### **DEMOLITION NOTES**

- 1. DEMOLITION NOTES, SYMBOL LISTS AND DETAILS ARE APPLICABLE TO ALL FIRE PROTECTION DRAWINGS.
- 2. ALL PIPING IN WALLS AND FLOORS NOT TO BE REUSED WILL BE PLUGGED OR CAPPED AND CUTTING AND PATCHING WILL BE PERFORMED TO RESTORE SURFACE TO ORIGINAL CONDITION BY THIS CONTRACTOR.
- 3. AFTER REMOVING PIPING THROUGH FLOOR SLABS, PENETRATIONS SHALL BE PATCHED WITH APPROVED FIRE—RATED MATERIAL.
- 4. THE CONTRACTOR SHALL INCLUDE IN HIS PRICE ALL COSTS ASSOCIATED WITH REMOVALS AND RELOCATIONS OF FIRE PROTECTION WORK AS DESCRIBED ON THE DRAWINGS AND IN THE SPECIFICATIONS WITH ALLOWANCES FOR EXPECTED OR UNFORESEEN DIFFICULTIES WHEN CONCEALED WORK HAS BEEN OPENED. NO CLAIMS FOR ADDITIONAL WORK ASSOCIATED WITH DEMOLITION WILL BE ACCEPTED, EXCEPT IN CERTAIN CASES CONSIDERED JUSTIFIABLE BY THE OWNER/ENGINEER.
- 5. ALL EXISTING WORK REQUIRED TO REMAIN BUT INTERFERING WITH THE PROPOSED NEW FIRE PROTECTION SYSTEM SHALL BE RELOCATED AND RECONNECTED USING MATERIALS CONFORMING TO THE STANDARDS AND SPECIFICATIONS OF THESE CONTRACT DOCUMENTS.
- 6. REMOVE ALL WET SPRINKLER HEADS AND ASSOCIATED BRANCH PIPING, HANGERS, ETC IN AREA OF DEMOLITION WORK BACK TO EXISTING SPRINKLER MAIN. CAP ALL REMAINING PIPE OPENINGS AT MAIN. EXISTING BRANCH PIPING CONNECTED TO SPRINKLER HEADS TO REMAIN SHALL BE RECONNECTED BACK TO EXISTING MAIN.
- 7. THE CONTRACTOR SHALL INCLUDE IN HIS PRICE ALL COSTS ASSOCIATED WITH REMOVALS AND RELOCATIONS OF FIRE PROTECTION WORK AS DESCRIBED ON THE DRAWINGS AND IN THE SPECIFICATIONS WITH ALLOWANCES FOR EXPECTED OR UNFORESEEN DIFFICULTIES WHEN CONCEALED WORK HAS BEEN OPENED. NO CLAIMS FOR ADDITIONAL WORK ASSOCIATED WITH DEMOLITION WILL BE ACCEPTED.
- 8. PROVIDE ADDITIONAL SUPPORT AND HANGERS FOR ALL EXISTING PIPING TO REMAIN THAT IS AFFECTED BY THE DEMOLITION OF EXISTING CEILINGS AND INTERIOR PARTITIONS.
- 9. DEMOLITION AND REMOVAL WORK SHALL BE PERFORMED IN A NEAT AND WORKMANLIKE MANNER. THE CONTRACTOR SHALL PATCH, REPAIR OR OTHERWISE RESTORE ANY DAMAGED INTERIOR OR EXTERIOR BUILDING SURFACE TO ITS ORIGINAL CONDITION.
- 10. ALL PIPING WHICH BECOMES EXPOSED DURING THE ALTERATION WORK SHALL BE REROUTED TO BE CONCEALED BEHIND FINISHED SURFACES.
- 11. ARRANGE TO WORK CONTINUOUSLY, INCLUDING OVER TIME, IF REQUIRED TO ASSURE THAT SYSTEMS WILL BE SHUT DOWN ONLY DURING THE TIME ACTUALLY REQUIRED TO MAKE THE NECESSARY CONNECTIONS TO THE EXISTING SYSTEMS.
- 12. THE SHUTDOWN AND DRAINING OF THE EXISTING BUILDING FIRE PROTECTION SYSTEM SHALL BE COORDINATED WITH THE OWNER AND/OR BUILDING MANAGEMENT. THE OWNER AND/OR BUILDING MANAGEMENT SHALL BE CONTACTED AT LEAST 2 BUSINESS DAYS PRIOR TO THE SYSTEM SHUTDOWN.
- 13. THE CONTRACTOR SHALL PERFORM DEMOLITION AND REMOVAL WORK WITH MINIMUM INTERFERENCE WITH FUNCTIONING FIRE PROTECTION SYSTEMS. ALL AFFECTED SYSTEMS SHALL BE RECONNECTED AND RESTORED.
- 14. WHEN EXISTING SPRINKLER SYSTEM IS DEACTIVATED THE SPRINKLER CONTRACTOR SHALL PROVIDE A TEMPORARY SPRINKLER LOOP AROUND THE CORE OF THE BUILDING OR PROVIDE A 24 HOUR FIRE WATCH UNTIL THE NEW SPRINKLER SYSTEM BECOMES ACTIVE AT NO ADDITIONAL COST TO THE OWNER.
- 15. THE CONTRACTOR SHALL REMOVE ALL PIPING SUPPORTS FROM PARTITIONS THAT ARE TO BE REMOVED. WHERE THE REMOVAL OF THESE ITEMS DISRUPTS EXISTING PIPING THAT IS TO REMAIN. THE CONTRACTOR SHALL INSTALL AND PROVIDE BYPASS CONNECTIONS NECESSARY.
- 16. THE CONTRACTOR SHALL NOTIFY THE OWNER AT THE APPROPRIATE TIME OF THE PROJECTED DEMOLITION AND PHASING SCHEDULE SO THAT REMOVAL OR RELOCATION OF AFFECTED UTILITIES MAY BE CARRIED OUT IN COORDINATION WITH THE PROJECT REQUIREMENTS.
- 17. ALL EXISTING MATERIAL AND EQUIPMENT IN USABLE CONDITION, WHICH IS TO BE REMOVED UNDER THIS CONTRACTOR, SHALL REMAIN THE PROPERTY OF THE OWNER OR SHALL BE DISPOSED OF BY THE FIRE PROTECTION CONTRACTOR, AS DIRECTED BY THE OWNER.
- 18. CONTRACTOR SHALL COMPLY WITH ALL FEDERAL, STATE & LOCAL REQUIREMENTS.

## **GENERAL NOTES**

- THESE DRAWINGS ARE GENERALLY DIAGRAMMATIC AND ARE INTENDED TO CONVEY THE SCOPE OF WORK AS WELL AS INDICATE GENERAL ARRANGEMENT OF EQUIPMENT AND PIPING. THE CONTRACTOR SHALL ADHERE TO THESE DRAWINGS AS CLOSELY AS POSSIBLE. HOWEVER, THE RIGHT IS RESERVED TO VARY THE RUNS OF PIPING AND TO MAKE OFFSETS, WHERE NECESSARY, TO ACCOMMODATE CONDITIONS ARISING AT THE JOB SITE. THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS TO BE SUBMITTED TO THE ENGINEER FOR APPROVAL. NO WORK SHALL BE PERFORMED PRIOR TO RECEIPT OF EQUIPMENT, DUCTWORK AND PIPING FABRICATION DRAWING APPROVAL.
- 2. ANY MATERIAL, WORK OR INCIDENTAL ACCESSORIES OR MINOR DETAILS NOT SHOWN BUT NECESSARY TO MAKE THE WORK COMPLETE IN ALL RESPECTS AND READY FOR OPERATION, EVEN IF NOT PARTICULARLY SHOWN ON THE DRAWINGS, SHALL BE PROVIDED BY THE CONTRACTOR WITHOUT ADDITIONAL EXPENSE TO THE OWNER.
- 3. PRIOR TO SUBMISSION OF BID THE CONTRACTOR SHALL VISIT THE SITE TO REVIEW THE EXISTING CONDITIONS ASSOCIATED WITH THE SCOPE OF WORK AND ADJACENT AREAS TO ASCERTAIN THE DIFFICULTIES WHICH WILL AFFECT THE EXECUTION OF THE WORK OF THIS CONTRACT.
- 4. SUBMISSION OF A BID WILL BE CONSTRUED AS EVIDENCE THAT A INSPECTION OF THE SITE HAS TAKEN PLACE AND LATER NO CLAIMS FOR ADDITION LABOR, EQUIPMENT, OR MATERIALS DUE TO DIFFICULTIES ENCOUNTERED FROM TO EXISTING CONDITIONS SHALL BE ACCEPTED.
- THIS CONTRACTOR SHALL PROVIDE PROTECTION THROUGHOUT THE ENTIRE SPACE WITHIN THE SCOPE OF WORK AS REQUIRED BY THE LOCAL CODES. LOCAL FIRE DEPARTMENT REGULATIONS, BUILDING MANAGEMENT REQUIREMENTS, AND NFPA 13 FOR THE DURATION OF THE PROJECT. ANY TEMPORARY FIRE PROTECTION SYSTEM SHALL BE REMOVED UPON ACTIVATION OF THE PERMANENT FIRE PROTECTION SYSTEM.
- 6. SPRINKLER HEADS SHALL BE  $\pm 1/2$ " FROM CENTER OF CEILING TILE. THE CONTRACTOR SHALL PROVIDE FOR ALL ADDITIONAL FITTING TO ACHIEVE THIS AND INCLUDE THE COST FOR ADDITIONAL FITTING IN THEIR CONTRACT PRICE.
- 7. THE CONTRACTOR SHALL COORDINATE ALL NEW WORK WITH NEW WORK OF ALL OTHER TRADES AS WELL AS EXISTING CONDITIONS.
- 8. THE MINIMUM PIPE SIZE FOR ANY SPRINKLER HEAD SHALL BE 1 INCH.
- 9. ALL SPRINKLER PIPE SIZES SHOWN ARE FOR COST ESTIMATING PURPOSES ONLY. THIS CONTRACTOR IS TO PROVIDE THERE OWN HYDRAULIC CALCULATIONS TO DETERMINE PIPE SIZES AND INCLUDE ANY INCREASED/DECREASED PIPING SIZING WITHIN THEIR CONTRACT PRICE.
- 10. ALL PIPING SHALL BE INSTALLED TIGHT TO THE BOTTOM OF STEEL AT ALL TIMES UNLESS OTHERWISE INDICATED OR REQUIRED BY FIELD CONDITIONS.
- 11. ALL PIPING OF DISSIMILAR MATERIALS SHALL HAVE DIELECTRIC FITTINGS.

# **SPRINKLER DESIGN CRITERIA**

LIGHT HAZARD OCCUPANCY (PREOPERATION ROOMS)

AREAS OF APPLICATIONS:

MAXIMUM COVERAGE PER SPRINKLER:

DESIGN DENSITY:

SPACING BETWEEN SPRINKLERS:

DISTANCE BETWEEN SPRINKLERS & WALLS:

1500 SQ FT
225 SQ FT
0.10 GPM PER SQ FT
15'-0" MAXIMUM
1/2 OF ALLOWABLE DISTANCE
BETWEEN SPRINKLERS

ORDINARY HAZARD (GROUP 1) OCCUPANCY ELECTRICAL

AREAS OF APPLICATIONS:
MAXIMUM COVERAGE PER SPRINKLER:
DESIGN DENSITY:
SPACING BETWEEN SPRINKLERS:
DISTANCE BETWEEN SPRINKLERS & WALLS:

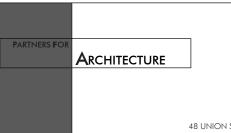
(STORAGE ROOMS, MECHANICAL & EQUIPMENT SPACES)

1500 SQ FT
130 SQ FT
0.15 GPM PER SQ FT
15'-0" MAXIMUM
1/2 OF ALLOWABLE DISTANCE
BETWEEN SPRINKLERS

SPRINKLER HEAD SCHEDULE									
	SYMBOL	TYPE	STYLE	TEMP.	FINISH	RESPONSE	ORIFICE K-FACTOR	MANUFACTURER MODEL	REMARKS
1		PENDENT	CONCEALED	135'	WHITE	auck	1/2"	VICTAULIC V3802	<b>\\\\</b>
7	• <sub>D</sub>	DRY PENDENT	RECESSED	135°	BRASS	QUICK	1/2" 5.6	VICTAULIC V3606	DRY HEAD ROUTED FROM WET SYSTEM
•					<b>✓</b>				

BFP	BACKFLOW PREVENTOR				
E	EXISTING				
ER	EXISTING TO REMAIN				
ETR	EXISTING TO BE RELOCATED				
FS	WATERFLOW SWITCH				
GPM	GALLONS PER MINUTE				
NTS	NOT TO SCALE				
PH	PHASE				
POC	POINT OF CONNECTION  SPRINKLER CONTROL ASSEMBLY				
SCA					
SQ FT	SQUARE FEET				
TS	TAMPER SWITCH				
TYP	TYPICAL				
•	NEW CONCEALED PENDENT SPRINKLER				
0	EXISTING SPRINKLER TO REMAIN				
×	PENDANT SPRINKLER HEAD TO BE DEMOLISHED				
	NEW SPRINKLER PIPING				
	EXISTING SPRINKLER PIPING TO REMAIN				
	NEW SPRINKLER DRAIN PIPING  CAPPED PIPE				
<b></b>					
<b>├</b>	CAPPED AND VALVE CONNECTION				
	PITCH PIPE DOWN IN DIRECTION OF ARROW				
<b>←</b> 0	ELBOW TURNED UP				
←→	ELBOW TURNED DOWN				
Î	BOTTOM PIPE CONNECTION				
	TOP PIPE CONNECTION				
<b>├</b>	SHUT-OFF VALVE (GATE OR BALL VALVE SEE SPECS)				
<b>├──</b>	GLOBE VALVE				
	CHECK VALVE				
<del>≥        </del>	WATERFLOW SWITCH				
	NEW EQUIPMENT				
X-X X-X	EXISTING EQUIPMENT TO BE REMOVED				
E	EXISTING EQUIPMENT TO REMAIN				
L-JETR	EXISTING EQUIPMENT TO BE RELOCATED				
•	POINT OF NEW CONNECTION TO EXISTING WORK				
	REMOVE AND SAFE OFF EXISTING WORK FOR RECONNECTION				
⟨X⟩	FIRE PROTECTION PLAN NOTE TAG				
$\triangle$	REVISION SYMBOL				
XX	HYDRAULIC CALCULATIONS NODE				

FIRE PROTECTION DRAWING INDEX							
DRAWING NO.	DRAWING TITLE						
FP001	FIRE PROTECTION NOTES AND LEGEND						
FP100	FIRE PROTECTION DEMOLITION PLAN						
FP200	FIRE PROTECTION PLAN						
FP300	FIRE PROTECTION SPECIFICATIONS						

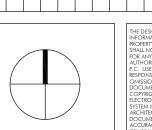


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Brookfield, CT 06804 www.LongEngineers.com

DENDUM #1



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OLD OAKS COUNTRY

PROJECT ADRESS

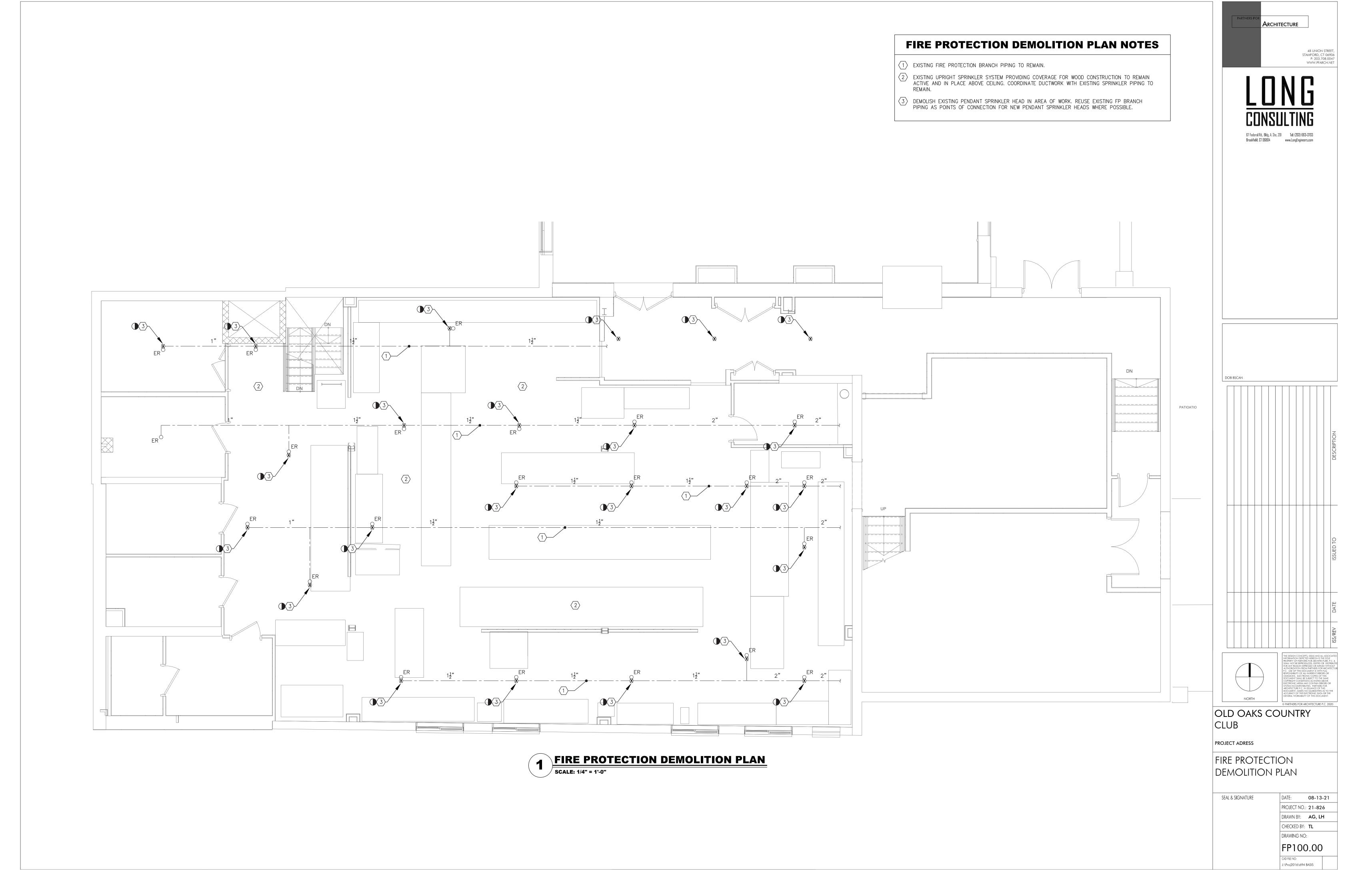
FIRE PROTECTION NOTES AND LEGEND

SEAL & SIGNATURE

DATE: 08-13-21
PROJECT NO.: 21-826
DRAWN BY: AG, LH
CHECKED BY: TL
DRAWING NO:

FP001.00

J:\Proj2016\694 BASIS



# FIRE PROTECTION PLAN NOTES

- 1 EXISTING FIRE PROTECTION BRANCH PIPING.
- EXISTING UPRIGHT SPRINKLER SYSTEM PROVIDING COVERAGE FOR WOOD CONSTRUCTION TO REMAIN ACTIVE AND IN PLACE ABOVE CEILING. COORDINATE DUCTWORK WITH EXISTING SPRINKLER PIPING AND UPRIGHT HEADS TO REMAIN. NEW PENDENT SPRINKLER HEADS SHALL CONNECT TO EXISTING FP BRANCH PIPING. PROVIDE NEW CONCEALED PENDANT HEADS IN PROJECT AREA.
- PROVIDE NEW DRY TYPE SPRINKLER HEAD IN WALK IN COOLER AREAS. DRY TYPE HEADS IN UNCONDITIONED AREAS SHALL BE ROUTED FROM WET SPRINKLER MAIN IN CONDITIONED CEILING.

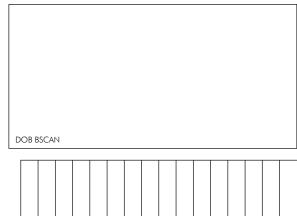


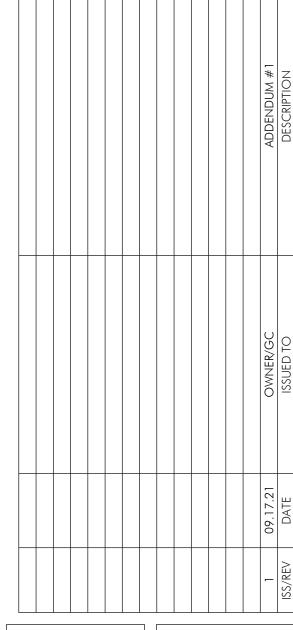
ARCHITECTURE

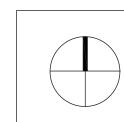
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PARTNERS FOR ARCHITECTURE

CLUB

PROJECT ADRESS

FIRE PROTECTION PLAN

SEAL & SIGNATURE

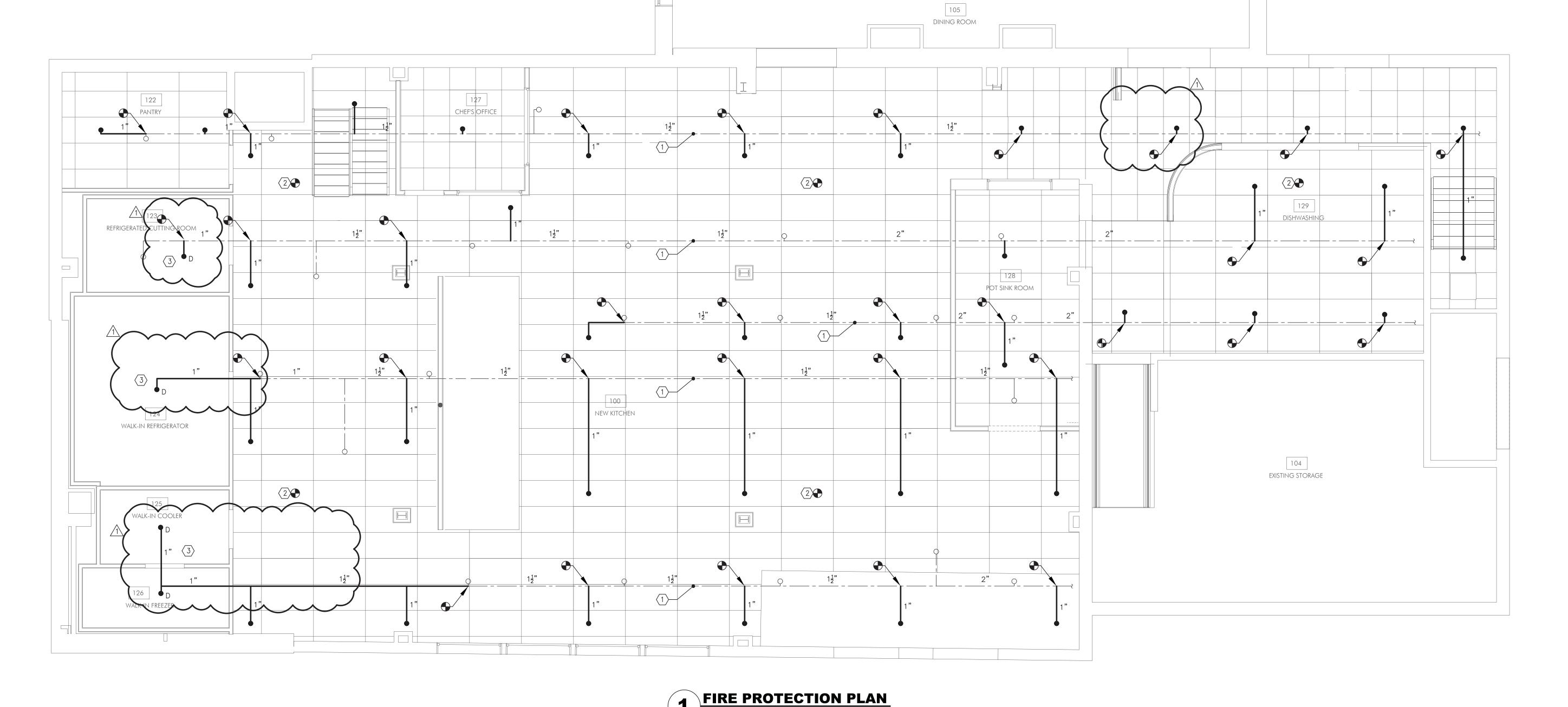
DATE: 08-13-21

PROJECT NO.: 21-826

DRAWN BY: AG, LH

CHECKED BY: TL

DRAWING NO: **FP200.00** 



SCALE: 1/4" = 1'-0"

#### <u>PART 1 – GENERAL</u>

#### 1.01 GENERAL REQUIREMENTS

- A. INSTALL ALL NEW WORK IN A NEAT WORKMANLIKE MANNER READILY ACCESSIBLE FOR OPERATION, MAINTENANCE AND REPAIR.
- B. CODES, PERMITS AND INSPECTIONS:
- 1. ALL WORK SHALL COMPLY WITH REQUIREMENTS OF CURRENT NFPA-13 STANDARD FOR THE "INSTALLATION OF SPRINKLER SYSTEMS", CURRENT NFPA-101 "LIFE SAFETY CODE', AND ALL APPLICABLE NATIONAL, STATE AND LOCAL CODES, LAWS AND REGULATIONS GOVERNING OR RELATING TO ANY PORTION OF THIS WORK SHALL BE INCORPORATED INTO AND MADE A PART OF THESE SPECIFICATIONS. CONTRACTOR IS TO INFORM ENGINEER OF ANY EXISTING WORK OR MATERIALS WHICH VIOLATE ANY OF THE ABOVE LAWS AND REGULATIONS. ANY WORK DONE BY THE CONTRACTOR CAUSING SUCH VIOLATION SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE BY THIS CONTRACTOR AND AT NO EXPENSE TO THE OWNER.
- 2. THIS CONTRACTOR SHALL OBTAIN ALL EQUIPMENT APPROVALS AS REQUIRED BY STATE AND LOCAL AUTHORITIES. PERMITS SHALL BE TURNED OVER TO OWNER AT JOB COMPLETION.

### C. SITE VERIFICATION:

1. PRIOR TO SUBMISSION OF THE BID, THIS CONTRACTOR SHALL VISIT THE JOB SITE TO ASCERTAIN THE ACTUAL FIELD CONDITIONS AS THEY RELATE TO THE WORK INDICATED ON THE DRAWINGS AND DESCRIBED HEREIN. DISCREPANCIES, IF ANY, SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION PRIOR TO SUBMISSION OF THE BID, AND IF NOT RESOLVED TO SATISFACTION, SHALL BE SUBMITTED AS A WRITTEN QUALIFICATION OF THE BID. SUBMISSION OF A BID SHALL BE EVIDENCE THAT SITE VERIFICATION HAS BEEN PERFORMED AS DESCRIBED ABOVE.

#### D. CONTRACT DOCUMENTS:

- 1. PRIOR TO SUBMISSION OF A FORMAL BID, THIS CONTRACTOR SHALL REVIEW ALL DRAWINGS OF THE ENTIRE PROJECT INCLUDING GENERAL CONSTRUCTION, DEMOLITION, ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING AND SPRINKLER AND SHALL INCLUDE ANY WORK REQUIRED IN THE BID WHICH IS INDICATED OR IMPLIED TO BE PERFORMED BY THIS TRADE IN OTHER SECTIONS OF THE WORK.
- 2. DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENT OF WORK AND APPROXIMATE LOCATION OF EQUIPMENT. REFER TO ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS AND COORDINATE FINAL LOCATIONS OF SPRINKLER HEADS AND PIPING. ALL WORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID CONFLICT
- 3. IF A CONFLICT OCCURS IN THE SPECIFICATIONS AND/OR ON THE DRAWINGS, THE MORE STRINGENT SITUATION SHALL APPLY.

## E. GUARANTEE:

- 1. ALL MATERIALS AND WORKMANSHIP SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE OF THIS WORK. FINAL ACCEPTANCE SHALL BE DEFINED AS THE TIME AT WHICH THE FIRE PROTECTION WORK IS TAKEN OVER AND ACCEPTED BY THE OWNER, AND IS UNDER CARE, CUSTODY, AND CONTROL OF THE OWNER. ENGAGE THE SERVICES OF VARIOUS MANUFACTURERS SUPPLYING THE EQUIPMENT FOR THE PROPER STARTUP AND OPERATION OF ALL SYSTEMS INSTALLED. INSTRUCT THE OWNER'S PERSONNEL IN THE PROPER OPERATION AND SERVICING OF THE SYSTEM.
- 2. THE CONTRACTOR SHALL GUARANTEE TO REPLACE OR REPAIR PROMPTLY AND ASSUME RESPONSIBILITY FOR ALL EXPENSES INCURRED FOR ANY WORKMANSHIP AND EQUIPMENT IN WHICH DEFECTS DEVELOP WITHIN THE GUARANTEE PERIOD. THIS WORK SHALL BE DONE AS DIRECTED BY THE OWNER. THIS GUARANTEE SHALL INCLUDE RESPONSIBILITY FOR ALL EXPENSES INCURRED IN REPAIRING AND REPLACING WORK OF OTHER TRADES AFFECTED BY DEFECTS, REPAIRS OR REPLACEMENTS IN EQUIPMENT SUPPLIED BY THIS CONTRACTOR.
- 3. THIS CONTRACTOR IS RESPONSIBLE FOR THE MAINTENANCE AND OPERATION OF ALL SYSTEMS UNTIL THE FINAL ACCEPTANCE OF THE WORK.

### G. DEFINITIONS:

- 1. FIRE PROTECTION CONTRACTOR, "THIS CONTRACTOR" THE PARTY OR PARTIES HAVE BEEN DULY AWARDED THE CONTRACT FOR AND ARE THEREBY MADE RESPONSIBLE FOR THE FIRE PROTECTION WORK AS DESCRIBED HEREIN.
- 2. "THIS CONTRACT", "THE CONTRACT" THE AGREEMENT COVERING THE WORK TO BE PERFORMED BY THIS CONTRACTOR.
- 3. "APPROVED", "EQUAL", "SATISFACTORY", "ACCEPTED", "ACCEPTABLE", "EQUIVALENT" SUITABLE FOR USE ON THE PROJECT, AS DETERMINED BY THE ENGINEER BASED ON DOCUMENTS PRESENTED FOR SUCH DETERMINATION.
- 4. "THESE SPECIFICATIONS", "THIS SECTION, PART, DIVISION" (OF THE SPECIFICATION) THE DOCUMENT SPECIFYING THE WORK TO BE PERFORMED BY "THIS CONTRACTOR".
- 5. "THE FIRE PROTECTION WORK", "THIS WORK" ALL LABOR MATERIALS, EQUIPMENT, APPARATUS, CONTROLS, ACCESSORIES, AND OTHER ITEMS REQUIRED FOR A PROPER AND COMPLETE INSTALLATION BY THE MECHANICAL CONTRACTOR
- 6. "ARCHITECT", "ENGINEER", "OWNER'S REPRESENTATIVE" THE PARTY OR PARTIES RESPONSIBLE FOR INTERPRETING, ACCEPTING AND OTHERWISE RULING ON THE PERFORMANCE UNDER THIS CONTRACT.
- 7. "FURNISH" PURCHASE AND DELIVER TO THE PROJECT SITE COMPLETE WITH EVERY NECESSARY APPURTENANCE
- 8. "INSTALL" UNLOAD AT THE DELIVERY POINT AT THE SITE AND PERFORM EVERY OPERATION NECESSARY TO ESTABLISH SECURE MOUNTING INSTALLATION AND CORRECT OPERATION AT THE PROPER LOCATION IN THE PROJECT, ALL AS PART OF THE MECHANICAL WORK.
- 9. "PROVIDE" "FURNISH" AND "INSTALL".

AND SUPPORT, ALL AS PART OF THE MECHANICAL WORK.

- 10. "NEW" MANUFACTURED WITHIN THE PAST TWO YEARS AND NEVER BEFORE USED.
- 11. "RELOCATE" MOVE EXISTING EQUIPMENT AND ALL ACCESSORIES AS REQUIRED.
- 12. "REMOVE" DISMANTLE AND CART AWAY FROM SITE INCLUDING ALL RELATED ACCESSORIES. ALL ITEMS SHALL BE LEGALLY DISPOSED OF. ALL OTHER EQUIPMENT AND OPERATIONS IN ANY WAY AFFECTED BY THE REMOVAL IS TO REMAIN IN FULL OPERATION. PROVIDE ALL NECESSARY COMPONENTS TO MAINTAIN SUCH OPERATION.

## 1.02 <u>SCOPE OF WORK</u>

- A. EXISTING FIRE PROTECTION SYSTEM IS A "WET PIPE" SYSTEM, EMPLOYING AUTOMATIC SPRINKLERS ATTACHED TO A PIPING SYSTEM CONTAINING WATER. THE MODIFICATION OF THE EXISTING SPRINKLER SYSTEM SHALL INCLUDE THE FOLLOWING:
- 1. INSTALL AUTOMATIC SPRINKLERS AND PIPING WHERE SHOWN ON THE CONTRACT DRAWINGS.
- 2. REMOVE EXISTING SPRINKLER HEADS WHERE SHOWN ON THE CONTRACT DRAWINGS.
- 3. CONNECT NEW BRANCH PIPE TO EXISTING BRANCH PIPE AND MAIN PIPE.
- 4. TEST ALL NEW WORK IN THE PRESENCE OF THE OWNERS' REPRESENTATIVE AND ALL AUTHORITIES HAVING JURISDICTION.
- 5. PREPARE AS-BUILT DRAWINGS INDICATING ACTUAL LOCATIONS OF SPRINKLER HEADS AND PIPING.
- B. SECURE CERTIFICATES, PAY ALL FEES AND CHARGES FOR ALL WORK INSTALLED, CERTIFYING COMPLIANCE WITH ALL AUTHORITIES. CONTRACTOR TO COORDINATE WITH OWNER FOR REQUIRED SPECIAL INSPECTIONS AND OBTAIN ALL APPROVALS. DELIVER CERTIFICATES TO OWNER FOR SIGNING BEFORE FILING

## 1.03 COORDINATION WITH BUILDING MANAGEMENT

- A. THIS CONTRACTOR IS TO OBTAIN A COPY OF THE BUILDING RULES AND REGULATIONS PRIOR TO BID SUBMISSION TO DETERMINE THE REQUIREMENTS AND THE EXTENT OF PREMIUM TIME WORK REQUIRED BY THE BUILDING.
- B. THIS CONTRACTOR IS RESPONSIBLE FOR ADHERING TO THE BUILDING OWNER'S RULES AND REGULATIONS. ANY DISCREPANCIES BETWEEN THE CONTRACT DOCUMENTS AND THE BUILDING RULES AND REGULATIONS SHALL BE SUBMITTED IN WRITING TO THE ARCHITECT/ENGINEER FOR REVIEW WITH BID SUBMISSION.
- C. COORDINATE WITH BUILDING OWNER FOR ANY SERVICE INTERRUPTION OF EXISTING SYSTEMS AND GIVE NOTICE AS REQUIRED BY BUILDING RULES AND REGULATIONS. CONTRACTOR IS TO PERFORM WORK ON PREMIUM TIME, IF SO DIRECTED BY BUILDING OWNER, SO AS NOT TO DISTURB EXISTING TENANTS ON OTHER FLOORS.

### 1.04 PERFORMANCE REQUIREMENTS

- A. THE FIRE PROTECTION SYSTEM SHALL BE DESIGNED IN COMPLETE ACCODANCE WITH NFPA 13, STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS, 2015 EDITION.
- B. STANDARD PIPING SYSTEM COMPONENT WORKING PRESSURE LISTED FOR AT LEAST 175 PSIG.

#### .05 SHOP DRAWING

- A. PRIOR TO THE INSTALLATION OF ANY WORK AND PROCUREMENT OF EQUIPMENT AND MATERIALS PROVIDE COMPLETE SET OF COORDINATED SHOP DRAWINGS OF ALL NEW EQUIPMENT AND MATERIALS FOR WRITTEN APPROVAL BY THE ARCHITECT AND ENGINEER. SHOP DRAWINGS SUBMISSION SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING:
- 1. PIPE AND FITTINGS
- 2. SPRINKLER HEADS
- 3. INSTALLATION DRAWINGS
- 4. PIPING HEADS
- 5. HYDRAULIC CALCULATIONS
- 6. SUPPORTS, HANGERS AND GUIDES
- B. INSTALLATION DRAWINGS: PROVIDE HYDRAULICALLY CALCULATED DIMENSIONAL INSTALLATION PIPING LAYOUTS COORDINATED WITH ALL TRADES INDICATING ALL SPRINKLER PIPING, DRAINS, AND PIPE SIZES.
- C. THE QUANTITY OF SHOP DRAWINGS SHALL AS A MINIMUM BE FOUR (4) COPIES OF 8-1/2" X 11" SUBMISSIONS AND FIVE (5) PRINTS OF ALL DRAWINGS. SPECIFIC JOB REQUIREMENTS MAY BE MORE STRINGENT AND CONTRACTOR IS RESPONSIBLE TO OBTAIN REQUIREMENTS FROM OWNER, CONSTRUCTION MANAGER, GENERAL CONTRACTOR OR ARCHITECT.

#### 1.06 MAINTENANCE MANUALS

- A. SUBMIT FOUR (4) LOOSE-LEAF BOUND OPERATING AND MAINTENANCE MANUALS WITH INDEX AND INDEX TABS TO INCLUDE THE FOLLOWING:
- 1. SPRINKLER AS-BUILT DRAWINGS WITH KEY PLAN DRAWINGS INSERTED IN BINDER.
- 2. ALL ITEMS SUBMITTED FOR REVIEW IN SHOP DRAWING SECTION.
- 3. OPERATION AND MAINTENANCE DATA FOR SPRINKLER SPECIALTIES

### 1.07 AS-BUILT DRAWINGS

- A. CONTRACTOR SHALL MAINTAIN RECORD DRAWING PRINTS ON JOB SITE AND RECORD, AT TIME OF OCCURRENCE, DEVIATIONS FROM CONTRACT DOCUMENTS DUE TO FIELD COORDINATION, BULLETINS, OR ADDENDA.
- B. CONTRACTOR SHALL REVISE SHOP DRAWINGS TO CONFORM TO RECORD DRAWINGS AND SUBMIT AS—BUILT CONDITION DRAWINGS UPON COMPLETION OF THE PROJECT. FINAL SUBMISSION OF REPRODUCIBLE AS—BUILT DRAWINGS ARE TO BE SIGNED AND CERTIFIED BY THE INSTALLING CONTRACTOR THAT THIS IS THE AS—BUILT CONDITION OF THE WORK.

### 1.08 <u>SUBSTITUTIONS</u>

A. NO SUBSTITUTE MATERIAL OR MANUFACTURER OF EQUIPMENT SHALL BE PERMITTED WITHOUT A FORMAL WRITTEN SUBMITTAL TO THE ENGINEER WHICH INCLUDES ALL DIMENSIONAL, PERFORMANCE AND MATERIAL SPECIFICATIONS. ANY CHANGES IN LAYOUT, ELECTRICAL CHARACTERISTICS, STRUCTURAL REQUIREMENTS, OR DESIGN DUE TO THE USE OF A SUBSTITUTION SHALL BE SUBMITTED TO THE ENGINEER AS PART OF THIS PROPOSAL. THE CONTRACTOR TAKES FULL RESPONSIBILITY FOR THE SUBSTITUTION AND ALL CHANGES RESULTING FROM SUBSTITUTION. ALL ITEMS SHALL BE SUBMITTED FOR REVIEW IN CONJUNCTION WITH THE SUBMITTAL OF THE SUBSTITUTION. ANY SUBSTITUTION MUST BE SUBMITTED WITH AN EXPLANATION AS TO WHY A SUBSTITUTION IS BEING UTILIZED. IF THE SUBSTITUTED ITEM DEVIATES FROM THE SPECIFIED ITEM, THOSE DEVIATIONS ARE TO BE IDENTIFIED ON A LINE—BY—LINE BASIS. IF THE SUBSTITUTE IS BEING UTILIZED FOR FINANCIAL REASONS, THE ASSOCIATED CREDIT MUST BE SIMULTANEOUSLY SUBMITTED.

### PART 2 - PRODUCTS/APPLICATIONS

### 2.01 <u>PIPINO</u>

- A. PIPING 2" AND SMALLER SHALL BE ANSI/ASTM A 53; ASTM A126; ASTM A 135 SCHEDULE 40 STANDARD WEIGHT BLACK STEEL. PIPING SHALL BE THREADED OR GROOVED FOR MECHANICAL COUPLINGS.
- B. PIPING 2-1/2" AND ABOVE SHALL BE SCHEDULE 10 STEEL WITH VICTAULIC COUPLINGS.

## 2.02 FITTINGS

- A. STEEL WELDING: STANDARD SEAMLESS STEEL, ANSI B-16.9 AND ASTM A-234
- B. STEEL FLANGES: ANSI B-16.5
- C. GROOVED END MALLEABLE IRON FITTINGS AND BOLTED CLAMP TYPE MALLEABLE IRON COUPLINGS WITH RUBBER SEALING GASKETS FOR ROLLED GROOVED END PIPE, MINIMUM WORKING PRESSURE OF 250 PSI, SIMILAR TO VICTAULIC CO. PROVIDE "FLUSH SEAL" TYPE GASKETS FOR ALL DRY SYSTEM FITTINGS.
- D. CLOSE NIPPLES OR PLAIN END FITTINGS ARE NOT PERMITTED.

# 2.03 <u>ESCUTCHEONS</u>

A. ALL EXPOSED PIPING PASSING THROUGH WALLS, FLOORS, PARTITIONS AND CEILINGS SHALL BE PROVIDED WITH A TWO PIECE HINGED. CHROME PLATED METAL ESCUTHCEON SIMILAR TO ARGCO SERIES.

## 2.04 <u>PIPING SUPPORTS</u>

- A. ALL PIPING SHALL BE SUPPORTED FROM BUILDING CONSTRUCTION BY INSERTS, BEAM CLAMPS, STEEL FISHPLATES AND ACCEPTABLE BRACKETS. SUBMIT ALL METHODS OF SUPPORT FOR REVIEW.
- B. PROVIDE ADDITIONAL FRAMING TO SUPPORT PIPING WERE BUILDING CONSTRUCTION IS INADEQUATE.
- C. PROVIDE MINIMUM PIPE SUPPORTS SPACING AS REQUIRED BY NFPA 13. ALL PIPING SUPPORT MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF NFPA 13.
- D. TOP BEAM CLAMPS AND RETAINING STRAPS
- 1. CARBON STEEL CLAMP BODY WITH HARDENED STEEL CUP POINT SET SCREW AND LOCKNUT. BODY SHALL BE TAPPED THROUGH TO PERMIT EXTENDED ADJUSTMENT OF THREADED ROD.
- 2. GALVANIZED ELECTRO OR HOT DIPPED FINISH
- 3. GALVANIZED RETAINING STRAPS SHALL BE USED WITH ALL BEAM CLAMPS.
- E. HANGER RODS: CARBON STEEL, CONTINUOUS THREAD, ELECTRO—GALVANIZED SIZED IN ACCORDANCE WITH NFPA 13
- F. ADJUSTABLE HANGER RINGS: CARBON STEEL, MIL GALVANIZED TO G-90 SPECIFICATION WITH KNURLED SWIVEL NUT SIZED TO NFPA 13 REQUIREMENTS.
- G. EXPANSION ANCHORS: MAXIMUM LOADING, INCLUDING PIPE CONTENTS, COVERING AND ALL REQUIRED LOADS, 75
  PERCENT OF MAXIMUM RATED LOAD. SAE 110M, SLOTTED TYPE, PLATED WITH DULL ZINC FINISH SIZED PER NFPA 13
  REQUIREMENTS. USE ONLY AT LOCATIONS APPROVED BY OWNER.
- H. SIDE BEAM BRACKET: CARBON STEEL, GALVANIZED FLUSH BACK PLATE WITH THREADED EYE SOCKET, FOR PIPE SIZES 1" THROUGH 4".
- I. LAG BOLTS: CARBON STEEL, GALVANIZED, GIMLET POINT, HEX HEAD (MAXIMUM 6" LENGTH).
- J. SPLIT RING HANGERS: DUCTILE IRON, GALVANIZED, HINGED, SPLIT RING EXTENSION HANGER.
- K. COACH SCREW HANGER RODS: CARBON STEEL, GALVANIZED, MACHINE THREADED ON ONE END AND LAG THREADED ON THE OTHER END. IT IS MANDATORY THAT PILOT HOLES BE PRE-DRILLED TO PREVENT BEAM SPLITTING.
- L. STEEL ROD COUPLINGS: CARBON STEEL, GALVANIZED
- M. RISER CLAMPS: BOLTED ON EACH SIDE OF PIPE AND BEARING EQUALLY ON STRUCTURE.
- N. ALL HANGER MATERIAL MUST REMAIN CORROSION FREE. COORDINATE LOCATIONS WITH ANTICIPATED ENVIRONMENTAL CONDITIONS. PROVIDE NECESSARY MATERIALS AND FINISHES TO MEET OWNER'S REQUIREMENTS AND THE REQUIREMENTS OF NFPA 13.

#### 2.05 SPRINKLER HEADS

A. REFER TO SPRINKLER HEAD SCHEDULE ON DRAWING FP001 FOR MAKE, MODEL, AND SPRINKLER CHARACTERISTICS.

## 2.06 SPRINKLER TESTING

- A. TEST ALL PIPING SYSTEMS HYDROSTATICALLY AT A PRESSURE OF 200 PSI FOR A PERIOD TWO (2) HOURS. THE SYSTEM SHALL NOT LOSE PRESSURE FOR ENTIRE DURATION OF TESTING.
- B. ALL DEFECTS IN THE SYSTEM DISCOVERED BY THE TEST SHALL BE REPAIRED OR REPLACED. THE TEST SHALL BE REPEATED UNTIL ALL WORK IS PROVEN ACCEPTABLE.
- C. SUBMIT TEST RESULTS FOR REVIEW BY ENGINEER.
- D. THE CONTRACTOR IS SHALL BE RESPONSIBLE TO REPAIR OR REPLACED ALL DAMAGES CAUSED TO THE BUILDING AND WORK OF OTHER TRADES DUE TO A FAILED TESTING OF THE SPRINKLER SYSTEM.
- E. THE CONTRACTOR SHALL SCHEDULE SYSTEM TESTING WITH THE BUILDING OWNER OR BUILDING MANAGEMENT A MINIMUM OF 48 HOURS IN ADVANCE AND NOTIFY ARCHITECT AND ENGINEER OF DATE AND TIME OF TEST.

#### PART 3 - EXECUTION

#### 3.01 DEMOLITION, REMOVAL AND RELOCATION

- A. REMOVAL, TEMPORARY CONNECTIONS AND RELOCATION OF CERTAIN EXISTING WORK WILL BE NECESSARY FOR THE INSTALLATION OF THE NEW SYSTEMS. ALL EXISTING CONDITIONS ARE NOT TO BE COMPLETELY DETAILED ON THE DRAWINGS. THE CONTRACTOR SHALL SURVEY THE SITE AND MAKE ALL NECESSARY CHANGES REQUIRED BASED ON EXISTING CONDITIONS FOR PROPER INSTALLATION OF NEW WORK.
- B. DISCONNECT, REMOVE AND/OR RELOCATE EXISTING MATERIAL, EQUIPMENT, AND OTHER WORK AS NOTED OR REQUIRED FOR PROPER INSTALLATION OF NEW SYSTEM.
- C. ALL EXISTING WORK NOT INDICATED FOR DEMOLITION SHALL BE PROTECTED FROM DAMAGE. WHERE EXISTING WORK TO REMAIN IS DAMAGED OR DISTURBED, THE CONTRACTOR SHALL REPAIR OR REPLACE TO OWNER'S SATISFACTION AT NO COST TO THE OWNER.
- E. GENERAL CONTRACTOR REMOVE ALL CEILING IN AREAS WHERE NEW DUCTWORK OR PIPING IS TO BE INSTALLED OR EXISTING IS ALTERED. AS PER ARCHITECT'S INSTRUCTIONS.
- F. ALL EXISTING MATERIAL AND EQUIPMENT TO BE REMOVED UNDER THIS CONTRACT WILL REMAIN THE PROPERTY OF THE OWNER OR SHALL BE LEGALLY DISPOSED OF BY THIS CONTRACTOR AS DIRECTED BY THE ARCHITECT OR OWNER.
- H. PROVIDE FOR LEGAL REMOVAL AND DISPOSAL OF ALL RUBBISH AND DEBRIS FROM THE BUILDING AND SITE. COORDINATE ALL DEMOLITION AND REMOVALS WITH BUILDING MANAGEMENT.

# 3.02 CONNECTION TO EXISTING WORK

- A. PLAN INSTALLATION OF NEW WORK AND CONNECTIONS TO EXISTING WORK TO INSURE MINIMUM INTERFERENCE WITH REGULAR OPERATION OF EXISTING FACILITIES. ALL SYSTEM SHUTDOWNS AFFECTING OTHER AREAS SHALL BE COORDINATED WITH OWNER. PROVIDE TEMPORARY DUCTWORK AND PIPING CONNECTIONS AS REQUIRED TO MINIMIZE SHUTDOWN TIME.
- B. CONNECT NEW WORK TO EXISTING WORK IN A NEAT AND APPROVED MANNER. RESTORE EXISTING WORK DISTURBED WHILE INSTALLING NEW WORK TO ACCEPTABLE CONDITION AS DETERMINED BY ARCHITECT AND OWNER.
- C. MAINTAIN CONTINUOUS OPERATION OF EXISTING FACILITIES.

### 3.03 INSTALLATION OF NEW WORK

- A. DRAWINGS, SCHEMATICS, AND DIAGRAMS INDICATE GENERAL LOCATION AND ARRANGEMENT OF PIPING. INSTALL PIPING AS INDICATED. DEVIATION FROM APPROVED WORKING PLANS FOR PIPING REQUIRE WRITTEN APPROVAL FROM AUTHORITIES HAVING JURISDICTION. FILE WRITTEN APPROVAL WITH ARCHITECT AND ENGINEERING BEFORE DEVIATING FROM APPROVED WORKING PLANS.
- B. INSTALL AS STRAIGHT AND DIRECT AS POSSIBLE ALL PIPING FORMING RIGHT ANGLE OR PARALLEL LINES WITH BUILDING WALLS AND OTHER PIPES. PIPING SHALL BE INSTALLED SO THAT EVERY PORTION OF THE SYSTEM CAN BE ENTIRELY
- C. INSTALL PIPE AND ALL OTHER SYSTEM COMPONENTS IN A MANNER WHICH WILL NOT INTERFERE WITH THE FULL SWING OF ANY DOOR.
- D. WHERE SPRINKLERS ARE INSTALLED IN AREAS WITHOUT A HUNG CEILING THIS CONTRACTOR SHALL INSTALL SPRINKLERS BOTH OVER AND UNDER EXISTING AND NEW DUCTWORK 4'-0" AND WIDER OR WHERE THE TOTAL AGGREGATE WIDTH OR LENGTH OF MULTIPLE DUCTS EXCEEDS 4'-0" OR LARGER.
- E. REAM ALL PIPES SMOOTH BEFORE INSTALLATION. DO NOT BEND, SPLIT, FLATTEN OR DAMAGE PIPE IN ANY WAY. ANY PIPE DAMAGED SHALL BE REPLACED BY THIS CONTRACTOR AT NOT ADDITIONAL COST TO THE OWNER.
- F. INSTALL A DIELECTRIC FITTING BETWEEN ALL CONNECTIONS BETWEEN PIPING OF DISSIMILAR METALS.
- G. INSTALL SPRINKLER HEADS IN GYPSUM AND PLASTER CEILINGS SYMMETRICALLY AND ALIGN WITH ADJACENT CEILING FIXTURES.

# 3.04 MATERIAL DELIVERY, STORAGE AND HANDLING

FINAL COAT SHALL BE DETERMINED BY ARCHITECT.

MATERIALS.

3.05 PAINTING

- A. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR THE ON-TIME DELIVER OF HIS MATERIALS.
- B. COORDINATE WITH OWNER AND/OR BUILDING MANAGEMENT THE BUILDING REQUIREMENTS FOR THE DELIVERING OF ALL

A. PAINT SPRINKLER PIPING EXPOSED TO VIEW WITHIN BUILDING WITH TWO (2) COATS OF RUST-INHIBITING PAINT; COLOR

C. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFE STORAGE OF ALL HIS MATERIALS. ANY MATERIALS DAMAGED DURING DELIVERY, STORAGE, AND HANDLING SHALL BE REPLACED AT NO ADDITIONAL COST TO THE OWNER.

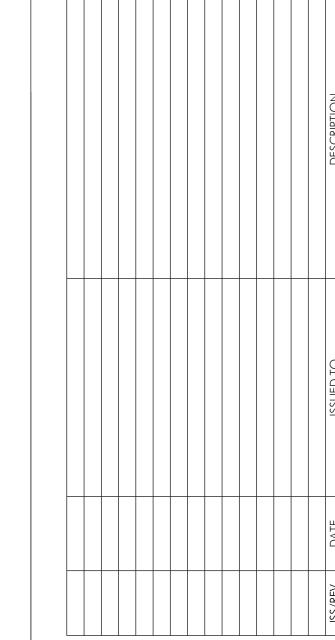


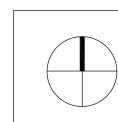
**A**RCHITECTURE

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DOB BSCAN





OLD OAKS COUNTRY

PROJECT ADRESS

FIRE PROTECTION SPECIFICATIONS

SEAL & SIGNATURE

DATE: 08-13-21

PROJECT NO.: 21-826

DRAWN BY: AG

CHECKED BY: TL

PRAWING NO:

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