STAFF REPORT 02/10/2021 MEETING **PREPARED BY**: J. ROSS
APPLICATION NUMBER: #21-7063 & #21-7064
ADDRESS: 4133 WOODWARD & 67 W. WILLIS
HISTORIC DISTRICT: WILLIS-SELDEN
APPLICANT: DEVAN ANDERSON/QUINN EVANS ARCHITECTS
DATE OF COMPLETE APPLICATION: 01/25/2021
DATE OF STAFF SITE VISIT: 01/29/2021

SCOPE: REHAB BUILDING AND ESTABLISH NEW PARKING LOTS

EXISTING CONDITIONS
Erected ca. 1900, 4133 Woodward is a two-story, load-bearing masonry building that is located within the Willis-Selden Historic District. A small, one-story, concrete block wing was added to the building's rear elevation sometime after 1970. The building houses commercial uses at the first story and its second story space was originally dedicated for residential use/apartments. Per the applicant, the building's "…last tenants moved out of the upper floors in the late 1960s." The building's main mass features painted brick exterior walls, while painted concrete block is located at the rear, one-story addition. The rear elevation sectioned into eight distinct bays by projecting masonry "fins" which extend from grade to the roofline. At the roof, each bay is further delineated by a brick parapet, which runs the width of the flat/slightly-sloping roof, east/west. Clay coping tiles are present at each of the eight brick parapets. A prick parapet tops the north, south east elevation walls. This parapet features stone coping at the front/west elevation, and stone and clay copings at the south elevation, and stone coping at the north elevation. Numerous brick chimneys also top the building's parapets. Remaining windows at the building's second story, east and north elevations, are the original double-hung, wood units. Original window openings have been enclosed with masonry at the first and second stories at the side elevations and rear elevation. The first-story, front elevation features a number of non-historic storefront doors and windows, with some remaining historic-age elements to include four leaded glass transoms with wood frames at the residential entry doors, six brick columns, and a single cast iron column (see below). Also, the applicant has noted that it is highly possible that historic-original columns/storefront elements may remain intact, hidden behind the non-historic storefront material. An asphalt parking area is located to the sides and rear of the building.

The project area also includes an open grassy parcel that is located at 67 W. Willis. This parcel currently serves as the side yard for the building (a ca. 1890, two-story masonry former residence that currently houses commercial uses) located at 49 W. Willis. A 6'-0"-high, chain-link fence encloses the parcel.

4133 Woodward, front and rear elevations

67 W. Willis, location of proposed new parking lot

PROJECT DESCIPTION

As per the submitted drawings and narrative, the applicant is proposing to rehabilitate the building to accommodate a new retail use, to include the following work items:

Primary/East Elevation

- At roof/wall junction/parapet, second story, install a new glass-fiber reinforced polymer (GFRP) cornice to match the original
- At first story, above storefront, install a GFRP band/water table
- Replace the existing second floor awnings with new fabric awnings
- Remove all of the existing, non-historic storefronts and install new six aluminum storefronts. Each new storefront will rest atop a new painted masonry stub wall to raise it off the ground and align it with the original sill heights
- Create one new aluminum, sliding double-door commercial/primary entry with aluminum transom and flanking metal panel
- Install six new fixed, metal panel similar to the current condition at the existing restaurant's portion of the façade at the former tenant entries. Retain and repair the remaining leaded-glass transoms over the original residential entry locations. At the two northernmost panels, where the original transoms are no longer extant, install a new transom. Note, that the details of these transoms have not been provided

- At the northern end of the elevation, install two new metal panels to cover the former residential entries. Each panel will be topped with a new fixed transom which will replicate the remaining historic transoms. Note that the material, dimensions, etc. for the new transoms has not been outlined in the current submission
- Install new decorative gooseneck fixtures
- Retain all six remaining brick columns and single cast-iron column
- At second story central bay window retain and repair stone decorative detailing. If deteriorated beyond repair, reconstruct. Note, that details around the potential reconstruction have not been provided.
- At second story, replace existing historic, 1/1 wood windows, to include sash and trim, with new aluminum units and trim. Wood mullions at bay window proposed to be replaced as well.
- Where windows are missing at second story, install new 1/1 aluminum windows and trim in keeping with original windows
- Install two new signs as per the submitted

Rear/West Elevation

- Install a metal entrance canopy with integral lighting above the new entrance
- Install one new aluminum, sliding double-door commercial entry
- Install three new aluminum storefront windows.
- Install one new single steel door and a set of paired steel doors
- Open up ten of the existing window openings that have been enclosed with masonry at the second floor and install new 1/1 aluminum windows in each new openings
- Enclose existing service-door locations with brick
- Install one new sign over the new sliding, double-door entrance

Side/North Elevation

- Remove the CMU infill at the original residential entrance and replace with new brick masonry to match the adjacent
- Provide a new loading dock which shall be enclosed with a new 8'-0"-high metal wall and roofed with a new metal canopy.
- Create one new exterior service-door opening (hollow steel door) and install an overhead coiling door in an existing opening at the new loading dock.
- At second story central bay window retain and repair stone decorative detailing. If deteriorated beyond repair, reconstruct. Note, that details around the potential reconstruction have not been provided
- At second story, replace existing historic, 1/1 wood windows, to include sash and trim, with new aluminum units and trim. Wood mullions at bay window proposed to be replaced as well.
- Install new sign
- Where windows are missing at second story, install new 1/1 aluminum windows and trim in keeping with original windows

Side/South Elevation

- Install new signage
- Install a new painted mural (design and dimension not yet determined)

Rear/West Elevation, One-Story Addition

- Demolish the small, CMU cooler enclosure from the wing's north elevation and enclose any resultant wall opening there with new CMU.
- Enclose existing service-door locations with brick
- Install new gooseneck and package light fixtures
- Install new signage
- At north elevation, install a new metal canopy
- At south elevation, create one new exterior service-door opening (hollow steel door)

Roof

- Remove the seven historic brick interior roof parapets as well and all brick chimneys
- Repair the masonry of the historic perimeter parapet walls, remove stone coping and replace with metal caps
- Install new roofing membranes, insulation, gutters, downspouts, and roof sumps on both roofs.
- Remove all of the existing mechanical equipment currently installed atop the 1-story addition's roof
- Locate two new pieces of rooftop mechanical equipment atop the rear one-story addition's low-roof.
- Increase the height of the existing masonry parapets of the rear, one-story addition by 8 feet to conceal this new equipment from public view.

Entire Building

- Clean, repair and repoint the existing brick masonry in accordance with the Secretary of the Interior Standards and Preservation Briefs 1, 2 & 6
- Repaint the entire building with a breathable tinted coating designed for masonry applications

Site (4133 Woodward)

- Replace existing asphalt in parking area
- Install new trash enclosure, transformer, and shopping cart corral
- Install new landscaping

Site (67. W. Willis)

- Remove existing fencing
- Replace grass with new asphalt parking area, to include the addition of one new curbcut
- Install new landscaping

STAFF OBSERVATIONS AND RESEARCH

- The applicant has indicated that the remaining windows and trim are original to the building's construction. See the attached window survey, which indicates that the remaining windows are generally in poor condition
- In assessing the relative significance of the building's fenestration as a whole, staff notes the following:

    - The only remaining historic elements of the fenestration at the first story, front elevation, are the 4 leaded-glass transoms. The current storefronts at the first story detract greatly from the building's historic appearance

    - Most windows at the rear and side elevations have removed and their openings enclosed or covered with plywood
    - With the exception of the mullions at the front and side elevation bay windows, the remaining wood sash and trim appear to be fairly utilitarian in nature, and therefore less important as character-defining features
    - Per the submitted assessment, the remaining windows are in generally poor condition
    - As a result of the cumulative impact of the enclosure of many original openings; the removal of most of the original storefront at the first story, primary elevation; and the poor condition of the remaining windows, staff feels that the proposed window will not alter or destroy character-defining features, with the condition that the mullions at the front and side elevation bay windows remain
- The applicant has not yet determined their final sign proposal. The applicant is seeking approval of the location and dimensions of the signage and asking that the Commission give staff the final authority to approve
- The applicant has not yet determined the final design of the south elevation mural
- The building at 49 W. Willis is now used for commercial purposes and the nearby adjacent surrounds are commercial in nature. It is staff's opinion that the addition of new asphalt at 67 W. Willis is generally not incompatible with the area's historic character.
- It is staff's opinion that the chimneys and interior parapets are character-defining as they are highly visible when viewing the building from W. Willis and they remain as markers of the building's original second story residential use. The also remain as a strong visual element that tie into the masonry "fins" at the building's rear elevation.
- At the first-story, front elevation storefront, remaining historical elements which are visible include four leaded glass transoms with wood frames at the residential entry doors, six brick columns, and a single cast iron column. The applicant has stated that the project intends to retain these elements and incorporate them into the design of the new storefront
- The applicant has noted that they suspect that original storefront elements likely remain hiddenwithin the current non-historic storefronts However, until they begin construction, they will not be able to identify these elements. The applicant has committed to keeping and integrating any remaining historic storefront elements that are currently not readily visible into the new storefront treatment.
- It is staff's opinion that the stone detailing around the two bay windows is character-defining. The applicant states that this element would be retained "or reconstructed as necessary due to condition" however, specifics around the materiality and/or design of the reconstruction have not been submitted

ISSUES

- As noted previously, it is staff's opinion that the mullions and trim at the bay windows are character-defining and should be retained and repaired where deteriorated. If the Commission sees fit to approve the replacement the existing windows at the property, the applicant should be directed to retain the trim and mullions at these locations and merely install new sash
- As noted previously, it is staff's opinion that the chimneys and interior parapets at the roof are character-defining as they are highly visible when viewing the building from W. Willis and they remain as markers of the building's original second story residential use. The also remain as a

strong visual element that tie into the masonry "fins" at the building's rear elevation. Staff therefore recommends that these elements be retained and repaired (where necessary) using compatible materials

- As noted previously, it is staff's opinion that the stone detailing around the two bay windows is character-defining. The applicant states that this element would be retained "or reconstructed as necessary due to condition" however, specifics around the materiality and/or design of the reconstruction has not been submitted. Staff recommends that if any portions of this element is deteriorated beyond repair, that it be exactly replicated in design, dimension, detailing and materiality

RECOMMENDATION

It is staff's opinion that the proposed project generally meets the Secretary of the Interior Standards for Rehabilitation and is compatible with the Elements of Design for the Willis-Selden Historic District. Staff therefore recommends that the Commission issue a Certificate of Appropriatness for the work with the following conditions:

- The applicant shall submit a final full signage application to HDC staff for review and approval. Should staff determine that the work does not meet the Standards, staff shall forward the proposal to the Commission for review at a future meeting
- The applicant shall submit an application which outlines the mural proposal (for the side elevation) to HDC staff prior to installation to ensure that the work meets the Standards
- The seven interior rooftop parapets, to include the brick and clay tile coping, and the remaining brick chimneys shall be retained and repaired in kind where deteriorated
- The remaining trim and mullions at the front/east elevation and side/north elevation bay windows shall be retained and repaired in kind where deteriorated
- The applicant shall submit a final proposal/specs for the new transoms proposed for the northernmost portion of the front elevation to staff for review and approval prior to the issuance of the permit. Should staff determine that the work does not meet the Standards, staff shall forward the proposal to the Commission for review at a future meeting
- At the first-story, front elevation storefront, remaining historical elements which are visible, to include the four leaded glass transoms with wood frames at the residential entry doors, six brick columns, and a single cast iron column shall be retained and incorporated into the design of the new storefront
- Should additional historic-age elements be identified during the demolition of the current storefronts at the east elevation, first story, the applicant/development team shall document their condition and location and notify HDC staff of their existence. These elements must be retained and HDC staff shall be presented with a proposal to integrate the elements into the new storefront prior to the completion of the work. Should staff determine that the work does not meet the Standards, staff shall forward the proposal to the Commission for review at a future meeting
- If it is determined that any portions of the stone detailing around the two bay windows is deteriorated beyond repair, elements must exactly to match the design, dimension, detailing and materiality of the original elements

- All glazing proposed storefronts, doors, and windows shall be clear/shall not be tinted or reflective


UNION STREET
UNION STREET


MIDTOWN LIQUOR
OPEN
NO LOITERING
NO LOITERING
LOTTERY
BOWL


CE
HA
FLO
4135
www.graceharperflorist.com


SPACE AVAILABLE
248-948-9000
GRACE
HARPER
FLORIST

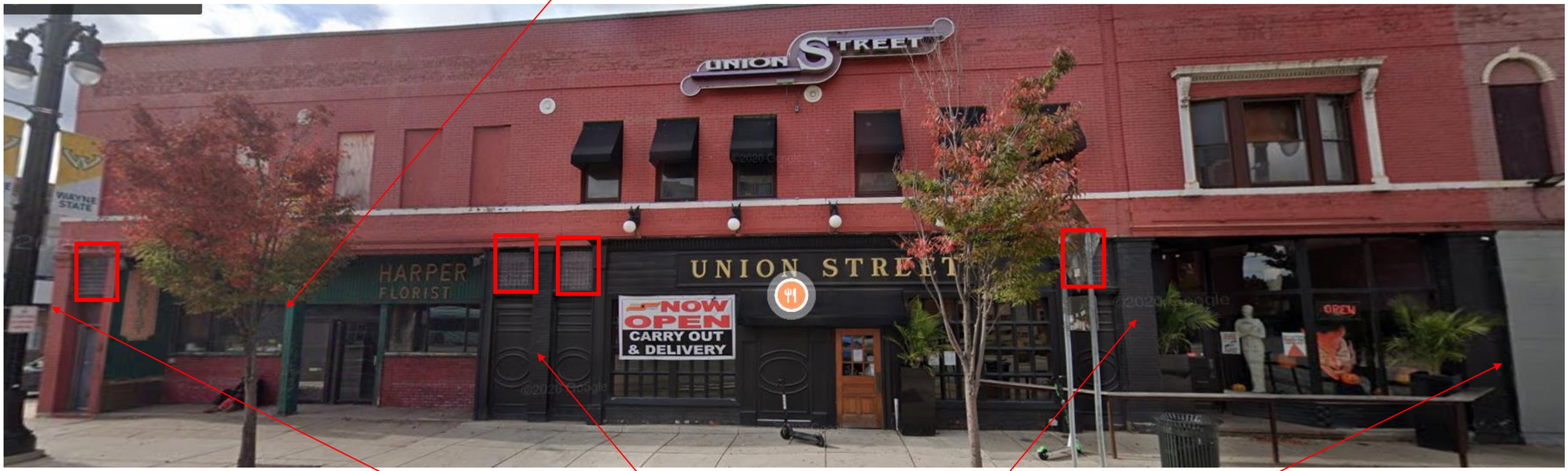

SPACE AVAILABLE
248-948-9000
HARPER
FLORIST


SPACE AVAILABLE
248-948-9000
GRACE HARPER FLORIST
WORLDWIDE DELIVERY (313) 831-1164 SINCE 1918


UNION STREET
UNION STREET

Two remaining historic-age brick columns. Staff recommends that these elements be retained

One remaining cast iron column. Boxed areas indicate the location of the 4 remaining prism glass transoms. Staff recommends that these elements be retained



Four remaining historic-age brick columns. Staff recommends that these elements be retained

27 January 2020

MEMORANDUM

From Devan Anderson

To: Jennifer Ross, Detroit Historic Districts Commission

RE: 4100 WOODWARD BLOCK
DETROIT, MICHIGAN 48202
QE PROJ. NO. 41919070

Subject: **Rehabilitation Scope of Work**

The west side of the 4100 block of Woodward Ave. (4133-4161 Woodward Ave.) has been a Mixed-Use Commercial/Residential building since it was first constructed in the early 20th century. However, it is believed that the last residential tenants moved out of the upper floors in the late 1960's. The building has hosted a variety of commercial tenants during its long life, most recently a Flower Shop, a Restaurant and a Liquor Store. However, the second floor has been almost entirely abandoned for over 50 years. The building has load-bearing masonry exterior walls, interior masonry tenant separations, wood floor and roof joists as well as wood interior non-bearing-wall construction. New steel structure has been added to replace some of the original interior masonry components over the years. The second floor windows, and the exterior brick masonry are original to the building. All of the first floor storefronts as well as a 1-story kitchen addition at the building's rear were installed after 1970. The building's footprint measures 14,200 square feet.

The general intent of the project is to completely gut the interior of the building, remove the second floor framing entirely as well as all of the interior masonry walls, and then open up the entire volume of the interior as a white box for a future Grocer Tenant to build-out and occupy. Our current proposal also involves any structural re-framing and re-roofing required to preserve the historic exterior envelope. Years of leaks and intermittent exposure to the elements will require the evaluation and replacement of wood joists and other natural materials slated to remain. We also propose to undo a lot of the unsympathetic construction that has occurred over the years and catch up on the deferred maintenance through which the building has suffered. The intent is to simulate the look of the original building, retaining existing historic materials wherever possible and using modern materials where necessary to accurately recreate the original detailing without creating a false sense of history.

Further, specific scope items include the following:

1. Recreate the missing original decorative banding at the second floor with new fiberglass (glass-fiber reinforced polymer – GFRP) banding.
2. Remove the CMU infill at the original residential entry along the North Elevation and replace with new brick masonry to match the adjacent.
3. Enclose five (5) existing service-door locations. Those at the West elevation will be with brick and those at the 1-story addition will be with CMU.
4. Remove the small, CMU "cooler addition" from the North side of the 1-story addition, and enclose any resultant wall opening there with new CMU.
5. Remove all of the existing mechanical equipment currently installed atop the 1-story addition's roof.
6. Repair the masonry of the historic parapet walls and replace the existing deteriorated parapet caps.

4219 WOODWARD AVE, SUITE 301, DETROIT, MI 48201 **313.462.2550 | WWW.QUINNEVANS.COM**
WASHINGTON, DC | ANN ARBOR, MI | BALTIMORE, MD | DETROIT, MI | MADISON, WI | RICHMOND, VA

7. Remove the seven (7) interior roof parapets as well as the various masonry chimneys integral to these masonry tenant demising walls that are no longer in use.
8. Install new roofing membranes, insulation, gutters, downspouts, and roof sumps on both roofs.
9. Locate two new pieces of rooftop mechanical equipment atop the rear one-story addition's low-roof.
10. Increase the height of the existing masonry parapets of the rear, one-story addition by 8 feet to conceal this new equipment from public view.
11. Clean, repair and repoint the existing brick masonry in accordance with the Secretary of the Interior Standards and Preservation Briefs 1, 2 & 6, as well as the requirements of the Traditional Main Street Overlay Area contained in Section 51-14-441(b)(1) of the Detroit Zoning Ordinance.
12. Repaint the entire building with a breathable tinted coating designed for masonry applications.
13. Replace the existing, six (6), second floor awnings and add six (6), new, fabric awnings.
14. Replace all thirty-four (34) of the existing, deteriorated, second floor windows with new aluminum windows to match in size, style, profile and detailing, including the replication of the original brick molds. These windows will be "fixed" sash windows but will match the appearance of offset sash operable windows.
15. Open up ten (10) of the existing window openings that have been enclosed with masonry at the second floor on the west (rear) elevation and install new aluminum windows there. The (2) window openings on the South Elevation, and six (6) of the windows on the West elevation will remain enclosed with existing masonry.
16. Remove all of the existing, non-historic storefronts at the East (front) elevation and install new storefronts that are more in keeping with the transom arrangement of the original building. Each new storefront will rest atop a new painted masonry stub wall to raise it off the ground and align it with the original sill heights, as well as protect it from salt and the elements.
17. Create two (2) new commercial entries with interior vestibules. One on the East (front) Elevation, and another directly opposite along the West (rear) Elevation.
18. Create three (3) new commercial storefront windows along the West (rear) Elevation.
19. Retain all of the remaining leaded-glass transoms over the original residential entry locations.
    a. As none of the original Residential Entry Doors remain. The area below these transoms will be enclosed with a permanent panel, similar to the current condition at the existing Restaurant's portion of the façade.
20. Add eighteen (18) new decorative gooseneck fixtures.
21. Install an entrance Canopy with integral lighting at the new West (rear) Entry.
22. Provide a new loading dock along the North elevation of the building, enclosed with a new 8 foot screen wall and roofed with a new canopy.
23. Create three (3) new exterior service-door openings and add an overhead coiling door in an existing opening at the new loading dock.
24. Please note that any murals as well as any building-mounted signage will be presented by the Grocer Tenant as part of a second, follow-up application for your separate consideration.

Sitework is also being proposed as a part of this current project, including the following:

1. Repave and restripe the entirety of the existing parking lot.
2. Adjust the Willis St. curb cuts to accommodate the adjustments to the parking lot layout.
3. Reopen the North / South public alley between our Woodward lots the Parks Insurance Building.
4. Provide accessibility improvements to building entrances.
5. Provide new parking lot lighting.
6. Improve site landscaping.
7. Install a new Dumpster Enclosure.
8. Install a new Shopping-Cart Corral.
9. Add a new pad-mounted electrical transformer to carry the upgraded electrical service to the building.

END OF MEMORANDUM

4219 WOODWARD AVE, SUITE 301, DETROIT, MI 48201 **313.462.2550 | WWW.QUINNEVANS.COM**
WASHINGTON, DC | ANN ARBOR, MI | BALTIMORE, MD | DETROIT, MI | MADISON, WI | RICHMOND, VA

4100 Woodward Block

HDC Submission
01-22-2021

QUINN EVANS

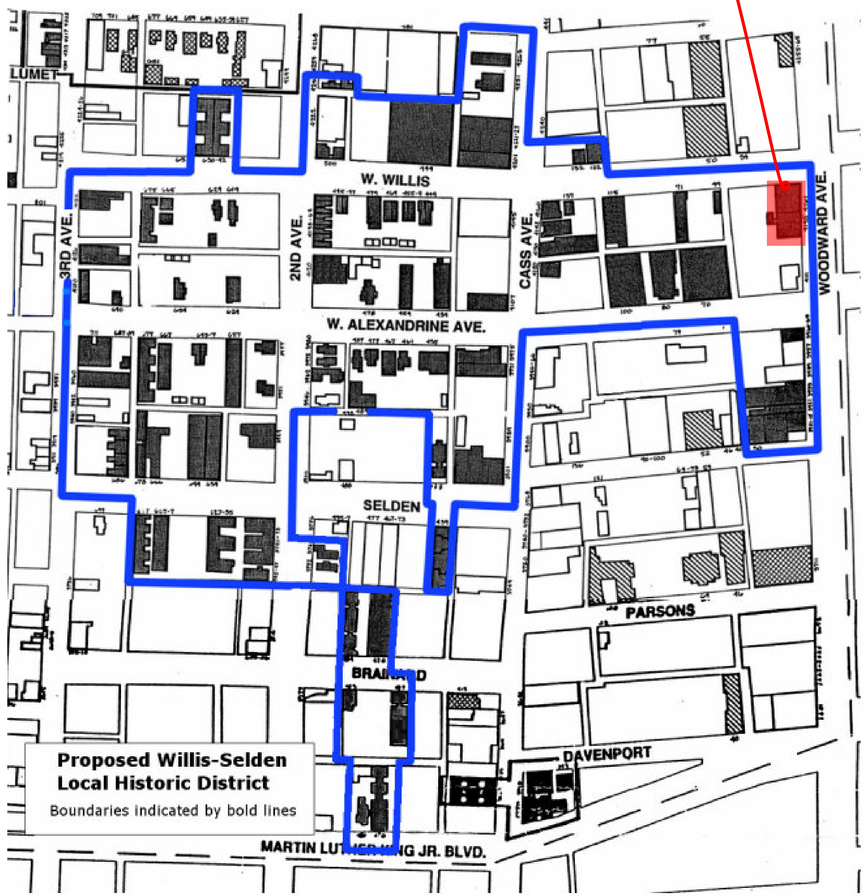
PROJECT DESCRIPTION & AREA DIAGRAMS

PROJECT NARRATIVE:

The 4100 block of Woodward Ave. has been a Mixed-Use Commercial/Residential building since it was first constructed in the early 20th century. However, it is believed that the last residential tenants moved out of the upper floors in the late 1960's. The building has hosted a variety of commercial tenants during its long life, most recently a Flower Shop, a Restaurant and a Liquor Store. The second floor has been entirely abandoned for over 50 years. The building has load-bearing masonry exterior walls, interior masonry tenant separations, wood floor and roof joists as well as wood interior non-bearing-wall construction. New steel structure has been added to replace some of the original interior masonry components over the years. The second floor windows, and the exterior brick masonry are original to the building. All of the first floor storefronts as well as a 1-story kitchen addition at the building's rear were installed after 1970. The building's footprint measures 14,200 square feet.

The general intent of the project is to completely gut the interior of the building, remove the second floor framing entirely as well as all of the interior masonry walls, and then open up the entire volume of the interior as a white box for a future Grocer Tenant to build-out and occupy. Our current proposal also involves any structural re-framing and re-roofing required to preserve the historic exterior envelope. Years of leaks and intermittent exposure to the elements will require the evaluation and replacement of wood joists and other natural materials slated to remain. We also propose to undo a lot of the unsympathetic construction that has occurred over the years and catch up on the deferred maintenance through which the building has suffered. The intent is to simulate the look of the original building, retaining existing historic materials wherever possible and using modern materials where necessary to accurately recreate the original detailing without creating a false sense of history.

4100 Woodward Block



Proposed Willis-Selden Local Historic District

SITE IMPROVEMENT PLANS

FOR

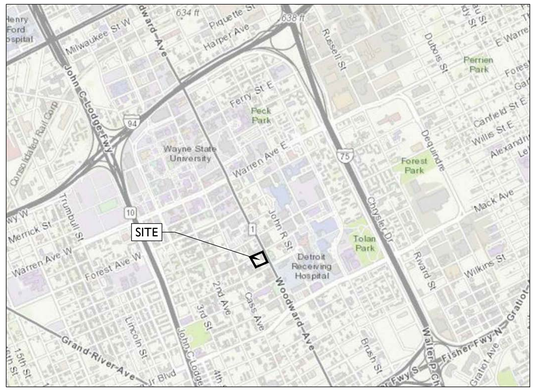
4133 WOODWARD AVENUE

PROPOSED MARKET AND ASSOCIATED SITE IMPROVEMENTS

PID: 02001798 & 02000855
4133 WOODWARD AVENUE & 67 W WILLIS AVENUE
CITY OF DETROIT, WAYNE COUNTY, MICHIGAN

APPLICANT

MKIEZI INVESTMENTS
888 W BIG BEAVER
CITY CENTER SUITE 300
TROY, MI 48984
(248) 729-7500
RON@MKIEZI.COM



SOURCE: USGS NATIONAL MAPPING SYSTEM

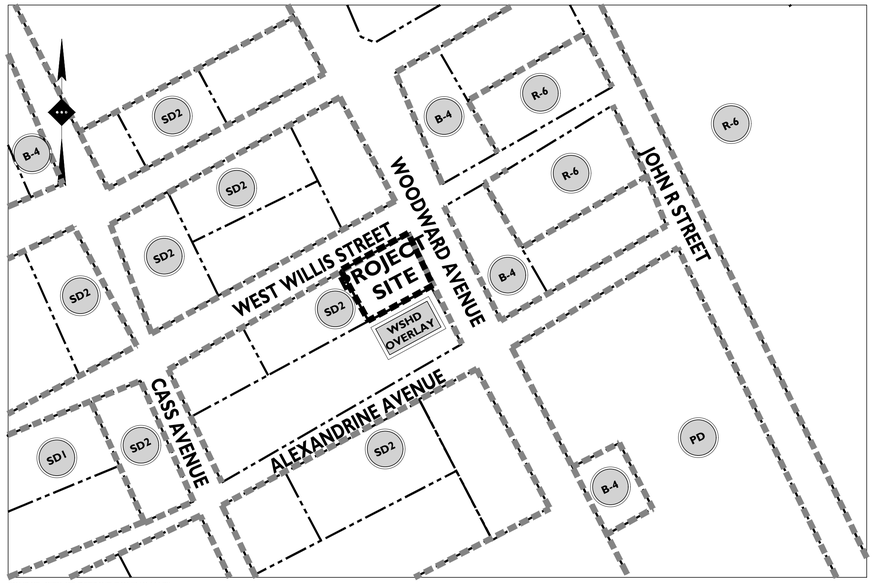
LOCATION / KEY MAP

SCALE: 1" = 2,000'±

SOURCE: GOOGLE EARTH PRO

AERIAL MAP

SCALE: 1" = 200'±



SOURCE: CITY OF DETROIT ZONING MAPS

ZONING MAP

SCALE: 1" = 200'±

PLANS PREPARED BY:

STONEFIELD engineering & design

Detroit, MI · New York, NY · Rutherford, NJ
Princeton, NJ · Tampa, FL · Boston, MA
www.stonefieldeng.com

607 Shelby Suite 200, Detroit, MI 48226
Phone 248.247.1115

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

PLAN REFERENCE MATERIALS:

1. THIS PLAN SET REFERENCES THE FOLLOWING DOCUMENTS INCLUDING, BUT NOT LIMITED TO:
   - ALTA/TOPOGRAPHIC SURVEY OBTAINED FROM MLP ASSOCIATES, DATED 09/18/2018
   - ARCHITECTURAL PLANS OBTAINED FROM QUINN EVANS
   - AERIAL MAP OBTAINED FROM GOOGLE EARTH PRO
   - ZONING MAP OBTAINED FROM CITY OF DETROIT ZONING MAPS
2. ALL REFERENCE MATERIAL LISTED ABOVE SHALL BE CONSIDERED A PART OF THIS PLAN SET AND ALL INFORMATION CONTAINED WITHIN THESE MATERIALS SHALL BE UTILIZED IN CONJUNCTION WITH THIS PLAN SET. THE CONTRACTOR IS RESPONSIBLE TO OBTAIN A COPY OF EACH REFERENCE AND REVIEW IT THOROUGHLY PRIOR TO THE START OF CONSTRUCTION.

SHEET INDEX

ISSUE	DATE	BY	DESCRIPTION
2	01/22/2021	KH/PD	SUBMISSION FOR HDC APPROVAL
1	01/20/2021	KH/PD	FOR CLIENT/TENANT REVIEW

NOT APPROVED FOR CONSTRUCTION

STONEFIELD engineering & design
Detroit, MI · Rutherford, NJ · New York, NY
Princeton, NJ · Tampa, FL · Boston, MA
www.stonefieldeng.com
607 Shelby Suite 200, Detroit, MI 48226
Phone 248.247.1115

SITE IMPROVEMENT PLANS
4133 WOODWARD AVENUE
PROPOSED MARKET AND ASSOCIATED SITE IMPROVEMENTS
PID: 02001798 & 02000855
4133 WOODWARD AVENUE, 67 W WILLIS AVENUE
CITY OF DETROIT
WAYNE COUNTY, MICHIGAN

MKIEZI INVESTMENTS

STATE OF MICHIGAN
JONATHAN REID COOKSEY
ENGINEER
No. 6200069428
J. REID COOKSEY, P.E.
MICHIGAN LICENSE, No. 6200069428
LICENSED PROFESSIONAL ENGINEER

STONEFIELD engineering & design

SCALE: AS SHOWN | PROJECT ID: DET-200073

TITLE: COVER SHEET

DRAWING: C-1

V:\DET\2020\DET-200073-MKIEZI INVESTMENTS-4133 WOODWARD AVENUE, DETROIT, MI\CAD\PLOTTER\01-COVER.DWG

LAND USE AND ZONING

4133 WOODWARD AVENUE; PID: 02001798

SPECIAL DEVELOPMENT DISTRICT, MIXED-USE (SD2), TRADITIONAL MAIN STREET OVERLAY (TMSO) & WILLIS-SELDEN HISTORIC DISTRICT

PROPOSED USE

RETAIL STORE	PERMITTED USE
ACCESSORY PARKING LOT	PERMITTED USE

ZONING REQUIREMENT	REQUIRED	PROPOSED
MINIMUM LOT AREA	N/A	0.87 AC (38,065 SF)
MINIMUM LOT WIDTH	N/A	180.8 FT
MINIMUM LOT DEPTH	N/A	205.6 FT
MAXIMUM BUILDING HEIGHT	40 FT (2 STORIES)	< 40 FT (1 STORY)
MINIMUM FRONT YARD SETBACK	0 FT	0.0 FT
MINIMUM SIDE YARD SETBACK	0 FT	0.0 FT
MINIMUM REAR YARD SETBACK	0 FT	81.7 FT
MINIMUM R.O.W. LANDSCAPE STRIP	5 FT	5.0 FT

LAND USE AND ZONING

67 W WILLIS AVENUE; PID: 02000855

SPECIAL DEVELOPMENT DISTRICT, MIXED-USE (SD2) & WILLIS-SELDEN HISTORIC DISTRICT

PROPOSED USE

REMOTE PARKING LOT	CONDITIONAL USE

ZONING REQUIREMENT	REQUIRED	PROPOSED
MINIMUM LOT AREA	N/A	0.20 AC (8,536 SF)
MINIMUM LOT WIDTH	N/A	50.0 FT
MINIMUM LOT DEPTH	N/A	170.7 FT
MAXIMUM BUILDING HEIGHT	40 FT (2 STORIES)	N/A
MINIMUM FRONT YARD SETBACK	0 FT	N/A
MINIMUM SIDE YARD SETBACK	0 FT	N/A
MINIMUM REAR YARD SETBACK	0 FT	N/A
MINIMUM R.O.W. LANDSCAPE STRIP	5 FT	6.3 FT

OFF-STREET PARKING REQUIREMENTS

CODE SECTION	REQUIRED	PROPOSED
§ 50-14-91	RETAIL USE: 1 SPACE PER 200 SF GFA (11,256 SF)(1/200 SF) = 56 SPACES(1) **TOTAL: (56)(0.75) = 42 SPACES(2)**	56 SPACES ON-SITE 21 SPACES (REMOTE) TOTAL: 77 SPACES
§ 50-14-231 / 232	90° PARKING DIMENSIONS: (3) 9 FT X 20 FT W/ 20 FT AISLE	9 FT X 20 FT W/ 20 FT AISLE
§ 50-14-231 / 232	45° PARKING DIMENSIONS: (3) 9 FT X 20 FT W/ 12 FT AISLE	9 FT X 20 FT W/ 12 FT AISLE
§ 50-14-114	LOADING ZONE REQUIREMENTS: (BUILDINGS 10,000 SF-25,000 SF) 2 SPACES REQUIRED; 10 FT X 35 FT	2 SPACES; 18 FT X 36 FT

(1) THE PLANNING DEPARTMENT MAY WAIVE UP TO 3,000 SF TO RETAIL USES WITHIN THE SD2 ZONE, PER §50-14-153(C) OF THE CITY ZONING ORDINANCE (14,256 SF)-(3,000 SF) = 11,256 SF TO BE USED TO CALCULATE PARKING REQUIREMENTS

(2) WHEN BUILDING LOCATED WITHIN 0.25 MILES OF BUS TRANSIT, STREET CAR/ TROLLEY OR LIGHT RAIL THE PARKING REQUIREMENT IS REDUCED TO 0.75 OF REQUIRED.

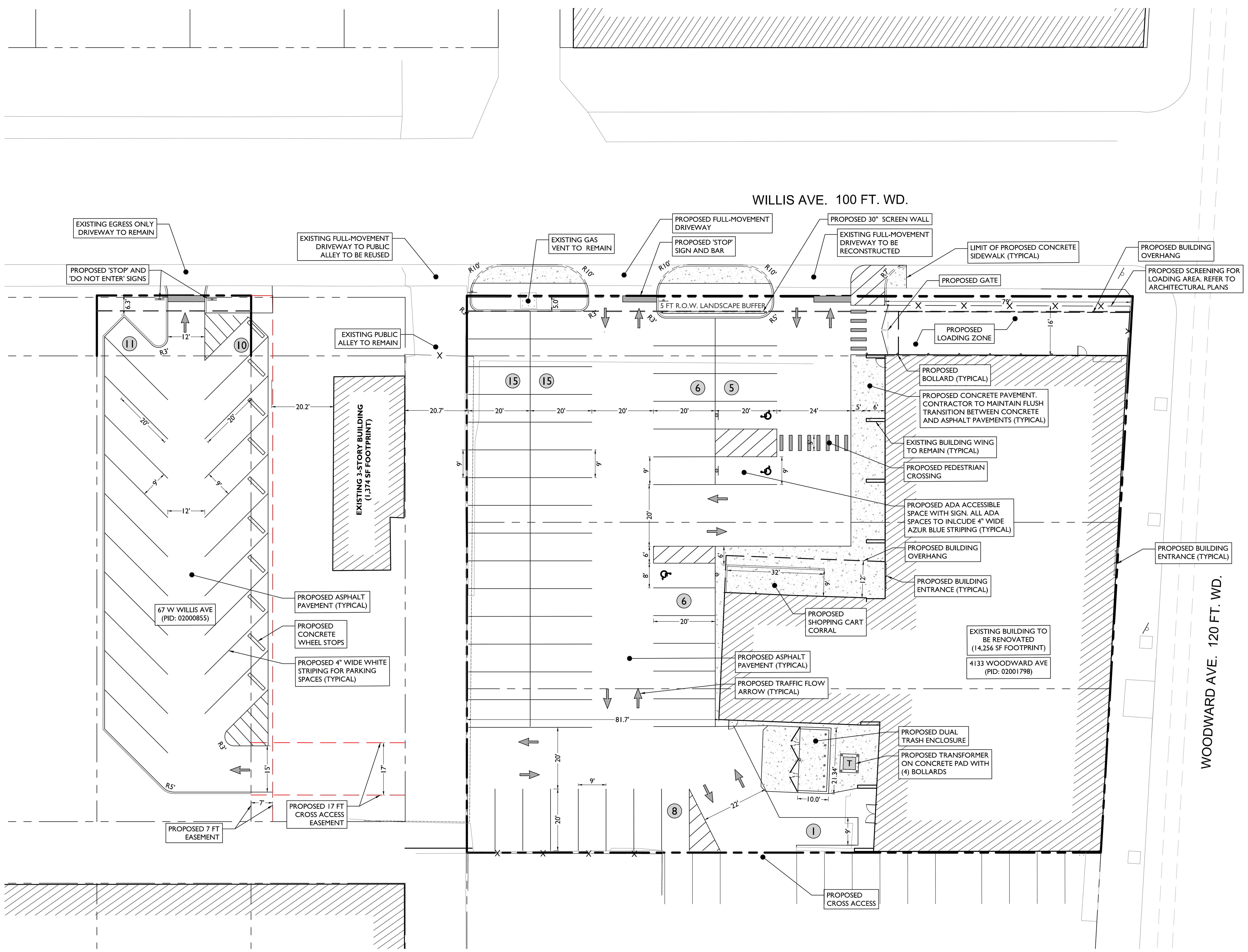
(3) PARKING LENGTH MAY BE REDUCED BY 2 FEET WHEN ABUTTING LANDSCAPING, PROVIDED A 6" CURB/WHEEL STOP

PARKING NARRATIVE:

THE SUBJECT SITE'S EXISTING PARKING LOT EXISTS IN A STATE OF DISREPAIR, WITH AREAS OF BROKEN ASPHALT, FREQUENT POTHOLES AND CONTINUOUS GROUND FOLIAGE PENETRATING THROUGH THE FADING PAVEMENT. THE LOT IS PROPOSED TO BE RESURFACED AND RESTRIPED TO ALLOCATE PARKING AND DISTINGUISH LANES OF TRAFFIC.

THE PROPOSED SITE INCLUDES A TOTAL OF 77 PARKING SPACES WHERE 42 SPACES ARE REQUIRED BY THE CITY OF DETROIT'S ZONING CODE. HOWEVER, PER THE LATEST STUDIES COMPLETED BY THE INSTITUTE OF TRANSPORTATION ENGINEERS (ITE), SUPERMARKETS IN URBAN/SUBURBAN SETTINGS REQUIRE APPROXIMATELY 3.7 TO 5.1 PARKING SPACES PER 1,000 SF GFA. THIS WOULD EQUATE TO 53 TO 73 REQUIRED SPACES ON THE SUBJECT SITE. THE PROPOSED TENANT WOULD IDEALLY PREFER UPWARDS OF 125 PARKING SPACES. BUT DUE TO THE NATURE OF THE URBAN PROPERTY, THE 77 PROPOSED SPACES WOULD BE ADEQUATE, AND MEET THE INTENT AND INTENSITY OF THE PROPOSED USE.

REFERENCE: INSTITUTE OF TRANSPORTATION ENGINEERS, PARKING GENERATION MANUAL, 5TH EDITION (JANUARY 2019)



SYMBOL	DESCRIPTION
	PROPERTY LINE
	SETBACK LINE
	PROPOSED CURB
	PROPOSED FLUSH CURB
	PROPOSED WALL
	PROPOSED SIGNS / BOLLARDS
	PROPOSED BUILDING
	PROPOSED CONCRETE
	PROPOSED CHAINLINK FENCE
	PROPOSED BUILDING DOORS

GENERAL NOTES

1. THE CONTRACTOR SHALL VERIFY AND FAMILIARIZE THEMSELVES WITH THE EXISTING SITE CONDITIONS AND THE PROPOSED SCOPE OF WORK (INCLUDING DIMENSIONS, LAYOUT, ETC.) PRIOR TO INITIATING THE IMPROVEMENTS IDENTIFIED WITHIN THESE DOCUMENTS. SHOULD ANY DISCREPANCY BE FOUND BETWEEN THE EXISTING SITE CONDITIONS AND THE PROPOSED WORK THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC. PRIOR TO THE START OF CONSTRUCTION.
2. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND ENSURE THAT ALL REQUIRED APPROVALS HAVE BEEN OBTAINED PRIOR TO THE START OF CONSTRUCTION. COPIES OF ALL REQUIRED PERMITS AND APPROVALS SHALL BE KEPT ON SITE AT ALL TIMES DURING CONSTRUCTION.
3. ALL CONTRACTORS WILL, TO THE FULLEST EXTENT PERMITTED BY LAW, INDEMNIFY AND HOLD HARMLESS STONEFIELD ENGINEERING & DESIGN, LLC. AND IT'S SUB-CONSULTANTS FROM AND AGAINST ANY DAMAGES AND LIABILITIES INCLUDING ATTORNEY'S FEES ARISING OUT OF CLAIMS BY EMPLOYEES OF THE CONTRACTOR IN ADDITION TO CLAIMS CONNECTED TO THE PROJECT AS A RESULT OF NOT CARRYING THE PROPER INSURANCE FOR WORKERS COMPENSATION, LIABILITY INSURANCE, AND LIMITS OF COMMERCIAL GENERAL LIABILITY INSURANCE.
4. THE CONTRACTOR SHALL NOT DEVIATE FROM THE PROPOSED IMPROVEMENTS IDENTIFIED WITHIN THIS PLAN SET UNLESS APPROVAL IS PROVIDED IN WRITING BY STONEFIELD ENGINEERING & DESIGN, LLC.
5. THE CONTRACTOR IS RESPONSIBLE TO DETERMINE THE MEANS AND METHODS OF CONSTRUCTION.
6. THE CONTRACTOR SHALL NOT PERFORM ANY WORK OR CAUSE DISTURBANCE ON A PRIVATE PROPERTY NOT CONTROLLED BY THE PERSON OR ENTITY WHO HAS AUTHORIZED THE WORK WITHOUT PRIOR WRITTEN CONSENT FROM THE OWNER OF THE PRIVATE PROPERTY.
7. THE CONTRACTOR IS RESPONSIBLE TO RESTORE ANY DAMAGED OR UNDERMINED STRUCTURE OR SITE FEATURE THAT IS IDENTIFIED TO REMAIN ON THE PLAN SET. ALL REPAIRS SHALL USE NEW MATERIALS TO RESTORE THE FEATURE TO ITS EXISTING CONDITION AT THE CONTRACTORS EXPENSE.
8. CONTRACTOR IS RESPONSIBLE TO PROVIDE THE APPROPRIATE SHOP DRAWINGS, PRODUCT DATA, AND OTHER REQUIRED SUBMITTALS FOR REVIEW. STONEFIELD ENGINEERING & DESIGN, LLC. WILL REVIEW THE SUBMITTALS IN ACCORDANCE WITH THE DESIGN INTENT AS REFLECTED WITHIN THE PLAN SET.
9. THE CONTRACTOR IS RESPONSIBLE FOR TRAFFIC CONTROL IN ACCORDANCE WITH MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
10. THE CONTRACTOR IS REQUIRED TO PERFORM ALL WORK IN THE PUBLIC RIGHT-OF-WAY IN ACCORDANCE WITH THE APPROPRIATE GOVERNING AUTHORITY AND SHALL BE RESPONSIBLE FOR THE PROCUREMENT OF STREET OPENING PERMITS.
11. THE CONTRACTOR IS REQUIRED TO RETAIN AN OSHA CERTIFIED SAFETY INSPECTOR TO BE PRESENT ON SITE AT ALL TIMES DURING CONSTRUCTION & DEMOLITION ACTIVITIES.
12. SHOULD AN EMPLOYEE OF STONEFIELD ENGINEERING & DESIGN, LLC. BE PRESENT ON SITE AT ANY TIME DURING CONSTRUCTION, IT DOES NOT RELIEVE THE CONTRACTOR OF ANY OF THE RESPONSIBILITIES AND REQUIREMENTS LISTED IN THE NOTES WITHIN THIS PLAN SET.

40' 0' 40' 80'

GRAPHIC SCALE IN FEET
1" = 40'

ISSUE	DATE	BY	DESCRIPTION
2	01/22/2021	KH/PD	SUBMISSION FOR HDC APPROVAL
1	01/20/2021	KH/PD	FOR CLIENT/TENANT REVIEW

NOT APPROVED FOR CONSTRUCTION

STONEFIELD engineering & design
Detroit, MI · Rutherford, NJ · New York, NY
Princeton, NJ · Tampa, FL · Boston, MA
www.stonefieldeng.com
607 Shelby Suite 200, Detroit, MI 48226
Phone 248.247.1115

SITE IMPROVEMENT PLANS

4133 WOODWARD AVENUE

PROPOSED MARKET AND ASSOCIATED SITE IMPROVEMENTS

PID: 02001798 & 02000855
4133 WOODWARD AVENUE, 67 W WILLIS AVENUE
CITY OF DETROIT
WAYNE COUNTY, MICHIGAN

MKIEZI INVESTMENTS

STATE OF MICHIGAN JONATHAN REID COOKSEY ENGINEER No. LICENSED PROFESSIONAL ENGINEER
J. REID COOKSEY, P.E.
MICHIGAN LICENSE No.6201069428
LICENSED PROFESSIONAL ENGINEER

STONEFIELD engineering & design

SCALE: 1" = 40' PROJECT ID: DET-200073

TITLE: **SITE PLAN**

DRAWING: **C-2**

LANDSCAPING AND BUFFER REQUIREMENTS

4133 WOODWARD AVENUE; PID: 02001798

CODE SECTION	REQUIRED	PROPOSED
§ 50-14-341	RIGHT-OF-WAY SCREENING:	
	MINIMUM 5 FT WIDE R.O.W. LANDSCAPE BUFFER	5.0 FT
	30"-36" BERM, HEDGE, OR MASONRY WALL SHALL BE PROVIDED WITHIN LANDSCAPE BUFFER	PROVIDED
§ 50-14-341	REQUIRED LANDSCAPE BUFFER TREES:	(EN)
	1 TREE PER 30 LF OF LANDSCAPE BUFFER	
	(136 LF)/(30 LF) = 5 TREES	
§ 50-14-343(1)	INTERIOR LANDSCAPING:	(EN)
	18 SF INTERIOR LANDSCAPING PER PARKING SPACE	
	(56 PARKING SPACES)(18 SF) = 1,008 SF	
	LANDSCAPE ISLANDS MUST BE 150 SF & 7 FEET WIDE	
§ 50-14-343(4)	REQUIRED PARKING LOT TREES:	(EN)
	1 TREE PER 250 SF OF REQUIRED INTERIOR LANDSCAPING	
	(1,008 SF)/(250 SF) = 4 TREES	
§ 50-14-347	SIGHT TRIANGLES:	PROVIDED
	20' SIGHT TRAINGLE AT R.O.W. ACCESS POINTS	

(EN) EXISTING NON-CONFORMITY

LANDSCAPING AND BUFFER REQUIREMENTS

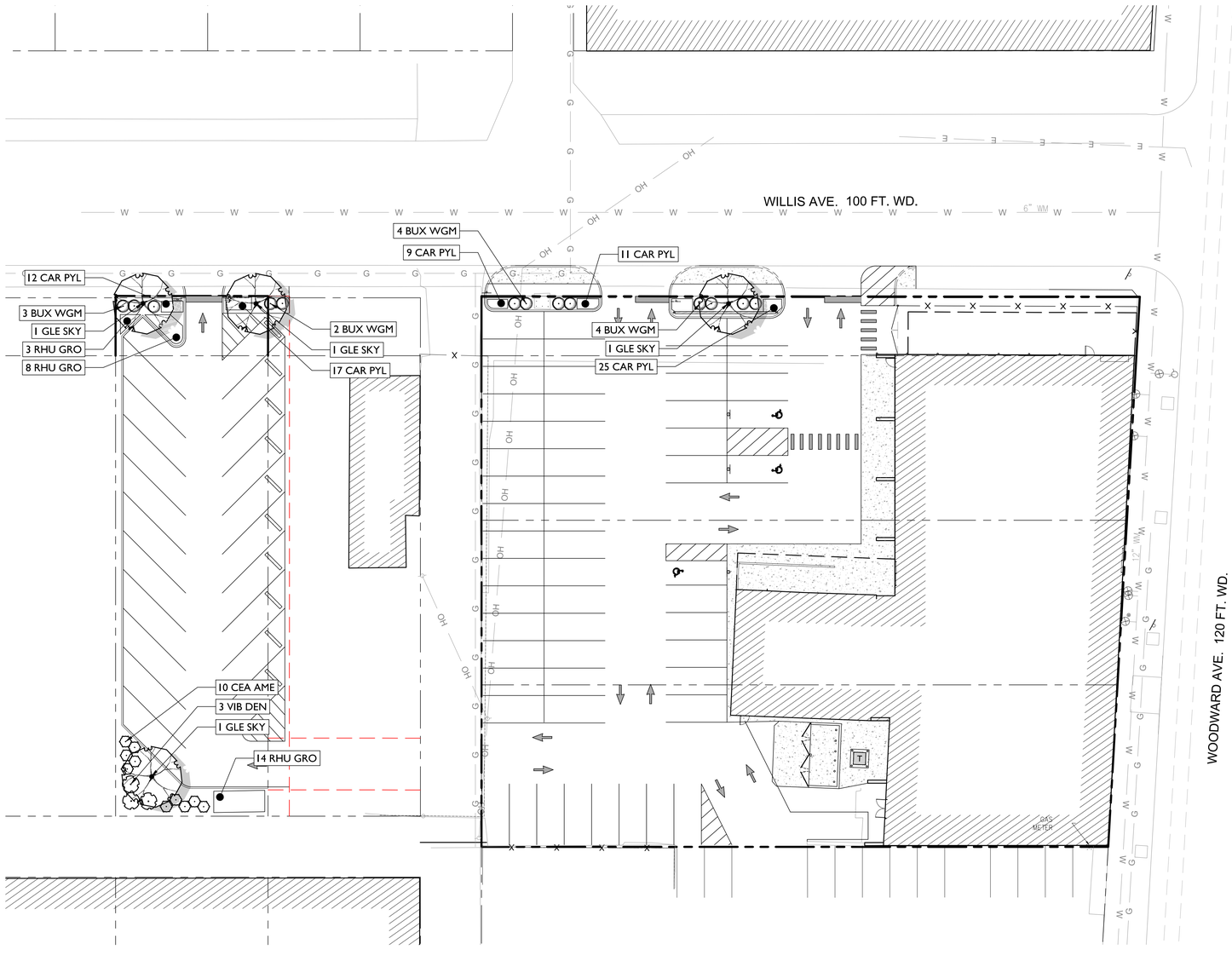
67 W WILLIS AVENUE; PID: 02000855

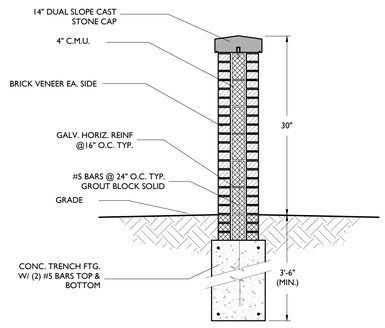
CODE SECTION	REQUIRED	PROPOSED
§ 50-14-341	RIGHT-OF-WAY SCREENING:	
	MINIMUM 5 FT WIDE R.O.W. LANDSCAPE BUFFER	6.3 FT
	30"-36" BERM, HEDGE, OR MASONRY WALL SHALL BE PROVIDED WITHIN LANDSCAPE BUFFER	PROVIDED
§ 50-14-341	REQUIRED LANDSCAPE BUFFER TREES:	2 TREES
	1 TREE PER 30 LF OF LANDSCAPE BUFFER	
	(50 LF)/(30 LF) = 2 TREES	
§ 50-14-343(1)	INTERIOR LANDSCAPING:	1,595 SF
	REQUIREMENT TRIGGERED AT 25 PARKING SPACES	
	(21 PARKING SPACES) = 0 SF	
§ 50-14-343(4)	REQUIRED PARKING LOT TREES:	0 TREES
	1 TREE PER 250 SF OF REQUIRED INTERIOR LANDSCAPING	
	(0 SF)/(250 SF) = 0 TREES	
§ 50-14-347	SIGHT TRIANGLES:	PROVIDED
	20' SIGHT TRAINGLE AT R.O.W. ACCESS POINTS	

PLANT SCHEDULE

DECIDUOUS TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	SPACING
	GLE SKY	4	GLEDITSIA TRIACANTHOS `SKYLINE`	SKYLINE HONEY LOCUST	2.5" - 3" CAL	B&B	AS SHOWN
SHRUBS	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	SPACING
	CEA AME	10	CEANOTHUS AMERICANUS	NEW JERSEY TEA	24" - 30"	POT	AS SHOWN
	VIB DEN	3	VIBURNUM DENTATUM	VIBURNUM	24" - 30"	POT	AS SHOWN
EVERGREEN SHRUBS	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	SPACING
	BUX WGM	13	BUXUS MICROPHYLLA JAPONICA `WINTER GEM`	WINTER GEM JAPANESE BOXWOOD	18" - 24"	POT	AS SHOWN
SHRUB AREAS	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER	SPACING
	CAR PYL	74	CAREX PENSYLVANICA	PENNSYLVANIA SEDGE	1 GAL.	POT	18" o.c.
	RHU GRO	25	RHUS AROMATICA `GRO-LOW`	GRO-LOW FRAGRANT SUMAC	3 GAL.	POT	36" o.c.

NOTE: IF ANY DISCREPANCIES OCCUR BETWEEN AMOUNTS SHOWN ON THE LANDSCAPE PLAN AND WITHIN THE PLANT LIST, THE PLAN SHALL DICTATE.





ARCHITECTURAL KNEE WALL DETAIL

NOT TO SCALE

IRRIGATION NOTE:

IRRIGATION CONTRACTOR TO PROVIDE A DESIGN FOR AN IRRIGATION SYSTEM SEPARATING PLANTING BEDS FROM LAWN AREA, PRIOR TO CONSTRUCTION. DESIGN IS TO BE SUBMITTED TO THE PROJECT LANDSCAPE DESIGNER FOR REVIEW AND APPROVAL. WHERE POSSIBLE, DRIP IRRIGATION AND OTHER WATER CONSERVATION TECHNIQUES SUCH AS RAIN SENSORS SHALL BE IMPLEMENTED. CONTRACTOR TO VERIFY MAXIMUM ON SITE DYNAMIC WATER PRESSURE AVAILABLE MEASURED IN PSI. PRESSURE REDUCING DEVICES OR BOOSTER PUMPS SHALL BE PROVIDED TO MEET SYSTEM PRESSURE REQUIREMENTS. DESIGN TO SHOW ALL VALVES, PIPING, HEADS, BACKFLOW PREVENTION, METERS, CONTROLLERS, AND SLEEVES WITHIN HARDSCAPE AREAS.

LANDSCAPING NOTES

1. THE CONTRACTOR SHALL RESTORE ALL DISTURBED GRASS AND LANDSCAPED AREAS TO MATCH EXISTING CONDITIONS UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET.
2. THE CONTRACTOR SHALL RESTORE ALL DISTURBED LAWN AREAS WITH A MINIMUM 4 INCH LAYER OF TOPSOIL AND SEED.
3. THE CONTRACTOR SHALL RESTORE MULCH AREAS WITH A MINIMUM 3 INCH LAYER OF MULCH .
4. THE MAXIMUM SLOPE ALLOWABLE IN LANDSCAPE RESTORATION AREAS SHALL BE 3 FEET HORIZONTAL TO 1 FOOT VERTICAL (3:1 SLOPE) UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET.
5. THE CONTRACTOR IS REQUIRED TO LOCATE ALL SPRINKLER HEADS IN AREA OF LANDSCAPING DISTURBANCE PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL RELOCATE SPRINKLER HEADS AND LINES IN ACCORDANCE WITH OWNER'S DIRECTION WITHIN AREAS OF DISTURBANCE.
6. THE CONTRACTOR SHALL ENSURE THAT ALL DISTURBED LANDSCAPED AREAS ARE GRADED TO MEET FLUSH AT THE ELEVATION OF WALKWAYS AND TOP OF CURB ELEVATIONS EXCEPT UNLESS INDICATED OTHERWISE WITHIN THE PLAN SET. NO ABRUPT CHANGES IN GRADE ARE PERMITTED IN DISTURBED LANDSCAPING AREAS.

30' 0' 30' 60'

GRAPHIC SCALE IN FEET

1" = 30'

ISSUE	DATE	BY	DESCRIPTION
2	01/22/2021	KH/PD	SUBMISSION FOR HDC APPROVAL
1	01/20/2021	KH/PD	FOR CLIENT/TENANT REVIEW

NOT APPROVED FOR CONSTRUCTION

STONEFIELD engineering & design

Detroit, MI · Rutherford, NJ · New York, NY
Princeton, NJ · Tampa, FL · Boston, MA
www.stonefieldeng.com

607 Shelby Suite 200, Detroit, MI 48226
Phone 248.247.1115

SITE IMPROVEMENT PLANS

4133 WOODWARD AVENUE

PROPOSED MARKET AND ASSOCIATED SITE IMPROVEMENTS

PID: 02001798 & 02000855
4133 WOODWARD AVENUE, 67 W WILLIS AVENUE
CITY OF DETROIT
WAYNE COUNTY, MICHIGAN

MKEZI INVESTMENTS

STATE OF MICHIGAN
JONATHAN REID COOKSEY
ENGINEER
No. 6201069428
PROFESSIONAL ENGINEER

J. REID COOKSEY, P.E.
MICHIGAN LICENSE No. 6201069428
LICENSED PROFESSIONAL ENGINEER

STONEFIELD engineering & design

SCALE: 1" = 30' | PROJECT ID: DET-200073

TITLE:

LANDSCAPING PLAN

DRAWING:

C-3

V:\DET\2020\DET-200073-MKEZI INVESTMENTS-4133 WOODWARD AVENUE, DETROIT, MI\CAD\PLOT\PLOT-LANDSCAPING

4133 WOODWARD

PART OF PLAT OF SUB'N OF PARK LOTS 61 & 62

CITY OF DETROIT, WAYNE COUNTY, MICHIGAN

60 30 0 60 120 180

SCALE IN FEET 60

DESCRIPTION AS SHOWN ON TITLE COMMITMENT:

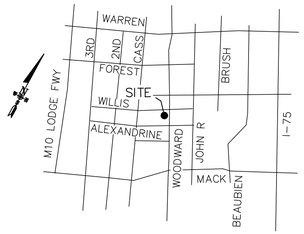
LOTS 7, 8 and 9, PLAT OF SUBDIVISION OF PARK LOTS 61 AND 62 AS RECORDED IN LIBER 1, PAGE 128 OF PLATS, WAYNE COUNTY RECORDS

DESCRIPTION AS SURVEYED:

LOTS 7, 8 and 9, PLAT OF SUBDIVISION OF PARK LOTS 61 AND 62 AS RECORDED IN LIBER 1, PAGE 128 OF PLATS, WAYNE COUNTY RECORDS
DESCRIBED AS:
BEGINNING AT THE SOUTHWEST CORNER OF WOODWARD AVENUE (120 FEET WIDE) AND WILLIS AVENUE (100 FEET WIDE) AND PROCEEDING ALONG THE WEST LINE OF WOODWARD AVENUE S25°21'58"E 161.43 FEET TO THE SOUTH LINE OF LOT 7 OF SAID PLAT; THENCE ALONG SAID LINE S61°21'00"W 205.59 FEET TO THE WEST LINE OF SAID LOT, ALSO THE EAST LINE OF A PUBLIC ALLEY (20 FEET WIDE); THENCE ALONG SAID LINE N28°39'00"W 161.17 FEET TO THE NORTH LINE OF LOT 9, ALSO THE SOUTH LINE OF WILLIS AVENUE (100 FEET WIDE); THENCE ALONG SAID LINE N61°21'00"E 214.84 FEET TO THE POINT OF BEGINNING.

EXCEPTIONS:

1. RIGHTS OR CLAIMS OF PARTIES IN POSSESSION NOT SHOWN BY THE PUBLIC RECORDS.
2. ANY FACTS, RIGHTS, INTERESTS OR CLAIMS NOT SHOWN BY THE PUBLIC RECORDS BUT THAT COULD BE ASCERTAINED BY AN INSPECTION OF THE LAND OR BY MAKING INQUIRY OF PERSONS IN POSSESSION THEREOF OF THE LAND.
3. EASEMENTS, CLAIM OF EASEMENTS OR ENCUMBRANCES THAT ARE NOT SHOWN IN THE PUBLIC RECORDS AND EXISTING WATER, MINERAL, OIL AND EXPLORATION RIGHTS.
4. ANY ENCROACHMENT, ENCUMBRANCE, VIOLATION, VARIATION, OR ADVERSE CIRCUMSTANCE AFFECTING THE TITLE INCLUDING DISCREPANCIES, CONFLICTS IN BOUNDARY LINES, SHORTAGE IN AREA, OR ANY OTHER FACTS THAT WOULD BE DISCLOSED BY AN ACCURATE AND COMPLETE LAND SURVEY OF THE LAND, AND THAT ARE NOT SHOWN IN THE PUBLIC RECORDS.
5. ANY LIEN OR RIGHT TO LIEN FOR SERVICES, LABOR OR MATERIAL THERETOFORE OR HEREAFTER FURNISHED, IMPOSED BY LAW AND NOT SHOWN BY THE PUBLIC RECORDS.
6. THE LIEN, IF ANY, OF REAL ESTATE TAXES, ASSESSMENTS, AND/OR WATER AND SEWER CHARGES, NOT YET DUE AND PAYABLE OR THAT ARE NOT SHOWN AS EXISTING LIENS IN THE RECORDS OF ANY TAXING AUTHORITY THAT LEVIES TAXES OR ASSESSMENTS ON REAL PROPERTY OR IN THE PUBLIC RECORDS; INCLUDING THE LIEN FOR TAXES, ASSESSMENTS, AND/OR WATER AND SEWER CHARGES, WHICH MAY BE ADDED TO THE TAX ROLLS OR TAX BILL AFTER THE EFFECTIVE DATE. THE COMPANY ASSUMES NO LIABILITY FOR THE TAX INCREASES OCCASIONED BY THE RETROACTIVE REVALUATION OR CHANGES IN THE LAND USAGE.
7. DEFECTS, LIENS, ENCUMBRANCES, ADVERSE CLAIMS OR OTHER MATTERS, IF ANY CREATED, FIRST APPEARING IN THE PUBLIC RECORDS OR ATTACHING SUBSEQUENT TO THE EFFECTIVE DATE HEREOF BUT PRIOR TO THE DATE THE PROPOSED INSURED ACQUIRES FOR VALUE OF RECORD THE ESTATE OR INTEREST OR MORTGAGE THEREON COVERED BY THIS COMMITMENT.
8. TERMS AND PROVISIONS CONTAINED IN LETTER RECORDED BY THE CITY OF DETROIT BUILDINGS AND SAFETY ENGINEERING DEPARTMENT RE: LEGALIZATION OF EXISTING CARRY-OUT RESTAURANT RECORDED IN LIBER 47548, PAGE 342, WAYNE COUNTY RECORDS.
9. RIGHTS OF TENANTS IN POSSESSION OR PURSUANT TO UNRECORDED LEASES.



VICINITY MAP
1" = 2000'

NOTES:

PARCEL IS IN FLOOD ZONE "X" DEFINED AS AN AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE OF FLOODING BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP. COMMUNITY PANEL NO. 26163C 0285E.

SUBJECT PROPERTY IS ZONED SD2, SPECIAL DEVELOPMENT, MIXED-USE AND IS DESIGNATED AS A LOCAL HISTORIC DISTRICT.

BENCHMARKS:

CITY OF DETROIT DATUM

RAILROAD SPIKE IN NORTHEAST FACE OF UTILITY POLE APPROXIMATELY 40 FEET NW OF SW CORNER OF SITE.
ELEV: 145.84

CITY BENCHMARK 30-353 NE QUADRANT OF ALEXANDRINE AND 2ND, DISK IN HANDHOLE.
ELEV: 140.59

BASIS OF BEARINGS:

BASIS OF BEARINGS IS THE SOUTH LINE OF WILLIS, AS OCCUPIED, AS SHOWN ON THE PLAT OF SUBDIVISION OF PARK LOTS 61 AND 62 AS RECORDED IN LIBER 1, PAGE 128 OF PLATS, WAYNE COUNTY RECORDS

CERTIFICATION:

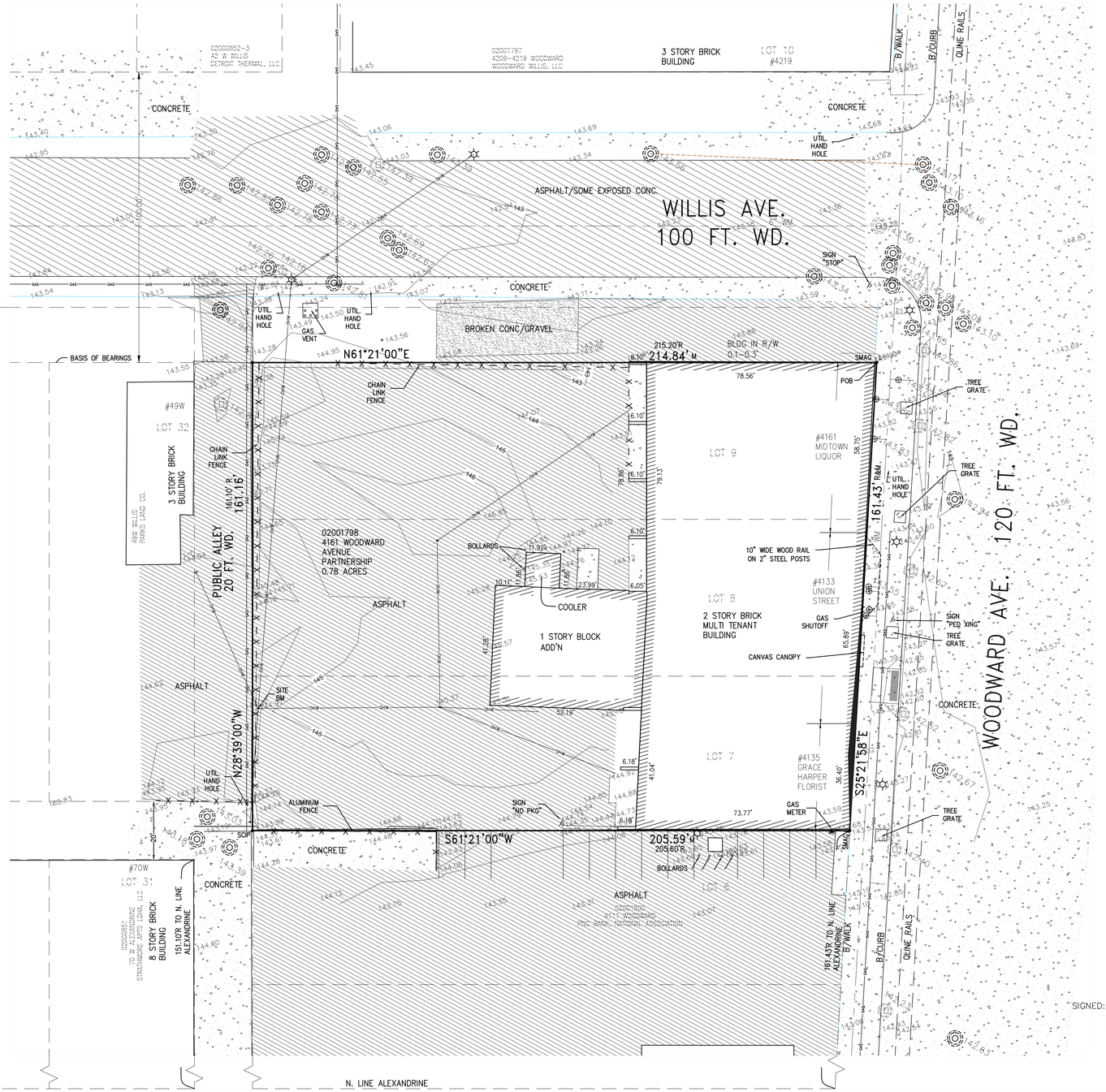
TO MKIEZI INVESTMENTS, LLC, 4161 WOODWARD AVENUE PARTNERSHIP, SEAVER TITLE AGENCY AND OLD REPUBLIC NATIONAL TITLE INSURANCE COMPANY:

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2016 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 1, 2, 3, 4, 5, 7a, 11 AND 13 OF TABLE A THEREOF. THE FIELDWORK WAS COMPLETED ON 06-22-2018.

PER TITLE COMMITMENT NO. 82-15438632-SCM OF OLD REPUBLIC NATIONAL TITLE COMPANY, SEAVER TITLE AGENCY, DATED AT BLOOMFIELD HILLS, MICHIGAN MARCH 30, 2018 AT 8:00 A.M.

LEGEND:

POINT OF BEGINNING	P.O.B.
EXISTING UTILITY POLE	◊
EXISTING SANITARY SEWER	
EXISTING WATER MAIN	
EXISTING STORM SEWER	
EXISTING OVERHEAD WIRES	O/H
EXISTING FENCE	- X - X - X -
PARCEL LINE	
OLD PLAT LINES	
PROPERTY BOUNDARY	
CONCRETE PAVEMENT	
ASPHALT PAVEMENT	
SET CAPPED IRON PIPE	SCIP ◆
SET MAGNETIC NAIL	SMAG ◆



SIGNED: _____
MICHAEL L. PRIEST, P.S.
LICENSE NO. 22733

STATE OF MICHIGAN
MICHAEL L. PRIEST
LAND SURVEYOR NO. 22733
Licensed Land Surveyor

PREPARED FOR:
MANNIK & SMITH GROUP, INC.
1160 DUBLIN ROAD, SUITE 100
COLUMBUS, OH 43215
ATTN: MR. STEVEN HERMILLER

DATE: 09-19-2018
PM: EMP
ENG.: EMP
SURV.: RJC
CAD: EMP
VDATUM:CITY OF DETROIT
SCALE: 1" = 20'

STATUS:
REVISIONS

JOB NO. 2018.22

ENGINEERS . SURVEYORS
MLP
AND ASSOCIATES, INC.
Michael L. Priest & Associates, Inc.
40655 Koppernick Road, Canton, MI 48187
phone: (734) 459-8560
fax: (734) 459-2585

ALTA/NSPS LAND TITLE SURVEY

4133 WOODWARD

PART OF PARK LOTS 61 & 62
CITY OF DETROIT, WAYNE COUNTY, MICHIGAN

SHEET 01

EXISTING CONDITION PHOTOS

EXTERIOR

EXISTING CONDITION PHOTOS

EXTERIOR - EAST ELEVATION FIRST LEVEL

EXISTING CONDITION PHOTOS

INTERIOR

UNIT 201: LIVING ROOM

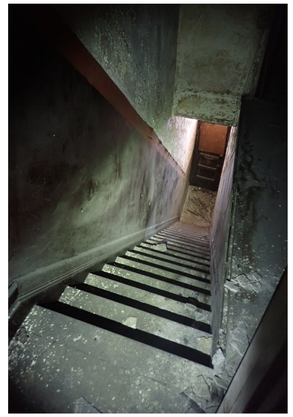
UNIT 208: EXTERIOR WINDOW

UNIT 201: BEDROOM

UNIT 201: BEDROOM

UNIT 203: LIVING ROOM

UNIT 202: LIVING ROOM



UNIT 202: STAIRWELL

UNIT 202: BEDROOM

UNIT 201: BEDROOM

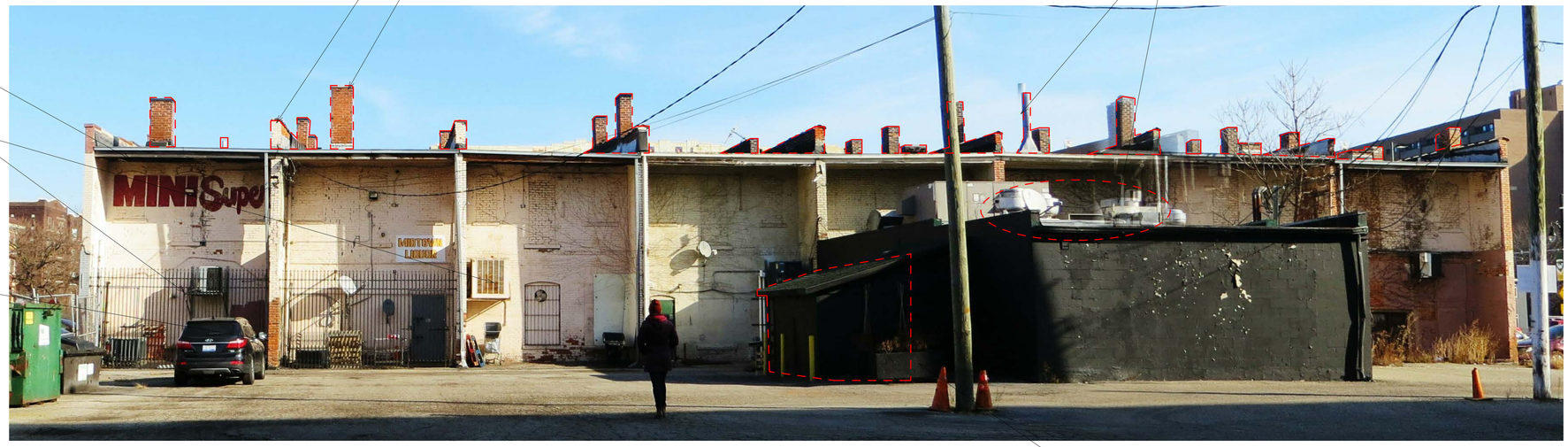
UNIT 202: LIVING ROOM

UNIT 202: BATHROOM

UNIT 202: KITCHEN

UNIT 202: DINING ROOM

EXISTING CONDITION PHOTOS

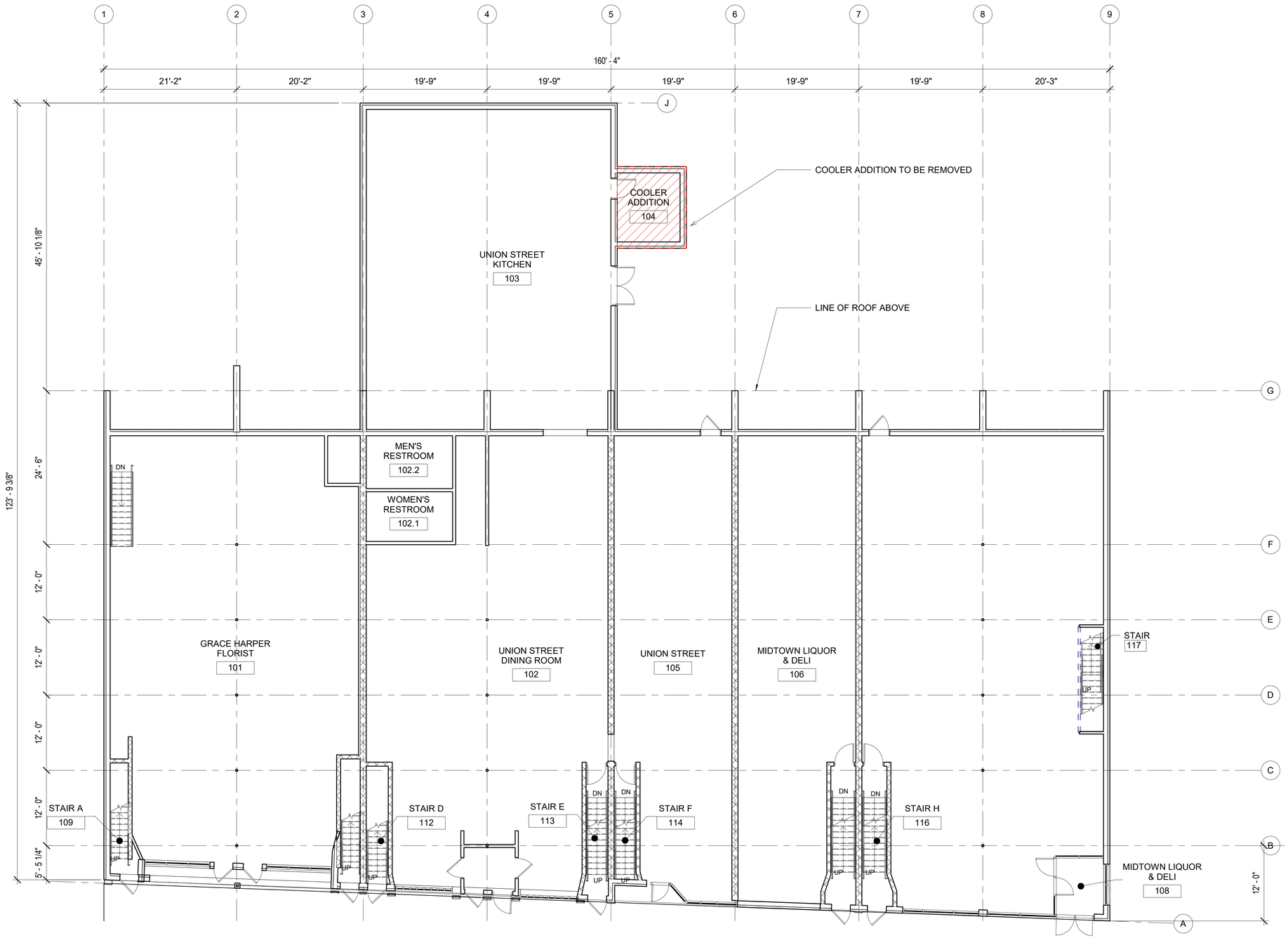


EXISTING WEST VIEW OF BUILDING

EXISTING SOUTHWEST VIEW OF BUILDING

FIRST FLOOR EXISTING FLOOR PLAN

1/8" = 1'



QUINN EVANS

4100 WOODWARD BLOCK

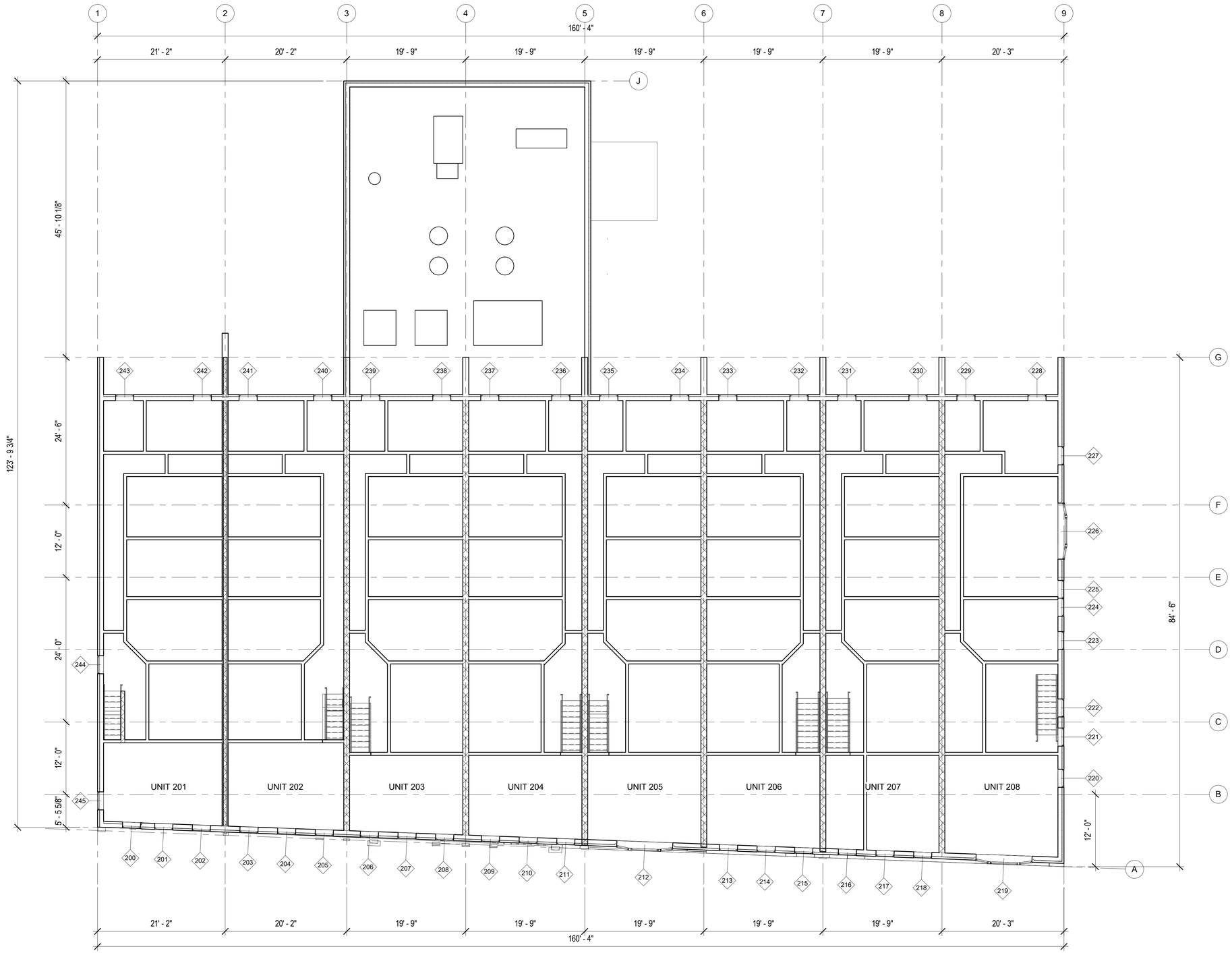
MKIEZI INVESTMENTS

NOT FOR CONSTRUCTION

HDC SUBMISSION 01/22/2021

SECOND FLOOR EXISTING FLOOR PLAN

1/8" = 1'



PLAN NORTH

QUINN EVANS

4100 WOODWARD BLOCK

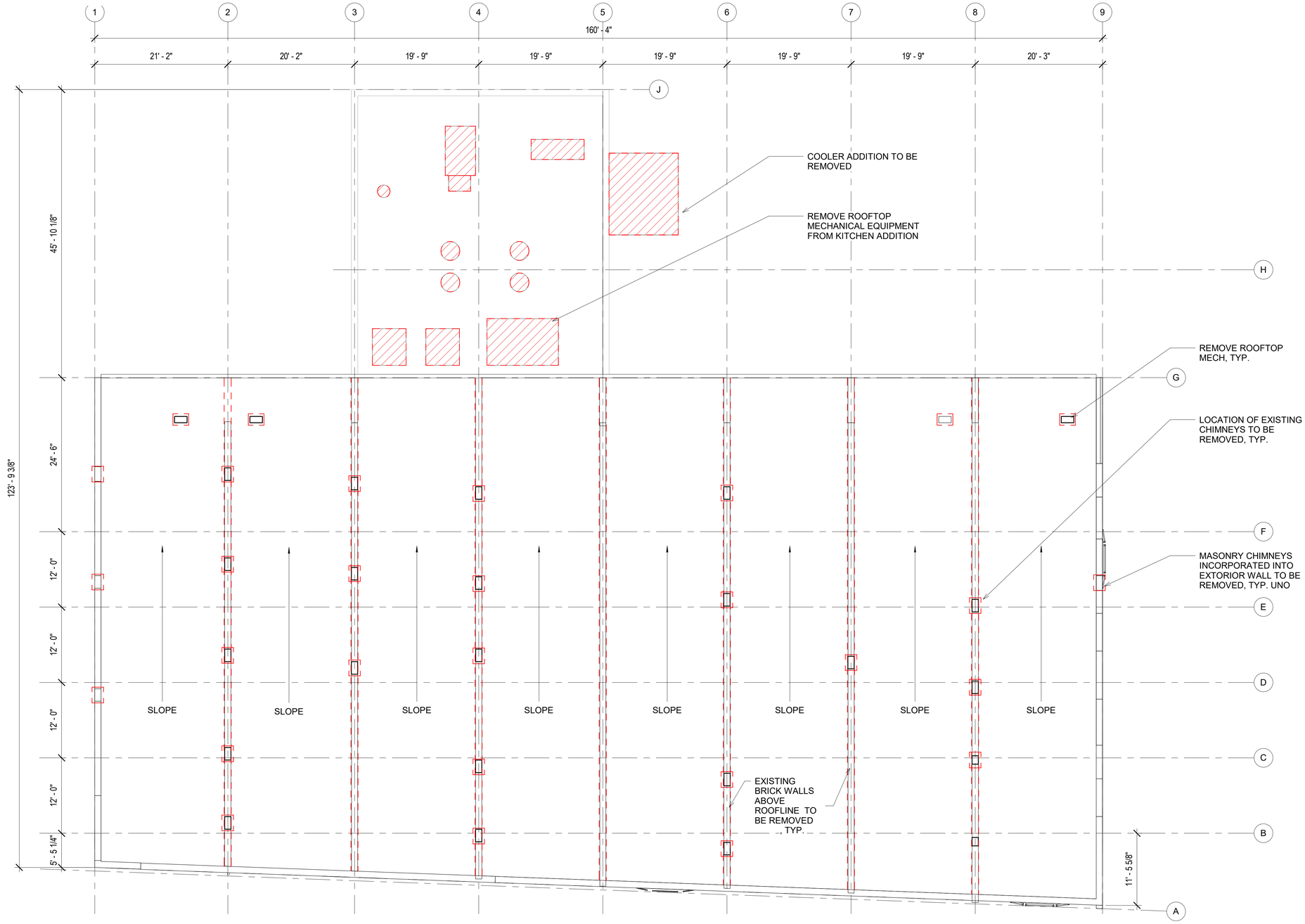
MKIEZI INVESTMENTS

NOT FOR CONSTRUCTION

HDC SUBMISSION 01/22/2021

EXISTING ROOF PLAN

1/8" = 1'



QUINN EVANS

4100 WOODWARD BLOCK

MKIEZI INVESTMENTS

NOT FOR CONSTRUCTION

HDC SUBMISSION 01/22/21

PROPOSED LEVEL 1 PLAN

1/8" = 1'

PLAN NORTH

QUINN EVANS

4100 WOODWARD BLOCK

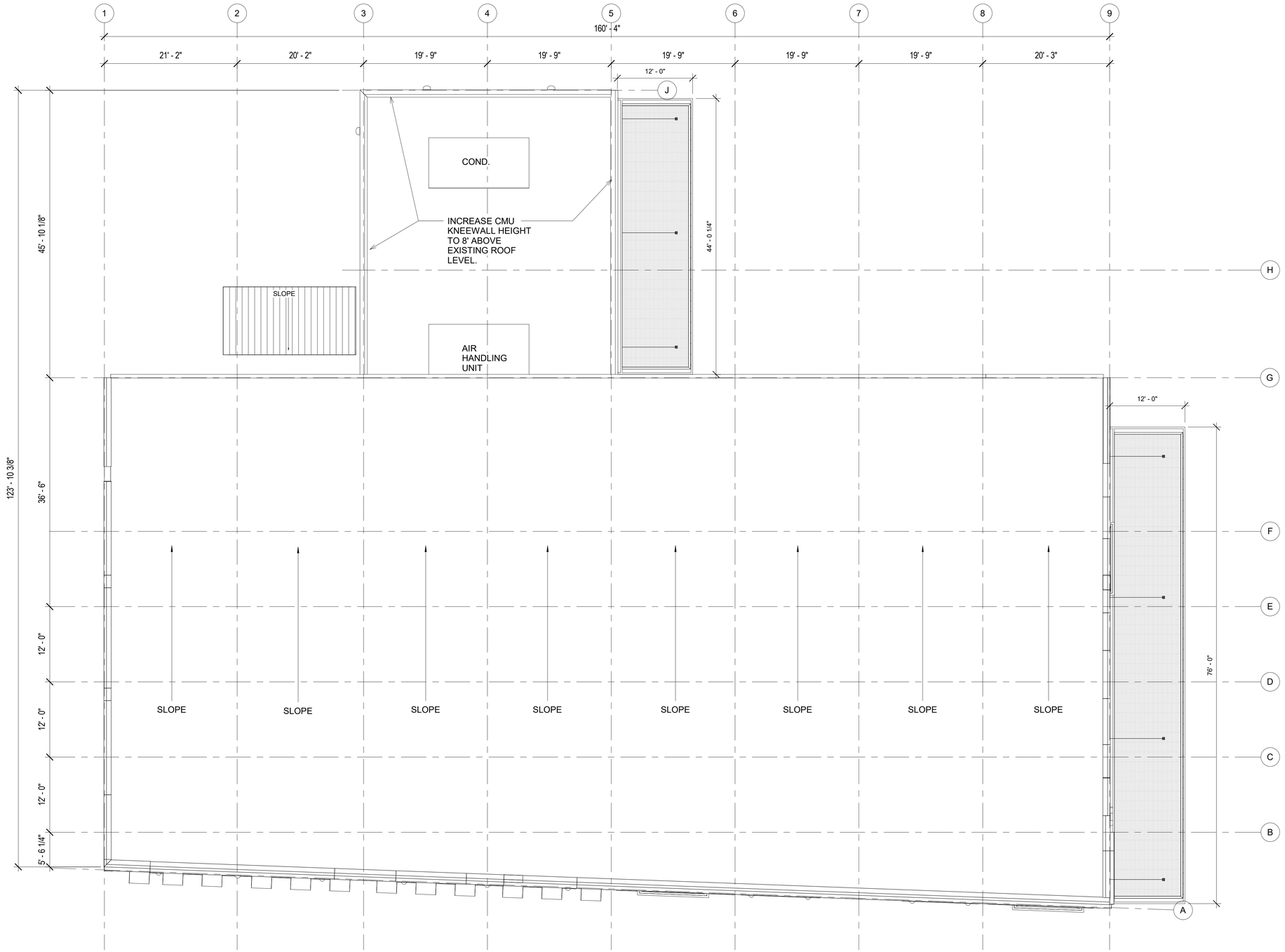
MKIEZI INVESTMENTS

NOT FOR CONSTRUCTION

HDC SUBMISSION 01/22/2021

PROPOSED ROOF PLAN

1/8" = 1'



ROOF SCOPE:

1. **ROOF:** REMOVE EXISTING ROOFING SYSTEM DOWN TO ROOF DECKING. INSPECT AND REPLACE DETERIORTED AND DAMAGED DECKING.

   PROVIDE ROOF MEMBRANE, PROTECTION BOARD, AND TAPERED INSULATION OVER 4" BASE LAYER OF RIGID BOARD INSULATION, TYPICAL FOR ALL ROOF SURFACES.

   ROOF DRAINAGE WILL BE A COMBINATION OF GUTTERS AND ROOF DRAINS.

PLAN NORTH

QUINN EVANS

4100 WOODWARD BLOCK

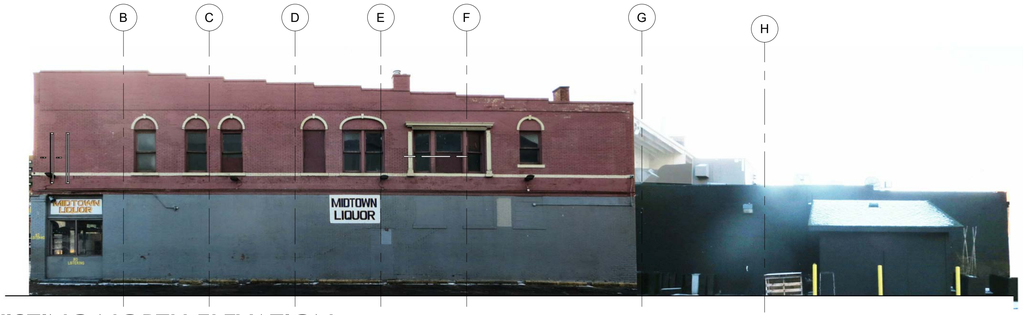
MKIEZI INVESTMENTS

NOT FOR CONSTRUCTION

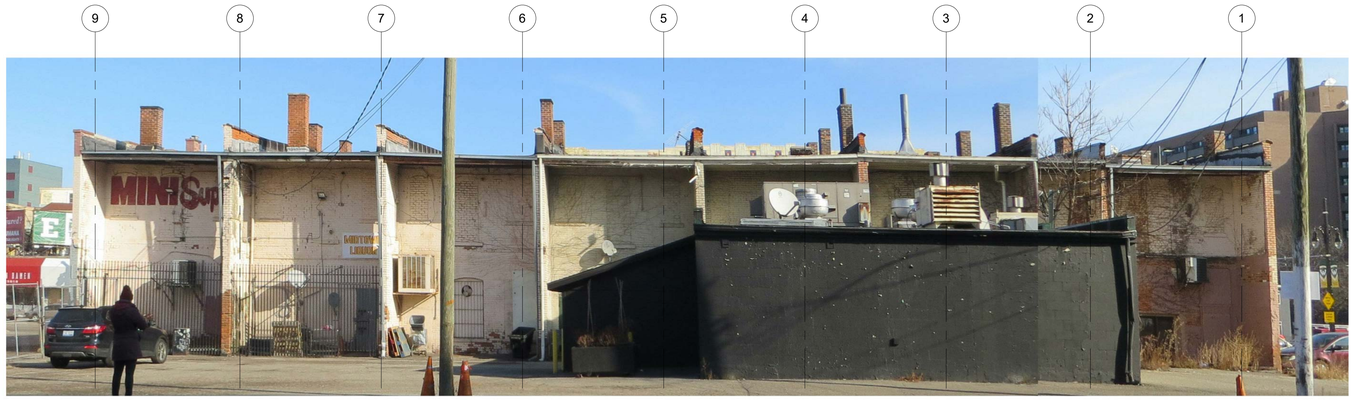
HDC SUBMISSION 01/22/2021

EXISTING ELEVATIONS

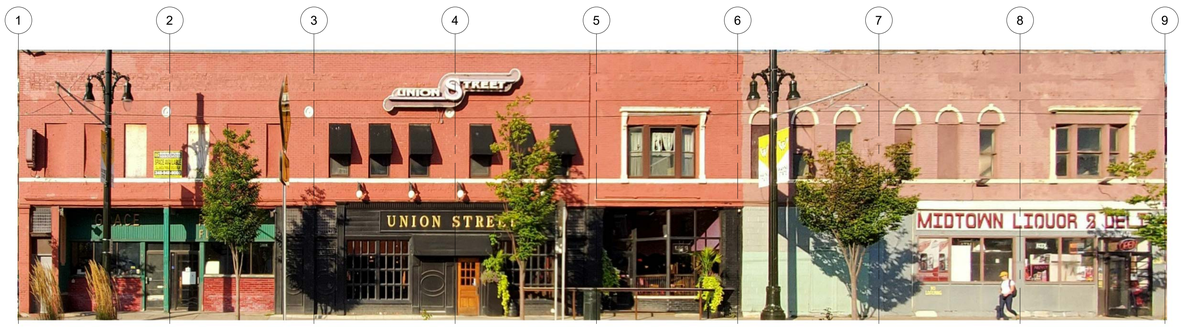
1" = 10'



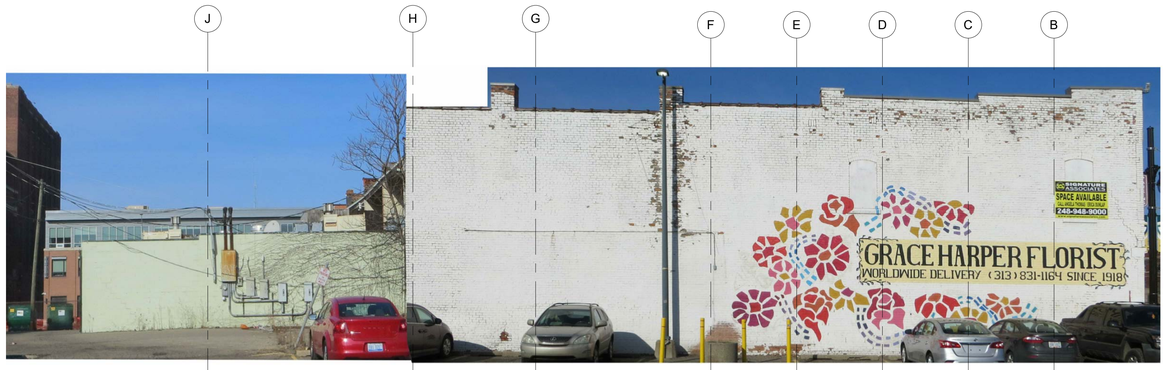
EXISTING NORTH ELEVATION



EXISTING WEST ELEVATION



EXISTING EAST ELEVATION



EXISTING SOUTH ELEVATION

QUINN EVANS

4100 WOODWARD BLOCK

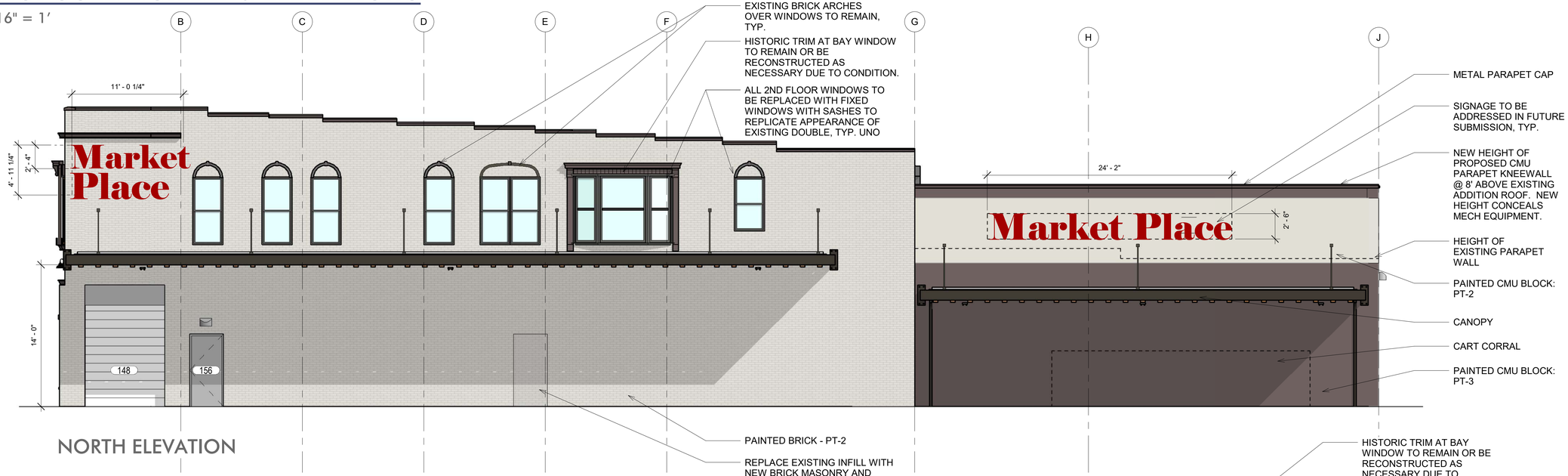
MKIEZI INVESTMENTS

NOT FOR CONSTRUCTION

HDC SUBMISSION 01/22/2021

PROPOSED BUILDING ELEVATIONS

3/16" = 1'



NORTH ELEVATION

EXTERIOR SCOPE:

1. **EXISTING MASONRY:** REPLACE DAMAGED BRICK. REPOINT WHERE JOINTS ARE FAILING. REMOVE ALL LOOSE PAINT FROM EXTERIOR MASONRY TO REMAIN, AND PROVIDE A GENERAL CLEANING OF THE ENTIRE EXTERIOR. PREPARE ALL MASONRY SURFACES TO RECEIVE A NEW BREATHABLE MASONRY COATING SYSTEM.
2. **WINDOWS:** REPLACE ALL EXISTING SECOND FLOOR WINDOWS WITH NEW ALUMINUM WINDOWS. OPERATION, CONFIGURATION AND SIGHLITNES TO MATCH EXISTING WINDOWS

EAST ELEVATION

QUINN EVANS

4100 WOODWARD BLOCK

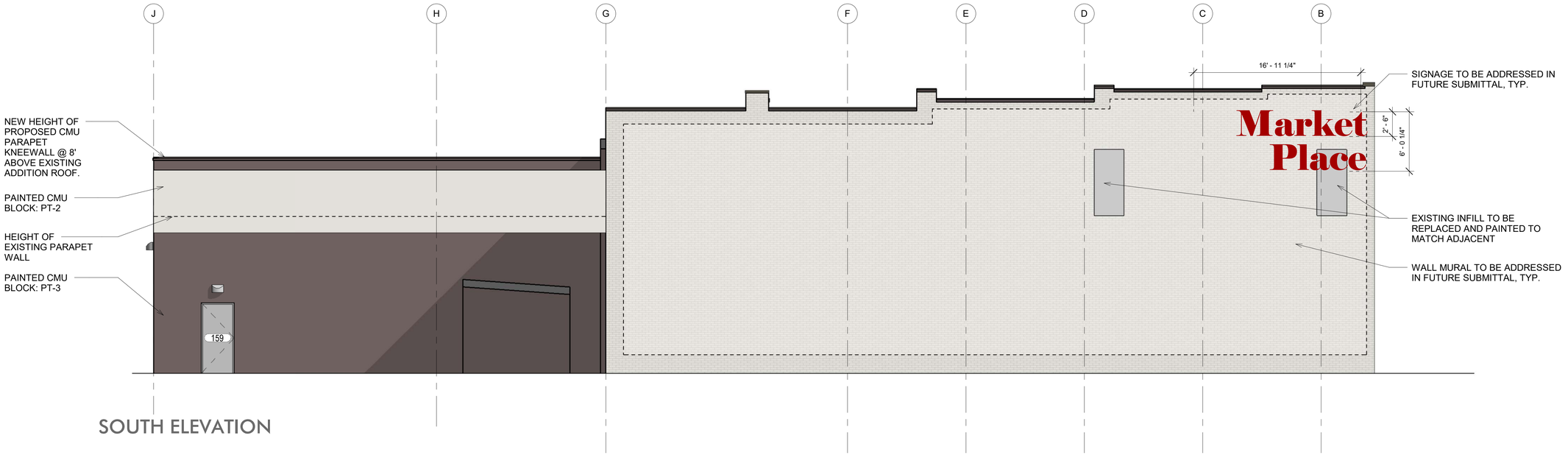
MKIEZI INVESTMENTS

NOT FOR CONSTRUCTION

HDC SUBMISSION 01/22/2021

PROPOSED BUILDING ELEVATIONS

3/16" = 1'



SOUTH ELEVATION

WEST ELEVATION

EXTERIOR SCOPE:

1. **EXISTING MASONRY:** REPLACE DAMAGED BRICK. REPOINT WHERE JOINTS ARE FAILING (ASSUME 20%). REMOVE ALL LOOSE PAINT FROM EXTERIOR MASONRY TO REMAIN, AND PROVIDE A GENERAL CLEANING OF THE ENTIRE EXTERIOR. PREPARE ALL MASONRY SURFACES TO RECEIVE A NEW BREATHABLE MASONRY COATING SYSTEM.
2. **WINDOWS:** REPLACE ALL EXISTING SECOND FLOOR WINDOWS WITH ALUMINUM WINDOWS. OPERATION, CONFIGURATION AND SIGHLITNES TO MATCH EXISTNG WINDOWS

QUINN EVANS

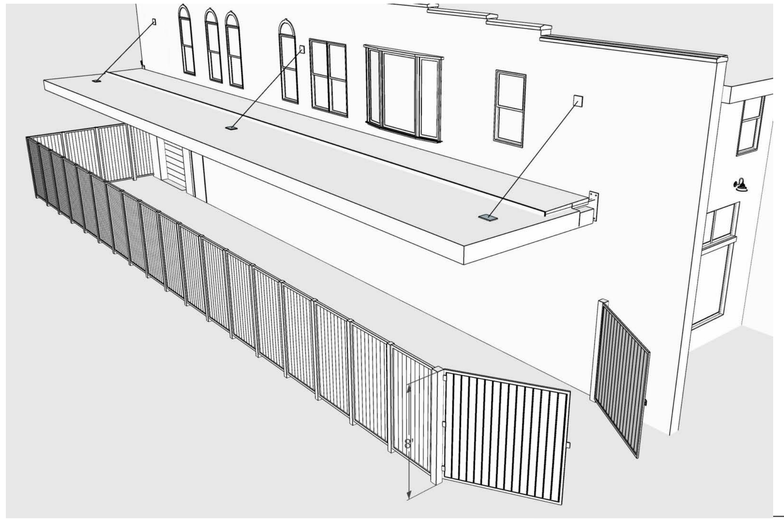
4100 WOODWARD BLOCK

MKIEZI INVESTMENTS

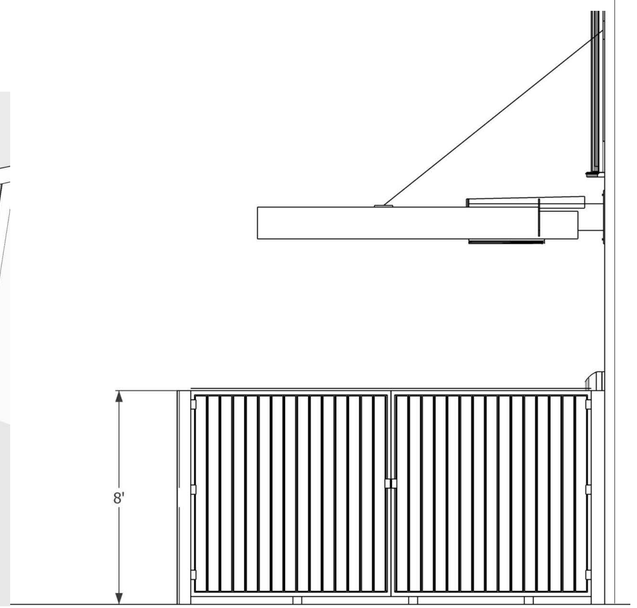
NOT FOR CONSTRUCTION

HDC SUBMISSION 01/22/2021

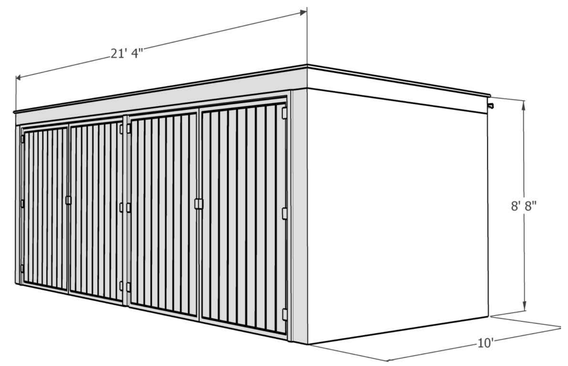
SITE ELEMENTS



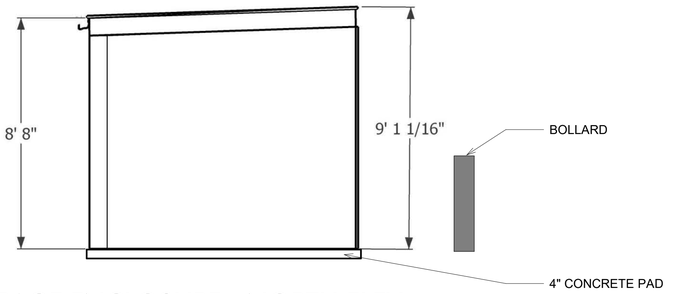
SITE SCREEN - AERIAL VIEW



SITE SCREEN GATE -WEST VIEW
3/8" = 1'

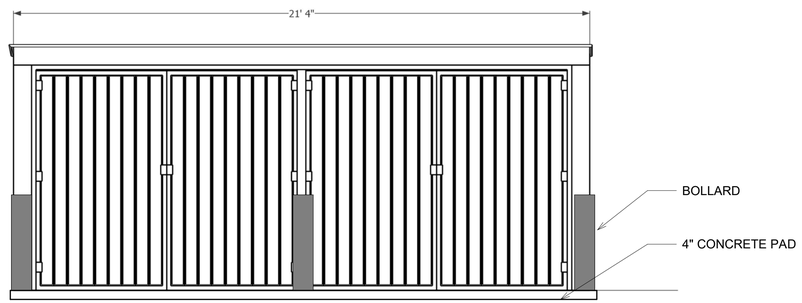


GARBAGE ENCLOSURE - AERIAL VIEW
3/8" = 1'



GARBAGE ENCLOSURE - NORTH ELEV.
3/8" = 1'

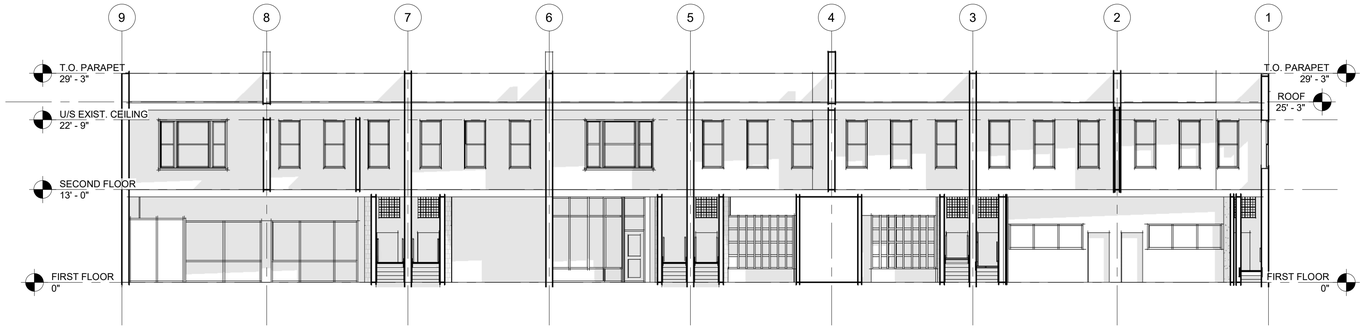
SITE SCREEN - NORTH ELEVATION
3/16" = 1'



GARBAGE ENCLOSURE - WEST ELEV.
3/8" = 1'

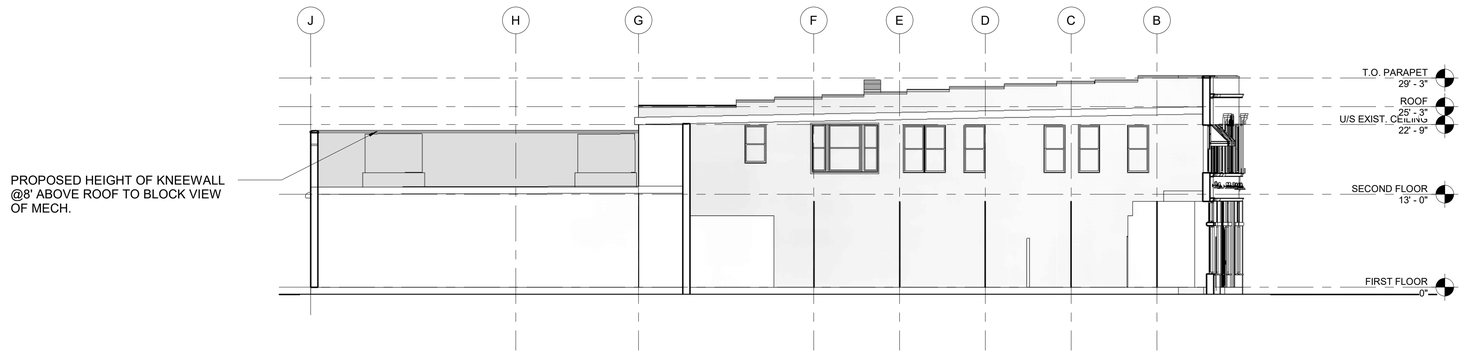
BUILDING SECTIONS & LINE OF SITE STUDY

1" = 10'



EXISTING NORTH-SOUTH BUILDING SECTION - LOOKING EAST

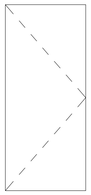
PROPOSED NORTH-SOUTH BUILDING SECTION - LOOKING EAST



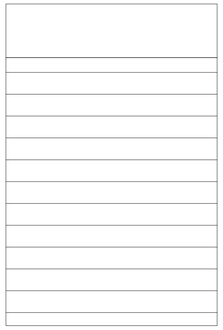
PROPOSED EAST-WEST BUILDING SECTION - LOOKING NORTH

DOOR, WINDOW & STOREFRONT SCHEDULES & DETAILS

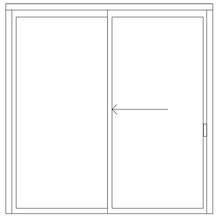
Door Schedule			
Mark	Door Type	Height	Width
145	D1	7' - 0"	3' - 0"
148	D2	12' - 0"	7' - 10 1/2"
151	D3	8' - 4"	8' - 0"
152	D3	8' - 4"	8' - 0"
156	D1	7' - 0"	3' - 0"
159	D1	7' - 0"	3' - 0"
160	D4	7' - 10"	3' - 4"
161	D4	7' - 10"	3' - 4"
162	D4	7' - 10"	3' - 4"
163	D4	7' - 10"	3' - 4"
164	D4	7' - 10"	3' - 4"
165	D4	7' - 10"	3' - 4"
166	D5	7' - 10"	3' - 4"



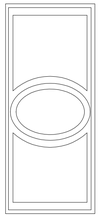
D1 - HM DOOR FLAT PANEL



D2 - OVERHEAD DOOR



D3 - SLIDING ENTRY DOOR

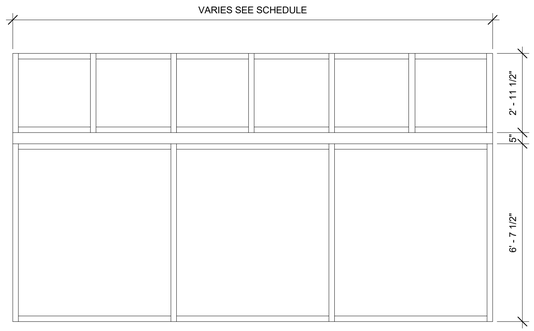


D4 - PANEL

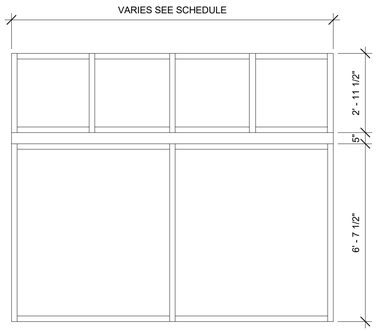
DOOR TYPES

DOOR INFILL PANEL

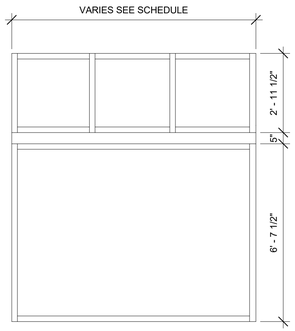
Storefront Schedule		
Mark	Storefront Type	Width
100	ST-2	13' - 8"
101	ST-2	14' - 7 1/2"
102	ST-2	14' - 1 1/2"
103	ST-2	14' - 4 1/16"
104	ST-4	8' - 6"
105	ST-2	12' - 6 7/8"
106	ST-2	12' - 0 13/16"
107	ST-1	16' - 11"
108	ST-3	9' - 0"
109	ST-2	12' - 0"
110	ST-2	12' - 0"



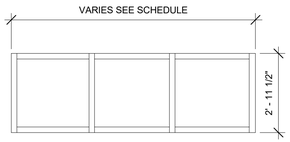
ST-1



ST-2



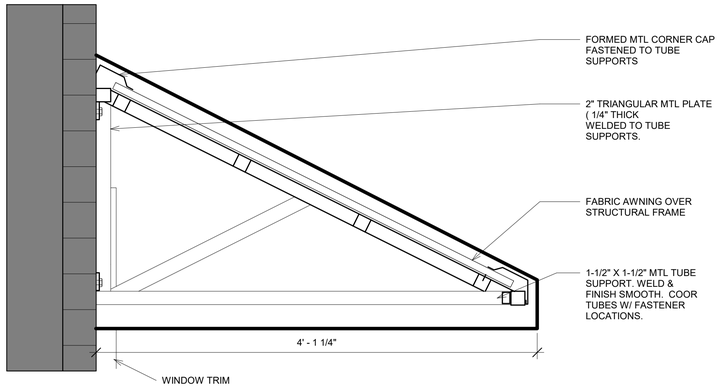
ST-3



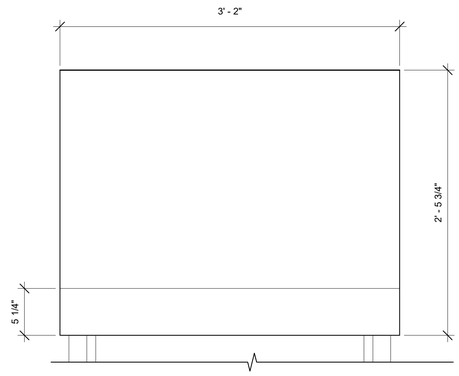
ST-4

STOREFRONT TYPES

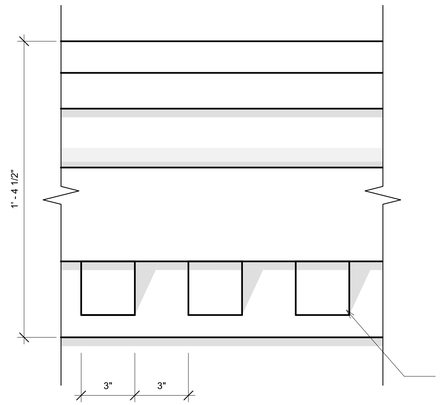
DETAILS



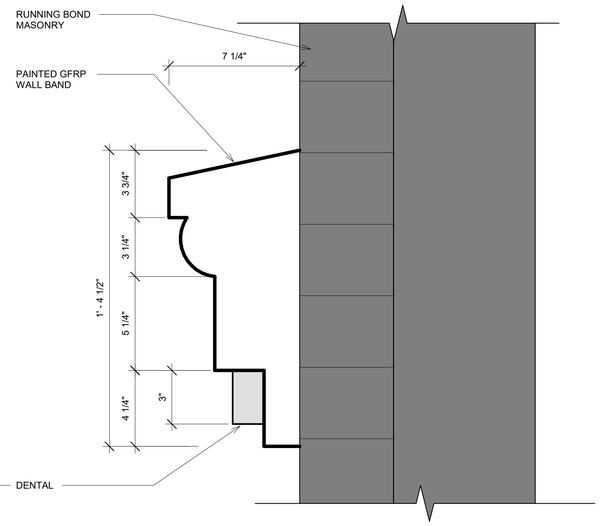
FABRIC AWNING DETAIL - A
1 1/2" = 1'



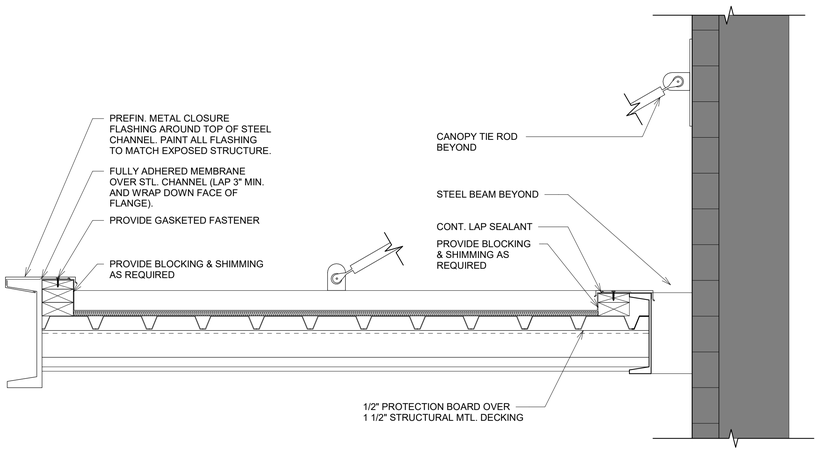
FABRIC AWNING DETAIL - B
1 1/2" = 1'



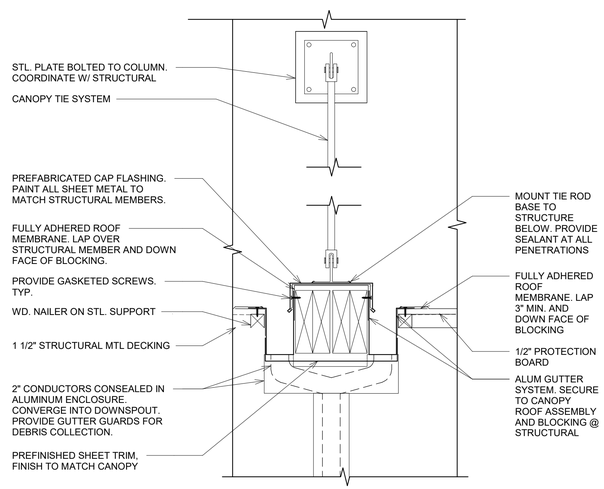
WALL BANDING DETAIL - A
3" = 1'



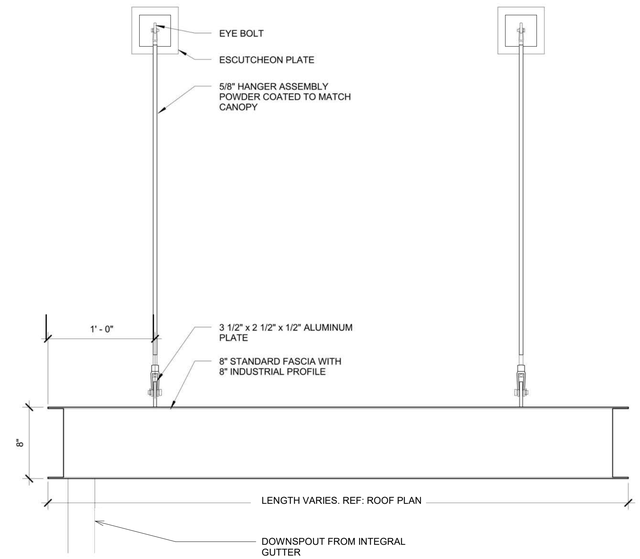
WALL BANDING DETAIL - B
3" = 1'



METAL CANOPY DETAIL - A
1 1/2" = 1'



METAL CANOPY DETAIL - B
1 1/2" = 1'



METAL CANOPY DETAIL - C
1 1/2" = 1'

QUINN EVANS

4100 WOODWARD BLOCK

MKIEZI INVESTMENTS

NOT FOR CONSTRUCTION

01/22/21

WINDOW SURVEY

Introduction

Survey Methods

The 2nd story windows were surveyed by a visual survey from the interior using a camera. The survey focused on the existing conditions of the wood frames, operability of the window sashes and condition of the glass. The purpose was to determine if the condition of the windows and frames was suitable to be restored or if new window units were required.

Detailed drawings and dimensions were recorded for a typical window unit that was accessible. This information is included in the attached window sheets. Due to the condition of the building interior, access to each individual window was not possible and the dimensions given are based on the typical window. Conditions are also based on the review of accessible windows and appear to be typical for the majority of windows.

Existing Conditions

General

The existing windows are wood single-hung units and also three bay windows. The bay windows consist of three individual single-hung windows. The glass is single pane at all windows. The windows at the rear (west) elevation have all been enclosed with brick masonry but at the interior the wood frames remain. All of the windows exhibit signs of prolonged neglect, atmospheric build up and scaling paint.

Conditions

The majority of the windows are in poor condition while the second half being in fair condition. In the most extreme locations the wood has deteriorated severely with rot occurring mainly at the sills, lower rail and at the bottom of the side stiles. The majority of windows also have broken or removed ropes and pulleys making the windows inoperable. The majority of windows have either missing or broken glass panes.

Recommendations

General

The wood windows are in poor condition and require replacement. Many of the windows have already been removed and the historic material remaining is either broken or in poor condition.

Aluminum windows are recommended to replace the deteriorated wood windows. The Aluminum windows should be configured to fit within the existing masonry openings. The window profiles will be similar in style and will preserve the slight lines of the existing windows. While the new windows will not be operable, they will maintain the single-hung appearance of the originals.

Refer to attached drawings and photos for additional information.

Conditions

Window #	Intact/ Missing	Stool	Apron	Casing	Rail	Stile	Sash Stop	Ropes	Glass	Bricked Over	Comments	Overall Rating
200	Intact	Poor	Fair	Fair	Poor	Fair/Poor	Fair	No	Broken bottom pane	No	window is covered	Fair
201	Intact	Poor	Fair	Fair	Fair	Fair/Poor	Fair	No	Broken Top Pane	No	window is covered	Fair
202	Intact	Poor	Fair	Fair	Fair	Fair	Fair	No	Good	No	window is covered	Fair
203	Intact	Poor	Fair	Fair	Poor	Fair	Fair	Yes	Broken bottom pane	No	window is covered, broken stops, top pane is dropped	Poor
204	Intact	Poor	Fair	Fair	Poor	Fair	Fair	Broken	Broken bottom pane	No	window is covered, broken stops	Poor
205	Intact	Poor	Fair	Fair	Poor	Fair	Fair	No	Good	No	window is covered, broken stops	Poor
206	Missing	Poor	Poor	Poor	Poor	Poor	Poor	No	Missing	No	windows are removed from the wall	Poor
207	Missing	Poor	Poor	Poor	Poor	Poor	Poor	No	Missing	No	windows are removed from the wall	Poor
208	Missing	Poor	Poor	Poor	Poor	Poor	Poor	No	Missing	No	windows are removed from the wall	Poor
209	Missing	Poor	Poor	Poor	Poor	Poor	Poor	Broken	Fair	No	windows are removed from the wall	Poor
210	Missing	Poor	Poor	Poor	Poor	Poor	Poor	Broken	Fair	No	windows are removed from the wall	Poor
211	Missing	Poor	Poor	Poor	Poor	Poor	Poor	Broken	Fair	No	windows are removed from the wall	Poor

Poor = 29	
Fair = 21	
Good = 0	
N/A = 2	
Total = 52	

WINDOW SURVEY

		Conditions										
Window #	Intact/ Missing	Stool	Apron	Casing	Rail	Stile	Sash Stop	Ropes	Glass	Bricked Over	Comments	Overall Rating
212a	Top pane missing	Poor	Poor	Poor	Very Poor	Poor	Poor	No	Broken upper pane	No	one frame is removed, heavily deteriorated bottom rail	Poor
212b	Missing	Poor	Poor	Poor	Very Poor	Very Poor	Poor	No	Broken	No	center window covered, frames removed from wall, heavily deteriorated rails and stiles	Poor
212c	Missing	Poor	Poor	Poor	Poor	Poor	Poor	No	Good	No	frames removed from wall, heavily deteriorated rails and stiles	Poor
213	Intact	Poor	Fair	Fair	Poor	Fair	Poor	No	Missing bottom pane	No	window is covered, frame is warped, broken stops and a heavily deteriorated bottom rail	Poor
214	Intact	Poor	Fair	Fair	Very Poor	Fair	Poor	No	Broken top pane	No	broken stops, deteriorated bottom rail and vertical rails	Poor
215	Intact	Poor	Fair	Fair	Very Poor	Fair	Poor	Broken	Good	No	broken stops, deteriorated bottom rail and vertical rails	Poor
216	Intact	Poor	Fair	Fair	Poor	Fair	Fair	No	Covered	No	window is covered	Fair
217	Intact	Poor	Fair	Fair	Poor	Fair	Fair	No	Good	No	window has spray foam insulation in the panes, deteriorated vertical stiles and bottom rail and broken stops	Fair
218	Missing	Poor	N/A	N/A	N/A	N/A	Fair	No	Missing	No	window is covered, frames are removed from the wall	Poor
219a	Intact	Poor	Fair	Fair	Poor	Poor	Fair	No	Good	No	heavily deteriorated bottom rail and vertical stiles	Poor
219b	Intact	Poor	Fair	Fair	Poor	Poor	Fair	No	Good	No	heavily deteriorated bottom rail and vertical stiles	Poor
219c	Intact	Poor	Fair	Fair	Poor	Poor	Fair	No	Good	No	heavily deteriorated bottom rail and vertical stiles	Poor
220	Intact	Poor	Fair	Fair	Poor	Poor	Fair	No	Good	No	Deteriorated bottom rail	Poor
221	Intact	Poor	Fair	Fair	Poor	Poor	Fair	No	Good	No		Poor
222	Intact	Poor	Fair	Fair	Poor	Poor	Fair	Yes	Broken/ partially covered	No	partially covered window, upper glass is dropping, deteriorated bottom rail and one rope remaining	Poor
223	Intact	Poor	Fair	Fair	Poor	Fair	Fair	No	Good / Covered	No	window is covered	Poor
224	Intact	Poor	Fair	Fair	Poor	Fair	Fair	Yes	Good	No	Deteriorated vertical stile, intact ropes	Fair
225	Intact	Poor	Fair	Fair	Poor	Fair	Fair	Yes	Good	No	Deteriorated vertical stile, intact ropes	Fair
226a	Intact	Poor	Fair	Fair	Poor	Fair	Fair	No	Good	No		Fair
226b	Intact	Poor	Fair	Fair	Poor	Poor	Fair	No	Missing bottom pane	No	bottom frame is covered, deteriorated bottom rail	Poor
226c	Intact	Poor	Fair	Fair	Poor	Fair	Fair	No	Good	No	deteriorated bottom rail and vertical stiles	Fair
227	Intact	Poor	Fair	Fair	Poor	Fair	Fair	Yes	Good	No	ropes and anchors intact, window is operable	Fair
228	Intact	Poor	Fair	Fair	Poor	Fair	Fair	No	Good	Yes	Inaccessible	Fair
229	Intact	Poor	Fair	Fair	Poor	Poor	Fair	No	Missing	Yes		Poor
230	Missing	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Missing	Yes	Fire damage window, no material or integrity remaining	Poor

WINDOW SURVEY

		Conditions										
Window #	Intact/ Missing	Stool	Apron	Casing	Rail	Stile	Sash Stop	Ropes	Glass	Bricked Over	Comments	Overall Rating
231	Missing	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Missing	Yes	Fire damage window, no material or integrity remaining	Poor
232	Missing	Poor	N/A	N/A	N/A	N/A	Fair	No	Missing	Yes	Missing window	Poor
233	Intact	Poor	Fair	Fair	Fair	Fair	Fair	No	Good	Yes		Fair
234	Intact	Poor	Fair	Fair	Fair	Fair	Fair	No	Good	Yes		Fair
235	Intact	Poor	Fair	Fair	Fair	Fair	Fair	No	Good	Yes		Fair
236	Intact	Poor	Fair	Fair	Fair	Fair	Fair	No	Broken both	Yes		Fair
237	Intact	Poor	Fair	Fair	Fair	Fair	Fair	No	Broken both	Yes	mortar over lower frame	Fair
238	N/A										Inaccessible	N/A
239	N/A										Inaccessible	N/A
240	Intact	Poor	Fair	Fair	Fair	Fair	Fair	No	Missing both	Yes	window is covered	Fair
241	Intact	Poor	Fair	Fair	Poor	Fair	Fair	No	Missing Top Pane	Yes	broken top window frame	Poor
242	Intact	Poor	Fair	Fair/Poor	N/A	N/A	Fair	N/A	Good	Yes	bars in front of window and board covering lower pane	Fair
243	Intact	Fair	Fair	Fair	Fair	Fair	Fair	N/A	Good	Yes	bars in front of window	Fair
244	Intact	Poor	Fair	Fair	Poor	Fair/Poor	Fair	No	Missing top pane	No	window is covered	Fair
245	Intact	Poor	Fair	Fair	Poor	Fair/Poor	Fair	No	Missing top pane	No	window is covered	Fair

WINDOW CONDITIONS

UNIT 201: BROKEN GLASS IN WINDOW FRAME

UNIT 203: REMOVED FRAMES AND STOPS

UNIT 204: DETERIORATED STOOP AND CASING

UNIT 202: BROKEN TOP RAIL

UNIT 204: REMOVED FRAMES WITH BROKEN GLASS

UNIT 204: DETERIORATED LOWER RAIL

WINDOW CONDITIONS

UNIT 206: MISSING WINDOW WITH BRICK INFILL

UNIT 206: DETERIORATED LOWER RAIL

UNIT 207: BROKEN AND MISSING STOP

UNIT 206:BROKEN ROPES AND ANCHORS

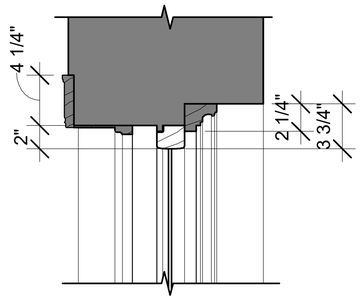
UNIT 206: BROKEN AND OUT OF ALIGNMENT RAILS

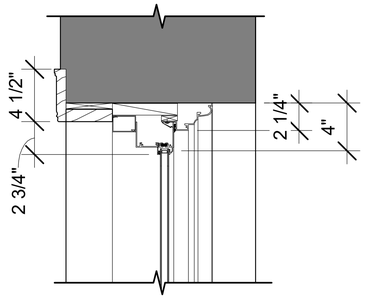
UNIT 207: INAPPROPRIATE MATERIAL

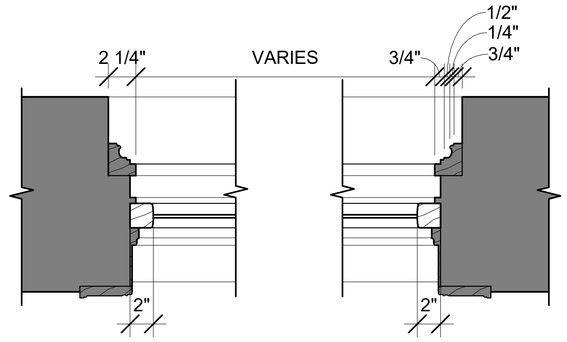
WINDOW DETAILS - TYPICAL

EXTERIOR WINDOW ELEVATION

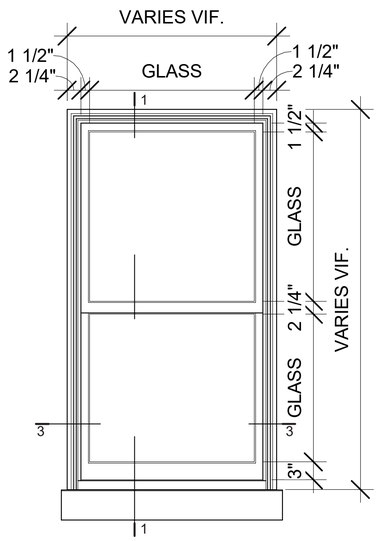
INTERIOR WINDOW ELEVATION (TYPICAL)



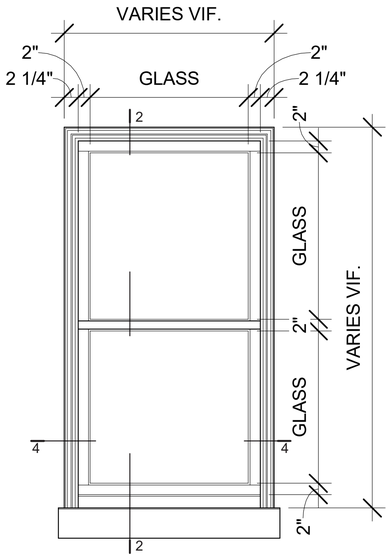




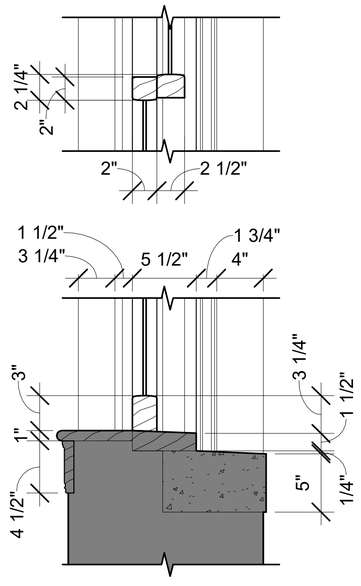
3 - EXISTING WINDOW JAMB DETAIL



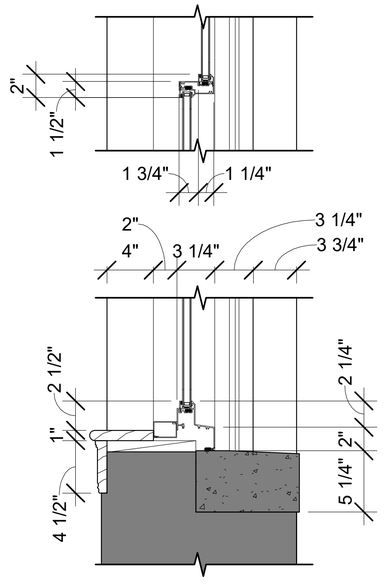
EXISTING WINDOW ELEVATION



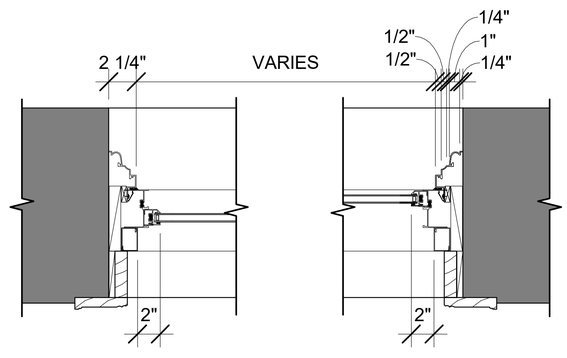
PROPOSED WINDOW ELEVATION



1 - EXISTING WINDOW DETAIL



2 - PROPOSED WINDOW DETAIL



4 - PROPOSED WINDOW JAMB

QUINN EVANS

4100 WOODWARD BLOCK

MKIEZI INVESTMENTS

NOT FOR CONSTRUCTION

01/22/21

WINDOW CONDITIONS

UNIT 208: DETERIORATED STILE

UNIT 208: DETERIORATED STILE

UNIT 208: FIRE DAMAGE

MATERIALS & PALETTE

PAINT COLORS

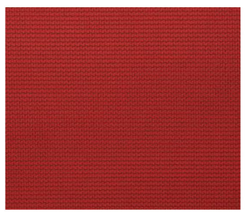
Paint Locations	Mark	Manufacturer	Color Ref #	Color Name
Painted Brick Dark Color	PT-1	Benjamin Moore	2108-30	Brown Horse
Painted Brick Light Color & Painted Metal Panels and Doors	PT-2	Benjamin Moore	OC-141	China White
Dark Base below storefront.	PT-3	Benjamin Moore	2114-10	Bittersweet Chocolate

PAINTED BRICK - PT-1

PAINTED BRICK - PT-2

PAINTED BRICK - PT-3

ALUMINUM STOREFRONT



AWNINGS OVER 2ND FLOOR WINDOWS
Sumbrella Fabric Awning

Color: Apex Crimson

SKU: 2646-0000

GOOSE NECK EXTERIOR LIGHT FIXTURE
HTM Lighting Solutions

12” Architectural Bronze Angle Shade With Gooseneck

Architectural Bronze Finish

EXTERIOR METAL CANOPY OVER WEST ENTRY & OVERHEAD DOOR ON NORTH ELEVATION

CONCEPT RENDERS

CONCEPT RENDERS

ENCORE™ FRAMING SYSTEM

A Proven Performer Recognized for Economical Installation

Manitowoc Public Library
Manitowoc, Wisconsin
ARCHITECT
Engberg Anderson Design Partnership, Milwaukee, Wisconsin
GLAZING CONTRACTOR
Sheboygan Glass Company, Inc., Sheboygan, Wisconsin
PHOTOGRAPHY
© Bob Freund

Taking center stage in Kawneer's lineup, the EnCORE™ Framing System is a two-piece face-and-gutter system that offers thermal economy, a structural silicone glazed (SSG) option and numerous design choices. Engineered for easy installation and lower costs, features include the unique QuickSeal™ self-sealing system, a broad selection of system depths and a 1-3/4" (44.5 mm) minimal sightline. The EnCORE™ Framing System readily adapts to remodel projects and new construction, whether traditional or modern architecture.

ECONOMY

EnCORE™ is a QuickSeal™ dry-glazed self-sealing framing system and is the first to eliminate joint sealant at horizontal joints, making it more cost effective. The vertical gasket runs through, and when "pinched" by the head, sill and intermediate horizontals, a watertight seal is created, eliminating the need for sealant.

By using the same extrusions for horizontal and vertical mullions, metal utilization is maximized. In addition, the tongue on the extrusions eliminates the need for a secondary, continuous water deflector, thus economizing on installation costs and time.

EnCORE™ Framing System also requires no setting block chair at intermediate horizontals. And at the sill, the system utilizes a simple setting block chair that fits snugly within the glazing pocket and requires no fastening. The system accepts standard 1" (25.4 mm) or 1/4" (6.4 mm) infills and can also be adapted to accept other infills in 1/8" (3.2 mm) increments.

The top-loaded glazing gaskets are the same as those used in the Kawneer flagship Trifab™ Framing Systems, which helps reduce field labor and minimize inventory requirements.

Providing single-source responsibility, Kawneer entrances, windows, curtain walls and slope glazing are compatible with the EnCORE™ Framing System.

PERFORMANCE

A specially engineered thermal clip eliminates metal-to-metal contact by snapping onto the mullion. The cover then snaps onto the clip for true thermal integrity. In addition, the clip has an extended leg on one side, which acts as a "w" block and prevents shifting of glass due to climate changes and building movement.

Engineered to meet or exceed certified performance requirements for air and water infiltration, the EnCORE™ Framing System has been fully tested according to ASTM E283 and ASTM E331. Thermal testing was completed in accordance with AAMA 1503.

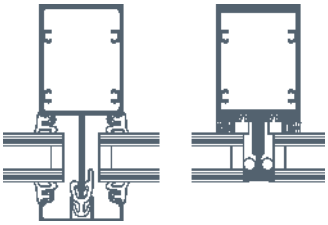
The EnCORE™ Framing System also offers architects and building owners the ability to determine project-specific U-factors by referring to thermal tables in our architectural manual. Unique to Kawneer, these tables enable U-factor calculations for each project by utilizing the total glass percentage and the project's center of glass (COG) U-factor.

AESTHETICS

For additional freedom of expression, the EnCORE™ Framing System offers front or center glazing options. An SSG option is also available. And to provide greater design flexibility, the face-and-gutter system offers system depths of 3-9/16" (90.5 mm), 4-1/2" (114.3 mm) or 6" (152.4 mm) front glazed and 4-1/2" (114.3 mm) center glazed.

The 1-3/4" (44.5 mm) minimal sightline provides consistent design aesthetics, while a 1-1/4" (31.75 mm) perimeter sightline is also available. Since the exterior face and interior mullions are separate pieces, two-color design considerations are easily realized.

Customer Service Center, Blue Cross and Blue Shield of Louisiana
Baton Rouge, Louisiana
ARCHITECT
Architectural Group of Baton Rouge, Baton Rouge, Louisiana
GLAZING CONTRACTOR
Louisiana Glass Company, Baton Rouge, Louisiana
PHOTOGRAPHY
© Gordon Schenck



Another key feature of the EnCORE™ Framing System's separate components is that they are easily adapted to curved applications. The framing is available in three fabrication methods: screw spline, shear block or Type B, which is a combination of both.

FOR THE FINISHING TOUCH

Permanodic™ anodized finishes are available in Class I and Class II in seven different color choices.

Painted finishes, including fluoropolymer, that meet or exceed AAMA 2605 are offered in many standard choices and an unlimited number of specially designed colors.

Solvent-free powder coatings add the green element with high performance, durability and scratch resistance that meet the standards of AAMA 2604.

Kawneer Company, Inc.
Technology Park / Atlanta
555 Guthridge Court
Norcross, GA 30092
770.449.5555
kawneer.com

KAWNEER

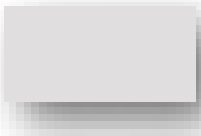
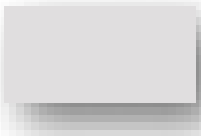
ARCHITECTURAL SYSTEMS | ENTRANCES + FRAMING | CURTAIN WALLS | WINDOWS

KAWNEER
AN ARCONIC COMPANY

Kawneer Anodize finishes

Kawneer gives you a wide variety of anodized finishes with attractive alternatives. The benefit of a durable, anodized finish is married to the beauty of some very dynamic and exciting colors.

At the start of every design, there's a choice of how you want to finish. Contact your Kawneer sales rep for the information on these and other finishes available from Kawneer.

	KAWNEER FINISH NO.	COLOR	ALUMINUM ASSOCIATION SPECIFICATION	OTHER COMMENTS
	#14	CLEAR	AA-M10C21A41 / AA-M45C22A41	Architectural Class I (.7 mils minimum)
	#17	CLEAR	AA-M10C21A31	Architectural Class II (.4 mils minimum)
	#18	CHAMPAGNE	AA-M10C21A44	Architectural Class I (.7 mils minimum)
	#26	LIGHT BRONZE	AA-M10C21A44	Architectural Class I (.7 mils minimum)
	#28	MEDIUM BRONZE	AA-M10C21A44	Architectural Class I (.7 mils minimum)
	#40	DARK BRONZE	AA-M10C21A44 / AA-M45C22A44	Architectural Class I (.7 mils minimum)
	#29	BLACK	AA-M10C21A44	Architectural Class I (.7 mils minimum)

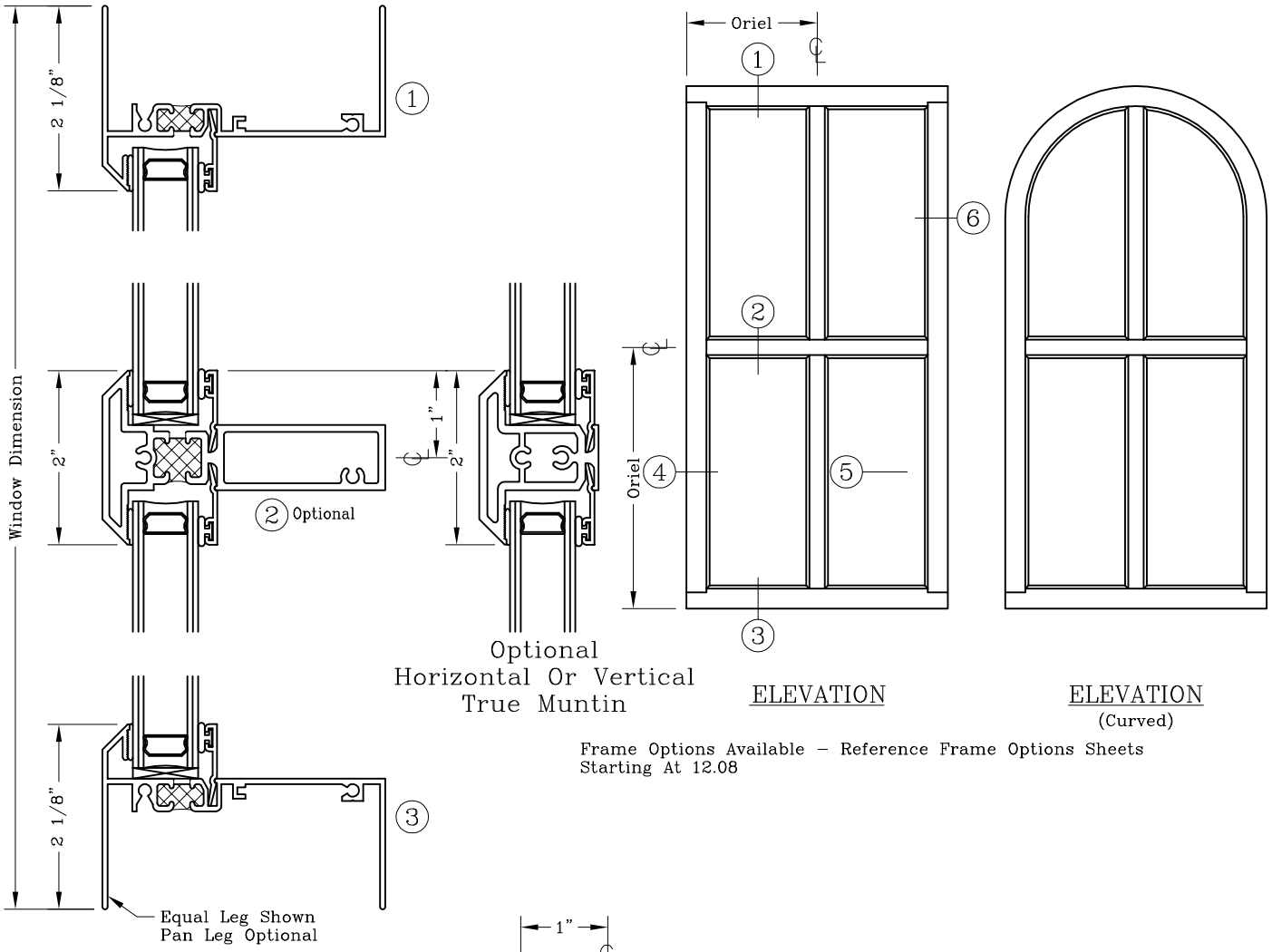
Fixed – Historic Wide – 3 1/4"

GRAHAM ARCHITECTURAL PRODUCTS

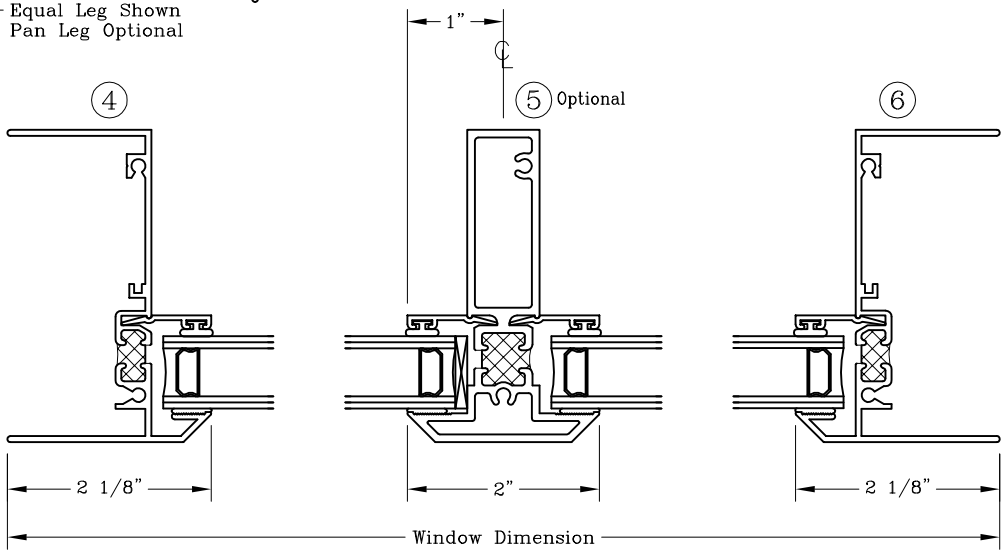
Series: 1200 Manufacturing Code: 1202

Drawing 1/2 Scale – For Custom Size Drawing Contact Graham

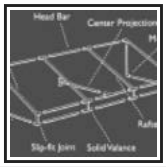
Note: Sealant Not Shown On Details. Consult Technical Services At Factory For Sealing Procedures.



Frame Options Available – Reference Frame Options Sheets Starting At 12.08



1551 Mt. Rose Avenue, York, Pennsylvania 17403-2909 • 800/755-6274 • Fax: 800/366-5097
Web Site: www.grahamwindows.com



SHED AWNINGS

Shed style awnings, or traditional style awnings, are one of the most popular choices for residential homeowners. The simple, traditional design has a sloped surface that 'sheds' water away from doors or windows, protecting them from rain and snow, while providing cooling and energy saving shade for windows and doors without obstructing too much of the view from the inside. The versatile design of a shed style awning and works well on many different architectural styles, creating a classy and handsome addition to your home.

Categories: awnings, commercial, fabric awnings & canopies, featured, shed awnings

Related products

ARCHED METAL CANOPY

ELONGATED DOME AWNINGS

CONVEX AWNINGS

INTERIOR AWNINGS

WEATHER PROTECTION ENCLOSURE

A Century of Service

For nearly a century, BH Awning & Tent continues to strive in supporting a relationship for life with each and every customer.

No Hassle Warranties

We are proud of our work firmly standing behind everything that we do offering "No Hassle Warranties."

Top Quality Materials

BH Awning uses only the best products and materials. From the finest canvas and vinyl fabrics to the sturdiest of brackets, arms, rafters, and roller tubes.

The Extra Mile is Where We Start

Whatever your request, however complicated or tough you feel the job is, please talk with us. You will quickly find that we always say "yes", thriving on the challenge!

READ MORE RECOMENDATIONS

BH Awning and You

We strive in supporting a relationship for life with each and every customer.

Whether your application is of a traditional or more modern basis, BH Awning will help you design the perfect awning, canopy, or other structure for your home or business with the highest quality products, finest workmanship, and service that is second to none. No job is too big or too small. Give us a call, or better yet, sto see us. We have nearly a hundred years of experience that provides the foundation to serve. At the same time, you will quickly find out that we treat every custom your are our first and only one.

We Only Work with the Best

GLEN RAVEN · sunbrella · GREENGUARD · SOMFY · FIRESIST · sunbrella graphics system · FERR

AWNING

SERVING THE MIDWEST SINCE 1922

A century in business says something special about a company. B.H. Awning has been around the longest in the market and is still working the hardest in providing premium products, supreme workmanship, and dedicated service all at the most competitive pricing. Our customers are the most important part of our existence. Call us today, let us know how we can serve your awning and tent needs.

LEARN MORE

CONTACT INFORMATION
P: 800-272-2187 or 269-925-2187
F: 888-272-2197
E: sales@bhawning.com

Edison Coatings, Inc.

EverKote 300

REACTIVE INORGANIC MINERAL PAINTS & STAINS

DESCRIPTION:

EverKote 300 mineral coatings are waterborne inorganic paints and stains based on reactive potassium silicate binders. Potassium silicate masonry paints have been in use for over a century to provide extremely durable, breathable color coatings on all types of mineral-based substrates, including stone, masonry, concrete and cement plaster (stucco).

Two standard grades of are available:

GRADE	DESCRIPTION
PENETRAL	Low-Viscosity, Opaque or Semi-Transparent Stains
PATINAR	Medium Viscosity, Opaque Coatings

EverKote 300 coatings are stabilized, reactive formulations which form chemical bonds within the substrate to provide long term durability.

HOW DO *EverKote 300* POTASSIUM SILICATE COATINGS WORK?

EverKote 300's potassium silicate binder is produced by fusing potassium carbonate with silica at high temperature. The result is a soluble silicate, which can be dissolved in water to produce a liquid "waterglass".

Although soluble silicates can be air dried to form a film, maximum water resistance, bond strength and long-term durability depend on chemical reactions with the substrate or added catalysts. Substrates with which silicates can react include:

- ☑ Calcium salts, typically found in portland cement, lime and calcareous natural stones such as limestone and marble
- ☑ Silica, typically present in siliceous sandstones, silica sand, mortars, stucco, concrete and glass
- ☑ Ceramics, including brick and terra cotta
- ☑ Iron, aluminum and other metals

When ***EverKote 300*** is applied to suitable substrates, it penetrates and reacts to form a hard, insoluble silicate.

PHOTO: EverKote 300 was applied to this Historic Landmark building as part of the building's restoration program.

When applied to materials containing portland cement, the silicate reacts with incompletely hydrated cement particles, converting unreacted calcium hydroxide [$Ca(OH)_2$ or hydrated lime] to hard calcium silicate hydrates.

APPEARANCE:

EverKote 300 is available in nearly 900 standard colors. Custom color-matching is also available. Product dries to a flat (matte) finish.

PROPERTIES

- ☑ Exceptionally Breathable
- ☑ Moisture and Immersion Resistant
- ☑ Does not contribute to growth of mold, algae or mildew
- ☑ Improves resistance to certain chemicals
- ☑ Durable and UV-Resistant; Does not yellow or peel
- ☑Heat Resistant

APPLICATION

Always pre-test a small, inconspicuous area for color, adhesion and compatibility prior to large scale application. Allow up to 7

PROPERTY	RESULTS	COMMENTS
Direct Tensile Bond Strength	**>410 psi @ 48 hrs. cure**	**No adhesive failure; 100% cohesive failure in substrate**
Flexural Bond Strength	**>1440 psi @13 days cure**	**No adhesive failure; 100% cohesive failure in substrate**
Water Vapor Transmission, ASTM E96	**>99%**	**Results expressed as percentage versus uncoated control**
Accelerated Weathering, ASTM G53	**1000 hrs., no cracking, peeling, yellowing, swelling or checking**	**Stable**

days' cure before judging final color. Previous treatments, water repellents, chemical cleaning agents, and substrate composition can affect mineral coating reaction rates and appearance. Mineral coatings are natural materials and some color variation or shading is normal. Colors may lighten somewhat with aging.

EverKote 300 may be applied in one or two coats. The first coat may be thinned with up to 10% demineralized or distilled water, followed by one undiluted ***EverKote 300*** top coat. On rough or porous substrates, topcoats may also be diluted to maintain the target coverage rate of 200 sq.ft./gallon. **Do not over-apply.**

Surface Preparation

Surfaces to be treated must be clean, dry and free of dirt, dust, form oil, efflorescence, previous coatings (other than existing cement or silicate mineral coatings) and other materials which may hinder penetration and/or reaction with the substrate. Previous cementitious and silicate mineral coatings must be spot tested for compatibility in an inconspicuous area prior to large scale application. Highly porous substrates may require consolidation prior to coating.

CAUTION: Protect glass and other surfaces not intended to be coated by covering completely with polyethylene, sealing the edges continuously with heavy moisture resistant tape. Unprotected glass and other surfaces may be etched or "frosted" by contact with silicate coatings. This is a chemical reaction, which cannot be reversed by cleaning.

New Concrete, Stucco and Mortar must be allowed to cure for a minimum of 7 days prior to mineral coating application. For maximum effectiveness, surfaces must be sufficiently dry to allow the mineral binder to penetrate porous substrates. Allow extended drying time as required under cool, damp conditions.

Factors Affecting Penetration Depth

While penetration depth may not be critical for many architectural applications, greater penetration has a significant effect on strength and durability of applications on cement-based substrates, porous stone and traffic surfaces. Penetration is influenced by substrate pore structure and permeability, moisture content and surface preparation.

Application:

Mix product thoroughly before use as contents may settle upon standing. Re-mix periodically during use to maintain consistent color and saturation.

Apply ***EverKote 300*** by brush, roller or airless spray. Apply as a continuous film and do not attempt to overbuild the wet film to fill surface imperfections.

Allow first coat to dry for a minimum of 6 hours before top coat application of ***EverKote 300***.

Protection & Curing: Protect coated surfaces from rain or other water exposure for at least 24 hours after application. Full cure requires at least 7 days, and colors may change in hue or intensity during this period. Do not expose treated surfaces to acid cleaners, hot water or steam cleaning.

COVERAGE:
Coverage rates vary based on surface texture and porosity. Adjust viscosity or application methods as required to maintain nominal coverage rate of 200 sq.ft./gal. per coat.

Edison Coatings, Inc.

3 Northwest Drive, Plainville, CT 06062

Phone: (860) 747-2220 or (800) 697-8055 **Fax: (860) 747-2280 or (800) 697-8044**

E-mail: edison@edisoncoatings.com **Internet: www.edisoncoatings.com**

TECHNICAL DATA SHEET

Project Name		Catalog #	
Comments		Date	

Eco-RLM Line - 10” & 12” Angle Shade

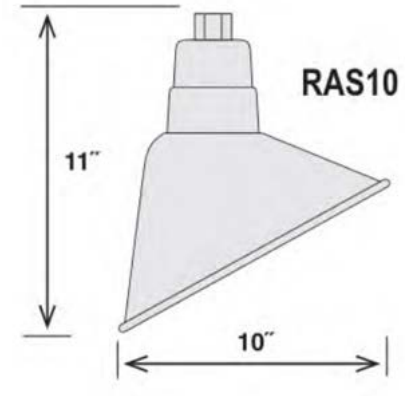
Features

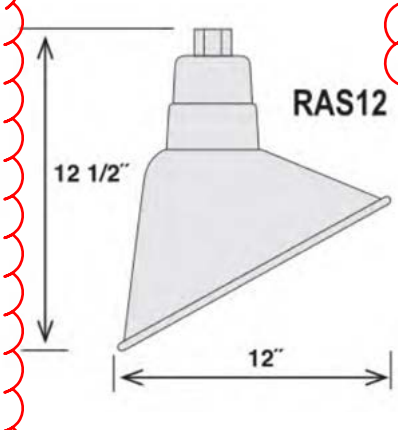
- UL Listed for Wet Locations
- Every Gooseneck Arm comes with round mounting plate to fit onto standard round junction box
- 100” Wire Length Included With Every Shades
- Up to 200W Incandescent or LED Compatible

LED Compatible

Specifications

Base Type	Medium (E26)
Bulb Type	LED / Incandescent
Voltage	120 Volts
Max Wattage	200W A21
Material	Cold Rolled Steel, and Die Cast Zinc Shade w/ Glass and Guard Options





Finishes Available:

Architectural Bronze	ABR
Black Porcelain	BP
Galavanized	GA
Satin Black	SB
Satin Green	SG
Satin Red	SR
White	WH
White Porcelain	WP
Sea Foam Porcelain	SFP

Tel: +1 (813) 649-8899
Fax: +1 (813) 425-9007

sales@htm-lighting.com
Rev: V0916
HTM Lighting Solutions
6420 Benjamin Road,
Tampa, FL 33634

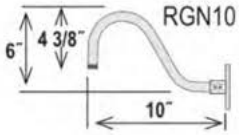
TECHNICAL DATA SHEET

Project Name _____ Catalog # _____

Comments _____ Date _____

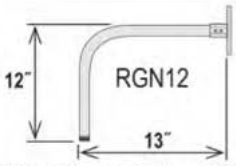
Eco-RLM Line - 10” & 12” Angle Shade

Gooseneck Arms

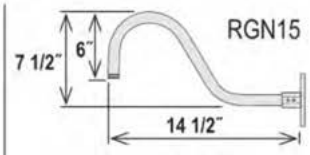


RGN10-ABR	ID: 3/4"	L:10"
RGN10-GA	ID: 3/4"	L:10"
RGN10-SB	ID: 3/4"	L:10"
RGN10-SG	ID: 3/4"	L:10"
RGN10-SR	ID: 3/4"	L:10"
RGN10-WH	ID: 3/4"	L:10"

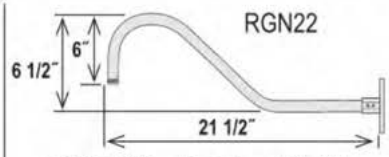
Back Plate included with goose neck



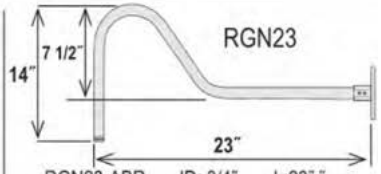
RGN12-ABR	ID: 3/4"	L:13"
RGN12-GA	ID: 3/4"	L:13"
RGN12-SB	ID: 3/4"	L:13"
RGN12-SG	ID: 3/4"	L:13"
RGN12-SR	ID: 3/4"	L:13"
RGN12-WH	ID: 3/4"	L:13"



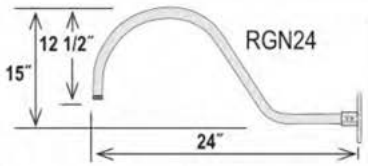
RGN15-ABR	ID: 3/4"	L:14 1/2"
RGN15-GA	ID: 3/4"	L:14 1/2"
RGN15-SB	ID: 3/4"	L:14 1/2"
RGN15-SG	ID: 3/4"	L:14 1/2"
RGN15-SR	ID: 3/4"	L:14 1/2"
RGN15-WH	ID: 3/4"	L:14 1/2"



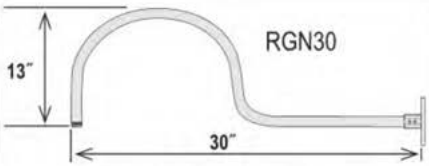
RGN22-ABR	ID: 3/4"	L:21 1/2"
RGN22-GA	ID: 3/4"	L:21 1/2"
RGN22-SB	ID: 3/4"	L:21 1/2"
RGN22-SG	ID: 3/4"	L:21 1/2"
RGN22-SR	ID: 3/4"	L:21 1/2"
RGN22-WH	ID: 3/4"	L:21 1/2"



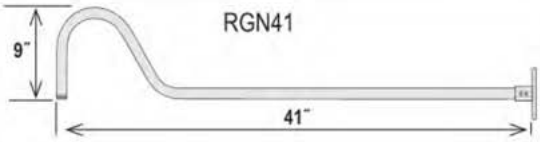
RGN23-ABR	ID: 3/4"	L:23"
RGN23-GA	ID: 3/4"	L:23"
RGN23-SB	ID: 3/4"	L:23"
RGN23-SG	ID: 3/4"	L:23"
RGN23-SR	ID: 3/4"	L:23"
RGN23-WH	ID: 3/4"	L:23"



RGN24-ABR	ID: 3/4"	L:24"
RGN24-GA	ID: 3/4"	L:24"
RGN24-SB	ID: 3/4"	L:24"
RGN24-SG	ID: 3/4"	L:24"
RGN24-SR	ID: 3/4"	L:24"
RGN24-WH	ID: 3/4"	L:24"

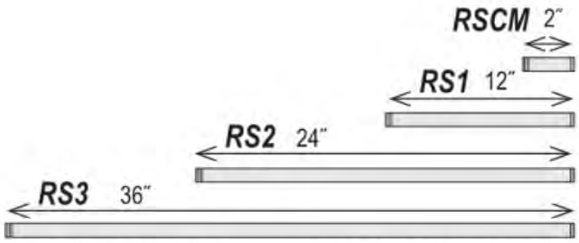


RGN30-ABR	ID: 3/4"	L:30"
RGN30-GA	ID: 3/4"	L:30"
RGN30-SB	ID: 3/4"	L:30"
RGN30-SG	ID: 3/4"	L:30"
RGN30-SR	ID: 3/4"	L:30"
RGN30-WH	ID: 3/4"	L:30"



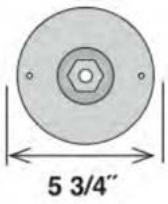
RGN41-ABR	ID: 3/4"	L:41"
RGN41-GA	ID: 3/4"	L:41"
RGN41-SB	ID: 3/4"	L:41"
RGN41-SG	ID: 3/4"	L:41"
RGN41-SR	ID: 3/4"	L:41"
RGN41-WH	ID: 3/4"	L:41"

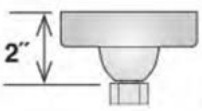
Stems & Canopy Kits



RSCM-ABR	ID: 3/4"	L:2"
RSCM-GA	ID: 3/4"	L:2"
RSCM-SB	ID: 3/4"	L:2"
RSCM-SG	ID: 3/4"	L:2"
RSCM-SR	ID: 3/4"	L:2"
RSCM-WH	ID: 3/4"	L:2"

RS2-ABR	ID: 3/4"	L:24"
RS2-GA	ID: 3/4"	L:24"
RS2-SB	ID: 3/4"	L:24"
RS2-SG	ID: 3/4"	L:24"
RS2-SR	ID: 3/4"	L:24"
RS2-WH	ID: 3/4"	L:24"





RSCK

RSCK-ABR	W: 5 3/4"
RSCK-GA	W: 5 3/4"
RSCK-SB	W: 5 3/4"
RSCK-SG	W: 5 3/4"
RSCK-SR	W: 5 3/4"
RSCK-WH	W: 5 3/4"

Canopy Kits will Swivel up to 25°

Tel: +1 (813) 649-8899
Fax: +1 (813) 425-9007

sales@htm-lighting.com

Rev: V0916

HTM Lighting Solutions
6420 Benjamin Road,
Tampa, FL 33634

TECHNICAL DATA SHEET

Project Name | Catalog #

Comments | Date

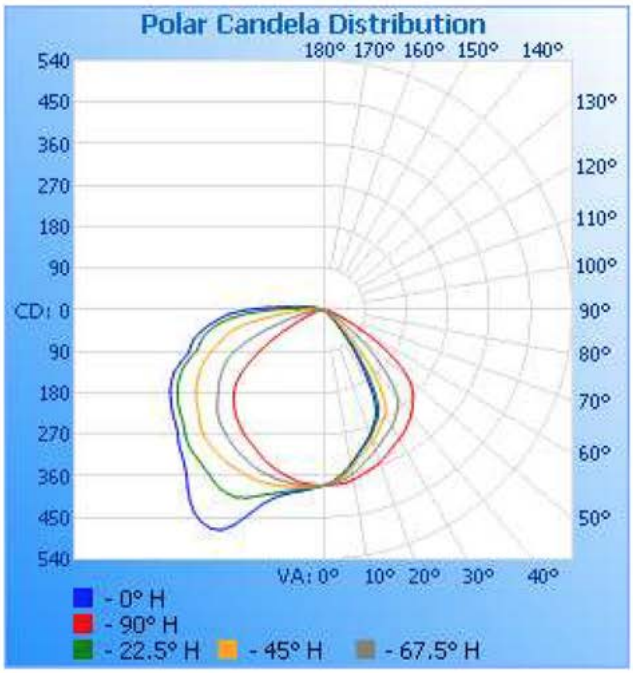
Eco-RLM Line - RAS10 Angle Shade

Photometric and Electrical Measurements - Distribution Method

Intertek Sample No.	Base Orientation	Input Voltage (Vac)	Input Current (mA)	Input Power (Watts)	Input Power Factor	Absolute Luminous Flux (Lumens)	Lumen Efficacy (Lumens Per Watt)
			RAS10-WH				
M242867-1	UP	120.0	1384	166.1	1.000	1170	7.044

Intensity (Candlepower) Summary at 25℃ - Candelas

Angle	0	22.5	45	67.5	90
		RAS10-WH			
0	380	380	380	380	380
5	365	366	368	373	379
10	341	343	350	361	373
15	313	316	325	342	364
20	291	294	307	325	353
25	264	270	285	307	338
30	221	238	267	294	326
35	144	165	226	276	312
40	78	96	156	252	296
45	38	46	89	194	275
50	20	25	44	125	248
55	8	12	24	67	195
60	0	2	12	36	125
65	0	0	3	20	67
70	0	0	0	10	36
75	0	0	0	2	21
80	0	0	0	0	11
85	0	0	0	0	2
90	0	0	0	0	0



Tel: +1 (813) 649-8899
Fax: +1 (813) 425-9007

sales@htm-lighting.com

Rev: V0916

HTM Lighting Solutions
6420 Benjamin Road,
Tampa, FL 33634

TECHNICAL DATA SHEET

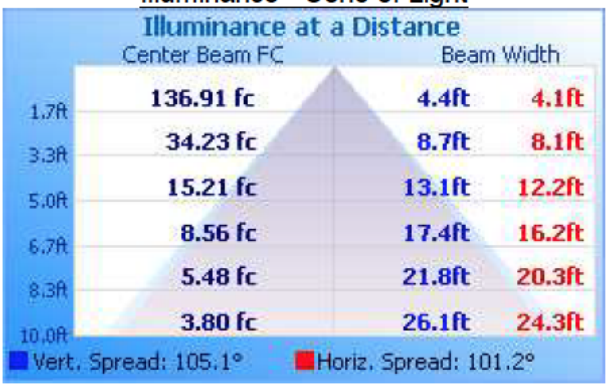
Project Name		Catalog #	
Comments		Date	

Eco-RLM Line - RAS10 Angle Shade

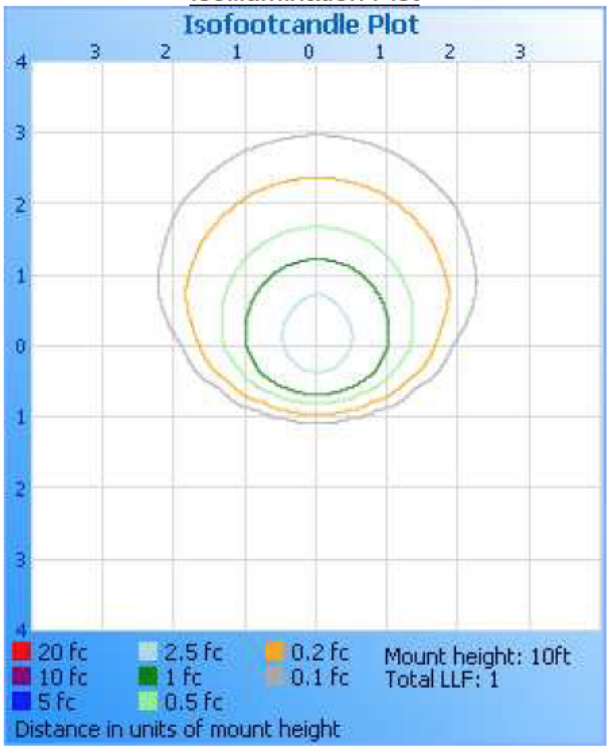
Illumination Plots

Model No.: RAS10-WH
Mounting Height: 10 ft.

Illuminance - Cone of Light



Isoillumination Plot



Zonal Lumen Summary and Percentages at 25℃

Zone	Lumens	% Luminaire
	RAS10-WH	
0-30	300.2	25.7
0-40	493.3	42.2
0-60	849.2	72.6
60-90	296.9	25.4
0-90	1146	98.0
90-180	23.5	2.0
0-180	1170	100.0

Tel: +1 (813) 649-8899
Fax: +1 (813) 425-9007

sales@htm-lighting.com

Rev: V0916

HTM Lighting Solutions
6420 Benjamin Road,
Tampa, FL 33634

TECHNICAL DATA SHEET

Project Name | Catalog #

Comments | Date

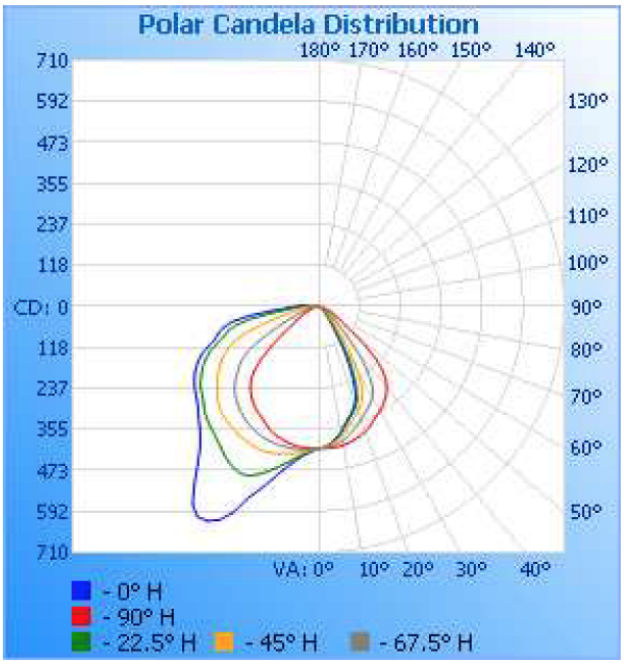
Eco-RLM Line - RAS12 Angle Shade

Photometric and Electrical Measurements - Distribution Method

Intertek Sample No.	Base Orientation	Input Voltage (Vac)	Input Current (mA)	Input Power (Watts)	Input Power Factor	Absolute Luminous Flux (Lumens)	Lumen Efficacy (Lumens Per Watt)
			RAS12-WH				
M242869-2	UP	120.0	1388	166.8	1.000	1123	6.733

Intensity (Candlepower) Summary at 25℃ - Candelas

Angle	0	22.5	45	67.5	90
		RAS12-WH			
0	410	410	410	410	410
5	397	398	400	404	410
10	369	372	381	394	407
15	333	338	351	373	398
20	304	311	327	351	387
25	241	260	297	329	368
30	151	174	238	309	351
35	78	91	152	266	332
40	48	55	81	188	307
45	30	35	51	105	263
50	16	20	33	63	178
55	7	10	20	42	96
60	0	2	10	28	61
65	0	0	3	16	42
70	0	0	0	8	27
75	0	0	0	1	16
80	0	0	0	0	8
85	0	0	0	0	1
90	0	0	0	0	0



Tel: +1 (813) 649-8899
Fax: +1 (813) 425-9007

sales@htm-lighting.com

Rev: V0916

HTM Lighting Solutions
6420 Benjamin Road,
Tampa, FL 33634

TECHNICAL DATA SHEET

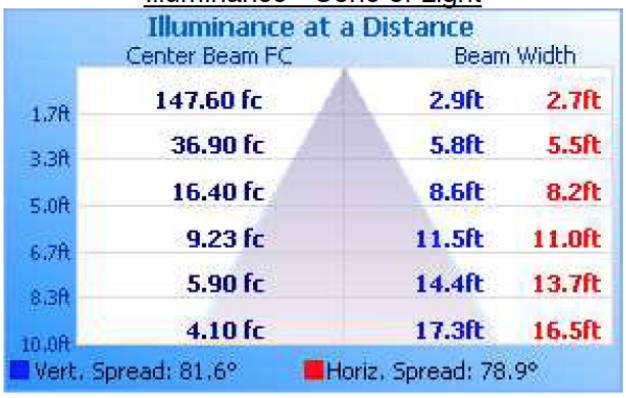
Project Name | Catalog #
Comments | Date

Eco-RLM Line - RAS12 Angle Shade

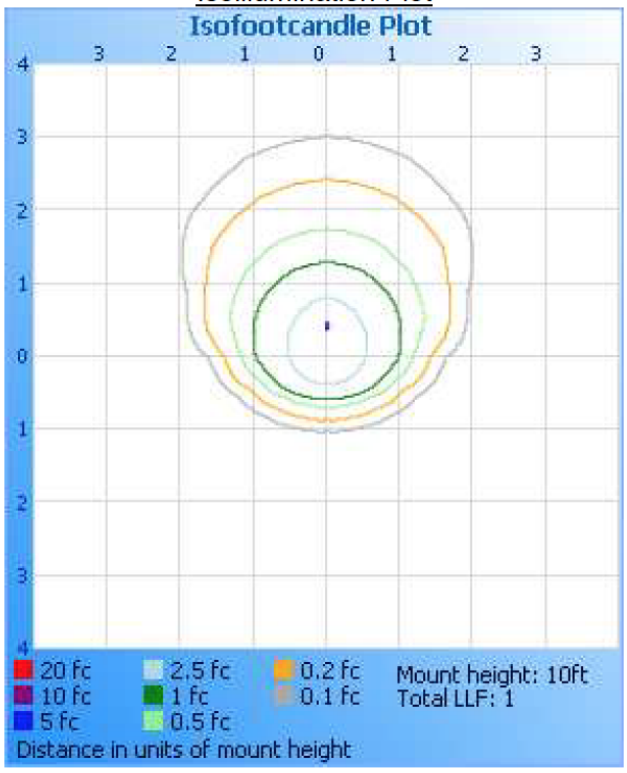
Illumination Plots

Model No.: RAS12-WH
Mounting Height: 10 ft.

Illuminance - Cone of Light



Isoillumination Plot



Zonal Lumen Summary and Percentages at 25℃

Zone	Lumens	% Luminaire
	RAS12-WH	
0-30	330.3	29.4
0-40	526.1	46.8
0-60	871.4	77.6
60-90	238.6	21.2
0-90	1110	98.8
90-180	12.9	1.2
0-180	1123	100.0

Tel: +1 (813) 649-8899
Fax: +1 (813) 425-9007

sales@htm-lighting.com
Rev: V0916
HTM Lighting Solutions
6420 Benjamin Road,
Tampa, FL 33634

Auto-Doors

NABCO

GT1175

Automatic Sliding Doors

Where ELEGANCE meets DURABILITY

Product Features and Benefits

- Heavy-duty anodized roller track for **long-lasting durability**
- Integral flush-glazed framing **enhances the entrance appearance**
- Large urethane door rollers for **smooth and long-lasting operation**
- Belt drive and brushless motor system ensure **silent and reliable operation**
- Approved Class 1 Vertical Laminar Flow for **clean rooms and critical applications**
- Superior double-mohair thermal brush provides **maximum isolation from outside elements**
- Equipped with sensor systems that comply with ANSI A156.10 and **promotes reduced liability and increased safety**

GT1175

The NABCO GT1175 sets the standard for smooth operation and quiet, whisper-like performance. While elegant by design, the GT1175 is engineered to withstand challenging environment and weather conditions. NABCO's microprocessor control provides reliable door operation, important usage counts, and diagnostic features for quick trouble-shooting and reduced maintenance costs. Offering a prompt return on your investment with one of the lowest lifetime costs of ownership, the ultra-quiet, high-performance GT1175 is the right solution for every automatic sliding door entrance.

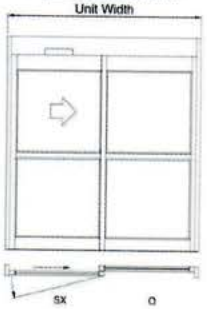
The GT1175 Slider Operator

Header cover is pre-wired for sensor installation and uses extra-thick aluminum extrusions to minimize deflection.

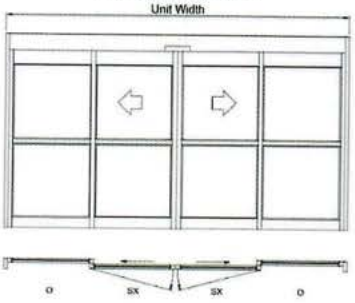
Note: Color (Finish) to be selected by Trader Joe's

PRODUCT INFORMATION	
Header dimensions - standard	6 1/2"W (165.1) x 7 1/2"H (190.5)
Standard finish	Clear and dark bronze anodized
Optional finishes	Painted, clad, special anodized
Mounting	Concealed and surface-applied
Threshold	Surface-applied, recessed, none
Configurations	Single, bi-part / full breakout, fixed sidelite
Transom	Optional
TECHNICAL INFORMATION	
Operator drive	Electro-mechanical
Drive system	Belt drive
Motor type	1/4 HP (peak) brushless
Primary circuit protection	Breaker
Controller	Microprocessor
Breakout	System disabled when panels break out
Operating voltage	120 VAC - 5 AMP
Auxiliary power output	12 VDC
Maximum door panel weight	600 lbs.
Switch modes	On/off, 1-way, 2-way, hold-open, night
Opening and closing speed	Adjustable
Reduced opening function	Standard
Obstacle detection	Available in both directions
Hold-open time	Adjustable (0-67 seconds)
CODE COMPLIANCE / APPROVALS	
Code compliance	ANSI A156.10
Approvals	UL, ULC and CSFM

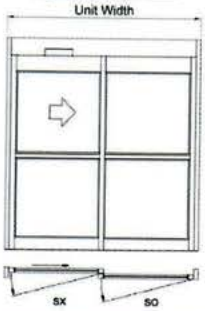
Single slider - fixed sidelite



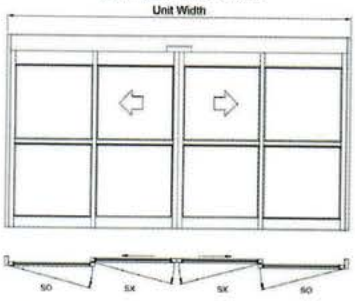
Bi-part slider - fixed sidelite



Single slider - full breakout



Bi-part slider - full breakout



NABCO Service and Specifications

Along with the NABCO factory branches, NABCO has the largest independently owned network of automatic door distributors in North America. Their friendly, qualified installers and technicians always strive to exceed your expectations from install to after-sales service. NABCO's factory branches and independent distributors provide AAADM-certified technicians to ensure your doors meet all ANSI A156.10 standards.

SELECTION GUIDE			
DOOR TYPE	FRAME WIDTH	DOOR OPENING	BREAKOUT OPENING
Single FSL Single FBO	7' (1930) - 9' (2743)	36" (914) - 48" (1219)	39" (990) - 51" (1295) 76" (1930) - 100" (2794)
Bi-part FSL Bi-part FBO	10' (3048) - 18' (5486)	48" (1219) - 96" (2438)	54" (1371) - 102" (2590) 104" (2642) - 200" (5080)

NABCO

Distributed by:

STOREFRONT REPAIR, INC.
17032 PALMDALE ST, UNIT #A, HUNTINGTON BEACH, CA
PH: 714-842-1337 | FAX: 714-842-8817
CONTRACTOR'S LICENSE # 634748

TECHNICAL DETAILS

INSULATED ROLLING DOOR

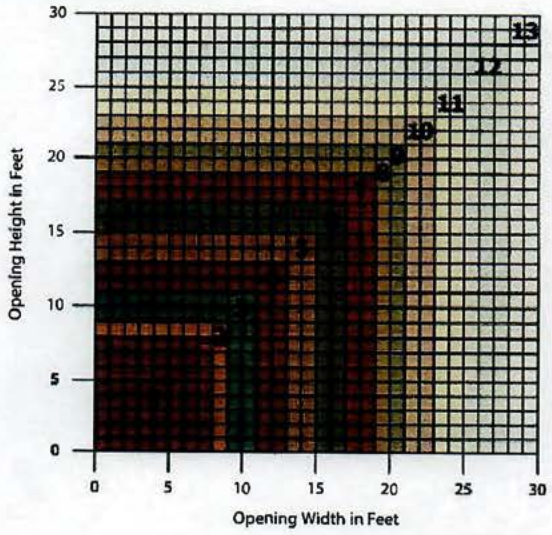
THERMISER

Model ESD20

Roll-up (Overhead) Doors

MEASURE THE WIDTH AND HEIGHT OF THE OPENING

DOOR SIZE AND AREA

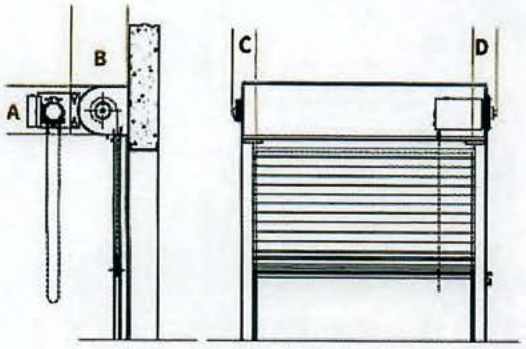


COMPONENT DIMENSIONS

Reference the zone number to view component dimensions for motorized doors.

Dimensions in Inches

Zone	A	B	C	D
10	26	28	7	11
11	27	29	7	11
12	29	31	7	11
13	31	33	7	11



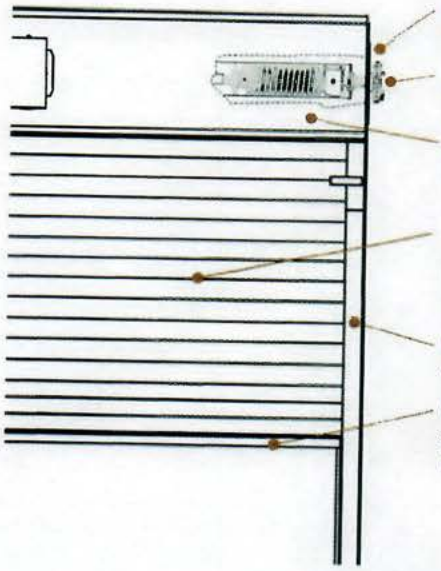
The dimensions featured on this sheet are provided as a guide. Please visit our website at www.cooksondoor.com/drawings to generate drawings on demand with exact dimensions.

DYNAMIC DOCK & DOOR, INC.
P.O. Box 372
EAST LONGMEADOW, MA 01028-0372
(800) 573-3625
Fax (413) 736-8599 • www.dynamic-dock-door.com

COOKSON

INSULATED ROLLING DOOR THERMISER Model ESD20

STANDARD COMPONENT MATERIALS AND FINISHES



BRACKETS - Steel with powder coating to match curtin. Bolt to guide assembly and support counter-balance shaft and curtain.

COUNTER-BALANCE SHAFT - Steel. Supports curtain and contains torsion springs for assisting operation.

HOOD - Galvanized steel with GalvaNex™ polyester enamel finish to match curtain. Encloses the curtain and provides weather resistance at the head of the door.

CURTAIN - Galvanized steel with GalvaNex™ polyester enamel finish in Gray, Tan, White or Brown. Flame Spread Index of 0 and a Smoke Developed Index of 10 as tested per ASTM E84. The slat has an R-value of 8.0 as calculated using the ASHRAE Handbook of Fundamentals.

GUIDES - Structural steel with powder coating to match curtain. Angle assemblies bolt to the wall and support the weight of the door.

BOTTOM BAR - If width is less than 24'5", extruded aluminum supplied in mill finish. If width is greater than 24'5", steel supplied with powder coating to match curtain.

OPERATION AND STRUCTURAL REQUIREMENTS

Hand chain, hand crank and a variety of motor options are available. All of our rolling products are supported by the guides. There is no additional support required unless hood supports are mandated by a larger opening width.

OPTIONAL MATERIALS AND FINISHES

- Aluminum in mill, clear and color anodized
- Stainless steel - 300 series in #4 finish
- SpectraShield® Powder Coating in more than 180 colors

Brackets, Guides and Bottom Bar

- Hot-dip galvanizing on steel components
- Zinc-enriched, corrosion-resistant powder coating in Gray

CUSTOM-DESIGNED SOLUTIONS

Contact our experienced Architectural Design Support Team for help in customizing our products to fit your specific application.
Call 800.294.4358 ext. 1280 • ads@cooksondoor.com

DYNAMIC DOCK & DOOR, INC.
P.O. Box 372
EAST LONGMEADOW, MA 01028-0372
(800) 573-3625
Fax (413) 736-8599 • www.dynamic-dock-door.com

Preferred door solutions.
COOKSON

THE PEGGS COMPANY, INC.

Designers & Manufacturers of
Retail Solutions for over 50 years

Standard Cart Corrals

Parking lot cart corrals for collecting carts. Corrals help to save on labor by consolidating shopping carts into specific locations in the parking lot. Available in single wide (holds one row of carts), double wide, or triple wide. Custom signage or sizing available. Roll-stop tie bar helps keep carts from rolling backwards out of the corral. Corrals snap together (no tools or parts needed to assemble). Corrals can be anchored into place.

Sold with a generic 18"x 24" sign.

Custom signage available.

Dimensions:

- Single Wide: OCC1132-09
  Outside Dimensions: 112" long x 35" wide x 83" tall
- Double Wide: OCC2164-09
  Outside Dimensions: 112" long x 68" wide x 83" tall
- Triple Wide: OCC3196-09
  Outside Dimensions: 112" long x 100" wide x 83" tall

RPH
Roof Penetration Housings, LLC

Mega-Vaults
12423 Blanco Rd #120, San Antonio, Texas 78216

THE VAULT ROOF PENETRATION HOUSING Submittal

- [x] AW-121022 MINI
- [ ] AW-161010 SMALL
- [ ] AW-201412 MEDIUM
- [x] AW-343424 MEGA

VAULT® Specification:

The "AW" VAULT® model is a 20-year insured, warrantied, all-aluminum, multi-penetrant pathway to the roof, with air[1] & wind[2] rating, and is a 3-pc. powder-coated heavy gage aluminum engineered assembly. The "AW" VAULT® is configured with a vandal-resistant lid, middle housing, and flanged curb designed to be used with our exclusive Silx14 aluminum & stainless steel exit seals. Our exit seals are designed to accommodate appropriate size pipes, cables, duct work, or other desired penetrants.

[1]ALL "AW" Vaults® are 3rd-party tested to comply with 2015 ICC Energy Code C402, section ASTM E2178-11
[2]ASTM E2357-11

Project Information

Trader Joe's may elect, in its sole discretion, to change the make and model of the fixtures and equipment purchased for the Premises from the ones listed herein.

JOB
Name Trader Joe's
Location
ARCHITECT
Name
Location
CONTRACTOR
Name
Location
REP NAME
Fiskio, Inc. 800-288-6816
DATE

MADE IN USA

ISO 9001:2015

ASTM INTERNATIONAL

FEMA

RPH
Roof Penetration Housings, LLC
12423 Blanco Rd #120, San Antonio, Texas 78216

OPTIONS

EXIT SEALS

- [x] 5000 SERIES ¼" OD - 1.90" OD
- [x] 6000 SERIES 2-1/8" OD- 3-1/8" OD
- [ ] 7000 SERIES 3½" OD - 4½" OD
- [ ] 16000 SERIES LARGE CUSTOM OD OVER 4"
- [ ] DUCT WORK - VARIOUS

EXTERNAL SUPPORTS

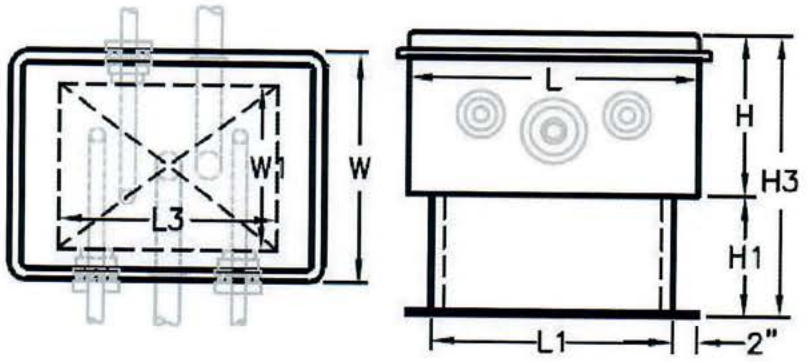
- [ ] EDS - ELECTRIC DISCONNECT SUPPORT
- [ ] SDS - SATELLITE DISH SUPPORT

INTERNAL SUPPORTS

- [ ] CABLE GUIDE

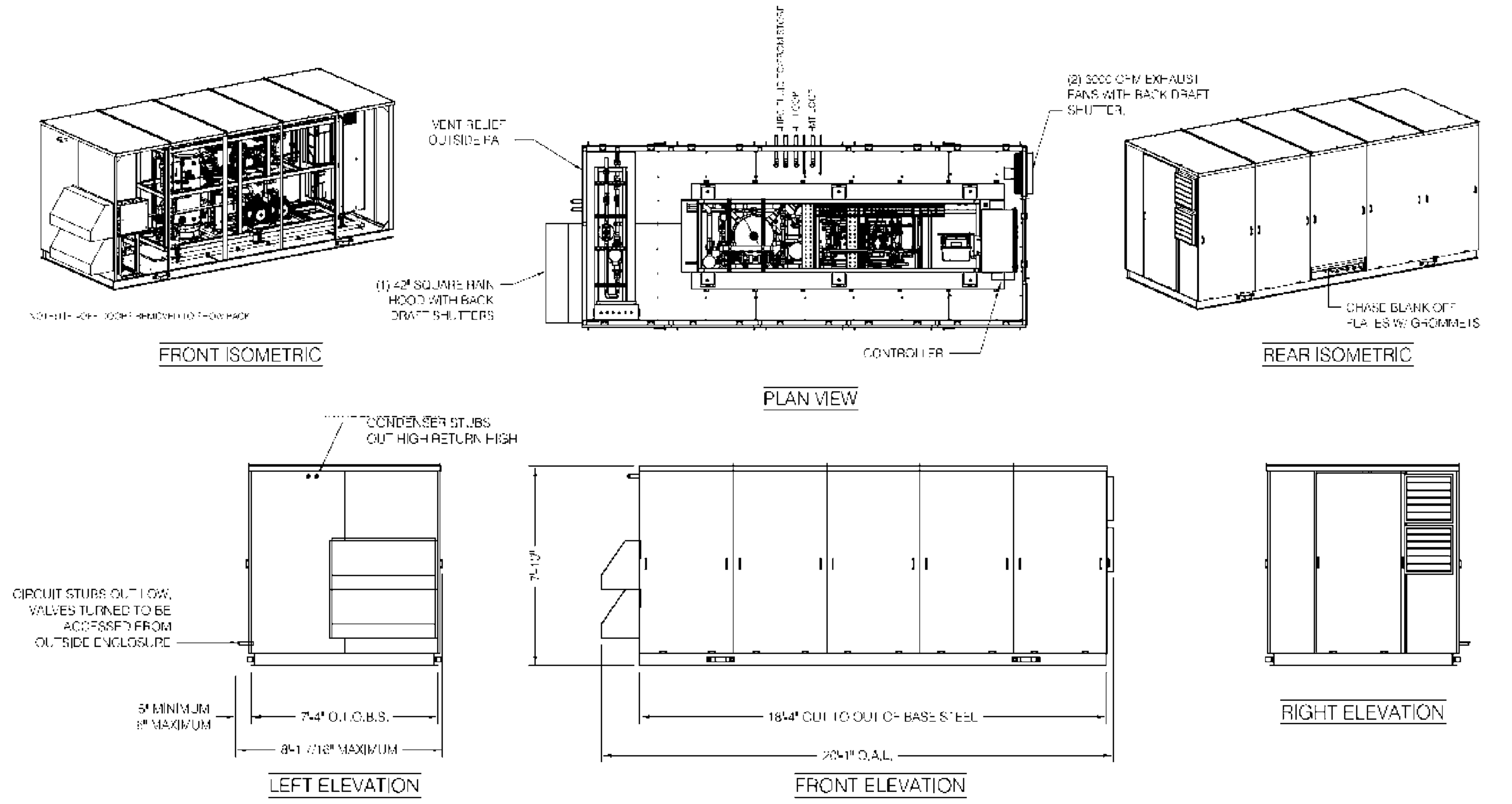
EXIT SEAL CAPACITIES (5000 SERIES)

AW-121022	6 EACH	AW-201412	16 EACH
AW-161010	8 EACH	AW-343424	24-36 EACH



MODELS	H	H1	H3	L	L1	L3	W	W1
AW-121022	23"	14"	38"	12"	10"	7½"	13"	5¼"
AW-161010	12"	14"	27"	16"	14½"	12"	12¾"	5½"
AW-201412	13¾"	14"	28¾"	21½"	19½"	16½"	14½"	10"
AW-343424	25"	14"	40"	34"	32"	29"	34"	29"

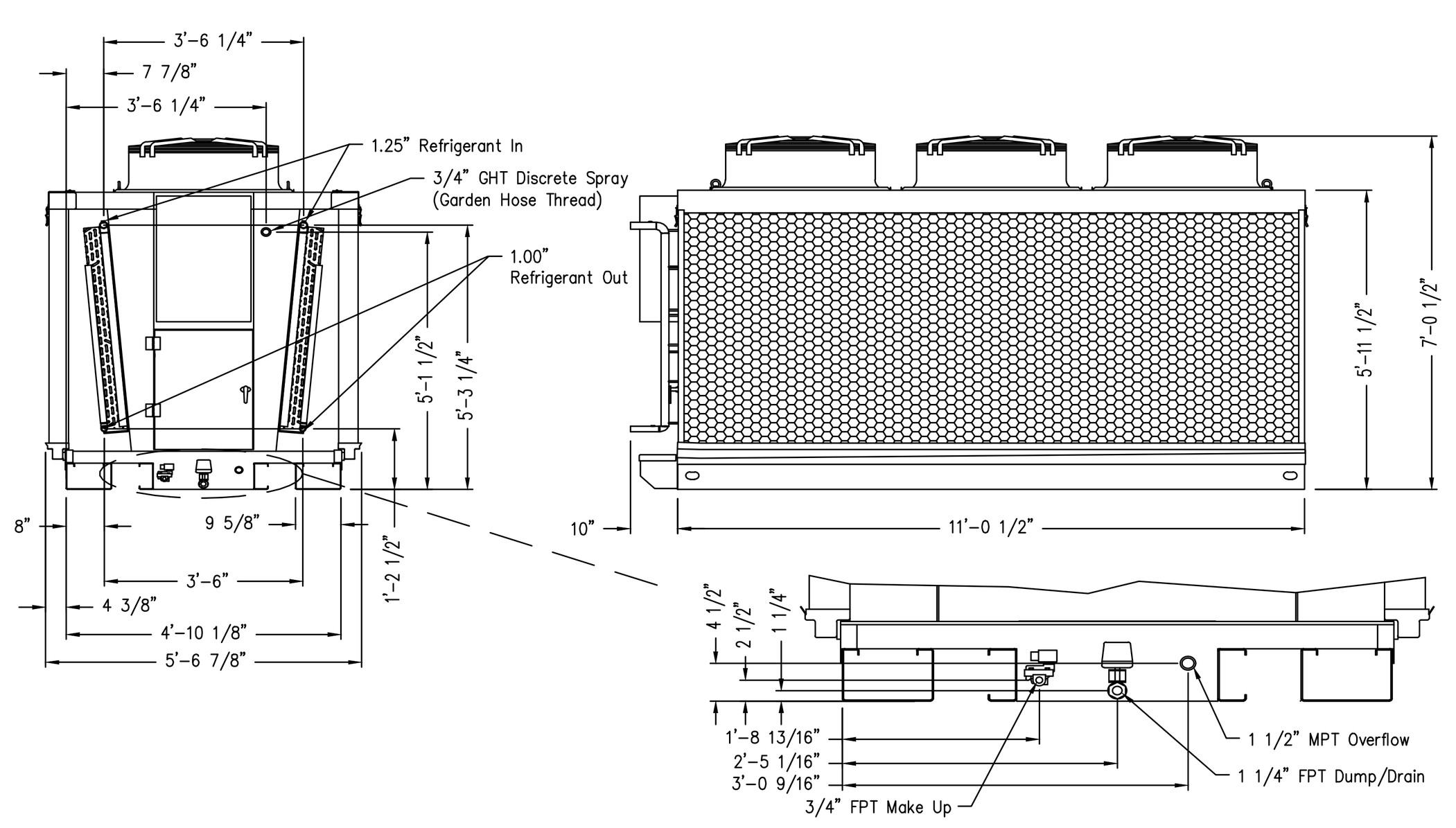
Dimensions may vary slightly.



GENERAL NOTES:

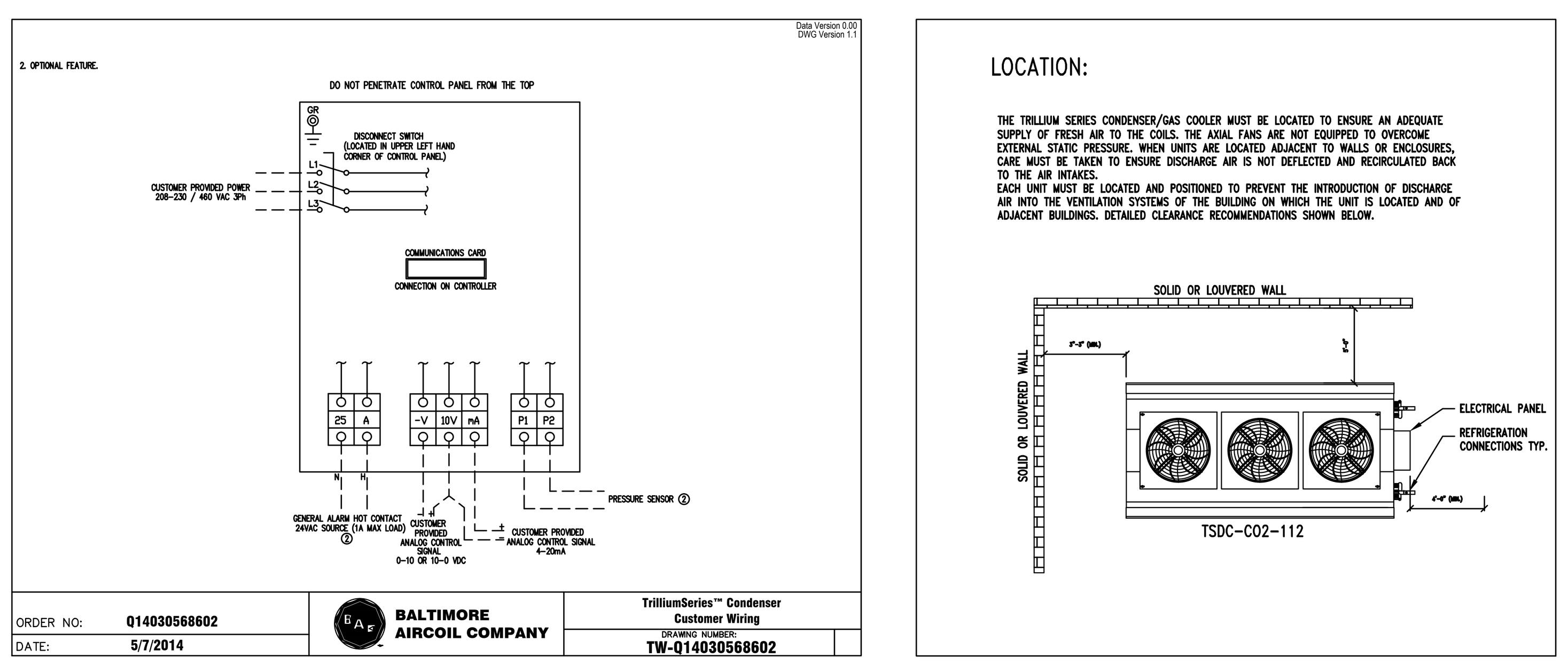
1. ESTIMATED SHIPPING WEIGHT: 10,000 LBS.

HILL PHOENIX ADVANSOR RACK OUTLINE — NOT TO SCALE — 1/R5.0

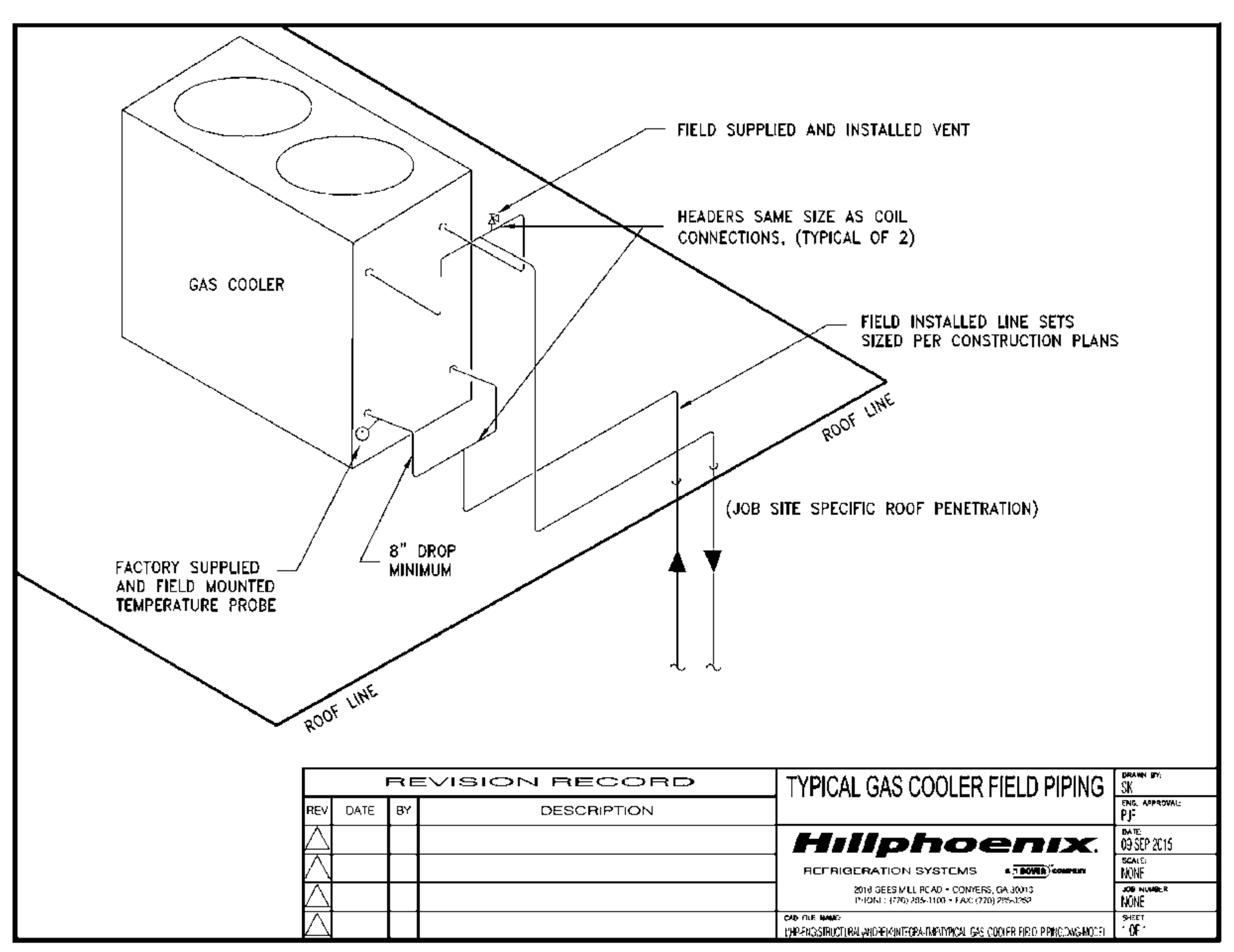


Model Number	Shipping/Rigging Weight	Operating Weight
TSDC-CO2-112	2965	3244

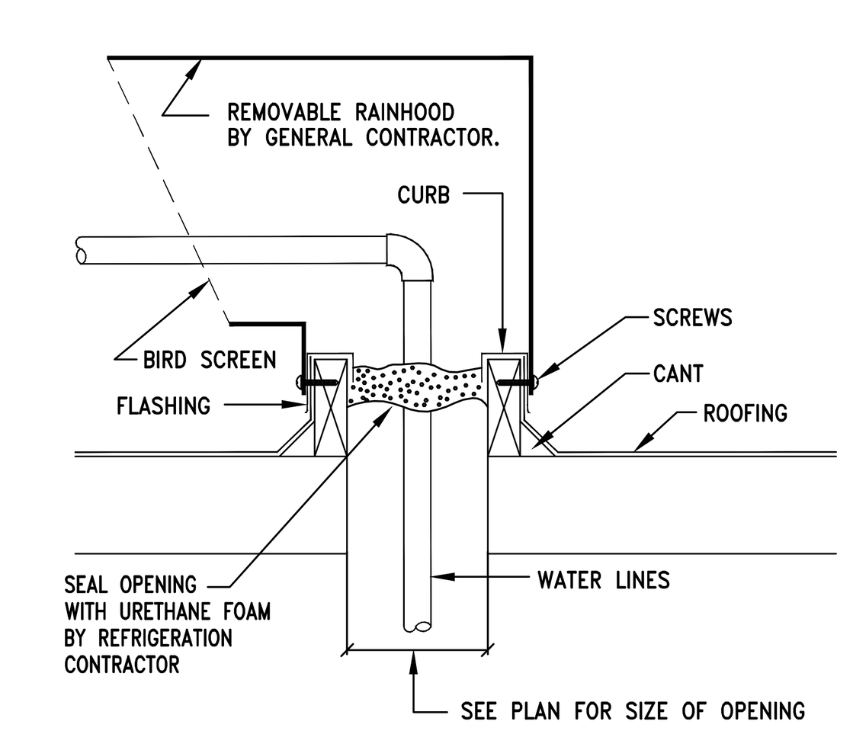
BAC TRILLIUM SERIES CONDENSER
BAC MODEL: TSDC — NOT TO SCALE — 3/R5.0



TRILLIUM SERIES CO2 GAS COOLER DETAILS — NOT TO SCALE — 5/R5.0



GAS COOLER TO RECEIVER
TYPICAL REFRIGERATION PIPING — NOT TO SCALE — 4/R5.0



NOTE:

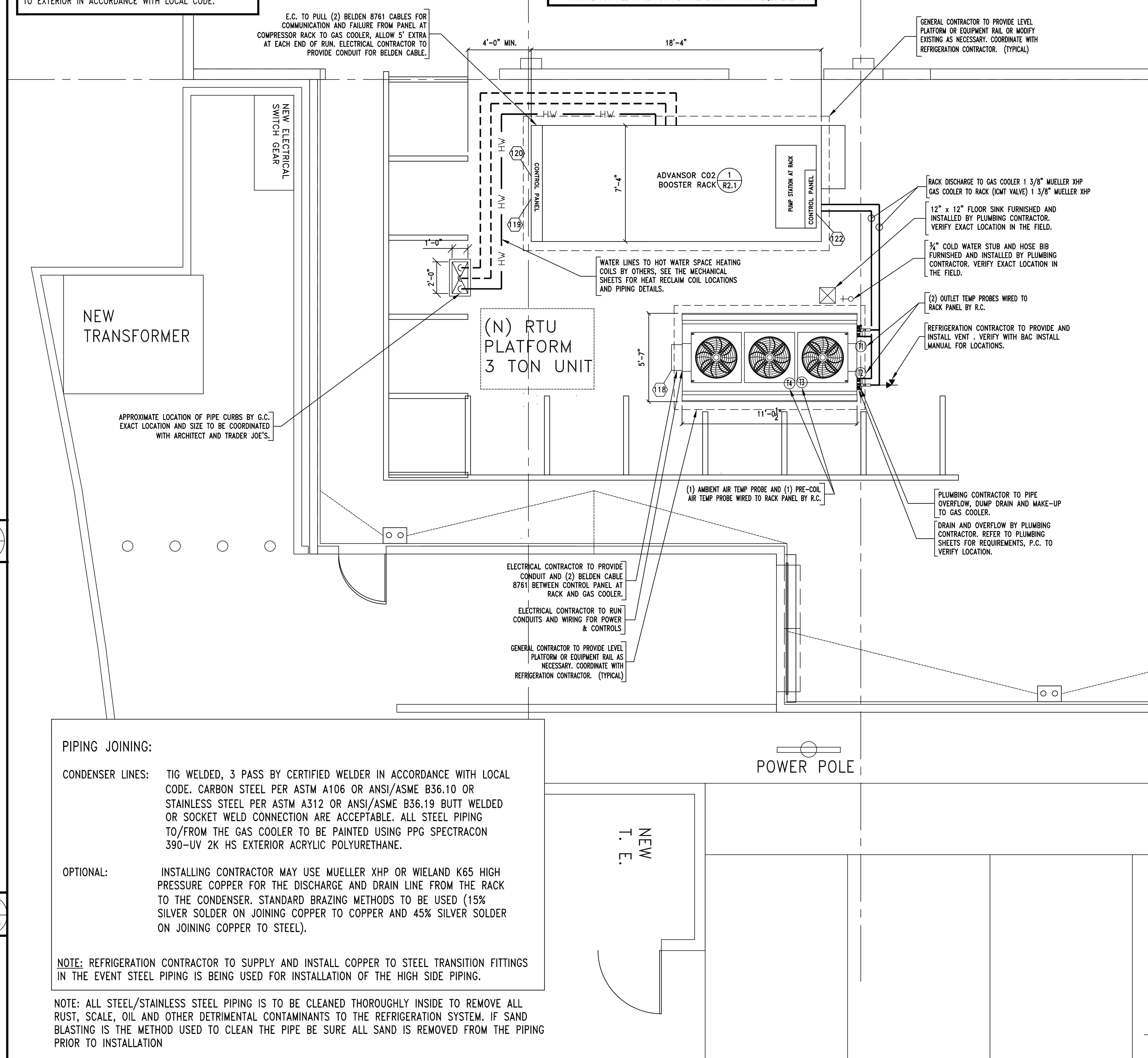
1. CURBED OPENING, CANT, FLASHING AND ROOFING BY GENERAL CONTRACTOR.
2. REMOVABLE HOOD WITH BIRD SCREEN BY GENERAL CONTRACTOR.

RAINHOOD DETAIL — NOT TO SCALE — 4/R5.0

NOTE:
REFRIGERATION CONTRACTOR TO BE RESPONSIBLE FOR SUPPLYING ANY PIPING, TRANSITIONS AND FITTINGS TO CONNECT THE RACKS, CONDENSER AND ANY OTHER PIECE OF REFRIGERATION EQUIPMENT. PIPE RELIEF LINES TO EXTERIOR IN ACCORDANCE WITH LOCAL CODE.

TRILLIUM NOTES:

1. THE TRILLIUMSERIES™ CONDENSER REQUIRES A WATER SUPPLY BETWEEN 25 AND 60 PSI IN A ¾" PIPE AT THE UNIT'S INLET. IF YOUR BUILDING'S PRESSURE IS NOT IN THIS PSI RANGE, IT IS RECOMMENDED TO USE A PRESSURE REDUCING VALVE.
2. PLUMBING CONTRACTOR TO REFER TO THE BAC INSTALLATION MAUNAL FOR ALL WATER SUPPLY AND DRAIN PIPING REQUIREMENTS.



PIPING JOINING:

CONDENSER LINES: TIG WELDED, 3 PASS BY CERTIFIED WELDER IN ACCORDANCE WITH LOCAL CODE. CARBON STEEL PER ASTM A106 OR ANSI/ASME B36.10 OR STAINLESS STEEL PER ASTM A312 OR ANSI/ASME B36.19 BUTT WELDED OR SOCKET WELD CONNECTION ARE ACCEPTABLE. ALL STEEL PIPING TO/FROM THE GAS COOLER TO BE PAINTED USING PPG SPECTRACON 390-UV 2K HS EXTERIOR ACRYLIC POLYURETHANE.

OPTIONAL: INSTALLING CONTRACTOR MAY USE MUELLER XHP OR WIELAND K65 HIGH PRESSURE COPPER FOR THE DISCHARGE AND DRAIN LINE FROM THE RACK TO THE CONDENSER. STANDARD BRAZING METHODS TO BE USED (15% SILVER SOLDER ON JOINING COPPER TO COPPER AND 45% SILVER SOLDER ON JOINING COPPER TO STEEL).

NOTE: REFRIGERATION CONTRACTOR TO SUPPLY AND INSTALL COPPER TO STEEL TRANSITION FITTINGS IN THE EVENT STEEL PIPING IS BEING USED FOR INSTALLATION OF THE HIGH SIDE PIPING.

NOTE: ALL STEEL/STAINLESS STEEL PIPING IS TO BE CLEANED THOROUGHLY INSIDE TO REMOVE ALL RUST, SCALE, OIL AND OTHER DETRIMENTAL CONTAMINANTS TO THE REFRIGERATION SYSTEM. IF SAND BLASTING IS THE METHOD USED TO CLEAN THE PIPE BE SURE ALL SAND IS REMOVED FROM THE PIPING PRIOR TO INSTALLATION

PARTIAL ROOF PLAN — SCALE: 1/4" = 1'-0"

SYMBOL LEGEND
(ALL SYMBOLS MAY NOT APPLY TO THIS PROJECT)

- REFRIGERATION LINES
- HEAT RECLAIM WATER LINES
- T# TEMPERATURE PROBE WIRED TO CONTROL PANEL OF COMPRESSOR RACK USING TWO (2) CONDUCTORS. (LOW VOLTAGE)

NOTE:

1. REFRIGERATION CONTRACTOR TO BE RESPONSIBLE FOR SUPPLYING ANY PIPING, TRANSITIONS AND FITTINGS TO CONNECT THE RACKS, CONDENSER AND ANY OTHER PIECE OF REFRIGERATION EQUIPMENT. PIPE RELIEF LINES TO EXTERIOR IN ACCORDANCE WITH LOCAL CODE.
2. HEAT RECLAIM HEAT EXCHANGER FACTORY MOUNTED AT PUMP SKID INSIDE RACK ENCLOSURE, MECHANICAL ENGINEER IS RESPONSIBLE FOR ALL HYDRONIC HEAT RECLAIM PIPE SIZING, AND ACCESSORIES SELECTIONS. ALL HYDRONIC HEAT RECLAIM PIPING IS BY MECHANICAL CONTRACTOR.
3. REFER TO EMS SHEETS FOR THE HOT WATER COIL CONTROL INFORMATION.

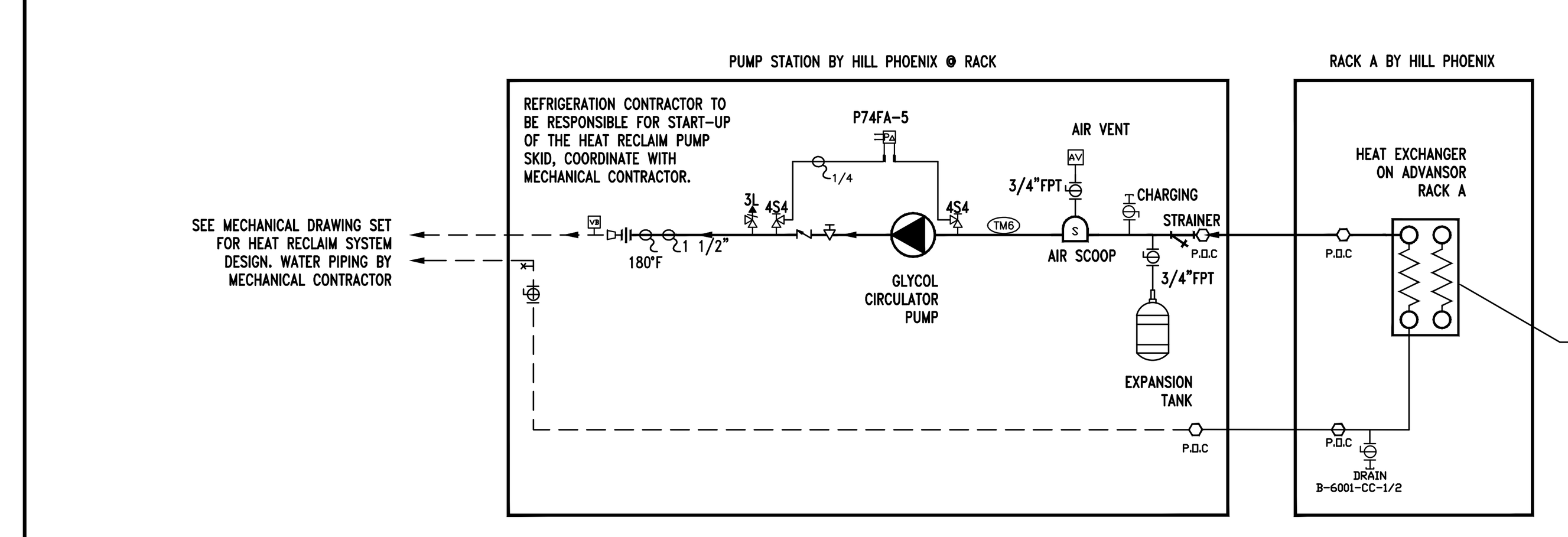
NOTES:

1. VERIFY EXACT LOCATION OF THE UNIT WITH THE ARCHITECTURAL DRAWING.
2. GENERAL CONTRACTOR TO PROVIDE THE STRUCTURES TO SUPPORT THE CONDENSERS.
3. THE PLATFORM UNDER EQUIPMENT MUST BE LEVEL. ALLOW 6" (MIN.) SPACE AROUND EQUIPMENT FOR THE PLATFORM.
4. INSTALLING CONTRACTOR SHALL ANCHOR ALL ROOF MOUNTED EQUIPMENT. BOLT OR WELD TO STEEL FRAME OR LAG BOLT TO EQUIPMENT CURBS.
5. WHEN USING AIR-COOLED CONDENSER WITH SPLITTING, THE REFRIGERATION CONTRACTOR SHALL VERIFY PIPING AND CONTROL, SO THAT VALVES AND CONDENSER FANS WILL OPERATE IN UNISON.

LEGEND

- EVAPORATIVE AIR COOLER
- AIR RELIEF
- EXHAUST FAN
- AIR INTAKE

** REFRIGERATION CONTRACTOR TO REVIEW THE MECHANICAL, PLUMBING AND EMS SHEETS FOR ANY ADDITIONAL ITEMS THAT MAY AFFECT THE REFRIGERATION SCOPE OF WORK.



SYMBOLS LEGEND

Symbol	Description
	THERMOSTAT
	THERMOMETER
	VACUUM BREAKER
	PRESSURE GAUGE
	PRESSURE RELIEF VALVE
454	1/4" ACCESS VALVE
	BALANCE VALVE
	CHECK VALVE
	UNION
HB	HOSE BIBB
	BALL VALVE
P.O.C	POINT OF CONNECTION

HEAT RECLAIM AVAILABLE
RACK A – 233,283 BTUH @ 35%

NOTES:

1. EXCLUDING PUMP STATION, ALL WATER PIPING, GATE VALVES, DRAIN COCKS, UNIONS, EXPANSION TANKS, VACUUM BREAKER, HOT WATER CIRCULATING PUMP, INSULATION, AND ADDITIONAL RELIEF VALVE(S) DESIGNED BY MECHANICAL ENGINEER AND PROVIDED AND INSTALLED BY MECHANICAL CONTRACTOR.
2. STORAGE TANKS, PUMP STATION, ASSOCIATED PRESSURE-TEMPERATURE RELIEF VALVES AND SENSORS FURNISHED BY REFRIGERATION VENDOR.
3. REFRIGERATION CONTRACTOR TO SET STORAGE TANKS IN SAFETY PAN AND FASTEN WITH SEISMIC STRAPS (IF REQUIRED).
4. PLUMBING CONTRACTOR TO INSTALL PRESSURE-TEMPERATURE RELIEF VALVES AND DRAIN LINES.
5. PLUMBING CONTRACTOR TO INSTALL SENSORS IN COORDINATION WITH REFRIGERATION AND ELECTRICAL CONTRACTORS.
6. ELECTRICAL CONTRACTOR TO WIRE THE SENSORS IN COORDINATION WITH REFRIGERATION CONTRACTOR.
7. VERIFY WITH PLUMBING AND MECHANICAL PLANS FOR ADDITIONAL DETAILS.
8. MECHANICAL CONTRACTOR TO INSULATE GLYCOL PIPING WITH 1" ARMAFLEX.

HEAT RECLAIM PUMP @ RACK — NOT TO SCALE

FOR REFERENCE ONLY

HEAT RECLAIM PUMP AT COMPRESSOR RACK DETAIL — NOT TO SCALE — 4/R5.0

GENERAL NOTES:

1. GENERAL CONTRACTOR TO FURNISH AND INSTALL:
   A. CUTTING AND PATCHING OF ALL OPENINGS ON ROOF, IN CEILING AND WALL.
   B. CURBED OPENINGS, BURGLAR BARS, COUNTER FLASHING, AND ROOF JACKS.
   C. PLATFORM AND STRUCTURAL SUPPORT FOR EQUIPMENT MOUNTING.
2. PLUMBING CONTRACTOR TO FURNISH AND INSTALL:
   A. FLOOR SINK WHEN REQUIRED.
   B. WATER PIPING AND FINAL CONNECTIONS, INCLUDING CITY WATER, HOT WATER AND DRAIN.
3. ELECTRICAL CONTRACTOR TO:
   A. FURNISH, INSTALL, AND CONNECT ALL ELECTRICAL EQUIPMENTS AND CONTROLS, INCLUDING BREAKERS, STARTERS, CONTACTORS, RELAYS, DISCONNECTS, SWITCHES, FUSES, TRANSFORMERS, ETC. AS REQUIRED IN ACCORDANCE WITH WIRING DIAGRAMS AND LOCAL CODES.
   B. INSTALL AND CONNECT ALL ACCESSORIES (E.G. THERMOSTAT, SOLENOID VALVES, TIME CLOCKS, DAMPER MOTORS, ETC.) FURNISHED BY OTHERS.
   C. PROVIDE 120 VOLT RECEPTACLE WITHIN 25' OF ALL ROOF MOUNTED EQUIPMENT PER UNIFORM MECHANICAL CODE SECTION 509.
4. EXACT LOCATION OF ALL ROOF MOUNTED EQUIPMENT TO BE DETERMINED BY ARCHITECT WITH APPROVAL OF OWNER'S REPRESENTATIVE AND REFRIGERATION CONTRACTOR. ANY NOISE ABSORBING STRUCTURES, IF NEEDED, SHALL BE PROVIDED BY OTHERS AT NO COST TO HILL PHOENIX OR REFRIGERATION CONTRACTOR.
5. DO NOT RUN OVERHEAD LINES (REFRIGERATION, ELECTRICAL, OR PLUMBING) ACROSS FRESH AIR-INTAKE OR CURB OPENING FOR EQUIPMENT/ACCESS TO MACHINE ROOM.

NOTE TO CONTRACTORS:

IT IS THE RESPONSIBILITY OF EACH CONTRACTOR TO OBTAIN AND USE THE LATEST PLANS. ***HILL PHOENIX*** WILL NOT BE RESPONSIBLE FOR ANY CONSTRUCTION WORK PERFORMED WITH OBSOLETE PLANS.

NO.	REVISION	DATE	BY
1	UPDATED PER LATEST FLOOR PLAN.	08-16-18	A.PEREZ
2	BUILDING DEPARTMENT CORRECTIONS	08-28-18	A.PEREZ

DATE: APRIL 30, 2018
ACCOUNT REP: TONY STOCKLER
ENGINEER: AARON PEREZ
DRAWN BY: --
CHECKED BY: --
DATE ISSUED: --

Hillphoenix® A DOVER COMPANY
Hill PHOENIX
14350 Cherokee Place, Chino CA 91710
Phone: (909) 270-2111

REGISTERED PROFESSIONAL ENGINEER — ERIC K. JOY — M 35276 — Exp. 06/30/20 — MECHANICAL — STATE OF CALIFORNIA — 08/28/18

STORE/PROJECT:

DRAWING NAME: MECHANICAL EQUIPMENT PLAN

SHEET NO.: R5.0

SCALE: 1/4" = 1'-0"

LENNOX ENERGENCE COMMERCIAL ROOFTOP UNITS

The quietest, lightest and most efficient rooftop units in their class.

At Lennox, we're committed to building innovative products that can help save energy costs and reduce operating expenses. Our family of Energence rooftop units, including Energence Ultra-High-Efficiency and Energence High-Efficiency models, achieve industry- leading efficiencies.

The Energence Ultra-High-Efficiency rooftop line features efficiency ratings up to 23.5 SEER, 15 EER and 22 IEER–the highest on the market today.*

*When comparing a 22 IEER unit to a 13.5 IEER unit.

LENNOX ENERGENCE® ULTRA-HIGH-EFFICIENCY ROOFTOP UNITS

Energence® Ultra-High-Efficiency delivers ultra innovation and performance on all counts.

Energence® Ultra-High-Efficiency rooftop units deliver industry-leading advantages for 3- to 25-ton applications. They offer the industry's highest efficiency ratings, lower sound levels and a reduced weight that simplifies specification and installation. But that's just the beginning.

NEXT-GENERATION BLOWER

- Our direct-drive, variable-speed blower, standard on 3- to 6-ton models, eliminates the need to replace belts when servicing the unit.
- MSAV® (Multi-Stage Air Volume) supply fan technology, standard on Energence Ultra-High-Efficiency models, uses up to seven different airflow settings to automatically adjust operating speed, optimizing efficiency and performance.
- Optional DirectPlus™ blower system is a high-efficiency motor with a direct-mounted impeller that provides exceptional performance and low energy consumption.
- The slide-out blower assembly combines components, making service and installation easier. Available for 7.5- to 12.5-ton models.

ULTRA-ADVANCED COMPRESSOR

- Energence Ultra-High-Efficiency 3- to 6-ton models feature fully modulating, inverter-driven, variable-speed compressor technology that delivers more even comfort.
- A patent-pending, Advanced Cooling System™ configuration is designed to deliver significant year-round savings for 7.5- to 25-ton models.
  - Scroll compressors use the full area of the coils, rather than parts, to better match cooling capacity to demand.
  - The compressor compartment is isolated, allowing easier access and servicing.

ULTRA-HIGH-EFFICIENCY TECHNOLOGIES	3- TO 6-TON UNITS	7.5 TO 12.5-TON UNITS	15- TO 25-TON UNITS
CONTROL SYSTEM			
Prodigy® 2.0 Unit Controller	✔	✔	✔
COMPRESSOR			
Variable-speed compressor and inverter	✔		
Advanced Cooling System™ – one set of tandem compressors		✔	
Advanced Cooling System – two sets of tandem compressors			✔
INDOOR BLOWER			
Variable-speed, direct-drive blower	✔		
MSAV® belt-drive blower		✔	✔
DirectPlus™ variable-speed, direct-drive blower		✔	
OUTDOOR FAN			
Variable-speed outdoor fan	✔	✔	✔
HEATING			
Four-stage gas burner	✔		✔

LENNOX® VRF AT A GLANCE

Advantages to every customer and every project.

INVERTER TECHNOLOGY
Adjusts compressor speed based on heating and cooling demand for reduced energy use.

IMPROVED HEAT TRANSFER
With hydrophilic fins and rifled copper tubing.

ADVANCED DEFROST CYCLE
A shorter defrost cycle preserves warmth and comfort in cooler weather. Heat recovery systems are capable of providing continuous heating during the defrost cycle.

DC FAN MOTORS
Provide greater efficiency and energy savings over standard AC motors.

SIMPLIFIED WIRING SCHEME
Daisy-chained, low-voltage-control wiring simplifies installation and reduces time and labor costs.

OUTDOOR UNITS

Smart design features are found throughout each outdoor unit, designed to save energy, increase convenience and extend equipment life.

FLEXIBLE SYSTEM LAYOUT
Outdoor units can connect with up to 3,280 ft. (1000m) of piping to accommodate even the largest structures and projects.

ENERGY-SMART NIGHT MODE
Outdoor units can be set to run at reduced speeds at night for even greater efficiency and reduced noise levels.

1 DC INVERTER COMPRESSORS
Lennox® VRF utilizes only inverter-driven compressors to maximize efficiency and system longevity. A 2 Hz frequency step allows the system to operate at the required capacity with greater precision, for fine-tuned comfort and greater energy savings.

2 DC FAN MOTORS
Highly efficient DC fan motors power condensing unit fans, with 18 different speeds for precise airflow control and greater efficiency than standard AC motors.

3 ASYMMETRIC FAN BLADE DESIGN
A specially engineered fan blade design optimizes airflow while reducing noise. Lennox VRF also utilizes dissimilar fan blades to eliminate in-phase "pulsing" and minimize sound levels.

4 HINGED ELECTRICAL BOX
Allows quick and easy access to piping and valves for faster service and troubleshooting.

5 ADVANCED DEFROST CYCLE
Heat recovery systems in the Lennox VRF line use a split-coil defrost cycle that allows the system to provide heat even when defrosting. Heat pump systems use an accelerated complete-coil defrost that can last as little as four minutes.

6 RIFLED COPPER TUBING
Works with hydrophilic fins for greater heat transfer, efficiency and performance.

VWMB
WALL MOUNT

FLEXIBLE INSTALLATION
Refrigerant piping can be routed to the left, right or rear

AUTO-SWING LOUVER
Automatically redirects air based on mode selected

QUIET OPERATION
Noise levels as low as 29 dB

V22A
COMPACT 360° CASSETTE

360° AIR OUTLET
Provides uniform temperature distribution

COMPACT CASING
Fits directly into a lay-in ceiling grid, while reducing installation space requirements above the ceiling

INTEGRAL CONDENSATE PUMP
Removes moisture quickly and conveniently

V33B
360° CASSETTE

360° AIR OUTLET
Provides uniform temperature distribution

OUTSIDE AIR CONNECTION
Allows ventilation air to be induced directly into the unit

INTEGRAL CONDENSATE PUMP
Removes moisture quickly and conveniently

DC MOTOR
Available in a DC motor configuration for maximum energy efficiency

VCFA
CEILING AND FLOOR MOUNT

FLEXIBLE INSTALLATION
Installs either vertically or horizontally

VERTICAL AND HORIZONTAL AUTO SWING
Ensures better airflow distribution

COMPACT INSTALLATION
Less than 8.5" (216mm) in height

VHIA
HIGH-STATIC DUCTED

HIGH STATIC PRESSURE
Industry-leading static pressure up to 1.13"

LOW PROFILE HEIGHT
For space-saving applications

OPTIONAL CONDENSATE PUMP
Removes moisture quickly and conveniently

VMDB
MEDIUM-STATIC DUCTED

COMPACT INSTALLATION
A height of only 8.25" (210mm) makes this unit ideal when space above the ceiling is limited

INTEGRAL CONDENSATE PUMP
Removes moisture quickly and conveniently

DC MOTOR
Available in a DC motor configuration with increased static pressure capabilities

VVCA
VERTICAL AIR HANDLING UNIT

ECM MOTOR
For maximum energy efficiency

MULTI-POSITION
Install vertically or in horizontal-right or horizontal-left orientations for maximum flexibility

OPTIONAL ELECTRIC HEAT
Up to 20kW

PACKAGED GAS ELECTRIC

LGH

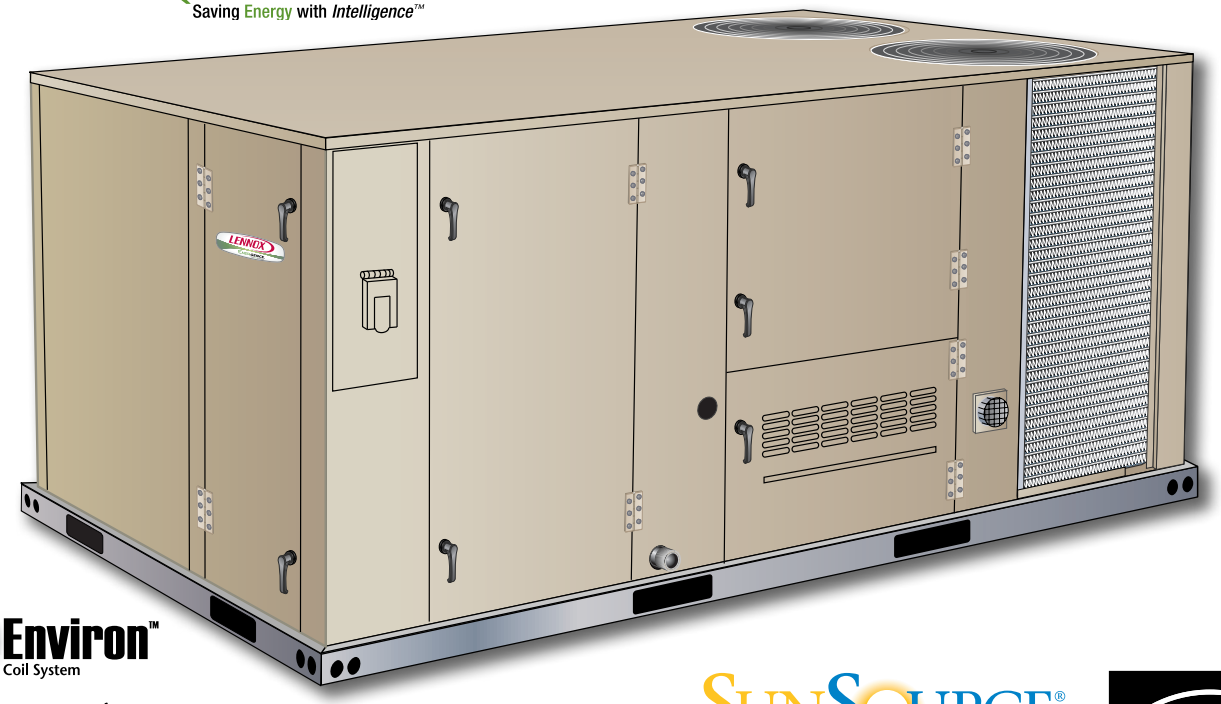
Energence® Rooftop Units

60 HZ

Bulletin No. 210555
November 2016
Supersedes June 2016

PRODUCT SPECIFICATIONS

ENERGENCE®
Saving Energy with *Intelligence*™



Environ™ Coil System

PRODiGY™ CONTROL SYSTEM

SMARTWIRE™ SYSTEM

SUNSOURCE® Commercial Energy System

ENERGY STAR

MSAV™ MULTI-STAGE AIR VOLUME

Humiditrol

L Connection® NETWORK

ASHRAE 90.1 COMPLIANT

7.5 to 12.5 Tons
Net Cooling Capacity – 90,000 to 136,000 Btuh
Gas Input Heat Capacity – 130,000 to 240,000 Btuh

MODEL NUMBER IDENTIFICATION

L G H 120 H 4 B S 1 Y

Brand/Family
L = Energence®

Unit Type
G = Packaged Gas Heat w/ Electric Cooling

Major Design Sequence
H = 1st Generation

Nominal Cooling Capacity - Tons
092 = 7.5 Tons
102 = 8.5 Tons
120 = 10 Tons
150 = 12.5 Tons

Cooling Efficiency
H = High Efficiency
S = Standard Efficiency

Refrigerant Type
4 = R-410A

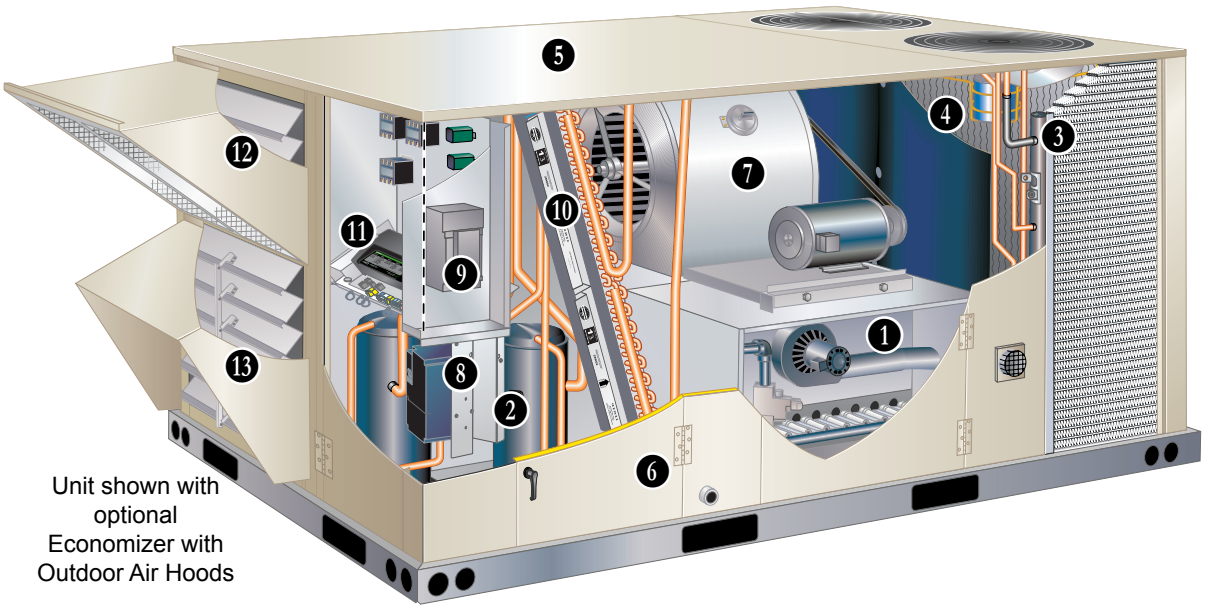
Blower Type
B = Belt Drive, Constant Air Volume (CAV)
M = MSAV® (Multi-Stage Air Volume) Supply Air Blower Option, Belt Drive

Heating Type
S = Standard Gas Heat, 2 Stage
M = Medium Gas Heat, 2 Stage
H = High Gas Heat, 2 Stage

Minor Design Sequence
1 = 1st Revision
2 = 2nd Revision
3 = 3rd Revision

Voltage
Y = 208/230V-3 phase-60hz
G = 460V-3 phase-60hz
J = 575V-3 phase-60hz

FEATURES AND BENEFITS



Unit shown with optional Economizer with Outdoor Air Hoods

Lennox' Energence® packaged rooftop unit product line was created to save energy with intelligence by offering some of the highest energy efficiency ratings available with a powerful, easy to use unit controller. This makes Energence® rooftop units perfect for business owners looking for an HVAC product with the lowest total cost of ownership. Energence® rooftop units feature:

- **Hinged Access Panels -** Provide quick access to components and protect panels and roof from damage during servicing.
- **Isolated Compressor Compartment -** Allows performance check during normal compressor operation without disrupting airflow.
- **Corrosion-Resistant Removable, Reversible Drain Pan -** Provides application flexibility, durability and improved serviceability.
- **Thermostatic Expansion Valves (High Efficiency Models) -** Provide peak cooling performance across the entire application range.
- **Scroll Compressors -** Standard on all units for reliable, long-term operation.
- **Lennox' Environ™ Coil System -** Smaller, lighter condenser coil.
- **Humiditrol® Dehumidification System -** Patented system allows for independent control of temperature and humidity, providing enhanced comfort control.
- **Constant Air Volume (CAV) or MSAV® (Multi-Stage Air Volume) Supply Air Blower Option -** Allows constant or multi-staged air delivery.
- **Auto-Tensioner for Blower Belt -** Factory option ensures blower is delivering the proper airflow for comfort, while maximizing efficiency and belt life.
- **MERV 13 Filters -** Available as factory or field option, provide an enhanced level of indoor air quality, and can help the building qualify for additional LEED credits.
- **Foil-Faced Insulation -** Insulation on all internal surfaces that have contact with airflow helps minimize airborne fibers and improve IAQ.
- **Common Components -** Many maintenance items are standard throughout the entire product line, reducing the need to carry different parts to the job or maintain in inventory.

Prodigy® Control System

Standard on every Energence® rooftop unit, the Prodigy® 2.0 unit controller is the center of the Prodigy® Control System. The intuitive user interface makes setup, troubleshooting and service easier than ever. Each unit tracks the runtime of every major component and records the date and time when service or maintenance is performed.

SmartWire™ System

The SmartWire™ system simplifies field sensor or thermostat installation through advanced connectors that are keyed and color-coded to help prevent miswiring. Not only is the wire coloring scheme standardized across all models, each connection is intuitively labeled to make troubleshooting and servicing quick and easy.

CONTENTS

APPROVALS

AHRI Certified to AHRI Standard 340/360-2007.

ETL listed.

Efficiency ratings are certified by CSA.

Components are bonded for grounding to meet safety standards for servicing required by UL, ULC and National and Canadian Electrical Codes.

All models are ASHRAE 90.1-2010 compliant.

MSAV® models meet California Code of Regulations, Title 24 requirements for staged airflow.

ISO 9001 Registered Manufacturing Quality System.

ENERGY STAR® certified units are designed to use less energy, help save money on utility bills, and help protect the environment.

The ENERGY STAR® Partner of the Year Award signifies that Lennox has made outstanding contributions to design energy efficient units that will lower energy bills, while meeting industry standards for comfort and indoor air quality. Lennox was the first HVAC manufacturer to win this award and has been a four-time recipient since 2003.

WARRANTY

Limited ten years aluminized heat exchanger, limited fifteen years optional stainless steel heat exchanger.

Limited five years on compressors.

Limited three years on the Lennox' Environ™ Coil System.

Limited three years on Prodigy® 2.0 unit controller.

Limited five years on Optional High Performance Economizers.

Limited one year all other covered components.

HEATING SYSTEM

1 Aluminized steel inshot burners, direct spark ignition, electronic flame sensor, combustion air inducer, redundant automatic dual stage gas valve with manual shut-off.

Heat Exchanger
Tubular construction, aluminized steel, life cycle tested.

Optional Stainless Steel Heat Exchanger is required if mixed air temperature is below 45°F.

Electronic Pilot Ignition
Electronic spark igniter provides positive direct ignition of burners on each operating cycle. The system permits main gas valve to stay open only when the burners are proven to be lit. Should a loss of flame occur, the gas valve closes, shutting off the gas to the burners. Ignition module has LED to indicate status and aid in troubleshooting.

Watchguard circuit on module automatically resets ignition controls after one hour of continuous thermostat demand after unit lockout, eliminating nuisance service calls.

Ignition control is factory installed in the gas heating compartment.

Limit Controls
Factory installed, redundant limit controls with fixed temperature setting. Heat limit controls protect heat exchanger and other components from overheating.

Safety Switches
Flame roll-out switch, flame sensor and combustion air inducer proving switch protect system operation.

Required Selections

Gas Input Choice - Order one:
Standard Gas Heat, 2 Stage (84,500/130,000 Btuh)

Medium Gas Heat, 2 Stage (117,000/180,000 Btuh)

High Gas Heat, 2 Stage (156,000/240,000 Btuh)

HEATING SYSTEM (continued)

Options/Accessories

Factory Installed

Stainless Steel Heat Exchanger
Required if mixed air temperature is below 45°F.

Factory or Field Installed

Bottom Gas Piping Kit
Allows bottom gas entry.

Field installed only, may be factory ordered to ship with unit.

Low Temperature Vestibule Heater
Electric heater automatically controls minimum temperature in gas burner compartment when temperature is below -40°F. CSA certified to allow operation of unit down to -60°F.

Field Installed

Combustion Air Intake Extensions
Recommended for use with existing flue extension kits in areas where high snow areas can block intake air.

LPG/Propane Kits
Conversion kit to field change over units from Natural Gas to LPG/ Propane.

Vertical Vent Extension Kit
Use to exhaust flue gases vertically above unit. Required when unit vent is too close to fresh air intakes per building codes. The vent kit also prevents ice formation on intake louvers.

Kit contains vent transition, vent tee, drain cap and installation hardware.

NOTE - Straight vent pipes (4-in. B-Vent) and caps are not furnished and must be field supplied. Refer to kit instructions for additional information.

COOLING SYSTEM

Designed to maximize sensible and latent cooling performance at design conditions.

System can operate from 0°F to 125°F without any additional controls.

R-410A Refrigerant
Non-chlorine based, ozone friendly, R-410A.

❷ Scroll Compressors
Scroll compressors on all models for high performance, reliability and quiet operation.

Resiliently mounted on rubber grommets for quiet operation.

Compressor Crankcase Heaters
Protects against refrigerant migration that can occur during low ambient operation.

Thermal Expansion Valves (High Efficiency Models)
Assures optimal performance throughout the application range.

Removable element head.

Refrigerant Metering Orifice (Standard Efficiency Models)
Accurately meters refrigerant in system.

Refrigerant control is accomplished by exact sizing of refrigerant metering orifice.

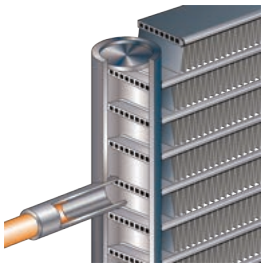
Filter/Driers
High capacity filter/drier protects the system from dirt and moisture.

High Pressure Switches
Protects the compressors from overload conditions such as dirty condenser coils, blocked refrigerant flow, or loss of outdoor fan operation.

Low Pressure Switches
Protects the compressors from low pressure conditions such as low refrigerant charge, or low/no airflow.

Freezestats
Protects the evaporator coil from damaging ice build-up due to conditions such as low/no airflow, or low refrigerant charge.

❸ Lennox' Environ™ Coil System



Condenser coil features lightweight, all aluminum brazed fin construction.

Constructed of three components: a flat extrusion tube, fins in-between the flat extrusion tube and two refrigerant manifolds.

Environ™ Coil System Features:

- Improved heat transfer performance due to high primary surface area (flat tubes) versus secondary surface (fins).
- Smaller internal volume (reduced refrigerant charge).
- High durability (all aluminum construction).
- Fewer brazed joints.
- Compact design (reduces unit weight).
- Easy maintenance/cleaning.

Face-split design.

Mounting brackets with rubber inserts secure coil to unit providing vibration dampening and corrosion protection.

Evaporator Coil
Copper tube construction, enhanced rippled-edge aluminum fins, flared shoulder tubing connections, silver soldered construction for improved heat transfer.

Cross row circuiting with rifled copper tubing optimizes both sensible and latent cooling capacity.

Condensate Drain Pan
Plastic pan, sloped to meet drainage requirements per ASHRAE 62.1.

Side or bottom drain connections.

Reversible to allow connection at back of unit.

FEATURES AND BENEFITS

4 Outdoor Coil Fan Motors
Thermal overload protected, totally enclosed, permanently lubricated ball bearings, shaft up, wire basket mount.

Outdoor Coil Fans
PVC coated fan guard furnished.

Required Selections

Cooling Capacity
Specify nominal cooling capacity of the unit

Options/Accessories

Factory Installed

Conventional Fin/Tube Condenser Coil (replaces Environ™ Coil System)
Copper tube construction, enhanced rippled-edge aluminum fins, flared shoulder tubing connections, silver soldered construction.

NOTE - Required if Humiditrol® Dehumidification System is ordered.

Service Valves
Fully serviceable brass valves installed in discharge & liquid lines.

Not available for units equipped with Environ™ Coil System or Humiditrol® Dehumidification option.

Factory or Field Installed

Condensate Drain Trap
Available in copper or PVC.

Field installed only, may be factory ordered to ship with unit.

Drain Pan Overflow Switch
Monitors condensate level in drain pan, shuts down unit if drain becomes clogged.

CABINET

5 Construction
Heavy-gauge steel panels and full perimeter heavy-gauge galvanized steel base rail provides structural integrity for transportation, handling, and installation.

Base rails have rigging holes.

Three sides of the base rail have forklift slots.

Raised edges around duct and power entry openings in the bottom of the unit provide additional protection against water entering the building.

Airflow Choice
Units are shipped in downflow (vertical) configuration, can be field converted to horizontal airflow with optional Horizontal Discharge Kit.

Duct Flanges
Provided for horizontal duct attachment.

Power/Gas Entry
Electrical and gas lines can be brought through the unit base or through horizontal access knock-outs

Exterior Panels
Constructed of heavy-gauge, galvanized steel with a two-layer enamel paint finish.

Insulation
All panels adjacent to conditioned air are fully insulated with non-hygroscopic fiberglass insulation.

Unit base is fully insulated. The insulation also serves as an air seal to the roof curb, eliminating the need to add a seal during installation.

6 Hinged Access Panels
Hinged tool-less access panels are provided for the filter section, blower/heating section and compressor/controls section.

All hinged panels have seals and quarter-turn latching handles to provide a tight air and water seal.

Required Selections

Airflow Configuration
Specify downflow or horizontal.

Options/Accessories

Factory or Field Installed

Return Air Adaptor Plate
For same size LC/LG/LH and TC/TG/TH unit replacement.

Installs on return air opening in unit to match return air opening on existing roof curbs. Also see Accessory Air Resistance table.

Factory Installed

Corrosion Protection
A completely flexible immersed coating with an electrodeposited dry film process. (AST ElectroFin E-Coat) Meets Mil Spec MIL-P-53084, ASTM B117 Standard Method Salt Spray Testing.

Indoor Corrosion Protection:
- Coated coil
- Coated reheat coil (Humiditrol®)
- Painted blower housing
- Painted base

Outdoor Corrosion Protection:
- Coated coil
- Painted base

Field Installed

Combination Coil/Hail Guards
Heavy gauge steel frame painted to match cabinet with expanded metal mesh to protect the outdoor coil from damage.

Horizontal Discharge Kit
Consists of duct covers to block off downflow supply and return air openings for horizontal applications.

Also includes return air duct flanges for end return air when economizer is used in horizontal applications.

NOTE - When configuring unit for horizontal application with economizer, a separate Horizontal Barometric Relief Damper with Hood must be ordered separately for installation in the return air duct.

BLOWER

A wide selection of supply air blower options are available to meet a variety of airflow requirements.

❼ **Motor**
Overload protected, equipped with ball bearings. Belt drive motors are offered on all models and are available in several different sizes to maximize air performance.

Motor Efficiency
All blower motors 5 hp and above meet minimum energy efficiency standards in accordance with the Energy Independence and Security Act (EISA) of 2007.

Supply Air Blower
Forward curved blades, double inlet, blower wheel is statically and dynamically balanced. Equipped with ball bearings and adjustable pulley (allows speed change).

Blower assembly slides out of unit for servicing.

Required Selections

Select Constant Air Volume (CAV) or MSAV® (Multi-Stage Air Volume) Supply Air Blower Option
On Constant Air Volume (CAV) models, the supply air blower will provide a constant volume of air.

On MSAV® (Multi-Stage Air Volume) supply air blower option models the supply air blower will stage the amount of airflow according to compressor stages, heating demand, ventilation demand or smoke alarm.

NOTE - Units with the MSAV® supply air blower option have the same face split indoor coils as units with the CAV supply air blower option. Part load airflow in cooling mode on MSAV® units should not be set below 220 cfm/ nominal full load ton to reduce the risk of evaporator coil freeze-up.

❽ Utilizes a Variable Frequency Drive (VFD) to stage the supply air blower airflow. The VFD alters the frequency and voltage of the power supply to the blower to control blower speed.

The amount of airflow for each stage can be set according to a parameter in the Prodigy® 2.0 unit controller. Unit is shipped from the factory with preset airflow.

The MSAV® supply air blower option can be ordered with or without an Electronic Bypass Control. If equipped with the bypass control the MSAV® features manual (default) or automatic electronic bypass control of the VFD. In case of a VFD malfunction, a VFD alarm is generated by the Prodigy® 2.0 unit controller. The VFD can be manually bypassed to continue unit operation at full blower speed. Or the unit controller can be set to automatically switch to full blower speed if a VFD alarm is generated.

The VFD has an operational range of -40 to 125°F outdoor air ambient temperature.

Lower operating costs are obtained when the blower is operated on lower speeds.

Ordering Information
Specify motor horsepower and drive kit number when base unit is ordered.

Options/Accessories

Factory Installed

Blower Belt Auto-Tensioner
Provides proper tension to belt drive blower belt without the need for regular adjustments. Maintains airflow and proper performance.

ELECTRICAL

SmartWire™ System
Advanced wiring connectors are keyed and color-coded to prevent miswiring. Wire coloring scheme is standardized across all models. Each connection is intuitively labeled to make troubleshooting and servicing quick and easy.

Electrical Plugs
Positive connection electrical plugs are used to connect common accessories or maintenance parts for easy removal or installation.

Required Selections

Voltage Choice
Specify when ordering base unit.

Options/Accessories

Factory Installed

Circuit Breakers
HACR type. For overload and short circuit protection. Factory wired and mounted in the power entry panel. Current sensitive and temperature activated. Manual reset.

Phase/Voltage Detection (Optional for CAV Models Only)
Phase detection monitors power supply to assure phase is correct at unit start-up. If phase is incorrect, the unit will not start and an alarm code is reported to the unit controller. Protects unit from being started with incorrect phasing which could lead to issues such as compressors running backwards.

Voltage detection monitors power supply voltage to assure proper voltage. If voltage is not correct (over/under voltage conditions) the unit will not start and an alarm code is reported to the unit controller.

NOTE - Phase/voltage detection is furnished when the MSAV® (Multi-Stage Air Volume) option is ordered.

Factory or Field Installed

❾ **Disconnect Switch**
Accessible from outside of unit, spring loaded weatherproof cover furnished.

GFI Service Outlets (2)
115V ground fault circuit interrupter (GFCI) type, non-powered, field-wired.

Field Installed

GFI Weatherproof Cover
Single-gang cover.

Heavy-duty UV-resistant polycarbonate case construction.

Hinged base cover with gasket.

INDOOR AIR QUALITY

⑩ Air Filters
Disposable 2-inch filters furnished as standard.

Options/Accessories

Factory or Field Installed

Healthy Climate® High Efficiency Air Filters
Disposable MERV 8 or MERV 13 (Minimum Efficiency Reporting Value based on ASHRAE 52.2) efficiency 2-inch pleated filters.

Healthy Climate® UVC Germicidal Lamps

Germicidal lamps emit ultra-violet (UV-C) energy, which has been proven to be effective in reducing microbes such as viruses, bacteria, yeasts, and molds. This process either destroys the organism or controls its ability to reproduce.

UV-C energy greatly reduces the growth and proliferation of mold and other bioaerosols (bacteria and viruses) on illuminated surfaces (particularly coil and drain pan).

Lamps are field installed in the blower/evaporator coil section.

All necessary hardware for installation is included.

Lamps operate on 208/230V power supply. Step-down transformer must be field supplied when used with 460V and 575V rooftop units.

Magnetic safety interlock terminates power when access panels are removed.

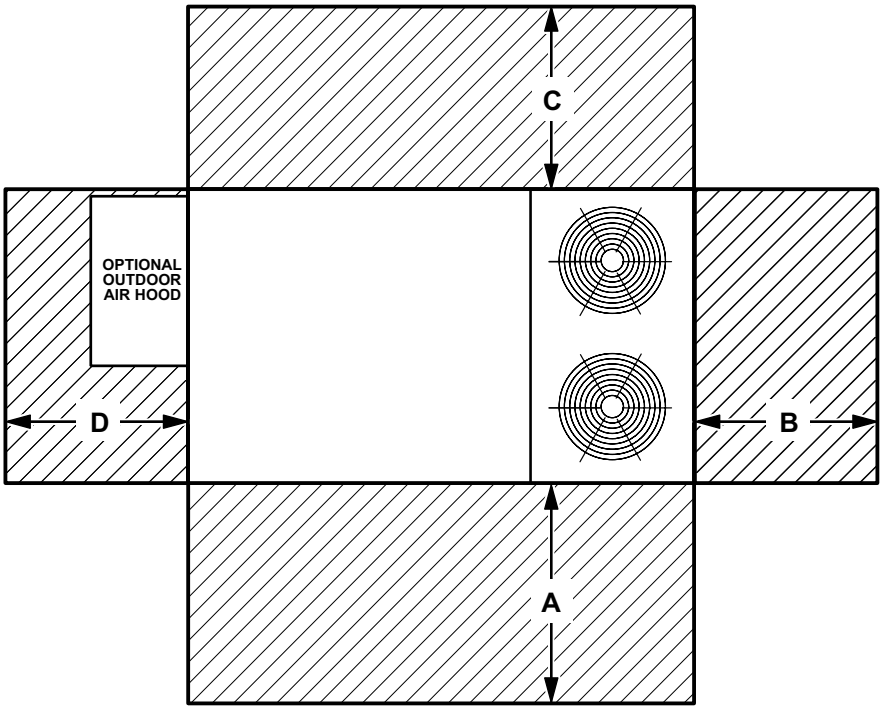
Approved by ETL.

Field Installed

Replacement Filter Media Kit With Frame
Replaces existing pleated filter media. Includes washable metal mesh screen and metal frame with clip for holding replaceable non-pleated filter.

Indoor Air Quality (CO_2) Sensors
Monitors CO2 levels, reports to the Prodigy® 2.0 unit controller which adjusts economizer dampers as needed.

UNIT CLEARANCES - INCHES (MM)



[1] Unit Clearance	A		B		C		D		Top Clearance
	in.	mm	in.	mm	in.	mm	in.	mm	
Service Clearance	60	1524	36	914	36	934	60	1524	Unobstructed
Clearance to Combustibles	36	914	1	25	1	25	1	25	
Minimum Operation Clearance	36	914	36	914	36	914	36	914	

NOTE - Entire perimeter of unit base requires support when elevated above the mounting surface.

[1] Service Clearance - Required for removal of serviceable parts.
Clearance to Combustibles - Required clearance to combustible material.
Minimum Operation Clearance - Required clearance for proper unit operation.

OUTDOOR SOUND DATA

Unit Model Number	Octave Band Linear Sound Power Levels dB, re 10^{-12} Watts - Center Frequency - Hz							[1] Sound Rating Number (SRN) (dBA)
	125	250	500	1000	2000	4000	8000	
092, 102 and 120	76	79	84	83	79	73	66	88
150	77	80	85	84	79	74	66	88

Note - The octave sound power data does not include tonal corrections.

[1] Sound Rating Number according to ARI Standard 270-95 or ARI Standard 370-2001 (includes pure tone penalty). “SRN” is the overall A-Weighted Sound Power Level, (LWA), dB (100 Hz to 10,000 Hz).

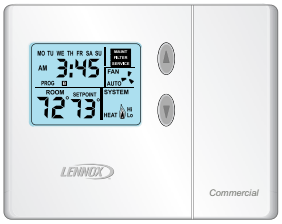
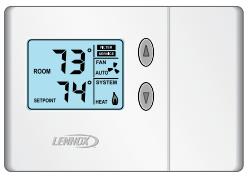
OPTIONAL CONVENTIONAL TEMPERATURE CONTROL SYSTEMS

Item	Model No. (Description)	Catalog No.
COMFORTSENSE® 8500 COMMERCIAL 7-DAY PROGRAMMABLE THERMOSTAT - ZONING/NON-ZONING		
 • Multi-Stage, Universal Thermostat • Zoning and Non-Zoning Models with or without CO_2 Sensing • Intuitive Touchscreen Interface • Menu-driven Programming	C0STAT04FF1L (Zoning)	**14X57**
• Remote Indoor Temperature Sensing (up to nine averaging sensors) • Compressor Short-Cycle Protection • Relative Humidity Sensor • Occupancy Sensor	C0STAT31FF1L (Zoning with Co_2 Sensing)	**14X58**
• Outside Air Temperature Display • Scheduling - Two separate schedules for work days or non-work days • Four Time Periods Per Day (non-zoning models, standalone mode) • Scheduled Occupancy Control	C0STAT03FF1L (Non-Zoning)	**14X55**
• Holiday Scheduling • Performance Reports (non-zoning models, standalone mode) • Reminders - Two Custom and Routine System Checkup (non-zoning models) • Dehumidification/Humiditrol® Control • Backlit Display • Wallplate Furnished	C0STAT22FF1L (Non-Zoning with Co_2 Sensing)	**14X56**
Optional Accessories		
[1] Remote non-adjustable wall mount 10k temperature sensor	C0SNZN01AE2	**47W37**
[1] Remote non-adjustable wall mount 11k temperature sensor	C0SNZN08AE1	**94L61**
Locking cover (clear)	C0MISC15AE1-	**39P21**
[1] Up to nine of the same type remote temperature sensors can be connected in parallel.		
Zonebus Network Cable (Purple) - Zoning Models		
Twisted pair 100% shielded communication cable, Red and Black 22 AWG, purple jacket, rated at 75°C, 300V, Plenum rated Insulation - Low smoke PVC, NEC, CMP	500 ft. box - C0MISC05AE1-	**23W99**
	1000 ft. box - C0MISC06AE1-	**24W00**
	2500 ft. roll - C0MISC07AE1-	**24W01**
Sysbus Network Cable (Yellow) - Non-Zoning Models		
Twisted pair 100% shielded communication cable, Red and Black 22 AWG, yellow jacket, rated at 75°C, 300V, Plenum rated Insulation - Low smoke PVC, NEC, CMP	500 ft. box - C0MISC00AE1-	**27M19**
	1000 ft. box - C0MISC04AE1-	**94L63**
	2500 ft. roll - C0MISC01AE1-	**68M25**

OPTIONAL CONVENTIONAL TEMPERATURE CONTROL SYSTEMS

Item	Model No.	Catalog No.
COMFORTSENSE® 7500 COMMERCIAL 7-DAY PROGRAMMABLE THERMOSTAT		
 • Four-Stage Heating / Two-Stage Cooling Universal Multi-Stage • Intuitive Touchscreen Interface • Remote Indoor Temperature Sensing with Averaging • Outside or Discharge Air Temperature Display • Full Seven-Day Programming • Four Time Periods Per Day • Occupancy Scheduling with Economizer Relay Control • Away Mode • Holiday Scheduling • Smooth Setback Recovery (SSR) • Performance Reports • Notifications/Reminders • Dehumidification/Humiditrol® Control for Split Systems and Rooftop Units • Economizer Relay Control • Backlit Display • Wallplate Furnished	C0STAT06FF1L	**13H15**
Optional Accessories		
[1] Remote non-adjustable wall mount 20k temperature sensor	C0SNZN01AE2-	**47W36**
[1] Remote non-adjustable wall mount 10k temperature sensor	C0SNZN73AE1-	**47W37**
Remote non-adjustable discharge air (duct mount) temperature sensor	C0SNDC00AE1-	**19L22**
Outdoor temperature sensor	C0SNSR03AE1-	**X2658**
Locking cover (clear)	C0MISC15AE1-	**39P21**

[1] Remote sensors can be applied in any of the following combinations:
One Sensor - (1) 47W36
Two Sensors - (2) 47W37
Three Sensors - (2) 47W36 and (1) 47W37
Four Sensors - (4) 47W36
Five Sensors - (3) 47W36 and (2) 47W37

COMFORTSENSE® 3000 COMMERCIAL 5-2 DAY PROGRAMMABLE THERMOSTAT		
 • Two-Stage Heating / Two-Stage Cooling Conventional Systems • Intuitive Interface • 5-2 Day Programming • Program Hold • Remote Indoor Temperature Sensing • Smooth Setback Recovery (SSR) • Economizer Relay Control • Maintenance/Filter/Service Reminders • Backlit Display • Wallplate Furnished • Simple Up and Down Temperature Control.	C0STAT05FF1L	**11Y05**
Optional Accessories		
Remote non-adjustable wall mount 10k averaging temperature sensor	C0SNZN73AE1-	**47W37**
Optional wall mounting plate	C0MISC17AE1-	**X2659**
DIGITAL NON-PROGRAMMABLE THERMOSTAT		
 • One-Stage Heating / Cooling Conventional Systems • Intuitive Interface • Automatic Changeover • Backlit Display • Simple Up and Down Temperature Control.	C0STAT12AE1L	**51M32**
Optional Accessories		
Outdoor temperature sensor	C0SNSR04AE1-	**X2658**
Optional wall mounting plate	C0MISC17AE1-	**X2659**

WEIGHT DATA

Model Number	Outdoor Coil	Net		Shipping		Outdoor Coil	Net		Shipping	
		lbs.	kg	lbs.	kg		lbs.	kg	lbs.	kg
092 Base Unit	Environ™	1088	494	1173	532	Fin/Tube	1168	530	1253	568
092 Max. Unit	Environ™	1239	562	1324	601	Fin/Tube	1319	598	1404	637
102 Base Unit	Environ™	1095	497	1180	535	Fin/Tube	1175	533	1260	572
102 Max. Unit	Environ™	1246	565	1331	604	Fin/Tube	1326	601	1411	640
120 Base Unit	Environ™	1130	513	1215	551	Fin/Tube	1210	549	1295	587
120 Max. Unit	Environ™	1281	581	1366	620	Fin/Tube	1361	617	1446	656
150 Base Unit	Environ™	1170	531	1255	569	Fin/Tube	1250	567	1335	606
150 Max. Unit	Environ™	1321	599	1406	638	Fin/Tube	1401	635	1486	674

OPTIONS / ACCESSORIES

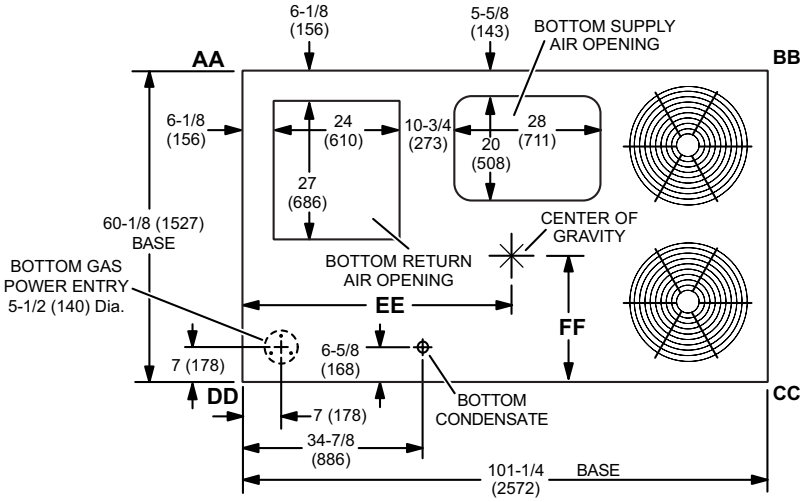
Model Number	Shipping Weight	
	lbs.	kg
CONVENTIONAL FIN/TUBE CONDENSER COIL		
Fin/Tube Condenser Coil	80	36
ECONOMIZER / OUTDOOR AIR / EXHAUST		
Economizer		
Economizer Dampers	60	27
Outdoor Air Hood (downflow)	23	10
Barometric Relief Dampers (downflow)	8	4
Barometric Relief Dampers (low profile horizontal)	20	9
Outdoor Air Dampers		
Outdoor Air Damper Section - Automatic	51	23
Outdoor Air Damper Section - Manual	39	18
Power Exhaust	31	14
GAS HEAT EXCHANGER (NET WEIGHT)		
Medium Heat (adder over standard heat)	9	5
High Heat (adder over standard heat)	32	15
HUMIDITROL® DEHUMIDIFICATION SYSTEM		
Humiditrol® Dehumification Option	20	9
MSAV® (MULTI-STAGE AIR VOLUME) SUPPLY AIR BLOWER OPTION		
Variable Frequency Drive (VFD) and associated components	10	5
ROOF CURBS		
Hybrid Roof Curbs, Downflow		
8 in. height	60	27
14 in. height	85	39
18 in. height	100	45
24 in. height	125	57
Adjustable Pitch Curb, Downflow		
14 in. height	191	82
CEILING DIFFUSERS		
Step-Down		
RTD11-95S	118	54
RTD11-135S	135	61
RTD11-185S	168	76
Flush		
FD11-95S	118	54
FD11-135S	135	61
FD11-185S	168	76
Transitions		
C1DIFF30B-1	30	14
C1DIFF31B-1	32	15
C1DIFF32B-1	36	16
PACKAGING		
LTL Packaging (less than truck load)	105	48

DIMENSIONS - UNIT - INCHES (MM)

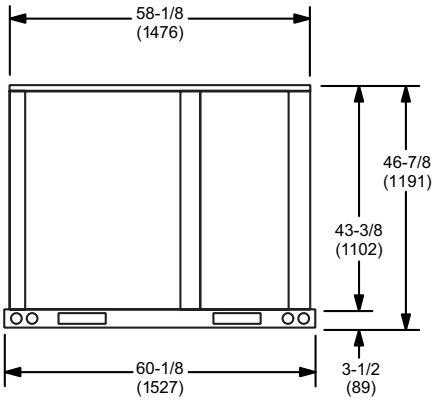
Model No.	CORNER WEIGHTS																CENTER OF GRAVITY							
	AA				BB				CC				DD				EE				FF			
	Base		Max.		Base		Max.		Base		Max.		Base		Max.		Base		Max.		Base		Max.	
	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	in.	mm	in.	mm	in.	mm	in.	mm
092	293	133	338	153	263	119	295	134	286	130	316	143	326	148	370	168	46.5	1181	45.5	1156	24.5	622	25.5	648
102	294	134	340	154	265	120	297	135	288	131	318	144	328	149	372	169	46.5	1181	45.5	1156	24.5	622	25.5	648
120	306	139	349	158	275	125	305	138	295	134	326	148	334	152	382	173	46.5	1181	45.5	1156	24.5	622	25.5	648
150	316	143	359	163	284	129	314	142	304	138	393	178	345	157	393	178	46.5	1181	45.5	1156	24.5	622	25.5	648

Base Unit - The unit with NO INTERNAL OPTIONS.

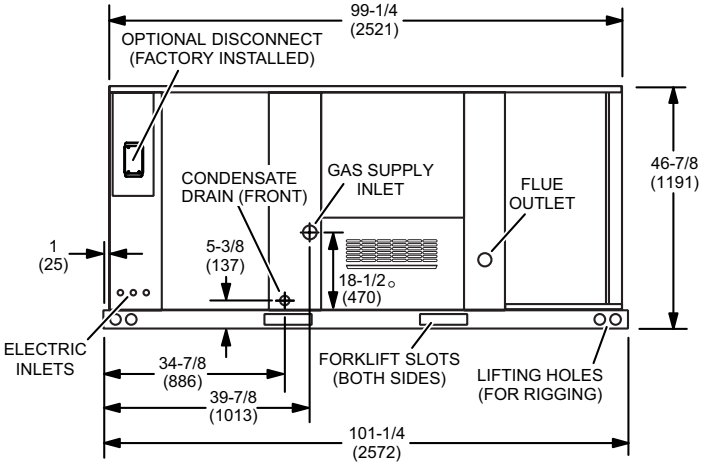
Max. Unit - The unit with ALL INTERNAL OPTIONS Installed. (Economizer, Standard Static Power Exhaust Fans, Controls, etc.). Does not include accessories external to unit or high static power exhaust.



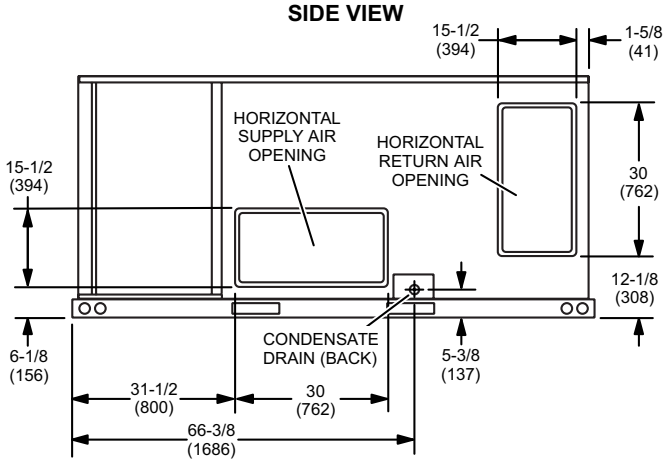
TOP VIEW



END VIEW

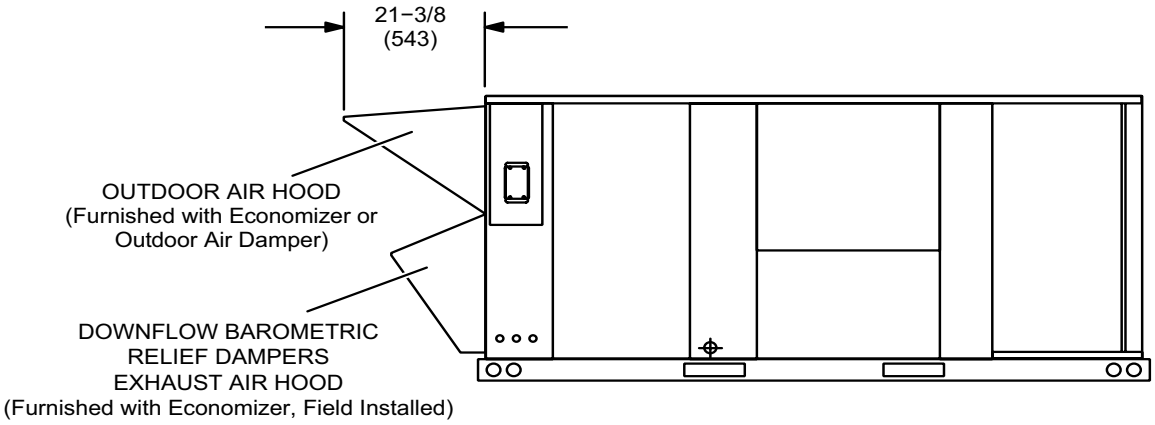


SIDE VIEW

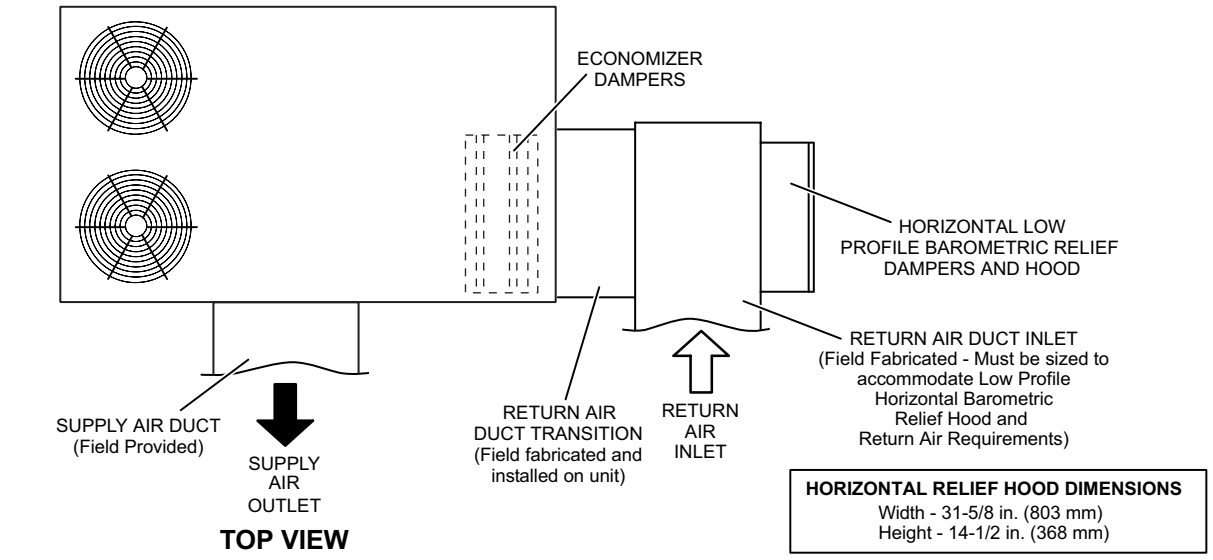


SIDE VIEW
(Horizontal Openings)

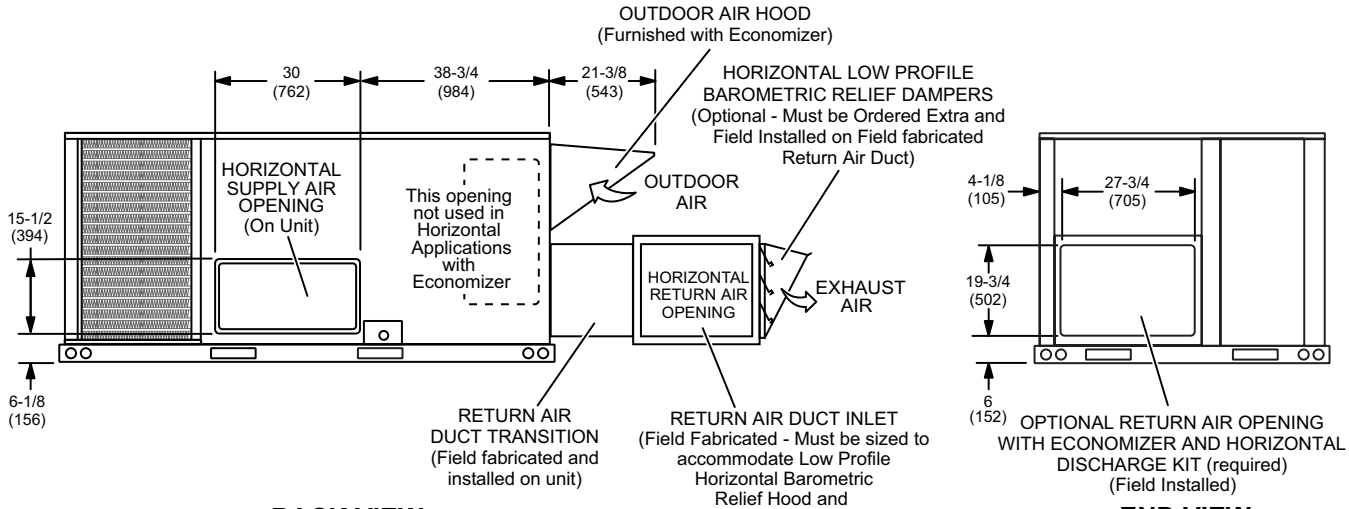
OUTDOOR AIR HOOD DETAIL



HORIZONTAL ECONOMIZER APPLICATION
(with Optional Low Profile Horizontal Barometric Relief Dampers and Horizontal Discharge Kit - Required)



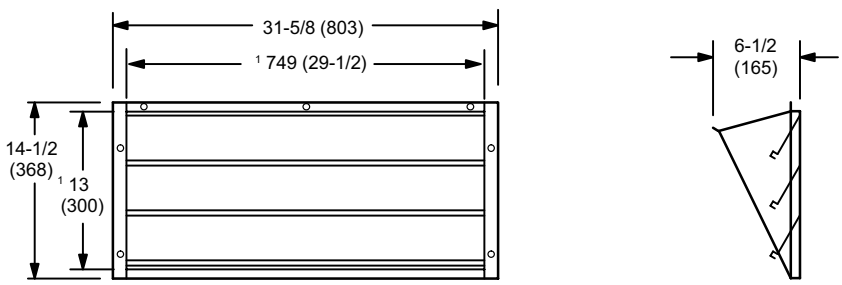
TOP VIEW



BACK VIEW **END VIEW**

NOTE - Return Air Duct and Transition must be supported.

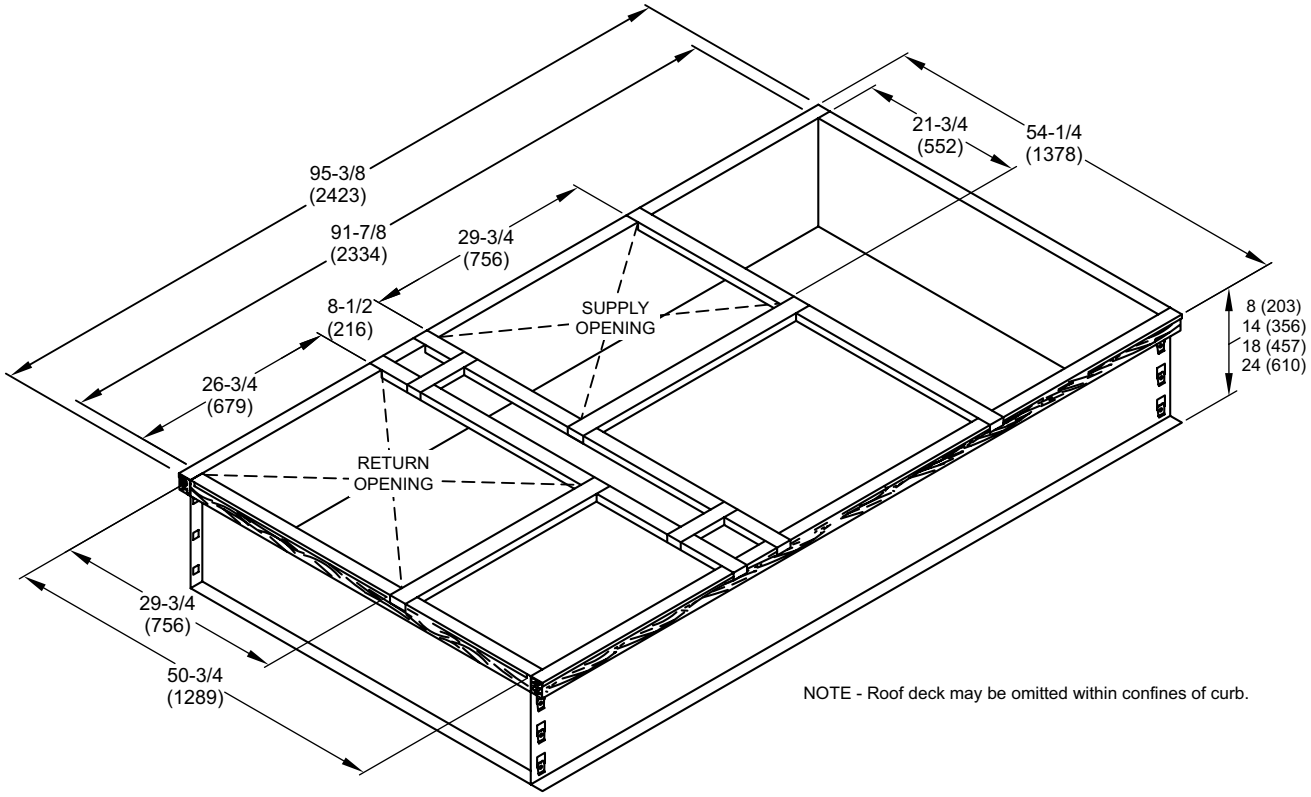
HORIZONTAL LOW PROFILE BAROMETRIC RELIEF DAMPERS
(Field installed in horizontal return air duct adjacent to unit)



FRONT VIEW **SIDE VIEW**

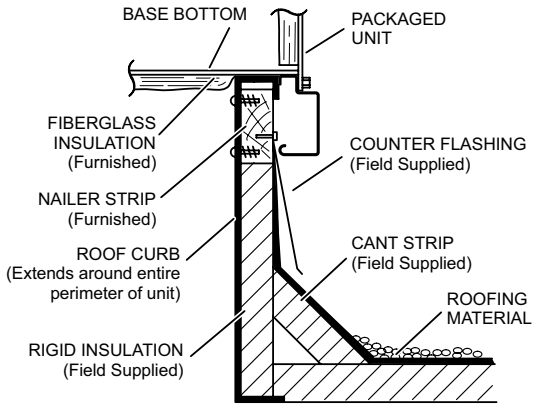
[1] NOTE - Opening size required in return air duct.

HYBRID ROOF CURBS - DOUBLE DUCT OPENING

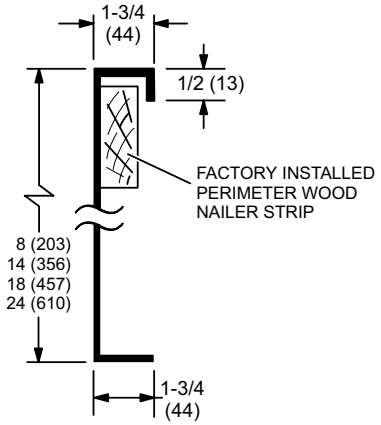


NOTE - Roof deck may be omitted within confines of curb.

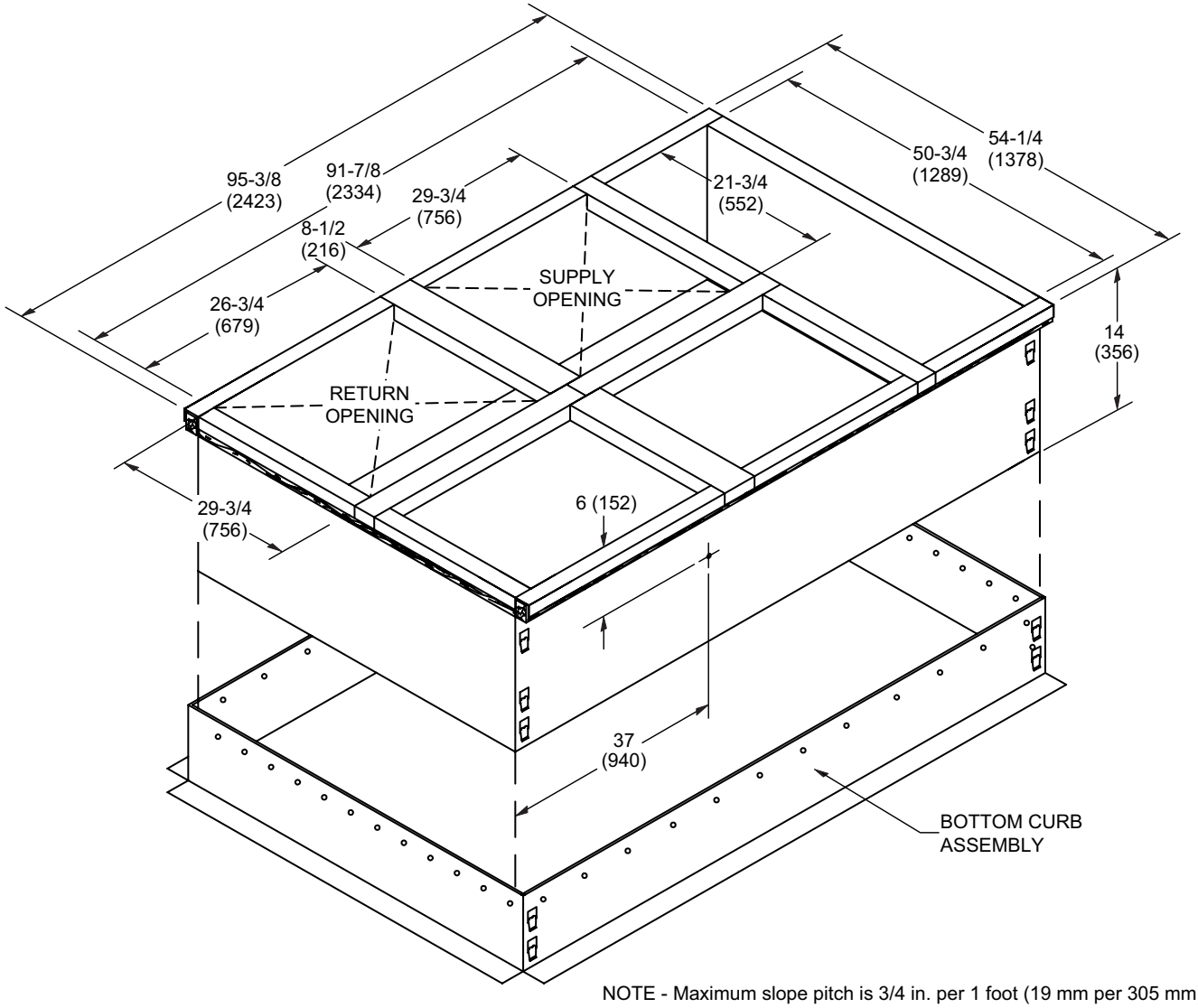
TYPICAL FLASHING DETAIL FOR ROOF CURB



DETAIL ROOF CURB

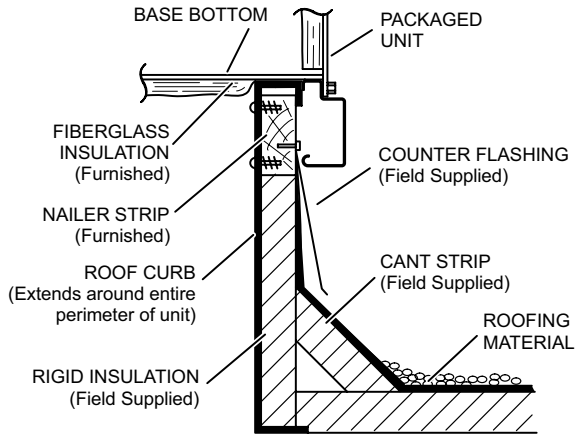


ADJUSTABLE PITCH CURBS - DOUBLE DUCT OPENING

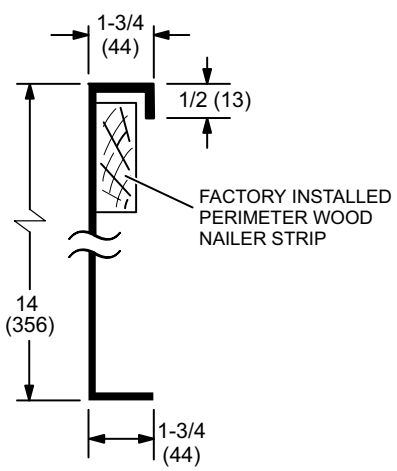


NOTE - Maximum slope pitch is 3/4 in. per 1 foot (19 mm per 305 mm) in any one direction.

TYPICAL FLASHING DETAIL FOR ROOF CURB

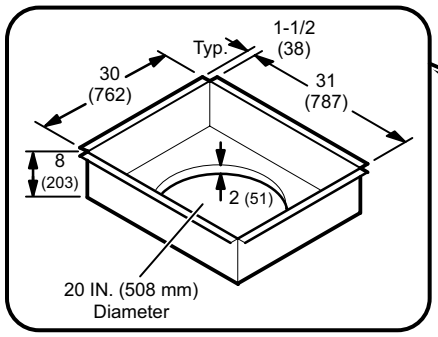


DETAIL ROOF CURB

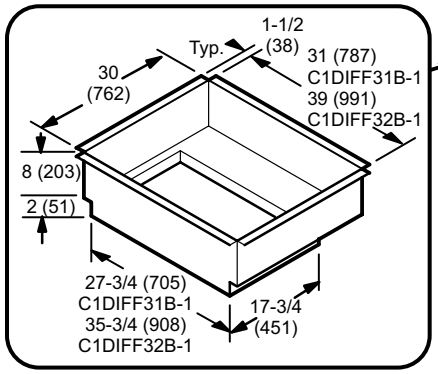


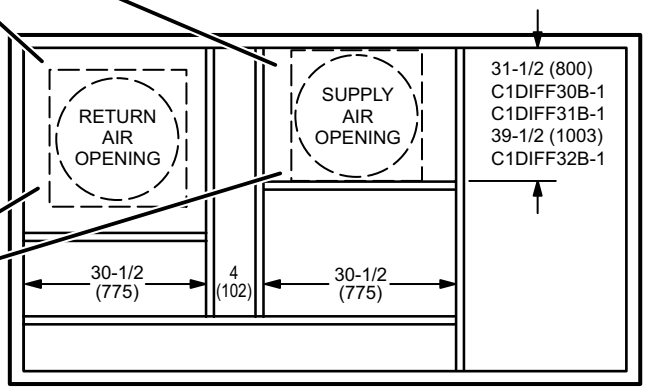
ROOF CURBS WITH SUPPLY & RETURN AIR TRANSITIONS FOR CEILING DIFFUSERS

C1DIFF30B-1 ROUND TRANSITIONS
(for 092 models)



C1DIFF31B-1 & C1DIFF32B-1 RECTANGULAR TRANSITIONS
(for 102 thru 150 models)

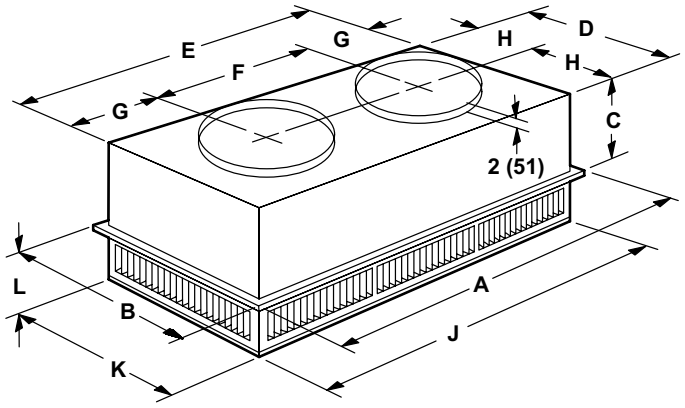




TOP VIEW

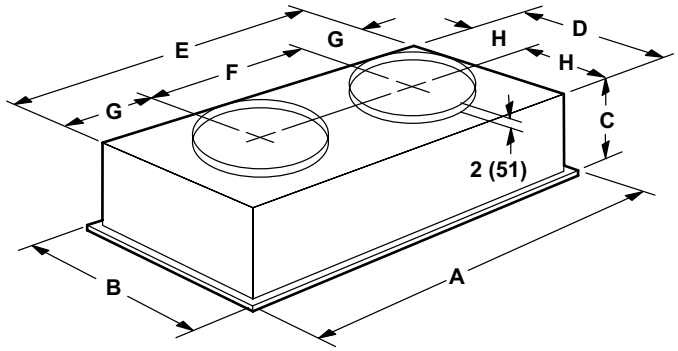
COMBINATION CEILING SUPPLY AND RETURN DIFFUSERS

STEP-DOWN CEILING DIFFUSER



Model Number		RTD11-95S
A	in.	47-5/8
	mm	1159
B	in.	29-5/8
	mm	752
C	in.	14-3/8
	mm	365
D	in.	27-1/2
	mm	699
E	in.	45-1/2
	mm	1158
F	in.	22-1/2
	mm	572
G	in.	11-1/2
	mm	292
H	in.	13-3/4
	mm	349
J	in.	45-1/2
	mm	1156
K	in.	27-1/2
	mm	699
L	in.	8-1/8
	mm	206
Duct Size	in.	20 round
	mm	508 round

FLUSH CEILING DIFFUSER

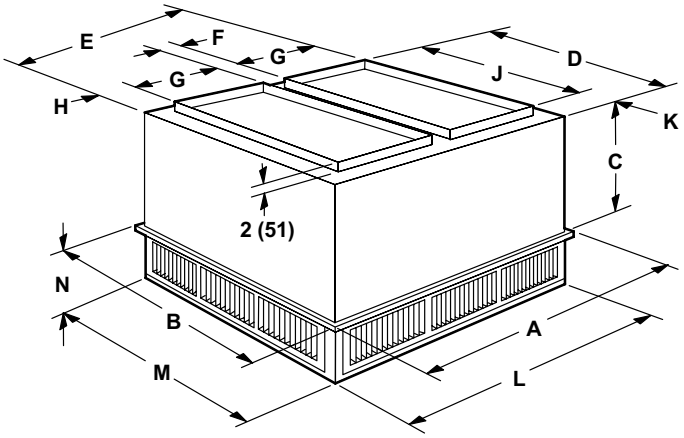


Model Number		FD11-95S
A	in.	47-5/8
	mm	1159
B	in.	29-5/8
	mm	752
C	in.	16-5/8
	mm	422
D	in.	27
	mm	686
E	in.	45
	mm	1143
F	in.	22-1/2
	mm	572
G	in.	11-1/4
	mm	286
H	in.	13-1/2
	mm	343
Duct Size	in.	20 round
	mm	508 round

ACCESSORY DIMENSIONS - INCHES (MM)

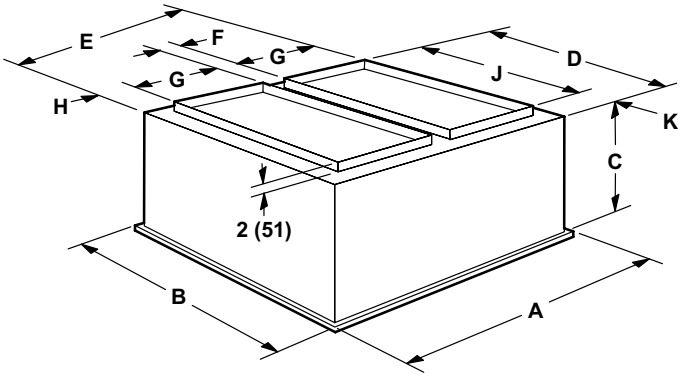
COMBINATION CEILING SUPPLY AND RETURN DIFFUSERS

STEP-DOWN CEILING DIFFUSER



Model Number		RTD11-135S	RTD11-185S
A	in.	47-5/8	47-5/8
	mm	1210	1210
B	in.	35-5/8	47-5/8
	mm	905	1210
C	in.	20-5/8	24-5/8
	mm	524	625
D	in.	33-1/2	45-1/2
	mm	851	1156
E	in.	45-1/2	45-1/2
	mm	1156	1156
F	in.	4-1/2	4-1/2
	mm	114	114
G	in.	18	18
	mm	457	457
H	in.	2-1/2	2-1/2
	mm	64	64
J	in.	28	36
	mm	711	914
K	in.	2-3/4	4-3/4
	mm	70	121
L	in.	45-1/2	45-1/2
	mm	1156	1156
M	in.	33-1/2	45-1/2
	mm	851	1156
N	in.	9-1/8	10-1/8
	mm	232	257
Duct Size	in.	18 x 28	18 x 36
	mm	457 x 711	457 x 914

FLUSH CEILING DIFFUSER



Model Number		FD11-135S	FD11-185S
A	in.	47-5/8	47-5/8
	mm	1210	1210
B	in.	35-5/8	47-5/8
	mm	905	1210
C	in.	23-1/4	29-1/4
	mm	591	743
D	in.	33	45
	mm	838	1143
E	in.	45	45
	mm	1143	1143
F	in.	4-1/2	4-1/2
	mm	114	114
G	in.	18	18
	mm	457	457
H	in.	2-1/4	2-1/4
	mm	57	57
J	in.	28	36
	mm	711	914
K	in.	2-1/2	4-1/2
	mm	64	114
Duct Size	in.	18 x 28	18 x 36
	mm	457 x 711	457 x 914

THIS IS A **3-PAGE FORM - ALL INFORMATION IS REQUIRED FOR PROJECT REVIEW**

HISTORIC DISTRICT COMMISSION
PROJECT REVIEW REQUEST

City of Detroit - Planning & Development Department
2 Woodward Avenue, Suite 808
Detroit, Michigan 48226

Date: 1/25/2021

PROPERTY INFORMATION

ADDRESS: 4133 Woodward Ave. + 67 W. Willis **AKA:** Parcels 02001798 + 02000855

HISTORIC DISTRICT: Willis-Selden Local Historic District

SCOPE OF WORK: (Check ALL that apply)

- [x] Windows/ Doors
- [x] Roof/Gutters/ Chimney
- [ ] Porch/ Deck
- [x] Landscape/Fence/ Tree/Park
- [x] General Rehab
- [ ] New Construction
- [ ] Demolition
- [ ] Addition
- [x] Other: Rooftop HVAC

APPLICANT IDENTIFICATION

- [ ] Property Owner/ Homeowner
- [ ] Contractor
- [ ] Tenant or Business Occupant
- [x] Architect/Engineer/ Consultant

NAME: Devan Anderson **COMPANY NAME:** Quinn Evans

ADDRESS: 4219 Woodward Ave. **CITY:** Detroit **STATE:** Mi **ZIP:** 48201

PHONE: _____ **MOBILE:** 313.590.7216 **EMAIL:** danderson@quinnevans.com

PROJECT REVIEW REQUEST CHECKLIST

Please attach the following documentation to your request:

PLEASE KEEP FILE SIZE OF ENTIRE SUBMISSION UNDER 30MB

- [X] **Completed Building Permit Application** (highlighted portions only)
- [ ] **ePLANS Permit Number** (only applicable if you've already applied for permits through ePLANS)
- [X] **Photographs** of ALL sides of existing building or site
- [x] **Detailed photographs** of location of proposed work (photographs to show existing condition(s), design, color, & material)
- [x] **Description of existing conditions** (including materials and design)
- [x] **Description of project** (if replacing any existing material(s), include an explanation as to why replacement--rather than repair--of existing and/or construction of new is required)
- [x] **Detailed scope of work** (formatted as bulleted list)
- [x] **Brochure/cut sheets** for proposed replacement material(s) and/or product(s), as applicable

NOTE:
Based on the scope of work, additional documentation may be required.

See www.detroitmi.gov/hdc for scope-specific requirements.

Upon receipt of this documentation, staff will review and inform you of the next steps toward obtaining your building permit from the Buildings, Safety Engineering and Environmental Department (BSEED) to perform the work.

SUBMIT COMPLETED REQUESTS TO HDC@DETROITMI.GOV

P2 - BUILDING PERMIT APPLICATION

Date: 1/25/2021

PROPERTY INFORMATION

Address: 4133 Woodward Ave. & 67 W. Willis Floor: ____ Suite#: ____ Stories: 02

AKA: ____ Lot(s): 07/08/09/33 Subdivision: Park Lots

Parcel ID#(s): 02001798 + 02000855 Total Acres: 0.96 Lot Width: varies Lot Depth: varies

Current Legal Use of Property: Mixed Use Commercial + Vacant Proposed Use: Grocery Store + Parking Lot

Are there any existing buildings or structures on this parcel? ☒ Yes ☐ No

PROJECT INFORMATION

Permit Type: ☐ New ☒ Alteration ☐ Addition ☒ Demolition ☐ Correct Violations

☐ Foundation Only ☐ Change of Use ☐ Temporary Use ☐ Other: ____

☐ Revision to Original Permit #: ____ (Original permit has been issued and is active)

Description of Work (Describe in detail proposed work and use of property, attach work list)

See attached Rehabilitation Scope of Work.

☐ MBC use change ☒ No MBC use change

Included Improvements (Check all applicable; these trade areas require separate permit applications)

☒ HVAC/Mechanical ☒ Electrical ☒ Plumbing ☒ Fire Sprinkler System ☒ Fire Alarm

Structure Type

☐ New Building ☒ Existing Structure ☒ Tenant Space ☐ Garage/Accessory Building

☐ Other: ____ Size of Structure to be Demolished (LxWxH) 11.86 x 11.92 x 9.5 cubic ft.

Construction involves changes to the floor plan? ☒ Yes ☐ No

(e.g. interior demolition or construction to new walls)

Use Group: M Type of Construction (per current MI Bldg Code Table 601) VB

Estimated Cost of Construction $ ____ (By Contractor) $ ____ (By Department)

Structure Use

☐ Residential-Number of Units: ____ ☐ Office-Gross Floor Area ____ ☐ Industrial-Gross Floor Area ____

☒ Commercial-Gross Floor Area: 14,200 ☐ Institutional-Gross Floor Area ____ ☐ Other-Gross Floor Area ____

Proposed No. of Employees: ____ List materials to be stored in the building: ____

PLOT PLAN SHALL BE submitted on separate sheets and shall show all easements and measurements (must be correct and in detail). SHOW ALL streets abutting lot, indicate front of lot, show all buildings, existing and proposed distances to lot lines. (Building Permit Application Continues on Next Page)

For Building Department Use Only

Intake By: ____ Date: ____ Fees Due: ____ DngBld? ☐ No

Permit Description:

Permit #:

Current Legal Land Use: ____ Proposed Use: ____

Permit#: ____ Date Permit Issued: ____ Permit Cost: $ ____

Zoning District: ____ Zoning Grant(s): ____

Lots Combined? ☐ Yes ☒ No (attach zoning clearance)

Revised Cost (revised permit applications only) Old $ ____ New $ ____

Structural: ____ Date: ____ Notes: ____

Zoning: ____ Date: ____ Notes: ____

Other: ____ Date: ____ Notes: ____

IDENTIFICATION (All Fields Required)

Property Owner/Homeowner ☐ Property Owner/Homeowner is Permit Applicant

Name: Mario Kiezi Company Name: KP Detroit Holdings, LLC

Address: 4161 Woodward Ave. City: Detroit State: Mi Zip: 48201

Phone: 248.718.4209 Mobile: 586.850.5678

Driver's License #: K200585009421 Email: mario@mkiezi.com

Contractor ☐ Contractor is Permit Applicant

Representative Name: N/A Company Name: N/A

Address: City: State: Zip:

Phone: Mobile: Email:

City of Detroit License #:

TENANT OR BUSINESS OCCUPANT ☐ Tenant is Permit Applicant

Name: Phone: Email:

ARCHITECT/ENGINEER/CONSULTANT ☐ Architect/Engineer/Consultant is Permit Applicant

Name: Devan Anderson State Registration#: 1301054561 Expiration Date: 7/27/2023

Address: 4219 Woodward Ave., Suite 301 City: Detroit State: Mi Zip: 48201

Phone: Mobile: 313.590.7216 Email: danderson@quinnevans.com

HOMEOWNER AFFIDAVIT (Only required for residential permits obtained by homeowner.)

I hereby certify that I am the legal owner and occupant of the subject property and the work described on this permit application shall be completed by me. I am familiar with the applicable codes and requirements of the City of Detroit and take full responsibility for all code compliance, fees and inspections related to the installation/work herein described. I shall neither hire nor sub-contract to any other person, firm or corporation any portion of the work covered by this building permit.

Print Name: (Homeowner) Signature: Date:

Subscribed and sworn to before me this day of 20 A.D. County, Michigan

Signature: (Notary Public) My Commission Expires:

PERMIT APPLICANT SIGNATURE

I hereby certify that the information on this application is true and correct. I have reviewed all deed restrictions that may apply to this construction and am aware of my responsibility thereunder. I certify that the proposed work is authorized by the owner of the record and I have been authorized to make this application as the property owner(s) authorized agent. Further I agree to conform to all applicable laws and ordinances of jurisdiction. **I am aware that a permit will expire when no inspections are requested and conducted within 180 days of the date of issuance or the date of the previous inspection and that expired permits cannot be**

Print Name: (Permit Applicant) Signature: Date:

Driver's License #: Expiration:

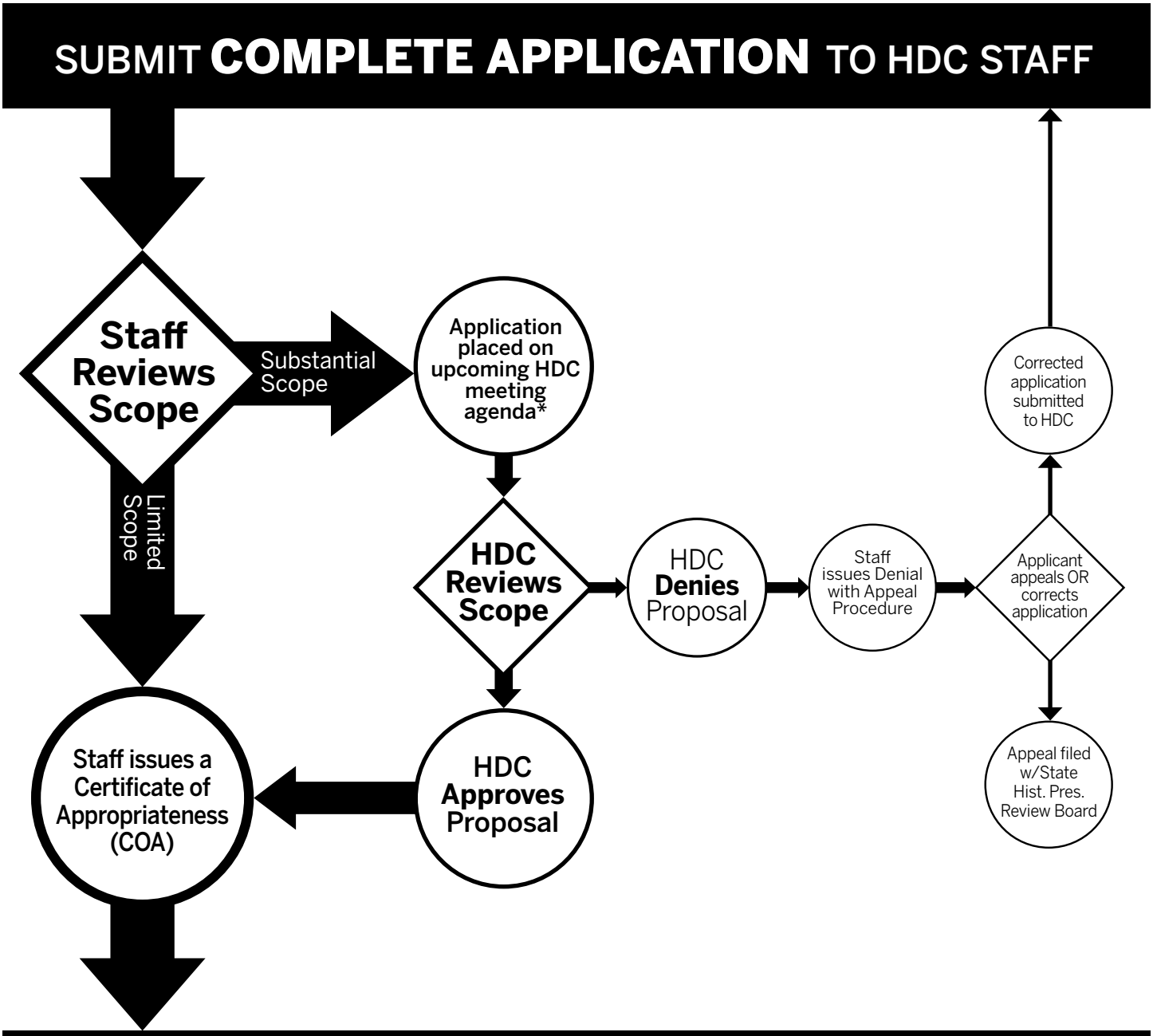
Subscribed and sworn to before me this day of 20 A.D. County, Michigan

Signature: (Notary Public) My Commission Expires:

Section 23a of the state construction code act of 1972, 1972PA230, MCL 125.1523A, prohibits a person from conspiring to circumvent the licensing requirements of this state relating to persons who are to perform work on a residential building or a residential structure. Visitors of Section 23a are subject to civil fines.

This application can also be completed online. Visit detroitmi.gov/bseed/elaps for more information.

HISTORIC DISTRICT COMMISSION
REVIEW & PERMIT PROCESS



* THE **COMMISSION MEETS REGULARY AT LEAST ONCE PER MONTH,** TYPICALLY ON THE SECOND WEDNESDAY OF THE MONTH.
(SEE WEBSITE FOR MEETING SCHEDULE/AGENDAS)

FIND OUT MORE AT www.detroitmi.gov/hdc