

SOLATUBE INTERNATIONAL

IMPACT 750 DS (21") DOME TUBULAR DAYLIGHT DEVICE

INSTALLATION ANCHORAGE DETAILS

GENERAL NOTES:

1.

THE PRODUCT ANCHORAGE SHOWN HEREIN IS DESIGNED TO COMPLY WITH THE CURRENT EDITION OF THE FLORIDA BUILING CODE (FBC) REQUIREMENTS, INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ) AT THE DESIGN PRESSURES STATED HEREIN.
2.

THE PRODUCT DETAILS CONTAINED HEREIN ARE BASED UPON SIGNED AND SEALED TEST REPORT AT183404.01-301-18 AND ASSOCIATED LABORATORY STAMPED DRAWINGS.
3.

THE PRODUCT HAS BEEN TESTED TO TAS 201, TAS 202 AND TAS203 (ATI TEST REPORT ATI 83404.01-301-18) AND FOUND TO BE IN CONFORMANCE WITH THE CURRENT EDITION OF THE FLORIDA BUILDING CODE (FBC) INCLUDING HIGH VELOCITY HURRICANE ZONE. THE DESIGN PRESSURES SHOWN IN DESIGN PRESSURE RATING TABLE ON SHEET 1 OF THIS DRAWING ARE BASED ON THE RESULTS OF TEST REPORT NO. ATI 83404.01-301-18 DIVIDED BY A FACTOR OF SAFETY OF 2 WHERE APPLICABLE.
4.

PLASTIC COMPONENTS OF THE SOLATUBE TUBULAR DAYLIGHT DEVICE HAVE BEEN EVALUATED TO THE REQUIREMENTS OF THE CURRENT EDITION OF THE FLORIDA BUILDING CODE INCLUDING THE HIGH VELOCITY ZONE AND ARE IN COMPLIANCE AS DOCUMENTED IN PRODUCT EVALUATION REPORT NO. 1973 BY ROBERT J. AMORUSO, P.E.
5.

ADEQUACY OF THE EXISTING STRUCTURAL ROOF SHEATHING AND SUPPORTING 2X FRAMING AS A MAIN WIND FORCE RESISTING SYSTEM CAPABLE OF WITHSTANDING AND TRANSFERRING APPLIED PRODUCT LOADS TO THE FOUNDATION IS THE RESPONSIBILITY OF THE ENGINEER OR ARCHITECT OF RECORD FOR THE PROJECT OF INSTALLATION.
6.

THE INSTALLATION DETAILS DESCRIBED HEREIN ARE GENERIC AND MAY NOT REFLECT ACTUAL CONDITIONS FOR A SPECIFIC SITE. IF SITE CONDITIONS CAUSE INSTALLATION TO DEVIATE FROM THE REQUIREMENTS DETAILED HEREIN, A LICENSED ENGINEER OR ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE WITH THIS DOCUMENT.
7.

THIS PRODUCT EVALUATION DOCUMENT ADDRESSES THE STRUCTURAL ATTACHMENT OF THE SKYLIGHT/TUBULAR DAYLIGHT DEVICE TO THE ROOF SHEATHING ONLY. PREPARATION OF THE ROOF SHEATHING AND ROOF COVERING(S) TO RECEIVE THE SKYLIGHT/TUBULAR DAYLIGHT DEVICE SHALL BE PER THE MANUFACTURER'S INSTRUCTIONS AND COMPLIANT WITH CHAPTER 15 OF THE CURRENT EDITION OF THE FLORIDA BUILDING CODE AND CHAPTER 9 OF THE CURRENT EDITION OF THE FLORIDA RESIDENTIAL CODE.
8.

IN ACCORDANCE WITH THE CURRENT EDITION FBC DISSIMILAR METALS INCLUDING FASTENERS THAT MAY COME INTO CONTACT WITH ALUMINUM SKYLIGHT FRAMING SHALL HAVE BEEN PROTECTED.

DESIGN PRESSURE RATING (PSF)		IMPACT RATING
WHERE WATER INFILTRATION REQUIREMENT IS NEEDED	WHERE WATER INFILTRATION REQUIREMENT IS NOT NEEDED	LARGE MISSILE IMPACT
±70.0	±70.0	

INSTALLATION NOTES:

1.

ONE (1) INSTALLATION ANCHOR IS REQUIRED AT EACH ANCHOR LOCATION SHOWN ON SHEETS 2 AND 3.
2.

THE NUMBER OF INSTALLATION ANCHORS DEPICTED IS THE MINIMUM NUMBER OF ANCHORS TO BE USED FOR PRODUCT INSTALLATION. ALL UNITS REQUIRE SIXTEEN (16) ANCHORS MINIMUM EQUALLY SPACED AROUND THE PERIMETER OF THE FLASHING. ANCHOR ENGINEERING BASED ON ENGAGEMENT INTO ROOF SHEATHING AND NOT 2X ROOF FRAMING.

2.1.

INSTALLATION SHALL BE INTO 7/16" MINIMUM THICKNESS ROOF SHEATHING (SEE NOTE 6 BELOW).

2.2.

IF TDD INSTALLATION LOCATION REQUIRES ANCHORS TO ENGAGE INTO 2X FRAMING, THAT IS ACCEPTABLE.
3.

ANCHOR REQUIREMENTS;

3.1.

FOR INSTALLATION INTO 7/16" MINIMUM THICKNESS ROOF SHEATHING (SEE NOTE 6 BELOW), USE A #10 TYPE AB PAN HEAD, ROUND HEAD OR TRUSS HEAD TAPPING SCREWS MEETING ASME/ANSI B18.6.4 OF SUFFICIENT LENGTH TO ENSURE PROTRUDING SCREW THREADS AT LEAST 1/2" BEYOND THE INTERIOR SURFACE OF ROOF SHEATHING. EDGE DISTANCE FROM CENTERLINE OF SCREW TO EDGE OF SHEATHING SHALL BE AT LEAST 3/4 INCH.

3.2.

FOR INSTALLATION THROUGH ROOF SHEATHING INTO 2X WOOD ROOF FRAMING (SEE NOTE 6 BELOW), USE A #10 TYPE AB PAN HEAD, ROUND HEAD OR TRUSS HEAD TAPPING SCREWS MEETING ASME/ANSI B18.6.4 OF THE SAME LENGTH AS REQUIRED IN NOTE 3.1 ABOVE. EDGE DISTANCE FROM CENTERLINE OF SCREW TO EDGE OF SHEATHING SHALL BE AT LEAST 3/4 INCH.
4.

MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDE ROOF FINISHES.
5.

INSTALLATION ANCHORS MUST BE MADE OF CORROSION RESISTANT MATERIAL OR HAVE A CORROSION RESISTANT COATING.
6.

INSTALLATION ANCHOR CAPACITIES FOR PRODUCTS HEREIN ARE BASED ON SUBSTRATE MATERIALS WITH THE FOLLOWING PROPERTIES. ROOF SHEATHING THICKNESS, GROUP OR GRADE MAY BE MANDATED BY JURISDICTION REQUIREMENTS, THEREFORE THICKNESS AND GROUP/GRADE SHOWN BELOW WILL BE CONSIDERED MINIMUM.

6.1.

7/16" THICK PLYWOOD - SPECIES GROUP 1 OR 2 (APA VOLUNTARY PRODUCT STANDARD PS 1) MINIMUM.

6.2.

7/16" OSB - SHEATHING GRADE (APA VOLUNTARY PRODUCT STANDARD PS 2) MINIMUM.
7.

INSTALLATION/MOUNTING CONDITIONS AND LIMITATIONS OF USE AS REQUIRED BY THE FOLLOWING SECTIONS OF THE CURRENT EDITION OF THE FLORIDA BUILDING CODE (FBC) AND FLORIDA RESIDENTIAL CODE (FRC) SHALL BE MET.

7.1.

FBC CHAPTER 24, SLOPED GLAZING AND SKYLIGHTS

7.2.

FBC CHAPTER 26, LIGHT-TRANSMITTING PLASTIC SKYLIGHT GLAZING

7.3.

FRC CHAPTER 3, SKYLIGHTS AND SLOPED GLAZING
8.

A CURB CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS FOR THE TYPE OF CONSTRUCTION CLASSIFICATION, BUT AT LEAST 4 INCHES ABOVE THE PLANE OF THE ROOF BY OTHERS IS ALLOWED. ADDITIONAL INSTALLATION DETAILING AND ENGINEERED INSTALLATION EVALUATION BY A LICENSED DESIGN PROFESSIONAL WILL BE REQUIRED FOR SUBMITTAL IN ADDITION TO THIS PRODUCT EVALUATION DOCUMENT.

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1	GENERAL AND INSTALLATION NOTES
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3 & 4	ELEVATION, ANCHORING AND INSTALLATION DETAILS CLOSED CEILING
5	BILL OF MATERIALS
6	ALTERNATE METAL TRANSITION BOX & BOM

PROJECT NUMBER: 417-0603						
		UPDATE DRAWING FOR	10/17/17	RJA		
D		NEW INTERIOR OPTIONS				
C		UPDATE TO 5TH EDITION (2014) FBC	05/11/15	JBH		
B		REVISED ANCHORAGE	4/14/14	RJA		
A		UPDATE TO 2010 FBC	12/15/11	TJH		
REV		DESCRIPTION			DATE	BY

SOLATUBE INTERNATIONAL

2210 OAK RIDGE WAY
VISTA, CA 92081-9341

TITLE:
IMPACT 750 DS (21") DOME
TUBULAR DAYLIGHT DEVICE
GENERAL AND INSTALLATION NOTES

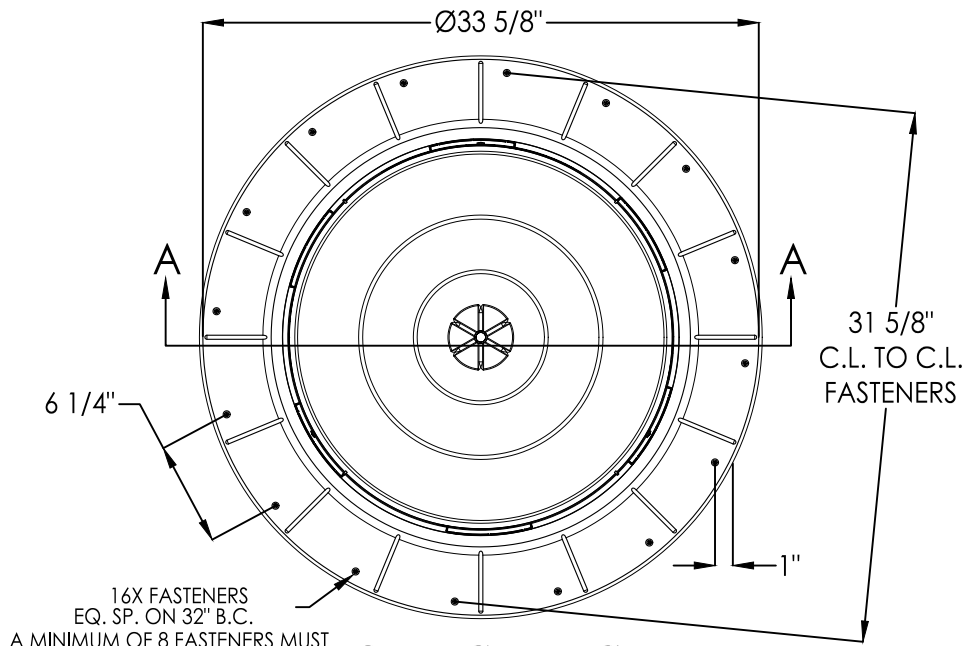
PREPARED BY:
DRAWN BY: SMC
SCALE: N.T.S.
REV: D

DATE: 10/08/08
DRAWING NO: SOLA0005
SHEET: 1 OF 6

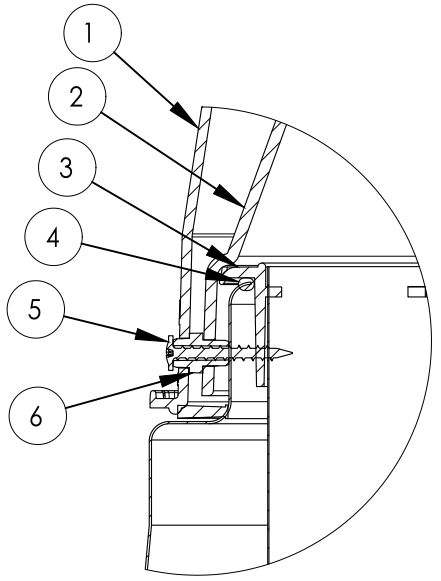


PTC PRODUCT DESIGN GROUP, LLC
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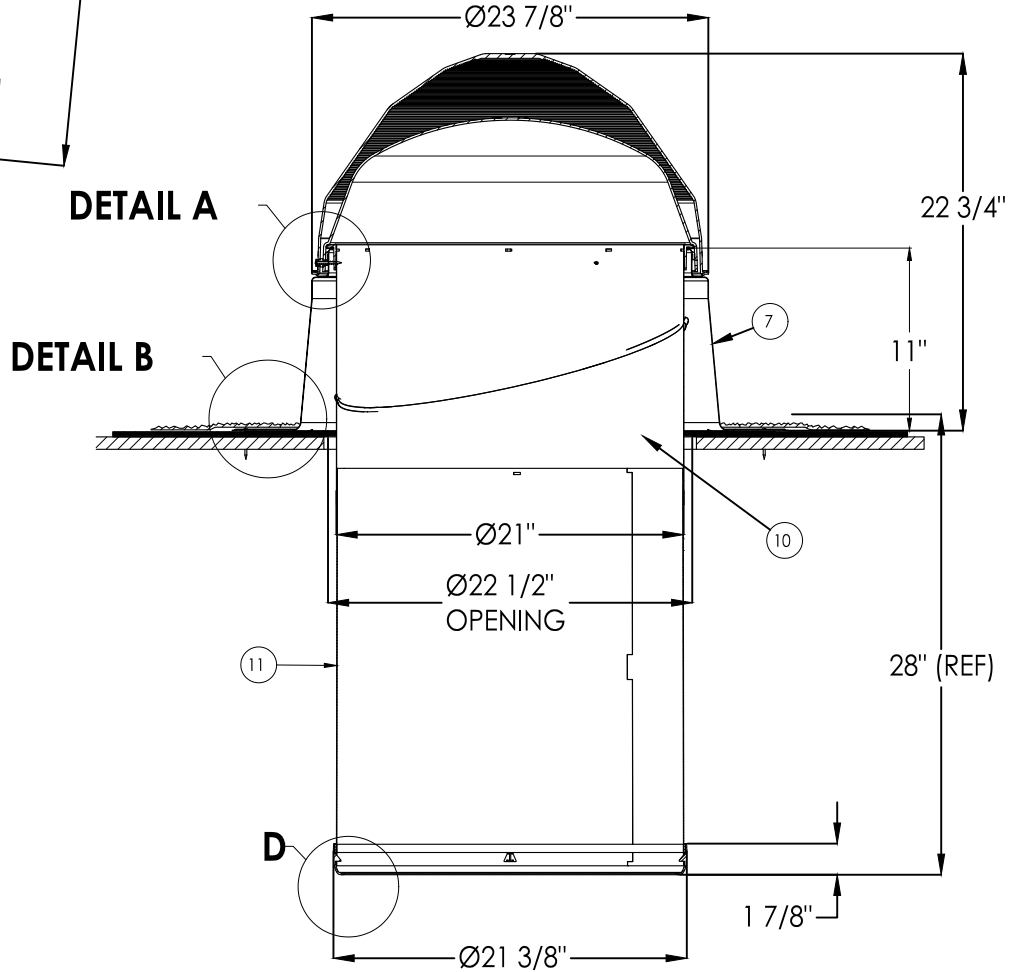


**OPEN CEILING
ELEVATION & ANCHOR
LAYOUT**

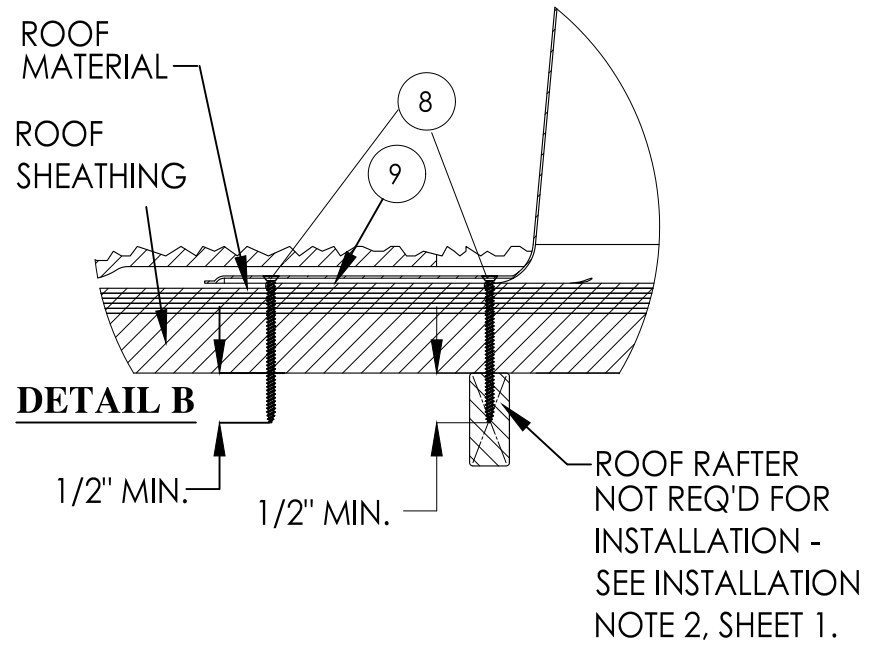


DETAIL A

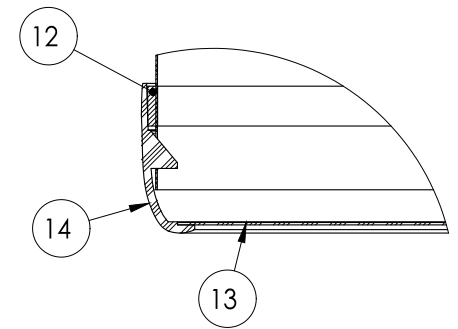
OPEN CEILING OPTION



SECTION A-A



DETAIL B



DETAIL D

PROJECT NUMBER: 417-0603				
	UPDATE DRAWING FOR NEW INTERIOR OPTIONS	10/17/17	RJA	
	UPDATE TO 5TH EDITION (2014) FBC REVISED ANCHORAGE	05/11/15	JBH	
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REV	DESCRIPTION	DATE	BY	

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TITLE:
IMPACT 750 DS (21") DOME
TUBULAR DAYLIGHT DEVICE
ELEVATION, ANCHORING & INSTALLATION OPEN CEILING

PREPARED BY:
DRAWN BY: SMC
DATE: 10/08/08
SCALE: N.T.S.
SHEET: D

PROJECT NUMBER: 417-0603

UPDATE DRAWING FOR NEW INTERIOR OPTIONS
10/17/17
RJA

UPDATE TO 5TH EDITION (2014) FBC
REVISED ANCHORAGE
05/11/15
JBH

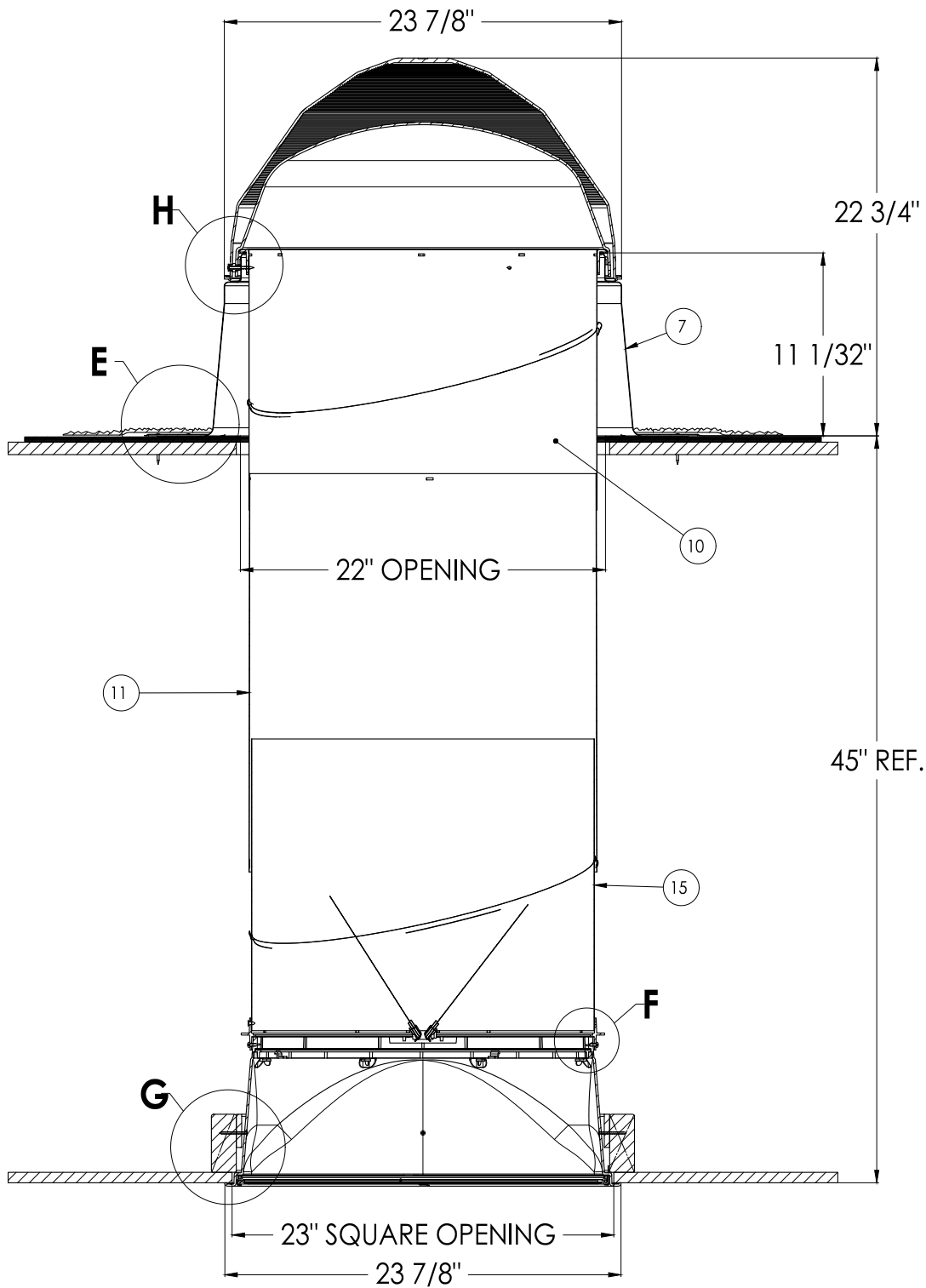
UPDATE TO 2010 FBC
4/14/14
RJA

UPDATE TO 2010 FBC
12/15/11
TJH

DESCRIPTION
DATE
BY

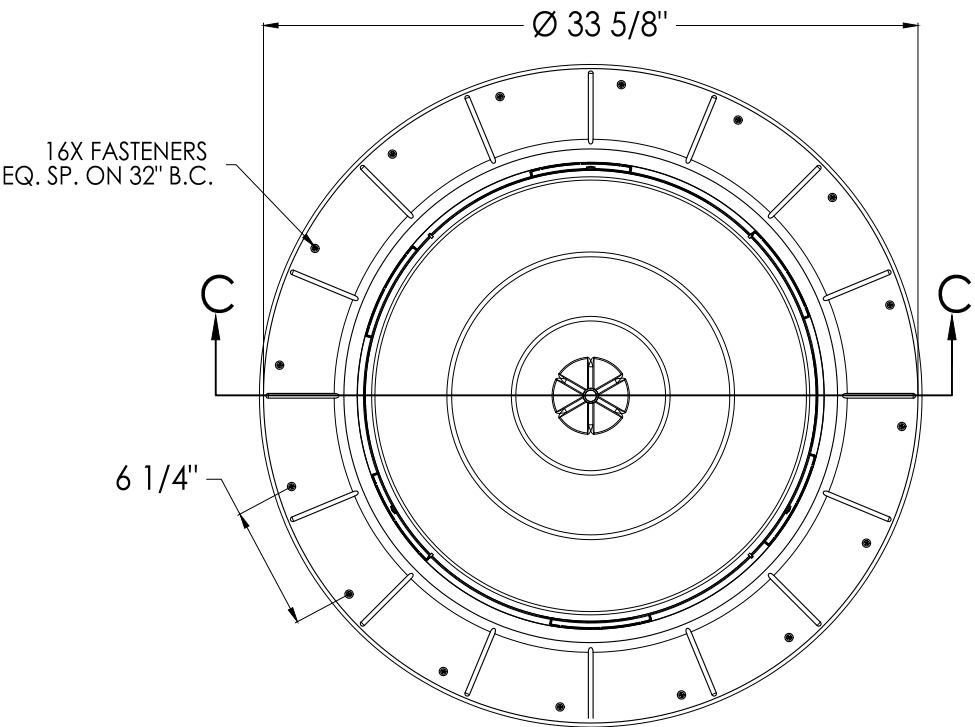
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CLOSED CEILING



SECTION C-C

HARD CEILING INSTALLATION SHOWN. ALTERNATE
SUSPENDED CEILING INSTALLATION APPROVED OPTION.

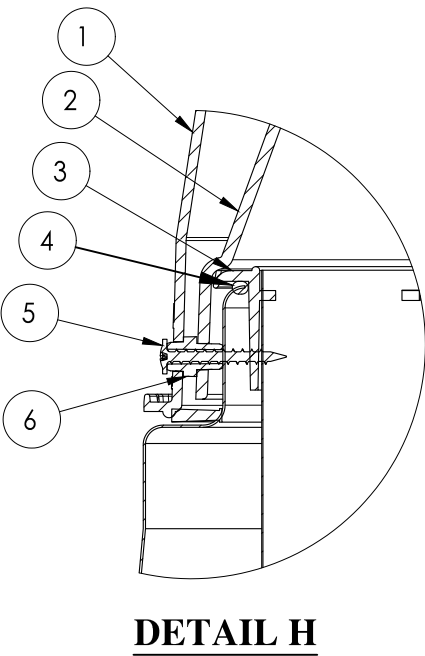
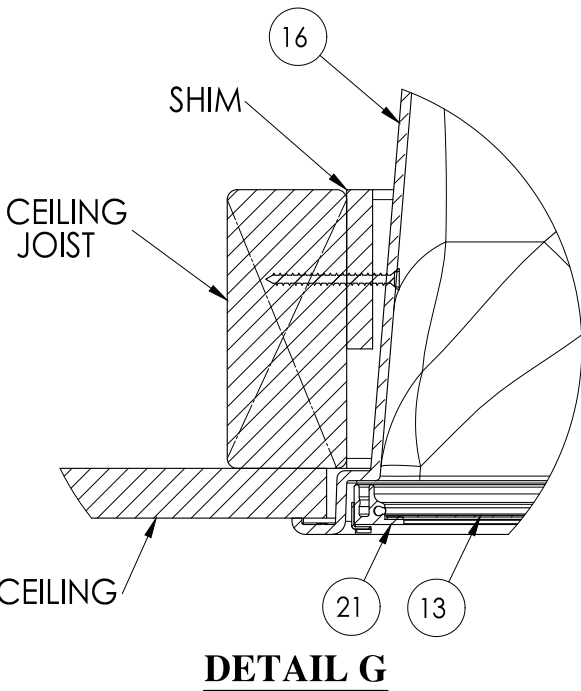
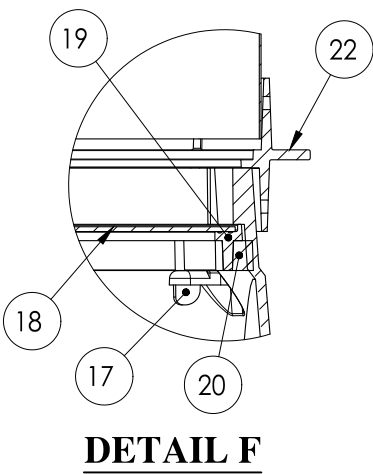
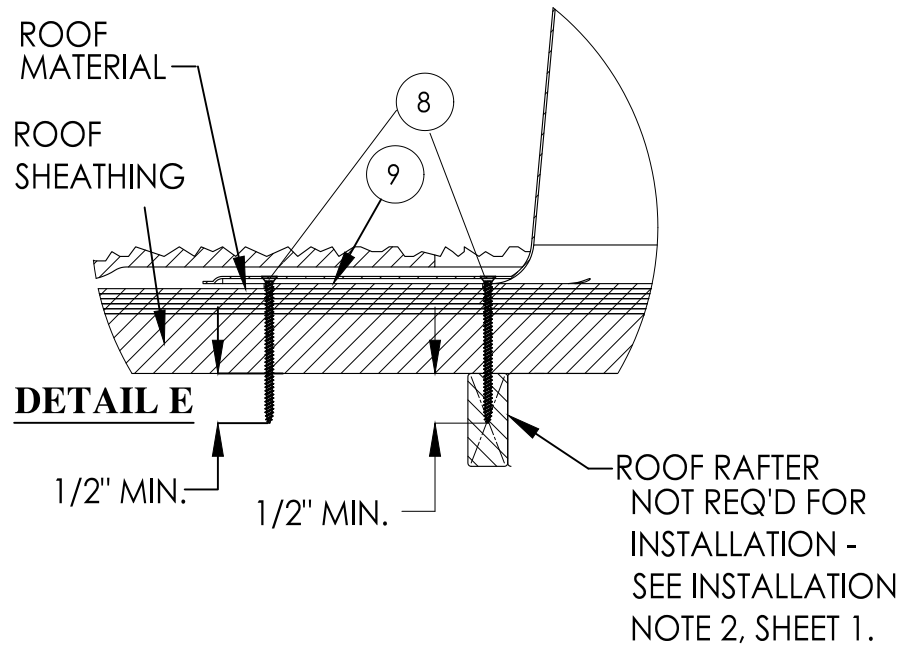


CLOSED CEILING
ELEVATION & ANCHOR
LAYOUT

PROJECT NUMBER: 417-0603			
REV	DESCRIPTION	DATE	BY
D	UPDATE DRAWING FOR NEW INTERIOR OPTIONS	10/17/17	RJA
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B	UPDATE TO 2010 FBC	4/14/14	RJA
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SOLATUBE INTERNATIONAL 2210 OAK RIDGE WAY VISTA, CA 92081-9341		TITLE: IMPACT 750 DS (21") DOME TUBULAR DAYLIGHT DEVICE ELEVATION, ANCHORING & INSTALLATION CLOSED CEILING	
PREPARED BY:		DRAWN BY: SMC	DATE: 10/08/08
SCALE: N.T.S.		DRAWING NO: SOLA0005	REV: D
SHEET: 3 OF 6		PTC PRODUCT DESIGN GROUP, LLC PO BOX 520775 LONGWOOD, FLORIDA 32752 FBPE C.A. NO. 25935 Phone: 321.690.1788 Fax: 321.690.1789 Email: info@ptc-corp.com	

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SOLATUBE INTERNATIONAL

2210 OAK RIDGE WAY
VISTA, CA 92081-9341

TITLE:

IMPACT 750 DS (21") DOME
TUBULAR DAYLIGHT DEVICE
ELEVATION, ANCHORING & INSTALLATION HARD CEILING

PREPARED BY:

PTC PRODUCT DESIGN GROUP, LLC
PO BOX 520775
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FBPE C.A. NO. 25935

DRAWN BY:

SMC

DATE:

10/08/08

SCALE:

N.T.S.

REV:

D

DRAWING NO:

SOLA0005

SHEET:

4 OF 6

Robert J. Amoruso, P.E.
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21" (750 DS) Parts List Combined			
Item No.	QTY.	Description	Material
1	1	750 DS DOME	High Impact Acrylic (PMMA)
2	1	INNER DOME PC	High Impact Lexan Polycarbonate
3	1	TUBE RING 21"	PVC
4	1	TUBE RING SEAL 21"	Butyl
5	3	DOME SCREW #8 X 1-5/8"	Steel
6	3	DOME SPACER 21"	Polyamide (Nylon)
7	1	FLASHING 21"	Aluminized Steel EDDS T1-25 (Type 1)
8	16	FLASHING SCREW #10 X 2"	Steel
9	1	ROOF SEALANT	Urethane
10	1	TOP TUBE ANGLE ADAPTER	Aluminum
11	1	EXTENSION TUBE	Aluminum
12	1	OPEN CEILING DIFFUSER SEAL	PVC Foam
13	1	DIFFUSER PANEL	Medium Impact Acrylic (PMMA) OR Polycarbonate
14	1	OPEN CEILING DIFFUSER DRESS RING	Medium Impact Acrylic (PMMA)
15	1	BOTTOM TUBE ANGLE ADAPTER	Aluminum
16	1	TRANSITION BOX	Medium Impact Acrylic (PMMA)
17	8	NATURAL EFFECT LENS TAB	Medium Impact Acrylic (PMMA)
18	1	NATURAL EFFECT LENS	Medium Impact Acrylic (PMMA)
19	1	EFFECT LENS RETAINER RING	Medium Impact Acrylic (PMMA)
20	1	EFFECT LENS SEAL	Polyethylene Foam
21	1	DIFFUSER 21" FRAME ASSEMBLY	STEEL
22	1	21" DAYLIGHT DIMMER (OPTIONAL)	

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REV	DESCRIPTION		DATE	BY		

SOLATUBE INTERNATIONAL

2210 OAK RIDGE WAY
VISTA, CA 92081-9341

TITLE:

IMPACT 750 DS (21") DOME
TUBULAR DAYLIGHT DEVICE
BILL OF MATERIALS

PREPARED BY:

PTC PRODUCT DESIGN GROUP, LLC
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LONGWOOD, FLORIDA 32752
FBPE C.A. NO. 25935

DRAWN BY:

SMC

DATE:

10/08/08

SCALE:

N.T.S.

DRAWING NO:

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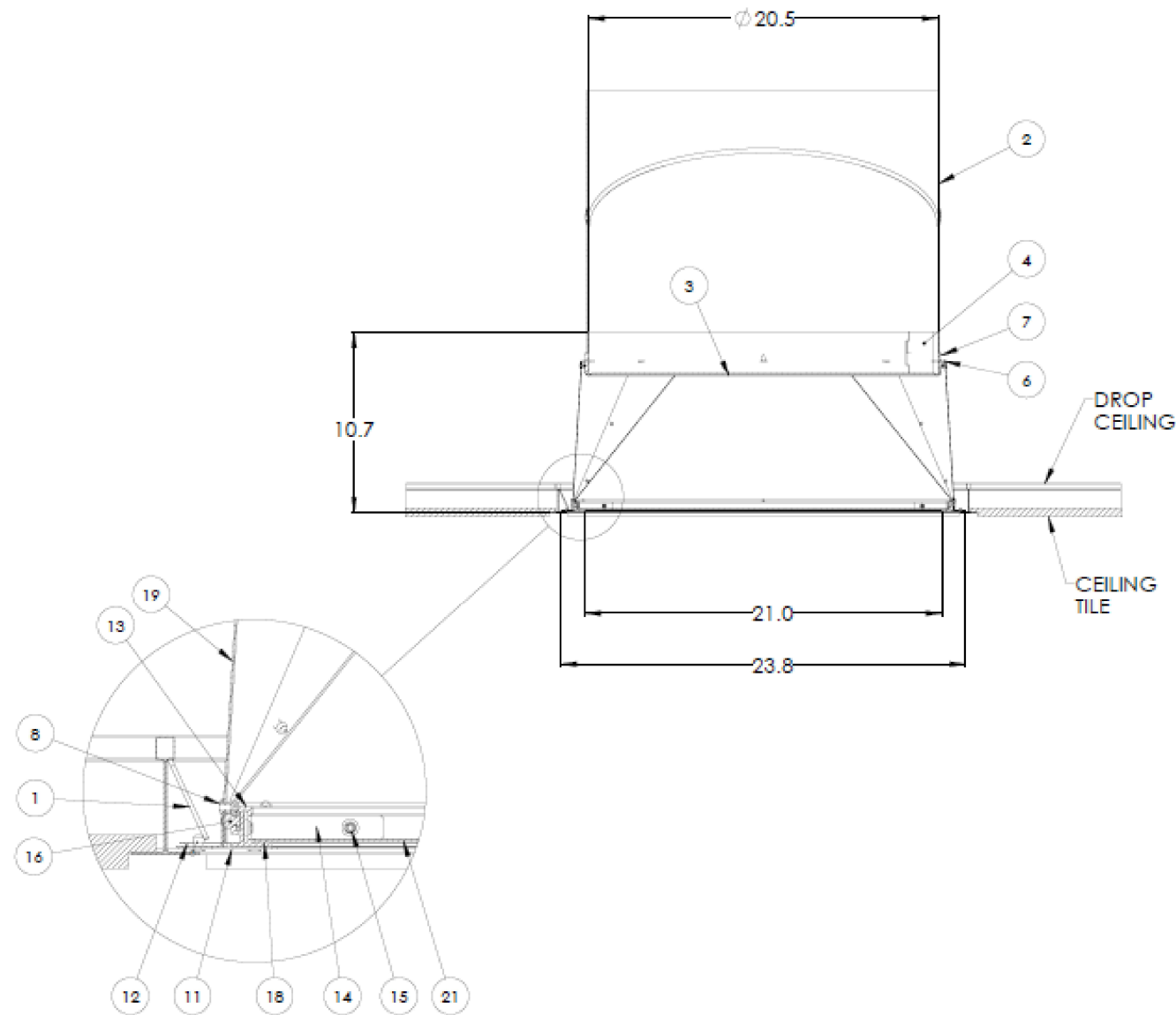
REV:

D

SHEET:

5 OF 6

Robert J. Amoruso, P.E.
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ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	4	520090	CLIP 21" TRANS. HOLD DOWN
2	1	301730	TUBE 21" BOTTOM
3	1	422280	NAT EFFECT LENS 330 DS OTS
4	1	402215	TRANSITION ADAPTER BAND 330/750 DS
5	4	701210	CLIP NAT EFF LENS METAL TRANSITION (NOT SHOWN)
6	1	402230	TRANSITION BOX CAP 330/750 DS
7	1	600590	FOAM SEAL RECTANGLE
8	24	700635	RIVET 1/8 X 1/4 BLIND, MULTI
9	4	402180	TRANSITION TRIM SECTION
10	2	402250	TRANSITION TRIM CORNER BRACE (NOT SHOWN)
11	2	402325	TRANSITION TRIM LEVER
12	10	701180	RIVET 1/8 X 1/4 BLIND, MULTI WHITE
13	4	410475	EXTRUSION ALUM PAINTED MITERED
14	4	701130	CORNER KEY
15	8	701155	SET SCREW 8-32 X 1/8 CUP PT
16	4	600600	FOAM SEAL T-SLOT .250 X .270
17	1	400940	DIFFUSER PANEL (OPTIVIEW)
18	1	620150	TAPE FOAM 21" DIFFUSER
19	4	410775	TRANS PANEL DIMPLED 330/750 DS

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SOLATUBE INTERNATIONAL		2210 OAK RIDGE WAY VISTA, CA 92081-9341	
TITLE: IMPACT 750 DS (21") DOME TUBULAR DAYLIGHT DEVICE METAL TRANSITION BOX		DATE: 10/08/08	
PREPARED BY: PTC PRODUCT DESIGN GROUP, LLC PO BOX 520775 LONGWOOD, FLORIDA 32752 FBPE C.A. NO. 25935	DRAWN BY: SMC	SCALE: N.T.S.	DRAWING NO: SOLA0005
	REV: D	SHEET: 6 OF 6	

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