Addendum #2

Project : City of Southfield Romulus Athletic Center Building Addition and Renovation
Project No : 0128210020 – RFP 25/26-20
Date : 04/09/2026

This Addendum is issued before award of Contract to inform bidders of revisions or clarifications to the Bidding Documents, herein defined as Bidding Requirements, Contract Forms, Conditions of the Contract, Specifications, and Drawings.

All requirements contained in the Bidding Documents shall apply to this Addendum. The general characteristics of the Work required in this Addendum shall be as originally provided in the applicable portions of the Bidding Documents for similar work unless otherwise specified under this Addendum. Such characteristics shall be included in the Bid proposals, even though not specifically mentioned in this Addendum.

This Addendum is hereby made a part of the Bidding Documents and shall be included in the Contract Documents. Acknowledge receipt of this Addendum in the space provided on the BID FORM. Failure to do so may subject the Bidder to disqualification.

GENERAL

SUBSTITUTION REQUESTS
SR-1 – FOLDING PANEL PARTITION – APPROVED
SR-2 – ELECTRIC SNOW MELTING SYSTEM – APPROVED
SR-3 – HYDRAULIC DOORS – REJECTED
SR-4 – DIMENSIONAL LETTER SIGNAGE – APPROVED

RFI'S – Refer to attached list of RFI's for your reference.

PROJECT MANUAL

010500 DESIGN SELECTIONS – NOT ISSUED
Changed 095100- Acoustical Ceilings "ACT-1" designation to CA-1 to align with drawing legends and designations.

101419 DIMENSIONAL LETTER SIGNAGE – NOT ISSUED
Added Phillips Sign & Lighting as an approved manufacturer.

281000 ACCESS CONTROL – ISSUED
Revised specification to include hardware information.

DRAWINGS

A-451 – INTERIOR ELEVATIONS
Revised keynote #12 to include basis of design telescoping, rotating monitor pole MOUNT-IT MI-509L

ES101- ELECTRICAL SITE PLAN
Added receptacle underground feed.

EP101- FIRST FLOOR ELECTRICAL PLAN
Added DP-EM to MECHANICAL RM 155.

EP102- PARTIAL FIRST FLOOR POWER PLAN
Added receptacles for TVs above door in VESTIBULE RM 101.
Added ceiling fan electrical in MULTI-USE RM 171.
Added GENERAL NOTES-POWER.

ET101- PARTIAL FIRST FLOOR ELECTRICAL LOW VOLTAGE PLAN
Added “FUTURE COMCAST PANEL” in TECH RM 110.
Added access point in MULTI-USE RM 171.
Added KEYNOTE #6.

E-501- ELECTRICAL DETAILS
Added detail “POST TOP LIGHT BASE DETAIL”.
.
E-601- ELECTRICAL SCHEDULES
EXISTING BRANCH PANEL:RP-11A: Changed location to “MECHANICAL RM 155”, added circuits 23 and 25.
EXISTING BRANCH PANEL:RP-E1: Changed location to “MECHANICAL RM 155”.
EXISTING BRANCH PANEL:RP-14B: Changed location to “STORAGE RM 169”, added circuit 22.
EXISTING BRANCH PANEL:LP-HE: Changed location to “MECHANICAL RM 155”, added circuit 16.
EXISTING PANEL:DP-EM: Changed location to “MECHANICAL RM 155”.

End of Addendum Two

OHM Advancing Communities®

Romulus Athletic Center Addition and Renovation Addendum 2 RFI Log

0155250010
RAC Improvements
Prepared On: 4/10/2026

Status	RFI ID	Subject	Question	Answer	Closed
Closed	RFI-001	RFP 25/26-20 -location of the "DP-EM"	Decima LLC is interested in bidding on the Romulus Athletic Center Addition & Renovation project. Could you please confirm the location of the "DP-EM" panel, as it appears there may be a discrepancy in the plans?	DP-EM Panel is in Mechanical Room 155. All of the existing panel locations will be updated in Addendum, but the plan shows where they are; Location noted on panels is wrong.	4/1/2026
	RFI-002	Fans	Are fans shown in drawing to be provided by GC or owner. If provided by owner is this to be installed by electrical contractor or owner installed.	Basis of Design for fan is Visual Comfort & Co. 3MAVR88BKBK; Provide power; refer to addendum for additional information.	4/8/2026
	RFI-003	Ceiling Tile Specification - CA-1	Can you please provide the desired ceiling tile specifications for CA-1 in the vestibule and room requiring ceiling rework.	CA-1 is ACT-1 product noted in Design Selections.	4/8/2026
	RFI-004	TV Telescoping Pole	Do you have any specifications or suggestions for the telescoping pole?	Mount-It MI-509L Mount-It! Full Motion Ceiling TV Mount with Long Extension for 32" to 77" TVs | holds up to 110 lbs | MI-509L Full Motion Ceiling TV Mount, with long extension for 32" to 77" TVs. Swivels and Tilts.	4/8/2026
	RFI-005	TV Locations - Low Voltage Connections	Would you like data points provided at the TV locations for low voltage connections?	A future comcast service is planned but design unknown, contractor to assume installation of cabling and conduit from comcast panel to each television	4/10/2026
	RFI-006	Construction Phasing	Would you be open to phasing for the project? Our current intent is to do the entrance vestibule first with temporary fencing to block off all construction activities and guide people through the courtyard entrance where the future Multi-use room will be located.	As part of the Request for Proposals, the approach a contractor will take to completing project is part of the evaluation. The City is open to any ideas which will minimize cost and down time if it maintains public safety and the operations of the building.	4/8/2026
	RFI-007	Landscaping	Would you like landscaping to provide the planter boxes shown in the renderings? If so please provide the specified plants and total quantities.	No Landscaping to be provided at this time, will be addressed by City.	4/8/2026
	RFI-008	CMU Block - Grout	Is all block to be solid grout?	No, not all walls are solid grout. The front courtyard wall is the only one that is. Refer them to the Wall Schedule on S-001 for information on the grout spacing.	4/8/2026
	RFI-009	Exterior Bollards - Handholes	Would you like handholes to be installed for ease of access to the exterior bollards. With us doing this as a phased project we would imagine this might be necessary to ensure connections to work due to segmentation of access.	The bollards will not be required until the end of the project, so don't believe phasing of lights is required for operability. The intent was to not have handholes within the concrete area due to future maintenance/possible trip hazard. If there is a beneficial reason and location that makes sense, we would be open to discussion during construction phase.	4/10/2026
	RFI-010	TVs at Vestibule	There is no power shown for the TV mounted at the entrance vestibule, should there be power and data at this location?	This will be added, refer to Addendum.	4/10/2026
	RFI-011	Finish Plans	In the plans on sheet A-101 in the general notes #6 says to reference A-800 for finish plans but that sheet is not included in the plan set.	Finishes are noted on Plans A-101 and Elevations, there is no A-800 Finish Plan	4/10/2026
	RFI-012	Room Finish Schedule	Note on sheet A-101, #10 says refer to A-600 for room finish schedule which is also not included in the plan set.	There is no A-600 room finish schedule, finishes are noted on plans and elevations and documented in Design Selection Specification 010500	4/10/2026

Total RFIs: **12**

Knowledge for Creating and Sustaining the Built Environment

SUBSTITUTION REQUEST
(During the Bidding/Negotiating Stage)

Project: Romulus Athletic Center Building

35765 Northline Rd, Romulus, MI 48174

Substitution Request Number: 01

From: Nadine Schneider, SUNFLEX Wall Systems LP

To: OHM Advisors -Livonia

Date: 04/03/2026

A/E Project Number:

Re: Folding Sliding Door Systems

Contract For: Folding Sliding Door System

Specification Title: Folding Panel Partitions

Description: Folding Panel Partitions

Section: 102239 Page: 2

Article/Paragraph: 2.1

Proposed Substitution: SUNFLEX SF 45 in lieu of Nanawall SL45

Manufacturer: SUNFLEX Wall Systems LP Address: 28360 Old 41 Rd Ste 6, Bonita Springs FL 34135 Phone: 2393314189

Trade Name: SUNFLEX Model No.: SF 45

Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.

Attached data also includes a description of changes to the Contract Documents that the proposed substitution will require for its proper installation.

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.

Submitted by: Nadine Schneider

Signed by:

Firm: SUNFLEX Wall Systems LP

Address: 28360 Old 41 Rd Ste 6

Bonita Springs, FL 34135

Telephone: 239 331 4189

A/E's REVIEW AND ACTION

- [x] Substitution approved - Make submittals in accordance with Specification Section 01 25 00 Substitution Procedures.
- [ ] Substitution approved as noted - Make submittals in accordance with Specification Section 01 25 00 Substitution Procedures.
- [ ] Substitution rejected - Use specified materials.
- [ ] Substitution Request received too late - Use specified materials.

Signed by: Vincent Nemo

Date: 04/06/2026

Supporting Data Attached: [ ] Drawings [x] Product Data [ ] Samples [ ] Tests [ ] Reports [ ] ________

Attach to E-Mail | Print a Copy | Save a Copy | Attach a file | Reset Form

Form Version: June 2004

SUNFLEX

Folding Sliding Door System

System SF 45

Non insulated Aluminum System

Index

Glazed Folding Doors

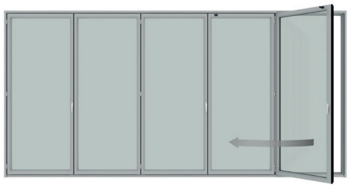
The advantage of the SUNFLEX folding sliding systems is their large selection of layouts and options. Whether different glass thicknesses or materials, there is the right product for every requirement. The large-scale glazing can be opened and closed comfortably by means of the interconnected panels. A transparent all-round multifunctional system with a guarantee for quality and longevity.

System information

- ☐ Flush aluminum construction
- ☐ Perfectly matching components
- ☐ Low construction depths and slim profile designs
- ☐ Choice of inward or outward opening folding panels
- ☐ Panel distribution and folding direction of panels freely selectable
- ☐ Storm-proof and burglary-resistant metal fittings
- ☐ Height of element up to 9'10'' (3000 mm)
- ☐ Various glazing types, lock types, colors, finishes, etc. possible
- ☐ Easy assembly

CE Tested SUNFLEX quality

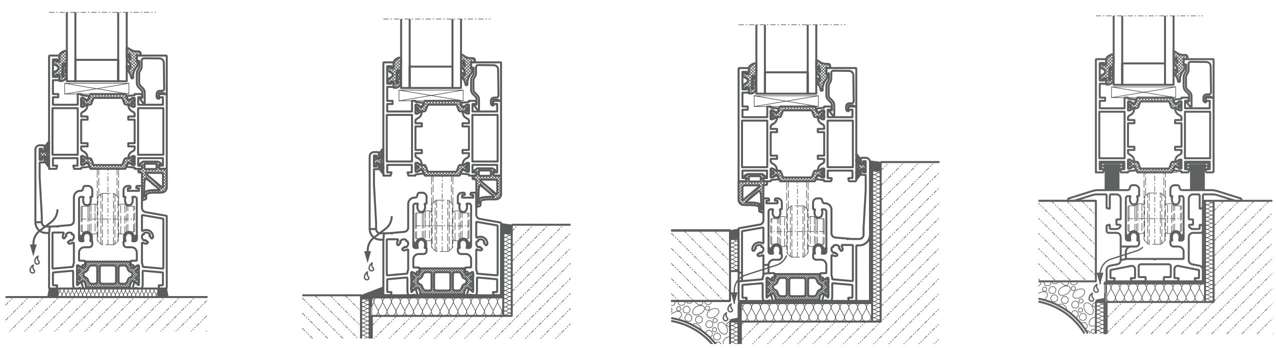
Operation



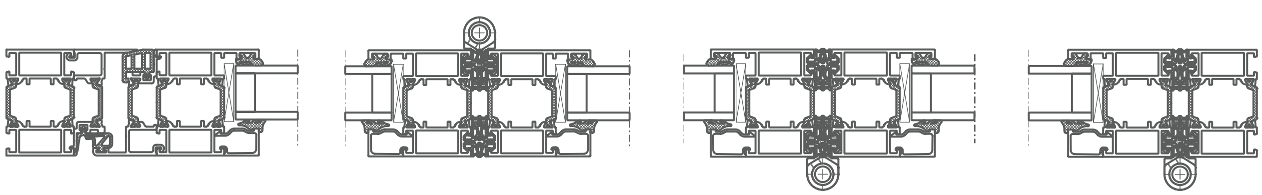
Opening of the first panel

Folding of the hinge connected panels

Example of threshold options

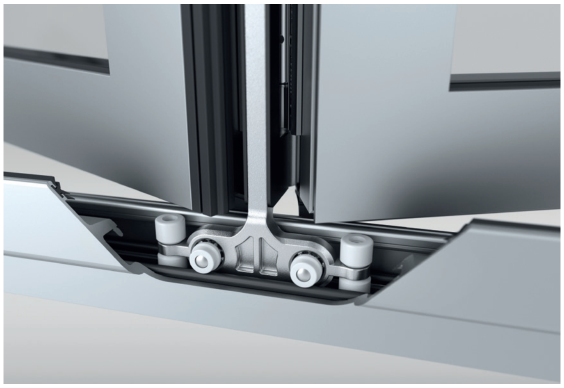


Example of horizontal sections



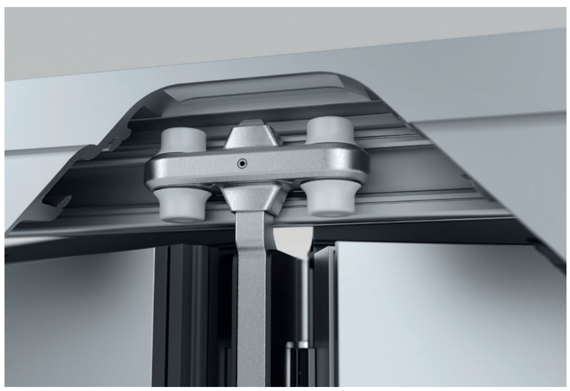
various handles and locking types available

panel catcher for additional security to fix the pass door to the adjacent panel

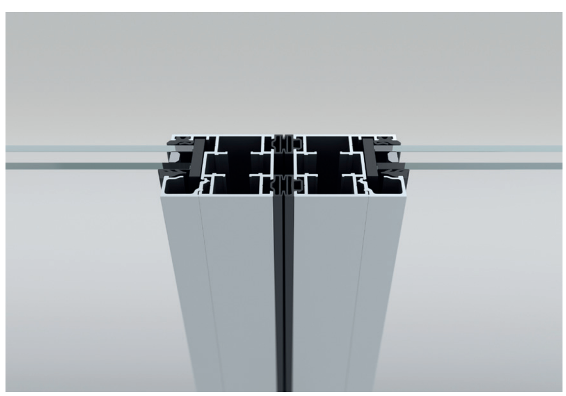


durable stainless steel carriages and silent running

stability and security by bottom and top track locking



automatic compensation of small structural variations



high density and optimal thermal insulation

Technical Information

Profile system

- ☐ Glass folding partition in non-thermally insulated aluminum profiles
- ☐ Bottom-supported construction (Top Hung optional)
- ☐ Construction profile depth: 1 3/4" (45 mm)
- ☐ Recessed or surface-mounted floor track
- ☐ Opens inwards or outwards
- ☐ Opens by sliding to one side or both sides
- ☐ Roller track and guide tracks are flush to system faces
- ☐ Design allows for vertical and horizontal adjustments with panels in place

Hardware

- ☐ All fittings hidden within profiles
- ☐ Low-maintenance, non-corroding and failsafe hardware components
- ☐ Panels lock via rods that engage in floor and ceiling tracks and/or via sliding doors that engage in the frames or with the neighboring panels
- ☐ Locking and unlocking via actuating levers with anti-intruder catches
- ☐ Optionally fitted with different lock types
- ☐ Hinges feature pivot pins that cannot be knocked out (anti-intruder feature)
- ☐ The door can be securely clamped to the adjacent panel using snap latches

Runner system

- ☐ Simplified adjusting due to height-adjustable runner assembly system
- ☐ Runner assemblies are situated above water drainage collection area
- ☐ Low-noise, hard-wearing, heat and cold resistant running rollers

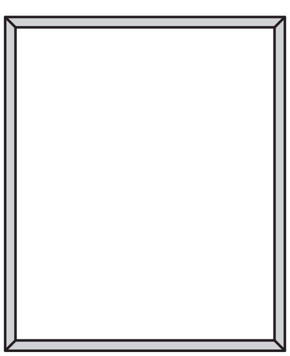
Sealing and ventilation

- ☐ Rain and wind proofing ensured by EPDM seals at two sealing levels

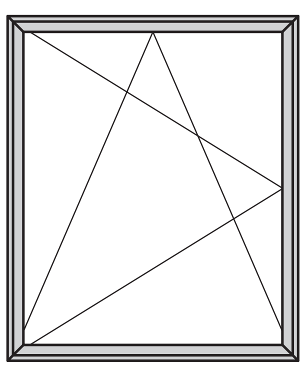
Glazing

- ☐ A glazing configuration of 1/4" to 1" (6 mm to 24 mm) possible
- ☐ Glazing can be replaced without difficulty

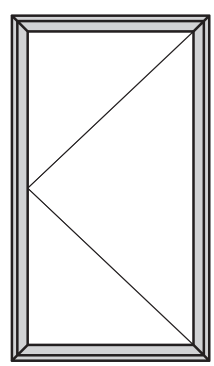
Fix-Elements / Tilt and Turn-Elements / Door-Elements



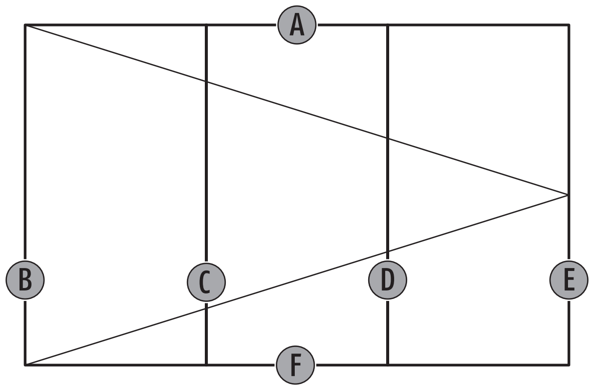
Fix-Elements



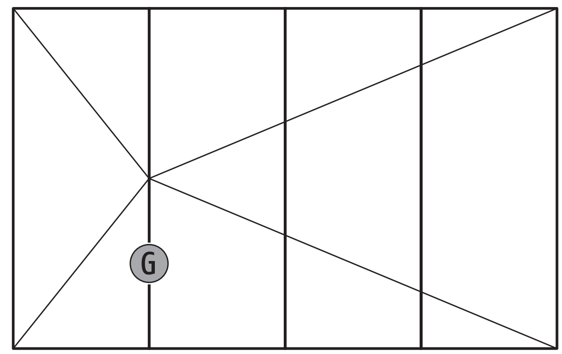
Tilt and Turn-Elements



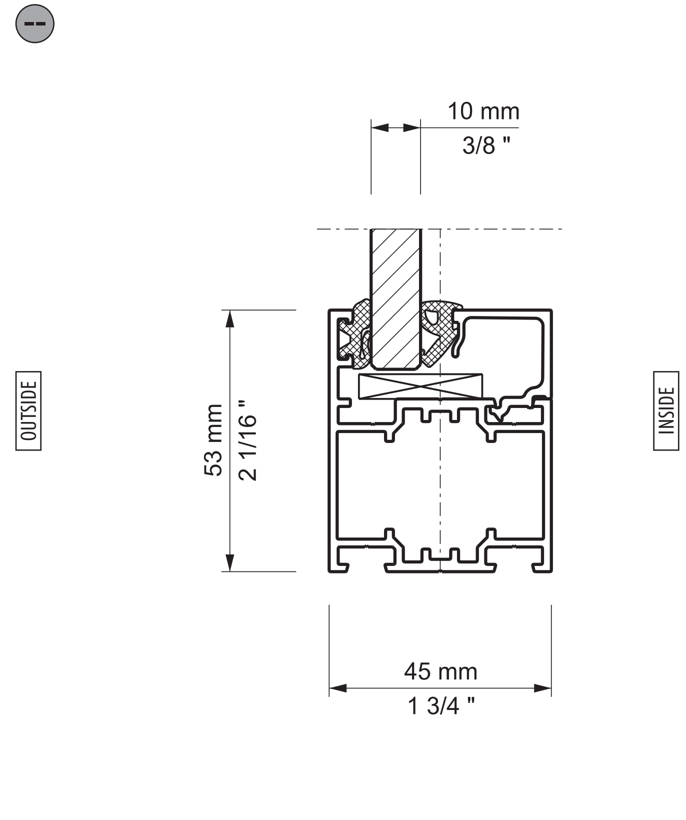
Door-Elements



Details at uneven panel partitioning in one direction



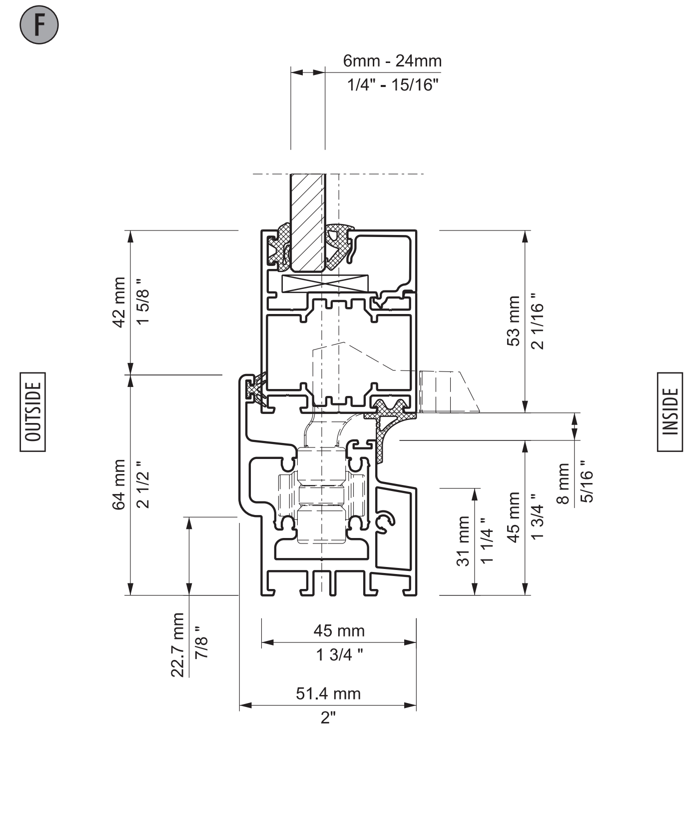
Details at even and uneven panel partitioning in two directions



Description: **Vertical-Section, glazing beads designs**

System: **SF45**

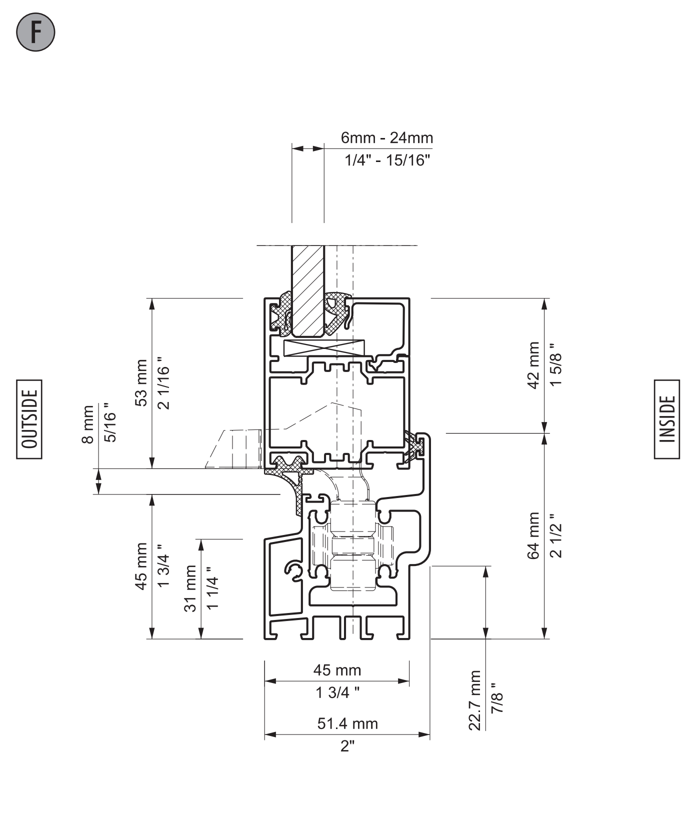
Detail-No.: **SF45-000**



Description: **Vertical-Section, connection bottom track / inside folding**

System: **SF45**

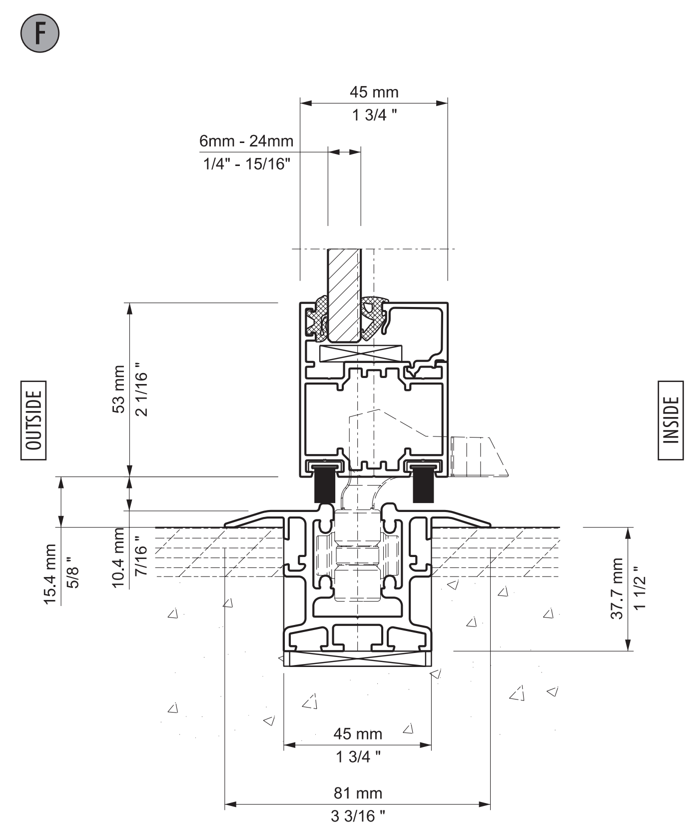
Detail-No.: **SF45-001**



Description: **Vertical-Section, connection bottom track / outside folding**

System: **SF45**

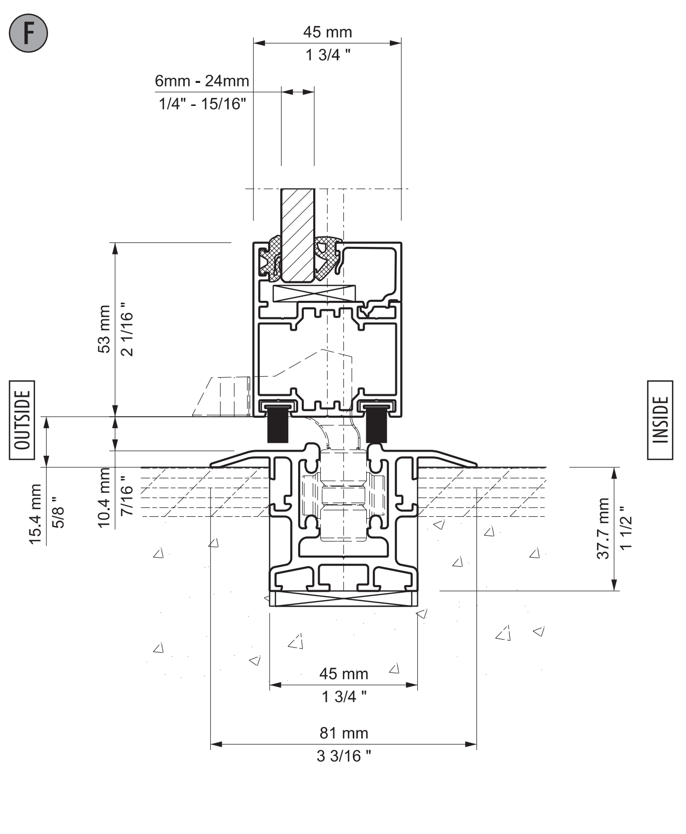
Detail-No.: **SF45-003**



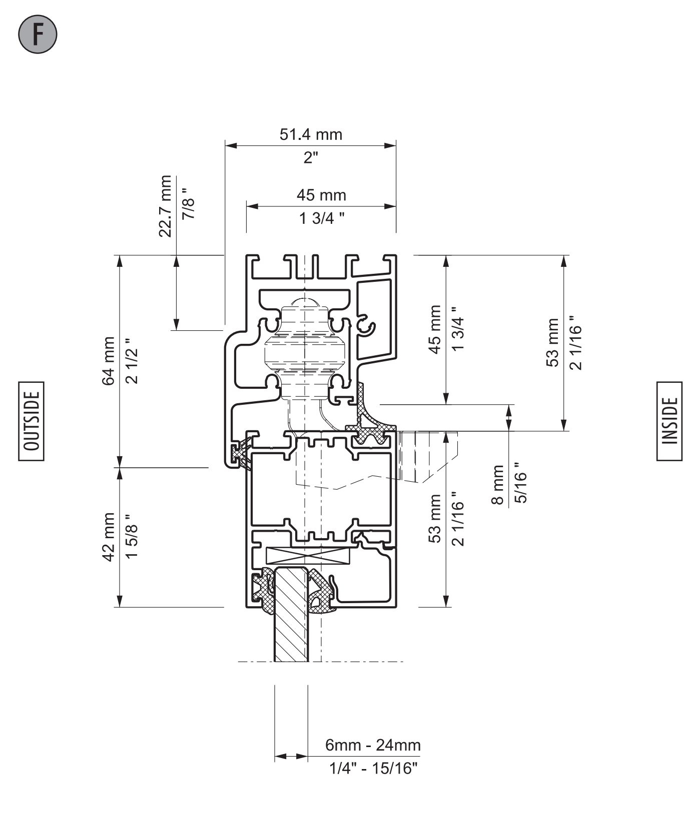
Description: **Vertical-Section, connection flush bottom track / inside folding**

System: **SF45**

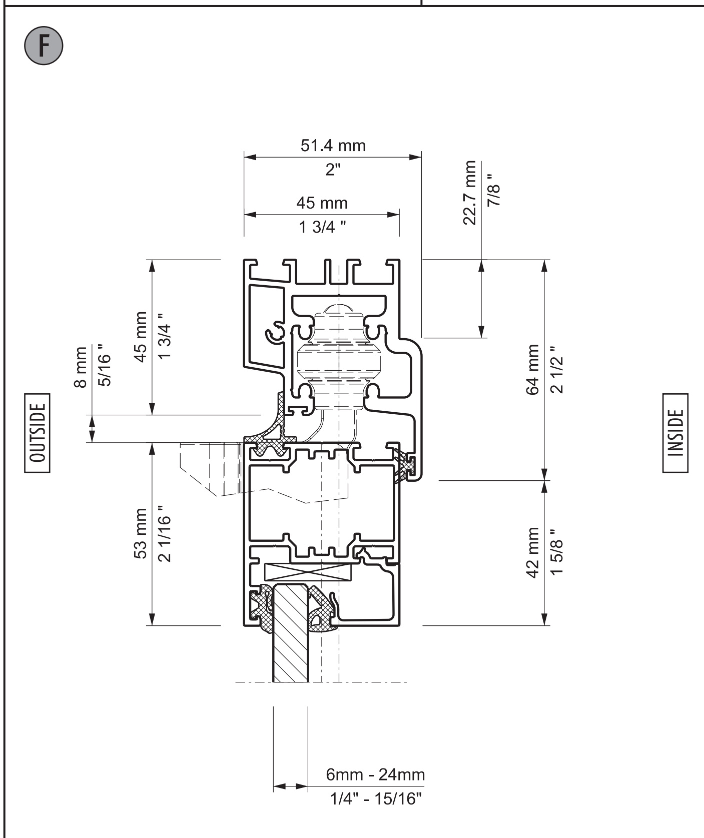
Detail-No.: **SF45-005a**



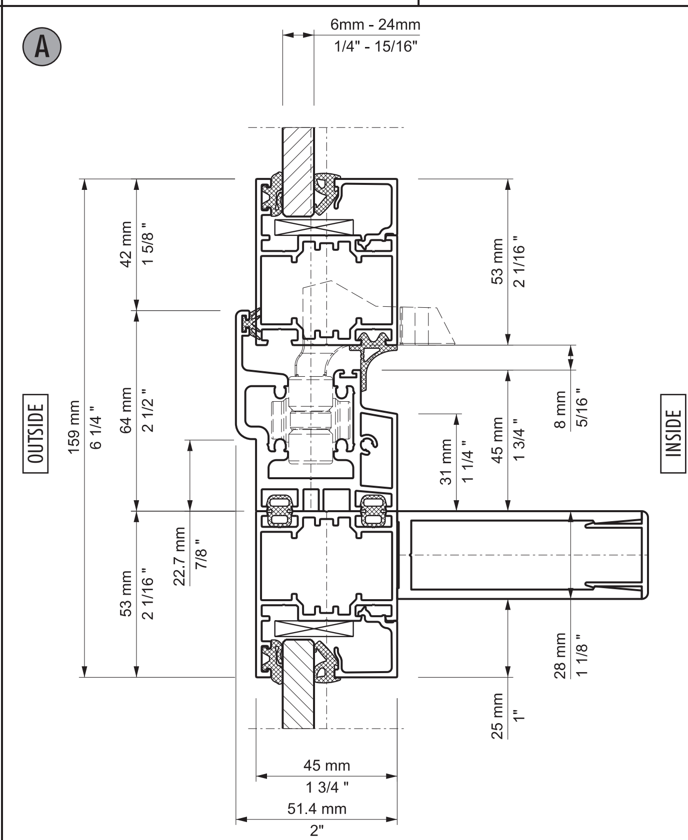
Description:	Vertical-Section, connection flush bottom track / outside folding	System: SF45
		Detail-No.: SF45-005b



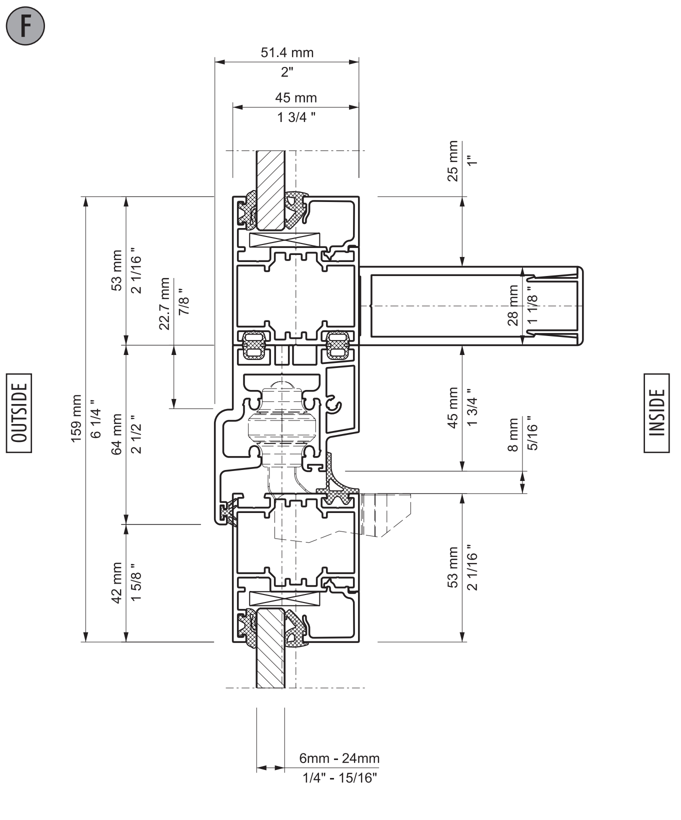
Description:	Vertical-Section, connection top track / inside folding	System: SF45
		Detail-No.: SF45-002



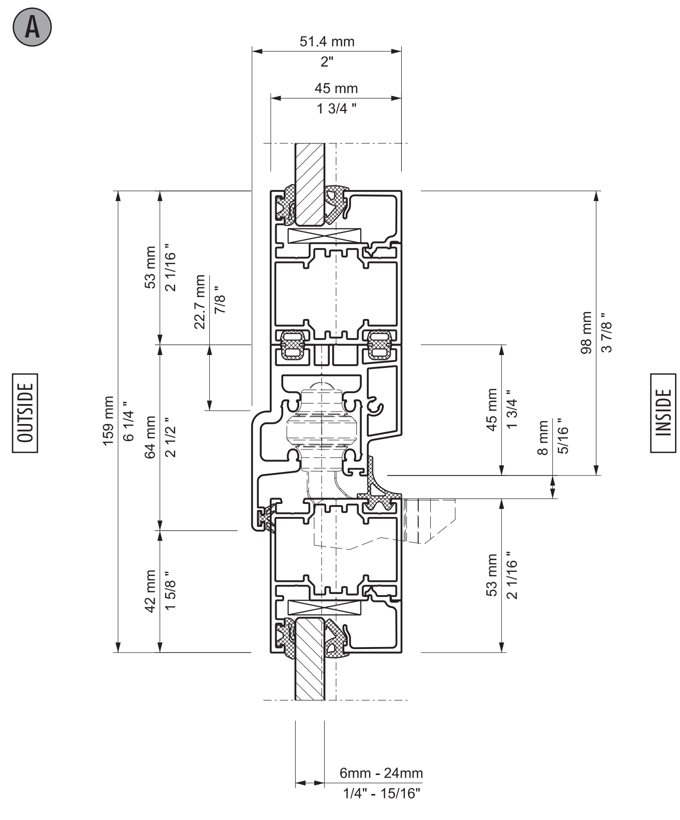
Description:	Vertical-Section, connection top track / outside folding	System: SF45
		Detail-No.: SF45-004



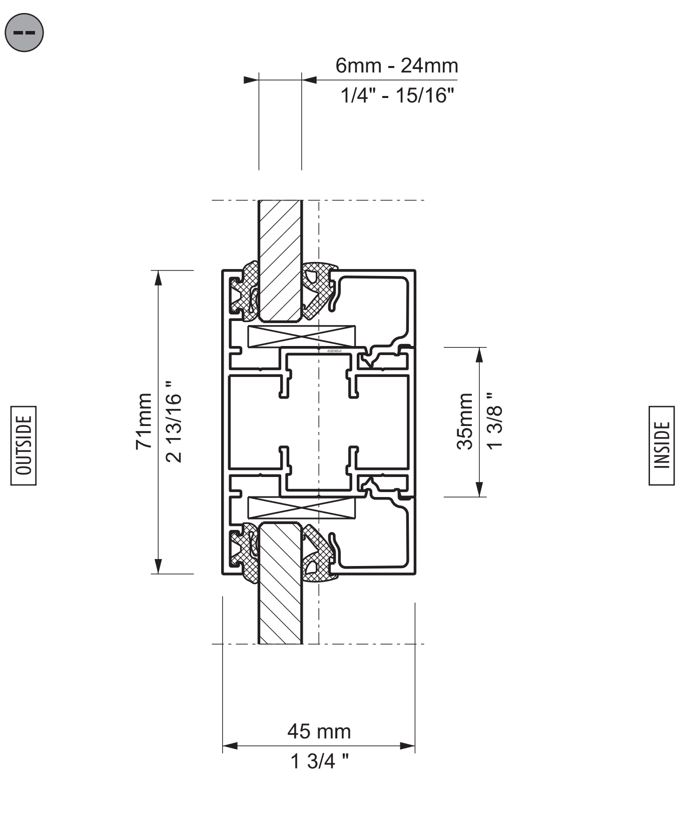
Description:	Vertical-Section, strengthening profile for balustrade / inside folding	System: SF45
		Detail-No.: SF45-007



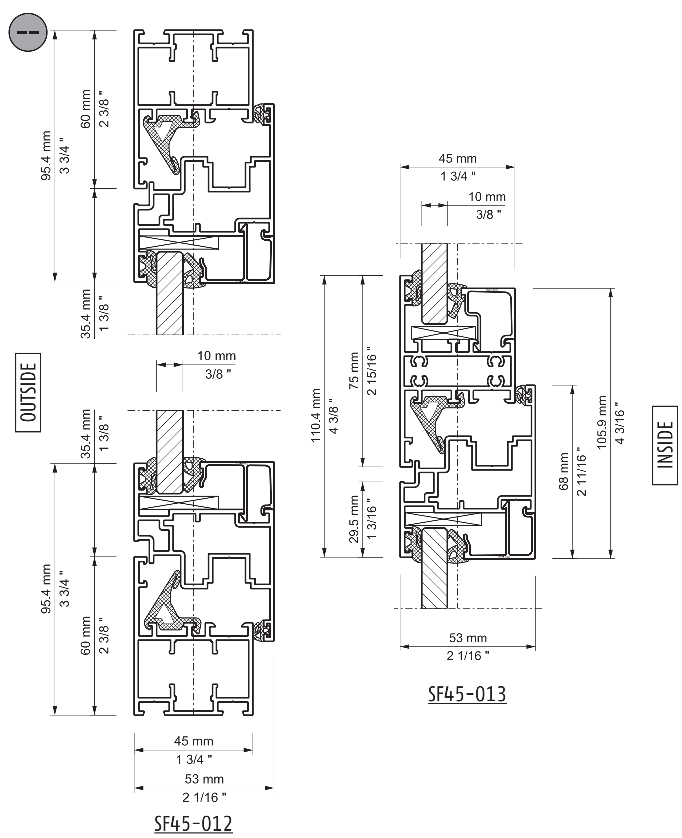
Description: Vertical-Section, strengthening profile for overhead light / inside folding	System: SF45
	Detail-No.: SF45-008



Description: Vertical-Section, connection top track overhead light / inside folding	System: SF45
	Detail-No.: SF45-009



Description: Vertical-Section, midrail	System: SF45
	Detail-No.: SF45-018

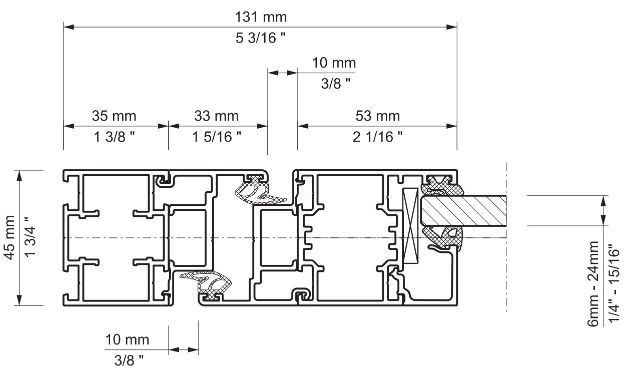


Description: Vertical-Section, tilt and turn element	System: SF45
	Detail-No.: SF45-012/-013

Technical modifications and errors reserved.

E

OUTSIDE



INSIDE

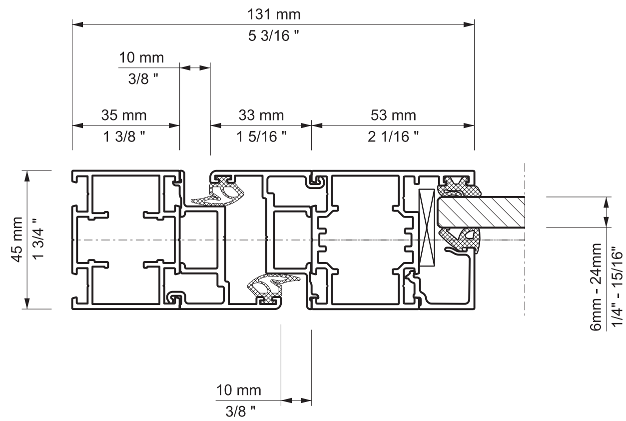
Description: Horizontal-Section, side jamb - panel closing section / inside folding

System: SF45

Detail-No.: SF45-101

E

OUTSIDE



INSIDE

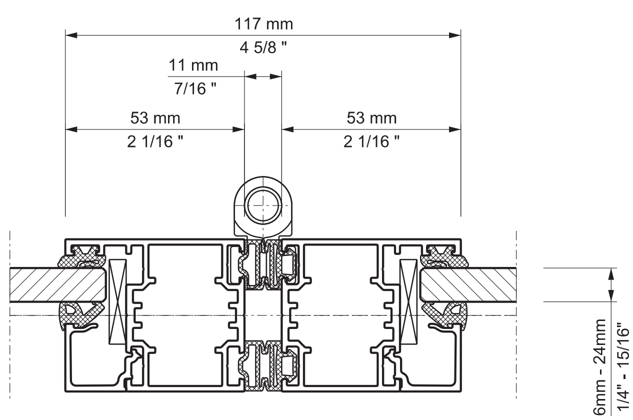
Description: Horizontal-Section, side jamb - panel closing section / outside folding

System: SF45

Detail-No.: SF45-102

C

OUTSIDE



INSIDE

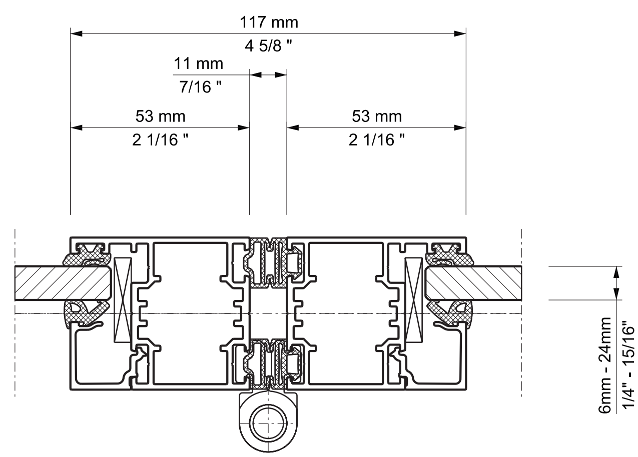
Description: Horizontal-Section, panel - panel / hinge outside

System: SF45

Detail-No.: SF45-103

D

OUTSIDE



INSIDE

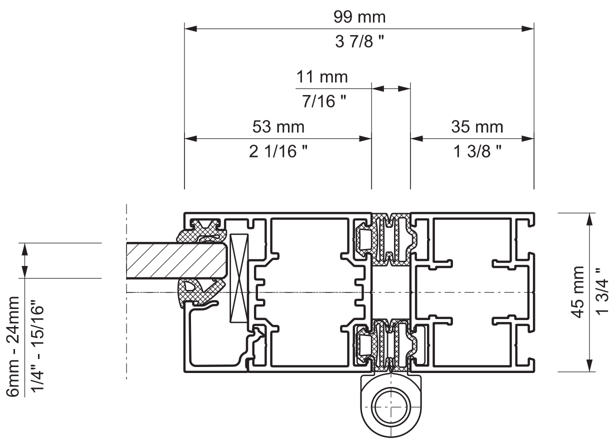
Description: Horizontal-Section, panel - panel / hinge inside

System: SF45

Detail-No.: SF45-104

B

OUTSIDE

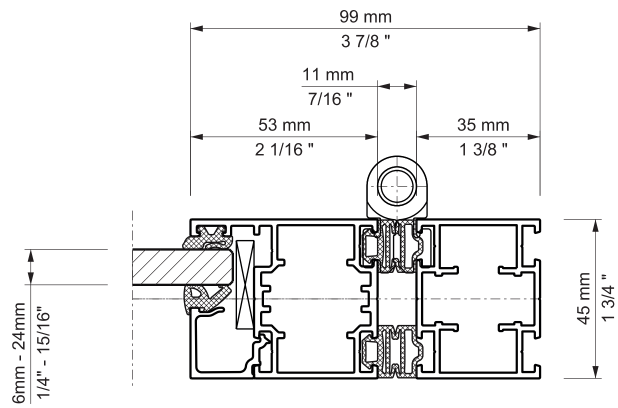


INSIDE

Description: Horizontal-Section, side jamb / hinge inside	System: SF45	Detail-No.: SF45-105

B

OUTSIDE

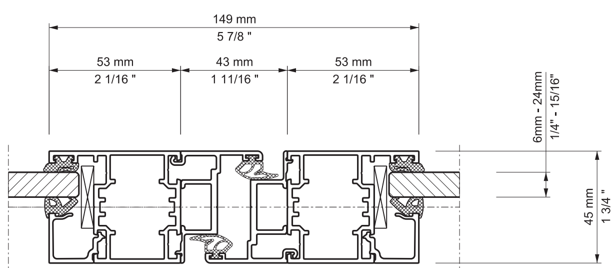


INSIDE

Description: Horizontal-Section, side jamb / hinge outside	System: SF45	Detail-No.: SF45-106

G

OUTSIDE

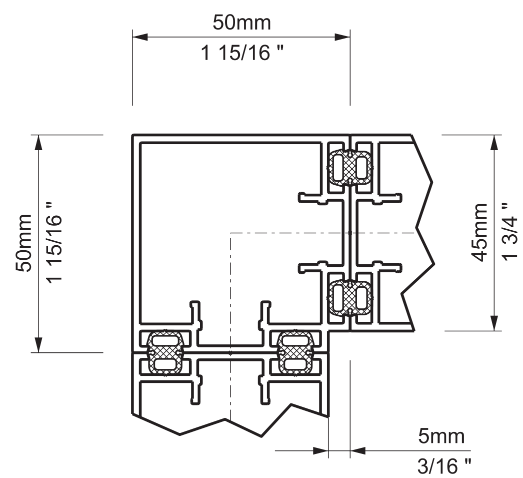


INSIDE

Description: Horizontal-Section, closing section / panel - panel	System: SF45	Detail-No.: SF45-108

E

OUTSIDE

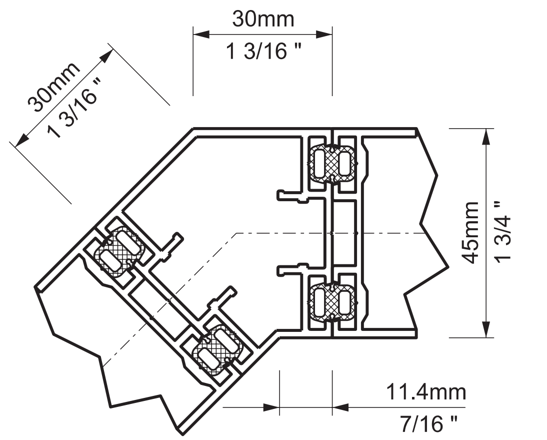


INSIDE

Description: Horizontal-Section, 90°- connection profile	System: SF45	Detail-No.: SF45-109a

G

OUTSIDE

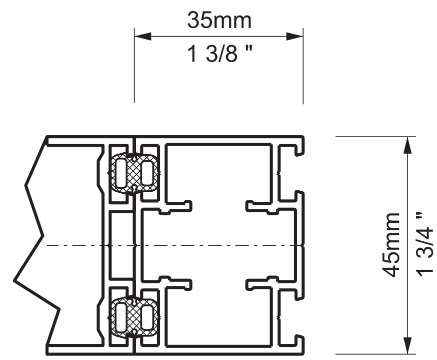


INSIDE

Description:	Horizontal-Section, 135°- connection profile	System: SF45
		Detail-No.: SF45-109b

E

OUTSIDE

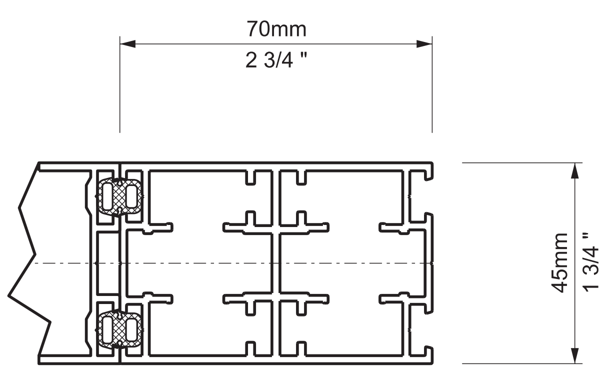


INSIDE

Description:	Horizontal-Section, frame extension 35 mm	System: SF45
		Detail-No.: SF45-110

E

OUTSIDE

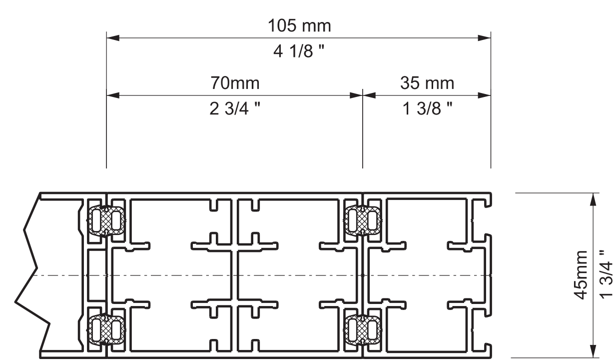


INSIDE

Description:	Horizontal-Section, frame extension 70 mm	System: SF45
		Detail-No.: SF45-111

E

OUTSIDE

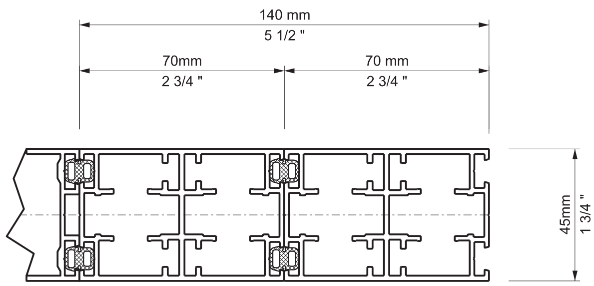


INSIDE

Description:	Horizontal-Section, frame extension 105 mm (1 x 70 mm + 1 x 35 mm)	System: SF45
		Detail-No.: SF45-112

E

OUTSIDE

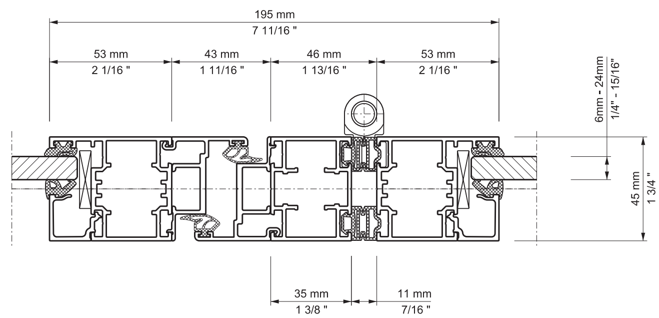


INSIDE

Description:	Horizontal-Section, frame extension 140 mm (2 x 70 mm)	System: SF45 Detail-No.: SF45-113

G

OUTSIDE

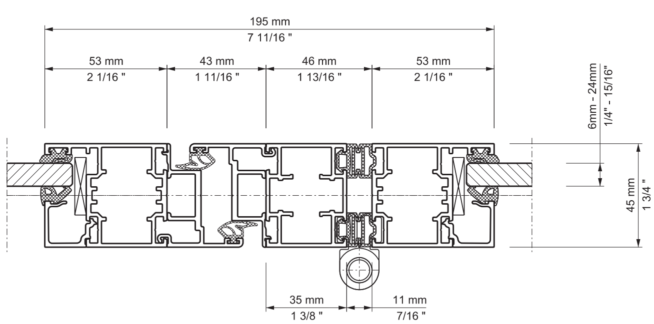


INSIDE

Description:	Horizontal-Section, closing section - sliding post (e.g. 1L/2R) / outside folding	System: SF45 Detail-No.: SF45-115

G

OUTSIDE

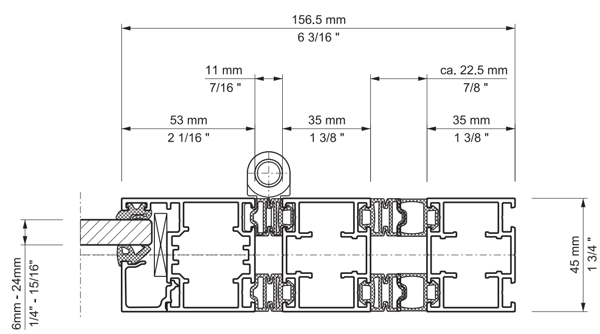


INSIDE

Description:	Horizontal-Section, closing section - sliding post (e.g. 1L/2R) / inside folding	System: SF45 Detail-No.: SF45-116

--

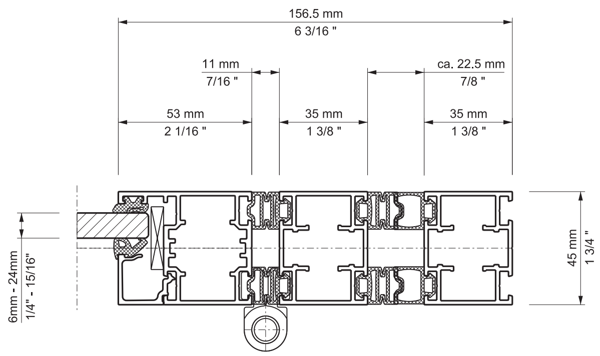
OUTSIDE



INSIDE

Description:	Horizontal-Section, wall connection with even panel number (z.B. 2R) / inside folding	System: SF45 Detail-No.: SF45-117

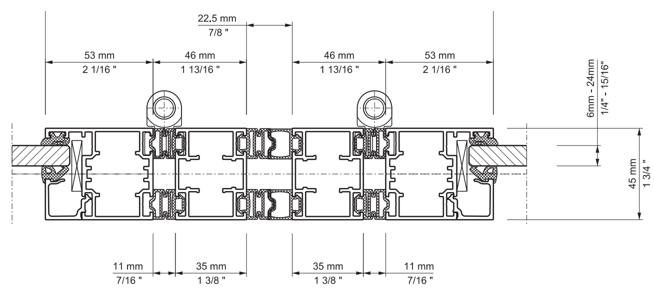
OUTSIDE



INSIDE

Description: Horizontal-Section, wall connection with ven panel number (z.B. 2R) / outside folding	System: SF45
	Detail-No.: SF45-118

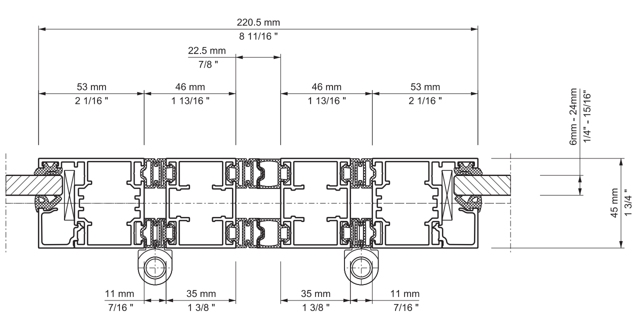
OUTSIDE



INSIDE

Description: Horizontal-Section, wall connection with straith panel quantity(z.B. 2R) / outside folding	System: SF45
	Detail-No.: SF45-119

OUTSIDE

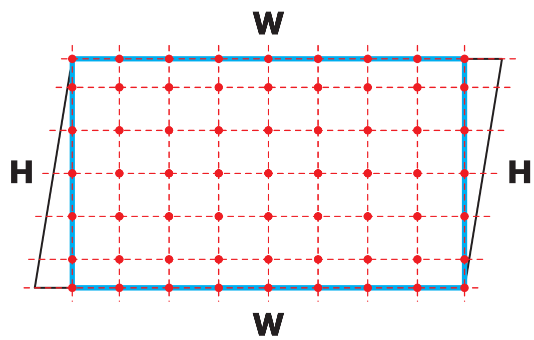


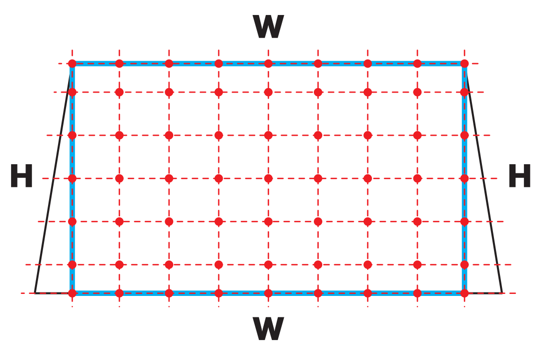
INSIDE

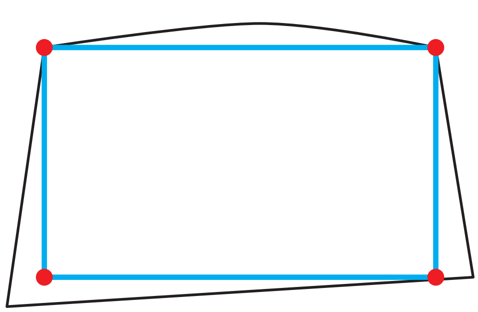
Description: Horizontal-Section, wall connection with straith panel quantity(z.B. 2R) / inside folding	System: SF45
	Detail-No.: SF45-120

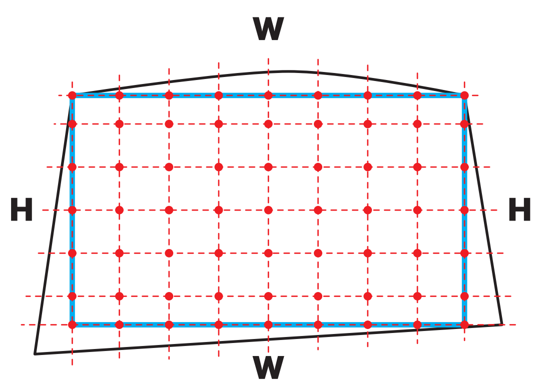
Measurement

It is important to measure at multiple points for both height and width making sure to capture the shortest height and width.





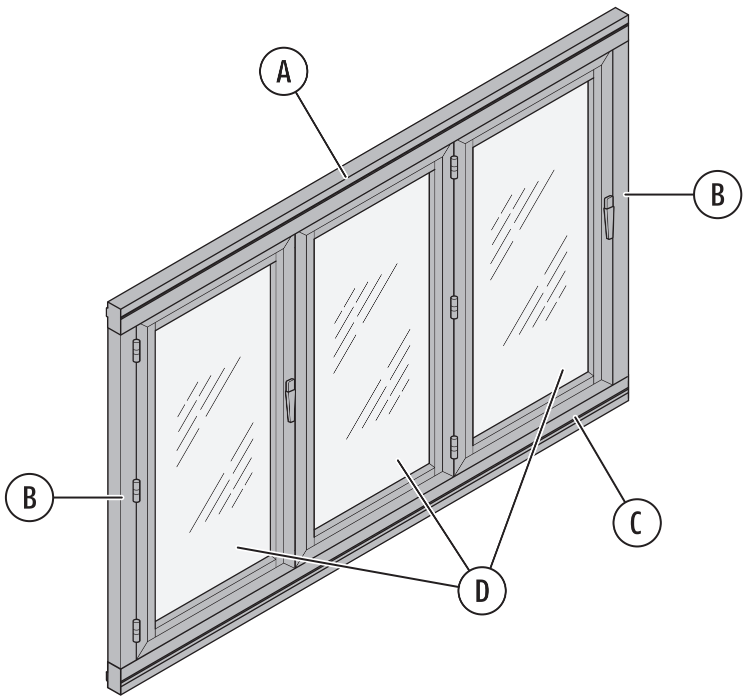




Technical modifications and errors reserved.

Assembly instructions

SF 50 / SF 50c
SF 55 / SF 55c
SF 75 / SF 75c / SF 75H



Scope of delivery:

A. Top rail
B. Vertical profile
C. Floor rail
D. Hinged panel, sliding panel
Accessories pack

Safety instructions:

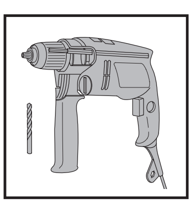
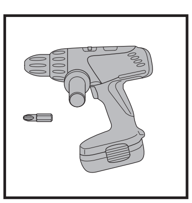
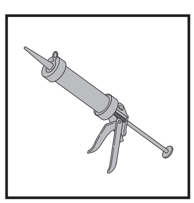
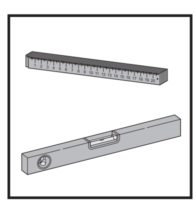
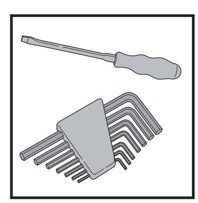
These assembly instructions are specifically designed for the use of authorized specialists. Observation and implementation of the relevant safety regulations are a prerequisite.

Symbols used:

Caution

Note

Tools required:

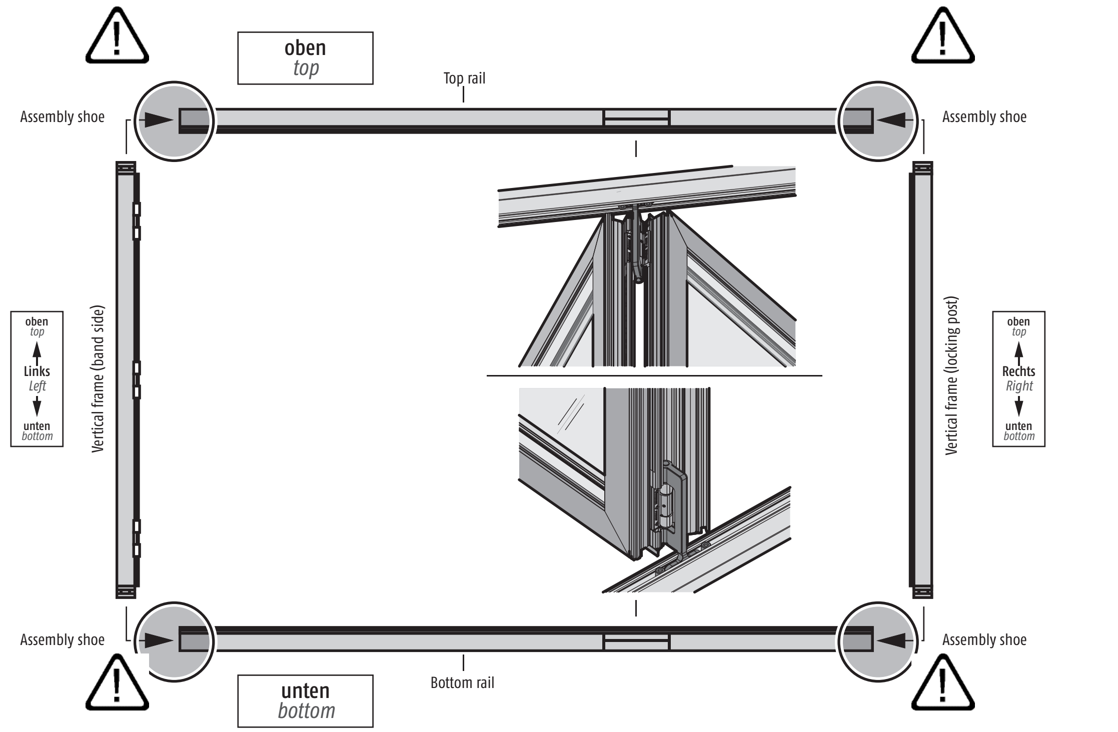
Content

Importent:

After successful assembly the fitter must give instructions to the customer in order to avoid incorrect operation.

1. Assembly of the window frame

1

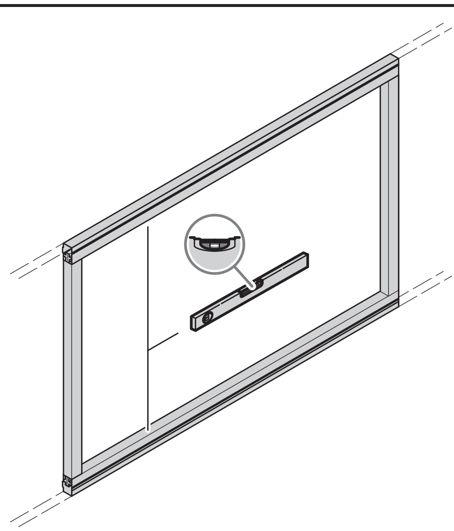


- Unpacking the supplied frame profile.
- The vertical profiles are marked “right” and “left” (viewed from the inside) on the wall side.
- **Slide the guide rolls in to the top and bottom rail.**
- The vertical profiles must be pushed flush into the guide rail.

⚠ Do not screw angles!

2. Installation of the window frame

2



- Arrange window frame vertically.

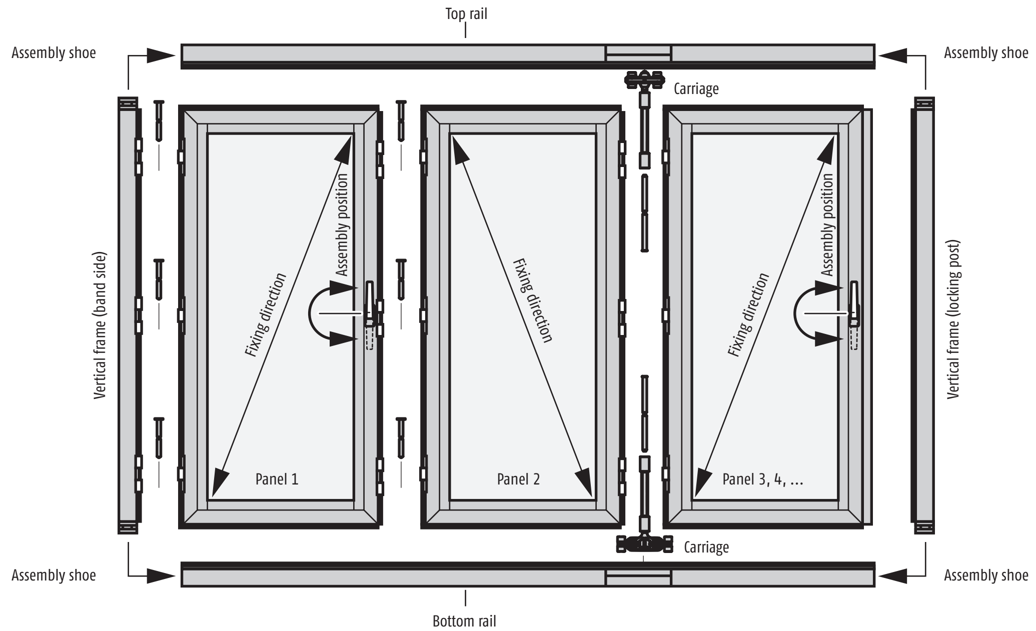
⚠ **Check for parallel fitting!**

- Determination of fixing points.
  - Approx 100–200 mm from external frame cover, distribute remainder at an interval of approx 300 – 400 mm.
  - The vertical assembly points are distributed evenly along the height.
- Support floor rail every 300 mm.
- Rectangle the alignment and wedging of the frame.
- Screw tight all profiles except for the locking posts.

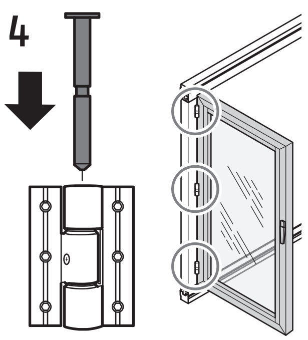
- Place the frame in the building opening.

3. Fitting the panel

3



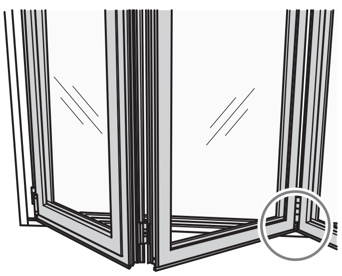
4



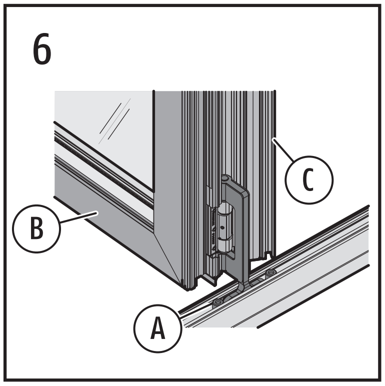
- Fit the first panel and secure with the hinge bolts provided (the panel are numbered at the top and bottom).

Position of handle:
If the locking bar on the panel profile is firmly pushed in flush the handle always points upwards.

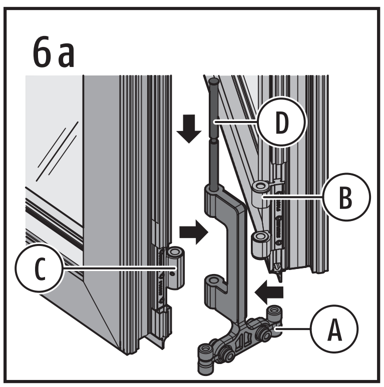
5



- The panels are supported in the marked area at panel 2 with 6 mm small glazing plates between panel and bottom rail, as a transit slopes of the panels to prevent it.

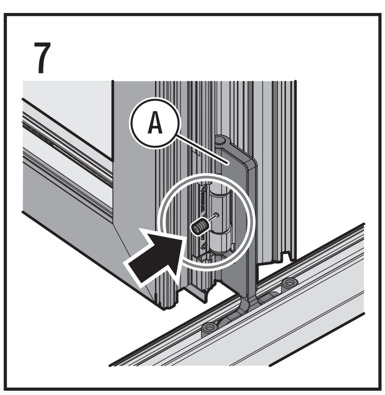


- Finished installation situation in the bottom part of the carriage fitting (A) area. Assembly sequence as shown in Fig. 6a.

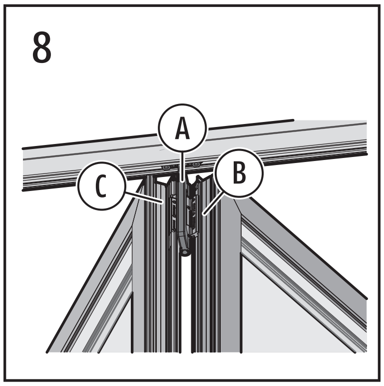


- Position the carriage fitting (A) and two-part hinge (B) with partially inserted bolt (D).

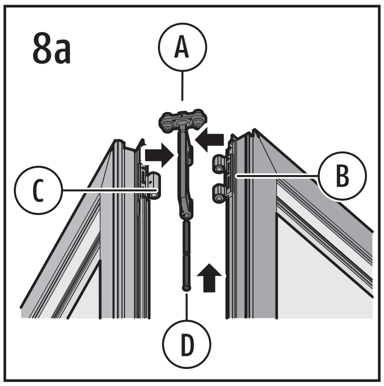
- Insert single-part hinge (C) and push the bolt (D) in down to the stopper.



- All hinge bolts should now be secured with the supplied grub screws (A). The corresponding holes are in the integral hinge section. They are clearly visible when an element is open.

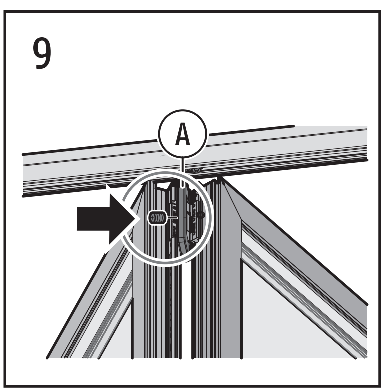


• Finished installation situation in the upper part of the guide rolls fitting (A) area. Assembly sequence as shown in Fig. 8a.



• Position the guide rolls fitting (A) and two-part hinge (B) with partially inserted bolt (D).

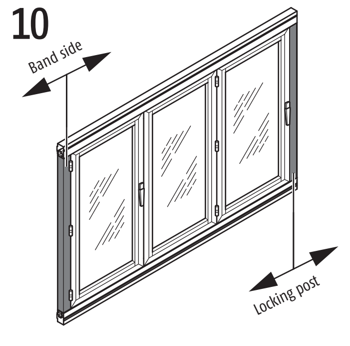
• Insert single-part hinge (C) and push the bolt (D) in up to the stopper.



• All hinge bolts should now be secured with the supplied grub screws (A). The corresponding holes are in the integral hinge section. They are clearly visible when an element is open.

4. Adjustment

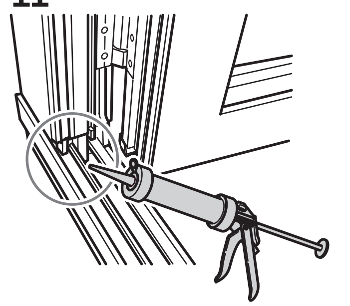
10



- The closure clearance is set by sliding the window frame locking post. When the locking post shows a constant (approx 5-6 mm wide) closure clearance with the panel, this can then be wedged and screwed in.
- For panel distribution left and right the closure is set by re-wedging of the band side vertical post.
- The adjustment bearing bolts permit the panel height within the picture frame to be adjusted. This can be easily adjusted in the mounted state with unlocked panels.

5. Foam sealant

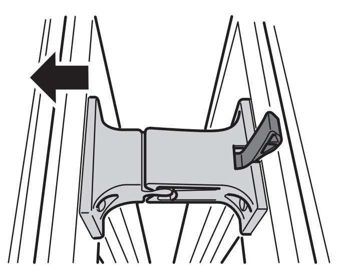
11



The window frame corners must be fully sealed from the inside.

6. Accessory installation

12

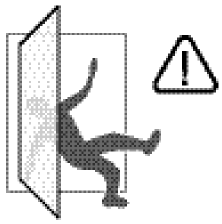


Turn panel

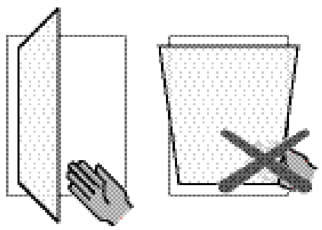
- Fit the supplied panel clips to the panel as shown in the illustration.
- To release, move panel packet from parking position. The trigger lock released when closing automatically.

The illustration shows the stop strip (swivel panel).

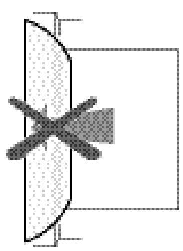
Safety instructions



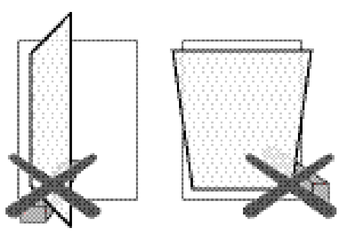
• Risk of injury by falling through open windows.



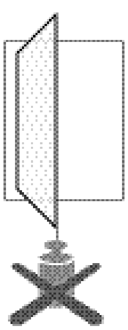
• Risk of injury by trapping of body parts.



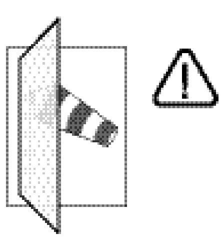
• Risk of injury and material damage by pressing the panel against the opening edge.



• Risk of injury and material damage by placing obstacles between panel and frame.

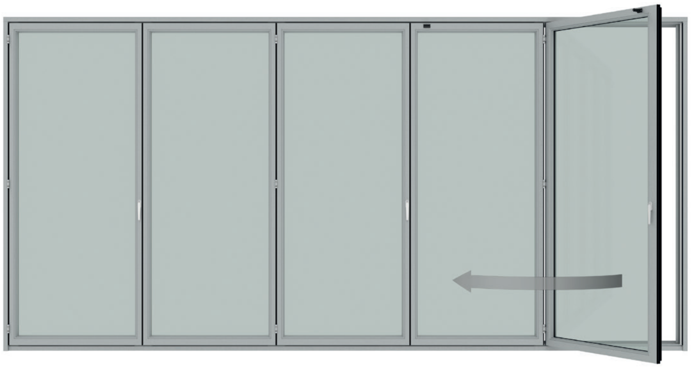


• Risk of injury and material damage due to additional load at the panel.

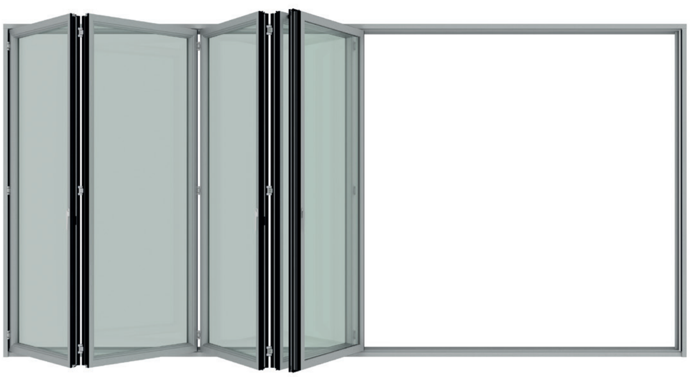


• Risk of injury by wind action.

Operation



Opening of the first panel



Folding of the hinge connected panels

Parking of the folded panels

Maintenance and servicing instructions

General

External building parts are not only subject to the weather, but also increased stress caused by smoke, industrial fumes and aggressive airborne dust. In conjunction with rain and dew, deposits of these substances may affect the surface and change the appearance. External parts must therefore be cleaned (at least twice annually or more frequently depending on the degree of contamination) to avoid possible settling of deposits. The sooner you remove dirt from the surface, the easier it is to clean. Observe the safety instructions and instructions for use of the respective servicing and cleaning products. When cleaning do not use a material with an unknown composition. If you are not certain about the effect of the cleaner , then test it first by cleaning a visually unimportant, non-exposed portion of the component.

Fittings

All fittings must be regularly checked for tightness and wear. Attachment screws must be tightened and defective parts replaced as required. In addition, at least once a year, all moving and sliding fittings must be lightly greased with fitting grease. Only servicing and cleaning agents that do not affect the corrosion protection of fittings should be used.

Glass surfaces

Dirty glass surfaces can be cleaned using water and a sponge or cloth, etc. Commercially available non-abrasive glass cleaners (such as Ajax, Pril, etc.) can be added to the water. Stubborn stains such as paint or tar splashes should be removed with methylated spirits or white spirit.

Caution!
Do not use alkaline caustic solutions, acids, and fluoride-containing detergents to clean glass surfaces.

Caution!
A suitable protective film should be used to protect the glass surface against mortar spattering, cement slurry, sparks or weld sputtering from partitioning screens and stone-facade acidic-cleaner..

Seals

All seals must be cleaned and lubricated at least once a year to ensure good functioning. For this purpose we recommend the use of a seal care product. The care product maintains the suppleness of the seal, thus preventing premature brittleness. Ensure that the seals are not damaged and do not come into contact with solvent materials.

Aluminium surfaces

Anodizing and powder coating is a highly durable and decorative finishing for aluminium components. To maintain the decorative appearance of such components for decades, the surfaces need to be regularly maintained by means of cleaning twice a year.

Cleaning anodized surfaces

Cleaning of the surfaces must not take place in direct sunlight, the surface temperature must not exceed 25°C. Use only neutral pH cleaners such as normally diluted washing up liquid. Abrasive or scouring materials must not be used to clean heavily soiled, anodized surfaces – cleaning pastes are available.

Cleaning powder-coated surfaces

In the same way as for anodized elements, cleaning must be carried out whilst cold (maximum of 25 °C surface temperature). In this case also, use only pH-neutral material. Solvent-based cleaners attack the surface of the powder coating and, like scouring or abrasive cleaners, should not be used. To remove stubborn fat and greasy dirt we recommend aroma-free methylated spirits. This must only be applied for a short time and then rinsed off with clean water. In addition, we recommend treatment with car wax to leave a water-repellent film. Check on a non-exposed area whether the material used has an adverse effect on the shine.

Wood surfaces on wood/aluminium elements

For the cleaning of internal wood surfaces it is best to use mild detergent such as dilute detergent and soap suds. Since the internal wood surfaces are not subject to wear and weathering by rain and sun light, painting is not required. Avoid abrasive, corrosive and solvent-based cleaners. Use only soft cloths to avoid scratching the paint surface. Window cleaners contain small traces of alcohol and ammonium chloride. These materials are very suitable for cleaning the glass as well as the wood-frame sections. After cleaning, dry the wood profiles with a dry, soft cloth, because extended exposure to alcohol can soften the paint surface.

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info@sunflex.de

TERMS OF SALE

1. Purchase of Products

A Except to the extent otherwise agreed upon in writing, the terms set forth herein shall govern the sale and delivery of the wall systems described on the reverse side hereof ("Products') by Sunflex Wall Systems LP ("Seller') and purchased by the purchaser named on the reverse side hereof ("Purchaser').

B All dealings between the parties shall be in writing and no order of Purchaser shall be binding on Seller until approved in writing by Seller.

C Prices of Products are subject to change without notice, and all references in sales brochures, technical data sheets and offers as to size, weight, and other details of the Products are approximate only. No such term shall be binding on Seller unless expressly incorporated in a purchase order which is approved and accepted by Seller in accordance with the terms hereof.

D Except as provided in subsection (e) of this Section 1, a purchase contract hereunder shall become effective upon the mailing of a written acceptance of Purchaser's order by Seller.

E If the terms stated in Purchaser's order are not acceptable to Seller, Seller may amend, delete or alter such terms and submit a counter-offer incorporating such amendments, deletions or alterations to Purchaser, it being understood and agreed that such counter offer shall be deemed accepted by Purchaser and shall become binding on the parties if and in case Seller does not receive notice to the contrary from Purchaser within 3 (three) days after Seller has sent such counter-offer to Purchaser.

F Purchaser acknowledges that Seller's acceptance of any purchase order is dependent on Seller's prior approval of Purchaser's credit. Purchaser agrees that Seller may demand assurances of Purchaser's ability to pay by requesting such trade or banking references or such other information as deemed adequate by Seller.

2. Delivery

A Unless expressly agreed upon in writing to the contrary, the terms of delivery are Delivery Duty Paid (DDP) to Purchaser's receiving dock. Seller will use commercially reasonable efforts to make the products available for pick up by Purchaser or delivery within a reasonable time after acceptance of an order from Purchaser.

B Purchaser bears the risk of loss or destruction of the Products upon and after the first to occur of (i) signed receipt and acceptance of delivery of Products by Purchaser or his agent, (ii) pick-up or acceptance of the Products by Purchaser or its common carrier at Seller's place of business or (iii) the 14th (fourteenth) day after notification from Seller that the Products are ready for pick-up or delivery from the seller's place of business. In the event the Purchaser requests a delay in pick-up or delivery, Purchaser assumes all risk of loss, damage and/or destruction of the Products from the date the Products are ready to be picked up or delivered.

C Purchaser agrees that it will pick up at Seller's place of business or agree for Seller to ship Products purchased for delivery within 14 (fourteen) days after written notification from Seller that Products are ready to be received by Purchaser. If Purchaser does not pick up or agree to have Seller ship products within 14 (fourteen) days after notification from Seller and/or Seller is required to store the Products due to any delay caused by Purchaser, Purchaser shall reimburse Seller for reasonable storage charges.

D Seller reserves the right to make the Products available for pick-up and delivery in installments provided that such installments shall not be less than one product unit, unless otherwise expressly stipulated to the contrary in a written document signed by Seller. Delay in delivery of any installment shall not relieve Purchaser of its obligation to accept remaining deliveries.

E If Purchaser should request any modification of the order after Seller's acceptance, Seller shall have the right to extend the delivery time period as reasonably needed to complete Purchaser's change order.

3. Force Majeure

Notwithstanding anything to the contrary, Seller shall not be liable for any delay or failure to perform hereunder when such failure or delay is, directly or indirectly, caused by, or in any manner arises from fire, floods, accidents, civil unrest, acts of God, war, terrorism, governmental interference or embargoes, strikes, labor difficulties, shortage of labor, fuel, power, materials, or supplies, breakage of machinery or apparatus, transportation delays, or any other cause or causes (whether or not similar in nature to any of those hereinbefore specified) beyond its control.

4. Warranties and Claims

A Seller warrants that the Products when delivered shall comply with standards and limitations set forth in the Limited Warranty.

B Purchaser shall within five (5) working days after its receipt of the Products, and in any event no later than thirty (30) days from the shipping date, give written notice to Seller of any claim that the Products do not conform with the terms of the order or have material defects which a casual inspection would disclose. If Purchaser fails to give such notice, the Products shall be deemed to conform to the terms of the order, and Purchaser shall be deemed to have accepted and shall pay for the Products in accordance with the terms of this order. Purchaser expressly waives any right Purchaser may have to revoke acceptance or claim a breach of warranty with respect to such obvious or material defects, a casual inspection should have disclosed after such five-day period.

EXCEPT AS SET FORTH EXPRESSLY IN SELLER.S STANDARD WRITTEN WARRANTY WITH RESPECT TO THOSE ITEMS MANUFACTURED BY SELLER, SELLER MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND, EXPRESS OR IMPLIED, WRITTEN OR ORAL, WITH RESPECT TO THE PRODUCTS, INCLUDING, WITHOUT LIMITATION, ITS MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

PURCHASER ACKNOWLEDGES THAT PURCHASER IS NOT RELYING ON SELLER.S SKILL OR JUDGMENT TO SELECT OR FURNISH PRODUCTS SUITABLE FOR ANY PARTICULAR PURPOSE OR JOB, OR TO DETERMINE THE FEASIBILITY OF THE PRODUCTS FOR ANY PARTICULAR APPLICATIONS. PURCHASER ACKNOWLEDGES THAT THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION HEREIN. NEITHER SELLER NOR ANY OF ITS AFFILIATES SHALL BE LIABLE FOR, AND PURCHASER WAIVES ANY CLAIM AGAINST SELLER AND ITS AFFILIATES FOR, MULTIPLE, INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES, INCLUDING, BUT NOT LIMITED TO, DAMAGE OR LOSS OF OTHER PROPERTY OR PRODUCTS, LOSS OF PROFITS OR REVENUE, LOSS OF USE OF MACHINERY OR PARTS THEREOF, INABILITY TO PERFORM SPECIFIC PROJECTS, COST OF CAPITAL, INJURIES TO OR DEATH OF PERSONS OR DAMAGE TO PROPERTY OR CLAIMS RESULTING FROM CONTRACTS AND/OR AGREEMENTS BETWEEN PURCHASER, ITS CUSTOMERS AND/OR SUPPLIERS, IN EACH CASE WHICH IN ANY WAY RELATE TO THE PURCHASE OF PRODUCTS BY PURCHASER OR THE USE OF THE PRODUCTS.

5. Prices

A All prices quoted by Seller are in U.S. funds and shall be on a net basis DDP (Delivered Duty Paid) to Purchaser's receiving dock.

B All prices quoted by Seller are subject to adjustment due to Purchaser's change orders, if any.

C Unless otherwise expressly agreed upon in writing, the price quoted includes the cost of packaging, special containers, crating, palletizing, applicable taxes and duties, shipping, insurance or any other cost to provide Products to Purchaser.

6. Payment

A Unless otherwise expressly agreed upon in writing, payment shall be made in full according to the terms specified on page 1 hereof. Purchaser shall not withhold or reduce payments on account of complaints, claims, or counterclaims not acknowledged and accepted by Seller.

7. Default

A Purchaser shall be in default (hereinafter .Default.) under this Agreement and Seller may terminate this Agreement and exercise all other remedies in law or in equity if Purchaser: (i) fails to make payment hereunder to Seller when due; or (ii) breaches any other term, provision or condition contained in this Agreement; or (iii) is declared to be in default under any other agreement between Purchaser and Seller, and if in any of the foregoing cases set out in (i), (ii) or (iii), Purchaser fails to cure any said breach or default within 5 (five) days following written notice thereof from Seller.

B Upon the occurrence of a Default, Seller may elect to exercise any one or more of the following options:

i. Seller may hold the Products until such time as Purchaser has paid the respective purchase price and any expenses (including finance charges, returned check fees and interest determined at a rate equal to the lower of eighteen percent (18%) per annum or the maximum rate permitted by applicable law incurred by Seller as a consequence of such default.
ii. Seller may sell the Products to a third party and require Purchaser to reimburse Seller for any losses, or expenses associated therewith.
iii. Seller may require payment in cash prior to delivery of any Products hereunder.
iv. Seller may withhold any Products not delivered to Purchaser at the time of the default.
v. Seller may terminate this Agreement.
vi. Seller may exercise all other rights hereunder and may seek all other remedies available to it in law or in equity.

C Purchaser agrees that, in the event any legal action should be deemed necessary by Seller to recover any sums due hereunder or under any promissory note, trade acceptance, or invoice, or, if applicable, to recover possession of the Products, as defined hereinabove, or any proceeds from the sales thereof, there shall be added to the sums due from Purchaser to Seller the costs of collection, including reasonable attorney's fees.

D When reasonable grounds for insecurity arise with respect to Purchaser's performance, Seller may in writing demand assurance of due performance and until it receives such assurance may suspend any performance for which it has not already received payment.

8. Protection of Trade Secrets and Confidential Information

The parties hereto agree that

A Except as provided for in subsection (b) of this Section, Purchaser shall not disclose any Trade Secrets or Confidential Information of the other party to any individual or entity not a party to this Agreement.

B Purchaser may make available Trade Secrets or Confidential Information to its qualified employees, as defined herein after, to the extent that such information must be disclosed to such qualified employees to apply the Trade Secrets or Confidential Information to its intended use. A "qualified employee' shall mean any individual employed by or affiliated with Purchaser who is bound by a valid and fully enforceable confidentiality agreement which contains confidentiality obligations substantially similar to the confidentiality obligations stated herein, prior to disclosure of the Trade Secrets and Confidential Information to such employee.

C For purposes of this Agreement the following terms shall have the meanings set forth below:

i. The term 'Trade Secrets' shall mean and include any and all designs, plans, processes, tools, mechanisms, programs or compounds known to only Seller, or to those of its clients and employees to whom they must be confided in order to be applied to the uses intended, some or all of which may arise to the level of being patentable or subject to copyrights, all as further defined under the laws of the State of Florida.

ii. The term "Confidential Information' shall mean and include information not rising to the level of Trade Secret and not generally known to or by a business in competition with the Seller or otherwise publicly disseminated by the protected party hereto, the disclosure of which may be beneficial to a competing business or detrimental to Seller.

9. Arbitration

Any controversy or claim arising out of or relating to this Agreement, or the breach hereof, shall be submitted to and be finally resolved by arbitration, to be conducted by the American Arbitration Association (.AAA.), with such arbitration to be held in Atlanta, Georgia in accordance with the AAA.s Commercial Arbitration Rules then in effect. Each party hereby irrevocably agrees that service of process, summons, notices, as other communications related to the arbitration procedures shall be deemed served and accepted by the other party five (5) working days after having been mailed by first class registered mail, return receipt requested, postage prepaid, to the other party, or if actually received by the other party. The arbitration shall be conducted by one arbitrator, as selected by the AAA. Any award or decision rendered in such arbitration shall be final and binding on both parties, and judgment may be entered thereon in any court of competent jurisdiction if necessary. Except as may be provided to the contrary herein, each party hereto shall pay any and all expenses incurred by such party in connection with such arbitration proceeding, unless otherwise determined by the arbitrator.

10. Miscellaneous

A Purchaser may not assign this contract without the express prior written consent of Seller.

B Except as otherwise expressly provided in Section 1(e) hereof or in a written document, signed by Seller and Purchaser, this document and attachments and exhibits thereto constitute the entire agreement between Seller and Purchaser with respect to the subject matter herein contained and all prior agreements and communications between Seller and Purchaser, whether oral or written, are superseded by this Agreement.

C No modification, limitation, waiver or discharge of this Agreement or of any of its terms shall bind Seller unless in writing and signed by a duly authorized employee of Seller. The failure of Seller to insist, in one or more instances, on performance by Purchaser in strict compliance with the terms and conditions hereof shall not be deemed a waiver or relinquishment of any right granted hereunder with respect to any succeeding breach of the same or other provision hereof.

D All notices required hereunder shall be in writing and sent by first class mail or by telefax or written confirmation to such addresses as stated on the reverse side hereof.

E This Agreement shall be governed by, and construed, interpreted and enforced under the laws of the State of Florida without giving effect to the conflict of laws principles.

F In connection with any litigation, including appellate proceedings, arising out of or pertaining to any of the contractual relationships between Seller and Purchaser or the breach thereof, as contemplated herein, all costs and expenses, including reasonable attorneys fees, shall be borne by the losing party or, as the case may be, shall be prorated to properly reflect any partial losing or prevailing of the parties to such litigation.

G In case any conditions of this Agreement should be or become unenforceable under applicable law, the remaining provisions, stipulations and conditions of this Agreement shall not be affected thereby.

COMPANY INTRODUCTION

Let us introduce ourselves.

SUNFLEX Wall Systems LP
Tel.: 1-800-606-0756
4120 Enterprise Ave., Ste. 120
Naples, FL 34104

Locations

SUNFLEX began in Germany in 1963 and in 2008 we established our US / Canada office adding to our operations in the U.K., Netherlands, South Africa, UAE, Thailand, and Mexico. Our unique value proposition is our vertically integrated process from our hardware to our profiles, everything specifically engineered and manufactured at our German facilities for each custom-made system to ensure consistency, durability and maximum service life with final panel assembly at our U.S. location. SUNFLEX has become an international pioneer) in operable glass wall systems and with SUNFLEX you are dealing directly with the manufacturer.

SUNFLEX Wall Systems LP
Tel.: 1-800-606-0756
4120 Enterprise Ave., Ste. 120
Naples, FL 34104

Product Applications

SUNFLEX Wall Systems custom designs and manufactures precision performing sliding /folding glass wall and door systems. We offer a versatile product range to meet the most demanding requirements in terms of quality, functionality and design while at the same time being highly adaptable to specific project needs.

Hospitality

Whether for a stadium, school or library, hospitality or office project or simply a residential space, if your project calls for operable glass wall and door systems our team is ready to support your design solutions and assist you in meeting your client's needs. We offer solutions for your residential, commercial and hospitality projects. SUNFLEX is a company of commitment, integrity and quality and simply stated "nobody does it better".

Residential

Commercial

SUNFLEX Wall Systems LP
Tel.: 1-800-606-0756
4120 Enterprise Ave., Ste. 120
Naples, FL 34104

High Profile Projects

SUNFLEX has been chosen as the system of choice by such well known properties as Harvard, Hyatt Regency, Marriott, Hilton, Wynn Hotel, California Pizza Kitchen, Yankee Stadium, Commonwealth Stadium, University of Kentucky Football Training Facility, Florida State University, Estadio Azteca Stadium, Erikson Tower, Apple Headquarters, Condè Nast, USAA, Universal Studios, Wolfgang Puck at Disney, Phoenix Zoo, BBC Worldwide America and Seattle Stadium Place to name only a few.

Harvard Business School

Schwartz Pavilion on the Harvard Business School Campus

Product used: SF50 HSW

Product used: SF40 HSW

SUNFLEX Wall Systems LP
Tel.: 1-800-606-0756
4120 Enterprise Ave., Ste. 120
Naples, FL 34104

SUNFLEX

Restaurants

Product used: SF50 HSW

Product used: SF50 Folding

SUNFLEX Wall Systems LP
Tel.: 1-800-606-0756
4120 Enterprise Ave., Ste. 120
Naples, FL 34104

SUNFLEX

Luxury Penthouses

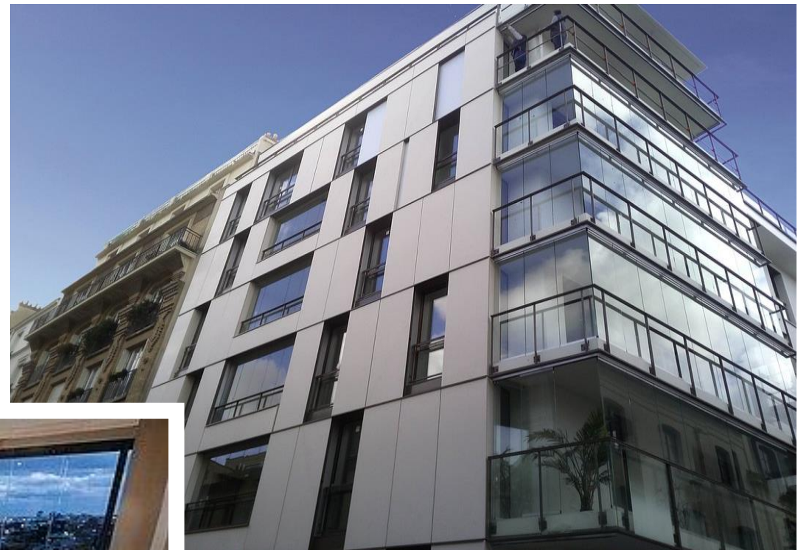
Product used: SF55 Folding

STADIUM PLACE

Product used: SF55 HSW

SUNFLEX Wall Systems LP
Tel.: 1-800-606-0756
4120 Enterprise Ave., Ste. 120
Naples, FL 34104

Balcony Enclosures



Product used: SF25

Product used: SF25

Product used: SF20

SUNFLEX Wall Systems LP
Tel.: 1-800-606-0756
4120 Enterprise Ave., Ste. 120
Naples, FL 34104

Pre-Sales Support

Our goal was and is to be the leading company when it comes to our products. We always work on the designs for the next generation of operable glass walls.
But what is a well-designed product, without the needed state of the art production, which respects the environment and delivers the highest grade of quality in every detail of the product.

"The Best Product Possible" is not defined by the most expensive product possible, it is "The Best Solution for the Customers Application".

When we support our customers finding "The Best Solution for their Application", we help them to find the best product they need to fulfill their demand, which still helps to minimize the investment, while gaining the full satisfaction with the Solution offered.

Post-Sales Support

We will stay available. A project isn´t finished after it is sold or delivered.
A manufacturer isn´t finished with a job when it is delivered, our responsibility for the product never ends. It doesn't mean that a manufacturer is in charge for misuse, bad maintained products or wear and tear resulting out of those conditions. But whenever it comes to any issues with the products, if they are 1 month young or already 30 years old, the customer needs to be able to rely on the manufacturer, to find a solution for the problem, with the attention and in a timely manner, it deserves. Most of the vendors don't know too much about the issues and solutions possible, since they don´t have such a foundation like SUNFLEX can offer it.

No matter what, don´t hesitate to reach out to our support team.

We invite you to review our website *www.sunflexwall.com* where additional information on all our systems can be found. SUNFLEX welcomes the opportunity to answer any questions.

SUNFLEX Wall Systems LP
Tel.: 1-800-606-0756
4120 Enterprise Ave., Ste. 120
Naples, FL 34104

References

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SUNFLEX

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Naples, FL 34104

Advancement of Construction Technology

SUBSTITUTION REQUEST
(During the Bidding Phase)

Project: Romulus Athletic Center

~~Building Addition and Renovation~~

To: OHM Advisors

~~Christopher Ozog~~

Re: Substitution Request

Substitution Request Number: 02

From: Balfrey-Johnston, Inc

Date: 4-6-26

A/E Project Number: 0155-25-0010

Contract For: ______

Specification Title: Romulus Athletic Center

Description: Electric Snow Melting System

Section: 232399 Page: 1 Article/Paragraph: 2.1 Manufacturers

Proposed Substitution: Chromalox

Manufacturer: Chromalox Address: PO Box 536435 Atlanta, GA 30353 Phone: 412-967-3800

Trade Name: Chromalox Model No.: See attached

Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified.

Attached data also includes a description of changes to the Contract Documents that the proposed substitution will require for its proper installation.

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.

Submitted by: Dick Vredevoogd, Specification Manager

Signed by: Dick Vredevoogd

Firm: Balfrey-Johnston, Inc

Address: 13050 Northend Ave
Oak Park, MI 48237

Telephone: 313-864-2800

A/E's REVIEW AND ACTION

Contractor to include any changes to power requirements this system may require as part of Bid.

- [x] Substitution approved - Make submittals in accordance with Specification Section ~~01330~~.013000
- [ ] Substitution approved as noted - Make submittals in accordance with Specification Section 01330.
- [ ] Substitution rejected - Use specified materials.
- [ ] Substitution Request received too late - Use specified materials.

Signed by: Sean Tabacsko Date: 4/8/2026

Supporting Data Attached: [ ] Drawings [x] Product Data [ ] Samples [ ] Tests [ ] Reports [ ] ______

September 1996
CSI Form 1.5C

RFP 25/26-20

ChromaMelt
De-Icing Controller

NEW!

- **Automatic Control and Power Distribution for Deicing and Snow Melting**
- **User Friendly Interface**
- **Integrated Electronic Controller with Back-lit LCD Display**
- **Multiple Snow Sensor Input**
- **Integrated Adjustable Ground fault**
- **Adjustable Set-points, Upper and Lower Limit Temperature, Hold On/OFF Delay, Manual On and Time Splitting between zones**
- **Sequencing Zones Option – Enables Larger Snow Melting Area with Reduced Power Consumption on Site**
- **Technician Testing / Commissioning Mode for a Quick, Easy System Test, All Year Round (even during summer or at high temperature)**
- **2, 4, and 5 Contactor Designs**
- **ETL Certification (US and Canada)**

Description

The Chromalox ChromaMelt line of controls offer smart and easy control of a Snow & Ice Melting system. Enable CS-AS (ambient snow sensor) or a 3rd party snow sensor. Upon receiving a signal from a snow sensor/s, the ChromaMelt controller activates contactors, energizing heating elements according to a preset DIP switch configuration. The adjustable hold-on timer continues system operation for up to 10 hours after snow stops to ensure complete snow melting. Typical applications include driveways, sidewalks, loading docks, stairs, pavements and gutters.

ChromaMelt Models

- ChromaMelt3 – Power box with 4 contactors (2p, 30A) up to 277V & 120A output to heaters
- ChromaMelt5 – Power box with 4 contactors (3P, 50A) up to 600V & 300A output to heaters + 1 contactor (2p, 30A)
- ChromaMelt3C – Power box with 2 contactors (3P, 50A) up to 600V & 300A output to heaters + 1 contactor (2p, 30A)

Specifications

ChromaMelt Controller

Indoor Ambient Operating Temperature ....–10°F to 122°F (-10° C to 50°C)

Power Switching .... Mechanical

Number of Circuits ....2 to 12
Capacity .... Depends on Wiring (See Wiring Manual)

Input Voltage............................ 120 - 600 VAC

Heater Voltage.......................... 120 - 600 VAC

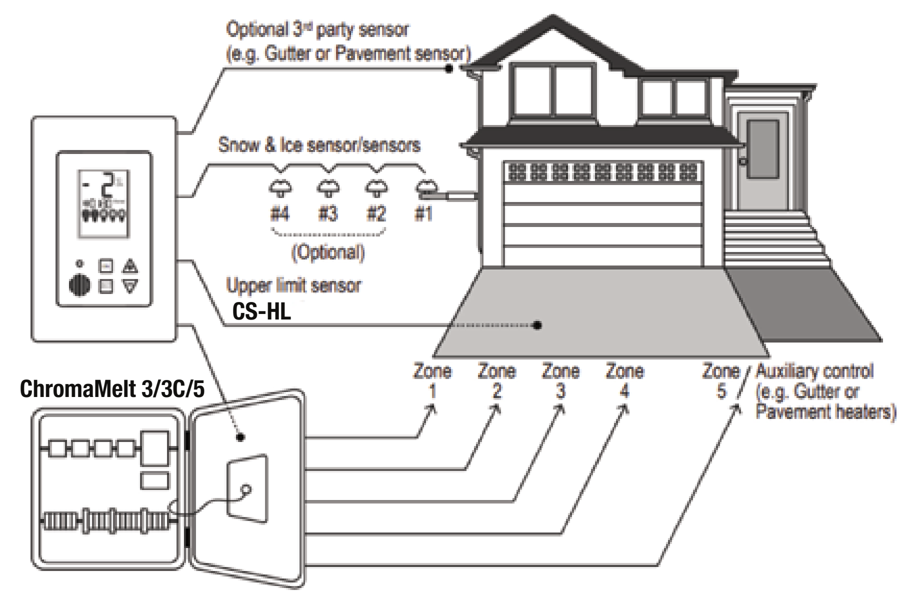
Communications.................. BACnet (optional)

Adjustable Parameters ....Set-Point, Upper and Lower Limit Temperature, Hold-On/OFF Delay, Manual On time, Zones time splitting between zones

ChromaMelt

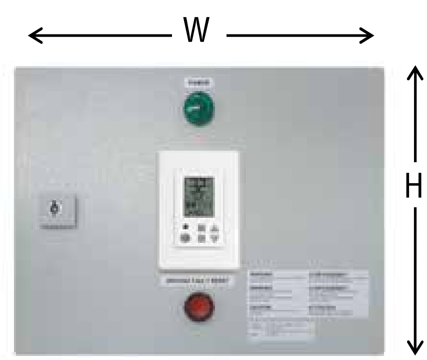
Snow Melting Controller *(cont'd.)*

General System Layout with ChromaMelt 3/3C/5



Dimensions

		H	W	D
ChromaMelt 3C	Inch	15	11.8	6.1
	cm	380	300	155
ChromaMelt 3	Inch	15	11.8	6.1
	cm	380	300	155
ChromaMelt 5	Inch	18	18	7.9
	cm	500	500	200



Front View

Side View

Ordering Information

Model	Description	Max. Total Amperage	Max. Voltage	PCN
ChromaMelt 3C	Snow Melting Controller, 2 Contactors (2 -3P@ 50A, 1-2P @30A)	300A	600V	512014
ChromaMelt 3	Snow Melting Controller, 4 Contactors (4 -2P@ 30A)	120A	277V	512022
ChromaMelt 5	Snow Melting Controller, 5 Contactors (4 -3P@ 50A, 1-2P @30A)	600A	600V	512030

CMi
HDPE Jacketed Mineral Insulated Heat Trace Cable

NEW!

- Factory Terminated Heating Sets
- Great for Snow Melting or Heat Loss Replacement
- Assemblies Rated for Multiple Voltages up to 600V
- Corrosion Resistant Copper Jacketed Cables
- HDPE Jacketing Protects Against Abrasions and Corrosives
- Maximum Exposure Temperature 194°F (90°C)
- 15' Standard Cold Lead Length
- 1/2" Cable Gland Size
- Heater Voltages up to 600 VAC
- 8 to 24 W/ft Output Ratings
- Lengths from 40 to 846 ft.

WARNING — A ground fault protection device is required by NEC to minimize the danger of fire if the heating cable is damaged or improperly installed. A minimum trip level of 30mA is recommended to minimize nuisance tripping.

Description

The copper-sheathed, mineral insulated heating cables are covered with an extruded high-density polyethylene (HDPE) jacket and are supplied as complete factory-assembled cables ready to connect to a junction box. The series-type technology, inherent to all mineral insulated heating cables, provides a reliable and consistent heat source that is ideal for embedded snow melting applications. The copper sheath provides an ideal ground path and allows for a rugged yet flexible heating cable that is easy to install.

The MI heating unit consists of the heating cable, the hot-cold joint and the cold lead cables with an appropriate seal and gland. The connecting and sealing of an MI heating unit is critical for safe and reliable operation, please refer to the following pages for standard construction types. The insulation of the inner heating conductor is embedded in magnesium oxide, a non-aging and non-combustible material. A wide range of resistances ensures the termination of a multitude of heating cable lengths with various outputs and nominal voltages. We offer both single core and dual core resistance wires as well as a seamless outer jacket made from Copper + HDPE.

HEAT TRACING PRODUCTS

CMi
HDPE Jacketed Mineral Insulated Heat Trace Cable *(cont'd.)*

Design B

Single Core Heating Cable with Copper Sheath Bare (right) or HDPE Served (left)

Without earth tail

With earth tail

CMi Order Table

Copper Jacketed, HDPE Skinned, Mineral Insulated Heating Cable											
Copper Jacketed, HDPE Skinned, MI Cable			Cable Type	# of Conduc-tors	Length (Ft.)	Total Watts	Watts/ Ft.	Supply Voltage	Total Amps	Cold Lead Length	Cable Gland
PCN	Part #	Description									
600 Volt Cables											
512305	CMI-600-11000-548-18.3-30	HDPE Jacketed, Copper MI Cable	B	1	548	11,000	20	600	18.33	2@15'	1/ 2"
512313	CMI-600-8000-428-13.3-30	HDPE Jacketed, Copper MI Cable	B	1	428	8,000	19	600	13.33	2@15'	1/ 2"
512321	CMI-600-5800-310-9.67-30	HDPE Jacketed, Copper MI Cable	B	1	323	5,800	18	600	9.67	2@15'	1/2"
512330	CMI-600-4100-225-6.83-14	HDPE Jacketed, Copper MI Cable	B	1	230	4,100	18	600	6.83	2@15'	1/ 2"
240 Volt Cables											
512348	CMI-240-17000-717-70.83-30	HDPE Jacketed, Copper MI Cable	B	1	717	17,000	24	240	70.83	2@15'	1/2"
512356	CMI-240-12000-630-50-15	HDPE Jacketed, Copper MI Cable	B	1	640	12,000	19	240	50.00	2@15'	1/2"
512364	CMI-240-9000-550-37.50-30	HDPE Jacketed, Copper MI Cable	B	1	550	9,000	16	240	37.50	2@15'	1/2"
512372	CMI-240-7500-375-31.25-30	HDPE Jacketed, Copper MI Cable	B	1	375	7,500	20	240	31.25	2@15'	1/2"
512380	CMI-240-6000-320-25-30	HDPE Jacketed, Copper MI Cable	B	1	320	6,000	19	240	25.00	2@15'	1/ 2"
512399	CMI-240-5200-280-21.67-30	HDPE Jacketed, Copper MI Cable	B	1	280	5,200	19	240	21.67	2@15'	1/ 2"
512401	CMI-240-4000-215-16.67-30	HDPE Jacketed, Copper MI Cable	B	1	215	4,000	19	240	16.67	2@15'	1/2"
512410	CMI-240-3200-177-13.33-14	HDPE Jacketed, Copper MI Cable	B	1	188	3,200	17	240	13.33	2@15'	1/2"
512428	CMI-240-2000-140-28.80-14	HDPE Jacketed, Copper MI Cable	B	1	150	2,000	13	240	28.80	2@15'	1/ 2"
512436	CMI-240-2100-264-24.69-14	HDPE Jacketed, Copper MI Cable	B	1	264	2,000	8	240	8.75	2@15'	1/2"
208 Volt Cables											
512444	CMI-208-7000-310-33.65-30	HDPE Jacketed, Copper MI Cable	B	1	310	7,000	23	208	33.65	2@15'	1/2"
512452	CMI-208-5500-260-26.44-30	HDPE Jacketed, Copper MI Cable	B	1	262	5,500	21	208	26.44	2@15'	1/2"
512460	CMI-208-3100-132-14.90-30	HDPE Jacketed, Copper MI Cable	B	1	132	3,100	23	208	14.90	2@15'	1/2"
512479	CMI-208-2300-95-11.06-14	HDPE Jacketed, Copper MI Cable	B	1	96	2,300	24	208	11.06	2@15'	1/2"
512487	CMI-208-1600-68-7.69-14	HDPE Jacketed, Copper MI Cable	B	1	71	1,600	23	208	7.69	2@15'	1/2"
120 Volt Cables											
512495	CMI-120-1100-66-9.17-14	HDPE Jacketed, Copper MI Cable	B	1	68	1100	16	120	9.17	2@15'	1/2"
512508	CMI-120-590-40-4.92-14	HDPE Jacketed, Copper MI Cable	B	1	40	590	15	120	4.92	2@15'	1/2"
512516	CMI-120-400-55-3.54-14	HDPE Jacketed, Copper MI Cable	B	1	56	425	8	120	3.54	2@15'	1/2"
512524	CMI-120-220-108- 1.83-14	HDPE Jacketed, Copper MI Cable	B	1	107	220	2	120	1.83	2@15'	1/2"

CS-PS

Outdoor Pavement Snow Sensor

- Electronic Snow and Ice Sensor
- Energy Efficient Algorithm
- 24VAC Operated
- Up to 4 Snow Sensors can be Daisy Chained into One ChromaMelt Controller
- 4 Wires Installation – 30 ft. Cable Supplied with the Sensor
- Simple User Interface for Parameters Set from Controller
- Adjustable RH Sensitivity from Controller
- Technician Testing/ Commissioning Mode for Easy and Fast System Test all Year Long (even during summer or at high temp)
- RoHS

Specifications and Ordering Information

Model Number	PCN	Stock
CS-PS Outdoor Pavement Snow Sensor	512591	S

Description

The CS-PS is a stylish, smart and reliable Snow and Ice sensor. Installed in pavement and outdoors, it measures the temperature and detects snow, sending the information via the controller to the heating system.

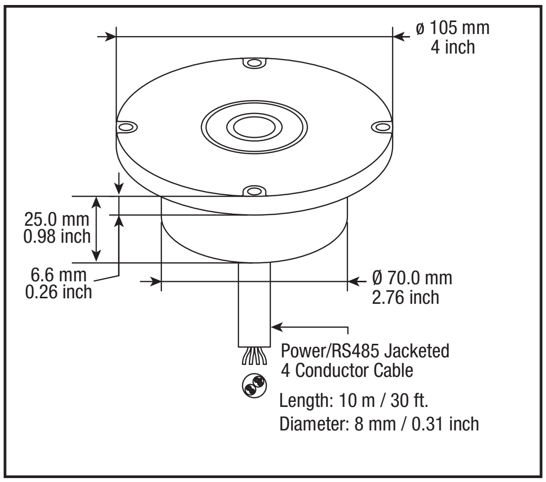
The CS-PS is connected to the Snow Melting Controller with a 30 feet (10 m.), 24V 4 wire cable and communicating with the controller, providing the temperature value and the snow detection based on the adjustable parameters.

The measured temperature and the snow detection are visible on the controller display.

The ChromaMelt system can work with up to 4 CS-AS, CS-PS or CS-GS Snow Sensors daisy chained one after the other and link the 4 output zones of snow melting to the controller.

Each snow sensors must have different MAC (Media Access Control) address in order to communicate with the main board.

Dimensions



MBOX

Power Marshalling Box

- Fiberglass J-Box Provides Excellent Resistance to Chemical and Temperature Exposure
- Easy Termination of MI Cables
- Water and Dust-Tight Seal
- Quick Release Latches on the Corners for Easy Access to Enclosure
- Padlock Mechanism Provided on each Latch
- Up to 11 x 1/2” Entries and 8 x 3/4” Entries
- Up to 600Vac Operating Voltage

Description

The Chromalox MBOX is a marshalling box used to feed power to a group of heat trace cables, and is available to use from 120V-600V supply voltages. This NEMA 4X fiberglass junction box provides a water and dust-tight seal as well as resistance to chemical contaminants. The MBOX is available in 3 different sizes of 4, 8 and 12 positions.

MBOX Information: Dimensions & Typical Connection Requirements

Model	PCN	Description	Outside Dimensions H x W x D in. /(mm)	Supply Voltage	Max # of Circuits	# of Positionson Supply Side	# of Positions on Load Side
MBOX-4-4X	514490	4 Position Marshalling Box	8.5 x 6.91 x 4.25 (216 x 175 x 108)	Single Phase: 120V, 208V, 240V, 277V, 480V, 600V	2	2	2
MBOX-8-4X	514503	8 Position Marshalling Box	8.5 x 6.91 x 4.25 (216 x 175 x 108)	Single Phase: 120V, 208V, 240V, 277V, 480V, 600V	4	2	2
				Three Phase: 208V, 480V, 600V	1	3	6
MBOX-12-4X	514511	12 Position Marshalling Box	10.5 x 8.91 x 6.25 (267 x 226 x 158)	Single Phase: 120V, 208V, 240V, 277V, 480V, 600V	6	2	2
				Three Phase: 208V, 480V, 600V	2	3	6

Notes:
- The MBOX typical connections implies that all power wiring and heating cable connections to a single box.
- The last two columns for "# of Positions" are indicating a per circuit value.

Advancement of Construction Technology

SUBSTITUTION REQUEST

(During the Bidding Phase)

Project: Romulus Athletic Center Bldg. Addition & Reno

Substitution Request Number: 083613.1

From: bp Glass Garage Doors & Entry Systems

To: OHM-Advisors Architecture
34000 Plymouth Rd., Livonia, MI., 48150

Date: 3/30/26

Architect's/Engineer's Project Number: 0155-25-0010

Re: Substitution - Due Cause

Contract for: Davenport Brothers Construction

Specification Title: Hydraulic Doors

Description: Manufactures - Testing & Materials ASTM E283 Air Infiltration

Section: 08 34 19 Page: 083419 pg.1 Article/Paragraph: 2.1, B. - Manufacturer - Substitution Equal To / Compliance Req.

Proposed Substitution: bp Glass Garage Doors & Entry Systems

Manufacturer: bp Glass Garage Doors & Entry Systems 1511 W. 2nd St., Pomona, CA., 91766 (626) 442-1716

Trade Name: bp Glass Garage Doors & Entry Systems Model No. bp-450HD Insulated Line

Installer: bp Glass Garage Doors & Entry Systems 1511 W. 2nd St., Pomona, CA., 91766 (626) 442-1716

History: ☐ New Product ☐ 2-5 years old ☐ 5-10 years old X More than 10 years old **- 70 Years**

Manufacturer Spec'd is not tested and CERTIFIED with the NFRC to meet Air Infiltration ASTM E283, MI IECC, **AND** meet max allowed air infiltration of **<0.37cfm.** Others have tested and have air infiltration ratings however not NFRC compliance for Commercial Air Leakage. NFRC website directly proves the certification, ASTM E283 and Energy Code Compliant, IECC Rated, verify on website, must cover both insulated glass AND frame, certification of Air Leakage required on door label to pass inspection. (Our sample enclosed). MI IECC NFRC Compliance attached.

bp Glass Garage Doors is tested and CERTIFIED with the NFRC with an air infiltration of **<0.3cfm.**

Bi-Fold/Hydraulic Operatable Doors are not only dangerous if they malfunction, they are illegal for sealing the building envelope. They leak air, are made of steel, which is highly conductive, and unable to receive an R-Value or U-Factor. They won't pass the building code final inspection without a stamped certificate of compliance to meet Michigan's energy code based on IECC 2021.

Date Installed: ________

Proposed substitution affects other parts of Work: X No ☐ Yes; explain

Savings to Owner for accepting substitution: Energy Savings ($ ________).

Proposed substitution changes Contract Time: X No ☐ Yes [Add] [Deduct] ______ days

Supporting Data Attached: X Drawings X Product Data X Samples X Tests X Reports

SUBSTITUTION REQUEST
(Continued

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Cost data as stated above is complete. Claims for additional costs related to accepted substitution which may subsequently become apparent are to be waived.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to design, including Architect's/Engineer's design, detailing, and construction costs caused by the substitution.
- Coordination, installation, and changes in the Work as necessary for accepted substitution will be complete in all respects.

Submitted by: Lori Barton

Signed by: Lori Barton

Firm: bp Glass Garage Doors & Entry Systems

Address: 1511 W. 2nd St.
Pomona, CA., 91766

Telephone: 626-442-1716

Attachments:

ARCHITECT/ENGINEER and OWNER'S REVIEW AND ACTION

☐ Substitution approved - Make submittals in accordance with Specification Section 01 33 00.

☐ Substitution approved as noted - Make submittals in accordance with Specification Section 01 33 00.

☒ Substitution rejected - Use specified materials.

☐ Substitution Request received too late - Use specified materials.

Signed by: Vincent Nemo Date: 2026/04/07

Additional Comments: ☐ Contractor ☐ Subcontractor ☐ Supplier ☐ Manufacturer ☐ Architect/Engineer

September 1996
CSI Form 13.1A

Signed by: Date:

Owner's Representative

NOTE: No substitutions without Owner's written approval shall be approved by the Architect/Engineer.

END OF SECTION

Advancement of Construction Technology

SUBSTITUTION REQUEST
(During the Bidding Phase)

Project: Romulus Athletic Center
Building Addition & Renovation Project

Substitution Request Number: ______

From: Scott Guilmet - Purchasing Agent/Estimator Phillips Sign & Lighting

To: Christopher Ozog, AIA, CDT, CSI
Senior Project Manager, OHM Advisors

Date: 4.6.26

A/E Project Number: OHM Project #: 0155-25-0010

Re: Dimensional Letter Signage

Contract For: ______

Specification Title: Dimensional Letter Signage

Description: Manufacturers

Section: 101419 Page: 1

Article/Paragraph: Part 2 Products/2.1 manufacturers

Proposed Substitution: We wish to fabricate these in house vs purchasing from another sign manufacturer

Manufacturer: Phillips Sign & Lighting Address: 40920 Executive Dr. Harrison Twp., MI 48045 Phone: 586.468.7110

Trade Name: Fabricated Dimensional Letters Model No.: NA

Attached data includes product description, specifications, drawings, photographs, and performance and test data adequate for evaluation of the request; applicable portions of the data are clearly identified. We use the same alum sheet & fabrication methods as the specified manufacturer Matthews paint line is used for finishing, illuminated letters are UL compliant and tagged

Attached data also includes a description of changes to the Contract Documents that the proposed substitution will require for its proper installation. The only change would be adding Phillips Sign & Lighting as an approved manufacturer

The Undersigned certifies:

- Proposed substitution has been fully investigated and determined to be equal or superior in all respects to specified product.
- Same warranty will be furnished for proposed substitution as for specified product.
- Same maintenance service and source of replacement parts, as applicable, is available.
- Proposed substitution will have no adverse effect on other trades and will not affect or delay progress schedule.
- Proposed substitution does not affect dimensions and functional clearances.
- Payment will be made for changes to building design, including A/E design, detailing, and construction costs caused by the substitution.

Submitted by: Scott Guilmet
Signed by: Scott Guilmet
Firm: Phillips Sign & Lighting
Address: 40920 Executive Drive, Harrison Township MI 48045
Telephone: 586.468.7110

Please view our website it shows our shop, tells about the company and has various galleries to view our capabilities and products. Address below in supporting data section

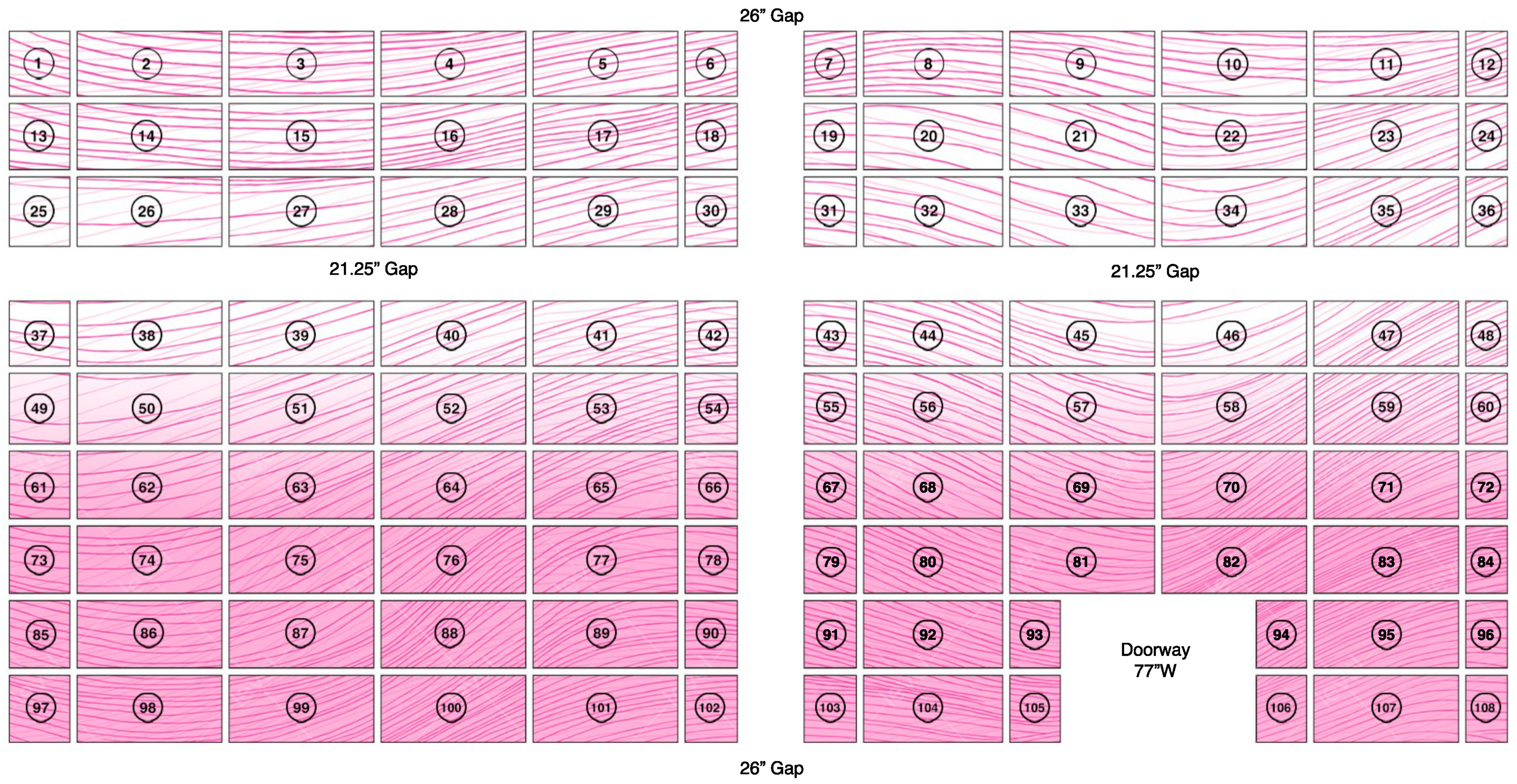
A/E's REVIEW AND ACTION

- [x] Substitution approved - Make submittals in accordance with Specification Section 01330.
- [ ] Substitution approved as noted - Make submittals in accordance with Specification Section 01330.
- [ ] Substitution rejected - Use specified materials.
- [ ] Substitution Request received too late - Use specified materials.

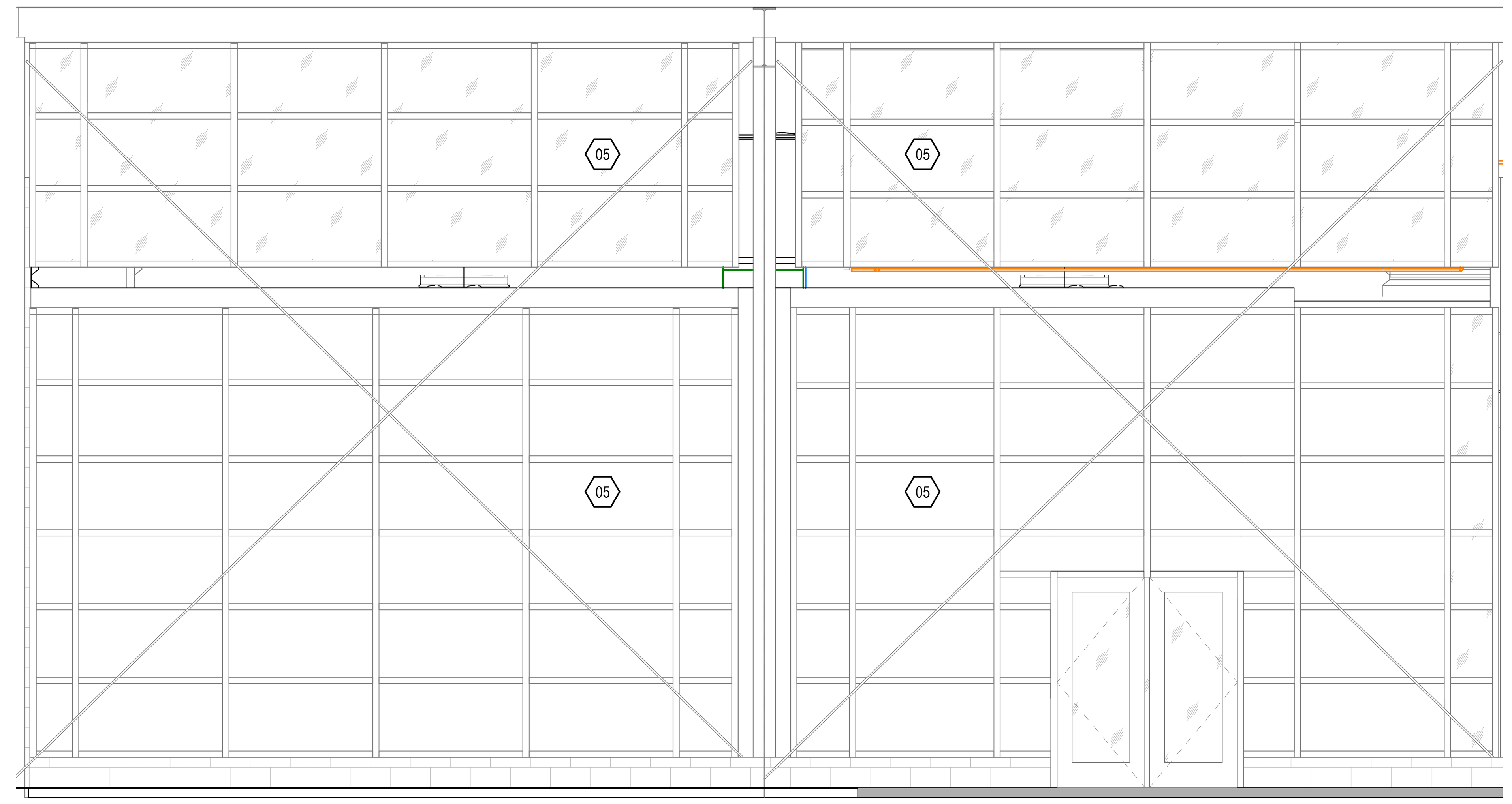
Signed by: Vincent Nemo

Date: 2026/04/07

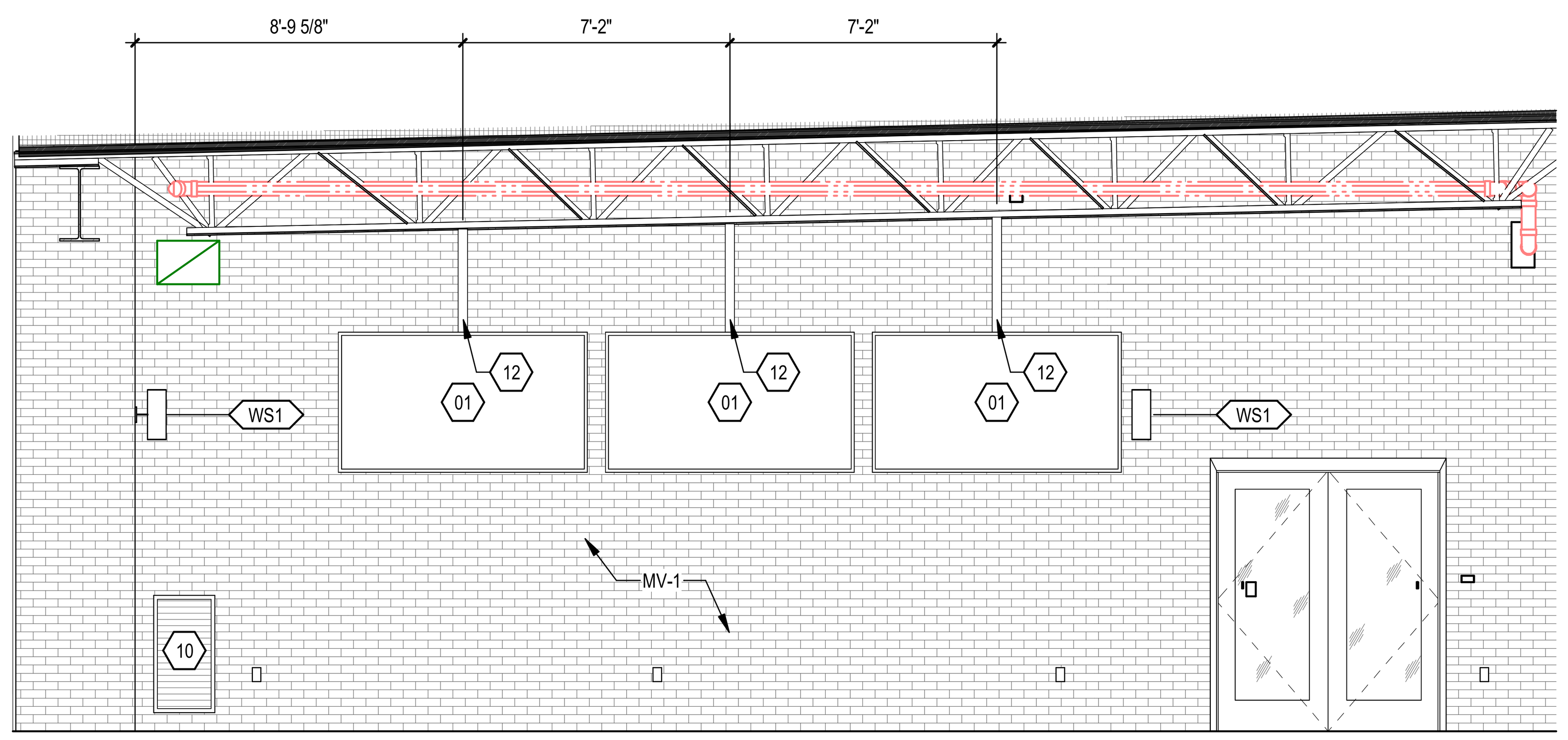
Supporting Data Attached: ☐ Drawings ☐ Product Data ☐ Samples ☐ Tests ☐ Reports ☒ www.phillipssign.com



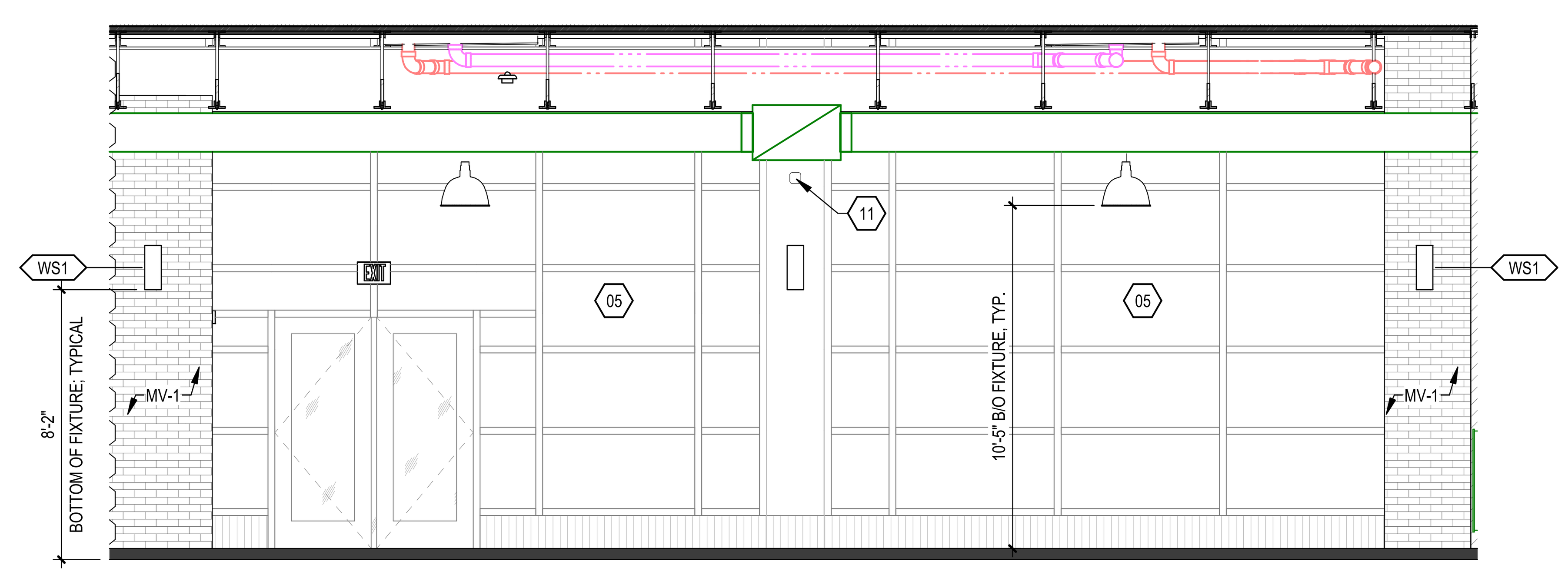
5A CORRIDOR SIDE EXISTING STOREFRONT WINDOW FILM PATTERN
N.T.S



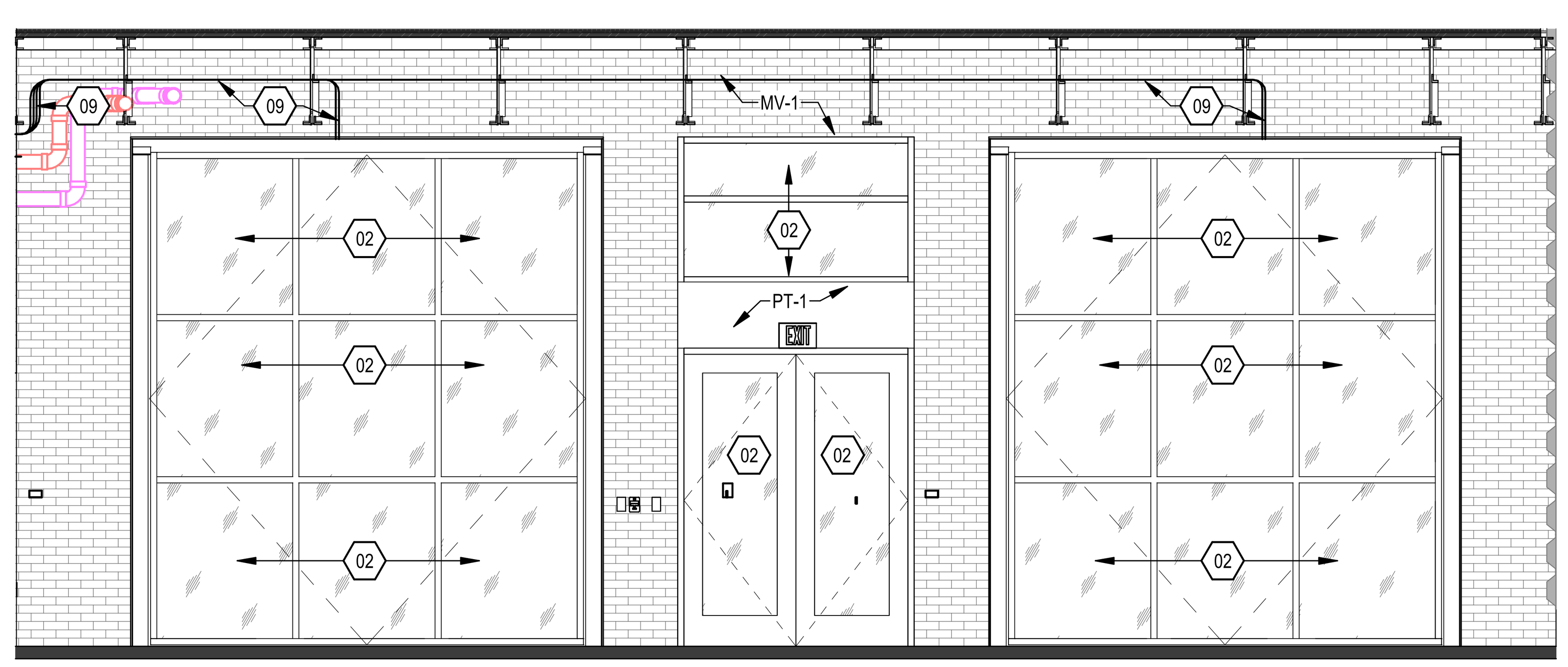
5 CORRIDOR SIDE EXISTING STOREFRONT
1/4" = 1'-0"



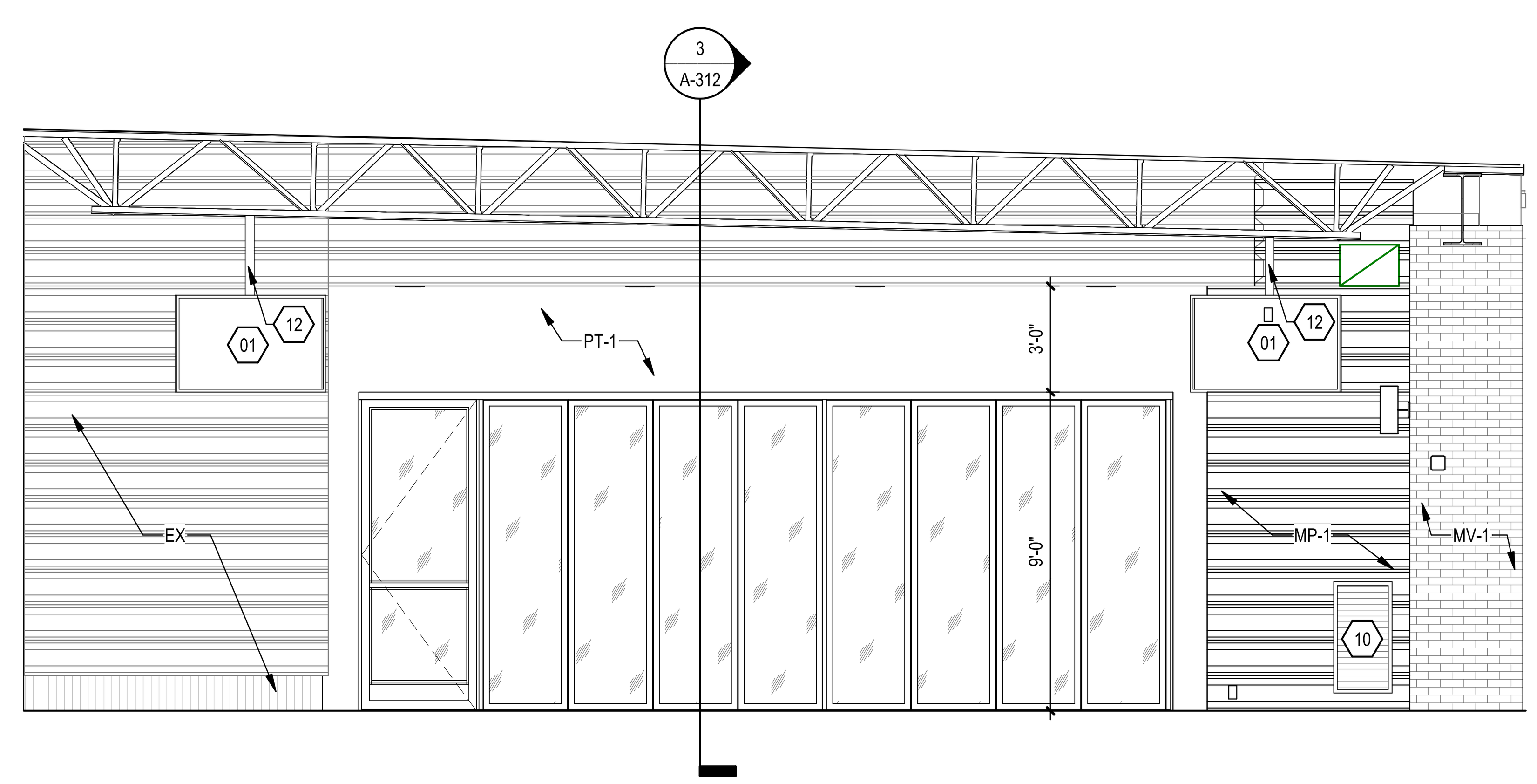
4 171 _MULTI-USE WEST
1/4" = 1'-0"



3 171 _MULTI-USE SOUTH
1/4" = 1'-0"



2 171 _MULTI-USE NORTH
1/4" = 1'-0"



1 171 _MULTI-USE EAST
1/4" = 1'-0"

GENERAL NOTES - INTERIOR ELEVATIONS

1. T - INDICATES TEMPERED GLASS

SHEET KEYNOTES - INT. ELEVATION

01	MONITOR BY OWNER; REF: ELEC
02	APPLY SOLAR FILM, WF-2
03	FUTURE ART WALL, BY OWNER
04	OPEN TO BEYOND
05	APPLY WINDOW FILM WF-1 TO ALL GLASS PANELS ON EXISTING STOREFRONT; REFER TO ELEVATION 5A FOR CONCEPTUAL GRAPHICAL INTENT
06	FUTURE SHELVING, BY OWNER
07	DIMENSIONAL LETTER SIGNAGE SURFACE MOUNTED, FINAL WORDING AND FONT TO BE COORDINATED WITH OWNER
08	PATCH / REPAINT AS REQ'D FOLLOWING ADJACENT CONSTRUCTION
09	HYDRAULIC LINESET FOR DOOR, SECURE TO CMU BACKUP WITH CUSHIONED PIPE CLAMPS. DO NOT ATTACH TO BRICK VENEER. INSTALL IN A NEAT AND DELIBERATE MANNER. ROUTE TO UNISTRUT TRAY ATTACHED TO WEB OF JOIST ABOVE WITH SWIVEL BEAM CLAMP AND THREADED ROD, REFER TO 2/A-312 FOR ADDITIONAL DETAILS
10	RETURN AIR GRILLE: REF: MECHANICAL
11	PATCH COMPOSITE METAL PANEL AT PREVIOUS LIGHT FIXTURE LOCATION W/ PRE-FINISHED ALUMINUM TRIM TO MATCH; FASTEN WITH COLOR MATCHED RIVETS
12	TELESCOPING, ROTATING MONITOR POLE, MOUNT-IT MI-509L OR SIMILAR, SUSPENDED FROM UNISTRUT, INCLUDE CHASE FOR POWER AND DATA CONNECTION TO MONITORS; PRE-FINISHED MATTE BLACK
13	VINYL SIGNAGE ON GLASS; COORDINATE FONT AND SIZING WITH OWNER

OHM
ARCHITECTS ENGINEERS PLANNERS
OHM-ADVISORS.COM

ISSUED FOR: BIDS 3/25/2026

REVISION	DESCRIPTION	DATE
2	ADDENDUM 2	04/09/2026

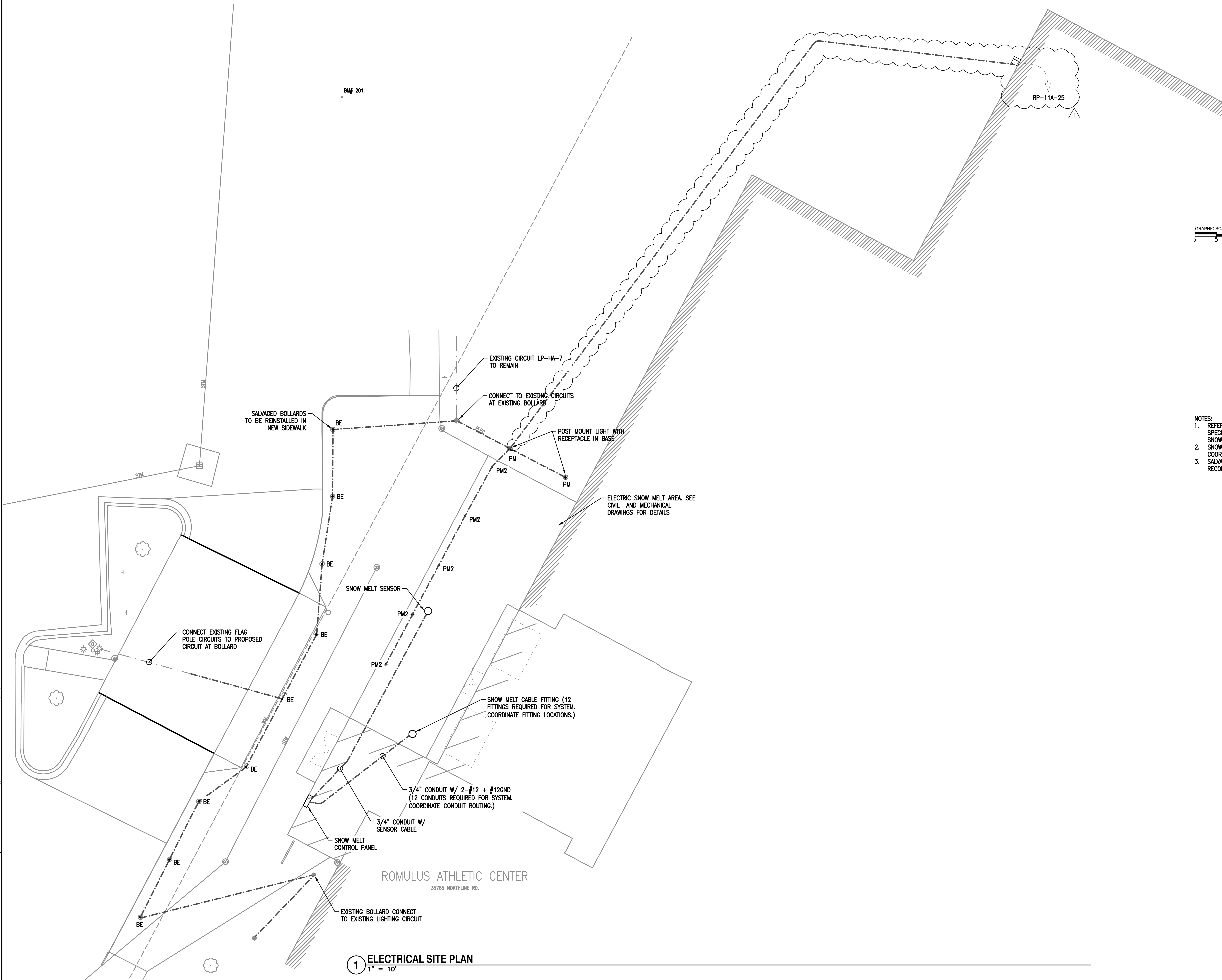
PROJECT NUMBER 0155-25-0010 PM CO

CITY OF ROMULUS TIFA BOARD
ROMULUS ATHLETIC CENTER BUILDING ADDITION AND RENOVATION
35765 Northline Rd, Romulus, MI 48174

INTERIOR ELEVATIONS

A-451

26/04/07 15:53:08



1 ELECTRICAL SITE PLAN
1" = 10'

GRAPHIC SCALE: HALF 20 feet / FULL 10 feet
0 5 10 20 30

NOTES:
1. REFER TO CIVIL AND MECHANICAL DRAWINGS FOR SPECIFIC DIMENSIONS AND REQUIREMENTS FOR THE SNOW MELT SYSTEM.
2. SNOW MELT SYSTEM REQUIRES 12 CABLE FITTINGS. COORDINATE LOCATIONS AND CONDUIT ROUTING.
3. SALVAGED TYPE BE FIXTURES TO BE REINSTALLED. RECONNECT TO EXISTING CIRCUITS.

Know what's **below.**
Call before you dig.

OHM
ARCHITECTS ENGINEERS PLANNERS
OHM-ADVISORS.COM

ISSUED FOR: BIDS		2026/03/25
REVISION	DESCRIPTION	DATE
1	ADDENDUM 2	04/09/2026

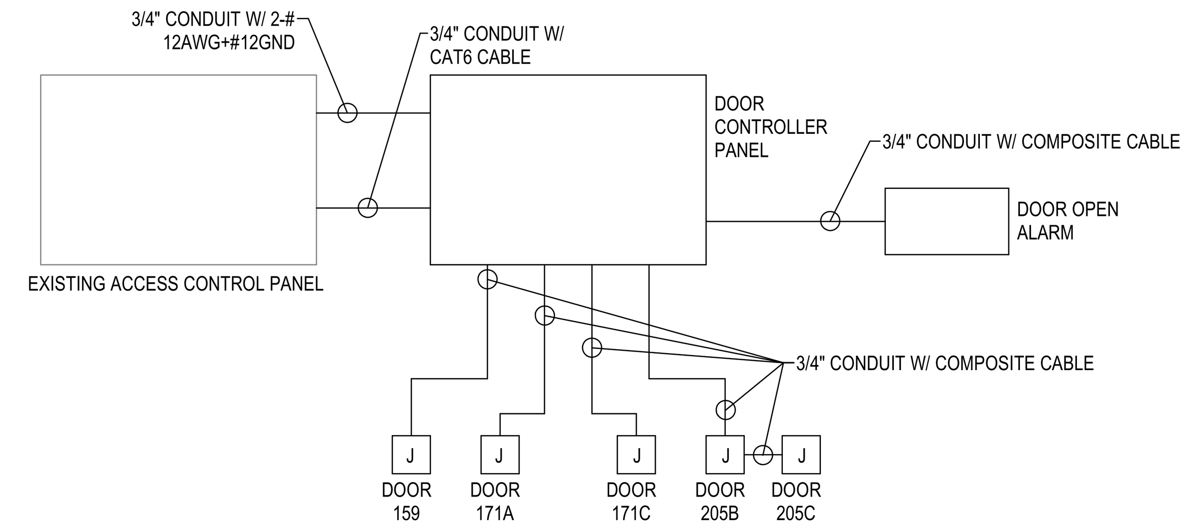
PROJECT NUMBER	PM
0155-25-0010	CO

CITY OF ROMULUS TIFA BOARD
ROMULUS ATHLETIC CENTER BUILDING ENTRY ADDITION
35765 Northline Rd, Romulus, MI 48174

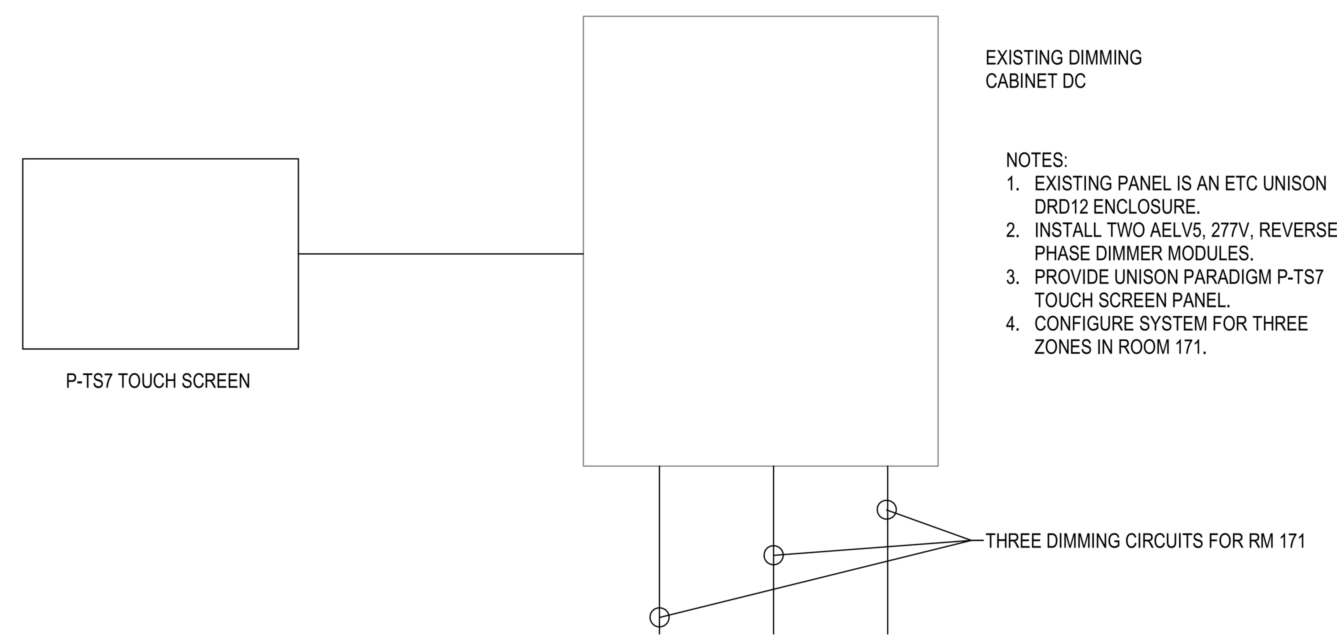
ELECTRICAL SITE PLAN

ES101

DRAWING PATH: P:\0126_0165\0155250010_RAC_Courtyard_and_Improvements\Drawings\Site\Sheets\250010_STE - Elec2.dwg April 8, 2026 9:28 AM

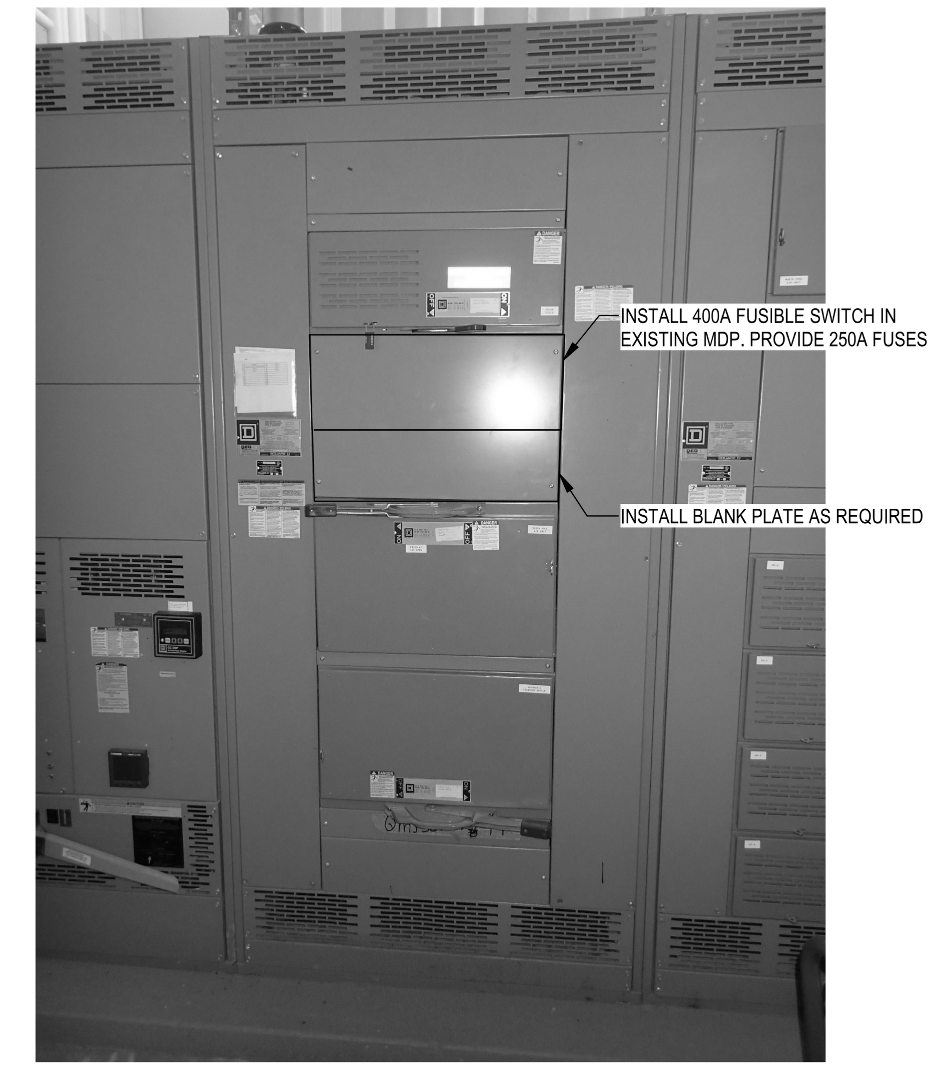


6 ACCESS CONTROL SYSTEM
1/8" = 1'-0"

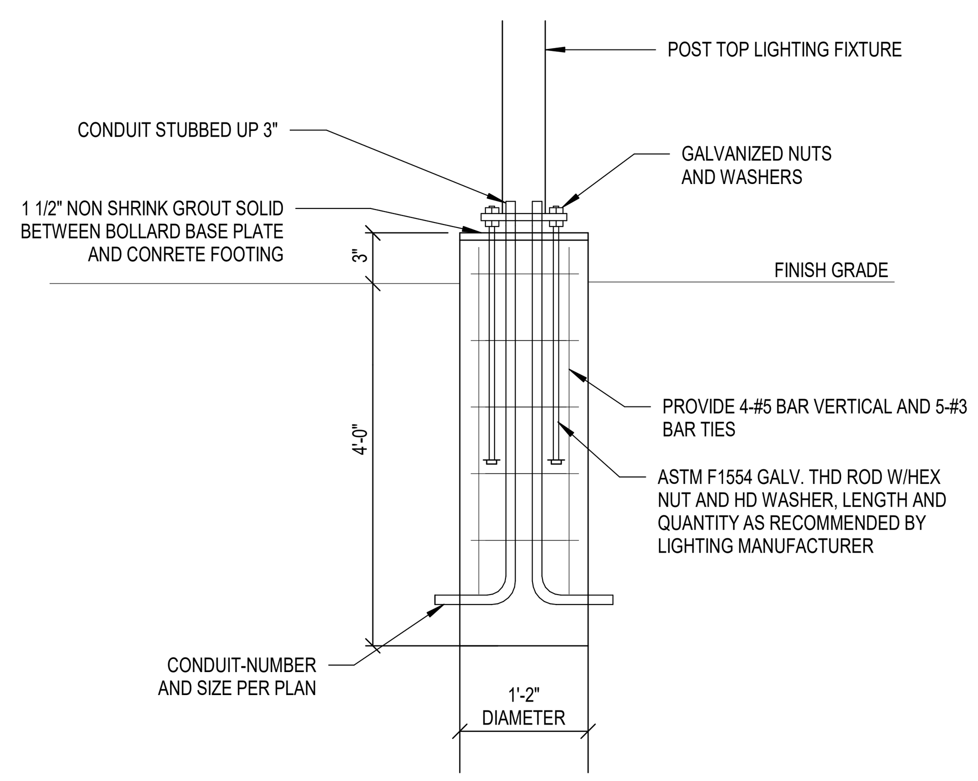


NOTES:
1. EXISTING PANEL IS AN ETC UNISON DRD12 ENCLOSURE.
2. INSTALL TWO AELV5, 277V, REVERSE PHASE DIMMER MODULES.
3. PROVIDE UNISON PARADIGM P-TS7 TOUCH SCREEN PANEL.
4. CONFIGURE SYSTEM FOR THREE ZONES IN ROOM 171.

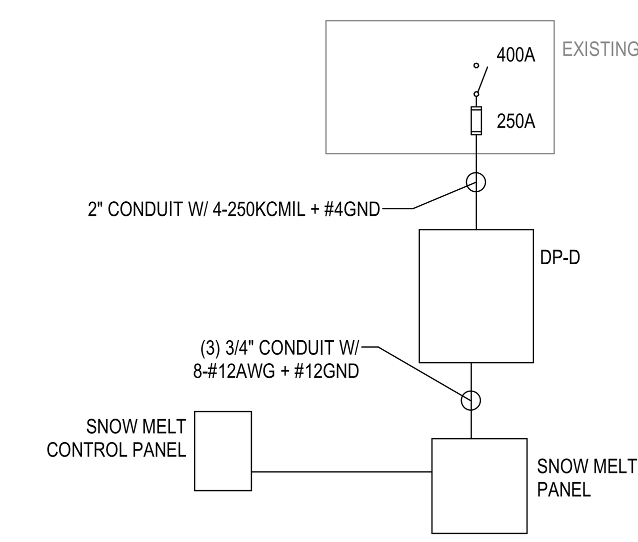
5 MULTI-USE ROOM DIMMING CABINET
1/8" = 1'-0"



3 EXISTING MDP DETAIL
1/8" = 1'-0"



8 POST TOP LIGHT BASE DETAIL
1/8" = 1'-0"

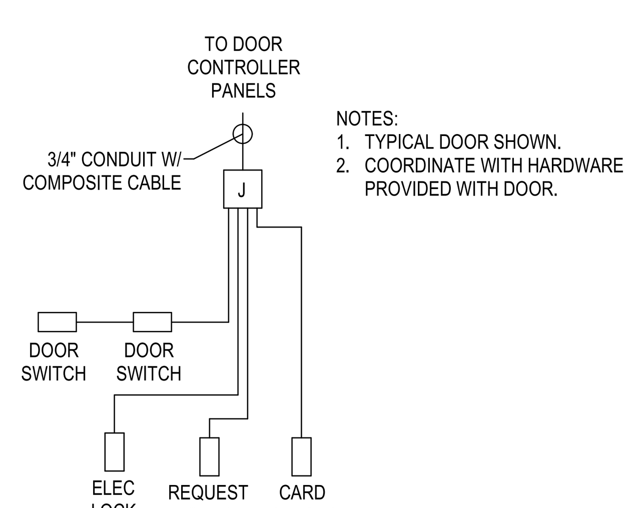


NOTES:
1. PROVIDE NEW 400A FUSIBLE SWITCH IN MDP. PROVIDE 250A FUSES.

2 SNOW MELT SYSTEM DIAGRAM
1/8" = 1'-0"

INSTALL TWO CHANNEL AMPLIFIER IN EXISTING RACK. AMPLIFIER SHALL BE JBL CSA2300Z-300 WATT

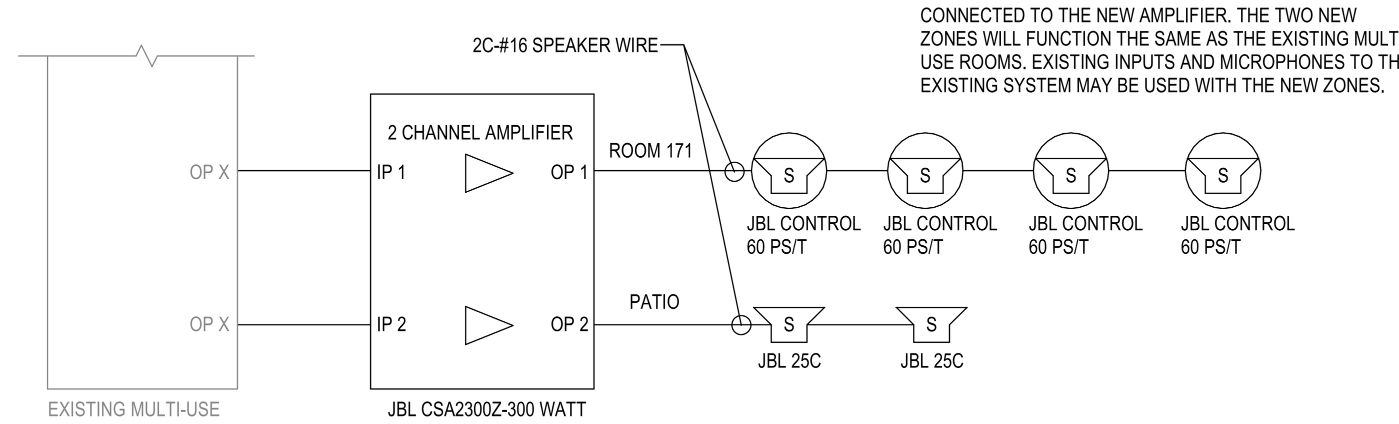
4 PA SYSTEM RACK DETAIL
1/8" = 1'-0"



NOTES:
1. TYPICAL DOOR SHOWN.
2. COORDINATE WITH HARDWARE PROVIDED WITH DOOR.

7 ACCESS CONTROL DOOR DETAIL
1/8" = 1'-0"

NOTES:
1. THE EXISTING PA SYSTEM FOR THE MUTI-USE ROOMS WILL BE EXPANDED FOR THE ADDITION. A TWO CHANNEL AMPLIFIER WILL BE ADDED TO THE EXISTING SYSTEM FOR TWO NEW ZONES, ROOM 171 AND PATIO.
2. OUTPUTS FROM THE EXISTING SYSTEM WILL BE CONNECTED TO THE NEW AMPLIFIER. THE TWO NEW ZONES WILL FUNCTION THE SAME AS THE EXISTING MULTI-USE ROOMS. EXISTING INPUTS AND MICROPHONES TO THE EXISTING SYSTEM MAY BE USED WITH THE NEW ZONES.



1 MULTI-USE ROOMS PA SYSTEM
1/8" = 1'-0"

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ARCHITECTS ENGINEERS PLANNERS
OHM-ADVISORS.COM

ISSUED FOR: ISSUED FOR BIDS		2026/03/25
REVISION	DESCRIPTION	DATE
1	ADDENDUM 2	04/09/2026

PROJECT NUMBER	PM
0155-25-0010	CO

CITY OF ROMULUS TIFA BOARD
ROMULUS ATHLETIC CENTER BUILDING ADDITION AND RENOVATION
35765 Northline Rd, Romulus, MI 48174

ELECTRICAL DETAILS

E-501

4/9/2026 8:32:04 AM
Autodesk Docs://0155-25-0010 RAC Bldg Addition/0155250010_FPME_RAC_Addition_2025_CEN.rvt

BRANCH PANEL: DP-D

LOCATION: STORAGE 101A | VOLTS: 480/277 Wye | SCCR RATING:
SUPPLY FROM: | PHASES: 3 | MAINS TYPE: MCB
MOUNTING: SURFACE | WIRES: 4 | MAINS RATING: 250 A
ENCLOSURE: NEMA 12 | | MCB RATING: 250 A

NOTES:

IDENTIFICATION	WIRE	POLE	AMP	CKT	A	B	C	A	B	C	CKT	AMP	POLE	WIRE	IDENTIFICATION
SNOW MELT #1	12	2	20	1	0.00			0.00			2	20	2	12	SNOW MELT #7
				3		0.00			0.00		4				
SNOW MELT #2	12	2	20	5			0.00			0.00	6	20	2	12	SNOW MELT #8
				7	0.00			0.00			8				
SNOW MELT #3	12	2	20	9		0.00			0.00		10	20	2	12	SNOW MELT #9
				11			0.00			0.00	12				
SNOW MELT #4	12	2	20	13	0.00			0.00			14	20	2	12	SNOW MELT #10
				15		0.00			0.00		16				
SNOW MELT #5	12	2	20	17			0.00			0.00	18	20	2	12	SNOW MELT #11
				19	0.00			0.00			20				
SNOW MELT #6	12	2	20	21		0.00			0.00		22	20	2	12	SNOW MELT #12
				23			0.00			0.00	24				
				25				0.00			26	20	3	12	DOOR OPERATOR
				27					0.00		28				
				29						0.00	30				
				31				0.00			32	20	3	12	DOOR OPERATOR
				33					0.00		34				
				35						0.00	36				
				37							38				
				39							40				
				41							42				
				43							44				
				45							46				
				47							48				
				49							50				
				51							52				
				53							54				
CONNECTED LOAD: (kVA)					0.00		0.00		0.00						

DIMMER CONTROL CABINET

DESCRIPTION	ZONE	DIMMING	ON/OFF SWITCHING
ROOM 171	A	M	M
ROOM 171	B	M	M
ROOM 171	C	M	M

1. EXISTING PANEL IS AN ETC UNISON DRD12
2. PROVIDE TWO AELV5, 277, REVERSE PHASE DIMMER MODULES IN EXISTING CABINET.

EXISTING BRANCH PANEL: RP-11A

LOCATION: MECHANICAL RM 155 | VOLTS: 120/208 Wye | SCCR RATING:
SUPPLY FROM: | PHASES: 3 | MAINS TYPE: MLO
MOUNTING: SURFACE | WIRES: 4 | MAINS RATING: 200 A
ENCLOSURE: TYPE 1

NOTES:

IDENTIFICATION	WIRE	POLE	AMP	CKT	A kVA	B kVA	C kVA	A kVA	B kVA	C kVA	CKT	AMP	POLE	WIRE	IDENTIFICATION
SCOREBOARDS	12	1	20	1	0.00			0.00			2	20	1	12	FOR PROJECTOR
SCOREBOARDS	12	1	20	3		0.00			0.00		4	20	1	12	MOTORIZED SCREEN
SCOREBOARD CONTROLS	12	1	20	5			0.00			0.00	6	20	1	12	MOTORIZED BACKBOARD
MOTOR BACKBOARD	12	1	20	7	0.00			0.00			8	20	1	12	MOTORIZED BACKBOARD
MOTOR BACKBOARD	12	1	20	9		0.00			0.00		10	20	1	12	MOTORIZED BACKBOARD
MOTOR BACKBOARD	12	1	20	11			0.00			0.00	12	20	1	12	MOTORIZED BACKBOARD
MOTOR BACKBOARD	12	1	20	13	0.00			0.00			14	20	1	12	MOTORIZED BACKBOARD
A/V SOURCE RACK	12	1	20	15		0.00			0.00		16	20	1	12	MOTORIZED BACKBOARD
FTR-1 RM 101A	12	1	20	17			0.00			0.00	18	20	1	12	MOTORIZED BACKBOARD
SPARE	12	1	20	19	0.00			0.00			20	20	1	12	MOTORIZED BACKBOARD
SPARE	12	1	20	21		0.00			0.00		22	20	1	12	MOTORIZED BACKBOARD
CEILING FANS RM 171	12	1	20	23			0.00			0.00	24	20	1	12	SPARE
RECEPT. PATIO LIGHT POLES	12	1	20	25	0.00			0.00			26	20	1	12	5 RECEPT
ECUH-2	12	2	20	27		0.00			0.00		28	20	1	12	3 RECEPT. ROOF
				29			0.00			0.00	30	20	1	12	SPARE
ECUH-5	12	2	20	31	0.00			0.00			32	20	1	12	EF-1, EF-2
				33		0.00			0.00		34	20	1	12	EF-4 3/4HP
ECUH-4	12	2	20	35			0.00			0.00	36	20	1	12	EF-3 1/6HP
				37	0.00			0.00			38	20	1	12	WH-1, WH-2
ECUH-3	12	2	20	39		0.00			0.00		40	20	1	12	CP-1
				41			0.00			0.00	42	20	1	12	SPARE
CONNECTED LOAD: (kVA)					0.00		0.00		0.00						

EXISTING BRANCH PANEL: RP-E1

LOCATION: MECHANICAL RM 155 | VOLTS: 120/208 Wye | SCCR RATING:
SUPPLY FROM: | PHASES: 3 | MAINS TYPE: MLO
MOUNTING: SURFACE | WIRES: 4 | MAINS RATING: 100 A
ENCLOSURE: TYPE 1

NOTES:

IDENTIFICATION	WIRE	POLE	AMP	CKT	A kVA	B kVA	C kVA	A kVA	B kVA	C kVA	CKT	AMP	POLE	WIRE	IDENTIFICATION
4 RECEPT	12	1	20	1	0.00			0.00			2	20	1	12	TEL B.B. QUAD RECEPT
TS.FS.AV	12	1	20	3		0.00			0.00		4	20	1	12	TEL B.B. QUAD RECEPT
4 RECEPT	12	1	20	5			0.00			0.00	6	20	1	12	ELEVATOR
4 RECEPT	12	1	20	7	0.00			0.00			8	20	1	12	ELEVATOR
5 RECEPT	12	1	20	9		0.00			0.00		10	20	1	12	ELEVATOR
GD	12	1	20	11			0.00			0.00	12	20	1	12	ELEVATOR
4 RECEPT	12	1	20	13	0.00			0.00			14	20	1	12	5 RECEPT
4 RECEPT	12	1	20	15		0.00			0.00		16	20	1	12	4 RECEPT
GD	12	1	20	17			0.00			0.00	18	20	1	12	5 RECEPT
2 RECEPT	12	1	20	19	0.00			0.00			20	20	1	12	JB FOR DOOR
MPR RM 171 REC	12	1	20	21		0.00			0.00		22	20	1	12	SPARE
VESTIBULE/PATIO REC	12	1	20	23			0.00			0.00	24	20	1	12	SPARE
STORAGE 101A REC	12	1	20	25	0.00			0.00			26	20	1	12	SPARE
MPR 171 REC	12	1	20	27		0.00			0.00		28	20	1	12	SPARE
SPACE	12	1	--	29			--			0.00	30	20	1	12	SPARE
SPACE	12	1	--	31	--			--			32	--	1	12	SPACE
SPACE	12	1	--	33		--			--		34	--	1	12	SPACE
SPACE	12	1	--	35			--			--	36	--	1	12	SPACE
SPACE	12	1	--	37	--			--			38	--	1	12	SPACE
SPACE	12	1	--	39		--			--		40	--	1	12	SPACE
SPACE	12	1	--	41			--			--	42	--	1	12	SPACE
CONNECTED LOAD: (kVA)					0.00		0.00		0.00						

EXISTING BRANCH PANEL: RP-14B

LOCATION: STORAGE RM 169 | VOLTS: 120/208 Wye | SCCR RATING:
SUPPLY FROM: | PHASES: 3 | MAINS TYPE: MLO
MOUNTING: SURFACE | WIRES: 4 | MAINS RATING: 200 A
ENCLOSURE: TYPE 1

NOTES:

IDENTIFICATION	WIRE	POLE	AMP	CKT	A kVA	B kVA	C kVA	A kVA	B kVA	C kVA	CKT	AMP	POLE	WIRE	IDENTIFICATION
3 RECEPT	12	1	20	1	0.00			0.00			2	20	1	12	SPARE
1 GD	12	1	20	3		0.00			--		4	--	1	12	SPACE
2 RECEPT	12	1	20	5			0.00			--	6	--	1	12	SPACE
4 RECEPT	12	1	20	7	0.00			--			8	--	1	12	SPACE
5 RECEPT	12	1	20	9		0.00			--		10	--	1	12	SPACE
2 EWC	12	1	20	11			0.00			--	12	--	1	12	SPACE
VENDING MACHINE	12	1	20	13	0.00			--			14	--	1	12	SPACE
VENDING MACHINE	12	1	20	15		0.00			--		16	--	1	12	SPACE
VENDING MACHINE	12	1	20	17			0.00			--	18	--	1	12	SPACE
MEDIA CENTER REC. #117	12	1	20	19	0.00			0.00			20	20	1	12	SPARE
MEDIA CENTER REC. #117	12	1	20	21		0.00			0.00		22	20	1	12	VESTIBULE RM 101 TV
MEDIA CENTER REC. #117	12	1	20	23			0.00			0.00	24	20	1	12	MPR RM 171 TV
SPACE	12	1	--	25	--			0.00			26	20	1	12	MPR RM 171 TV
SPACE	12	1	--	27		--			0.00		28	20	1	12	TV
SPACE	12	1	--	29			--			0.00	30	20	1	12	2 TV
SPARE	12	1	20	31	0.00			0.00			32	20	1	12	SPARE
SPARE	12	1	20	33		0.00			0.00		34	20	1	12	AHU-1 CONTROLS
(2) FTR-1 2KW EACH	10	2	30	35			0.00			0.00	36	20	1	12	AHU-2 CONTROLS
				37	0.00			0.00			38	20	1	12	JB HEAT TRACE
ODU-1	8	2	35	39		0.00			0.00		40	20	1	12	SPARE
				41			0.00			0.00	42	20	1	12	SPARE
CONNECTED LOAD: (kVA)					0.00		0.00		0.00						

LIGHTING FIXTURE SCHEDULE

SCHEDULE NOTES:
1. REUSE EXISTING FIXTURE
2. REQUIRES UNSWITCHED HOT
3.

TYPE	DESCRIPTION	MFR.	CATALOG #	LAMPS	WATTS	NOTES
BE	EXISTING BOLLARD					SALVAGED BOLLARD TO BE REINSTALLED 1
EX	EXIT SIGN	LITHONIA	TLE-1-R-EL-N	LED	1	
LC1	DOWNLIGHT	LIHTONIA	WF6-LED-27K30K35K-90CRI-MW	LED	14	
PD1	PENDANT	SPECTRUM LIGHTING	DB1211GV-55L-35K-D010X-HM-MWI-MB	LED	39	
PD1E	PENDANT	SPECTRUM LIGHTING	DB1211GV-55L-35K-D010X-HM-MWI-MB-E MCR	LED	39	BATTERY BACKUP 2
PM	POST MOUNT	STERNBERG	PT-08FT-RT403-26L-30-T4-MDL03-SV2-FDH -GFI-LPIUC-BKT	LED		GFI RECEPTACLE WITH IN USE COVER
PM2	BOLLARD	STERNBERG	RT4-42IN-26L-30-T4-MDL03-SV2-FHD-BKT	LED	32	
SL1	ENCLOSED AND GASKETED	LITHONIA	CLX-L48-4000LM-SEF-L/LENS-WD-MVOLT-40K-80CRI	LED	26	
SL2	6" RECESSED	FINELITE	HP-6-R-D-H-835-F-96LG-277-SC	LED		
SL2BB	6" RECESSED	FINELITE	HP-6-R-D-H-835-F-96LG-277-SC-LGD18W	LED		BATTERY BACKUP 2
WS1	WALL MOUNT	WAC LIGHTING	DS-WD06-N-30S	LED	37	
WS2	WALL MOUNT	ALVALIGHT	BRIANNA-15-3500-MT1-BLK	LED		

EXISTING BRANCH PANEL: LP-HE

LOCATION: MECHANICAL RM 155 | VOLTS: 120/208 Wye | SCCR RATING:
SUPPLY FROM: | PHASES: 3 | MAINS TYPE: MLO
MOUNTING: SURFACE | WIRES: 4 | MAINS RATING: 200 A
ENCLOSURE: TYPE 1

NOTES:

IDENTIFICATION	WIRE	POLE	AMP	CKT	A kVA	B kVA	C kVA	A kVA	B kVA	C kVA	CKT	AMP	POLE	WIRE	IDENTIFICATION
8X100+3X460 VIA CE1	12	1	20	1	0.00			0.00			2	20	1	12	SPARE
7X460+7X50+1X140 VIA CE1	12	1	20	3		0.00			0.00		4	20	1	12	SPARE
5X210+9X100+2X920 VIA CE1	12	1	20	5			0.00			0.00	6	20	1	12	SPARE
15X40+23X100	12	1	20	7	0.00			0.00			8	20	1	12	SPARE
17X40+13X100+1X70+2X150	12	1	20	9		0.00			0.00		10	20	1	12	SPARE
21X100+480	12	1	20	11			0.00			0.00	12	20	1	12	SPARE
64X50	12	1	20	13	0.00			0.00			14	20	1	12	SPARE
7X210+22X40	12	1	20	15		0.00			0.00		16	20	1	12	STORAGE RM 101A
4X50+600+12X40+360+210+6×100	12	1	20	17			0.00			0.00	18	20	1	12	SPARE
33X100	12	1	20	19	0.00			--			20	--	1	12	SPACE
7X460	12	1	20	21		0.00			--		22	--	1	12	SPACE
2X920+2X460	12	1	20	23			0.00			--	24	--	1	12	SPACE
3X920	12	1	20	25	0.00			--			26	--	1	12	SPACE
2X920+2X460	12	1	20	27		0.00			--		28	--	1	12	SPACE
2X920+2X460	12	1	20	29			0.00			--	30	--	1	12	SPACE
3X920	12	1	20	31	0.00			--			32	--	1	12	SPACE
3X920	12	1	20	33		0.00			--		34	--	1	12	SPACE
2X920+2X460	12	1	20	35			0.00			--	36	--	1	12	SPACE
SPARE	12	1	20	37	0.00			--			38	--	1	12	SPACE
SPARE	12	1	20	39		0.00			--		40	--	1	12	SPACE
1X210+2X100+13X50 OUTDOOR EM...	12	1	20	41			0.00			--	42	--	1	12	SPACE
CONNECTED LOAD: (kVA)					0.00		0.00		0.00						

EXISTING PANEL: DP-EM

LOCATION: MECHANICAL RM 155
VOLTS: 480/277 Wye
PHASES: 3
MCB RATING: 600 A
MAINS TYPE:

NOTES:

INDENTIFICATION	SLOT	FUSE	NUMBER OF POLES	Load
T-E1	1	100 A	3	0 kVA
SPARE	2	0 A	3	0 kVA
ACCU-1	3	45 A	3	0 kVA
HVAC-17	4	35 A	3	0 kVA
ACCU-2	5	25 A	3	0 kVA
HVAC-5	6	25 A	3	0 kVA
HVAC-12	7	25 A	3	0 kVA
HVAC-13	8	25 A	3	0 kVA
SPARE	9	0 A	1	0 kVA
SPARE	10	0 A	1	0 kVA
HVAC-19	11	25 A	1	0 kVA
MAU-1	12	15 A	1	0 kVA
MAU-2	13	15 A	1	0 kVA
ERV-1	14	15 A	1	0 kVA
ERV-2	15	15 A	1	0 kVA
ERV-2	16	15 A	1	0 kVA
ERV-3	17	15 A	1	0 kVA
LP-HE	18	200 A	1	0 kVA
SPARE	19	0 A	1	0 kVA
ELEVATOR	20	50 A	1	0 kVA
HVAC-18	21	35 A	1	0 kVA
SUMP PUMP	22	15 A	1	0 kVA
RTU-1	23	25 A	1	0 kVA
SPARE	24	20 A	1	0 kVA
SPARE	25	20 A	1	0 kVA
			CONNECTED LOAD:	0 kVA

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REVISION	DESCRIPTION	DATE
1	ADDENDUM 2	04/09/2026

PROJECT NUMBER 0155-25-0010 PM CO

CITY OF ROMULUS TIFA BOARD

ROMULUS ATHLETIC CENTER BUILDING ADDITION AND RENOVATION

35765 Northline Rd, Romulus, MI 48174

ELECTRICAL SCHEDULES

E-601

4/9/2026 8:32:04 AM
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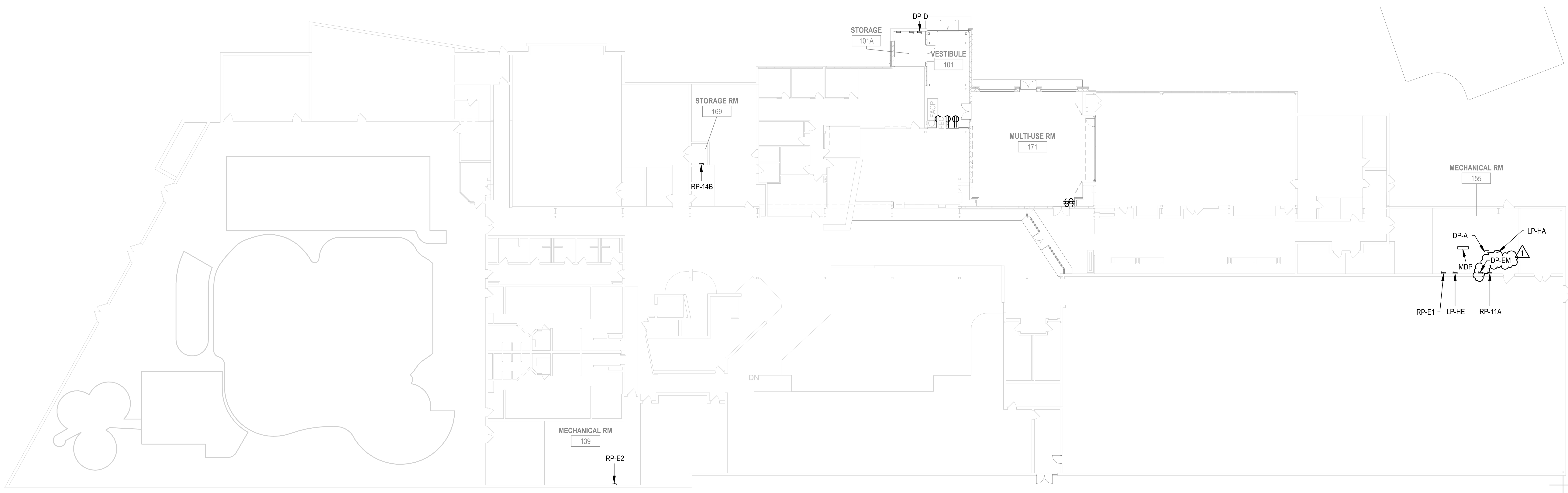

1 OVERALL FIRST FLOOR ELECTRICAL PLAN

3/64" = 1'-0"

N

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REVISION / DESCRIPTION	DATE
1 ADDENDUM 2	04/09/2026

PROJECT NUMBER 0155-25-0010 PM CO

CITY OF ROMULUS TIFA BOARD

ROMULUS ATHLETIC CENTER BUILDING ADDITION AND RENOVATION

35765 Northline Rd, Romulus, MI 48174

FIRST FLOOR ELECTRICAL PLAN

EP101

GENERAL NOTES - POWER

1. TELEVISIONS BY OWNER. INSTALLATION AND TELEVISION MOUNTS BY CONTRACTOR. PROVIDE TELESCOPING, ROTATING MOUNT, SUSPENDED FROM UNISTRUT. PRE-FINISH FLAT BLACK.
2. PROVIDE POWER RECEPTACLES FOR TELEVISIONS.

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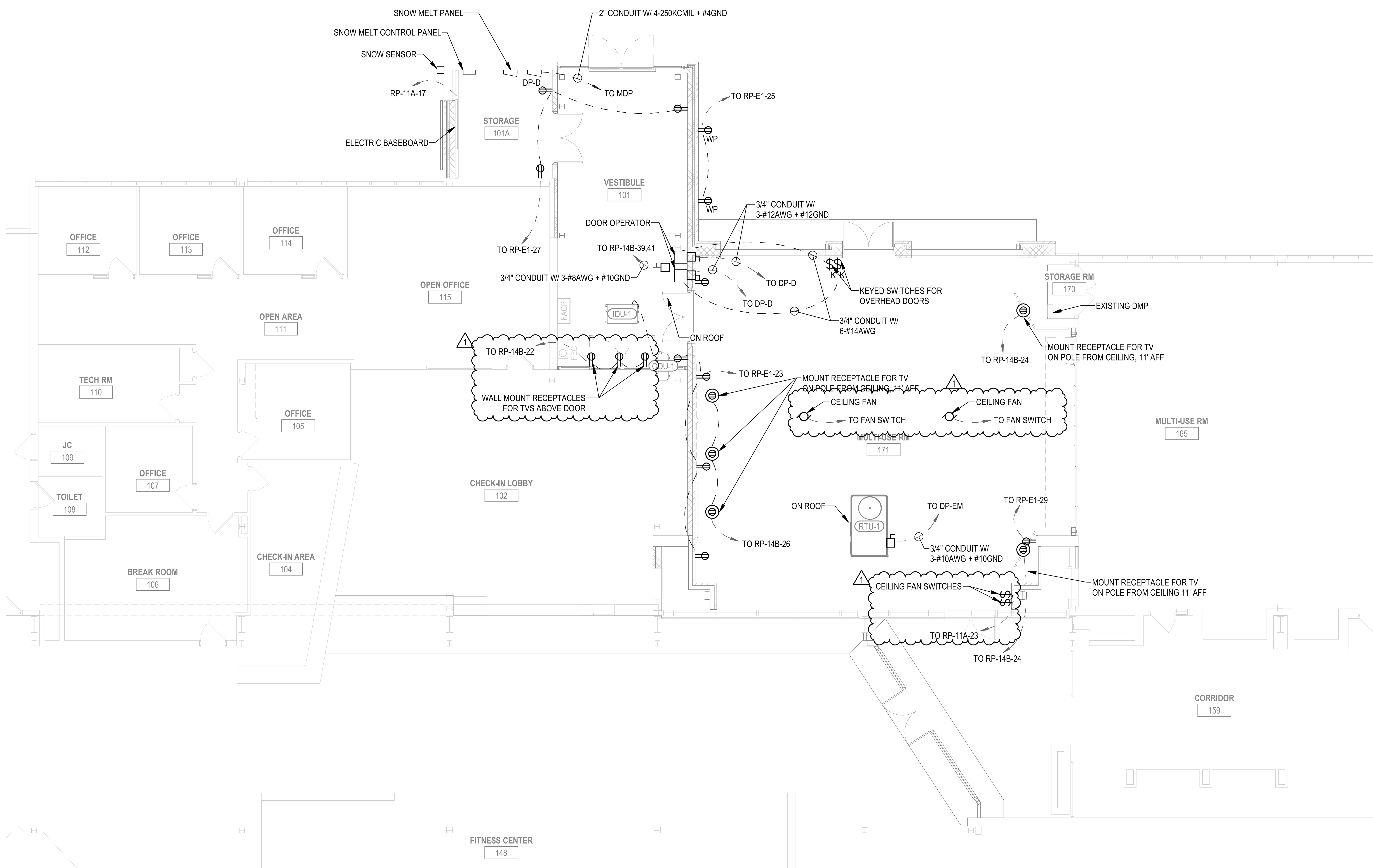
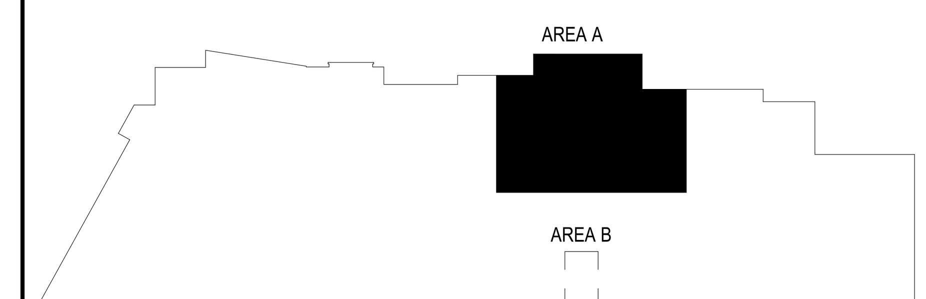


1 PARTIAL FIRST FLOOR POWER PLAN - ADDITION
1/8" = 1'-0"

N

KEY PLAN



ISSUED FOR: ISSUED FOR BIDS		2026/03/25
REVISION	DESCRIPTION	DATE
1	ADDENDUM 2	04/09/2026

PROJECT NUMBER 0155-25-0010 PM CO

CITY OF ROMULUS TIFA BOARD

ROMULUS ATHLETIC CENTER BUILDING ADDITION AND RENOVATION

35765 Northline Rd, Romulus, MI 48174

PARTIAL FIRST FLOOR POWER PLAN

EP102

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SHEET KEYNOTES - LOW VOLTAGE

XX	
1	PROVIDE NEW PULL STATION AND CONNECT TO EXISTING SYSTEM. PULL STATION SHALL BE A NATIONAL TIME AND SIGNAL MODEL 540 SERIES. CONNECT TO NEAREST EXISTING SIGNALING LINE CIRCUIT AND MATCH EXISTING CABLING AND CONDUIT.
2	PROVIDE NEW SPEAKER STROBE AND CONNECT TO EXISTING SYSTEM. STROBE SHALL BE A NATIONAL TIME AND SIGNAL MODEL SG-CXCLPSSZ. CONNECT TO NEAREST EXISTING NOTIFICATION APPLIANCE CIRCUIT AND MATCH EXISTING CABLING AND CONDUIT.
3	OUTSIDE SPEAKER SHALL BE CONNECTED TO THE SOUND SYSTEM IN STORAGE ROOM 170. OUTDOOR SPEAKERS SHALL BE JBL 25C WITH MOUNTING BRACKET. CONNECT SPEAKERS TO SOUND SYSTEM RACK W/2C-#16 SPEAKER WIRE.
4	MULTI-USE ROOM 171 SPEAKERS SHALL BE CONNECTED TO SOUND SYSTEM IN STORAGE ROOM 170. SPEAKERS SHALL BE JBL 65C. CONNECT SPEAKERS TO SOUND SYSTEM RACK W/2C-#16 SPEAKER WIRE.
5	PROVIDE AMPLIFIER INSTALLED IN EXISTING SOUND SYSTEM RACK. AMPLIFIER SHALL BE JBL ~~CSA2300Z-300WATT 2 CHANNEL AMPLIFIER. SEE DETAIL SHEET E-501~~
6	A FUTURE COMCAST SERVICE IS PLANNED BUT DESIGN UNKNOWN, CONTRACTOR TO ASSUME INSTALLATION OF CABLING AND CONDUIT FROM COMCAST PANEL TO EACH TELEVISION.

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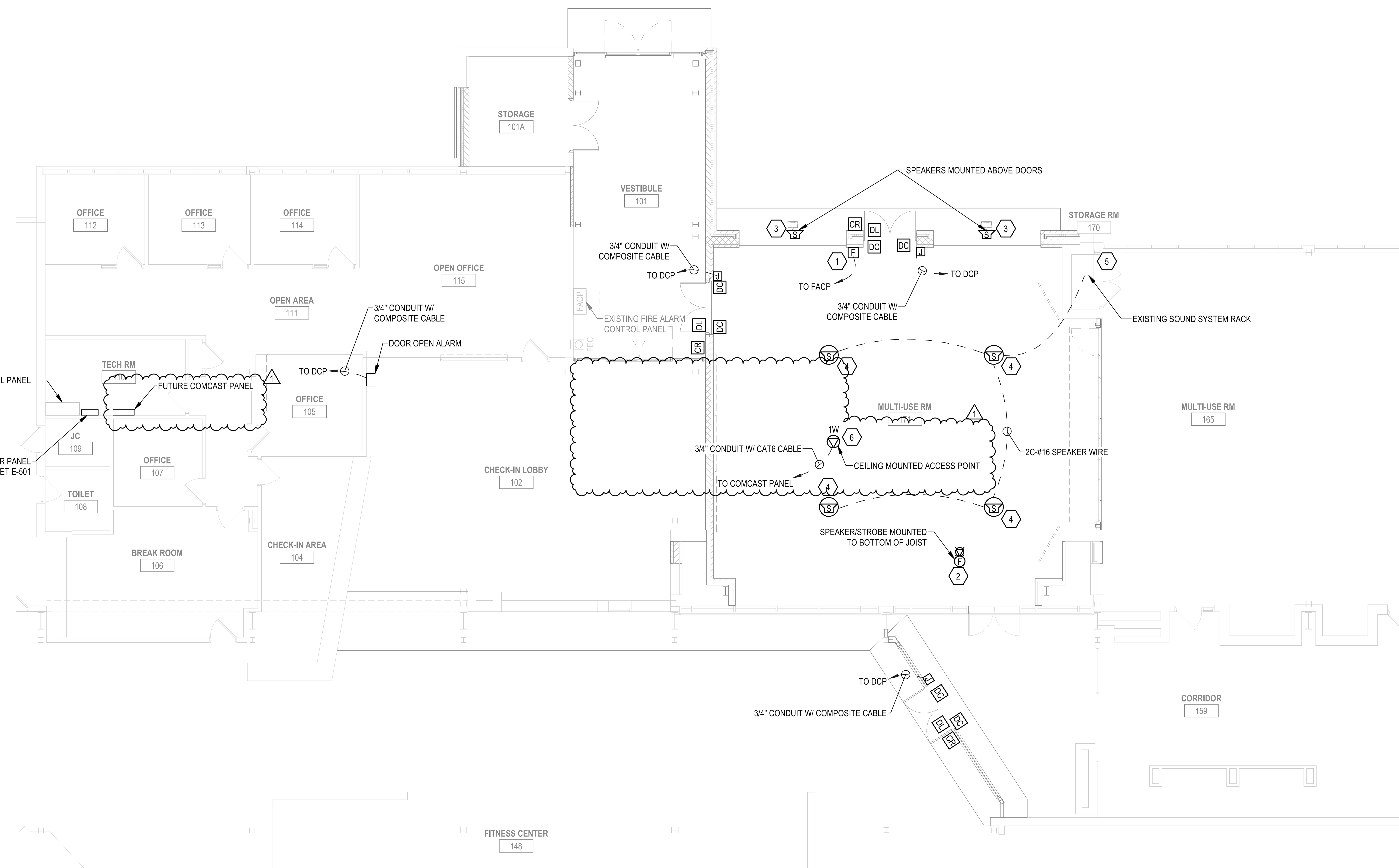
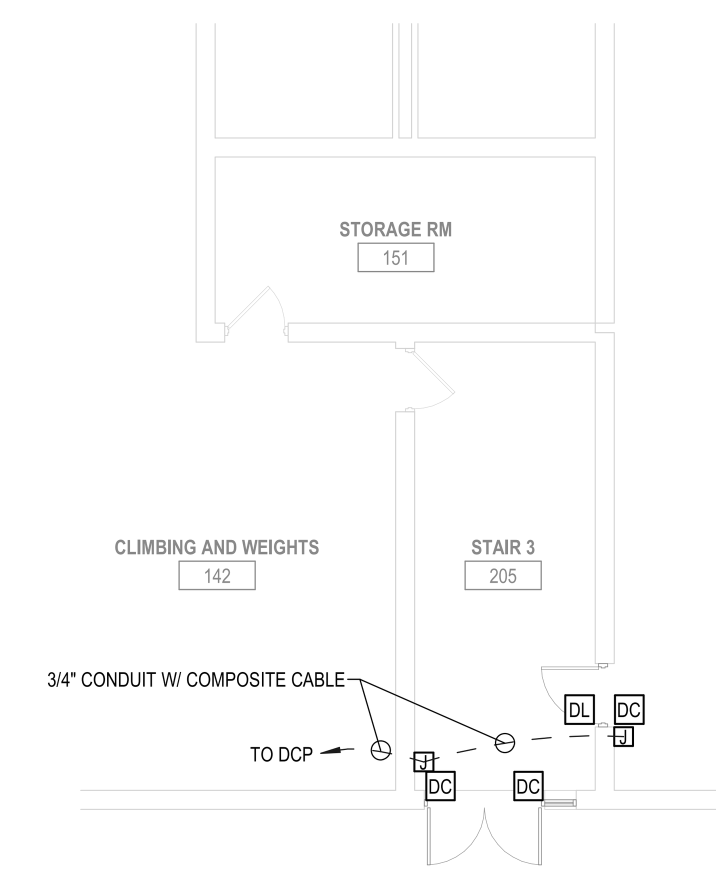
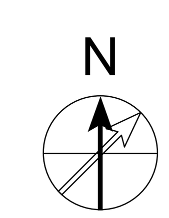


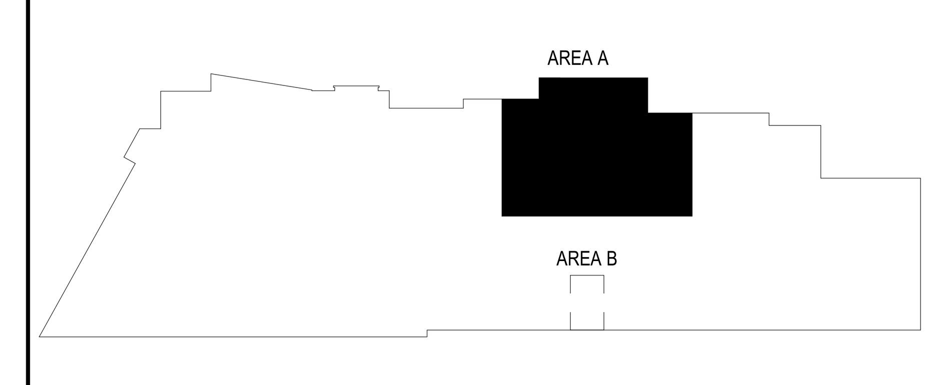
1 PARTIAL FIRST FLOOR LOW VOLTAGE PLAN - ADDITION
1/8" = 1'-0"



2 PARTIAL FIRST FLOOR LOW VOLTAGE PLAN - AREA D
1/8" = 1'-0"



KEY PLAN



ISSUED FOR: ISSUED FOR BIDS		2026/03/25
REVISION	DESCRIPTION	DATE
1	ADDENDUM 2	04/09/2026

PROJECT NUMBER	PM
0155-25-0010	CO

CITY OF ROMULUS TIFA BOARD

ROMULUS ATHLETIC CENTER BUILDING ADDITION AND RENOVATION

35765 Northline Rd, Romulus, MI 48174

PARTIAL FIRST FLOOR ELECTRICAL LOW VOLTAGE PLAN

ET101

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SECTION 281000
ACCESS CONTROL

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Access control system requirements.

B. Access control units and software.

C. Access control point peripherals, including readers and keypads.

D. Accessories.

1.2 RELATED REQUIREMENTS

A. Section 087100 - Door Hardware: Electrically operated door hardware, for interface with access control system.

B. Section 260526 - Grounding and Bonding for Electrical Systems.

C. Section 260553 - Identification for Electrical Systems: Identification products and requirements.

1.3 REFERENCE STANDARDS

A. NECA 1 - Standard for Good Workmanship in Electrical Construction; 2023.

B. UL 294 - Access Control System Units; Current Edition, Including All Revisions.

1.4 ADMINISTRATIVE REQUIREMENTS

A. Coordination:
   1. Coordinate the work with other installers to provide suitable door hardware as required for both access control functionality and code compliance.
   2. Coordinate the placement of readers with millwork, furniture, equipment, etc. installed under other sections or by others.
   3. Coordinate the work with other installers to provide power for equipment at required locations.
   4. Notify Design Professional of any conflicts with or deviations from Contract Documents. Obtain direction before proceeding with work.

1.5 SUBMITTALS

A. See Section 013000 - Administrative Requirements, for submittal procedures.

B. Shop Drawings: Include plan views indicating locations of system components and proposed size, type, and routing of conduits and/or cables. Include elevations and details of proposed equipment arrangements. Include system interconnection schematic diagrams. Include requirements for interface with other systems.

C. Project Record Documents: Record actual locations of system components and installed wiring arrangements and routing.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Receive, inspect, handle, and store products in accordance with manufacturer's instructions.

B. Store products in manufacturer's unopened packaging, keep dry and protect from damage until ready for installation.

1.7 FIELD CONDITIONS

A. Maintain field conditions within manufacturer's required service conditions during and after installation.

PART 2 PRODUCTS

2.1 ACCESS CONTROL SYSTEM REQUIREMENTS

A. Provide modifications and extensions to existing access control system consisting of required equipment, conduit, boxes, wiring, connectors, hardware, supports, accessories, software, system programming, etc. as necessary for a complete operating system that provides the functional intent indicated.

B. System supplier: Actron Systems. Richard Ruddell, (313) 605-6316

C. Interface with Other Systems:
   1. Provide products compatible with other systems requiring interface with access control system.
   2. Interface with electrically operated door hardware as specified in Section 087100.
      a. Capable of locking/unlocking/releasing controlled doors.
      b. Capable of receiving input from integral door hardware switches.

D. Provide products listed, classified, and labeled as suitable for the purpose intended.
   1. Access Control Units and Readers: Listed and labeled as complying with UL 294.

2.2 ACCESS CONTROL UNITS AND SOFTWARE

A. Provide access control units and software compatible with readers to be connected.

B. Unless otherwise indicated, provide software and licenses required for fully operational system.

2.3 ACCESS CONTROL POINT PERIPHERALS

A. Provide devices compatible with existing control units and software.

B. Provide devices suitable for operation under the service conditions at the installed location.

C. Reader Interface:
   1. Power Supply:
      a. Manufacturer: LifeSafety.
      b. Model: FPO150-100D8PM8NL4E4M1
      c. Enclosure: Indoor.
   2. Provide MR52 rea~~s~~der interface ~~compatable with existing system~~module..
      a. ~~Communication~~Manufacturer: ~~RS-485~~Mercury
      b. ~~Imputs~~Model: ~~Provide 8 inputs for monitoring door contacts,request to exit and alarm contacts.~~MR52-S3B.
      c. ~~Ourputs~~Quantity: ~~Provide 6 outp.uts~~2.
      d. Enclosure: Indoor.

D. Readers and Keypads:
   1. General Requirements:
      a. Provide readers compatible with credentials to be used.
      b. Color: To be selected by Architect from manufacturer's available standard colors.
   2. Contactless Smart Card Readers:
      a. ~~Utilize 13.56 MHz RF communication with compatible credentials.~~Manufcturer: HID
      b. Model: Signo 40NKS-00-
      c. Proximity Readers:
         1) Utilize 125 kHz RF communication with compatible credentials.
      d. Bluetooth Low Energy (BLE) Readers:
         1) Utilize 2.4 GHz RF communication with compatible mobile devices.

E. Request to Exit Devices:
   1. Motion Sensors: Passive infrared.
      a. ~~Products~~Type Passive infrared
         1) :Model: 0E-RXD

2.4 ACCESSORIES

A. Provide components as indicated or as required for connection of access control system to devices and other systems indicated.

B. Provide composit access control cables as indicated or as required for connections between system components.

C. Provide accessory racks/cabinets as indicated or as required for equipment mounting.

PART 3 EXECUTION

3.1 EXAMINATION

A. Verify that field measurements are as indicated.

B. Verify that ratings and configurations of system components are consistent with the indicated requirements.

C. Verify that mounting surfaces are ready to receive system components.

D. Verify that branch circuit wiring installation is completed, tested, and ready for connection to system.

E. Verify that conditions are satisfactory for installation prior to starting work.

3.2 INSTALLATION

A. Install access control system in accordance with NECA 1 (general workmanship).

B. Install products in accordance with manufacturer's instructions.

C. Provide grounding and bonding in accordance with Section 260526.

D. Identify system wiring and components in accordance with Section 260553.

3.3 FIELD QUALITY CONTROL

A. See Section 014000 - Quality Requirements, for additional requirements.

B. Prepare and start system in accordance with manufacturer's instructions.

C. Program system parameters according to requirements of Owner.

D. Test for proper interface with other systems.

E. Correct defective work, adjust for proper operation, and retest until entire system complies with Contract Documents.

3.4 CLEANING

A. Clean exposed surfaces to remove dirt, paint, or other foreign material and restore to match original factory finish.

3.5 CLOSEOUT ACTIVITIES

A. Demonstration: Demonstrate proper operation of system to Owner, and correct deficiencies or make adjustments as directed.

3.6 PROTECTION

A. Protect installed system components from subsequent construction operations.

END OF SECTION 281000