



# PPD-PDD CASE STUDY A

## Urban Residential

### PROVIDED DOCUMENTS

Plan Set  
Zoning Excerpt  
W-Shape Steel Table  
2015 IBC (Online Access)

### WELCOME

OK guys, there is nothing scary or difficult about the case study questions. All the answers are there, you just have to know where to look! The questions and answers in this case study will be similar to what you will see on the real test. You need to know the difference between zoning and code. You need to know fire separations. You need to know wall assemblies. Even more important than knowing these things is *knowing where to look* for the answers. So with every answer I'm also providing a general "Where to Look" guidance for where I would look for the required information.

This thing was pretty fun for me to put together. I hope you enjoy it!



# PPD-PDD CASE STUDY A

## Case Study Scenario

Your client owns two adjacent lots in the Residential Flat (RF-1) zone and would like to construct two attached row houses that share a party wall along the property line. Each building requires two dwelling units. The total land area of the site is 4500 ft<sup>2</sup>. Lot A is 1900 ft<sup>2</sup> and Lot B is 2600 ft<sup>2</sup>. The building will be constructed with cast-in-place footings, block masonry foundation walls and wood framed exterior and interior walls. The cellar floor will be a slab on grade and floors above will be framed with plywood web joists. The row houses will be equipped with an approved sprinkler system. North is up on all plans.

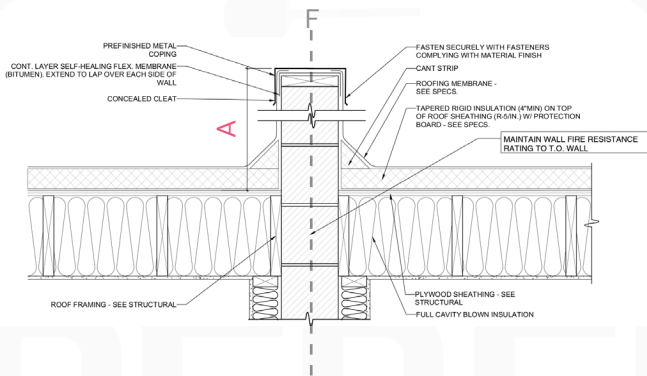
# CASE STUDY A - QUESTIONS

## QUESTION 1

What is the required fire resistance rating of the wall along Gridline F?

## QUESTION 2

What is the minimum requirement for dimension A?



## QUESTION 3

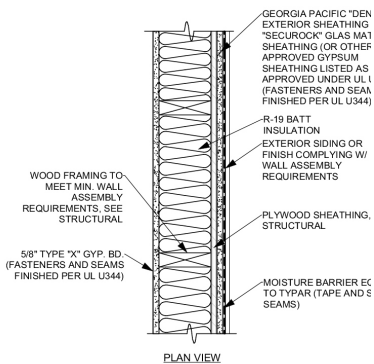
The owner prefers to only use Heritage Mill products for finished floors. The contractor currently plans on using American Originals Tinted Teak Oak for the Building A Family Room on the 2nd floor. What is the approximate cost increase to finish this room with a Heritage Mill product?

Brand	Type	Cost/Sq. Ft.
Heritage Mill	Scraped Maple Tranquil Fog 5in Wide	6.29
Bruce	American Originals Country Natural Maple 5in Wide	5.79
Shaw	Woodale Caramel Oak 2-1/4 in Wide	2.99
Bruce	American Originals Tinted Teak Oak 5 in Wide	4.99
Bruce	Revolutionary Rustics Oak Cloud	5.39

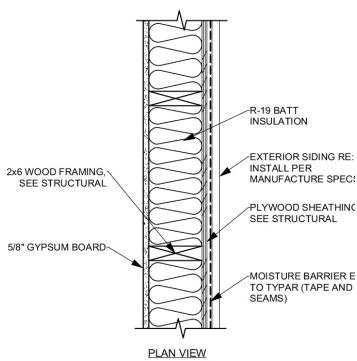
## QUESTION 4

Which assembly is the most appropriate to use for Wall H?

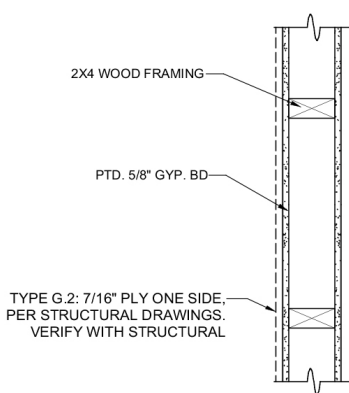
# 1



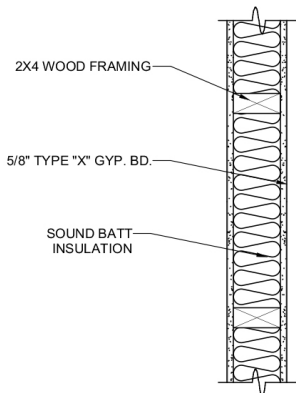
# 2



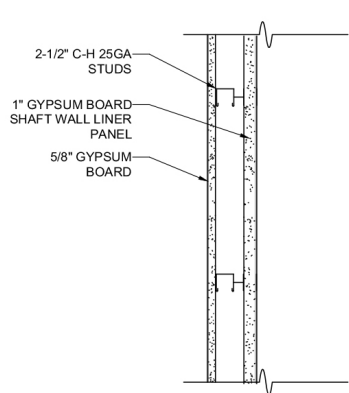
# 3



# 4



# 5





# CASE STUDY A - ANSWERS

## ANSWER 1

The fire-resistance rating is 2 hours. See 2015 IBC Table 706.4

### WHERE TO LOOK

Floor plan

then

2015 IBC Ch 7

## ANSWER 2

The minimum dimension is 30" per 2015 IBC 706.6. This is a Fire Wall, you need to understand the vertical continuity of Fire Walls, Fire Barriers and Fire Partitions.

### WHERE TO LOOK

Floor plan

then

2015 IBC Ch 7

## ANSWER 3

This will result in a cost increase of approximately \$247. First, find the area of the Family Room using the dimensions on the plan. This is about 190 sq. ft. Remember to subtract the area of the Powder Room. Then find the difference in cost of the two flooring options. The Heritage Mill product is \$1.30 more than the Bruce produce ( $\$6.29 - \$4.99 = \$1.30$ ). Then multiply 190 sq. ft. by \$1.30 to find the cost difference.

**NOTE:** This is more difficult and ambiguous than you might experience on the exam, but the concept and skills needed are the same. I had a very similar question on my PPD exam. I needed to find the area of a room given only dimensions...and I didn't think they were all there. Don't worry if your number didn't match mine, just understand the process.

## ANSWER 4

Assembly #4 is the correct assembly for Wall H. This is an interior partition that requires a 1-hr rating.

### WHERE TO LOOK

Floor plan

then

2015 IBC Chapter 4 Section 420

## ANSWER 5

## ANSWER 6