W.C.	Vinyl Wallcovering
V.B.	Vapour Barrier		
W/	With	WIN	Window
W.C.	Water Closet	W.F.	Wood Fibre
WD	Wood	W.V.	Water Valve