

Roof Drainage - Building 3				05/30/19
Design Criteria (Based on 2012 IPC Section 1106)				
100 Year, 1 Hour Rainfall Rate= 3.5 in.				
	Downspout	Size (in.)	Slope (in.)	Allowable Area (sq. ft.)
		4x6		9,615
Based on SMACNA 1-1/2" head @ 3.5 in. rainfall rate				
	Scupper	12x6		
Note: At gutter collection system, distance between downspouts not to exceed 30 feet.				

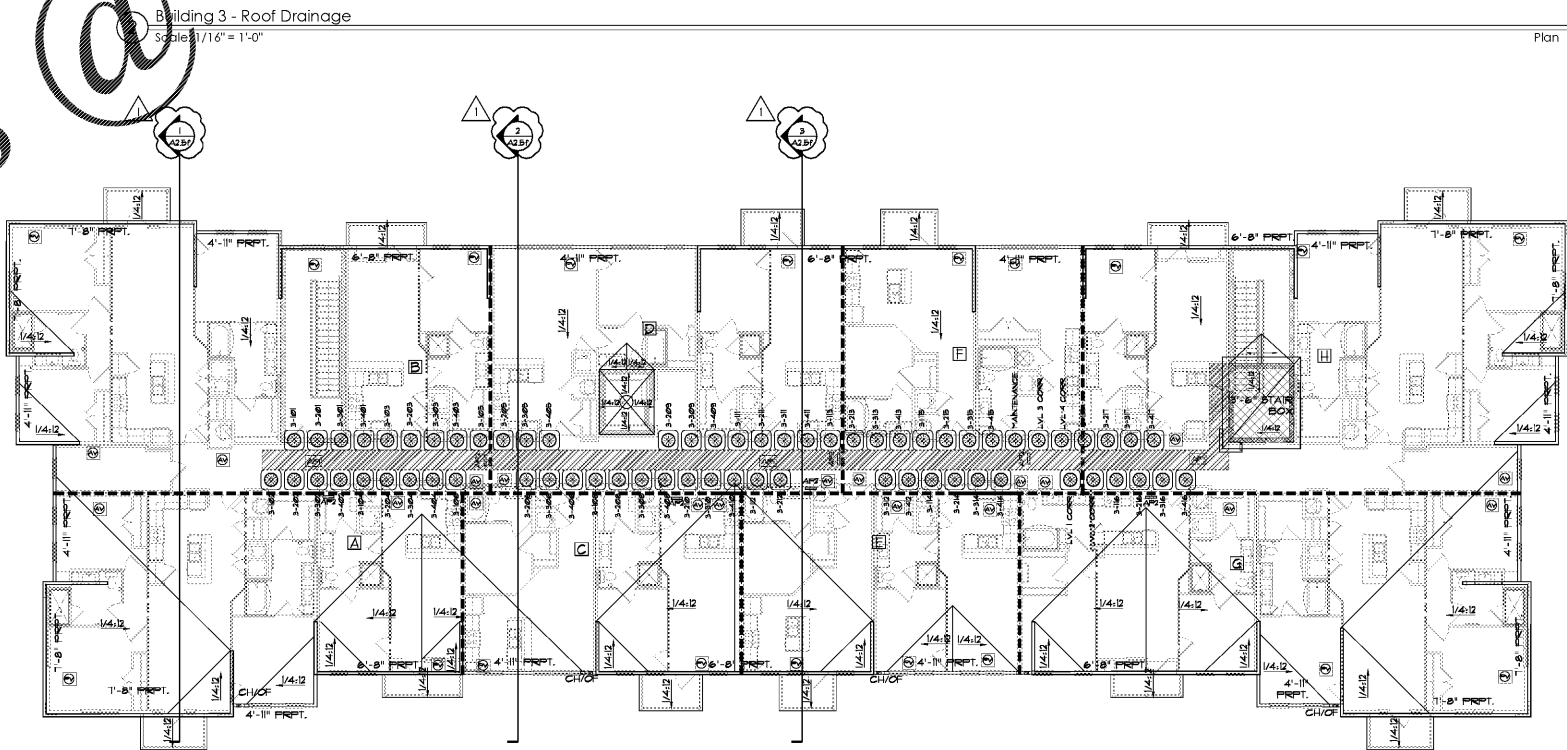
Roof Drainage Calculations						
Roof Area Number	Projected Roof Area (sq. ft.)			Design Area Provided (sq. ft.)		
	Flat Roof	Parapet	Total	Downspout	Storm	Gutter
1	4,286	0	4,286	9,615	N/A	N/A
2	1,902	0	1,902	9,615	N/A	N/A
3	2,145	0	2,145	9,615	N/A	N/A
4	3,084	0	3,084	9,615	N/A	N/A
5	4,219	0	4,219	9,615	N/A	N/A

BUILDING 3	
ATTIC DRAFTSTOPPING SUBDIVISIONS	
ROOF SUBDIVISION	ROOF AREA (SQ. FT.)
A	1,975
B	2,806
C	1,160
D	2,004
E	1,159
F	1,362
G	2,357
H	2,814

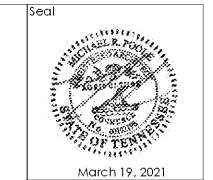
- ROOFING GENERAL NOTES**
- All 1/4:12 roofing to be TPO single ply membrane (chemical or mechanically fastened) unless otherwise noted in plan. Penetration and transition details per manufacturer installation instructions. See plan for direction.
 - CH/OF indicates location of 12" wide x 6" high thru-wall scupper with decorative conductor head (CH) leading to 3.5" x 5" downspout (DS) unless otherwise noted, and adjacent overflow (OF) scupper of same size. Set bottom 4" above bottom of primary scupper. Provide 4" O.D.EE gutters. Downspouts to be located to minimize visual impact. Refer to civil drawings.
 - See typical detail sheets for primary scupper and overflow scupper details.
 - Typical top floor plate is 9'-1 1/8" plate, crosshatch indicates 12'-1 1/8" plate, as shown in plan. Parapet height measured within this area is measured from the adjusted top floor plate.
 - Double layer of TPO membrane roof for work area adjacent to mechanical units, hatch indicates.
 - X'-X" RPTI indicates distance from top plate to top of parapet wall.
 - X'-X" TRUSS indicates distance from top floor plate to top of box truss.
 - Backside of parapet wall to be TPO.
 - Roof truss depth to be 30" minimum.
 - Draftstopping location indicated by line - - - - -
 - Symbols below denotes general location of required ventilation. High: Aulre Vent Low (near lowest point of roof slope): Pop Vent
 - No roof penetrations are allowed 4'-0" on each side of a firewall or building area separation wall. Exterior FRP sheathing to be 4" on either side of firewall. Extents of no penetration zone is shown with the hatch pattern.
 - Attic access panels to be provided, located as shown. AP1 is a 2'x4' ceiling access panel. All access panels shall maintain same rating of the assembly and have self closing hardware. Refer to details on A2.5a. Locations shown in plan with this symbol: AP1 AP2 AP3
 - As req. provide collar on high ventilation pop vents to achieve 36" vertical separation from low intake vents.

Roof Ventilation- Foundry 33												
Design Criteria based on 2012 IBC Section 1203.2												
High Ventilation based (Ridge Vent) on Trimline High Profile Rigid Vent Plus												
High Ventilation (Flat Roof Vent) based on Aura Vent AV-18												
Low Ventilation (Soffit Vent) based on Trimline Soffit Vent Strip												
Low Ventilation (Flat Roof Vent) based on Pop Vent by Active Ventilation Products Inc., PV-18												
										Net Free Vent Area (sq. in.)		
										19		
										254		
										9.5		
										254		
Attic Area	Roof Area (sf)	Roof Vent Requirements (sq in)				Roof Vent Provided (sq in)						Total Provided (sq in)
		1/150	1/300	High		Low						
				Ridge Vent Qty.	Sq. In.	Soffit Vent Qty.	Sq. In.	Flat Roof Vent Qty.	Sq. In.			
A	1,975	N/A	948	0	0	2	508	0	0	3	762	1270
B	2,806	N/A	1,347	0	0	3	762	0	0	3	762	1524
C	1,160	N/A	557	0	0	2	508	0	0	2	762	1270
D	2,004	N/A	962	0	0	2	508	0	0	2	508	1016
E	1,159	N/A	556	0	0	2	508	0	0	2	508	1016
F	1,362	N/A	654	0	0	2	508	0	0	2	508	1016
G	2,357	N/A	1,131	0	0	3	762	0	0	3	762	1524
H	2,814	N/A	1,351	0	0	3	762	0	0	3	762	1524

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1 Building 3 - Roof Plan
Scale: 3/32" = 1'-0"



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Borough 33
an Apartment Community by
33 Broad MF, LLC
in Chattanooga, Tennessee

Drawing Title:
Building 3 - Roof Plan
Details & Roof Drainage

A2.5e

ISSUED FOR CONSTRUCTION