

# City of Tallmadge Department of Public Service

# ADDENDUM NUMBER 1 TO THE BID DOCUMENTS

Amendment Date: August 21, 2023

# BID DOCUMENT: Howe Road Park Improvements Phase 2

A. This Addendum shall be considered part of the bid documents for the above-mentioned project as though it had been issued at the same time and shall be incorporated integrally therewith. Where provisions of the following supplementary data differ from those of the original bid documents, this Addendum shall govern and take precedence. BIDDERS MUST SIGN THE ADDENDUM AND SUBMIT IT WITH THEIR BIDS.

B. Bidders are hereby notified that they shall make any necessary adjustments in their estimates as a result of this Addendum. It will be construed that each bidder's proposal is submitted with full knowledge of all modifications and supplemental data specified herein.

Except as described below, the original bid document remains unchanged. The bid documents are modified and/or clarified, as follows:

# **CLARIFICATIONS:**

1. The Enwood Shelter will be purchased directly by the City and installed by the Contractor. This was noted on Sheet C-102 Coded note #6.

# QUESTIONS:

- a. Question from prospective Bidder: On Sheet E-1 there are two details for underground electrical conduits that describe the trenching and backfill conditions for yard areas and under pavements. If we find it economical to directional bore electrical conduits, is this acceptable? A good application for this might be where electrical conduit is shown to cross the existing stream from panel PP to the new pavilion.
- b. Response: Yes, directional boring is acceptable, but how do you intend to encase in concrete under roadways? If not encasing in concrete, we recommend going at least a foot deeper.

# GENERAL:

- 1. Front End Specifications Section IV: Proposal and Signature Page 29
  - a. Earthwork and Clearing are included twice on the bid form list. Omit the second reference.

# **CHANGES TO SPECIFICATIONS:**

- 1. Technical Specifications Table of Contents
  - A. Replace with the attached.
  - B. Omit reference to Sections 055000 Metal Fabrications and 055213 Pipe and Tube Railings
- 2. Add Specification Section 08113-Hollow Metal Doors and Frames (9 pages).

# CHANGES TO DRAWINGS:

1. Sheet E-6: Electrical Schedules & Legends. Panel "PP" was included twice. Replace one of the Panel PP tables and replace with the attached "Panel PA".

# BIDDER MUST ACKNOWLEDGE THIS ADDENDUM BY SIGNING BELOW AND ATTACHING THE SIGNED ADDENDUM TO THE BID FORM:

Company Name: \_\_\_\_\_

Contact Person:

Signature:

Date:

## Michael T. Roar

City of Tallmadge, Director of Public Service

# SECTION IV: PROPOSAL AND SIGNATURE PAGE City of Tallmadge Howe Road Park Improvements Phase 2

Base Bid Prices are for Informational Purposes Only. Total Unit Prices will govern.

Spec.	ITEM	DESCRIPTION	ESTIMA	ATED		TOTAL		
Item	No.		QUAN	ITTY	(IN FIGURES)	(IN WORDS)		
		LAYOUT AND STAKING	1	L.S.				
		EROSION CONTROL INCLUDING SILT FENCE	1	L.S.				
		EARTHWORK & CLEARING	1	L.S.				
		ASPHALT ROAD, PARKING ASPHALT & AGGREGATE BASE	964	S.Y.				
		PAVEMENT MARKINGS	1	L.S.				
		CONCRETE WALKS AND PADS (INCLUDING SHELTER, GRILL, & DOG BOWL PADS)	441	S.Y.				
		CONCRETE PARKING SPACES (VEHICULAR)	125	S.Y.				
		ADA SIGNS AND STOP SIGN	6	EA.				
		CHAIN LINK FENCES AND GATES	1,909	L.F.				
		RESTROOM BUILDING (Including utilities w/in 5')	1	L.S.				
		RESTROOM DOWNSPOUT DRAINS	100	L.F.				
		PICNIC SHELTER ELECTRIC	1	L.S.				
		PICNIC SHELTER INSTALLATION	1	L.S.				
		ELECTRIC TRENCH, CONDUIT, WIRE FROM POWER PANEL TO RESTROOM AND TO SHELTER	455	L.F.				
		GRILL	1	L.S.				
		WATER LINE CONNECTION TO RESTROOM	1	L.S.				

Spec.	ITEM	DESCRIPTION	ESTIMA	ATED		TOTAL	
Item	INO.		QUAN	IIIY	(IN FIGURES)	(IN WORDS)	
		1" WATER LINE WITH FITTINGS (INCL TRENCH, BACKFILL, & SURFACE REPAIR)	293	L.F.			
		6' SANITARY SEWER LINE, TRENCH, BACKFILL, & CLEANOUTS	160	L.F.			
		EARTHWORK & CLEARING	4	L.S			
		DOG DRINKING BOWLS WITH VALVE AND DRAIN PIT AT EACH	3	EAC H			
		SEEDING	8,460	S.Y.			
		MOBILIZATION & GENERAL CONDITIONS	1	L.S.			

Authorized Signature\_\_\_\_\_

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#### TECHNICAL SPECIFICATIONS TABLE OF CONTENTS

#### **DIVISION 03 - CONCRETE**

033000 CAST-IN-PLACE CONCRETE

#### **DIVISION 04 - MASONRY**

042000 UNIT MASONRY

#### **DIVISION 05 – METALS (ADD 01)**

055000METAL FABRICATIONS055213PIPE AND TUBE RAILINGS

#### **DIVISION 06 – WOOD, PLASTICS, AND COMPOSITES**

- 061053 ROUGH CARPENTRY
- 061600 SHEATHING
- 061753 SHOP-FABRICATED WOOD TRUSSES
- 064023 INTERIOR ARCHITECTURAL WOODWORK
- 066400 PLASTIC PANELING

## **DIVISION 07 – THERMAL AND MOISTURE PROTECTION**

- 072100 THERMAL INSULATION
- 072600 VAPOR RETARDERS
- 074113 STANDING-SEAM METAL ROOF PANELS
- 074646 FIBERCEMENT SIDING AND TRIM
- 076200 SHEET METAL FLASHING AND TRIM
- 079200 JOINT SEALANTS

#### **DIVISION 08 – OPENINGS**

081113	HOLLOW METAL DOORS AND FRAMES
087100	DOOR HARDWARE
089119	FIXED LOUVERS

#### **DIVISION 09 – FINISHES**

099123	INTERIOR PAINTING
099300	STAINING AND TRANSPARENT FINISHING

#### **DIVISION 10 – SPECIALTIES**

101400 SIGNAGE

102800 TOILET, BATH, AND LAUNDRY ACCESSORIES

#### **DIVISION 12 – SITE FURNISHINGS**

129300 SITE FURNISHINGS

# **DIVISION 31 - EARTHWORK**

311000	SITE CLEARING
312000	EARTH MOVING

- 312319 DEWATERING
- 312500 EROSION AND SEDIMENT CONTROL
- 313116 TERMITE CONTROL

# **DIVISION 32 - EXTERIOR IMPROVEMENTS**

- 321216 ASPHALT PAVING
- 321313 CONCRETE PAVING
- 321373 CONCRETE PAVING JOINT SEALANTS
- 321723 PAVEMENT MARKINGS
- 321726 TACTILE WARNING SURFACES
- 323113 CHAIN LINK FENCING
- 329200 TURF AND GRASSES

# **DIVISION 33 - UTILITIES**

- 333000 SANITARY SEWERAGE UTILITIES
- 334100 STORM UTILITY DRAINAGE PIPING
- 334600 SUBDRAINAGE

# SECTION 081113 - HOLLOW METAL DOORS AND FRAMES

#### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section Includes:
  - 1. Standard hollow metal doors and frames.
- B. Related Sections:
  - 1. Division 01 Section "General Conditions".
  - 2. Division 04 Section "Unit Masonry" for embedding anchors for hollow metal work into masonry construction.
  - 3. Division 08 Section "Door Hardware".
  - 4. Division 09 Sections "Exterior Painting" and "Interior Painting" for field painting hollow metal doors and frames.
- C. Codes and References: Comply with the version year adopted by the Authority Having Jurisdiction.
  - 1. ANSI/SDI A250.8 Recommended Specifications for Standard Steel Doors and Frames.
  - 2. ANSI/SDI A250.4 Test Procedure and Acceptance Criteria for Physical Endurance for Steel Doors, Frames, Frames Anchors and Hardware Reinforcing.
  - 3. ANSI/SDI A250.6 Recommended Practice for Hardware Reinforcing on Standard Steel Doors and Frames.
  - 4. ANSI/SDI A250.10 Test Procedure and Acceptance Criteria for Prime Painted Steel Surfaces for Steel Doors and Frames.
  - 5. ANSI/SDI A250.11 Recommended Erection Instructions for Steel Frames.
  - 6. ASTM A1008 Standard Specification for Steel Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy and High-Strength Low-Alloy with Improved Formability.
  - 7. ASTM A653 Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
  - 8. ASTM A924 Standard Specification for General Requirements for Steel Sheet, Metallic-Coated by the Hot-Dip Process.
  - 9. ASTM C 1363 Standard Test Method for Thermal Performance of Building Assemblies by Means of a Hot Box Apparatus.
  - 10. ANSI/BHMA A156.115 Hardware Preparation in Steel Doors and Frames.
  - 11. ANSI/SDI 122 Installation and Troubleshooting Guide for Standard Steel Doors and Frames.

- 12. ANSI/NFPA 80 Standard for Fire Doors and Fire Windows; National Fire Protection Association.
- 13. ANSI/NFPA 105: Standard for the Installation of Smoke Door Assemblies.
- 14. NFPA 252 Standard Methods of Fire Tests of Door Assemblies; National Fire Protection Association.
- 15. UL 10C Positive Pressure Fire Tests of Door Assemblies.
- 16. UL 1784 Standard for Air Leakage Tests of Door Assemblies.

#### 1.3 SUBMITTALS

- A. Product Data: For each type of product indicated. Include construction details, material descriptions, core descriptions, hardware reinforcements, profiles, anchors, fire-resistance rating, and finishes.
- B. Door hardware supplier is to furnish templates, template reference number and/or physical hardware to the steel door and frame supplier in order to prepare the doors and frames to receive the finish hardware items.
- C. Shop Drawings: Include the following:
  - 1. Elevations of each door design.
  - 2. Details of doors, including vertical and horizontal edge details and metal thicknesses.
  - 3. Frame details for each frame type, including dimensioned profiles and metal thicknesses.
  - 4. Locations of reinforcement and preparations for hardware.
  - 5. Details of anchorages, joints, field splices, and connections.
  - 6. Details of accessories.
  - 7. Details of moldings, removable stops, and glazing.
  - 8. Details of conduit and preparations for power, signal, and control systems.
- D. Samples for Verification:
  - 1. Samples are only required by request of the architect and for manufacturers that are not current members of the Steel Door Institute.

#### 1.4 QUALITY ASSURANCE

- A. Source Limitations: Obtain hollow metal doors and frames through one source from a single manufacturer wherever possible.
- B. Quality Standard: In addition to requirements specified, furnish SDI-Certified manufacturer products that comply with ANSI/SDI A250.8, latest edition, "Recommended Specifications for Standard Steel Doors and Frames".
- C. Fire-Rated Door Assemblies: Assemblies complying with NFPA 80 that are listed and labeled by a qualified testing agency, for fire-protection ratings indicated, based on testing at positive pressure according to UL10C (neutral pressure at 40" above sill) or UL 10C.
  - 1. Oversize Fire-Rated Door Assemblies Construction: For units exceeding sizes of tested assemblies, attach construction label certifying doors are built to standard construction requirements for tested and labeled fire rated door assemblies except for size.

- 2. Temperature-Rise Limit: Where indicated and at vertical exit enclosures (stairwell openings) and exit passageways, provide doors that have a maximum transmitted temperature end point of not more than 450 deg F (250 deg C) above ambient after 30 minutes of standard fire-test exposure.
- 3. Smoke Control Door Assemblies: Comply with NFPA 105.
  - a. Smoke "S" Label: Doors to bear "S" label, and include smoke and draft control gasketing applied to frame and on meeting stiles of pair doors.
- D. Fire-Rated, Borrowed-Light Frame Assemblies: Assemblies complying with NFPA 80 that are listed and labeled, by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire-protection ratings indicated, based on testing according to NFPA 257. Provide labeled glazing material.
- E. Pre-Submittal Conference: Conduct conference in compliance with requirements in Division 01 Section "Project Meetings" with attendance by representatives of Supplier, Installer, and Contractor to review proper methods and procedures for installing hollow metal doors and frames and to verify installation of electrical knockout boxes and conduit at frames with electrified or access control hardware.

#### 1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver hollow metal work palletized, wrapped, or crated to provide protection during transit and Project site storage. Do not use non-vented plastic.
- B. Deliver welded frames with two removable spreader bars across bottom of frames, tack welded to jambs and mullions.
- C. Store hollow metal work under cover at Project site. Place in stacks of five units maximum in a vertical position with heads up, spaced by blocking, on minimum 4-inch high wood blocking. Do not store in a manner that traps excess humidity.
  - 1. Provide minimum 1/4-inch space between each stacked door to permit air circulation. Door and frames to be stacked in a vertical upright position.

#### 1.6 PROJECT CONDITIONS

A. Field Measurements: Verify actual dimensions of openings by field measurements before fabrication.

#### 1.7 COORDINATION

- A. Coordinate installation of anchorages for hollow metal frames. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors. Deliver such items to Project site in time for installation.
- B. Building Information Modeling (BIM) Support: Utilize designated BIM software tools and obtain training needed to successfully participate in the Project BIM processes. All technical disciplines are responsible for the product data integration and data reliability of their Work into the coordinated BIM applications.

#### 1.8 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace doors that fail in materials or workmanship within specified warranty period.
- B. Warranty includes installation and finishing that may be required due to repair or replacement of defective doors.

#### PART 2 - PRODUCTS

#### 2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide steel doors and frames from a SDI Certified manufacturer:
  - 1. CECO Door Products (C).
  - 2. Curries Company (CU).
  - 3. Steelcraft (S).

#### 2.2 MATERIALS

- A. Cold-Rolled Steel Sheet: ASTM A 1008/A 1008M, Commercial Steel (CS), Type B; suitable for exposed applications.
- B. Metallic-Coated Steel Sheet: ASTM A 653/A 653M, Commercial Steel (CS), Type B; with minimum G60 (Z180) or A60 (ZF180) metallic coating.
- C. Frame Anchors: ASTM A 653/A 653M, Commercial Steel (CS), Commercial Steel (CS), Type B; with minimum G60 (Z180) or A60 (ZF180) metallic coating.

#### 2.3 HOLLOW METAL DOORS

- A. General: Provide 1-3/4 inch doors of design indicated, not less than thickness indicated; fabricated with smooth surfaces, without visible joints or seams on exposed faces unless otherwise indicated. Comply with ANSI/SDI A250.8 and ANSI/NAAMM HMMA 867.
- B. Exterior Doors (Energy Efficient): Face sheets fabricated of commercial quality hot-dipped zinc coated steel that complies with ASTM A924 A60. Provide doors complying with requirements indicated below by referencing ANSI/SDI A250.8 for level and model, ANSI/SDI A250.4 for physical performance level, and HMMA 867 for door construction.
  - 1. Design: Flush panel.
  - 2. Core Construction: Foamed in place polyurethane and steel stiffened laminated core with no stiffener face welds, in compliance with HMMA 867 "Laminated Core".
    - a. Provide 22 gauge steel stiffeners at 6 inches on-center internally welded at 5" oncenter to integral core assembly, foamed in place polyurethane core chemically bonded to all interior surfaces. No stiffener face welding is permitted.

- b. Thermal properties to rate at a fully operable minimum U-Factor 0.37 and R-Value 2.7, including insulated door, thermal-break frame and threshold.
- c. Kerf Type Frames: Thermal properties to rate at a fully operable minimum U-Factor 0.38 and R-Value 2.6, including insulated door, kerf type frame, and threshold.
- 3. Level/Model: Level 3 and Physical Performance Level A (Extra Heavy Duty), Minimum 16 gauge (0.053 inch 1.3-mm) thick steel, Model 2.
- 4. Vertical Edges: Vertical edges to be mechanically interlocked with hairline seam. Beveled Lock Edge, 1/8 inch in 2 inches (3 mm in 50 mm).
- 5. Top and Bottom Edges: Reinforce tops and bottoms of doors with a continuous steel channel not less than 16 gauge, extending the full width of the door and welded to the face sheet. Doors with an inverted top channel to include a steel closure channel, screw attached, with the web of the channel flush with the face sheets of the door. Plastic or composite channel fillers are not acceptable.
- 6. Hinge Reinforcement: Minimum 7 gauge (3/16") plate 1-1/4" x 9".
- 7. Hardware Reinforcements: Fabricate according to ANSI/SDI A250.6 with reinforcing plates from same material as door face sheets.

#### 2.4 HOLLOW METAL FRAMES

- A. General: Comply with ANSI/SDI A250.8 and with details indicated for type and profile.
- B. Thermal Break Frames: Subject to the same compliance standards and requirements as standard hollow metal frames. Tested for thermal performance in accordance with NFRC 102, and resistance to air infiltration in accordance with NFRC 400. Where indicated provide thermally broken frame profiles available for use in both masonry and drywall construction. Fabricate with 1/16" positive thermal break and integral vinyl weatherstripping.
- C. Exterior Frames: Fabricated of hot-dipped zinc coated steel that complies with ASTM A 653/A 653M, Coating Designation A60.
  - 1. Fabricate frames with mitered or coped corners. Profile as indicated on drawings.
  - 2. Frames: Minimum 14 gauge (0.067-inch -1.7-mm) thick steel sheet.
  - 3. Manufacturers Basis of Design:
    - a. CECO Door Products (C) Thermal Break TQB Series.
- D. Hardware Reinforcement: Fabricate according to ANSI/SDI A250.6 Table 4 with reinforcement plates from same material as frames.

#### 2.5 FRAME ANCHORS

- A. Jamb Anchors:
  - 1. Masonry Type: Adjustable strap-and-stirrup or T-shaped anchors to suit frame size, formed from A60 metallic coated material, not less than 0.042 inch thick, with corrugated or perforated straps not less than 2 inches wide by 10 inches long; or wire anchors not less than 0.177 inch thick.

- B. Floor Anchors: Floor anchors to be provided at each jamb, formed from A60 metallic coated material, not less than 0.042 inches thick.
- C. Mortar Guards: Formed from same material as frames, not less than 0.016 inches thick.

#### 2.6 ACCESSORIES

A. Grout Guards: Formed from same material as frames, not less than 0.016 inches thick.

#### 2.7 FABRICATION

- A. Fabricate hollow metal work to be rigid and free of defects, warp, or buckle. Accurately form metal to required sizes and profiles, with minimum radius for thickness of metal. Where practical, fit and assemble units in manufacturer's plant. When shipping limitations so dictate, frames for large openings are to be fabricated in sections for splicing or splining in the field by others.
- B. Tolerances: Fabricate hollow metal work to tolerances indicated in ANSI/SDI A250.8.
- C. Hollow Metal Doors:
  - 1. Exterior Doors: Provide optional weep-hole openings in bottom of exterior doors to permit moisture to escape where specified.
  - 2. Astragals: Provide overlapping astragals as noted in door hardware sets in Division 08 Section "Door Hardware" on one leaf of pairs of doors where required by NFPA 80 for fireperformance rating or where indicated. Extend minimum 3/4 inch beyond edge of door on which astragal is mounted.
- D. Hollow Metal Frames:
  - 1. Shipping Limitations: Where frames are fabricated in sections due to shipping or handling limitations, provide alignment plates or angles at each joint, fabricated of same thickness metal as frames.
  - 2. Welded Frames: Weld flush face joints continuously; grind, fill, dress, and make smooth, flush, and invisible.
    - a. Welded frames are to be provided with two steel spreaders temporarily attached to the bottom of both jambs to serve as a brace during shipping and handling. Spreader bars are for bracing only and are not to be used to size the frame opening.
  - 3. High Frequency Hinge Reinforcement: Provide high frequency hinge reinforcements at door openings 48-inches and wider with mortise butt type hinges at top hinge locations.
  - 4. Provide countersunk, flat- or oval-head exposed screws and bolts for exposed fasteners unless otherwise indicated for removable stops, provide security screws at exterior locations.
  - 5. Mortar Guards: Provide guard boxes at back of hardware mortises in frames at all hinges and strike preps regardless of grouting requirements.
  - 6. Floor Anchors: Weld anchors to bottom of jambs and mullions with at least four spot welds per anchor.
  - 7. Jamb Anchors: Provide number and spacing of anchors as follows:

- a. Masonry Type: Locate anchors not more than 18 inches from top and bottom of frame. Space anchors not more than 32 inches o.c. and as follows:
  - 1) Two anchors per jamb up to 60 inches high.
  - 2) Three anchors per jamb from 60 to 90 inches high.
  - 3) Four anchors per jamb from 90 to 120 inches high.
  - 4) Four anchors per jamb plus 1 additional anchor per jamb for each 24 inches or fraction thereof above 120 inches high.
- 8. Door Silencers: Except on weatherstripped or gasketed doors, drill stops to receive door silencers. Silencers to be supplied by frame manufacturer regardless if specified in Division 08 Section "Door Hardware".
- 9. Bituminous Coating: Where frames are fully grouted with an approved Portland Cement based grout or mortar, coat inside of frame throat with a water based bituminous or asphaltic emulsion coating to a minimum thickness of 3 mils DFT, tested in accordance with UL 10C and applied to the frame under a 3rd party independent follow-up service procedure.
- E. Hardware Preparation: Factory prepare hollow metal work to receive template mortised hardware; include cutouts, reinforcement, mortising, drilling, and tapping according to the Door Hardware Schedule and templates furnished as specified in Division 08 Section "Door Hardware."
  - 1. Locate hardware as indicated, or if not indicated, according to ANSI/SDI A250.8.
  - 2. Reinforce doors and frames to receive non-template, mortised and surface mounted door hardware.
  - 3. Comply with applicable requirements in ANSI/SDI A250.6 and ANSI/DHI A115 Series specifications for preparation of hollow metal work for hardware.
  - 4. Coordinate locations of conduit and wiring boxes for electrical connections with Division 26 Sections.

## 2.8 STEEL FINISHES

- A. Prime Finishes: Doors and frames to be cleaned, and chemically treated to insure maximum finish paint adhesion. Surfaces of the door and frame exposed to view to receive a factory applied coat of rust inhibiting shop primer.
  - 1. Shop Primer: Manufacturer's standard, fast-curing, lead and chromate free primer complying with ANSI/SDI A250.10 acceptance criteria; recommended by primer manufacturer for substrate; and compatible with substrate and field-applied coatings.

#### PART 3 - EXECUTION

#### 3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.

- B. General Contractor to verify the accuracy of dimensions given to the steel door and frame manufacturer for existing openings or existing frames (strike height, hinge spacing, hinge back set, etc.).
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

#### 3.2 PREPARATION

- A. Remove welded in shipping spreaders installed at factory. Restore exposed finish by grinding, filling, and dressing, as required to make repaired area smooth, flush, and invisible on exposed faces.
- B. Prior to installation, adjust and securely brace welded hollow metal frames for square, level, twist, and plumb condition.
- C. Tolerances shall comply with SDI-117 "Manufacturing Tolerances Standard Steel Doors and Frames."
- D. Drill and tap doors and frames to receive non-template, mortised, and surface-mounted door hardware.

#### 3.3 INSTALLATION

- A. General: Install hollow metal work plumb, rigid, properly aligned, and securely fastened in place; comply with Drawings and manufacturer's written instructions.
- B. Hollow Metal Frames: Install hollow metal frames of size and profile indicated. Comply with ANSI/SDI A250.11 and NFPA 80 at fire rated openings.
  - 1. Set frames accurately in position, plumbed, leveled, aligned, and braced securely until permanent anchors are set. After wall construction is complete and frames properly set and secured, remove temporary braces, leaving surfaces smooth and undamaged. Shim as necessary to comply with installation tolerances.
  - 2. Floor Anchors: Provide floor anchors for each jamb and mullion that extends to floor, and secure with post-installed expansion anchors.
  - 3. Masonry Walls: Coordinate installation of frames to allow for solidly filling space between frames and masonry with mortar.
  - 4. Grout Requirements: Do not grout head of frames unless reinforcing has been installed in head of frame. Do not grout vertical or horizontal closed mullion members.
- C. Hollow Metal Doors: Fit hollow metal doors accurately in frames, within clearances specified below. Shim as necessary.
  - 1. Non-Fire-Rated Standard Steel Doors:
    - a. Jambs and Head: 1/8 inch plus or minus 1/16 inch.
    - b. Between Edges of Pairs of Doors: 1/8 inch plus or minus 1/16 inch.
    - c. Between Bottom of Door and Top of Threshold: Maximum 3/8 inch.
    - d. Between Bottom of Door and Top of Finish Floor (No Threshold): Maximum 3/4 inch.

#### 3.4 ADJUSTING AND CLEANING

- A. Final Adjustments: Check and readjust operating hardware items immediately before final inspection. Leave work in complete and proper operating condition. Remove and replace defective work, including hollow metal work that is warped, bowed, or otherwise unacceptable.
- B. Remove grout and other bonding material from hollow metal work immediately after installation.
- C. Prime-Coat and Painted Finish Touchup: Immediately after erection, sand smooth rusted or damaged areas of prime coat, or painted finishes, and apply touchup of compatible air drying, rust-inhibitive primer, zinc rich primer (exterior and galvanized openings) or finish paint.

#### 3.5 FIELD QUALITY CONTROL

- A. Field Inspection (Punch Report): Reference Division 01 Sections "Closeout Procedures". Produce project punch report for each installed door opening indicating compliance with approved submittals and verification hardware is properly installed, operating and adjusted. Include list of items to be completed and corrected, indicating the reasons or deficiencies causing the Work to be incomplete or rejected.
  - 1. Organization of List: Include separate Door Opening and Deficiencies and Corrective Action Lists organized by Mark, Opening Remarks and Comments, and related Opening Images and Video Recordings.

END OF SECTION 081113

Replace one of the 'Panel PP' tables on Sheet E-6 with the following 'Panel PA':

		10						F	AN	EL	'PA'								
MAIN: 100A MLO VOLTA		AGE:	240	/120	PHASE: 1			WIRE:	3	3 MOUNTING		TING: SURFACE			10,	000	NOTES:		
СКТ	DESCRIPTION			a 1	LOAD	(KVA)			TRIP	Ø	TRIP	LC		LOAD	(KVA)			DESCRIPTION	СКТ
#	DESCRIPTION		HVAC	KIT	MTR	REC	MISC	VISC LTG POLE A		AB	POLE	HVAC	KIT	MTR	REC	REC MISC LTG	LTG	DESCRIPTION	
1	FUIL1 101		1.5			20/2		20/2	1.5						FUH4 - 104	2			
3	LONI - IVI		1.5						20/2	Ш	20/2	1.5						20114 - 104	4
5	FUH2 - 102		1.5						20/2		20/2					1.0		FW/H1 - 104	6
7	20112 - 102		1.5		1				20/2		20/2					1.0		20011-104	8
9	EU142 . 102		1.5						20/2		20/1				0.4			<b>JANITOR RECEPTACLES -104</b>	10
11	2013 - 103		1.5						20/2		20/1					0.1	0.2	EXTERIOR LIGHTING	12
13	HEAT TRACE		0.1						20/1		20/1							SPARE	14
15	HAND DRYER - 10	1					1.0		20/1		20/1							SPARE	16
17	HAND DRYER - 10	2					1.0		20/1		20/1							SPARE	18
19	HAND DRYER - 10	3					1.0		20/1		20/1							SPARE	20
21	INTERIOR LIGHTIN	G						1.2	20/1		20/1							SPARE	22
23	SPACE																	SPACE	24
25	SPACE																	SPACE	26
27	SPACE																	SPACE	28
29	SPACE																	SPACE	30
0			9.1	0.0	0.0	0.0	3.0	1.2				3.0	0.0	0.0	0.4	2.1	0.2	CONNECTED (KVA):	19.0
MISC (	KVA):	5.1		20-0103-023-Y				0	8									DEMAND (KVA):	17.6
RECEP	TACLES (KVA)	0.4						PH/	ASE A	10	80	.0							
мото	RS (KVA):	0.0						PH	ASE B	9	77	.5						CONNECTED (AMPS):	79.2
LIGHTI	NG (KVA):	1.4								KVA	AM	IPS						,	
КІТСНЕ	EN (KVA):	0.0																	
HVAC	(KVA):	12.1																DEMAND (AMPS):	73.2
LIGHTI	NG		1.4	KVA	х		125	%	=		1.8	KVA							
RECEPT	TACLES TOTAL		0.4	KVA															
	1ST		10.0	KVA	x		100	%	=		0.4	KVA							
	REMAIN		0.0	KVA	x		50	%	=		0.0	KVA							
HVAC			12.1	KVA	x		100	%	=		12.1	KVA							
KITCHEN			0.0	KVA	x		65	%	=		0.0	KVA							
MISCE	MISCELLANEOUS		5.1	KVA	x		65	%	=		3.3	KVA							
MOTORS		0.0	KVA	x		100	%	=		0.0	KVA								
TOTAL					1.0			1969	=		17.6	KVA							