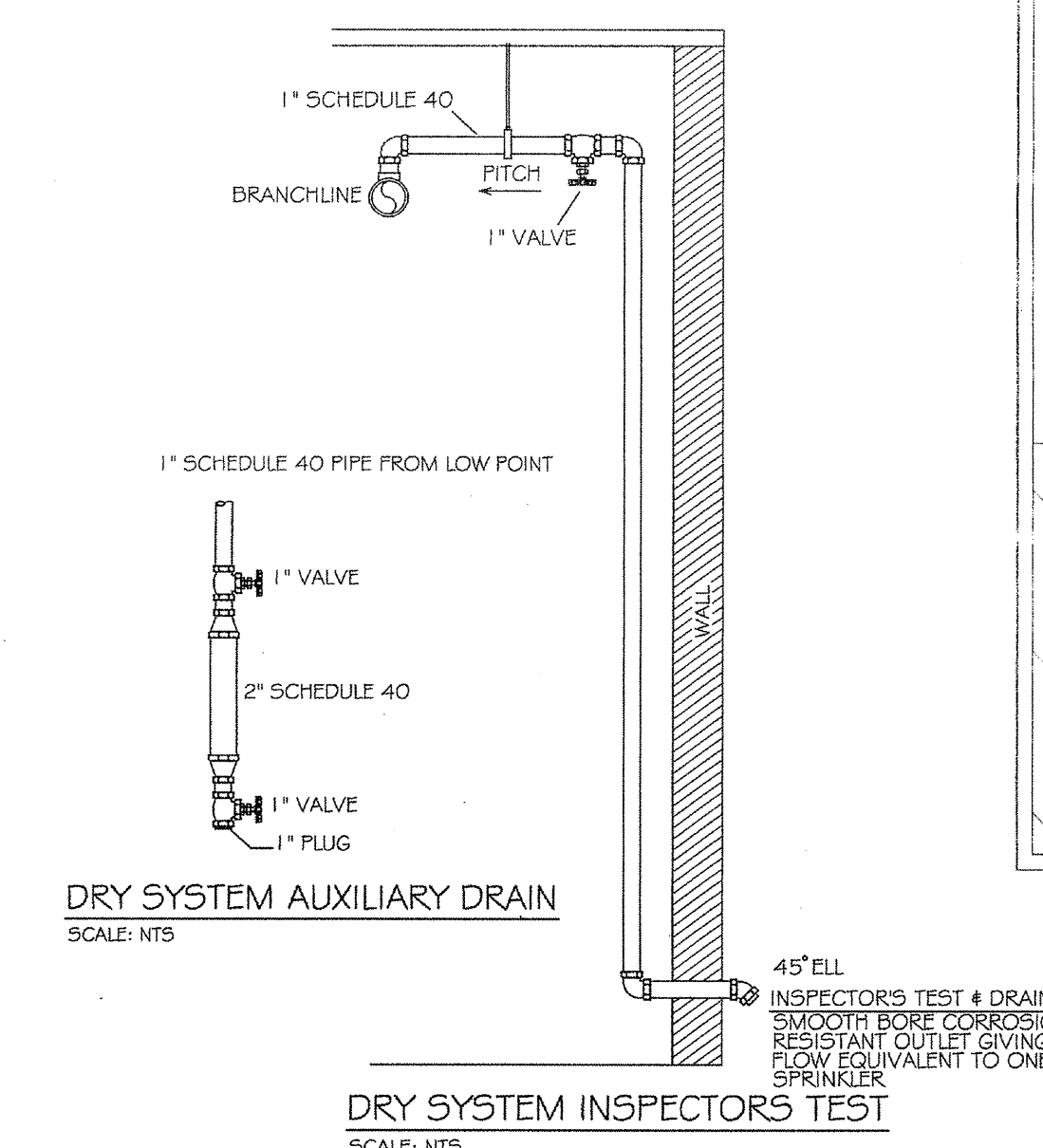


PLAN NORTH

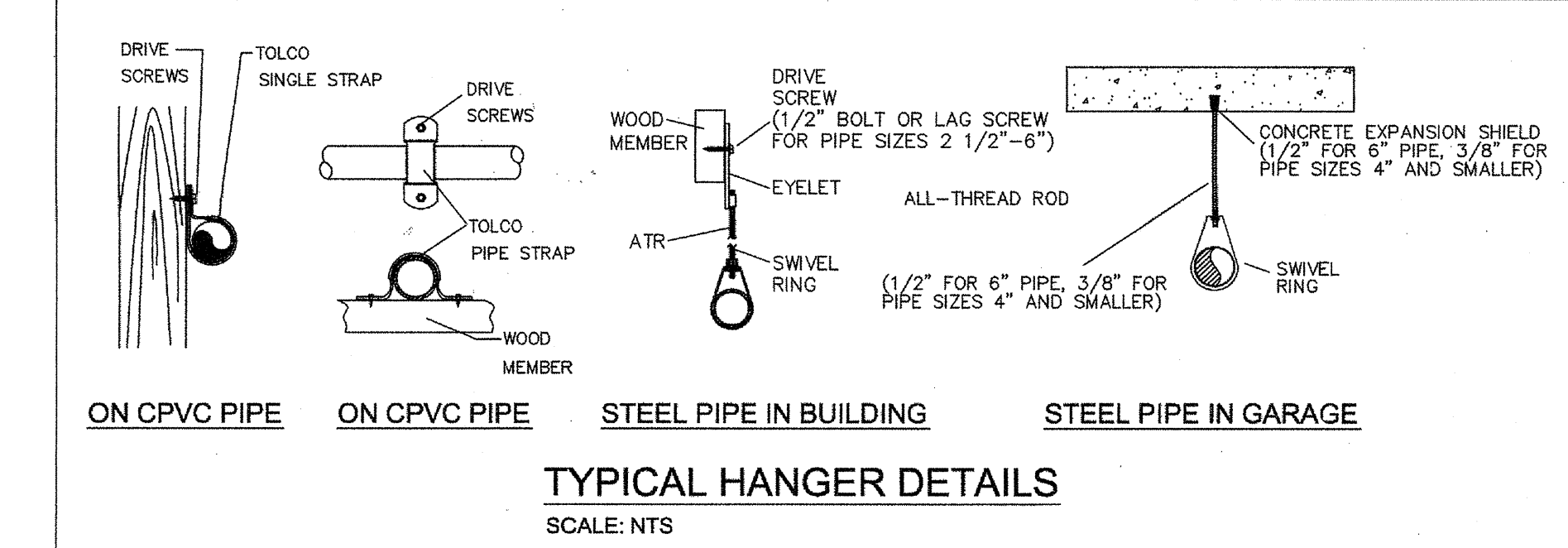
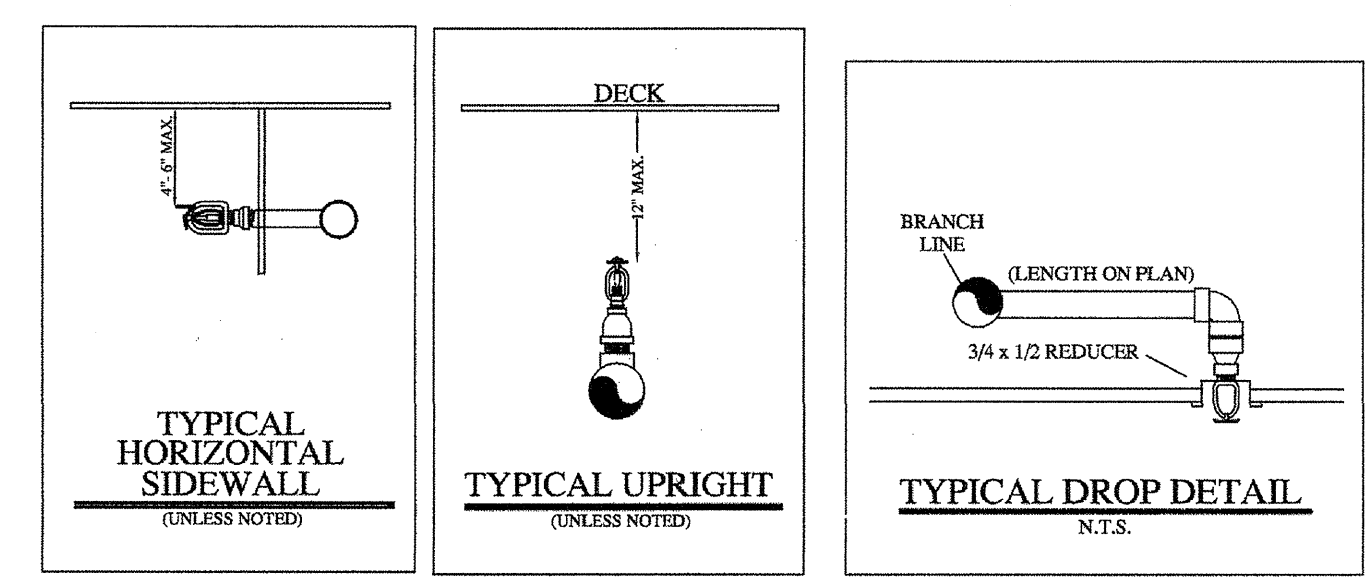
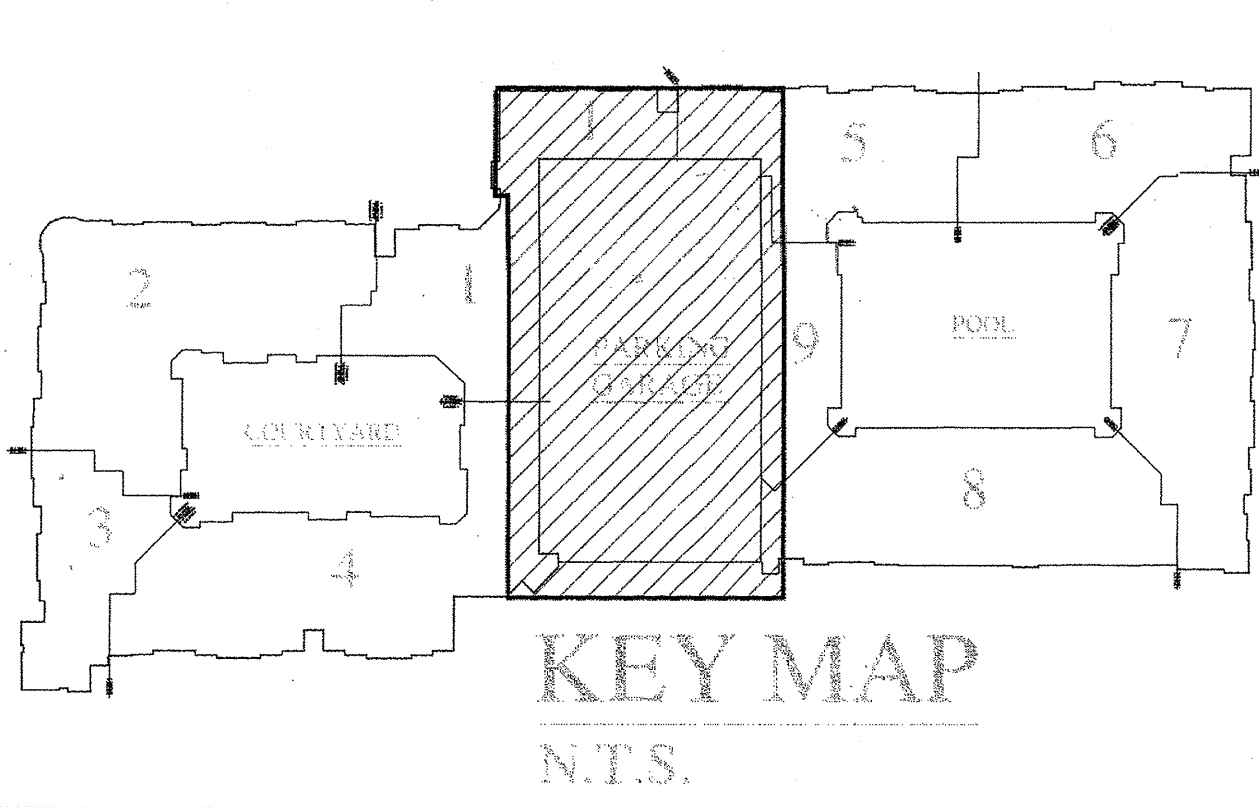
INSTALLATION PLAN

Scale 1/8" = 1'-0"



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"	6"
6"	8"
8"	10"



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	12-0	N/A	N/A
COPPER	8-0	8-0	10-0	10-0	12-0	12-0	15-0	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: MAXIMUM PRESSURE EXCEEDING 160 PSI FOR THE UNSUPPORTED LENGTH BETWEEN THE TWO SPRINKLERS IN A PENDENT POSITION OR 200 PSI FOR THE SUPPORTED LENGTH OF 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"

- 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
 - C 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: 24,139 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:
 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: 0590

AS-BUILT SUBMITTAL OTHER

CONFIDENTIALITY STATEMENT
 This document contains confidential information and is the property of Ranger Fire, Inc. It is to be used only for the purposes stated herein. No portion of this document may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, without the prior written consent of Ranger Fire's management.

GENERAL CONTRACTOR:
 CITY: ARLINGHAM, TX
 FIRM: LAMBERT PARTNERS LTD.
 156 - 1005 NE LOOP 401, STE 700
 SAN ANTONIO, TX
 -210-824-6044

OWNER:
 EMBERT PARTNERS LTD.
 156 - 1005 NE LOOP 401, STE 700
 SAN ANTONIO, TX
 -210-824-6044

DATE: 04-01-12
DATE: 04-01-12

CONTRACT #: 11-05
DESCRIPTION: LEVEL 6 PARKING GARAGE

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

CONTRACT #: 11-05
DESCRIPTION: LEVEL 6 PARKING GARAGE

KELLER SPRINGS LOFTS
 4800 KELLER SPRINGS PKWY
 ADDISON, TEXAS 75001

RANGER FIRE