File

CONTRACTOR'S SUBMITTAL TRANSMITTAL

LANTDIV NORFOLK 4-4355/3 (Rev. 11-80)

CONTRACT NO.	TRANSMITTAL NO.	DATE
81-C-1766	24	15 Jul 83

FROM CONTRACTOR: Trader Construction Company

TO: Lockwood Greene/Six Associates

PROJECT TITLE AND LOCATION: Public Works & Helipad, MCB, Camp Lejeune, N.C.

CONTRACTOR USE ONLY

*List only one specification division per form.

List only one of the following categories on each transmittal form, and indicate which is being submitted

☒ Contractor Approved ☐ OICC Approval ☐ Deviation/Substitution For OICC Approval

REVIEWER USE ONLY

**ACTION CODES
A-Approved
D-Disapproved
AN-Approved as noted
RA-Receipt acknowledged.
C-Comments
R-Resubmit

ITEM NO.	PROJ. SPEC. SECT. & PARA. and/or PROJ. DWG. NO. *	ITEM IDENTIFICATION (Type, size, model no., Mfg. name, dwg. or brochure number)	NO. OF COPIES	ACTION CODES **	REVIEWER'S INITIALS CODE AND DATE
134	08110	Hollow Metal - Certification	7	A	AB 27 July 83
		Doors, Frames			

CONTRACTOR'S COMMENTS

ROUTING ORDER / INT

1	30	KS
2		
3	CONTRACTOR REPRESENTATIVE (Signature)	
4		
5		
6		
7		
8		

RETURN TO 02

COPY OF TRANSMITTAL AND SUBMITTALS TO ROICC: ROICC, Camp Lejeune, N.C.

DATE RECEIVED BY REVIEWER: 7/19/83

FROM (Reviewer): Six Associates, Inc.

TO: Trader Construction Co.

☐ Submittals are returned with action indicated. Approval of an item does not include approval of any deviation from the contract requirements unless the contractor calls attention to and supports the deviation.

☐ Submittals are forwarded to LANTDIV with A-E recommendations indicated in REVIEWER USE ONLY Section and in comments below on **ONE COPY** of the transmittal form.

REVIEWER'S COMMENTS

Copy - Field 8-17-83

COPIES TO: ROICC (2) ✓ LANTDIV (1) A-E (1)

DATE: 8/9/83

SIGNATURE

Submittal / Transmittal
#134

THE CECO CORPORATION
5601 TUMBLETON AVENUE, CHARLOTTE, NORTH CAROLINA 28213
P.O. BOX 34485, CHARLOTTE, NORTH CAROLINA 28234
PHONE (704) 525-6645

June 21, 1983

Adams Concrete Products, Inc.
PO Box 5085
Fayetteville, NC 28301

Attn: Mr. Randy Byrd

RE: Public Works Bldg.
Camp Lejeune, NC
Trader Constr. Co., G. C.
William B. McGehee, Architect

Gentlemen:

We hereby guarantee that the 16 ga. welded hollow metal frames and accessories manufactured by The Ceco Corporation and furnished from your stock for this project are in compliance with ASTM, ANSI, NFPA, SDI and U. S. Government Specifications.

This letter will certify the Ceco Imperial 18 ga. doors furnished on this project meet the extra heavy duty Class III specification. The Regent solid core door will meet the extra heavy duty Class III fire door specification.

We further certify the 16 ga. full welded galvanized frames meet the Federal Specification RR-D-575.

ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA 23511

APPROVED ✓
APPROVED AS NOTED
DISAPPROVED
DPB/b
SUBJECT TO THE REQUIREMENTS OF
CONTRACT NO N62470-81-C-1766

APPROVAL OF A SUBMITTAL DOES NOT INCLUDE APPROVAL OF ANY DEVIATION FROM THE CONTRACT REQUIREMENTS UNLESS THE CONTRACTOR CALLS ATTENTION TO AND SUPPORTS THE DEVIATION... THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDING PROPER PHYSICAL DIMENSIONS WHERE COORDINATION OF TRADES, ETC., AS REQUIRED.

REVIEWER John DATE 27 Jul 83

FOR OFFICER IN CHARGE OF CONSTRUCTION

Yours very truly,

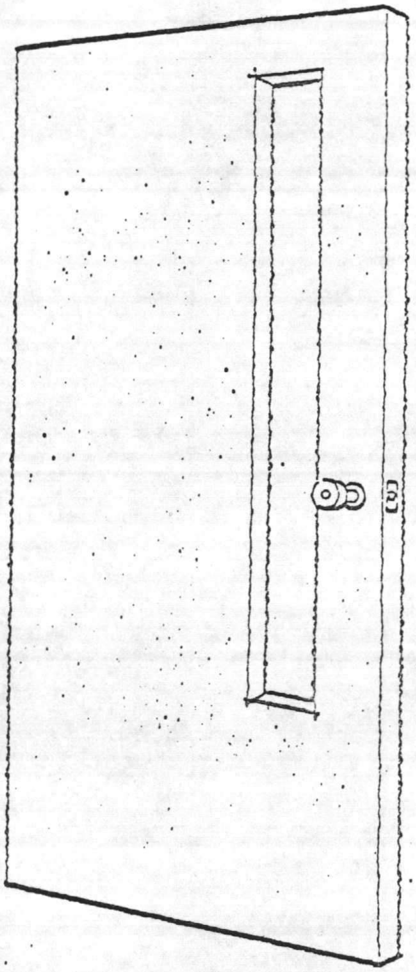
Don P. Brown
Sales Engineer

"It is hereby certified that the (equipment) (material) shown and marked in this submittal is that proposed to be incorporated into Contract Number N62470-81-C-1766 is in compliance with the Contract drawings and specifications, can be installed in the allocated spaces, and is submitted Government approval.

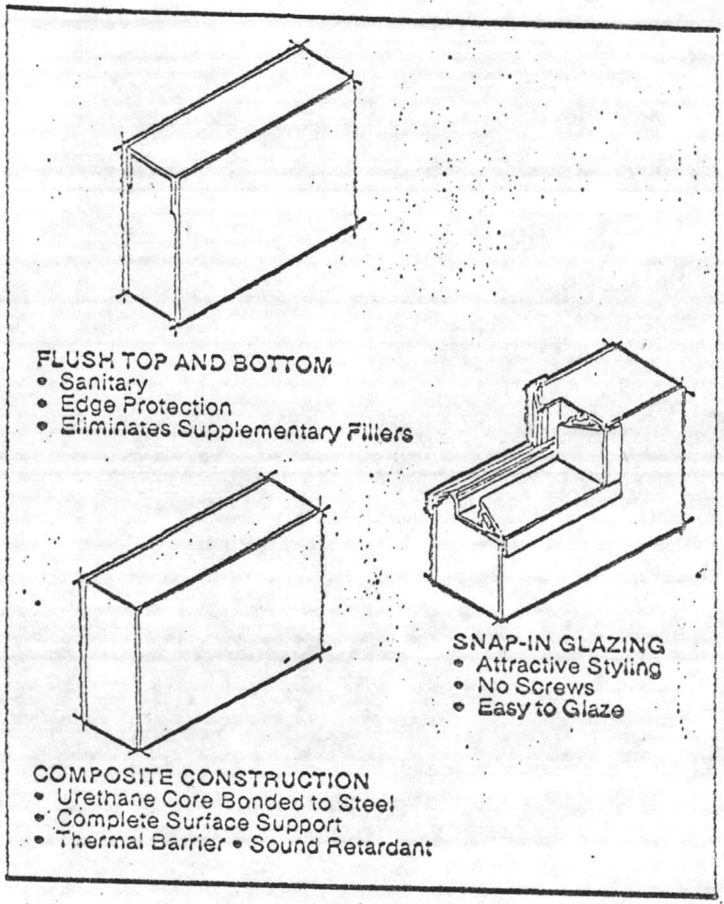
Certified by John

Date 14 Jul 83 "

Meets ANSI *proposed* performance test acceptance criteria for physical endurance: classification Type III, extra heavy-duty.



1¾" Full Flush or Seamless Style



"SUPERIOR" FEATURES

- Completely filled with rigid urethane core foamed in place and chemically bonded to all interior door surfaces.
- Excellent sound retardation from foam core.
- Insulation characteristics of foam core ("U" factor = .089, "R" factor = 11.25) provide a superior thermal barrier.
- Accommodates cylindrical locks, mortise locks, unit locks, integral locks, or other complementary builders' hardware.
- For high to moderate frequency operation.

RUGGED "COMPOSITE" CONSTRUCTION

- Face sheets are totally supported by a rigid urethane core, increasing the face sheet's "duty" capability:
- *Standard:* 18 ga. composite extra-heavy-duty construction (equal to 16 ga. in other types of construction).
  Available: 16 ga. composite ultra-heavy-duty construction (equal to 14 ga. in other types of construction). 20 ga. composite heavy-duty construction (equal to 18 ga. in other types of construction).
- Galvanized 18, 16, or 20 ga. face sheets also available.
- 16 ga. flush top and bottom channels.
- Heavy duty 7 ga. steel hinge reinforcements.

ATTRACTIVE

- Completely flush and seamless faces—precision mortised hinge preparations; handed.
- Exceptionally flat, blemish free surface provided by the use of urethane foam core.
- Smooth hemmed edges—available seamless when required.
- Snap-in (screwless) glazing for clean line appearance.
- Can be painted any color to harmonize with decor.
- Available with baked-on enamel Colorstyle finishes to reduce field labor. (Twelve standard colors plus black.)

"It is hereby certified that the (equipment) (material) shown and marked in this submittal is that proposed to be incorporated into Contract Number [illegible]-C-1766, is in compliance with the contract drawings and specifications, can be installed in the allocated spaces, and is submitted for Government approval.

Certified by [signature] 14 Jul 83"

"Proposed" ANSI Test Procedure and Acceptance Criteria for Physical Endurance

GENERAL:

Ceco 1⅜-inch Legion and 1¾-inch Imperial, Regent, and Omega standard steel doors and corresponding Series SF standard K.D. steel frames are of a type which have been tested in accord with and found to comply with the "Proposed" ANSI Standard Test Procedure and Acceptance Criteria for Physical Endurance...standard steel doors, frames...[1].

PERFORMANCE TEST:

The proposed performance test procedure provides a standard and uniform method for testing the effectiveness of steel doors or steel door frames and related items under circumstances that might reasonably be considered as representative of normal field application and conditions, and thus gives the specifier or consumer a tool by which product performance can be anticipated or judged in a reasonable manner.

This performance test procedure for physical endurance consists of two parts: a swing-test and a twist-test.

During the swing test a door or frame test specimen of standard production is installed in the test mechanism, a force potential of 400 or 450 lbs. is applied by pneumatic ram to the cross bar of a conventionally installed exit device, the door is opened to a prescribed angle, the ram retracts, the door is then returned to the fully closed position by means of a conventional hydraulic door closer, and a new open/close cycle is begun.

The duration of the swing-test is for the period designated in the performance test procedure, according to the duty-type and construction-style of the door or duty-type of the frame involved —refer to figure #1.

Deterioration of door strength during the swing-test is checked through a series of twist-tests which occur at the beginning and end of the swing test and at prescribed intervals throughout.

During the twist-test, pressures are applied in 30 lb. increments at the upper lock corner through hydraulic cylinder and force gage (while the three remaining corners are mechanically clamped to the door frame) until a maximum 300 lb. load is applied. The test specimen is examined at intervals and in the manner stipulated in the procedure to determine deflection under prescribed load and permanent deflection with pressure removed.

RESULTS:

Upon completion of the tests—test specimens were found to have:

1. No exterior visual signs of structural deterioration.
2. Less deflection under prescribed loads than the maximum acceptable deflection value listed in the procedure.
3. Less permanent deflection with pressure removed than the maximum acceptable deflection value listed in the procedure.

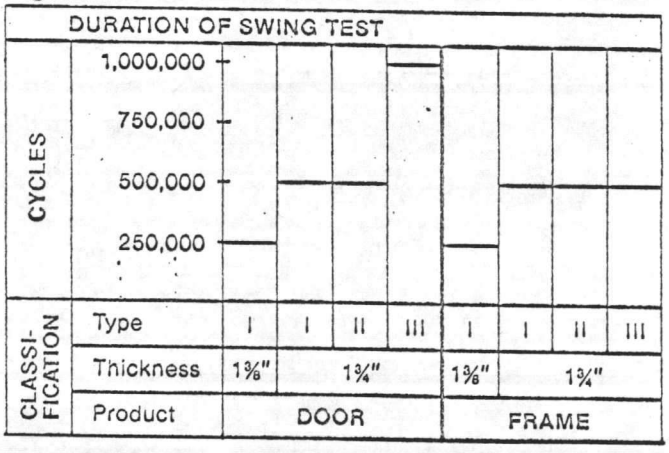
Upon completion of the prescribed swing and twist-tests, the door was found to be fully operable.

After all the foregoing and after the door test specimen was physically cut horizontally into four sections—the internal construction was found to exhibit:

1. No evidence of internal delamination.
2. No metal fatigue.
3. No weld cracking.
4. No weld failure.

[1]The "Proposed" ANSI performance test standard for physical endurance is being promolgated by the Steel Door Institute. This proposed standard is based on two existing industry standards: ANSI A151.1-1959, covering performance tests for standard steel doors and frames, and S.D.I. 112, for recommended standard minimum acceptance values for steel doors and frames.

Figure 1



Type I—Standard-duty, 1⅜" and 1¾"
Type II—Heavy-duty, 1¾"
Type III—Extra Heavy-duty, 1¾"

CONFORMANCE to NATIONALLY ACCEPTED SPECIFICATIONS and STANDARDS

When properly specified Ceco steel doors and frames are of a type which will conform to the document requirements of nationally recognized agencies. Some of the most often encountered are listed below; the list should not be considered all inclusive.

S.D.I. 100-69 (76)—Recommended Specifications Standard Steel Doors and Frames—STEEL DOOR INSTITUTE

RR-D-575B—Door, Metal, Sliding and Swinging: Door Frame, Metal (Flush and Semiflush)—FEDERAL SPECIFICATION (GSA)

PBS: 4-0810 (Supersedes 222-1A)—Metal Doors and Frames—PUBLIC BUILDINGS SERVICE GUIDE SPECIFICATION (GSA)

PS-4-66 (Supersedes CS211-57)—Standard Stock Light-Duty 1⅜- and 1¾-inch thick Flush-type Interior Steel Doors and Frames: Product Standard—U.S. DEPARTMENT OF COMMERCE (N.B.S.)

CS 242-62—Standard Stock Commercial 1¾-inch thick Steel Doors and Frames: Commercial Standard—U.S. DEPARTMENT OF COMMERCE (N.B.S.)

CE-225.02—Steel Doors and Frames: Guide Specification for Military and Civil Works Construction—DEPARTMENT OF THE ARMY, CORPS OF ENGINEERS

NAVFAC Specification TS-08110 (Supersedes 32 Ye)—Hollow Metal Doors and Frames: "Type" Specification for Naval Facilities—DEPARTMENT OF THE NAVY

Specification Section 24A—Hollow Steel Doors and Frames—VETERANS ADMINISTRATION

ASTM: E152-73—Standard Methods of Fire Test of Door Assemblies—AMERICAN SOCIETY FOR TESTING AND MATERIALS

UL 10B/ANSI A2-2—Fire Test of Door Assemblies—UNDERWRITERS LABORATORIES/AMERICAN NATIONAL STANDARDS INSTITUTE

ANSI A115—Standard Specification for Door and Frame Preparation for Hardware—AMERICAN NATIONAL STANDARDS INSTITUTE

ANSI A156.7 (Supersedes CS9-65)—Standard Template Hinge Dimensions—AMERICAN NATIONAL STANDARDS INSTITUTE

UL63—Standard for Fire Door Frames—UNDERWRITERS LABORATORIES, INC.

NFPA No. 80—Fire Doors and Windows—NATIONAL FIRE PROTECTION ASSOCIATION

ASHRAE STANDARD 90P—Energy Conservation in New Building Design, Section 4—paragraphs 4.6.2.2 and 4.6.2.4—AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING ENGINEERS, INC.

For additional test report and compliance data refer to pages 30 and 31.

IMPERIAL DOOR

TECHNICAL DATA

1. The urethane foam used in the Imperial door is a rigid cellular plastic material with a crushing strength of 3,600 lbs. per square foot conforming to ASTM D1621, Procedure A.

2. Insulation properties are superior to other commercial materials. The "U" factor is 0.099.

3. Acoustical properties test for sound transmission loss conducted by Riverbank Acoustical Laboratories indicates a sound transmission classification of 29. This test meets both ASTM E90-66T and ASA-Z24.19-1957.

4. Slam tests have been conducted in Chicago on a slamming machine that forces the door to strike the frame with a 30 pound impact. The Imperial door has been slammed in excess of 100,000 cycles without delamination or breakdown of urethane core.

5. Density of urethane foam used in the Imperial door exceeds 1.8 lb/ft^3 conforming to ASTM D1622 test methods.

6. Recommended continuous use temperature range is from -200° F. to +180° F. inclusive.

7. Self-extinguishing properties of urethane foam used in Imperial doors meets the requirements of ASTM D1692 and Underwriters' Laboratories bulletin subject 94. (It should be noted that this latter designated property in no way implies that Ceco Imperial doors with urethane core have been tested or passed U.L. fire door tests.)

8. The tensile strength of urethane foam to steel face sheets exceeds that of foam to foam in accordance with ASTM D1623. Tensile strength of urethane foam in Imperial doors exceeds 35 P.S.I.

PRIME PAINT DATA

IMPERIAL DOORS

Paint specifications for Ceco prime painted doors are as follows: Melamine polyester prime, electro-static applied, oven baked, light neutral color.

Performance:

A. Humidity cabinet - 150 hours minimum at 100% humidity according to ASTM Specification D-2247.

B. Salt spray resistance - 200 hours minimum at 5% salt solution according to ASTM Specification B-117.

C. Provides maximum protection from corrosion for a period of 3 to 6 months under normal storage conditions.

Painting Process:

The door skins, before assembly, are processed through the following cycle:

A. Wash and phosphate treat in an iron phosphate proprietary solution at 130°F. This conditions the steel and provides good paint adhesion and underfilm corrosion protection.

B. Rinse with hot water.

C. Seal with a proprietary chromate type rinse at 140°F.

D. The exposed surfaces and exteriors of door skins are automatically spray painted with electrostatic equipment and oven baked for 10 min. at 300°F. Minimum dry film thickness 0.7 mil.

Paint Specifications:

Prime paint for Ceco doors shall be as manufactured by Williams Hayward (or equal) and shall be light colored and exhibit a reflectivity of 15% or less. The paint shall be of a water-reducible type and shall not produce excessive tears or runs.

Quantitive Analysis

Solids by Weight: 55.0%
Solids by Volume: 34.0%
Percentages by Weight: Pigments 35.%, Vehicle 65.0%.
Analysis of Pigment: 100% = 19% Titanium Dioxide (TIO_2), 8%. Rust Inhibiting Pigments, 1% Phthalo green, 72% Silicas and Extenders.
Note: Lead or compounds thereof are not allowed.
Vehicle: Modified Melamine Water Soluble Polyester Resin.
Volatile Analysis: 78% H_2O, 22% Rule 66 and 205F exempt Glycols, Glycols Ethers, and Alcohols

TITLE:

FRAME BONDERIZING AND PAINTING PROCEDURE

The bonderizing and prime painting operation of all Ceco frame components and parts is an automatic seven stage operation as follows:

Stage #1

The frames are washed in an alkaline solution at 180° F. to free them of all dirt and grease. (Time, 33 seconds)

Stage #2

The frames are rinsed in hot water at a temperature of 180° F. (Time, 33 seconds)

Stage #3

The frames are then dipped in a Bonderite solution at 160° F. which applies a zinc phosphate coating to the steel. This conditions the steel to provide good paint bonding and protect against underfilm corrosion. (Time, 2 minutes, 50 seconds)

Stage #4

The frames are rinsed in cold water. (Time, 33 seconds)

Stage #5

The frames are rinsed with a proprietary chromate type rinse at 180° F. (Time, 33 seconds)

Stage #6

The frames are dipped in a tank of prime paint and receive a uniform coat; average thickness 0.5 mils. Paint temperature 70° F. (Time, 33 seconds)

Stage #7

The paint is then baked in an oven at 300° F. for a time of 30 to 40 minutes.

TITLE: PAINT SPECIFICATION FOR CECO DOOR FRAMES

Primer to be suitable for dip application and of sufficient durability to provide maximum corrosion protection for a period of 3 to 6 months from date of painting.

1. Performance Requirements:

   A. Humidity Cabinet - 150 hours minimum at 100% humidity according to ASTM specification D-2247.

   B. Accelerated weather test - 300 hours minimum in National Carbon Arc Weatherometer with no film failure according to ASTM specification E42.

   C. Salt spray resistance - 200 hours minimum at 5% salt solution according to ASTM specification B-117.

2. Detail Requirements:

   Light gray in color, shall not produce excessive tears or runs.

   Solids by weight: 56.0%

   Solids by volume: 39.25%

   Type of Resin: Tall oil Linseed oil Alkyd resin

   Type of Pigments: Titanium Dioxide

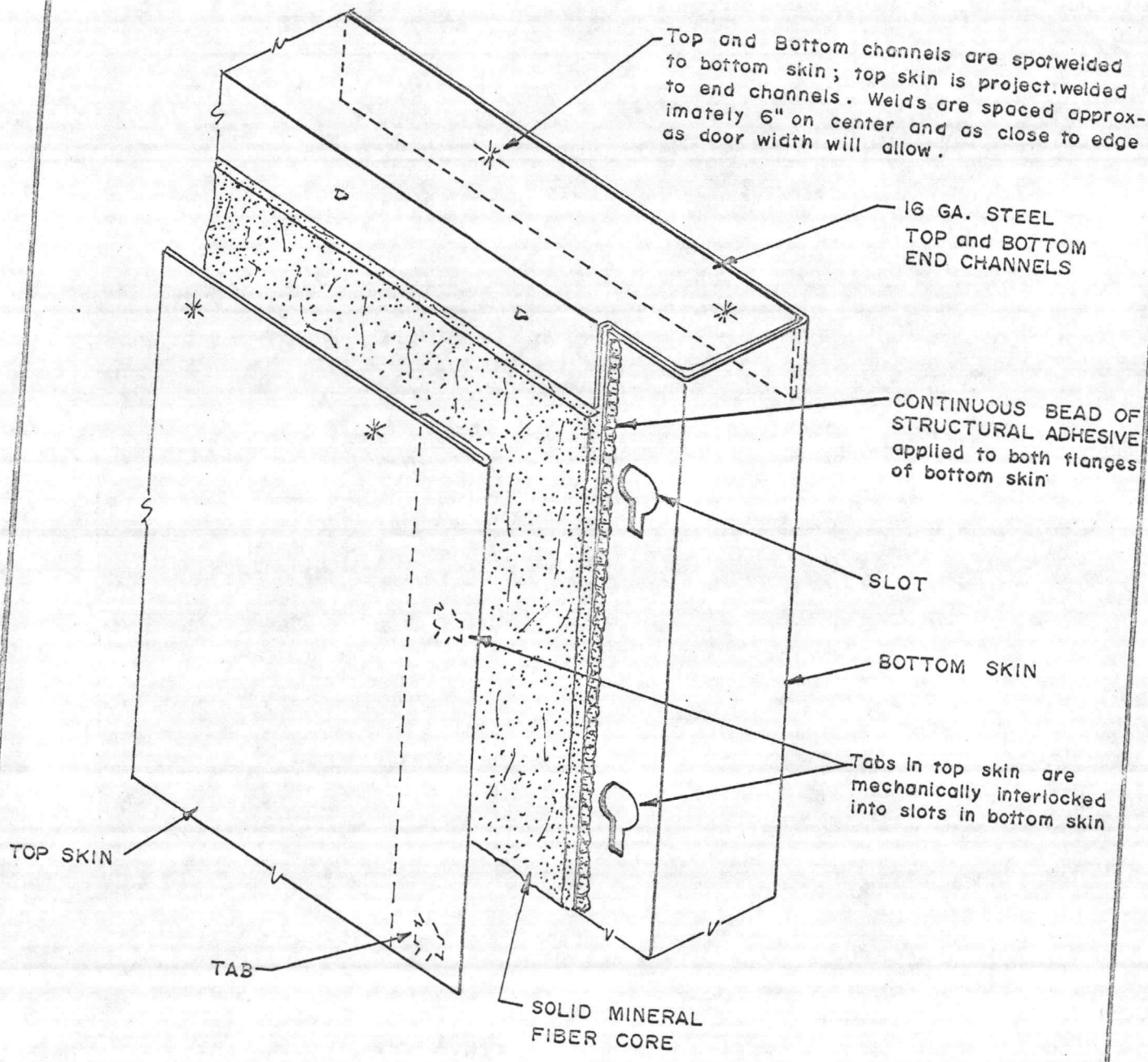
   Tinting Colors

   Inert Pigments

Primer baked on to produce a hard durable surface.

TITLE:

EXPLODED VIEW OF REGENT DOOR (SOLID CORE)



CECO door data manual

TITLE:
SOLID MINERAL FIBER CORE
REGENT "UL" DOOR

The Solid Mineral Fiber Core is a rigid slab bonded to both skin sheets with a waterproof contact type adhesive. This Solid Core slab is manufactured by United States Gypsum.

The physical properties of The Solid Mineral Fiber Core are:

- Average Density (Dry): 18.0 p.c.f.
- Compressive Strength: 125 p.s.i. minimum at 10% deformation; recovery within 5% of original thickness.
- Modulus of Elasticity (in Flexure): 20,000 p.s.i.
- Modulus of Rupture: 110 p.s.i. minimum
- Approximate Weight: 2500 lbs./m.s.f.
- Thermal Conductivity:
  K factor = 0.56 Btu/hr/sq.ft./°F/in. thickness at 75°F mean temperature.
  R factor = 3.12 (Resistance to heat transmission.)