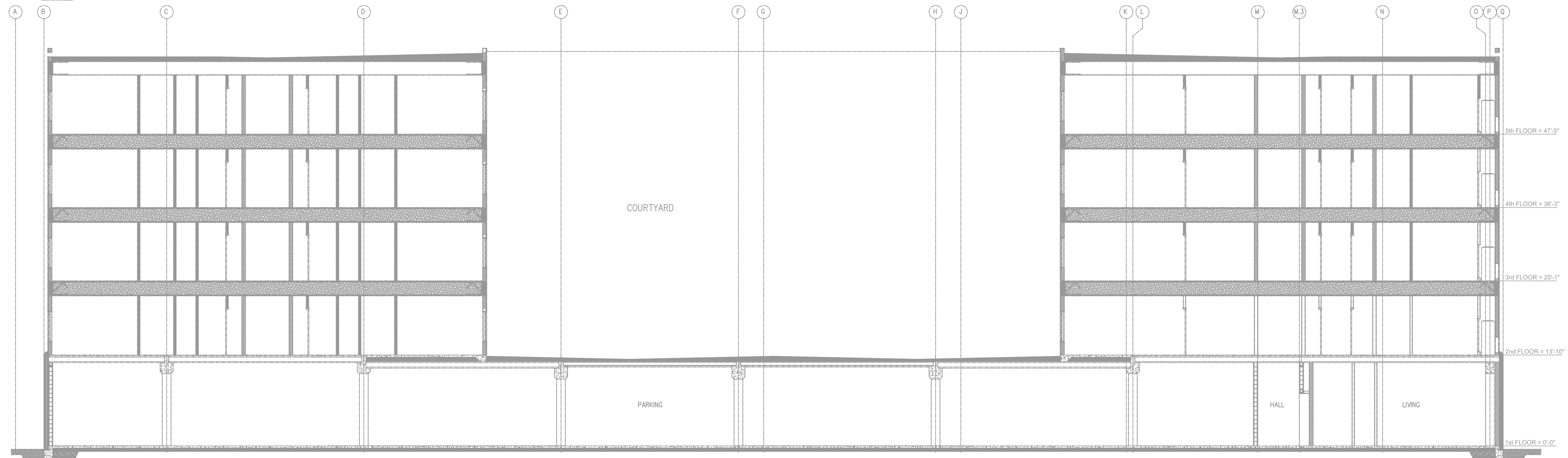
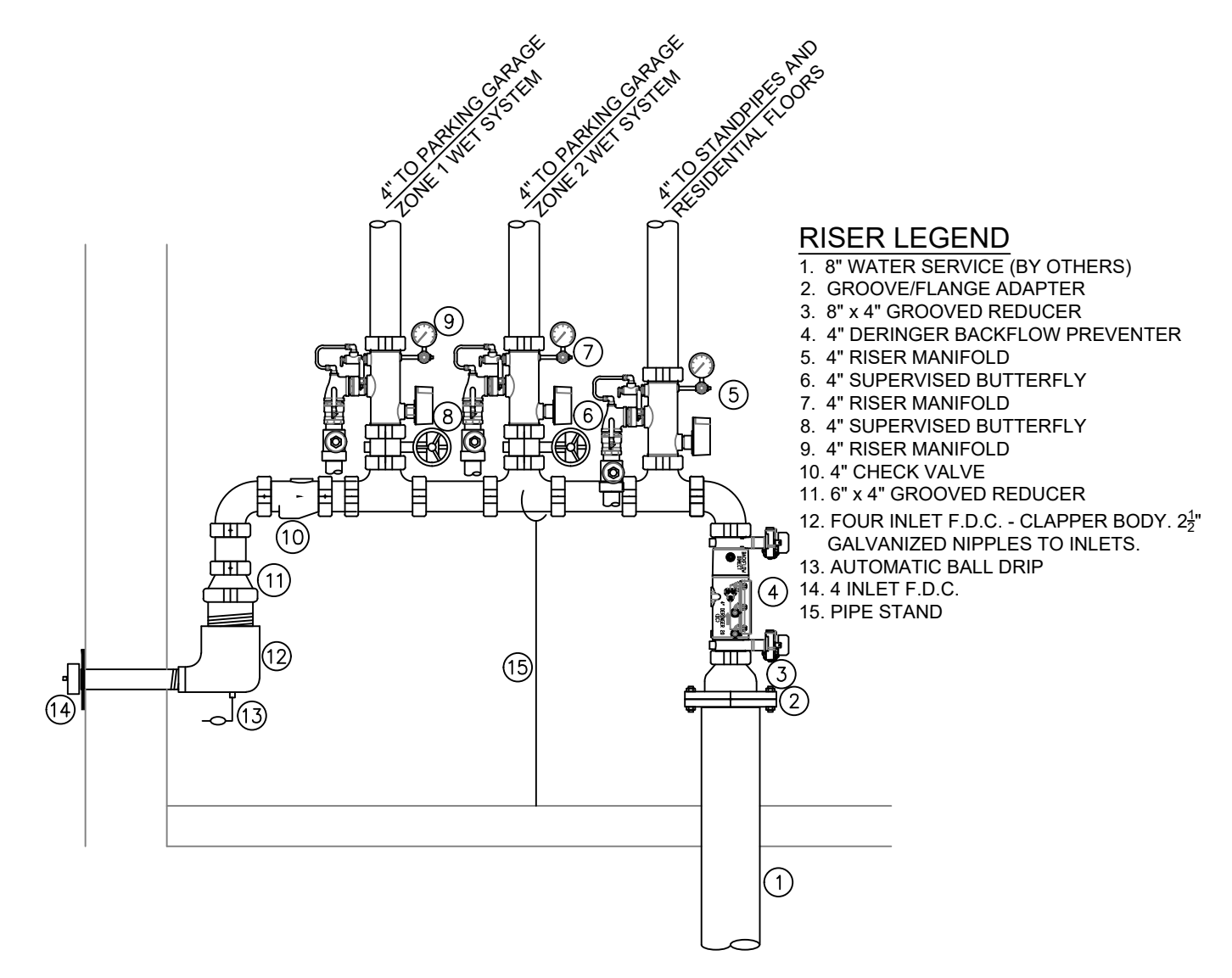


**A BUILDING SECTION**  
SCALE: 1/8" = 1'-0"

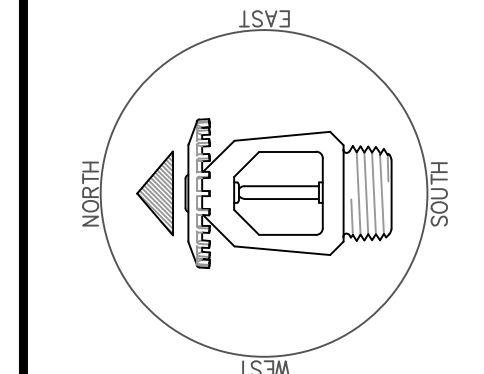


**B BUILDING SECTION**  
SCALE: 1/8" = 1'-0"



**1 RISER DETAIL**  
SCALE: 1/2" = 1'-0"

Symbol	Description
—	Ceiling Height
—	Elev. Below Top of Slab
—	Elev. Above Finished Floor
—	Hydraulic Reference Point
—	Common Connection Point
—	Denotes Hanger Location
—	Rise up or down
—	Electrical Light
—	Room Hazard Classification
—	Sprinkler Head Code

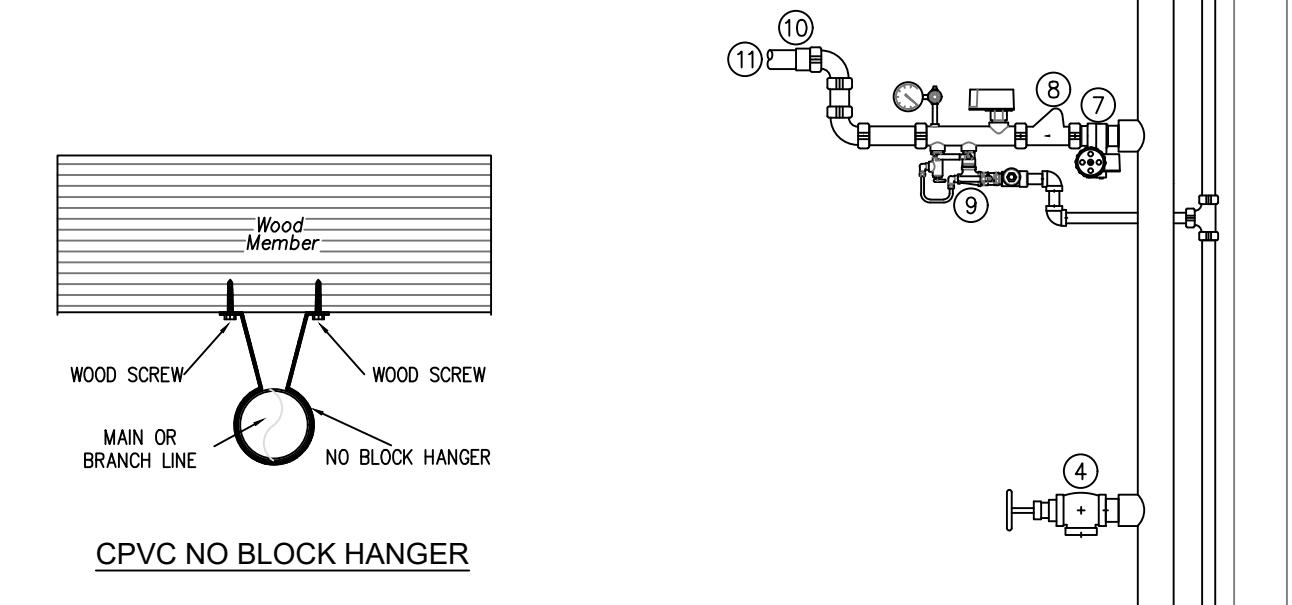


NO.	DATE	DESCRIPTION

Drawing Title	FIRE PROTECTION PLAN
Project No.	
Drawn By	DWG
Scale	1/8" = 1'
Date	06/09/2020
DWG Type	SUBMITAL DWG

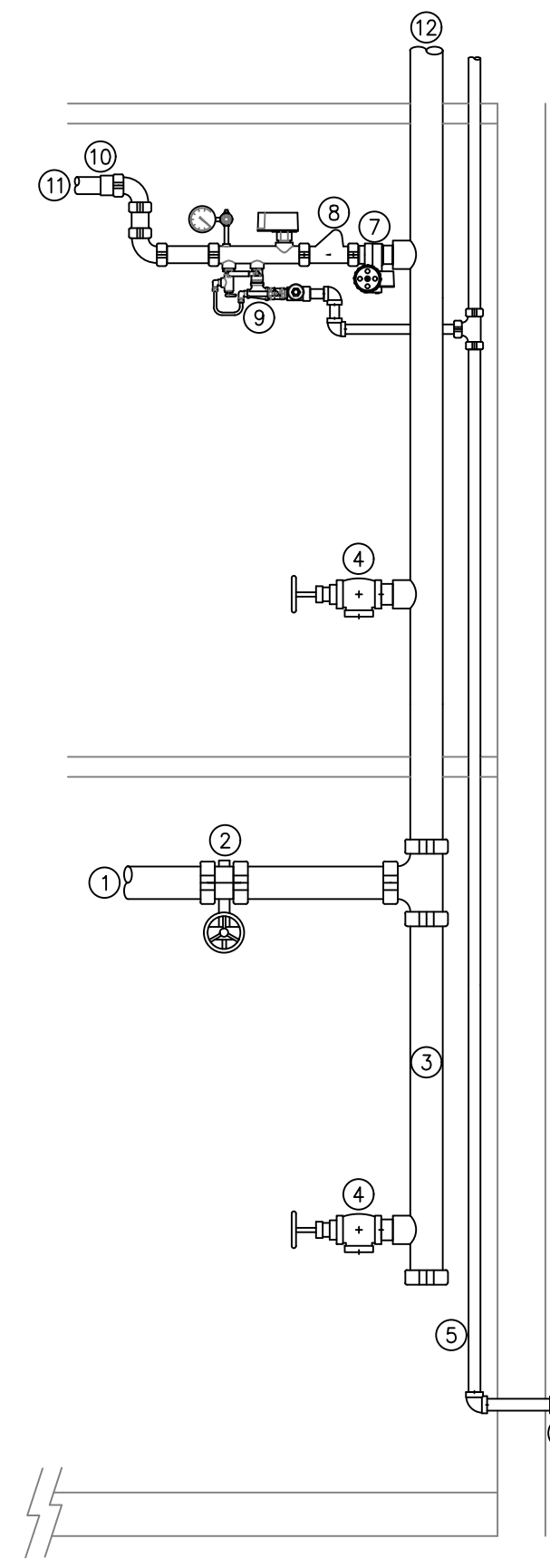
SYM	CNT	POSITION	FINISH	TEMP	K	NPT	SIN	MFG.	MODEL#	ESCUICHEON
◀	104	SIDE	WHITE	200	5.60	1/2"	VK305	Viking	VK305	SEMI RECESSED
⊗	187	UPR	BRASS	200	14.00	3/4"	VK570	Viking	VK570	NONE
◀	12	SIDE	WHITE	155	8.00	3/4"	VK630	Viking	VK630	SEMI RECESSED
◀	40	UPR	BRASS	200	5.60	1/2"	VK300	Viking	VK300	NONE
●	1456	PEND	WHITE	155	4.90	1/2"	VK468	Viking	VK468	SEMI RECESSED
●	278	PEND	WHITE	200	5.60	1/2"	VK302	Viking	VK302	SEMI RECESSED
●	28	PEND	WHITE	155	5.60	1/2"	VK302	Viking	VK302	SEMI RECESSED
⊙	117	UPR (SPRIG)	BRASS	200	8.00	3/4"	VK350	Viking	VK350	NONE
◀	566	SIDE	WHITE	155	4.00	1/2"	VK486	Viking	VK486	SEMI RECESSED
◀	2	SIDE	WHITE	175	8.00	3/4"	VK630	Viking	VK630	SEMI RECESSED
⊗	5	UPR	BRASS	286	14.00	3/4"	VK570	Viking	VK570	NONE

2795 TOTAL SPRINKLERS  
HEAD CABINET AND WRENCHES PROVIDED



- FLOOR CONTROL ASSEMBLY LEGEND**
- 4" FROM RISER
  - 4" SUPERVISED BUTTERFLY STANDPIPE CONTROL VALVE
  - 4" COMBINATION STANDPIPE
  - 2 1/2" HOSE VALVE
  - 1 1/2" EXPRESS DRAIN PIPED TO DISCHARGE OUTSIDE
  - 1 1/2" EXPRESS DRAIN DISCHARGE WITH GALV. WALL PLATE & 45 DEGREE ELBOW
  - 2" SUPERVISOR BUTTERBALL VALVE
  - 2" CHECK VALVE
  - 2" FLOOR ZONE CONTROL ASSEMBLY
  - 2" GROOVED CPVC ADAPTER
  - 2" CPVC TO MET SYSTEM FOR SECOND FLOOR
  - 4" COMBINED STANDPIPE TO FLOORS ABOVE

**MANUAL WET STANDPIPE**  
LOCATION: 5TH FLOOR STAIR #1,2&3  
REQUIRED FLOW: 1000GPM  
OUTLET PSI: 100  
REQUIRED INLET PSI: 171



**2 FLOOR CONTROL ASSEMBLY DETAIL**  
SCALE: 1/2" = 1'-0"

**GENERAL NOTES**

BUILDING DESCRIPTION: FIVE-STORY APARTMENT BUILDING, CONSTRUCTION TYPE V.

STANDARD REFERENCE: NFPA 13 (2019)

PIPE SCHEDULE: STEEL PIPE IN PARKING GARAGE AND RETAIL SPACE:  
1" = SCHEDULE 30 w/ THREADED ENDS & FITTINGS  
1 1/2" - 4" = SCHEDULE 7 w/ GRID ENDS & FITTINGS & WELDED OUTLETS  
CPVC PIPE ON LEVELS 1 THROUGH 5 RESIDENTIAL AREAS

**SYSTEM DESIGN:**

THE PARKING GARAGE IS DIVIDED INTO TWO WET ZONES. LEVEL 2 IS DIVIDED INTO 2 WET ZONES. LEVEL 3 IS DIVIDED INTO 2 WET ZONES. LEVELS 4 AND 5 ARE COMBINED AND DIVIDED INTO 2 WET ZONES.  
THE PARKING GARAGE IS PROTECTED TO ORDINARY HAZARD GROUP 1.  
THE RETAIL SPACES ARE PROTECTED TO ORDINARY HAZARD GROUP 2.  
THE RESIDENTIAL AREAS ARE PROTECTED TO LIGHT HAZARD AND RESIDENTIAL CRITERIA PER NFPA 13.

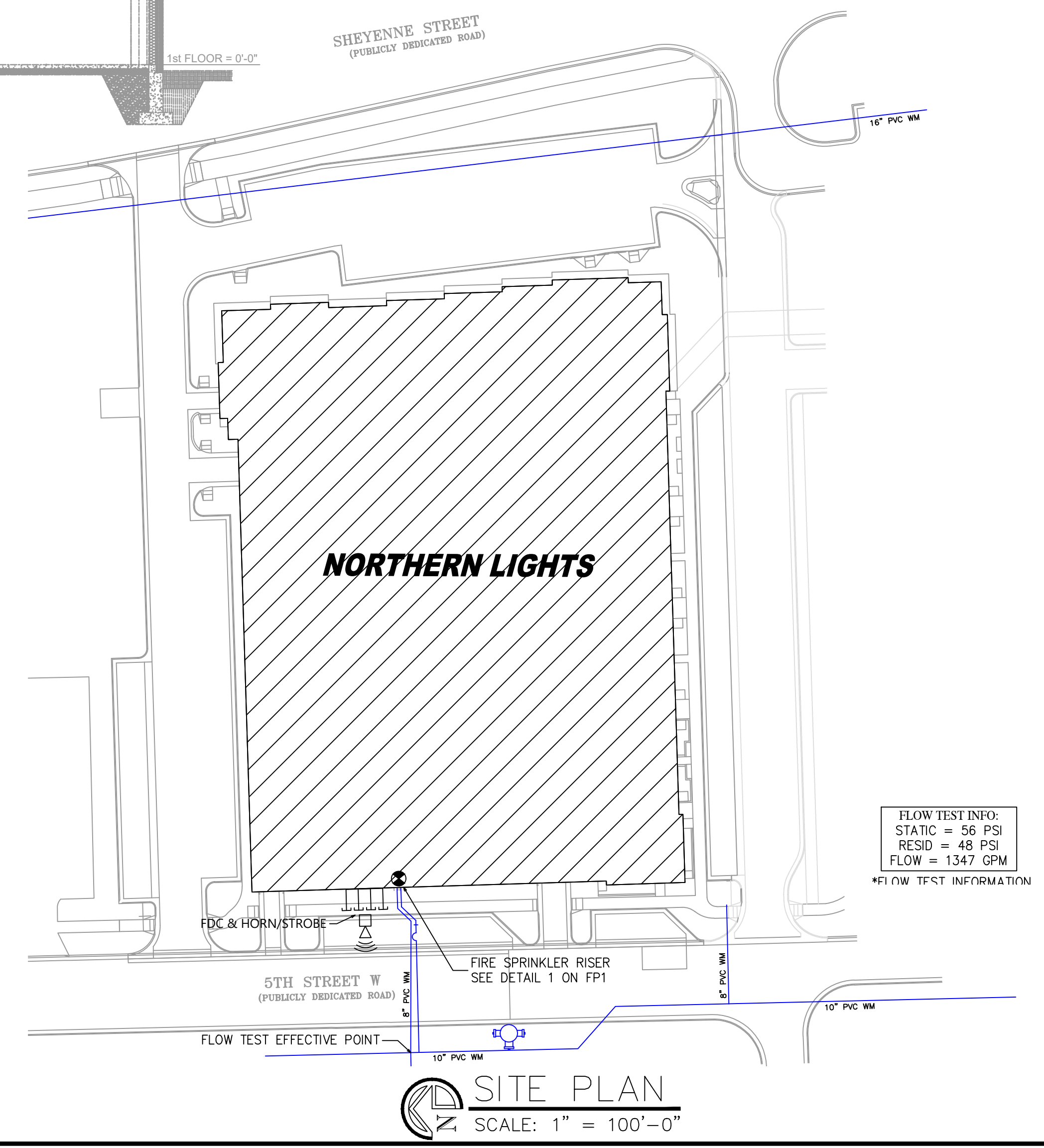
SPRINKLER SYSTEMS ARE AS FOLLOWS:

ZONE 1:	PARKING GARAGE NORTH	18,800 S.F.
ZONE 2:	PARKING GARAGE SOUTH AND RETAIL SPACE	48,100 S.F.
ZONE 3:	LEVEL 2 EAST	28,000 S.F.
ZONE 4:	LEVEL 2 WEST	23,400 S.F.
ZONE 5:	LEVEL 3 EAST	28,000 S.F.
ZONE 6:	LEVEL 3 WEST	23,400 S.F.
ZONE 7:	LEVEL 4 AND 5 EAST	56,000 S.F.
ZONE 8:	LEVEL 4 AND 5 WEST	46,800 S.F.
TOTAL:		272,500 S.F.

- ALL MATERIAL TO BE NEW AND TO MEET U.L. LISTING CRITERIA.
- ALL PIPING TO BE HYDROSTATICALLY TESTED AT 200 PSI FOR TWO HOURS. ALL TESTS TO BE WITNESSED BY FIRE DEPARTMENT.
- C.O.C. AND OWNER TO ENSURE THAT ALL CONDITIONED SPACES CONTAINING WET SYSTEM PIPING ARE MAINTAINED AT A MINIMUM OF 40°F AT ALL TIMES.
- A STOCK OF SPARE SPRINKLERS WILL BE PROVIDED PER NFPA 13.
- HANGERS TO BE INSTALLED IN ACCORDANCE WITH NFPA 13.
- AUX DRAINS WILL BE IN ACCORDANCE WITH NFPA 13.
- ALL LIGHT HAZARD AREAS SHALL HAVE QUICK RESPONSE HEADS.

**SYMBOLS USED ON DRAWINGS:**

- ⊙ HYDRAULIC CALCULATION JUNCTION POINT
- [-88] PIPE ELEVATION ABOVE FINISHED FLOOR
- [-10] PIPE ELEVATION BELOW OVERHEAD DECK
- CPVC PIPE SHOWN DASHED
- STEEL PIPE SHOWN SOLID



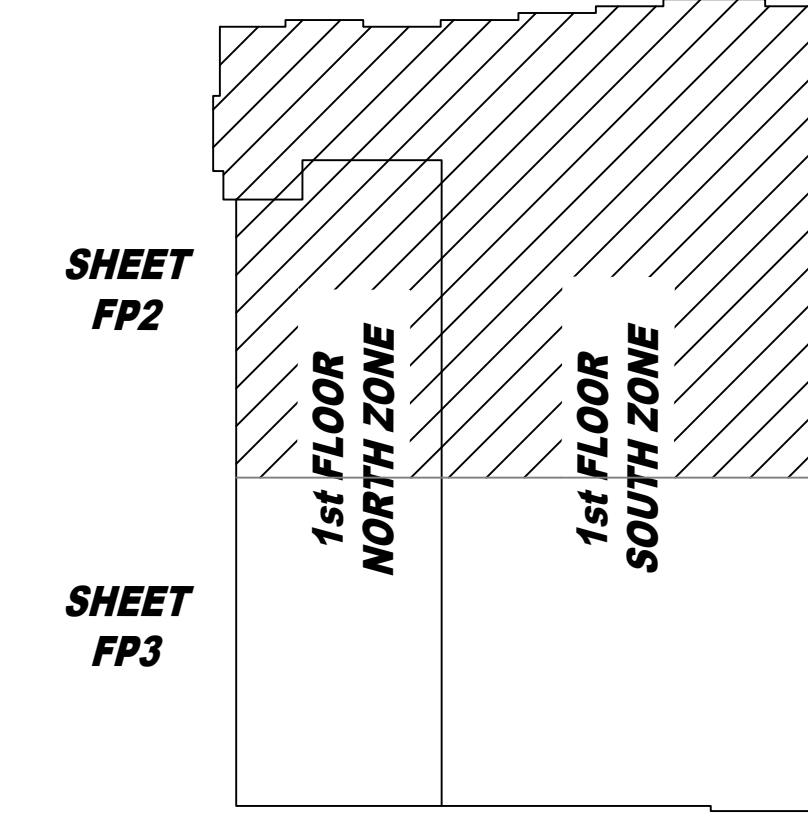
**SITE PLAN**  
SCALE: 1" = 100'-0"



- NOTE:
- STANDARD SPRAY UPRIGHTS ARE CALCULATED TO 130' FT. MAX.
  - MAX 7/8" OFF WALL, TYP.
  - MIN 8" BETWEEN SPRINKLERS
  - E.C. UPRIGHTS IN THE PARKING AREA ARE CALCULATED TO 18' 18" MAX.
  - MAX 9" OFF WALL, TYP.
  - MIN 8" BETWEEN SPRINKLERS
  - RESIDENTIAL PENDENTS IN UNITS ARE CALCULATED TO 18' 18" MAX.
  - MAX 9" OFF WALL, TYP.
  - MIN 8" BETWEEN SPRINKLERS

Design Area # 7 HAZARD: OH2  
 Zone: 2 System Type: WET  
 Location: RETAIL SPACE  
 Flowing Outlets: 12 Remote Area: 1028  
 Density: 0.2 gpm @ 45.6 psi  
 Calculation Safety: 8.9 psi  
 Includes 250 gpm Hose Allowance  
 REMOTE AREA REDUCTION USED WITH AN 11" CEILING HEIGHT AND OR SPRINKLER HEADS FOR A 945 SQ. FT. MINIMUM REMOTE AREA.

Design Area # 8 HAZARD: OH1  
 Zone: 2 System Type: WET  
 Location: PARKING GARAGE  
 Flowing Outlets: 6 Remote Area: 1628  
 Density: 0.15 gpm @ 44.5 psi  
 Calculation Safety: 10.0 psi  
 Includes 250 gpm Hose Allowance  
 E.C. UPRIGHT SPRINKLERS CALCULATED WITH A 1500 SQ. FT. MINIMUM REMOTE AREA.



### SPRINKLER HEAD LEGEND

SYM	CONT	POSITION	FINISH	TEMP	K	NPT	SN	MFG.	MODEL#	ESCU/TECH/CM1
◀	104	SIDE	WHITE	200	5.60	1/2"	VK305	Viking	VK305	SEMI RECESSED
⊗	187	UPR	BRASS	200	14.00	3/4"	VK570	Viking	VK570	NONE
◀	12	SIDE	WHITE	155	8.00	3/4"	VK630	Viking	VK630	SEMI RECESSED
⊗	40	UPR	BRASS	200	5.60	1/2"	VK300	Viking	VK300	NONE
⊙	1456	PEND	WHITE	155	4.90	1/2"	VK468	Viking	VK468	SEMI RECESSED
⊙	278	PEND	WHITE	200	5.60	1/2"	VK302	Viking	VK302	SEMI RECESSED
⊙	28	PEND	WHITE	155	5.60	1/2"	VK302	Viking	VK302	SEMI RECESSED
⊙	117	UPR (SPRIG)	BRASS	200	8.00	3/4"	VK350	Viking	VK350	NONE
◀	566	SIDE	WHITE	155	4.00	1/2"	VK486	Viking	VK486	SEMI RECESSED
◀	2	SIDE	WHITE	175	8.00	3/4"	VK630	Viking	VK630	SEMI RECESSED
⊗	5	UPR	BRASS	286	14.00	3/4"	VK570	Viking	VK570	NONE

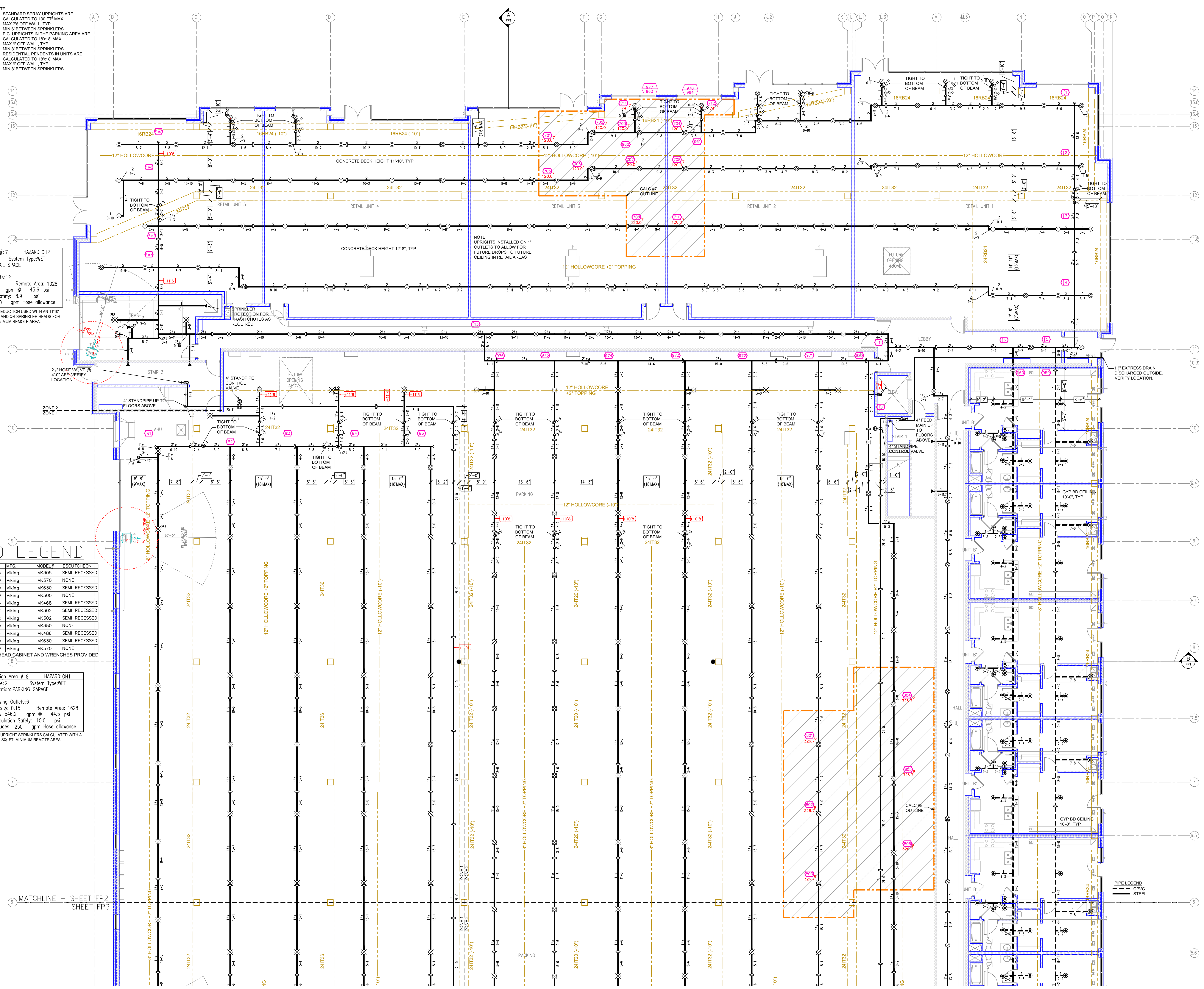
2786 TOTAL SPRINKLERS  
 443 TOTAL SPRINKLERS THIS FLOOR

MAXIMUM DISTANCE BETWEEN HANGERS

NOM. PIPE SIZE	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	6"	8"
STEEL PIPE	5'-0"	6'-0"	7'-0"	8'-0"	10'-0"	10'-0"	N/A	N/A	N/A	N/A
STEEL PIPE	N/A	12'-0"	12'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"
LIGHTWALL	N/A	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	N/A	N/A	N/A	N/A
UNSUPPORTED ENDS	36 in.	48 in.								
1" ARM-OVERS			12 in.							

INTERNAL PIPE DIAMETERS

NOM. PIPE SIZE	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	6"	8"
SCH-10	1.007	1.442	1.682	2.157	2.656	3.260	4.260	6.357	8.249
DYNALD W	1.011	1.538	1.728	2.203	2.703	3.314	4.31	N/A	N/A



SYMBOLS

Symbol	Description
—	Ceiling Height
◻	Elev. Below Top of Steel
◻	Elev. Above Finished Floor
◻	Hydraulic Reference Point
◻	Common Connection Point
◻	Denotes Hanger Location
◻	Rise up or down
◻	Electrical Light
◻	Room Hazard Classification
◻	Sprinkler Head Code

REVISIONS

No.	Description

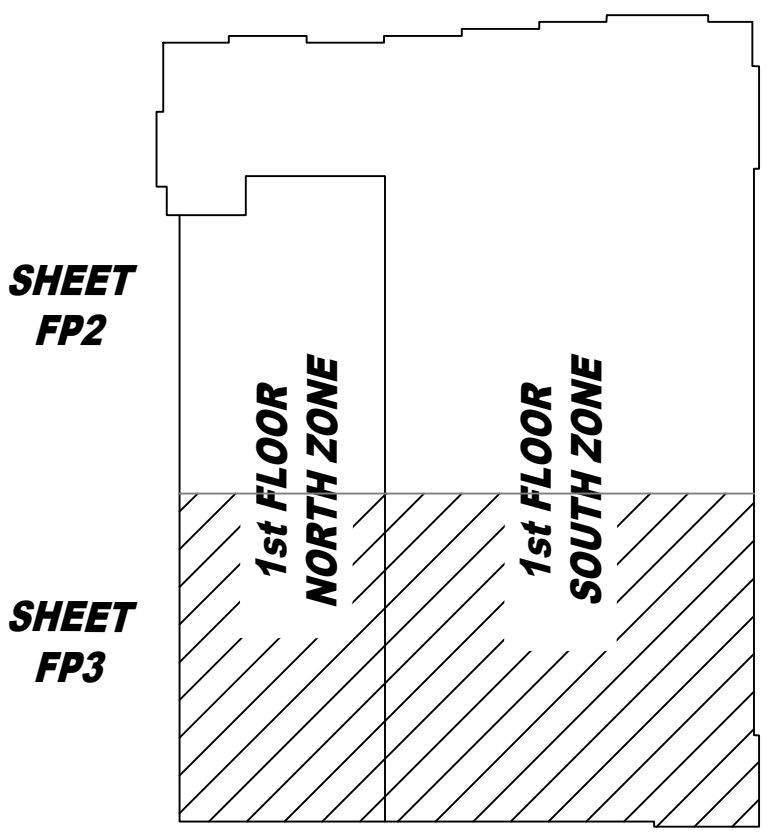
Drawing Title: FIRE PROTECTION PLAN  
 Project No.:  
 Drawn By: DWG  
 Scale: 1/8" = 1'  
 Date: 06/09/2020  
 DWG Type: SUBMITTAL DWG



Design Area #: 8 HAZARD: QH1  
 Zone: 2 System Type: WET  
 Location: PARKING GARAGE

Flowing Outlets: 6  
 Density: 0.15 Remote Area: 1628  
 Flow: 546.2 gpm @ 44.5 psi  
 Calculation Safety: 10.0 psi  
 Includes 250 gpm Hose Allowance

E.C. UPRIGHT SPRINKLERS CALCULATED WITH A  
 1500 SQ. FT. MINIMUM REMOTE AREA.



- NOTE:
- STANDARD SPRAY UPRIGHTS ARE CALCULATED TO 130 FT<sup>2</sup> MAX
  - MAX 75' OFF WALL, TYP.
  - MIN 6' BETWEEN SPRINKLERS
  - E.C. UPRIGHTS IN THE PARKING AREA ARE CALCULATED TO 18x18" MAX
  - MAX 9' OFF WALL, TYP.
  - MIN 8' BETWEEN SPRINKLERS
  - RESIDENTIAL PENDENTS IN UNITS ARE CALCULATED TO 18x18" MAX
  - MAX 9' OFF WALL, TYP.
  - MIN 8' BETWEEN SPRINKLERS

### SPRINKLER HEAD LEGEND

SYM	QTY	POSITION	FINISH	TEMP	K	RPT	SN	WFC	MODEL #	ESCU/CHG#
◀	104	SIDE	WHITE	200	5.60	1/2"	VK305	Viking	VK305	SEMI RECESSED
⊕	187	UPR	BRASS	200	14.00	3/4"	VK570	Viking	VK570	NONE
⊕	12	SIDE	WHITE	155	8.00	3/4"	VK630	Viking	VK630	SEMI RECESSED
⊕	40	UPR	BRASS	200	5.60	1/2"	VK300	Viking	VK300	NONE
⊕	1456	PEND	WHITE	155	4.90	1/2"	VK468	Viking	VK468	SEMI RECESSED
⊕	278	PEND	WHITE	200	5.60	1/2"	VK302	Viking	VK302	SEMI RECESSED
⊕	28	PEND	WHITE	155	5.60	1/2"	VK302	Viking	VK302	SEMI RECESSED
⊕	117	UPR (SPRIG)	BRASS	200	8.00	3/4"	VK350	Viking	VK350	NONE
⊕	566	SIDE	WHITE	155	4.00	1/2"	VK486	Viking	VK486	SEMI RECESSED
⊕	2	SIDE	WHITE	175	8.00	3/4"	VK630	Viking	VK630	SEMI RECESSED
⊕	5	UPR	BRASS	286	14.00	3/4"	VK570	Viking	VK570	NONE

2395 TOTAL SPRINKLERS  
 443 TOTAL SPRINKLERS THIS FLOOR

HEAD CABINET AND WRENCHES PROVIDED

MAXIMUM DISTANCE BETWEEN HANGERS

NOM. PIPE SIZE	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	6"	8"
CPVC	5'-0"	6'-0"	6'-0"	7'-0"	8'-0"	8'-0"	9'-0"	10'-0"	N/A	N/A
STEEL PIPE	N/A	12'-0"	12'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"
UPPER WALL	N/A	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	N/A	N/A	N/A
UNSUPPORTED END	36 in.	48 in.	60 in.							

1" ARM-OVERS: 12 in.

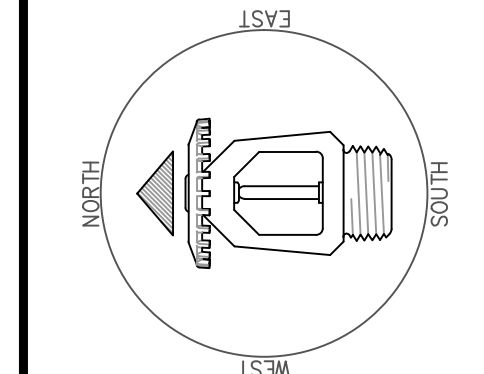
NOTE:  
 ALL PIPE SHALL BE HUNG IN ACCORDANCE WITH THE NFPA GUIDELINES, FIRST AND FOREMOST REGARDLESS OF ACTUAL HANGER SPACING ON THESE DRAWINGS.

INTERNAL PIPE DIAMETERS

NOM. PIPE SIZE	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	6"	8"
SC-10	1.099	1.442	1.682	2.157	2.625	3.290	4.200	6.357	8.249
DYNAPRO	1.191	1.538	1.728	2.203	2.703	3.314	4.31	N/A	N/A

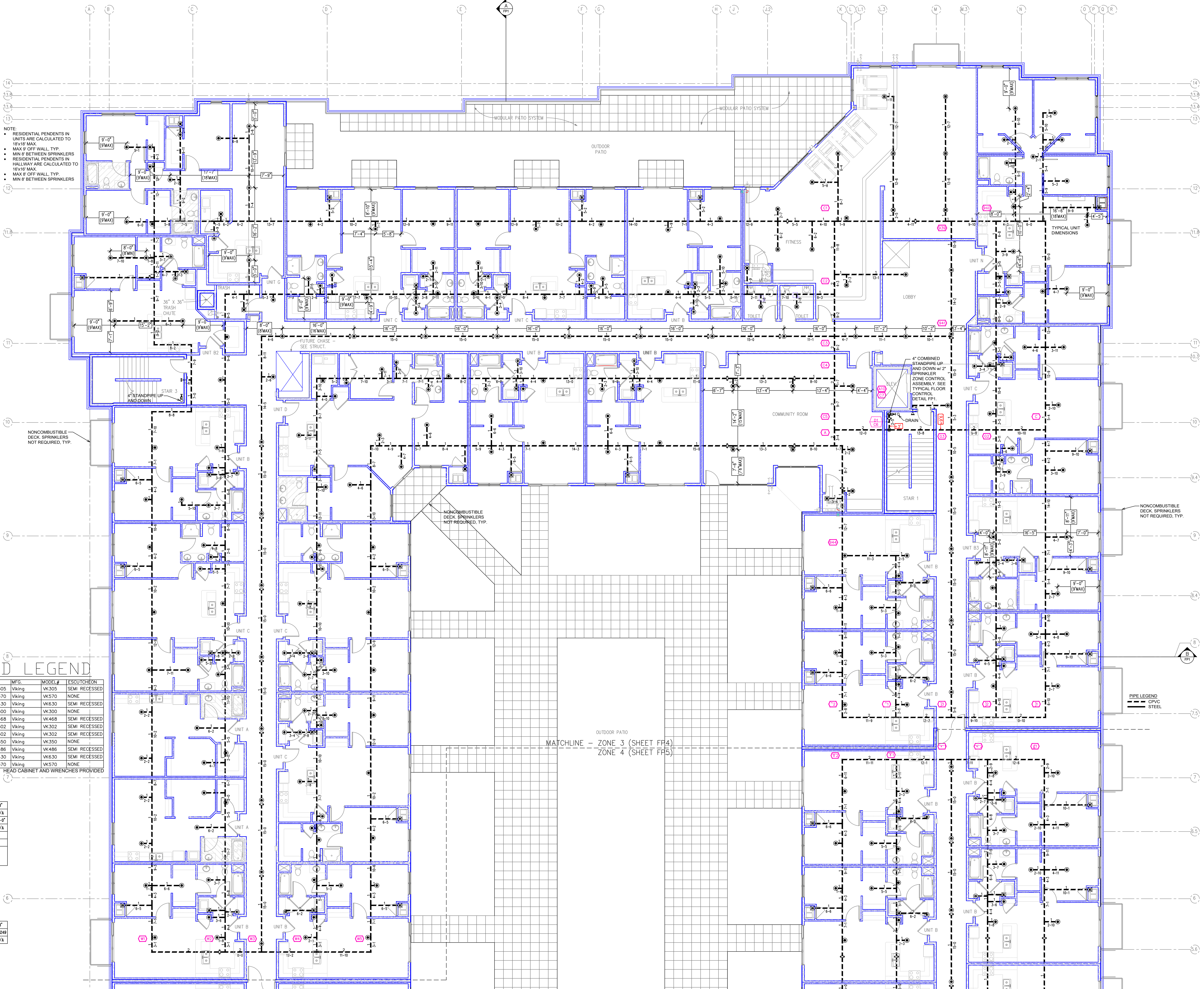
SYMBOLS

Symbol	Description
◻	Ceiling Height
◻	Elev. Below Top of Steel
◻	Elev. Above Finished Floor
◻	Hydraulic Reference Points
◻	Common Connection Point
◻	Denotes Hanger Location
◻	Rise up or down
◻	Electrical Light
◻	Room Hazard Classification
◻	Sprinkler Head Code



Drawing Title: FIRE PROTECTION PLAN  
 Project No.:  
 Drawn By: DWG  
 Scale: 1/8" = 1'  
 Date: 06/09/2020  
 DWG Type: SUBMITTAL DWG



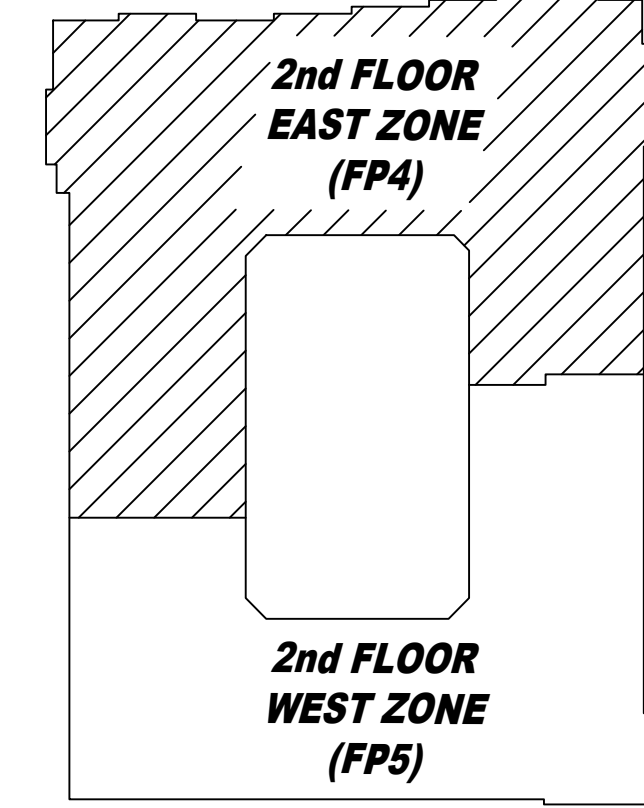


NOTE:  
 • RESIDENTIAL PENDENTS IN UNITS ARE CALCULATED TO 18x18 MAX.  
 • MAX 9' OFF WALL, TYP.  
 • MIN 8' BETWEEN SPRINKLERS  
 • RESIDENTIAL PENDENTS IN HALLWAY ARE CALCULATED TO 18x18 MAX.  
 • MAX 9' OFF WALL, TYP.  
 • MIN 8' BETWEEN SPRINKLERS

NONCOMBUSTIBLE DECK, SPRINKLERS NOT REQUIRED, TYP.

NONCOMBUSTIBLE DECK, SPRINKLERS NOT REQUIRED, TYP.

NONCOMBUSTIBLE DECK, SPRINKLERS NOT REQUIRED, TYP.



KEY PLAN  
N.T.S.

SPRINKLER HEAD LEGEND

SYM	CNT	POSITION	FINISH	TEMP	K	NPT	SIN	MFG.	MODEL#	ESCUTCHEON
◀	104	SIDE	WHITE	200	5.60	1/2"	VK305	Viking	VK305	SEMI RECESSED
⊗	187	UPR	BRASS	200	14.00	3/4"	VK570	Viking	VK570	NONE
◀	12	SIDE	WHITE	155	8.00	3/4"	VK630	Viking	VK630	SEMI RECESSED
⊗	40	UPR	BRASS	200	5.60	1/2"	VK300	Viking	VK300	NONE
⊙	1456	PEND	WHITE	155	4.90	1/2"	VK468	Viking	VK468	SEMI RECESSED
⊙	278	PEND	WHITE	200	5.60	1/2"	VK302	Viking	VK302	SEMI RECESSED
⊙	28	PEND	WHITE	155	5.60	1/2"	VK302	Viking	VK302	SEMI RECESSED
⊙	117	UPR (SPRIG)	BRASS	200	8.00	3/4"	VK350	Viking	VK350	NONE
◀	566	SIDE	WHITE	155	4.00	1/2"	VK486	Viking	VK486	SEMI RECESSED
◀	2	SIDE	WHITE	175	8.00	3/4"	VK630	Viking	VK630	SEMI RECESSED
⊗	5	UPR	BRASS	286	14.00	3/4"	VK570	Viking	VK570	NONE

286 TOTAL SPRINKLERS  
551 TOTAL SPRINKLERS THIS FLOOR

HEAD CABINET AND WRENCHES PROVIDED

MAXIMUM DISTANCE BETWEEN HANGERS

NOM. PIPE SIZE	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	6"	8"
CPVC	5'-0"	6'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	N/A	N/A	N/A
STEEL PIPE	N/A	12'-0"	12'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"
LIGHTWALL	N/A	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	N/A	N/A	N/A	N/A
UNSUPPORTED ENDS	36 in. 48 in.		60 in.							
1" ARM-OVERS	12 in.									

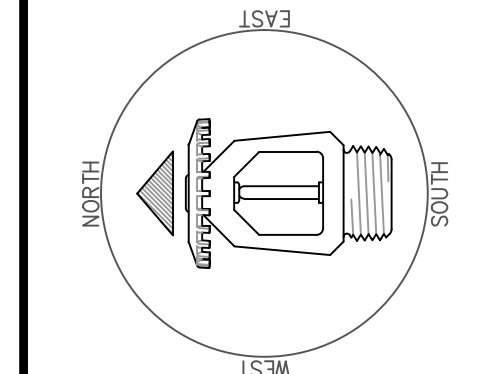
NOTE:  
 ALL PIPE SHALL BE RUN IN ACCORDANCE WITH THE NFPA GUIDELINES, FIRST AND FOREMOST REGARDLESS OF ACTUAL HANGER SPACING ON THESE DRAWINGS.

INTERNAL PIPE DIAMETERS

NOM. PIPE SIZE	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	6"	8"
SCH-10	1.097	1.442	1.882	2.157	2.635	3.280	4.260	6.357	8.249
DYNALOW	1.191	1.538	1.728	2.203	2.703	3.314	4.31	N/A	N/A

SYMBOLS

Symbol	Description
—	Ceiling Height
◀	Elev. Below Top of Slab
⊗	Elev. Above Finished Floor
⊙	Hydraulic Reference Point
⊕	Common Connection Point
⊖	Denotes Hanger Location
↕	Rise up or down
⊕	Electrical Light
⊕	Room Hazard Classification
⊕	Sprinkler Head Code



REVISIONS

No.	Description

Drawing Title  
**FIRE PROTECTION PLAN**

Project No.

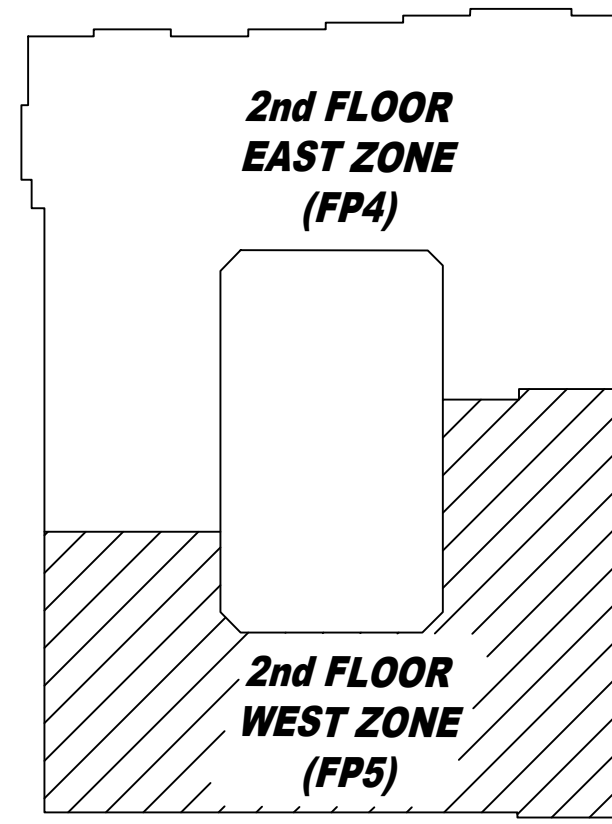
Drawn By  
DVG

Scale  
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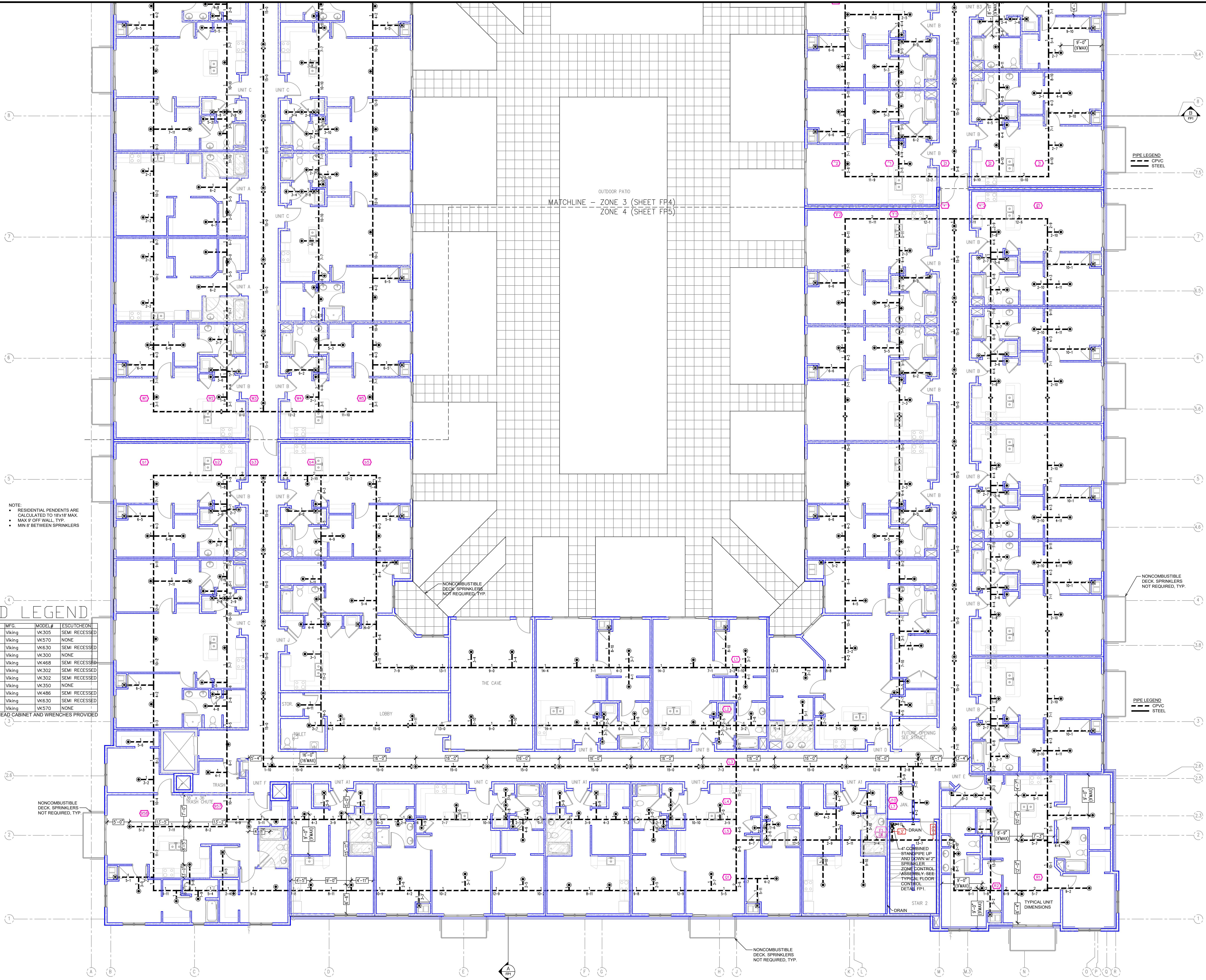
Date  
06/09/2020

DWG Type  
SUBMITTAL DWG





KEY PLAN  
N.T.S.



NOTE:  
• RESIDENTIAL PENDENTS ARE CALCULATED TO 19'x19' MAX.  
• MAX 8' OFF WALL, TYP.  
• MIN 8' BETWEEN SPRINKLERS

SPRINKLER HEAD LEGEND

SYM	CNT	POSITION	FINISH	TEMP	K	NPT	SIN	MFG.	MODEL#	ESCUICHEON
◀	104	SIDE	WHITE	200	5.60	1/2"	VK305	Viking	VK305	SEMI RECESSED
⊗	187	UPR	BRASS	200	14.00	3/4"	VK570	Viking	VK570	NONE
◀	12	SIDE	WHITE	155	8.00	3/4"	VK630	Viking	VK630	SEMI RECESSED
⊗	40	UPR	BRASS	200	5.60	1/2"	VK300	Viking	VK300	NONE
⊙	1456	PEND	WHITE	155	4.90	1/2"	VK468	Viking	VK468	SEMI RECESSED
⊙	278	PEND	WHITE	200	5.60	1/2"	VK302	Viking	VK302	SEMI RECESSED
⊙	28	PEND	WHITE	155	5.60	1/2"	VK302	Viking	VK302	SEMI RECESSED
⊗	117	UPR (SPRG)	BRASS	200	8.00	3/4"	VK350	Viking	VK350	NONE
◀	566	SIDE	WHITE	155	4.00	1/2"	VK486	Viking	VK486	SEMI RECESSED
◀	2	SIDE	WHITE	175	8.00	3/4"	VK630	Viking	VK630	SEMI RECESSED
⊗	5	UPR	BRASS	286	14.00	3/4"	VK570	Viking	VK570	NONE

2795 TOTAL SPRINKLERS  
551 TOTAL SPRINKLERS THIS FLOOR

HEAD CABINET AND WRENCHES PROVIDED

MAXIMUM DISTANCE BETWEEN HANGERS

NOM. PIPE SIZE	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	6"
CPVC	5'-0"	6'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	N/A	N/A
STEEL PIPE	N/A	12'-0"	12'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"
LIGHTWALL	N/A	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	N/A	N/A	N/A
UNSUPPORTED ENDS	36 in.	48 in.			60 in.				
1" ARM-OVERS			12 in.						

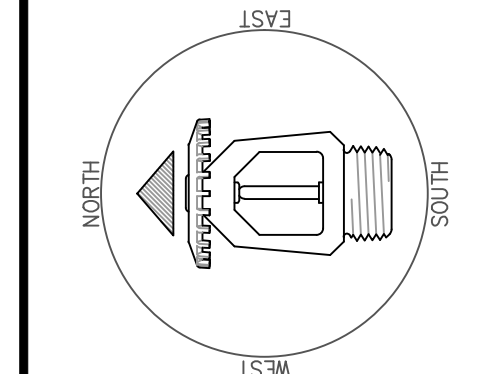
NOTE:  
- ALL PIPE SHALL BE RUN IN ACCORDANCE WITH THE NFPA GUIDELINES, FIRST AND FOREMOST REGARDLESS OF ACTUAL HANGER SPACING ON THESE DRAWINGS.

INTERNAL PIPE DIAMETERS

NOM. PIPE SIZE	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	6"
3CH-10	1.097	1.442	1.682	2.157	2.635	3.280	4.260	6.357
DYNALOW	1.181	1.538	1.728	2.293	2.703	3.314	4.31	N/A

SYMBOLS

Symbol	Description
—	Ceiling Height
◀	Elev. Below Top of Slab
⊗	Elev. Above Finished Floor
⊙	Hydraulic Reference Point
⊗	Common Connection Point
⊗	Denotes Hanger Location
⊗	Rise up or down
⊗	Electrical Light
⊗	Room Hazard Classification
⊗	Sprinkler Head Code

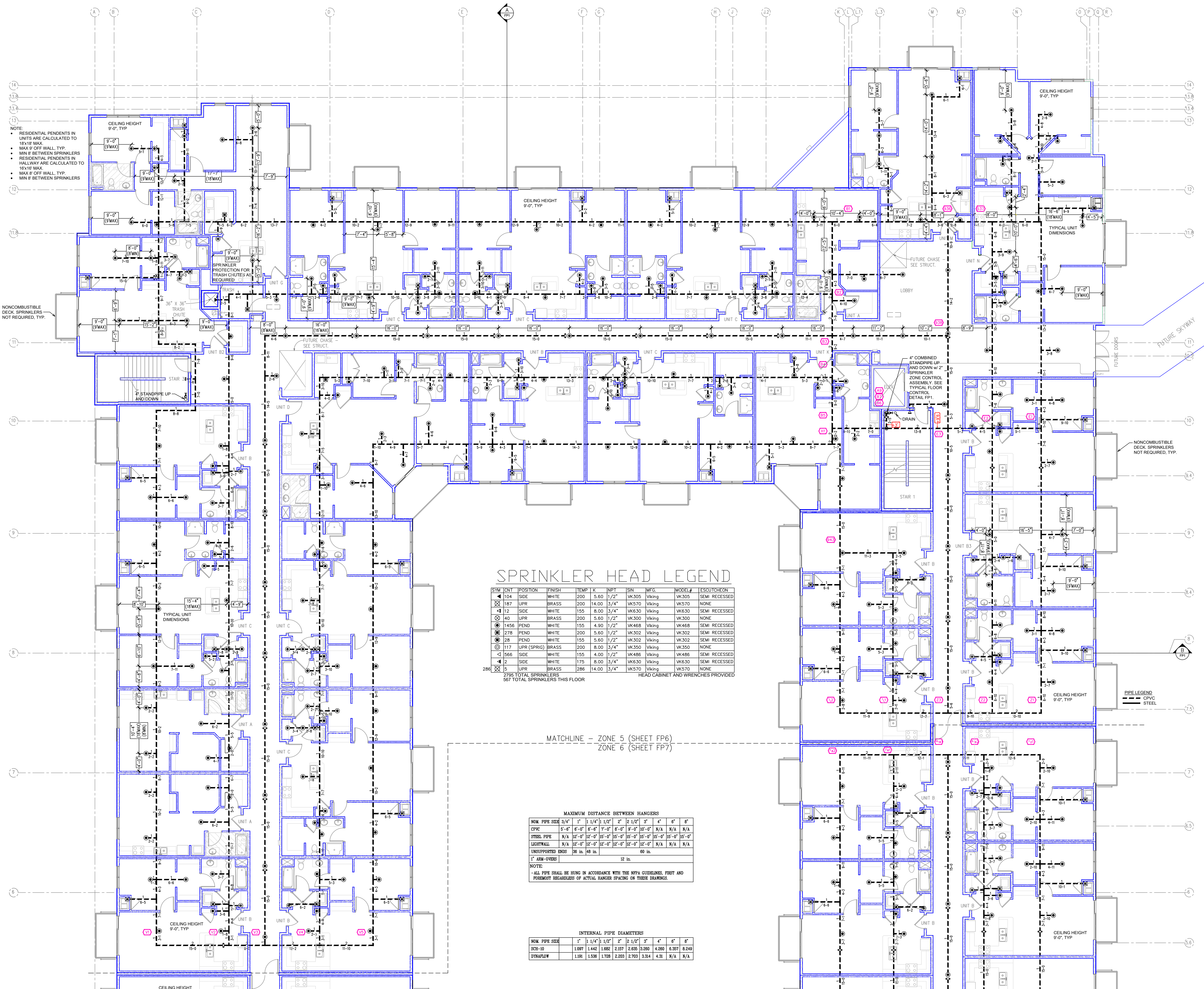


REVISIONS

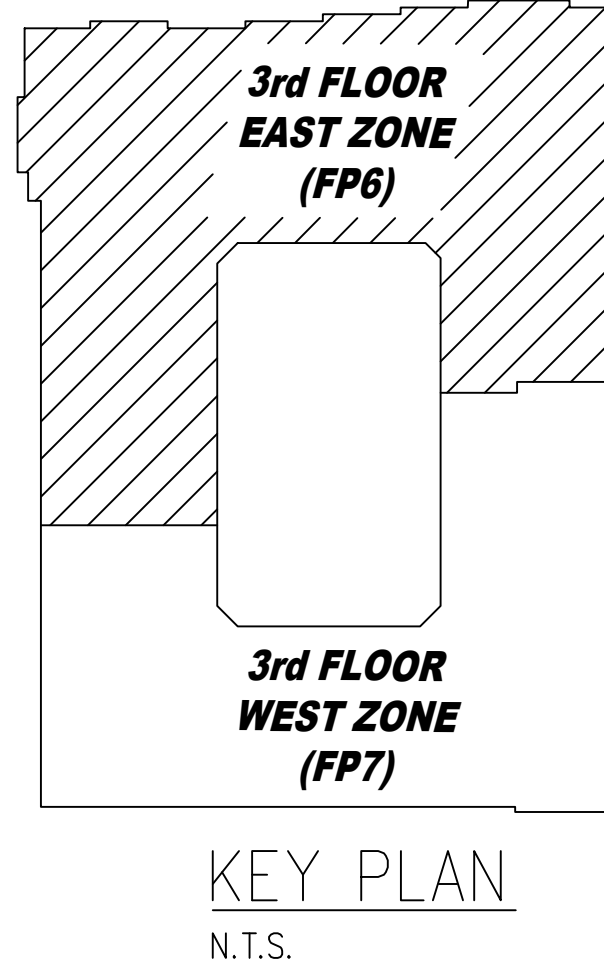
No.	Description

Drawing Title: FIRE PROTECTION PLAN  
Project No.:  
Drawn By: DWG  
Scale: 1/8" = 1'  
Date: 06/09/2020  
DWG Type: SUBMITTAL DWG





NOTE:  
 • RESIDENTIAL PENDENTS IN UNITS ARE CALCULATED TO 18x18 MAX.  
 • MAX 9' OFF WALL, TYP.  
 • MIN 8' BETWEEN SPRINKLERS  
 • RESIDENTIAL PENDENTS IN HALLWAY ARE CALCULATED TO 18x18 MAX.  
 • MAX 9' OFF WALL, TYP.  
 • MIN 8' BETWEEN SPRINKLERS



### SPRINKLER HEAD LEGEND

SYM	CNT	POSITION	FINISH	TEMP	K	NPT	SIN	MFG.	MODEL#	ESCU/TECHN
◀	104	SIDE	WHITE	200	5.60	1/2"	VK305	Viking	VK305	SEMI RECESSED
⊗	187	UPR	BRASS	200	14.00	3/4"	VK570	Viking	VK570	NONE
⊕	112	SIDE	WHITE	155	8.00	3/4"	VK630	Viking	VK630	SEMI RECESSED
⊙	40	UPR	BRASS	200	5.60	1/2"	VK300	Viking	VK300	NONE
⊖	1456	PEND	WHITE	155	4.90	1/2"	VK468	Viking	VK468	SEMI RECESSED
⊗	278	PEND	WHITE	200	5.60	1/2"	VK302	Viking	VK302	SEMI RECESSED
⊙	28	PEND	WHITE	155	5.60	1/2"	VK302	Viking	VK302	SEMI RECESSED
⊕	117	UPR (SPRIG)	BRASS	200	8.00	3/4"	VK350	Viking	VK350	NONE
◀	566	SIDE	WHITE	155	4.00	1/2"	VK486	Viking	VK486	SEMI RECESSED
◀	12	SIDE	WHITE	175	8.00	3/4"	VK630	Viking	VK630	SEMI RECESSED
⊗	15	UPR	BRASS	288	14.00	3/4"	VK570	Viking	VK570	NONE

2795 TOTAL SPRINKLERS  
 567 TOTAL SPRINKLERS THIS FLOOR  
 HEAD CABINET AND WRENCHES PROVIDED

MAXIMUM DISTANCE BETWEEN HANGERS

NOM. PIPE SIZE	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	6"	8"
CPVC	9'-0"	6'-0"	6'-0"	6'-0"	7'-0"	6'-0"	6'-0"	9'-0"	10'-0"	N/A
STEEL PIPE	N/A	12'-0"	12'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"
LIGHTWALL	N/A	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	N/A	N/A	N/A
UNSUPPORTED ENDS	36 in. 48 in.		12'-0"		60 in.					
1" ARM-OVERS	12 in.									

NOTE:  
 ALL PIPE SHALL BE RUN IN ACCORDANCE WITH THE NFPA GUIDELINES, FIRST AND FOREMOST REGARDLESS OF ACTUAL HANGER SPACING ON THESE DRAWINGS.

INTERNAL PIPE DIAMETERS

NOM. PIPE SIZE	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	6"	8"
SCH-10	1.097	1.442	1.682	2.157	2.635	3.280	4.260	6.557	8.249
DYNALOW	1.101	1.536	1.728	2.233	2.703	3.334	4.31	N/A	N/A

### SYMBOLS

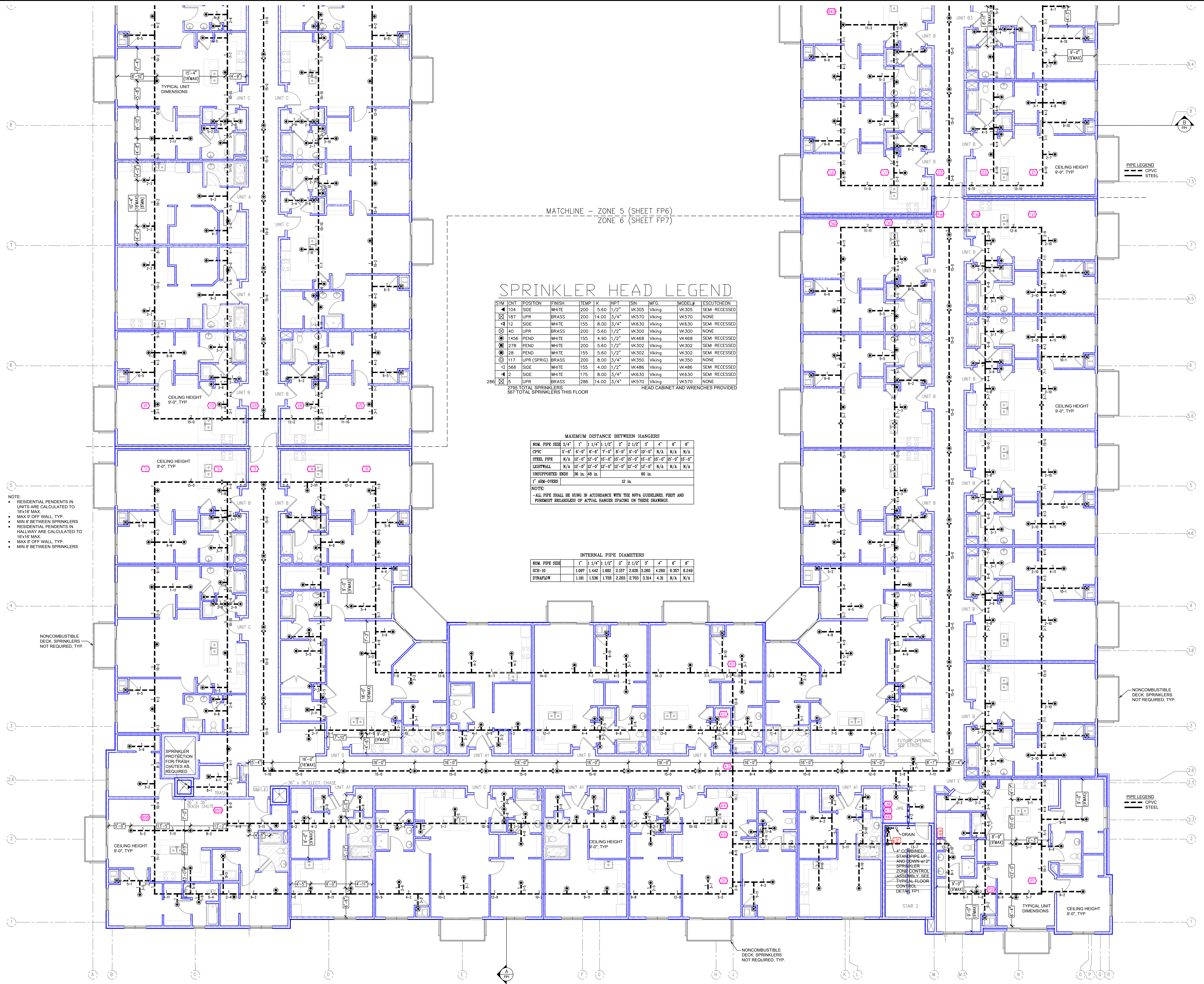
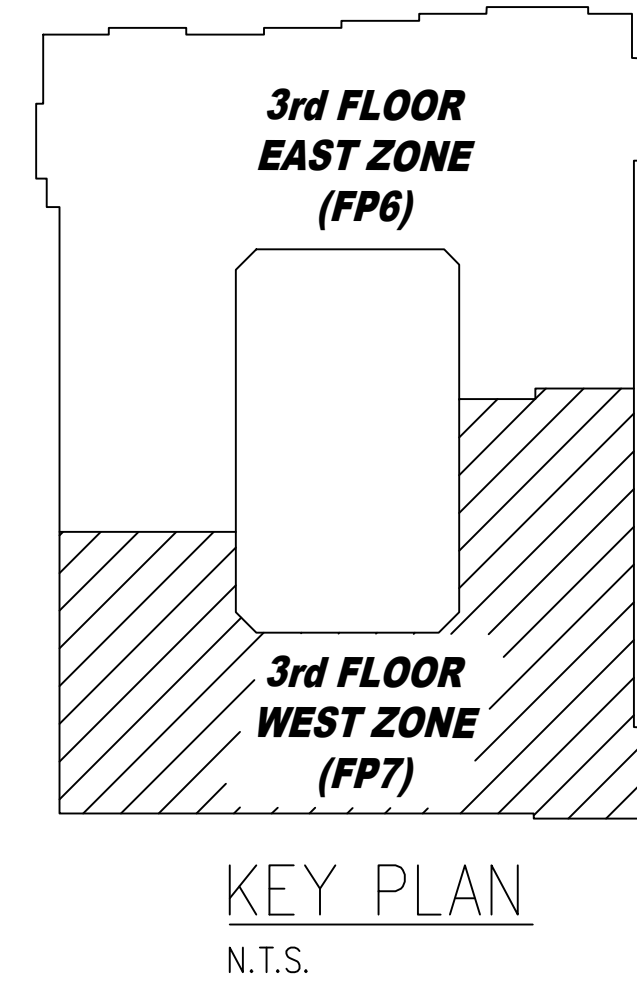
Symbol	Description
◀	Ceiling Height
⊕	Elav. Below Top of Steel
⊖	Elav. Above Finished Floor
⊗	Hydraulic Reference Points
⊙	Common Connection Point
⊖	Denotes Hanger Location
⊕	Flas. up or down
⊙	Electrical Light
⊗	Room Hazard Classification
⊕	Sprinkler Head Cap

### REVISIONS

No.	Description

Drawing Title: FIRE PROTECTION PLAN  
 Project No.:  
 Drawn By: DWG  
 Scale: 1/8" = 1'  
 Date: 06/09/2020  
 DWG Type: SUBMITTAL DWG





MATCHLINE - ZONE 5 (SHEET FP6)  
ZONE 6 (SHEET FP7)

### SPRINKLER HEAD LEGEND

SYM	QTY	POSITION	FINISH	TEMP	K	INPT	SIN	MFG.	MODEL#	ESCUTCHEON
◀ 104		SIDE	WHITE	200	5.60	1/2"	1/2"	Viking	WK305	SEMI RECESSED
⊗ 187		UPR	BRASS	200	14.00	3/4"	3/4"	Viking	WK570	NONE
◀ 12		SIDE	WHITE	155	8.00	3/4"	3/4"	Viking	WK630	SEMI RECESSED
⊗ 40		UPR	BRASS	200	5.60	1/2"	1/2"	Viking	WK300	NONE
⊙ 1456		PEND	WHITE	155	4.50	1/2"	1/2"	Viking	WK488	SEMI RECESSED
⊙ 278		PEND	WHITE	200	5.60	1/2"	1/2"	Viking	WK302	SEMI RECESSED
⊙ 28		PEND	WHITE	155	5.60	1/2"	1/2"	Viking	WK302	SEMI RECESSED
⊙ 117		UPR (SPRIG)	BRASS	200	8.00	3/4"	3/4"	Viking	WK350	NONE
◀ 566		SIDE	WHITE	155	4.00	1/2"	1/2"	Viking	WK486	SEMI RECESSED
◀ 2		SIDE	WHITE	175	8.00	3/4"	3/4"	Viking	WK630	SEMI RECESSED
⊗ 5		UPR	BRASS	286	14.00	3/4"	3/4"	Viking	WK570	NONE

2795 TOTAL SPRINKLERS  
507 TOTAL SPRINKLERS THIS FLOOR

HEAD CABINET AND WRENCHES PROVIDED

#### MAXIMUM DISTANCE BETWEEN HANGERS

NOM. PIPE SIZE	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	6"	8"
CPVC	15'-0"	8'-0"	6'-0"	7'-0"	8'-0"	8'-0"	8'-0"	N/A	N/A	N/A
STEEL PIPE	N/A	12'-0"	12'-0"	16'-0"	16'-0"	16'-0"	16'-0"	16'-0"	16'-0"	16'-0"
LIGHTWALL	N/A	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	N/A	N/A	N/A

UNSUPPORTED ENDS: 36 in. 48 in. 60 in.

1" ARM-OVERS: 12 in.

NOTE:  
- ALL PIPE SHALL BE HUNG IN ACCORDANCE WITH THE NFPA GUIDELINES, FIRST AND FOREMOST REGARDLESS OF ACTUAL HANGER SPACING ON THESE DRAWINGS.

#### INTERNAL PIPE DIAMETERS

NOM. PIPE SIZE	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	6"	8"
SCH-10	1.097	1.442	1.682	2.157	2.635	3.280	4.200	6.357	8.249
DYNAFLOW	1.191	1.536	1.728	2.203	2.703	3.314	4.31	N/A	N/A

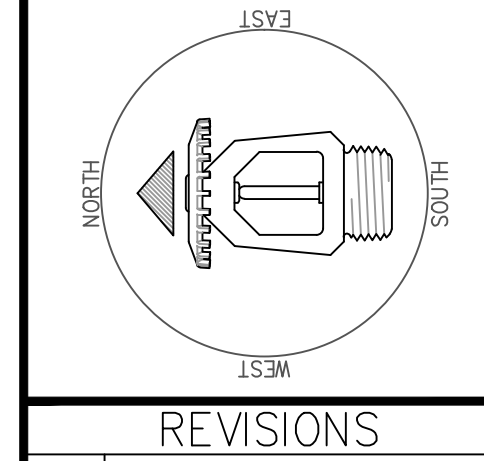
NOTE:  
• RESIDENTIAL PENDENTS IN UNITS ARE CALCULATED TO 18"x18" MAX.  
• MAX 9" OFF WALL TYP.  
• MIN 8" BETWEEN SPRINKLERS  
• RESIDENTIAL PENDENTS IN HALLWAY ARE CALCULATED TO 16"x16" MAX.  
• MAX 8" OFF WALL TYP.  
• MIN 8" BETWEEN SPRINKLERS

NONCOMBUSTIBLE DECK SPRINKLERS NOT REQUIRED, TYP.

NONCOMBUSTIBLE DECK SPRINKLERS NOT REQUIRED, TYP.

#### SYMBOLS

Symbol	Description
—	Ceiling Height
—	Elev. Below Top of Slab
—	Elev. Above Finished Floor
—	Hydraulic Reference Point
—	Common Connection Point
—	Design Hanger Location
—	Flux on or above
—	Electrical Light
—	Room Hazard Classification
—	Sprinkler Head Cap

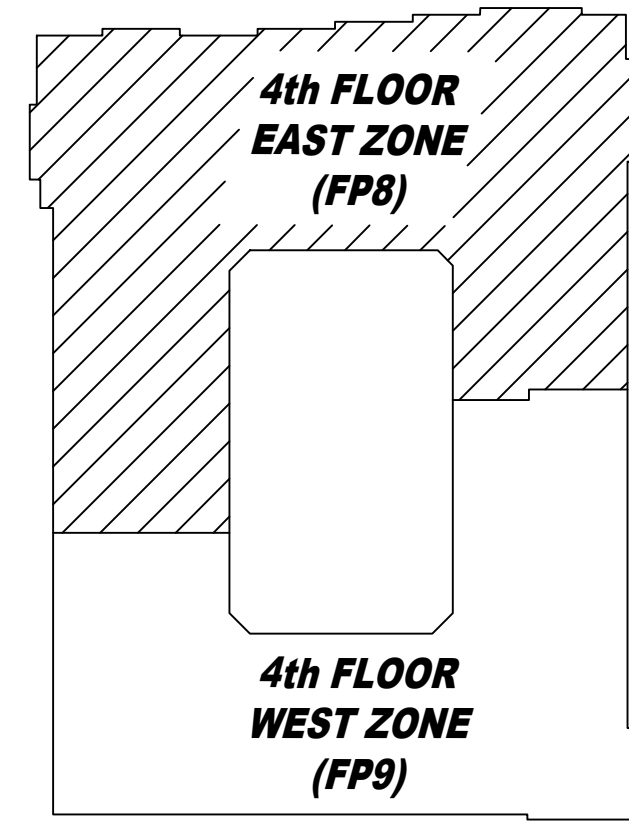


#### REVISIONS

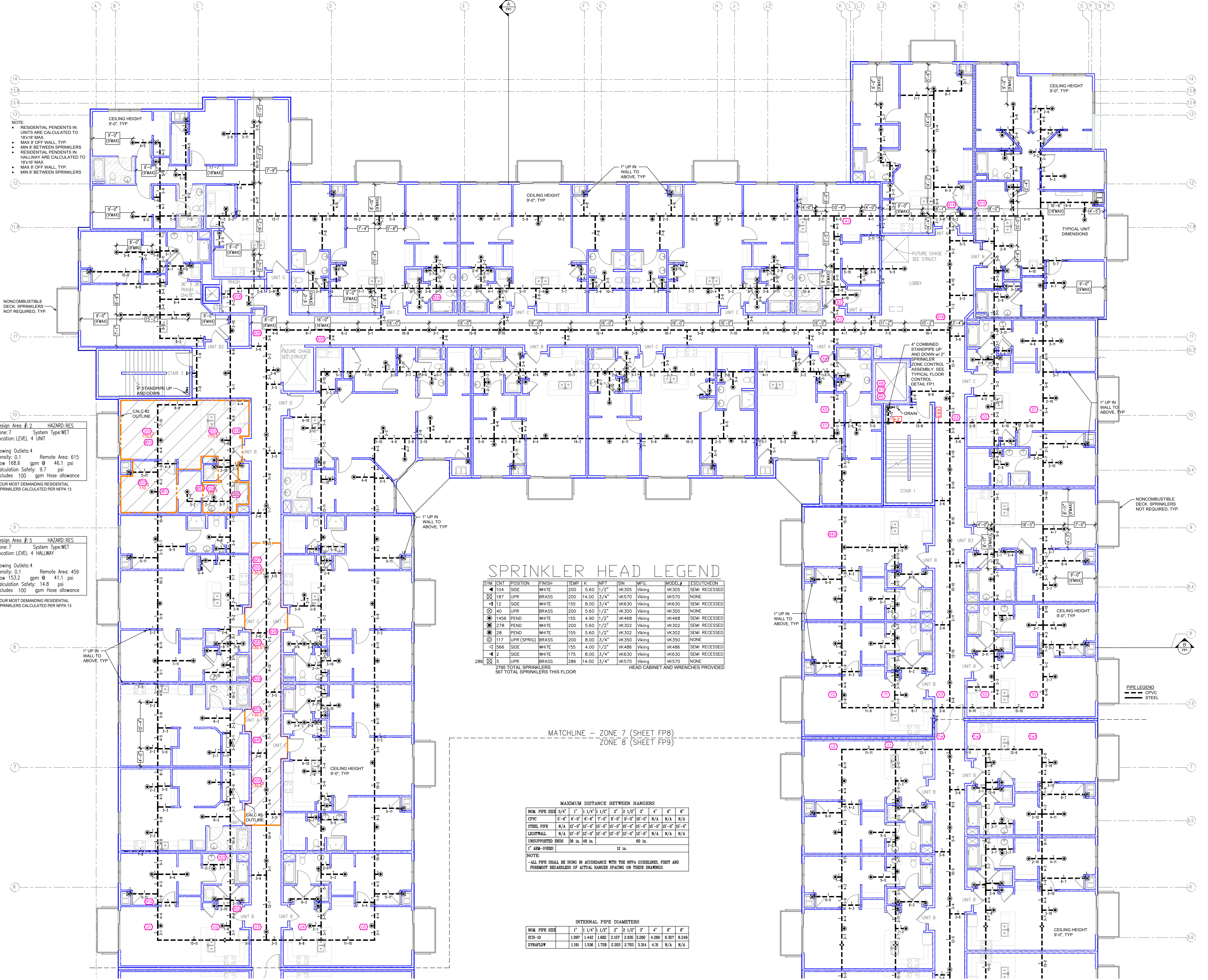
No.	Description

Drawing Title: FIRE PROTECTION PLAN  
Project No.:  
Drawn By: DWG  
Scale: 1/8" = 1'  
Date: 06/09/2020  
DWG Type: SUBMITAL DWG





KEY PLAN  
N.T.S.



NOTE:  
 • RESIDENTIAL PENDENTS IN UNITS ARE CALCULATED TO 18" MAX.  
 • MAX 8' OFF WALL, TYP.  
 • MIN 8' BETWEEN SPRINKLERS  
 • RESIDENTIAL PENDENTS IN HALLWAY ARE CALCULATED TO 18" MAX.  
 • MAX 8' OFF WALL, TYP.  
 • MIN 8' BETWEEN SPRINKLERS

Design Area #2 HAZARD: RES  
 Zone: 7 System Type: WET  
 Location: LEVEL 4 UNIT  
 Flowing Outlets: 4 Remote Area: 615  
 Flow 188.6 gpm @ 46.1 psi  
 Calculation Safety: 9.7 psi  
 Includes 100 gpm hose allowance  
 FOUR MOST DEMANDING RESIDENTIAL SPRINKLERS CALCULATED PER NFPA 13

Design Area #5 HAZARD: RES  
 Zone: 7 System Type: WET  
 Location: LEVEL 4 HALLWAY  
 Flowing Outlets: 4 Remote Area: 459  
 Flow 153.2 gpm @ 41.1 psi  
 Calculation Safety: 14.8 psi  
 Includes 100 gpm hose allowance  
 FOUR MOST DEMANDING RESIDENTIAL SPRINKLERS CALCULATED PER NFPA 13

### SPRINKLER HEAD LEGEND

SYM	UNIT	POSITION	FINISH	TEMP	K	NPT	SN	MPG	MODEL #	ESCUTCHION
◻	104	SIDE	WHITE	200	5.60	1/2"	WK305	Viking	WK305	SEMI RECESSED
◻	187	UPR	BRASS	200	14.00	3/4"	WK570	Viking	WK570	NONE
◻	12	SIDE	WHITE	155	8.00	3/4"	WK630	Viking	WK630	SEMI RECESSED
◻	40	UPR	BRASS	200	5.60	1/2"	WK300	Viking	WK300	NONE
◻	1456	PEND	WHITE	155	4.90	1/2"	WK468	Viking	WK468	SEMI RECESSED
◻	278	PEND	WHITE	200	5.60	1/2"	WK302	Viking	WK302	SEMI RECESSED
◻	28	PEND	WHITE	155	5.60	1/2"	WK302	Viking	WK302	SEMI RECESSED
◻	117	UPR (SPRID)	BRASS	200	8.00	3/4"	WK350	Viking	WK350	NONE
◻	566	SIDE	WHITE	155	4.00	1/2"	WK486	Viking	WK486	SEMI RECESSED
◻	2	SIDE	WHITE	175	8.00	3/4"	WK630	Viking	WK630	SEMI RECESSED
◻	5	UPR	BRASS	286	14.00	3/4"	WK570	Viking	WK570	NONE

2795 TOTAL SPRINKLERS  
 567 TOTAL SPRINKLERS THIS FLOOR  
 HEAD CABINET AND WRENCHES PROVIDED

### MAXIMUM DISTANCE BETWEEN HANGERS

NOM. PIPE SIZE	5/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	6"	8"
CPVC	15'-0"	8'-0"	8'-0"	12'-0"	8'-0"	8'-0"	10'-0"	N/A	N/A	N/A
STEEL PIPE	N/A	12'-0"	12'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"
LIGHTWALL	N/A	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	N/A	N/A	N/A
UNSUPPORTED EXDS	36 in.	48 in.	60 in.	60 in.	60 in.	60 in.	60 in.	N/A	N/A	N/A
1" ARM-OVERSS	12 in.									

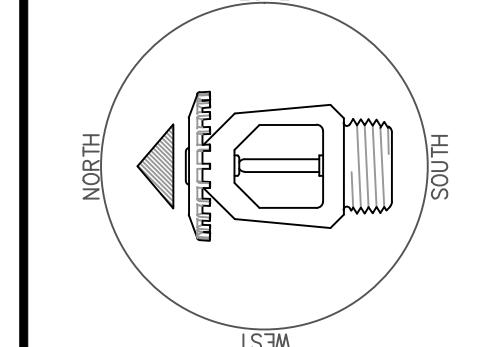
NOTE:  
 • ALL PIPE SHALL BE HUNG IN ACCORDANCE WITH THE NFPA GUIDELINES, FIRST AND FOREMOST REGARDLESS OF ACTUAL HANGER SPACING ON THESE DRAWINGS.

### INTERNAL PIPE DIAMETERS

NOM. PIPE SIZE	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	6"	8"
SCH-10	1.097	1.442	1.682	2.157	2.635	3.280	4.260	6.357	8.249
DYNAFLOW	1.191	1.536	1.728	2.203	2.703	3.314	4.31	N/A	N/A

### SYMBOLS

Symbol	Description
—	Ceiling Height
—	Elev. Below Top of Steel
—	Elev. Above Finished Floor
—	Hydraulic Reference Point
—	Common Connection Point
—	Desired Hanger Location
—	Flex up or down
—	Electrical Light
—	Room Hazard Classification
—	Sprinkler Head Cap



### REVISIONS

No.	Description

Drawing Title: FIRE PROTECTION PLAN  
 Project No.:  
 Drawn By: DWG  
 Scale: 1/8" = 1'  
 Date: 06/09/2020  
 DWG Type: SUBMITAL DWG

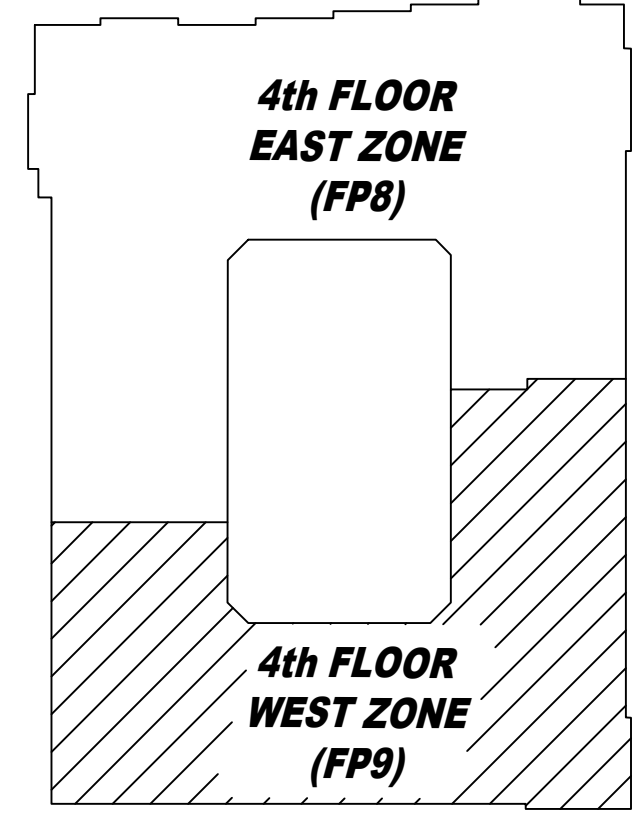




Design Area #5 HAZARD: RES  
 Zone: 7 System Type: WET  
 Location: LEVEL 4 HALLWAY  
 Flowing Outlets: 4  
 Density: 0.1 Remote Area: 459  
 Flow: 153.2 gpm @ 41.1 psi  
 Calculation Safety: 14.8 psi  
 Includes 100 gpm Hose allowance  
 FOUR MOST DEMANDING RESIDENTIAL  
 SPRINKLERS CALCULATED PER NFPA 13

Design Area #1 HAZARD: RES  
 Zone: 8 System Type: WET  
 Location: LEVEL 4 UNIT  
 Flowing Outlets: 4  
 Density: 0.1 Remote Area: 735  
 Flow: 169.5 gpm @ 43.7 psi  
 Calculation Safety: 12.1 psi  
 Includes 100 gpm Hose allowance  
 FOUR MOST DEMANDING RESIDENTIAL  
 SPRINKLERS CALCULATED PER NFPA 13

NOTE:  
 • RESIDENTIAL PENDENTS IN UNITS ARE CALCULATED TO 18x18 MAX.  
 • MAX 9' OFF WALL, TYP.  
 • MIN 8' BETWEEN SPRINKLERS  
 • RESIDENTIAL PENDENTS IN HALLWAY ARE CALCULATED TO 18x18 MAX.  
 • MAX 8' OFF WALL, TYP.  
 • MIN 8' BETWEEN SPRINKLERS



KEY PLAN  
 N.T.S.

MATCHLINE - ZONE 7 (SHEET FP8)  
 ZONE 8 (SHEET FP9)

### SPRINKLER HEAD LEGEND

SYM	UNIT	POSITION	FINISH	TEMP	K	RPT	SN	MFG	MODEL #	ESCUICHION
◀	104	SIDE	WHITE	200	5.60	1/2"	VK305	Viking	VK305	SEMI RECESSED
⊗	187	UPR	BRASS	200	14.00	3/4"	VK570	Viking	VK570	NONE
◀	12	SIDE	WHITE	155	8.00	3/4"	VK630	Viking	VK630	SEMI RECESSED
⊗	40	UPR	BRASS	200	5.60	1/2"	VK300	Viking	VK300	NONE
⊙	1456	PEND	WHITE	155	4.90	1/2"	VK468	Viking	VK468	SEMI RECESSED
⊙	278	PEND	WHITE	200	5.60	1/2"	VK302	Viking	VK302	SEMI RECESSED
⊙	28	PEND	WHITE	155	5.60	1/2"	VK302	Viking	VK302	SEMI RECESSED
⊙	117	UPR (SPRIG)	BRASS	200	8.00	3/4"	VK350	Viking	VK350	NONE
◀	566	SIDE	WHITE	155	4.00	1/2"	VK486	Viking	VK486	SEMI RECESSED
◀	2	SIDE	WHITE	175	8.00	3/4"	VK630	Viking	VK630	SEMI RECESSED
⊗	5	UPR	BRASS	286	14.00	3/4"	VK570	Viking	VK570	NONE

2796 TOTAL SPRINKLERS  
 567 TOTAL SPRINKLERS THIS FLOOR  
 HEAD CABINET AND WRENCHES PROVIDED

#### MAXIMUM DISTANCE BETWEEN HANGERS

NOM. PIPE SIZE	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	6"	8"
CPVC	5'-0"	6'-0"	6'-0"	7'-0"	8'-0"	9'-0"	10'-0"	N/A	N/A	N/A
STEEL PIPE	N/A	12'-0"	12'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"
LIGHTWALL	N/A	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	N/A	N/A	N/A
UNSUPPORTED ENDS	36 in.	48 in.			60 in.					
1" ARM-OVERS					12 in.					

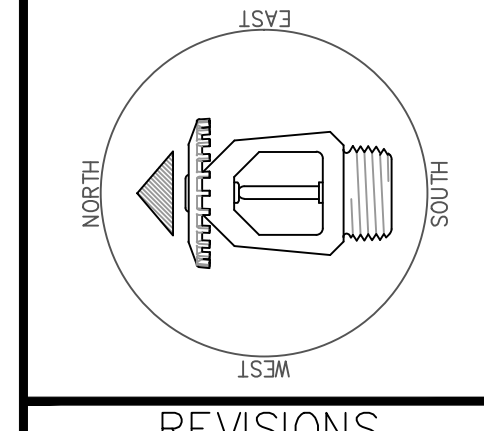
NOTE:  
 - ALL PIPE SHALL BE HUNG IN ACCORDANCE WITH THE NFPA CODEBOOKS, FIRST AND FOREMOST REGARDLESS OF ACTUAL HANGER SPACING ON THESE DRAWINGS.

#### INTERNAL PIPE DIAMETERS

NOM. PIPE SIZE	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	6"	8"
SCH-10	1.007	1.442	1.682	2.157	2.635	3.260	4.260	6.357	8.249
DYNAPLOW	1.191	1.536	1.728	2.203	2.703	3.314	4.31	N/A	N/A

#### SYMBOLS

Symbol	Description
—	Ceiling Height
—	Elev. Below Top of Slab
—	Elev. Above Finished Floor
—	Hydraulic Reference Point
—	Common Reference Point
—	Denotes Hanger Location
—	Flex up or down
—	Electrical Light
—	Room Hazard Classification
—	Sprinkler Head Cap

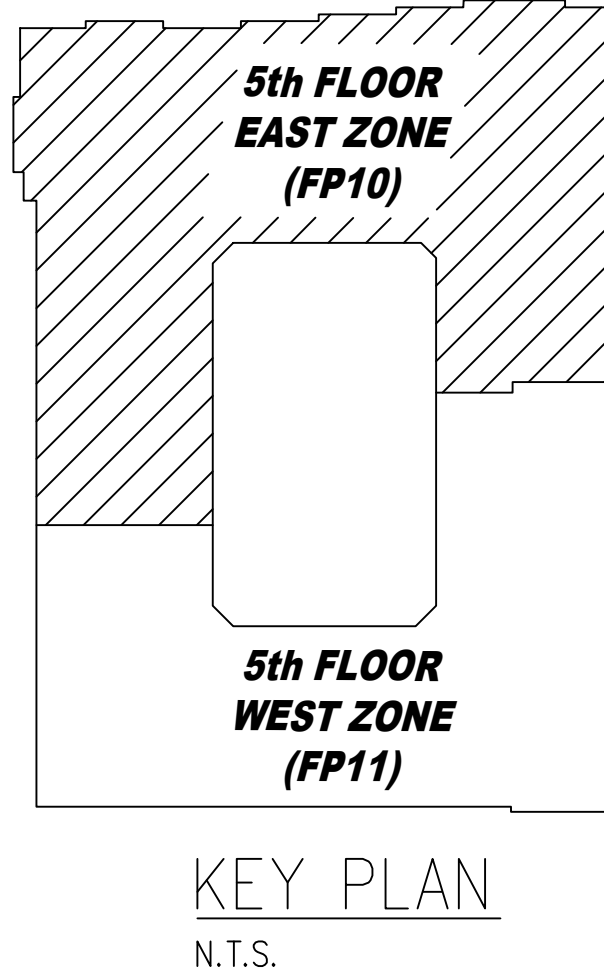
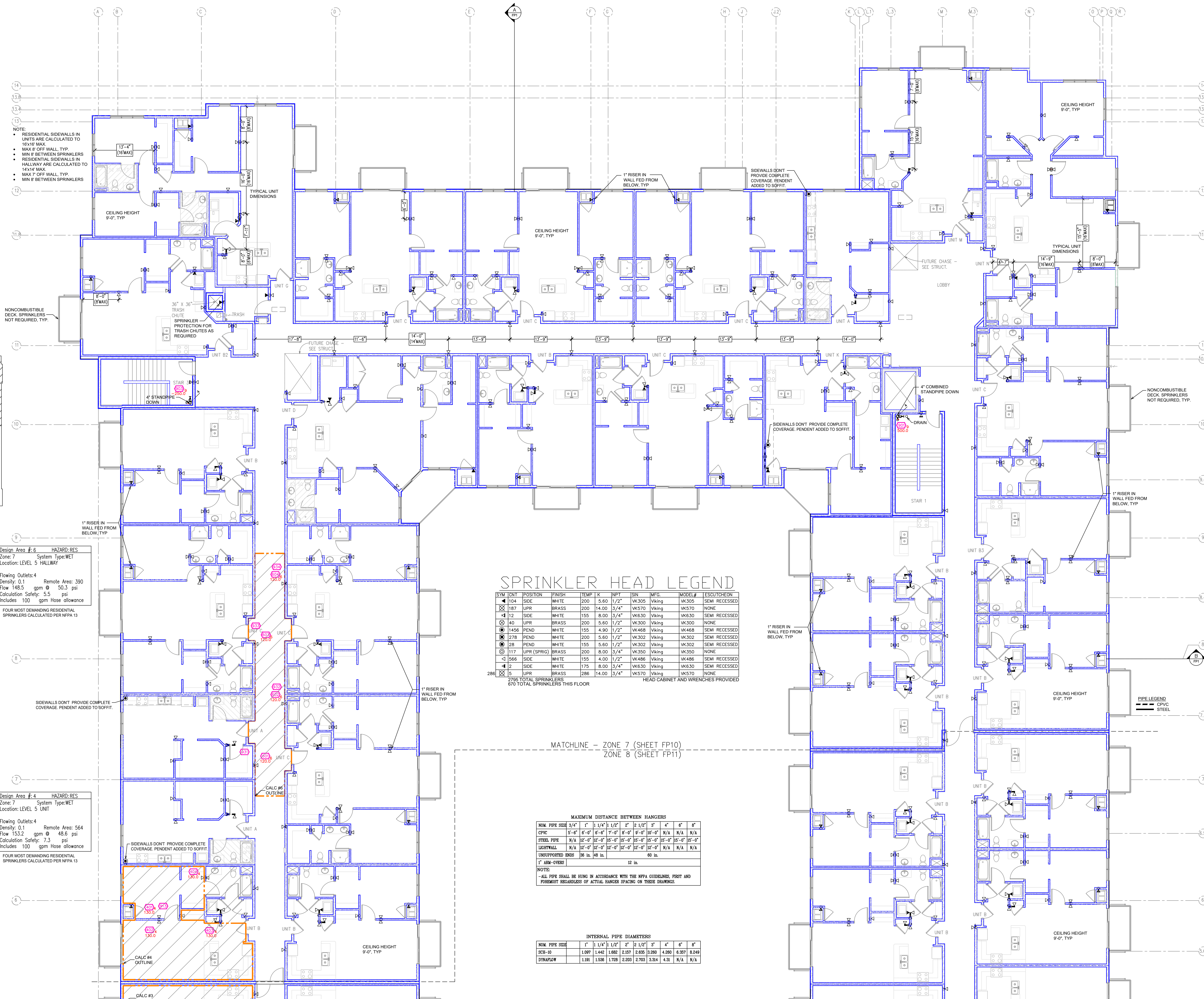


#### REVISIONS

No.	Description

Drawing Title: FIRE PROTECTION PLAN  
 Project No.:  
 Drawn By: DWG  
 Scale: 1/8" = 1'  
 Date: 06/09/2020  
 DWG Type: SUBMITAL DWG





Design Area # 6 HAZARD: RES  
 Zone: 7 System Type: WET  
 Location: LEVEL 5 HALLWAY

Flowing Outlets: 4  
 Density: 0.1 Remote Area: 390  
 Flow: 145.5 gpm @ 93.3 psi  
 Calculation Safety: 5.5 psi  
 Includes 100 gpm Hose allowance

FOUR MOST DEMANDING RESIDENTIAL SPRINKLERS CALCULATED PER NFPA 13

Design Area # 4 HAZARD: RES  
 Zone: 7 System Type: WET  
 Location: LEVEL 5 UNIT

Flowing Outlets: 4  
 Density: 0.1 Remote Area: 564  
 Flow: 153.2 gpm @ 48.6 psi  
 Calculation Safety: 7.3 psi  
 Includes 100 gpm Hose allowance

FOUR MOST DEMANDING RESIDENTIAL SPRINKLERS CALCULATED PER NFPA 13

### SPRINKLER HEAD LEGEND

SYM	CNT	POSITION	FINISH	TEMP	K	NPT	SIN	MPFG	MODEL#	ESCUTCHEON
◀	104	SIDE	WHITE	200	5.60	1/2"	VK305	Viking	VK305	SEMI RECESSED
⊗	187	UPR	BRASS	200	14.00	3/4"	VK570	Viking	VK570	NONE
◀	12	SIDE	WHITE	155	8.00	3/4"	VK630	Viking	VK630	SEMI RECESSED
⊗	40	UPR	BRASS	200	5.60	1/2"	VK300	Viking	VK300	NONE
⊗	1456	PEND	WHITE	155	4.90	1/2"	VK468	Viking	VK468	SEMI RECESSED
⊗	278	PEND	WHITE	200	5.60	1/2"	VK302	Viking	VK302	SEMI RECESSED
⊗	28	PEND	WHITE	155	5.60	1/2"	VK302	Viking	VK302	SEMI RECESSED
⊗	117	UPR (SPRIG)	BRASS	200	8.00	3/4"	VK350	Viking	VK350	NONE
◀	566	SIDE	WHITE	155	4.00	1/2"	VK486	Viking	VK486	SEMI RECESSED
◀	2	SIDE	WHITE	175	8.00	3/4"	VK630	Viking	VK630	SEMI RECESSED
⊗	5	UPR	BRASS	286	14.00	3/4"	VK570	Viking	VK570	NONE

2786 TOTAL SPRINKLERS THIS FLOOR  
 670 TOTAL SPRINKLERS THIS FLOOR

HEAD CABINET AND WRENCHES PROVIDED

### MAXIMUM DISTANCE BETWEEN HANGERS

NOM PIPE SIZE	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	6"	8"
CPVC	5'-0"	6'-0"	6'-0"	6'-0"	6'-0"	6'-0"	6'-0"	6'-0"	N/A	N/A
STEEL PIPE	N/A	12'-0"	12'-0"	12'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"
LIGHTWALL	N/A	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	N/A	N/A	N/A

UNSUPPORTED ENDS 36 in. 48 in. 60 in.

1" ARM-OVERS 12 in.

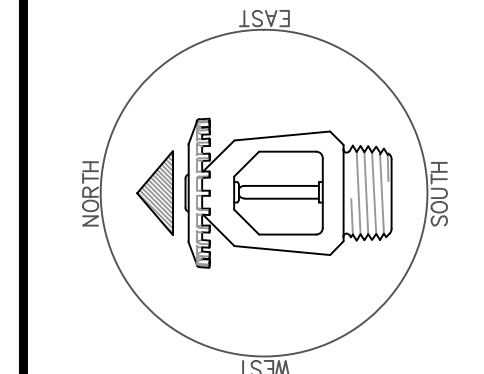
NOTE:  
 -ALL PIPE SHALL BE HUNG IN ACCORDANCE WITH THE NFPA GUIDELINES, FIRST AND FOREMOST REGARDLESS OF ACTUAL HANGER SPACING ON THESE DRAWINGS.

### INTERNAL PIPE DIAMETERS

NOM PIPE SIZE	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	6"	8"
SCH-10	1.099	1.442	1.682	2.157	2.635	3.280	4.280	6.387	8.249
DYNALFLOW	1.191	1.538	1.728	2.203	2.703	3.314	4.31	N/A	N/A

### SYMBOLS

Symbol	Description
—	Ceiling Height
—	Elev. Below Top of Slab
—	Elev. Above Finished Floor
—	Hydraulic Reference Points
—	Common Connection Point
—	Denotes Hanger Location
—	File up or down
—	Electrical Light
—	Room Hazard Classification
—	Sprinkler Head Code

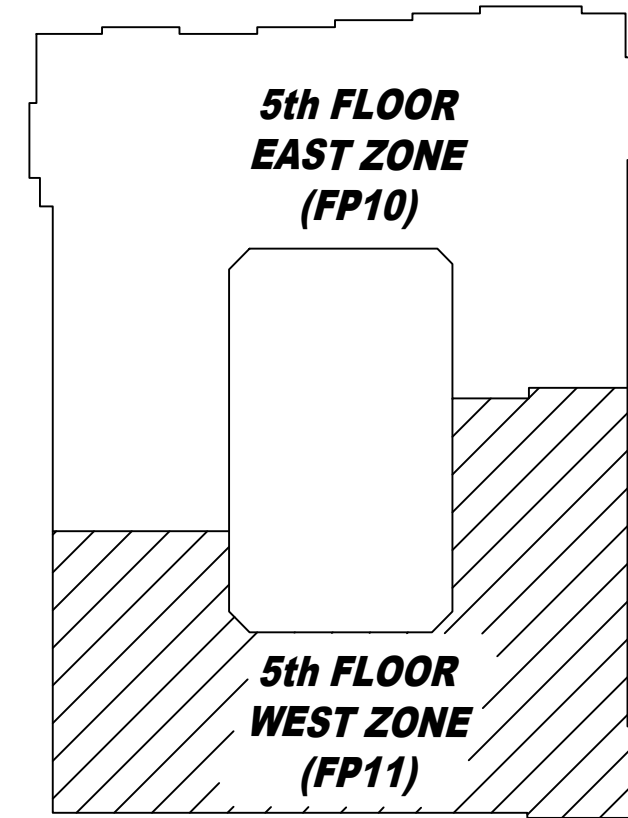


### REVISIONS

No.	Description

Drawing Title: FIRE PROTECTION PLAN  
 Project No.:  
 Drawn By: DWG  
 Scale: 1/8" = 1'  
 Date: 06/09/2020  
 DWG Type: SUBMITTAL DWG





KEY PLAN  
N.T.S.

Design Area # 6 HAZARD: RES  
Zone: 7 System Type: WET  
Location: LEVEL 5 HALLWAY  
Flowing Outlets: 4  
Density: 0.1 Remote Area: 390  
Flow 148.5 gpm @ 50.3 psi  
Calculation Safety: 5.5 psi  
Includes 100 gpm Hose allowance  
FOUR MOST DEMANDING RESIDENTIAL  
SPRINKLERS CALCULATED PER NFPA 13

Design Area # 4 HAZARD: RES  
Zone: 7 System Type: WET  
Location: LEVEL 5 UNIT  
Flowing Outlets: 4  
Density: 0.1 Remote Area: 564  
Flow 153.2 gpm @ 48.6 psi  
Calculation Safety: 7.3 psi  
Includes 100 gpm Hose allowance  
FOUR MOST DEMANDING RESIDENTIAL  
SPRINKLERS CALCULATED PER NFPA 13

Design Area # 3 HAZARD: RES  
Zone: 8 System Type: WET  
Location: LEVEL 5 UNIT  
Flowing Outlets: 4  
Density: 0.1 Remote Area: 564  
Flow 153.0 gpm @ 46.8 psi  
Calculation Safety: 9.1 psi  
Includes 100 gpm Hose allowance  
FOUR MOST DEMANDING RESIDENTIAL  
SPRINKLERS CALCULATED PER NFPA 13

NOTE:  
• RESIDENTIAL SIDEWALLS IN UNITS ARE CALCULATED TO 15'X15' MAX.  
• MAX 8' OFF WALL TYP.  
• MIN 8' BETWEEN SPRINKLERS  
• RESIDENTIAL SIDEWALLS IN HALLWAYS ARE CALCULATED TO 15'X15' MAX.  
• MAX 7' OFF WALL TYP.  
• MIN 8' BETWEEN SPRINKLERS

NONCOMBUSTIBLE DECK SPRINKLERS NOT REQUIRED, TYP.

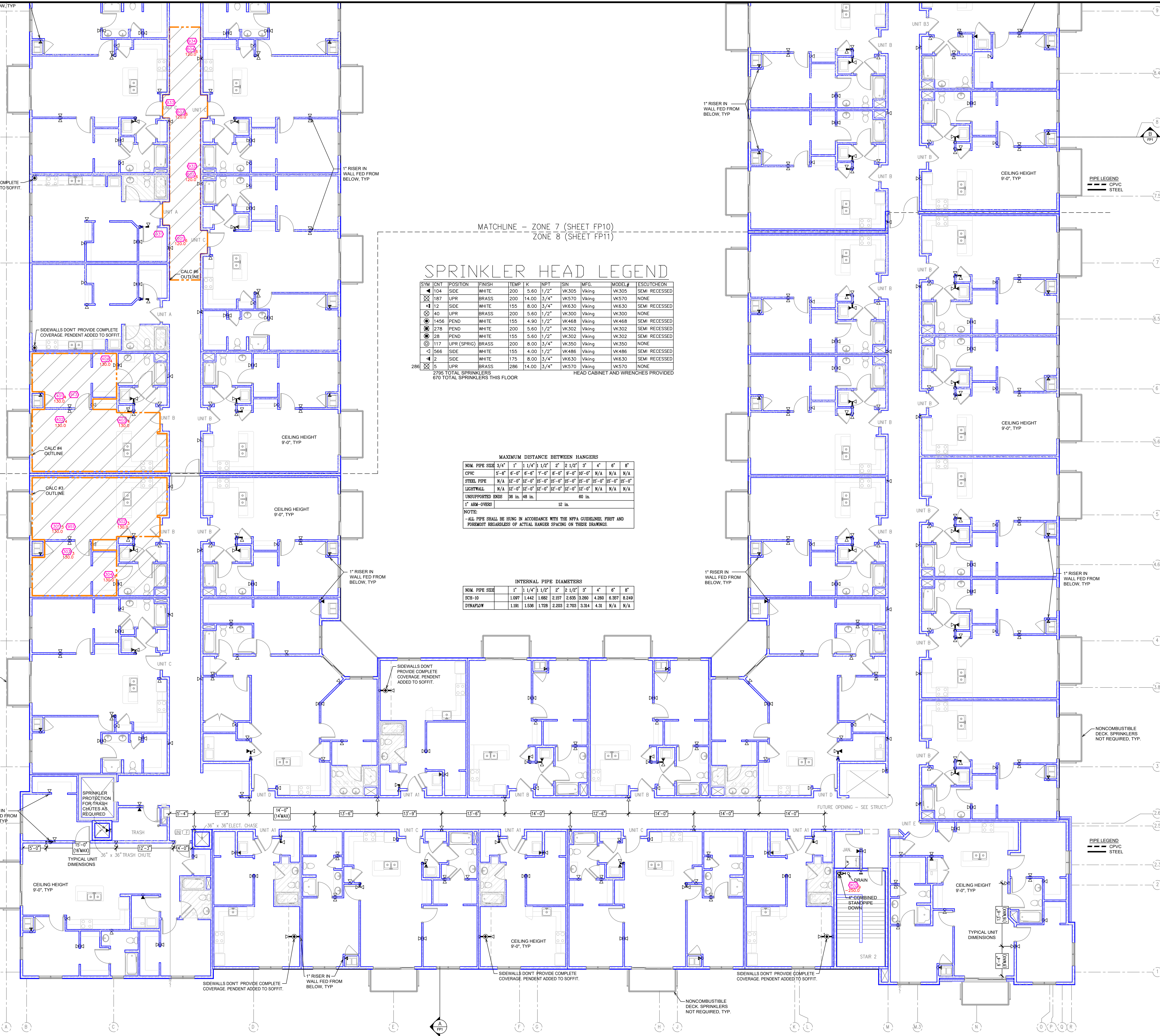
1" RISER IN WALL FED FROM BELOW, TYP.

CEILING HEIGHT 9'-0", TYP.

CEILING HEIGHT 9'-0", TYP.

NONCOMBUSTIBLE DECK SPRINKLERS NOT REQUIRED, TYP.

1" RISER IN WALL FED FROM BELOW, TYP.



MATCHLINE - ZONE 7 (SHEET FP10)  
ZONE 8 (SHEET FP11)

### SPRINKLER HEAD LEGEND

SYM	UNIT	POSITION	FINISH	TEMP	K	NPT	ISN	MFG.	MODEL#	ESGUTCHCON
◀	104	SIDE	WHITE	200	5.60	1/2"	VK305	Viking	VK305	SEMI RECESSED
◀	187	UPR	BRASS	200	14.00	3/4"	VK570	Viking	VK570	NONE
◀	12	SIDE	WHITE	155	8.00	3/4"	VK630	Viking	VK630	SEMI RECESSED
◀	40	UPR	BRASS	200	5.60	1/2"	VK300	Viking	VK300	NONE
◀	1456	PEND	WHITE	155	4.90	1/2"	VK468	Viking	VK468	SEMI RECESSED
◀	278	PEND	WHITE	200	5.60	1/2"	VK302	Viking	VK302	SEMI RECESSED
◀	28	PEND	WHITE	155	5.60	1/2"	VK302	Viking	VK302	SEMI RECESSED
◀	117	UPR (SPRIG)	BRASS	200	8.00	3/4"	VK350	Viking	VK350	NONE
◀	566	SIDE	WHITE	155	4.00	1/2"	VK486	Viking	VK486	SEMI RECESSED
◀	2	SIDE	WHITE	175	8.00	3/4"	VK630	Viking	VK630	SEMI RECESSED
◀	5	UPR	BRASS	286	14.00	3/4"	VK570	Viking	VK570	NONE

2795 TOTAL SPRINKLERS  
670 TOTAL SPRINKLERS THIS FLOOR

HEAD CABINET AND WRENCHES PROVIDED

### MAXIMUM DISTANCE BETWEEN HANGERS

NOM. PIPE SIZE	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	6"	8"
CPVC	5'-0"	6'-0"	6'-6"	7'-0"	8'-0"	9'-0"	10'-0"	N/A	N/A	N/A
STEEL PIPE	N/A	12'-0"	12'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"
LIGHTWALL	N/A	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	N/A	N/A	N/A

UNSUPPORTED ENDS: 36 in. 48 in. 60 in.

1" ARM-OVERS: 12 in.

NOTE:  
- ALL PIPE SHALL BE HUNG IN ACCORDANCE WITH THE NFPA CODEBOOKS, FIRST AND FOREMOST REGARDLESS OF ACTUAL HANGER SPACING, ON THESE DRAWINGS.

### INTERNAL PIPE DIAMETERS

NOM. PIPE SIZE	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	6"	8"
SCH-10	1.097	1.442	1.682	2.157	2.635	3.260	4.200	6.387	8.249
DYNAPLW	1.191	1.536	1.728	2.203	2.703	3.314	4.31	N/A	N/A

### SYMBOLS

Symbol	Description
—	Ceiling Height
—	Elav. Below Top of Steel
—	Elav. Above Finished Floor
—	Hydraulic Reference Points
—	Common Connection Point
—	Denotes Hanger Location
—	Flex up or down
—	Electrical Light
—	Room Hazard Classification
—	Sprinkler Head Code

### REVISIONS

No.	Description

Drawing Title: FIRE PROTECTION PLAN  
Project No.:  
Drawn By: DWG  
Scale: 1/8" = 1'  
Date: 06/09/2020  
DWG Type: SUBMITAL DWG

