

Alberta Construction Trade Definitions

2014



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17. Supply and maintenance of garbage and recycling bins for construction waste;
18. Removal of construction waste from job site;
19. General site security;
20. Removal of excess tailings – by General Contractor;
21. Pile casings are excluded unless specifically identified in the specifications.

14. Supply and maintain complete access, egress and working surface suitable for the free movement of piling rigs and ancillary equipment;
15. Temporary heat, general lighting, power, sanitation and water for general construction;
16. Hoarding;
17. Security costs. Where Security is required for trades to complete their work these services and costs for same will be provided by the General Contractor;
18. Supply and maintenance of garbage and recycling bins for construction waste;
19. Removal of construction waste from job site;
20. General site security.
21. Pile casings are excluded unless specifically identified in the specifications.

14. Scaffolding when required to perform work by multiple trades, i.e. Common scaffold/platform;
15. Temporary heat, general lighting, power, sanitation and water for general construction;
16. Hoarding;
17. Final Cleanup before turnover;
18. Security costs. Where Security is required for trades to complete their work these services and costs for same will be provided by the General Contractor;
19. Supply and maintenance of garbage and recycling bins for construction waste;
20. Removal of construction waste from job site;
21. General site security.

15. Aerial work platform with Operator;
16. Fall protection anchor points.
17. Scaffolding when required to perform work by multiple trades, i.e. Common scaffold/platform;
18. Temporary heat, general lighting, power, sanitation and water for general construction;
19. Hoarding;
20. Final Cleanup before turnover;
21. Security costs. Where Security is required for trades to complete their work these services and costs for same will be provided by the General Contractor;
22. Supply and maintenance of garbage and recycling bins for construction waste;
23. Removal of construction waste from job site;
24. General site security.

35. General Cleanup – provide 1 in 10 workers to assist for 4 hours weekly to assist in general jobsite cleanup.
36. Warranty and/or Guarantee;
37. Submittals and O&M documentation as specified in the tender documents;
38. Cash allowances and/or contingency funds when a specific dollar amount is listed in Division 01 or this trades specification section;
39. Protection of other trades' work from damage when performing this trades scope of work;
40. Section 3: Building Information Modeling (BIM) as it applies to this trade scope;

EXCLUDED:

1. Anchor slot;
2. Demolition, (see Included above);
3. Dual blocks;
4. Fabrication and tying of reinforcing steel (see Reinforcing Steel – Placement, Included);
5. Installation of frames;
6. Permanent lateral support devices on top of masonry walls;
7. Temporary heat for mortar shack;
8. Temporary support and shoring for lintels;
9. Welding;
10. Inspection.
11. Scaffolding when required to perform work by multiple trades, i.e. Common scaffold/platform;
12. Temporary heat, general lighting, power, sanitation and water for general construction;
13. Hoarding;
14. Final Cleanup before turnover;
15. Security costs. Where Security is required for trades to complete their work these services and costs for same will be provided by the General Contractor;
16. Firestopping;
17. Supply and maintenance of garbage and recycling bins for construction waste;
18. Removal of construction waste from job site;
19. General site security.

44. Field Connection Materials:
 - a. When the fabricator erects the structural steel, he shall supply all material required for temporary and for permanent connection of the component parts of the structural steel.
 - b. When the erection of the structural steel is not part of the fabricator's contract, unless otherwise specified, the fabricator shall furnish appropriate bolts and nuts (plus washers, if required) or special fasteners, of suitable size and in sufficient quantity for all field connections of steel to steel which are specified to be thus permanently connected, plus an over-allowance of two per cent of each size to cover waste.
 - c. Unless otherwise specified in the tender documents, welding electrodes, back-up bars, temporary shims, levelling plates, fitting-up bolts and drift pins required for the structural steel shall not be furnished by the fabricator when the erection of the structural steel is not part of the fabricator's contract.
45. Unloading and hoisting;
46. Inspection when specified in the tender documents;
47. Hoarding when required for special welding procedures.
48. Scaffolding/man lifts where required to perform work by this trade scope;
49. Trade specific lighting to perform tasks;
50. Trade cleanup - cleanup for work carried out by this trade;
51. Warranty and/or Guarantee;
52. Submittals and O&M documentation as specified in the tender documents;
53. Cash allowances and/or contingency funds when a specific dollar amount is listed in Division 01 or this trades specification section;
54. Protection of other trades' work from damage when performing this trades scope of work;
55. Section 4: Commissioning as it applies to this trade scope;
56. Section 3: Building Information Modeling (BIM) as it applies to this trade scope;
57. Priming, where specified;
58. Prepare steel finish to receive special coatings, where specified;

EXCLUDED:

1. Loose bolts other than for fastening items of structural steel;
2. Placing of embedded items;
3. Steel deck regardless of specification;
4. Supply and installation of grouting;
5. Supply and/or installation of shear connectors which penetrate steel deck;
6. V-rib pans;
7. Inspection – when not specified in the tender documents.
8. Bins and hoppers not covered in Section 10: Structural Steel Inclusions;
9. Bridge bearings not connected to structural steel items;
10. Catch basin frames;
11. Concrete for filling HSS columns. Concrete is to be supplied and poured in columns by others;
12. Connection material for other trades (e.g. precast concrete);
13. Conveyor stringers, deck plate and supporting posts;
14. Drain pipes;
15. Drilling of holes into masonry or concrete, including core drilling of anchor rods for bridges and drilling for deck support angles;
16. Edge forming less than 3.2mm thick for steel deck;
17. Grout;
18. Hoppers and chutes;
19. Lag bolts, machine bolts and shields or inserts for attaching shelf angles, trimmer angles and channels to masonry, or concrete;
20. Machine bases, rollers and pulleys;
21. Metal-clad doors and frames;
22. Miscellaneous Steel;

23. Shear connectors through sheet steel deck, by Section 22: Metal Deck;
24. Sheet steel cladding;
25. Sheet steel deck, by Section 22: Metal Deck;
26. Sheet steel flashing;
27. Shoring under composite floors and stub girders;
28. Steel doors;
29. Steel sash;
30. Steel stacks;
31. Steel tanks and pressure vessels;
32. Temporary bracing for other trades.
33. Scaffolding when required to perform work by multiple trades, i.e. Common scaffold/platform;
34. Temporary heat, general lighting, power, sanitation and water for general construction;
35. Hoarding;
36. Final Cleanup before turnover;
37. Security costs. Where Security is required for trades to complete their work these services and costs for same will be provided by the General Contractor;
38. Firestopping;
39. Supply and maintenance of garbage and recycling bins for construction waste;
40. Removal of construction waste from job site;
41. General site security.

20. Grating type floors and catwalks — excluding those forming part of active mechanical system;
21. Handrails, balusters and any metal brackets attached to steel rail including plastic cover, excluding steel handrails forming part of structural steel framing;
22. Joist hangers, custom fabricated types only as specified on tender drawings;
23. Joist strap anchors;
24. Lintels, unless shown on structural drawings;
25. Mat recess frames, custom fabricated types only;
26. Mobile chalk and tack board frames, custom fabricated types only;
27. Monorail beams of standard shapes, excluding trade name items, unless shown on structural drawings;
28. Shop drawings and/or erection diagrams.
29. Shop preparation and/or priming;
30. Sleeves if specified, except for mechanical and electrical division;
31. Steel ladders and ladder rungs not forming part of structural steel or mechanical work;
32. Steel stairs and landings not forming part of structural steel;
33. Steel hangers for the support of stair midlandings or stringers;
34. Table and counter legs, frames and brackets, custom fabricated types only;
35. Thresholds and sills, custom fabricated types only;
36. Vanity and valance brackets, custom fabricated types only;
37. Steel fill plates - steel.
38. Bins and hoppers not included in Structural Steel, see Structural Steel Included;
39. Canopy framing not attached to structural steel;
40. Door and corner guards;
41. Overhead Door frames not covered in Section 10: Structural Steel Included;
42. Edge forming less than 3.2 mm thick for steel deck and not covered in Section 21: Metal Deck;
43. Embedded steel parts not required for structural steel or deck;
44. Flagpoles and supports;
45. Floor plates, roof plates and grating not covered in Section 10: Structural Steel Included;
46. Hose and tire storage brackets;
47. Lintels over wall recesses;
48. Lintels which are either an integral part of door frames or not attached to the structural steel frame;
49. Members made from gauge material except cold-formed channels indicated in Section 10: Structural Steel Inclusions;
50. Shelf angles not covered in Section 10: Structural Steel Inclusions;
51. Steel stairs, landings, walkways, ladders and handrails;
52. Steel window sills not covered in Section 10: Structural Steel Inclusions;
53. Support for sheet steel deck at column cut outs and for openings not requiring framing connected to structural steel;
54. Trench covers;
55. Trim angles, eave angles or fascia plates not directly attached to the structural steel frame;
56. Warranty and/or Guarantee;
57. Submittals and O&M documentation as specified in the tender documents;
58. Cash allowances and/or contingency funds when a specific dollar amount is listed in Division 01 or this trades specification section;
59. Section 3: Building Information Modeling (BIM) as it applies to this trade scope;

EXCLUDED:

1. Bases and supports for mechanical and electrical equipment where detailed on mechanical or electrical drawings;
2. Bolts other than for anchoring items of miscellaneous steel;
3. Cast iron frames and covers for manhole and catch basins;
4. Chain link and woven wire mesh;
5. Glulam connections and anchorages;
6. Joist hangers, trade-name type;
7. Metal cladding and covering, less than 2.0 mm (14 ga.);

8. Precast concrete connections and anchorages in building structure. Reinforcing steel or mesh;
9. Roof and floor hatches when trade-name items;
10. Sheet metal items, steel decking and siding and their attachments, closures, etc., less than 2.0 mm (14 ga.);
11. Shoring under composite floors and stub-girders;
12. Steel stacks;
13. Steel reinforcement for architectural metal storefronts, curtain walls and windows;
14. Stud shear connectors when used with steel deck. Stone anchors;
16. Thimbles and breeching, also mechanical fire dampers;
17. Window and area wells;
18. Bins and hoppers constructed of steel less than 2.0 mm (14 ga.).
19. Drilling and tapping for angles and channel frames for doors and wall openings (See Included).

B. Miscellaneous Steel Installation Only

This contractor shall include and exclude the following items regardless of where they may appear in the Architectural or Structural documents unless specifically noted otherwise in this scope:

INCLUDED:

1. Unloading and Hoisting;
2. Inspection;
3. Installation of stairs, handrails, wall rails which require field welding for installation and other steel items which require field welding for installation;
4. Supply of all materials and equipment required for temporary and/or permanent connection of the component parts of the miscellaneous steel;
5. Welding to install or join together supplied items which require field welding or assembly or would be unreasonable to be shipped in one piece for others to install;
6. Scaffolding/man lifts where required to perform work by this trade scope;
7. Trade specific lighting to perform tasks;
8. Trade cleanup - cleanup for work carried out by this trade;
9. General Cleanup – provide 1 in 10 workers to assist for 4 hours weekly to assist in general jobsite cleanup.
10. Warranty and/or Guarantee;
11. Protection of other trades' work from damage when performing this trades scope of work;

EXCLUDED:

1. Coring and grouting;
2. Placing of embedded items;
3. Steel deck regardless of specifications;
4. Any items which do not require field welding for installation.
5. Scaffolding when required to perform work by multiple trades, i.e. Common scaffold/platform;
6. Temporary heat, general lighting, power, sanitation and water for general construction;
7. Hoarding;
8. Final Cleanup before turnover;
9. Security costs. Where Security is required for trades to complete their work these services and costs for same will be provided by the General Contractor;
10. Firestopping;
11. Supply and maintenance of garbage and recycling bins for construction waste;
12. Removal of construction waste from job site;
13. General site security.

- metal grilles or installation of same);
20. Cash allowances and/or contingency funds when a specific dollar amount is listed in Division 01 or this trades specification section;
 21. Plastic laminate and fibreboard base and kick plates to architectural woodwork. (Supplied only, no screws or material for attaching);
 22. Plastic laminate wall rails and window stools when applied to wood substrate. Plastic laminate coverings to walls, ceilings and metal doors (strapping, backing, glue, and installations not included). Plastic laminate panelling complete with wood substrate where specifically called for "factory fabricated" (see Excluded);
 23. Pressure treated fireproofing of architectural woodwork items where specified. Does not include sanding after treatment;
 24. Factory applied finishes to architectural woodwork, when specified, excluding site touch-up. Matching materials to be provided by this trade to others for site touch-up;
 25. Toilet and shower partitions of wood and plastic laminate covered, complete with hardware;
 26. Venetian blinds between the glass in wood frames or sash if wood frames are supplied by the architectural millwork supplier;
 27. Wood and plastic faced cabinets, complete with wood bases and splashback, tables, benches (items constructed from dimensional lumber not specified of clear kiln dried "D and Better" material regardless of location-not included), pews, seats, desks, shelving, convactor covers of wood and plastic laminate attached to architectural woodwork. **NOTE:** The following hardware to architectural woodwork (casework only) whether specified under Cash Allowance or not is included in this tender: drawer slides and shelf standards (factory installed), clips (supplied only), lazy susans (factory installed); workable cabinet hardware, limited to hinges, catches, pulls, locks, casters, sliding door tracks, sheaves or glides (supplied and factory installed). Jobsite adjusting of hardware is not included;
 28. Wood boards, interior siding, battens and mouldings where exposed to view for decorative and display purposes (any grade);
 29. Wood display cases supplied only as architectural woodwork factory fabricated fixture including glass, standards, brackets and sliding track. Interior lining other than wood and plastic laminate material not included. **NOTE:** To jobsite built showcases; plastic laminate, hardwood and wood trim only supplied loose for jobsite fitting;
 30. Wood doors, bifold doors (only brand name wood bifold doors will be supplied with the required hardware the manufacturer includes with the doors), plastic laminate, overlay plywood or fibreboard faced, mineral core, sound rated doors c/w seals when specified, lead lined doors and cores for metal clad one side. (Hardware for doors, bevelling, fitting or machining for hardware or other specialty doors not included);
 31. Wood eggcrate ceiling panels or other types of wood diffusers where supplied separately from lighting fixtures for luminous ceilings and valance and cove lighting (see Electrical Excluded);
 32. Wood frames, borrowed light frames, and wood sash complete with workable hardware;
 33. Wood ironing boards in wood cabinets (including workable hardware);
 34. Wood lockers;
 35. Wood or wood composite mouldings, rails, random lengths unless otherwise specified (no end trimming or factory assembling);
 36. Wood, plastic laminate, fibreboard, polymer, plastic and synthetic marble counter tops, including splashback, aluminium moulding for same, or self-edge, (no jobsite labour). Wood counter tops for metal cladding (no cladding). (Does not include glue for jobsite installation);
 37. Wood, plastic, or wood-and-metal tote drawers or trays in architectural woodwork cabinets including metal or wood slides;
 38. Wood shelves for metal standards or metal frames where detailed (no metal framing, standards, or brackets);
 39. Wood stairs (knocked-down with stringers long), wood balustrades and handrails (not cut to length), wood plugs included;
 40. Wood or wood composite trim for notice or bulletin boards;
 41. Wood or wood composite valances, including plastic laminate faced, plywood or overlay plywood type, solid wood or plastic laminate, (not including blocking unless specified as clear material).
 42. Warranty and/or Guarantee;
 43. Submittals and O&M documentation as specified in the tender documents;
 44. Section 3: Building Information Modeling (BIM) as it applies to this trade scope;

EXCLUDED:

1. Caulking whatsoever or door weather-stripping;
2. Chalkboard, whiteboard, tackboard or corkboard of any kind;
3. Cleaning of glass or plastic (other than confined areas);
4. Cloth, burlap, or vinyl fabric of any kind;
5. Coat rods or coat hooks or supports for coat rods/hooks of any material except wood;
6. Counter balanced hardware to interior pass through doors;
7. Counter tops with integral sink or basin, including counter tops, splash-backs and fascia of the same material connected thereto (see Mechanical Sub-Section B Included);
8. Cutting of holes for metal grilles, grommets, sinks, specialty items, or electrical and mechanical fittings into architectural woodwork fixtures;
9. Decking or sheathing to walls, ceilings, floors;
10. Door cores, frames, or trim for metal cladding;
11. Exterior plywood other than edged plywood;
12. Exterior wall facing, siding, fascia siding, or soffit materials other than trim and edged plywood, items constructed from dimensional lumber not specified of clear kiln dried "D and Better" material regardless of location;
13. Fence and sidewalk material;
14. Glass blocks;
15. Glue or adhesive for jobsite installation;
16. Hardware or installation or machining for same, except to sash and cabinets;
17. Items or materials not constructed entirely of wood or composite materials containing wood fiber other than those listed as included;
18. Jobsite assembly and/or installation and/or fitting of architectural woodwork;
19. Linoleum, carpet, tile or any other floor covering material for covering of wood fixtures, cabinets or stairs, or metal trim for same;
20. Machining, bevelling or fitting of doors to receive hardware, (except fire rated doors);
21. Materials for floor covering of any kind;
22. Materials for interior coverings to walls, beams, ceilings and posts (except siding solid wood boards and battens and hardwood plywood and plastic laminate panels);
23. Metal astragal (unless forming an integral part of fire labelled wood doors);
24. Metal clad wood doors, frames, panels, or glazing of same;
25. Metal covering of doors, frames, windows, counter tops, and splashback;
26. Metal feet, metal legs, decorative legs and leveling feet and brackets made of non-wood products, or pipe hanging rods;
27. Metal fixtures and counter-tops or wood bases to same;
28. Metal inserts into doors and other architectural woodwork; metal frames to cabinets, tables and benches; metal casing, base or other metal trims; metal fastening brackets;
29. Metal lining or metal sash for fume cabinets, drawers, or bins. Metal drawers or metal inserts to cabinets (i.e. metal file card holders, etc.);
30. Metal louvres, grilles, kick-plates or thresholds;
31. Metal sash, frames, doors, corner posts, glass or glazing, or panels of any kind for same;
32. Metal screens, shades, blinds, or guards, except flyscreens to sash;
33. Mirrors in metal frames, or attached with rosettes or clips;
34. Overhead garage-type doors, or glass and hardware for same (wood frames and trim supplied knocked-down where detailed and specified as "D and Better" clear material);
35. Painting, priming, acid-proofing, staining, oiling, preservative treatment, or fireproofing other than pressure treating;
36. Plastic skylights or domes;
37. Providing space for painting contractor or others for any painting or priming of exterior or interior architectural woodwork (clear-dip preservative done by architectural woodwork when specified).
38. Re-additions and/or renovations to existing buildings: no material will be supplied for patching, repairing, extending or replacing existing work unless clearly specified and detailed;
39. Re-supply of glass, plastic, or plastic laminate, broken or damaged on the job after delivery in good order;
40. Sanding of standing and running trim other than drum sanding of flats;

41. Site measurements;
42. Specialty folding or sliding doors of fabric, wood and/or metal (wood bifold doors, wood frames and trim where specified and detailed to be supplied), except exterior wood sliding patio doors;
43. Stair landings of any kind, structural or support material for same;
44. Structural framing material, rough bucks, cant strips, furring strips, blocking or backing;
45. Trade-name toilet and shower partitions;
46. Trade-name cooler or freezer doors;
47. Trade-name furniture, cabinet work, or counter tops and wood bases to same;
48. Trellis screening, pagodas and pergolas;
49. Upholstery work;
50. Wall mounted shelf standards, or clips and brackets to same;
51. Wood, fibreboard or plastic letters;
52. Wood and/or plastic laminated rails when they are an integral part of Entrances, Storefronts and Windows or Curtainwall;
53. Wood bumpers to exterior or loading bays (except clear material "D or Better" where specified);
54. Wood frames, outside trim to same, for vinyl, plastic and metal covered windows, except where combined in mullion, or transom frames with custom wood windows and/or glazing in wood;
55. Wall protection of plastic or non-wood materials.

9. Final Cleanup before turnover;
10. Security costs. Where Security is required for trades to complete their work these services and costs for same will be provided by the General Contractor;
11. Supply and maintenance of garbage and recycling bins for construction waste;
12. Removal of construction waste from job site;
13. General site security.

EXCLUDED:

1. Installation of all hardware (except auto openers/closers as described in Included);
2. Electrical Hook-up or connection of Alarms, Locks, Magnets, Strikes, Detectors or Magnetic Holders and Door Closers;
3. Custom-made handrail Brackets, Kick, Push and Pull Plates and Bars, Thresholds or Sills;
4. Window Hardware;
5. Hardboard, Plastic Laminate, PVC Kick plates and Push plates when they are to match the Wall Protection that is specified;
6. Cabinet Hardware;
7. Wood Locker Hardware;
8. Overhead Door Hardware;
9. Bi-fold Door and Hardware Package;
10. Sliding Door and Hardware Package;
11. Folding Door and Hardware Package;
12. Aluminum Sliding and Automatic Door Hardware;
13. Aluminum Door Hardware;
14. Metal Toilet Partition Hardware;
15. Smoke and ionization detectors (Wall or Ceiling Mounted) that are not part of the door closer/holder unit;
16. Mail Chutes or Holding Units;
17. Surface mounted wood or plastic laminated push-pull or guard bars for aluminum, wood or metal doors or sidelites;
18. Door signs, nameplates or numbers;
19. Weld-on hinges supplied complete with steel drywall frame;
20. Supply of all wire for electronic hardware;
21. Fastening devices used to install millwork to walls or floors;
22. Cutting of tactile cues to handrail, unless dimensions are provided by the General Contractor in a timely fashion;
23. Metal handrail brackets;
24. Offload of hardware at site;
25. Unless otherwise noted in the tender documents finishing hardware is to be installed by the General Contractor.

10. Temporary heat, general lighting, power, sanitation and water for general construction;
11. Door wiring for overhead and automatic doors - electrical supply hook up, interconnecting wiring, conduit and boxes. Control devices by others. (See Section 47 Electrical Included)
12. Hoarding;
13. Final Cleanup before turnover;
14. Security costs. Where Security is required for trades to complete their work these services and costs for same will be provided by the General Contractor;
15. Firestopping;
16. Supply and maintenance of garbage and recycling bins for construction waste;
17. Removal of construction waste from job site;
18. General site security.

6. Factory pre-assembled translucent panels;
7. Insulation or vapour barrier behind structure which panel system is fastened to;
8. Backing and support for other trades;
9. Stainless steel items which do not form a part of the Architectural Metal Panels System.
10. Scaffolding when required to perform work by multiple trades, i.e. Common scaffold/platform;
11. Temporary heat, general lighting, power, sanitation and water for general construction;
12. Hoarding;
13. Final Cleanup before turnover;
14. Security costs. Where Security is required for trades to complete their work these services and costs for same will be provided by the General Contractor;
15. Firestopping;
16. Supply and maintenance of garbage and recycling bins for construction waste;
17. Removal of construction waste from job site;
18. General site security.

EXCLUDED:

1. Metal deck;
2. Fabrication, installation of any flashing material not incorporated into metal cladding system (i.e. flat pre-finished material for built-up roofing contractor);
3. Wood or metal components of the wall (unless as incorporated in the preformed metal wall system) used to construct parapets, pony walls, structural frames, etc.;
4. Gypsum board and metal support for same;
5. Metal spandrel and infill panels incorporated into glazed systems;
6. Extruded aluminium wall cladding;
7. Metal roofing;
8. Insulation or vapour barrier behind structure which cladding system is fastened to;
9. Metal soffit and/or wall cladding if profile, gauge and colour is to match metal roofing;
10. Architectural Metal Panels;
11. Factory pre-assembled translucent panels;
12. Backing and supports for other trades;
13. Structural purlins and girts;
14. Metal linear ceiling profiles used as a wall ceiling or soffit, see Component Ceiling Systems Included;
15. Scaffolding when required to perform work by multiple trades, i.e. Common scaffold/platform;
16. Temporary heat, general lighting, power, sanitation and water for general construction;
17. Hoarding;
18. Final Cleanup before turnover;
19. Security costs. Where Security is required for trades to complete their work these services and costs for same will be provided by the General Contractor;
20. Firestopping;
21. Supply and maintenance of garbage and recycling bins for construction waste;
22. Removal of construction waste from job site;
23. General site security.

EXCLUDED:

1. Metal deck;
2. Fabrication, installation of any flashing material not incorporated into vinyl and metal siding (i.e. flat pre-finished material for built-up roofing contractor);
3. Wood or metal components of the wall (unless as incorporated in the preformed metal wall system) used to construct parapets, pony walls, structural frames, etc.;
4. Gypsum board and metal support for same;
5. Metal spandrel and infill panels incorporated into glazed systems;
6. Extruded aluminum wall cladding;
7. Metal roofing;
8. Insulation or vapour barrier behind structure which cladding system is fastened to;
9. Metal soffit and/or wall cladding if profile, gauge and colour is to match metal roofing;
10. Architectural Metal Panels;
11. Factory pre-assembled translucent panels;
12. Backing and supports for other trades;
13. Structural purlins and girts;
14. Metal linear ceiling profiles, see Component Ceiling Systems.
15. Scaffolding when required to perform work by multiple trades, i.e. Common scaffold/platform;
16. Temporary heat, general lighting, power, sanitation and water for general construction;
17. Hoarding;
18. Final Cleanup before turnover;
19. Security costs. Where Security is required for trades to complete their work these services and costs for same will be provided by the General Contractor;
20. Firestopping;
21. Supply and maintenance of garbage and recycling bins for construction waste;
22. Removal of construction waste from job site;
23. General site security.

- d) Control joint covers
- e) Any prefinished metal flashing of the roofing system in stock and chosen from standard 8000 or 10,000 colour series in 22, 24 and 26 gauge metal;
- 12. One-hour fire watch. Re: hot-work.
- 13. Scaffolding/man lifts where required to perform work by this trade scope;
- 14. Trade specific lighting to perform tasks;
- 15. Trade cleanup - cleanup for work carried out by this trade;
- 16. Warranty and/or Guarantee;
- 17. Submittals and O&M documentation as specified in the tender documents;
- 18. Cash allowances and/or contingency funds when a specific dollar amount is listed in Division 01 or this trades specification section;
- 19. Protection of other trades' work from damage when performing this trades scope of work;
- 20. Section 4: Commissioning as it applies to this subcontractor scope;
- 21. Installation of flashings for drains and plumbing vents – as supplied by others;
- 22. Flashing all roof curbs and sleepers if required (seal into roof membrane);
- 23. Section 3: Building Information Modeling (BIM) as it applies to this trade scope;

EXCLUDED:

- 1. Supply of roof specialties including mechanical roof drains, vent flashings, fall arrest anchors and roof jacks;
- 2. Metal sleeves for through deck openings, vents, etc;
- 3. Preformed or field cut reglets;
- 4. Separate curbs for skylights, hatches and roof mounted H.V.A.C. equipment;
- 5. Insulating of roof curbs;
- 6. Structural decking or deck infill, including structural stramit, and any component below the decking;
- 7. Through wall flashing;
- 8. Wood or metal roofing system components used to construct parapets, perimeter and curb blocking, curbs, control joints and sleeper supports;
- 9. Any membrane to be covered by material not installed by the roofing contractor (see Included);
- 10. Poured-in-place, light, medium or heavy concrete fill and paving blocks exceeding 45 kg (100 lbs.) each in mass;
- 11. Inspection and/or testing;
- 12. Metal roofing and related flashings;
- 13. Wood and metal walkways;
- 14. Scaffolding when required to perform work by multiple trades, i.e. Common scaffold/platform;
- 15. Temporary heat, general lighting, power, sanitation and water for general construction;
- 16. Hoarding;
- 17. Final Cleanup before turnover;
- 19. Security costs. Where Security is required for trades to complete their work these services and costs for same will be provided by the General Contractor;
- 20. Firestopping;
- 21. Supply and maintenance of garbage and recycling bins for construction waste;
- 22. Removal of construction waste from job site;
- 23. General site security;
- 24. Installation of counter flashings for mechanical vents, ducts and chimneys is by others.

EXCLUDED:

1. Supply, connection, and commissioning of integrated irrigation systems;
2. Supplemental irrigation including supply of water, hoses, and spraying equipment;
3. Temporary protection from other trades of the roof membrane surface, plants and growing medium, or other components not installed by the roofing contractor;
4. Electronic leak detection testing after planting or successive work by others on or adjacent to the vegetated roof section;
5. Prevention measures for growing medium erosion or displacement from wind or rain, as well as prevention of over compaction of growing medium caused by storage of materials or traffic from other trades;
6. Poured-in-place or pre-cast concrete curbs or planter boxes, concrete fill, and paving blocks exceeding 45kg (100 lbs.) each in mass;
7. Landscaping or decorative features on or adjacent to the growing medium including ponds, fountains, lighting, large rocks greater than 64 mm in size, etc.;
8. Patio's, decks, or decorative pathway's for use by people for non-maintenance purposes on the roof surface, including safety railings or barriers;
9. Planting or seeding including ongoing maintenance of the plants and growing medium during and after vegetation establishment period;
10. Growing medium preparation such as watering, fertilizing, and amending to meet planting, landscaping or irrigation requirements of the project;
11. Growing medium infill for planter boxes greater than 200 mm in depth.
12. Scaffolding when required to perform work by multiple trades, i.e. Common scaffold/platform;
13. Temporary heat, general lighting, power, sanitation and water for general construction;
14. Hoarding;
15. Final Cleanup before turnover;
16. Security costs. Where Security is required for trades to complete their work these services and costs for same will be provided by the General Contractor;
17. Firestopping;
18. Supply and maintenance of garbage and recycling bins for construction waste;
19. Removal of construction waste from job site;
20. General site security.
21. Installation of counter flashings for mechanical vents, ducts and chimneys is by others;

EXCLUDED:

1. Fabrication and/or installation of any flashing material not incorporated into metal roof system (i.e. Flat pre-painted material for built up roofing contractor);
2. Wood or metal components of the roofing (unless incorporated in the preformed metal roofing system) used to construct; parapets, perimeter and curb blocking, curbs, control joints and sleeper supports;
3. Metal soffits and/or wall cladding (see Included);
4. Aluminum / glass or aluminum / fibreglass skylight systems or skylights outside the preformed metal roofing area;
5. Separate curbs for skylights or hatches, etc.,
6. Through wall flashing;
7. Backing and supports for other trades;
8. Purlins or other structural materials;
9. Insulation or vapour barrier behind structure which metal roofing is fastened to;
10. Roof drains connected to an internal system.
13. Structural metal deck or any component below the decking;
14. Supply and installation of fall arrest anchors;
15. Inspection and testing;
16. Scaffolding when required to perform work by multiple trades, i.e. Common scaffold/platform;
17. Temporary heat, general lighting, power, sanitation and water for general construction;
18. Hoarding;
19. Final Cleanup before turnover;
20. Security costs. Where Security is required for trades to complete their work these services and costs for same will be provided by the General Contractor;
21. Firestopping;
22. Supply and maintenance of garbage and recycling bins for construction waste;
23. Removal of construction waste from job site;
24. General site security.
25. Installation of counter flashings for mechanical vents, ducts and chimneys is by others;

4. Cutting and drilling of holes for attachment of suspended ceiling hangers or for attachment of any work by other trades;
5. Bearing plates, shelf angles, supports at steel columns and/or other structural materials required to support the steel deck;
6. Wood nailers, cants, vapour retarder, insulation, thermal barrier, waterproofing membrane and ballast;
7. Architectural trim;
8. Forming at floor deck perimeter or openings;
9. Cutting openings in floor deck after concreting;
10. Shoring under composite floors;
11. Supply and/or installation of shear connectors not welded through metal deck;
12. Shear transfer elements;
13. Metal cladding;
14. Metal roofing;
15. Caulking;
16. Scaffolding when required to perform work by multiple trades, i.e. Common scaffold/platform;
17. Temporary heat, general lighting, power, sanitation and water for general construction;
18. Hoarding;
19. Security costs. Where Security is required for trades to complete their work these services and costs for same will be provided by the General Contractor;
20. Firestopping;
21. Supply and maintenance of garbage and recycling bins for construction waste;
22. Removal of construction waste from job site;
23. Final cleaning before turnover;
24. General site security.

21. Insulation within the fenestration;
22. Interior architectural metal glazed partitions, including recreational arena and court glass and glazing;
23. Manufacturer's warranty only beyond the normal one year maintenance warranty;
24. Entrances and storefronts (interior or exterior);
25. Preparation of framing for hardware supplied by others for doors not covered under Included;
26. Shop drawings and engineering of entrances, storefronts and windows to the specified design criteria;
27. Single glazing, multiple glazing and sealed units, plastic, fibre glass and similar materials;
28. Spandrel and infill panels, e.g. extruded aluminium wall cladding, asbestos cement, porcelain, etc. including insulation where it forms an integral part of a panel;
29. Stiffeners and/or steel reinforcement where required and where it is enclosed by the architectural metal section (see Excluded);
30. Supply only of architectural framing to be embedded in concrete;
31. Supply and installation of operating hardware;
32. Testing where specifically required by the specifications;
33. Thermally formed wall domes or pyramids which are not part of or connected to the roofing system;
34. Venetian blinds between glass supplied under this scope.
35. Scaffolding/man lifts where required to perform work by this trade scope;
36. Trade specific lighting to perform tasks;
37. Trade cleanup - cleanup for work carried out by this trade;
38. General Cleanup – provide 1 in 10 workers to assist for 4 hours weekly to assist in general jobsite cleanup.
39. Warranty and/or Guarantee;
40. Submittals and O&M documentation as specified in the tender documents;
41. Cash allowances and/or contingency funds when a specific dollar amount is listed in Division 01 or this trades specification section;
42. Protection of other trades' work from damage when performing this trades scope of work;
43. Section 4: Commissioning as it applies to this subcontractor scope;
44. Section 3: Building Information Modeling (BIM) as it applies to this trade scope;

EXCLUDED:

1. Concrete;
2. Doors, door frames and entrances, storefronts and window frames of steel, wood, metal clad wood, plastic laminate, polyvinyl chloride and fibreglass;
3. Glass, plastic or asbestos panels when supplied and installed under Architectural Woodwork
4. Installation of membranes or flashing, included under this scope, which cannot be installed or fastened during entrances, storefronts and windows installation;
5. Insulation, support or furring members, within entrance and storefront systems and windows, that are normally supplied and erected by others;
6. Interior wood sills or surrounds;
7. Insulation within framing supplied and erected by others;
8. Pressed steel frames;
9. Moveable, demountable partitions;
10. Shower doors;
11. Structural steel (except as noted in Included);
12. Sun control devices not between glass i.e. venetian blinds, drapes, sunshades, louvers etc. unless connected to the aluminum window frame system;
13. Sun screens, bird screens, guard screens;
14. Supply of flashing, sills or trim prefinished to match any materials not included in this scope (see Included);
15. Supply and installation of non-rigid membrane air/vapour barriers which form part of the structure and connects to the entrances, storefronts and windows (see Included);
16. Weather louvers mechanical and architectural (see Mechanical Section 43 Sub Section C: Included);
17. Scaffolding when required to perform work by multiple trades, i.e. Common scaffold/platform;

18. Temporary heat, general lighting, power, sanitation and water for general construction;
19. Hoarding;
20. Final Cleanup before turnover;
21. Security costs. Where Security is required for trades to complete their work these services and costs for same will be provided by the General Contractor;
22. Firestopping;
23. Supply and maintenance of garbage and recycling bins for construction waste;
24. Removal of construction waste from job site;
25. General site security.

6. Railing, capping and supports to balustrades and wall rails;
7. Recreational arena and court glass and glazing;
8. Shower doors;
9. Scaffolding when required to perform work by multiple trades, i.e. Common scaffold/platform;
10. Temporary heat, general lighting, power, sanitation and water for general construction;
11. Hoarding;
12. Final Cleanup before turnover;
13. Security costs. Where Security is required for trades to complete their work these services and costs for same will be provided by the General Contractor;
14. Firestopping – for all trades scopes other than Mechanical and Electrical;
15. Supply and maintenance of garbage and recycling bins for construction waste;
16. Removal of construction waste from job site;
17. General site security;
18. Precut glass stops and beads for demountable partitions to be supplied by the demountable partition trade scope.

24. Venetian blinds between glass supplied under this scope.
25. Scaffolding/man lifts where required to perform work by this trade scope;
26. Trade specific lighting to perform tasks;
27. Trade cleanup - cleanup for work carried out by this trade;
28. General Cleanup – provide 1 in 10 workers to assist for 4 hours weekly to assist in general jobsite cleanup.
29. Warranty and/or Guarantee;
30. Submittals and O&M documentation as specified in the tender documents;
31. Cash allowances and/or contingency funds when a specific dollar amount is listed in Division 01 or this trades specification section;
32. Protection of other trades' work from damage when performing this trades scope of work;
33. Section 3: Building Information Modeling (BIM) as it applies to this trade scope;
34. Section 4: Commissioning as it applies to this subcontractor scope;

EXCLUDED:

1. Concrete work;
2. Doors, door frames and curtain wall frames of steel, wood, metal clad wood, plastic laminate, polyvinyl chloride and fibreglass.
3. Flashing, sills or trim prefinished to match any materials not included in this scope;
4. Glass or plastic panels when supplied and installed under Architectural Woodwork;
5. Insulation, support or furring members, within curtain wall systems, that are normally supplied and erected by others;
6. Interior wood sills or surrounds;
7. Shower doors;
8. Skylights which are thermally formed and incorporate a base frame only which relate to the roofing system;
9. Structural steel (except as noted in Included);
10. Sun control devices not between glass i.e. venetian blinds, drapery, etc.;
11. Sun screens, bird screens, guard screens, sunshades and louvers attached to the frame unless connected to the aluminum window frame system;
12. Scaffolding when required to perform work by multiple trades, i.e. Common scaffold/platform;
13. Temporary heat, general lighting, power, sanitation and water for general construction;
14. Hoarding;
15. Final Cleanup before turnover;
16. Security costs. Where Security is required for trades to complete their work these services and costs for same will be provided by the General Contractor;
17. Firestopping;
18. Supply and maintenance of garbage and recycling bins for construction waste;
19. Removal of construction waste from job site;
20. General site security.

35. Supply and installation of prefinished metal mouldings for support of radiant panels when installed as an integral part of the Lath and Plaster Ceiling Systems.
36. Section 3: Building Information Modeling (BIM) as it applies to this trade scope;

EXCLUDED:

1. Building paper under finishes other than lath, plaster or stucco;
2. Corner guards or expansion joint covers which are pre-manufactured and surface mounted;
3. Exterior gypsum sheathing and metal suspension for same;
4. Installation of air grilles, access panels and accessories if independently suspended;
5. Poly vapour hats (see Electrical Included);
6. Steel door frames for steel stud partitions;
7. Steel studs or suspension systems when any material other than lath, plaster or stucco is applied to one or both sides;
8. Supply of access doors;
9. Supports for light fixtures and radiant panels exceeding 610 mm x 1220 mm;
10. Thermal insulation except for batt insulation directly behind plaster system only and rigid insulation where used as a plaster or stucco base;
11. Supply of trims and/or mouldings for radiant panels when specified to be supplied with the radiant panel (see Mechanical). This contractor to install;
12. Supply and installation of backing in steel stud partitions – by others;
13. Scaffolding when required to perform work by multiple trades, i.e. Common scaffold/platform;
14. Temporary heat, general lighting, power, sanitation and water for general construction;
15. Hoarding;
16. Final Cleanup before turnover;
17. Security costs. Where Security is required for trades to complete their work these services and costs for same will be provided by the General Contractor;
18. Firestopping;
19. Supply and maintenance of garbage and recycling bins for construction waste;
20. Removal of construction waste from job site;
21. General site security.

33. Protection of other trades' work from damage when performing this trades scope of work;
34. Supply and installation of prefinished metal mouldings for support of radiant heating panels when installed as an integral part of the drywall ceiling system.
35. Supply and installation of all sheet lead sound baffles and sound barriers where required for sound attenuation and which are integral to the drywall system or above drywall partitions installed by this trade.
36. Supply and installation of security mesh or panels (up to 9ga.) in drywall or ceiling assemblies.
37. Engineering costs associated with this trade required for the design of steel stud framing and/or wall systems to suit a specific project, as indicated in the tender documents.
38. Section 3: Building Information Modeling (BIM) as it applies to this trade scope;
39. Section 4: Commissioning as it applies to this subcontractor scope;

EXCLUDED:

1. Building paper;
2. Corner guards or expansion joint covers which are pre-manufactured and surface mounted;
4. General and final clean up;
5. Gypsum board or exterior gypsum sheathing when applied over a roof deck as part of the roofing system;
6. Hoarding;
7. Installation of air grilles, access panels and accessories if independently suspended;
8. Metal furring for direct attachment of metal siding;
9. Poly vapour hats (see Electrical Included);
10. Steel studs for lath and plaster systems, both sides, and no sheathing or other materials attached (see Lath, Plaster and Stucco Included & Excluded);
11. Steel studs for prefinished demountable partitions;
12. Supports for light fixtures and radiant panels exceeding 610mm x 1220mm;
13. Temporary heat, light, power, sanitation and water;
14. Trims and/or mouldings for radiant panels when specified to be supplied with the radiant panel. (see Mechanical);
15. Supply and installation of backing in steel stud partitions – by others;
16. Scaffolding when required to perform work by multiple trades, i.e. Common scaffold/platform;
17. Temporary heat, general lighting, power, sanitation and water for general construction;
18. Hoarding;
19. Final cleanup before turnover;
20. Security costs. Where security is required for trades to complete their work these services and costs for same will be provided by the General Contractor.
21. Firestopping;
22. Supply and maintenance of garbage and recycling bins for construction waste;
23. Removal of construction waste from job site;
24. General site security.

26. Protection of other trades' work from damage when performing this trades scope of work;
27. Section 3: Building Information Modeling (BIM) as it applies to this trade scope;

EXCLUDED:

1. Caulking between materials in this scope and others, e.g. metal, glass or brick, etc.;
2. Continuous metal supporting angles, metal slots, boxes or anchorages which are built into the structural wall;
3. Expansion joints, flashing;
4. Lead pans;
5. Metal lath;
6. Miscellaneous iron work and manufactured specialty items, mat sink age frames;
7. Testing of pools, showers, etc.;
8. Waterproof membranes when not used in conjunction with materials used by this trade;
9. Wood grounds.
10. Scaffolding when required to perform work by multiple trades, i.e. Common scaffold/platform;
11. Temporary heat, general lighting, power, sanitation and water for general construction;
12. Hoarding;
13. Final Cleanup before turnover;
14. Security costs. Where Security is required for trades to complete their work these services and costs for same will be provided by the General Contractor;
15. Firestopping;
16. Supply and maintenance of garbage and recycling bins for construction waste;
17. Removal of construction waste from job site;
18. General site security.

9. Luminous light and/or decorative lenses and/or louvres, including metal and/or plastic support moulding when installed in architectural valences not constructed by this trade (see Electrical Excluded);
10. Manufactured acoustical units consisting of:
 - (a) Sound absorbing wall panels;
 - (b) Sound absorbers;
 - (c) Suspended sound baffles;
11. Preformed architectural light coves and valances when used as a direct support or forming an integral part of a component ceiling system installed by this trade;
12. Preformed metal break-shapes (not exceeding 2.0mm thick or 14ga material) when used as a direct support of or forming an integral part of a ceiling system installed by this trade;
13. Preformed valance and curtain pockets when used as a direct support or forming an integral part of a component ceiling system installed by this trade;
14. Scaffolding as required by this trade;
15. Scaffolding/man lifts where required to perform work by this trade scope;
16. Trade specific lighting to perform tasks;
17. Trade cleanup - cleanup for work carried out by this trade;
18. General Cleanup – provide 1 in 10 workers to assist for 4 hours weekly to assist in general jobsite cleanup.
19. Warranty and/or Guarantee;
20. Submittals and O&M documentation as specified in the tender documents;
21. Cash allowances and/or contingency funds when a specific dollar amount is listed in Division 01 or this trades specification section;
21. Protection of other trades' work from damage when performing this trades scope of work;
22. Section 3: Building Information Modeling (BIM) as it applies to this trade scope;

EXCLUDED:

1. Acoustical plaster ceiling finishes and suspension systems;
2. Acoustical wall treatment where constructed of materials that are not a manufactured acoustical material and recognized as an acoustically rated unit. e.g. carpet underlay, sprayed wall coatings and coverings, etc.;
3. Caulking;
4. Drywall, plaster or wood fabricated valance pockets, curtain pockets, architectural light coves and valances;
5. General and final clean up;
6. Gypsum board and/or plaster ceiling finishes and suspension systems;
7. Inserts and hanger supports for Electrical and Mechanical fixtures exceeding 610mm x 1220mm;
8. Trims and/or moulding for radiant panels when specified to be supplied with the radiant panel;
9. Gypsum board backing including suspension systems;
10. Hoarding;
13. Job fabricated enclosures for acoustical batt and/or blankets;
14. Light lenses, egg crate lenses or louvres when forming an integral part of an individual light fixture when part of electrical scope;
15. Luminous light and/or decorative lenses, including metal and/or plastic support moulding when installed as a sign band;
16. Metal flashing when not of the same colour or material as the prefinished metal linear fascia and soffits;
17. Metal mouldings or suspension that is not an integral part of work done by this trade;
18. Non-factory applied finishes or site finishing of any work under this trade section except for touch-up;
19. Perforated or un-perforated metal and/or hardboard liners, wall cladding or exterior soffits when comprised of metal siding or decking products;
20. Preparation of concrete, wood or gypsum surfaces to receive work by this trade;
21. Preparation of reflected ceiling drawings;
22. Removal of existing materials except as provided in Included;
23. Sound absorption panels and/or sound dampening systems used for mechanical and equipment;
24. Sound attenuation barriers where used in plenum space above partitions connected and/or sealed to ceiling system or structure above;
25. Sprayed applied acoustical materials;

26. Structural components required to meet specific ULC designs other than that forming an integral part of component ceiling systems;
27. Supplementary safety chains and support devices as may be required for electrical, mechanical, etc. fixtures;
28. Wood blocking, trims and casings for materials other than those used by this trade.
29. Scaffolding when required to perform work by multiple trades, i.e. Common scaffold/platform;
30. Temporary heat, general lighting, power, sanitation and water for general construction;
31. Hoarding;
32. Final Cleanup before turnover;
33. Security costs. Where Security is required for trades to complete their work these services and costs for same will be provided by the General Contractor;
34. Firestopping;
35. Supply and maintenance of garbage and recycling bins for construction waste;
36. Removal of construction waste from job site;
37. General site security.

EXCLUDED:

1. Water;
2. Barricades;
3. Hoisting;
4. Secure, heated, on-site storage;
5. Substrate testing including moisture (vapour emission) and alkalinity tests;
Note: This work may be included where flooring is the only contract (as in the installation of resilient flooring in existing rooms or areas) subject to prior agreement with the Owner.
6. All other preparation of surfaces required for installation of resilient flooring including substrate preparation, and supply and installation of self-leveling cementitious underlayment and poured latex toppings.
7. Trowelled-on latex underlayment except when specified in conjunction with specific installation systems.
8. Maintenance and protection of installed resilient flooring prior to Substantial Performance. Such protection shall be provided by others using materials and methods acceptable to the resilient floor covering manufacturer.
9. Repairs to damage by others during and after completion and acceptance of the work.
10. Cleaning and sealing or the application of any other type of protective coatings, unless specified.
11. Base to demountable partitions, unless specified.
12. Loose laid resilient mats and runners.
13. Resilient flooring as an integral part of access flooring systems, unless specified.
14. Resilient bulletin / tack boards on walls, unless specified.
15. Resilient desk top coverings to millwork, unless specified.
16. Temporary heat, general lighting, power, sanitation and water for general construction;
17. Hoarding;
18. Final Cleanup before turnover;
19. Security costs. Where Security is required for trades to complete their work these services and costs for same will be provided by the General Contractor;
20. Supply and maintenance of garbage and recycling bins for construction waste;
21. Removal of construction waste from job site;
22. General site security.

EXCLUDED:

1. Water.
2. Hoarding and barricades.
3. Secure, heated, on-site storage.
4. Substrate testing including moisture (vapour emission) and alkalinity tests.
Note that this work may be included in the work where flooring is the only contract (as in the installation of hardwood flooring in existing rooms or areas) subject to prior agreement with the Owner;
5. All other preparation of surfaces required for installation of resilient flooring including substrate preparation, and supply and installation of self-leveling cementitious underlayment and poured latex toppings.
6. Trowelled-on latex underlayment except when specified in conjunction with specific installation systems.
7. Base to demountable partitions, unless specified.
8. Loose laid carpet mats and runners,
9. Carpet as an integral part of access flooring systems, unless otherwise specified_
10. Carpet bulletin and tack boards on walls.
11. Maintenance and protection of installed carpet flooring prior to Substantial Performance.
Such protection shall be provided by others using materials and methods acceptable to the carpet manufacturer.
12. Repairs to damage by others during and after completion of work.
13. Scaffolding when required to perform work by multiple trades, i.e. Common scaffold/platform;
14. Temporary heat, general lighting, power, sanitation and water for general construction;
15. Hoarding;
16. Final Cleanup before turnover;
17. Security costs. Where Security is required for trades to complete their work these services and costs for same will be provided by the General Contractor;
18. Firestopping;
19. Supply and maintenance of garbage and recycling bins for construction waste;
20. Removal of construction waste from job site;
21. General site security.

EXCLUDED:

1. Water;
2. Barricades;
3. Hoisting;
4. Secure, heated, on-site storage;
5. Substrate testing including moisture (vapour emission) and alkalinity tests.
Note that this work may be included in the work where flooring is the only contract (as in the installation of hardwood flooring in existing rooms or areas) subject to prior agreement with the Owner;
6. All other preparation of surfaces required for installation of resilient flooring including substrate preparation, and supply and installation of self-leveling cementitious underlayment and poured latex toppings.
7. Maintenance and protection of installed hardwood flooring prior to Substantial Performance. Such protection shall be provided by others using materials and methods acceptable to the hardwood flooring manufacturer;
8. Repairs to damage by others during and after completion of work.
9. Scaffolding when required to perform work by multiple trades, i.e. Common scaffold/platform;
10. Temporary heat, general lighting, power, sanitation and water for general construction;
11. Hoarding;
12. Final Cleanup before turnover;
13. Security costs. Where Security is required for trades to complete their work these services and costs for same will be provided by the General Contractor;
14. Firestopping;
15. Supply and maintenance of garbage and recycling bins for construction waste;
16. Removal of construction waste from job site;
17. General site security.

11. Security costs. Where Security is required for trades to complete their work these services and costs for same will be provided by the General Contractor;
12. Firestopping;
13. Supply and maintenance of garbage and recycling bins for construction waste;
14. Removal of construction waste from job site;
15. General site security.

7. Trowelled-on latex underlayment except when specified in conjunction with specific installation systems.
8. Maintenance and protection of installed flooring prior to Substantial Performance. Such protection shall be provided by others using materials and methods acceptable to the floor covering manufacturer.
9. Repairs to damage by others during and after completion and acceptance of the work.
10. Cleaning and sealing or the application of any other type of protective coatings, unless specified.
11. Final cleaning;
12. Base to demountable partitions, unless specified.
13. Temporary heat, general lighting, power, sanitation and water for general construction;
14. Hoarding;
15. Final Cleanup before turnover;
16. Security costs. Where Security is required for trades to complete their work these services and costs for same will be provided by the General Contractor;
17. Firestopping;
18. Supply and maintenance of garbage and recycling bins for construction waste;
19. Removal of construction waste from job site;
20. General site security.

8. Primer paint and priming for sprayed drywall texture to drywall, ceiling and concrete surfaces (see Drywall Included);
9. Priming to miscellaneous metals and structural steel as defined in miscellaneous steel, structural steel and mechanical scopes;
10. Shop applied finishes to architectural woodwork (see Architectural Woodwork Included).
11. Scaffolding when required to perform work by multiple trades, i.e. Common scaffold/platform;
12. Temporary heat, general lighting, power, sanitation and water for general construction;
13. Hoarding;
14. Final Cleanup before turnover;
15. Security costs. Where Security is required for trades to complete their work these services and costs for same will be provided by the General Contractor;
16. Firestopping;
17. Supply and maintenance of garbage and recycling bins for construction waste;
18. Removal of construction waste from job site;
19. General site security.

11. Supply of hollow metal frames or lights and the sorting and loading of hollow pressed steel door and/or window frames;
12. Supply and installation of glass in hollow metal frames;
13. Backing and preparation of aluminum frames to receive hardware;
14. Rubber base;
15. Temporary heat, general lighting, power, sanitation and water for general construction;
16. Hoarding;
17. Final Cleanup before turnover;
18. Security costs. Where Security is required for trades to complete their work these services and costs for same will be provided by the General Contractor;
19. Firestopping;
20. Supply and maintenance of garbage and recycling bins for construction waste;
21. Removal of construction waste from job site;
22. General site security;
23. Supply and installation of backing in steel stud partitions – by others;
24. Vinyl coated gypsum lay in panels, see Component Ceiling Systems Included.

18. Cash allowances and/or contingency funds when a specific dollar amount is listed in Division 01 or this trades specification section;
19. Protection of other trades' work from damage when performing this trades scope of work;
20. Section 3: Building Information Modeling (BIM) as it applies to this trade scope;

EXCLUDED:

1. Baseboards:
 - a) Carpet base and mouldings (unless material finish of access floor)(see Carpeting);
 - b) Prefinished extruded vinyl plastic (see Prefinished Demountable Partitioning);
 - c) Rubber and vinyl baseboard (see Resilient Floor Coverings);
2. Caulking;
3. Connection of building ground (see Electrical Included);
4. Electrical connection of service centres;
5. Floor finishes when jobsite applied over access floor panels, e.g. carpet, tile;
6. Ledger angles and anchors set into concrete;
7. Mechanical grilles which are not a part of the integrated floor system;
8. Preparation of access floor panels to receive jobsite applied floor coverings;
9. Under-floor subfloor preparation;
10. Wood blocking, trims and casings for materials other than those used by this trade.
11. Temporary heat, general lighting, power, sanitation and water for general construction;
12. Hoarding;
13. Final Cleanup before turnover;
14. Security costs. Where Security is required for trades to complete their work these services and costs for same will be provided by the General Contractor;
15. Firestopping;
16. Supply and maintenance of garbage and recycling bins for construction waste;
17. Removal of construction waste from job site;
18. General site security.

to provide such items specific to their work, of such quality and quantity as may be specified, to the Prime Mechanical contractor who shall be responsible for tabulating, binding, coordinating and final submission of such documentation, including transfer drafting and final as-built as specified;

11. Permits, licenses and inspections as required for work under this Scope;
12. Priming to catwalks, ladders, gratings, steel supports, hangers and other miscellaneous support steel supplied under this Scope (See Painting Excluded);
13. Roughing-in and connecting only, as shown on the tender documents, for specialty items, cabinets or equipment that is supplied and installed by others;
14. Sleeving as specified for mechanical systems, except under Sub-Section F Insulation;
15. Supply of trims and/or mouldings for radiant panels when specified to be supplied with the radiant panel. Installation by others;
16. Variable speed controllers including those which are mechanically or hydraulically initiated and operated and those which are electrical when specified as part of packaged equipment;
17. Vibration isolation for equipment supplied under this Scope including steel and metal frames/inertia bases for equipment bases. (Prime Mechanical contractor shall include isolation for HVAC Controls air compressors);
18. Firestopping for mechanical installations.
19. Scaffolding/man lifts where required to perform work by this trade scope;
20. Trade specific lighting to perform tasks;
21. Trade cleanup - cleanup for work carried out by this trade;
22. General Cleanup – provide 1 in 10 workers to assist for 4 hours weekly to assist in general jobsite cleanup.
23. Warranty and/or Guarantee;
24. Submittals and O&M documentation as per the tender documents. To be provided by each trade scope;
25. Cash allowances and/or contingency funds when a specific dollar amount is listed in Division 01 or this trades specification section (Prime Mechanical contractor to include Cash Allowance and/or contingency funds for mechanical sub-trade contractors);
26. Protection of other trades' work from damage when performing this trades scope of work;
27. Section 3: Building Information Modeling (BIM) as it applies to this trade scope;
28. Section 4: Commissioning as it applies to this trade scope;

EXCLUDED:

1. Alterations of services, as specified in the tender documents, required for specialty items, cabinets or equipment not supplied under this subcontract;
2. Backing and backing materials, supply and installation;
3. Back-plastering for fire protection;
4. Building permits;
5. Catwalks, ladders, gratings and supports where detailed on architectural or structural drawings (see Included);
6. Cutting, coring and patching - when pertaining to renovations, alterations or additions;
7. Electrical: All 120V wiring is supplied and installed by the electrical contractor.
 - (a) Motor starters, multi-speed and protection switches, including variable speed drives which are electrically initiated or operated, without exception other than that equipment which forms an integral part of packaged equipment requiring one power connection only;
 - (b) Electrical wiring for controls which directly switch the power line to motors and duct heaters ("directly" means not through the magnetic coil (See Electrical control wiring and power wiring) ;
8. Frost boxes;
9. Painting (on-site) (see Painting Included);
10. Poured-in-place concrete;
11. Supply and installation of concrete for equipment metal frames/inertia bases is by others;
12. Variable speed drives which are electrically initiated or operated unless specified to be part of packaged equipment;
13. Waterproofing and/or sound proofing to wall, floor and ceiling penetrations.
14. Scaffolding when required to perform work by multiple trades, i.e. Common scaffold/platform;
15. Temporary heat, general lighting, power, ventilation, sanitation and water for general construction;
16. Hoarding;
17. Final Cleanup before turnover;

23. Pneumatic tube systems and related controls;
24. Radiant water or liquid heating panels;
25. Self-contained control valves:
 - (a) Differential pressure;
 - (b) Domestic hot water;
 - (c) Pressure;
 - (d) Temperature (including radiator valves);
26. Sewage Disposal:
 - (a) Prefabricated septic tanks and supply and install fittings and piping for that poured- in-place;
 - (b) Leeching lines for sewage disposal systems (including backfill of gravel, straw and loam to provide a complete installation for field to finish grade);
27. Shower cabinets, complete with manufactured receptors, doors or curtains and rods;
28. Site services including: sanitary and storm sewers (except culverts for yard drainage), precast and masonry catch basins and manholes, water services and fire hydrants;
29. Soap dispensing systems complete with piping and tanks;
30. Solar water or liquid heating systems (see Electrical 95 Included);
31. Steam cleaners/steam jenny permanently connected to water or waste;
32. Steel chimneys or breeching heavier than 10 ga., when not refractory lined;
33. Supply and installation of companion flanges for orifice plates (see Instrumentation Excluded);
34. Supply and installation of supports for radiant panels exceeding 610 mm x 1220 mm;
35. Swimming pool mechanical equipment, including supply and drain piping, except when packaged pool is specified;
36. Thermostats not directly involving HVAC control systems;
37. Water service for external irrigation systems, suitably sized, to exterior of building including such back-flow prevention devices, metres or other equipment as necessary to comply with all government codes and regulations (see Exterior Landscaping Included);
38. Weeping tile for sewage disposal systems only;
39. Work/materials/equipment included under Mechanical – Sub Section A;
40. Excavation and first 1' of pipe cover for interior underground services.
41. Trade specific Firestopping. The Firestopping contractor will submit separate prices to the following trade scopes:
 - A. Prime Mechanical – the prime mechanical contractor will carry the Firestopping costs for ALL trades in the mechanical scope.
 - B. Electrical – will carry the Firestopping costs for all Electrical.
 - C. General Contractor – will carry the Firestopping costs for ALL trade scopes other than Mechanical and Electrical.
42. Scaffolding/man lifts where required to perform work by this trade scope;
43. Trade specific lighting to perform tasks;
44. Trade cleanup - cleanup for work carried out by this trade;
45. General Cleanup – provide 1 in 10 workers to assist for 4 hours weekly to assist in general jobsite cleanup.
46. Warranty and/or Guarantee;
47. Submittals and O&M documentation as specified in the tender documents;
48. Cash Allowance and/or contingency funds when a specific dollar amount is listed in Division 01 or the mechanical specifications (Prime Mechanical contractor to include Cash Allowance and/or contingency funds for mechanical sub-trade contractors);
49. Protection of other trades' work from damage when performing this trades scope of work;
50. Section 4: Commissioning as it applies to this subcontractor scope;
51. Sleeving as specified for this trade.

EXCLUDED:

1. Clean-outs or clean-out access for building weeping tile systems;
2. Cutting in and installation of door grilles;
3. Excavating and backfilling for underground tanks or dry well pits (see Sub Section A, Included);
4. Instrumentation where not related to HVAC controls;
5. Supply and installation of automotive hoists;

6. Trims or mouldings for radiant panels, except when supplied with the radiant panel;
7. Underground sprinkler and/or irrigation systems (see Exterior Landscaping Included);
8. Vapour barrier and insulation not applied to Mechanical system;
9. Washroom accessories;
10. Work/materials/equipment excluded under Mechanical – Sub Section A.
11. Services and service charges for gas, water and sewer as levied by municipality or utility company.
12. Medical gas bottles or initial medical gas system charging;
13. Medical gas system certification costs;
14. Backfill and compaction of interior underground services after first 300mm of cover.
15. Scaffolding when required to perform work by multiple trades, i.e. Common scaffold/platform;
16. Temporary heat, general lighting, power, sanitation and water for general construction;
17. Hoarding;
18. Final Cleanup before turnover;
19. Security costs. Where Security is required for trades to complete their work these services and costs for same will be provided by the General Contractor;
20. Supply and maintenance of garbage and recycling bins for construction waste;
21. Removal of construction waste from job site;
22. General site security.

Sub-Section C: Ventilation and Sheet Metal

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INCLUDED:

1. Air curtains except gas or oil fired units, where no duct connections are required;
2. Air duct silencers;
3. Air filters:
 - (a) Charcoal and odour filters;
 - (b) Dry-pak filters;
 - (c) Electronic/electrostatic filters;
 - (d) Filter gauges;
 - (e) Flat permanent type;
 - (f) Grease filters (when canopy supplied by this contractor);
 - (g) Roll type filters;
 - (h) Throw-away type,Except for packaged air handling units that include filter sections
4. Air mixing baffles and air blenders;
5. Air terminal boxes complete with electric, electronic or pneumatic actuators, controllers and integral fan section, electric or water coils;
6. Air troffer boots;
7. Airflow measuring devices (self-contained) when used for measuring only and not interfaced with any other system or device;
8. Attenuator boxes, tabulators and pressure reducing valves for air supply;
9. Back-draft and barometric dampers, self-acting;
10. Balancing of air system including sound measurement pertaining to air systems;
11. Breeching and/or chimneys, sealed or otherwise, 3.5 mm (10 gauge) or lighter, Types A, B and C, not refractory lined; Breeching & Chimneys—: Revised Breeching and/or chimneys, 3.5mm (10 gauge) or lighter, Types A, B, and C, not factory lined; ---to---Breeching and/or chimneys, sealed or otherwise, 3.5mm (10 gauge) or lighter, Types A, B, and C, not factory lined;
12. Canopies and hoods, domestic range hoods, ducted and non-ducted, except where called for under kitchen equipment;
13. Carbon monoxide exhaust systems complete with associated equipment and accessories, excluding monitors;
14. Combination fire/smoke dampers; including electric, electronic or pneumatic actuators and end switches;
15. Counter flashing for all exterior refrigeration units;
16. Counter flashing that pertain to this scope;
17. Direct-fired make-up air units except where no duct connections are required;
18. Drain pans for equipment under the mechanical scope (not packaged units);
19. Duct cleaning;
20. Duct furnaces;
21. Duct insulation, internal only (see Excluded);
22. Dust or material collector systems complete with associated equipment and accessories, when air handling;
23. Electric duct mounted coils and electric heaters requiring duct connections;
24. Electric motor operated back draft dampers only when specified as part of an exhaust fan and/or roof hood;
25. Factory built solid fuel burning fireplaces and associated metal flues;
26. Fans:
 - (a) Booster fans,
 - (b) Exhaust air fans;
 - (c) Exhaust fans which are remote from factory built fume hoods or fume cabinets;
 - (d) Return air fans;
 - (e) Stratification elimination fans;
 - (f) Supply air fans;
except for packaged units with integral water, steam or glycol coils, where fan is not separated by ductwork or flexible connection;
27. Fire dampers and fire stop flaps;

28. Flexible type air ducts;
29. Garbage and linen chutes of metal construction;
30. Gas fired unit heaters and furnaces requiring duct connections;
31. Gauges (self-contained) which indicate system air flow and/or pressure and do not interface with controls system;
32. Gravity relief vents and intakes;
33. Humidifiers when used in conjunction with furnaces;
34. Indirect fired self-contained heating and/or cooling units, including de-humidifiers, except where no duct connections are required;
35. Induced draft fans, except when in conjunction with incinerators and/or except when an integral part of a heating boiler;
36. Isolation for ventilation equipment;
37. Integrated ceiling system components as follows:
 - (a) Linear air boots when installed into but not forming an integral part of the ceiling system;
 - (b) Supply, installation and connection of flexible duct;
38. Manual smoke dampers;
39. Manually operated balancing dampers;
40. Installation of counter flashings for mechanical vents, ducts and chimneys is by others;
41. Paint spray booths;
42. Plenums and casings except concrete, masonry and drywall construction shafts or tunnels in which case only an internal metal liner and/or internal insulation, if specified, will be provided;
43. PVC/plastic combustion air and flue venting;
44. Registers, grilles, diffusers and supply only of door grilles;
45. Self-contained duct-mounted heat reclaiming units requiring no other connections;
46. Self-contained gas-fired classroom heating and ventilating units complete with all shelving, counters and accessories;
47. Sheet metal and non-metallic air handling ductwork including hangers and supports except concrete, masonry and drywall construction shafts or tunnels in which case only an internal metal liner and/or internal insulation, if specified, will be provided;
48. Spray eliminators in built-up plenums;
49. Thermometers (self-contained) which indicate system air temperatures, and do not interface with controls system;
50. VAV box operators, controllers pneumatic;
51. Ventilation and exhaust ducting for emergency generators;
52. Weather louvres (mechanical and matching architectural) complete with bird screen, related sheet metal blank-off panels and filler pieces, except for louvres of cladding materials having the same finish as the wall cladding system, and forming an integral part thereof;
53. Welded sheet metal kitchen exhaust duct including the supply and installation of associated high temperature insulation and metal liner to protect combustible materials;
54. Welding fume extraction systems complete with central blower/turbine dust collection unit c/w PVC ducting and related accessories;
55. Work/materials/equipment included under Mechanical – Sub Section A;
56. Electric Heating that is fan powered and/or ducted (all other electric heat is by the Electrical Contractor).
57. Scaffolding/man lifts where required to perform work by this trade scope;
58. Trade specific lighting to perform tasks;
59. Trade cleanup - cleanup for work carried out by this trade;
60. General Cleanup – provide 1 in 10 workers to assist for 4 hours weekly to assist in general jobsite cleanup.
61. Warranty and/or Guarantee;
62. Submittals and O&M documentation as specified in the tender documents;
63. Protection of other trades' work from damage when performing this trades scope of work;
65. Sleeving as specified for this trade;
66. Supply and installation of motorized dampers (operators supplied and installed by the Building Management System contractor).

EXCLUDED:

1. External insulation of concrete, masonry and drywall shafts, tunnels or plenums;
2. Mud grilles, foot grilles, pedigrid grilles including those used in conjunction with ventilation systems;
3. Indirect fired, self-contained heating and/or cooling units, including dehumidifiers, except where duct connections are required;
4. Ventilation grilles, caps and/or louvres for: (a) attic, (b) soffit or (c) crawl spaces (see Included);
5. Work/materials/equipment excluded under Mechanical – Sub Section A;
6. Electric Heating, except where duct connections are required;
7. Scaffolding when required to perform work by multiple trades, i.e. Common scaffold/platform;
8. Temporary heat, general lighting, power, sanitation and water for general construction;
9. Hoarding;
10. Final Cleanup before turnover;
11. Security costs. Where Security is required for trades to complete their work these services and costs for same will be provided by the General Contractor;
12. Supply and maintenance of garbage and recycling bins for construction waste;
13. Removal of construction waste from job site;
14. General site security.

The following items **Excluded** from this sub-trade tender will be **Included** by the Prime Mechanical contractor:

15. Air washers,
16. Coil supports and hangers;
17. Drip pans under mechanical piping;
18. Dry mop, wet mop and vacuum systems;
19. Fume cabinets;
20. Gas fired unit heaters and furnaces not requiring duct connections;
21. Gas vent grilles;
22. Gas, water and rain connections;
23. Gauges indicating Air Flow and/or Pressure and Thermometers for Packaged Air Handling Units supplied by the Prime Mechanical Contractor;
24. Operational gas tests;
25. Cash Allowance and/or contingency funds when a specific dollar amount is listed in Division 01 or the Ventilation and Sheet Metal specifications;
26. Spray eliminator units in packaged units only;
27. Steam grid humidifiers;
28. Vitrified pipe except when used in conjunction with air collection systems.
29. Electric heat not fan powered or ducted.
30. Scrubbers and odour/gas absorber units. (Dry type requiring only drain connections);
31. Firestopping;

Sub-Section D: Building Management System

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DEFINITION:

Building Management System (BMS) is a computer-based control system installed in buildings that controls and monitors the building's mechanical and electrical equipment including but not limited to ventilation, lighting, power systems, fire systems, and security systems.

INCLUDED:

1. **Environmental Control:**
 - 1.1 Air conditioning controls (manual and automatic);
 - 1.2 Boiler controls (not specified as part of pre-wired package boilers);
 - 1.3 Control compressor c/w accessories;
 - 1.4 Cooling controls (manual and automatic);
 - 1.5 Heating controls (manual and automatic);
 - 1.6 Humidification controls (manual and automatic);
 - 1.7 Supply and installation of operators for motorized dampers (dampers supplied and installed by Ventilation contractor);
 - 1.8 Refrigeration controls (manual and automatic) and inter-locking wiring between the chiller control panel and remote chiller starters;
 - 1.9 Remote reading gauges, transmitters and recorders for HVAC controls;
 - 1.10 Supply and installation of all electric/electronic motors, controllers and sensors required to meet a VAV box Direct Digital Control Specification which forms part of the Building Management System;
 - 1.11 Ventilation and air flow controls (manual and automatic);
 - 1.12 Domestic hot water controls (not specified as part of a packaged hot water system);
 - 1.13
 - A. Conduit and wire from lighting interface module to FMS.
 - B. All network wiring and programming (including addressing & trend logs).
 - C. Qualified factory trained representative for programming and networking.
 - D. Commissioning of systems.
2. **Building Management System (BMS):**
 - 2.1 Centralization of air conditioning, heating, ventilation, humidification and refrigeration equipment operation;
 - 2.2 Centralized temperature, humidity, pressure and flow indication and recorders;
 - 2.3 Centralized control and monitoring of equipment and devices provided by other trades where identified as part of the BMS (all items provided by other trades and controlled from the BMS shall be complete with electrical contactors) Refer to Sub-Section D Section 5 - 3rd Party Integration;
3. **Building Life Safety Control and Equipment Safety Control:**
 - 3.1 High temperature warning thermostats (fire-stats);
 - 3.2 Low temperature warning thermostats (freeze protection thermostats);
 - 3.3 Motorized smoke dampers - supplied to mechanical contractor on jobsite for unloading, distribution and installation by others;
 - 3.4 Shut-down safety devices forming part of HVAC controls;
 - 3.5 Supply and installation of all gas detection and control devices inter-faced with HVAC equipment or BMS;
4. **General Items:**
 - 4.1 HVAC control wiring and/or air piping required for all BMS and HVAC controls supplied under this trade scope;
 - 4.2 electrical wiring, additional:
 - (a) Boiler feed water and water treatment control wiring;
 - (b) Control wiring for gas detection and control devices interfaced with HVAC equipment or BMS;
 - (c) Magnetic starter coils and relay coils supplied under the electrical scope and intended for HVAC controls or BMS, including inter-locking between starters, contactors and/or relays;
 - (d) Remote thermostats and remote pre-wired auxiliary control panels for packaged HVAC equipment;

- (e) Water treatment and water softening equipment for mechanical systems;
- 4.3 Electrical thermostats and time clocks including guards for same, used only for equipment under mechanical scope intended for HVAC controls. (Adapter plates for electrical contractor);
- 4.4 Supply and installation of pneumatic tubing to static pressure operated HVAC controls, BMS;
- 4.5 Work/materials/equipment included under Mechanical - Section 1.
- 4.6 Scaffolding/man lifts where required to perform work by this trade scope;
- 4.7 Trade specific lighting to perform tasks;
- 4.8 Trade cleanup - cleanup for work carried out by this trade;
- 4.9 General Cleanup – provide 1 in 10 workers to assist for 4 hours weekly to assist in general jobsite cleanup.
- 4.10 Warranty and/or Guarantee;
- 4.11 Submittals and O&M documentation as specified in the tender documents;
- 4.12 Protection of other trades’ work from damage when performing this trades scope of work;
- 4.13 Sleeving as specified for this trade.
- 4.14 Network cabling between FMS and other lower level building systems such as, but not limited to:
 - a. Lighting
 - b. Fire alarm
 - c. Power Metering
 - d. Access Control
 - e. Building Management
- 4.15 Networking components required by other building systems for own standalone operation;
- 4.16 Addressing of lower level building systems;
- 4.17 Trend logs and alarms of lower level building systems;
- 4.18 Commissioning of lower level building systems;

5. 3rd Party HVAC Controls Integration:

Applies if package equipment controls are supplied by others and are required to interface the BMS via open protocols.

The supplier of the package equipment control shall have factory trained personnel responsible for:

- 5.1 Programming, start-up and commissioning of the package equipment controls;
- 5.2 Installation and setup of any required software;
- 5.3 Addressing of equipment controls to match the BMS standard defined by the HVAC controls subtrade contractor;
- 5.4 Wiring of any “loose” or auxiliary controls devices required to make this supplied equipment operable;

The HVAC Controls Sub-trade Contractor is responsible for:

- 5.5 Wiring of thermostats and valves for zone control devices supplied by the equipment supplier;
- 5.6 Wiring of the communication network between packaged zone controllers and the BMS interface device;
- 5.7 Programming and BMS graphics to display the required data from the package equipment control;

EXCLUDED:

- 1. Control power supply outlets as outlined in Electrical Included;
- 2. Control wiring for liquid level controls for sumps, condensate pumps, fuel storage tanks and control wiring for fire pumps, and booster pumps;
- 3. Fire alarm fan shut-down and start-up relays and wiring;
- 4. HVAC controls - when specified as integral part of packaged equipment (see Included);
- 5. Motorized dampers - when specified as integral part of packaged equipment (see Included);
- 6. Power/demand meters and associated contacts required for monitoring through a BMS;
- 7. Wiring of smoke or smoke/fire motorized dampers, end switches, electric damper operators and solenoid valves required for the activation of pneumatic smoke or smoke/fire damper operators (see Electrical, Included);
- 8. Work/materials/equipment excluded under Mechanical –Sub Section A;
- 9. Scaffolding when required to perform work by multiple trades, i.e. Common scaffold/platform;
- 10. Temporary heat, general lighting, power, sanitation and water for general construction;
- 11. Hoarding;
- 12. Final Cleanup before turnover;

13. Security costs. Where Security is required for trades to complete their work these services and costs for same will be provided by the General Contractor;
14. Supply and maintenance of garbage and recycling bins for construction waste;
15. Removal of construction waste from job site;
16. General site security;
17. Controls and/or instrumentation piping related to the Process Instrumentation scope;
18. Wiring for plumbing fixtures (see Electrical Included);
19. Wiring of pool system controls;
20. Wiring of integrated systems other than network connections to the BMS system other than items noted in Sub Section D Section 5 - 3rd Party HVAC Controls Integration;
21. Wiring of medical systems and related scope;
22. Wiring of package shop exhaust systems, unless wiring requirements are clearly defined in the HVAC Controls scope;
23. Motorized dampers, see Ventilation and Sheet Metal.

The following items Excluded from this sub-trade tender will be Included by the Prime Mechanical contractor:

17. Liquid level controls for sumps, condensate pumps, cooling towers, and fuel storage tanks;
18. Cash Allowance sum and/or contingency funds when a specific dollar amount is listed in Division 01 or the HVAC Controls specifications;
19. Safety high and low limit controls;
20. Self-Contained control valves:
 - (a) Differential pressure;
 - (b) Domestic hot water;
 - (c) Pressure;
 - (d) Temperature (including radiator valves);
21. Self-contained filter gauges;
22. Thermometers and pressure gauges for the heating and cooling system;
23. Thermostats not directly involving HVAC control systems.
24. Electric, electronic or pneumatic actuators and end switches for combination fire/smoke dampers (see Mechanical Sub Section C, Ventilation and Sheet Metal);
25. Firestopping;
26. Dampers;

Sub-Section E: Refrigeration

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INCLUDED:

1. Air-cooled condensers complete with field installed inter-connecting refrigeration piping;
2. Drip pans under refrigeration piping;
3. Evaporative condensers complete with field installed inter-connecting refrigeration piping
4. Isolation of equipment;
5. Packaged refrigeration self-contained air-cooled cooling only units, including dehumidifiers, without ductwork;
6. Packaged self-contained integral DX fan coil compressor section for use with remote condensing section with or without ductwork;
7. Packaged refrigeration self-contained water-cooled cooling only units without ductwork;
8. Prefabricated coolers and freezers and/or associated refrigeration equipment (when not part of food services tender document);
9. Refrigerated dew-point controlled units (environment chambers);
10. Refrigerated room (window or wall type) air conditioners without ductwork;
11. Refrigeration chillers, liquid and air condensers complete with interconnecting refrigeration piping;
12. Refrigeration compressors, liquid receivers, thermal expansion valves, refrigeration piping, related refrigeration controls, DX refrigeration coils in built-up or add-on systems, DX fan coil units without ductwork;
13. Refrigeration controls, cooling only (excluding wiring) (when not specified under HVAC controls tender document);
14. Supply and installation of evaporate cooling towers, condenser water pumps, tanks and piping when part of an ammonia brine refrigeration system for an ice arena or ice making plant;
15. Water-cooled condensers complete with field-installed inter-connecting refrigeration piping;
16. Work/materials/equipment included under Mechanical – Sub Section A.
17. Scaffolding/man lifts where required to perform work by this trade scope;
18. Trade specific lighting to perform tasks;
19. Trade cleanup - cleanup for work carried out by this trade;
20. General Cleanup – provide 1 in 10 workers to assist for 4 hours weekly to assist in general jobsite cleanup.
21. Warranty and/or Guarantee;
22. Submittals and O&M documentation as specified in the tender documents;
25. Protection of other trades' work from damage when performing this trades scope of work;
26. Sleeving as specified for this trade.

EXCLUDED:

1. Absorption and centrifugal chiller units;
2. Chilled condensing, water piping, pumps, cooling towers, and installation of same except in the supply and installation of condenser water pumps, tanks and piping when part of an ammonia brine refrigeration system for an ice arena or ice making plant;
3. Flashing and counter flashing for exterior units, gum pots, roof curbs and related water proofing;
4. Gas, water, drainage, condensate drains and connection of the same;
5. Insulation of refrigeration piping and equipment;
6. Matching distribution circuit to DX coils not supplied by this subcontractor;
7. Cash Allowance and/or contingency funds when a specific dollar amount is listed in Division 01 or the Refrigeration specifications (Prime Mechanical contractor to include);
8. Prefabricated coolers and freezers and associated refrigeration equipment when there is a food service scope of work on the project;
9. Refrigerated cooling coils when integral part of a steam or hot water "fan coil" packaged unit;
10. Spray coil humidifier and dehumidifier section;
11. Vapour barrier, insulation, heat grid for recessed floor slabs under refrigerated fixtures and area;
12. Work/materials/equipment excluded under Mechanical – Sub Section A.
13. Firestopping;

14. Scaffolding when required to perform work by multiple trades, i.e. Common scaffold/platform;
15. Temporary heat, general lighting, power, sanitation and water for general construction;
16. Hoarding;
17. Final Cleanup before turnover;
18. Security costs. Where Security is required for trades to complete their work these services and costs for same will be provided by the General Contractor;
19. Firestopping;
20. Supply and maintenance of garbage and recycling bins for construction waste;
21. Removal of construction waste from job site;
22. General site security.

Sub-Section F: Insulation

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INCLUDED:

1. Insulation for:
 - (a) Breeching, stacks and furnace flues;
 - (b) Cooling piping, vessels and equipment;
 - (c) Emergency generator exhausts;
 - (d) External duct insulation and equipment insulation (sound and thermal) complete with cladding and covering;
 - (e) External insulation for incinerator breeching or stacks;
 - (f) Heating piping, vessels and equipment;
 - (g) Plumbing piping, vessels and equipment;
 - (h) Pneumatic tubing;
 - (i) Precast manholes;
 - (j) Refrigeration piping, vessels and equipment;
2. Insulation finishes and weatherproofing;
3. Underground insulation conduits;
4. Work/materials/equipment included under Mechanical – Sub Section A.
5. Scaffolding/man lifts where required to perform work by this trade scope;
6. Trade specific lighting to perform tasks;
7. Trade cleanup - cleanup for work carried out by this trade;
8. General Cleanup – provide 1 in 10 workers to assist for 4 hours weekly to assist in general jobsite cleanup.
9. Warranty and/or Guarantee;
10. Submittals and O&M documentation as specified in the tender documents;
11. Protection of other trades' work from damage when performing this trades scope of work;

EXCLUDED:

1. Asbestos removal;
2. Factory insulated equipment;
3. Insulation of concrete, masonry and drywall construction shafts, tunnels or plenums (see Mechanical Sub Section C, Included);
4. Cash Allowance sum and/or contingency funds when a specific dollar amount is listed in Division 01 or the Insulation specifications (Prime Mechanical contractor to include);
5. Pipe covering protection saddles, shields and supports;
6. Refractory linings;
7. Sleeves and packing for same;
8. Vibration and sound absorption pads and isolators;
9. Work/materials/equipment excluded under Mechanical – Sub Section A.
10. Scaffolding when required to perform work by multiple trades, i.e. Common scaffold/platform;
11. Temporary heat, general lighting, power, sanitation and water for general construction;
12. Hoarding;
13. Final Cleanup before turnover;
14. Security costs. Where Security is required for trades to complete their work these services and costs for same will be provided by the General Contractor;
15. Firestopping;
16. Supply and maintenance of garbage and recycling bins for construction waste;
17. Removal of construction waste from job site;
18. General site security.

Sub-Section G: Sprinklers and Fire Protection

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DEFINITION:

Work under this sub-subcontract starts at either a flanged connection at the water meter location or point of entry of water service into the building.

INCLUDED:

1. Automatic sprinkler systems with associated detection, control panel and alarm devices, excluding wiring and connection (See Electrical Included);
2. Fire pump, control panel, motors, engines and fuel systems when pumps supply sprinkler system only, excluding wiring and connections;
3. Foam system, including tanks, pumps, piping, outlets and associated detectors and control panels excluding wiring and connection;
4. Fire standpipe system when connected to a combination sprinkler/standpipe system with or without fire pump and including:
 - a. Fire pump, controller, hose cabinets and extinguisher located in fire hose cabinets, excluding wiring and connection (See Electrical Included);
5. Fire pump, control panels, motors, engine and fuel systems when pumps supply sprinkler system or combination sprinkler/standpipe system excluding wiring and connection (See Electrical Included);
6. Fire suppression gas system including control panel, detection and alarm device excluding wiring;
7. Room integrity testing for gas systems;
8. The supply and install of industrial dry electrical systems;
9. The supply and install of fire extinguishers;
10. The supply and install of air sampling systems;
11. The design and install of standalone standpipe system;
12. Pipe and system identification and tagging;
13. Drip pans under sprinkler piping.
14. Scaffolding/man lifts where required to perform work by this trade scope;
15. Trade specific lighting to perform tasks;
16. Trade cleanup - cleanup for work carried out by this trade;
17. General Cleanup – provide 1 in 10 workers to assist for 4 hours weekly to assist in general jobsite cleanup.
18. Warranty and/or Guarantee;
19. Submittals and O&M documentation as specified in the tender documents;
20. Protection of other trades' work from damage when performing this trades scope of work;
21. Sleeving as specified for this trade.
22. Work/materials/equipment excluded under Mechanical – Sub Section A.

EXCLUDED:

1. Cash Allowance and /or contingency funds when a specific dollar amount is listed in Division 01 or the sprinkler specification (prime mechanical contractor to include);
2. Water service from source to meter location (mechanical contractor to supply flanged connection);
3. Wet and dry pipe standpipe c/w Siamese connection and all connected hand hose cabinets and equipment;
4. Master control valve at point of water entry of water service into building if required;
5. Painting of pipe;
6. Commercial Kitchen Fire Suppression systems;
7. Scaffolding when required to perform work by multiple trades, i.e. Common scaffold/platform;
8. Temporary heat, general lighting, power, sanitation and water for general construction;
9. Hoarding;
10. Final Cleanup before turnover;

11. Security costs. Where Security is required for trades to complete their work these services and costs for same will be provided by the General Contractor;
12. Firestopping ;
13. Supply and maintenance of garbage and recycling bins for construction waste;
14. Removal of construction waste from job site;
15. General site security.

Section 44: Commercial Kitchen Fire Suppression Systems

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DEFINITION:

Work under this sub-section starts at a mechanical gas valve (valve supplied by this Contractor and installed by others) This contractor shall include and exclude the following items regardless of where they may appear in the tender documents unless specifically noted otherwise in this scope:

INCLUDED:

1. Fire Suppression System shall be designed, constructed and installed by this contractor in accordance with local codes;
2. Approved wet chemical system includes cylinder, piping network, hangers & supports, heads (nozzles) mechanical detection i.e. fusible links, control head c/w fuel shut-off device with manual re-set and micro-switch for Fire Alarm Panel monitoring.
3. Installation shall be completed by Factory Trained & Authorized Technicians only
4. Scaffolding/man lifts where required to perform work by this trade scope;
5. Trade specific lighting to perform tasks;
6. Trade cleanup - cleanup for work carried out by this trade;
7. Warranty and/or Guarantee;
8. Submittals and O&M documentation as specified in the tender documents;
9. Cash allowances and/or contingency funds when a specific dollar amount is listed in Division 01 or this trades specification section;
10. Protection of other trades' work from damage when performing this trades scope of work;
11. Section 3: Building Information Modeling (BIM) as it applies to this trade scope;
12. Section 4: Commissioning as it applies to this trade scope.

EXCLUDED:

1. Accessible Exhaust / Ductwork, Filters, Fans, & Hood;
2. Use Inspection, & Maintenance of commercial cooking equipment, exhaust, cleaning. Gas Valve to be installed by certified gas-fitter
3. Micro-switch to be supplied by Fire Protection Contractor only. All electrical work to be installed by other division. I.e. Electrical SOW. (dry contacts provided fort electrical contractor to tie-in the kitchen suppression system into base building Fire Alarm System as per code requirements.
4. Scaffolding when required to perform work by multiple trades, i.e. Common scaffold/platform;
5. Temporary heat, general lighting, power, sanitation and water for general construction;
6. Hoarding;
7. Final Cleanup before turnover;
8. Security costs. Where Security is required for trades to complete their work these services and costs for same will be provided by the General Contractor;
9. Firestopping;
10. Supply and maintenance of garbage and recycling bins for construction waste;
11. Removal of construction waste from job site;
12. General site security.

Section 45: Commercial Kitchen Equipment

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This contractor shall include and exclude the following items regardless of where they may appear in the tender documents unless specifically noted otherwise in this scope:

INCLUDED:

1. Supply of all commercial kitchen equipment (excluding plumbing fixtures noted on the mechanical drawings as supplied by the mechanical contractor);
2. Delivery, uncrate and place all appliances and equipment;
3. Pre-wire of equipment to a single point of hook-up.
 - If there is more than five (5) pieces of equipment requiring an electrical junction box or panel – panel to be supplied by the Electrical contractor;
 - Connection of equipment to panel is by the Commercial Equipment Supplier;
4. Final connection to electrical and mechanical services;
5. Refrigeration requirements for all coolers and freezers.
6. Scaffolding/man lifts where required to perform work by this trade scope;
7. Trade specific lighting to perform tasks;
8. Trade cleanup - cleanup for work carried out by this trade;
9. Warranty and/or Guarantee;
10. Submittals and O&M documentation as specified in the tender documents;
11. Cash allowances and/or contingency funds when a specific dollar amount is listed in Division 01 or this trades specification section;
12. Protection of other trades' work from damage when performing this trades scope of work;
13. Section 3: Building Information Modeling (BIM) as it applies to this trade scope;
14. Section 4: Commissioning as it applies to this trade scope.

EXCLUDED:

1. Drain line from coolers;
2. Exhaust fan ducting;
3. Fire suppression
4. Scaffolding when required to perform work by multiple trades, i.e. Common scaffold/platform;
5. Temporary heat, general lighting, power, sanitation and water for general construction;
6. Hoarding;
7. Final Cleanup before turnover;
8. Security costs. Where Security is required for trades to complete their work these services and costs for same will be provided by the General Contractor;
9. Firestopping;
10. Supply and maintenance of garbage and recycling bins for construction waste;
11. Removal of construction waste from job site;
12. General site security.

EXCLUDED:

1. Backfill and removal of excess material except as required under Included;
2. Concrete;
3. Control power supply outlets as outlined in Electrical Included,
4. Cutting, including core drilling and patching when pertaining to renovations, alterations or additions;
5. Distribution and installation of motorized dampers;
6. Distribution and installation of thermowells, control valves, remotely controlled sluice gates, orifice plates and primary measuring elements as related to instrumentation (see Mechanical Sub Section B, Included);
7. Instrumentation components specified as part of packaged equipment which is supplied by others;
8. Painting on-site;
9. Pressure tapping including block valves. (The instrumentation contractor to be responsible for locating pressure tapping);
10. Push-buttons, selector switches and indicating lights which come supplied with motor starters;
11. Supply and installation of companion flanges for orifice plates (see Mechanical Sub Section B, Included);
12. Supply and installation of meter body process lines;
13. Supply and installation of sampling lines;
14. Supports where detailed on architectural or structural drawings;
15. Waterproofing, fire-stopping and/or soundproofing in wall, floor and ceiling penetrations;
16. Weirs and weir plates.
17. Scaffolding when required to perform work by multiple trades, i.e. Common scaffold/platform;
18. Temporary heat, general lighting, power, sanitation and water for general construction;
19. Hoarding;
20. Final Cleanup before turnover;
21. Security costs. Where Security is required for trades to complete their work these services and costs for same will be provided by the General Contractor;
22. Firestopping;
23. Supply and maintenance of garbage and recycling bins for construction waste;
24. Removal of construction waste from job site;
25. General site security.

12. Circuit breakers - for systems under the electrical scope;
13. Clocks and Clock systems;
14. Contactors including those required for BMS control and monitoring;
15. Control consoles - except for HVAC controls and pre-wired factory-packaged equipment;
16. Control devices - for equipment under mechanical Scope which constitute protective control required by the Canadian Electrical Code;
17. Control panels - except for HVAC controls and pre-wired factory-packaged equipment;
18. Control power supply outlets - provided at locations shown on the electrical drawings and terminated in terminal cabinets or outlet boxes. Alternatively, if no control power supply outlets are shown on the electrical drawings, the electrical contractor shall provide such outlets adjacent to the source where the power circuit originates. The wiring beyond control power supply shall fall under the scope of control wiring (see Section 46 Instrumentation Excluded);
19. Control wiring - for motors, solenoids, relays and duct heaters under the mechanical scope, except pre-wired packaged equipment and HVAC controls that do not directly switch the power lines to the motors and duct heaters. Control wiring shall include all necessary wiring materials and connections, and the installations of controls that do not require mechanical connections;
20. Core drilling - for electrical, except if provided for under pre-cast and post-tensioned slabs specifications (see Included);
21. Demolition of existing electrical installations when the materials are to be re-used or retained as specified;
22. Detectors - for systems under the electrical scope;
23. Dimmer systems;
24. Distribution equipment, electrical;
25. Door wiring for electric locking mechanisms including interconnecting wiring.
26. Door wiring for overhead and automatic doors - electrical supply hook up, interconnecting wiring, conduit and boxes. Control devices and electrically activated holding devices by others.
27. Drainage connections for conduit systems (excluding drain lines);
28. Duct heaters (see Included);
29. Electrical thermostats - except for equipment supplied under mechanical scope. (Thermostats supplied under mechanical scope, if to be installed by electrical contractor, must be complete with adapter plates);
30. Electrical wiring for automatic underground sprinkler and/or irrigation systems (see Section 7 Exterior Landscaping Included);
31. Electronic systems - for items in the electrical scope;
32. Emergency power and lighting systems - electrical;
Including:
 - (a) Conduit and wire from lighting interface module to Facility Management Systems;
 - (b) All network wiring and programming (including addressing & trend logs);
 - (c) Qualified factory trained representative for programming and networking;
 - (d) Commissioning of systems;
33. Excavation - the electrical contractor shall be responsible for all excavating to facilitate the installation of his work. All backfill by others except sand and planking where specified for the protection of the electrical installation;
34. Fastenings - (screws, bolts, hangers, straps, etc.) for electrical equipment and systems;
35. Fire alarm systems - including fire phone systems, and fire alarm fan-shut-down and start-up relays and wiring. Also including wiring and connections only for fire protection systems and smoke or smoke/fire damper activation and monitoring;
Including:
 - (a) Conduit and wire from Fire Alarm interface module to Facility Management Systems;
 - (b) All network wiring and programming (including addressing & trend logs);
 - (c) Qualified factory trained representative for programming and networking;
 - (d) Commissioning of systems;
 (see Section 43 Mechanical Sub Section B Included, Sub Section D Included and Sub Section G Included);
36. Floor duct systems, electrical;
37. Gas detection systems, electrical (when causing an alarm only);
38. Generators - electrical;
39. Grounding systems;
40. Hand and hair dryers, electric;

41. Heat pumps - requiring only electrical connections;
42. Heating:
 - (a) Electrical base board heating;
 - (b) Heater (a self-contained, forced air electric heater with enclosure requiring only electrical connections and no ductwork connections);
 - (c) Electric unit heaters;
 - (d) Heating cables, heating tape;
 - (e) Radiant electrical heating panels;
 - (f) Controls for above items unless forming part of HVAC controls under mechanical scope;
43. Hoisting;
44. Holes to be cut into floor duct systems (see Included);
45. Horns and sirens - for systems under the electrical scope;
46. Identification and labelling, other than painted, including plastic decals for arrow flow, plastic and/or canvas, coloured tape and/or secondary colour banding (see Excluded and Section 36 Painting Included);
47. Inspection (Electrical Protection Branch);
48. Instrument panels - for systems under electrical scope;
49. Interrupter switches - for systems under electrical scope;
50. Laboratory equipment, electrical - except those items included in a factory assembled casework product;
51. Licenses;
52. Lighting fixtures (complete manufactured units): All luminous elements consisting of a light source (and ballasts if required) mounted separately or as components of an overall ceiling system including fixtures for coffered ceilings, air troffers and indoor or outdoor flood lighting, to include lamps for same, lenses, globes, guards and all types of diffusers (also supports if detailed on electrical drawings only, except for fluorescent fixtures larger than 610 mm x 1220 mm);
53. Lightning protection systems;
54. Luminous ceilings: including electrical lighting fixtures and raceways only but excluding leaf- type reflectors, egg-crate reflectors, plastic or glass lenses and diffusers and all supports for same. (For lighting fixtures see included);
55. Manufacturer's warranty only, other than the normal one year maintenance warranty;
56. Marine lighting - to mechanical systems other than packaged equipment;
57. Medical gas alarm and special fire protection systems - supply and install conduit, wire and connections only;
58. Meters - for systems under the electrical scope and power meters requiring connection to the HVAC/BMS; Including:
 - (a) Conduit and wire from power meter interface module to Facility Management Systems;
 - (b) All network wiring and programming (including addressing & trend logs);
 - (c) Qualified factory trained representative for programming and networking;
 - (d) Commissioning of systems.
 (see Section 43 Mechanical Sub Section D Excluded);
59. Motor control centres;
60. Motor starters - all motor starters and protection switches without exception other than that equipment which forms an integral part of packaged equipment requiring a power connection only (where applicable, see Definitions);
61. Multi-speed switches including variable speed drives which are electrically initiated and operated;
62. Nurses call systems and equipment, visual (audio-visual types under sound sub-bid);
63. Operating room lights;
64. Panels, electrical;
65. Cash Allowance and/or contingency funds when a specific dollar amount is listed in Division 01 or this trades specifications section;
66. Permits - as required for electrical work only;
67. Poly vapour hats;
68. Power plant equipment, (excluding fuel tanks, piping for fuel, coolants and exhaust and vent ducting) complete with prime mover, flex connections, radiator and muffler when the major function is to drive electric generators:
 - (a) For remote radiators only, piping and associated equipment including valves, pumps, expansion tanks and coolant will be provided under the mechanical scope (see Mechanical Sub Section B Included);
69. Power supplies - for systems under the electrical scope;

70. Power wiring - for equipment under the mechanical scope, shall include, without limiting the scope, all necessary wiring materials and connections for motors requiring protective control by the Canadian Electrical Code, heaters, lamps, electro static filters, and controls that directly switch the power lines to such equipment. Wiring to solenoids shall fall in the category of control wiring (see Electrical Included and Section 43 Mechanical Sub Section D Excluded);
71. Power wiring for vacuum systems installed by the mechanical contractor (see Section 43 Mechanical Sub Section B Included);
72. Primary distribution centres;
73. Protection devices and equipment;
74. Raceways - for systems under the electrical scope;
75. Rectifiers - for systems under the electrical scope;
76. Refrigerated rooms and coolers - electrical supply hook up only;
77. Regulators - for systems under the electrical scope;
78. Relays - for systems under the electrical scope;
79. Resistors - for systems under the electrical scope;
80. Roughing-in and connecting, only as shown on the tender documents, specialty items, cabinets or equipment supplied and installed by others;
81. Sauna, electrical;
82. Secondary distribution system;
83. Send/receiving devices - for systems under the electrical scope;
84. Service, electrical;
85. Services, aerial (other than utility);
86. Mark out backing in walls as required for all equipment provided by this scope;
87. Signalling systems - for items under the electrical scope;
88. Signs, electrical;
89. Sirens for systems under the electrical scope;
90. Site facilities, electrical;
91. Sleeves, through poured-in-place concrete and masonry where required for electrical conduit, wire or equipment;
92. Smoke detection systems, electrical;
93. Snow melting cables;
94. Solar power and heating systems (electrical) (see Section 43 Mechanical Sub Section B, Included),
95. Sprinkler annunciator systems, electrical;
96. Substations (electrical portion);
97. Supports - where detailed on electrical drawings only (see Electrical Included and Excluded);
98. Surveillance systems (television bid under sub-trade (g));
99. Switch boards;
100. Switches - all types of electrical switches for systems under the electrical scope except where part of packaged equipment supplied by others;
101. Teleautograph devices;
102. Telephone systems, private automatic (bid under sub-trade (d));
103. Temperature control system and devices for electric heating supplied by the electrical trade;
104. Thermocouple wiring and thermocouple sensor wiring except for HVAC controls;
105. Time recording system;
106. Timers and time clocks - for systems under the electrical scope;
107. Transformers - for systems under the electrical scope;
108. Valance and cove lighting: including electrical lighting fixtures and raceways only but excluding leaf-type reflectors, egg crate reflectors, plastic or glass lenses and diffusers and all supports for same. (For lighting fixtures see Included);
109. Wall panels - for systems under the electrical scope;
110. Watchman's clocking equipment - for systems under the electrical scope;
111. Wiring devices and plates - for systems under the electrical scope;
112. Wiring and equipment for transformer vaults;
113. Wire for branch circuits, feeders - for systems under the electrical scope;
114. Wiring - line voltage (field) wiring of food services refrigeration systems including the wiring of line voltage time clocks, thermostats and solenoids;

115. X-ray viewers;
116. Network cabling between Facility Management Systems and other lower level building systems such as, but not limited to:
 - f. Lighting
 - g. Fire alarm
 - h. Power Metering
 - i. Access Control
 - j. Building Management
117. Networking components required by other building systems for own standalone operation;
118. Addressing of lower level building systems;
119. Trend logs and alarms of lower level building systems;
120. Commissioning of lower level building systems;
121. Firestopping for electrical installations.
122. Trade specific Firestopping. The Firestopping contractor will submit separate prices to the following trade scopes:
 - A. Prime Mechanical – the prime mechanical contractor will carry the Firestopping costs for ALL trades in the mechanical scope.
 - B. Electrical - will carry the Firestopping costs for all Electrical.
 - C. General Contractor – will carry the Firestopping costs for ALL trade scopes other than Mechanical and Electrical.
123. Scaffolding/man lifts where required to perform work by this trade scope;
124. Trade specific lighting to perform tasks;
125. Trade cleanup - cleanup for work carried out by this trade;
126. General Cleanup – provide 1 in 10 workers to assist for 4 hours weekly to assist in general jobsite cleanup.
127. Warranty and/or Guarantee;
128. Submittals and O&M documentation as specified in the tender documents;
129. Protection of other trades' work from damage when performing this trades scope of work;
130. Section 3: Building Information Modeling (BIM) as it applies to this trade scope;
131. Section 4: Commissioning as it applies to this trade scope;
132. Wiring of plumbing fixtures – including low voltage.

EXCLUDED:

1. Alterations of services, as specified in the tender documents, required for specialty items, cabinets or equipment not supplied under this subcontract;
2. Backfill and removal of surplus material;
3. Backing and backing materials, supply and installation;
4. Concrete;
5. Control and protection devices for refrigerated rooms and coolers;
6. Control and protection devices for overhead and automatic doors, wiring for overhead doors;
7. Control wiring for equipment under mechanical scope intended for HVAC controls, including solenoids, valves and dampers;
8. Cutting, including core drilling and patching - when pertaining to renovations, alterations or additions;
9. Door access card readers or other devices which are door and/or door frame mounted except when part of systems furnished by one supplier (see Included); wiring for same regardless of supplier is by electrical contractor;
10. Door holding devices forming part of door hardware system;
11. Drain lines,
12. Food service and laundry equipment unless specified in the electrical specifications;
13. Fuel tanks, piping for fuel, coolants and exhaust and vent ducting for power plant equipment;
14. Installation of plaster trims (frames) for lighting fixtures;
15. Instrumentation;
16. Laboratory equipment which is part of factory assembled casework product;
17. Luminous light lenses and/or decorative lenses and/or louvres, including metal and/or plastic support

- mouldings when installed in architectural valances; (see Component Ceiling Systems Included, Architectural Woodwork and Lath, Plaster & Stucco and Drywall);
18. Manhole covers and frames;
 19. Painting (on site) (see Included);
 20. Portable appliances and portable furniture, and electrical fixtures, devices and cords affixed thereto;
 21. Shop equipment or tools;
 22. Soundproofing in wall, floor and ceiling penetrations;
 23. Supports where detailed on architectural or structural drawings (see Included);
 24. Thermostats and guards for equipment under mechanical scope;
 25. Trims or mouldings for lighting fixtures other than manufactured plaster trims and those supplied with the fixture;
 26. Valances and coves for lighting fixtures (see Component Ceiling Systems Included);
 27. Variable speed controllers that are mechanically or hydraulically initiated and operated or part of packaged equipment so specified under the mechanical scopes;
 28. Waterproofing in wall, floor and ceiling penetrations;
 29. Wiring for electric elevators, hydraulic elevators, parking garage hoists, escalators, dumbwaiters, conveyors, moving walkways, speed ramps, except as noted under Elevators and Escalators scopes.
 30. Scaffolding when required to perform work by multiple trades, i.e. Common scaffold/platform;
 31. Temporary heat, general lighting, power, sanitation and water for general construction;
 32. Hoarding;
 33. Final Cleanup before turnover;
 34. Security costs. Where Security is required for trades to complete their work these services and costs for same will be provided by the General Contractor;
 35. Supply and maintenance of garbage and recycling bins for construction waste;
 36. Removal of construction waste from job site;
 37. General site security.
 38. Services and service charges for electrical, telephone and television as levied by the municipality or utility company.

Section 48: Facility Management Systems

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Multiple building systems are to be integrated into a single building system via open protocols.

This contractor shall include and exclude the following items regardless of where they may appear in the tender documents unless specifically noted otherwise in this scope:

INCLUDED:

1. All programming required to integrate all building systems being combined;
2. A qualified and factory trained technician with experience in integration and networks;
3. Installation and setup of any hardware or software required to allow connection to lower level building systems being integrated;
4. All networking components to successfully connect to the building systems;
5. Provide network addressing to other vendors prior to the 3rd party building system work being started;
6. A single interface with full colour graphics for controlling and monitoring all connected building systems;
7. Any required energy or other dashboards;
8. Protection from damages of existing building systems while performing this scope;
9. Scaffolding/man lifts where required to perform work by this trade scope;
10. Trade specific lighting to perform tasks;
11. Trade cleanup - cleanup for work carried out by this trade;
12. Warranty and/or Guarantee;
13. Submittals and O&M documentation as specified in the tender documents;
14. Cash allowances and/or contingency funds when a specific dollar amount is listed in Division 01 or this trades specification section;
15. Protection of other trades' work from damage when performing this trades scope of work;
16. Section 3: Building Information Modeling (BIM) as it applies to this trade scope;
17. Section 4: Commissioning as it applies to this trade scope.

EXCLUDED:

1. Network cabling between FMS and other lower level building systems such as, but not limited to:
 - a. Lighting
 - b. Fire alarm
 - c. Power Metering
 - d. Access Control
 - e. Building Management
2. Networking components required by other building systems for own standalone operation;
3. Addressing of lower level building systems;
4. Trend logs and alarms of lower level building systems;
5. Commissioning of lower level building systems;
6. Scaffolding when required to perform work by multiple trades, i.e. Common scaffold/platform;
7. Temporary heat, general lighting, power, sanitation and water for general construction;
8. Hoarding;
9. Final Cleanup before turnover;
10. Security costs. Where Security is required for trades to complete their work these services and costs for same will be provided by the General Contractor;
11. Firestopping;
12. Supply and maintenance of garbage and recycling bins for construction waste;
13. Removal of construction waste from job site;
14. General site security.