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Baker

CONTRACT K-2342
PITTSBURGH PLATE GLASS COMPANY
CHEMICAL DIVISION
GURTNER, HEBERT & CO., INC.

SUPERSTRUCTURE WORK

RIVERSIDE STATION - UNIT 3
LAKE CHARLES PLANT
APRIL 24, 1967

P-799

PO 131-5

| BB 0012258 |

SARGENT & LUNDY

ENGINEERS

SUPERSTRUCTURE WORK
LAKE CHARLES PLANT - RIVERSIDE STATION - UNIT 3
PROJECT NO. P-799
PITTSBURGH PLATE GLASS COMPANY - CHEMICAL DIVISION

SECTION 5 - ASBESTOS-CEMENT SIDING

5-01. SCOPE

This section of the Specification includes requirements for the following, as indicated on the drawings, as hereinafter specified (under the Article numbers indicated), or as required to properly complete the Work:

- 5-02. General Requirements for Asbestos-Cement Siding and Roofs
- 5-03. Detailed Requirements for Asbestos-Cement Siding and Roofs
- 5-04. Samples Required

5-02. GENERAL REQUIREMENTS FOR ASBESTOS-CEMENT SIDING AND ROOFING

A. Structural Requirements:

a. Wind Loads:

<u>Height Zone in Feet</u>	<u>Inward and Outward Wind Pressure in Lbs. Per Square Foot</u>
(1) Less than 30.....	25
(2) 30 to 49.....	35
(3) 50 or over.....	45

- b. Fasteners provided shall be designed to withstand these loadings without exceeding the maximum allowable unit stresses for such fasteners.

B. Thermal Properties:

- a. Overall coefficient of thermal transmission U for insulated roofing shall not exceed 0.280 Btu/hr/sf/°F in still air.
- b. Submit test data from recognized testing laboratory to substantiate Contractor's claims as to thermal properties of his constructions; in lieu of this, Contractor shall arrange, without cost to Purchaser, to conduct such tests as may be directed by Consulting Engineers to verify such claims.

- C. Weathertightness: All completed siding shall be WATERTIGHT AND AIRTIGHT to provide a completely weathertight and/or dust-tight installation.

- D. Girt Alignment: Prior to erection of siding, check accuracy of alignment of wall girts to see that they are within tolerances allowable for installation of siding they are to support. Immediately report any inaccuracies found to Consulting Engineers so inaccuracies can be rectified before siding and/or roofs are erected.

- E. Lap Lines: Line up all around for siding. Provide uniform straight lines for roofs.
- F. Field Painting for Concealed Surfaces: This work will be performed by Sline Industrial Painters, Inc., and will include cleaning and painting, for all surfaces of structural steel and miscellaneous steel (other than galvanized surfaces) which will be in contact with, or made inaccessible by, siding, roofs, flashings, etc. Do not install these materials in any area until the required painting has been completed, inspected and approved.
- G. Cleaning of Siding and Roofs:
- Clean all exposed faces of siding and roofs of labels, dirt, streaks, caulking or sealing materials, undue discolorations, etc., and provide at least a dry wipedown at time of erection.
 - All exposed faces of siding and roofs, just prior to acceptance of the WORK, shall be completely satisfactory in appearance to Consulting Engineers. Any defects in appearance, due to Contractor, shall be remedied at Contractor's expense, as required.
- 5-03. DETAILED REQUIREMENTS FOR ASBESTOS-CEMENT SIDING AND ROOFS
Detailed requirements for siding, roofs and all components and accessories shall be as specified in the following tables:
- Table 5-1 - Requirements for Siding and Roof Components.
 - Table 5-2 - Requirements for Siding and Roof Accessories.
 - Table 5-3 - Requirements for Siding and Roof Fasteners.
 - Table 5-4 - Spacing of Siding and Roof Fasteners.

TABLE 5-1
REQUIREMENTS FOR SIDING AND ROOF COMPONENTS

Item	Requirements
1. Uninsulated Siding and Roof	A. Material: Corrugated asbestos-cement, ASTM C221, Type A (Standard) B. Manufacturers: One of following types and makes: - Transite Corrugated..... Johns-Manville - Corrugated Asbestone 400.. National Gypsum Company - Careystone Corrugated..... The Philip Carey Mfg. Co. C. Sheets: - Width: 42" - Overall Depth: Approximately 1½" - Material Thickness: Approximately 3/8" - Weight: Approximately 3-3/4" to 4 psf - Corrugations: 4.2" pitch, 10 per sheet D. Side Laps: 4.2" (one corrugation) E. End Laps: 6" minimum F. Installation Method: Straight line, using cut corners

TABLE 5-1 ROOF COMPONENTS, Cont.

Item	Requirements
2. Insulated Roof	A. Material: Asbestos-cement, as follows: a. Exterior Sheet: Corrugated, ASTM C221, Type A (Standard) b. Facings for Insulated Interior Sheet: Flat, ASTM C220, Type F (Flexible) c. Insulating Core: ASTM C200, Class E B. Manufacturers: Same as for uninsulated. C. Construction: a. Exterior Sheet: Corrugated, same as uninsulated. b. Insulated Interior Sheet: Sandwich type, 1-9/16" overall thickness, with 1/8" flat asbestos-cement sheets factory laminated to both sides of 1-5/16" thick insulating core, of one of following types and makes: (1) Transitop..... Johns-Manville (2) Thermobord..... National Gypsum (3) Asbestone Panels..... Philip Carey D. Laps: a. Exterior Corrugated Sheets: Same as uninsulated b. Insulated Interior Sheets: Butt-joints

TABLE 5-2
REQUIREMENTS FOR SIDING AND ROOF ACCESSORIES

Item	Requirements
1. Scope	A. Accessories for siding and roofs shall include the following: a. Outside corner rolls, inside corner rolls. b. Flashing c. Closures d. Caulking and sealing. e. Fasteners B. Requirements for these accessories shall be as specified in this Table, except that requirements for fasteners are specified in Table 5-3.
2. Corner Rolls	A. Material: Asbestos-cement, ASTM C221 B. Corner Rolls: 6 to 8 inch legs, 90°, 2 to 3 inch radius corner, with overlapping bell ends. 4 to 12 feet long. Weight approximately 2½ to 3½ lb. per lineal foot.
3. Flashing	A. Material: 26 gauge (0.019") thick, Type 316 stainless steel. * B. Location: Where indicated on drawings.

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TABLE 5-2 ROOF ACCESSORIES, Cont.

Item	Requirements
	C. Installation: a. Lap one full corrugation where parallel to corrugations. b. Lap 4" minimum at right angles to corrugations and seal with closures as hereinafter specified.
4. Closures	A. Premolded closed cell neoprene, as approved, to match corrugations applied with "Dow Series 400" adhesive. B. Location: Top and bottom, or ends, of sheets.
5. Caulking and Sealing	A. Material: a. Rope putty for side and end laps. b. Gray asbestos putty all other caulking. c. All caulking as approved. B. Location: Provide continuous caulking and sealing for all horizontal, vertical and other joints in all siding, in all roofs, and in all applicable accessories as required to insure permanently sealed joints. C. Indicate location and type of <u>ALL</u> caulking on shop drawings.

TABLE 5-3
 REQUIREMENTS FOR SIDING AND ROOF FASTENERS

Item	Requirements
1. Attachment to Structural Members	A. $\frac{1}{2}$ " lead head bolt. If bolt is electroplated, bolt shall be dipped in paint approved by Pittsburgh Plate Glass Company, prior to erection. If bolt is hot dip galvanized and lead head applied after galvanizing, no paint dip will be required. Provide $\frac{1}{8}$ " thick steel clips, hot dip galvanized as follows: a. J-clips: Attachment to channels. b. Z-clips or hook clips: Attachment to angles. B. Use of welded type fasteners not permitted.
2. Premolded Closures	Bolts: Use same bolts specified in Item 1.
3. Stainless Steel Flashing	Self-tapping screws, Type B, No. 12, minimum size and as follows: A. Material: Type 316 stainless steel. B. Heads and Washers: Recessed hexagon head, with separate combined stainless steel washer and neoprene washer. Neoprene washer white or gray color.
4. General	Incorrectly installed fasteners, as determined by the Consulting Engineers, shall be removed and replaced where and as required.

TABLE 5-4
SPACING OF SIDING AND ROOF FASTENERS

Item	Fastener Spacing
1. Corrugated sheets to structural supports.	Every third corrugation, maximum.
2. Insulated flat sheets to structural supports.	A. Not less than 4 fasteners per sheet to hold in place prior to installing. B. 18" o.c. maximum for fasteners passing through both flat sheet and corrugated sheet.
3. Premolded Closures	Every 2nd corrugation, or approximately 8½" o.c.

5-04. SAMPLES REQUIRED

Submit samples for following materials specified in this Section 5:

- A. Uninsulated Corrugated Sheets: Standard sample.
- B. Insulated Sheets: Standard sample.
- C. Fasteners: Samples of ALL fasteners, including both exposed and concealed fasteners, complete with clips, washers, etc. Clearly label each fastener as to type and use.
- D. Closures: Standard sample.
- E. Caulking and Sealing Materials: Samples of ALL caulking and sealing materials. Clearly label each as to type and use.

PURGH PLATE GLASS COMPANY
CHEMICAL DIVISION
BILL OF MATERIAL

[illegible]

PROJECT: P-799 BY: T.R.K. MATERIAL FOR: RIVERSIDE
B.M. NO.: 65-72003 CHKD: G.F.M. UNIT # 3
SHEET 1 OF 6 APPL: LAKE CHARLES, LA.

PITTSBURGH PLATE GLASS COMPANY

CHEMICAL DIVISION

BILL OF MATERIAL

MK. NO.	QUANTITY WANTED	QUANTITY RECEIVED	DESCRIPTION	CHARGE	PRICING	
					UNIT	EXTENDED
11.	15 SHEETS	15 SH.	4.2" CORRUGATED ASBESTOS CEMENT SIDING x 10'-3" LONG			
12.	8 SHEETS	8 SHEETS	4.2" CORRUGATED ASBESTOS CEMENT SIDING x 3'-0" LONG			
13.	2 SHEETS	2 SHEETS	4.2" CORRUGATED ASBESTOS CEMENT SIDING x 3'-3" LONG			
14.	2 PIECES	2 PIECES	4.2" CORRUGATED ASBESTOS CEMENT SIDING BATTEN STRIPS x 8" LONG			
15.	10 SHEETS	10 SHEETS	4.2" CORRUGATED ASBESTOS CEMENT SIDING FOR ROOF x 7'-6" LONG			
16.	8 PIECES	8 PIECES	90° ASBESTOS CEMENT OUTSIDE CORNER ROLL WITH OVERLAPPING BELL ENDS x 8'-0" LONG			
17.	2 PIECES	2 PIECES	1/2 ROUND ASBESTOS CEMENT RIDGE ROLL x 8'-0" LONG			
18.	2	2	ASBESTOS CEMENT RIDGE ROLL BATTENS x 6" LONG			
19.	2	2	RIDGE ROLL END CLOSURE FLASHINGS TYPE 316			
			STAINLESS STEEL 26 GAUGE APPROX. 1 SQ. FT. EACH			
20.	8 PIECES	8 PIECES	90° ASBESTOS CEMENT INSIDE CORNER ROLL FOR EAVE & GABLE TRIM x 8'-0" LONG			
21.	50 PIECES	50 PIECES	1 1/2" WIDE INSIDE CLOSURE STRIP x 37.8" LONG. PREMOLD-ED CLOSED CELL NEOPRENE			
22.	8 PIECES	8 PIECES	1 1/2" WIDE OUTSIDE CLOSURE STRIP x 37.8" LONG. PREMOLDED CLOSED CELL NEOPRENE			
23.	10 PIECES	10 PIECES	2" WIDE RIDGE ROLL CLOSURE STRIP x 37.8" LONG. PREMOLDED ASPHALT COMPOSITION			
24.	8	8	RIDGE TOGGLES 1" x 6" x 1/8" THICK GALVANIZED			
25.	36	36	1/4" Ø LEAD HEAD BOLTS x 1 1/2" LONG WITH GALVANIZED WASHERS & NUTS			
26.	8	8	1/4" Ø LEAD HEAD BOLTS x 3" LONG WITH NUTS			
27.	48	48	1/4" Ø LEAD HEAD BOLTS x 3" LONG WITH NUTS			

| BB 0012265 |

PROJECT: P-199

BY: R.A.V.

MATERIAL FOR: DEMINERALIZER

B.M. NO.: 66-748

CHKD: C. BAUMGARDNER

PLANT: AT-PH "A"

SHEET 2 OF 4

APP: 1