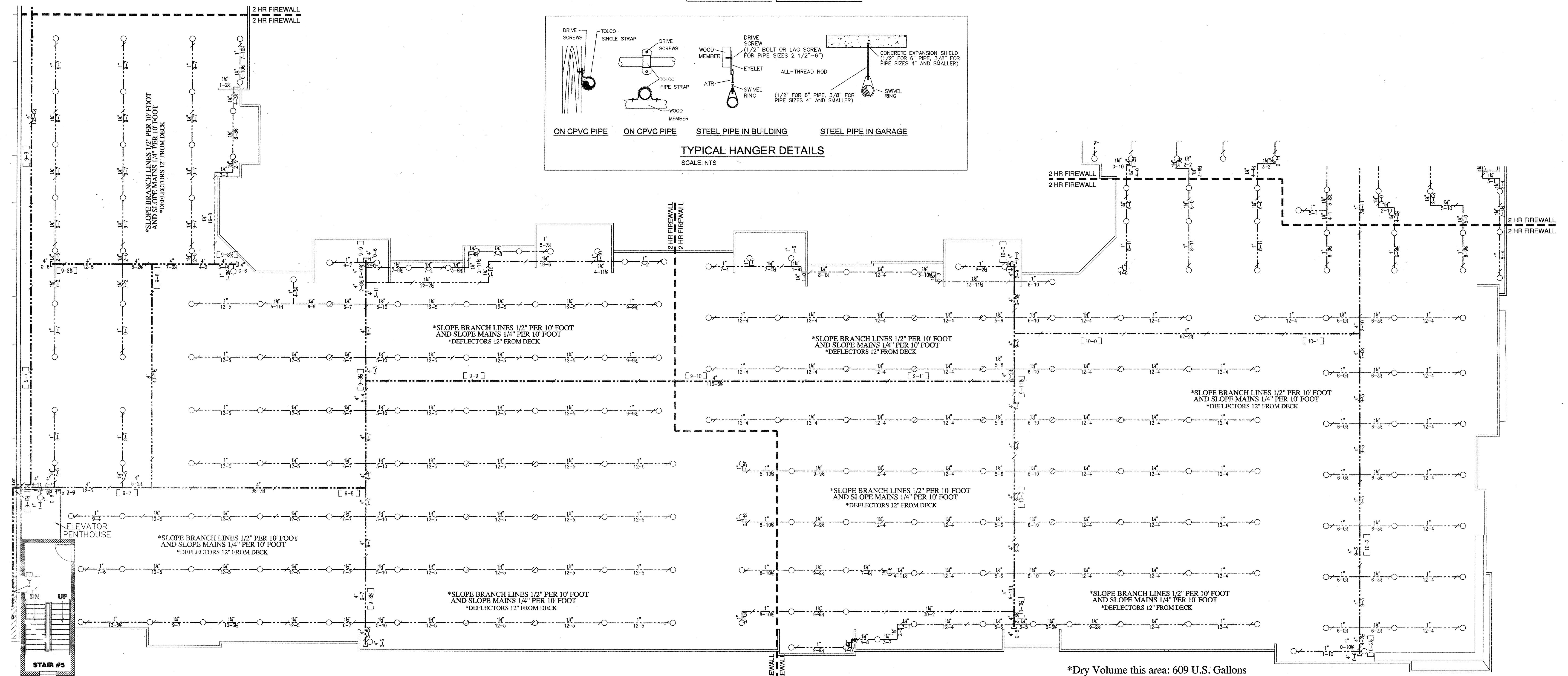
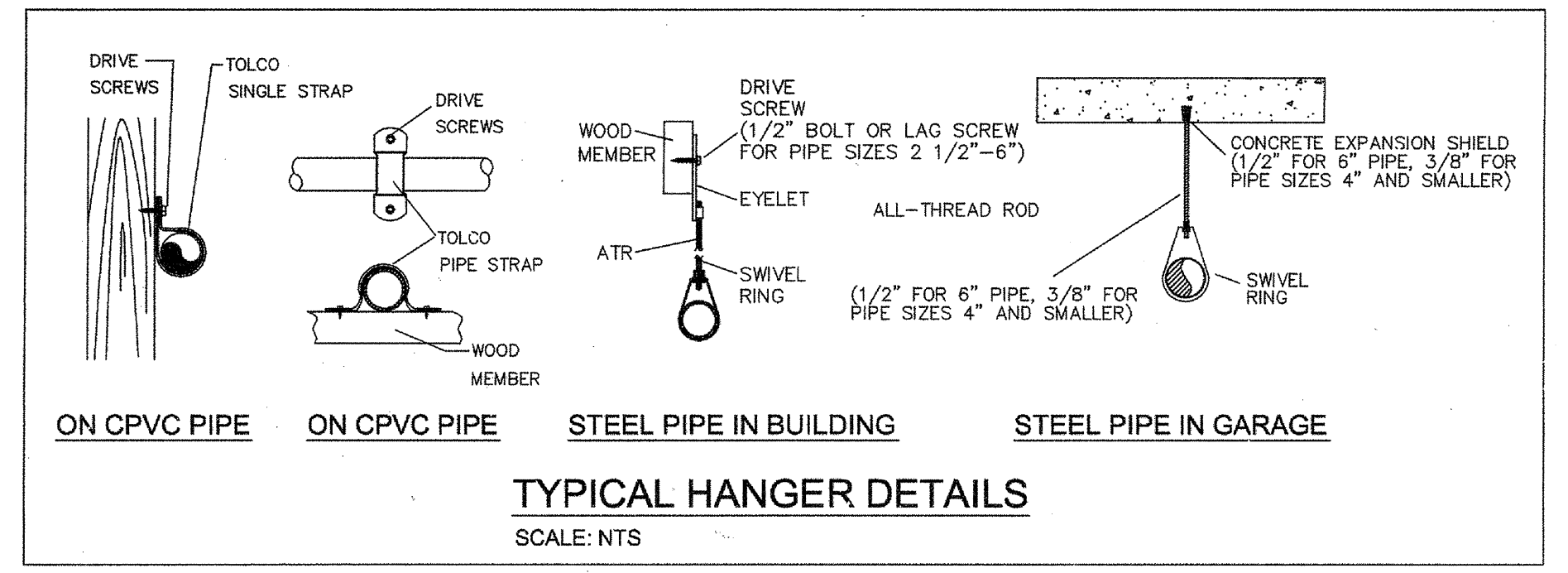
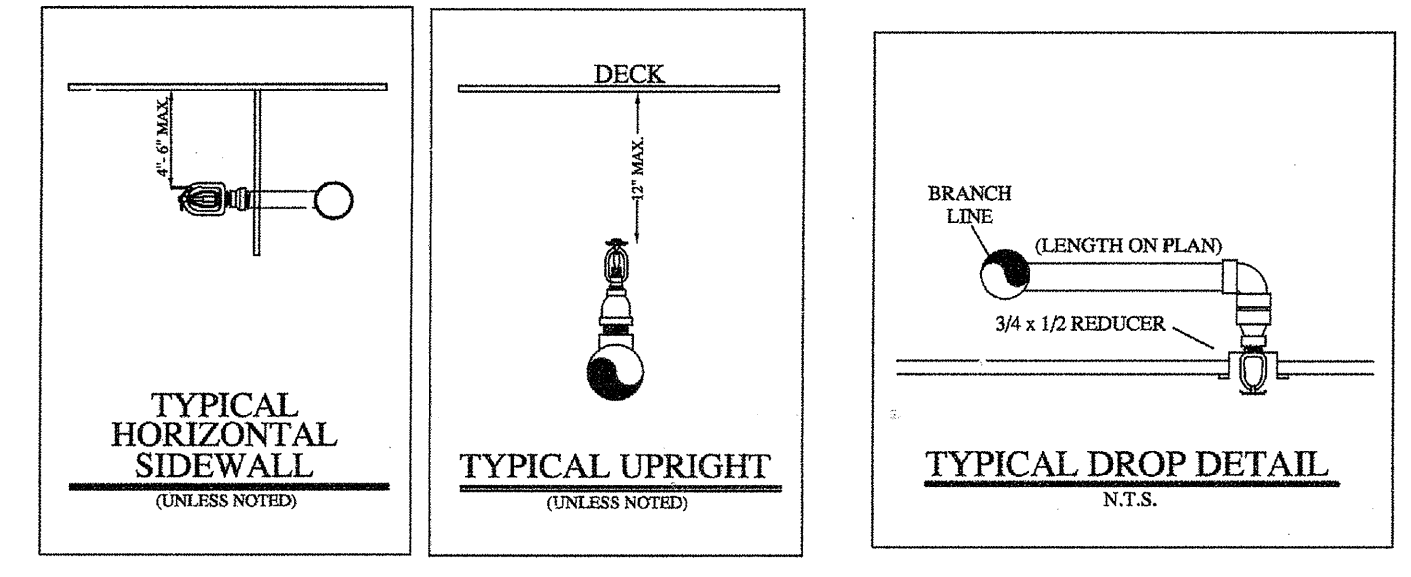
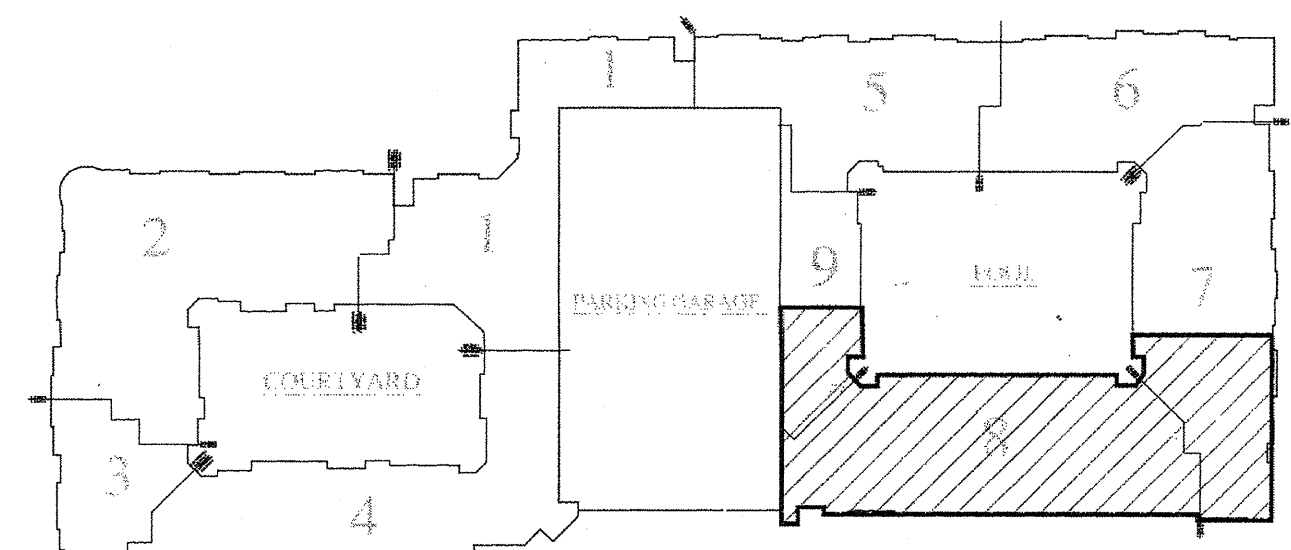
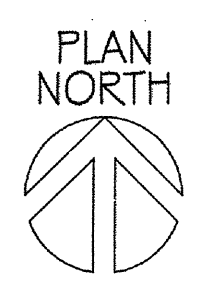


PIPE SIZE	SLEEVE DIA.
1"	2"
1-1/4"	2"
1-1/2"	2-1/2"
2"	3"
2-1/2"	4"
3"	5"
4"	5"
5"	6"
6"	8"
8"	10"



**Attic Plan**

**INSTALLATION PLAN**  
Scale 1/8" = 1'-0"



**KEY MAP**  
N.T.S.

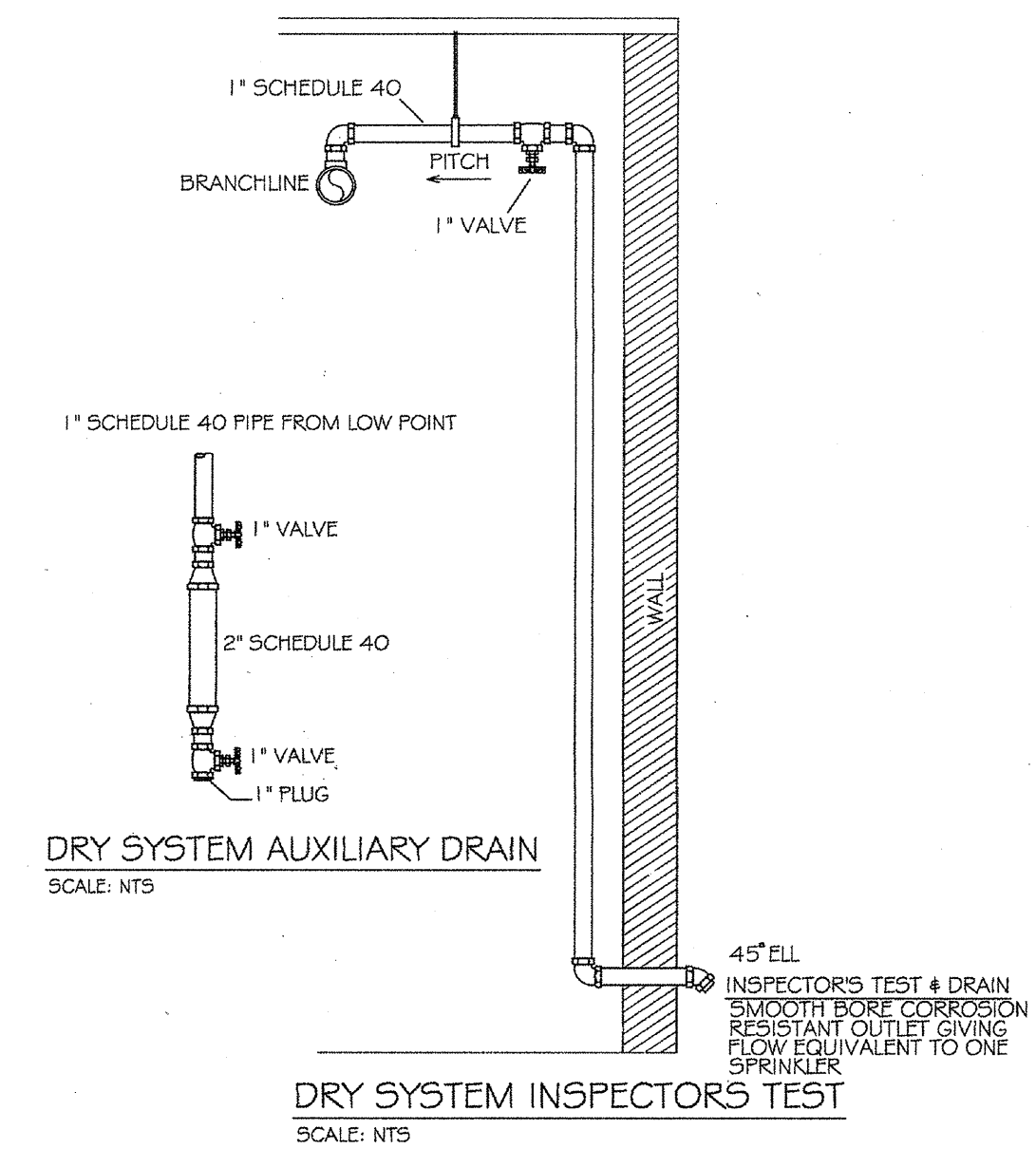
**HANGER SPACING CHART**

PIPE SIZE (IN)	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4	6
STEEL PIPE	N/A	12-0	12-0	15-0	15-0	15-0	15-0	15-0	15-0
TURBAGED	N/A	12-0	12-0	12-0	12-0	12-0	12-0	N/A	N/A
COPPER	8-0	8-0	10-0	10-0	12-0	12-0	12-0	15-0	15-0
CPVC	5-6	6-0	6-6	7-0	8-0	9-0	10-0	N/A	N/A

FIGURE A.9.2.3.4 DISTANCE FROM SPRINKLER TO HANGER

NOTE: WHEN PRESSURE EXCEEDS 160 PSI THE UNBARRICADED LENGTH BETWEEN THE END SPRINKLER IN A PERCENT POSITION OF THE MAIN PIPE AND THE LAST HANGER ON THE BRANCH LINE SHALL NOT BE GREATER THAN 12 INCHES FOR STEEL PIPE.

PIPE SIZE	DIAM. OF ROD	PIPE SIZE	DIAM. OF ROD
UP TO AND INCLUDING 4"	3/8"	6 AND 8	1/2"



**GENERAL NOTES:**

- Ranger Fire's work shall consist of all necessary labor and material to design and install new automatic fire sprinkler systems in the referenced (9) Apartment Buildings and attached Parking Garage.
- Ranger Fire excludes all electrical and ceiling work.
- All design and installation shall conform to NFPA 13, 13R, 14, 20, & the City of Addison requirements.
- All material to be UL/FM approved for fire services.
- All new plastic piping shall be Schedule 40 CPVC with CPVC plastic fittings (u.o.n.). All steel piping shall be Black Sch. 10 with grooved fittings for the mains and Black Sch. 40 with threaded fittings for the branchlines.
- Owner or tenant is responsible for maintaining adequate heat to prevent the system from freezing (Min. 40 degrees F.).
- Sprinkler equipment room and equipment components shall be properly identified.
- Install signage on sprinkler equipment room door stating "Sprinkler Valve Room" in at least 4 inches in height.
- All hangers shall be in accordance with NFPA 13 requirements.
- All systems shall be tested at 200 psi for 2 hours and witnessed by a representative of the Addison Fire Department. Any leaks shall be repaired.
- The system has been hydraulically calculated per NFPA 13, 13R, 14, & 20 requirements.
- Install Black steel piping in Parking Garage.

**LEGEND:**

- SYSTEM RISER
- 4" X 2 1/2" X 2 1/2" F.D.C.
- VERTICAL PIPE (UP or DN)
- HYDRAULIC NODE POINT
- REMOTE AREA OUTLINE
- 2 1/2" HOSE VALVE
- BUTTERFLY VALVE
- HANGERS (SIZE VARIES)
- CEILING ELEVATION
- PIPE ELEVATION

**RESIDENTIAL BUILDING INFO**

OCCUPANCY:	R-2 / A-3
GROSS BLDG AREA:	424,139 S.F.
TYPE OF CONSTRUCTION:	V-A

<b>GARAGE BUILDING INFO</b>	
OCCUPANCY:	S-2
GROSS BLDG AREA:	181,834 S.F.
TYPE OF CONSTRUCTION:	2-B

I have reviewed these plans and certify that they comply with the adopted NFPA standards.

**Ranger Fire, Inc.**  
1000 South Main Street  
Suite 150  
Grapevine, Texas 76051  
Phone: 817-410-9070  
SCR-0590

RME SIGNATURE: *[Signature]*  
PRINTED RME NAME: **Matthew B. Claxton**  
RME NUMBER: **0778** DATE: **7-31-17**

AS-BUILT  SUBMITTAL  OTHER

**AS-BUILT**

**RANGER FIRE, INC.**  
920 SOUTH MAIN STREET  
SUITE 200  
GRAPEVINE, TEXAS 76051  
PHONE: 817-410-9070  
TEXAS LICENSE: 6596

AS-BUILT  SUBMITTAL  OTHER

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REV #	REVISIONS	DATE	BY

**GENERAL CONTRACTOR:**  
KELLER SPRINGS LOFTS  
EMERY PARTNERS LLP  
1000 N. LOOP W. STE 100  
SAN ANTONIO, TX  
210.824.6444

**OWNER:**  
EMERY PARTNERS LLP  
1000 N. LOOP W. STE 100  
SAN ANTONIO, TX  
210.824.6444

**CONTRACT NAME:** KELLER SPRINGS LOFTS  
**CONTRACT #:** 11-055  
**DESCRIPTION:** 1st FLOOR

**SCALE:** 1/8" = 1'-0"  
**DRAWN BY:** C. ALEXANDER  
**CHECKED BY:** *[Signature]*  
**DATE:** 04-01-12  
**DATE:** 04-01-12