

2018 WASHINGTON STATE BLDG CODE

CHAPTER 3 USE AND OCCUPANCY CLASSIFICATION

303.1.2 SMALL ASSEMBLY SPACES: A ROOM USED FOR ASSEMBLY PURPOSE WITH AN OCCUPANT LOAD OF LESS THAN 50 PERSON AND ACCESSORY TO ANOTHER OCCUPANCY SHALL BE CLASSIFIED AS A GROUP B

309.1 MERCANTILE GROUP M: INCLUDES MARKETS AND ACCESSORY SPACES

CHAPTER 5 GENERAL BUILDING HEIGHTS AND AREAS

FOR ALLOWABLE HEIGHT, STORIES, AND BLDG AREA, OCCUPANCY: B, M CONSTRUCTION TYPE: VB SPRINKLERED

TABLE 504.3 ALLOWABLE BUILDING HEIGHT AND AREA HEIGHT = 60' -> PROVIDE 20'-10"

TABLE 504.4 ALLOWABLE # OF STORIES # OF STORIES = 3 FOR B, 2 FOR M -> PROVIDE 1 STORY

TABLE 506 ALLOWABLE BUILDING AREA FACTOR (A_r) S1: 36,000 SQFT (N5: 9,000 SQFT)

506.2.4 MIXED-OCCUPANCY, MULTISTORY BUILDINGS

A_n = [A_r + (N5 * I_r)] (ALLOWABLE AREA PER STORY)

A_r = 36,000 SQFT

N5 = 9,000 SQFT

I_r = 0.50

I_r = [F/P - 0.25] * (N/30)

F = 270 FT

P = 320 FT

N = 30 * (270/320) = 30

I_r = [(270/320) - 0.25] * (30/30) = 0.57

A_n = 36,000 + (9,000 * 0.57) = 41,158 SQFT -> PROVIDE 5369 SQFT

508.1 GENERAL: WHERE A BUILDING OR PORTION THEREOF CONTAINS TWO OR MORE OCCUPANCIES OR USES, THE BUILDING OR PORTION THEREOF SHALL COMPLY WITH THE APPLICABLE PROVISIONS OF SECTION 508.2, -3, OR -4 OR A COMBINATION OF THESE SECTIONS.

TABLE 508.4 SEPARATED OCCUPANCIES: THERE IS NO SEPARATION REQUIRED BETWEEN GROUP B AND GROUP M OCCUPANCIES.

CHAPTER 6 TYPES OF CONSTRUCTION

TABLE 601 FIRE-RESISTANCE RATING REQUIREMENTS FOR TYPE V-B STRUCTURAL FRAME: 0 HOUR

BEARING WALLS (ALL):

EXTERIOR 0 HOUR

INTERIOR 0 HOUR

NONBEARING WALLS:

EXTERIOR: 0 HOUR (30' SEPARATION DI PER TABLE 602)

INTERIOR: 0 HOUR (5< X < 10)

FLOOR CONSTRUCTION: 0 HOUR

ROOF CONSTRUCTION: 0 HOUR

602.5 TYPE V, TYPE V CONSTRUCTION IS THAT TYPE OF CONSTRUCTION IN WHICH THE STRUCTURAL ELEMENTS, EXTERIOR WALLS AND INTERIOR WALLS ARE OF ANY MATERIALS PERMITTED BY THIS CODE.

CHAPTER 7 FIRE AND SMOKE PROTECTION

TABLE 716.1 EXTERIOR WALL: FOR 1 HR FIRE-RATED WALL, MIN DR ASSEMBLY HR = 3/4 HR

T16.2.6.1 DOOR CLOSING: FIRE DOORS SHALL BE LATCHING AND SELF CLOSING

TABLE 721.1 ITEM # 15-1.12 1-HR FIRE RATED WALL 2X6 @ 16" OC IV DOUBLE TOP PLATE, SINGLE BOT. PLATE 5/8" TYPE X GYP FOR BOTH INT & EXT IV 5 DRYWALL SCREWS CAVITY FILLED IV MINERAL WOOL INSULATION

CHAPTER 10 MEANS OF EGRESS

1004.1 DESIGN OCCUPANT LOAD IS SHOWN IN TABLE

MERCANTILE (M)	60 SF GROSS / OCCUPANT
BUSINESS (B - ACCESSORY TO M)	150 SF GROSS / OCCUPANT
KITCHEN (B - ACCESSORY TO M)	200 SF GROSS / OCCUPANT
(ACCESSORY OCC. PER 303.1.2.1)	

1005 EGRESS WIDTH: THE TOTAL WIDTH OF MEANS OF EGRESS SHALL BE THE OCCUPANT LOAD SERVED BY THE MEANS OF EGRESS MULTIPLIED BY 0.2 INCHES PER OCCUPANT FOR OTHER THAN STAIR EGRESS COMPONENTS.

1005.1 DOOR ENCROACHMENT: DOORS, WHEN FULLY OPENED SHALL NOT REDUCE THE REQUIRED MEANS OF EGRESS WIDTH BY MORE THAN 7". DOORS IN ANY POSITION SHALL NOT REDUCE THE REQUIRED WIDTH TO LESS THAN ONE-HALF.

TABLE 1006.2.1 SPACE IV / ONE EXIT

OCCUPANCY: M
MAX OCCUPANT LOAD OF SPACE = 49 PPL
MAX EGRESS TRAVEL DI IV SPRINKLER SYS. = 75 FT
OCCUPANCY: B
MAX OCCUPANT LOAD OF SPACE = 49 PPL
MAX EGRESS TRAVEL DI IV SPRINKLER SYS. = 100 FT

1010.1.1 SIZE OF DOORS: MIN CLR OPNG WIDTH OF 32"

1010.1.2 DOOR SWING: EGRESS DOORS SHALL BE OF THE PIVOTED OR SIDE-HINGED SWINGING TYPE.

1010.1.3 DOOR OPENING FORCE: THE FORCE FOR PUSHING OR PULLING OPEN INTERIOR SWINGING EGRESS DOORS, OTHER THAN FIRE DOORS, SHALL NOT EXCEED 5 POUNDS. THE DOOR SHALL SWING OPEN WHEN SUBJECTED TO A 15 POUND FORCE.

1010.1.6 THRESHOLDS AT DOORWAY SHALL NOT EXCEED 3/4"

1010.1.4 DOOR OPERATIONS, EXCEPT AS SPECIFICALLY PERMITTED BY THIS SECTION, EGRESS DOORS SHALL BE READILY OPENABLE FROM THE EGRESS SIDE WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE OR EFFORT. HDWR HEIGHT B/W 34"-48" AFF

1010.1.10 PANIC AND FIRE EXIT HARDWARE - NOT REQUIRED (SINCE THIS BUILDING IS NOT A NOR E), BUT PROVIDED @ MARKET & BISTRO EXITS

1013.1 EXITS DOORS SHALL BE MARKED BY AN APPROVED EXIST SIGN READILY VISIBLE FROM ANY DIRECTION OF EGRESS TRAVEL

1013.6.3 POWER SOURCE: EXIT SIGN SHALL BE ILLUMINATED AT ALL TIME... DURATION OF NOT LESS THAN 90 MIN IN CASE OF PRIMARY POWER LOSS... CONNECTED TO AN EMERGENCY POWER SYS.

TABLE 1017.2 EXIT ACCESS TRAVEL DISTANCE: THE COMMON PATH OF TRAVEL SHALL NOT EXCEED 250 FEET FOR M OCCUPANCY, AND 300 FOR B OCCUPANCY.

1017 EXIT ACCESS TRAVEL DISTANCE MAXIMUM TRAVEL DISTANCE FOR GROUP B AND GROUP M OCCUPANCY = 200 FEET

CHAPTER 29 PLUMBING SYSTEMS - WA STATE AMENDMENTS

TABLE 2902.1 (WA STATE AMENDMENTS)

GROUP B: BUSINESS: TOTAL OCCUPANTS: 9 OCCUPANTS

WATER CLOSETS:

MALE / FEMALE = 1 PER 25 FOR FIRST 50

REQUIRED: 1 WC EACH

LAVATORIES:

MALE/ FEMALE = 1 PER 40 FOR FIRST 80

REQUIRED: 1 LAV EACH

GROUP M: MERCANTILE OCCUPANTS: 37

WATER CLOSETS:

MALE / FEMALE = 37/500 = 1

REQUIRED: 1 WC EACH

LAVATORIES:

MALE/ FEMALE = 35/500 = 1

REQUIRED: 1 LAV EACH

TOTAL WATER CLOSET REQUIRED: 2

PROVIDE:

FEMALE: 2 STALLS

MALE: 1 STALLS, 1 URINAL

TOTAL LAVATORIES REQUIRED: 2

PROVIDED: 2 @ EACH BATHROOM

2902.5.1 EXCEPTION 2: A DRINKING FOUNTAIN NEED NOT BE PROVIDED IN A DRINKING OR DINING ESTABLISHMENT

2902.6 WATER: EACH REQUIRED SINK, LAVATORY... SHALL BE EQUIPPED WITH HOT AND COLD RUNNING WATER NECESSARY FOR ITS NORMAL OPERATION.

DOWNSPOUT CALCULATIONS

PROPOSED ROOF AREA:

7184 SF

MODIFIED ROOF AREA

PER TABLE 1-1 DESIGN AREAS FOR PITCHED ROOFS

FITCH FROM LEVEL TO 3 IN/FT WILL HAVE A "B" FACTOR OF 1.00.

ROOF AREA X FITCH FACTOR = 7184 SF * 1.00 = 7184 SF

REQUIRED DOWNSPOUT CAPACITY

PER TABLE 1-2 RAINFALL DATA AND DRAINAGE FACTORS WASHINGTON SEATTLE AREA, CALCULATED ROOF AREA DRAINED PER DOWNSPOUT AREA IS 360 FT²/IN² FROM STORE WHICH SHOULD BE EXCEEDED ONLY ONCE IN 100 YEARS

∴ MODIFIED ROOF AREA / 360 SF/IN² = 7184 SF / 360 SF/IN²

= 19.95 IN²

DOWNSPOUTS SELECTION/ REQUIREMENT

PROPOSE PLAIN 3" @ DOWNSPOUTS.

TABLE 1-3 DIMENSIONS OF STANDARD DOWNSPOUTS, PLAIN ROUND DOWNSPOUT WITH 3" @ HAS 1.07 IN² CAPACITY.

OF DOWNSPOUTS

REQUIRED DOWNSPOUTS CAPACITY / PROPOSED DOWNSPOUTS

CAPACITY

= 19.95 IN² / 1.07 (IN²/3" @ DOWNSPOUTS)

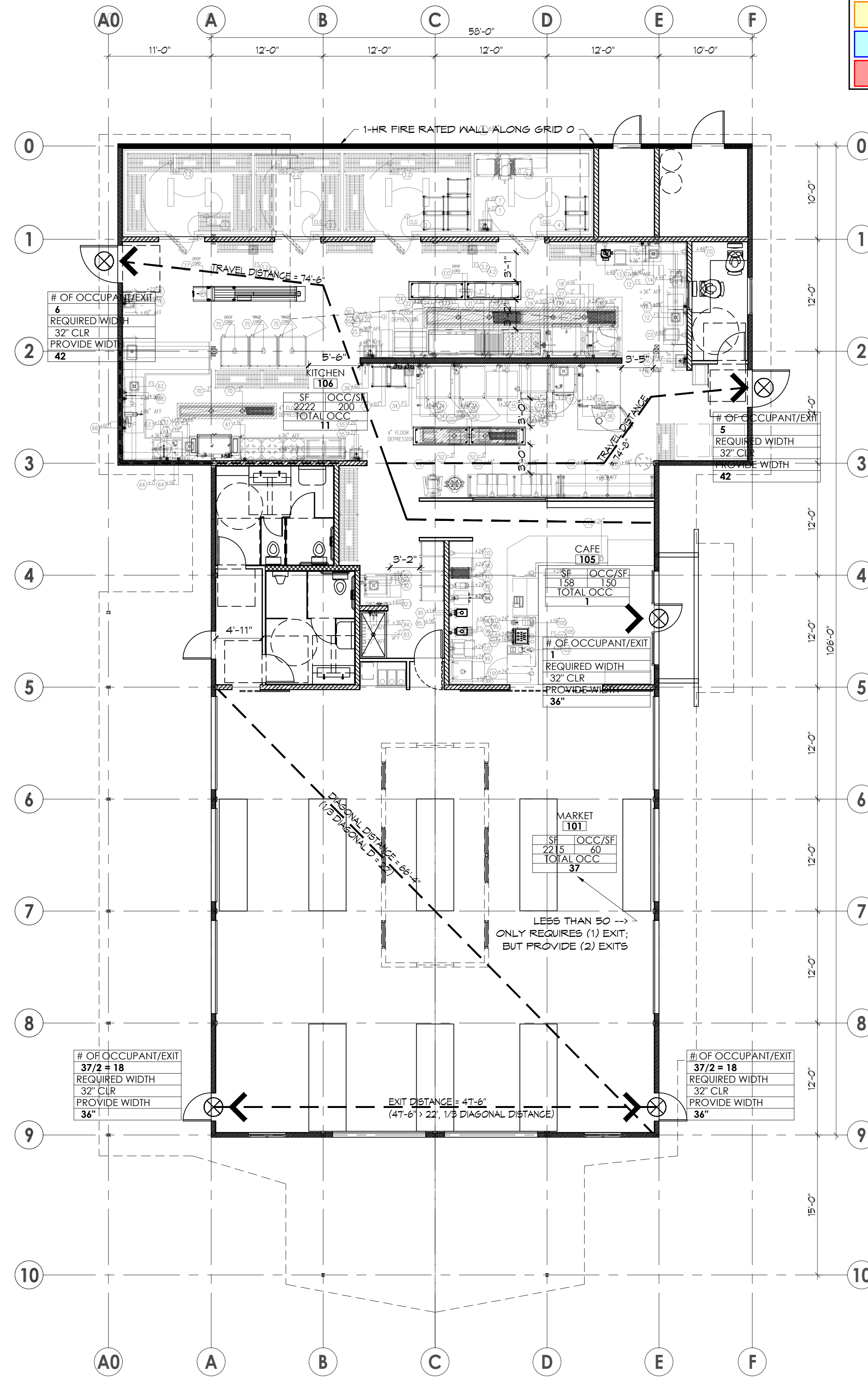
= 2.8 DOWNSPOUTS

∴ 3 DOWNSPOUTS ARE REQUIRED

PROVIDE DOWNSPOUTS:

(4) RAIN CHAIN

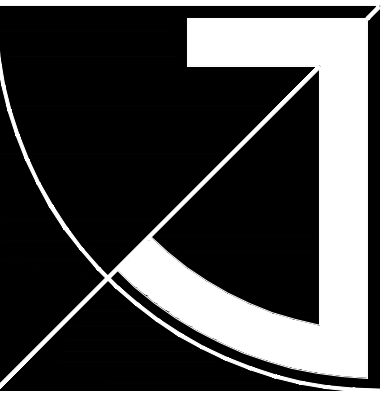
(7) 3" @ DOWNSPOUTS



1 FLOOR PLAN
1/8" = 1'-0"

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

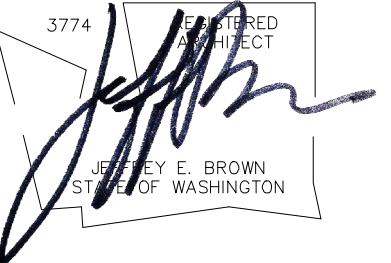


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PROJECT NAME/ADDRESS

STEP BY STEP

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PERMIT DOCUMENTS

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10.17.17 PERMIT-CITY

02.01.18 REVISION-CITY

04.20.21 REVISION-CITY

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08.23.21 REVISION-CITY

SHEET TITLE

CODE STUDY

SHEET #

GG2.1