

CITY OF MIAMI BEACH

DRB / HPB MEETING
Bus Shelters

The new bus shelter design is intended to be of an iconic nature and incorporate features enhancing the transit experience of passengers, including innovative modular designs and technology, as well as to enable for installation of bus shelters at more bus stops with high transit ridership. The following sizes are proposed:

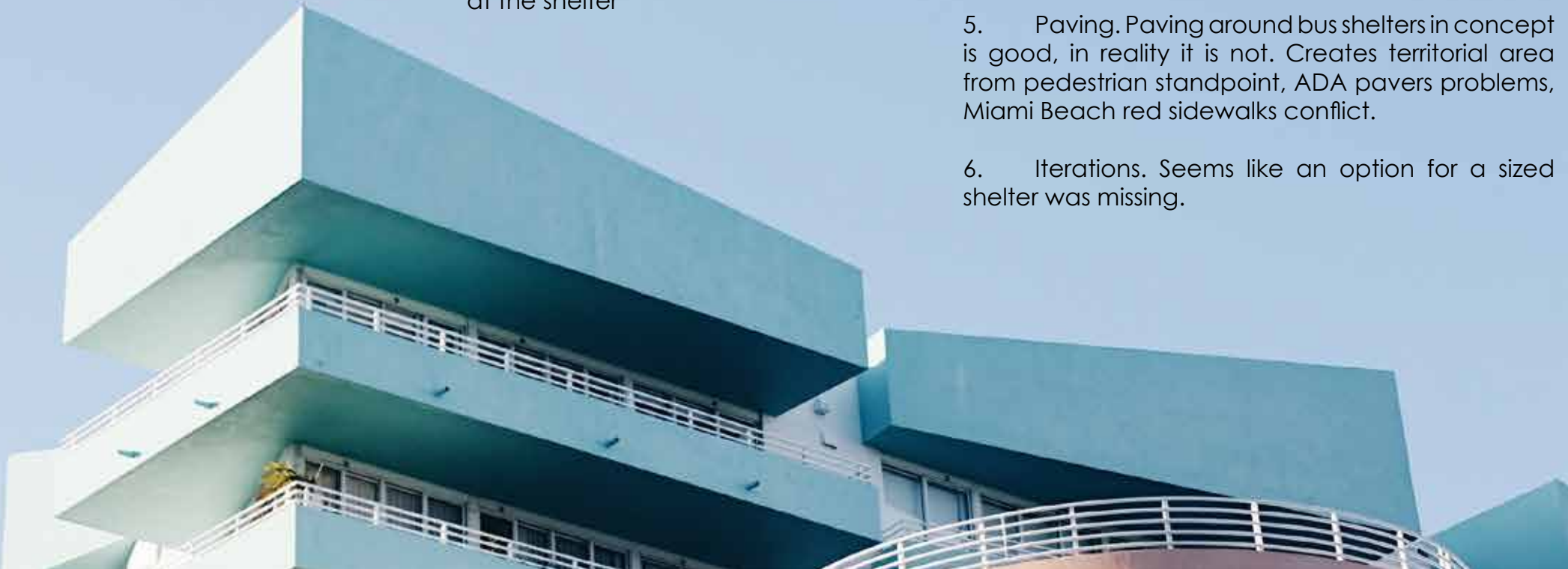
- Standard / Enhanced (20'x6.6')
- Minimal 6.6' (10'x6.6')
- Minimal 3' (10'x3') & Standard / Enhanced 3' (20'x3')
- Temporary (10'x3') (Same as Minimal 3' (10'x3'))

HPB Comments:

1. Roof drainage detailing
2. Fix seating
3. Pervious paving (likely not being pursued)
4. PIS sign perpendicular to the road to see from distance
5. Mock-ups, samples
6. Front to back movement at the shelter

DRB Comments:

1. Drainage on roof, including how is water drained from the roof and where does it go when it hits sidewalk. - Rain (sideways) protection
2. Solar technology... is it current?, How is it installed? Solar cubes/tints on colored cells... questionable
3. White powder-coating. Alternative color scheme should be explored
4. Seating. Very problematic as proposed. Consider folding seats for minimal shelters
5. Paving. Paving around bus shelters in concept is good, in reality it is not. Creates territorial area from pedestrian standpoint, ADA pavers problems, Miami Beach red sidewalks conflict.
6. Iterations. Seems like an option for a sized shelter was missing.





ACAI believes that good architecture is the physical manifestation of good design. We strive to create facilities that reflect a unique synthesis of their mission, functional purpose and express the spirit and personality of their Owner. We are industry leaders in BIM (Building Information Modeling). We utilize our experience to deliver our design work in BIM. As skilled advisors to our Clients, we are committed to answering needs with creative ideas, innovative solutions and well-executed, professional services.

Founded in 1985, ACAI offers a wide range of services including Planning, Architecture, Engineering, Landscape Architecture, Roof Consulting and Construction Management, on virtually all types of projects. Our design work runs the gamut from Master Planning through Construction Administration services for medical, educational, recreational, residential, industrial and commercial facilities. Our Engineering work has focused on Roofing Consulting, including Investigation, Reports, Recommendations and Design. As ACAI is both an Architectural firm and licensed a General Contractor, ACAI brings a unique skill set of design and construction experience. Our Construction Management is truly: Managing of construction.

 = LEED Gold Certified





360 lifestyle design house

Pininfarina is the emblem of the truly Italian style. The expression of **innovation**, **purity** and **elegance** is applied to all the products, from luxury cars, to haute horlogerie, to architecture.

The power of a visionary able to imagine future scenarios, to design and build innovative solutions improving the quality of life.

EXECUTIVE SUMMARY

DRB / HPB Submittal
April 16, 2018

As part of their long-range development plans the City of Miami Beach has proposed to adopt a new, iconic bus shelter design that will enhance the transit experience, improve the quality of transit services in the City and provide a readily identifiable structure representative of and unique to Miami Beach.

To assist in that goal the City retained the services of a team of professionals including ACAI Associates Architects, Pininfarina Design and Engineering, and TLC Engineering to develop a prototype shelter design adaptable to different shelter types required throughout the City based on current and projected ridership. As part of the process in selecting the design for the shelter the team was challenged to provide a series of conceptual designs which are illustrated in this presentation. The selected concepts were further developed as necessary, for the City to select a single design to be further developed and presented. That concept, “Smart – translucency” is the basis of design for this submittal.

- One of the goals for the modular design is its adaptability for use for each of the following shelter types and optional features which are further illustrated in this document.

Minimal Shelter that can be used in locations with limited space, low ridership (less than 50 riders per day) and single family residential locations.

- Standard Shelter – to be used in locations where there is sufficient space and average ridership (50 – 250 riders per day).
- Enhanced Shelter – to be used in locations where there is sufficient space and a large ridership (over 250 riders per day).

Temporary Shelter – currently will take a similar form as the minimal shelter and can be easily installed and removed where existing bus stops are temporarily relocated during construction projects. Further exploration and discussions with the City of Miami Beach Building Department are necessary to see how this shelter can be implemented on the existing sidewalks without substantial foundation work.

Additional elements to be incorporated into the selected concepts particularly for the Standard and Enhanced Shelters include advertising, telecommunication, security, ITS and wireless connectivity systems along with accessibility components including audible and tactile element. A more detailed explanation of the scope of work is as follows:

The new bus shelter design is intended to be of an iconic nature and incorporate features enhancing the transit experience of passengers, including innovative modular designs and technology, as well as to enable for installation of bus shelters at more bus stops with high transit ridership. The following sizes are proposed:

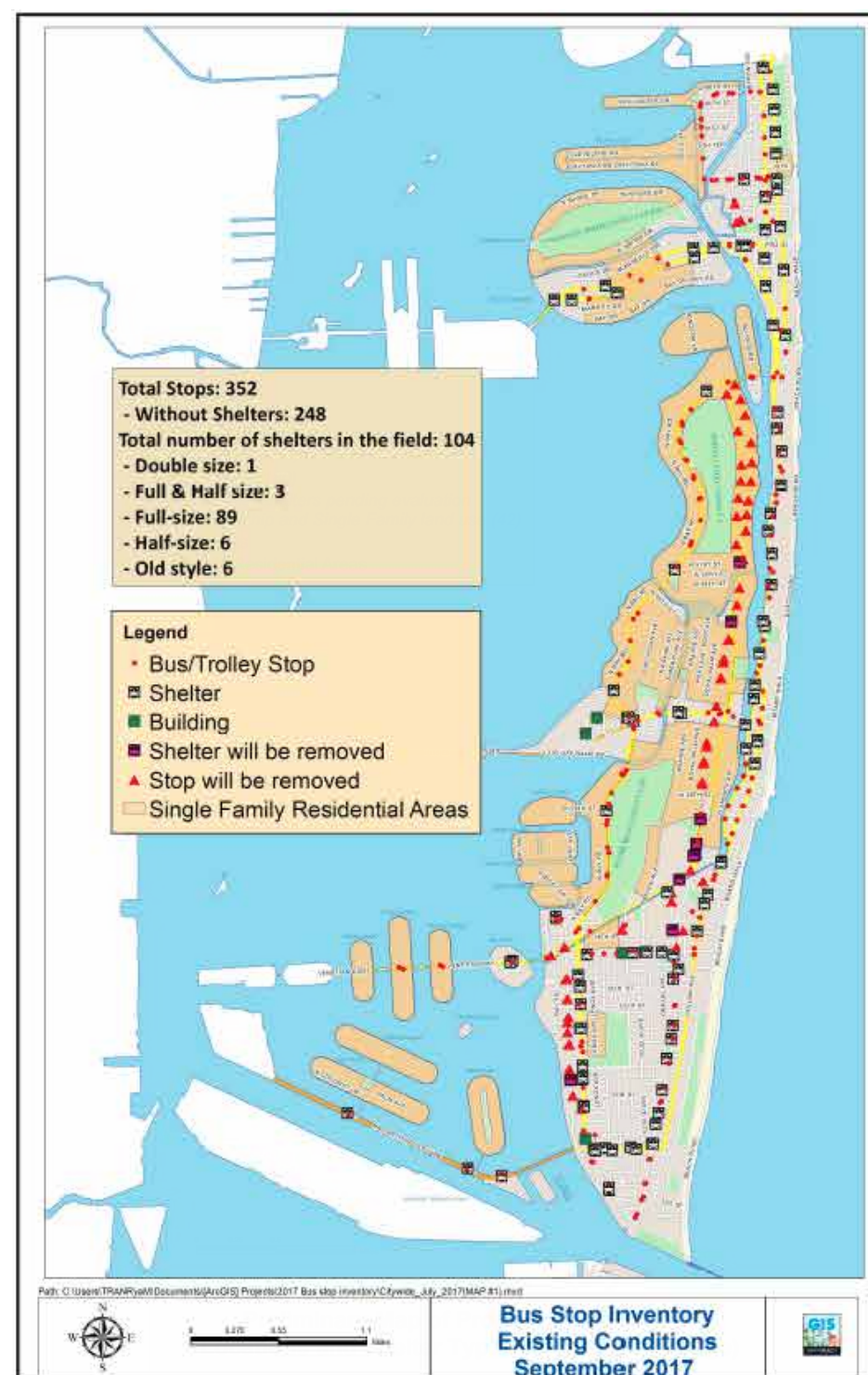
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- Minimal 6.6' (10'x6.6')
- Minimal 3' (10'x3') & Standard / Enhanced 3' (20'x3')
- Temporary (10'x3') (Same as Minimal 3' (10'x3'))

All minimal and standard shelters will potentially have the following amenities:

- Solar powered
- LED lighting
- Passenger panic button
- Real-time bus arrival information and two-way communication
(May be dependent on dedicated electrical connection)

Enhanced shelters will have all the base amenities and potentially the following:

- Dedicated electrical connection
- Security cameras
- An interactive touch screen / digital ad
- Audible annunciation (speakers)
- Wi-Fi hotspot
- Cell phone charging station
- A way-finding totem



Harding & 85th SB (minimal)



Normandy & Rue Granville WB (enhanced)



Collins & 67th NB (minimal)



Collins and 43rd NB (minimal)

OVERVIEW Map of proposed Bus Shelter

Photo documentation of 16 existing stops. (In brackets shelter type)
 Photos Taken: 2017.02.11



Indian Creek & 29th SB (standard)



Collins & 29th SB (temporary)



Collins & 17th SB (enhanced)



Collins & 17th NB (minimal)



Lincoln Rd & Washington EB (enhanced)



Lincoln & Washington WB (enhanced)

Photo documentation of 16 existing stops
 Photos Taken: 2017.08.11



Washington & 9th SB (standard)



Washington & 9th NB (standard)



Washington & 2nd SB (standard)



Washington & 2nd NB (standard)



Alton & 15th SB (standard)



Alton & 15th NB (standard)

Photos Taken: 2017.02.11



Waiting outside of Shelter



Sitting out of shelter



Backside Standing



Confusing Environmental Graphics

RESEARCH Collins Avenue / 22 Street

Discovering and analyzing the current stations in order to understand the request
Photos Taken: 2017.02.11



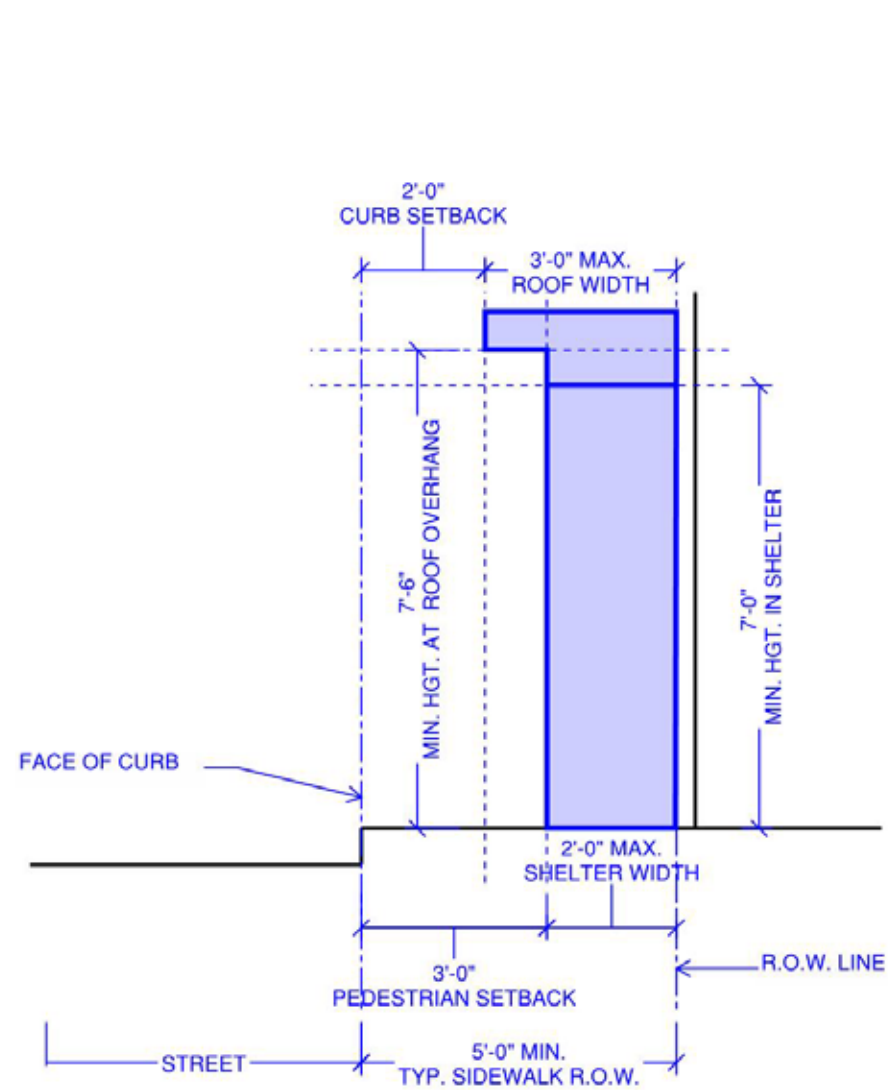
RESEARCH 1020 Alton Rd (Whole Foods)

Discovering and analyzing the current stations in order to understand the request
Photos Taken: 2017.02.11

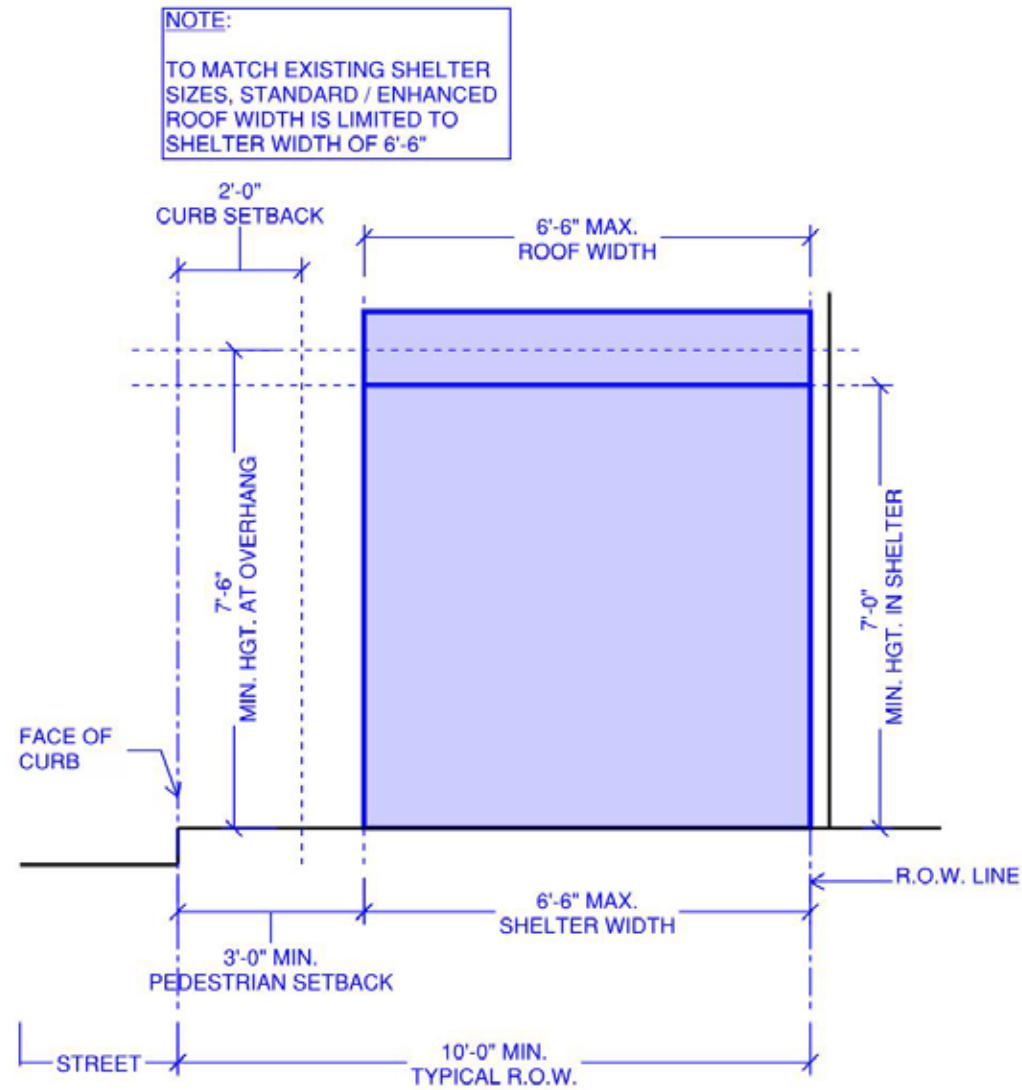


BUS SHELTER CURRENT INVENTORY

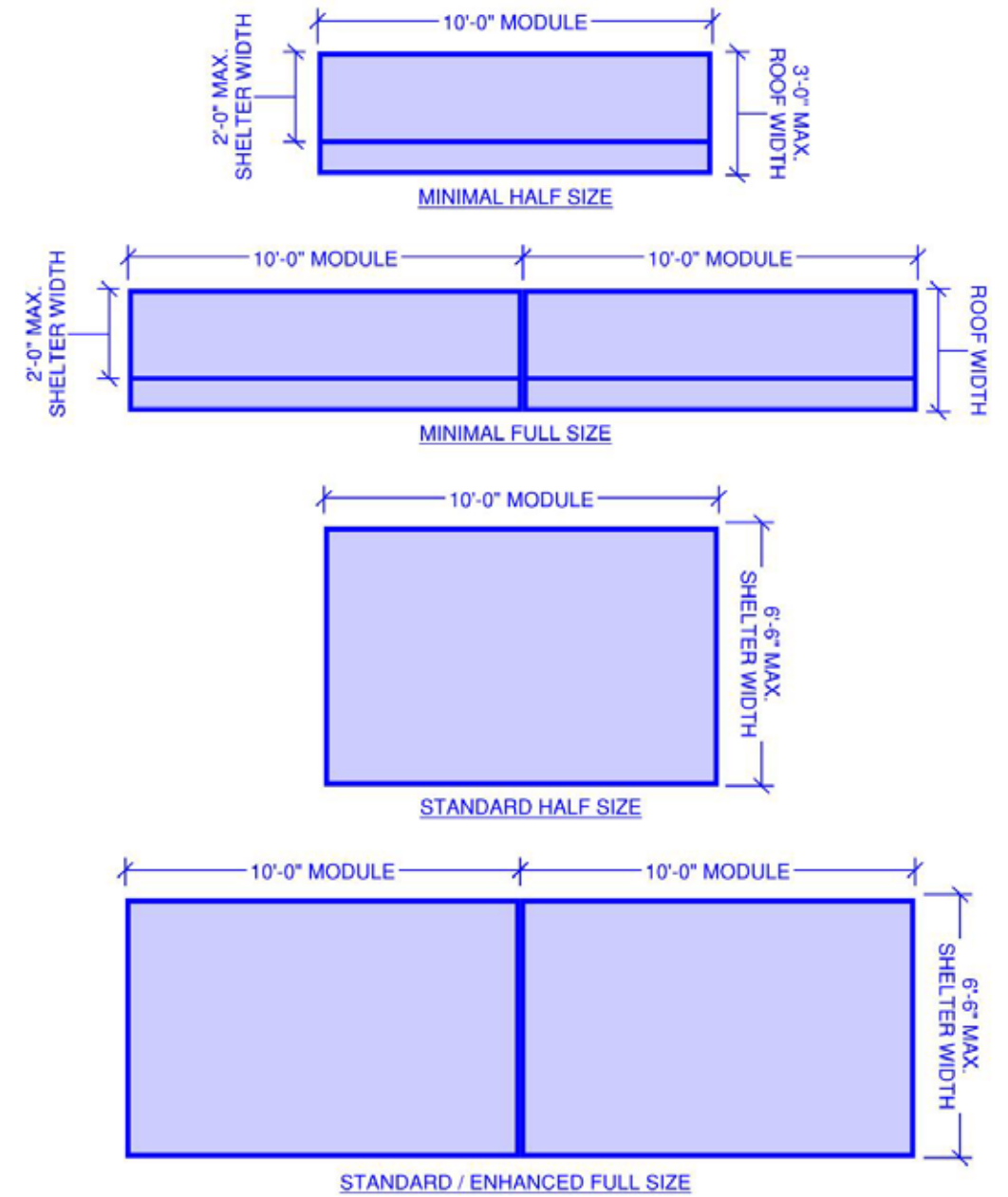
Discovering and analyzing the current stations in order to understand the request.
Photos Taken: 2017.02.11



3' MINIMAL BUS STOP - WIDTH & HEIGHT



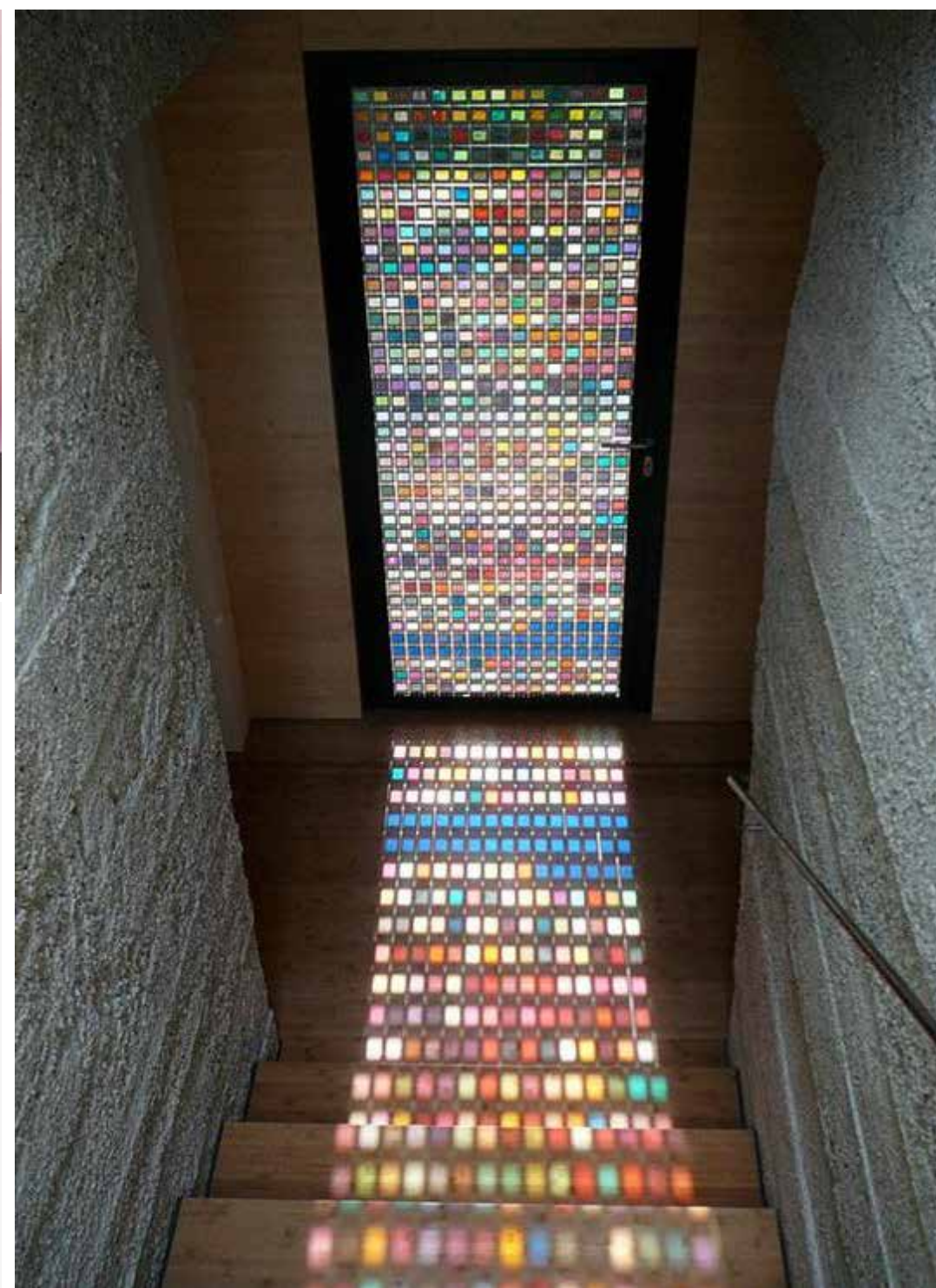
6.6' MINIMAL / STANDARD / ENHANCED BUS STOP - WIDTH & HEIGHT



BUS STOP WIDTH & LENGTH

SPATIAL CONSTRAINS

Requirements



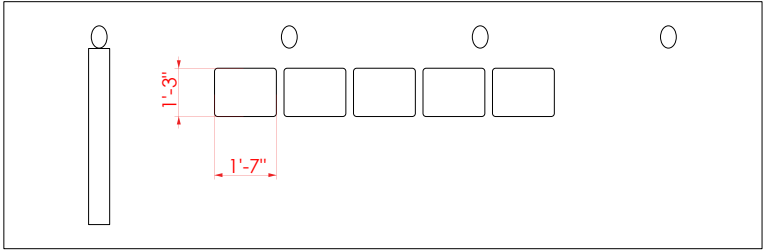
4 Smart - translucency

CONCEPT SELECTED

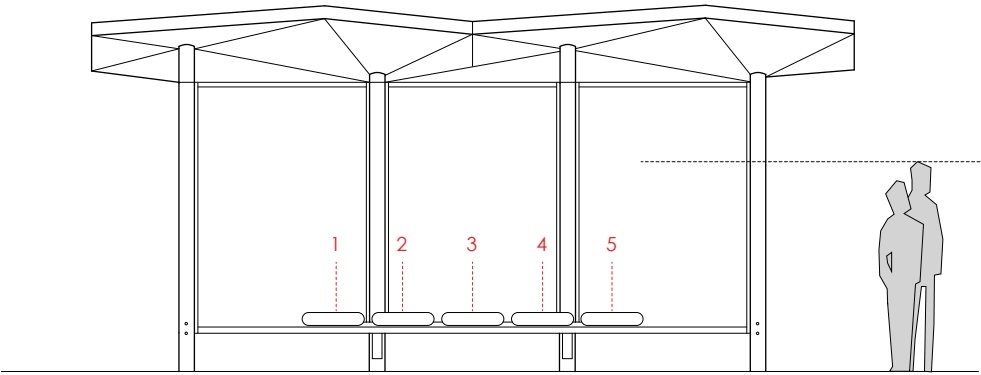
Understanding the light that offers a smart and unique experience for commuters. Statement looking into the future.

EXISTING

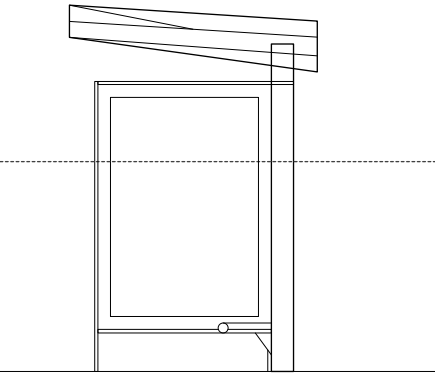
TOP VIEW



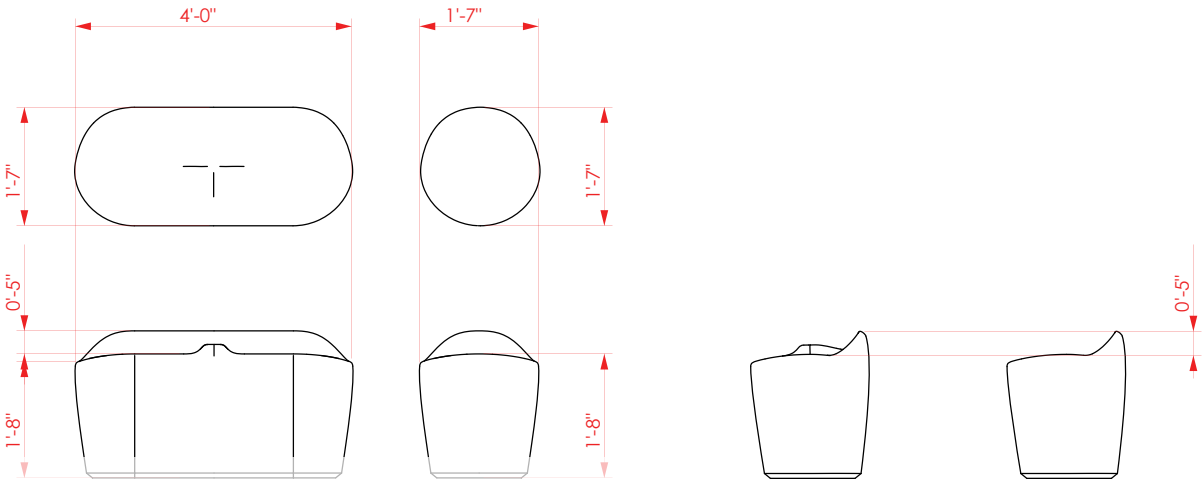
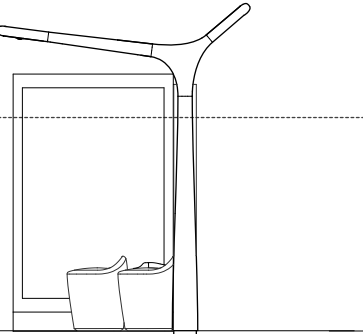
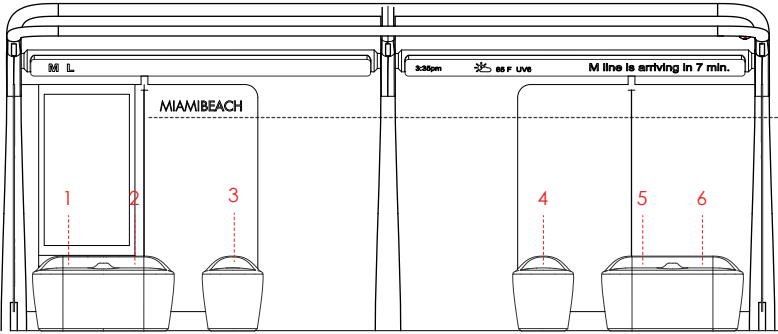
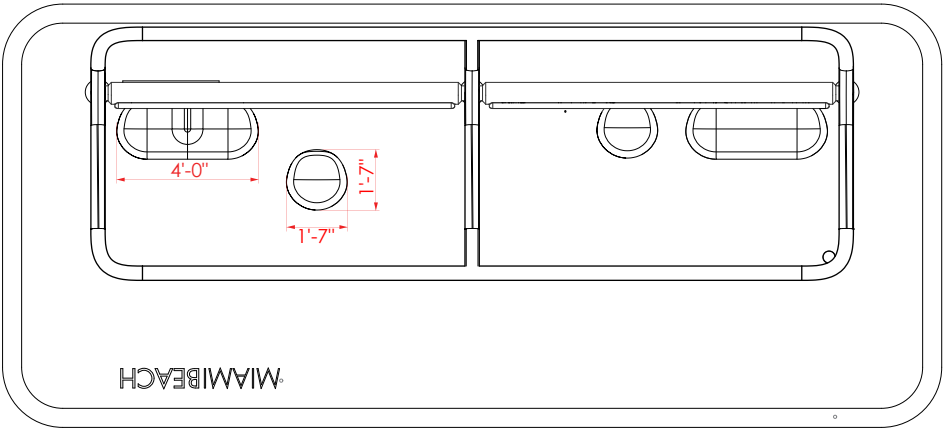
FRONT VIEW



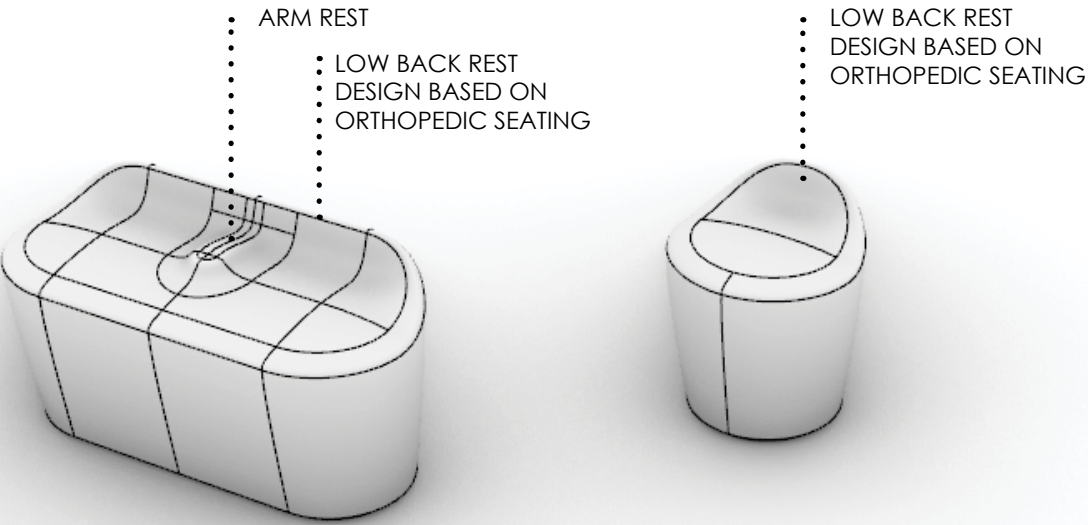
SIDE VIEW



PROPOSED

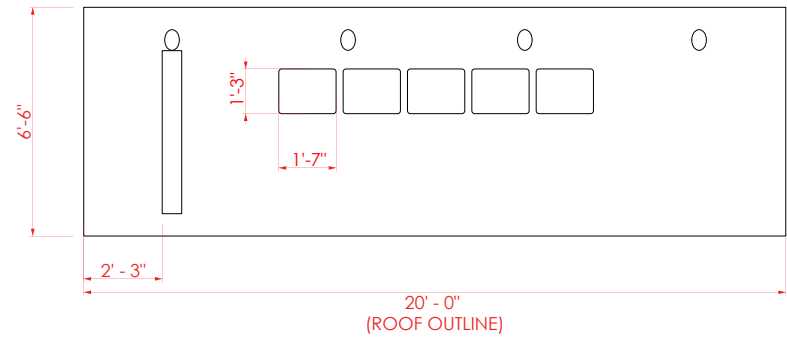


SEATING COMPARISON - Standard / Enhanced - 20' X 6.6'
Existing vs. Proposed

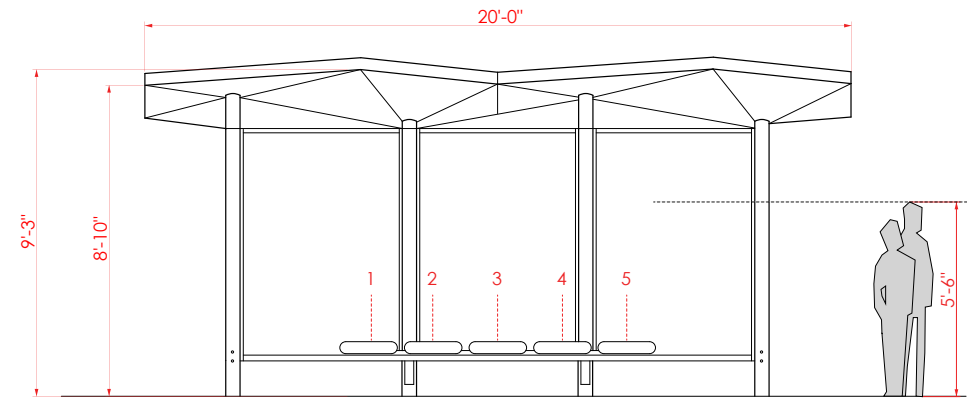


EXISTING

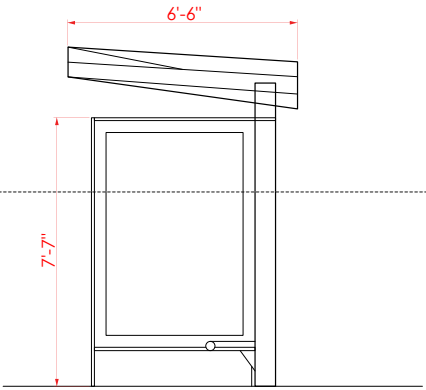
TOP VIEW



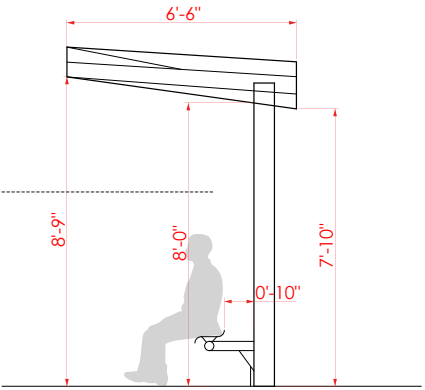
FRONT VIEW



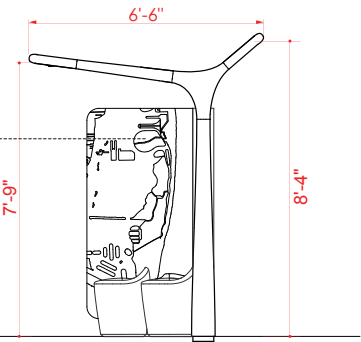
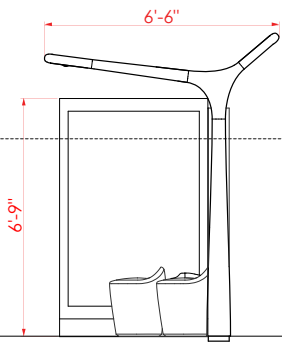
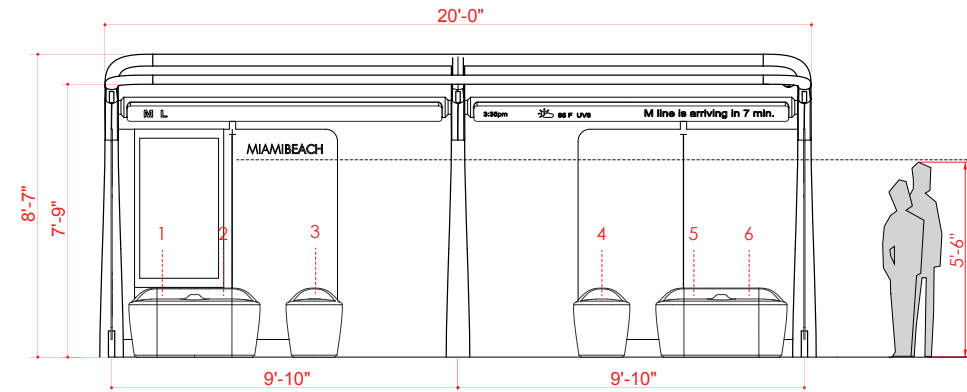
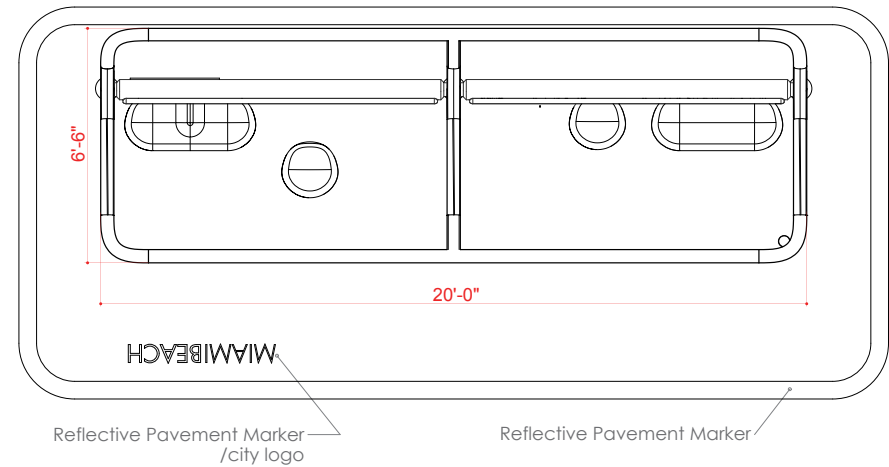
SIDE VIEW WITH 90° ADVERTISEMENT PANEL



SIDE VIEW



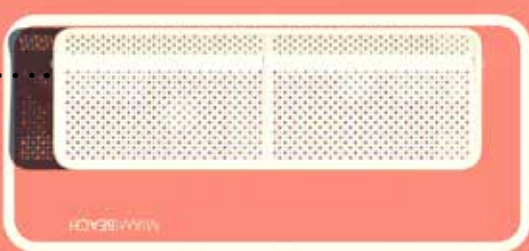
PROPOSED



PROPOSED	EXISTING	
7'-9"	9'-3" @ PEAK 8'-10"@VALLEY	BOTTOM ROOF HEIGHT
20'-0"	20'-0"	LENGTH
6'-6"	6'-6"	DEPTH
6	5	SEATS #

COMPARISON DIMENSIONS - Standard / Enhanced - 20' X 6.6'
Existing vs. Proposed

OPTIONAL
REFLECTIVE PAVEMENT
MARKER



NO BACK GLASS
FOR ADDITIONAL CIRCULATION

OPTIONAL TRANSIT INFORMATION
OPTIONAL SECURITY CAMERA

OPTIONAL TRANSIT I
INFORMATION

OPTIONAL SIDE PANEL

STATION
IDENTIFIER

OPTIONAL
SIDE PANEL

LOW BACK REST
DESIGN BASED ON
ORTHOPEDIC
SEATING DESIGN

OPTIONAL
REFLECTIVE PAVEMENT
MARKER

CONCEPT - Standard / Enhanced - 20' X 6.6'
No Advertisement panel with optional Side Panels

NO BACK GLASS
FOR ADDITIONAL CIRCULATION

OPTIONAL SIDE PANEL

..... OPTIONAL
SIDE PANEL

CONCEPT - Standard / Enhanced - 20' X 6.6'
With 55" Advertisement Panel (Digital or Static)

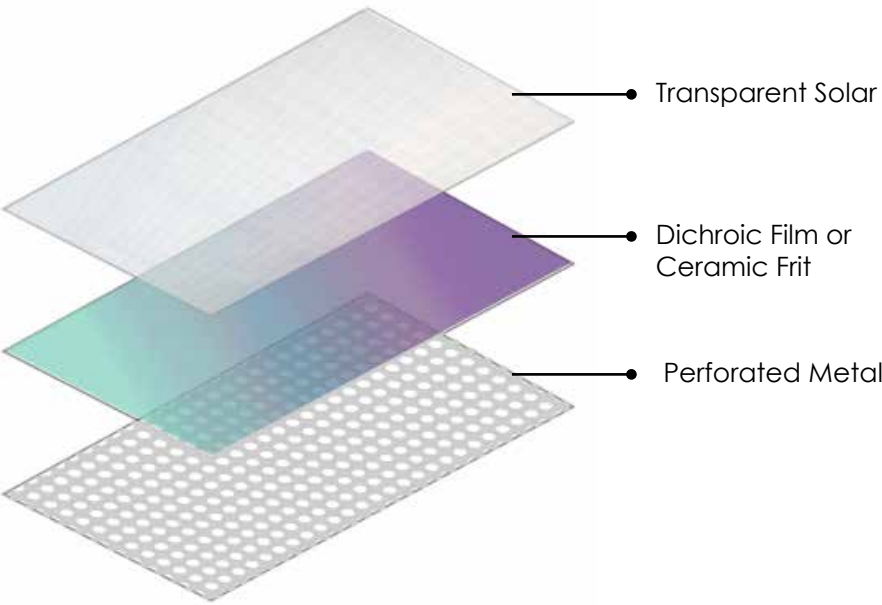
NO BACK GLASS
FOR ADDITIONAL CIRCULATION

OPTIONAL
SIDE PANEL

CONCEPT - Standard / Enhanced - 20' X 6.6'
With 90° 4' x 6' Advertisement Panel (Digital or Static)



ROOF CONCEPT



- 1 GLASS** - Optional Color gradient 3/8" thick, clear tempered glass with mylar film laminated between sheets to block UV rays.
- 1.1 OPTIONAL SIDE GLASS** - Optional Color gradient 3/8" thick, clear tempered glass with mylar film laminated between sheets to block UV rays.
- 2 POSTS + VERTICAL SUPPORTS** - Aluminum cast / White Powder-coated strip aluminum frame with e-coat.
- 3 ROOF** - ONYX SOLAR + GGI - Alice Digital Printing (Ceramic frit is fused into the glass) - See Sample Image (Optional Illuminated)
- 4 SEATING** - Light Color / Low heat absorbent ergonomic design cast stone with Low Back Rest designed based on orthopedic seating.
- 5 LIGHTING** - Linear LED Roof Lighting
LIGHTING - Column Base lighting
- 6 OPTIONAL USB / WIRELESS CHARGER** - Marine-rated
- 7 OPTIONAL 55" DIGITAL DISPLAY / ADVERTISEMENT PANEL**
- 8 OPTIONAL REFLECTIVE PAINT MARKER** - Reflecting Marking Paint
- 9 OPTIONAL MARKER FLOOR** - City Logo
- 10 SERVICE MAP / STATION IDENTIFIER / CITY LOGO**
- 11 OPTIONAL PIS SYSTEM**
- 12 OPTIONAL SECURITY CAMERA**

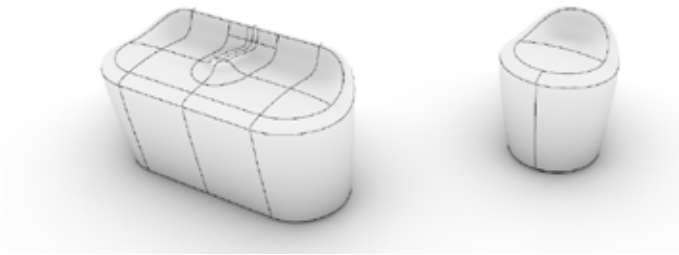
GGI



ROOF CONCEPT MATERIALS



ERGONOMIC DESIGN BASED ON ORTHOPEDIC CONSIDERATIONS



ESCOFET



CONCEPT - Standard / Enhanced - 20' X 6.6'

Materials



CONCEPT- Standard / Enhanced - 20' X 6.6'
SHELTER ON SITE DAY TIME WITH 55" ADVERTISEMENT PANEL (DIGITAL OR STATIC)
2018.04.11 - COLLINS AV & 22ST



CONCEPT- Standard / Enhanced - 20' X 6.6'
SHELTER ON SITE DAY TIME WITH 55" ADVERTISEMENT PANEL (DIGITAL OR STATIC)
2018.04.11 - COLLINS AV & 22ST



EXISTING

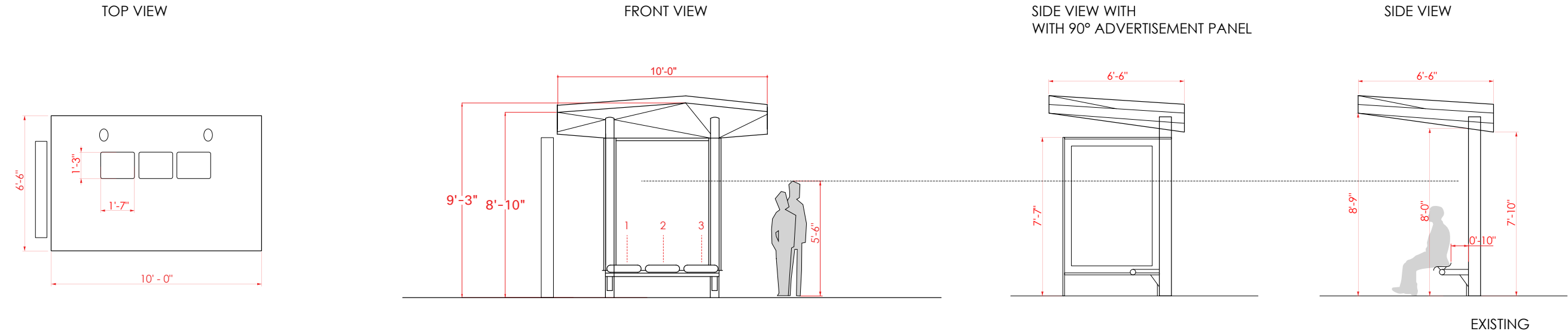


SHELTER CONCEPT IN CONTEXT

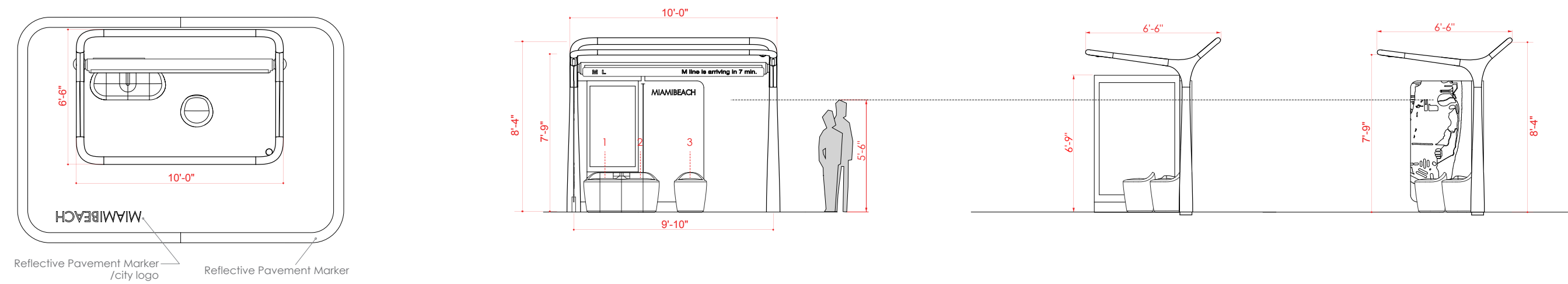
CONCEPT COMPARISON - Standard / Enhanced - 20' X 6.6'

Shelter on site day time With 55" Advertisement Panel (Digital or Static)
2018.04.11 - COLLINS AV & 22ST

EXISTING



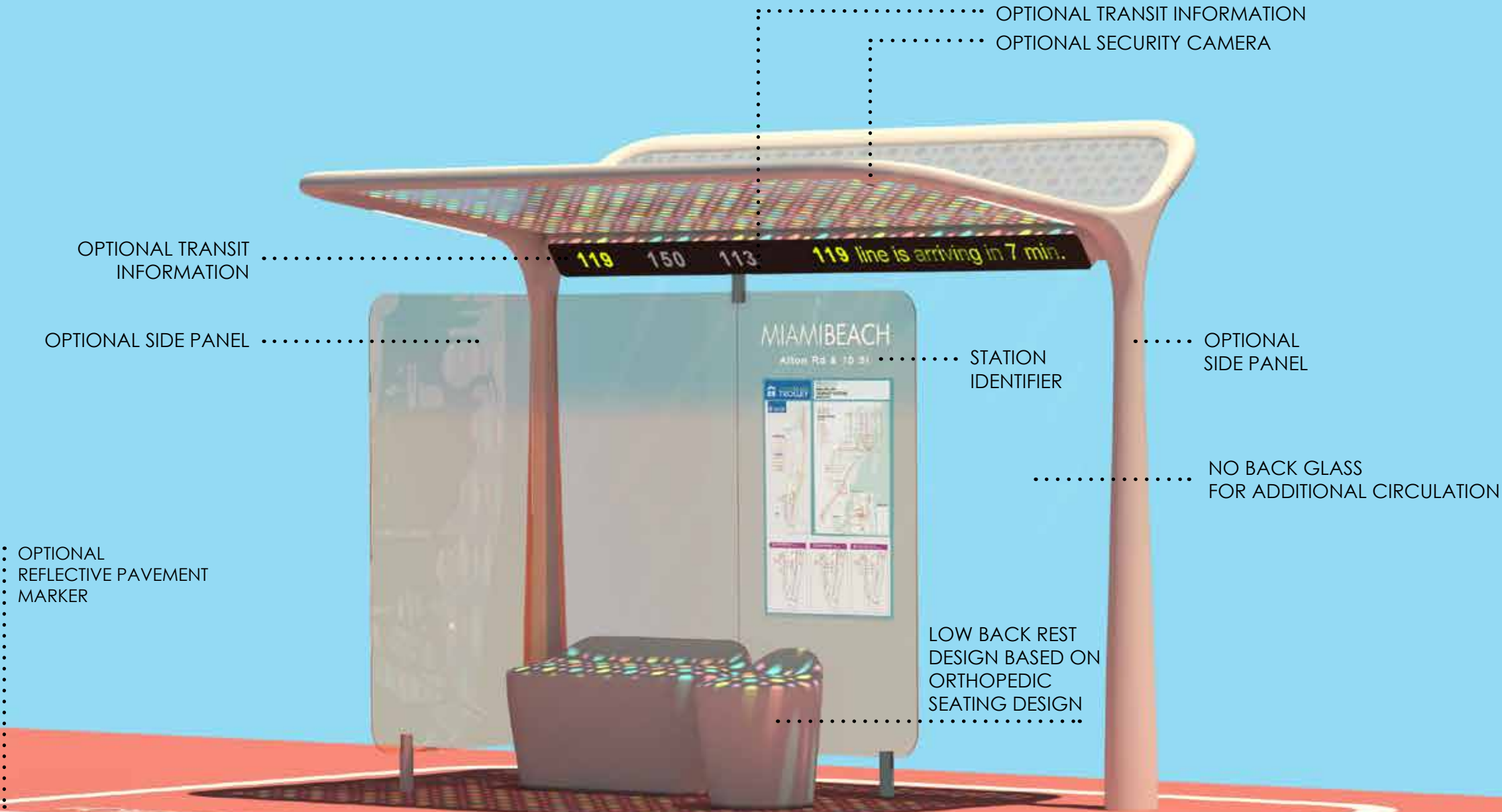
PROPOSED



PROPOSED	EXISTING	
7'-9"	9'-3" @ PEAK 8'-10"@VALLEY	BOTTOM ROOF HEIGHT
10'-0"	10'-0"	LENGTH
6'-6"	6'-6"	DEPTH
3	3	SEATS #

COMPARISON DIMENSIONS - Minimal - 10'x 6.6'
Existing vs. Proposed

OPTIONAL
REFLECTIVE PAVEMENT
MARKER



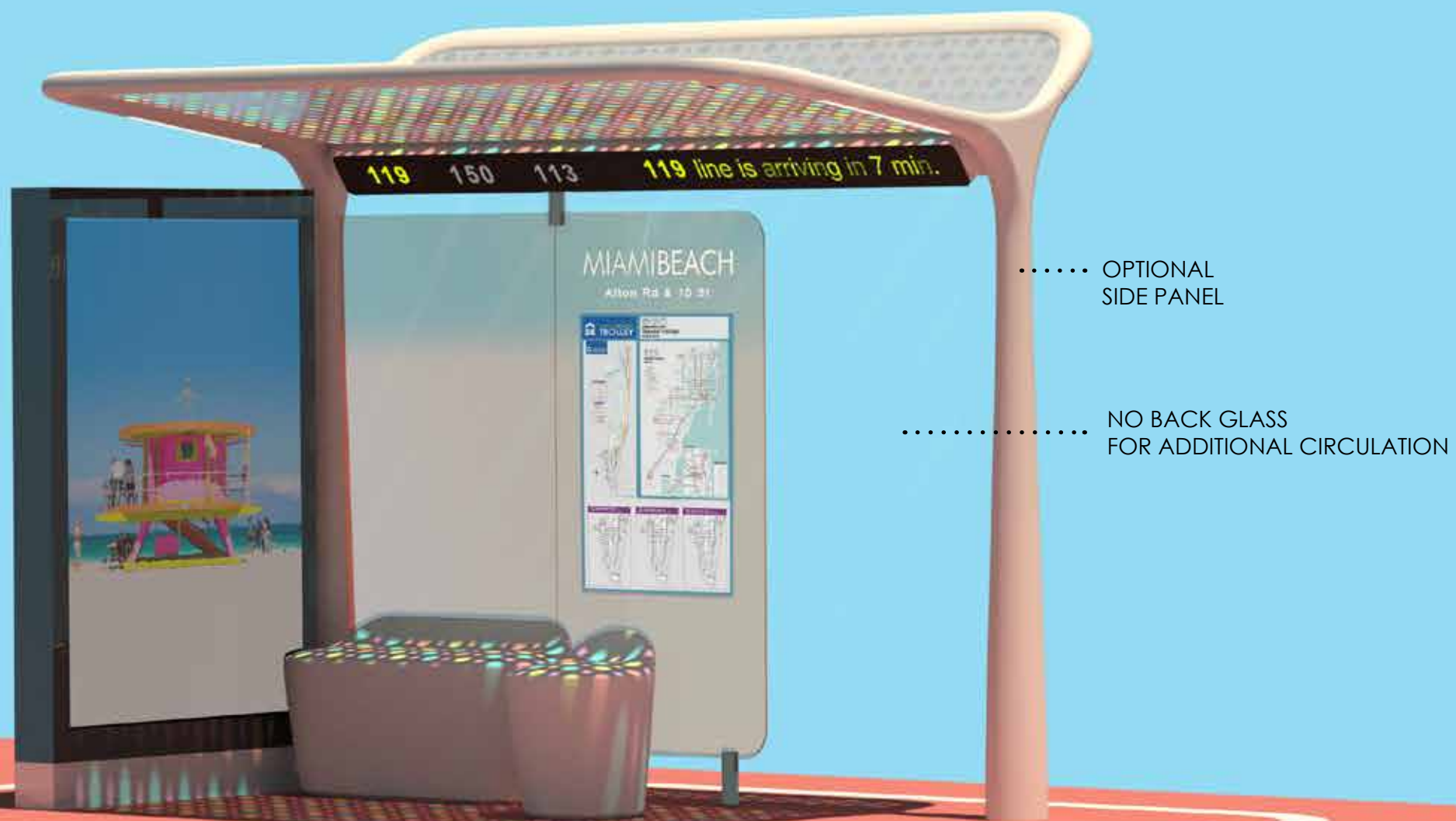
CONCEPT - Minimal - 10'x 6.6'
No Advertisement panel

OPTIONAL SIDE PANEL

..... OPTIONAL
SIDE PANEL

..... NO BACK GLASS
FOR ADDITIONAL CIRCULATION

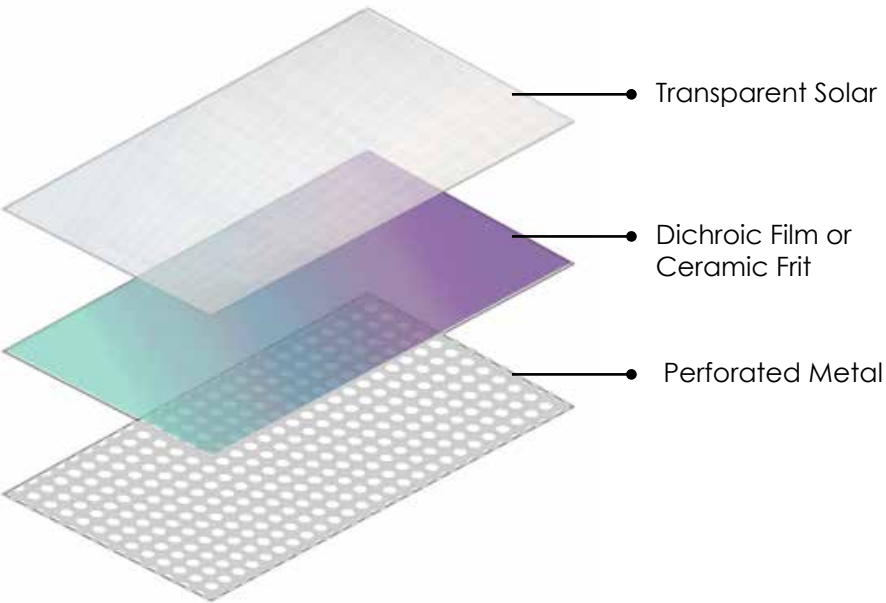
CONCEPT - Minimal - 10'x 6.6'
With 55" Advertisement Panel (Digital or Static)



CONCEPT - Minimal - 10'x 6.6'
With 90° 4' x 6' Advertisement Panel (Digital or Static)



ROOF CONCEPT



- 1 GLASS** - Optional Color gradient 3/8" thick, clear tempered glass with mylar film laminated between sheets to block UV rays.
- 1.1 OPTIONAL SIDE GLASS** - Optional Color gradient 3/8" thick, clear tempered glass with mylar film laminated between sheets to block UV rays.
- 2 POSTS + VERTICAL SUPPORTS** - Aluminum cast / White Powder-coated strip aluminum frame with e-coat.
- 3 ROOF** - ONYX SOLAR + GGI - Alice Digital Printing (Ceramic frit is fused into the glass) - See Sample Image (Optional Illuminated)
- 4 SEATING** - Light Color / Low heat absorbent ergonomic design cast stone with Low Back Rest designed based on orthopedic seating.
- 5 LIGHTING** - Linear LED Roof Lighting
- 6 OPTIONAL USB / WIRELESS CHARGER** - Marine-rated
- 7 OPTIONAL 55" DIGITAL DISPLAY / ADVERTISEMENT PANEL**
- 8 OPTIONAL REFLECTIVE PAINT MARKER** - Reflecting Marking Paint
- 9 OPTIONAL MARKER FLOOR** - City Logo
- 10 SERVICE MAP / STATION IDENTIFIER / CITY LOGO**
- 11 OPTIONAL PIS SYSTEM**
- 12 OPTIONAL SECURITY CAMERA**

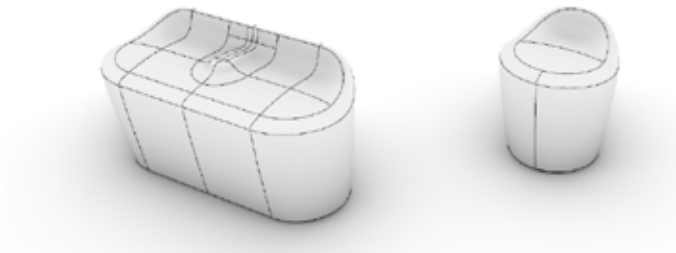
GGI



ROOF CONCEPT MATERIALS



ERGONOMIC DESIGN BASED ON ORTHOPEDIC CONSIDERATIONS



ESCOFET



CONCEPT - Minimal - 10'x 6.6'

Materials

CONCEPT DESIGN NOT FOR CONSTRUCTION



CONCEPT – Minimal - 10'x 6.6'
Shelter on site residential area With 55" Advertisement Panel (Digital or Static)
2018.04.11 - ALTON RD. & NORTH BAY RD.



EXISTING



SHELTER CONCEPT IN CONTEXT

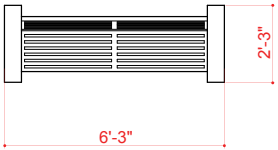
CONCEPT COMPARISON - Minimal - 10'x 6.6'

Shelter on site residential area With 55" Advertisement Panel (Digital or Static)
2018.04.11 - ALTON RD. & NORTH BAY RD.

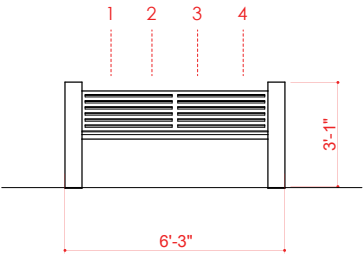
Pending size evaluation
due to low ridership and Single Family

EXISTING

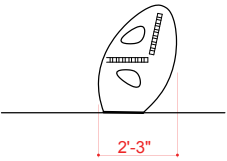
TOP VIEW



FRONT VIEW

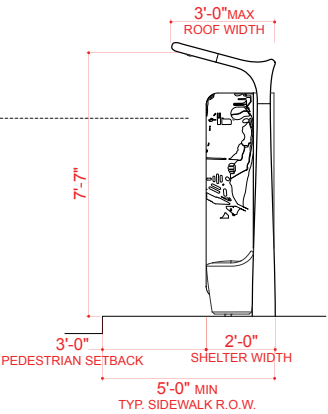
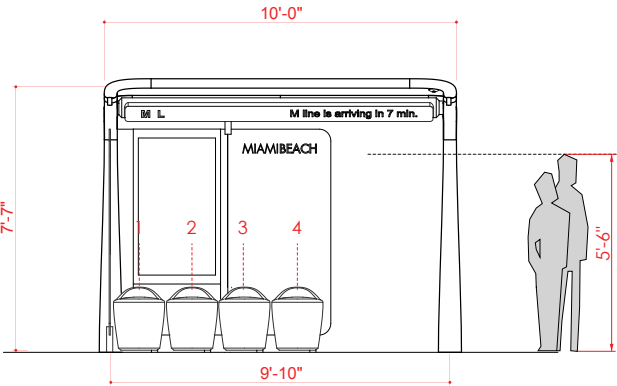
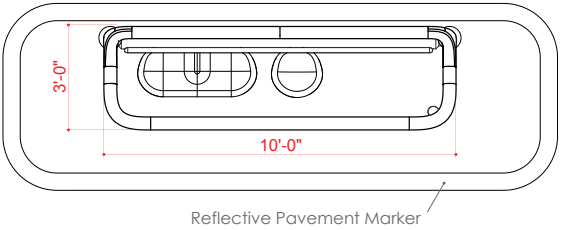


SIDE VIEW

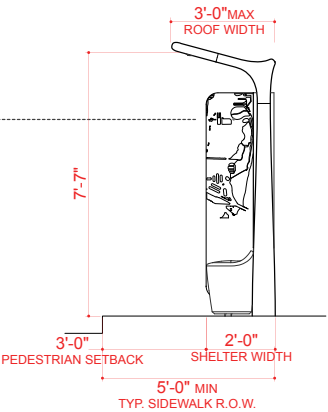
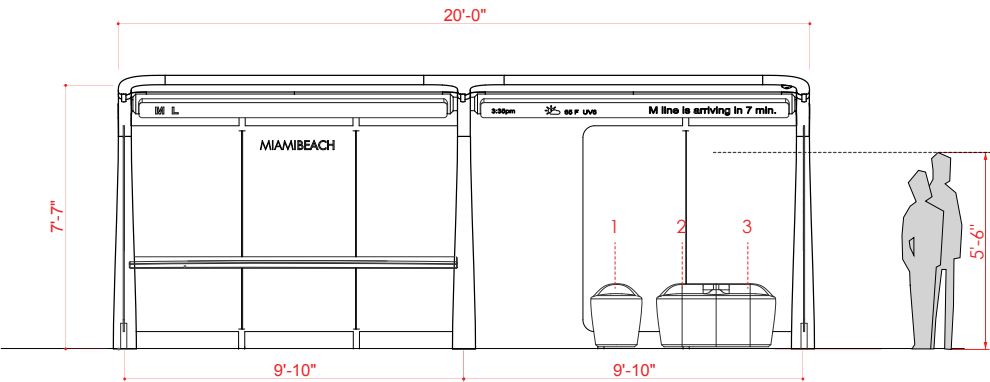
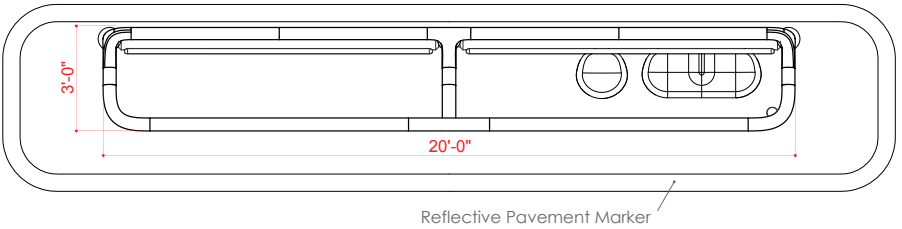


PROPOSED

Minimal 3' (10'x3')

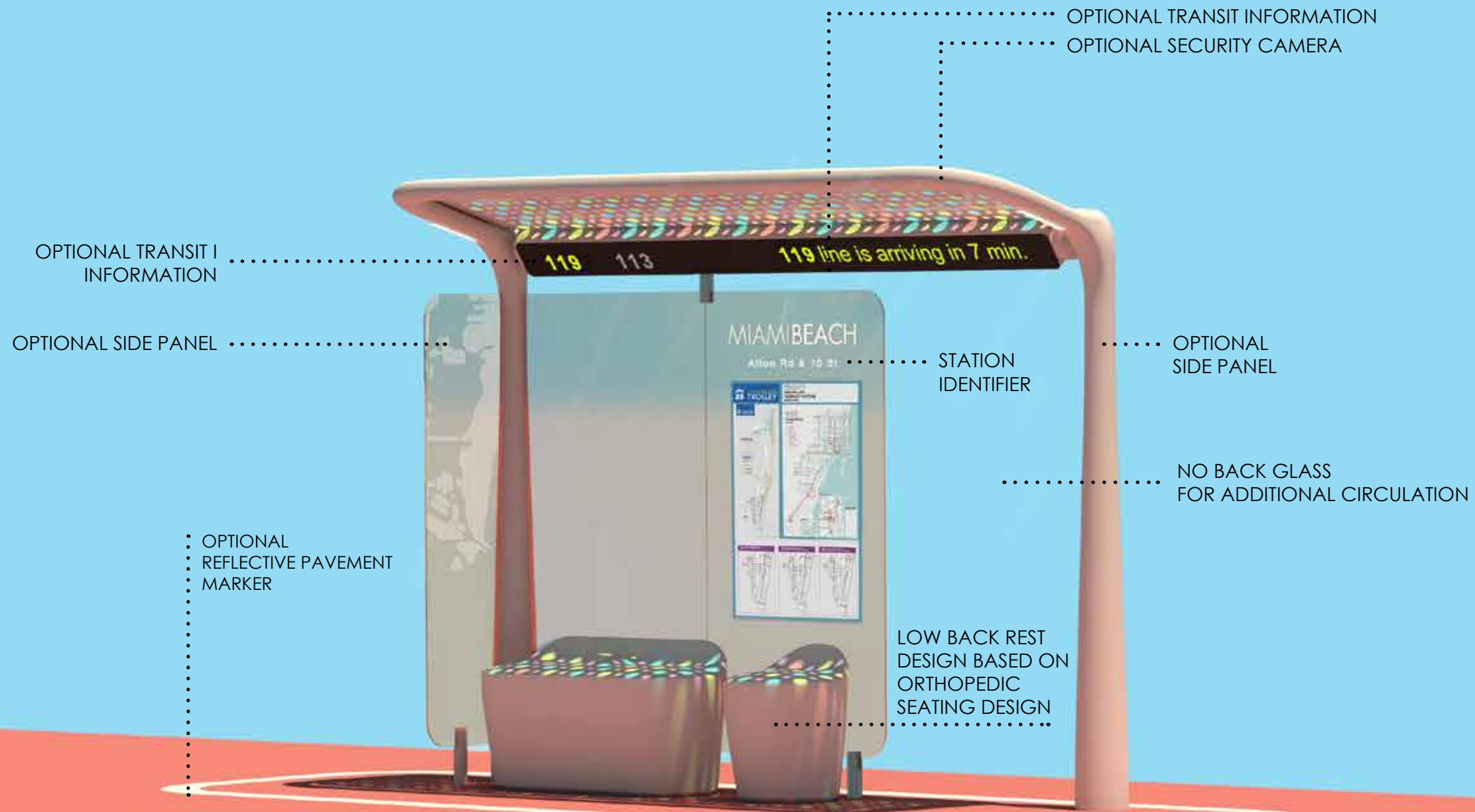


Standard / Enhanced 3' (20'x3')



COMPARISON DIMENSIONS - Minimal 3' (10'x3') & Standard / Enhanced 3' (20'x3') Existing vs. Proposed

PROPOSED STANDARD / ENHANCED (20'x3') 7'-9"	PROPOSED MINIMAL (10'x3')	EXISTING	
7'-9"	7'-9"	9'-3" @ PEAK	BOTTOM ROOF
20'-0"	20'-0"	8'-10" @ VALLEY	HEIGHT
3'	3'	20'-0"	LENGTH
LEANING RAIL + 3 or 6 IF NO LEANING RAIL	6	6'-6"	DEPTH
		5	SEATS #



CONCEPT - Minimal 3' (10'x3')
With no Advertisement Panel



CONCEPT - Minimal 3' (10'x3')

With 55" Advertisement Panel (Digital or Static)



CONCEPT - Minimal 3' (10'x3')

No Advertisement panel with optional Side Panels



CONCEPT - Standard / Enhanced 3' (20'x3')

With 55" Advertisement Panel (Digital or Static) with optional Leaning rail or seating configuration



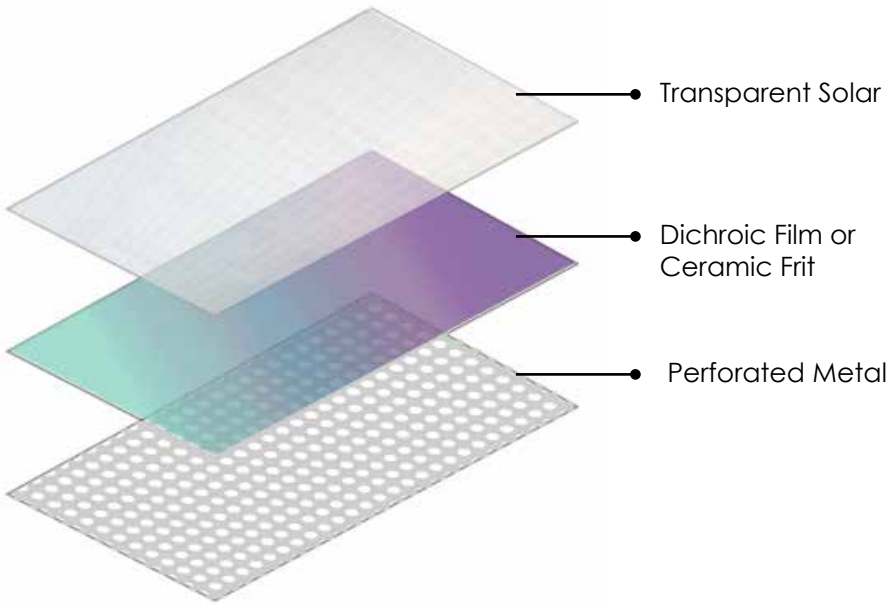
- 1 GLASS** - Optional Color gradient 3/8" thick, clear tempered glass with mylar film laminated between sheets to block UV rays.
- 1.1 OPTIONAL SIDE GLASS** - Optional Color gradient 3/8" thick, clear tempered glass with mylar film laminated between sheets to block UV rays.
- 2 POSTS + VERTICAL SUPPORTS** - Aluminum cast / White Powder-coated strip aluminum frame with e-coat.
- 3 ROOF** - ONYX SOLAR + GGI - Alice Digital Printing (Ceramic frit is fused into the glass) - See Sample Image (Optional Illuminated)
- 4 SEATING** - Light Color / Low heat absorbent ergonomic design cast stone with Low Back Rest designed based on orthopedic seating.

- 5 LIGHTING** - Linear LED Roof Lighting
LIGHTING - Column Base lighting
- 6 OPTIONAL USB / WIRELESS CHARGER** - Marine-rated
- 7 OPTIONAL 55" DIGITAL DISPLAY / ADVERTISEMENT PANEL**
- 8 OPTIONAL REFLECTIVE PAINT MARKER** - Reflecting Marking Paint
- 9 OPTIONAL MARKER FLOOR** - City Logo
- 10 SERVICE MAP / STATION IDENTIFIER / CITY LOGO**
- 11 OPTIONAL PIS SYSTEM**
- 12 OPTIONAL SECURITY CAMERA**

CONCEPT - Minimal 3' (10'x3')

Materials

ROOF CONCEPT



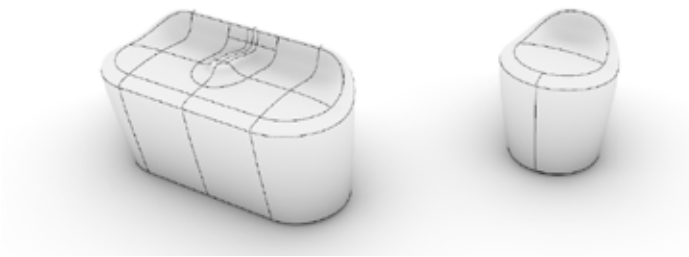
GGI



ROOF CONCEPT MATERIALS



ERGONOMIC DESIGN BASED ON ORTHOPEDIC CONSIDERATIONS



ESCOFET





CONCEPT - Minimal 3' (10'x3')
Shelter on site day time
2018.04.11

Example Bus Shelter in a reduce sidewalk area



EXISTING



SHELTER CONCEPT IN CONTEXT

CONCEPT COMPARISON - Minimal 3' (10'x3')

Shelter on site day time
2018.04.11

Example Bus Shelter in a reduce sidewalk area

9/16" LAMINATED IMPACT GLAZING
WITH INTEGRATED TRANSLUCENT PV
CELLS; DIACHROMATIC COLOR FILM
APPLIED TO UNDERSIDE OF GLAZING

ALUM ANGLE TO HOLD
GLAZING

ALUMINUM CROSS-TUBE

ALUMINUM TUBE
BEYOND, TYP.

ALUMINUM PANEL WITH
PERFORATED HOLES
INSTALLED UNDERNEATH
GLAZING

ALUMINUM CROSS-TUBE

ALUM ANGLE TO HOLD
GLAZING

9/16" LAMINATED IMPACT GLAZING
WITH INTEGRATED TRANSLUCENT PV
CELLS; DIACHROMATIC COLOR FILM
APPLIED TO UNDERSIDE OF GLAZING

SLOPE

ALUMINUM PANEL WITH
PERFORATED HOLES
INSTALLED UNDERNEATH
GLAZING

ALUM ANGLE TO HOLD GLAZING

INTEGRATED ALUMINUM GUTTER,
SLOPED TO NON-POWERED
COLUMN FOR DRAINAGE

EXTENT OF GUTTER SLOPE

BATTERY ACCESS PANEL

PV BATTERY AND TRAY

SLOPE

PASSENGER INFORMATION SYSTEM
(P.I.S.), SINGLE LINE DISPLAY

ELECTRICAL AND DATA CONDUITS

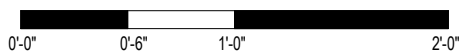
STRUCTURAL CROSS-MEMBER

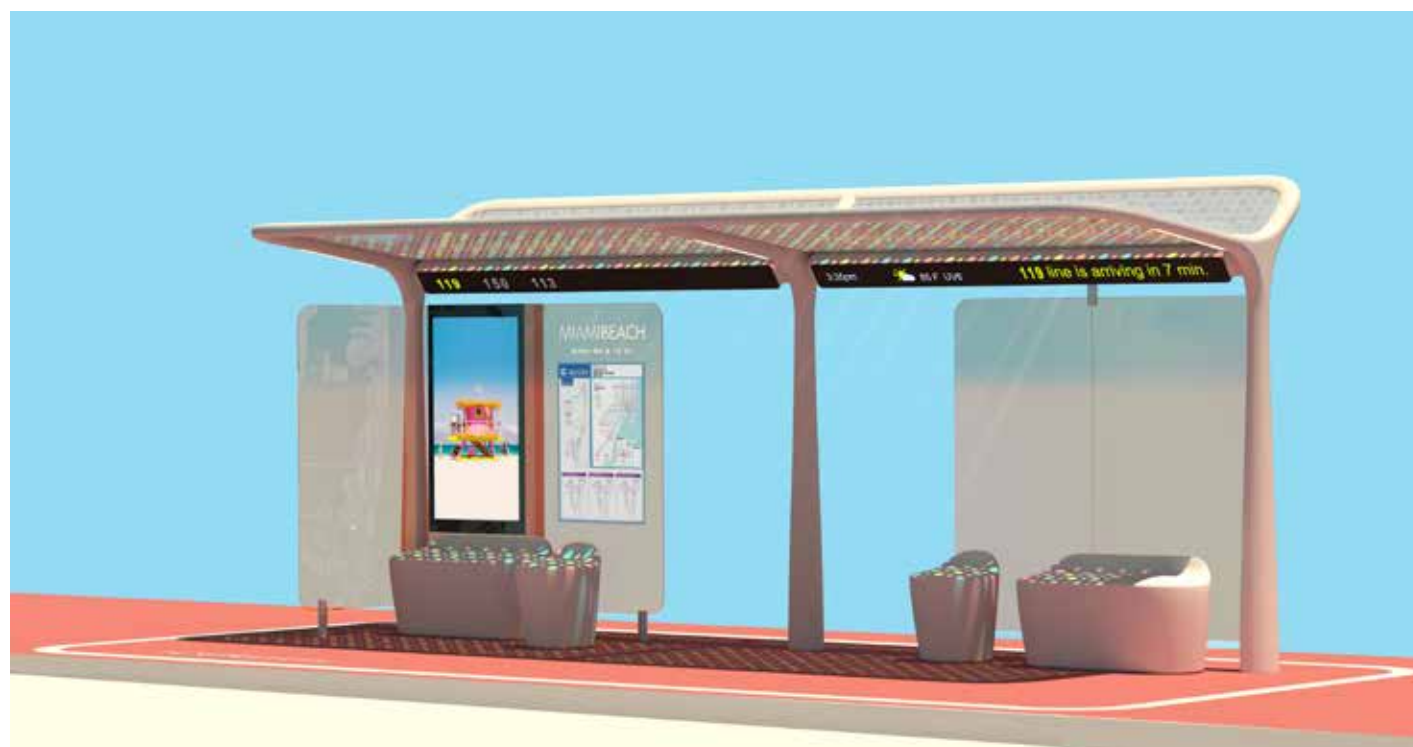
CUSTOM SHAPED ALUMINUM HOUSING

9/16" LAMINATED IMPACT
GLAZING, TINTED

TYPICAL ROOF CROSS SECTION

SCALE:





STANDARD / ENHANCED
20'X6.6'



MINIMAL 6.6'
10'X6.6'



STANDARD / ENHANCED 3'
20'X3'



MINIMAL 3'
10'X3'

CONCEPT SIZE COMPARISON

CITY OF MIAMI BEACH

Thank you

