

BASEMENT FIRE SPRINKLER PLAN

SCALE 1/8"=1'-0"
 * LIGHT HAZARD OCCUPANCY UNLESS OTHERWISE NOTED *
 * SPRINKLER DEFLECTOR 1"-4" BELOW JOIST FOR OBSTRUCTED CONSTRUCTION *

SCOPE OF WORK

CONTRACTOR SHALL INSTALL A NEW WET PIPE RESIDENTIAL FIRE SPRINKLER SYSTEM IN BUILDING OF NON-COMBUSTIBLE OBSTRUCTED & UNOBSTRUCTED CONSTRUCTION.

FIRE SPRINKLER NOTES

SYSTEM DESIGNED AS PER NFPA #13R 2002 EDITION
 39 TOTAL SPRINKLERS - UPRIGHT W/ DEFLECTORS @ 1"-12" FROM BOTTOM OF CEILING/ DECK & PARALLEL PENDENT W/ DEFLECTORS @ MAXIMUM 18" FROM BOTTOM OF CEILING/ DECK & PARALLEL FOR OBSTRUCTED CONSTRUCTION
 4,721 SQ. FT. TOTAL AREA PROTECTED ON WET SYSTEM

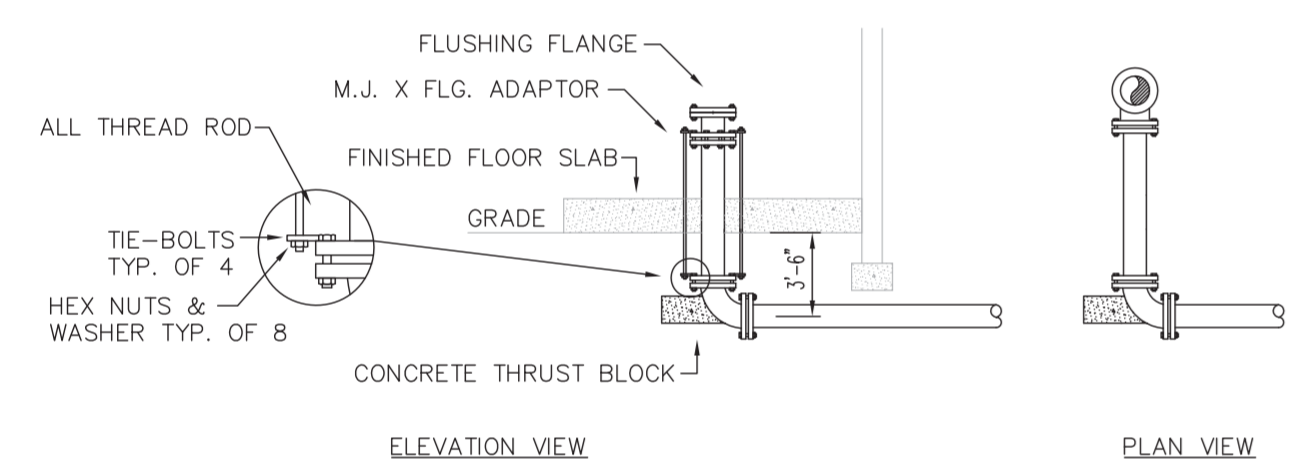
CONTRACTOR SHALL:

PROVIDE REQUIRED SIGNS & FLUSHING CONNECTIONS.
 CONTRACTORS MATERIAL AND TEST CERTIFICATES FOR ABOVE GROUND AND UNDERGROUND PIPE SHALL BE SUBMITTED TO THE FIRE MARSHALL PRIOR TO APPROVAL OF THE INSTALLATION.

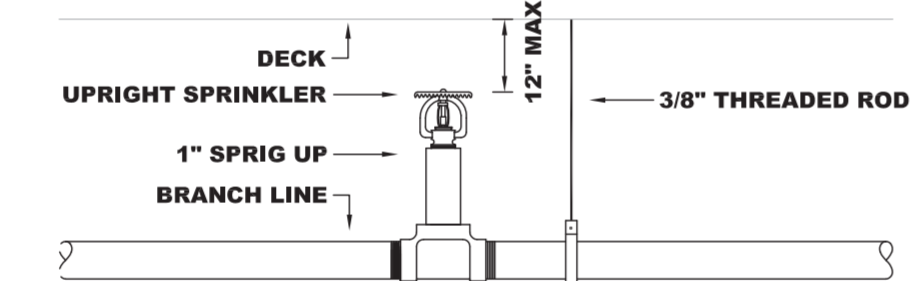
PIPE MATERIAL

1"-1 1/2" SCH. 40 THREADED BLACK STEEL W/ THREADED CAST IRON FITTINGS
 2" SCH. 10 GROOVED BLACK STEEL W/ GROOVED FITTINGS W/ WELDED OUTLETS
 ALL DIMENSIONS & ELEVATIONS ARE CENTERLINE OF PIPE & STEEL UNLESS NOTED OTHERWISE

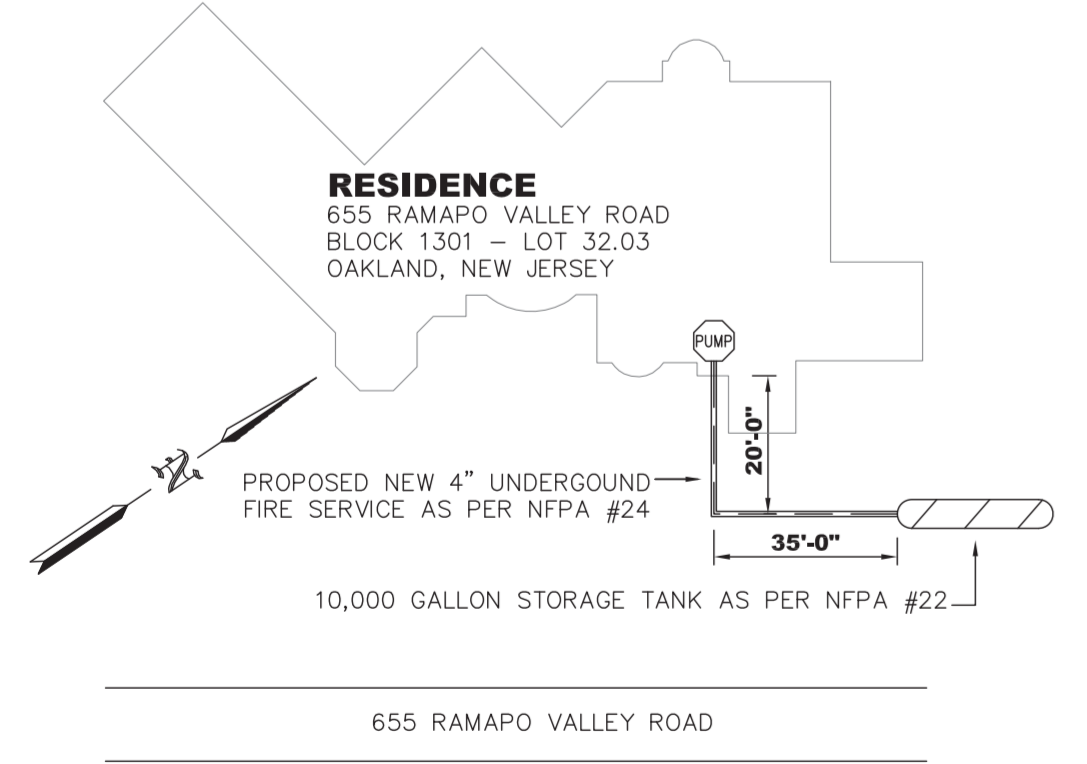
DESIGN DATA: CALCULATION #2
 AREA: BASEMENT
 HAZARD: LIGHT
 OCCUPANCY: RESIDENTIAL
 DENSITY: .10 GPM/FT. 900 SQ. FT.
 AREA REDUCTION AS PER NFPA #13 FOR QUICK RESPONSE SPRINKLERS
 NO. SPRINKLERS CALCULATED: 7
 MAX AREA PER SPRINKLER: 210 SQ. FT.
 HOSE ALLOWANCE: NA
 TOTAL WATER REQUIRED: 164.625 GPM
 TOTAL PRESSURE REQUIRED: 69.709 PSI
 SAFETY FACTOR: 21.220 PSI



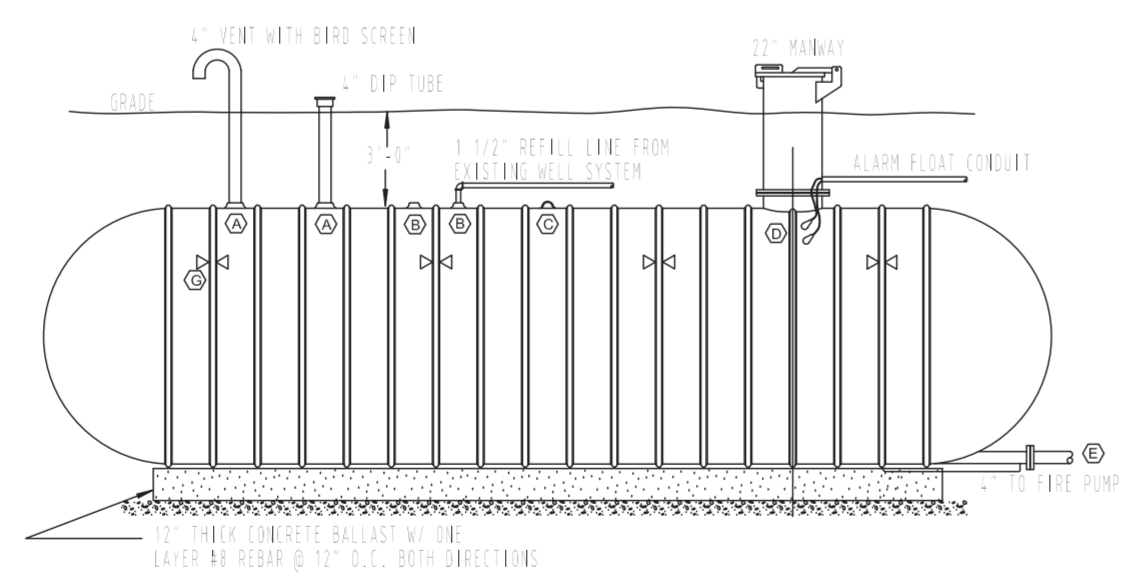
THRUST BLOCK DETAILS N.T.S.



UPRIGHT SPRINKLER DETAIL N.T.S.

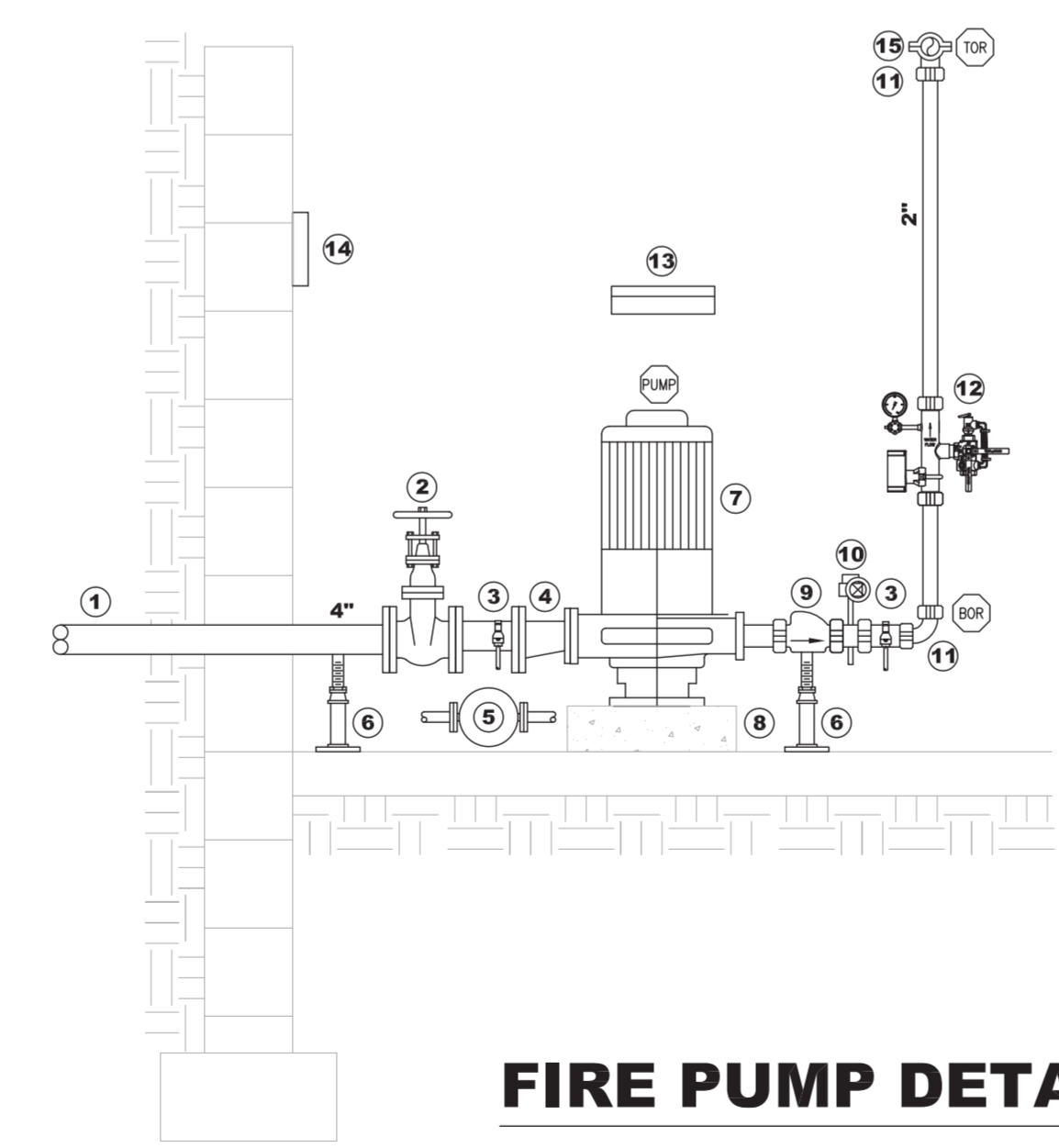


SITE PLAN N.T.S.



10,000 GALLON STORAGE WATER TANK

1	4" UNDERGROUND FIRE SERVICE AS PER NFPA #24 TO 10,000 GALLON STORAGE WATER TANK
2	4" GATE VALVE
3	TO JOCKEY PUMP
4	4" X 3" FLANGED ECCENTRIC REDUCER
5	JOCKEY PUMP
6	PIPE STAND AS PER NFPA #13 2002 EDITION
7	AURORA MODEL 3-383-7B 250 GPM @ 80 PSI ELECTRIC FIRE PUMP
8	FIRE PUMP PAD
9	3" GROOVED CHECK VALVE
10	3" GROOVED BUTTERFLY VALVE W/ TAMPER SWITCH WIRED BY OTHERS
11	2" GROOVED 90° ELBOW
12	2" TYCO RESIDENTIAL GROOVED RISER MANIFOLD ASSEMBLY
13	(6) SPARE SPRINKLER CABINET AS PER NFPA #13R 2002 EDITION
14	10" ELECTRIC BELL WIRED BY OTHERS
15	2" TO SYSTEM SEE FS-1 FOR CONTINUATION

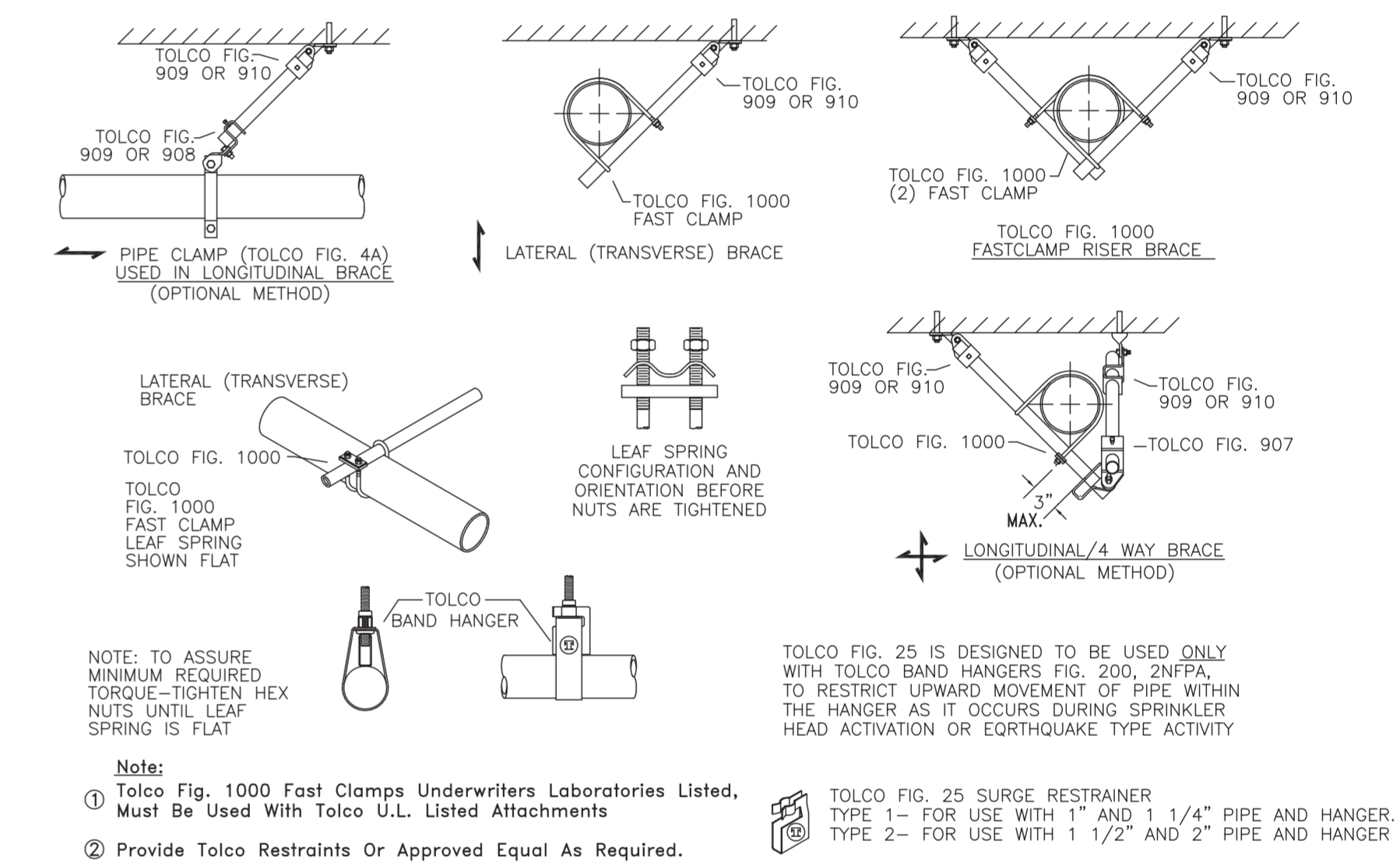


FIRE PUMP DETAIL 1/2"=1'-0"

- LEGEND**
- 4" UNDERGROUND FIRE SERVICE AS PER NFPA #24 TO 10,000 GALLON STORAGE WATER TANK
 - 4" GATE VALVE
 - TO JOCKEY PUMP
 - 4" X 3" FLANGED ECCENTRIC REDUCER
 - JOCKEY PUMP
 - PIPE STAND AS PER NFPA #13 2002 EDITION
 - AURORA MODEL 3-383-7B 250 GPM @ 80 PSI ELECTRIC FIRE PUMP
 - FIRE PUMP PAD
 - 3" GROOVED CHECK VALVE
 - 3" GROOVED BUTTERFLY VALVE W/ TAMPER SWITCH WIRED BY OTHERS
 - 2" GROOVED 90° ELBOW
 - 2" TYCO RESIDENTIAL GROOVED RISER MANIFOLD ASSEMBLY
 - (6) SPARE SPRINKLER CABINET AS PER NFPA #13R 2002 EDITION
 - 10" ELECTRIC BELL WIRED BY OTHERS
 - 2" TO SYSTEM SEE FS-1 FOR CONTINUATION

SEISMIC COMPONENTS TYPICAL APPLICATIONS N.T.S.

SWAY BRACE NOTES AS PER NFPA #13 2002 EDITION 9.3.5.3.7 EXCEPTION #1
 LATERAL SWAY BRACING.
 THE REQUIREMENTS OF 9.3.5.3 SHALL NOT APPLY TO PIPES INDIVIDUALLY SUPPORTED BY IR00S LESS THAN 6 IN. (152 MM) LONG MEASURED BETWEEN THE TOP OF THE PIPE AND THE POINT OF ATTACHMENT TO THE BUILDING STRUCTURE.



NOTE: TO ASSURE MINIMUM REQUIRED TORQUE-TIGHTEN HEX NUTS UNTIL LEAF SPRING IS FLAT
 Note:
 1 Tolco Fig. 1000 Fast Clamps Underwriters Laboratories Listed, Must Be Used With Tolco U.L. Listed Attachments
 2 Provide Tolco Restraints Or Approved Equal As Required.
 Tolco Fig. 25 SURGE RESTRAINER TYPE 1- FOR USE WITH 1" AND 1 1/4" PIPE AND HANGER. TYPE 2- FOR USE WITH 1 1/2" AND 2" PIPE AND HANGER.

GENERAL NOTES

- ALL PIPE LOCATIONS ARE TO BE FIELD MEASURED PRIOR TO FABRICATION AND INSTALLATION BY FIRE SPRINKLER CONTRACTOR.
- ALL DIMENSIONS SHOWN ARE CENTER TO CENTER.
- HIGH TEMPERATURE HEADS ARE TO BE INSTALLED WHERE REQUIRED.
- ALL PIPE AND HANGERS ARE TO BE INSTALLED AS PER NFPA #13.
- HANGERS ARE TO BE U.L. LISTED AND FM APPROVED.
- SEE PLAN VIEW FOR COMPLETE GENERAL NOTES

NOTES TO THE OWNER

- THE FIRE SPRINKLER SYSTEM MUST BE MAINTAINED AND TESTED REGULARLY BY YOU OR YOUR AGENTS ARE IN ACCORDANCE WITH NFPA.
- YOU SHALL MAINTAIN SUFFICIENT HEAT THROUGHOUT THE PREMISES TO PREVENT THE FIRE SPRINKLER SYSTEM FROM FREEZING.
- YOU SHALL INFORM TENANTS OF PROPER CARE NECESSARY TO MAINTAIN THE SYSTEM.
- IF THE CONSTRUCTION OR OCCUPANCY IS ALTERED IN ANY WAY, THE FIRE SPRINKLER SYSTEM WILL HAVE TO BE UPDATED ACCORDINGLY

ABBREVIATIONS		SYMBOL LEGEND	
DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL
UOS-UNDERSIDE OF SLAB	RN-RISER NIPPLE	[10'-0"]	PIPE ELEVATION AFF
TOS-TOP OF STEEL	SP-SPRIG	[+12"]	ELEVATION BELOW TOP OF STEEL
BTS-BELOW TOP OF STEEL	CL-CENTERLINE	TOS	ELEVATION TOP OF STEEL
AFF-AFTER FINISH FLOOR	OC-ON CENTER	o	RISE UP / DOWN
TOR-TOP OF RISER	NIC-NOT IN CONTRACT	o	RISER / STANDPIPE
BOR-BOTTOM OF RISER	SLV-SLEEVE	---	NEW PIPE
	INFORMATION	---	EXISTING PIPE
BY:	STATIC:	(1)	HYDRAULIC REFERENCE POINT
DATE:	RESIDUAL:		
TIME:	FLOW:		

NUMBER OF SPRINKLERS							
TOTAL THIS SHEET 39	TOTAL THIS JOB 135						
SYMBOL	DESCRIPTION	TEMP	FINISH	SPR. ID#	K-FACT	NPT	QTY
●	TYCO LFII RESIDENTIAL CONCEALED PENDENT	160°	BRASS	TY3596	4.9	1/2"	29
○	TYCO TY-FRB UPRIGHT QUICK RESPONSE	155°	BRASS	TY3131	5.6	1/2"	10

DRAWING TITLE		
BASEMENT FIRE SPRINKLER PLAN		
CONTRACT NO: FS10-0006	DRAWN BY: PJH	
SCALE: 1/8"=1'-0"	DATE: 04-12-2010	
REVISION:		
#	DATE	DESCRIPTION
1	10-05-2010	REVISED WATER SUPPLY FIRE PUMP & STORAGE WATER TANK

CONTRACTOR:

PROJECT:

RESIDENCE
 655 RAMAPO VALLEY ROAD
 BLOCK 1301 - LOT 32.03
 OAKLAND, NEW JERSEY

PJH FIRE SPRINKLER DESIGN, L.L.C.
 36 SINGER COURT, BUILDING 3, SUITE 36
 EATONTOWN, NJ 07724-1869
 TELEPHONE: 732-440-4657
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SHEET FS-1 OF 3