

Ventsulation Felt by Johns Manville or accepted equivalent.

B. Roofing Membranes:

1. One granular mineral, polyester reinforced, SBS over one smooth SBS. Modified bitumen sheets according to CGSB 37-GP-56M, UL Class A requirements, and FM wind uplift classification as specified.

C. Bitumen: Primer according to roofing membrane manufacturer's recommendations. Asphalt: Steep, according to ASTM D312, Type II for slopes to 3 inches; Type IV for slopes over 3 inches.

D. Traffic pads shall be a second layer of granular SBS modified cap sheet, polyester reinforced, with an alternate granular color accepted by A/E, and fully bonded to the top ply membrane. 36 inch wide minimum membrane rolls shall be cut into 6'-0" lengths to provide drainage channels. Drainage channels shall be 6 inches.

E. Aluminum Roof Coating: Fibrated reflective coating conforming with ASTM D2824 Type II, to be used at pitch pans, sleeves, and objects above finished deck.

F. Cant Strips: Wood fibered, fiberglass, rockwool, or pressure-treated pine, minimum 2 inch stock mitered to form a 45-degree angle at walls and parapets, nailed to solid deck. Perlite cants are not allowed.

G. Roofing tapes, sealers, nails, primers, and roof vents according to manufacturer's recommendations.

H. SBS Flashing Cement: Asbestos free roofing cement according to ASTM D4586.

I. Provide metal roof vents on lightweight concrete or existing gypsum roof decks at a rate of 1 vent per 900 square feet according to roofing system manufacturer's recommendations. Specify vent pattern. Cut vent holes to structural surface. Ballard JL-10 by JIMCO Products, one way, insulated, spun aluminum vent, or accepted equivalent.

J. Lightweight concrete and existing gypsum roof decks shall have a nailed channel-vented base sheet.

K. Insulation:

1. Tapered or flat polyisocyanurate foam board according to Section 07210.
2. Cellular glass roof insulation.
3. Glass fiberboard roof insulation permanently bonded to roofing felt facer sheets with minimum uniform density of 1.40 lbs/cf.
4. Follow NRCA recommendation for preventing blistering effect of insulation board.

5. Lightweight insulating concrete according to Section 03342.
 6. Rigid mineral fiber board with fiberglass scrim.
- L. Recover/Overlayment Boards:
1. As approved by roofing membrane manufacturer.
 - a. Dens-Deck by Georgia Pacific.
 - b. Sopraboard by Soprema.
- M. Fastenings: Comply with Factory Mutual uplift classification as specified.
1. Nails for Securing Felts to Wood Decks and Nailers: Hot dip galvanized ring shank roofing nails.
 2. Nails for Securing Felts to Insulating Concrete: "Zonotite" nails with base ply fastener roofing disks.
 3. Nails for Securing Felts and Base Flashing to Masonry and Concrete: Flat head galvanized masonry nails.
 4. Nails Securing Insulation to Concrete Deck: No.12 or No.14 diameter concrete fasteners or anchors.
 5. Nails Securing Insulation to Wood Deck: No.10 or No.12 hex washer or No.3 Phillips fasteners.
 6. Nails Securing Insulation to Gypsum Decks: Fasteners shall be designed with a shank that lodges in the deck and a large disc or plat under the fastener head to distribute the wind force transferred from the insulation.
 7. Staple fasteners are not allowed.
 8. Provide term bar at vertical flashing areas according to RAS.

PART 3 EXECUTION

3.01 PREPARATION

- A. Do not start application of roofing materials until deck surfaces are smooth, plane, firm, dry, free from dirt and foreign materials, and have been inspected and accepted, in writing, by the Roofing Applicator and the A/E.
- B. Verify pressure treated wood nailers and roof cants are in place and properly secured.
- C. Properly prepare and secure vents, conduits, pipes, equipment bases, and other projections through the roof deck. Clean exposed metal surfaces of paint, rust, scale, or other foreign matter. Drive protecting nails and screws flush, recess anchor bolts and nuts flush, and cutoff projecting bolt ends flush.
- D. Thoroughly clean deck surface before application of roofing materials, using compressed air, vacuum, or other approved method.

- E. Starting of the work will be considered acceptance of base surfaces by the Roofing Applicator and assurance by the Roofing Applicator of a watertight job and ability to provide the required warranty.
- F. Protect building and adjacent surfaces from damage because of bitumen spillage, repair or replace such surfaces so damaged. Do not store materials on completed roofing.
- G. Over exposed bitumen, provide mineral granules matching granular cap sheets.
- H. Water stops:
 - 1. Protect roof deck and partially completed roofing from moisture by providing water stops at end of each day's work or when weather is threatening.
 - 2. Failure to protect deck, roof insulation, and roofing will result in removal of damaged materials or materials containing excessive moisture.
 - 3. Remove water stops before start of new work.
- I. Phasing is not allowed.

END OF SECTION

PROPOSAL

(revised)

MILANDER CENTER
ROOFING

BID NO. 2009/10-3230-00-102

BIDDER'S NAME: _____

ADDRESS: _____

PHONE NO: _____

AUTHORIZED REPRESENTATIVE: _____

TITLE _____ SIGNATURE _____

ROOFING* \$ _____

Stainless Steel metal cap **ADD-ON** \$ _____
***As per plans and specifications.**

<u>Phase of Work</u>	<u>Days to Complete</u>
Shop Drawings	_____
Insulation plus LWIC	_____
SBS roofing	_____
Install Metal Flashing	_____
Total Number of Days	_____