

Design Area No. 2  
Area 2  
Density 62.47 gpm @ 47.95 psi  
Includes 250 gpm hose allowance

**HANGER SPACING CHART**

TABLE 9.2.2.1 MAXIMUM DISTANCE BETWEEN HANGERS (FT-IN.)

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
THREADED	N/A	12-0	12-0	12-0	12-0	12-0	N/A	N/A	N/A
COPPER	8-0	8-0	10-0	10-0	12-0	12-0	15-0	15-0	N/A
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

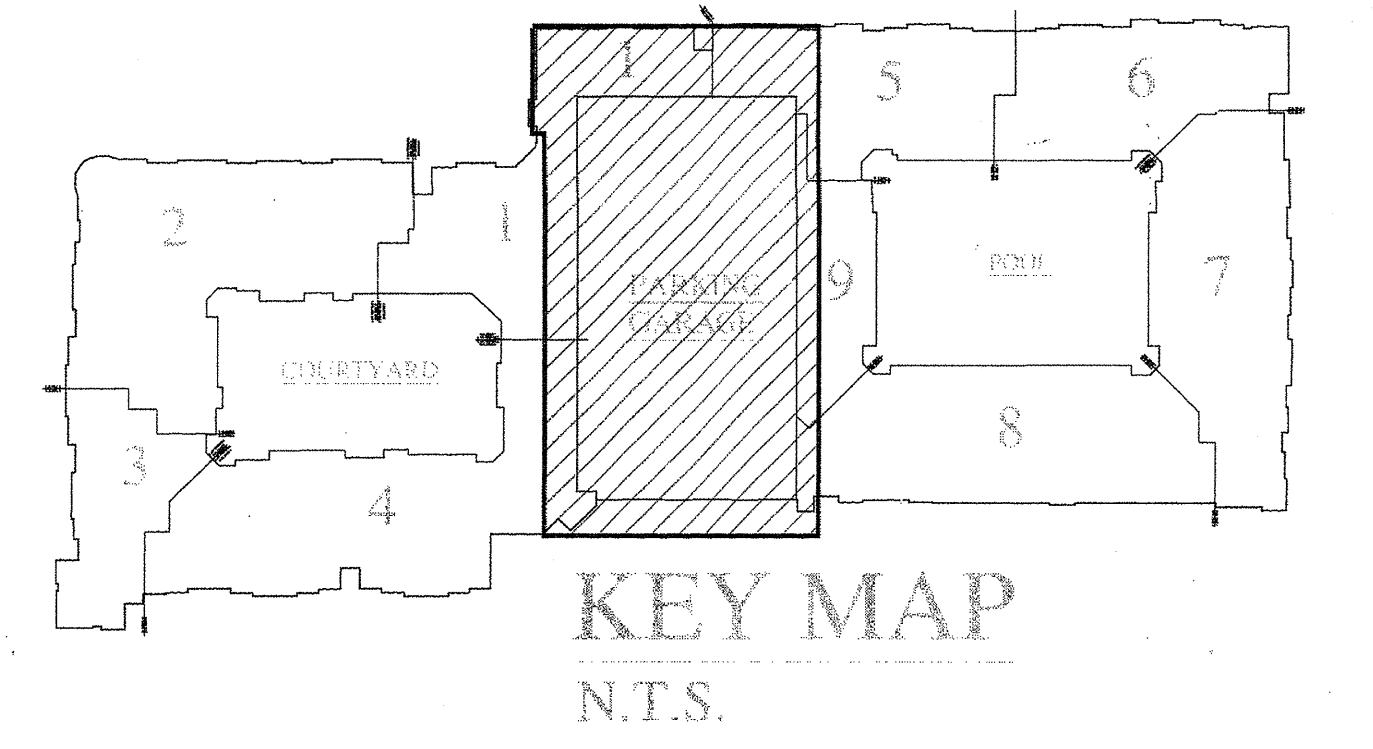
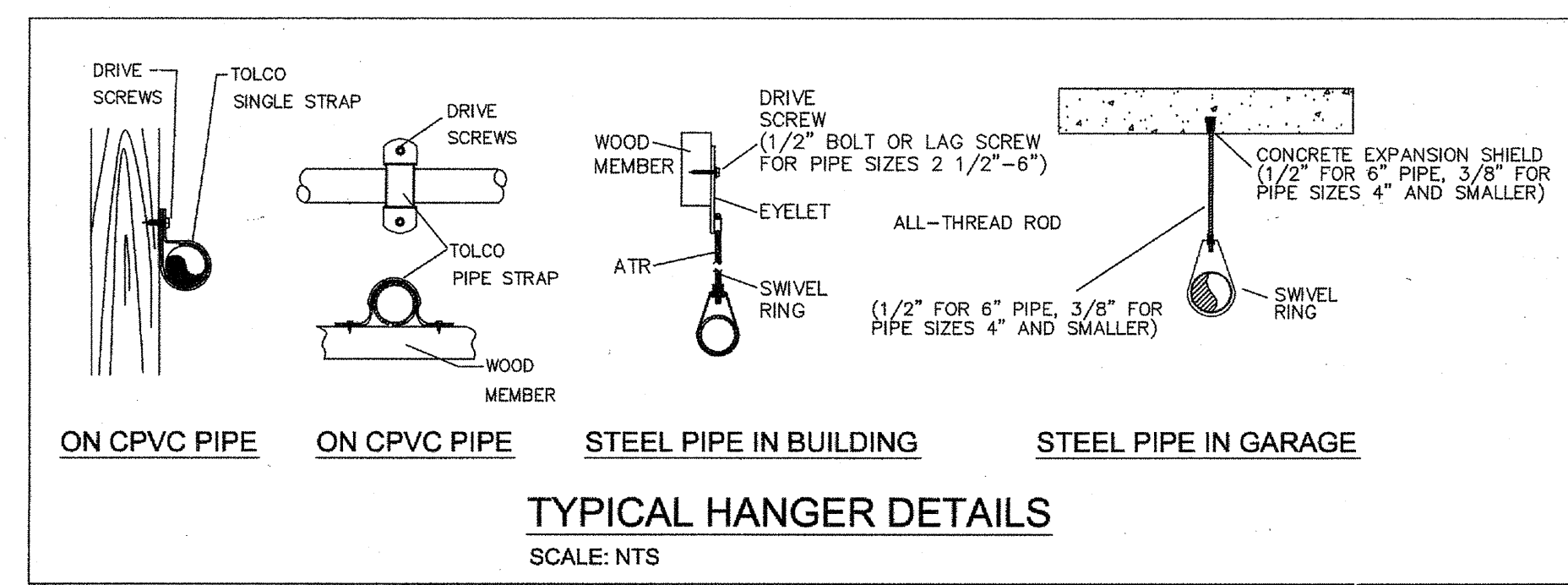
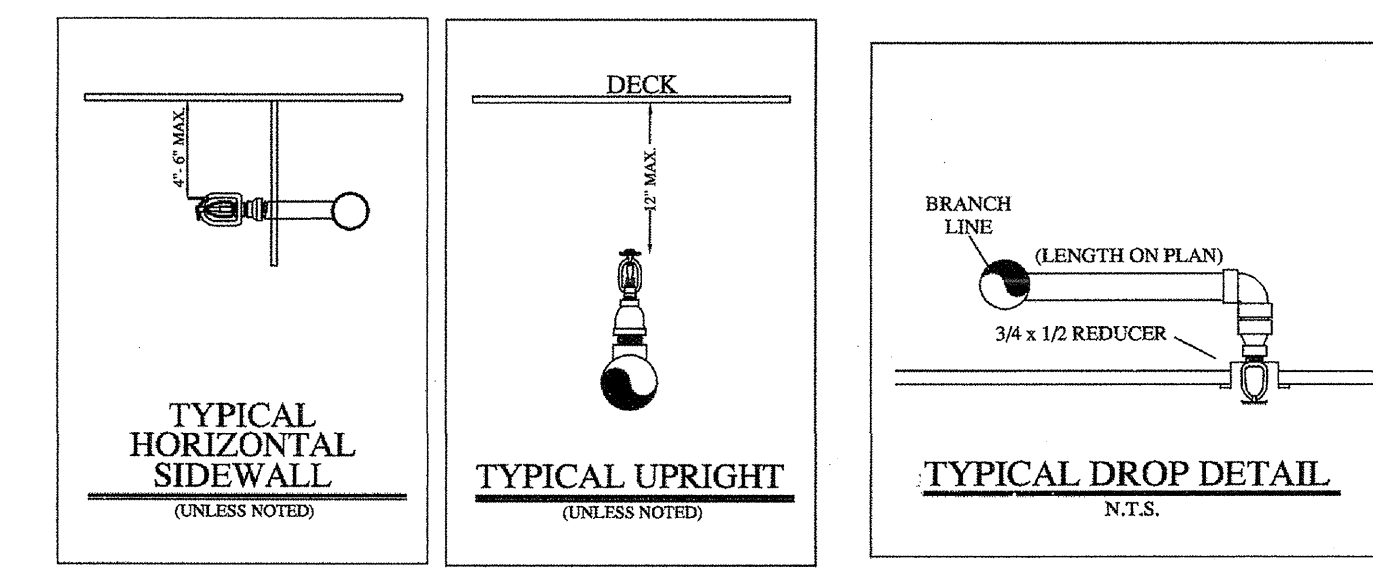
NOTE: WHERE PRESSURES EXCEED 200 PSI THE UNSPANNED LENGTH BETWEEN THE END SPRINKLER IN A PENDENT POSITION OR DROP HANGER AND THE LAST HANGER ON THE BRANCH LINE SHALL NOT BE GREATER THAN 12 INCHES FOR STEEL PIPE.

TABLE 9.1.2.1 HANGER ROD SIZES

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

**SLEEVE SCHEDULE**

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"
6"	8"
8"	10"



- 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

- 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.

**RESIDENTIAL BUILDING INFO**

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

**GARAGE BUILDING INFO**

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: 7-31-13

AS-BUILT  SUBMITTAL  OTHER

**AS-BUILT**

**RANGER FIRE, INC.**  
920 SOUTH MAIN STREET  
SUITE 200  
GRAPEVINE, TEXAS 76051  
PHONE: 817-410-9070  
TEXAS LICENSE: 6590

AS-BUILT  SUBMITTAL  OTHER

**CONFIDENTIALITY STATEMENT**  
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REV #	DATE	BY

GENERAL CONTRACTOR: HONAI CORP. #10  
OWNER: EMBREY PARTNERS LTD.  
DATE: 04-01-12  
DRAWN BY: C. ALEXANDER  
CHECKED BY: *[Signature]*  
SCALE: 1/8" = 1'-0"  
TOTAL PER THIS SHEET: 21  
CONTRACT # 11-05  
DESCRIPTION: LEVEL 5 PARKING GARAGE

**KELLER SPRINGS LOFTS**  
4800 KELLER SPRINGS PKWY  
ADDISON, TEXAS 75001

CONTRACT NAME: 1000 South Main Street Suite 150 Grapevine, Texas 76051 Phone: 817-410-9070 SCR-0590

DATE: 04-01-12  
DRAWN BY: C. ALEXANDER  
CHECKED BY: *[Signature]*  
SCALE: 1/8" = 1'-0"  
TOTAL PER THIS SHEET: 21  
CONTRACT # 11-05  
DESCRIPTION: LEVEL 5 PARKING GARAGE