

HOLT PUBLIC SCHOOLS

REQUEST FOR PROPOSALS (RFP)
EXTERIOR DOOR/HARDWARE REPLACEMENT
SUMMER 2026

HOLT PUBLIC SCHOOLS
DEPARTMENT OF FACILITIES MANAGEMENT
5780 WEST HOLT ROAD, DOOR #23, HOLT, MI 48842

Purpose

Holt Public Schools is seeking bids for the replacement of exterior doors and hardware replacement for the following three (3) school buildings (maps attached):

1. Horizon Elementary School – Work may start after June 10th
5776 W. Holt Rd, Holt Mi 48842
2. Wilcox Elementary School – Work may start after June 10th
1650 Laurelwood Rd, Holt Mi 48842
3. Holt High School – North Campus – Work may start after May 15th
5780 W. Holt Rd, Holt MI 48842

Bid issued:

Pre-bid meeting: N/A - No mandatory walkthrough

Bid Due Date: Friday, January 30 at 1:00pm

Bid Opening: Friday, January 30 at 1:30pm

Commencement of Work:

Work must be performed between May 15, 2026, and be completed by July 31, 2026

Submission of Proposal:

Description of the information and content required for your bid is attached. Please complete and add necessary information on additional sheets and return to:

Ryan Zoumbaris, Director of Facilities
Holt Public Schools
5780 West Holt Road, Door #23
Holt, Mi 48842

Mark the return envelope: "Exterior Door/Hardware Replacement"
Contractor Name
Contractor Address
Contractor Telephone Number

Late Proposals:

All responses must be printed and signed. The bidder assumes the risk of any delay in the mail or in the handling of the mail by employees of Holt Public Schools. Whether

sent by regular mail or by means of personal delivery, the bidder assumes responsibility for having its bid deposited on time at the specified location.

Sole Bidder:

In the event that only one bid is received in response to the bid invitation, a detailed cost proposal will be requested of the single bidder. A cost/price analysis and/or audit of the proposal shall be performed by Holt Public Schools to determine if the price is fair and reasonable. Holt Public Schools reserves the right to accept or cancel the bid if only one is received. Holt Public Schools' decision will be final.

Suspended or Debarred Vendor:

Bidder must certify and affirm that it and its principals are not debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded by any Federal department or agency from doing business with the Federal Government.

Returned Proposals:

All proposals received after the due date will be unopened and made available to the respective contractors to pick up at its sole cost and expense.

Signed Proposals:

Each proposal must be an original and hard copy, signed by an authorized member of the Contractor's firm. The members should be the highest-ranking officers at local level. NO ORAL, FAX or E-MAILED proposals will be accepted. Each proposal must be submitted on the Proposal Forms attached to this RFP.

Copies of Proposal: The Contractor shall submit the original proposal and two (2) completed copies of the signed original proposal.

Opening Proposals: At the specified location and due date as stated above under "Submission of Proposal," all properly submitted proposals will be publicly opened and read aloud at 1:30 PM.

All interested parties may attend the proposal opening. No decision will be rendered at the proposal opening.

Email Clarifications: The district intends to communicate with contractors via email (example: clarifications and addendums). Except for the delivery of the proposal itself.

Additional Clarification Request: Prospective contractors may request that the district clarify information contained in this RFP. All such requests must be made by writing via email. The district will attempt to provide a written response to all written Requests for Clarification within five (5) business days after receipt of such request. The district will not respond to any Request for Clarification received after 4:00 PM on Monday, January 19, 2026. Requests for Clarification and inquiries must be made via e-mail.

All Requests for Clarification must be directed to Ryan Zoumbaris, Director of Facilities, at ryan.zoumbaris@hpsk12.net with subject line: "Exterior Door/Hardware Replacement."

No response will be made to any oral questions. All questions and answers will be posted on the school district's website. It is each contractor's responsibility to check the website prior to the RFP due date to ensure that it has received all the information including, but not limited to, all addenda to this RFP.

Restrictions on Communication:

From the issue date of this RFP until a contractor is selected and the selection announced, a prospective contractor shall not communicate about the subject of this RFP or any contractor's proposal with the district, its Board of Education, or any individual member, administrator(s), faculty, staff, students, employees, or its construction manager, if any, except for additional Requests for Clarification in accordance with the paragraphs above, or as otherwise required by applicable law.

RFP/Proposal Information Controlling:

The district intends that all contractors shall have equal access to information relative to this RFP, and that this RFP contains adequate information. No information communicated, either verbally or in writing, to or from a contractor shall be effective unless confirmed by written communication contained in an addendum to this RFP, a Request for Clarification or other written response thereto, or in the proposal.

Reservation of Award:

The contract will be awarded to the responsible bidder whose proposal is within the competitive range and determined to be the most advantageous to Holt Public Schools. Price, experience, references, and other factors are considered. Holt Public Schools reserves the right to make awards within sixty (60) days after the date of the bid opening during which period bids may not be withdrawn. The Board of Education or its designee reserves the right to reject any or all bids, in part or in total, for any objective or subjective reason whatsoever. Late bids will not be opened.

Collusive Bidding:

The contractor certifies that its proposal is made without any previous understanding, agreement, or connection with any person, firm or corporation making a proposal for the same work and is in all respects fair, without outside control, collusion, fraud, or otherwise illegal action.

Contractor Requirements

The contractor shall be responsible for the removal of the existing exterior doors and installation of the new exterior doors at Horizon Elementary, Wilcox Elementary, and High School North Campus.

The contractor shall be responsible for obtaining waste containers for the removal of all its waste materials, rubbish and packing materials resulting from its operations. If the installer fails to clean up within seven (7) days after completion, the owner may do so, and the cost thereof shall be charged to the installer as a deduction in its contract price.

Contractor shall provide an adequate number of qualified, experienced personnel capable of performing the required work within the time frames set forth in the owner's schedule. All workers and subcontractors performing work shall be skilled in their respective trades.

Bidders shall be reputable, recognized organizations with at least five (5) years of successful experience of work of this type. References of three (3) accounts now being serviced, for which comparable work has been performed, must be furnished. Failure to include references may be ample cause for rejection.

Upon checking in with each building's main office, bidders may view project doors at their own discretion between the weekday hours of 8:00 AM until 3:30 PM. Each bidder shall compare the premises with the specifications and be satisfied with the conditions affecting the services to be provided before submitting their proposal. No allowance or extra consideration on behalf of any bidder will subsequently be allowed by reason or error or oversight on the part of the bidder.

The bidder shall be responsible for all final measurements.

The owner shall conduct a final inspection of the project to assure that all work performed meets specifications.

The contractor must secure all equipment and materials at the site(s). Contractor shall be responsible for any and all damages to existing building(s) or grounds, sustained as a result of work under this contract, caused by either the installation of its work or in the delivery of materials and equipment for its use. The cost of repairing or replacing such damage shall be borne by the responsible contractor. The repair or replacement work shall be done in a manner as to leave the facilities in the same condition as before the damage occurred to the complete satisfaction of the owner. The contractor is responsible for all damages and losses until the installation has been completed and accepted by the owner.

Installer shall identify one person, acceptable to the owner, who shall act as liaison with the owner. This individual should have the authority to make decisions on behalf of the installer.

Satisfactory Workmen's Compensation insurance and liabilities and property damage insurance must be maintained and paid for by the contractor at all times work is performed.

Commercial General Liability Insurance is required as follows: on an "occurrence basis" with limits of liability not less than 1,000,000 each occurrence, \$3,000,000 aggregate, combined single limit, Personal Injury, Bodily Injury and Property Damage. Coverage shall include the following extensions: A) Contractual Liability; B) Products and Completed Operations; C) Independent Contractor's Coverage; D) Broad Form General Liability Extensions or equivalent; E) Deletion of all Explosion, Collapses and Under group (SCU) Exclusions, if applicable.

Professional Liability Insurance (Errors & Omissions): \$1,000,000 each occurrence and annual.

Workmen's Compensation including Employer's Liability Coverage: \$100,000 each accident, \$500,000 annual aggregate, in accordance with all applicable Michigan laws.

GENERAL CONDITIONS

- A. It shall be the bidder's responsibility to read this entire document, review all enclosures and attachments, and comply with all requirements within. Alteration of this document is a crime.
- B. For the purpose of assuring Holt Public Schools of the quality of workmanship, materials, equipment, and service, the School Board will retain the right to qualify or disqualify bidders on the basis of available information covering their service and the suitability of the equipment/material bid for the project. All bidders shall provide, upon request, evidence of public liability coverage to include Automobile and Comprehensive General Liability.
- C. All alternate equipment/material as specified herein, or suggested by bidder, will be made by a reputable experienced manufacturer and shall conform to the specifications in order to promote efficiency in its use, reduce maintenance cost, and to assure durability for which it is intended.
- D. In some cases, where manufacturer names and model numbers are indicated, alternates are not acceptable to create a base bid. However, in most cases alternates are acceptable, but subject to review by the owner. It will be incumbent upon the bidder, when bidding an alternate, to provide proper documentation that the alternates are equal to the manufacturer names and model numbers listed in the base bid. **Vendors are encouraged to provide more than one bid as well as alternate bids that they feel may meet the needs of Holt Public Schools.**
- E. Holt Public Schools reserves the right to accept or reject any or all bids; and to make awards as it considers its best interest, whether low bid or not, this excludes omitting the required affidavits.
- F. All proposals submitted shall remain firm for a period of ninety days after date of receiving bids.
- G. Payments for materials will be made upon proof that invoiced materials have been delivered to the site, or have been received by the bidder, and are being stored on a site under their control. Big Rapids will not be responsible for damage to items that

are stored offsite, contractor shall be fully responsible for all items until each item is completely installed.

- H. Final payments will only be made after a final walkthrough is completed with the Director of facilities and other persons they wish to be present.
- I. The delivery of the product shall be coordinated with the Owner and delivery terms are flexible. Bids must include all delivery charges, and unboxing costs; disposal of all waste must also be coordinated with owner prior to delivery.
- J. In the case where installation is specific; installation must be complete, and all costs must be included. It is also expected that any awarded contractor shall be responsible for cleanup and repairs to damaged elements resultant of work quoted for this project. Net 2 weeks.
- K. The successful bidder shall, within a reasonable time after receipt of written notice, make good any defects in material or workmanship that may develop, especially during the warranty period.
- L. Holt Public Schools shall not be responsible for any cost incurred by the bidder for the preparation of their bid.
- M. Holt Public Schools is a federally constituted government body and as such is not subject to Michigan State or Federal excise taxes.
- N. By submitting a bid, vendors acknowledge that their company will be a place where all persons feel welcomed, have a right to be treated equitably and without prejudice, and have a responsibility to treat others the same way. As an equal opportunity employer, vendor does not discriminate on the basis of race, creed, color, national origin, age, sex or physical/mental disability or veteran status in its employment or contracting.

SPECIFICATION INTENT

Holt Public Schools has identified several doors across their buildings that need replacement, or replacement hardware. This includes doors, door frames, sweeps, thresholds, closers, locksets, access control items and more. The project includes work at 3 buildings. The Bidder shall be responsible to provide pricing to replace entire openings and costs to remedy any damages to existing items that were noted to remain in place at the walkthrough. Some doors also include Access control devices to be installed as well. The systems integrator the district has chosen is Mobile Communications America (MCA) or Knight Watch . The bidder shall coordinate installation of electronic door hardware with the integrator to assure proper operation. Bidder shall also include MCA or Knight Watch fixed costs as part of their total cost.

There are 16 or more openings identified as part of this project. It is the districts intent to solicit pricing for the hardware sets identified herein, as well as the costs to install the hardware to solicit pricing to remove and replace the door panels and door frames where

listed. The “openings” may be a bank (more than 3 doors), pairs of doors in some cases, or in other cases a single door. See attached overall plans for reference.

ACCEPTABLE MANUFACTURERS

The base bid for this solicitation shall include door hardware from Allegion as the basis of design. All bids shall also include pricing to demo existing openings, and install new Edge Water doors and frames along with the hardware specified. Holt Public Schools recognize there are many companies that can supply Door hardware, and Doors and Frames for the desired openings identified as part of this project. The Manufacturers listed herein are to be referred to as basis of design. Any alternate manufacturers suggested by a bidder shall also be accompanied by a base bid, and documentation sufficient to allow Holt Public Schools to qualify the products as equal to the basis of design. Any bid submitted without proper documentation, will be considered incomplete and may not be accepted.

Door Hardware: **Allegion: Ives, LCN, VonDuprin, Glynn Johnson, Schlage, Zero.**

Doors and Frames: Edge Water

Wilcox, Horizon – Dark Grey

North Campus – Black

Note: colors need to be finalized with Holt Schools prior to ordering with a review of samples color prior to order.

SPECIFICATIONS:

All door hardware shall be installed in accordance with the detailed specifications that follow this section.

Bidder shall include pricing for removal and disposal of existing doors and frames where identified. This includes door panels mullions and any items that will impede the installation of bidders quoted system(s). Door hardware shall be removed from existing doors and frames. No hardware shall be disposed of without Owners prior approval. Items may be requested to be returned to owner for attic stock. Bidder shall include pricing for rough opening preparation, including concrete patching, surface preparation, removal of existing fasteners, as well as site cleanup and costs related to remedy incidental damage to the site resultant of work conducted to install bidders quoted system(s).

Bidder shall also include costs for any temporary structures that may be necessary to secure the facility if demolition of existing system cannot be done in conjunction with the installation of new system. Work cannot be done in a manner that allows for the building to be entered through work site without keyed access.

All glazing on the proposed system(s) shall match any existing tints on adjacent openings, field verify and coordinate with owner before ordering glazing. Doors and frames shall match adjacent door and frame colors, field verify and coordinate finish, frame sizing as well as glazing size and tint colors with owner before ordering

Bidder shall also provide a specific timeline for anticipated completion of work within 90 days of receipt of contract.

Access control needs shall be coordinated by the bidder at the time of frame installation. All related trades and contractors need to coordinate their work to assure full functionality of intended devices to be installed. The bidder will be responsible to coordinate pull strings through frames, direct or provide conduit in frames if necessary, and direct or provide locations for junction boxes to be installed to facilitate connections to the access control system. This effort is being detailed so the wiring needed at each opening can be routed from the access control systems to the door hardware in the most concealed manner possible.

All electrified door hardware will be supplied with Allegion Connect designated with (CON) in the part numbers. Wire harnesses will also be supplied and shall be connected to the electrified hardware by the door hardware installer. A pigtail end will be available stubbing out of the frames, or walls above the openings so the security contractors point of connection does not require them to dismantle any doors or frames to interface with the electrified hardware specified. All wiring shall be concealed where possible.

Contractual Information

Familial Disclosure Affidavit: All contractors must provide familial disclosure in compliance with MCL 380.1267 and attach this information to its proposal. The proposal must be accompanied by a sworn and notarized statement disclosing any familial relationship that exists between the owner and/or any employee of the contractor and any member of the school district's board of education or the district's superintendent. The school district will not accept a proposal that does not include this sworn and notarized disclosure statement. The familiar disclosure affidavit is attached to this RFP.

Iran Economic Sanctions Act: In accordance with Michigan Public Act No. 517 of 2012, all proposals must be accompanied by a sworn and notarized statement certifying that the contractor is not an Iran Linked Business. The school district will not accept a proposal that does not include this sworn and notarized statement. The Affidavit of Compliance — Iran Economic Sanctions Act is attached to this RFP.

Performance Bond: Successful contractors whose proposals are \$50,000 or more will be required to furnish performance and payment bonds in a form satisfactory to the district, in the amount of 100% of its proposal by a treasury listed surety licensed to do business in the State of Michigan, and the attorney-in-fact who executed the performance and payment bonds on behalf of the contractor shall attach a certified, current copy of its power of attorney. The cost of the bonds shall be included in each proposal.

Bid Bond:

Bids over \$29,572.00 must be accompanied by a certified check or treasury listed bid bond, as listed in the U.S. Department of Treasury Circular 570, in minimum amount

of 5% of bid amount. Bids not received without this guaranty will not be read or considered.

Governing Law: The contract shall be governed by and construed in accordance with the laws of the State of Michigan. The parties hereby agree to the exclusive jurisdiction and venue of courts sitting in Ingham County, Michigan.

General Indemnification: Contractor shall indemnify, defend and hold harmless the district, its board of education, its board members, in their official and individual capacities, its administrators, employees, agents, contractors, successors and assignees, from and against any and all claims, counterclaims, suits, debts, demands, actions, judgments, liens, costs, expenses, damages, injuries and liabilities, including actual attorney's fees and actual expert witness fees arising out of or in connection with contractor's performance of the contract and/or from contractor's violation of any of the terms of the contract, including, but not limited to: (i) the negligent acts or willful misconduct of the contractor, its officers, directors, employees, successors, assignees, contractors, and agents; (ii) any breach of the terms of the contract by the contractor, its officers, directors, employees, successors, assignees, contractors and agents; (iii) any violation or breach of any applicable Federal, State or local law, rule, regulation, ordinance, policy and/or licensing and permitting requirements applicable to the contract; or (iv) any breach of any representation or warranty the contractor, its officers, directors, employees, successors, assignees, contractors and agents under the contract. The contractor shall notify the district by certified mail, return receipt requested, immediately upon actual knowledge of any claim, suite, action, or proceeding for with Holt Public School District may be entitled to indemnification under the contract. This paragraph shall survive the expiration or earlier termination of the contract.

Compliance with Laws: Contractor shall comply with any and all applicable federal, state, and local laws, rules, ordinances, policies, and regulations, including any licensing and permitting requirements, under the contract. Contractor, including its personnel, employees, contractors, consultants, and agents shall be responsible for knowing the district's policies concerning appropriate behavior of persons in school district facilities and on school district properties, including for example, the prohibitions of sexual harassment and smoking, and shall comply with all such policies. Contractor represents and warrants to the school district that it shall always be in compliance with any and all applicable federal and state laws, rules, ordinances, policies and regulations and licensing and permitting requirement applicable to the contract. Contractors shall indemnify, defend, and hold district harmless from any liability from its failure to so comply.

Pricing: Prices quoted are to be F.O.B. to Holt Public Schools. All purchase prices shall be net; including transportation, insurance, and delivery charges fully prepaid by the successful contractor to destinations indicated in the proposal.

Taxes: The Holt Public School District is exempt from taxes. However, when state and local taxes are required on construction materials installed by the contractor, such taxes must be included in the contractor's proposal price.

Proposal Withdrawal: Contractors may withdraw their proposals any time before the due date. Proposals may not be withdrawn for at least ninety (90) days after the due date.

Competition: The name of a model, manufacturer or brand in this RFP shall not be considered as exclusive of other brands. Brands and models specified in this RFP are preferred. The district expects all supplies, materials, equipment, or products bid by a contractor to meet or exceed the specifications set forth in this RFP. Further, it is the district's intent that this RFP permits competition. Accordingly, the use of any patent, proprietary name or manufacturer's name is for demonstrative purposes only and is not intended to curtail competition. Whenever any supplies, material, equipment, or products requested in this RFP are specified by patent, proprietary name or by the name of the manufacturer, unless stated differently, such specifications shall be considered as followed by the words "or comparable equivalent," whether or not such words appear. The school district in its sole and absolute discretion shall have the right to determine if the proposed equivalent products/brands submitted by the contractor meet the specifications contained in this RFP and possess equivalent and/or better qualities. It is the contractors' responsibility to notify the district in writing if any specifications or suggested comparable equivalent products/brands require clarification by the district prior to the due date of the proposals. All deviations from the specification must be noted on the proposal form.

BIDDERS RESPONSIBILITIES

Bids will be due by 1:00pm, January 30, 2026

Bid proposals shall include the following documentation:

- Detailed Proposal
- Completed Bid Form
- Detailed Bill of Materials
- Fixed cost for MCA or Knight watch.
- Familial Affidavit
- Iran Economic Sanctions Affidavit
- Warranty Information
- Additional documentation found necessary will be posted to SIGMA VSS as an addenda(s).

To: Holt Public Schools

Date: 09/29/2025

Attention: Ryan Zoumbaris

RE: Door Replacement

Doors

Wilcox – Door 2, Door 13, Door 14

Horizon – Door 15

North Campus – Door 22, Door 21, Door 24, Door 26, Door 17, Door 25, Door 9, Door 8, Door 1, Door 1

Please see door visuals of doors for more detail.

Door Color:

Wilcox, Horizon – Dark Grey

North Campus – Black

Note: colors need to be finalized with Holt Schools prior to ordering with a review of samples color prior to order.

Payment

Payment for this work will be by itemized list of actual quantities installed at the unit prices as listed in this proposal.

Holt North Campus				
Item	Quantity	Unit	Price	Total
FRP Pedestrian Door				
Frames				
Sitelites				
Safety Film				
Panic Hardware Exit Devices				
Closers				
Weatherstripping				
Thresholds				
Cylinders				
Caulk & Selant				
Demo				
Installation & Mobilization				
Prevailing Wage - Carpenter				
Prevailing Wage - Laborer				
Prevailing Wage - Foreman				
Prevailing Wage – Fringe Benefit Costs				
Performance Bond & Bid Bond Cost				
Total				

Holt Horizon				
Item	Quantity	Unit	Price	Total
FRP Pedestrian Door				
Frames				
Sitelites				
Safety Film				
Panic Hardware Exit Devices				
Closers				
Weatherstripping				
Thresholds				
Cylinders				
Caulk & Selant				

Demo				
Installation & Mobilization				
Prevailing Wage - Carpenter				
Prevailing Wage - Laborer				
Prevailing Wage - Foreman				
Prevailing Wage – Fringe Benefit Costs				
Performance Bond & Bid Bond Cost				
Total				

Holt Wilcox				
Item	Quantity	Unit	Price	Total
FRP Pedestrian Door				
Frames				
Sitelites				
Safety Film				
Panic Hardware Exit Devices				
Closers				
Weatherstripping				
Thresholds				
Cylinders				
Caulk & Selant				
Demo				
Installation & Mobilization				
Prevailing Wage - Carpenter				
Prevailing Wage - Laborer				
Prevailing Wage - Foreman				
Prevailing Wage – Fringe Benefit Costs				
Performance Bond & Bid Bond Cost				
Total				

Project Name: Holt Schools Exterior Door & Hardware Replacement

Locations: Holt North Campus

Holt Horizon

Holt Wilcox

Signature by: _____ Date: _____

Printed Name: _____ Title: _____

Contractor: _____

Address: _____

City: _____ State: _____ Zip: _____

AFFIDAVIT OF COMPLIANCE – IRAN ECONOMIC SANCTIONS ACT

Michigan Public Act No. 517 of 2012

The undersigned, the owner or authorized officer of _____ (the “Bidder”), pursuant to the compliance certification requirement provided in the Big Rapids School District request for proposal for **2022 (Your Company Name here) (name of Project Goes here)** hereby certifies, represents and warrants that the Bidder (including its officers, directors and employees) is not an “Iran Linked Business” within the meaning of the Iran Economic Sanctions Act, Michigan Public Act No. 517 of 2012 (the “Act”), and that in the event Bidder is awarded a Contract as a result of the aforementioned Invitation To Bid, the Bidder will not become an “Iran Linked Business” at any time during the course of performing under the Contract.

The Bidder further acknowledges that any person who is found to have submitted a false certification is responsible for a civil penalty of not more than \$250,000.00 or 2 times the amount of the Contract or proposed Contract for which the false certification was made, whichever is greater, the cost of the Intermediate School District's investigation, and reasonable attorney fees, in addition to the fine. Moreover, any person who submitted a false certification shall be ineligible to bid on an Invitation To Bid for three (3) years from the date it is determined that the person has submitted the false certification.

Contractor:

By: _____

Title: _____

Date:

STATE OF MICHIGAN)
)ss.
COUNTY OF _____)

, Notary Public

County.

My Commission Expires:

Acting in the County of:

FAMILIAL RELATIONSHIP DISCLOSURE STATEMENT

Important: This disclosure statement must be included with your bid - required by state law (P.A. 232 of 2004)

As required by Public Act 232 of 2004, all bids shall be accompanied by a sworn and notarized statement disclosing any familial relationship that exists between the owner or any employee of the bidder and any member of the School Board or the Superintendent of (Your Company Name here).

The undersigned, the owner or authorized officer of _____

(the Bidder), pursuant to the familial disclosure requirement provided in the attached invitation to bid, hereby represent and warrant, except as provided below, that no familial relationships exist between the owner(s) or any employee of the company and any member of the School Board or the Superintendent of (Your Company Name here) . If such a relationship exists, please explain:

BIDDER: _____

By: _____

Title: _____

STATE OF MICHIGAN

)

)ss.

COUNTY OF _____

)

This instrument was acknowledged before me on the _____ day of _____, 2022, by

_____.

_____, Notary Public

_____, County, _____

My Commission Expires: _____

Acting in the County of: _____

Suspended or Debarred Vendor

The undersigned, the owner or authorized officer of _____ (the "Bidder") hereby certifies and affirms that it and its principals are not debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded by any Federal department or agency from doing business with the Federal Government.

Information regarding whether or not a business is suspended or debarred is available at the Federal System for Award Management website www.sam.gov

Bidder Name: _____

Bidder EIN #: _____

By: _____

Authorized Representative Name: _____

It's _____

Date: _____

STATE OF MICHIGAN

)

)ss.

COUNTY OF _____)

This instrument was acknowledged before me on the _____ day of _____, 2022, by

_____, Notary Public

_____, County, _____

My Commission Expires: _____

Acting in the County of: _____

Michigan Business Certification & Authorization for Verification

The undersigned, the owner or authorized officer of _____(the “Bidder) hereby certifies that it has submitted a bid or proposal to the Holt Public School District. District and that the Bidder is a “Michigan Business” as defined in MCL 18.1268(1) and (2). The Bidder certifies that it has within the 12 months immediately preceding the bid/proposal deadline or for the period that the business has been in existence, if the business is a newly established within the 12 months immediately preceding the bid deadline:

1. Filed a Michigan single business tax return or Michigan business tax return showing a portion or all of the income taxed based allocated or apportioned to the state of Michigan pursuant to the former single business tax act, 1975 PA 228 or the Michigan business tax act, 2007 PA 36, MCL 208.11101 to 208.1601.
2. Filed a Michigan income tax return showing income generated in or attributed to the state of Michigan.
3. Withheld Michigan income tax from compensation paid to the bidder’s owners and remitted the tax to the department of treasury.

The Bidder further certifies that its filling or withholding satisfying the above criteria was more than a nominal filing for the purpose of gaining the status of a Michigan business, but shall indicate a significant business presence in the state, considering the size of the business and nature of its activities.

The Bidder hereby authorizes the Michigan Department of Treasury to verify that the Bidder has or has not satisfied at least one of the above enumerated criteria. This authorization shall permit the Michigan Department of Treasury to disclose the verifying information to the Holt Public School District in accordance with the procedures established by Section 28 of 1941 PA 122, MCL 205.28 and Section 623a of 1976 PA 451. MCL 380.623.A

Bidder Name: _____
Bidder EIN #: _____
By: _____
Authorized Representative Name: _____
It's _____
Date: _____

STATE OF MICHIGAN)
)ss.
COUNTY OF _____)

This instrument was acknowledged before me on the _____ day of _____, 202, by
_____.

_____, Notary Public
_____, County, _____

My Commission Expires: _____

Acting in the County of: _____

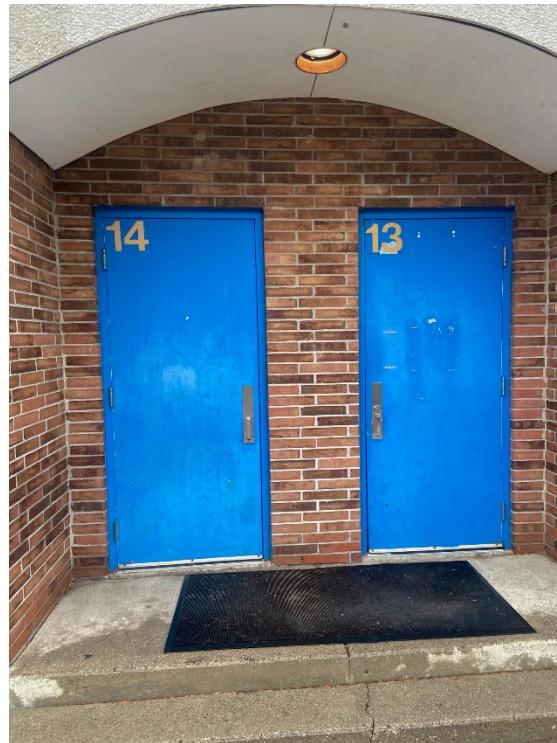
Door Visuals

Attachment C

Wilcox Door 2



Wilcox Door 14



Wilcox Door 13



Horizon Door 15



North Campus Door 22



North Campus Door 21

- Removable Mullion



North Campus Door 24 Whole Store Front

- Removable Mullion



North Campus Door 26 Whole Store Front

- Removable Mullion



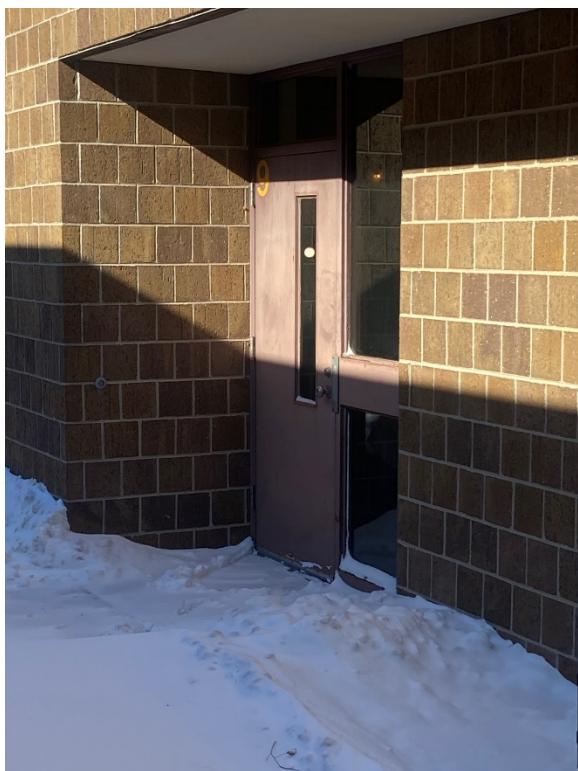
North Campus Door 27



North Campus Door 25



North Campus Door 9



North Campus Door 8



North Campus Door 1 Whole Storefront



North Campus Door 10 Whole Storefront



North Campus Door 10 Whole Storefront

- Removable Mullion



North Campus Door 10 Whole Storefront



SECTION 087100 - DOOR HARDWARE

PART 1 - GENERAL

1.01 SUMMARY

- A. Section includes:
 1. Mechanical and electrified door hardware
 2. Electronic access control system components
- B. Section excludes:
 1. Windows
 2. Cabinets (casework), including locks in cabinets
 3. Signage
 4. Toilet accessories
 5. Overhead doors
- C. Related Sections:
 1. Division 01 "General Requirements" sections for Allowances, Alternates, Owner Furnished Contractor Installed, Project Management and Coordination.
 2. Division 06 Section "Rough Carpentry"
 3. Division 06 Section "Finish Carpentry"
 4. Division 07 Section "Joint Sealants" for sealant requirements applicable to threshold installation specified in this section.
 5. Division 08 Sections:
 - a. "Metal Doors and Frames"
 - b. "Flush Wood Doors"
 - c. "Stile and Rail Wood Doors"
 - d. "Interior Aluminum Doors and Frames"
 - e. "Aluminum-Framed Entrances and Storefronts"
 - f. "Stainless Steel Doors and Frames"
 - g. "Special Function Doors"
 - h. "Entrances"
 6. Division 26 "Electrical" sections for connections to electrical power system and for low-voltage wiring.
 7. Division 28 "Electronic Safety and Security" sections for coordination with other components of electronic access control system and fire alarm system.

1.02 REFERENCES

- A. UL LLC
 1. UL 10B - Fire Test of Door Assemblies
 2. UL 10C - Positive Pressure Test of Fire Door Assemblies
 3. UL 1784 - Air Leakage Tests of Door Assemblies
 4. UL 305 - Panic Hardware
- B. DHI - Door and Hardware Institute

1. Sequence and Format for the Hardware Schedule
2. Recommended Locations for Builders Hardware
3. Keying Systems and Nomenclature
4. Installation Guide for Doors and Hardware

C. NFPA – National Fire Protection Association

1. NFPA 70 – National Electric Code
2. NFPA 80 – 2016 Edition – Standard for Fire Doors and Other Opening Protectives
3. NFPA 101 – Life Safety Code
4. NFPA 105 – Smoke and Draft Control Door Assemblies
5. NFPA 252 – Fire Tests of Door Assemblies

D. ANSI - American National Standards Institute

1. ANSI A117.1 – 2017 Edition – Accessible and Usable Buildings and Facilities
2. ANSI/BHMA A156.1 - A156.29, and ANSI/BHMA A156.31 - Standards for Hardware and Specialties
3. ANSI/BHMA A156.28 - Recommended Practices for Keying Systems
4. ANSI/WDMA I.S. 1A - Interior Architectural Wood Flush Doors
5. ANSI/SDI A250.8 - Standard Steel Doors and Frames

1.03 SUBMITTALS

A. General:

1. Submit in accordance with Conditions of Contract and Division 01 Submittal Procedures.
2. Prior to forwarding submittal:
 - a. Review drawings and Sections from related trades to verify compatibility with specified hardware.
 - b. Highlight, encircle, or otherwise specifically identify on submittals: deviations from Contract Documents, issues of incompatibility or other issues which may detrimentally affect the Work.

B. Action Submittals:

1. Product Data: Submit technical product data for each item of door hardware, installation instructions, maintenance of operating parts and finish, and other information necessary to show compliance with requirements.
2. Riser and Wiring Diagrams: After final approval of hardware schedule, submit details of electrified door hardware, indicating:
 - a. Wiring Diagrams: For power, signal, and control wiring and including:
 - 1) Details of interface of electrified door hardware and building safety and security systems.
 - 2) Schematic diagram of systems that interface with electrified door hardware.
 - 3) Point-to-point wiring.
 - 4) Risers.
3. Samples for Verification: If requested by Architect, submit production sample of requested door hardware unit in finish indicated and tagged with full description for coordination with schedule.
 - a. Samples will be returned to supplier. Units that are acceptable to Architect may, after final check of operations, be incorporated into Work, within limitations of key coordination requirements.

4. Door Hardware Schedule:

- a. Submit concurrent with submissions of Product Data, Samples, and Shop Drawings. Coordinate submission of door hardware schedule with scheduling requirements of other work to facilitate fabrication of other work critical in Project construction schedule.
- b. Submit under direct supervision of a Door Hardware Institute (DHI) certified Architectural Hardware Consultant (AHC) or Door Hardware Consultant (DHC) with hardware sets in vertical format as illustrated by Sequence of Format for the Hardware Schedule published by DHI.
- c. Indicate complete designations of each item required for each opening, include:
 - 1) Door Index: door number, heading number, and Architect's hardware set number.
 - 2) Quantity, type, style, function, size, and finish of each hardware item.
 - 3) Name and manufacturer of each item.
 - 4) Fastenings and other pertinent information.
 - 5) Location of each hardware set cross-referenced to indications on Drawings.
 - 6) Explanation of all abbreviations, symbols, and codes contained in schedule.
 - 7) Mounting locations for hardware.
 - 8) Door and frame sizes and materials.
 - 9) Degree of door swing and handing.
 - 10) Operational Description of openings with electrified hardware covering egress, ingress (access), and fire/smoke alarm connections.

5. Key Schedule:

- a. After Keying Conference, provide keying schedule that includes levels of keying, explanations of key system's function, key symbols used, and door numbers controlled.
- b. Use ANSI/BHMA A156.28 "Recommended Practices for Keying Systems" as guideline for nomenclature, definitions, and approach for selecting optimal keying system.
- c. Provide 3 copies of keying schedule for review prepared and detailed in accordance with referenced DHI publication. Include schematic keying diagram and index each key to unique door designations.
- d. Index keying schedule by door number, keyset, hardware heading number, cross keying instructions, and special key stamping instructions.
- e. Provide one complete bitting list of key cuts and one key system schematic illustrating system usage and expansion. Forward bitting list, key cuts and key system schematic directly to Owner, by means as directed by Owner.
- f. Prepare key schedule by or under supervision of supplier, detailing Owner's final keying instructions for locks.

C. Informational Submittals:

1. Provide Qualification Data for Supplier, Installer and Architectural Hardware Consultant.
2. Provide Product Data:
 - a. Certify that door hardware approved for use on types and sizes of labeled fire-rated doors complies with listed fire-rated door assemblies.
 - b. Include warranties for specified door hardware.

D. Closeout Submittals:

1. Operations and Maintenance Data: Provide in accordance with Division 01 and include:
 - a. Complete information on care, maintenance, and adjustment; data on repair and replacement parts, and information on preservation of finishes.
 - b. Catalog pages for each product.
 - c. Final approved hardware schedule edited to reflect conditions as installed.
 - d. Final keying schedule

- e. Copy of warranties including appropriate reference numbers for manufacturers to identify project.
- f. As-installed wiring diagrams for each opening connected to power, both low voltage and 110 volts.

E. Inspection and Testing:

- 1. Submit written reports to the Owner and Authority Having Jurisdiction (AHJ) of the results of functional testing and inspection for:
 - a. Fire door assemblies, in compliance with NFPA 80.
 - b. Required egress door assemblies, in compliance with NFPA 101.

1.04 QUALITY ASSURANCE

A. Qualifications and Responsibilities:

- 1. Supplier: Recognized architectural hardware supplier with a minimum of 5 years documented experience supplying both mechanical and electromechanical door hardware similar in quantity, type, and quality to that indicated for this Project. Supplier to be recognized as a factory direct distributor by the manufacturer of the primary materials with a warehousing facility in the Project's vicinity. Supplier to have on staff, a certified Architectural Hardware Consultant (AHC) or Door Hardware Consultant (DHC) available to Owner, Architect, and Contractor, at reasonable times during the Work for consultation.
- 2. Installer: Qualified tradesperson skilled in the application of commercial grade hardware with experience installing door hardware similar in quantity, type, and quality as indicated for this Project.
- 3. Architectural Hardware Consultant: Person who is experienced in providing consulting services for door hardware installations that are comparable in material, design, and extent to that indicated for this Project and meets these requirements:
 - a. For door hardware: DHI certified AHC or DHC.
 - b. Can provide installation and technical data to Architect and other related subcontractors.
 - c. Can inspect and verify components are in working order upon completion of installation.
 - d. Capable of producing wiring diagram and coordinating installation of electrified hardware with Architect and electrical engineers.
- 4. Single Source Responsibility: Obtain each type of door hardware from single manufacturer.

B. Certifications:

- 1. Fire-Rated Door Openings:
 - a. Provide door hardware for fire-rated openings that complies with NFPA 80 and requirements of authorities having jurisdiction.
 - b. Provide only items of door hardware that are listed products tested by UL LLC, Intertek Testing Services, or other testing and inspecting organizations acceptable to authorities having jurisdiction for use on types and sizes of doors indicated, based on testing at positive pressure and according to NFPA 252 or UL 10C and in compliance with requirements of fire-rated door and door frame labels.
- 2. Smoke and Draft Control Door Assemblies:
 - a. Provide door hardware that meets requirements of assemblies tested according to UL 1784 and installed in compliance with NFPA 105

- b. Comply with the maximum air leakage of 0.3 cfm/sq. ft. (3 cu. m per minute/sq. m) at tested pressure differential of 0.3-inch wg (75 Pa) of water.
- 3. Electrified Door Hardware
 - a. Listed and labeled as defined in NFPA 70, Article 100, by testing agency acceptable to authorities having jurisdiction.
- 4. Accessibility Requirements:
 - a. Comply with governing accessibility regulations cited in "REFERENCES" article 087100, 1.02.D3 herein for door hardware on doors in an accessible route. This project must comply with all Federal Americans with Disability Act regulations and all Local Accessibility Regulations.

C. Pre-Installation Meetings

- 1. Keying Conference
 - a. Incorporate keying conference decisions into final keying schedule after reviewing door hardware keying system including:
 - 1) Function of building, flow of traffic, purpose of each area, degree of security required, and plans for future expansion.
 - 2) Preliminary key system schematic diagram.
 - 3) Requirements for key control system.
 - 4) Requirements for access control.
 - 5) Address for delivery of keys.
- 2. Pre-installation Conference
 - a. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
 - b. Inspect and discuss preparatory work performed by other trades.
 - c. Inspect and discuss electrical roughing-in for electrified door hardware.
 - d. Review sequence of operation for each type of electrified door hardware.
 - e. Review required testing, inspecting, and certifying procedures.
 - f. Review questions or concerns related to proper installation and adjustment of door hardware.
- 3. Electrified Hardware Coordination Conference:
 - a. Prior to ordering electrified hardware, schedule and hold meeting to coordinate door hardware with security, electrical, doors and frames, and other related suppliers.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Inventory door hardware on receipt and provide secure lock-up for hardware delivered to Project site. Promptly replace products damaged during shipping.
- B. Tag each item or package separately with identification coordinated with final door hardware schedule, and include installation instructions, templates, and necessary fasteners with each item or package. Deliver each article of hardware in manufacturer's original packaging.
- C. Maintain manufacturer-recommended environmental conditions throughout storage and installation periods.
- D. Provide secure lock-up for door hardware delivered to Project. Control handling and installation of hardware items so that completion of Work will not be delayed by hardware losses both before and after installation.

E. Handle hardware in manner to avoid damage, marring, or scratching. Correct, replace or repair products damaged during Work. Protect products against malfunction due to paint, solvent, cleanser, or any chemical agent.

F. Deliver keys to manufacturer of key control system for subsequent delivery to Owner.

1.06 COORDINATION

- A. Coordinate layout and installation of floor-recessed door hardware with floor construction. Cast anchoring inserts into concrete.
- B. Installation Templates: Distribute for doors, frames, and other work specified to be factory or shop prepared. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing door hardware to comply with indicated requirements.
- C. Security: Coordinate installation of door hardware, keying, and access control with Owner's security consultant.
- D. Electrical System Roughing-In: Coordinate layout and installation of electrified door hardware with connections to power supplies and building safety and security systems.

1.07 WARRANTY

- A. Manufacturer's standard form in which manufacturer agrees to repair or replace components of door hardware that fail in materials or workmanship within published warranty period.
 - 1. Warranty does not cover damage or faulty operation due to improper installation, improper use or abuse.
 - 2. Warranty Period: Beginning from date of Substantial Completion, for durations indicated in manufacturer's published listings.
 - a. Mechanical Warranty
 - 1) Locks
 - a) Schlage L Series: 10 years
 - b) Schlage ND Series: 10 years
 - 2) Exit Devices
 - a) Von Duprin: 10 years
 - 3) Closers
 - a) LCN 4000 Series: 30 years
 - b. Electrical Warranty
 - 1) Exit Devices
 - a) Von Duprin: 3 years

1.08 MAINTENANCE

- A. Furnish complete set of special tools required for maintenance and adjustment of hardware, including changing of cylinders.
- B. Turn over unused materials to Owner for maintenance purposes.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. The Owner requires use of certain products for their unique characteristics and project suitability to ensure continuity of existing and future performance and maintenance standards. After investigating available product offerings, the Awarding Authority has elected to prepare proprietary specifications. These products are specified with the notation: "No Substitute."
 - 1. Where "No Substitute" is noted, submittals and substitution requests for other products will not be considered.
- B. Approval of alternate manufacturers and/or products other than those listed as "Scheduled Manufacturer" or "Acceptable Manufacturers" in the individual article for the product category are only to be considered by official substitution request in accordance with section 01 25 00.
- C. Approval of products from manufacturers indicated in "Acceptable Manufacturers" is contingent upon those products providing all functions and features and meeting all requirements of scheduled manufacturer's product.
- D. Where specified hardware is not adaptable to finished shape or size of members requiring hardware, furnish suitable types having same operation and quality as type specified, subject to Architect's approval.

2.02 MATERIALS

- A. Fabrication
 - 1. Provide door hardware manufactured to comply with published templates generally prepared for machine, wood, and sheet metal screws. provide screws according to manufacturer's recognized installation standards for application intended.
 - 2. Finish exposed screws to match hardware finish, or, if exposed in surfaces of other work, to match finish of this other work including prepared for paint surfaces to receive painted finish.
 - 3. Provide concealed fasteners wherever possible for hardware units exposed when door is closed. Coordinate with "Metal Doors and Frames", "Flush Wood Doors", "Stile and Rail Wood Doors" to ensure proper reinforcements. Advise the Architect where visible fasteners, such as thru bolts, are required.
- B. Provide screws, bolts, expansion shields, drop plates and other devices necessary for hardware installation.
 - 1. Where fasteners are exposed to view: Finish to match adjacent door hardware material.
- C. Cable and Connectors:
 - 1. Where scheduled in the hardware sets, provide each item of electrified hardware and wire harnesses with number and gage of wires enough to accommodate electric function of specified hardware.
 - 2. Provide Molex connectors that plug directly into connectors from harnesses, electric locking and power transfer devices.
 - 3. Provide through-door wire harness for each electrified locking device installed in a door and wire harness for each electrified hinge, electrified continuous hinge, electrified pivot, and electric power transfer for connection to power supplies.

2.03 CONTINUOUS HINGES

A. Manufacturers:

1. Scheduled Manufacturer:
 - a. Ives
2. Acceptable Manufacturers:
 - a. No Substitute

B. Requirements:

1. Provide aluminum geared continuous hinges conforming to ANSI/BHMA A156.26, Grade 1.
2. Provide aluminum geared continuous hinges, where specified in the hardware sets, fabricated from 6063-T6 aluminum.
3. Provide split nylon bearings at each hinge knuckle for quiet, smooth, self-lubricating operation.
4. Provide hinges capable of supporting door weights up to 450 pounds, and successfully tested for 1,500,000 cycles.
5. On fire-rated doors, provide aluminum geared continuous hinges classified for use on rated doors by testing agency acceptable to authority having jurisdiction.
6. Provide aluminum geared continuous hinges with electrified option scheduled in the hardware sets. Provide with number and gage of wires enough to accommodate electric function of specified hardware.
7. Provide hinges 1 inch (25 mm) shorter in length than nominal height of door, unless otherwise noted or door details require shorter length and with symmetrical hole pattern.

2.04 ELECTRIC POWER TRANSFER

A. Manufacturers:

1. Scheduled Manufacturer and Product:
 - a. Von Duprin EPT-10
2. Acceptable Manufacturers and Products:
 - a. No Substitute

B. Requirements:

1. Provide power transfer with electrified options as scheduled in the hardware sets. Provide with number and gage of wires enough to accommodate electric function of specified hardware.
2. Locate electric power transfer per manufacturer's template and UL requirements, unless interference with operation of door or other hardware items.

2.05 FLUSH BOLTS

A. Manufacturers:

1. Scheduled Manufacturer:
 - a. Ives
2. Acceptable Manufacturers:

a. Trimco

B. Requirements:

1. Provide automatic, constant latching, and manual flush bolts with forged bronze or stainless-steel face plates, extruded brass levers, and with wrought brass guides and strikes. Provide 12 inch (305 mm) steel or brass rods at doors up to 90 inches (2286 mm) in height. For doors over 90 inches (2286 mm) in height increase top rods by 6 inches (152 mm) for each additional 6 inches (152 mm) of door height. Provide dust-proof strikes at each bottom flush bolt.

2.06 MORTISE LOCKS

A. Manufacturers and Products:

1. Acceptable Manufacturers and Products:
 - a. No Substitute

B. Requirements:

1. Provide motor based electrified locksets that comply with the following requirements:
2. (KEY OVERRIDE OPTION WHEN XL13-439 IS SPECIFIED IN HARDWARE SETS)
Provide locks with a key override feature built into the chassis that allows the outside key to retract the deadbolt and/or latchbolt, overriding the inside thumbturn when it is being held in the locked position.
3. Lever Trim: Solid brass, bronze, or stainless steel, cast or forged in design specified, with wrought roses and external lever spring cages. Provide thru-bolted levers with 2-piece spindles.
 - a. Lever Design: Confirm with owner prior to ordering.

2.07 EXIT DEVICES

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product:
 - a. Von Duprin 98/35A series
2. Acceptable Manufacturers and Products:
 - a. No Substitute

B. Requirements:

1. Provide exit devices tested to ANSI/BHMA A156.3 Grade 1 and UL listed for Panic Exit or Fire Exit Hardware.
2. Cylinders: Refer to "KEYING" article, herein.
3. Provide smooth touchpad type exit devices, fabricated of brass, bronze, stainless steel, or aluminum, plated to standard architectural finishes to match balance of door hardware.
4. Touchpad must extend a minimum of one half of door width. No plastic inserts are allowed in touchpads.
5. Provide exit devices with deadlatching feature for security and for future addition of alarm kits and/or other electrified requirements.
6. Provide exit devices with weather resistant components that can withstand harsh conditions of various climates and corrosive cleaners used in outdoor pool environments.
7. Provide flush end caps for exit devices.

8. Provide exit devices with manufacturer's approved strikes.
9. Provide exit devices cut to door width and height. Install exit devices at height recommended by exit device manufacturer, allowable by governing building codes, and approved by Architect.
10. Mount mechanism case flush on face of doors or provide spacers to fill gaps behind devices. Where glass trim or molding projects off face of door, provide glass bead kits.
11. Provide cylinder or hex-key dogging as specified at non fire-rated openings.
12. Removable Mullions: 2 inches (51 mm) x 3 inches (76 mm) steel tube. Where scheduled as keyed removable mullion, provide type that can be removed by use of a keyed cylinder, which is self-locking when re-installed.
13. Provide factory drilled weep holes for exit devices used in full exterior application, highly corrosive areas, and where noted in hardware sets.
14. Provide electrified options as scheduled.
15. Top latch mounting: double- or single-tab mount for steel doors, face mount for aluminum doors eliminating requirement of tabs, and double tab mount for wood doors.
16. Provide exit devices with optional trim designs to match other lever and pull designs used on the project.

2.08 ACCESS CONTROL READER

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product:
 - a. Schlage MTB Series
2. Acceptable Manufacturers and Products:
 - a. At direction of Security Integrator/Contractor & Owner.

B. Requirements:

1. Provide access control card readers manufactured by a global company who is a recognized leader in the production of access control devices. Card reader manufactured for non-access control applications are not acceptable.
2. Provide multi-technology contactless readers complying with ISO 14443.
3. Provide access control card readers capable of reading the following technologies:
 - a. CSN - DESFire® CSN, HID iCLASS® CSN, Inside Contactless PicoTag® CSN, ST Microelectronics® CSN, Texas Instruments Tag-It®, CSN, Phillips I-Code® CSN
 - b. 125 KHz proximity - Schlage® Proximity, HID® Proximity, GE/CASI® Proximity, AWID® Proximity, LenelProx®
 - c. 13.56 MHz Smart card - Schlage smart cards using MIFARE Classic® EV1/EV3, Schlage smart cards using MIFARE Plus®, Schlage smart cards using MIFARE® DESFire® EV1/EV3, Schlage smart cards using MIFARE® DESFire® EV2/EV3
 - d. 13.56 MHz NFC (mobile), 2.45 GHz Bluetooth (mobile) - Mobile means compatible with Bluetooth and NFC-enabled smartphones.

2.09 POWER SUPPLIES

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product:
 - a. Schlage/Von Duprin PS900 Series
2. Acceptable Manufacturers and Products:
 - a. At direction of Security Integrator/Contractor & Owner.

B. Requirements:

1. Provide power supplies approved by manufacturer of supplied electrified hardware.
2. Provide appropriate quantity of power supplies necessary for proper operation of electrified locking components as recommended by manufacturer of electrified locking components with consideration for each electrified component using power supply, location of power supply, and approved wiring diagrams. Locate power supplies as directed by Architect.
3. Provide regulated and filtered 24 VDC power supply, and UL class 2 listed.
4. Provide power supplies with the following features:
 - a. 12/24 VDC Output, field selectable.
 - b. Class 2 Rated power limited output.
 - c. Universal 120-240 VAC input.
 - d. Low voltage DC, regulated and filtered.
 - e. Polarized connector for distribution boards.
 - f. Fused primary input.
 - g. AC input and DC output monitoring circuit w/LED indicators.
 - h. Cover mounted AC Input indication.
 - i. Tested and certified to meet UL294.
 - j. NEMA 1 enclosure.
 - k. Hinged cover w/lock down screws.
 - l. High voltage protective cover.

2.10 CYLINDERS

A. Manufacturers:

1. Scheduled Manufacturer and Product:
 - a. Supplied and Pinned into existing key system
2. Acceptable Manufacturers and Products:
 - a. No Substitute

B. Requirements:

1. Provide cylinders/cores to match Owner's existing key system, compliant with ANSI/BHMA A156.5; latest revision; cylinder face finished to match lockset, manufacturer's series as indicated. Refer to "KEYING" article, herein.

2.11 KEYING

A. Scheduled System:

1. Existing non-factory registered system:
 - a. Provide cylinders/cores keyed into Owner's existing keying system managed by Owner's locksmith, complying with guidelines in ANSI/BHMA A156.28, incorporating decisions made at keying conference. Contact:
 - 1) Firm Name: Metal Frames, Lansing MI
 - 2) Contact Person: Arnie Dickerson
 - 3) Telephone: 517-394-6244

B. Requirements:

1. Permanent Keying:

- a. Provide permanent cylinders/cores keyed by the manufacturer according to the following key system.
 - 1) Master Keying system as directed by the Owner.
- b. Forward bitting list and keys separately from cylinders, by means as directed by Owner. Failure to comply with forwarding requirements will be cause for replacement of cylinders/cores involved at no additional cost to Owner.
- c. Provide keys with the following features:
 - 1) Material: Nickel silver; minimum thickness of .107-inch (2.3mm)
 - 2) Patent Protection: Keys and blanks protected by one or more utility patent(s).
 - 3) Geographically Exclusive: Where High Security or Security cylinders/cores are indicated, provide nationwide, geographically exclusive key system complying with the following restrictions.
- d. Identification:
 - 1) Mark permanent cylinders/cores and keys with applicable blind code for identification. Do not provide blind code marks with actual key cuts.
 - 2) Identification stamping provisions must be approved by the Architect and Owner.
 - 3) Stamp cylinders/cores and keys with Owner's unique key system facility code as established by the manufacturer; key symbol and embossed or stamped with "DO NOT DUPLICATE" along with the "PATENTED" or patent number to enforce the patent protection.
 - 4) Failure to comply with stamping requirements will be cause for replacement of keys involved at no additional cost to Owner.
 - 5) Forward permanent cylinders/cores to Owner, separately from keys, by means as directed by Owner.
- e. Quantity: Furnish in the following quantities.
 - 1) Permanent Control Keys: 3.
 - 2) Master Keys: 6.
 - 3) Change (Day) Keys: 3 per cylinder/core that is keyed differently
 - 4) Key Blanks: Quantity as determined in the keying meeting.

2.12 DOOR CLOSERS

A. Manufacturers and Products:

1. Scheduled Manufacturer and Product:
 - a. LCN 4010/4110/4020 series
2. Acceptable Manufacturers and Products:
 - a. No Substitute

B. Requirements:

1. Provide door closers conforming to ANSI/BHMA A156.4 Grade 1 requirements by BHMA certified independent testing laboratory. Certify surface mounted mechanical closers to meet fifteen million (15,000,000) full load cycles. ISO 9000 certify closers. Stamp units with date of manufacture code.
2. Provide door closers with fully hydraulic, full rack and pinion action with high strength cast iron cylinder, and full complement bearings at shaft.
3. Cylinder Body: 1-1/2-inch (38 mm) diameter with 11/16-inch (17 mm) diameter double heat-treated pinion journal.
4. Hydraulic Fluid: Fireproof, passing requirements of UL10C, and requiring no seasonal closer adjustment for temperatures ranging from 120 degrees F to -30 degrees F.
5. Spring Power: Continuously adjustable over full range of closer sizes, and providing reduced opening force as required by accessibility codes and standards.

6. Hydraulic Regulation: By tamper-proof, non-critical valves, with separate adjustment for latch speed, general speed, and backcheck.
7. Provide closers with solid forged steel main arms and factory assembled heavy-duty forged forearms for parallel arm closers. When closers are parallel arm mounted, provide closers which mount within 6-inch (152 mm) top rail without use of mounting plate so that closer is not visible through vision panel from pull side.
8. Pressure Relief Valve (PRV) Technology: Not permitted.
9. Finish for Closer Cylinders, Arms, Adapter Plates, and Metal Covers: Powder coating finish which has been certified to exceed 100 hours salt spray testing as described in ANSI/BHMA Standard A156.4 and ASTM B117, or has special rust inhibitor (SRI).
10. Provide special templates, drop plates, mounting brackets, or adapters for arms as required for details, overhead stops, and other door hardware items interfering with closer mounting.

2.13 OVERHEAD STOPS AND OVERHEAD STOP/HOLDERS

A. Manufacturers:

1. Scheduled Manufacturers:
 - a. Glynn-Johnson
2. Acceptable Manufacturers:
 - a. No Substitute

B. Requirements:

1. Provide overhead stop at any door where conditions do not allow for a wall stop or floor stop presents tripping hazard.

2.14 DOOR STOPS AND HOLDERS

A. Manufacturers:

1. Scheduled Manufacturer:
 - a. Ives
2. Acceptable Manufacturers:
 - a. Trimco

B. Provide door stops at each door leaf:

1. Provide wall stops wherever possible. Provide concave type where lockset has a push button or thumbturn.
2. Where a wall stop cannot be used, provide universal floor stops.
3. Where wall or floor stop cannot be used, provide overhead stop.
4. Provide roller bumper where doors open into each other and overhead stop cannot be used.

2.15 THRESHOLDS, SEALS, DOOR SWEEPS, AUTOMATIC DOOR BOTTOMS, AND GASKETING

A. Manufacturers:

1. Scheduled Manufacturer:
 - a. Zero International
2. Acceptable Manufacturers:
 - a. National Guard
 - b. Reese
 - c. Pemko

B. Requirements:

1. Provide thresholds, weather-stripping, and gasketing systems as specified and per architectural details. Match finish of other items.
2. Smoke- and Draft-Control Door Assemblies: Where smoke- and draft-control door assemblies are required, provide door hardware that meets requirements of assemblies tested according to UL 1784 and installed in compliance with NFPA 105.
3. Provide door sweeps, seals, astragals, and auto door bottoms only of type where resilient or flexible seal strip is easily replaceable and readily available.
4. Size thresholds 1/2 inch (13 mm) high by 5 inches (127 mm) wide by door width unless otherwise specified in the hardware sets or detailed in the drawings.

2.16 DOOR POSITION SWITCHES

A. Manufacturers:

1. Scheduled Manufacturer:
 - a. Schlage
2. Acceptable Manufacturers:
 - a. GE-Interlogix
 - b. Sargent

B. Requirements:

1. Provide recessed or surface mounted type door position switches as specified.
2. Coordinate door and frame preparations with door and frame suppliers. If switches are being used with magnetic locking device, provide minimum of 4 inches (102 mm) between switch and magnetic locking device.

2.17 FINISHES

A. FINISH: BHMA 626/652 (US26D); EXCEPT:

1. Hinges at Exterior Doors: BHMA 630 (US32D)
2. Aluminum Geared Continuous Hinges: BHMA 628 (US28)
3. Push Plates, Pulls, and Push Bars: BHMA 630 (US32D)
4. Protection Plates: BHMA 630 (US32D)
5. Overhead Stops and Holders: BHMA 630 (US32D)
6. Door Closers: Powder Coat to Match
7. Wall Stops: BHMA 630 (US32D)
8. Latch Protectors: BHMA 630 (US32D)
9. Weatherstripping: Clear Anodized Aluminum
10. Thresholds: Mill Finish Aluminum

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Prior to installation of hardware, examine doors and frames, with Installer present, for compliance with requirements for installation tolerances, labeled fire-rated door assembly construction, wall and floor construction, and other conditions affecting performance. Verify doors, frames, and walls have been properly reinforced for hardware installation.
- B. Examine roughing-in for electrical power systems to verify actual locations of wiring connections before electrified door hardware installation.
- C. Submit a list of deficiencies in writing and proceed with installation only after unsatisfactory conditions have been corrected.

3.02 INSTALLATION

- A. Mount door hardware units at heights to comply with the following, unless otherwise indicated or required to comply with governing regulations.
 1. Standard Steel Doors and Frames: ANSI/SDI A250.8.
 2. Custom Steel Doors and Frames: HMMA 831.
 3. Interior Architectural Wood Flush Doors: ANSI/WDMA I.S. 1A
 4. Installation Guide for Doors and Hardware: DHI TDH-007-20
- B. Install door hardware in accordance with NFPA 80, NFPA 101 and provide post-install inspection, testing as specified in section 1.03.E unless otherwise required to comply with governing regulations.
- C. Install each hardware item in compliance with manufacturer's instructions and recommendations, using only fasteners provided by manufacturer.
- D. Do not install surface mounted items until finishes have been completed on substrate. Protect all installed hardware during painting.
- E. Set units level, plumb and true to line and location. Adjust and reinforce attachment substrate as necessary for proper installation and operation.
- F. Drill and countersink units that are not factory prepared for anchorage fasteners. Space fasteners and anchors according to industry standards.
- G. Install operating parts so they move freely and smoothly without binding, sticking, or excessive clearance.
- H. Hinges: Install types and in quantities indicated in door hardware schedule but not fewer than quantity recommended by manufacturer for application indicated.
- I. Lock Cylinders:
 1. Install construction cores to secure building and areas during construction period.
 2. Replace construction cores with permanent cores as indicated in keying section.
 3. Furnish permanent cores to Owner for installation.

- J. Wiring: Coordinate with Division 26, ELECTRICAL and Division 28 ELECTRONIC SAFETY AND SECURITY sections for:
 - 1. Conduit, junction boxes and wire pulls.
 - 2. Connections to and from power supplies to electrified hardware.
 - 3. Connections to fire/smoke alarm system and smoke evacuation system.
 - 4. Connection of wire to door position switches and wire runs to central room or area, as directed by Architect.
 - 5. Connections to panel interface modules, controllers, and gateways.
 - 6. Testing and labeling wires with Architect's opening number.
- K. Key Control System: Tag keys and place them on markers and hooks in key control system cabinet, as determined by final keying schedule.
- L. Continuous Hinges: Re-locate the door and frame fire rating labels where they will remain visible so that the hinge does not cover the label once installed.
- M. Door Closers & Auto Operators: Mount closers/operators on room side of corridor doors, inside of exterior doors, and stair side of stairway doors from corridors. Mount closers/operators so they are not visible in corridors, lobbies and other public spaces unless approved by Architect.
- N. Overhead Stops/Holders: Mount overhead stops/holders on room side of corridor doors, inside of exterior doors, and stair side of stairway doors.
- O. Power Supplies: Locate power supplies as indicated or, if not indicated, above accessible ceilings or in equipment room, or alternate location as directed by Architect.
- P. Thresholds: Set thresholds in full bed of sealant complying with requirements specified in Division 07 Section "Joint Sealants."
- Q. Stops: Provide floor stops for doors unless wall or other type stops are indicated in door hardware schedule. Do not mount floor stops where they may impede traffic or present tripping hazard.
- R. Perimeter Gasketing: Apply to head and jamb, forming seal between door and frame.
- S. Meeting Stile Gasketing: Fasten to meeting stiles, forming seal when doors are closed.
- T. Door Bottoms and Sweeps: Apply to bottom of door, forming seal with threshold when door is closed.

3.03 ADJUSTING

- A. Initial Adjustment: Adjust and check each operating item of door hardware and each door to ensure proper operation or function of every unit. Replace units that cannot be adjusted to operate as intended. Adjust door control devices to compensate for final operation of heating and ventilating equipment and to comply with referenced accessibility requirements.
 - 1. Spring Hinges: Adjust to achieve positive latching when door can close freely from an open position of 30 degrees.
 - 2. Electric Strikes: Adjust horizontal and vertical alignment of keeper to properly engage lock bolt.

3. Door Closers: Adjust sweep period to comply with accessibility requirements and requirements of authorities having jurisdiction.
- B. Occupancy Adjustment: Approximately three to six months after date of Substantial Completion, examine and readjust each item of door hardware, including adjusting operating forces, as necessary to ensure function of doors and door hardware.

3.04 CLEANING AND PROTECTION

- A. Clean adjacent surfaces soiled by door hardware installation.
- B. Clean operating items per manufacturer's instructions to restore proper function and finish.
- C. Provide final protection and maintain conditions that ensure door hardware is without damage or deterioration at time of Substantial Completion.

3.05 DOOR HARDWARE SCHEDULE

- A. The intent of the hardware specification is to specify the hardware for interior and exterior doors, and to establish a type, continuity, and standard of quality. However, it is the door hardware supplier's responsibility to thoroughly review existing conditions, schedules, specifications, drawings, and other Contract Documents to verify the suitability of the hardware specified.
- B. Discrepancies, conflicting hardware, and missing items are to be brought to the attention of the architect with corrections made prior to the bidding process. Omitted items not included in a hardware set should be scheduled with the appropriate additional hardware required for proper application.
- C. Hardware items are referenced in the following hardware schedule. Refer to the above specifications for special features, options, cylinders/keying, and other requirements.

D. Hardware Sets:

Abbreviation	Name
GLY	Glynn-Johnson Corp
IVE	H.B. Ives
LCN	LCN Commercial Division
SCE	Schlage Electronic Security
SCH	Schlage Lock Company
VON	Von Duprin
ZER	Zero International Inc

Holt Public Schools Door replacements - (S.D. Direct)

Hardware Group No. 01

For use on Door #(s):

HZ15

Provide each PR door(s) with the following:

QTY	DESCRIPTION	CATALOG NUMBER	FINISH	MFR
2	EA CONT. HINGE	112HD	628	IVE
1	EA REMOVABLE MULLION	KR4854 STAB	622	VON
1	EA PANIC HARDWARE	CD-98-DT	626	VON
1	EA PANIC HARDWARE	CD-98-NL	626	VON
3	EA MORTISE CYLINDER	20-059 (CAM AS REQ'D)	626	SCH
1	EA RIM HOUSING	20-079	626	SCH
4	EA FSIC PRIMUS CORE (BY METAL FRAMES INC.)	20-740	626	SCH
2	EA SURFACE CLOSER	4111 SCUSH MC	689	LCN
2	EA DOOR SWEEP	8198AA	AA	ZER
1	EA THRESHOLD	545A	A	ZER
2	EA DOOR CONTACT	679-05HM - CONNECT NEW DOOR CONTACTS TO EXISTING DOOR CONTACT CIRCUITS	↗ BLK	SCE

OPERATIONAL DESCRIPTION:

DOOR NORMALLY CLOSED AND LOCKED, EXTERIOR PULL HANDLES PRESENT. KEYWAY ON ONE LEAF FOR KEY OVERRIDE FROM EXTERIOR. CYLINDER DOGGING FOR KEY HOLDERS TO PLACE DOOR IN PUSH PULL OPERATION WHEN NEEDED FROM THE INSIDE.

Hardware Group No. 02

For use on Door #(s):

NC01

Provide each SGL door(s) with the following:

QTY	DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3	EA CONT. HINGE	112HD EPT	628	IVE
3	EA POWER TRANSFER	EPT10 CON	689	VON
2	EA ELEC PANIC HARDWARE	LX-RX-QUEL-98-DT-CON 24 VDC	626	VON
1	EA ELEC PANIC HARDWARE	LX-RX-QUEL-98-NL-CON 24 VDC	626	VON
3	EA MORTISE CYLINDER	20-059 (CAM AS REQ'D)	626	SCH
1	EA RIM HOUSING	20-079	626	SCH
4	EA FSIC PRIMUS CORE (BY METAL FRAMES INC.)	20-740	626	SCH
3	EA SURFACE CLOSER	4111 SCUSH MC	689	LCN
3	EA DOOR SWEEP	8198AA	AA	ZER
3	EA THRESHOLD	545A	A	ZER
1	EA MULTITECH READER	MTB11/MTB15 (AS REQ'D)	BLK	SCE
1	EA POWER SUPPLY	POWER SUPPLY (AS REQ'D)	✓	VON

ELECTRIFIED HARDWARE NOTES:

- 1) LX/RX PROVIDED TO REPORT LATCHING STATUS TO THE ACCESS CONTROL SYSTEM.
- 2) CONNECT RX AND DOOR CONTACTS TO ALLOW FOR CONTACT SHUNTING WHEN PROGRAMMED BY THE ACCESS CONTROL SYSTEM.
- 3) PROVIDE CABLING WIRING AND RELATED CONNECTIONS IN A CONCEALED MANNER WHERE EVER POSSIBLE. ALL TRADES SHALL COORDINATE WHERE ELECTRIFIED HARDWARE IS LISTED.
- 4) PROVIDE INDIVIDUAL OPENING POWER SUPPLIES, OR CENTRALIZED POWER SUPPLIES. ALL INRUSH NEEDS OF THE ELECTRIFIED HARDWARE SPECIFIED MUST BE MET WITH POWER SUPPLY INTENDED. POWER SUPPLY CAN BE PROVIDED BY HARDWARE SUPPLIER, OR BY ACCESS CONTROL CONTRACTOR.

OPERATIONAL DESCRIPTION:

DOORS NORMALLY CLOSED AND LOCKED. EACH LEAF OF THE BANK TO RECEIVE A LATCH RETRACTION PANIC DEVICE. KEY OVERRIDE ON ONE LEAF FORM THE EXTERIOR. CYLINDER DOGGING ON ALL PANICS FROM INSIDE.

Holt Public Schools Door replacements - (S.D. Direct)

Hardware Group No. 03

For use on Door #(s):

NC08 NC09 NC25 WC-02

Provide each SGL door(s) with the following:

QTY	DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA CONT. HINGE	112HD	628	IVE
1	EA STOREROOM LOCK	L9080J 06A	626	SCH
1	EA MORTISE CYLINDER	20-059 (CAM AS REQ'D)	626	SCH
1	EA FSIC PRIMUS CORE (BY METAL FRAMES INC.)	20-740	626	SCH
1	EA LOCK GUARD	LG1	630	IVE
1	EA SURFACE CLOSER	4111 SCUSH MC	689	LCN
1	EA RAIN DRIP	142(AA/BK) AS REQ'D	BK	ZER
1	EA DOOR SWEEP	8198AA	AA	ZER
1	EA THRESHOLD	545A	A	ZER
1	EA DOOR CONTACT	679-05HM - CONNECT NEW DOOR CONTACTS TO EXISTING DOOR CONTACT CIRCUITS	↗ BLK	SCE

HARDWARE SET NOTES:

- 1) CONTRACTOR SHALL NOT DISPOSE OF ANY EXISTING DOOR HARDWARE WITHOUT PRIOR OWNER APPROVAL.
- 2) RETURN ALL KEY CORES, LOCKSETS, PANIC DEVICES, AND CLOSERS TO OWNER FOR ATTIC STOCK.
- 3) CONTRACTOR WILL BE RESPONSIBLE FOR REPLACEMENT COSTS FOR ITEMS THAT WERE DISPOSED OF WITHOUT APPROVAL.
- 4) WHERE EXISTING ITEMS ARE LISTED AS RE-INSTALL EXISTING, BE SURE TO PROTECT THOSE ITEMS, OR SALVAGE AND REMOVE THEM FOR REINSTALLATION WITH NEW COMPOENTS LISTED IN EACH SET.

OPERATIONAL DESCRIPTION:

DOOR NORMALLY CLOSED AND LOCKED. KEY OVERRIDE WITH EXTERIOR KEYWAY IN MORTISE LOCK.

Hardware Group No. 04

For use on Door #(s):

NC10.1 NC10.3

Provide each PR door(s) with the following:

QTY	DESCRIPTION	CATALOG NUMBER	FINISH	MFR
2	EA CONT. HINGE	112HD EPT	628	IVE
2	EA POWER TRANSFER	EPT10 CON	689	VON
1	EA REMOVABLE MULLION	KR4854 STAB	622	VON
2	EA ELEC PANIC HARDWARE	LX-RX-QEL-98-DT-CON 24 VDC	626	VON
3	EA MORTISE CYLINDER	20-059 (CAM AS REQ'D)	626	SCH
3	EA FSIC PRIMUS CORE (BY METAL FRAMES INC.)	20-740	626	SCH
2	EA SURFACE CLOSER	4111 SCUSH MC	689	LCN
1	EA WALL STOP	WS406/407CCV	630	IVE
2	EA DOOR SWEEP	8198AA	AA	ZER
1	EA THRESHOLD	545A	A	ZER
1	EA MULTITECH READER	MTB11/MTB15 (AS REQ'D)	BLK	SCE
1	EA POWER SUPPLY	POWER SUPPLY (AS REQ'D)	✓	VON

ELECTRIFIED HARDWARE NOTES:

- 1) LX/RX PROVIDED TO REPORT TO THE ACCESS CONTROL SYSTEM.
- 2) CONNECT RX AND DOOR CONTACTS TO ALLOW FOR CONTACT SHUNTING WHEN PROGRAMMED BY THE ACCESS CONTROL SYSTEM.
- 3) PROVIDE CABLING WIRING AND RELATED CONNECTIONS IN A CONCEALED MANNER WHERE EVER POSSIBLE. ALL TRADES SHALL COORDINATE WHERE ELECTRIFIED HARDWARE IS LISTED.
- 4) PROVIDE INDIVIDUAL OPENING POWER SUPPLIES, OR CENTRALIZED POWER SUPPLIES. ALL INRUSH NEEDS OF THE ELECTRIFIED HARDWARE SPECIFIED MUST BE MET WITH POWER SUPPLY INTENDED. POWER SUPPLY CAN BE PROVIDED BY HARDWARE SUPPLIER, OR BY ACCESS CONTROL CONTRACTOR.

OPERATIONAL DESCRIPTION:

DOORS NORMALLY CLOSED AND LOCKED. BOTH LEAFS TO RECEIVE NEW LATCH RETRACTION PANIC DEVICES. NO EXTERIOR KEYWAY. CYLINDER DOGGING ON ALL PANICS FROM INSIDE.

Hardware Group No. 05

For use on Door #(s):

NC10.2

Provide each PR door(s) with the following:

QTY	DESCRIPTION	CATALOG NUMBER	FINISH	MFR
2	EA CONT. HINGE	112HD EPT	628	IVE
2	EA POWER TRANSFER	EPT10 CON	689	VON
1	EA REMOVABLE MULLION	KR4854 STAB	622	VON
1	EA ELEC PANIC HARDWARE	LX-RX-QUEL-98-DT-CON 24 VDC	626	VON
1	EA ELEC PANIC HARDWARE	LX-RX-QUEL-98-NL-CON 24 VDC	626	VON
3	EA MORTISE CYLINDER	20-059 (CAM AS REQ'D)	626	SCH
1	EA RIM HOUSING	20-079	626	SCH
4	EA FSIC PRIMUS CORE (BY METAL FRAMES INC.)	20-740	626	SCH
2	EA SURFACE CLOSER	4111 SCUSH MC	689	LCN
1	EA WALL STOP	WS406/407CCV	630	IVE
2	EA DOOR SWEEP	8198AA	AA	ZER
1	EA THRESHOLD	545A	A	ZER
1	EA MULTITECH READER	MTB11/MTB15 (AS REQ'D)	BLK	SCE
1	EA POWER SUPPLY	POWER SUPPLY (AS REQ'D)	✓	VON

ELECTRIFIED HARDWARE NOTES:

- 1) LX/RX PROVIDED TO REPORT TO THE ACCESS CONTROL SYSTEM.
- 2) CONNECT RX AND DOOR CONTACTS TO ALLOW FOR CONTACT SHUNTING WHEN PROGRAMMED BY THE ACCESS CONTROL SYSTEM.
- 3) PROVIDE CABLING WIRING AND RELATED CONNECTIONS IN A CONCEALED MANNER WHERE EVER POSSIBLE. ALL TRADES SHALL COORDINATE WHERE ELECTRIFIED HARDWARE IS LISTED.
- 4) PROVIDE INDIVIDUAL OPENING POWER SUPPLIES, OR CENTRALIZED POWER SUPPLIES. ALL INRUSH NEEDS OF THE ELECTRIFIED HARDWARE SPECIFIED MUST BE MET WITH POWER SUPPLY INTENDED. POWER SUPPLY CAN BE PROVIDED BY HARDWARE SUPPLIER, OR BY ACCESS CONTROL CONTRACTOR.

OPERATIONAL DESCRIPTION:

DOORS NORMALLY CLOSED AND LOCKED. BOTH LEAFS TO RECEIVE NEW LATCH RETRACTION PANIC DEVICES. EXTERIOR KEYWAY ON ONE LEAF FOR KEY OVERRIDE. CYLINDER DOGGING ON ALL PANICS FROM INSIDE.

Hardware Group No. 06

For use on Door #(s):

NC21

Provide each PR door(s) with the following:

QTY	DESCRIPTION	CATALOG NUMBER	FINISH	MFR
2	EA CONT. HINGE	112HD EPT	628	IVE
2	EA POWER TRANSFER	EPT10 CON	689	VON
1	EA REMOVABLE MULLION	KR4854 STAB	622	VON
1	EA ELEC PANIC HARDWARE	LX-RX-QEL-98-DT-CON 24 VDC	626	VON
1	EA ELEC PANIC HARDWARE	LX-RX-QEL-98-NL-CON 24 VDC	626	VON
3	EA MORTISE CYLINDER	20-059 (CAM AS REQ'D)	626	SCH
1	EA RIM HOUSING	20-079	626	SCH
4	EA FSIC PRIMUS CORE (BY METAL FRAMES INC.)	20-740	626	SCH
2	EA SURFACE CLOSER	4111 SCUSH MC	689	LCN
2	EA WALL STOP	WS406/407CCV	630	IVE
2	EA DOOR SWEEP	8198AA	AA	ZER
1	EA THRESHOLD	545A	A	ZER
1	EA MULTITECH READER	MTB11/MTB15 (AS REQ'D)	BLK	SCE
2	EA DOOR CONTACT	679-05HM - CONNECT NEW DOOR CONTACTS TO EXISTING DOOR CONTACT CIRCUITS	BLK	SCE
1	EA POWER SUPPLY	POWER SUPPLY (AS REQ'D)	↗	VON

ELECTRIFIED HARDWARE NOTES:

- 1) LX/RX PROVIDED TO REPORT LATCHING STATUS TO THE ACCESS CONTROL SYSTEM.
- 2) CONNECT RX AND DOOR CONTACTS TO ALLOW FOR CONTACT SHUNTING WHEN PROGRAMMED BY THE ACCESS CONTROL SYSTEM.
- 3) PROVIDE CABLING WIRING AND RELATED CONNECTIONS IN A CONCEALED MANNER WHERE EVER POSSIBLE. ALL TRADES SHALL COORDINATE WHERE ELECTRIFIED HARDWARE IS LISTED.
- 4) PROVIDE INDIVIDUAL OPENING POWER SUPPLIES, OR CENTRALIZED POWER SUPPLIES. ALL INRUSH NEEDS OF THE ELECTRIFIED HARDWARE SPECIFIED MUST BE MET WITH POWER SUPPLY INTENDED. POWER SUPPLY CAN BE PROVIDED BY HARDWARE SUPPLIER, OR BY ACCESS CONTROL CONTRACTOR.

OPERATIONAL DESCRIPTION:

DOORS NORMALLY CLOSED AND LOCKED. EXISTING CARD READER LOCATION TO BE REUSED WITH READER AND NEW LATCH RETRACTION PANICS ON BOTH LEAFS. KEY OVERRIDE ON ONE LEAF TO UNLATCH ONE LEAF FROM THE EXTERIOR. CYLINDER DOGGING PROVIDED TO OVERRIDE ACCESS CONTROL IF DESIRED.

Hardware Group No. 07

For use on Door #(s):

NC22

Provide each PR door(s) with the following:

QTY	DESCRIPTION	CATALOG NUMBER	FINISH	MFR
2	EA CONT. HINGE	112HD	628	IVE
2	EA MANUAL FLUSH BOLT	FB458	626	IVE
1	EA STOREROOM LOCK	L9080J 06A	626	SCH
1	EA MORTISE CYLINDER	20-059 (CAM AS REQ'D)	626	SCH
1	EA FSIC PRIMUS CORE (BY METAL FRAMES INC.)	20-740	626	SCH
1	EA LOCK GUARD	LG1	630	IVE
1	EA OH STOP & HOLDER	410H	630	GLY
1	EA SURFACE CLOSER	4111 HCUSH MC	689	LCN
1	EA RAIN DRIP	142(AA/BK) AS REQ'D	BK	ZER
2	EA DOOR SWEEP	8198AA	AA	ZER
1	EA THRESHOLD	545A	A	ZER
2	EA DOOR CONTACT	679-05HM - CONNECT NEW DOOR CONTACTS TO EXISTING DOOR CONTACT CIRCUITS	BLK	SCE
1		WEATHERSTRIP BY DOOR/FRAME MANUFACTURER		

OPERATIONAL DESCRIPTION:

DOOR NORMALLY CLOSED AND LOCKED. KEY OVERRIDE WITH EXTERIOR KEYWAY IN MORTISE LOCK. INACTIVE LEAF HELD IN PLACE WITH MANUAL FLUSHBOLTS. ACTIVE LEAF WITH CLOSER AND INTEGRAL HOLDER. INACTIVE LEAF WITH SURFACE OVERHEAD STOP/HOLDER.

Hardware Group No. 08

For use on Door #(s):

NC24

NC26

Provide each PR door(s) with the following:

QTY	DESCRIPTION	CATALOG NUMBER	FINISH	MFR
2	EA CONT. HINGE	112HD EPT	628	IVE
2	EA POWER TRANSFER	EPT10 CON	689	VON
1	EA ELEC PANIC HARDWARE	LX-RX-QUEL-98-DT-CON 24 VDC	626	VON
1	EA ELEC PANIC HARDWARE	LX-RX-QUEL-98-NL-CON 24 VDC	626	VON
2	EA MORTISE CYLINDER	20-059 (CAM AS REQ'D)	626	SCH
1	EA RIM HOUSING	20-079	626	SCH
3	EA FSIC PRIMUS CORE (BY METAL FRAMES INC.)	20-740	626	SCH
2	EA SURFACE CLOSER	4111 SCUSH MC	689	LCN
2	EA WALL STOP	WS406/407CCV	630	IVE
2	EA DOOR SWEEP	8198AA	AA	ZER
2	EA THRESHOLD	545A	A	ZER
1	EA MULTITECH READER	MTB11/MTB15 (AS REQ'D)	BLK	SCE
1	EA POWER SUPPLY	POWER SUPPLY (AS REQ'D)	✓	VON

ELECTRIFIED HARDWARE NOTES:

- 1) LX/RX PROVIDED TO REPORT LATCHING STATUS TO THE ACCESS CONTROL SYSTEM.
- 2) CONNECT RX AND DOOR CONTACTS TO ALLOW FOR CONTACT SHUNTING WHEN PROGRAMMED BY THE ACCESS CONTROL SYSTEM.
- 3) PROVIDE CABLING WIRING AND RELATED CONNECTIONS IN A CONCEALED MANNER WHERE EVER POSSIBLE. ALL TRADES SHALL COORDINATE WHERE ELECTRIFIED HARDWARE IS LISTED.
- 4) PROVIDE INDIVIDUAL OPENING POWER SUPPLIES, OR CENTRALIZED POWER SUPPLIES. ALL INRUSH NEEDS OF THE ELECTRIFIED HARDWARE SPECIFIED MUST BE MET WITH POWER SUPPLY INTENDED. POWER SUPPLY CAN BE PROVIDED BY HARDWARE SUPPLIER, OR BY ACCESS CONTROL CONTRACTOR.

OPERATIONAL DESCRIPTION:

DOORS NORMALLY CLOSED AND LOCKED. EXISTING CARD READER LOCATION TO BE REUSED WITH NEW READER AND LATCH RETRACTION PANICS ON BOTH LEAFS. KEY OVERRIDE ON ONE LEAF TO UNLATCH ONE LEAF. CYLINDER DOGGING PROVIDED TO OVERRIDE ACCESS CONTROL IF DESIRED.

Holt Public Schools Door replacements - (S.D. Direct)

Hardware Group No. 09

For use on Door #(s):

NC27

Provide each SGL door(s) with the following:

QTY	DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA CONT. HINGE	112HD	628	IVE
1	EA PANIC HARDWARE	CD-98-DT	626	VON
1	EA MORTISE CYLINDER	20-059 (CAM AS REQ'D)	626	SCH
1	EA FSIC PRIMUS CORE (BY METAL FRAMES INC.)	20-740	626	SCH
1	EA SURFACE CLOSER	4111 SCUSH MC	689	LCN
1	EA WALL STOP	WS406/407CCV	630	IVE
1	EA RAIN DRIP	142(AA/BK) AS REQ'D	BK	ZER
1	EA DOOR SWEEP	8198AA	AA	ZER
2	EA THRESHOLD	545A	A	ZER
1	EA DOOR CONTACT	679-05HM - CONNECT NEW DOOR CONTACTS TO EXISTING DOOR CONTACT CIRCUITS	↗ BLK	SCE

OPERATIONAL DESCRIPTION:

DOOR NORMALLY CLOSED AND LOCKED, EXTERIOR PULL HANDLE PRESENT, WITHOUT KEYWAY. CYLINDER DOGGING FOR KEY HOLDERS TO PLACE DOOR IN PUSH PULL OPERATION WHEN NEEDED FROM THE INSIDE.

Holt Public Schools Door replacements - (S.D. Direct)

Hardware Group No. 10

For use on Door #(s):

WC-13

Provide each SGL door(s) with the following:

QTY	DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA CONT. HINGE	112HD	628	IVE
1	EA PANIC HARDWARE	CD-98-NL	626	VON
1	EA MORTISE CYLINDER	20-059 (CAM AS REQ'D)	626	SCH
1	EA RIM HOUSING	20-079	626	SCH
1	EA FSIC PRIMUS CORE (BY METAL FRAMES INC.)	20-740	626	SCH
1	EA SURFACE CLOSER	4111 SCUSH MC	689	LCN
1	EA WALL STOP	WS406/407CCV	630	IVE
1	EA DOOR SWEEP	8198AA	AA	ZER
2	EA THRESHOLD	545A	A	ZER
1	EA DOOR CONTACT	679-05HM - CONNECT NEW DOOR CONTACTS TO EXISTING DOOR CONTACT CIRCUITS	↗ BLK	SCE

OPERATIONAL DESCRIPTION:

DOOR NORMALLY CLOSED AND LOCKED, EXTERIOR PULL HANDLE PRESENT WITH KEYWAY. CYLINDER DOGGING FOR KEY HOLDERS TO PLACE DOOR IN PUSH PULL OPERATION WHEN NEEDED FROM THE INSIDE. KEY OVERRIDE FROM EXTERIOR WILL ONLY UNLATCH THE DOOR MOMENTARILY.

Holt Public Schools Door replacements - (S.D. Direct)

Hardware Group No. 11

For use on Door #(s):

WC-14

Provide each SGL door(s) with the following:

QTY	DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1	EA CONT. HINGE	112HD	628	IVE
1	EA PANIC HARDWARE	CD-98-DT	626	VON
1	EA MORTISE CYLINDER	20-059 (CAM AS REQ'D)	626	SCH
1	EA FSIC PRIMUS CORE (BY METAL FRAMES INC.)	20-740	626	SCH
1	EA SURFACE CLOSER	4111 SCUSH MC	689	LCN
1	EA WALL STOP	WS406/407CCV	630	IVE
1	EA DOOR SWEEP	8198AA	AA	ZER
2	EA THRESHOLD	545A	A	ZER
1	EA DOOR CONTACT	679-05HM - CONNECT NEW DOOR CONTACTS TO EXISTING DOOR CONTACT CIRCUITS	↗ BLK	SCE

OPERATIONAL DESCRIPTION:

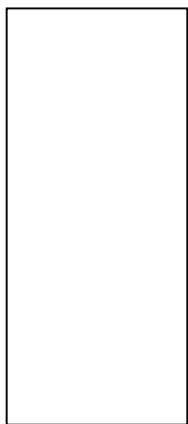
DOOR NORMALLY CLOSED AND LOCKED, EXTERIOR PULL HANDLE PRESENT, WITHOUT KEYWAY. CYLINDER DOGGING FOR KEY HOLDERS TO PLACE DOOR IN PUSH PULL OPERATION WHEN NEEDED FROM THE INSIDE.

END OF SECTION

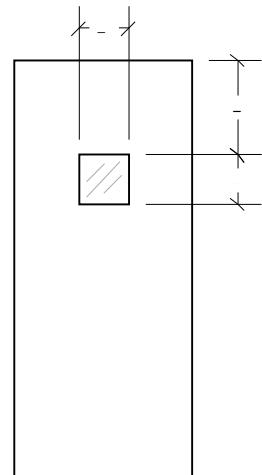
Edgewater Door

Commercial Fiberglass Doors & Frames

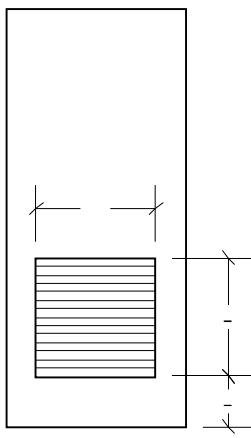
Door
Types:



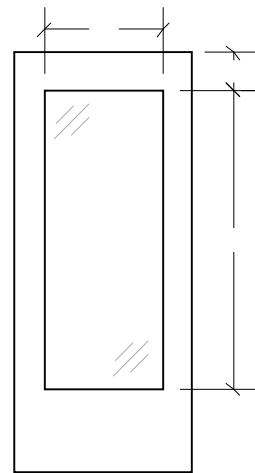
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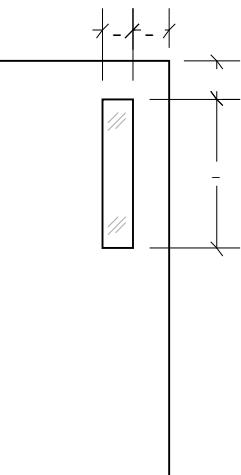
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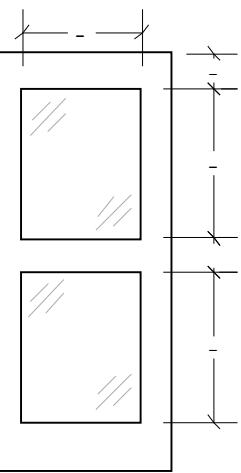
LV



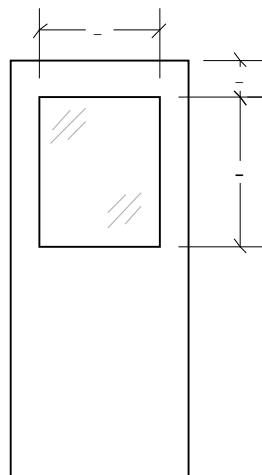
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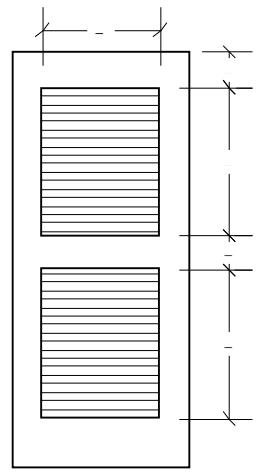
NV



2HG

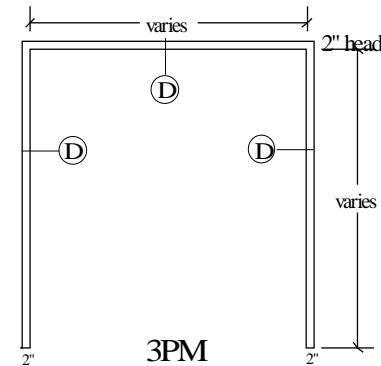
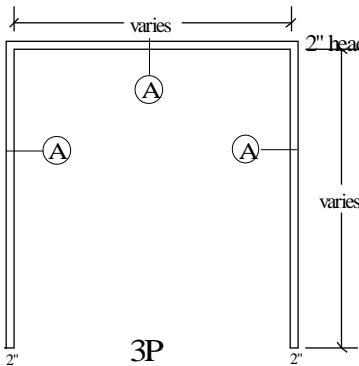
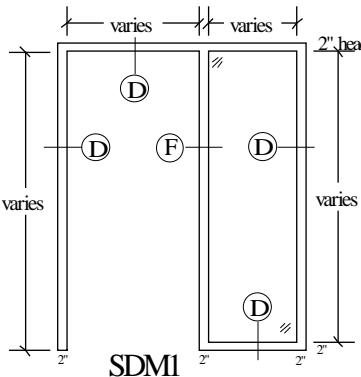
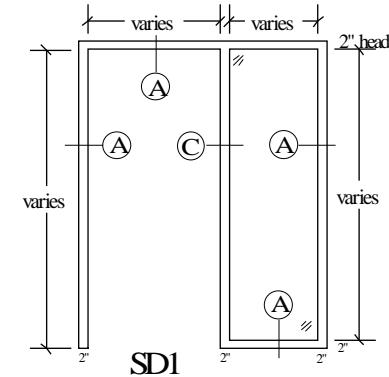
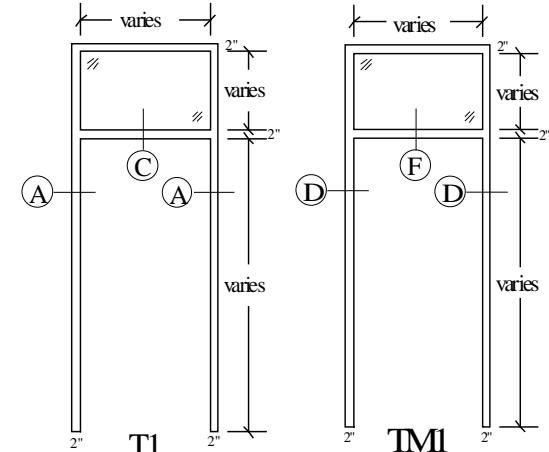
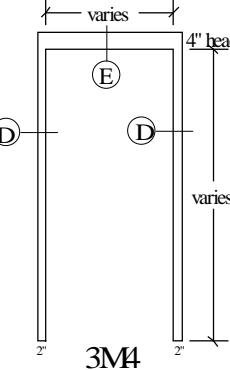
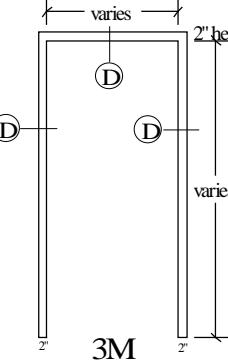
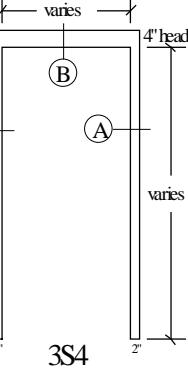
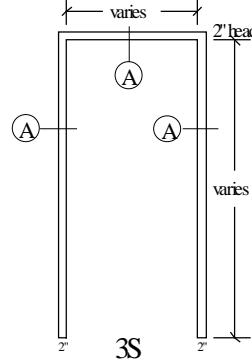


HG



2LV

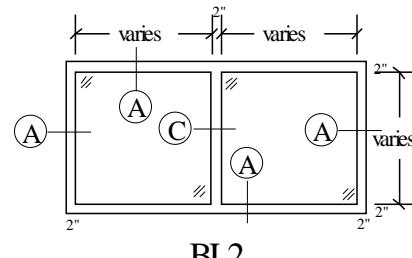
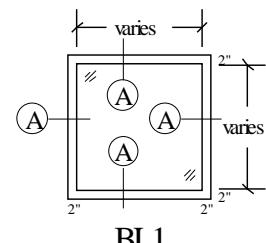
Frame Types



Glass is by others.

Dimensions shown are in inches.

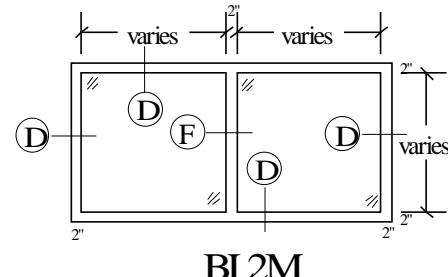
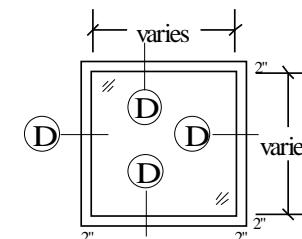
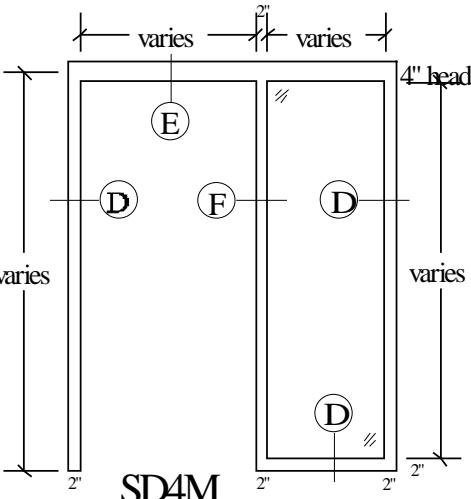
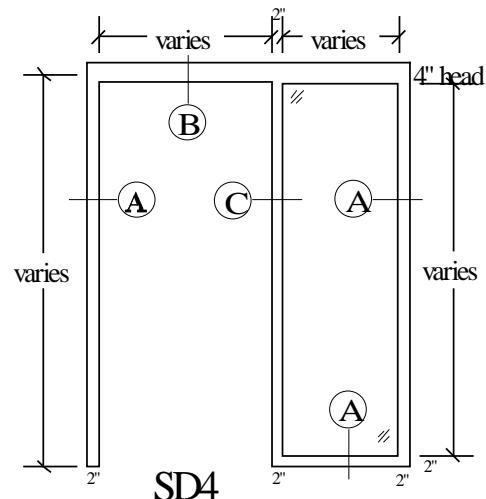
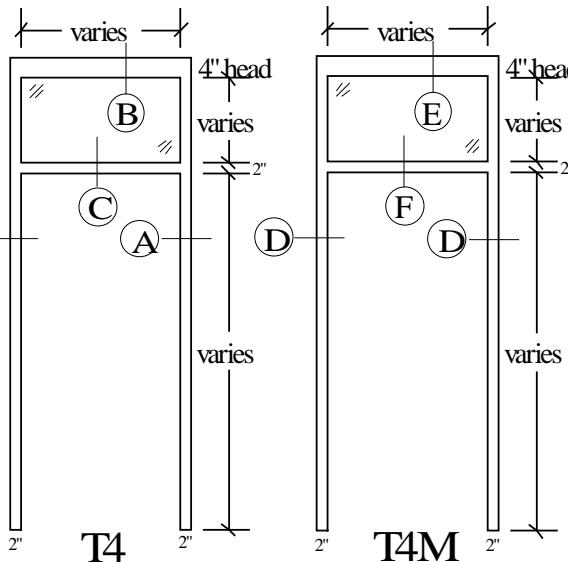
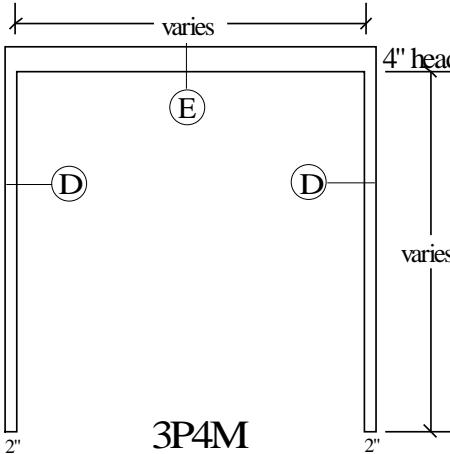
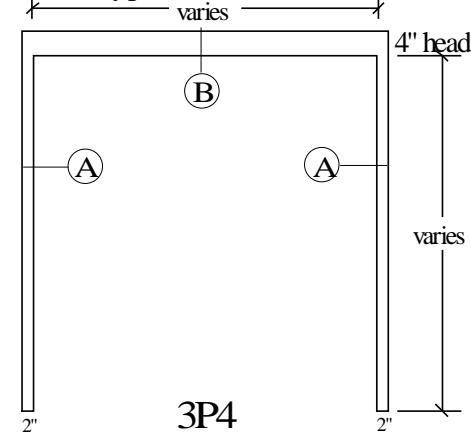
See Door Schedule for opening sizes.



Edgewater Door

Commercial Fiberglass Doors & Frames

Frame Types



See Door Schedule for opening sizes.

Edgewater Door

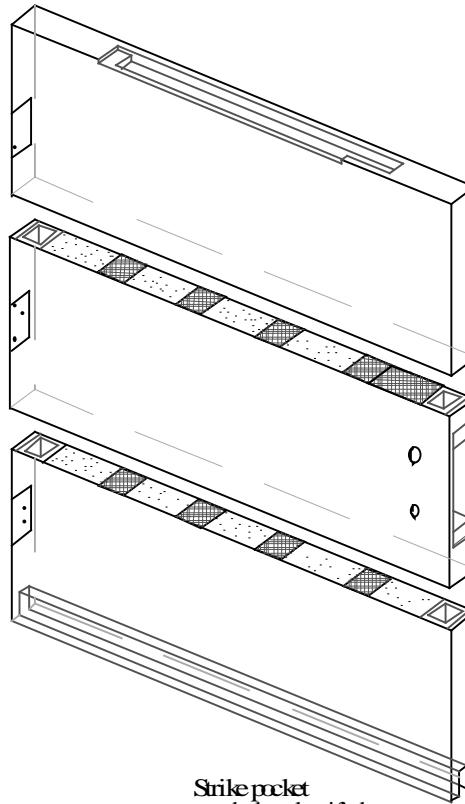
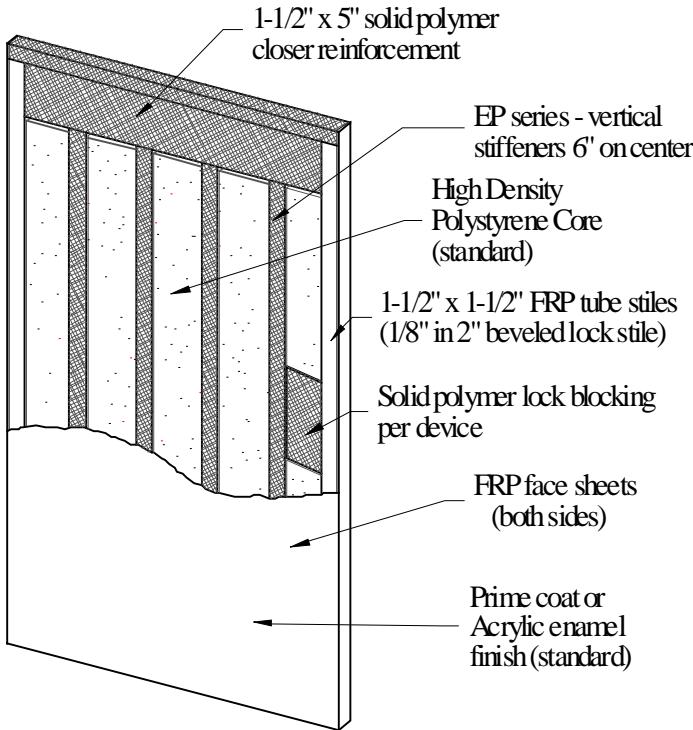
Commercial Fiberglass Doors & Frames

EP SERIES DOOR

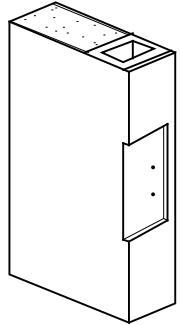
Extra Heavy Duty

Specifications

Doors shall be EP series Manufactured by Edgewater Door, Neenah, Wisconsin. Doors shall be of full flush construction 1-3/4" in thickness, manufactured utilizing polyethylene & fiberglass components for flexibility, durability, superior strength and chemical resistance. Laminated composite door faces shall be urethane fused to the stile and rail assembly, including the vertical stiffeners and surface area of core material, utilizing a two-part 100 percent reactive urethane adhesive, and then cured under pressure until completely bonded. Both lock and hinge stiles and top and bottom rails of the door shall be filled and ground smooth for a completely sealed construction. Doors shall have a beveled (1/8" in 2") lock edge.



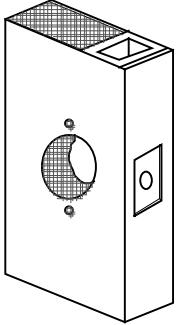
Hinge pockets standard or heavy weight



Butt hinge preps
pre-drilled for screws

solid polymer and
fiber-reinforced plastic
hinge reinforcements

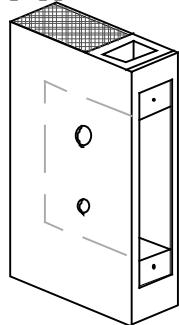
16l or 16lTB cylindrical prep



solid polymer
lock reinforcement

40-5/16" from floor
to centerline
of lock (standard)

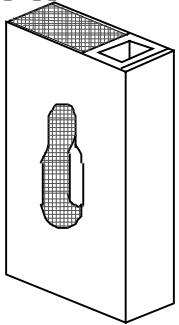
86 Mortise lock prep or function



solid polymer
lock reinforcement

40-5/16" from floor
to centerline
of lock (standard)

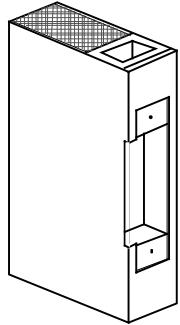
Panic device prep or function



solid polymer
lock reinforcement

Lock manufacturer's
recommended location
to centerline of device

Strike pocket standard or electrified



40-5/16" from floor
to centerline
of strike (standard)

Doors marked for ANSI prep unless specified in hardware schedule. Thru-boring closers & wood screws are recommended for hardware installation.

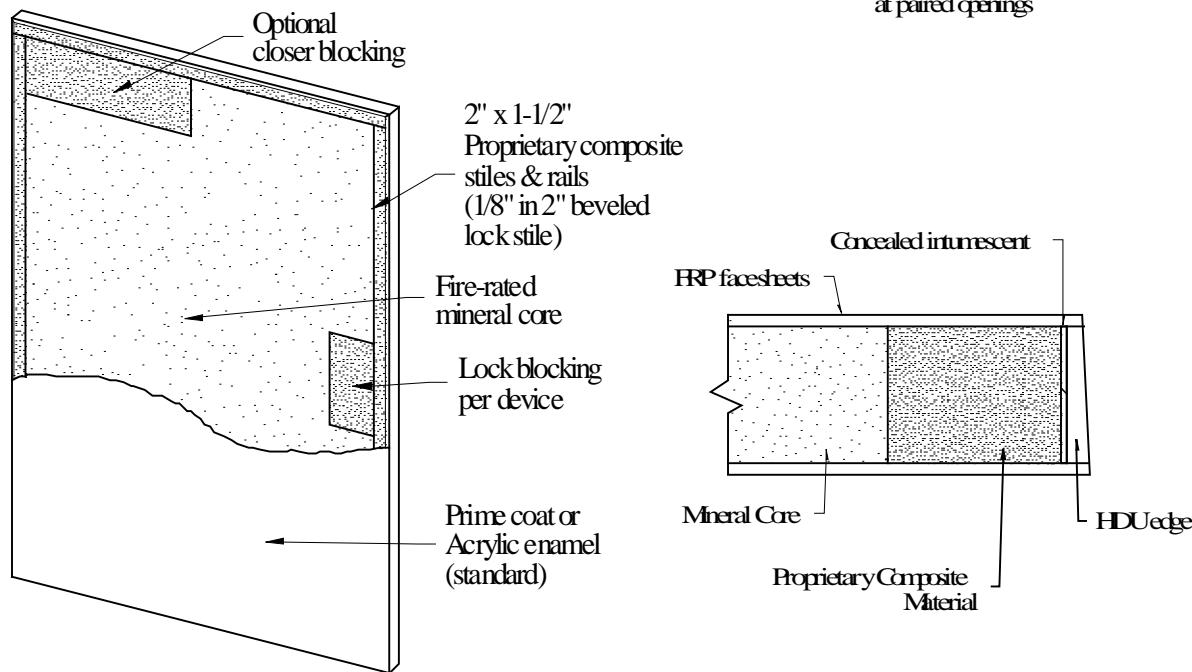
Edgewater Door

Commercial Fiberglass Doors & Frames

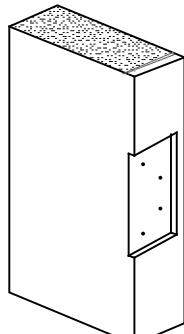
EF SERIES DOOR 45, 60, 90 Minute Fire-rated Door

Specifications

Doors shall be EF series Manufactured by Edgewater Door, Neenah, Wisconsin. Doors shall be of full flush construction 1-3/4" in thickness, manufactured utilizing pultruded fiberglass components for flexibility, durability, superior strength and chemical resistance. Laminated composite door faces shall be resin fused to the stile and rail assembly, including the entire surface area of core material, utilizing a fire-resistant adhesive, and then cured under pressure until completely bonded. Both lock and hinge stiles and top and bottom rail's of the door shall be filled and ground smooth for a completely sealed construction. Optional lite up to 720sq. inches, Louvers not permitted. Doors shall have a beveled (1/8" in 2") lock edge. Labeled doors meet NAM listings and approvals. It is the End User's responsibility to ensure all components used in the opening meet or exceed the fire ratings required.

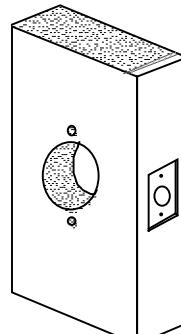


Hinge pockets
standard or heavy weight



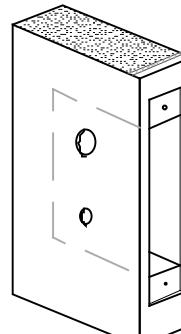
Doors machined for ANSI prep's unless specified in hardware schedule. Full-boring closers, & wood screws recommended for hardware installation.

161 or 161TB
cylindrical prep

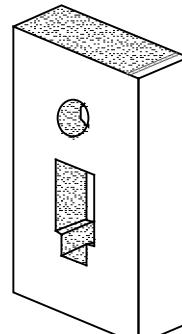


Tested in accordance with "Positive Pressure Fire Tests of Door Assemblies" ANSI/UL10C(2nd Edition, 2009) and UBC7-2 (1997)

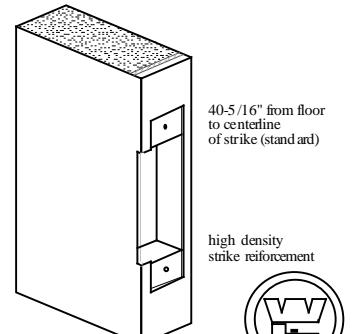
86 Mortise lock
prep per function



Panic device
prep per function



Strike pocket



Certified to: NFPA 252, UL10C

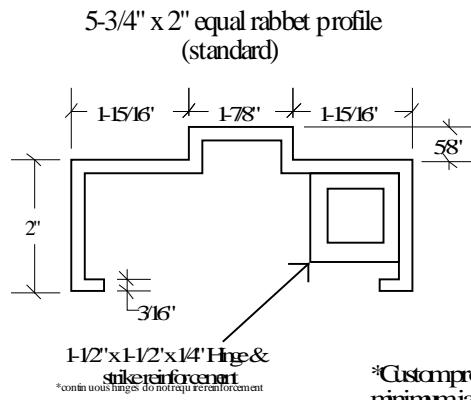


ES SERIES WELDED FRAME

Specifications

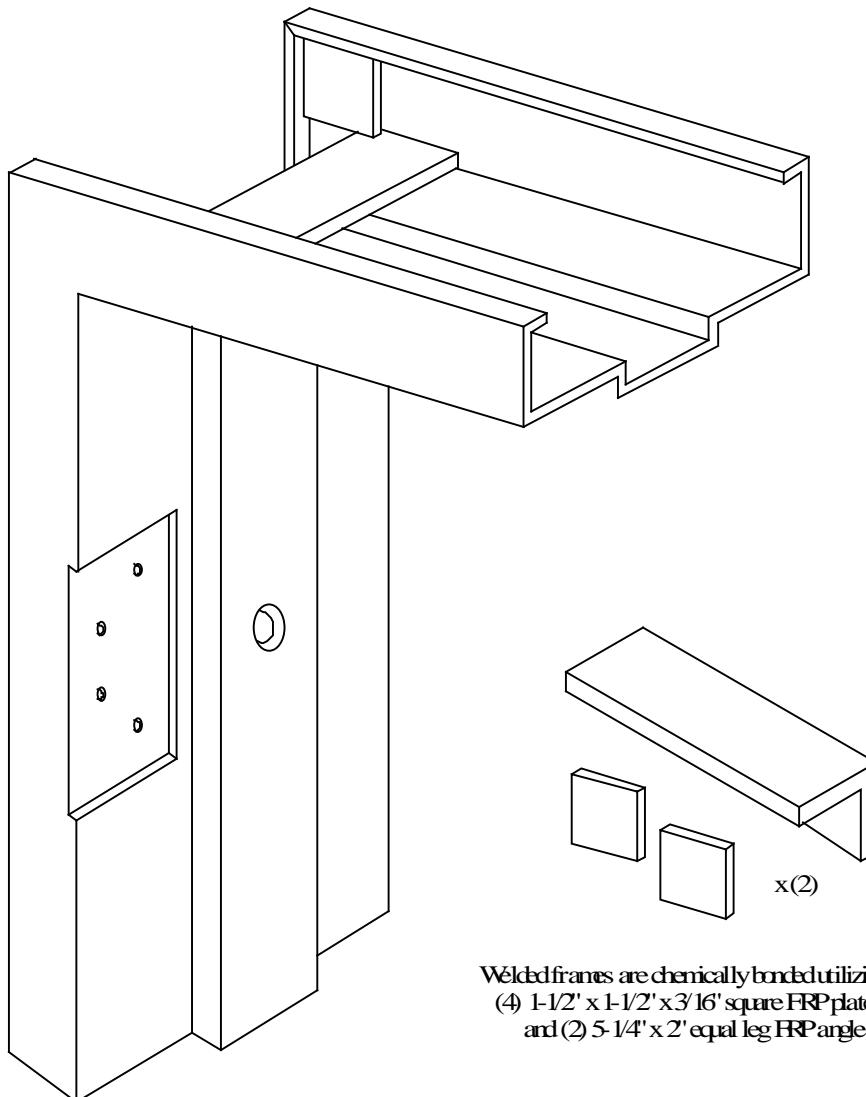
Frames for ES (standard), and EP (premier) series fiberglass frames to be manufactured from 0.1875 inch (4.8mm) thick fiberglass pultrusions by Edgewater Door, Neenah, Wisconsin. Profile shall be of standard hollow type to permit installation into new concrete or block walls, as well as slip-on for dry wall applications. Frames fabricated with mitered corners, and chemically welded at the factory for seamless look. Frames supplied with plaster guards or mortar boxes at back of hardware cutouts where mortar or other materials might obstruct hardware operation.

(set-up and resin welded frames will ship with temporary spreader bar)



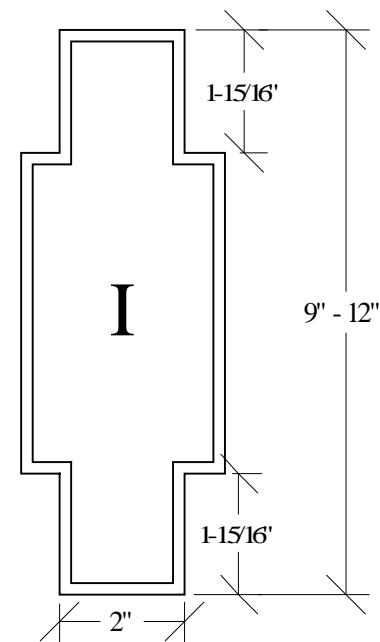
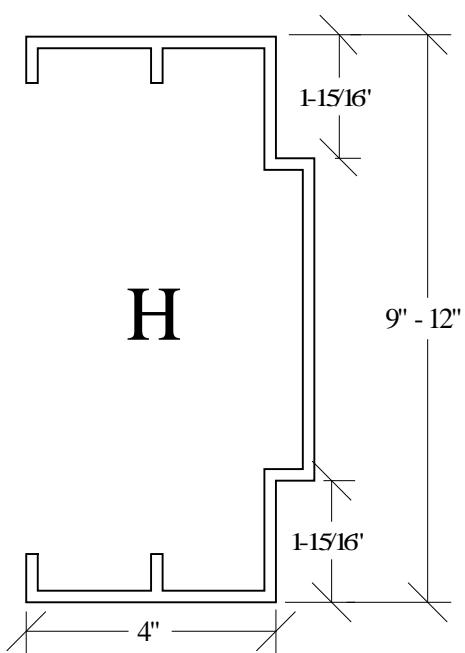
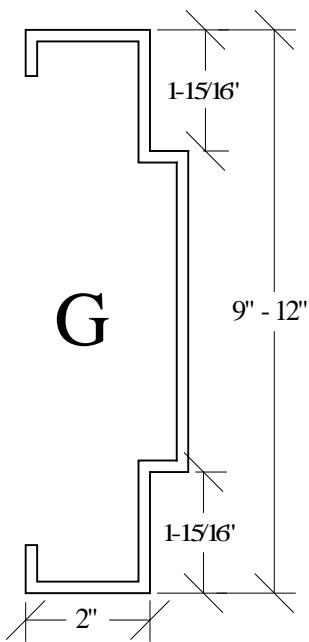
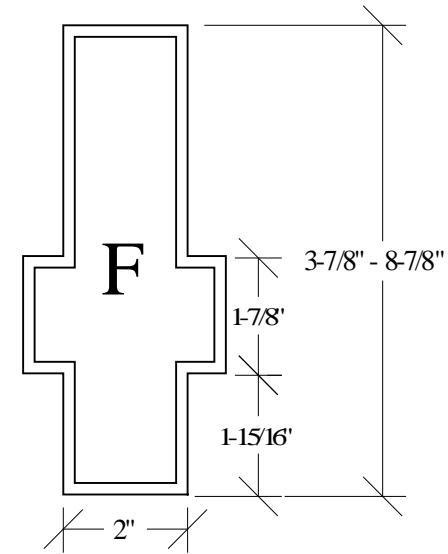
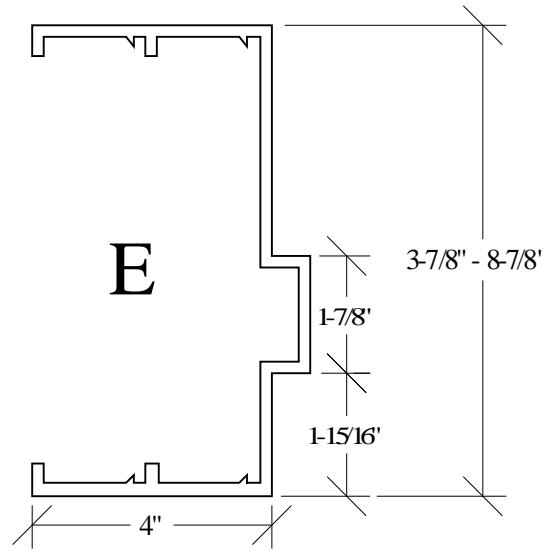
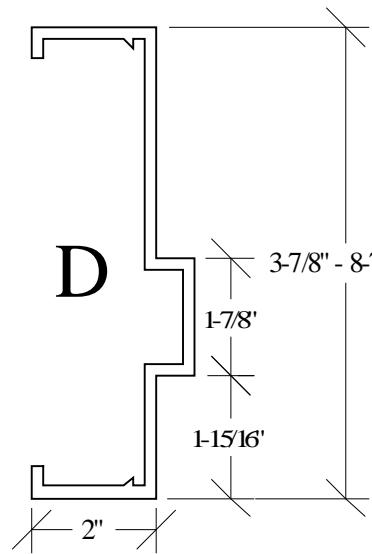
*Custom profiles are available, minimum jamb depth = 3-7/8", maximum jamb depth = 12"

Frames machined for ANSI prep s, unless specified in hardware schedule. Wood screws recommended for hardware installation.



Edgewater Door

Commercial Fiberglass Doors & Frames



EF SERIES

WELDED FRAME

90 Minute Fire-rated Frame

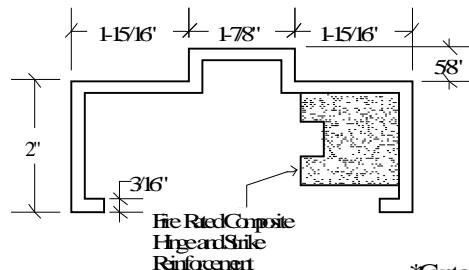
Specifications

Frames for EF (fire) series fiberglass frames to be manufactured from 0.1875 inch (4.8mm) thick fiberglass pultrusions by Edgewater Door Neenah, Wisconsin. Profile shall be of standard hollowmetal type, for installation into masonry poured block walls only. Frames fabricated with mitered corners, and chemically welded at the factory for seamless look.

45, 60 and 90 minute doors are supplied with 90 minute FRP frames. Labeled frames meet NAMI listings and approvals. It is the End User's responsibility to ensure all components used in the openings meet or exceed the fire ratings required.

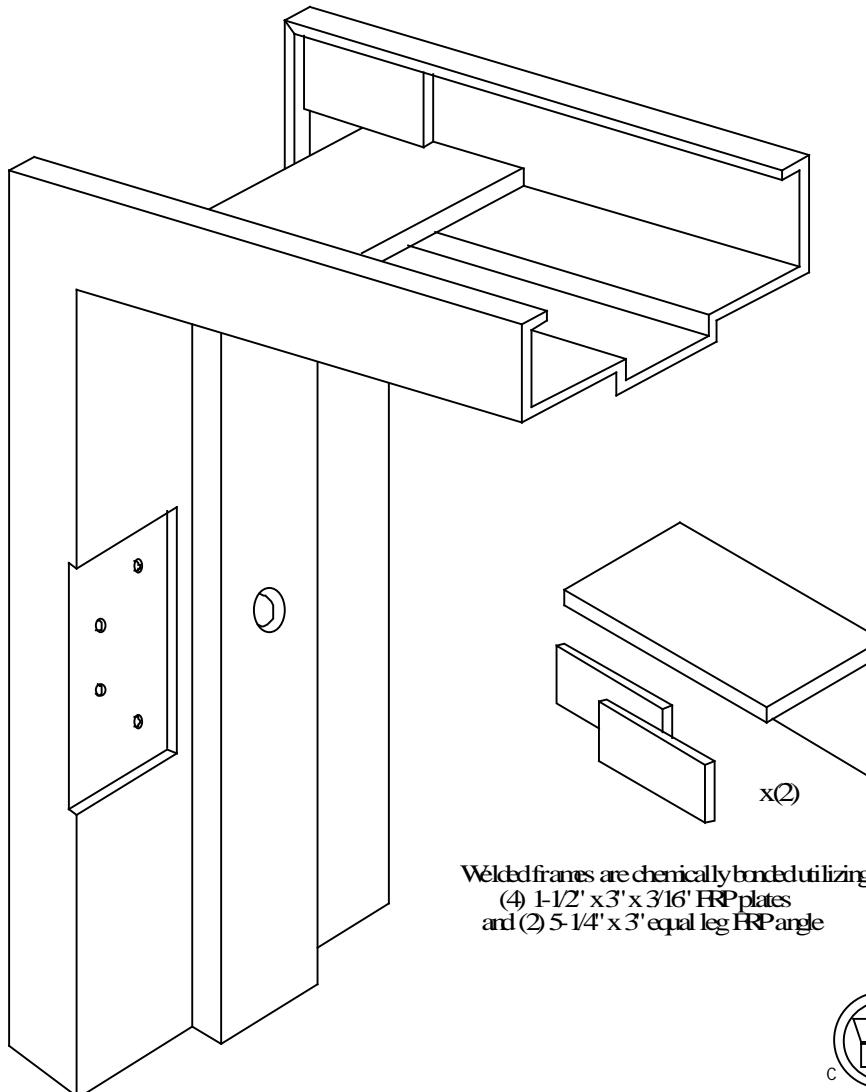
(set-up and resin welded frames will ship with temporary spreader bar)

5-3/4" x 2" equal rabbet profile
(standard)



Frames machined for ANSI prep s.s.
unless specified in hardware schedule
wood screws recommended for hardware installation

*Custom profiles are available,
minimum jamb depth=3-7/8"
maximum jamb depth=8-3/4"

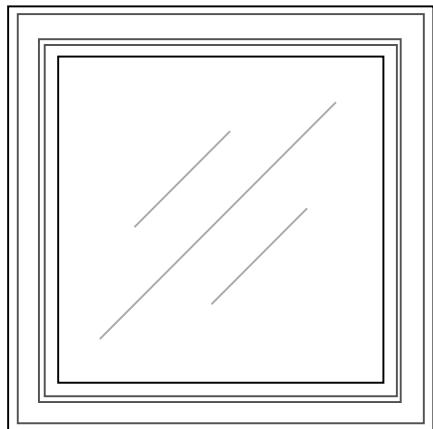


Welded frames are chemically bonded utilizing
(4) 1-1/2" x 3" x 3/16" FRP plates
and (2) 5-1/4" x 3" equal leg FRP angle

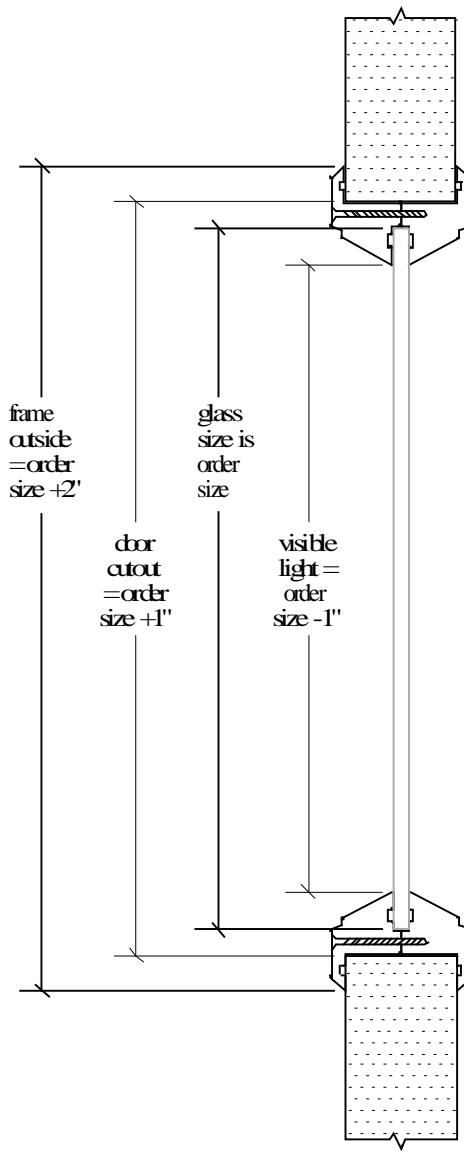
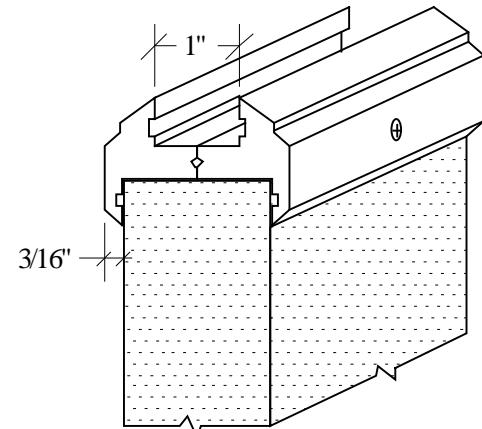
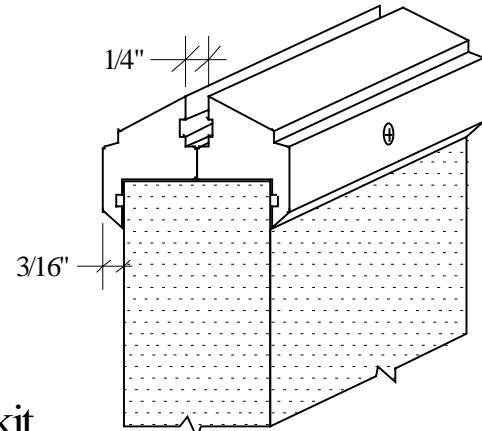
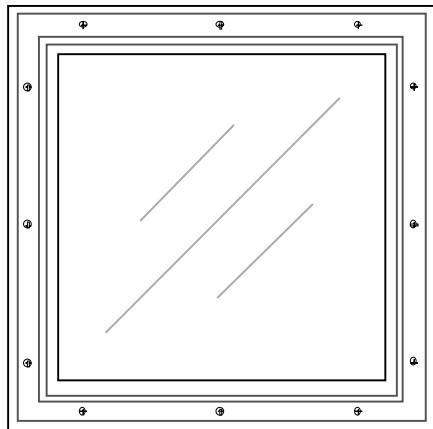
Certified to: NFPA 252, UL10C



Vision Kit



2-piece kit,
screws on secure
side of door only



Light glass recommended for PVC kits.

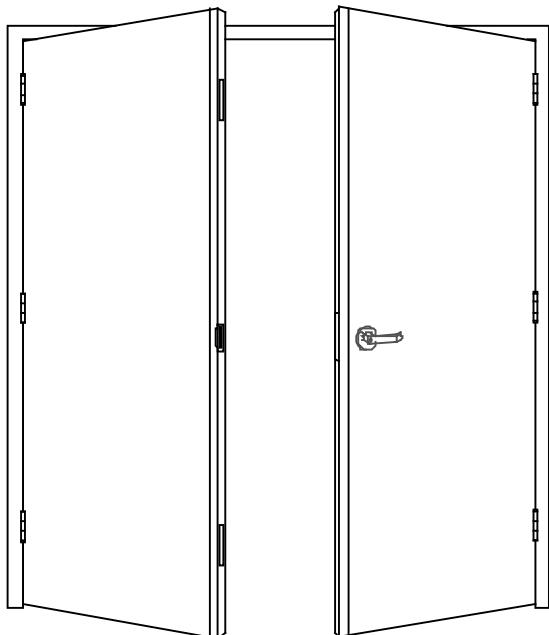
Dark glass may cause heat absorption causing distortion of frame.

PVC frames not recommended in direct sunlight where heat buildup may occur.

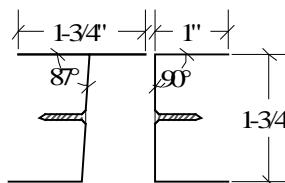
PVC kits manufactured to accept
either 1/4" or 1" glass thickness,
stainless steel screws included

Edgewater Door

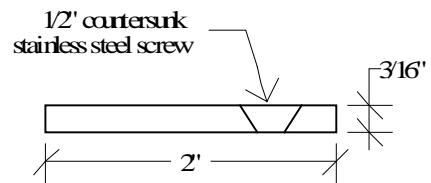
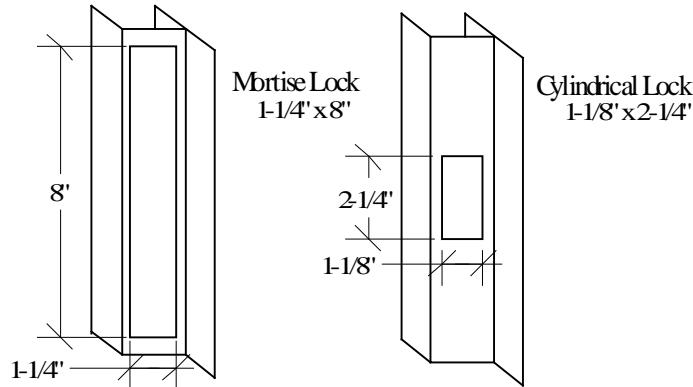
Commercial Fiberglass Doors & Frames



Standard Edges are 20 GA. CRS
Astragal Flanges are 16 GA. CRS

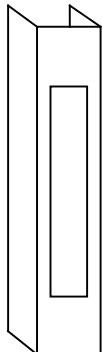


Standard Locks

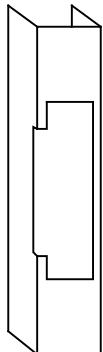


FRP flat astragal
(surface applied hardware required)

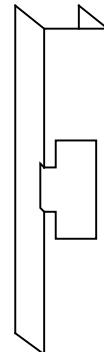
astragals sent loose, for field installation



Hush Bolts
1" x 6 3/4"



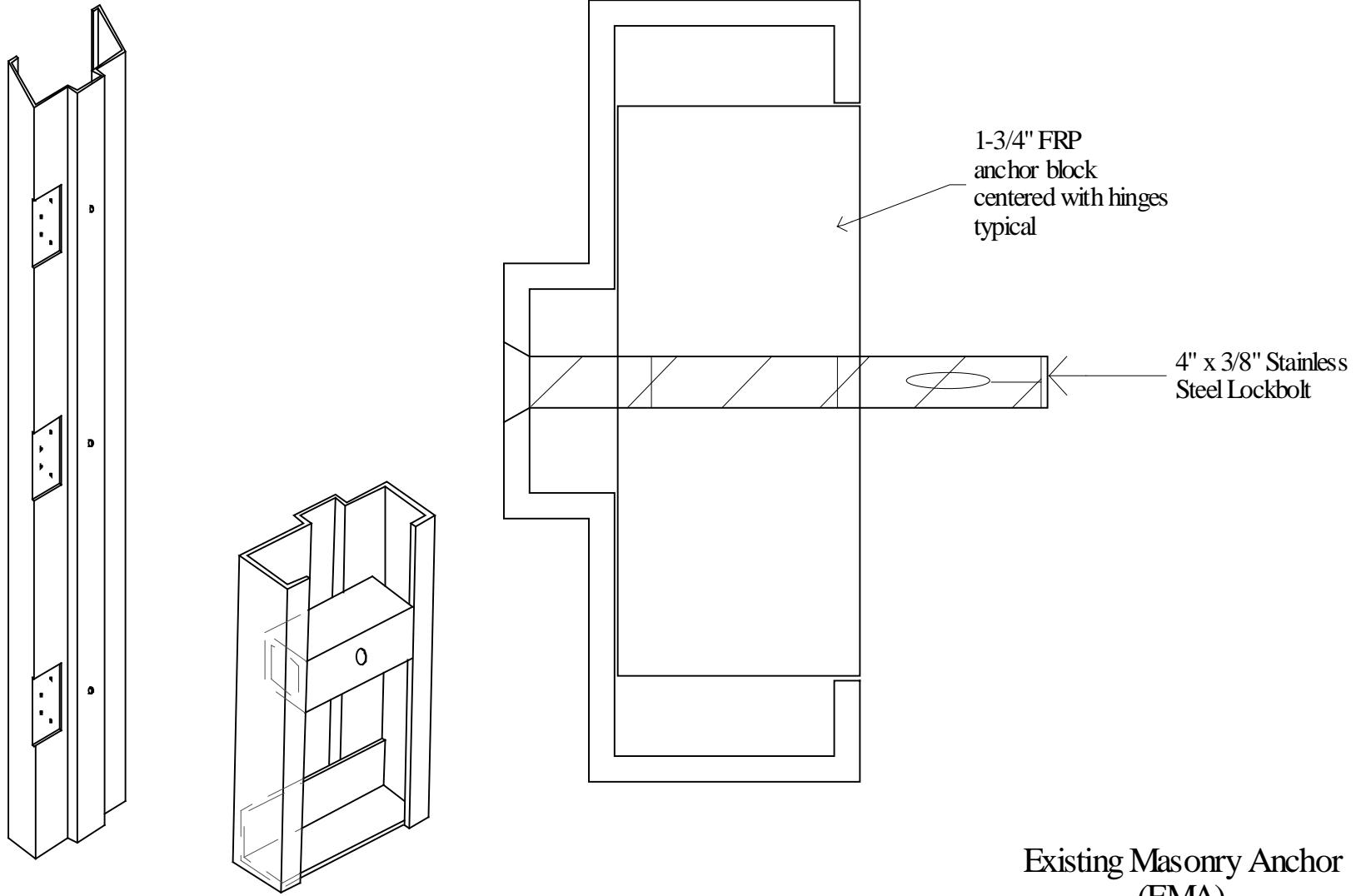
ASA Strike
4 7/8" x 1-1/4"
3-3/8" lip

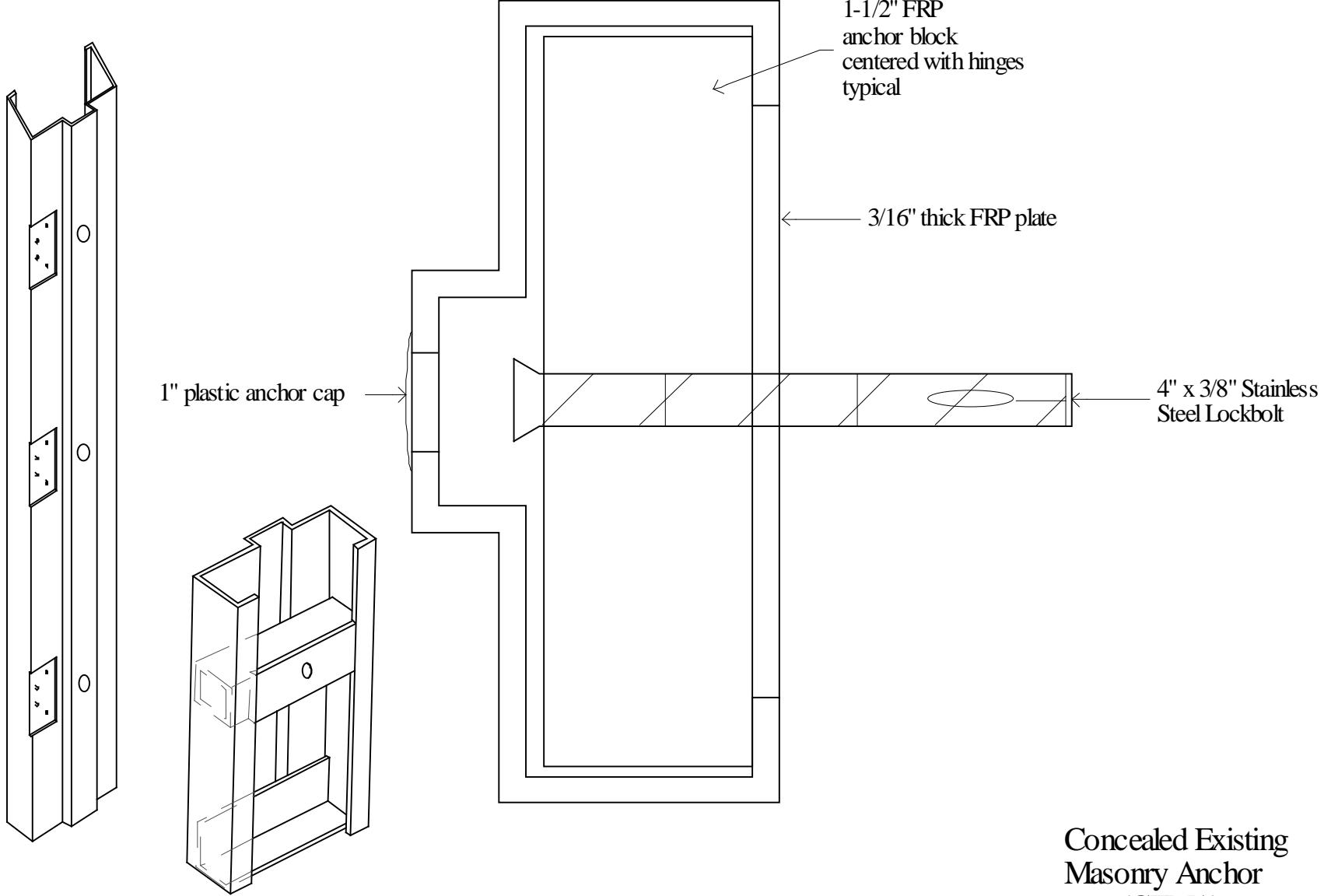


T Strike
2 3/4" x 1-1/8"
1-1/2" lip

Metal "Z" astragal set

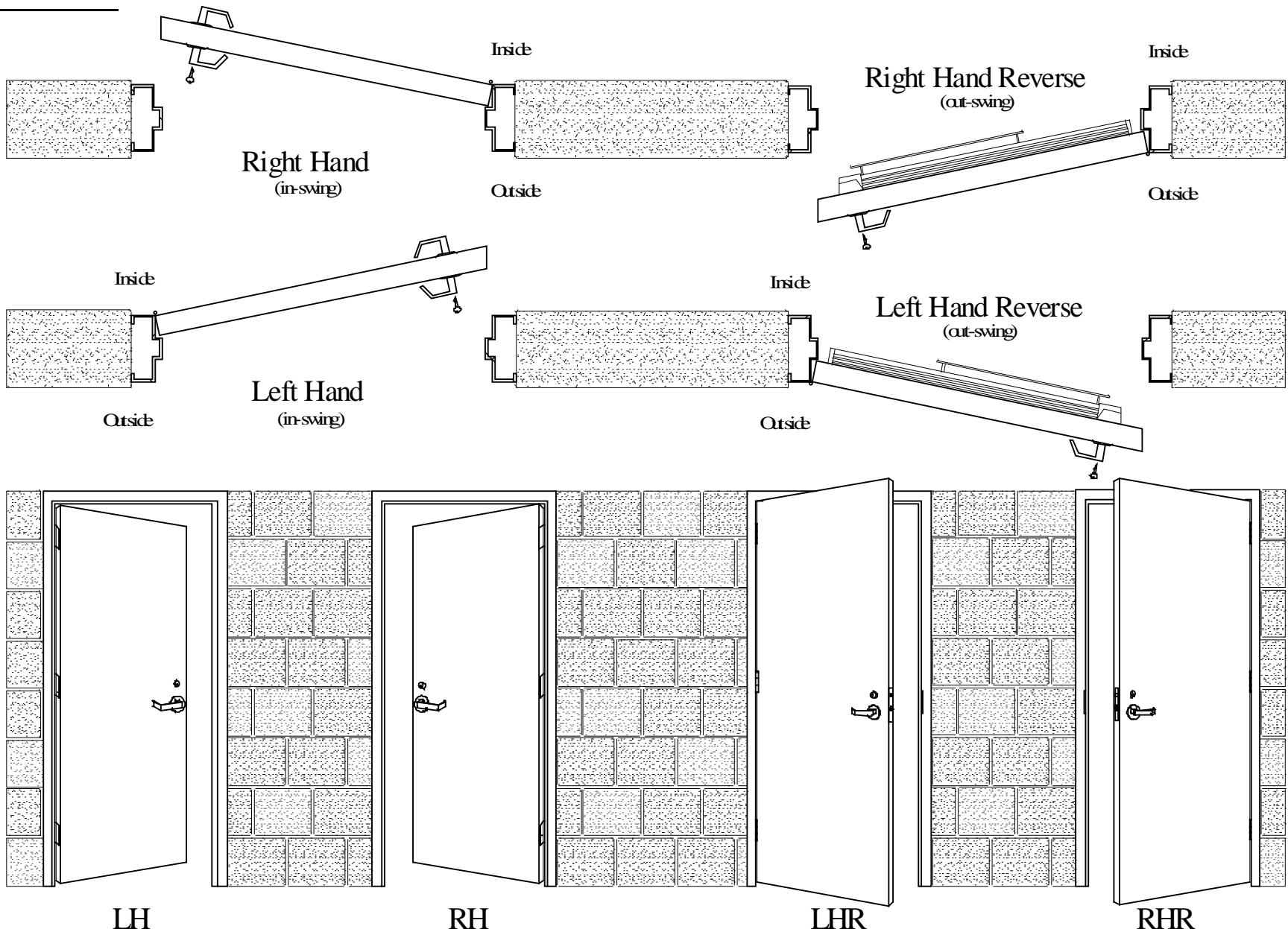






Edgewater Door

Commercial Fiberglass Doors & Frames





STOCK COLOR SELECTION

175 N. Western Avenue | Neenah, WI 54956
Phone: 920-886-1995 | Fax: 920-886-1998
info@edgewaterdoor.com
www.edgewaterdoor.com



Dark Gray - #02B



Med. Gray - #03B



Light Gray - #04B



Dark Bronze - #06B



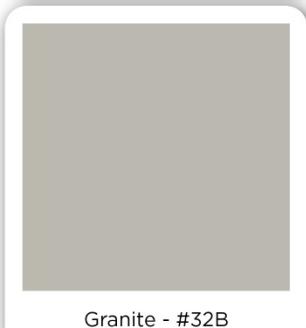
Dark Brown - #07B



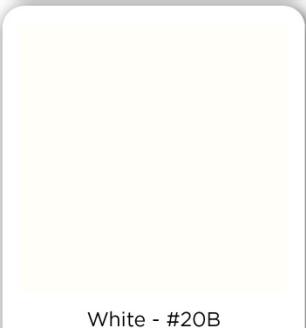
Beige - #10B



Ocean Blue - #28B



Granite - #32B



White - #20B

These graphic references are intended for use as an aid in selecting a color.
They do not supersede the submission of physical samples for final color approval. Contact factory for sample.

EDGEWATER DOOR – RECOMMENDED SPECIFICATIONS

SECTION 08 16 13 – FIBERGLASS (FRP) DOORS AND FRAMES

PART 1 – GENERAL

1.1 – SECTION INCLUDES

- A. Fiberglass reinforced plastic (FRP) Doors
- B. Fiberglass reinforced plastic (FRP) Frames

1.2 – RELATED SECTIONS

- A. Applicable provisions of Division 1 shall govern all work under this section.
- B. Division 4 Section “Unit Masonry Assemblies” for installing anchors and grouting frames in masonry construction.
- C. Division 8 Section “Door Hardware” for door hardware and weather-stripping.
- D. Division 8 Section “Glazing” for glass in doors and frames.
- E. Division 9 Section “Painting” for field painting factory-primed doors and frames.

1.3 – QUALITY ASSURANCE

- A. General: Provide fiberglass reinforced door and frame units made of components of standard construction furnished by one manufacturer as coordinated assemblies.
- B. Manufacturer: Company specializing in the manufacture of fiberglass doors and frames with a minimum of fifteen years documented experience.
- C. Construction: Verify that FRP doors and frames are manufactured utilizing pultruded fiberglass components for durability, superior strength, and chemical resistance. Press-molded doors and frames will not be accepted.
- D. Resins: Resins shall comply with USDA standards for incidental food contact.
- E. Tested by Intertek to the following standards for fire rated doors.
 - 1. NFPA 252
 - 2. UL10C
 - 3. CAN/ULC S104
- F. Tested by Intertek to the following standards for Hurricane Doors
 - 1. ASTM E283/E283M-19 Standard Test Method for Rate of Air Leakage Through Exterior Windows, Curtains, Walls, and Doors Under Specified Pressure Differences Across the Speciman.
 - 2. ASTM E331-16 Standard Test Method for Water Penetration of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference.
 - 3. ASTM E330/E330M-21 Standard Test Method for Structural Performance of Exterior Windows, Doors Skylights and CurtainWalls by Uniform Static Air Pressure Difference.
 - 4. ASTM E1886-19 Standard Test Method for Performance of Exterior Windows, Curtain Walls, Doors and Storm Shutters Impacted by Missle(s) and Exposed to Cyclic Pressure Differentials.
 - 5. ASTM E1996-20 Standard Specification forPerformance of Exterior Windows, Curtain Walls, Doors and Storm Shutters Impacted by Windbourne Debris in Hurricanes.
- G. NAMI Certifications: NI015533 and NI015533.01
- H. Hurricane Doors meet ADA compliance – single point latching on single doors.
- I. Hardware Reinforcements: FRP doors and frames fabricated with a minimum screw holding strength to exceed WDMA extra heavy duty requirements.
- J. Paint Adhesion: Coating for FRP doors, panels and frames to conform to AAMA 624-07 for color uniformity, film adhesion, specular gloss, direct impact, abrasion resistance, chemical resistance and USDA approved.
- K. Warranty: Warranty fiberglass doors and frames for life of the initial installation against failure due to corrosion. Additionally, warranty fiberglass doors and frames for a period of 10 years against failure due to materials and workmanship from date of substantial completion.

1.4 - SUBMITTALS

- A. Product Data: For each type of door and frame indicated, include door designation, type, level and model, material description, core description, construction details and finishes.

1.5 – DELIVERY, STORAGE AND HANDLING

- A. Deliver doors and frames palletized and / or crated to provide protection during transit and job storage. Provide additional protection to prevent damage to finish of factory-finished doors and frames.
- B. Inspect doors and frames on delivery for damage and notify shipper and supplier if damage exists. Minor damages may be repaired provided refinished items match new work and are acceptable to the Architect. Remove and replace damage items that cannot be repaired as directed.
- C. Store doors and frames in accordance with HMMA 840 standards.

PART 2 – PRODUCTS

2.1 – MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by the following:
 - 1. Edgewater Door – 175 N. Western Ave. Neenah, Wisconsin 54956
Phone: 920-886-1995 Fax: 920-886-1998

2.2 – DOORS

- A. Interior Doors: Provide seamless doors complying with requirements indicated below:
 - 1. ES Series (Standard Heavy Duty)
 - 2. Doors to have at least two internal full height $\frac{1}{4}$ " wall FRP pultruded tube stiffeners for warp resistance.
 - 3. Lite openings shall be completely sealed, integrated into the sub-frame during construction.
 - 4. Core types: **Please select one:**
 - i. Expanded polystyrene solid foam core, minimum 3# density (standard)
 - ii. Optional polyurethane core (insulated)
 - iii. Optional balsa core (impact resistance)
 - iv. Optional honeycomb core (crush resistance)
- B. Exterior Doors and High Traffic Areas: Provide seamless doors complying with requirements indicated below:
 - 1. EP Series (Extra Heavy Duty)
 - 2. Doors to have internal full height solid stiffeners 6 inches on center for superior strength.
 - 3. Lite openings shall be completely sealed, integrated into the sub-frame during construction.
 - 4. Core types: **Please select one:**
 - i. Expanded polystyrene solid foam core, minimum 3# density. (standard)
 - ii. **Optional polyurethane core (insulated)**
 - iii. Optional balsa core (impact resistance)
 - iv. Optional honeycomb core (crush resistance)
- C. Fire-rated Doors: Provide seamless doors complying with the requirements indicated below:
 - 1. EF Series (Fire)
 - 2. Fire – rated mineral core
 - 3. Doors to have fire-rating as indicated per schedule.
- D. Hurricane Doors: Provide seamless doors complying with the requirements indicated below
 - 1. EH Series (Extra Heavy Duty)
 - 2. Expanded polystyrene solid foam core, minimum 3# density.
 - 3. Doors to have windstorm, air infiltration and water penetration ratings as indicated per schedule
- E. Transom/side Panels: Transoms to be identical to the doors in construction and materials – if applicable to this project.

2.3 – FRAMES

- A. General: Provide pultruded fiberglass frames for doors, transoms, sidelites and borrowed lites – where indicated and approved.
- B. Frames: Comply with the requirements of grade specified for corresponding doors.
 - 1. All Frames to be manufactured from 0.1875 inch (4.8 mm) thick fiberglass pultrusions.
 - 2. Profile must be of standard hollow type to permit installation into new concrete or block walls, as well as slip-on drywall situations.
 - 3. Solid (foam filled), boxed or coated hollow metal frames will not be accepted.
- C. Door Silencers: Provide silencers for all frames. Three for each strike jamb and two for the heads for paired openings.
- D. Plaster Guards: Provide and install plaster guards in frames for masonry installation.

E. Anchors: Fabricated from no less than 0.125 inch (3.18 mm) thick pultruded fiberglass material.

1. New Masonry Construction: Provide wire anchors.
2. Existing Masonry Construction: **Please select one:**
 - i. **Provide stainless steel expansion bolts, 3/8" x 4"**
 - ii. **Optional Concealed EMA: Provide stainless steel expansion bolts, 3/8" x 1-7/8". Include cover painted to match frame.**
3. New Steel or Wood Stud Construction: Provide fiberglass anchor supports similar to flush steel channel in backside of frames for attachment from the stud wall into the frames anchor supports. This installation must take place prior to setting drywall.
4. Existing Steel or Wood Stud: Provide drywall slip-on frame anchoring system – compression type
5. Hurricane Construction: Minimum #14 steel screw. 6 inches from bottom, 6 and 10 inches from top, maximum 20.5 inches on center. Head anchoring 6 inches from corner and maximum 20 inches on center for singles and 8 inches from corner, 4 inches from center, at center, and maximum 21 inches on center for pairs.
6. Fire rated Frames:
 - i. Grouted Door Frame: "T" anchors or wire anchors at each hinge location on the hinge and jamb side of the frame
 - ii. Bolt-in Door Frame: 3/8" * 4" long expansion bolts located no more than 7 1/4" from the very top (face) of the frame, spaced no more than 25 1/2" on center and a minimum of 12 1/4" from the bottom of the frame (finished floor).

2.4 – FABRICATION

A. General: Fabricate fiberglass door and frame units to be rigid, neat in appearance and free from defects including warp and buckle. Where practical, fit and assemble units in manufacturer's plant. Clearly identify work that cannot be permanently factory assembled before shipment, to assure proper assembly at project site.

B. Core Construction: Manufacturer's standard core construction that complies with the following:

1. All voids to be fully filled with specified core material.
2. All core components to be chemically bonded together prior to the application of FRP faces.

C. Framing System: Fabricate doors utilizing pultruded FRP tubes with minimum 1/4" thick walls in combination with solid polymer members.

1. All doors to be fully sealed on all 6 sides against water penetration to the core.

D. Door Faces: Laminated composite faces shall be urethane fused to the stile and rail assembly, including the vertical stiffeners and core material, utilizing a two-part 100 percent reactive urethane adhesive and then cured under pressure until completely bonded.

E. Face Sheets: **Please select one:**

1. **Faces to be .090 smooth (standard)**
2. **Faces to be .120 smooth (optional)**
3. **Faces to be .120 pebbled (optional)**

F. Clearances: Not more than 1/8 inch (3.2 mm) at jambs, heads, and wide side joint between meeting pairs.

G. Door Edges: Lock stile to be factory beveled 1/8" in 2" for rub free operation. Square lock-edge will not be accepted.

H. Tolerances: Maximum diagonal distortion – 1/8 inch measured with straight edge, corner-to-corner.

I. Hardware Reinforcement: Fabricate all hardware reinforcements utilizing premium solid polymer and fiberglass blocking. Any form of wood or metal reinforcements will not be accepted.

J. Exposed Fasteners: Unless otherwise indicated, provide stainless steel, countersunk flat or oval heads for exposed screws and bolts.

K. Hardware Preparations: Prepare doors and frames to receive mortised and concealed hardware according to final door hardware schedule and templates provided by hardware supplier. Doors and frames must be factory pre-drilled for all mortised hardware preps. Pilot and through-bolt holes for all surface mounted hardware to be drilled at the project site during installation.

L. Frame Construction: Fabricate frames to size and shape shown on drawings. **Please select one:**

1. **Knock-Down (KD standard): Fabricate frames for field assembly. Include stainless steel screws and corner brackets. Fire and Hurricane rated frames available in knock-down version. Frames over 4' wide are KD only.**
2. **Set up and resin welded: Fabricate frames with mitered resin-welded corners and seamless face joints. Assembled frames will include temporary spreader bars.**

M. Hardware Locations:

1. Locate hardware as indicated on shop drawings or, if not indicated, according to manufacturer's standard locations.
2. Hardware Preps: If hardware information is not supplied, doors and frames will be machined for ANSI standard preps.

N. Glazing/Louver Stops: Manufacturer's standard two-piece PVC retainers.

1. Provide non-removable stops on outside of exterior and on secure side of interior doors for glass, louver and other panels in doors.
2. Provide screw-applied, removable, glazing stops on inside of glass, louvers and other panels in doors.
3. Loose, eight-piece trim kits will not be accepted. Additionally, retainers held in place by two-sided tape are not acceptable.
4. Glass to be supplied and installed under section 08800, unless stated otherwise.

O. Door Louvers: Provide sight-proof louvers for doors, where indicated. Stationary louvers to be manufactured utilizing fiberglass inverted "V" blades.

P. Astragals: 3/16" x 2" solid FRP flat plate sent loose, can be applied to either leaf.

2.5 – FINISHES

- A. Prime Finish: Pre-clean and shop prime each door and frame ready for finish painting, performed at the jobsite under Section 09900.
- B. Factory Finished: Where indicated, furnish fiberglass doors and frames factory pre-finished.
 1. Finish: Manufacturers standard chemical resistant acrylic polyurethane topcoat
 2. Sheen: Semi-gloss
 3. Pencil Hardness, ASTM D3363 – 3H
 4. Pigmented gelcoats will not be accepted as a final factory finish.
- C. Finish on fiberglass frames must match that of the fiberglass doors to which they are installed.

2.6 - HARDWARE

- A. Hardware: All hardware shall be furnished under section 08710 unless stated otherwise.
- B. Hurricane Hardware: Hardware approved to use as per Intertek listing

PART 3 – EXECUTION

3.1 – INSTALLATION

- A. General: Install fiberglass doors, frames and accessories according to Shop Drawings, manufacturer's data and as specified.
- B. Placing Frames: Set frames accurately in position, plumbed, aligned and braced securely until permanent anchors are set. After wall construction is completed, remove temporary braces and spreaders, leaving surfaces smooth and undamaged.
 1. Except for frames located in existing walls or partitions, place frames before construction of enclosing walls and ceilings.
 2. In masonry construction, provide at least three wall anchors per jamb; install adjacent to hinge locations on hinge jamb and at corresponding heights on strike jamb. Acceptable anchors include masonry wire anchors.
 3. In existing concrete or masonry construction, provide at least three completed opening anchors per jamb; install adjacent to hinge location on hinge jamb and at corresponding heights on strike jamb. Set frames and secure to adjacent construction with stainless steel expansion bolts.
 4. For openings 90 inches (2286 mm) or more in height, install an additional anchor at hinge and strike jambs.
- C. Factory Finished Doors: Restore finish before installation if fitting or machining is required at Project site.
- D. Door Installation: Fit fiberglass doors accurately in frames. Shim as necessary.

3.2 – ADJUSTING AND CLEANING

- A. Cleaning: Clean fiberglass door and frame assemblies in accordance with manufacturer's recommended procedure.

END OF SECTION 08 16 13