



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

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

OFFICE USE ONLY	
APPLICATION #:	OPM-0044-13

OSHPD Preapproval of Manufacturer's Certification (OPM)

Type: New Renewal Update to Pre-CBC 2013 OPA Number: _____

Manufacturer Information

Manufacturer: DIRTT Environmental Solutions LTD

Manufacturer's Technical Representative: Trevor Didluck

Mailing Address: 7303 – 30th Street SE, Calgary Alberta, T2C 1N6

Telephone: 403-723-5017 Email: tdidluck@DIRTT.net

Product Information

Product Name: Curvilinear, Rectilinear, Blade, and Single Sided Glass Walls. Solid Walls

Product Type: Interior Partition Walls OPM-0044-13

Product Model Number: See Drawings for Part Numbers

General Description: Interior partition walls consisting of aluminum extrusion frames that capture glass or support mdf Tiles. Frames are screwed together and typically weigh 5.5 psf or less. Walls are mechanically attached at the sill & laterally braced at the head with wire tiebacks, stud tiebacks, and/or ceiling track to bulkhead with mechanical fasteners.

Applicant Information

Applicant Company Name: Same as Manufacturer

Contact Person: Same as Manufacturer

Mailing Address: Same as Manufacturer

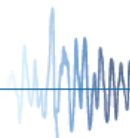
Telephone: Same as Manufacturer Email: Same as Manufacturer

I hereby agree to reimburse the Office of Statewide Health Planning and Development review fees in accordance with the California Administrative Code, 2013.

Signature of Applicant: *Trevor Didluck* Date: 12/12/2013

Title: Codes & Compliance Company Name: DIRTT Environmental Solutions Ltd.

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





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

Registered Design Professional Preparing Engineering Recommendations

Company Name: Rice Engineering

Name: Brad Kuehl California License Number: 66394

Mailing Address: 105 School Creek Trail

Telephone: 920-845-1042 Email: bradkuehl@rice-inc.com

OSHPD Special Seismic Certification Preapproval (OSP)

- Special Seismic Certification is preapproved under OSP- (Separate application for OSP is required)
- Special Seismic Certification is not preapproved

Certification Method(s)

- Testing in accordance with: ICC-ES AC156 FM 1950-10
- Other* (Please Specify): _____

*Use of test criteria other than those adopted by the California Building Standards Code, 2013 (CBSC 2013) 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 2013 may be used when approved by OSHPD prior to testing.

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

List of Attachments Supporting the Manufacturer's Certification

- Test Report Drawings Calculations Manufacturer's Catalog
- Other(s) (Please Specify): _____

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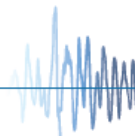
Signature: *William Staehlin* Date: February 12, 2014

Print Name: William Staehlin

Title: Senior Structural Engineer

Condition of Approval (if applicable): _____

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



GENERAL NOTES:

- A1. This OSHPD Preapproval of Manufacturer's Certification (OPM) is based on the CBC 2013. The demand (design forces) for use with this OPM shall be based on the CBC 2013.
- A2. All Construction, Testings, and Inspections shall conform to the California Building Code (CBC), 2013 Edition
- A3. Partition Wall Dead Loads (ASD):
- Maximum Wall Panel Weight = 5.5 PSF
 - Minimum Wall Panel Weight = 4.2 PSF
- A4. Seismic Design Forces per 2013 CBC 1613A & ASCE 7-10:
- Maximum S_{DS} and z/h Varies: See Table Below:

z/h H	12'	11'	10'	9'
1	0.92	1.00	1.10	1.24
0.9	0.98	1.06	1.17	1.32
0.8	1.05	1.14	1.27	1.43
0.7	1.15	1.24	1.37	1.55
0.6	1.24	1.34	1.50	1.69
0.5	1.36	1.48	1.65	1.86
0.4	1.44	1.58	1.76	1.98
0.3	1.44	1.58	1.76	1.98
0.2	1.44	1.58	1.76	1.98
0.1	1.44	1.58	1.76	1.98
0	1.44	1.58	1.76	1.98

- Risk Category: IV. Component Importance Factor: $I_p = 1.5$
 - Component Amplification/Response Factors: $a_p = 1.0 / R_p = 2.5$
 - $\Omega_o = 2.5$ (Concrete anchor design)
- A5. Typical details apply to all construction except where shown differently elsewhere.
- A6. The supporting wall structure must be capable of withstanding the loads imposed by DIRT partition wall system(s) acting in conjunction with the loads specified in the paragraph above. In addition, the structure must provide suitable anchorage for the DIRT partition walls and must be erected within specified building tolerances.
- A7. Unless detailed, specified, or indicated otherwise, construction shall be as indicated in the applicable typical details and general notes. Typical details are meant to apply even though no reference at specific locations or in specific drawings.
- A8. Notify the structural engineer of any conflicts and do not proceed with the work until conflicts are resolved.
- A9. Contractor shall inspect all existing conditions which affect the work shown and shall notify engineer of any existing conditions which conflict with or differ from the new work shown. Contractor shall not proceed with the work until these conflicts and/or differences are resolved. Contractor shall field verify all dimensions prior to work.
- A10. The contractor is completely responsible for the conduct of the work, including all construction methods and procedures; site safety; and methods, design, and material for temporary vertical and lateral support of existing and new structures. Engineer's site observation visits shall not be interpreted as a review of contractor's safety measures.
- A11. Anchor forces shown on the drawings are a combination of ASD and LRFD loads and are noted as such. Anchor forces are based on $S_{DS} = 1.98g$ and $z/h = 1$ which are the maximum's associated with this OPM, though these maximums do not occur simultaneously.
- A12. Where dissimilar metals are in contact, protect surfaces with a coat of bituminous paint. Separation of dissimilar materials is not the responsibility of DIRT or Rice Engineering.
- A13. If a site specific job has associated S_{DS} and z/h values that fallout outside the range reported in this OPM, the manufacturer, DIRT, has other solutions and details that are not contained within this OPM. Such site specific jobs should be brought to DIRT's attention for further engineering analysis.

INSPECTION & OBSERVATION

- B1. It is the contractor's responsibility to coordinate all inspections by the enforcement agency, as per section 110 of the CBC, 2013 Edition. In addition the contractor will coordinate all special inspections and structural observation with the structural engineer of record per section 1704A of the CBC. Additional costs incurred by the failure of the contractor to coordinate inspection requirements shall be the responsibility of the contractor. All special inspections not done by the structural engineer shall be done by an approved agent retained by the owner.

INSPECTION / TESTING OF EXPANSION BOLTS/SCREW ANCHORS

- C1. Approved Concrete Anchors
- 3/8" \emptyset Hilti Kwik Bolt TZ (KB-TZ) (ICC-ESR-1917).
 - 3/8" \emptyset Power-Stud + SD1 (ICC-ESR-2818).
 - 1/4" \emptyset Hilti Kwik HUS-EZ (KH-EZ) (ICC-ESR-3027).
- C2. Concrete substrate for anchor design/installation shall have a minimum concrete compressive strength (f'_c) = 3000 psi, normal or sand-lightweight. Anchors are acceptable for use in cracked concrete with no supplementary reinforcement necessary (Condition B).
- C3. Testing
- Testing is required for 3/8" \emptyset Hilti Kwik Bolt TZ (KB-TZ), 3/8" \emptyset Power-Stud + SD1, and 1/4" \emptyset Hilti Kwik HUS-EZ (KH-EZ) anchors. Testing of post-installed anchors shall be done in the presence of the special inspector and a report of the results shall be submitted to OSHPD.
 - The following are manufacturer's recommended installation torques per mentioned ICC-ESR reports and shall qualify as the required test loads for the 3/8" \emptyset expansion anchors:
 - 3/8" \emptyset Hilti Kwik Bolt TZ (KB-TZ) = 25 ft*lb
 - 3/8" \emptyset Power-Stud + SD1 = 20 ft*lb
- The 1/4" \emptyset Hilti Kwik HUS-EZ (KH-EZ) shall be tension tested to one and a quarter (1.25) times the maximum design strength = $1.25 * 374 \text{ lb} \approx 470 \text{ lb}$.
- C4. Test Acceptance Criteria
- The torque wrench method shall be used on the 3/8" \emptyset expansion anchors as criteria for anchor test acceptance. A calibrated torque wrench must attain the specified torque for mentioned anchor type within one-quarter (1/4) turn of the nut.
 - The hydraulic ram method shall be used on the 1/4" \emptyset Hilti HUS-EZ anchor as criteria for anchor test acceptance. Anchors shall maintain the minimum test load tension requirement of 470 lb for a minimum of 15 seconds and shall exhibit no discernible movement during the tension test as evidenced by the loosening of the washer under the nut.

RESPONSIBILITIES OF THE STRUCTURAL ENGINEER OF RECORD (SEOR) OR PROJECT PRINCIPAL - IN - CHARGE

- D1. Verify that the concrete slab and/or deck which the wall is anchored to meets minimum thickness and compressive strength.
- D2. Verify that the anchors are an adequate distance from any slab openings or edges.
- D3. Verify that the anchors are an adequate distance from any new or existing anchors.
- D4. Design any supplementary members and their attachment which the wall is anchored to.
- D5. Verify the adequacy of any existing members and their attachment which the wall is anchored to for the forces exerted on them by the wall in addition to all other loads and forces.
- D6. Verify that the installation is in conformance with the 2013 CBC and with the details shown in this pre-approval.
- D7. Manufacturer, project principal-in-charge, and/or SEOR must verify that the wall's actual weight, CG location, anchor locations, anchor details and the material and gauge of the wall where attachments are made agree with the information shown in this pre-approval.
- D8. Verify that the existing wood joist which the wall is anchored to has a minimum specific gravity, SG, equal to 0.42 and has capacity to support the indicated load.
- D9. Verify that the suspended ceiling grid does not tie/connect to or support off the partition wall.
- D10. Verify that the top seismic braces are clear, minimum of 6", from building duct, pipe and conduit to avoid impact during an earthquake.

MATERIAL SPECIFICATION & DESIGN CRITERIA

- E1. Glass panels shall be 1/4" thick fully tempered with maximum panel dimensions as specified in the drawings.
- E2. Solid wall tiles shall be 1/2" thick medium density fiberboard (MDF) with a minimum Modulus of Rupture (MOR) = 3000 psi.
- E3. Deflection to be a limit of $L/175$ or 3/4" maximum for glass wall frame members & panels. Deflection to be a limit of $L/120$ for solid wall frame members and for members with flexible finishes.

- E4. Aluminum members shall be alloy-temper 6063-T6 ($F_y = 25 \text{ ksi}$). Members designed per the Aluminum Association's 2010 Aluminum Design Manual.
- E5. Steel plates, threaded rods, and leveler parts shall be minimum ASTM A36 ($F_y = 36 \text{ ksi}$). Steel designed per the AISC 360-10 / 14th Edition Steel Construction Manual.
- E6. Steel welds to be E70XX or better. Steel weld alloy to have a minimum ultimate tensile strength, F_u , of 70 ksi.
- E7. Steel studs shall be ASTM A1003, Grade 33 Type H (ST33H), minimum 20 gauge (0.0359" thick), and minimum yield strength $F_y = 33 \text{ ksi}$. Steel studs designed per AISI 100-07/S2-10 North American Specification for the Design of Cold-Formed Steel Structural Members.
- E8. Wire to be minimum 12 gauge galvanized, soft-annealed mild carbon steel manufactured in accordance with ASTM A641 (Diameter = 0.106", $F_y = 48 \text{ ksi}$, $F_u = 63 \text{ ksi}$, minimum).
- E9. Sheet metal screws designed in accordance with OPD-0001-13 and AISI S100-07/S2-10 and shall have a minimum yield strength of $F_y = 30 \text{ ksi}$ and ultimate tensile strength $F_u = 75 \text{ ksi}$.
- E10. Wood screws designed in accordance with NDS-12 (ANSI/ASME Standard B18.6.1). Wood members assumed minimum specific gravity (SG) = 0.42 for wood screw design.
- E11. Powers Power-Stud+ SD1, Hilti Kwik Bolt TZ (KB-TZ), and/or Hilti Kwik HUS-EZ (KH-EZ) concrete anchors with specified diameters, embedment depths, minimum concrete slab thicknesses, minimum edge distances, and spacing's shall be used as specified in the drawings. Anchors to be installed per manufacturers' specifications.
- E12. Concrete substrate assumed to be minimum $f'_c = 3000 \text{ psi}$, sand-lightweight, cracked, and no supplementary reinforcement present (Condition B) for anchor design.

INSTRUCTIONS TO END USERS

- F1. For more information, please call:
DIRTT Environmental Solutions LTD
7303 30 Street SE
Calgary, Canada T2C 1N6
(403) 723-5000
- F2. There are five wall profile types:
- Curvilinear Glass Wall: See Sheet A1
 - Rectilinear Glass Wall: See Sheet A1
 - Blade Glass Wall: See Sheet A1
 - Single-Sided Glass Wall: See Sheet A1
 - Solid Wall: See Sheet A2
- F3. Wall Bracing Details:
- Sill: See Sheet 5 & 6
Header: See Sheet 8
Ceiling: See Sheet 9 & 10

DRAWING INDEX

In scope of OPM

- General Notes
- Wall Sections And Elevations
- Tieback Bracing Plan
- Glass Wall Base Track & Anchor Details
- Solid Wall Base Track & Anchor Details
- Glass Wall Leveler Assembly Details
- Solid Wall Leveler Assembly Details
- Top Of Wall Section Tieback Brace Details
- Wire Tieback Anchor Details At Ceiling
- Stud Tieback Anchor Details At Ceiling
- Detailed Tieback Connections To Ceiling
- Acceptable Concrete Filled Metal Deck Profile & Anchor Placement Details
- Top of Wall Section Bulkhead Brace Details

Appendix (Not in Scope of OPM)

- Glass Wall Sections & Section Properties
- Solid Wall Sections & Section Properties
- Top Of Wall Splice Details



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403-723-5000 Fax 403-723-6644 www.dirtt.net

RICE ENGINEERING

105 School Creek Trail
Luxemburg, WI 54217
www.rice-inc.com

Phone: 920.845.1042
Fax: 920.845.1048

Project No.: R12-10-266



This Certification is limited to the structural design of structural components of this Interior Partition Wall System. It does NOT include responsibility for:
•Structural design of gaskets and sealants.
•The manufacture, assembly, or installation of the system.
•Quantities of materials or dimensional accuracy of drawings.
•Separation of dissimilar materials.

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DIRTT Environmental Solutions, LTD
DIRTT Partition Walls
OSHPD OPM-0044-13
SHOP DRAWING

PROJECT ADDRESS:
California, USA

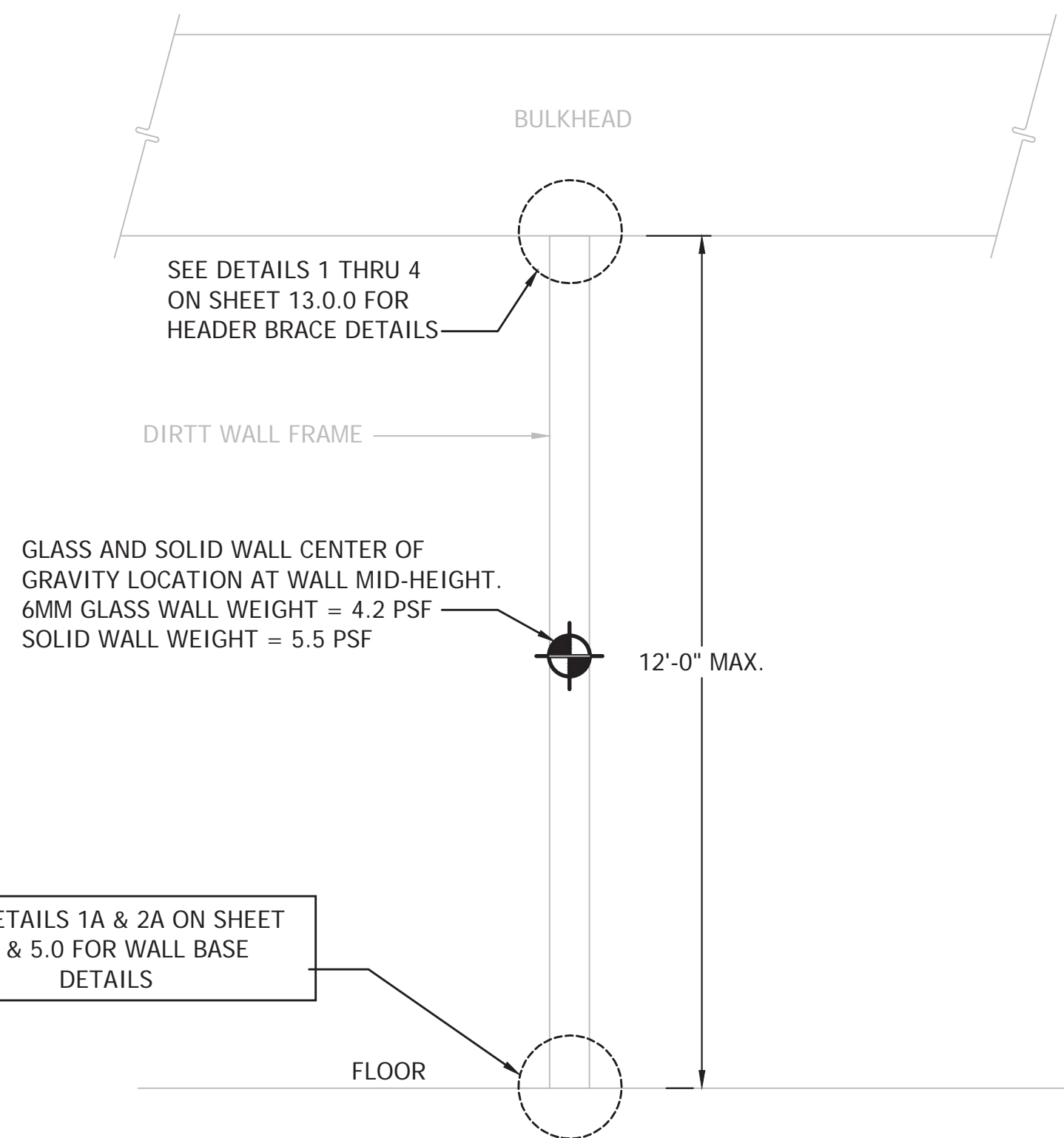
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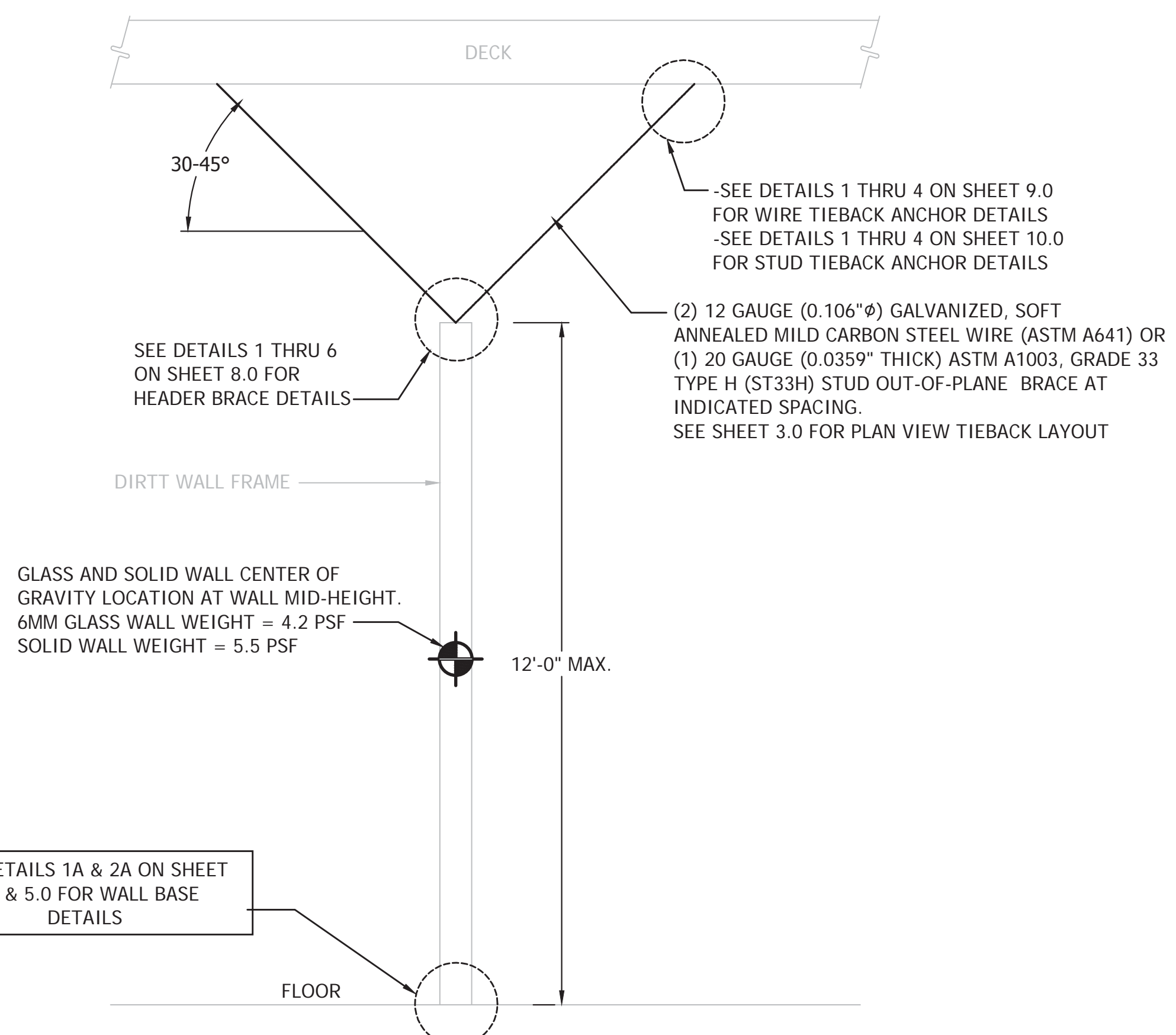
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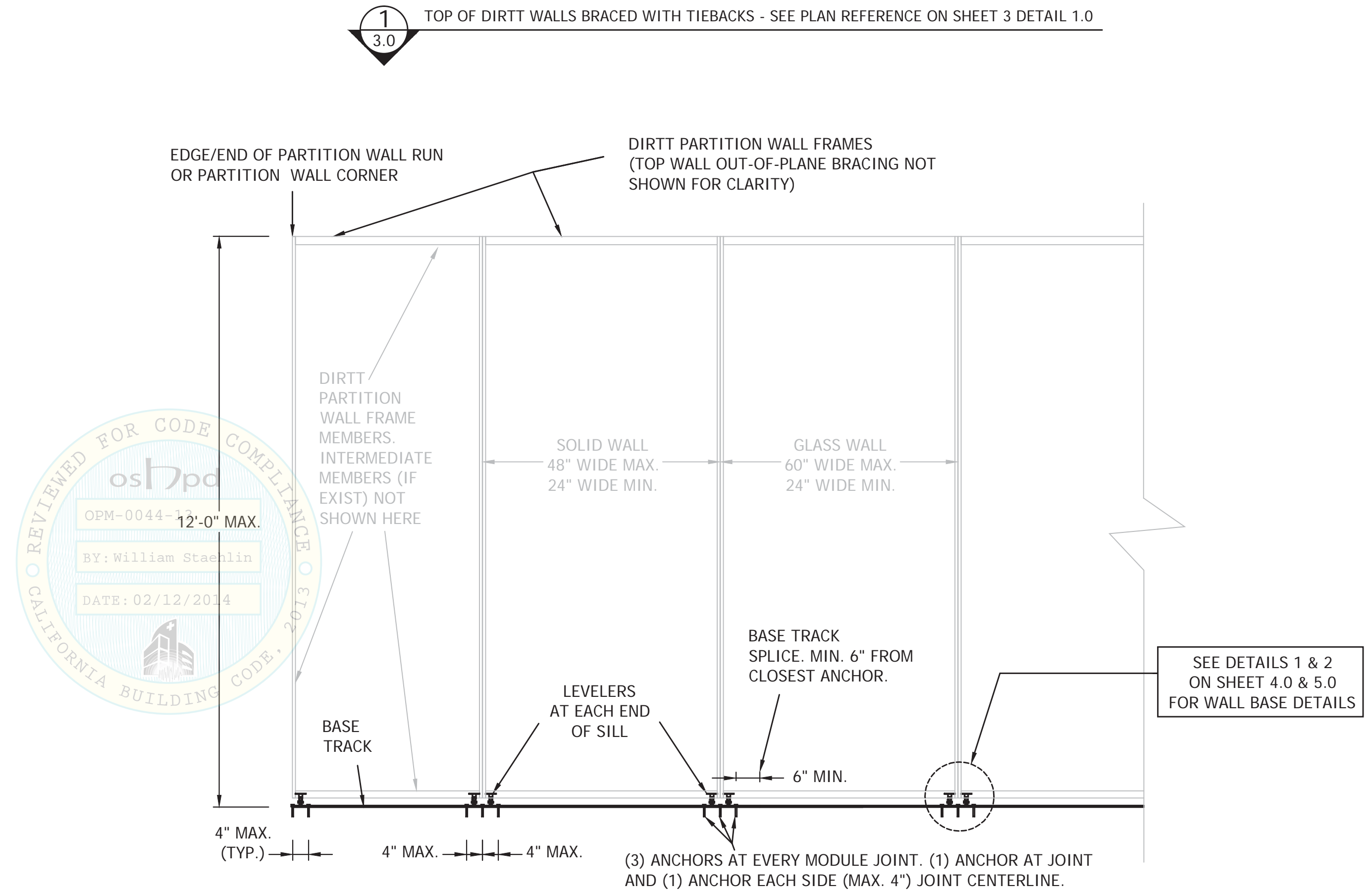
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GENERIC WALL SECTION WITH TOP OF WALL HEADER BRACED BY BULKHEAD



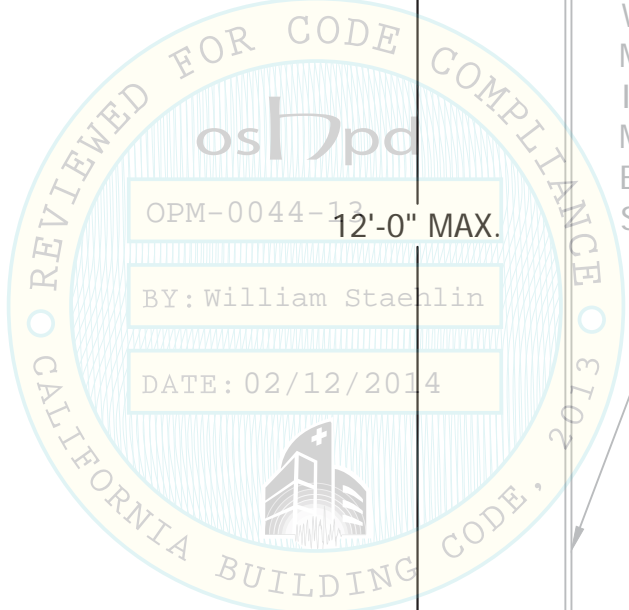
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2.0
SCALE: 1/2" = 1'-0"

GENERIC WALL SECTION WITH TOP OF WALL HEADER BRACED WITH OUT-OF-PLANE TIEBACKS



3
2.0
SCALE: 1/2" = 1'-0"

GENERIC WALL ELEVATION (TOP OF WALL HEADER BRACING NOT SHOWN FOR CLARITY)



RICE ENGINEERING

105 School Creek Trail Phone: 920.845.1042
Luxemburg, WI 54217 Fax: 920.845.1048
www.rice-inc.com

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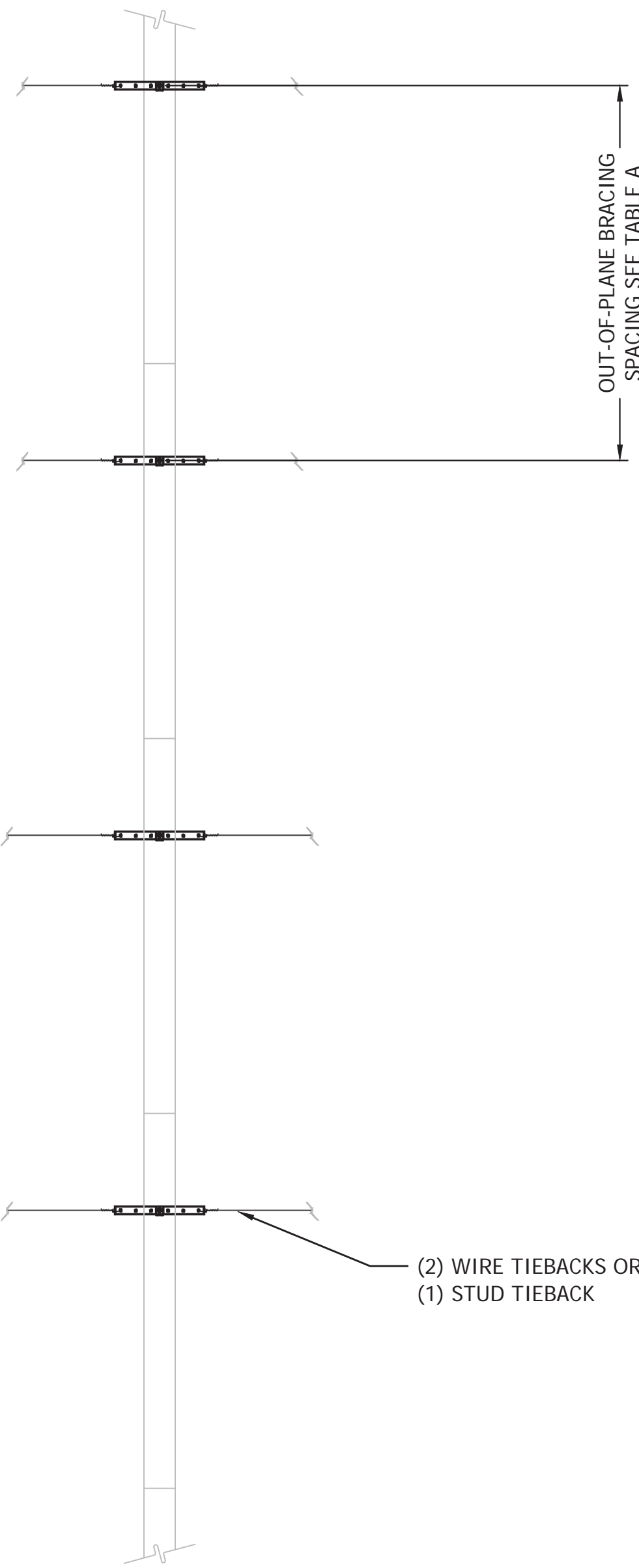
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DIRT Environmental Solutions, LTD
DIRTT Partition Walls
OSHPD OPM-0044-13
SHOP DRAWING

PROJECT ADDRESS:
California, USA

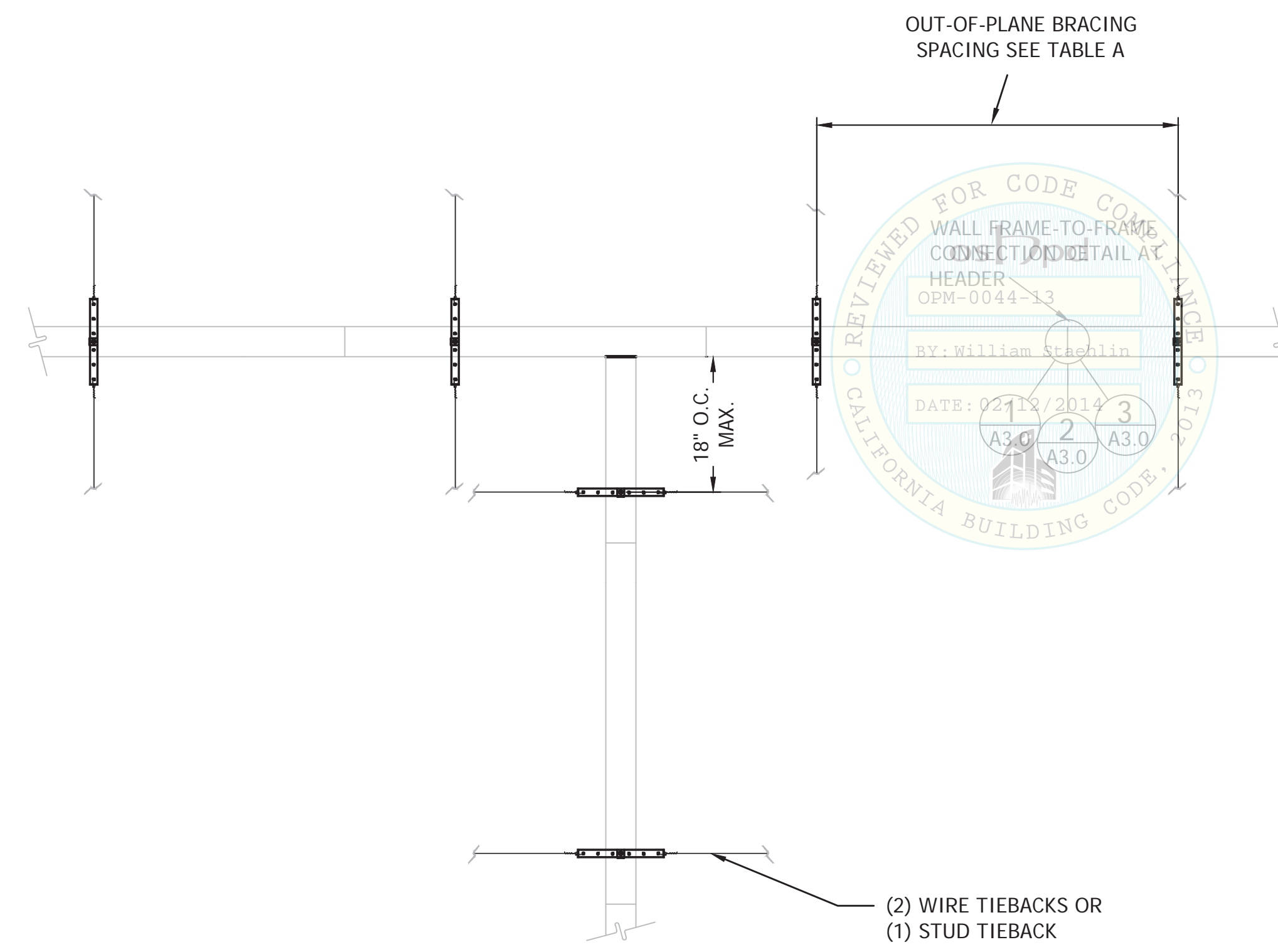
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1/4" = 1'-0" AS NOTED
1/2" = 1'-0" AS NOTED

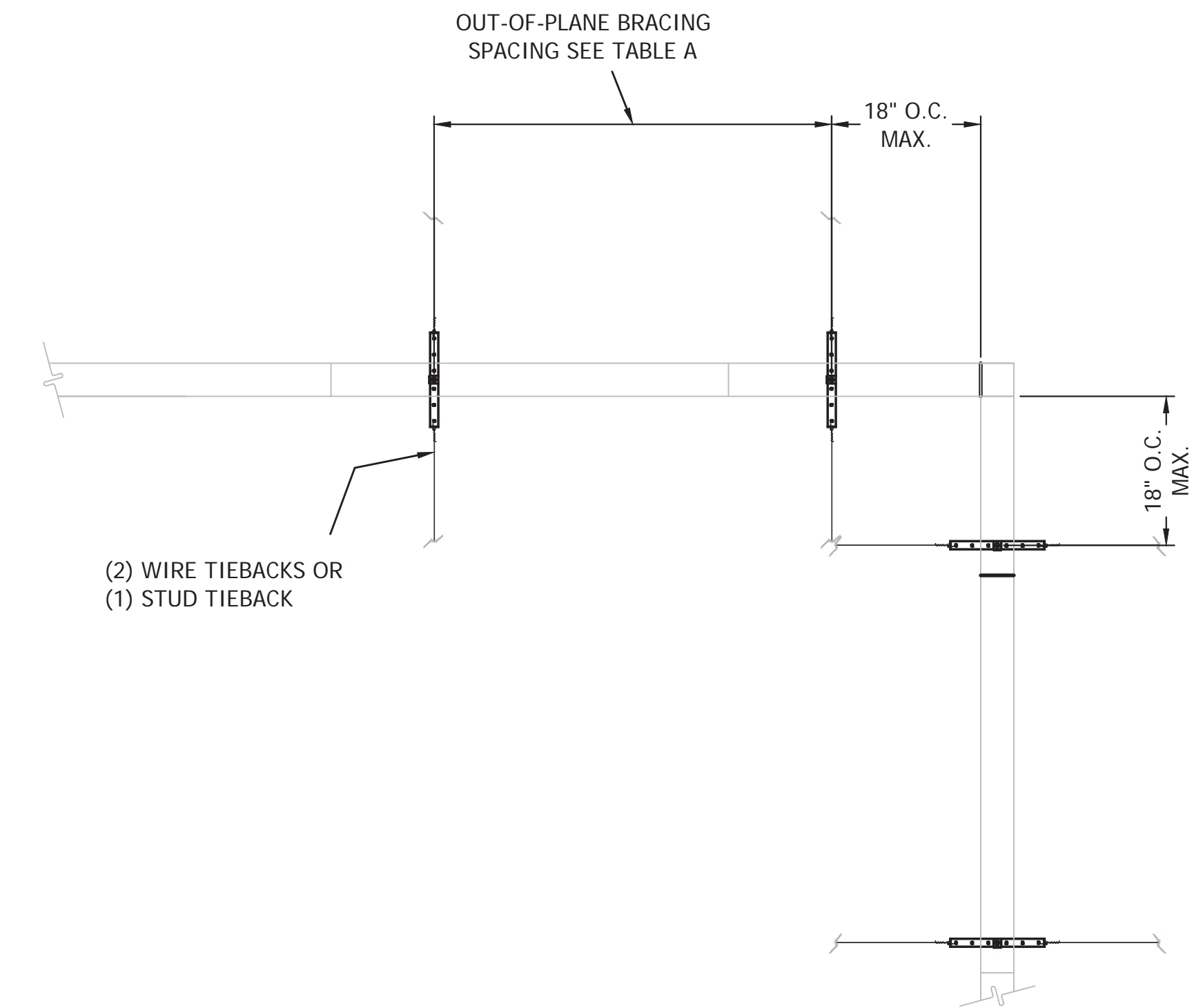
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AT STRAIGHT RUNS *



AT TEE INTERSECTION *



AT 90° INTERSECTION *

1 TYPICAL TOP OF DIRTT WALL BRACING PLAN
SCALE: 3/4" = 1'-0"

***Table A: Stud or Wire Tieback Brace Spacing (in inches) Given $S_{Ds} \cdot (1 + (2 \cdot (z/h)))$ (in g's) and Maximum Partition Wall Height (H)**

$S_{Ds} \cdot (1 + (2 \cdot (z/h)))$	H	12'	11'	10'	9'
4.00					48
3.75					50
3.50				48	54
3.25			48	52	58
3.00			51	56	63
2.75	48	56	61	68	
2.50	56	61	67	72	
2.25	63	69	70	72	
2.00	66	67	70	72	
1.75	66	67	70	72	
1.50	66	67	70	72	
1.25	66	67	70	72	
1.00	66	67	70	72	
0.75	66	67	70	72	
0.50	66	67	70	72	
0.25	66	67	70	72	
0.00	66	67	70	72	

* Areas grayed out are not in scope of OPM. See note A13 on sheet 1.0.
 * The minimum value to use for z/h is 0.43. (i.e. $1.86 \cdot S_{Ds}$)
 * Linear interpolation is permissible
 * Definitions: S_{Ds} = Design spectral response acceleration parameter at short periods (commonly found in the notes on the first page of the structural drawings). z = height in structure of point of attachment of (wall) component with respect to the base (ground). h = average roof height of structure with respect to the base (ground).

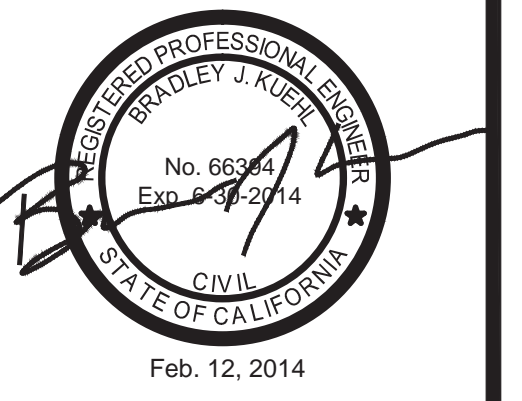
- *NOTES:**
1. Shown are Y-brackets & (2) wire tiebacks in plan view. (2) Wire tiebacks & eye nut or (1) stud tieback & Y-bracket are also acceptable.
 2. Steel stud tiebacks may be used for the bracing of the partition wall headers to the ceiling deck. See Table A for max. out-of-plane tieback spacing's. Conservatively use 48" O.C. max. tieback spacing if not using Table A. Studs to be minimum SSMA 250S162-33 designation (Fy = 33 ksi). Alternating studs on y-bracket is recommended.
 3. Steel wire tiebacks may be used for the bracing of the partition wall headers to the ceiling deck. Use (2) wire tiebacks for each DIRTT y-bracket or eye nut with wires applied in 180 degree directions. See Table A for max. out-of-plane tieback spacing's. Conservatively use 48" O.C. max. tieback spacing if not using Table A. Wire to be 12 gauge (0.106" ϕ) galvanized, soft annealed carbon steel (ASTM A641).



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SHOP DRAWING

PROJECT ADDRESS:
 California, USA

PROJECT MANAGER:
 PM PMS #

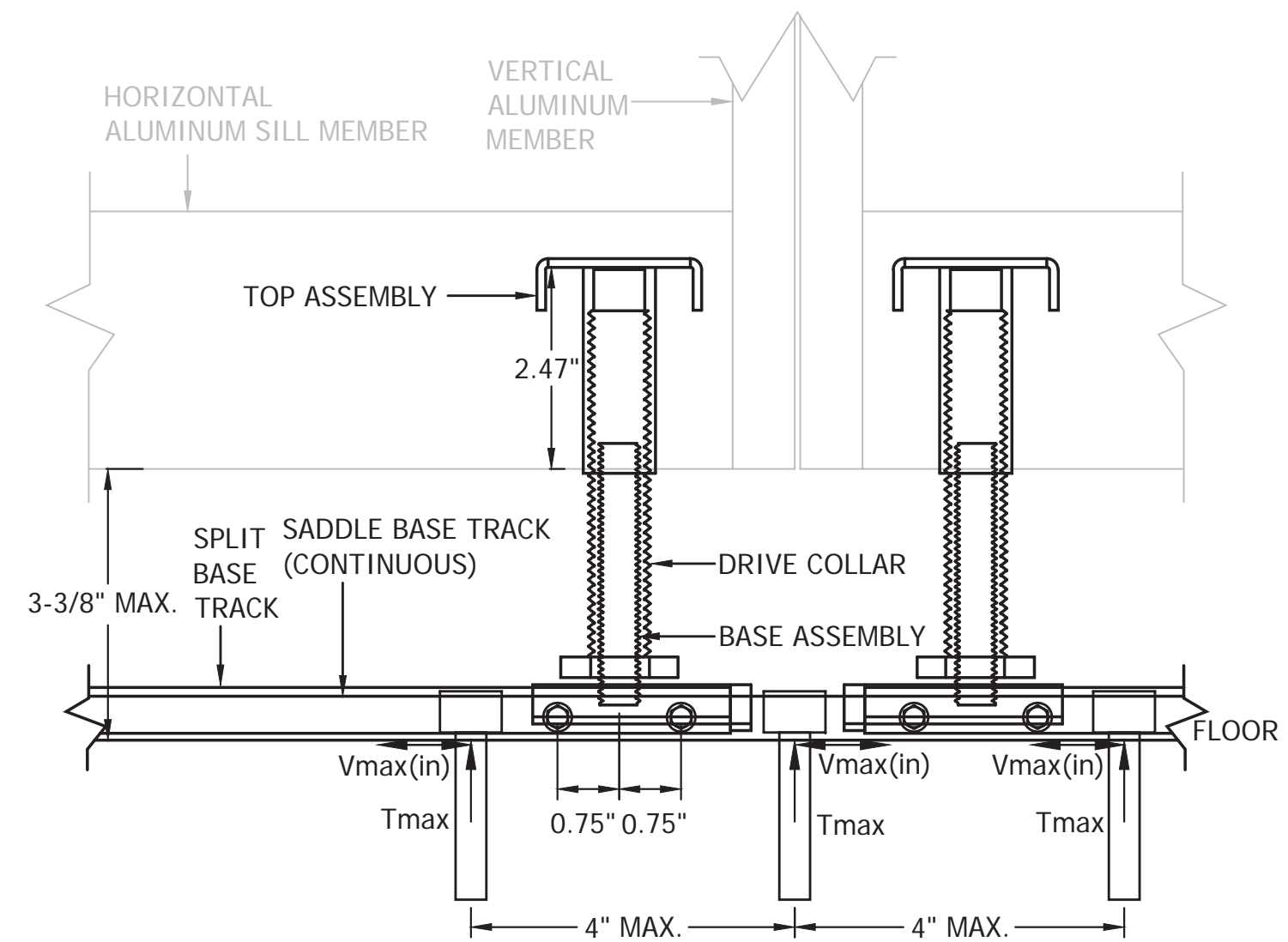
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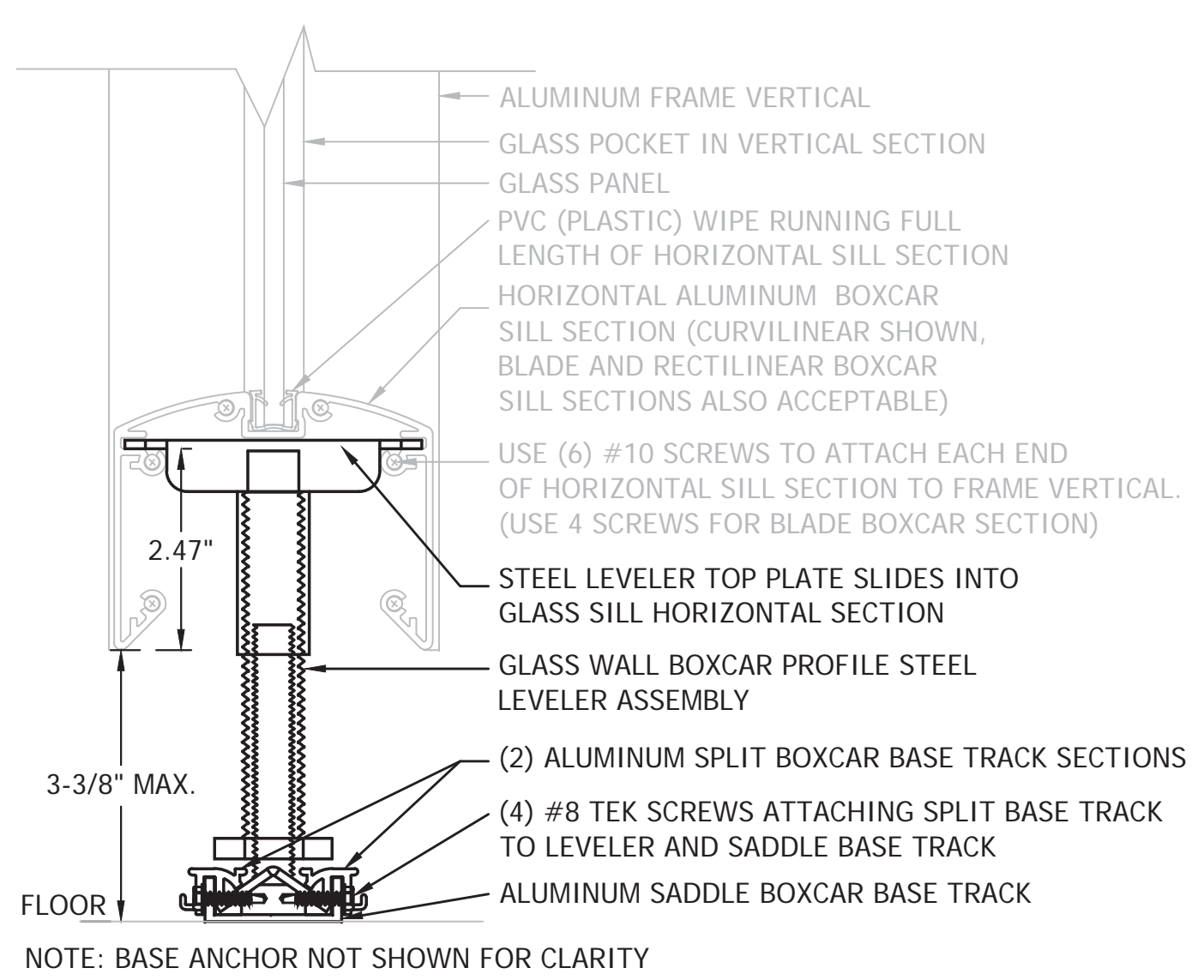
SCALE:
 1/4" = 1'-0" SCALE AS NOTED
 1/8" = 1'-0" HALF SCALE AS NOTED

SHEET:
3.0

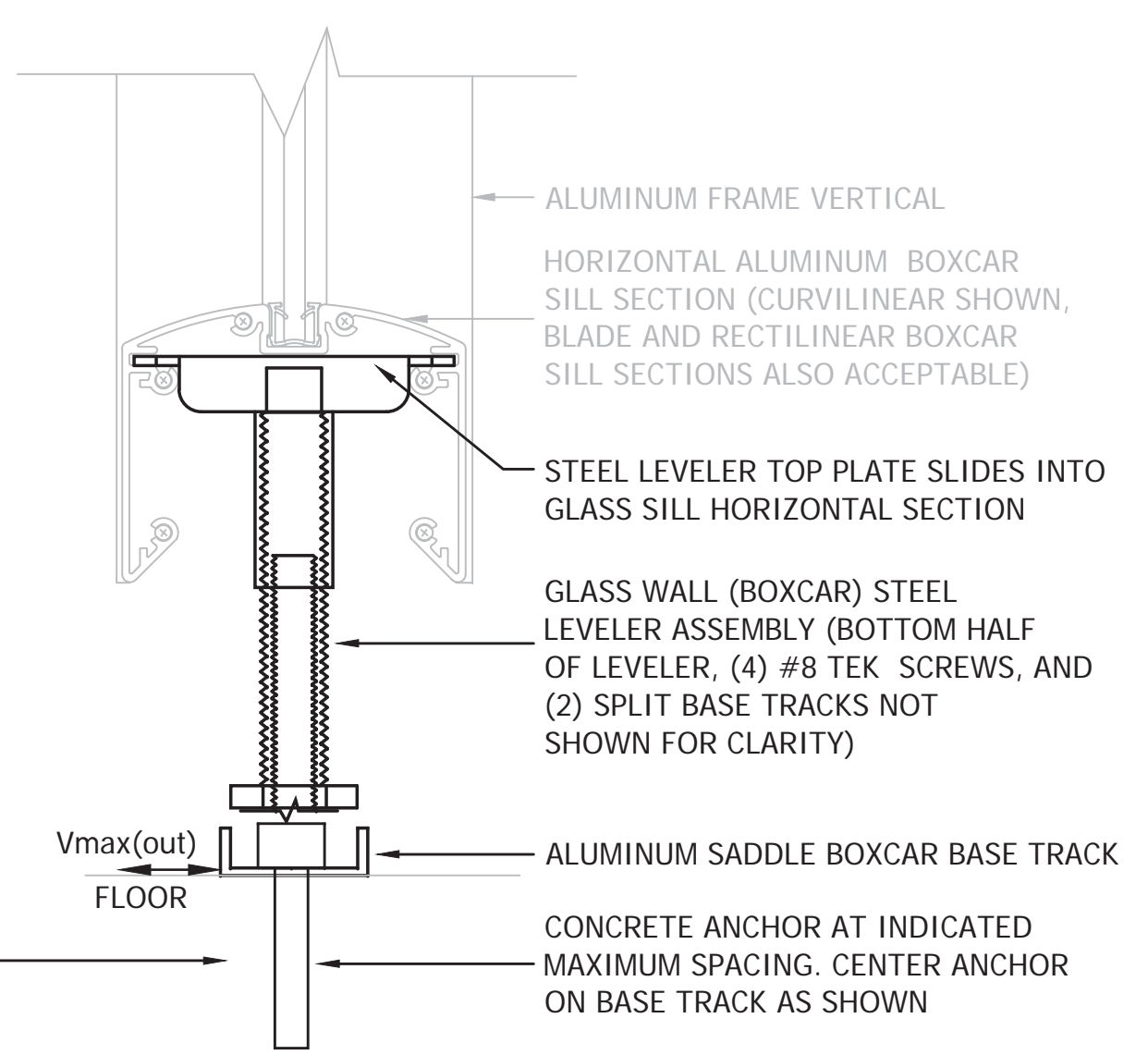
1B 1A
4.0 4.0



1 GLASS WALL BASE ELEVATION - V1 BOXCAR
SCALE: 6" = 1'-0" (SEE NOTE 1)



1A GLASS WALL BASE SECTION - V1 BOXCAR
SCALE: 6" = 1'-0" (SEE NOTE 1 & 2)



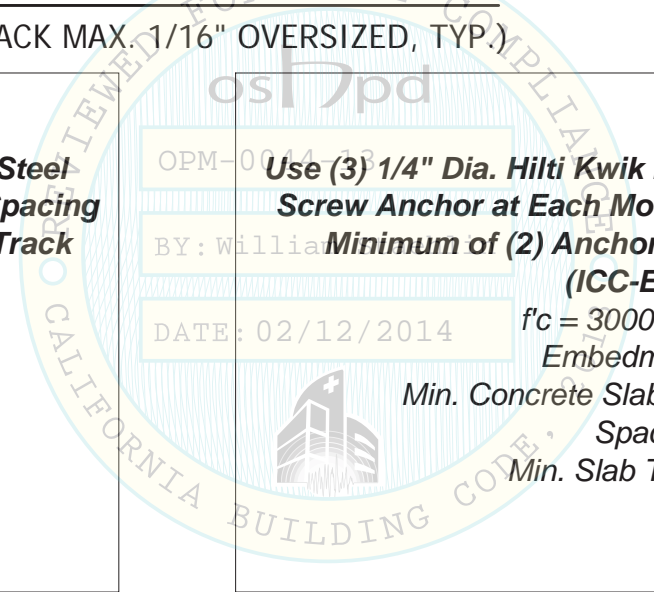
1B GLASS WALL BASE ANCHOR DETAIL - V1 BOXCAR
SCALE: 6" = 1'-0" (SEE NOTE 1 & 3)

CONCRETE ANCHOR OPTIONS

NOTE: HOLES THRU BASE TRACK MAX. 1/16" OVERSIZED, TYP.

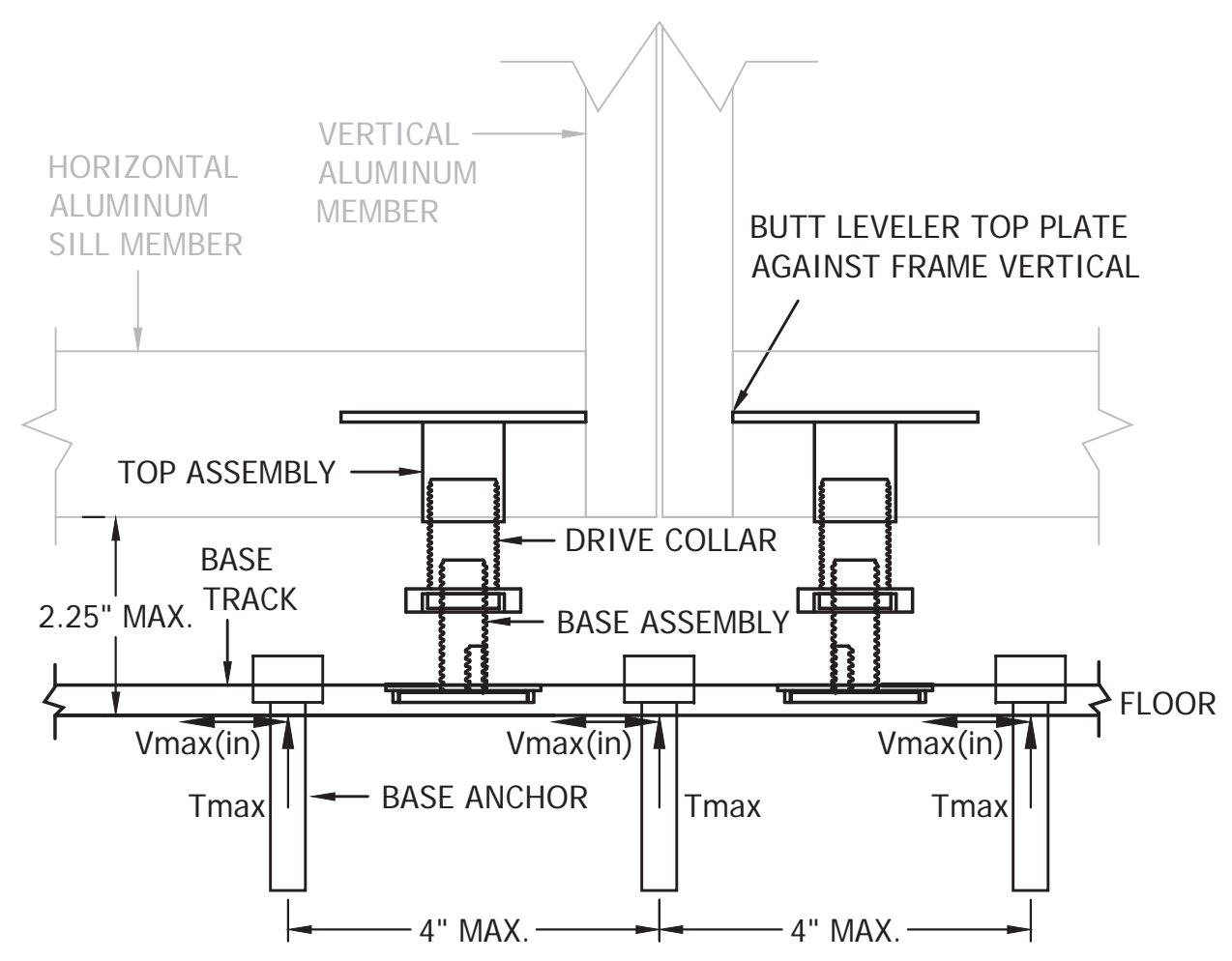
Use (3) 3/8" Dia. Powers-Stud+ SD1 Carbon Steel Expansion Anchors at Each Module Joint at Spacing Shown. Minimum of (2) Anchors per Base Track Section. (ICC-ESR-2818)
 $f_c = 3000$ psi Minimum
 Embedment = 2-3/8"
 Min. Concrete Slab Edge Distance = 9"
 Spacing = 4"
 Min. Slab Thickness = 4"

Use (3) 3/8" Dia. Hilti Kwik Bolt TZ Carbon Steel Expansion Anchor at Each Module Joint at Spacing Shown. Minimum of (2) Anchors per Base Track Section. (ICC-ESR-1917)
 $f_c = 3000$ psi Minimum
 Embedment = 2-5/8"
 Min. Concrete Slab Edge Distance = 10"
 Spacing = 4"
 Min. Slab Thickness = 4"

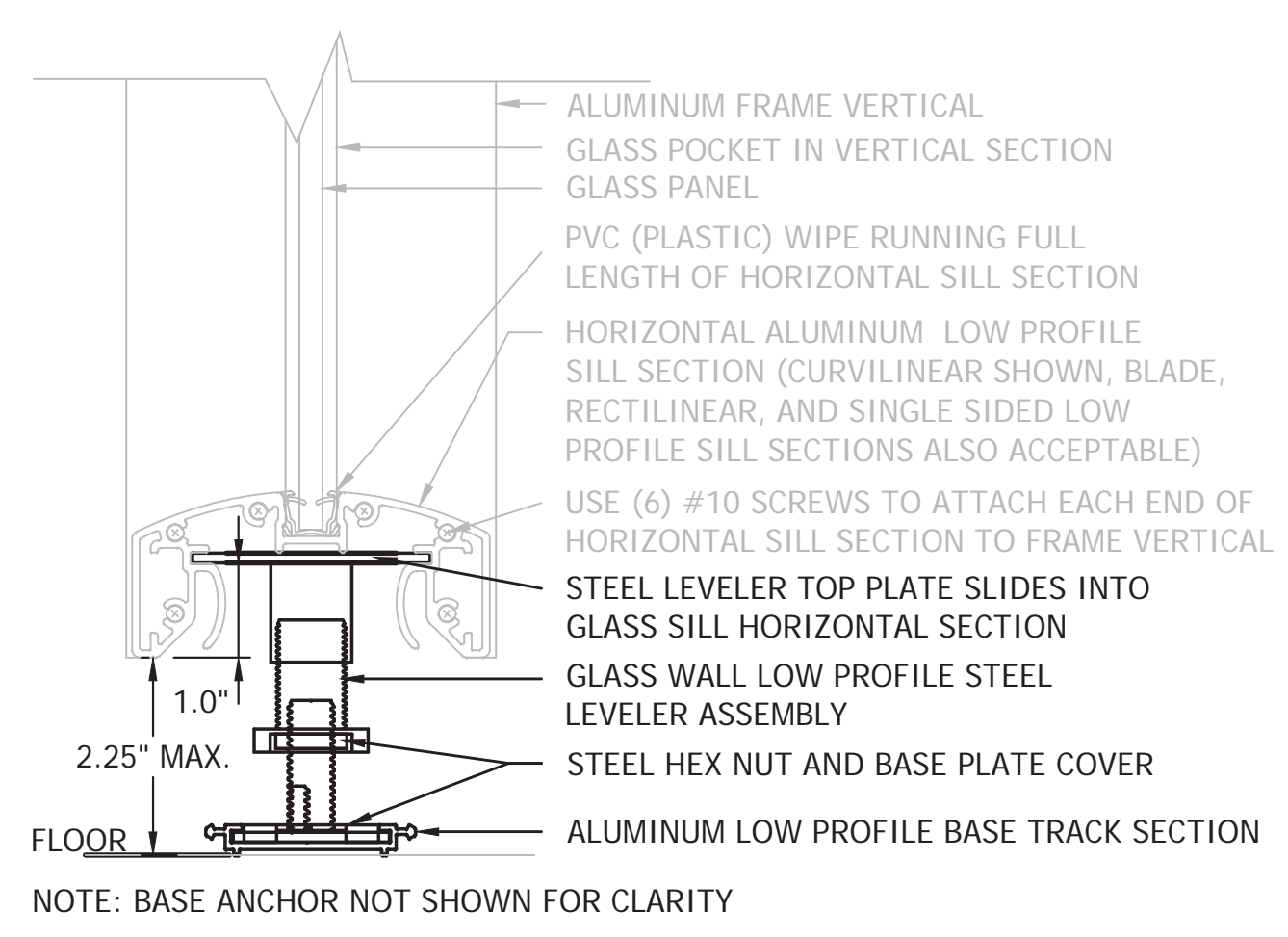


ANCHOR FORCES:
 (LRFD)
 $V_{max(in)} = 944$ lb
 $V_{max(out)} = 590$ lb
 $T_{max} = 808$ lb
 Anchor Forces Include $\Omega_o = 2.5$

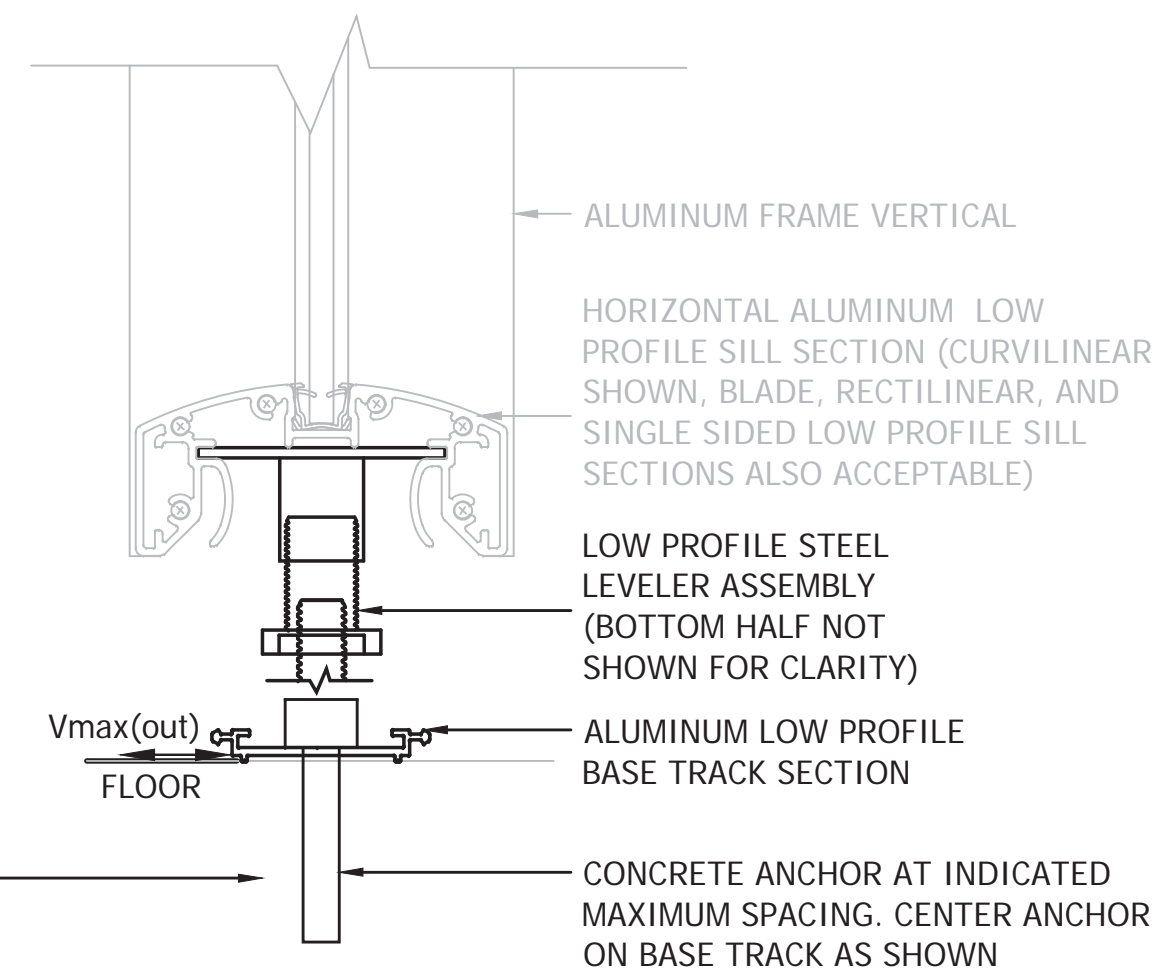
2B 2A
4.0 4.0



2 GLASS WALL BASE ELEVATION - V2 LOW PROFILE
SCALE: 6" = 1'-0" (SEE NOTE 1)



2A GLASS WALL BASE SECTION - V2 LOW PROFILE
SCALE: 6" = 1'-0" (SEE NOTE 1 & 2)



2B GLASS WALL BASE ANCHOR DETAIL - V2 LOW PROFILE
SCALE: 6" = 1'-0" (SEE NOTE 1 & 3)

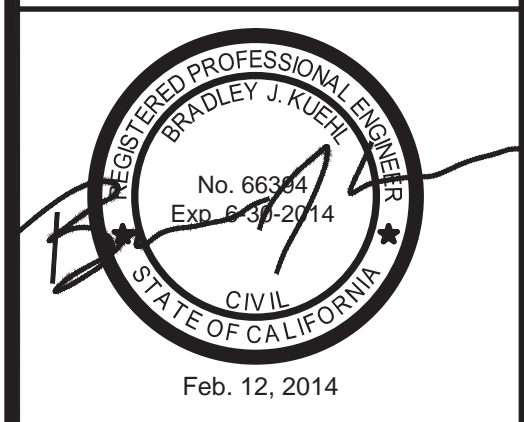
- NOTES:
 1. LEVELER ASSEMBLY DETAILS FOR GLASS WALL SEE SHEET 6.0.
 2. ANCHOR NOT SHOWN IN DETAIL FOR CLARITY.
 3. LOWER HALF OF LEVELER ASSEMBLY NOT SHOWN IN DETAIL FOR CLARITY.



RICE ENGINEERING

105 School Creek Trail
 Luxembourg, WI 54217
 Phone: 920.845.1042
 Fax: 920.845.1048
 www.rice-inc.com

Project No.: R12-10-266



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rev.	date	description
△	1/1	b.y.
△	1/1	b.y.
△	1/1	b.y.
△	1/1	b.y.
△	1/1	b.y.
△	1/1	b.y.
△	1/1	b.y.
△	1/1	b.y.

PROJECT NAME:
DIRTT Environmental Solutions, LTD
 DIRTT Partition Walls
 OSHPD OPM-0044-13
 SHOP DRAWING

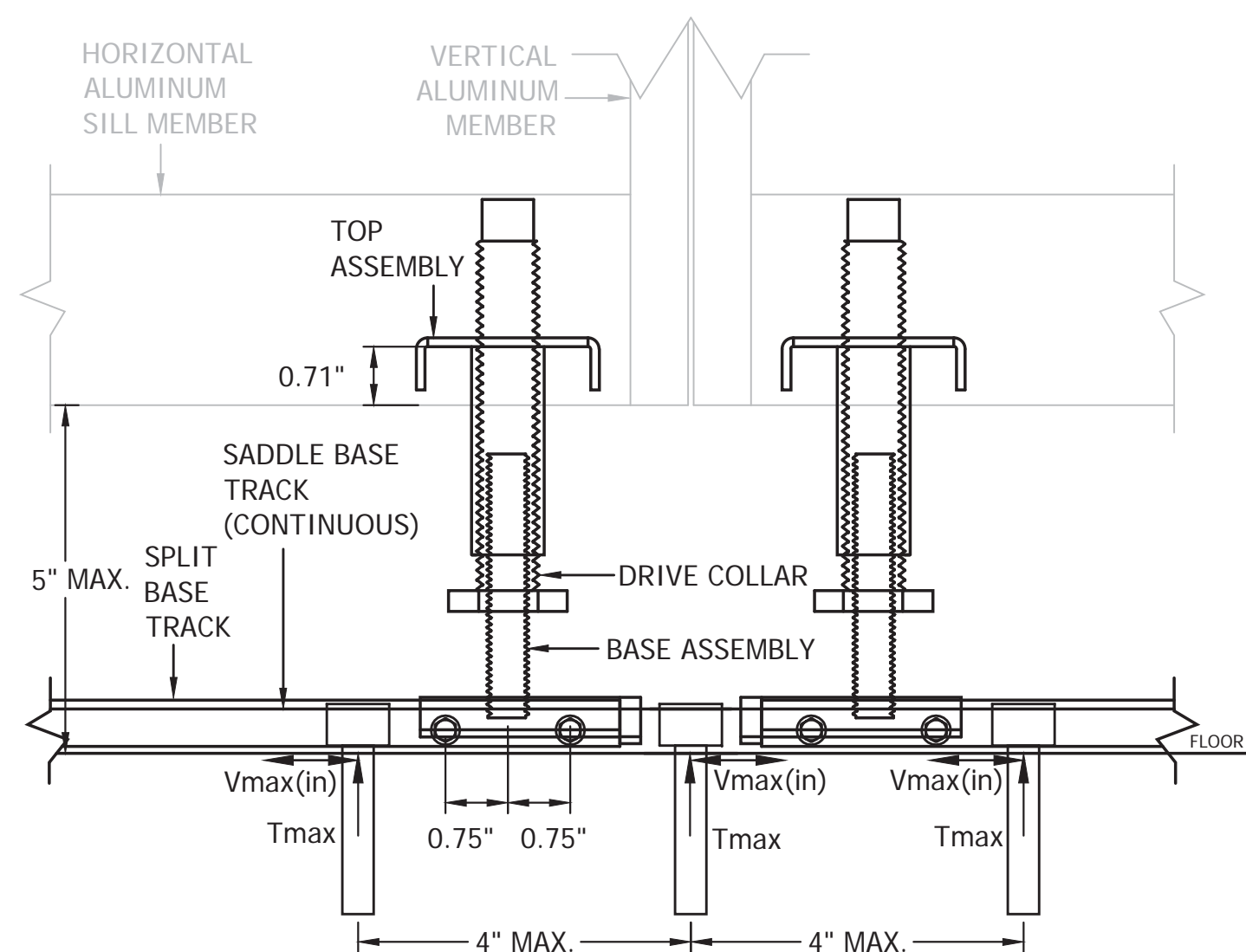
PROJECT ADDRESS:
 California, USA

PROJECT MANAGER:
 PM PMS #

DRAWN BY:
 REI-ALR
 DATE:
 2/13/14
 SCALE:
 1/4" = 1'-0" AS NOTED
 1/8" = 1'-0" HALF SCALE AS NOTED

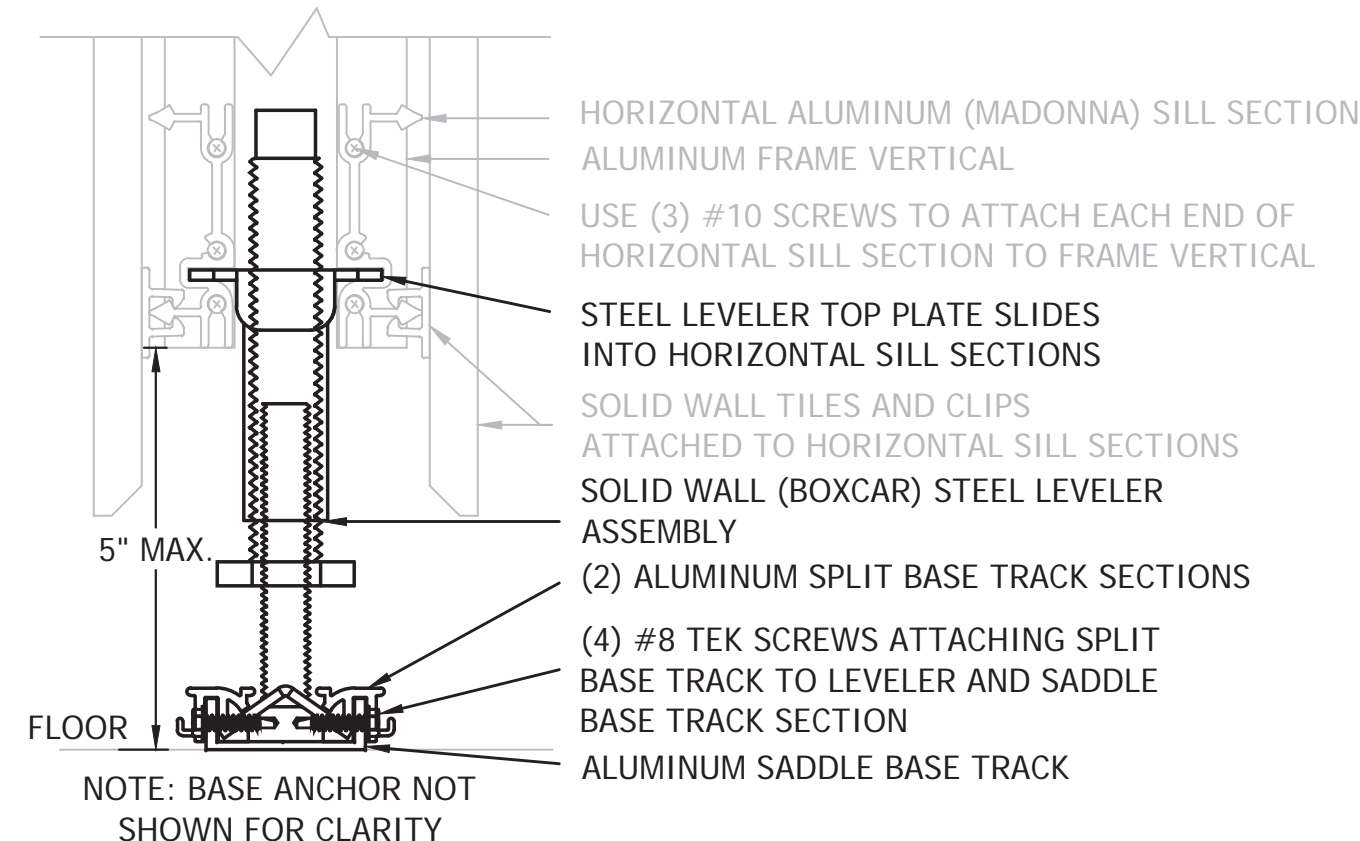
4.0

1B
5.0

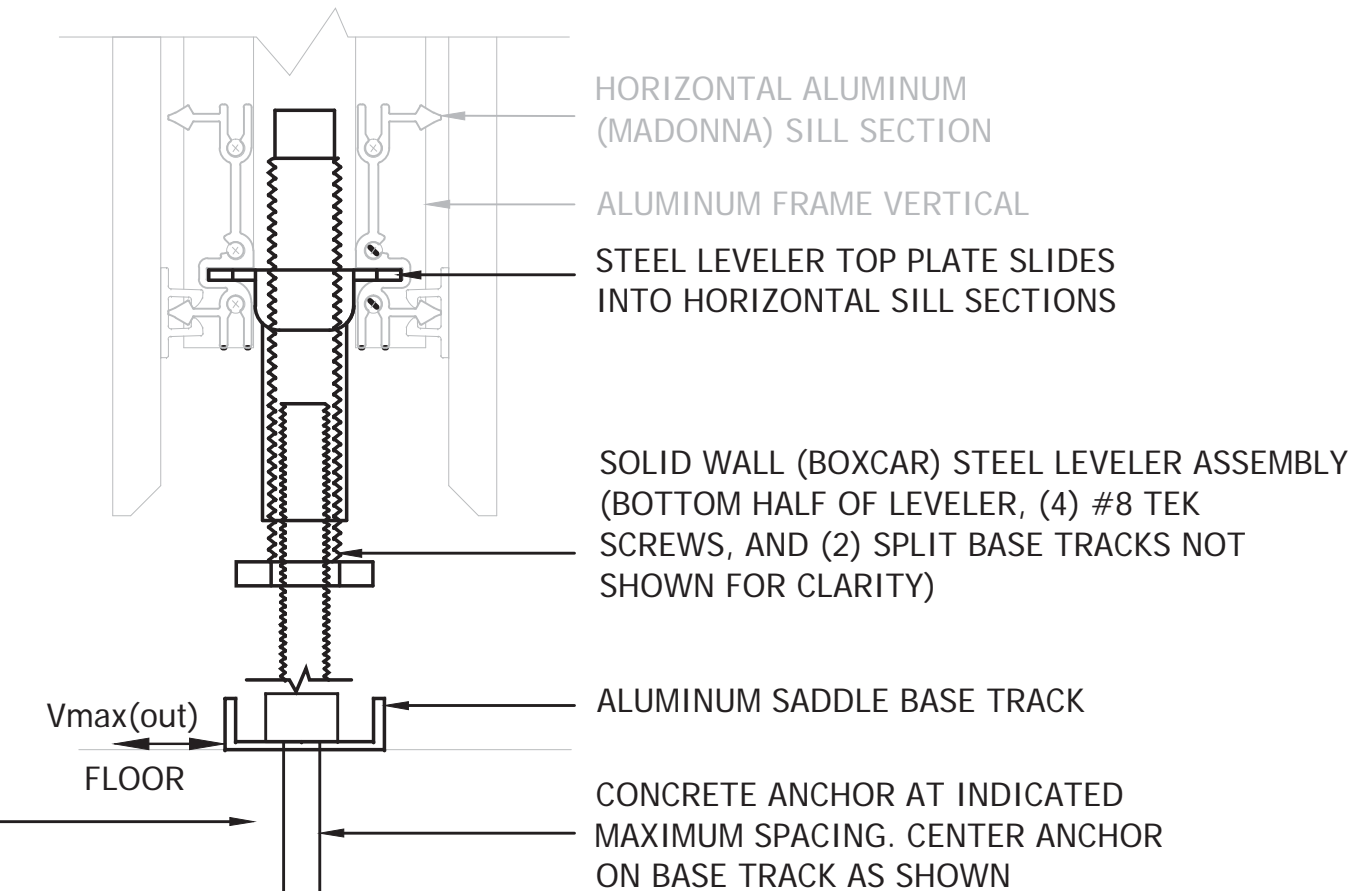


1 SOLID WALL BASE ELEVATION - V1 BOXCAR
SCALE: 6" = 1'-0" (SEE NOTE 1)

1A SOLID WALL BASE SECTION - V1 BOXCAR
SCALE: 6" = 1'-0" (SEE NOTE 1 & 2)



1B SOLID WALL BASE ANCHOR DETAIL - V1 BOXCAR
SCALE: 6" = 1'-0" (SEE NOTE 1 & 3)



CONCRETE ANCHOR OPTIONS

NOTE: HOLES THRU BASE TRACK MAX. 1/16" OVERSIZED, TYP.

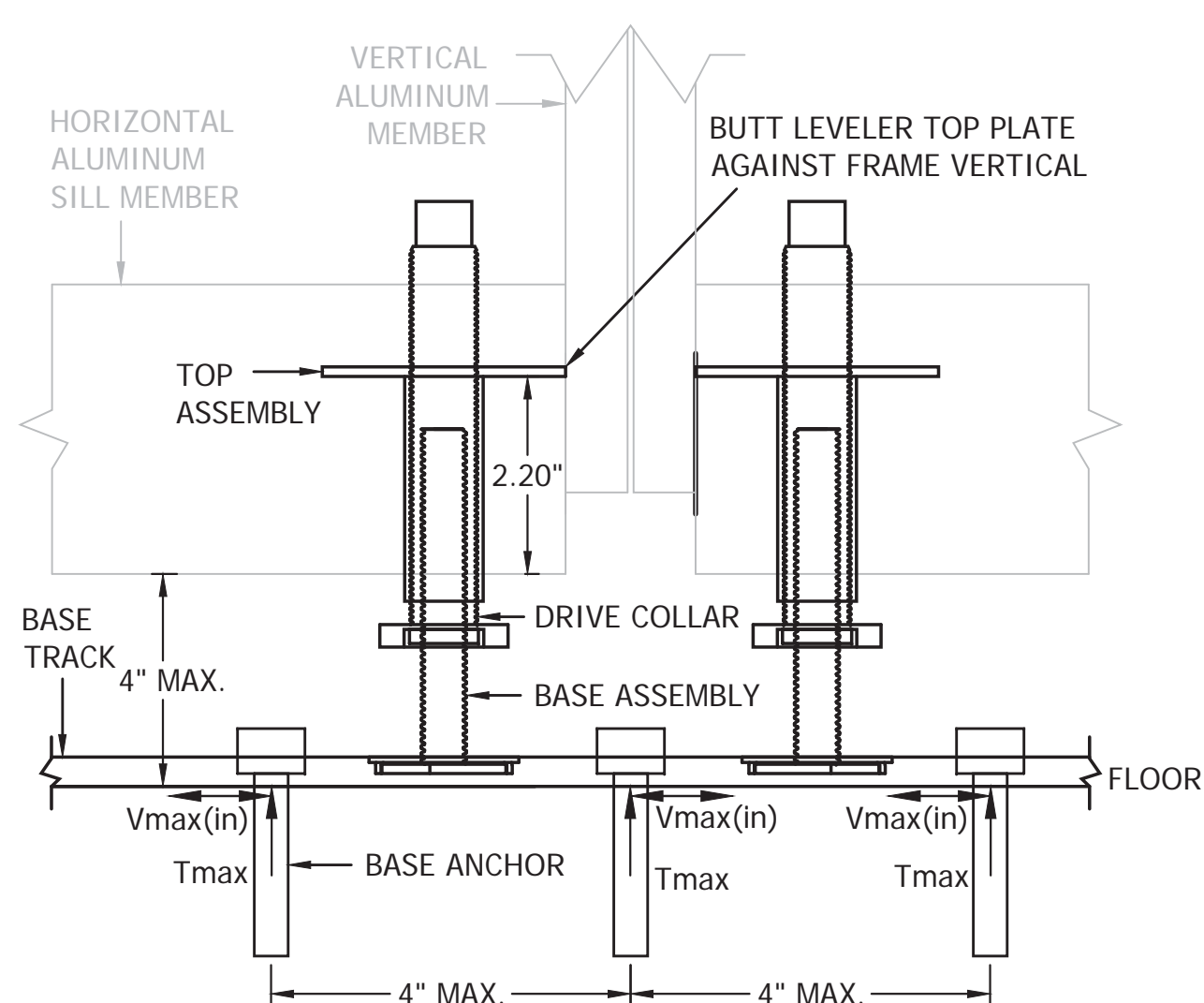
Use (3) 3/8" Dia. Powers-Stud+ SD1 Carbon Steel Expansion Anchors at Each Module Joint at Spacing Shown. Minimum of (2) Anchors per Base Track Section. (ICC-ESR-2818)
 $f_c = 3000$ psi Minimum
 Embedment = 2-3/8"
 Min. Concrete Slab Edge Distance = 9"
 Spacing = 4"
 Min. Slab Thickness = 4"

Use (3) 3/8" Dia. Hilti Kwik Bolt TZ Carbon Steel Expansion Anchor at Each Module Joint at Spacing Shown. Minimum of (2) Anchors per Base Track Section. (ICC-ESR-1917)
 $f_c = 3000$ psi Minimum
 Embedment = 2-5/8"
 Min. Concrete Slab Edge Distance = 10"
 Spacing = 4"
 Min. Slab Thickness = 4"



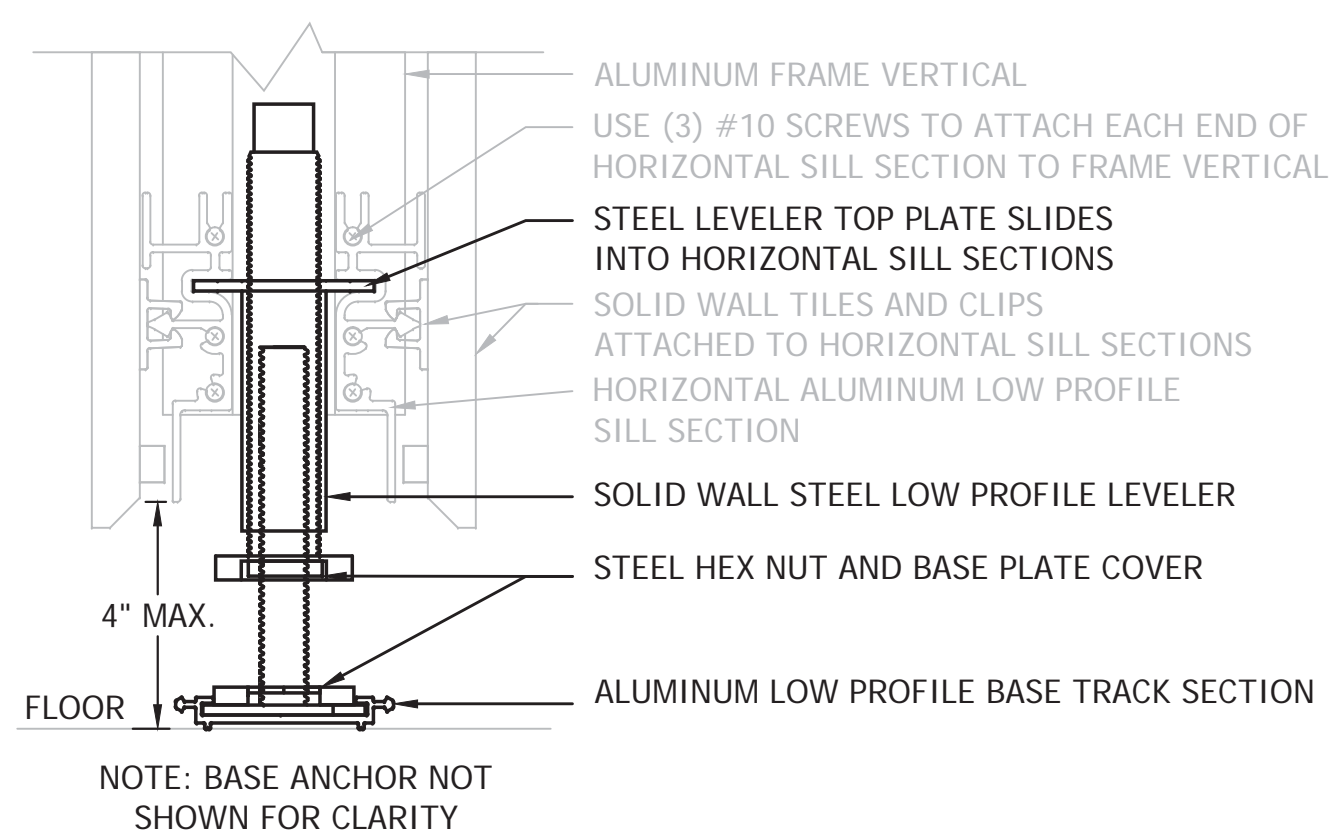
ANCHOR FORCES:
 (LRFD)
 $V_{max(in)} = 944$ lb
 $V_{max(out)} = 590$ lb
 $T_{max} = 808$ lb
 Anchor Forces Include $\Omega_o = 2.5$

2B
5.0

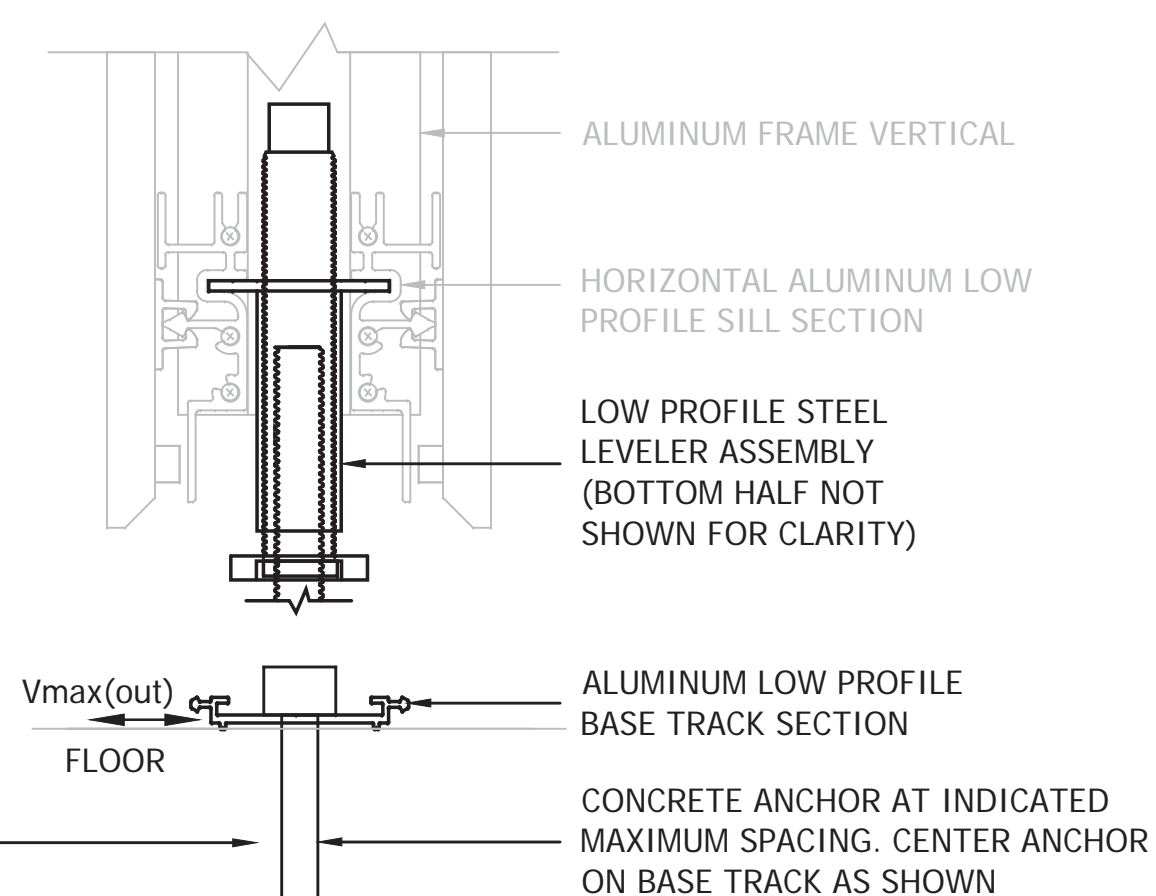


2 SOLID WALL BASE ELEVATION - V2 LOW PROFILE
SCALE: 6" = 1'-0" (SEE NOTE 1)

2A SOLID WALL BASE SECTION - V2 LOW PROFILE
SCALE: 6" = 1'-0" (SEE NOTE 1 & 2)



2B SOLID WALL BASE ANCHOR DETAIL - V2 LOW PROFILE
SCALE: 6" = 1'-0" (SEE NOTE 1 & 3)



- NOTES:
- LEVELER ASSEMBLY DETAILS FOR SOLID WALL SEE SHEET 7.0.
 - ANCHOR NOT SHOWN IN DETAIL FOR CLARITY.
 - LOWER HALF OF LEVELER ASSEMBLY NOT SHOWN IN DETAIL FOR CLARITY.

DIRT

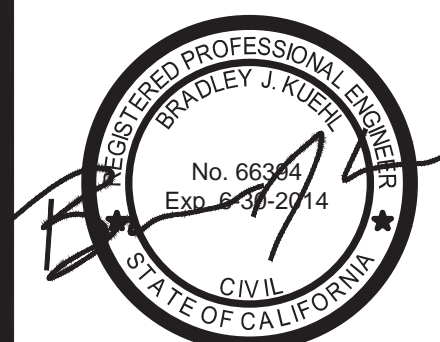
DIRTT Environmental Solutions Ltd.
 7303 - 30th Street S.E., Calgary, AB Canada T2C 1N6
 403-723-5000 Fax 403-723-6644 www.dirtt.net

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Project No.: R12-10-266



Feb. 12, 2014

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3	1/1	b.y.
4	1/1	b.y.
5	1/1	b.y.
6	1/1	b.y.
7	1/1	b.y.
8	1/1	b.y.

PROJECT NAME:
DIRTT Environmental Solutions, LTD
 DIRTT Partition Walls
 OSHPD OPM-0044-13
SHOP DRAWING

PROJECT ADDRESS:
 California, USA

PROJECT MANAGER:
 PM PMS #

DRAWN BY:
 REI-ALR
 DATE:
 2/13/14
 SCALE:
 PUNCH SCALE AS NOTED
 1x1/4 HALF SCALE AS NOTED

5.0

ASSEMBLY TYPE

LEVELER ASSEMBLY PARTS AND DESCRIPTIONS
(ALL PARTS ASTM A36, Fy = 36ksi, Fu = 58ksi)

TOP ASSEMBLY

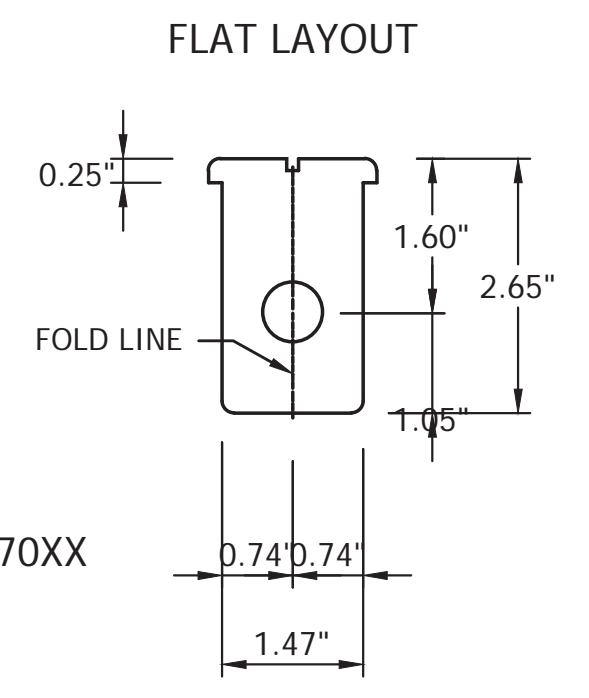
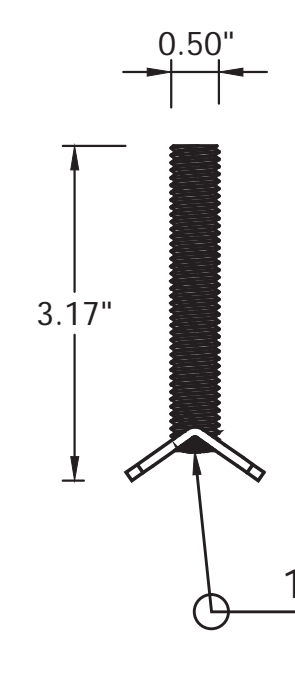
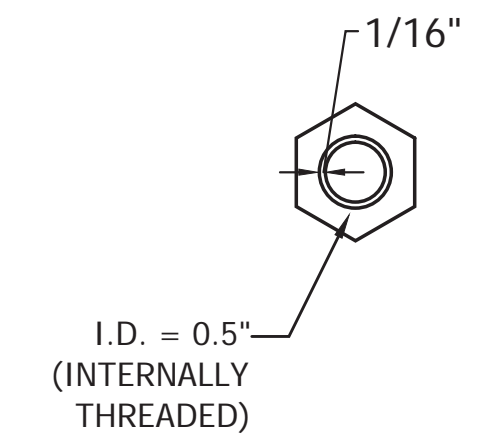
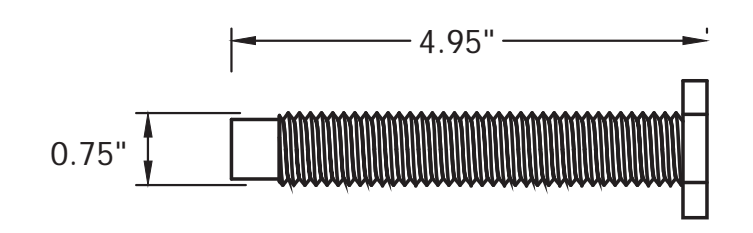
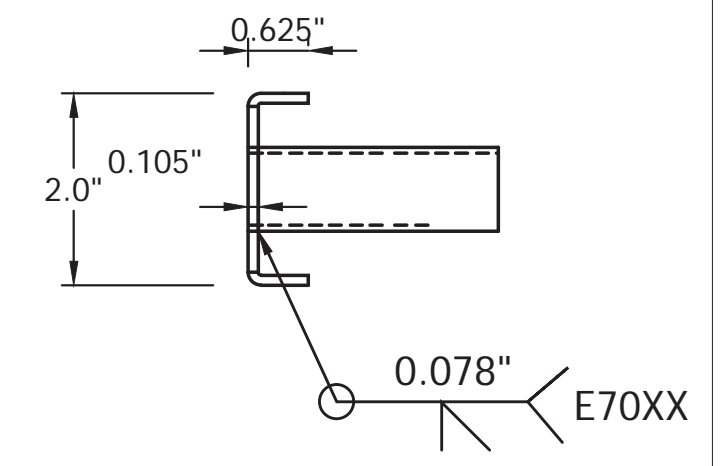
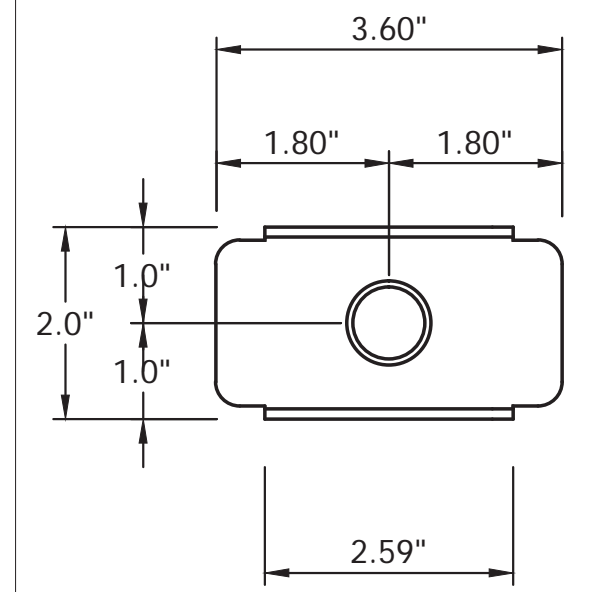
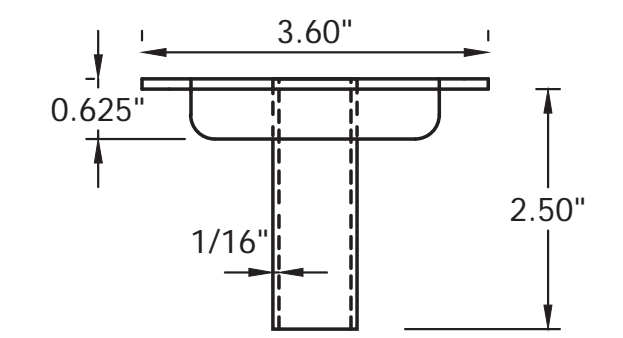
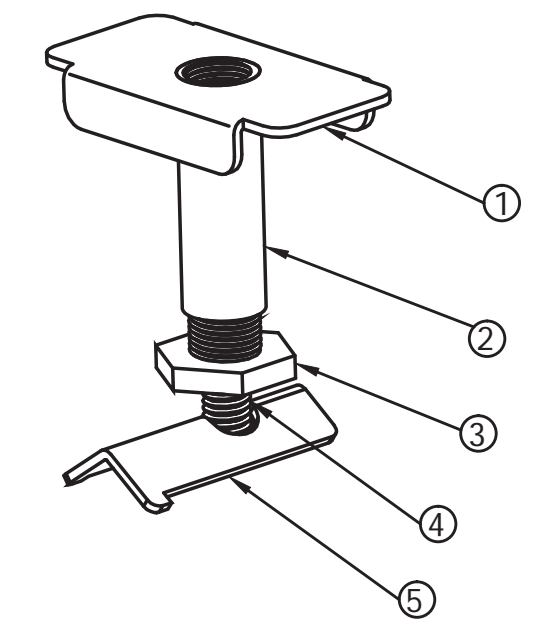
DRIVE COLLAR

BASE ASSEMBLY

NON-STRUCTURAL PARTS

GLASS WALL LEVELER ASSEMBLY - V1

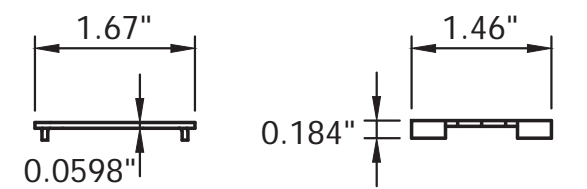
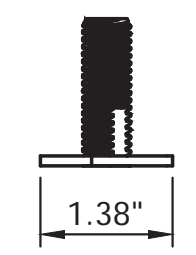
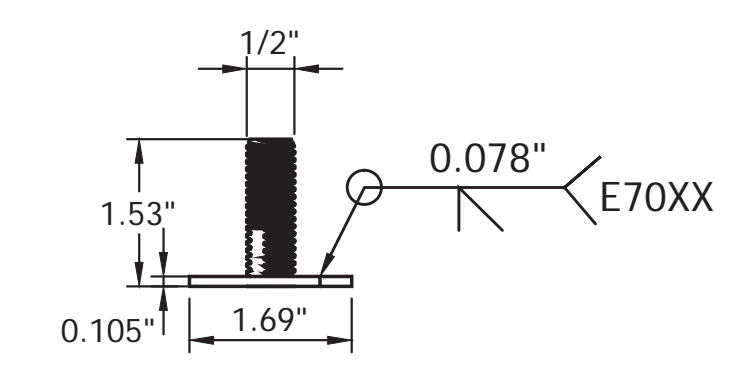
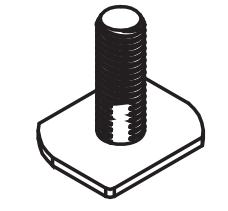
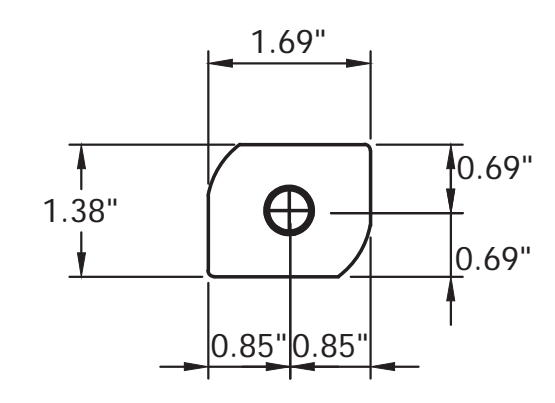
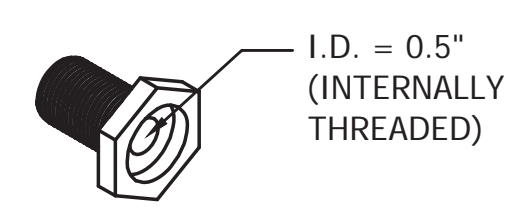
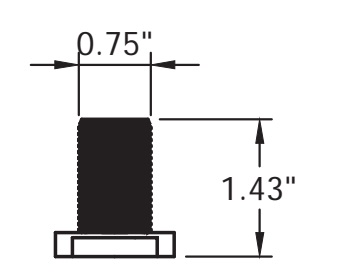
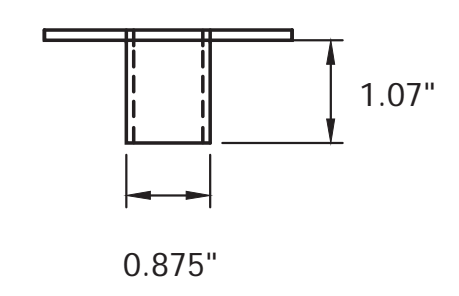
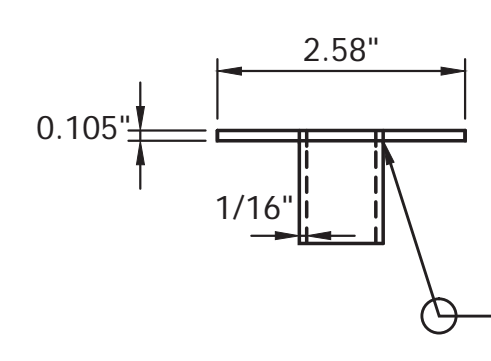
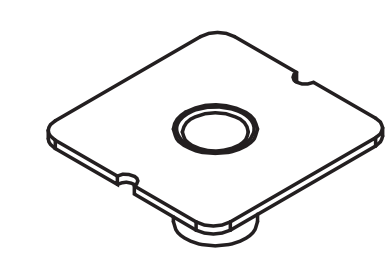
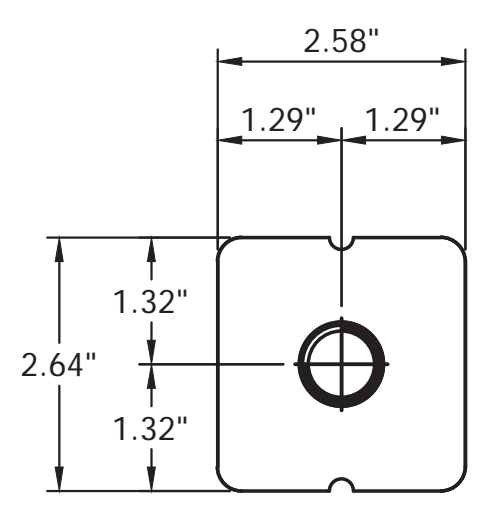
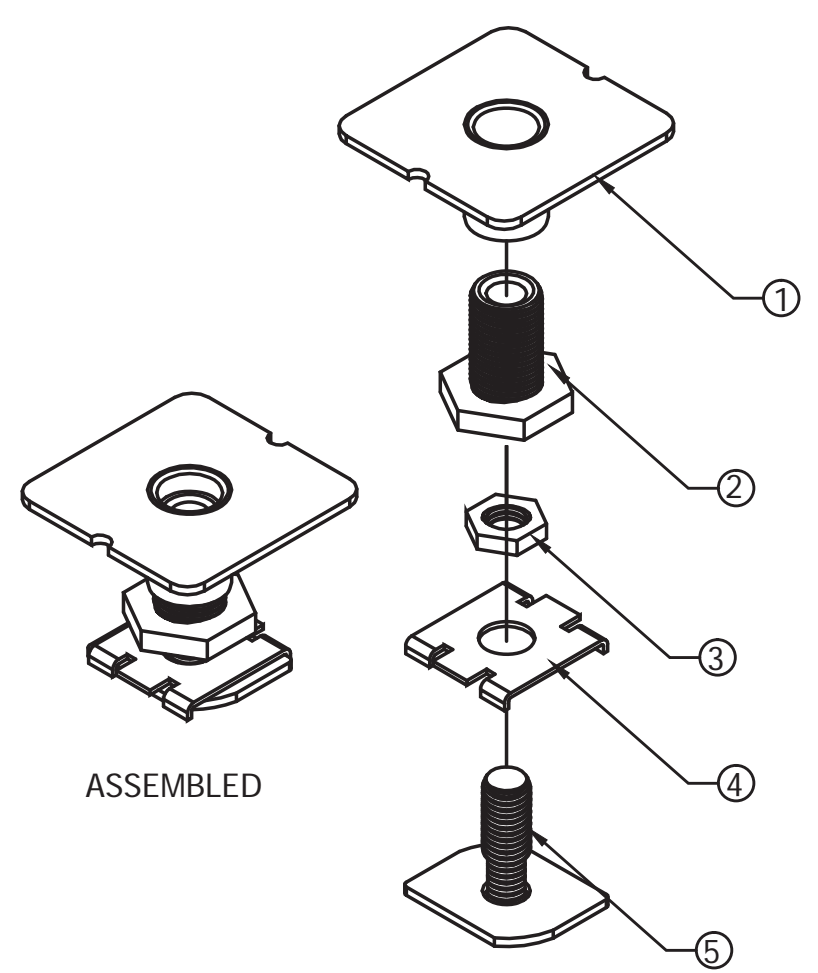
#	DESCRIPTION	PART #	QTY
1	BOXCAR GLASS LEVELER TOP PLATE	12008	1
2	BOXCAR GLASS LEVELER TOP COLLAR	12009	1
3	BOXCAR GLASS LEVELER DRIVE COLLAR	12005	1
4	BOXCAR LEVELER BASE THREADED ROD	12004	1
5	BOXCAR LEVELER BASE SPREADER PLATE	12003	1



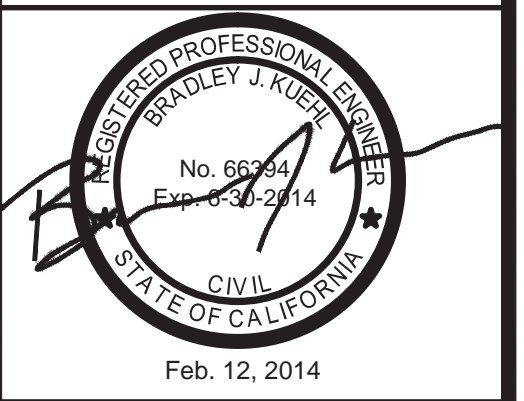
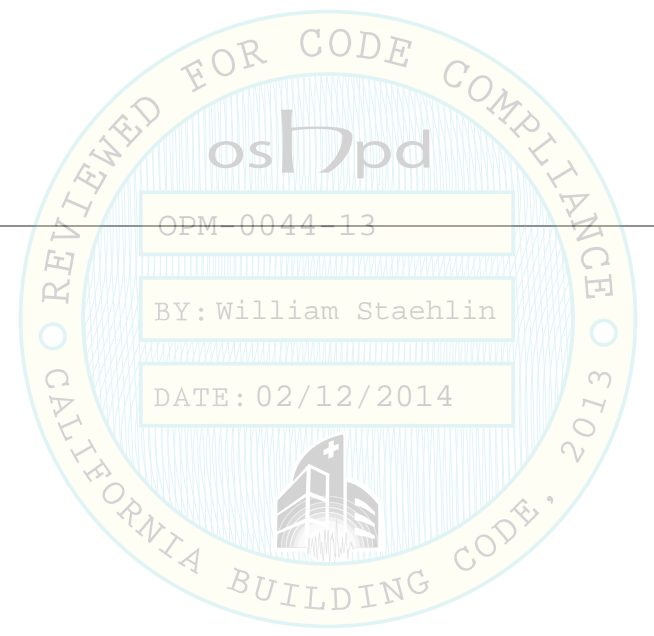
N/A

GLASS WALL LEVELER ASSEMBLY - V2

#	DESCRIPTION	PART #	QTY
1	GLASS LEVELER TOP ASSEMBLY	92826	1
2	GLASS LEVELER DRIVE COLLAR	72593	1
3	#1/2-13 x 4mm thick HEX NUT	STOCK	1
4	SEISMIC BASE PLATE COVER	72691	1
5	GLASS SEISMIC LEVELER BASE	92725	1



BASE PLATE COVER



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rev.	date	description
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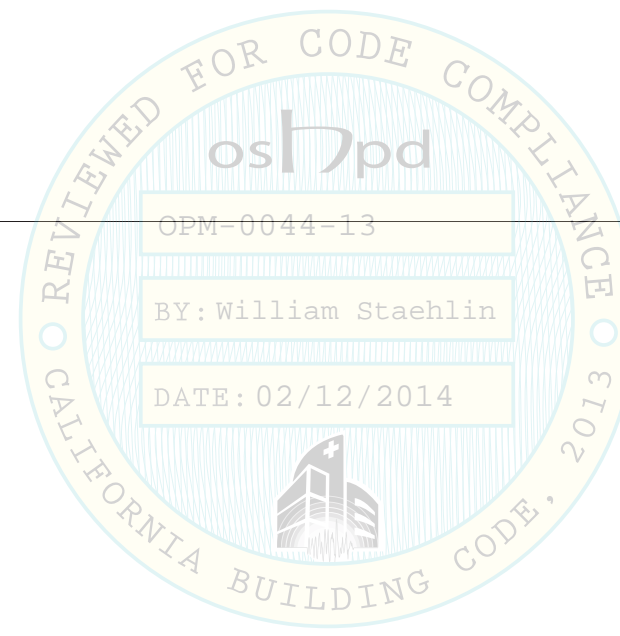
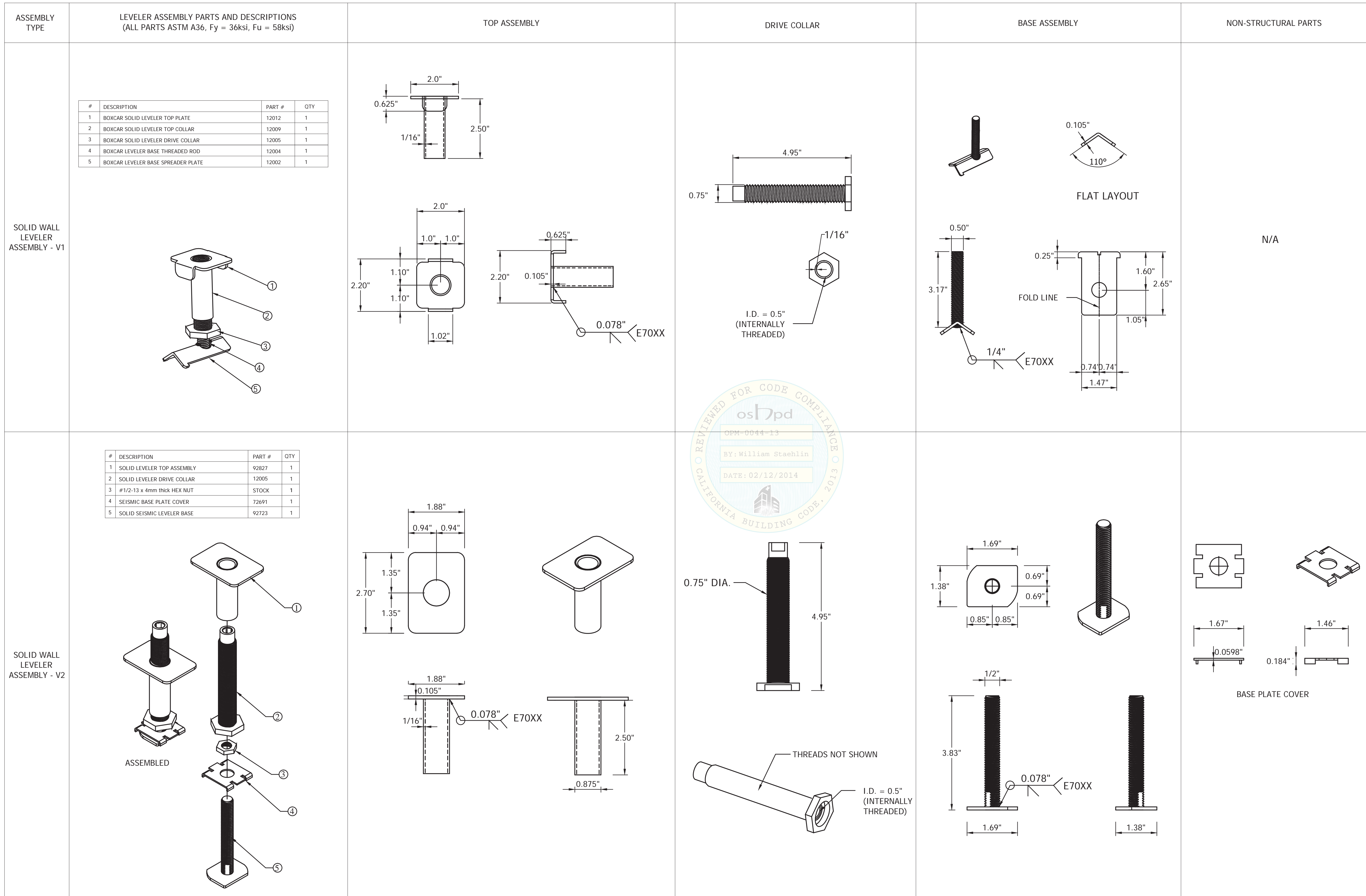
PROJECT NAME:
DIRTT Environmental Solutions, LTD
DIRTT Partition Walls
OSHPD OPM-0044-13
SHOP DRAWING

PROJECT ADDRESS:
California, USA

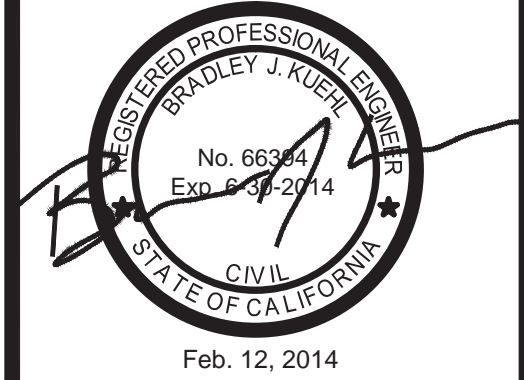
PROJECT MANAGER:
PM
PMS #

DRAWN BY: REI - ALR	SHEET: 6.0
DATE: 2/13/14	
SCALE: 2 1/4" SCALE AS NOTED 1 1/2" SCALE AS NOTED	

1 GLASS WALL LEVELER ASSEMBLY
SCALE: 6" = 1'-0"



1 SOLID WALL LEVELER ASSEMBLY
7.0 SCALE: 6" = 1'-0"



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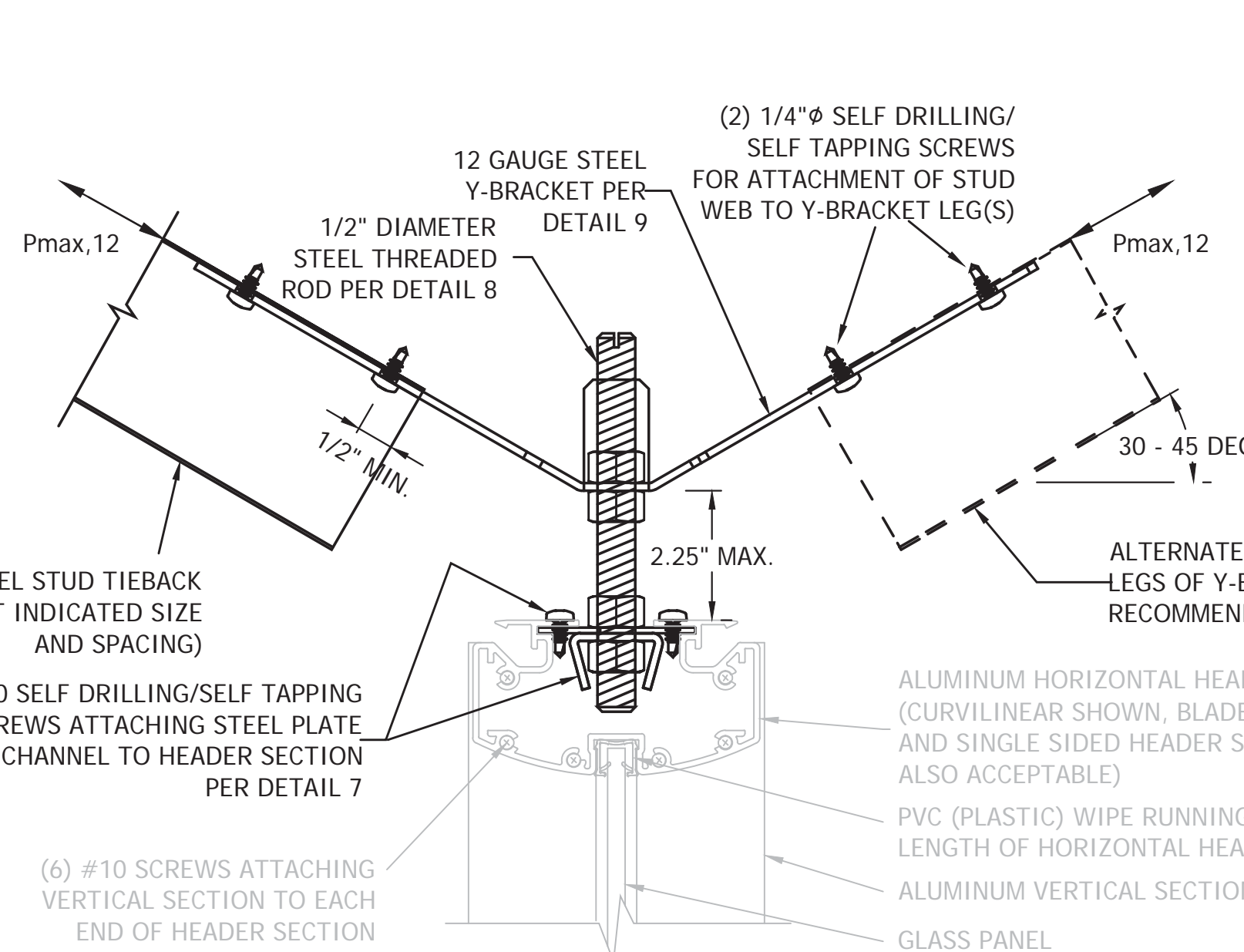
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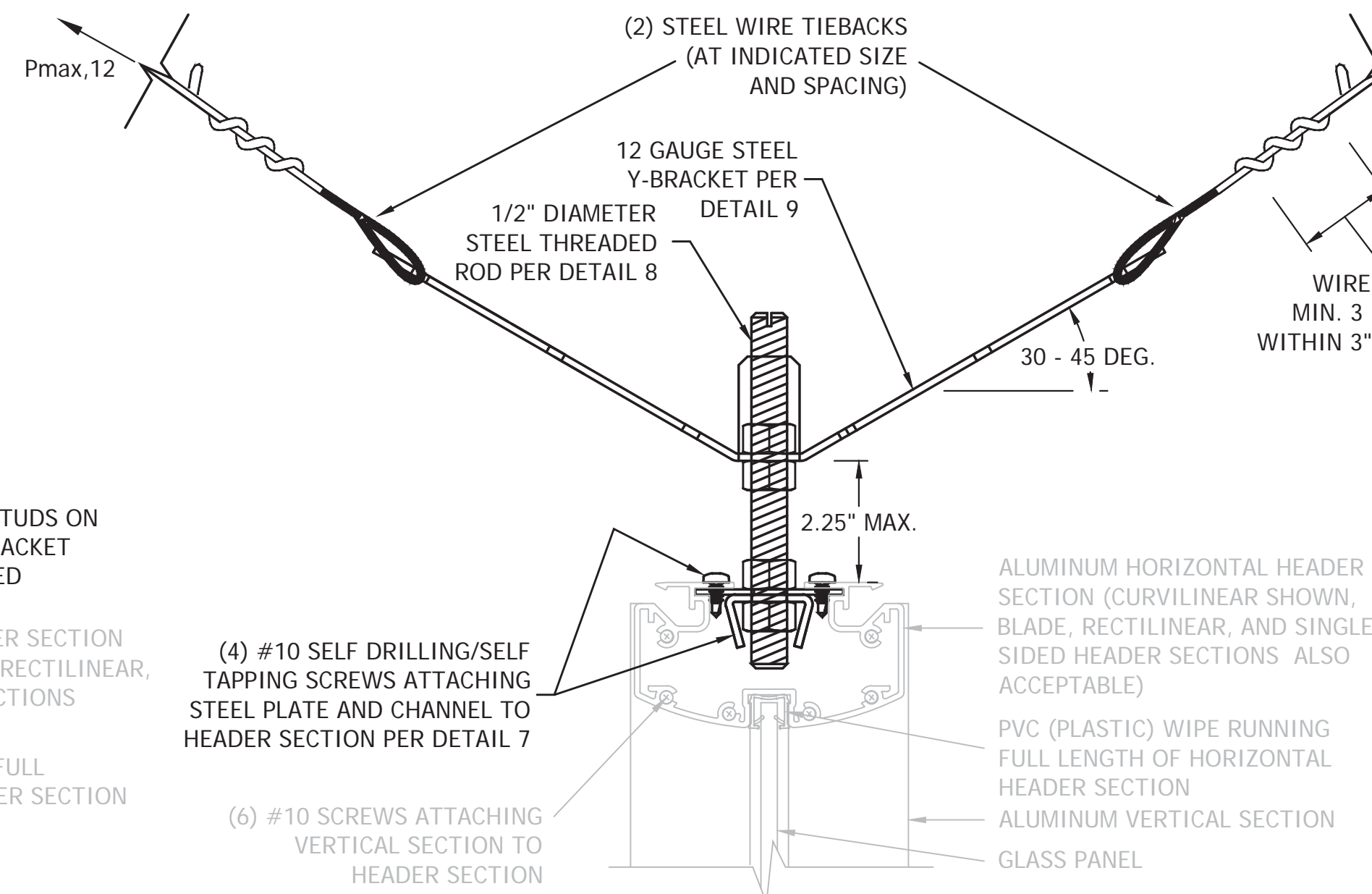
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 California, USA

PROJECT MANAGER:
 PM
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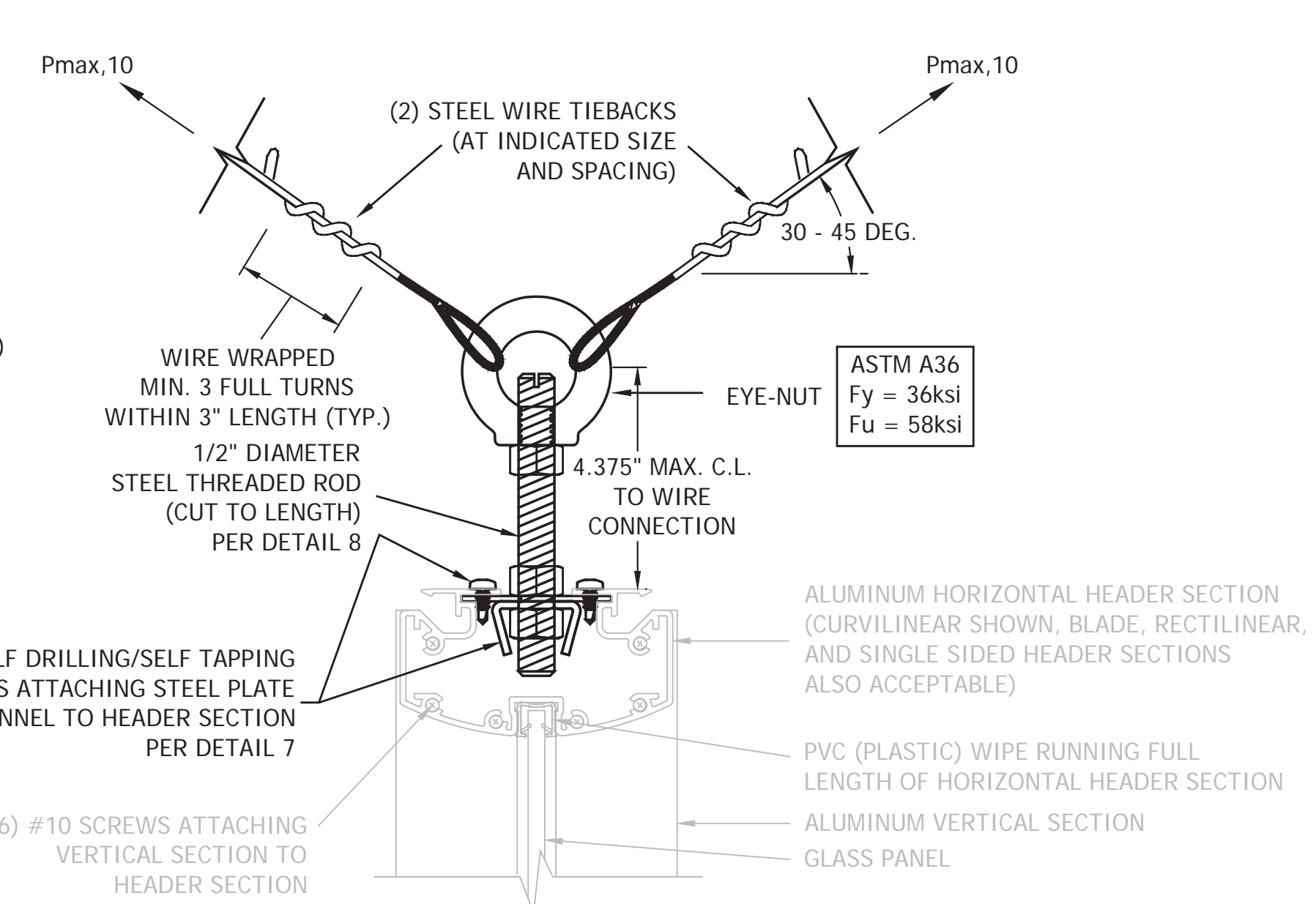
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DATE: 2/13/14	
SCALE: 1/4" = 1'-0" AS NOTED 1/8" = 1'-0" HALF SCALE AS NOTED	



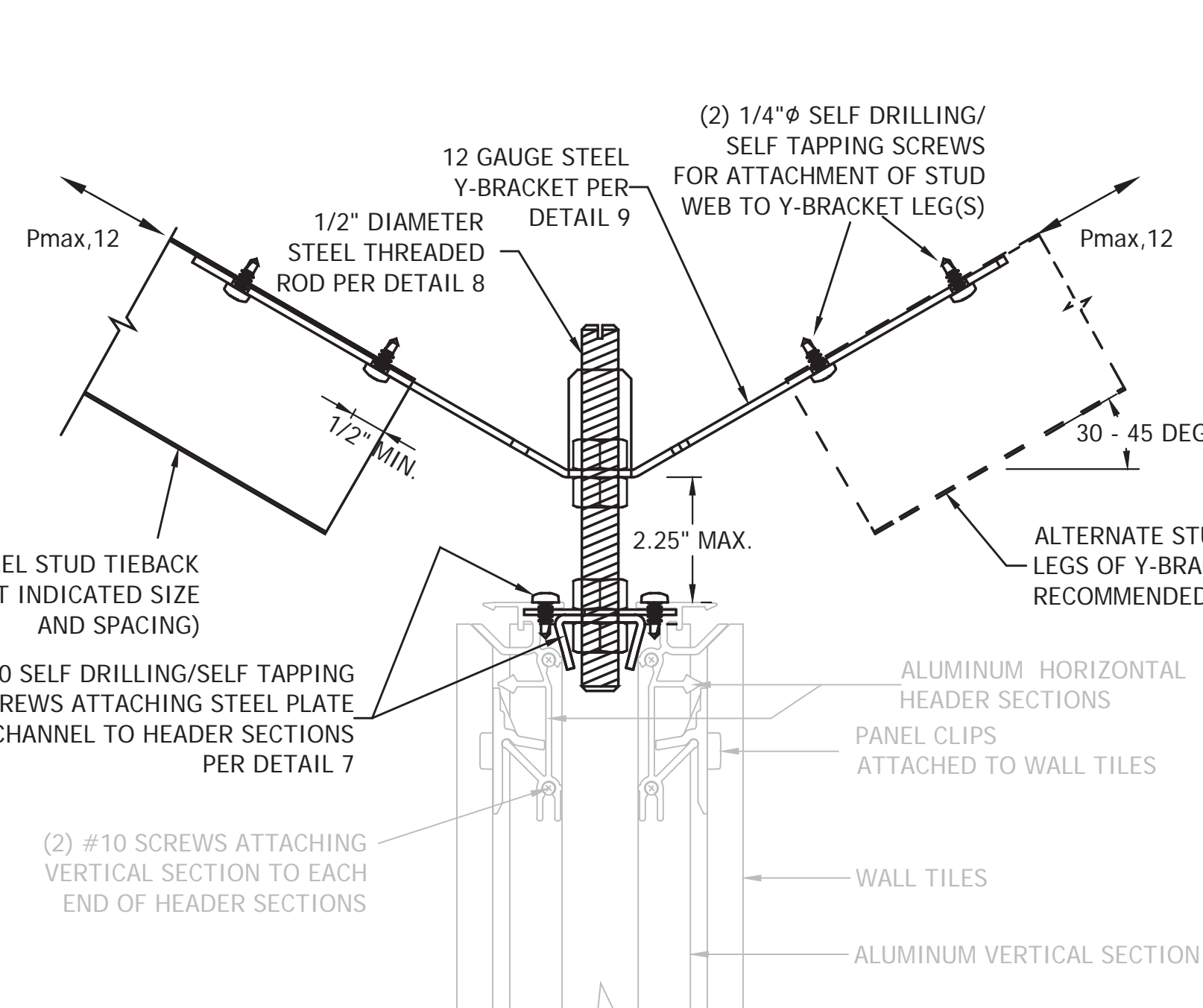
1 8.0 **GLASS WALL HEADER STUD BRACE WITH Y-BRACKET**
SCALE: 6" = 1'-0" (SEE NOTES 2, 4, & 5)



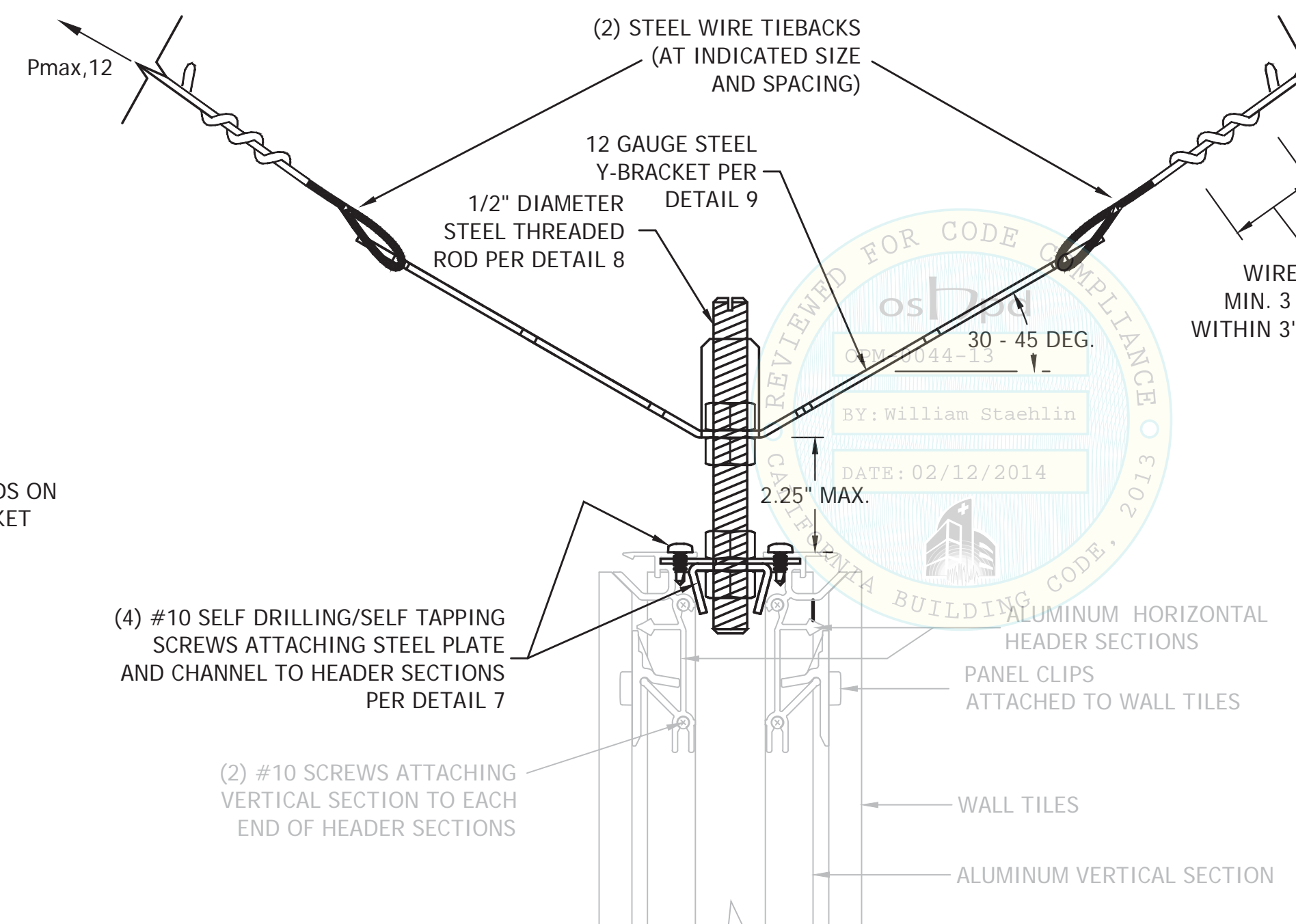
2 8.0 **GLASS WALL HEADER WIRE BRACE WITH Y-BRACKET**
SCALE: 6" = 1'-0" (SEE NOTES 1, 4, & 5)



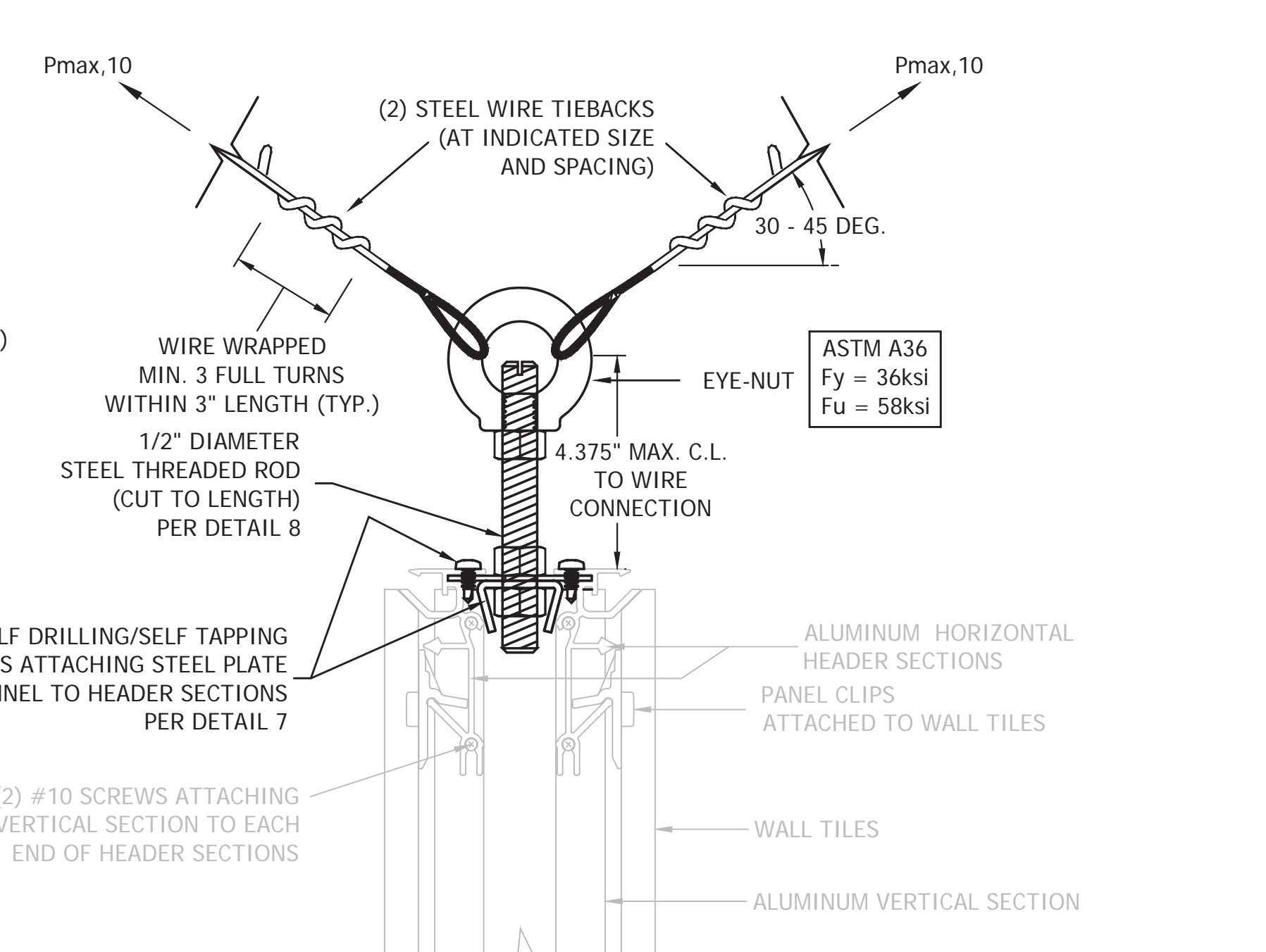
3 8.0 **GLASS WALL HEADER WIRE BRACE WITH EYE NUT**
SCALE: 6" = 1'-0" (SEE NOTES 1, 3 & 4)



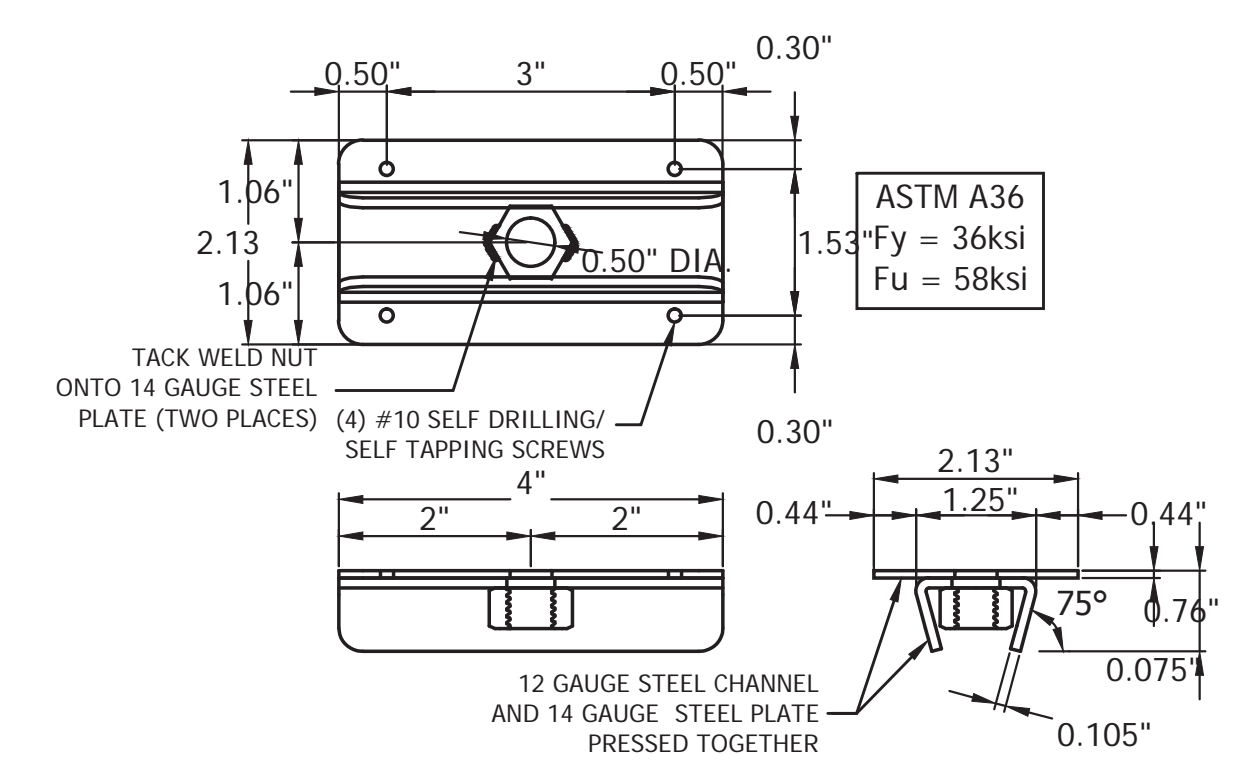
4 8.0 **SOLID WALL HEADER STUD BRACE WITH Y-BRACKET**
SCALE: 6" = 1'-0" (SEE NOTES 2, 4, & 5)



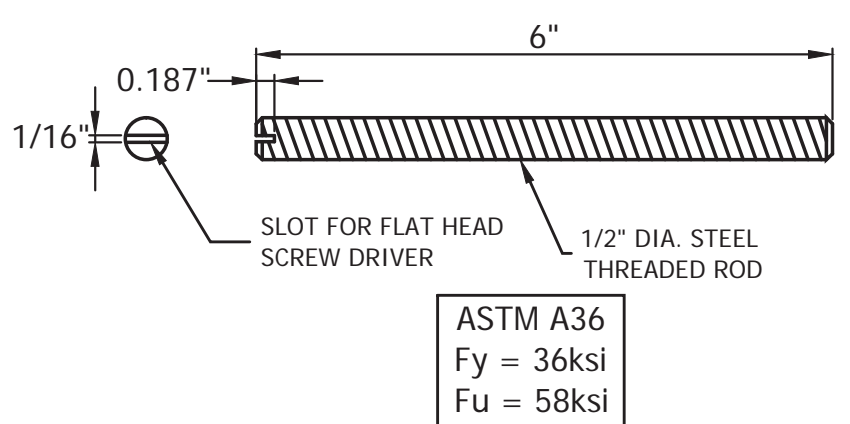
5 8.0 **SOLID WALL HEADER WIRE BRACE WITH Y-BRACKET**
SCALE: 6" = 1'-0" (SEE NOTES 1, 4, & 5)



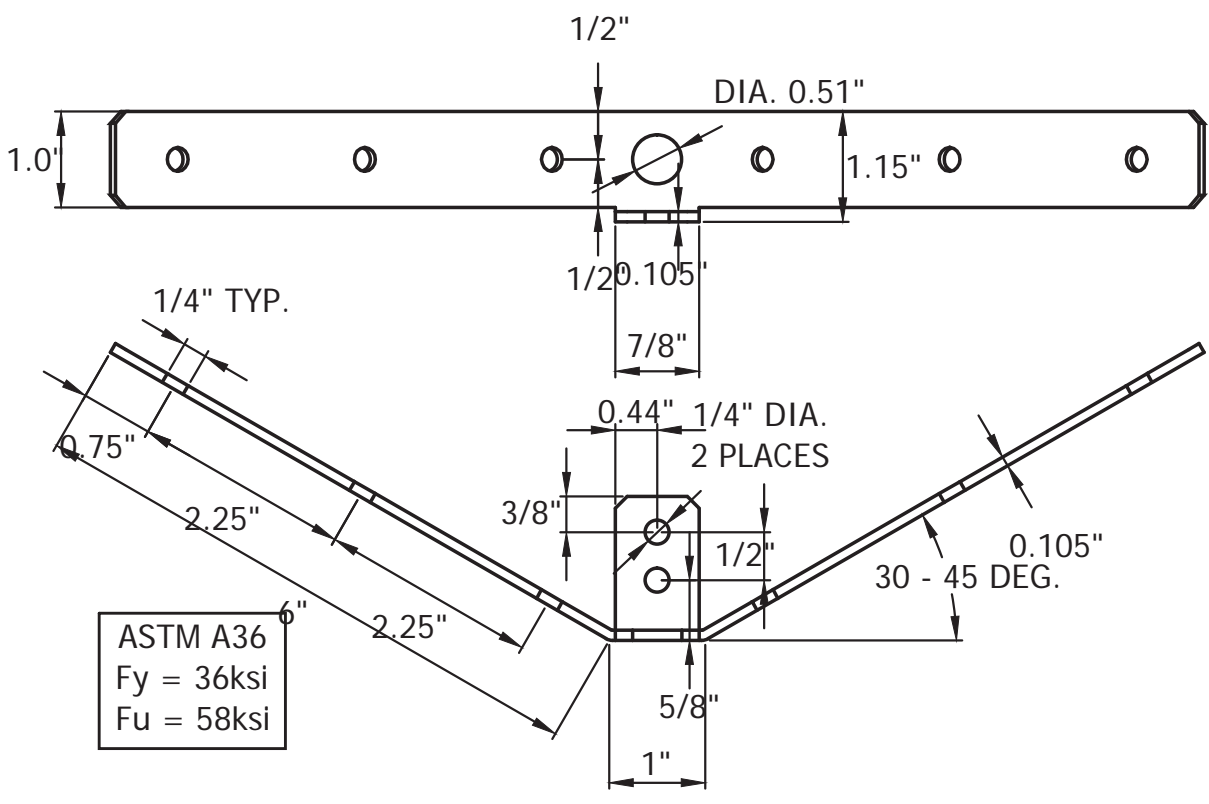
6 8.0 **SOLID WALL HEADER WIRE BRACE WITH EYE NUT**
SCALE: 6" = 1'-0" (SEE NOTES 1, 3, & 4)



7 8.0 **STEEL PLATE, CHANNEL, & NUT DETAILS**
SCALE: 6" = 1'-0"



8 8.0 **STEEL 1/2" Ø THREADED ROD DETAIL**
SCALE: 6" = 1'-0"



9 8.0 **STEEL Y-BRACKET DETAIL**
SCALE: 6" = 1'-0" (SEE NOTE: 6)

NOTES:

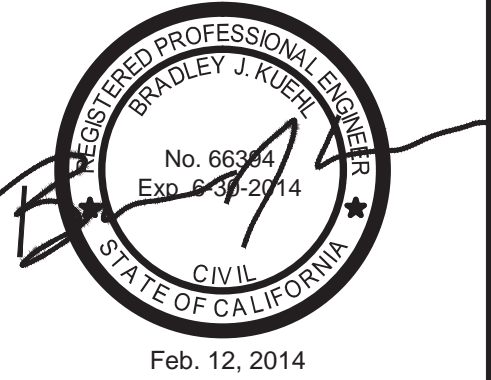
1. WIRE TOP CONNECTIONS TO BASE BUILDING DETAILS SEE SHEET 9.
2. STUD TOP CONNECTION TO BASE BUILDING DETAILS SEE SHEET 10.
3. DETAIL 3 AND 6 ONLY GOOD FOR WALL HEIGHTS ≤ 120" (10')
4. MAXIMUM OUT-OF-PLANE TIEBACK SPACING SEE TABLE A ON SHEET 3.0
5. Y-BRACKET TO BE BENT ONCE IN FIELD TO CORRECT ANGLE, NO REBENDING.

TIEBACK DEMAND FORCES (ASD):
Pmax,12 = 187 LB (12' TALL WALLS)
Pmax,10 = 156 LB (10' TALL WALLS)



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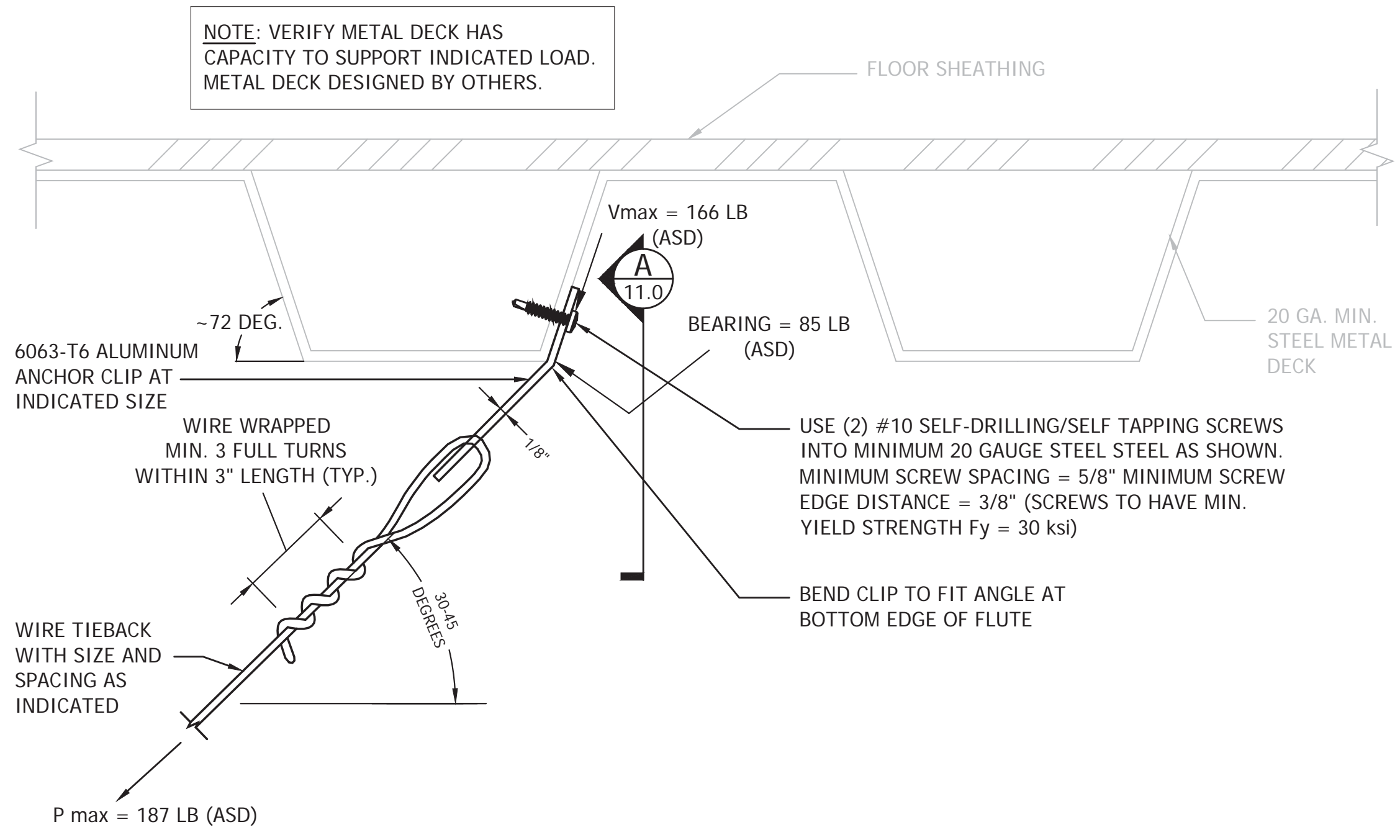
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PROJECT NAME:
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OSHPD OPM-0044-13
SHOP DRAWING

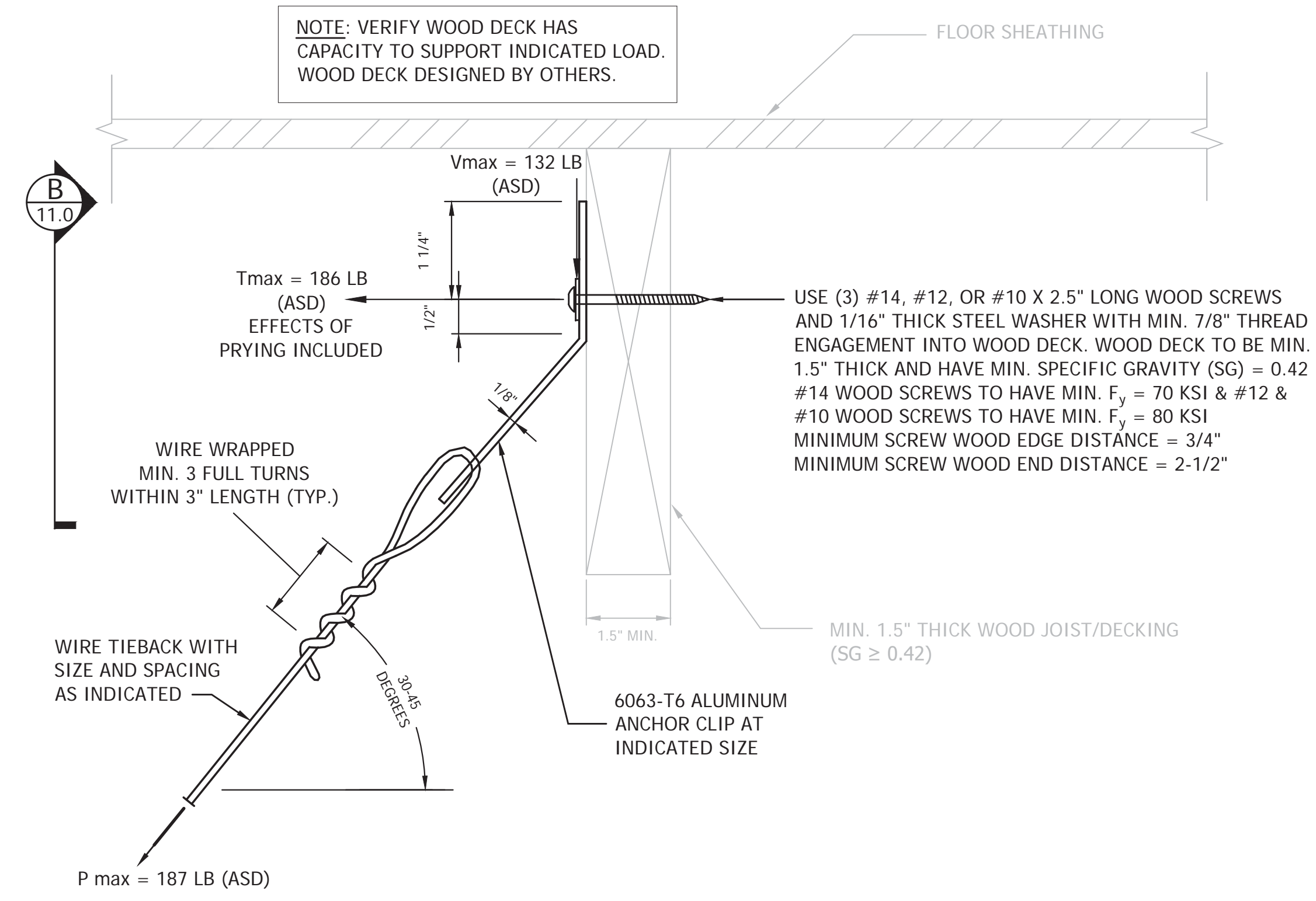
PROJECT ADDRESS:
California, USA

PROJECT MANAGER:
PM PMS #

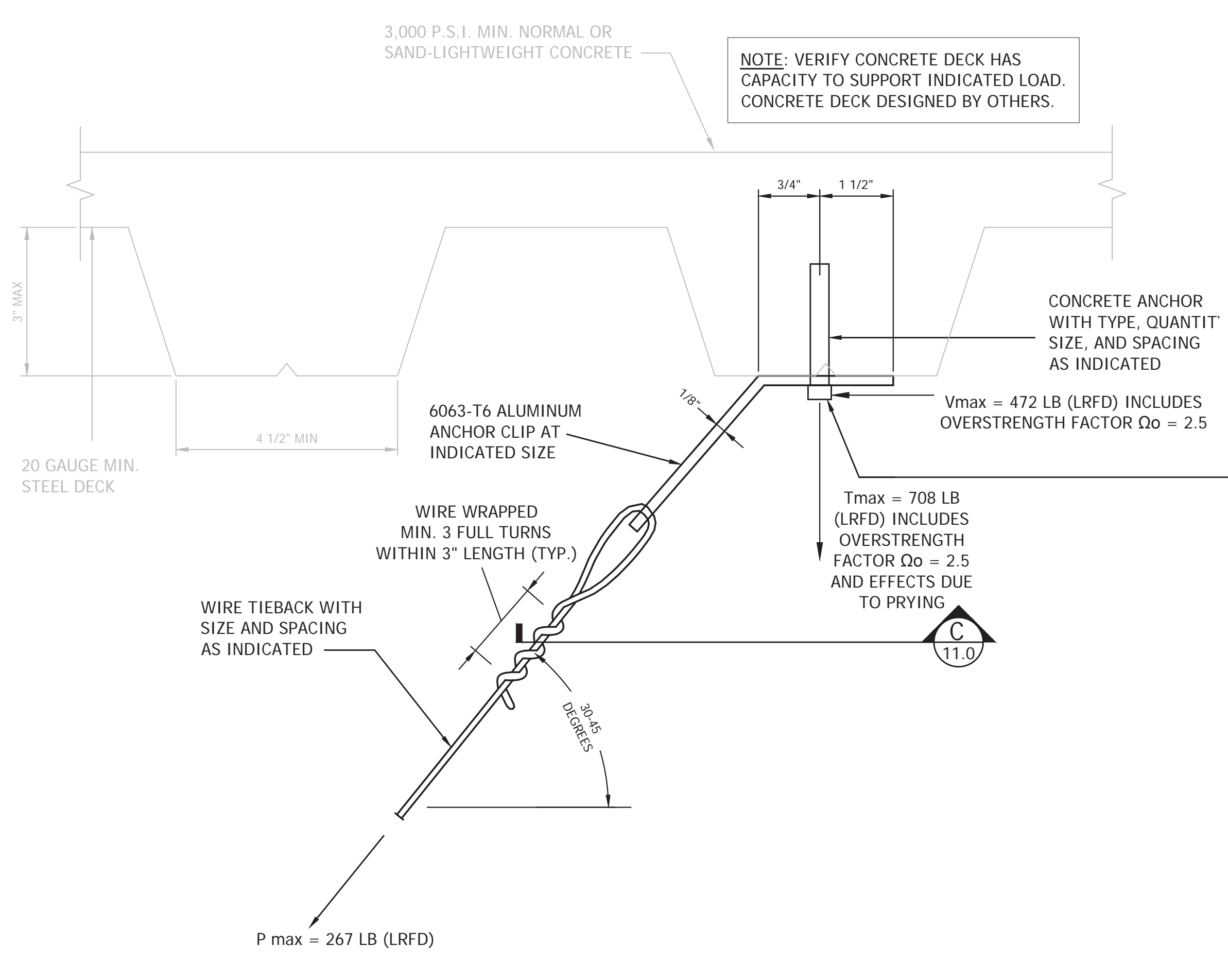
DRAWN BY:
REI-ALR
DATE:
2/13/14
SCALE:
1/4" = 1'-0" AS NOTED
1/8" = 1'-0" HALF SCALE AS NOTED
8.0



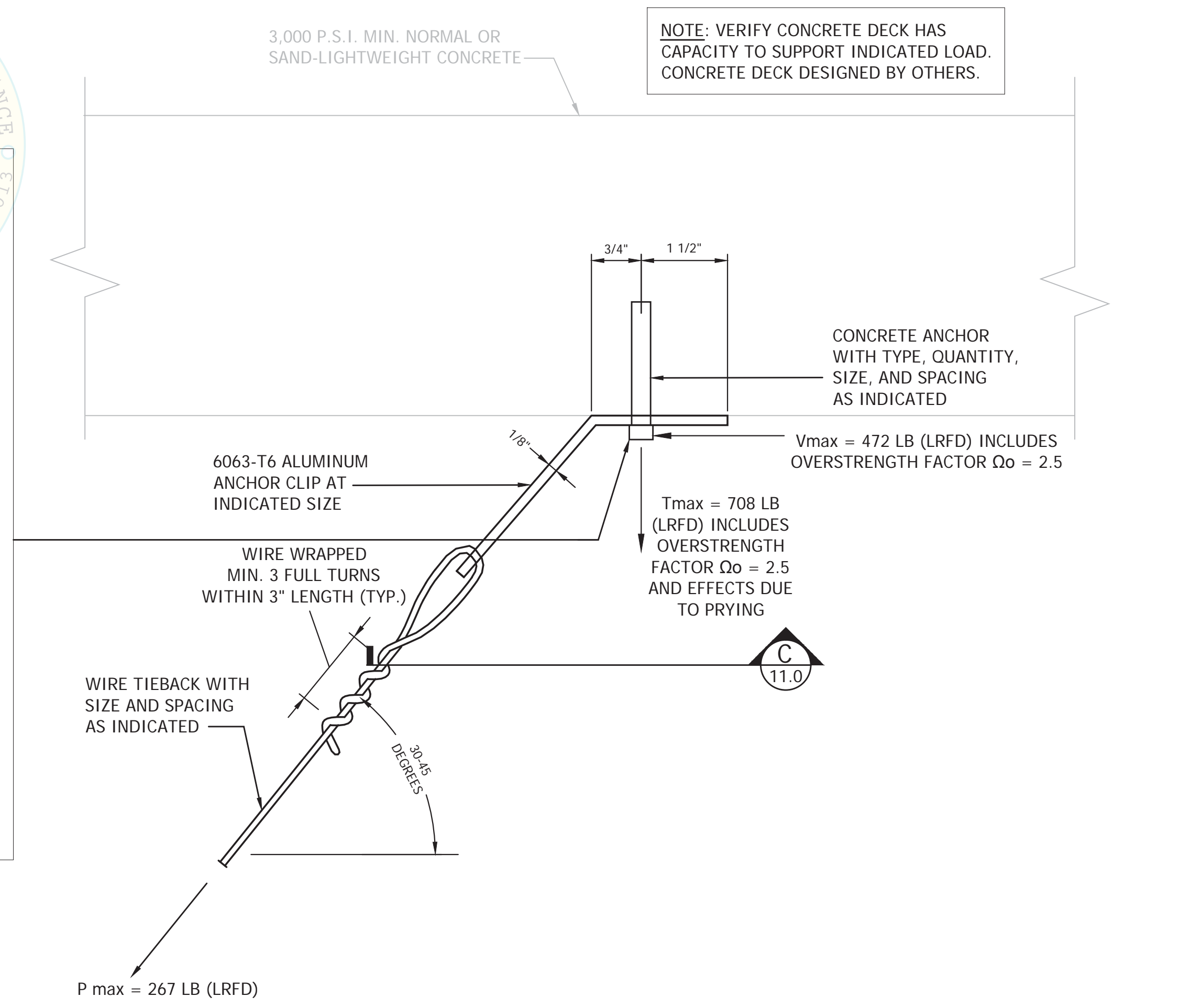
1 WIRE TIEBACK ANCHOR AT METAL DECK
 9.0 SCALE: 6" = 1'-0" (SEE NOTE 1)



2 WIRE TIEBACK ANCHOR AT WOOD DECK
 9.0 SCALE: 6" = 1'-0" (SEE NOTE 1)



3 WIRE TIEBACK ANCHOR AT CONCRETE FILLED METAL DECK
 9.0 SCALE: 6" = 1'-0" (SEE NOTE 1)



4 WIRE TIEBACK ANCHOR AT CONCRETE SLAB
 9.0 SCALE: 6" = 1'-0" (SEE NOTE 1)

REVIEWED FOR CODE COMPLIANCE
 OPM-0044-13
 BY: William Staehlin

CONCRETE ANCHOR OPTIONS

Use (1) 3/8" Diameter Powers-Stud+ SD1 Carbon Steel Expansion Anchor to Attach Anchor Clip to Concrete Decking as Shown.
 $f'_c = 3000$ psi Minimum
 Embedment = 2-3/8"
 Concrete Slab Edge Distance = 6" Minimum
 Slab Thickness = 4" Minimum
 ICC-ES-ESR-2818
 See detail 1, sheet 12.0 for acceptable deck profile & anchor placement.

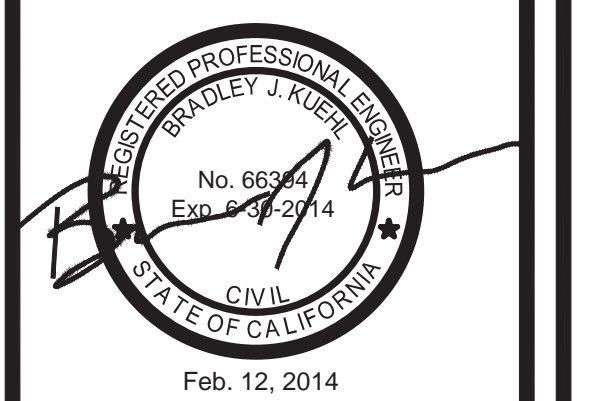
Use (1) 3/8" Diameter Hilti Kwik Bolt TZ Carbon Steel Expansion Anchor to Attach Anchor Clip to Concrete Decking as Shown.
 $f'_c = 3000$ psi Minimum
 Embedment = 2-5/16"
 Concrete Slab Edge Distance = 4" Minimum
 Slab Thickness = 4" Minimum
 ICC-ES-ESR-1917
 See detail 2, sheet 12.0 for acceptable deck profile & anchor placement.

NOTES:
 1. Use (2) 12 gauge (0.106"Ø) galvanized, soft annealed mild carbon steel wire tiebacks (ASTM A641) at out-of-plane spacing per Table A on sheet 3.0. (Wire to have min. yield strength $F_y = 48$ ksi and min. ultimate tensile strength $F_u = 63$ ksi).



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 403-723-5000 Fax 403-723-6644 www.dirtt.net

RICE ENGINEERING
 105 School Creek Trail Phone: 920.845.1042
 Luxemburg, WI 54217 Fax: 920.845.1048
 www.rice-inc.com
 Project No.: R12-10-266



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 •Separation of dissimilar materials.

rev.	date	description
▲	1/1	b.y.
▲	1/1	b.y.
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▲	1/1	b.y.
▲	1/1	b.y.
▲	1/1	b.y.
▲	1/1	b.y.

PROJECT NAME:
DIRTT Environmental Solutions, LTD
 DIRTT Partition Walls
 OSHPD OPM-0044-13
 SHOP DRAWING

PROJECT ADDRESS:
 California, USA

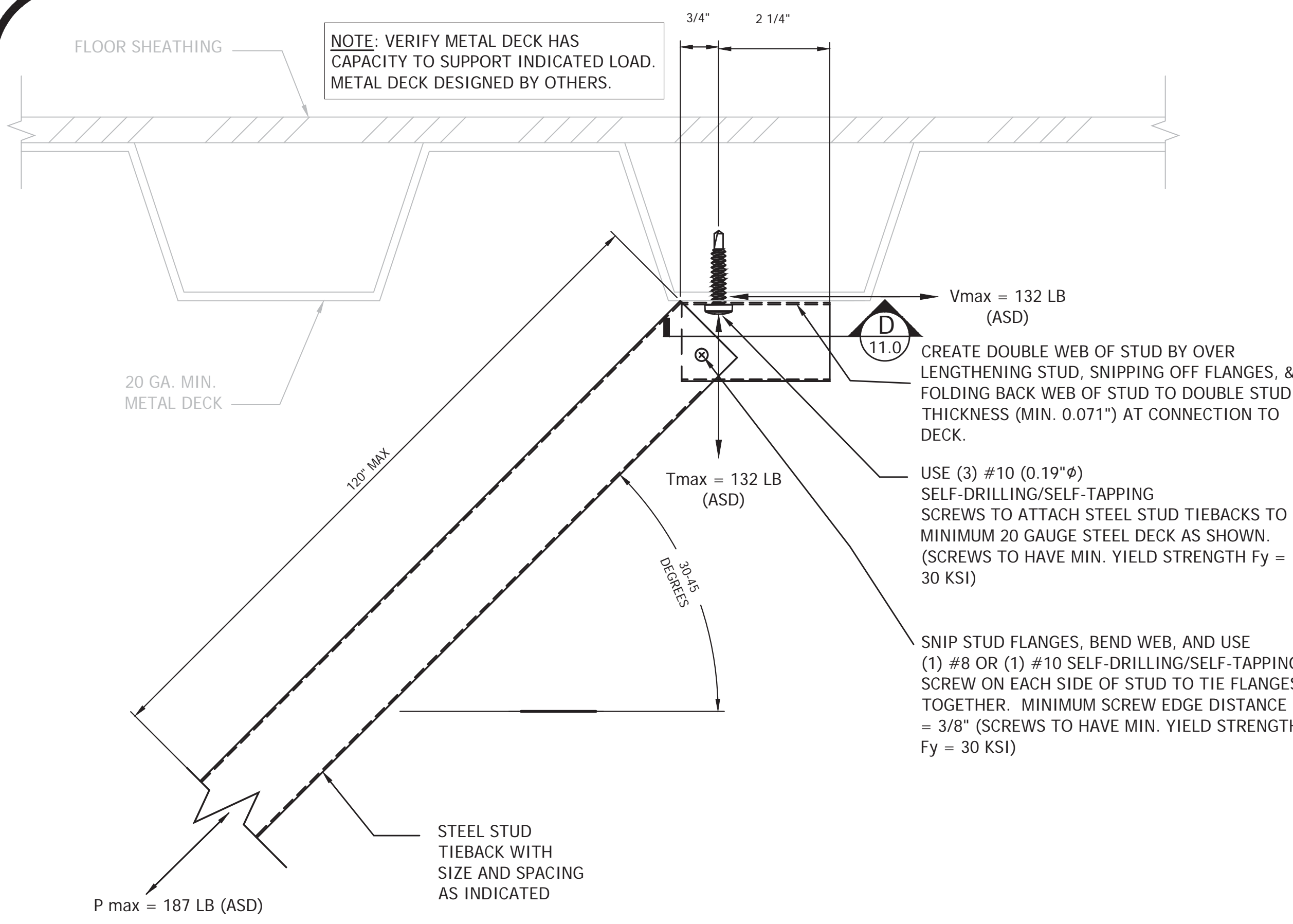
PROJECT MANAGER:
 PM PMS #

DRAWN BY:
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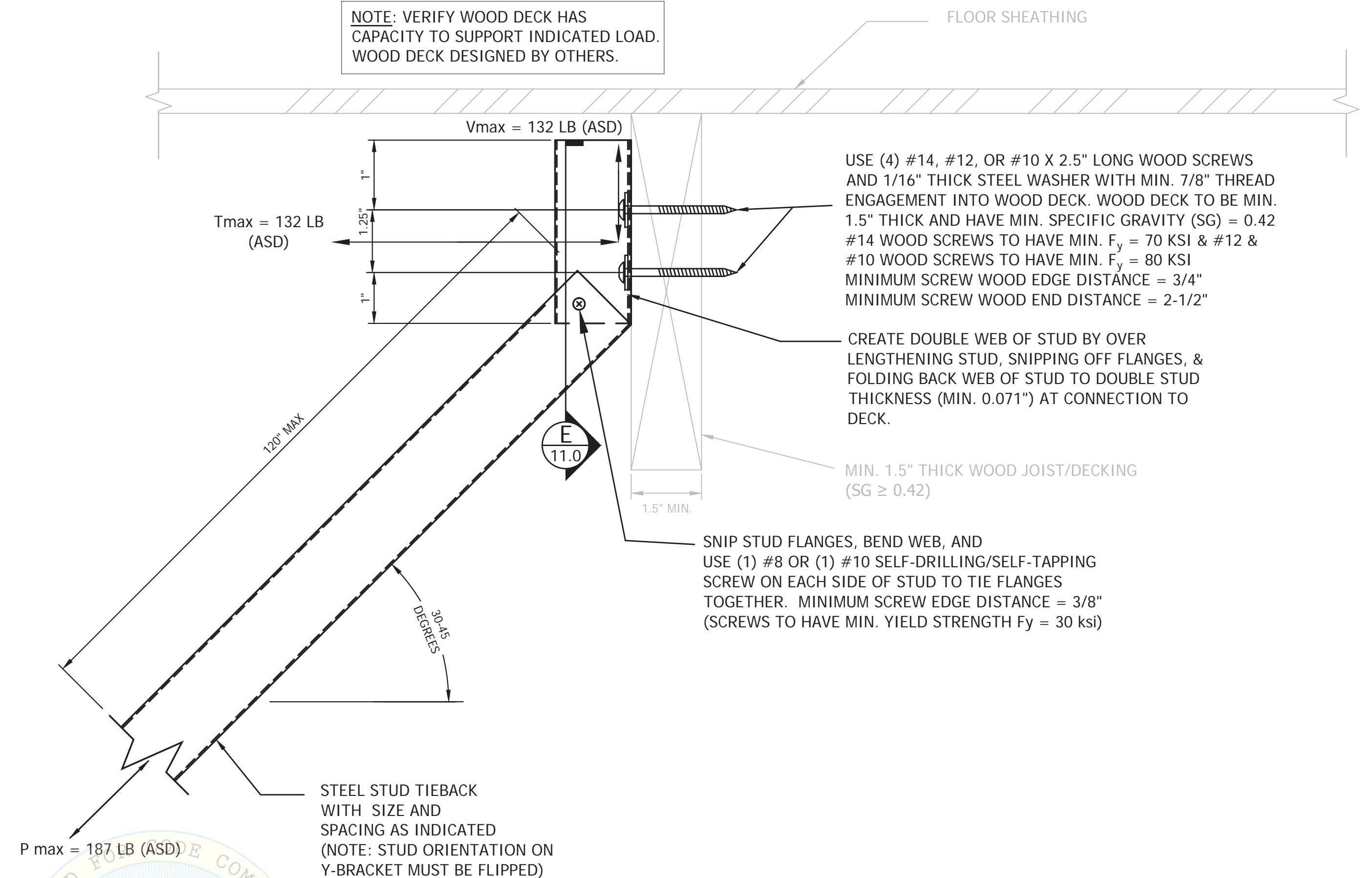
DATE:
 2/13/14

SCALE:
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 1/8" = 1'-0" SCALE AS NOTED

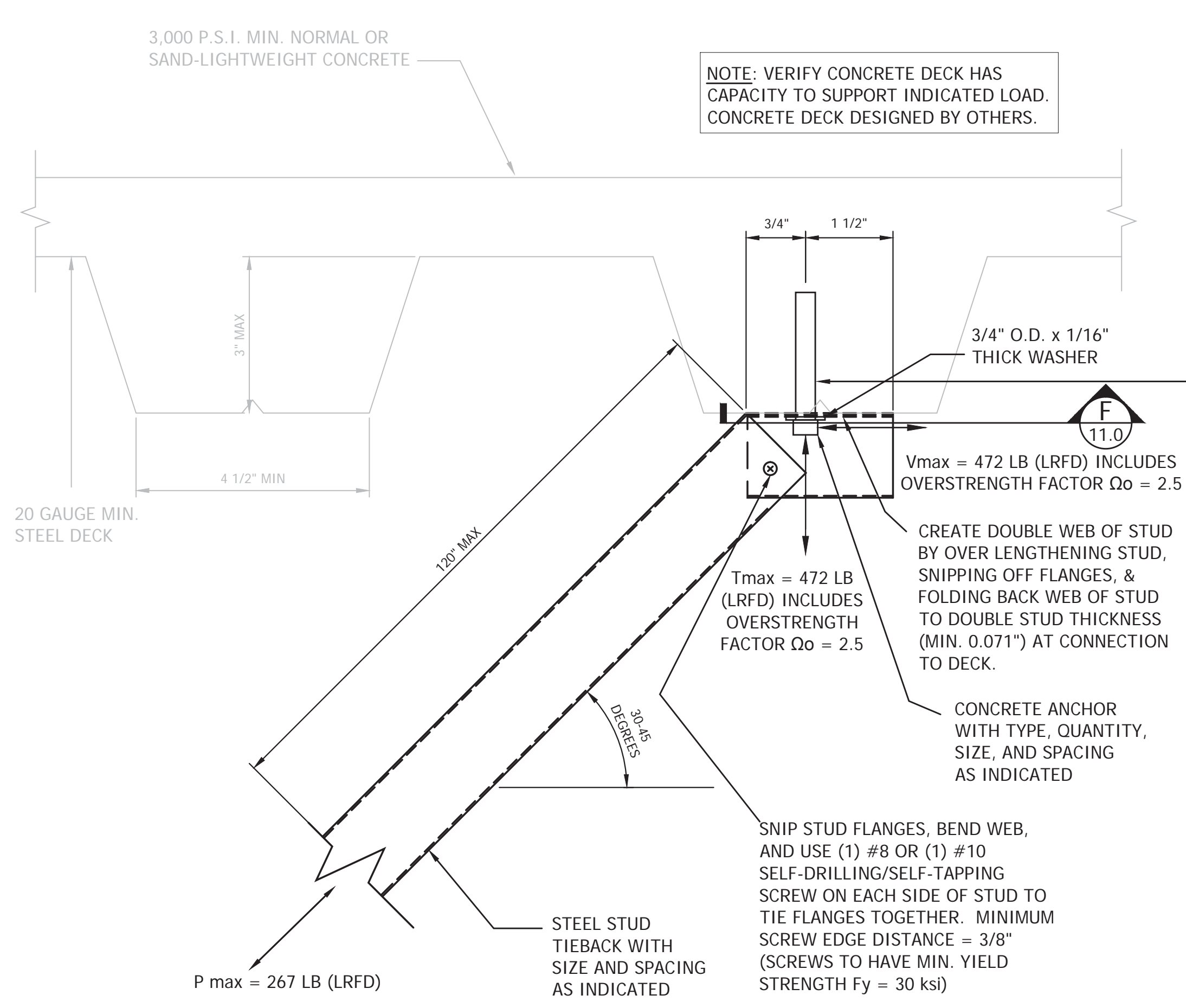
SHEET:
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1 STUD TIEBACK ANCHOR AT METAL DECK
SCALE: 6" = 1'-0" (SEE NOTE 1)



2 STUD TIEBACK ANCHOR AT WOOD DECK
SCALE: 6" = 1'-0" (SEE NOTE 1)



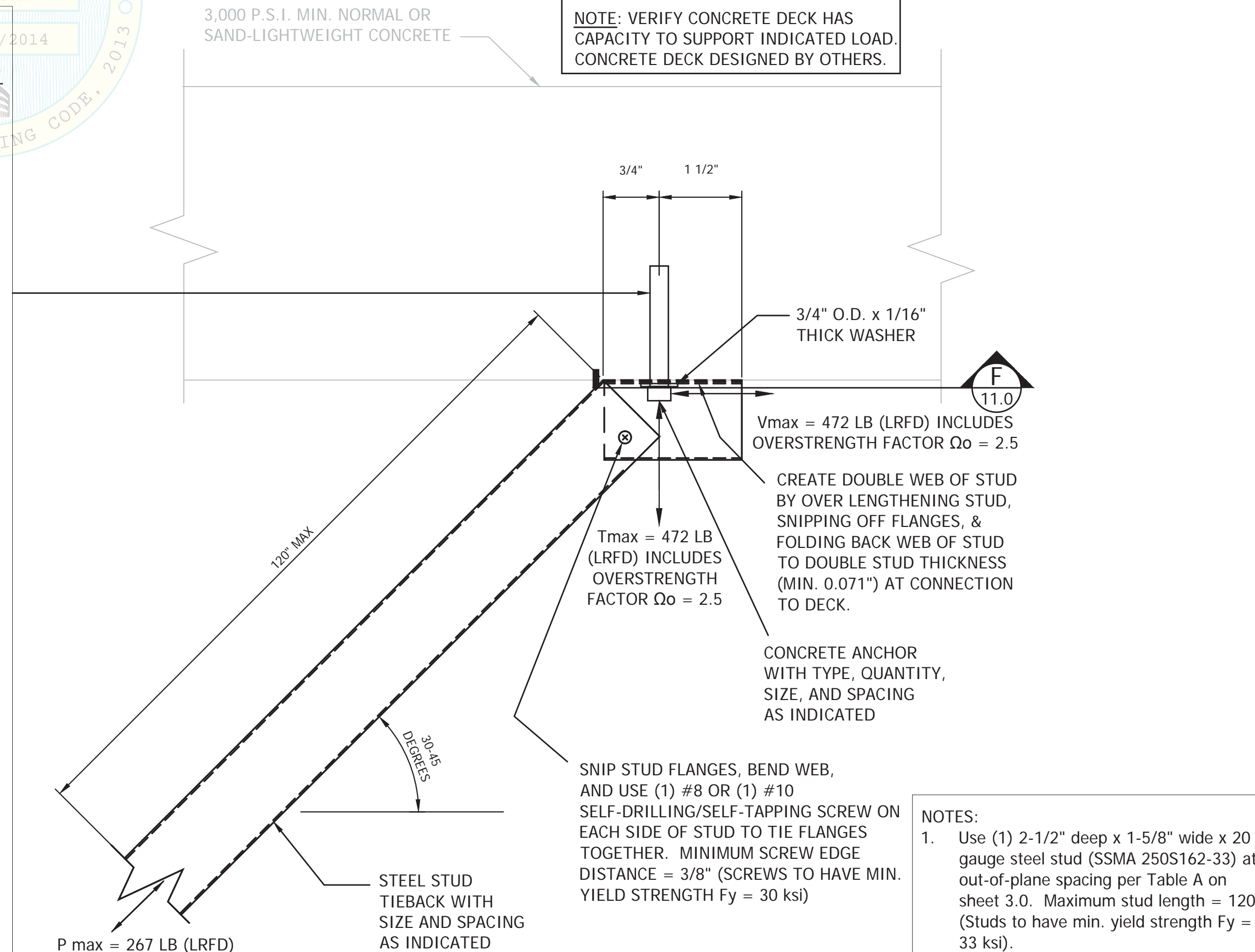
3 STUD TIEBACK ANCHOR AT CONCRETE FILLED METAL DECK
SCALE: 6" = 1'-0" (SEE NOTE 1)

CONCRETE ANCHOR OPTIONS

Use (1) 3/8" Diameter Powers-Stud+ SD1 Carbon Steel Expansion Anchor to Attach Steel Stud Web to Concrete Decking as Shown.
f'c = 3000 psi Minimum
Embedment = 2-3/8"
Edge Distance = 6" Minimum
Slab Thickness = 4" Minimum
ICC-ES-ESR-2818
See detail 1, sheet 12.0 for acceptable deck profile & anchor placement.

Use (1) 3/8" Diameter Hilti Kwik Bolt TZ Carbon Steel Expansion Anchor to Attach Steel Stud Web to Concrete Decking as Shown.
f'c = 3000 psi Minimum
Embedment = 2-5/16"
Edge Distance = 4" Minimum
Slab Thickness = 4" Minimum
ICC-ES-ESR-1917
See detail 2, sheet 12.0 for acceptable deck profile & anchor placement.

Use (1) 1/4" Diameter Hilti Kwik HUS-EZ (KH-EZ) Carbon Steel Screw Anchor to Attach Steel Stud Web to Concrete Decking as Shown.
f'c = 3000 psi Minimum
Embedment = 2-1/2"
Edge Distance = 5" Minimum
Slab Thickness = 4-1/8" Minimum
ICC-ES-ESR-3027
See detail 3, sheet 12.0 for acceptable deck profile & anchor placement.



4 STUD TIEBACK ANCHOR AT CONCRETE FILLED METAL DECK
SCALE: 6" = 1'-0" (SEE NOTE 1)

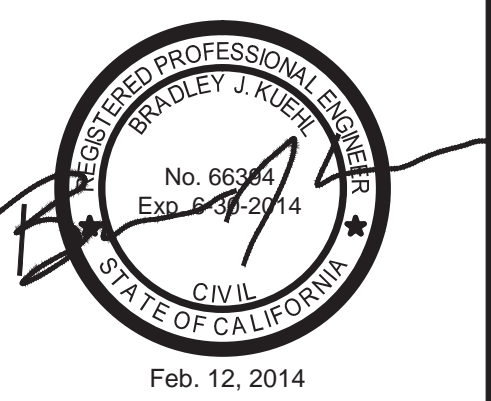
NOTES:
1. Use (1) 2-1/2" deep x 1-5/8" wide x 20 gauge steel stud (SSMA 250S162-33) at out-of-plane spacing per Table A on sheet 3.0. Maximum stud length = 120". (Studs to have min. yield strength Fy = 33 ksi).



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7303 - 30th Street S.E., Calgary, AB Canada T2C 1N6
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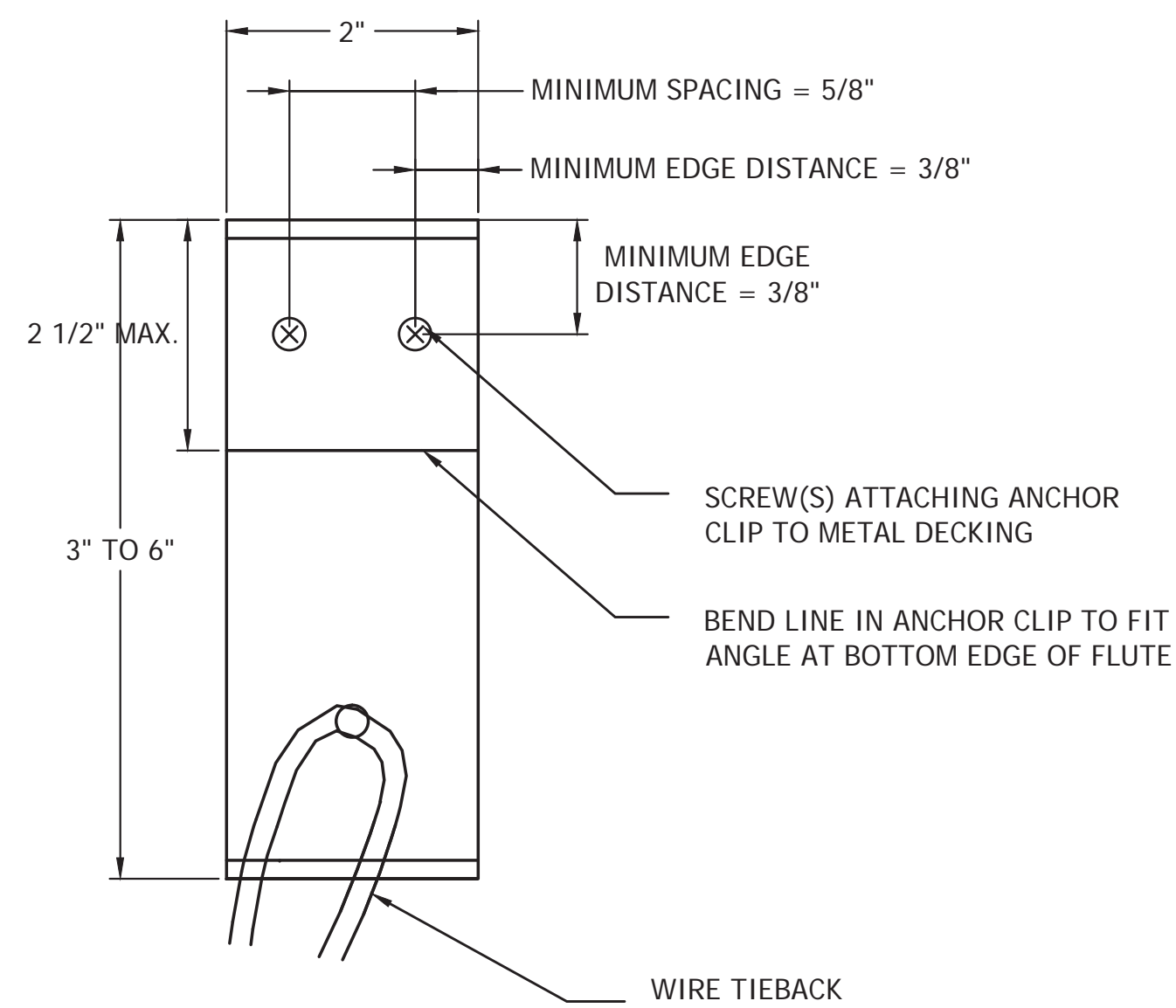
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Δ	1/1	b.y.
Δ	1/1	b.y.
Δ	1/1	b.y.
Δ	1/1	b.y.
Δ	1/1	b.y.
Δ	1/1	b.y.

PROJECT NAME:
DIRTT Enviromental Solutions, LTD
DIRTT Partition Walls
OSHDP OPM-0044-13
SHOP DRAWING

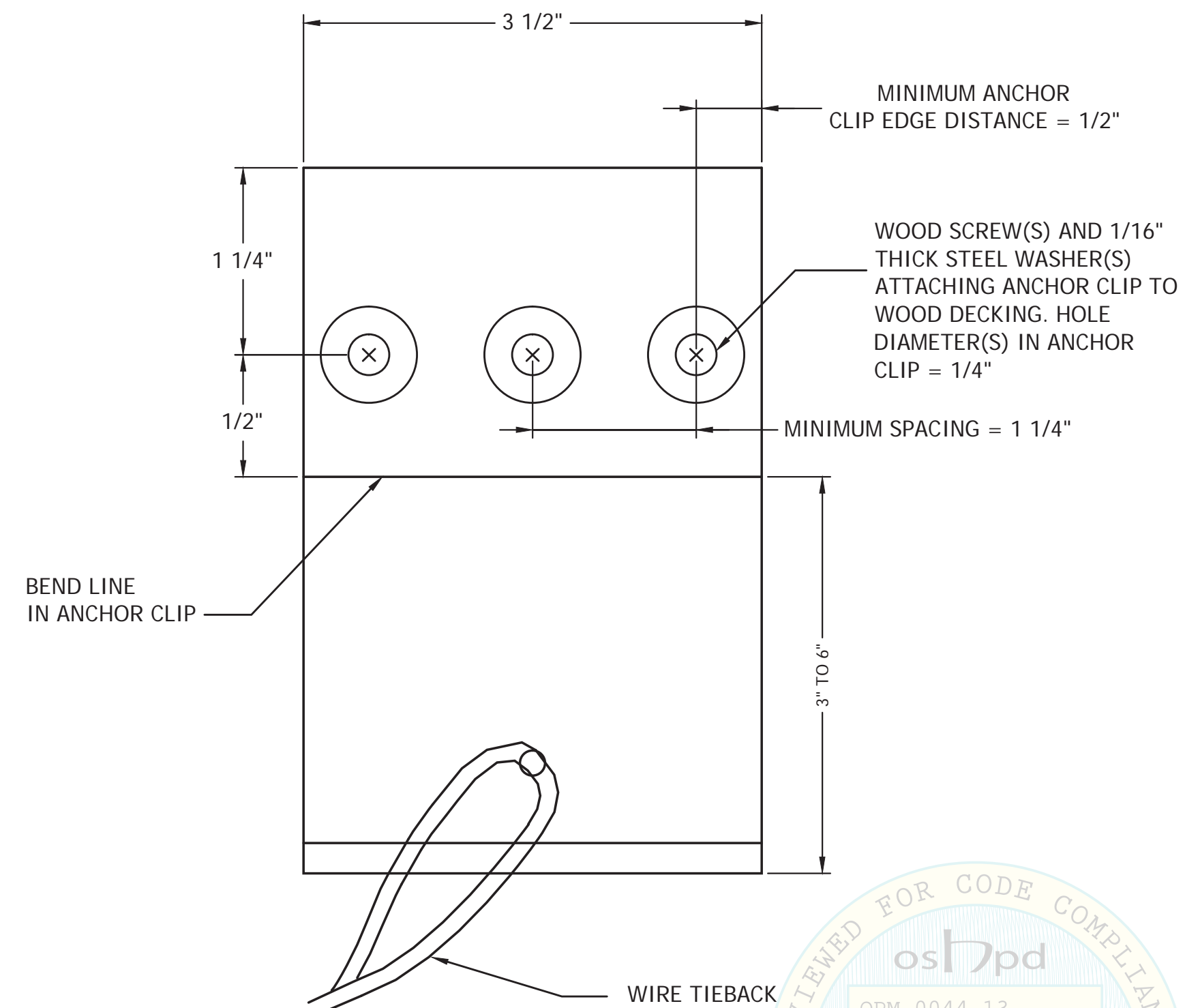
PROJECT ADDRESS:
California, USA

PROJECT MANAGER:
PM PMS #

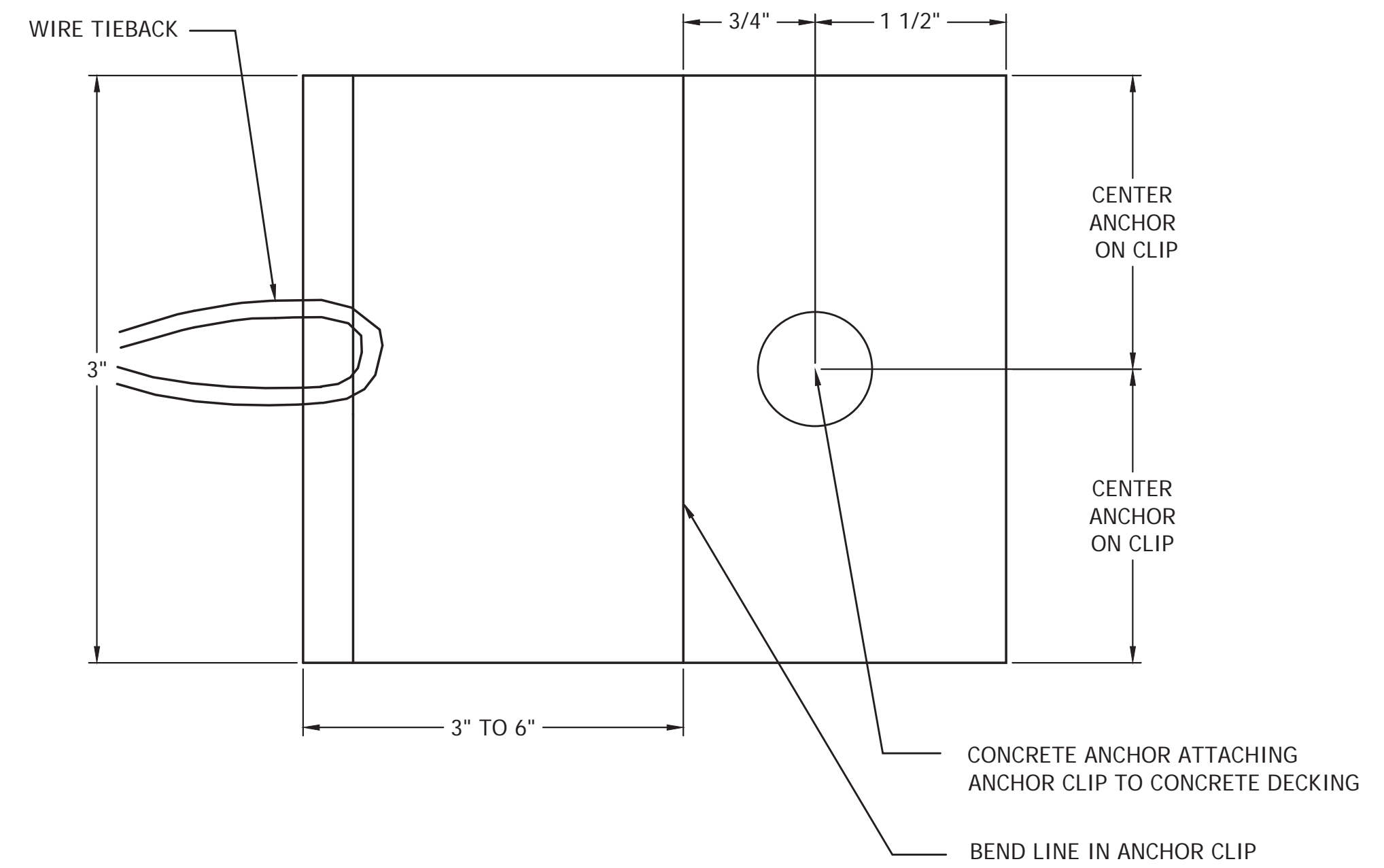
DRAWN BY:
REI-ALR
DATE:
2/13/14
SCALE:
1 1/4" SCALE AS NOTED
1 1/4" HALF SCALE AS NOTED
SHEET:
10.0



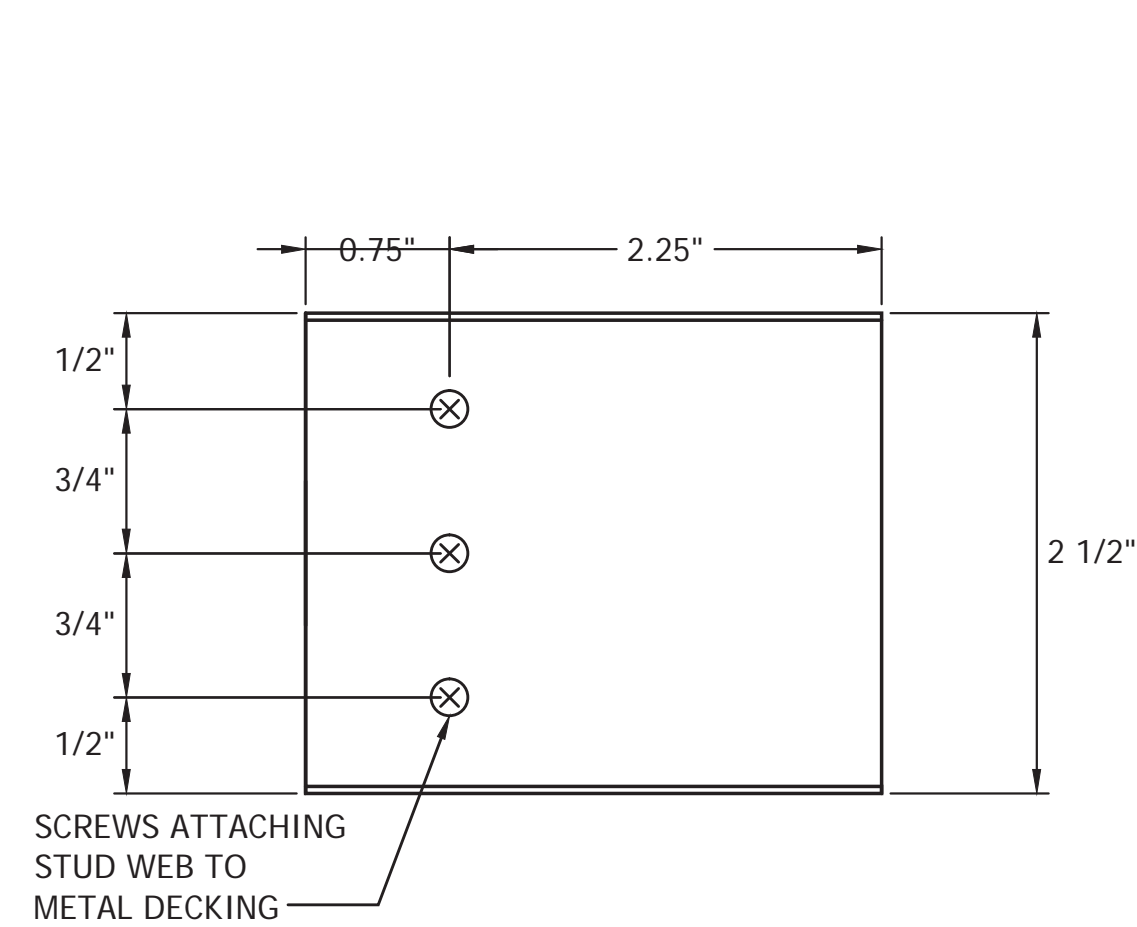
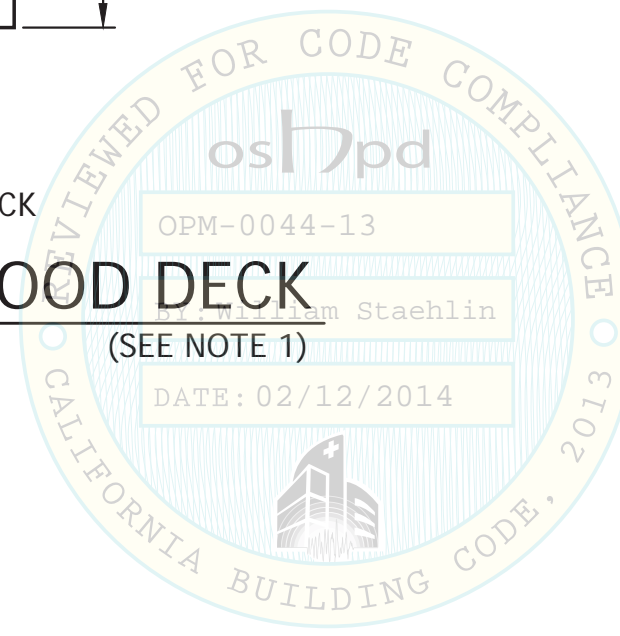
A CLIP CONNECTION TO METAL DECK
SCALE: 1'-0" = 1'-0" (SEE NOTE 1)



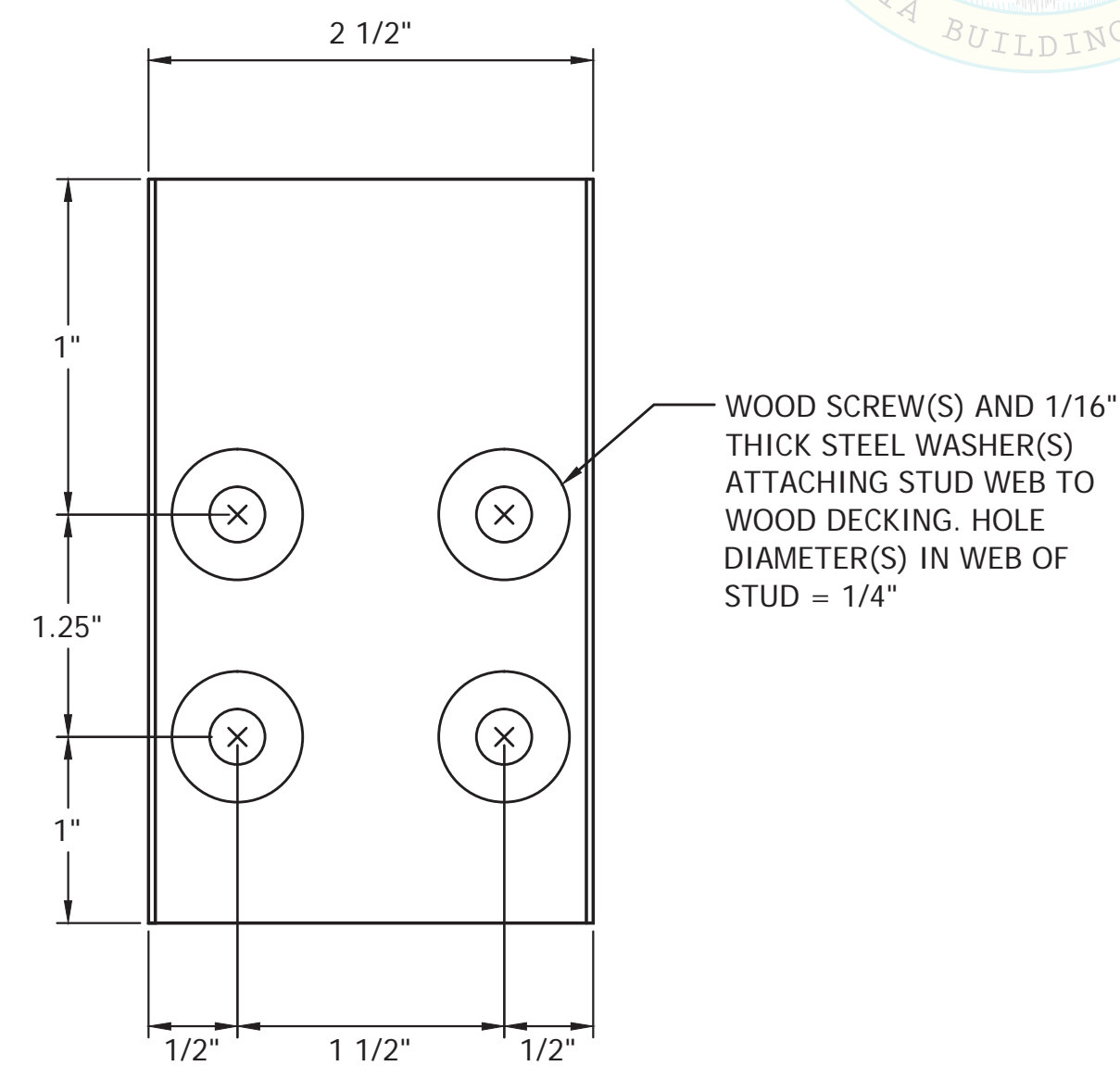
B CLIP CONNECTION TO WOOD DECK
SCALE: 1'-0" = 1'-0" (SEE NOTE 1)



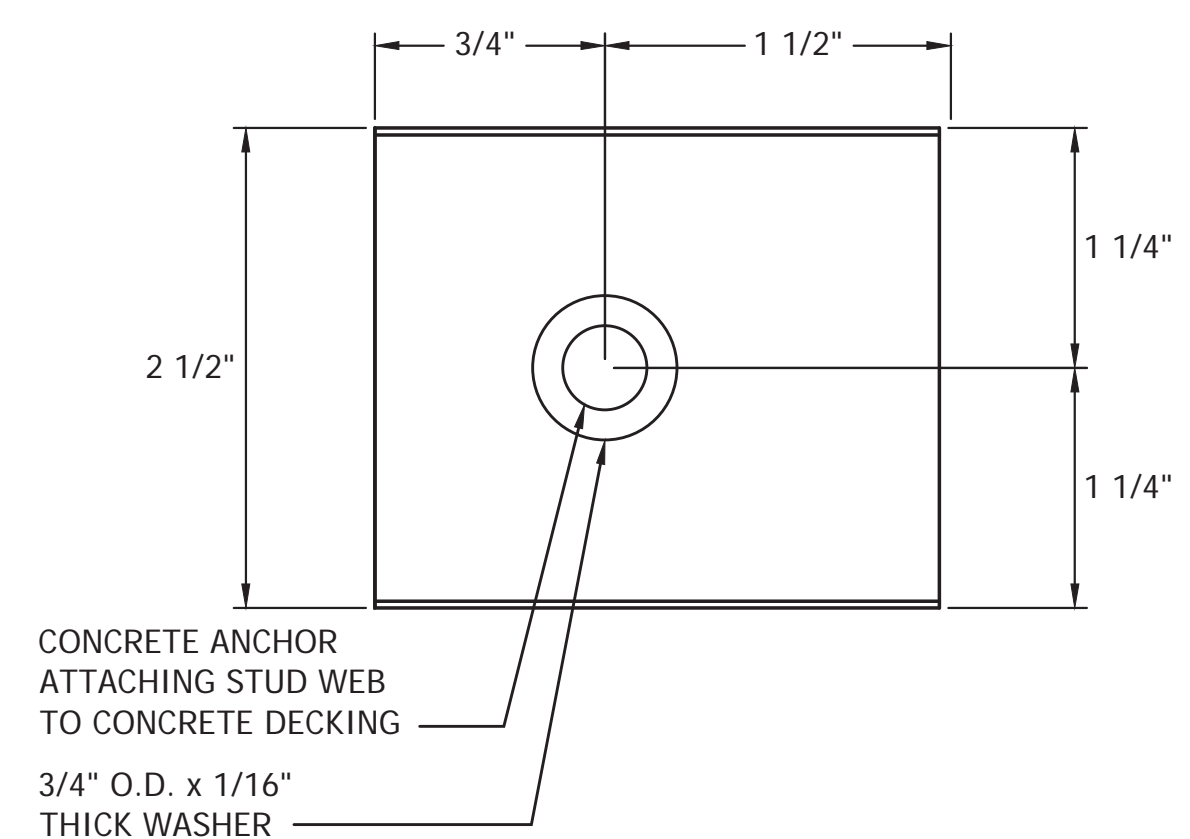
C CLIP CONNECTION TO CONCRETE
SCALE: 1'-0" = 1'-0" (SEE NOTE 1)



D STUD CONNECTION TO METAL DECK
SCALE: 1'-0" = 1'-0"

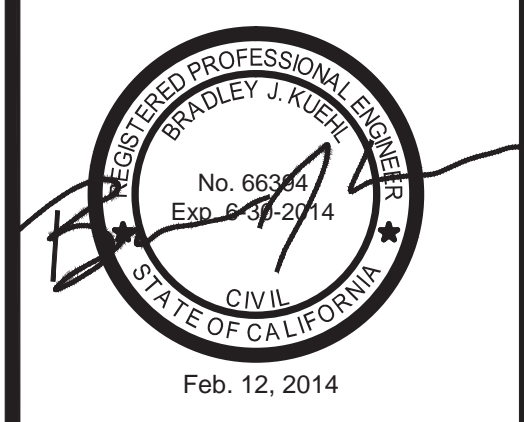


E STUD CONNECTION TO WOOD DECK
SCALE: 1'-0" = 1'-0"



F STUD CONNECTION TO CONCRETE
SCALE: 1'-0" = 1'-0"

NOTES:
1. ANCHOR CLIPS TO BE MINIMUM 6063-T6 ALUMINUM (FY = 25KSI).



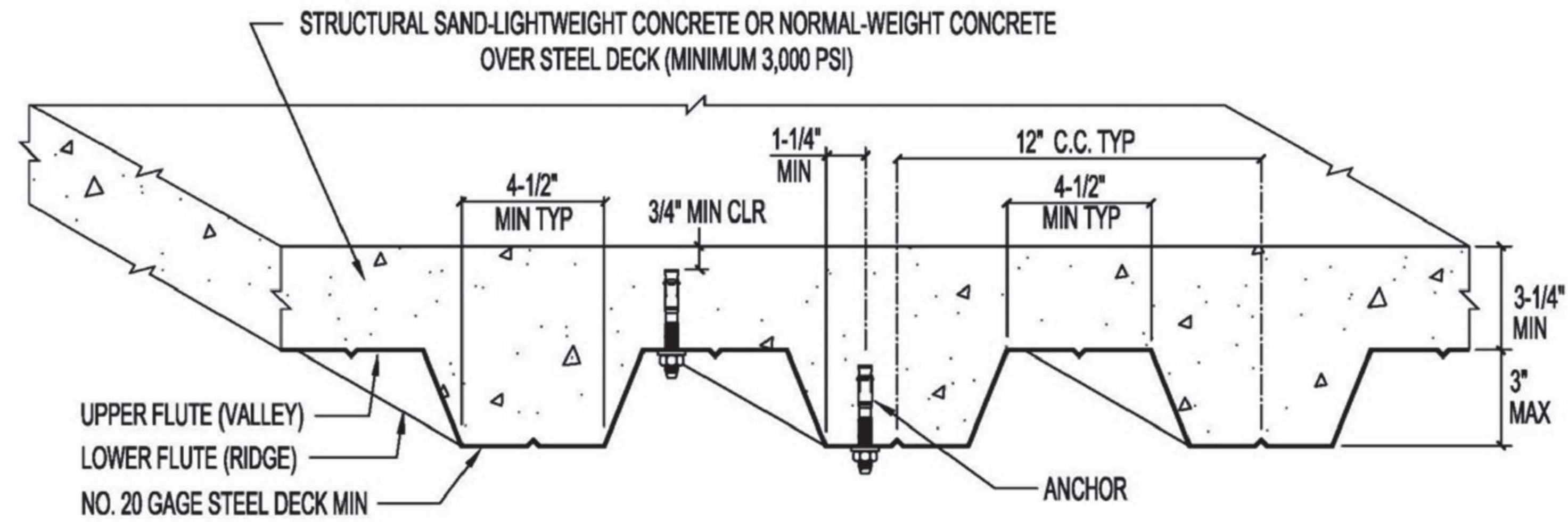
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△	1/1	b.y:
△	1/1	b.y:
△	1/1	b.y:
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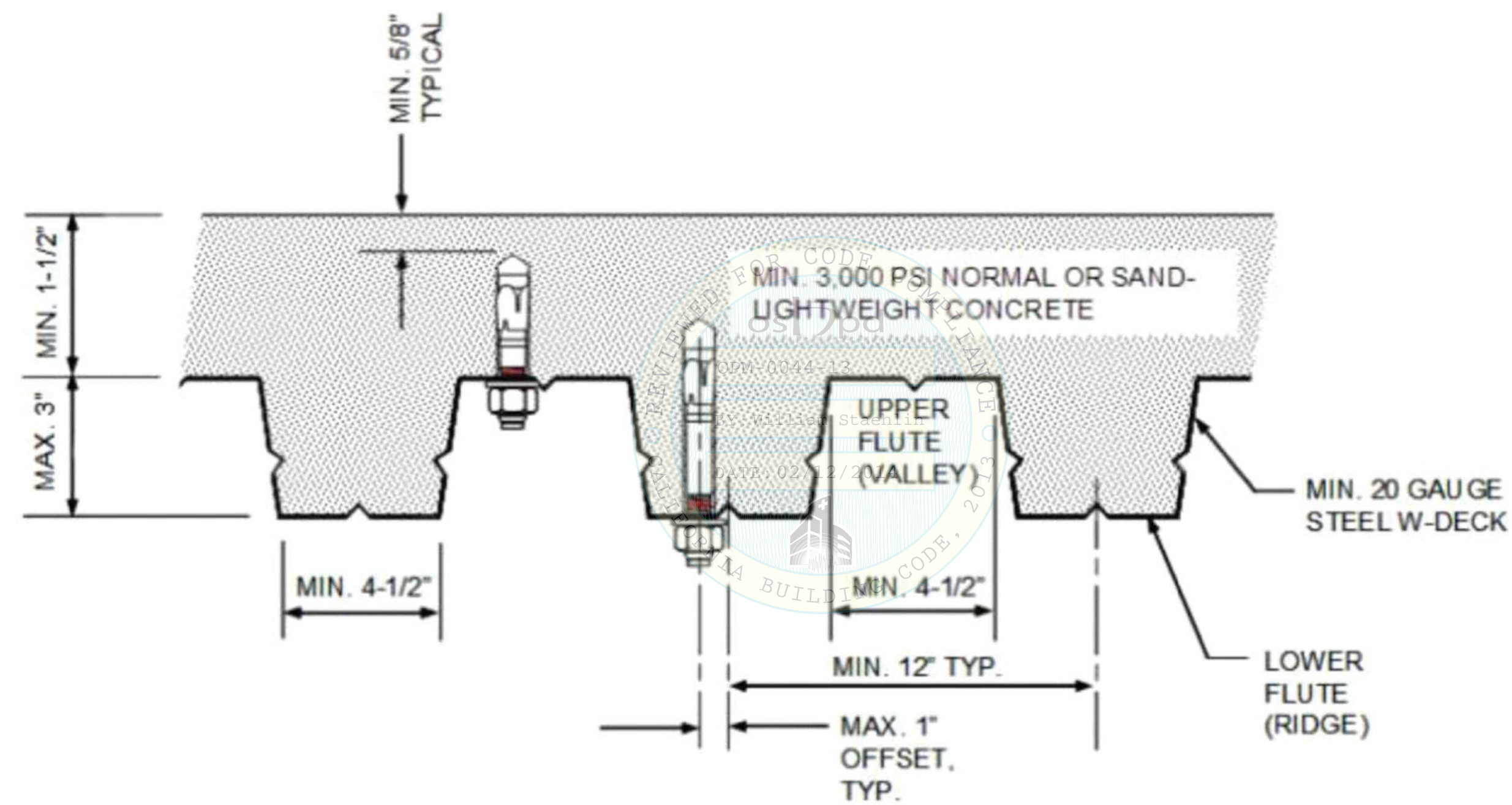
PROJECT NAME:
DIRTT Environmental Solutions, LTD
DIRTT Partition Walls
OSHPD OPM-0044-13
SHOP DRAWING

PROJECT ADDRESS:
California, USA
PROJECT MANAGER:
PM
PMS #

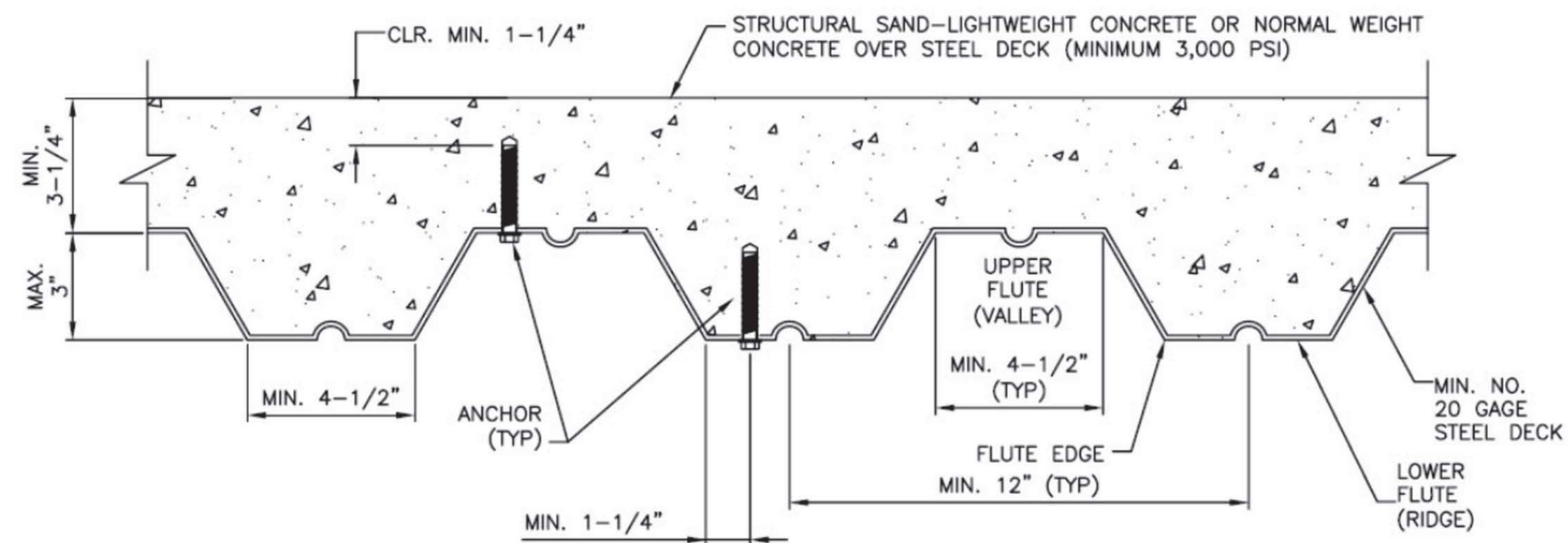
DRAWN BY: REI-ALR	SHEET: 11.0
DATE: 2/13/14	
SCALE: PUNCH SCALE AS NOTED 1 1/4" HALF SCALE AS NOTED	



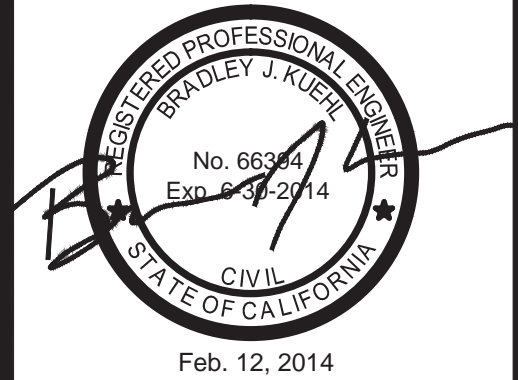
1 ACCEPTABLE CONCRETE FILLED METAL DECK PROFILE
 12.0 SCALE: N.T.S. ANCHOR PLACEMENT FOR POWER-STUD + SD1 ANCHOR



2 ACCEPTABLE CONCRETE FILLED METAL DECK PROFILE
 12.0 SCALE: N.T.S. ANCHOR PLACEMENT FOR HILTI KWIK BOLT TZ ANCHOR



3 ACCEPTABLE CONCRETE FILLED METAL DECK PROFILE
 12.0 SCALE: N.T.S. ANCHOR PLACEMENT FOR HILTI KWIK HUS-EZ (KH-EZ) ANCHOR



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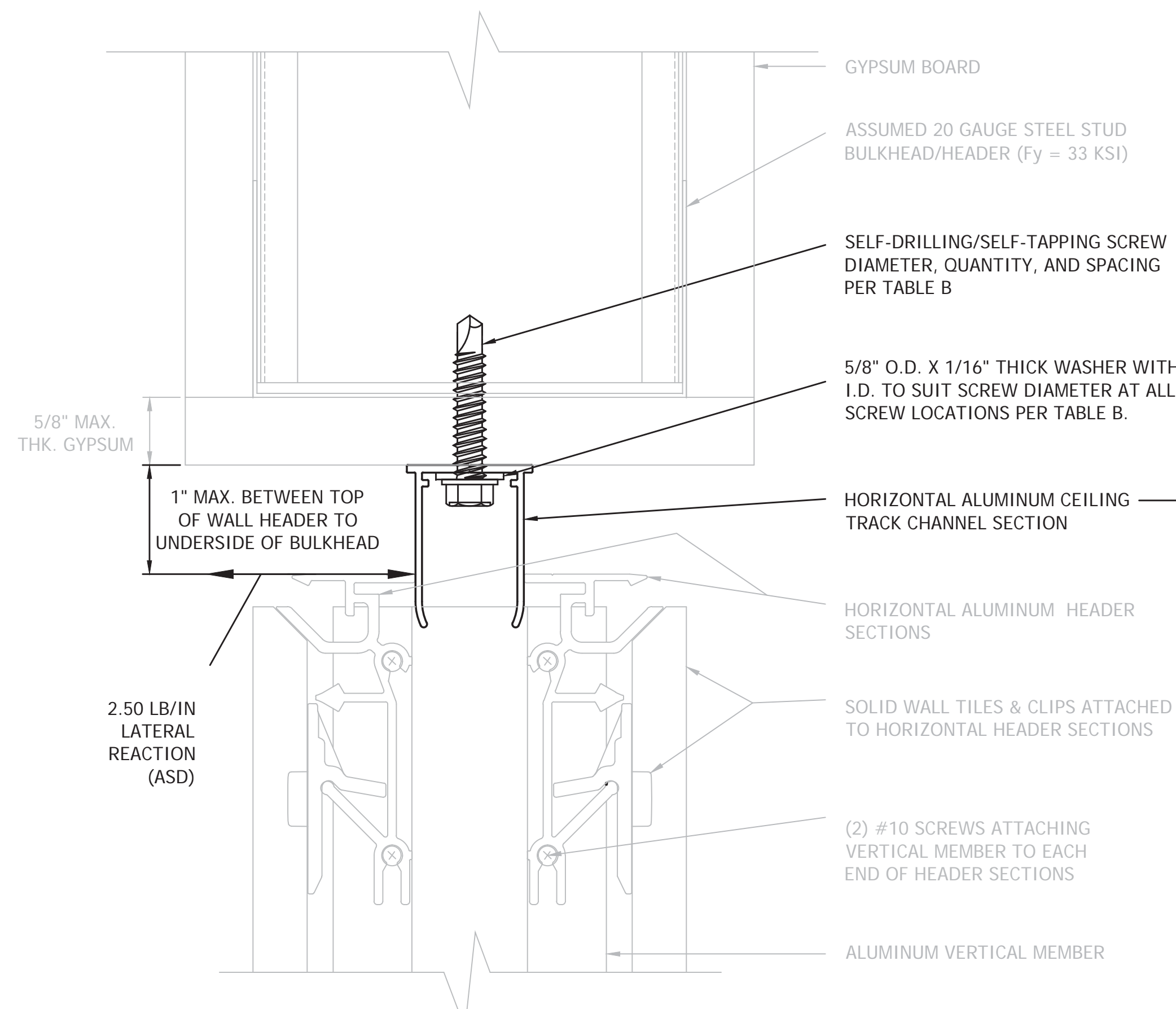
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Δ	/ /	b.y.
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Δ	/ /	b.y.

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DIRTT Environmental Solutions, LTD
 DIRTT Partition Walls
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PROJECT ADDRESS:
 California, USA

PROJECT MANAGER:
 PM PMS #

DRAWN BY: REI-ALR	SHEET: 12.0
DATE: 2/13/14	
SCALE: PUSH SCALE AS NOTED 1x1/2 HALF SCALE AS NOTED	



1 SOLID WALL HEADER - STEEL BULKHEAD
SCALE: 1'-0" = 1'-0"

CEILING TRACK SECTION PROPERTIES

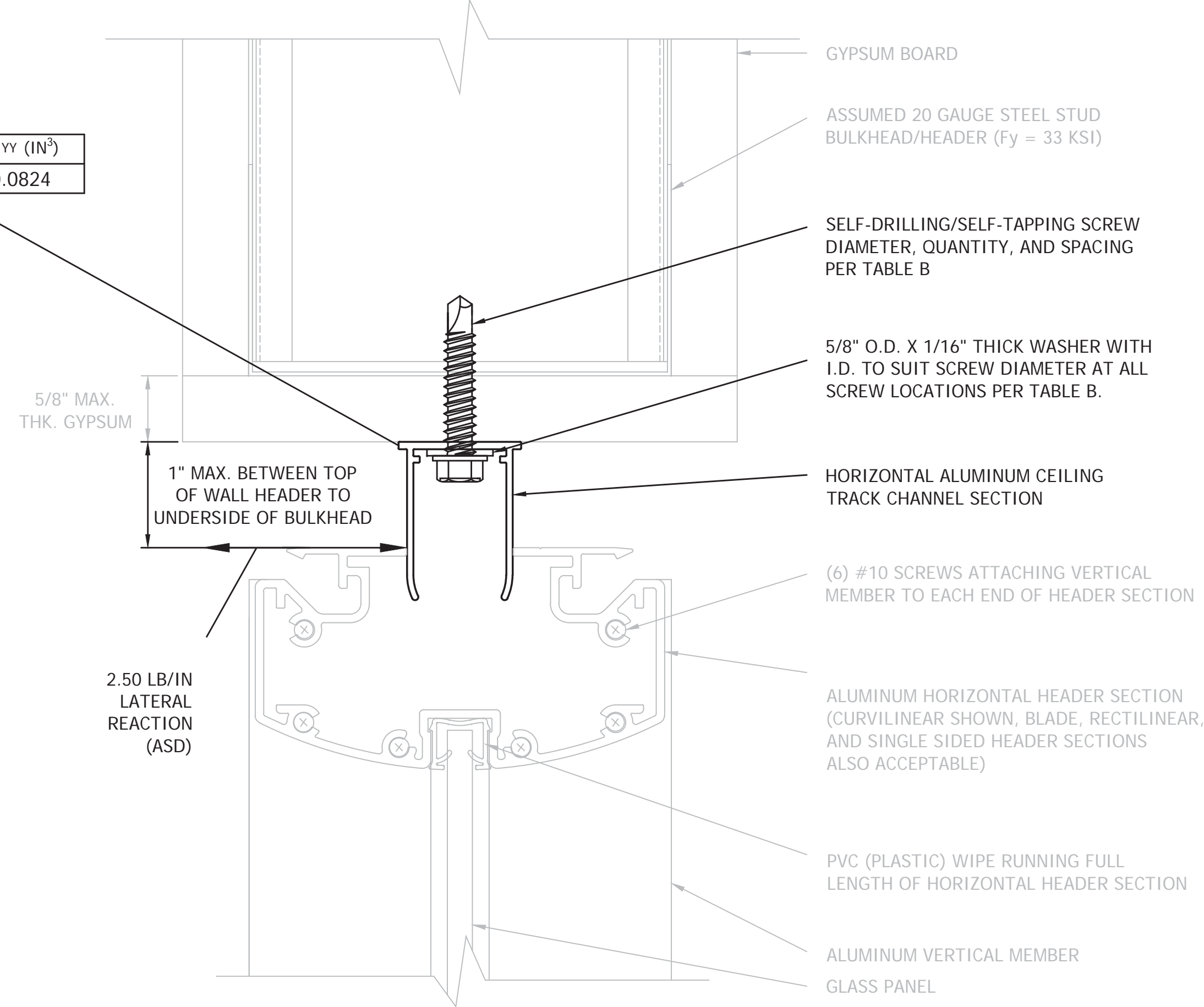
ITEM NAME	PART #	t (IN)	A (IN ²)	I _{XA} (IN ⁴)	I _{YY} (IN ⁴)	S _{XA} (IN ³)	S _{YY} (IN ³)
CEILING TRACK	11095	0.060	0.260	0.0610	0.0478	0.0632	0.0824

Table B: Self-Drilling/Self-Tapping Screw O.C. Spacing (in inches) Given Wall Height (ft) and Screw Diameter

Wall Height (ft)	Screw Diameter		
	#10	#12	1/4"
8	13	15	17
9	11.5	13	15
10	10.5	12	13.5
11	9.5	10.5	12.5
12	8.5	9.5	11.5

NOTES
 1) O.C. ANCHOR SPACING'S REPORTED IN THE TABLE MAY BE DOUBLED BY USING (2) SCREWS AT EACH ANCHOR LOCATION. EXAMPLE: (1) #12 SCREW SPACED AT 12" O.C. FOR A 10' TALL WALL CAN BE SPACED SO THAT (2) #12 SCREWS EXIST AT 24" O.C. MINIMUM SPACING BETWEEN SCREWS = 3*ANCHOR DIAMETER AND MINIMUM EDGE DISTANCE OF SCREWS = 1.5* ANCHOR DIAMETER.
 2) PENETRATION OF SCREWS THROUGH JOINED MATERIAL SHOULD NOT BE LESS THAN 3 EXPOSED THREADS
 3) USE MINIMUM OF (2) ANCHOR LOCATIONS/GROUPS AT GIVEN MAX. O.C. SPACING PER CEILING TRACK SECTION

NOTE:
 VERIFY BULK HEAD HAS CAPACITY TO SUPPORT INDICATED LOAD. BULK HEAD DESIGNED BY OTHERS.

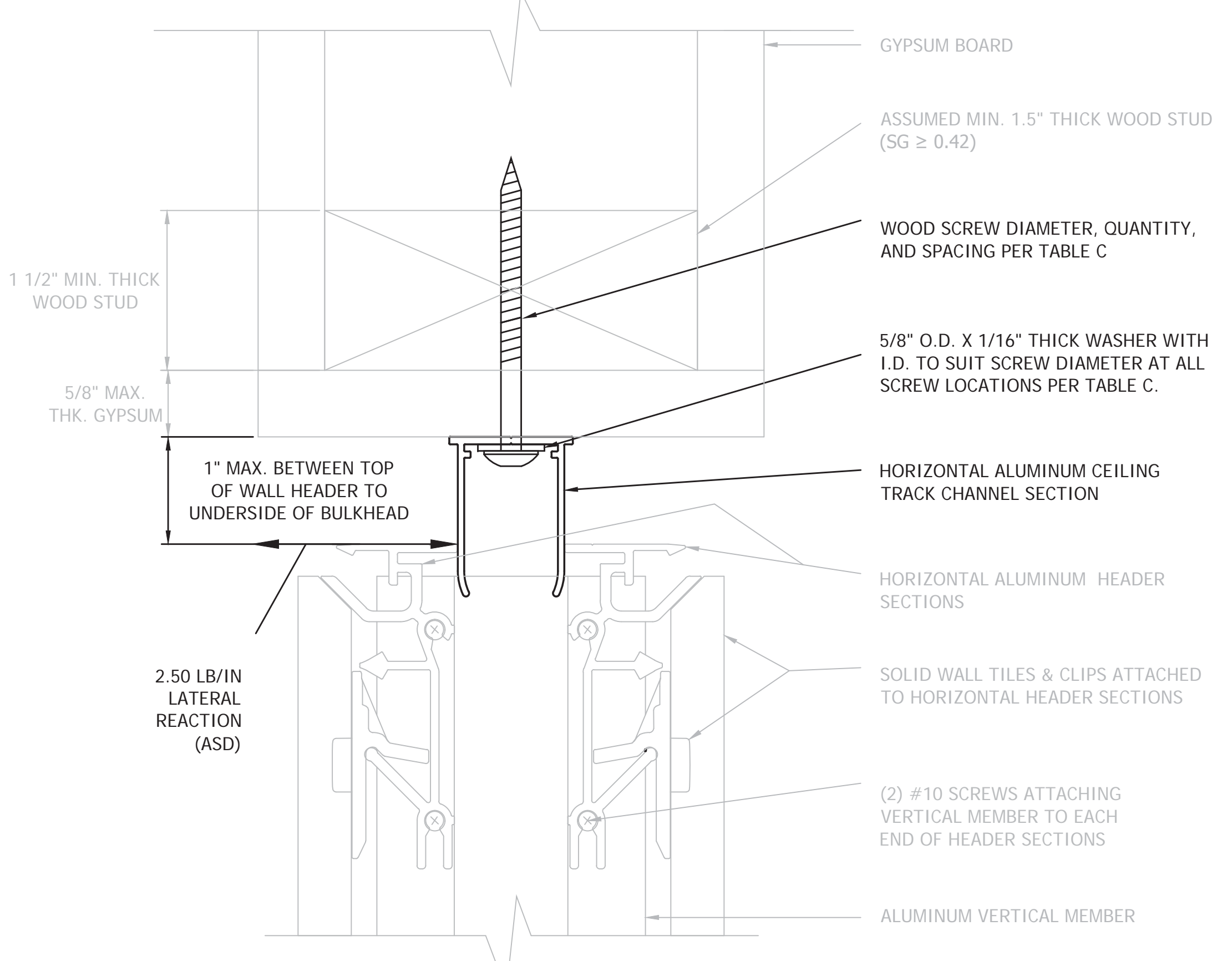


2 GLASS WALL HEADER - STEEL BULKHEAD
SCALE: 1'-0" = 1'-0"

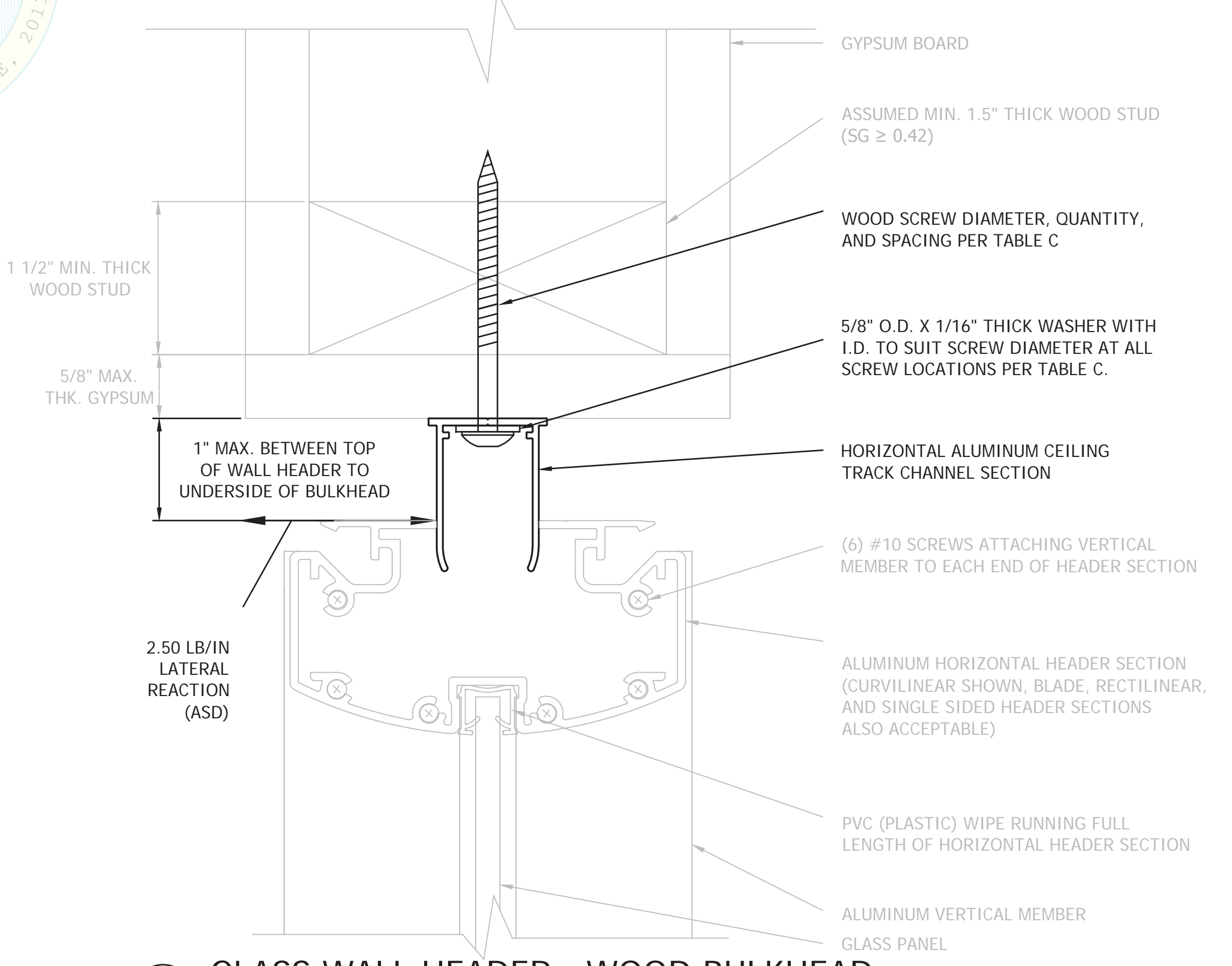
Table C: Wood Screw O.C. Spacing (in inches) Given Wall Height (ft) and Screw Diameter

Wall Height (ft)	Screw Diameter		
	#10	#12	#14
8	17	19	20.5
9	15	17	18
10	13.5	15	16.5
11	12.5	13.5	15
12	11.5	12.5	13.5

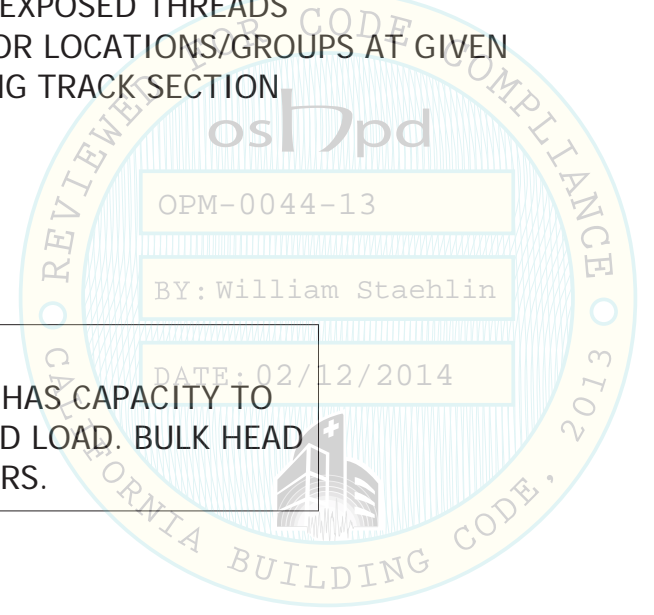
NOTES
 1) O.C. ANCHOR SPACING'S REPORTED IN THE TABLE MAY BE DOUBLED BY USING (2) SCREWS AT EACH ANCHOR LOCATION. EXAMPLE: (1) #10 SCREW SPACED AT 12.5" O.C. FOR A 11' TALL WALL CAN BE SPACED SO THAT (2) #10 SCREWS EXIST AT 25" O.C. MIN. SPACING BETWEEN SCREWS = 5*ANCHOR DIAMETER, MIN. EDGE DISTANCE OF SCREWS = 2.5*ANCHOR DIAMETER, AND MIN. END DISTANCE = 5*ANCHOR DIAMETER.
 2) WOOD SCREWS TO MINIMUM 2.5" LONG WITH MIN. 1.5" THREAD ENGAGEMENT INTO WOOD STUD. #14 WOOD SCREWS TO HAVE MIN. F_y = 70 KSI. #12 AND #10 WOOD SCREWS TO HAVE MIN. F_y = 80 KSI.
 3) HOLE DIAMETER IN CEILING TRACK TO BE 5/16".
 4) USE MINIMUM OF (2) ANCHOR LOCATIONS/GROUPS AT GIVEN MAX. O.C. SPACING PER CEILING TRACK SECTION



3 SOLID WALL HEADER - WOOD BULKHEAD
SCALE: 1'-0" = 1'-0"

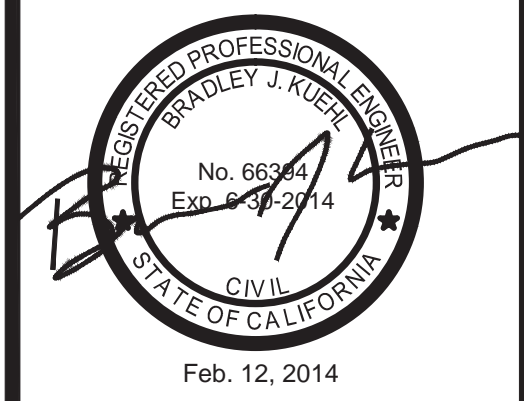


4 GLASS WALL HEADER - WOOD BULKHEAD
SCALE: 1'-0" = 1'-0"



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△	1/1	b.y.
△	1/1	b.y.
△	1/1	b.y.
△	1/1	b.y.
△	1/1	b.y.
△	1/1	b.y.
△	1/1	b.y.
△	1/1	b.y.

PROJECT NAME:
DIRTT Environmental Solutions, LTD
 DIRTT Partition Walls
 OSHPD OPM-0044-13
SHOP DRAWING

PROJECT ADDRESS:
 California, USA
 PROJECT MANAGER:
 PM
 PMS #

DRAWN BY:
 REI-ALR
 DATE:
 2/13/14
 SCALE:
 1/4" = 1'-0" AS NOTED
 1/8" = 1'-0" HALF SCALE AS NOTED
 SHEET:
13.0

rev.	date	description
▲	1/1	b.y.
▲	1/1	b.y.
▲	1/1	b.y.
▲	1/1	b.y.
▲	1/1	b.y.
▲	1/1	b.y.
▲	1/1	b.y.

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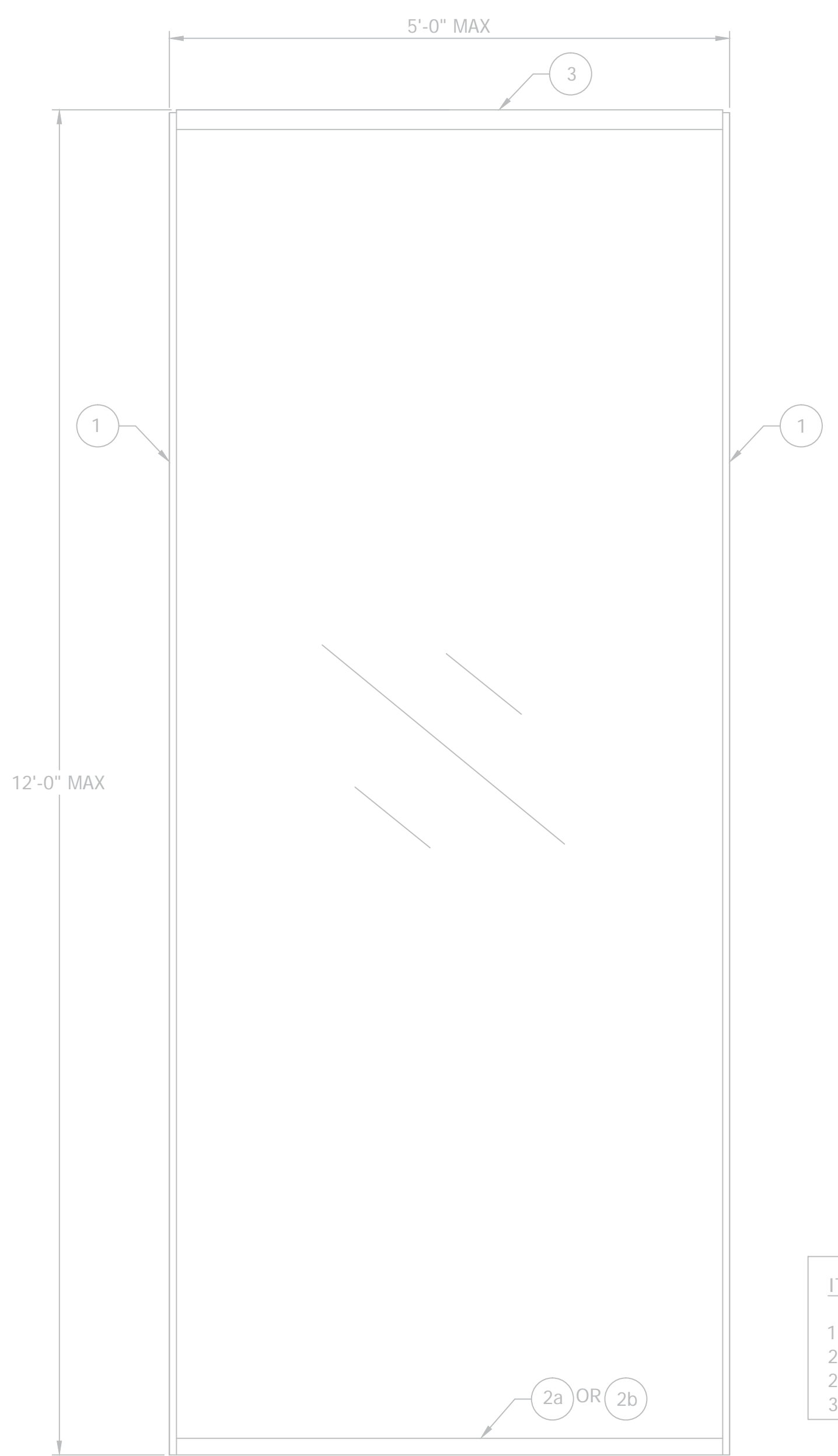
PROJECT MANAGER:
PM PMS #

DRAWN BY:
REI-ALR

DATE:
2/13/14

SCALE:
PICK SCALE AS NOTED
1 1/4" HALF SCALE AS NOTED

SHEET:
A1.0



1
A1.0
GLASS WALL ELEVATION
SCALE: 1" = 1'-0"

CURVILINEAR WALL ASSEMBLY									
ITEM #	PROFILE TYPE	ITEM NAME	PART #	t (IN)	A (IN ²)	I _{XA} (IN ⁴)	I _{YY} (IN ⁴)	S _{XA} (IN ³)	S _{YY} (IN ³)
1	VERTICAL	WING	11006	0.060	0.559	0.729	0.024	0.364	0.061
2a	SILL (V1)	BOX CAR	11018	0.080	1.332	3.016	1.398	1.557	0.733
2b	SILL (V2)	GERRY	11889	0.080	1.398	2.478	0.388	1.279	0.397
3	HEADER	WILLY	11005	0.080	1.391	2.401	0.675	1.238	0.639

RECTILINEAR WALL ASSEMBLY									
ITEM #	ITEM #	ITEM NAME	PART #	t (IN)	A (IN ²)	I _{XA} (IN ⁴)	I _{YY} (IN ⁴)	S _{XA} (IN ³)	S _{YY} (IN ³)
1	VERTICAL	REX	11052	0.060	0.578	0.857	0.037	0.428	0.078
2a	SILL (V1)	BIG BOX	11050	0.080	1.392	3.144	1.548	1.644	0.784
2b	SILL (V2)	GERRY	11894	0.080	1.515	2.794	0.460	1.461	0.439
3	HEADER	LITTLE BOX	11051	0.080	1.487	2.662	0.789	1.392	0.688

BLADE WALL ASSEMBLY									
ITEM #	ITEM #	ITEM NAME	PART #	t (IN)	A (IN ²)	I _{XA} (IN ⁴)	I _{YY} (IN ⁴)	S _{XA} (IN ³)	S _{YY} (IN ³)
1	VERTICAL	BLADE	11256	0.080	0.630	0.900	0.025	0.450	0.043
2a	SILL (V1)	BOX CAR	11257	0.080	1.195	2.867	1.128	1.480	0.653
2b	SILL (V2)	GERRY	11888	0.080	1.364	2.447	0.311	1.263	0.327
3	HEADER	WILLY	11258	0.080	1.401	2.418	0.571	1.248	0.490

SINGLE SIDED WALL ASSEMBLY									
ITEM #	ITEM #	ITEM NAME	PART #	t (IN)	A (IN ²)	I _{XA} (IN ⁴)	I _{YY} (IN ⁴)	S _{XA} (IN ³)	S _{YY} (IN ³)
1	VERTICAL	SINGLE SIDED	11901	0.060	0.594	1.027	0.038	0.466	0.082
2a	SILL (V1)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2b	SILL (V2)	GERRY	11902	0.080	1.419	2.738	0.444	1.402	0.432
3	HEADER	WILLY	11903	0.080	1.415	2.695	0.755	1.386	0.681

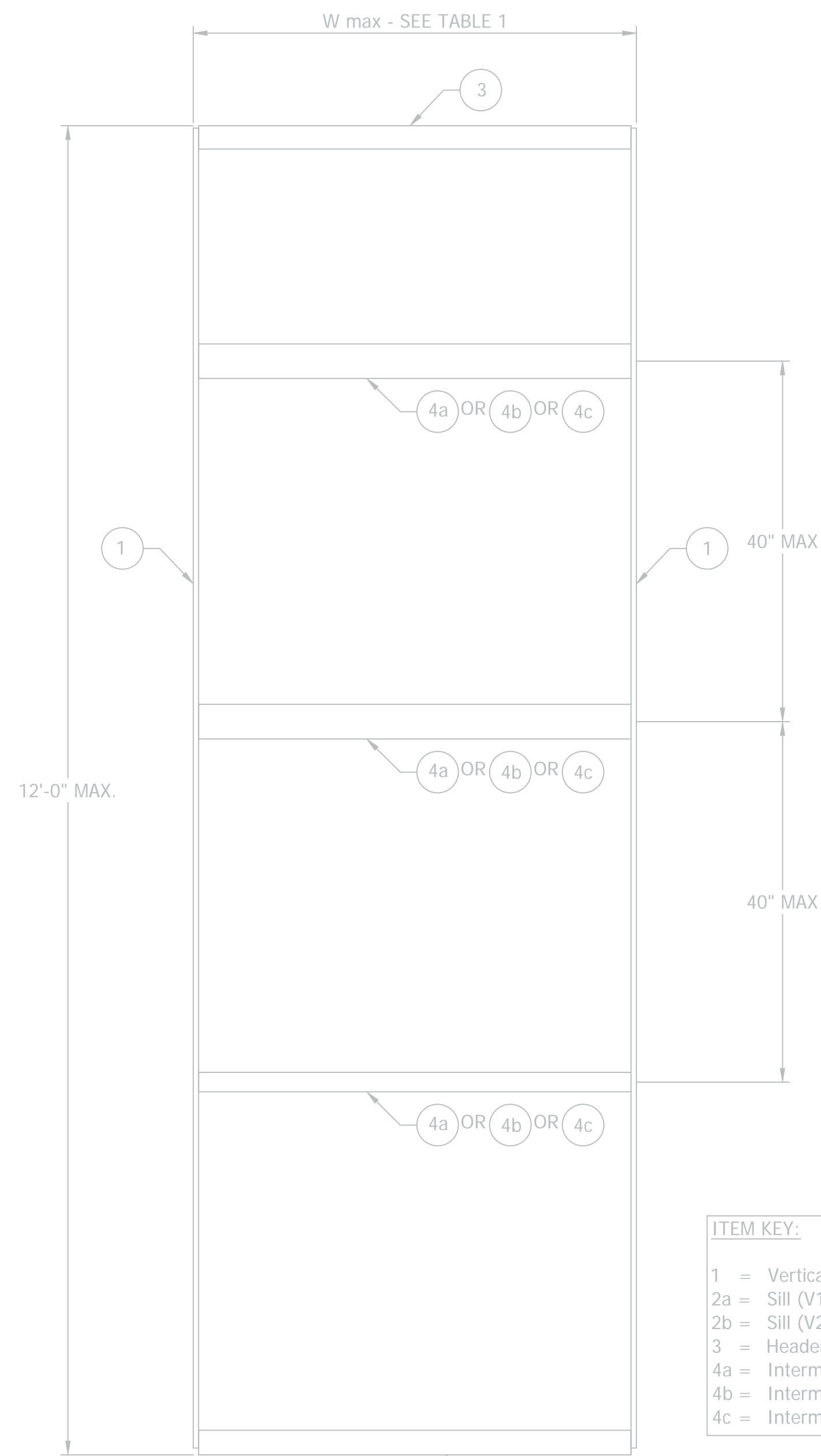
3
A1.0
GLASS WALL SECTION PROPERTIES
SCALE: 1" = 1'-0"

PROFILE TYPE	ITEM #			
	1 - VERTICAL	2a - V1 SILL	2b - V2 SILL	3 - HEADER
CURVILINEAR				
RECTILINEAR				
BLADE				
SINGLE SIDED		N/A		

2
A1.0
GLASS WALL SECTIONS
SCALE: 6" = 1'-0"

GLASS WALL SECTIONS & SECTION PROPERTIES
Material: Aluminum 6063-T6
Anchor Location: Top & Bottom of Wall (See Drawings)

NOTES:
1. No equipment or hanging load on wall.
2. Glass: 1/4" thick & fully tempered.
3. The deflection of the wall sections shall be lesser of L/175 of the span or 0.75" (per 2013 CBC Section 2403.3)



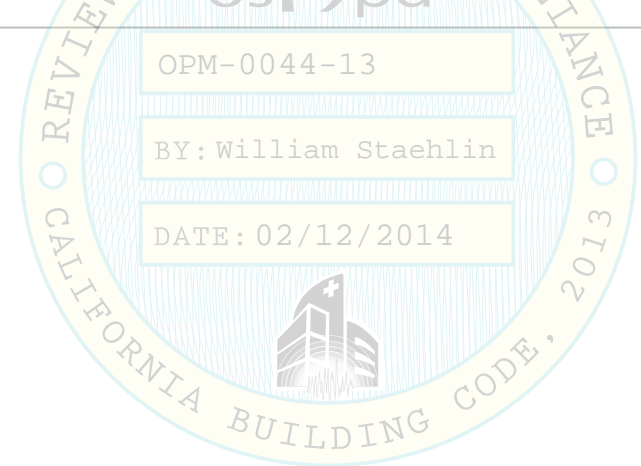
1 SOLID WALL ELEVATION
A2.0 SCALE: 1" = 1'-0"

SOLID WALL ASSEMBLY									
ITEM #	PROFILE TYPE	ITEM NAME	PART #	t (IN)	A (IN ²)	I _{XX} (IN ⁴)	I _{YY} (IN ⁴)	S _{XX} (IN ³)	S _{YY} (IN ³)
1	VERTICAL	FAT ANGUS	11060	0.100	0.519	0.330	0.019	0.259	0.055
2a	SILL (V1)	MADONNA	11001	0.100	0.561	0.363	0.028	0.277	0.048
2b	SILL (V2)	LOW MADONNA	11891	0.091	0.717	0.467	0.053	0.240	0.093
3	HEADER	THIEF HANGER	11166	0.080	0.695	0.610	0.056	0.342	0.068
4a	INTERMEDIATE HORIZONTAL	FAT MADONNA	11175	0.091	0.578	0.421	0.052	0.332	0.109
4b	INTERMEDIATE HORIZONTAL	HOLLOW MADONNA	11329	0.080	0.720	0.453	0.077	0.357	0.154
4c	INTERMEDIATE HORIZONTAL	ANTLER HOOK	11197	0.091	0.989	1.676	0.100	0.676	0.118

3 SOLID WALL SECTION PROPERTIES
A2.0 SCALE: 1" = 1'-0"

SOLID WALL SECTIONS & SECTION PROPERTIES
Material: Aluminum 6063-T6
Anchor Location: Top & Bottom of Wall (See Drawings)

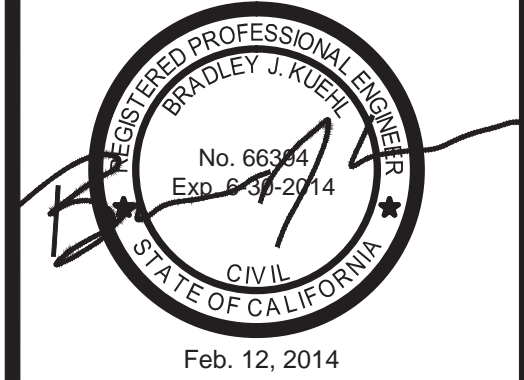
- NOTES:**
- No equipment or hanging load on solid wall.
 - The deflection of the wall sections shall not exceed 1/120 of the span (per 2013 CBC Table 1604.4.3).
 - Horizontal sections can occur on both sides of solid wall.



- ITEM KEY:**
- 1 = Vertical
 - 2a = Sill (V1)
 - 2b = Sill (V2)
 - 3 = Header
 - 4a = Intermediate Horizontal a
 - 4b = Intermediate Horizontal b
 - 4c = Intermediate Horizontal c

PROFILE TYPE	ITEM #						
	1 - VERTICAL	2a - V1 SILL	2b - V2 SILL	3 - HEADER	4a - INTERMEDIATE HORIZONTAL	4b - INTERMEDIATE HORIZONTAL	4c - INTERMEDIATE HORIZONTAL
SOLID WALL							
	FAT ANGUS PART# 11060	MADONNA PART# 11001	LOW MADONNA PART# 11891	THIEF HANGER PART# 11166	FAT MADONNA PART# 11175	HOLLOW MADONNA PART# 11329	ANTLER HOOK PART# 11197

2 SOLID WALL SECTIONS
A2.0 SCALE: 6" = 1'-0"



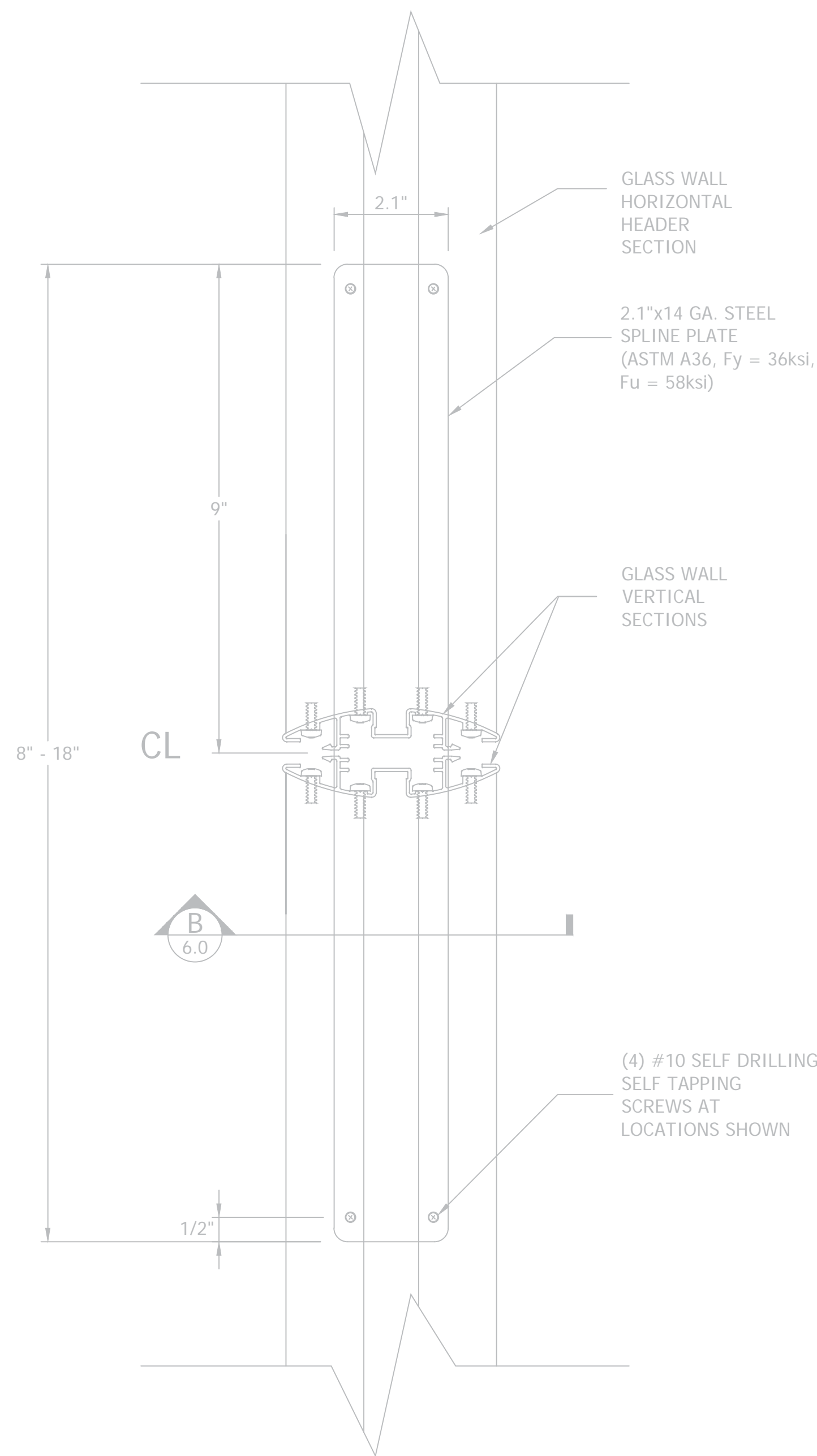
This Certification is limited to the structural design of structural components of this Interior Partition Wall System. It does NOT include responsibility for:
 • Structural design of gaskets and sealants.
 • The manufacture, assembly, or installation of the system.
 • Quantities of materials or dimensional accuracy of drawings.
 • Separation of dissimilar materials.

rev.	date	description
▲	/ /	b.y.
▲	/ /	b.y.
▲	/ /	b.y.
▲	/ /	b.y.
▲	/ /	b.y.
▲	/ /	b.y.
▲	/ /	b.y.
▲	/ /	b.y.

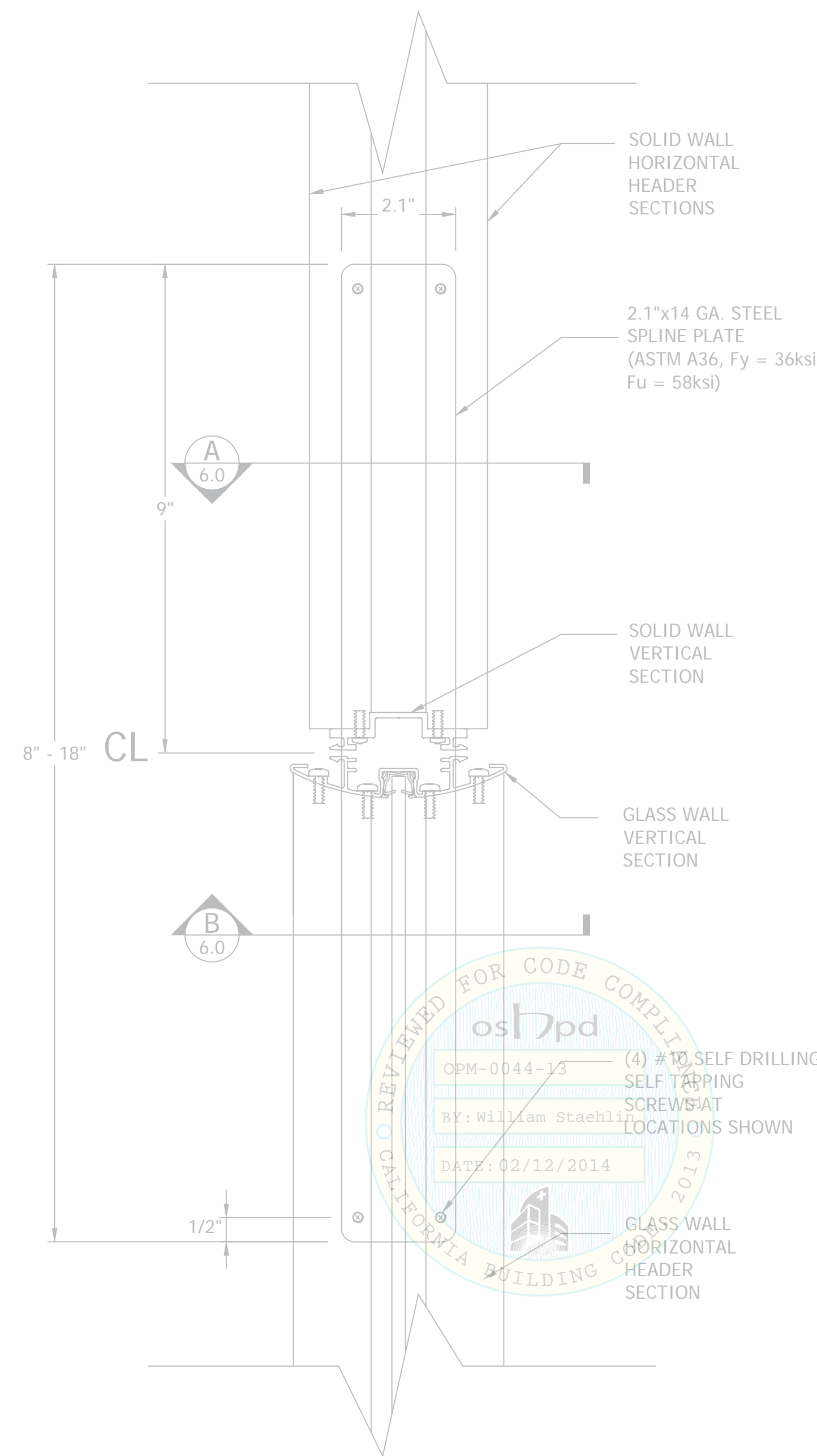
PROJECT NAME:
DIRTT Environmental Solutions, LTD
 DIRTT Partition Walls
 OSHPD OPM-0044-13
SHOP DRAWING

PROJECT ADDRESS:
 California, USA
 PROJECT MANAGER:
 PM PMS #

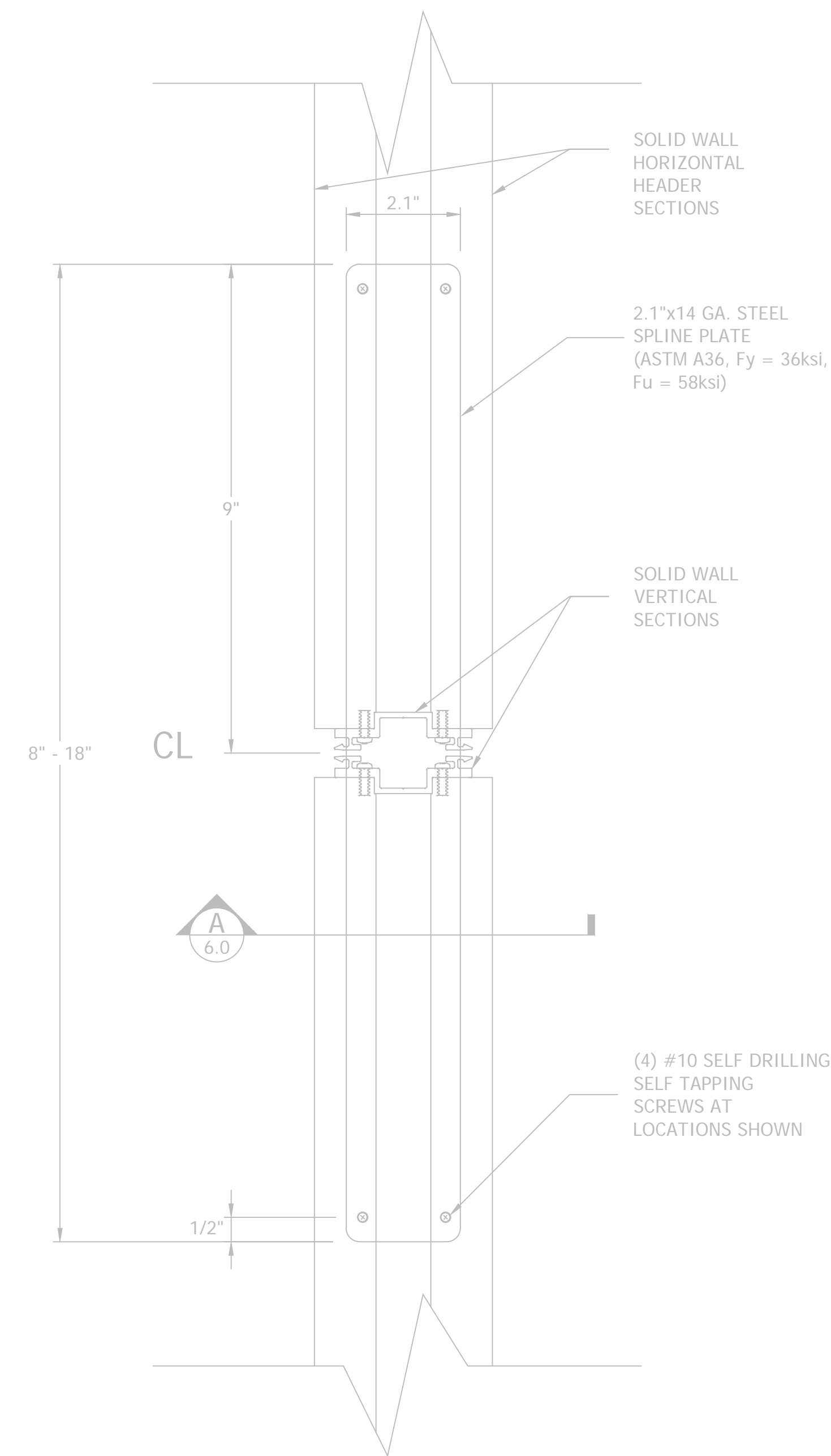
DRAWN BY:
 REI-ALR
 DATE:
 2/13/14
 SCALE:
 1/4" = 1'-0" SCALE AS NOTED
 1/8" = 1'-0" HALF SCALE AS NOTED
A2.0



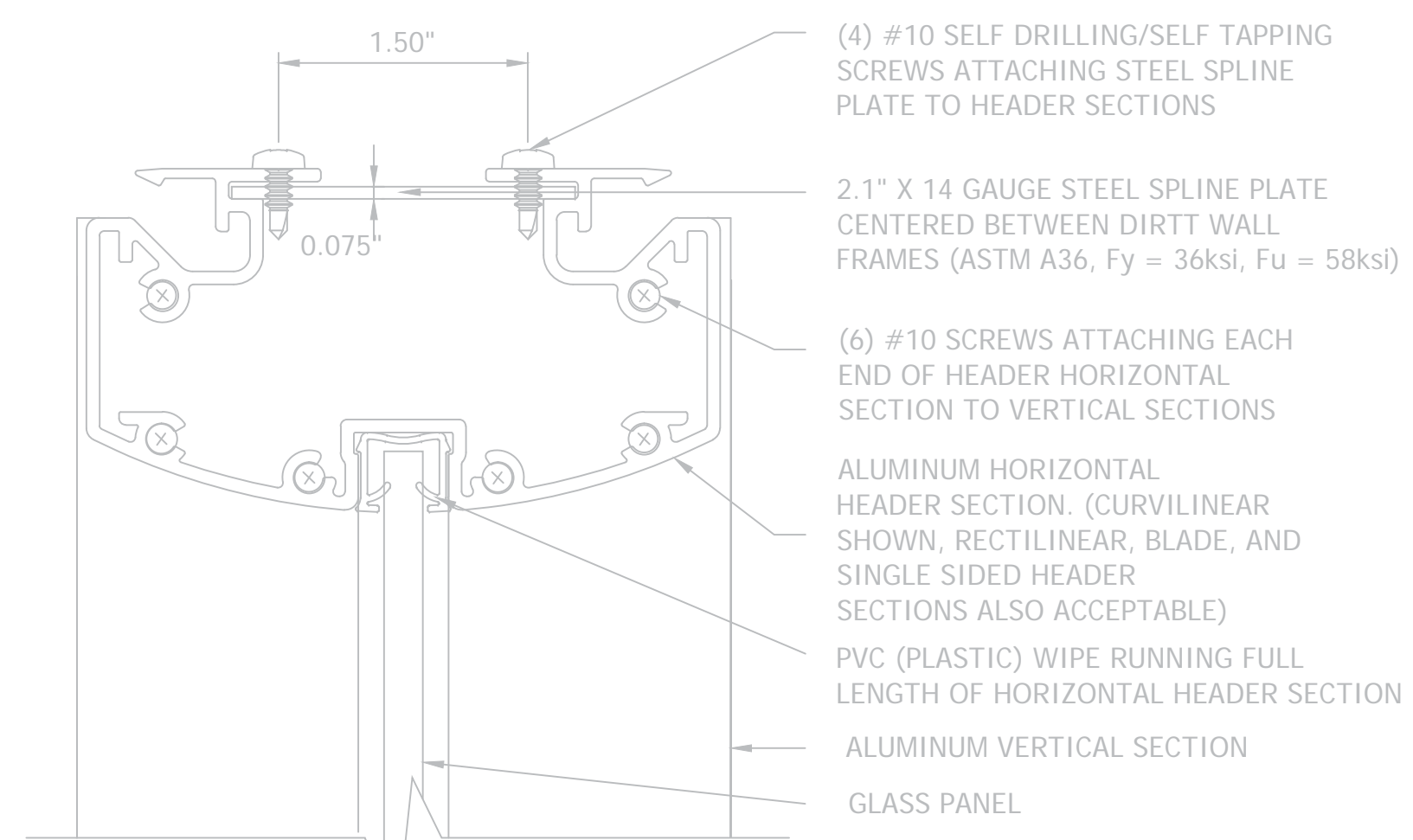
1 GLASS WALL HEADER SPLICE DETAIL
A3.0 SCALE: 6" = 1'-0"



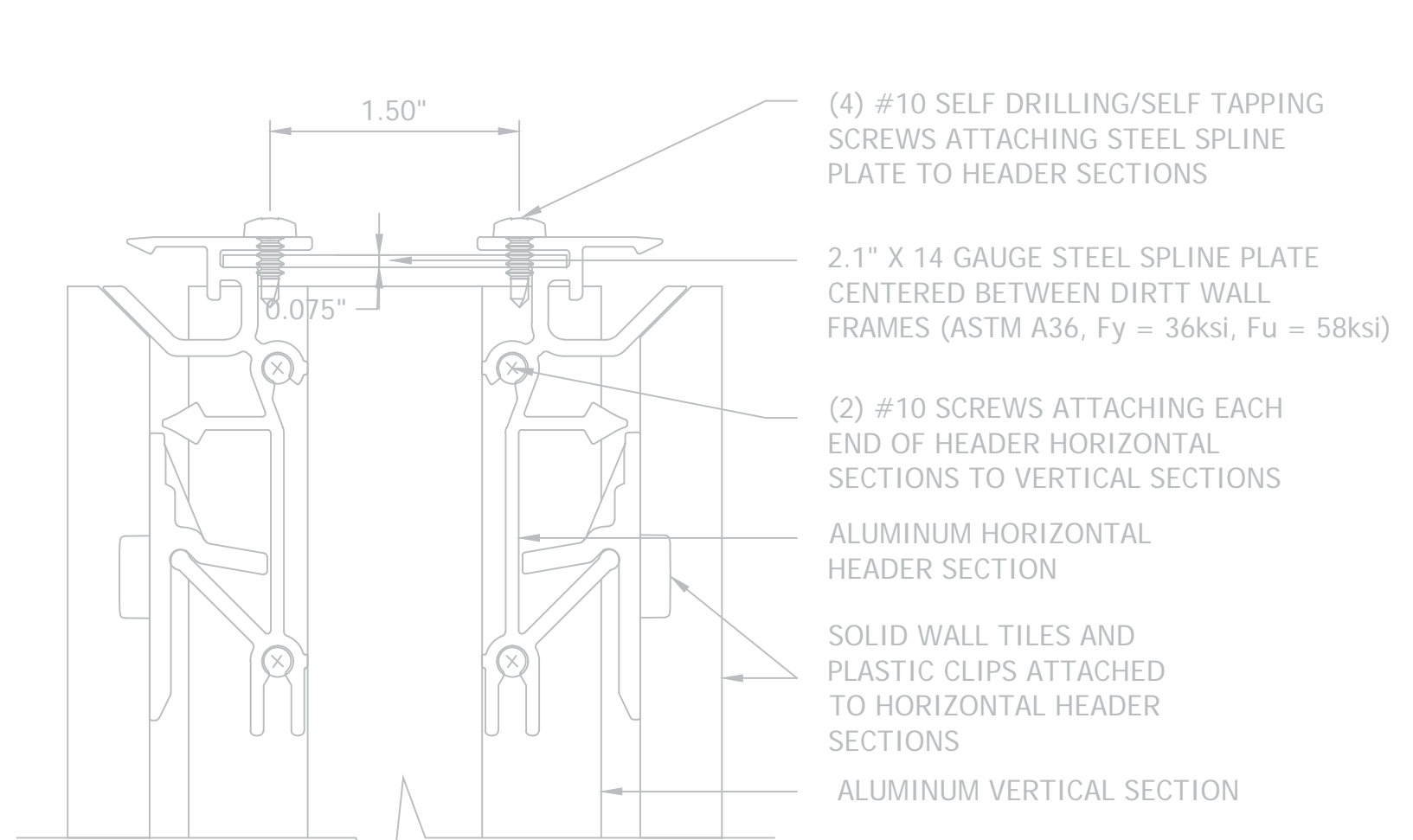
2 GLASS TO SOLID WALL HEADER SPLICE DETAIL
A3.0 SCALE: 6" = 1'-0"



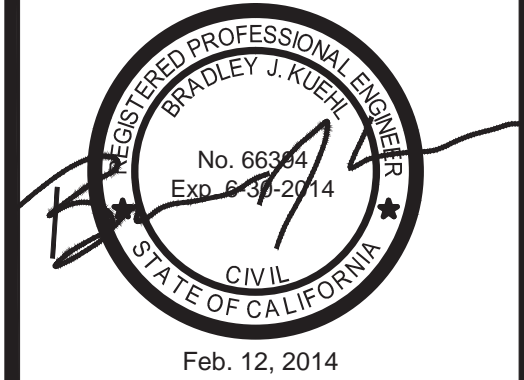
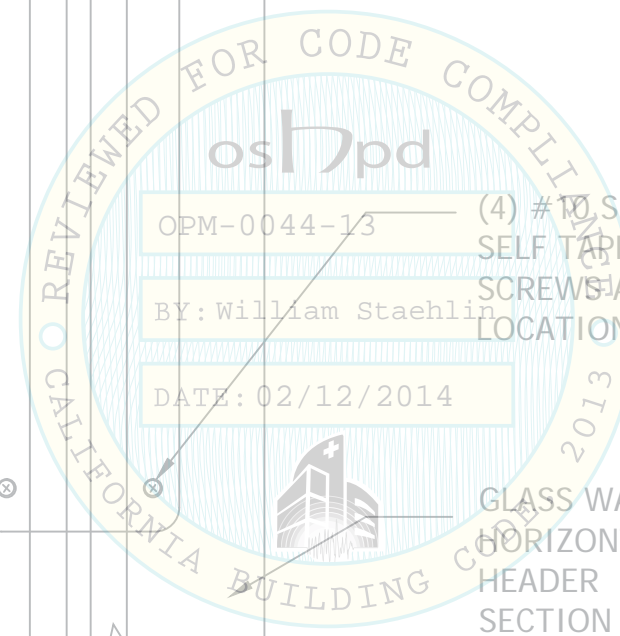
3 SOLID WALL HEADER SPLICE DETAIL
A3.0 SCALE: 6" = 1'-0"



B GLASS WALL HEADER SPLICE SECTION
A3.0 SCALE: 1'-0" = 1'-0"



A SOLID WALL HEADER SPLICE SECTION
A3.0 SCALE: 1'-0" = 1'-0"



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rev.	date	description
▲	1/1	b.y.
▲	1/1	b.y.
▲	1/1	b.y.
▲	1/1	b.y.
▲	1/1	b.y.
▲	1/1	b.y.
▲	1/1	b.y.
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 SCALE:
 1/4" = 1'-0" AS NOTED
 1/8" = 1'-0" HALF SCALE AS NOTED
A3.0