Project Manual
Miami-Dade Aviation Department
MIA South Terminal Concourse H
Rehabilitation - Phase I

PROJECT NUMBER AA018B

21 MIAD Circle

Miami, FL 33126

Miami-Dade County

Design Development 100%
February 2024

305 Consulting Engineers, LLC
13944 SW 8th Street, Suite 211
Miami, FL 33184

DOCUMENT 00002

PROJECT DIRECTORY

Project

Miami-Dade Aviation Department
MIA South Terminal Concourse H
Rehabilitation – Phase 1
Project # AA018B

DOCUMENT 00003

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MIAMI-DADE AVIATION DEPARTMENT

SOUTH TERMINAL CONCOURSE H
REHABILITATION – PHASE I

Contract Number AA018B

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INFORMATION AVAILABLE TO BIDDERS

1. Drawing provided for informational purposes only.

END OF SECTION

DIVISION 01
GENERAL CONDITIONS

Division 1

SECTION 01010

SUMMARY OF WORK

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

A. Title of Work, and type of Contract.

B. Work Sequence.

C. Use of Premises.

D. Owner Occupancy.

1.02 RELATED REQUIREMENTS

A. Advertisement for Bids

B. Instructions to Bidders

C. Bid Form

D. General Conditions

E. Special Provisions

F. Technical Specifications

1.03 WORK COVERED BY CONTRACT DOCUMENTS

A. Work of this Contract comprises renovation of Curtain Wall System located at MIA South Terminal, Concourse H for Miami-Dade Aviation Department, the Owner.

B. This project shall adhere to "Maximum Measures" as defined by the Sustainable Buildings Program Ordinance (07-65). Sections 9-71 through 9-75 of the Code, together with Implementing Order 8-8 (IO 8-8), constitute the "Sustainable Buildings Program". The Contractor shall implement Maximum Measures in the construction of this project when the opportunities to utilize resource-efficient and environmentally responsible processes and material arise. These best practices shall be incorporated into all phases to maximize long-term life-cycle sustainability and resiliency. In addition, for this project, the Contractor shall review and follow the County's "Green Procurement Guidelines" and ensure all products are compliant with the County's guideline.

1.04 CONTRACT METHOD

A. Construct the Work under a single lump sum contract.

1.05 WORK BY OTHERS

A. Work of the Project which will be executed by others is designated N.I.C. on the Plans.

1.06 WORK SEQUENCE

A. Construct Work in stages to accommodate Owner use of premises during construction. Coordinate Progress Schedule and coordinate with Owner Occupancy during construction.

B. Construct Work in phases to provide for continuous public usage. Do not close off public usage of facilities until one stage of Work will provide alternate usage.

1.07 CONTRACTOR USE OF PREMISES

A. The Owner shall have the right of unlimited access to the premises.

B. Contractor shall limit use of premises for Work, or storage, and for access, to allow:
   1. Owner occupancy
   2. Work by other contractors.
   3. Public usage.

C. Coordinate use of premises under the direction of Owner.

D. Assume full responsibility for protection and safekeeping of project under this Contract.

E. Obtain and pay for use of additional storage or work areas needed for operations under this Contract.

1.08 OWNER OCCUPANCY

A. Owner will occupy premises during entire construction period for conduct of its normal operations. Cooperate with Owner in scheduling operations to minimize conflict and to facilitate Owner usage.

1.10 OWNER-FURNISHED DOCUMENTS

A. Owner Responsibilities:

1. Furnish Contractor with one transparency copy of the Plans (suitable for reproductions), and three copies of the Project Manual. Additional copies will be made available to the Contractor at cost of reproduction.

1.11 REQUIRED PERMITS

Listed below are the permits required under this Contract:

A. Miami-Dade County Planning, Development, and Regulation
B. MDAD Hot Work Permit

1.12 AUTHORIZATION TO PULL A PERMIT

A. The Owner at its option may authorize the Contractor to pull the Building Permit from the Planning, Development, and Regulation Department, prior to the Notice to Proceed.

B. A copy of the Authorization to Pull a Permit form is appended to this Section.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

PART 4 PAYMENT

Unless otherwise specified, the cost of work specified in the various sections of Division 1, will not be paid for separately but the cost therefor shall be considered incidental to and included in the bid prices of the various Contract items.

APPENDIX: Authorization to Pull a Permit Form

END OF SECTION

MIAMI-DADE AVIATION DEPARTMENT AUTHORIZATION TO PULL A PERMIT

Date: _____

Contract: _____ (Title)

Contract No.: _____

To: _____
(Contractor Name)

(Address)

You are hereby authorized to pull the required Building Permit from the Miami-Dade County Planning, Development, and Regulation Department.

Enclosed is a check issued to the Miami-Dade County Planning, Development, and Regulation Department in the amount of

$ _____ representing the required permit fee.

NOTE: This Authorization to Pull a Permit IS NOT a Notice-to-Proceed.

Authorized by: _____
(Assistant Director for Facilities)

SECTION 01027

APPLICATIONS FOR PAYMENT

PART 1 GENERAL

1.01 REQUIREMENT INCLUDED

A. Procedures for preparation and submittal of Application for Payment.

1.02 RELATED REQUIREMENTS

A. General Conditions

1.03 FORMAT

A. Miami-Dade Aviation Department Form

1.04 PREPARATION OF APPLICATION

A. Execute certification by signature of authorized officer.

B. Use data on Bid Form and approved Schedule of Values. Provide dollar value in each column for each line item for portion of Work performed and for stored products.

C. List each authorized Change Order and an extension on continuation sheet, listing Change Order number and dollar amount as for an original item of Work.

D. Prepare Application for Final Payment as required in General Conditions.

1.05 SUBMITTAL PROCEDURES

A. Submit three (3) copies of each Application for Payment at time stipulated in Agreement.

B. Submit under transmittal letter.

1.06 SUBSTANTIATING DATA

A. Provide one copy of data with cover letter for each copy of submittal. Show Application number and date, and line item by number and description.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

SECTION 01040

COORDINATION

PART 1 GENERAL

1.01 RELATED REQUIREMENTS

A. Section 01010 - Summary of Work.
B. Section 01045 - Cutting and Patching.
C. Section 01200 - Project Meetings.
D. Section 01600 - Material and Equipment: Product option and substitutions.
E. Section 01701 - Contract Closeout Procedures: Closeout submittals.

1.02 DESCRIPTION

A. Coordinate scheduling, submittals, and work of the various sections of Specifications to assure efficient and orderly sequence of installation of construction elements, with provisions for accommodating items to be installed later.

B. Coordinate sequence of Work to accommodate Owner occupancy as specified in General Condition*s and Section 01010.

1.03 MEETINGS

A. In addition to progress meetings specified in Section 01200 hold coordination meetings and preinstallation conferences with personnel and subcontractors to assure coordination of Work.

B. Attend all commissioning meetings with appropriate personnel and subcontractors.

1.04 COORDINATION OF SUBMITTALS

A. Schedule and coordinate submittals.

B. Coordinate work of various Sections having interdependent responsibilities for installing, connecting to and placing in service, such equipment.

C. Coordinate requests for substitutions to assure compatibility of space, of operating elements, and effect on work of other Sections.

1.05 COORDINATION OF SPACE

A. Coordinate use of Project space and sequence of installation of curtain wall work that is indicated diagrammatically on drawings. Utilize space efficiently to maximize accessibility for other installations, for maintenance and for repairs.

1.06 COORDINATION OF CONTRACT CLOSEOUT

A. Coordinate completion and cleanup of work of separate sections in preparation for Substantial Completion.

B. After Owner occupancy of premises, coordinate access to site by various sections for correction of defective work and work not in accordance with Contract Documents, to minimize disruption of Owner's activities.

C. Assemble and coordinate closeout submittals specified in Section 01701.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

SECTION 01045

CUTTING AND PATCHING

PART 1 GENERAL

1.01 RELATED REQUIREMENTS

A. Section 01010 - Summary of Work.

B. Section 01600 - Material and Equipment: Substitutions

1.02 SUBMITTALS

A. Submit written request in advance of cutting or alteration which affects:
1. Structural integrity of any element of Project.
2. Integrity of weather-exposed or moisture-resistant element.
3. Efficiency, maintenance, or safety of any operational element.
4. Visual qualities of sight-exposed elements.
5. Work of Owner or separate contractor.

B. Include in request:
1. Identification of Project.
2. Location and description of affected work.
3. Necessity for cutting or alteration
4. Description of proposed work and products to be used.
5. Alternatives to cutting and patching.
6. Effect on work of Owner or separate contractor.
7. Written permission of affected separate contractor.
8. Date and time work will be executed.

PART 2 PRODUCTS

2.01 MATERIALS

A. Those required for original installation.

B. For any change in material, submit request for substitution under provisions of General Conditions.

PART 3 EXECUTION

3.01 GENERAL

A. Execute cutting, fitting and patching [including excavation and fill,] to complete

Work, and to:

1. Fit the several parts together, to integrate with other work.
2. Uncover work to install ill-timed work.
3. Remove and replace defective and non-conforming work.
4. Remove samples of installed work for testing.
5. Provide openings in elements of Work for penetrations of mechanical and electrical work.

3.02 INSPECTION

A. Inspect existing conditions, including elements subject to damage or movement during cutting and patching.

B. After uncovering, inspect conditions affecting performance of work.

C. Beginning of cutting or patching means acceptance of existing conditions.

3.03 PREPARATION

A. Provide supports to assure structural integrity of surroundings; devices and methods to protect other portions of Project from damage.

B. Provide protection from elements for areas which may be exposed by uncovering work; maintain excavations free of water.

3.04 PERFORMANCE

A. Execute work by methods to avoid damage to other work, and which will provide proper surfaces to receive patching and finishing.

B. Employ original installer to perform cutting and patching for weather-exposed and moisture-resistant elements, and sight-exposed surfaces.

C. Cut rigid materials using masonry saw or core drill. Pneumatic tools are not allowed without prior approval.

D. Restore work with new products in accordance with requirements of Contract Documents.

E. Refinish surfaces to match adjacent finishes. For continuous surfaces, refinish to nearest intersection; for an assembly, refinish entire unit.

END OF SECTION

SECTION 01061

POSTING OF NOTICES

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

A. Schedule of Wage Rates and Benefits Miami-Dade County.

B. Non-Discrimination Clause and Contractor's Commitments under Section 202 of Executive Order No. 11246.

1.02 SCHEDULE OF WAGE RATES AND BENEFITS

The Contractor, and each subcontractor under him, shall post in a conspicuous place on the site (1) the schedule of the specified overall hourly rate for each applicable classification; (2) the amount of liquidated damages for any failure to pay such rates; and (3) the name and address of the responsible official in Miami-Dade County or the U.S. Department of Labor (whichever is applicable) to whom complaints should be given.

Copy of this Notice will be provided to the Contractor by the Owner.

1.03 NON-DISCRIMINATION CLAUSE

The Contractor shall post the non-discrimination clause as required by Executive Order 11246. The following is a copy of the required notice:

"Equal Employment Opportunity is the Law--Discrimination is Prohibited by the Civil Rights Act of 1964 and by Executive Order No. 11246

Title VII of the Civil Rights Act of 1964--Administered by:

The Equal Employment Opportunity Commission

Prohibits discrimination because of Race, Color, Religion, Sex, or National Origin by Employers with 25 or more employees, by Labor Organizations with a hiring hall of 25 or more members, by Employment Agencies, and by Joint Labor-Management Committees for Apprenticeship or Training.

ANY PERSON - Who believes he or she has been discriminated against **SHOULD CONTACT the:**

The Equal Employment Opportunity Commission
2401 E Street, NW
Washington, DC 20506

1.04 Executive Order No. 11246--Administered by:

The Office of Federal Contract Compliance Programs

Prohibits discrimination because of Race, Color, Religion, Sex, or National Origin, and requires affirmative action to ensure equality of opportunity in all aspects of employment.

By all Federal Government Contractors and Subcontractors, and by Contractors Performing Work Under a Federal Assisted Construction Contract, regardless of the number of employees in either case.

ANY PERSON - Who believes he or she has been discriminated against **SHOULD CONTACT:**

The Office of Federal Contract Compliance Programs
U.S. Department of Labor
Washington, DC 20210"

END OF SECTION

SECTION 01090

REFERENCE STANDARDS

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

A. Applicability of Reference Standards.

B. Provision of Reference Standards at site.

C. Acronyms used in Contract Documents for Reference Standards. Source of Reference Standards.

1.02 QUALITY ASSURANCE

A. For products or workmanship specified by association, trade, or Federal Standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.

B. The date of the standard is that in effect as of the Advertisement date, except when a specific date is specified.

C. When required by individual Specifications section, obtain copy of standard. Maintain copy at jobsite during submittals, planning and progress of the specific work, until Substantial Completion.

1.03 SCHEDULE OF REFERENCES

AA Aluminum Association
818 Connecticut Avenue, N.W.
Washington, DC 20006

AABC Associated Air Balance Council
1518 K Street N.W.
Washington DC 20005
Phone: (202) 737-0202

AASHTO American Association of State Highway
and Transportation Officials
444 North Capital Street, N.W.
Washington, DC 20001

ACI American Concrete Institute
38800 Country Club Dr.
Farmington Hills, MI 48331
Phone: 248-848-3700

ADC Air Diffusion Council

1901 N. Roselle Road, Suite 800,
Schaumberg, IL 60195
Phone: 847-706-6750

AGC — Associated General Contractors of America
2300 Wilson Boulevard, Suite 400
Arlington, VA 22201
Phone: 703.548.3118

AI — Asphalt Institute
2696 Research Park Drive
Lexington, KY 40511-8480
Phone: 859-288-4960

AITC — American Institute of Timber Construction
7012 S. Revere Parkway Suite 140
Centennial, CO 80112
Phone: (303) 792-9559

AISC — American Institute of Steel Construction
One East Wacker Drive Suite 700,
Chicago, IL 60601-1802
Phone: (312) 670-5403

AISI — American Iron and Steel Institute
1140 Connecticut Ave., NW, Suite 705
Washington, D.C. 20036
Phone: 202.452.7100

AMCA — Air Movement and Control Association
30 West University Drive
Arlington Heights, IL 60004

ANSI — American National Standards Institute
25 West 43rd Street (between 5th and 6th Avenues), 4 floor,
New York, NY 10036
Phone: (212) 642-4900

APA — American Plywood Association
7011 So. 19th,
Tacoma, WA 98466
Phone: (253) 565-6600

API — American Petroleum Institute
1220 L. Street, N.W.
Washington, D.C. 20005

ARI — Air-Conditioning and Refrigeration Institute

4100 N. Fairfax Drive, Suite 200
Arlington, VA 22203
Phone: (703) 524-8800

ASHRAE — American Society of Heating, Refrigerating and Air-Conditioning Engineers
1791 Tullie Circle, N.E.
Atlanta, GA 30329

ASME — American Society of Mechanical Engineers
Three Park Avenue
New York, NY 10016-5990
Phone: (800) 843-2763

ASTM — American Society for Testing and Materials
100 Barr Harbor Drive
West Conshohocken, PA 19428

AWWA — American Water Works Association
6666 West Quincy Avenue
Denver, CO 80235

AWI — Architectural Woodwork Institute
46179 Westlake Drive, Suite 120
Potomac Falls, Virginia 20165
571-323-3636

AWPA — American Wood-Preservers' Association
P.O. Box 361784
Birmingham, AL 35236-1784
Phone: (205) 733-4077

AWS — American Welding Society
550 LeJeune Road
Miami, FL 33135

CDA — Copper Development Association
260 Madison Avenue, 16th Floor
New York, NY 10016
Phone: (212) 251-7200

CLFMI — Chain Link Fence Manufacturers Institute
10015 Old Columbia Road, Suite B-215
Columbia, MD 21046
Phone: (301) 596-2583

CRSI — Concrete Reinforcing Steel Institute
933 Plum Grove Road
Schaumberg, IL 60193

EJCDC	Engineers' Joint Contract Documents Committee American Consulting Engineers Council 1050 15th Street, N.W. Washington, DC 20005
EJMA	Expansion Joint Manufacturers Association 25 North Broadway Tarrytown, NY 10591
FAA	Federal Aviation Administration U.S. DOT 800 Independence Avenue, S.W. Washington, D.C. 20591
FGMA	Flat Glass Marketing Association 3310 Harrison White Lakes Professional Building Topeka, KS 66611
FM	Factory Mutual System 1151 Boston-Providence Turnpike Norwood, MA 02062
FS	Federal Specification General Services Administration Specifications and Consumer Information Distribution Section (WFSIS) Washington Navy Yard, Building 197 Washington, DC 20407
GA	Gypsum Association 810 First St., NE #510 Washington DC, 20002 Phone: (202) 289-5440
GANA	Glass Association of North America (The Flat Glass Marketing Association, Glass Tempering Association, and members of the Laminators Safety Glass Association consolidated to form the (GANA) 2945 SW Wanamaker Drive, Suite 4A, Topeka, KS Phone: (785) 271-0208
IEEE	Institute of Electrical and Electronics Engineers 3 Park Avenue, 17th Floor New York, N.Y 10016-5997 Phone: (212) 419-7900
IGMA	Insulating Glass Manufacturers Association (IGMA was incorporated as a not-for profit organization in the state of Illinois on October 2, 2000 as a result of a merger between the Insulating

	Glass Manufacturers Association of Canada (IGMAC) and the Sealed Insulating Glass Manufacturers Association (SIGMA) 27 Goulburn Avenue, Ottawa, Ontario. CANADA K1N 8C7 Phone: (613) 233-1510
IMIAC	International Masonry Industry All-Weather Council International Masonry Institute The James Brice House 42 East Street Annapolis, MD 21401 Phone: (410) 280-1305
MIL	Military Specification Naval Publications and Forms Center 5801 Tabor Avenue Philadelphia, PA 19120
ML/SFA	Metal Lath/Steel Framing Association 600 South Federal, Suite 400 Chicago, IL 60605 Phone: (312) 922-6222
NAAMM	National Association of Architectural Metal Manufacturers 8 South Michigan Avenue, Suite 1000 Chicago, Illinois 60603 Phone: (312) 332-0405
NEBB	National Environmental Balancing Bureau 8575 Grovemont Circle Gaithersburg, Maryland 20877 Phone: (301) 977-3698
NEMA	National Electrical Manufacturers' Association 1300 North 17th Street, Suite 1752 Rosslyn, Virginia 22209 Phone: (703) 841-3200
NFPA	National Fire Protection Association Battery March Park Quincy, MA 02269
NSWMA	National Solid Wastes Management Association 4301 Connecticut Avenue, NW, Suite 300 Washington, DC 20008-2304 Phone: (202) 244-4700
NTMA	National Terrazzo and Mosiac Association

201 North Maple, Suite 208
Purcellville, VA 20132
Phone: (800) 323-9736

OSHA — Occupational Safety and Health Administration
Government Printing Office
200 Constitution Avenue, NW
Washington DC 20210

PCA — Portland Cement Association
5420 Old Orchard Road
Skokie, IL 60077

PCI — Prestressed Concrete Institute
175 W. Jackson Boulevard
Chicago, IL 60604
Phone: (312) 786-0300

PS — Product Standard
U. S. Department of Commerce
Government Printing Office
Washington, D.C. 20402

SDI — Steel Deck Institute
P.O. Box 25
Fox River Grove, IL 60021
Phone: (847) 458-4647

SDI — Steel Door Institute
30200 Detroit Road
Cleveland, OH 44145-1967
Phone: (440) 899-0010

SJI — Steel Joist Institute
3127 Mr. Joe White Avenue
Myrtle Beach SC 29577-6760
Phone: (843) 626-1995

SMACNA — Sheet Metal and Air-Conditioning Contractors' National Association
4201 Lafayette Center Drive
Chantilly, Virginia 20151-1209
Phone: (703) 803-2980

SSPC — Steel Structures Painting Council
40 24th Street, Suite 600
Pittsburgh, PA 15213
Phone: (412) 281-2331

	TAS	Technical Aid Series 99 Canal Center Plaza, Suite 300 Alexandria, VA 22301 Phone: (800) 689-2900
	TCNA	Tile Council of North America, Inc. (In 2003, the TCA became the Tile Council of North America (TCNA) to reflect its membership expansion to all of North America - Canada, Mexico and the United States) 100 Clemson Research Center Anderson, SC 29625 Phone: (864) 646-8453
	TPI	Turfgrass Producers International (Founded in 1967 as the American Sod Producers Association - ASPA) 2 E. Main Street East Dundee, IL 60118 Phone: (800)-405-8873
	UL	Underwriters' Laboratories, Inc. 333 Pfingston Road Northbrook, IL 60062 Phone: (877) 854-3577
	WCLIB	West Coast Lumber Inspection Bureau Box 23145 Portland, OR 97281
	WRI	Wire Reinforcement Institute 942 Main Street, Suite 300 Hartford, CT 06103 Phone: (800) 552-4974

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

SECTION 01100
EXISTING UTILITIES

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

A. Before performing any utility shutdowns, or any hot work on an existing utility within or outside of a building or hot work the Contractor shall contact MDAD and all concerned utilities.

B. In order to locate existing utilities, the Contractor shall complete the UNDERGROUND UTILITIES CLEARANCE SIGN-OFF SHEET appended to this Section and submit it to the Architect/Engineer and to MDAD Maintenance in accordance with the form's instructions.

C. Before any shut-down of an existing active utility, the Contractor shall complete the CIP or NON-CIP SHUT-DOWN REQUEST FORM appended to this Section, as appropriate to the project type, and submit it to MDAD Maintenance Engineering in accordance with the form's instructions.

D. Before initiating hot work, the Contractor shall submit the Hot Work permit application. Hot Work includes, but is not limited to, brazing, cutting, grinding, soldering, or thawing of utility pipes, torch applied roofing, and welding.

1.02 RELATED REQUIREMENTS

A. Section 01120 - Hot Work Operations

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

3.01 The Contractor shall comply with the Provisions of the Underground Facility Damage Prevention and Safety Act - Chapter 556, Florida Statutes.

3.02 Prior to performing any excavation or digging, the Contractor shall give 48 hours notice to each owner of the underground utility facilities. Notifying SUNSHINE STATE ONE CALL OF FLORIDA, INC. does not satisfy this requirement.

3.03 There is a rebuttable presumption of negligence under the above referenced Statutes on the part of the Contractor, if the Contractor fails to call the underground utility owner and receive authorization before digging, or if the Contractor calls but fails to wait the required 48 hours.

3.04 During the 48-hour period, the underground utility owner shall go to the site and flag its facility.

3.05 Violation of the above referenced statute can be cause for civil fines and criminal offenses as delineated in the above referenced statutes.

Appendices: MDAD UNDERGROUND UTILITIES CLEARANCE SIGN OFF SHEET, Requirements for filling out sign-off sheet and procedures.

MDAD UNDERGROUND UTILITIES CLEARANCE SIGN OFF SHEET.

MDAD CIP AND NON-CIP SHUT-DOWN REQUEST*S*

NOTICE TO REQUESTOR/CONTRACTOR

CIP SHUT-DOWN REQUEST FORM.

CIP SHUT-DOWN COORDINATION CONCURRENCE

NON-CIP SHUT-DOWN REQUEST FORM

END OF SECTION

MDAD UNDERGROUND UTILITIES CLEARANCE

Requirements for filling out sign-off sheet and procedures.

CONTRACTOR/REQUESTOR SHALL:

Contact MDAD Utilities Coordinator to obtain direction and the MDAD Sign-off Sheet.

CALL/CONTACT:

a) Sunshine State One Call of Florida, Inc. (Former U.N.C.L.E.) b) All companies/organizations (persons) which are on the MDAD Sign-off Sheet. c) Obtain Names and signatures of contact personnel for all utilities. Copies shall be submitted to MDAD for their records.

Be prepared to submit to these companies drawings/maps of the work area.

Mark in field the location of the proposed work site.

Prepare a set of copies of all papers/maps regarding the project (for MDAD records).

Call the MDAD Utilities Coordinator for final appointment and last signature.

NOTICE TO CONTRACTORS

MDAD's **Utilities Clearance Coordination is not an underground utilities locating** service for **contractors working for Miami-Dade County Airports. MDAD's Utilities Clearance Coordination** is a free service provided to contractors working for MDAD, for the purpose of protecting our utilities, including damage prevention.

If utilities shown on contractors' drawings cannot be located by the contractor, then the Contractor is responsible for finding the utility by other means, such as hiring a locator with high tech equipment like GPR (ground penetrating radar).

Contractors are responsible for making all the necessary phone calls to obtain the clearance associated with their projects. The accuracy of clearances and signatures from other agencies or groups is the Contractor's responsibility.

MDAD is not responsible for any and all claims, disputes, or other matters arising between Contractors related to the execution or progress of their work, or their interpretation of the available plans and information. MDAD is not responsible for the verification or reliability of existing utilities information or for information furnished by other agencies.

MDAD Utilities Clearance Coordination service is limited to sites within Miami-Dade County Airports only. Utilities clearance requests inside buildings are NOT PERMITTED due to interference. All clearances and associated coordination are good for a two (2) week period, only.

SIGN-OFF SHEET
MIAMI-DADE AVIATION DEPARTMENT

UNDERGROUND UTILITIES CLEARANCE

MDAD PROJECT NAME AND NUMBER / WORK ORDER NUMBER:

_____

_____

MDAD P.M:_____REQUESTOR NAME: _____
CONTRACTOR/SHOP: _____ TELEPHONE #: _____

LOCATION SITE: MIA TERMINAL / MIAD / N.W. BASE / N.E.BASE / CENTRAL BASE

TAMIAMI / OPA-LOCKA / HOMESTEAD GENERAL

STEP #1.
CONTACT: SUNSHINE STATE ONE CALL OF FLORIDA INC. (1-800-432-4770) OR (1-800-638-4097)

OBTAIN ALL SIGNATURES REQUIRED AND PLEASE ATTACH THE " ONE CALL" PARTICIPATING UTILITY FOR THIS AREA. TICKET NO._____

STEP#2
NAME OF COMPANY/ORGANIZATION DATE SIGNATURE

FPL LOCATOR
BOB GARDNER: 305-876-7896 OR TOM CLARK: 305-876-7936 FAX: 305-869-1435

FAA
JOHN PIVACCO: 305-869-5350 FAX: 305-869-5390

NEXTIRAONE, L.L.C. – COMMUNICATIONS
ALFREDO GUERRA: 305-876-8411 FAX: 305-869-5672

MDAD IRRIGATION
FRANK CONTRERAS: 305-876-7381 FAX: 305-876-8087

STEP # 3

MDAD UTILITY COORDINATOR
IVAN VALDES: 305-876-0626 FAX: 305-876-8007

COMMENTS_____

_____

NOTES:

1. THE LOCATION OF THE PROPOSED WORK SHALL BE MARKED IN THE FIELD.
2. CONTRACTOR SHALL CONTACT THE ABOVE GROUPS TO SIGN-OFF ABOVE.
3. DRAWINGS OF PROPOSED PROJECTS SHALL BE SUBMITTED WITH TICKET NUMBERS AT TIME OF CLEARANCE REQUESTS, PLUS ANY OTHER RELEVANT DRAWINGS AVAILABLE.
4. LAST SIGNATURE TO BE OBTAINED IS THAT OF MDAD UTILITY COORDINATOR.
5. MDAD COORDINATOR WILL THEN VERIFY THAT ALL OTHER SIGNATURES HAVE BEEN OBTAINED.
6. MDAD COORDINATOR WILL NOT BE RESPONSIBLE FOR AREAS CLEARED BY OTHER ENTITIES.

MDAD CIP AND NON-CIP SHUT-DOWN REQUESTS

Requestor/Contractor Requirements:

1. **The Project Manager/Contractor of a particular project shall contact the MDAD shop supervisor and/or lead worker of each discipline for a kick-off meeting regarding shutting down any equipment or system that may impact the airport.**
2. **Once the affected areas have been identified with the assistance of MDAD, the Project Manager/Contractor shall complete the request form correctly with all pertinent information.**
3. **All Contractors/Requestors shall follow the procedures that are attached to the SHUT-DOWN REQUEST FORM appropriate to the project type.**

Requirements for filling out the form and procedures:

1. **Complete the form properly by making sure to attach all necessary documents showing the affected areas, devices, permits, certification of licenses from Contractor and environmental plans (if required), etc.**

The following are the requirements for each discipline to be attached with the C.I.P. SHUT-DOWN REQUEST FORM:

1. **Electrical/Mechanical - site plans or as-builts showing affected areas, scope of work, etc.**
2. **Water/Sewer – (water) site plans or as builts showing affected areas, scope of work; (sewer) – site plans or as-builts showing affected area, scope of work, environmental action plan (if required).**
3. **Fire Sprinkler & Alarm – site plans or as-builts showing affected areas, scope of work, copies of permits, copies of licenses, copies of Honeywell plans. (Copies of Honeywell Shutdown Notice).**
4. **Security & Life Safety – site plans or as-builts showing affected areas, scope of work, copies of permits, licenses and copies of Honeywell Security Plan, Matrix and Honeywell concurrence letters of walk thru involvement.**

This is to ensure that all shut-downs are approved in a timely manner.

1. **Deliver or fax the completed SHUT-DOWN REQUEST FORM to the CIP Shut-down Coordinator, where it shall be stamped "Received." Incomplete paperwork will not be processed and the requestor shall be contacted.**

2. **The MDAD Shut-down Coordinator shall contact the project manager, e.g., MDAD/DAC, when all areas have been cleared and the affected MDAD Divisions & tenants have been notified to approve the shut-down.**

3. **An e-mail will confirm notifying everyone affected by the shut-down of the date. Unless an emergency arises, all shut-downs shall be scheduled within __7__ working days after completed paperwork is submitted.**

NOTICE TO REQUESTOR/CONTRACTOR

MDAD CIP Shut-down Coordination Group is not a service company for Contractors working for Miami Dade County airports. The Coordination Group provides a free service to Contractors working for MDAD, for the purpose of protecting all utilities including damage prevention, as well as protecting our business partners from operation interruptions.

The Coordinator is not responsible for delays due to the forms not being properly completed. Contractors are responsible for providing all necessary information before requesting a shutdown. The Coordination Group is available to assist the Contractors, provided they advise in a timely manner. MDAD is not responsible for any and all claims, disputes or other matters arising between Contractors related to the execution or progress of their work or their interpretation of the available plans and information.

CIP SHUT-DOWN REQUEST FORM

PROJECT NAME: _____ **PROJECT NO.:** _____

PROJECT MANAGER: _____ **TODAY'S DATE:** _____

SHUTDOWN DATE

TELEPHONE NUMBER: _____ **REQUESTED:** _____

*NOTE: Return completed form to MDAD CIP Coordination Group at MIA Building 3030, 3rd Floor, Fax Number 305-**876-0601**. Submit no less than 7 working days before requested shut-down date.*

LOCATION OF WORK / FLOOR _____

_____

A/E NAME/TELEPHONE & FAX NO.: _____

A/E PROJECT MANAGER: _____

ENGINEERING CONSULT. NAME/TEL./FAX NO.: _____

G.C. NAME/TELEPHONE & FAX NO.: _____

G.C. PROJECT MANAGER: _____

SUB-CONTRACTOR NAME/TEL. & FAX NO.: _____

SUB-CONTRACTOR PROJECT MANAGER: _____

SYSTEM TO BE SHUT DOWN: _____

_____

_____

REASON FOR SHUT-DOWN: _____

_____

_____

_____

AREAS AFFECTED BY SHUT-DOWN: _____

_____

_____

_____

OTHER SYSTEMS AFFECTED (E, A/C, P, ETC.) _____

_____

_____

DURATION OF SHUT-DOWN REQUEST: _____

CIP SHUT-DOWN COORDINATION CONCURRENCE

SCHEDULED SHUT-DOWN DATE:	
SYSTEM TO BE SHUT-DOWN:	
REASON FOR SHUT-DOWN:	
LOCATION:	

COMPANIES COORDINATING SHUT-DOWN	REPRESENTATIVE	DATE	COMMENTS
HONEYWELL 305-876-8134	Dean Roberts		
DASH DOOR 305-477-1164	Jeff Steiner		
MATRIX 305-869-3692	Lee Levenson		
CONTRACTOR			

NON-CIP SHUT-DOWN REQUEST FORM

PROJECT NAME: _____ **PROJECT NO.:** _____

PROJECT MANAGER: _____ **TODAY'S DATE:** _____

SHUTDOWN DATE

TELEPHONE NUMBER: _____ **REQUESTED:** _____

*NOTE: Return completed form to MDAD Maintenance Engineering at MIA Building 3030, Fax Number 305-**876-0347**. Submit no less than 7 working days before requested shut-down date.*

LOCATION OF WORK / FLOOR _____

_____

A/E NAME/TELEPHONE & FAX NO.: _____

A/E PROJECT MANAGER: _____

ENGINEERING CONSULT. NAME/TEL./FAX NO.: _____

G.C. NAME/TELEPHONE & FAX NO.: _____

G.C. PROJECT MANAGER: _____

SUB-CONTRACTOR NAME/TEL. & FAX NO.: _____

SUB-CONTRACTOR PROJECT MANAGER: _____

SYSTEM TO BE SHUT DOWN: _____

_____

_____

REASON FOR SHUT-DOWN: _____

_____

_____

_____

AREAS AFFECTED BY SHUT-DOWN: _____

_____

_____

_____

OTHER SYSTEMS AFFECTED (E, A/C, P, ETC.) _____

_____

_____

DURATION OF SHUT-DOWN REQUEST: _____

SECTION 01120

HOT WORK OPERATIONS

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

A. Before initiating hot work, the Contractor shall submit the Hot Work permit application. Hot Work includes, but is not limited to, work above and below ground, involving open flames or work producing heat and/or sparks (including, but not limited to, brazing, cutting, grinding, soldering or thawing materials, torch applied products, installation and welding).

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

3.01 All tradesmen operating on airport property whose work entails open flame cutting, welding or similar hot work shall not proceed with such operations until the safety of the work area has been approved by the Airport Fire Division and a "Hot Work Permit" obtained. The provisions of this directive shall apply to any operation involving open flames or producing heat and/or sparks.

3.02 Follow the MDAD Facilities Procedure contained in Procedure FD5-047-P using the Hot Work Permit form FD5-047 current issues. Both are located in the MDAD Local Area Network (LAN), H drive/Facilities/Procedures and Forms. Form FD5-047 is also available in the next Section 01120-01 following this one.

Appendix: Hot Work Procedure FD5-047-P
Hot Work Permit. FD5-047

END OF SECTION

MIAMI-DADE AVIATION DEPARTMENT

CONTROL No._____

HOT WORK PERMIT

A Hot Work Permit is required for any operation that involves open flames or produces heat and/or sparks.
This includes, but is not limited to, Brazing, Cutting, Grinding, Flame-Soldering, Pipe Thawing, Torch-Applied Roofing, and Welding.

PROJECT NAME: _____ PROJECT No: _____

MDAD WORK ORDER No: _____ CONTRACTOR JOB No: _____ DATE WORK TO BE DONE: _____

PERFORMING CONTRACTOR: _____ ☐ GC ☐ SUB PHONE No: _____

SUPERVISOR

WORK TO BE DONE BY: EMPLOYEE: _____ : _____ FIRE WATCH: _____

HOT WORK is to be performed at one location per permit.

FACILITY, BUILDING, and FLOOR _____

NATURE OF JOB: _____

SPECIAL PRECAUTIONS: _____

REQUIRED PRECAUTIONS CHECKLIST

General Contractor or designee to verify that each precaution has been taken or to indicate that it is Not Applicable (NA).

- ☐ Available sprinklers, hose streams, and extinguishers are in service/operable.
- ☐ Hot Work equipment is in good repair.
- ☐ Entrances to work area have been posted with NO SMOKING signs.
- ☐ No welding or open flames within 100 feet of aircraft or a flammable spill.
- ☐ Work area enclosed to contain sparks and prevent vision flash burn.
- ☐ Ventilation is adequate to remove smoke/vapor from work area.

Requirements within fifty feet (fifteen meters) of work:

- ☐ Flammable liquids, dust, lint, and oily deposits have been removed.
- ☐ Explosive atmosphere in area has been eliminated.
- ☐ Floors have been cleaned of debris.
- ☐ Combustible floors have been wet down, covered with damp sand, or covered with fire-resistive sheets.
- ☐ Other combustibles have been removed, where possible, or protected with fire-resistive tarpaulins or metal shields.
- ☐ All wall and floor openings have been covered.
- ☐ Fire-resistive tarpaulins have been spread beneath work to collect sparks.

For work on walls or ceilings:

- ☐ Construction is noncombustible and without combustible covering or insulation.
- ☐ Combustible materials or items on other side of walls have been moved away.
- ☐ When welding, cutting, or heating is performed on walls, floors, or ceiling, since direct penetration of sparks or heat transfer may introduce a fire hazard to an adjacent area, the same precautions shall be taken on the opposite side as are taken on the side on which the work is being performed.

For work on enclosed equipment (tanks, ducts, etc.):

- ☐ Enclosed equipment has been cleaned of all combustibles.
- ☐ Containers have been purged of flammable liquids/vapors.

Fire Watch / Hot Work area monitoring:

- ☐ Fire Watch will be provided during and for thirty minutes after work, including any coffee or meal breaks.
- ☐ Fire Watch is supplied with suitable extinguishers/a charged small hose.
- ☐ Fire Watch is trained in use of this equipment and in sounding alarm.

I VERIFY that the above named location has been examined, that the precautions checked on the Required Precautions Checklist have been taken to prevent fire, and I request authorization to perform this work.

SIGNED _____

Printed Name Date

General Contractor Firm Phone Number

AUTHORIZATION:

SIGNED _____

Printed Name Date

A/E Consultant/CIS Firm Name Phone Number

WORK PERFORMED:

START: _____ **END:** _____

PERMIT EXPIRES (Good for one day only):

DATE: _____ **TIME:** _____

FINAL CHECK:

The work area and all adjacent areas to which sparks and heat might be spread were inspected during the fire watch period and for at least thirty minutes after the work was completed and no fire conditions were found.

SIGNED _____

Fire Watch Date

Printed Name: _____

NOTIFICATION:

- **Post a copy of approved Permit at the Hot Work site.**
- **Fax a copy of approved permit to:**
  1. **Airside Ops (General Aviation Center) at (305) 869-5858.**
  2. **Risk Management at (305) 876-7162.**
  3. **Life Safety Bureau at (305) 869-1589.**
  4. **Maintenance at (305) 869-1633.**
     On weekends and after hours use (305) 876-0193.
- **A/E Field Rep to log and file copy signed by Fire Watch.**

IN CASE OF FIRE - - - CALL (305) 876-7070

SECTION 01200

PROJECT MEETINGS

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

A. Contractor participation in pre-construction conferences.

B. Contractor administration of progress meetings and pre-installation conferences.

1.02 RELATED REQUIREMENTS

A. Section 01010 - Summary of Work.

B. Section 01300 - Submittals

C. Section 01310 - Progress Schedules

D. Section 01340 -- Shop Drawings, Product Data and Samples.

E. Section 01701 - Contract Closeout Procedures

F. Section 01720 - Project Record Documents.

1.03 PRE-CONSTRUCTION CONFERENCES

A. Field Representative will hold a pre-construction conference. (See General Conditions.)

1.04 PROGRESS MEETINGS (See General Conditions)

A. Schedule and administer Project meetings throughout progress of the work at weekly intervals as well as any called meeting and [pre-installation conferences.]

B. Attendance: Job superintendents, major subcontractors and suppliers; Owner, Architect/Engineer and Field Representative as appropriate to agenda topics for each meeting.

C. Agenda will include review of Work progress, status of progress schedule and adjustments thereto, delivery schedules, submittals, maintenance of quality standards, pending changes and substitutions and other items affecting progress or work.

1.05 [PRE-INSTALLATION CONFERENCES]

A. When required in individual specification Section, Contractor will convene a pre-installation conference prior to commencing work of the Section.

B. Require attendance of entities directly affecting, or affected by, work of the Section.

C. Review conditions of installation, preparation and installation procedures and coordination with related work.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

SECTION 01300

SUBMITTALS

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

A. Procedures.

B. Construction Progress Schedules.

C. Schedule of Values.

D. Shop Drawings.

E. Product Data.

F. Samples.

G. Manufacturers' Instructions.

H. Manufacturers' Certificates.

I. Progress Photographs

1.02 RELATED REQUIREMENTS

A. General Conditions- Definitions, basic responsibilities of entities, and Article 4.8 Substitution

B. Section 01010 - Summary of work.

C. Section 01027 - Applications for Payment.

D. Section 01310 - Progress Schedules

E. Section 01311 - Progress Schedules (Computerized Project Planner Format)

F. Section 01314 - Construction Schedule Management System

G. Section 01340 - Shop Drawings, Product Data and Samples.

H. Section 01370 - Schedule of Values.

I. Section 01405 - Contract Quality Control.

J. Section 01600 - Material and Equipment.

K. Section 01701 - Contract Closeout Procedures.

1.03 PROCEDURES

A. Deliver submittals to the Field Representative.

B. Identify Project, Project Number, dates of previous submittals, Contractor, subcontractors, suppliers; identify pertinent drawings by sheet and detail number, and Specification Section number, as appropriate, Identify deviations from Contract Documents. Provide space for Contractor and Architect/Engineer review stamps.

C. Before commencing any work, prepare and submit to the Field Representative the initial Progress Schedule and Schedule of Values in triplicate. After review by Architect/Engineer revise and resubmit as required for approval by the Architect/Engineer and the Owner. Submit revised Progress Schedule with each application for partial payment, reflecting changes since previous submittal.

D. Comply with progress schedule for submittals related to Work progress. Coordinate submittal of related items.

E. After Architect/Engineer review of submittal, revise and resubmit as required, identifying changes made since previous submittal.

F. Distribute copies of reviewed submittals to concerned parties. Instruct recipients to promptly report any inability to comply with provisions.

G. No partial payment will be processed without a current approved Near Term and Overall Progress Schedule and an approved Schedule of Values.

1.04 CONSTRUCTION PROGRESS SCHEDULE

A. Submit progress schedule in the form and procedure specified in Sections 01310 and 01311.

B. Show complete sequence of construction by activity, identifying work of separate stages and other logically grouped activities. This is to include the commissioning activities, such as, but not limited to, prefunctional testing, functional testing, and training. Show projected percentage of completion for each item of work as of time of each Application for Progress Payment.

C. Show submittal dates required for shop drawings, product data and samples and product delivery dates, including those furnished by Owner.

1.05 SCHEDULE OF VALUES

A. Submit typed preliminary Schedule of Values on Owner provided forms or Owner approved forms.

B. Submit typed Schedule of Values on Owner provided forms or Owner approved forms.

C. Format: Identify each line item with number and title of the major Specification Sections or major components of this item.

D. Include specified Allowances, if any, in each line item amount.

E. Include in each line item a directly proportional amount of Contractor's overhead and profit.

F. Provide a sub-schedule for each separate stage of work specified in Section 01010.

G. Revise Schedule of Values to list Change Orders and Work Orders, for each Application of Partial Payment.

1.06 SHOP DRAWINGS

A. Prior to the submission of any shop drawing, but not later than 30 days from the effective date of the Notice to Proceed, the Contractor shall prepare and submit to the Field Representative, a Schedule of Shop Drawing submittals stating when each shop drawing or sample will be provided ~~for~~ to the Field Representative for review.

B. The Contractor shall be responsible for the preparation of detailed shop drawings necessary for the fabrication, erection, and construction of all parts of the work in conformity with the requirements of the Contract Documents.

C. Submit shop drawings per the schedule of shop drawing submittals, inserted in one loose leaf binder, with tabs and index to the Field Representative. All individual submittal sheets inserted in said binder must be clearly marked and referenced to proper paragraph and subparagraph of specifications. Cross out any items on sheets which constitute information not pertaining to equipment specified. Clearly mark all components that are provided as "optional" by manufacturer. Shop drawings shall be approved by Contractor prior to submittal to the Field Representative Shop drawings will be reviewed by the Architect/Engineer. After Architect-Engineer approval, reproduce and distribute in accordance with requirements in Section 01340.

D. All submissions of shop drawings, brochures and catalog cuts shall be accompanied by a transmittal letter listing the drawings submitted by number and title.

E. When professional calculations and/or certification of performance criteria of materials, systems, and/or equipment is required, the Architect/Engineer is entitled to rely upon the accuracy and completeness of such calculations and certifications submitted by Contractor. Calculations, when required, shall be submitted in a neat, clear and in an easy to follow format. . Such calculations and/or certifications shall be signed and sealed by a Professional Engineer registered in the State of Florida.

F. Failure to comply with any of the above may result in the rejection of shop drawings.

1.07 PRODUCT DATA

A. Submit not less than six copies, as approved by the Field Representative and required in Section 01340. Mark each copy to identify applicable products, models, options and other data; supplement manufacturers' standard data to provide information unique to the work.

1.08 MANUFACTURER'S INSTRUCTIONS

A. When required in individual Specification Section, submit manufacturer's printed instructions for delivery, storage, assembly, installation, start-up, adjusting and finishing, in quantities specified for product data.

1.09 SAMPLES

A. Submit full range of manufacturers' standard colors, textures and patterns for Architect/Engineer's selection. Submit samples for selection of finishes within 60 days after Award of Contract. All color and finish selections must be submitted by the Contractor in a single submission, properly labeled and identified.

B. Submit sample to illustrate functional characteristics of the product, with integral parts and attachment devices. Coordinate submittal of different categories for interfacing work.

C. Include identification on each sample, giving full information.

D. Submit the number specified in respective Specification section; one will be retained by Architect/Engineer. Reviewed samples which may be used in the work are indicated in the Specification Section.

1.10 FIELD SAMPLES

A. Provide field samples of finishes at project as required by individual Specifications section. Install sample complete and finished. Acceptable samples in place may be retained in completed work.

1.11 PROGRESS PHOTOGRAPHS

A. STILL PHOTOGRAPHS (Film or Digital)

1. Before construction operations have started at the site, the Contractor shall take and provide 30 color photographs showing the existing conditions and thereafter an average of 15 views shall be taken each month until completion of the work. The actual number and location of views to be taken each time will be determined by the Field Representative.

   Two color prints copies and the negatives of each view shall be submitted to the Field Representative promptly after taking the views.

2. Photographs shall be of standard commercial quality, 8" x 10" in size of heavy-weight glossy paper; each photograph shall be enclosed in a double-face plastic sleeve. Each photograph shall show an information box in the lower right hand corner approximately 1-1/2" high box shall be incorporated into the print by a photographic process and shall not be pasted to the finished print.

   The following information shall be typed, not handwritten, in the box:

   Miami-Dade Aviation Department
   CONTRACT No.[_____]
   (Architect/Engineer=s Name) _____
   (Field Representative=s Name) _____
   (Contractor's Name)
   View No. _____ Date _____

   (Information regarding view such as location, direction of sight and significant points of interest.)

   Each negative shall be of standard commercial quality 35mm, enclosed separately in clear plastic with identification overlay containing the same information shown on the prints.

   All negatives shall be submitted in brown negative envelopes with the identification information typed on the envelope.

   The Contractor shall notify the Field Representative 24 hours in advance of taking any photographs.

B. VIDEO

1. Before construction begins at any site and at frequent intervals during the construction at any phase or site of the work, the Contractor shall take video tapes (using 2 inch VHS format photography) of the existing condition and of the work as it progresses. Audio description, in the English language, describing the views (location, angle, date, time of day, type of construction, etc. shall be incorporated into the tape.

2. Location and frequency of taking these videotapes shall be as directed by the Field Representative.

3. A copy of each tape properly identified with a typewritten label properly affixed to the tape and accompanied by a typewritten sheet describing the views shall be submitted to the Field Representative, promptly after taping. The Contractor shall notify the Field Representative 24 hours in advance of making any video tapes of the site or of the work.

C. Any and all still photographs, negatives and video tapes taken of the construction area are the Owner's property and shall not be released to any source whatsoever without the prior written permission from the Owner. This provision shall prevail for the duration of the contract and shall indefinitely thereafter.

D. The Contractor shall notify the Field Representative of all new design intent or operating parameter changes, added control strategies and sequences of operation, or other changes that may affect commissioned systems.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

SECTION 01310

CONSTRUCTION SCHEDULES

PART 1 GENERAL

1.01 REQUIREMENT INCLUDED

Procedures for preparation and submittal of Construction Progress Schedules and periodic updating.

1.02 RELATED REQUIREMENTS

A. Section 01010 - Summary of work.

B. Section 01027 - Applications for Payment.

C. Section 01300 - Submittals.

D. Section 01311 - Construction Schedules

E. Section 01340 - Shop Drawings, Product Data and Samples

F. Section 01370 - Schedule of Values

1.03 FORMAT

Prepare the progress schedule in the form of a network analysis system using a computerized critical path method (CPM) format Section 01311.

1.04 CONTENT

A. Show complete sequence of construction by activity, with dates for beginning and completion of each element of construction.

B. Identify each item by major Specification section number.

C. Provide activity code identity for each stage of Work identified in Section 01010.

D. Show accumulated percentage of completion of each item, and total percentage of work completed, as of the first day of each month.

E. Provide schedule of Shop Drawings submittals within 30 days from the Notice to Proceed.

F. Provide submittal dates for shop drawings, product data and samples, including products specified under Allowances, and dates reviewed submittals will be required from Consultant. Show decision dates for selection of finishes.

G. Show total monetary value for each work activity by trade. Amounts to be consistent with the unit bid price items and the approved Schedule of Values.

H. Coordinate content with Section 01370 - Schedule of Values.

I. Changes in scope requiring a Change Order or Work Order must be identified in the schedule by an activity code approved by the Owner.

1.05 REVISIONS TO SCHEDULES

A. Indicate schedule and quantity progress of each activity to date of submittal and projected completion date of each activity.

B. Identify activities modified since previous submittal, major changes in scope and other identifiables.

C. Provide narrative report to define problem areas, anticipated delays and impact on schedule. Report corrective action taken or proposed, and its effect including the effect of changes on schedules of separate contracts, if any.

D. Free floats in the approved construction progress schedules are owned by the Owner.

1.06 PROCEDURES

A. Follow procedures outlined in Section 01300.

B. Prepare and submit progress schedules in accordance with the provisions of Section 01311

C. Contractor is solely responsible for the preparation, revision and updating of the overall project schedule and the near term schedule in the form and content prescribed in Section 01311

D. The timely execution or performance of all construction related activities and the duration and sequencing of those activities in accordance with the approved project schedule(s) is the Contractor's responsibility.

E. Submit revised progress schedules with each partial payment certificate.

F. Transmit on County approved forms.

G. Submit the number of copies that Contractor requires, plus four (4) copies that will be retained by Architect/Engineer, Field Representative, and Owner.

H. Submit two (2) copies of the computer diskettes of the schedule with each schedule submission.

1.07 DISTRIBUTION

A. Distribute copies of reviewed schedules to job site file, subcontractors, suppliers and other concerned entities.

B. Instruct recipients to promptly report, in writing, problems anticipated by projections shown in Schedules.

PART 2 PRODUCTS
Not Used

PART 3 EXECUTION
Not Used

END OF SECTION

SECTION 01311

CONSTRUCTION SCHEDULES

LUMP SUM CONTRACTS

PART 1 GENERAL

1.01 REQUIREMENT INCLUDED

A. Procedures for preparation and submittal of construction progress schedules and periodic updating.

1.02 RELATED REQUIREMENT

A. Section 01010 - Summary of Work.

B. Section 01027 - Applications for Payment

C. Section 01300 - Submittals.

D. Section 01340 - Shop Drawings

1.03 GENERAL

A. The Contractor's and/or Subcontractor's timely execution or performance of all construction related activities shall be in strict compliance with the approved Overall Project Schedule. Means and methods of construction in accordance with the Contract Documents shall remain the sole responsibility of the Contractor.

B. The construction of the project will be planned and recorded utilizing Primavera

Project Planner computer software (Version 5.0 or greater). It shall be used for coordination, monitoring, and payment of all work under the Contract including all activities of the Contractor, subcontractors, vendors, and suppliers.

1.04 OVERALL PROJECT SCHEDULE

The overall project schedule shall be in the form of a time scaled precedence diagram and associated computer analysis and shall consist of detailed activities and their restraining relationships as required to complete the project from Notice To Proceed through completion of the Work and shall indicate the following:

A. Beginning and end date duration in work days for each activity. (Activities in occupied areas and activities requiring premium time labor rates shall be differentiated from each other and from the balance of project activities).

B. Beginning and end date and total duration in work days for each Area or portion thereof.

C. Significant milestones, including, but not limited to those indicated in Section 01010 "Summary of Work".

D. Identity of each trade, contractor, and subcontractor for each work activity.

E. Specific location of each work activity per the Architect/Engineer=s phasing drawings or alternative location drawings approved by the Owner.

F. Total monetary value, including overhead and profit for each activity.

G. Monetary value for permanent materials for each activity.

H. Site Labor man-hours by trade for each Subcontractor and the General Contractor for each activity.

I. Total Site Labor dollars and all Site Labor rates for each trade used in each activity.

J. Equipment or Machinery to be used to perform the activity. Data required includes type of equipment, hours required and hourly rate for each piece of equipment and dollar value per piece of equipment for each activity.

K. Specific phase of the work as defined by the Architect/Engineer using activity codes approved by the Owner.

L. Detailed schedule of all "utility shut-downs" which would impact on MDAD, F.I.S, airlines, tenants and other building operations or functions including, but not limited to: power, telephone (BellSouth and Wiltel), airline computers, communication systems, air conditioning systems, fire sprinklers, alarm systems, domestic water systems, and sanitary sewer systems.

M. Sequence and interdependence of all activities required for complete performance of all items of work under this contract.

N. All network restraints (restraining ties between activities which restrict the start or finish of another activity). The use of Anegative lags≅ in the restrictions between activities of the Overall Project Schedule is expressly forbidden.

O. Shop drawing submittals by the Contractor, reviews by the Architect/Engineer.

P. Fabrication and delivery activities for all equipment, including that furnished by the Owner, and materials to be installed during the project.

Q. Dates for ordering long lead items (materials, equipment, or specialty shop fabricated work).

R. Notice to tenant(s) prior to start of work in occupied or used tenant spaces.

The Contractor shall also provide the following information: work days per week, holidays, number of shifts per day, number of hours per shift, number of prime time work hours, proposed schedule of "utility shut-downs", Special Equipment or Machinery to be used, and list of work activities which must be performed during restricted or special working hours.

The precedence diagram shall show the sequence and interdependence of all activities required for complete performance of all items of work under this contract, including shop drawing submittals and approvals and fabrication and delivery activities.

Long-term construction activities shall be broken down into recognizable smaller activities so that no activity will be longer than 15 workdays.

The Owner reserves the right to selectively limit the number of activities in the schedule.

The schedule shall be sufficiently detailed to track the progress of each activity and the project, as a whole, on a daily basis. The activities shall be clearly described so that the work is readily identifiable. The progress of each activity is to be reasonable and based on the amount of labor, materials, and equipment involved. When added together, the dollar value of all activities shall equal the Contract amount less the Allowance Account(s).

The overall project schedule shall be prepared and submitted to the Field Representative within forty-five (45) calendar days from the effective date of the Notice to Proceed.

The precedence diagram submitted by the Contractor shall be drawn in the format approved by the Owner and shall be accompanied by a computer generated and plotted schedule utilizing Primavera Project Planner scheduling software. The Contractor shall exercise sufficient care to produce clear, legible, and accurate diagrams. The Contractor shall group activities related to specific physical areas on the diagram for ease of understanding and simplification.
The Owner will review the overall project schedule for compliance with the Contract requirements as to staging, phasing, and the time of completion. Such review and acceptance of these schedules does not imply either the Architect/Engineer's, the Field Representative=s or the Owner's endorsement and/or responsibility of each and every activity duration or sequence of activities.

The overall project schedule shall be updated monthly. This monthly update shall generate a report that will indicate the remaining duration along with schedule and resources percent complete for each activity. This report together with the monthly sorts will act as the basis for the Contractor's requests for partial payment and shall be submitted with it.

The duration of the overall project schedule shall be in agreement with the duration of the Contract as stipulated in the Bid Form, or as modified by the Contract provisions described in these Contract Documents.

1.05 NEAR TERM SCHEDULE

The near term project schedule shall delineate, in the same detail as required for the overall project schedule, the work anticipated for the first ninety (90) calendar days after Notice to Proceed (NTP), with the balance of project duration, including all milestones, shown in summary form. The near term project schedule shall be prepared and submitted to the Field Representative prior to the Notice to Proceed.

1.06 CONSTRUCTION PROGRESS REPORT

As part of the monthly updating process, the Contractor shall prepare a construction progress report describing the physical progress during the report period, plans for the forthcoming report period, actions to correct any negative float predictions, and potential delays and problems and their estimated impact on performance and the overall project completion date.

A. Clearly describe all approved revisions to the accepted overall project schedule for that period.

B. Report actual progress by updating the mathematical analysis for the accepted overall project schedule.

C. Show tasks/activities, or portions of activities completed during the reporting period, and their actual value.

D. State the percentage of work actually completed as of the report date, and the progress along the critical path in terms of days ahead of or days behind the allowable dates.

E. Report progress along other paths with negative float, if the work is behind schedule.

F. Include a narrative report that shows, but is not necessarily limited to:

a. Description of the problem areas, current and anticipated;

b. List of delaying factors and their impact;

c. Explanation of corrective actions taken or proposed.

G. Describe plans/actions for the next report period.

1.07 SCHEDULE REVISIONS

The overall project schedule may be revised from time to time as conditions may require, and as approved by the Owner provided, however, that nothing in this Article shall be construed to authorize or approve any extension of time or increase in Contract price, it being expressly understood and agreed that time extensions or increase in contract price, if any, may only be granted in accordance with the applicable requirements of the Contract Documents. Any further revisions to the overall project schedule durations, restrictions, lags or any other logic or cost related components of the schedule must be accepted, in writing, by the Owner.

The Contractor may make only those revisions to the construction schedule as are accepted in advance by the Owner. In the event of a revision, the Contractor shall make certain that not more than one activity shall have the same activity identification number. The activity numbers of deleted activities shall not be used again.

Changes to the Contract by Work Order or Change Order are to be included in the overall project schedule. The new activities and logic are to be reviewed and accepted by the Owner prior to being incorporated into the accepted overall project schedule.

Once the changes are accepted, the Contractor's schedule revisions shall be incorporated into the previously accepted overall project schedule with the same force as the original schedule. It is understood that should the Contractor fall behind in the schedule and not be entitled to any time extension other than the extension already reflected, the Contractor shall submit his plan for bringing his work back up to schedule and shall implement the plan. If other measures are not sufficient to make up the lag, the Contractorəσ plan and implementation thereof shall include increasing the number of workers, shifts, days of work, and/or instituting or increasing overtime, all at no additional cost to the Owner.

Failure or refusal by the Contractor to submit a plan or implement the approved plan for bringing the work back into conformity with the accepted schedule may result in withholding payment to the Contractor or termination of this Contract by the Owner.

1.08 DUTIES

The Field Representative or the Ownerɔσ scheduling representative will perform those duties assigned by the Owner. They will be available to offer suggestions in regard to the interrelation of project activities, and schedule content and format, help identify predecessor activities which relate to other construction projects and other MDAD, airlines, tenant, building, and inter-project activities.

1.09 SCHEDULE SUBMITTALS

To facilitate and enhance the use of Contractor provided scheduling and cost related information required by the Contract Documents, the Contractor shall utilize Primavera Project Planner Software and provide the following:

A. Initial Baseline Schedule Submittals. The near term schedule submittal (activities for first 90 days) shall be submitted prior to the NTP. The overall project schedule submittal (all activities required for the entire contract) shall be submitted within 45 calendar days after NTP. Submit a hard copy of the near term and overall project schedules with detailed predecessor and successor analysis, and cost and resource tabular reports.

B. Monthly Update Submittals. Contractor may use the near term schedule to fulfill the scheduling requirements of the Contract for the initial monthly update. Starting at the second monthly update and continuing for the remainder of the Project, the Contractor shall use the overall project schedule to fulfill the scheduling requirements of the Contract.

C. Submit computer diskettes with each of the above submittals, containing the files used to generate the above reports, the near term schedule and the current overall project schedule.

   Contractor shall conform to the standard schedule, cost and resource report formats supplied by the Owner.

1.10 REPORTS, SORTS AND COMPUTER DISKETTES

Unless indicated otherwise, all reports and computer sorts shall depict all activities and their durations required to complete the entire project.

Each budget report shall be accompanied by a separate detailed cost report, which shall break down each activity into total material and labor costs. Labor costs for each activity shall be further broken down into total regular time and total premium time amounts.

The initial, and monthly schedules, reports, and sorts shall be consistent with the accepted overall project schedule.

Each request for payment must be accompanied by the updated report of both time and costs, together with all required sorts and computer diskette copies, based on the monthly update of the approved Overall Project Schedule. Requests for payment will not be processed unless properly submitted as specified.

All costs and time associated with the preparation and distribution of schedules, reports, sorts, and other supportive information required by this Article for the entire Project shall be deemed incidental to and included in the Contract Bid Price Item(s).

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

PART 4 FORMS

Copies of the time impact analysis form to be filed by the Contractor in submitting a claim involving a request for time extension follow in Section 01311-01 as:

APPENDICES

Section 01311-01-1, Time Impact Analysis Summary Sheet

Section 01311-01-2, Time Impact Detail Sheet

END OF SECTION

TIME IMPACT ANALYSIS SUMMARY SHEET
(TIA)

Contract No: _____Page ___ of ____

Contract Project Title: _____
_____

Contractor Company Name: _____
_____ Title of Event Delayed:_____
Event Reference Number: _____

Event References (drawings, transmittals, work orders, change orders, correspondence, etc.):

_____
_____
_____
_____

(continue on separate attachment if required)

Date of Approved Updated Schedule Used for Analysis:
Schedule File Name:

Detailed Description of Cause of Delay:

_____
_____
_____
_____
_____
_____
_____
_____

(continue on separate attachment if required)

Detailed Description of Work Delayed:

_____
_____
_____
_____
_____
_____
_____
_____

(continue on separate attachment if required)

TIME IMPACT ANALYSIS DETAIL SHEET
(TIA)

Contract No: _____Page ___ of ____

Title of Event Delayed:
Event Reference Number:

Activity No:	Description	Start	Finish	Duration

SECTION 01314

CONSTRUCTION SCHEDULING MANAGEMENT SYSTEM

PART 1 GENERAL

1.01 REQUIREMENT INCLUDED

A. Procedures for the construction scheduling Management System.

1.02 RELATED REQUIREMENTS

A. Section 01010 - Summary of Work.

B. Section 01310 - Progress Schedules.

C. Section 01311 - Progress Schedules Computerized Project Planner Format Lump Sum Contracts

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1.03 The Contractor and all subcontractors shall participate in the Construction Scheduling Management System as provided for in these Specifications.

1.04 There shall be regular Scheduling Coordination meetings, which will generally be a part of the weekly construction coordination meetings. The first such Scheduling Coordination meeting shall be two weeks after the date of Notice to Proceed and each subsequent Scheduling Coordination meeting shall be every two weeks thereafter. The Field Representative may schedule additional Scheduling Coordination meetings. Unless otherwise directed by the Field Representative, the Scheduling Coordination meetings shall be held at the job site and shall be attended by the Contractor and all subcontractors. The Contractor and subcontractors shall be represented at each Scheduling Coordination meeting by a person or persons authorized to make decisions and commitments regarding schedules, crew sizes, sequence(s) of events and similar scheduling matters on behalf of said Contractor or subcontractor. The Field Representative may authorize specified subcontractors not to attend one or more of the Scheduling Coordination meetings.

1.05 The Scheduling Coordination meeting shall be a forum to establish the true state of completion of the project, to update the status of the delivery of material and equipment items and to prepare or revise the detailed Near Term Progress Schedule.

1.06 After each Scheduling Coordination meeting, the Field Representative or the Owner's scheduling representative will prepare and distribute a report including the following: (A) a copy of the latest approved Near Term Progress Schedule; (B) a status review of the project; (C) a written analysis of problem areas and proposed solutions thereto; (D) the trend chart showing the trends of the completion dates of significant segments of the project; and (E) a listing of the more critical activities on which work should be accomplished before the next Scheduling Coordination meeting.

1.07 The Contractor shall provide all schedules required under this Article. The Field Representative or the Owner's scheduling representative may, from time to time, propose revisions to the Overall Project Schedule and Near Term Schedules to reflect the current status of the project. Draft revisions shall be circulated to all parties for review and comment. When approved the Owner, the revised overall project schedule and the Near Term Schedules shall become effective.

1.08 In the event any activity is behind schedule and, unless a time extension is claimed and granted in accordance with the applicable requirements of the General Conditions, the Contractor shall reschedule each such activity so as not to delay the Contract completion. If such rescheduling is not accomplished within a reasonable time, the Contractor, the Field Representative, and the Owner's scheduling representative (if other than the Field Representative) shall meet to develop a program to bring each such activity back on schedule. Said program may include any or all of the following:

A. Carrying out the activity with the crew size shown on the Overall Project Schedule, using overtime/prime time work to complete or bring current the activity;

B. Increasing the crew size(s) and/or number of shifts to a level sufficient to complete or bring current the activity;

C. Any combination of activities which will complete or bring current the activity.

Unless a claim for time extension, additional compensation or for any other relief under the Contract is processed in accordance with the provisions of applicable requirements of the General Conditions, the Contractor shall perform the work under the aforesaid program at no additional cost to the Owner.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

END OF SECTION

SECTION 01340

SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

A. Procedures for submittal.

B. Schedule of submittals.

1.02 RELATED REQUIREMENTS

A. General Conditions- Definitions, basic responsibilities of entities, and Article 4.8 Substitution

B. Section 01040 - Coordination.

C. Section 01300 - Submittals.

D. Section 01405 - Contract Quality Control: Mockups and samples for testing.

E. Section 01600 - Material and Equipment: Product options.

F. Section 01720 - Project Record Documents.

1.03 SHOP DRAWINGS

A. "Shop Drawings" are defined as drawings, diagrams, illustrations, schedules, catalog cuts, performance charts, brochures, and other data prepared by the Contractor or any subcontractor, manufacturer, supplier or distributor, which illustrates how specific portions of the work shall be fabricated and/or installed.

B. Shop drawing transparencies provided by the Contractor with each submittal shall be original drawings, sharp, clear and distinct, suitable for reproductions.

C. Each shop drawing shall be clear, thoroughly detailed, and shall have listed on it all Contract references, drawing number(s), specification section number(s), plus shop drawing numbers of related work by subcontractors, if applicable.

D. Identify field dimensions; show relation to adjacent or critical features or work or products.

E. Minimum Sheet Size: 11 x 17 inches.

F. Where it is difficult to provide shop drawing transparencies, such as "catalog cuts", "brochures" or "photographs", the Contractor shall submit a minimum of six (6) copies of such "cuts", "brochures" or "photographs". Additional copies shall be supplied when required by the Field Representative.

G. Shop drawings shall be complete in every detail, including a location plan relating the work to space identification such as station, offset, and column numbers, floor level, etc. Materials, gauges, method of fastening, size and spacing of fastenings, connections with other work, cutting, fitting, drilling, and any and all other necessary information per usual trade practice or as required for any specific purpose must be clearly shown.

H. Each shop drawing shall contain a title block with the following information provided:

(1) Number and title of drawing, including Contract title and Number;
(2) Date of drawing and revisions;
(3) Name of Contractor and Subcontractor (if any) submitting drawings;
(4) Name of Project, Building or Facility;
(5) Specification Section title and number;
(6) Contractor's Stamp of approval, signed by the Contractor or his checker;
(7) Space above the title block for Architect/Engineer's action stamp;
(8) Submittal or resubmittal number (whether first, second, third, etc.);
(9) Date of submittal.

The Contractor, when requested by the Field Representative in writing, shall submit such additional shop drawings as may be required by the Architect/Engineer.

1.04 PRODUCT DATA

A. Submit only pages that are pertinent; mark each copy of standard printed data to identify pertinent products, referenced to Specification Section and Article number. Show reference standards, performance characteristics and capacities; wiring and piping diagrams and controls; component parts; finishes; dimensions; and required clearances.

B. Modify manufacturer's standard schematic drawings and diagrams to supplement standard information and to provide information specifically applicable to the work. Delete information not applicable.

1.05 SAMPLES

A. Submit full range of manufacturer's standard finishes except when more restrictive requirements are specified, indicating colors, textures and patterns, for selection. All color and finish schedules must be submitted by the Contractor in a single submission properly identified and labeled.

B. Submit samples to illustrate functional characteristics of products, including parts and attachments.

C. Approved samples which may be used in the work are indicated in the Specification section.

D. Label each sample with identification required for transmittal letter.

E. Provide field samples of finishes at Project, at location acceptable to the Field Representative, as required by individual Specifications section. Install each sample complete and finished. Acceptable finishes in place may be retained in completed work.

1.06 CONTRACTOR REVIEW

A. The Contractor shall check and approve all shop drawings to make sure that they conform to the Plans, Technical Specifications, and other Contract requirements, and shall correct all shop drawings found to be inaccurate or otherwise in error, prior to submittal to the Field Representative. The Contractor shall verify all field dimensions and criteria and shall be responsible for the coordination of work by all Subcontractors. The Contractor, by approving and submitting shop drawings, represents that he has determined and verified the accuracy of all field measurements and quantities, field construction criteria, materials, catalog numbers, and similar data, and that he has reviewed and coordinated the information in the shop drawings with the requirements of the work and the Contract Documents.

B. Review manufacturer's catalog numbers, and conformance of submittal with requirements of Contract Documents.

C. Coordinate submittals with requirements of work and Contract Documents.

D. The Contractor or the Contractor's checker shall sign, in the proper block, each sheet of shop drawings and data, and each sample label to certify compliance with requirements of Contract Documents. Shop drawings submitted without such stamp and signature of approval will be returned to the Contractor unchecked and will require a re-submission. In such event, it will be deemed that the Contractor has not complied with the requirements of this Section and shall bear the risks of delays as if no drawings or details had been submitted.

E. Notify Architect/Engineer through the Field Representative in writing at time of submittal, of any deviation(s) from requirements of Contract Documents.

F. Do not order material, fabricate products or begin work that requires submittals until return of submittal with Architect/Engineer acceptance.

1.07 SUBMITTAL REQUIREMENTS

A. Transmit submittals in accordance with approved Progress Schedule and in such sequence so as to avoid delay in the work or work of other contracts. Submit copy of shop drawings transmittal letter and requests for substitutions, if any, to the Field Representative.

B. Provide space on each submittal for Contractor and Architect/Engineer action stamps.

C. Apply Contractor's approval stamp, signed or initialed, certifying to review, verification of products, field dimensions and field construction criteria and coordination of information with requirements of work and Contract Documents.

D. Coordinate submittals into logical groupings to facilitate interrelation of the several items:
   (1) Finishes that involve Architect/Engineer's selection of color, textures or patterns.
   (2) Associated items that require correlation for efficient function or for installation.

E. Submit one reproducible transparency and two copies of blue or black line reproductions of shop drawings.

F. Submit number of copies of product data and manufacturer's instructions Contractor requires, plus six (6) copies that will be retained by Architect/Engineer, Field Representative, and Owner.

G. Submit number of samples specified in individual Specification sections.

H. Submit Contractor's approved transmittal letter. Identify project by contract title and number. Identify work and product by Specifications section and Article number.

1.08 RESUBMITTALS

A. Make resubmittals under procedures specified for initial submittals; clearly identify changes made since previous submittal.

1.09 ARCHITECT/ENGINEER AND FIELD REPRESENTATIVE

A. The Architect/Engineer will review shop drawings and samples and indicate whatever action he/she is taking, within 14 calendar days from the date of its receipt at the Architect/Engineer's office, so as to minimize delay. The Architect/Engineer's review will be only for conformance with the design concept of the Contract and with the information given in the Contract Documents. The Architect/Engineer's approval of a separate item shall not constitute approval of an assembly in which the item functions. The Field Representative will return the transparency shop drawings to the Contractor for his use and distribution.

B. The Architect/Engineer's approval of shop drawings or samples shall not relieve the Contractor of responsibility for any deviation from the requirements of the Contract Documents unless the Contractor has informed the Architect/Engineer through the Field Representative in writing of such deviation at the time of submission and the Architect/Engineer has given written approval to the specific deviation, nor shall the Architect/Engineer's approval relieve the Contractor from responsibility for errors or omissions in the shop drawings, product data sheets or samples.

1.10 DISTRIBUTION

A. Distribute reproductions of shop drawings, copies of product data and samples, which bear Architect/Engineer stamp of approval, to job site file, Record Documents file, sub-contractors, suppliers, and other entities requiring information.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

END OF SECTION

SECTION 01370

SCHEDULE OF VALUES

PART 1 GENERAL

1.01 REQUIREMENT INCLUDED

A. Procedures for preparation and submittal of Schedule of Values.

1.02 RELATED REQUIREMENTS

A. General Conditions Article 10 - Partial Payments to Contractor

B. Section 01010 - Summary of Work.

C. Section 01027 - Applications for Payment.

D. Section 01300 - Submittals.

1.03 FORMAT

A. Type Schedule on County provided forms or County approved format.

B. Follow Table of Contents of Project Manual for listing component parts. Identify each line item by number and title of major Specifications section. Field Representative will provide minimum requirements.

C. Follow procedures specified in Sections 01300, 01310 and 01311.

1.04 CONTENT

A. List installed value of each major item of work and each subcontracted item of work as a separate line item to serve as a basis for computing values for Progress Payments. Round off values to nearest dollar.

B. Coordinate listings with Progress Schedule.

C. For items on which payments will be requested for stored products, list sub-values for cost of stored products with taxes paid.

D. Submit a sub-schedule for each separate stage of work specified in Section 01010.

E. The sum of values listed shall equal total Contract or lump sum price items.

1.05 SUBMITTALS

A. Submit Preliminary Schedule of Values within fifteen (15) days after the tentative award of the Contract.

B. Submit finalized Schedule of Values within ten (10) days from the approval date of the Overall Construction Progress Schedule.

C. Submit three copies of Schedule as required by the General Conditions.

D. Transmit under the Field Representative accepted transmittal letter. Identify project by title, and project number.

1.06 SUBSTANTIATING DATA

A. When the Field Representative requires substantiating information, submit data justifying line item amounts in question.

1.07 ACTION

A. No payment will be made for work performed on a lump sum contract or a lump sum item until the appropriate Schedule of Values is approved by the Owner

B. The equitable value of work deleted from a lump sum contract or lump sum item shall be determined from the approved Schedule of Values.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

SECTION 01405

CONTRACT QUALITY CONTROL

PART 1 GENERAL

1.01 REQUIREMENT INCLUDED

A. Quality control of products and workmanship.

B. Mix design.

C. Manufacturer's instructions.

D. Manufacturer's certificates.

E. Equipment operations.

F. Mockups.

1.02 RELATED REQUIREMENTS

A. Section 01090 - Reference Standards.

B. Section 01300 - Submittals

C. Section 01340 - Shop Drawings, Product Data and Samples

D. Section 01440 - Contractor Quality Control Program

E. Individual Technical Specifications Sections: Field samples and mockups.

1.03 DESCRIPTION

A. Maintain quality control over supervision, subcontractors, suppliers, manufacturers, products, services, workmanship and site conditions, to produce work in accordance with Contract Documents.

1.04 WORKMANSHIP

A. Comply with industry standards of the region except when more restrictive tolerances or specified requirements indicate more rigid standards or more precise workmanship.

B. Provide suitably qualified personnel to produce work of specified quality.

C. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration and racking.

D. Provide finishes to match approved samples.

1.05 MANUFACTURER'S INSTRUCTIONS

A. Require compliance with instructions in full detail, including each step in sequence.

B. Should instructions conflict with Contract Documents, request written clarification from Architect/Engineer through the Field Representative before proceeding.

1.06 MANUFACTURER'S CERTIFICATES

A. When required in individual Specifications section, submit manufacturer's certificate, in duplicate, certifying that products meet or exceed specified requirements, executed by responsible officer.

1.07 MANUFACTURER'S FIELD SERVICES

A. When required in individual Specification section, have manufacturer provide qualified representative to observe field conditions, conditions of surfaces and installation, quality of workmanship, and to make written report of observations and recommendations to Field Representative.

1.08 MOCKUPS

A. Assemble and erect complete, with specified attachment and anchorages devices, flashing, seals, and finishes.

B. Acceptable mockups in place may be retained in completed work.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

SECTION 01440

CONTRACTOR QUALITY CONTROL PROGRAM

PART 1 GENERAL

1.01 SCOPE

A. The Contractor shall establish, provide, and maintain an effective Quality Control Program, ***conforming to MDAD's Quality Assurance Manual,*** that details the methods and procedures that will be taken to assure that all materials and completed construction required by this Contract conform to the Plans, Technical Specifications and other requirements, whether manufactured by the Contractor, or procured from subcontractors or vendors. Although guidelines are established and certain minimum requirements are specified herein and elsewhere in the Technical Specifications, the Contractor shall assume full responsibility for the quality of all work.

B. The intent of this section is to provide a minimum framework for the Contractor to establish a necessary level of control that will:

1. Adequately provide for the production of acceptable quality materials and workmanship.

2. Provide sufficient information to assure the Architect/Engineer, the Field Representative, and the Owner that the specification requirements will be met.

3. Allow the Contractor as much latitude as possible to develop its own standard of control.

C. The Contractor shall be prepared to discuss and present, at the preconstruction conference, its written Quality Control Program. The Contractor shall not begin any construction or production of materials to be incorporated into the completed work until the Quality Control Program has been reviewed and accepted by both the Architect/Engineer and the Field Representative. The Contractor shall make all all adjustments to the Quality Control Program deemed necessary by either the Architect/Engineer or the Field Representative. No partial payment will be made for materials subject to specific quality control requirements until the Quality Control Program has been reviewed and accepted.

The quality control requirements contained in this section and elsewhere in the Contract Technical Specifications are in addition to and separate from the testing

requirements that are the responsibility of the Project Testing laboratory as specified elsewhere in the Contract Documents.

1.02 DESCRIPTION OF PROGRAM.

A. The Contractor shall describe the Quality Control Program in a written document that shall be reviewed prior to the start of any production, construction, or fabrication. The written Quality Control Program shall be submitted to the Field Representative at least ten (10) calendar days before the pre-construction conference

The Quality Control Program shall describe how the Contractor will perform inspection and testing of all items of work required by the Technical Specifications, including those performed by subcontractors and vendors. This Quality Control Program shall ensure conformance to applicable Specifications and Plans with respect to materials, workmanship, construction, finish, and functional performance. The Quality Control Program shall include surveillance and tests required by the Technical Specifications, in addition to other requirements of this section and any other activities deemed necessary by the Contractor to establish an effective level of quality control.

B. The Quality Control Program shall be organized to address, as a minimum, the following items:

1. Quality control organization;

2. Project progress schedule;

3. Submittals schedule;

4. Inspection requirements;

5. Quality control testing plan;

6. Quality control testing laboratory;

7. Documentation of quality control activities; and

8. Requirements for corrective action when quality control and/or acceptance criteria are not met.

C. The Contractor is encouraged to add any additional elements to the Quality Control Program that it deems necessary to adequately control all production and/or construction processes required by this contract.

1.03 QUALITY CONTROL ORGANIZATION.

A. The Contractor's Quality Control Program shall be implemented by the establishment of separate quality control organization. Such organization may be internal to the Contractor's company, an outside organization contracted by the Contractor, or a combination of both. An organizational chart shall be developed to show all quality control personnel, including personnel provided by any outide organization, and how these personnel integrate with other management/production and construction functions and personnel.

B. The organizational chart shall identify all quality control staff by name and function, experience qualifications, certifications and shall indicate the total staff required to implement all elements of the Quality Control Program, including inspection and testing for each item of work. If necessary, different technicians can be utilized for specific inspection and testing functions for different items of work. If an outside organization or independent testing laboratory is used for implementation of all or part of the Quality Control Program, the personnel assigned shall be subject to the qualification requirements of paragraph C.1 and C.2 below. The organizational chart shall indicate which personnel are Contractor employees and which are provided by an outside organization.

C. The quality control organization shall consist of the following minimum personnel:

1. Quality Control (QC) Program Administrator. A QC Program Administrator shall be assigned to this project to the extent and in a manner necessary to effectively implement and manage the Contractor's QC Program The QC Program Administrator shall be a full-time employee of the Contractor, or a consultant engaged by the Contractor. The QC Program Administrator shall have a minimum of 5 years of experience in industial or airport construction and shall have had prior quality control experience on a project of comparable size and scope as the Contract.

In addition, the QC Program Administrator shall have at least 2 years of demonstrable experience in the design of [system type] systems, in the construction supervision of [system type] systems, or in the government inspection of [system type] systems as well as certification at Level III by the National Institute for Certification in Engineering Technologies for [system type] systemsThe QC Program Administrator shall have full authority to institute any and all actions necessary for the successful implementation of the Quality Control Program to

ensure compliance with the Plans and Specifications. The QC Program Administrator shall report directly to an officer of the Contractor having full decision-making authority for the Project.

2. Quality Control Technicians. A sufficient number of quality control technicians necessary to monitor each of the following aspects of construction shall be provided:

    a. Structural concrete and masonry
    b. Roofing and sheet metal
    c. Storefronts, entrances and glazing
    d. Alarm and communications systems, and electrical work
    e. Plumbing
    f. Air conditioning and controls
    g. Electrical
    h. Other aspects as selected by Contractor
    i. Equipment
    j. Finishes

These personnel shall be engineers, engineering technicians, or experienced craftsman with qualifications in the appropriate field equivalent to NICET Level II or higher construction materials technician or highway construction technician and shall have a minimum of 2 years of experience in their area of expertise. Certification at an equivalent level, by a State of Florida or nationally recognized organization will be acceptable in lieu of NICET certification.

The quality control technicians shall report directly to the Program Administrator and shall perform the following functions:

(a) Inspection of all materials, construction, plant, and equipment for conformance to the specifications, and as required by Section 1.06 below.

(b) Performance of all quality control tests as required by the technical specifications and Section 1.07 below.

3. Staffing Levels. The Contractor shall provide sufficient qualified quality control personnel to monitor each work activity at all times. Where material is being produced in a plant for incorporation into the work, separate plant and field technicians shall be provided at each plant and field placement location. The scheduling and coordinating of all inspection and testing must match the type and pace of work activity. The Quality Control Program shall state where different technicians will be required for different work elements.

1.04 PROJECT PROGRESS SCHEDULE.

A. The Contractor shall submit a coordinated construction schedule for all work activities. The schedule shall be prepared as specified in the Contract Documents.

B. The Contractor shall maintain the work schedule and provide an update and analysis of the progress schedule on a weekly basis, or as otherwise specified in the Contract Documents. Submission of the work schedule shall not relieve the Contractor of overall responsibility for scheduling, sequencing, and coordinating all work to comply with the requirements of the Contract.

1.05 SUBMITTALS SCHEDULE.

A. The Contractor shall submit a detailed listing of all submittals (e.g., job mix formula, mix designs, material certifications) and shop drawings required by the Technical Specifications. The listing can be developed in a spreadsheet format and shall include:

1. Specification Section number;
2. Section description;
3. Description of submittal;
4. Specification paragraph requiring submittal; and
5. Scheduled date of submittal.

1.06 INSPECTION REQUIREMENTS.

A. Quality control inspection functions shall be organized to provide inspections for all definable features of work, as detailed below. All inspections shall be documented by the Contractor as specified by Section 1.08 below.

B. Each item of work and its substrate or surroundings shall be inspected preparatory to, during the progress of the work, and afterward to ensure that the Contract Documents are being followed, that the work is good quality, and so that defects are discovered and corrected as the work proceeds. Inspections shall be performed weekly, daily, or continuously, depending on the speed, quantity, and complexity of each aspect of the work, until each aspect of the work is complete.

1.07 QUALITY CONTROL TESTING PLAN.

A. As a part of the overall Quality Control Program, the Contractor shall implement a Quality Control Testing Plan, as required by the Technical Specifications. The testing plan shall include the minimum tests and test frequencies required by each Technical Specification Item, as well as any additional quality control tests that the Contractor deems necessary to adequately control production and/or construction processes.

B. The testing plan can be developed in a spreadsheet fashion and shall, as a minimum, include the following:

1. Specification section number (e.g., P-401);
2. Section description (e.g., Plant Mix Bituminous Pavements);
3. Test type (e.g., gradation, grade, asphalt content);
4. Test standard (e.g., ASTM, AASHTO or USCE, etc., test number, as applicable);
5. Test frequency (e.g., as required by Technical Specifications or minimum frequency when requirements are not stated);
6. Responsibility (e.g., plant technician); and
7. Control requirements (e.g., target, permissible deviations).

C. The testing plan shall contain a statistically-based procedure of random sampling for acquiring test samples in accordance with ASTM D 3665. The Field Representative and/or the Project Testing Laboratory shall be provided the opportunity to witness quality control sampling and testing.

D. All quality control test results shall be documented by the Contractor as required by Section 1.08 below.

1.08 DOCUMENTATION.

A. The Contractor shall maintain current quality control records of all inspections and tests performed. These records shall include factual evidence that the required inspections or tests have been performed, including type and number of inspections or tests involved; results of inspections or tests; nature of defects, deviations, causes for rejection, etc.; proposed remedial action; and corrective actions taken.

B. These records must cover both conforming and defective or deficient features, and must include a statement that all supplies and materials incorporated in the work are in full compliance with the terms of the contract. The records shall cover all work placed subsequent to the previously furnished records and shall be verified and signed by the Contractor's QC Program Administrator. Except as otherwise provided herein, such records shall be made available to the Field Representative upon request.

C. Specific Contractor quality control records required for the Contract shall include, but are not necessarily limited to, the following records:

1. Daily Inspection Reports. Each Contractor quality control technician shall maintain a daily log of all inspections performed for both Contractor and subcontractor operations on a form acceptable to the Field Representative. These technician's daily reports shall provide factual evidence that continuous quality control inspections have been performed and shall, as a minimum, include the following:

   (a) Technical Specification item number and description;
   (b) Compliance with approved submittals;
   (c) Proper storage of materials and equipment;
   (d) Proper operation of all equipment;
   (e) Adherence to Plans and Technical Specifications;
   (f) Review of quality control tests; and
   (g) Safety inspection.

   The daily inspection reports shall identify inspections conducted, results of inspections, location and nature of defects found, causes for rejection, and remedial or corrective actions taken or proposed.

   The daily inspection reports shall be signed by the responsible quality control technician and the Program Administrator. The Field Representative shall be provided at least one copy of each daily inspection report on the work day following the day of record.

2. Daily Test Reports. The Contractor shall be responsible for establishing a system which will record all quality control test results. Daily test reports shall document the following information:
   (a) Technical Specification item number and description;
   (b) Test designation;
   (c) Location;
   (d) Date of test;
   (e) Control requirements;
   (f) Test results;
   (g) Causes for rejection;
   (h) Recommended remedial actions; and
   (i) Retests.
   (j) Occurrences of interest.

   Test results from each day's work period shall be submitted to the Field Representative prior to the start of the next day's work period. When required by the Specifications, the Contractor shall maintain statistical quality control charts. The daily test reports shall be signed by the responsible quality control technician and the Program Administrator.

1.09 CORRECTIVE ACTION REQUIREMENTS.

A. The Quality Control Program shall indicate the appropriate action to be taken when a process is deemed, or believed, to be out of control (out of tolerance) and detail what action will be taken to bring the process into control. The requirements for corrective action shall include both general requirements for operation of the Quality Control Program as a whole, and for individual items of work contained in the Technical Specifications.

B. The Quality Control Program shall detail how the results of quality control inspections and tests will be used for determining the need for corrective action and shall contain clear sets of rules to gauge when a process is out of control and the type of correction to be taken to regain process control.

C. When applicable or required by the Technical Specifications, the Contractor shall establish and utilize statistical quality control charts for individual quality control tests. The requirements for corrective action shall be linked to the control charts.

1.10 OBSERVATION BY THE FIELD REPRESENTATIVE.

A. All items of material and equipment shall be subject to observation by the Field Representative at the point of production, manufacture or shipment to determine if the Contractor, producer, manufacturer or shipper maintains an adequate quality control system in conformance with the requirements detailed herein and the applicable Specifications and Plans. In addition, all items of materials, equipment and work in place shall be subject to observation by the Field Representative and/or the Project Testing Laboratory at the site for the same purpose.

B. Observation by the Field Representative does not relieve the Contractor of performing quality control inspections of either on-site or off-site Contractor's or subcontractor's work.

1.11 NONCOMPLIANCE.

A. The Field Representative will notify the Contractor of any noncompliance with any of the foregoing requirements. The Contractor shall, after receipt of such notice, immediately take corrective action. Any notice, when delivered by the Field Representative or its authorized representative to the Contractor or its authorized representative at the site of the work, shall be considered sufficient notice.

B. In cases where quality control activities do not comply with either the Contractor's Quality Control Program or the contract provisions, or where the Contractor fails to properly operate and maintain an effective Quality Control Program, as determined by the Field Representative, the Field Representative may:

(a) Order the Contractor to replace ineffective or unqualified quality control personnel or subcontractors.

(b) Order the Contractor to stop operations until appropriate corrective actions are taken.

END OF SECTION

SECTION 01504

CONSTRUCTION IDENTIFICATION SIGNS

PART 1 GENERAL

1.01 REQUIREMENT INCLUDED

A. Furnish, erect and remove construction identification sign(s) in accordance with the contract documents and as directed by the Field Representative.

PART 2 PRODUCTS

2.02 A. Sign Face: 7/8 Inch thick (min.); exterior plywood. All edges sealed.

B. Supports: Pressure treated posts - min. size 4" x 4".

C. Hardware: Galvanized steel.

D. Paint: Background and lettering - Exterior grade, latex, gloss paint. Colors as directed.

PART 3 EXECUTION

3.01 A. Install where directed; minimum post embedment 36".

B. Thoroughly compact backfill in post holes.

C. Legend as per appended sheet.

D. Sign size, lettering types and sizes, colors, etc. as shown. Architect/Engineer will provide this information upon request.

E. At substantial completion, remove sign(s) and restore site to original or proposed condition.

AVIATION - THE ECONOMIC FOUNDATION OF MIAMI-DADE COUNTY

SOUTH TERMINAL CONCOURSE H REHABILITATION – PHASE 1
CONTRACT NO. AA018B
REPLACEMENT OF CURTAIN WALL SYSTEM

Daniella Levine Cava
Mayor

Board of County Commissioners

Oliver B. Gilbert, III
Chairperson
Anthony Rodriguez
Vice Chairperson

Oliver G. Gilbert, III
District 1
Marleine Bastien
District 2
Keon Hardemon
District 3
Micky Steinberg
District 4
Eileen Higgins
District 5
Kevin M. Cabrera
District 6
Raquel A. Regalado
District 7

Danielle Cohen Higgins
District 8
Kionne L. McGhee
District 9
Anthony Rodriguez
District 10
Roberto J. Gonzalez
District 11
Juan Carlos Bermudez
District 12
Rene Garcia
District 13

Juan Fernadez-Barquin
Clerk of Courts
Geri Borzon-Keenan
County Attorney
Ralph Cutié
Aviation Director & Chief Executive Officer

[Insert MIA Logo here. See following page.]

END OF SECTION
CONSTRUCTION IDENTIFICATION SIGNS


MIA
MIAMI INTERNATIONAL AIRPORT

SECTION 01505

MOBILIZATION

PART 1 GENERAL

1.01 DESCRIPTION

A. The work specified in this Section shall consist of the preparatory work and operations in mobilizing for beginning work on the Project, including, but not limited to, the following:

(1) The costs of bonds and any required insurance, and any other preconstruction expense necessary for the start of the work, excluding the cost of construction materials;

(2) The costs of operations necessary for the movement of personnel, equipment, supplies and incidentals to the project site; and

(3) The costs for the establishment of temporary offices, shops, buildings, construction identification signs, safety equipment and first aid supplies, sanitary and other facilities, as required by the Contract Documents, and any Federal, State and/or local laws and regulations.

B. The Contractor shall prepare and submit to the Field Representative detailed itemized cost breakdown of this item, at the preconstruction conference.

1.02 METHOD OF MEASUREMENT

Measurement of Mobilization for payment shall be the work under this Section completed and accepted in accordance with the Plans and these Specifications.

1.03 BASIS OF PAYMENT

Payment for the work measured as described shall be made at the contract lump sum price bid for Mobilization which price and payment shall be full compensation for mobilizing for beginning work on the Project, furnishing all materials, equipment, labor, processes, tools and incidental costs required to complete the work under this Section.

Payment will be made under:

Item No. Mobilization - Per Lump Sum

1.02 The Contractor shall include in the Schedule of Values a line item for "Mobilization".

1.03 Not used.

1.04 PARTIAL PAYMENTS

Partial payments for Mobilization will be made in accordance with the following schedule during the progress of construction on this project.

Percent of Original Contract Amount Earned	Allowable Percent of the Lump Sum Price for Mobilization*
5	25
10	50
25	75
50	100

Partial payments for the item "Mobilization" shall be made in accordance with the above schedule and the sum total of all the partial payments for the item Mobilization will be limited to 3% of the original Contract Amount for the Project. Any remaining amount will be paid upon completion of all work under the Project.

The standard retainage, as specified in General Conditions, will be applied to these allowances. Partial payments made on this item shall in no way act to preclude or limit any of the provisions for partial payments otherwise provided for by the Contract.

END OF SECTION

SECTION 01506

CONTRACTOR OVERHEAD

PART 1 GENERAL

1.01 DESCRIPTION

The work specified in this Section shall consist of all of the Overhead as defined in the General Conditions.

1.02 METHOD OF MEASUREMENT

Measurement of Overhead for payment shall be on a calendar day basis.

1.03 BASIS OF PAYMENT

Payment for Overhead shall be made at the contract unit price.

Payment will be made under:

Item No. 1 Contractor Overhead - Per Calendar Day

1.04 PARTIAL PAYMENTS

Partial payments for Overhead will be made in accordance with the Contract Documents. The standard retainage, as specified in the General Conditions, will be applied.

END OF SECTION

SECTION 01530

BARRIERS AND ENCLOSURES

PART 1 GENERAL

1.01 REQUIREMENT INCLUDED

A. Barriers.

B. Protected Walkways.

C. Security Fencing

D. Tree and Plant Protection.

E. Weather Closures.

F. Partition and Ceiling Enclosures.

G. Maintenance.

H. Removal.

I. Site Restoration

1.02 RELATED REQUIREMENTS

A. Section 01010 - Summary of work.

B. Section 01570 - Maintenance of Air Operations Area Traffic.

C. Section 01571 - Maintenance of Airport Landside Traffic.

PART 2 PRODUCTS

2.01 MATERIALS, GENERAL

A. May be new or used as may be dictated by all governing codes, adequate to the purpose, which will not create hazardous conditions.

2.02 FENCING MATERIALS

A. Commercial quality chain link,

2.03 ENCLOSURE MATERIALS

A. For Weather Protection: Framing and rigid sheet materials.

B. For partitions and Ceilings: Framing and rigid sheet materials.

PART 3 EXECUTION

3.01 BARRIERS AND PROTECTED WALKWAYS

A. Provide to prevent public entry, to provide for Owner's use of site, and to protect existing facilities and adjacent properties from damage.

B. Eight-foot-high fence enclosing construction area.

C. Pay costs of installation, maintenance and removal and restoration to existing condition.

3.02 WEATHER CLOSURES - [AS NEEDED]

A. Provide temporary roofing and weathertight insulated closures of openings in exterior surfaces to maintain specified working conditions to protect products and finished work from inclement weather.

3.03 PARTITIONS AND CEILING ENCLOSURES

A. Provide temporary enclosures to separate work areas from areas occupied by Owner, to prevent penetration of dust, moisture and noise into occupied areas.

B. Construct with closed joints; seal joints, edges and intersections with other surfaces to prevent penetrations of dust and moisture.

C. Paint surfaces exposed to view in Owner occupied areas.

3.04 MAINTENANCE

A. Maintain during progress of work. Repaint painted surfaces annually or more often as directed by the Field Representative.

B. Relocate and extend during successive stages of construction.

3.05 REMOVAL

A. Remove temporary materials, equipment and construction when building is closed in: repair damage caused by installation or use of barricades and enclosures. Remove fence post setting to depth of two feet below grade.

3.06 SITE RESTORATION

A. Restore site and existing facilities used during construction to original condition.

END OF SECTION

SECTION 01535

PROTECTION OF WORK AND PROPERTY

PART 1 GENERAL

1.01 REQUIREMENT INCLUDED

A. Protection of products after installation.

B. Protection of existing property and landscape.

1.02 RELATED REQUIREMENTS

A. Section 01010 - Summary of work

B. Section 01530 - Barriers and Enclosures

C. Section 01600 - Material and Equipment: Protection of products in storage.

D. Section 01710 - Final Cleaning: Removal of temporary protection.

E. Individual Sections: Specific protection for installed products.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

3.01 PROTECTION AFTER INSTALLATION

A. Protect installed products and control traffic in immediate area to prevent damage from subsequent operations.

B. Provide protective coverings at walls, projections, corners and jambs, sills and soffits of openings in and adjacent to traffic areas.

C. Cover walls and floors of elevator cabs and jambs of cab doors with 3/4 inch plywood, when elevators are used by construction personnel.

D. Protect finished floors and stairs from dirt, wear and damage:

(1) Secure heavy sheet goods or similar protective materials in place, in areas subject to foot traffic.

(2) Lay planking or similar rigid materials in place, in areas subject to movement of heavy objects.

(3) Lay planking or similar rigid materials in place, in areas where storage of products will occur.

E. Protect waterproofed and roofed surfaces:

(1) Restrict use of surfaces from traffic of any kind and from storage of products.

(2) When an activity is mandatory, obtain recommendations for protection of surfaces from. Install protection and remove on completion of activity. Restrict use of adjacent unprotected areas.

F. Restrict traffic of any kind across planted lawn and landscape areas.

3.02 PROTECTION AND RESTORATION OF PROPERTY AND LANDSCAPE

A. The Contractor shall be responsible for the preservation of all public and private property, and shall protect carefully from disturbance or damage all land monuments and property markers until the Field Representative has witnessed or otherwise referenced their location and shall not move them until directed.

B. The Contractor shall be responsible for all damage or injury to property of any character, during the prosecution of the work, resulting from any act, omission, neglect, or misconduct in its manner or method of executing the work, or at any time due to defective work or materials, and said responsibility will not be released until the work is completed and accepted.

C. When or where any direct or indirect damage or injury is done to public or private property by or on account of any act, omission, neglect, or misconduct in the execution of the work, or in consequence of the nonexecution thereof by the Contractor, the Contractor shall restore, at its own expense, such property to a condition similar or equal to that existing before such damage or injury was done, by repairing, or otherwise restoring as may be directed, or it shall make good such damage or injury in an acceptable manner, at no additional cost to the Owner.

END OF SECTION

SECTION 01550

CONTRACTOR'S ACCESS AND EMPLOYEES' PARKING

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

A. Contractor's Access

B. Contractor's Employees Parking

1.02 CONTRACTOR'S ACCESS

A. Access to and egress from the Site will be gained only via routes and through gates as shown on the Plans. Access shall be permitted only during periods of time specified in the Contract Documents. Equipment weight and height limits will be strictly enforced.

1.03 CONTRACTOR'S EMPLOYEES' PARKING

A. Automobiles of all construction workers on the project shall be parked in an area designated for this purpose by the Miami-Dade Aviation Department in the location indicated on the Plans. No construction workers' vehicles will be allowed on the construction site. The Contractor shall furnish transportation for construction workers from the designated parking area to the construction site.

B. Maintain areas free of debris and rubbish. Maintain site in a clean and orderly condition.

C. If the Contractor fails to maintain levels of cleanliness satisfactory to the Field Representative, then the Owner shall have the right to cause such areas to be cleaned by others. The costs to the Owner for such cleaning, plus 25% for administration, shall be the obligation of the Contractor and shall be deducted from any money due the Contractor hereunder.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

END OF SECTION

SECTION 01569

CONSTRUCTION CLEANING

PART 1 GENERAL

1.01 REQUIREMENT INCLUDED

A. Cleaning and disposal of waste materials, debris and rubbish during construction.

1.02 RELATED REQUIREMENTS

A. General Conditions: Cleaning Up.

B. Section 01710 - Final Cleaning.

C. Individual Specifications Sections: Specific cleaning for Product or work.

PART 2 PRODUCTS

2.01 EQUIPMENT

A. Provide covered containers for deposit of waste materials, debris and rubbish.

PART 3 EXECUTION

3.01 CLEANING

A. Maintain areas under Contractor's control (including employee parking and Contractor staging areas) free of waste materials, scraps, surplus material, debris and rubbish. Maintain site in a clean and orderly condition.

B. Remove debris and rubbish from pipe chases, plenums attics, crawl spaces and other closed or remote spaces, prior to closing the space.

C. Clean interior areas daily to provide suitable conditions for Owner- occupied areas, and to prevent fire or accidents.

D. Use power brooms to clean paved areas daily and immediately prior to opening any paved area to aircraft or vehicular traffic.

E. All combustible waste materials shall be removed from buildings at the end of each working day.

F. Broom clean interior areas prior to start of surface finishing and continue cleaning on a daily basis.

G. Control cleaning operations so that dust and other particulates will not adhere to wet or newly-coated surfaces.

H. Responsibility for construction cleaning shall not be delegated to subcontractors performing construction work under this Contract.

3.02 DISPOSAL

A. Remove waste materials, debris and rubbish from site bi-weekly and legally dispose of off-site in an authorized disposal area.

3.03 CONTRACTOR'S FAILURE TO CLEAN

A. If the Contractor fails to maintain levels of cleanliness in work areas, satisfactory to the Field Representative, then the Owner shall have the right to cause such areas to be cleaned by others. The costs to the Owner for such cleaning, plus 25% for administration, shall be the obligation of the Contractor and shall be deducted from any money due the Contractor hereunder.

END OF SECTION

SECTION 01570

AIRFIELD OPERATIONAL SAFETY DURING CONSTRUCTION

1.01 DESCRIPTION

The work under this Section consists of furnishing all measures required to maintain the safe and orderly movement of Aircraft operating Area (AOA) traffic in and around the construction areas as shown on the Plans and as described in these Technical Specifications.

1.02 GENERAL

This Section covers the Contractor's responsibilities for maintaining the optimum level of safety and the operating efficiency of the airport during construction. These responsibilities are based on criteria contained in current edition of Federal Aviation Administration Advisory Circular AC 150/5370-2E, Operation Safety on Airport During Construction, and in The Airport Height Zoning Ordinance (County Code Article XXXVII, Sections 33-330 to 33-345). The Contractor shall be responsible for all activities, under his control, as specified in the above referenced Advisory Circulars, the Zoning Ordinance and in other referenced documents. In certain cases where the obstacle clearance criteria utilized for this project may differ from that described herein, these variances will be depicted on the Plans.

1.03 RELATED SPECIFICATIONS AND PROVISIONS

The Contract Documents contain several other provisions relating to safety for which Contractor adherence is required. The requirements of Chapter 25 of the Miami-Dade County Code and the related Miami-Dade Aviation Department Operational Directive MIA 19 dated June 17, 1980 shall apply to the work under this Contract.

1.04 OBSTACLE CLEARANCE DURING CONSTRUCTION - RUNWAYS

A. Two sets of criteria shall apply to construction activities within the proximity of active runways; one for use in daytime in visual approach conditions, and the other for use at all other times.

B. VISUAL APPROACH CONDITIONS DURING DAYTIME

(1) During the period from 30 minutes after sunrise until 30 minutes before sunset, when the Airport's reported ceiling is at least 3,000 feet and visibility is at least 3 statute miles, the more restrictive dimensional and obstruction clearance criteria of AC 150/5370-2E shall be utilized except as otherwise shown on the Plans and specified herein. The imaginary surfaces for runway approach/departure protection prescribed by AC 150/5370-2E shall be relocated from the landing thresholds to the ends of the full strength pavement (runway ends), unless the work requires threshold displacement or work is required in proximity of existing displaced thresholds.

(2) No construction activity, personnel, equipment or materials shall be permitted within 250 feet of the centerline of any active runway or above the height restrictions described herein at any time. Contours describing allowable heights and distances when construction activities are in proximity to runways during visual approach conditions during daytime (visual approach contours) are shown on the Plans.

(3) No construction activity, personnel, equipment or materials shall be permitted within 250 feet of the centerline of any active runway with an Instrument Landing System (ILS), otherwise 200 feet of the centerline of any other active runway or above the heights described in paragraph 1-3 (C). Contours describing allowable heights and distances when construction activities are in proximity to runways during visual approach conditions during daytime (visual approach contours) are shown on the Plans.

(4) Construction may be permitted within the above specified 250 feet of the runway centerline on a case-by-case basis with the written approval of the MDAD.

C. INSTRUMENT APPROACH CONDITIONS AT TIMES OTHER THAN DAYTIME

At all times other than daytime, described in Paragraph 1.04.B above, (i.e. when the reported ceiling is less than 3,000 feet and/or the visibility is less than 3 statute miles and in the period from 30 minutes before sunset until 30 minutes after sunrise), the dimensional and height restriction criteria of the Miami International Airport Height Zoning Ordinance shall apply. No construction activity, personnel, equipment or materials shall penetrate these imaginary surfaces. Contours describing allowable heights and distances when construction activities are in proximity to runways during instrument approach conditions and at nighttime (instrument approach contours) are shown on the Plans.

1.05 OBSTACLE CLEARANCES DURING CONSTRUCTION - TAXIWAYS, TAXILANES AND APRONS

Construction activity, personnel, equipment or materials shall not be permitted within 154 feet of the centerline of an active taxiway and within 131 feet of the centerline of an active taxilane, unless otherwise shown on the Plans.

1.06 TRENCHES, EXCAVATIONS AND STOCKPILED MATERIAL

A. Open trenches or excavations exceeding 3 inches in depth and 3 inches in width shall not be permitted within 250 feet of the centerline of an active runway or within 100 feet of the center line of active taxiways and taxilanes unless otherwise shown on the Plans.

B. Coverings for open trenches or excavations may be utilized by the Contractor to restore operations in the areas prescribed in 1.06.A above. Covering shall be of sufficient strength to support the weight of the heaviest aircraft operating on the runway or taxiway. Each covering shall be installed only as approved by the Architect/Engineer

C. Barricades and/or flagging shall be installed to identify the limits of construction near open trenches or excavations.

D. Stockpiled material shall be secured against displacement by aircraft engine and propeller blast and ambient winds. Stockpiled materials, equipment and personnel shall not be allowed within the runway, taxiway and taxilane obstacle clearance areas as described in this Article.

PART 2 PRODUCTS

2.01 MARKING AND LIGHTING OF CONSTRUCTION AREAS

A. The Contractor shall install lighting, marking, barrel barricades, railroad tie barricades lighted commercial barricades, concrete barriers, plastic barricades, signs and other measures to delineate closed and hazardous areas during construction. The guidance and procedures provided by the current FAA Advisory Circular AC 150/5340-1, including changes, "Marking of Paved Areas on Airports", shall be utilized as depicted on the Plans. Steady burning red obstruction lights may be required in certain instances to supplement lighted barricades or highlight hazardous or potentially dangerous objects. The location of these lights shall be as shown on Plans or as directed by the Field Representative. Obstruction lights and barrel barricades, railroad tie barricades, lighted commercial barricades, plastic barricades, concrete barriers, water filled plastic protective barriers, and signs shall not be located within runway, taxiway and taxilane obstacle clearance areas.

B. TEMPORARY MARKER LIGHTS. The Contractor shall install, operate and maintain temporary marker lights in the locations shown on the Plans. [The Contractor shall furnish portable base mounted light fixtures, red and blue lenses, 30/45 watt 6.6/6.2 ampere transformers, and 30 watt 6.6 ampere lamps. The Contractor shall furnish 5000 volt, #8AWG, Type "C", FAA Specification L824 stranded copper cable; compatible connector kits; FAA Specification L823 tape; compression sleeves and any other materials necessary to install, operate and maintain the temporary marker lights.

C. The Contractor shall also furnish and install the following:

(1) Heat shrinkable sleeves, tape and incidentals,
(2) 15 watt lamps for 120V circuit,
(3) Necessary wiring, power, connections, etc. to operate lights on 120V

circuit,

(4) Required staples to keep cable and wire securely fastened to pavement.

(5) Pavement sealant to seal pavements, when wiring is installed recessed in saw kerfs

D. Yellow flashing lights mounted on top of the various types of barricades are not considered marker lights.

2.02 BARREL BARRICADES.

A. The Contractor shall install and maintain barrel barricades in the locations shown on the Plans, in accordance with the approved layout for each construction area, and as directed by the Field Representative. Barrel barricades shall be in accordance with the details shown on the Plans including barrels, lights, ropes, flags and incidentals. Barrels shall be weighted immediately upon installation, as necessary to prevent displacement by aircraft engine blast and by ambient wind. Barrel barricade lines shall be inspected each day and repaired or replaced as necessary to meet the requirements of the approved layout plan.

2.03 TEMPORARY CONCRETE BARRIERS

A. Temporary concrete barriers for traffic control and protection shall be New Jersey type precast concrete barriers conforming to the requirements of ASTM C825.

B. Temporary concrete barrier sections shall be capable of being interlocked and shall be provided with warning flags, steady burning lights and/or flashing lights as required and shall be provided with grooves to allow flow of surface drainage.

C. The temporary concrete barriers need not be new, but shall be structurally sound, of a quality and type meeting the requirements of these specifications and shall be subject to the Architect/Engineer's approval.

D. Temporary concrete barriers shall, at the conclusion of the construction or when no longer needed, be relocated or removed and disposed of as the case may be.

2.04 RAILROAD TIE BARRICADES

A. The Contractor shall install and maintain Railroad Tie Barricades consisting of standard 6" x 8" x 8' timber railroad ties placed as and where shown on the Plans and as directed by the Field Representative. Railroad ties shall be painted as detailed on the Plans and placed in the location and manner shown on the Plans. A battery operated yellow flashing light shall be installed on each section of the railroad tie barricades; the yellow flashing light shall be continuously (24 hours a day basis) operated. The railroad tie barricades shall be anchored to the subgrade or pavement using two No. 4, 18" long steel pins driven in the subgrade, or flexible pavement or installed through predrilled holes in rigid pavement. At conclusion of work and when the barricades are no longer needed, the Contractor shall remove and dispose of them and restore the pavement to its original condition.

2.05 PLASTIC BARRICADES

Plastic barricades, meeting the following requirements, shall only be used when specifically shown on the Plans or ordered by the Field Representative.

A. Plastic barricades shall consist of a molded plastic I-beam section suspended, by means of a toggle system, from a molded plastic cone.

The assembly shall be designed to remain usable following vehicular impact.

(1) The plastic barricade (I-beam section and cones) shall be manufactured from high density Polyethylene compounded with Ultra Violet Stabilizer to protect

it against ultra violet exposure and outdoor weathering.

(2) The cone shall consist of a stem and a base. The base shall be hollow and so manufactured as to allow for external and internal ballasting (using water, sand or other suitable material), to provide a ballast weight of approximately 20 lbs.

(3) The dimensions of the various elements of the plastic barricade system shall be as follows:

Cones	
Overall Height	45"
Base Dimension	18" x 18" x 4"
Weight (unballasted)	7 3/4 lbs.
Outside diameter stem	
Top	3 1/4"
Bottom	6 □"
Wall Thickness	1/8" +/- 1/32"
I-Beam Section	
Depth (reflective areas)	8"
Lengths (as ordered by the Field Representative)	36" or 48"
Wall Thickness	1/8"
Weight	1.2 lbs. per foot

B. The plastic barricade assembly shall be equal to MAXICADE System as manufactured by Glasdon - Traffic Services Incorporated (distributed locally by Saft T Store, West Palm Beach, Telephone: 1-407-793-5817) or approved equal.

C. The I-beam section shall be capable of being mounted (using a flexible toggle system) on the plastic cones. The cones shall be designed to support the I-beam sections and also to support traffic lights.

D. The plastic barricade assembly shall be impregnated with traffic orange color. White reflective sheeting shall be applied to the I-beam section to form a series of alternating 6 inch wide stripes, traffic orange and reflective white, at 45° angle.

2.06 PLASTIC PROTECTIVE BARRIERS (WATER FILLED)

The water filled plastic protective barriers shall be the Yodock Barrier, the Guardian Safety Barrier, or approved equal.

The plastic protective barrier shall meet the following and shall be:

A. Color impregnated with the colors shown on the plans or as approved by the Architect/Engineer.

B. Resistant to damage caused by ultraviolet rays.

C. Manufactured with internally molded baffles (to maintain its shape), be properly sealed, is leakproof, provided with drain plugs and underside grooves to allow flow of surface drainage.

D. Barrier sections shall, when installed in a row, be interlocked in an approved manner; end-to-end length of each installed section shall be not less than 72 inches; each water filled section shall weigh not less than 1650 pounds.

E. Provided with securely mounted warning flags, steady burning lights and/or flashing lights as required.

The plastic protective barrier shall, at the conclusion of the construction or when no longer needed, be relocated or removed and disposed of as the case may be.

PART 3 EXECUTION

3.01 LOOSE MATERIALS AND DEBRIS

A. Loose materials shall be removed from the active portion of the AOA, placed in protected areas or otherwise secured to prevent dispersal into active portions of the AOA. The AOA is defined as all areas used or intended to be used for aircraft operations including active runways, aprons, taxiways, taxilanes, etc. Debris shall be promptly removed from the AOA. The Contractor shall exercise care in the transportation of materials within the AOA. Materials tracked or spilled in the AOA shall be removed immediately. When hauling, loading, grading, or when any of the Contractor's activities are likely to cause the deposit of loose materials in the AOA, it shall be immediately removed using powered vacuum sweepers which shall continuously patrol the affected areas. The sweepers shall be supplemented by hand sweepers, loaders, trucks, etc., as necessary.

3.02 VEHICLES AND MOBILE EQUIPMENT

A. All Contractor vehicles and mobile equipment operating in the AOA shall be identified by three foot (3') square orange and white flags whenever such vehicle and equipment is operating on or about the AOA. In addition, such vehicles and equipment shall have the Contractor's name clearly affixed on each side of such vehicles and equipment, all in accordance with current MDAD requirements. During the hours between 30 minutes before sunset and 30 minutes after sunrise and at all times when visibility is impaired, vehicles and mobile equipment shall also be equipped with a revolving yellow beacon light mounted on the top of the vehicle or equipment. Beacon lights shall provide:

(1) Three hundred sixty degree azimuth coverage.

(2) Effective intensity in the horizontal plane not less than 40 or more than 400 candelas.

(3) Beam spread measured to 1/10 peak intensity extending from 10 degrees to 15 degrees above the horizontal.

(4) Sixty to ninety flashes per minute.

B. All Contractor vehicles and mobile equipment not individually authorized by the MDAD for independent operation in the AOA shall be operated under escort while in the AOA. The escort vehicle and its driver must be authorized by the MDAD for escort duty and for operation within the AOA. If access to the construction, staging or storage sites requires the crossing of an active runway or taxiway, all vehicles shall be escorted across said runway or taxiway by either a MDAD escort vehicle or a vehicle equipped with a VHF-AM Transceiver specifically authorized by MDAD to cross these operational pavements. No crossing of active taxiways or runways by vehicles so equipped shall be made without first obtaining specific clearance from the FAA Air Traffic Control Tower.

C. No crane shall be allowed on the work site until the equipment and its intended operation is approved by MDAD Airside Operations, or the Airport Manager, in accordance with the requirements of General Condition Article 4.14. The Contractor shall provide MDAD Airside Operations with not less than 24-hour advance written notice requesting crane access to the AOA. This request shall utilize the standardized MDAD "Request for Crane Clearance to Miami International Airport".

D. When access is approved by MDAD, the tip of the crane boom shall be identified by the orange and white flag mentioned above and, by red obstruction lights if required by FAA.

3.03 CLOSURES

A. Prior to the commencement of any demolition or other work which will cause an interruption or modification to existing aircraft operations, the Contractor shall confer with, and obtain written authorization from the Field Representative.

B. When the Contractor's operations require the closure of any runway, taxiway, apron, roadway, service gate, walkway, etc., the Contractor shall notify the Field Representative not less than 48 hours prior to need. No runway, taxiway, apron, roadway, service gate, walkway, etc., shall be closed without prior written authorization from the Field Representative.

C. If the Contractor requires access to operational areas not delineated on the Construction Safety Plan Drawing(s), the Contractor shall participate in negotiations leading to the imposition of restrictions on airport operations in the affected areas; the Contractor shall strictly abide by all conditions imposed by MDAD relating to its

entry and use of such areas and the Contractor shall not enter these areas until granted temporary, conditional entry clearance by MDAD.

D. Trenching, excavation and other work requiring temporary runway or taxiway closure shall be limited by the Contractor to that amount of work that can be completed within the hours of minimal operation. All ditches, excavations, etc., shall be restored prior to the end of the work period and affected pavements returned to service. This work shall be scheduled during hours of minimal operations. Unless otherwise noted in the Contract Documents, hours of minimal operation shall be defined as the hours between 11:00 P.M. and 7:00 A.M. daily. All other hours are considered hours of normal operation.

E. The Contractor may be required to pursue affected portions of the work on a continuous 24 hour per day basis during construction of the various phases and subphases shown on the Plans and described in the Contract Documents (such as when runways or taxiways, aprons, service or access roadways, or service gates are closed for operation or when hazards of any kind arise).

3.04 LIGHTS, LIGHT LINES, SIGNS AND PAVEMENT MARKINGS

A. Red and blue lens, ground-mounted, taxiway marker lights, pavement markings, signs, lighted barricades and other measures shall be installed and maintained (except as provided herein below) on a 24-hour basis by the Contractor to delineate construction areas available to the Contractor and limits of aircraft operational areas. At the conclusion of each working day, the Contractor shall verify that the temporary lighting systems are in proper operation condition. Any necessary maintenance repairs shall be performed by the Contractor prior to leaving the site. The detailed layout of marking, lights, signs and barricades and other measures for each construction area are shown on the Plans. The actual field installation of markings, lighting, barricades, signs, and other measures and attendant operational procedures shall be inspected by MDAD Airside Operations and any necessary changes or modifications will be promptly implemented by the Contractor as directed. The revised installation will be reinspected and approved by the Field Representative and the County before the Contractor may commence any construction or any other work which revises operational procedures in each affected area.

B. The Contractor shall provide all materials for installing pavement marking, marker lights, and lighted barricades. The MDAD Maintenance Division will provide, when so prescribed in the Contract Documents, certain materials to the Contractor for its use in establishing the temporary light lines designated on the Construction Safety Plan Drawings. The Contractor shall be responsible for the installation of these materials and the return to MDAD of all these equipment and materials in good repair and working order, in a condition satisfactory to and acceptable to MDAD.

C. Connections to power supply for all temporary lighting systems shall be performed by the Contractor under the direction of the MDAD Maintenance Division.

D. Maintenance of all temporary lighting systems shall be performed by the Contractor except that nighttime trouble shooting of temporary lighting connected to any airfield lighting system will be provided by the MDAD Maintenance Division.

E. The Contractor shall install the temporary marker lights in the locations shown on the Plans or as directed by the Field Representative; provide cable connections to existing circuits and decommission or mask existing lights as shown on the Plans. If no existing taxiway circuits are available, the Contractor shall provide and install a constant current transformer including connections and cable runs as necessary to energize the temporary light units. All cable runs installed across pavement shall be made along existing pavement joints. Saw kerfs shall be sealed, using approved suitable sealant, after cable installation. The Contractor shall demonstrate the functional integrity of the temporary marker light system by field test before the system is approved by Field Representative for operational use.

F. The Contractor shall maintain the temporary marker light system in full operational capability during the term of use. Each day at the close of the work shift, the Contractor shall test and repair the system as necessary to restore full operational capability. The Contractor shall provide 24-hour, 7 day per week maintenance service. Trained maintenance technicians shall be available and "On Call" at all times; the Contractor shall provide the Field Representative with address and telephone numbers of the technicians so that they may be contacted at any time.

G. The Contractor shall relocate and modify the temporary lighting systems as required to accommodate the progress of the construction.

H. Upon completion of the work within an AOA, and when the temporary marker lights are no longer needed, the Contractor shall remove all such temporary installation and restore the site prior to opening it to aircraft traffic.

3.05 OPERATIONS SAFETY INSPECTION

A. The entire work site shall be inspected daily and more frequently if construction activities are of a nature that debris may be expected to accumulate on AOA pavements. Special inspections shall be conducted for each work area prior to return to service for aircraft operation. The purpose of these inspections is to ascertain that areas returned to aircraft service are in satisfactory condition and that the overall work site and its activities are within the safety criteria set forth in these Contract Documents. Inspections shall be conducted jointly by representatives of the Contractor, the MDAD [Airside Operations Division] [Airport Manager], the Field Representative and the affected airlines. These inspections shall cover the several safety items noted in and referred by this Article. The report of such inspections shall be filed utilizing the Preoperation and Preconstruction checklist forms, a copy of which is appended to this Section.

B. Any violations of the Safety Criteria found during these inspections shall be rectified immediately. If a violation cannot be corrected on an immediate basis by the Contractor, the Contractor shall immediately notify the Field Representative. No area shall be approved for aircraft operations while it is in violation unless specifically authorized by MDAD Airside Operations, the Field Representative and the designated airline representative.

3.06 OPERATIONAL EMERGENCIES

A. During periods of severe weather conditions or other operational emergencies, the Owner may direct the Contractor to relinquish areas under construction and to prepare the areas for aircraft operations. In this event the Field Representative will so direct the Contractor to evacuate the area and the Field Representative will specify the limits of the area to be evacuated, the term of evacuation and the conditions governing the restoration work necessary to prepare the area for aircraft operation. The Contractor shall promptly and fully comply with the Field Representative's directive. Should the directive entail extra work under the Contract, as determined by the Field Representative, the Contractor will be reimbursed for such extra work in accordance with the provisions of the applicable Allowance Account item. Should the directive

entail a delay in the completion of the Contract or any defined subdivision of the contract, as determined by the Field Representative, such delay shall be considered a Non-Compensable Excusable Delay in accordance with the requirements of the General Conditions.

3.07 FINAL CLEANUP

A. After work in any work area has been completed and before opening it to traffic, the Contractor shall remove all temporary traffic control devices, temporary pavements, and other temporary work and devices installed for traffic control. The Contractor shall restore the site to its original condition or to the revised condition shown on the Plans.

4.01 METHOD OF MEASUREMENT

A. Maintenance of Aircraft operating Area Traffic will be paid for on a lump sum basis wherein no measurement will be made.

B. There will be no separate measurement and payment for striping nor for extra work associated with the evacuation of work areas for operational emergencies. Payment for this work will be made under other Sections of the Contract as applicable.

5.01 BASIS OF PAYMENT

A. Payment for the quantity determined as described in Article 4.01 above shall be made at the lump sum price bid for the item Maintenance of Aircraft operating Area Traffic. Furnishing, installing and maintaining yellow flashing lights shall be considered incidental to and included in the unit prices bid for the various barriers and barricades items.

B. No separate measurement or payment for the cost of removing and/or relocating the various maintenance of traffic devices, but the cost therefore shall be deemed included in the lump sum price bid.

C. The price[s] bid for the item[s] under this section shall include the cost of maintaining the various devices including replacing exhausted batteries, defective lamps, painting, etc. as required to maintain the various devices in good operational condition.

D. Payment shall be made under:

Item [Maintenance of Aircraft operating Area Traffic - per lump sum]

END OF SECTION

PREOPERATION CHECKLIST

[Miami International Airport] [Insert name of Airport]

NOTE: Inspection is to be made and all corrective work completed by Contractor at the completion of each work area. Perform special inspections for work areas to be released before the completion of the work area.

ITEMS	OK (Check)	REMARKS/EXCEPTIONS
Operational pavements sound, to grade & free of dust, dirt & debris.	_____	_____
Operational pavement shoulders graded, lips removed, surface bonded or paved (no potential for blast erosion).	_____	_____
Striping, marking, signs, barriers, and lighting on operational pavements operable and in correct location.	_____	_____
Water filled plastic protective barriers are actually full of water and are sealed and in leakproof condition.	_____	_____
Safety areas and obstacle-free zones cleared and graded. No open trenches or holes.	_____	_____
Construction barricades and barriers secured in correct location and associated warning flags and lighting systems operable and in correct location.	_____	_____
Aircraft parking area cleared.	_____	_____
All equipment, vehicles, materials, etc., removed from areas in service or being returned to service.	_____	_____
All proper Authorities notified of hazards, fire route changes, utilities left inoperable, pavements closed, etc. list.	_____	_____

Work Area Inspected: _____

Remarks: _____

_____

The inspection covered by this report was made on _____ at _____AM/PM

By _____ and by _____
(Contractor) Signature (Operations) Signature

and by _____ and by _____
(Airlines) Signature (Architect/Engineer) Signature

For work involved in the construction of Contract No._____
at _____Airport.
[Name of Airport]

PRECONSTRUCTION CHECKLIST

[ ][Insert name of Airport]

NOTE: Inspection is to be made and all corrective work completed by Contractor before work can begin in any Work Area.

ITEMS	OK (Check)	REMARKS/EXCEPTIONS
Striping, lights, markings, barricades and all other required traffic control devices in proper place, secured against displacement, and operable.	_____	_____
Obstacle free areas and operational pavements ready for use.	_____	_____
All equipment, vehicles, materials, etc., in Marked work area	_____	_____
All equipment properly marked and, if necessary, lighted.	_____	_____
All proper authorities notified of hazards, fire route changes, utilities left inoperable, pavements closed, etc. list.	_____	_____
Work Area Inspected:	_____	_____

Remarks: _____
_____
_____
_____
_____
_____

The inspection covered by this report was made on Date_____Time_____

By _____ , and by _____ ,
(Contractor Signature) (Operations Signature)

and by _____ , and by _____
(Airlines Signature) (Field Representative Signature)

For work involved in the construction of Contract No._____ at _____
[Name of Airport]

SECTION 01571

MAINTENANCE OF AIRPORT LANDSIDE TRAFFIC

1.01 DESCRIPTION

A. The work to be performed under this Section shall consist of all work and all measures to be employed to maintain the efficient and orderly movement of airport landside traffic in the area of construction as shown on the Plans and as described in this Section.

1.02 GENERAL

A. The Contractor shall provide, install, and maintain the temporary traffic control devices, furnish flaggers, and perform all work required to conform to the provisions of this Section.

B. The Contract Documents show the location of signs, lights, markings, delineators, special lighting, guardrails, barricades, temporary pavements, flagger stations, and other temporary devices and work required to control traffic at each work Sequence area.

C. Before commencing work in any area, the Contractor shall install the temporary traffic control devices, stations, etc., at the work site, and he shall obtain the approval of the Field Representative before commencing any work that affects, in any way, the existing traffic flow. The on-site layout shall consist of a mockup of temporary pavements, covered signs and staked or marked locations of all proposed temporary traffic control devices. After obtaining Field Representative approval of the mockup, the Contractor shall implement the revised traffic movement by installation of the approved temporary traffic control devices, flaggers, etc.

D. The revised traffic movement shall be observed and the layout altered as necessary to achieve the efficient and orderly flow of traffic through the proposed construction area. Only after the layout has been so tested and approved will the Contractor be permitted to commence construction work in the area.

PART 2 PRODUCTS

2.01 Traffic control devices, warning devices and barriers shall be as shown, and meeting the applicable requirements of the current edition of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction and the FHWA Manual or Uniform Traffic Control Devices (MUTCD); subject to the Field Representative□s approval.

PART 3 EXECUTION

3.01 MAINTENANCE OF TEMPORARY TRAFFIC CONTROL DEVICES, PAVEMENTS, AND FACILITIES

A. The Contractor shall maintain all traffic control devices in proper repair and working order. The Contractor shall also maintain all pavements constructed or utilized for temporary traffic movement, and shall maintain all other traffic service facilities such as guardrail, area lighting, etc., necessary for the efficient and orderly movement of traffic within the construction area.

B. In the event of the Contractor's failure to properly maintain any of these devices, pavements or facilities, the County may cause such maintenance, as it deems necessary, to be performed by its own or another Contractor's forces and the costs of such maintenance shall be deducted from monies due the Contractor for work performed under this Contract.

3.02 INTERFERENCE WITH AIRPORT LANDSIDE TRAFFIC

A. The Contractor shall conduct his work so as to cause no unnecessary interference with airport landside traffic and it shall comply with all requirements governing its employee parking, areas prohibited to his operation, and access routes to authorized work areas.

B. The Contractor shall not permit its workers and equipment to interfere with the movement of airport landside traffic in those areas adjacent to its work areas. The Contractor shall not obstruct sight lines, create obstructions to lighting nor create hazards or nuisance by allowing spills or wind transported materials to accumulate in traffic areas.

C. The Contractor shall maintain at the work site an approved powered rotary broom sweeper. The Contractor shall promptly remove any spills or wind-transported debris occurring on traveled roadways.

3.03 FINAL CLEANUP

A. After work in any work area has been completed and before moving to a new work construction area, the Contractor shall remove all temporary traffic control devices, temporary pavements and other temporary work and devices installed for traffic control. The Contractor shall restore the site to its original condition or to the revised condition shown on the Plans.

3.04 OPERATIONAL EMERGENCIES

During periods of unusually heavy traffic movement or other traffic emergencies, the County may direct the Contractor to relinquish areas under construction and to restore the construction area to serve airport landside traffic. In this event, the Field Representative will so direct the Contractor to evacuate the area; and the Field Representative will specify the limits of the area to be evacuated, the term of the evacuation and the construction governing the restoration work to be performed. The Contractor shall promptly and fully comply with the Field Representative directive. Should the directive entail extra work under the Contract, and the Field Representative shall so determine, the Contractor will be reimbursed for such extra work in accordance with the applicable provisions of the General Conditions "Allowance Accounts". Should the directive entail a delay in the completion of the Contract or any defined subdivision of the Contract, and the Field Representative shall so determine, the delay will be considered as Non-Compensable Excusable Delay in accordance with the applicable provisions of the General Conditions.

PART 4 METHOD OF MEASUREMENT

4.01 Measurement of Maintenance of Airport Landside Traffic for Payment shall be all the work complete and accepted in accordance with the Plans and Specifications.

PART 5 BASIS OF PAYMENT

5.01 Payment for the quantity determined as provided in Article 4.01 above shall be made at the Lump Sum Bid for Maintenance of Airport Landside Traffic. This price and payment shall constitute full compensation for furnishing all labor, materials, equipment and incidentals required to complete the work under this Section.

Payment shall be made under:

Item No. Maintenance of Airport Landside Traffic per Lump Sum.

END OF SECTION

SECTION 01600

MATERIAL AND EQUIPMENT

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

A. Products.

B. Transportation and Handling.

C. Storage and Protection.

D. Product Options.

E. Product List.

F. Substitutions.

G. Product Demonstrations

1.02 RELATED REQUIREMENTS

A. General Conditions.

B. Section 01010 - Summary of Work.

C. Section 01090 - Reference Standards.

D. Section 01405 - Contract Quality Control. Submittal of manufacturer's certificates.

E. Section 01740 - Warranties and Guarantees.

1.03 PRODUCTS

A. Products include material, equipment and systems.

B. Comply with Specifications and referenced standards as minimum requirements.

C. Components required to be supplied in quantity within a Specification section shall be the same and shall be inter-changeable.

D. Do not use materials and equipment removed from existing structure, except as specifically required, or allowed, by Contract Documents.

1.04 TRANSPORTATION AND HANDLING

A. Transport products by methods to avoid product damage. Deliver materials to job site in manufacturer's original unopened containers clearly labeled with manufacturer's name, brand designation and reference specification.

B. Provide equipment and personnel to handle products by methods to prevent soiling or damage. Handle products in such a manner as to prevent breakage of containers and damage of any kind.

C. Promptly inspect shipments to assure that products comply with requirements, quantities are correct, and products are undamaged. Damage sustained by products in transit to job site shall be repaired to the satisfaction of the Field Representative. If damage sustained while transporting products to job site is non-repairable, the products shall be replaced with new ones at no cost to Owner.

1.05 STORAGE AND PROTECTION

A. Store products in accordance with manufacturer's instructions, with seals and labels intact and legible. Exposed metal surfaces, not provided with manufacturer specific storage instructions, shall be protected with a light oil or silicone coating to prevent rust while in storage. Store sensitive products in weather tight enclosures; maintain within temperature and humidity ranges required by manufacturer's instructions.

B. For exterior storage of fabricated products, place on sloped supports above ground. Cover products subject to deterioration with impervious sheet covering; provide ventilation to avoid condensation.

C. Store loose granular materials on solid surfaces in a well-drained area; prevent mixing with foreign matter.

D. Arrange storage to provide access for inspection. Periodically inspect to assure products are undamaged, and are maintained under required conditions.

1.06 ENCLOSED STORAGE

A. Store products, subject to damage by the elements, in substantial weather tight enclosures.

B. Maintain temperature and humidity within ranges stated in manufacturer's instructions.

C. Provide humidity control and ventilation for sensitive products as required by manufacturer's instructions.

D. Store unpacked and loose products on shelves, in bins, or in neat groups of like items.

1.07 EXTERIOR STORAGE

A. Provide substantial platforms, blocking, or skids, to support fabricated products above ground; slope to provide drainage. Protect products from soiling, staining, and corrosion.

B. For products subject to discoloration or deterioration from exposure to the elements, cover with impervious sheet material. Provide ventilation to avoid condensation.

C. Store loose granular materials on clean, solid surfaces such as pavement, or on rigid sheet materials, to prevent mixing with foreign matter.

D. Provide surface drainage to prevent erosion and ponding of water.

E. Prevent mixing of refuse or chemically injurious materials or liquids.

1.08 MAINTENANCE OF STORAGE

A. Periodically inspect stored products on a scheduled basis. Maintain a log of inspections, make available to Field Representative on request.

B. Verify that storage facilities comply with manufacturer's product storage requirements.

C. Verify that stored products exposed to the elements are not adversely affected; that any weathering of finishes is acceptable under requirements of Contract Documents.

1.10 PRODUCT OPTIONS/SUBSTITUTIONS

A. Product Options/Substitutions shall be in accordance with the requirements of the General Conditions.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

SECTION 01701

CONTRACT CLOSEOUT PROCEDURES

PART 1 GENERAL

1.01 REQUIREMENT INCLUDED

A. Administrative provisions for Substantial completion and for Final Acceptance.

1.02 RELATED REQUIREMENTS

A. Section 01010 - Summary of work.

B. Section 01710 - Final Cleaning.

C. Section 01720 - Project Record Documents.

D. Section 01740 - Warranties and Guarantees.

E. Respective Technical/Specification Sections of Project Manual.

1.03 SUBSTANTIAL COMPLETION

A. See General Conditions

B. Commissioning must be complete, prior to Substantial Completion, unless otherwise approved.

1.04 FINAL COMPLETION - See General Conditions

1.05 REINSPECTION FEES

A. Should status of completion of work require reinspection by the Architect/Engineer and/or the Project Testing Laboratory, due to failure of work to comply with Contractor's claims on initial inspection, the Owner will deduct the amount of the Architect/Engineer and/or the Project Testing Laboratory compensation for reinspection services from final payment to Contractor.

1.06 CLOSEOUT SUBMITTALS

A. Evidence of Compliance with Requirements of Governing Authorities:
1. Certificate of Occupancy or Temporary Certificate of Occupancy at Substantial Completion.

B. Project Record Documents: Under provisions of Section 01720 by Substantial Completion.

C. Warranties and Guarantees: Under provisions of Section 01740 by Final Acceptance.

D. The Contractor shall prepare and submit a final actual cost breakdown based on the following category descriptions:

BUILDINGS

All costs incident to construction of improvements to existing structures. Component items such as improvements/additions that are a permanent part of the structure are to be included in this category.

E. Itemized List for Spare Parts and Extra Stock: Under provisions of Technical Specifications Section by Substantial Completion.

F. Evidence of Payment and Release of Claims: In accordance with the General Conditions and Subcontractor's Affidavit(s) of Satisfaction and/or Consent of Surety to Final Payment.

1.07 STATEMENT OF ADJUSTMENT OF ACCOUNTS - CERTIFICATE OF FINAL ACCEPTANCE

A. Owner will prepare Final Payment Certificate reflecting adjustment to Contract Amount indicating:

(1) Original Contract Amount.
(2) Change Orders.
(3) Work Orders Charges against Allowance Accounts.
(4) Deductions for uncorrected or deficient work.
(5) Deductions for liquidated damages.
(6) Additions for compensable excusable delays.
(7) Deductions for reinspection fees.
(8) Other adjustments to Contract Amount.
(9) Total Contract Amount as adjusted.

B. The Architect/Engineer will issue a final Change Order, if required, reflecting approved adjustments to Contract Amount not previously made by Change Orders.

1.10 APPLICATION FOR FINAL PAYMENT CERTIFICATE

A. Submit application for final Payment Certificate in accordance with provisions of General Conditions.

B. Final Payment will not be made until the Contract Closeout Procedures have been completed and executed as specified above.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

SECTION 01710

FINAL CLEANING

PART 1 GENERAL

1.01 REQUIREMENT INCLUDED

A. Final cleaning of project.

1.02 RELATED REQUIREMENTS

A. Section 01569 - Construction Cleaning: Cleaning during construction.

B. Section 01701 - Contract Closeout Procedures.

C. Individual Specifications Sections: Specific cleaning for product or work.

1.03 DESCRIPTION

A. Execute cleaning prior to inspection for Beneficial Occupancy or Substantial Completion of each designated portion of the Work.

PART 2 PRODUCTS

2.01 CLEANING MATERIALS

A. Use materials which will not create hazards to health or property and which will not damage surfaces.

B. Use only material and methods recommended by manufacturer of material being cleaned.

PART 3 EXECUTION

1.01 CLEANING

A. Upon completion of the work and before acceptance and final payment is made, remove from the Site all machinery, equipment, surplus and discarded materials, rubbish, temporary structures, etc. Repair or replace, in an acceptable manner, private or public property which may have been damaged or destroyed due to the Contractor's operations, except when such property is required to be altered or demolished under the Contract, and leave the Site in a clean and orderly condition. Material cleared from the Site and deposited on adjacent property will not be considered as having been disposed of satisfactorily.

B. All areas within and contiguous to the work under the Contract, including all exterior and interior surfaces and items where work has been performed, as well as all areas having been used for ingress and egress of materials and personnel or storage of materials, shall be turned over to the Owner in a neat and "polished" home-clean condition. "Broom-clean", as used in the construction industry, will not suffice.

C. All roof areas where work is performed shall be cleaned of all debris and excess materials. Particular attention shall be given to gutters, downspouts, leader heads, and scuppers to assure there is no blockage of any kind. Roof areas shall be inspected to ensure that no damage to roof membranes has occurred. Any damage so discovered caused by the Contractor's operations shall be repaired by a licensed roofer at no additional cost to the Owner.

D. All wall areas shall be free from extraneous paint, splatter or spillage of roofing materials, adhesion of asphaltic paving materials or any other defacement. Walls so defaced shall be cleaned and/or painted in an approved manner at no additional cost to the Owner.

E. All concrete walks, aprons, etc., including adjacent pavement shall be cleaned and free from building materials, containers, dust, dirt, sand, chips of roofing gravel, roofing materials, and all other incidental debris. Areas shall be well swept and, if directed by the Field Representative, shall be hosed down with clean water.

F. All barricades, fences, Field Representative's office, construction offices, etc., field testing laboratories and all Contractor's tools, equipment, etc., shall be removed from the Airport Property.

G. All glass shall be thoroughly cleaned and polished on both sides.

H. The paint line for glass in painted surroundings, whether wood, metal, putty or other glazing compounds, shall be neat, clean and straight.

I. Vacuum all carpets; and polish and wax all resilient flooring.

J. Power-scrub and detergent clean all ceramic tile floors. Wash all ceramic tile walls with detergent and clean all wall surfaces. All plastic laminate and hardware surfaces shall be cleaned and polished.

END OF SECTION

SECTION 01720

PROJECT RECORD DOCUMENTS

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

A. Maintenance of Record Documents and Samples.

B. Submittal of Record Documents and Samples.

1.02 RELATED REQUIREMENTS

A. Section 01340 - Shop Drawings, Product Data and Samples.

B. Section 01701 - Contract Closeout Procedures.

C. Individual Technical Specifications Sections: Manufacturer's certificates and certificates of inspection.

1.03 MAINTENANCE OF DOCUMENTS AND SAMPLES

A. Follow requirements of project General Conditions for Contract Documents at the Site.

B. Store Record Documents and samples in Field Office apart from documents used for construction. Provide files, racks and secure storage for Record Documents and Samples.

C. Label and file Record Documents and samples in accordance with Section number listings in Table of Contents of this Project Manual. Label each document `PROJECT RECORD' in neat, large printed letters.

D. Maintain Record Documents in clean, dry and legible conditions. Do not use Record Documents for construction purposes.

E. Keep Record Documents and Samples available for inspection by Owner and Consultant.

1.04 AS-BUILT INFORMATION

A. Record information on a set of blue line opaque drawings and in a copy of a Project Manual, provided by Owner, as specified in the General Conditions.

B. Provide felt tip marking pens, maintaining separate colors for each major system, for recording information.

C. Record information concurrently with construction progress. Do not conceal any work until required information is recorded.

D. Contract Drawings and approved Shop Drawings: Legibly mark each item to record actual construction, including:

(1) Field changes of dimensions and details.

(2) Changes made by Addenda, Change Order(s) (if any) and Work Order(s) (if any).

(3) Details not on original Contract Drawings.

(4) References to related Shop Drawings and Modifications.

E. Specifications: Legibly mark each item to record actual construction, including changes made by Addenda and Change Order.

F. Other Documents: Maintain manufacturer's certification and inspection certifications required by individual Specification Sections.

1.05 SUBMITTALS

A. At Substantial Completion, deliver Record Documents and samples under provision of Section 01701, excluding as-built drawings/specifications as stated below.

B. Transmit with cover letter in duplicate, listing: (1) Date; (2) Project Title and Number; (3) Contractor's name, address and telephone number; (4) Number and Title of each Record Document; (5) One transparency and two black or blue line copies of all approved shop drawings; (6) copy of approved shop drawing log; (7) Copy of the Field Representative review log attesting to its review of the As-Built Documents.

C Submittal of as-built drawings/specifications shall be after resolution of the punch list items are complete. One original marked up set and one complete copy of each shall be provided.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

SECTION 01740

WARRANTIES AND GUARANTEES

PART 1 GENERAL

1.01 REQUIREMENTS INCLUDED

A. Preparation and submittal of warranties and guarantees.

B. Schedule of submittals.

1.02 RELATED REQUIREMENTS

A. Instruction to Bidders: Bid Bonds.

B. Contractor's Performance and Payment Bonds.

C. Section 01701 - Contract Closeout Procedures.

D. Individual Technical Specifications Sections: Warranties and Guarantees required for specific products or work.

1.03 FORM OF SUBMITTALS

A. Bind in commercial quality 8 ½ x 11 inch three-ring side binders, with hardback, cleanable, plastic covers.

B. Label cover of each binder with typed or printed title `WARRANTIES AND GUARANTEES', with Contract No. and Project Title; name, address and telephone number of Contractor.

C. Table of Contents: Neatly typed, in the sequence of the Table of Contents of the Project Manual, with each item identified with the number and title of the specification section in which specified and the name of the product or work item.

D. Separate each warranty or guaranty with index tab sheets keyed to the Table of Contents listing. Provide full information, using separate typed sheet as necessary. List subcontractor, supplier and manufacturer, with name, address and telephone number of responsible principal.

E. Include a copy of the applicable warranty/guaranty in O & M manuals.

1.04 WARRANTY PERIOD AND PREPARATION OF SUBMITTALS

A. Obtain warranties and guarantees, executed in duplicate by responsible subcontractors, suppliers, and manufacturers, within ten (10) days after completion of the applicable item of work. Date of beginning of time of warranty will be the date of Substantial Completion, or date of Beneficial Occupancy if equipment is put to use by the Owner at date of Beneficial Occupancy. No warranty shall start prior to equipment being put into operation. It is not necessary that all warranties shall start at the same time.

B. Equipment warranty period: Manufacturer's standard warranty, minimum one year from above date of beginning of warranty, except as stated elsewhere.

C. Co-execute submittals when required.

D. Retain warranties and guarantees until time specified for submittal.

1.05 TIME OF SUBMITTALS

A. Make submittals per Section 01701 and General Conditions.

B. For items of work when acceptance is delayed beyond date of Substantial Completion, as stated in Section 01701, submit within ten (10) days after acceptance, listing the date of acceptance as the beginning of the warranty or guaranty period.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

SECTION 01750

MEASUREMENT OF QUANTITIES

PART 1 GENERAL

1.1 All work completed under the Contract will be measured by the Field Representative, using United States Customary Units of Measurement. The Field Representative shall afford the Contractor an opportunity to witness or participate in the measurements and to review all calculations relating to final measurements.

1.2 The term "lump sum" when used as an item of payment will mean complete payment for the work described for the item of work.

When a complete structure or structural unit (in effect, "lump sum" work) is specified as the unit of measurement, the unit will be construed to include all necessary fittings and accessories.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

END OF SECTION

DIVISION 02
EXISTING CONDITIONS

DOCUMENT 02 07 00

MINOR DEMOLITION FOR REMODELING

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Removal of designated building equipment and fixtures, and disposition of debris legally off-site.

1.2 RELATED SECTIONS

A. Section 01010-Summary of Work.

B. Section 01530-Barriers and Enclosures.

C. Section 01550-Contractor's Access and Employee Parking.

D. Section 01569-Construction Cleaning.

E. Section 01701-Contract Closeout Procedures.

1.3 SUBMITTALS

A. Submit schedule indicating proposed sequence of operations for selective demolition work to Owner for review and approval prior to commencement of work. Include method of demolition and plan for remodeling work, coordination for shut-off, capping, continuation of utility services as required, together with details dust noise control protection.

B. Certification: Submit copy of demolition firms' current license to operate in Miami-Dade County, Florida.

C. Coordinate with Owner's continuing occupation of portions of existing building and with Owner's partial occupancy of completed new renovation.

1.4 PROJECT RECORD DOCUMENTS

A. Submit under provisions of Section 01701 – Contract Closeout Procedures.

B. Accurately record actual locations of capped utilities, subsurface obstructions, and unanticipated structural, mechanical and electrical elements uncovered during demolition.

1.5 QUALITY ASSURANCE

A. Organize and perform demolition work to avoid damage to construction intended to remain.

B. Handle waste materials as specified in Section 01569-Construction Cleaning.

C. Demolition and Transportation of Debris: Shall comply with applicable codes and regulations governing these operations. Fees are paid by the Contractor.

D. Conduct demolition and removal operations in an expedient manner, with precautions taken to prevent demolition site from being an “attractive nuisance.”

E. Notify the Owner of any conditions capable of affecting the safety of occupants of adjacent buildings, the normal use of these facilities, or the physical condition of the structures.

1. In case of accidental disruption of utilities or the discovery of previously unknown utilities, stop work immediately and notify the Owner.
2. Do not continue work until the Owner, A/E and Contractor agree on a plan to correct the situation or identify utility service line.

1.6 REGULATORY REQUIREMENTS

A. Conform to Florida Building Code, including applicable supplements for demolition work, safety of structure, dust control and safeguards required during construction.

B. Notify affected utility companies before starting work and comply with their requirements.

C. Do not close or obstruct egress width to exits.

D. Do not disable or disrupt building fire or life safety systems without 3-day prior written notice to the Owner.

E. If the Contractor believes asbestos bearing or other hazardous products have been encountered during demolition, immediately stop work in the affected area. Evaluate the affected area and notify the Owner. Do not resume Work in the affected area until written direction from the Owner is received.

1.7 SEQUENCING

A. Sequence work in phases under the provisions of Section 01010-Summary of Work.

1.8 SCHEDULING

A. Schedule work under the provisions of Section 01010-Summary of Work.

B. Describe demolition removal procedures and schedule.

1.9 JOB CONDITIONS

A. Owner will be continuously occupying areas of building and site immediately adjacent to areas of selective demolition. Conduct demolition work in manner that will minimize disruption of Owner's normal operations. Provide minimum of five (5) working days advance notice to Owner of demolition activities, which will severely

impact Owner's normal operations.

B. Existing work not specified for removal that is temporarily removed, damaged exposed or in any way disturbed or altered by removal work shall be repaired, patched, or replaced to the Owner and A/E's satisfaction at no additional costs to the Owner.
C. Provide barriers and warning devices to protect the public and users of adjacent facilities.
D. If hazardous materials are encountered during demolition operations, comply with applicable regulations, laws, and ordinances concerning removal, handling and protection against exposure or environmental pollution.

PART 2 EXECUTION

2.1 PREPARATION

A. Cover, protect adjacent finished building surfaces (walls, floors, ceilings, etc.), furniture, equipment and fixtures to remain from soiling or damage when selective demolition work is performed in rooms or areas from which items have not been removed.
B. Erect; maintain dust-proof partitions, closures as required to prevent spread of dust or fumes to occupied portions of the building.
C. Where selective demolition, which will create excessive dust, occurs immediately adjacent to or within occupied portions of building, construct dust-proof partitions or barriers to mitigate spread of airborne dust or debris.
D. Provide weatherproof closures for exterior openings resulting from selective demolition work.
E. Locate, identify, stub off and disconnect utility services that are not indicated to remain.
F. Provide by-pass connections as necessary to maintain continuity of service to occupied areas of building. Provide minimum of five (5) working days advance notice to Owner if shutdown of services is necessary.

2.2 DEMOLITION REQUIREMENTS

A. Perform selective demolition work in a systematic manner. Use such methods as required to complete work indicated on Drawings in accordance with selective demolition schedule, governing regulations.
B. Cease operations, evacuate, and notify the Owner's Representative immediately if safety of structure appears to be endangered. Take precautions to support structure until determinations is made for continuing operations.
C. Maintain protected egress and access to the work.

2.3 DEMOLITION

A. Disconnect, remove, cap, and identify designated utilities within demolition areas.
B. Demolish in an orderly and careful manner. Protect existing supporting structural members and all items to remain.
C. Promptly remove debris to avoid imposing excessive loads on supporting walls, floors or framing.
D. If unanticipated mechanical, electrical or structural elements which conflict with intended function or design are encountered, investigate, measure both nature,

extent of the conflict. Submit report to Owner in written, accurate detail.

E. Pending receipt of directive from Owner, rearrange selective demolition schedule as necessary to continue overall job progress without delay.

2.4 SALVAGE ITEMS

A. Existing equipment, fixtures stored on site, protected under cover, as indicated on drawings or as directed by Owner, for re-use stored on site, protected under cover, reinstalled by contractor as required.

2.5 DISPOSAL OF DEMOLISHED MATERIALS

A. Remove debris, rubbish and other materials resulting from selective demolition operations from building site. Legally transport, recycle, or dispose of materials off site on a regular basis.

B. Accumulation of debris on the site will not be allowed.

2.6 REPAIR

A. Repair demolition performed in excess of that required. Return damaged structures, surfaces to remain to condition existing prior to commencement of selective demolition work. Repair adjacent construction on surfaces soiled or damaged by selective demolition work.

2.7 CLEAN UP

A. Upon completion of selective demolition work, remove tools, equipment, and demolished materials from site. Remove protections, leave interior areas broom clean.

PART 3 - MEASUREMENT AND PAYMENT

3.01 MEASUREMENT AND PAYMENT:

No separate measurement or payment will be made for Minor Demolition for Remodeling and this will be paid for as part of the overall Contract Lump Sum(s) listed in the BID FORM, as applicable.

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END OF SECTION 02 07 00

DIVISION 05
METALS

SECTION 05 50 00 - METAL FABRICATIONS

PART 1 - GENERAL

1.01 DESCRIPTION

A. Furnish and install all metal fabrications as indicated on the Drawings and/or specified herein.

B. Miscellaneous metal work shall include, but not be limited to, the following:

1. Miscellaneous Steel Framing and Supports.

1.02 QUALITY ASSURANCE

A. Codes and Standards: Comply with provisions of the following, except as otherwise indicated or specified:

1. American Institute of Steel Construction (AISC):

a. AISC Code of Standard Practice for Steel Buildings and Bridges.

b. AISC Specification for Structural Buildings Allowable Stress Design and Plastic Design with Commentary.

2. American National Standards Institute (ANSI):

a. Referenced Standards.

3. American Society for Testing and Materials (ASTM):

a. Referenced Standards.

4. American Welding Society (AWS):

a. AWS D1.1 Structural Welding Code - Steel.

5. Steel Structures Painting Council (SSPC):

a. Referenced Standards.

B. All welding shall be performed pursuant to AWS D1.1. All welding shall be performed by welders with current certificates for the type of weld being done. Special care shall be taken to keep welding electrodes free of moisture.

C. Field measurements shall be taken prior to preparation of shop drawings and fabrication, where possible. Trimming and fitting shall be allowed for wherever taking field measurements before fabrication might delay the Work.

D. Items shall be preassembled in the shop to greatest extent possible to minimize field splicing and assembly. Units shall be disassembled only as necessary for handling and shipping limitations. Disassembled units shall be clearly marked for reassembly.

1.03 SUBMITTALS

A. Shop Drawings:

1. Submit shop drawings for fabrication and erection of metal fabrications. Include plans, elevations, details of sections and connections, anchorages and accessory items. Provide templates for anchor and bolt installations.

1.04 PRODUCT DELIVERY AND STORAGE

A. Materials shall be delivered to the Site undamaged and shall be stored and protected from the elements by covering in plastic. All material damaged prior to substantial completion shall be removed from the Site and replaced at no additional cost to the Owner.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Metal Surfaces, General:

1. For metal fabrications work which will be exposed to view, only materials which are smooth and free of surface blemishes such as pitting, seam marks, roller marks, rolled trade names and roughness shall be used.

B. The following shall be used except where otherwise specified or required:

1. Steel plates, shapes and bars shall conform to ASTM A 36.

2. Steel pipe shall conform to ASTM A 53, Type S, Grade B, Schedule 40, black finish unless galvanizing is required.

3. Aluminum Extrusions: ASTM B 221, alloy 6061-T5 and 6063-T6.

4. Stainless-Steel Sheet: ASTM A 240/A 240M, Type 304, No. 2D Finish (dull, cold rolled) or 2B (bright, reflective) as selected by Architect.

2.02 FASTENERS

A. General:

1. Zinc-coated fasteners shall be used for exterior locations or where built into exterior walls wherever possible.

2. Fasteners and connections shall be welded wherever possible.

B. Nuts and bolts shall be regular hexagon type conforming to ASTM A307, Grade A.

C. Lag bolts shall be square head type conforming to ANSI B18.2.1.

D. Machine screws shall be cadmium plated steel conforming to ANSI B18.6.3.

E. Wood screws shall be flat head carbon steel conforming to ANSI B18.6.1.

F. Washers shall be round, carbon steel conforming to ANSI B18.22.1.

G. Masonry anchorage devices shall be expansion shields and epoxy set anchors (as indicated) conforming to ASTM E 488.

H. Toggle bolts shall be tumble-wing type conforming to Federal Specification (FS) FF-B-588, type, class and style as required.

I. Lock washers shall be helical spring-type carbon steel conforming to ANSI B18.21.1.

2.03 PAINT

A. Shop Primer for Ferrous Metals: Manufacturer's or fabricator's standard, fast-curing, lead- and chromate-free, universal modified alkyd primer complying with performance requirements selected for good resistance to normal atmospheric corrosion, compatibility with finish paint systems indicated, and for capability to provide a sound foundation for field-applied topcoats despite prolonged exposure.

B. Galvanizing Repair Paint: High zinc dust content paint for re-galvanizing welds in galvanized steel, with dry firm containing not less than 94 percent zinc dust by weight, and complying with DOD-P-21035A (SH) or SSPC-Paint-20.

C. Dissimilar Metals Coating: Provide Scotch-Clad Brand Protective Coating No. 1706 as manufactured by 3M Corp., or approved equal.

2.04 FINISHES

A. General:

1. Comply with NAAMM “Metal Finishes Manual” for recommendations relative to application and designation of finishes.

2. Finish metal fabrications after assembly.

B. Galvanizing: For those items indicated for galvanizing, apply zinc coating by the hot-dip process in compliance with the following requirements:

1. ASTM A 153 for galvanizing iron and steel hardware.

2. ASTM A 123 for galvanizing both fabricated and unfabricated iron and steel products.

C. Preparation for Shop Priming: Prepare uncoated ferrous metal surfaces to comply with minimum requirements indicated below for SSPC surface preparation specifications and environmental exposure conditions of installed metal fabrications:

1. Exterior: SSPC-SP 6 “Commercial Blast Cleaning.”

2. Interior: SSPC-SP 3 “Power Tool Cleaning.”

D. Apply shop primer to uncoated surfaces of metal fabrications, except those with galvanized finish or to be embedded in concrete or masonry, unless otherwise indicated. Comply with

requirements of SSPC-PA 1 “Paint Application Specification No. 1" for shop painting.

2.05 FABRICATION

A. Miscellaneous Steel Framing and Supports:

1. Provide miscellaneous steel framing and supports which are not a part of structural steel framework, as required to complete the Work. Fabricate miscellaneous units to size, shapes and profiles indicated or, if not indicated, of required dimensions to receive adjacent other work to be retained by framing. Except as otherwise indicated, fabricate structural steel shapes, plates, and steel bars of welded construction, using mitered joints for field connection. Cut, drill and tap units to receive hardware and similar items.

2. Equip units with integrally welded anchors for casting into concrete or building into masonry. Furnish inserts if units are required to be installed after concrete is placed. Except as otherwise indicated, space anchors 24 inches on center.

3. Provide steel channel sections for toilet partition suspension members.

PART 3 - EXECUTION

3.01 INSPECTION

A. Examine the areas and conditions under which the metal fabrications are to be installed. Do not proceed until the unsatisfactory conditions have been corrected in an acceptable manner.

3.02 INSTALLATION

A. Materials of type, size and thickness shown shall be used, or if not shown, of required size and thickness to produce adequate strength and durability in the finished product. Metal shall be well formed to shape and size with sharp lines and angles.

B. Exposed work shall be formed true to line and level with accurate angles and surfaces and straight sharp edges. Exposed edges shall be eased to a radius of 1/32 inch unless otherwise shown. Bent metal corners shall be formed to the smallest radius possible without causing grain separation, or otherwise impairing work.

C. All corners and seams shall be welded continuously, complying with AWS recommendations. At exposed connections, exposed welds shall be ground smooth and flush to match and blend with adjoining surfaces.

D. Shearing and punching shall leave clean, true lines and surfaces. Curved work shall be evenly sprung.

E. Exposed connections shall be formed with hairline joints, flush and smooth, using concealed fasteners wherever possible. Exposed fasteners shall be of the type shown or, if not shown, Phillips flat-head (countersunk) screws or bolts shall be used.

F. Anchoring devices shall be fabricated and spaced to provide adequate support for the intended use.

G. Metal fabrications shall be cut, reinforced, drilled and tapped, as required, to receive finish hardware and similar items.

H. All steel fabrications to be installed in exterior locations (outside the building) shall be galvanized as specified.

I. All metal fabrications shall be installed as shown on the Drawings, and adjusted to satisfactorily fulfill the use for which such is intended.

J. Comply with installation instructions for manufactured items.

3.03 ADJUST AND CLEAN

A. All exposed surfaces shall be left clean and free from all blemishes or discolorations after erection.

PART 4 - MEASUREMENT/PAYMENT

4.01 METHOD OF MEASUREMENT/BASIS OF PAYMENT

No separate measurement or payment will be made for Metal Fabrications and this will be paid for as part of the overall Contract Lump Sum(s) listed in the BID FORM, as applicable.

END OF SECTION 05 50 00

SECTION 05 80 00 - EXPANSION CONTROL

PART 1- GENERAL

1.01 DESCRIPTION

A. This Section includes specifications for furnishing and installing vertical and horizontal expansion joint assemblies, fillers, steel reinforcement metal embedded in the elastomeric dam and seals for building expansion and seismic joints as indicated.

B. Sealants for sealing of perimeter joints at openings in walls and for joints at abutting materials are specified in Section 07 92 00, Joint Sealants.

1.02 REFERENCES

A. American Society for Testing and Materials (ASTM):

ASTM A167	Specification for Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet, and Strip
ASTM B221	Specification for Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes
ASTM C509	Specification for Elastomeric Cellular Elastomeric Preformed Gasket and Sealing Material
ASTM C834	Standard Specification for Latex Sealants
ASTM C864	Specification for Dense Elastomeric Compression Seal Gaskets, Setting Blocks, and Spacers
ASTM C920	Specification for Elastomeric Joint Sealants
ASTM C1311	Standard Specification for Solvent Release Sealants
ASTM F738	Specification for Stainless Steel Metric Bolts, Screws, and Studs

1.03 SUBMITTALS

A. General: Refer to Section 01300, Submittals, and Section 01340, Shop Drawings, Product Data, and Samples, for submittal requirements and procedures.

B. Product Data: Submit manufacturers' product data of vertical and horizontal expansion-joint closures, assemblies, seals, and sealants for review. Include installation details.

PART 2- PRODUCTS

2.01 MATERIALS

A. Expansion joint closures and seals shall be aluminum extrusions and neoprene or silicone rubber seals of type and size to suit the construction as indicated.

B. Materials and requirements include the following:

1. Aluminum Retainers and Cover Plates: Aluminum alloy meeting requirements of ASTM B221, alloy 6063-T5, anodized, of configuration and size as indicated or recommend by the expansion-control system manufacturer.

2. Visual Seals: Dense neoprene or dense silicone synthetic rubber conforming with ASTM C864, of 70 durometer hardness, plus or minus 5.

3. Functional Seal: Closed cell neoprene synthetic rubber conforming to ASTM C509, medium density.

4. Corner Angles: Stainless steel conforming to ASTM A167, Type 304.

5. Fasteners: Stainless steel conforming to ASTM F738 or equivalent, Type 304 or equivalent.

6. Sealant: Sealant for installation behind aluminum retainer, in rear pocket of aluminum retainer, and at joints, where indicated, shall conform to ASTM C834, C920, or C1311 as appropriate for the construction and exposure conditions.

PART 3- EXECUTION

3.01 INSTALLATION: Expansion-joint vertical and horizontal wall seals and steel reinforcement metal embedded in the elastomeric dam and seals shall be installed in accordance with the Contract Drawings, shop drawings, and the manufacturer's installation instructions and recommendations

PART 4 - MEASUREMENT AND PAYMENT

4.01 MEASUREMENT AND PAYMENT:

No separate measurement or payment will be made for Expansion Control and this will be paid for as part of the overall Contract Lump Sum(s) listed in the BID FORM, as applicable.

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END OF SECTION 05 80 00

SECTION 05 90 00 – WELDING

PART 1 - GENERAL

1.01 DESCRIPTION

A. This Section includes specifications for welding of structural steel and miscellaneous metalwork, including sheet steel, as indicated. This Section also includes qualification of welders and welding procedures, inspections and tests of welds.

1.02 QUALITY ASSURANCE

A. Qualifications of Welders: Welders, Welding operators, and tack welders shall be qualified in accordance with ANSI/AWS D1.1, Section 5. "Qualification."

1. For sheet steel, welders shall be qualified in accordance with ANSI/AWS D1.3, Section 6. "Qualification."

B. Qualification of Welding Procedures: Welding procedures shall be prequalified or qualified accordance with ANSI/AWS D1.1, Section 5. "Qualification."

1. For sheet steel, proposed welding procedures shall be qualified in accordance with ANSI/AWS D1.3, Section 6, Qualification. Prequalification is not applicable to sheet steel.

C. Qualifications of Welding Inspector: Welds to be inspected by the Contractor shall be inspected and certified by a Contractor-employed AWS Certified Welding Inspector (CWI), certified in accordance with AWS QCI.

D. Qualification of Personnel Performing Nondestructive Testing: Personnel performing nondestructive testing shall be qualified and certified in accordance with the American Society for Nondestructive Testing Recommended Practice No. SNT-TC-1A. Only persons certified for NDT Level I and working under a NDT Level II person or persons certified for NDT Level II may perform nondestructive testing.

E. Weldability of Steel: For structural steel requiring impact test qualification and for corrosion-resistant structural steel, the weldability of the steel and the procedures for welding it shall be established, by qualification in accordance with ANSI/AWS D1.1, Section 5, to match the notch toughness and weathering characteristics of the base metal.

F. Qualification of Stud-Connector Manufacturer: Stud shear connector manufacturer shall be qualified in accordance with ANSI/AWS D1.1, Appendix IX, "Manufacturers' Stud Base Qualification Requirements."

1.03 REFERENCES

A. American Society for Nondestructive Testing (ASNT):

Recommended Practice No. SNT-TC-1A

B. American Society for Testing and Materials (ASTM):

ASTM E94	Guide for Radiographic Testing
ASTM E164	Practice for Ultrasonic Contact Examination of Weldments
ASTM E165	Standard Test Method for Liquid Penetrant Examination
ASTM E709	Guide for Magnetic Particle Examination
ASTM E1032	Method for Radiographic Examination of Weldments

C. American Welding Society (AWS):

ANSI/AWS A2.4	Standard Symbols for Welding, Brazing, and Nondestructive Examination
ANSI/AWS A3.0	Standard Welding Terms and Definitions
ANSI/AWS A5 Series	Filler Metal Specifications
ANSI/AWS B1.10	Guide for the Nondestructive Examination of Welds
ANSI/AWS D1.1	Structural Welding Code - Steel
ANSI/AWS D1.3	Structural Welding Code - Sheet Steel
AWS QCI	Standard for AWS Certification of Welding Inspectors

1.04 SUBMITTALS

A. General: Refer to Section 01300, Submittals, and Section 01340, Shop Drawings, Product Data, and Samples, for submittal requirements and procedures. Submittals shall comply with AWS 2.4 and 3.0.

B. Welder Qualifications: Submit certified copies of qualification test records for each welder, welding operator, and tack welder to be employed in the Work. Comply with requirements of ANSI/AWS D1.1, Section 5, Parts A, C, D, and E.

1. Submit welders' identification marks (I.D.) for each welder along with qualifications.

C. Welding Procedures: Prior to commencement of welding, submit the procedure that will be used for qualifying welding procedures. For procedures other than those prequalified in accordance with ANSI/AWS D1.1, submit a copy of procedure qualification test records in accordance with the qualification requirements of ANSI/AWS D1.1, Section 5, Parts A and B.

D. Welding Records and Data:

1. Retain all radiographs upon completion of fabrication.

2. Retain certifications that magnetic particle and dye-penetrant inspections have been satisfactorily completed.

3. Submit records of ultrasonic testing to the Resident Engineer upon completion.

4. If field welding is permitted, submit descriptive data for field welding equipment.

E. Mill Certificates: Retain mill certificates and certified copy of reports for all analyses and tests required by referenced ASTM and AWS specifications.

PART 2 - PRODUCTS

2.01 WELDING ROD/ELECTRODES

A. Electrodes for structural plate, shapes, pipe, tubes, and bars shall conform with ANSI/AWS A5 Series Standards and shall be coated rods or wire of size and classification number as recommended by their manufacturers for the positions and other conditions of actual use. Matching filler metal requirements shall conform to ANSI/AWS D1.1, Table 4.1.1.

B. Electrodes for sheet steel shall conform to ANSI/AWS A5 Series Standards and shall be coated rods or wire of size and classification number as recommended by their manufacturers for the positions and other conditions of actual use. Matching filler metal requirements shall conform to ANSI/AWS D1.3, Table 5.1.

2.02 STUD SHEAR CONNECTORS: Only products of manufacturers qualified in accordance with ANSI/AWS D1.1, Appendix IX, will be accepted for this Work.

2.03 SHOP WELDING

A. Perform shop welding as indicated in accordance with ANSI/AWS D1.1, and ANSI/AWS D1.3, as applicable to the Work.

B. Welders shall mark adjacent to completed welds their welder I.D., using metal stamp, metal engraving, keel, paint stick, or other appropriate marking material.

C. Welding of stud shear connectors shall conform to ANSI/AWS D1.1, Section 7. "Stud Welding", and the stud manufacturer's instructions.

2.04 SHOP QUALITY CONTROL

A. INSPECTIONS AND TESTS BY THE CONTRACTOR

1. Visual Inspection: All welds shall be visually examined in accordance with ANSI/AWS D1.1, Section 6 and 7.8, as applicable. Quality of welds and standards of acceptance shall be in accordance with ANSI/AWS D1.1, Sections 8.15.1, 9.25.1, and 10.17.1, as applicable.

2. Nondestructive Testing: Nondestructive testing shall conform to ANSI/AWS B1.10.

3. Radiographic Testing: Radiographic testing of welds shall conform to ANSI/AWS D1.1, Section 6, Parts A and B, and ASTM E94 and ASTM E1032, as applicable. Complete joint penetration groove welds shall be tested as follows:

a.) One out of ten (10 percent) with thickness equal to or less than 3/4 inch.

b.) One out of two (50 percent) with thickness greater than 3/4 inch and equal to or less than 1-1/2 inches.

c.) 100 percent for thickness greater than 1-1/2 inches.

4. Ultrasonic Testing: Ultrasonic testing of welds shall conform to ANSI/AWS D1.1, Section 6, Parts A and C, and ASTM E164, as applicable. Complete joint penetration groove welds not accessible for radiographic testing shall be subjected to ultrasonic testing. The extent shall be the same as specified for radiographic testing.

5. Magnetic Particle Inspection: Magnetic particle inspection of welds shall conform to ASTM E709. Complete and partial joint penetration groove welds and fillet welds shall be inspected as follows:

   a.) One out of five (20 percent) of complete joint penetration groove welds of tee and corner joints.

   b.) One out of ten (10 percent) of partial joint penetration groove welds and fillet welds.

6. Liquid Penetrant Inspection: Liquid dye penetrant inspection of welds shall conform to ASTM E165. Liquid penetrant inspection may be used for detecting discontinuities that are open to the surface.

7. Test Results: Test result information shall be forwarded to the Resident Engineer immediately after test results are available, stating the acceptance or rejection of fabricated components, so that repairs and reinspection or testing may be performed as soon as possible.

8. Repairs: Unacceptable welds shall be repaired in accordance with ANSI/AWS D1.1, Section 3.7. Repaired or corrected welds shall be reinspected or retested as specified for the original weld.

B. SHOP INSPECTIONS AND TESTS BY THE RESIDENT ENGINEER

1. All welds are subject to inspections and tests by the Resident Engineer. Welds to be inspected and tested by the Resident Engineer will be selected at random.

2. The Resident Engineer will make test results available to the Contractor.

PART 3- EXECUTION

3.01 FIELD QUALITY CONTROL

A. INSPECTIONS AND TESTS

1. The Contractor shall perform tests of field welds as herein specified for shop welds.

2. The Resident Engineer will perform visual inspections of field welds as herein specified for shop welds.

B. FIELD WELDING: Field welding shall be performed as herein specified for shop welding.

PART 4 - MEASUREMENT AND PAYMENT

4.01 MEASUREMENT AND PAYMENT:

No separate measurement or payment will be made for Welding and this will be paid for as part of the overall Contract Lump Sum(s) listed in the BID FORM, as applicable.

END OF SECTION 05 90 00

DIVISION 07
THERMAL AND MOISTURE PROTECTION

SECTION 07 92 00 - JOINT SEALANTS

PART 1 - GENERAL

1.01 DESCRIPTION

A. Joint sealants in locations as indicated on Contract Drawings.

1.02 QUALITY ASSURANCE

A. Installer Qualifications: Engage an experienced Installer who was completed joint sealant applications similar in material, design, and extent to that indicated for Project that have resulted in construction with a record of successful in-service performance.

B. Single Source Responsibility for Joint Sealant Materials: Obtain joint sealant materials from a single manufacturer for each different product required.

C. Product Testing: Provide comprehensive test data for each type of joint sealant based on tests conducted by a qualified independent testing laboratory on current product formulations within a 24 month period preceding date of Contractor's submittal of test results to Engineer.

1. Test elastomeric sealants for compliance with requirements specified by reference to ASTM C 920. Include test results for hardness, stain resistance, adhesion and cohesion under cyclic movement (per ASTM C 719), low temperature flexibility, modulus of elasticity at 100 percent strain, effects of heat aging, and effects of accelerated weathering.

1.03 SUBMITTALS

A. General: Refer to Section 01300, Submittals, and Section 01340, Shop Drawings, Product Data, and Samples, for submittal requirements and procedures.

B. Product Data: From manufacturers for each joint sealant product required.

C. Samples for Verification Purposes: Of each type and color joint sealant required. Install joint sealant samples in 1/2 inch wide joints formed between two 6 inch long strips of material matching the appearance of exposed surfaces adjacent to joint sealants.

D. Certificates: From manufacturers of joint sealants attesting that their products comply with specification requirements and are suitable for the use indicated.

E. Product Test Reports: For each type of joint sealants indicated, evidencing compliance with requirements specified.

F. Warranty: Specimen copy of the specified warranty.

1.04 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials to Project site in original unopened containers or bundles with labels indicating manufacturer, product name and designation, color, expiration period for use, pot life, curing time, and mixing instructions for multi-component materials.

B. Store and handle materials in compliance with manufacturer's recommendations to prevent

their deterioration or damage due to moisture, high or low temperatures, contaminants, or other causes.

1.05 PROJECT CONDITIONS

A. Environmental Conditions: Do not proceed with installation of joint sealants under the following conditions:

1. When ambient and substrate temperature conditions are outside the limits permitted by joint sealant manufacturer.

2. When joint substrates are wet.

B. Joint Width Conditions: Do not proceed with installation of joint sealants where joint widths are less than allowed by joint sealant manufacturer for application indicated.

C. Joint Substrate Conditions: Do not proceed with installation of joint sealants until contaminants capable of interfering with their adhesion are removed from joint substrates.

1.06 WARRANTY

A. Special Project Warranty: Provide written warranty, signed by Contractor and Installer, that joint sealants will be free from faults and defects in materials and workmanship and that all defects occurring within this period shall be promptly corrected at no additional cost to Owner.

1. Warranty Period: 10 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.01 MATERIALS, GENERAL

A. Compatibility: Provide joint sealants, joint fillers, and other related materials that are compatible with one another and with joint substrates under conditions of service and application.

B. Colors: Provide color of exposed joint sealants to comply with the following:

1. Provide selections made by Engineer from manufacturer’s full range of standard colors for products of type indicated.

2.02 ELASTOMERIC JOINT SEALANTS

A. Elastomeric Sealant Standard: Provide manufacturer’s standard chemically curing elastomeric sealants that comply with ASTM C 920 and other requirements specified herein, including those requirements referencing ASTM C 920 classifications for Type, Grade, Class, and Uses.

B. Base Polymer: Urethane.

1. Type: M (multi-component).

2. Grade: P (pourable).

3. Class: 25.

4. Use Related to Exposure: T (traffic).

5. Uses Related to Joint Substrates: M, A, and, as applicable to joint substrates indicated, O.

6. Multi-Part Pourable Products as listed or approved equal:

a. “Vulkem 245"; Tremco, Inc.

b. “NR-200 Urexpan”; Pecora Corp.

c. “Sikaflex - 2c SL”; Sika Corp.

d. “Sonolastic SL 2"; Sonneborn-Chemrex.

C. Base Polymer: Urethane.

1. Type: S (single component).

2. Grade: NS (nonsag).

3. Class: 25.

4. Use Related to Exposure: NT (nontraffic).

5. Uses Related to Joint Substrates: M, A, and, as applicable to joint substrates indicated, O.

6. Single-Part Nonsag Products as listed or approved equals:

a. “Vulkem 116"; Tremco, Inc.

b. “Dynatrol I”; Pecora Corp.

c. “Sikaflex-1a”; Sika Corp.

d. “Sonolastic NP 1"; Sonneborn-Chemrex.

2.03 SOLVENT-RELEASE-CURING JOINT SEALANTS

A. Acrylic Sealant: Manufacturer’s standard one-part, non-sag, solvent-release-curing acrylic terpolymer sealant complying with AAMA 808.3 of FS TT-S-00230 or both, with capability when tested for adhesion and cohesion under maximum cyclic movement per ASTM C 719. Provide one of the following as listed or approved equal:

1. “60+ Unicrylic”; Pecora Corp.

2. “PTI 738" or “PTI 767"; H.B. Fuller.

3. “Mono”; Tremco, Inc.

B. Butyl Sealant: Manufacturer’s standard one-part, non-sag, solvent-release-curing, polymerized butyl sealant complying with ASTM C 1085 and formulated with minimum of 75 percent solids to be nonstaining, paintable, and have a track-free time of 24 hours or less. Provide one of the following as listed or approved equal:

1. “BC-158"; Pecora Corp.

2. “PTI 757"; H.B. Fuller.

3. “Sonneborn Multi-Purpose Sealant”; Sonneborn-Chemrex.

4. “Tremco Butyl Sealant”; Tremco, Inc.

2.04 LATEX JOINT SEALANTS

A. General: Provide manufacturer’s standard one-part, non-sag, mildew-resistant, paintable latex sealant of formulation indicated that is recommended for exposed applications on interior and protected exterior locations and that accommodates indicated percentage change in joint width existing at time of installation without failing either adhesively or cohesively.

B. Acrylic Emulsion Sealant: Provide product complying with ASTM C 834 that accommodates joint movement of not more than 5 percent in both extension and compression for a total of 10 percent. Provide one of the following as listed or approved equal:

1. “AC-20"; Pecora Corp.

2. “Sonolac”; Sonneborn-Chemrex.

3. “Tremco Acrylic Latex 834"; Tremco, Inc.

2.05 TAPE SEALANTS

A. Tape Sealant: Manufacturer’s standard, solvent-free, butyl-based tape sealant with a solids content of 100 percent formulated to be nonstaining, paintable, and nonmigrating in contact with nonporous surfaces with or without reinforcement thread to prevent stretch and packaged on rolls with a release paper on one side. Provide one of the following or approved equal:

1. “Extru-Seal Tape”; Pecora Corp.

2. “Shim-Seal Tape”; Pecora Corp.

3. “PTI 606"; H.B. Fuller.

4. “Tremco 440 Tape”; Tremco, Inc.

5. “MBT-35"; Tremco, Inc.

2.06 JOINT SEALANT BACKING

A. General: Provide sealant backings of material and type that are nonstaining; are compatible with joint substrates, primers and other joint fillers; and are approved for applications indicated by sealant manufacturer.

B. Plastic Foam Joint Fillers: Preformed, compressible, resilient, nonstaining, non-waxing, non-extruding strips of flexible plastic foam of material indicated below and of size, shape, and density to control sealant depth and otherwise contribute to producing optimum sealant performance:

1. Closed-cell polyethylene foam, nonabsorbent to liquid water and gas, non-outgassing in unruptured state.

C. Bond-Breaker Tape: Polyethylene tape or other plastic tape as recommended by sealant manufacture for preventing sealant from adhering to rigid, inflexible joint filler materials or

joint surfaces at back of joint where such adhesion would result in sealant failure. Provide self-adhesive tape where applicable.

2.07 MISCELLANEOUS MATERIALS

A. Primer: Material recommended by joint sealant manufacture where required for adhesion of sealant to joint substrates indicated.

B. Cleaners for Nonporous Surfaces: Chemical cleaners acceptable to manufacturers of sealants and sealant backing materials, free of oily residues or other substances capable of staining or harming in any way joint substrates and adjacent nonporous surfaces, and formulated to promote optimum adhesion of sealants with joint substrates.

C. Masking Tape: Nonstaining, nonabsorbent material compatible with joint sealants and surfaces adjacent to joints.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Examine joints indicated to receive joint sealants, with Installer present, for compliance with requirements for joint configuration, installation tolerances, and other conditions affecting joint sealant performance. Do not proceed with installation of joint sealants until unsatisfactory conditions have been corrected.

3.02 PREPARATION

A. Surface Cleaning of Joints: Clean out joints immediately before installing joint sealants to comply with recommendations of joint sealant manufacturer and the following requirements:

1. Remove all foreign material from joint substrates that could interfere with adhesion of joint sealant, including dust, paints (except for permanent, protective coatings tested and approved for; sealant adhesion ;and compatibility by sealant manufacturer), old joint sealants, oil, grease, water, and surface dirt.

2. Clean concrete and similar porous joint substrate surfaces by brushing, grinding, blast cleaning, mechanical abrading, or a combination of these methods to produce a clean, sound substrate capable of developing optimum bond with joint sealants. Remove loose particles remaining from above cleaning operations by vacuuming or blowing out joints with oil-free compressed air.

3. Remove laitance and form release agents from concrete.

4. Clean metal, glass, and other nonporous surfaces with chemical cleaners or other means that do not stain, harm substrates, or leave residues capable of interfering with adhesion of joint sealants.

B. Joint Priming: Prime joint substrates where indicated or where recommended by joint sealant manufacturer. Apply primer to comply with joint sealant manufacturer's recommendations. Confine primers to areas of joint sealant bond; do not allow spillage or migration onto adjoining surfaces.

C. Masking Tape: use masking tape where required to prevent contact of sealant with adjoining surfaces that otherwise would be permanently stained or damaged by such contact or by cleaning methods required to remove sealant smears. Remove tape immediately after

tooling without disturbing joint seal.

3.03 INSTALLATION OF JOINT SEALANTS

A. General: Comply with joint sealant manufacturer's published installation instructions applicable to products and applications indicated, except where more stringent requirements apply.

B. Sealant Installation Standard: Comply with recommendations of ASTM C 1193 for use of joint sealants as applicable to materials, applications, and conditions indicated.

C. Installation of Sealant Backings: Install sealant backings to comply with the following requirements:

1. Install joint fillers of type indicated to provide support of sealants during application and at position required to produce the cross-sectional shapes and depths of installed sealants relative to joint widths that allow optimum sealant movement capability.

a. Do not leave gaps between ends of joint fillers.

b. Do not stretch, twist, puncture, or tear joint fillers.

c. Remove absorbent joint fillers that have become wet prior to sealant application and replace with dry material.

2. Install bond breaker tape between sealants where backer rods are not used between sealants and joint fillers or back of joints.

D. Installation of Sealants: Install sealants by proven techniques that result in sealants directly contacting and fully wetting joint substrates, completely filling recesses provided for each joint configuration, and providing uniform, cross-sectional shapes and depths relative to joint widths that allow optimum sealant movement capability. Install sealants at the same time sealant backings are installed.

E. Tooling Non-sag Sealants: Immediately after sealant application and prior to time skinning or curing begins, tool sealants to form smooth, uniform beads of configuration indicated, to eliminate air pockets, and to ensure contact and adhesion of sealant with sides of joint. Remove excess sealants from surfaces adjacent to joint. Do not use tooling agents that discolor sealants or adjacent surfaces or are not approved by sealant manufacturer.

3.04 CLEANING

A. Clean off excess sealants or sealant smears adjacent to joints as work progresses by methods and with cleaning materials approved by manufacturers of joint sealants and of products in which joints occur.

B. Coordinate cleaning of exposed sealant surfaces with paint finish material requirements.

3.05 PROTECTION

A. Protect joint sealants during and after curing period from contact with contaminating substances or from damage resulting from construction operations or other causes so that they are without deterioration or damage at time of Substantial Completion. If, despite such protection, damage or deterioration occurs, cut out and remove damaged or deteriorated joint sealants immediately so that installations with repaired areas are indistinguishable from

original work.

3.06 JOINT SEALANT SCHEDULE

A. Seal all exterior non-traffic-bearing joints with single part polyurethane sealant.

B. Seal all exterior traffic-bearing joints with multipart pourable polyurethane sealant.

C. Seal all interior non-traffic-bearing joints with acrylic-latex sealant.

D. Other sealant applications as specified elsewhere.

PART 4 – MEASUREMENT AND PAYMENT

4.01 MEASUREMENT AND PAYMENT

No separate measurement or payment will be made for Joint Sealants and this will be paid for as part of the overall Contract Lump Sum(s) listed in the BID FORM, as applicable.

END OF SECTION 07 92 00

DIVISION 08
OPENINGS

SECTION 08 44 12 - METAL-FRAMED WINDOW WALL SYSTEM

PART 1 - GENERAL

1.01 DESCRIPTION

A. This Section includes Metal-framed window wall systems.

1.02 WORK INCLUDED

A. Provide all labor, materials, tools, equipment and services to furnish and install the Metal extrusion and related components as shown on drawings and specified herein.

1.03 QUALITY ASSURANCE

A. General
   1. Provide certified independent laboratory test reports in accordance with Section 1.03, Paragraph C.
   2. The Metal framing system must conform to the “Voluntary Guide Specifications for Metal Windows” as published by AAMA unless more stringent requirements are specified.

B. Test Units
   1. Perform all test unless otherwise noted on full size

Code Compliance: Total installation must comply with the requirements of the Florida Building Code, current edition in force, including Test Protocols for High Velocity Hurricane Zones.

B. Product Compliance: The Metal entrance system and window wall system must each have a Miami-Dade County Product Control Notice of Acceptance (NOA) and comply with requirements of the Florida Product Approval System as required by Florida Statute 553.842 and Florida Administrative Code 9B-72. Each system to bear a permanent label with information stipulated by the Miami-Dade County Product Control NOA issued for that system.

C. Wind Loads: Completed window wall system to withstand wind pressure loads (positive and negative) normal to wall plane indicated in accordance with the Florida Building Code for the geographical location of the Project.

D. Performance Requirements: Provide metal window walls that comply with performance requirements indicated, as demonstrated by testing manufacturer's assemblies in accordance with Florida Building Code Test Protocol TAS 201- Impact Test Procedures and TAS 203- Criteria for Testing Products Subject to Cyclic Wind Pressure Loading.

   1. Air Infiltration: Completed window wall system shall have 0.01 cfm maximum allowable infiltration when tested in accordance with ASTM E 283 at differential static pressure of 6.24 psf.

   2. Water Infiltration: No uncontrolled water, other than condensation, on indoor face of any component when tested in accordance with ASTM E 331 at test pressure differential of 20 psf, except 10 psf for entrance doors. Water test to be performed immediately after design pressure test.

   3. Deflection: Maximum allowable deflection in any member when tested in accordance with ASTM E 330 with allowable stress in accordance with AA Specifications for Aluminum Structures.

a. Deflection for load carrying members not to exceed L/175 or 3/4 inch maximum.

4. Thermal Movement: Provide for thermal movement caused by 180 degrees F surface temperature, without causing buckling stresses on glass, joint seal failure, undue stress on structural elements, damaging loads on fasteners, reduction of performance, or detrimental effects.

1.03 QUALITY ASSURANCE

A. Qualifications:

1. Installer Qualifications: Installer experienced (as determined by Contractor) to perform work of this Section who has specialized in the installation of work similar to that required for this project. If requested by Owner, submit reference list of completed projects.

2. Manufacturer Qualifications: Manufacturer capable of providing field service representation during construction, approving acceptable installer and approving application method.

B. Reference Standards: Comply with provisions of the following, unless otherwise indicated or specified:

1. Aluminum Association (AA):

a. Referenced Standards.

2. Architectural Aluminum Manufacturers Association (AAMA):

a. Referenced Standards.

3. American Society for Testing and Materials (ASTM):

a. Referenced Standards.

4. American Welding Society (AWS):

a. Referenced Standards.

5. National Association of Architectural Metal Manufacturers (NAAMM):

a. Referenced Standards.

1.04 SUBMITTALS

A. Product Data: Submit product data for each type window wall series specified.

B. Shop Drawings: Submit shop drawings showing layout, profiles, and product components, including anchorage, accessories, finish colors, and textures.

C. Samples: Submit verification samples for colors on actual Metal substrates indicating full color range expected in installed system.

D. Quality Assurance/Control Submittals:

1. Test Reports: Submit certified test reports showing compliance with specified performance characteristics and physical properties.

2. Installer Qualification Data: Submit installer qualification data.

3. Manufacturer Qualification Data: Submit manufacturer qualification data.

E. Close-out Submittals:

1. Warranty: Submit warranty documents specified herein.

1.05 PROJECT CONDITIONS

A. Field Measurements: Verify actual measurements and openings by field measurement before fabrication; show recorded measurements on shop drawings. Coordinate field measurements and fabrication schedule with construction progress to avoid construction delays.

1.06 WARRANTY

A. Special Warranty: Submit, for Owner's acceptance, manufacturer's standard written warranty document executed by an authorized company official.

1. Beneficiary: Issue warranty in the legal name of the Owner.

2. Warranty Period: 2 years commencing on Date of Substantial Completion.

3. Warranty Acceptance: Owner is sole authority who will determine acceptability of manufacturer's warranty documents.

PART 2 - PRODUCTS

2.01 MANUFACTURERS
Basis of Design

A. Series “Slimpact XL” SSG Glass Wall System as manufactured by Faour Glass Technologies. or approved equal.
B. GPX Fire Rated Window Wall System as manufactured by Saftifirst or approved equal.

2.02 MATERIALS

A. Extrusions: ASTM B 221, 6063-T5 aluminum alloy.

B. Aluminum Sheet, Painted Finish: ASTM B 209, 3003-H14 aluminum alloy, 0.080 inch minimum thickness.

2.03 WINDOW WALL FRAMING SYSTEM

A. Description: Thermally improved framing system. Horizontal and vertical members shall have a nominal face dimension of 1-3/4 inches and 4-1/2 inch depth as indicated on Drawings. Provide a flush butt-glazed appearance on all sides with no protruding glass stops.

B. Glass: Kuraray “Sentry Glass” Laminate composite; annealed heat strengthened, or tempered as required. Refer to Section 08 80 00 - GLAZING for additional information.

C. Glazing: Manufacturer's standard glazing stops with EPDM glazing gaskets to prevent water infiltration at the exterior and Dow Corning's "995 Structural Silicone Adhesive" with fixed stops at the interior; interior spacers and gaskets shall be silicone.

2.04 ACCESSORIES

A. Manufacturer's standard accessories, including:

1. Fasteners: Zinc-plated steel concealed fasteners. Hardened aluminum alloys or AISI 300 Series stainless steel exposed fasteners, countersunk and finished to match aluminum color.

2. Perimeter Sealant: Non-skinning type, AAMA 803.3.

3. Glazing: Setting blocks, edge blocks, and spacers in accordance with ASTM C 864, shore durometer hardness as recommended by manufacturer. Exterior EPDM glazing gaskets in accordance with ASTM C 864, designed to lock into gasket reglet. Interior by means of spacer and specified Dow 995 product.

4. Glazing Adhesive: Dow Corning’s “995 Structural Silicone Adhesive.”

2.05 FABRICATION

A. Shop Assembly: Fabricate and assemble units with joints only at intersection of aluminum members with hairline joints; rigidly secure, and sealed in accordance with manufacturer's written recommendations.

1. Hardware; Drill and cut to template for hardware. Reinforce frames and door stiles to receive hardware in accordance with manufacturer’s written recommendations.

2. Welding: Conceal welds on aluminum members in accordance with AWS recommendations or methods recommended by manufacturer. Members showing welding bloom or discoloration on finish or material distortion will be rejected.

B. Shop Finishing: Prepare aluminum surfaces for specified finish.

C. Fabrication Tolerances:

1. Material Cuts: Square to 1/32 inch off square, maximum, over largest dimension; proportionate amount of 1/32 inch on other two dimensions.

2. Maximum Offsets:

a. 1/64 inch in alignment between two consecutive members in line, end to end.

b. 1/64 inch between framing members at glazing pocket corners.

3. Joints (Between adjacent members in same assembly): Hairline and square to adjacent member.

4. Variation (In squaring diagonals for doors and fabricated assemblies): 1/16 inch.

5. Flatness (For doors and fabricated assemblies): +/- 1/16 inch off neutral plane.

2.06 NETAL FINISHES

A. General: Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations relative to applying and designating finishes.

B. Appearance of Finished Work: Variations in appearance of abutting or adjacent pieces are acceptable if they are within one-half of the range of approved samples. Noticeable variations in the same piece are not acceptable. Variations in appearance of other components are acceptable if they are within the range of approved samples and are assembled or installed to minimize contrast.

C. Finish designations prefixed by AA conform to the system established by the METAL Association for designating aluminum finishes.

D. Class II, Color Anodic Finish: AA-M12C22A32/A34 (Mechanical Finish: nonspecular as fabricated; Chemical Finish: etched, medium matte; Anodic Coating: Architectural Class II, integrally colored or electrolytically deposited color coating 0.010 mm or thicker) complying with AAMA 611.

1. Color and Gloss: To be selected by Architect.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Site Verification of Conditions: Verify substrate conditions (which are existing) are acceptable for product installation in accordance with manufacturer's written instructions.

1. Verify location of preset anchors, perimeter fasteners, and block-outs are in accordance with shop drawings.

3.02 PREPARATION

A. Adjacent Surfaces Protection: Protect adjacent work areas and finish surfaces from damage during product installation.

1. Metal Surface Protection: Protect Metal surfaces from contact with lime, mortar, cement, acids, and other harmful contaminants.

3.03 INSTALLATION

A. Compliance: Comply with manufacturer's product data, including product technical bulletins, product catalog, written installation instructions, and product carton instructions.

B. General: Install manufacturer's system in strict accordance with shop drawings, and within specified tolerances.

1. Shim and brace Metal system before anchoring to structure.

2. Provide sill flashing at exterior window wall system. Extend extruded flashing continuous with splice joints; set in continuous beads of sealant and weeped.

3. Verify window wall system allows water entering system to be collected in gutters and weeped to exterior. Verify metal joints are sealed in accordance with the manufacturer's written instructions.

4. Seal metal-to-metal window wall system joints using sealant recommended by system manufacturer.

3.04 FIELD QUALITY CONTROL

A. Manufacturer's Field Services: Upon Owner's request, provide manufacturer's field service consisting of product use recommendations and periodic site visits for inspection of product installation in accordance with manufacturer's written instructions.

3.05 ADJUSTING AND CLEANING

A. Adjusting: Adjust operating items as recommended by manufacturer.

B. Cleaning: Clean installed products in accordance with manufacturer’s written instructions prior to Final Acceptance. Remove, and legally dispose of, construction debris from Project site.

C. Protection: Protect the installed system finish surfaces from damage during construction.

3.06 PROTECTION

A. Provide final protection and maintain conditions, in a manner acceptable to manufacturer and Installer, that ensure entrance and window wall systems are without damage or deterioration at the time of Substantial Completion.

PART 4 – MEASUREMENT AND PAYMENT

4.01 MEASUREMENT AND PAYMENT

No separate measurement or payment will be made for Metal-framed entrances and window walls and this will be paid for as part of the overall Contract Lump Sum(s) listed in BID FORM, as applicable.

END OF SECTION 08 44 12

SECTION 08 80 00 - GLAZING

PART 1 - GENERAL

1.01 DESCRIPTION

A. Glass and glazing for window wall system.

1.02 PERFORMANCE REQUIREMENTS

A. General: Provide glazing systems capable of withstanding normal thermal movement and wind and impact loads without failure, including loss or glass breakage attributable to the following: defective manufacturer, fabrication, and installation; failure of sealants or gaskets to remain watertight and airtight; deterioration of glazing materials; or other defects in construction.

B. Code Compliance: Glazing must comply with the requirements of the Florida Building Code, current edition in force, including Test Protocols for High Velocity Hurricane Zones.

C. Product Compliance: Laminate interlayer for laminated glass units must have a Miami-Dade County Product Control Notice of Acceptance (NOA) and comply with requirements of the Florida Product Approval System as required by Florida Statute 553.842 and Florida Administrative Code 9B-72.

D. Wind Loads: Completed glazing to withstand wind pressure loads (positive and negative) normal to glazing plane indicated in accordance with the Florida Building Code for the geographical location of the Project.

1.03 QUALITY ASSURANCE

A. Glazing Publications: Comply with published recommendations of glass product manufacturers and organizations below, unless more stringent requirements are indicated.

1. Glass Association of North America (GANA) Publications: “Laminated Glass Design Guide” and “Glazing Manual”.

2. AAMA Publications: AAMA GDSG-1 “Glass Design for Sloped Glazing”, and AAMA TIR-17 “Sloped Glazing Guidelines”.

B. Safety Glazing Products: Comply with 16 CFR 1201. Safety glass permanently marked with Safety Glazing Certification Council (SGCC) certification label.

1.04 SUBMITTALS

A. Product Data: For each glass product and glazing material indicated.

B. Samples: For the following products, in the form of 12 inch square samples for glass.

1. Each color of tinted float glass.

2. Coated vision glass.

C. Product Certificates: Signed by manufacturers of glass and glazing products certifying that products furnished comply with requirements.

1. For solar-control low-e-coated glass, provide documentation demonstrating that manufacturer of coated glass is certified by coating manufacturer.

D. Research/Evaluation Reports: Miami-Dade County Product Control Notice of Acceptance for laminate interlayer.

1.05 DELIVERY, STORAGE, AND HANDLING

A. Protect glazing materials according to manufacturer's written instructions and as needed to prevent damage to glass and glazing materials from condensation, temperature changes, direct exposure to sun, or other causes.

B. NOA Labeling: Laminate interlayer to bear permanent label with information stipulated by the Miami-Dade County Product Control NOA issued for that item.

PART 2 - PRODUCTS

2.01 GLASS PRODUCTS

A. Basis of Design: As provided by Tecnoglass, Inc., or approved equal.

B. Annealed Float Glass: ASTM C 1036, Type I (transparent flat glass), Quality Q3; of class indicated.

C. Heat-Treated Float Glass: ASTM C 1048; Type I (transparent flat glass); Quality Q3; of class, kind, and condition indicated.

1. Fabrication Process: By horizontal (roller-hearth) process with roll-wave distortion parallel to bottom edge of glass as installed, unless otherwise indicated.

2. For uncoated glass, comply with requirements for Condition A.

3. For coated vision glass, comply with requirements for Condition C (other uncoated glass).

4. Provide Kind FT for all exterior and interior glass lites, unless otherwise specified.

D. Pyrolytic-Coated Float Glass: ASTM C 1376, float glass with metallic-oxide coating applied by pyrolytic deposition process during initial manufacture and complying with other requirements specified.

E. Laminated Glass: ASTM C 1172, and complying with other requirements specified and with the following:

1. Interlayer: Polyvinyl butyral (PVB) of thickness indicated with a proven record of no tendency to bubble, discolor, or lose physical and mechanical properties after laminating glass lites and installation. Laminate lites in autoclave with heat plus pressure. Provide one of the following products:

a. "Kuraway Sentry Glass R"; Kuraray America, Inc. or approved equal

(1) Product Compliance: Miami-Dade County Product Control NOA No. 20-0915.19

b. “Saflex HP”; Eastman Chemical Company or approved equal

(1) Product Compliance: Miami-Dade County Product Control NOA No. 18-0301.05.

2. Laminating Process: Fabricate laminated glass to produce glass free of foreign substances and air or glass pockets.

3. Edge Condition: Provide sealant along the entire edge of the laminated glass to prevent contamination of the interlayer.

F. Fabrication of Glazing Units: Fabricate glazing units in sizes required to glaze openings indicated for Project, with edge and face clearances, edge and surface conditions, and bite complying with written instructions of product manufacturer and referenced glazing publications, to comply with system performance requirements.

2.02 GLAZING ACCESSORIES

A. Glazing Sealant: One-component neutral curing silicone sealant complying with ASTM C 920.

1. Basis of Design: “SilPruf”; GE Silicones.

B. Glazing Tapes: Closed-cell, PVC foam tapes, factory coated with adhesive on both surfaces. Comply with ASTM C 1281 and AAMA 800 for particular applications.

C. Other Glazing Accessories: Provide cleaners, primers, sealers, setting blocks, spacers, edge blocks, and similar items as recommended by glass manufacturer and approved by Engineer.

2.04 LAMINATED GLASS UNITS

A. Heat-Treated Laminated Glass Lite: Kind LT, consisting of two lites of fully tempered float glass.

1. Outer Lite: Class 2 tinted float glass.

a. Kind FT (fully tempered).

b. Thickness: 6.0 mm.

c. Low-E Coated Glass Lite: Low-e coating on third surface.

2. Inner Lite: Class 1 (clear) float glass.

a. Kind FT (fully tempered).

b. Thickness: 6.0 mm.

3. Reflective Coating: Pyrolytic.

a. Location: Second surface.

4. Plastic Interlayer:

a. Thickness: 0.090 inch.

b. Interlayer Color: Clear.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Examine framing glazing, with Installer present, for compliance with the following:

1. Manufacturing and installation tolerances, including those for size, squareness, and offsets at corners.

2. Presence and functioning of weep system.

3. Minimum required face or edge clearances.

4. Effective sealing between joints of glass framing members.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.02 PREPARATION

A. Clean glazing channels and other framing members receiving glass immediately before glazing. Remove coatings not firmly bonded to substrates.

3.03 INSTALLATION

A. Comply with combined written instructions of manufacturers of glass, sealants, gaskets, and other glazing materials, unless more stringent requirements are indicated, including those in referenced glazing publications.

B. Glazing channel dimension, as indicated on Contract Drawings, provide necessary bite on glass, minimum edge and face clearances, and adequate sealant thicknesses, with reasonable tolerances. Adjust as required by Project conditions during installation.

C. Protect glass edges from damage during handling and installation. Remove damaged glass from Project site and legally dispose of off Project site. Damaged glass is glass with edge damage or other imperfections that, when installed, could weaken glass and impair performance and appearance.

D. Install setting blocks under lower edge of glass lites 4 feet by 4 feet in size and larger.

E. Set all glass in glazing tape and bed of sealant where required.

F. Do not exceed edge pressures stipulated by glass manufacturers for installing glass lites.

G. All glass cut and edges finished according to manufacturer's published instructions for type of glass and area of installation.

H. All glass edges and joint surfaces free of dirt, cutting oil, grease, and other contaminates prior to silicone sealant application.

I. Tempered glass installed with tong marks at the bottom of the opening to be glazed.

3.04 CLEANING

A. Protect exterior glass from damage immediately after installation by attaching crossed streamers to framing held away from glass. Do not apply markers to glass surface. Remove nonpermanent labels, and clean surfaces.

B. Protect glass from contact with contaminating substances resulting from construction operations, including weld splatter. If, despite such protection, contaminating substances do come into contact with glass, remove substances immediately as recommended by glass manufacturer.

C. Examine glass surfaces adjacent to or below exterior concrete and other masonry surfaces at frequent intervals during construction, but not less than once a month, for buildup of dirt, scum, alkaline deposits, or stains; remove as recommended in writing by glass manufacturer.

D. Remove and replace glass that is broken, chipped, cracked, or abraded or that is damaged from natural causes, accidents, and vandalism, during construction period.

E. Wash glass on both exposed surfaces in each area of Project not more than four days before date scheduled for inspections that establish date of Substantial Completion. Wash glass as recommended in writing by glass manufacturer.

PART 4 – MEASUREMENT AND PAYMENT

4.01 MEASUREMENT AND PAYMENT

No separate measurement or payment will be made for Glazing and this will be paid for as part of the overall Contract Lump Sum(s) listed in the BID FORM, as applicable.

END OF SECTION 08 80 00

ATTACHMENTS

Product Approval
USER: Public User

FL #	FL25673-R7
Application Type	Revision
Code Version	2020
Application Status	Approved
Comments	
Archived	☐
Product Manufacturer	Faour Glass Technologies
Address/Phone/Email	5119 W. Knox Street Tampa, FL 33634 (813) 884-3297 arivera@faourglass.com
Authorized Signature	Jalal Farooq veronica@afceng.com
Technical Representative	Rene Valdes
Address/Phone/Email	5119 W. Knox Street Tampa, FL 33634 (813) 884-3297 rvaldes@faourglass.com
Quality Assurance Representative	Angelo Rivera
Address/Phone/Email	5119 W. Knox Street Tampa, FL 33634 (813) 334-4192 arivera@faourglass.com
Category	Panel Walls
Subcategory	Storefronts
Compliance Method	Evaluation Report from a Florida Registered Architect or a Licensed Florida Professional Engineer ☐ Evaluation Report - Hardcopy Received
Florida Engineer or Architect Name who developed the Evaluation Report	Jalal Farooq
Florida License	PE-81223
Quality Assurance Entity	Intertek Testing Services NA, Inc. - QA Entity
Quality Assurance Contract Expiration Date	12/31/2023
Validated By	JAVAD AHMAD PE, INC. ☑ Validation Checklist - Hardcopy Received
Certificate of Independence	FL25673_R7_COI_SS - Certificate of Independence 2021.pdf

Referenced Standard and Year (of Standard)

Standard	Year
AAMA 501	2015
ASTM E1886	2013
ASTM E1996	2017
TAS 201	1994
TAS 202	1994
TAS 203	1994

Equivalence of Product Standards Certified By	Florida Licensed Professional Engineer or Architect FL25673_R7_Equiv_SS - Equiv Ltr template AAMA 501-15 ASTM E1886-1996.pdf
Sections from the Code	
Product Approval Method	Method 1 Option D
Date Submitted	01/28/2022
Date Validated	01/28/2022
Date Pending FBC Approval	01/30/2022
Date Approved	04/13/2022

Summary of Products

FL #	Model, Number or Name	Description
25673.1	Series Slimpact X SSG Glasswall System	Large missile impact resistant glass wall system
Limits of Use **Approved for use in HVHZ:** Yes **Approved for use outside HVHZ:** Yes **Impact Resistant:** Yes **Design Pressure:** +70/-70 **Other:** See drawing W17-104 for span vs load combination and installation instructions.		**Installation Instructions** FL25673_R7_II_SS - Slimpact X SSG Glass Wall System HVHZ (LMI) DWG W17-104 (2020).pdf Verified By: Jalal Farooq PE #81223 Created by Independent Third Party: Yes **Evaluation Reports** FL25673_R7_AE_SS - Slimpact X SSG Glass Wall System HVHZ (LMI)-PAE 2020.pdf Created by Independent Third Party: Yes
25673.2	Series Slimpact XJ SSG Glass Wall System	Large missile impact resistant glass wall system
Limits of Use **Approved for use in HVHZ:** Yes **Approved for use outside HVHZ:** Yes **Impact Resistant:** Yes **Design Pressure:** +80/-90 **Other:** See drawing 21-07F for span vs load combinations and installation instructions.		**Installation Instructions** FL25673_R7_II_SS - Slimpact XJ SSG Glass WW (LMI) - DWG 21-07F 2020 R2.pdf Verified By: Jalal Farooq PE #81223 Created by Independent Third Party: Yes **Evaluation Reports** FL25673_R7_AE_SS - SLIMPACT XJ SSG GLASS WW (LMI)-PAE 2020 R1.pdf Created by Independent Third Party: Yes
25673.3	Series Slimpact XL SSG Glasswall System	Large missile impact resistant glass wall system
Limits of Use **Approved for use in HVHZ:** Yes **Approved for use outside HVHZ:** Yes **Impact Resistant:** Yes **Design Pressure:** +110/-110 **Other:** See drawing W18-27 for span vs load combinations and installation instructions		**Installation Instructions** FL25673_R7_II_SS -Slimpact XL SSG Glass WW (LMI) - DWG W18-27 (2020 R2).pdf Verified By: Jalal Farooq PE #81223 Created by Independent Third Party: Yes **Evaluation Reports** FL25673_R7_AE_SS - Slimpact XL SSG Glass WW (LMI)-PAE 2020 R1.pdf Created by Independent Third Party: Yes
25673.4	Series Slimpact XLIG SSG Glass Wall System	Large missile impact resistant glass wall system
Limits of Use **Approved for use in HVHZ:** Yes **Approved for use outside HVHZ:** Yes **Impact Resistant:** Yes **Design Pressure:** +80/-90 **Other:** See drawing 21-04F for span vs load combinations and installation instructions		**Installation Instructions** FL25673_R7_II_SS - Slimpact XLIG SSG Glass WW (LMI)-DWG 21-04F 2020 R1.pdf Verified By: Jalal Farooq PE #81223 Created by Independent Third Party: Yes **Evaluation Reports** FL25673_R7_AE_SS - SLIMPACT XLIG SSG GLASS WW (LMI)-PAE 2020 R1.pdf Created by Independent Third Party: Yes

Back Next

Contact Us :: 2601 Blair Stone Road, Tallahassee FL 32399 Phone: 850-487-1824

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Product Approval Accepts:

AL-FAROOQ CORPORATION

CONSULTING ENGINEERS & PRODUCT DEVELOPMENT

PRODUCT APPROVAL EVALUATION
RULE CHAPTER #61G20-3 • METHOD 1 OPTION D

FL 25673
Date: 10/05/2021

Detailed Product Description:

Manufacturer: FAOUR GLASS TECHNOLOGIES

Manufacturer Address: 5119 W KNOX STREET, TAMPA, FLORIDA 33634

Model Name: SERIES 'SLIMPACT' XL SSG GLASS WALL SYSTEM (HVHZ)

Maximum Load: **+110 PSF, -110 PSF** (Large Missile Impact)

Installation Drawings # W18-27

This product complies with the High Velocity Hurricane Zone (HVHZ) testing requirements.

For maximum sizes, combination of span vs loads and anchor type refer to installation drawings.

Comparative analysis used __X__ Yes ___ No

Mandatory Tests (Tested in accordance with AAMA 501/101/I.S.2/NAFS/TAS 202)

TEST	DESCRIPTION	TEST LOCATION	TEST REPORT DATE	TEST REPORT #	TEST SEALED BY
ASTM E283	Air Infiltration Leakage	Intertek	12/05/2017 08/03/2021	H6731.01-401-18 L9318.01-450-32	Gary T Hartman, PE Vinu Abraham, PE
ASTM E331 OR ASTM 547 & TAS 202	Water Penetration	Intertek	12/05/2017 08/03/2021	H6731.01-401-18 L9318.01-450-32	Gary T Hartman, PE Vinu Abraham, PE
ASTM E330 & TAS 202	Uniform Static Air Pressure	Intertek	12/05/2017 08/03/2021	H6731.01-401-18 L9318.01-450-32	Gary T Hartman, PE Vinu Abraham, PE
ASTM F588	Forced Entry	Intertek	12/05/2017 08/03/2021	H6731.01-401-18 L9318.01-450-32	Gary T Hartman, PE Vinu Abraham, PE

Supplemental Tests (Tested in accordance with TAS-201 and TAS-203)

TEST	DESCRIPTION	TEST LOCATION	TEST REPORT DATE	TEST REPORT #	TEST SEALED BY
FBC 1626.2 (TAS 201 & 203)	Large Missile Impact & Cyclic	Intertek	12/05/2017 08/03/2021	H6731.01-401-18 L9318.01-450-32	Gary T Hartman, PE Vinu Abraham, PE

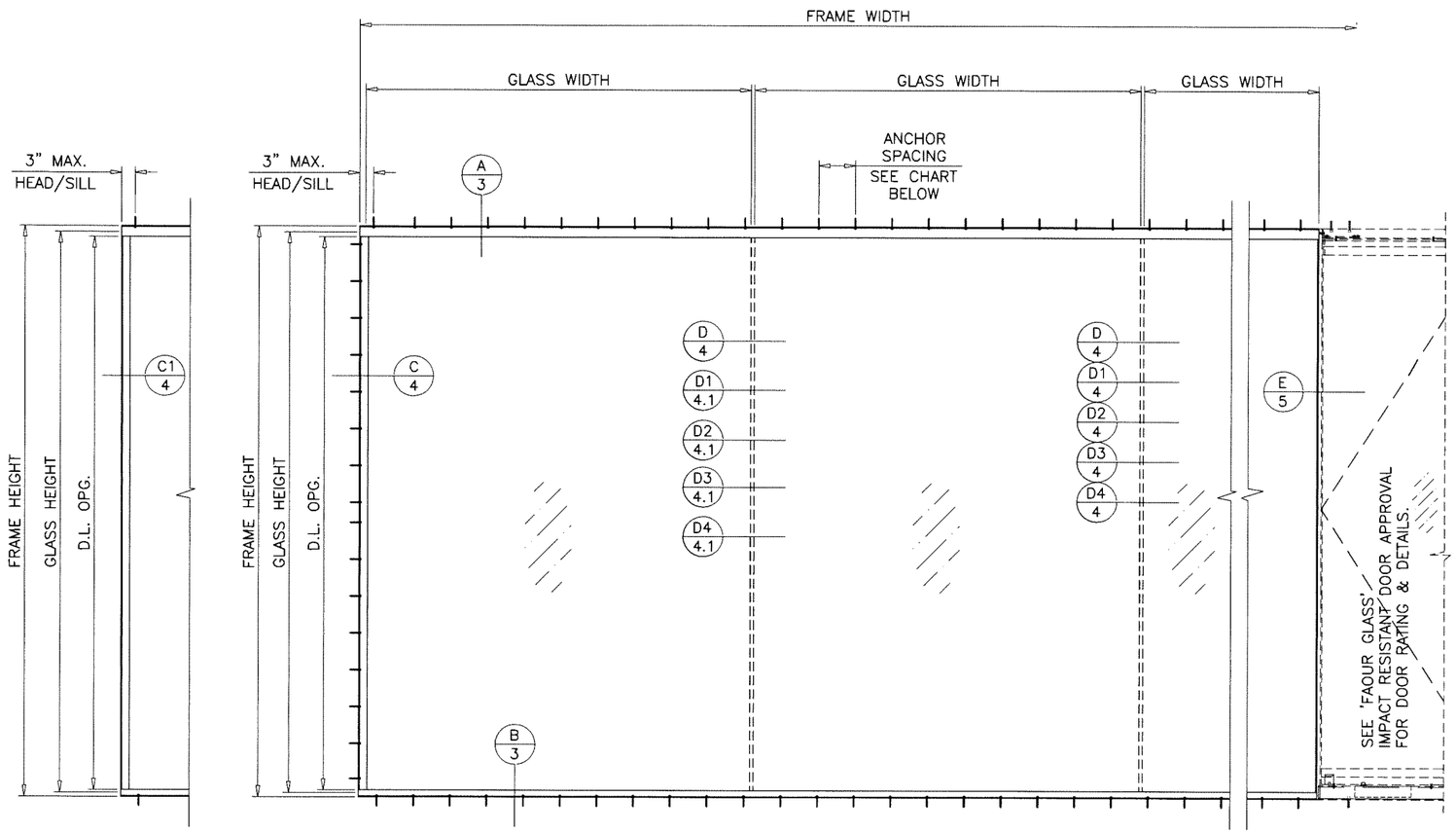
Under the limitations of the attached installation drawings, to the best of my knowledge and ability, the above product conforms to the requirements of the 2020 Florida Building Code.

Evaluation Report Engineer:

Jalal Farooq PE # 81223
Al-Farooq Corporation EB # 3538

Sealed: 10/18/2021

9360 Sunset Drive STE 220 | Miami, FL 33173 | T: 305.264.8100 | F: 305.262.6978 | www.afceng.com | alfarooq@afceng.com



TYPICAL ELEVATION

THIS SYSTEM IS RATED FOR LARGE & SMALL MISSILE IMPACT.
SHUTTERS ARE NOT REQUIRED.

SERIES 'SLIMPACT XL' GLASS WALL SYSTEM

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE 2020 (7TH EDITION) FLORIDA BUILDING CODE INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).

1BY OR 2BY WOOD BUCKS & BUCK FASTENERS BY OTHERS, MUST BE DESIGNED AND INSTALLED ADEQUATELY TO TRANSFER APPLIED PRODUCT LOADS TO THE BUILDING STRUCTURE.

ANCHORS SHALL BE CORROSION RESISTANT, SPACED AS SHOWN ON DETAILS AND INSTALLED PER MANUF'S INSTRUCTIONS. SPECIFIED EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.

A LOAD DURATION INCREASE IS USED IN DESIGN OF ANCHORS INTO WOOD ONLY.

ALL SHIMS TO BE HIGH IMPACT, NON-METALLIC AND NON-COMPRESSIBLE.

MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE 2020 FLORIDA BLDG. CODE & ADOPTED STANDARDS.

THIS PRODUCT APPROVAL IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SITE SPECIFIC PROJECT, i.e. LIFE SAFETY OF THIS PRODUCT, ADEQUACY OF STRUCTURE RECEIVING THIS PRODUCT AND SEALING AROUND OPENING FOR WATER INFILTRATION RESISTANCE ETC.
CONDITIONS NOT SHOWN IN THIS DRAWING ARE TO BE ANALYZED SEPARATELY, AND TO BE REVIEWED BY BUILDING OFFICIAL.

MANUFACTURER'S LABEL SHALL BE LOCATED ON A READILY VISIBLE LOCATION IN ACCORDANCE WITH SECTION 1709.9.3 OF FLORIDA BUILDING CODE. LABELING TO COMPLY WITH SECTION 1709.9.2.

DESIGN LOADS SHOWN ARE BASED ON 'ALLOWABLE STRESS DESIGN (ASD)'.

CHART 1

ANCHOR TYPE	ANCHOR SPACING INCHES		
	HEAD	SILL	JAMBS
A	4"	4"	4"
B	8"	8"	8"
C	8"	8"	8"
D	–	–	7 1/8"

CHART 2

DESIGN LOAD CAPACITY – PSF		
D.L.O. WIDTH	D.L.O. HEIGHT	EXT(+) INT.(–)
96"	144"	110
104 3/4"	132"	110
115 1/4"	120"	110
128"	108"	110
164 9/16"	84"	110
192"	72"	110

NOTE:
WIDTH AND LENGTH DIMENSIONS CAN BE ORIENTED VERTICALLY OR HORIZONTALLY. NOT TO EXCEED A MAX D.L.O. HEIGHT OF 144" FOR STOREFRONT CONFIGURATION.

APPROVAL APPLIES TO SINGLE OR MULTIPLE 'SLIMPACT XL' UNIT INSTALLATIONS

MAX. DESIGN LOAD = + 110 PSF
– 110 PSF

FOR SINGLE LITE UNITS:
SEE CHART ON SHEET 2.

FOR MULTIPLE LITES UNIT
MAX. SLIMPACT XL FRAME HEIGHT = 148 1/4 IN.
MAX. GLASS/DLO AREA = 96 SQ FT.

Sealed: 1/28/2022

FL #25673

JALAL FAROOQ
LICENSE
No. 81223
STATE OF FLORIDA
PROFESSIONAL ENGINEER

A– CONTRACTOR TO BE RESPONSIBLE FOR THE SELECTION, PURCHASE AND INSTALLATION OF THIS PRODUCT BASED ON THIS PRODUCT EVALUATION PROVIDED HE/SHE DOES NOT DEVIATE FROM THE CONDITIONS DETAILED ON THIS DOCUMENT.

B– THIS PRODUCT EVALUATION DOCUMENT WILL BE CONSIDERED INVALID IF ALTERED BY ANY MEANS.

C– SITE SPECIFIC PROJECTS SHALL BE PREPARED BY A FLORIDA REGISTERED ENGINEER OR ARCHITECT WHICH WILL BECOME THE ENGINEER OF RECORD (E.O.R.) FOR THE PROJECT AND WHO WILL BE RESPONSIBLE FOR THE PROPER USE OF THE P.E.D. ENGINEER OF RECORD, ACTING AS A DELEGATED ENGINEER TO THE P.E.D. ENGINEER SHALL SUBMIT TO THIS LATTER THE SITE SPECIFIC DRAWINGS FOR REVIEW.

D– THIS P.E.D. SHALL BEAR THE DATE AND ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER OF RECORD THAT PREPARED IT.

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173 (C.A.N. 3538)
TEL. (305) 264-8100 FAX. (305) 262-6978

COMP-ANL\W17-104FGT

SERIES 'SLIMPACT XL' SSG GLASS WALL SYSTEM(L.M.I.)

Faour Glass Technologies
5119 West Knox Street
Tampa, FL. 33634
Tel. (813) 884-3297 Fax. (–)

revisions:

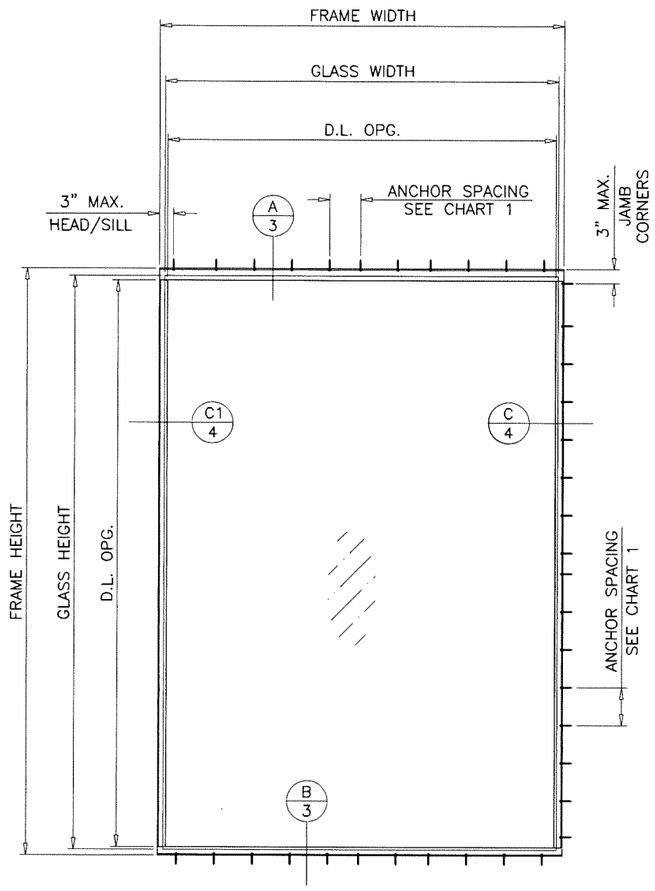
no	date	by	description
A	10.16.20	ML	UPDATED TO 2020 FBC
B	10.08.21	ML	GENERAL REVISION
C	01.10.22		GLASS OPTION ADDED

date: 01-31-18
scale: 3/8"=1'-0"
dr. by: MLS
chk. by:

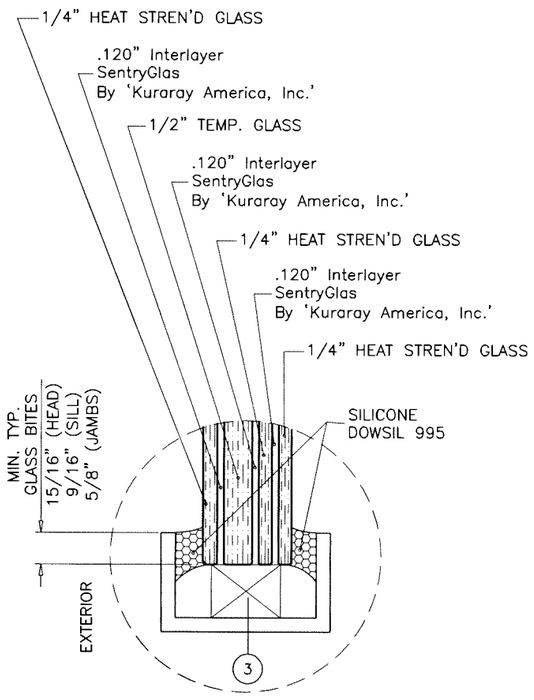
drawing no.
W18-27

sheet 1 of 5

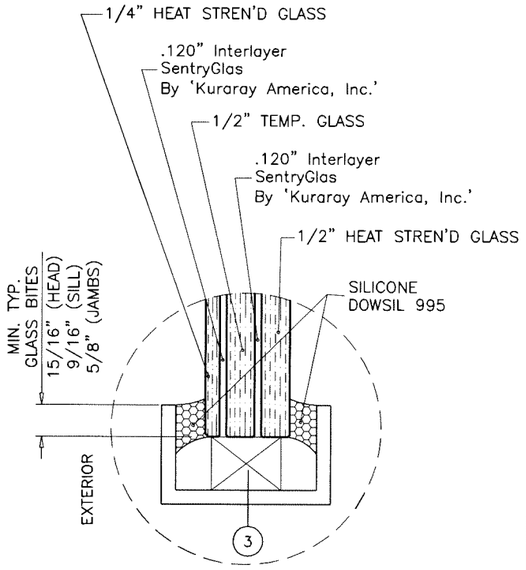
DESIGN LOAD CAPACITY – PSF			
D.L.O. DIMS.		1-9/16" & 1-1/2" LAM. GLASS	
WIDTH	HEIGHT	EXT.(+)	INT.(–)
60"	48"	110.0	110.0
72"		110.0	110.0
84"		110.0	110.0
96"		110.0	110.0
120"		110.0	110.0
132"		110.0	110.0
168"		110.0	110.0
228"		110.0	110.0
240"		110.0	110.0
60"	54"	110.0	110.0
72"		110.0	110.0
84"		110.0	110.0
96"		110.0	110.0
120"		110.0	110.0
132"		110.0	110.0
168"		110.0	110.0
228"		110.0	110.0
240"		110.0	110.0
60"	60"	110.0	110.0
72"		110.0	110.0
84"		110.0	110.0
96"		110.0	110.0
120"		110.0	110.0
132"		110.0	110.0
144"		110.0	110.0
156"		110.0	110.0
192"		110.0	110.0
228"		110.0	110.0
72"	72"	110.0	110.0
84"		110.0	110.0
96"		110.0	110.0
120"		110.0	110.0
144"		110.0	110.0
156"		110.0	110.0
192"		110.0	110.0
84"	84"	110.0	110.0
96"		110.0	110.0
120"		110.0	110.0
144"		110.0	110.0
156"		110.0	110.0
96"	96"	110.0	110.0
108"		110.0	110.0
120"		110.0	110.0
144"		110.0	110.0
108"	108"	97.8	97.8
120"		97.8	97.8
96"	120"	110.0	110.0
108"		97.8	97.8
84"	144"	110.0	110.0
96"		110.0	110.0



TYPICAL ELEVATIONS



GLAZING DETAIL
1-9/16" OVERALL LAM. GLASS



GLAZING DETAIL
1-1/2" OVERALL LAM. GLASS

Sealed: 1/28/2022

JALAL FAROOQ LICENSE No. 81223 STATE OF FLORIDA PROFESSIONAL ENGINEER

FL #25673

AL-FAROOQ CORPORATION
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COMP-ANL\W17-104FGT

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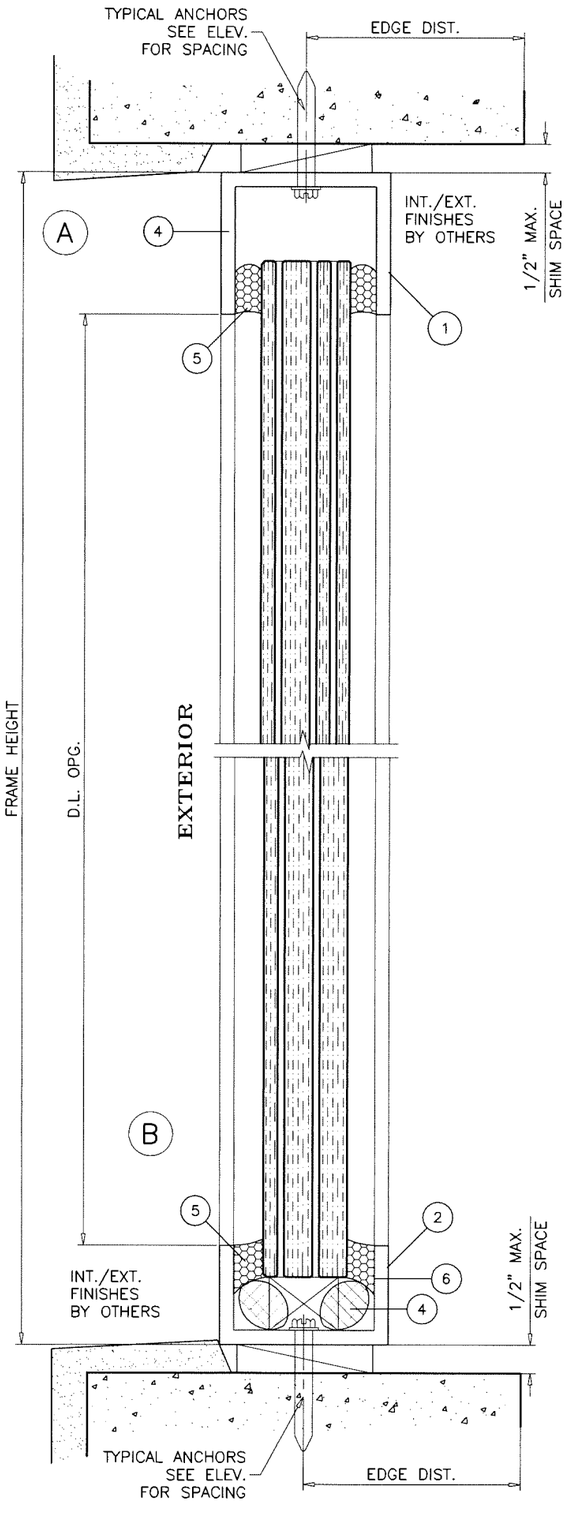
revisions:

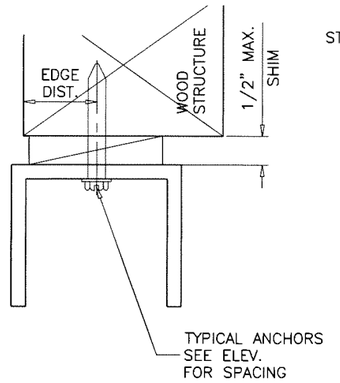
no	date	by	description

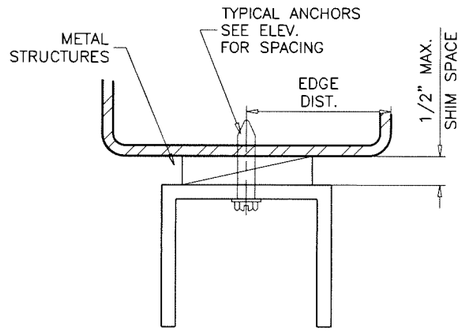
date: 01-31-18
scale: 3/8"=1'-0"
dr. by: MLS
chk. by:

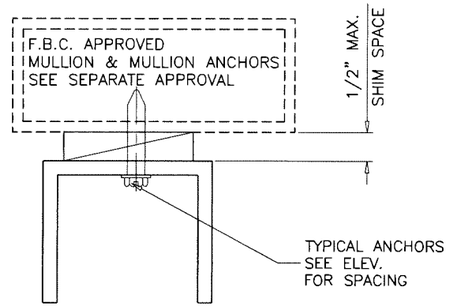
drawing no. W18-27

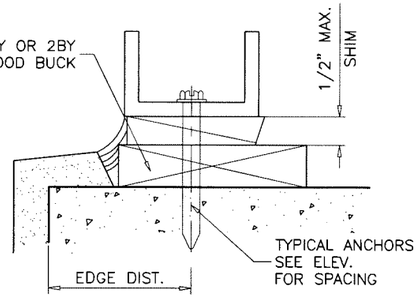
sheet 2 of 5











WOOD, CONCRETE, METAL STRUCTURE AND WOOD BUCKS NOT BY FAOUR GLASS MUST SUSTAIN LOADS IMPOSED BY GLAZING SYSTEM AND TRANSFER THEM TO THE BUILDING STRUCTURE.

TYPICAL ANCHORS: SEE ELEV. FOR SPACING

ANCHOR 'A'– **3/8" DIA. LAG SCREWS** (Fu=177 KSI, Fy=155 KSI)
INTO WOOD STRUCTURES
2–1/4" MIN. PENETRATION INTO WOOD (HEAD/SILL/JAMBS)
THRU 1BY OR 2BY BUCKS INTO CONC. OR GROUT FILLED BLOCKS
1–1/2" MIN. EMBED INTO CONCRETE (HEAD/SILL/JAMBS)
1–1/2" MIN. EMBED INTO GROUT FILLED BLOCKS (JAMBS)

ANCHOR 'B'– **3/8" DIA. SCREW–BOLT+ BY 'DEWALT'**
DIRECTLY INTO CONCRETE
2" MIN. EMBED INTO CONCRETE (HEAD/SILL/JAMBS)

ANCHOR 'C'– **3/8" DIA. TAP–FLEX BY 'DEWALT'** (GRADE 5 CRS)
INTO F.B.C. APPROVED MULLIONS
OR
INTO METAL STRUCTURES (HEAD/SILL/JAMBS)
(3) THREADS MIN. PENETRATION BEYOND SUBSTRATE
ALUMINUM: 1/4" THK. MIN. (6063–T5 MIN.)
STEEL: 1/4" THK. MIN. (Fy = 36 KSI MIN.)
(STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

ANCHOR 'D'– **3/8" DIA. SCREW–BOLT+ BY 'DEWALT'**
DIRECTLY INTO GROUT FILLED BLOCKS
3–1/4" MIN. EMBED INTO GROUT FILLED BLOCKS (JAMBS)

TYPICAL EDGE DISTANCE

INTO CONCRETE = 2–1/2" MIN.
INTO GROUT FILLED BLOCKS = 2–1/2" MIN.
INTO WOOD STRUCTURE = 1–1/2" MIN.
INTO METAL STRUCTURE = 3/4" MIN.

WOOD AT HEAD, SILL OR JAMBS SG = 0.55 MIN.
CONCRETE AT HEAD, SILL OR JAMBS f'c = 3000 PSI MIN.
C–90 HOLLOW/FILLED BLOCK AT JAMBS f'm = 1819 PSI MIN.

Sealed: 1/28/2022

FL #25673

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COMP–ANL\W17–104FGT

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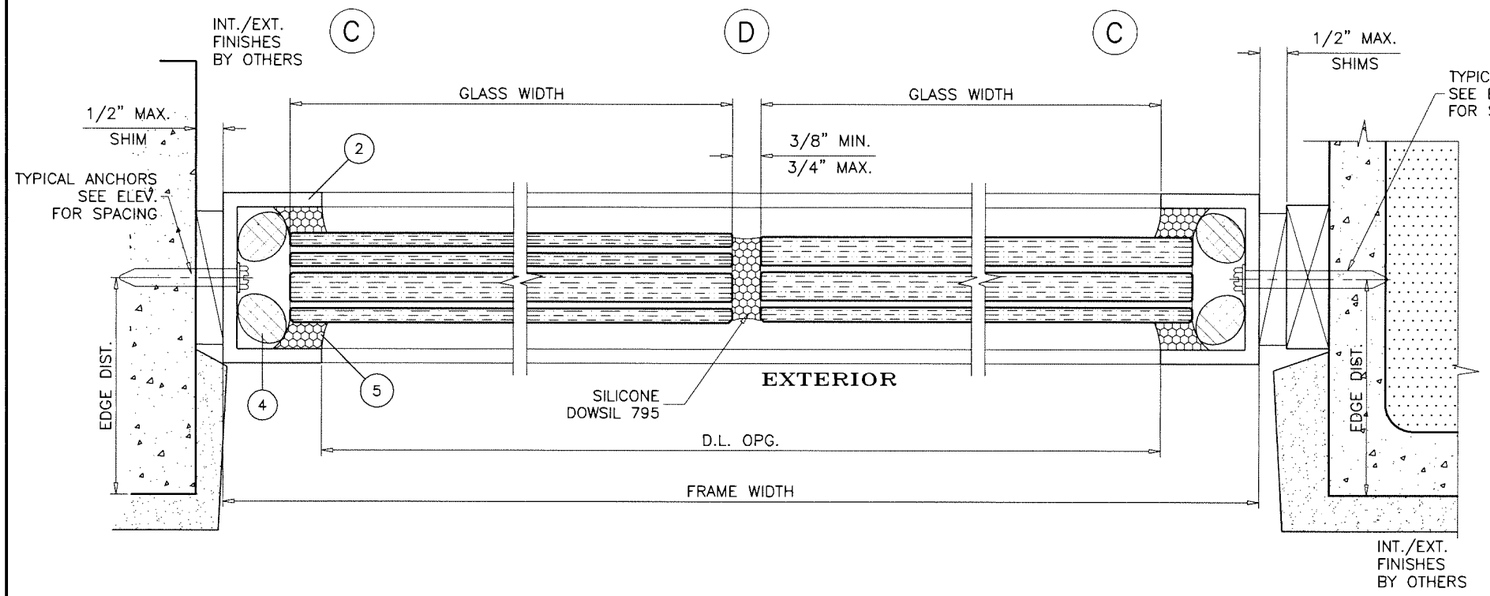
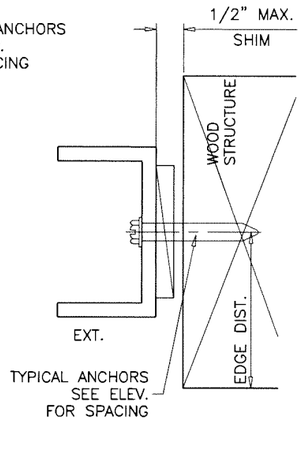
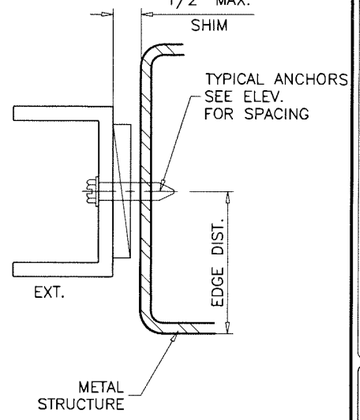
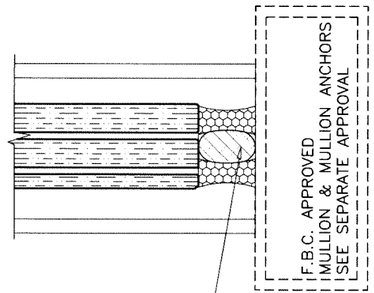
sheet 3 of 5

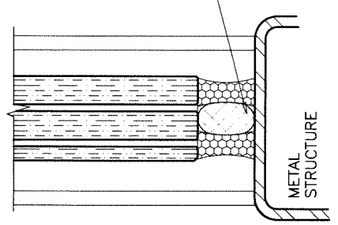


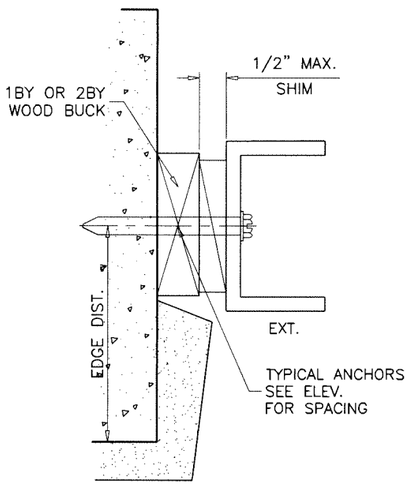


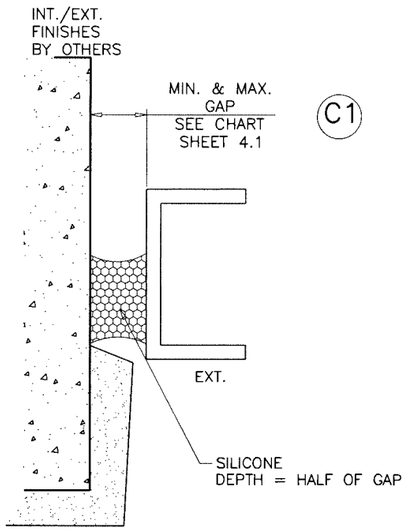


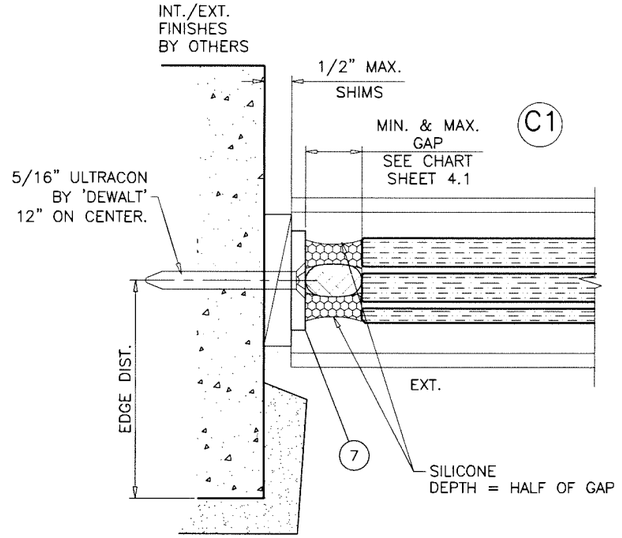


REFER TO SEALANT MANUFACTURER'S DATA AND APPLICATION MANUAL FOR COMPATIBILITY OF SEALANT TO SUBSTRATE AND COMPLIANCE FOR WARRANTY.









Sealed: 1/28/2022

FL #25673

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220 (C.A.N. 3538)
MIAMI, FLORIDA 33173
TEL. (305) 264-8100 FAX. (305) 262-6978
COMP-ANL\W17-104FGT

SERIES 'SLIMPACT XL' SSG GLASS WALL SYSTEM(L.M.I.)

Faour Glass Technologies
5119 West Knox Street
Tampa, FL. 33634
Tel. (813) 884-3297 Fax. (-)

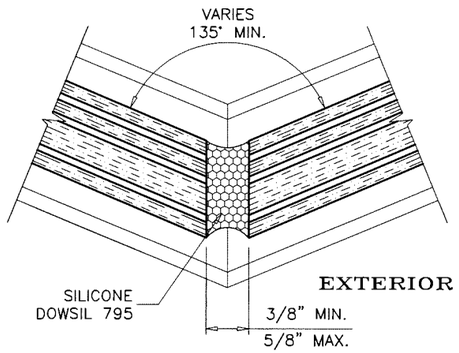
revisions:			
no	date	by	description

date: 01-31-18
scale: 3/8" = 1"
dr. by: MLS
chk. by:

drawing no.
W18-27

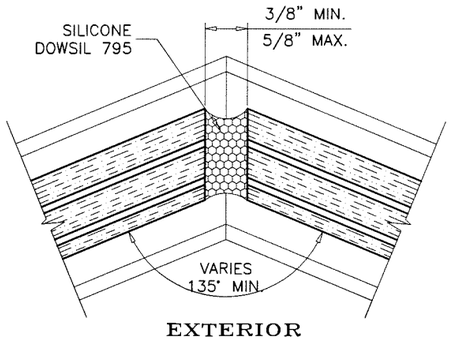
sheet 4 of 5

D1



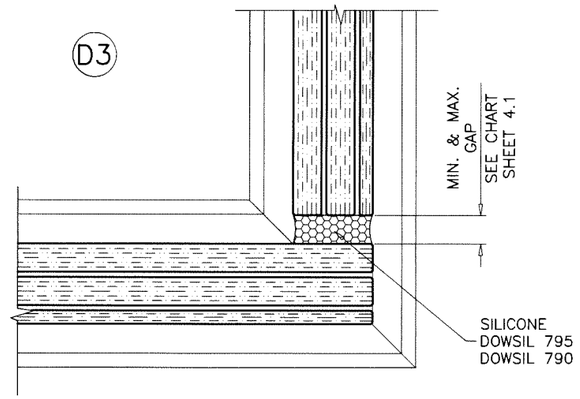
EXTERIOR

D2



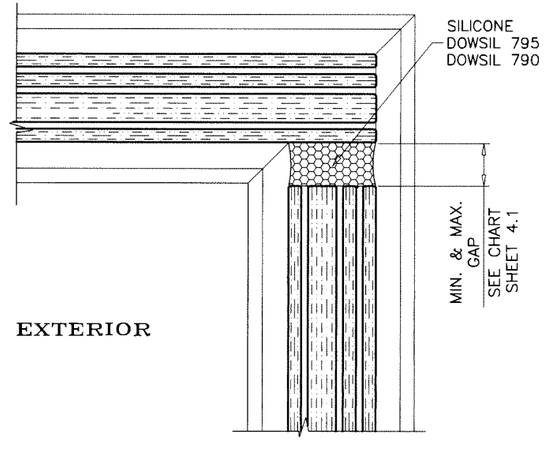
EXTERIOR

D3



EXTERIOR

D4



EXTERIOR

UNANCHORED JAMB & 90° OUTSIDE CORNER			
SILICONE	GAP		PRESSURE (PSF)
	MIN.	MAX.	EXT(+) INT.(−)
795	1/2"	1"	76.8
	3/4"	1"	110.0
	1"	1"	110.0
790	1/2"	1"	110.0
	3/4"	1"	110.0
	1"	1"	110.0

NOTE:
MAX. MOVEMENT CONSIDERED FOR DOWSIL 795 = 50% STRETCH.
MAX. MOVEMENT CONSIDERED FOR DOWSIL 790 = 100% STRETCH.
PLEASE REFER TO SEALANT MANUFACTURER'S DATA AND APPLICATION MANUAL FOR COMPATIBILITY OF SEALANT TO SUBSTRATE & WINDOW WALL MATERIAL/FINISH AND COMPLIANCE FOR WARRANTY.
REFER TO ACI−117−10 FOR CONSTRUCTION TOLERANCES.

ALTERNATE SEALANTS AT JAMB GAPS CAN BE DESIGNED BY ENGINEER OF RECORD BASED ON MANUFACTURER GUIDE LINES.

Sealed: 1/28/2022

JALAL FAROOQ LICENSE No. 81223 STATE OF FLORIDA PROFESSIONAL ENGINEER

FL #25673

AL-FAROOQ CORPORATION
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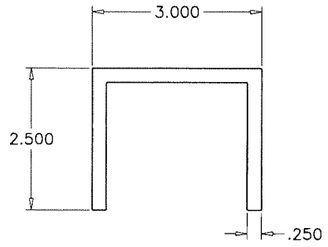
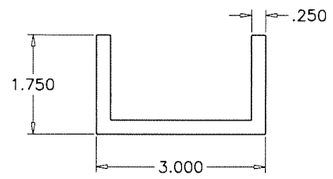
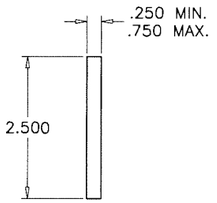
sheet 4.1 of 5



1 TOP CHANNEL

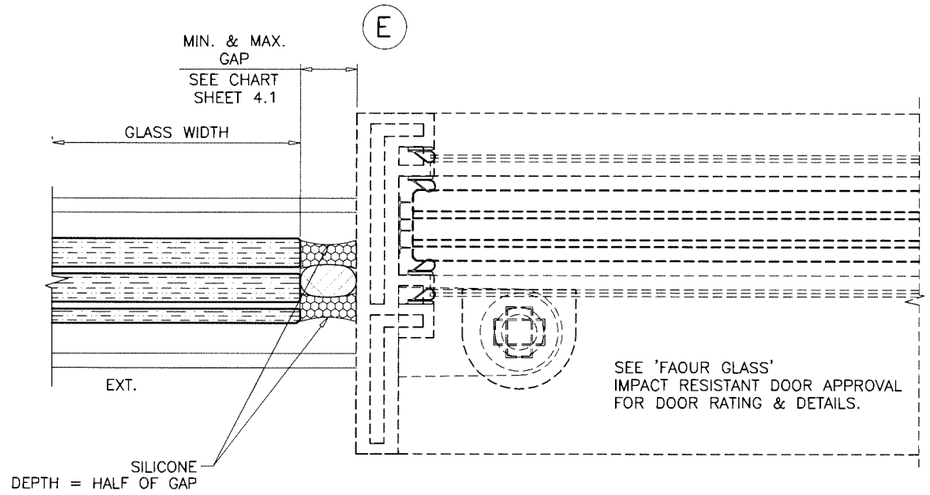


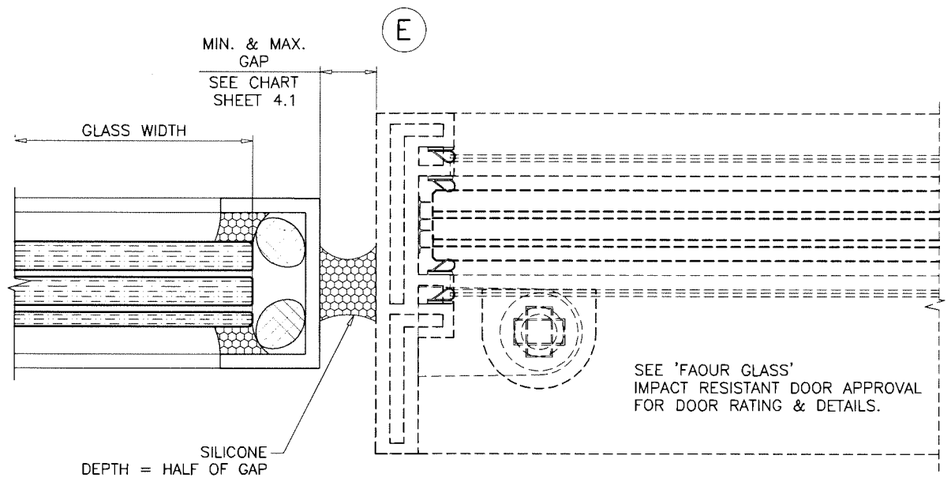
2 SIDE/BOTTOM CHANNEL



7 JAMB BAR (OPTIONAL)

ITEM #	PART #	REQD.	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
1	–	AS REQD.	TOP CHANNEL	6063–T6	–
2	–	AS REQD.	SIDE/BOTTOM CHANNEL	6063–T4	–
3	–	2/ LITE	SETTING BLOCKS AT 1/4 POINTS	EPDM	DUROMETER 80±5 SHORE A
4	–	AS REQD.	5/8" DIA. BACKER ROD	FOAM	–
5	995	AS REQD.	GLAZING COMPOUND	SILICONE	DOWSIL
6	123	AS REQD.	SEAL TAPE	SILICONE	DOWSIL
7	–	AS REQD.	JAMB BAR (OPTIONAL)	6063–T4	–





SEALANT:

ALL FRAME JOINTS SQUARE–CUT AND BUTTED, SEALED WITH DOWSIL 123 SILICONE SEAL TAPE.

SEE SEPARATE APPROVAL FOR DOOR HEIGHT AND DESIGN LOAD CAPACITY OF DOOR AND DOOR ANCHORS.

LOWER VALUES FROM DOOR APPROVAL OR GLASS WALL SYSTEM CAPACITY WILL APPLY TO ENTIRE SYSTEM.

Sealed: 1/28/2022

JALAL FAROOQ LICENSE No. 81223 STATE OF FLORIDA PROFESSIONAL ENGINEER

FL #25673

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revisions:

no	date	by	description

date: 01–08–18
scale: 3/8" = 1"
dr. by: MLS
chk. by:

drawing no. W18–27

sheet 5 of 5

Product Approval
USER: Public User

FL #	FL16382-R3
Application Type	Revision
Code Version	2020
Application Status	Approved
Comments	
Archived	☐
Product Manufacturer	SAFTIFIRST
Address/Phone/Email	325 NEWHALL STREET SAN FRANCISCO, CA 94124 (415) 824-4090 Ext 221 SHARONH@SAFTI.COM
Authorized Signature	SHARON HEAGNEY SHARONH@SAFTI.COM
Technical Representative	
Address/Phone/Email	
Quality Assurance Representative	
Address/Phone/Email	
Category	Panel Walls
Subcategory	Storefronts
Compliance Method	Evaluation Report from a Florida Registered Architect or a Licensed Florida Professional Engineer ☐ Evaluation Report - Hardcopy Received
Florida Engineer or Architect Name who developed the Evaluation Report	Jalal Farooq
Florida License	PE-81223
Quality Assurance Entity	Architectural Testing, Inc., an Intertek Company
Quality Assurance Contract Expiration Date	12/31/2023
Validated By	JAVAD AHMAD PE, INC. ☑ Validation Checklist - Hardcopy Received
Certificate of Independence	FL16382_R3_COI_SS - Certificate of Independence.pdf

Referenced Standard and Year (of Standard)

Standard	Year
AAMA 501	2015
TAS 201	1994
TAS 202	1994
TAS 203	1994

Equivalence of Product Standards Certified By	Florida Licensed Professional Engineer or Architect FL16382_R3_Equiv_SS -Equiv Ltr 501-15.pdf
Sections from the Code	

Product Approval Method	Method 1 Option D
Date Submitted	01/12/2021
Date Validated	01/13/2021
Date Pending FBC Approval	01/20/2021
Date Approved	04/13/2021

Summary of Products

FL #	Model, Number or Name	Description
16382.1	GPX Fire Rated Window Wall System	Large Missile Impact Resistant Fire Rated Window Wall System
Limits of Use **Approved for use in HVHZ:** Yes **Approved for use outside HVHZ:** Yes **Impact Resistant:** Yes **Design Pressure:** +80/-80 **Other:** See drawing W13-58 for span vs. load combination and installation details.		**Installation Instructions** FL16382_R3_II_SS- GPX WW (LMI) DWG W13-58 (2020).pdf Verified By: Jalal Farooq PE# 81223 Created by Independent Third Party: Yes **Evaluation Reports** FL16382_R3_AE_SS - GPX Fire Rated Window Wall System (LMI)-PAE 2020.pdf Created by Independent Third Party: Yes

Back Next

AL-FAROOQ CORPORATION

CONSULTING ENGINEERS & PRODUCT DEVELOPMENT

PRODUCT APPROVAL EVALUATION
RULE CHAPTER #61G20-3 • METHOD 1 OPTION D

FL 16382

Date: 01/11/2021

Detailed Product Description:

Manufacturer: SAFTIFIRST, INC.

Manufacturer Address:100 NORTH HILL DRIVE SUITE 12, BRISBANE, CA 94005

Model Name: GPX FIRE RATED WINDOW WALL SYSTEM

Maximum Load: +80 PSF, -80 PSF (Large Missile Impact)

Installation Drawings # W13-58

This product complies with the High Velocity Hurricane Zone (HVHZ) testing requirements.

For maximum sizes, combination of span vs loads and anchor type refer to installation drawings.

Comparative analysis used _X_ Yes ___ No

Mandatory Tests (Tested in accordance with AAMA 501/101/I.S.2/NAFS/TAS-202)

TEST	DESCRIPTION	TEST LOCATION	TEST REPORT DATE	TEST REPORT #	Test Sealed by
ASTM E283	Air Infiltration Leakage	Architectural Testing, Inc.	07/05/2006	63326.01-301-18	Joseph A. Reed, P.E.
ASTM E331 OR ASTM 547 & TAS 202	Water Penetration	Architectural Testing, Inc.	07/05/2006	63326.01-301-18	Joseph A. Reed, P.E.
ASTM E330 & TAS 202	Uniform Static Air Press.	Architectural Testing, Inc.	07/05/2006	63326.01-301-18	Joseph A. Reed, P.E.

Supplemental Tests (Tested in accordance with TAS-201 and TAS-203)

TEST	DESCRIPTION	TEST LOCATION	TEST REPORT DATE	TEST REPORT #	Test Sealed by
FBC 1626.2 (TAS 201 & 203)	Large Missile Impact & Cyclic	Architectural Testing, Inc.	07/05/2006	63326.01-301-18	Joseph A. Reed, P.E.

Under the limitations of the attached installation drawings, to the best of my knowledge and ability, the above product conforms to the requirements of the 2020 Florida Building Code.

Evaluation Report Engineer:

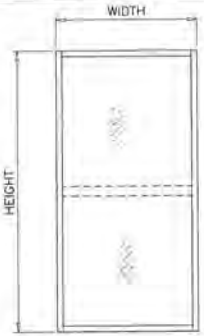
Jalal Farooq PE # 81223

Al-Farooq Corporation EB # 3538

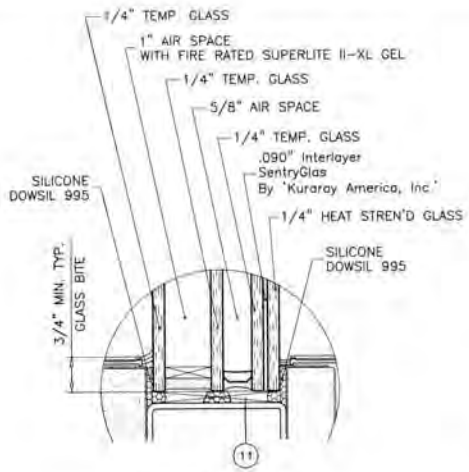
Sealed: 1/11/2021

9360 Sunset Drive, Suite 220 | Miami, FL 33173 | T: 305.264.8100 | F: 305.262.6978 | www.afceng.com | alfarooq@afceng.com

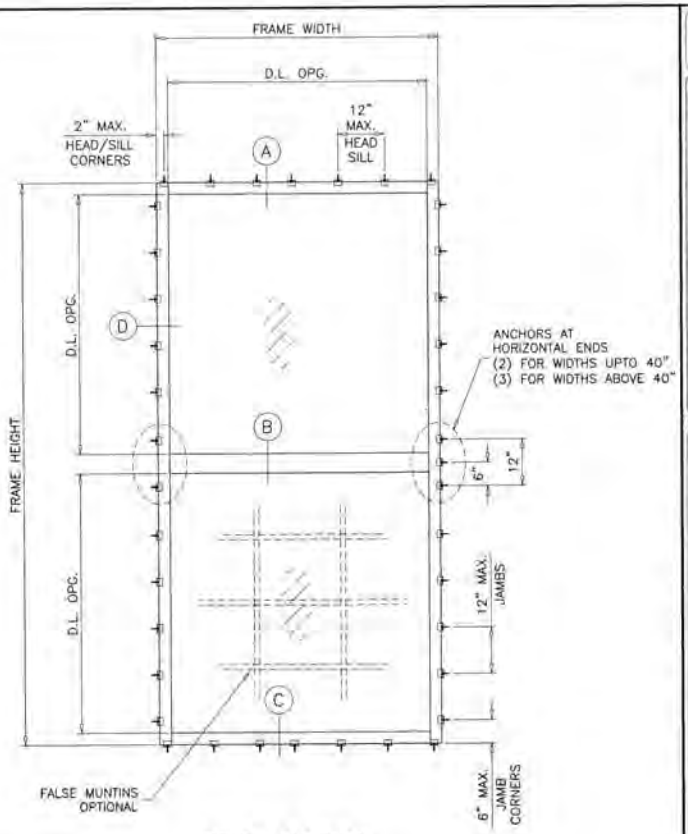
FIXED WINDOW LOAD CAPACITY FOR SIZES SHOWN OR SMALLER			
WINDOW DIMS.		LOADS – PSF	
WIDTH	HEIGHT	EXT.(+)	INT.(–)
24"	144"	80.0	80.0
30"		80.0	80.0
36"		80.0	80.0
40"		80.0	80.0
48"		80.0	80.0
54"		80.0	80.0
60"		80.0	80.0
66"		80.0	80.0
72"		80.0	80.0



NOTE:
MAX. GLASS AREA OF ANY LITE NOT TO EXCEED TESTED GLASS AREA OF 31.2 SQ. FT.



GLAZING DETAIL
2-11/16" OVERALL INSUL. LAM. GLASS



TYPICAL ELEVATION

GPX FIRE RATED WINDOW WALL SYSTEM

CHART ABOVE APPLIES TO SINGLE FIXED WINDOW OR SIDE BY SIDE COMBINATIONS OF FIXED/FIXED OR FIXED WITH OTHER F.B.C. APPR'D WINDOWS USING AN APPROVED MULLION IN BETWEEN.

LOWER DESIGN PRESSURE FROM WINDOWS OR MULLION APPROVAL WILL APPLY TO ENTIRE SYSTEM.

MULTIPLE LITES WITH SAFTIFIRST MULLIONS SEE CHART ON SHEET 2 FOR LIMITATIONS.

THIS SYSTEM CAN BE MATED TO GPX FIRE RATED OUTSWING DOORS CARRYING THEIR OWN APPROVAL.

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE 2020 (7TH EDITION) FLORIDA BUILDING CODE INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).

ANCHORS SHALL BE CORROSION RESISTANT, SPACED AS SHOWN ON DETAILS AND INSTALLED PER MANUF'S INSTRUCTIONS. SPECIFIED EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO.

ALL SHIMS TO BE HIGH IMPACT, NON-METALLIC AND NON-COMPRESSIBLE.

MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE 2020 FLORIDA BLDG. CODE & ADOPTED STANDARDS.

THIS PRODUCT APPROVAL IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SITE SPECIFIC PROJECT, i.e. LIFE SAFETY OF THIS PRODUCT, ADEQUACY OF STRUCTURE RECEIVING THIS PRODUCT AND SEALING AROUND OPENING FOR WATER INFILTRATION RESISTANCE ETC.
CONDITIONS NOT SHOWN IN THIS DRAWING ARE TO BE ANALYZED SEPARATELY, AND TO BE REVIEWED BY BUILDING OFFICIAL.

DESIGN LOADS SHOWN ARE BASED ON 'ALLOWABLE STRESS DESIGN (ASD)'.

MANUFACTURER'S LABEL SHALL BE LOCATED ON A READILY VISIBLE LOCATION IN ACCORDANCE WITH SECTION 1709.9.3 OF FLORIDA BUILDING CODE. LABELING TO COMPLY WITH SECTION 1709.9.2.

NOTE:
GLASS CAPACITIES ON THIS SHEET ARE BASED ON ASTM E1300-09 (3 SEC. GUSTS) AND FLORIDA BUILDING COMMISSION DECLARATORY STATEMENT DCA05-DEC-219

THIS SYSTEM IS RATED FOR LARGE & SMALL MISSILE IMPACT. SHUTTERS ARE NOT REQUIRED.

Sealed: 1/7/2021

FL #16382

A- CONTRACTOR TO BE RESPONSIBLE FOR THE SELECTION, PURCHASE AND INSTALLATION OF THIS PRODUCT BASED ON THIS PRODUCT EVALUATION PROVIDED HE/SHE DOES NOT DEVIATE FROM THE CONDITIONS DETAILED ON THIS DOCUMENT.

B- THIS PRODUCT EVALUATION DOCUMENT WILL BE CONSIDERED INVALID IF ALTERED BY ANY MEANS.

C- SITE SPECIFIC PROJECTS SHALL BE PREPARED BY A FLORIDA REGISTERED ENGINEER OR ARCHITECT WHICH WILL BECOME THE ENGINEER OF RECORD (E.O.R.) FOR THE PROJECT AND WHO WILL BE RESPONSIBLE FOR THE PROPER USE OF THE P.E.D. ENGINEER OF RECORD, ACTING AS A DELEGATED ENGINEER TO THE P.E.D. ENGINEER SHALL SUBMIT TO THIS LATTER THE SITE SPECIFIC DRAWINGS FOR REVIEW.

D- THIS P.E.D. SHALL BEAR THE DATE AND ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER OF RECORD THAT PREPARED IT.

JALAL FAROOQ LICENSE No. 81223 STATE OF FLORIDA PROFESSIONAL ENGINEER

AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220
MIAMI, FLORIDA 33173 (C.A.N. 3538)
TEL (305) 264-8100 FAX. (305) 262-6978

STORE\W13-58SF

GPX FIRE RATED WINDOW WALL SYSTEM (L.M.I.)

SAFTIFIRST
100 NORTH HILL DRIVE, SUITE 12
BRISBANE, CA. 94005-1010
TEL. (415) 230-6740 FAX. (415) 230-6741

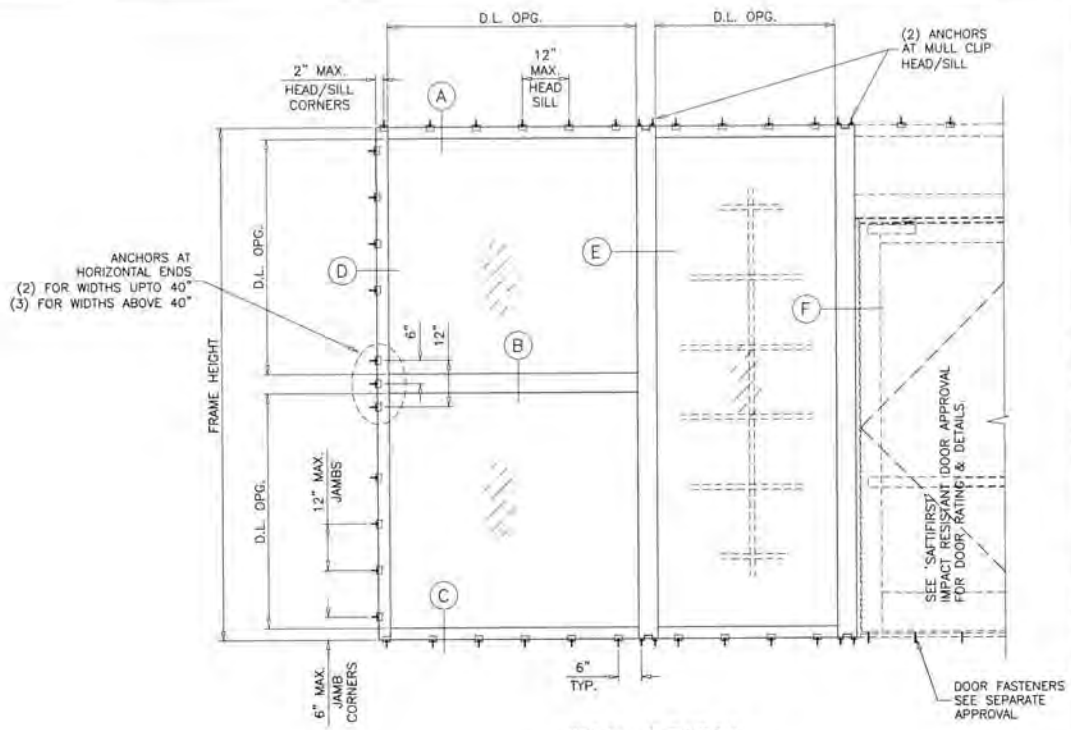
revisions:			
no	date	by	description
A	09.18.17		UPDATED TO 2017 FBC
B	01.06.21		UPDATED TO 2020 FBC

date: 11-10-13
scale: 3/8"=1'-0"
dr. by: TARIQ
chk. by:

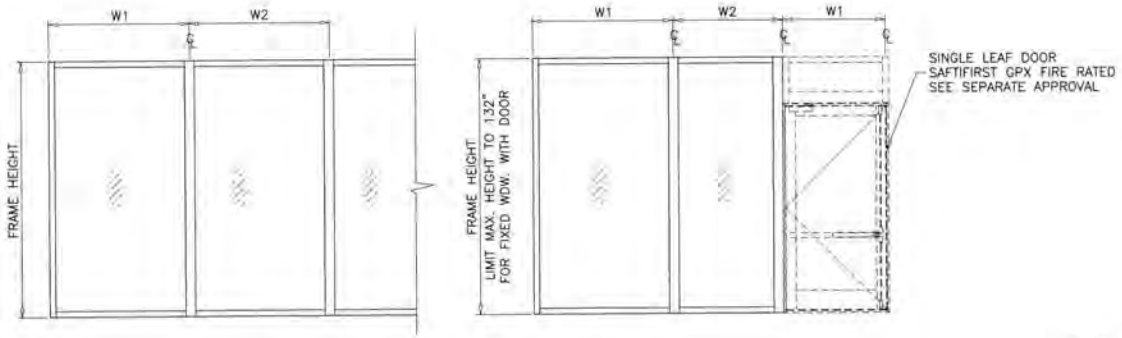
drawing no.
W13-58

sheet 1 of 5

MULLION TUBE CAPACITY			
NOMINAL DIMS.		LOADS - PSF	
WIDTH (W)	HEIGHT	EXT.(+)	INT.(-)
24"	96"	80.0	80.0
30"		80.0	80.0
36"		80.0	80.0
40"		80.0	80.0
48"		80.0	80.0
54"		80.0	80.0
60"		80.0	80.0
66"		80.0	80.0
72"		80.0	80.0
24"	108"	80.0	80.0
30"		80.0	80.0
36"		80.0	80.0
40"		80.0	80.0
48"		80.0	80.0
54"		80.0	80.0
60"		80.0	80.0
66"		78.8	78.8
72"		72.2	72.2
24"	120"	80.0	80.0
30"		80.0	80.0
36"		80.0	80.0
40"		80.0	80.0
48"		80.0	80.0
54"		80.0	80.0
60"		78.0	78.0
66"		70.9	70.9
72"		65.0	65.0
24"	132"	80.0	80.0
30"		80.0	80.0
36"		80.0	80.0
40"		80.0	80.0
48"		80.0	80.0
54"		78.8	78.8
60"		70.9	70.9
66"		64.5	64.5
72"		59.1	59.1
24"	144"	80.0	80.0
30"		80.0	80.0
36"		80.0	80.0
40"		80.0	80.0
48"		70.4	70.4
54"		62.6	62.6
60"		56.3	56.3
66"		51.2	51.2
72"		46.9	46.9



TYPICAL ELEVATION



$$\text{WIDTH (W)} = \frac{W1 + W2}{2}$$

FL #16382

JALAL FAROOQ LICENSE No. 81223 STATE OF FLORIDA PROFESSIONAL ENGINEER

Sealed: 1/7/2021

afc

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TEL. (415) 230-6740 FAX. (415) 230-6741

revisions:

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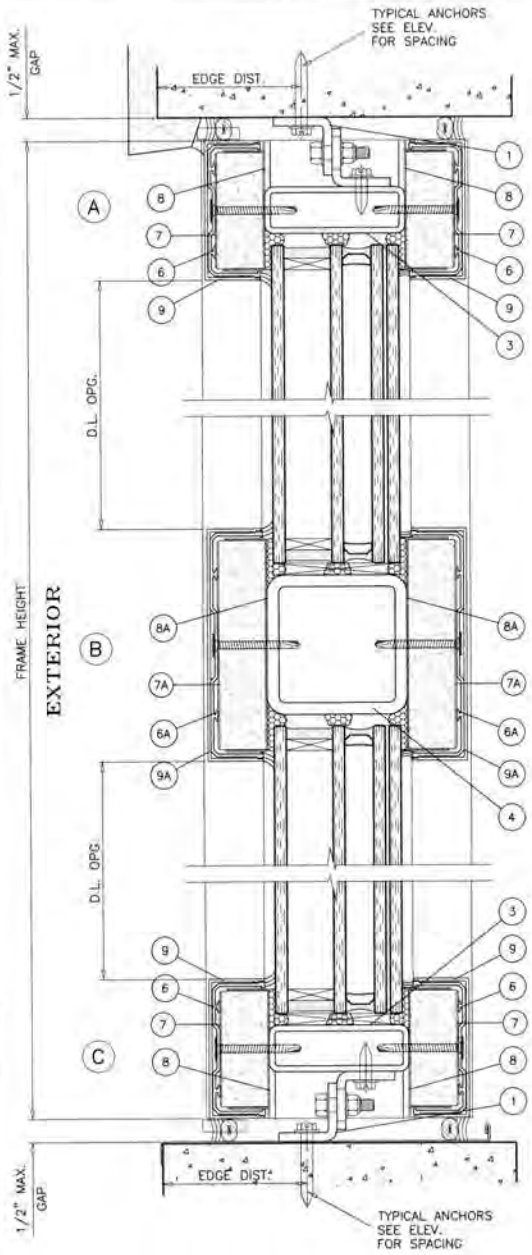
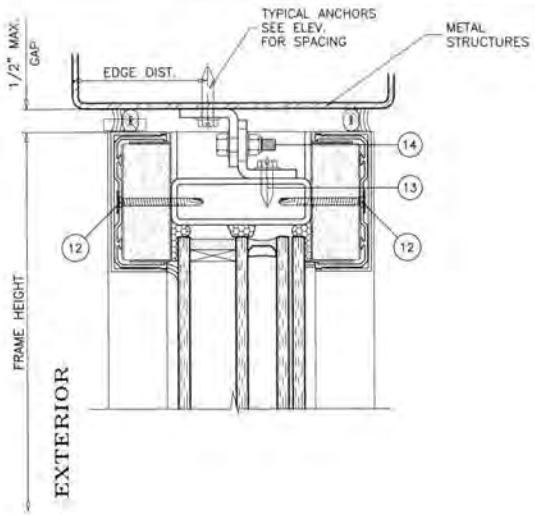
dr. by: TARIQ
chk. by:

drawing no.
W13-58

sheet 2 of 5





METAL STRUCTURES NOT BY 'SAFTIFIRST' MUST SUPPORT LOADS IMPOSED BY GLAZING SYSTEM AND TRANSFER THEM TO THE BUILDING STRUCTURE.

TYPICAL ANCHORS: SEE ELEV. FOR SPACING

1/4" DIA. ULTRACON+ BY 'DEWALT' (Fu=164 KSI, Fy=148 KSI)

DIRECTLY INTO CONCRETE OR BLOCKS
1-1/4" MIN. EMBED INTO CONCRETE (HEAD/SILL/JAMBS)
1-1/4" MIN. EMBED INTO BLOCKS (JAMBS)

ANCHOR EDGE DISTANCES
INTO CONCRETE & MASONRY= 2-1/2" MIN.

1/4" DIA. SELF DRILLING SCREWS (Fu=120 KSI, Fy=92 KSI)

INTO METAL STRUCTURES (HEAD/SILL/JAMBS)
(3) THREADS MIN. PENETRATION BEYOND SUBSTRATE
ALUMINUM: 1/8" THK. MIN. (6063-T6 MIN.)
STEEL: 1/8" THK. MIN. (Fy = 36 KSI MIN.)
(STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR PAINTED)

ANCHOR EDGE DISTANCES
INTO METAL STRUCTURE = 1" MIN.

SEALANTS:

ALL FRAME CORNERS, JOINTS, MULLION SEAMS AND PERIMETER OF GLAZING BEAD TO FRAME SEALED WITH SILICONE SEALANT.

FL #16382

JALAL FAROOQ LICENSE No. 81223 STATE OF FLORIDA PROFESSIONAL ENGINEER

Sealed: 1/7/2021

afc
AL-FAROOQ CORPORATION
ENGINEERS & PRODUCT DEVELOPMENT
9360 SUNSET DRIVE, SUITE 220 (C.A.N. 3538)
MIAMI, FLORIDA 33173
TEL. (305) 264-8100 FAX. (305) 262-6978
STORE\W13-58SF

GPX FIRE RATED WINDOW WALL SYSTEM (L.M.I.)

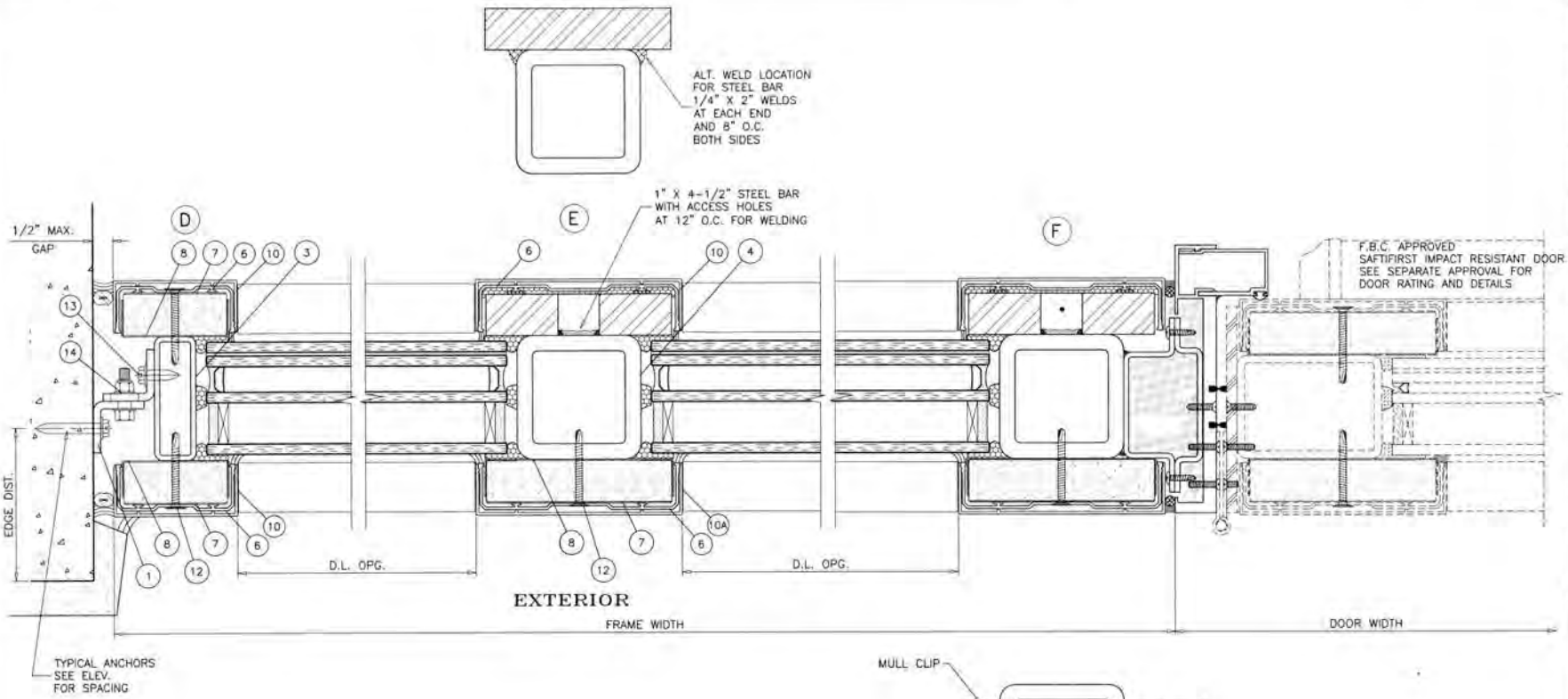
SAFTIFIRST
100 NORTH HILL DRIVE, SUITE 12
BRISBANE, CA. 94005-1010
TEL. (415) 230-6740 FAX. (415) 230-6741

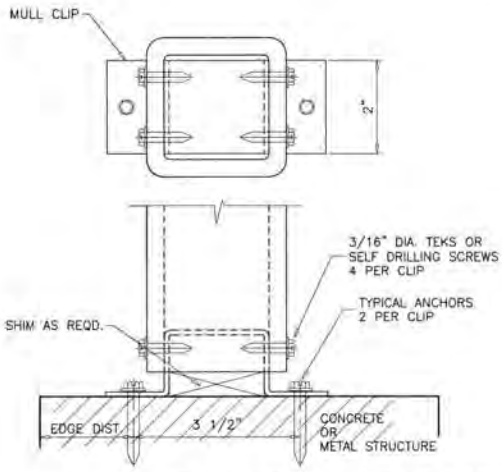
revisions:
no | date | by | description

date: 11-10-13
scale: 3/8" = 1"
dr. by: TARIQ
chk. by:

drawing no. W13-58

sheet 3 of 5





MULLION CONNECTION
TYP. AT TOP AND BOTTOM

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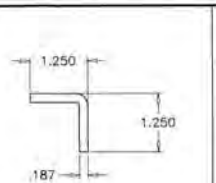
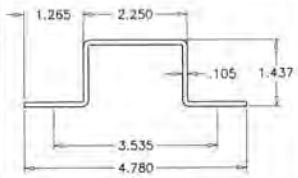
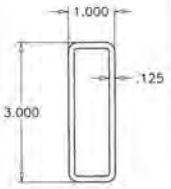
sheet 4 of 5



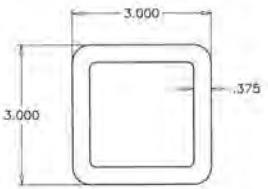
① INSTALLATION ANGLE



② MULLION CLIP



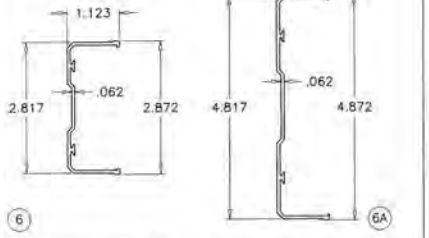
③ FRAME TUBE



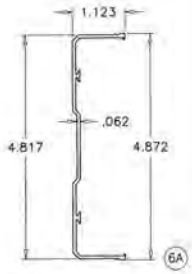
④ MULLION TUBE

ITEM NO.	QUANTITY	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
1	AS REQD.	ANGLE CLIP, 2" LONG	A36 STEEL	A60 JET-COAT ASTM A-653
2	AS REQD.	MULLION CLIP, 2" LONG	A36 STEEL	A60 JET-COAT ASTM A-653
3	4/ WDW.	FRAME TUBE	STEEL	ASTM A-513
4	AS REQD.	MULLION TUBE	STEEL	ASTM A-513
6	8/ WDW.	FRAME PRESSURE CAP	6063-T5	–
6A	AS REQD.	MULLION PRESSURE CAP	6063-T5	–
7	8/ WDW.	FRAME RETAINER PLATE	STEEL	A60 JET-COAT ASTM A-653
7A	AS REQD.	MULLION RETAINER PLATE	STEEL	A60 JET-COAT ASTM A-653
8	8/ WDW.	FRAME RETAINER CHANNEL	STEEL	A60 JET-COAT ASTM A-653
8A	AS REQD.	MULLION RETAINER CHANNEL	STEEL	A60 JET-COAT ASTM A-653
9	8/ WDW.	FRAME SNAP ON COVER HORIZONTAL	6063-T5	–
9A	AS REQD.	MULLION SNAP ON COVER HORIZONTAL	6063-T5	–
10	8/ WDW.	FRAME SNAP ON COVER VERTICAL	6063-T5	–
10A	AS REQD.	MULLION SNAP ON COVER VERTICAL	6063-T5	–
11	2/ LITE	SETTING BLOCK, 1/4" X 1-3/8" X 3" LONG	EPDM	DUROMETER 75±5 SHORE A
12	#10 X 1-3/4"	ASSEMBLY FASTENERS AT 4" FROM ENDS & 12" O.C.	STEEL	FLAT HEAD TEKS
13	#12 X 1"	CLIP ANGLE TO FRAME FASTENER	STEEL	HH TEKS
14	1/4-20 X 1-1/4"	CLIP ANGLE TO ANGLE FASTENER	STEEL	HH BOLT W/ NUT AND WASHER

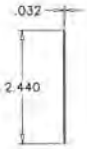
ALL WELDS PER AWS.
ELECTRODE = ER70 MIN.



⑥ FRAME PRESSURE CAP

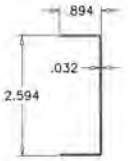


⑥A MULLION PRESSURE CAP

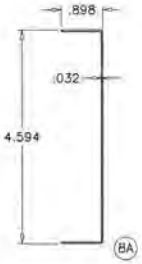


⑦ FRAME RETAINER PLATE

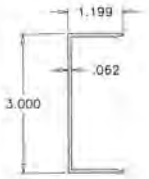
⑦A MULLION RETAINER PLATE



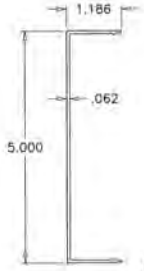
⑧ FRAME RETAINER CHANNEL



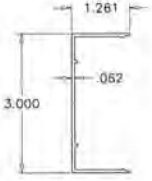
⑧A MULLION RETAINER CHANNEL



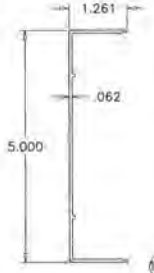
⑨ FRAME SNAP ON COVER (HORIZONTAL)



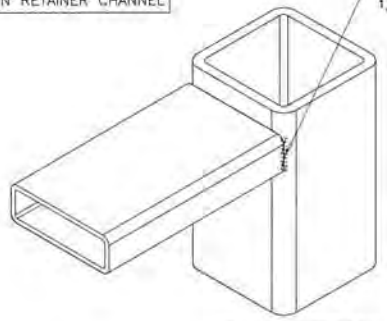
⑨A MULLION SNAP ON COVER (HORIZONTAL)



⑩ FRAME SNAP ON COVER (VERTICAL)



⑩A MULLION SNAP ON COVER (VERTICAL)



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69A-60.005 Publications Referenced in NFPA 1, the Florida 2018 Edition, and NFPA 101, the Florida 2018 Edition, Added to the Florida Fire Prevention Code.

(1) For purposes of this rule chapter, the following definitions apply:

(a) ANSI means the American National Standards Institute.

(b) ASME means the American Society of Mechanical Engineers.

(c) ASTM means the American Society for Testing and Materials.

(d) BHMA means the Builders Hardware Manufacturers Association.

(e) ICC means the International Code Counsel, American National Standard Accessible and Usable Buildings and Facilities.

(f) UL means Underwriters Laboratories, Inc.

(2) The following publications are hereby adopted and incorporated by reference herein and added to the Florida Fire Prevention Code and shall take effect on the effective date of this rule:

(a) NFPA 2, 2011 edition, Hydrogen Technologies Code.

(b) NFPA 4, 2018 edition, Standard for Integrated Fire Protection and Life Safety System Testing.

(c) NFPA 10, 2018 edition, Standard for Portable Fire Extinguishers.

(d) NFPA 11, 2016 edition, Standard for Low-, Medium- and High-Expansion Foam.

(e) NFPA 12, 2015 edition, Standard on Carbon Dioxide Extinguishing Systems.

(f) NFPA 12A, 2015 edition, Standard on Halon 1301 Fire Extinguishing Systems.

(g) NFPA 13, 2016 edition, Standard for the Installation of Sprinkler Systems.

(h) NFPA 13D, 2016 edition, Standard for the Installation of Sprinkler Systems in One- and Two- Family Dwellings and Manufactured Homes.

(i) NFPA 13R, 2016 edition, Standard for the Installation of Sprinkler Systems in Low-Rise Residential Occupancies.

(j) NFPA 14, 2016 edition, Standard for the Installation of Standpipe, and Hose Systems.

(k) NFPA 15, 2017 edition, Standard for Water Spray Fixed Systems for Fire Protection.

(l) NFPA 16, 2015 edition, Standard for the Installation of Foam-Water Sprinkler and Foam-Water Spray Systems.

(m) NFPA 17, 2017 edition, Standard for Dry Chemical Extinguishing Systems.

(n) NFPA 17A, 2017 edition, Standard for Wet Chemical Extinguishing Systems.

(o) NFPA 20, 2016 edition, Standard for the Installation of Stationary Pumps for Fire Protection.

(p) NFPA 22, 2013 edition, Standard for Water Tanks for Private Fire Protection.

(q) NFPA 24, 2016 edition, Standard for the Installation of Private Fire Service Mains and Their Appurtenances.

(r) NFPA 25, 2017 edition, Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems.

(s) NFPA 30, 2018 edition, Flammable and Combustible Liquids Code.

(t) NFPA 30A, 2018 edition, Code for Motor Fuel Dispensing Facilities and Repair Garages.

(u) NFPA 30B, 2015 edition, Code for the Manufacture and Storage of Aerosol Products.

(v) NFPA 31, 2016 edition, Standard for the Installation of Oil-Burning Equipment.

(w) NFPA 32, 2016 edition, Standard for Drycleaning Facilities.

(x) NFPA 33, 2016 edition, Standard for Spray Application Using Flammable or Combustible Materials.

(y) NFPA 34, 2015 edition, Standard for Dipping, Coating, and Printing Processes Using Flammable or Combustible Liquids.

(z) NFPA 35, 2016 edition, Standard for the Manufacture of Organic Coatings.

(aa) NFPA 36, 2017 edition, Standard for Solvent Extraction Plants.

(bb) NFPA 37, 2018 edition, Standard for the Installation and Use of Stationary Combustion Engines and Gas Turbines.

(cc) NFPA 40, 2016 edition, Standard for the Storage and Handling of Cellulose Nitrate Film.

(dd) NFPA 45, 2015 edition, Standard on Fire Protection for Laboratories Using Chemicals.

(ee) NFPA 51, 2018 edition, Standard for the Design and Installation of Oxygen-Fuel Gas Systems for Welding, Cutting and Allied Processes.

(ff) NFPA 51B, 2014 edition, Standard for Fire Prevention During Welding, Cutting and Other Hot Work.

(gg) NFPA 52, 2016 edition, Vehicular Natural Gas Fuel Systems Code.

(hh) NFPA 54, 2018 edition, National Fuel Gas Code.

(ii) NFPA 55, 2016 edition, Compressed Gases and Cryogenic Fluids Code.

(jj) NFPA 56, 2017 edition, Standard for Fire and Explosion Prevention During Cleaning and Purging of Flammable Gas Piping

Systems.

(kk) NFPA 58, 2017 edition, Liquefied Petroleum Gas Code.

(ll) NFPA 59, 2018 edition, Utility LP-Gas Plant Code.

(mm) NFPA 59A, 2016 edition, Standard for the Production, Storage, and Handling of Liquefied Natural Gas (LNG).

(nn) NFPA 61, 2017 edition, Standard for the Prevention of Fires and Dust Explosions in Agricultural and Food Processing Facilities.

(oo) NFPA 68, 2013 edition, Standard on Explosion Protection by Deflagration Venting.

(pp) NFPA 69, 2014 edition, Standard on Explosion Prevention Systems.

(qq) NFPA 70, 2017 edition, National Electrical Code®.

(rr) NFPA 72, 2016 edition, National Fire Alarm and Signaling Code.

(ss) NFPA 75, 2017 edition, Standard for the Fire Protection of Information Technology Equipment.

(tt) NFPA 76, 2016 edition, Standard for the Fire Protection of Telecommunications Facilities.

(uu) NFPA 80, 2016 edition, Standard for Fire Doors and Other Opening Protectives.

(vv) NFPA 82, 2014 edition, Standard on Incinerators and Waste and Linen Handling Systems and Equipment.

(ww) NFPA 85, 2015 edition, Boiler and Combustion Systems Hazards Code.

(xx) NFPA 86, 2015 edition, Standard for Ovens and Furnaces.

(yy) NFPA 88A, 2015 edition, Standard for Parking Structures.

(zz) NFPA 90A, 2018 edition, Standard for the Installation of Air-Conditioning and Ventilating Systems.

(aaa) NFPA 90B, 2018 edition, Standard for the Installation of Warm Air Heating and Air-Conditioning Systems.

(bbb) NFPA 91, 2015 edition, Standard for Exhaust Systems for Air Conveying of Vapors, Gases, Mists, and Particulate Solids.

(ccc) NFPA 92, 2015 edition, Standard for Smoke-Control Systems.

(ddd) NFPA 96, 2017 edition, Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations.

(eee) NFPA 99, 2018 edition, Health Care Facilities Code.

(fff) NFPA 99B, 2018 edition, Standard for Hypobaric Facilities.

(ggg) NFPA 101, 2018 edition, Life Safety Code®.

(hhh) NFPA 101A, 2016 edition, Guide on Alternative Approaches to Life Safety.

(iii) NFPA 102, 2016 edition, Standard for Grandstands, Folding and Telescopic Seating, Tents and Membrane Structures.

(jjj) NFPA 105, 2016 edition, Standard for Smoke Door Assemblies and Other Opening Protectives.

(kkk) NFPA 110, 2016 edition, Standard for Emergency and Standby Power Systems.

(lll) NFPA 111, 2016 edition, Standard on Stored Electrical Energy Emergency and Standby Power Systems.

(mmm) NFPA 115, 2016 edition, Standard for Laser Fire Protection.

(nnn) NFPA 120, 2015 edition, Standard for Fire Prevention and Control in Coal Mines.

(ooo) NFPA 122, 2015 edition, Standard for Fire Prevention and Control in Metal/Nonmetal Mining and Metal Mineral Processing Facilities.

(ppp) NFPA 130, 2017 edition, Standard for Fixed Guideway Transit and Passenger Rail Systems.

(qqq) NFPA 140, 2013 edition, Standard on Motion Picture and Television Production Studio Soundstages, Approved Production Facilities, and Production Locations.

(rrr) NFPA 150, 2016 edition, Standard on Fire and Life Safety in Animal Housing Facilities.

(sss) NFPA 160, 2016 edition, Standard for the Use of Flame Effects Before an Audience.

(ttt) NFPA 170, 2015 edition, Standard for Fire Safety and Emergency Symbols.

(uuu) NFPA 204, 2015 edition, Standard for Smoke and Heat Venting.

(vvv) NFPA 211, 2016 edition, Standard for Chimneys, Fireplaces, Vents, and Solid Fuel-Burning Appliances.

(www) NFPA 221, 2018 edition, Standard for High Challenge Fire Walls, Fire Walls and Fire Barrier Walls.

(xxx) NFPA 232, 2017 edition, Standard for the Protection of Records.

(yyy) NFPA 241, 2013 edition, Standard for Safeguarding Construction, Alteration, and Demolition Operations.

(zzz) NFPA 251, 2006 edition, Standard Methods of Tests of Fire Resistance of Building Construction and Materials.

(aaaa) NFPA 252, 2017 edition, Standard Methods of Fire Tests of Door Assemblies.

(bbbb) NFPA 253, 2015 edition, Standard Method of Test for Critical Radiant Flux of Floor Covering Systems Using a Radiant Heat Energy Source.

(cccc) NFPA 257, 2017 edition, Standard on Fire Test for Window and Glass Block Assemblies.

(dddd) NFPA 259, 2013 edition, Standard Test Method for Potential Heat of Building Materials.

(eeee) NFPA 260, 2013 edition, Standard Methods of Tests and Classification System for Cigarette Ignition Resistance of Components of Upholstered Furniture.

(ffff) NFPA 261, 2013 edition, Standard Method of Test for Determining Resistance of Mock-Up Upholstered Furniture Material Assemblies to Ignition by Smoldering Cigarettes.

(gggg) NFPA 265, 2015 edition, Standard Methods of Fire Tests for Evaluating Room Fire Growth Contribution of Textile or Expanded Vinyl Wall Coverings on Full Height Panels and Walls.

(hhhh) NFPA 286, 2015 edition, Standard Methods of Fire Tests for Evaluating Contribution of Wall and Ceiling Interior Finish to Room Fire Growth.

(iiii) NFPA 288, 2017 edition, Standard Methods of Fire Tests of Horizontal Fire Door Assemblies Installed in Horizontal Fire Resistance-Rated Assemblies.

(jjjj) NFPA 289, 2013 edition, Standard Method of Fire Test for Individual Fuel Packages.

(kkkk) NFPA 301, 2018 edition, Code for Safety to Life from Fire on Merchant Vessels.

(llll) NFPA 302, 2015 edition, Fire Protection Standard for Pleasure and Commercial Motor Craft.

(mmmm) NFPA 303, 2016 edition, Fire Protection Standard for Marinas and Boatyards.

(nnnn) NFPA 307, 2016 edition, Standard for the Construction and Fire Protection of Marine Terminals, Piers, and Wharves.

(oooo) NFPA 312, 2016 edition, Standard for Fire Protection of Vessels During Construction, Conversion, Repair, and Lay-Up.

(pppp) NFPA 318, 2018 edition, Standard for the Protection of Semiconductor Fabrication Facilities.

(qqqq) NFPA 326, 2015 edition, Standard for the Safeguarding of Tanks and Containers for Entry, Cleaning, or Repair.

(rrrr) NFPA 385, 2017 edition, Standard for Tank Vehicles for Flammable and Combustible Liquids.

(ssss) NFPA 400, 2016 edition, Hazardous Materials Code.

(tttt) NFPA 403, 2018 edition, Standard for Aircraft Rescue and Fire-Fighting Services at Airports.

(uuuu) NFPA 407, 2017 edition, Standard for Aircraft Fuel Servicing.

(vvvv) NFPA 408, 2017 edition, Standard for Aircraft Hand Portable Fire Extinguishers.

(wwww) NFPA 409, 2016 edition, Standard on Aircraft Hangars.

(xxxx) NFPA 410, 2015 edition, Standard on Aircraft Maintenance.

(yyyy) NFPA 415, 2016 edition, Standard on Airport Terminal Buildings, Fueling Ramp Drainage, and Loading Walkways.

(zzzz) NFPA 418, 2016 edition, Standard for Heliports.

(aaaaa) NFPA 423, 2016 edition, Standard for Construction and Protection of Aircraft Engine Test Facilities.

(bbbbb) NFPA 484, 2015 edition, Standard for Combustible Metals.

(ccccc) NFPA 495, 2013 edition, Explosive Materials Code.

(ddddd) NFPA 498, 2013 edition, Standard for Safe Havens and Interchange Lots for Vehicles Transporting Explosives.

(eeeee) NFPA 501, 2017 edition, Standard on Manufactured Housing.

(fffff) NFPA 501A, 2017 edition, Standard for Fire Safety Criteria for Manufactured Home Installations, Sites, and Communities.

(ggggg) NFPA 502, 2017 edition, Standard for Road Tunnels, Bridges, and Other Limited Access Highways.

(hhhhh) NFPA 505, 2013 edition, Fire Safety Standard for Powered Industrial Trucks Including Type Designations, Areas of Use, Conversions, Maintenance and Operations.

(iiiii) NFPA 601, 2015 edition, Standard for Security Services in Fire Loss Prevention.

(jjjjj) NFPA 652, 2016 edition, Standard on the Fundamentals of Combustible Dust.

(kkkkk) NFPA 654, 2013 edition, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids.

(lllll) NFPA 655, 2017 edition, Standard for Prevention of Sulfur Fires and Explosions.

(mmmmm) NFPA 664, 2017 edition, Standard for the Prevention of Fires and Explosions in Wood Processing and Woodworking Facilities.

(nnnnn) NFPA 701, 2015 edition, Standard Methods of Fire Tests for Flame Propagation of Textiles and Films.

(ooooo) NFPA 703, 2018 edition, Standard for Fire Retardant-Treated Wood and Fire-Retardant Coatings for Building Materials.

(ppppp) NFPA 704, 2017 edition, Standard System for the Identification of the Hazards of Materials for Emergency Response.

(qqqqq) NFPA 720, 2015 edition, Standard for the Installation of Carbon Monoxide (CO) Detection and Warning Equipment.

(rrrrr) NFPA 731, 2017 edition, Standard for the Installation of Electronic Premises Security Systems.

(sssss) NFPA 750, 2015 edition, Standard on Water Mist Fire Protection Systems.

(ttttt) NFPA 780, 2017 edition, Standard for the Installation of Lightning Protection Systems.

(uuuuu) NFPA 801, 2014 edition, Standard for Fire Protection for Facilities Handling Radioactive Materials.

(vvvvv) NFPA 804, 2015 edition, Standard for Fire Protection for Advanced Light Water Reactor Electric Generating Plants.

(wwwww) NFPA 805, 2015 edition, Performance-Based Standard for Fire Protection for Light Water Reactor Electric Generating Plants.

(xxxxx) NFPA 820, 2016 edition, Standard for Fire Protection in Wastewater Treatment and Collection Facilities.

(yyyyy) NFPA 909, 2017 edition, Code for the Protection of Cultural Resources Properties – Museums, Libraries, and Places of Worship.

(zzzzz) NFPA 914, 2015 edition, Code for Fire Protection of Historic Structures.

(aaaaaa) NFPA 1122, 2018 edition, Code for Model Rocketry.

(bbbbbb) NFPA 1123, 1995 edition, Code for Fireworks Display.

(cccccc) NFPA 1124, 2017 edition, Code for the Manufacture, Transportation, and Storage of Fireworks and Pyrotechnic Articles.

(dddddd) NFPA 1125, 2017 edition, Code for the Manufacture of Model Rocket and High-Power Rocket Motors.

(eeeeee) NFPA 1126, 2016 edition, Standard for the Use of Pyrotechnics before a Proximate Audience.

(ffffff) NFPA 1127, 2018 edition, Code for High Powered Rocketry.

(gggggg) NFPA 1141, 2017 edition, Standard for Fire Protection Infrastructure for Land Development in Wildland, Rural, and Suburban Areas.

(hhhhhh) NFPA 1142, 2017 edition, Standard on Water Supplies for Suburban and Rural Fire Fighting.

(iiiiii) NFPA 1144, 2018 edition, Standard for Reducing Structure Ignition Hazards from Wildland Fire.

(jjjjjj) NFPA 1192, 2018 edition, Standard on Recreational Vehicles.

(kkkkkk) NFPA 1194, 2018 edition, Standard for Recreational Vehicle Parks and Campgrounds.

(llllll) NFPA 1221, 2016 edition, Standard for the Installation, Maintenance, and Use of Emergency Services Communications Systems.

(mmmmmm) NFPA 1730, 2016 edition, Standard on Organization and Deployment of Fire Prevention Inspection and Code Enforcement, Plan Review, Investigation, and Public Education Operations.

(nnnnnn) NFPA 1901, 2016 edition, Standard for Automotive Fire Apparatus.

(oooooo) NFPA 1906, 2016 edition, Standard for Wildland Fire Apparatus.

(pppppp) NFPA 1925, 2013 edition, Standard on Marine Fire-Fighting Vessels.

(qqqqqq) NFPA 1963, 2014 edition, Standard for Fire Hose Connections.

(rrrrrr) NFPA 2001, 2015 edition, Standard on Clean Agent Fire Extinguishing Systems.

(ssssss) NFPA 2010, 2015 edition, Standard for Fixed Aerosol Fire-Extinguishing Systems.

(tttttt) NFPA 2113, 2015 edition, Standard on Selection, Care, Use, and Maintennce of Flame-Resistant Garments for Protection of Industrial Personnel Against Short-Duration Thermal Exposures from Fire.

(uuuuuu) SFPE Engineering Guide to Performance-Based Fire Protection Analysis and Design of Buildings, Society of Fire Protection Engineers, Bethesda, Maryland 2000 edition.

(vvvvvv) The portions of ANSI A14.3-2002, Safety Code for Fixed Ladders, which pertain to fire escape ladders and which may be obtained at American National Standards Institute, 25 West 43rd Street, 4th Floor, New York, NY 10036.

(wwwwww) Chapter 4, Accessible Routes, ICC/ANSI A117.1-1998, which may be obtained at American National Standard for Accessible and Usable Buildings and Facilities, American National Standards Institute, 25 West 43rd Street, 4th Floor, New York, NY 10036.

(xxxxxx) The portions of ANSI A1264.1-1995, Safety Requirements for Workplace Floor and Wall Openings, Stairs and Railing Systems, which pertain to fire escape ladders and which may be obtained at American National Standards Institute, 25 West 43rd Street, 4th Floor, New York, NY 10036.

(yyyyyy) ANSI/UL 2079, 1998 edition, Test of Fire Resistance of Building Joint Systems, which may be obtained at

Underwriters Laboratories Inc., 333 Pfingsten Rd., Northbrook, IL 60062.

(zzzzzz) The portions of ASME/ANSI A17.1-2000, Safety Code for Elevators and Escalators, which may be obtained at American Society of Mechanical Engineers, Three Park Avenue, New York, NY 10016-5990.

(aaaaaaa) The portions of ASME/ANSI A17.3-2002, Safety Code for Existing Elevators and Escalators, which may be obtained at American Society of Mechanical Engineers, Three Park Avenue, New York, NY 10016-5990.

(bbbbbbb) ASTM D 2898,-94, (Reapproved 1999), Test Method for Accelerated Weathering of Fire Retardant-Treated Wood for Fire Testing, which may be obtained at American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.

(ccccccc) ASTM E 136-1999, Standard Test Method for Behavior of Materials in a Vertical Tube Furnace at 750°C, which may be obtained at American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.

(ddddddd) ASTM E 1537, 2001 edition, Standard Test Method for Fire Testing of Upholstered Furniture, which may be obtained at American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.

(eeeeeee) ASTM E 1590-01, Standard Test Method for Fire Testing of Mattresses, American Society for Testing and Materials, which may be obtained at 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.

(fffffff) ASTM E 1591-00, Standard Guide for Obtaining Data for Deterministic Fire Models, which may be obtained at American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.

(ggggggg) ASTM F 851-1987 (Reapproved 1991), Standard Test Method for Self-Rising Seat Mechanisms, which may be obtained at American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959, but only to the extent referenced in Subdivision 12.2.5.5.1 and 12.2.5.5.2 of NFPA 101, 2000 edition.

(hhhhhhh) ANSI/BHMA A-156.19-2002, American National Standard for Power Assist and Low Energy Power Operated Doors, which may be obtained at Buildings Hardware Manufacturers Association, 355 Lexington Avenue, 17th Floor, New York, NY 10017-6603.

(iiiiiii) UL 924, Standard for Safety Emergency Lighting and Power Equipment, Underwriters Laboratories, Inc., which may be obtained at 333 Pfingsten Rd., Northbrook, IL 60062.

(jjjjjjj) UL 1975, Standard for Fire Tests for Foamed Plastics Used for Decorative Purposes, Underwriters Laboratories, Inc., which may be obtained at 333 Pfingsten Rd., Northbrook, IL 60062.

(3)(a) The NFPA standards referenced in subsection (2) are copyrighted materials that cannot be copied but may be:

1. Obtained by contacting the NFPA at 1 Batterymarch Park, Quincy, Massachusetts 02169-7471; Phone 1(800)344-3555; Website www.nfpa.org.; or

2. Accessed in a read-only, non-printable, non-downloadable format at the NFPA's website at https://www.nfpa.org/Codes-and-Standards/All-Codes-and-Standards/Free-access.

(b) The copyrighted NFPA standards referenced in subsection (2) may be viewed, during regular business hours, at the offices of:

1. The Division of State Fire Marshal, 325 John Knox Road, Third Floor, Atrium Building, Tallahassee, Florida 32303; or

2. The Florida Administrative Code and Register, R.A. Gray Building, 500 South Bronough Street, Tallahassee, Florida 32399-0250.

(4) The Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings may be obtained by writing the Florida Department of State, Division of Historical Resources, R.A. Gray Building, 500 South Bronough Street, Tallahassee, Florida 32399-0250. All standards adopted and incorporated by reference in this rule are also available for public inspection during regular business hours at the Bureau of Fire Prevention, Division of State Fire Marshal, Department of Financial Services, 325 John Knox Road, The Atrium, Third Floor, Tallahassee, Florida 32303.

(5) Only the codes, standards, publications, or other references adopted in this chapter are enforceable as part of the Florida Fire Prevention Code. Any code, standard, publication or other reference not adopted in this chapter is not a part of the Florida Fire Prevention Code and may only be enforced by a local government if it has been adopted as a local amendment of the local government pursuant to sections 633.202(2), 633.202(10) or 633.208(3), F.S.

Rulemaking Authority 633.104, 633.202, 633.208 FS. Law Implemented 633.104, 633.202, 633.208, 791.012 FS. History–New 11-15-01, Formerly 4A-60.005, Amended 11-28-04, 5-18-08, 12-31-08, 4-25-12, 12-31-14, 12-31-17, 12-31-20.