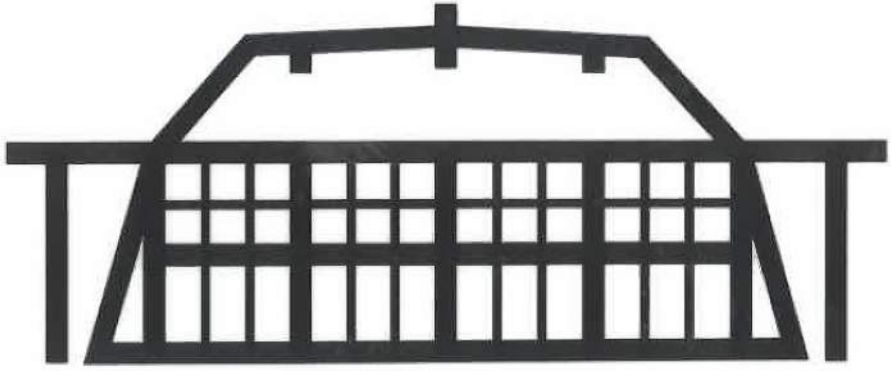
ASUW Shell House

SEATTLE LANDMARKS PRESERVATION BOARD
Certificate of Approval Presentation, September 2025



THE NEXT 100 YEARS

ASUW Shell House Certificate of Approval Presentation

1. Project Overview
2. Existing Conditions
3. Building History
4. Design Concept
5. Site Design
6. Exterior Building Palette
7. NPS Direction

Project Overview —

Project Goals—

1. Integrate the Shell House into the **UW student experience**
2. **Honor the site's former use** as a portage by Indigenous peoples
3. Create a **premier venue** for conversations and collaborations between local community leaders and the University
4. **Catalyze and activate** the UW's 2.1 miles of waterfront
5. **Build local and national visibility** for the Shell House and its history

Project Team —

Glenna Chang

Carmen Scraper
Project Manager

Garrett Condel
Project Manager

MITHŪN

Rich Franko
Design Partner

Evan Bourquard
Project Manager

Dakota Keene
Project Landscape Architect

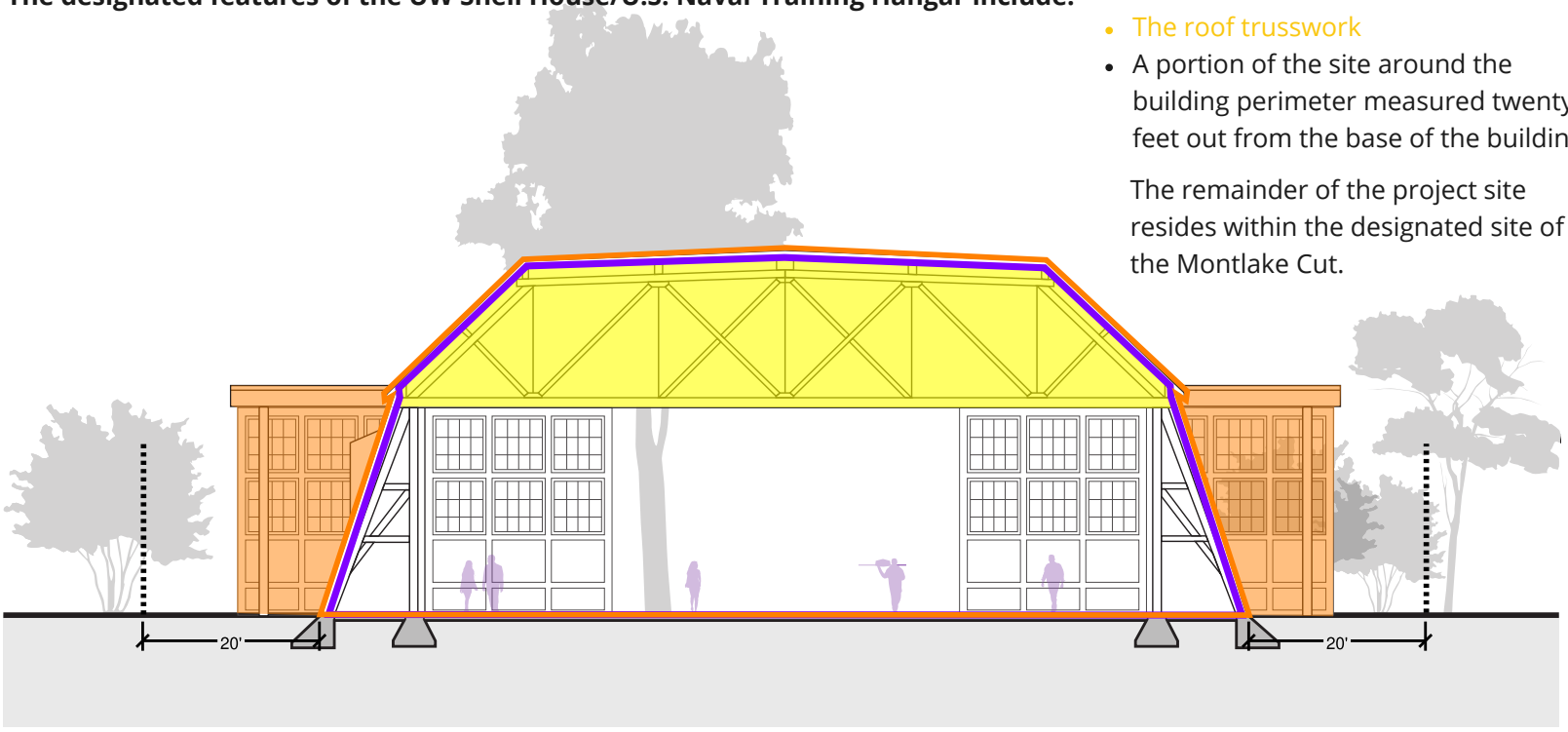
Dustann Jones
Project Architect

Landmark Designation —

The designated features of the UW Shell House/U.S. Naval Training Hangar include:

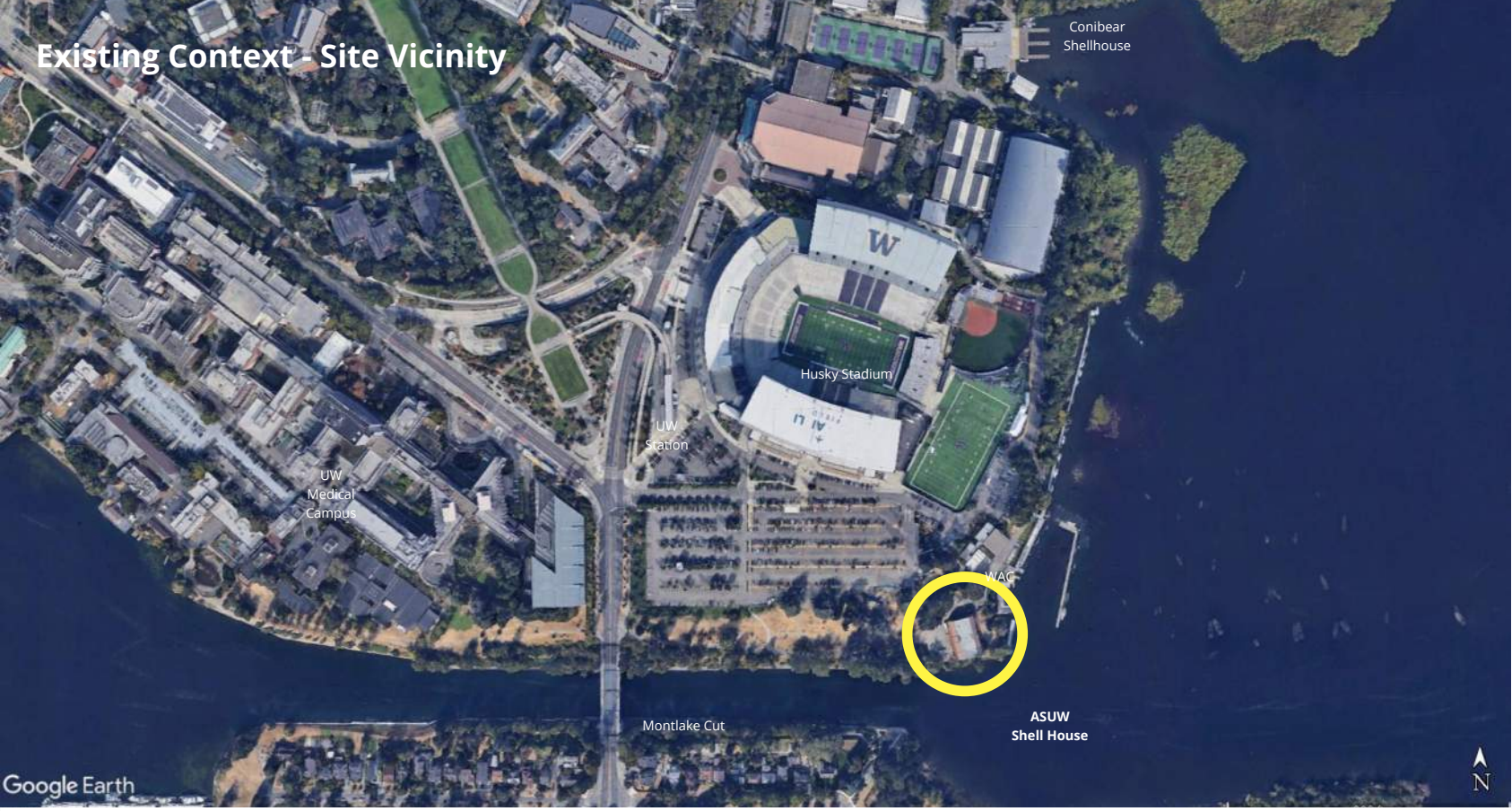
- The exterior of the building
- The interior building volume
- The roof trusswork
- A portion of the site around the building perimeter measured twenty feet out from the base of the building

The remainder of the project site resides within the designated site of the Montlake Cut.

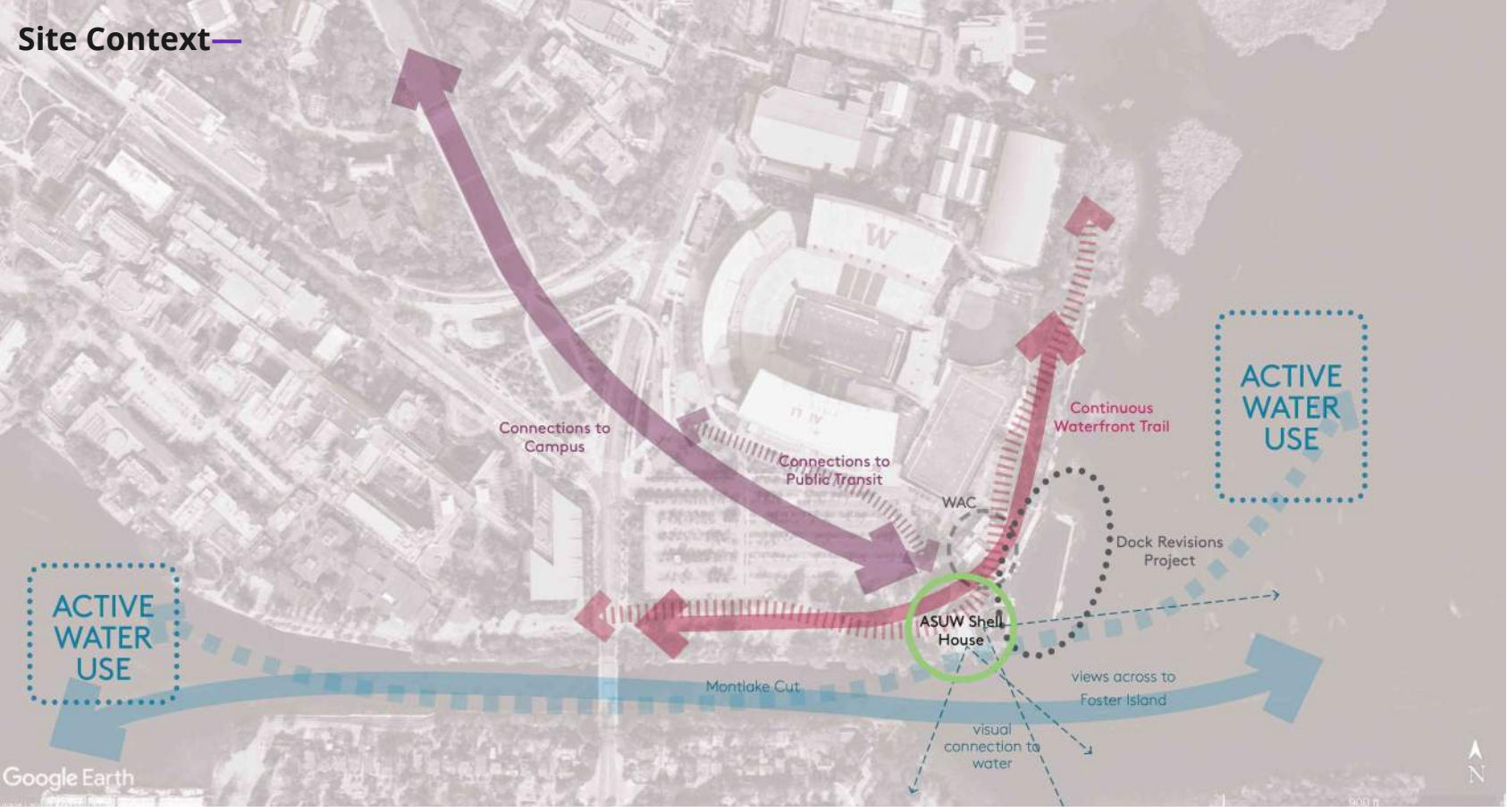


Existing Conditions

Existing Context - Site Vicinity



Site Context—



South Side - Existing Conditions

South Side - Existing Conditions

Southeast - Existing Conditions

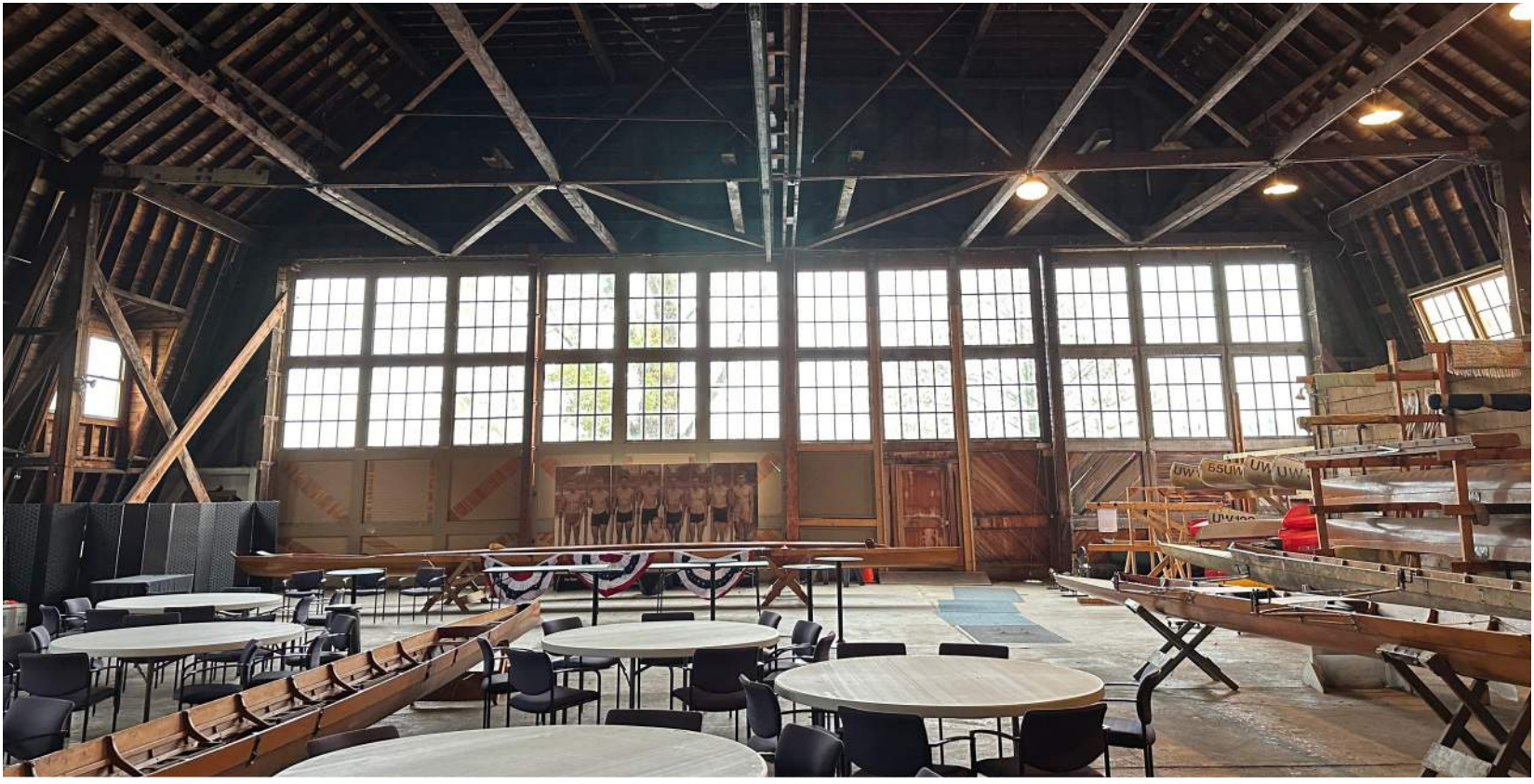
South Side - Existing Conditions

Southwest - Existing Conditions

West - Existing Conditions

North - Existing Conditions

Interior of Hangar Space - Existing Conditions



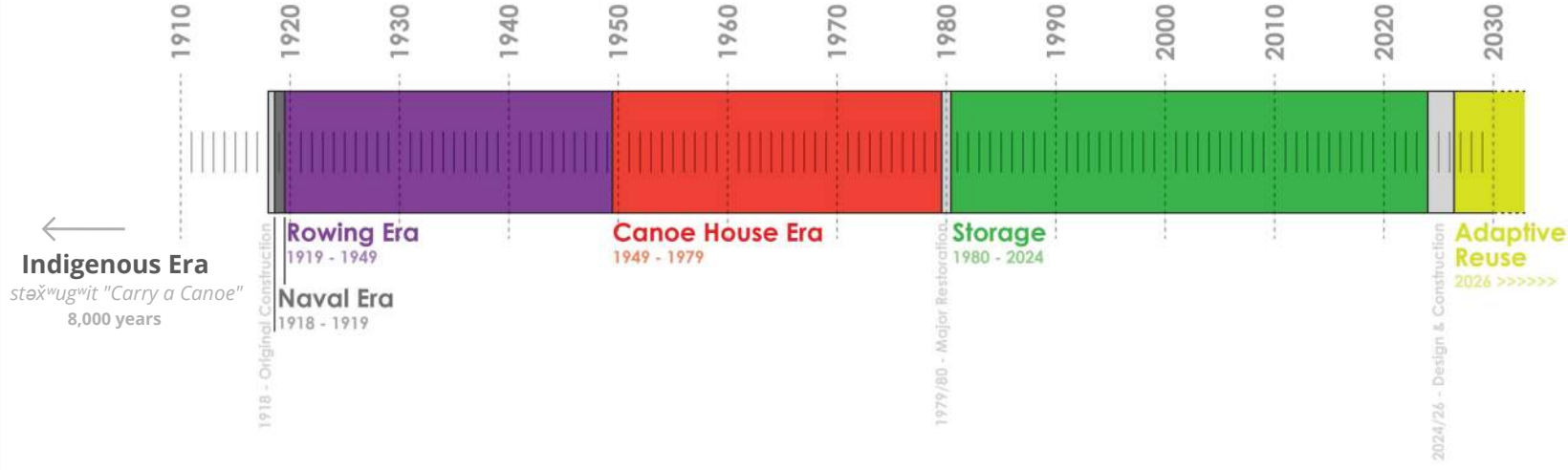
Interior of Pocock Workshop - Existing Conditions

Building History —

Timeline & Research—

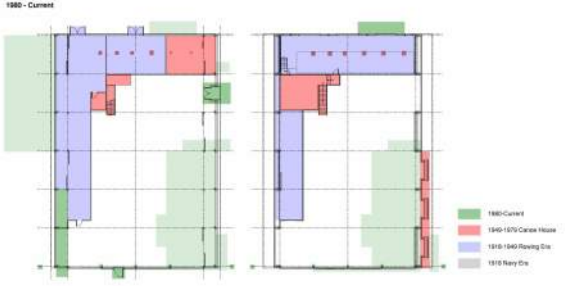
The team is building a site and building timeline and analyzing what existing elements are historic, from the era of significance, or have been altered through subsequent renovations.

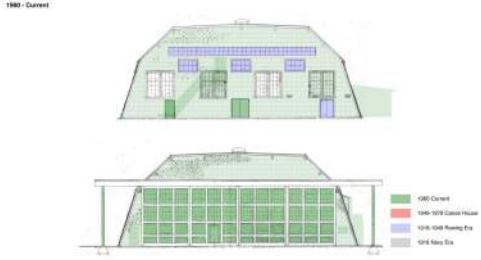
This information and analysis will inform the landmark approach to the building exterior and interior, as well as the site design.



Timeline & Research—

Identifying Remaining Artifacts/Layers





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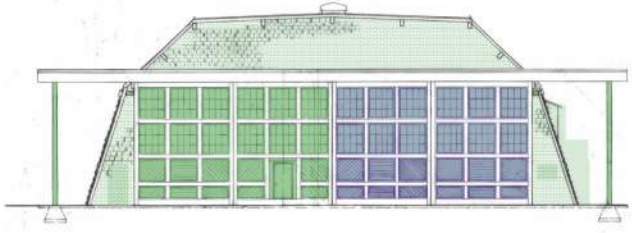


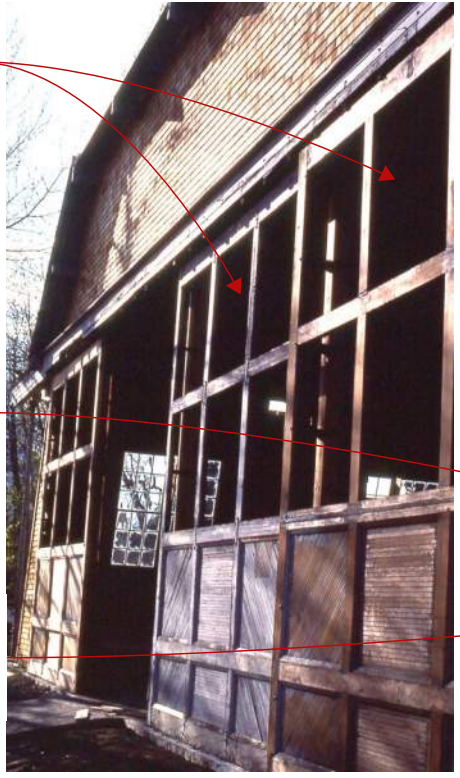
HANGAR DOOR CHANGES IN 1980

GLASS REMOVED, SOME REPLACED

ALL DOORS REMOVED FROM TRACKS, (1) DOOR COMPLETELY REPLACED, OTHER (3) REBUILT

RESTORED AND REBUILT DOORS REPLACED AND ULTIMATELY PINNED IN CLOSED POSITION

NORTH AND SOUTH FACADES SHINGLED



WINDOW AND DOOR ASSESSMENT

Door A		
Description- Hangar door. Approximately 18'-0" x 22'-0". Door area is divided into twelve subsections of glazed lights and wood slat infill.		
Repair Code		Exterior Condition Notes
Paint Condition	3	Significant exposed wood with raised grain and peeling paint. Full paint removal likely needed. (Photo 2)
Operability Ease	3	Currently inoperable. Needs a full overhaul of the tracks and hardware to restore operability.
Alignment	3	Door is bowed and visibly misaligned. Non-original brackets have been added for stiffness. Infill panels are misaligned. (Photo 3)
Glass Condition	1	Heavily soiled.
Weather Stripping	3	Currently no weatherstripping at perimeters, joints are open.
Sill Condition	3	Dry rot along sill, horizontal wood is split. (Photo 4)
J1 Condition	2	Jamb largely intact. Dry rot at base. Casing trim warped.
J2 Condition	2	Misaligned, bowing.
V1 Condition	2	Split wood at ends. Raised grain, weathered and exposed. Suspected dry rot near base of G5.
V2 Condition	2	Split wood at ends. Raised grain, weathered and exposed. Suspected dry rot near base of G5.
H1 Condition	1	
H2 Condition	2	Raised grain, weathered and exposed.
H3 Condition	3	Dry rot present. (Photo 5)
H4 Condition	2	Raised grain, weathered and exposed.
G1 Condition	3	Damaged perimeter trim, 1 cracked muntin
G2 Condition	3	Replace perimeter trim
G3 Condition	3	Replace perimeter trim
G4 Condition	3	Misaligned with H2, Replace perimeter trim, Bottom Rail is split
G5 Condition	3	Misaligned with H2, Replace perimeter trim, 1 split muntin
G6 Condition	1	

North Elevation Windows


South Elevation Hangar Door Condition Details

BUILDINGWORK
architecture design preservation

4EA
building science

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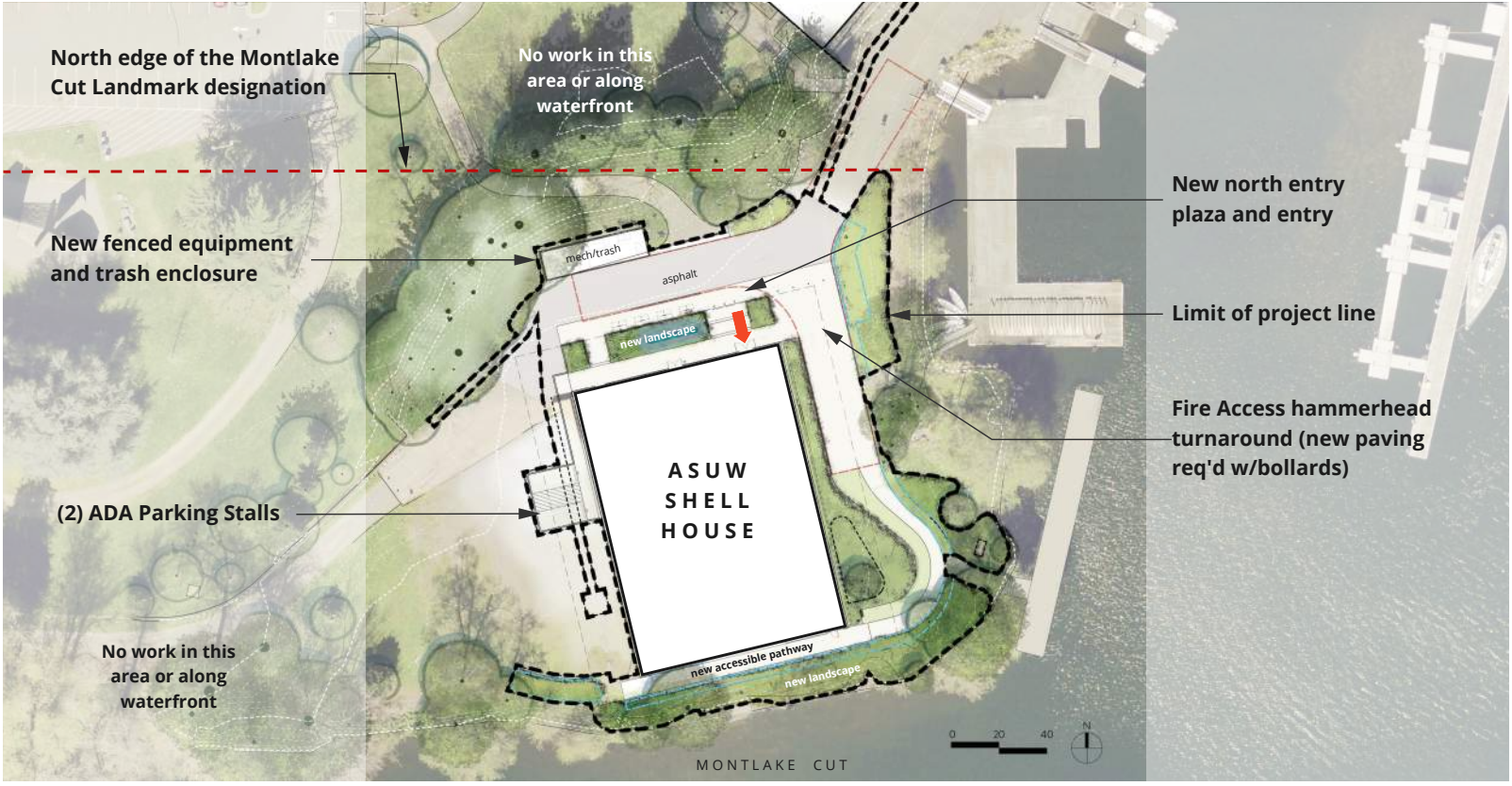
Design Concept —

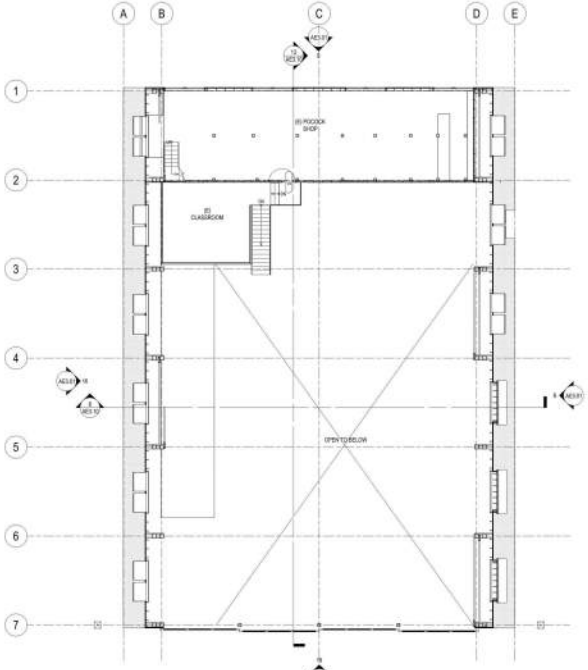
Site Plan - Existing

Site Plan - Proposed

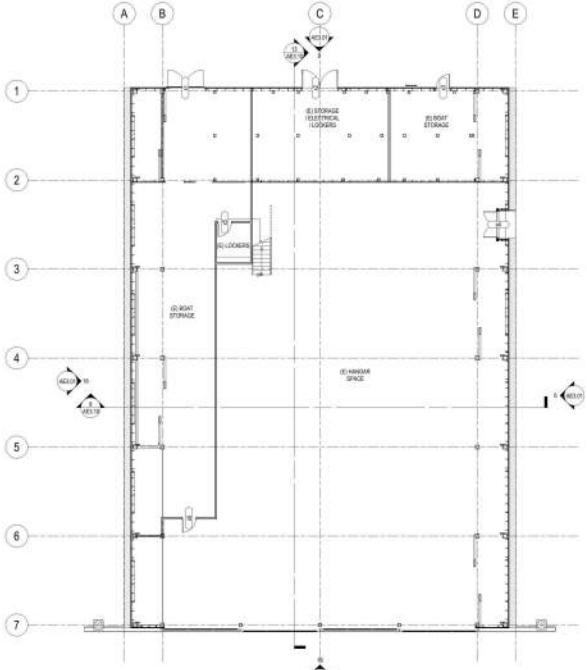
Site Plan - Proposed



Floor Plans - Existing

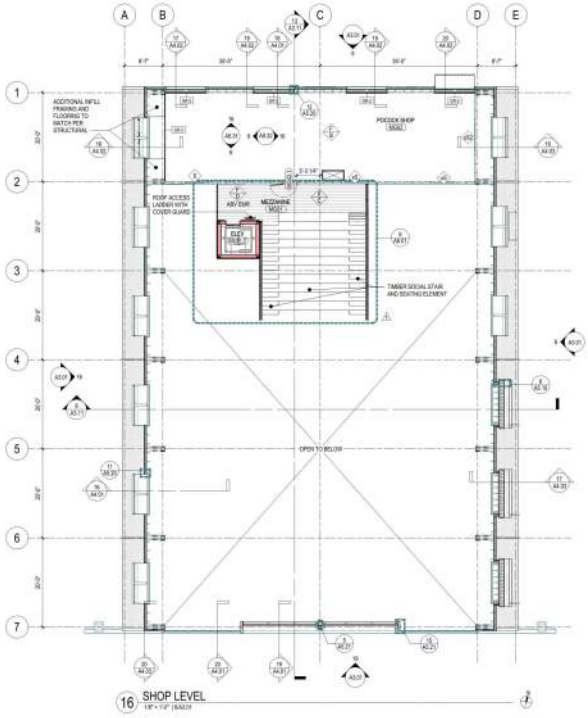


16 EXISTING MEZZANINE

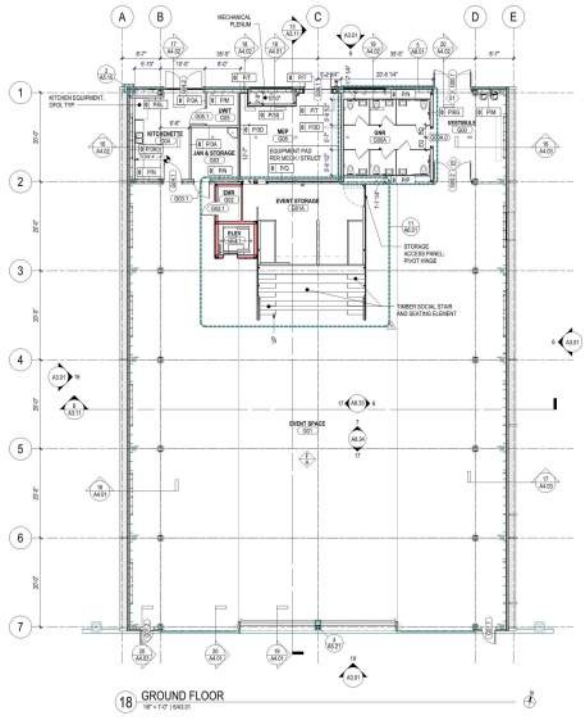


18 EXISTING GROUND FLOOR

Floor Plans - Proposed



16 SHOP LEVEL



18 GROUND FLOOR

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Level 1 Floor Plan - Proposed

Restrooms, storage, new entry, kitchen and mechanical spaces below Pocock shop

Elevator access to mezzanine level and Pocock shop

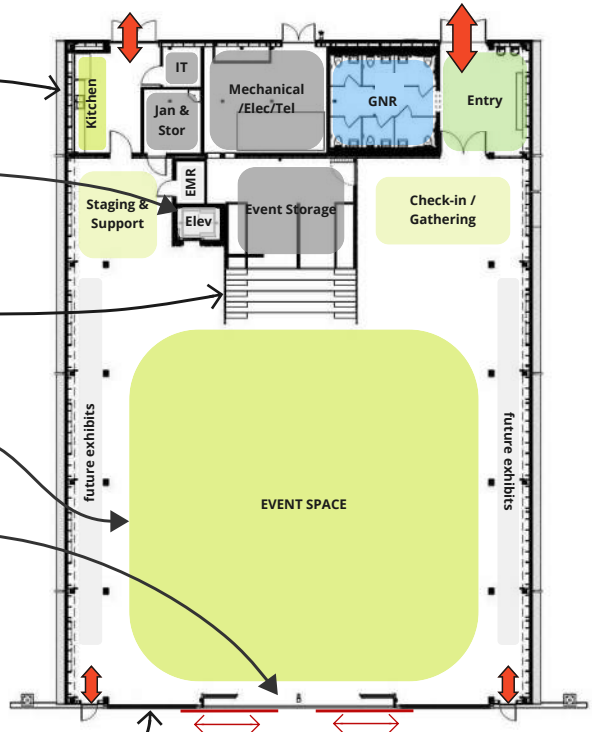
New social stair element leading to mezzanine level and Pocock Shop

Event space for ~300 people (280 -300 at tables), with power and data for future exhibits in perimeter areas

New glazed connection to the site and water; assembly moved to the interior of the building to allow for installation of operable hangar doors

Outermost existing hangar doors repaired and fixed in place.

Central hangar doors replaced in-kind and operable



Shop Level Floor Plan - Proposed

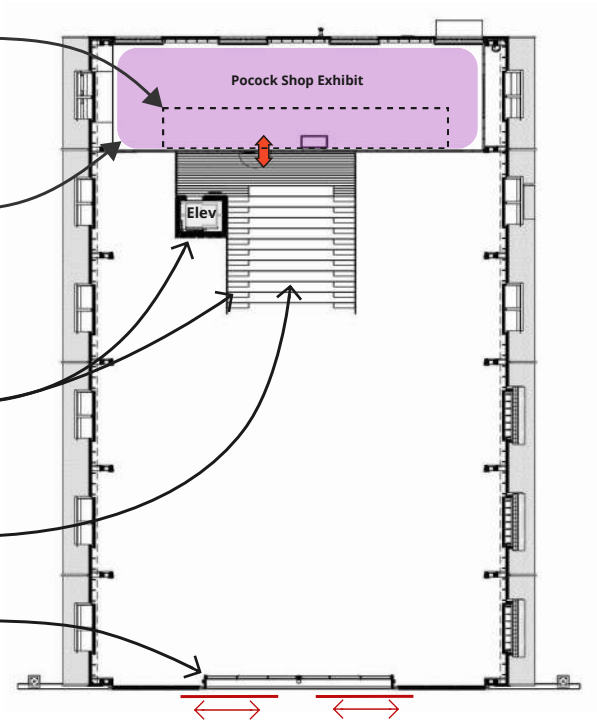
Existing post-rowing era mezzanine, columns, and stair above Pocock Shop will be removed

Renovated Pocock shop to include conditioning, lighting and exhibit power and data

Elevator and stair access to existing Pocock shop added.

Social stair element with multiple levels of seating

Proposed glazing pulled to the interior of the building to allow for installation of operable center hangar doors



SECTION PERSPECTIVE - PROPOSED NEW ELEMENTS

Exposed wood trusses, framing and historic interior surfaces maintained

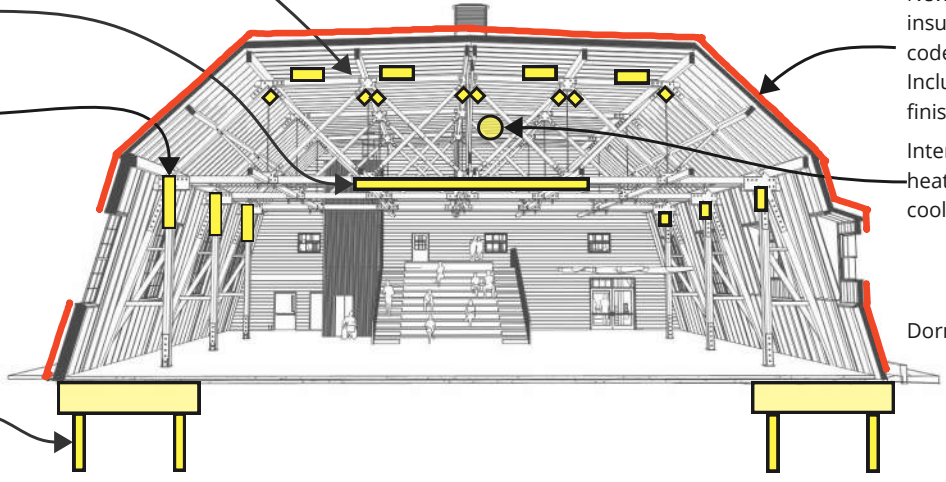
Add rods and plates at damaged or failing bottom chord of truss

Seismic upgrade of all truss connections

New IGU windows with simulated divided lites on East and West sides

Overlay concrete floor with structural slab

Retrofit foundations with drilled pilings and pilecaps



New exterior rigid insulation to meet energy code performance req'd Includes all new exterior finished and roof mat'ls

Interior ductwork for heating and partial cooling system

Dormers to remain (typ)

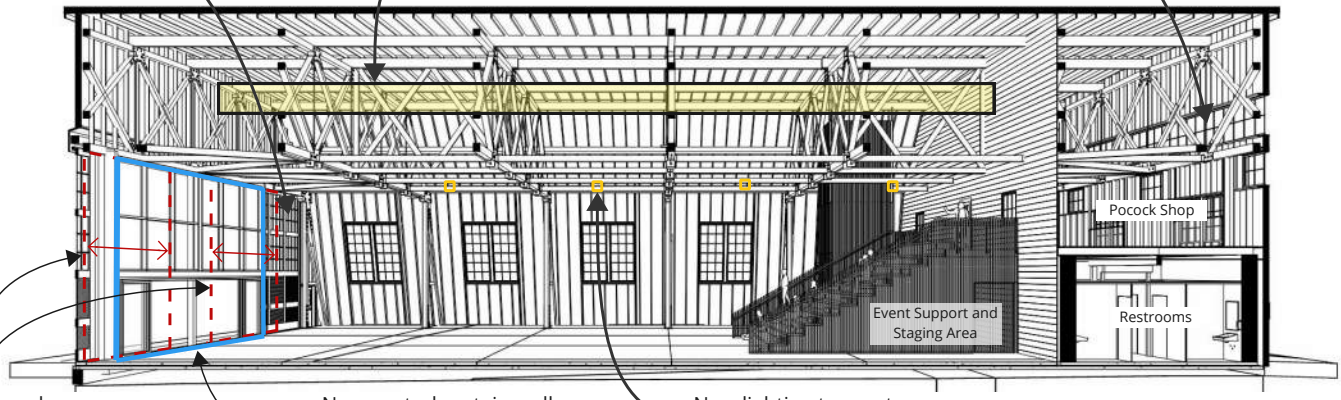
SECTION PERSPECTIVE - E/W

SECTION PERSPECTIVE - PROPOSED NEW ELEMENTS

Outermost existing hangar doors repaired and fixed in place

Interior ductwork for heating and partial cooling system only

Existing historic windows in Pocock shop to be repaired and restored in-place



Center (2) hangar doors replaced in-kind and made operable

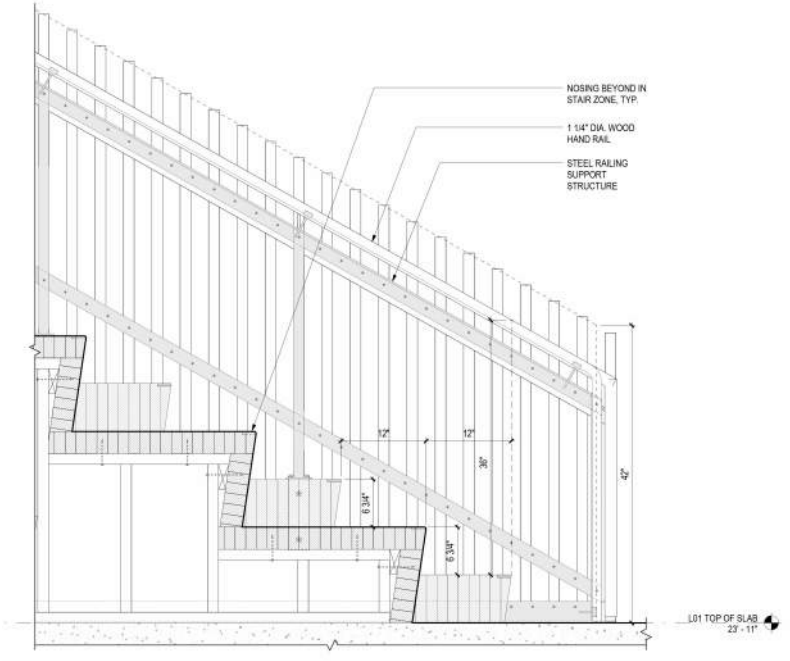
New central curtain wall glazing system; held inboard of operable hangar doors

New lighting to meet minimum light levels

SECTION PERSPECTIVE - N/S

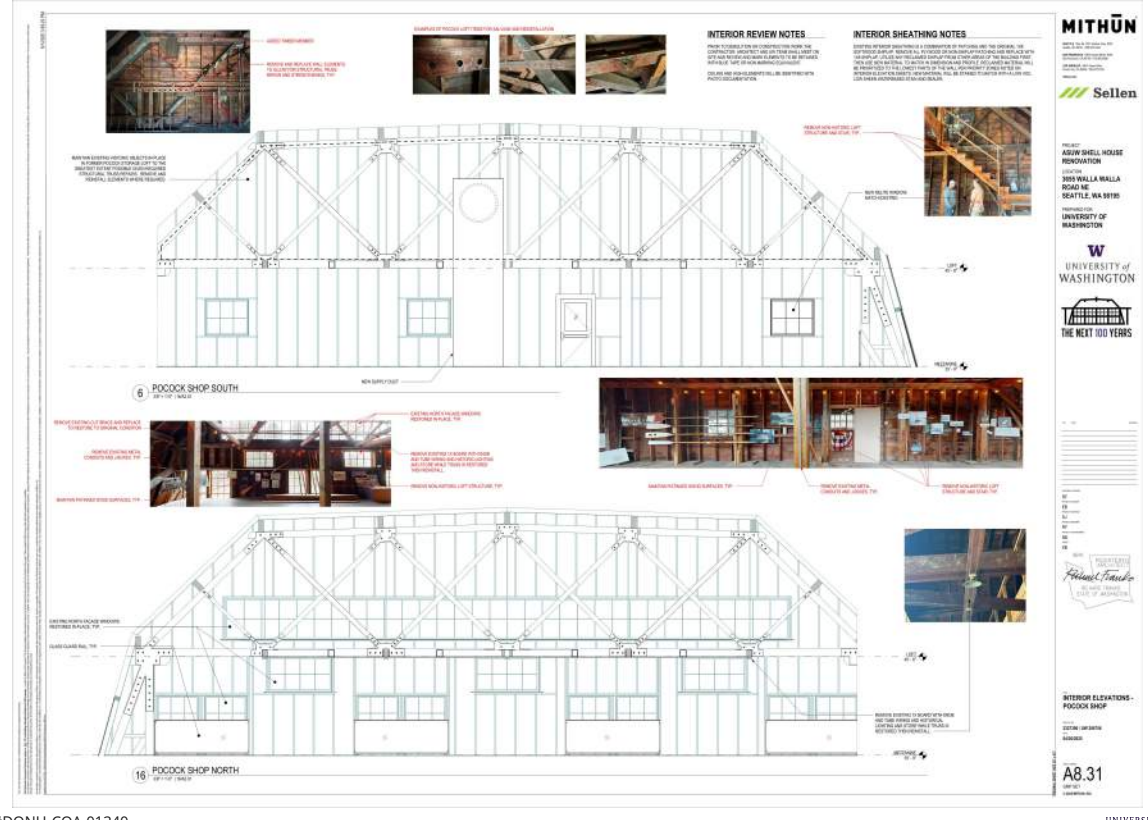
Truss Strengthening

Interior Stair and Mezzanine

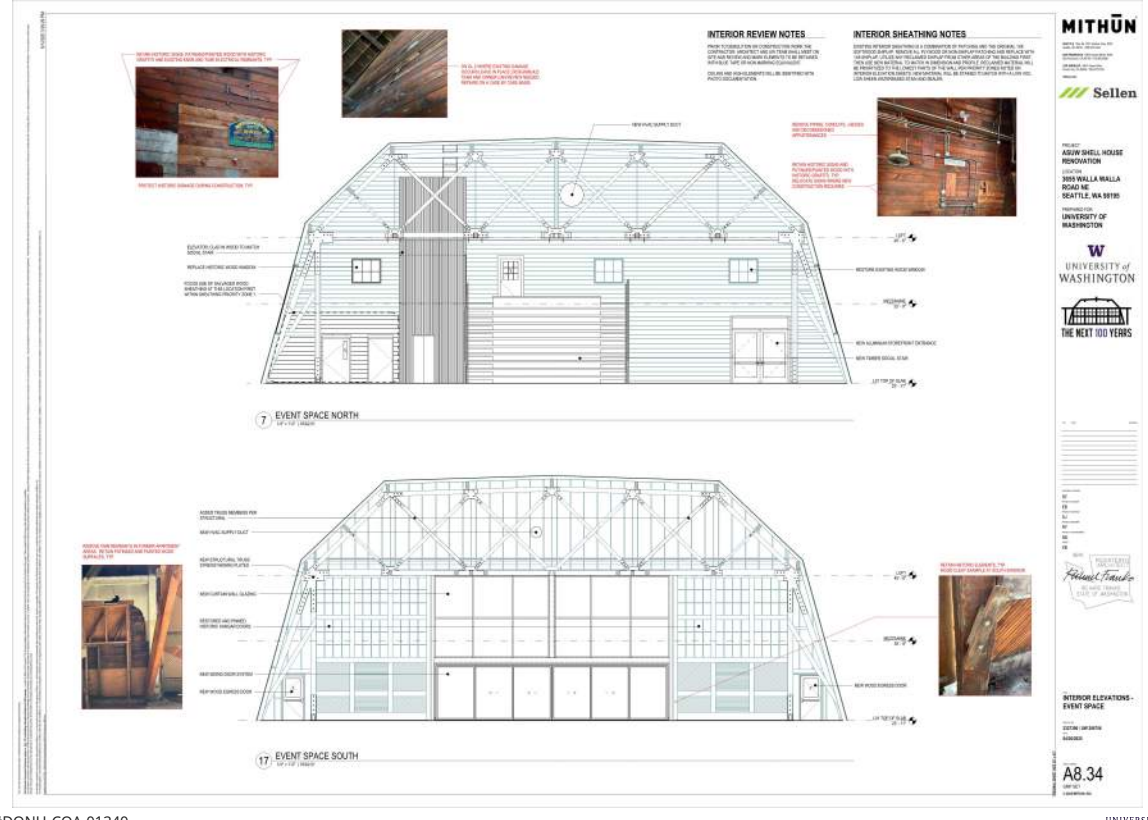


Interior Stair and Mezzanine

Preserving Historic Surfaces

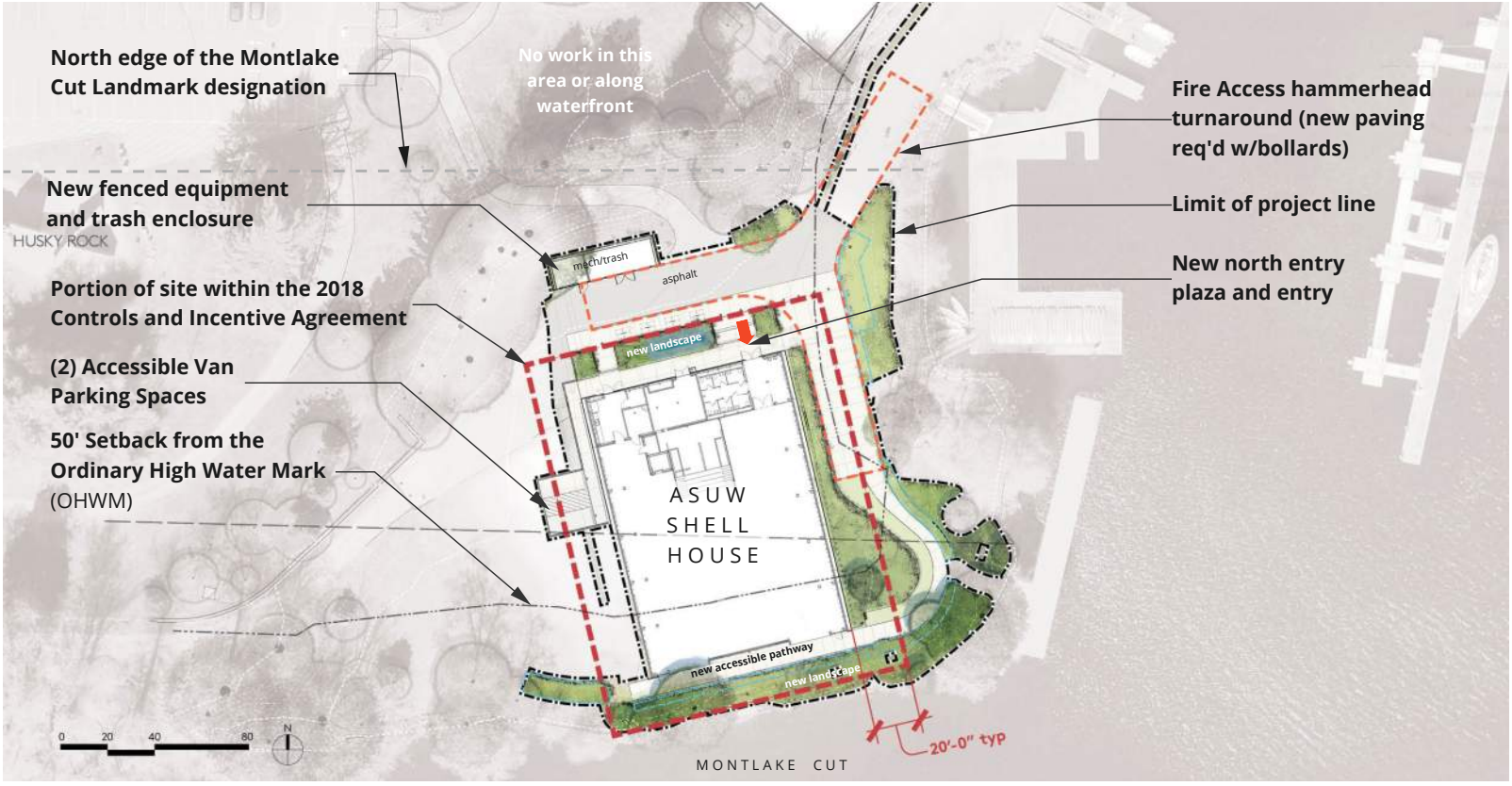


Preserving Historic Surfaces



Site Design —

Overall Site Plan - Proposed



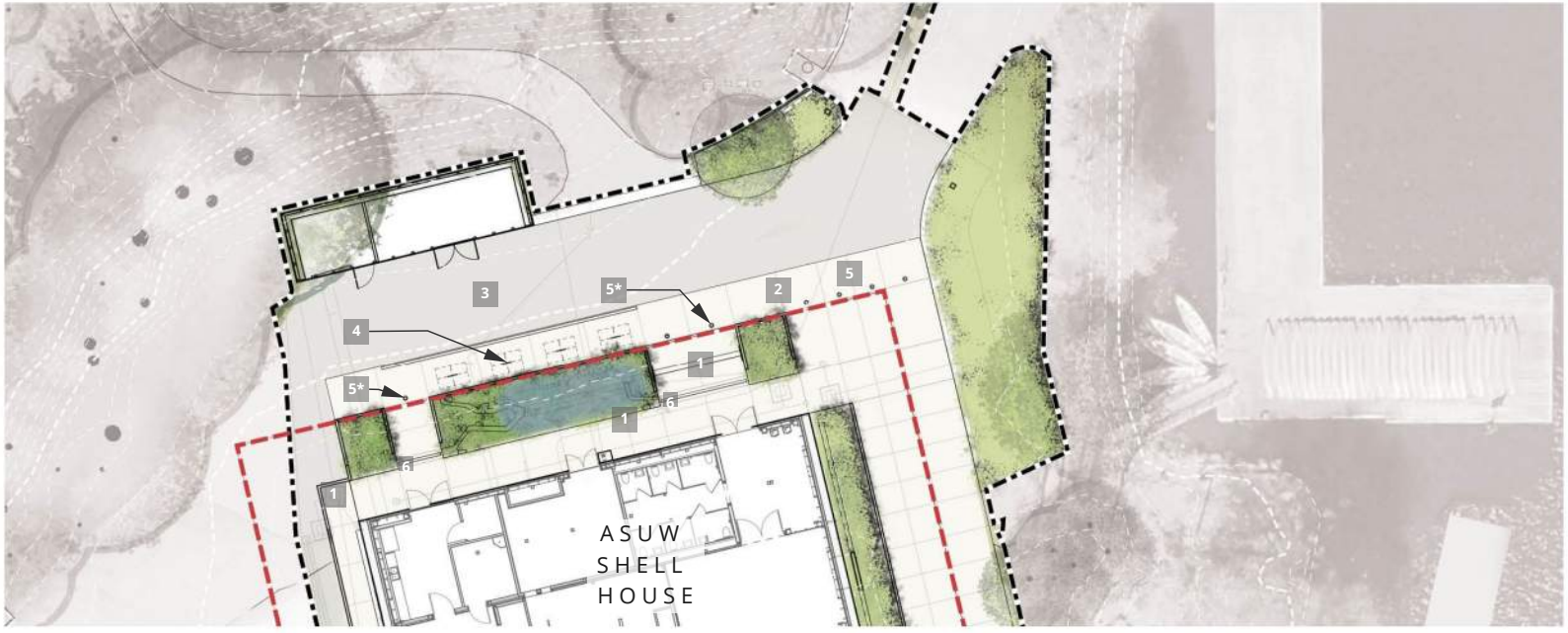
Overall Site Plan - Existing Impervious Areas (within proposed Limit of Work)

Overall Site Plan - Proposed Permeable Areas Diagram (within proposed Limit of Work)

Overall Site Plan - Existing Grades

Overall Site Plan - Proposed Grading

North Side - Plan Enlargement



Pedestrian Concrete
CAST-IN-PLACE
LIGHT BROOMED FINISH
AS SHOWN

Vehicular Concrete
CAST-IN-PLACE
LIGHT BROOMED FINISH

Vehicular Asphalt
Per Civil

Bike Racks
Stainless Steel
Sportsworks,
TOFINO No-Scratch

Bollards
Stainless Steel,
#4 Brushed Finish
External locking mechanism, typ

*** internal locking mechanism**

Trench Drain Cover
Gray Iron
Raw
Urban Accessories,
JAMISON

North Side - Proposed Material Palette

Pedestrian Concrete
CAST-IN-PLACE
LIGHT BROOMED FINISH
ACCESSIBLE PATH

Vehicular Concrete
CAST-IN-PLACE
LIGHT BROOMED FINISH
FIRE ACCESS TURNAROUND

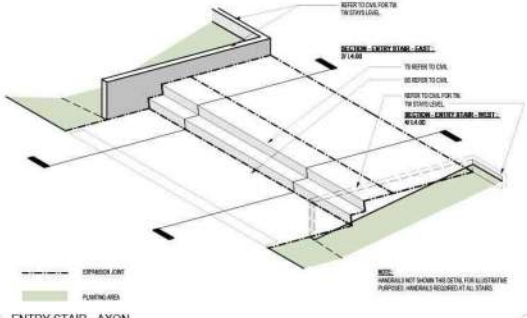
Vehicular Asphalt
DRIVE AISLE,
FIRE ACCESS TURNAROUND

Handrails
Stainless Steel
180-Grit Polished Finish
ENTRY STAIR

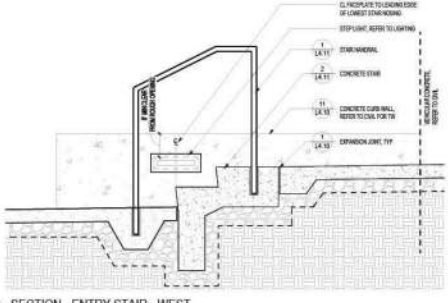
Bike Racks
Stainless Steel
Sportsworks, TOFINO No-Scratch
At Drive Aisle

Trench Drain Cover
Gray Iron
Raw
Urban Accessories, JAMISON
ENTRY STAIR, SLOPED WALK

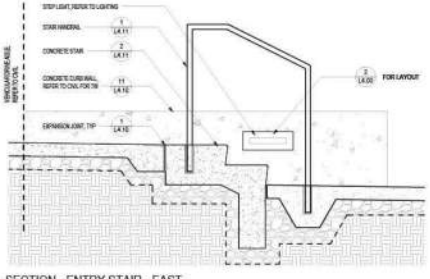
North Side - Sections



1 ENTRY STAIR - AXON

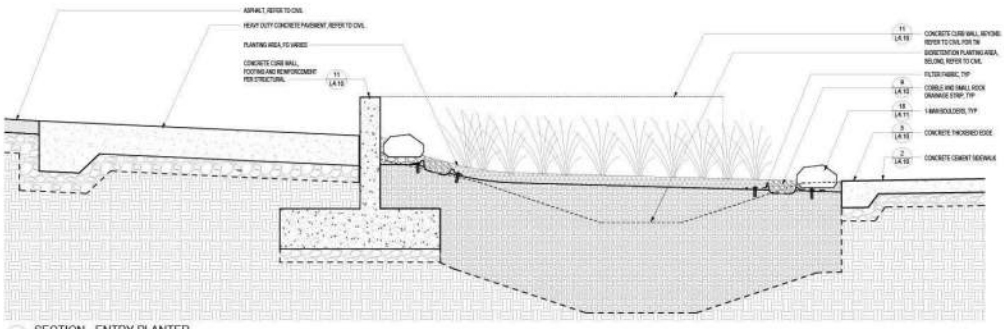


2 SECTION - ENTRY STAIR - WEST

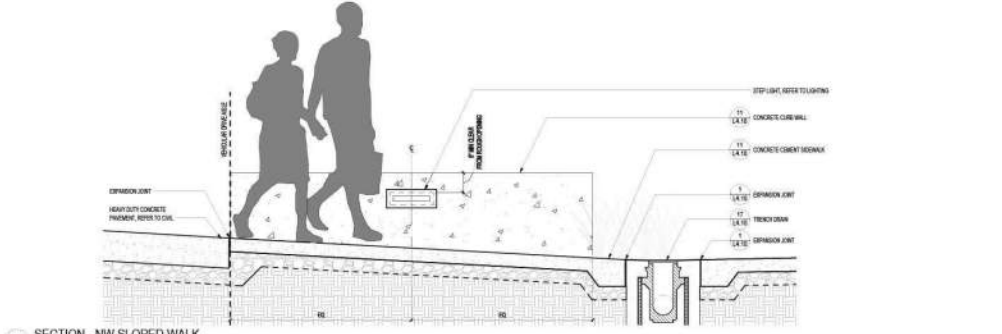


4 SECTION - ENTRY STAIR - EAST

North Side - Sections

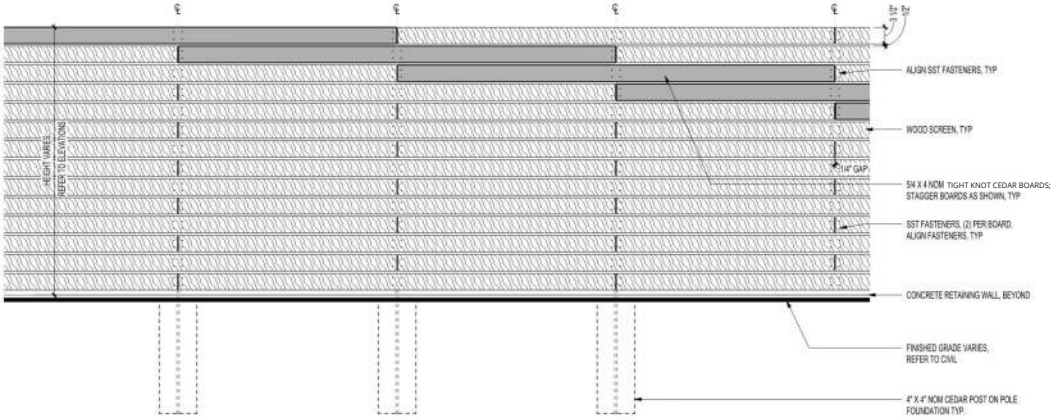


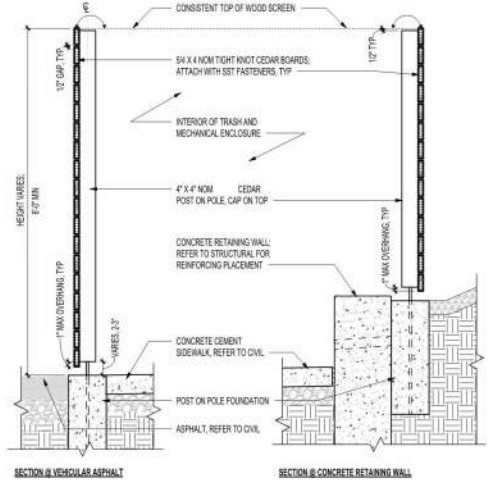
11 SECTION - ENTRY PLANTER



16 SECTION - NW SLOPED WALK

Utility and Trash Enclosure - Detailing & Materiality





ELEVATION

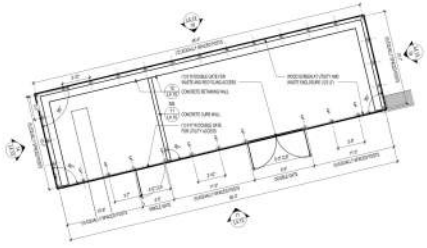
6 WOOD SCREEN AT UTILITY AND TRASH ENCLOSURE

1" = 1'-0"

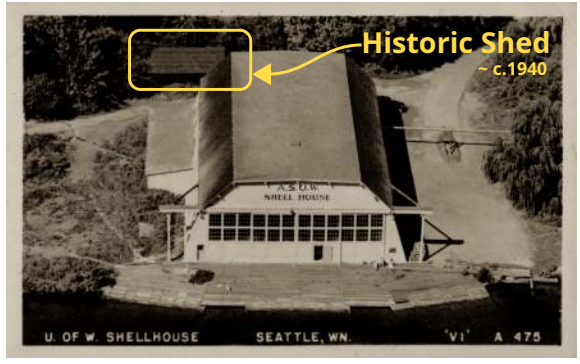
CEDAR
1x 4 NOM TIGHT KNOT CEDAR
ENCLOSURE SIDING

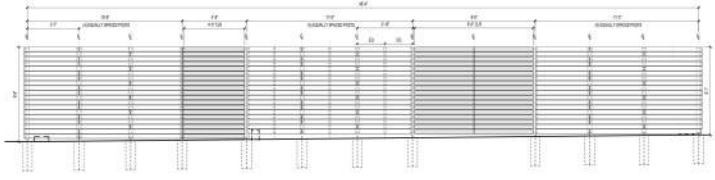
CEDAR POSTS ON POLES
Inline Fence
ENCLOSURE POSTS

Utility and Trash Enclosure - Detailing

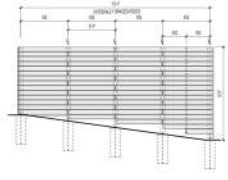


6 LAYOUT - TRASH AND UTILITY ENCLOSURE

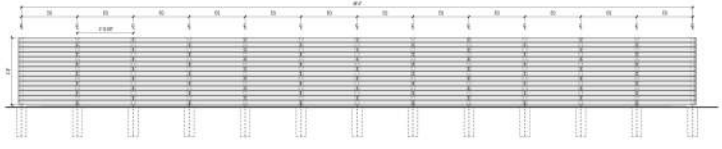




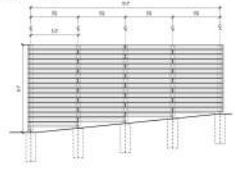
11 SOUTH ELEVATION - TRASH & UTILITY ENCLOSURE



14 WEST ELEVATION - TRASH & UTILITY ENCLOSURE



16 NORTH ELEVATION - TRASH & UTILITY ENCLOSURE



19 EAST ELEVATION - TRASH & UTILITY ENCLOSURE

East Side - Enlargement + Proposed Material Palette

Vehicular Concrete
CAST-IN-PLACE
LIGHT BROOMED FINISH
FIRE ACCESS TURNAROUND

Grasspave

Maintenance Path

Add Alt: as shown

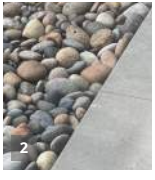
Cobble Wall

Salvaged Cobble from site
At existing Trees to remain.

Bollards
Stainless Steel,
#4 Brushed Finish
External locking mechanism, typ

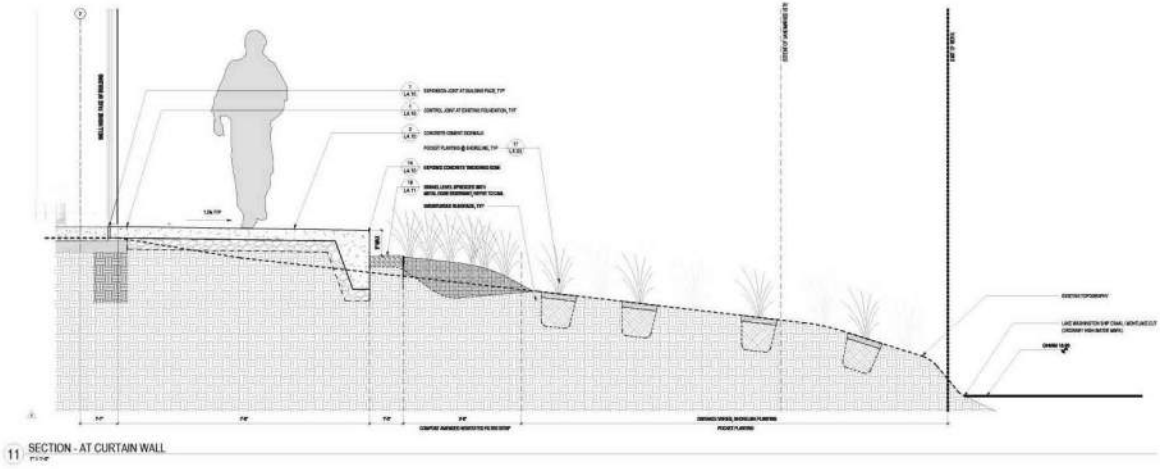
South Side - Enlargement + Proposed Material Palette

Pedestrian Concrete
CAST-IN-PLACE
LIGHT BROOMED FINISH
ACCESSIBLE PATH

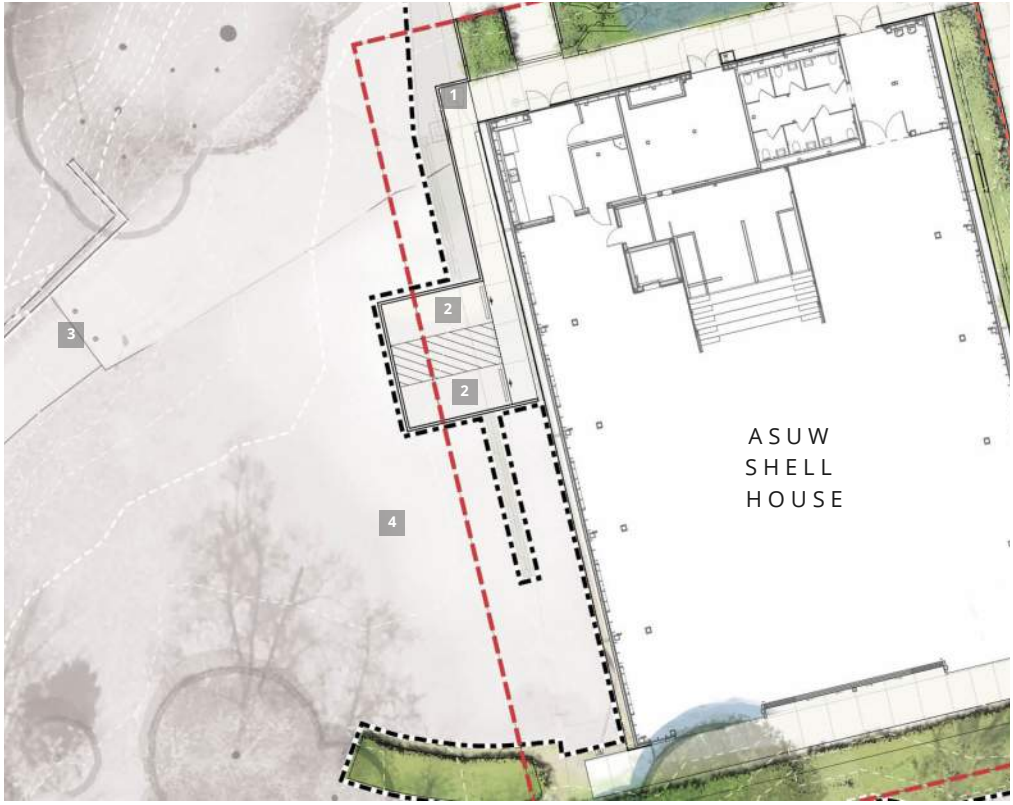


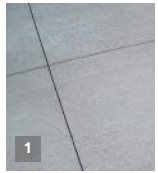
Gravel Filter Strip
COBBLE AND GRAVEL FILTER
STRIP BELOW CONCRETE
WALK

South Side - Sections



West Side - Enlargement + Proposed Material Palette





Pedestrian Concrete
CIP CONC
BROOMED FINISH
ACCESSIBLE PATH

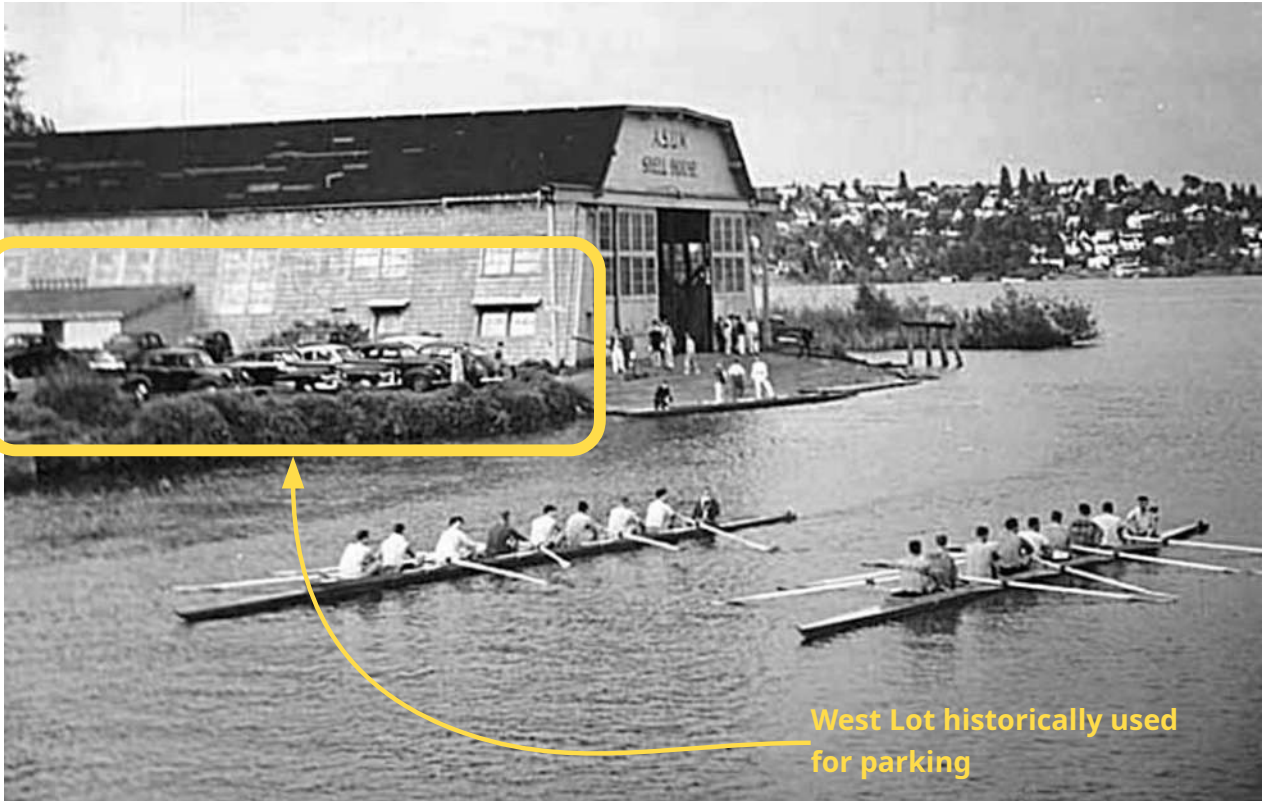
Vehicular Concrete
CIP CONC
BROOMED FINISH
ACCESSIBLE PATH

Bollards
Stainless Steel,
#4 Brushed Finish
External locking mechanism, typ

*** internal locking mechanism**

Existing Gravel

West Side - Historic Conditions



Existing Parking

PARKING SPACES ARE CURRENTLY LOCATED ALONG THE NORTH ELEVATION

WEST LOT PARKING AND BOAT STORAGE

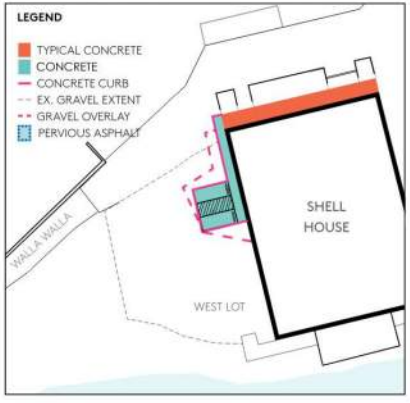
WEST LOT BEING USED FOR EVENTS

Accessible Parking Options Considered

ACCESSIBLE PARKING OPTIONS | PROS AND CONS

* FOR ALL OPTIONS, REFER TO ADDENDUM FOR PROPOSED GRADING AND DRAINAGE

OPTION A ADD FILL WEST LOT TO MINIMIZE INTERVENTION



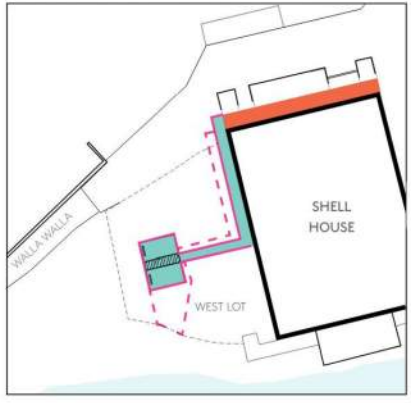
PROS**

- MAJORITY OF WEST LOT IS MAINTAINED FOR EVENTS
- REGRADING IS MINIMIZED
- WATER QUALITY IS MINIMIZED THROUGH FILL APPROACH
- $

CONS

- IN LANDMARKED ZONE - POTENTIAL CHALLENGES WITH VERTICAL SIGNS/LIGHTING

OPTION B FLATTEST SPOT UTLIZED FOR STALLS



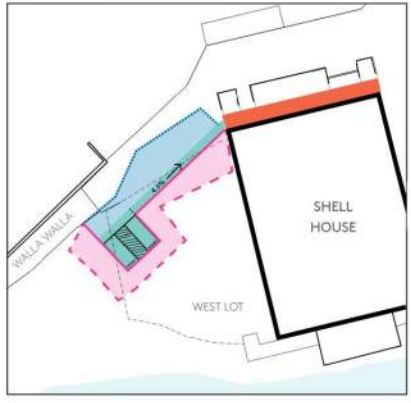
PROS**

- MOST MINIMAL REGRADING REQUIRED.
- MAJORITY OF THE WEST LOT CAN REMAIN GRAVEL AND AS FLEXIBLE SPACE FOR EVENTS

CONS

- PLACEMENT OF ACCESSIBLE SPACES FEELS RANDOM
- $$

OPTION C PRESERVE MAJORITY OF WEST LOT



PROS

- MAJORITY OF THE WEST LOT IS LEFT UNTOUCHED.

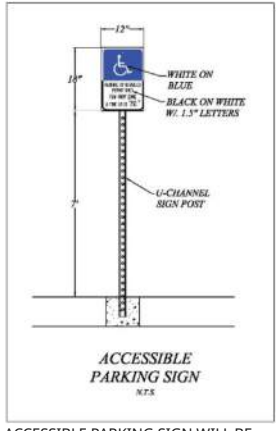
CONS

- $$$
- SIGNIFICANT REGRADING REQUIRED.
- TURNING MOVEMENTS ARE EXTREMELY TIGHT.
- GRAVEL PAVE/ PERMEABLE GRAVEL WILL LIKELY BE REQUIRED DUE TO THE AMOUNT OF CUT AND REGRADING.
- POTENTIAL FOR PERVIOUS ASPHALT PATCHING ALONG WALLA WALLA THAT WILL RESULT IN MISMATCH WITH EXISTING ASPHALT.

** GRAVEL PAVE/PERMEABLE GRAVEL NEED NOT BE USED AS PREVIOUSLY SPECULATED. STRATEGY OF FILLING GRAVEL TO MEET PERMEABLE PARKING SPACES ALLOWS FOR NON PERMEABLE MATERIAL (BECAUSE WE ARE NOT CUTTING.)

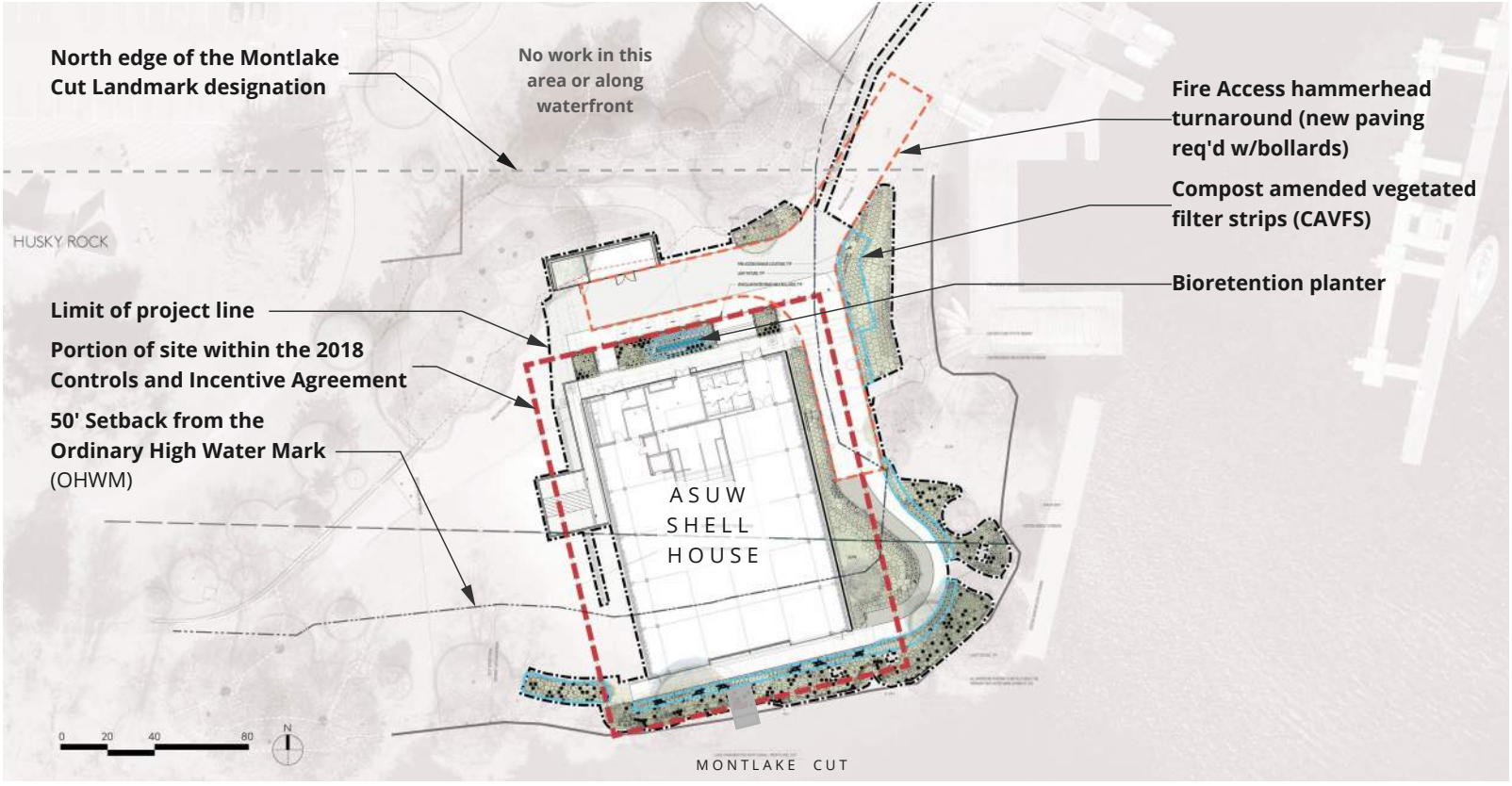
Proposed Accessible Parking

- MAJORITY OF WEST LOT IS MAINTAINED FOR EVENTS
- REGRADING IS MINIMIZED
- OPTIMUM STORMWATER APPROACH
- AFFORDABLE

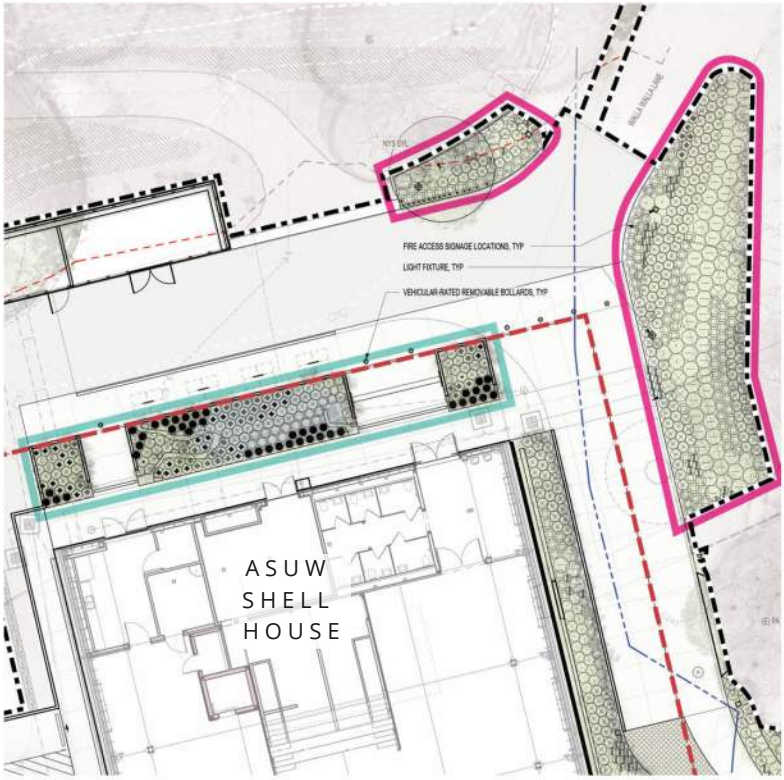


ACCESSIBLE PARKING SIGN WILL BE REQUIRED AT THE HEADS OF EACH ADA PARKING SPACE

Overall Site - Proposed Planting Plan



North Side - Planting Enlargement



East Side - Planting Enlargment

Existing Planting to Remain

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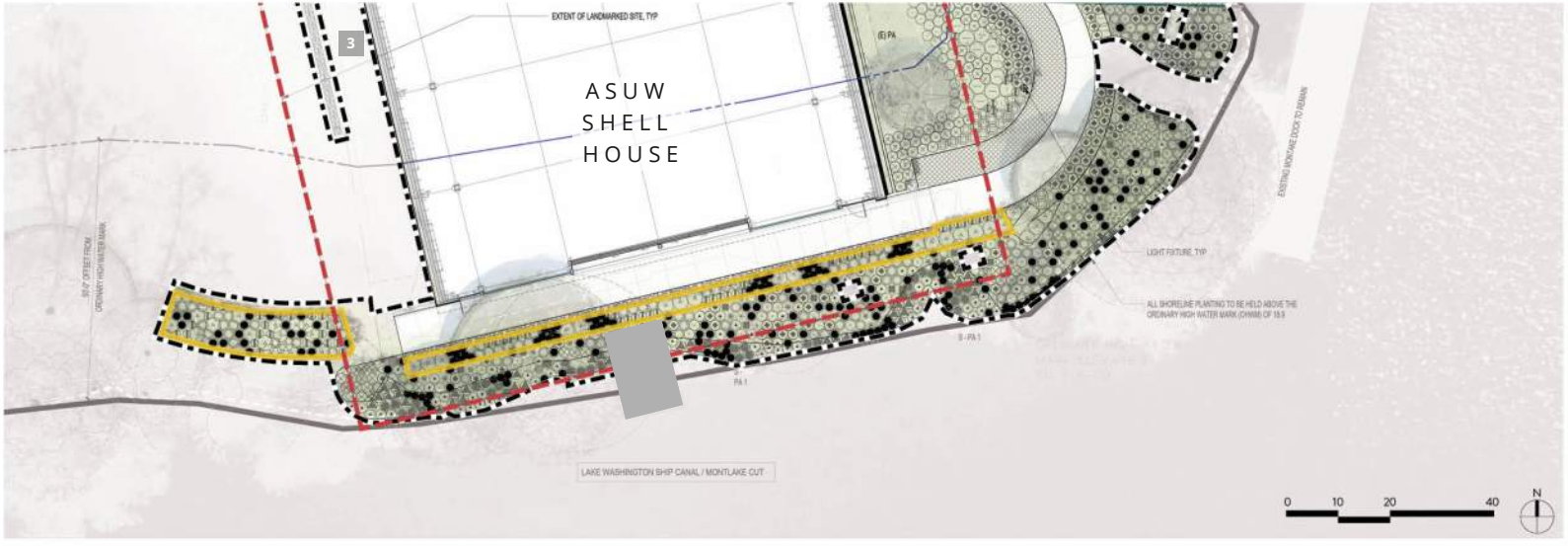
South Side - Planting Enlargment



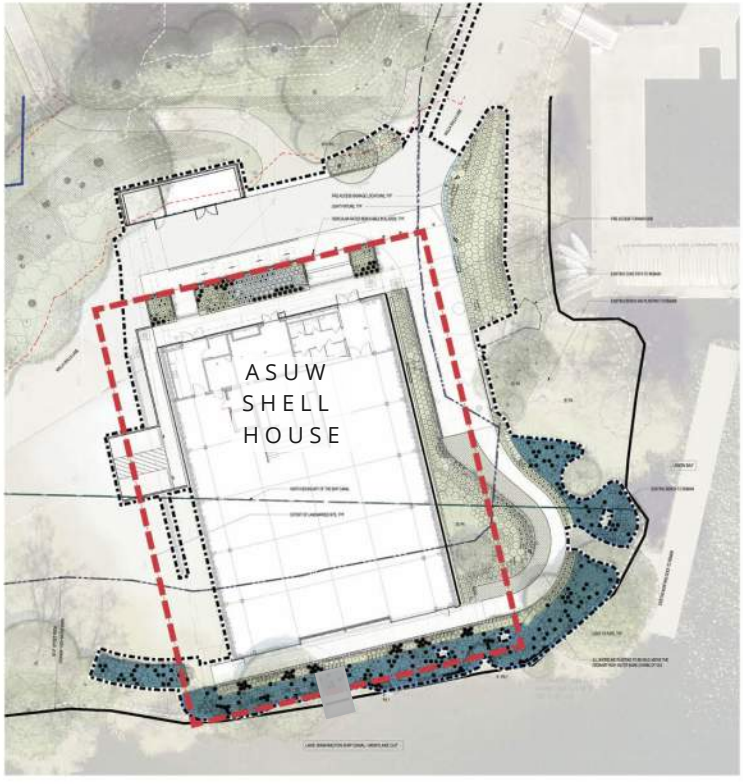

Carex densa
DENSE SEDGE


Carex obnupta
SLOUGH SEDGE

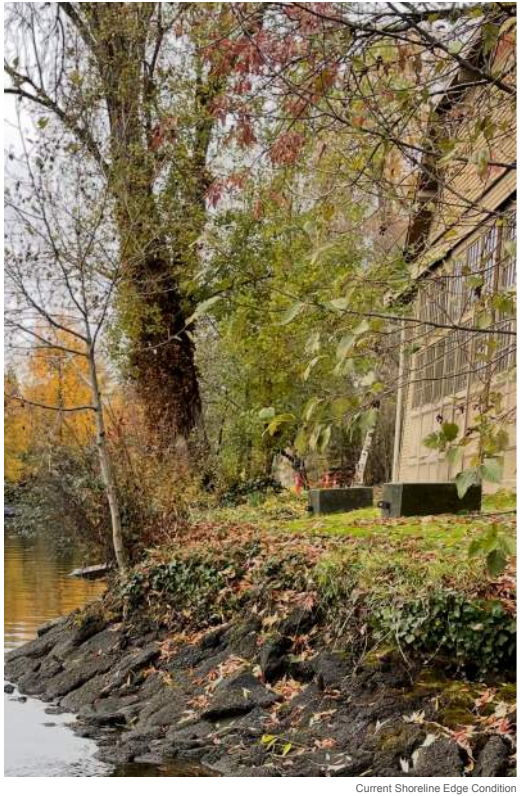

Achillea millefolium
YARROW


Scirpus microcarpus
BULRUSH

Restoration Planting Palette

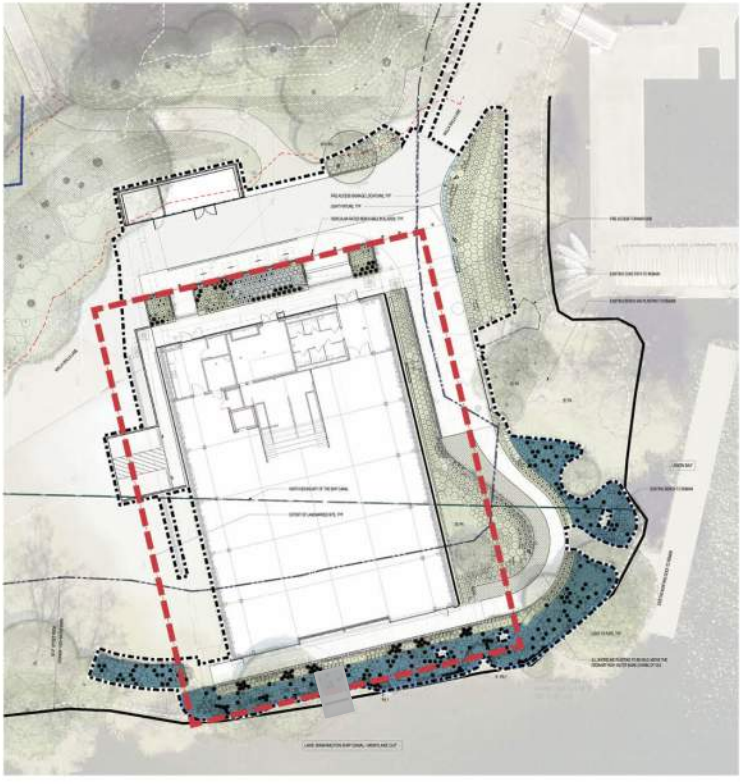


We've shown dense planting our planting plans, but the final plant quantities may vary. The pit-planting approach—with recommended species and over-densification to improve survival—was developed with Kerrie McArthur (Confluence Environmental) and informed her assumptions for the Monitoring and Mitigation Plan.



Current Shoreline Edge Condition

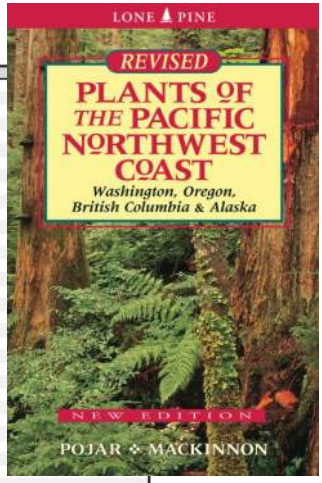
Restoration Planting Palette



Planting Palette - Traditional Uses

ASUW Shell House - Ethnobotanical Plant Uses

UNDERSTORY PLANTS		ETHNOBOTANICAL USES*
Ceanothus 'Joyce Coulter'	CREEPING MOUNTAIN LILAC	Ceonothus species were used by the Kootenay to make into a tea to aid in healing from tuberculosis
Cornus sericea 'Kelseyi'	KELSEY DOGWOOD	Used by Coast Salish peoples for salmon spreaders and basket rims
Cornus stolonifera 'Arctic Fire'	'Arctic Fire' RED DOGWOOD	Used by Coast Salish peoples for salmon spreaders and basket rims
Symphoricarpos albus	SNOWBERRY	Sti'att'imx used sparingly to settle the stomach after too much fatty food
Vaccinium ovatum 'Scarlet Ovation'	DWARF HUCKLEBERRY	Used widely by Coast Salish peoples eaten fresh, often with oil or dried into cakes
Achillea millefolium	YARROW	Used widely by Coast Salish peoples for a variety of medicinal uses including digestive tonics, cold medicine when combined with bitter-cherry bark, and an eye wash
Aster subspicatus	DOUGLAS ASTER	No information found
Carex densa	DENSE SEDGE	Used for basketry, more commonly with California indigenous peoples
Carex obnuta	SLOUGH SEDGE	Popular basket material for the Makah Tribe
Deschampsia cespitosa	TUFTED HAIRGRASS	No information found
Glehnia leicarpa mathias	BEACH SILVER TOP	No information found
Glyceria elata	TALL MANNA GRASS	Has small grains that can be extracted by hand threshing, and use for cereal or meal, but no evidence of of being used by northwest coast peoples.
Juncus effusus	COMMON RUSH	Quinault used this plant, mixed with cattail, to weave tumplines and string.
Poa macrantha	SEASHORE BLUEGRASS	No information found
Scirpus microcarpus	BULRUSH	Used to weave light-duty baskets and as an ornament to trim in hide clothing
Veronicastrum virginicum	CULVER'S ROOT	No information found
Polystichum munitum	WESTERN SWORD FERN	Used by Coast Salish peoples as a protective layer in pit ovens, between food in storage boxes and baskets, and on berry-drying racks. Leaves were used for flooring and bedding. Large rhizhomes dug and eaten for starvation food.
SHORELINE RESTORATION		**ETHNOBOTANICAL USES***
Cornus sericea 'Kelseyi'	KELSEY DOGWOOD	Used by Coast Salish peoples for salmon spreaders and basket rims
Salix sitchensis	SITKA WILLOW	Used by Coast Salish peoples for making ropes, nets, binding and tying. Used to make a grey dye for mountain goat wool.
Symphoricarpos albus	SNOWBERRY	Sti'att'imx used sparingly to settle the stomach after too much fatty food
Carex densa	DENSE SEDGE	Used for basketry, more commonly with California indigenous peoples
Carex obnuta	SLOUGH SEDGE	Fine baskets are made from this sedge, often with cedar foundations and intricate designs from dyed strands of grass or colored barks.
Carex pellita	WOOLY SEDGE	No information found
Glyceria elata	TALL MANNA GRASS	Has small grains that can be extracted by hand threshing, and use for cereal or meal, but no evidence of of being used by northwest coast peoples.
Juncus effusus	COMMON RUSH	Quinault used this plant, mixed with cattail, to weave tumplines and string.
Petasites frigidus	ALPINE BUTTERBUR	Northern tribes chewed the root or soaked it in hot water and drank the tea for tuberculosis, chest problems, sore throat and stomach ulcers.
Scholenoplectus acutus	HARDSTEM BULLRUSH	No information found
Scirpus microcarpus	BULRUSH	No information found
Stachys cooleyae	COOLEY HEDGE NETTLE	Quinault drank the nectar from these purple flowers



Planting Palette - Traditional Uses

ASUW Shell House - Ethnobotanical Plant Uses

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Cornus sericea 'Kelseyi'
KELSEY DOGWOOD

Used by Coast Salish peoples for salmon spreaders and basket rims.

Vaccinium ovatum 'Scarlet Ovation'
DWARF HUCKLEBERRY

Used widely by Coast Salish peoples eaten fresh, often with oil or dried into cakes

Used sparingly to settle the stomach after too much fatty food

Exterior Building Palette

Exterior Materials - Historic Color

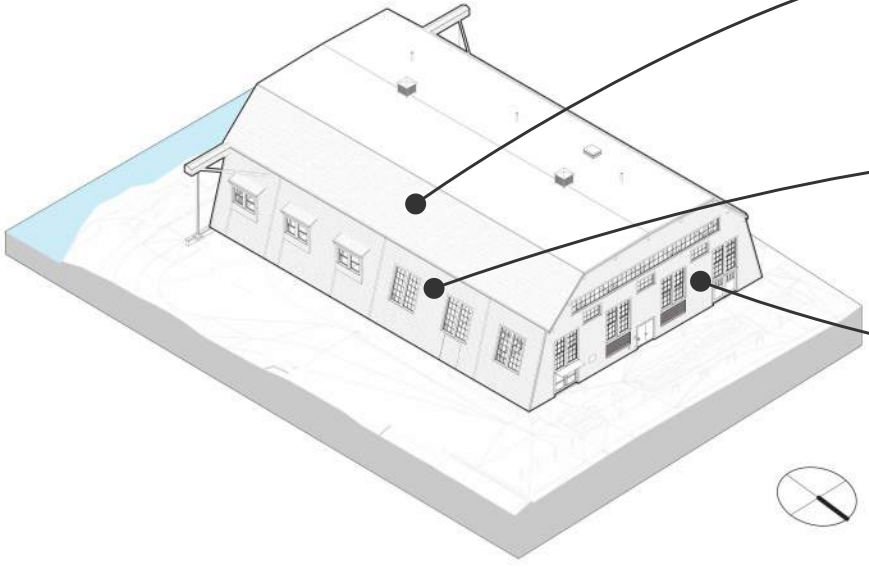
Historic Color-tinted photo

South facade photo, 2025

Rehabilitation Photo, 1980

West facade photo, 2024

Exterior Materials - Color Palette



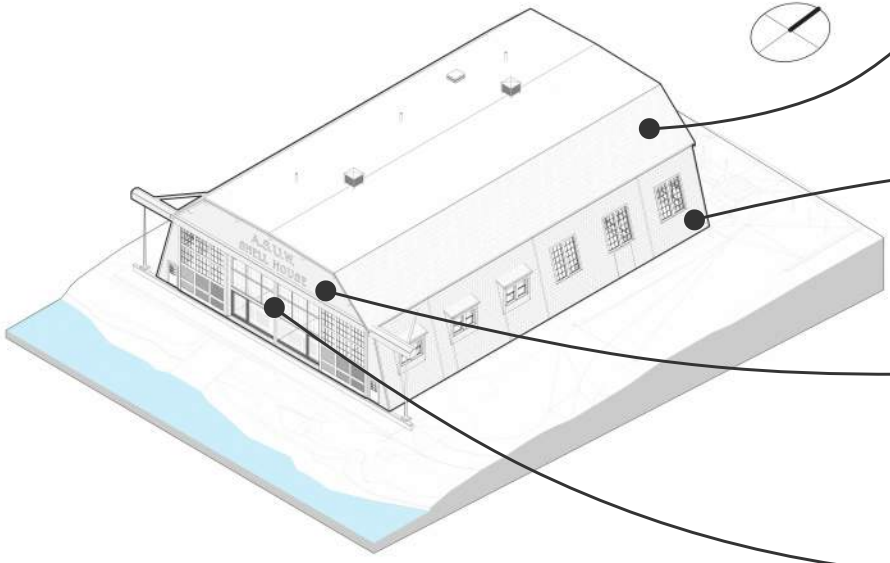
ASPHALT SHINGLE
GAF
WEATHERED WOOD
LOWER ROOF

CEDAR SHINGLE
SHAKERTOWN
STORM GRAY (SEMI-TRANSPARENT)
EAST & WEST FACADE SIDING

PAINT
BENJAMIN MOORE
MARITIME WHITE
DROP SIDING AND TRIM

MULLION
KAWNEER
CLASSIC BRONZE
ALUM GLAZING SYSTEM
& EXTERIOR METALS

Exterior Materials - Color Palette



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Exterior Materials - Palette

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BENJAMIN MOORE
MARITIME WHITE
DROP SIDING AND TRIM

MULLION
KAWNEER
CLASSIC BRONZE
ALUM GLAZING SYSTEM
& EXTERIOR METALS

Materials - Proposed Roofing

BASIS-OF-DESIGN:
GAF TIMBERLINE UHDZ ASPHALT SHINGLES
COLOR: WEATHERED WOOD

Weathered
Wood

1930s

1980

Materials - Cedar Shingle (East and West Facades)

CEDAR SHINGLE PANEL

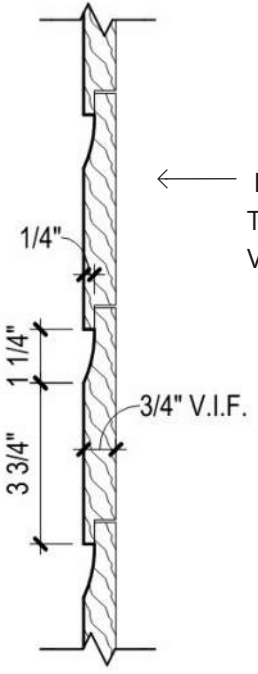
BASIS-OF-DESIGN: SHAKERTOWN CRAFTSMAN CEDAR SHINGLE PANEL, 7" EXPOSURE WITH VERTICAL KEYWAY; EVEN BUTT.

EXISTING SIDING HAS AN STAGGERED BUTT, KEYWAY AND IS APPROXIMATELY 9" EXPOSURE

PRE-1980 RENOVATION SHINGLE SIDING APPEARS TO BE AN EVEN BUTT WITH KEYWAY SIMILAR TO PROPOSED NEW SIDING.

Materials - Horizontal Wall Siding (North and South Facades)

EXISTING ORIGINAL HORIZONTAL SIDING UNDER 1980-ERA SHINGLES



PROPOSED HORIZONTAL DROP SIDING PROFILE
TO MATCH THE EXISTING ORIGINAL PROFILE AS VERIFIED ON SITE

Exterior Materials - Color Palette

ASPHALT SHINGLE
GAF
WEATHERED WOOD
LOWER ROOF

CEDAR SHINGLE
SHAKERTOWN
STORM GRAY (SEMI-TRANSPARENT)
EAST & WEST FACADE SIDING

PAINT
BENJAMIN MOORE
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DROP SIDING AND TRIM

MULLION
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& EXTERIOR METALS

Appendix - Glazing at East/West

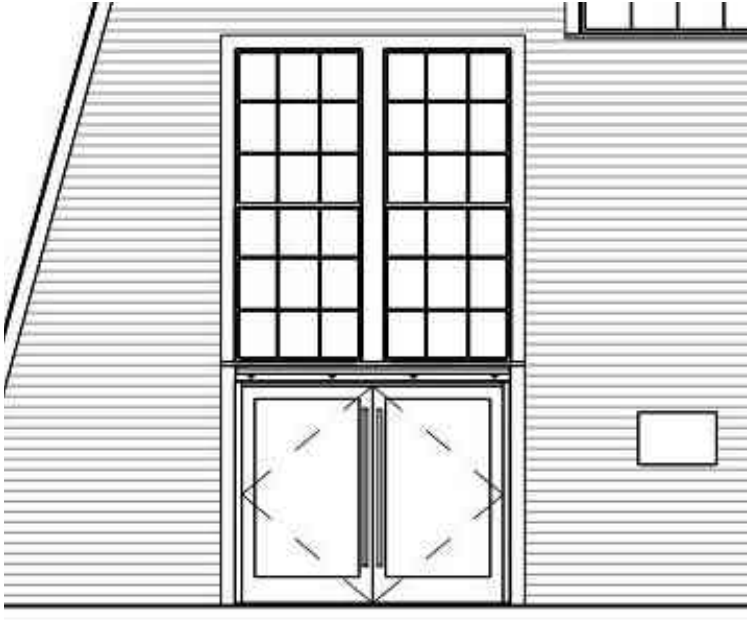
Appendix - Glazing at South

Appendix - Glazing over White

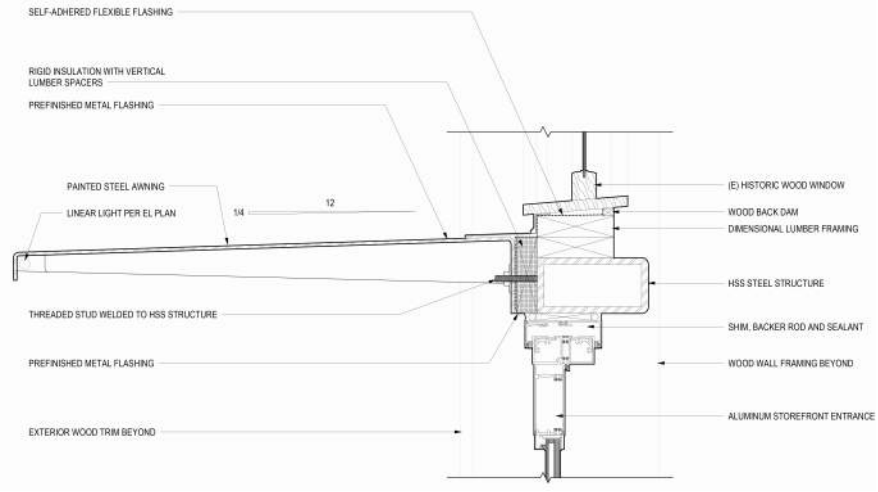
North Facade Louvers - Previous Options

North Entry

- **Doors occupy full width of opening per NPS direction (no sidelites)**
- **Historic windows to remain in current position**
- **Lighting integrated into canopy to avoid added fixtures on wall**



North Entry Canopy and Door Hardware



CUT SHEET

Rockwood RM4140

ArborTek Pull

Offset Pull - Flat Ends

ROCKWOOD
ASSA ABLOY

Experience a safer and more open world

SPECIFICATIONS:

MATERIAL:
Brass, Bronze, Stainless Steel

AVAILABLE FINISHES:

- US3/605
- US4/606
- US10B/613
- 10BE/613E
- US32/629
- US32D/630
- BSP (Black Suede Powder Coat)
- BPC (Black Powder Coat)
- FBPC (Flat Black Powder Coat)
- WSP (White Suede Powder Coat)
- WPC (White Powder Coat)
- Stock Powder Coats

Diameter: 1 1/4"

CTC: Specify

Projection: 2 3/4"

Rockwood Manufacturing Company
300 Main St
Rockwood, PA 15557
www.rockwoodmfg.com
1 800 458 2424

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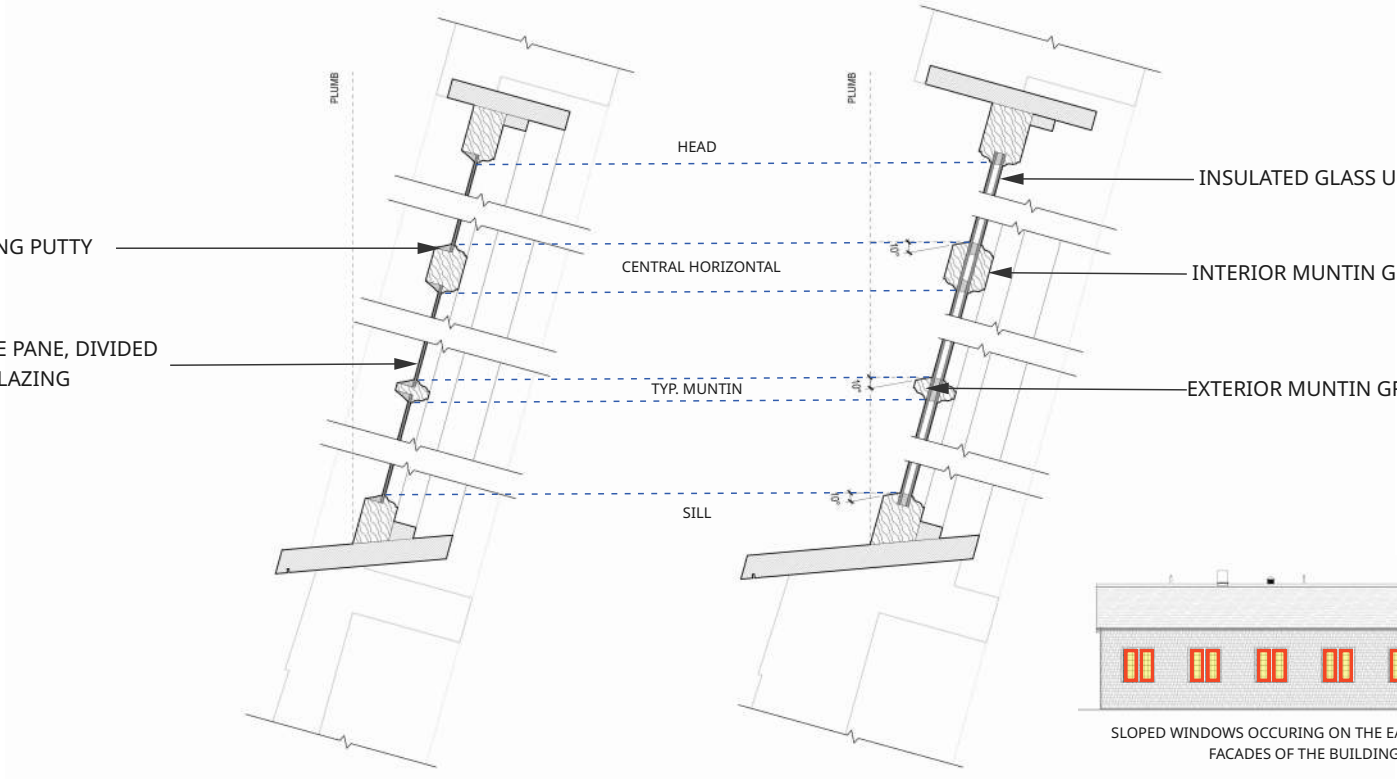
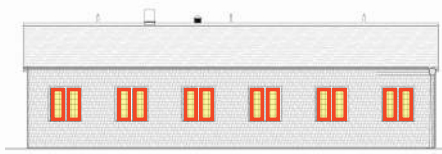
EXISTING DIVIDED LITE WOOD WINDOWS

PROPOSED SIMULATED DIVIDED LITE WOOD WINDOWS





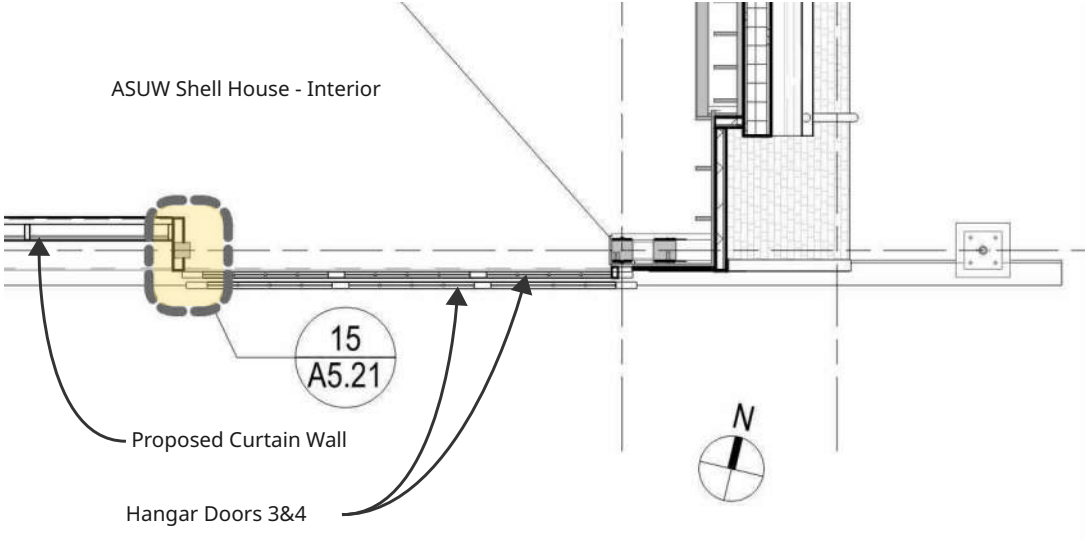
SLOPED WINDOWS OCCURING ON THE EAST AND WEST FACADES OF THE BUILDING

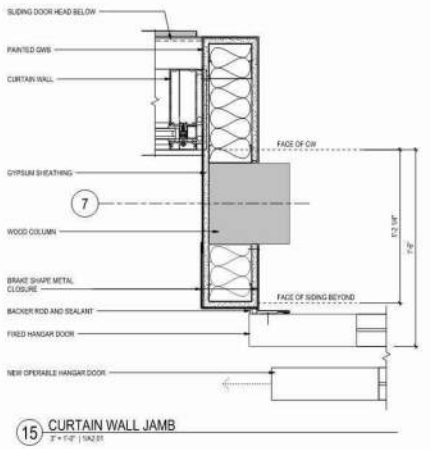
NPS Direction —

Hangar Doors
Curtain Wall
Roof Edge
Existing Ramp

Hangar Doors - South Elevation - 1937 Photo

Hangar Doors - Proposed Configuration - *Floor Plan and Jamb Detail*

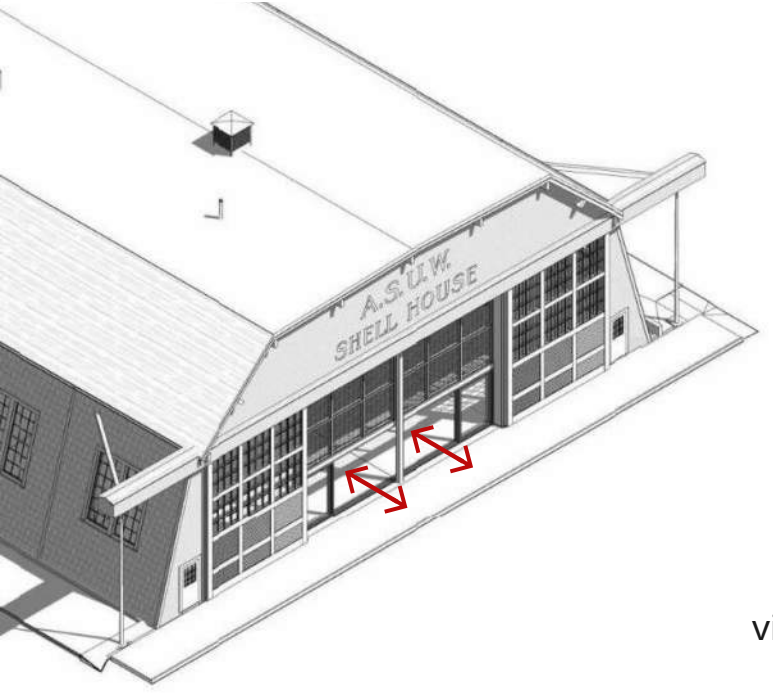


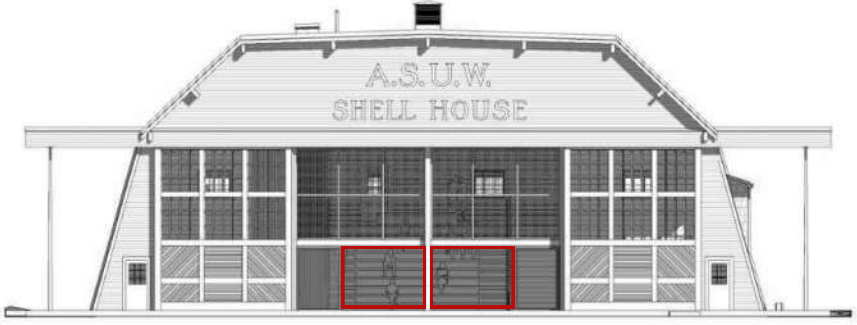


Hangar Doors - Proposed Configuration

Hangar Doors 1+4 Rehabilitated (historic), Doors 2+3 operable (new)

Hangar Doors Open, Glass Sliding Doors Open





GLAZING OPEN

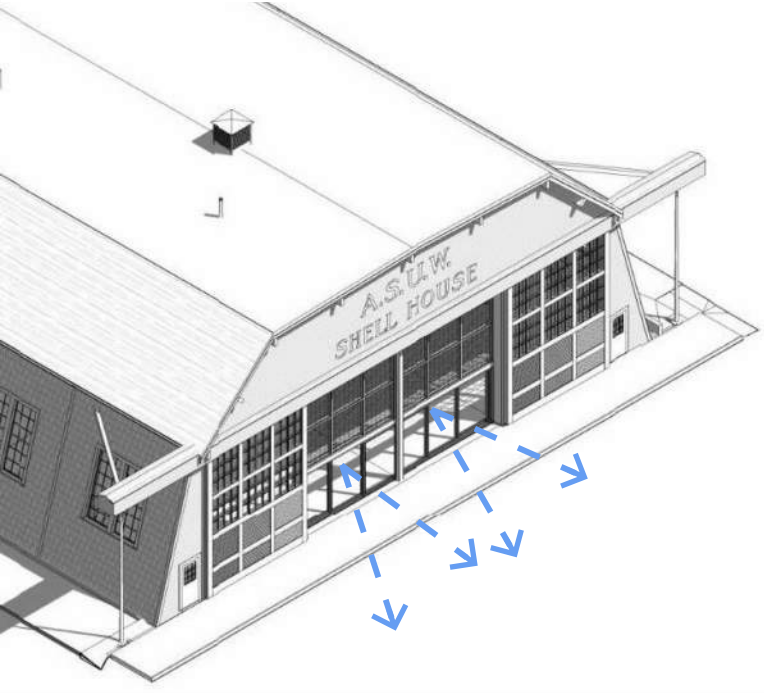
Sliding glass doors and hangar doors open; visual and physical connection to the exterior in fair weather.

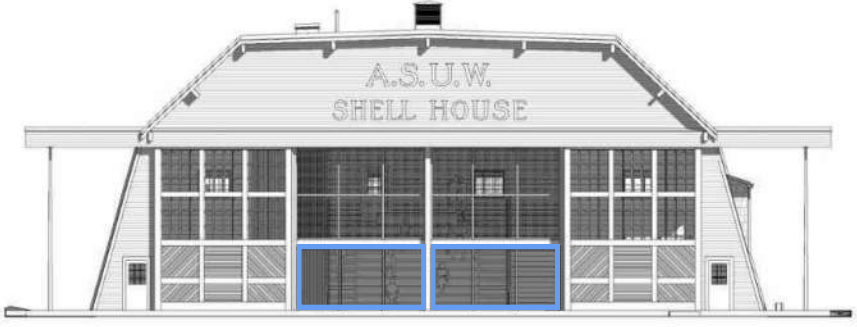
Hangar Doors - *Hangar Doors Open, Glass Sliding Doors Open*

Hangar Doors - Proposed Configuration

Hangar Doors 1+4 Rehabilitated (historic), Doors 2+3 operable (new)

Hangar Doors Open, Glass Sliding Doors Closed





GLAZING CLOSED

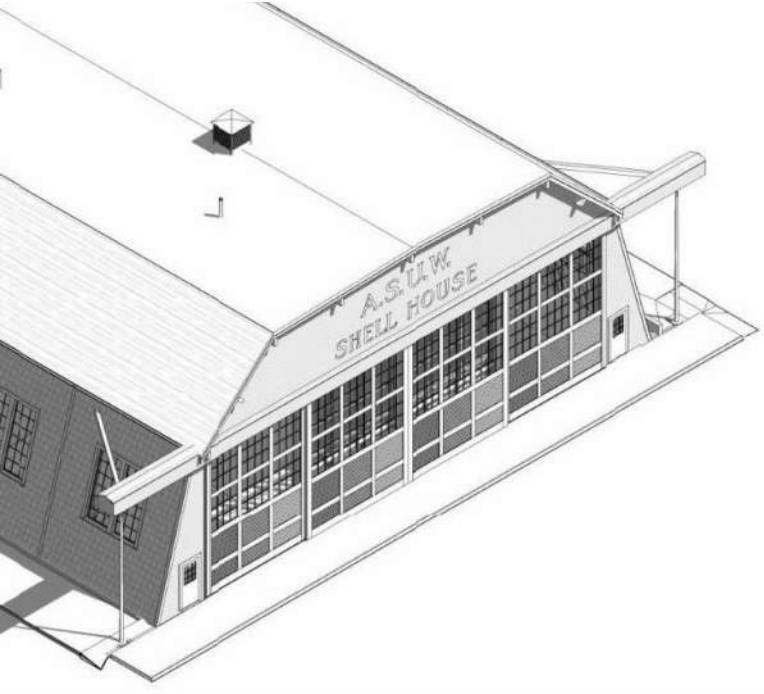
Sliding glass doors closed, hangar doors open; visual connection to the exterior in all weather.

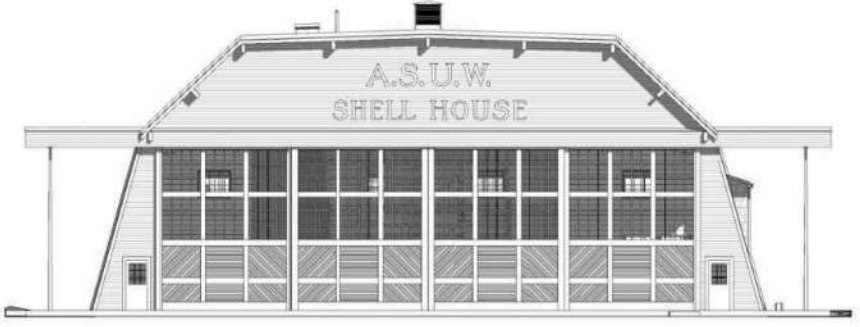
Hangar Doors - *Hangar Doors Open, Glass Sliding Doors Closed*

Hangar Doors - Proposed Configuration

Hangar Doors 1+4 Rehabilitated (historic), Doors 2+3 operable (new)

Hangar Doors Closed, Glass Sliding Doors Closed

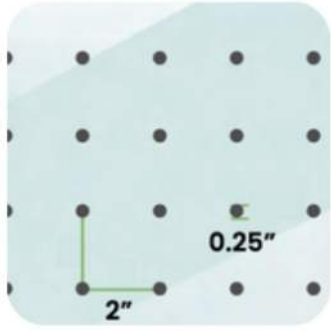




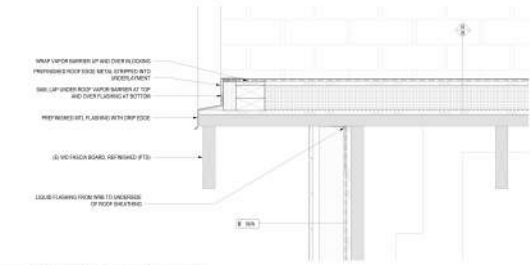
Sliding glass doors and hangar doors closed;
no connection to the exterior.

Hangar Doors - *Hangar Doors Closed, Glass Sliding Doors Closed*

Curtain Wall Glazing - Bird Friendly Design Frit Pattern

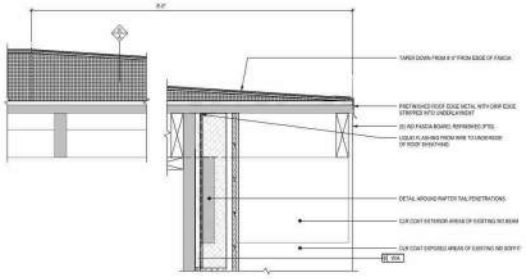


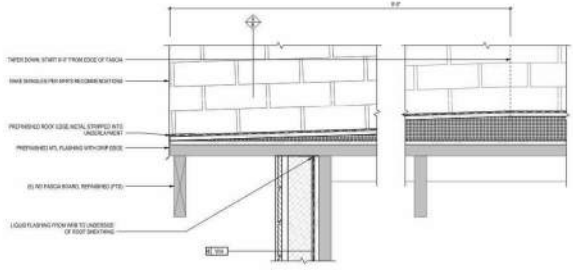
Roof Edge - Step and Taper *(Previous)*



The new insulation layer is stepped back from the edge of the roof to allow the historic fascia dimensions to read prominently. The thicker upper roof insulation is tapered to meet the lower roof thickness at the north and south facades.

Roof Edge - Long Taper (*NPS Direction*)

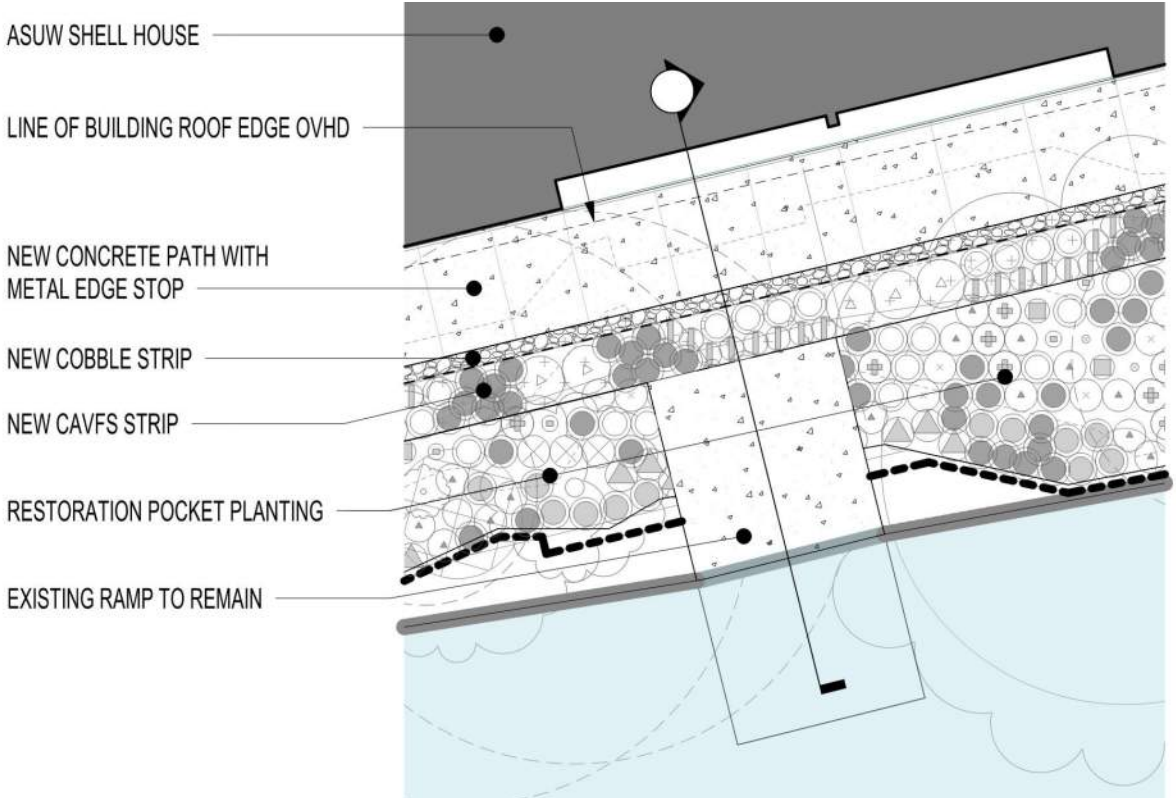




The new insulation layer is tapered to the rake edge of the roof. Taper starts 8'-0" from the edge of roof and gradually reduces to zero.

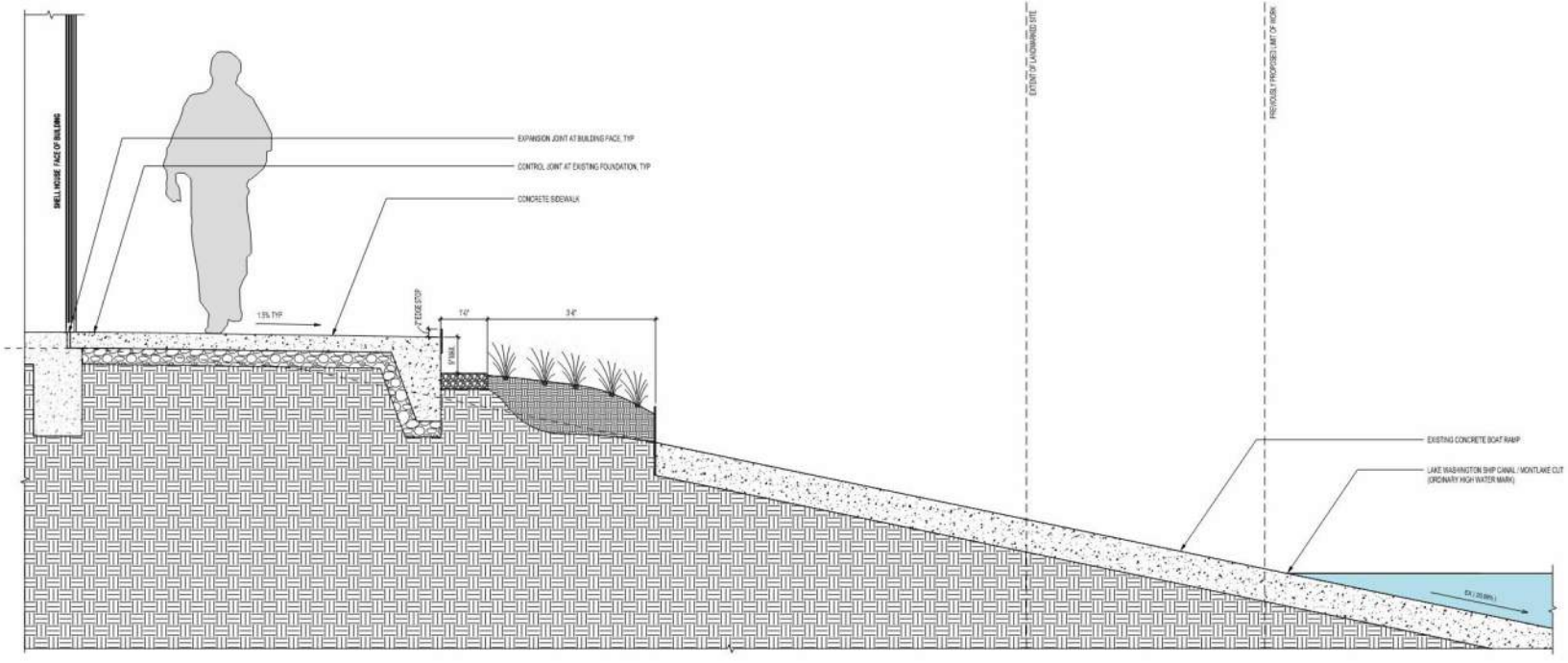
Existing Concrete Ramp - Proposed Plan

Existing Ramp



Existing Concrete Ramp - Proposed Section

Existing Ramp

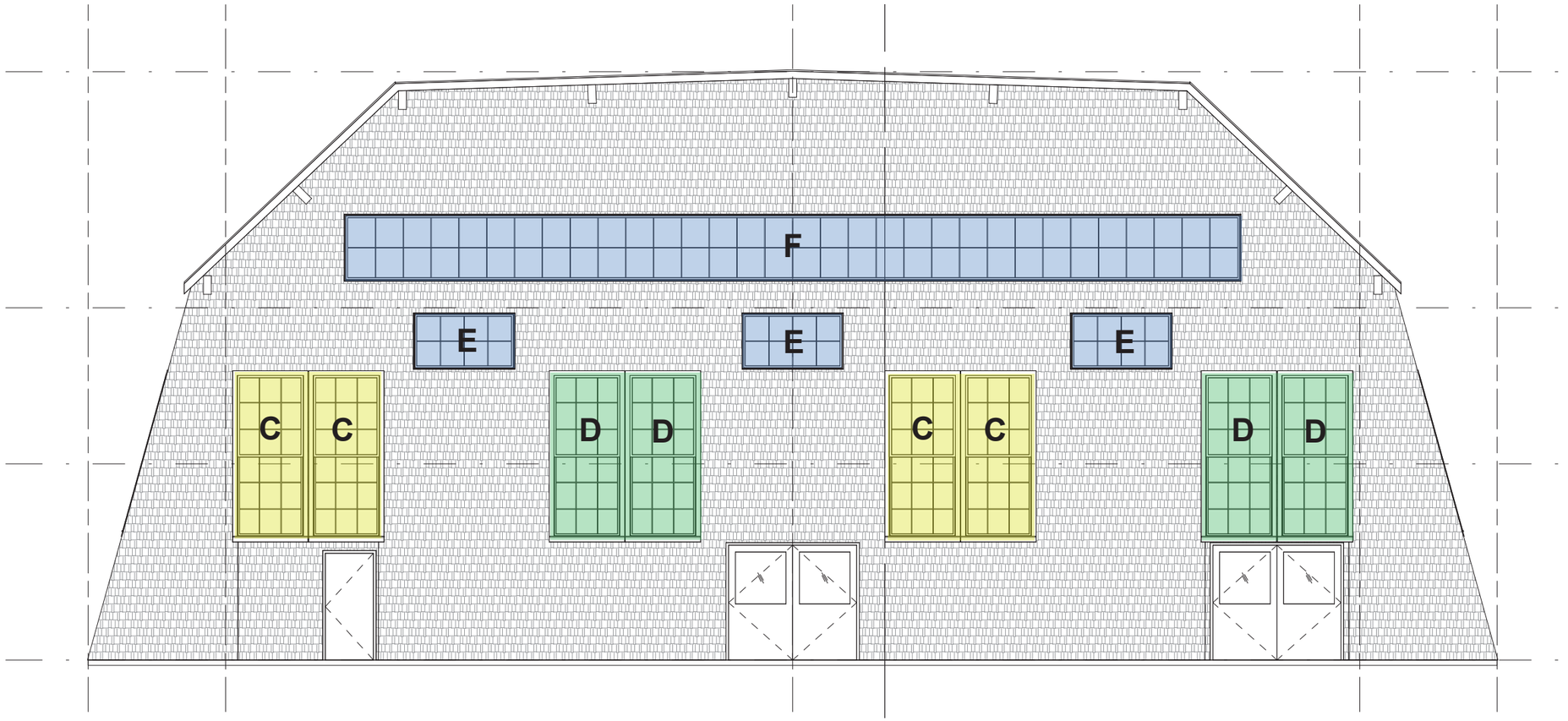


Thank you —

Appendix —

ASUW Shell House Existing Window Survey

Prepared by BuildingWork, Mithun, and 4EA Building Science August 2024



North Elevation Window Key

1918 Navy Era

1919 - 1949 Rowing Era

1949 - 1979 Canoe House Era

1980 - 2024 Storage Era

North Elevation Windows

F

E

E

E

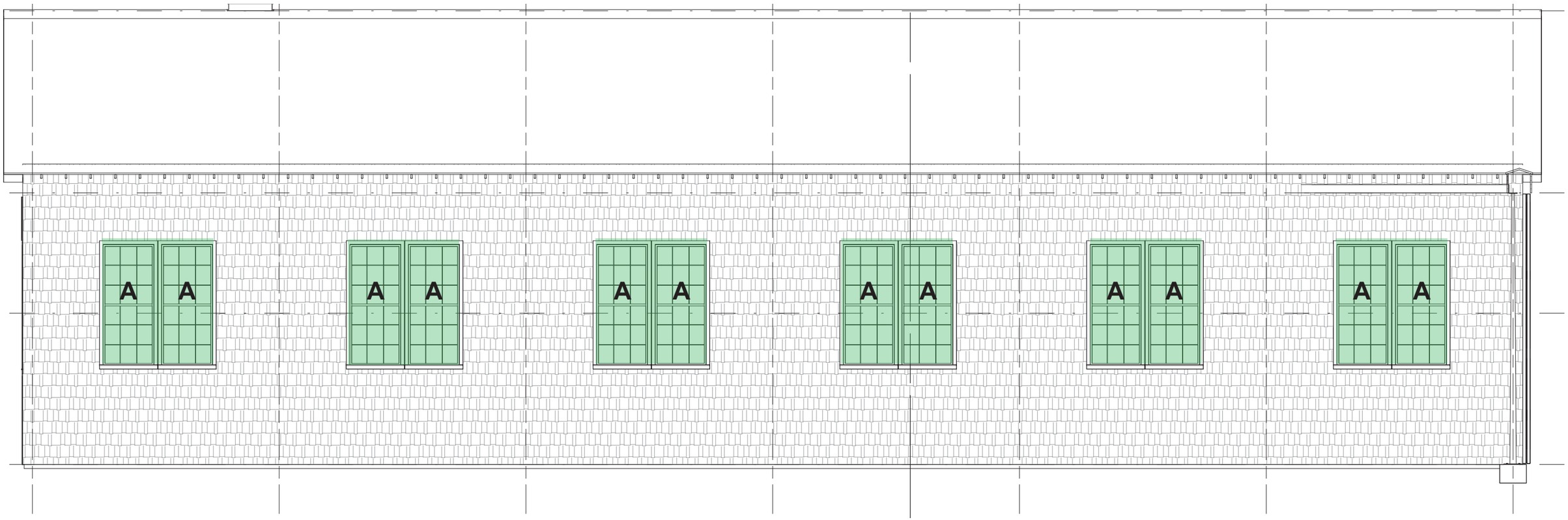
C

D

C

D

North Elevation Windows



West Elevation Window Key

1918 Navy Era

1919 - 1949 Rowing Era

1949 - 1979 Canoe House Era

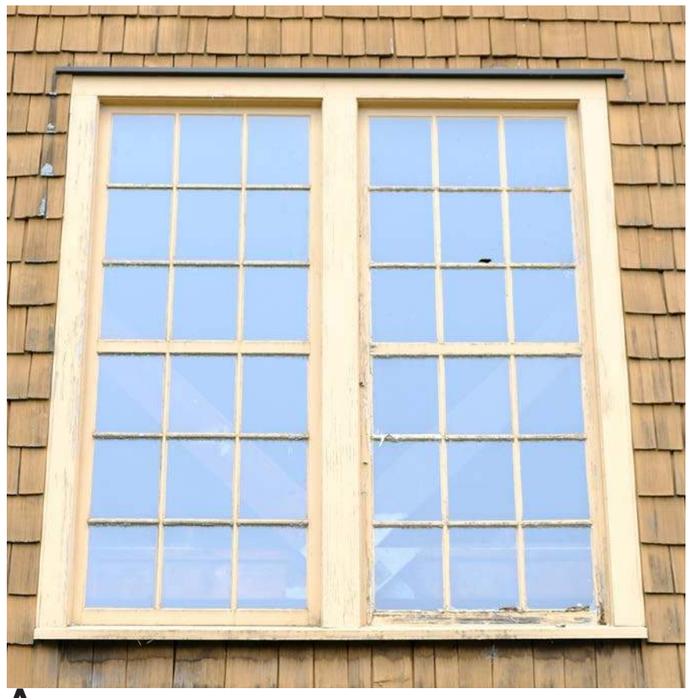
1980 - 2024 Storage Era

West Elevation Windows

A

A

A



A

A

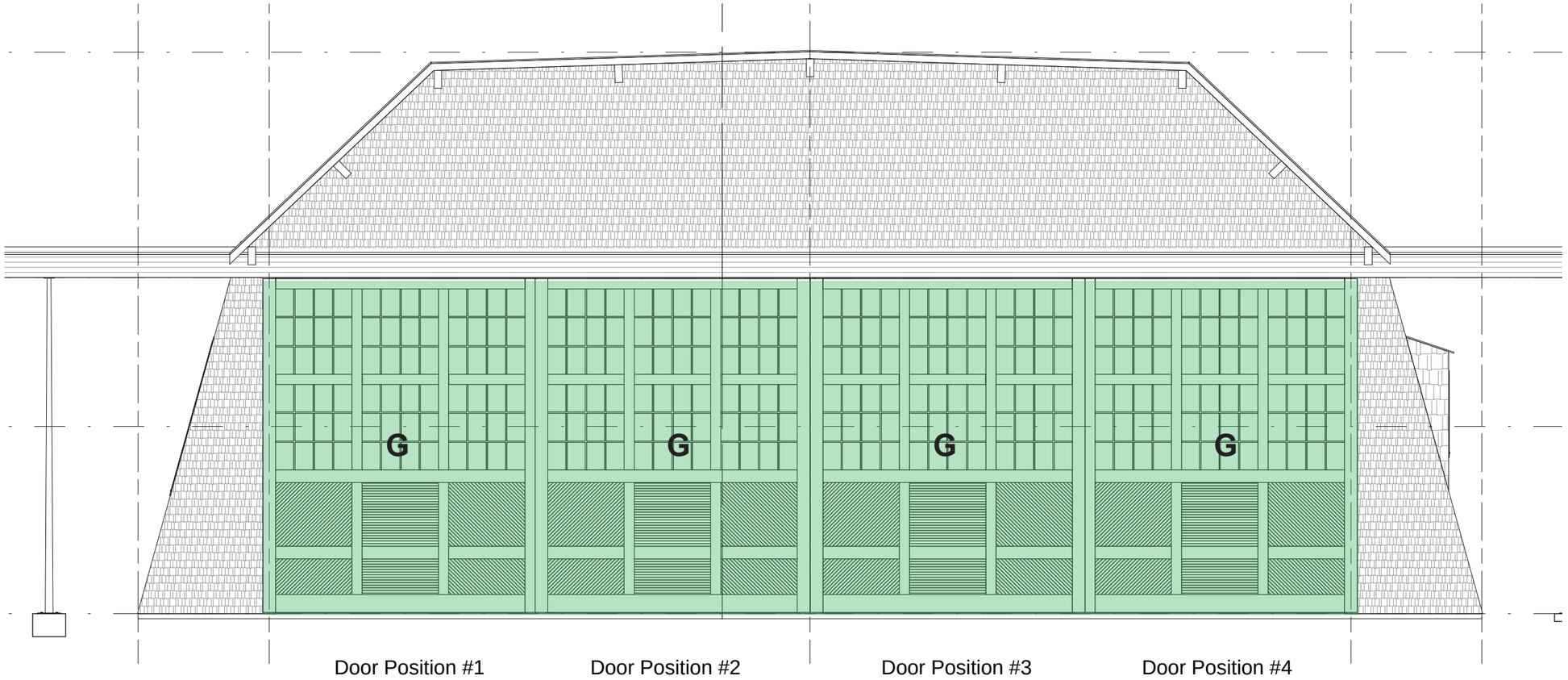
A

West Elevation Windows






West Elevation Window Condition Details



South Elevation Hangar Door Key

1918 Navy Era

1919 - 1949 Rowing Era

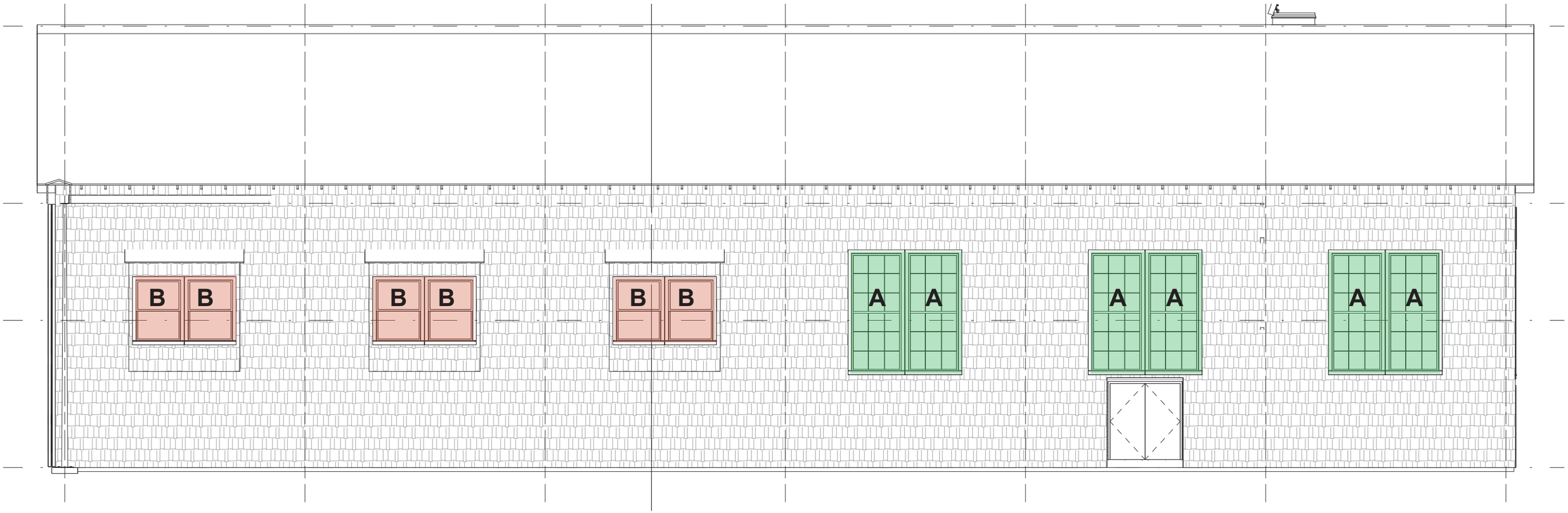
1949 - 1979 Canoe House Era

1980 - 2024 Storage Era

South Elevation Hangar Doors

South Elevation Hangar Doors

South Elevation Hangar Door Condition Details



East Elevation Window Key

1918 Navy Era

1919 - 1949 Rowing Era

1949 - 1979 Canoe House Era

1980 - 2024 Storage Era

East Elevation Windows

B

B

B

A

A

A

East Elevation Windows

Existing Window Schedule

Window Type	Era of construction	Materials	Operation	Width	Height	Condition
A	1980s	wood frame, single glazed, true divided lite	fixed	4'-3"	10'-3"	Poor, due to 17˚ slope installation. Significant wood rot, exposed wood w/ raised grain, glazing putty loss.
B	1980s	wood frame, single glazed, true divided lite	single hung	3'-10"	5'-2"	Needs repair or replacement.
C	1918	wood frame, single glazed, true divided lite	double hung	4'-3"	10'-2"	Needs full rehabilitation
D	1980s	wood frame, single glazed, true divided lite	single hung	4'-3"	10'-2"	Needs full rehabilitation
E	1920s	wood frame, single glazed, true divided lite	fixed	6'-4"	6'-6"	Needs full rehabilitation
F	1920s	wood frame, single glazed, true divided lite	fixed	56'-0"	4'-2"	Needs full rehabilitation
G	1980s	wood frame, single glazed, true divided lite	sliding hangar doors	35'-5"	22'-0"	Poor, due to south-facing water side exposure. Significant wood rot, splits, exposed wood w/ raised grain.

Memo

Project: ASUW Shell House
Date: 6/7/2024
From: Brad Carmichael, PE, BEMP, CPHC - 4EA Building Science
To: Mithun
RE: North Window Condition Assessment

4EA Building Science (4EA) is issuing this memo to provide guidance related to the existing window restoration for the forthcoming renovation at the ASUW Shell House.

Background

As part of the upcoming renovations, we understand that the existing windows on the north elevations are planned to remain in place.

The purpose of this report is to assess and document the condition of the existing windows in order to help establish a scope for restoration and repair and aid discussion with landmarks.

The existing windows vary in age, type and conditions. In this report you will find an evaluation for each window.

Site Visits

4EA attended site on May 21 and May 30, 2024 to visually review the conditions of the existing windows on the north elevation of the Shell House.

Destructive investigation was not performed at this time; however, they may be provided at a later date.

Documents Reviewed

As part of this assessment, 4EA reviewed the following documents:

- 1918 Original Blueprint
- Draft 30% Set

Window Legend

8 NORTH ELEVATION - OPTION A

1/8" = 1'-0" | 16/A2.01

Baseline Restoration Scope

4EA visually reviewed each window to document the condition. The intent of this review is to establish a baseline recommended restoration scope, and identify conditions where restoration beyond the baseline scope should be allowed for.

In general, we recommend each window receive the following base restoration scope:

- Operable sashes should be removed for restoration. Restoration work may be performed either onsite or in the shop.
- Wood components should be cleaned, have paint and putty removed, including abatement of any hazardous materials. Provide sealant or epoxy application to gaps and joints. Refinish the wood, apply wood preservation treatment, several coats of boiled linseed oil, and paint wood.
- Targeted repair and stabilization of wood should be performed on as-needed basis– see the following tables for unit survey identifying the expected extent of targeted repairs.
- Glass panes should be removed and numbered. Any original glass to be salvaged should be removed and cleaned. We assume non-original windows would receive new glass.
- Operable windows should have new weatherstripping, hardware, balancing system and operability restored.

Targeted Restoration Scope

The tables on the following pages contain observations from unit-by-unit surveys. Where observations indicated that repair is needed beyond the scope described in the baseline restoration scope, the component requiring target repair is identified with a repair code in the tables identifying further repair or replacement.

Repair Codes:

1. Standard baseline restoration scope
2. Additional repair-in-place. (e.g. epoxy repair, consolidation, connection repair)
3. Component replacement needed. Match original profile, species, and finish

In addition to the repair codes, a brief description is provided of each condition.

Window xC1			
Description- Original double hung wood window. Approximately 4'-6" x 10'-0". Window shares a rough opening with xC2.			
Repair Code		Exterior Condition Notes	Interior Condition Notes
Paint Condition	1		Interior wood is unpainted, staining and soiling present.
Operability Ease	2		Not currently operable. Sashes should be removed in order to restore operability.
Alignment	2	Operable sash currently fixed in a misaligned position. (Figure 1)	
Glass Condition	1	Heavily soiled – including paint splatter that may be difficult to remove. Some glass appears original. (Figure 2)	
Weather Stripping	1	New weather stripping needed.	
Sill Condition	1		Interior of sill not accessible for review.
Jamb Condition	3	Right jamb trim between xC2 and xC1 is split and requires replacement. Left is OK. (Figure 4)	
Head Condition	1		
Top Rail	1		
Meeting Rails	1		
Bottom Rail	1		
Stiles	1		
Muntins	2		Two muntin bars are damaged at interior and will require wood repair or replacement.
Hardware	1		Hardware is corroded and missing pieces.
Balancing	1		New sash cord, and weights needed. Pulley could be refinished or replaced. (Figure 3)
Rough Opening	1	Face sealed. No building paper or sheathing @ trim between xC1 and xC2. (Figure 3)	
Attachment	2		Attachment to surrounding structure is unclear. May require supplemental attachment clips during construction for securement. Review once exposed during construction.

Window xC2			
Description- Original double hung wood window. Approximately 4'-6" x 10'-0". Window shares a rough opening with xC1.			
Repair Code		Exterior Condition Notes	Interior Condition Notes
Paint Condition	1		Interior wood is unpainted, staining and soiling present.
Operability Ease	2		Not currently operable. Sashes should be removed in order to restore operability.
Alignment	1		
Glass Condition	1	Heavily soiled – including paint splatter that may be difficult to remove. Some glass appears original.	
Weather Stripping	1	New weather stripping needed.	
Sill Condition	1		Interior of sill not accessible for review.
Jamb Condition	3	Left jamb trim between xC2 and xC1 is split and requires replacement. Right is OK.	
Head Condition	1		
Top Rail	1		
Meeting Rails	1		
Bottom Rail	1		
Stiles	1		
Muntins	2&3		Three muntin bars are damaged at interior and will require wood repair or replacement.
Hardware	1		Hardware is corroded.
Balancing	1		New pulley, sash cord, and weights needed.
Rough Opening	2	Face sealed. No building paper or sheathing @ trim between xC1 and xC2.	
Attachment	2		Attachment to surrounding structure is unclear. May require supplemental attachment clips during construction for securement. Review once exposed during construction.

Window xD1			
Description- 1980's replacement wood window. Approximately 4'-6" x 10'-0". Window shares a rough opening with xD2. Windows are fixed in place currently but have tracks to potentially operate as single hung windows.			
Repair Code		Exterior Condition Notes	Interior Condition Notes
Paint Condition	1		Interior wood is unpainted, staining and soiling present.
Operability Ease	3	Currently inoperable.	
Alignment	2	Misaligned gap between top rail and head. May need sash removal for realignment, or infill. (Figure 5)	
Glass Condition	1	Heavily soiled – including paint splatter that may be difficult to remove.	
Weather Stripping	NA		
Sill Condition	1		Interior of sill not accessible for review.
Jamb Condition	1		
Head Condition	1		
Top Rail	2	Misaligned gap between top rail and head. May need sash removal for realignment, or infill. (Figure 5)	
Meeting Rails	1		
Bottom Rail	1		
Stiles	1		
Muntins	1		
Hardware	NA		No hardware observed.
Balancing	NA		No balancing mechanism observed.
Rough Opening	2	Face sealed. No building paper or sheathing @ trim between xD1 and xD2.	
Attachment	1		

Window xD2			
Description- 1980's replacement wood window. Approximately 4'-6" x 10'-0". Window shares a rough opening with xD1. Windows are fixed in place currently but have tracks to potentially operate as single hung windows.			
Repair Code		Exterior Condition Notes	Interior Condition Notes
Paint Condition	1		Interior wood is unpainted, staining and soiling present.
Operability Ease	3	Currently inoperable.	
Alignment	2	Misaligned gap between top rail and head. May need sash removal for realignment, or infill. (Figure 5)	
Glass Condition	1	Heavily soiled – including paint splatter that may be difficult to remove.	
Weather Stripping	NA		
Sill Condition	1		Interior of sill not accessible for review.
Jamb Condition	1		
Head Condition	1		
Top Rail	2	Misaligned gap between top rail and head. May need sash removal for realignment, or infill. (Figure 5)	
Meeting Rails	1		
Bottom Rail	1		
Stiles	1		
Muntins	1		
Hardware	NA		No hardware observed.
Balancing	NA		No balancing mechanism observed.
Rough Opening	2	Face sealed. No building paper or sheathing @ trim between xD1 and xD2.	
Attachment	1		

Window xC3			
Description- Original double hung wood window. Approximately 4'-6" x 10'-0". Window shares a rough opening with xC4.			
Repair Code		Exterior Condition Notes	Interior Condition Notes
Paint Condition	1		Interior wood is unpainted, staining and soiling present.
Operability Ease	2		Not currently operable. Sashes should be removed in order to restore operability.
Alignment	1		
Glass Condition	1	Heavily soiled – including paint splatter that may be difficult to remove. Some glass appears original.	
Weather Stripping	1	New weather stripping needed.	
Sill Condition	1		Interior of sill not accessible for review.
Jamb Condition	2		Interior side of jamb was cut for conduit clearance. (Figure 6&7)
Head Condition	2		Top corner at head was cut for conduit clearance. (Figure 6&7)
Top Rail	1		
Meeting Rails	1		
Bottom Rail	1		
Stiles	2		Cracked stop needs replacement. Miscellaneous nails need removal and infill.
Muntins	1		Three muntin bars are damaged at interior and will require wood repair or replacement.
Hardware	1		Hardware is corroded and missing pieces. (Figure 8)
Balancing	1		New sash cord, and weights needed. Pulley could be refinished or replaced. (Figure 8)
Rough Opening	2	Face sealed. No building paper or sheathing @ trim between xC1 and xC2.	
Attachment	2		Attachment to surrounding structure is unclear. May require supplemental attachment clips during construction for securement. Review once exposed during construction.

Window xC4			
Description- Original double hung wood window. Approximately 4'-6" x 10'-0". Window shares a rough opening with xC3.			
Repair Code		Exterior Condition Notes	Interior Condition Notes
Paint Condition	1		Interior wood is unpainted, staining and soiling present.
Operability Ease	2		Not currently operable. Sashes should be removed in order to restore operability.
Alignment	2	Far right (west) jamb has some noteiceable misalgnment.	
Glass Condition	1	Heavily soiled – including paint splatter that may be difficult to remove. Some glass appears original.	
Weather Stripping	1	New weather stripping needed.	
Sill Condition	1		Interior of sill not accessible for review.
Jamb Condition	2	Far right (west) jamb has some potential misalgnment. (Figure 9)	
Head Condition	2		Head was cut for conduit clearance.
Top Rail	2		
Meeting Rails	1		
Bottom Rail	1		
Stiles	2		
Muntins	1		
Hardware	1		Hardware is missing pieces. (Figure 10)
Balancing	1		New sash cord, and weights needed. Pulley could be refinished or replaced. (Figure 10)
Rough Opening	2	Face sealed. No building paper or sheathing @ trim between xC1 and xC2.	
Attachment	2		Attachment to surrounding structure is unclear. May require supplemental attachment clips during construction for securement. Review once exposed during construction.

Window xD3			
Description- 1980's replacement wood window. Approximately 4'-6" x 10'-0". Window shares a rough opening with xD4. Windows are fixed in place currently but have tracks to potentially operate as single hung windows.			
Repair Code		Exterior Condition Notes	Interior Condition Notes
Paint Condition	1		Interior wood is unpainted, staining and soiling present.
Operability Ease	3	Currently inoperable.	
Alignment	1		
Glass Condition	1	Heavily soiled – including paint splatter that may be difficult to remove.	
Weather Stripping	NA		
Sill Condition	1		Interior of sill not accessible for review.
Jamb Condition	1		
Head Condition	1		
Top Rail	1		
Meeting Rails	1		
Bottom Rail	1		
Stiles	1		
Muntins	1		
Hardware	NA		No hardware observed.
Balancing	NA		No balancing mechanism observed.
Rough Opening	2	Face sealed. No building paper or sheathing @ trim between xD1 and xD2.	
Attachment	1		

Window xD4			
Description- 1980's replacement wood window. Approximately 4'-6" x 10'-0". Window shares a rough opening with xD3. Windows are fixed in place currently but have tracks to potentially operate as single hung windows.			
Repair Code		Exterior Condition Notes	Interior Condition Notes
Paint Condition	1		Interior wood is unpainted, staining and soiling present.
Operability Ease	3	Currently inoperable.	
Alignment	1		
Glass Condition	1	Heavily soiled – including paint splatter that may be difficult to remove.	
Weather Stripping	NA		
Sill Condition	1		Interior of sill not accessible for review.
Jamb Condition	1		
Head Condition	1		
Top Rail	1		
Meeting Rails	1		
Bottom Rail	1		
Stiles	1		
Muntins	1		
Hardware	NA		No hardware observed.
Balancing	NA		No balancing mechanism observed.
Rough Opening	2	Face sealed. No building paper or sheathing @ trim between xD1 and xD2.	
Attachment	1		

Window xE1			
Description- Original wood window. Approximately 6'-9" x 4'-0". Window is fixed.			
Repair Code		Exterior Condition Notes	Interior Condition Notes
Paint Condition	1		Interior wood is unpainted, staining and soiling present.
Operability Ease	NA		
Alignment	1		
Glass Condition	1	Heavily soiled – including paint splatter that may be difficult to remove.	
Weather Stripping	NA		
Sill Condition	1		
Jamb Condition	1		
Head Condition	1		
Top Rail	1		
Meeting Rails	NA		
Bottom Rail	1		
Stiles	1		
Muntins	1		
Hardware	NA		No hardware observed.
Balancing	NA		No balancing mechanism observed.
Rough Opening	2	Face sealed. No building paper or sheathing @ trim between xD1 and xD2.	
Attachment	2		Attachment to surrounding structure is unclear. May require supplemental attachment clips during construction for securement. Review once exposed during construction.

Window xE2			
Description- Original wood window. Approximately 6'-9" x 4'-0". Window is fixed.			
Repair Code		Exterior Condition Notes	Interior Condition Notes
Paint Condition	1		Interior wood is unpainted, staining and soiling present.
Operability Ease	NA		
Alignment	1		
Glass Condition	1	Heavily soiled – including paint splatter that may be difficult to remove.	
Weather Stripping	NA		
Sill Condition	2	Sill is loose, not adequately connected to jamb. Will require reattachment. (Figure 11)	
Jamb Condition	2	Right (west) jamb not connected to sill. Evidence of head being reset in sealant against trim/blind stop as a recent fix. (Figure 12)	
Head Condition	2	Evidence of head being reset in sealant against trim/blind stop as a recent fix. (Figure 13)	
Top Rail	1		
Meeting Rails	NA		
Bottom Rail	1		
Stiles	1		
Muntins	1		
Hardware	NA		No hardware observed.
Balancing	NA		No balancing mechanism observed.
Rough Opening	2	Face sealed. No building paper or sheathing @ trim between xD1 and xD2.	
Attachment	2		Attachment to surrounding structure is unclear. May require supplemental attachment clips during construction for securement. Review once exposed during construction.

Window xE3			
Description- Original wood window. Approximately 6'-9" x 4'-0". Window is fixed.			
Repair Code		Exterior Condition Notes	Interior Condition Notes
Paint Condition	1		Interior wood is unpainted, staining and soiling present.
Operability Ease	NA		
Alignment	2	Bowing and misalignment at head. Head may be structurally compromised.	Post shoring installed at interior. (Figure 14)
Glass Condition	1	Heavily soiled – including paint splatter that may be difficult to remove.	
Weather Stripping	NA		
Sill Condition	2	Sill does not seem rotten, but wood may require consolidation.	
Jamb Condition	2		Interior of the west jamb has a cosmetic cut in it from a woodworking tool. Fixable with epoxy if interiors are painted – could be left alone.
Head Condition	2		
Top Rail	3	Top rail is cracked and needs replacement.	
Meeting Rails	NA		
Bottom Rail	1		
Stiles	1		
Muntins	1		
Hardware	NA		No hardware observed.
Balancing	NA		No balancing mechanism observed.
Rough Opening	2	Face sealed. No building paper or sheathing @ trim between xD1 and xD2.	
Attachment	2		Attachment to surrounding structure is unclear. May require supplemental attachment clips during construction for securement. Review once exposed during construction.

Window xE3			
Description- Circa 1929 wood window. Approximately 6'-9" x 4'-0". Window is fixed. Window has different profiles that are more simple than original windows.			
Repair Code		Exterior Condition Notes	Interior Condition Notes
Paint Condition	1		Interior wood is unpainted, staining and soiling present.
Operability Ease	NA		
Alignment	2	Sill has bowing and misalignment at west seide.	
Glass Condition	2	Heavily soiled – including paint splatter that may be difficult to remove.	
Weather Stripping	NA		
Sill Condition	2	Sill has bowing and misalignment at west seide.	Sill has cutouts for truss clearance. No action needed.
Jamb Condition	1		
Head Condition	1		
Top Rail	NA	No top rail.	
Meeting Rails	NA		
Bottom Rail	1		
Stiles	NA	No stiles.	
Muntins	2	One damaged muntin	
Hardware	NA		No hardware observed.
Balancing	NA		No balancing mechanism observed.
Rough Opening	2	Face sealed. No building paper or sheathing @ trim between xD1 and xD2.	
Attachment	2		Attachment to surrounding structure is unclear. May require supplemental attachment clips during construction for securement. Review once exposed during construction.

Figure 1 - xC1 misaligned upper sash

Figure 2 – xC1 Glass soiling

Figure 3 - xC1 Pulley

Figure 4 - xC2 with Split Trim

Figure 5 - xD1 &xD2 Misalignment at fixed upper sash.

Figure 6 - Cut out at top corner frame for conduit clearance.

Figure 7- xC3 Close up of cut frame at conduit.

Figure 8 - xC3 hardware & meeting stile

Figure 9 - xC4 minor misalignment at jamb

Figure 10- xC4 hardware & meeting stile

Figure 11- xE2 Loose sill connection

Figure 12- xE2 sealant repairs

Figure 13 - xE2 sealant repairs

Figure 14- xE3 shoring to support head

Closure

Please contact our office with any questions regarding the contents of this letter.

Sincerely,

4EA Building Science

Brad Carmichael, PE, BEMP, CPHC
Principal

Memo

Project: ASUW Shell House

Date: 7/30/2025

From: Brad Carmichael, PE, BEMP, CPHC - 4EA Building Science

To: Mithun

RE: Hangar Door Condition Assessment

4EA Building Science (4EA) is issuing this memo to provide guidance related to the existing hangar doors for the forthcoming renovation at the ASUW Shell House.

Background

The purpose of this report is to assess and document the condition of the existing hangar doors in order to help establish a scope for restoration and repair and aid discussion with landmarks.

The existing doors vary in age, structure, type and condition. In this report you will find an evaluation for each door.

Site Visits

4EA attended site on July 29, 2025 to visually review the condition of the existing windows on the south elevation of the Shell House.

The scope of this assessment is limited to condition of the materials only, comments on the original design, detailing, or functionality of the doors are beyond the scope of this assessment.

Destructive investigation was not performed at this time; however, they may be provided at a later date if requested.

This assessment did not analyze the capability of the door structure to withstand design wind loads.

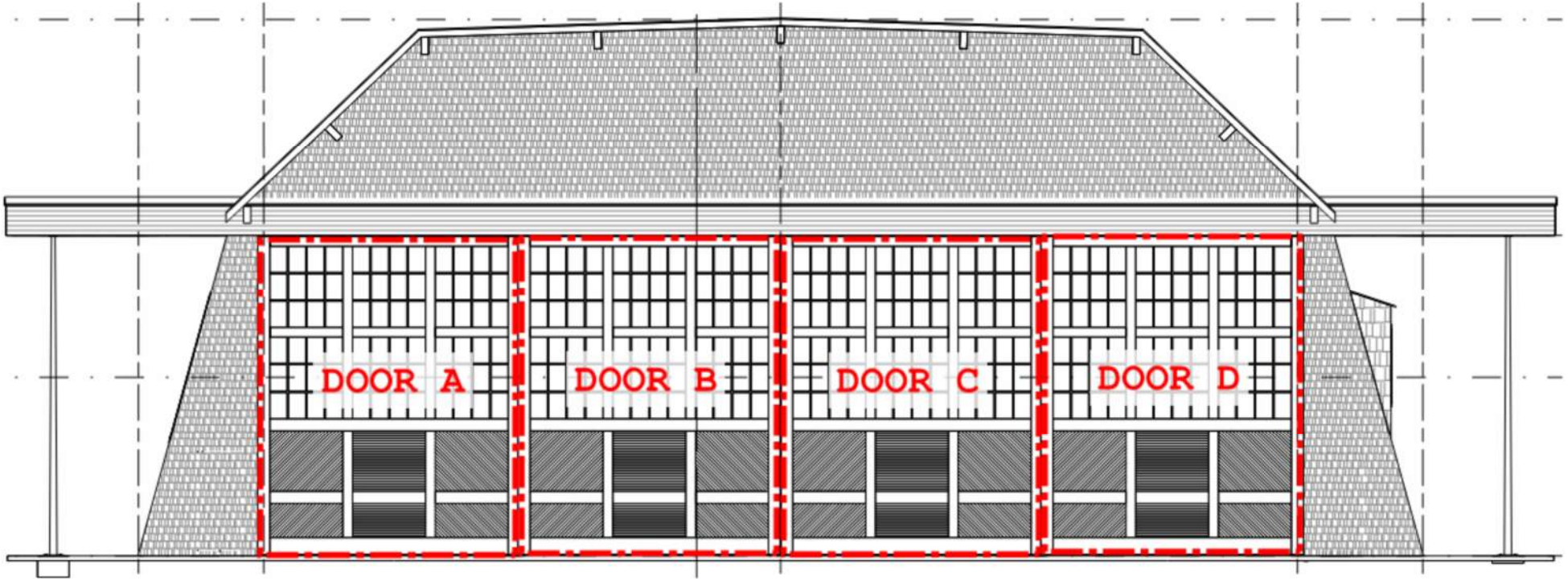
Assessment is limited to the exterior side of the doors and did not review the interior side in detail. This can be performed separately if desired.

Documents Reviewed

As part of this assessment, 4EA reviewed the following documents:

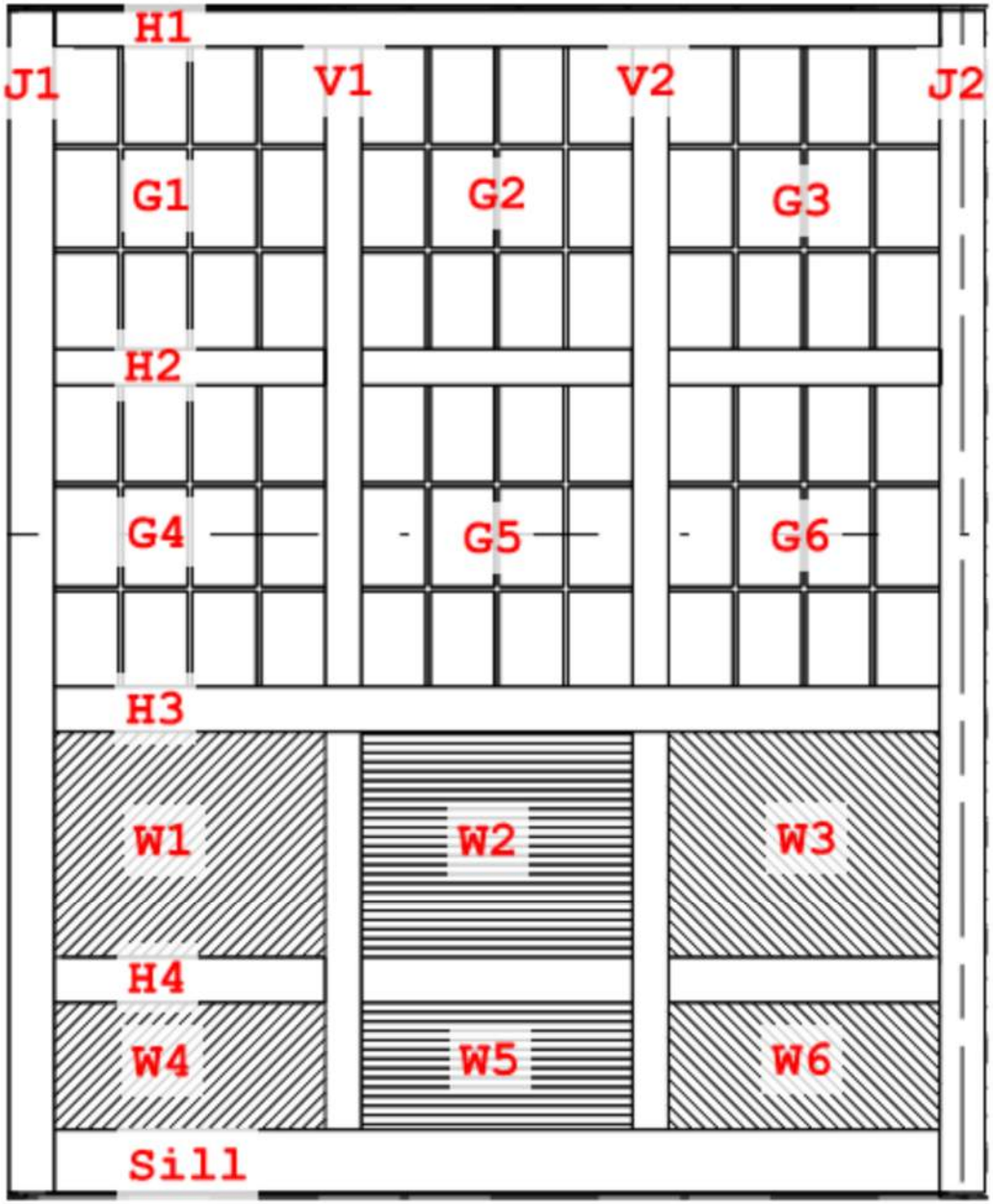
- 1918 Original Blueprint
- Renovation permit drawings dated 3/24/25

Door Legend



Door Position #1 Door Position #2 Door Position #3 Door Position #4

Door Component Areas



Baseline Restoration Scope

4EA visually reviewed the hangar doors to document the condition. (Photo 1) The intent of this review is to establish a baseline recommended restoration scope, and identify conditions where restoration beyond the baseline scope should be allowed for.

In general, we recommend each door receive the following base restoration scope:

- Wood components should be cleaned, have damaged or loose paint and putty removed, including abatement of any hazardous materials. Provide sealant or epoxy application to gaps and joints. Refinish the wood, apply wood preservation treatment, several coats of boiled linseed oil, and paint wood.
- Targeted repair and stabilization of wood should be performed on as-needed basis– see the following tables for unit survey identifying the expected extent of targeted repairs.
- Glass panes should be removed and numbered. Any original glass to be salvaged should be removed and cleaned. We assume non-original windows would receive new glass.
- Hangar doors should have new perimeter gaskets or be sealed for weather tightness, new connection hardware, and operability restored if desired.
- At wood slat infill panels (W1-W6), consider replacing the wood slats with a solid panel to allow for greater weather sealing.
- The interior surface of the hangar doors is not currently intended for exterior exposure. Should the doors be relocated such that the interior surface be exposed to prolonged weather, we recommend that the wood be sealed and painted for such exposure, and that weeps be added to bottom trims at minimum. Further work would be needed to refine this scope.

Targeted Restoration Scope

The tables on the following pages contain observations from unit-by-unit surveys. Where observations indicated that repair is needed beyond the scope described in the baseline restoration scope, the component requiring target repair is identified with a repair code in the tables identifying further repair or replacement.

Repair Codes:

1. Standard baseline restoration scope
2. Additional repair-in-place. (e.g. epoxy repair, consolidation, connection repair)
3. Component replacement needed. Match original profile, species, and finish

In addition to the repair codes, a brief description is provided of each condition.

Door A	Currently in Door Position #1	
Description- Hangar door. Approximately 18'-0" x 22'-0". Door area is divided into twelve subsections of glazed lights and wood slat infill.		
Repair Code		Exterior Condition Notes
Paint Condition	3	Significant exposed wood with raised grain and peeling paint. Full paint removal likely needed. (Photo 2)
Operability Ease	3	Currently inoperable. Needs a full overhaul of the tracks and hardware to restore operability.
Alignment	3	Door is bowed and visibly misaligned. Non-original brackets have been added for stiffness. Infill panels are misaligned. (Photo 3)
Glass Condition	1	Heavily soiled.
Weather Stripping	3	Currently no weatherstripping at perimeters, joints are open.
Sill Condition	3	Dry rot along sill, horizontal wood is split. (Photo 4)
J1 Condition	2	Jamb largely intact. Dry rot at base. Casing trim warped.
J2 Condition	2	Misaligned, bowing.
V1 Condition	2	Split wood at ends. Raised grain, weathered and exposed. Suspected dry rot near base of G5.
V2 Condition	2	Split wood at ends. Raised grain, weathered and exposed. Suspected dry rot near base of G5.
H1 Condition	1	
H2 Condition	2	Raised grain, weathered and exposed.
H3 Condition	3	Dry rot present. (Photo 5)
H4 Condition	2	Raised grain, weathered and exposed.
G1 Condition	3	Damaged perimeter trim, 1 cracked muntin
G2 Condition	3	Replace perimeter trim
G3 Condition	3	Replace perimeter trim
G4 Condition	3	Misaligned with H2, Replace perimeter trim, Bottom Rail is split
G5 Condition	3	Misaligned with H2, Replace perimeter trim, 1 split muntin
G6 Condition	1	

Door A Continued		
Repair Code		Exterior Condition Notes
W1 Condition	3	Wood infill slat replacement needed, gaps, open joints, damaged base trim. (Photo 6)
W2 Condition	3	Gaps and open joints in slats, damaged base trim.
W3 Condition	3	Wood infill slats are buckled
W4 Condition	3	Wood infill slats are missing
W5 Condition	2	Fill and seal gaps in slats
W6 Condition	3	Buckled slats, gaps in slats, split trims

Door B	Currently in Door Position #2	
Description- Hangar door. Approximately 18'-0" x 22'-0". Door area is divided into twelve subsections of glazed lights and wood slat infill.		
Repair Code		Exterior Condition Notes
Paint Condition	3	Significant exposed wood with raised grain and peeling paint. Full paint removal likely needed.
Operability Ease	3	Currently inoperable. Sits fully on ground. Needs a full overhaul of the tracks and hardware to restore operability.
Alignment	3	Visible stiffeners have been added. Misalignment at jambs at H4. Misaligned connection braces. (Photo 7)
Glass Condition	1	Heavily soiled.
Weather Stripping	3	Currently no weatherstripping at perimeters, joints are open.
Sill Condition	3	Dry rot along sill, horizontal wood is split.
J1 Condition	2	Jamb largely intact, poor connection at H3 horizontal. Dry rot at base.
J2 Condition	2	Misalignment, corroded fsateners. Poor connection to H4 horizontal.
V1 Condition	2	Exterior strapping has been applied to stiffen. Gaps in wood at H2 and H3.
V2 Condition	2	Exterior strapping has been applied to stiffen. Gaps in wood at H2 and H3.
H1 Condition	1	
H2 Condition	1	
H3 Condition	3	Dry rot present. Split wood near G6. (Photo 8&9)
H4 Condition	2	Misaligned, needs resetting or replacement.
G1 Condition	2	Replace base trim. Dry rot at bottom rail.
G2 Condition	1	
G3 Condition	3	Dry rot at bottom rail
G4 Condition	3	Replace trims. Wood is weathered.
G5 Condition	3	Misaligned top rail. Bottom rail is weathered.
G6 Condition	3	Replace trims. Wood is weathered.

Door B Continued		
Repair Code		Exterior Condition Notes
W1 Condition	3	Trim rot. Gaps in slats. (Photo 10)
W2 Condition	3	Replace door
W3 Condition	1	
W4 Condition	3	Trim rot. Gaps in slats.
W5 Condition	3	Replace door
W6 Condition	1	

Door C	Currently in Door Position #3	
Description- Hangar door. Approximately 18'-0" x 22'-0". Door area is divided into twelve subsections of glazed lights and wood slat infill.		
Repair Code		Exterior Condition Notes
Paint Condition	2	Spot paint removals needed, paint may not need full removal.
Operability Ease	3	Currently inoperable. Sits fully on ground. Needs a full overhaul of the tracks and hardware to restore operability.
Alignment	2	Misalignment at jamb with Door B, but that may be largely due to Door B.
Glass Condition	3	1 broken pan, 2 heavily scratched panes. (Photo 11)
Weather Stripping	3	Currently no weatherstripping at perimeters, joints are open.
Sill Condition	2	Non-matching treated wood has been added along sill, may need alternate material or replacement. (Photo 12)
J1 Condition	1	
J2 Condition	1	
V1 Condition	1	
V2 Condition	1	
H1 Condition	1	
H2 Condition	1	
H3 Condition	1	
H4 Condition	2	Corroded and popped fasteners. (Photo 13)
G1 Condition	1	
G2 Condition	1	
G3 Condition	1	
G4 Condition	1	
G5 Condition	1	
G6 Condition	1	

Door C Continued		
Repair Code		Exterior Condition Notes
W1 Condition	3	Buckled slats, gaps, trim rot. (Photo 14)
W2 Condition	3	Buckled slats, gaps, trim rot.
W3 Condition	1	
W4 Condition	2	Buckled bottom trim
W5 Condition	1	
W6 Condition	2	Fix/replace bottom trim

Door D	Currently in Door Position #4	
Description- Hangar door. Approximately 18'-0" x 22'-0". Door area is divided into twelve subsections of glazed lights and wood slat infill.		
Repair Code		Exterior Condition Notes
Paint Condition	2	Spot paint removals needed, paint may not need full removal.
Operability Ease	3	Currently inoperable. Sits fully on ground. Needs a full overhaul of the tracks and hardware to restore operability.
Alignment	1	
Glass Condition	1	
Weather Stripping	3	Currently no weatherstripping at perimeters, joints are open.
Sill Condition	2	Non-matching treated wood has been added along sill, may need alternate material or replacement. Some dry rot rear J1 (Photo 15)
J1 Condition	1	
J2 Condition	1	
V1 Condition	1	
V2 Condition	1	
H1 Condition	1	
H2 Condition	1	
H3 Condition	2	Dry rot present below G5
H4 Condition	2	Corroded and popped fasteners. (Photo 16)
G1 Condition	1	
G2 Condition	1	
G3 Condition	1	
G4 Condition	2	Fix or replace trim
G5 Condition	2	Fix or replace trim, consolidate bottom rail
G6 Condition	2	Damaged muntins

Door D Continued		
Repair Code		Exterior Condition Notes
W1 Condition	3	Large gaps, trim rot
W2 Condition	2	Base trim rot or damage
W3 Condition	2	Base trim rot or damage
W4 Condition	2	Base trim rot or damage
W5 Condition	2	Base trim rot or damage
W6 Condition	2	Base trim rot or damage

Photo 1 – Overall Door Photo

Photo 4 – Dry rot at Door A sill

Photo 7– Supplemental bracing

Photo 2 – Paint Condition

Photo 5 – Dry rot

Photo 8 – Dry rot

Photo 2 - Misalignment

Photo 6 – Deteriorated Wood Infill

Photo 9 – Split horizontal

Photo 30 – Wood Panel

Photo 13 – Corroded fasteners

Photo 16 – Corroded fasteners

Photo 11 – Broken Glass

Photo 14 – Damaged infill panel

Photo 12 – Modified Sill

Photo 15 – Dry rot at sill

Closure

Please contact our office with any questions regarding the contents of this letter.

Sincerely,

4EA Building Science

Brad Carmichael, PE, BEMP, CPHC
Principal

ASUW Shell House

Lighting Cutsheets

Stantec

gotham® | INCITO™

Multiple Layers of Light

W1/W1A

Luminaire Type:

Catalog Number:

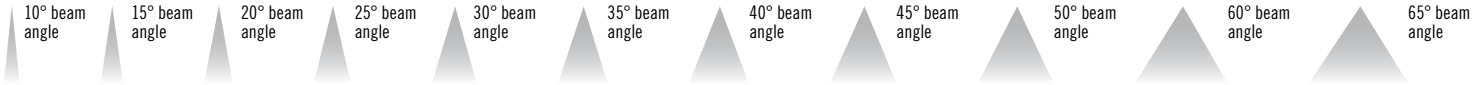
High Center Beam Wall Mount Cylinder 4"

OVERVIEW

Feature Set

- Eleven optimized distribution patterns allow designers to achieve tailored objectives
- Bounding Ray™ optical design
- 45° cutoff to source and source image
- Fully serviceable lensed LED light engine
- 70% lumen maintenance at 60,000 hours
- 2.5 SDCM; 85 CRI typical, 90+ CRI optional
- Fixtures are damp location standard; wet location option (WL), covered ceiling, IP66 option available, covered ceiling not required.
- 20 standard colors in textured and gloss finish; custom or RAL colors also available)
- Field configurable surface junction box conduit covers available
- ENERGY STAR® Certified product
- UGR of zero for fixtures aimed at nadir with a cut-off equal to or less than 60deg per CIE 117-1995 Discomfort Glare in Interior Lighting. UGR FAQ (UGR FAQ)

Distribution



Superior Perfomance

Nominal Lumens	500	750	1000	1500	2000	2500	3000	3500	4000	4500	5000
Delivered	703	807	1062	1545	1977	2419	2920	3548	3982	4419	4848
Wattage	6.7	7.5	9.8	15.1	21.5	26.5	34.1	33.8	39.5	46.2	53.2
Efficacy	104	108	108	102	92	91	86	105	101	96	91

COMPLEMENTARY PRODUCTS

Coordinated Apertures | Multiple Layers of Light

General Illumination Layer | EVO

High Center Beam Layer | Incito

EVO + Incito — Multiple Layers of Light

Core

Healthcare

Special Applications

GOTHAM ARCHITECTURAL DOWNLIGHTING | 1400 Lester Road Conyers, GA 30012 | P 800-705-SERV (7378) | gothamlighting.com

ORDERING INFORMATION

W1/W1A

Luminaire Type:

Catalog Number:

EXAMPLE: ICO4WC 35/15 AR LSS 35D MVOLT EZ1 JBX DN DWHG

Series		Color Temperature		Lumens		Reflector Color		Reflector Finish		Beam			Voltage	
ICO4WC	Incito 4in Wall Mount Round Cylinder Open Downlight	**27/**	2700 K	**05**	500 lumens	**AR**	Clear	**LSS**	Semi-specular		**10D**[3]	10° beam angle	**MVOLT**	120V - 277V
		30/	3000 K	**07**	750 lumens	**PR**	Pewter	**LD**	Matte diffuse		**15D**	15° beam angle	**120**	120V
		35/	3500 K	**10**	1000 lumens	**WTR**	Wheat	**LS**	Specular		**20D**	20° beam angle	**277**	277V
		40/	4000 K	**15**	1500 lumens	**GR**	Gold				**25D**	25° beam angle	**347**[5]	347V
		50/	5000 K	**20**	2000 lumens	**WR**[1]	White painted				**30D**	30° beam angle		
				25	2500 lumens	**BR**[1]	Black				**35D**	35° beam angle		
				30	3000 lumens	**WRAMF**[1]	White anti-microbial				**40D**	40° beam angle		
				35	3500 lumens	**BZR**[1]	Dark Bronze painted				**45D**	45° beam angle		
				40	4000 lumens	**TRALTBD**[1,2]	Trim RAL # TBD (TBD for pricing only)			**W1**	**50D**	50° beam angle		
				45	4500 lumens	**TCPC**[1]	Trim Custom Paint Color TBD (TBD for pricing only)				**60D**	60° beam angle		
				50	5000 lumens					**W1A**	**65D**	65° beam angle		
											ASYM[4]	Asymmetric		

Driver[6]		Mounting		Fixture Orientation		Emergency Option	TBD
GZ10	0-10V driver dims to 10%	**JBX**	Integral driver, Recessed or Surface J-box	**DN**	Mounted with reflector pointing down	**(blank)**	No emergency options
GZ1	0-10V driver dims to 1%	**JBXCC**	Integral driver, Surface J-box with Conduit Covers	**UP**[9]	Mounted with reflector pointing up	**E6W**	6W integral emergency battery. Not available for 1500LM & 2000LM. Max 3000LM.
EZ10	eldoLED 0-10V ECOdrive. Linear dimming to 10% min.					**E7WCP**[10]	IOTA® 7W emergency battery (sidecar). Not available for 500LM. Max 5000LM.
EZ1	eldoLED 0-10V ECOdrive. Linear dimming to 1% min.					**E10WCP**[10]	IOTA® 10W emergency battery (sidecar). Not available below 1000LM. Max 5000LM.
EZB	eldoLED 0-10V SOLOdrive. Logarithmic dimming to <1%.					**E15WCP**[10]	IOTA® 15W emergency battery (sidecar). Not available below 1500LM. Max 5000LM.
EDAB[7]	eldoLED SOLOdrive DALI. Logarithmic dimming to <1%.						
EDXB[7,8]	eldoLED POWERdrive DMX with RDM (remote device management). Square Law dimming to <1%. Min: 1000LM; Max: 4000LM.						
ECOD[7]	Lutron® EcoSystem® digital Hi-Lume 1% soft-on, fade to black. Max: 4000LM.						

Control Interface[11]		Options		Architectural Colors - Powder Paint[18]			
(blank)	No controls	**SF**	Single fuse. Specify 120V or 277V.	**DDB**	Gloss Dark Bronze	**DDBT**	Textured Dark Bronze
NLT	nLight® dimming pack.	**90CRI**	High CRI (90+)	**DBL**	Matte Black	**DBLB**	Textured Black
NLTER[12]	nLight® dimming pack for fixtures on emergency circuit	**N80**[13]	nLight Lumen Compensation	**DWH**	Gloss White	**DWHG**	Textured White
NLTAIR2	nLight® AIR dimming pack.	**HAO**[14]	HAO High Ambient Option (40°C)	**DMB**	Matte Medium Bronze	**DBNH**	Textured Bronze
NLTAIRER2[12]	nLight® AIR dimming pack for fixtures on emergency circuit	**WL**[15,17]	Wet Location	**DNA**	Gloss Natural Aluminum	**DNAT**	Textured Natural Aluminum
		IP66[16,17]	Lensed, IP66 rated	**DSS**	Gloss Sandstone	**DSST**	Textured Sandstone
				DGC	Gloss Charcoal Grey	**DSPD**	Textured Dark Grey
				DTG	Gloss Tennis Green	**DSPE**	Textured Green
				DBR	Gloss Bright Red	**DSPH**	Textured Light Red
				DSB	Gloss Steel Blue	**DWHAMF**	Gloss White with Anti-microbial finish
						RALTBD[2]	Cylinder RAL # TBD (TBD for pricing only)
						CPC	Cylinder Custom Paint Color TBD (TBD for pricing only)

ACCESSORIES — order as separate catalog numbers (shipped separately)

GCOLORS KIT	Architectural colors chip kit, consisting of powder-coat and plated finishes
OPTC4 XXD	Additional optics for field installation. Replace "XX" with beam angle.

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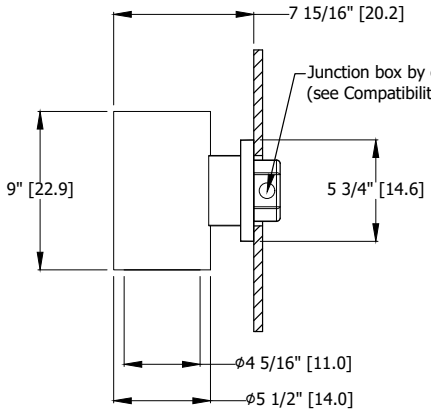
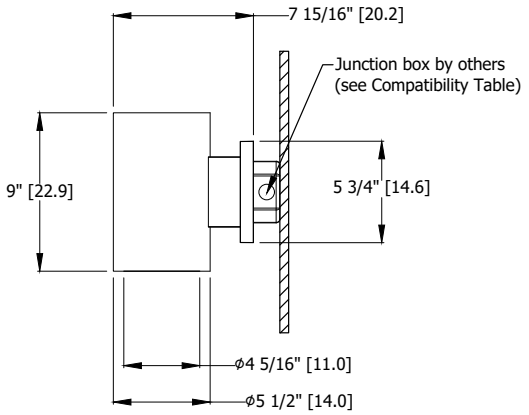
DIMENSIONAL DATA

JBX Recessed J-Box



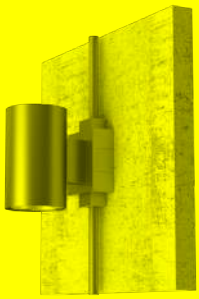
Luminaire can be specified as uplight or downlight

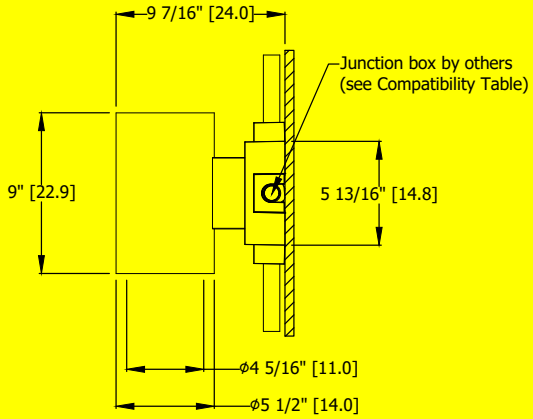
JBX Surface J-Box



Luminaire can be specified as uplight or downlight

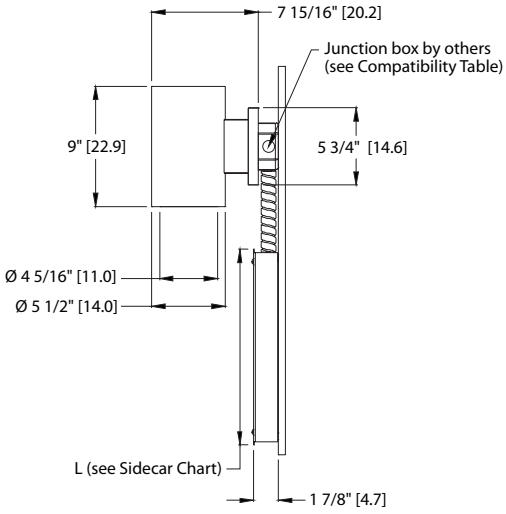
JBXCC Surface J-Box with Conduit Covers





Luminaire can be specified as uplight or downlight

JBX Surface J-Box with Sidecar Battery



Luminaire can be specified as uplight or downlight

*Dimensions in inches [centimeters]

gotham® | EVO®

Multiple Layers of Light

Luminaire Type:

Catalog Number:

W3

General Illumination Wall Mount Cylinder 4"

Feature Set

- Batwing distribution with feathered edges provides even illumination on horizontal and vertical surfaces
- Bounding Ray™ optical design
- 45° cutoff to source and source image
- Fully serviceable lensed LED light engine
- 70% lumen maintenance at 60,000 hours
- 2.5 SDCM; 85 CRI typical, 90+ CRI optional
- Fixtures are damp location standard; wet location option (WL), covered ceiling, IP66 option available, covered ceiling not required.
- 20 standard colors in textured and gloss finish; custom or RAL colors also available
- Field configurable surface junction box conduit covers available
- ENERGY STAR® Certified product
- UGR of zero for fixtures aimed at nadir with a cut-off equal to or less than 60deg per CIE 117-1995 Discomfort Glare in Interior Lighting. UGR FAQ (UGR FAQ)

Distribution

Superior Perfomance

Nominal Lumens	250	500	750	1000	1500	2000	2500	3000	3500	4000	4500	5000
Delivered Lumens	271	573	808	1001	1527	1994	2580	3110	3612	4120	4584	5045
Wattage	3.1	7.2	7.9	8.8	13.7	19.5	25.7	31.2	38.4	35.4	40.1	44.7
Lumens per Watt	87.4	79.6	102.3	113.8	111.5	102.3	100.4	99.7	94.1	116	114	113

Coordinated Apertures | Multiple Layers of Light

General Illumination Layer | EVO

High Center Beam Layer | Incito

EVO + Incito — Multiple Layers of Light

Core

Healthcare

Special Applications

OVERVIEW

COMPLEMENTARY PRODUCTS

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ORDERING INFORMATION

A+ Capable options indicated by this color background.

Luminaire Type:

W3

umber:

EXAMPLE: EVO4WC 35/15 AR MWD LSS MVOLT EZ1 JBX DN DWHG

Series		Color Temperature		Lumens		Reflector Color		Reflector Finish		Distribution		Voltage	
EVO4WC	EVO 4in Wall Mount Round Cylinder Open Downlight	**27/**	2700 K	**02**	250 lumens	**AR**	Clear	**LSS**	Semi-specular	**ASYM**[2]	Asymmetric	**MVOLT**	120V - 277V
		30/	3000 K	**05**	500 lumens	**PR**	Pewter	**LD**	Matte diffuse	**MD**	Medium (08 s/mh)	**120**	120V
		35/	3500 K	**07**	750 lumens	**WTR**	Wheat	**LS**	Specular	**MWD**	Medium wide (1.0 s/mh)	**277**	277V
		40/	4000 K	**10**	1000 lumens	**GR**	Gold			**WD**	Wide (1.2 s/mh)	**347**[3]	347V
		50/	5000 K	**15**	1500 lumens	**WR**[1]	White painted						
				20	2000 lumens	**BR**[1]	Black						
				25	2500 lumens	**WRAMF**[1]	White anti-microbial						
				30	3000 lumens	**BZR**[1]	Dark Bronze painted						
				35	3500 lumens	**TRALTBD**[1]	Trim RAL # TBD (TBD for pricing only)						
				40	4000 lumens	**TCPC**[1]	Trim Custom Paint Color TBD (TBD for pricing only)						
				45	4500 lumens								
				50	5000 lumens								

Driver[4]		Mounting		Fixture Orientation		Emergency Option	
GZ10	0-10V driver dims to 10%	**JBX**	Integral driver, Recessed or Surface J-box	**DN**	Mounted with reflector pointing down	**(blank)**	No emergency options
GZ1	0-10V driver dims to 1%	**JBXCC**	Integral driver, Surface J-box with Conduit Covers	**UP**[7]	Mounted with reflector pointing up	**E6W**	6W integral emergency battery
EZ10	eldoLED 0-10V ECOdrive. Linear dimming to 10% min.					**E7WCP**	IOTA® 7W emergency battery (sidecar)
EZ1	eldoLED 0-10V ECOdrive. Linear dimming to 1% min.					**E10WCP**	IOTA® 10W emergency battery (sidecar)
EZB	eldoLED 0-10V SOLOdrive. Logarithmic dimming to <1%.					**E15WCP**	IOTA® 15W emergency battery (sidecar)
EDAB[5]	eldoLED SOLOdrive DALI. Logarithmic dimming to <1%.						
EDXB[5,6]	eldoLED POWERdrive DMX with RDM (remote device management). Square Law dimming to <1%. Min: 1000LM; Max: 4000LM						
ECOD[5]	Lutron® EcoSystem® digital Hi-Lume 1% soft-on, fade to black. Max: 4000LM.						
ELV[5]	Electronic line voltage (120V only)						

Control Interface[8]		Options		Architectural Colors - Powder Paint[13]			
(blank)	No controls	**SF**	Single fuse. Specify 120V or 277V.	**DDB**	Gloss Dark Bronze	**DDBT**	Textured Dark Bronze
NLT	nLight® dimming pack.	**90CRI**	High CRI (90+)	**DBL**	Matte Black	**DBLB**	Textured Black
NLTER[9]	nLight® dimming pack for fixtures on emergency circuit	**N80**	nLight Lumen Compensation	**DWH**	Gloss White	**DWHG**	Textured White
NLTAIR2	nLight® AIR dimming pack.	**HAO**[10]	HAO High Ambient Option (40°C)	**DMB**	Matte Medium Bronze	**DBNH**	Textured Bronze
NLTAIRER2[9]	nLight® AIR dimming pack for fixtures on emergency circuit	**WL**[11]	Wet Location	**DNA**	Gloss Natural Aluminum	**DNAT**	Textured Natural Aluminum
		IP66[11,12]	Lensed, IP66 rated	**DSS**	Gloss Sandstone	**DSST**	Textured Sandstone
				DGC	Gloss Charcoal Grey	**DSPD**	Textured Dark Grey
				DTG	Gloss Tennis Green	**DSPE**	Textured Green
				DBR	Gloss Bright Red	**DSPH**	Textured Light Red
				DSB	Gloss Steel Blue	**DWHAMF**	Gloss White with Anti-microbial finish
						RALTBD	Cylinder RAL # TBD (TBD for pricing only)
						CPC	Cylinder Custom Paint Color TBD (TBD for pricing only)

ACCESSORIES — order as separate catalog numbers (shipped separately)

GCOLORS KIT	Architectural colors chip kit, consisting of powder-coat and plated finishes

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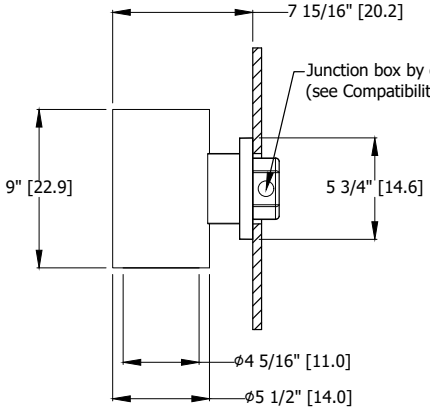
DIMENSIONAL DATA

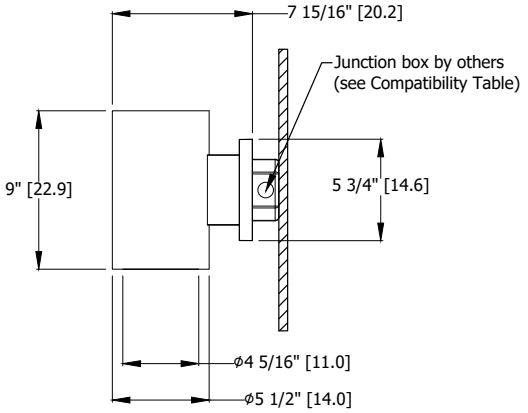
W3

JBX Recessed J-Box



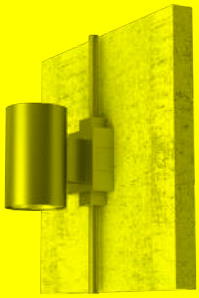
Luminaire can be specified as uplight or downlight

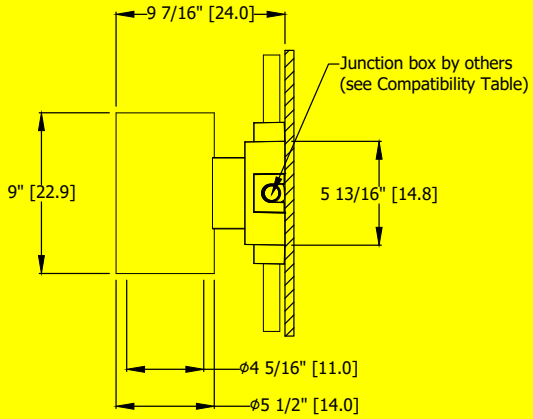
JBX Surface J-Box



Luminaire can be specified as uplight or downlight

JBXCC Surface J-Box with Conduit Covers





Luminaire can be specified as uplight or downlight

*Dimensions in inches [centimeters]

gotham® | EVO®

Multiple Layers of Light

Luminaire Type:

Catalog Number:

BAA BABA

W7

General Illumination Wall Mount Cylinder 2"

OVERVIEW

Feature Set

- Batwing distribution with feathered edges provides even illumination on horizontal and vertical surfaces
- Bounding Ray™ optical design
- 50° Cutoff to source and source image
- Field interchangeable optic
- Driver and LED light engine fully serviceable from room side.
- 70% lumen maintenance at 60,000 hours
- 2.5 SDCM; 85 CRI typical, 90+ CRI optional
- Fixtures are wet location wall mounted (WL option)
- 20 standard colors in textured and gloss finish; custom or RAL colors also available

Distribution

Superior Performance

Nominal lumens	250	500	750	1000	1500	2000
Delivered	265	540	802	1073	1537	2094
Wattage	3.4	6.3	9.7	12.7	21.2	31.7
Efficacy	78	85	83	84	73	66

*Based on 3500K 80CRI MWD AR LSS

COMPLEMENTARY PRODUCTS

Coordinated Apertures | Multiple Layers of Light

General Illumination Layer | EVO

High Center Beam Layer | Incito

EVO + Incito — Multiple Layers of Light

Core

Healthcare

Special Applications

GOTHAM ARCHITECTURAL DOWNLIGHTING | 1400 Lester Road Conyers, GA 30012 | P 800-705-SERV (7378) | gothamlighting.com

ORDERING INFORMATION

A+ Capable options indicated by this color background.

W7

Luminaire Type:

Catalog Number:

EXAMPLE: EVO2WC 35/10 AR LSS MWD MVOLT UGZ RGH DWHG

Series		Color Temperature		Lumens		Reflector Color		Reflector Finish		Distribution	
EVO2WC	EVO 2in Round Wall Mount Cylinder Open Downlight	**27/**	2700 K	**02**	250 lumens	**AR**	Clear	**LSS**	Semi-specular	**ND**	Narrow (0.8 s/mh)
		30/	3000 K	**05**	500 lumens	**PR**	Pewter	**LD**	Matte diffuse	**MWD**	Medium Wide (1.0 s/mh)
		35/	3500 K	**07**	750 lumens	**WTR**	Wheat			**WD**	Wide (1.2 s/mh)
		40/	4000 K	**10**	1000 lumens	**GR**	Gold				
		50/[1]	5000 K	**15**	1500 lumens	**WR**[2]	White painted				
				20	2000 lumens	**BR**[2]	Black painted				
						BZR[2]	Dark Bronze painted				

Voltage		Driver		Mounting		Control Interface[5]	
MVOLT	120V - 277V	**UGZ**[3]	Universal dimming to 1% (0-10V, 120V TRIAC or ELV)	**RGH**[4]	Recessed Gear Housing	**(blank)**	
120	120V			**SGB**	Surface Gear Box	**NLT**	nLight® dimming pack.
277	277V					**NLTER**[6]	nLight® dimming pack for fixtures on emergency circuit
						NLTAIR2	nLight® AIR dimming pack.
						NLTAIRER2[6]	nLight® AIR dimming pack for fixtures on emergency circuit
						NLTAIREM2	nLight® AIR dimming pack for fixtures on emergency circuit

Options		Architectural Colors - Powder Paint[9]			
90CRI[1]	High CRI (90+)	**DDB**	Gloss Dark Bronze	**DDBT**	Textured Dark Bronze
N80[7]	nLight Lumen Compensation	**DBL**	Matte Black	**DBLB**	Textured Black
WL[8]	Wet Location	**DWH**	Gloss White	**DWHG**	Textured White
		DMB	Matte Medium Bronze	**DBNH**	Textured Bronze
		DNA	Gloss Natural Aluminum	**DNAT**	Textured Natural Aluminum
		DSS	Gloss Sandstone	**DSST**	Textured Sandstone
		DGC	Gloss Charcoal Grey	**DSPD**	Textured Dark Grey
		DTG	Gloss Tennis Green	**DSPE**	Textured Green
		DBR	Gloss Bright Red	**DSPH**	Textured Light Red
		DSB	Gloss Steel Blue	**DWHAMF**	Gloss White with Anti-microbial finish

ACCESSORIES — order as separate catalog numbers (shipped separately)

GCOLORS KIT	Architectural colors chip kit, consisting of powder-coat and plated finishes.
HS234FL	Hole saw for RGH option
SDT 347/120 75VA	347V/120V, 75VA step down transformer. Must be remote mounted.

ORDERING NOTES

1. 5000K CCT not available with 90CRI.
2. Not available with Reflector Finish.
3. Refer to Tech 240 for compatible dimmers.
4. RGH with 2000LM option requires 120 or 277 (non-IC).
5. Field installed. Access required to location of remote mounted device.
6. ER for use with generator supply power. Will require an emergency hot feed and normal hot feed.
7. Requires NLT or NLTER.
8. Must be mounted in down orientation in wet location applications.
9. For details on RAL and Custom colors please see Architectural colors.

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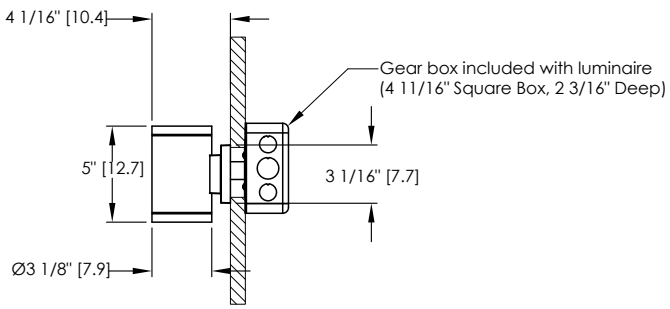
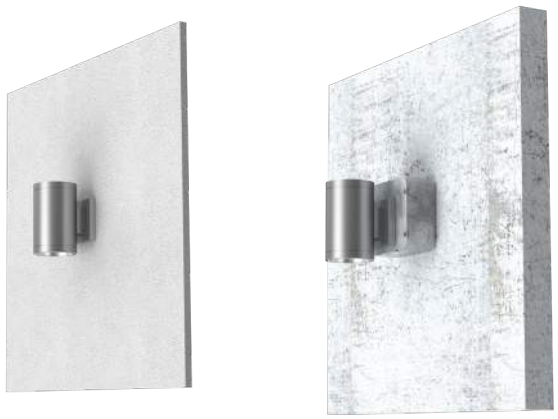
DIMENSIONAL DATA

W7

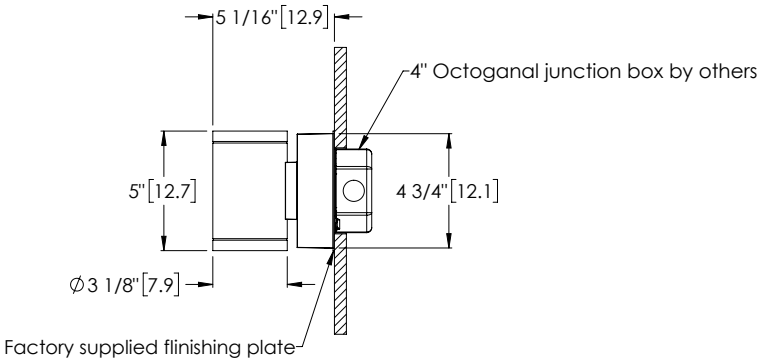
RGH - Recessed Gear Housing

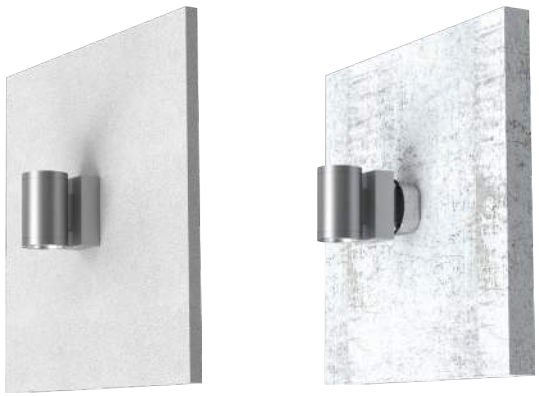


Wall cutout: Ø2 3/4" [7]
Wall thickness range: 1/2" [1.3] to 3" [7.6]
Luminaire can be mounted as uplight or downlight

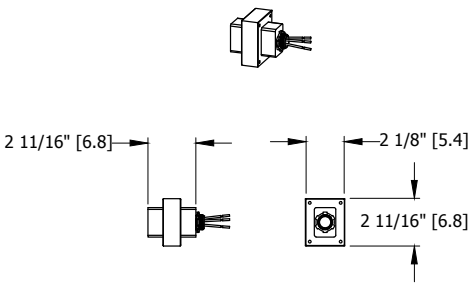


SGB - Surface Gear Box





347V Transformer



347 Transformer:
Install to accessible
junction box by others

*Dimensions in inches [centimeters]

gotham®

gotham | INCITO®

Luminaire Type:

Catalog Number:

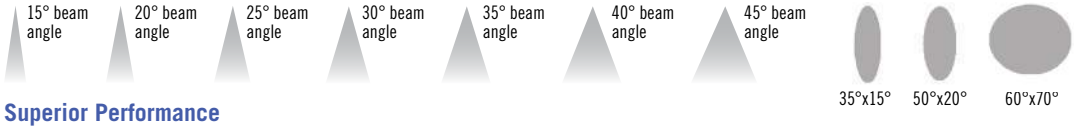
High Center Beam Round Adjustable Downlight 2"

OVERVIEW

Feature Set

- Eleven optimized distribution patterns allow designers to achieve tailored objectives
- Vertical tilt is self-locking from 0° - 40°; 365° of horizontal rotation. Can be hot aimed from below ceiling.
- Field interchangeable optic
- Driver and LED light engine fully serviceable from below ceiling
- 70% lumen maintenance at 60,000 hours
- 2.5 SDCM; 85 CRI typical, 90+ CRI optional
- Fixtures are wet location, covered ceiling

Distribution



Superior Performance

Nominal Lumens	02LM	05LM	07LM	10LM	15LM	20LM
Delivered Lumens	284	543	813	1093	1647	2112
Wattage	3.13	5.55	8.48	11.93	19.8	28.55
Lumens per Watt	91	98	96	92	83	74

*Based on 3500K AR LSS 15D 80CRI

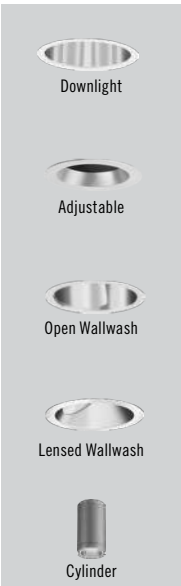
MULTIPLE LAYERS OF LIGHT

Incito & EVO Product Families | Building Layers of Light

High Center Beam Layer | Incito

General Illumination Layer | EVO

EVO + Incito — Multiple Layers of Light



Visit: Core | Special Applications | Healthcare

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Luminaire Type:

Catalog Number:

ORDERING INFORMATION

EXAMPLE: ICO2ADJ 35/10 AR T20 LSS 20D MVOLT UGZ

Series		Color Temperature		Lumens		Reflector Color		Flange Type	
ICO2ADJ	Incito 2in Round Adjustable Downlight	**27/**	2700 K	**02**	250 lumens	**AR**	Clear	**(blank)**	Self-flanged
		30/	3000 K	**05**	500 lumens	**PR**	Pewter	**FL**	Flangeless
		35/	3500 K	**07**	750 lumens	**WTR**	Wheat		
		40/	4000 K	**10**	1000 lumens	**GR**	Gold		
		50/[1]	5000 K	**15**	1500 lumens	**WR**[2]	White painted		
				20	2000 lumens	**BR**[2]	Black		
						BZR[2]	Dark Bronze painted		

Type		Reflector Finish		Lensing		Beam		Voltage	
TFC	Flat Cut Trim to allow tilting 0°-40°	**LSS**	Semi-specular	**(blank)**	Open	**15D**	15° beam angle	**MVOLT**	120V - 277V
T20[3]	Angle Cut Trim to allow tilting 0°-23°	**LD**	Matte diffuse	**SOL**[3]	Solite pattern lens	**20D**	20° beam angle	**120**	120V
T40[3]	Angle Cut Trim to allow tilting 20°-40°					**25D**	25° beam angle	**277**	277V
						30D	30° beam angle		
						35D	35° beam angle		
						40D	40° beam angle		
						45D	45° beam angle		
						3515D	Elliptical 35° x 15° beam angle		
						5020D	Elliptical 50° x 20° beam angle		
						6070D	Elliptical 60° x 70° beam angle		

Driver		Control Interface[5]		Options	
UGZ[4]	Universal dimming to 1% (0-10V, 120V TRIAC or ELV)	**(blank)**		**90CRI**[1]	High CRI (90+)
		NLT	Embedded wired controls by nLight	**NCH**[7]	Structural reinforcement pan
		NLTER[6]	Embedded wired controls by nLight with UL924 listed emergency operation	**ICAT**[8]	IC/Airtight housing construction
		NLTAIR2	Embedded wireless controls by nLight	**CP**[8]	Chicago Plenum
		NLTAIRER2[6]	Embedded wireless controls by nLgiht with UL924 listed emergency operation via power sense leads	**HAO**[9]	High ambient (40°C)
				N80[12]	nLight Lumen Compensation
		NLTAIREM2	Embedded wireless controls by nlight with UL924 listed emergency operation	**TRW**[10]	White painted flange
				TRBL[11]	Black painted flange
				WL[13]	Wet Location

ACCESSORIES — order as separate catalog numbers (shipped separately)

ICO2OPTC XXD	Additional optics for field installation. Replace "XX" with beam angle.
ICO2OPTC KIT	Kit including a field interchangeable optic for each of the 13 preset beam distribution patterns
HS258	2-5/8" Hole saw
HS234FL	Hole saw for flangeless trim option
SDT 347/120 75VA	347V/120V, 75VA step down transformer. Must be remote mounted.
AW50	Allen wrench (.050") for adjusting tilt

ORDERING NOTES

1. 5000K CCT not available with 90CRI.
2. Not available with Reflector Finish.
3. SOL lens requires TFC trim.
4. Refer to Tech 240 for compatible dimmers.
5. Field installed. Access required to location of remote mounted device.
6. ER for use with generator supply power. Will require an emergency hot feed and normal hot feed.
7. NCH is required for T-grid ceilings or where code requires.
8. Not available with 1500lm or 2000lm.
9. Not available with 2000lm.
10. For use with different reflector finish only (i.e. AR, PR, WTR, GR options). Not available with WR (White Reflector). Not available with FL.
11. For use with different reflector finish only (i.e. AR, PR, WTR, GR options). Not available with BR (Black Reflector). Not available with FL.
12. Requires NLT or NLTER.
13. WL requires a lens (e.g. SOL).

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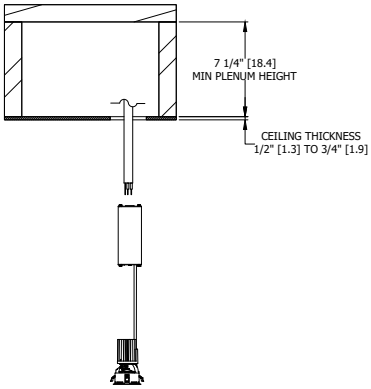
DIMENSIONAL DATA

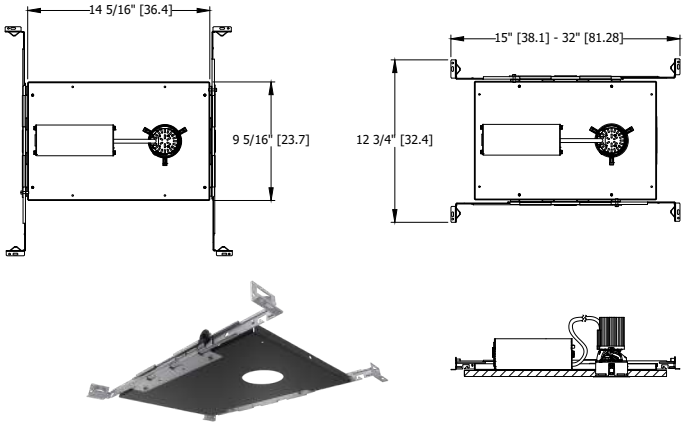
*Dimensions in inches [centimeters]

Aperture: 2-1/4" [5.7]	Ceiling Opening: 2-5/8" [6.7] self-flanged
Overlap Trim: 3" [7.6]	2-3/4" [7] flangeless

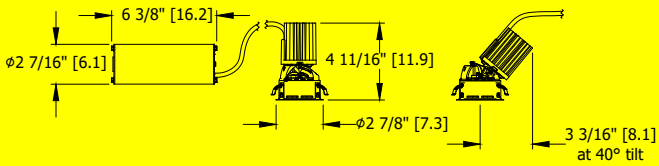
Recessed Application - Minimum Clearance Requirements



Structural Reinforcement Pan

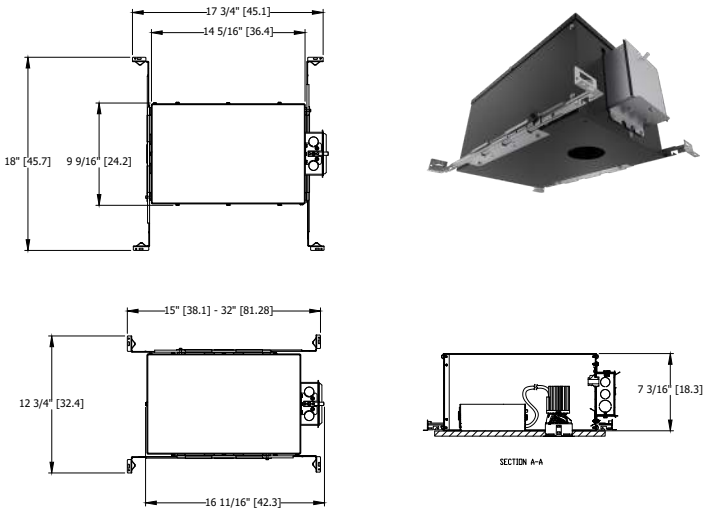


1500 Lumen and Below Install-from-Below Construction

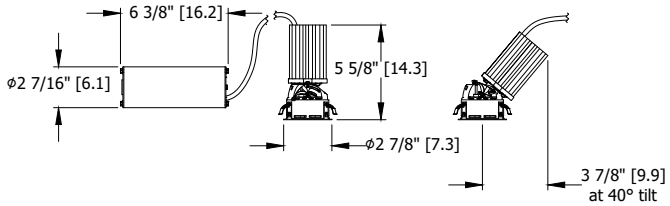


Ceiling cutout: ϕ2 5/8" [6.7]
Flex conduit length: 16" [40.6]
Ceiling thickness range: 1/2" [1.3] to 3/4" [1.9]

IC / Airtight Housing / Chicago Plenum Construction

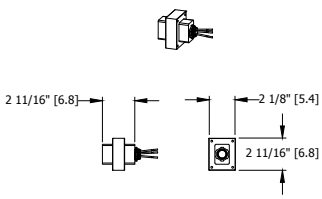


2000 Lumen or High Ambient Option Install-from-Below Construction



Ceiling cutout: ϕ2 5/8" [6.7]
Flex conduit length: 16" [40.6]
Ceiling thickness range: 1/2" [1.3] to 3/4" [1.9]

347V Transformer



347 Transformer:
Install to accessible
junction box by others

Please Note: Fabrication will not begin until this drawing is approved, signed and returned to AEC

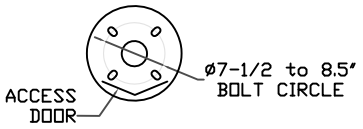
- ☐ APPROVED
- ☐ APPROVED AS NOTED
- ☐ REJECTED
- ☐ REVISE AND RESUBMIT

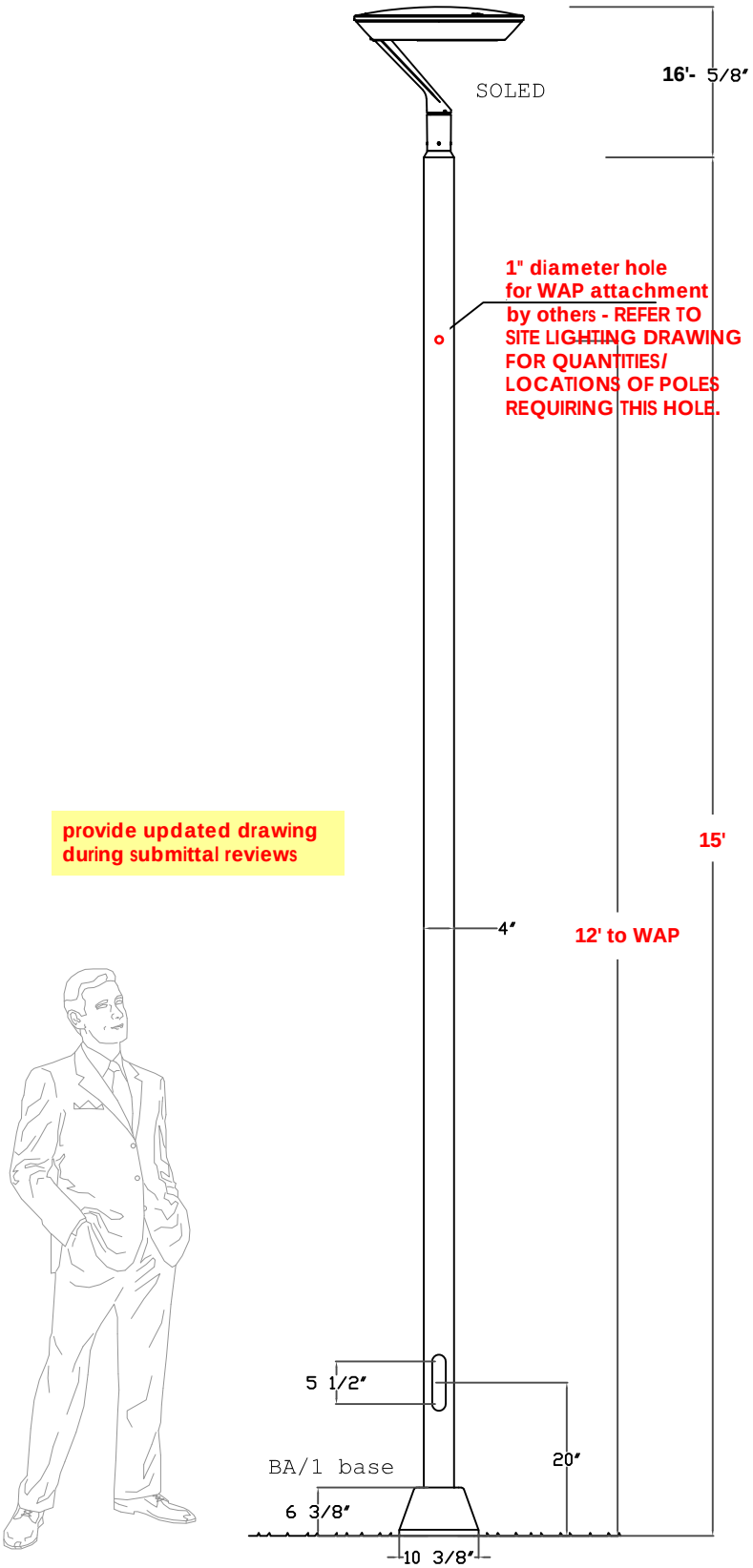
By _____

Date _____

BOTTOM VIEW

ENSURE ADEQUATE SPACE FOR WAP PATHWAY FROM CONCRETE FOUNDATION THROUGH BASEPLATE





provide updated drawing during submittal reviews

Approval Drawing

Light Standard: SOLED

XP1/XP2 - pole

Diffuser Type: Frosted

Diffuser Material: 4 mm IK08 frosted glass

Optical System: Is made of precisely formed multi-faced aluminum. IES Type The refractor is designed to withstand severe weather conditions.

Diffuser Holder Material: Die Cast Alum. Diffuser is attached with four screws.

Driver: High power factor mounted on removable plate. A quick disconnect wiring system allows for fast easy driver maintenance.

Wattage - 40.5W
Voltage - 110-277

Photocontrol: None

Pole Material: (100 mm) 4"O.D.x.125 wall 6061 T6 Aluminum extrusion.
Base Cover: One-piece cast aluminum.

Anchor Bolts: 4 galvanized 19mm (3/4") x 508mm (20") long. Anchor bolts and metal template are supplied by AEC.

Finish: Electrostatically applied, thermoset polyester powder-coat finish with DLL8 four part corrosion inhibiting process.

Colour: RAL - PLEASE SPECIFY

Date: Drawing No: 4996
Model:

Project:
Approved as ilustrated: ☐ Date:
Approved with changes: ☐ Date:
Approved By:
Type: Notes:

Please Note: Fabrication will not begin until this drawing is approved, signed and returned to AEC

AEC ILLUMINATION CORP.

3209 Orlando Drive, Mississauga, Ontario, Canada L4V 1C4
Tel: (647) 367-1607 Fax: (647) 931-7878
Toll Free Canada & USA 1-800-267-3175
E: eng@aecillumination.com WEB: www.aecillumination.com

XP1/XP2

SOLED

MODEL: SOLED

DOC NO:

DATE: 02-2022

XP1/XP2

KEY FEATURES:

- Dust Protection - IP66
- IES Classification Type I, II, III, IV
- Optical System - Removable
- Controls - Fix / 0-10 / DALI
- Voltage 110V - 277V (347V and 480V optional)
- SPD - 10kV - 10kA
- CRI - >70
- CCT - 3000K / 4000K
- Switch Off Connector
- Operating Temp: -40°F (-40°C) to 104°F (40°C)
- Lifetime - L90B10 > 100 000 h

MUST BE DLC OR ENERGY-STAR RATED

1. MODEL	2. OPTICS	3. CCT	4. CURRENT	5. MODULES	6. VOLTAGE	7. MOUNT
SOL						

1. MODEL
SOLED

2. OPTICAL SYSTEM
STE-S (IES TYPE II)
STE-M (IES TYPE II)
STW (IES TYPE II)
STU-S (IES TYPE II)
STU-M (IES TYPE II)
SV (IES TYPE I)
XP1 **S** (IES TYPE III)
XP2 **S05** (IES TYPE IV)

3. CCT
3 - 3000K
4 - 4000K

4. CURRENT
.3 - 350 mA
.5 - 525 mA
.7 - 700 mA
.xxx - custom

5. MODULES
1M - 1 Module
2M - 2 Modules
3M - 3 Modules*
*(available upon request)

6. VOLTAGE
1V - 110V - 277V
3V - 347V
4V - 480V

7. MOUNTING
M2B - 2 3/8" OD

8. CONTROLS	9. OPTIONS	10. FINISH

8. CONTROLS
F - Fixed power not dimmable.
DA - Automatic dimming.
DAC - Custom DA profile.
DALI - Digital dimming interface DALI.
D010 - 0V-10V Dimming.
MSI - Internal Motion Sensor.

9. OPTIONS
DFG - Prismatic Glass*
HSS - House Side Shield
BRD - Bird spike
*standard option

10. COLOR
C.01 - Graphite Gray
C.02 - Satiny Black
C.03 - Metalic Silver
C.2B - Satiny Gray
C.30 - Steel Gray
C.UW - UW Brown

CO.RAL....- ADD NUMBER
CUS - CUSTOM

UW FACILITY DESIGN STANDARD

PROJECT NAME: _____

☐ APPROVED
☐ APPROVED AS NOTED
☐ REJECTED
☐ APPROVED BY:

REMARKS:

3000K - DFG (FROSTED GLASS)

LUMINAIRE	LED Current (mA)	OPTICS	RATED LUMINAIRE FLUX[1] (Tq=25°C, 3000K, lm)	RATED LUMINAIRE POWER[1] (Tq=25°C, Vin=230Vac, F / DA / DAC, W)	LUMINAIRE EFFICACY (Tq=25°C, lm/W)	RATED LED FLUX[2] (Tj=85°C, 3000K, lm)	RATED LED POWER[2] (Tj=85°C, W)
SOLED 0F2H1 (**OPTICS**) 3.3-1M	350	STU-S STU-M S05 SV	1030	11	94	1306	13
SOLED 0F2H1 (**OPTICS**) 3.3-2M			2040	21	97	2661	17
SOLED 0F2H1 (**OPTICS**) 3.5-1M	525		1540	16	96	1899	14
SOLED 0F2H1 (**OPTICS**) 3.5-2M			3020	30.5	99	3932	23
SOLED 0F2H1 (**OPTICS**) 3.7-1M	700		1980	21.5	92	2489	16
SOLED 0F2H1 (**OPTICS**) 3.7-2M			3860	40	97	4977	32
SOLED 0F3 (**OPTICS**) 3.3-1M	350	STE-S STE-M STW	1500	15	100	1769	14
SOLED 0F3 (**OPTICS**) 3.3-2M			2970	27	110	3932	23
SOLED 0F3 (**OPTICS**) 3.5-1M	525		2140	21.5	100	2693	17
SOLED 0F3 (**OPTICS**) 3.5-2M			4220	39	108	5311	32
SOLED 0F3 (**OPTICS**) 3.7-1M	700		2680	28	96	3362	22
SOLED 0F3 (**OPTICS**) 3.7-2M			5340	52	103	6723	42
SOLED 0F2H1 (**OPTICS**) 3.3-2M	350	S	1820	21	87	2661	17
SOLED 0F2H1 (**OPTICS**) 3.5-2M	525		2610	30.5	86	3932	23
SOLED 0F2H1 (**OPTICS**) 3.7-2M	700		3340	40	84	4977	32

4000K - DFG (FROSTED GLASS)

LUMINAIRE	LED Current (mA)	OPTICS	RATED LUMINAIRE FLUX[1] (Tq=25°C, 4000K, lm)	RATED LUMINAIRE POWER[1] (Tq=25°C, Vin=230Vac, F / DA / DAC, W)	LUMINAIRE EFFICACY (Tq=25°C, lm/W)	RATED LED FLUX[2] (Tj=85°C, 4000K, lm)	RATED LED POWER[2] (Tj=85°C, W)
SOLED 0F2H1 (**OPTICS**) 4.3-1M	350	STU-S STU-M S05 SV	1100	11	113	1451	14
SOLED 0F2H1 (**OPTICS**) 4.3-2M			2190	21	118	2957	19
SOLED 0F2H1 (**OPTICS**) 4.5-1M	525		1650	16	112	2110	16
SOLED 0F2H1 (**OPTICS**) 4.5-2M			3250	30.5	116	4369	26
SOLED 0F2H1 (**OPTICS**) 4.7-1M	700		2130	21.5	107	2765	18
SOLED 0F2H1 (**OPTICS**) 4.7-2M			4150	40	113	5530	36
SOLED 0F3 (**OPTICS**) 4.3-1M	350	STE-S STE-M STW	1610	15	111	1966	16
SOLED 0F3 (**OPTICS**) 4.3-2M			3190	27	128	4369	26
SOLED 0F3 (**OPTICS**) 4.5-1M	525		2300	21.5	116	2992	19
SOLED 0F3 (**OPTICS**) 4.5-2M			4540	39	126	5901	35
SOLED 0F3 (**OPTICS**) 4.7-1M	700		2880	28	111	3735	24
SOLED 0F3 (**OPTICS**) 4.7-2M			5750	52	120	7470	47
SOLED 0F2H1 (**OPTICS**) 4.3-2M	350	S	1960	21	118	2957	19
SOLED 0F2H1 (**OPTICS**) 4.5-2M	525		2800	30.5	109	4369	26
SOLED 0F2H1 (**OPTICS**) 4.7-2M	700		3590	40	106	5530	36

The tables above describe the flux and output power of the available versions. These parameters are necessary in order to guarantee a correct comparison of the luminaire performance.
In particular, the luminaire efficiency (expressed in lm/W) must be calculated as the ratio between the output luminous avvflux of the luminaire and the power absorbed by the input powersupply unit.
For the sake of completeness the tables also show the data of the nominal flux and power of the used LED.

PROJECT NAME: _____

- ☐ APPROVED
- ☐ APPROVED AS NOTED
- ☐ REJECTED
- ☐ APPROVED BY:

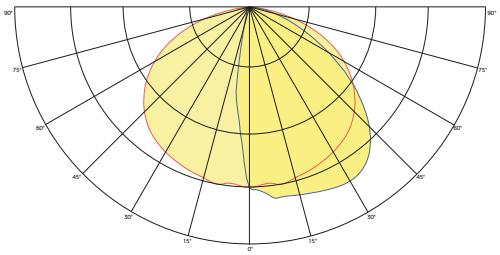
Note:
1:Rated data obtained in laboratory
2:Rated data extrapolated from LED manufacturer datasheet.
The characteristics of the product listed in this product sheet are subjected to change without notice.
They will have to be confirmed in case of order.
Values indicated in this technical sheet are to be considered rated values subject to a tolerance of +/-5%.

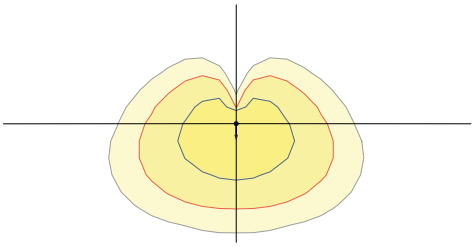
MODEL: SOLED | DOC NO: | DATE: 02-2022

XP1/XP2

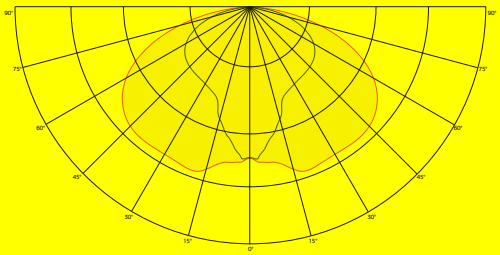
OPTICAL SYSTEMS

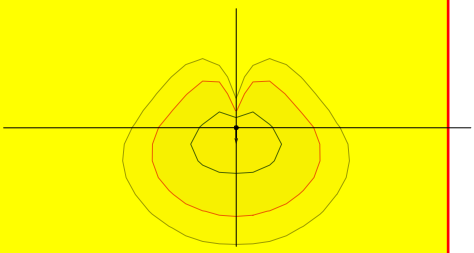
OPTICS SOLED STW (IES TYPE II)





OPTICS SOLED S (IES TYPE IV)





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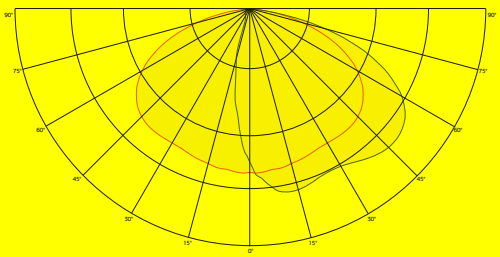

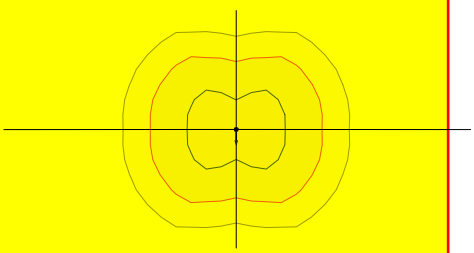

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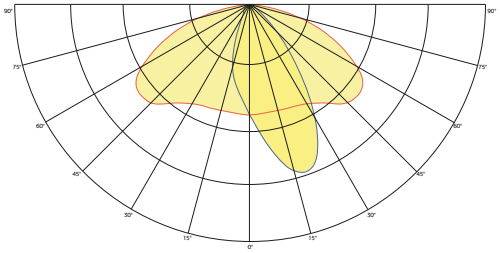
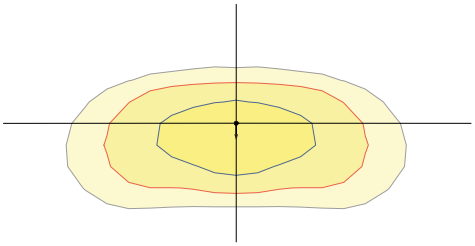


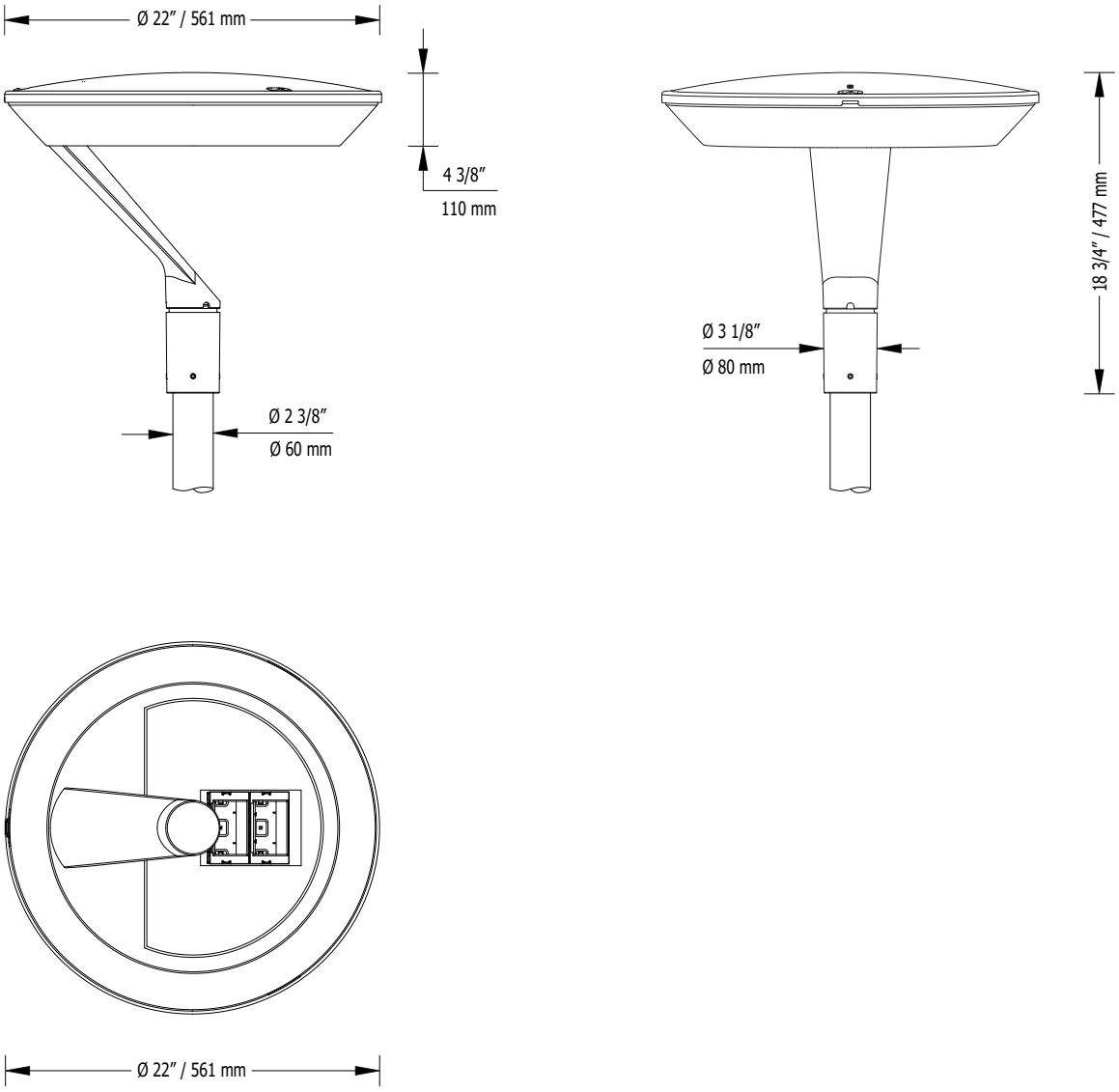


PROJECT NAME: _____

☐ APPROVED
☐ APPROVED AS NOTED
☐ REJECTED
☐ APPROVED BY:

REMARKS:

DRAWING - MECHANICAL PROPERTIES



Applications: Street and urban lighting.

Tilt angle: 0°

Weight: 19.8 Lbs / 9 kg

EPA: Side: 0.75 ft² (0.07m²)
Top: 2.58 ft² (0.24m²)
(Cross Section Surface)
Use Drag coefficient factor - 0.5

Mounting: M2B - 2 3/8" x 4" L (60 mm x 100 mm L)

Power Factor: >0.9 (full load)

Power cable: H07RN-F a2/3 x 1.5mm²

Connector-IP68: Cable Dia. 0.27"-0.39" (7mm-10mm)

Optical unit lifetime (Ta: 77°F/25°C)

350mA: L90B10 ≥ 100 000 h
(Including critical failures)
L90 > 100 000 h, TM-21

525mA: L90B10 ≥ 100 000 h
(Including critical failures)
L90 > 100 000 h, TM-21

700mA: L90B10 ≥ 100 000 h
(Including critical failures)
L90 > 100 000 h, TM-21

PROJECT NAME: _____

- ☐ APPROVED
- ☐ APPROVED AS NOTED
- ☐ REJECTED
- ☐ APPROVED BY:

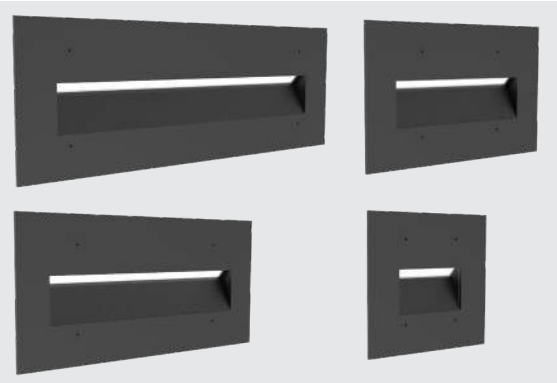
HYDREL

XST1

CATALOG NUMBER

NOTES

TYPE



HSL13

Static White and Static Color Step Light 13

HIGHLIGHTS

- Integral Driver
- Long throw distribution
- Standard 0-10V dimming option
- Die-cast housing with solid aluminum, brass, or stainless steel faceplate
- Wet location listed
- Back Box provided by Hydrel or by others
- Suitable for concrete pour if BB option is chosen or Steel City back box is used

5 YEAR warranty

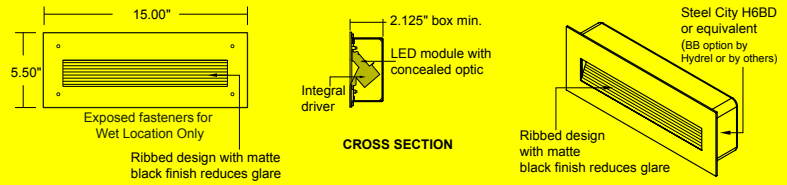
LED

BAA

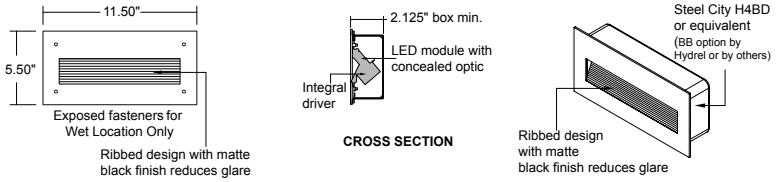
BABA

DIMENSIONS

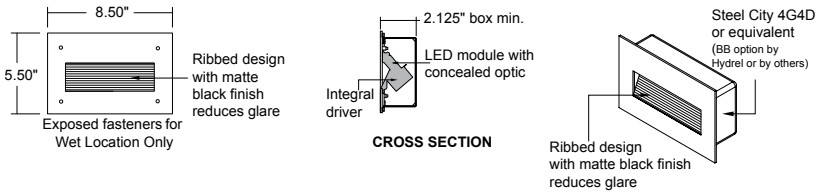
12INCH



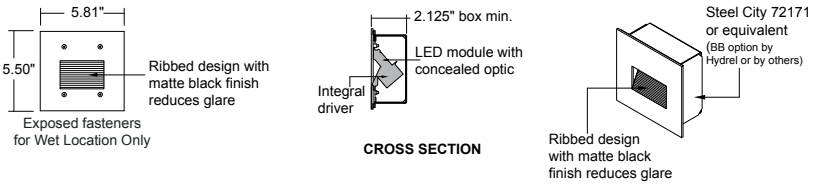
9INCH



6INCH



3INCH



LUMEN PACKAGES

Distribution	Delivered Lumens	Input Watts	Lumens/ Watt
3INCH	87	3	29
6INCH	194	5	36
9INCH	299	8	37
12INCH	386	11	37

Performance data based upon 30K LED 80CRI

Energy Star or DLC Rated - req'd Variance requested

ORDERING INFORMATION

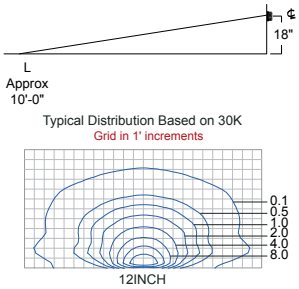
EXAMPLE: HSL13 3INCH LED 27K MVOLT L MIN5 BRB

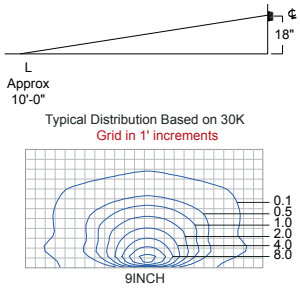
Series*	Length*	Source*	Color Temperature*		Voltage*	Distribution*
HSL13 Step Light 13	**3INCH** 3" Nominal Length	**LED**	**27K** 2700K	**AMBLW** Amber Limited Wavelength 590nm	**MVOLT** Multi-Volt 120V thru 277V	**L** Long Throw
	6INCH 6" Nominal Length		**30K** 3000K	**BLU** Blue		
	9INCH 9" Nominal Length		**35K** 3500K	**GRN** Green		
	12INCH 12" Nominal Length		**40K** 4000K	**RED** Red		
			50K 5000K	**CYN** Cyan		
				RDO Red-Orange		

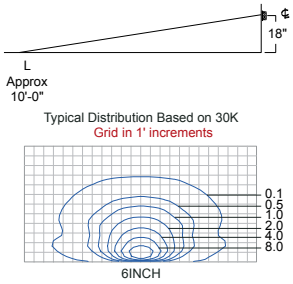
Dimming **Optional**	OPTION	Finish*
MIN5 Dimming Driver	**BB** Back Box *Note:* *Include BB if you need a back box, otherwise back box is by others.* *Note: Suitable for concrete pour if BB option is chosen or Steel City back box is used*	**BRB** Brushed Brass **BBP** Brushed Brass Paint **BRSS** Brushed Stainless Steel **LBPS** Light Bronze Paint Smooth **PBR** Polished Brass **PSS** Polished Stainless Steel **SGB** Semi Gloss Black **SGW** Semi Gloss White **CF** Custom Finish **RALTBD** Ral Paint Finishes *Note:* *RALTBD for pricing only, replace with applicable RAL call out when ready to order. See the RALBROCHURE for available options. It is recommended that Hydrel products only use textured paint.*

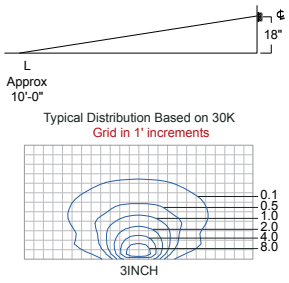
Note: * is a required field

PERFORMANCE DATA









Expected Life: Static White LED: L70 @ 60,000 hours
Static Color LED: L70 @ 60,000 hours

Lumen Multiplier Table for CCT

CCT	Multiplier
27K	0.963
30K	1.000
35K	1.218
40K	1.153
50K	1.208
AMBLW	0.338
RED	0.409
GREEN	0.702
BLUE	0.364

SPECIFICATIONS & FEATURES

Construction
Die-cast housing with solid aluminum, brass, or stainless steel faceplate.

Source
Light source consists of eight powerful LEDs available in five static white color temperatures/80CRI & six colored LED choices. All within a 3MacAdam ellipse

Optics
A concealed optic provides a long light distribution for illumination of large areas.

Electrical
Integral electronic driver for 120 through 277v/50-60Hz input. Standard 0-10V dimming to 5%. THD: <20%. PFC: > 0.90. Complies to FCC CFR Title 47 Part 15, Class B at 120v and Class A at 277v EMI noise rating.

Mounting
HSL13 3LONG: Designed to mount to a Steel City 72171 square junction box (BB option from Hydrel or by others) or equivalent.
HSL13 6LONG: Designed to mount to a Steel City 4G4D multi-gang junction box (BB option from Hydrel or by others) or equivalent.
HSL13 9LONG: Designed to mount to a Steel City H4BD multi-gang junction box (BB option from Hydrel or by others) or equivalent.
HSL13 12LONG: Designed to mount to a Steel City H6BD multi-gang junction box (BB option from Hydrel or by others) or equivalent.

Lens
Extruded clear acrylic optic lens concealed in reflector housing

Circuiting
Single circuit

Environment
Wet location.

Government Procurement
BAA – Buy America(n) Act: Product qualifies as a domestic end product under the Buy American Act as implemented in the FAR and DFARS. Product also qualifies as manufactured in the United States under DOT Buy America regulations.
BABA – Build America Buy America: Product qualifies as produced in the United States under the definitions of the Build America, Buy America Act.
Please refer to www.acuitybrands.com/resources/buy-american for additional information.

Listing
c UL us (for the North American Market, US & Canada)

Finish
Recessed surfaces have a ribbed design with matte black finish to reduce glare. Faceplates are available in four metal finishes with protective clear coat or one of four polyester powder coat painted finishes.

Warranty
5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at:
www.acuitybrands.com/support/warranty/terms-and-conditions

NOTE: Actual performance may differ as a result of end-user environment and application.
All values are design or typical values, measured under laboratory conditions at 25 °C.
Specifications subject to change without notice.

gotham® | INCITO™

Multiple Layers of Light

Luminaire Type:

Catalog Number:

XW2

High Center Beam Wall Mount Tilt & Rotate Cylinder

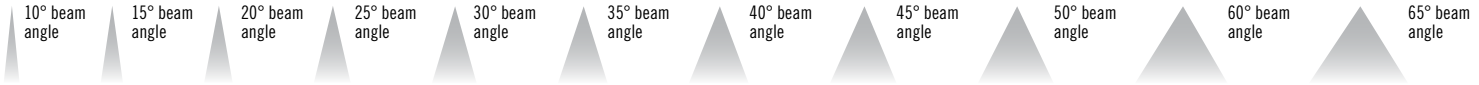
4"

OVERVIEW

Feature Set

- Eleven optimized distribution patterns allow designers to achieve tailored objectives
- Bounding Ray™ optical design
- 45° cutoff to source and source image
- Fully serviceable lensed LED light engine
- 70% lumen maintenance at 60,000 hours
- 2.5 SDCM; 85 CRI typical, 90+ CRI optional
- Fixtures are damp location standard; wet location option (WL), covered ceiling, IP66 option available, covered ceiling not required.
- 20 standard colors in textured and gloss finish; custom or RAL colors also available
- Adjustable wall mount tilts up to +40° and down to -20° with +/-40° left/right rotation from vertical
- ENERGY STAR® Certified product
- UGR of zero for fixtures aimed at nadir with a cut-off equal to or less than 60deg per CIE 117-1995 Discomfort Glare in Interior Lighting. UGR FAQ (UGR FAQ)

Distribution



Superior Perfomance

Nominal Lumens	500	750	1000	1500	2000	2500	3000	3500	4000	4500	5000
Delivered	703	807	1062	1545	1977	2419	2920	3548	3982	4419	4848
Wattage	6.7	7.5	9.8	15.1	21.5	26.5	34.1	33.8	39.5	46.2	53.2
Efficacy	104	108	108	102	92	91	86	105	101	96	91

COMPLEMENTARY PRODUCTS

Coordinated Apertures | Multiple Layers of Light

General Illumination Layer | EVO

High Center Beam Layer | Incito

EVO + Incito — Multiple Layers of Light

Core

Healthcare

Special Applications

GOTHAM ARCHITECTURAL DOWNLIGHTING | 1400 Lester Road Conyers, GA 30012 | P 800-705-SERV (7378) | gothamlighting.com

ORDERING INFORMATION

A+ Capable options indicated by this color background.

Luminaire Type:

Catalog Number:

EXAMPLE: ICO4WTRC 35/15 AR LSS 35D MVOLT EZ1 JBX DN DWHG

Series		Color Temperature		Lumens		Reflector Color		Reflector Finish		Beam		Voltage	
ICO4WTRC	Incito 4in Wall Mount Tilt+Rotate Round Cylinder Open Downlight	27/	2700 K	05	500 lumens	AR	Clear	LSS	Semi-specular	10D[2]	10° beam angle	MVOLT	120V - 277V
		30/	3000 K	07	750 lumens	PR	Pewter	LD	Matte diffuse	15D	15° beam angle	120	120V
		35/	3500 K	10	1000 lumens	WTR	Wheat	LS	Specular	20D	20° beam angle	277	277V
		40/	4000 K	15	1500 lumens	GR	Gold			25D	25° beam angle	347[3]	347V
		50/	5000 K	20	2000 lumens	WR[1]	White painted			30D	30° beam angle		
				25	2500 lumens	BR[1]	Black			35D	35° beam angle		
				30	3000 lumens	WRAMF[1]	White anti-microbial			40D	40° beam angle		
				35	3500 lumens	BZR[1]	Dark Bronze painted			45D	45° beam angle		
				40	4000 lumens	TRALTBD[1]	Trim RAL # TBD (TBD for pricing only)			50D	50° beam angle		
				45	4500 lumens	TCPC[1]	Trim Custom Paint Color TBD (TBD for pricing only)			60D	60° beam angle		
				50	5000 lumens					65D	65° beam angle		

Driver[4]		Mounting		Fixture Orientation		Emergency Option	
GZ10	0-10V driver dims to 10%	JBX	Integral driver, Recessed or Surface J-box	DN	Mounted with reflector pointing down	(blank)	No emergency options
GZ1	0-10V driver dims to 1%	JBXCC	Integral driver, Surface J-box with Conduit Covers	UP[7]	Mounted with reflector pointing up	E6W	6W integral emergency battery
EZ10	eldoLED 0-10V ECOdrive. Linear dimming to 10% min.					E7WCP	IOTA® 7W emergency battery (sidecar)
EZ1	eldoLED 0-10V ECOdrive. Linear dimming to 1% min.					E10WCP	IOTA® 10W emergency battery (sidecar)
EZB	eldoLED 0-10V SOLOdrive. Logarithmic dimming to <1%.					E15WCP	IOTA® 15W emergency battery (sidecar)
EDAB[5]	eldoLED SOLOdrive DALI. Logarithmic dimming to <1%.						
EDXB[5,6]	eldoLED POWERdrive DMX with RDM (remote device management). Square Law dimming to <1%. Min: 1000LM; Max: 4000LM						
ECOS2[5]	Lutron® Hi-Lume® 2-wire forward-phase driver. 120V Only. Minimum dimming level 1%. 1000 - 2000 LUMENS, NOT AVAILABLE WITH "WL" OR "WLL" OR "HAO"						
ECOD[5]	Lutron® EcoSystem® digital Hi-Lume 1% soft-on, fade to black. Max: 4000LM.						

Control Interface[8]		Options		Architectural Colors - Powder Paint[13]			
(blank)	No controls	SF	Single fuse. Specify 120V or 277V.	DDB	Gloss Dark Bronze	DDBT	Textured Dark Bronze
NLT	nLight® dimming pack.	90CRI	High CRI (90+)	DBL	Matte Black	DBLB	Textured Black
NLTER[9]	nLight® dimming pack for fixtures on emergency circuit	N80	nLight Lumen Compensation	DWH	Gloss White	DWHG	Textured White
NLTAIR2	nLight® AIR dimming pack.	HAO[10]	HAO High Ambient Option (40°C)	DMB	Matte Medium Bronze	DBNH	Textured Bronze
NLTAIRER2[9]	nLight® AIR dimming pack for fixtures on emergency circuit	WL[11]	Wet Location	DNA	Gloss Natural Aluminum	DNAT	Textured Natural Aluminum
		IP66[11,12]	Lensed, IP66 rated	DSS	Gloss Sandstone	DSST	Textured Sandstone
				DGC	Gloss Charcoal Grey	DSPD	Textured Dark Grey
				DTG	Gloss Tennis Green	DSPE	Textured Green
				DBR	Gloss Bright Red	DSPH	Textured Light Red
				DSB	Gloss Steel Blue	DWHAMF	Gloss White with Anti-microbial finish
						RALTBD	Cylinder RAL # TBD (TBD for pricing only)
						CPC	Cylinder Custom Paint Color TBD (TBD for pricing only)

ACCESSORIES — order as separate catalog numbers (shipped separately)

GCOLORS KIT	Architectural colors chip kit, consisting of powder-coat and plated finishes
OPTC4 XXD	Additional optics for field installation. Replace "XX" with beam angle.

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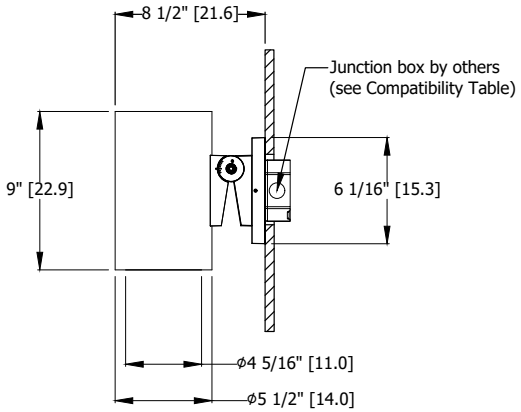
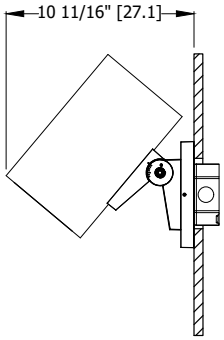
DIMENSIONAL DATA

JBX Recessed J-Box

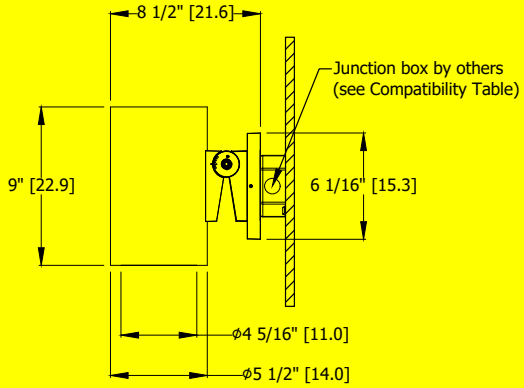


Luminaire can be specified as uplight or downlight



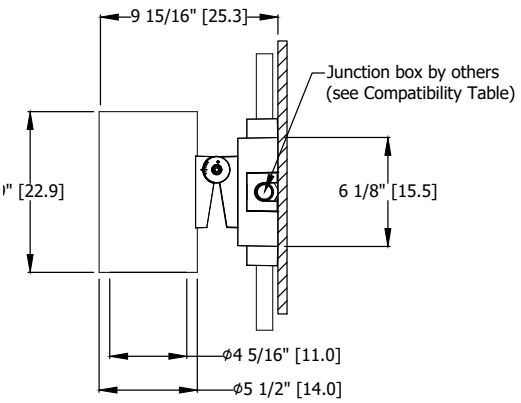
Tilt: 40°

JBX Surface J-Box

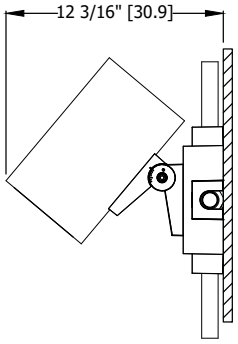


Luminaire can be specified as uplight or downlight

JBXCC Surface J-Box with Conduit Covers



Luminaire can be specified as uplight or downlight

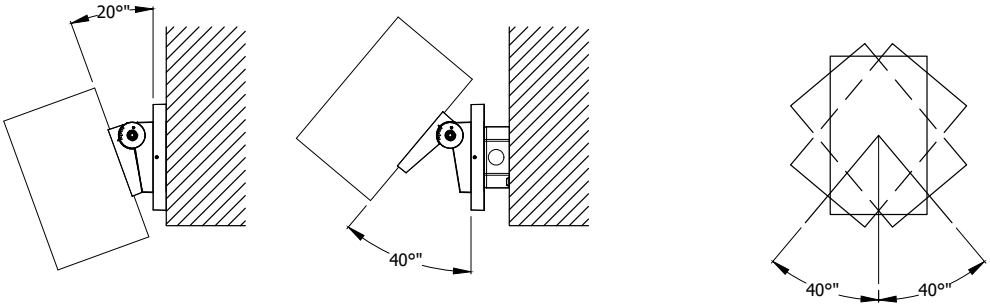


Tilt: 40°

*Dimensions in inches [centimeters]

DIMENSIONAL DATA

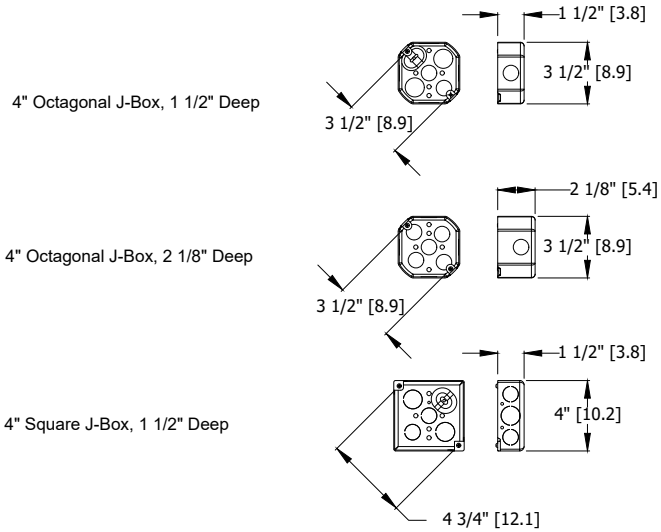
Tilt and Rotate Range



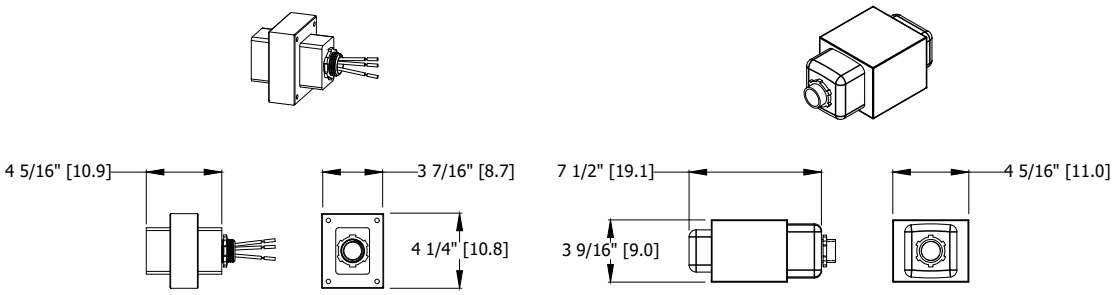
Tilt range: -20° to 40°

Rotation range: -40° to 40°

Junction Box Dimensions (by others)



347V Stepdown Transformer



347 Transformer:
Up to 6000LM
Install to accessible
junction box by others

347 Transformer:
8000LM and up
Install to accessible
junction box by others

*Dimensions in inches [centimeters]

gotham® | EVO®

Multiple Layers of Light

Luminaire Type:

Catalog Number:

XW3

General Illumination Wall Mount Cylinder 4"

Feature Set

- Batwing distribution with feathered edges provides even illumination on horizontal and vertical surfaces
- Bounding Ray™ optical design
- 45° cutoff to source and source image
- Fully serviceable lensed LED light engine
- 70% lumen maintenance at 60,000 hours
- 2.5 SDCM; 85 CRI typical, 90+ CRI optional
- Fixtures are damp location standard; wet location option (WL), covered ceiling, IP66 option available, covered ceiling not required.
- 20 standard colors in textured and gloss finish; custom or RAL colors also available
- Field configurable surface junction box conduit covers available
- ENERGY STAR® Certified product
- UGR of zero for fixtures aimed at nadir with a cut-off equal to or less than 60deg per CIE 117-1995 Discomfort Glare in Interior Lighting. UGR FAQ (UGR FAQ)

Distribution

Superior Perfomance

Nominal Lumens	250	500	750	1000	1500	2000	2500	3000	3500	4000	4500	5000
Delivered Lumens	271	573	808	1001	1527	1994	2580	3110	3612	4120	4584	5045
Wattage	3.1	7.2	7.9	8.8	13.7	19.5	25.7	31.2	38.4	35.4	40.1	44.7
Lumens per Watt	87.4	79.6	102.3	113.8	111.5	102.3	100.4	99.7	94.1	116	114	113

Coordinated Apertures | Multiple Layers of Light

General Illumination Layer | EVO

High Center Beam Layer | Incito

EVO + Incito — Multiple Layers of Light

Core

Healthcare

Special Applications

OVERVIEW

COMPLEMENTARY PRODUCTS

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ORDERING INFORMATION

A+ Capable options indicated by this color background.

Luminaire Type:

XW3

umber:

EXAMPLE: EVO4WC 35/15 AR MWD LSS MVOLT EZ1 JBX DN DWHG

Series		Color Temperature		Lumens		Reflector Color		Reflector Finish		Distribution		Voltage	
EVO4WC	EVO 4in Wall Mount Round Cylinder Open Downlight	27/	2700 K	02	250 lumens	AR	Clear	LSS	Semi-specular	ASYM[2]	Asymmetric	MVOLT	120V - 277V
		30/	3000 K	05	500 lumens	PR	Pewter	LD	Matte diffuse	MD	Medium (08 s/mh)	120	120V
		35/	3500 K	07	750 lumens	WTR	Wheat	LS	Specular	MWD	Medium wide (1.0 s/mh)	277	277V
		40/	4000 K	10	1000 lumens	GR	Gold			WD	Wide (1.2 s/mh)	347[3]	347V
		50/	5000 K	15	1500 lumens	WR[1]	White painted						
				20	2000 lumens	BR[1]	Black						
				25	2500 lumens	WRAMF[1]	White anti-microbial						
				30	3000 lumens	BZR[1]	Dark Bronze painted						
				35	3500 lumens	TRALTBD[1]	Trim RAL # TBD (TBD for pricing only)						
				40	4000 lumens	TCPC[1]	Trim Custom Paint Color TBD (TBD for pricing only)						
				45	4500 lumens								
				50	5000 lumens								

Driver[4]		Mounting		Fixture Orientation		Emergency Option	
GZ10	0-10V driver dims to 10%	JBX	Integral driver, Recessed or Surface J-box	DN	Mounted with reflector pointing down	(blank)	No emergency options
GZ1	0-10V driver dims to 1%	JBXCC	Integral driver, Surface J-box with Conduit Covers	UP[7]	Mounted with reflector pointing up	E6W	6W integral emergency battery
EZ10	eldoLED 0-10V ECOdrive. Linear dimming to 10% min.					E7WCP	IOTA® 7W emergency battery (sidecar)
EZ1	eldoLED 0-10V ECOdrive. Linear dimming to 1% min.					E10WCP	IOTA® 10W emergency battery (sidecar)
EZB	eldoLED 0-10V SOLOdrive. Logarithmic dimming to <1%.					E15WCP	IOTA® 15W emergency battery (sidecar)
EDAB[5]	eldoLED SOLOdrive DALI. Logarithmic dimming to <1%.						
EDXB[5,6]	eldoLED POWERdrive DMX with RDM (remote device management). Square Law dimming to <1%. Min: 1000LM; Max: 4000LM						
ECOD[5]	Lutron® EcoSystem® digital Hi-Lume 1% soft-on, fade to black. Max: 4000LM.						
ELV[5]	Electronic line voltage (120V only)						

Control Interface[8]		Options		Architectural Colors - Powder Paint[13]			
(blank)	No controls	SF	Single fuse. Specify 120V or 277V.	DDB	Gloss Dark Bronze	DDBT	Textured Dark Bronze
NLT	nLight® dimming pack.	90CRI	High CRI (90+)	DBL	Matte Black	DBLB	Textured Black
NLTER[9]	nLight® dimming pack for fixtures on emergency circuit	N80	nLight Lumen Compensation	DWH	Gloss White	DWHG	Textured White
NLTAIR2	nLight® AIR dimming pack.	HAO[10]	HAO High Ambient Option (40°C)	DMB	Matte Medium Bronze	DBNH	Textured Bronze
NLTAIRER2[9]	nLight® AIR dimming pack for fixtures on emergency circuit	WL[11]	Wet Location	DNA	Gloss Natural Aluminum	DNAT	Textured Natural Aluminum
		IP66[11,12]	Lensed, IP66 rated	DSS	Gloss Sandstone	DSST	Textured Sandstone
				DGC	Gloss Charcoal Grey	DSPD	Textured Dark Grey
				DTG	Gloss Tennis Green	DSPE	Textured Green
				DBR	Gloss Bright Red	DSPH	Textured Light Red
				DSB	Gloss Steel Blue	DWHAMF	Gloss White with Anti-microbial finish
						RALTBD	Cylinder RAL # TBD (TBD for pricing only)
						CPC	Cylinder Custom Paint Color TBD (TBD for pricing only)

ACCESSORIES — order as separate catalog numbers (shipped separately)	
GCOLORS KIT	Architectural colors chip kit, consisting of powder-coat and plated finishes

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SPECIFICATIONS

Optical Assembly
Fully serviceable and upgradeable lensed LED light engine suitable for field maintenance or service from below the ceiling.
Optical design is a Bounding Ray™ design with 45° cutoff to source and source image. Top down flash characteristic for superior glare control.

Electrical
The luminaire shall operate from a 50 or 60 Hz ±3 Hz AC line over a voltage ranging from 120 VAC to 277 VAC. Support 347V via remote-mounted stepdown transformer. The fluctuations of line voltage shall have no visible effect on the luminous output.
The luminaire shall have a power factor of 90% or greater at all standard operating voltages and full luminaire output.
Sound Rated A+. Driver shall be >80% efficient at full load across all input voltages.
Input wires shall be 18AWG, 300V minimum solid copper.

Controls
Luminaire shall be equipped with interface for nLight wired or nLight AIR networks with integral power supply as per specification.

Emergency
Luminaires supplied with a battery pack comply with NFPA 101 (Life Safety code) and deliver constant light output throughout the 90 minutes of code required emergency operation period when there is a normal AC power loss.
Luminaires equipped with a generator transfer device work in conjunction with an auxiliary generator or a central inverter system to power fixtures for safe egress lighting.

Dimming
The luminaire shall be capable of continuous dimming without perceivable stroboscopic flicker as measured by flicker index (ANSI/IES RP-16-10) over a range of 100 – 10%, 100 – 1.0% or 100 – 0.1% of rated lumen output with a smooth shut off function to step to 0%.
eldoLED LED drivers shall conform to IEEE P1789 standards. Alternatively, manufacturers must demonstrate conformance with product literature and testing which demonstrates this performance. Systems that do not meet IEEE P1789 will not be considered.
Driver is inaudible in 24dB environment, and stable when input voltage conditions fluctuate over what is typically experienced in a commercial environment.

Construction
Heaving-gauge aluminum construction.
Extruded body with flangeless reflector allows flow-through passive thermal management.
Surface ceiling mount for direct installation to 4" recessed or surface octagonal junction box.
Optional field configurable conduit covers available. Conduit covers match cylinder in finish and diameter.
Wall mount can be oriented in up or down position. For wet location, specify WLL for lens.

Listings
Fixtures are CSA Certified to meet US and Canadian Standards: All fixtures manufactured in strict accordance with the appropriate and current requirements of the "Standards for Safety" to UL, damp location standard; wet location options available open under covered ceiling (WL) or lensed (WLL).
Luminaire configurations are Energy Star certified through testing in EPA–recognized laboratories, with the results reviewed by an independent, accredited certification organization. Visit www.energystar.gov for specific configurations listed.

Photometrics
LEDs tested to LM-80 standards. Measured by IESNA Standard LM-79-08 in an accredited lab. Lumen output shall not decrease by more than 30% over the minimum operational life of 60,000 hours.
Color appearance from luminaire to luminaire of the same type and in all configurations, shall be consistent both initially and at 6,000 hours and operate within a tolerance of <2.5 MacAdam ellipse as defined by the center of the quadrangles defined in ANSI C78.377-2015.

BUY AMERICAN ACT
This product is assembled in the USA and meets the Buy America(n) government procurement requirements under FAR, DFARS and DOT regulations. Please refer to www.acuitybrands.com/buy-american for additional information.

Warranty
5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note:
Actual performance may differ as a result of end user environment and application.
All values are design or typical values, measured under laboratory conditions at 25 °C.

A+ Capable Luminaire
This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and out-of-the-box control compatibility with simple commissioning.
- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is part of an A+ Certified solution for nLight® control networks when ordered with drivers marked by a shaded background*
- This luminaire is part of an A+ Certified solution for nLight® control networks, providing advanced control functionality at the luminaire level, when selection includes driver and control options marked by a shaded background*

To learn more about A+, visit www.acuitybrands.com/aplus.
*See ordering tree for details

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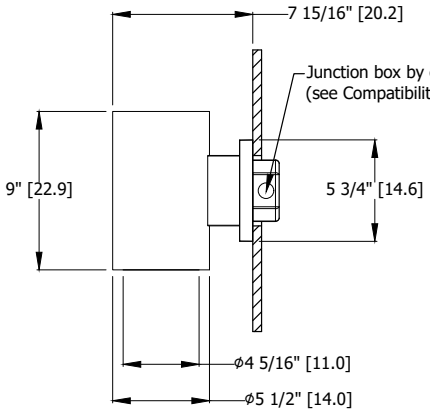
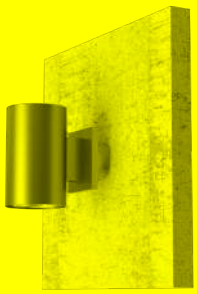
DIMENSIONAL DATA

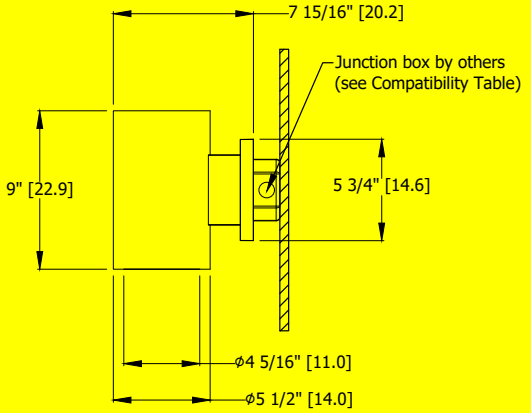
JBX Recessed J-Box



Luminaire can be specified as uplight or downlight

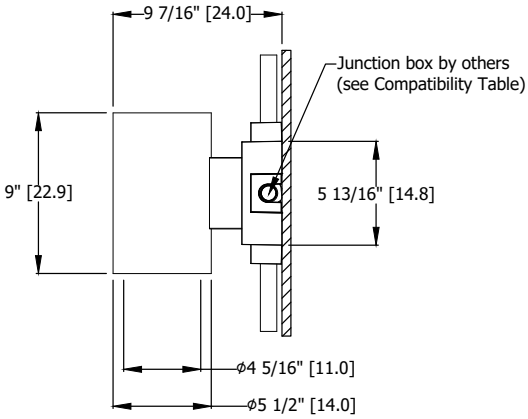
JBX Surface J-Box





Luminaire can be specified as uplight or downlight

JBXCC Surface J-Box with Conduit Covers



Luminaire can be specified as uplight or downlight

*Dimensions in inches [centimeters]