UDC Wall Bracing Diagram Quiz

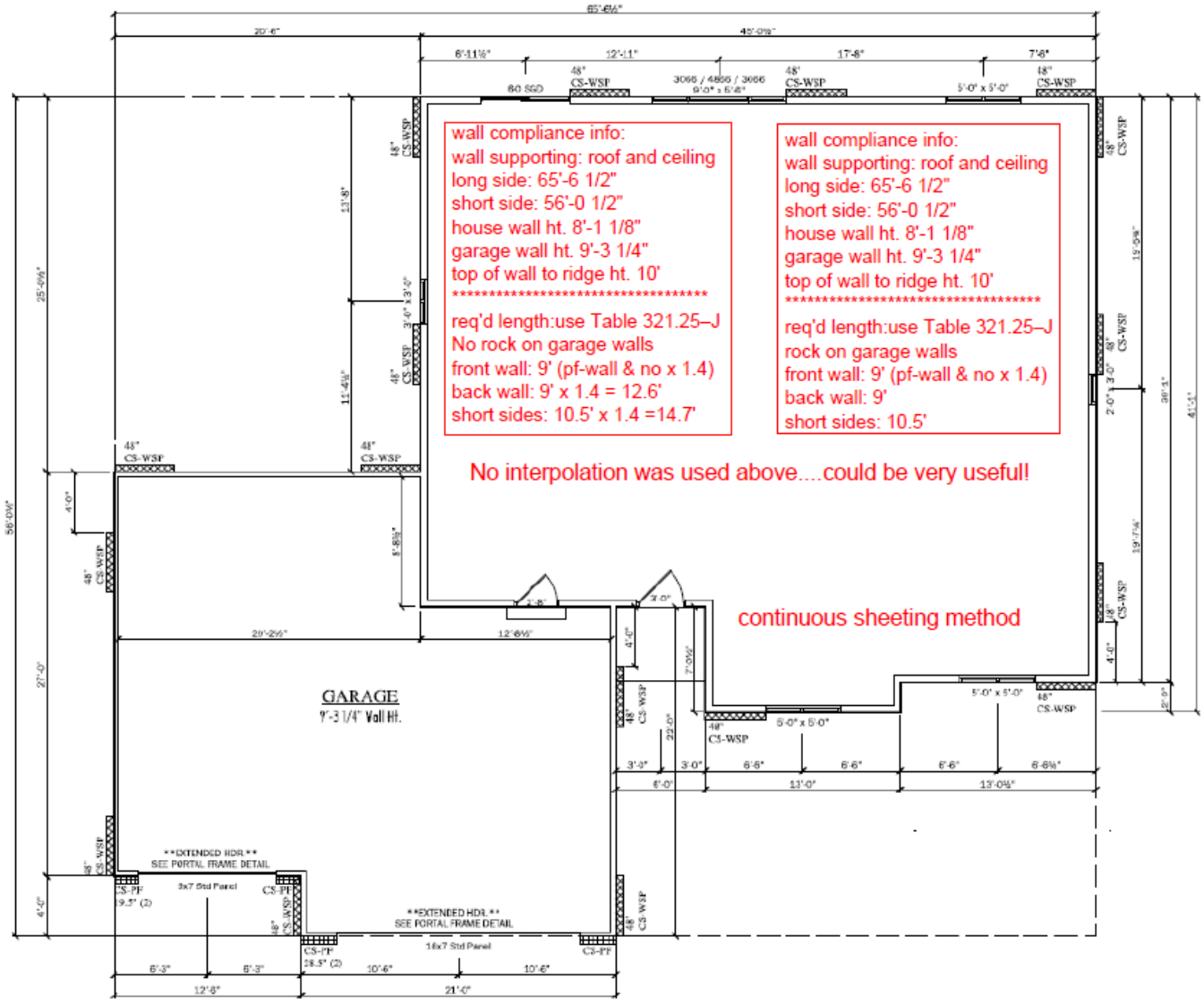
Instructions **Fee $25**

1. Print these pages & answer the **Simple questions** that follow diagrams.
2. Page down to page 20-29 and print the new Wall Bracing Provisions reference material.
3. Circle the correct answers and transfer the answers to the answer sheets (see pages 18-19).
4. Page down to pages 18-19 for the verification form, answer sheets and mailing instructions.
5. Optional: Watch this video http://www.youtube.com/watch?v=MHaPb1ieAHo

2 hour course for: **Course #15810**

1. Dwelling Contractor Qualifier Certification.
2. UDC Construction Inspector.

Questions call 920-381-6714 or email tmklinka@hotmail.com



Rectangle 1….Assume exposure category B above with gypsum wall board on garage walls.

Questions 1-13 use 10’ for side walls and 10’ eave to ridge for table calculations & **no interpolation.**

Wall Bracing Compliance Worksheet

Complete this worksheet or provide equivalent information on the plans submitted with the permit application.

Sketch and dimension the building plan and the wall bracing rectangle(s) per 321.25(8)(c)1. and Figure 321.25-B. Provide and label additional sketches if the building plan/rectangles change at different floor levels.

This should be top-of-wall-to-ridge Ht.

Indicate applicable Wall Bracing Method for each level (see Table 321.25-G), each labeled rectangle if more than one [see 321.25(8)(c)], and amount of bracing (# of braced panels or length of braced wall required) per the respective table (provide additional worksheets for additional rectangles as needed):

Rectangle: A Wall Ht. = B Eave to Ridge Ht. = C Max. Opening Ht. = D Wind Exp. = E

Walls Supporting:	Intermittent method (LIB, DWB, WSP, SFB, GB, PCP) and # of panels per Table 321.25-I Min. panel width (Table 321.25-G) = L		Continuous method (CS-WSP, CS-SFB) and total length required per Table 321.25-J Min. panel width (Table 321.25-H) = M		PF Method (see Figure 321.25-A). Indicate number of PF panels 16-24" wide provided. Min. PF width (Fig. 321.25-A) = N	
	Long side	Short side	Long side	Short side	Long side	Short side
Roof and ceiling only	F	G	H	I	J	K
One floor, roof and ceiling	O	P	Q	R	S	T
Two floors, roof and ceiling						

Rectangle:____ Wall Ht. = ____ Eave to Ridge Ht. = ____ Max. Opening Ht. = ____ Wind Exp. = ____

Walls Supporting:	Intermittent method (LIB, DWB, WSP, SFB, GB, PCP) and # of panels per Table 321.25-I Min. panel width (Table 321.25-G) = _____		Continuous method (CS-WSP, CS-SFB) and total length required per Table 321.25-H Min. panel width (Table 321.25-H) = _____		PF Method (see Figure 321.25-A). Indicate number of PF panels 16-24" wide provided. Min. PF width (Fig. 321.25-A) = _____	
	Long side	Short side	Long side	Short Side	Long side	Short side
Roof and ceiling only						
One floor, roof and ceiling						
Two floors, roof and ceiling						

PF Method: For Intermittent bracing, per Table 321.25-I footnote 'h', each PF panel (16-24" wide per Figure 321.25-A) counts as ½ of a braced wall panel when determining compliance with Table 321.25-I. For Continuously Sheathed bracing, the actual length of each PF panel (16-24" wide per Figure 321.25-A) in feet counts toward the required total length of bracing required. For intermittent or continuous methods, each PF panel meeting min. required width of Fig. 321.25-A counts as a braced wall panel when evaluating panel spacing per Fig. 321.25-C.

Indicate location of required braced wall panels determined above on each rectangle side as required by Figure 321.25-C.

Use the diagrams and worksheet above to answer questions 1-13.

1. The letter A above represents _____.
    a. diagram 1
    b. diagram A
    c. rectangle 1
    d rectangle A
2. The letter B above represents the side wall height of ____.
    a. 8’
    b. 9’
    c. 10’
    d. 11’
3. The letter C above represents the eave to ridge height of ____.
    a. 8’
    b. 9’
    c. 10’
    d. 11’
4. The letter D above represents the maximum open height of ____. (Typically an entrance door)
    a. 5’ 4”
    b. 6’ 8”
    c. 8’
    d. 9’
5. The letter E above represents the wind exposure ____.
    a. A
    b. B
    c. C
    d. D
6. The letter F above represents the number of panels required and that number would be ____.
    a. 1
    b. 2
    c. 3
    d. 4
7. The letter G above represents the number of panels required and that number would be ____.
    a. 1
    b. 2
    c. 3
    d. 4
8. The letter H above represents the minimum panel length required and that number would be ____. Assume gypsum board on garage walls.
    a. 6’
    b. 7.5’
    c. 9’
    d. 10.5’
9. The letter I above represents the minimum panel length required and that number would be ____. Assume gypsum board on garage walls.
    a. 6’
    b. 7.5’
    c. 9’
    d. 10.5’

10. The letter J above represents the number of PF panels and that number would be ____.
    a. 0
    b. 2
    c. 3
    d. 4
11. The letter K above represents the number of PF panels and that number would be ____.
    a. 0
    b. 2
    c. 3
    d. 4

108. The minimum panel width for L would be ____ inches. (Assume WSP)
    a. 32
    b. 48
    c. 60
    d. 96
12. The minimum panel width for M would be ____ inches. (Assume WSP)
    a. 24
    b. 30
    c. 36
    d. 48
13. The minimum PF width for N would be ____ inches. (9'-3 1/4"garage wall height- fig. 325.25-A)
    a. 16
    b. 18
    c. 22
    d. 24

Use page 1 diagram….Assume exposure category B without gypsum board on garage walls.

Questions 14-18 use 10' for side walls and 10' eave to ridge for table calculations & **no interpolation.**

Table 321.25-I footnote e: Where minimum ½" gypsum wallboard is not included on the interior side of the wall, multiply the number of braced wall panels by 1.7 for LIB bracing or 1.4 for all other bracing methods, except this increase in not required for portal frame method.

Table 321.25-J footnote d: Where minimum ½" gypsum wallboard interior finish is not provided, the required bracing amount for the affected rectangle side shall be multiplied by 1.4 (The entire rectangle), except this increase in not required for portal frame method.

14. The letter F from page 2 represents the number of panels required and that number would be ____.
    a. 1
    b. 2
    c. 3
    d. 4.2
15. The letter G from page 2 represents the number of panels required and that number would be ____.
    a. 1
    b. 2
    c. 3
    d. 4.2
16. The letter H from page 2 represents the panel length required and that number would be ____. Assume gypsum board on garage walls.
    a. 6'

b. 7.5’
c. 12.6’
d. 10.5’

17. The letter I from page 2 represents the panel length required and that number would be ____. Assume gypsum board on garage walls.
a. 6’
b. 7.5’
c. 9’
d. 14.7’

18. The letter F from page 2 represents the number of panels required on the long side (front wall) and that wall includes 2 portal framed garage doors. Referencing Table 321.25-I footnote e (intermittent method) how many number of panels would be required for this long side front wall only?
a. 1
b. 2
c. 3
d. 4

Use page 1 diagram….Assume exposure category C without gypsum board on garage walls.

Table 321.25-I footnote b: This table applies to wind exposure category B. For wind exposure category C or D, multiply the number of braced wall panels required by 1.3 or 1.6, respectively.
Table 321.25-I footnote e: Where minimum ½” gypsum wall board is not included on the interior side of the wall, multiply the number of braced wall panels by 1.7 for LIB bracing or 1.4 for all other bracing methods, except this increase in not required for portal frame method.

Table 321.25-J footnote b: Table applies to wind exposure category B. For wind exposure category C or D, multiply the number of braced wall panels required by 1.3 or 1.6, respectively.
Table 321.25-J footnote d: Where minimum ½” gypsum wall board interior finish is not provided, the required bracing amount for the affected rectangle side shall be multiplied by 1.4, except this increase in not required for portal frame method.

Questions 19-23 use 10’ for side walls and 10’ eave to ridge for table calculations & **no interpolation.**

19. The letter F from page 2 represents the number of panels required and that number would be ____. (Number of panels x 1.3 for the exposure C x 1.4 for lack of rock in garage)
a. 1
b. 2
c. 3
d. 5.46

20. The letter G from page 2 represents the number of panels required and that number would be ____. (Number of panels x 1.3 for the exposure C x 1.4 for lack of rock in garage)
a. 1
b. 2
c. 3
d. 5.46

21. The letter H from page 2 represents the minimum panel length required and that number would be ____. (Required length x 1.3 for the exposure C x 1.4 for lack of rock in garage)
a. 6’
b. 7.5’
c. 16.38’
d. 10.5’

22. The letter I from page 2 represents the minimum panel length required and that number would be ____. (Required length x 1.3 for the exposure C x 1.4 for lack of rock in garage)

a. 6’
b. 7.5’
c. 9’
d. 19.11’

23. The letter H from page 2 represents the minimum panel length required on the long side (front wall) and that wall includes 2 portal framed garage doors. Referencing Table 321.25-I footnote e (continuous method). What is the minimum panel length that would be required for this long side front wall only? (Required length x 1.3 for the exposure C & **do not** x 1.4 for lack of rock in garage)

a. 6’
b. 7.5’
c. 9’
d. 11.7’

Wall Bracing Compliance Worksheet

Complete this worksheet or provide equivalent information on the plans submitted with the permit application.

Sketch and dimension the building plan and the wall bracing rectangle(s) per 321.25(8)(c)1. and Figure 321.25-B. Provide and label additional sketches if the building plan/rectangles change at different floor levels.

Use this worksheet for the 1-1/2 story questions below.

This will be changing to "top of wall to top of ridge height"

Indicate applicable Wall Bracing Method for each level (see Table 321.25-G), each labeled rectangle if more than one [see 321.25(8)(c)], and amount of bracing (# of braced panels or length of braced wall required) per the respective table (provide additional worksheets for additional rectangles as needed):

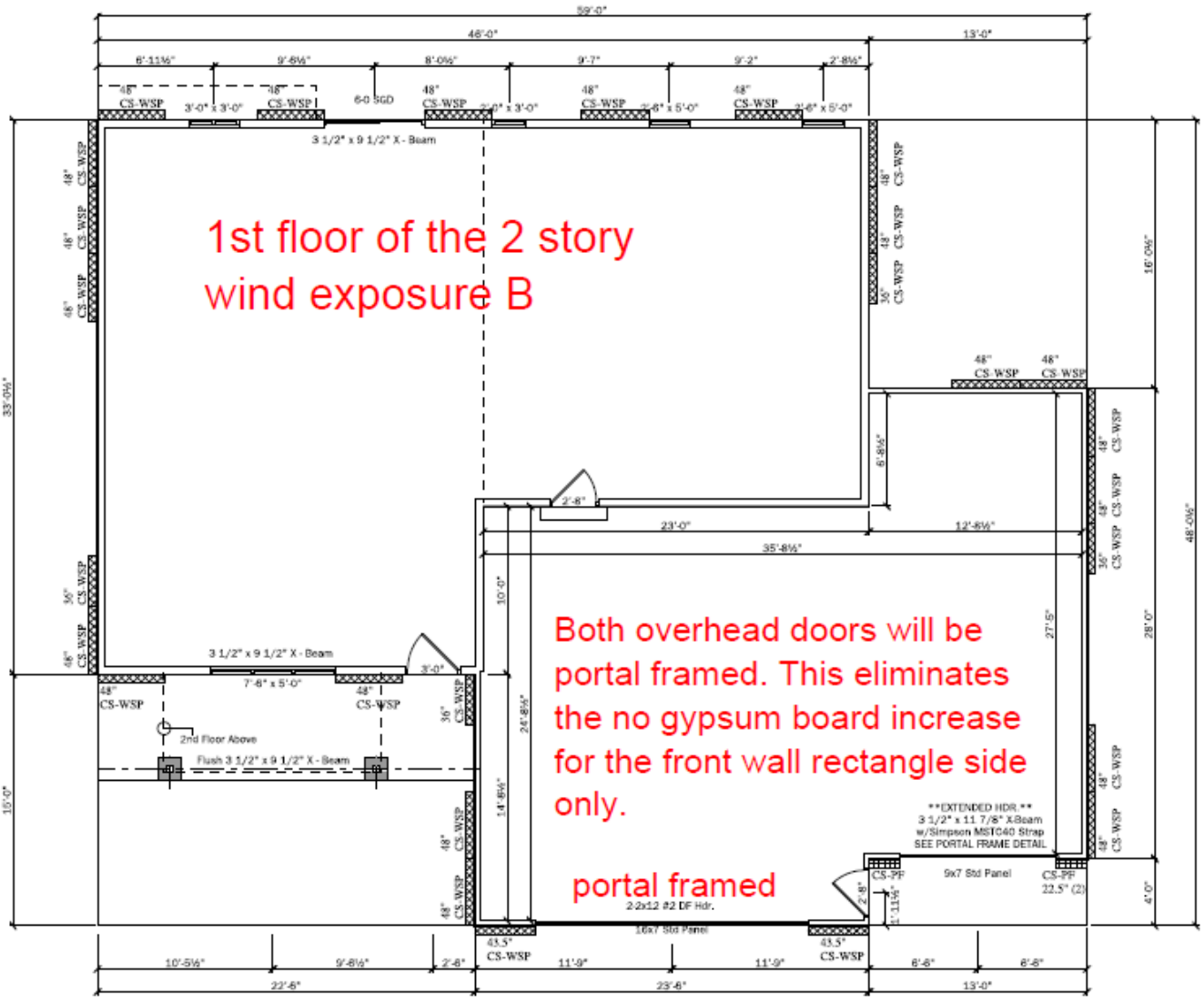
Rectangle: 1st fl Wall Ht. = B Eave to Ridge Ht. = C Max. Opening Ht. = D Wind Exp. = E

Walls Supporting:	Intermittent method (LIB, DWB, WSP, SFB, GB, PCP) and # of panels per Table 321.25-I Min. panel width (Table 321.25-G) = _____		Continuous method (CS-WSP, CS-SFB) and total length required per Table 321.25-J Min. panel width (Table 321.25-H) = F		PF Method (see Figure 321.25-A). Indicate number of PF panels 16-24" wide provided. Min. PF width (Fig. 321.25-A) = G	
	Long side	Short side	Long side	Short side	Long side	Short side
Roof and ceiling only						
One floor, roof and ceiling			H	I	J	K
Two floors, roof and ceiling						

Rectangle: 2nd floor Wall Ht. = M Eave to Ridge Ht. = N Max. Opening Ht. = O Wind Exp. = ____

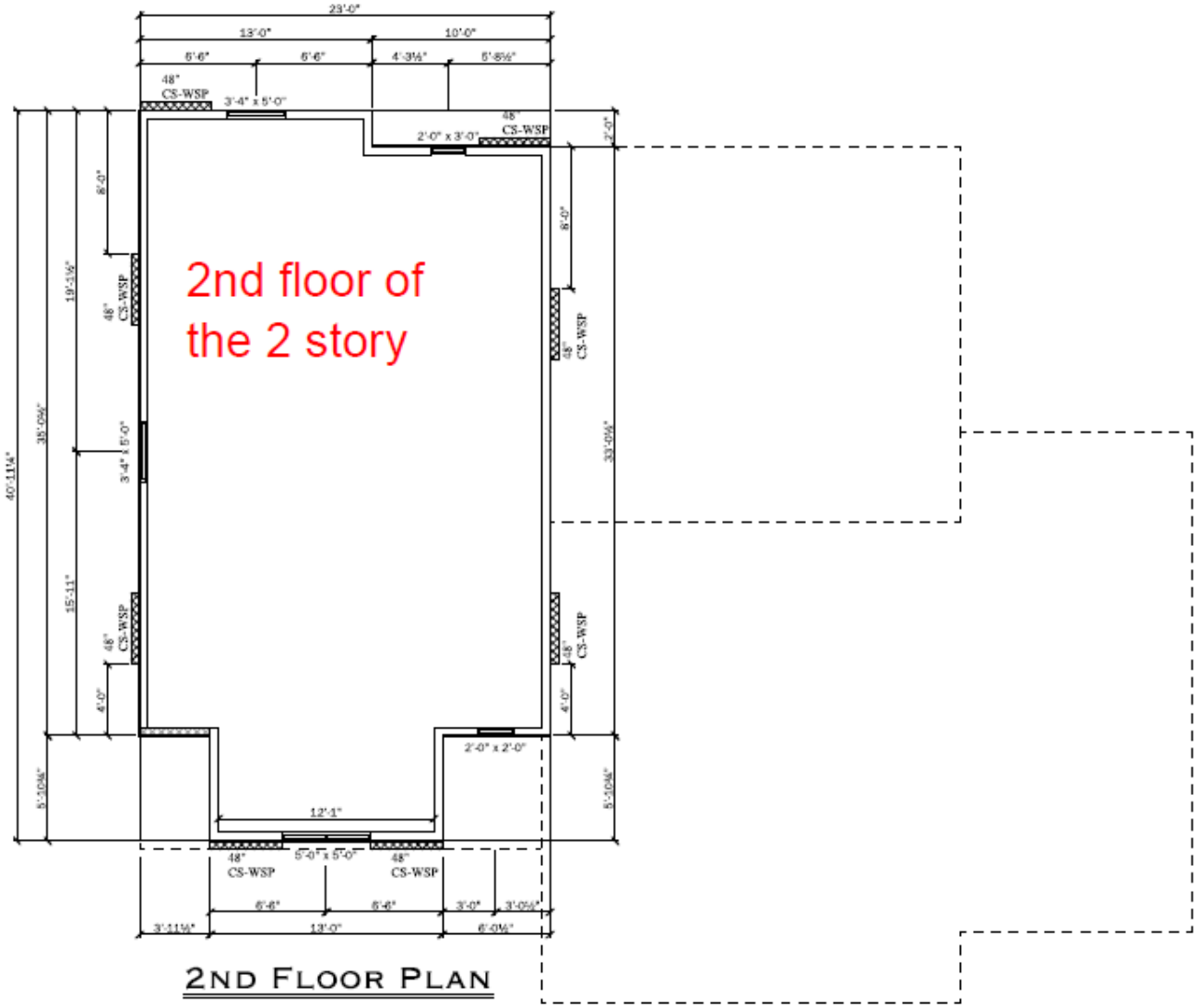
Walls Supporting:	Intermittent method (LIB, DWB, WSP, SFB, GB, PCP) and # of panels per Table 321.25-1 Min. panel width (Table 321.25-G) = _____		Continuous method (CS-WSP, CS-SFB) and total length required per Table 321.25-H Min. panel width (Table 321.25-H) = Q		PF Method (see Figure 321.25-A). Indicate number of PF panels 16-24" wide provided. Min. PF width (Fig. 321.25-A) = _____	
	Long side	Short side	Long side	Short Side	Long side	Short side
Roof and ceiling only			R	S		
One floor, roof and ceiling						
Two floors, roof and ceiling						

PF Method: For Intermittent bracing, per Table 321.25-I footnote 'h', each PF panel (16-24" wide per Figure 321.25-A) counts as ½ of a braced wall panel when determining compliance with Table 321.25-I. For Continuously Sheathed bracing, the actual length of each PF panel (16-24" wide per Figure 321.25-A) in feet counts toward the required total length of bracing required. For intermittent or continuous methods, each PF panel meeting min. required width of Fig. 321.25-A counts as a braced wall panel when evaluating panel spacing per Fig. 321.25-C.



Wall Compliance Information:

- Long side; 59’ (front and back)
- Short side: 48’-0 1/2” (left and right)
- House wall height: 8’-1 1/8” (T-321.25-G footnote b. actual wall height can exceed by up to 4”)
- Garage wall height: 9’-3 ¼”
- Top of wall to ridge height: 14’ 11”
- No gypsum wall board on exterior garage walls.
- Wall supporting: one floor, roof and ceiling.
- Minimum panel width next to a 6’-8” door: 32” for up to 8’-4 ½” and 30” for 9’-4 ½” tall walls.
- Long side front: 16.7’ (portal framed) x .95 (9’ wall height reduction T-321.25-J footnote c) = 15.86’ required and 19’-10 1/2” provided.
- Long side rear: 16.7’ x .95 x 1.4 (no gypsum board on garage walls T-321.25-J footnote d) = 22.21’ required and 23-5 1/2” provided.
- Short sides: 19.6’ x .95 x 1.4 = 26’ required and 28’ provided.
- Continuous Sheathing WSP on exterior walls



Wall Compliance Information:

- Long side; 40’-11 ¼”
- Short front and back sides: 23’
- House wall height: 8’-1 1/8”
- Garage wall height:
- Top of wall to ridge height: 10’
- Wall supporting: roof and ceiling.
- Minimum panel width next to a 5’-4” window: 24” for up to 8’-4 ½” tall walls.
- Short front and back sides: 7.5’ x .90 = 6.75’ required and 8’provided.
- Long sides: 5’ x .90 = 4.5’ required and 8’ provided
- Continuous Sheathing WSP on exterior walls

Use the worksheet on page 7 and diagrams on 8-9 to answer questions 24-41

24. The letter B above represents the side wall height of ____. (House or garage-use tallest wall height)
    a. 8’-1 1/8”
    b. 9’-3 ¼”
    c. 10’
    d. 11’

25. The letter C above represents the eave to ridge height (changing to top-of-wall-to-top-ridge) ____.
    a. 8’
    b. 14’-11”
    c. 10’
    d. 11’
26. The letter D above represents the maximum open height of ____. (Use entrance door not PF O/H dr)
    a. 5’ 4”
    b. 6’ 8”
    c. 8’
    d. 9’
27. The letter E above represents the wind exposure ____.
    a. A
    b. B
    c. C
    d. D
28. The minimum panel width for F would be ____ inches. (Assume garage service door)
    a. 24
    b. 30
    c. 36
    d. 48
29. The minimum PF width for G would be ____ inches (9’-3 1/4”garage wall height- fig. 325.25-A)
    a. 16
    b. 18
    c. 22
    d. 24
30. The letter H above represents a minimum panel length of ____ required on the front side.
    a. 22.21’
    b. 26’
    c. 15.86’
    d. 19.5’
31. The provided panel length for the front side H above would be ____.
    a. 22.21’
    b. 23’-5 ½”
    c. 15.86’
    d. 19’-10 ½”
32. The letter H above represents a minimum panel length of ____ required on the rear side.
    a. 22.21’
    b. 26’
    c. 15.86’
    d. 19.5’
33. The provided panel length for the rear side H above would be ____.
    a. 22.21’
    b. 23’-5 ½”
    c. 15.86’
    d. 19’-10 ½”
34. The letter I above represents a minimum panel length of ____ required on both sides.
    a. 22.21’
    b. 26’
    c. 15.86’
    d. 19.5’

35. The provided panel length for both sides I above would be ____.
    a. 22.21’
    b. 26’
    c. 15.86’
    d. 28’
36. The letter J above represents the number of PF panels and that number would be ____.
    a. 0
    b. 2
    c. 3
    d. 4
37. The letter K above represents the number of PF panels and that number would be ____.
    a. 0
    b. 2
    c. 3
    d. 4
38. The letter M above represents the side wall height of ____. (House or garage-use tallest wall height)
    a. 8’-1 1/8”
    b. 9’-3 ¼”
    c. 10’
39. The letter O above represents the maximum open height of ____. (Use window & Table 321.25-H page 44 above)
    a. 5’ 4”
    b. 6’ 8”
    c. 8’
    d. 9’
40. The letter R above represents a minimum panel length of ____ required on front and back.
    a. 4.5’
    b. 2.26’
    c. 6.75’
    d. 9.5’
41. The letter S above represents a minimum panel length of ____ required on both sides.
    a. 4.5’
    b. 2.26’
    c. 6.75’
    d. 9.5’

Wall Bracing Compliance Worksheet

Complete this worksheet or provide equivalent information on the plans submitted with the permit application.

Sketch and dimension the building plan and the wall bracing rectangle(s) per 321.25(8)(c)1. and Figure 321.25-B. Provide and label additional sketches if the building plan/rectangles change at different floor levels.

Use this worksheet for the 1-1/2 story questions below.

This will be changing to "top of wall to top of ridge height"

Indicate applicable Wall Bracing Method for each level (see Table 321.25-G), each labeled rectangle if more than one [see 321.25(8)(c)], and amount of bracing (# of braced panels or length of braced wall required) per the respective table (provide additional worksheets for additional rectangles as needed):

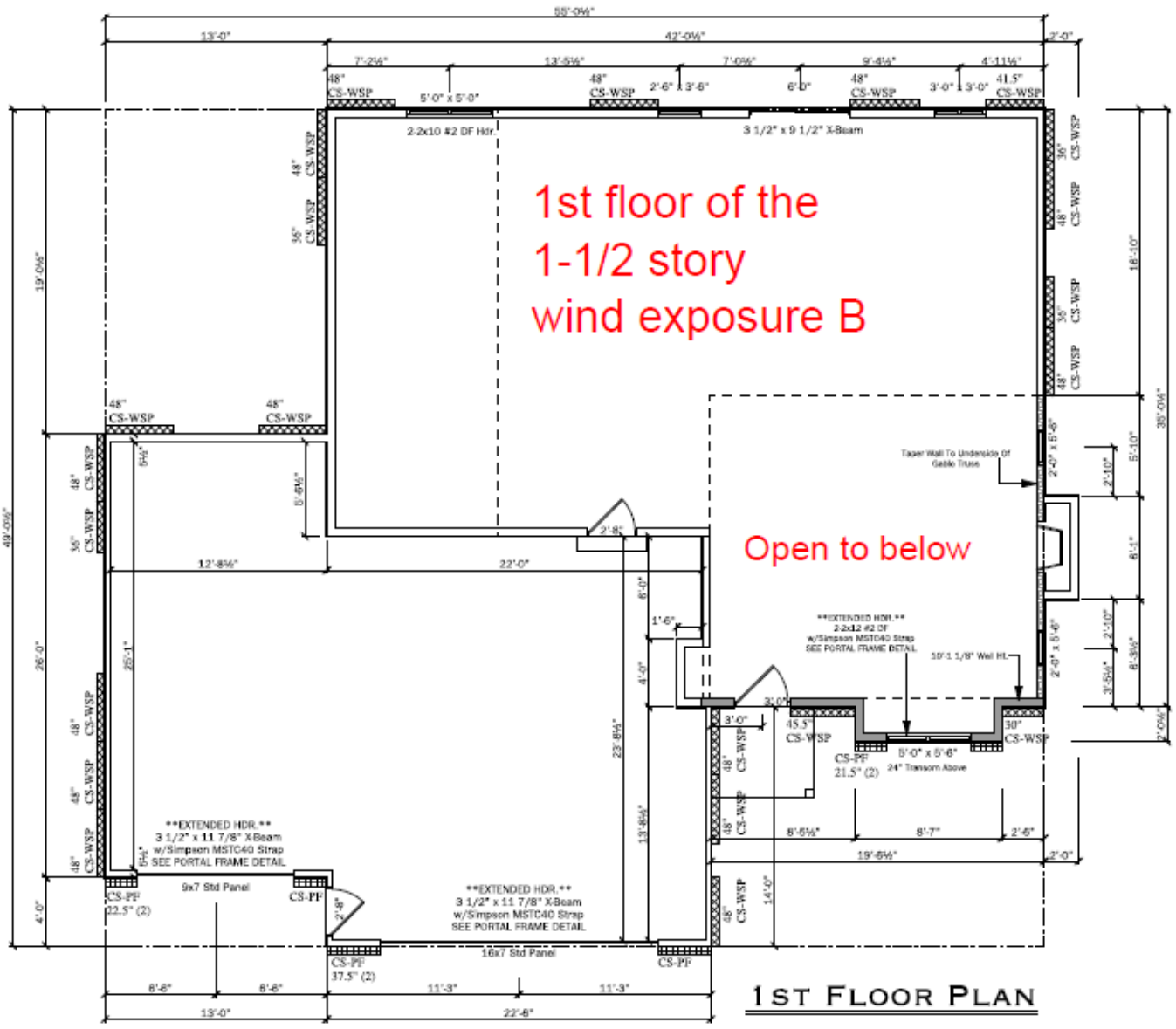
Rectangle: 1st fl Wall Ht. = B Eave to Ridge Ht. = C Max. Opening Ht. = D Wind Exp. = E

Walls Supporting:	Intermittent method (LIB, DWB, WSP, SFB, GB, PCP) and # of panels per Table 321.25-I Min. panel width (Table 321.25-G) = _____		Continuous method (CS-WSP, CS-SFB) and total length required per Table 321.25-J Min. panel width (Table 321.25-H) = F		PF Method (see Figure 321.25-A). Indicate number of PF panels 16-24" wide provided. Min. PF width (Fig. 321.25-A) = G	
	Long side	Short side	Long side	Short side	Long side	Short side
Roof and ceiling only						
One floor, roof and ceiling			H	I	J	K
Two floors, roof and ceiling						

Rectangle: 2nd floor Wall Ht. = M Eave to Ridge Ht. = N Max. Opening Ht. = O Wind Exp. = ____

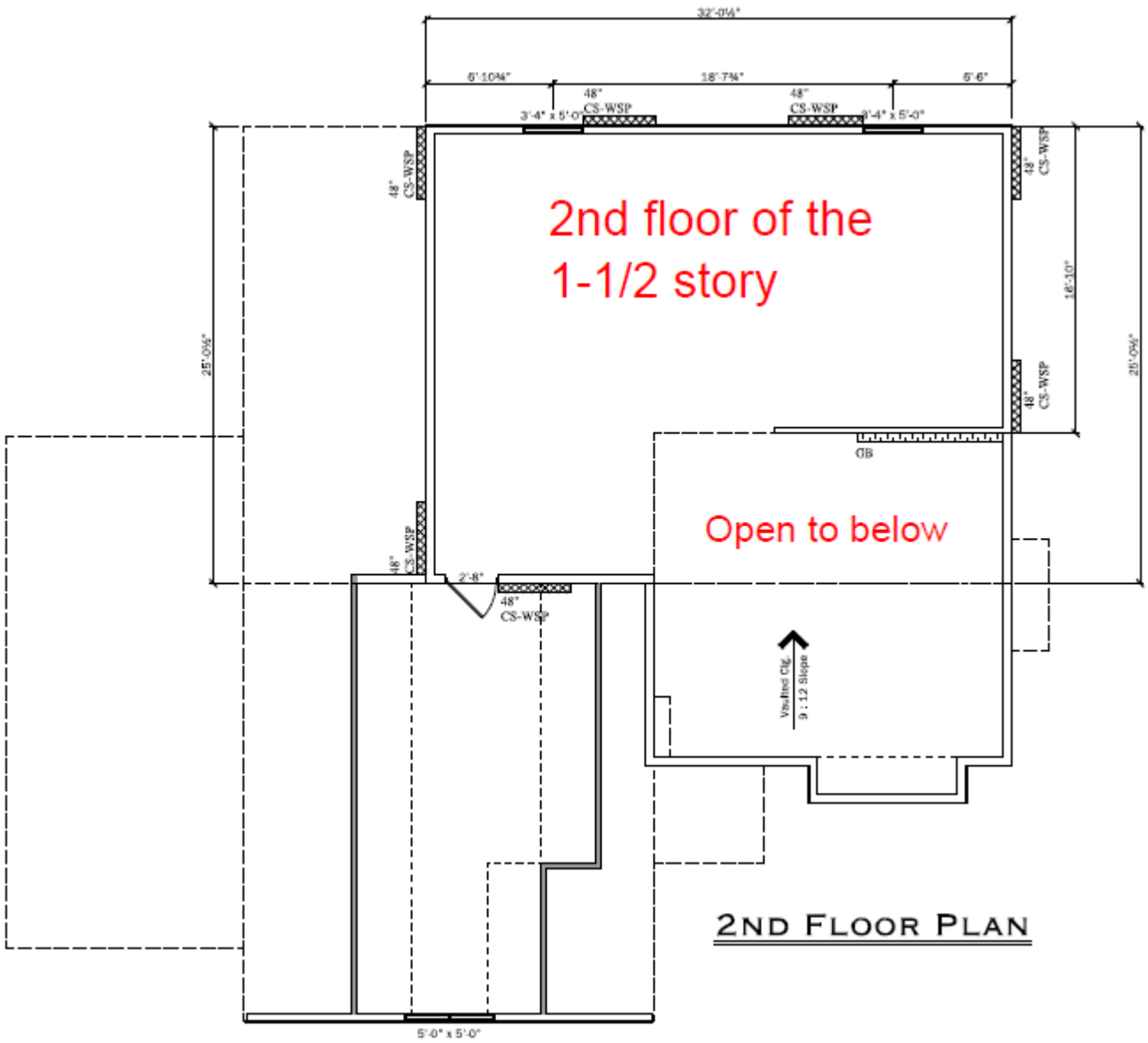
Walls Supporting:	Intermittent method (LIB, DWB, WSP, SFB, GB, PCP) and # of panels per Table 321.25-1 Min. panel width (Table 321.25-G) = _____		Continuous method (CS-WSP, CS-SFB) and total length required per Table 321.25-H Min. panel width (Table 321.25-H) = Q		PF Method (see Figure 321.25-A). Indicate number of PF panels 16-24" wide provided. Min. PF width (Fig. 321.25-A) = _____	
	Long side	Short side	Long side	Short Side	Long side	Short side
Roof and ceiling only			R	S		
One floor, roof and ceiling						
Two floors, roof and ceiling						

PF Method: For Intermittent bracing, per Table 321.25-I footnote 'h', each PF panel (16-24" wide per Figure 321.25-A) counts as ½ of a braced wall panel when determining compliance with Table 321.25-I. For Continuously Sheathed bracing, the actual length of each PF panel (16-24" wide per Figure 321.25-A) in feet counts toward the required total length of bracing required. For intermittent or continuous methods, each PF panel meeting min. required width of Fig. 321.25-A counts as a braced wall panel when evaluating panel spacing per Fig. 321.25-C.



Wall Compliance Information:

- Long side; 55’-0 ½” (front and back) and for the interpolation calculations use 55’ even.
- Short side: 49’-0 1/2” (left and right) and for the interpolation calculations use 49’ even.
- House wall height: 8’-1 1/8” (T-321.25-G footnote b. actual wall height can exceed by up to 4”)
- Garage wall height: 9’-3 ¼”
- Top of wall to ridge height: 14’
- No gypsum wall board on exterior garage walls.
- Wall supporting: one floor, roof and ceiling.
- Minimum panel width next to a 6’-8” door: 32” for up to 8’-4 ½” and 30” for 9’-4 ½” tall walls.
- Long side front: 16.7’ (portal framed) x .95 (9’ wall height reduction T-321.25-J footnote c) = 15.86’ required and 19’-10 1/2” provided.
- Long side rear: 16.7’ x .95 x 1.4 (no gypsum board on garage walls T-321.25-J footnote d) = 22.21’ required and 23-5 1/2” provided.
- Short sides: 19.6’ x .95 x 1.4 = 26’ required and 26’ provided.
- Continuous Sheathing WSP on exterior walls.



Wall Compliance Information:

- Long side; 32’-0 ½” (front and rear)
- Short sides: 25’-0 ½” (left and right)
- House wall height: 8’-1 1/8”
- Garage wall height:
- Top of wall to ridge height: 9’-4”
- Wall supporting: roof and ceiling.
- Minimum panel width next to a 5’-4” window: 24” for up to 8’-4 ½” tall walls.
- Long front and rear sides: 5’ x .90 = 4.5’ required and 8’ provided
- Short sides: 6’ x .90 = 5.4’ required and 8’provided.
- Continuous Sheathing WSP on exterior walls

Use the worksheet on page 12 and diagrams on 13-14 to answer questions 42-60

42. The letter B above represents the side wall height of ____. (House or garage-use tallest wall height)
    a. 8'-1 1/8"
    b. 9'-3 ¼"
    c. 10'
    d. 11'
43. The letter C above represents the eave to ridge height (changing to top-of-wall-to-top-ridge) ____.
    a. 8'
    b. 14'-11"
    c. 10'
    d. 11'
44. The letter D above represents the maximum open height of ____. (Use entrance door not PF O/H dr)
    a. 5' 4"
    b. 6' 8"
    c. 8'
    d. 9'
45. The minimum panel width for F would be ____ inches. (Table 321.25-H page 44 above)
    a. 24
    b. 30
    c. 36
    d. 48
46. The minimum PF width for G would be ____ inches. (9'-3 1/4"garage wall height- fig. 325.25-A)
    a. 16
    b. 18
    c. 22
    d. 24
47. The letter H above represents a minimum panel length of ____ required on the front. Use exposure B and Table 321.25-J footnote c.
    a. 22.21'x 1.6
    b. 15.86'
    c. 15.86' x 1.3
    d. 15.86' x 1.6
48. The letter H above represents a minimum panel length of ____ required on the rear. Use exposure B and Table 321.25-J footnote c.
    a. 22.21' x 1.6
    b. 22.21'x 1.3
    c. 15.86' x 1.3
    d. 22.21'
49. The letter H above represents a minimum panel length of ____ required on the front. Use exposure C and Table 321.25-J footnote c.
    a. 22.21'x 1.6
    b. 26' x 1.3
    c. 15.86' x 1.3
    d. 15.86' x 1.6
50. The letter H above represents a minimum panel length of ____ required on the rear. Use exposure D and Table 321.25-J footnote c.
    a. 22.21' x 1.6
    b. 22.21'x 1.3
    c. 15.86' x 1.3

d. 19.5’ x 1.3

51. The letter I above represents a minimum panel length of ____ required on both sides.
    a. 22.21’
    b. 26’
    c. 15.86’
    d. 19.5’

One way interpolation will be used for the next two questions

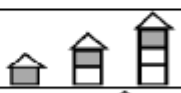
15	Roof and ceiling only		2.6[i]	4.6	6.5	7.8	9.8	11.7	13.7	15.7
	One floor, roof and ceiling		4.0	7.5	10.4	13.8	16.7	19.6	22.9	26.2
	Two floors, roof and ceiling		5.5	10.5	14.9	19.3	23.7	27.5	32.1	36.7

52. Only the **length of perpendicular side** interpolation will be included in this calculation from Table 321.25-J and footnote. The letter H above represents a minimum panel length of ____ required on the **long side rear**. 16.7 - 13.8 = 2.9 now divide 2.9 by 10 (10 is the difference between 50’ – 40’) = .29 per each foot. The side length is 49’ & 9’ > 40’ or 9 x .29 = 2.61. We will add the 2.61 + 13.8 to equal?
    a. 22.21’ x 1.4 no gypsum board x .95 wall height reduction
    b. 16.41’ x 1.4 no gypsum board x .95 wall height reduction
    c. 15.86’ x 1.4 no gypsum board x .95 wall height reduction
    d. 19.5’ x 1.4 no gypsum board x .95 wall height reduction

53. Only the **length of perpendicular side** interpolation will be included in this calculation from Table 321.25-J and footnote a. The letter I above represents a minimum panel length of ____ required on **both short sides.** 19.6 – 16.7 = 2.9 now divide 2.9 by 10 (10 is the difference between 60’ – 50’) = .29 per each foot. The side length is 55’ & 5’ > 50’ or 5 x .29 = 1.45. We will add the 1.45 + 16.7 to equal?
    a. 22.21’ x 1.4 no gypsum board x .95 wall height reduction
    b. 20.21’ x 1.4 no gypsum board x .95 wall height reduction
    c. 15.86’ x 1.4 no gypsum board x .95 wall height reduction
    d. 18.15’ x 1.4 no gypsum board x .95 wall height reduction

Two way interpolations will be used for the next two questions

Table 321.25–J
REQUIRED LENGTH OF CONTINUOUS BRACING ON WALLS PARALLEL TO EACH RECTANGLE SIDE AT EACH FLOOR LEVEL[a,b,c,d, e,g,h]

Top-of-Wall-to-Ridge Height (feet)	Wall Supporting:		Total Required Length (feet) of Full-Height Bracing on Any Side of Rectangle							
			Length of Perpendicular Side (feet)[f]							
			10	20	30	40	50	60	70	80
10	Roof and ceiling only		2.0[i]	3.5[i]	5.0	6.0	7.5	9.0	10.5	12.0
	One floor, roof and ceiling		3.5[i]	6.5	9.0	12.0	14.5	17.0	19.8	22.6
	Two floors, roof and ceiling		5.0	9.5	13.5	17.5	21.5	25.5	29.2	33.4

15	Roof and ceiling only		2.6[i]	4.6	6.5	7.8	9.8	11.7	13.7	15.7
	One floor, roof and ceiling		4.0	7.5	10.4	13.8	16.7	19.6	22.9	26.2
	Two floors, roof and ceiling		5.5	10.5	14.9	19.3	23.7	27.5	32.1	36.7

Partial interpolation cheat sheet "Length of Perpendicular Side" (one floor, roof, & ceiling)

	40'		**50'**		**60'**
10'	12'	10'	14.5'	10'	17'
11'	12.36'	11'	14.94'	11'	17.52'
12'	12.72'	12'	15.38'	12'	18.04'
13'	13.08'	13'	15.82'	13'	18.56'
14'	13.44'	14'	16.26'	14'	19.08'
15'	13.8'	15'	16.7'	15'	19.6'

54. Both top of wall to ridge height and length of perpendicular side interpolations will be included in this calculation from Table 321.25-J and footnote. The letter H above represents a minimum panel length of ____ required on the **long side rear**. 16.26 - 13.44 = 2.82 now divide 2.82 by 10 (10 is the difference between 50' – 40') = .282 per each foot. The side length is 49' & 9' > 40' or 9 x .282 = 2.538. We will add the 2.538 + 13.44 to equal letter H above.
    a. 22.21' x 1.4 no gypsum board x .95 wall height reduction
    b. 15.978' x 1.4 no gypsum board x .95 wall height reduction
    c. 15.86' x 1.4 no gypsum board x .95 wall height reduction
    d. 19.5' x 1.4 no gypsum board x .95 wall height reduction

55. Both top of wall to ridge height and length of perpendicular side interpolations will be included in this calculation from Table 321.25-J and footnote. The letter H above represents a minimum panel length of ____ required on the **long side front**. 16.26 - 13.44 = 2.82 now divide 2.82 by 10 (10 is the difference between 50' – 40') = .282 per each foot. The side length is 49' & 9' > 40' or 9 x .282 = 2.538. We will add the 2.538 + 13.44 to equal letter H above. Portal framed overhead doors-no gypsum required.
    a. 22.21' x .95 wall height reduction
    b. 15.978' x .95 wall height reduction
    c. 15.86' x .95 wall height reduction
    d. 19.5' x .95 wall height reduction

56. Both top of wall to ridge height and length of perpendicular side interpolations will be included in this calculation from Table 321.25-J and footnote a. The letter I above represents a minimum panel length of ____ required on **both short sides.** 19.08 – 16.26 = 2.82 now divide 2.82 by 10 (10 is the difference between 60' – 50') = .282 per each foot. The side length is 55' & 5' > 50' or 5 x .282 = 1.41. We will add the 1.41 + 16.26 to equal letter I above.
    a. 22.21' x 1.4 no gypsum board x .95 wall height reduction
    b. 20.21' x 1.4 no gypsum board x .95 wall height reduction
    c. 15.86' x 1.4 no gypsum board x .95 wall height reduction
    d. 17.67' x 1.4 no gypsum board x .95 wall height reduction

57. The letter J above represents the number of PF panels and that number would be ____.
    a. 0
    b. 2
    c. 3
    d. 4

58. The minimum panel width for Q would be ____ inches. (Assume window)
    a. 24
    b. 30
    c. 36
    d. 48
59. The letter R above represents a minimum panel length of ____ required on the front and rear sides.
    a. 4.5’
    b. 2.26’
    c. 5.4’
    d. 9.5’
60. The letter S above represents a minimum panel length of ____ required on both sides.
    a. 4.5’
    b. 2.26’
    c. 5.4’
    d. 9.5’

UDC Wall Bracing Diagram quiz

1	a	b	c	d	21	a	b	c	d	41	a	b	c	d
2	a	b	c	d	22	a	b	c	d	42	a	b	c	d
3	a	b	c	d	23	a	b	c	d	43	a	b	c	d
4	a	b	c	d	24	a	b	c	d	44	a	b	c	d
5	a	b	c	d	25	a	b	c	d	45	a	b	c	d
6	a	b	c	d	26	a	b	c	d	46	a	b	c	d
7	a	b	c	d	27	a	b	c	d	47	a	b	c	d
8	a	b	c	d	28	a	b	c	d	48	a	b	c	d
9	a	b	c	d	29	a	b	c	d	49	a	b	c	d
10	a	b	c	d	30	a	b	c	d	50	a	b	c	d
11	a	b	c	d	31	a	b	c	d	51	a	b	c	d
12	a	b	c	d	32	a	b	c	d	52	a	b	c	d
13	a	b	c	d	33	a	b	c	d	53	a	b	c	d
14	a	b	c	d	34	a	b	c	d	54	a	b	c	d
15	a	b	c	d	35	a	b	c	d	55	a	b	c	d
16	a	b	c	d	36	a	b	c	d	56	a	b	c	d
17	a	b	c	d	37	a	b	c	d	57	a	b	c	d
18	a	b	c	d	38	a	b	c	d	58	a	b	c	d
19	a	b	c	d	39	a	b	c	d	59	a	b	c	d
20	a	b	c	d	40	a	b	c	d	60	a	b	c	d

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