

PININFARINA BUS SHELTERS

CITY WIDE PROTOTYPES - MIAMI BEACH, FL

100% CD's

07.03.2019

BOARD OF COMMISSIONERS		PROJECT TEAM			
MAYOR DAN GELBER					
COMMISIONER - SEAT 1 MICKY STEINBERG					
COMMISIONER - SEAT 2 MARK SAMUELIAN					
COMMISIONER - SEAT 3 MICHAEL GONGORA			Ē	ARCHITECT OF RECORD:	
COMMISIONER - SEAT 4 JOY MALAKOFF	MIAMIBEACH	ENGINEERING FOR ARCHITECTURE	pininfarina	associates, in carchitecture engineering roofing consulting construction management	
COMMISIONER - SEAT 5 RICKY ARRIOLA	OWNER CITY OF MIAMI BEACH	M.E.P.F. ENGINEER TLC ENGINEERING FOR ARCHITECTURE 5757 Blue Lagoon Drive, Suite 400 Miami, FL 33126	ARCHITECTURAL DESIGNER PININFARINA OF AMERICA CORP. 501 Brickell Key Drive, Suite 200 Miami, FL 33131	AAC001323 EB0004379 CGC010769 2937 W. Cypress Creek Rd., Suite 200 Fort Lauderdale, FL 33309 Tel: 954.484.4000 Fax: 954.484.5588 www.acaiarchitects.com PROFESSIONAL IN CHARGE	
VICE MAYOR - SEAT 6 JOHN ELIZABETH ALEMAN		TEL: 305-263-3863	TEL: 305-424-1653	ADOLFO J. COTILLA, JR., AIA REGISTRATION NUMBER AR-0008011 ACAI PRO	SEAL OJECT NUMBER: 17-012 G01

3/2019 10:53:57 AM

WALL / PARTIAL SECTION PROJECT TEAM PROFESSIONAL IN CHARGE ADOLFO J. COTILLA, JR., AIA REGISTRATION-AR-0008011 NUMBER APPROVED BY D E S I G N E D B Y PININFARINA / ACAI D R A W N B Y CHECKEDBY ----MASONRY PLYWOOD WOOD STEEL DESIGN CONSULTANT ALUMINUM 100% CDs 07/03/19 07/03/19 07/03/19 PININFARINA BUS 07/03/19 SHELTERS 07/03/19 CITY OF MIAMI BEACH 07/03/19 . ------07/03/19 07/03/19 **GENERAL NOTES** 100% CDs 07/03/19 07/03/19 07/03/19 SHEET TITLE 07/03/19 07/03/19 07/03/19 07/03/19 07/03/19 07/03/19 07/03/19 07/03/19 architecture engineering 100% CDs roofing consulting 07/03/19 construction management 07/03/19 AAC001323 · EB0004379 · CGC010769 07/03/19 2937 W. Cypress Creek Rd., Suite 200 Fort Lauderdale, Florida 33309 07/03/19 Tel: 954.484.4000 · Fax: 954.484.5588 www.acaiarchitects.com 07/03/19 ARCHITECT OF RECORD

17-012 G01

PROJECT NUMBER

SHEET NUMBER TO THE BEST OF MY KNOWLEDGE AND ABILITY THESE PLANS ARE COMPLETE AND COMPLY WITH THE APPLICABLE BUILDING CODES **COPYRIGHT 2018 BY ACAI ASSOC., INC.**

S U B

PHASE

DESCRIPTION

100% CD's

PERMIT SET REVISED

MITTALS

REVISIONS

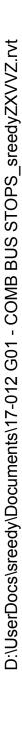
DESCRIPTION

DATE

07.03.2019

07.22.2019

DATE



NEAR SIDE CLOSURE OPTIONS BASE OPTION (SOLID LINE):

DOUBLE-FACED STATIC AD BOX

DOUBLE-FACED DIGITAL AD BOX

DOUBLE-FACED AD BOX, ONE SIDE

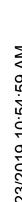
BEYOND

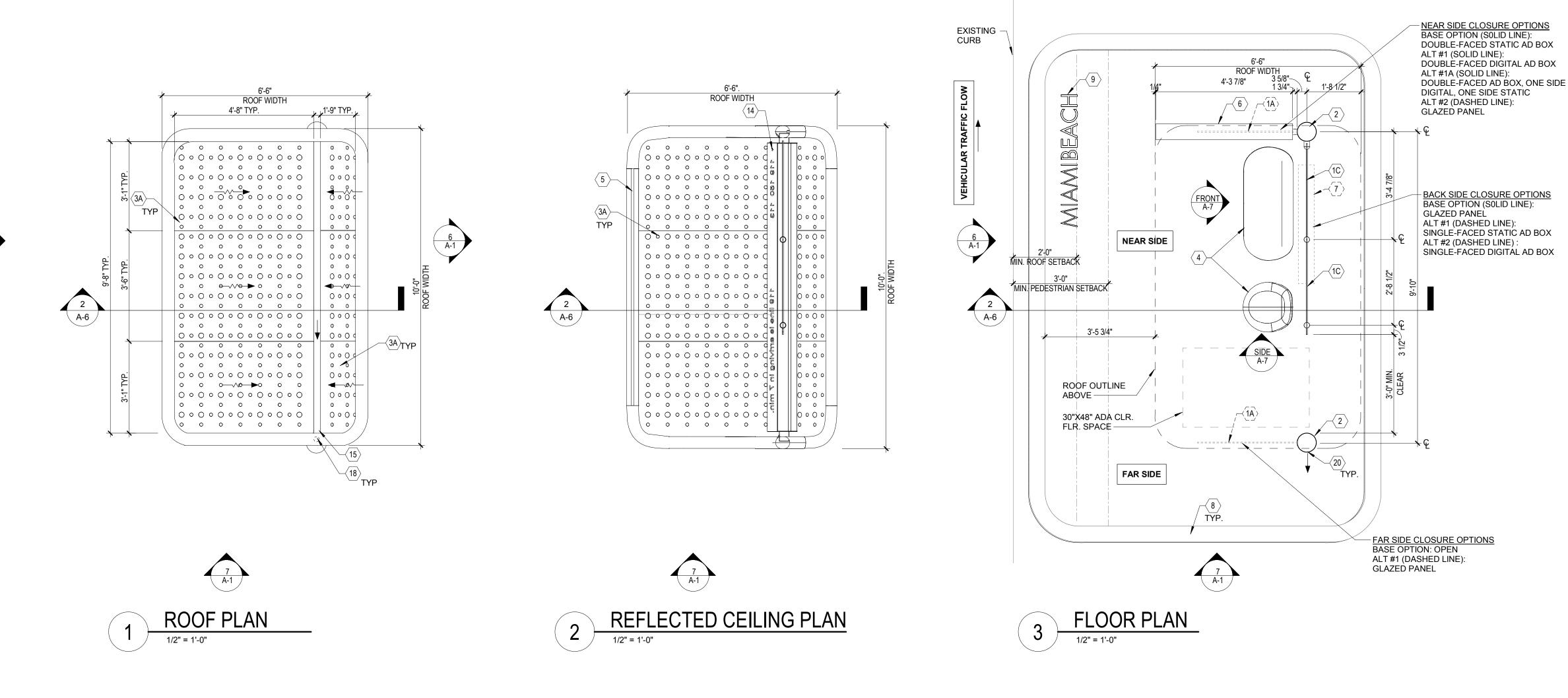
SHEET A-7 FO AD BOX DIMS

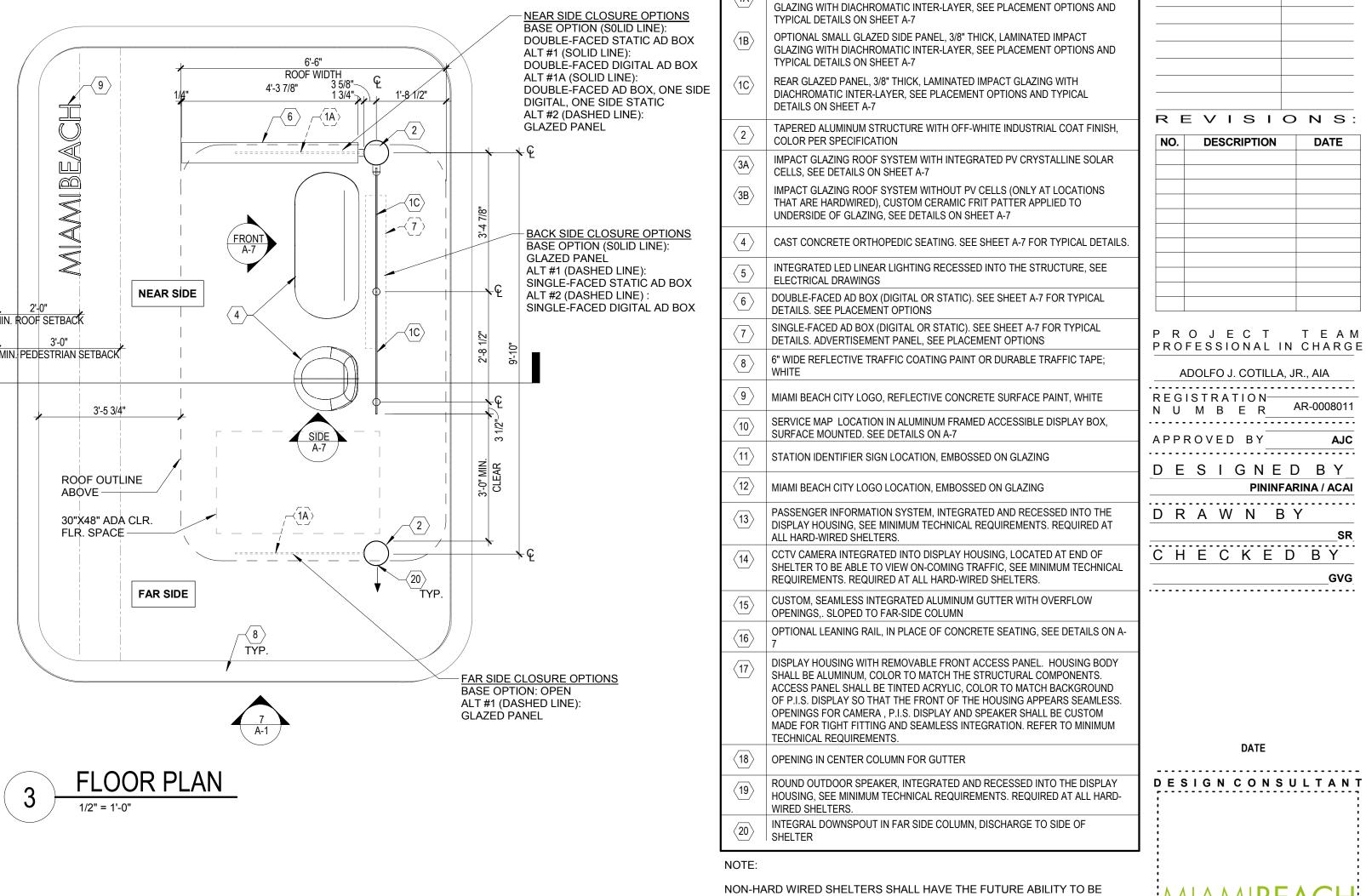
ALT #1A (SOLID LINE):

ALT #2: GLAZED PANEL

DIGITAL, ONE SIDE STATIC









SHELTERS

PININFARINA BUS

SUBMITTALS

07.03.2019

07.22.2019

AR-0008011

PININFARINA / ACAI

PHASE

100% CD's

FLOOR/ROOF PLAN KEY NOTES

1A OPTIONAL LARGE GLAZED SIDE PANEL, 3/8" THICK, LAMINATED IMPACT

CITY OF MIAMI BEACH

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MINIMAL 10' x 6.5' -FLOOR PLAN, REFLECTED CEILING PLAN, ELEVATIONS

SHEET TITLE



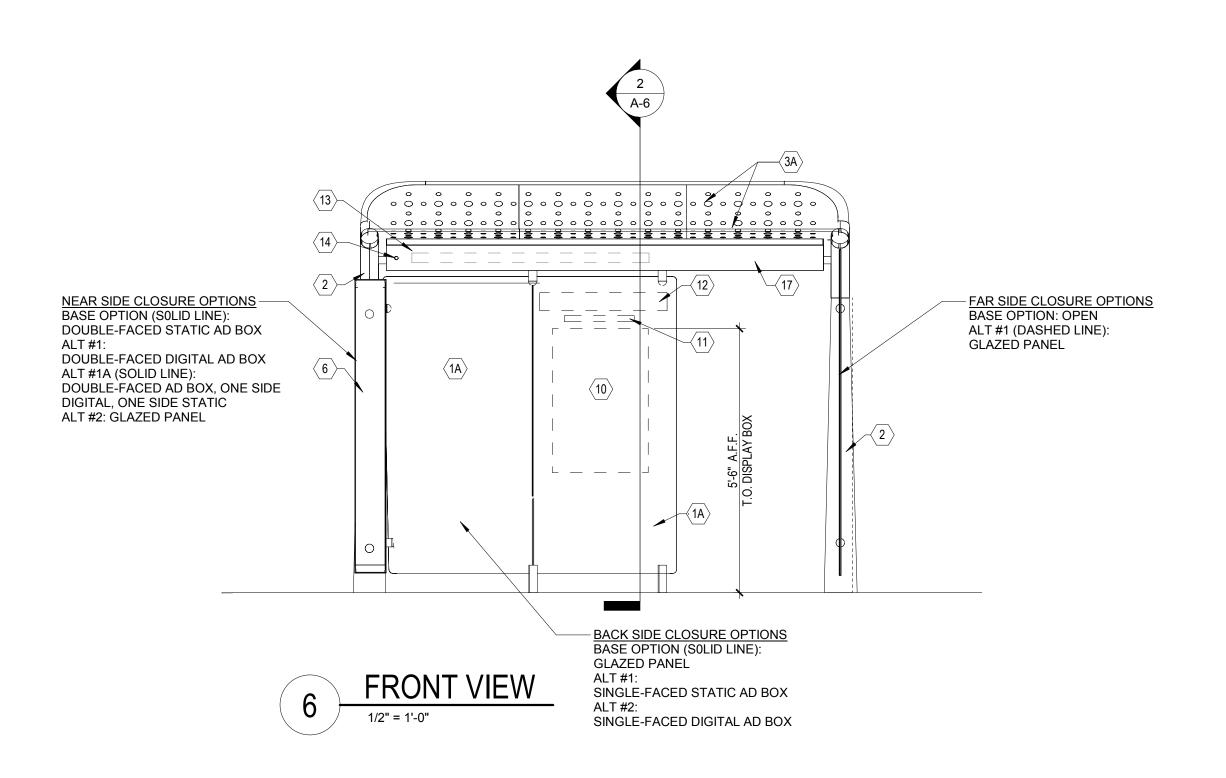
architecture engineering roofing consulting construction management

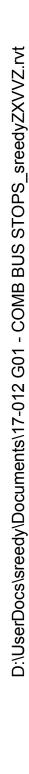
AAC001323 · EB0004379 · CGC010769 2937 W. Cypress Creek Rd., Suite 200 Fort Lauderdale, Florida 33309 Tel: 954.484.4000 · Fax: 954.484.5588 www.acaiarchitects.com ARCHITECT OF RECORD

17-012 G01

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BEYOND

NEAR SIDE CLOSURE OPTIONS

DOUBLE-FACED DIGITAL AD BOX

DOUBLE-FACED STATIC AD BOX

DOUBLE-FACED AD BOX, ONE SIDE

SIDE VIEW

BASE OPTION (SOLID LINE):

DIGITAL, ONE SIDE STATIC

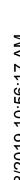
ALT #1A (SOLID LINE):

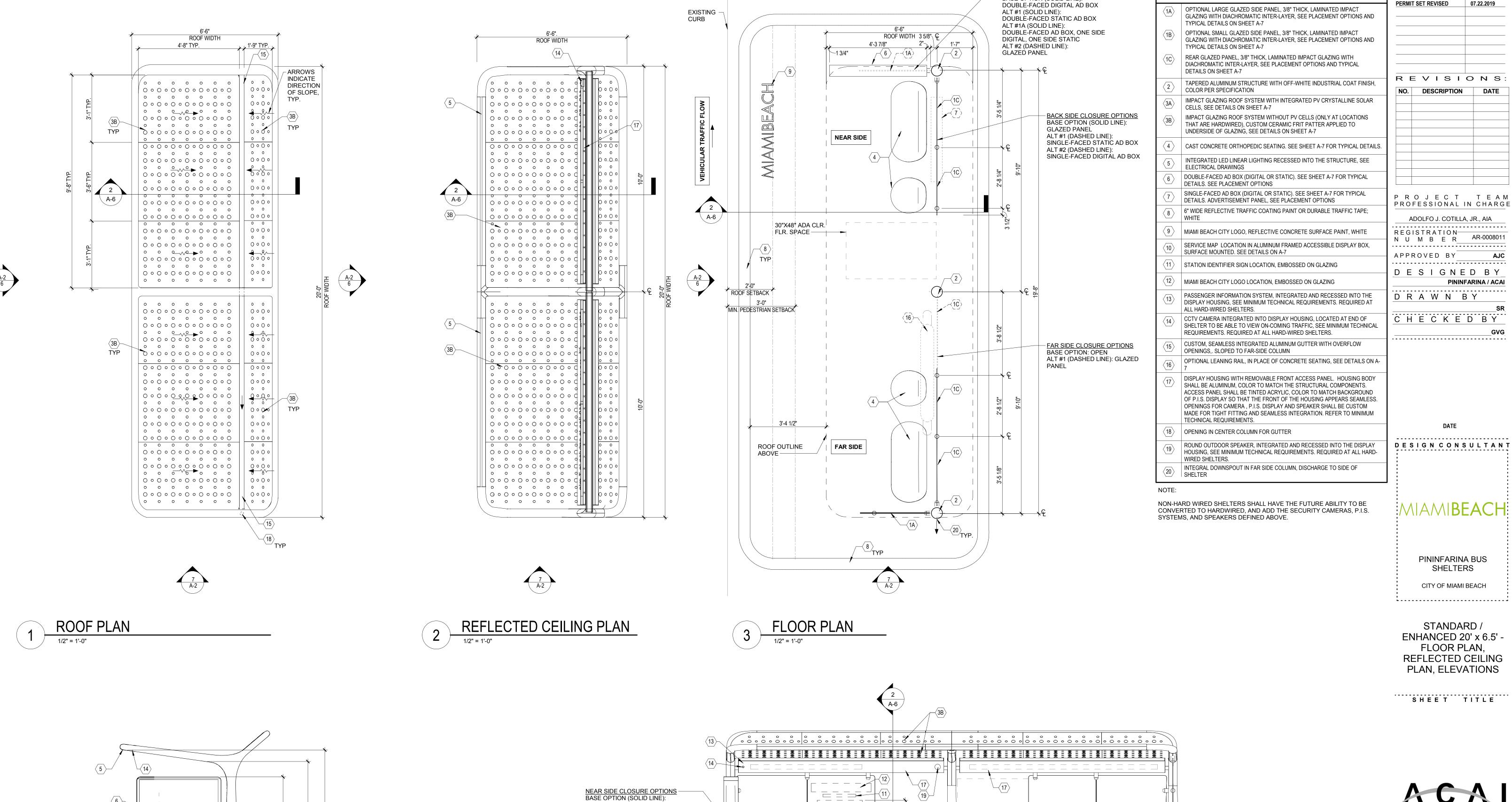
ALT #2: GLAZED PANEL

ALT #1:

 $\sqrt{1A}$

SHEET A-7 FO AD BOX DIMS





 $\langle 10 \rangle$

BACK SIDE CLOSURE OPTIONS
BASE OPTION (SOLID LINE):

SINGLE-FACED STATIC AD BOX

SINGLE-FACED DIGITAL AD BOX

GLAZED PANEL

ALT #1:

ALT #2:

 $\langle 1A \rangle$

NEAR SIDE

DOUBLE-FACED DIGITAL AD BOX

DOUBLE-FACED STATIC AD BOX

DIGITAL, ONE SIDE STATIC

ALT #2: GLAZED PANEL

ALT #1A (SOLID LINE): DOUBLE-FACED AD BOX, ONE SIDE

ALT #1:

SUBMITTALS

07.03.2019

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FLOOR/ROOF PLAN KEY NOTES

BASE OPTION (SOLID LINE):

 $\langle 1A \rangle$

FAR SIDE

FAR SIDE CLOSURE OPTIONS

ALT #1 (DASHED LINE): GLAZED

BASE OPTION: OPEN

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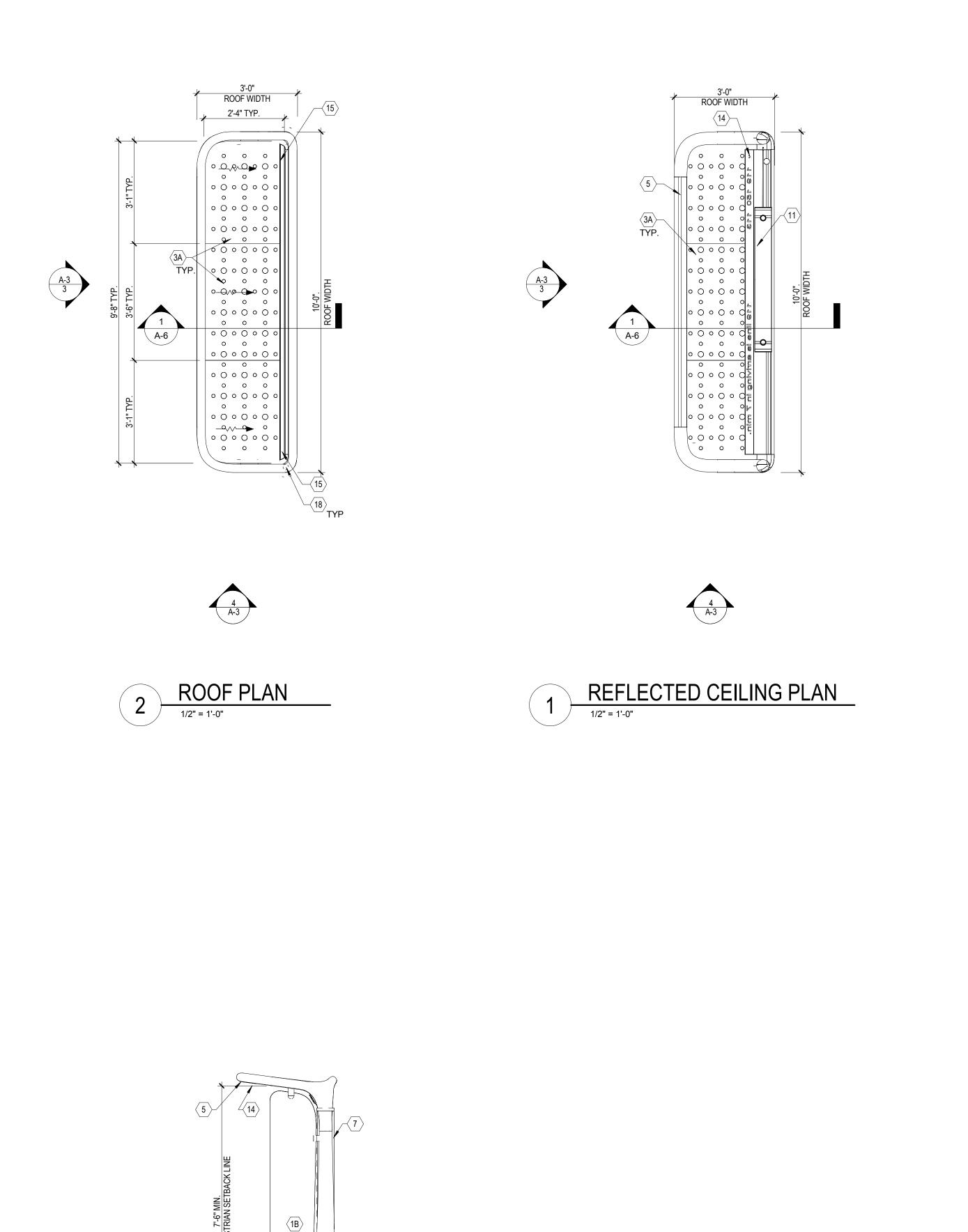
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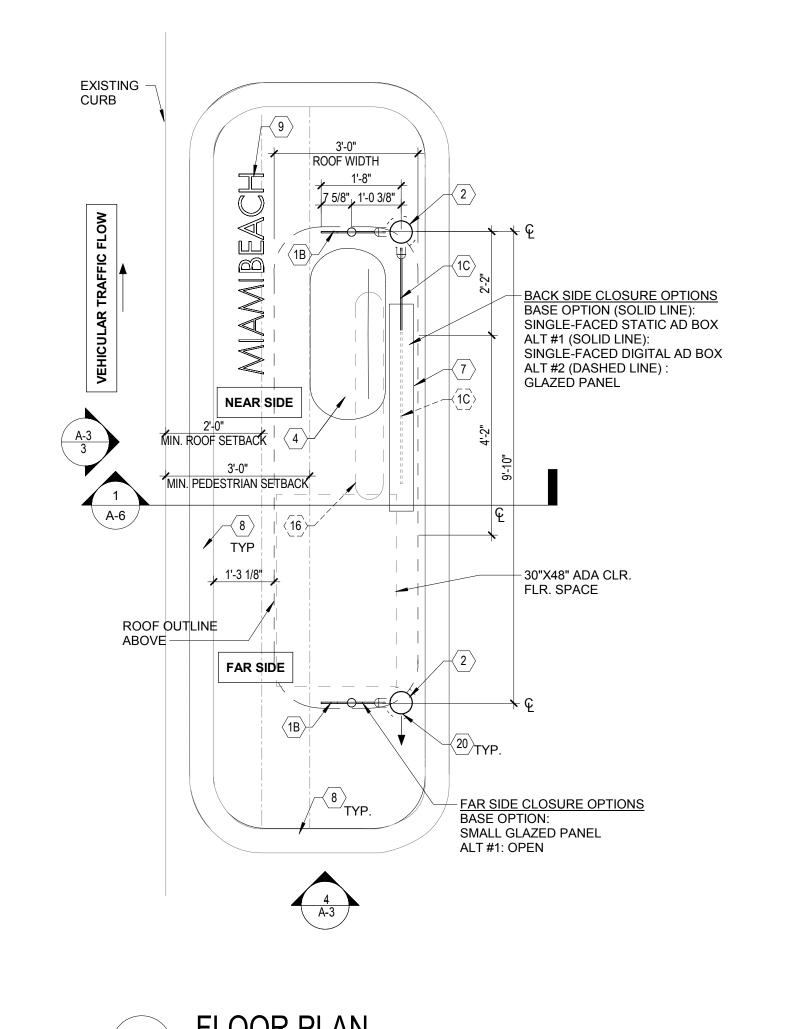
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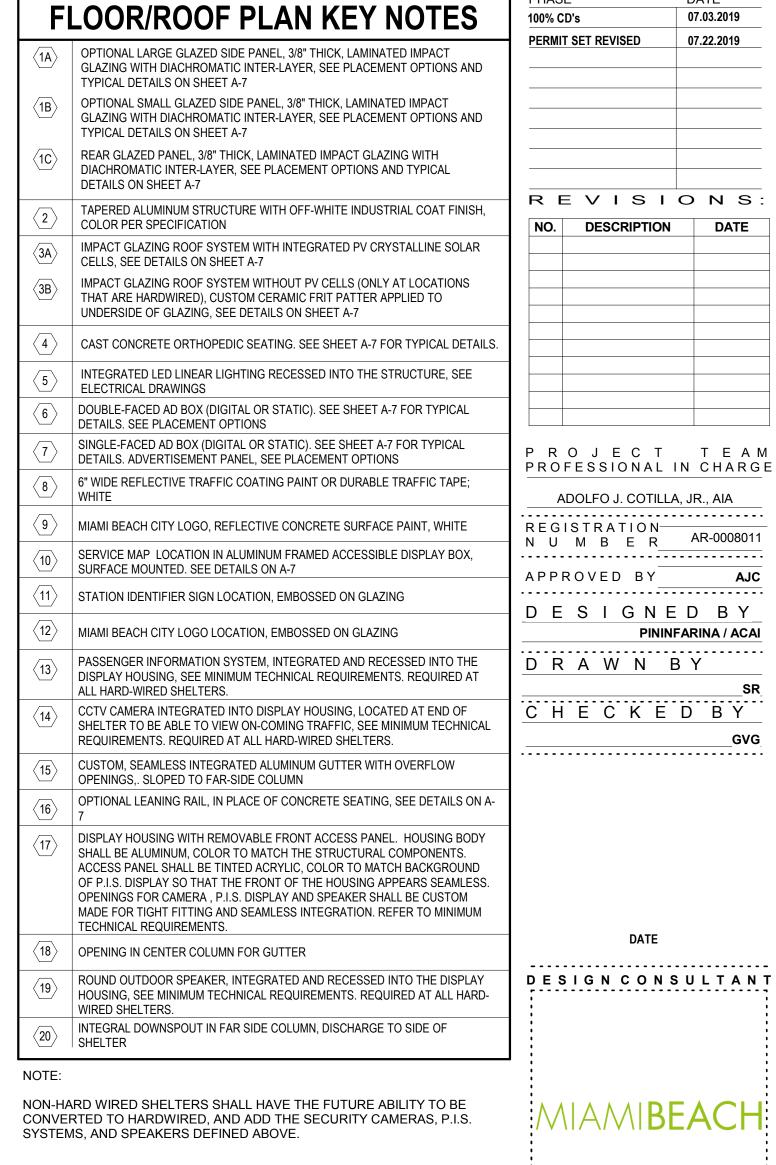


BACK SIDE CLOSURE OPTIONS
BASE OPTION (SOLID LINE):
SINGLE-FACED STATIC AD BOX

SINGLE-FACED DIGITAL AD BOX

ALT #2: GLAZED PANEL

2



SUBMITTALS

DATE

PHASE

PININFARINA BUS SHELTERS

CITY OF MIAMI BEACH

•-----

MINIMAL 10 x 3' -FLOOR PLAN, REFLECTED CEILING PLAN, ELEVATIONS

SHEET TITLE



roofing consulting construction management

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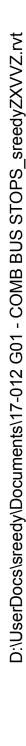
17-012 G01

PROJECT NUMBER

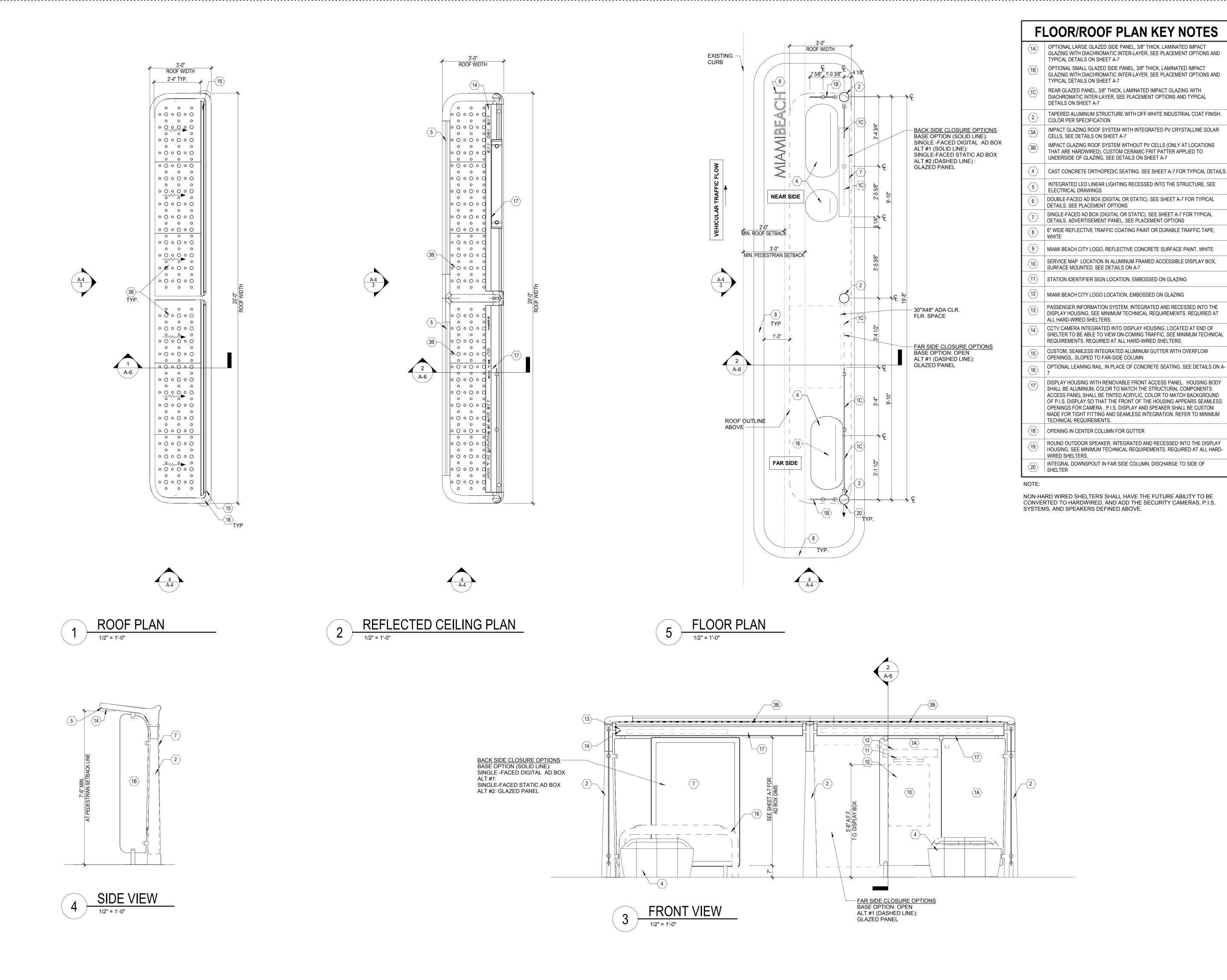
FAR SIDE CLOSURE OPTIONS
BASE OPTION:
SMALL GLAZED PANEL

ALT #1: OPEN

SHEET NUMBER TO THE BEST OF MY KNOWLEDGE AND ABILITY THESE PLANS ARE COMPLETE AND COMPLY WITH THE APPLICABLE BUILDING CODES







SUBMITTALS PHASE DATE 07.03.2019 100% CD's PERMIT SET REVISED 07.22.2019 REVISIONS: NO. DESCRIPTION PROJECT TEAM PROFESSIONAL IN CHARGE ADOLFO J. COTILLA, JR., AIA -----REGISTRATION-AR-0008011 NUMBER APPROVED BY DESIGNED BY **PININFARINA / ACAI** D R A W N B Y CHECKEDBY -----DESIGN CONSULTANT

ΛΛΙΔΛΛΙΒΕΑΟΗ

PININFARINA BUS SHELTERS

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CITY OF MIAMI BEACH

STANDARD /
ENHANCED 20' x 3' FLOOR PLAN,
REFLECTED CEILING
PLAN, ELEVATIONS

SHEET TITLE



associates, in c. architecture engineering roofing consulting construction management

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ARCHITECT OF RECORD

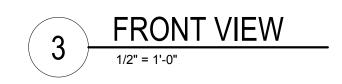
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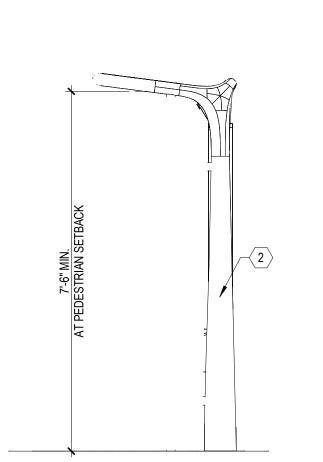
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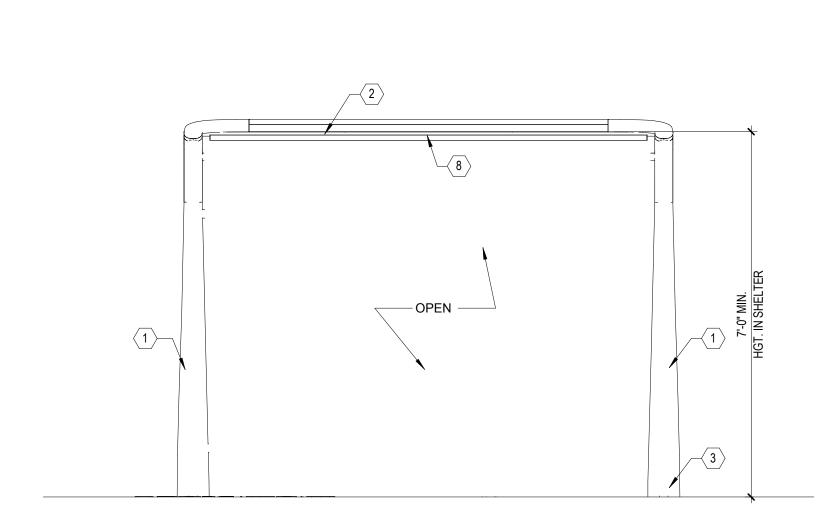
A-4

S H E E T N U M B E R

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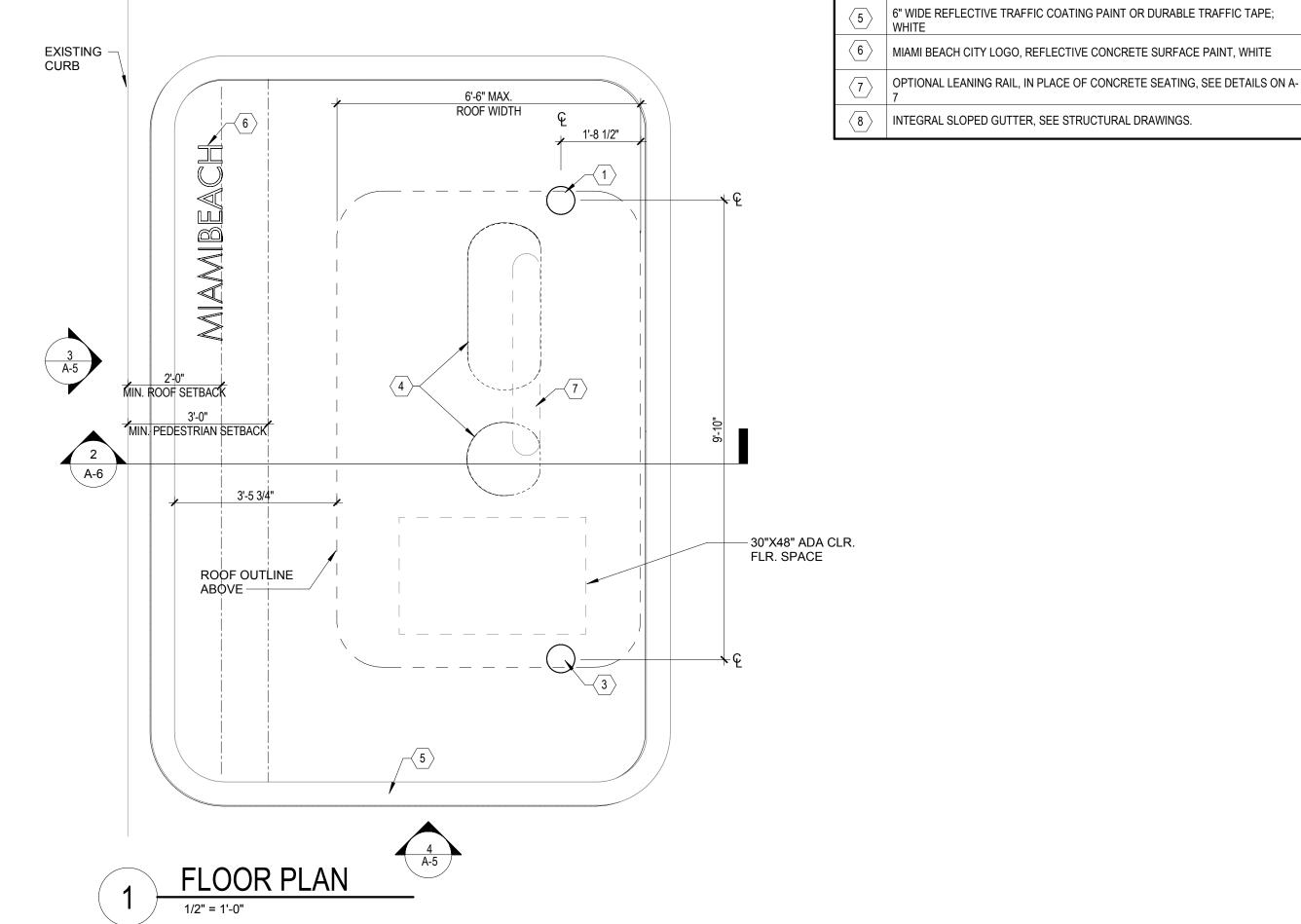


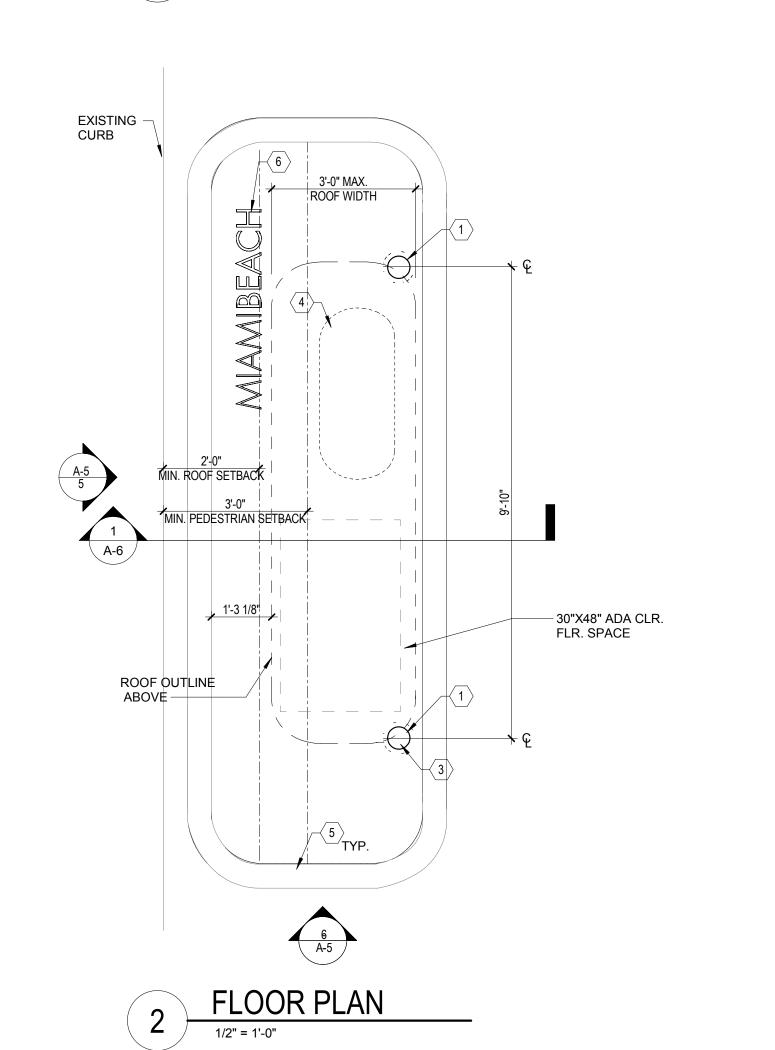














TAPERED ALUMINUM STRUCTURE WITH OFF-WHITE INDUSTRIAL COAT FINISH, COLOR PER SPECIFICATION.

 $\langle 2 \rangle$ BREAKAWAY FABRIC ROOFING MATERIAL PER SPECIFICATION. INTEGRAL DOWNSPOUT IN FAR SIDE COLUMN, DISCHARGE TO SIDE OF

 $\langle 4 \rangle$ OPTIONAL CAST CONCRETE ORTHOPEDIC SEATING. SEE DETAILS ON A-7.

6" WIDE REFLECTIVE TRAFFIC COATING PAINT OR DURABLE TRAFFIC TAPE;

(6) | MIAMI BEACH CITY LOGO, REFLECTIVE CONCRETE SURFACE PAINT, WHITE

8 INTEGRAL SLOPED GUTTER, SEE STRUCTURAL DRAWINGS.

P R O J E C T T E A M PROFESSIONAL IN CHARGE

S U B M I T T A L S : PHASE DATE

REVISIONS:

NO. DESCRIPTION

07.03.2019

07.22.2019

100% CD's

PERMIT SET REVISED

ADOLFO J. COTILLA, JR., AIA

APPROVED BY

REGISTRATION N U M B E R AR-0008011

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D R A W N B Y

CHECKEDBY

.....

PININFARINA / ACAI

D E S I G N C O N S U L T A N T

PININFARINA BUS SHELTERS

CITY OF MIAMI BEACH

TEMPORARY 10' x 6.5' & 10' x 3' SHELTER

SHEET TITLE

architecture engineering roofing . consulting construction management

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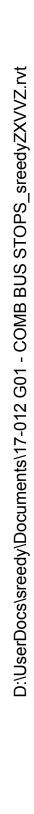
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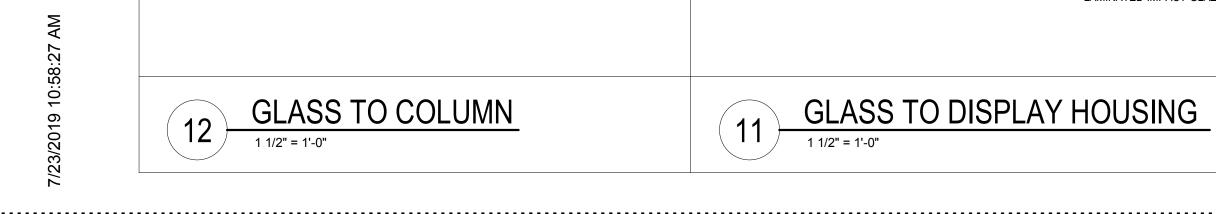
ARCHITECT OF RECORD

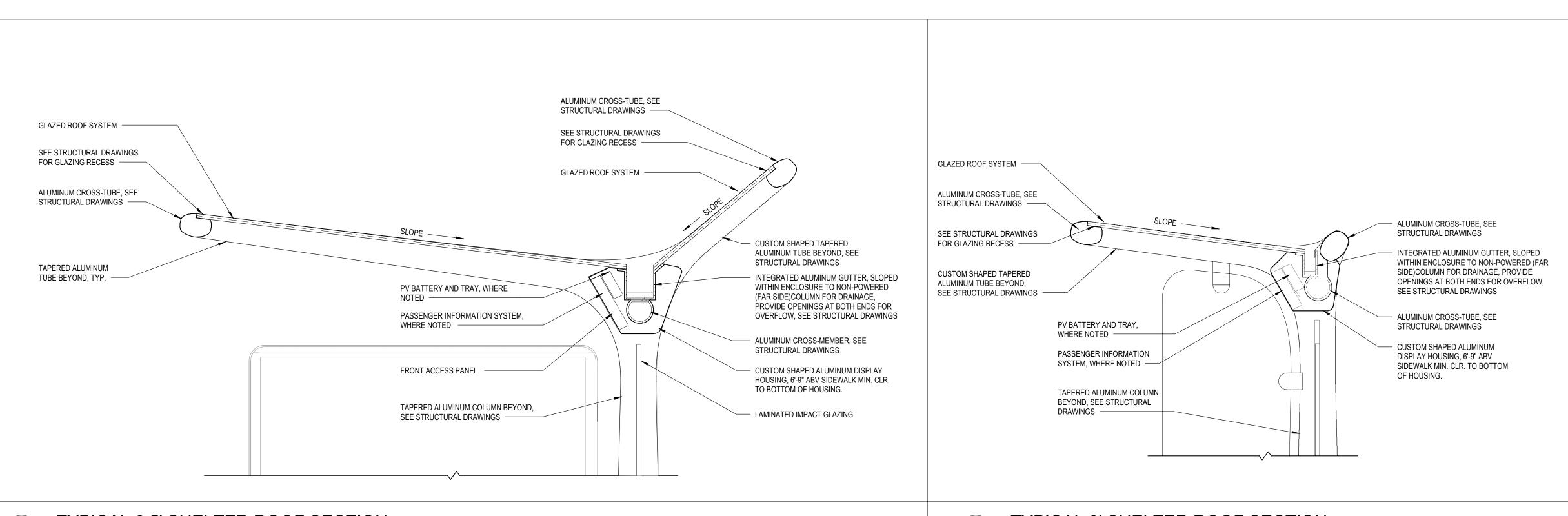
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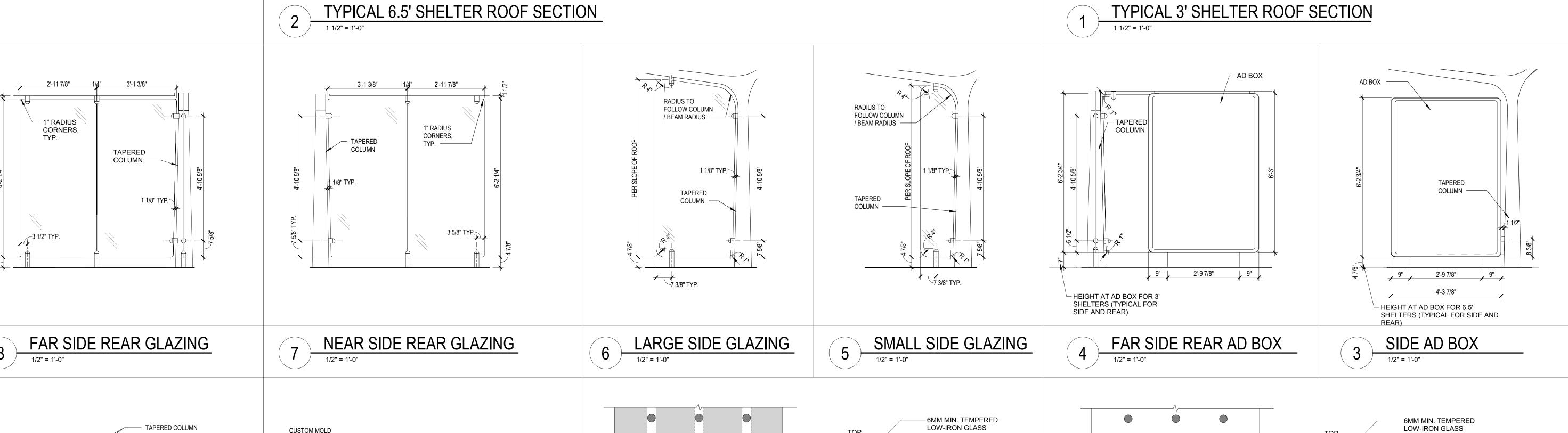
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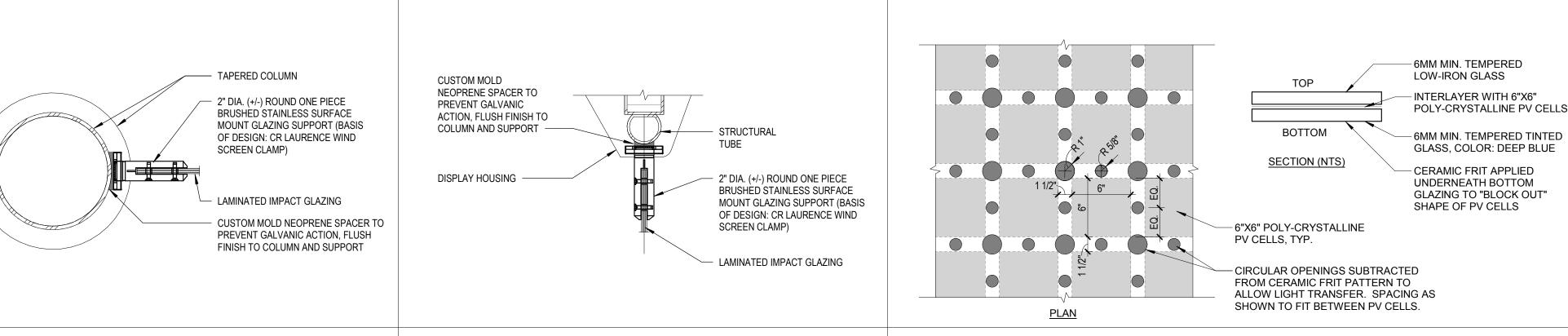
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SPLAY HOUSING

10 GLAZED ROOF DETAILS - WITH PV CELLS

11/2" = 1'-0"

TOP

GMM MIN. TEMPERED

LOW-IRON GLASS

INTERLAYER

BOTTOM

GMM MIN. TEMPERED TINTED

GLASS, COLOR: DEEP BLUE

CERAMIC FRIT APPLIED

UNDERNEATH BOTTOM

GLAZING TO "BLOCK OUT"

SHAPE OF PV CELLS

CIRCULAR OPENINGS SUBTRACTED

FROM CERAMIC FRIT PATTERN TO

ALLOW LIGHT TRANSFER. SPACING TO

BE IDENTICAL TO PANELS WITH PV

CELLS FOR CONSISTENT LOOK

9 GLAZED ROOF DETAILS - WITHOUT PV CELLS
1 1/2" = 1'-0"

P R O J E C T T E A M PROFESSIONAL IN CHARGE

SUBMITTALS

REVISIONS:

NO. DESCRIPTION

07.03.2019

PHASE

100% CD's

REGISTRATION
NUMBER AR-0008011
APPROVED BY AJC

ADOLFO J. COTILLA, JR., AIA

D E S I G N E D B Y
PININFARINA / ACAI

DRAWNBY

SF
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DAT

A A I A A A I D E A C L I

DESIGN CONSULTANT

PININFARINA BUS

SHELTERS
CITY OF MIAMI BEACH

SECTION & DETAILS

SHEET TITLE

associates, in c. architecture engineering

roofing consulting construction management

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ARCHITECT OF RECORD

17-012 G01

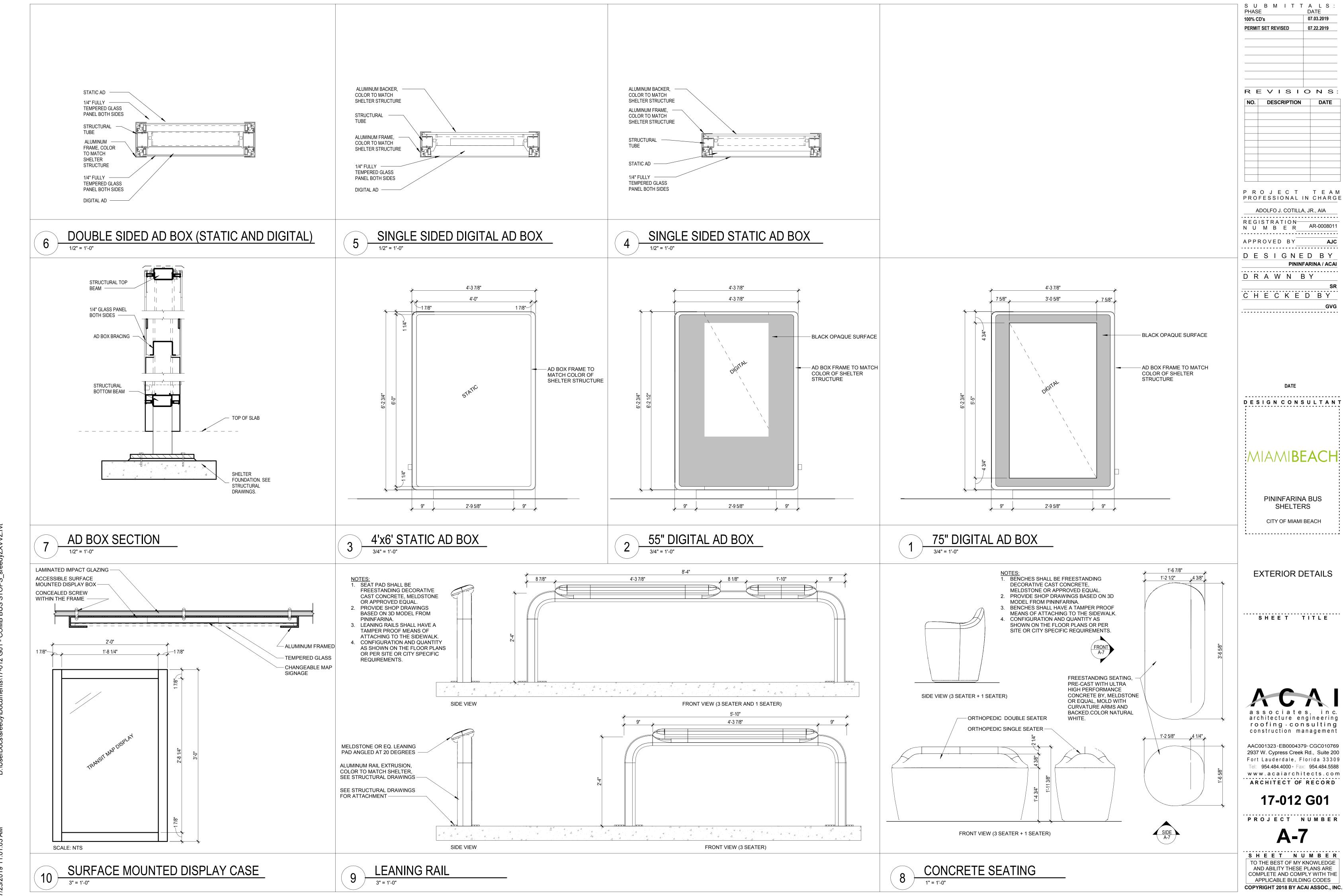
PROJECT NUMBER

A-6

S H E E T N U M B E R

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DATE 07.03.2019

07.22.2019

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ABBREV	ABBREVIATION	LB	POUND
ACI ADD	AMERICAN CONCRETE INSTITUTE ADDITIVE	LGTH LL	LENGTH LIVE LOAD
ADDL	ADDITIONAL	LLH	LONG LEG HORIZONTAL
AFF AISC	ABOVE FINISHED FLOOR AMERICAN INSTITUTE OF STEEL CONSTRUCTION	LLV LONG.	LONG LEG VERTICAL LONGITUDINAL
AISI	AMERICAN IRON AND STEEL INSTITUTE	LSL	LAMINATED STRAND LUMBER
ALT ALUM	ALTERNATE/ALTERNATIVE ALUMINUM	LT WT LVL	LIGHT WEIGHT LAMINATED VENEER LUMBER
ARCH ASTM	ARCHITECTURE/ARCHITECTURAL AMERICAN SOCIETY OF TESTING MATERIALS	MATL	MATERIAL
AWS	AMERICAN WELDING SOCIETY	MAX	MAXIMUM
B/	BOTTOM OF	MB MC	MASONRY BEAM MISCELLANEOUS CHANNEL/MASONRY
BCX	BOTTOM CHORD EXTENSION	COLUMN	
BLDG BLK	BUILDING BLOCK	MECH MET	MECHANICAL METAL
BM BOT	BEAM BOTTOM	MFR MID	MANUFACTURE/MANUFACTURER MIDDLE
BP	BASE PLATE/BEARING PLATE	MIN	MINIMUM
BRG BTWN	BEARING BETWEEN	MISC MO	MISCELLANEOUS MASONRY OPENING
		MPH	MILES PER HOUR
C CB	CHANNEL CONCRETE BEAM	NGVD	NATIONAL GEODETIC VERTICAL DATUM
CC CF	CONCRETE COLUMN CUBIC FEET (FOOT)	NIC NO.	NOT IN CONTRACT NUMBER
CIP	CAST IN PLACE	NS	NEAR SIDE
CJ CL	CONTRACTION JOINT CENTERLINE	NTS	NOT TO SCALE
CLR	CLEAR/CLEARANCE	OC OD	ON CENTERS
CM CMU	CONCRETE MASONRY CONCRETE MASONRY UNIT	OD O.F.	OUTSIDE DIAMETER OUTSIDE FACE
CO COL	COMPANY COLUMN	OPNG OPP	OPENING OPPOSITE
CONC	CONCRETE	OSB	ORIENTED STRAND BOARD
CONT CONN	CONTINUOUS CONNECTION	P/C	PRECAST CONCRETE/PILE CAP
CONST	CONSTRUCTION	P/T	POST TENSIONED
COORD CSJ	COORDINATE CONSTRUCTION JOINT	PAR PCB	PARALLEL PRECAST CONCRETE BEAM
CTR CTRD	CENTER CENTERED	PCC PCF	PRECAST CONCRETE COLUMN POUNDS PER CUBIC FEET
CY	CUBIC YARD	PEMB	PRE-ENGINEERED METAL BUILDING
DEPT	DEPARTMENT	PEN P.J.	PENETRATION PANEL JOINT CENTERLINE
DET DIA	DETAIL DIAMETER	PL PLF	PLATE POUNDS PER LINEAR FOOT
DIAG	DIAGONAL	PLMG	PLUMBING
DIM DIST	DIMENSION DISTANCE	PLY. PREFAB	PLYWOOD PREFABRICATED
DL	DEAD LOAD	PSF	POUNDS PER SQUARE FOOT
DN DWG	DOWN DRAWING	PSI PSL	POUNDS PER SQUARE INCH PARALLEL STRAND LUMBER
EA	EACH	PT	PRESSURE TREATED
EE	EACH END	R/W	REINFORCED WITH
EF EHPA	EACH FACE EMERGENCY HURRICANE PROTECTION AREA	RD REF	ROOF DRAIN REFERENCE
EJ ELEC	EXPANSION JOINT	REINF	REINFORCING
ELEC EL, ELEV	ELECTRIC/ELECTRICAL ELEVATION	REQD REV	REQUIRED REVISION
ENGR EOD	ENGINEER EDGE OF DECK	RTU	ROOF TOP UNIT
EOR	ENGINEER OF RECORD	SB	SOFFIT BEAM
EQ SP ES	EQUAL SPACED EACH SIDE	SCHED S.F.	SCHEDULE SQUARE FEET
EW EXIST	EACH WAY EXISTING	SF SIM	STRIP FOUNDATION SIMILAR
EXP	EXPANSION	SPC	SPACE/SPACES
EXT	EXTERIOR	SPECS SQ	SPECIFICATIONS SQUARE
F	FOUNDATION	SS	STAINLESS STEEL
FD FDN	FLOOR DRAIN FOUNDATION	STD STIFF	STANDARD STIFFENER
FF FIN	FINISHED FLOOR FINISH	STL STRUCT	STEEL STRUCTURAL
FIN GR	FINISH GRADE	SYM	SYMMETRICAL
FLR FS	FLOOR FAR SIDE	T/	TOP OF
FT FTG	FEET/FOOT FOOTING	TB T&B	TIE BEAM TOP AND BOTTOM
		TCX	TOP CHORD EXTENSION
GA GALV	GAGE/GAUGE GALVANIZED	TDS TE	TURN DOWN SLAB THICKENED EDGE
GB GC	GRADE BEAM GENERAL CONTRACTOR	TEMP	TEMPERATURE
GEN	GENERAL	TENS THD	TENSION THREAD/THREADED
GL GS	GRID LINE GALVANIZED STEEL	THK TOL	THICK TOLERANCE
		TRANS	TRANSVERSE
HD HDG	HOT DIPPED HOT DIPPED GALVANIZED	TS T.S.	TUBE STEEL THICKENED SLAB
HORIZ HSA	HORIZONTAL HEADED STUD ANCHOR	TWF TYP	THICKENED WALL FOUNDATION TYPICAL
HSS	HOLLOW STRUCTURAL SECTION		
HT	HEIGHT	UNO	UNLESS NOTED OTHERWISE
l ID	MOMENT OF INERTIA INSIDE DIAMETER	VERT VIF	VERTICAL VERIFY IN FIELD
I.F.	INSIDE FACE	VOL	VOLUME
IN. INT	INCH INTERIOR	W	WIDE FLANGE SECTION
		W/	WITH
JST JT	JOIST JOINT	W/O WD	WITHOUT WOOD
K	KIP (1000 LB)	WF WP	WALL FOOTING WATERPROOF
KLF	KIPS PER LINEAL FOOT	W.P.	WORKING POINT
KSI KWY	KIPS PER SQUARE INCH KEYWAY	WS WT	WELDED STUD WEIGHT/STRUCTURAL TEE SECTION
		WWF	WELDED WIRE FABRIC
		@ #	AT DESIGNATION POUNDS / REBAR SIZE NUMBER
		π	I COMPOTILEDAN SIZE NUMBER

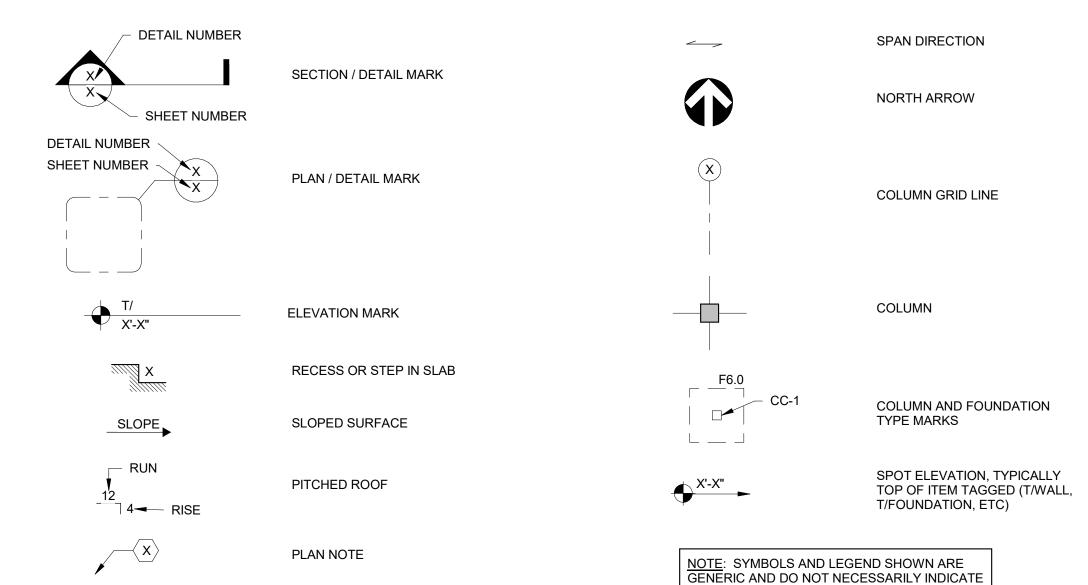
PLUS OR MINUS

SECTION MODULUS

MOMENT OF INERTIA

CENTER LINE

ANGLE



ACTUAL OCCURRENCES IN THESE DRAWINGS.

1000 GENERAL NOTES

ANY AND ALL COSTS INCURRED BY THE ENGINEER OF RECORD FOR REVIEW OF ANY SUCH DEVIATIONS.

- 1. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH PROJECT SPECIFICATIONS AND ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND SITE DRAWINGS. CONSULT THESE DRAWINGS FOR OPENINGS, DEPRESSIONS, EQUIPMENT WEIGHTS AND LOCATIONS, EMBEDDED ITEMS AND OTHER DETAILS NOT SHOWN ON STRUCTURAL DRAWINGS.
- DIMENSIONS AND CONDITIONS MUST BE VERIFIED IN THE FIELD. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD BEFORE PROCEEDING WITH THE AFFECTED PART OF THE WORK
- NO STRUCTURAL MEMBER OR COMPONENT SHALL BE CUT, NOTCHED, OR OTHERWISE ALTERED UNLESS
 APPROVED IN WRITING BY THE ENGINEER OF RECORD. THE CONTRACTOR SHALL BE RESPONSIBLE FOR
- 4. DO NOT SCALE DRAWINGS.
- 5. THE STRUCTURE IS DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER THE BUILDING IS COMPLETE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ERECTION PROCEDURES AND SEQUENCE TO ENSURE SAFETY OF THE BUILDING AND ITS COMPONENTS DURING ERECTION. THIS INCLUDES THE ADDITION OF NECESSARY SHORING, SHEETING, TEMPORARY BRACING, GUYS OR TIEDOWNS.
- 6. DETAILS LABELED "TYPICAL DETAILS" ON THE DRAWINGS SHALL APPLY TO ALL SITUATIONS OCCURRING ON THE PROJECT THAT ARE THE SAME OR SIMILAR TO THOSE SPECIFICALLY DETAILED. THE APPLICABILITY OF THE DETAIL TO ITS LOCATION ON THE DRAWINGS CAN BE DETERMINED BY THE TITLE OF DETAIL. SUCH DETAILS SHALL APPLY WHETHER OR NOT THEY ARE REFERENCED AT EACH LOCATION. QUESTIONS REGARDING APPLICABILITY OF TYPICAL DETAILS SHALL BE DETERMINED BY THE ENGINEER
- 7. THE GENERAL CONTRACTOR SHALL COMPARE THE ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, CIVIL AND STRUCTURAL DRAWINGS AND REPORT ANY DISCREPANCIES BETWEEN EACH SET OF DRAWINGS AND WITHIN EACH SET OF DRAWINGS TO THE ARCHITECT AND ENGINEER OF RECORD PRIOR TO THE FABRICATION AND INSTALLATION OF ANY STRUCTURAL MEMBERS.
- 8. THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE, AND DO NOT INDICATE THE METHOD OR MEANS OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, PROCEDURES, TECHNIQUES, SEQUENCE AND SAFETY. THE ENGINEER DOES NOT HAVE CONTROL OR CHARGE OF, AND SHALL NOT BE RESPONSIBLE FOR, CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES, FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK, FOR THE ACTS OR OMISSION OF THE CONTRACTOR, SUBCONTRACTOR OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK, OR FOR THE FAILURE OF ANY OF THEM TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- 9. THE STRUCTURAL ENGINEER'S OBLIGATIONS TO REVIEW SHOP DRAWINGS AND OTHER SUBMITTALS AND TO RETURN THEM IN A TIMELY MANNER ARE CONDITIONED UPON THE PRIOR REVIEW AND APPROVAL OF THE SHOP DRAWINGS OR SUBMITTALS BY THE CONTRACTOR AS REQUIRED IN THE CONSTRUCTION CONTRACT AND THE CONTRACTOR'S SUBMITTAL OF THE SHOP DRAWINGS AND OTHER SUBMITTALS IN ACCORDANCE WITH A WRITTEN SCHEDULE DISTRIBUTED IN ADVANCE TO THE ENGINEER IDENTIFYING THE DATES FOR THE SUBMITTAL OF THE VARIOUS SHOP DRAWINGS AND SUBMITTALS.
- 10. PERIODIC SITE OBSERVATION BY FIELD REPRESENTATIVES OF TLC ENGINEERING FOR ARCHITECTURE IS SOLELY FOR THE PURPOSE OF DETERMINING IF THE WORK OF THE CONTRACTOR IS PROCEEDING IN GENERAL ACCORDANCE WITH THE STRUCTURAL CONTRACT DOCUMENTS. THIS LIMITED SITE OBSERVATION SHALL NOT BE CONSTRUED AS EXHAUSTIVE OR CONTINUOUS TO CHECK THE QUALITY OR QUANTITY OF THE WORK.
- 11. ALL STRUCTURES REQUIRE PERIODIC MAINTENANCE TO EXCEED LIFE SPAN AND TO ENSURE STRUCTURAL INTEGRITY FROM EXPOSURE TO THE ENVIRONMENT. A PLANNED PROGRAM OF MAINTENANCE SHALL BE ESTABLISHED BY THE OWNER. THIS PROGRAM SHALL INCLUDE ITEMS SUCH AS, BUT NOT LIMITED TO, PAINTING OF STRUCTURAL STEEL, PROTECTIVE COATINGS FOR CONCRETE, SEALANTS, CAULKED JOINTS, EXPANSION JOINTS, CONTROL JOINTS, SPALLS AND CRACKS IN CONCRETE AND PRESSURE WASHING OF EXPOSED STRUCTURAL ELEMENTS EXPOSED TO SALT ENVIRONMENT OR OTHER HARSH CHEMICALS.
- 12. IN THE PROFESSIONAL OPINION OF TLC ENGINEERING FOR ARCHITECTURE, INC. THE STRUCTURAL CONTRACT DOCUMENTS FOR THIS PROJECT HAVE BEEN PREPARED IN ACCORDANCE WITH THE DESIGN CRITERIA AS SET FORTH IN THE FLORIDA BUILDING CODE (FBC), 6TH EDITION (2017).
- 13. TOP OF CONCRETE ELEVATION OF 0'-0" IS USED AS A REFERENCE ELEVATION. ACTUAL TOP OF CONCRETE ELEVATION VARIES. SEE CIVIL DRAWINGS FOR ACTUAL ELEVATION.
- 14. THE USE OF REPRODUCTIONS OF THESE CONTRACT DOCUMENTS AND USE OF CAD FILES BY ANY CONTRACTOR, SUBCONTRACTOR, ERECTOR, FABRICATOR OR MATERIAL SUPPLIER IN LIEU OF PREPARATION OF SHOP DRAWINGS SIGNIFY HIS ACCEPTANCE OF ALL INFORMATION SHOWN HEREON AS CORRECT, AND OBLIGATES HIMSELF TO ANY JOB EXPENSE, REAL OR IMPLIED, ARISING DUE TO ANY ERRORS THAT MAY OCCUR HEREON.

1060 DESIGN LOADS

- 1. THE STRUCTURAL SYSTEM FOR THIS BUILDING HAS BEEN DESIGNED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE, 6TH EDITION (2017).
- 1.1 SHELTERS PERMITTED WITH THE FLORIDA BUILDING CODE 7TH EDITION OR LATER WILL REQUIRE REVIEW FOR COMPLIANCE WITH WIND LOAD CRITERIA. RE-ENGINEERING OF STRUCTURAL SYSTEMS TO BE PERFORMED AS REQUIRED.

2 PSF

(CONCENTRATED)

- 2. THE FOLLOWING SUPERIMPOSED LOADINGS HAVE BEEN UTILIZED:
- 2.1 DEAD LOADS

 ROOF STRUCTURE (PERMANENT)

2.2	LIVE LOADS	
	ROOF (PERMENT) (HVHZ)	30 PSF
	ROOF (TEMPORARY/FABRIC)	5 PSF
	LEANING RAIL	250 LBS

2.3 WIND LOADS PERMANENT SHELTER: PER FLORIDA BUILDING CODE, SECTION 1609.

ULTIMATE DESIGN WIND SPEED, Vult	165 MPH (3 SEC. GUST
NOMINAL DESIGN WIND SPEED, Vasd	136 MPH (3 SEC. GUST
RISK CATEGORY	I
EXPOSURE	D

COMPONENTS AND CLADDING: (ULTIMATE)

ROOF STRUCTURE (TEMPORARY)

ROOF:

6'-0" WIDE SHELTER: +48.8 PSF; -146.4 PSF

3'-0" WIDE SHELTER: +73.2 PSF; -158.6 PSF

VERTICAL SURFACES:

10'-0" LONG SHELTER: 92 PSF 20'-0" LONG SHELTER: 138 PSF

AD BOX, SIDE PANEL: 115 PSF

2.4 WIND LOADS TEMPORARY SHELTER

ULTIMATE DESIGN WIND SPEED, Vult

NOMINAL DESIGN WIND SPEED, Vasd

RISK CATEGORY

I

EXPOSURE
COMPONENTS AND CLADDING: (ULTIMATE)

ROOF: +15.1 PSF; -32.8 PSF

TRANSIT INFORMATION BOX: ±92 PSF

2.5 SEISMIC LOADS: PER FLORIDA BUILDING CODE, SECTION 1610.

SPECTRAL RESPONSE ACCELERATION, SHORT DURATION (Ss)	0.041
SPECTRAL RESPONSE ACCELERATION, 1.0 SECOND DURATION	0.02
SITE CLASSIFICATION	D
SEISMIC USE GROUP	1
SEISMIC DESIGN CATEGORY	Α
SEISMIC IMPORTANCE FACTOR	1.0



	S U B M I T T PHASE	A L S DATE
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NO.	DESCRIPTION	DATE

P R O J E C T T E A M PROFESSIONAL IN CHARGE

CATHY G. TIEDGE, PE

REGISTRATION

N U M B E R FL-47763

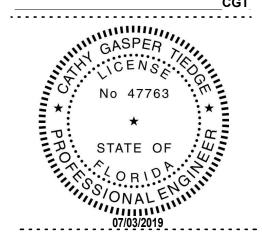
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D R A W N B Y

CHECKED BY



DESIGN CONSULTANT

PININFARINA BUS SHELTERS

CITY OF MIAMI BEACH

ABBREVIATIONS, SYMBOLS AND

GENERAL NOTES

SHEET TITLE



roofing consulting construction management

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ARCHITECT OF RECORD

17-012 G01

PROJECT NUMBER

S-001

S H E E T N U M B E R

TO THE BEST OF MY KNOWLEDGE
AND ABILITY THESE PLANS ARE
COMPLETE AND COMPLY WITH THE
APPLICABLE BUILDING CODES

1. SPECIAL INSPECTIONS REQUIRED FOR THE FOLLOWING MATERIALS, SYSTEMS, COMPONENTS, AND WORK IN

- D. ALUMINUM SHELTER
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING AND SCHEDULING ALL SPECIAL
- 3. THE CONTRACTOR SHALL BEAR THE COST OF CORRECTING AND/OR REPLACING ALL MATERIALS, SYSTEMS, COMPONENTS, AND/OR WORK THAT DOES NOT MEET THE REQUIREMENTS OF THE SPECIAL INSPECTOR.

1330 SHOP DRAWING REVIEW

- SHOP DRAWINGS SHALL ADEQUATELY DEPICT THE STRUCTURAL ELEMENTS AND CONNECTIONS SHOWN ON THE CONTRACT DOCUMENTS. SHOP DRAWINGS WILL BE REVIEWED FOR GENERAL COMPLIANCE WITH THE DESIGN INTENT OF THE CONTRACT DOCUMENTS ONLY. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY COMPLIANCE WITH THE CONTRACT DOCUMENTS AS TO QUANTITY, LENGTH, ELEVATIONS, DIMENSIONS, ETC. REVIEW OF SUBMITTALS AND SHOP DRAWINGS DOES NOT RELIEVE THE CONTRACTOR OF FULL RESPONSIBILITY FOR ERRORS AND OMISSIONS ASSOCIATED WITH THE PREPARATION OF THE SHOP DRAWINGS.
- SHOP DRAWINGS SHALL BE REVIEWED BY THE CONTRACTOR AND MARKED "APPROVED" PRIOR TO SUBMITTAL TO THE ARCHITECT/ENGINEER. NON-CONFORMING DRAWING SUBMITTALS WILL BE RETURNED
- SHOP DRAWING SUBMITTALS SHALL INCLUDE, AT A MINIMUM, ONE GOOD QUALITY REPRODUCIBLE AND THREE SETS OF BLUEPRINTS. ONE SET OF PRINTS WILL BE RETAINED BY THE ENGINEER OF RECORD, ONE BY THE ARCHITECT, ONE BY THE LOCAL BUILDING DEPARTMENT (WHERE REQUIRED) AND THE CONTRACTOR SHALL MAKE PRINTS FROM THE REPRODUCIBLE AS REQUIRED FOR DISTRIBUTION.
- 4. THE CONTRACT DOCUMENTS WILL GOVERN OVER THE SHOP DRAWINGS UNLESS OTHERWISE SPECIFIED IN WRITING BY THE ENGINEER OF RECORD.
- CHANGES AND ADDITIONS MADE ON RE-SUBMITTALS SHALL BE CLEARLY FLAGGED AND NOTED. THE PURPOSE OF THE RE-SUBMITTALS SHALL BE CLEARLY NOTED ON THE LETTER OF TRANSMITTAL. ARCHITECT/ENGINEER OF RECORD REVIEW WILL BE LIMITED TO THOSE ITEMS CAUSING THE RE-SUBMITTAL. CONTRACTOR IS RESPONSIBLE FOR COSTS CAUSED BY MULTIPLE RE-SUBMITTALS (MORE THAN ONE) AT ARCHITECT/ENGINEERS' CURRENT HOURLY RATES.

1331 SHOP DRAWINGS FOR SPECIALTY ENGINEERED PRODUCTS

1. THE FOLLOWING SYSTEMS AND COMPONENTS AS A MINIMUM REQUIRE FABRICATION AND ERECTION DRAWINGS PREPARED BY A DELEGATED ENGINEER:

- A. PREFABRICATED STEEL COMPONENTS
- B. STRUCTURAL STEEL CONNECTIONS REQUIRING ENGINEERING
- C. SOLAR PANEL AND GLAZING ASSEMBLIES
- D. PRE-ENGINEERED ALUMINUM COMPONENTS
- 2. SUBMITTALS SHALL CLEARLY IDENTIFY THE SPECIFIC PROJECT AND APPLICABLE CODES, LIST THE DESIGN CRITERIA, AND SHOW ALL DETAILS AND DRAWINGS NECESSARY FOR PROPER FABRICATION AND INSTALLATION. SHOP DRAWINGS AND CALCULATIONS SHALL IDENTIFY SPECIFIC PRODUCT UTILIZED. GENERIC PRODUCTS WILL NOT BE ACCEPTED.
- 3. SHOP DRAWINGS AND CALCULATIONS SHALL BE PREPARED UNDER THE DIRECT SUPERVISION AND CONTROL OF THE DELEGATED ENGINEER.
- 4. SHOP DRAWINGS AND CALCULATIONS SHALL BE SIGNED AND SEALED BY AN ENGINEER REGISTERED IN THE STATE OF FLORIDA (IN WHICH THE PROJECT RESIDES). COMPUTER PRINTOUTS ARE AN ACCEPTABLE SUBSTITUTE FOR MANUAL COMPUTATIONS PROVIDED THEY ARE ACCOMPANIED BY SUFFICIENT DESCRIPTIVE INFORMATION TO PERMIT THEIR PROPER EVALUATION. SUCH DESCRIPTIVE INFORMATION SHALL BE SIGNED AND SEALED BY AN ENGINEER REGISTERED IN THE STATE OF FLORIDA (IN WHICH THE PROJECT RESIDES) AS AN INDICATION THAT HE/SHE HAS ACCEPTED RESPONSIBILITY FOR THE RESULTS. THE STRUCTURAL ENGINEER WILL RETAIN ONE SIGNED AND SEALED SET FOR THEIR RECORDS.
- 5. DRAWINGS PREPARED SOLELY TO SERVE AS A GUIDE FOR FABRICATION AND INSTALLATION (SUCH AS REINFORCING STEEL SHOP DRAWINGS OR STRUCTURAL STEEL ERECTION DRAWINGS) AND REQUIRING NO ENGINEERING, DO NOT REQUIRE THE SEAL OF A DELEGATED ENGINEER.
- 6. CATALOG INFORMATION ON STANDARD PRODUCTS DOES NOT REQUIRE THE SEAL OF A DELEGATED ENGINEER
- REVIEW BY THE STRUCTURAL ENGINEER OF RECORD OF SUBMITTALS IS LIMITED TO VERIFYING THE
- A. THAT THE SPECIFIED STRUCTURAL SUBMITTALS HAVE BEEN FURNISHED.
- B. THAT THE STRUCTURAL SUBMITTALS HAVE BEEN SIGNED AND SEALED BY THE DELEGATED ENGINEER.
- C. THAT THE DELEGATED ENGINEER HAS UNDERSTOOD THE DESIGN INTENT AND HAS USED THE SPECIFIED STRUCTURAL CRITERIA. NO DETAILED CHECK OF CALCULATIONS WILL BE MADE.
- D. THAT THE CONFIGURATION SET FORTH IN THE STRUCTURAL SUBMITTALS IS CONSISTENT WITH THE CONTRACT DOCUMENTS, NO DETAILED CHECK OF DIMENSIONS OR QUANTITIES WILL BE MADE.
- 8. SUBMITTALS NOT MEETING THE ABOVE CRITERIA WILL NOT BE REVIEWED AND WILL BE RETURNED.

1333 SUBMITTALS

- 1. ALL SHOP DRAWINGS MUST BE REVIEWED AND STAMPED APPROVED BY THE GENERAL CONTRACTOR
- 2. THE GENERAL CONTRACTOR SHALL SUBMIT FOR ENGINEER REVIEW SHOP DRAWINGS FOR THE
- ITEMS MARKED (D) SHALL HAVE SHOP DRAWINGS SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF FLORIDA.
- ITEMS MARKED (#) SHALL BE SUBMITTED FOR ENGINEERS RECORD ONLY.
- A. STRUCTURAL STEEL (D)
- B. REINFORCING STEEL
- C. PRE-FABRICATED STEEL COMPONENTS
- D. SOLAR PANEL AND GLAZING ASSEMBLIES (D)
- E. PRE-ENGINEERED ALUMINUM COMPONENTS (D)
- 3. MANUFACTURER'S LITERATURE. SUBMIT TWO COPIES OF MANUFACTURER'S LITERATURE FOR ALL MATERIALS AND PRODUCTS USED IN CONSTRUCTION ON THE PROJECT.
- 4. DELEGATE DESIGN SUBMITTALS THAT ARE SUBMITTED TO THE BUILDING DEPARTMENT TO BE STAMPED AS 'APPROVED" OR "NO EXCEPTIONS TAKEN" BY THE ARCHITECT AND ENGINEER OF RECORD. SHOP DRAWINGS TO BE RE-SUBMITTED FOR REVIEW AS REQUIRED UNTIL ALL A/E COMMENTS HAVE BEEN

1334 REQUEST FOR INTERPRETATION (RFI)

- RFI SHALL ORIGINATE WITH CONTRACTOR AND SHALL BE SUBMITTED IN THE FORM SPECIFIED WITHIN CONTRACT DOCUMENTS. RFI SHALL BE SUBMITTED IN A PROMPT MANNER AS TO AVOID DELAYS IN
- RFI SHALL BE SUBMITTED AS SPECIFIED WITHIN THE CONTRACT DOCUMENTS AND SHALL BE FORWARDED TO THE ENGINEER VIA THE ARCHITECT OR DIRECTLY TO THE ENGINEER BY THE CONTRACTOR WHEN
- ENGINEER SHALL TAKE UP TO 5 BUSINESS DAYS TO REVIEW AND RETURN RFI'S. HOWEVER, THE ENGINEER WILL ATTEMPT TO EXPEDITE THE REVIEW OF ALL RFI'S WITHIN A REASONABLE TIME FRAME.
- RFI RESPONSES ARE NOT INTENDED TO AUTHORIZE ANY INCREASE IN CONSTRUCTION COST, SCHEDULE OR TIME EXTENSIONS, OR CONSTRUCTION IN CONFLICT WITH ANY APPLICABLE CODES OR SPECIFIED DESIGN STANDARDS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE DESIGN TEAM IMMEDIATELY OF ANY PERCEIVED SCOPE, SCHEDULE, OR COST IMPACTS OR ADJUSTMENTS. IF CONTRACTOR REQUESTS ANY ADDITIONAL COST, INCREASE IN SCHEDULE OR ADJUSTMENT IN SCOPE THE CONTRACTOR SHALL NOT PROCEED WITH ADDITIONAL WORK UNTIL APPROVED IN WRITING BY THE CONSTRUCTION ADMINISTRATOR.

1350 SUSTAINABILITY

- 1. SOURCE: WITHIN 500 MILES OF THE PROJECT SITE
- 2. RECYCLED MATERIAL CONTENT
- A. STEEL REINFORCMENT POST CONSUMER RECYCLED CONTENT PLUS PRECONSUMER RECYCLED CONTENT NOT LESS THAN 60 PERCENT.
- B. CONCRETE CEMENTITIOUS MATERIAL TO CONTAIN NOT LESS THAN 25 PERCENT FLY ASH.
- C. STRUCTURAL STEEL MATERIALS PRODUCTS WITH AN AVERAGE RECYCLED CONTENT OF STEEL PRODUCTS SO POSTCONSUMER RECYCLED CONTENT PLUS PRECONSUMER RECYCLED CONTENT IS NOT LESS THAN 25 PERCENT.
- D. ALUMINUM MATERIALS PRODUCTS WITH AN AVERAGE RECYCLED CONTENT OF ALUMINUM PRODUCTS SO POSTCONSUMER RECYCLED CONTENT PLUS PRECONSUMER RECYCLED CONTENT IS

2210 DEMOLITION NOTES

- 1. THE CONTRACTOR IS REQUIRED TO PROVIDE ALL TEMPORARY SCAFFOLDING, PLATFORMS, BARRICADES. RAILINGS. SCREENING. ETC. NECESSARY TO PROTECT EXISTING FACILITIES. STRUCTURES AND THE PUBLIC DURING DEMOLITION AND ERECTION OF THE NEW CONSTRUCTION, AS WELL AS FOR JOB SAFETY JOB SAFETY, CONSTRUCTION AND DEMOLITION PROCEDURES ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR IS REQUIRED TO TAKE ALL PRECAUTIONS TO MINIMIZE VIBRATION, NOISE, DUST AND DEBRIS IN ALL AREAS ADJACENT TO AREAS OF DEMOLITION.
- 2. THE CONTRACTOR IS REQUIRED TO COORDINATE WITH THE OWNER FOR THE TEMPORARY SUSPENSION OF USE OF ANY FACILITY OR PORTION THEREOF, AND THE ASSOCIATED BARRICADING REQUIREMENTS WITHIN A MINIMUM OF 7 DAYS PRIOR TO COMMENCING WORK.
- 3. THE CONTRACTOR IS REQUIRED TO PERFORM HIS WORK IN A MANNER, WHICH WILL NOT CONFLICT WITH ANY OPERATION, WHICH IS TO REMAIN FUNCTIONAL DURING THE COURSE OF THE PROJECT, UNTIL SUCH OPERATION IS SCHEDULED TO BE SHUT DOWN.
- 4. THE CONTRACTOR IS REQUIRED TO COORDINATE WITH OWNER FOR THE TEMPORARY SUSPENSION OF USE OF ANY UTILITY SYSTEM, A MINIMUM OF 3 DAYS PRIOR TO COMMENCING WORK.
- 5. AT ALL LOCATIONS WHERE NEW CONSTRUCTION WILL INTERFACE WITH EXISTING ELEMENTS, CUT THROUGH EXISTING STRUCTURE IN STRAIGHT AND TRUE LINES TO INSURE A NEAT INTERFACE.
- 6. AT ALL LOCATIONS WHERE THE DEMOLITION OF A CONCRETE MEMBER LEAVES THE ENDS OF REINFORCING STEEL EXPOSED, PROVIDE THE FOLLOWING:
- A. CHIP CONCRETE FROM AROUND THE STEEL TO A DEPTH OF 1".
- B. CUT OFF REINFORCING STEEL NOT LESS THAN 3/4" BELOW THE CONCRETE SURFACE.
- C. FILL THE CAVITY FLUSH WITH A HIGH MODULUS GEL EPOXY. SEE SPECIFICATION FOR ACCEPTED MANUFACTURERS.
- 7. UPON COMPLETION OF NEW CONSTRUCTION UNDER EACH PHASE, ALL DEMOLISHED AREAS SHALL BE RESTORED TO ACCEPTABLE USAGE ACCORDING TO THE CONTRACT DOCUMENTS AS DETERMINED BY THE
- 8. REMOVE COMPLETELY FROM THE SITE AND LEGALLY DISPOSE ALL DEBRIS GENERATED BY THE DEMOLITION WORK AS THE WORK PROGRESSES. STOCKPILING OF DEBRIS AND BURNING OF DEBRIS ON

2300 FOUNDATIONS - W/O SOIL REPORTS

- 1. IN THE ABSENCE OF ANY GEOTECHNICAL RECOMMENDATIONS, THE FOUNDATIONS ARE DESIGNED FOR A PRESUMPTIVE ALLOWABLE SOIL BEARING PRESSURE OF 2000 PSF VERTICAL AND 150 PSF LATERAL WITH A COEFFICIENT OF FRICTION OF 0.25 ON COMPACTED FILL
- 2. PRESUMPTIVE SOIL CONDITIONS ARE IN ACCORDANCE WITH TABLE 1806.2 OF THE FLORIDA BUILDING CODE, 6TH EDITION (2017) FOR FOUNDATIONS BEARING ON SAND, SILTY SAND, CLAYEY SAND, SILTY GRAVEL, AND CLAYEY GRAVEL
- 2. IN THE ABSENCE OF ANY GEOTECHNICAL RECOMMENDATIONS, NO WARRANTIES, EXPRESSED OR IMPLIED, ARE MADE BY TLC FOR THE PERFORMANCE OF THE FOUNDATION
- 3. AT A MINIMUM, SITE PREPARATION WORK SHALL INCLUDE:
- A. STRIPPING AND GRUBBING OF THE BUILDING FOOTPRINT PLUS A MARGIN OF 1 FEET AROUND THE FOUNDATION, REMOVING ALL ORGANIC MATERIALS.
- B. PROOF ROLLING THE FOUNDATION SITE TO LOCATE ANY UNFORESEEN SOFT AREAS. ANY SOFT AREAS SHALL BE EXCAVATED AND REPLACED WITH CLEAN FILL. A DENSITY OF AT LEAST 95% FOR A DEPTH OF 2 FEET IS REQUIRED UNDER THE BUILDING FOOTPRINT
- C. ALL FILL SHALL BE CLEAN SAND AND FREE OF ORGANIC MATERIALS. COMPACT FILL IN 12 INCH (UNCOMPACTED THICKNESS) LIFTS TO A MINIMUM OF 95% OF THE MODIFIED PROCTOR MAXIMUM DRY
- D. EXCAVATIONS FOR FOUNDATIONS SHALL BE COMPACTED TO 95% FOR A DEPTH OF AT LEAST 2 FEET BELOW THE BOTTOM OF THE FOUNDATION.
- E. DEWATERING MAY BE REQUIRED TO ACHIEVE THE REQUIRED COMPACTION VALUES, AND IF USED. SHOULD DRAW DOWN THE WATER LEVEL TO AT LEAST 2 FEET BELOW THE BOTTOM OF THE ...

3302 CONCRETE

1. SHALL BE PER AN APPROVED MIX DESIGN PROPORTIONED TO ACHIEVE A STRENGTH AT 28 DAYS AS LISTED BELOW WITH A PLASTIC AND WORKABLE MIX:

CONCRETE STRUCTURE TYPE	COMPRESSIVE STRENGTH	SLUMP	MAXIMUM AGGREGATE	MAXIMUM W/C RATIO
FOUNDATIONS	4000 PSI	4-6"	3/4"	0.50
SLABS-ON-GRADE	4000 PSI	4-6"	3/4"	0.50

- 2. CONCRETE SHALL BE PLACED AND CURED ACCORDING TO ACI STANDARDS AND SPECIFICATIONS.
- 3. SUBMIT PROPOSED MIX DESIGN WITH RECENT FIELD CYLINDER OR LAB TESTS FOR REVIEW PRIOR TO USE. MIX SHALL BE UNIQUELY IDENTIFIED BY MIX NUMBER OR OTHER POSITIVE IDENTIFICATION. MIX SHALL MEET THE REQUIREMENTS OF ASTM C33 FOR COARSE AGGREGATE.
- 4. CONCRETE SHALL COMPLY WITH THE REQUIREMENTS OF ASTM STANDARD C94 FOR MEASURING, MIXING, TRANSPORTING, ETC. CONCRETE TICKETS SHALL BE TIME STAMPED WHEN CONCRETE IS BATCHED.
- 5. THE MAXIMUM TIME ALLOWED FROM THE TIME THE MIXING WATER IS ADDED UNTIL IT IS DEPOSITED IN ITS FINAL POSITION SHALL NOT EXCEED ONE AND ONE HALF (1-1/2) HOURS. IF FOR ANY REASON THERE IS A LONGER DELAY THAN THAT STATED ABOVE, THE CONCRETE SHALL BE DISCARDED. IT SHALL BE THE RESPONSIBILITY OF THE TESTING LAB TO NOTIFY THE OWNER'S REPRESENTATIVE AND THE CONTRACTOR OF ANY NONCOMPLIANCE WITH THE ABOVE.
- 6. SLABS SHALL BE CURED USING A DISSIPATING CURING COMPOUND MEETING ASTM STANDARD C309 TYPE 1-CLASS D AND SHALL HAVE A FUGITIVE DYE. THE COMPOUND SHALL BE PLACED AS SOON AS THE FINISHING IS COMPLETED OR AS SOON AS THE WATER HAS LEFT THE UNFINISHED CONCRETE. SCUFFED OR BROKEN AREAS IN THE CURING MEMBRANE SHALL BE RECOATED DAILY.
- 7. CALCIUM CHLORIDES SHALL NOT BE UTILIZED; OTHER ADMIXTURES MAY BE USED ONLY WITH THE APPROVAL OF THE ENGINEER.
- 8. CONCRETE MIX DESIGNS SHALL INCLUDE A WRITTEN DESCRIPTION INDICATING WHERE EACH PARTICULAR MIX IS TO BE PLACED WITHIN THE STRUCTURE.
- 9. CONDUITS, PIPES AND SLEEVES SHALL BE PLACED AND SPACED IN ACCORDANCE WITH ACI 318, 6.3.
- 10. CONCRETE DESIGN MIX SUBMITTALS SHALL INCLUDE TESTED, STATISTICAL BACK-UP DATA AS PER CHAPTER 5 OF ACI 318.

3314 WELDED WIRE FABRIC

- SHALL CONFORM TO ASTM A-185, FREE FROM OIL, SCALE AND RUST AND PLACED IN ACCORDANCE WITH THE TYPICAL PLACING DETAILS OF ACI STANDARDS AND SPECIFICATIONS.
- MINIMUM LAP SHALL BE ONE SPACE PLUS TWO INCHES.
- 3. USE OF FLAT MANUFACTURED SHEETS IS REQUIRED (NO ROLLS).
- 4. INSTALL WWF ON BRICKS OR BOLSTERS AT MID DEPTH OF SLAB U.N.O.; SPACING OF SUPPORTS SHALL BE ADEQUATE TO PREVENT SHIFTING OF WWF DURING CONSTRUCTION, BUT SHALL NOT EXCEED 24" O.C.

3400 CONCRETE TESTING

- 1. AN INDEPENDENT TESTING LABORATORY SHALL PERFORM THE FOLLOWING TESTS ON CAST IN PLACE CONCRETE:
- A. ASTM C143 "STANDARD TEST METHOD FOR SLUMP OF PORTLAND CEMENT CONCRETE."
- B. ASTM C39 "STANDARD TEST METHOD FOR COMPRESSIVE STRENGTH OF CYLINDRICAL CONCRETE SPECIMENS." A SEPARATE TEST SHALL BE CONDUCTED FOR EACH CLASS, FOR EVERY 50 CUBIC YARDS (OR FRACTION THEREOF), PLACED PER DAY. REQUIRED LAB CURED CYLINDER QUANTITIES AND TEST AGE AS FOLLOWS:
- (2) AT 7 DAYS
- (2) AT 28 DAYS
- ONE ADDITIONAL RESERVE CYLINDER TO BE TESTED UNDER THE DIRECTION OF THE ENGINEER, IF REQUIRED. IF 28-DAY STRENGTH IS ACHIEVED, THE ADDITIONAL CYLINDER(S) MAY BE DISCARDED.

3601 CHEMICAL (ADHESIVE) ANCHORS

- SHALL BE A TWO PART EPOXY POLYMER INJECTION SYSTEM, SUCH AS HILTI HIT HY200, HILTI RE500 SD. POWERS PURE 100+, OR SIMPSON SET ADHESIVE SYSTEM, OR ENGINEER APPROVED SUBSTITUTION.
- EPOXY TYPES AND BRANDS VARY IN THEIR BOND STRENGTH AND SUITABILITY OF USE, DEPENDING ON TYPE OF LOADING, ANCHOR SPACING, ETC. WHEN A PARTICULAR TYPE OF EPOXY IS SPECIFIED IN THESE DRAWINGS, A UNIQUE CALCULATION HAS BEEN MADE BASED ON THE PROPERTIES OF THAT SPECIFIC TYPE OF EPOXY FOR THE SPECIFIC CONDITION SHOWN IN THE DETAIL. SUBSTITUTION OF EPOXY TYPE IS NOT ALLOWED WHERE DETAIL SPECIFIES ONLY ONE TYPE OF EPOXY, WITHOUT PRIOR WRITTEN APPROVAL BY THE ENGINEER OF RECORD. NOT ALL EPOXY BRANDS OR TYPES WILL BE ALLOWED AS SUBSTITUTES. ICC-ES REPORTS FOR PROPOSED ANCHOR SUBSTITUTIONS MUST BE SUBMITTED TO EOR FOR REVIEW. EOR MAY REQUIRE ENGINEERED CALCULATIONS FOR REVIEW AND APPROVAL.
- SUBSTITUTION OF EPOXIES IN ONE CONDITION SHALL NOT BE CONSTRUED AS APPROVAL TO MAKE SIMILAR SUBSTITUTION OF EPOXIES IN OTHER DIFFERING CONDITIONS. EACH SUBSTITUTION MUST RECEIVE PRIOR WRITTEN APPROVAL BY THE ENGINEER OF RECORD.
- INSTALL ANCHORS IN STRICT ACCORDANCE WITH MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII) IN CONJUNCTION WITH EDGE DISTANCE, SPACING, AND EMBEDMENT SPECIFIED ON.
- ADHESIVE ANCHORS INSTALLED IN HORIZONTAL TO VERTICALLY OVERHEAD ORIENTATION TO SUPPORT SUSTAINED TENSION LOADS SHALL BE DONE BY A CERTIFIED ADHESIVE ANCHOR INSTALLER (AAI) AS CERTIFIED THROUGH ACI/CRSI (ACI 318-11 D.9.2.2). PROOF OF CURRENT CERTIFICATION SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO COMMENCEMENT OF INSTALLATION.
- 6. THE MANUFACTURER'S REPRESENTATIVE SHALL TRAIN INSTALLERS FOR ALL PRODUCTS TO BE USED PRIOR TO COMMENCEMENT OF WORK. ONLY TRAINED INSTALLERS SHALL PERFORM POST INSTALLED ANCHOR INSTALLATION. A RECORD OF TRAINING SHALL BE MADE AVAILABLE TO THE EOR AS REQUESTED
 - THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT ALL HOLE CLEAN-OUT REQUIREMENTS ARE FULLY COMPLETED BY THE INSTALLERS PRIOR TO INJECTING EPOXY INTO THE HOLES IN ACCORDANCE WITH THE
 - NO LOAD SHALL BE APPLIED TO THE EPOXY ANCHORS UNTIL THE EPOXY HAS FULLY CURED AND HAS ACHIEVED IT'S SPECIFIED STRENGTH. CURE TIME SHALL BE PER MANUFACTURERS PUBLISHED VALUES FOR SPECIFIC PRODUCT BEING USED.

9. IF DETAIL SHOWS EPOXY ANCHORS IN SLOTTED HOLES, IT IS IMPERATIVE THAT ANY EXCESS EPOXY IS

- CLEANED UP FROM AROUND THE ANCHOR ROD, SO THAT IT DOES NOT INTERFERE WITH ADJUSTABILITY OF ANCHOR ROD IN SLOTTED HOLE. 10. ADHESIVE ANCHORS IN CONCRETE SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE
- WITH ACI 355.2 AND ICC-ES AC193 FOR CRACKED, UNCRACKED, AND SEISMIC CONCRETE RECOGNITION. 11. ADHESIVE ANCHORS IN MASONRY SHALL HAVE BEEN TESTED AND QUALIFIED IN ACCORDANCE WITH ICC-ES AC70.
- 12. EXISTING REINFORCING IN CONCRETE CONSTRUCTION SHALL NOT BE CUT UNLESS APPROVED BY THE EOR. 13. ADHESIVE ANCHORS IN CONCRETE CONSTRUCTION SHALL NOT BE INSTALLED UNTIL CONCRETE AND/OR
- MASONRY HAS CURED FOR AT LEAST 21-DAYS. 14. PROVIDE SPECIAL INSPECTION FOR ALL ADHESIVE ANCHORS IN ACCORDANCE WITH THE REQUIREMENTS
- OF THE APPLICABLE BUILDING CODE AND THE CURRENT ICC-ES REPORT (IBC-2012 TABLE 1705.3 NOTE B). 15. ADHESIVE ANCHORS INSTALLED IN HORIZONTAL OR UPWARDLY INCLINED ORIENTATIONS TO RESIST

SUSTAINED TENSION LOADS SHALL BE CONTINUOUSLY INSPECTED DURING INSTALLATION BY AN

INSPECTOR SPECIALLY APPROVED FOR THAT PURPOSE BY THE BUILDING OFFICIAL (ACI 318-11 D.9.2.4) 3602 MECHANICAL ANCHORS

- SHALL BE EITHER HEAVY DUTY CONCRETE SCREW ANCHOR (SUCH AS POWERS WEDGE-BOLT +, SIMPSON TITEN HD, OR HILTI HUS-H) OR WEDGE TYPE EXPANSION ANCHOR (SUCH AS POWERS POWER-STUD+SD1. SIMPSON WEDGE-ALL, OR HILTI KWIK BOLT 3).
- TYPE OF ANCHOR SHALL BE AS SPECIFIED ON THE DRAWINGS, WHILE BRAND AND MODEL OF ANCHOR MAY BE SELECTED FROM THE ABOVE LISTED ANCHORS. SUBSTITUTION ANCHORS MUST BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVED IN WRITING BY THE ENGINEER OF RECORD PRIOR TO USE. ICC-ES REPORTS FOR PROPOSED ANCHOR SUBSTITUTES MUST BE SUBMITTED TO EOR FOR REVIEW. EOR MAY REQUEST ENGINEERED CALCULATIONS FOR REVIEW AND APPROVAL
- IN SOME CASES OF CRITICAL LOADING OR GEOMETRIC CONDITIONS, ONLY SPECIFIC ANCHORS WILL BE ALLOWED, AS NOTED ON THE DRAWINGS. IN THESE CASES, THE SPECIFIED BRAND AND MODEL OF ANCHOR MUST BE USED.
- INSTALL ANCHORS IN STRICT ACCORDANCE WITH MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII) IN CONJUNCTION WITH EDGE DISTANCE, SPACING, AND EMBEDMENT SPECIFIED ON
- THE MANUFACTURER'S REPRESENTATIVE SHALL TRAIN INSTALLERS FOR ALL PRODUCTS TO BE USED PRIOR TO COMMENCEMENT OF WORK. ONLY TRAINED INSTALLERS SHALL PERFORM POST INSTALLED ANCHOR INSTALLATION. A RECORD OF TRAINING SHALL BE KEPT ON SITE AND MADE AVAILABLE TO THE
- MINIMUM EMBEDMENT DEPTH OF 1/4" TAPCONS OR POWERS TAPPER + INSTALLED IN CONCRETE SHALL BE 1.25" AND INSTALLED INTO MASONRY SHALL BE 1.5". SELECT ANCHOR LENGTH AS REQUIRED TO ACHIEVE THE SPECIFIED MINIMUM EMBEDMENT DEPTH.
- TAPCON SCREWS, OR POWERS TAPPER +, MAY BE REPLACED W/ 0.157" SHANK DIAMETER PAF ANCHORS (HILTI X-U, POWERS CSI, OR APPROVED EQUAL) ON A 1:1 SUBSTITUTION BASIS. MINIMUM EMBEDMENT DEPTH SHALL BE 1.25" WHEN INSTALLED INTO CONCRETE OR GROUTED MASONRY. FOLLOW MANUFACTURER'S INSTALLATION RECOMMENDATIONS, MINIMUM EDGE DISTANCES, AND PLACEMENT LIMITATIONS (RELATIVE TO MORTAR JOINTS IN MASONRY).
- MECHANICAL ANCHORS IN CONCRETE SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 355.2 AND ICC-ES AC 193 FOR CRACKED, UNCRACKED AND SEISMIC CONCRETE
- 9. MECHANICAL ANCHORS IN MASONRY SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ICC-ES AC01 OR AC106.

TABLE 1705.3 NOTE B).

- 10. POWER ACTUATED FASTENERS SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE
- 11. EXISTING REINFORCING BARS IN CONCRETE AND/OR MASONRY CONSTRUCTION SHALL NOT BE CUT UNLESS APPROVED BY THE EOR.
- 12. ANCHORS SHALL NOT BE INSTALLED IN CONCRETE AND/OR MASONRY CONSTRUCTION UNTIL THE CONCRETE HAS CURED FOR AT LEAST 21-DAYS. 13. PROVIDE SPECIAL INSPECTION FOR ALL MECHANICAL POST INSTALLED ANCHORS IN ACCORDANCE WITH

THE REQUIREMENTS OF THE APPLICABLE BUILDING CODE AND THE CURRENT ICC-ES REPORT (IBC2012

5120 STRUCTURAL STEEL

1. STEEL WORK SHALL BE NEW AND CONFORM TO THE ANSI/AISC 360-10 SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS.

ANCHOR RODS

STAINLESS STEEL

1/2" AT EACH END.

AISC APPROVED METHOD.

STRENGTH OF AT LEAST 5,000 PSI IN 28 DAYS.

SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

CERTIFIED FOR STRUCTURAL ALUMINUM WELDING.

ALUMINUM CHANNELS 6061-T6 ALUMINUM ALLOY

ALUMINUM EXTRUSIONS | 6061-T6 ALUMINUM ALLOY

ALUMINUM ANGLES

ALUMINUM TUBES

DESIGN MANUAL

OTHER FERROUS METALS.

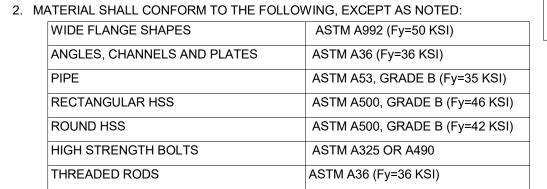
INDICTED ON THE DRAWINGS.

STEEL AND CONCRETE.

ARCHITECTURAL DRAWINGS.

ON SHOP DRAWINGS

THE STATE OF FLORIDA.



C. FIELD CONNECTIONS SHALL BE BOLTED, EXCEPT AS NOTED OTHERWISE.

ASTM F1554 GR. 36 (Fy=36 KSI)

A. BOLTS SHALL BE HIGH-STRENGTH, BEARING TYPE IN SNUG TIGHT CONDITION, U.N.O. TIGHTEN BY AN

B. WELDING ELECTRODES SHALL BE PER AWS D1.1. RETURN FILLET WELDS FOR FRAMED CONNECTIONS

4. BOLTS SHARING LOAD WITH WELDS IN A CONNECTION SHALL BE FULLY PRETENSIONED AND SLIP CRITICAL

ASTM A123 AND ALL FASTENERS AND HARDWARE SHALL BE HOT DIPPED GALVANIZED PER ASTM A153.

5122 WELDING

1. WELDING SHALL BE DONE BY WELDERS WITH CURRENT CERTIFICATION IN ACCORDANCE WITH AWS D1.1.

2. WELDS SHOWN ON STRUCTURAL DRAWINGS ARE MINIMUM DESIGN REQUIREMENTS. THE FABRICATOR'S

3. FULL PENETRATION GROOVE WELDS SHALL BE INSPECTED BY ULTRASONIC TESTING. TWENTY-FIVE

PERCENT OF THE WELDS SHALL BE INSPECTED AT RANDOM UNLESS NOTED OTHERWISE. SEE

5. PROVIDE FILLET WELDS AT CONTACT POINTS BETWEEN STEEL MEMBERS SUFFICIENT TO DEVELOP THE

ALLOWABLE TENSILE STRENGTH OF THE SMALLER MEMBER AT THE JOINT UNLESS DETAILED OTHERWISE

5150 STRUCTURAL ALUMINUM

1. ALL STRUCTURAL ALUMINUM WORK SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE

2. ALL WELDING OF STRUCTURAL ALUMINUM SHAPES SHALL BE DONE IN ACCORDANCE WITH THE ALUMINUM

3. ALUMINUM STRUCTURAL MEMBERS SHALL MEET OR EXCEED THE MECHANICAL PROPERTIES AS SPECIFIED

. DIMENSIONS AND SECTION PROPERTIES OF STRUCTURAL ALUMINUM SHAPES SPECIFIED IN THE DESIGN

6. FOR ALUMINUM IN CONTACT WITH CONCRETE OR CEMENTITIOUS MATERIALS, ALUMINUM SURFACES SHALL

BE COATED WITH COAL TAR EPOXY (RUSTOLEUM 9578 OR EQUAL). TO A MINIMUM DRY FILM THICKNESS OF

5800 ALUMINUM STRUCTURES

1. ALL ALUMINUM MEMBERS SHALL BE FABRICATED IN ACCORDANCE WITH THE ALUMINUM DESIGN MANUAL,

2. ALUMINUM SUPPLIER TO FABRICATE CUSTOM SHAPES AS REQUIRED TO COMPLY WITH DESIGN INTENT.

3. ENGINEERED ALUMINUM SHELTER AND CONNECTIONS OF SHELTER TO THE FOUNDATION INDICATED IN

4. THE CONFIGURATION OF THE SHELTERS SHALL BE AS INDICATED IN THE ARCHITECTURAL DRAWINGS.

5. SHELTER AND CONNECTIONS SHALL BE DESIGNED FOR APPLICABLE LOADS AS INDICATED ON THE PLANS

6. SHOP DRAWINGS SHALL SHOW AND SPECIFY CONNECTIONS UTILIZED WITHIN THE SHELTER AS WELL AS

7. PROVIDE DISSIMILAR METAL SEPARATORS AT ALL JUNCTIONS OF ALUMINUM FRAMING AND STRUCTURAL

8501 PHOTOVOLTAIC PANEL AND GLAZING ASSEMBLY

3. SOLAR PANEL AND GLAZING ASSEMBLY AND CONNECTIONS SHALL BE DESIGNED FOR APPLICABLE LOADS

4. SHOP DRAWINGS AND CALCULATIONS SHALL BE SIGNED AND SEALED BY AN ENGINEER REGISTERED IN

AS INDICATED ON THE DRAWINGS AND IN THE BUILDING CODE. THE LOADS SHALL BE CLEARLY INDICATED

1. ENGINEERED PHOTOVOLTAIC PANELS, GLAZING ASSEMBLY, AND CONNECTIONS OF SAME TO THE

SHELTER SHALL BE DESIGNED BY AN ENGINEER REGISTERED IN THE STATE OF FLORIDA.

2. THE CONFIGURATION OF THE SOLAR PANEL AND GLAZING ASSEMBLY SHALL BE AS SHOWN ON

AND IN THE FLORIDA BUILDING CODE/INTERNATIONAL BUILDING CODE. THE LOADS SHALL BE CLEARLY

CONNECTIONS TO AND LOADS IMPOSED UPON THE STRUCTURAL SYSTEM INDICATED IN THESE PLANS.

THESE PLANS SHALL BE DESIGNED BY AN ENGINEER REGISTERED IN THE STATE OF FLORIDA.

SEE ARCHITECTURAL "SHOP DRWINGS & QUALITY CONTROL" NOTES FOR ADDITIONAL INFORMATION.

5. ALL STRUCTURAL FASTENERS SHALL BE STAINLESS STEEL, TYPE 316, UNLESS NOTED OTHERWISE.

7. PROVIDE DISSIMILAR METAL SEPARATORS BETWEEN ALL STRUCTURAL ALUMINUM IN CONTACT WITH

8. EXPOSED MILL FINISH ALUMINUM SURFACES WILL BECOME DISCOLORED DUE TO OXIDATION.

DRAWINGS SHALL MEET OR EXCEED THOSE SPECIFIED IN THE ALUMINUM ASSOCIATION'S 2015 ALUMINUM

ALUMINUM DESIGN MANUAL: PART I - A SPECIFICATION FOR ALUMINUM STRUCTURES, 2015 EDITION.

STRUCTURAL WELDING CODE (AWS D1.2-2014). ALL WELDING SHALL BE PERFORMED BY WELDERS

IN THE ALUMINUM ASSOCIATION'S 2015 ALUMINUM DESIGN MANUAL AND AS SPECIFIED HEREIN:

6061-T6 ALUMINUM ALLOY

6061-T6 ALUMINUM ALLOY

NOT LESS THAN 10 MILS, AND TO A MINIMUM 3" BEYOND CONTACT AREA.

4. UNLESS NOTED OTHERWISE ON THE DRAWINGS, GROOVE WELDS SHALL BE FULL PENETRATION

ON THE DRAWINGS. THE MINIMUM FILLET WELD SIZE IS 3/16" UNLESS OTHERWISE NOTED.

SHOP DRAWINGS SHALL REFLECT WELDS IN ACCORDANCE WITH AWS REQUIREMENTS.

5. ALL STRUCTURAL STEEL EXPOSED TO EXTERIOR CONDITIONS SHALL BE HOT DIPPED GALVANIZED PER

6. GROUT UNDER BEARING PLATES SHALL BE NON-METALLIC, NON-SHRINK TYPE WITH A COMPRESSIVE



PHASE 100% CD's one: 321-636-0274 PERMIT SET REVISED 321-639-8986

> REVISIONS DESCRIPTION

07.03.2019

07.22.2019

PROJECT TEAM PROFESSIONAL IN CHARGE

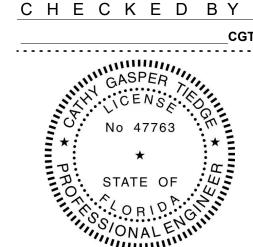
CATHY G. TIEDGE, PE

REGISTRATION-

FL-47763 NUMBER APPROVED BY

D E S I G N E D B Y

D R A W N B Y



DESIGN CONSULTANT

PININFARINA BUS SHELTERS

CITY OF MIAMI BEACH

GENERAL NOTES

SHEET TITLE

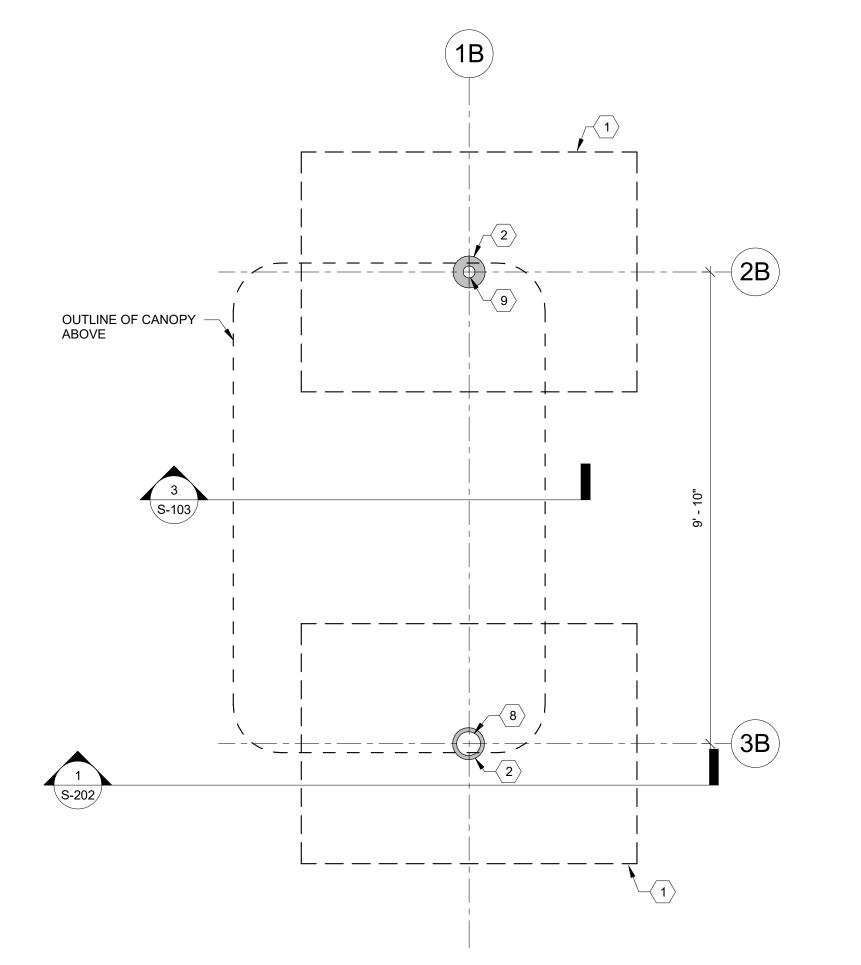
architecture engineering roofing ·consulting

construction management

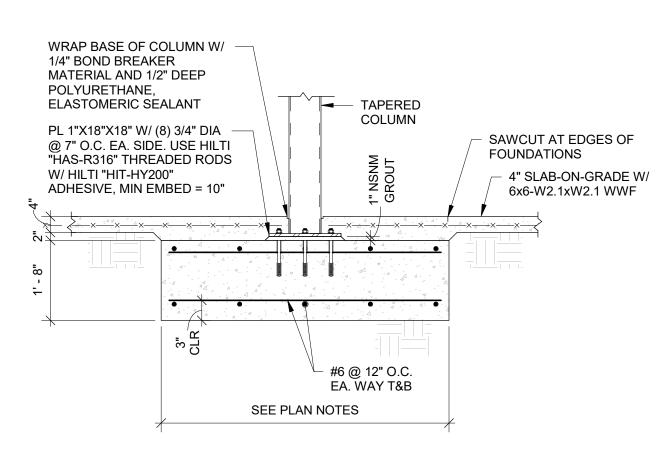
AAC001323 · EB0004379 · CGC010769 2937 W. Cypress Creek Rd., Suite 200 Fort Lauderdale, Florida 33309 Tel: 954.484.4000 · Fax: 954.484.5588 www.acaiarchitects.com ARCHITECT OF RECORD

PROJECT NUMBER

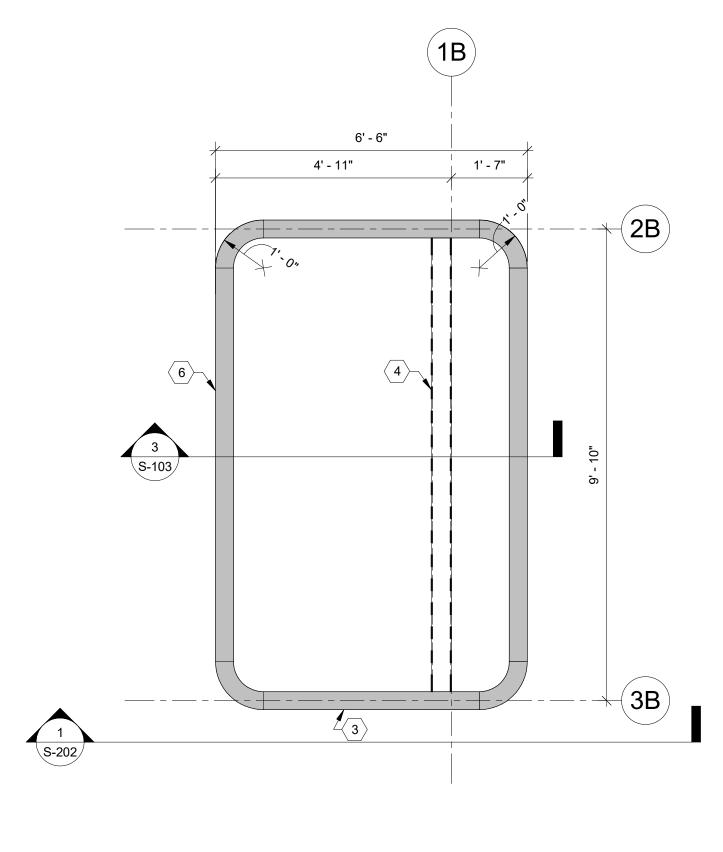
SHEET NUMBER TO THE BEST OF MY KNOWLEDGE AND ABILITY THESE PLANS ARE COMPLETE AND COMPLY WITH THE APPLICABLE BUILDING CODES



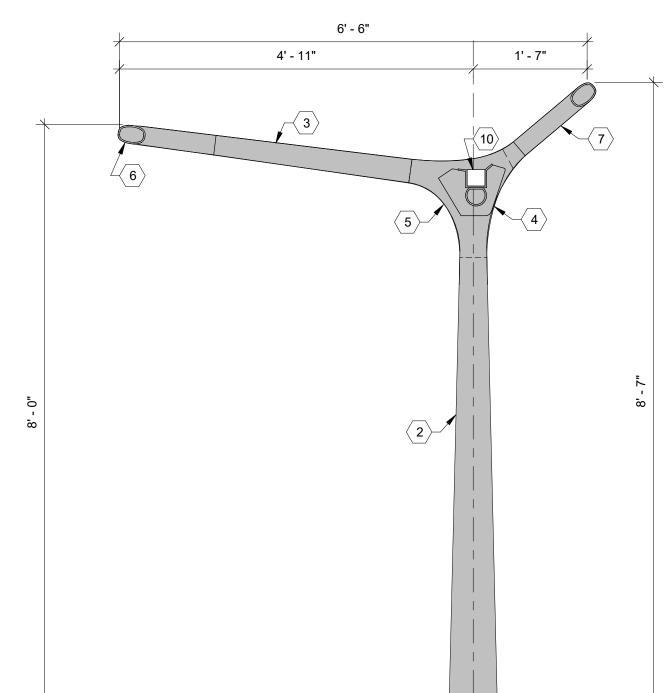
10' X 6' FOUNDATION PLAN 1/2" = 1'-0"



4 TYPICAL COLUMN TO FOUNDATION DETAIL 1/2" = 1'-0"



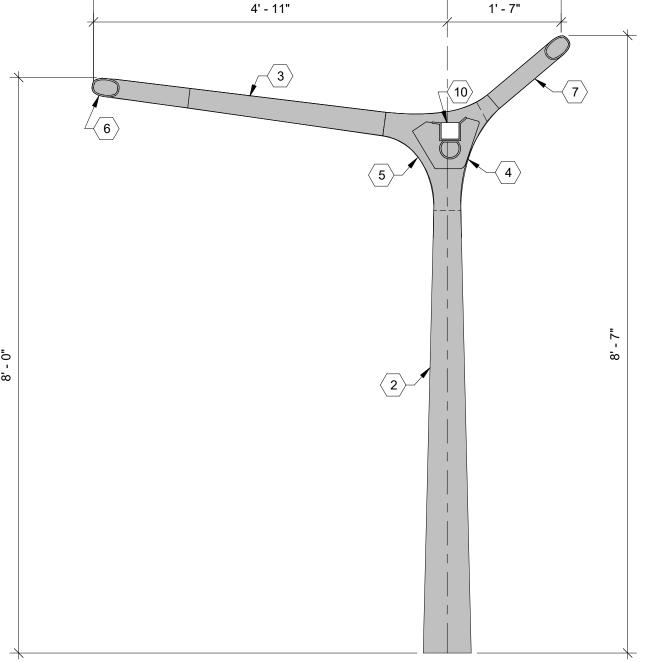
2 10' X 6' ROOF PLAN 1/2" = 1'-0"



3 SECTION - 6' SHELTER 3/4" = 1'-0"

NOTE: VERIFY ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS AND 3D MODELS.

- 10' X 6' PLAN NOTES
- (1) 7'-0" x 5'-0" x 1'-8" FOOTING, REINF. W/ #6 @ 12" O.C. EA. WAY T&B.
- 2 ALUMINUM VARIABLE TAPERED COLUMN: 8" WIDE BASE, 4-1/2" WIDE TOP SEE 6 / S-201 FOR ADDITIONAL INFORMATION.
- 3 ALUMINUM TAPERED ROUND BEAM 3" OD AT EXTERIOR, 4" OD AT SUPPORT, MIN 0.25" WALL THICKNESS.
- (5) ALUMINUM CUSTOM FABRICATED CONNECTION
- 6 ALUMINUM PERIMETER BEAM: SEE 3 / S-201 FOR PROFILE.
- ⟨ 8 ⟩ INTEGRAL DOWNSPOUT-DISCHARGE TO SIDE OF SHELTER.
- OPENING IN FABRICATED CONNECTION FOR DOWNSPOUT SEE PLAN FOR DOWNSPOUT LOCATION.



- 4 ALUMINUM BEAM: SEE 8 / S-201 FOR PROFILE W/ GUTTER

- $\langle 7 \rangle$ ALUMINUM BEAM: 3" OD WITH A 1/4" WALL THICKNESS.
- (9) INTEGRAL CONDUIT PATHWAY.

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S U B M I T T A L S : PHASE DATE

07.03.2019

07.22.2019

100% CD's

COA #15 TLC NO: **616107**

PERMIT SET REVISED

MINIMAL 10' X 6' -FOUNDATION PLAN, FRAMING PLAN, **DETAILS**

SHEET TITLE



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17-012 G01

ARCHITECT OF RECORD

PROJECT NUMBER

SHEET NUMBER TO THE BEST OF MY KNOWLEDGE AND ABILITY THESE PLANS ARE COMPLETE AND COMPLY WITH THE APPLICABLE BUILDING CODES COPYRIGHT 2018 BY ACAI ASSOC., INC. OUTLINE OF CANOPY -

1 20' X 6' FOUNDATION PLAN 1/2" = 1'-0"

WRAP BASE OF COLUMN W/ -

TAPERED

- #6 @ 12" O.C. EA. WAY T&B

SEE PLAN NOTES

COLUMN

SAWCUT AT EDGES OF

4" SLAB-ON-GRADE W/

6x6-W2.1xW2.1 WWF

FOUNDATIONS

1/4" BOND BREAKER MATERIAL AND 1/2" DEEP

W/ HILTI "HIT-HY200"

4 TYPICAL COLUMN TO FOUNDATION DETAIL 1/2" = 1'-0"

ELASTOMERIC SEALANT

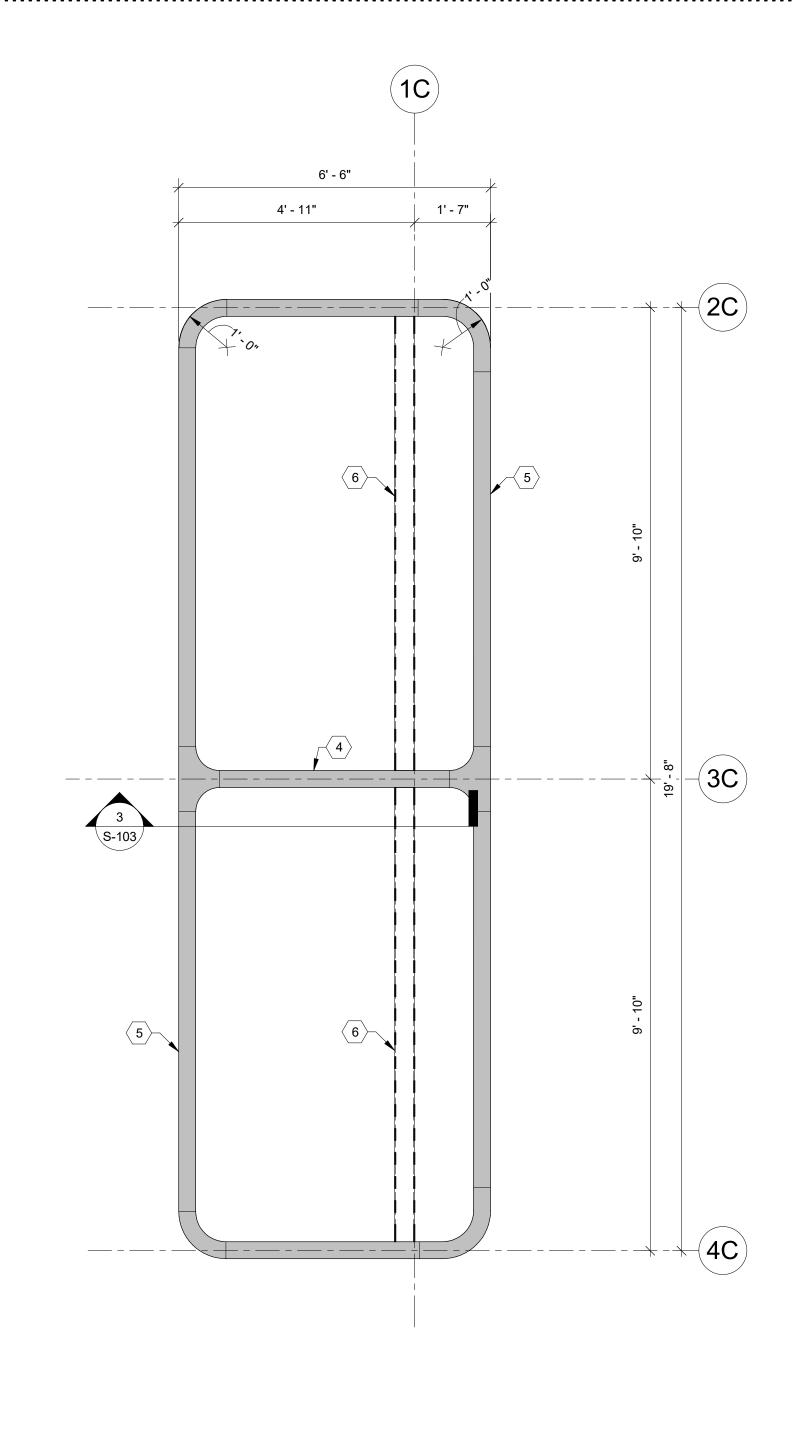
PL 1"X18"X18" W/ (8) 3/4" DIA

ADHESIVE, MIN EMBED = 14"

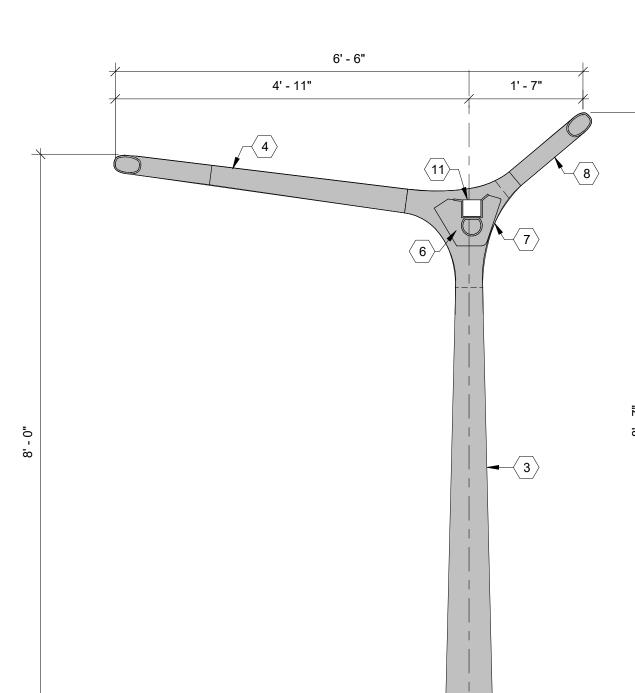
@ 7" O.C. EA. SIDE. USE HILTI

"HAS-R316" THREADED RODS

POLYURETHANE,



20' X 6' ROOF PLAN 1/2" = 1'-0"



3 SECTION - 6' SHELTER 3/4" = 1'-0"

NOTE: VERIFY ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS AND 3D MODELS.

20' X 6' PLAN NOTES

- (1) 9'-0" x 6'-0" x 1'-8" FOOTING, REINF. W/ #6 @ 12" O.C. EA. WAY T&B.
- 2 9'-0" SQ. x 1'-8" FOOTING, REINF. W/ #6 @ 12" O.C. EA. WAY T&B.
- 4 ALUMINUM TAPERED ROUND BEAM 3" OD AT EXTERIOR, 4" OD AT SUPPORT, MIN 0.25" WALL THICKNESS.
- 6 ALUMINUM BEAM: SEE 8 / S-201 FOR PROFILE W/ GUTTER.
- \langle 7 \rangle ALUMINUM CUSTOM FABRICATED CONNECTION.
- \langle 8 \rangle ALUMINUM BEAM: 3" OD WITH A 1/4" WALL THICKNESS.
- \langle 9 \rangle INTEGRAL DOWNSPOUT-DISCHARGE TO SIDE OF SHELTER.
- OPENING IN FABRICATED CONNECTION FOR DOWNSPOUT SEE PLAN FOR DOWNSPOUT LOCATION.

- \langle 3 \rangle ALUMINUM VARIABLE TAPERED COLUMN: 8" WIDE BASE, 4-1/2" WIDE TOP. SEE 6 / S-201FOR ADDITIONAL INFORMATION.
- (5) ALUMINUM PERIMETER BEAM: SEE 3 / S-201 FOR PROFILE.
- \langle 10 \rangle INTEGRAL CONDUIT PATHWAY.

P R O J E C T T E A M PROFESSIONAL IN CHARGE CATHY G. TIEDGE, PE REGISTRATION FL-47763 APPROVED BY D E S I G N E D B Y DRAWN BY CHECKEDBY 07/03/2019 DESIGNCONSULTANT PININFARINA BUS SHELTERS

S U B M I T T A L S : PHASE DATE

REVISIONS

NO. DESCRIPTION

PERMIT SET REVISED

07.03.2019

ENHANCED/STANDARD 20' X 6' -FOUNDATION PLAN, FRAMING PLAN, **DETAILS**

CITY OF MIAMI BEACH

SHEET TITLE

architecture engineering roofing consulting

construction management

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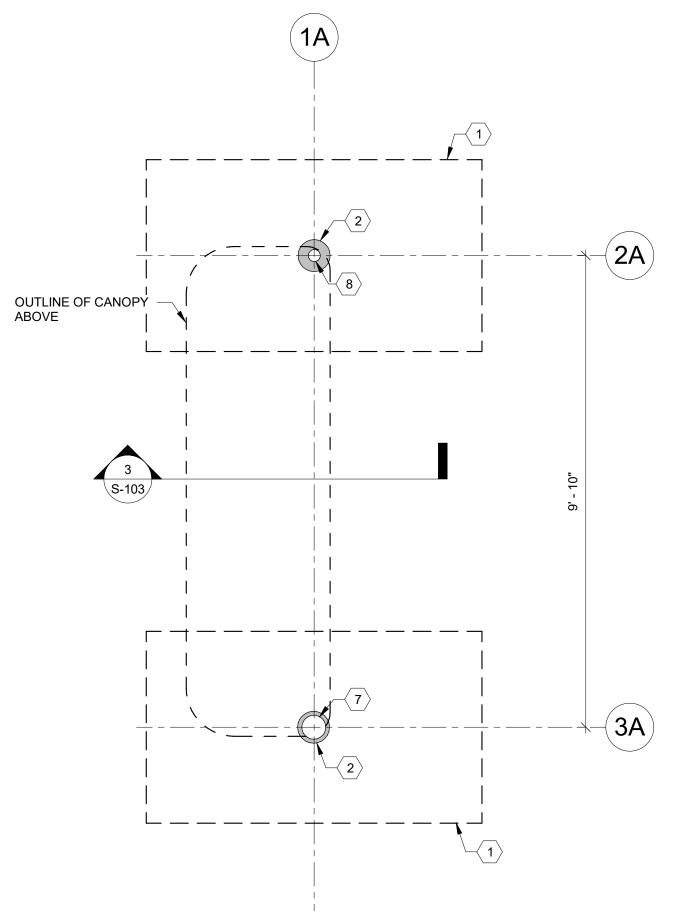
ARCHITECT OF RECORD 17-012 G01

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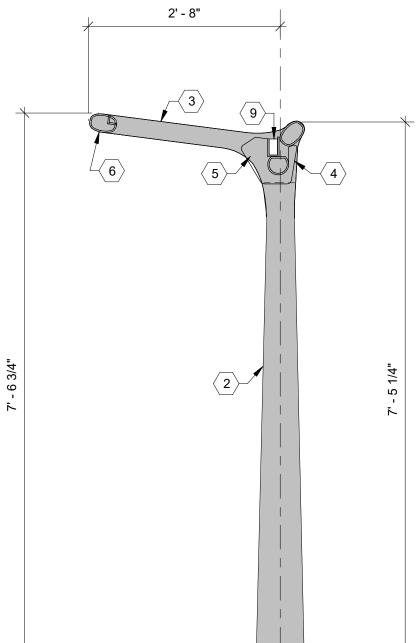
PROJECT NUMBER

SHEET NUMBER TO THE BEST OF MY KNOWLEDGE AND ABILITY THESE PLANS ARE COMPLETE AND COMPLY WITH THE

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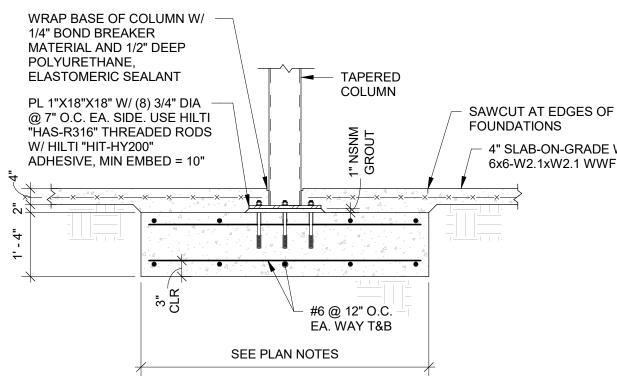
3' - 0" 2' - 8" 4



3 SECTION - 3' SHELTER 3/4" = 1'-0"

NOTE: VERIFY ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS AND 3D MODELS.

10' X 3' FOUNDATION PLAN 1/2" = 1'-0"



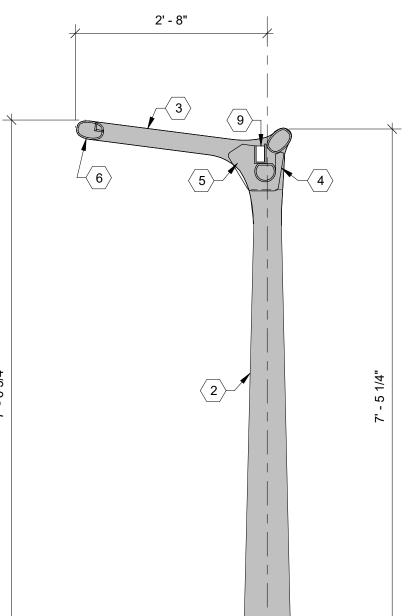
4 TYPICAL COLUMN TO FOUNDATION DETAIL 1/2" = 1'-0"

LANT \ *	▼ TAPERED				
) 3/4" DIA ———————————————————————————————————	GROUT COLUMN	SAWCUT AT EDGES OF FOUNDATIONS 4" SLAB-ON-GRADE W/ 6x6-W2.1xW2.1 WWF			
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O D S	- #6 @ 12" O.C. EA. WAY T&B				

2 10' X 3' ROOF PLAN 1/2" = 1'-0"

10' X 3' PLAN NOTES

- 1 7'-0" x 4'-0" x 1'-4" FOOTING, REINF. W/ #6 @ 12" O.C. EA. WAY T&B.
- \langle 2 \rangle ALUMINUM VARIABLE TAPERED COLUMN: 8" WIDE BASE, 4-1/2" ─ WIDE TOP
- \langle 3 \rangle ALUMINUM BEAM: 3" OD WITH A 1/4" WALL THICKNESS.
- 4 ALUMINUM BEAM: SEE 9 / S-201 FOR PROFILE W/ GUTTER
- \langle 5 \rangle ALUMINUM CUSTOM FABRICATED CONNECTION.
- 6 ALUMINUM PERIMETER BEAM: SEE 3/S-201 FOR PROFILE.
- \langle 7 \rangle INTEGRAL DOWNSPOUT-DISCHARGE TO SIDE OF SHELTER.
- (8) INTEGRAL CONDUIT PATHWAY.
- \langle 9 \rangle OPENING IN FABRICATED CONNECTION FOR DOWNSPOUT SEE PLAN FOR DOWNSPOUT LOCATION.



FOUNDATION PLAN, FRAMING PLAN, **DETAILS** SHEET TITLE

S U B M I T T A L S : PHASE DATE

REVISIONS

P R O J E C T T E A M PROFESSIONAL IN CHARGE

CATHY G. TIEDGE, PE

REGISTRATION N U M B E R FL-47763

..... D E S I G N E D B Y

DRAWN BY

CHECKEDBY

07/03/2019 DESIGNCONSULTANT

PININFARINA BUS

SHELTERS

CITY OF MIAMI BEACH

MINIMAL 10' X 3' -

APPROVED BY

NO. DESCRIPTION

PERMIT SET REVISED

07.03.2019

architecture engineering roofing . consulting construction management

AAC001323 · EB0004379 · CGC010769 2937 W. Cypress Creek Rd., Suite 200 Fort Lauderdale, Florida 33309 Tel: 954.484.4000 · Fax: 954.484.5588 www.acaiarchitects.com ARCHITECT OF RECORD

17-012 G01

PROJECT NUMBER

S-103

SHEET NUMBER TO THE BEST OF MY KNOWLEDGE AND ABILITY THESE PLANS ARE COMPLETE AND COMPLY WITH THE APPLICABLE BUILDING CODES COPYRIGHT 2018 BY ACAI ASSOC., INC.

1 20' X 3' FOUNDATION PLAN 1/2" = 1'-0"

WRAP BASE OF COLUMN W/ -

TAPERED

- #6 @ 12" O.C. EA. WAY T&B

SEE PLAN NOTES

COLUMN

SAWCUT AT EDGES OF

4" SLAB-ON-GRADE W/

6x6-W2.1xW2.1 WWF

FOUNDATIONS

1/4" BOND BREAKER

W/ HILTI "HIT-HY200"

4 TYPICAL COLUMN TO FOUNDATION DETAIL 1/2" = 1'-0"

POLYURETHANE,

MATERIAL AND 1/2" DEEP

ELASTOMERIC SEALANT

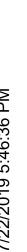
PL 1"X18"X18" W/ (8) 3/4" DIA

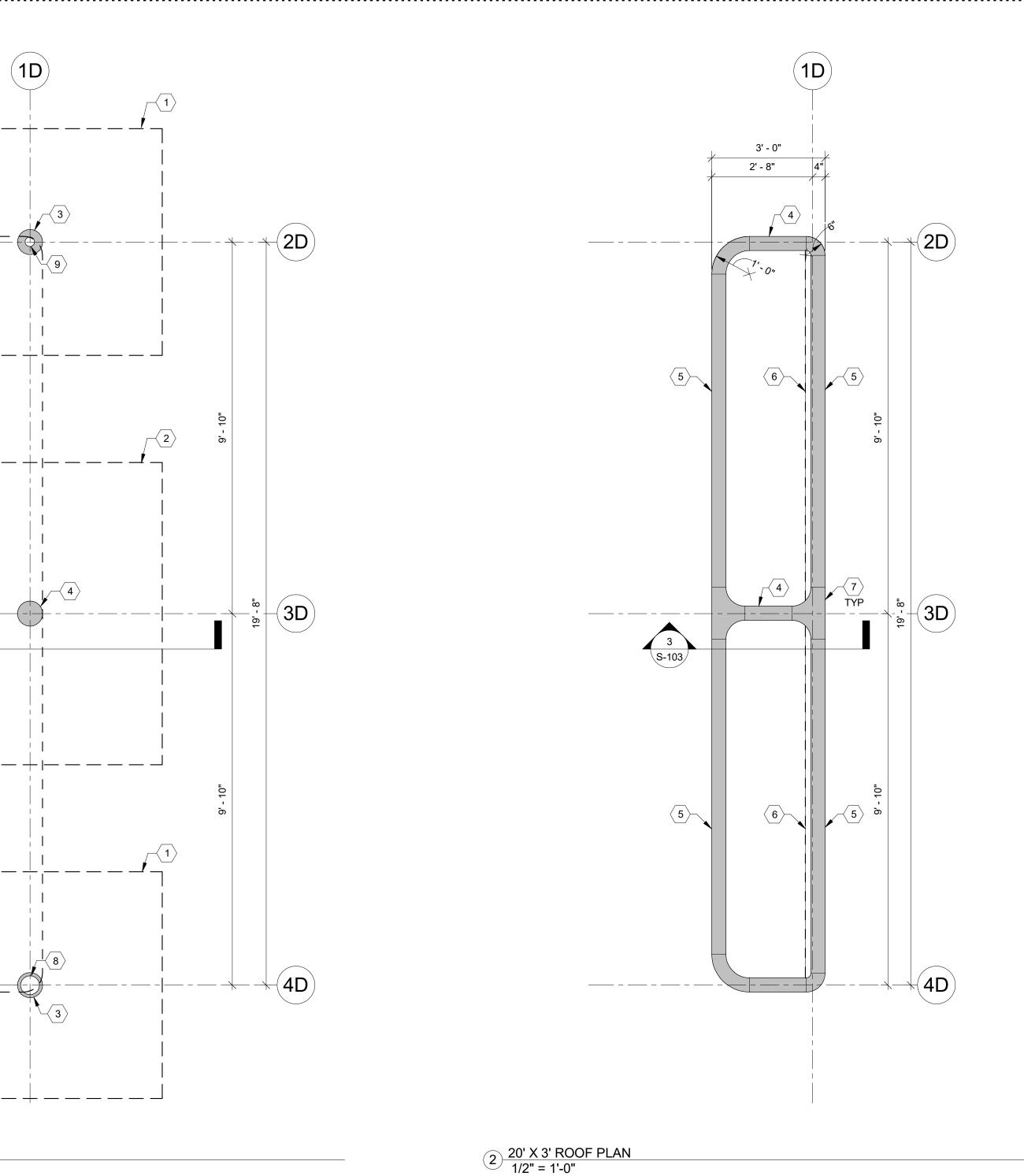
ADHESIVE, MIN EMBED = 10"

@ 7" O.C. EA. SIDE. USE HILTI

"HAS-R316" THREADED RODS

OUTLINE OF CANOPY -ABOVE





2' - 8"

3 SECTION - 3' SHELTER 3/4" = 1'-0"

NOTE: VERIFY ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS AND 3D MODELS.

20' X 3' PLAN NOTES

- 1 7'-0" x 6'-0" x 1'-4" FOOTING, REINF. W/ #6 @ 12" O.C. EA. WAY T&B
- (3) ALUMINUM VARIABLE TAPERED COLUMN: 8" WIDE BASE, 4-1/2"

2 7'-0" x 8'-0" x 1'-4" FOOTING, REINF. W/ #6 @ 12" O.C. EA. WAY T&B

WIDE TOP. SEE 6 / S-201 FOR ADDITIONAL INFORMATION.

 \langle 6 \rangle ALUMINUM BEAM: SEE 9 / S-201 FOR PROFILE W/ GUTTER.

- \langle 4 \rangle ALUMINUM BEAM: 3" OD WITH A 1/4" WALL THICKNESS.
- \langle 5 \rangle ALUMINUM PERIMETER BEAM: SEE 3 / S-201 FOR PROFILE.
- \langle 7 \rangle ALUMINUM CUSTOM FABRICATED CONNECTION.
- \langle 8 \rangle INTEGRAL DOWNSPOUT-DISCHARGE TO SIDE OF SHELTER. 9 INTEGRAL CONDUIT PATHWAY.
- OPENING IN FABRICATED CONNECTION FOR DOWNSPOUT SEE PLAN FOR DOWNSPOUT LOCATION.

07/03/2019 DESIGNCONSULTANT

S U B M I T T A L S : PHASE DATE

REVISIONS

P R O J E C T T E A M PROFESSIONAL IN CHARGE

CATHY G. TIEDGE, PE

REGISTRATION N U M B E R FL-47763

..... D E S I G N E D B Y

DRAWN BY

CHECKEDBY

APPROVED BY

NO. DESCRIPTION

PERMIT SET REVISED

07.03.2019

ENHANCED/STANDARD 20' X 3' -FOUNDATION PLAN, FRAMING PLAN, **DETAILS**

PININFARINA BUS SHELTERS

CITY OF MIAMI BEACH

SHEET TITLE



construction management AAC001323 · EB0004379 · CGC010769

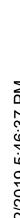
2937 W. Cypress Creek Rd., Suite 200 Fort Lauderdale, Florida 33309 Tel: 954.484.4000 · Fax: 954.484.5588 www.acaiarchitects.com ARCHITECT OF RECORD

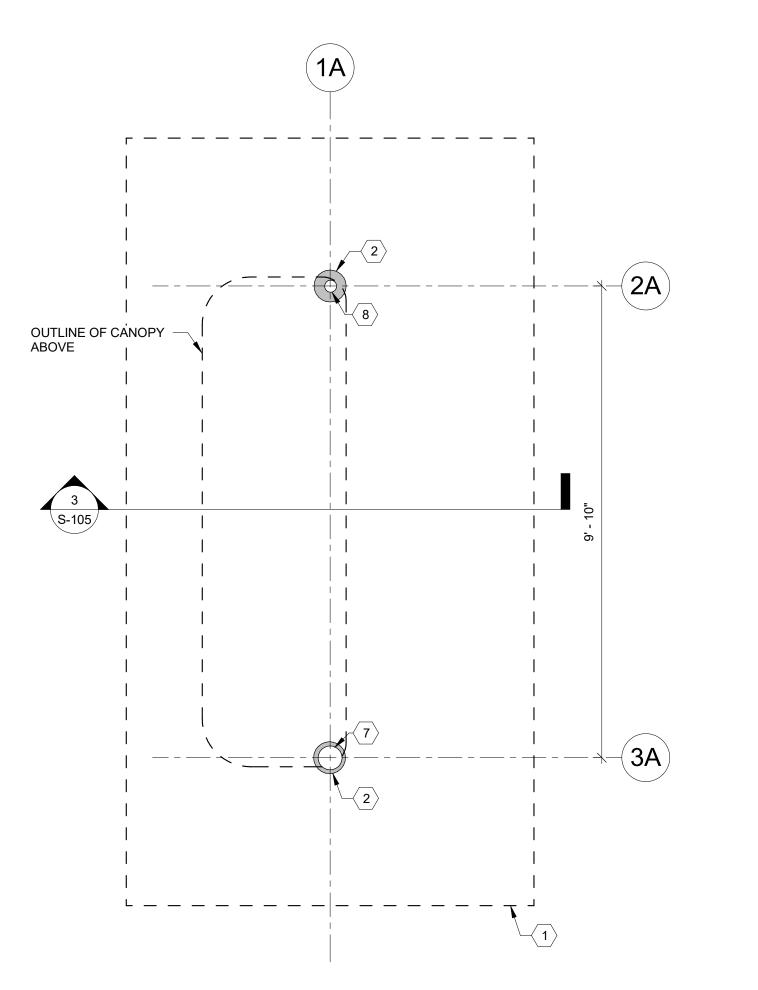
17-012 G01

PROJECT NUMBER

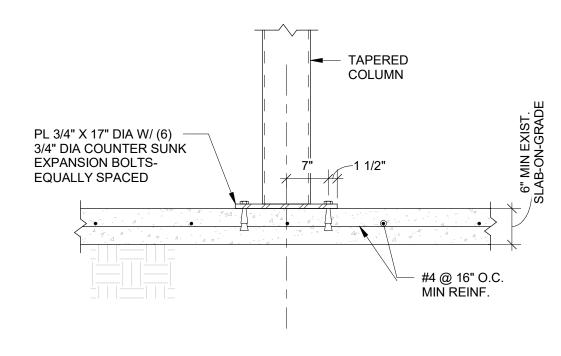
SHEET NUMBER TO THE BEST OF MY KNOWLEDGE AND ABILITY THESE PLANS ARE COMPLETE AND COMPLY WITH THE APPLICABLE BUILDING CODES COPYRIGHT 2018 BY ACAI ASSOC., INC.



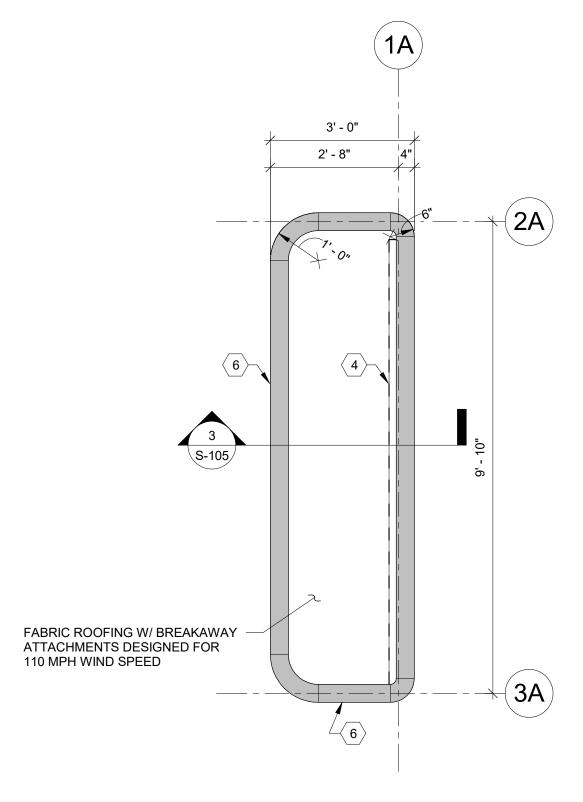




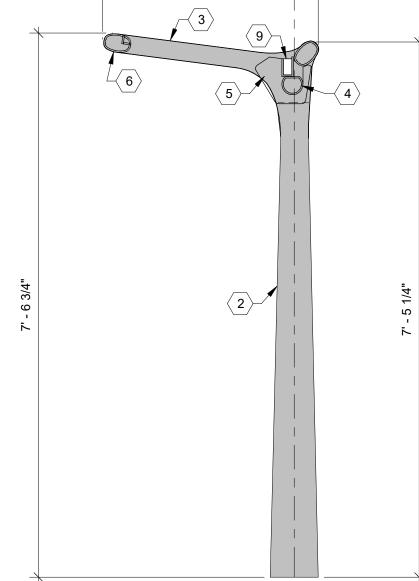
1 TEMPORARY 10' X 3' FOUNDATION PLAN 1/2" = 1'-0"



4 TEMPORARY COLUMN TO SLAB DETAIL 3/4" = 1'-0"



2 TEMPORARY 10' X 3' ROOF PLAN 1/2" = 1'-0"



2' - 8"

3 TEMPORARY SECTION - 3' SHELTER 3/4" = 1'-0"

TEMPORARY BUS SHELTER DOES NOT HAVE ANY ADVERTISING BOARDS ATTACHED TO THE FRAMING

FABRIC ROOF TO HAVE BREAKAWAY ATTACHMENTS. FREE STANDING ELEMENTS WITH THEIR OWN SUPPORT AND FOUNDATION ARE ACCEPTABLE. VERIFY ALL DIMENSIONS WITH ARCHITECTURAL

DRAWINGS AND 3D MODELS.

TEMPORARY 10' X 3' PLAN NOTES

1 MINIMUM SLAB REQUIREMENT: 8'-6" x 16'-0" x 0'-6" SLAB W/ #4 @ 16" O.C. EA. WAY AT CENTER OF SLAB.

2 ALUMINUM VARIABLE TAPERED COLUMN: 8" WIDE BASE, 4-1/2" WIDE TOP WITH A MIN 0.375" WALL THICKNESS.

 \langle 3 \rangle ALUMINUM BEAM: 3" OD WITH A MIN 0.375" WALL THICKNESS.

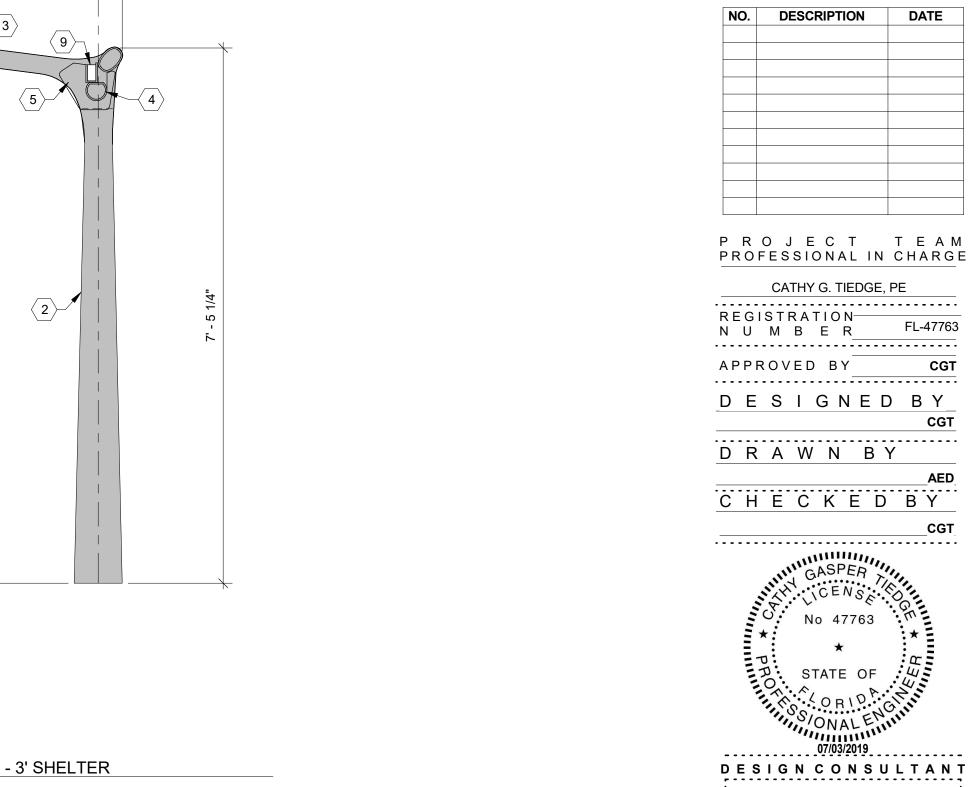
 \langle 4 \rangle ALUMINUM BEAM: SEE 9 / S-201 FOR PROFILE W/ GUTTER

 \langle 5 \rangle CUSTOM FABRICATED ALUMINUM CONNECTION. 6 PERIMETER BEAM: SEE 3 / S-201 FOR PROFILE.

7 INTEGRAL DOWNSPOUT-DISCHARGE TO SIDE OF SHELTER.

 $\langle 8 \rangle$ INTEGRAL CONDUIT PATHWAY.

9 OPENING IN FABRICATED CONNECTION FOR DOWNSPOUT - SEE PLAN FOR DOWNSPOUT LOCATION.



TEMPORARY 10' X 3' FOUNDATION PLAN, FRAMING PLAN, **DETAILS**

PININFARINA BUS

SHELTERS

CITY OF MIAMI BEACH

S U B M I T T A L S : PHASE DATE

REVISIONS

PERMIT SET REVISED

07.03.2019

SHEET TITLE



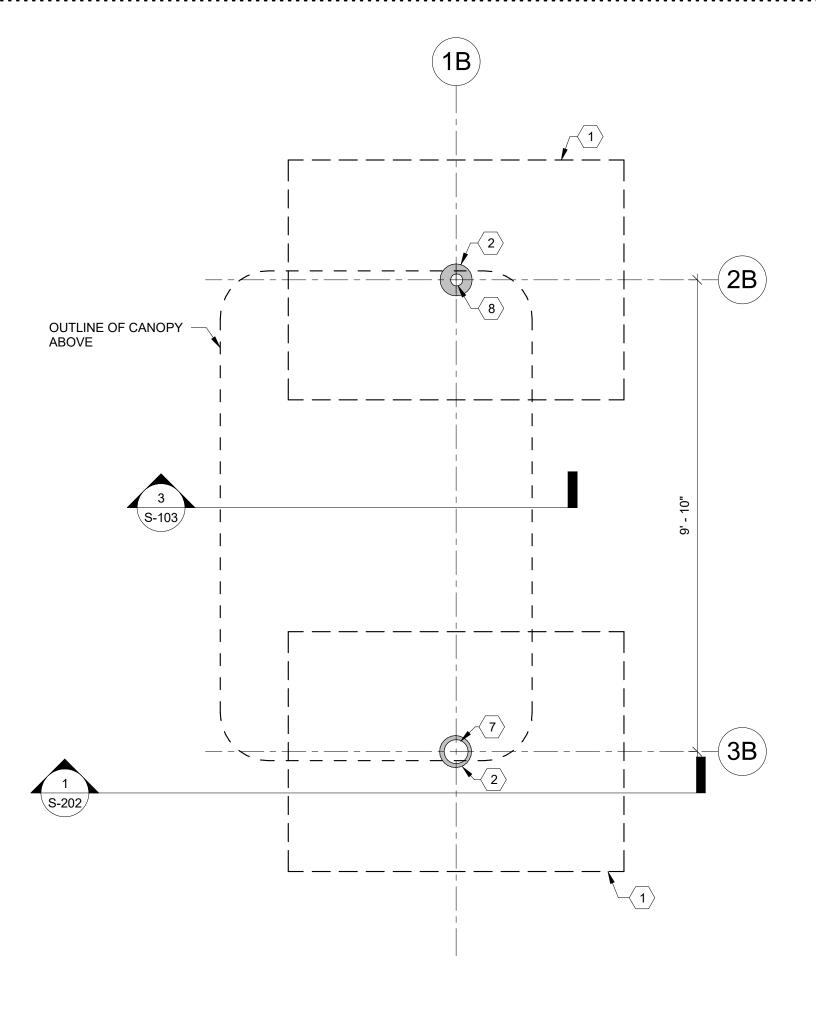
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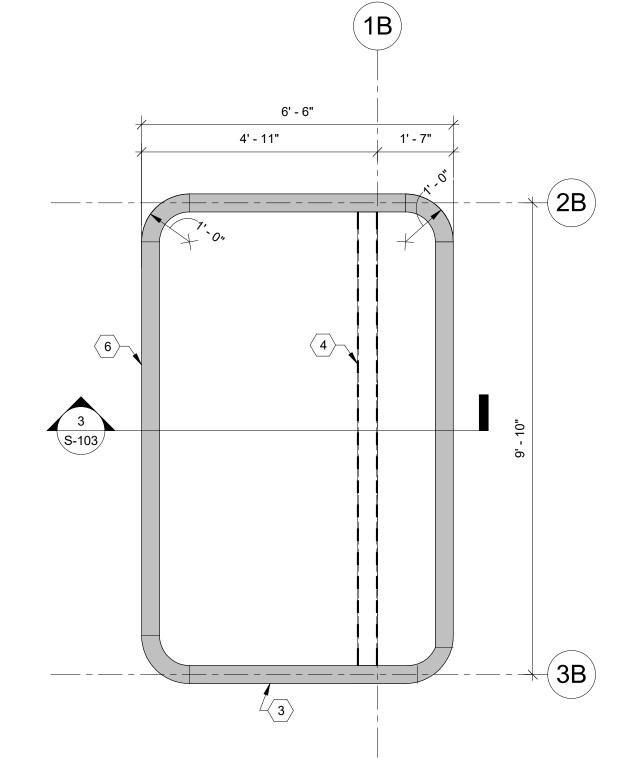
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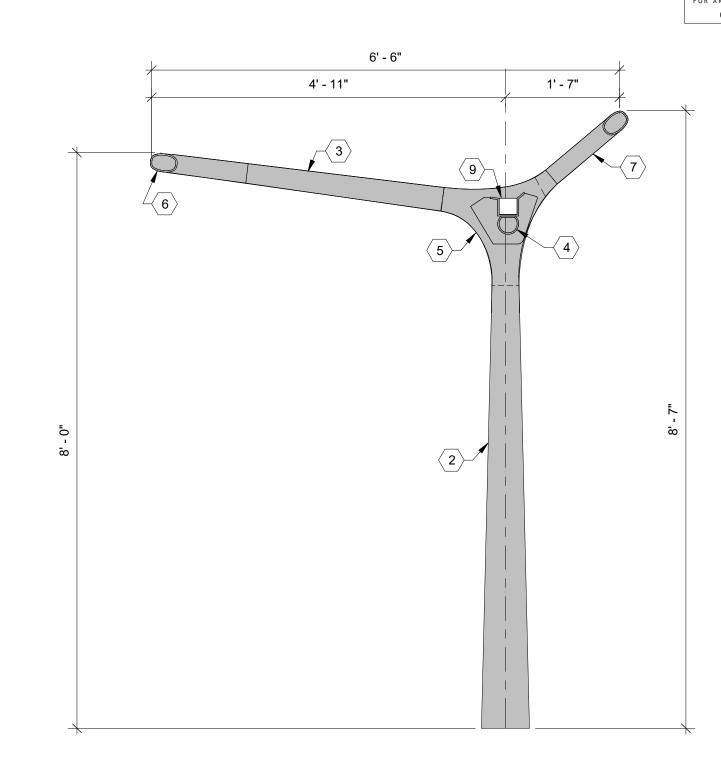
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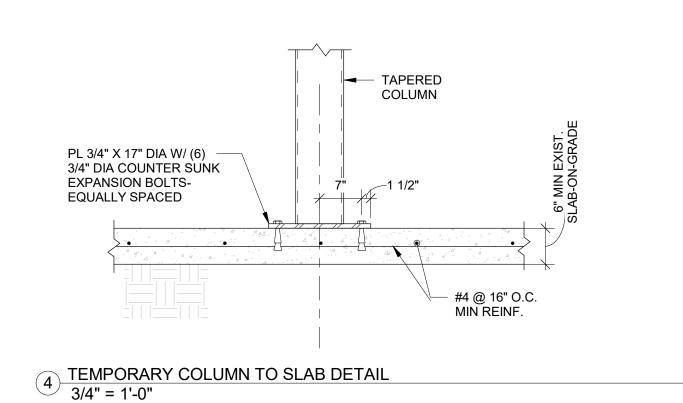
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1 TEMPORARY 10' X 6' FOUNDATION PLAN 1/2" = 1'-0"



2 TEMPORARY 10' X 6' ROOF PLAN 1/2" = 1'-0"

OTE:

VERIFY ALL DIMENSIONS WITH

ARCHITECTURAL DRAWINGS AND 3D MODELS.

FREE STANDING ELEMENTS WITH THEIR OWN
SUPPORT AND FOUNDATION ARE

ACCEPTABLE.

TEMPORARY 10' X 6' PLAN NOTES

1) MINIMUM SLAB REQUIREMENT: 8'-6" x 16'-0" x 0'-6" SLAB W/ #4 @ 16" O.C. EA. WAY AT CENTER OF SLAB.

3 TEMPORARY SECTION - 6' SHELTER 3/4" = 1'-0"

2 ALUMINUM VARIABLE TAPERED COLUMN: 8" WIDE BASE, 4-1/2" WIDE TOP WITH A MIN 0.375" WALL THICKNESS.

3 ALUMINUM BEAM: 3" OD WITH A 1/4" WALL THICKNESS.

4 ALUMINUM BEAM: SEE 8 / S-201 FOR PROFILE W/ GUTTER.

5 CUSTOM FABRICATED ALUMINUM CONNECTION.

6 ALUMINUM PERIMETER BEAM: SEE 3 / S-201 FOR PROFILE.

5 INTEGRAL DOWNSPOUT-DISCHARGE TO SIDE OF SHELTER.

6 INTEGRAL CONDUIT PATHWAY.

7 OPENING IN FABRICATED CONNECTION FOR DOWNSPOUT - SEE PLAN FOR DOWNSPOUT LOCATION.

REVISIONS NO. DESCRIPTION P R O J E C T T E A M PROFESSIONAL IN CHARGE CATHY G. TIEDGE, PE REGISTRATION N U M B E R FL-47763 APPROVED BY D E S I G N E D B Y DRAWN BY CHECKEDBY 07/03/2019 DESIGNCONSULTANT PININFARINA BUS SHELTERS CITY OF MIAMI BEACH

S U B M I T T A L S : PHASE DATE

PERMIT SET REVISED

07.03.2019

TEMPORARY 10' X 6' FOUNDATION PLAN, FRAMING PLAN, DETAILS

.....

SHEET TITLE



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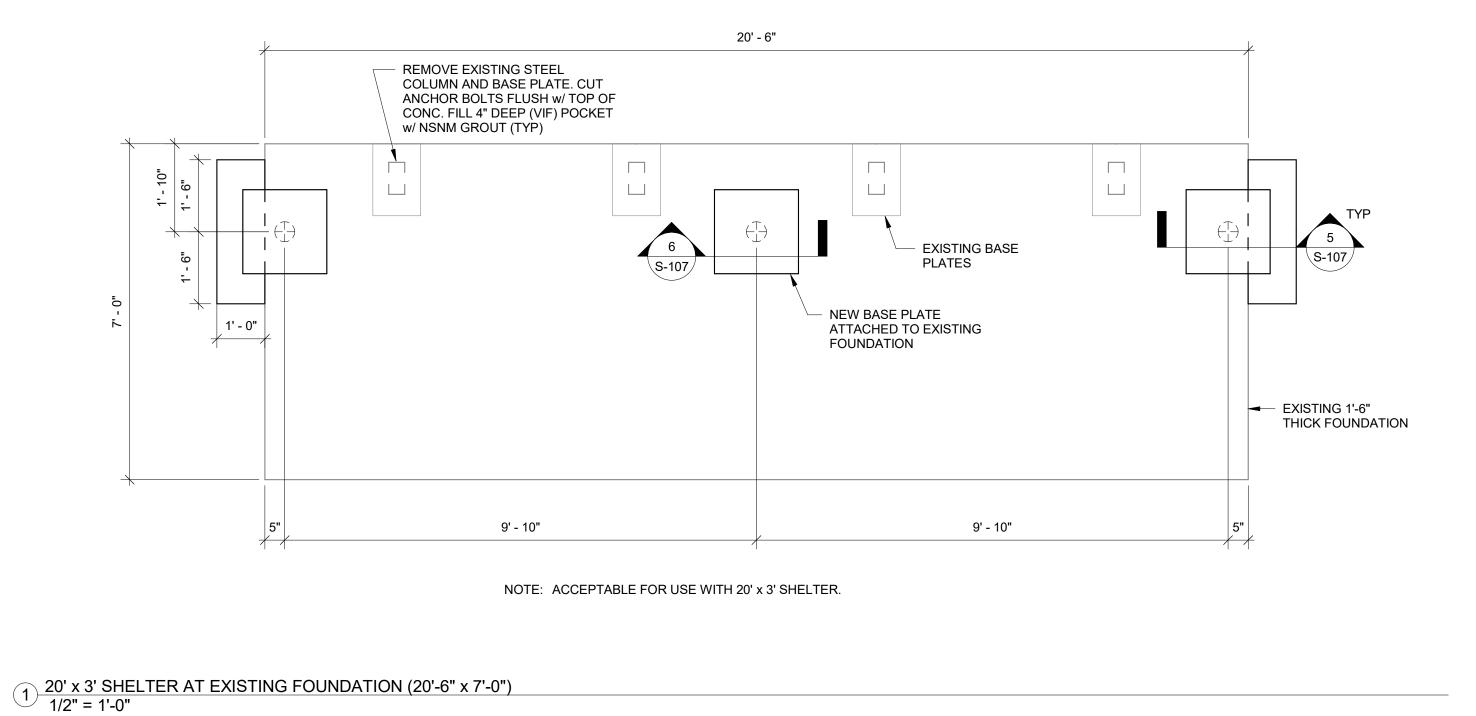
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ARCHITECT OF RECORD

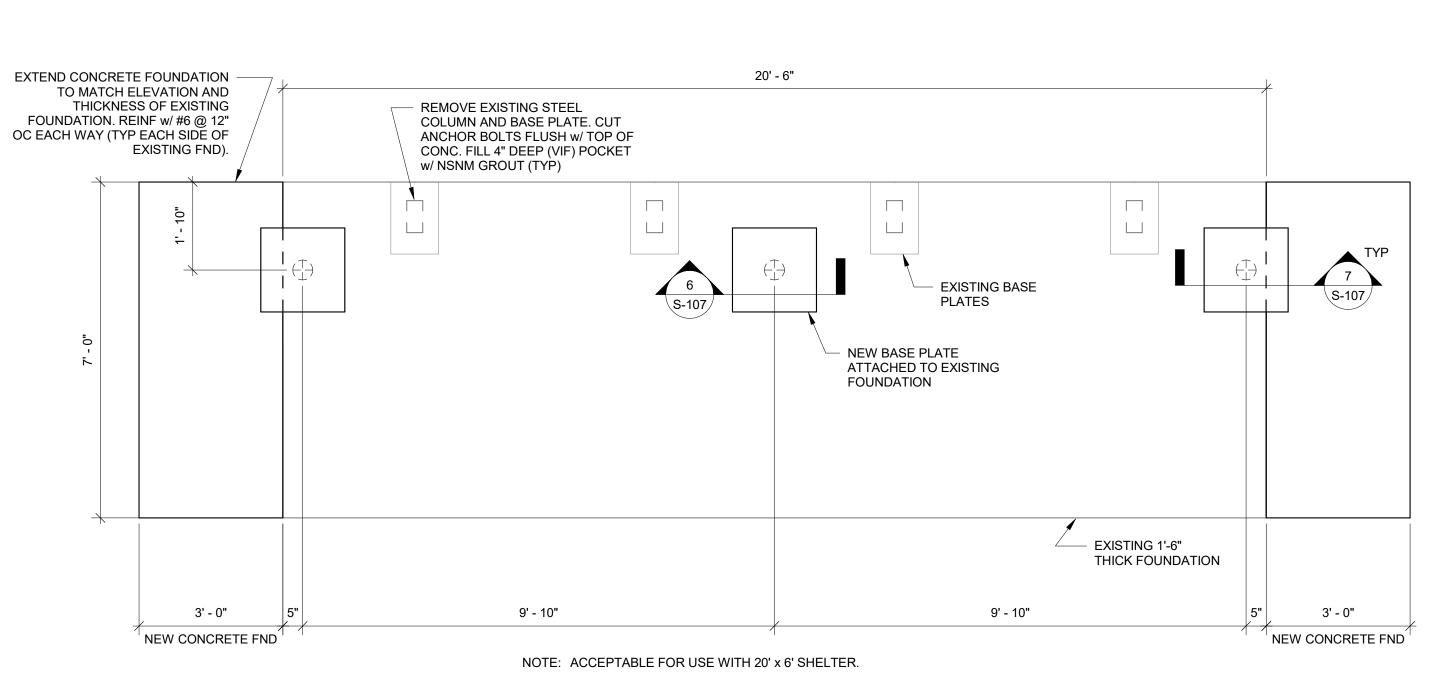
17-012 G01

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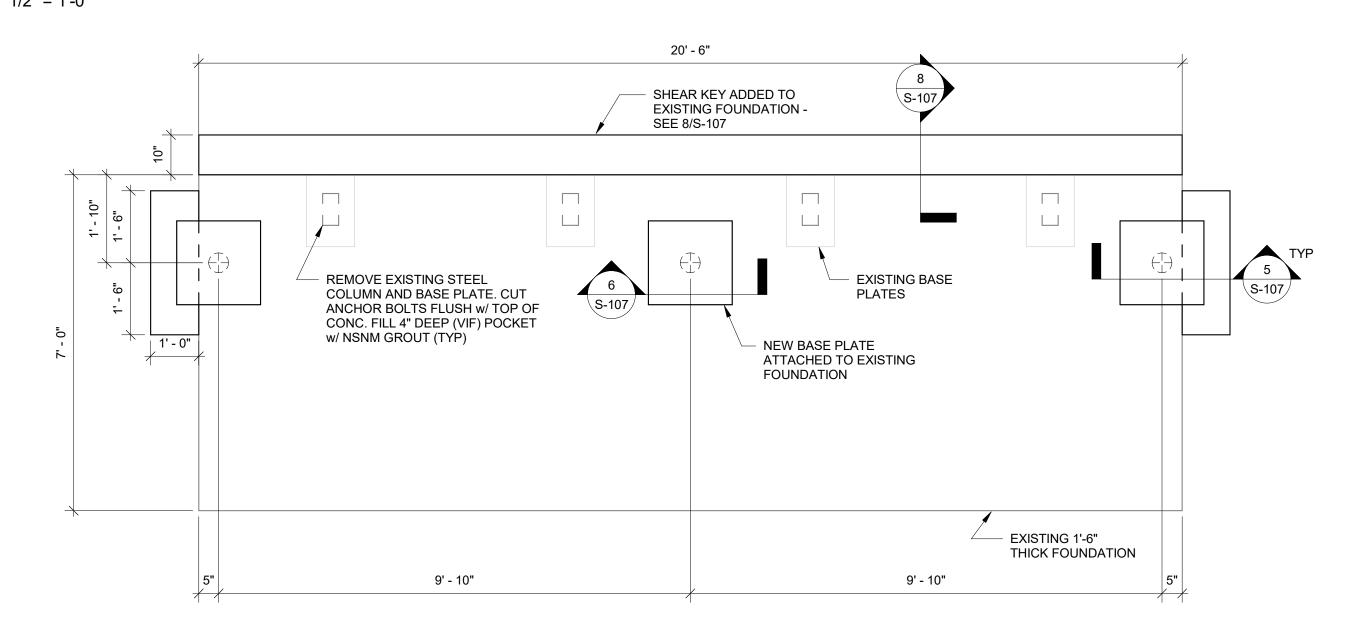
S H E E T N U M B E R

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2 EXTENDED FOUNDATION FOR 20' x 6' SHELTER AT EXISTING FOUNDATION (20'-6" x 7'-0")
1/2" = 1'-0"



NOTE: ACCEPTABLE FOR USE WITH 20' x 6' SHELTER.

OF CONC. FILL 4" DEEP (VIF) POCKET w/ NSNM GROUT (TYP) 9' - 10" NOTE: ACCEPTABLE FOR USE WITH 10' x 3' AND 10' x 6' SHELTER.

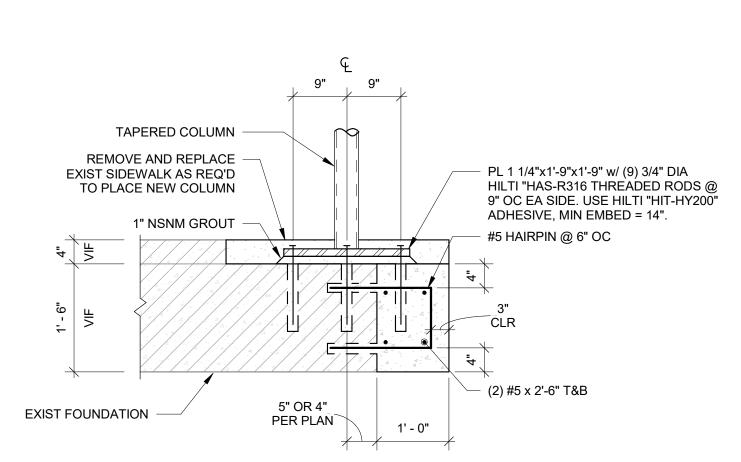
10' - 6"

REMOVE EXISTING STEEL

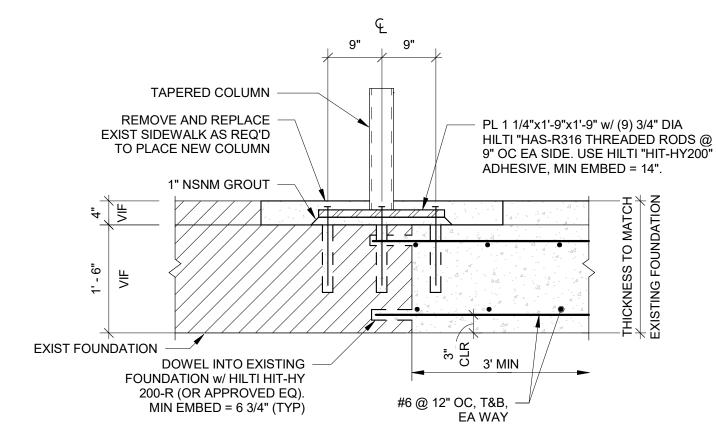
COLUMN AND BASE PLATE. CUT

ANCHOR BOLTS FLUSH w/ TOP

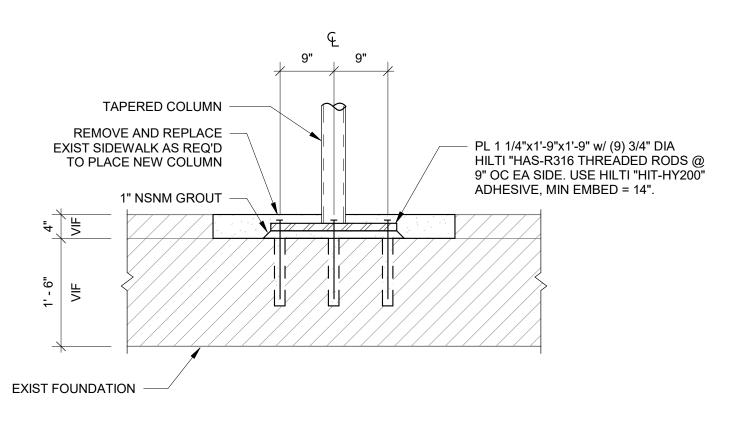
4 EXISTING FOUNDATION (10'-6" x 7'-0")
1/2" = 1'-0"



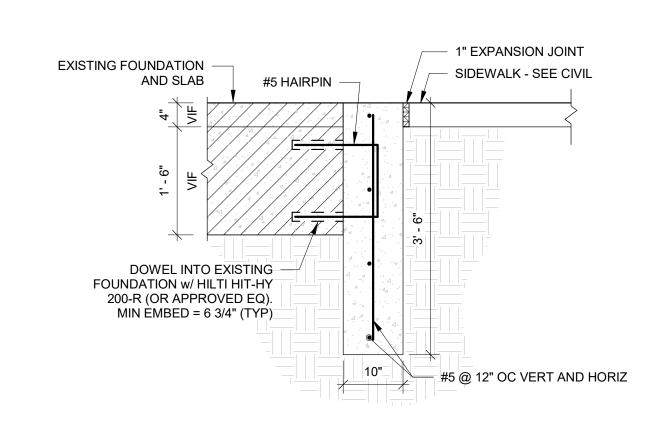
5 COLUMN CONNECTION AT EDGE OF EXIST FOUNDATION
3/4" = 1'-0" ⁾ 3/4" = 1'-0"



COLUMN CONNECTION AT EDGE OF EXIST FOUNDATION AT 20' x 6' SHELTER ['] 3/4" = 1'-0"



6 COLUMN CONNECTION AT INTERIOR OF EXIST FOUNDATION
3/4" = 1'-0"



8 SHEAR KEY AT EXISTING FOUNDATION 3/4" = 1'-0"



SUBMITTALS

DATE 07.03.2019

07.22.2019

PHASE

PERMIT SET REVISED

Phone: 321-636-0274 Fax: 321-639-8986

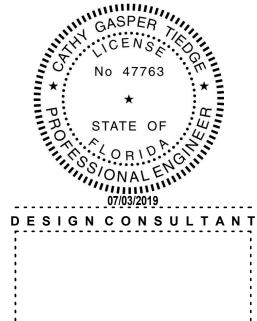
COA #15 TLC NO: **616107**

REGISTRATION— NUMBER APPROVED BY

D R A W N B Y

D E S I G N E D B Y

CHECKEDBY



PININFARINA BUS SHELTERS

CITY OF MIAMI BEACH

.....

EXISTING

SHEET TITLE

FOUNDATIONS



architecture engineering roofing consulting construction management

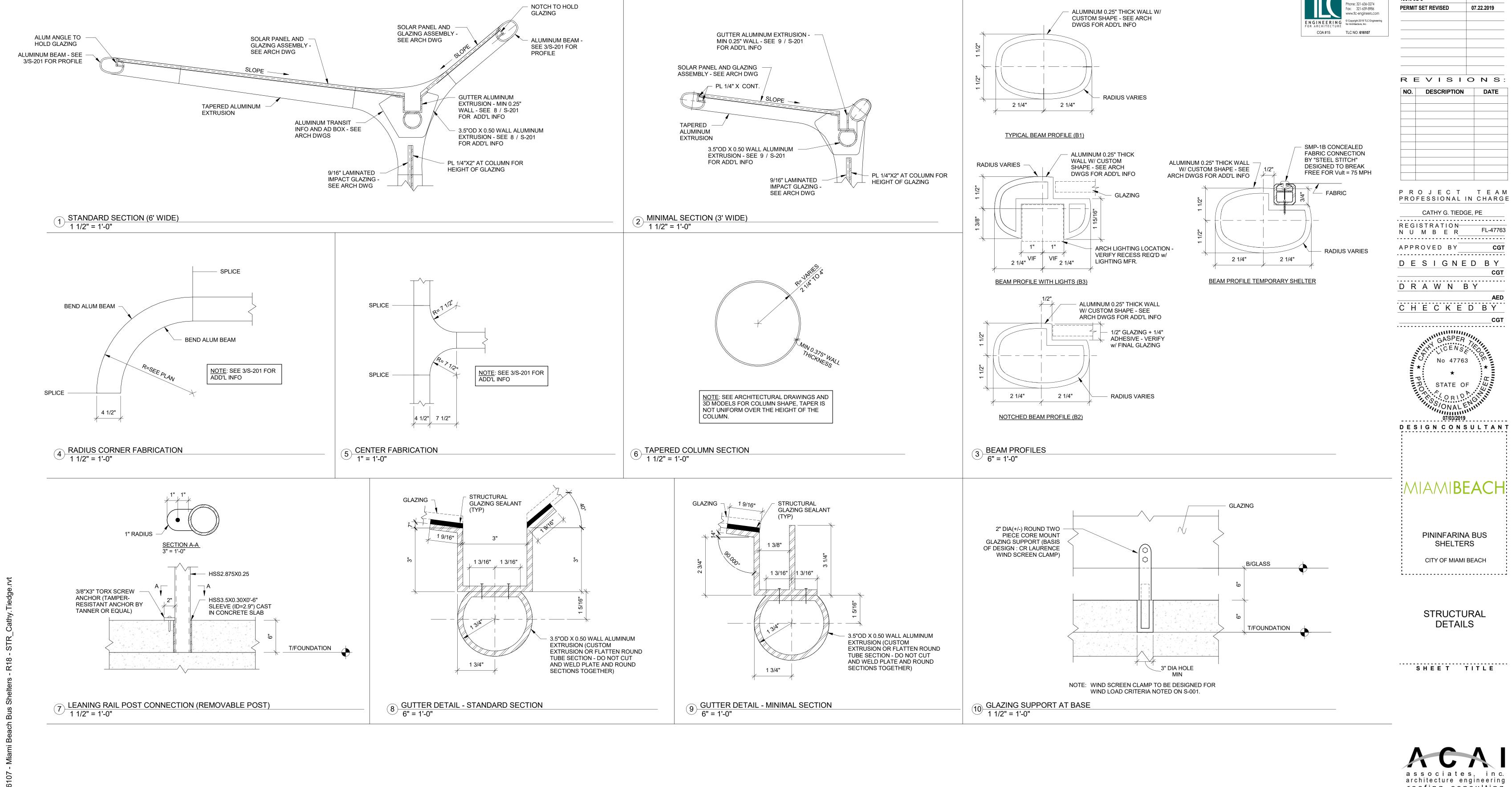
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17-012 G01

PROJECT NUMBER

S-107

SHEET NUMBER TO THE BEST OF MY KNOWLEDGE AND ABILITY THESE PLANS ARE COMPLETE AND COMPLY WITH THE APPLICABLE BUILDING CODES



NOTCH TO HOLD

PERMIT SET REVISED 07.22.2019 REVISIONS PROJECT TEAM PROFESSIONAL IN CHARGE CATHY G. TIEDGE, PE D E S I G N E D B Y CHECKEDBY DESIGN CONSULTANT PININFARINA BUS

SUBMITTALS

DATE 07.03.2019

PHASE

100% CD's

architecture engineering roofing consulting construction management

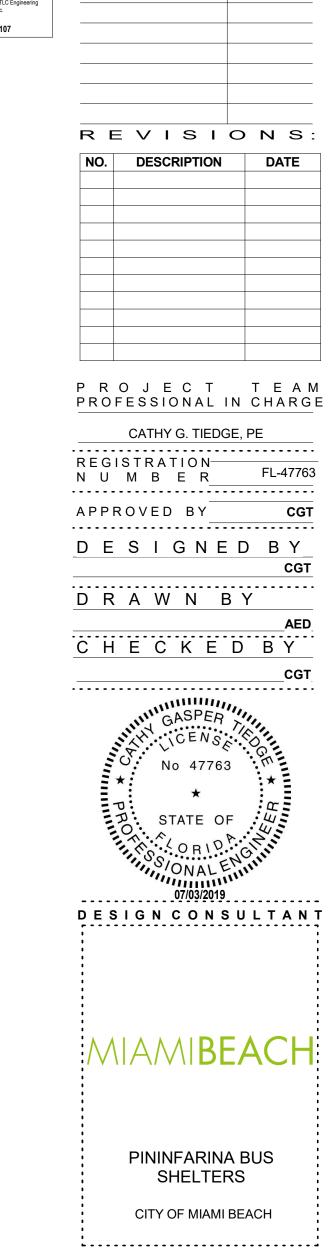
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PROJECT NUMBER

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SUBMITTALS

07.03.2019

07.22.2019

PHASE

PERMIT SET REVISED

STRUCTURAL DETAILS

SHEET TITLE



architecture engineering roofing consulting construction management

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ARCHITECT OF RECORD

17-012 G01

PROJECT NUMBER

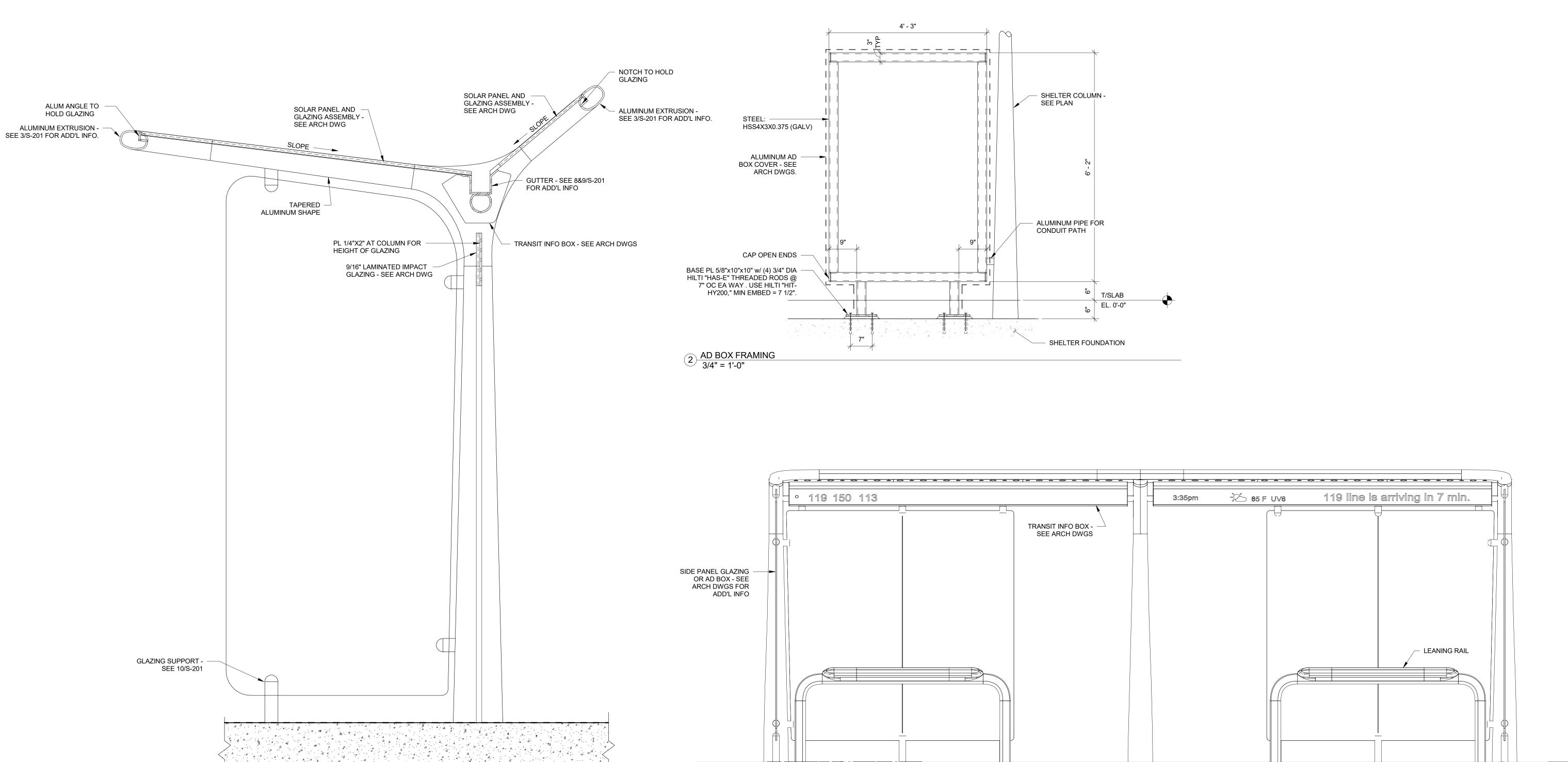
GLAZING ATTACHMENTS RATED FOR COMPONENT & CLADDING WIND PRESSURE

S-202

S H E E T N U M B E R

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APPLICABLE BUILDING CODES

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3/4" = 1'-0"

1 TYPICAL SECTION 1 1/2" = 1'-0"

5757 Blue Lagoon Dr.

REVISIONS:

NO. DESCRIPTION

	BASIC MATERIALS	LIGHTING	
SYMB	OL DESCRIPTION	FLUORESCENT STRIP FIXTURE	
S WP	SINGLE POLE SWITCH WITH WEATHERPROOF COVER	EMBEDDED LIGHT FIXTURE WALL MOUNTED LIGHT FIXTURE	
₩P	GFI RECEPTACLE. WP DENOTES WEATHERPROOF COVER. WR DENOTES WEATHER RESISTANCE LISTED RECEPTACLE.	FO	
	LIGITED NEGET TAGEE.	MISCELLANEOUS	
> -	SPECIAL PURPOSE RECEPTACLE, RATING AS NOTED	WP/WR = WEATHER PROOF/WEATHER RESISTANT	
J	CEILING/FLOOR MOUNT JUNCTION BOX		
<u> </u>	WALL MOUNT JUNCTION BOX		
\mathcal{S}_{M}	MANUAL MOTOR STARTER WITH OVERLOAD HEATERS		
	NON-FUSED DISCONNECT SWITCH, SIZE AS NOTED		
	FUSED DISCONNECT	SCOPE OF WORK	
	BRANCH CIRCUIT PANELBOARD, UNDER 250 VOLTS, SURFACE MOUNTED	ELECTRICAL DESIGN FOR NEW PROTOTYPICAL BUS SHELTER BE DEPLOYED CITYWIDE UNDER SITE SPECIFIC SEPERATE	S TO
	BRANCH CIRCUIT PANELBOARD, UNDER 250 VOLTS, FLUSH MOUNTED	PERMITS.	
GND	GROUND BAR	PROTOTYPES INCLUDE THE FOLLOWING: STANDARD/ENHANCED (20' X 6.6')	
	CINCOIND BAIN	MINIMAL (10 X 6.6') MINIMAL (10' X 3') & STANDARD/ENHANCED (20'X3')	
	CCTV SYSTEM BOXES		
<u> </u>	CCTV BACK BOX. CCTV, WIRING AND HEAD - END EQUIPMENT BY SELECTED VENDOR/CONTRACTOR UNDER A SEPARATE PERMIT		
		ELECTRICAL DRAWING INDEX	<
		SHEET DESCRIPTION ISS E-001 ELECTRICAL SYMBOL LEGEND AND GENERAL NOTES	SUED
		E-101 MINIMAL 10' x 6.5' - FLOOR PLAN, REFLECTED CEILING PLAN - ELECTRICAL	
		E-102 ENHANCED 20' x 6.5' - FLOOR PLAN, REFLECTED CEILING PLAN - ELECTRICAL	
		E-103 MINIMAL 10 x 3' - FLOOR PLAN, REFLECTED CEILING PLAN - ELECTRICAL	
		E-104 ENHANCED 20' x 3' - FLOOR PLAN, REFLECTED CEILING PLAN - ELECTRICAL	

NOTE: SOME SYMBOLS SHOWN ON THIS LEGEND MAY NOT PERTAIN TO THIS PROJECT.

THE DRAWINGS AND APPLICABLE SPECIFICATIONS SHALL BE CONSIDERED SUPPLEMENTARY, ONE TO THE OTHER AND ARE CONSIDERED THE "CONTRACT DOCUMENTS." ALL WORKMANSHIP, METHODS, AND/OR MATERIALS DESCRIBED OR IMPLIED BY ONE AND NOT DESCRIBED OR IMPLIED BY THE OTHER SHALL BE PROVIDED, FURNISHED, OR PERFORMED AS IF IT HAD APPEARED IN BOTH SECTIONS. THE TERM "CONTRACT DOCUMENTS" DESCRIBED HEREIN IS NOT LIMITED SOLELY TO THE ELECTRICAL PORTION OF THE DRAWINGS AND SPECIFICATIONS, BUT ENCOMPASSES THE DRAWINGS AND SPECIFICATIONS OF ALL DIVISIONS AS A WHOLE.

WHERE A DISCREPANCY OR CONFLICT IS FOUND BETWEEN ONE DRAWING AND ANOTHER OR BETWEEN A DRAWING AND APPLICABLE SPECIFICATIONS, THE CONTRACTOR SHALL NOTIFY THE A/E IMMEDIATELY IN WRITTEN FORM. CONTRACTOR SHALL NOT PROCEED WITH THAT PORTION OF THE WORK UNTIL A WRITTEN DIRECTIVE HAS BEEN RETURNED. IN GENERAL, THE MOST STRINGENT REQUIREMENT SHALL GOVERN UNLESS THE DISCREPANCY CONFLICTS WITH APPLICABLE CODES, WHEREIN THE CODE SHALL GOVERN.

THE DRAWINGS ARE DIAGRAMMATIC AND ARE NOT INTENDED TO SHOW EVERY DETAIL OF CONSTRUCTION, METHODS, MATERIALS AND EQUIPMENT, OR EXACT LOCATIONS, ROUTING, FOR POWERING THE BUS STOPS. THEY INDICATE THE RESULT TO BE ACHIEVED BY THE ASSEMBLAGE OF SEVERAL SYSTEMS.

DO NOT SCALE THE CONTRACT DOCUMENTS. COORDINATE EXACT EQUIPMENT LOCATIONS WITH THE ARCHITECTURAL AND STRUCTURAL PORTIONS OF THE CONTRACT DOCUMENTS, AS WELL AS FIELD CONDITIONS, APPROVED SHOP DRAWINGS, AND WORK OF ALL OTHER DIVISIONS/TRADES.

THE TERM "PROVIDE" USED IN THE CONTRACT DOCUMENTS INDICATES THAT THE CONTRACTOR SHALL FURNISH AND INSTALL MATERIALS, INCLUDING ALL COST FOR SHIPPING, UNLOADING, STORAGE, UNPACKING, ERECTION, ANCHORING, ETC. REQUIRED FOR CORRECT INSTALLATION OF A COMPLETE SYSTEM, UNLESS SPECIFICALLY NOTED

UNLESS NOTED AS EXISTING, ALL ELECTRICAL INDICATED IN THE CONTRACT DOCUMENTS SHALL BE NEW, SHALL BE U.L. LISTED, AND SHALL BEAR A U.L. LABEL. WHERE NO U.L. LABEL OR LISTING IS AVAILABLE THE MATERIAL SHALL BE LISTED WITH AN APPROVED, NATIONALLY RECOGNIZED ELECTRICAL TESTING AGENCY. WHERE NO LABELING OR LISTING IS AVAILABLE FOR MATERIAL, TEST DATA SHALL BE SUBMITTED

TO THE A/E AS EVIDENCE THAT THE MATERIAL MEETS OR EXCEEDS AVAILABLE STANDARDS. EQUIPMENT SHALL BE INSTALLED AND USED IN ACCORDANCE WITH ANY INSTRUCTIONS INCLUDED N THE LISTING OR LABELING.

ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH 2014 EDITION OF THE NATIONAL ELECTRICAL CODE (NEC), 2017 FLORIDA BUILDING CODE 6TH EDITION, ALL APPLICABLE LOCAL CODES, ORDINANCES AND ALL REQUIREMENTS

OF THE AUTHORITY HAVING JURISDICTION (AHJ), AS A MINIMUM. THE CONTRACTOR SHALL PROVIDE EXPERIENCED, QUALIFIED, AND RESPONSIBLE SUPERVISION FOR ALL WORK REQUIRED BY THE CONTRACT DOCUMENTS. ALL ELECTRICAL EQUIPMENT SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER, TO THE SATISFACTION OF THE A/E AND OWNER. ALL WORK SHALL BE PERFORMED IN A FIRST-CLASS MANNER.

THE CONTRACTOR SHALL CARRY ALL INSURANCE REQUIRED TO PROTECT AGAINST PUBLIC LIABILITY AND PROPERTY DAMAGE FOR THE DURATION OF THIS PROJECT.

THE CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORKMANSHIP ARE FREE FROM DEFECTS FOR A PERIOD OF NOT LESS THAN ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE BY THE A/E AND OWNER. THE CONTRACTOR, AT NO ADDITIONAL COSTS, SHALL PROVIDE THE CORRECTION OF ANY DEFECTS INCLUDING REPAIR OR REPLACEMENT.

10. THE CONTRACTOR SHALL INCLUDE ALL COSTS ASSOCIATED WITH PERMITS, LICENSES, FEES, INSPECTIONS. TESTING AND TEMPORARY POWER IN HIS PROPOSAL. UNLESS SPECIFICALLY NOTED

11. THE CONTRACTOR SHALL VISIT AND CAREFULLY EXAMINE THOSE PORTIONS OF THE CITY OF MIAMI BUS STOPS AND/OR SITE AFFECTED BY THIS WORK PRIOR TO SUBMITTING PROPOSALS, SO AS TO BECOME FAMILIAR WITH EXISTING CONDITIONS AND DIFFICULTIES THAT MAY AFFECT EXECUTION OF THE 23. IN GENERAL, VOLTAGE DROP FOR ANY BRANCH CIRCUIT SHALL NOT EXCEED 3%. VOLTAGE DROP WORK. SUBMISSION OF A PROPOSAL WILL BE CONSTRUED AS EVIDENCE THAT SUCH EXAMINATION HAS BEEN MADE. LATER

CLAIMS FOR LABOR, EQUIPMENT AND/OR MATERIALS REQUIRED DUE TO DIFFICULTIES ENCOUNTERED THAT COULD HAVE REASONABLY BEEN OBSERVED BY THE CONTRACTOR WILL NOT BE RECOGNIZED,

12. ALL TEMPORARY DOWNTIME REQUIRED FOR SYSTEM TIE-IN OR SWITCHOVER FOR ANY PORTION OF THE ELECTRICAL SYSTEM SHALL BE PRE-APPROVED BY THE OWNER AND SCHEDULED IN ADVANCE.

13. THE CONTRACTOR SHALL COORDINATE ALL PROJECT SCHEDULING AND PHASING REQUIREMENTS 24. CONTRACTOR SHALL PROVIDE ALL PENETRATIONS THROUGH FLOORS, WALLS, WITH A/E AND OWNER PRIOR TO SUBMITTING PROPOSAL. THIS PROJECT MAY REQUIRE PHASING SEQUENCES AND POTENTIAL PREMIUM TIME WORK AND ALL COSTS FOR SUCH SHALL BE INCLUDED IN AND STRUCTURAL PORTIONS OF THE CONTRACT DOCUMENTS, FIELD CONDITIONS, AND THE CONTRACTOR'S PROPOSAL. THE CONTRACTOR SHALL PROVIDE ADEQUATE WORK FORCE EQUIPMENT, AND SHALL WORK SUCH HOURS INCLUDING PREMIUM TIME AS MAY BE REQUIRED IN ORDER TO ADHERE TO THE PROJECT SCHEDULE. ADDITIONALLY, THE CONTRACTOR SHALL ENSURE THAT LONG-LEAD ITEMS DO NOT IMPACT THE PROJECT'S SCHEDULE OR PHASING.

ELECTRICAL NOTES

14. ELECTRICAL SERVICES SHALL BE PROVIDED BY OTHERS UNDER A SEPARATE PERMIT THE CONTRACTOR SHALL COORDINATE THE EXACT REQUIREMENTS WITH LOCAL UTILITY COMPANY (ELECTRIC), AND INCLUDE ALL COSTS FOR PROVIDING TEMPORARY SERVICES REQUIRED FOR THIS PROJECT IN HIS BID. CONTRACTOR'S PROPOSAL SHALL INCLUDE, BUT IS NOT LIMITED TO: EXCAVATION, RACEWAYS, BACKFILL, EQUIPMENT, EQUIPMENT PADS, BACKBOARDS, METERS, GROUNDING, UTILITY ENGINEERING AND IMPACT FEES.

AND/OR RECYCLING OF ALL WASTE MATERIALS GENERATED BY THIS WORK. CONTRACTOR SHALL COMPLY WITH ALL RULES, REGULATIONS AND GUIDELINES THAT APPLY. REMOVE DEBRIS, RUBBISH, ETC. RESULTING FROM THIS WORK FROM THE SITE DAILY.

16. IF HAZARDOUS MATERIALS ARE ENCOUNTERED, THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE RULES, REGULATIONS AND GUIDELINES CONCERNING REMOVAL, HANDLING, DISPOSAL, AND PROTECTION AGAINST ENVIRONMENTAL EXPOSURE OR POLLUTION. CONTRACTOR SHALL PROVIDE DOCUMENTATION OF SAID COMPLIANCE.

17. CONDUCT WORK OPERATIONS AND DEBRIS REMOVAL IN A MANNER THAT ENSURES MINIMUM INTERFERENCE WITH NORMAL BUSINESS OPERATIONS, TRAFFIC, PARKING, ETC. ONGOING IN ADJACENT OCCUPIED SPACES OR FACILITIES. PROVIDE ALL THAT IS REQUIRED TO EFFECTIVELY PROTECT SURROUNDING OCCUPANTS, EQUIPMENT, FINISHES, ETC. FROM DAMAGE OR EXCESSIVE NOISE THROUGHOUT THE DURATION OF THIS PROJECT. ANY DAMAGE TO SURROUNDING ELEMENTS RESULTING FROM THE CONTRACTOR'S FAILURE TO ADHERE TO THIS REQUIREMENT SHALL BE RESTORED TO ORIGINAL CONDITION BY THE CONTRACTOR, TO THE SATISFACTION OF THE A/E AND OWNER, AT NO ADDITIONAL COSTS. REPORT ANY SUCH OCCURRENCE TO THE A/E AND OWNER IMMEDIATELY AND AWAIT WRITTEN DIRECTION PRIOR TO PROCEEDING WITH REPAIRS.

18. PROVIDE SIX (6) COPIES OF SUBMITTALS (PRODUCT DATA & SHOP DRAWINGS) FOR EACH MAJOR COMPONENT OF THE ELECTRICAL SYSTEM FOR REVIEW BY THE A/E AND OWNER. MAJOR ITEMS INCLUDE, BUT ARE NOT LIMITED TO: RACEWAY, BOXES, WIRE AND CABLE, EQUIPMENT, DEVICES, LIGHT FIXTURES, PV SYSTEM, PANELBOARDS, CIRCUIT BREAKERS, SAFETY SWITCHES, ETC. FOR REVIEW AND "APPROVE" ALL SUBMITTALS FOR CONFORMANCE WITH THE PROJECT REQUIREMENTS35. ALL FEEDERS AND BRANCH CIRCUITS SHALL INCLUDE AN EQUIPMENT GROUND CONDUCTOR. PRIOR TO ISSUING TO A/E. CONTRACTOR SHALL NOT ORDER ANY MATERIALS WITHOUT A/E'S REVIEW RACEWAYS SHALL NOT BE USED AS EQUIPMENT GROUND. OF SUBMITTALS. ALLOW 10 DAYS FOR REVIEW BY A/E.

19. THE ELECTRICAL PORTION OF THE CONTRACT DOCUMENTS ARE COORDINATED WITH THE DESIGN BASIS EQUIPMENT SPECIFIED BY DIVISION 16 AND OTHER DIVISIONS. WHERE THE CONTRACTOR ELECTS TO SUBSTITUTE A PRODUCT IN LIEU OF PROVIDING THE DESIGN BASIS, AND SAID SUBSTITUTION IS ACCEPTED BY THE A/E AND OWNER, THE CONTRACTOR SHALL MAKE ALL CORRECTIONS TO THE ELECTRICAL SYSTEM NECESSARY IN ORDER TO ENSURE A COMPLETE AND OPERATIONAL INSTALLATION OF THE EQUIPMENT AT NO ADDITIONAL COSTS. WHERE THE CONTRACTOR'S DECISION TO SUBSTITUTE PRODUCTS RESULTS IN THE NEED FOR THE A/E TO REVISE THE CONTRACT DOCUMENTS, THE A/E RESERVES THE RIGHT TO REQUEST COMPENSATION FROM THE CONTRACTOR FOR SAID SERVICES.

20. CONTRACTOR SHALL MAINTAIN A CURRENT ACCURATE SET OF PROJECT RECORD DOCUMENTS (AS-BUILTS) AT THE SITE THROUGHOUT THE DURATION OF THIS PROJECT. RECORD DRAWINGS SHALL BE UPDATED EACH DAY TO REFLECT THE ACTUAL LOCATIONS, SIZES, ROUTING, ETC. OF EACH PORTION OF THE ELECTRICAL SYSTEM AFFECTED BY THIS WORK. A FINAL SET OF RECORD DOCUMENTS SHALL BE ISSUED TO

THE A/E FOR REVIEW AND THEN SUBMITTED TO THE OWNER AT THE CONCLUSION OF THE PROJECT. 21. ALL 120V, 20A BRANCH CIRCUITS OVER 80' -0" IN LENGTH SHALL BE #10 AWG CU. CONDUCTORS MINIMUM TO ACCOMMODATE VOLTAGE DROP.

22. ALL 240V, 20A BRANCH CIRCUITS OVER 200'-0" IN LENGTH SHALL BE #10 AWG CU. CONDUCTORS MINIMUM TO ACCOMMODATE VOLTAGE DROP.

FOR ANY FEEDER SHALL NOT EXCEED 2%. WHERE VOLTAGE DROP EXCEEDS THESE REQUIREMENTS. THE CONTRACTOR SHALL INCREASE THE SIZE OF THE CONDUCTORS AND RACEWAY AS REQUIRED.

CEILINGS AND ROOFS. COORDINATE LOCATIONS AND SIZES WITH THE ARCHITECTURAL

WORK OF ALL OTHER DIVISIONS/TRADES. ALL OPENINGS SHALL BE SEALED WATERTIGHT. 25. WHERE OPENINGS PENETRATE A FIRE RATED FLOOR, WALL, CEILING, OR ROOF, FIRE STOPPING SHALL BE PROVIDED. MEET ALL REQUIREMENTS FOR THE U.L.

APPROVED MILLWORK SHOP DRAWINGS, AND FIELD CONDITIONS.

ASSEMBLY AND RACEWAYS INVOLVED.

AND OWNER GRANTS WRITTEN PERMISSION

26. CONTRACTOR SHALL INCLUDE ALL COSTS FOR EXCAVATION, SAW CUTTING, DIRECTIONAL BORING, CORE DRILLING, BACKFILL, SURFACE RESTORATION, REPAIR OF FINISHES, ETC. THAT IS REQUIRED IN

ORDER TO MEET THE PROJECT REQUIREMENTS 27. ALL COMPONENTS OF THE ELECTRICAL SYSTEM LOCATED OUTDOORS SHALL BE RAIN PROOF TYPE

SHALL BE APPROVED FOR USE IN SAID LOCATION WHETHER INDICATED ON THE CONTRACT DOCUMENTS

NEMA 4X (MINIMUM), WHETHER INDICATED ON CONTRACT DOCUMENTS OR NOT. 15. THE CONTRACTOR SHALL INCLUDE ALL COST FOR THE PROPER STORAGE, TRANSPORT, DISPOSAL, 28. ALL COMPONENTS OF THE ELECTRICAL SYSTEM LOCATED IN A HAZARDOUS (CLASSIFIED) LOCATION

> 29. ALL WORK ON THE ELECTRICAL SYSTEM REQUIRED BY THE CONTRACT DOCUMENTS SHALL BE COORDINATED WITH THE WORK OF ALL OTHER DIVISIONS/TRADES PRIOR TO THE COMMENCEMENT OF

> WORK. AVOID INTERFERENCES WITH THE PROGRESS OF OTHER DIVISIONS/TRADES. 30. COORDINATE THE EXACT LOCATIONS OF ALL WIRING DEVICES WITH THE ARCHITECTURAL PLANS,

> 31. COORDINATE THE EXACT REQUIREMENTS OF ALL MISCELLANEOUS EQUIPMENT WITH APPROVED SHOP DRAWINGS, MANUFACTURER'S INSTRUCTIONS, AND EQUIPMENT NAME PLATE AND PROVIDE ALL ELECTRICAL REQUIRED.

32. THE USE OF ALUMINUM CONDUCTORS, RACEWAYS, BOXES, BUSSING, WINDINGS, ETC. ARE PROHIBITED UNLESS SPECIFICALLY NOTED OTHERWISE, OR UNLESS A/E AND OWNER GRANTS WRITTEN PERMISSION. ALL CONDUCTORS SHALL BE COPPER, THHN/THWN LISTED AND SOLID FOR #10 AND DOWN AND STRANDED FOR #8 AND ABOVE.

33. THE USE OF ELECTRICAL NON-METALLIC TUBING (ENT), AND LIQUID TIGHT FLEXIBLE NONMETALLIC CONDUIT (LFNC) ARE PROHIBITED UNLESS SPECIFICALLY NOTED OTHERWISE, OR UNLESS A/E AND OWNER

34. ALL FEEDER AND BRANCH CIRCUIT CONDUCTORS, INCLUDING LOW VOLTAGE SYSTEMS, SHALL BE INSTALLED IN A COMPLETE RACEWAY SYSTEM UNLESS SPECIFICALLY NOTED OTHERWISE.

36. ALL BRANCH CIRCUITS SHALL BE INSTALLED IN 1/2" TRADE SIZE RACEWAY MINIMUM, INCLUDING FLEXIBLE METAL CONDUIT AND LIQUID TIGHT FLEXIBLE METAL CONDUIT (FMC & LFMC).

37. FLEXIBLE METAL CONDUIT AND LIQUID TIGHT FLEXIBLE METAL CONDUIT (FMC & LFMC) SHALL NOT BE USED IN LENGTHS THAT EXCEED 6'-O" UNLESS SPECIFICALLY NOTED OTHERWISE, OR UNLESS A/E

38. ALL DEVICE OUTLET BOXES, JUNCTION BOXES, PULL BOXES, AND RACEWAYS SHALL BE CONCEALED WHERE POSSIBLE UNLESS SPECIFICALLY NOTED OTHERWISE, OR UNLESS A/E AND OWNER GRANTS

39. COORDINATE THE EXACT LOCATION OF ALL LIGHTING FIXTURES WITH THE ARCHITECTURAL PLAN. WHERE THE QUANTITY OF LIGHTING FIXTURES DIFFER BETWEEN THE ARCHITECTURAL AND THE ELECTRICAL LIGHTING PLAN, THE CONTRACTOR SHALL PROVIDE THE HIGHEST QUANTITY OF FIXTURES WIRED PER THE N.E.C. TO THE LOCAL AREA LIGHTING CIRCUIT(S) AND SWITCH(ES

40. MODIFY ALL LIGHTING FIXTURE CATALOG NUMBERS AS REQUIRED TO COORDINATE WITH THE LIGHTING BRANCH CIRCUIT VOLTAGES INDICATED, AND TO COORDINATE THE CATALOG NUMBERS WITH THE EXACT FIXTURE MOUNTING AND TRIM REQUIRED BY THE AREA IN WHICH EACH FIXTURE IS BEING

41. PROVIDE WET LOCATION LISTED FUSING AT EACH EXTERIOR LIGHTING FIXTURE THAT CONTAINS

BALLASTS. 42. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY NORMAL LIGHTING. EMERGENCY LIGHTING. AND

EXIT SIGNAGE REQUIRED FOR THE DURATION OF THIS PROJECT.

43. PROVIDE LOCAL DISCONNECT SWITCHES, NEMA 3R, FOR ALL EXTERIOR SIGNAGE. 44. CONTRACTOR SHALL COMPLY WITH FBC 2017. (C408.3) AND PROVIDE COMMISSIONING FOR

AUTOMATIC LIGHTING SYSTEMS, I.E. LIGHTING CONTROLS SYSTEMS ARE REQUIRED TO BE FUNCTIONALLY TESTED, CALIBRATED, ADJUSTED, AND PROGRAMMED. CONSTRUCTION DOCUMENTS MUST INDICATE WHO WILL CONDUCT FUNCTIONAL TESTING.

45. ALL METAL PARTS SHALL BE EFFECTIVELY GROUNDED AND BONDED. 46. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR THE INSTALLATION, INTERCONNECTION, AND WIRING OF PV PANELS AND CONTROL SYSTEM.

PROJECT TEAM

PROFESSIONAL IN CHARGE MANUEL MOLLINEDO, PE REGISTRATION-FL-63096 NUMBER APPROVED BY

D E S I G N E D B Y

-----D R A W N B Y CHECKEDBY

Manuel Mollinedo, P.E. Florida License # 63096

07/03/2019 DESIGN CONSULTANT

PININFARINA BUS

CITY OF MIAMI BEACH

SHELTERS

ELECTRICAL SYMBOL LEGEND AND GENERAL NOTES

SHEET TITLE



AAC001323 · EB0004379 · CGC010769 2937 W. Cypress Creek Rd., Suite 200 Fort Lauderdale, Florida 33309 Tel: 954.484.4000 · Fax: 954.484.5588 www.acaiarchitects.com

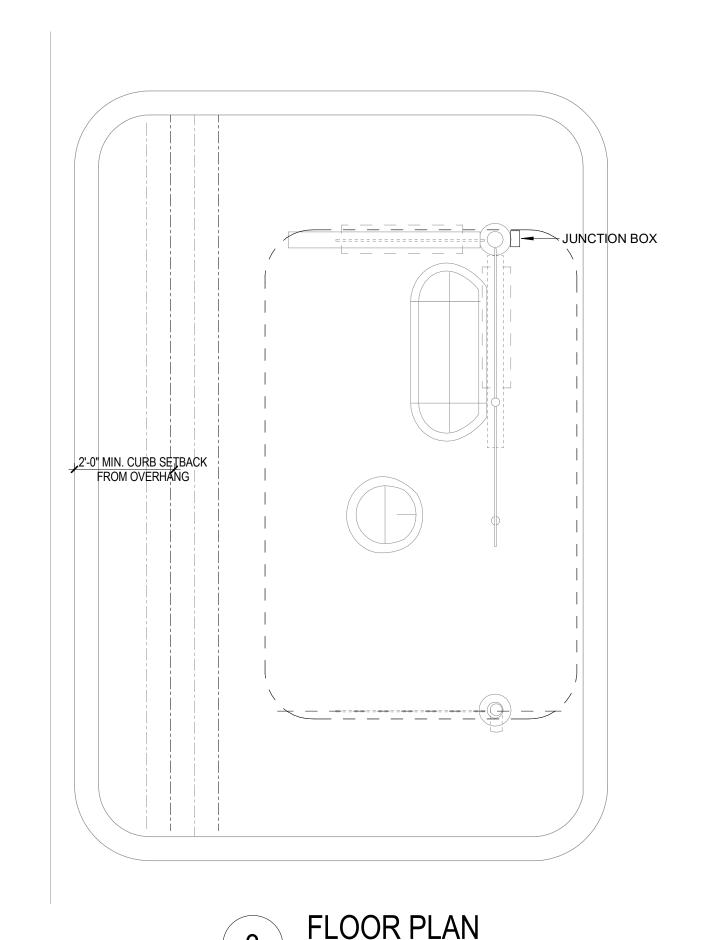
17-012 G01

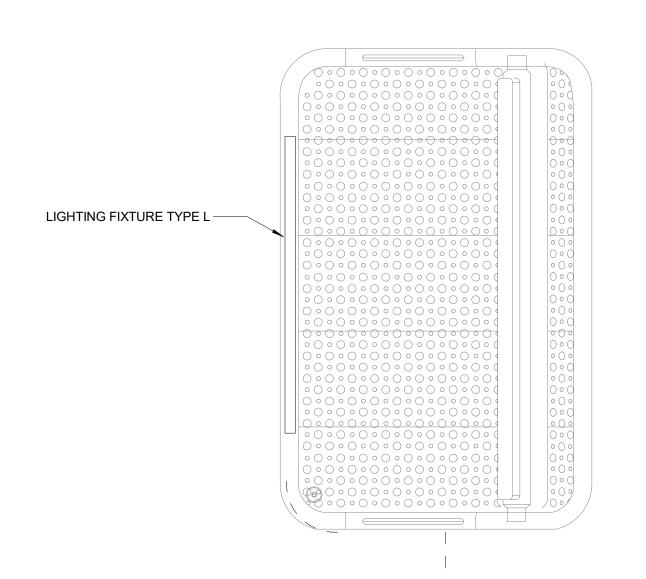
ARCHITECT OF RECORD

PROJECT NUMBER

SHEET NUMBER TO THE BEST OF MY KNOWLEDGE AND ABILITY THESE PLANS ARE COMPLETE AND COMPLY WITH THE APPLICABLE BUILDING CODES







11'3"

REFLECTED CEILING PLAN

PV CELLS ELECTRICAL AND DATA CONDUITS SOLAR CONTROLLER ACCESS PANEL 12V PV BATTERY MINIMAL SHELTER SECTION VIEW 10' x 6.5'

ELECTRICAL NOTE:

STRUCTURE.

TO FACILITATE OPTIONAL FUTURE CONNECTION TO GRID, CONTRACTOR SHALL PROVIDE EMPTY 2"

CONDUIT RUN FROM UTILITY POINT OF SERVICE TO

TRAFFIC RATED PULL BOX (16" LENGTH MINIMUM) AT POINT OF FUTURE OPTIONAL SERVICE ENTERANCE EQUIPMENT WHICH SHALL BE LOCATED AS NEAR TO SHELTERS AS SITE SPECIFIC CONDITIONS PERMIT (MAXIMUM TOTAL RUN DISTANCE OF 206 FEET). CONTRACTOR SHALL PROVIDE 2" EMPTY CONDUIT 18" MINIMUM BELOW GRADE AND TERMINATE AT

JUNCTION BOX ON NEAR SIDE POST UP TO THE HORIZONTAL ENCLOSURE OF THE BUS STOP

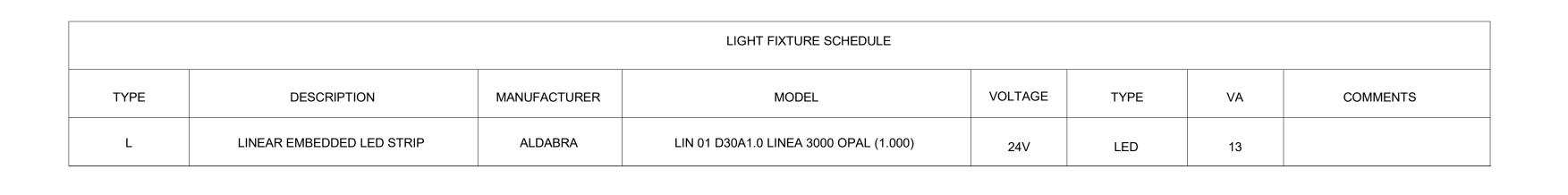
MINIMAL 10' x 6.5' and 10 x 3'	Watts	Hours	Watt hours	Ah@24V	DOD@80%
Lighting (24V)	50	12	600	25	30
TOTALS	50		600	25	30

- UL LISTED TRANSLUCENT CRYSTALLINE PV PANELS WITH 6x6 CELLS INTEGRATED INTO GLAZING. SIZE, LOCATION, AND TYPES T.B.D. - BATTERY SYSTEM CHARGE CONTROLLER BASIS OF DESIGN: SUNSAVER CAT No: SS-20L-24V OR EQUIVALENT. LIGHTING LOADS - 4 x POWER-SONIC CAT No. PS - 670, 6V 7Ah SEALED LEAD ACID BATTERY - F1 TERMINAL OR EQUIVALENT (TYP 1 OF 4)

3" = 1'-0"

ELECTRICAL POWER RISER AND LOAD SUMMARY MINIMAL

INTEGRATED TRANSLUCENT



MIN/MAX (fc)

.556

7.61 8.28 8.69 9.07 9.28 9.54 9.54 9.62 9.60 9.48 9.42 9.12 8.88 8.48 8.06

8.55 9.26 9.64 10 10 11 11 11 11 11 10 10 9.86 9.39 9.01

9.19 9.81 10 11 11 11 11 12 12 11 11 11 10 9.52

9.77 11 11 12 12 13 13 13 13 13 13 12 11 11 10

9.17 10 11 12 12 13 13 13 13 13 13 12 12 11 9.80

PHOTOMETRIC CALCULATION SUMMARY (PER MODULE)

AVERAGE (fc) MINIMUM (fc) MAX (fc) 11 7.35 13

7.35

9.78 10 11 11 12 12 12

PROJECT TEAM PROFESSIONAL IN CHARGE MANUEL MOLLINEDO, PE REGISTRATION— NUMBER APPROVED BY D E S I G N E D B Y D R A W N B Y CHECKEDBY ._______...

Manuel Mollinedo, P.E. Florida License # 63096

SUBMITTALS

REVISIONS

NO. DESCRIPTION

07.03.2019

07.22.2019

PHASE

100% CD's

REVISED PERMIT SET

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Miami, FL 33126

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D E S I G N C O N S U L T A N T PININFARINA BUS SHELTERS CITY OF MIAMI BEACH •-----

> MINIMAL 10' x 6.5' -FLOOR PLAN, REFLECTED CEILING PLAN - ELECTRICAL

SHEET TITLE

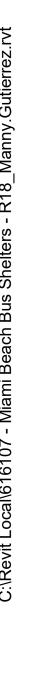


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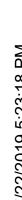
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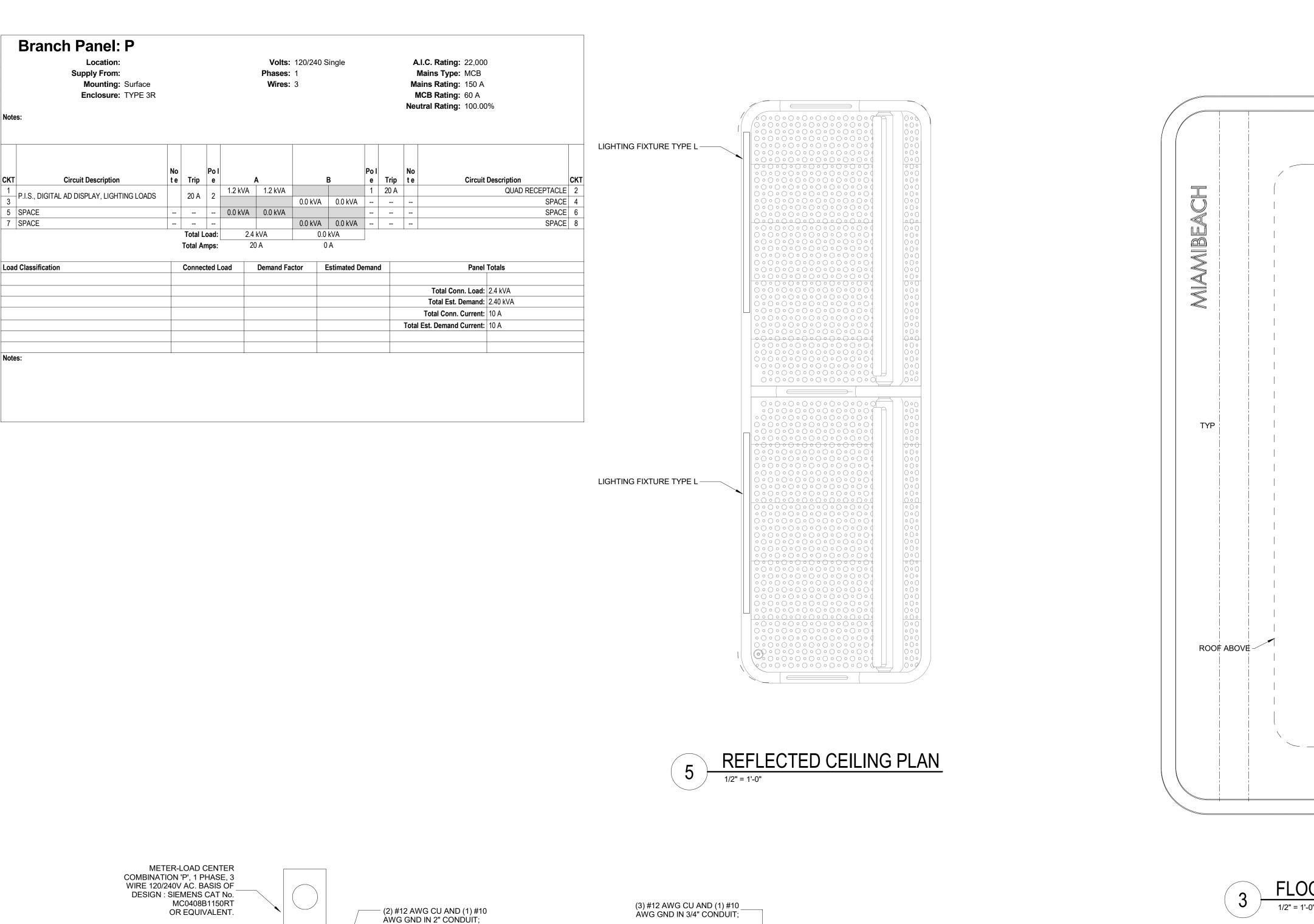
PROJECT NUMBER

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TRANSFORMER





(3) #12 AWG CU AND (1) #10 -

ÀWG GND IN 2" CONDUIT;

(3) #12 AWG CU AND (1) #10

ÀWG GND IN 2" CONDUIT;

GRADE (64 FEET MAX RUN

MINIMUM 18" BELOW

DISTANCE)

BUS STOP LOADS P-1,3

TECHNICAL REQUIREMENTS

FOR DEVICE SPECIFICATIONS)

(REFER TO MINIMUM

- JUNCTION BOX

18" BELOW GRADE MINIMUM (64 FEET MAX

NEMA 4X CABINET FOR IT

MIAMI BEACH MINIMUM

SIZE AS REQUIRED.

GROUND RODS (3/4" x 10 FT)

6 FT APART - TYPICAL

EQUIPMENT. REFER TO CITY OF

TECHNICAL REQUIREMENTS FOR

EQUIPMENT INFORMATION AND

RUN DISTÀNCE)

-#8 AWG CU GROUNDING ELECTRODE CONDUCTOR

● • 20A –

● 20A

•) 60A —N

- (3) #2 AWG CU THWN IN 2"

GRADE MINIMUM. (206 FEET

ELECTRICAL POWER RISER AND LOAD SUMMARY

CONDUIT 18" BELOW

MAX RUN DISTANCE)

- TRAFFIC RATED PULLBOX; 16"

MINIMUM LENGTH.

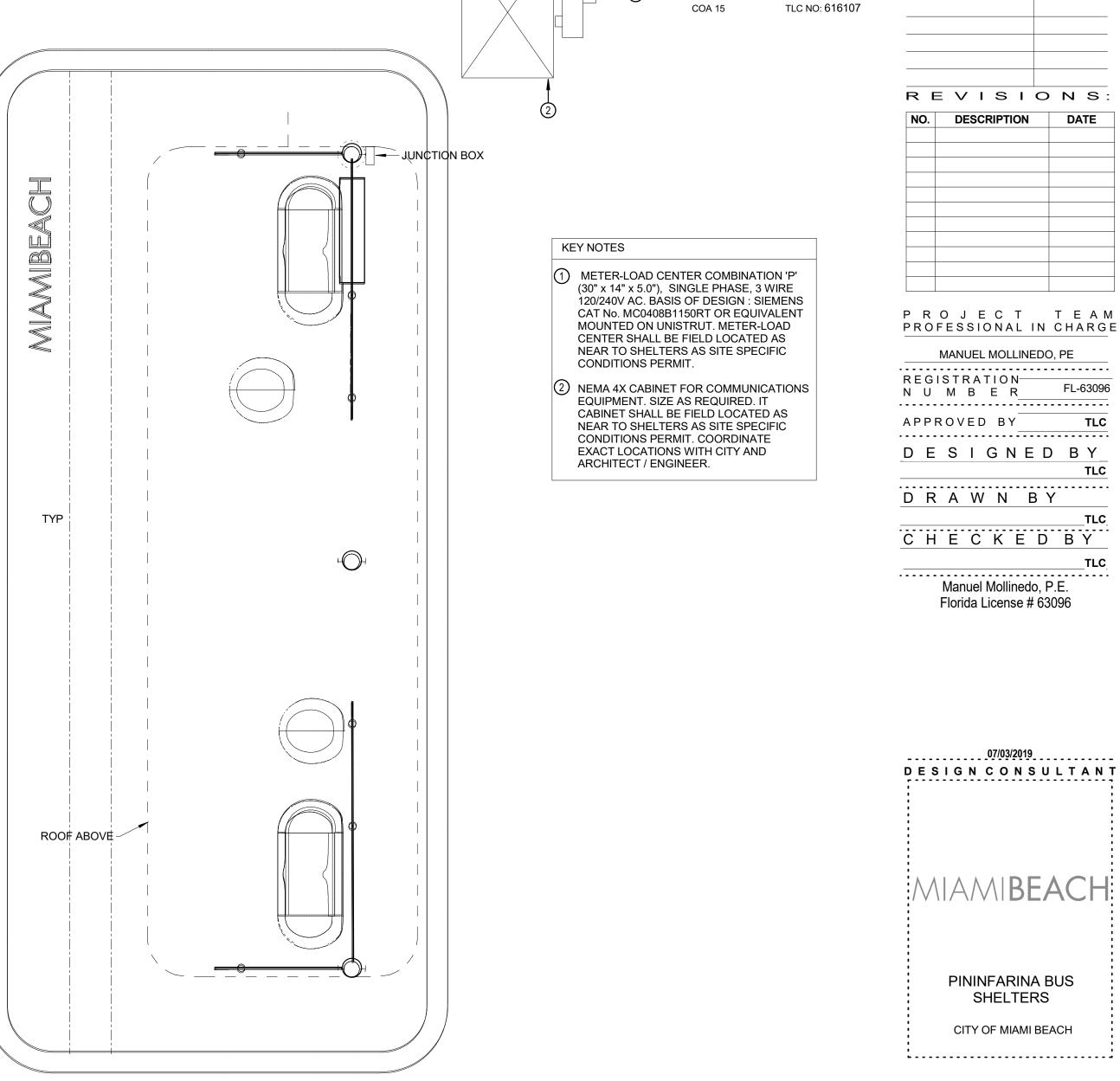
ALL WIRING INCOMMING AND

PROOF FITTING AS TO NOT COMPROMISE NEMA 4X RATING.

OUTGOING FOR 4X ENCLOSURE

SHALL BE THROUGH WEATHER

EXTENDED 2



3 FLOOR PLAN

1/2" = 1'-0"

7.61 8.28 8.69 9.07 9.28 9.54 9.54 9.62 9.60 9.48 9.42 9.12 8.88 8.48 8.06 8.55 9.26 9.64 10 10 11 11 11 11 10 10 9.86 9.39 9.01 9.19 9.81 10 11 11 11 12 12 11 11 11 10 9.52 9.78 10 11 11 12 12 12 12 12 12 12 12 11 11 10 9.92 11 11 12 12 12 12 13 12 12 12 12 11 11 10 10 11 11 12 12 13 13 13 13 13 13 12 12 11 10 9.77 11 11 12 12 13 13 13 13 13 13 12 11 11 10 9.17 10 11 12 12 13 13 13 13 13 13 12 12 11 9.80

> PHOTOMETRIC CALCULATION SUMMARY (PER MODULE) AVERAGE (fc) MINIMUM (fc) MAX (fc) 11 7.35 13 MIN/MAX (fc) .556

LIGHT FIXTURE SCHEDULE DESCRIPTION MANUFACTURER **VOLTAGE** TYPE TYPE MODEL VA COMMENTS LINEAR EMBEDDED LED STRIP ALDABRA LIN 01 D30A1.0 LINEA 3000 OPAL (1.000) 24V LED 13

architecture engineering

PININFARINA BUS

SHELTERS

CITY OF MIAMI BEACH

ENHANCED 20' x 6.5' -FLOOR PLAN,

REFLECTED CEILING

PLAN - ELECTRICAL

SHEET TITLE

SUBMITTALS

07.03.2019

07.22.2019

PHASE

REVISED PERMIT SET

■ 5757 Blue Lagoon Dr.

Phone: 305-266-6553 Fax: 305-266-6695 www.tlc-engineers.com

Miami, FL 33126

Suite 400

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roofing consulting construction management

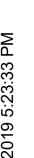
AAC001323 · EB0004379 · CGC010769 2937 W. Cypress Creek Rd., Suite 200 Fort Lauderdale, Florida 33309 Tel: 954.484.4000 · Fax: 954.484.5588 www.acaiarchitects.com ARCHITECT OF RECORD

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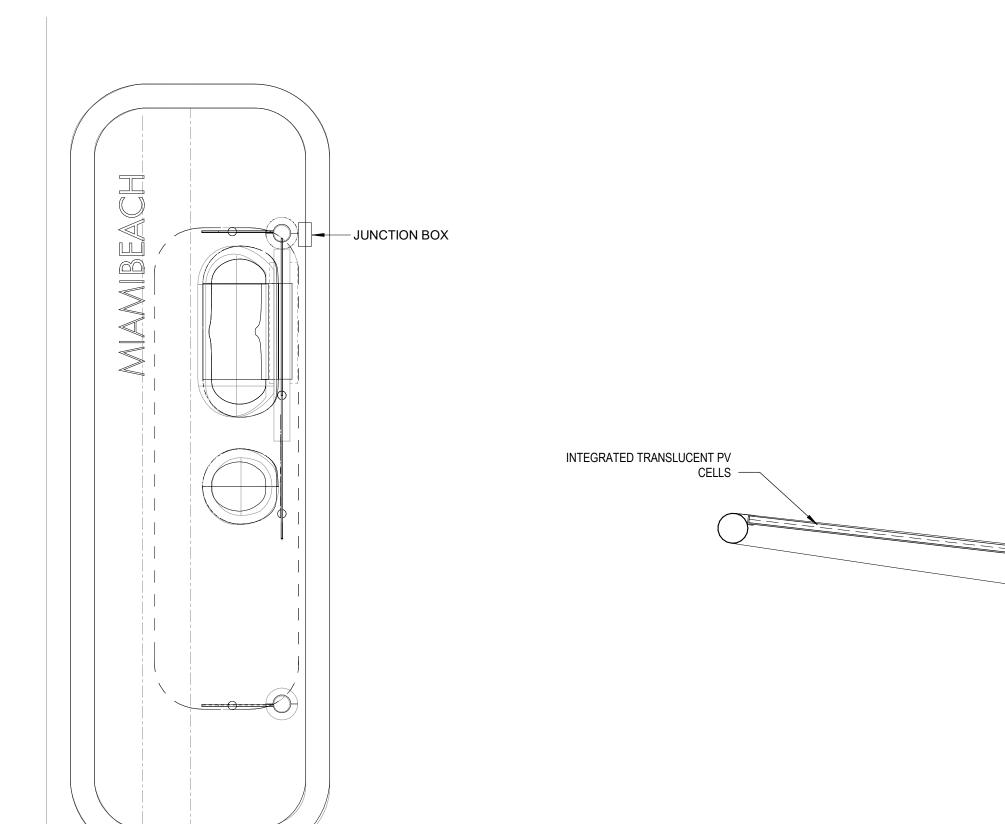
PROJECT NUMBER

E-102

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INTEGRATED TRANSLUCENT PV
CELLS

ELECTRICAL AND DATA CONDUITS

SLOPE

SOLAR CONTROLLER

ACCESS PANEL

12V PV BATTERY

ELECTRICAL NOTE:

STRUCTURE.

TO FACILITATE OPTIONAL FUTURE CONNECTION TO GRID, CONTRACTOR SHALL PROVIDE EMPTY 2"

CONDUIT RUN FROM UTILITY POINT OF SERVICE TO

POINT OF FUTURE OPTIONAL SERVICE ENTERANCE EQUIPMENT WHICH SHALL BE LOCATED AS NEAR TO SHELTERS AS SITE SPECIFIC CONDITIONS PERMIT (MAXIMUM TOTAL RUN DISTANCE OF 206 FEET). CONTRACTOR SHALL PROVIDE 2" EMPTY CONDUIT, 18" MINIMUM BELOW GRADE AND TERMINATE AT JUNCTION BOX ON NEAR SIDE POST UP TO THE HORIZONTAL ENCLOSURE OF THE BUS STOP

TRAFFIC RATED PULL BOX (16" LENGTH MINIMUM) AT

4 MINIMAL SHELTER SECTION VIEW 10' x 3'

REFLECTED CEILING PLAN 1/2" = 1'-0"

MINIMAL 10' x 6.5' and 10 x 3'	Watts	Hours	Watt hours	Ah@24V	DOD@80%
Lighting (24V)	50	12	600	25	30
TOTALS	50	122022	600	25	30

ELECTRICAL POWER RISER AND LOAD SUMMARY MINIMAL

LIGHTING FIXTURE TYPE L —



UL LISTED TRANSLUCENT CRYSTALLINE PV PANELS WITH 6x6 CELLS INTEGRATED INTO GLAZING SIZE, LOCATION, AND TYPES T.B.D.
BATTERY SYSTEM CHARGE CONTROLLER BASIS OF DESIGN: SUNSAVER CAT No: SS-20L-24V OR EQUIVALENT.
LIGHTING LOADS + - + - + - + - + - + - + - + - + - +

'9" _{_}															
	7.61	8.28	8.69	9.07	9.28	9.54	9.54	9.62	9.60	9.48	9.42	9.12	8.88	8.48	8.06
	8.55	9.26	9.64	10	10	11	11	11	11	11	10	10	9.86	9.39	9.01
	9.19	9.81	10	11	11	11	11	12	12	11	11	11	11	10	9.52
	9.78	10	11	11	12	12	12	12	12	12	12	12	11	11	10
	9.92	11	11	12	12	12	12	13	12	12	12	12	11	11	10
	10	11	11	12	12	13	13	13	13	13	13	12	12	11	10
	9.77	11	11	12	12	13	13	13	13	13	13	12	11	11	10
	9.17	10	11	12	12	13	13	13	13	13	13	12	12	11	9.80

PHOTOMETRIC CALCULATION SUMMARY (PER MODULE)

AVERAGE (fc) MINIMUM (fc) MAX (fc) MIN/MAX (fc)
11 7.35 13 .556

 LIGHT FIXTURE SCHEDULE

 TYPE
 DESCRIPTION
 MANUFACTURER
 MODEL
 VOLTAGE
 TYPE
 VA
 COMMENTS

 L
 LINEAR EMBEDDED LED STRIP
 ALDABRA
 LIN 01 D30A1.0 LINEA 3000 OPAL (1.000)
 24V
 LED
 13

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COA 15 TLC NO: 616107

SU B M I T T A L S:
PHASE DATE

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O7.22.2019

REVISED PERMIT SET

REVISED PERMIT SET

REVISED PERMIT SET

O7.22.2019

REVISIONS:

PROJECT TEAM PROFESSIONAL IN CHARGE

MANUEL MOLLINEDO, PE

REGISTRATION
N U M B E R FL-63096

APPROVED BY TLC

D E S I G N E D B Y
TLC

D R A W N B Y
TLC

C H E C K E D B Y

Manuel Mollinedo, P.E.
Florida License # 63096

DESIGNCONSULTANT

MIAMIBEACH

PININFARINA BUS
SHELTERS

CITY OF MIAMI BEACH

MINIMAL 10 x 3' -FLOOR PLAN, REFLECTED CEILING PLAN - ELECTRICAL

SHEET TITLE



11'3"

roofing consulting construction management

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17-012 G01

PROJECT NUMBER

E-103

S H E E T N U M B E R

TO THE BEST OF MY KNOWLEDGE
AND ABILITY THESE PLANS ARE
COMPLETE AND COMPLY WITH THE
APPLICABLE BUILDING CODES

CONDITIONS PERMIT. COORDINATE EXACT LOCATIONS WITH CITY AND

COMMUNICATIONS EQUIPMENT. SIZE AS

LOCATED AS NEAR TO SHELTERS AS SITE

REQUIRED. IT CABINET SHALL BE FIELD

COORDINATE EXACT LOCATIONS WITH

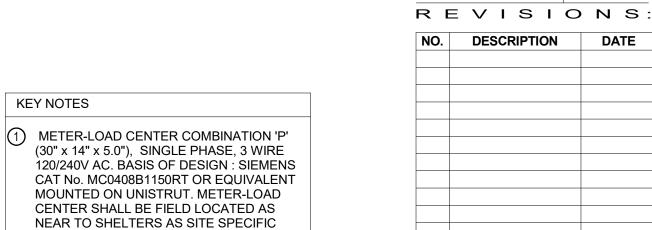
CITY AND ARCHITECT / ENGINEER.

SPECIFIC CONDITIONS PERMIT.

ARCHITECT / ENGINEER.

2) NEMA 4X IT CABINET FOR

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PROJECT TEAM PROFESSIONAL IN CHARGE

SUBMITTALS

07.03.2019

07.22.2019

PHASE

100% CD's

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MANUEL MOLLINEDO, PE REGISTRATION-

NUMBER APPROVED BY

D E S I G N E D B Y

D R A W N B Y

CHECKEDBY

._____ Manuel Mollinedo, P.E. Florida License # 63096

DESIGN CONSULTANT

07/03/2019

PININFARINA BUS SHELTERS

CITY OF MIAMI BEACH

.....

ENHANCED 20' x 3' -

SHEET TITLE

PLAN - ELECTRICAL

FLOOR PLAN, REFLECTED CEILING

architecture engineering

roofing consulting construction management AAC001323 · EB0004379 · CGC010769

2937 W. Cypress Creek Rd., Suite 200 Fort Lauderdale, Florida 33309 Tel: 954.484.4000 · Fax: 954.484.5588 www.acaiarchitects.com ARCHITECT OF RECORD

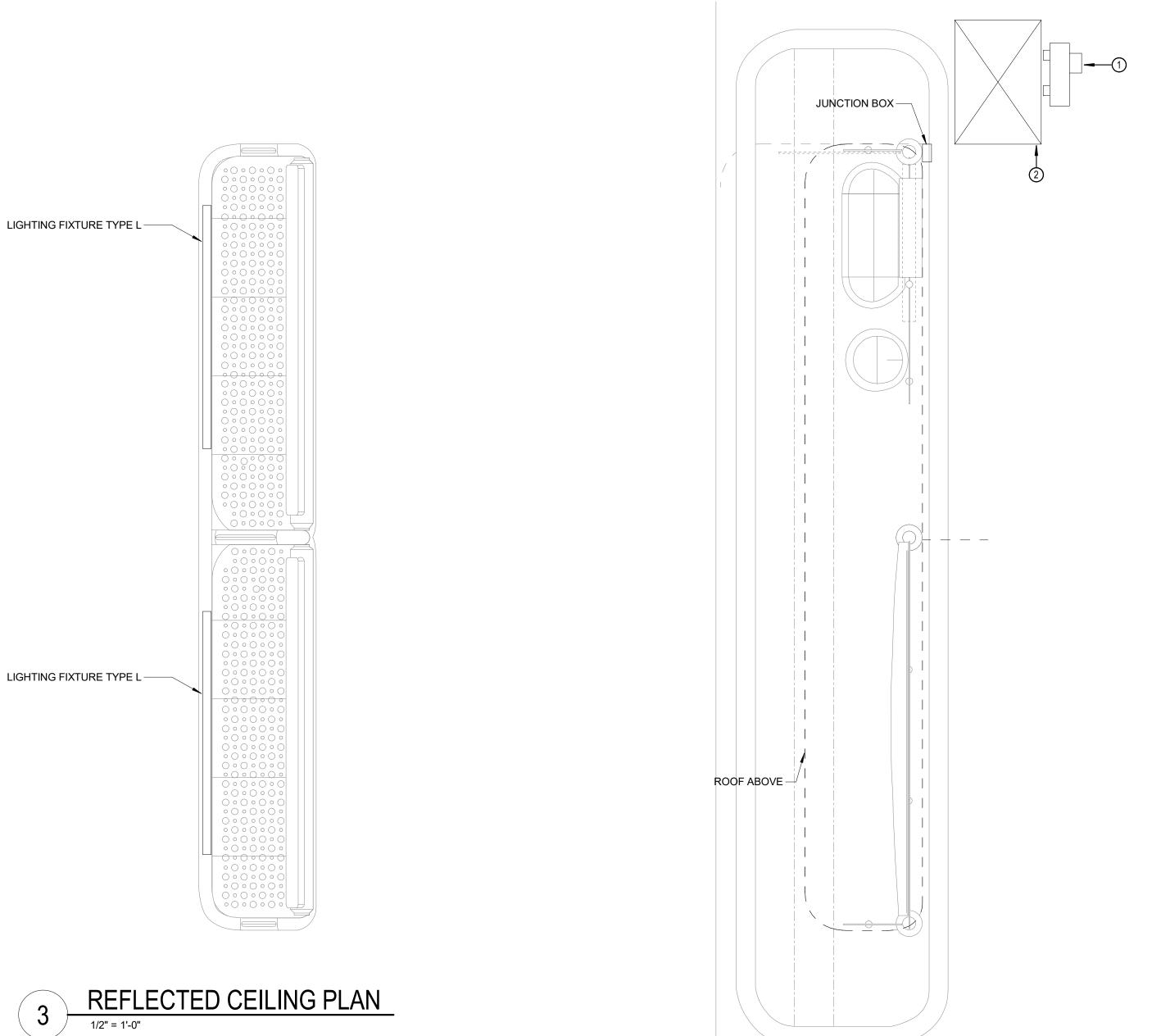
17-012 G01

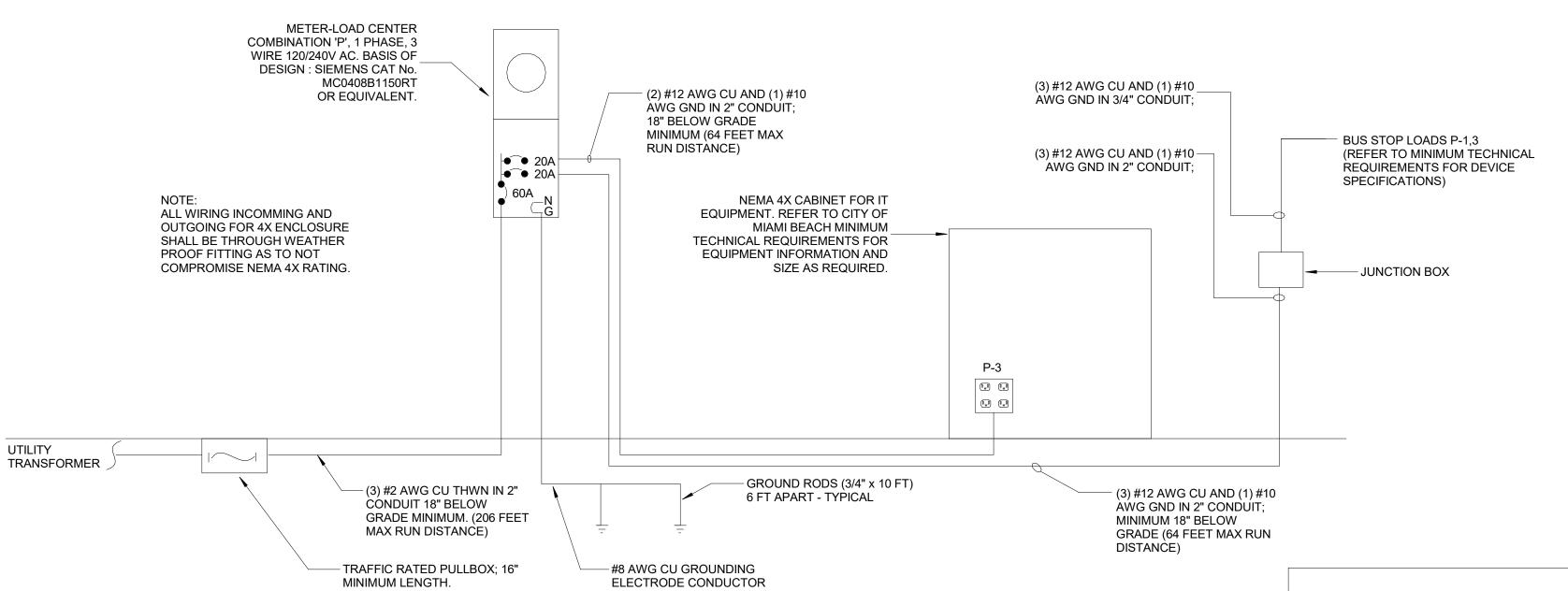
PROJECT NUMBER

E-104

SHEET NUMBER TO THE BEST OF MY KNOWLEDGE AND ABILITY THESE PLANS ARE COMPLETE AND COMPLY WITH THE APPLICABLE BUILDING CODES

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7.61 8.28 8.69 9.07 9.28 9.54 9.54 9.62 9.60 9.48 9.42 9.12 8.88 8.48 8.06 8.55 9.26 9.64 10 10 11 11 11 11 10 10 9.86 9.39 9.01 9.19 9.81 10 11 11 11 12 12 11 11 11 10 9.52 9.78 10 11 11 12 12 12 12 12 12 12 12 11 11 10 9.92 11 11 12 12 12 13 12 12 12 12 11 11 10 10 11 11 12 12 13 13 13 13 13 13 12 12 11 10 9.77 11 11 12 12 13 13 13 13 13 13 12 11 11 10 9.17 10 11 12 12 13 13 13 13 13 13 12 12 11 9.80

LIGHT FIXTURE SCHEDULE

MODEL

LIN 01 D30A1.0 LINEA 3000 OPAL (1.000)

5 FLOOR PLAN
1/2" = 1'-0"

PHOTOMETRIC CALCULATION SUMMARY (PER MODULE) AVERAGE (fc) MINIMUM (fc) MAX (fc) 11 7.35 13 MIN/MAX (fc) .556

ALDABRA

ELECTRICAL POWER RISER AND LOAD SUMMARY MANUFACTURER

EXTENDED 13" = 1'-0"

Branch Panel: P

Location:

Mounting: Surface

Enclosure: TYPE 3R

Supply From:

P.I.S., DIGITAL AD DISPLAY, LIGHTING LOADS

5 SPACE

7 SPACE

Load Classification

Volts: 120/240 Single

0.0 kVA | 0.0 kVA

0.0 kVA

Estimated Demand

Wires: 3

1.2 kVA 1.2 kVA

0.0 kVA 0.0 kVA

2.4 kVA

20 A 2

Total Load:

Connected Load

Total Amps:

A.I.C. Rating: 22,000

Mains Type: MCB

Mains Rating: 150 A

MCB Rating: 60 A

Neutral Rating: 100.00%

Panel Totals

Total Conn. Load: 2.4 kVA Total Est. Demand: 2.40 kVA Total Conn. Current: 10 A

Total Est. Demand Current: 10 A

QUAD RECEPTACLE 2

SPACE 4

SPACE 6

SPACE 8

1 20 A

TYPE DESCRIPTION LINEAR EMBEDDED LED STRIP VOLTAGE TYPE VA COMMENTS 24V LED 13

MINIMUM TECHNICAL REQUIREMENTS

MIAMIBEACH

City of Miami Beach

MINIMUM TECHNICAL REQUIREMENTS

for

the Bus Shelters project in the City of Miami Beach

RFP 2019-306-KB July 2019

MIAMIBEACH

CONTENTS

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1 General

The City of Miami Beach (the City) intends to issue a Request for Proposal (RFP) to solicit competitive bids and proposals from contractors (the vendor) for the construction, operation, and maintenance of the City's Bus Shelters project (the Project).

The Project includes the installation of new bus shelters at identified project locations throughout the City of Miami Beach. The new Bus Shelters to be constructed will incorporate completely new shelters, replacing the previous facilities. The project will incorporate Closed Circuit Television (CCTV) cameras, passenger information system/estimated time of arrival signs, digital advertising display which may be interactive, audio speakers capable of producing sound output in accordance to ADA (American with Disabilities Act) Standards, and Content Management Software (CMS), at some of the shelters.

The Vendor shall establish and utilize a redundant cellular communications network to support all field devices and equipment installed for the bus shelters. The redundant cellular network shall utilize dual LTE air cards. The cost to establish, operate and maintain the communications network shall be included in the cost of the project. This cost shall include the vendor's ability to operate and maintain the systems and components described in this document at an uptime availability of 95%. The maximum response time to assess and diagnosis the cause of a failure to any systems and components is 6 hours. The maximum response time to restore functionality to any system or component that has failed is 24 hours, this includes failures that require device or component replacement.

1.1 Description of Work

This document provides a set of Minimum Technical Requirements for the construction, operation, and maintenance of the Project elements and is part of the Request for Proposal (RFP).

The proposed components include the construction, operations, and maintenance of the following:

<u>Systems</u>

- Closed Circuit Television (CCTV) Cameras
- Digital Advertisement Displays
- Passenger Information System/Estimated Time of Arrival Signs
- Outdoor Speakers
- Field cabinets
- Content Management Software (also compatible with existing bus components)

Components, devices and materials provided by the Vendor must be operated and maintained by the Vendor to allow for 95% uptime availability of these devices. The 95% uptime availability does not apply to the CCTV Camera, as this device will be operated and maintained by the City.

Communications Infrastructure

Optional requirements, pending City approval: Additional field communications devices and routers must be provided and be able to support providing the public with unlimited, free WiFi access while in proximity of the bus shelters requiring this equipment. The City requires the ability to turn this feature off from a remote location, at their discretion. The Vendor shall be prepared to provide the WiFi services throughout the duration of the project. These services may be requested by the City to be included on the project at any stage of the project. These services will be the sole responsibility of the vendor to deploy, integrate, operate and maintain.

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1.2 Additional General Requirements

Unless otherwise noted herein, the Vendor shall comply with all applicable requirements of Florida Department of Transportation's (FDOT) Standard Specifications for Road and Bridge Construction latest edition (here and after known as FDOT Standard Specifications).

The Vendor shall become familiar with the project design documents and utilize the Firm's expertise in the field of communications systems and modern bus shelter components to incorporate innovation in its project delivery while maintaining all requirements of the RFP.

The Vendor is responsible for delivering all systems, subsystems, devices, and ancillary components required to provide a complete project that fulfills the requirement of its contract. The vendor shall determine the exact location of these devices and components based on the proposed design elements. Any specific locations and provided quantities of the devices to meet the requirements must also meet the manufacturers' specifications for installation and functionality of all project devices and ancillary components. The City will provide specific information related to the quantities and locations of shelter type and the associated systems, devices, and components.

The Vendor shall ensure that all field devices and ancillary components comply with the City's design and Miami-Dade transit's existing systems and operational requirements. All proposed project components and devices must be 100% compatible with existing City of Miami Beach and/or Miami-Dade County Transit field devices, County bus components, proposed content management software, and operations. Validation for compatibility of project devices and components shall be performed by the Vendor. When installing devices and infrastructure, including but not limited to Digital displays, cabinets, poles, conduit, etc., the devices, all supporting infrastructure, and the routing and placement thereof shall be context sensitive in design with regard to the design, surrounding properties and urban form.

All subsystem devices and ancillary components shall possess the latest version of hardware and software (at the time of installation) and provide the City and/or Miami-Dade County Transit software updates at no additional cost when any software updates become available for the throughout the duration of the contract. Neither untried nor prototype units will be approved or accepted by the City. The Vendor shall not use reconditioned equipment. All subsystem devices and ancillary components shall be new Commercial Off-The-Shelf (COTS) products in current production.

The Vendor shall submit a list of all selected technologies/products, selection alternatives, reasons for selection, anticipated device locations, and mounting types to the City for review and approval. Approvals will be necessary for an initial typical section of each bus shelter type. Additional approval will be required at the discretion of the City.

The Vendor shall install the subsystem devices and ancillary components that are detailed in the City's approved final design plans and specifications including, but not limited to, all required structures.

The Vendor shall not install subsystem devices and ancillary components until the City has reviewed and approved the final device or component selection and associated specifications.

The Vendor is responsible for ensuring that the bus shelters are constructed to be compliant with all ADA Standards.

The Vendor shall ensure that all devices, systems, and components of the project must be manufactured, tested, certified, and registered through the Nationally Recognized Testing Laboratory (NRTL) Program.

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The Vendor shall provide the City with access of up to two (2) users of the systems, components, and software used to fulfill the requirements of this project.

All devices and components installed in the field must have an Ingress Protection (IP) rating of 66.

1.3 Document Organization

This document summarizes the requirements unique to each project component in a section specifically devoted to the respective field device. For each project component, the following areas are discussed:

- Description
- Design Requirements
- Project Specific Requirements

2 CCTV Camera System

2.1 Description

CCTV cameras are anticipated at each enhanced bus shelter type and are incorporated into the bus shelter structure. Mainly used for security, these cameras provide City police and system operators with live streams of bus stop activity and traffic flow. Operations staff use these devices to monitor conditions for the proper coordination of resources. Proactive use of CCTV cameras will assist with enforcement productivity, dispatch response times, and performance measures by providing early detection, event verification, increased visual coverage and most importantly, rider safety. The City shall have the opportunity to include additional CCTV Cameras at bus shelter locations based on the proposed placement and coverage that the CCTV Cameras are specified to provide within the design documents.

2.2 Design Requirements

The new CCTV camera shall conform to the current specifications for video equipment and corresponding Design Standards associated with the project design. The Vendor shall furnish, construct, install, and integrate the Axis® P3225-LVE Mk II CCTV Camera system, or other vendors and/or models approved by the City, and Subsystem to provide the Miami Beach Police Department and transit operator with complete video coverage of the bus shelter locations. The installed system shall have the functionality to view the bus shelter and the provide coverage of the surrounding area through digital pan, tilt, and zoom (PTZ), position presets, and provide Wide-Dynamic Range (WDR) capabilities. The CCTV Camera Subsystems shall be compatible with the existing VMS (Milestone Video Management Software) in use by the City's Police Department.

The CCTV Camera must be installed including any necessary wiring between the camera and camera router/router cabinet by the bus shelter vendor.

The CCTV camera assembly shall be consistent with the design plans developed for the project. The Vendor shall furnish, install, integrate, and test CCTV cameras at locations as required to meet or exceed these MTR.

The Vendor shall construct, test, operate, and maintain a CCTV camera system that consists of cameras providing high-quality streaming video coverage. The Vendor shall ensure the CCTV camera views provide the Police Department with the ability to determine the nature of activity taking place at the bus stop, view bus arrivals and departures, and view roadway conditions in proximity to the bus shelter. Vendor shall

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perform cleaning of camera lenses when deemed necessary by the City, as well as, during any maintenance activities. Other aspects of the maintenance of bus shelter CCTV Cameras will be performed by the City.

The Vendor will be responsible for any camera replacement that is required for full functionality of the camera and its components. Replacement of the camera, mounting equipment, and ancillary equipment is required to be assessed during any preventative, scheduled and emergency maintenance activities or as deemed necessary by the City. The Vendor is required to replace any camera that has been subject to damage from vandalism, natural disasters, and 3rd party damage. It is the responsibility of the vendor to recover funds for any third-party damage.

2.3 Project Specific Requirements

2.3.1 Camera Type

The Vendor shall use the Axis® P3225-LVE Mk II CCTV Camera system, and/or models approved by the City. The CCTV cameras shall have a built-in memory card slot that enables local storage of high-definition video, at least 1080 resolution with progressive scan (1080p). The Vendor is responsible for providing a memory card, installed at the time of the camera installation, for all cameras. The memory card must be a minimum of 128 gigabytes and be rated for high endurance and outdoor use.

2.3.2 CCTV Camera Wiring and Housing Type

CCTV camera housings shall be of the dome type and shall have a clear dome. The CCTV must be able to operate in outdoor conditions with a temperature range of -40° F to 122° F, humidity range of 10 to 100% relative humidity. The weight of the camera shall not exceed 2lbs, have a base diameter of less than 6" (inches), and a height of less than 4.5" (inches).

The camera shall be powered via the Ethernet (Power-Over-Ethernet) power source or may be powered directly via 12-24VDC or 24VAC.

2.3.3 Video

The CCTV camera shall support a minimum of H.264 encoding, have a resolution of up to 1920x1018, and support 25/30 frames per second (FPS) with WDR and 50/60 fps without WDR.

2.3.4 Camera Communications

Router for the camera: The City will purchase install, operate and maintain will install the router required to communicate with the CCTV camera. The Vendor for the bus shelters shall provide a separate cabinet for camera router, equipped with the necessary power requirements to operate it and any necessary wiring from the camera to the router. The Vendor shall not have access to this cabinet once the camera router is installed. The Vendor must establish a protocol for managing access to the camera communications equipment when necessary for the Vendor to fulfill the requirements of this contract.

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3 Advertisement Displays

3.1 Description

The Vendor shall furnish, construct, install, integrate, operate and maintain both static advertisement displays and Digital Advertisement Displays (DAD) consisting of Outdoor LCD Displays within each of the enhanced bus shelter types of the project, at the minimum. The Vendor is required to ensure the proposed DAD is capable of fulfilling the design requirements of the bus shelter. Any proposed DAD are subject to approval by the City. Other bus shelters types, at selected locations mutually agreed between the Vendor and the City may also have DAD. The DAD shall be compatible with the proposed content management software platform. Based on direction provided by the City the DAD may be required to be interactive with a touchscreen (subject to City approval). Any proposed device must possess touchscreen capability. The use and inclusion of the touchscreen feature will be determined at the time of installation and will be at the discretion of the City. The DAD must be capable of having the interactive touchscreen display feature to be added at the time of installation or at a later date, if deemed necessary by the City.

The types of Advertisement Displays for this project are:

- Single Face Free Standing Display (FSD) with a static advertisement display, illuminated for night applications
- Single Face Free Standing Display (FSD) typically 55" in size and mounted on ground level.
 The display is capable of displaying a full color LCD picture with a 16:9 aspect ratio, 3500 nits, with
 a Full HD Resolution (1920X1080)
- Single Face Free Standing Display (FSD) typically 75" in size and mounted on ground level.
 The display is capable of displaying a full color LCD picture with a 16:9 aspect ratio, 3500 nits, with a Full HD Resolution (1920X1080)
- Double Face Free Standing Display (FSD) with a static advertisement displays, illuminated for night applications
- Double Face Free Standing Display (FSD) typically 55" in size and mounted on ground level.
 The display is capable of displaying a full color LCD picture with a 16:9 aspect ratio, 3500 nits, with
 a Full HD Resolution (1920X1080)
- Double Face Free Standing Display (FSD) typically 75" in size and mounted on ground level.
 The display is capable of displaying a full color LCD picture with a 16:9 aspect ratio, 3500 nits, with
 a Full HD Resolution (1920X1080) For the purposes of a cost estimate assume this type of
 display will be used.

Any Double Face FSD must be capable of displaying a digital advertisement on one side and a static display, illuminated for night applications on the opposite side within the same unit.

The City of Miami Beach will provide a list of bus stop locations that will be reconstructed through this project. This list will include details specific to each type of bus shelter and the associated devices and components that are required for that location and /or bus shelter type. All installed devices shall be contextual to the surrounding properties and urban form.

3.2 Design Requirements

The Vendor shall furnish, install, integrate, test, operate, and maintain Digital Advertisement Displays at locations as required to meet or exceed these MTR. The Digital Advertisement Display shall conform to the

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design documentation and latest edition of Specifications available. DMS locations shall be based on the design and installed per the latest edition of Specifications.

The Vendor shall adhere to the requirements herein and in other contract documents for the procurement, installation, integration, operation, maintenance, training, documentation, and warranty requirements for full color, LCD assembly, including requirements of the County Code for size, and installation of digital and interactive displays (defined as Kiosk Signs in the County Code). Each assembly shall include but not be limited to the sign case with all associated internal components, display controller, and network-manageable sign controller, communications devices, controller cabinet, cabling, connectors, conduits, electrical service, surge suppression, and hardware and software associated with a complete installation.

All new and replacement signs shall be integrated into the vendor-provided control software and have the ability to display messages remotely generated from the end user's computer, as well as, other predetermined locations. The sign shall comply with the additional requirements and specifications and the following special requirements.

3.3 Project Specific Requirements

3.3.1 Digital Advertisement Displays Type

The Digital Advertisement Displays furnished and installed shall be full color. The Vendor shall be responsible for determining the appropriate Digital Advertisement Displays type to be furnished and installed at each location. The Vendor shall only use one manufacturer and model of Digital Advertisement Displays, models may vary in size and functionality per location.

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4 Passenger Information Display System

4.1 Description

At a minimum, The Passenger Information Display System must provide messages regarding the next available route, location destination, and estimated time of arrival based on bus location. Additionally, the signs must possess the ability to provide current time, date, bus stop location, anticipated arrival of next bus, bus route number, bus stop name and routes serviced at the stop location on a digital display board within the bus shelter. Additional information being displayed on the sign shall be made available for display at the discretion of the City. The Vendor shall furnish, install, integrate, test, operate, and maintain displays, providing proper and exact information, at each bus stop location. The Passenger Information Display System must be compliant with all ADA Standards. Chapter 703, of the ADA Standards defines requirement related to signs and Chapter 8 (Section 810) defines requirement related to Transportation Facilities.

4.2 Design Requirements

The Vendor shall furnish, construct, install, calibrate, test, operate, and maintain a digital display capable of providing required information on a device capable of functioning outdoors, in extreme heat and humidity. All Passenger Information Display System devices shall have a minimum operating temperature range of 4 degrees F to 158 degrees F and humidity range of 0 percent to 95 percent.

The Vendor shall furnish and install the displays at specific locations as required by the design to accommodate the MTR set forth herein.

4.3 Project Specific Requirements

4.3.1 Display Type

The display will be an ultra-wide LCD screen that is the appropriate dimensions to fit within the design.

4.3.2 Display Specifications

- 47.8" Resizing LCD
- Ultra-Wide screen (16:1.5)
- Resolution: 1920X178
- Aspect Ratio:16:1.5
- Contrast Ratio: 8000:1
- Brightness: 1600 nits
- Sunlight Readable when considering glare and orientation of the shelter and Passenger Information Display System
- LED Backlight
- Slim Bezel
- Maximum Dimensions: 50"X6.1"X2.5"

4.3.3 Ancillary Components

The display must include the panel, driving board and control module.

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4.3.4 Power Supply

The Vendor shall ensure that the main power supply includes transient protection devices capable of powering 60 W for each sign.

4.3.5 Software

The Passenger Information Display System must be compatible for use with the proposed Content Management Software that will be provided by the Vendor for the contract. The Passenger Information Display System must be capable of providing content to the proposed software responsible for generating the audible messages that read the message content aloud.

5 Outdoor Speaker

5.1 Description

The speaker must be hardened and suitable for outdoor, commercial applications and be capable of interfacing with the Content Management Software for text-to-speech functionality associated with ADA (Americans with Disabilities Act) requirements for public information infrastructure.

5.2 Design Requirements

The Vendor shall furnish and install the speaker(s) at locations as required to accommodate the MTR and design. The speaker shall conform to the latest specifications for use in the City. Device placement shall be based on the design and strictly adhere to manufacturer-established recommendations for optimal performance.

5.3 Project Specific Requirements

5.3.1 Speaker

5.3.1.1 General

All equipment supplied shall be identical at each field installation location and shall be completely interchangeable.

5.3.1.2 Electrical

The field equipment shall utilize dedicated power sources. When existing power sources are used, they shall be tested to see if the power supply can sufficiently meet the needs of any existing equipment with the addition of the speaker. Speaker shall operate in the range of 20 - 40 Watts.

5.3.1.3 Cables and Connectors

Connectors shall be provided and installed that are compatible with the equipment provided.

5.3.1.4 Physical Conditions

Field equipment shall be hardened for outdoor conditions and require minimal maintenance. Field equipment shall be placed within an enclosure so that it is easily accessible for maintenance purposes. All audio equipment shall have a minimum operating temperature range of -4 degrees F to 158 degrees F and humidity range of 0 percent to 95 percent. The maximum dimensions of the speaker shall be 6.00" x 5.00"

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and a maximum weight of 4 lbs. Volume levels of the speaker and audible messages must be adjustable remotely from the Content Management Software.

6 Additional Device Cabinet

6.1 Description

All bus shelter devices and equipment must fit within the dimensions provided by the bus shelter design. The cabinet required to separately house the CCTV camera router must have dimensions no greater than 12"x12"X8" and shall be NEMA 4 rated. The location of the CCTV camera router and cabinet are subject to approval from the City. Additional devices and components that are not considered in the design or are being used for the CCTV camera router must be housed in a separate cabinet with the location, size, style and mounting is subject to approval from the City.

Turnover to the City of this cabinet will take place after an inspection by the City is requested from the Vendor and approved by City staff or their delegate.

7 Content Management Software

7.1 Description

The Vendor shall furnish, install, integrate, test, operate, and maintain the Content Management software for the Digital Advertisement Displays, Passenger Information Display, Outdoor Speakers, and ancillary equipment.

The software must be equipped with an enterprise-level Content Management System (CMS) software solution. In lieu of utilizing separate vendor-provided management/ configuration software packages, the Vendor must utilize an "umbrella" software package solution capable of managing all devices via one GUI (Graphical User Interface) platform. The Vendor shall furnish and install devices (i.e. Digital Advertisement Displays, Passenger Information Display, and Outdoor Speakers compatible with the software being used as defined in these MTR. The Vendor shall integrate and test new digital display signs, and communication devices with the equipment's respective vendor-provided software. The Vendor shall furnish, install, and integrate all the equipment including the LAN and software licenses necessary for the operation of these devices from a location specified by the City using the respective vendor-provided software packages as well as the an "umbrella" software package solution capable of managing all devices via one GUI platform. The Vendor will operate and maintain the software.

7.2 Project Specific Requirements

7.2.1 Content Management Software Installation

7.2.1.1 Servers

The Vendor shall furnish, install, integrate, test, operate, and maintain any server(s) required to operate the bus shelter devices managed or operated through the Content Management Software provided under this project. The new server(s) shall be installed on blade racks located in a designated telecommunications room with the proposed TMC.

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7.2.1.2 Device Protocol Compliance

For the devices being deployed that are to be communicated with, monitored and/or controlled via the software (location to be determined), the Vendor shall ensure that the protocol(s) used by these devices is compliant with the governing equipment and ITS protocols (e.g. ONVIF, NTCIP, etc.) stated in the specifications for that specific device. The Vendor shall coordinate with the City of Miami Beach and Miami-Dade County Transit, or its designated representative, as necessary in this regard.

7.2.1.3 Network Infrastructure

The following sections describe the network infrastructure that must be installed by the Vendor before installation of the content management software configuration:

7.2.1.3.1 Hardware

Due to the client/server nature of the device software, the Transmission Control Protocol/Internet Protocol (TCP/IP) shall be used to exchange data between applications and database servers. In the case of a webbased implementation of the vendor-provided software user interface, each workstation shall require TCP/IP access to the vendor-provided software application and database servers. The LAN cabling shall be provided by the Vendor to provide network connectivity from the workstations to the designated Miami-Dade County Transit telecommunications protocol. The Vendor shall assure as part of their work that TCP/IP connectivity exists between all vendor-provided software application server(s) and operator workstations equipped with the Content Management Software.

All proposed field devices shall be connected via TCP/IP and have network communication compatibility with the device application server(s).

It shall be the Vendor's responsibility to provide all necessary network hardware and cables to provide the required connectivity. Power service receptacles, modem/phone jacks, and Miami-Dade County Transit operations network data jacks shall be provided by the Vendor for the consoles. The Vendor shall communicate, collaborate, and coordinate via the City of Miami Beach Project Manager and Miami-Dade County Transit concerning the Content Management Software communications and power service requirements within the Miami-Dade County Transit operations facility so that all equipment furnished under this project is fully compliant with the power service provided within the facility for this purpose.

7.2.1.3.2 Software

As the device software is configured, it will need access to various network servers that are available as part of the greater City of Miami Beach and/or Miami-Dade County Transit network. The Vendor shall make available the following network services and the associated parameters (e.g., host names, addresses, etc.) required for access during the device hardware and software configuration:

- Simple Mail Transfer Protocol (SMTP) Mail Server. As required, the vendor-provided device
 management/configuration software shall have access to the SMTP mail server to be able to send
 emails regarding major System events. The SMTP server connection shall be provided to the
 Vendor by the Miami-Dade County Transit.
- Domain Name System (DNS). As required, the vendor-provided device management/configuration
 software applications may utilize TCP/IP to exchange data and the applications can use either IP
 addresses or host names in their configuration files. Note that the use of DNS is preferred because
 using explicit IP addresses is less flexible than using hostnames. One of the device application
 servers shall be configured to provide DNS by the Vendor.

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 Network Time Protocol (NTP). All Miami-Dade County Transit operations workstations shall be synchronized with a common time source. The time source shall be provided by the City of Miami Beach and/or Miami-Dade County Transit NTP server.

Regarding the configuration of the above mentioned services, the Vendor shall coordinate with the City of Miami Beach and/or Miami-Dade County Transit IT Department.

7.2.1.4 Device Worksheets

The Vendor shall coordinate with City of Miami Beach and/or Miami-Dade County Transit, or its designated representative, to collect and provide the required information about each device that is to be interconnected with; communicated through; communicated with; monitored and/or controlled via the device and content management/configuration software. The exact information to be provided for the devices involved shall be obtained from City of Miami Beach and/or Miami-Dade County Transit or their designated representative. The City of Miami Beach and/or Miami-Dade County Transit shall approve the format and naming conventions used to ensure compatibility with existing devices in the City's device database.

7.2.2 Post Device Software Installation Services

The Vendor shall provide the services described below:

7.2.2.1 Populate Device Database Tables and Configuration Files

The Vendor shall populate all device database tables and configuration files using the data collected in the device worksheets.

7.2.2.2 Create Device Map Links

The Vendor shall create the device map link layer(s) for each of the respective devices (i.e. DMS, Passenger Information Display System, Advertisement Displays). The Vendor shall display all field devices. The City and Miami-Dade County Transit shall approve the format and naming conventions used to ensure compatibility with existing devices in the City and County Transit's device GIS map link layer.

7.2.3 Device Software Training

The Vendor shall coordinate with the City of Miami Beach and Miami-Dade County Transit to schedule the Device Software administrator and operator training. The Vendor must present a minimum of five (5) dates/times for the City and County staff to select an available time for training. Two (2) weeks notice must be given to the City and County staff of when the training will take place. The Vendor is responsible for coordinating the location and content of the training. At a minimum the content of the training must incorporate modules for the following aspects of the project:

- Digital Advertisement Displays
- Passenger Information System/Estimated Time of Arrival Signs
- Outdoor Speakers
- Content Management Software (also compatible with existing bus components)

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