

PART E
SPECIFICATIONS

PART E - SPECIFICATIONS

GENERAL

E1. APPLICABLE SPECIFICATIONS, STANDARD DETAILS AND DRAWINGS

E1.1 *The City of Winnipeg Standard Construction Specifications* in its entirety, whether or not specifically listed on Form B: Prices, shall apply to the Work.

E1.1.1 *The City of Winnipeg Standard Construction Specifications* is available in Adobe Acrobat (.pdf) format on the Information Connection page at The City of Winnipeg, Corporate Finance, Materials Management Division internet site at <http://www.winnipeg.ca/matmgt>.

E1.1.2 Further to GC:2.4(d), Specifications included in the Bid Opportunity shall govern over *The City of Winnipeg Standard Construction Specifications*.

E1.2 The following Drawings are applicable to the Work:

<u>Drawing No.</u>	<u>Drawing</u>
R1	Roof Plan
D1	Details

MATERIALS

Bronx Park Community Centre

.01 **DIMENSIONAL LUMBER**

This shall be construction grade spruce of the dimensions as outlined under the Description of Work.

.02 **PLYWOOD SHEATHING**

This shall be fir plywood of the same thickness as any decking being replaced.

.03 **VAPOUR BARRIER**

This shall be 1 ply Soprema Sopravap'r or approved equal.

.04 **ROOFING INSULATION**

Expanded Polystyrene Type II with a minimum slope of 1/8" per foot and a minimum thickness of 2". This shall be as manufactured by Plastifab Ltd. or Insulation Industries Ltd. Slopes shall be as per the attached Drawings.

1" Soprema Colgrip A polyisocyanurate insulation with acrylic facer or approved equal. Paper facers will not be accepted.

.05 **INSULATION ADHESIVE**

This shall be Insta-Stik as manufactured by Flexible Products Company Roofing Group and distributed by Brock White or Coltack Adhesive as distributed by Soprema.

.06 **POURABLE SEALER**

This shall be Lexcan 2 part Pourable Sealer or approved equal. This shall be used to fill all pitch boxes or as otherwise specified.

.07 **MODIFIED BITUMEN MEMBRANE**

This shall be the following:

Membrane:

Soprema Colvent 810 self adhering base sheet membrane with a Sopraply Cap-560 cap sheet (heavy traffic) or approved equal.

Stripping:

Soprema Sopraflash Flam Stick self adhering base sheet with a Sopraply Cap-550 cap sheet or approved equal.

.08 **MODIFIED PRIMER**

Soprema Elastocol 700 for use with the self adhesive membranes.

.09 **RUBBERIZED MASTIC**

This shall be Polyroof as manufactured by Tremco Ltd., or approved equal. All exposed rubberized asphalt shall be coated with aluminum paint.

.10 **CAULKING**

This shall be Tremco Vulkem 931 or approved equal.

.11 **ALUMINUM PAINT**

This shall be Tremco Double Duty or approved equal.

.12 **VENT STACKS**

These shall be Insulated Stack Jack Flashings (with metal cap not neoprene seal) SJ-20 as manufactured by Thaler.

.13 **METAL FLASHING**

The base and cap flashing shall be a minimum of 24 gauge in thickness. Finishes shall be closely match the painted color of the existing flashing being removed. This shall be chosen from the range of Stelco 8000 series of colors.

.14 **ACCESSORIES**

All nails, bolts, screws and other fasteners etc. shall all be as recommended by the manufacturer of the materials for which they are to be used.

.15 **SPLASH PADS**

Splash Pads shall be 51" natural # 45-41001 as manufactured by Barkman Concrete LTD.

ROOFING PROCEDURES

Bronx Park Community Centre

- .01 Protect all new Work and the existing building and its contents against inclement weather. Supply and install equipment and enclosures necessary to provide this protection from beginning to completion of the Work.
- .02 Do not apply any roofing whatsoever during any inclement weather including when the temperature may fall lower than 5 degrees above Celsius.
- .03 Do not expose roofing materials, vulnerable to water or sun damage, in quantities greater than can be weatherproofed in one day. Use only clean and dry materials and apply only during weather that will not introduce moisture into the roof system. This would include days of excessively high relative humidity. Undertake only that amount of roofing that can be completed as specified in the same day or prior to inclement weather forcing a shutdown of the operations.
- .04 Apply roofing over clean and dry surfaces and in accordance to C.R.C.A. and /or manufacturers guidelines and as amended herein.
- .05 All materials on the roof shall be stored in such a manner as to prevent blow-offs during high winds.
- .06 Should the roofing operations be terminated during the day for unforeseen circumstances all exposed vapor barrier, felts or drywall **MUST** be fully glaze coated with bitumen prior to leaving the Site that day.
- .07 Protect the surrounding surfaces against damage from the roofing operations. Where hoisting is necessary protect the buildings by hanging tarpaulins. Should equipment be parked on the surrounding lawn, it shall be protected with 3/4" plywood. Materials nor debris shall be stored or stock piled on adjoining roof areas that are not being replaced.
- .08 Provide protection for the public using walkways, grounds, entrances, etc., by using proper warning signs, hoarding, shelters, or barricades as agreed to by the Contract Administrator.
- .09 Where Work must or will continue over the finished roofing membrane, the Contractor will protect it with plywood sheathing.
- .10 Removal of (opening up) existing roof membrane shall be done only after consultation with and agreement by the Contract Administrator. Remove only that portion that can be fully completed as specified within the same day work period.
- .11 Employ qualified mechanical tradesmen to disconnect existing roof top units and to move the units to allow complete installation of roofing membrane, insulation and vapor barrier as specified herein. The Contractor shall be responsible for any required alterations, such as extending ducts or electrical, as is required to properly reconnect of the units. The Contractor shall be held responsible for any damage to mechanical units from the roofing operations. Contact Contract Administrator prior to any disconnections.
- .12 Notify Contract Administrator and ensure he has proper time to appear on Site during application period. Failure to do so may result in the total rejection of all Work completed prior to notifying the Contract Administrator.
- .13 Inspect all roof decking prior to installation of roofing system and report all defects or unsuitable conditions to the Contract Administrator and correct deficiencies as directed.

- .14 The Site shall be inspected prior to commencement of Work to ensure no current anomalies are present such as lawn damage, asphalt on walls, broken windows. etc. All anomalies shall be reported to the Contract Administrator . They shall then be recorded and photographed by both parties at that time. Should no anomalies be reported prior to Work commencing it shall be assumed that none existed prior to commencement.
- .15 Use only equipment in good working order including all thermometers and gauges. Locate equipment as instructed by the Contract Administrator. Maintain continuous supervision while kettles in operation.
- .16 All applicable safety regulations as indicated by Manitoba Health and Safety must be strictly followed at all times.

DESCRIPTION OF WORK

ROOF AREA A1

- .01 The existing sheet metal flashing shall be removed and discarded from site to an authorized grounds.
- .02 The existing roof assembly shall be removed to the deck and discarded from site to an authorized nuisance grounds.
- .03 **ALL** loose vapor barrier shall be scraped from the deck and also discarded as above. The roof deck shall then be swept clean of all dirt and debris.
 - a. **NOTE: ALL LOADS OF DEBRIS REMOVED FROM SITE SHALL BE PROPERLY TARPED**
- .04 Temporarily disconnect and remove mechanical units as required to allow roofing operations to continue. Ensure all units are in working condition prior to removal. Should the unit be malfunctioning advise the Contract Administrator prior to removal. If this is not done the Contractor may be held responsible for the repair of the unit. Use only qualified mechanical trades people for these operations.
- .05 All plumbing vents shall be extended at this time. Existing cast hubs shall be removed (as required) and the appropriate length black ABS extensions securely clamped to the existing plumbing using Fernco couplers.
- .06 Discard the old vent hoods on area A1 and replace with new 22 gauge galvanized insulated goose neck vent hoods complete with bug screens. Install new curbs if required.
- .07 All existing parapet blocking shall be removed and discarded. New parapets shall be constructed using 2x6 studs and plates with 1/2" plywood on both sides. The pony wall shall be fully insulated with batt insulation. The new roof vapor barrier shall extend to the outside face of the existing walls under the new parapets. If drywall is being installed on the roof deck then matching thickness plywood shall be installed under the parapets rather than drywall. The parapets shall be securely fastened in place with appropriate concrete fasteners at 16" on center. These shall be a spreadable compression fastener and 2"#12 screws at 8" on center.
- .08 All parapet blocking shall be raised at this time to maintain a minimum height of 3" above the top of the new membrane. This shall be done with solid blocking of the same width as that which is currently in place.
- .09 All wood blocking on all curbs shall be raised with solid wood blocking to maintain a minimum height of 8" above the top of the new roof assembly. A minimum of a 2x3 shall be installed on all curbs and 1/2" plywood installed over the sides of the old portion of the curbs to provide a clean substrate for the new self adhering membrane stripping. The 2x3 shall be set back slightly to accommodate the unit size.
- .10 All pitch boxes shall be replaced with wood curbs. These shall be constructed as detailed. All items entering the curbs shall do so through the sides. The curbs shall be designed so as to ensure any entry points are a minimum of 8" off the roof. The curbs shall be fully insulated and a plywood and metal cover installed.
- .11 Install 1/2" plywood up the inside face and on top of all parapets. A strip of plywood shall also be installed on all adjoining high walls and is to extend 12" up above the top of the new roofing or as conditions allow.

- .12 A bead of mastic shall be applied around the base of all plumbing stacks so as to ensure a continuous seal to the vapor barrier. This shall be done at both the vapor barrier level and at the membrane.
- .13 Install self adhering membrane vapour barrier stripping around all curbs and all perimeter edges. Carry the stripping just high enough up to ensure that the roof membrane can tie into the vapour barrier
- .14 Adhere the sloped insulation to the vapour barrier using the specified adhesive. The application of the adhesive must be done in strict accordance to the manufacturers guidelines so as to obtain a minimum uplift equal 90 mph. Install back slope insulation in the same manner.
- .15 Adhere the layer of Colgrip insulation to the sloped insulation barrier using the specified adhesive. The application of the adhesive must be done in strict accordance to the manufacturers guidelines so as to obtain a minimum uplift equal 90 mph. Offset the layers of insulation from one another.
- .16 Adhere the modified bitumen base sheet to the insulation. Ensure no wrinkles are present and that all side and end laps are properly sealed. Install screws and plates spaced 12" on centre around the perimeter edge of the roof as well as 12" on centre around all curbed openings, sleepers and other such projections. The membrane stripping shall cover all plates. Fasteners shall be as required by Soprema.
- .17 Apply the self adhering modified bitumen base sheet stripping in strict accordance to manufacturers guidelines. All blocking shall first be coated with the appropriate primer. The stripping shall be terminated 1" down the outside face of the parapets, 12" up high walls, and on top of all curbs. Torch applied corner gussets shall be installed on all inside and outside corners over top of the self adhering stripping.
- .18 Set the base flanges of the Thaler Stackjacks in a bed of mastic. Seal in with a single ply of torch applied base sheet membrane. The ABS riser shall extend 1/2" above the top of the base and a bead of sealant shall then be applied to the top lip of the riser and the top cap installed.
- .19 Torch adhere the cap sheet to the base sheet once again ensuring no wrinkles are present and that a minimum of 1\8" asphalt flow is present along the edges of all laps. Excessive seepage is not acceptable.
- .20 Torch apply the cap sheet stripping in strict accordance to the manufacturers guidelines. The stripping shall be carried to the outside face of the parapets and 12" up the adjoining walls.
- .21 Install the new cap flashing on all parapets in a manner as the enclosed details.
- .22 Install the fastening bar flashing with gum cup (as detailed) along the high walls. Fasten through the flashing and membrane a maximum of 12" on center with TEK screws. Fill the gum cup with the approved caulking.
- .23 All vent curbs shall be filled with spray in place polyurethane foam insulation. The insulation shall be installed to the top of the curb so as to drain moisture out.
- .24 Reinstall all roof top units. Extend all duct work, gas lines, and electrical as required to allow proper installation.
- .25 Reconnect and insulate all ducts. Coat with an appropriate fibrated emulsion. Coat all surfaces with aluminum paint.

- .26 Install new 4" x 4" closed face pre finished metal down pipes and structural steel section from all scuppers. Concrete splash pads shall be installed and sloped away from the building.