

SECTION 078200 - SHEET METAL FLASHING AND TRIM
1.1 PERFORMANCE REQUIREMENTS
A. SHEET METAL STANDARD FOR FLASHING AND TRIM: NRCA'S "THE NRCA ROOFING MANUAL" AND SMACNAs "ARCHITECTURAL SHEET METAL MANUAL".
1.2 MATERIALS
A. SHEET METALS:
1. ALUMINUM SHEET: TWO-COAT FLUOROPOLYMER.
B. UNDERLAYMENT: FELTS OR SYNTHETIC UNDERLAYMENT.
1.3 PRODUCTS
A. MANUFACTURED THROUGH-WALL FLASHING.
B. FORMED LOW-SLOPE ROOF FABRICATIONS: INCLUDING COPINGS, BASE FLASHING, COUNTERFLASHING, FLASHING RECEIVERS, AND ROOF-PENETRATION FLASHING.
C. FORMED WALL FABRICATIONS: INCLUDING THROUGH-WALL FLASHING AND OPENING FLASHINGS IN FRAME CONSTRUCTION.
D. MISCELLANEOUS FABRICATIONS: INCLUDING EQUIPMENT SUPPORT FLASHING.

SECTION 077100 - ROOF SPECIALTIES
1.1 QUALITY ASSURANCE
A. MOCKUPS OF TYPICAL ROOF EDGE.
1.2 WARRANTY
A. ROOFING-SYSTEM WARRANTY: ROOF SPECIALTIES INCLUDED IN WARRANTY PROVISIONS OF ROOFING SECTION.
B. SPECIAL WARRANTY ON PAINTED FINISHES: 10 YEARS.
1.3 PRODUCTS
A. COPINGS: FORMED ALUMINUM.

B. ROOF-EDGE DRAINAGE SYSTEMS:
1. GUTTERS: FORMED ALUMINUM.
2. DOWNSPOUTS: FORMED ALUMINUM.
3. CONDUCTOR HEADS: FORMED ALUMINUM.
C. FINISHES: ALUMINUM: TWO-COAT FLUOROPOLYMER.

SECTION 077200 - ROOF ACCESSORIES
1.1 PRODUCTS
A. ROOF CURBS: INSULATED.
1. HEIGHT: MINIMUM 12 INCHES.
2. MATERIAL: ALUMINUM.
3. FINISH: MILL-FINISH ALUMINUM.
B. ROOF HATCHES: INSULATED WITH SINGLE-WALLED CURBS.
1. HEIGHT: MINIMUM 12 INCHES.
2. HATCH LID: OPAQUE, SINGLE LEAF.
3. MATERIAL: ALUMINUM.
4. FINISH: MILL-FINISH ALUMINUM.
5. ACCESSORIES: SAFETY RAILING SYSTEM.
C. DUCT SUPPORTS: EXTRUDED ALUMINUM, URETHANE INSULATED.
D. PIPE PORTALS: FLASHING TYPE, FORMED ALUMINUM WITH EPDM CAPS.
E. PREFORMED FLASHING SLEEVES: EXHAUST VENT FLASHING AND VENT STACK FLASHING FABRICATED FROM ALUMINUM SHEET.

SECTION 078413 - PENETRATION FIRESTOPPING
1.1 QUALITY ASSURANCE
A. INSTALLER QUALIFICATIONS: FM GLOBAL APPROVED OR UL QUALIFIED.
1.2 PENETRATION FIRESTOPPING
A. PENETRATIONS IN FIRE-RESISTANCE-RATED WALLS: F-RATINGS PER ASTM E 814 OR UL 1479.
B. PENETRATIONS IN HORIZONTAL ASSEMBLIES: F-, T-, AND W-RATINGS PER ASTM E 814 OR UL 1479.
1.3 INSTALLATION
A. IDENTIFICATION: WALLS AND PENETRATIONS.

SECTION 078443 - JOINT FIRESTOPPING
1.1 QUALITY ASSURANCE
A. INSTALLER QUALIFICATIONS: FM GLOBAL APPROVED OR UL QUALIFIED.
1.2 FIRE-RESISTIVE JOINT SYSTEMS
A. JOINTS IN OR BETWEEN FIRE-RESISTANCE-RATED CONSTRUCTION: ASTM E 1966 OR UL 2079.
B. JOINTS AT EXTERIOR CURTAIN-WALL/FLOOR INTERSECTIONS: ASTM E 119 OR ASTM E 2307.

SECTION 079200 - JOINT SEALANTS
1.1 WARRANTY
A. INSTALLER WARRANTY: TWO YEARS.
1.2 JOINT SEALANTS
A. VOC CONTENT OF INTERIOR SEALANTS:
1. ARCHITECTURAL SEALANTS: 250 G/L.
2. SEALANT PRIMERS FOR NONPOROUS SUBSTRATES: 250 G/L.
B. NONSTAINING SILICONE JOINT SEALANTS.
C. URETHANE JOINT SEALANTS.
D. MILDEW-RESISTANT JOINT SEALANTS.
E. BUTYL JOINT SEALANTS.
F. LATEX JOINT SEALANTS.
G. JOINT-SEALANT BACKING.

DIVISION 08 - OPENINGS

SECTION 081113 - HOLLOW METAL DOORS AND FRAMES
1.1 EXTERIOR DOORS AND FRAMES
A. SDI HEAVY DUTY: SDI A250.8, LEVEL 2. METALLIC-COATED, COLD-ROLLED STEEL SHEET.
1. EDGE CONSTRUCTION: MODEL 1, FULL FLUSH.
2. CORE: MANUFACTURER'S STANDARD INSULATED CORE.
3. FRAMES FULL PROFILE WELDED.
4. EXPOSED FINISH: FACTORY.
B. ACCESSORIES:
1. MULLIONS AND TRANSOM BARS.
1.2 INSTALLATION
A. WOOD STUD PARTITIONS: FRAMES FILLED WITH INSULATION.

SECTION 081213 - HOLLOW METAL FRAMES
1.1 INTERIOR FRAMES
A. SDI STANDARD DUTY: ANSI/SDI A250.8, LEVEL 1. UNCOATED, STEEL SHEET.
1. CONSTRUCTION: FULL PROFILE WELDED.
2. EXPOSED FINISH: PRIME.

SECTION 081416 - FLUSH WOOD DOORS
1.1 QUALITY ASSURANCE
A. MANUFACTURER AND VENDOR: FSC CERTIFIED FOR CHAIN OF CUSTODY.
1.2 DOOR CONSTRUCTION, GENERAL
A. QUALITY STANDARD: ARCHITECTURAL WOODWORK STANDARDS.
1. CLEAR FINISH MAPLE

B. WDMA I.S.1-A PERFORMANCE GRADE:
1. HEAVY DUTY UNLESS OTHERWISE INDICATED.
1.3 LIGHT FRAMES AND LOUVERS
A. LIGHT-OPENING FRAMES:
1. METAL FOR FIRE DOORS.
1.5 PRIMING/FINISHING
A. FACTORY FINISHING: ALL DOORS.

SECTION 084113 - ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS
1.1 WARRANTY
A. MATERIALS AND WORKMANSHIP: 10 YEARS.
B. FINISH: 10 YEARS.
1.2 SYSTEM COMPONENTS
A. FRAMING MEMBERS:
1. CONSTRUCTION: THERMALLY BROKEN.
B. GLAZING: SECTION 088000 "GLAZING."
C. ENTRANCE DOORS:
1. DOOR CONSTRUCTION: 1-3/4-INCH OVERALL THICKNESS.
2. DOOR DESIGN: MEDIUM STILE.
3. GLAZING STOPS AND GASKETS.
D. ENTRANCE DOOR HARDWARE: AS SCHEDULED.
1.3 ALUMINUM FINISHES
A. ALUMINUM FINISHES: CLASS 1, PVDF RESIN.

SECTION 085313 - VINYL WINDOWS
1.1 WARRANTY
A. WINDOWS: 10 YEARS FROM DATE OF SUBSTANTIAL COMPLETION.
1.2 WINDOW PERFORMANCE REQUIREMENTS
A. PRODUCT STANDARD: AAMA/WDMA/CSA 101/I.S.2/A440.
1. MINIMUM PERFORMANCE CLASS: CW.
2. MINIMUM PERFORMANCE GRADE: 30.
B. THERMAL TRANSMITTANCE: 0.35 BTU/SQ. FT. X H X DEG F MAXIMUM.
C. SOLAR HEAT-GAIN COEFFICIENT: 0.40 MAXIMUM.
D. SOUND TRANSMISSION CLASS: 26 MINIMUM.
E. OUTSIDE-INSIDE TRANSMISSION CLASS: 22 MINIMUM.
F. WINDBORNE-DEBRIS RESISTANCE: PASSING ASTM E 1886 AND REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION.
1.3 VINYL WINDOWS
A. BASIS OF DESIGN MANUFACTURER: KOHLTECH WINDOWS; 15311 128 AVE NW #1, EDMONTON, AB T5V 1A5, CANADA; 1-780-468-5722; WWW.KOHLTECH.COM.
B. FINISH: MATCH FINISH OF ALUMINUM STOREFRONT AND ENTRY SYSTEM.
C. GLASS: CLEAR, INSULATING, ARGON FILLED, WITH LOW-E COATING.
D. INSECT SCREENS: AT EACH OPERABLE EXTERIOR SASH, WITH ALUMINUM FRAMES AND WITHOUT WICKETS.

SECTION 088000 - GLAZING
1.1 SUMMARY
A. GLASS FOR WINDOWS, DOORS, AND STOREFRONT FRAMING.
1.2 WARRANTY
A. LAMINATED GLASS: 10 YEARS.
B. INSULATING GLASS: 10 YEARS.
1.3 MATERIALS
A. SILICONE GLAZING SEALANTS: NEUTRAL CURING, CLASS 100/50.
1. SEALANTS: LOW VOC.
B. GLAZING TAPES: EXPANDED-CELLULAR TYPE.
1.4 LAMINATED GLASS SCHEDULE
A. GLASS TYPE: CLEAR LAMINATED GLASS; FULLY TEMPERED FLOAT GLASS.
B. GLASS TYPE: LOW-E-COATED, LAMINATED VISION GLASS; CLEAR FULLY TEMPERED FLOAT GLASS.
1.5 INSULATING-LAMINATED-GLASS TYPES
A. GLASS TYPE: LOW-E-COATED, CLEAR INSULATING LAMINATED GLASS.
1. OUTDOOR LITE: FULLY TEMPERED FLOAT GLASS.
2. INDOOR LITE: CLEAR LAMINATED GLASS WITH TWO PLIES OF FULLY TEMPERED FLOAT GLASS.

SECTION 088813 - FIRE-RESISTANT GLAZING
1.1 WARRANTY
A. LAMINATED GLASS: NOT LESS THAN 10 YEARS.
1.2 MATERIALS
A. SILICONE GLAZING SEALANTS: NEUTRAL CURING, CLASS 50.
1. SEALANTS: LOW VOC.
B. GLAZING TAPES: EXPANDED-CELLULAR TYPE.
1.3 FIRE-PROTECTION-RATED GLAZING SCHEDULE
A. GLASS TYPE: 20-MINUTE FIRE-PROTECTION-RATED GLAZING WITH HOSE-STREAM TEST; LAMINATED CERAMIC GLAZING, LAMINATED GLASS WITH INTUMESCENT INTERLAYERS, OR DOUBLE GLAZING UNITS WITH CLEAR GEL FILL.
B. GLASS TYPE: 45-MINUTE FIRE-PROTECTION-RATED GLAZING; LAMINATED CERAMIC GLAZING, LAMINATED GLASS WITH INTUMESCENT INTERLAYERS, OR DOUBLE GLAZING UNITS WITH CLEAR GEL FILL.
C. GLASS TYPE: 60-MINUTE FIRE-PROTECTION-RATED GLAZING WITH 450 DEG F TEMPERATURE-RISE LIMITATION; LAMINATED GLASS WITH INTUMESCENT INTERLAYERS OR DOUBLE GLAZING UNITS WITH CLEAR GEL FILL.

DIVISION 09 - FINISHES

SECTION 092900 - GYPSUM BOARD
1.1 MATERIALS
A. INTERIOR GYPSUM BOARD:
1. GYPSUM WALLBOARD.
2. GYPSUM BOARD, TYPE X.
3. GYPSUM CEILING BOARD.
4. IMPACT-RESISTANT GYPSUM BOARD.
5. MOLD-RESISTANT GYPSUM BOARD.
6. GYPSUM SHAFT LINER PANELS.
A. CORE: 1/2 INCH THICK
B. LONG EDGES: DOUBLE BEVEL
B. TRIM ACCESSORIES:
1. INTERIOR.

SECTION 095123 - ACOUSTICAL TILE CEILINGS
1.1 SUMMARY
A. ACOUSTICAL TILES AND SUSPENSION SYSTEMS.
1.2 PRODUCTS
A. ACOUSTICAL CEILING TILES: ASTM E 1264.
1. TYPE, FORM, AND PATTERN: SQUARE LAY-IN REGULAR TILE.
2. THICKNESS: 5/8 INCH.
3. MODULAR SIZE: 24 BY 24 INCHES.
B. METAL SUSPENSION SYSTEMS: ASTM C 835.
1. WIRE HANGERS, BRACES, AND TIES.
1.3 INSTALLATION
A. INSTALLATION: ASTM C 836.

SECTION 096513 - RESILIENT BASE AND ACCESSORIES
1.1 PRODUCTS
A. RESILIENT BASE: THERMOSET RUBBER.
1. STYLE AND LOCATION:
a. STRAIGHT: IN AREAS WITH CARPET.
b. COVE: IN AREAS WITH RESILIENT FLOORING.
2. MINIMUM THICKNESS: 0.125 INCH.
3. HEIGHT: 4 INCHES.
4. OUTSIDE CORNERS: JOB FORMED OR PREFORMED.
5. INSIDE CORNERS: JOB FORMED OR PREFORMED.
RESILIENT STAIR ACCESSORIES:
1. STAIR TREADS: RUBBER, VULCANIZED THERMOSET.
a. SURFACE: PATTERN: EMBOSSED, GROOVED, OR RIBBED.
b. FEATURES: EMBEDDED ABRASIVE STRIPS.
c. NOSING STYLE: SQUARE, ADJUSTABLE TO COVER ANGLES BETWEEN 60 AND 90 DEGREES.
d. NOSING HEIGHT: 1-1/2 INCHES.
2. RISERS: INTEGRAL.
3. STRINGERS.
4. LANDING TILE.
C. RESILIENT ACCESSORIES: RUBBER.
1. STAIR-TREAD NOSING.
2. TRANSITION STRIPS.
D. INSTALLATION MATERIALS:
1. TROWELABLE LEVELING AND PATCHING COMPOUNDS.
2. ADHESIVES: LOW VOC.
3. STAIR-TREAD-NOSE FILLER.
4. FLOOR POLISH.

SECTION 096519 - RESILIENT TILE FLOORING
1.1 PRODUCTS
A. VINYL COMPOSITION FLOOR TILE: THROUGH-PATTERN TILE.
1. WEARING SURFACE: SMOOTH.
2. THICKNESS: 0.125 INCH.
3. SIZE: 12 BY 12 INCHES.
B. INSTALLATION MATERIALS:
1. TROWELABLE LEVELING AND PATCHING COMPOUNDS.
2. FLOOR POLISH.

SECTION 096613 - TILE CARPETING
1.1 WARRANTY
A. MATERIALS AND WORKMANSHIP FOR CARPET FAILURE: 10 YEARS.
B. MATERIALS AND WORKMANSHIP FOR CARPET CUSHION FAILURE: 10 YEARS.
1.2 PRODUCTS
A. CARPET TILE:
1. FIBER CONTENT: PREMIUM NYLON.
2. PILE CHARACTERISTIC: LEVEL-LOOP PILE.
3. PILE THICKNESS: 0.187 INCHES.
4. PILE WEIGHT: 38.0 OZ./SQ. YD.
5. APPLIED TREATMENTS: SOIL-RESISTANCE TREATMENT.
1.3 EXECUTION
INSTALLATION: ADHESIVE

SECTION 096816 - SHEET CARPETING
1.1 WARRANTY
B. MATERIALS AND WORKMANSHIP FOR CARPET FAILURE: 10 YEARS.
C. MATERIALS AND WORKMANSHIP FOR CARPET CUSHION FAILURE: 10 YEARS.
1.2 PRODUCTS
A. WOVEN CARPET:
1. FIBER CONTENT: PREMIUM NYLON.
2. PILE CHARACTERISTIC: LEVEL-LOOP PILE.
3. PILE THICKNESS: 0.187 INCHES.
4. PILE WEIGHT: 38.0 OZ./SQ. YD.
5. APPLIED TREATMENTS: SOIL-RESISTANCE TREATMENT.
B. CARPET CUSHION:
1. TRAFFIC CLASSIFICATION: HEAVY TRAFFIC.
2. MATERIAL: FIBER.
3. THICKNESS: .375 INCHES.
1.3 EXECUTION
A. INSTALLATION: STRETCH IN.

SECTION 099113 - EXTERIOR PAINTING
1.1 PAINT, GENERAL
A. MPI-LISTED PRODUCTS.
1.2 EXTERIOR PAINTING SCHEDULE
A. CEMENT BOARD SUBSTRATES:
1. LATEX SYSTEM.
B. STEEL AND IRON SUBSTRATES:
1. WATER-BASED LIGHT INDUSTRIAL COATING SYSTEM.
C. GALVANIZED-METAL SUBSTRATES:
1. LATEX SYSTEM.
D. ALUMINUM SUBSTRATES:
1. LATEX SYSTEM.
E. STAINLESS-STEEL SUBSTRATES:
1. LATEX SYSTEM.

SECTION 099123 - INTERIOR PAINTING
1.1 PAINT, GENERAL
A. MPI-LISTED PRODUCTS.
1.2 INTERIOR PAINTING SCHEDULE
A. STEEL SUBSTRATES:
1. LATEX SYSTEM, ALKYD PRIMER.
B. GYPSUM BOARD SUBSTRATES:
1. LATEX OVER LATEX SEALER SYSTEM.

DIVISION 10 - SPECIALTIES

SECTION 101423 - PANEL SIGNAGE
1.1 SIGNS
A. ROOM-IDENTIFICATION SIGN:
1. LAMINATED-SHEET SIGN: PHOTOPOLYMER SHEET WITH RAISED GRAPHICS.
2. MOUNTING: SURFACE MOUNTED WITH CONCEALED ANCHORS, ADHESIVE, OR TWO-FACE TAPE.
3. TEXT AND TYPEFACE: ACCESSIBLE RAISED CHARACTERS AND BRAILLE.
1.2 MATERIALS AND ACCESSORIES
A. ADHESIVES: VOC CONTENT OF 70 G/L OR LESS.
SECTION 102800 - TOILET, BATH, AND LAUNDRY ACCESSORIES
1.1 PRODUCTS

A. PUBLIC-USE WASHROOM ACCESSORIES:
1. TOILET TISSUE (ROLL) DISPENSER.
2. LIQUID-SOAP DISPENSER.
3. GRAB BAR.
4. MIRROR UNIT.
B. WARM-AIR DRYERS:
1. WARM-AIR DRYER.

SECTION 104416 - FIRE EXTINGUISHERS
1.1 WARRANTY
A. MATERIALS AND WORKMANSHIP: SIX YEARS.
1.2 PERFORMANCE REQUIREMENTS
A. FIRE EXTINGUISHERS: COMPLYING WITH NFPA.
1.3 PRODUCTS
A. PORTABLE HAND-CARRIED FIRE EXTINGUISHERS:
1. REGULAR DRY-CHEMICAL TYPE.
B. MOUNTING BRACKETS.

DIVISION 12 - FURNISHINGS

SECTION 123530 - RESIDENTIAL CASEWORK
1.1 CABINETS
A. QUALITY STANDARD: KCMA A161.1.
B. FSC-CERTIFIED WOOD.
C. FACE STYLE: FLUSH OVERLAY.
D. CABINET STYLE: FACE FRAME.
E. DOOR AND DRAWER FRONTS: SOLID-WOOD STILES AND RAILS WITH WOOD PANELS.
F. FACE FRAMES: SOLID WOOD.
G. EXPOSED CABINET END FINISH: WOOD VENEER.
H. CABINET INTERIORS: WOOD.
1.2 MATERIALS
A. COMPOSITE WOOD PRODUCTS AND ADHESIVES DO NOT CONTAIN UREA FORMALDEHYDE.
B. EXPOSED WOOD SPECIES: MANUFACTURER'S STANDARD DOMESTIC HARDWOOD SPECIES.
C. HARDWARE:
1. HINGES: CONCEALED BUTT HINGES.
2. PULLS: BACK-MOUNTED DECORATIVE PULLS.

SECTION 123623.13 - PLASTIC-LAMINATE-CLAD COUNTERTOPS
1.1 PLASTIC-LAMINATE COUNTERTOPS
A. GRADE: PREMIUM.
B. FSC-CERTIFIED WOOD PRODUCTS.
C. HIGH-PRESSURE DECORATIVE LAMINATE: GENERAL-PURPOSE TYPE.
D. CORE MATERIAL AT SINKS: PARTICLEBOARD MADE WITH EXTERIOR GLUE, MEDIUM-DENSITY FIBERBOARD MADE WITH EXTERIOR GLUE, OR EXTERIOR-GRADE PLYWOOD.
E. CORE THICKNESS: 1-1/8 INCH.
1.2 MATERIALS
A. ADHESIVES: UREA FORMALDEHYDE FREE.

DIVISION 22 - PLUMBING

SECTION 224213.13 - COMMERCIAL WATER CLOSETS
1.1 FLOOR-MOUNTED, BACK-OUTLET WATER CLOSETS
A. WATER CLOSETS: FLOOR MOUNTED, BACK OUTLET, TOP SPUD.
1. MATERIAL: VITREOUS CHINA.
2. TYPE: SIPHON JET.
3. STYLE: FLUSHOMETER VALVE.
4. SUPPORT: WASTE-FITTING ASSEMBLY.
1.2 FLUSHOMETER VALVES
A. LEVER-HANDLE, DIAPHRAGM FLUSHOMETER VALVES:
1. STYLE: EXPOSED.
2. CONSUMPTION: 1.6 GAL. PER FLUSH.
1.3 TOILET SEATS
A. TOILET SEATS:
1. TYPE: COMMERCIAL (STANDARD).
2. SHAPE: ELONGATED RIM, OPEN FRONT.
3. HINGE: CHECK.
4. SEAT COVER: NOT REQUIRED.

SECTION 224216.13 - COMMERCIAL LAVATORIES
1.1 VITREOUS-CHINA, COUNTER-MOUNTED LAVATORIES
A. LAVATORY: OVAL, SELF RIMMING, VITREOUS CHINA, COUNTER MOUNTED.
1. TYPE: SELF-RIMMING FOR ABOVE-COUNTER MOUNTING.
2. NOMINAL SIZE: OVAL, 19 BY 17 INCHES.
3. FAUCET-HOLE PUNCHING: THREE HOLES, 4-INCH CENTERS.
4. FAUCET-HOLE LOCATION: TOP.
1.2 VITREOUS-CHINA, WALL-MOUNTED LAVATORIES
A. LAVATORY: WHEELCHAIR, VITREOUS CHINA, WALL MOUNTED.
1. TYPE: SLAB OR WHEELCHAIR.
2. NOMINAL SIZE: RECTANGULAR, 20-1/2 BY 18-1/4 INCHES.
3. FAUCET-HOLE PUNCHING: THREE HOLES, 4-INCH CENTERS.
4. FAUCET-HOLE LOCATION: TOP.
1.3 SOLID-BRASS, MANUALLY OPERATED FAUCETS
A. LAVATORY FAUCETS: MANUAL-TYPE, TWO-HANDLE MIXING, COMMERCIAL, SOLID-BRASS VALVE.
1. BODY TYPE: CENTERSET.
2. BODY MATERIAL: COMMERCIAL, SOLID BRASS.
3. FINISH: POLISHED CHROME PLATE.
4. MAXIMUM FLOW RATE: 1.2 GPM.
5. MOUNTING TYPE: DECK, EXPOSED.
6. VALVE HANDLE(S): WRIST BLADE, 4 INCHES.
7. SPOUT: RIGID TYPE.



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