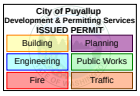
ZERVAS

SUBMITTAL RESPONSE



PRCNC20240216 - Revision #1
Shop drawings - This set will not replace the Approved plan set.

90

PROJECT NAME : PSE OTC

ZERVAS # 202202.06

Date Received :	10/04/2024	Date Returned to GC :	10/07/2024

Item :	Gypsum Board Assemblies - Shop Drawings (Exterior)
Subcontractor / Supplier Name :	

ARCHITECT'S REVIEW				RESPONSE REQUIRED OF CONTRACTOR	
No Exceptions Taken	☐	Rejected	☐	Confirm	☐
Note Markings	☑	Comments Attached	☑	Re-Submit	☐

Comments :

See structural review.

The Architect's review is for checking for conformance with the design concept expressed in the Contract Documents. Review of such submittals is not conducted for determining the accuracy and completeness of other details such as dimensions and quantities or for substantiating instructions for installation or performance of equipment or systems. The Contractor shall not be relieved of responsibility for deviations or for errors of omissions in Shop Drawings, Product Data, Samples or similar submittals. The Architect's review shall not constitute approval of safety precautions or any construction means, methods, technique sequences or procedures. The Architect's approval of a specific item shall not indicate approval of an assembly of which the item is a component.

ZERVAS

Matt Reeves DATE : 10/07/2024

24-011 - PUGET SOUND ENERGY OPERATIONAL TRAINING CENTER

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325 Todd Rd NW
Puyallup, Washington 98371
United States

Pennon Construction Company, Inc.
9750 3rd Ave NE, Suite 250
Seattle, Washington 98115
United States
(206) 418-0235

Title
GK Knutson : 09 21 16 Gypsum Board Assemblies - Shop Drawings (Exterior)

Submittal Manager
Sean Ewing

Spec Section
09 21 16 - Gypsum Board Assemblies

Type
Shop Drawing

Number
090

Rev
0

Description
C. Shop Drawings: For cold-formed steel interior walls, soffits, and ceilings, provide schedules, framing plans, elevations, and/or details as required to show all typical and unique conditions.

Includes engineered calculations.

Exterior only. Interior to submitted separately.

Arch to submit to AHJ as deferred submittal.

KINGWORKS STRUCTURAL ENGINEERS

[X] **REVIEWED** [ ] **REJECTED**

[X] NO EXCEPTIONS TAKEN
[ ] NOTE MARKINGS & REVISE
[ ] NOTE MARKINGS, REVISE & RESUBMIT

Delegated Design / Deferred Submittal review by KW is limited to the component's conformance with design criteria, concept, and loads imposed on the primary structure. Structural performance of the supplier-designed components is the responsibility of the component's structural engineer. Corrections or comments made on the attached submittal do not relieve the Contractor from compliance with the Contract Documents unless specifically noted otherwise. Contractor is responsible for: confirming and correlating all quantities, dimensions, and elevations; selecting fabrication processes and techniques of construction; coordinating work with that of all other trades; and performing work in a safe and satisfactory manner. Where required to RESUBMIT, Contractor need only resubmit sheets that are affected by the marks or otherwise revised.

Date 10/4/24 By DL

COLD-FORMED STEEL FRAMING -- GENERAL NOTES

1 SCOPE OF DESIGN: Exterior cold-formed steel non-bearing walls as indicated in the drawings herein. All other structure by others.

2 DESIGN BASIS: Designed in accordance with the 2018 International Building Code (IBC).

3 RISK CATEGORY: II

4 DESIGN CRITERIA
- Wind (ASD): 11.4 psf (exterior - typ), 14.4 psf (exterior - corners), 29.4 psf (parapet - typ), 37.2 psf (parapet - corners)
- Vertical Deflection Gap: 1 inch
- Horizontal Deflection Limit: L/240 (typ exterior)
- Seismic 0.7E (ASD) = 4.5 psf (does not govern)
- Seismic Drift Accommodation: 1.0 inches each direction

5 QUALITY: Contractor shall ensure high standards of worksmanship throughout, with strict adherence to the contract documents and all governing codes and standards.

6 DISCREPANCIES: Notify KW immediately of any discrepancies between these notes, the contract drawings, the specification, or the governing code. KW shall reply in writing. Any related work performed by the Contractor prior to receiving a reply from KW is at the Contractor's sole risk.

7 VERIFICATIONS: Verify all existing conditions; verify all dimensions in the field; verify structural, architectural, mechanical and electrical openings for size, location and number; notify KW of any discrepancies, substandard existing conditions, or conditions not included in or contrary to the Contract Documents prior to construction.

8 DRAWING COORDINATION: Coordinate these component drawings with the contract drawings and relevant submittals from all other disciplines (including but not limited to Structural, Architectural, Civil, Mechanical, and Electrical).

9 COMPLETED FORM: The structure shown in these drawings is designed to be stable and to resist the loads above only in a fully completed form. Contractor shall ensure that the structure is adequately braced and shored during construction for all temporary loads until all elements are in place, and shall ensure that temporary loadings do not exceed the allowable capacity of any structural elements both before and after these elements are in place.

10 MEANS AND METHODS: Contractor is solely responsible for site safety, coordination, procedures, construction methodology, shoring, bracing, sequencing, and all other "means and methods" of construction except where specifically shown in the Contract Documents.

11 PROTECTION AND BRACING: Contractor is solely responsible for the protection of existing buildings, utilities, streets, equipment, etc. during construction. Provide temporary bracing and protection as required.

12 SCALING: Do not scale drawings. See architectural drawings for dimensions, and notify KW of any discrepancies.

13 ALTERATIONS: Any holes or other alterations to the structure which are not specifically detailed on these component drawings shall be submitted to KW for approval.

14 LOAD COORDINATION: Contractor shall coordinate and notify KW of any equipment or other concentrated loads to be supported by the cold-formed steel shown herein. Unless the loads are explicitly shown in these drawings, they have not been considered in the component designs.

15 DELIVERY, STORAGE AND HANDLING: All products shall be delivered, stored, and handled according to the Manufacturer's recommendations and installation instructions. Protect all items from damage, moisture, corrosion, or other deterioration before, during and after installation.

16

COLD-FORMED STEEL FRAMING - TECHNICAL NOTES

1 MATERIALS: All cold-formed steel members and accessories shall be galvanized, and shall be from same manufacturer as required by compatibility. All materials shall conform to the latest edition of the AISI "Specification for the Design of Cold-Formed Steel Structural Members".

2 YIELD STRENGTH: Minimum yield strength shall be as follows:
- 16 gauge (54 mil) and heavier: fy=50 ksi
- 18 gauge (43 mil) and lighter: fy=33 ksi

3 STUD INSTALLATION: Plumb, align and securely attach studs to the flange or web of both upper and lower tracks. Bear studs firmly against inside track web before stud and track attachment. Provide top and bottom tracks of the same gauge or heavier than studs unless otherwise indicated.

4 SLOPING WALLS: Sloping stud ends shall be miter-cut ends with uniform bearing across width of track, top & bottom. Top tracks on sloping stud ends shall be custom bent to provide plumb fit of legs over stud flanges.

5 NON-BEARING WALLS: Non-bearing cold-formed steel framing and associated deflection gaps shall be installed after all dead loads are in place. Do not over tighten screws.

6 CONNECTORS: Connector types shall be as indicated in the drawings; submit alternates of equal strength for review. Cold-formed steel connectors shall be installed in accordance with manufacturer's guidelines.

7 JOINING: Multiple studs shall be joined by welds or screws as shown in the drawings.

8 SPLICES: Splices in stud, jambs, sills, and/or headers are not permitted. Top and bottom track splices permitted as required, align 4-inches clear to any fastened stud.

9 MINIMUM CONNECTION: Minimum connection of piece-to-piece in all cold-formed steel, where no other connection is shown, is (2) #10 screws or (2) 1" fillet welds; place connections symmetrically.

10 STUD BRACING: Each face of studs shall be braced against rotation and weak axis buckling by one of the following methods:
- OPTION A (BRIDGING): Approved manufactured bracing system utilizing stud punching and special hardware. Submit desired system for KW's approval. Vertical spacing between bridging rows shall be 4'-0" o/c maximum.
- OPTION B (SHEATHING): Minimum 5/8" GWB permanent sheathing with #8 screws at not more than 12" o/c, plus blocking and strap bracing as above on any face not sheathed.

11 WELDING: Cold-formed steel welding requirements are as follows:
- Conform to the requirements of AWS D1.3-2018, "Structural Welding Code - Sheet Steel".
- All welds shall be flux-cored arc welding process, unless otherwise approved by the Architect.
- Use only pre-qualified weld procedures.
- Welding shall be carefully controlled to eliminate burn-through. Burn-through will be cause for rejection of weld. Repair or replace all burn-through damaged pieces as approved by the Architect.
- Bring pieces into firm contact before welding.

12 SCREWS: All steel-to-steel screws shall be self-tapping and self-drilling in compliance with ASTM C1513, SAEJ78, and ICC-ES AC118.
- Screws shall have a Type II coating in accordance with ASTM B633 and have tested resistance to hydrogen embrittlement.
- Preapproved screws: HILTI KWIK-FLEX or ELCO DRIL-FLEX, submit alternates for review.
- Steel-to-steel screws shall have a minimum projection of 3 threads through the last joined ply of material. No gap shall be permitted between joined plies.
- Screws shall have a minimum center to center spacing and edge distance of three times the screw diameter unless noted otherwise on the drawings.
- Tighten screws per manufacturer recommendations. Stripped screws or holes are to be considered ineffective and shall be replaced with screws of the next larger diameter.

13 PAF's: Powder actuated fasteners shall be 0.157"Ø (HILTI X-U or approved equal). At concrete substrate provide 1 1/4" minimum embedment unless noted otherwise. At structural steel substrate, fastener length shall be per manufacturer recommendation and shall provide 15/32" minimum point penetration through steel thickness (exception: where steel thickness is 3/4 inches or greater, minimum point penetration shall be 1/2").

14 LOAD AND DEFLECTION ACCOMMODATION: All walls and other cold-formed steel framing shown herein are non-bearing and designed for live or snow load deflection as indicated in the general notes criteria. SEOR to ensure all supporting structure has adequate strength and stability to resist all loads caused by the cold-formed steel framing. Architect to provide finish isolation/separation between spandrel-type walls (rigidly fixed to structure above) and full-height walls (with deflection connection at structure above) and to ensure finishes (or attachments thereof) do not inhibit the full range of anticipated movement in the cold-formed steel deflection connections. Curtainwalls, storefronts, and other glazing shall be designed with integral deflection accommodation when the CFS framing above is rigidly connected to the structure.

Project No. 24159
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SHOP DRAWING / SUBMITTAL REVIEW
This review is for general conformance with the plans and specifications only. Approvals are subject to subcontractor's performance within the confines of the contract documents. Review of dimensions will not serve to relieve the subcontractor of contractual responsibility for any deviations from the contract requirements.

X Reviewed Without Comment	___ Reviewed as Noted
___ Field Measurement or Templates required prior to fabrication	___ Rejected - Revise & Resubmit
PCCI Project # 24-011	Submittal # 24-011-090
Reviewed By: SEAN EWING	Date: 10/3/24
PENNON CONSTRUCTION COMPANY, INC.	9750 3rd Ave NE Suite 250 Seattle, WA 98115 P: 206-418-0235 - F: 206-418-0237

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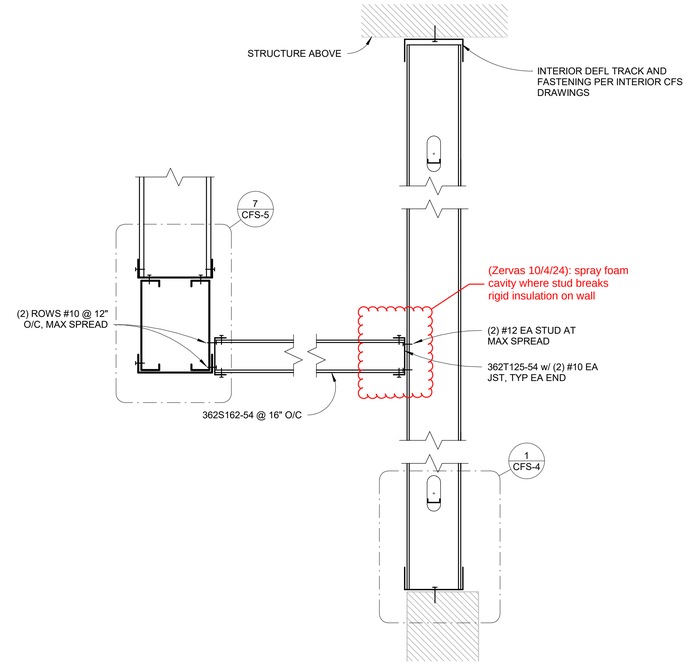
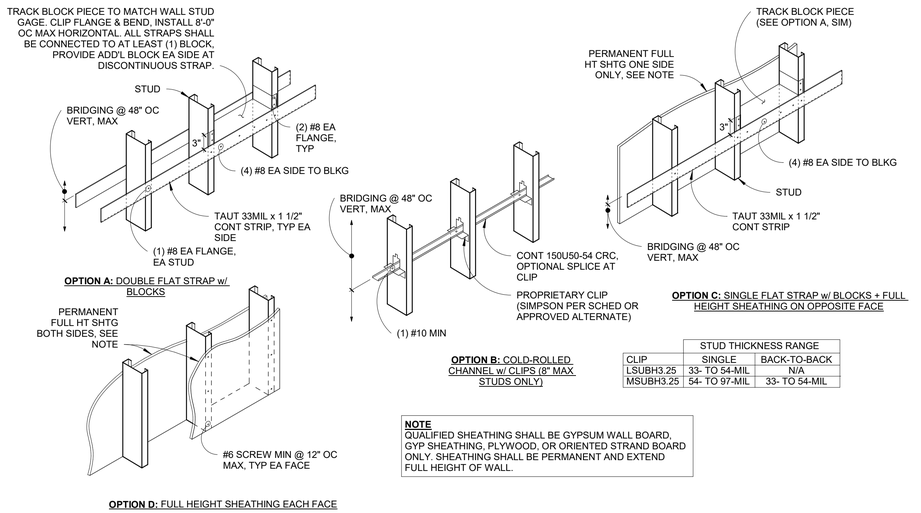


1 SOFFIT AT WET ROOM 134
1 1/2" = 1'-0"



	STUD THICKNESS RANGE	
CLIP	SINGLE	BACK-TO-BACK
LSUBH3.25	33- TO 54-MIL	N/A
MSUBH3.25	54- TO 97-MIL	33- TO 54-MIL

NOTE
QUALIFIED SHEATHING SHALL BE GYPSUM WALL BOARD, GYP SHEATHING, PLYWOOD, OR ORIENTED STRAND BOARD ONLY. SHEATHING SHALL BE PERMANENT AND EXTEND FULL HEIGHT OF WALL.

2 TYP BRIDGING AT EXT OR INT NON-BEARING CFS WALL
1 1/2" = 1'-0"

REV	Description	Date
	Revision Schedule	

NORTH. PLAN.

SCALE.
1 1/2" = 1'-0"

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STRUCTURAL NOTES AND MISC DETAILS

PROJECT#. 24159
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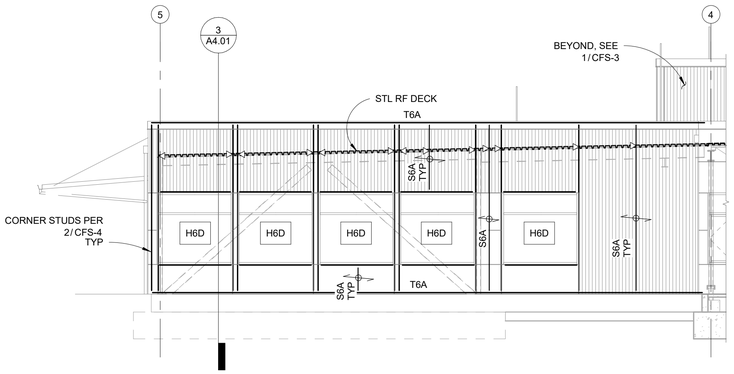
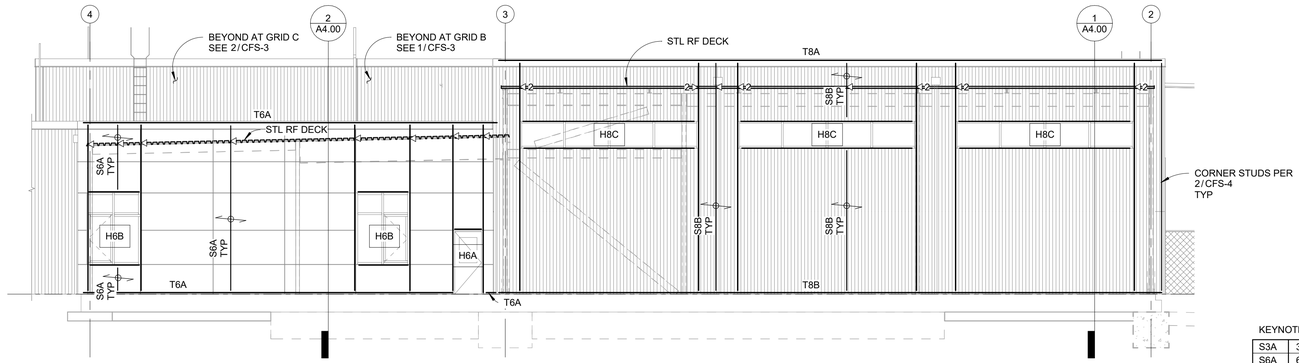
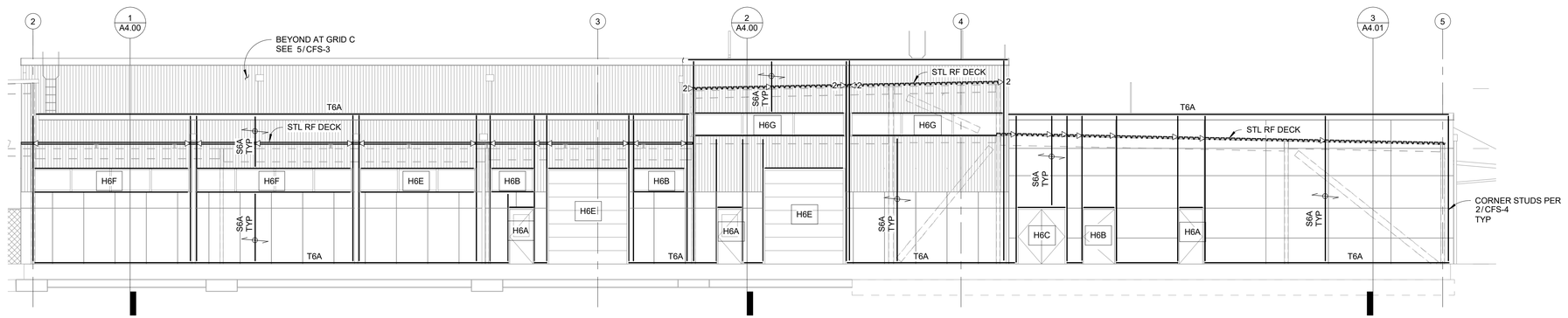


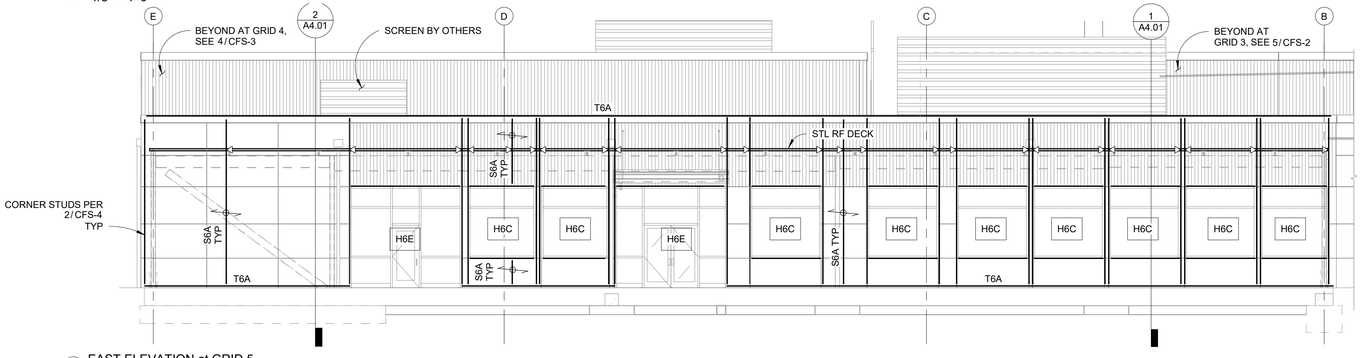
1 NORTH ELEVATION at Grid B
1/8" = 1'-0"



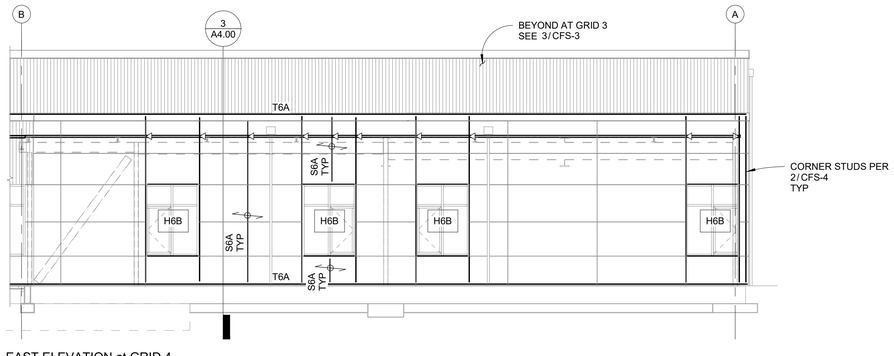
2 NORTH ELEVATION at Grid A
1/8" = 1'-0"



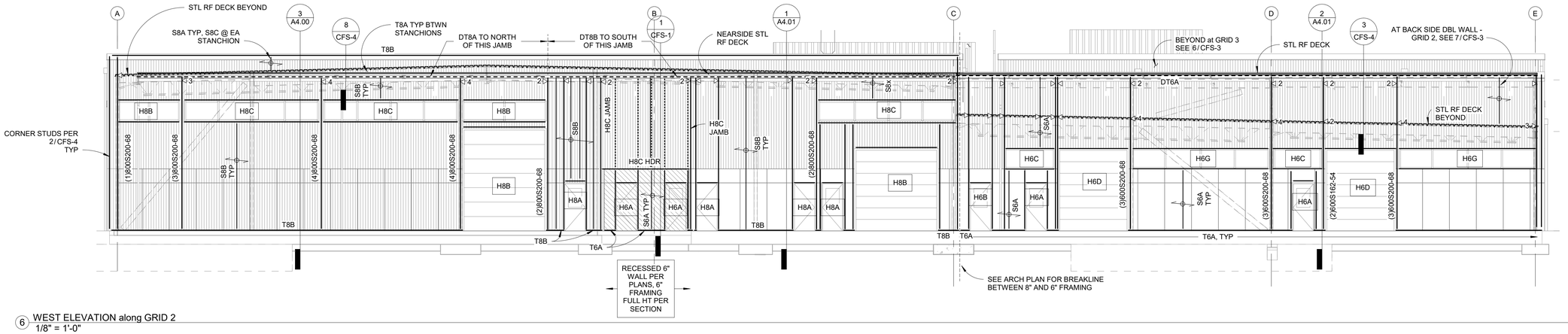
3 SOUTH ELEVATION
1/8" = 1'-0"



4 EAST ELEVATION at GRID 5
1/8" = 1'-0"



5 EAST ELEVATION at GRID 4
1/8" = 1'-0"



6 WEST ELEVATION along GRID 2
1/8" = 1'-0"

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KEYNOTE SCHEDULE

S3A	362S162-33 @ 16"O/C
S6A	600S162-33 @ 16"O/C
S6B	600S162-43 @ 16"O/C
S8A	800S162-33 @ 16" O/C
S8B	800S162-43 @ 16" O/C
S8C	800S162-54 @ STANCHION
T3A	362T125-33
T6A	600T125-33
T6B	600T125-43
T8A	800T125-33
T8B	800T125-43
DT3A	3 5/8" x 2.5" DP x 43-MIL DEFL TRACK
DT6A	6" x 2.5" DP x 43-MIL DEFL TRACK
DT8A	8" x 2.5" DP x 43-MIL DEFL TRACK
DT8B	8" x 2.5" DP x 68-MIL DEFL TRACK

NOTES

1. APPROXIMATE LOCATIONS OF PRIMARY STRUCTURE BY OTHERS ARE SHOWN. CONFIRM ON STRUCTURAL STEEL SHOP DRAWINGS AND IN FIELD. NOTIFY KW OF ANY DISCREPANCIES.
2. TYP 6" WALL FRAMING SHALL BE 600S162-33 @ 16" O/C, 800T125-33 BOT TRACK, UNLESS OTHERWISE INDICATED.
3. TYP 8" WALL FRAMING SHALL BE 800S162-43 @ 16" O/C, 800T125-33 BOT TRACK, UNLESS OTHERWISE INDICATED.

2 ▷ INDICATES BYPASS CLIP QUANTITY AND APPROX LOCATION (1 TYP WHERE NO NUMBER SHOWN)

REV	Description	Date
	Revision Schedule	

NORTH. PLAN.

SCALE.
1/8" = 1'-0"

GKK PSE - OPERATIONAL TRAINING CENTER - EXTERIOR CFS

GKK

EXTERIOR CFS ELEVATIONS

PROJECT#. 24159
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S6A	600S162-33 @ 16"O/C
S6B	600S162-43 @ 16"O/C
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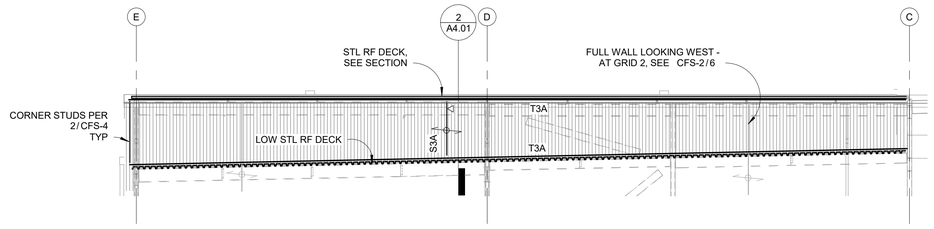
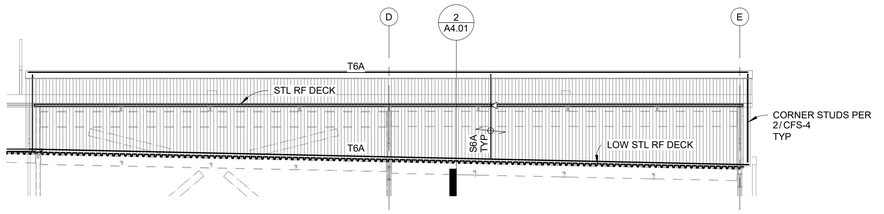
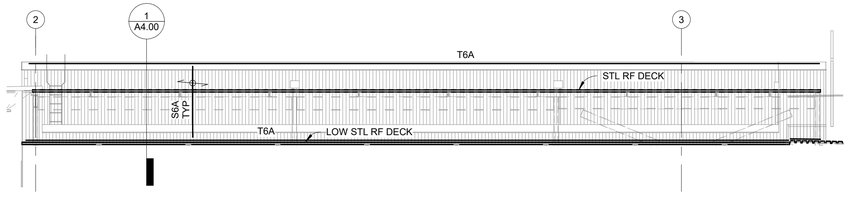
S8B	800S162-43 @ 16" O/C
S8C	800S162-54 @ STANCHION
T3A	362T125-33
T6A	600T125-33
T6B	600T125-43
T8A	800T125-33
T8B	800T125-43
DT3A	3 5/8" x 2.5" DP x 43-MIL DEFL TRACK
DT6A	6" x 2.5" DP x 43-MIL DEFL TRACK
DT8A	8" x 2.5" DP x 43-MIL DEFL TRACK
DT8B	8" x 2.5" DP x 68-MIL DEFL TRACK



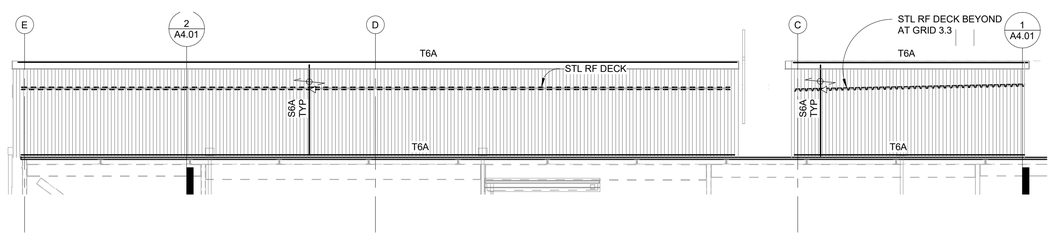
7 HIGH EAST ELEVATION at Dbl WALL - GRID 2
1/8" = 1'-0"



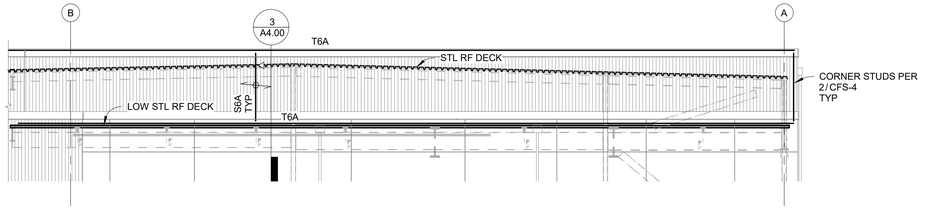
6 HIGH WEST ELEVATION near GRID 3.3
1/8" = 1'-0"



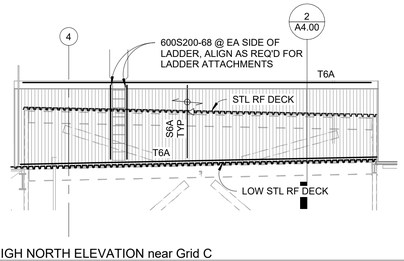
5 HIGH SOUTH ELEVATION at GRID C
1/8" = 1'-0"



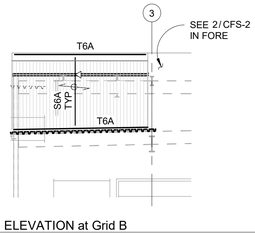
4 HIGH EAST ELEVATION at GRIDS 4, 3.3
1/8" = 1'-0"



3 HIGH EAST ELEVATION at GRID 3
1/8" = 1'-0"



2 HIGH NORTH ELEVATION near Grid C
1/8" = 1'-0"



1 HIGH NORTH ELEVATION at Grid B
1/8" = 1'-0"

REV	Description	Date
	Revision Schedule	

NORTH. PLAN.

SCALE.
1/8" = 1'-0"

GKK PSE - OPERATIONAL TRAINING CENTER - EXTERIOR CFS

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EXTERIOR CFS ELEVATIONS

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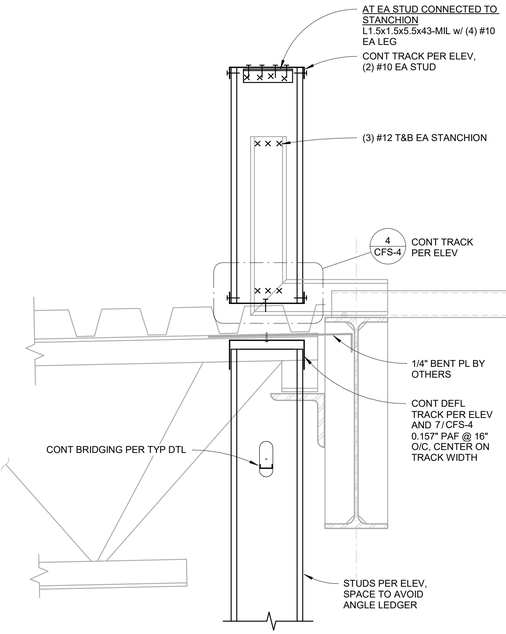
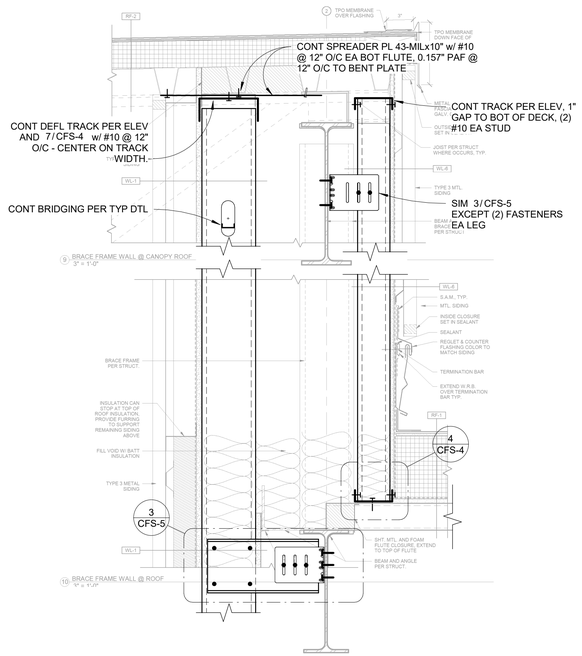
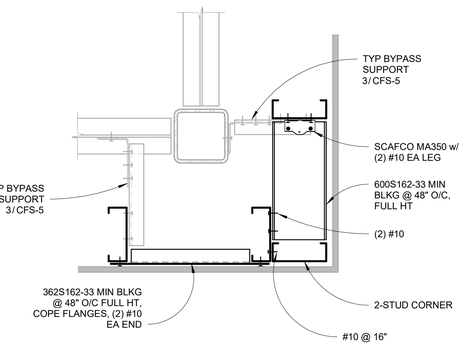
Fire	Traffic



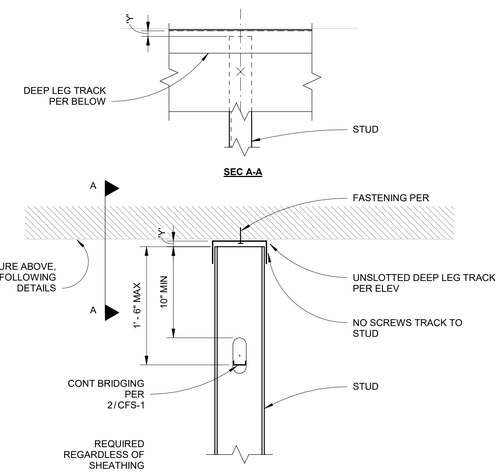
8 GRID 2 SECTION AT PARAPET STANCHIONS
1 1/2" = 1'-0"



3 GRID 2 SECTION AT DBL WALL
1 1/2" = 1'-0"



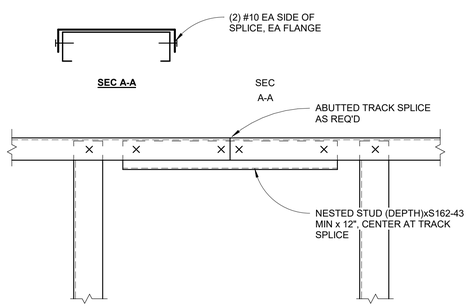
2 TYP EXT CORNER STUD SECTION
1 1/2" = 1'-0"



WALL HEAD SECTION

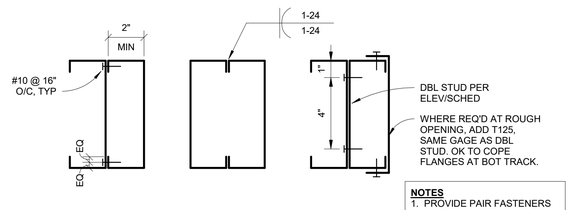
NOTES
1. DO NOT CONNECT WALL FINISHES / SHTG TO DEFLECTION TRACK. ALLOW GAP AT TOP OF FINISHES/SHTG TO PERMIT DOWNWARD STRUCTURE DEFLECTION OF 'Y'.
2. GAP 'Y' = 1" TYP.
3. RDP IN RESPONSIBLE CHARGE TO VERIFY "UL" RATING FOR ALL HEAD OF WALL ASSEMBLIES.
4. TIGHTEN SCREWS PER MANUFACTURER RECOMMENDATION TO ENSURE SLIP CAPACITY.

7 EXT TYP NON-BRG WALL DEFLECTION TRACK
1 1/2" = 1'-0"



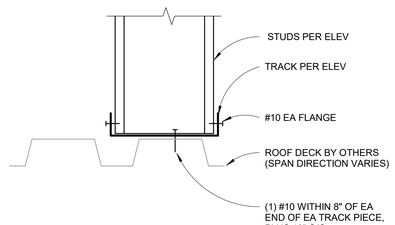
NOTE
1. NESTED TRACK SPLICES ARE ONLY REQUIRED AT TRACKS NOT OTHERWISE CONTINUOUSLY ATTACHED TO STRUCTURE.
2. NO SPLICE PERMITTED IN STUDS, SILLS, HEADERS OR JAMBS, WHICH SHALL BE CONTINUOUS 1-PIECE FULL LENGTH BETWEEN SUPPORTS.
3. AT DEFLECTION TRACKS AND BOTTOM TRACKS CONTINUOUSLY ATTACHED TO STRUCTURE, NO NESTED SPLICE REQUIRED. HOWEVER ENSURE ABUTTED SPLICES OCCUR 4" MIN CLEAR ANY CONNECTED STUD.

6 TYP TRACK SPLICE
3" = 1'-0"



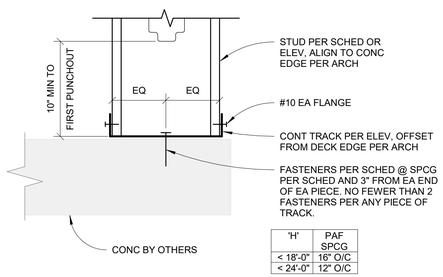
NOTES
1. PROVIDE PAIR FASTENERS OR WELDS WITHIN 12" OF TOP AND BOT OF HEIGHT IN ADDITION TO TYP SPACING.
2. OPTION A NOT PERMITTED WHERE SINGLE FLANGE WIDTH < 2".

5 TYP DOUBLE STUD SECTION
3" = 1'-0"



4 TYP TRACK ON STL RF DECK
3" = 1'-0"

NOTES
1. LOCATE TRACK SPLICES 4" MIN FROM ANY STUD.
2. 'H' IS VERTICAL DISTANCE BETWEEN LOWER AND UPPER STUD SUPPORTS, SEE 1/CFS-5
3. PAFS SHALL BE 0.157"x1" EMBED.



'H'	PAF SPCG
< 18'-0"	16" O/C
< 24'-0"	12" O/C

1 TYP BOT TRACK ON CONC
3" = 1'-0"

REV	Description	Date
	Revision Schedule	

NORTH. PLAN.

SCALE.
As indicated

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EXT CFS DETAILS

PROJECT#. 24159
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ISSUED. 09/30/24

CFS-4

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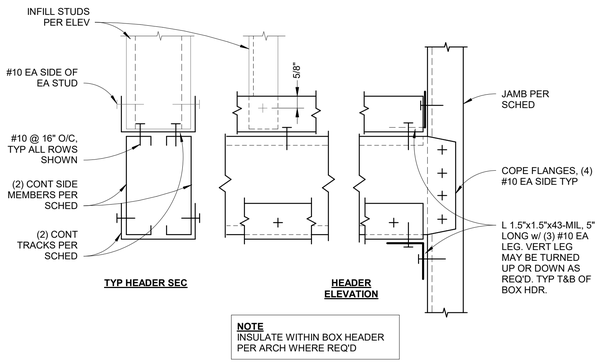
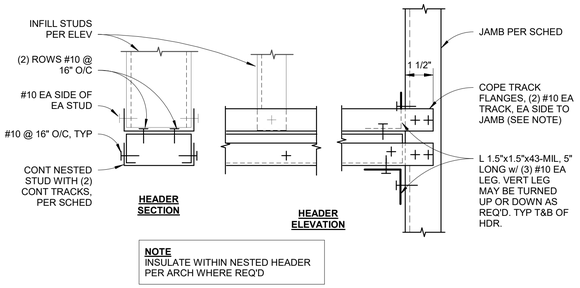


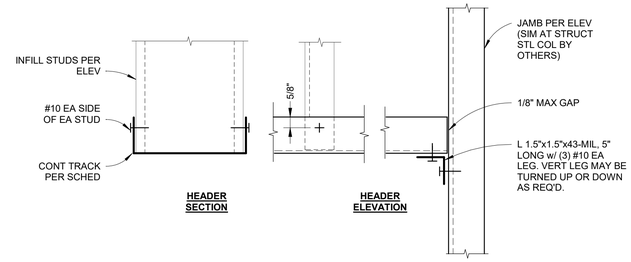
NOTE
INSULATE WITHIN BOX HEADER PER ARCH WHERE REQ'D

7 TYP BOX HEADER
3" = 1'-0"



NOTE
INSULATE WITHIN NESTED HEADER PER ARCH WHERE REQ'D

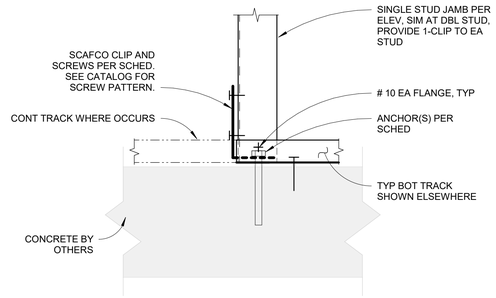
6 TYP 3-PC HDR
3" = 1'-0"



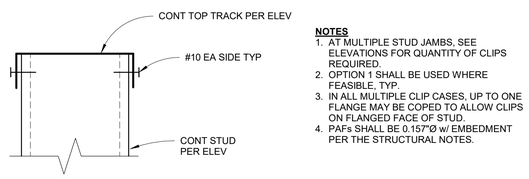
5 TYP SINGLE TRACK HEADER
3" = 1'-0"

SCHEDULE

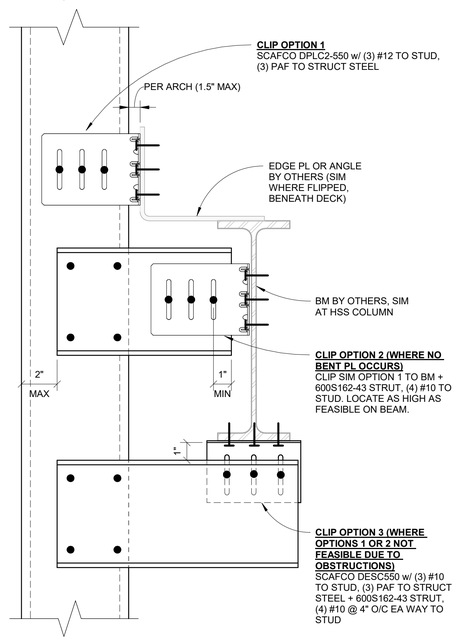
JAMB TYPE	BASE CLIPS	SCREWS EA CLIP TO STUD	ANCHORS EA CLIP
SGL	(1)FA550-68	(5) #12	(1) 1/2"Ø x4" TITEN HD
DBL	(2)FA550-68	(5) #12	(1) 1/2"Ø x4" TITEN HD



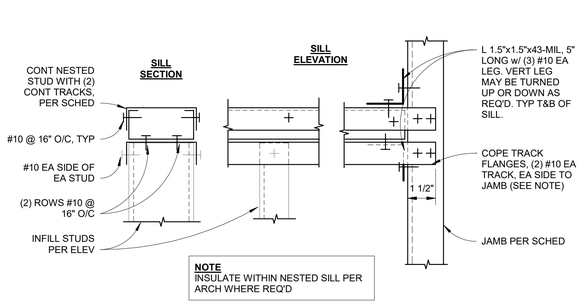
4 TYP JAMB BASE
3" = 1'-0"



NOTES
1. AT MULTIPLE STUD JAMBS, SEE ELEVATIONS FOR QUANTITY OF CLIPS REQUIRED.
2. OPTION 1 SHALL BE USED WHERE FEASIBLE, TYP.
3. IN ALL MULTIPLE CLIP CASES, UP TO ONE FLANGE MAY BE COPED TO ALLOW CLIPS ON FLANGED FACE OF STUD.
4. PAFs SHALL BE 0.157"Ø w/ EMBEDMENT PER THE STRUCTURAL NOTES.

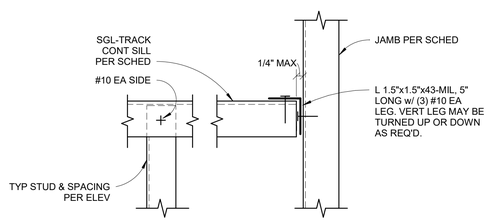


3 TYP STUD AND JAMB BYPASS CONNECTION
3" = 1'-0"

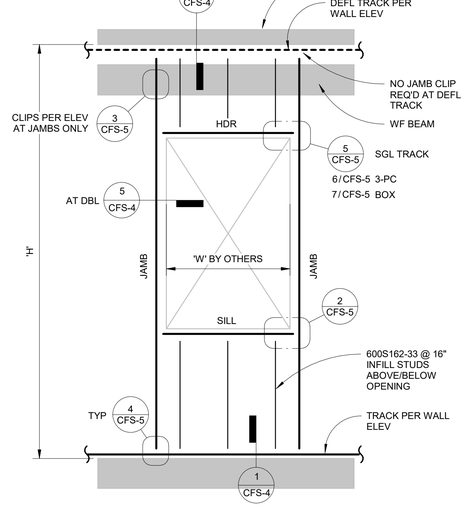


NOTE
INSULATE WITHIN NESTED SILL PER ARCH WHERE REQ'D

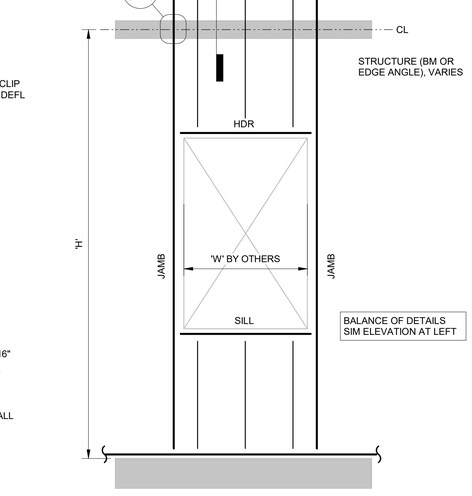
8 TYP 3-PC SILL
3" = 1'-0"



2 TYP 1-PC SILL
3" = 1'-0"



TYP RO TERMINATING AT UNDERSIDE OF STRUCTURE



TYP RO TERMINATING AT PARAPET (SINGLE BYPASS CONDITION)

EXTERIOR RO SCHEDULE

WALL DEPTH	RO TYPE	DEFAULT JAMB (SEE NOTE)	SILL	HEADER
6"	H6A	(1)600S162-54	600T125-33	(1-PC) 600T250-68
	H6B	(1)600S162-54	600T125-33	(3-PC) 600S250-54 + (2)600T125-33
	H6C	(1)600S162-54	600T125-43	(3-PC) 600S300-68 + (2)600T125-33
	H6D	(1)600S162-54	600T200-43	(BOX) (2)600S162-33 + (2)600T125-68
	H6E	(1)600S162-68	(2)600T125-33 + 600S162-68	(BOX) (2)600S162-43 + (2)600T200-68
	H6F	(1)600S200-68	(2)600T125-54 + 600S250-68	(BOX) (2)1000S162-43 + (2)600T125-68
	H6G	(2)600S200-68	(2)600T125-54 + 600S250-68	(BOX) (2)1000S162-54 + (2)600T125-54

WALL DEPTH	RO TYPE	DEFAULT JAMB (SEE NOTE)	SILL	HEADER
8"	H8A	(1)800S162-54	N/A	(3-PC) 800S200-54 + (2)800T125-33
	H8B	(2)800S200-68	800T125-54	(BOX) (2)800S162-43 + (2)800T125-68
	H8C	(2)800S200-68	(2)800T125-54 + 800S200-54	(BOX) (2)1000S162-43 + (2)800T200-54

NOTES
1. WHERE JAMB SIZE SHOWN ON ELEVATION, THIS SHALL GOVERN OVER SCHEDULED JAMB SIZE SHOWN IN TABLE. "DEFAULT JAMB" SHALL APPLY WHERE NO JAMB SIZE IS PROVIDED ON THE ELEVATIONS.
2. AT NARROW WALL SEGMENTS BETWEEN ADJACENT OPENINGS, PROVIDE TWO JAMBS PER SCHEDULE (ONE FOR EACH OPENING) UNLESS A "COMBINED" JAMB IS SHOWN ON ELEVATION.

1 TYP ROUGH OPENING ELEVATION
1/2" = 1'-0"

REV	Description	Date
	Revision Schedule	

NORTH. PLAN.

SCALE.
As indicated

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PROJECT#. 24159
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ISSUED. 09/30/24

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Project No. 24159
O:\Projects\24159 GKK PSE OTC\DRAWINGS_SPECS\WORKING\240927 KW 24159 GKK PSE CFS- r22.rvt

24-011 - PUGET SOUND ENERGY OPERATIONAL TRAINING CENTER

PRCNC20240216 - Revision #1
Shop drawings - This set will not replace the Approved plan set.

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325 Todd Rd NW
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United States

Pennon Construction Company, Inc.
9750 3rd Ave NE, Suite 250
Seattle, Washington 98115
United States
(206) 418-0235

Title
GK Knutson : 09 21 16 Gypsum Board Assemblies - Shop Drawings (Exterior)

Submittal Manager
Sean Ewing

Spec Section
09 21 16 - Gypsum Board Assemblies

Type
Shop Drawing

Number
090

Rev
0

Description
C. Shop Drawings: For cold-formed steel interior walls, soffits, and ceilings, provide schedules, framing plans, elevations, and/or details as required to show all typical and unique conditions.

Includes engineered calculations.

Exterior only. Interior to submitted separately.

Arch to submit to AHJ as deferred submittal.

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[X] **REVIEWED** [ ] **REJECTED**

[X] NO EXCEPTIONS TAKEN
[ ] NOTE MARKINGS & REVISE
[ ] NOTE MARKINGS, REVISE & RESUBMIT

Delegated Design / Deferred Submittal review by KW is limited to the component's conformance with design criteria, concept, and loads imposed on the primary structure. Structural performance of the supplier-designed components is the responsibility of the component's structural engineer. Corrections or comments made on the attached submittal do not relieve the Contractor from compliance with the Contract Documents unless specifically noted otherwise. Contractor is responsible for: confirming and correlating all quantities, dimensions, and elevations; selecting fabrication processes and techniques of construction; coordinating work with that of all other trades; and performing work in a safe and satisfactory manner. Where required to RESUBMIT, Contractor need only resubmit sheets that are affected by the marks or otherwise revised.

Date 10/4/24 By DL

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JOB NO. 24159 **SHEET NO.** 1
CALCULATED BY DL **DATE** 9/30/24

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LIGHT-GAGE STEEL CALCULATIONS

FOR

GKK - PSE OTC - EXT CFS

DANIEL DAVIS LINKHART
STATE OF WASHINGTON
41390
STRUCTURAL ENGINEER
PROFESSIONAL ENGINEER
9/30/24

DIGITAL SEAL
ON PDF FILE

Client: G K Knutson

Code:	2018 IBC
OOP Loads:	Per design conditions page
Max OOP Defl:	L/240 typ
Roof Vert Defl:	1" max
Floor Vert Defl:	n/a
Max Stud Spcg:	16"
Min Framing Gage:	N/A
Seismic Drift Slots:	Required at Ext
Roof Structure:	20-GA 3" N-DECK
Floor Structure:	N/A
Hardware Mfr:	Simpson/Scafco
Defl Track:	Varies
Special Considerations:	

Scope of work

Design of exterior non-bearing cold-formed steel (CFS) walls & soffits indicated.

SHOP DRAWING / SUBMITTAL REVIEW

This review is for general conformance with the plans and specifications only. Approvals are subject to subcontractor's performance within the confines of the contract documents. Review of dimensions will not serve to relieve the subcontractor of contractual responsibility for any deviations from the contract requirements.

X Reviewed Without Comment	___ Reviewed as Noted
___ Field Measurement or Templates required prior to fabrication	___ Rejected - Revise & Resubmit
PCCI Project # 24-011	Submittal # 24-011-090
Reviewed By: SEAN EWING	Date: 10/3/24
PENNON CONSTRUCTION COMPANY, INC.	9750 3rd Ave NE Suite 250 Seattle, WA 98115 P: 206-418-0235 - F: 206-418-0237

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JOB NO. 24159 SHEET NO.

CALCULATED BY DL DATE 9/30/24

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SPECIFICATIONS - NOTE THESE ARE A CRITICAL PART OF THE DESIGN REQUIREMENTS

GENERAL

THE DESIGN CALCULATIONS AND DRAWINGS IN THIS SUBMITTAL ARE PROVIDED FOR THE COLD-FORMED EXTERIOR NON-BEARING WALLS ONLY. THESE WALLS ARE DESIGNED TO SUPPORT THE SELF WEIGHT OF THE WALL ASSEMBLY AND FINISHES, AND TO RESIST WIND AND SEISMIC LATERAL LOADS. LATERAL AND VERTICAL FORCES FROM THE NON BEARING WALLS WILL BE RESISTED BY THE PRIMARY BUILDING STRUCTURE. THE ENGINEER OF RECORD SHALL VERIFY THAT THE PRIMARY STRUCTURE IS CAPABLE OF RESISTING THESE LOADS. ALL CONNECTIONS OF THE GLAZING AND FINISH SYSTEM TO THE METAL STUD FRAMING SHALL BE DESIGNED BY OTHERS. LIKEWISE, ALL JOINTS IN THE GLAZING AND FINISH MATERIALS AND THE NECESSARY DESIGN AND DETAILING REQUIRED FOR THE FINISH SYSTEM TO FUNCTION COMPATIBLY WITH THE BUILDING MOVEMENTS AND THE METAL STUD FRAMING SYSTEM SHALL BE PROVIDED BY OTHERS.

MATERIALS

STUD AND TRACK MATERIALS SHALL BE MANUFACTURED BY A MEMBER OF THE STEEL STUD MANUFACTURERS ASSOCIATION (SSMA) AND HAVE THE MINIMUM EFFECTIVE PHYSICAL AND STRUCTURAL PROPERTIES PER ICBO REPORT ER 4943-P OR EQUIVALENT. ALL MEMBERS SHALL BE GALVANIZED PER ASTM A924 (LATEST EDITION) WITH MINIMUM G40 COATING. MATERIAL SPECIFICATIONS:

SSMA 54 MIL THROUGH 97 MIL	ASTM A653 GRADE D WITH MINIMUM Fy OF 50 KSI
SSMA 43 MIL AND LIGHTER	ASTM A653 GRADE A WITH MINIMUM Fy OF 33 KSI
PROPRIETARY CFS PRODUCTS	PER MANUFACTURER (Fy VARIES FROM 33 KSI TO 57 KSI)

ACCESSORIES SHALL BE OF THE TYPE AND SIZE SHOWN ON THE DRAWINGS WITH 54 MIL (MINIMUM) MATERIAL UNLESS NOTED OTHERWISE.

ALL STEEL-TO-STEEL SCREWS SHALL BE ZINC COATED, SELF TAPPING AND SELF DRILLING AS MANUFACTURED BY ITW BUILDEX TEK / TRAXX, ELCO DRIL-FLEX, HILTI, OR APPROVED EQUAL. ALL SCREWS SHALL HAVE A PROTECIVE COATING PROVIDED IN CONFOMRANCE WITH ASTM F1941 AND SHALL HAVE A PERFORMANCE RATING OF 500 HOURS OF SALT-FOG PER ASTM B117.

FOR FASTENING OF 54 MIL MATERIAL AND THINNER, THE MINIMUM SCREW SIZE SHALL BE #8-18 (#2 POINT) OR #10-16 (#2 POINT)

FOR FASTENING OF 68 MIL MATERIAL AND THICKER, THE MINIMUM SCREW SIZE SHALL BE #10-16 (#3 POINT) OR #12-14 (#2 OR #3POINT)

SCREWS SHALL HAVE A MINIMUM PROJECTION OF 3 THREADS THROUGH THE LAST JOINED MATERIAL AND SHALL HAVE MINIMUM EDGE DISTANCE AND CENTER TO CENTER SPACING OF 1/2"

POWDER-ACTUATED FASTENERS (PAF's) SHALL BE PER THE DETAILS. INSTALL PER MANUFACTURER'S INSTRUCTIONS.

WELD ELECTRODES SHALL BE E60 OR E70.

EXECUTION

PROVIDE MEMBERS AND CONNECTIONS PER THE ATTACHED DETAILS AND SCHEDULES

CUT STUDS SQUARE AND FIRMLY SEAT STUDS IN TRACK WITH NO GAP (EXCEPT FOR DEFLECTION TRACK WHERE DETAILED). WHERE SHEATHING IS NOT INSTALLED ON BOTH SIDES OF WALL, USE TORSION BARS OR STRAPS AND BRIDGING PER THE SCHEDULES AND TYPICAL DETAILS HEREIN, IN ADDITION TO ONE ROW WITHIN 12" OF ALL DEFLECTION CLIPS OR TRACKS.

WELDING SHALL BE PERFORMED BY CERTIFIED WELDERS IN CONFORMANCE WITH AWS D1.1 AND AWS D1.3. THE MINIMUM WELD SIZE SHALL BE 3/32" THROAT BY 1" LENGTH. TOUCH UP ALL WELDS WITH ZINC RICH PAINT.

ABIDE BY ALL INSPECTION REQUIREMENTS PER THE CONTRACT DOCUMENTS

STUDS SHALL BE CONTINUOUS FULL LENGTH WITHOUT SPLICES. TRACKS OR OTHER MEMBERS THAT ARE PART OF HEADER OR SILL ASSEMBLIES, OR LABELED “CONT”, SHALL BE CONTINUOUS

PAF EMBEDMENT IN CONCRETE SHALL BE PER THE DETAILS. PAF EMBEDMENT IN STEEL 1/2" THICK OR LESS SHALL BE AS REQUIRED FOR THE POINT OF THE PAF TO PENETRATE THROUGH THE FULL THICKNESS. PAF EMBEDMENT IN STEEL GREATER THAN 1/2" THICK SHALL BE 1/2" MINIMUM. ENSURE PAF HEAD TIGHT AGAINST AFFIXED LIGHT-GAGE STEEL AND THAT THE LIGHT-GAGE STEEL IS CLAMPED (WITHOUT GAP) TO THE BASE STEEL. ALL MANUFACTURER GUIDELINES SHALL BE FOLLOWED.

FOLLOW ALL MANUFACTURER GUIDELINES FOR CLIPS, DEFLECTION TRACKS AND FASTENERS.

DEFLECTION AND DRIFT ACCOMMODATION ARE PROVIDED IN THESE DETAILS. EOR AND ARCHITECT SHALL REVIEW FOR CONFORMANCE TO DESIGN INTENT. ATTACHMENT OF SHEATHING, FINISHES AND OTHER ELEMENTS SHALL BE PER ARCH, AS REQUIRED TO PERMIT THE ANTICIPATED VERTICAL AND LATERAL MOVEMENT WITHOUT DAMAGE AND WITHOUT HINDERANCE OF THE COLD-FORMED STEEL DEFLECTION SYSTEM.

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Deflection Criteria*: 240 PER RFI and struct drawings

*Per Table 1604.3 footnote f, wind is permitted to be taken as 0.7 times the component and cladding loads for the purpose of determining deflection

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Allowable Stress Design is used throughout

LATERAL LOADS:
MINIMUM 16.0 psf PER ASCE 7-16

SEISMIC Criteria: IBC
Per:

Sds=	1.022	
I p=	1	
z=	24	max ht of wall considered
h=	24	roof ht

	Wall Elements	Wall Fasteners		
ap=	1	1.25		
Rp=	2.5	1		
Fp = 0.4apSdsIpWp(1+2z/h)/Rp =	0.49	1.53	x Wp	
not greater than Fp = 1.6SdsIpWp =	1.64	1.64	x Wp	
but not less than Fp = 0.3SdsIpWp =	0.31	0.31	x Wp	
use Fp =	0.49	1.53	x Wp	(LRFD)
x 0.7 =	0.34	1.07	x Wp	(ASD)

Wall Type	Unit Wt		Fp (1.0E)	Fp (0.7E)
1	13.0 psf	FIELD - TYP	6.4 psf	4.5 psf
2	13.0 psf	CORNER - TYP	6.4 psf	4.5 psf
3	13.0 psf	FIELD - PARAPET	6.4 psf	4.5 psf
4	13.0 psf	CORNER - PARAPET	6.4 psf	4.5 psf
5				0.0 psf
6				0.0 psf

WALL TYPE & LOAD SUMMARY

			Deflection Criteria		Load Criteria				GOV ASD	
			Per Spec	x 0.7 C&C	1.0W	0.6W	1.0E	0.7E	**LOAD**	**ASD DEFL**
1	FIELD - TYP		L/ 240	L/ 168	19.0 psf	11.4 psf	6.4 psf	4.5 psf	**11.4 psf**	**L/ 168**
2	CORNER - TYP		L/ 240	L/ 168	24.0 psf	14.4 psf	6.4 psf	4.5 psf	**14.4 psf**	**L/ 168**
3	FIELD - PARAPET		L/ 240	L/ 168	49.0 psf	29.4 psf	6.4 psf	4.5 psf	**29.4 psf**	**L/ 168**
4	CORNER - PARAPET		L/ 240	L/ 168	62.0 psf	37.2 psf	6.4 psf	4.5 psf	**37.2 psf**	**L/ 168**
5	0		NA	#VALUE!		0.0 psf	0.0 psf	0.0 psf	**0.0 psf**	**#VALUE!**
6	0		na	na		0.0 psf	0.0 psf	0.0 psf	**0.0 psf**	**na**

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JOB NO. 24159 SHEET NO.
CALCULATED BY DL DATE 9/30/24

Stud to Track Connection Calculation per 2007 AISI Standard for Wall Stud Design B2.2
(Track thickness greater than or equal stud thickness)
Pnst=Ct^2Fy(1-Cr(R/t)^.5)(1+Cn(N/t)^.5(1-Ch(h/t)^.5)

R	0.150 in
N	1.250 in
h	6.0 in
C	3.7
CR	0.19
CN	0.74
Ch	0.019

R Inside bend radius
N Stud Bearing Length
h depth stud web
t stud thickness
Omega 1.7

Thickness - Steel Components

Minimum Thickness[1] (mils)	Design Thickness (in)	Reference On Gauge No.
18	0.0188	25
27	0.0283	22
33	0.0346	20
43	0.0451	18
54	0.0566	16
68	0.0713	14
97	0.1017	12

[1] Minimum Thickness represents 95% of the design thickness and is the minimum acceptable thickness delivered to the job site based on Section A3.4 of the 1996 AISI Specification.

	ASD LOAD	
FIELD - TYP	11.4	PSF
CORNER - TYP	14.4	PSF
FIELD - PARAPET	29.4	PSF
CORNER - PARAPET	37.2	PSF
0	0.0	PSF * not req'd for track thickness calc
0	0.0	PSF * not req'd for track thickness calc

						MAX HEIGHT											
						FIELD - TYP		CORNER - TYP		FIELD - PARAPET		CORNER - PARAPET		CORNER - TYP			
			Pallow (lbs)		SPACING -->	16		16		16		16		29		16	
MILS	t	Fy	Cont Track	Discont		CONT	DISCONT	CONT	DISCONT	CONT	DISCONT	CONT	DISCONT	CONT	DISCONT	CONT	DISCONT
D20	0.0188	57	94	47		12.4 ft	6.2 ft	9.8 ft	4.9 ft	4.8 ft	2.4 ft	3.8 ft	1.9 ft	5.4 ft	2.7 ft	#DIV/0!	#DIV/0!
30EQD	0.0235	57	159	79		20.9 ft	10.4 ft	16.5 ft	8.3 ft	8.1 ft	4.0 ft	6.4 ft	3.2 ft	9.1 ft	4.6 ft	#DIV/0!	#DIV/0!
18	0.0188	33	55	27		7.2 ft	3.6 ft	5.7 ft	2.8 ft	2.8 ft	1.4 ft	2.2 ft	1.1 ft	3.1 ft	1.6 ft	#DIV/0!	#DIV/0!
30	0.0312	33	171	85		22.5 ft	11.2 ft	17.8 ft	8.9 ft	8.7 ft	4.4 ft	6.9 ft	3.4 ft	9.8 ft	4.9 ft	#DIV/0!	#DIV/0!
33	0.0346	33	212	106		27.9 ft	14.0 ft	22.1 ft	11.1 ft	10.8 ft	5.4 ft	8.6 ft	4.3 ft	12.2 ft	6.1 ft	#DIV/0!	#DIV/0!
43	0.0451	33	365	182		48.0 ft	24.0 ft	38.0 ft	19.0 ft	18.6 ft	9.3 ft	14.7 ft	7.4 ft	21.0 ft	10.5 ft	#DIV/0!	#DIV/0!
54	0.0566	50	867	434		114.1 ft	57.1 ft	90.3 ft	**45.2 ft**	44.2 ft	22.1 ft	35.0 ft	17.5 ft	49.8 ft	24.9 ft	#DIV/0!	#DIV/0!
68	0.0713	50	1356	678		178.5 ft	89.2 ft	141.3 ft	70.6 ft	69.2 ft	34.6 ft	54.7 ft	27.3 ft	77.9 ft	39.0 ft	#DIV/0!	#DIV/0!
97	0.1017	50	2658	1329		349.7 ft	174.9 ft	276.9 ft	138.4 ft	135.6 ft	67.8 ft	107.2 ft	53.6 ft	152.8 ft	76.4 ft	#DIV/0!	#DIV/0!
118	0.1242	50	3859	1930		507.8 ft	253.9 ft	402.0 ft	201.0 ft	196.9 ft	98.4 ft	155.6 ft	77.8 ft	221.8 ft	110.9 ft	#DIV/0!	#DIV/0!

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JOB TITLE GKK - PSE OTC - EXT CFS

JOB NO. 24159 SHEET NO.
CALCULATED BY DL DATE 9/30/24

Stud to Track Connection Calculation per 2007 AISI Standard for Wall Stud Design B2.2
(Track thickness greater than or equal stud thickness)
Pnst=Ct^2Fy(1-Cr(R/t)^.5)(1+Cn(N/t)^.5(1-Ch(h/t)^.5)

R	0.150 in
N	1.250 in
h	8.0 in
C	3.7
CR	0.19
CN	0.74
Ch	0.019

R Inside bend radius
N Stud Bearing Length
h depth stud web
t stud thickness
Omega 1.7

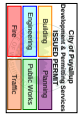
Thickness - Steel Components

Minimum Thickness[1] (mils)	Design Thickness (in)	Reference On Gauge No.
18	0.0188	25
27	0.0283	22
33	0.0346	20
43	0.0451	18
54	0.0566	16
68	0.0713	14
97	0.1017	12

[1] Minimum Thickness represents 95% of the design thickness and is the minimum acceptable thickness delivered to the job site based on Section A3.4 of the 1996 AISI Specification.

	ASD LOAD	
FIELD - TYP	11.4	PSF
CORNER - TYP	14.4	PSF
FIELD - PARAPET	29.4	PSF
CORNER - PARAPET	37.2	PSF
0	0.0	PSF * not req'd for track thickness calc
0	0.0	PSF * not req'd for track thickness calc

						MAX HEIGHT											
						FIELD - TYP		CORNER - TYP		FIELD - PARAPET		CORNER - PARAPET		CORNER - TYP			
			Pallow (lbs)		SPACING -->	16		16		16		16		29		16	
MILS	t	Fy	Cont Track	Discont		CONT	DISCONT	CONT	DISCONT	CONT	DISCONT	CONT	DISCONT	CONT	DISCONT	CONT	DISCONT
D20	0.0188	57	87	43		11.4 ft	5.7 ft	9.1 ft	4.5 ft	4.4 ft	2.2 ft	3.5 ft	1.8 ft	5.0 ft	2.5 ft	#DIV/0!	#DIV/0!
30EQD	0.0235	57	148	74		19.5 ft	9.7 ft	15.4 ft	7.7 ft	7.6 ft	3.8 ft	6.0 ft	3.0 ft	8.5 ft	4.3 ft	#DIV/0!	#DIV/0!
18	0.0188	33	50	25		6.6 ft	3.3 ft	5.2 ft	2.6 ft	2.6 ft	1.3 ft	2.0 ft	1.0 ft	2.9 ft	1.4 ft	#DIV/0!	#DIV/0!
30	0.0312	33	161	81		21.2 ft	10.6 ft	16.8 ft	8.4 ft	8.2 ft	4.1 ft	6.5 ft	3.3 ft	9.3 ft	4.6 ft	#DIV/0!	#DIV/0!
33	0.0346	33	201	101		26.5 ft	13.2 ft	21.0 ft	10.5 ft	10.3 ft	5.1 ft	8.1 ft	4.1 ft	11.6 ft	5.8 ft	#DIV/0!	#DIV/0!
43	0.0451	33	349	175		45.9 ft	23.0 ft	36.4 ft	18.2 ft	17.8 ft	8.9 ft	14.1 ft	7.0 ft	20.1 ft	10.0 ft	#DIV/0!	#DIV/0!
54	0.0566	50	835	417		109.8 ft	54.9 ft	86.9 ft	**43.5 ft**	42.6 ft	21.3 ft	33.7 ft	16.8 ft	48.0 ft	24.0 ft	#DIV/0!	#DIV/0!
68	0.0713	50	1312	656		172.6 ft	86.3 ft	136.7 ft	68.3 ft	66.9 ft	33.5 ft	52.9 ft	26.5 ft	75.4 ft	37.7 ft	#DIV/0!	#DIV/0!
97	0.1017	50	2588	1294		340.5 ft	170.2 ft	269.5 ft	134.8 ft	132.0 ft	66.0 ft	104.3 ft	52.2 ft	148.7 ft	74.4 ft	#DIV/0!	#DIV/0!
118	0.1242	50	3768	1884		495.8 ft	247.9 ft	392.5 ft	196.3 ft	192.3 ft	96.1 ft	151.9 ft	76.0 ft	216.6 ft	108.3 ft	#DIV/0!	#DIV/0!



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JOB TITLE GKK - PSE OTC - EXT CFS

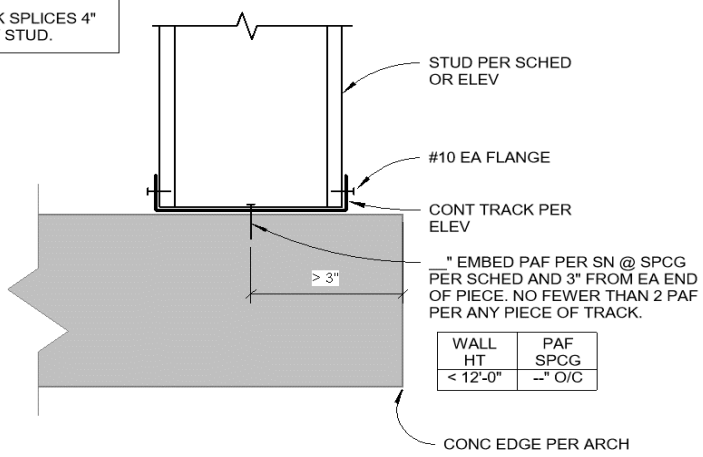
JOB NO. 24159 **SHEET NO.**
CALCULATED BY DL **DATE** 9/30/24

EXTERIOR WALLS - FASTENING OF CFS BOT TRACK TO CONCRETE

PRCNC20240216 - Revision #1
Shop drawings - This set will not replace the Approved plan set.

City of Puyallup Development & Permitting Services ISSUED PERMIT
Building | Planning | Engineering | Public Works | Fire | Traffic

NOTE
LOCATE TRACK SPLICES 4" MIN FROM ANY STUD.



5 TYP BOT TRACK ON CONCRETE
3" = 1'-0"

DIAMETER	0.157	IN
TYPE	0.157"x1"-2.25" ED-4ksi	
SEISMIC PAF LIMIT?	NO	
ALLOW SHR	225	#/FT
TRACK THICKNESS	33	MIL
TRACK Fy	33	KSI
TRACK Fu	45	KSI
BRG CAPACITY	445	#, based on max of AISI E4.3.1-2 or published values
GOV CAPACITY	225	#

ASD LOAD		
FIELD - TYP	11.4	PSF
CORNER - TYP	14.4	PSF
FIELD - PARAPET	29.4	PSF
CORNER - PARAPET	37.2	PSF
0	0.0	PSF
0	0.0	PSF

	FASTENER SPCG					
WALL HT	FIELD - TYP	CORNER - TYP	FIELD - PARAPET	CORNER - PARAPET		
8	59.2	46.9	23.0	18.1	#DIV/0!	
9	52.6	41.7	20.4	16.1	#DIV/0!	
10	47.4	37.5	18.4	14.5	#DIV/0!	
11	43.1	34.1	16.7	13.2	#DIV/0!	
12	39.5	31.3	15.3	12.1	#DIV/0!	
13	36.4	28.8	14.1	11.2	#DIV/0!	
14	33.8	26.8	13.1	10.4	#DIV/0!	
15	31.6	25.0	12.2	9.7	#DIV/0!	
16	29.6	23.4	11.5	9.1	#DIV/0!	
17	27.9	22.1	10.8	8.5	#DIV/0!	
18	26.3	20.8	10.2	8.1	#DIV/0!	
19	24.9	19.7	9.7	7.6	#DIV/0!	
20	23.7	18.8	9.2	7.3	#DIV/0!	
21	22.6	17.9	8.7	6.9	#DIV/0!	
22	21.5	17.0	8.3	6.6	#DIV/0!	
23	20.6	16.3	8.0	6.3	#DIV/0!	
24	19.7	15.6	7.7	6.0	#DIV/0!	

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JOB TITLE GKK - PSE OTC - EXT CFS

JOB NO. 24159 **SHEET NO.**
CALCULATED BY DL **DATE** 9/30/24

Slip Track Calculation per 2007 AISI Standard for Wall Stud Design B2.3 Deflection Track

P= (Wdt X t2 X Fy) / (4 X e X Omega)

Omega 2.8
Wdt=.11X(e0.5/t1.5)+5.5 <=S
t track thickness
e slip gap

Thickness - Steel Components

Minimum Thickness[1] (mils)	Design Thickness (in)	Reference On Gauge No.
18	0.0188	25
27	0.0283	22
33	0.0346	20
43	0.0451	18
54	0.0566	16
68	0.0713	14
97	0.1017	12

[1] Minimum Thickness represents 95% of the design thickness and is the minimum acceptable thickness delivered to the job site based on Section A3.4 of the 1996 AISI Specification.

3'-6" RO = 29" trib

Determine allowable height for multiple gaps, track thicknesses, and stud spacings

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Shop drawings - This set will not replace the Approved plan set.

Stud Width	1.625 in					
Wind Load	14.4 psf		ROOF			
Gap	1.00 in					
	Fy	t	Wdt	P_allow	spacing	max ht
T250-43	33	0.0451 in	16.0 in	0.10 kip	16.0 in	10.0 ft
			17.0 in	0.10 kip	24.0 in	7.1 ft
			17.0 in	0.10 kip	29.0 in	5.9 ft
T250-54	50	0.0566 in	13.7 in	0.20 kip	16.0 in	20.4 ft
			13.7 in	0.20 kip	24.0 in	13.6 ft
			13.7 in	0.20 kip	29.0 in	11.2 ft
Stud Width	1.625 in					
Wind Load	14.4 psf		ROOF			
Gap	1.00 in					
	Fy	t	Wdt	P_allow	spacing	max ht
T250-68	50	0.0713 in	11.3 in	0.26 kip	16.0 in	26.7 ft
			11.3 in	0.26 kip	24.0 in	17.8 ft
			11.3 in	0.26 kip	29.0 in	14.7 ft
T250-97	50	0.1017 in	8.9 in	0.41 kip	16.0 in	42.8 ft
			8.9 in	0.41 kip	24.0 in	28.5 ft
			8.9 in	0.41 kip	29.0 in	23.6 ft
Stud Width	1.625 in					
Wind Load	37.2 psf					
Gap	1.00 in					
	Fy	t	Wdt	P_allow	spacing	max ht
D43	33	0.0451 in	16.0 in	0.10 kip	16.0 in	3.9 ft
			17.0 in	0.10 kip	24.0 in	2.7 ft
			17.0 in	0.10 kip	33.0 in	2.0 ft
D54	50	0.0566 in	13.7 in	0.20 kip	16.0 in	7.9 ft
			13.7 in	0.20 kip	24.0 in	5.3 ft
			13.7 in	0.20 kip	33.0 in	3.8 ft
Stud Width						
Wind Load						
Gap						
	Fy	t	Wdt	P_allow	spacing	max ht
D68	50	0.0713 in	5.5 in	#DIV/0!	16.0 in	#DIV/0!
			5.5 in	#DIV/0!	24.0 in	#DIV/0!
			5.5 in	#DIV/0!	33.0 in	#DIV/0!
D97	50	0.1017 in	5.5 in	#DIV/0!	16.0 in	#DIV/0!
			5.5 in	#DIV/0!	24.0 in	#DIV/0!
			5.5 in	#DIV/0!	33.0 in	#DIV/0!

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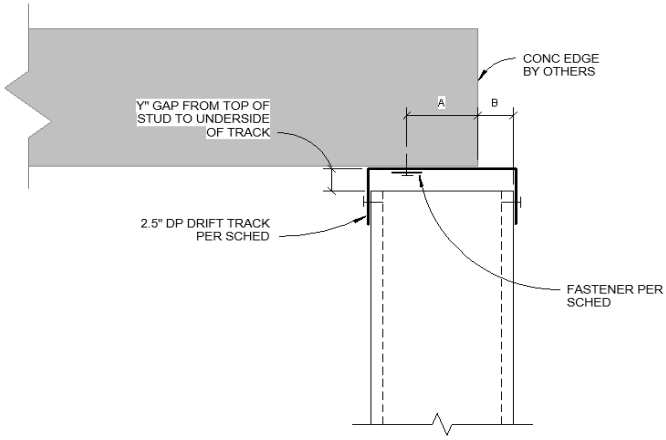
JOB TITLE GKK - PSE OTC - EXT CFS

JOB NO. 24159 **SHEET NO.**

CALCULATED BY DL **DATE** 9/30/24

EXTERIOR WALLS - FASTENING OF DEFL TRACK TO CONCRETE OR STEEL

PRCNC20240216 - Revision #1
Shop drawings - This set will not replace the Approved plan set.



	ASD LOAD	
FIELD - TYP	11.4	PSF
CORNER - TYP	14.4	PSF
FIELD - PARAPET	29.4	PSF
CORNER - PARAPET	37.2	PSF
0	0.0	PSF
0	0.0	PSF

City of Puyallup Development & Permitting Services ISSUED PERMIT
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	Grid 2 - A to C			
STUD WIDTH	6			IN
A	3			IN
B	0			IN
GAP 'Y'	1			IN
WALL HT	22.8			FT
TYPE	FIELD - TYP			
p_ASD	11.4	0.0	0.0	PSF
V_ASD	130	0	0	#/FT
M_ASD	195	0	0	#-IN/FT
T_ASD	65	#DIV/0!	#DIV/0!	#/FT
TYPE	0.157"-A36-1/4"	0.157"-A36-3/4"plus	0.157"-A36-3/4"plus	
SEISMIC PAF LIMIT?	YES	YES	NO	
ALLOW SHR	250	250	375	
ALLOW TENSION	775	350	350	
MAX SPCG	20	#DIV/0!	#DIV/0!	IN O/C

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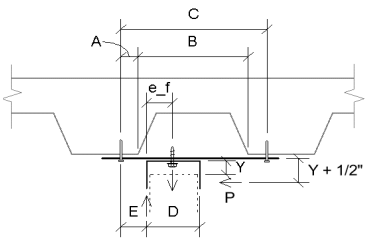
JOB TITLE GKK - FS 31 - INT CFS

JOB NO. 24085 **SHEET NO.**

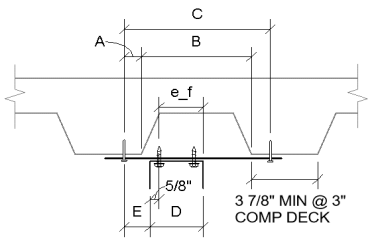
CALCULATED BY DL **DATE** 9/25/24

PRCNC20240216 - Revision #1
Shop drawings - This set will not replace the Approved plan set.

SPREADER PLATE DESIGN AT BOT OF FLOOR OR ROOF DECK



1-SCREW CONDITION



2-SCREW CONDITION

	ASD LOAD	
FIELD - TYP	11.4	PSF
CORNER - TYP	14.4	PSF
LD - PARAPET	29.4	PSF
ER - PARAPET	37.2	PSF
0	0.0	PSF
0	0.0	PSF

NAME	Grid 2 - C to E			
FLOOR/ROOF	METAL DECK			
DECK TYPE	ROOF 3" N			
PL SPCG	16			IN O/C
PL WIDTH	16			IN
PL MIL	43			MIL
PL Fy	33	#N/A	#N/A	KSI
A	1.0625	1.0625	1.0625	IN
B	5.875	#N/A	#N/A	IN
C	8	#N/A	#N/A	IN
D	6	6	6	IN
E	VARIES	VARIES	VARIES	IN
e_f	3	3	3	IN
GAP 'Y'	1	1	1	IN
Y_eff	1.5	1.5	1.5	IN
WALL HT	8	8	8	FT
TYPE	CORNER - TYP	CORNER - TYP	CORNER - TYP	
p_ASD	14.4	14.4	14.4	PSF
P_ASD	77	0	0	LBS/PL
Mappl_ASD	115	0	0	LB-IN
T/C_trk	38	0	0	LBS
Rv_pl	14	#N/A	#N/A	LBS
Vpl_max	38	0	0	LBS
Mpl_max	72	#N/A	#N/A	LB-IN
PL THICKNESS	0.0451	#N/A	#N/A	IN
Spl	0.00542	#N/A	#N/A	IN^3
fb=Mpl/Spl	13	#N/A	#N/A	KSI
Fa	20	#N/A	#N/A	KSI
PL D/C RATIO	**0.67**	**#N/A**	**#N/A**	
TYPE	#10 Screw - 20ga roof deck	#10 Screw - 20ga roof deck	#10 Screw - 20ga roof deck	
SEISMIC PAF LIMIT?	no	no	no	
ALLOW SHR	177	177	177	LBS
ALLOW TENSION	84	84	84	LBS
# PAF EA END	0.67	0.00	0.00	

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ROUGH OPENING CONNECTIONS

PRCNC20240216 - Revision #1
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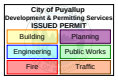

TYPE	H8C				
JAMB Q	2				
JAMB	800S200-68				
R_TOP	1324				
CLIP	SCAFCO DPLC2 TO 54-MIL (3-#12)	2	1810	0.73	OK
ANCH	DPLC2 (3) PAF TO 1/4 STL		2320.513	0.57	OK
R_BOT	1207				
CLIP	SCAFCO FA550-68 TO 54-MIL	1	1860	0.65	OK
ANCH	FA550 1/2X3.25 TITEN HD		1380	0.87	OK
HEADER TYPE	BOX				
HDR BOT TRACK	800T200-54				
R_LAT	651				
CLIP	(3) #10 - 43MIL	1	789	0.83	OK
HDR TOP TRACK	800T200-54				
R_LAT	651				
CLIP	(3) #10 - 43MIL	1	789	0.83	OK
BOX HDR SIDES	1000S162-431				
R_VERT(TOT)	1350				
CLIP	(3) #10 - 43MIL	2	1578	0.86	OK
SILL	800T125-54				
R_LAT	1381				
CLIP	(3) #10 - 43MIL	2	1578	0.88	OK

TYPE	H8B				
JAMB Q	2				
JAMB	800S200-68				
R_TOP	848				
CLIP	SCAFCO DPLC2 TO 54-MIL (3-#12)	1	905	0.94	OK
ANCH	DPLC2 (3) PAF TO 1/4 STL		1160.256	0.73	OK
R_BOT	1240				
CLIP	SCAFCO FA550-68 TO 54-MIL	1	1860	0.67	OK
ANCH	FA550 1/2X3.25 TITEN HD		1380	0.90	OK
HEADER TYPE	BOX				
HDR BOT TRACK	800T125-68				
R_LAT	383				
CLIP	(3) #10 - 43MIL	1	789	0.49	OK
HDR TOP TRACK	800T125-68				
R_LAT	383				
CLIP	(3) #10 - 43MIL	1	789	0.49	OK
BOX HDR SIDES	800S162-43				
R_VERT(TOT)	866				
CLIP	(3) #10 - 43MIL	2	1578	0.55	OK
SILL	800T125-54				
R_LAT	639				
CLIP	(3) #10 - 43MIL	1	789	0.81	OK

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JOB TITLE GKK - PSE OTC - EXT CFS

JOB NO. 24159 SHEET NO.
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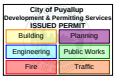
Shop drawings - This set will not replace the Approved plan set.



ROUGH OPENING CONNECTIONS

TYPE	H8A				
JAMB Q	1				
JAMB	800S162-54				
R_TOP	255				
CLIP	SCAFCO DPLC2 TO 54-MIL (3-#12)	1	905	0.28	OK
ANCH	DPLC2 (2) PAF TO 1/4 STL		773.9726	0.33	OK
R_BOT	418				
CLIP	SCAFCO FA550-68 TO 54-MIL	1	1860	0.22	OK
ANCH	FA550 1/2X3.25 TITEN HD		1380	0.30	OK
HEADER TYPE	NESTED				
HDR BOT TRACK	800T125-331				
R_LAT	300				
CLIP	(3) #10 - 43MIL	1	789	0.38	OK
HDR TOP TRACK	800T125-331				
R_LAT	300				
CLIP	(3) #10 - 43MIL	1	789	0.38	OK
BOX HDR SIDES	800S200-54				
R_VERT(TOT)	408				
CLIP	(2)#10 - 54MIL	2	2136	0.19	OK
SILL	None				
R_LAT					
CLIP		1	#N/A	#N/A	#N/A

TYPE	H6G ADJ TO H6D				
JAMB Q	3				
JAMB	600S200-68				
R_TOP	1178				
CLIP	SCAFCO DPLC2 TO 54-MIL (3-#12)	2	1810	0.65	OK
ANCH	DPLC2 (3) PAF TO 1/4 STL		2320.513	0.51	OK
R_MID	3584				
CLIP	SCAFCO DPLC2 TO 54-MIL (3-#12)	4	3620	0.99	OK
ANCH	DPLC2 (3) PAF TO 1/4 STL		4641.026	0.77	OK
R_BOT	775				
CLIP	SCAFCO FA550-68 TO 54-MIL	2	3720	0.21	OK
ANCH	FA550 1/2X3.25 TITEN HD		2760	0.28	OK
HEADER TYPE	BOX				
HDR BOT TRACK	600T125-54				
R_LAT	248				
CLIP	(3) #10 - 43MIL	1	789	0.31	OK
HDR TOP TRACK	600T125-54				
R_LAT	248				
CLIP	(3) #10 - 43MIL	1	789	0.31	OK
BOX HDR SIDES	1000S162-54				
R_VERT(TOT)	1353				
CLIP	(3) #10 - 43MIL	2	1578	0.86	OK
SILL	600T125-54				
R_LAT	1060				
CLIP	(3) #10 - 43MIL	2	1578	0.67	OK

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JOB NO. 24159 SHEET NO.
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ROUGH OPENING CONNECTIONS

TYPE	H6G SOLO JAMB				
JAMB Q	2				
JAMB	600S200-68				
R_TOP	772				
CLIP	SCAFCO DPLC2 TO 54-MIL (3-#12)	1	905	0.85	OK
ANCH	DPLC2 (3) PAF TO 1/4 STL		1160.256	0.67	OK
R_MID	2391				
CLIP	SCAFCO DPLC2 TO 54-MIL (3-#12)	3	2715	0.88	OK
ANCH	DPLC2 (3) PAF TO 1/4 STL		3480.769	0.69	OK
R_BOT	508				
CLIP	SCAFCO FA550-68 TO 54-MIL	1	1860	0.27	OK
ANCH	FA550 1/2X3.25 TITEN HD		1380	0.37	OK
HEADER TYPE					
HDR BOT TRACK					
R_LAT	SEE PREV PAGE FOR HDR				
CLIP		1	#N/A	#VALUE!	#VALUE!
HDR TOP TRACK					
R_LAT					
CLIP		1	#N/A	#N/A	#N/A
BOX HDR SIDES					
R_VERT(TOT)					
CLIP		2	#N/A	#N/A	#N/A
SILL					
R_LAT					
CLIP		2	#N/A	#N/A	#N/A

TYPE	H6F				
JAMB Q	1				
JAMB	600S200-68				
R_TOP	418				
CLIP	SCAFCO DPLC2 TO 54-MIL (3-#12)	1	905	0.46	OK
ANCH	DPLC2 (3) PAF TO 1/4 STL		1160.256	0.36	OK
R_BOT	344				
CLIP	SCAFCO FA550-68 TO 54-MIL	1	1860	0.18	OK
ANCH	FA550 1/2X3.25 TITEN HD		1380	0.25	OK
HEADER TYPE	BOX				
HDR BOT TRACK	600T125-68				
R_LAT	546				
CLIP	(3) #10 - 43MIL	1	789	0.69	OK
HDR TOP TRACK	600T125-68				
R_LAT	546				
CLIP	(3) #10 - 43MIL	1	789	0.69	OK
BOX HDR SIDES	1000S162-431				
R_VERT(TOT)	852				
CLIP	(3) #10 - 43MIL	2	1578	0.54	OK
SILL	600T125-54				
R_LAT	863				
CLIP	(3) #10 - 43MIL	2	1578	0.55	OK

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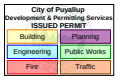

ROUGH OPENING CONNECTIONS

TYPE	H6E				
JAMB Q	1				
JAMB	600S162-68				
R_TOP	381				
CLIP	SCAFCO DPLC2 TO 54-MIL (3-#12)	1	905	0.42	OK
ANCH	DPLC2 (3) PAF TO 1/4 STL		1160.256	0.33	OK
R_BOT	650				
CLIP	SCAFCO FA550-68 TO 54-MIL	1	1860	0.35	OK
ANCH	FA550 1/2X3.25 TITEN HD		1380	0.47	OK
HEADER TYPE	BOX				
HDR BOT TRACK	600T200-68				
R_LAT	432				
CLIP	(3) #10 - 43MIL	1	789	0.55	OK
HDR TOP TRACK	600T200-68				
R_LAT	432				
CLIP	(3) #10 - 43MIL	1	789	0.55	OK
BOX HDR SIDES	600S162-43				
R_VERT(TOT)	639				
CLIP	(3) #10 - 43MIL	2	1578	0.40	OK
SILL	600T125-33				
R_LAT	643				
CLIP	(3) #10 - 43MIL	1	789	0.81	OK

TYPE	H6D				
JAMB Q	1				
JAMB	600S162-54				
R_TOP	746				
CLIP	SCAFCO DPLC2 TO 54-MIL (3-#12)	1	905	0.82	OK
ANCH	DPLC2 (3) PAF TO 1/4 STL		1160.256	0.64	OK
R_BOT	459				
CLIP	SCAFCO FA550-68 TO 54-MIL	1	1860	0.25	OK
ANCH	FA550 1/2X3.25 TITEN HD		1380	0.33	OK
HEADER TYPE	BOX				
HDR BOT TRACK	600T125-68				
R_LAT	283				
CLIP	(3) #10 - 43MIL	1	789	0.36	OK
HDR TOP TRACK	600T125-68				
R_LAT	283				
CLIP	(3) #10 - 43MIL	1	789	0.36	OK
BOX HDR SIDES	600S162-33				
R_VERT(TOT)	477				
CLIP	(3) #10 - 43MIL	2	1578	0.30	OK
SILL	600T200-43				
R_LAT	370				
CLIP	(3) #10 - 43MIL	1	789	0.47	OK

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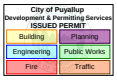

ROUGH OPENING CONNECTIONS

TYPE	**H6C**				
JAMB Q	1				
JAMB	600S162-54				
R_TOP	628				
CLIP	SCAFCO DPLC2 TO 54-MIL (3-#12)	1	905	0.69	OK
ANCH	DPLC2 (3) PAF TO 1/4 STL		1160.256	0.54	OK
R_BOT	167				
CLIP	SCAFCO FA550-68 TO 54-MIL	1	1860	0.09	OK
ANCH	FA550 1/2X3.25 TITEN HD		1380	0.12	OK
HEADER TYPE	NESTED				
HDR BOT TRACK	600T125-68				
R_LAT	254				
CLIP	(3) #10 - 43MIL	1	789	0.32	OK
HDR TOP TRACK	600T125-68				
R_LAT	254				
CLIP	(3) #10 - 43MIL	1	789	0.32	OK
BOX HDR SIDES	600S162-33				
R_VERT(TOT)	495				
CLIP	(2) #10 - 33MIL	2	708	0.70	OK
SILL	600T125-33				
R_LAT	210				
CLIP	(3) #10 - 43MIL	1	789	0.27	OK

TYPE					
JAMB Q					
JAMB					
R_TOP					
CLIP		1	#N/A	#N/A	#N/A
ANCH			#N/A	#N/A	#N/A
R_BOT					
CLIP		1	#N/A	#N/A	#N/A
ANCH			#N/A	#N/A	#N/A
HEADER TYPE					
HDR BOT TRACK					
R_LAT					
CLIP		1	#N/A	#N/A	#N/A
HDR TOP TRACK					
R_LAT					
CLIP		1	#N/A	#N/A	#N/A
BOX HDR SIDES					
R_VERT(TOT)					
CLIP		2	#N/A	#N/A	#N/A
SILL					
R_LAT					
CLIP		1	#N/A	#N/A	#N/A

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EXTERIOR WALLS - FASTENING OF JAMB CLIP TO CONCRETE OR STEEL

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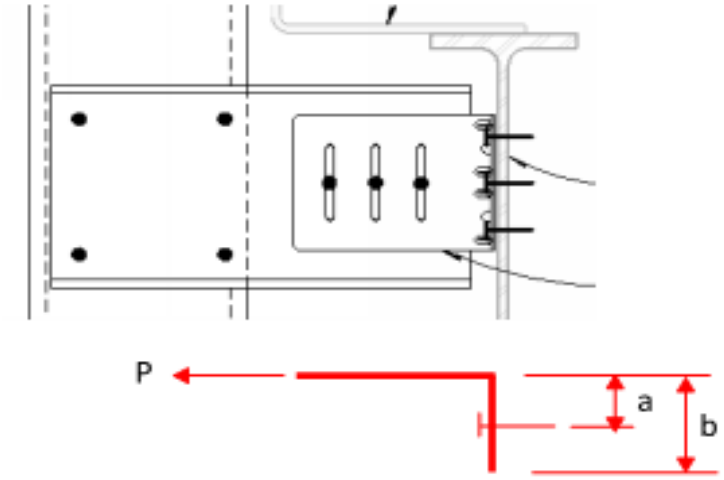

LOCATION	TYP IDCB 45.5 - 33MIL	TYP IDCB 45.5 - 54MIL	IN
TOTAL APPLIED FORCE 'P'	600	745	#
CLIP	IDCB45.5 TO 33-MIL	IDCB45.5 TO 54-MIL	
# CLIPS PER JAMB	1	1	
TOTAL ALLOWABLE CLIP LD	600	745	
DIM a	1.75	1.75	IN
DIM b	3.5	3.5	
# ANCH TO BEAM	2	2	
PAF SEIS LIMIT	NO	NO	
Single Anchor	#12XLQ TO 1/4 STL	#12XLQ TO 1/4 STL	
T_allow per anchor	764	764	
T per anch (w/ prying)	600	745	
CLIP D/C RATIO	**1.00**	**1.00**	
ANCH D/C RATIO	**0.79**	**0.98**	

LOCATION	TYP DPLC2550 - 33MIL	TYP DPLC2550 - 54MIL	IN
TOTAL APPLIED FORCE 'P'	565	905	#

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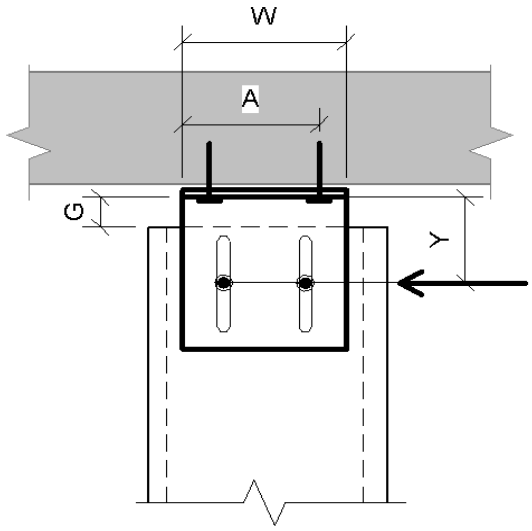
HEAD OF WALL - CLIP ANCHORS



LOCATION	Typ bypass at bot of stl bm	Typ bypass at bot of stl bm	IN
REACTION	795	480	#
CLIP	DESC550 (3)#10 -43MIL+	DESC550 (3)#10 -43MIL+	
# CLIPS PER CONN	1	1	
REACTION PER CLIP	795	480	
W	5.5	5.5	IN
A	4.75	4.75	IN
Y	2	2	IN
CATALOG ANCHORS	NONE	NONE	
Single Anchor	#12XLQ TO 3/8 STL	0.157"-A36-3/4"plus	
Q_anch	3	3	
V per anch	265	160	
T per anch	335	202	
Catalog V_ALL_SGLCLIP	795	795	
Catalog V_ALL_ANCHS_SGLCLIP	0	0	
Catalog Clip D/C Ratio	1.00	0.60	
Catalog Anch D/C Ratio	0.00	0.00	
SEISMIC PAF LIMIT?	NO	NO	
Sgl Anch V_ALL	1124	375	
Sgl Anch T_ALL	1146	350	
Manual Anchor Unity Eqn	0.53	1.00	
GOVERNING D/C RATIO	**1.00**	**1.00**	

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RO SUMMARY

							HEADER					SILL			REACTIONS								
					JAMB			1-PC	2-PC	BOX		1ST PC	2ND PC	3RD PC	STUD			JAMB			HDR		SILL
RO	TYPE	DEPTH	WIDTH	STUD	QUANT	SIZE	TYPE	SIZE	SIZE	VERT	TRACKS	SIZE		SIZE	BOT	MID	TOP	BOT	MID	TOP	VERT	HORIZ	HORIZ
S11	H6A	6	3.45	None	1	600S162-54	1-PC	600T250-68										249		236	255	99	
N3	H6A	6	3.5	None	1	600S162-43	1-PC	600T200-68				600T125-33						251		266	168	156	144
S7	H6A	6	3.5	600S162-33	1	600S162-54	1-PC	600T250-68				None			152		195	274		183	231	196	
W2	H6B	6	3.5	600S162-33	1	600S162-43	2-PC		600S250-43						133	346	34	288	349	90	341	127	
S10	H6B	6	4.4	None	1	600S162-54	2-PC		600S200-54			None						316		251	325	152	
S3	H6B	6	5.8	None	1	600S162-43	2-PC		600S250-54			600T125-33						150		252	248	119	239
N2	H6B	6	6	600S162-33	1	600S162-54	2-PC		600S250-54			600T125-33			162		272	373		358	288	268	247
E3	H6B	6	6	None	1	600S162-54	2-PC		600S250-54			600T125-33						271		278	288	54	136
S6	H6B	6	6.6	None	1	600S200-43	2-PC		600S250-54			600T125-33						161		261	281	133	274
S9	H6C	6	6.6	600S162-33	1	600S162-54	2-PC		600S300-68			None			147		309	436		300	487	254	
W3	H6C	6	7.5	600S162-33	1	600S162-54	2-PC		600S300-68						133	346	34	167	628	174	495	159	
E2	H6C	6	8	None	1	600S162-54	2-PC		600S300-68			600T125-43						341		309	384	43	210
N1	H6D	6	9	600S162-33	1	600S162-54	BOX			600S162-33	600T125-43	600T200-43			146		329	459		430	454	283	370
W5	H6D	6	10.5	None	1	600S162-54	BOX			600S162-33	600T125-33							437	746	217	477	182	
S5	H6E	6	10.6	None	1	600S162-54	BOX			600S162-33	600T200-43	None						568		310	452	509	
E1	H6E	6	12.6	600S162-33	1	600S162-54	BOX			600S162-43	600T125-54				125		367	650		381	605	533	M
S2	H6E	6	15	None	1	600S162-68	BOX			600S162-43	600T200-54	600T125-33	600T125-33	600S162-68				273		359	639	578	643
S1	H6F	6	20	600S162-33	1	600S200-68	BOX			1000S162-431	600T200-68	600T125-54	600T125-54	600S250-68	126		361	344		418	852	746	863
S8	H6G	6	19.5	None	2	600S200-68	BOX			1000S162-431	600T125-54	600T125-54	600T125-54	600S250-68				385		859	807	402	1060
W6	H6G	6	20.5	None	2	600S162-68	BOX			1000S162-54	600T125-54	600T125-33	600T125-33	600S250-68				775	3650	1178	1353	365	538
S4		6	SIM N3																				
W85	H8A	8	3.5	None	1	800S162-54	2-PC		800S200-54			None						418		255	408	300	
W81	H8B	8	9.2	None	1	800S200-68	BOX			600S162-33	600T125-33	800T125-54						303		663	392	172	639
W84	H8B	8	13	None	2	800S200-68	BOX			800S162-43	800T125-54	None						1240		848	866	688	
W87	H8B	8	13	None	1	800S200-54	BOX			600S162-43	800T125-54	None						836		649	312	491	
W84b	H8C	8	13.3	None	2	800S200-68	BOX			1000S200-431	800T200-54							1207		586	1350	928	
W82	H8C	8	20	800S162-43	2	800S200-68	BOX			1000S162-431	800T125-54	800T125-54	800T125-54	800S200-54	220		370	586		1324	852	209	1374
N81	H8C	8	20	800S162-43	2	800S200-68	BOX			1000S162-431	800T125-54	800T125-54	800T125-54	800S200-54	212		398	508		1150	852	460	1381
W86	H8C	8	SIM W82																				
W83	H8B	8	SIM W84																				

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Fastening Options

Connections can be made using a variety of fastening options. It is critical to specify the proper fastener to ensure the proper performance of the connections in light-gauge (cold-formed) steel construction. The most common and widely used connection methods are screw connections, powder-actuated fastener connections and weld connections. Each type of connection method has various advantages and disadvantages. Therefore, we provide data for the most common types so you can choose your preferred connection method.

SCREW CONNECTIONS

Self-drilling screws—These high-strength fasteners are used if the connection is multiple thicknesses of 33mil steel or thicker. One of the more common self-drilling screws is a #10-16 x 5/8 HWH SD (#10 diameter shaft, 16 threads per inch, 5/8 length, hex washer head self-drilling screw).

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AISI CALCULATED ALLOWABLE LOADS FOR SCREW CONNECTION

Material thickness (mils)	Design thickness (in)	Material Strength		#8-18 HWH Screw Dia. = 0.160		#10-16 HWH Screw Dia. = 0.190		#12-14 HWH Screw Dia. = 0.210		1/4"-14 HWH Screw Dia. = 0.240	
		Fy (ksi)	Fu (ksi)	Shear (lbs)	Tension (lbs)	Shear (lbs)	Tension (lbs)	Shear (lbs)	Tension (lbs)	Shear (lbs)	Tension (lbs)
33	0.0346	33	45	162	71	177	84	186	93	199	106
43	0.0451	33	45	241	92	263	109	277	121	296	138
54	0.0566	33	45	333	115	370	137	389	152	416	173
	0.0566	50	65	333	167	467	198	562	219	600	250
68	0.0713	33	45	—	—	467	173	550	191	588	218
	0.0713	50	65	—	—	467	249	667	276	849	315
97	0.1017	33	45	—	—	467	246	667	272	867	311
	0.1017	50	65	—	—	467	356	667	393	867	450
118	0.1242	33	45	—	—	—	—	667	333	867	380
	0.1242	50	65	—	—	—	—	667	480	867	549

AISI CALCULATED ALLOWABLE BEARING & PULLOVER FOR SCREWS

Material thickness (mils)	Design thickness (in)	Material Strength		#8-18 Screw Shank = 0.160 Head = 0.250		#10-16 Screw Shank = 0.190 Head = 0.375		#12-14 Screw Shank = 0.210 Head = 0.375		1/4"-14 Screw Shank = 0.240 Head = 0.500	
		Fy (ksi)	Fu (ksi)	Bearing (lbs)	Pullover (lbs)	Bearing (lbs)	Pullover (lbs)	Bearing (lbs)	Pullover (lbs)	Bearing (lbs)	Pullover (lbs)
33	0.0346	33	45	224	195	266	292	294	292	336	389
43	0.0451	33	45	292	254	347	381	384	381	438	507
54	0.0566	33	45	367	318	436	478	481	478	550	637
		50	65	530	460	629	690	695	690	795	920
68	0.0713	33	45	—	—	549	602	606	602	693	802
		50	65	—	—	792	869	876	869	1001	1159
97	0.1017	33	45	—	—	783	858	865	858	989	1144
		50	65	—	—	1130	1239	1249	1239	1428	1653
118	0.1242	33	45	—	—	—	—	1056	1048	1207	1397
		50	65	—	—	—	—	1526	1514	1744	2018

Notes:

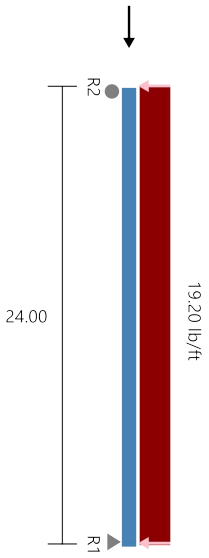
1 All values were calculated using the 2001 AISI Specification w/2004 supplement.
2 Charts are based on Buildex TEK2 HWH screw capacities. All screws must meet minimum criteria outlined.
3 Shear strength for #8, #10, #12, and 1/4" screws must be greater than or equal to 1000 lbs, 1400 lbs, 2000 lbs and 2600 lbs respectively.
4 Tension strength for #8, #10, #12, and 1/4" screws must be greater than or equal to 1545 lbs, 1936 lbs, 2778 lbs and 4060 lbs respectively.
5 The minimum head diameter for #8 screws is 1/4". The minimum head diameter for #10 and #12 screws is 3/8". The minimum head diameter for 1/4" screws is 1/2".
6 Screw ultimate shear capacity is based on Buildex® DATA as a minimum.
7 Buildex is a registered trademark of Illinois Tool Works, Inc.

FastClip™ deflection screws—Many of the ClarkDietrich deflection clips include our proprietary FastClip fastener that has been specifically designed to provide friction-free deflection. These fasteners eliminate drag, binding or resistance that can often occur with common fasteners.

FastClip™ Deflection Screw	
Average Ultimate Shear	2400 lbs
NASPEC 2007 ASD Factor of Safety	3.0
Average Allowable Shear Load	800 lbs

Project Name: GK PSE - EXTERIOR DESIGN
Model: S8b 800S162-43 at 16 H24
Code: 2012 NASPEC [AISI S100-2012]

Simpson Strong-Tie® CFS Designer™ 5.2.6.0



Section : 800S162-43 (33 ksi) @ 16" o.c. Single C Stud (punched)
Maxo = 1678.4 ft-lb **Va =** 1051.2 lb **I =** 4.50 in^4

Loads have not been modified for strength checks
Loads have been multiplied by 0.70 for deflection calculations

Bridging Connectors - Design Method =AISI S100

Span	Axial KyLy, KtLt	Flexual, Distortional	Connector	Stress Ratio
Span	48.0", 48.0"	48.0", 288.0"	LSUBH3.25 (Min)	0.32

Web Crippling

Support	Load (lb)	Bearing (in)	Pa (lb)	M (ft-lbs)	Max Int.	Stiffener?
R2	230.40	1.00	246.9	0.0	0.49	NO
R1	230.40	1.00	246.9	0.0	0.49	NO

"*" after support means punched near support

Gravity Load

Type	Load (lb)
Uniform	16.00plf

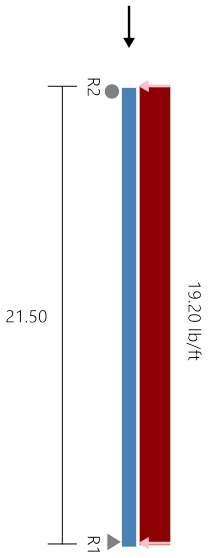
	Code Check	Required	Allowed	Interaction	Notes
Span	Max. Axial, lbs	384.0(c)	3068.7(c)	13%	KΦ=0.00 lb-in/in Max KL/r = 98
	Max. Shear, lbs	230.4	1051.2	22%	Shear (Punched)
	Max. Moment (MaFy, Ma-dist), ft-lbs	1382.4	1527.4	91%	Ma-dist (control),KΦ=0.00 lb-in/in
	Moment Stability, ft-lbs	1382.4	1605.4	86%	
	Shear/Moment	0.82	1.00	82%	Shear 0.0, Moment 1382.4
	Axial/Moment	0.97	1.00	97%	Axial 198.5(c), Moment 1380.8
	Deflection Span, in	0.756	--meets L/381--		

Support	Rx(lb)	Ry(lb)	Simpson Strong-Tie Connector	Connector Interaction	Anchor Interaction
R2	230.4	0.0	By Others & Anchorage Designed by Engineer	NA	NA
R1	230.4	384.0	By Others & Anchorage Designed by Engineer	NA	NA

* Reference catalog for connector and anchor requirement notes as well as screw placement requirements

Project Name: GK PSE - EXTERIOR DESIGN
Model: S6B 600S162-43 at 16 H21.5
Code: 2012 NASPEC [AISI S100-2012]

Simpson Strong-Tie® CFS Designer™ 5.2.6.0



Section : 600S162-43 (33 ksi) @ 16" o.c. Single C Stud (punched)
Maxo = 1390.0 ft-lb **Va =** 1415.7 lb **I =** 2.32 in^4

Loads have not been modified for strength checks
Loads have been multiplied by 0.70 for deflection calculations

Bridging Connectors - Design Method =AISI S100

Span	Axial KyLy, KtLt	Flexual, Distortional	Connector	Stress Ratio
Span	48.0", 48.0"	48.0", 258.0"	LSUBH3.25 (Min)	0.33

Web Crippling

Support	Load (lb)	Bearing (in)	Pa (lb)	M (ft-lbs)	Max Int.	Stiffener?
R2	206.40	1.00	259.1	0.0	0.41	NO
R1	206.40	1.00	259.1	0.0	0.41	NO

"*" after support means punched near support

Gravity Load

Type	Load (lb)
Uniform	16.00plf

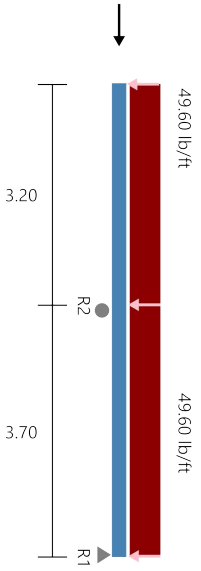
	Code Check	Required	Allowed	Interaction	Notes
Span	Max. Axial, lbs	344.0(c)	2592.7(c)	13%	KΦ=0.00 lb-in/in Max KL/r = 113
	Max. Shear, lbs	206.4	1240.3	17%	Shear (Punched)
	Max. Moment (MaFy, Ma-dist), ft-lbs	1109.4	1205.1	92%	Ma-dist (control),KΦ=0.00 lb-in/in
	Moment Stability, ft-lbs	1109.4	1320.2	84%	
	Shear/Moment	0.80	1.00	80%	Shear 0.0, Moment 1109.4
	Axial/Moment	0.99	1.00	99%	Axial 178.2(c), Moment 1108.0
	Deflection Span, in	0.946	--meets L/273--		

Support	Rx(lb)	Ry(lb)	Simpson Strong-Tie Connector	Connector Interaction	Anchor Interaction
R2	206.4	0.0	By Others & Anchorage Designed by Engineer	NA	NA
R1	206.4	344.0	By Others & Anchorage Designed by Engineer	NA	NA

* Reference catalog for connector and anchor requirement notes as well as screw placement requirements

Project Name: GK PSE - EXTERIOR DESIGN
Model: S8B 3.2CANT 800S162-43 at 16
Code: 2012 NASPEC [AISI S100-2012]

Simpson Strong-Tie® CFS Designer™ 5.2.6.0



Section : 800S162-43 (33 ksi) @ 16" o.c. Single C Stud (punched)
Maxo = 1678.4 ft-lb **Va =** 1051.2 lb **I =** 4.50 in^4

Loads have not been modified for strength checks
Loads have been multiplied by 0.70 for deflection calculations

Bridging Connectors - Design Method =AISI S100

Span	Axial KyLy, KtLt	Flexual, Distortional	Connector	Stress Ratio
Top Cant.	Sheathed, Sheathed	Full, 38.4"	N/A	-
Span	Sheathed, Sheathed	Full, 44.4"	N/A	-

Web Crippling

Support	Load (lb)	Bearing (in)	Pa (lb)	M (ft-lbs)	Max Int.	Stiffener?
R2	319.12	--Shear Connection w/ clip--				NO
R1	23.12	--Stud/Track Design, Ref Connectors--				NO

Gravity Load

Type	Load (lb)
Uniform	16.00plf

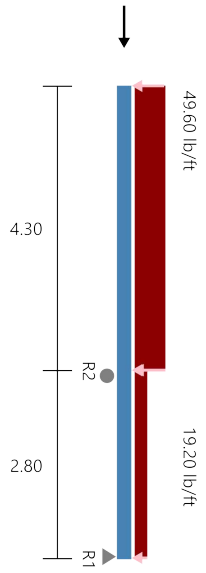
	Code Check	Required	Allowed	Interaction	Notes
Top Cant.	Max. Axial, lbs	51.2(c)	3222.2(c)	2%	KΦ=0.00 lb-in/in Max KL/r = 44
	Max. Shear, lbs	158.7	1051.2	15%	Shear (Punched)
	Max. Moment (MaFy, Ma-dist), ft-lbs	254.0	1527.4	17%	Ma-dist (control),KΦ=0.00 lb-in/in
	Moment Stability, ft-lbs	162.1	1678.4	10%	
	Shear/Moment	0.21	1.00	21%	Shear 158.7, Moment 254.0
	Axial/Moment	0.18	1.00	18%	Axial 51.2(c), Moment 254.0
	Deflection Cant., in	0.012	--meets L/6398--		2 x Cantilever
Span	Max. Axial, lbs	110.4(c)	3222.2(c)	3%	KΦ=0.00 lb-in/in Max KL/r = 44
	Max. Shear, lbs	160.4	1051.2	15%	Shear (Punched)
	Max. Moment (MaFy, Ma-dist), ft-lbs	254.0	1527.4	17%	Ma-dist (control),KΦ=0.00 lb-in/in
	Moment Stability, ft-lbs	148.4	1678.4	9%	
	Shear/Moment	0.21	1.00	21%	Shear 160.4, Moment 254.0
	Axial/Moment	0.18	1.00	18%	Axial 51.2(c), Moment 254.0
	Deflection Span, in	0.001	--meets L/44530--		

Support	Rx(lb)	Ry(lb)	Simpson Strong-Tie Connector	Connector Interaction	Anchor Interaction
R2	319.1	0.0	IDCB45.5(3) 1/8"SL & (2) #12XLW114B1224 Screws to A36 Steel	70.14 %	70.14 %
R1	23.1	110.4	800T125-33 (33) & (1) .157" SST PDPA/PDPAT-62KP to steel (3/16" to 1/2" thickness)	9.02 %	10.50 %

* Reference catalog for connector and anchor requirement notes as well as screw placement requirements

Project Name: GK PSE - EXTERIOR DESIGN
Model: S6A 4.3CANT 600S162-43 at 16
Code: 2012 NASPEC [AISI S100-2012]

Simpson Strong-Tie® CFS Designer™ 5.2.6.0



Section : 600S162-33 (33 ksi) @ 16" o.c. Single C Stud (punched)
Maxo = 950.6 ft-lb **Va =** 638.1 lb **I =** 1.79 in^4

Loads have not been modified for strength checks
Loads have been multiplied by 0.70 for deflection calculations

Bridging Connectors - Design Method =AISI S100

Span	Axial KyLy, KtLt	Flexual, Distortional	Connector	Stress Ratio
Top Cant.	Sheathed, Sheathed	Full, 51.6"	N/A	-
Span	Sheathed, Sheathed	Full, 33.6"	N/A	-

Web Crippling

Support	Load (lb)	Bearing (in)	Pa (lb)	M (ft-lbs)	Max Int.	Stiffener?
R2	403.93	--Shear Connection w/ clip--				NO
R1	-136.89	--Stud/Track Design, Ref Connectors--				NO

Gravity Load

Type	Load (lb)
Uniform	16.00plf (Top Cantilever), 16.00plf (Span)

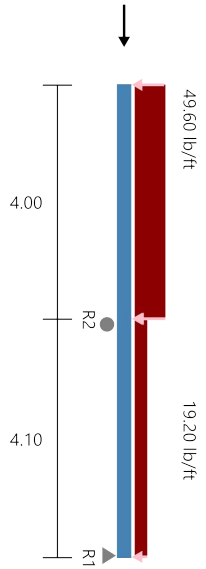
	Code Check	Required	Allowed	Interaction	Notes
Top Cant.	Max. Axial, lbs	68.8(c)	2875.7(c)	2%	KΦ=0.00 lb-in/in Max KL/r = 58
	Max. Shear, lbs	213.3	638.1	33%	Shear (Punched)
	Max. Moment (MaFy, Ma-dist), ft-lbs	458.6	788.8	58%	Ma-dist (control),KΦ=0.00 lb-in/in
	Moment Stability, ft-lbs	292.7	950.6	31%	
	Shear/Moment	0.59	1.00	59%	Shear 213.3, Moment 458.6
	Axial/Moment	0.61	1.00	61%	Axial 68.8(c), Moment 458.6
	Deflection Cant., in	0.089	--meets L/1162--		2 x Cantilever
Span	Max. Axial, lbs	113.6(c)	3077.5(c)	4%	KΦ=0.00 lb-in/in Max KL/r = 41
	Max. Shear, lbs	190.6	638.1	30%	Shear (Punched)
	Max. Moment (MaFy, Ma-dist), ft-lbs	458.6	788.8	58%	Ma-dist (control),KΦ=0.00 lb-in/in
	Moment Stability, ft-lbs	354.3	950.6	37%	
	Shear/Moment	0.57	1.00	57%	Shear 190.6, Moment 458.6
	Axial/Moment	0.60	1.00	60%	Axial 68.8(c), Moment 458.6
	Deflection Span, in	0.005	--meets L/6810--		

Support	Rx(lb)	Ry(lb)	Simpson Strong-Tie Connector	Connector Interaction	Anchor Interaction
R2	403.9	0.0	IDCB45.5(3) 1/8"SL & (2) #12XLW114B1224 Screws to A36 Steel	98.52 %	98.52 %
R1	-136.9	113.6	600T125-33 (33) & (1) .157" SST PDPA/PDPAT-62KP to steel (3/16" to 1/2" thickness)	56.34 %	62.17 %

* Reference catalog for connector and anchor requirement notes as well as screw placement requirements

Project Name: GK PSE - EXTERIOR DESIGN
Model: S6A 4.0CANT 600S162-43 at 16
Code: 2012 NASPEC [AISI S100-2012]

Simpson Strong-Tie® CFS Designer™ 5.2.6.0



Section : 600S162-33 (33 ksi) @ 16" o.c. Single C Stud (punched)
Maxo = 950.6 ft-lb **Va =** 638.1 lb **I =** 1.79 in^4

Loads have not been modified for strength checks
Loads have been multiplied by 0.70 for deflection calculations

Bridging Connectors - Design Method =AISI S100

Span	Axial KyLy, KtLt	Flexual, Distortional	Connector	Stress Ratio
Top Cant.	Sheathed, Sheathed	Full, 48.0"	N/A	-
Span	Sheathed, Sheathed	Full, 49.2"	N/A	-

Web Crippling

Support	Load (lb)	Bearing (in)	Pa (lb)	M (ft-lbs)	Max Int.	Stiffener?
R2	334.54	--Shear Connection w/ clip--				NO
R1	-57.42	--Stud/Track Design, Ref Connectors--				NO

Gravity Load

Type	Load (lb)
Uniform	16.00plf (Top Cantilever), 16.00plf (Span)

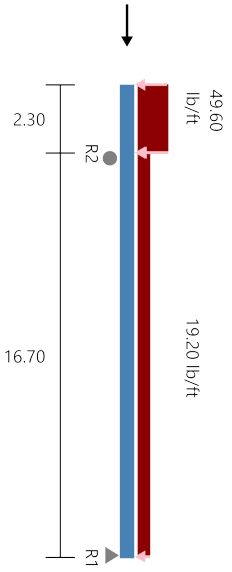
	Code Check	Required	Allowed	Interaction	Notes
Top Cant.	Max. Axial, lbs	64.0(c)	2870.8(c)	2%	KΦ=0.00 lb-in/in Max KL/r = 59
	Max. Shear, lbs	198.4	638.1	31%	Shear (Punched)
	Max. Moment (MaFy, Ma-dist), ft-lbs	396.8	788.8	50%	Ma-dist (control),KΦ=0.00 lb-in/in
	Moment Stability, ft-lbs	253.3	950.6	27%	
	Shear/Moment	0.52	1.00	52%	Shear 198.4, Moment 396.8
	Axial/Moment	0.53	1.00	53%	Axial 64.0(c), Moment 396.8
	Deflection Cant., in	0.081	--meets L/1187--		2 x Cantilever
Span	Max. Axial, lbs	129.6(c)	3077.5(c)	4%	KΦ=0.00 lb-in/in Max KL/r = 41
	Max. Shear, lbs	136.1	638.1	21%	Shear (Punched)
	Max. Moment (MaFy, Ma-dist), ft-lbs	396.8	788.8	50%	Ma-dist (control),KΦ=0.00 lb-in/in
	Moment Stability, ft-lbs	291.1	950.6	31%	
	Shear/Moment	0.47	1.00	47%	Shear 136.1, Moment 396.8
	Axial/Moment	0.52	1.00	52%	Axial 64.0(c), Moment 396.8
	Deflection Span, in	0.008	--meets L/5981--		

Support	Rx(lb)	Ry(lb)	Simpson Strong-Tie Connector	Connector Interaction	Anchor Interaction
R2	334.5	0.0	IDCB45.5(3) 1/8"SL & (2) #12XLW114B1224 Screws to A36 Steel	81.60 %	81.60 %
R1	-57.4	129.6	600T125-33 (33) & (1) .157" SST PDPA/PDPAT-62KP to steel (3/16" to 1/2" thickness)	23.63 %	26.08 %

* Reference catalog for connector and anchor requirement notes as well as screw placement requirements

Project Name: GK PSE - EXTERIOR DESIGN
Model: S6A 600S162-33 at 16 H16.7
Code: 2012 NASPEC [AISI S100-2012]

Simpson Strong-Tie® CFS Designer™ 5.2.6.0



Section : 600S162-33 (33 ksi) @ 16" o.c. Single C Stud (punched)
Maxo = 950.6 ft-lb **Va =** 638.1 lb **I =** 1.79 in^4

Loads have not been modified for strength checks
Loads have been multiplied by 0.70 for deflection calculations

Bridging Connectors - Design Method =AISI S100

Span	Axial KyLy, KtLt	Flexual, Distortional	Connector	Stress Ratio
Top Cant.	None, None	None, 27.6"	N/A	-
Span	48.0", 48.0"	48.0", 200.4"	LSUBH3.25 (Min)	0.37

Web Crippling

Support	Load (lb)	Bearing (in)	Pa (lb)	M (ft-lbs)	Max Int.	Stiffener?
R2	282.26	--Shear Connection w/ clip--				NO
R1	152.46	--Stud/Track Design, Ref Connectors--				NO

Gravity Load

Type	Load (lb)
Uniform	16.00plf (Top Cantilever), 16.00plf (Span)

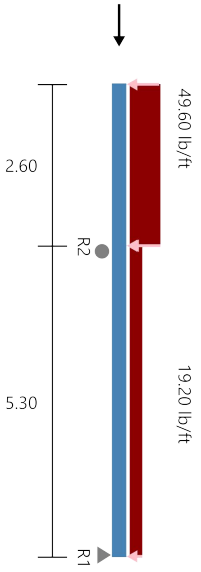
	Code Check	Required	Allowed	Interaction	Notes
Top Cant.	Max. Axial, lbs	36.8(c)	2817.4(c)	1%	KΦ=0.00 lb-in/in Max KL/r = 61
	Max. Shear, lbs	114.1	638.1	18%	Shear (Punched)
	Max. Moment (MaFy, Ma-dist), ft-lbs	131.2	788.8	17%	Ma-dist (control),KΦ=0.00 lb-in/in
	Moment Stability, ft-lbs	83.8	950.6	9%	
	Shear/Moment	0.23	1.00	23%	Shear 114.1, Moment 131.2
	Axial/Moment	0.18	1.00	18%	Axial 36.8(c), Moment 131.2
	Deflection Cant., in	0.154	--meets L/359--		2 x Cantilever
Span	Max. Axial, lbs	304.0(c)	2252.4(c)	13%	KΦ=0.00 lb-in/in Max KL/r = 88
	Max. Shear, lbs	168.2	638.1	26%	Shear (Punched)
	Max. Moment (MaFy, Ma-dist), ft-lbs	605.3	788.8	77%	Ma-dist (control),KΦ=0.00 lb-in/in
	Moment Stability, ft-lbs	605.3	919.6	66%	
	Shear/Moment	0.64	1.00	64%	Shear 0.2, Moment 605.3
	Axial/Moment	0.85	1.00	85%	Axial 181.6(c), Moment 604.5
	Deflection Span, in	0.393	--meets L/510--		

Support	Rx(lb)	Ry(lb)	Simpson Strong-Tie Connector	Connector Interaction	Anchor Interaction
R2	282.3	0.0	IDCB45.5(3) 1/8"SL & (2) #12XLW114B1224 Screws to A36 Steel	68.84 %	68.84 %
R1	152.5	304.0	600T125-33 (33) & (1) .157", 1" embed SST PDPA/PDPAT to 4000 nw concrete	62.75 %	69.24 %

* Reference catalog for connector and anchor requirement notes as well as screw placement requirements

Project Name: GK PSE - EXTERIOR DESIGN
Model: S6A 5.3/2.6CANT 600S162-33 at 16
Code: 2012 NASPEC [AISI S100-2012]

Simpson Strong-Tie® CFS Designer™ 5.2.6.0



Section : 600S162-33 (33 ksi) @ 16" o.c. Single C Stud (punched)
Maxo = 950.6 ft-lb **Va =** 638.1 lb **I =** 1.79 in^4

Loads have not been modified for strength checks
Loads have been multiplied by 0.70 for deflection calculations

Bridging Connectors - Design Method =AISI S100

Span	Axial KyLy, KtLt	Flexual, Distortional	Connector	Stress Ratio
Top Cant.	Sheathed, Sheathed	Full, 31.2"	N/A	-
Span	Sheathed, Sheathed	Full, 63.6"	N/A	-

Web Crippling

Support	Load (lb)	Bearing (in)	Pa (lb)	M (ft-lbs)	Max Int.	Stiffener?
R2	211.47	1.00	312.6	167.6	0.48	NO
R1	19.25	1.00	152.8	0.0	0.07	NO

"*" after support means punched near support

Gravity Load

Type	Load (lb)
Uniform	16.00plf (Top Cantilever), 16.00plf (Span)

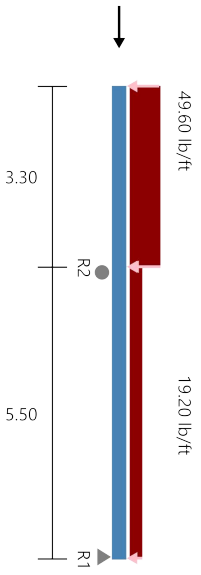
	Code Check	Required	Allowed	Interaction	Notes
Top Cant.	Max. Axial, lbs	41.6(c)	2999.8(c)	1%	KΦ=0.00 lb-in/in Max KL/r = 45
	Max. Shear, lbs	129.0	638.1	20%	Shear (Punched)
	Max. Moment (MaFy, Ma-dist), ft-lbs	167.6	788.8	21%	Ma-dist (control),KΦ=0.00 lb-in/in
	Moment Stability, ft-lbs	107.0	950.6	11%	
	Shear/Moment	0.27	1.00	27%	Shear 129.0, Moment 167.6
	Axial/Moment	0.23	1.00	23%	Axial 41.6(c), Moment 167.6
	Deflection Cant., in	0.017	--meets L/3668--		2 x Cantilever
Span	Max. Axial, lbs	126.4(c)	3073.6(c)	4%	KΦ=0.00 lb-in/in Max KL/r = 41
	Max. Shear, lbs	82.5	638.1	13%	Shear (Punched)
	Max. Moment (MaFy, Ma-dist), ft-lbs	167.6	788.8	21%	Ma-dist (control),KΦ=0.00 lb-in/in
	Moment Stability, ft-lbs	90.6	950.6	10%	
	Shear/Moment	0.22	1.00	22%	Shear 82.5, Moment 167.6
	Axial/Moment	0.23	1.00	23%	Axial 41.6(c), Moment 167.6
	Deflection Span, in	0.003	--meets L/23206--		

Support	Rx(lb)	Ry(lb)	Simpson Strong-Tie Connector	Connector Interaction	Anchor Interaction
R2	211.5	0.0	By Others & Anchorage Designed by Engineer	NA	NA
R1	19.3	126.4	By Others & Anchorage Designed by Engineer	NA	NA

* Reference catalog for connector and anchor requirement notes as well as screw placement requirements

Project Name: GK PSE - EXTERIOR DESIGN
Model: S6A 5.5/3.3CANT 600S162-33 at 16
Code: 2012 NASPEC [AISI S100-2012]

Simpson Strong-Tie® CFS Designer™ 5.2.6.0



Section : 600S162-33 (33 ksi) @ 16" o.c. Single C Stud (punched)
Maxo = 950.6 ft-lb **Va =** 638.1 lb **I =** 1.79 in^4

Loads have not been modified for strength checks
Loads have been multiplied by 0.70 for deflection calculations

Bridging Connectors - Design Method =AISI S100

Span	Axial KyLy, KtLt	Flexual, Distortional	Connector	Stress Ratio
Top Cant.	Sheathed, Sheathed	Full, 39.6"	N/A	-
Span	Sheathed, Sheathed	Full, 66.0"	N/A	-

Web Crippling

Support	Load (lb)	Bearing (in)	Pa (lb)	M (ft-lbs)	Max Int.	Stiffener?
R2	265.58	--Shear Connection w/ clip--				NO
R1	3.70	--Stud/Track Design, Ref Connectors--				NO

Gravity Load

Type	Load (lb)
Uniform	16.00plf (Top Cantilever), 16.00plf (Span)

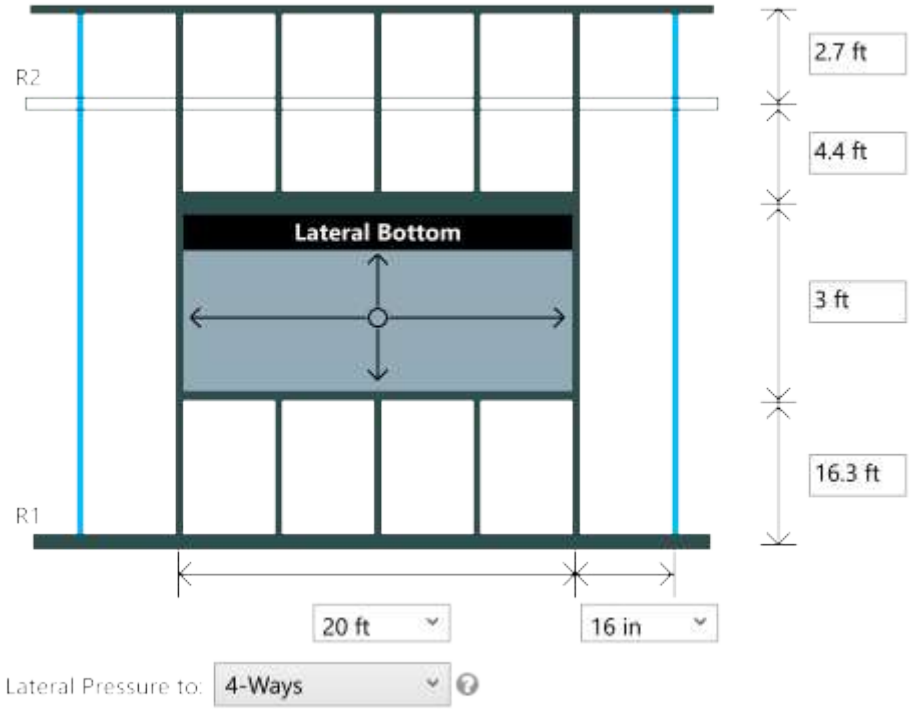
	Code Check	Required	Allowed	Interaction	Notes
Top Cant.	Max. Axial, lbs	52.8(c)	2922.4(c)	2%	KΦ=0.00 lb-in/in Max KL/r = 54
	Max. Shear, lbs	163.7	638.1	26%	Shear (Punched)
	Max. Moment (MaFy, Ma-dist), ft-lbs	270.1	788.8	34%	Ma-dist (control),KΦ=0.00 lb-in/in
	Moment Stability, ft-lbs	172.4	950.6	18%	
	Shear/Moment	0.38	1.00	38%	Shear 163.7, Moment 270.1
	Axial/Moment	0.36	1.00	36%	Axial 52.8(c), Moment 270.1
	Deflection Cant., in	0.044	--meets L/1794--		2 x Cantilever
Span	Max. Axial, lbs	140.8(c)	3071.3(c)	5%	KΦ=0.00 lb-in/in Max KL/r = 41
	Max. Shear, lbs	101.9	638.1	16%	Shear (Punched)
	Max. Moment (MaFy, Ma-dist), ft-lbs	270.1	788.8	34%	Ma-dist (control),KΦ=0.00 lb-in/in
	Moment Stability, ft-lbs	169.1	950.6	18%	
	Shear/Moment	0.33	1.00	33%	Shear 101.9, Moment 270.1
	Axial/Moment	0.36	1.00	36%	Axial 52.8(c), Moment 270.1
	Deflection Span, in	0.007	--meets L/9400--		

Support	Rx(lb)	Ry(lb)	Simpson Strong-Tie Connector	Connector Interaction	Anchor Interaction
R2	265.6	0.0	IDCB45.5(3) 1/8"SL & (2) #12XLW114B1224 Screws to A36 Steel	64.78 %	64.78 %
R1	3.7	140.8	600T125-33 (33) & (1) .157" SST PDPA/PDPAT-62KP to steel (3/16" to 1/2" thickness)	1.52 %	1.68 %

* Reference catalog for connector and anchor requirement notes as well as screw placement requirements

Project Name: GK PSE - EXTERIOR DESIGN
Model: W82-800 SGL 20FT OPNG - GRID 2 at A.3
Code: 2012 NASPEC [AISI S100-2012]

Date: 09/30/2024
Simpson Strong-Tie® CFS Designer™ 5.2.6.0



Design Loads

Wall Lateral Pressure :	**14.4 psf**
Parapet Lateral Pressure :	**37.2 psf**
RO Lateral Pressure :	**4-Ways**
Lateral element force multiplier	
Strength :	**1.0**
Deflection :	**0.7**
Header:	**Box (lateral top, bottom)**
Gravity Load at Header:	**12 psf**
Cant. Deflection:	**2 x Cantilever**

Built-Up Members

Components	Section 1	Section 2	Section 3	Section 4
Sill	800T125-54(50)	800T125-54(50)	800S200-54(50)	

Brace Settings

Component(s)	Members(s)	Flexural Bracing	Axial KyLy	Axial KtLt	Distortional K-Phi(lb-in/in)	Distortional Lm	Interconnection Spacing
Wall Studs	800S162-43(33), Single@16 in o/c	Full	Sheathed	Sheathed	0	None	N/A
Jamb Studs	800S200-68(50), Boxed	Full	48 in	48 in	0	None	12 in
Vertical Header	1000S162-43(33), Boxed	Full	N/A	N/A	0	None	N/A
Lat. Top Head	800T125-54(50), Single	Full	N/A	N/A	0	None	N/A
Lat. Bottom Head	800T125-54(50), Single	Full	N/A	N/A	0	None	N/A
Sill	Built-Up	Full	N/A	N/A	0	None	N/A

Analysis Results

Component(s)	Members(s)	Axial Load (lb)	Max KL/r	Max. Moment (ft-lb)	Max. Shear (lb)	Bottom Reaction (lb)	Top or End Reaction (lb)
Wall Studs	800S162-43(33), Single@16 in o/c	422.4	97	1259.2	235.2	219.9	369.1
Jamb Studs	800S200-68(50), Boxed	1217.6	95	8268.9	1256.2	585.5	1323.2
Vertical Header	1000S162-43(33), Boxed	N/A	N/A	4260.0	852.0	N/A	852.0
Lat. Top Head	800T125-54(50), Single	N/A	N/A	43.2	8.6	N/A	8.6
Lat. Bottom Head	800T125-54(50), Single	N/A	N/A	1071.9	199.8	N/A	199.8
Sill	Built-Up	N/A	N/A	6940.0	1373.4	N/A	1373.4

Design Results

Component(s)	Members(s)	Deflection		A + M Interaction	V + M Interaction	Web Stiffners	Design OK
		Span	Parapet				
Wall Studs	800S162-43(33), Single@16 in o/c	L/430	L/289	0.956	0.25	No	Yes

PRCNC20240216 - Revision #1
Shop drawings - This set will not replace the Approved plan set.

Project Name: GK PSE - EXTERIOR DESIGN
Model: W82-800 SGL 20FT OPNG - GRID 2 at A.3
Code: 2012 NASPEC [AISI S100-2012]

Jamb Studs	800S200-68(50), Boxed	L/292	L/166	0.84	0.77	No	Yes
Vertical Header	1000S162-43(33), Boxed	L/347	NA	0.99	0.99	R1, R2	Yes
Lat. Top Head	800T125-54(50), Single	L/14405	NA	0.02	0.02	No	Yes
Lat. Bottom Head	800T125-54(50), Single	L/581	NA	0.52	0.10	No	Yes
Sill	Built-Up	L/312		0.969	0.97	R1, R2	Yes

Simpson Strong-Tie® Connectors @ Studs

Support	Rx(lb)	Ry(lb)	Simpson Strong-Tie® Connector	Connector Interaction	Anchor Interaction
R2	369.07	0.00	SCB45.5(2) & (2) #12-24 SST X or XL to A36 Steel	60.50 %	33.10 %
R1	219.89	422.40	800T125-33 (33) & (2) .157" SST PDPA/PDPAT-62KP to steel (3/16" to 1/2" thickness)	85.81 %	49.93 %

* Reference catalog for connector and anchor requirement notes as well as screw placements requirement

Simpson Strong-Tie® Connectors @ Jambs

Support	Rx(lb)	Ry(lb)	Simpson Strong-Tie® Connector	Connector Interaction	Anchor Interaction
R2	1323.18	0.00	(2) SCB45.5(3) & (4) #12-24 SST X or XL to A36 Steel	66.83 %	29.67 %
R1	585.53	1217.60	800T125-33 (33) & (3) .157" SST PDPA/PDPAT-62KP to steel (3/16" to 1/2" thickness)	85.11 %	88.64 %

* Reference catalog for connector and anchor requirement notes as well as screw placements requirement

Simpson Strong-Tie® Wall Stud Bridging Connectors @ Studs

Span/Parapet	Bracing Length(in.)	Design Number of Braces	Pn(lb.)	LSUBH (Min)[1]	LSUBH (Max)[1]	SUBH (Min)[1]	SUBH (Max)[1]	MSUBH (Min)[1]	MSUBH (Max)[1]
Top Parapet	Span	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Span	Varies	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Simpson Strong-Tie® Wall Stud Bridging Connectors @ Jambs

Span/Parapet	Bracing Length(in.)	Design Number of Braces	Pn(lb.)	LSUBH (Min)[1]	LSUBH (Max)[1]	SUBH (Min)[1]	SUBH (Max)[1]	MSUBH (Min)[1]	MSUBH (Max)[1]
Top Parapet	Span	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Span	Varies	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

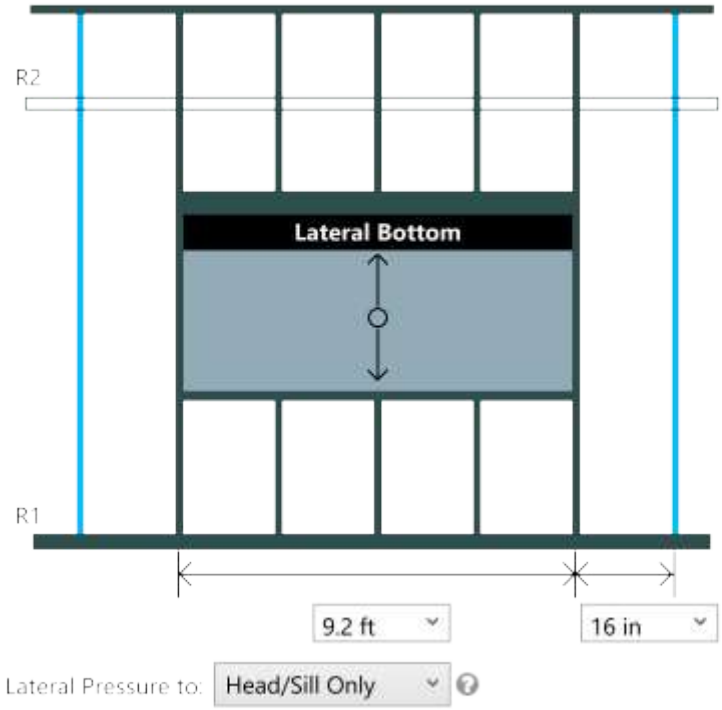
Notes:

1) Values in parentheses are stress ratios.
2) Bridging connectors are not designed for back-back, box, or built-up sections.
3) Reference www.strongtie.com for latest load data, important information, and general notes.
4) CFS Designer will not select bridging connectors unless all flexural and axial bracing settings are the same.
5) If the bracing length is larger than the span length, bridging connectors are not designed.

PRCNC20240216 - Revision #1
Shop drawings - This set will not replace the Approved plan set.

Project Name: GK PSE - EXTERIOR DESIGN
Model: W81-800 SGL 9.2FT OPNG - GRID 2 at A.1
Code: 2012 NASPEC [AISI S100-2012]

Simpson Strong-Tie® CFS Designer™ 5.2.6.0



Design Loads

Wall Lateral Pressure :	**14.4 psf**
Parapet Lateral Pressure :	**37.2 psf**
RO Lateral Pressure :	**Head/Sill Only**
Lateral element force multiplier	
Strength :	**1.0**
Deflection :	**0.7**
Header:	**Box (lateral top, bottom)**
Gravity Load at Header:	**12 psf**
Cant. Deflection:	**2 x Cantilever**

Brace Settings

Component(s)	Members(s)	Flexural Bracing	Axial KyLy	Axial KtLt	Distortional K-Phi(lb-in/in)	Distortional Lm	Interconnection Spacing
Jamb Studs	800S200-68(50), Single	Full	48 in	48 in	0	None	N/A
Vertical Header	600S162-33(33), Boxed	Full	N/A	N/A	0	None	N/A
Lat. Top Head	800T125-33(33), Single	Full	N/A	N/A	0	None	N/A
Lat. Bottom Head	800T125-33(33), Single	Full	N/A	N/A	0	None	N/A
Sill	800T125-54(50), Single	Full	N/A	N/A	0	None	N/A

Analysis Results

Component(s)	Members(s)	Axial Load (lb)	Max KL/r	Max. Moment (ft-lb)	Max. Shear (lb)	Bottom Reaction (lb)	Top or End Reaction (lb)
Jamb Studs	800S200-68(50), Single	391.9	93	3668.1	585.9	303.3	662.8
Vertical Header	600S162-33(33), Boxed	N/A	N/A	901.4	391.9	N/A	391.9
Lat. Top Head	800T125-33(33), Single	N/A	N/A	168.1	73.1	N/A	73.1
Lat. Bottom Head	800T125-33(33), Single	N/A	N/A	228.5	99.4	N/A	99.4
Sill	800T125-54(50), Single	N/A	N/A	1470.2	639.2	N/A	639.2

Design Results

Component(s)	Members(s)	Deflection Span	Deflection Parapet	A + M Interaction	V + M Interaction	Web Stiffners	Design OK
Jamb Studs	800S200-68(50), Single	L/324	L/188	0.855	0.69	No	Yes
Vertical Header	600S162-33(33), Boxed	L/850	NA	0.47	0.47	R1, R2	Yes
Lat. Top Head	800T125-33(33), Single	L/4435	NA	0.25	0.25	R1, R2	Yes
Lat. Bottom Head	800T125-33(33), Single	L/3262	NA	0.34	0.21	R1, R2	Yes
Sill	800T125-54(50), Single	L/919	NA	0.72	0.72	R1, R2	Yes

Simpson Strong-Tie® Connectors @ Jambs

	Connector	Anchor

PRCNC20240216 - Revision #1
Shop drawings - This set will not replace the Approved plan set.

Project Name: GK PSE - EXTERIOR DESIGN
Model: W81-800 SGL 9.2FT OPNG - GRID 2 at A.1
Code: 2012 NASPEC [AISI S100-2012]

Simpson Strong-Tie® CFS Designer™ 5.2.6.0

Support	Rx(lb)	Ry(lb)	Simpson Strong-Tie® Connector	Interaction	Interaction
R2	662.78	0.00	(2) SCB45.5(3) & (4) #12-24 SST X or XL to A36 Steel	33.47 %	14.86 %
R1	303.28	757.52	800T125-33 (33) & (3) .157" SST PDPA/PDPAT-62KP to steel (3/16" to 1/2" thickness)	44.08 %	45.91 %

* Reference catalog for connector and anchor requirement notes as well as screw placements requirement

Simpson Strong-Tie® Wall Stud Bridging Connectors @ Jambs

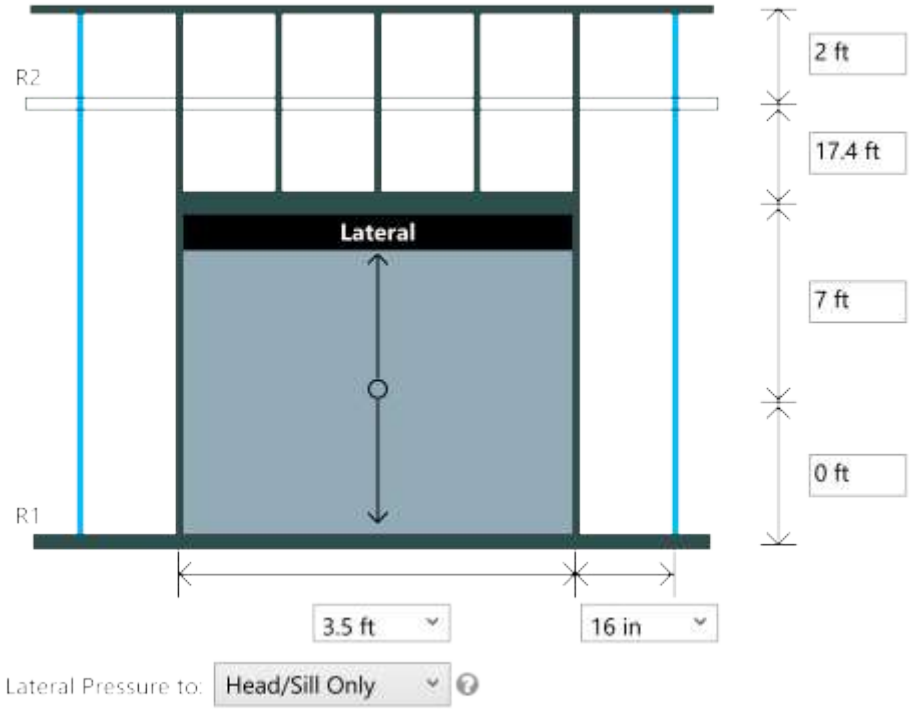
Span/Parapet	Bracing Length(in.)	Design Number of Braces	Pn(lb.)	LSUBH (Min)[1]	LSUBH (Max)[1]	SUBH (Min)[1]	SUBH (Max)[1]	MSUBH (Min)[1]	MSUBH (Max)[1]
Top Parapet	Span	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Span	Varies	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:

1) Values in parentheses are stress ratios.
2) Bridging connectors are not designed for back-back, box, or built-up sections.
3) Reference www.strongtie.com for latest load data, important information, and general notes.
4) CFS Designer will not select bridging connectors unless all flexural and axial bracing settings are the same.
5) If the bracing length is larger than the span length, bridging connectors are not designed.

Project Name: GK PSE - EXTERIOR DESIGN
Model: W85-800 SGL 3.5FT OPNG - GRID 2 at A.8
Code: 2012 NASPEC [AISI S100-2012]

Date: 09/30/2024
Simpson Strong-Tie® CFS Designer™ 5.2.6.0



Design Loads

Wall Lateral Pressure :	**14.4 psf**
Parapet Lateral Pressure :	**37.2 psf**
RO Lateral Pressure :	**Head/Sill Only**
Lateral element force multiplier	
Strength :	**1.0**
Deflection :	**0.7**
Header:	**Single Member**
Gravity Load at Header:	**12 psf**
Cant. Deflection:	**2 x Cantilever**

Brace Settings

Component(s)	Members(s)	Flexural Bracing	Axial KyLy	Axial KtLt	Distortional K-Phi(lb-in/in)	Distortional Lm	Interconnection Spacing
Jamb Studs	800S162-54(50), Single	Full	48 in	48 in	0	None	N/A
Vertical Header	800S200-54(50), Y-Y Axis	Full	N/A	N/A	0	None	N/A
Lateral Header	800S200-54(50), Single	Full	N/A	N/A	0	None	N/A

Analysis Results

Component(s)	Members(s)	Axial Load (lb)	Max KL/r	Max. Moment (ft-lb)	Max. Shear (lb)	Bottom Reaction (lb)	Top or End Reaction (lb)
Jamb Studs	800S162-54(50), Single	407.4	100	2067.7	329.0	417.2	254.8
Vertical Header	800S200-54(50), Y-Y Axis	N/A	N/A	356.5	407.4	N/A	407.4
Lateral Header	800S200-54(50), Single	N/A	N/A	262.5	300.0	N/A	300.0

Design Results

Component(s)	Members(s)	Deflection Span	Deflection Parapet	A + M Interaction	V + M Interaction	Web Stiffners	Design OK
Jamb Studs	800S162-54(50), Single	L/355	L/248	0.845	0.69	Yes	Yes
Vertical Header	800S200-54(50), Y-Y Axis	L/392	NA	0.71	0.71	No	Yes
Lateral Header	800S200-54(50), Single	L/20102	NA	0.08	0.14	No	Yes
Combined Header				0.79	0		

Simpson Strong-Tie® Connectors @ Jambs

Support	Rx(lb)	Ry(lb)	Simpson Strong-Tie® Connector	Connector Interaction	Anchor Interaction
R2	254.81	0.00	By Others & Anchorage Designed by Engineer	NA	NA
R1	417.19	674.60	By Others & Anchorage Designed by Engineer	NA	NA

* Reference catalog for connector and anchor requirement notes as well as screw placements requirement

Simpson Strong-Tie® Wall Stud Bridging Connectors @ Jambs

Span/Parapet	Bracing Length(in.)	Design Number of Braces	Pn(lb.)	LSUBH (Min)[1]	LSUBH (Max)[1]	SUBH (Min)[1]	SUBH (Max)[1]	MSUBH (Min)[1]	MSUBH (Max)[1]
Top Parapet	Span	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Span	Varies	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

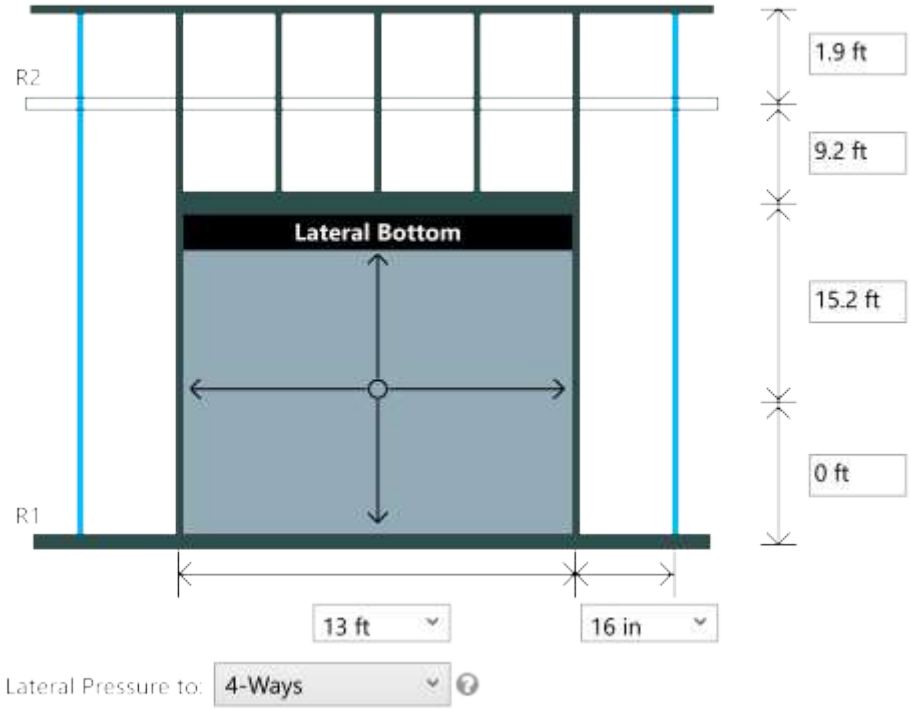
Notes:

1) Values in parentheses are stress ratios.
2) Bridging connectors are not designed for back-back, box, or built-up sections.
3) Reference www.strongtie.com for latest load data, important information, and general notes.
4) CFS Designer will not select bridging connectors unless all flexural and axial bracing settings are the same.
5) If the bracing length is larger than the span length, bridging connectors are not designed.

PRCNC20240216 - Revision #1
Shop drawings - This set will not replace the Approved plan set.

Project Name: GK PSE - EXTERIOR DESIGN
Model: W84-800 SGL 13FT OPNG - GRID 2 at A.7
Code: 2012 NASPEC [AISI S100-2012]

Date: 09/30/2024
Simpson Strong-Tie® CFS Designer™ 5.2.6.0



Design Loads

Wall Lateral Pressure :	**14.4 psf**
Parapet Lateral Pressure :	**37.2 psf**
RO Lateral Pressure :	**4-Ways**
Lateral element force multiplier	
Strength :	**1.0**
Deflection :	**0.7**
Header:	**Box (lateral top, bottom)**
Gravity Load at Header:	**12 psf**
Cant. Deflection:	**2 x Cantilever**

Back-to-Back Member L/6 Interconnection Spacing per AISI S100 D1.1

Member	Span	Cantilever
Jamb Studs	48.8 in	3.8 in

See AISI S100 D1.1 for Add'nl Requirements

Brace Settings

Component(s)	Members(s)	Flexural Bracing	Axial KyLy	Axial KtLt	Distortional K-Phi(lb-in/in)	Distortional Lm	Interconnection Spacing
Jamb Studs	800S200-68(50), Back-To-Back	Full	48 in	48 in	0	None	12 in
Vertical Header	800S162-43(33), Boxed	Full	N/A	N/A	0	None	N/A
Lat. Top Head	800T125-54(50), Single	Full	N/A	N/A	0	None	N/A
Lat. Bottom Head	800T125-54(50), Single	Full	N/A	N/A	0	None	N/A

Analysis Results

Component(s)	Members(s)	Axial Load (lb)	Max KL/r	Max. Moment (ft-lb)	Max. Shear (lb)	Bottom Reaction (lb)	Top or End Reaction (lb)
Jamb Studs	800S200-68(50), Back-To-Back	865.8	98	6935.2	935.1	1239.3	847.9
Vertical Header	800S162-43(33), Boxed	N/A	N/A	2813.9	865.8	N/A	865.8
Lat. Top Head	800T125-54(50), Single	N/A	N/A	1245.1	383.1	N/A	383.1
Lat. Bottom Head	800T125-54(50), Single	N/A	N/A	1318.2	304.2	N/A	304.2

Design Results

Component(s)	Members(s)	Deflection		A + M Interaction	V + M Interaction	Web Stiffners	Design OK
		Span	Parapet				
Jamb Studs	800S200-68(50), Back-To-Back	L/278	L/180	0.816	0.65	No	Yes
Vertical Header	800S162-43(33), Boxed	L/484	NA	0.84	0.84	R1, R2	Yes
Lat. Top Head	800T125-54(50), Single	L/768	NA	0.61	0.61	No	Yes
Lat. Bottom Head	800T125-54(50), Single	L/756	NA	0.64	0.15	No	Yes

Simpson Strong-Tie® Connectors @ Jambs

Support	Rx(lb)	Ry(lb)	Simpson Strong-Tie® Connector	Connector Interaction	Anchor Interaction
R2	847.88	0.00	By Others & Anchorage Designed by Engineer	NA	NA

R1	1239.32	1197.80	By Others & Anchorage Designed by Engineer	NA	NA

* Reference catalog for connector and anchor requirement notes as well as screw placements requirement

Simpson Strong-Tie® Wall Stud Bridging Connectors @ Jambs

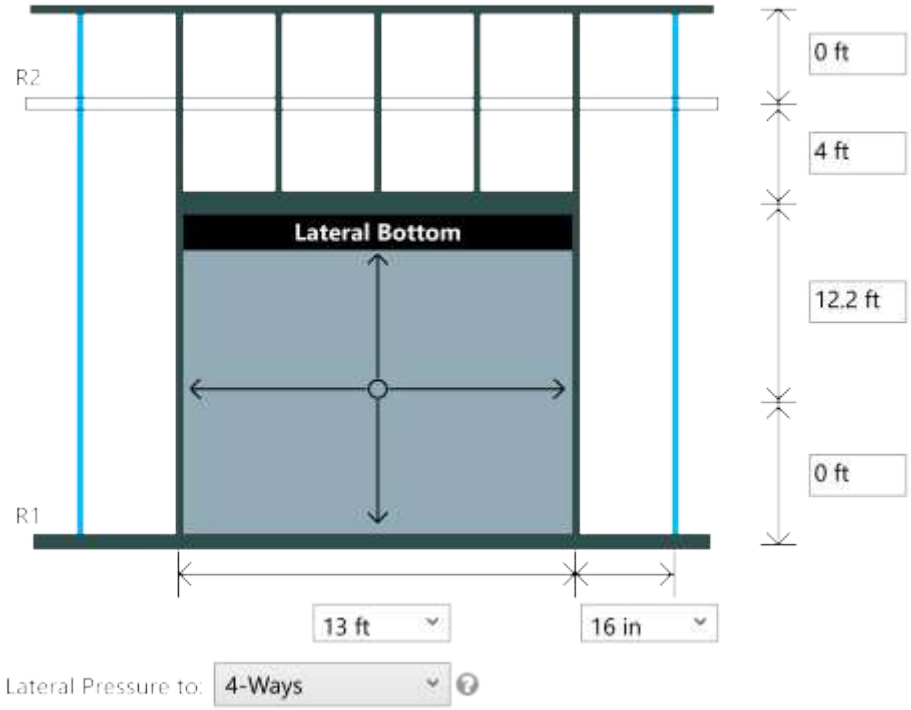
Span/Parapet	Bracing Length(in.)	Design Number of Braces	Pn(lb.)	LSUBH (Min)[1]	LSUBH (Max)[1]	SUBH (Min)[1]	SUBH (Max)[1]	MSUBH (Min)[1]	MSUBH (Max)[1]
Top Parapet	Span	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Span	Varies	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:

1) Values in parentheses are stress ratios.
2) Bridging connectors are not designed for back-back, box, or built-up sections.
3) Reference www.strongtie.com for latest load data, important information, and general notes.
4) CFS Designer will not select bridging connectors unless all flexural and axial bracing settings are the same.
5) If the bracing length is larger than the span length, bridging connectors are not designed.

Project Name: GK PSE - EXTERIOR DESIGN
Model: W87-800 SGL 13wX16.2h OPNG - GRID 2 at B.8
Code: 2012 NASPEC [AISI S100-2012]

Date: 09/30/2024
Simpson Strong-Tie® CFS Designer™ 5.2.6.0



Design Loads

Wall Lateral Pressure :	**14.4 psf**
Parapet Lateral Pressure :	
RO Lateral Pressure :	**4-Ways**
Lateral element force multiplier	
Strength :	**1.0**
Deflection :	**0.7**
Header:	**Box (lateral top, bottom)**
Gravity Load at Header:	**12 psf**

Brace Settings

Component(s)	Members(s)	Flexural Bracing	Axial KyLy	Axial KtLt	Distortional K-Phi(lb-in/in)	Distortional Lm	Interconnection Spacing
Jamb Studs	800S200-54(50), Single	Full	48 in	48 in	0	None	N/A
Vertical Header	600S162-43(33), Boxed	Full	N/A	N/A	0	None	N/A
Lat. Top Head	800T125-54(50), Single	Full	N/A	N/A	0	None	N/A
Lat. Bottom Head	800T125-54(50), Single	Full	N/A	N/A	0	None	N/A

Analysis Results

Component(s)	Members(s)	Axial Load (lb)	Max KL/r	Max. Moment (ft-lb)	Max. Shear (lb)	Bottom Reaction (lb)	Top or End Reaction (lb)
Jamb Studs	800S200-54(50), Single	312.0	68	2776.7	648.7	835.9	648.7
Vertical Header	600S162-43(33), Boxed	N/A	N/A	1014.0	312.0	N/A	312.0
Lat. Top Head	800T125-54(50), Single	N/A	N/A	608.4	187.2	N/A	187.2
Lat. Bottom Head	800T125-54(50), Single	N/A	N/A	1310.9	303.1	N/A	303.1

Design Results

Component(s)	Members(s)	Deflection Span	Deflection Parapet	A + M Interaction	V + M Interaction	Web Stiffners	Design OK
Jamb Studs	800S200-54(50), Single	L/406	L/0	0.934	0.74	Yes	Yes
Vertical Header	600S162-43(33), Boxed	L/691	NA	0.36	0.36	No	Yes
Lat. Top Head	800T125-54(50), Single	L/1572	NA	0.30	0.30	No	Yes
Lat. Bottom Head	800T125-54(50), Single	L/759	NA	0.64	0.15	No	Yes

Simpson Strong-Tie® Connectors @ Jambs

Support	Rx(lb)	Ry(lb)	Simpson Strong-Tie® Connector	Connector Interaction	Anchor Interaction
R2	648.72	0.00	By Others & Anchorage Designed by Engineer	NA	NA

R1	835.92	539.20	By Others & Anchorage Designed by Engineer	NA	NA

* Reference catalog for connector and anchor requirement notes as well as screw placements requirement

Simpson Strong-Tie® Wall Stud Bridging Connectors @ Jambs

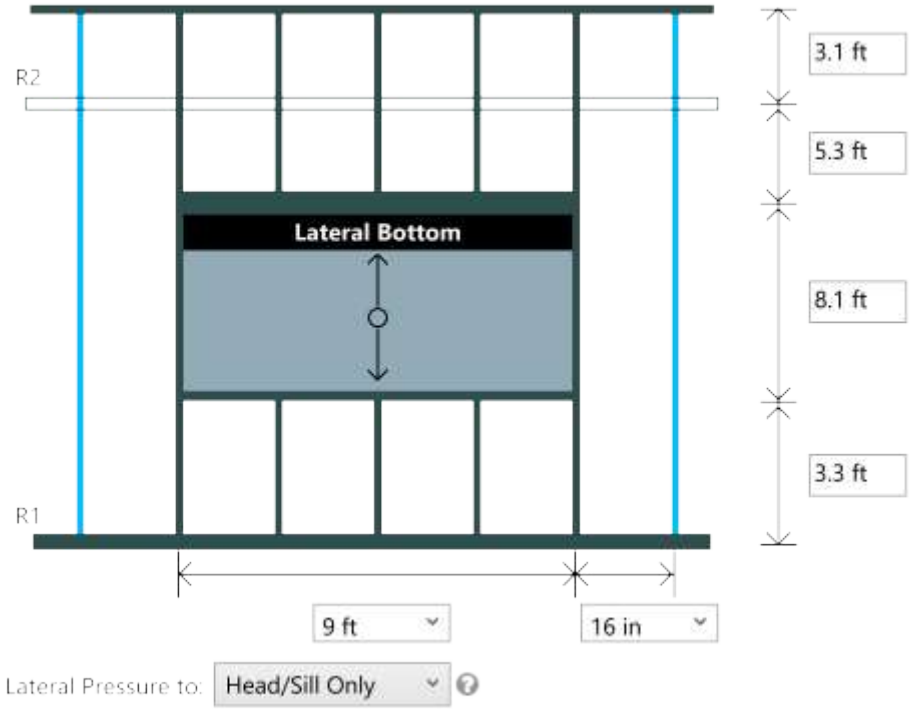
Span/Parapet	Bracing Length(in.)	Design Number of Braces	Pn(lb.)	LSUBH (Min)[1]	LSUBH (Max)[1]	SUBH (Min)[1]	SUBH (Max)[1]	MSUBH (Min)[1]	MSUBH (Max)[1]
Span	Varies	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:

1) Values in parentheses are stress ratios.
2) Bridging connectors are not designed for back-back, box, or built-up sections.
3) Reference www.strongtie.com for latest load data, important information, and general notes.
4) CFS Designer will not select bridging connectors unless all flexural and axial bracing settings are the same.
5) If the bracing length is larger than the span length, bridging connectors are not designed.

Project Name: GK PSE - EXTERIOR DESIGN
Model: N1-600 SGL 9FT OPNG - GRID B at 4.8
Code: 2012 NASPEC [AISI S100-2012]

Date: 09/30/2024
Simpson Strong-Tie® CFS Designer™ 5.2.6.0



Design Loads

Wall Lateral Pressure :	**14.4 psf**
Parapet Lateral Pressure :	**37.2 psf**
RO Lateral Pressure :	**Head/Sill Only**
Lateral element force multiplier	
Strength :	**1.0**
Deflection :	**0.7**
Header:	**Box (lateral top, bottom)**
Gravity Load at Header:	**12 psf**
Cant. Deflection:	**2 x Cantilever**

Brace Settings

Component(s)	Members(s)	Flexural Bracing	Axial KyLy	Axial KtLt	Distortional K-Phi(lb-in/in)	Distortional Lm	Interconnection Spacing
Wall Studs	600S162-33(33), Single@16 in o/c	Full	Sheathed	Sheathed	0	None	N/A
Jamb Studs	600S162-54(50), Single	Full	48 in	48 in	0	None	N/A
Vertical Header	600S162-33(33), Boxed	Full	N/A	N/A	0	None	N/A
Lat. Top Head	600T125-43(33), Single	Full	N/A	N/A	0	None	N/A
Lat. Bottom Head	600T125-43(33), Single	Full	N/A	N/A	0	None	N/A
Sill	600T200-43(33), Single	Full	N/A	N/A	0	None	N/A

Analysis Results

Component(s)	Members(s)	Axial Load (lb)	Max KL/r	Max. Moment (ft-lb)	Max. Shear (lb)	Bottom Reaction (lb)	Top or End Reaction (lb)
Wall Studs	600S162-33(33), Single@16 in o/c	0.0	N/A	555.5	174.6	146.1	328.4
Jamb Studs	600S162-54(50), Single	453.6	88	1637.6	459.0	459.0	429.9
Vertical Header	600S162-33(33), Boxed	N/A	N/A	1020.6	453.6	N/A	453.6
Lat. Top Head	600T125-43(33), Single	N/A	N/A	44.9	20.0	N/A	20.0
Lat. Bottom Head	600T125-43(33), Single	N/A	N/A	590.5	262.4	N/A	262.4
Sill	600T200-43(33), Single	N/A	N/A	831.1	369.4	N/A	369.4

Design Results

Component(s)	Members(s)	Deflection		A + M Interaction	V + M Interaction	Web Stiffners	Design OK
		Span	Parapet				
Wall Studs	600S162-33(33), Single@16 in o/c	L/572	L/474	0.704	0.37	Yes	Yes
Jamb Studs	600S162-54(50), Single	L/277	L/183	0.853	0.66	No	Yes
Vertical Header	600S162-33(33), Boxed	L/768	NA	0.54	0.54	R1, R2	Yes
Lat. Top Head	600T125-43(33), Single	L/12293	NA	0.06	0.06	No	Yes
Lat. Bottom Head	600T125-43(33), Single	L/935	NA	0.78	0.19	R1, R2	Yes
Sill	600T200-43(33), Single	L/780	NA	0.89	0.89	R1, R2	Yes

PRCNC20240216 - Revision #1
Shop drawings - This set will not replace the Approved plan set.

Project Name: GK PSE - EXTERIOR DESIGN
Model: N1-600 SGL 9FT OPNG - GRID B at 4.8
Code: 2012 NASPEC [AISI S100-2012]

Simpson Strong-Tie® CFS Designer™ 5.2.6.0

Simpson Strong-Tie® Connectors @ Studs

Support	Rx(lb)	Ry(lb)	Simpson Strong-Tie® Connector	Connector Interaction	Anchor Interaction
R2	328.35	0.00	SCB45.5(2) & (2) #12-24 SST X or XL to A36 Steel	67.01 %	29.45 %
R1	146.05	316.80	600T125-33 (33) & (2) .157" SST PDPA/PDPAT-62KP to steel (3/16" to 1/2" thickness)	60.11 %	33.16 %

* Reference catalog for connector and anchor requirement notes as well as screw placements requirement

Simpson Strong-Tie® Connectors @ Jambs

Support	Rx(lb)	Ry(lb)	Simpson Strong-Tie® Connector	Connector Interaction	Anchor Interaction
R2	429.94	0.00	By Others & Anchorage Designed by Engineer	NA	NA
R1	459.02	703.20	600T125-33 (33) & (3) .157", 1" embed SST PDPA/PDPAT to 4000 nw concrete	66.72 %	69.49 %

* Reference catalog for connector and anchor requirement notes as well as screw placements requirement

Simpson Strong-Tie® Wall Stud Bridging Connectors @ Studs

Span/Parapet	Bracing Length(in.)	Design Number of Braces	Pn(lb.)	LSUBH (Min)[1]	LSUBH (Max)[1]	SUBH (Min)[1]	SUBH (Max)[1]	MSUBH (Min)[1]	MSUBH (Max)[1]
Top Parapet	Span	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Span	Varies	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Simpson Strong-Tie® Wall Stud Bridging Connectors @ Jambs

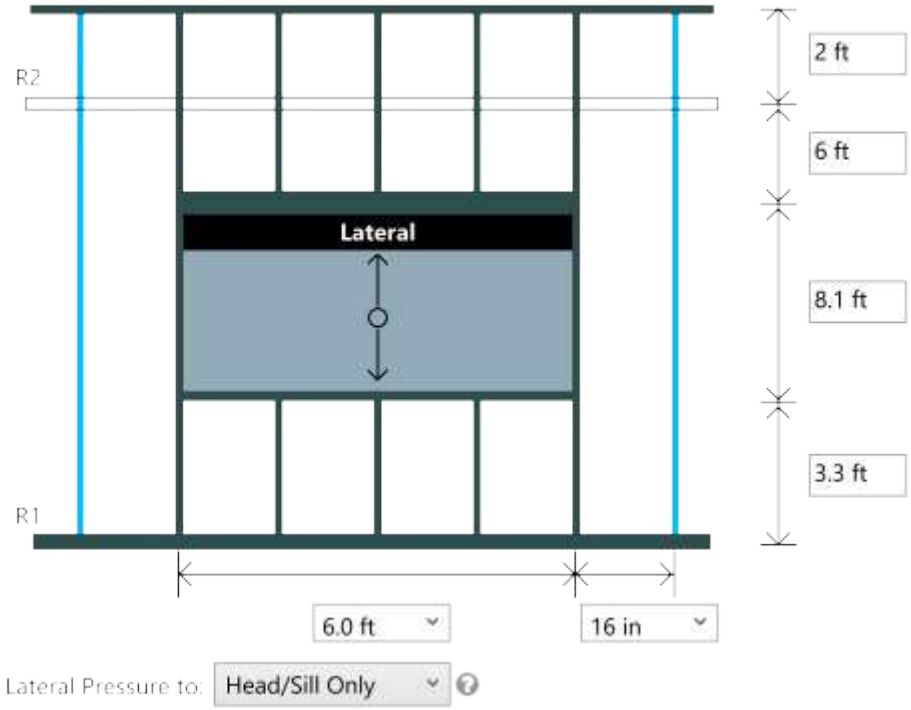
Span/Parapet	Bracing Length(in.)	Design Number of Braces	Pn(lb.)	LSUBH (Min)[1]	LSUBH (Max)[1]	SUBH (Min)[1]	SUBH (Max)[1]	MSUBH (Min)[1]	MSUBH (Max)[1]
Top Parapet	Span	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Span	Varies	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:

1) Values in parentheses are stress ratios.
2) Bridging connectors are not designed for back-back, box, or built-up sections.
3) Reference www.strongtie.com for latest load data, important information, and general notes.
4) CFS Designer will not select bridging connectors unless all flexural and axial bracing settings are the same.
5) If the bracing length is larger than the span length, bridging connectors are not designed.

Project Name: GK PSE - EXTERIOR DESIGN
Model: N2-600 SGL 6FT OPNG - GRID A at 3.2
Code: 2012 NASPEC [AISI S100-2012]

Simpson Strong-Tie® CFS Designer™ 5.2.6.0



Design Loads

Wall Lateral Pressure :	**14.4 psf**
Parapet Lateral Pressure :	**37.2 psf**
RO Lateral Pressure :	**Head/Sill Only**
Lateral element force multiplier	
Strength :	**1.0**
Deflection :	**0.7**
Header:	**Single Member**
Gravity Load at Header:	**12 psf**
Cant. Deflection:	**2 x Cantilever**

Brace Settings

Component(s)	Members(s)	Flexural Bracing	Axial KyLy	Axial KtLt	Distortional K-Phi(lb-in/in)	Distortional Lm	Interconnection Spacing
Wall Studs	600S162-33(33), Single@16 in o/c	Full	Sheathed	Sheathed	0	None	N/A
Jamb Studs	600S162-54(50), Single	Full	48 in	48 in	0	None	N/A
Vertical Header	600S250-54(50), Y-Y Axis	Full	N/A	N/A	0	None	N/A
Lateral Header	600S250-54(50), Single	Full	N/A	N/A	0	None	N/A
Sill	600T125-33(33), Single	Full	N/A	N/A	0	None	N/A

Analysis Results

Component(s)	Members(s)	Axial Load (lb)	Max KL/r	Max. Moment (ft-lb)	Max. Shear (lb)	Bottom Reaction (lb)	Top or End Reaction (lb)
Wall Studs	600S162-33(33), Single@16 in o/c	0.0	N/A	677.9	172.7	161.3	271.9
Jamb Studs	600S162-54(50), Single	288.0	92	1627.0	372.4	372.4	357.8
Vertical Header	600S250-54(50), Y-Y Axis	N/A	N/A	432.0	288.0	N/A	288.0
Lateral Header	600S250-54(50), Single	N/A	N/A	401.0	267.4	N/A	267.4
Sill	600T125-33(33), Single	N/A	N/A	369.4	246.2	N/A	246.2

Design Results

Component(s)	Members(s)	Deflection		A + M Interaction	V + M Interaction	Web Stiffners	Design OK
		Span	Parapet				
Wall Studs	600S162-33(33), Single@16 in o/c	L/434	L/292	0.859	0.29	Yes	Yes
Jamb Studs	600S162-54(50), Single	L/287	L/184	0.816	0.66	No	Yes
Vertical Header	600S250-54(50), Y-Y Axis	L/313	NA	0.62	0.62	No	Yes
Lateral Header	600S250-54(50), Single	L/4397	NA	0.17	0.15	No	Yes
Combined Header				0.79	0		
Sill	600T125-33(33), Single	L/1594	NA	0.76	0.76	R1, R2	Yes

Simpson Strong-Tie® Connectors @ Studs

PRCNC20240216 - Revision #1
Shop drawings - This set will not replace the Approved plan set.

Project Name: GK PSE - EXTERIOR DESIGN
Model: N2-600 SGL 6FT OPNG - GRID A at 3.2
Code: 2012 NASPEC [AISI S100-2012]

Simpson Strong-Tie® CFS Designer™ 5.2.6.0

Support	Rx(lb)	Ry(lb)	Simpson Strong-Tie® Connector	Connector Interaction	Anchor Interaction
R2	271.94	0.00	SCB45.5(2) & (2) #12-24 SST X or XL to A36 Steel	55.50 %	24.39 %
R1	161.34	310.40	600T125-33 (33) & (2) .157" SST PDPA/PDPAT-62KP to steel (3/16" to 1/2" thickness)	66.40 %	36.63 %

* Reference catalog for connector and anchor requirement notes as well as screw placements requirement

Simpson Strong-Tie® Connectors @ Jambs

Support	Rx(lb)	Ry(lb)	Simpson Strong-Tie® Connector	Connector Interaction	Anchor Interaction
R2	357.84	0.00	IDCB45.5(3) 1/8"SL & (2) #12XLW114B1224 Screws to A36 Steel	71.57 %	87.28 %
R1	372.40	534.40	600T125-33 (33) & (3) .157", 1" embed SST PDPA/PDPAT to 4000 nw concrete	54.13 %	56.37 %

* Reference catalog for connector and anchor requirement notes as well as screw placements requirement

Simpson Strong-Tie® Wall Stud Bridging Connectors @ Studs

Span/Parapet	Bracing Length(in.)	Design Number of Braces	Pn(lb.)	LSUBH (Min)[1]	LSUBH (Max)[1]	SUBH (Min)[1]	SUBH (Max)[1]	MSUBH (Min)[1]	MSUBH (Max)[1]
Top Parapet	Span	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Span	Varies	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Simpson Strong-Tie® Wall Stud Bridging Connectors @ Jambs

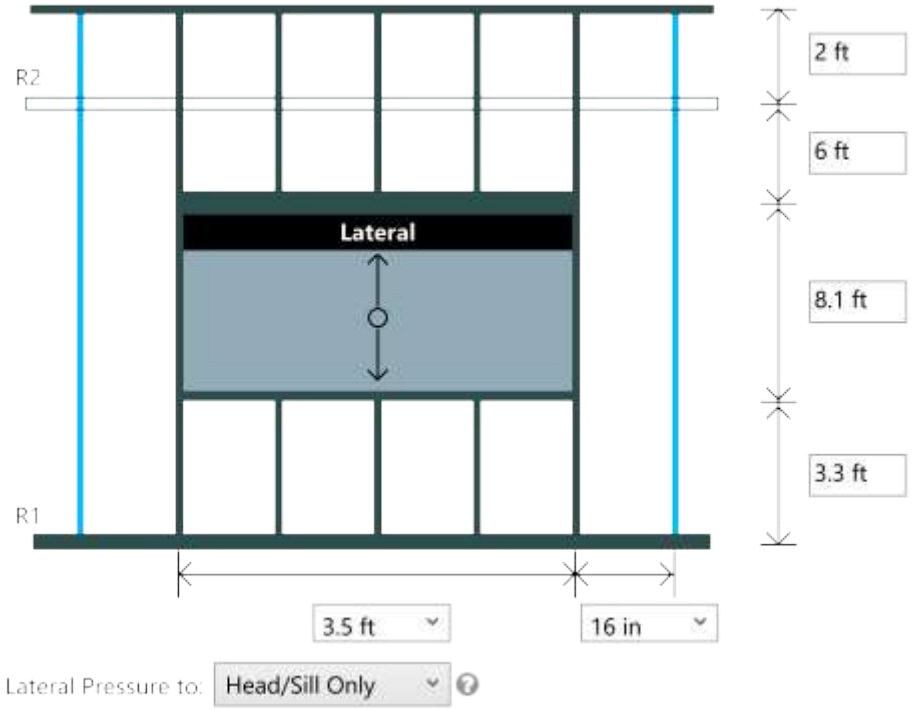
Span/Parapet	Bracing Length(in.)	Design Number of Braces	Pn(lb.)	LSUBH (Min)[1]	LSUBH (Max)[1]	SUBH (Min)[1]	SUBH (Max)[1]	MSUBH (Min)[1]	MSUBH (Max)[1]
Top Parapet	Span	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Span	Varies	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:

1) Values in parentheses are stress ratios.
2) Bridging connectors are not designed for back-back, box, or built-up sections.
3) Reference www.strongtie.com for latest load data, important information, and general notes.
4) CFS Designer will not select bridging connectors unless all flexural and axial bracing settings are the same.
5) If the bracing length is larger than the span length, bridging connectors are not designed.

Project Name: GK PSE - EXTERIOR DESIGN
Model: N3-600 SGL 3.5FT OPNG - GRID A at 3.1
Code: 2012 NASPEC [AISI S100-2012]

Date: 09/30/2024
Simpson Strong-Tie® CFS Designer™ 5.2.6.0



Design Loads

Wall Lateral Pressure :	**14.4 psf**
Parapet Lateral Pressure :	**37.2 psf**
RO Lateral Pressure :	**Head/Sill Only**
Lateral element force multiplier	
Strength :	**1.0**
Deflection :	**0.7**
Header:	**Single Member**
Gravity Load at Header:	**12 psf**
Cant. Deflection:	**2 x Cantilever**

Brace Settings

Component(s)	Members(s)	Flexural Bracing	Axial KyLy	Axial KtLt	Distortional K-Phi(lb-in/in)	Distortional Lm	Interconnection Spacing
Jamb Studs	600S162-43(33), Single	Full	48 in	48 in	0	None	N/A
Vertical Header	600T200-68(50), Y-Y Axis	Full	N/A	N/A	0	None	N/A
Lateral Header	600T200-68(50), Single	Full	N/A	N/A	0	None	N/A
Sill	600T125-33(33), Single	Full	N/A	N/A	0	None	N/A

Analysis Results

Component(s)	Members(s)	Axial Load (lb)	Max KL/r	Max. Moment (ft-lb)	Max. Shear (lb)	Bottom Reaction (lb)	Top or End Reaction (lb)
Jamb Studs	600S162-43(33), Single	168.0	92	1072.6	250.9	250.8	265.4
Vertical Header	600T200-68(50), Y-Y Axis	N/A	N/A	147.0	168.0	N/A	168.0
Lateral Header	600T200-68(50), Single	N/A	N/A	136.5	156.0	N/A	156.0
Sill	600T125-33(33), Single	N/A	N/A	125.7	143.6	N/A	143.6

Design Results

Component(s)	Members(s)	Deflection		A + M Interaction	V + M Interaction	Web Stiffners	Design OK
		Span	Parapet				
Jamb Studs	600S162-43(33), Single	L/347	L/224	0.945	0.78	No	Yes
Vertical Header	600T200-68(50), Y-Y Axis	L/561	NA	0.74	0.74	No	Yes
Lateral Header	600T200-68(50), Single	L/20822	NA	0.06	0.06	No	Yes
Combined Header				0.80	0		
Sill	600T125-33(33), Single	L/8032	NA	0.26	0.26	R1, R2	Yes

Simpson Strong-Tie® Connectors @ Jambs

Support	Rx(lb)	Ry(lb)	Simpson Strong-Tie® Connector	Connector Interaction	Anchor Interaction
R2	265.39	0.00	IDCB45.5(3) 1/8"SL & (2) #12XLW114B1224 Screws to A36	58.33 %	64.73 %

			Steel		
R1	250.85	414.40	600T125-33 (33) & (3) .157", 1" embed SST PDPA/PDPAT to 4000 nw concrete	61.18 %	37.97 %

* Reference catalog for connector and anchor requirement notes as well as screw placements requirement

Simpson Strong-Tie® Wall Stud Bridging Connectors @ Jambs

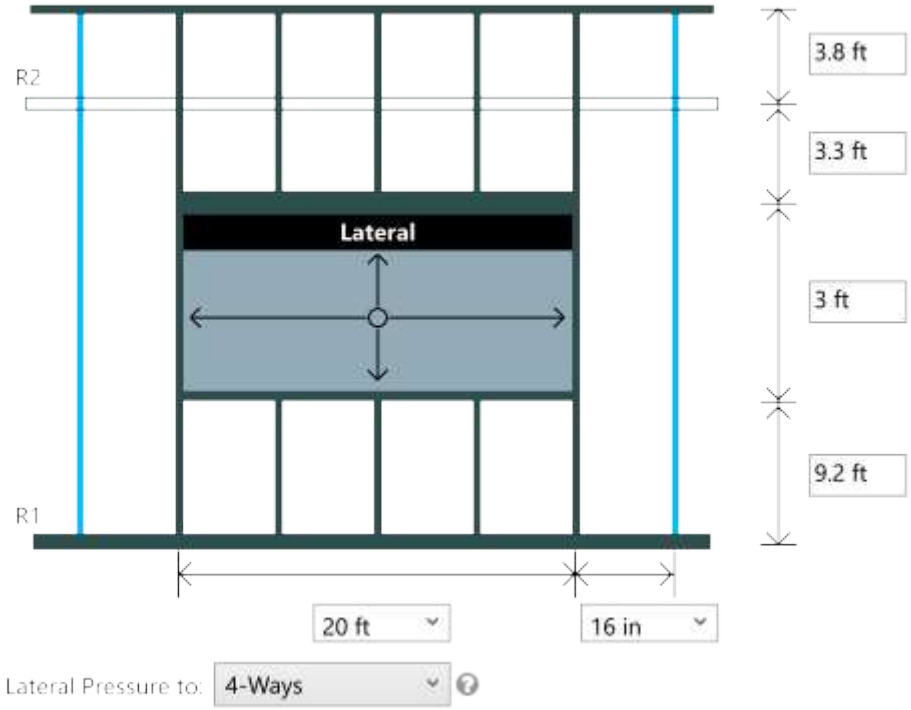
Span/Parapet	Bracing Length(in.)	Design Number of Braces	Pn(lb.)	LSUBH (Min)[1]	LSUBH (Max)[1]	SUBH (Min)[1]	SUBH (Max)[1]	MSUBH (Min)[1]	MSUBH (Max)[1]
Top Parapet	Span	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Span	Varies	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:

1) Values in parentheses are stress ratios.
2) Bridging connectors are not designed for back-back, box, or built-up sections.
3) Reference www.strongtie.com for latest load data, important information, and general notes.
4) CFS Designer will not select bridging connectors unless all flexural and axial bracing settings are the same.
5) If the bracing length is larger than the span length, bridging connectors are not designed.

Project Name: GK PSE - EXTERIOR DESIGN
Model: S1-600 SGL 20FT OPNG - GRID E at 2.2
Code: 2012 NASPEC [AISI S100-2012]

Date: 09/30/2024
Simpson Strong-Tie® CFS Designer™ 5.2.6.0



Design Loads

Wall Lateral Pressure :	**14.4 psf**
Parapet Lateral Pressure :	**37.2 psf**
RO Lateral Pressure :	**4-Ways**
Lateral element force multiplier	
Strength :	**1.0**
Deflection :	**0.7**
Header:	**Box (lateral combined)**
Gravity Load at Header:	**12 psf**
Cant. Deflection:	**2 x Cantilever**

Built-Up Members

Components	Section 1	Section 2	Section 3	Section 4
Sill	600S250-68(50)	600T125-54(50)	600T125-54(50)	

Brace Settings

Component(s)	Members(s)	Flexural Bracing	Axial KyLy	Axial KtLt	Distortional K-Phi(lb-in/in)	Distortional Lm	Interconnection Spacing
Wall Studs	600S162-33(33), Single@16 in o/c	Full	Sheathed	Sheathed	0	None	N/A
Jamb Studs	600S200-68(50), Single	Full	48 in	48 in	0	None	N/A
Vertical Header	600S162-33(33), Boxed	Full	N/A	N/A	0	None	N/A
Lateral Header	600T200-68(50), Single	Full	N/A	N/A	0	None	N/A
Sill	Built-Up	Full	N/A	N/A	0	None	N/A

Analysis Results

Component(s)	Members(s)	Axial Load (lb)	Max KL/r	Max. Moment (ft-lb)	Max. Shear (lb)	Bottom Reaction (lb)	Top or End Reaction (lb)
Wall Studs	600S162-33(33), Single@16 in o/c	308.8	82	411.4	188.5	125.7	360.4
Jamb Studs	600S200-68(50), Single	1104.0	80	2750.9	668.5	343.2	418.0
Vertical Header	600S162-33(33), Boxed	N/A	N/A	4260.0	852.0	N/A	852.0
Lateral Header	600T200-68(50), Single	N/A	N/A	1809.6	376.5	N/A	376.5
Sill	Built-Up	N/A	N/A	4383.8	862.2	N/A	862.2

Design Results

Component(s)	Members(s)	Deflection		A + M Interaction	V + M Interaction	Web Stiffners	Design OK
		Span	Parapet				
Wall Studs	600S162-33(33), Single@16 in o/c	L/892	L/1331	0.643	0.48	Yes	Yes
Jamb Studs	600S200-68(50), Single	L/353	L/250	0.97	0.78	No	Yes
Vertical Header	600S162-33(33), Boxed	L/83	NA	2.24	2.24	R1, R2	No

Lateral Header	600T200-68(50), Single	L/275	NA	0.75	0.75	No	Yes
Sill	Built-Up	L/295		0.722	0.72	No	Yes

Simpson Strong-Tie® Connectors @ Studs

Support	Rx(lb)	Ry(lb)	Simpson Strong-Tie® Connector	Connector Interaction	Anchor Interaction
R2	360.38	0.00	SCB45.5(2) & (2) #12-24 SST X or XL to A36 Steel	73.55 %	32.32 %
R1	125.70	308.80	600T125-33 (33) & (2) .157" SST PDPA/PDPAT-62KP to steel (3/16" to 1/2" thickness)	51.73 %	28.54 %

* Reference catalog for connector and anchor requirement notes as well as screw placements requirement

Simpson Strong-Tie® Connectors @ Jambs

Support	Rx(lb)	Ry(lb)	Simpson Strong-Tie® Connector	Connector Interaction	Anchor Interaction
R2	417.98	0.00	SCB45.5(2) & (3) SST 0.157 PDPAT-62KP to A36 Steel	55.00 %	71.45 %
R1	343.17	1104.00	600T125-33 (33) & (2) .157", 1" embed SST PDPA/PDPAT to 4000 nw concrete	49.88 %	77.92 %

* Reference catalog for connector and anchor requirement notes as well as screw placements requirement

Simpson Strong-Tie® Wall Stud Bridging Connectors @ Studs

Span/Parapet	Bracing Length(in.)	Design Number of Braces	Pn(lb.)	LSUBH (Min)[1]	LSUBH (Max)[1]	SUBH (Min)[1]	SUBH (Max)[1]	MSUBH (Min)[1]	MSUBH (Max)[1]
Top Parapet	Span	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Span	Varies	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Simpson Strong-Tie® Wall Stud Bridging Connectors @ Jambs

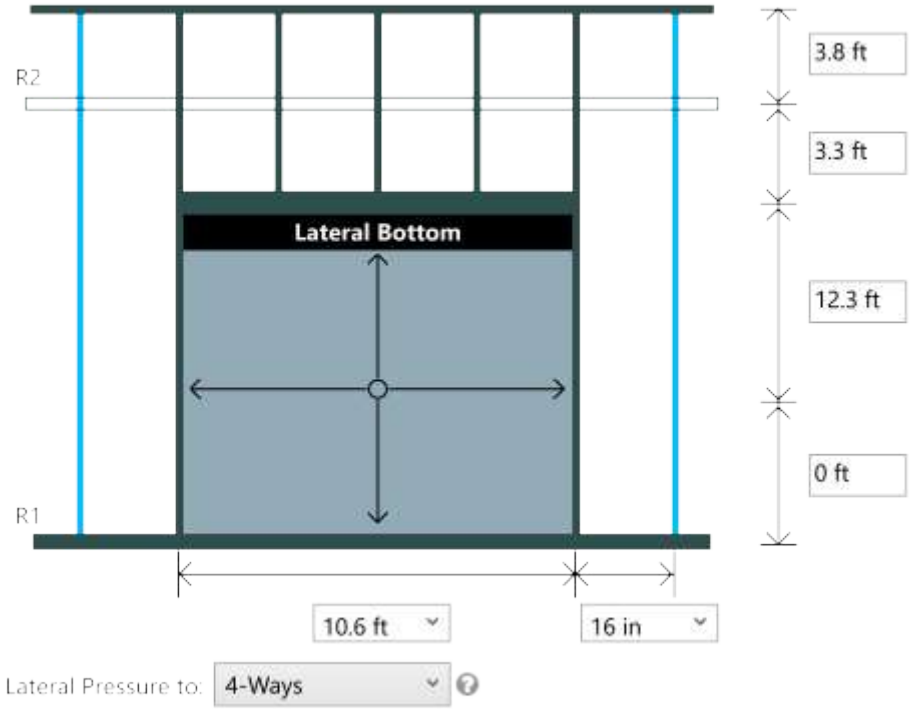
Span/Parapet	Bracing Length(in.)	Design Number of Braces	Pn(lb.)	LSUBH (Min)[1]	LSUBH (Max)[1]	SUBH (Min)[1]	SUBH (Max)[1]	MSUBH (Min)[1]	MSUBH (Max)[1]
Top Parapet	Span	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Span	Varies	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:

1) Values in parentheses are stress ratios.
2) Bridging connectors are not designed for back-back, box, or built-up sections.
3) Reference www.strongtie.com for latest load data, important information, and general notes.
4) CFS Designer will not select bridging connectors unless all flexural and axial bracing settings are the same.
5) If the bracing length is larger than the span length, bridging connectors are not designed.

Project Name: GK PSE - EXTERIOR DESIGN
Model: S5-600 SGL 10.6FT OPNG - GRID E at 3
Code: 2012 NASPEC [AISI S100-2012]

Date: 09/30/2024
Simpson Strong-Tie® CFS Designer™ 5.2.6.0



Design Loads

Wall Lateral Pressure :	**14.4 psf**
Parapet Lateral Pressure :	**37.2 psf**
RO Lateral Pressure :	**4-Ways**
Lateral element force multiplier	
Strength :	**1.0**
Deflection :	**0.7**
Header:	**Box (lateral top, bottom)**
Gravity Load at Header:	**12 psf**
Cant. Deflection:	**2 x Cantilever**

Built-Up Members

Components	Section 1	Section 2	Section 3	Section 4
Sill	600S162-68(50)	600T300-68(50)		

Brace Settings

Component(s)	Members(s)	Flexural Bracing	Axial KyLy	Axial KtLt	Distortional K-Phi(lb-in/in)	Distortional Lm	Interconnection Spacing
Jamb Studs	600S162-54(50), Single	Full	48 in	48 in	0	None	N/A
Vertical Header	600S162-33(33), Boxed	Full	N/A	N/A	0	None	N/A
Lat. Top Head	600T200-43(33), Single	Full	N/A	N/A	0	None	N/A
Lat. Bottom Head	600T200-43(33), Single	Full	N/A	N/A	0	None	N/A

Analysis Results

Component(s)	Members(s)	Axial Load (lb)	Max KL/r	Max. Moment (ft-lb)	Max. Shear (lb)	Bottom Reaction (lb)	Top or End Reaction (lb)
Jamb Studs	600S162-54(50), Single	705.2	84	1516.5	365.2	567.4	309.9
Vertical Header	600S162-33(33), Boxed	N/A	N/A	1196.6	451.6	N/A	451.6
Lat. Top Head	600T200-43(33), Single	N/A	N/A	809.4	305.4	N/A	305.4
Lat. Bottom Head	600T200-43(33), Single	N/A	N/A	714.6	202.3	N/A	202.3

Design Results

Component(s)	Members(s)	Deflection		A + M Interaction	V + M Interaction	Web Stiffners	Design OK
		Span	Parapet				
Jamb Studs	600S162-54(50), Single	L/378	L/293	0.84	0.60	Yes	Yes
Vertical Header	600S162-33(33), Boxed	L/556	NA	0.63	0.63	R1, R2	Yes
Lat. Top Head	600T200-43(33), Single	L/680	NA	0.87	0.87	R1, R2	Yes
Lat. Bottom Head	600T200-43(33), Single	L/802	NA	0.77	0.15	R1, R2	Yes

PRCNC20240216 - Revision #1
Shop drawings - This set will not replace the Approved plan set.

Project Name: GK PSE - EXTERIOR DESIGN
Model: S5-600 SGL 10.6FT OPNG - GRID E at 3
Code: 2012 NASPEC [AISI S100-2012]

Simpson Strong-Tie® CFS Designer™ 5.2.6.0

Simpson Strong-Tie® Connectors @ Jambs

Support	Rx(lb)	Ry(lb)	Simpson Strong-Tie® Connector	Connector Interaction	Anchor Interaction
R2	309.85	0.00	IDCB45.5(3) 1/8"SL & (2) #12XLW114B1224 Screws to A36 Steel	61.97 %	75.57 %
R1	567.45	705.16	FCB43.5 Min(4#12-14) & (4) 1/4" x 1-3/4" Titen Turbo to 2500 concrete (Base Clip)	45.95 %	87.98 %

* Reference catalog for connector and anchor requirement notes as well as screw placements requirement

Simpson Strong-Tie® Wall Stud Bridging Connectors @ Jambs

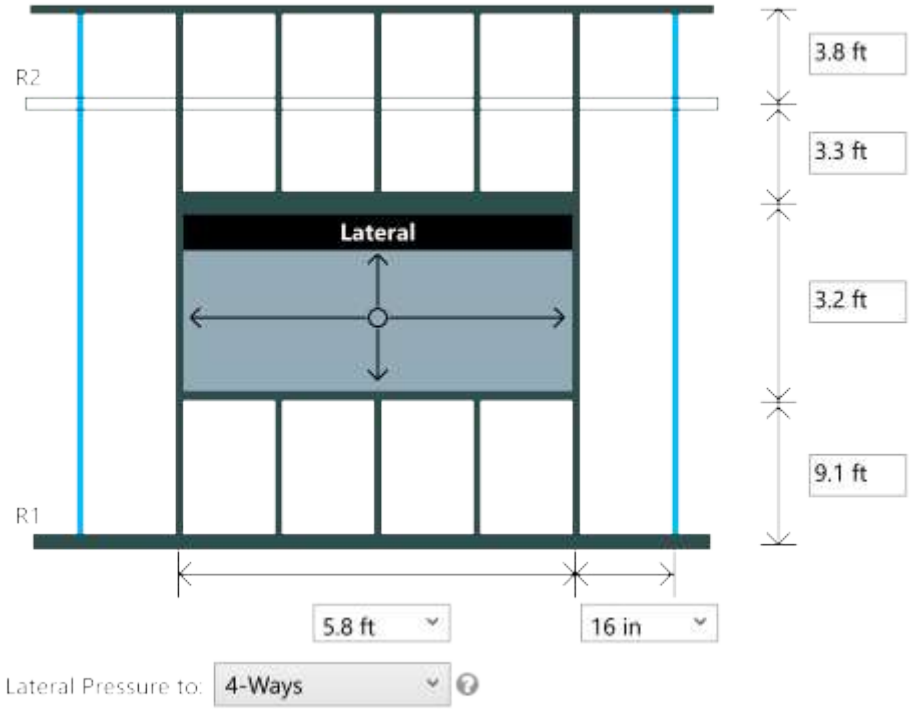
Span/Parapet	Bracing Length(in.)	Design Number of Braces	Pn(lb.)	LSUBH (Min)[1]	LSUBH (Max)[1]	SUBH (Min)[1]	SUBH (Max)[1]	MSUBH (Min)[1]	MSUBH (Max)[1]
Top Parapet	Span	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Span	Varies	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:

1) Values in parentheses are stress ratios.
2) Bridging connectors are not designed for back-back, box, or built-up sections.
3) Reference www.strongtie.com for latest load data, important information, and general notes.
4) CFS Designer will not select bridging connectors unless all flexural and axial bracing settings are the same.
5) If the bracing length is larger than the span length, bridging connectors are not designed.

Project Name: GK PSE - EXTERIOR DESIGN
Model: S3-600 SGL 5.8FT OPNG - GRID E at 2.8
Code: 2012 NASPEC [AISI S100-2012]

Date: 09/30/2024
Simpson Strong-Tie® CFS Designer™ 5.2.6.0



Design Loads

Wall Lateral Pressure :	**14.4 psf**
Parapet Lateral Pressure :	**37.2 psf**
RO Lateral Pressure :	**4-Ways**
Lateral element force multiplier	
Strength :	**1.0**
Deflection :	**0.7**
Header:	**Single Member**
Gravity Load at Header:	**12 psf**
Cant. Deflection:	**2 x Cantilever**

Brace Settings

Component(s)	Members(s)	Flexural Bracing	Axial KyLy	Axial KtLt	Distortional K-Phi(lb-in/in)	Distortional Lm	Interconnection Spacing
Jamb Studs	600S162-43(33), Single	Full	48 in	48 in	0	None	N/A
Vertical Header	600S250-54(50), Y-Y Axis	Full	N/A	N/A	0	None	N/A
Lateral Header	600S250-54(50), Single	Full	N/A	N/A	0	None	N/A
Sill	600T125-33(33), Single	Full	N/A	N/A	0	None	N/A

Analysis Results

Component(s)	Members(s)	Axial Load (lb)	Max KL/r	Max. Moment (ft-lb)	Max. Shear (lb)	Bottom Reaction (lb)	Top or End Reaction (lb)
Jamb Studs	600S162-43(33), Single	500.7	83	960.2	244.1	149.2	251.3
Vertical Header	600S250-54(50), Y-Y Axis	N/A	N/A	358.3	247.1	N/A	247.1
Lateral Header	600S250-54(50), Single	N/A	N/A	155.3	118.7	N/A	118.7
Sill	600T125-33(33), Single	N/A	N/A	362.6	238.4	N/A	238.4

Design Results

Component(s)	Members(s)	Deflection		A + M Interaction	V + M Interaction	Web Stiffners	Design OK
		Span	Parapet				
Jamb Studs	600S162-43(33), Single	L/541	L/418	0.99	0.71	No	Yes
Vertical Header	600S250-54(50), Y-Y Axis	L/390	NA	0.52	0.52	No	Yes
Lateral Header	600S250-54(50), Single	L/11627	NA	0.06	0.06	No	Yes
Combined Header				0.58	0		
Sill	600T125-33(33), Single	L/1688	NA	0.74	0.74	R1, R2	Yes

Simpson Strong-Tie® Connectors @ Jambs

Support	Rx(lb)	Ry(lb)	Simpson Strong-Tie® Connector	Connector Interaction	Anchor Interaction
R2	251.32	0.00	IDCB45.5(3) 1/8"SL & (2) #12XLW114B1224 Screws to A36	55.24 %	61.30 %

			Steel		
R1	149.19	500.68	600T125-33 (33) & (1) .157", 1" embed SST PDPA/PDPAT to 4000 nw concrete	36.39 %	67.75 %

* Reference catalog for connector and anchor requirement notes as well as screw placements requirement

Simpson Strong-Tie® Wall Stud Bridging Connectors @ Jambs

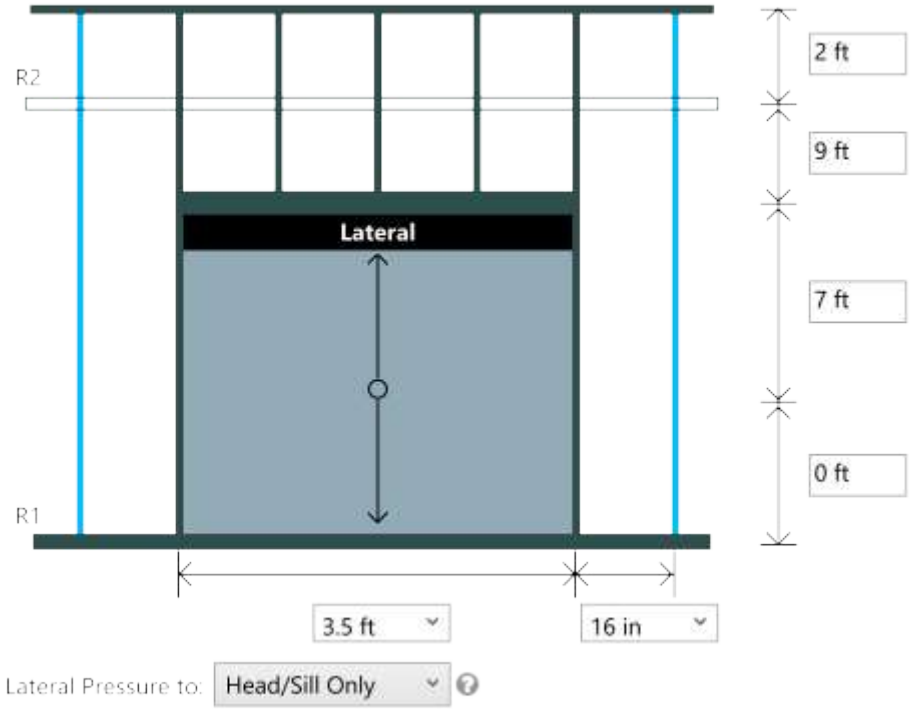
Span/Parapet	Bracing Length(in.)	Design Number of Braces	Pn(lb.)	LSUBH (Min)[1]	LSUBH (Max)[1]	SUBH (Min)[1]	SUBH (Max)[1]	MSUBH (Min)[1]	MSUBH (Max)[1]
Top Parapet	Span	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Span	Varies	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:

1) Values in parentheses are stress ratios.
2) Bridging connectors are not designed for back-back, box, or built-up sections.
3) Reference www.strongtie.com for latest load data, important information, and general notes.
4) CFS Designer will not select bridging connectors unless all flexural and axial bracing settings are the same.
5) If the bracing length is larger than the span length, bridging connectors are not designed.

Project Name: GK PSE - EXTERIOR DESIGN
Model: S7-600 SGL 3.5FT OPNG - GRID E at 3.3
Code: 2012 NASPEC [AISI S100-2012]

Date: 09/30/2024
Simpson Strong-Tie® CFS Designer™ 5.2.6.0



Design Loads

Wall Lateral Pressure :	**14.4 psf**
Parapet Lateral Pressure :	**14.4 psf**
RO Lateral Pressure :	**Head/Sill Only**
Lateral element force multiplier	
Strength :	**1.0**
Deflection :	**0.7**
Header:	**Single Member**
Gravity Load at Header:	**12 psf**
Cant. Deflection:	**2 x Cantilever**

Brace Settings

Component(s)	Members(s)	Flexural Bracing	Axial KyLy	Axial KtLt	Distortional K-Phi(lb-in/in)	Distortional Lm	Interconnection Spacing
Wall Studs	600S162-33(33), Single@16 in o/c	Full	Sheathed	Sheathed	0	None	N/A
Jamb Studs	600S200-43(33), Single	Full	48 in	48 in	0	None	N/A
Vertical Header	600T250-68(50), Y-Y Axis	Full	N/A	N/A	0	None	N/A
Lateral Header	600T250-68(50), Single	Full	N/A	N/A	0	None	N/A

Analysis Results

Component(s)	Members(s)	Axial Load (lb)	Max KL/r	Max. Moment (ft-lb)	Max. Shear (lb)	Bottom Reaction (lb)	Top or End Reaction (lb)
Wall Studs	600S162-33(33), Single@16 in o/c	0.0	N/A	595.3	156.0	151.2	194.4
Jamb Studs	600S200-43(33), Single	231.0	82	1065.8	185.9	274.1	183.0
Vertical Header	600T250-68(50), Y-Y Axis	N/A	N/A	202.1	231.0	N/A	231.0
Lateral Header	600T250-68(50), Single	N/A	N/A	171.5	196.0	N/A	196.0

Design Results

Component(s)	Members(s)	Deflection Span	Deflection Parapet	A + M Interaction	V + M Interaction	Web Stiffners	Design OK
Wall Studs	600S162-33(33), Single@16 in o/c	L/532	L/344	0.755	0.25	No	Yes
Jamb Studs	600S200-43(33), Single	L/518	L/350	0.891	0.75	Yes	Yes
Vertical Header	600T250-68(50), Y-Y Axis	L/540	NA	0.86	0.86	No	Yes
Lateral Header	600T250-68(50), Single	L/18118	NA	0.07	0.07	No	Yes
Combined Header				0.93	0		

Simpson Strong-Tie® Connectors @ Studs

Support	Rx(lb)	Ry(lb)	Simpson Strong-Tie® Connector	Connector Interaction	Anchor Interaction

R2	194.40	0.00	SCB45.5(2) & (2) #12-24 SST X or XL to A36 Steel	39.67 %	17.43 %
R1	151.20	288.00	600T125-33 (33) & (2) .157" SST PDPA/PDPAT-62KP to steel (3/16" to 1/2" thickness)	62.23 %	34.33 %

* Reference catalog for connector and anchor requirement notes as well as screw placements requirement

Simpson Strong-Tie® Connectors @ Jambs

Support	Rx(lb)	Ry(lb)	Simpson Strong-Tie® Connector	Connector Interaction	Anchor Interaction
R2	182.95	0.00	IDCB45.5(3) 1/8"SL & (2) #12XLW114B1224 Screws to A36 Steel	40.21 %	44.62 %
R1	274.05	431.00	By Others & Anchorage Designed by Engineer	NA	NA

* Reference catalog for connector and anchor requirement notes as well as screw placements requirement

Simpson Strong-Tie® Wall Stud Bridging Connectors @ Studs

Span/Parapet	Bracing Length(in.)	Design Number of Braces	Pn(lb.)	LSUBH (Min)[1]	LSUBH (Max)[1]	SUBH (Min)[1]	SUBH (Max)[1]	MSUBH (Min)[1]	MSUBH (Max)[1]
Top Parapet	Span	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Span	Varies	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Simpson Strong-Tie® Wall Stud Bridging Connectors @ Jambs

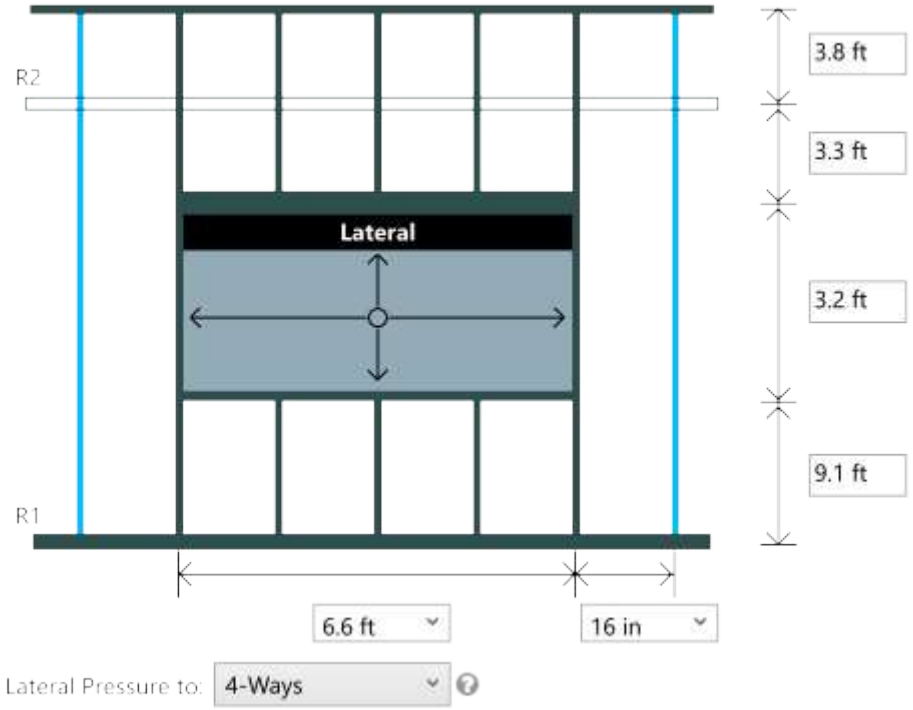
Span/Parapet	Bracing Length(in.)	Design Number of Braces	Pn(lb.)	LSUBH (Min)[1]	LSUBH (Max)[1]	SUBH (Min)[1]	SUBH (Max)[1]	MSUBH (Min)[1]	MSUBH (Max)[1]
Top Parapet	Span	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Span	Varies	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:

1) Values in parentheses are stress ratios.
2) Bridging connectors are not designed for back-back, box, or built-up sections.
3) Reference www.strongtie.com for latest load data, important information, and general notes.
4) CFS Designer will not select bridging connectors unless all flexural and axial bracing settings are the same.
5) If the bracing length is larger than the span length, bridging connectors are not designed.

Project Name: GK PSE - EXTERIOR DESIGN
Model: S6-600 SGL 6.6FT OPNG - GRID E at 3.2
Code: 2012 NASPEC [AISI S100-2012]

Date: 09/30/2024
Simpson Strong-Tie® CFS Designer™ 5.2.6.0



Design Loads

Wall Lateral Pressure :	**14.4 psf**
Parapet Lateral Pressure :	**37.2 psf**
RO Lateral Pressure :	**4-Ways**
Lateral element force multiplier	
Strength :	**1.0**
Deflection :	**0.7**
Header:	**Single Member**
Gravity Load at Header:	**12 psf**
Cant. Deflection:	**2 x Cantilever**

Brace Settings

Component(s)	Members(s)	Flexural Bracing	Axial KyLy	Axial KtLt	Distortional K-Phi(lb-in/in)	Distortional Lm	Interconnection Spacing
Jamb Studs	600S200-43(33), Single	Full	48 in	48 in	0	None	N/A
Vertical Header	600S250-54(50), Y-Y Axis	Full	N/A	N/A	0	None	N/A
Lateral Header	600S250-54(50), Single	Full	N/A	N/A	0	None	N/A
Sill	600T125-33(33), Single	Full	N/A	N/A	0	None	N/A

Analysis Results

Component(s)	Members(s)	Axial Load (lb)	Max KL/r	Max. Moment (ft-lb)	Max. Shear (lb)	Bottom Reaction (lb)	Top or End Reaction (lb)
Jamb Studs	600S200-43(33), Single	534.8	80	1067.9	267.7	161.0	261.1
Vertical Header	600S250-54(50), Y-Y Axis	N/A	N/A	463.9	281.2	N/A	281.2
Lateral Header	600S250-54(50), Single	N/A	N/A	198.2	132.6	N/A	132.6
Sill	600T125-33(33), Single	N/A	N/A	472.4	273.8	N/A	273.8

Design Results

Component(s)	Members(s)	Deflection Span	Deflection Parapet	A + M Interaction	V + M Interaction	Web Stiffners	Design OK
Jamb Studs	600S200-43(33), Single	L/567	L/433	0.97	0.76	No	Yes
Vertical Header	600S250-54(50), Y-Y Axis	L/265	NA	0.67	0.67	No	Yes
Lateral Header	600S250-54(50), Single	L/8021	NA	0.08	0.07	No	Yes
Combined Header				0.75	0		
Sill	600T125-33(33), Single	L/1137	NA	0.97	0.97	R1, R2	Yes

Simpson Strong-Tie® Connectors @ Jambs

Support	Rx(lb)	Ry(lb)	Simpson Strong-Tie® Connector	Connector Interaction	Anchor Interaction
R2	261.08	0.00	IDCB45.5(3) 1/8"SL & (2) #12XLW114B1224 Screws to A36	57.38 %	63.68 %

			Steel		
R1	161.03	534.76	600T125-33 (33) & (1) .157", 1" embed SST PDPA/PDPAT to 4000 nw concrete	39.27 %	73.13 %

* Reference catalog for connector and anchor requirement notes as well as screw placements requirement

Simpson Strong-Tie® Wall Stud Bridging Connectors @ Jambs

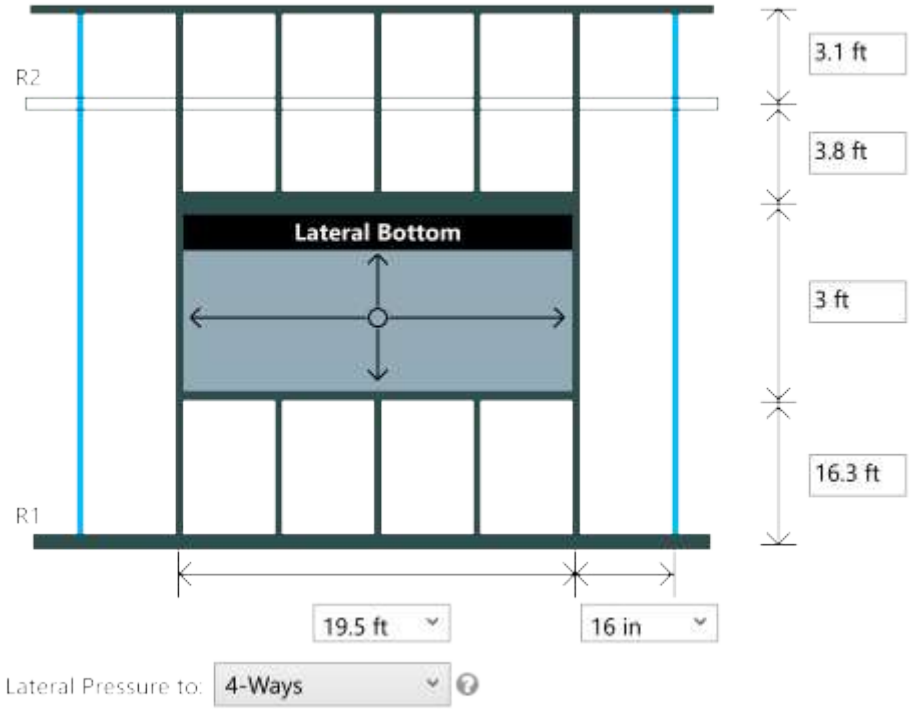
Span/Parapet	Bracing Length(in.)	Design Number of Braces	Pn(lb.)	LSUBH (Min)[1]	LSUBH (Max)[1]	SUBH (Min)[1]	SUBH (Max)[1]	MSUBH (Min)[1]	MSUBH (Max)[1]
Top Parapet	Span	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Span	Varies	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:

1) Values in parentheses are stress ratios.
2) Bridging connectors are not designed for back-back, box, or built-up sections.
3) Reference www.strongtie.com for latest load data, important information, and general notes.
4) CFS Designer will not select bridging connectors unless all flexural and axial bracing settings are the same.
5) If the bracing length is larger than the span length, bridging connectors are not designed.

Project Name: GK PSE - EXTERIOR DESIGN
Model: S8-600 SGL 19.5FT OPNG - GRID E at 4
Code: 2012 NASPEC [AISI S100-2012]

Date: 09/30/2024
Simpson Strong-Tie® CFS Designer™ 5.2.6.0



Design Loads

Wall Lateral Pressure :	**11.4 psf**
Parapet Lateral Pressure :	**37.2 psf**
RO Lateral Pressure :	**4-Ways**
Lateral element force multiplier	
Strength :	**1.0**
Deflection :	**0.7**
Header:	**Box (lateral top, bottom)**
Gravity Load at Header:	**12 psf**
Cant. Deflection:	**2 x Cantilever**

Built-Up Members

Components	Section 1	Section 2	Section 3	Section 4
Sill	600S250-68(50)	600T125-54(50)	600T125-54(50)	

Brace Settings

Component(s)	Members(s)	Flexural Bracing	Axial KyLy	Axial KtLt	Distortional K-Phi(lb-in/in)	Distortional Lm	Interconnection Spacing
Jamb Studs	600S200-68(50), Boxed	Full	48 in	48 in	0	None	12 in
Vertical Header	1000S162-43(33), Boxed	Full	N/A	N/A	0	None	N/A
Lat. Top Head	600T125-54(50), Single	Full	N/A	N/A	0	None	N/A
Lat. Bottom Head	600T125-54(50), Single	Full	N/A	N/A	0	None	N/A
Sill	Built-Up	Full	N/A	N/A	0	None	N/A

Analysis Results

Component(s)	Members(s)	Axial Load (lb)	Max KL/r	Max. Moment (ft-lb)	Max. Shear (lb)	Bottom Reaction (lb)	Top or End Reaction (lb)
Jamb Studs	600S200-68(50), Boxed	1171.3	120	5267.3	846.9	385.1	859.2
Vertical Header	1000S162-43(33), Boxed	N/A	N/A	3935.6	807.3	N/A	807.3
Lat. Top Head	600T125-54(50), Single	N/A	N/A	1206.3	247.4	N/A	247.4
Lat. Bottom Head	600T125-54(50), Single	N/A	N/A	806.4	153.9	N/A	153.9
Sill	Built-Up	N/A	N/A	5222.6	1059.8	N/A	1059.8

Design Results

Component(s)	Members(s)	Deflection		A + M Interaction	V + M Interaction	Web Stiffners	Design OK
		Span	Parapet				
Jamb Studs	600S200-68(50), Boxed	L/239	L/138	0.83	0.74	No	Yes
Vertical Header	1000S162-43(33), Boxed	L/386	NA	0.92	0.92	R1, R2	Yes
Lat. Top Head	600T125-54(50), Single	L/268	NA	0.82	0.82	No	Yes

PRCNC20240216 - Revision #1
Shop drawings - This set will not replace the Approved plan set.

Project Name: GK PSE - EXTERIOR DESIGN
Model: S8-600 SGL 19.5FT OPNG - GRID E at 4
Code: 2012 NASPEC [AISI S100-2012]

Simpson Strong-Tie® CFS Designer™ 5.2.6.0

Lat. Bottom Head	600T125-54(50), Single	L/401	NA	0.55	0.06	No	Yes
Sill	Built-Up	L/254		0.86	0.86	No	Yes

Simpson Strong-Tie® Connectors @ Jambs

Support	Rx(lb)	Ry(lb)	Simpson Strong-Tie® Connector	Connector Interaction	Anchor Interaction
R2	859.24	0.00	By Others & Anchorage Designed by Engineer	NA	NA
R1	385.09	1171.30	600T125-33 (33) & (2) .157", 1" embed SST PDPA/PDPAT to 4000 nw concrete	55.97 %	87.44 %

* Reference catalog for connector and anchor requirement notes as well as screw placements requirement

Simpson Strong-Tie® Wall Stud Bridging Connectors @ Jambs

Span/Parapet	Bracing Length(in.)	Design Number of Braces	Pn(lb.)	LSUBH (Min)[1]	LSUBH (Max)[1]	SUBH (Min)[1]	SUBH (Max)[1]	MSUBH (Min)[1]	MSUBH (Max)[1]
Top Parapet	Span	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Span	Varies	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

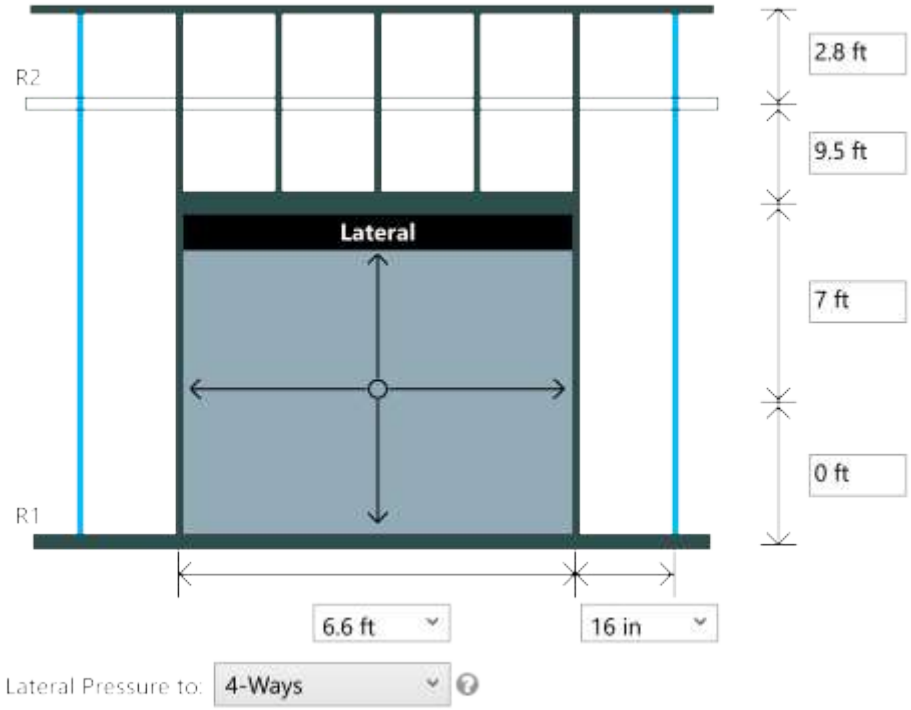
Notes:

1) Values in parentheses are stress ratios.
2) Bridging connectors are not designed for back-back, box, or built-up sections.
3) Reference www.strongtie.com for latest load data, important information, and general notes.
4) CFS Designer will not select bridging connectors unless all flexural and axial bracing settings are the same.
5) If the bracing length is larger than the span length, bridging connectors are not designed.

PRCNC20240216 - Revision #1
Shop drawings - This set will not replace the Approved plan set.

Project Name: GK PSE - EXTERIOR DESIGN
Model: S9-600 SGL 6.6FT OPNG - GRID E at 4.2
Code: 2012 NASPEC [AISI S100-2012]

Date: 09/30/2024
Simpson Strong-Tie® CFS Designer™ 5.2.6.0



Design Loads

Wall Lateral Pressure :	**14.4 psf**
Parapet Lateral Pressure :	**37.2 psf**
RO Lateral Pressure :	**4-Ways**
Lateral element force multiplier	
Strength :	**1.0**
Deflection :	**0.7**
Header:	**Single Member**
Gravity Load at Header:	**12 psf**
Cant. Deflection:	**2 x Cantilever**

Brace Settings

Component(s)	Members(s)	Flexural Bracing	Axial KyLy	Axial KtLt	Distortional K-Phi(lb-in/in)	Distortional Lm	Interconnection Spacing
Wall Studs	600S162-33(33), Single@16 in o/c	Full	Sheathed	Sheathed	0	None	N/A
Jamb Studs	600S162-54(50), Single	Full	48 in	48 in	0	None	N/A
Vertical Header	600S300-68(50), Y-Y Axis	Full	N/A	N/A	0	None	N/A
Lateral Header	600S300-68(50), Single	Full	N/A	N/A	0	None	N/A

Analysis Results

Component(s)	Members(s)	Axial Load (lb)	Max KL/r	Max. Moment (ft-lb)	Max. Shear (lb)	Bottom Reaction (lb)	Top or End Reaction (lb)
Wall Studs	600S162-33(33), Single@16 in o/c	308.8	87	559.8	170.2	146.6	309.1
Jamb Studs	600S162-54(50), Single	697.5	87	1653.8	357.8	436.2	299.4
Vertical Header	600S300-68(50), Y-Y Axis	N/A	N/A	803.7	487.1	N/A	487.1
Lateral Header	600S300-68(50), Single	N/A	N/A	461.4	253.5	N/A	253.5

Design Results

Component(s)	Members(s)	Deflection		A + M Interaction	V + M Interaction	Web Stiffners	Design OK
		Span	Parapet				
Wall Studs	600S162-33(33), Single@16 in o/c	L/568	L/439	0.836	0.34	No	Yes
Jamb Studs	600S162-54(50), Single	L/343	L/247	0.91	0.66	No	Yes
Vertical Header	600S300-68(50), Y-Y Axis	L/316	NA	0.70	0.70	No	Yes
Lateral Header	600S300-68(50), Single	L/4890	NA	0.14	0.13	No	Yes
Combined Header				0.83	0		

Simpson Strong-Tie® Connectors @ Studs

Support	Rx(lb)	Ry(lb)	Simpson Strong-Tie® Connector	Connector Interaction	Anchor Interaction
R2	309.06	0.00	IDCB45.5(3) 1/8"SL & (2) #12XLW114B1224 Screws to A36	75.38 %	75.38 %

			Steel		
R1	146.62	308.80	600T125-33 (33) & (1) .157", 1" embed SST PDPA/PDPAT to 4000 nw concrete	60.34 %	66.58 %

* Reference catalog for connector and anchor requirement notes as well as screw placements requirement

Simpson Strong-Tie® Connectors @ Jambs

Support	Rx(lb)	Ry(lb)	Simpson Strong-Tie® Connector	Connector Interaction	Anchor Interaction
R2	299.36	0.00	IDCB45.5(3) 1/8"SL & (2) #12XLW114B1224 Screws to A36 Steel	59.87 %	73.02 %
R1	436.18	697.48	600T125-43 (33) & (3) .157", 1" embed SST PDPA/PDPAT to 4000 nw concrete	93.76 %	50.75 %

* Reference catalog for connector and anchor requirement notes as well as screw placements requirement

Simpson Strong-Tie® Wall Stud Bridging Connectors @ Studs

Span/Parapet	Bracing Length(in.)	Design Number of Braces	Pn(lb.)	LSUBH (Min)[1]	LSUBH (Max)[1]	SUBH (Min)[1]	SUBH (Max)[1]	MSUBH (Min)[1]	MSUBH (Max)[1]
Top Parapet	Span	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Span	Varies	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Simpson Strong-Tie® Wall Stud Bridging Connectors @ Jambs

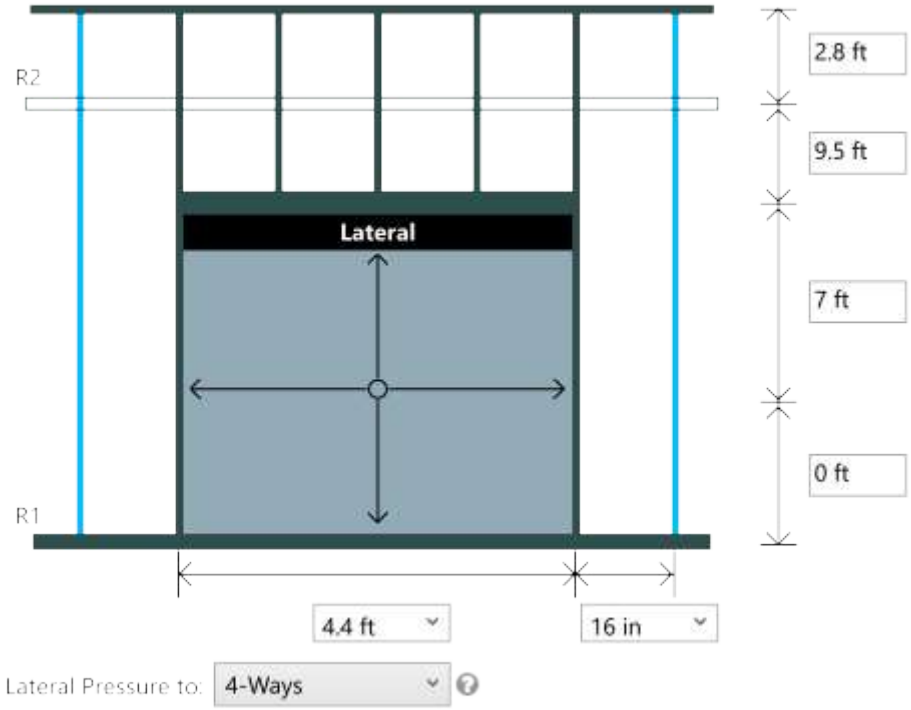
Span/Parapet	Bracing Length(in.)	Design Number of Braces	Pn(lb.)	LSUBH (Min)[1]	LSUBH (Max)[1]	SUBH (Min)[1]	SUBH (Max)[1]	MSUBH (Min)[1]	MSUBH (Max)[1]
Top Parapet	Span	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Span	Varies	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:

1) Values in parentheses are stress ratios.
2) Bridging connectors are not designed for back-back, box, or built-up sections.
3) Reference www.strongtie.com for latest load data, important information, and general notes.
4) CFS Designer will not select bridging connectors unless all flexural and axial bracing settings are the same.
5) If the bracing length is larger than the span length, bridging connectors are not designed.

Project Name: GK PSE - EXTERIOR DESIGN
Model: S10-600 SGL 4.4FT OPNG - GRID E at 4.3
Code: 2012 NASPEC [AISI S100-2012]

Date: 09/30/2024
Simpson Strong-Tie® CFS Designer™ 5.2.6.0



Design Loads

Wall Lateral Pressure :	**14.4 psf**
Parapet Lateral Pressure :	**37.2 psf**
RO Lateral Pressure :	**4-Ways**
Lateral element force multiplier	
Strength :	**1.0**
Deflection :	**0.7**
Header:	**Single Member**
Gravity Load at Header:	**12 psf**
Cant. Deflection:	**2 x Cantilever**

Brace Settings

Component(s)	Members(s)	Flexural Bracing	Axial KyLy	Axial KtLt	Distortional K-Phi(lb-in/in)	Distortional Lm	Interconnection Spacing
Jamb Studs	600S162-54(50), Single	Full	48 in	48 in	0	None	N/A
Vertical Header	600S200-54(50), Y-Y Axis	Full	N/A	N/A	0	None	N/A
Lateral Header	600S200-54(50), Single	Full	N/A	N/A	0	None	N/A

Analysis Results

Component(s)	Members(s)	Axial Load (lb)	Max KL/r	Max. Moment (ft-lb)	Max. Shear (lb)	Bottom Reaction (lb)	Top or End Reaction (lb)
Jamb Studs	600S162-54(50), Single	535.1	87	1195.2	280.4	315.2	251.1
Vertical Header	600S200-54(50), Y-Y Axis	N/A	N/A	357.2	324.7	N/A	324.7
Lateral Header	600S200-54(50), Single	N/A	N/A	179.5	151.6	N/A	151.6

Design Results

Component(s)	Members(s)	Deflection Span	Deflection Parapet	A + M Interaction	V + M Interaction	Web Stiffners	Design OK
Jamb Studs	600S162-54(50), Single	L/466	L/338	0.66	0.48	No	Yes
Vertical Header	600S200-54(50), Y-Y Axis	L/305	NA	0.71	0.71	No	Yes
Lateral Header	600S200-54(50), Single	L/11944	NA	0.08	0.08	No	Yes
Combined Header				0.79	0		

Simpson Strong-Tie® Connectors @ Jambs

Support	Rx(lb)	Ry(lb)	Simpson Strong-Tie® Connector	Connector Interaction	Anchor Interaction
R2	251.09	0.00	IDCB45.5(3) 1/8"SL & (2) #12XLW114B1224 Screws to A36 Steel	50.22 %	61.24 %
R1	315.22	535.12	600T125-43 (33) & (3) .157", 1" embed SST PDPA/PDPAT to 4000 nw concrete	67.76 %	36.68 %

* Reference catalog for connector and anchor requirement notes as well as screw placements requirement

Simpson Strong-Tie® Wall Stud Bridging Connectors @ Jambs

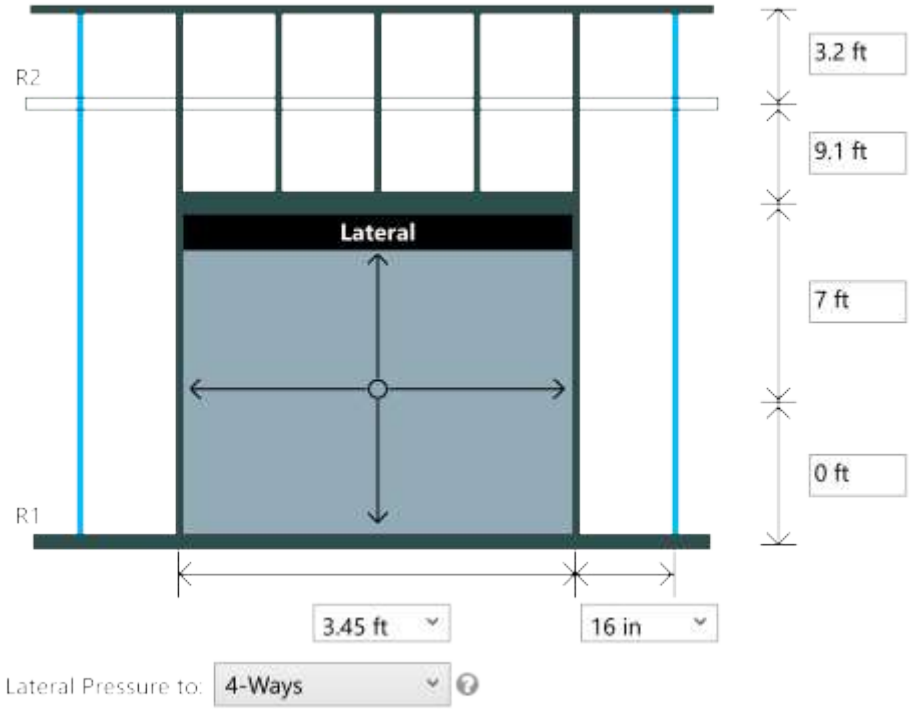
Span/Parapet	Bracing Length(in.)	Design Number of Braces	Pn(lb.)	LSUBH (Min)[1]	LSUBH (Max)[1]	SUBH (Min)[1]	SUBH (Max)[1]	MSUBH (Min)[1]	MSUBH (Max)[1]
Top Parapet	Span	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Span	Varies	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:

1) Values in parentheses are stress ratios.
2) Bridging connectors are not designed for back-back, box, or built-up sections.
3) Reference www.strongtie.com for latest load data, important information, and general notes.
4) CFS Designer will not select bridging connectors unless all flexural and axial bracing settings are the same.
5) If the bracing length is larger than the span length, bridging connectors are not designed.

Project Name: GK PSE - EXTERIOR DESIGN
Model: S11-600 SGL 3.45FT OPNG - GRID E at 4.4
Code: 2012 NASPEC [AISI S100-2012]

Date: 09/30/2024
Simpson Strong-Tie® CFS Designer™ 5.2.6.0



Design Loads

Wall Lateral Pressure :	**14.4 psf**
Parapet Lateral Pressure :	**37.2 psf**
RO Lateral Pressure :	**4-Ways**
Lateral element force multiplier	
Strength :	**1.0**
Deflection :	**0.7**
Header:	**Single Member**
Gravity Load at Header:	**12 psf**
Cant. Deflection:	**2 x Cantilever**

Brace Settings

Component(s)	Members(s)	Flexural Bracing	Axial KyLy	Axial KtLt	Distortional K-Phi(lb-in/in)	Distortional Lm	Interconnection Spacing
Jamb Studs	600S162-54(50), Single	Full	48 in	48 in	0	None	N/A
Vertical Header	600T250-68(50), Y-Y Axis	Full	N/A	N/A	0	None	N/A
Lateral Header	600T250-68(50), Single	Full	N/A	N/A	0	None	N/A

Analysis Results

Component(s)	Members(s)	Axial Load (lb)	Max KL/r	Max. Moment (ft-lb)	Max. Shear (lb)	Bottom Reaction (lb)	Top or End Reaction (lb)
Jamb Studs	600S162-54(50), Single	465.0	85	898.9	227.5	248.9	235.8
Vertical Header	600T250-68(50), Y-Y Axis	N/A	N/A	219.6	254.6	N/A	254.6
Lateral Header	600T250-68(50), Single	N/A	N/A	91.0	98.3	N/A	98.3

Design Results

Component(s)	Members(s)	Deflection Span	Deflection Parapet	A + M Interaction	V + M Interaction	Web Stiffners	Design OK
Jamb Studs	600S162-54(50), Single	L/628	L/476	0.51	0.36	No	Yes
Vertical Header	600T250-68(50), Y-Y Axis	L/504	NA	0.94	0.94	No	Yes
Lateral Header	600T250-68(50), Single	L/35028	NA	0.04	0.04	No	Yes
Combined Header				0.97	0		

Simpson Strong-Tie® Connectors @ Jambs

Support	Rx(lb)	Ry(lb)	Simpson Strong-Tie® Connector	Connector Interaction	Anchor Interaction
R2	235.77	0.00	IDCB45.5(3) 1/8"SL & (2) #12XLW114B1224 Screws to A36 Steel	47.15 %	57.50 %
R1	248.95	465.01	600T125-33 (33) & (2) .157", 3/4" embed SST PDPA/PDPAT to 4000 nw concrete	72.37 %	92.20 %

PRCNC20240216 - Revision #1
Shop drawings - This set will not replace the Approved plan set.

Project Name: GK PSE - EXTERIOR DESIGN
Model: S11-600 SGL 3.45FT OPNG - GRID E at 4.4
Code: 2012 NASPEC [AISI S100-2012]

Simpson Strong-Tie® CFS Designer™ 5.2.6.0

* Reference catalog for connector and anchor requirement notes as well as screw placements requirement

Simpson Strong-Tie® Wall Stud Bridging Connectors @ Jambs

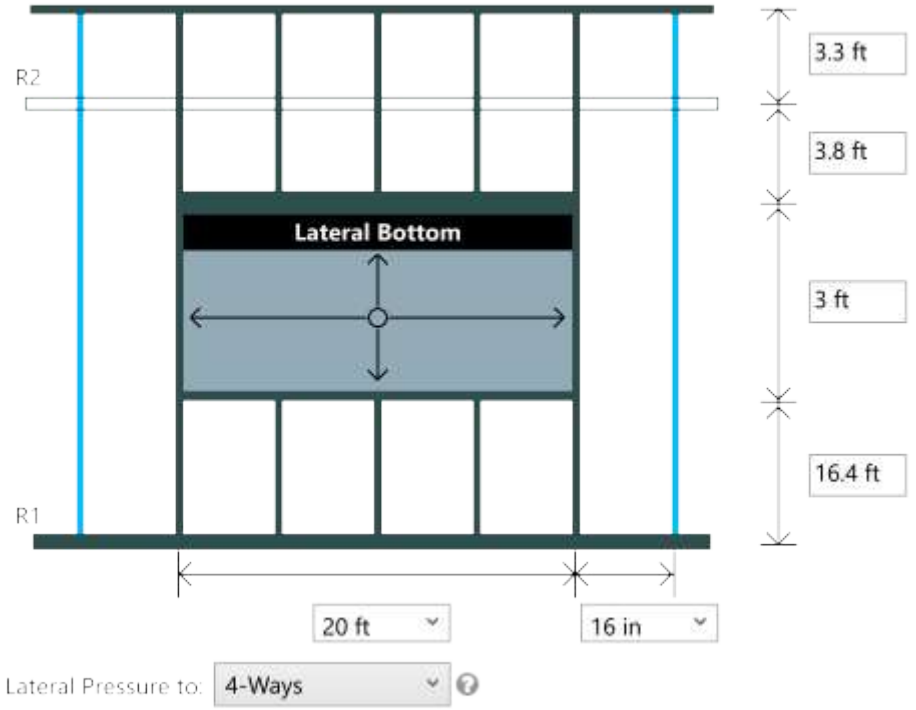
Span/Parapet	Bracing Length(in.)	Design Number of Braces	Pn(lb.)	LSUBH (Min)[1]	LSUBH (Max)[1]	SUBH (Min)[1]	SUBH (Max)[1]	MSUBH (Min)[1]	MSUBH (Max)[1]
Top Parapet	Span	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Span	Varies	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:

1) Values in parentheses are stress ratios.
2) Bridging connectors are not designed for back-back, box, or built-up sections.
3) Reference www.strongtie.com for latest load data, important information, and general notes.
4) CFS Designer will not select bridging connectors unless all flexural and axial bracing settings are the same.
5) If the bracing length is larger than the span length, bridging connectors are not designed.

Project Name: GK PSE - EXTERIOR DESIGN
Model: N81-800 SGL 20FT OPNG - GRID A at 3.2
Code: 2012 NASPEC [AISI S100-2012]

Date: 09/30/2024
Simpson Strong-Tie® CFS Designer™ 5.2.6.0



Design Loads

Wall Lateral Pressure :	**14.4 psf**
Parapet Lateral Pressure :	**37.2 psf**
RO Lateral Pressure :	**4-Ways**
Lateral element force multiplier	
Strength :	**1.0**
Deflection :	**0.7**
Header:	**Box (lateral top, bottom)**
Gravity Load at Header:	**12 psf**
Cant. Deflection:	**2 x Cantilever**

Built-Up Members

Components	Section 1	Section 2	Section 3	Section 4
Sill	800T125-54(50)	800T125-54(50)	800S200-54(50)	

Brace Settings

Component(s)	Members(s)	Flexural Bracing	Axial KyLy	Axial KtLt	Distortional K-Phi(lb-in/in)	Distortional Lm	Interconnection Spacing
Wall Studs	800S162-43(33), Single@16 in o/c	Full	Sheathed	Sheathed	0	None	N/A
Jamb Studs	800S200-68(50), Boxed	Full	48 in	48 in	0	None	12 in
Vertical Header	1000S162-43(33), Boxed	Full	N/A	N/A	0	None	N/A
Lat. Top Head	800T125-54(50), Single	Full	N/A	N/A	0	None	N/A
Lat. Bottom Head	800T125-54(50), Single	Full	N/A	N/A	0	None	N/A
Sill	Built-Up	Full	N/A	N/A	0	None	N/A

Analysis Results

Component(s)	Members(s)	Axial Load (lb)	Max KL/r	Max. Moment (ft-lb)	Max. Shear (lb)	Bottom Reaction (lb)	Top or End Reaction (lb)
Wall Studs	800S162-43(33), Single@16 in o/c	424.0	95	1160.3	234.4	211.1	398.0
Jamb Studs	800S200-68(50), Boxed	1219.2	93	7037.4	1091.4	507.8	1150.1
Vertical Header	1000S162-43(33), Boxed	N/A	N/A	4260.0	852.0	N/A	852.0
Lat. Top Head	800T125-54(50), Single	N/A	N/A	1297.2	259.4	N/A	259.4
Lat. Bottom Head	800T125-54(50), Single	N/A	N/A	1071.9	199.8	N/A	199.8
Sill	Built-Up	N/A	N/A	6975.9	1380.6	N/A	1380.6

Design Results

Component(s)	Members(s)	Deflection		A + M Interaction	V + M Interaction	Web Stiffners	Design OK
		Span	Parapet				
Wall Studs	800S162-43(33), Single@16 in o/c	L/482	L/343	0.891	0.27	No	Yes

PRCNC20240216 - Revision #1
Shop drawings - This set will not replace the Approved plan set.

Project Name: GK PSE - EXTERIOR DESIGN
Model: N81-800 SGL 20FT OPNG - GRID A at 3.2
Code: 2012 NASPEC [AISI S100-2012]

Simpson Strong-Tie® CFS Designer™ 5.2.6.0

Jamb Studs	800S200-68(50), Boxed	L/354	L/202	0.72	0.67	No	Yes
Vertical Header	1000S162-43(33), Boxed	L/347	NA	0.99	0.99	R1, R2	Yes
Lat. Top Head	800T125-54(50), Single	L/479	NA	0.63	0.63	No	Yes
Lat. Bottom Head	800T125-54(50), Single	L/581	NA	0.52	0.10	No	Yes
Sill	Built-Up	L/311		0.974	0.97	R1, R2	Yes

Simpson Strong-Tie® Connectors @ Studs

Support	Rx(lb)	Ry(lb)	Simpson Strong-Tie® Connector	Connector Interaction	Anchor Interaction
R2	398.04	0.00	IDCB45.5(3) 1/8"SL & (2) #12XLW114B1224 Screws to A36 Steel	87.48 %	87.48 %
R1	211.08	424.00	800T125-33 (33) & (1) .157", 1" embed SST PDPA/PDPAT to 4000 nw concrete	82.37 %	95.86 %

* Reference catalog for connector and anchor requirement notes as well as screw placements requirement

Simpson Strong-Tie® Connectors @ Jambs

Support	Rx(lb)	Ry(lb)	Simpson Strong-Tie® Connector	Connector Interaction	Anchor Interaction
R2	1150.09	0.00	(2) IDCB45.5(3) 3/16"SL & (2) #12XLW114B1224 Screws to A36 Steel	77.19 %	84.57 %
R1	507.83	1219.20	800T125-33 (33) & (3) .157" SST PDPA/PDPAT-62KP to steel (3/16" to 1/2" thickness)	73.81 %	76.87 %

* Reference catalog for connector and anchor requirement notes as well as screw placements requirement

Simpson Strong-Tie® Wall Stud Bridging Connectors @ Studs

Span/Parapet	Bracing Length(in.)	Design Number of Braces	Pn(lb.)	LSUBH (Min)[1]	LSUBH (Max)[1]	SUBH (Min)[1]	SUBH (Max)[1]	MSUBH (Min)[1]	MSUBH (Max)[1]
Top Parapet	Span	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Span	Varies	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Simpson Strong-Tie® Wall Stud Bridging Connectors @ Jambs

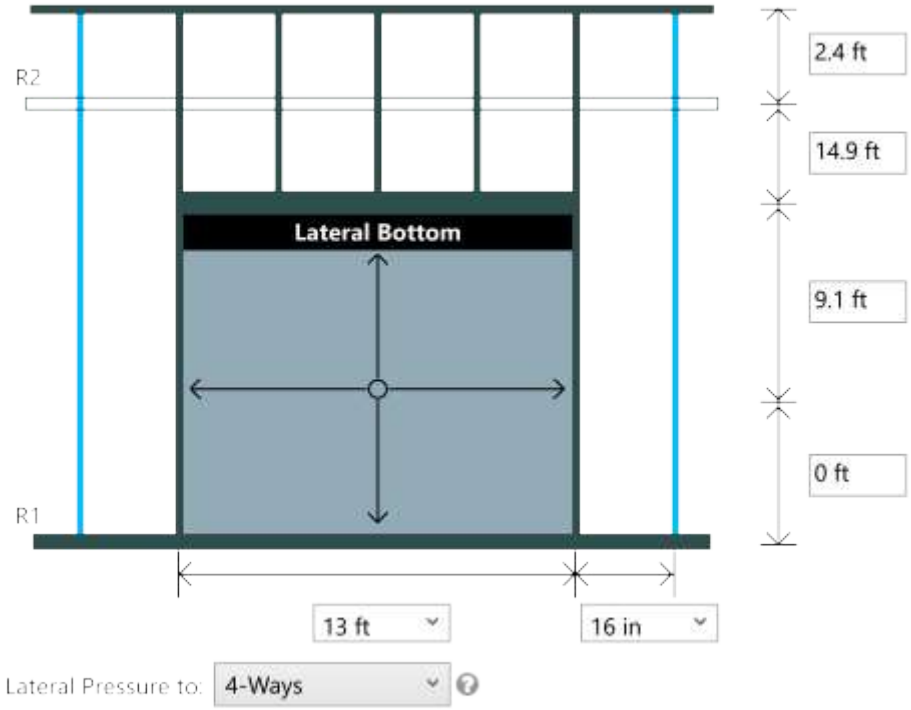
Span/Parapet	Bracing Length(in.)	Design Number of Braces	Pn(lb.)	LSUBH (Min)[1]	LSUBH (Max)[1]	SUBH (Min)[1]	SUBH (Max)[1]	MSUBH (Min)[1]	MSUBH (Max)[1]
Top Parapet	Span	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Span	Varies	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:

1) Values in parentheses are stress ratios.
2) Bridging connectors are not designed for back-back, box, or built-up sections.
3) Reference www.strongtie.com for latest load data, important information, and general notes.
4) CFS Designer will not select bridging connectors unless all flexural and axial bracing settings are the same.
5) If the bracing length is larger than the span length, bridging connectors are not designed.

Project Name: GK PSE - EXTERIOR DESIGN
Model: W84b-800 SGL 13.3FT OPNG - GRID 2 at B
Code: 2012 NASPEC [AISI S100-2012]

Date: 09/30/2024
Simpson Strong-Tie® CFS Designer™ 5.2.6.0



Design Loads

Wall Lateral Pressure :	**14.4 psf**
Parapet Lateral Pressure :	**37.2 psf**
RO Lateral Pressure :	**4-Ways**
Lateral element force multiplier	
Strength :	**1.0**
Deflection :	**0.7**
Header:	**Box (lateral top, bottom)**
Gravity Load at Header:	**12 psf**
Cant. Deflection:	**2 x Cantilever**

Back-to-Back Member L/6 Interconnection Spacing per AISI S100 D1.1

Member	Span	Cantilever
Jamb Studs	48.0 in	4.8 in

See AISI S100 D1.1 for Add'nl Requirements

Brace Settings

Component(s)	Members(s)	Flexural Bracing	Axial KyLy	Axial KtLt	Distortional K-Phi(lb-in/in)	Distortional Lm	Interconnection Spacing
Jamb Studs	800S200-68(50), Back-To-Back	Full	48 in	48 in	0	None	12 in
Vertical Header	1000S200-43(33), Boxed	Full	N/A	N/A	0	None	N/A
Lat. Top Head	800T200-54(50), Single	Full	N/A	N/A	0	None	N/A
Lat. Bottom Head	800T200-54(50), Single	Full	N/A	N/A	0	None	N/A

Analysis Results

Component(s)	Members(s)	Axial Load (lb)	Max KL/r	Max. Moment (ft-lb)	Max. Shear (lb)	Bottom Reaction (lb)	Top or End Reaction (lb)
Jamb Studs	800S200-68(50), Back-To-Back	1349.4	96	6705.3	929.6	1206.4	585.9
Vertical Header	1000S200-43(33), Boxed	N/A	N/A	4385.6	1349.4	N/A	1349.4
Lat. Top Head	800T200-54(50), Single	N/A	N/A	2114.4	650.6	N/A	650.6
Lat. Bottom Head	800T200-54(50), Single	N/A	N/A	1158.0	276.8	N/A	276.8

Design Results

Component(s)	Members(s)	Deflection		A + M Interaction	V + M Interaction	Web Stiffners	Design OK
		Span	Parapet				
Jamb Studs	800S200-68(50), Back-To-Back	L/345	L/245	0.821	0.62	No	Yes
Vertical Header	1000S200-43(33), Boxed	L/593	NA	0.91	0.91	R1, R2	Yes
Lat. Top Head	800T200-54(50), Single	L/526	NA	0.97	0.97	R1, R2	Yes
Lat. Bottom Head	800T200-54(50), Single	L/988	NA	0.53	0.14	No	Yes

Simpson Strong-Tie® Connectors @ Jambs

Support	Rx(lb)	Ry(lb)	Simpson Strong-Tie® Connector	Connector Interaction	Anchor Interaction
R2	585.85	0.00	By Others & Anchorage Designed by Engineer	NA	NA

R1	1206.41	1633.40	By Others & Anchorage Designed by Engineer	NA	NA

* Reference catalog for connector and anchor requirement notes as well as screw placements requirement

Simpson Strong-Tie® Wall Stud Bridging Connectors @ Jambs

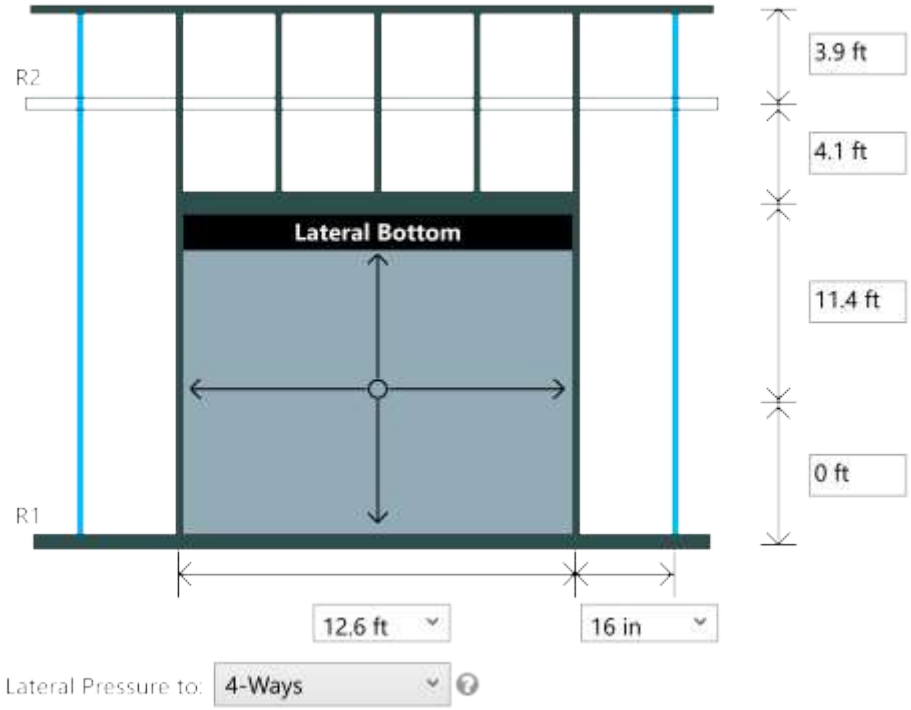
Span/Parapet	Bracing Length(in.)	Design Number of Braces	Pn(lb.)	LSUBH (Min)[1]	LSUBH (Max)[1]	SUBH (Min)[1]	SUBH (Max)[1]	MSUBH (Min)[1]	MSUBH (Max)[1]
Top Parapet	Span	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Span	Varies	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:

1) Values in parentheses are stress ratios.
2) Bridging connectors are not designed for back-back, box, or built-up sections.
3) Reference www.strongtie.com for latest load data, important information, and general notes.
4) CFS Designer will not select bridging connectors unless all flexural and axial bracing settings are the same.
5) If the bracing length is larger than the span length, bridging connectors are not designed.

Project Name: GK PSE - EXTERIOR DESIGN
Model: E1-600 SGL 12.6FT OPNG - GRID 5 at D.2
Code: 2012 NASPEC [AISI S100-2012]

Date: 09/30/2024
Simpson Strong-Tie® CFS Designer™ 5.2.6.0



Design Loads

Wall Lateral Pressure :	**14.4 psf**
Parapet Lateral Pressure :	**37.2 psf**
RO Lateral Pressure :	**4-Ways**
Lateral element force multiplier	
Strength :	**1.0**
Deflection :	**0.7**
Header:	**Box (lateral top, bottom)**
Gravity Load at Header:	**12 psf**
Cant. Deflection:	**2 x Cantilever**

Built-Up Members

Components	Section 1	Section 2	Section 3	Section 4
Sill	600S162-68(50)	600T300-68(50)		

Brace Settings

Component(s)	Members(s)	Flexural Bracing	Axial KyLy	Axial KtLt	Distortional K-Phi(lb-in/in)	Distortional Lm	Interconnection Spacing
Wall Studs	600S162-33(33), Single@16 in o/c	Full	Sheathed	Sheathed	0	None	N/A
Jamb Studs	600S162-54(50), Single	Full	48 in	48 in	0	None	N/A
Vertical Header	600S162-43(33), Boxed	Full	N/A	N/A	0	None	N/A
Lat. Top Head	600T125-54(50), Single	Full	N/A	N/A	0	None	N/A
Lat. Bottom Head	600T125-54(50), Single	Full	N/A	N/A	0	None	N/A

Analysis Results

Component(s)	Members(s)	Axial Load (lb)	Max KL/r	Max. Moment (ft-lb)	Max. Shear (lb)	Bottom Reaction (lb)	Top or End Reaction (lb)
Wall Studs	600S162-33(33), Single@16 in o/c	310.4	82	403.4	193.4	124.5	366.6
Jamb Studs	600S162-54(50), Single	851.2	84	1527.6	367.2	650.3	380.7
Vertical Header	600S162-43(33), Boxed	N/A	N/A	1905.1	604.8	N/A	604.8
Lat. Top Head	600T125-54(50), Single	N/A	N/A	783.5	248.7	N/A	248.7
Lat. Bottom Head	600T125-54(50), Single	N/A	N/A	1184.4	283.2	N/A	283.2

Design Results

Component(s)	Members(s)	Deflection		A + M Interaction	V + M Interaction	Web Stiffners	Design OK
		Span	Parapet				
Wall Studs	600S162-33(33), Single@16 in o/c	L/920	L/1584	0.634	0.50	Yes	Yes
Jamb Studs	600S162-54(50), Single	L/364	L/266	0.92	0.60	Yes	Yes
Vertical Header	600S162-43(33), Boxed	L/379	NA	0.69	0.69	R1, R2	Yes

Lat. Top Head	600T125-54(50), Single	L/638	NA	0.53	0.53	No	Yes
Lat. Bottom Head	600T125-54(50), Single	L/439	NA	0.80	0.10	No	Yes

Simpson Strong-Tie® Connectors @ Studs

Support	Rx(lb)	Ry(lb)	Simpson Strong-Tie® Connector	Connector Interaction	Anchor Interaction
R2	366.58	0.00	IDCB45.5(3) 1/8"SL & (2) #12XLW114B1224 Screws to A36 Steel	89.41 %	89.41 %
R1	124.46	310.40	600T125-33 (33) & (1) .157", 1" embed SST PDPA/PDPAT to 4000 nw concrete	51.22 %	56.52 %

* Reference catalog for connector and anchor requirement notes as well as screw placements requirement

Simpson Strong-Tie® Connectors @ Jambs

Support	Rx(lb)	Ry(lb)	Simpson Strong-Tie® Connector	Connector Interaction	Anchor Interaction
R2	380.67	0.00	IDCB45.5(3) 1/8"SL & (2) #12XLW114B1224 Screws to A36 Steel	76.13 %	92.85 %
R1	650.32	851.20	FCB43.5 Min(4#12-14) & Anchorage Designed by Engineer (Base Clip)	52.66 %	NA

* Reference catalog for connector and anchor requirement notes as well as screw placements requirement

Simpson Strong-Tie® Wall Stud Bridging Connectors @ Studs

Span/Parapet	Bracing Length(in.)	Design Number of Braces	Pn(lb.)	LSUBH (Min)[1]	LSUBH (Max)[1]	SUBH (Min)[1]	SUBH (Max)[1]	MSUBH (Min)[1]	MSUBH (Max)[1]
Top Parapet	Span	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Span	Varies	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Simpson Strong-Tie® Wall Stud Bridging Connectors @ Jambs

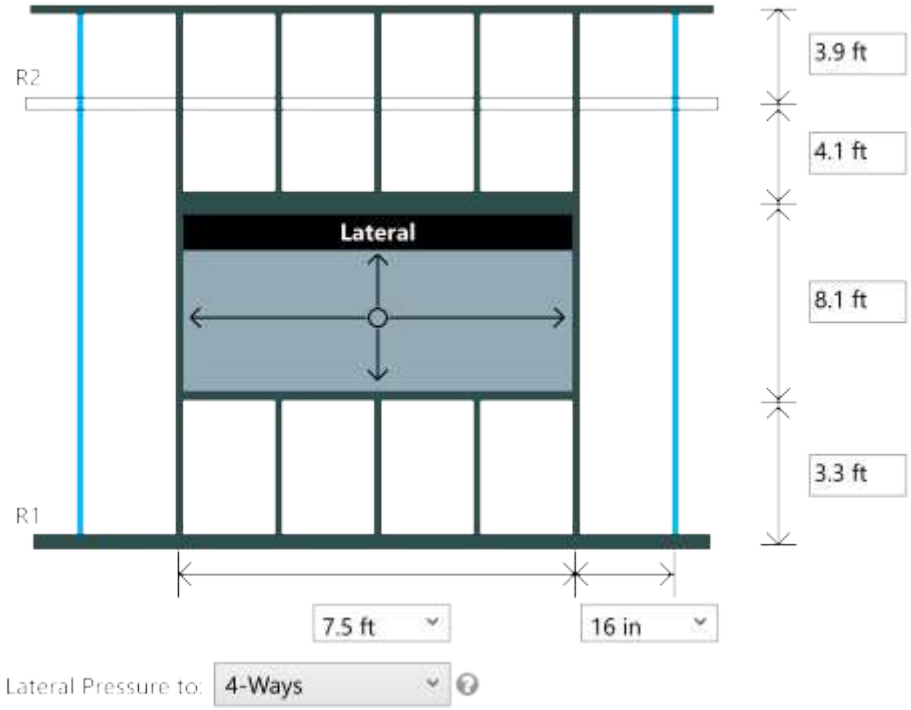
Span/Parapet	Bracing Length(in.)	Design Number of Braces	Pn(lb.)	LSUBH (Min)[1]	LSUBH (Max)[1]	SUBH (Min)[1]	SUBH (Max)[1]	MSUBH (Min)[1]	MSUBH (Max)[1]
Top Parapet	Span	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Span	Varies	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:

1) Values in parentheses are stress ratios.
2) Bridging connectors are not designed for back-back, box, or built-up sections.
3) Reference www.strongtie.com for latest load data, important information, and general notes.
4) CFS Designer will not select bridging connectors unless all flexural and axial bracing settings are the same.
5) If the bracing length is larger than the span length, bridging connectors are not designed.

Project Name: GK PSE - EXTERIOR DESIGN
Model: E2b-600 SGL 7.5FT OPNG - GRID 5 at D
Code: 2012 NASPEC [AISI S100-2012]

Date: 09/30/2024
Simpson Strong-Tie® CFS Designer™ 5.2.6.0



Design Loads

Wall Lateral Pressure :	**14.4 psf**
Parapet Lateral Pressure :	**37.2 psf**
RO Lateral Pressure :	**4-Ways**
Lateral element force multiplier	
Strength :	**1.0**
Deflection :	**0.7**
Header:	**Single Member**
Gravity Load at Header:	**12 psf**
Cant. Deflection:	**2 x Cantilever**

Brace Settings

Component(s)	Members(s)	Flexural Bracing	Axial KyLy	Axial KtLt	Distortional K-Phi(lb-in/in)	Distortional Lm	Interconnection Spacing
Jamb Studs	600S162-54(50), Single	Full	48 in	48 in	0	None	N/A
Vertical Header	600S300-68(50), Y-Y Axis	Full	N/A	N/A	0	None	N/A
Lateral Header	600S300-68(50), Single	Full	N/A	N/A	0	None	N/A
Sill	600T125-33(33), Single	Full	N/A	N/A	0	None	N/A

Analysis Results

Component(s)	Members(s)	Axial Load (lb)	Max KL/r	Max. Moment (ft-lb)	Max. Shear (lb)	Bottom Reaction (lb)	Top or End Reaction (lb)
Jamb Studs	600S162-54(50), Single	606.4	84	1210.2	323.2	323.2	300.8
Vertical Header	600S300-68(50), Y-Y Axis	N/A	N/A	675.0	360.0	N/A	360.0
Lateral Header	600S300-68(50), Single	N/A	N/A	34.3	46.8	N/A	46.8
Sill	600T125-33(33), Single	N/A	N/A	420.2	190.4	N/A	190.4

Design Results

Component(s)	Members(s)	Deflection Span	Deflection Parapet	A + M Interaction	V + M Interaction	Web Stiffners	Design OK
Jamb Studs	600S162-54(50), Single	L/466	L/368	0.68	0.48	No	Yes
Vertical Header	600S300-68(50), Y-Y Axis	L/331	NA	0.59	0.59	No	Yes
Lateral Header	600S300-68(50), Single	L/56516	NA	0.01	0.02	No	Yes
Combined Header				0.60	0		
Sill	600T125-33(33), Single	L/1149	NA	0.86	0.86	R1, R2	Yes

Simpson Strong-Tie® Connectors @ Jambs

Support	Rx(lb)	Ry(lb)	Simpson Strong-Tie® Connector	Connector Interaction	Anchor Interaction
R2	300.78	0.00	IDCB45.5(3) 1/8"SL & (2) #12XLW114B1224 Screws to A36	60.16 %	73.36 %

			Steel		
R1	323.19	606.40	FCB43.5 Min(4#12-14) & Anchorage Designed by Engineer (Base Clip)	26.17 %	NA

* Reference catalog for connector and anchor requirement notes as well as screw placements requirement

Simpson Strong-Tie® Wall Stud Bridging Connectors @ Jambs

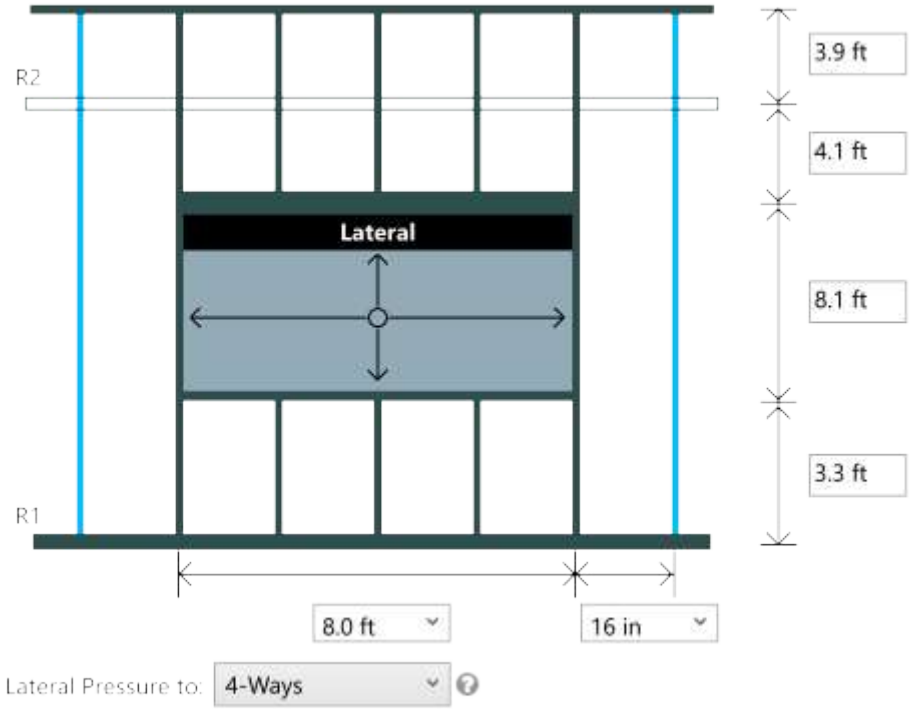
Span/Parapet	Bracing Length(in.)	Design Number of Braces	Pn(lb.)	LSUBH (Min)[1]	LSUBH (Max)[1]	SUBH (Min)[1]	SUBH (Max)[1]	MSUBH (Min)[1]	MSUBH (Max)[1]
Top Parapet	Span	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Span	Varies	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:

1) Values in parentheses are stress ratios.
2) Bridging connectors are not designed for back-back, box, or built-up sections.
3) Reference www.strongtie.com for latest load data, important information, and general notes.
4) CFS Designer will not select bridging connectors unless all flexural and axial bracing settings are the same.
5) If the bracing length is larger than the span length, bridging connectors are not designed.

Project Name: GK PSE - EXTERIOR DESIGN
Model: E2-600 SGL 8FT OPNG - GRID 5 at C.3
Code: 2012 NASPEC [AISI S100-2012]

Date: 09/30/2024
Simpson Strong-Tie® CFS Designer™ 5.2.6.0



Design Loads

Wall Lateral Pressure :	**14.4 psf**
Parapet Lateral Pressure :	**37.2 psf**
RO Lateral Pressure :	**4-Ways**
Lateral element force multiplier	
Strength :	**1.0**
Deflection :	**0.7**
Header:	**Single Member**
Gravity Load at Header:	**12 psf**
Cant. Deflection:	**2 x Cantilever**

Brace Settings

Component(s)	Members(s)	Flexural Bracing	Axial KyLy	Axial KtLt	Distortional K-Phi(lb-in/in)	Distortional Lm	Interconnection Spacing
Jamb Studs	600S162-54(50), Single	Full	48 in	48 in	0	None	N/A
Vertical Header	600S300-68(50), Y-Y Axis	Full	N/A	N/A	0	None	N/A
Lateral Header	600S300-68(50), Single	Full	N/A	N/A	0	None	N/A
Sill	600T125-43(33), Single	Full	N/A	N/A	0	None	N/A

Analysis Results

Component(s)	Members(s)	Axial Load (lb)	Max KL/r	Max. Moment (ft-lb)	Max. Shear (lb)	Bottom Reaction (lb)	Top or End Reaction (lb)
Jamb Studs	600S162-54(50), Single	630.4	84	1259.9	340.6	340.6	308.6
Vertical Header	600S300-68(50), Y-Y Axis	N/A	N/A	768.0	384.0	N/A	384.0
Lateral Header	600S300-68(50), Single	N/A	N/A	27.8	42.7	N/A	42.7
Sill	600T125-43(33), Single	N/A	N/A	497.3	210.2	N/A	210.2

Design Results

Component(s)	Members(s)	Deflection Span	Deflection Parapet	A + M Interaction	V + M Interaction	Web Stiffners	Design OK
Jamb Studs	600S162-54(50), Single	L/446	L/350	0.71	0.50	No	Yes
Vertical Header	600S300-68(50), Y-Y Axis	L/273	NA	0.67	0.67	No	Yes
Lateral Header	600S300-68(50), Single	L/87557	NA	0.01	0.01	No	Yes
Combined Header				0.67	0		
Sill	600T125-43(33), Single	L/1280	NA	0.65	0.65	R1, R2	Yes

Simpson Strong-Tie® Connectors @ Jambs

Support	Rx(lb)	Ry(lb)	Simpson Strong-Tie® Connector	Connector Interaction	Anchor Interaction
R2	308.61	0.00	IDCB45.5(3) 1/8"SL & (2) #12XLW114B1224 Screws to A36	61.72 %	75.27 %

PRCNC20240216 - Revision #1
Shop drawings - This set will not replace the Approved plan set.

Project Name: GK PSE - EXTERIOR DESIGN
Model: E2-600 SGL 8FT OPNG - GRID 5 at C.3
Code: 2012 NASPEC [AISI S100-2012]

Simpson Strong-Tie® CFS Designer™ 5.2.6.0

			Steel		
R1	340.58	630.40	FCB43.5 Min(4#12-14) & Anchorage Designed by Engineer (Base Clip)	27.58 %	NA

* Reference catalog for connector and anchor requirement notes as well as screw placements requirement

Simpson Strong-Tie® Wall Stud Bridging Connectors @ Jambs

Span/Parapet	Bracing Length(in.)	Design Number of Braces	Pn(lb.)	LSUBH (Min)[1]	LSUBH (Max)[1]	SUBH (Min)[1]	SUBH (Max)[1]	MSUBH (Min)[1]	MSUBH (Max)[1]
Top Parapet	Span	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Span	Varies	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

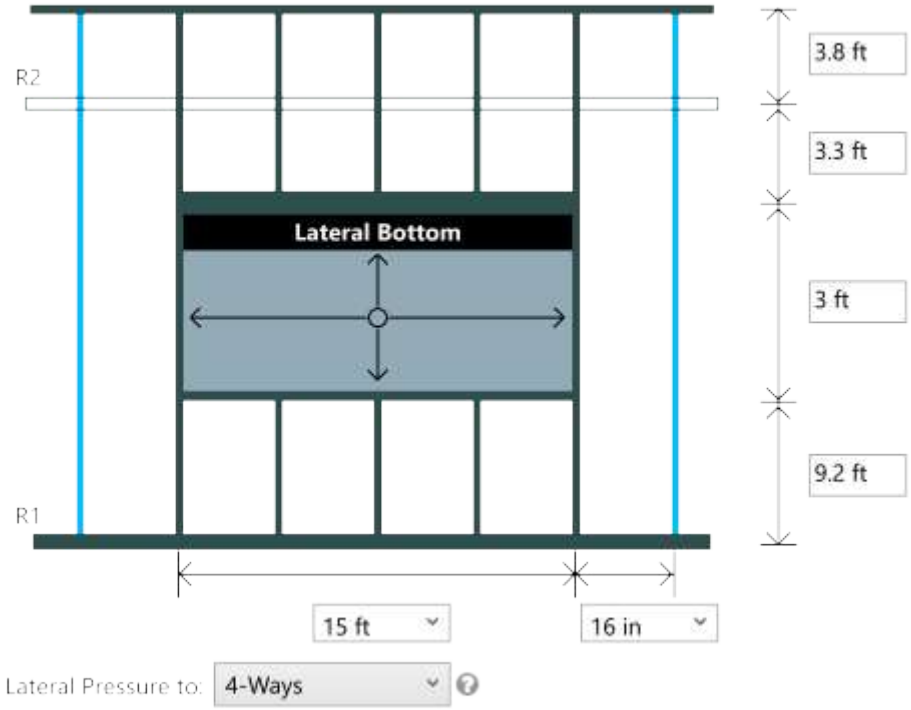
Notes:

1) Values in parentheses are stress ratios.
2) Bridging connectors are not designed for back-back, box, or built-up sections.
3) Reference www.strongtie.com for latest load data, important information, and general notes.
4) CFS Designer will not select bridging connectors unless all flexural and axial bracing settings are the same.
5) If the bracing length is larger than the span length, bridging connectors are not designed.

PRCNC20240216 - Revision #1
Shop drawings - This set will not replace the Approved plan set.

Project Name: GK PSE - EXTERIOR DESIGN
Model: S2-600 SGL 15FT OPNG - GRID E at 2.7
Code: 2012 NASPEC [AISI S100-2012]

Date: 09/30/2024
Simpson Strong-Tie® CFS Designer™ 5.2.6.0



Design Loads

Wall Lateral Pressure :	**14.4 psf**
Parapet Lateral Pressure :	**37.2 psf**
RO Lateral Pressure :	**4-Ways**
Lateral element force multiplier	
Strength :	**1.0**
Deflection :	**0.7**
Header:	**Box (lateral top, bottom)**
Gravity Load at Header:	**12 psf**
Cant. Deflection:	**2 x Cantilever**

Brace Settings

Component(s)	Members(s)	Flexural Bracing	Axial KyLy	Axial KtLt	Distortional K-Phi(lb-in/in)	Distortional Lm	Interconnection Spacing
Jamb Studs	600S162-68(50), Single	Full	48 in	48 in	0	None	N/A
Vertical Header	600S162-43(33), Boxed	Full	N/A	N/A	0	None	N/A
Lat. Top Head	600T200-54(50), Single	Full	N/A	N/A	0	None	N/A
Lat. Bottom Head	600T200-54(50), Single	Full	N/A	N/A	0	None	N/A
Sill	600S162-68(50), Single	Full	N/A	N/A	0	None	N/A

Analysis Results

Component(s)	Members(s)	Axial Load (lb)	Max KL/r	Max. Moment (ft-lb)	Max. Shear (lb)	Bottom Reaction (lb)	Top or End Reaction (lb)
Jamb Studs	600S162-68(50), Single	891.0	86	2106.1	519.0	273.1	358.5
Vertical Header	600S162-43(33), Boxed	N/A	N/A	2396.2	639.0	N/A	639.0
Lat. Top Head	600T200-54(50), Single	N/A	N/A	1620.8	432.2	N/A	432.2
Lat. Bottom Head	600T200-54(50), Single	N/A	N/A	599.4	145.8	N/A	145.8
Sill	600S162-68(50), Single	N/A	N/A	2462.4	642.6	N/A	642.6

Design Results

Component(s)	Members(s)	Deflection Span	Deflection Parapet	A + M Interaction	V + M Interaction	Web Stiffners	Design OK
Jamb Studs	600S162-68(50), Single	L/393	L/282	0.84	0.66	No	Yes
Vertical Header	600S162-43(33), Boxed	L/253	NA	0.86	0.86	R1, R2	Yes
Lat. Top Head	600T200-54(50), Single	L/305	NA	0.91	0.91	No	Yes
Lat. Bottom Head	600T200-54(50), Single	L/827	NA	0.33	0.05	No	Yes
Sill	600S162-68(50), Single	L/268	NA	0.83	0.75	No	Yes

Simpson Strong-Tie® Connectors @ Jambs

	Connector	Anchor

PRCNC20240216 - Revision #1
Shop drawings - This set will not replace the Approved plan set.

Project Name: GK PSE - EXTERIOR DESIGN
Model: S2-600 SGL 15FT OPNG - GRID E at 2.7
Code: 2012 NASPEC [AISI S100-2012]

Simpson Strong-Tie® CFS Designer™ 5.2.6.0

Support	Rx(lb)	Ry(lb)	Simpson Strong-Tie® Connector	Interaction	Interaction
R2	358.53	0.00	SCB45.5(2) & (3) SST 0.157 PDPAT-62KP to A36 Steel	47.18 %	61.29 %
R1	273.09	891.00	600T125-33 (33) & (2) .157", 1" embed SST PDPA/PDPAT to 4000 nw concrete	39.69 %	62.01 %

* Reference catalog for connector and anchor requirement notes as well as screw placements requirement

Simpson Strong-Tie® Wall Stud Bridging Connectors @ Jambs

Span/Parapet	Bracing Length(in.)	Design Number of Braces	Pn(lb.)	LSUBH (Min)[1]	LSUBH (Max)[1]	SUBH (Min)[1]	SUBH (Max)[1]	MSUBH (Min)[1]	MSUBH (Max)[1]
Top Parapet	Span	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Span	Varies	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

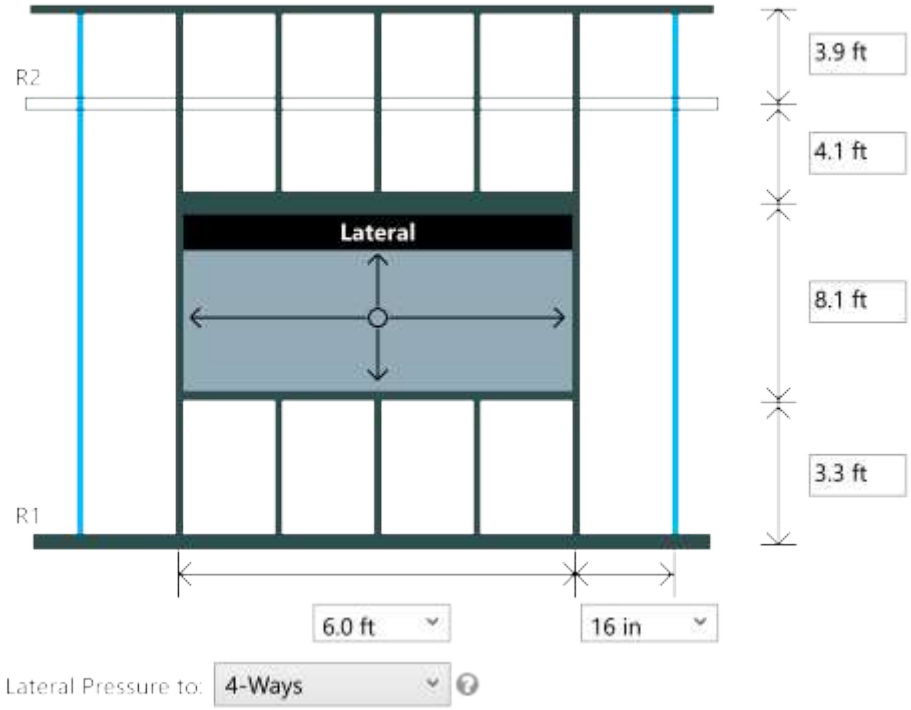
Notes:

1) Values in parentheses are stress ratios.
2) Bridging connectors are not designed for back-back, box, or built-up sections.
3) Reference www.strongtie.com for latest load data, important information, and general notes.
4) CFS Designer will not select bridging connectors unless all flexural and axial bracing settings are the same.
5) If the bracing length is larger than the span length, bridging connectors are not designed.

PRCNC20240216 - Revision #1
Shop drawings - This set will not replace the Approved plan set.

Project Name: GK PSE - EXTERIOR DESIGN
Model: E3-600 SGL 6FT OPNG - GRID 4 at A.8
Code: 2012 NASPEC [AISI S100-2012]

Date: 09/30/2024
Simpson Strong-Tie® CFS Designer™ 5.2.6.0



Design Loads

Wall Lateral Pressure :	**14.4 psf**
Parapet Lateral Pressure :	**37.2 psf**
RO Lateral Pressure :	**4-Ways**
Lateral element force multiplier	
Strength :	**1.0**
Deflection :	**0.7**
Header:	**Single Member**
Gravity Load at Header:	**12 psf**
Cant. Deflection:	**2 x Cantilever**

Brace Settings

Component(s)	Members(s)	Flexural Bracing	Axial KyLy	Axial KtLt	Distortional K-Phi(lb-in/in)	Distortional Lm	Interconnection Spacing
Jamb Studs	600S162-54(50), Single	Full	48 in	48 in	0	None	N/A
Vertical Header	600S250-54(50), Y-Y Axis	Full	N/A	N/A	0	None	N/A
Lateral Header	600S250-54(50), Single	Full	N/A	N/A	0	None	N/A
Sill	600T125-33(33), Single	Full	N/A	N/A	0	None	N/A

Analysis Results

Component(s)	Members(s)	Axial Load (lb)	Max KL/r	Max. Moment (ft-lb)	Max. Shear (lb)	Bottom Reaction (lb)	Top or End Reaction (lb)
Jamb Studs	600S162-54(50), Single	534.4	84	1044.6	271.0	271.0	277.3
Vertical Header	600S250-54(50), Y-Y Axis	N/A	N/A	432.0	288.0	N/A	288.0
Lateral Header	600S250-54(50), Single	N/A	N/A	48.2	53.6	N/A	53.6
Sill	600T125-33(33), Single	N/A	N/A	236.5	136.1	N/A	136.1

Design Results

Component(s)	Members(s)	Deflection Span	Deflection Parapet	A + M Interaction	V + M Interaction	Web Stiffners	Design OK
Jamb Studs	600S162-54(50), Single	L/546	L/440	0.59	0.41	No	Yes
Vertical Header	600S250-54(50), Y-Y Axis	L/313	NA	0.62	0.62	No	Yes
Lateral Header	600S250-54(50), Single	L/33113	NA	0.02	0.03	No	Yes
Combined Header				0.65	0		
Sill	600T125-33(33), Single	L/2546	NA	0.48	0.48	R1, R2	Yes

Simpson Strong-Tie® Connectors @ Jambs

Support	Rx(lb)	Ry(lb)	Simpson Strong-Tie® Connector	Connector Interaction	Anchor Interaction
R2	277.28	0.00	IDCB45.5(3) 1/8"SL & (2) #12XLW114B1224 Screws to A36	55.46 %	67.63 %

			Steel			
R1	271.00	534.40	FCB43.5 Min(4#12-14) & Anchorage Designed by Engineer (Base Clip)	21.94 %	NA

* Reference catalog for connector and anchor requirement notes as well as screw placements requirement

Simpson Strong-Tie® Wall Stud Bridging Connectors @ Jambs

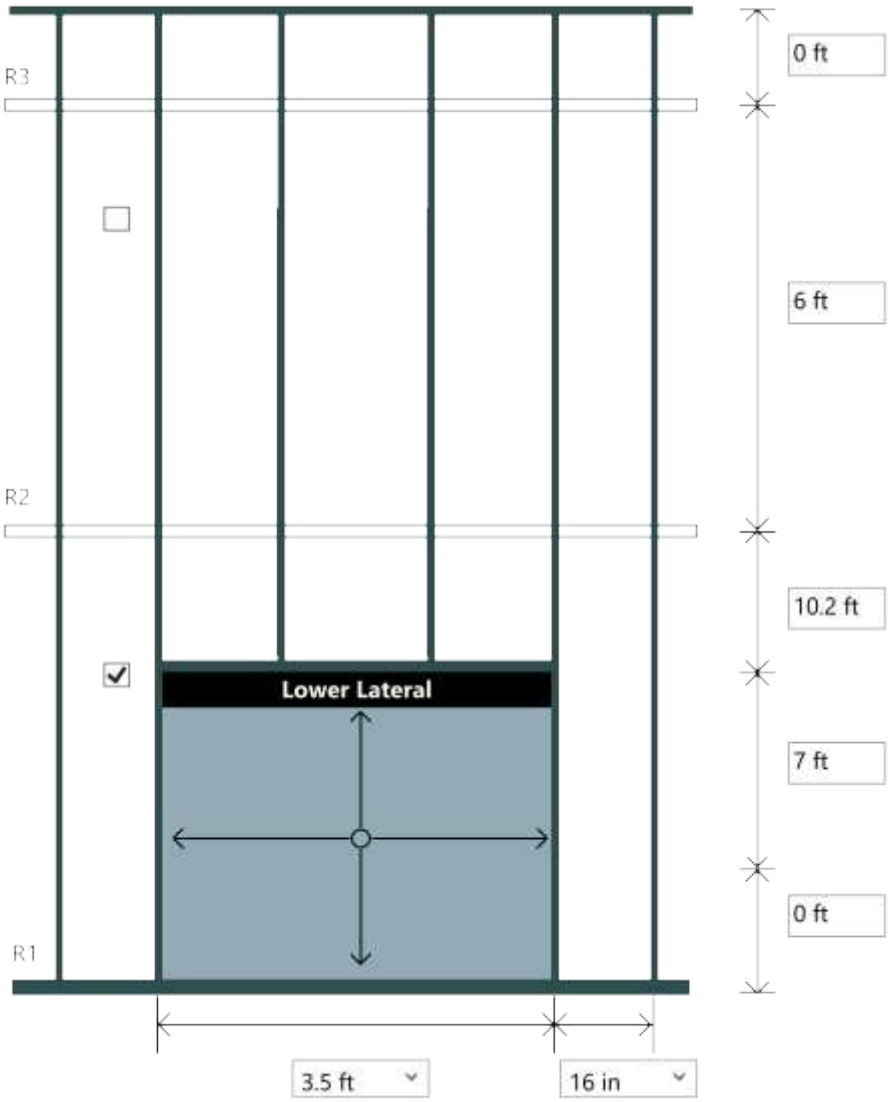
Span/Parapet	Bracing Length(in.)	Design Number of Braces	Pn(lb.)	LSUBH (Min)[1]	LSUBH (Max)[1]	SUBH (Min)[1]	SUBH (Max)[1]	MSUBH (Min)[1]	MSUBH (Max)[1]
Top Parapet	Span	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Span	Varies	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:

1) Values in parentheses are stress ratios.
2) Bridging connectors are not designed for back-back, box, or built-up sections.
3) Reference www.strongtie.com for latest load data, important information, and general notes.
4) CFS Designer will not select bridging connectors unless all flexural and axial bracing settings are the same.
5) If the bracing length is larger than the span length, bridging connectors are not designed.

Project Name: GK PSE - EXTERIOR DESIGN
Model: W2-600 2-story 3.5w X 17.2h - Grid 2 @ C.1
Code: 2012 NASPEC [AISI S100-2012]

Date: 09/30/2024
Simpson Strong-Tie® CFS Designer™ 5.2.6.0



Design Loads

Wall Top Span Pressure :	**14.4 psf**
Wall Bottom Span Pressure :	**14.4 psf**
Parapet Lateral Pressure :	
RO Lateral Pressure (bottom) :	**4-Ways**
Lateral element force multiplier	
Strength :	**1.0**
Deflection :	**0.7**
Bottom Header:	**Single Member**
Wall Self Weight	**12 psf**
Window Self Weight	**9 psf**
Cant. Deflection:	**2 (Cantilever)**

Brace Settings

Component(s)	Members(s)	Flexural Bracing	Axial KyLy	Axial KtLt	Distortional K-Phi(lb-in/in)	Distortional Lm	Interconnection Spacing
Wall Studs	600S162-33(33), Single@16 in o/c	Full	Sheathed	Sheathed	0	None	N/A
Jamb Studs	600S162-43(33), Single	Full	48 in	48 in	0	None	N/A
Lower							
Vertical Header	600S250-43(33), Y-Y Axis	Full	N/A	N/A	0	None	N/A
Lateral Header	600S250-43(33), Single	Full	N/A	N/A	0	None	N/A

Analysis Results

Component(s)	Members(s)	Axial Load (lb)	Max KL/r	Max. Moment (ft-lb)	Max. Shear (lb)	End Reaction (lb)
Wall Studs	600S162-33(33), Single@16 in o/c	371.2	90	548.7	197.0	N/A

Jamb Studs	600S162-43(33), Single	525.8	91	853.3	221.7	N/A
Lower						
Vertical Header	600S250-43(33), Y-Y Axis	N/A	N/A	297.7	340.2	340.2
Lateral Header	600S250-43(33), Single	N/A	N/A	116.9	126.2	126.2

Design Results

Component(s)	Members(s)	Deflection Span	Deflection Parapet	A + M Interaction	V + M Interaction	Web Stiffners	Design OK
Wall Studs	600S162-33(33), Single@16 in o/c	L/758	L/0	0.74	0.65	No	Yes
Jamb Studs	600S162-43(33), Single	L/613	L/0	0.90	0.62	No	Yes
Lower							
Vertical Header	600S250-43(33), Y-Y Axis	L/625	NA	0.80	0.80	No	Yes
Lateral Header	600S250-43(33), Single	L/21359	NA	0.09	0.10	No	Yes
Combined Header				0.89	0		

Simpson Strong-Tie® Connectors @ Studs

Support	Rx(lb)	Ry(lb)	Simpson Strong-Tie® Connector	Connector Interaction	Anchor Interaction
R3	-33.86	0.00	SCB45.5(2) & (2) #12-24 SST X or XL to A36 Steel	6.91 %	3.04 %
R2	346.08	0.00	SCB45.5(2) & (2) #12-24 SST X or XL to A36 Steel	70.63 %	31.04 %
R1	133.22	371.20	600T125-33 (33) & (1) .157" SST PDPA/PDPAT-62KP to steel (3/16" to 1/2" thickness)	54.83 %	60.50 %

Simpson Strong-Tie® Connectors @ Jambs

Support	Rx(lb)	Ry(lb)	Simpson Strong-Tie® Connector	Connector Interaction	Anchor Interaction
R3	-89.15	0.00	600T250-43 (33) & Anchorage Designed by Engineer	72.23 %	NA
R2	348.75	0.00	IDCB45.5(3) 1/8"SL & (2) #12XLW114B1224 Screws to A36 Steel	76.65 %	76.65 %
R1	287.80	525.80	600T125-33 (33) & (2) .157", 1" embed SST PDPA/PDPAT to 4000 nw concrete	70.19 %	65.35 %

Simpson Strong-Tie® Wall Stud Bridging Connectors @ Studs

Span/Parapet	Bracing Length(in.)	Design Number of Braces	Pn(lb.)	LSUBH (Min)[1]	LSUBH (Max)[1]	SUBH (Min)[1]	SUBH (Max)[1]	MSUBH (Min)[1]	MSUBH (Max)[1]
Top Span	Varies	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bottom Span	Varies	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Simpson Strong-Tie® Wall Stud Bridging Connectors @ Jambs

Span/Parapet	Bracing Length(in.)	Design Number of Braces	Pn(lb.)	LSUBH (Min)[1]	LSUBH (Max)[1]	SUBH (Min)[1]	SUBH (Max)[1]	MSUBH (Min)[1]	MSUBH (Max)[1]

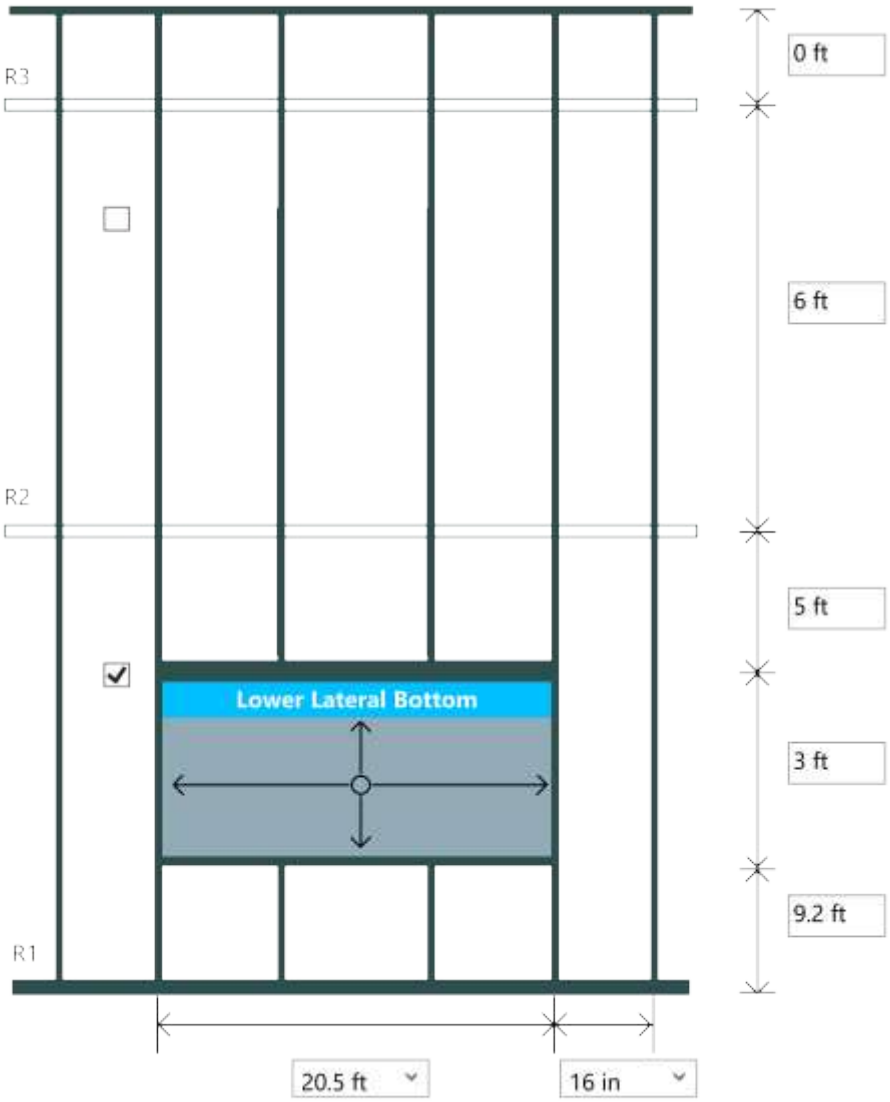
Top Span	Varies	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bottom Span	Varies	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:

1) Values in parentheses are stress ratios.
2) Bridging connectors are not designed for back-back, box, or built-up sections.
3) Reference www.strongtie.com for latest load data, important information, and general notes.
4) CFS Designer will not select bridging connectors unless all flexural and axial bracing settings are the same.
5) If the bracing length is larger than the span length, bridging connectors are not designed.

Project Name: GK PSE - EXTERIOR DESIGN
Model: W6-600 2-st HDRSILL ONLY 20.5w X 17.2h - Grid 2 @ C.7
Code: 2012 NASPEC [AISI S100-2012]

Date: 09/30/2024
Simpson Strong-Tie® CFS Designer™ 5.2.6.0



Design Loads

Wall Top Span Pressure :	**11.4 psf**
Wall Bottom Span Pressure :	**11.4 psf**
Parapet Lateral Pressure :	
RO Lateral Pressure (bottom) :	**4-Ways**
Lateral element force multiplier	
Strength :	**1.0**
Deflection :	**0.7**
Bottom Header:	**Box (lateral top, bottom)**
Wall Self Weight	**12 psf**
Window Self Weight	**9 psf**
Cant. Deflection:	**2 (Cantilever)**

Brace Settings

Component(s)	Members(s)	Flexural Bracing	Axial KyLy	Axial KtLt	Distortional K-Phi(lb-in/in)	Distortional Lm	Interconnection Spacing
Lower							
Vertical Header	1000S162-54(50), Boxed	Full	N/A	N/A	0	None	N/A
Lat. Top Head	600T125-54(50), Single	Full	N/A	N/A	0	None	N/A
Lat. Bottom Head	600T125-54(50), Single	Full	N/A	N/A	0	None	N/A
Sill	600S250-68(50), Single	Full	N/A	N/A	0	None	N/A

Analysis Results

Component(s)	Members(s)	Axial Load (lb)	Max KL/r	Max. Moment (ft-lb)	Max. Shear (lb)	End Reaction (lb)

PRCNC20240216 - Revision #1
Shop drawings - This set will not replace the Approved plan set.

Project Name: GK PSE - EXTERIOR DESIGN
Model: W6-600 2-st HDRSILL ONLY 20.5w X 17.2h - Grid 2 @ C.7
Code: 2012 NASPEC [AISI S100-2012]

Date: 09/30/2024
Simpson Strong-Tie® CFS Designer™ 5.2.6.0

Lower							
Vertical Header	1000S162-54(50), Boxed		N/A	N/A	6934.1	1353.0	1353.0
Lat. Top Head	600T125-54(50), Single		N/A	N/A	1033.0	201.6	201.6
Lat. Bottom Head	600T125-54(50), Single		N/A	N/A	891.9	162.5	162.5
Sill	600S250-68(50), Single		N/A	N/A	2754.7	537.5	537.5

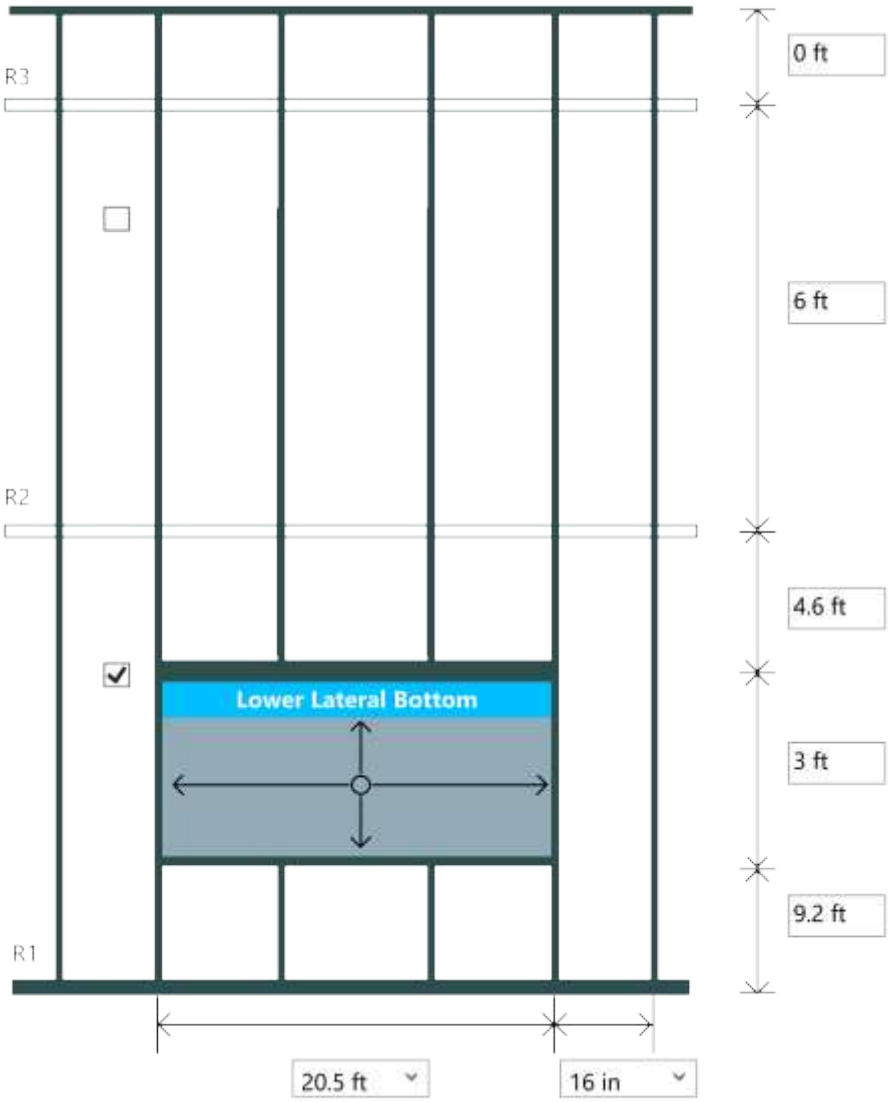
Design Results

Component(s)	Members(s)	Deflection Span	Deflection Parapet	A + M Interaction	V + M Interaction	Web Stiffners	Design OK
Lower							
Vertical Header	1000S162-54(50), Boxed	L/260	NA	0.88	0.88	Yes	Yes
Lat. Top Head	600T125-54(50), Single	L/297	NA	0.70	0.70	No	Yes
Lat. Bottom Head	600T125-54(50), Single	L/345	NA	0.60	0.60	No	Yes
Sill	600S250-68(50), Single	L/235	NA	0.85	0.80	No	Yes

PRCNC20240216 - Revision #1
Shop drawings - This set will not replace the Approved plan set.

Project Name: GK PSE - EXTERIOR DESIGN
Model: W6-600 2-st JAMB ONLY 20.5w X 17.2h - Grid 2 @ C.7 -
Code: 2012 NASPEC [AISI S100-2012]

Date: 09/30/2024
Simpson Strong-Tie® CFS Designer™ 5.2.6.0



Design Loads

Wall Top Span Pressure :	**17.4 psf**
Wall Bottom Span Pressure :	**17.4 psf**
Parapet Lateral Pressure :	
RO Lateral Pressure (bottom) :	**4-Ways**
Lateral element force multiplier	
Strength :	**1.0**
Deflection :	**0.7**
Bottom Header:	**Box (lateral top, bottom)**
Wall Self Weight	**12 psf**
Window Self Weight	**9 psf**
Cant. Deflection:	**2 (Cantilever)**

Brace Settings

Component(s)	Members(s)	Flexural Bracing	Axial KyLy	Axial KtLt	Distortional K-Phi(lb-in/in)	Distortional Lm	Interconnection Spacing
Jamb Studs	600S162-68(50), (3) Non-Composite	Full	48 in	48 in	0	None	N/A

Lower

Analysis Results

Component(s)	Members(s)	Axial Load (lb)	Max KL/r	Max. Moment (ft-lb)	Max. Shear (lb)	End Reaction (lb)
Jamb Studs	600S162-68(50), (3) Non-Composite	1486.2	89	6889.2	2401.8	N/A

Lower

PRCNC20240216 - Revision #1
Shop drawings - This set will not replace the Approved plan set.

Project Name: GK PSE - EXTERIOR DESIGN
Model: W6-600 2-st JAMB ONLY 20.5w X 17.2h - Grid 2 @ C.7 -
Code: 2012 NASPEC [AISI S100-2012]

Simpson Strong-Tie® CFS Designer™ 5.2.6.0

Design Results

Component(s)	Members(s)	Deflection Span	Deflection Parapet	A + M Interaction	V + M Interaction	Web Stiffners	Design OK
Jamb Studs	600S162-68(50), (3) Non-Composite	L/377	L/0	0.77	0.75	No	Yes

Lower

Simpson Strong-Tie® Connectors @ Jambs

Support	Rx(lb)	Ry(lb)	Simpson Strong-Tie® Connector	Connector Interaction	Anchor Interaction
R3	-1113.41	0.00	By Others & Anchorage Designed by Engineer	NA	NA
R2	3584.82	0.00	By Others & Anchorage Designed by Engineer	NA	NA
R1	729.87	1486.20	By Others & Anchorage Designed by Engineer	NA	NA

Simpson Strong-Tie® Wall Stud Bridging Connectors @ Jambs

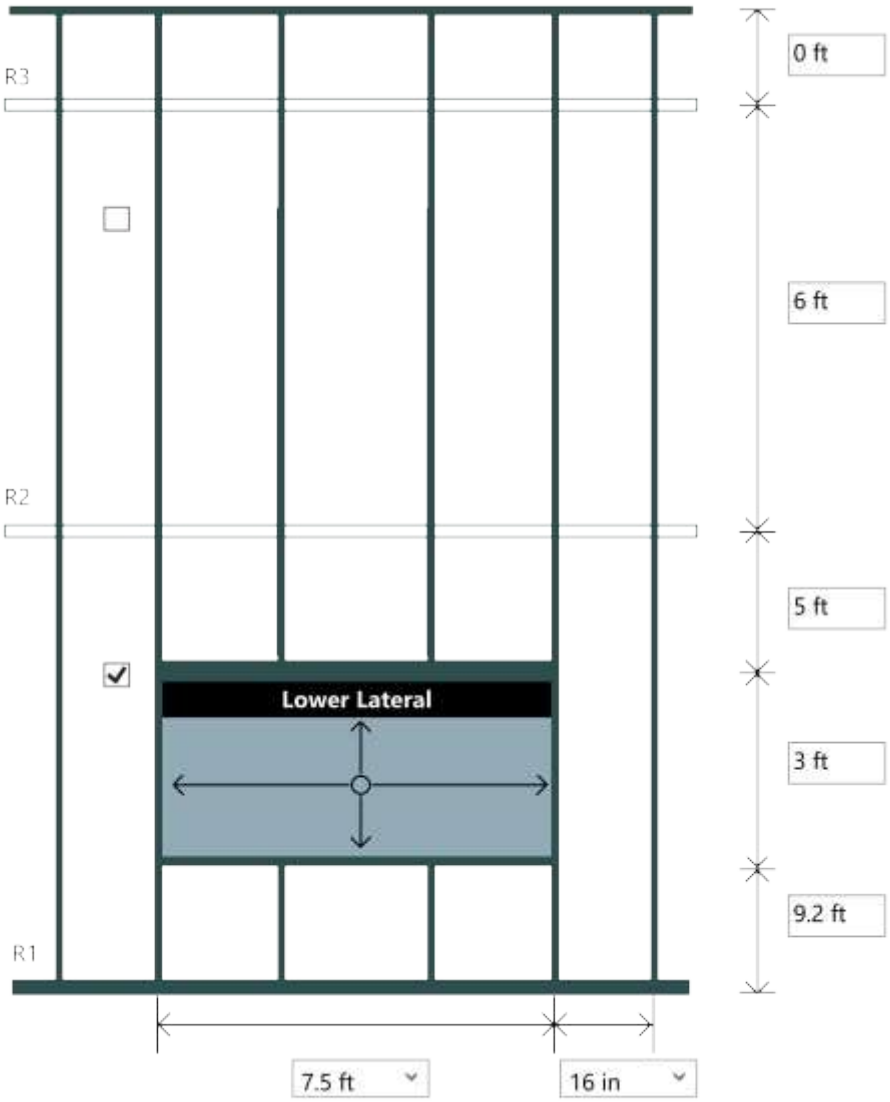
Span/Parapet	Bracing Length(in.)	Design Number of Braces	Pn(lb.)	LSUBH (Min)[1]	LSUBH (Max)[1]	SUBH (Min)[1]	SUBH (Max)[1]	MSUBH (Min)[1]	MSUBH (Max)[1]
Top Span	Varies	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bottom Span	Varies	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:

1) Values in parentheses are stress ratios.
2) Bridging connectors are not designed for back-back, box, or built-up sections.
3) Reference www.strongtie.com for latest load data, important information, and general notes.
4) CFS Designer will not select bridging connectors unless all flexural and axial bracing settings are the same.
5) If the bracing length is larger than the span length, bridging connectors are not designed.

Project Name: GK PSE - EXTERIOR DESIGN
Model: W3-600 2-story 7.5w X 17.2h - Grid 2 @ C.2
Code: 2012 NASPEC [AISI S100-2012]

Date: 09/30/2024
Simpson Strong-Tie® CFS Designer™ 5.2.6.0



Design Loads

Wall Top Span Pressure :	**14.4 psf**
Wall Bottom Span Pressure :	**14.4 psf**
Parapet Lateral Pressure :	
RO Lateral Pressure (bottom) :	**4-Ways**
Lateral element force multiplier	
Strength :	**1.0**
Deflection :	**0.7**
Bottom Header:	**Single Member**
Wall Self Weight	**12 psf**
Window Self Weight	**9 psf**
Cant. Deflection:	**2 (Cantilever)**

Brace Settings

Component(s)	Members(s)	Flexural Bracing	Axial KyLy	Axial KtLt	Distortional K-Phi(lb-in/in)	Distortional Lm	Interconnection Spacing
Wall Studs	600S162-33(33), Single@16 in o/c	Full	Sheathed	Sheathed	0	None	N/A
Jamb Studs	600S162-54(50), Single	Full	48 in	48 in	0	None	N/A
Lower							
Vertical Header	600S300-68(50), Y-Y Axis	Full	N/A	N/A	0	None	N/A
Lateral Header	600S300-68(50), Single	Full	N/A	N/A	0	None	N/A

Analysis Results

Component(s)	Members(s)	Axial Load (lb)	Max KL/r	Max. Moment (ft-lb)	Max. Shear (lb)	End Reaction (lb)
Wall Studs	600S162-33(33), Single@16 in o/c	371.2	90	548.7	197.0	N/A

Jamb Studs	600S162-54(50), Single	680.6	91	1215.1	396.9	N/A
Lower						
Vertical Header	600S300-68(50), Y-Y Axis	N/A	N/A	928.1	495.0	495.0
Lateral Header	600S300-68(50), Single	N/A	N/A	318.4	158.0	158.0

Design Results

Component(s)	Members(s)	Deflection Span	Deflection Parapet	A + M Interaction	V + M Interaction	Web Stiffners	Design OK
Wall Studs	600S162-33(33), Single@16 in o/c	L/758	L/0	0.74	0.65	No	Yes
Jamb Studs	600S162-54(50), Single	L/543	L/0	0.65	0.52	No	Yes
Lower							
Vertical Header	600S300-68(50), Y-Y Axis	L/241	NA	0.80	0.80	No	Yes
Lateral Header	600S300-68(50), Single	L/6170	NA	0.09	0.09	No	Yes
Combined Header				0.89	0		

Simpson Strong-Tie® Connectors @ Studs

Support	Rx(lb)	Ry(lb)	Simpson Strong-Tie® Connector	Connector Interaction	Anchor Interaction
R3	-33.86	0.00	SCB45.5(2) & (2) #12-24 SST X or XL to A36 Steel	6.91 %	3.04 %
R2	346.08	0.00	SCB45.5(2) & (2) #12-24 SST X or XL to A36 Steel	70.63 %	31.04 %
R1	133.22	371.20	600T125-33 (33) & (1) .157" SST PDPA/PDPAT-62KP to steel (3/16" to 1/2" thickness)	54.83 %	60.50 %

Simpson Strong-Tie® Connectors @ Jambs

Support	Rx(lb)	Ry(lb)	Simpson Strong-Tie® Connector	Connector Interaction	Anchor Interaction
R3	-173.71	0.00	By Others & Anchorage Designed by Engineer	NA	NA
R2	628.20	0.00	By Others & Anchorage Designed by Engineer	NA	NA
R1	167.03	680.60	600T125-33 (33) & (2) .157", 1" embed SST PDPA/PDPAT to 4000 nw concrete	24.28 %	37.93 %

Simpson Strong-Tie® Wall Stud Bridging Connectors @ Studs

Span/Parapet	Bracing Length(in.)	Design Number of Braces	Pn(lb.)	LSUBH (Min)[1]	LSUBH (Max)[1]	SUBH (Min)[1]	SUBH (Max)[1]	MSUBH (Min)[1]	MSUBH (Max)[1]
Top Span	Varies	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bottom Span	Varies	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Simpson Strong-Tie® Wall Stud Bridging Connectors @ Jambs

Span/Parapet	Bracing Length(in.)	Design Number of Braces	Pn(lb.)	LSUBH (Min)[1]	LSUBH (Max)[1]	SUBH (Min)[1]	SUBH (Max)[1]	MSUBH (Min)[1]	MSUBH (Max)[1]

PRCNC20240216 - Revision #1
Shop drawings - This set will not replace the Approved plan set.

Project Name: GK PSE - EXTERIOR DESIGN
Model: W3-600 2-story 7.5w X 17.2h - Grid 2 @ C.2
Code: 2012 NASPEC [AISI S100-2012]

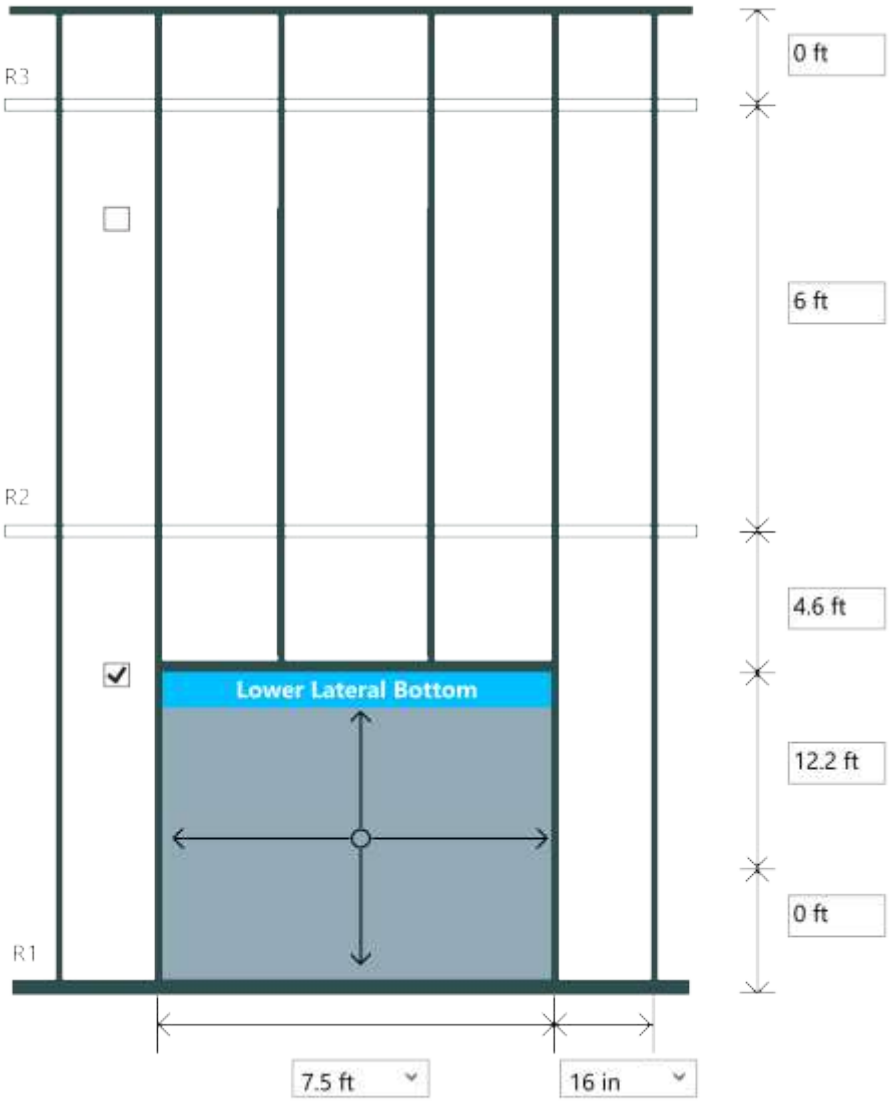
Top Span	Varies	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bottom Span	Varies	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:

1) Values in parentheses are stress ratios.
2) Bridging connectors are not designed for back-back, box, or built-up sections.
3) Reference www.strongtie.com for latest load data, important information, and general notes.
4) CFS Designer will not select bridging connectors unless all flexural and axial bracing settings are the same.
5) If the bracing length is larger than the span length, bridging connectors are not designed.

Project Name: GK PSE - EXTERIOR DESIGN
Model: W5-600 2-story 10.5w X 16.8h - Grid 2 @ C.4
Code: 2012 NASPEC [AISI S100-2012]

Date: 09/30/2024
Simpson Strong-Tie® CFS Designer™ 5.2.6.0



Design Loads

Wall Top Span Pressure :	**14.4 psf**
Wall Bottom Span Pressure :	**14.4 psf**
Parapet Lateral Pressure :	
RO Lateral Pressure (bottom) :	**4-Ways**
Lateral element force multiplier	
Strength :	**1.0**
Deflection :	**0.7**
Bottom Header:	**Box (lateral top, bottom)**
Wall Self Weight	**12 psf**
Window Self Weight	**9 psf**
Cant. Deflection:	**2 (Cantilever)**

Brace Settings

Component(s)	Members(s)	Flexural Bracing	Axial KyLy	Axial KtLt	Distortional K-Phi(lb-in/in)	Distortional Lm	Interconnection Spacing
Jamb Studs	600S162-54(50), Single	Full	48 in	48 in	0	None	N/A
Lower Vertical Header	600S162-33(33), Boxed	Full	N/A	N/A	0	None	N/A
Lat. Top Head	600T125-33(33), Single	Full	N/A	N/A	0	None	N/A
Lat. Bottom Head	600T125-33(33), Single	Full	N/A	N/A	0	None	N/A

Analysis Results

Component(s)	Members(s)	Axial Load (lb)	Max KL/r	Max. Moment (ft-lb)	Max. Shear (lb)	End Reaction (lb)
Jamb Studs	600S162-54(50), Single	659.4	89	1473.8	470.9	N/A

Lower						
Vertical Header	600S162-33(33), Boxed	N/A	N/A	894.4	477.0	477.0
Lat. Top Head	600T125-33(33), Single	N/A	N/A	151.5	80.8	80.8
Lat. Bottom Head	600T125-33(33), Single	N/A	N/A	253.1	101.3	101.3

Design Results

Component(s)	Members(s)	Deflection Span	Deflection Parapet	A + M Interaction	V + M Interaction	Web Stiffners	Design OK
Jamb Studs	600S162-54(50), Single	L/417	L/0	0.76	0.63	No	Yes
Lower							
Vertical Header	600S162-33(33), Boxed	L/1051	NA	0.47	0.47	Yes	Yes
Lat. Top Head	600T125-33(33), Single	L/3109	NA	0.31	0.31	No	Yes
Lat. Bottom Head	600T125-33(33), Single	L/1939	NA	0.52	0.52	Yes	Yes

Simpson Strong-Tie® Connectors @ Jambs

Support	Rx(lb)	Ry(lb)	Simpson Strong-Tie® Connector	Connector Interaction	Anchor Interaction
R3	-216.84	0.00	By Others & Anchorage Designed by Engineer	NA	NA
R2	745.36	0.00	By Others & Anchorage Designed by Engineer	NA	NA
R1	436.39	659.40	600T125-33 (33) & (2) .157", 1" embed SST PDPA/PDPAT to 4000 nw concrete	63.43 %	99.09 %

Simpson Strong-Tie® Wall Stud Bridging Connectors @ Jambs

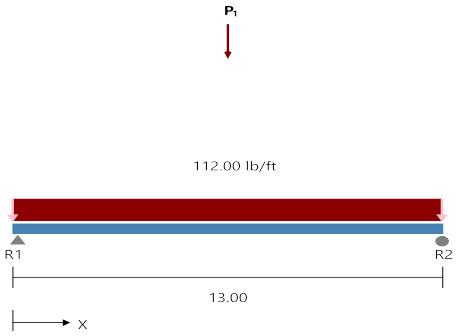
Span/Parapet	Bracing Length(in.)	Design Number of Braces	Pn(lb.)	LSUBH (Min)[1]	LSUBH (Max)[1]	SUBH (Min)[1]	SUBH (Max)[1]	MSUBH (Min)[1]	MSUBH (Max)[1]
Top Span	Varies	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bottom Span	Varies	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:

1) Values in parentheses are stress ratios.
2) Bridging connectors are not designed for back-back, box, or built-up sections.
3) Reference www.strongtie.com for latest load data, important information, and general notes.
4) CFS Designer will not select bridging connectors unless all flexural and axial bracing settings are the same.
5) If the bracing length is larger than the span length, bridging connectors are not designed.

Project Name: GK PSE - EXTERIOR DESIGN
Model: W84 header with ovhd door PT LOAD
Code: 2012 NASPEC [AISI S100-2012]

Simpson Strong-Tie® CFS Designer™ 5.2.6.0



Section: (2) 800T125-68 (50 ksi) Boxed Track (unpunched)
Maxo = 6065.8 ft-lb **Va =** 8174.6 lb **I =** 11.91 in^4

Loads have not been modified for strength checks
Loads have been multiplied by 0.70 for deflection calculations

Bridging Connectors - Design Method =AISI S100

Span	Axial KyLy, KtLt	Flexual, Distortional	Connector	Stress Ratio
Span	NA	Full, N/A	N/A	-

Web Crippling

Support	Load (lb)	Bearing (in)	Pa (lb)	M (ft-lbs)	Max Int.	Stiffener?
R1*	1124.50	6.00	2565.0	0.0	0.22	NO
R2*	1124.50	6.00	2565.0	0.0	0.22	NO
P1	793.00	3.50	3397.4	4943.3	0.61	NO

"*" after support means punched near support

Point Loads	P1
Load(lb)	793.00
X-Dist.(ft)	6.50

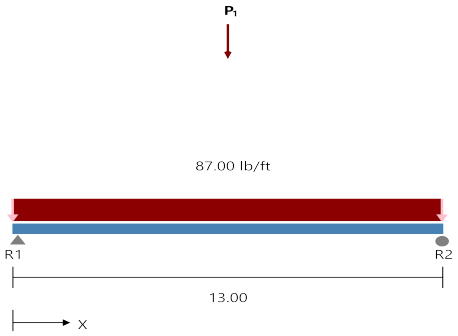
	Code Check	Required	Allowed	Interaction	Notes
Span	Max. Axial, lbs	0.0(t)	-	0%	KΦ=0.00 lb-in/in Max KL/r = N/A
	Max. Shear, lbs	1124.5	8174.6	14%	
	Max. Moment (MaFy, Ma-dist), ft-lbs	4943.3	6065.8	81%	
	Moment Stability, ft-lbs	4943.3	6065.8	81%	
	Shear/Moment	0.82	1.00	82%	Shear 396.5, Moment 4943.3
	Axial/Moment	0.81	1.00	81%	Axial 0.0(c), Moment 4943.3
	Deflection Span, in	0.268	--meets L/581--		

Support	Rx(lb)	Ry(lb)	Simpson Strong-Tie Connector	Connector Interaction	Anchor Interaction
R1	0.0	1124.5	By Others & Anchorage Designed by Engineer	NA	NA
R2	0.0	1124.5	By Others & Anchorage Designed by Engineer	NA	NA

* Reference catalog for connector and anchor requirement notes as well as screw placement requirements

Project Name: GK PSE - EXTERIOR DESIGN
Model: W84 header single track with ovhd door SPR MOMENT
Code: 2012 NASPEC [AISI S100-2012]

Simpson Strong-Tie® CFS Designer™ 5.2.6.0



Section: 800T125-68 (50 ksi) Single Track (unpunched)
Maxo = 3032.9 ft-lb **Va =** 4087.3 lb **I =** 5.96 in^4

Loads have not been modified for strength checks
Loads have been multiplied by 0.70 for deflection calculations

Bridging Connectors - Design Method =AISI S100

Span	Axial KyLy, KtLt	Flexual, Distortional	Connector	Stress Ratio
Span	NA	Full, N/A	N/A	-

Web Crippling

Support	Load (lb)	Bearing (in)	Pa (lb)	M (ft-lbs)	Max Int.	Stiffener?
R1*	707.00	1.00	640.3	0.0	0.56	YES
R2		--Shear Connection		w/ clip--		NO
P1	283.00	3.50	1698.7	2757.6	0.63	NO

"*" after support means punched near support

Point Loads	P1
Load(lb)	283.00
X-Dist.(ft)	6.50

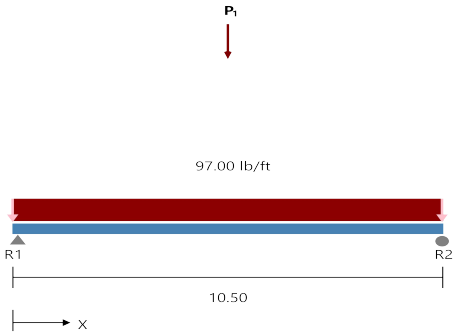
	Code Check	Required	Allowed	Interaction	Notes
Span	Max. Axial, lbs	0.0(t)	-	0%	KΦ=0.00 lb-in/in Max KL/r = N/A
	Max. Shear, lbs	707.0	4087.3	17%	
	Max. Moment (MaFy, Ma-dist), ft-lbs	2757.6	3032.9	91%	
	Moment Stability, ft-lbs	2757.6	3032.9	91%	
	Shear/Moment	0.91	1.00	91%	Shear 141.5, Moment 2757.6
	Axial/Moment	0.91	1.00	91%	Axial 0.0(c), Moment 2757.6
	Deflection Span, in	0.312	--meets L/500--		

Support	Rx(lb)	Ry(lb)	Simpson Strong-Tie Connector	Connector Interaction	Anchor Interaction
R1	0.0	707.0	By Others & Anchorage Designed by Engineer	NA	NA
R2	0.0	707.0	MSSC4.25 Max (5#10) & Anchorage Designed by Engineer (Side Attached)	70.35 %	NA

* Reference catalog for connector and anchor requirement notes as well as screw placement requirements

Project Name: GK PSE - EXTERIOR DESIGN
Model: W6D header with ovhd door PT LOAD
Code: 2012 NASPEC [AISI S100-2012]

Date: 09/30/2024
Simpson Strong-Tie® CFS Designer™ 5.2.6.0



Section: (2) 600T125-54 (50 ksi) Boxed Track (unpunched)
Maxo = 2955.8 ft-lb **Va =** 5456.7 lb **I =** 4.48 in^4

Loads have not been modified for strength checks
Loads have been multiplied by 0.70 for deflection calculations

Bridging Connectors - Design Method =AISI S100

Span	Axial KyLy, KtLt	Flexual, Distortional	Connector	Stress Ratio
Span	NA	Full, N/A	N/A	-

Web Crippling

Support	Load (lb)	Bearing (in)	Pa (lb)	M (ft-lbs)	Max Int.	Stiffener?
R1*	721.75	6.00	1807.1	0.0	0.20	NO
R2*	721.75	6.00	1807.1	0.0	0.20	NO
P1	425.00	3.50	2256.3	2452.4	0.59	NO

"*" after support means punched near support

Point Loads	P1
Load(lb)	425.00
X-Dist.(ft)	5.25

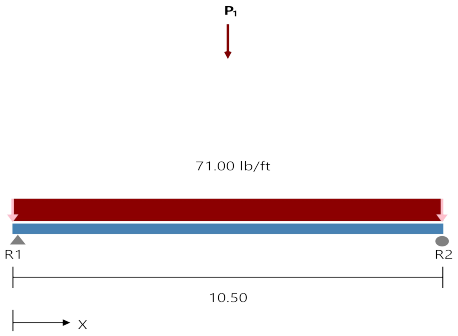
	Code Check	Required	Allowed	Interaction	Notes
Span	Max. Axial, lbs	0.0(t)	-	0%	KΦ=0.00 lb-in/in Max KL/r = N/A
	Max. Shear, lbs	721.8	5456.7	13%	
	Max. Moment (MaFy, Ma-dist), ft-lbs	2452.4	2955.8	83%	
	Moment Stability, ft-lbs	2452.4	2955.8	83%	
	Shear/Moment	0.83	1.00	83%	Shear 212.5, Moment 2452.4
	Axial/Moment	0.83	1.00	83%	Axial 0.0(c), Moment 2452.4
	Deflection Span, in	0.234	--meets L/538--		

Support	Rx(lb)	Ry(lb)	Simpson Strong-Tie Connector	Connector Interaction	Anchor Interaction
R1	0.0	721.8	By Others & Anchorage Designed by Engineer	NA	NA
R2	0.0	721.8	By Others & Anchorage Designed by Engineer	NA	NA

* Reference catalog for connector and anchor requirement notes as well as screw placement requirements

Project Name: GK PSE - EXTERIOR DESIGN
Model: W6D header with ovhd door SPR MOMENT
Code: 2012 NASPEC [AISI S100-2012]

Simpson Strong-Tie® CFS Designer™ 5.2.6.0



Section: 600T125-68 (50 ksi) Single Track (unpunched)
Maxo = 2141.0 ft-lb **Va =** 5350.3 lb **I =** 2.93 in^4

Loads have not been modified for strength checks
Loads have been multiplied by 0.70 for deflection calculations

Bridging Connectors - Design Method =AISI S100

Span	Axial KyLy, KtLt	Flexual, Distortional	Connector	Stress Ratio
Span	NA	Full, N/A	N/A	-

Web Crippling

Support	Load (lb)	Bearing (in)	Pa (lb)	M (ft-lbs)	Max Int.	Stiffener?
R1*	472.75	6.00	1362.9	0.0	0.18	NO
R2*	472.75	6.00	1362.9	0.0	0.18	NO
P1	200.00	3.50	1725.8	1503.5	0.48	NO

"*" after support means punched near support

Point Loads	**P1**
Load(lb)	200.00
X-Dist.(ft)	5.25

	Code Check	Required	Allowed	Interaction	Notes
Span	Max. Axial, lbs	0.0(t)	-	0%	KΦ=0.00 lb-in/in Max KL/r = N/A
	Max. Shear, lbs	472.8	5350.3	9%	
	Max. Moment (MaFy, Ma-dist), ft-lbs	1503.5	2141.0	70%	
	Moment Stability, ft-lbs	1503.5	2141.0	70%	
	Shear/Moment	0.70	1.00	70%	Shear 100.0, Moment 1503.5
	Axial/Moment	0.70	1.00	70%	Axial 0.0(c), Moment 1503.5
	Deflection Span, in	0.224	--meets L/561--		

Support	Rx(lb)	Ry(lb)	Simpson Strong-Tie Connector	Connector Interaction	Anchor Interaction
R1	0.0	472.8	By Others & Anchorage Designed by Engineer	NA	NA
R2	0.0	472.8	By Others & Anchorage Designed by Engineer	NA	NA

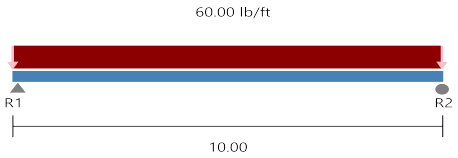
* Reference catalog for connector and anchor requirement notes as well as screw placement requirements

Project Name: GK PSE - EXTERIOR DESIGN
Model: GRID 2 PARAPET TOP TRACK
Code: 2012 NASPEC [AISI S100-2012]

Date: 09/30/2024
Simpson Strong-Tie® CFS Designer™ 5.2.6.0

Section: 800T125-43 (33 ksi) Single Track (unpunched)
Maxo = 1054.3 ft-lb **Va =** 1029.8 lb **I =** 3.48 in^4

Loads have not been modified for strength checks
Loads have been multiplied by 0.70 for deflection calculations



Bridging Connectors - Design Method =AISI S100

Span	Axial KyLy, KtLt	Flexual, Distortional	Connector	Stress Ratio
Span	NA	Full, N/A	N/A	-

Web Crippling

Support	Load (lb)	Bearing (in)	Pa (lb)	M (ft-lbs)	Max Int.	Stiffener?
R1		--Shear Connection w / clip--				NO
R2		--Shear Connection w/ clip--				NO

	Code Check	Required	Allowed	Interaction	Notes
Span	Max. Axial, lbs	0.0(t)	-	0%	KΦ=0.00 lb-in/in Max KL/r = N/A
	Max. Shear, lbs	300.0	1029.8	29%	
	Max. Moment (MaFy, Ma-dist), ft-lbs	750.0	1054.3	71%	
	Moment Stability, ft-lbs	750.0	1054.3	71%	
	Shear/Moment	0.71	1.00	71%	Shear 0.0, Moment 750.0
	Axial/Moment	0.71	1.00	71%	Axial 0.0(c), Moment 750.0
	Deflection Span, in	0.092	--meets L/1305--		

Support	Rx(lb)	Ry(lb)	Simpson Strong-Tie Connector	Connector Interaction	Anchor Interaction
R1	0.0	300.0	S/LS70 (3#10) & (3) #10 to Carrying (18/33) (Side Attached)	52.17 %	52.17 %
R2	0.0	300.0	S/LS70 (3#10) & (3) #10 to Carrying (18/33) (Side Attached)	52.17 %	52.17 %

* Reference catalog for connector and anchor requirement notes as well as screw placement requirements

KINGWORKS STRUCTURAL ENGINEERS
600 Dupont St, Suite B
Bellingham, WA 98225
360.714.8260
www.king-works.com

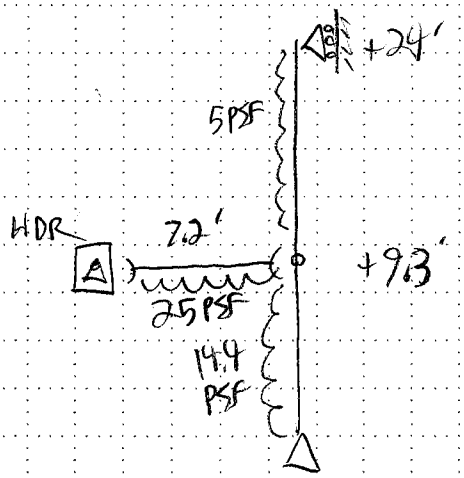
PROJECT

DESCRIPTION

PRCNC20240216 - Revision #1
Shop drawings - This set will not replace the Approved plan set.

ENGINEER	PROJECT NO.	DATE	PAGE

SOFFIT AT WET RM

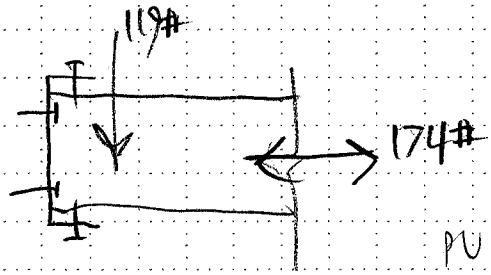


SIMPSON 362S162-54 (PER RF)

$R_x = 174\#$

$R_y = 119\#$ → OK FOR WEB CRIP

(2) #10 SHEAR TO 33 MIL $V_a = 2(177) = 354\#$ OK ✓



PULLOUT $T_a = (2)(84\#) = 168\#$ N.G.

USE (2) #12 $T_a = 190 > 174$ OK ✓

TRACK BENDING

→ $174/2 = 87\#$ $M = 87\#\text{-IN}$

$$t_{req} = \sqrt{\frac{6(87)}{8(33E3)/1.67}} = 0.058$$

→ SAY 54 MIL 50 KSI

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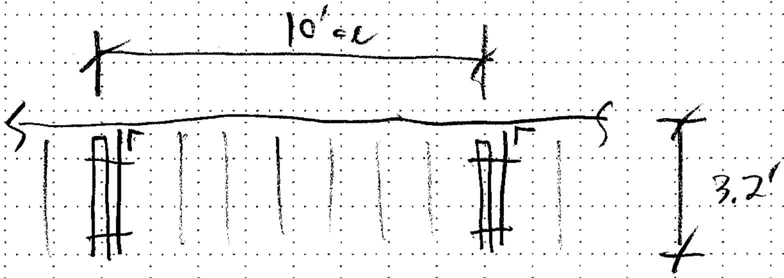
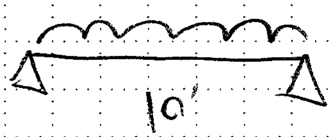
PROJECT	PRCNC20240216 - Revision #1
DESCRIPTION	Shop drawings - This set will not replace the Approved plan set.

ENGINEER	PROJECT NO.	DATE	PAGE

PARAPET @ STANCHIONS

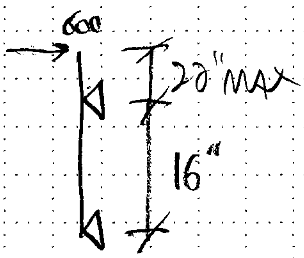


TOP TRACK



$W = 37.2\left(\frac{3.2}{2}\right) = 60\,PLF$
↳ 800T125-43

$R = 10'(60) = 600\#$ → SCAFCO MA550 w/ (4) #10 EA LEG / 43 MIL
$V_a =$ ~~889#~~ 1052#



$\leftarrow R_T = 600\left(\frac{38}{16}\right) = 1.43K$ → (3) #12

$\rightarrow R_B = 825\#$ → (2) #12

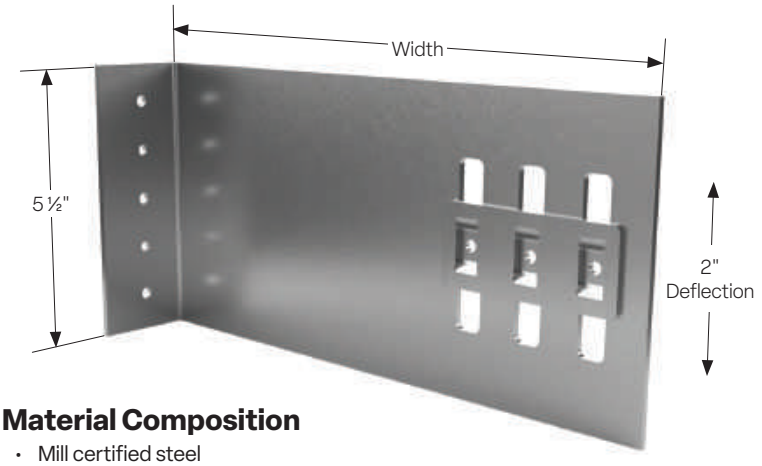
↳ 800S162-54

PLC2
Heavy-Duty Bypass Slab Slide Clip

Product Application

The PLC2 bypass slab slide clip secures the bypass curtain wall stud to the building structure, allowing for vertical deflection while maintaining lateral rigidity.

The insert is attached to the clip, making installation quick, easy, and efficient. Clips come packaged in durable buckets for convenient handling on the jobsite.
Patent No. 7478508-B2.



Features and Benefits

- Insert allows for 2" of total vertical deflection
  - *Deflection greater than 2" is available*
- Loads based on #12 screw connection
- Large insert piece for easy installation
- Pre-punched guide holes
- Thicker steel for improved weld capacity to the structure
- Transfers horizontal load into structure
- Maintains lateral rigidity

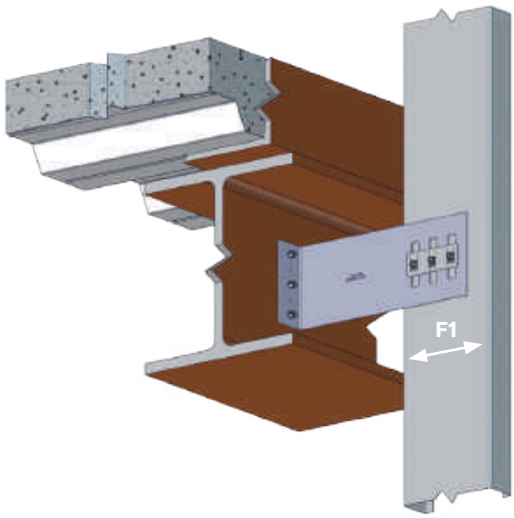
Material Composition

- Mill certified steel
- ASTM A653/A653M
- Clip
  - *118 mil material thickness*
  - *57 ksi yield strength*
  - *65 ksi tensile strength*
  - *G90 galvanized coating*
- Insert
  - *97 mil material thickness*
  - *57 ksi yield strength*
  - *65 ksi tensile strength*
  - *G90 galvanized coating*

Quantity / Order Information

Part No.	Width	Qty / Bucket	Lbs / Bucket
PLC2-550	5 ½"	30	54
PLC2-750	7 ½"	25	54
PLC2-950	9 ½"	20	50
PLC2-1150	11 ½"	20	57

All PLC2 clips include insert. Additional lengths available upon request.



Allowable Loads

Part No.	Stud Properties			F1 Allowable Loads (lbs)	
	Mil	Gauge	Fy (ksi)	2 #12 Screws	3 #12 Screws
PLC2 550 750	33EQS	20	57	429	643
	33	20	33	377	565
	43EQS	18	57	677	1015
	43	18	33	561	841
	54	16	50	1139	1709
	68	14	50	1610	1975
	97	12	50	1975	1975
	118	10	50	1975	1975
Maximum Allowable Clip Capacity				Max F1 = 1975 lbs	

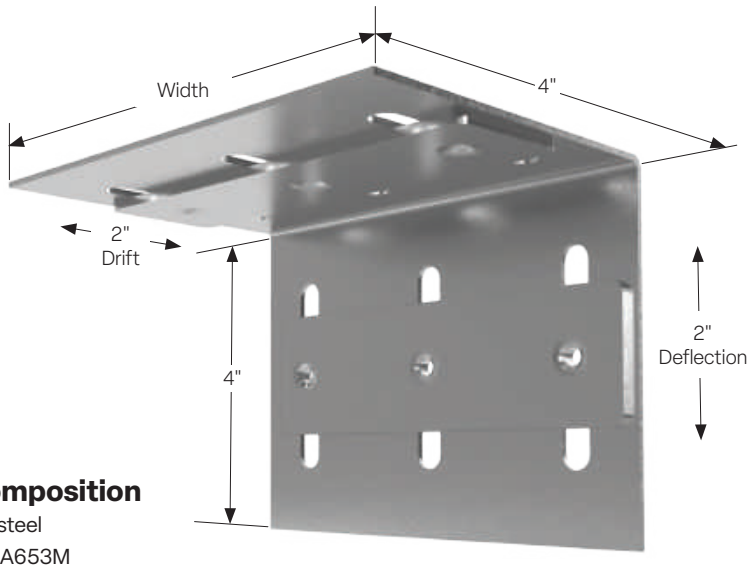
Part No.	Stud Properties			F1 Allowable Loads (lbs)	
	Mil	Gauge	Fy (ksi)	2 #12 Screws	3 #12 Screws
PLC2 950 1150	33EQS	20	57	429	643
	33	20	33	377	565
	43EQS	18	57	677	1015
	43	18	33	561	841
	54	16	50	1139	1650
	68	14	50	1650	1650
	97	12	50	1650	1650
	118	10	50	1650	1650
Maximum Allowable Clip Capacity				Max F1 = 1650 lbs	

Allowable Loads Table Notes

1. Allowable loads have not been increased for wind, seismic activity, or other factors.
2. The allowable loads are based on the steel properties of the members being connected, per AISI S100.
3. The nominal strength of the screw must be at least 3.75 times the allowable loads.
4. Penetration of screws through joined materials should not be less than three exposed threads. Install and tighten screws in accordance with the screw manufacturer's recommendations.
5. Screw shear capacities are based on allowable strength design (ASD) and include a safety factor of 3.0.
6. Allowable loads indicated on the table(s) are for force in single direction only. The designer shall use the combined forces check as required by AISI S100 if more than one force is applied to the connection.
7. The designer shall check the bending in the short leg of the clip.

PRCNC20240216 - Revision #1
Shop drawings - This set will not replace the Approved plan set.

DESC
Head-of-Wall Drift Clip



Product Application

The DESC head-of-wall drift clip attaches the stud to the top track, which is fastened to the building structure. This clip allows for vertical deflection and lateral drift while preventing vertical load transfers into the curtain wall.

The inserts are attached to the clip, making installation quick, easy, and efficient. Clips come packaged in durable buckets for convenient handling on the jobsite.

Features and Benefits

- Insert allows for 2" total vertical deflection and 2" lateral drift
  - *Deflection / drift greater than 2" is available*
- Loads based on #10 screw connection
- Pre-punched guide holes
- Transfers horizontal load into structure
- Provides positive attachment at each stud

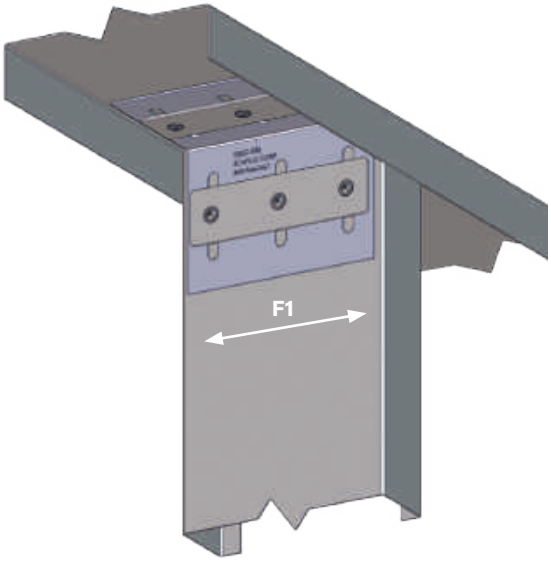
Material Composition

- Mill certified steel
- ASTM A653/A653M
- Clip
  - *68 mil material thickness*
  - *57 ksi yield strength*
  - *65 ksi tensile strength*
  - *G90 galvanized coating*
- Insert
  - *97 mil material thickness*
  - *57 ksi yield strength*
  - *65 ksi tensile strength*
  - *G90 galvanized coating*

Quantity / Order Information

Part No.	Width	Qty / Bucket	Lbs / Bucket
DESC337	3 ⅜"	50	40
DESC550	5 ½"	30	39
DESC750	7 ½"	30	53
DESC950	9 ½"	20	45
DESC1150	11 ½"	20	54

All DESC slide clips include inserts. Additional lengths available upon request.



Allowable Loads

Part No.	Stud Properties			F1 Allowable Loads (lbs)
	Mil	Gauge	Fy (ksi)	2 #10 Screws
DESC 337	33EQS	20	57	402
	33	20	33	353
	43EQS	18	57	635
	43	18	33	526
	54	16	50	830
	68	14	50	830
	97	12	50	830
	118	10	50	830
Maximum Allowable Clip Capacity				Max F1 = 830 lbs

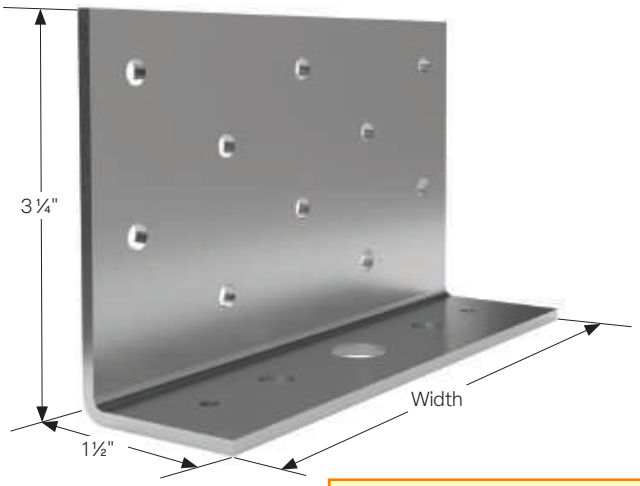
Part No.	Stud Properties			F1 Allowable Loads (lbs)	
	Mil	Gauge	Fy (ksi)	2 #10 Screws*	3 #10 Screws*
DESC 550	33EQS	20	57	402	603
	33	20	33	353	530
	43EQS	18	57	635	795
DESC 750	43	18	33	526	795
	54	16	50	795	795
DESC 950	68	14	50	795	795
DESC 1150	97	12	50	795	795
	118	10	50	795	795
Maximum Allowable Clip Capacity				Max F1 = 795 lbs	

**Number of screws per insert*

Table Notes

1. Allowable loads have not been increased for wind, seismic activity, or other factors.
2. The allowable loads are based on the steel properties of the members being connected, per AISI S100.
3. The nominal strength of the screw must be at least 3.75 times the allowable load.
4. Penetration of screws through joined materials should not be less than three exposed threads. Install and tighten screws in accordance with the screw manufacturer's recommendations.
5. Screw shear capacities are based on allowable strength design (ASD) and include a safety factor of 3.0.
6. Allowable loads indicated on the table(s) are for force in single direction only.
7. The designer shall use the combined forces check as required by AISI S100 if more than one force is applied to the connection.

FA
Secure Floor Anchor



Product Application

The FA secure floor anchor clip connects a wall stud to the floor. Designed to resist torsional, horizontal, and vertical loads, the FA secure clip is provided in 68 mil and 118 mil to meet any design criteria.

PRCNC20240216 - Revision #1
Shop drawings - This set will not replace the Approved plan set.

Features and Benefits

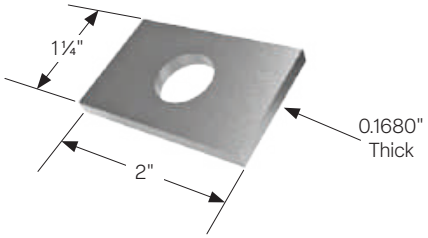
- Available in 68 mil and 118 mil
- Pre-punched guide holes
- Small flange guide holes are 0.220" in diameter (#12 fasteners)
- Medium flange guide holes are 0.30" in diameter (¼" anchor)
- Center guide hole is 0.5625" in diameter (½" anchor)
- Optional plate washer for heavy duty applications
- 1¼" x 2" plate washer is 168 mil with ⅝" hole

Material Composition

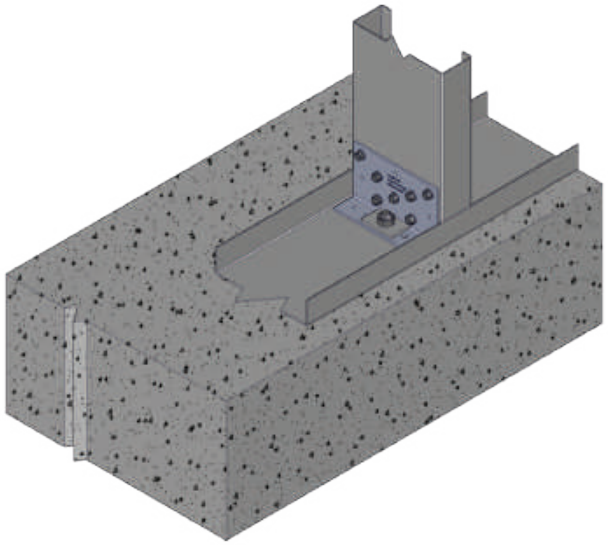
- Mill certified steel
- ASTM A653/A653M
- Clip
  - *68 mil or 118 Mil*
    - *57 ksi yield strength*
    - *65 ksi tensile strength*
    - *G90 galvanized coating*
- Plate Washer
  - *168 mil*
    - *HRC 35+*
    - *G90 galvanized coating*

Quantity / Order Information

Part No.	Width	Qty / Bucket	Lbs / Bucket
FA337-68	3⅜"	100	31
FA550-68	5½"	50	26
FA750-68	7½"	50	35
FA950-68	9½"	50	44
FA1150-68	11½"	50	53
FA337-118	3⅜"	50	29
FA550-118	5½"	50	47
FA750-118	7½"	35	45
FA950-118	9½"	25	41
FA1150-118	11½"	25	50



PW-168 Plate Washer
Provided upon request.



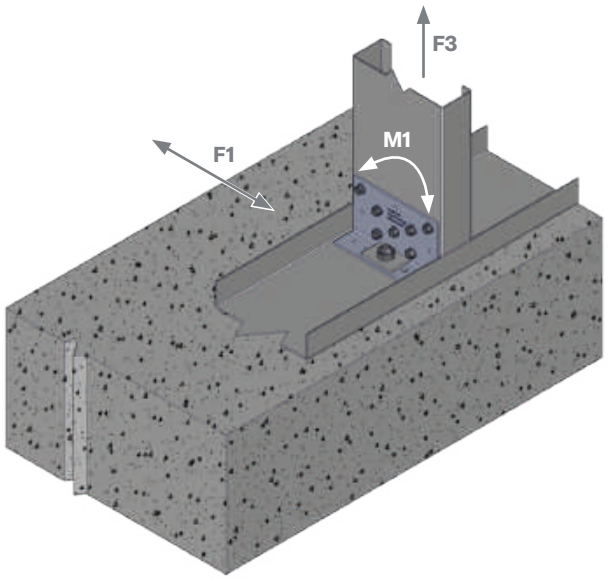
FA
Secure Floor Anchor Allowable Loads

PRCNC20240216 - Revision #1
Shop drawings - This set will not replace the Approved plan set.

Part No.	Number of Screws from Clip to Stud	Stud Properties			M1 Allowable Moment (in-lbs)	F1 Allowable Out-of-Plane Shear Load (lbs)	F3 Max Allowable Tension Load (lbs)	F3 Max Allowable Tension Load with 1/8" Deflection Limit (lbs)
		Mil	Gauge	Fy (ksi)				
FA337-68	4 - #12 Screws	33	20	33	1692	752	1211	1141
		43	18	33	2520	1120	1578	1141
		54	16	50	5121	2276	2861	1141
		68	14	50	5121	2461	3221	1141
		97	12	50	5121	2461	3221	1141
FA550-68	5 - #12 Screws	33	20	33	2272	940	1514	1514
		43	18	33	3383	1400	1973	1860
		54	16	50	6875	2845	3576	1860
		68	14	50	9388	3885	4026	1860
		97	12	50	9388	3885	4026	1860
FA750-68	5 - #12 Screws	33	20	33	2272	940	1514	1514
		43	18	33	3383	1400	1973	1973
		54	16	50	6875	2845	3576	2111
		68	14	50	9388	3885	4026	2111
		97	12	50	9388	3885	4026	2111
FA950-68	5 - #12 Screws	33	20	33	2272	940	1514	1514
		43	18	33	3383	1400	1973	1973
		54	16	50	6875	2845	3576	2338
		68	14	50	9388	3885	4026	2338
		97	12	50	9388	3885	4026	2338
FA1150-68	5 - #12 Screws	33	20	33	2272	940	1514	1514
		43	18	33	3383	1400	1973	1973
		54	16	50	6875	2845	3576	2546
		68	14	50	9388	3885	4026	2546
		97	12	50	9388	3885	4026	2546
FA337-118	4 - #12 Screws	33	20	33	1692	752	1211	1211
		43	18	33	2520	1120	1578	1578
		54	16	50	5121	2276	2861	2861
		68	14	50	5121	3108	3604	3604
		97	12	50	5121	3108	5140	5140
FA550-118 FA750-118 FA950-118 FA1150-118	5 - #12 Screws	33	20	33	2272	940	1514	1514
		43	18	33	3383	1400	1973	1973
		54	16	50	6875	2845	3576	3576
		68	14	50	10885	4505	4505	4505
		97	12	50	10885	6426	6426	6426

Table Notes

1. Loads based on AISI-S100 and the Allowable Strength Design (ASD), assuming #12 screws for attachment to stud.
2. Allowable loads are for connection of FA Clip to stud only.
3. Allowable loads have not been increased for wind, seismic activity, or other factors.
4. Allowable loads indicated on the table(s) are for force in single direction only. The designer shall use the combined forces check as required by AISI S100 if more than one force is applied to the connection.
5. Attachment and Anchorage of the FA Clip to structure is to be designed by others.
6. The nominal strength of the screw must be at least 3.75 times the allowable load.
7. Screw shear capacities are based on allowable strength design (ASD) and include a safety factor of 3.0.



SIMPSON Strong-Tie®

Anchor Designer™ for Concrete Software

Version 3.3.2404.1

Company:		Date:	2/17/2023
Engineer:		Page:	1/4
Project:			
Address:			
Phone:			
E-mail:			

1.Project information

Project description:
Location:
Fastening description:

Comment:

PRCNC20240216 - Revision #1
Shop drawings - This set will not replace the Approved plan set.

2. Input Data & Anchor Parameters

General
Design method:ACI 318-19
Units: Imperial units

Anchor Information:
Anchor type: Concrete screw
Material: Carbon Steel
Diameter (inch): 0.500
Nominal Embedment depth (inch): 3.250
Effective Embedment depth, h_{ef} (inch): 2.350
Code report: ICC-ES ESR-2713
Anchor category: 1
Anchor ductility: No
h_{min} (inch): 5.00
c_{ac} (inch): 3.56
C_{min} (inch): 1.75
S_{min} (inch): 3.00

Base Material
Concrete: Normal-weight
Concrete thickness, h (inch): 18.00
State: Uncracked
Compressive strength, f'_c (psi): 4500
$\Psi_{c,V}$: 1.4
Reinforcement condition: Supplementary reinforcement not present
Supplemental edge reinforcement: No
Reinforcement provided at corners: No
Ignore concrete breakout in tension: No
Ignore concrete breakout in shear: No
Ignore 6do requirement: Not applicable
Build-up grout pad: No

Recommended Anchor
Anchor Name: Titen HD® - 1/2"Ø THD, hnom:3.25" (83mm)
Code Report: ICC-ES ESR-2713

SIMPSON Strong-Tie®

Anchor Designer™ for Concrete Software
Version 3.3.2404.1

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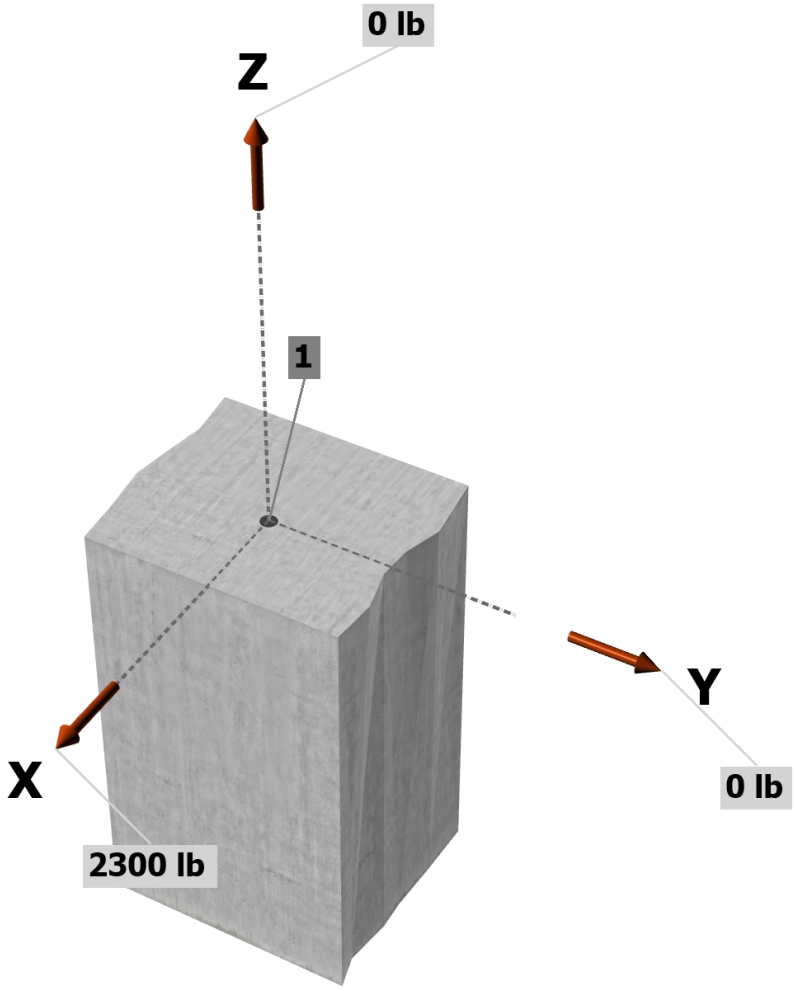
Load and Geometry
Load factor source: ACI 318 Section 5.3
Load combination: not set
Seismic design: No
Anchors subjected to sustained tension: Not applicable
Apply entire shear load at front row: Yes
Anchors only resisting wind and/or seismic loads: Yes

Strength level loads:

N_{ua} [lb]: 0
V_{uax} [lb]: 2300
V_{uay} [lb]: 0

<Figure 1>



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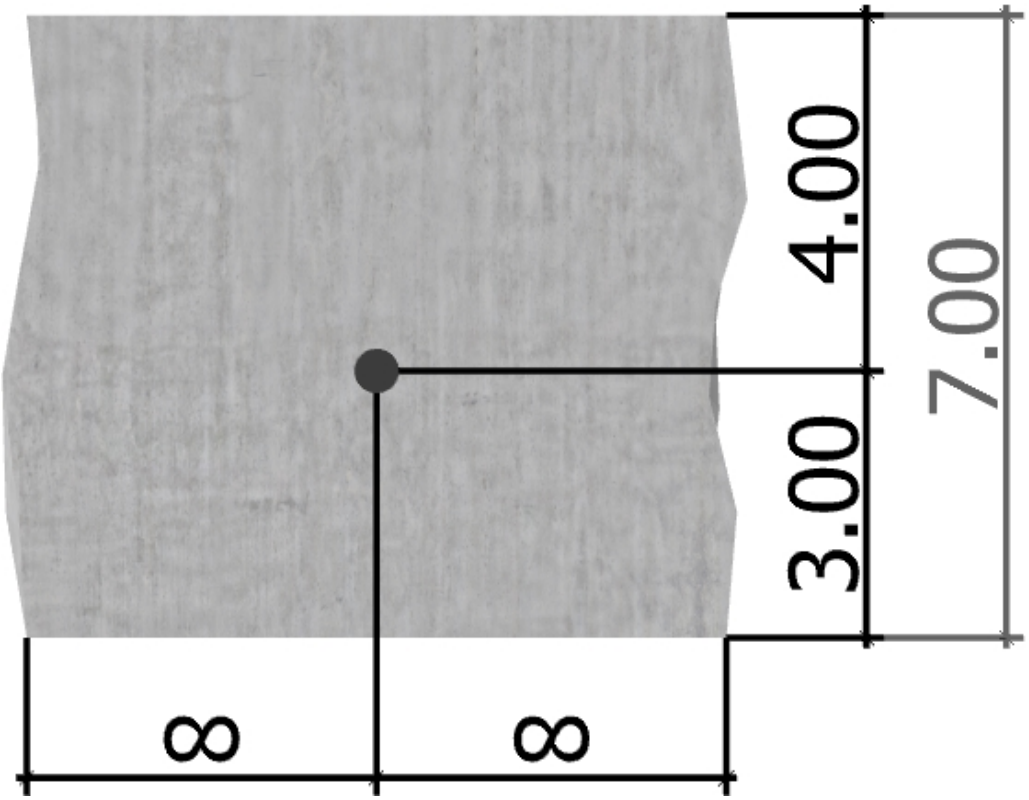
<Figure 2>



3. Resulting Anchor Forces

Anchor	Tension load, N_{ua} (lb)	Shear load x, V_{uax} (lb)	Shear load y, V_{uay} (lb)	Shear load combined, $\sqrt{(V_{uax})^2+(V_{uay})^2}$ (lb)
1	0.0	2300.0	0.0	2300.0
Sum	0.0	2300.0	0.0	2300.0

Maximum concrete compression strain (‰): 0.00
Maximum concrete compression stress (psi): 0
Resultant tension force (lb): 0
Resultant compression force (lb): 0
Eccentricity of resultant tension forces in x-axis, e'_{Nx} (inch): 0.00
Eccentricity of resultant tension forces in y-axis, e'_{Ny} (inch): 0.00
Eccentricity of resultant shear forces in x-axis, e'_{Vx} (inch): 0.00
Eccentricity of resultant shear forces in y-axis, e'_{Vy} (inch): 0.00

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8. Steel Strength of Anchor in Shear (Sec. 17.7.1)

V_{sa} (lb)	ϕ_{grout}	ϕ	$\phi_{grout}\phi V_{sa}$ (lb)
7455	1.0	0.60	4473

9. Concrete Breakout Strength of Anchor in Shear (Sec. 17.7.2)

Shear perpendicular to edge in x-direction:

$V_{bx} = \min|7(l_e / d_a)^{0.2}\sqrt{d_a}\lambda_a\sqrt{f'_c}c_{a1}^{1.5};\ 9\lambda_a\sqrt{f'_c}c_{a1}^{1.5}|$ (Eq. 17.7.2.2.1a & Eq. 17.7.2.2.1b)

l_e (in)	d_a (in)	λ_a	f'_c (psi)	c_{a1} (in)	V_{bx} (lb)
2.35	0.500	1.00	4500	3.00	2351

$\phi V_{cbx} = \phi\,(A_{Vc} / A_{Vco})\,\Psi_{ed,V}\,\Psi_{c,V}\,\Psi_{h,V}V_{bx}$ (Sec. 17.5.1.2 & Eq. 17.7.2.1a)

A_{Vc} (in^2)	A_{Vco} (in^2)	$\Psi_{ed,V}$	$\Psi_{c,V}$	$\Psi_{h,V}$	V_{bx} (lb)	ϕ	ϕV_{cbx} (lb)
40.50	40.50	1.000	1.400	1.000	2351	0.70	2304

10. Concrete Pryout Strength of Anchor in Shear (Sec. 17.7.3)

$\phi V_{cp} = \phi k_{cp} N_{cb} = \phi k_{cp}(A_{Nc} / A_{Nco})\,\Psi_{ed,N}\,\Psi_{c,N}\,\Psi_{cp,N} N_b$ (Sec. 17.5.1.2 & Eq. 17.7.3.1a)

k_{cp}	A_{Nc} (in^2)	A_{Nco} (in^2)	$\Psi_{ed,N}$	$\Psi_{c,N}$	$\Psi_{cp,N}$	N_b (lb)	ϕ	ϕV_{cp} (lb)
1.0	46.00	49.70	0.955	1.000	0.989	5800	0.70	3552

11. Results

Interaction of Tensile and Shear Forces (Sec. 17.8)

Shear	Factored Load, V_{ua} (lb)	Design Strength, øV_n (lb)	Ratio	Status
Steel	2300	4473	0.51	Pass
T Concrete breakout x+	**2300**	**2304**	**1.00**	**Pass (Governs)**
Pryout	2300	3552	0.65	Pass

1/2"Ø THD, hnom:3.25" (83mm) meets the selected design criteria.

12. Warnings

- Designer must exercise own judgement to determine if this design is suitable.

- Refer to manufacturer's product literature for hole cleaning and installation instructions.