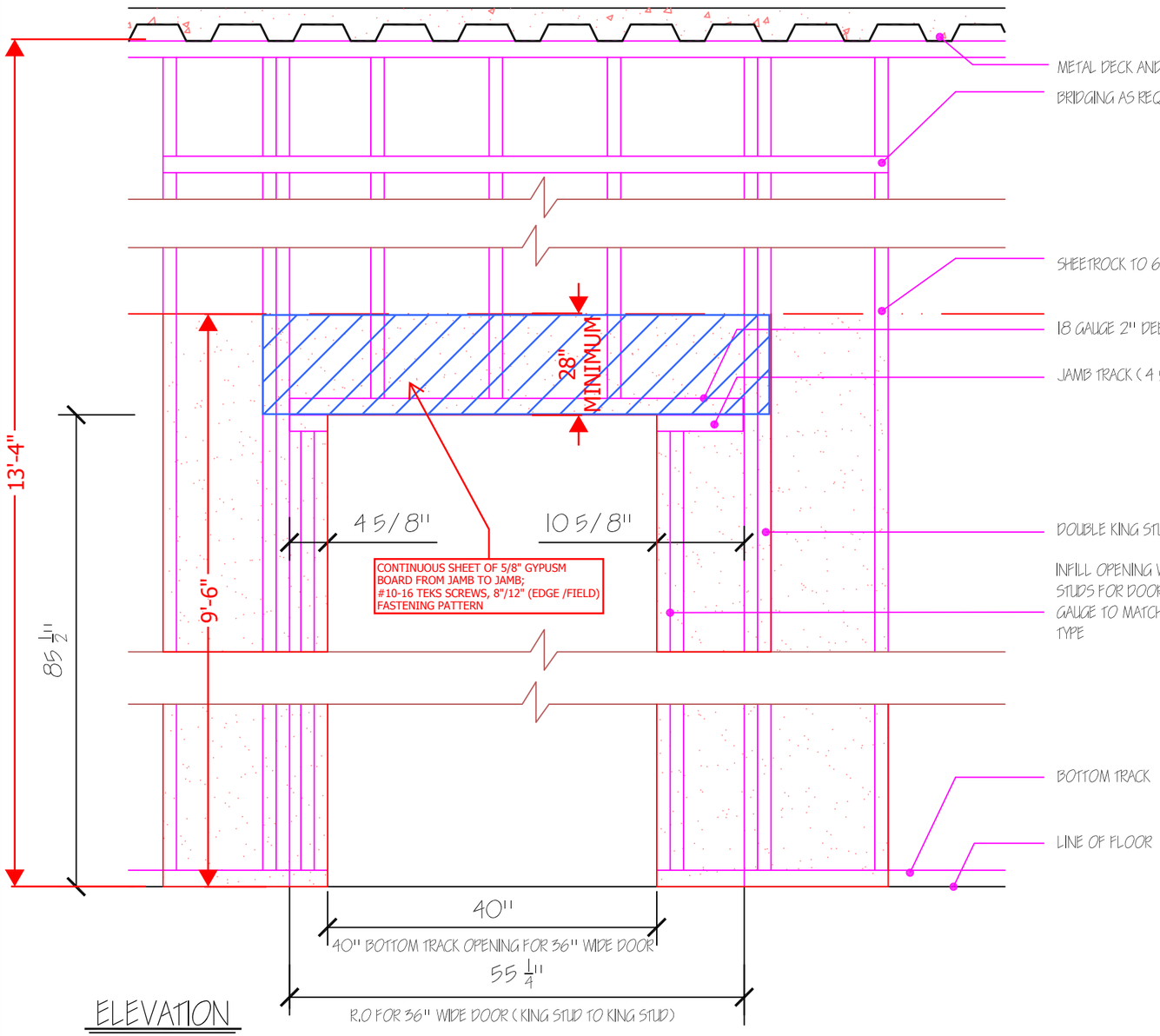
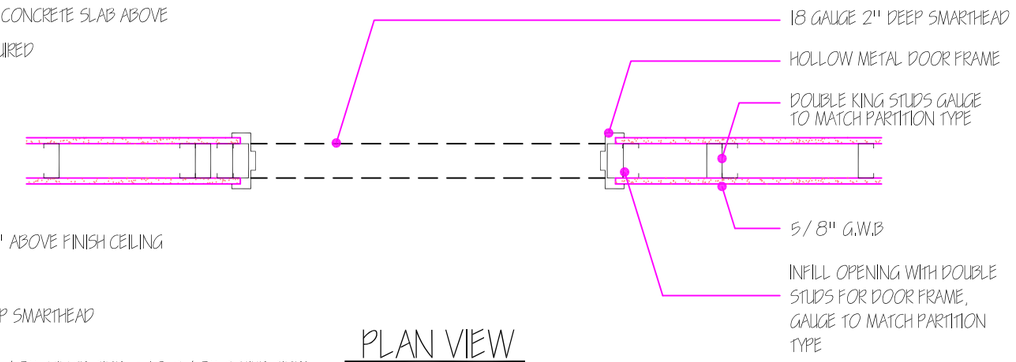


ELEVATION



PLAN VIEW

TYPICAL STUD:
(1) 362VS125-20 STUD, 16" OC

FULL HEIGHT JAMB:
(2) 362VS125-20 STUDS

HEADER:
(1) 362T200-43, 33KSI TRACK

TOP TRACK:
(1) 362VT200-20 TRACK (1/2" SLIP)

INSTALL BRIDGING NEAR TOP OF GYPSUM BOARD

GENERAL NOTES:

FOR HEIGHT OF R.O (ADD 1 1/2" TO DOOR HIEGHT)
- 7'-0" = 85 1/2"
- 8'-0" = 96 1/2"

FOR WIDTH OF R.O.
- ADD 4" + 10 5/8" + 4 5/8" TO DOOR WIDTH

REVISED: 5/21/18

JOB NAME:	
TITLE:	DETAILS 3°X 7° SMART HEAD
DATE:	8/18/15
SCALE :	3/4" = 1'-0"
DWG #	SK-1

LIGHT STEEL FRAMING CALCULATIONS

18076
OPENING
NEW YORK

AUGUST 6, 2018

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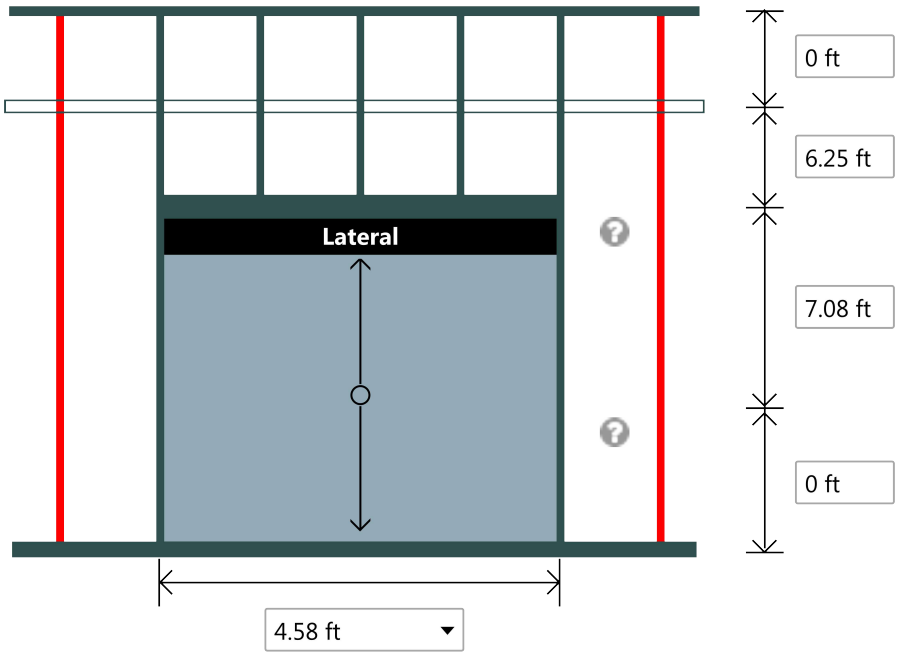
FRAMING DETAILS	SEPARATE SHEET
FRAMING CALCULATIONS	1 - 19

Project Name: 18076 ISLAND
Model: OPENING
Code: 2012 NASPEC [AISI S100-2012]

Date: 08/06/2018
Simpson Strong-Tie® CFS Designer™ 2.5.3.0



Lateral Pressure to: Head/Sill Only

Design Loads

Wall Lateral Pressure : **5 psf**

RO Lateral Pressure : **Head/Sill Only**

Lateral Element Forces multiplied by 1 for strength checks

Lateral Forces multiplied by 0.7 for deflection determination

Gravity Load at Header: **6 psf**

Brace Settings

Component(s)	Members(s)	Flexural Bracing (in)	Axial KyLy (in)	Axial KtLt (in)	Distortional K-Phi(lb-in/in)	Distortional LM(in)	Interconnection Spacing(in)
Wall Studs	362S125-30(33), Single@16 in o/c	Full	None	None	0	None	N/A
Jamb Studs	362S125-30(33), Back-To-Back	Full	Head/Sill	Head/Sill	0	None	12 in
Lateral Header	362T200-43(33), Single	Full	N/A	N/A	0	None	N/A

Summary Analysis Results

Component(s)	Members(s)	Axial Load (lb)	Max. Moment (Ft-Lb)	Max. Shear(lb)	Bottom Reaction (lb)	Top or End Reaction (lb)
Wall Studs	362S125-30(33), Single@16 in o/c	0.0	148.1	44.4	44.4	44.4
Jamb Studs	362S125-30(33), Back-To-Back	85.9	327.1	62.8	98.5	62.7
Lateral Header	362T200-43(33), Single	N/A	87.4	76.3	N/A	76.3

Summary Design Results

Component(s)	Members(s)	Deflection Span	Deflection Parapet	Bending +Axial Interaction	Shear Interaction	Web Stiffners	Design OK
Wall Studs	362S125-30(33), Single@16 in o/c	L/535	L/0	0.58	0.06	No	Yes
Jamb Studs	362S125-30(33), Back-To-Back	L/573	L/0	0.70	0.64	No	Yes
Lateral Header	362T200-43(33), Single	L/4559	NA	0.20	0.04	No	Yes

Project Name: 18076 ISLAND
Model: OPENING
Code: 2012 NASPEC [AISI S100-2012]

Date: 08/06/2018
Simpson Strong-Tie® CFS Designer™ 2.5.3.0

Simpson Strong-Tie Connectors @ Studs

Support	Rx(lb)	Ry(lb)	Simpson Strong-Tie Connector	Connector Interaction	Anchor Interaction
R1	44.43	106.64	NA & NA	0.00 %	0.00 %
R2	44.43	0.00	NA & NA	0.00 %	0.00 %

* 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
R1	98.53	167.52	NA & NA	0.00 %	0.00 %
R2	62.75	0.00	NA & NA	0.00 %	0.00 %

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

Simpson Strong-Tie Wall Stud Bridging Connectors @ Studs

Span/CantiLever	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	Span	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/CantiLever	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.

STEEL FRAMING
DESIGN SOLUTIONS, LLC
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262-352-3229 | ENGINEERING@STEELFRAMINGDESIGN.COM

PROJECT:	
DRAFTER:	
ENGINEER:	
CHECKER:	
SCALE:	
DATE:	

SHEET NUMBER:

PROJECT _____

LOCATION _____

GYPSUM BOARD ABOVE OPENING
28" MINIMUM GYPSUM BOARD FOR 2:1 ASPECT RATIO
37.5PLF VERTICAL LOAD (SELF WEIGHT)
36PLF SHEAR LOAD AT JAMB

(1) LAYER 5/8" GYPSUM BOARD
#10-16 TEKS SCREWS 8"/12" (EDGE/FIELD) FASTENING PATTERN
V = 40PLF