REVIEWED FOR CODE COMPLIANCE

DATE 04/04/18 by: Building Official

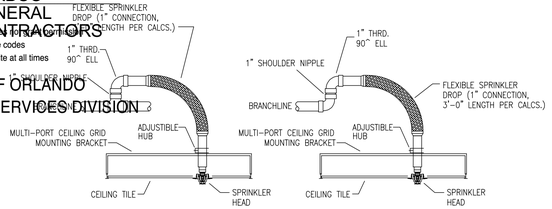
PERMIT NO. BLD2017-08812

ADDRESS 7012 MUNICIPAL DR

CONTRACTOR HARBCO GENERAL CONTRACTORS INC

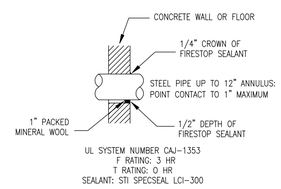
NOTE: Permit issuance is based on information to violate applicable codes. Keep this plan on site at all times

CITY OF ORLANDO PERMITTING SERVICES DIVISION



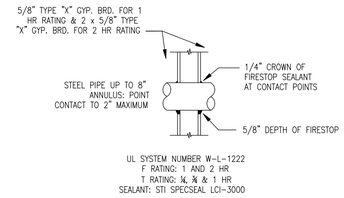
FLEXIBLE HEAD CONNECTION DETAILS FOR THE CENTERING OF SPRINKLER HEADS IN CEILING TILES

N.T.S.



STEEL PIPE CONCRETE WALL PENETRATION

N.T.S.

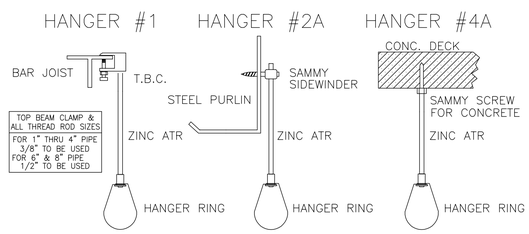


STEEL PIPE DRY WALL PENETRATION

N.T.S.

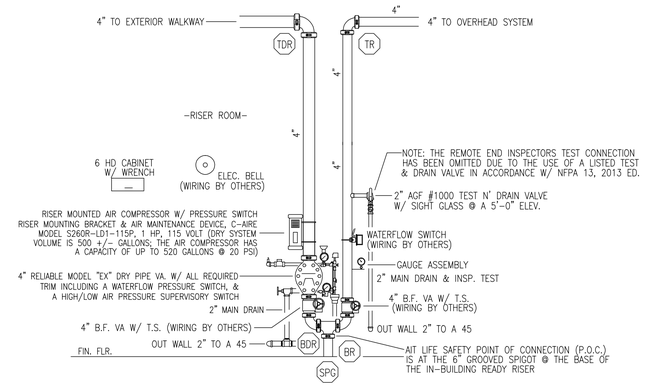
OVERHEAD FIRE SPRINKLER NOTES:

1. ALL WORK, DESIGN, MATERIALS, AND INSTALLATION TO BE IN ACCORDANCE WITH NFPA #13, 2013 EDITION, & THE AUTHORITY HAVING JURISDICTION.
2. THE DESIGN CRITERIA FOR THE OVERHEAD FIRE SPRINKLER SYSTEM(S) WILL BE AS FOLLOWS:
   A.) LIGHT HAZARD AREAS: WET PIPE SYSTEM DESIGNED IN ACCORDANCE W/ NFPA 13, 2013 EDITION TO PROVIDE A .10 DENSITY FOR ALL, INCLUDING THE MOST REMOTE 1500 SQ. FT. HYDRAULIC DESIGN AREA. (DESIGN AREAS #1 & #2 HAVE BEEN REDUCED AS ALLOWED BY NFPA 13, 2010 EDITION, SECTION 11.2.3.2.3.1.
   B.) EXTERIOR CANOPY AREAS: DRY PIPE SYSTEM DESIGNED IN ACCORDANCE WITH NFPA 13, 2013 EDITION TO PROVIDE A .10 DENSITY FOR ALL, INCLUDING THE MOST REMOTE 1950 SQ. FT. HYDRAULIC DESIGN AREA.
3. THE OCCUPANCY OF THIS BUILDING IS THAT OF A SCHOOL WITH ROOMS & AREAS SUCH AS CLASSROOMS, CONFERENCE ROOMS, A LIBRARY, A SEMINAR ROOM, OFFICES, BATHROOMS, CORRIDORS, AN EXTERIOR CANOPY/WALKWAY, A REC ROOM, A KITCHEN, STORAGE ROOMS, ELECTRICAL ROOMS, MECHANICAL ROOMS, AND OTHER SIMILAR AREAS. ALL AREAS ARE CLASSIFIED AS LIGHT HAZARD OCCUPANCIES WITH THE EXCEPTION OF THE KITCHEN, & THE STORAGE/ELECTRICAL/MECHANICAL ROOMS – WHICH ARE CLASSIFIED AS ORDINARY HAZARD OCCUPANCIES, ALL IN ACCORDANCE WITH NFPA #13, 2013 EDITION.
4. THE MAXIMUM SPACING OF THE SPRINKLERS IN THE ORDINARY HAZARD OCCUPANCIES ARE NOT TO EXCEED 130 SQ. FT. PER SPRINKLER WHILE THE MAXIMUM SPACING OF THE SPRINKLERS IN THE LIGHT HAZARD AREAS ARE NOT TO EXCEED 225. SQ. FT. PER SPRINKLER, ALL IN ACCORDANCE WITH NFPA 13, 2013 EDITION.
5. THE PIPE AND FITTINGS TO BE USED ON THE OVERHEAD FIRE SPRINKLER SYSTEM(S) ARE AS FOLLOWS:
   A.) ALL GROOVED PIPING 1-1/2" THRU 4" TO BE SCHEDULED 10 BLACK WITH GROOVED COUPLINGS AND FITTINGS.
   B.) ALL THREADED PIPING 1" AND 2" TO BE SCHEDULED 40 BLACK WITH DUCTILE IRON THREADED FITTINGS.
6. IN ACCORDANCE WITH NFPA 13, 2013 EDITION, SECTION 8.16.2.3.1, THE BRANCHLINES WILL BE PITCHED AT LEAST 1/2" PER 10'-0" AND THE MAINS WILL BE PITCHED AT LEAST 1/4" PER 10'-0" FOR A DRY SYSTEM.
7. THE "SMALL ROOM RULE" HAS BEEN USED TO SPACE (1) ROW OF HEADS AT A MAXIMUM OF 9'-0" OFF OF ANY (1) WALL IN ACCORDANCE WITH NFPA 13, 2013 EDITION. (TO BE USED IN SELECT LIGHT HAZARD OCCUPANCIES ONLY)
8. ALL FIREWALL PENETRATIONS ARE TO BE SEALED IN ACCORDANCE WITH THEIR RATING.
9. ALL PIPE DIMENSIONS ARE CENTER TO CENTER.
10. ALL PIPE HANGERS ARE TO BE INSTALLED AS PER NFPA 13, 2013 EDITION, AND THE MANUFACTURERS LISTING.
11. THE SPRINKLERS LOCATED IN THE CENTER OF THE ACOUSTICAL CEILING TILES WILL BE CENTERED WITHIN THESE TILES THROUGH USE OF A FLEXIBLE HEAD CONNECTION FITTING. HYDRAULIC CALCULATIONS HAVE BEEN PERFORMED TO INCLUDE THE FLEXIBLE HOSE CONNECTION EQUIVALENT OF 1" SCH. 40 PIPING IN ORDER TO QUANTIFY THE USE OF THESE FITTINGS.



HANGER DETAILS

SCALE N.T.S.



FIRE SPRINKLER RISER SECTION VIEW DETAIL A-A

SCALE N.T.S.

Hydraulically Designed System	
Location	D.A. #1
No. of Sprinklers	8
Density	.10
Design Area Size	945 SQ. FT.
System Demand At Base of Riser	
GPM Discharge	160.53
Residual PSI	28.320

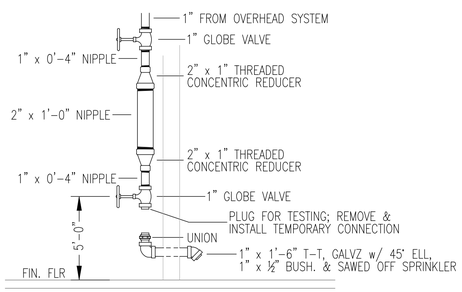
NOTE: THE DESIGN AREA HAS BEEN REDUCED BY 37% FOR A MAX. DECK/CEILING HEIGHT OF 12'-0" IN ACCORDANCE WITH NFPA 13, 2013 EDITION, SECTION 11.2.3.2.3.1

Hydraulically Designed System	
Location D.A. #2 (PROOF CALC)	
No. of Sprinklers	13
Density	.10
Design Area Size	945 SQ. FT.
System Demand At Base of Riser	
GPM Discharge	202.28
Residual PSI	23.131

NOTE: THE DESIGN AREA HAS BEEN REDUCED BY 37% FOR A MAX. DECK/CEILING HEIGHT OF 12'-0" IN ACCORDANCE WITH NFPA 13, 2013 EDITION, SECTION 11.2.3.2.3.1

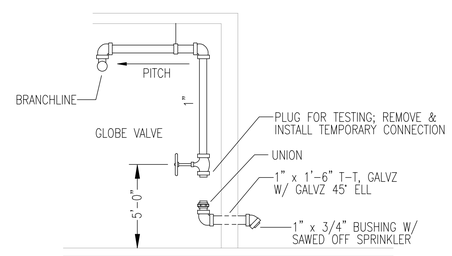
Hydraulically Designed System	
Location	D.A. #3
No. of Sprinklers	12
Density	.10
Design Area Size	1950 SQ. FT.
System Demand At Base of Riser	
GPM Discharge	234.28
Residual PSI	22.997

NOTE: THIS DESIGN AREA HAS BEEN INCREASED BY 30% FOR A DRY PIPE SYSTEM IN ACCORDANCE WITH NFPA 13, 2013 EDITION



DRY SYSTEM INSPECTORS TEST AND DRUM DRIP ASSEMBLY SECTION VIEW DETAIL

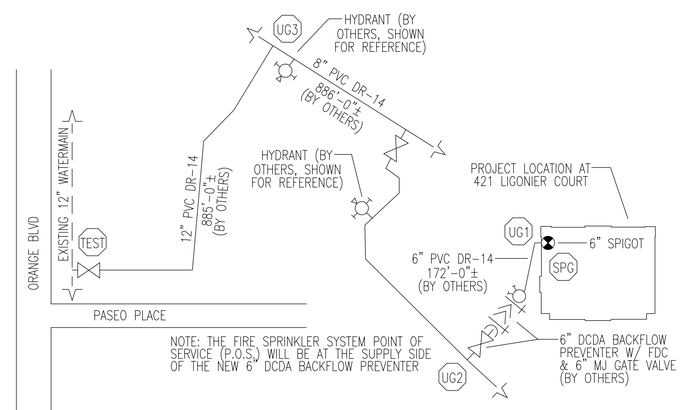
N.T.S.



DRY SYSTEM INSPECTORS TEST DETAIL

N.T.S.

FLOW TEST DATA
STATIC: 68 PSI
RESIDUAL: 62 PSI
FLOW: 930 GPM
DATE: 1-18-18
TIME: 11:00 AM
LOCATION: ORANGE BLVD & PASEO PLACE
BY: SEMINOLE COUNTY AND AIT LIFE SAFETY



NOTE: THE FIRE SPRINKLER SYSTEM POINT OF SERVICE (P.O.S.) WILL BE AT THE SUPPLY SIDE OF THE NEW 6" DCDA BACKFLOW PREVENTER

UNDERGROUND FIRE PROTECTION PLAN/KEY PLAN

N.T.S.

NOTE: ALL UNDERGROUND FIRE PROTECTION IS BY OTHERS AND IS SHOWN HERE FOR HYDRAULIC CALCULATION REFERENCE PURPOSES ONLY

JORGE J. SALGADO LICENSE No 53600 STATE OF FLORIDA PROFESSIONAL ENGINEER

Jorge J Salgado
This item has been electronically signed and sealed by Jorge J. Salgado, P.E. using a Digital Signature. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.
2018.01.29 10:31:46 -05'00'

JJ CONSULTING GROUP, INC.
CA LICENSE #31838
JORGE J. SALGADO, P.E. #53600
2001 TIZEWELL CIRCLE
#1509
ORLANDO, FL 32837

ait life safety
SINGLE SOURCE SOLUTION
FIRE ALARM•SPRINKLER•SECURITY

NO.	DATE	REVISION DESCRIPTION	BY
0	1-28-18	G.C./A.H.J. SUBMITTAL	SEAN

LOCATION PROJECT
RBC STUDENT LEARNING CENTER @ LIGONIER
421 LIGONIER COURT, SANFORD, FL 32771
Fire Protection Notes and Details

REVISION	SYSTEM NUMBER	JOB NUMBER	DRAWING NUMBER
0	SYSTEM #1		FP-2 OF 2