

Chinsegut Hill

ALUMINUM WALKWAY COVER

DESIGN STANDARDS AND LOADS:

THE BUILDING STRUCTURE HAS BEEN DESIGNED USING THE FOLLOWING DESIGN STANDARDS:

- 2020 FLORIDA BUILDING CODE (7TH EDITION)
- ASCE 7 MINIMUM DESIGN LOAD FOR STRUCTURES
- SPECIFICATIONS FOR ALUMINUM STRUCTURES, ALUMINUM DESIGN MANUAL, PART 1-A AND PART 1-B OF THE ALUMINUM ASSOCIATION.

THE FOLLOWING LOADS SPECIFICALLY DESIGNED FOR:

DEAD LOAD:	5	PSF
ROOF LIVE:	20	PSF
ROOF SNOW LOADING: (NOT GOVERNING)		
$P/g:$	ZERO	PSF
$P/f:$	ZERO	PSF
$C/e:$	0.9	
$l/s:$	1.00	
$C/t:$	1.0	

GEOTECHNICAL DESIGN INFORMATION:

SOIL DESIGN LOAD BEARING VALUE: 2000 PSF

WIND:

WIND SPEED: V_{ULT}	140	MPH
V_{ASD}	108	MPH
EXPOSURE CATEGORY:	C	
BUILDING RISK CATEGORY:	II	
ENCLOSURE CLASSIFICATION:	OPEN	
INTERNAL PRESSURE COEFFICIENT:	± 0.00	
WIND BORNE DEBRIS ZONE:	YES	
HIGH VELOCITY WIND ZONE:	NO	

* DESIGN IS PREDICATED ON ASD VALUES

COMPONENTS & CLADDING PRESSURES FOR WALKWAY COVERS

Roof Angle	Effective Wind Area	ASD Wind Pressure $p_s = q_s \times G \times C/N \times 0.6$ (psf) (Eq. 30.8-1)					
		Zone 3		Zone 2		Zone 1	
$\leq 20^\circ$	≤ 9	60.4	-62.1	45.3	-47.3	30.2	-31.0
	$> 9 \leq 36$	45.3	-47.3	45.3	-47.3	30.2	-31.0
	> 36	30.2	-31.0	30.2	-31.0	30.2	-31.0

DESIGN NOTE: THE WALKWAY COVER SHOWN HEREIN IS NOT CONSIDERED A HABITABLE SPACE. ALL COMPONENTS AND CLADDING ARE SITE SPECIFIC ENGINEERED.

GENERAL NOTES:

ALUMINUM WALKWAY COVER SYSTEM SHALL BE CONSTRUCTED ENTIRELY OF ALUMINUM EXTRUSIONS. STRUCTURAL FRAMING SHALL CONSIST OF WELDED OR MECHANICALLY CONNECTED ONE-PIECE RIGID STRUCTURAL BENTS (COLUMN AND BEAM ASSEMBLIES), DECKING, ACCESSORY ITEMS AND HARDWARE TO PROVIDE A COMPLETE SYSTEM.

DRAINAGE: WATER FLOW SHALL BE DIRECTED AND DRAIN FROM THE ROOF DECK INTO DESIGNATED BEAMS AND COLUMNS, AND OUT DRAIN HOLES w/ DIVERTERS.

METALS:

THE FOLLOWING PUBLICATIONS ARE CONSIDERED A PART OF THIS STRUCTURAL SPECIFICATION:

- ALUMINUM DESIGN MANUAL, LATEST EDITION
- AWS D1.2. STRUCTURAL WELDING CODE - ALUMINUM

MINIMUM STRENGTH OF MATERIALS (F_y) SHALL BE AS FOLLOWS U.N.O.:

STRUCTURAL EXTRUSIONS - ASTM B221 6063-T6; 25 KSI
ANCHOR BOLTS - ASTM F1554 GR. 36 OR A307; 36 KSI
STRUCTURAL CONNECTION FASTENERS - ASTM A193/A194/F593 TYPE 304, 316, 410, OR 18-8; 30 KSI

ALL ZINC PLATED FASTENERS SHALL BE ISOLATED w/ HARD URETHANE RUBBER GASKETS.

FABRICATOR SHALL FURNISH ALL PLATES, BOLTS AND ANGLES CAST INTO TIE BEAMS, FOOTINGS OR OTHER CONCRETE OR MASONRY.

ALL SHOP CONNECTIONS SHALL BE WELDED AND FIELD CONNECTIONS SHALL BE BOLTED U.N.O.

ALL EXPOSED EDGES AND SURFACES SHALL BE FINISHED AND FREE OF COURSE OR JAGGED EDGES.

STRUCTURAL BENTS AND FRAMES:

MECHANICAL CONNECTIONS IN BENTS AND/OR FRAMES, IF PRESENT, SHALL CONSIST OF A MINIMUM OF TWO (2) FASTENERS PER CONNECTION U.N.O.

JOINT FASTENERS SHALL BE INSTALLED TO SNUG TIGHT CONDITION U.N.O.

COLUMN SHAPES SHALL BE TUBULAR EXTRUSIONS SIZED FOR STRUCTURAL LOADS. MINIMUM SIZE SHALL BE 6"x6"x0.150".

BEAM SHAPES SHALL BE TUBULAR EXTRUSIONS SIZED FOR STRUCTURAL LOADS. MINIMUM SIZE SHALL BE 6"x6"x0.150".

STRUCTURAL DECK:

STRUCTURAL DECK SHALL CONSIST OF INTERLOCKING "SNAP-FIT" ALTERNATING CAP/PAN EXTRUDED COMPONENTS. DECK SYSTEM SHALL CONSIST OF NOMINAL 3" TALL AND NOMINAL 6" INCREMENTAL WIDTH SECTIONS.

STRUCTURAL DECK SECTIONS SHALL BE ATTACHED WITH A MINIMUM OF TWO (2) #14x1" SELF DRILLING SELF TAPPING SS "TEK" SCREWS WITH INTEGRAL NEOPRENE WASHER BENEATH 5/8"Ø CONICAL WASHER.

FASCIA:

END FASCIA SHALL CONSIST OF CUSTOM 3" NOMINAL HEIGHT SECTION FASTENED TO THE INSTALLED STRUCTURAL DECK.

SIDE FASCIA SHALL CONSIST OF 46x0.093 GUTTER FASCIA EXTRUDED COMPONENTS INSTALLED PER PLANS.

FASCIA SHALL BE INSTALLED WITH #10 SS SDST "TEK" SCREW AT NOT MORE THAN 36" O.C. UPPER BRACE FASTENER SPACING SHALL NOT EXCEED 72" O.C. & SHALL BE FASTENED w/ (1) #10 SS SDST "TEK" SCREW AT EACH END OF BRACE.

FLASHING REQUIRED AS DICTATED BY PROJECT CONDITIONS SHALL CONSIST OF MIN. 0.040 THICKNESS FLAT MATERIAL CUSTOM FABRICATED AS INDICATED BY THESE DOCUMENTS.

FLASHING SHALL BE FASTENED WITH #10 SS SDST "TEK" SCREWS INTO METALS OR 1/4"x11/4" SS TAPCONS AT A MAXIMUM OF 36" O.C.

FLASHING IN CONTACT WITH UNPAINTED CONCRETE OR DISSIMILAR METALS SHALL BE ISOLATED BY USE OF NEOPRENE STRIP WASHER OR FIELD APPLIED CAULKING.

WELDING:

ALL WELDS SHALL BE BY TUNGSTEN INERT GAS (TIG) PROCESS AND PERFORMED BY QUALIFIED WELDERS.

ALL WELDS SHALL COMPLY WITH AWS D1.2

ALL WELDS SHALL BE ARCHITECTURAL GRADE FINISH.

ALL WELDS SHALL BE CONTINUOUS U.N.O. WELD SIZE SHALL BE BY AWS STANDARDS U.N.O.

HIGH STRENGTH GROUT:

SHALL BE VIBROPRUF #110R EQUIVALENT (ONE-PART DRY, NON-SHRINK, NON-METALLIC CEMENTITIOUS MATERIAL)

FINISHES:

ALL FINISHES TO BE 204-R1 CLEAR ANODIZE

DIVISION 2 - SITE WORK FOR BUILDING FOUNDATIONS:

THE GENERAL CONTRACTOR SHALL REVIEW THE GEOTECHNICAL REPORT FOR THIS SITE AND SHALL EXCAVATE, FILL, COMPACT AND PREPARE THE EXISTING SOILS AND NEW FILL FOR CONSTRUCTION OF THIS BUILDING AS SPECIFIED BY THAT REPORT.

FOUNDATIONS HAVE BEEN DESIGNED USING 2,000 PSF ALLOWABLE SOIL BEARING.

DIVISION 3 - CONCRETE:

THE FOLLOWING PUBLICATIONS ARE CONSIDERED A PART OF THIS STRUCTURAL SPECIFICATION:

- ACI 318: BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
- ACI 308-A: GUIDE TO CONCRETE CURING
- ACI 360R-08: GUIDE TO DESIGN OF SLABS ON GROUND
- ACI 302.1R-04: GUIDE FOR CONCRETE FLOOR & SLAB CONSTRUCTION

CONCRETE MATERIALS SHALL CONFORM TO ASTM C94 AND AS FOLLOWS:

- PORTLAND CEMENT SHALL CONFORM TO ASTM C150 AND BE TYPE I OR TYPE III.
- AGGREGATES SHALL CONFORM TO ASTM C33, AND SHALL BE WASHED AND CLEAN.
- WATER SHALL BE CLEAN AND POTABLE
- ADMIXTURES CONTAINING CHLORIDES SHALL NOT BE USED.

MINIMUM CONCRETE COMPRESSION STRENGTH AT 28 DAYS (F'c) SHALL BE AS FOLLOWS:

- 3000 PSI SLAB ON GRADE, TIE BEAMS (3/4" MAX. AGGREGATE)
- 3000 PSI FOOTINGS (1-1/2" MAX. AGGREGATE)

REINFORCEMENT MATERIALS SHALL CONFORM TO THE FOLLOWING:

- BARs SHALL BE NEW BILLET STEEL CONFORMING TO ASTM A 615, GRADE 60.
- WELDED WIRE FABRIC (WWF) SHALL CONFORM TO ASTM A 185.

MINIMUM REQUIRED CONCRETE COVER FOR REINFORCING STEEL (UNLESS NOTED OTHERWISE):

FOOTINGS:

- FORMED BY EARTH:
- 3" BOTTOM AND SIDES

- FORMED BY OTHER THAN EARTH & EXPOSED TO EARTH:
- 3" BOTTOM; 2" SIDES (BARS LARGER THAN #5), 1-1/2" SIDES (BARS #5 AND SMALLER)

REINFORCEMENT SHALL BE ACCURATELY PLACED, SUPPORTED, AND SECURED AGAINST DISPLACEMENT. USE METAL CHAIRS, RUNNERS, BOLSTERS, SPACERS, AND HANGERS AS REQUIRED. REINFORCEMENT ACCESSORIES IN CONTACT WITH FORMS SHALL HAVE HOT-DIP GALVANIZED LEGS OR PLASTIC TIPS.

PROVIDE CORNER BARS AT ALL CORNERS OF FOOTINGS, GRADE BEAMS, EDGE BEAMS, TIE BEAMS AND WALLS. CORNER BARS SHALL BE BENT LAP SPICE BARS AND SHALL BE THE SAME SIZE AND SPACING AS HORIZONTAL BARS.

LAP SPICES SHALL BE 48 BAR DIAMETERS OR 25 INCHES WHICHEVER IS GREATER.

TIE ALL REINFORCING MATS, CAGES, BUNDLES AND OTHER BAR ASSEMBLIES WITH BLACK ANNEALED WIRE, 16 GA MINIMUM.

LAP SPICES IN HORIZONTAL BARS IN FOOTINGS AND THE BEAMS SHALL BE STAGGERED. IF LAP SPICES ARE REQUIRED OVER OPENINGS PROVIDE 48 BAR DIAMETERS MINIMUM

DO NOT WELD REINFORCING BARS, EXCEPT BUTT SPICES MAY BE WELDED IN ACCORDANCE WITH AWS D1.4.

ALL FOOTING ELEVATIONS SHOWN ARE TO TOP OF FOOTINGS.

ALL FOOTINGS ARE CENTERED UNDER WALLS OR COLUMNS UNLESS NOTED OTHERWISE.

FURNISH CONTINUOUS WALL FOOTING REINFORCING IN STOCK LENGTHS.

PROVIDE DOWELS AND SPICE BARS AT CORNERS AND THROUGH FOOTING STEPS. CONTINUOUS FOOTING REINFORCING SHALL BE SUPPORTED BY STEEL CHAIRS WITH SAND PLATES OR BY CONCRETE BRICKS. DO NOT USE WIRE SUPPORTS ALONE.

CAST DOWELS IN FOOTINGS FOR CONCRETE WALLS AND COLUMNS ABOVE. WALL DOWELS TO BE SAME NUMBER, SIZE AND SPACING AS THE VERTICAL WALL REINFORCING. COLUMN DOWELS TO BE SAME SIZE AND NUMBER AS VERTICAL COLUMN REINFORCING.

DOWELS IN FOOTINGS ARE TO PROJECT FROM FOOTINGS A MINIMUM OF 25" OR 40 BAR DIAMETERS, WHICHEVER IS GREATER.

PROVIDE STANDARD HOOK IN FOOTING DOWELS.

ALL REINFORCEMENT SHALL BE INSTALLED AND SUPPORTED PRIOR TO START OF CONCRETE PLACEMENT. "WET-STICKING" OF REINFORCING IS PROHIBITED.

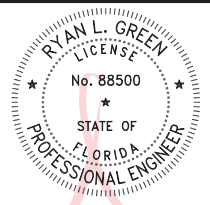
PROVIDE SLEEVES FOR ALL PIPES, DUCTS, CONDUITS, ETC., WHICH PENETRATE CONCRETE STRUCTURAL MEMBERS PRIOR TO PLACEMENT OF CONCRETE. CUTTING OR DRILLING OF HARDENED CONCRETE NOT PERMITTED.

CURE ALL CONCRETE IN ACCORDANCE WITH ACI-308.

PROVIDE 3/4" CHAMFERS ON ALL EXPOSED CONCRETE EDGES, UNLESS NOTED OTHERWISE.

APPLY 2-COMPONENT EPOXY BONDING AGENT TO EXISTING SURFACES WHERE NEW CONCRETE IS TO BE PLACED AGAINST EXISTING CONCRETE.

ANCHORING EPOXY SHALL BE 2-PART EPOXY RESIN INJECTION TUBE MIXED SUCH AS POWERS, HILTI, OR SIMPSON OR ENGINEER APPROVED ALTERNATIVE. INSTALLER SHALL CLOSELY FOLLOW ALL MANUFACTURER INSTALLATION INSTRUCTIONS.



Digitally signed by Ryan Green, P.E.

DN: c=US, st=Florida, l=Fort Myers, o=RLG Engineering, ou=88500, cn=Ryan Green, P.E., email=rlgengineeringllc@gmail.com
Date: 2024.09.21 06:18:11 -04'00'

THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY RYAN L. GREEN ON THE DATE ADJACENT TO THE SEAL.

PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SIGNATURE MUST BE VERIFIED ON ANY ELECTRONIC COPIES.

STRUCTURAL ENGINEERING SERVICES PROVIDED BY:



14960 Orange River Rd.
Fort Myers, FL 33905
TEL. 239.898.9172

Certificate of Authorization No. 33847

THIS DESIGN HAS BEEN PERFORMED BY A LICENSED PROFESSIONAL ENGINEER, AND IS BASED ON THE ENGINEER'S KNOWLEDGE, INFORMATION, AND BELIEF IN ACCORDANCE WITH APPLICABLE GOVERNING CODES AND ACCEPTED PROCEDURES CONSISTENT WITH APPLICABLE STANDARDS OF PRACTICE, AND IS NOT A GUARANTY OR WARRANTY, EITHER EXPRESSED OR IMPLIED. ALL RIGHTS RESERVED.



Project: **Chinsegut Hill - Dining Hall**

22495 Chinsegut Hill Rd, Brooksville, FL 34601

Contractor: **Coastal Engineering Associates, Inc.**

Aluminum Walkway Cover	Sheet #:
Date: 09/24/2024	S1
Revision Dates:	
Drawn by: BJB	
Project #: 23-011	

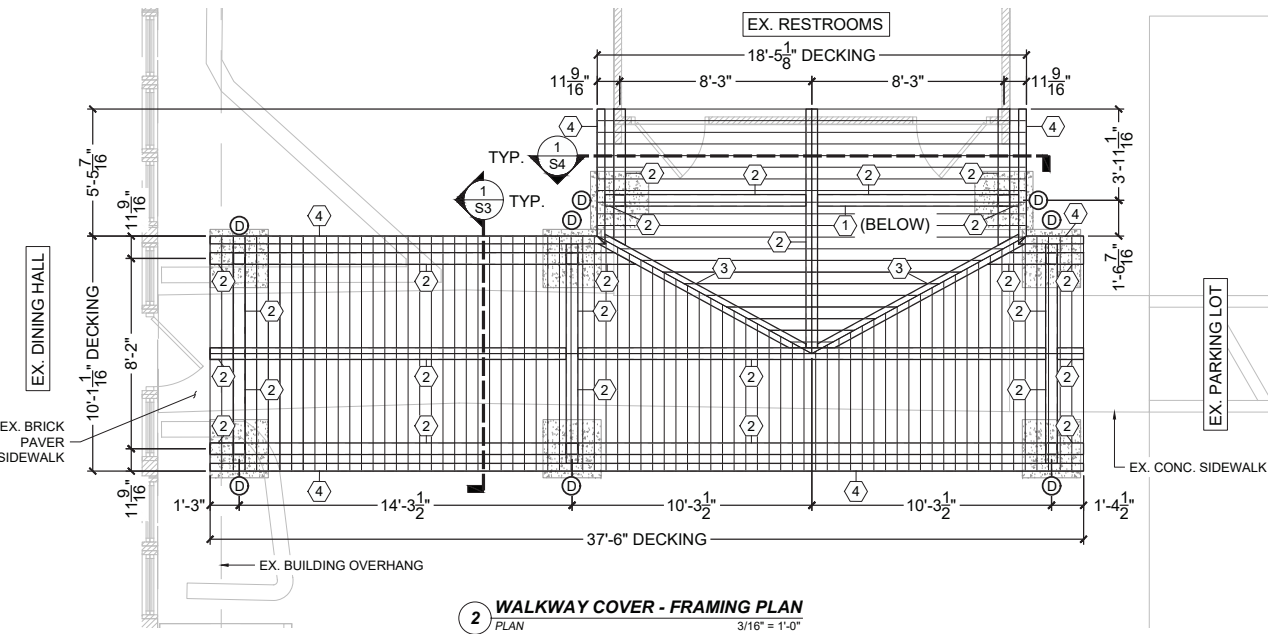
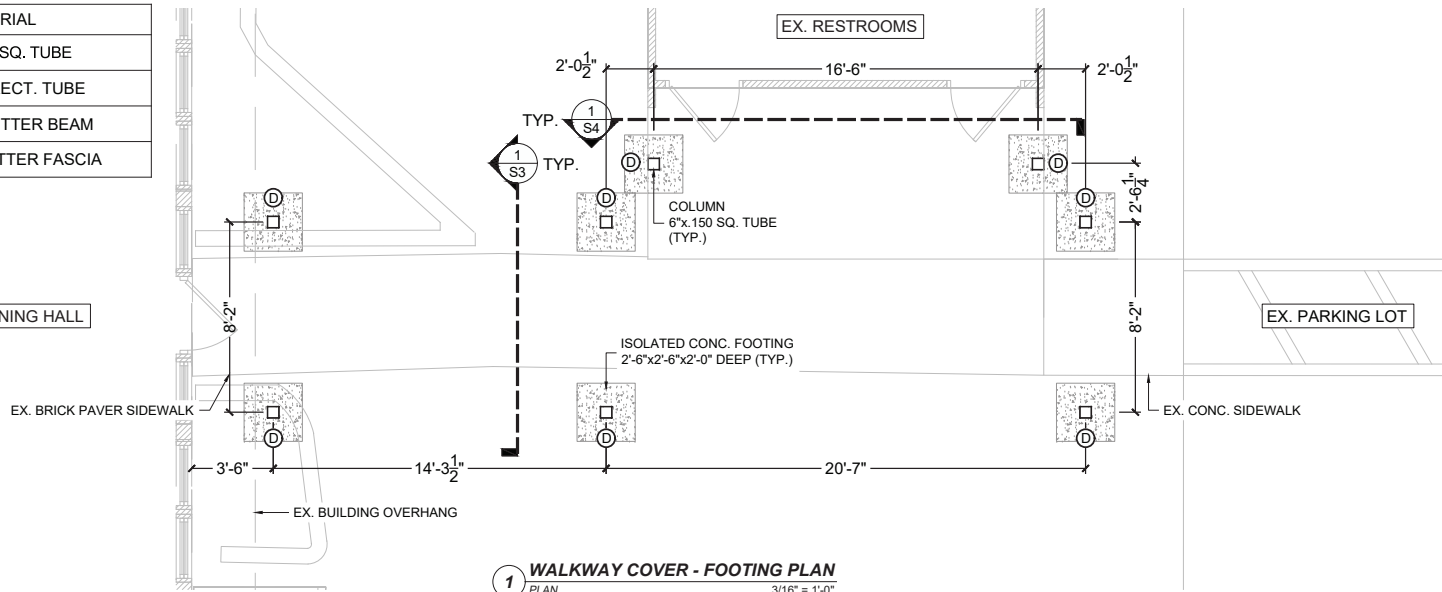
9/27/2024 6:16 AM C:\23-011 Chinsegut Hill - Dining Hall - A1105.dwg

BEAM SCHEDULE

MARK	MATERIAL
①	6"x6"x.150 SQ. TUBE
②	6"x8"x.188 RECT. TUBE
③	6"x8"x.190 GUTTER BEAM
④	4"x6"x.093 GUTTER FASCIA

⊙ DRAIN

ALL DIMENSIONS TO BE FIELD VERIFIED PRIOR TO CONSTRUCTION.



STRUCTURAL ENGINEERING SERVICES PROVIDED BY:



14960 Orange River Rd.
Fort Myers, FL 33905
TEL. 239.898.9172
Certificate of Authorization No. 33847

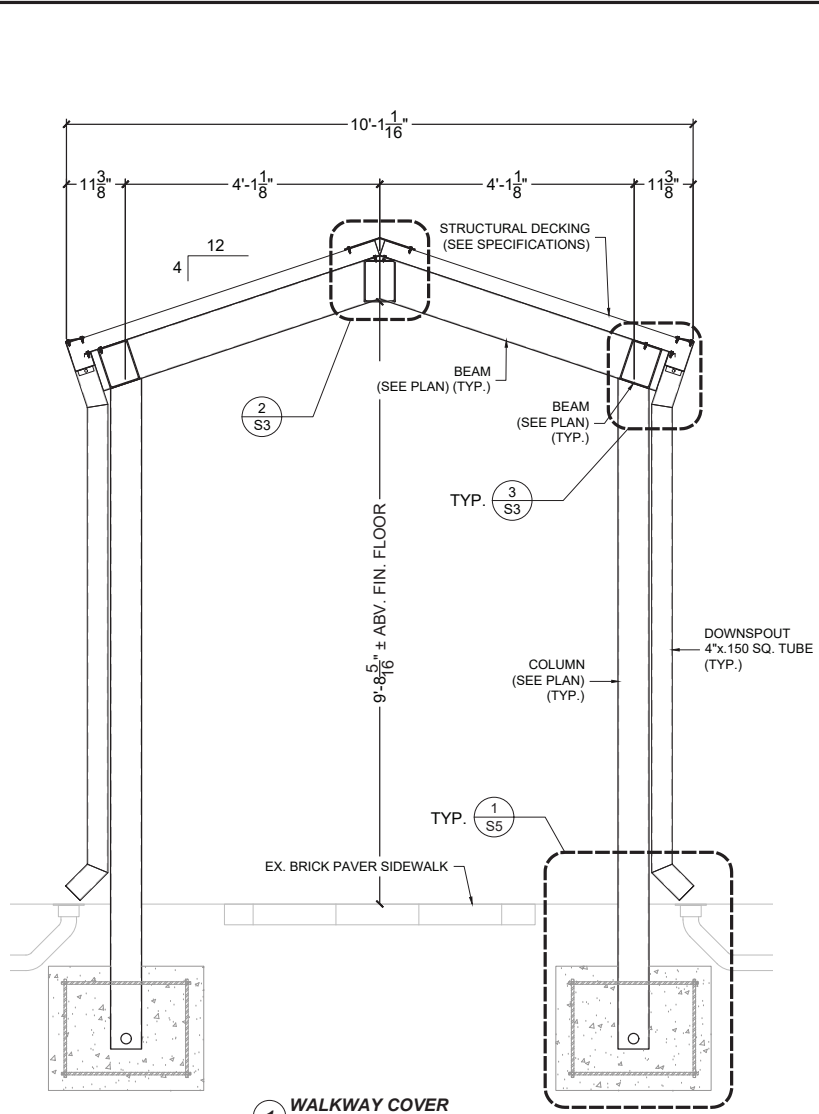
THIS DESIGN HAS BEEN PERFORMED BY A LICENSED PROFESSIONAL ENGINEER, AND IS BASED ON THE ENGINEER'S KNOWLEDGE, INFORMATION, AND BELIEF IN ACCORDANCE WITH APPLICABLE GOVERNING CODES AND ACCEPTED PROCEDURES CONSISTENT WITH APPLICABLE STANDARDS OF PRACTICE, AND IS NOT A WARRANTY OR WARRANTY, EITHER EXPRESSED OR IMPLIED. ALL RIGHTS RESERVED.



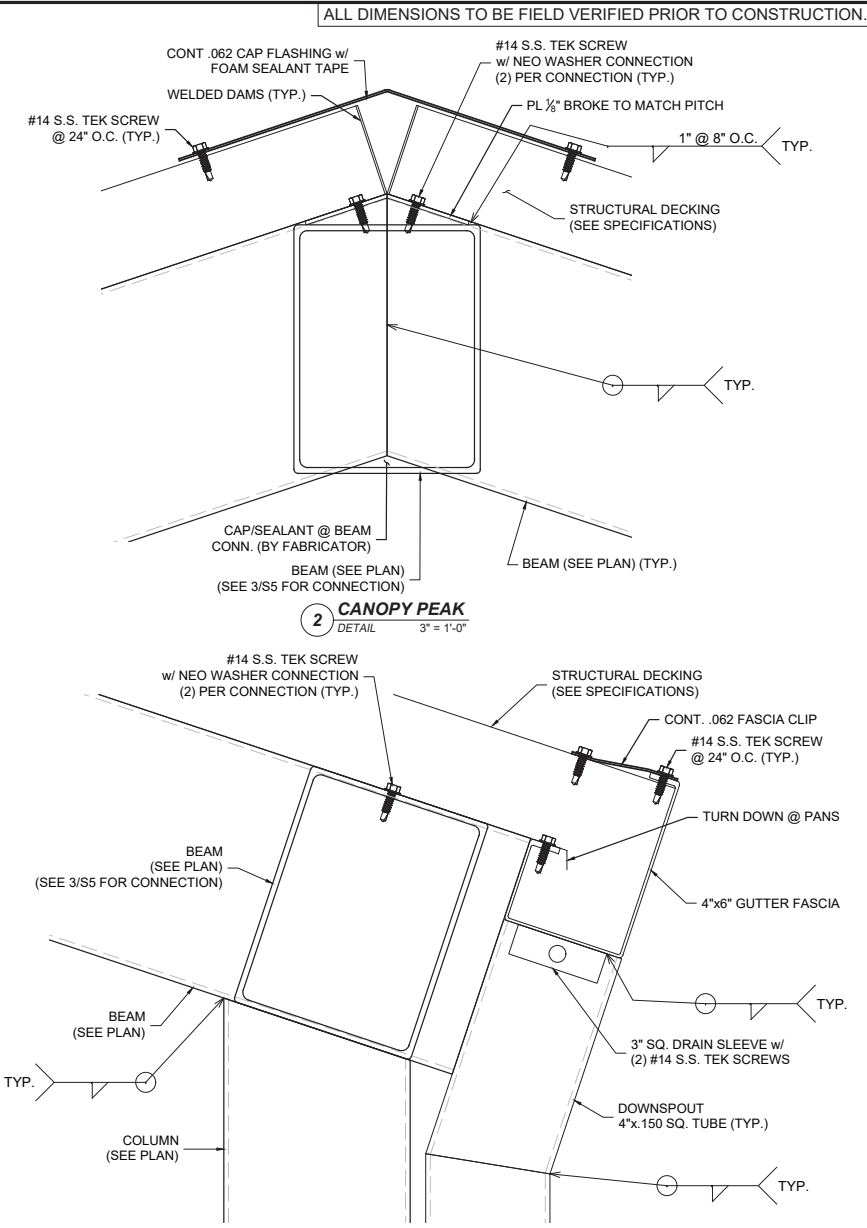
Project:
Chinsegut Hill
22495 Chinsegut Hill Rd, Brooksville, FL 34601
Contractor:
Coastal Engineering Associates, Inc.

Aluminum Walkway Cover		Sheet #:
Date:	09/24/2024	S2
Revision Dates:		
Drawn by:	BJB	
Project #:	23-011	

8/27/2024 6:16 AM ET 25-01 Chinsegut Hill - ANWS.dwg



1 WALKWAY COVER
SECTION 1/2" = 1'-0"



3 BEAM TO COL. / DOWNSPOUT
DETAIL 3" = 1'-0"

ALL DIMENSIONS TO BE FIELD VERIFIED PRIOR TO CONSTRUCTION.

STRUCTURAL ENGINEERING SERVICES PROVIDED BY:



14960 Orange River Rd.
Fort Myers, FL 33905
TEL. 239.898.9172
Certificate of Authorization No. 33847

THIS DESIGN HAS BEEN PERFORMED BY A LICENSED PROFESSIONAL ENGINEER, AND IS BASED ON THE ENGINEER'S KNOWLEDGE, INFORMATION, AND BELIEF IN ACCORDANCE WITH APPLICABLE GOVERNING CODES AND ACCEPTED PROCEDURES CONSISTENT WITH APPLICABLE STANDARDS OF PRACTICE, AND IS NOT A WARRANTY OR WARRANTY, EITHER EXPRESSED OR IMPLIED. ALL RIGHTS RESERVED.

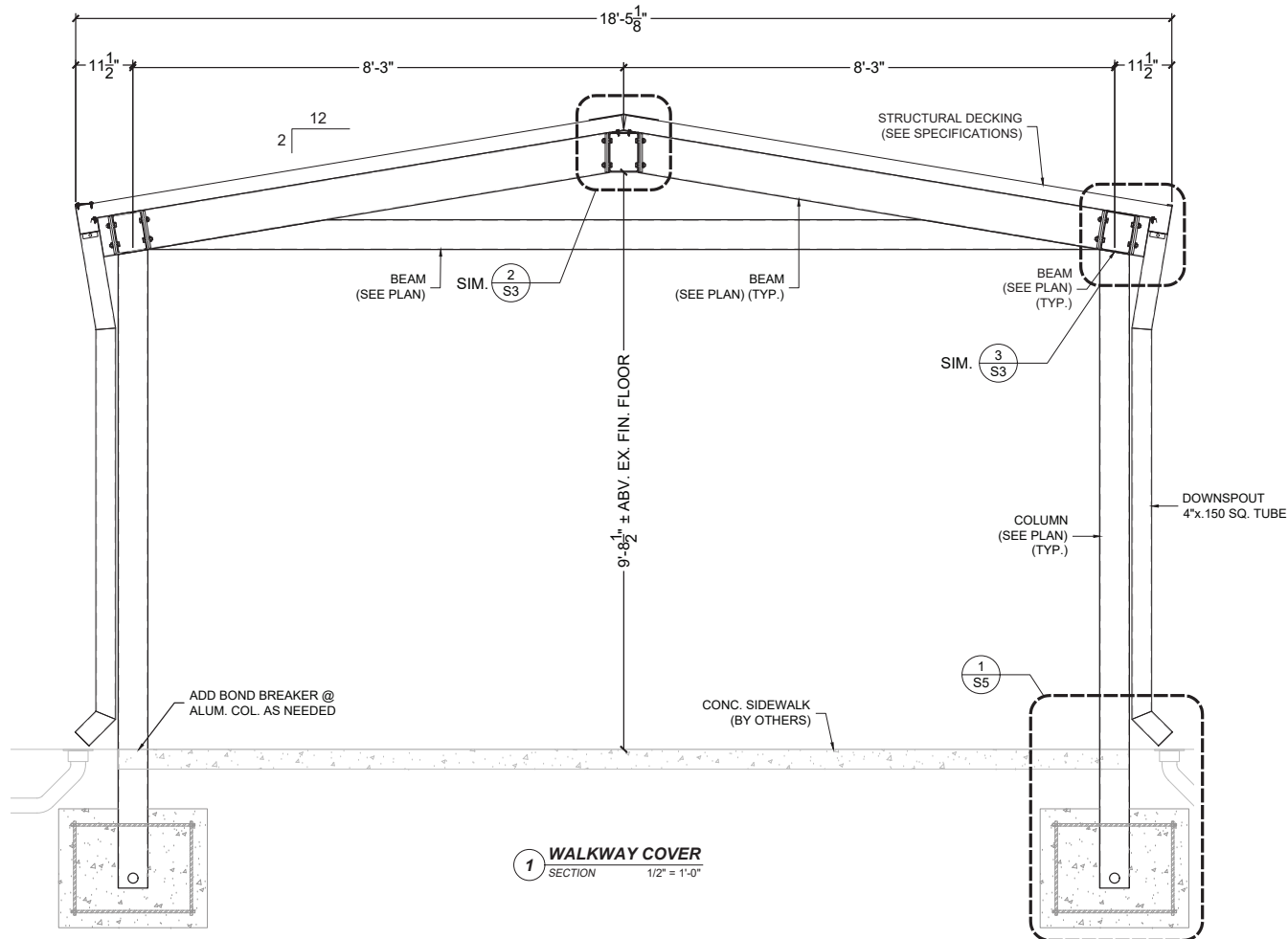


Project: Chinsegut Hill
22495 Chinsegut Hill Rd, Brooksville, FL 34601
Contractor: Coastal Engineering Associates, Inc.

Aluminum Walkway Cover		Sheet #:
Date:	09/24/2024	S3
Revision Dates:		
Drawn by:	BJB	
Project #:	23-011	

8/27/2024 6:16 AM ET 23-011 Chinsegut Hill - AWVC.dwg

ALL DIMENSIONS TO BE FIELD VERIFIED PRIOR TO CONSTRUCTION.



**STRUCTURAL ENGINEERING
SERVICES PROVIDED BY:**



14960 Orange River Rd.
Fort Myers, FL 33905
TEL. 239.898.9172
Certificate of Authorization No. 33847

THIS DESIGN HAS BEEN PERFORMED BY A LICENSED PROFESSIONAL ENGINEER, AND IS BASED ON THE ENGINEER'S KNOWLEDGE, INFORMATION, AND BELIEF IN ACCORDANCE WITH APPLICABLE GOVERNING CODES AND ACCEPTED PROCEDURES CONSISTENT WITH APPLICABLE STANDARDS OF PRACTICE, AND IS NOT A GUARANTY OR WARRANTY, EITHER EXPRESSED OR IMPLIED. ALL RIGHTS RESERVED.



Project:

Chinsegut Hill

22495 Chinsegut Hill Rd, Brooksville, FL 34601

Contractor:

Coastal Engineering Associates, Inc.

Aluminum Walkway Cover Sheet #:

Date: 09/24/2024

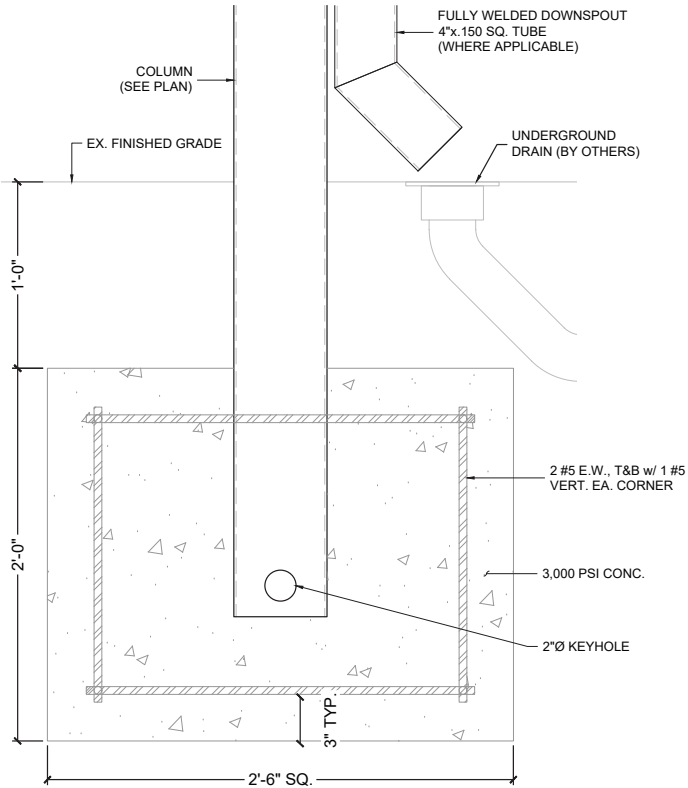
Revision Dates:

Drawn by: BJB

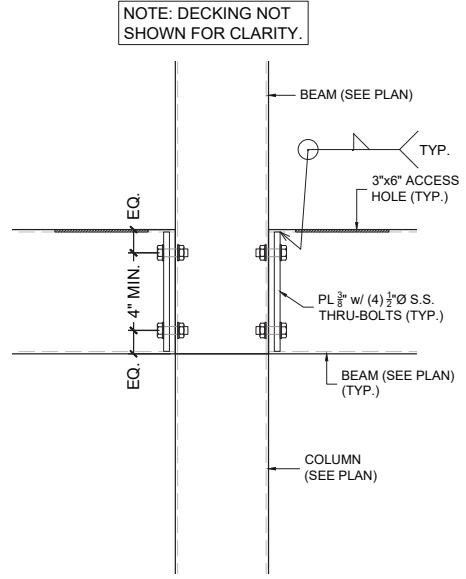
Project #: 23-011

S4

ALL DIMENSIONS TO BE FIELD VERIFIED PRIOR TO CONSTRUCTION.

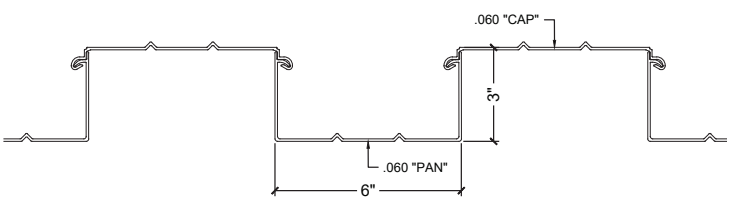


1 TYPICAL FOOTING
DETAIL 1-1/2" = 1'-0"



2 TYPICAL BEAM TO BEAM CONNECTION
DETAIL 1-1/2" = 1'-0"

NOTE: DECKING NOT SHOWN FOR CLARITY.



3 STRUCTURAL DECKING PROFILE
DETAIL 3" = 1'-0"

STRUCTURAL ENGINEERING SERVICES PROVIDED BY:

RLG ENGINEERING

14960 Orange River Rd.
Fort Myers, FL 33905
TEL. 239.898.9172
Certificate of Authorization No. 33847

THIS DESIGN HAS BEEN PERFORMED BY A LICENSED PROFESSIONAL ENGINEER, AND IS BASED ON THE ENGINEER'S KNOWLEDGE, INFORMATION, AND BELIEF IN ACCORDANCE WITH APPLICABLE GOVERNING CODES AND ACCEPTED PROCEDURES CONSISTENT WITH APPLICABLE STANDARDS OF PRACTICE, AND IS NOT A GUARANTY OR WARRANTY, EITHER EXPRESSED OR IMPLIED. ALL RIGHTS RESERVED.

BUSTARD
DRAFTING & DESIGN

Project:
Chinsegut Hill

22495 Chinsegut Hill Rd, Brooksville, FL 34601

Contractor:
Coastal Engineering Associates, Inc.

Aluminum Walkway Cover		Sheet #:
Date:	09/24/2024	S5
Revision Dates:		
Drawn by:	BJB	
Project #:	23-011	

23-011 Chinsegut Hill - ANWC - .dwg