



**OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
FACILITIES DEVELOPMENT DIVISION**

**APPLICATION FOR OSHPD PREAPPROVAL OF
MANUFACTURER'S CERTIFICATION (OPM)**

OFFICE USE ONLY

APPLICATION #: OPM-0642

OSHPD Preapproval of Manufacturer's Certification (OPM)

Type: New Renewal/Update

Manufacturer Information

Manufacturer: STARC Systems

Manufacturer's Technical Representative: Bruce Bickford

Mailing Address: 112 Orion St, Brunswick, ME 04011

Telephone: (207) 504-5673

Email: bruce@starcsystems.com

Product Information

Product Name: FireblockWall System

Product Type: Reusable modular fire-rated wall panel system for containment solutions

Product Model Number: FB-WM-(6x6,6x12,6x92,6x104,12x6,12x12,12x92,12x104,24x6,24x12,24x92,24x104);FB-AIR-(24x92,24x104);FB-AM-(24x92,24x104);FB-OC90-(6,12,92,104);FB-IC90-(6,12,92,104);FB-OC135-(6,12,92,104);FB-IC135-(6,12,92,104);FB-HD-48-(92,104);100277;100268;100325;100326;100276;100272;100273;100274;100275;100556;100164;100266;100465;100468;100471;Lid 36x(6,12,24), Lid Corners

General Description: Reusable modular wall panels and components that can be pieced together to create interior barrier walls

Applicant Information

Applicant Company Name: STARC Systems

Contact Person: Bruce Bickford

Mailing Address: 112 Orion St, Brunswick, ME 04011

Telephone: (207) 504-5673

Email: bruce@starcsystems.com

Title: VP Product Development

Access to Safe, Quality Healthcare Environments that Meet California's Diverse and Dynamic Needs

STATE OF CALIFORNIA – HEALTH AND HUMAN SERVICES AGENCY



OSHPD



OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT FACILITIES DEVELOPMENT DIVISION

Registered Design Professional Preparing Engineering Recommendations

Company Name: DEGENKOLB ENGINEERS

Name: Chad Closs

California License Number: S5946

Mailing Address: 225 Broadway, Suite 1325, San Diego, CA 92101

Telephone: (858) 699-5412

Email: ccloss@degenkolb.com

OSHPD Special Seismic Certification Preapproval (OSP)

Special Seismic Certification is preapproved under OSP

OSP Number: _____

Certification Method

Testing in accordance with: ICC-ES AC156 FM 1950-16

Other(s) (Please Specify): _____

*Use of criteria other than those adopted by the California Building Standards Code, 2019 (CBSC 2019) for component supports and attachments are not permitted. For distribution system, interior partition wall, and suspended ceiling seismic bracings, test criteria other than those adopted in the CBSC 2019 may be used when approved by OSHPD prior to testing.

Analysis

Experience Data

Combination of Testing, Analysis, and/or Experience Data (Please Specify): _____

OSHPD Approval

Date: 12/6/2021

Name: William Staehlin

Title: Senior Structural Engineer

Condition of Approval (if applicable): _____

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STATE OF CALIFORNIA – HEALTH AND HUMAN SERVICES AGENCY

GENERAL NOTES

I. GENERAL

- THIS OSHPD PRE-APPROVAL OF MANUFACTURE'S CERTIFICATION (OPM) IS BASED ON THE CBC 2019. THE DEMAND (DESIGN FORCES) FOR USE WITH THIS OPM SHALL BE BASED ON THE CBC 2019.
- THIS PRE-APPROVAL IS VALID FOR THE SYSTEM DESCRIBED IN THESE DRAWINGS THROUGHOUT THE STATE OF CALIFORNIA, AND IS VALID FOR INTERIOR WALLS INSTALLED AT ANY HEIGHT WITHIN THE BUILDING. SEE S_{DS} LIMITATIONS ON SHEET S3

II. RESPONSIBILITIES OF THE STRUCTURAL ENGINEER OF RECORD

- VERIFY MATERIALS AND WORKMANSHIP TO CONFORM WITH THE 2019 EDITION OF THE CALIFORNIA BUILDING CODE AND THE REQUIREMENTS OF THIS PRE-APPROVAL DOCUMENT.
- VERIFY THE ADEQUACY OF THE EXISTING FRAMING TO SUPPORT THE LOADS INDICATED ON THIS SHEET, IN ADDITION TO ALL OTHER LOADS.
- VERIFY ANCHORS ARE AT ADEQUATE DISTANCES FROM OPENINGS AND EDGES OF SLABS AS NOTED IN THE GENERAL NOTES SECTION IV.
- VERIFY ANCHORS ARE AT ADEQUATE DISTANCES FROM NEW OR EXISTING ANCHORS AS NOTED IN THE GENERAL NOTES SECTION IV.
- DESIGN ANY SUPPLEMENTARY MEMBER AND THEIR ATTACHMENTS OTHER THAN THOSE DETAILED WITHIN THIS PRE-APPROVAL.
- VERIFY THAT THE INSTALLATION IS IN CONFORMANCE WITH THE 2019 CBC AND WITH THE DETAILS SHOWN IN THIS PRE-APPROVAL.
- VERIFY THAT THE SITE SEISMIC PARAMETERS DON'T EXCEED WHAT IS PERMITTED UNDER THIS OPM

II. COLD-FORMED METAL FRAMING

- STUDS: ASTM C955 AND ASTM A1003, "C" SHAPED WITH LIPPED FLANGES AND PUNCHED WEB. PROVIDE G60 COATING MINIMUM.
 - 43 MIL (18 GAGE) AND LIGHTER: GRADE 33 TYPE H
 - 54 MIL (16 GAGE) AND HEAVIER: GRADE 50 TYPE H
- TRACK: ASTM C955 AND ASTM A1003, "U" SHAPED WITH UN-PUNCHED WEB. PROVIDE G60 COATING MINIMUM.
 - MATCH DEPTH, THICKNESS AND GRADE OF STUDS.
- FRAMING DESIGNATIONS ON PLANS ARE BASED ON THE STEEL STUD MANUFACTURER'S ASSOCIATION (SSMA) PRODUCT TECHNICAL GUIDE (ICC-ESR-3064P).
- INSTALL STUDS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND ASTM C1007.
- SHEET METAL SCREWS: SELF-DRILLING, SELF-TAPPING, HDG PER ASTM A153. PAN OR HEX WASHER HEAD AS REQUIRED BY FINISH.
 - PRODUCTS: ITW-BUILDEX TEKS SELECT (ICC-ESR-3223), GRABBER DRIVALL (ICC-ESR-1271)
- MINIMUM SCREW SPACING AND EDGE DISTANCE TO BE 3/4".
- POWDER ACTUATED FASTENERS: HILTI LOW-VELOCITY FASTENERS (ICC-ESR-2269).

BASE MATERIAL	FASTENERS	MINIMUM EMBEDMENT	MINIMUM EDGE DISTANCE	MINIMUM SPACING
STEEL	HILTI X-U	PER MANUF	1/2"	
CONCRETE	HILTI X-P	1"	3"	5 1/2"

- PAF SHALL NOT BE USED IN PRE-STRESSED CONCRETE UNLESS NON-DESTRUCTIVE TESTING METHODS ARE USED TO LOCATE STRAND AND REINFORCEMENT PRIOR TO FASTENER INSTALLATION.
- TENSION TESTING IS NOT REQUIRED FOR POWDER ACTUATED FASTENERS USED TO ATTACH TRACKS OF INTERIOR NON-SHEAR WALL PARTITIONS FOR SHEAR ONLY, WHERE THERE ARE AT LEAST THREE FASTENERS PER SEGMENT OF TRACK.

IV. MECHANICAL ANCHORS

- EXPANSION OR WEDGE ANCHORS INTO CONCRETE: HILTI KB-TZ2 (ICC ESR-4266), SIMPSON STRONG-BOLT 2 (ICC-ESR-3037) OR DEWALT POWER-STUD+ SD2 (ICC-ESR-2502).
- INSTALL ANCHORS IN ACCORDANCE WITH LATEST ICC-ESR REPORT AND MANUFACTURER INSTRUCTIONS.
- WHEN INSTALLING DRILLED-IN ANCHORS AND/OR POWDER DRIVEN PINS IN (E) NON-PRESTRESSED REINFORCED CONCRETE, USE CARE AND CAUTION TO AVOID CUTTING OR DAMAGING THE (E) REINFORCING BARS. WHEN INSTALLING THEM INTO (E) PRESTRESSED CONCRETE (PRE- OR POST-TENSIONED) LOCATE THE PRESTRESSED TENDONS BY USING A NON-DESTRUCTIVE METHOD PRIOR TO INSTALLATION. EXERCISE EXTREME CARE AND CAUTION TO AVOID CUTTING OR DAMAGING THE TENDONS DURING INSTALLATION. MAINTAIN A MINIMUM CLEARANCE OF ONE INCH OR 3 ANCHOR DIAMETERS, WHICHEVER IS GREATER, BETWEEN THE REINFORCEMENT AND THE DRILLED-IN ANCHOR AND/OR PIN.
- IF REINFORCEMENT IS ENCOUNTERED DURING DRILLING, ABANDON AND SHIFT THE HOLE LOCATION TO AVOID THE REINFORCEMENT. PROVIDE A MINIMUM OF 2 ANCHOR DIAMETERS OR 1 INCH, WHICHEVER IS LARGER, OF SOUND CONCRETE BETWEEN THE DOWEL AND THE ABANDONED HOLE. FILL THE ABANDONED HOLE WITH NON-SHRINK GROUT APPROVED BY THE STRUCTURAL ENGINEER OF RECORD. NOTIFY THE STRUCTURAL ENGINEER OF RECORD IF ANY REINFORCING IS DAMAGED.
- ANCHORS WILL BE PROOF-TESTED BY OWNER'S TESTING AND INSPECTION AGENCY. WITH A REPORT OF THE TEST RESULTS SUBMITTED TO OSHPD.
- IF ANY ANCHOR FAILS TESTING, REPLACE ANCHOR AND TEST ADDITIONAL ANCHORS OF THE SAME CATEGORY NOT PREVIOUSLY TESTED UNTIL TWENTY (20) CONSECUTIVE PASS, THEN RESUME INITIAL TESTING FREQUENCY.
- TEST ANCHORS NO SOONER THAN 24 HOURS AFTER INSTALLATION.
- TEST WEDGE ANCHORS PER THE FOLLOWING METHOD:
 - TORQUE WRENCH METHOD: TEST ANCHORS TO THE TORQUE LOAD INDICATED IN THE TABLE BELOW WITHIN THE FOLLOWING LIMITS:
 - ONE-HALF TURN OF THE NUT.

WEDGE-TORQUE LOAD (FT-LBS)		
ANCHOR DIA. (IN)	ICC ESR 4266 & 3037	ICC ESR 2502
1/4	4	-
3/8	30	20

- FOR POST INSTALLED ANCHORS USED FOR NONSTRUCTURAL APPLICATIONS, 50 PERCENT OR ALTERNATE BOLTS IN A GROUP, INCLUDING AT LEAST ONE-HALF THE ANCHORS IN EACH GROUP, SHALL BE TESTED

WHERE POST-INSTALLED ANCHORS ARE USED FOR SILL PLATE BOLTING APPLICATIONS, 10 PERCENT OF THE ANCHORS SHALL BE TESTED.

- MINIMUM EDGE DISTANCE:
 - 3/8" EXPANSION ANCHOR = 6"
 - 3/8" SCREW ANCHOR = 3 3/4"
- MINIMUM SPACING (FROM NEW OR EXISTING ADJACENT ANCHORS):
 - 3/8" EXPANSION ANCHOR = 6"
 - 3/8" SCREW ANCHOR = 3"
- IF ANY ANCHOR FAILS TESTING, ALL OF ANCHORS OF THE SAME TYPE SHALL BE TESTED, WHICH ARE INSTALLED BY THE SAME TRADE, NOT PREVIOUSLY TESTED UNTIL TWENTY (20) CONSECUTIVE ANCHORS PASS, THEN RESUME THE INITIAL TEST FREQUENCY.

VI. STRUCTURAL TESTS, INSPECTIONS, AND OBSERVATIONS

- AN INDEPENDENT APPROVED TESTING AGENCY AND SPECIAL INSPECTORS, CONFORMING TO 2019 CBC SECTION 1703A, WILL BE RETAINED BY THE OWNER TO PERFORM THE FOLLOWING TESTS AND INSPECTIONS. PROVIDE ACCESS AND FURNISH SAMPLES TO THE AGENCY AS REQUIRED.
- THE FOLLOWING ITEMS REQUIRE TESTS AND INSPECTIONS IN ACCORDANCE WITH THE REQUIREMENTS OF THE CHAPTER "STRUCTURAL TESTS AND INSPECTIONS" OF THE CODE.
- MECHANICAL ANCHORS:
 - VERIFY TYPE OF ANCHOR, ANCHOR DIMENSIONS, CONCRETE TYPE AND COMPRESSIVE STRENGTH, PREDRILLED HOLE DIMENSIONS, ANCHOR SPACING, EDGE DISTANCE, SLAB THICKNESS AND ANCHOR EMBEDMENT.
 - PROOF-TEST AS INDICATED IN THE MECHANICAL ANCHORS SECTION OF THESE GENERAL NOTES.

VII. DESIGN CRITERIA

- APPLICABLE CODE: 2019 CALIFORNIA BUILDING CODE.
- SEISMIC DESIGN:
SEISMIC FORCE $F (LRFD) = \frac{0.4 * S_{DS} * a_p}{(R_p / I_p)} (1 + 2 * Z/h) W_p$

WHERE:
 S_{DS} = 1.95 MAX ACCEL. (SEE S2)
 I_p = 1.5
 Z/h = 1.0 FOR ANY FLOOR
 a_p = 1.0
 R_p = 2.5
 Ω = 2.0

VIII. HOW TO USE THIS PRE-APPROVAL

- REVIEW AND UNDERSTAND ALL GENERAL NOTES AND FIGURES BEFORE PROCEEDING.
- FOR THE TYPICAL PARTITION WALL CONDITION AND SEISMICITY (S_{DS}):
 - DETERMINE THE TOP TRACK CONDITION AND BRACE SPACING FROM THE TABLES ON S2 AND BRACE LAYOUT ON S3.
 - BASED ON THE STRUCTURE TYPE, SELECT A BRACE CONNECTION AND WALL BASE CONNECTION FROM THE TABLE ON S4.
 - DETERMINE THE IMPACT ON THE EXISTING STRUCTURE FROM THE TABLE ON S2, AND VERIFY THE ADEQUACY OF THE EXISTING STRUCTURE WITH THE STRUCTURAL ENGINEER OF RECORD FOR THE BUILDING.
- FOR THE TYPICAL PARTITION WALL WITH LID CONDITION AND SEISMICITY (S_{DS}):
 - BASED ON THE STRUCTURE TYPE, SELECT A WALL BASE CONNECTION FROM THE TABLE ON S4.
 - DETERMINE THE IMPACT ON THE EXISTING STRUCTURE FROM THE TABLE ON S7, AND VERIFY THE ADEQUACY OF THE EXISTING STRUCTURE WITH THE STRUCTURAL ENGINEER OF RECORD FOR THE BUILDING.

SHEET LIST

S1	GENERAL NOTES	S8	STARC WALL ASSEMBLY
S2	TYPICAL PARTITION WALL SECTION & BRACING SCHEDULE	S9	STARC WALL ASSEMBLY - LID CONDITION
S3	BRACING LAYOUT PLANS	S10	STARC SYSTEM PARTS
S4	TOP & BOTTOM CONNECTIONS	S11	STARC SYSTEM PARTS
S5	CONNECTIONS CONTD.	S12	OPD-0001-13 DETAILS (ST6.04, ST6.05)
S6	TEMPORARY (LESS THEN 30 DAYS) ATTACHMENT	S13	OPD-0001-13 DETAILS (ST6.06, ST6.07)
S7	TYPICAL WALL W/ LID SECTION	S14	OPD-0001-13 DETAILS (ST6.08)
		S15	OPD-0001-13 DETAILS (ST9.01, ST9.02)



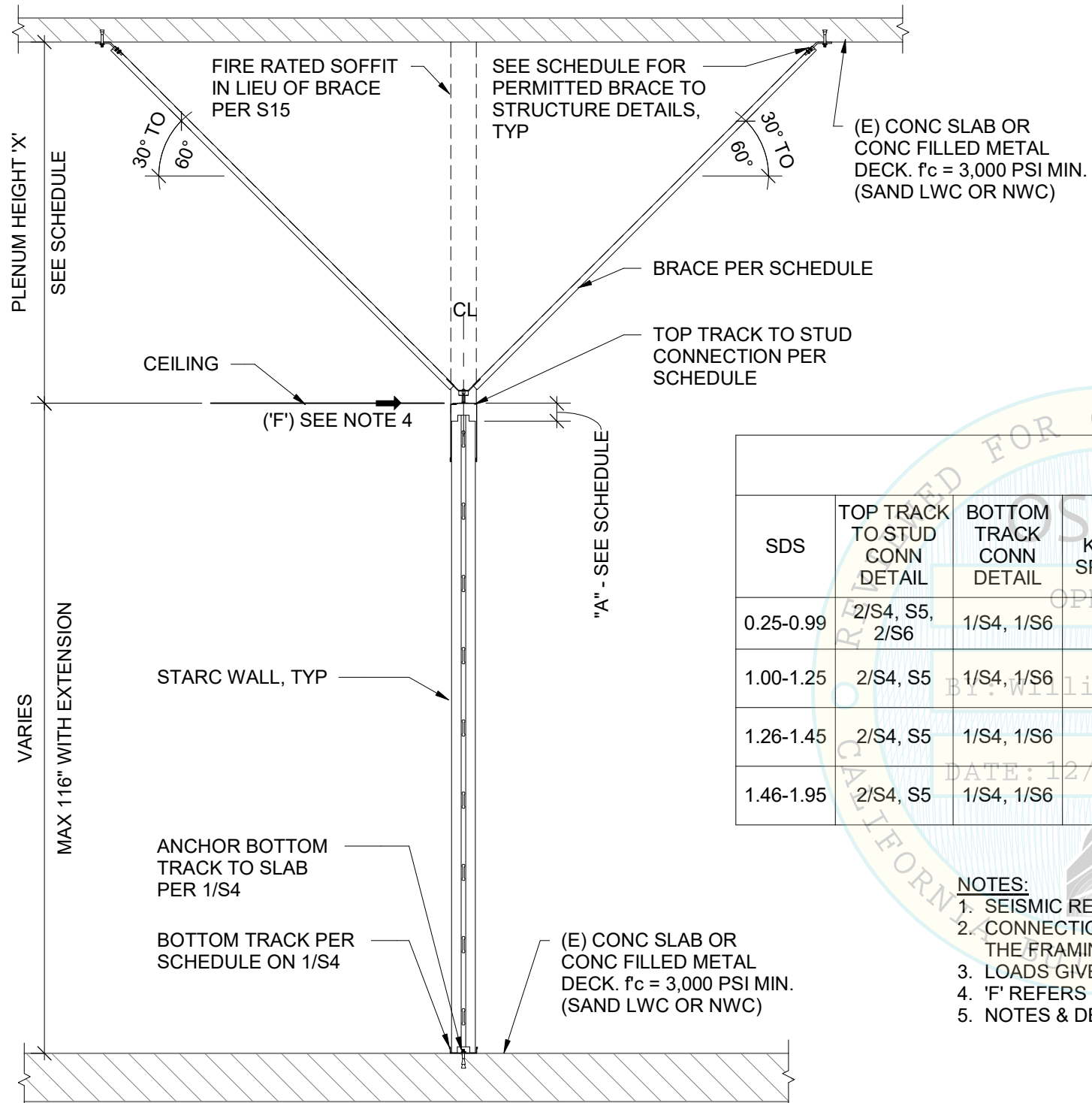
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Title
 GENERAL NOTES

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 Design: KK Rev:
 Check: KK Scale: NTS
 Date: 07/01/2021

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SDS	TOP TRACK TO STUD CONN DETAIL	BOTTOM TRACK CONN DETAIL	MAX KICKER SPACING	MAX ASD TOP TRACK REACTION (PLF)	ASD HORIZONTAL LOAD AT BRACE (LB)	PLENUM HEIGHT	BRACE SIZE	BRACE TO STRUCTURE CONN DETAIL	MAX TOP TRACK GAP DIMENSION "A"	
									AT ROOF	AT GROUND
0.25-0.99	2/S4, S5, 2/S6	1/S4, 1/S6	8'-0"	17	123	X' < 5'-0"	250S162-33	S12, S13, S14	3.5"	3.5"
						5'-0" < X' < 6'-6"	(2) 362S162-33			
1.00-1.25	2/S4, S5	1/S4, 1/S6	8'-0"	17	135	X' < 5'-0"	250S162-33	S12, S13, S14	3.5"	3.5"
						5'-0" < X' < 6'-6"	(2) 362S162-33			
1.26-1.45	2/S4, S5	1/S4, 1/S6	8'-0"	19	153	X' < 5'-0"	250S162-33	S12, S13, S14	3.00"	3.5"
						5'-0" < X' < 6'-6"	(2) 362S162-33			
1.46-1.95	2/S4, S5	1/S4, 1/S6	8'-0"	26	205	X' < 5'-0"	250S162-33	S12, S13, S14	2.25"	3.5"
						5'-0" < X' < 6'-6"	(2) 362S162-33			

- NOTES:**
- SEISMIC REACTIONS AT THE TOP AND BOTTOM CONNECTION ARE FOR A STARC WALL SHOW ON S8.
 - CONNECTION DEMANDS ARE PROVIDED TO ALLOW RDP IN RESPONSIBLE CHARGE TO VERIFY NON PRE-APPROVED COMPONENTS OF THE FRAMING SYSTEM AND THE SUPPORTING STRUCTURE.
 - LOADS GIVEN DO NOT INCLUDE OVER-STRENGTH FACTOR (OMEGA). FOR CONCRETE ATTACHMENTS SEE ASCE 7-16, TABLE 13.5-1.
 - 'F' REFERS TO THE FORCE BEING RESISTED BY CONNECTION. DEMANDS CALCULATED IN ACCORDANCE WITH ASCE 7-16.
 - NOTES & DETAIL CALLOUTS IN SPECIFIC DETAILS TAKE PRECEDENCE OVER THE "OPD" DETAILS.

1 TYPICAL WALL SECTION AND SCHEDULES
1/2" = 1'-0"



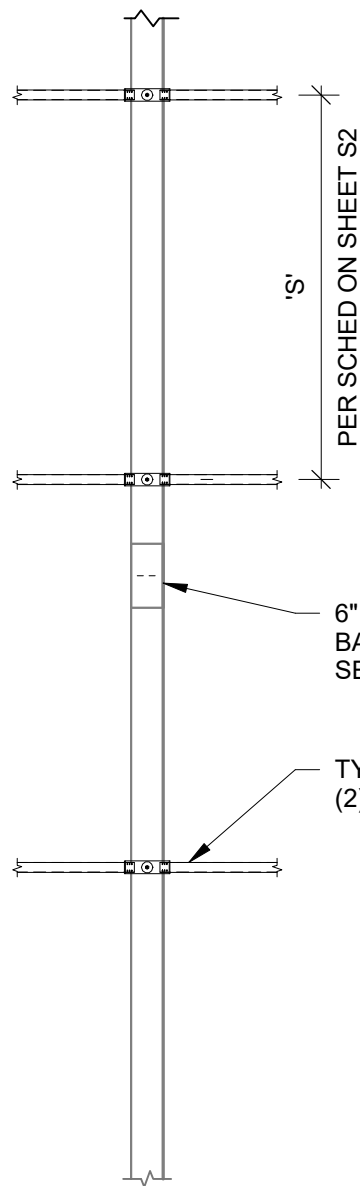
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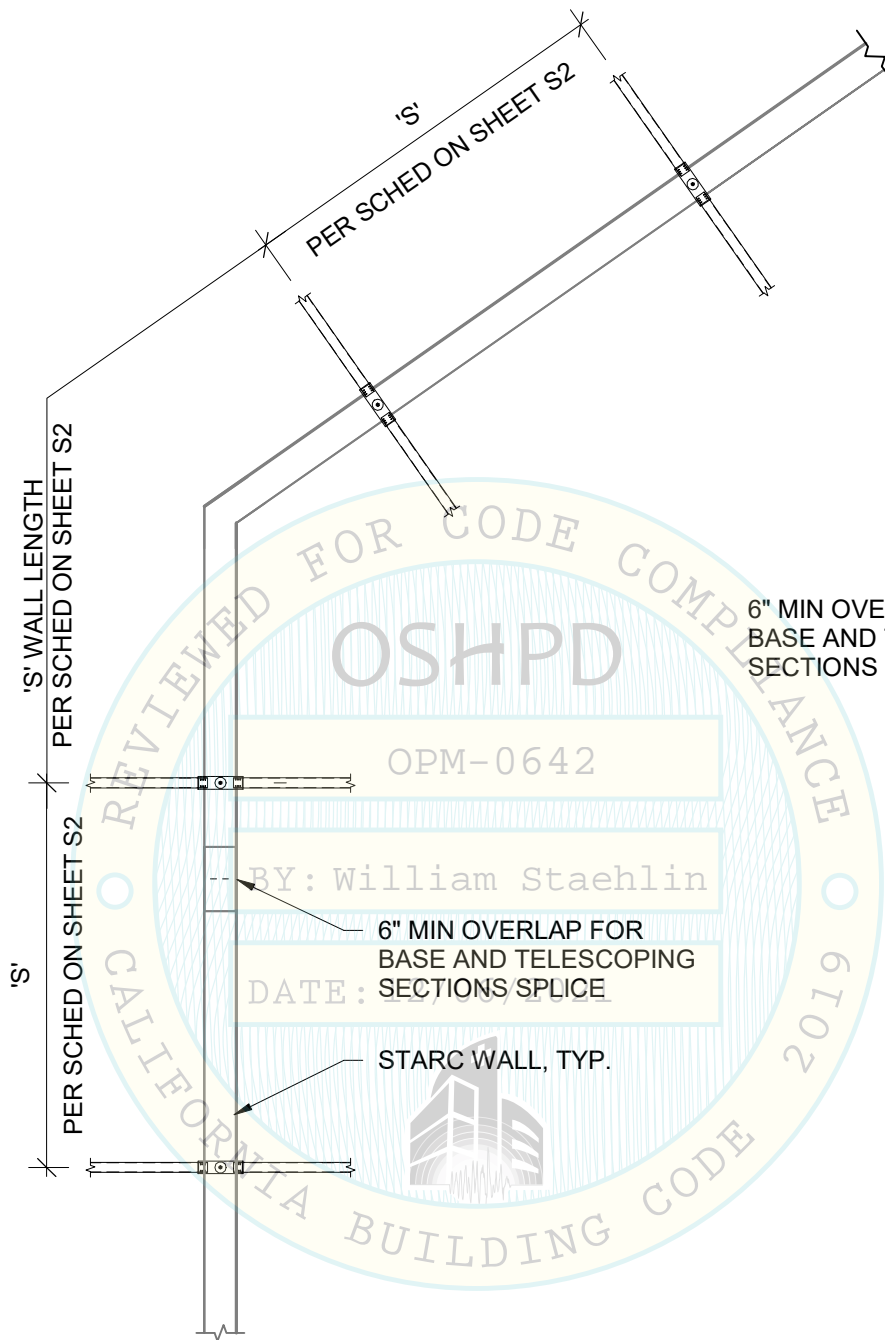
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TYPICAL PARTITION WALL SECTION & BRACING
SCHEDULE

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Check: KK Scale: 1/2" = 1'-0"
Date: 07/01/2021

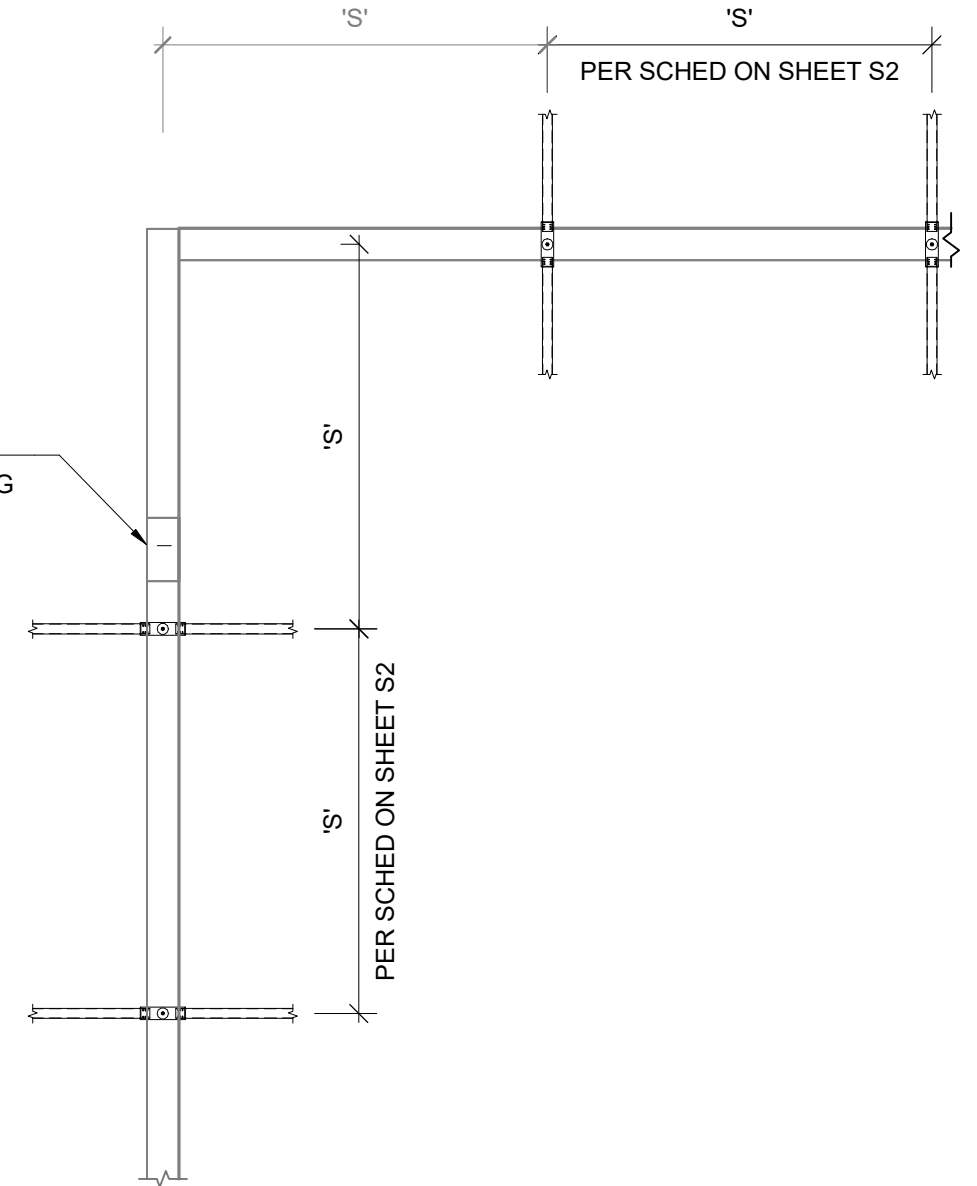
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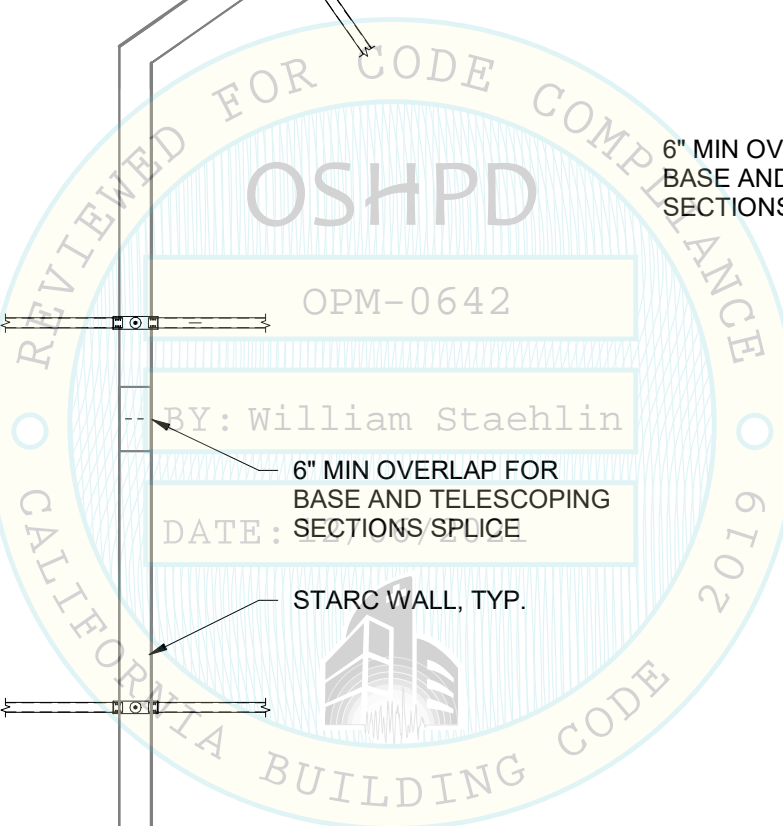
AT STRAIGHT RUNS



AT 135° INTERSECTION



AT 90° INTERSECTION



1 BRACE LAYOUT PLANS
1/2" = 1'-0"



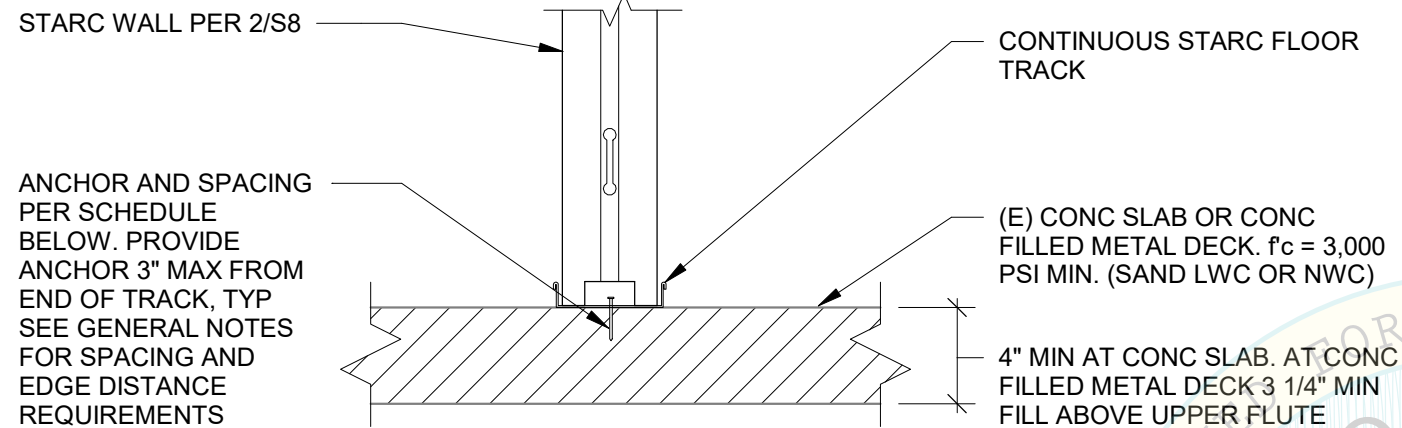
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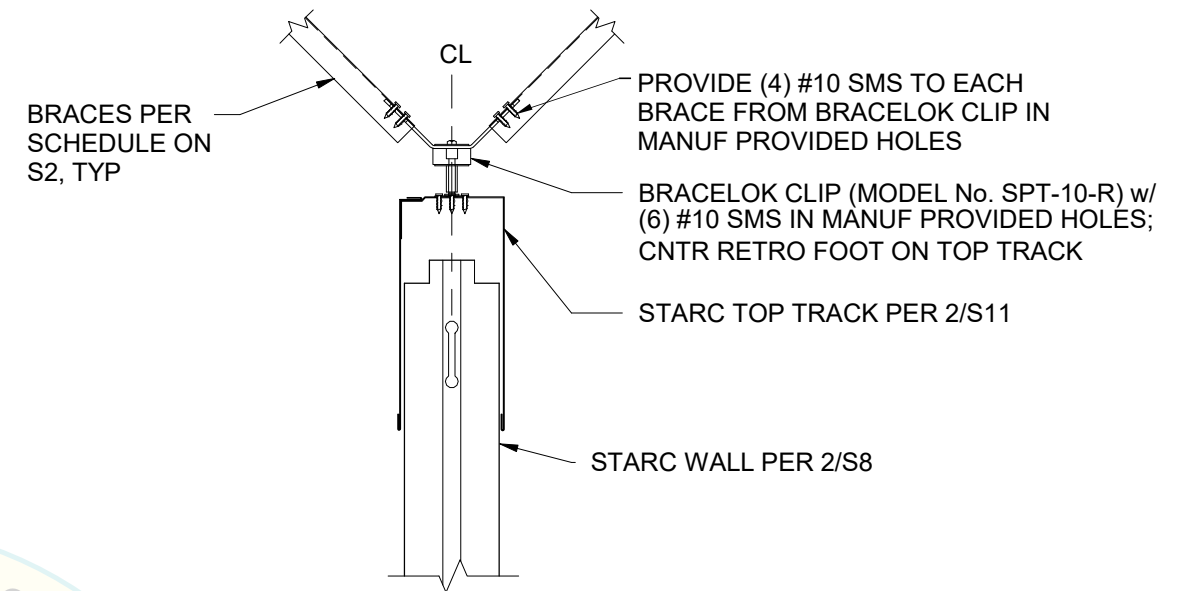
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BRACING LAYOUT PLANS

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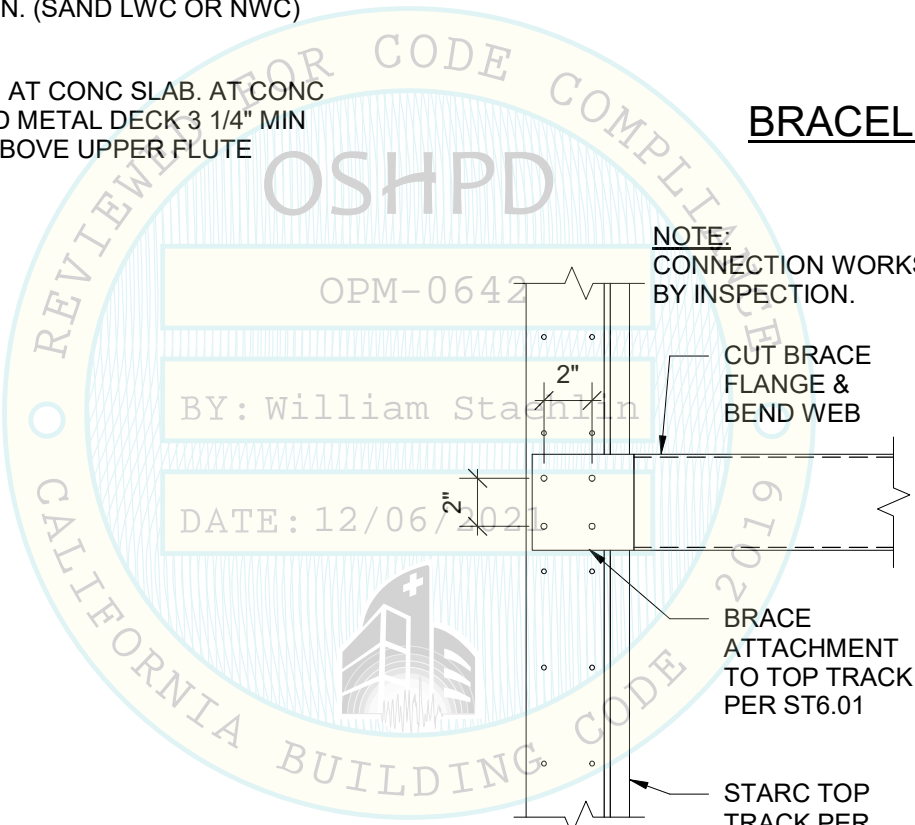
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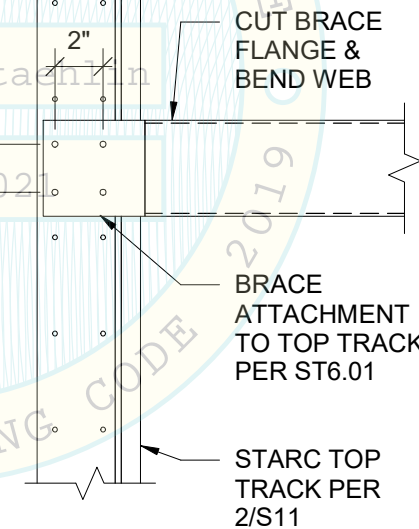
MAXIMUM FASTENER SPACING AT BOTTOM CONNECTION (INCHES)			
Sds	BOTTOM REACTION (PLF)	1/4\"/>	
0.25-0.99	17	8'-0"	8'-0"
1.00-1.25	17	8'-0"	8'-0"
1.26-1.45	19	8'-0"	8'-0"
1.46-1.95	26	8'-0"	8'-0"



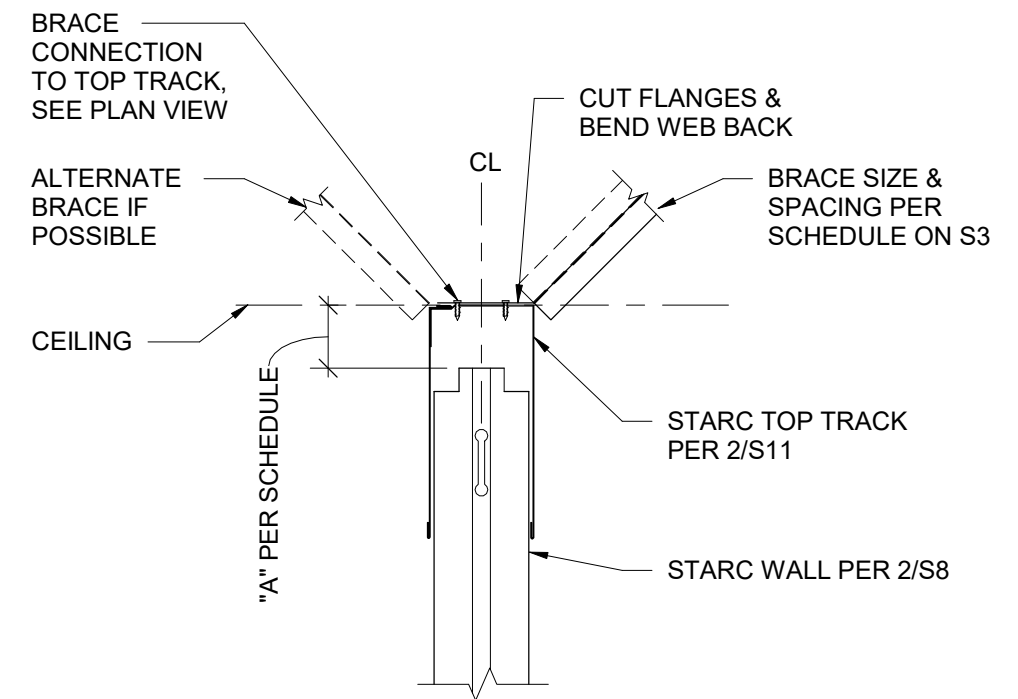
BRACELOK STUD BRACING



NOTE: CONNECTION WORKS BY INSPECTION.



METAL STUD BRACING - PLAN VIEW



METAL STUD BRACING - SIDE VIEW

1 BOTTOM TRACK CONNECTION
NTS

2 TOP TRACK CONNECTION
1 1/2" = 1'-0"



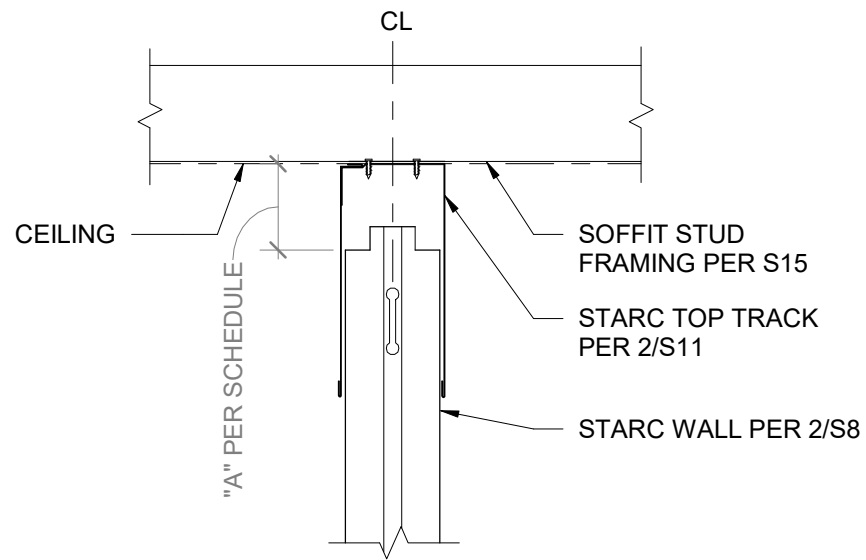
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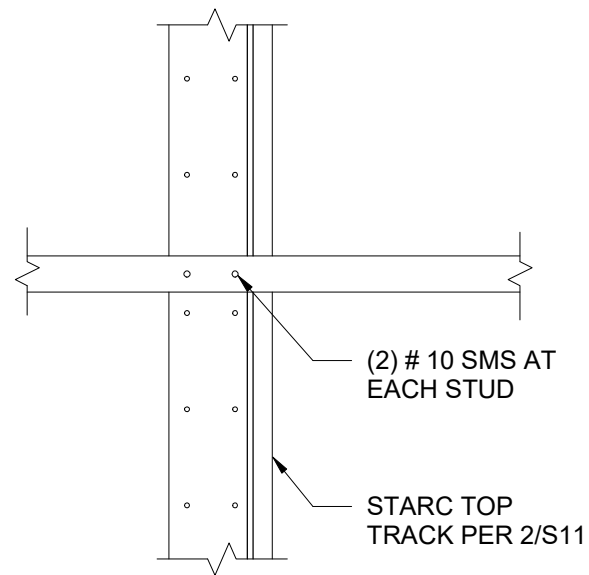
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TOP & BOTTOM CONNECTIONS

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Date: 07/01/2021

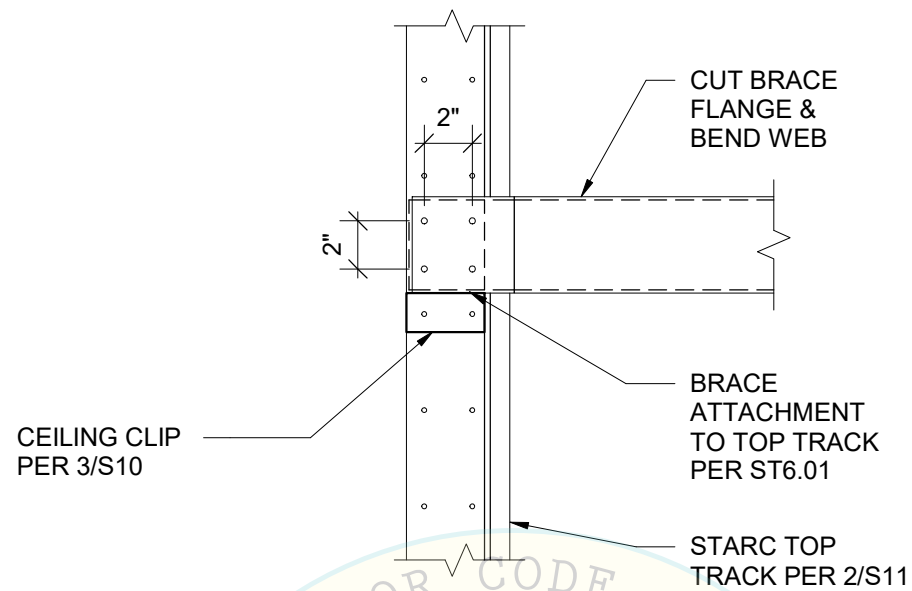
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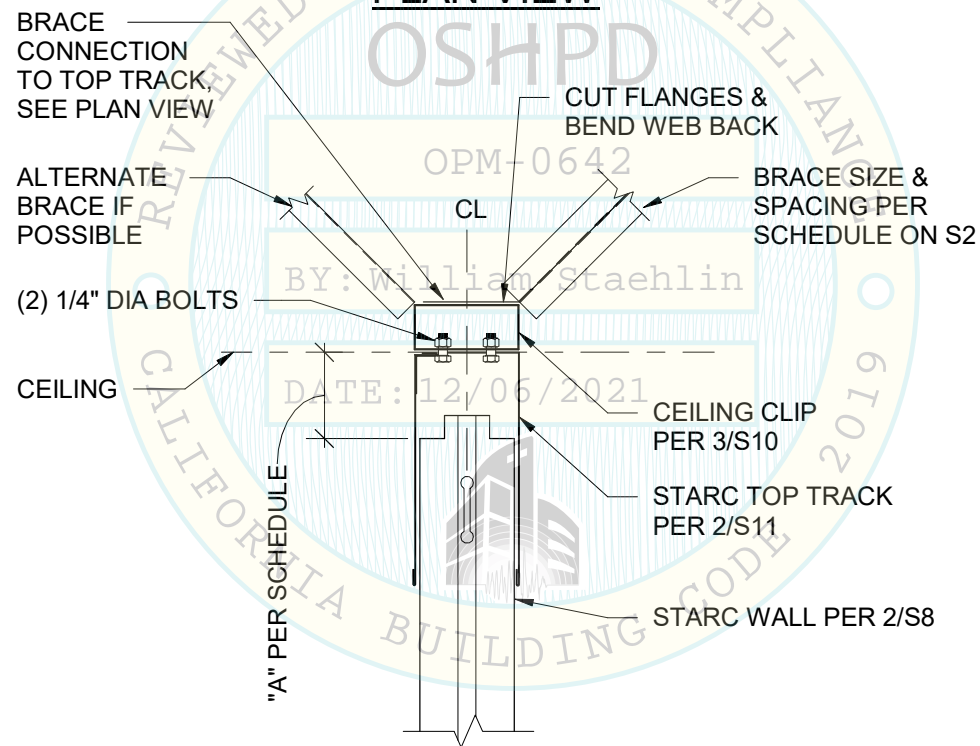
SIDE VIEW



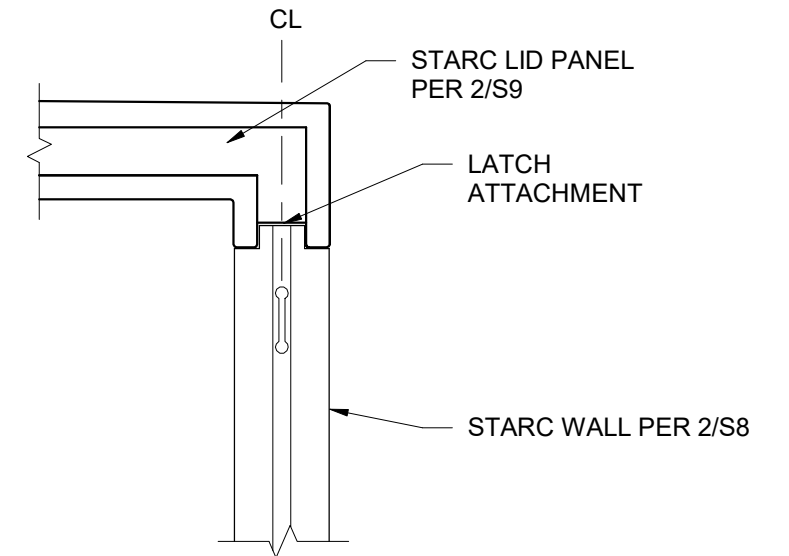
PLAN VIEW



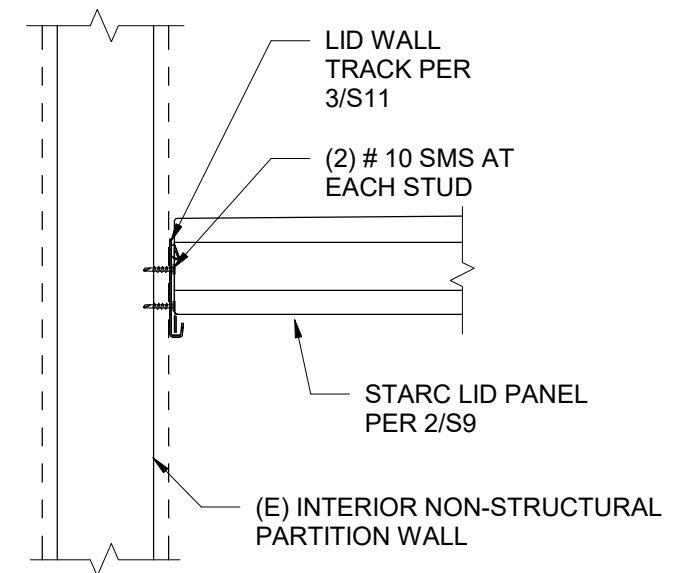
PLAN VIEW



SIDE VIEW



TO WALL PANEL



TO (E) WALL

1 SOFFIT CONNECTION

1 1/2" = 1'-0"

2 CLIP CONNECTION

1 1/2" = 1'-0"

3 LID CONNECTION

1 1/2" = 1'-0"



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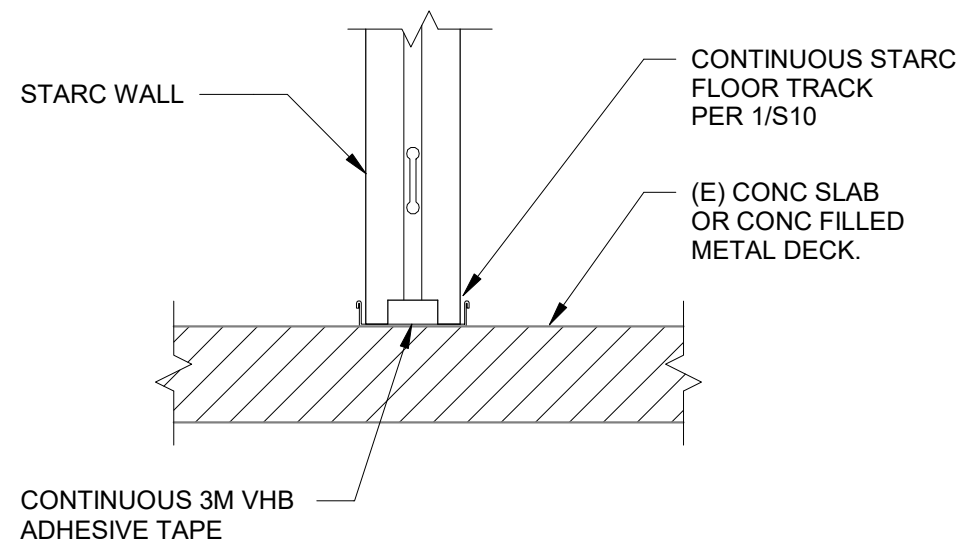


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CONNECTIONS CONTD.

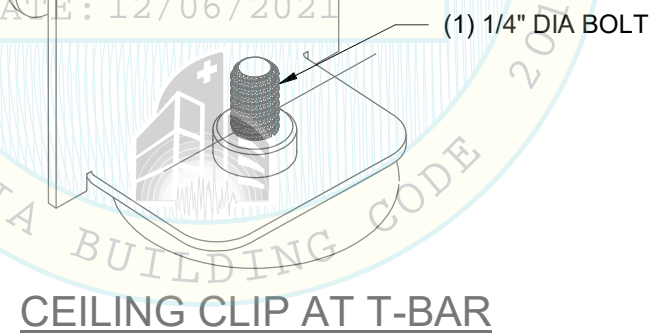
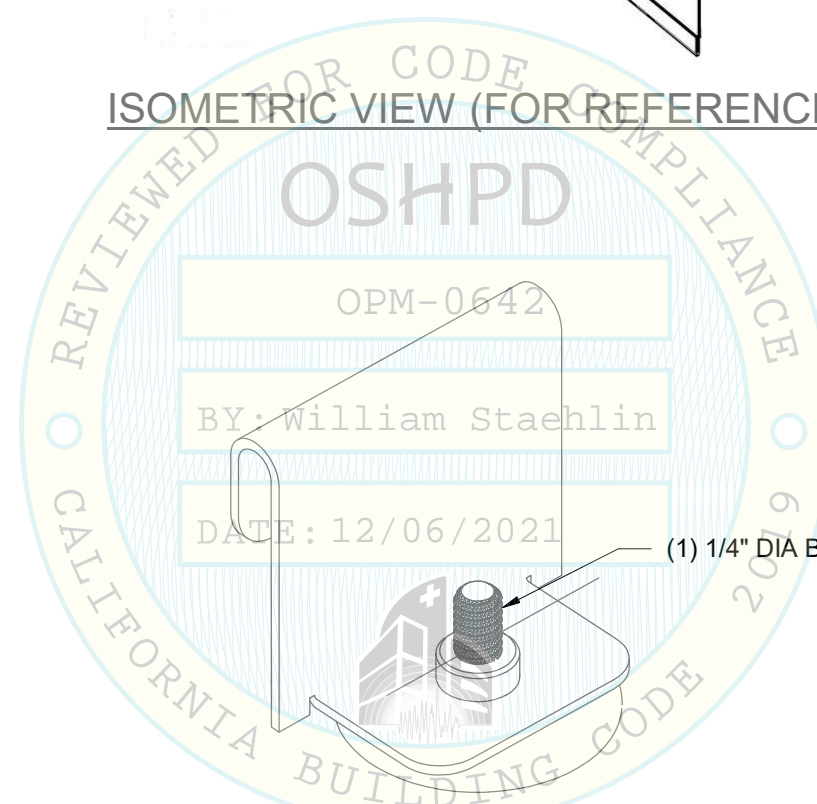
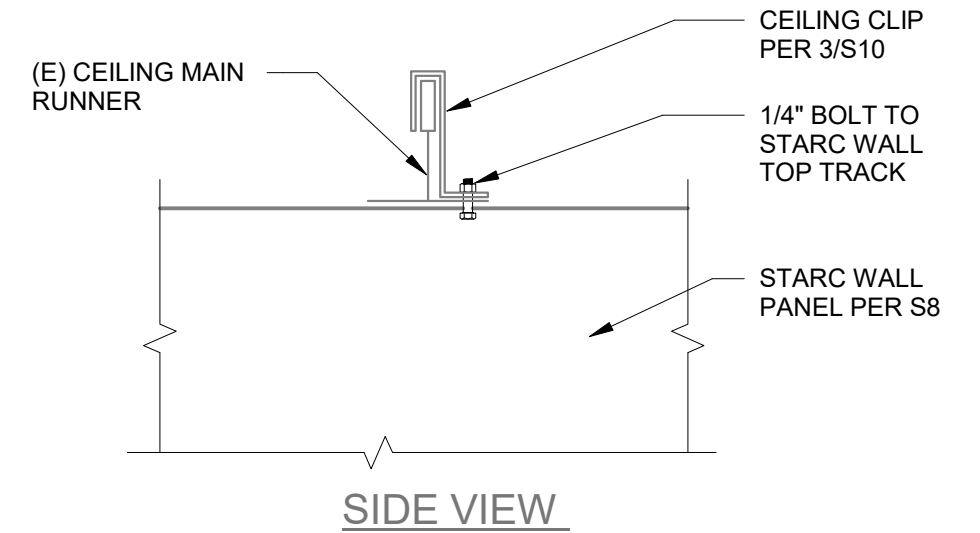
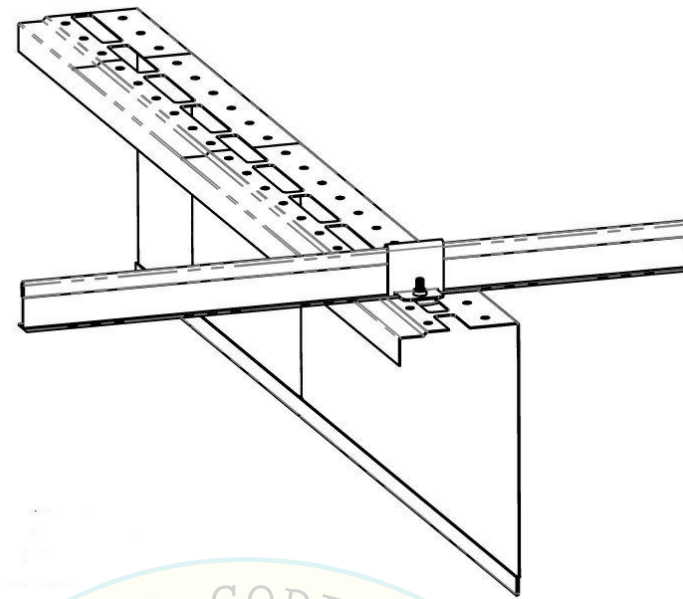
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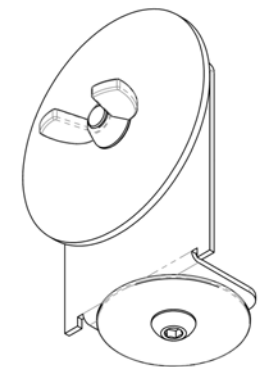
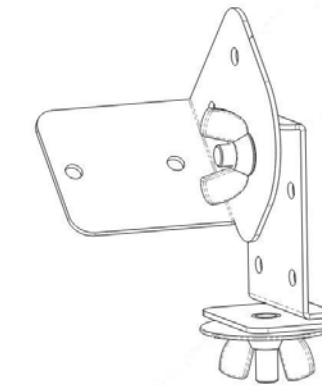
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1 BOTTOM CONNECTION
NTS



NOTE:
THESE CLIPS ARE ONLY INTENDED FOR ERECTION PURPOSES AND CEILING RUNNERS SHOULD NOT BE USED FOR SUPPORTING WALLS.



2 TOP CONNECTION (ERECTION CLIPS)
NTS



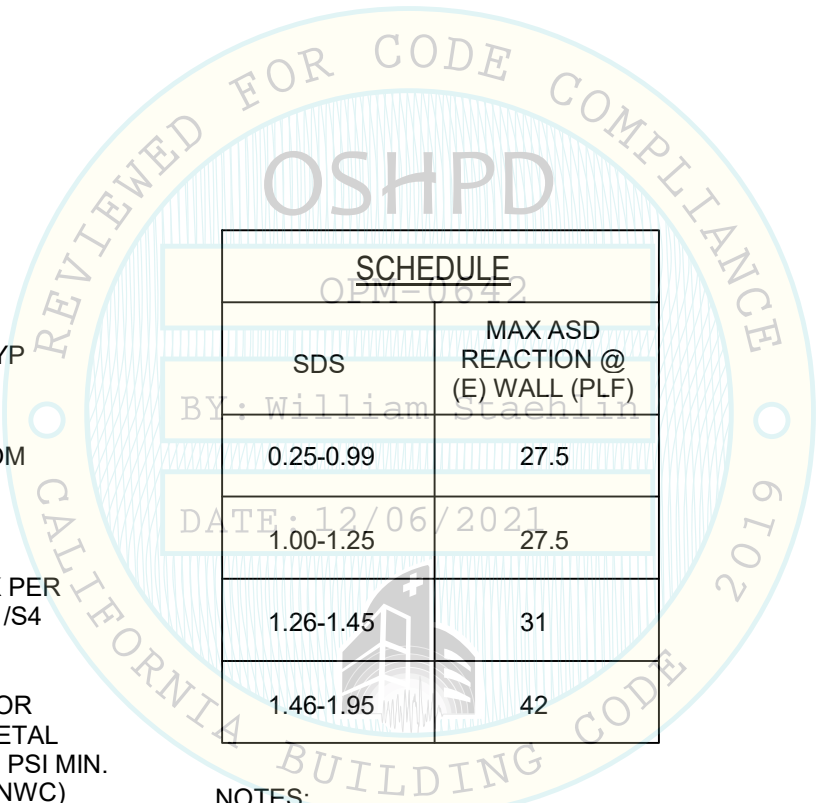
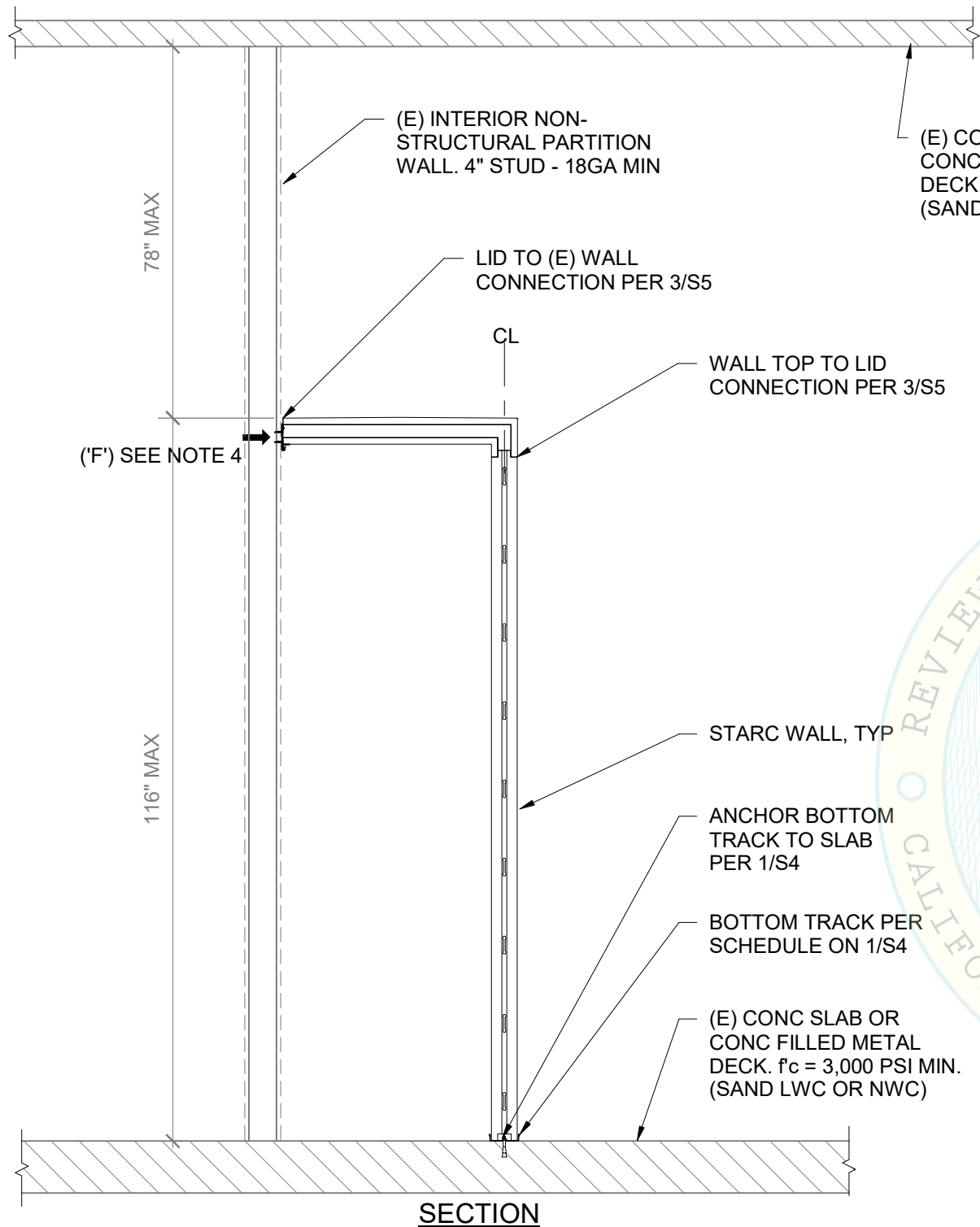
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Title
TEMPORARY (LESS THEN 30 DAYS) ATTACHMENT

Drawn:	SH	Job number:	C0816002.00
Design:	KK	Rev:	
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Date:	07/01/2021		

Sheet
S6
OF Sheets



SCHEDULE	
SDS	MAX ASD REACTION @ (E) WALL (PLF)
0.25-0.99	27.5
1.00-1.25	27.5
1.26-1.45	31
1.46-1.95	42

- NOTES:**
1. SEISMIC REACTIONS AT THE TOP AND BOTTOM CONNECTION ARE FOR A STARC WALL SHOW ON S7.
 2. CONNECTION DEMANDS ARE PROVIDED TO ALLOW RDP IN RESPONSIBLE CHARGE TO VERIFY NON PRE-APPROVED COMPONENTS OF THE FRAMING SYSTEM AND THE SUPPORTING STRUCTURE.
 3. LOADS GIVEN DO NOT INCLUDE OVER-STRENGTH FACTOR (OMEGA). FOR CONCRETE ATTACHMENTS SEE ASCE 7-16 ,TABLE 13.5-1.
 4. 'F' REFERS TO THE FORCE BEING RESISTED BY CONNECTION. DEMANDS CALCULATED IN ACCORDANCE WITH ASCE 7-16.
 5. NOTES & DETAIL CALLOUTS IN SPECIFIC DETAILS TAKE PRECEDENCE OVER THE "OPD" DETAILS.

1 TYPICAL WALL SECTION AND SCHEDULES
1/2" = 1'-0"



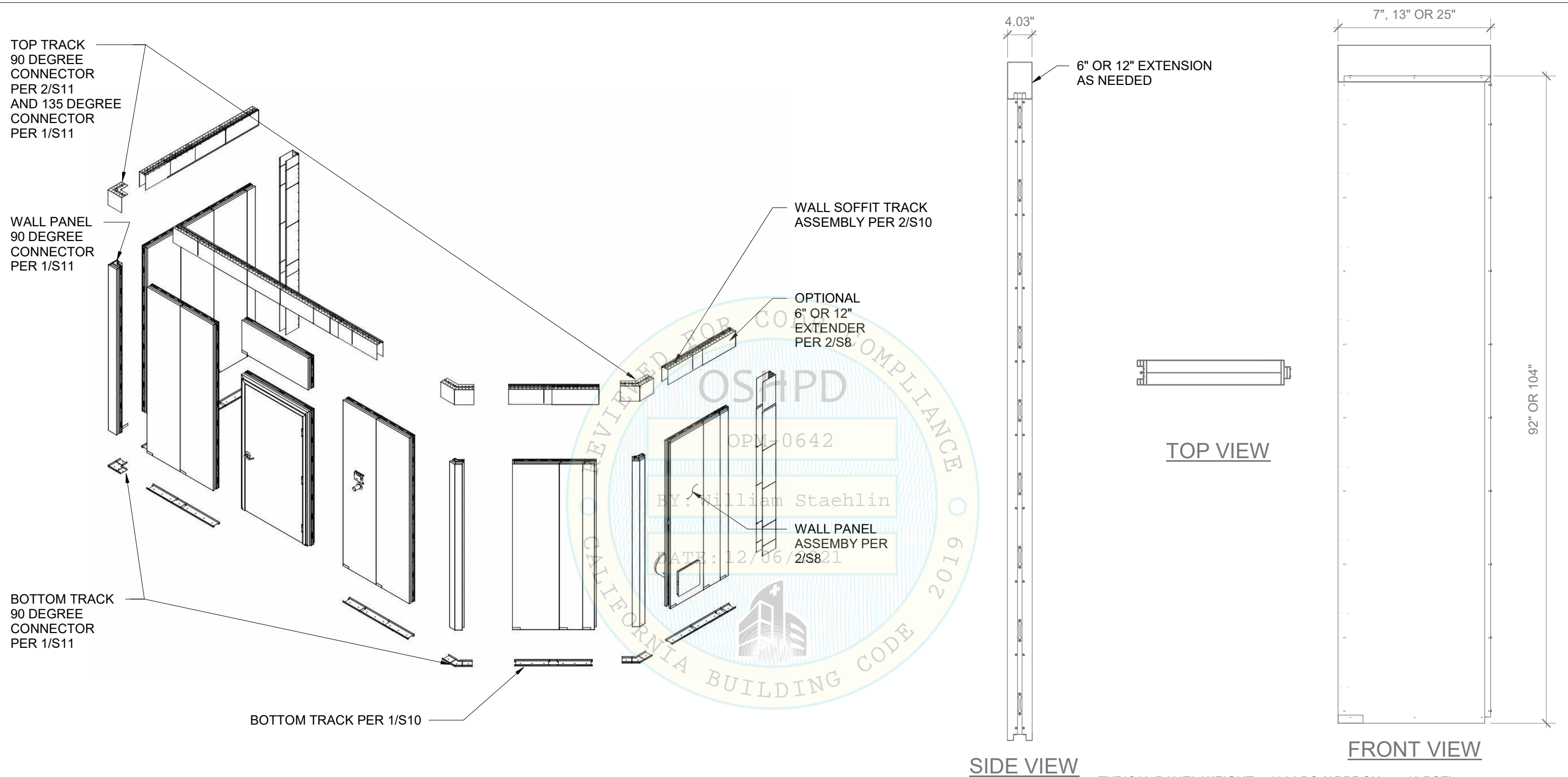
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Title
TYPICAL WALL W/ LID SECTION

Drawn: SH Job number: C0816002.00
Design: KK Rev:
Check: KK Scale: 1/2" = 1'-0"
Date: 07/08/21

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OF Sheets



1 STARC WALL ASSEMBLY ISOMETRIC
NTS

2 TYPICAL WALL
3/4" = 1'-0"
TYPICAL PANEL WEIGHT = 100 LBS (APPROX = 5.43 PSF)

NOTE: DIMENSIONS SHOWN ARE PER MANUFACTURER. REFER TO MANUFACTURER CATALOG FOR LATEST INFORMATION



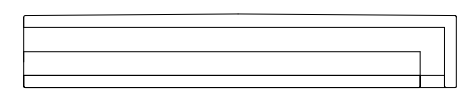
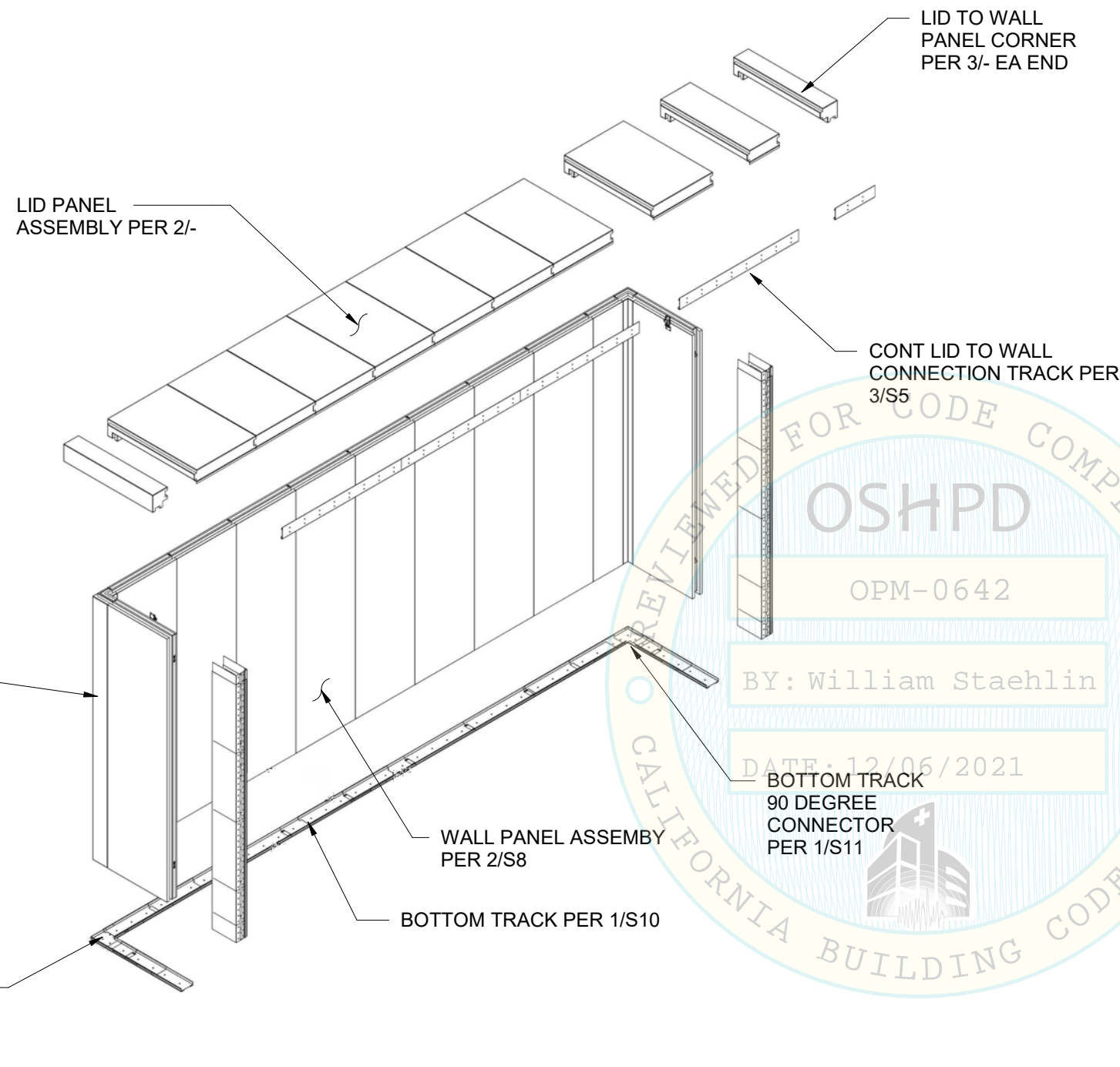
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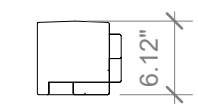
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 STARC WALL ASSEMBLY

Drawn:	SH	Job number:	C0816002.00
Design:	KK	Rev:	
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Date:	07/01/2021		

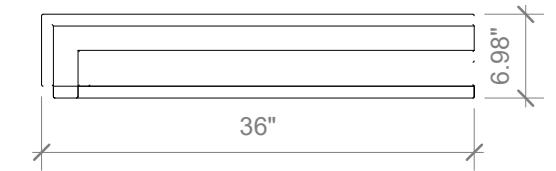
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SIDE VIEW



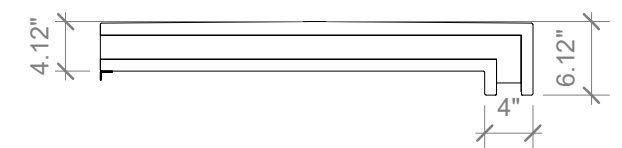
FRONT VIEW



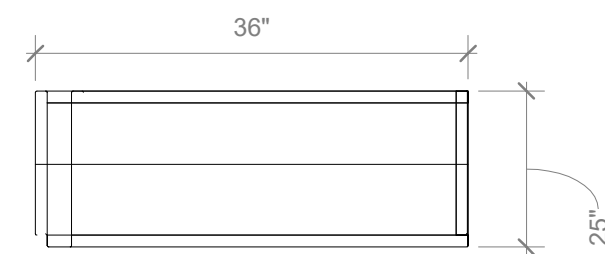
TOP VIEW

TYPICAL LID CORNER WEIGHT = 35 LBS

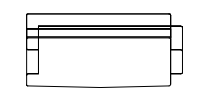
3 TYPICAL LID CORNER
3/4" = 1'-0"



SIDE VIEW



TOP VIEW



FRONT VIEW

TYPICAL LID WEIGHT = APPROXIMATELY 5.43 PSF SIMILAR TO WALL PANEL, SEE S8

2 TYPICAL LID
3/4" = 1'-0"

1 STARC WALL ASSEMBLY - LID CONDITION ISOMETRIC
NTS



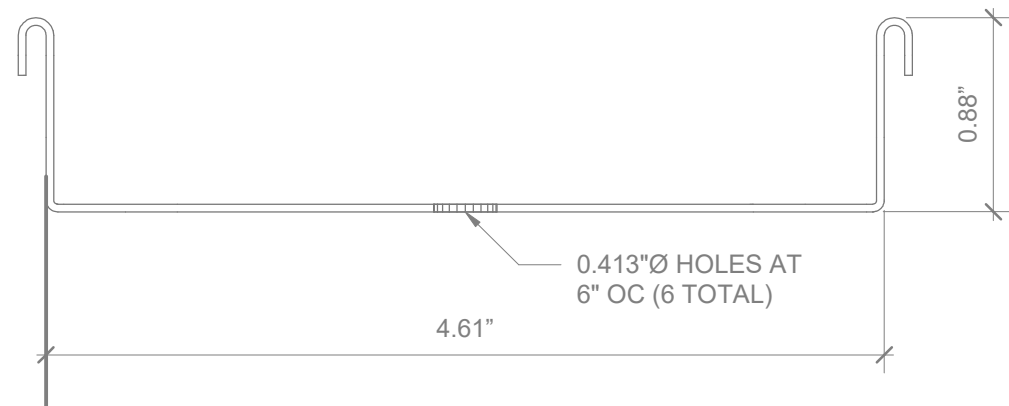
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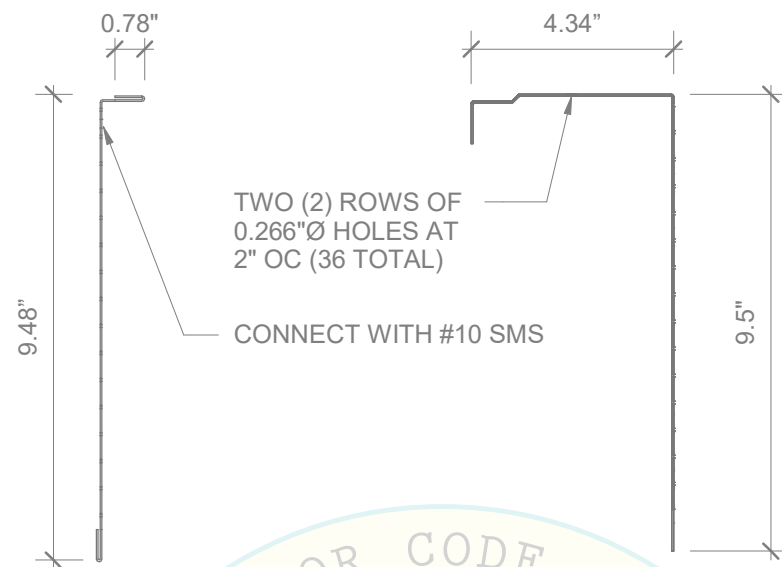
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STARC WALL ASSEMBLY - LID CONDITION

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Design:	KK	Rev:	
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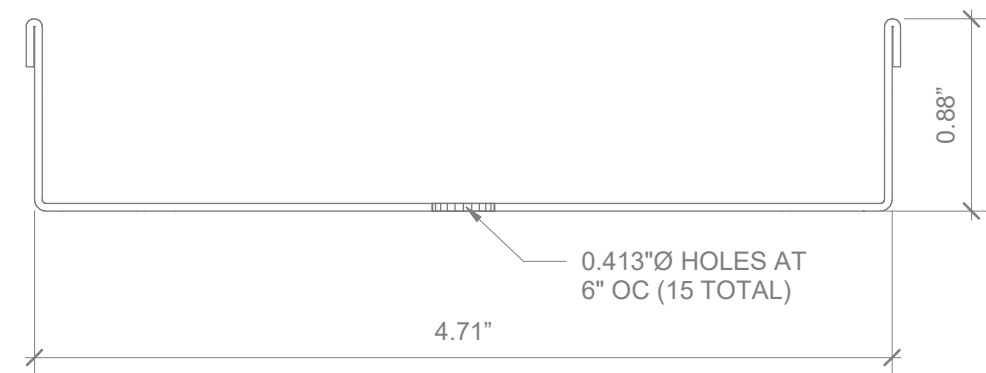
36" LONG TRACK



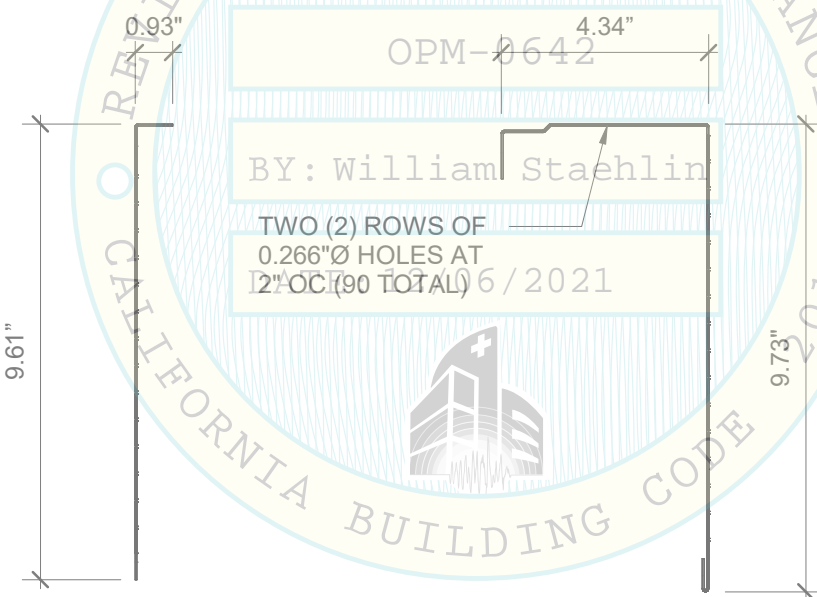
TWO (2) ROWS OF
0.266"Ø HOLES AT
2" OC (36 TOTAL)

CONNECT WITH #10 SMS

36" LONG TRACK



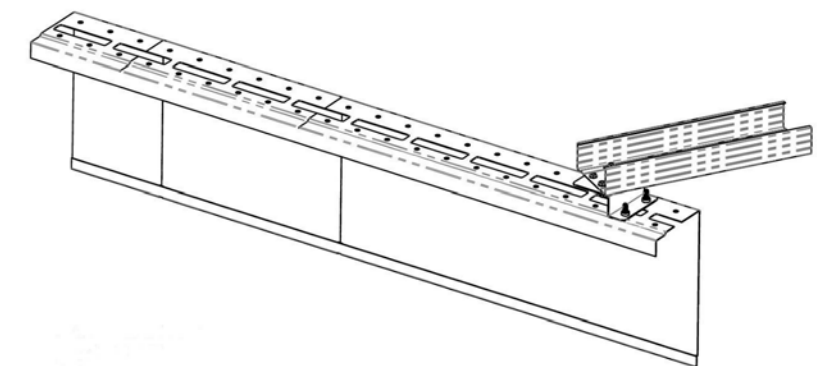
90" LONG TRACK



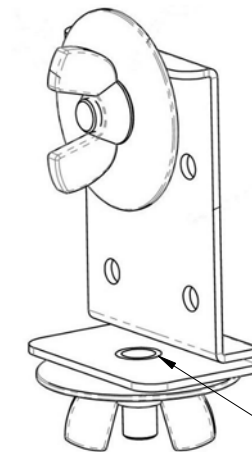
BY: William Staehlin

TWO (2) ROWS OF
0.266"Ø HOLES AT
2" OC (36 TOTAL) 6/2021

36" LONG TRACK

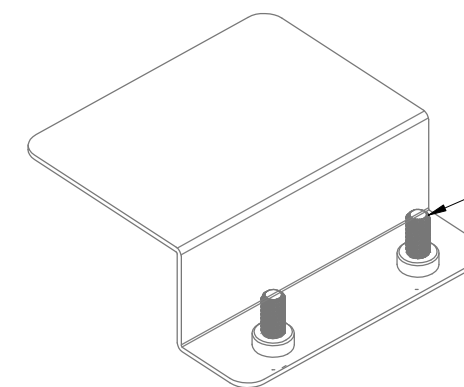


ISOMETRIC VIEW (FOR REFERENCE ONLY)



(1) 1/4" DIA BOLT

CEILING GRID CLIP BRACKET



(2) 1/4" DIA BOLT

OFFSET BRACKET

1 BOTTOM TRACK

12" = 1'-0"

2 TOP TRACK

NTS

3 CEILING CLIPS

NOTE: DIMENSIONS SHOWN ARE PER MANUFACTURER. REFER TO MANUFACTURER CATALOG FOR LATEST INFORMATION



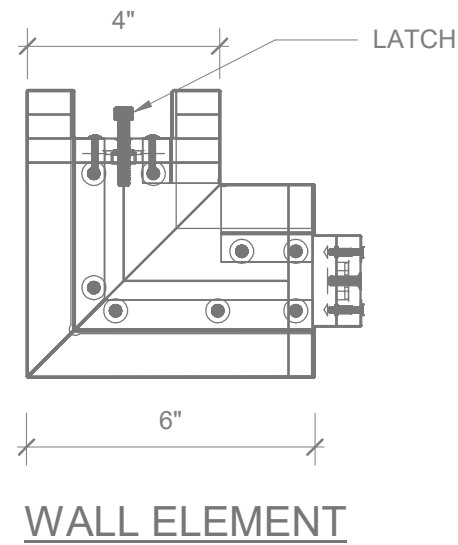
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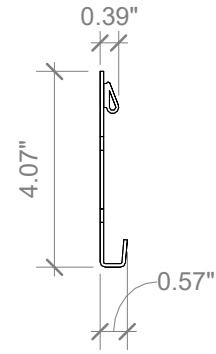
Title
STARCSYSTEMS PARTS

Drawn:	SH	Job number:	C0816002.00
Design:	KK	Rev:	
Check:	KK	Scale:	As indicated
Date:	07/01/2021		

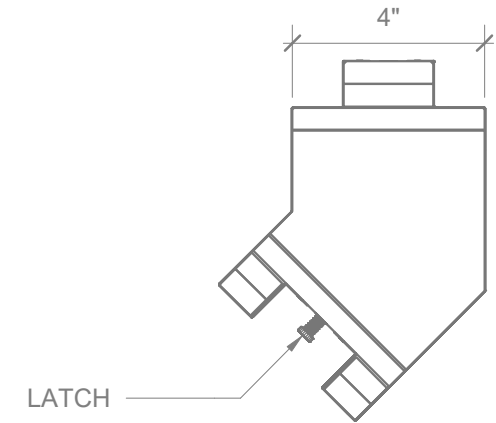
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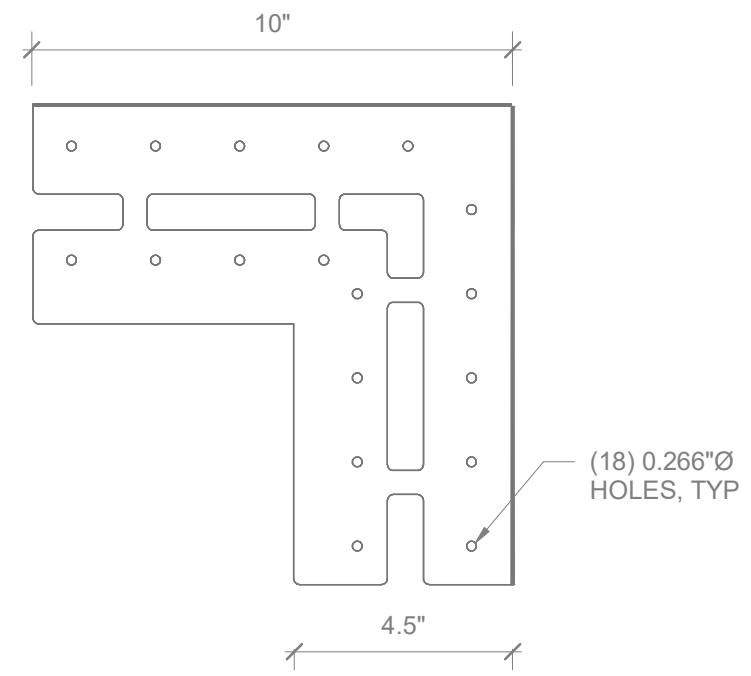
WALL ELEMENT



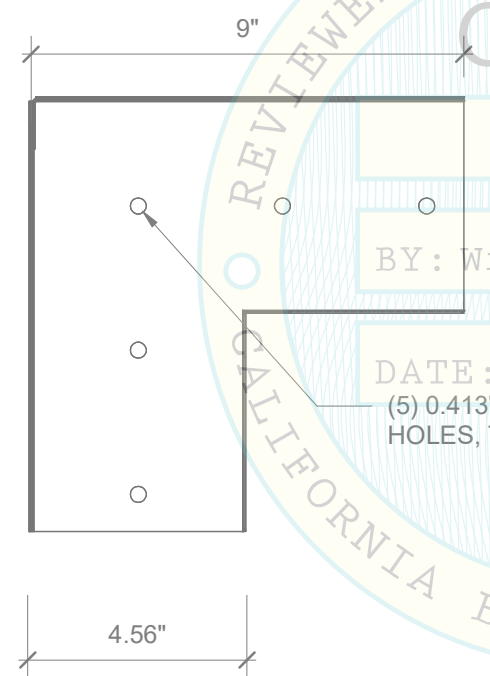
3 LID WALL TRACK
3" = 1'-0"



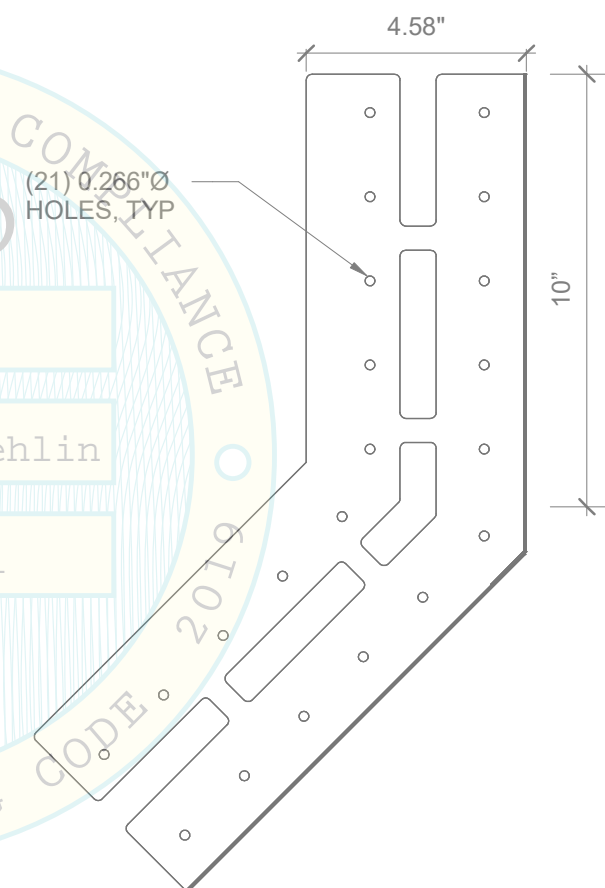
WALL ELEMENT



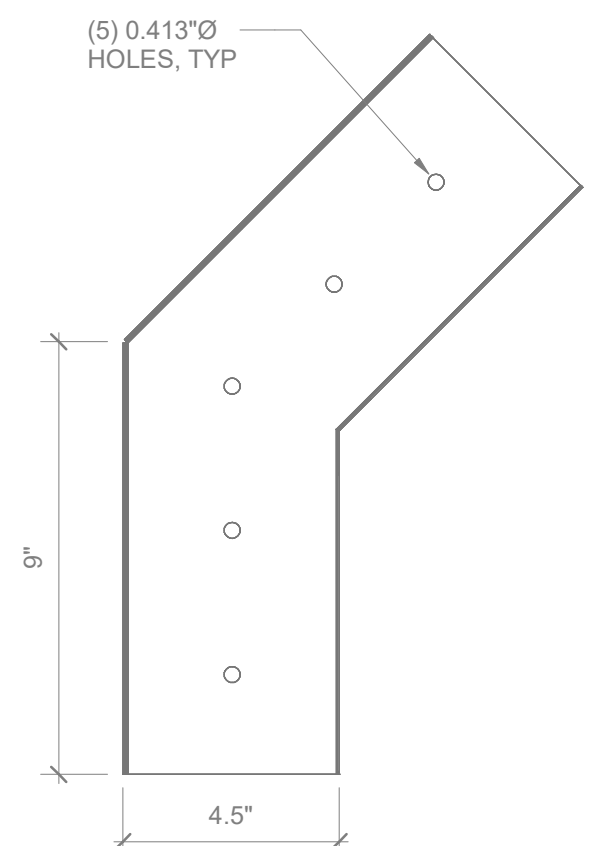
TOP TRACK



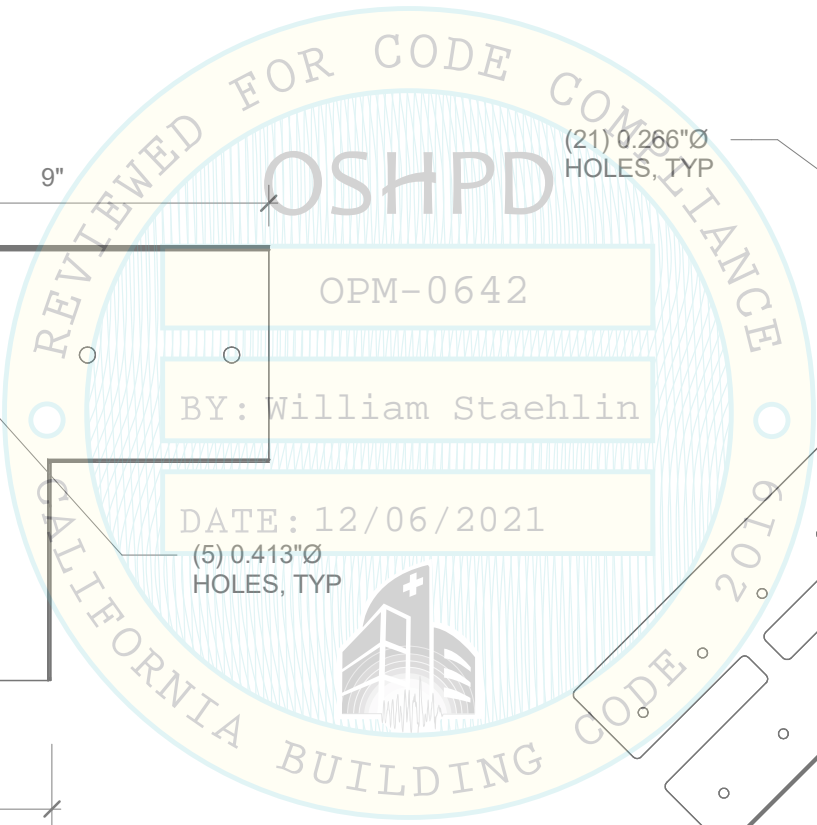
BOTTOM TRACK



TOP TRACK



BOTTOM TRACK



1 90 DEGREE CONNECTOR
3" = 1'-0"

2 135 DEGREE CONNECTOR
3" = 1'-0"

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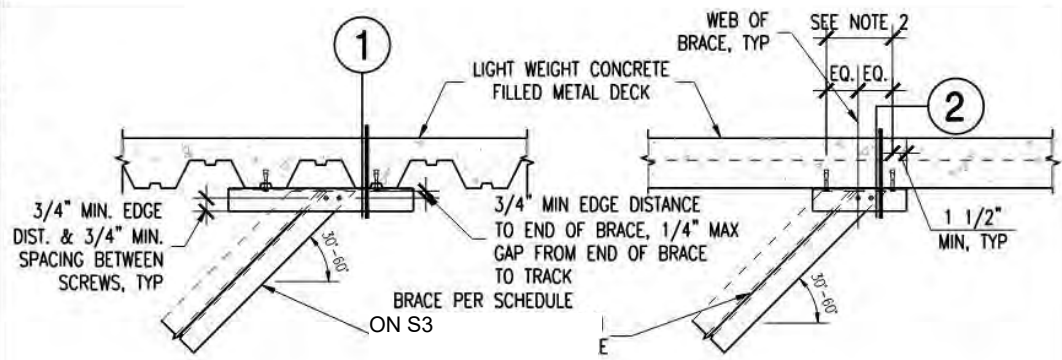


Title
STARCSYSTEM PARTS

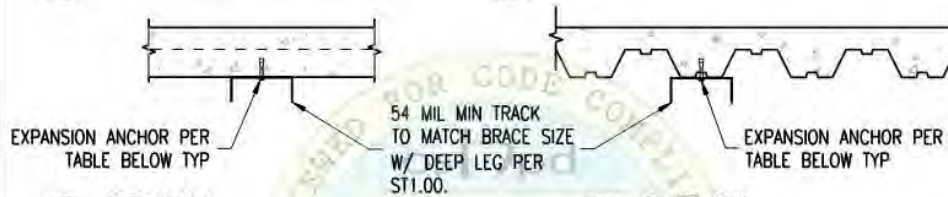
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Design:	KK	Rev:	
Check:	KK	Scale:	3" = 1'-0"
Date:	07/01/2021		

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Sheets

PLOT DATE: May 09, 2017



A BRACE PERPENDICULAR TO FLUTE OF DECK
B BRACE PARALLEL TO FLUTE OF DECK



1 SECTION
2 SECTION

BRACE ANCHORAGE TO CONCRETE FILLED METAL DECK

S_{ps}	PARTITION WALL TYPE	EXPANSION ANCHOR QUANTITY, SIZE AND EMBED	ALLOWABLE DECK TYPE
0.25 TO 1.95	CONDITION 'A' & 'B'	(2) 3/8"Ø WITH 2" EMBED	W3"+3 1/4" CONC FILLED DECK PER ST1.09 OR 1 1/2"+2 1/4" CONC FILLED B-DECK PER ST1.13
0.25 TO 1.95	CONDITION 'C' & 'D'	(2) 5/8"Ø WITH 4 1/4" EMBED	W3"+3 1/4" CONC FILLED DECK PER ST1.09 ONLY

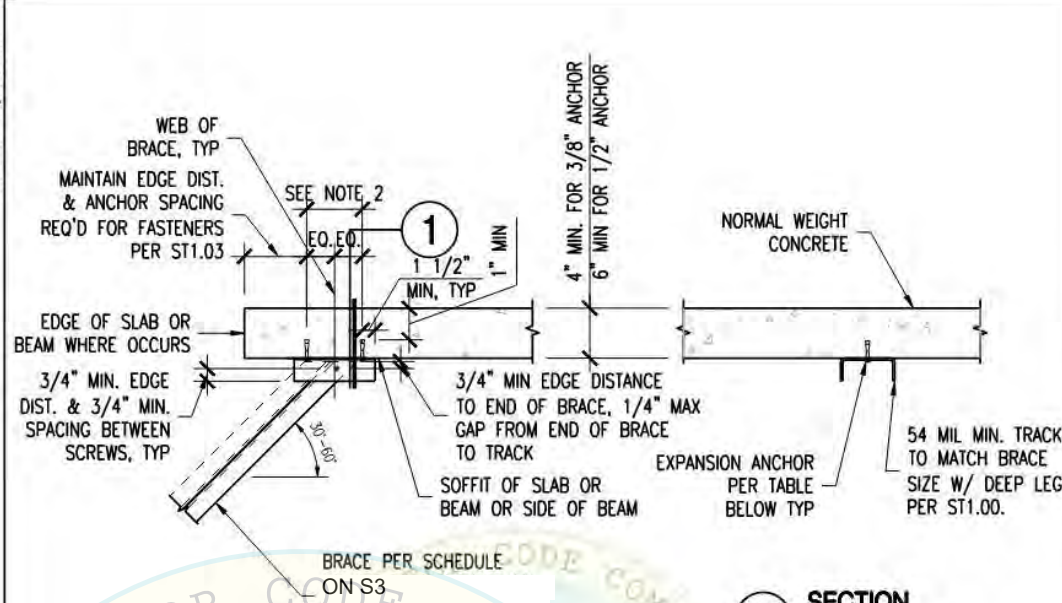
- NOTES:
- SEE TOP & BOTTOM CONNECTION DEMAND SCHEDULE ON ST6.11.
 - SEE ST1.03 & ST1.04 FOR EXPANSION ANCHOR REQUIREMENTS.
 - DETAIL APPLIES TO ALL PARTITION WALL CONDITIONS & ALL S_{ps} CATEGORIES.

SECTION TITLE:
STANDARD PARTITION WALL DETAILS

SHEET TITLE:	OPD NO.:
BRACE CONNECTION TO CONCRETE FILLED METAL DECK - ALL PARTITION WALL CONDITIONS	ST6.04

05/11/2017 OPD-0001-13; Reviewed for Code Compliance by Karim Page 57 of 86
1 METAL DECK ATTACHMENT

PLOT DATE: May 09, 2017



A BRACE TO CONC. SLAB OR BEAM SOFFIT

BRACE ANCHORAGE TO CONCRETE SLAB OR BEAM SOFFIT

S_{ps}	PARTITION WALL TYPE	EXPANSION ANCHOR QUANTITY, SIZE AND EMBED
0.25 TO 1.95	CONDITION 'A' & 'B'	(2) 3/8"Ø WITH 2" EMBED
0.25 TO 1.95	CONDITION 'C' & 'D'	(2) 5/8"Ø WITH 4 1/4" EMBED

- NOTES:
- SEE TOP & BOTTOM CONNECTION DEMAND SCHEDULE ON ST6.11.
 - SEE ST1.03 & ST1.04 FOR EXPANSION ANCHOR REQUIREMENTS.
 - DETAIL APPLIES TO ALL PARTITION WALL CONDITIONS & ALL S_{ps} CATEGORIES.

SECTION TITLE:
STANDARD PARTITION WALL DETAILS

SHEET TITLE:	OPD NO.:
BRACE CONNECTION TO CONCRETE SLAB OR BEAM SOFFIT - ALL PARTITION WALL CONDITIONS	ST6.05

05/11/2017 OPD-0001-13; Reviewed for Code Compliance by Karim Page 58 of 86
2 CONCRETE SLAB ATTACHMENT

SHEET NOTES:

- THIS OPM IS BASED ON STARC WALL WEIGHT OF APPROX. 5.43 PSF.
- NOTES & DETAIL CALLOUTS IN SPECIFIC DETAILS TAKE PRECEDENCE OVER THE "OPD" DETAILS CALLED OUT ON THIS SHEET.
- SEE GENERAL NOTES FOR EXPANSION ANCHOR, SHEET METAL SCREW, AND PAF REQUIREMENTS.
- SEE SCHEDULE ON SHEET S3 FOR APPLICABLE STUD AND BRACE SIZE INFORMATION.



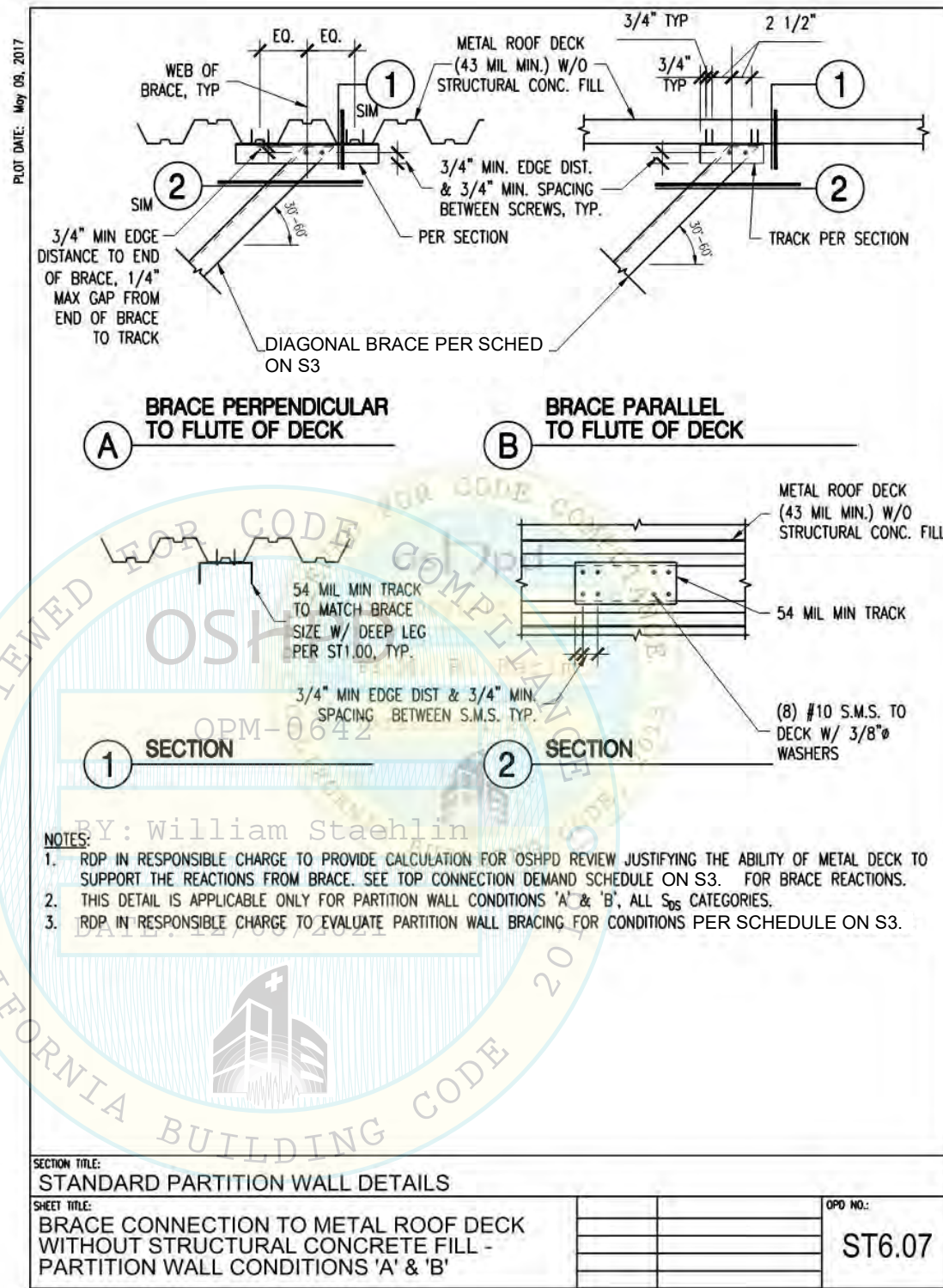
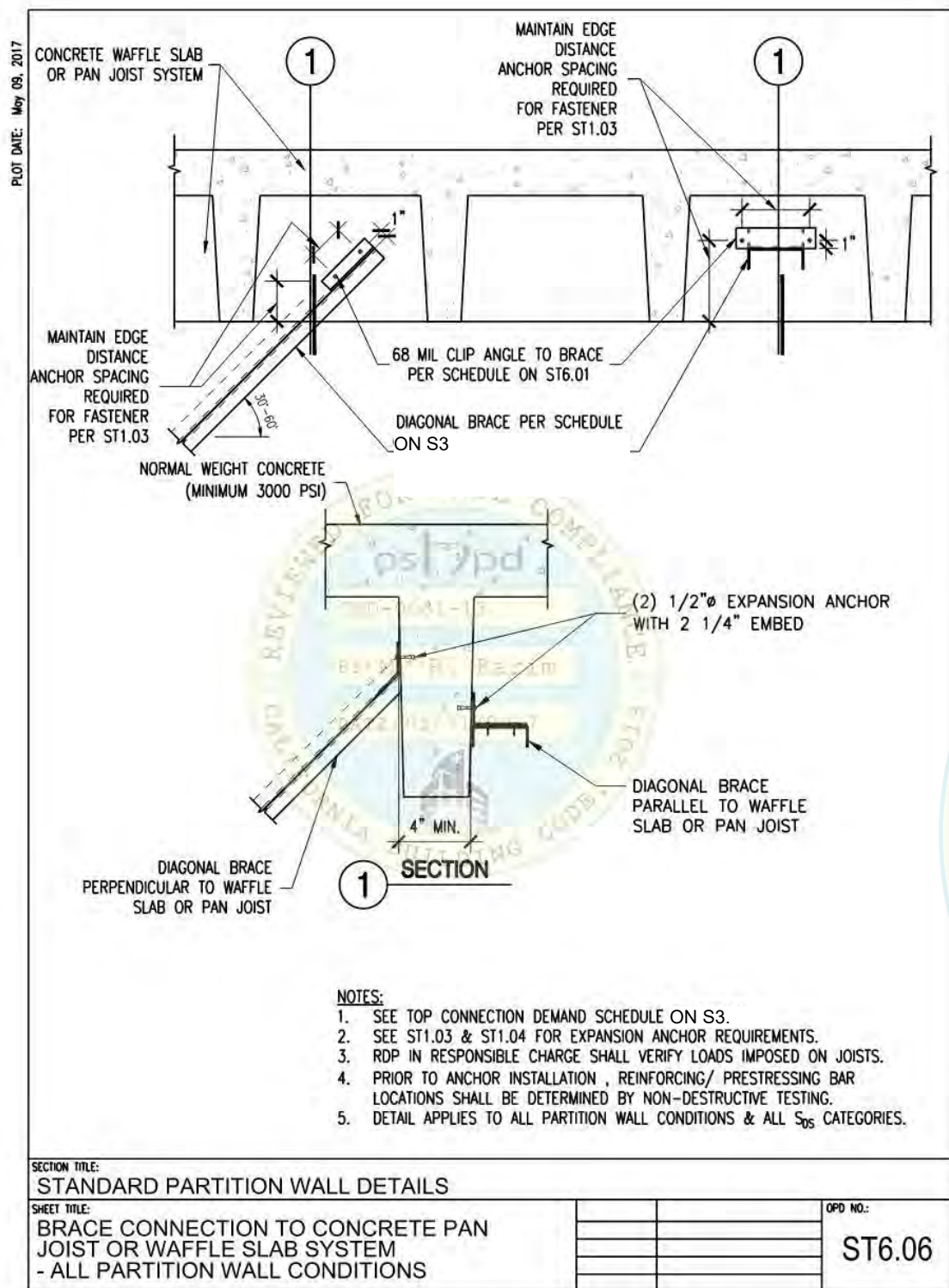
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Title
OPD-0001-13 DETAILS (ST6.04, ST6.05)

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SHEET NOTES:

- THIS OPM IS BASED ON STARC WALL WEIGHT OF APPROX. 5.43 PSF.
- NOTES & DETAIL CALLOUTS IN SPECIFIC DETAILS TAKE PRECEDENCE OVER THE "OPD" DETAILS CALLED OUT ON THIS SHEET.
- SEE GENERAL NOTES FOR EXPANSION ANCHOR, SHEET METAL SCREW, AND PAF REQUIREMENTS.
- SEE SCHEDULE ON SHEET S3 FOR APPLICABLE STUD AND BRACE SIZE INFORMATION.

1 CONCRETE JOIST ATTACHMENT

2 BARE METAL DECK ATTACHMENT



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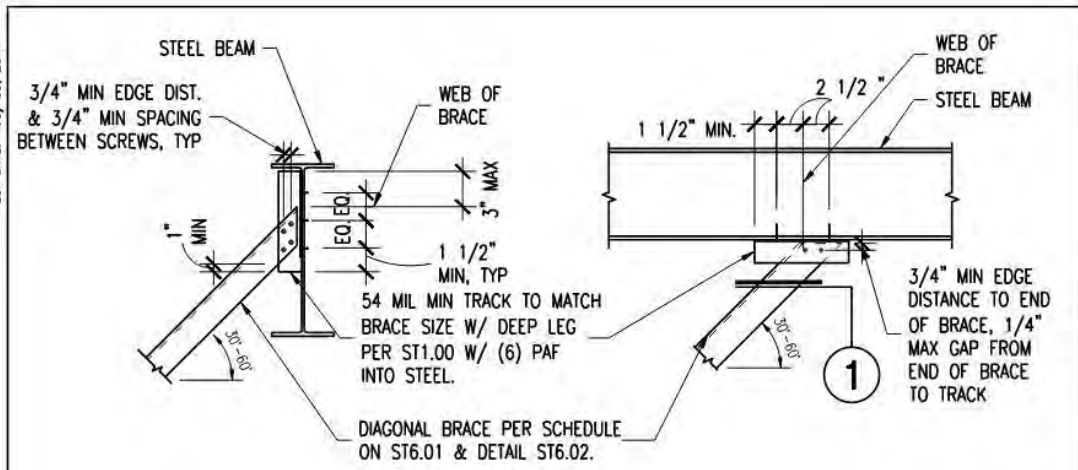


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OPD-0001-13 DETAILS (ST6.06, ST6.07)

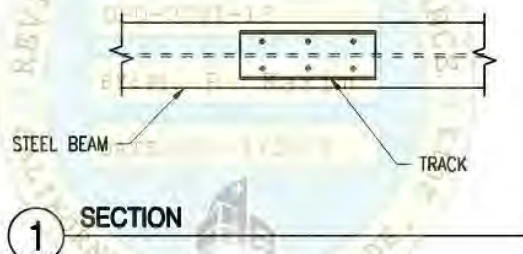
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Design:	KK	Rev:	
Check:	KK	Scale:	
Date:	07/01/2021		

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PLOT DATE: May 09, 2017



A PERPENDICULAR TO STEEL BEAM
B BRACE PARALLEL TO STEEL BEAM



- NOTES:**
- SEE TOP CONNECTION DEMAND SCHEDULE ON S3.
 - SEE ST1.05 FOR PAF REQUIREMENTS.
 - ~~THIS DETAIL IS APPLICABLE ONLY FOR PARTITION WALL CONDITIONS 'A' & 'B', ALL S_{ps} CATEGORIES.~~
 - STEEL BEAM FLANGE & WEB MINIMUM THICKNESS = 3/16".
 - RDP IN RESPONSIBLE CHARGE, IOR AND CONTRACTOR TO VERIFY THAT NO PDF IS INSTALLED IN THE PROTECTED ZONE OF ANY STEEL MEMBER, SEE ANS/AISC 341-10.

SECTION TITLE: STANDARD PARTITION WALL DETAILS		
SHEET TITLE: BRACE CONNECTION TO STEEL BEAM - PARTITION WALL CONDITIONS 'A' & 'B'	OPD NO.:	ST6.08

1 STEEL BEAM ATTACHMENT

PLOT DATE: May 09, 2017

PARTIAL HEIGHT PARTITION WALL BRACE SPACING, SIZE AND CONNECTION SCHEDULES

PARTITION WALL CONDITION 'A'
DETAIL ST6.02

S _{ps}	MAX BRACE SPACING (FT)	BRACE SIZE AND MIL						S.M.S. CONNECTIONS AT BRACE ENDS	
		SINGLE STUD BRACE			BACK TO BACK BRACE			BOTTOM OF BRACE (TO TOP TRACK)	TOP OF BRACE (AT CONNECTION TO STRUCTURE)
		3 5/8"	4"	6"	3 5/8"	4"	6"		
0.25-0.99	10	3625162-43	4005162-43	6005162-43	(2)3625162-43	(2)4005162-43	(2)6005162-43	(4) #10 S.M.S.	(4) #10 S.M.S.
1.00-1.25	9.33	3625162-43	4005162-43	6005162-43	(2)3625162-43	(2)4005162-43	(2)6005162-43	(5) #10 S.M.S. OR (4) #12 S.M.S.	(4) #10 S.M.S.
1.26-1.45	8.75	3625162-43	4005162-43	6005162-43	(2)3625162-43	(2)4005162-43	(2)6005162-43	(5) #10 S.M.S.	(4) #10 S.M.S.
1.46-1.95	7	3625162-43	4005162-43	6005162-43	(2)3625162-43	(2)4005162-43	(2)6005162-43	(5) #10 S.M.S.	(4) #10 S.M.S.

PARTITION WALL CONDITION 'B'
DETAIL ST6.02

S _{ps}	MAX BRACE SPACING (FT)	BRACE SIZE AND MIL						S.M.S. CONNECTIONS AT BRACE ENDS	
		SINGLE STUD BRACE			BACK TO BACK BRACE			BOTTOM OF BRACE (TO TOP TRACK)	TOP OF BRACE (AT CONNECTION TO STRUCTURE)
		3 5/8"	4"	6"	3 5/8"	4"	6"		
0.25-0.99	8	3625162-43	4005162-43	6005162-43	(2)3625162-43	(2)4005162-43	(2)6005162-43	(5) #10 S.M.S.	(4) #10 S.M.S.
1.00-1.25	7	3625162-43	4005162-43	6005162-43	(2)3625162-43	(2)4005162-43	(2)6005162-43	(6) #10 S.M.S. OR (5) #12 S.M.S.	(4) #10 S.M.S.
1.26-1.45	6.5	3625162-43	4005162-43	6005162-43	(2)3625162-43	(2)4005162-43	(2)6005162-43	(6) #10 S.M.S. OR (5) #12 S.M.S.	(4) #10 S.M.S.
1.46-1.95	5.33	3625162-43	4005162-43	6005162-43	(2)3625162-43	(2)4005162-43	(2)6005162-43	(6) #10 S.M.S.	(4) #10 S.M.S.

PARTITION WALL CONDITION 'C' AND 'D'
DETAIL ST6.03

S _{ps}	MAX BRACE SPACING (FT)	BRACE SIZE AND MIL			NUMBER OF S.M.S. AT TOP AND BOTTOM OF BRACE
		BACK TO BACK BRACE			
		3 5/8"	4"	6"	
0.25-0.99	6.67	(2)3625162-43	(2)4005162-43	(2)6005162-43	(8) #10 S.M.S.
1.00-1.25	6	(2)3625162-43	(2)4005162-43	(2)6005162-43	(8) #10 S.M.S.
1.26-1.45	5.5	(2)3625162-43	(2)4005162-43	(2)6005162-43	(8) #10 S.M.S.
1.46-1.95	3.33	(2)3625162-43	(2)4005162-43	(2)6005162-43	(8) #10 S.M.S.

- NOTES:**
- THESE TABLES ARE BASED ON THE FOLLOWING DESIGN CRITERIA:
 - DEMAND LOADS PER ST6.11.
 - 9 FT MAX PARTITION WALL HEIGHT.
 - MAX BRACE LENGTH PER ST6.02 OR ST6.03.
 - LIMIT OF KL/r TO 200 WHERE,
 - K=1.0, EFFECTIVE LENGTH FACTOR
 - L=LENGTH OF BRACE PER ST6.02 AND ST6.03 (INCHES)
 - r=MINIMUM RADIUS OF GYRATION OF STUD (INCHES)
 - RDP IN RESPONSIBLE CHARGE SHALL DESIGN FOR OTHER CONDITIONS.

SECTION TITLE: STANDARD PARTITION WALL DETAILS		
SHEET TITLE: PARTIAL HEIGHT PARTITION WALL BRACE SPACING, SIZE AND CONNECTION SCHEDULES	OPD NO.:	ST6.01

2 BRACE CONNECTION

- SHEET NOTES:**
- THIS OPM IS BASED ON STARC WALL WEIGHT OF APPROX. 5.43 PSF
 - NOTES & DETAIL CALLOUTS IN SPECIFIC DETAILS TAKE PRECEDENCE OVER THE "OPD" DETAILS CALLED OUT ON THIS SHEET.
 - SEE GENERAL NOTES FOR EXPANSION ANCHOR, SHEET METAL SCREW, AND PAF REQUIREMENTS.
 - SEE SCHEDULE ON SHEET S3 FOR APPLICABLE STUD AND BRACE SIZE INFORMATION.



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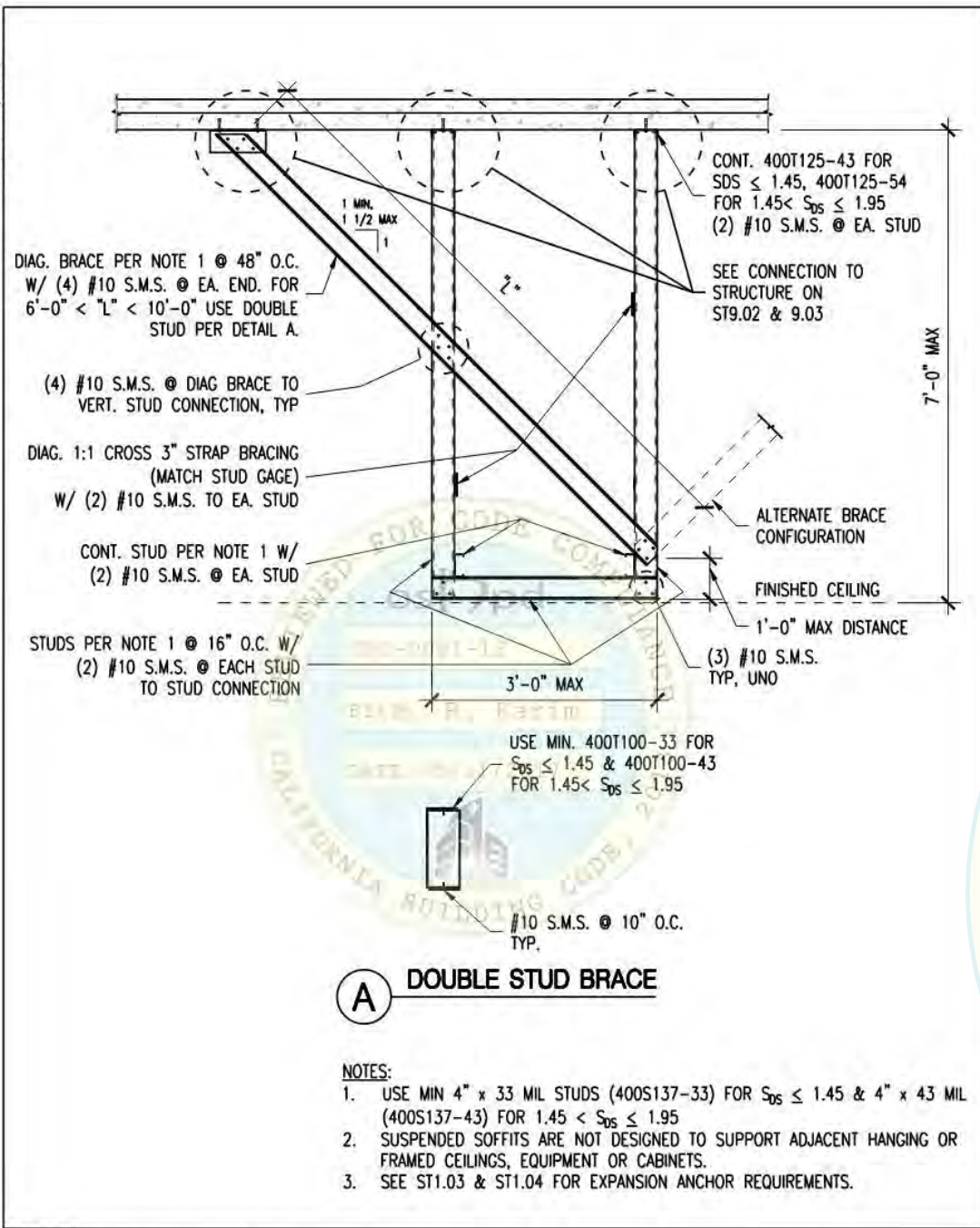


Title
OPD-0001-13 DETAILS (ST6.08)

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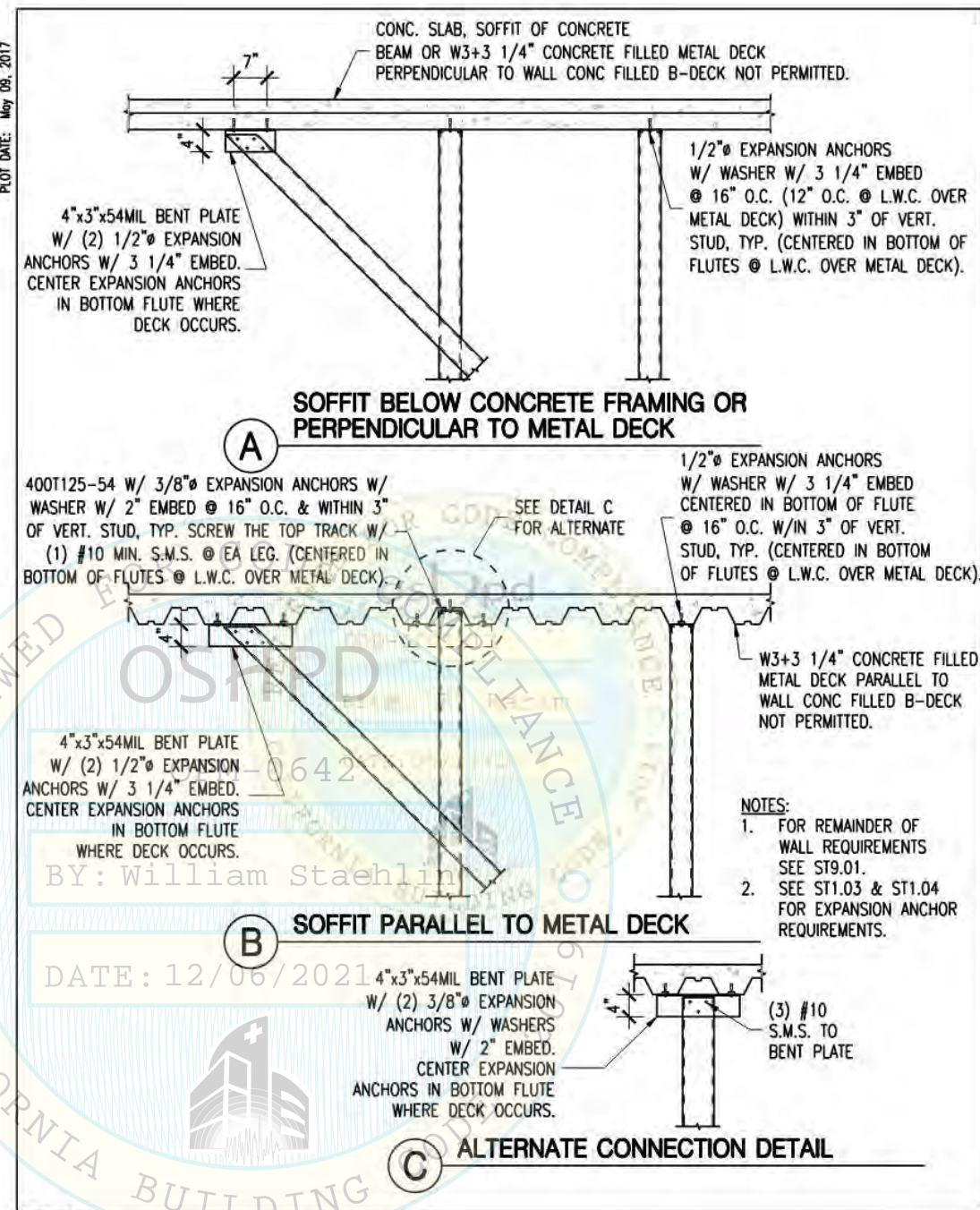


- NOTES:**
1. USE MIN 4" x 33 MIL STUDS (400S137-33) FOR $S_{DS} \leq 1.45$ & 4" x 43 MIL (400S137-43) FOR $1.45 < S_{DS} \leq 1.95$
 2. SUSPENDED SOFFITS ARE NOT DESIGNED TO SUPPORT ADJACENT HANGING OR FRAMED CEILINGS, EQUIPMENT OR CABINETS.
 3. SEE ST1.03 & ST1.04 FOR EXPANSION ANCHOR REQUIREMENTS.

SECTION TITLE: STANDARD PARTITION WALL DETAILS			
SHEET TITLE: SUSPENDED SOFFIT DETAIL		OPD NO.:	ST9.01

1 **SUSPENDED SOFFIT**

PLOT DATE: May 09, 2017



- NOTES:**
1. FOR REMAINDER OF WALL REQUIREMENTS SEE ST9.01.
 2. SEE ST1.03 & ST1.04 FOR EXPANSION ANCHOR REQUIREMENTS.

SECTION TITLE: STANDARD PARTITION WALL DETAILS			
SHEET TITLE: SUSPENDED SOFFIT CONNECTION TO CONC. SLAB, CONC. BEAM OR LWC FILLED METAL DECK		OPD NO.:	ST9.02

2 **SUSPENDED SOFFIT**

SHEET NOTES:

1. THIS OPM IS BASED ON STARC WALL WEIGHT OF APPROX. 5.43 PSF
2. NOTES & DETAIL CALLOUTS IN SPECIFIC DETAILS TAKE PRECEDENCE OVER THE "OPD" DETAILS CALLED OUT ON THIS SHEET.
3. SEE GENERAL NOTES FOR EXPANSION ANCHOR, SHEET METAL SCREW, AND PAF REQUIREMENTS.
4. SEE SCHEDULE ON SHEET S3 FOR APPLICABLE STUD AND BRACE SIZE INFORMATION.



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Title
OPD-0001-13 DETAILS (ST9.01, ST9.02)

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