GENERAL SPECIFICATIONS

1.0 THESE DRAWINGS ARE FOR PERMIT, AND FOR PRICING, AND MUST BE ADHERED TO FOR INSTALLATION. IF CONTRACTOR WISHES TO ALTER DRAWINGS, THEN HE IS RESPONSIBLE FOR OBTAINING RE-APPROVALS.

2.0 CONTRACTOR TO SUPPLY AND INSTALL A COMPLETE AND FULLY OPERATIONAL AUTOMATIC SPRINKLER SYSTEM AS SHOWN ON THE DRAWINGS AND AS INDICATED IN THE SPECIFICATIONS AND CONFORMING TO N.F.P.A. REQUIREMENTS, O.B.C. REQUIREMENTS AND THE REQUIREMENTS OF THE LOCAL AUTHORITIES.

3.0 UPON COMPLETION OF THE INSTALLATION, THE CONTRACTOR SHALL TEST THE SYSTEM AND SUBMIT TO THE ENGINEER COMPLETED CONTRACTORS TEST CERTIFICATES STATING THAT THE SYSTEMS HAVE BEEN INSTALLED, TESTED AND APPROVED BY THE AUTHORITIES HAVING JURISDICTION IN ACCORDANCE WITH N.F.P.A.#13, LATEST EDITION.

4.0 ALL WORK SHALL BE DONE IN ACCORDANCE WITH ALL CODES, STANDARDS BY-LAWS AND AUTHORITIES HAVING JURISDICTION.

5.0 SYSTEMS TO BE INSTALLED AS PER N.F.P.A. STANDARDS, AND LOCAL AUTHORITIES

6.0 SPRINKLER CONTRACTOR TO CO-ORDINATE INSTALLATION WITH EXISTING SITE CONDITIONS AND ACCEPT RESPONSIBILITY FOR AND COST OF MAKING ADJUSTMENTS TO PIPING TO AVOID INTERFERENCE WITH MECHANICAL, ELECTRICAL AND OTHER BUILDING COMPONENTS.

7.0 SPRINKLER CONTRACTOR TO INCLUDE FOR OFFSETS IN SPRINKLER PIPING AND MUST SUPPLY AND INSTALL TRAPEZE HANGERS WHERE REQUIRED. HANGERS FOR MAINS TO BE INSTALLED AT PANEL POINTS OF JOISTS.

∗ 8.0 ALL SPRINKLER VALVES TO BE SUPERVISED, AND U.L.C. LISTED.

∗ 9.0 SPRINKLER CONTRACTOR TO ALLOW FOR ADDITIONAL PRESSURE SWITCHES WHERE REQUIRED FOR ALARM SYSTEM.

10.0 CONTRACTOR TO ALLOW IN PRICE FOR SUFFICIENT PIPE AND FITTINGS TO INSTALL PENDENT SPRINKLERS WITHIN A 5 FT. RADIUS OF THE LOCATION SHOWN ON DRAWINGS.

11.0 ALL MATERIALS USED IN THE INSTALLATION OF THE SPRINKLER SYSTEM SHALL BE CANADIAN MADE, UNLESS SPECIFICALLY APPROVED IN WRITING PRIOR TO INSTALLATION BY THE ARCHITECTS AND/OR ENGINEERS RESPONSIBLE FOR THE SYSTEM DESIGN.

12.0 ALL SPRINKLER EQUIPMENT SHALL BE OF ONE MANUFACTURER FROM THE FOLLOWING: GRINNELL, VIKING, CENTRAL, RELIABLE OR APPROVED EQUAL. ALL SHALL BE U.L.C. LISTED FOR THEIR SPECIFIC APPLICATION.

13.0 DRAWINGS ARE NOT TO BE SCALED.

14.0 THESE DRAWINGS ARE THE PROPERTY OF THE ENGINEERS AND SHALL NOT BE ALTERED WITHOUT APPROVAL. DRAWINGS SHALL BE RETURNED UPON REQUEST.

15.0 SPRINKLER HEADS SHALL BE U.L.C. LISTED AND SHALL BE THE TYPE AND TEMPERATURE RATING SPECIFIED ON THE DRAWINGS.

16.0 PROVIDE SPARE SPRINKLER HEADS AND WRENCH IN A METAL CABINET, MOUNTED ON THE WALL NEAR THE MAIN SPRINKLER VALVE HEADER. AMOUNT AS PER N.F.P.A. STANDARD # 13.

17.0 SPRINKLERS OF SUITABLE TEMPERATURE RATING SHALL BE INSTALLED NEAR HEATING EQUIPMENT AS SPECIFIED UNDER SECTION 5.3.1.4 OF N.F.P.A. STANDARD # 13 1999 EDITION

18.0 PROVIDE ALL NECESSARY TRIM REQUIRED FOR ALARM CHECK VALVES TO COMPLY WITH APPLICABLE CODES AND REQUIREMENTS.

19.0 PENDENT SPRINKLERS INSTALLED WHERE SUSPENDED CEILING TILES OR DRYWALL OCCUR ARE TO BE EQUIPPED WITH TWO PIECE ESCUTCHEONS. (WHERE APPLICABLE)

20.0 THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF THE FIRE PROTECTION SYSTEMS AND FOR CO-ORDINATION WITH ALL SITE CONDITIONS. BEFORE COMMENCING WORK, EXAMINE THE SITE AND THE EXISTING CONDITIONS AND REPORT IMMEDIATELY TO THE ENGINEER ANY DEFECT OR INTERFERENCE AFFECTING THE COMPLETION OF THE WORK OR THE GUARANTEE OF THIS CONTRACTOR.

21.0 CONTRACTOR MUST CHECK AND VERIFY ALL DIMENSIONS AND CONDITIONS ON THE JOB AND REPORT DISCREPANCIES TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK.

∗ 22.0 PROVIDE FLOW ALARM DEVICES, SUPERVISORY SWITCHES AND PRESSURE SWITCHES WHERE SHOWN ON DRAWINGS. WIRING TO ANNUNCIATOR SHALL BE BY ELECTRICAL CONTRACTOR. PROVIDE NECESSARY SIGNS WHERE REQUIRED BY THE LOCAL FIRE AUTHORITIES.

23.0 PROVIDE SHOP DRAWINGS FOR THE FOLLOWING:
- A) – SPRINKLER HEADS
- ∗ B) – ALARM VALVE AND TRIM
- ∗ C) – SUPERVISORY DEVICES
- D) – HANGERS
- ∗ E) – FLOW SWITCHES

24.0 A COPY OF N.F.P.A. STANDARD # 25 IS TO BE PROVIDED AND LEFT IN A VISIBLE LOCATION IN THE SPRINKLER ROOM.

25.0 DIMENSIONS AND/OR MEASUREMENTS INDICATED ON THE DRAWINGS ARE TO BE VERIFIED AT SITE AND ANY MAJOR DISCREPANCIES TO BE REPORTED PRIOR TO FABRICATION AND INSTALLATION. (IF APPLICABLE)

26.0 EXACT LOCATION AND ELEVATION OF MAINS TO BE DETERMINED BY CONTRACTOR TO SUIT SITE CONDITIONS.

27.0 CONTRACTOR TO CO-ORDINATE LOCATION OF SPRINKLERS WITH RESPECT TO SURFACE MOUNTED LIGHT FIXTURES AND MAINTAIN MINIMUM CLEARANCE AS REQUIRED BY NFPA 13 TO AVOID ANY OBSTRUCTION TO SPRAY PATTERN OF SPRINKLERS.

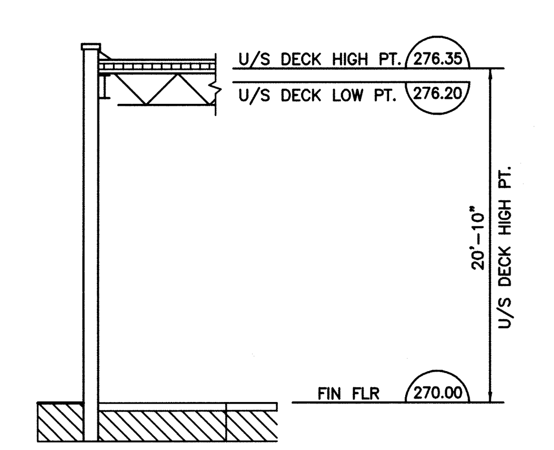
28.0 CONTRACTOR TO PROVIDE NECESSARY HANGERS AND ASSEMBLY TO COMPLY WITH THE FOLLOWING:
A) UNSUPPORTED LENGTH BETWEEN END SPRINKLER AND LAST HANGER SHALL NOT EXCEED 36 INCHES FOR 1" DIA. PIPE, 48" FOR 1¼" DIA PIPE AND 60" FOR 1½" DIA. PIPE OR LARGER.
NOTE: WHEN PRESSURE EXCEEDS 100 PSI, REFER TO NFPA STANDARD # 13
B) THE LENGTH OF AN UNSUPPORTED ARM-OVER TO A SPRINKLER SHALL NOT EXCEED 24".
NOTE: WHEN PRESSURE EXCEEDS 100 PSI, REFER TO NFPA STANDARD # 13

29.0 MINIMUM WALL THICKNESS OF SPRINKLER PIPING TO BE EQUIVALENT TO SCHEDULE 10S.

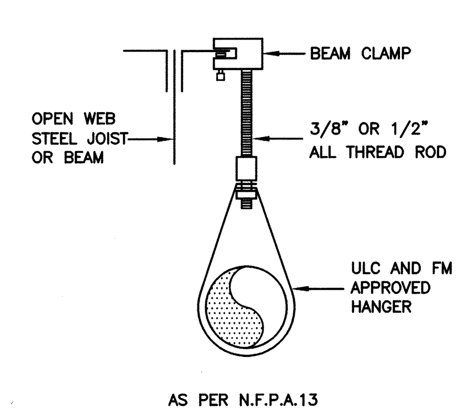
30.0 CONTRACTOR TO INCLUDE FOR AN ADDITIONAL 6 SPRINKLERS FOR BELOW OBSTRUCTIONS ETC.

31.0 SPRINKLERS IN LIGHT HAZARD OCCUPANCIES (ie OFFICES, SCHOOLS ETC.) TO BE QUICK RESPONSE TYPE.

∗ DENOTES " IF APPLICABLE "



ELEVATION SECTION
N.T.S.



HANGER DETAIL
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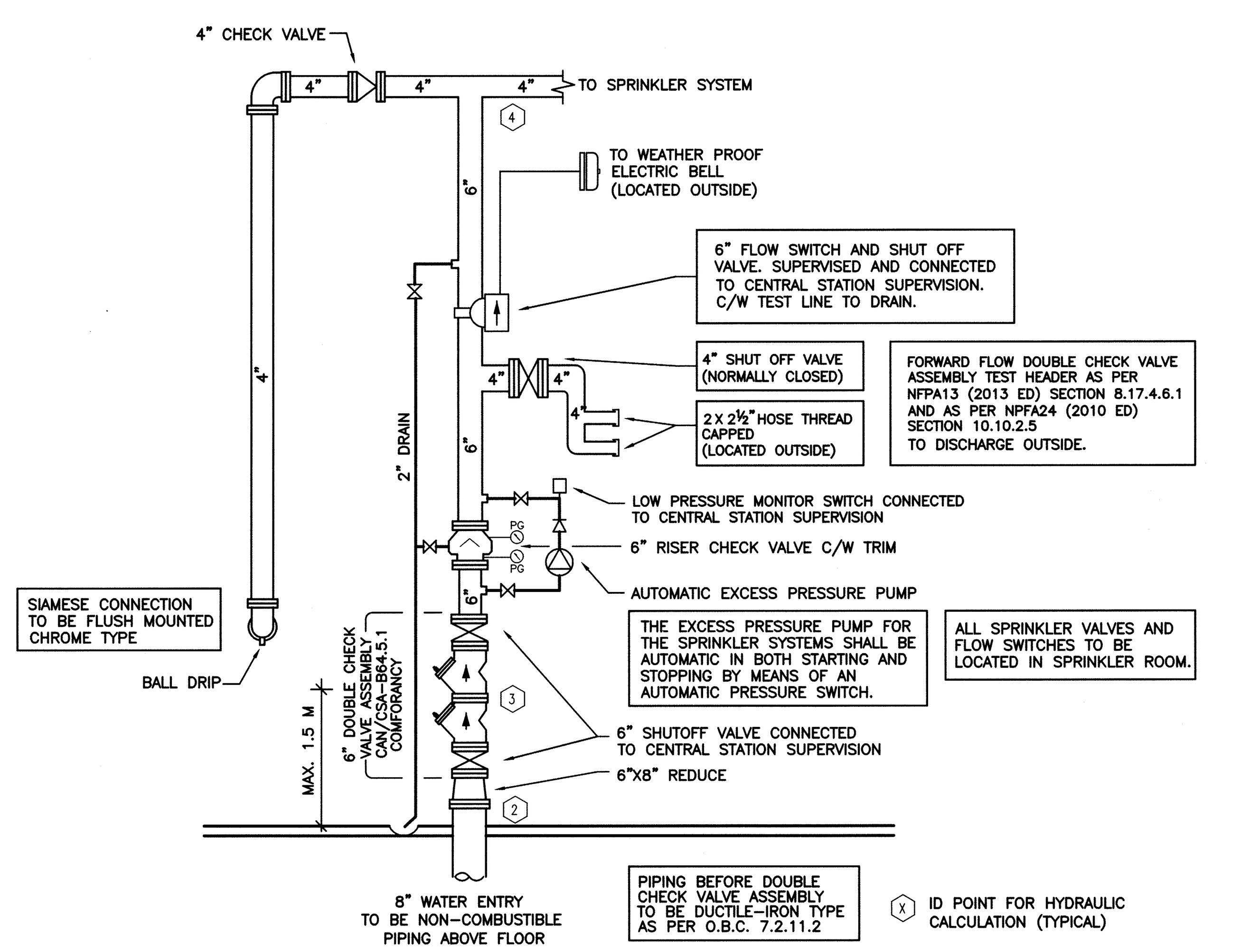
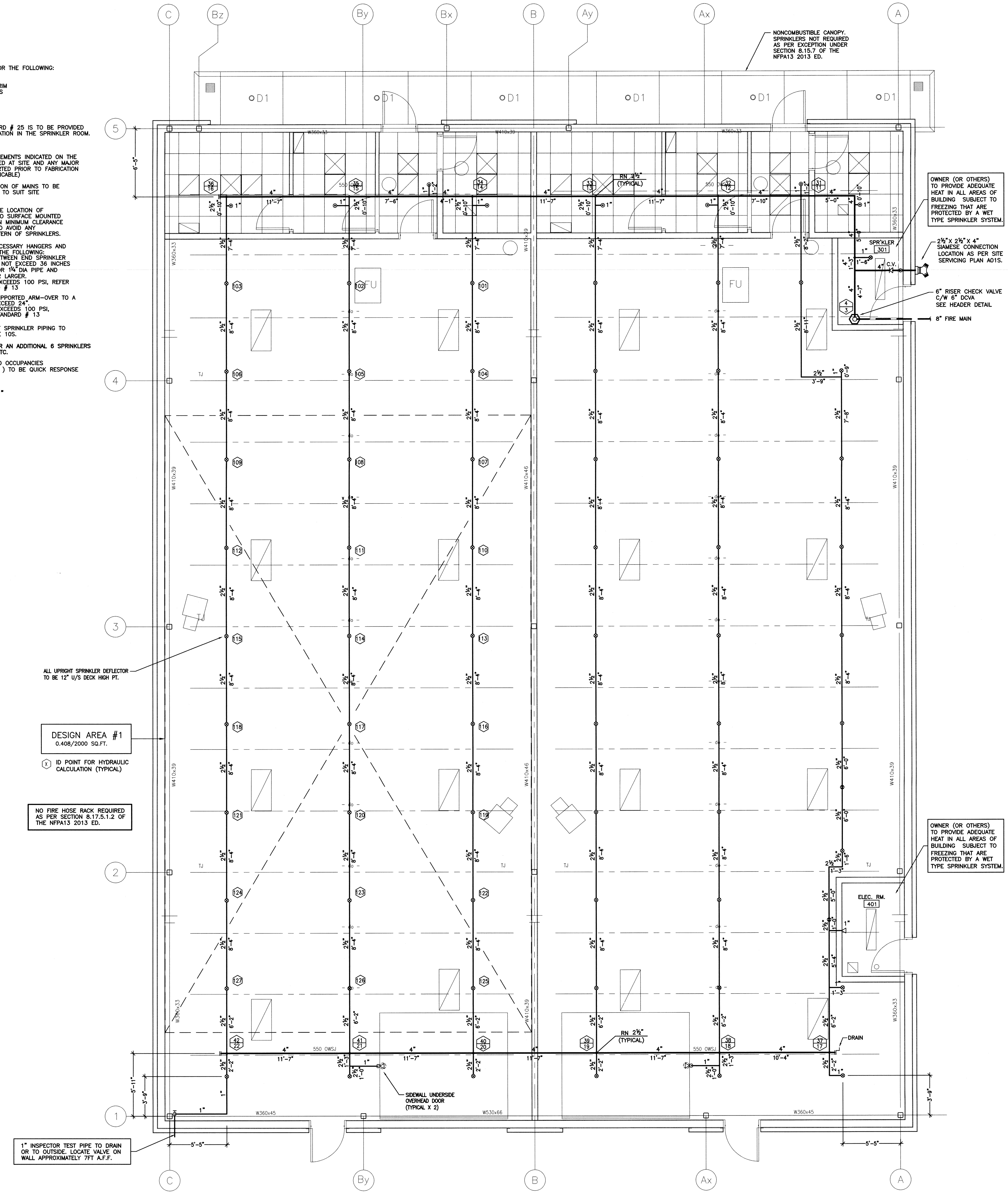


HEADER DETAIL
N.T.S.



REVISIONS

	REVISIONS	
	ISSUED FOR REVIEW.	SEPT.18 2015

NOTES

- -- THIS DRAWING ASSOCIATED CALCULATIONS AND SPECIFICATIONS ARE THE PROPERTY OF THE DESIGNER AND MUST BE RETURNED AT THE COMPLETION OF THE WORK OR UPON REQUEST.
- -- DIMENSIONS TAKE PRECEDENT OVER SCALE.
- -- THE SPRINKLER SYSTEM IS TO BE INSTALLED AS PER N.F.P.A. STANDARD # 13, AND O.B.C. STANDARDS. (IF APPLICABLE)
- -- CONTRACTOR TO INCLUDE FOR OFFSETS IN BRANCH LINES AND MAINS WHERE REQUIRED.
- -- ALL MATERIALS TO BE U.L.C. LISTED AND APPROVED BY LOCAL AUTHORITIES.
- -- UNDERGROUND WATERMAIN TO BE INSTALLED ACCORDING TO LOCAL AUTHORITIES AND INSURANCE CO. STANDARDS. (IF APPLICABLE)
- -- INSTALL HIGH TEMPERATURE HEADS WHERE REQUIRED AS PER N.F.P.A. STANDARD # 13.
- -- ALL INTERIOR GRID BRANCH LINE MEASUREMENTS ARE GIVEN AS CENTER LINE TO CENTER LINE DIMENSIONS. (SCH.10 PIPE)
- -- ALL OTHER BRANCH LINE MEASUREMENTS ARE GIVEN AS CENTER LINE TO CENTER LINE (SCH.40 PIPE)
- -- ALL MAIN MEASUREMENTS ARE GIVEN AS CENTER LINE TO CENTER LINE DIMENSIONS. (THIN WALL PIPE)

◎ DENOTES DISTANCE IN INCHES FROM CENTER LINE OF PIPE TO UNDERSIDE OF CEILING.

- -- RN DENOTES RISER NIPPLE. DN DENOTES DOWN.
- -- ALL SUPERVISED VALVES,FLOW (PRESSURE) SWITCHES AND LOW PRESSURE MONITORING SWITCHES TO BE CONNECTED TO FIRE ALARM SYSTEM. (IF F.A.S. IS INSTALLED)
- -- CONTRACTOR TO VISIT SITE TO DETERMINE EXACT LOCATION AND ELEVATION OF MAINS (TO BE INSTALLED) AS INDICATED ON DRAWINGS. ANY MAJOR DISCREPANCIES TO BE REPORTED TO THE DESIGNER PRIOR TO FABRICATION AND INSTALLATION.

OWNER (OR OTHERS) TO PROVIDE ADEQUATE HEAT IN ALL AREAS OF BUILDING SUBJECT TO FREEZING THAT ARE PROTECTED BY A WET TYPE SPRINKLER SYSTEM.

ALL GLASS BULB TYPE SPRINKLERS TO BE OF RECENT ISSUE. MANUFACTURE DATE OF AT LEAST YEAR 2014.

DESIGN CRITERIA

OFFICE AREA

SPRINKLER SYSTEM DESIGNED FOR LIGHT HAZARD SPACING.

BASE BUILDING DESIGN:

SPRINKLER SYSTEM DESIGNED FOR CLASS I TO IV COMMODITIES NONENCAPSULATED STORED ON SINGLE OR DOUBLE ROW RACKS TO 18'-0" HIGH WITH 8'-0" AISLES (NO SOLID SHELVES) 0.408 GPM PER SQ.FT. OVER 2000 SQ.FT. PLUS 500 GPM FOR HOSES.

AS PER TABLE 16.2.1.3.2, FIGURE 16.2.1.3.2. (d), CURVE "E", NFPA 13, 2013 EDITION.

DENSITY ADJUSTED FOR STORAGE HEIGHT AS PER FIGURE 16.2.1.3.4.1.

S/R=STANDARD RESPONSE Q/R=QUICK RESPONSE
◌ C/W GUARD

⊗	3/4" 286°F UPRIGHT STANDARD COVERAGE (K=16.8) S/R	62
⦿	1/2" 165°F PENDENT STANDARD COVERAGE (K=5.6) Q/R	8
▷	1/2" 212°F UPRIGHT STANDARD COVERAGE (K=5.6)	3

TRUMBLEY INC.
5753 COOPERS AVENUE
MISSISSAUGA, ONTARIO

DISANO SPRINKLER DESIGN
7181 WOODBINE AVENUE
SUITE 224
MARKHAM ONTARIO
L3R 1A3
T 905-477-4474
F 905-477-6368
E disano@disanosprinkler.ca

NORTH

STAMP

LICENSED PROFESSIONAL ENGINEER
R.A.SEVERINI
PROVINCE OF ONTARIO

PROJECT
JOCHRI INVESTMENTS INC.
200 INDUSTRIAL PARKWAY S.
AURORA, ONTARIO

DWG TITLE
PROPOSED BUILDING
FIRE SPRINKLER LAYOUT

DATE: SEPTEMBER 2015	PROJECT NO.: 15-10636
SCALE: 1:50	
DWN BY: PMC/O.A/L.Q.	DWG NO.: SP1
ISSUED FOR REVISION NO.	OF 1