1 AERIAL IMAGE
NO SCALE

BAKER COMMONS FIRE SUPPRESSION DESIGN

ANN ARBOR, MICHIGAN

ISSUED FOR BIDS

DRAWING INDEX

ISSUED FOR BIDS 04-15-2024 | 90% REVIEW 04-10-2023 | 75% REVIEW 04-29-2022

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PROJECT DESCRIPTION

THIS PROJECT INVOLVES EXTENDING THE EXISTING FIRE SUPPRESSION SYSTEM TO COVER THE INDIVIDUAL APARTMENTS IN THE FACILITY, DEMOLITION/CONSOLIDATION OF EXISTING RISERS FOR INDIVIDUAL ZONE CONTROL AND MONITORING, AS WELL AS UPDATES TO THE EXISTING FIRE ALARM SYSTEM.

SCOPE OF WORK

THE FOLLOWING OUTLINES THE SCOPE OF WORK FOR EACH DISCIPLINE:

FIRE SUPPRESSION:

1. DEMOLISH EXISTING FIRE SUPPRESSION RISERS OUTSIDE OF THE STAIR WELLS.
2. INSTALL NEW 2 1/2" FIRE SUPPRESSION PIPING FROM THE EXISTING 4" RISER IN THE STAIRWELL DOWN THE HALLWAY ON EACH OF FIVE (5) FLOORS.
3. INSTALL NEW FLOW SWITCH, INSPECTOR'S TEST PORT, AND DRAIN ON EACH FLOOR'S NEW TAP OFF THE 4" EXISTING RISER IN THE STAIRS.
4. RECONNECT FIRE SPRINKLERS IN THE HALLWAYS OF EACH OF FIVE (5) FLOORS.
5. INSTALL FIRE SUPPRESSION PIPING THROUGH TENANT SPACE WALLS, AND SPRINKLERS IN ALL APARTMENTS AS SHOWN. FIRE SUPPRESSION LAYOUT FOR TENANT SPACES IS SHOWN TYPICAL FOR EACH APARTMENT TYPE.
6. FLUSH, TEST, AND PROVIDE INSPECTION AND TESTING REPORTS/CERTIFICATES AS REQUIRED PER NOTES AND ALL CODES.

FIRE ALARM:

1. EVALUATE EXISTING FIRE ALARM PLANS (SEE ATTACHED ARCHIVE PERMIT DRAWINGS WITH EXISTING CONDITIONS MARKUPS FOR CODE COMPLIANCE AND SUBMIT PLANS FOR MODIFICATIONS AS REQUIRED TO MEET CODES.
2. CONNECT NEW FLOW SWITCHES TO EXISTING FIRE ALARM SYSTEM.
3. INSTALL NEW HORNSTROBE IN LOBBY AREA FOR INDICATION OF A WATER FLOW EVENT.
4. TEST FIRE ALARM SYSTEM AS REQUIRED.

HAZARDOUS MATERIALS NOTE

THIS PROJECT AREA DOES CONTAIN HAZARDOUS MATERIALS. PROJECT CONSTRUCTION MANAGER SHALL REVIEW ALL HAZARDOUS MATERIAL SURVEYS PROVIDED BY OWNER AND CONTACT THE OWNER FOR ADDITIONAL COPIES AS REQUIRED PRIOR TO STARTING PROJECT.

PROJECT CONSTRUCTION MANAGER SHALL COORDINATE ANY DISTURBANCES OF HAZARDOUS MATERIAL, INCLUDING WALL PENETRATIONS AND ANCHORING,WITH OWNER. REMOVAL OF HAZARDOUS MATERIALS SHALL BE IN ACCORDANCE WITH EPA REQUIREMENTS AS WELL AS REQUIREMENTS OF ANY OTHER AGENCIES WITH JURISDICTION OVER SUCH WORK.

PROJECT CLOSE OUT DOCUMENTS

CONTRACTOR SHALL PROVIDE A COPY OF THE FOLLOWING CLOSE OUT DOCUMENTS:

- APPROVED FIRE SUPPRESSION DRAWINGS.
- AS-BUILTS/FOR RECORD DRAWINGS NOTING DEVIATIONS FROM CONSTRUCTION DOCUMENTS
- ALL O&M MANUALS (ELECTRONIC AND PAPER COPY)
- WARRANTIES/WARRANTY CONTACT LIST WITHIN O&M MANUAL
- COPIES OF APPROVED INSPECTION AND TESTING REPORTS

SHOP DRAWING FOR REVIEW

CONTRACTOR SHALL SUBMIT THE FOLLOWING SHOP DRAWINGS FOR REVIEW AND APPROVAL FROM ENGINEER PRIOR TO PURCHASING:

- FIRE SPRINKLER SYSTEM WORKING DRAWINGS AS REQUIRED PER NFPA 13
- PIPING
- FIRE ALARM DRAWINGS
- VALVES/COMPONENTS
- SPRINKLER HEADS
- FIRE ALARM DEVICES

GENERAL NOTES

1. ALL WORK MUST COMPLY WITH THE REQUIREMENTS OF LOCAL CODES AND ORDINANCES. WHERE INSPECTIONS ARE REQUIRED BY AUTHORITIES HAVING JURISDICTION, WORK WILL NOT BE CONSIDERED COMPLETE UNTIL TESTED, INSPECTED, AND ACCEPTED.
2. DRAWINGS ARE BASED ON AVAILABLE DOCUMENTS, SITE INSPECTION AND DESIGN EXPERIENCE. DRAWINGS MAY NOT REFLECT A COMPLETE AS BUILT CONDITION. CONTRACTOR SHALL FIELD VERIFY.
3. DRAWINGS DIAGRAMMATICALLY INDICATE THE GENERAL WORK SCOPE BUT DO NOT PROVIDE EXACT SCALE OR LOCATIONS. PROPER INSTALLATION OF ALL SYSTEMS, AFTER COORDINATION WITH OTHER TRADES, IS THE CONTRACTORS RESPONSIBILITY.
4. CONTRACTOR SHALL USE BID WALK-THROUGH AND FIELD OBSERVATIONS TO ENHANCE PROJECT UNDERSTANDING BEFORE BIDDING ON PROJECT.
5. ALL CONTRACTORS SHALL REVIEW DRAWINGS AND SPECIFICATIONS TO UNDERSTAND THE SCOPE OF WORK FOR THEIR DISCIPLINE.
6. NO DEMOLITION SHALL TAKE PLACE WITHOUT APPROVAL FROM THE OWNER'S REPRESENTATIVE.
7. ALL UTILITY SHUTDOWNS ARE TO BE SCHEDULED WITH OWNER'S REPRESENTATIVE MINIMUM 24 HOURS IN ADVANCE.
8. TEMPORARY REMOVAL OF ANY AND ALL EXISTING MISCELLANEOUS ITEMS (I.E. CONDUIT, PIPING, LIGHTING, ETC.) FOR THE PURPOSE OF PERFORMING THIS WORK SHALL BE REINSTALLED BACK TO PRE-CONSTRUCTION LEVEL AS PART OF THIS PROJECT. NO ADDITIONAL FEES WILL BE AWARDED.
9. CONTRACTOR TO TEMPORARILY SUPPORT ALL DUCTWORK, PIPING, CONDUIT, ETC. DURING THE DEMOLITION AND CONSTRUCTION PHASES.
10. CONTRACTOR TO PROTECT ALL PIPING, PIPE INSULATION, CONDUITS, FIRE SPRINKLERS, AND OTHER MISCELLANEOUS ITEMS DURING THE DEMOLITION PHASE. ANY DAMAGE RESULTING FROM THE CONTRACTOR'S OPERATIONS MUST BE REPAIRED OR REPLACED WITH EQUAL AND TO THE OWNER'S SATISFACTION AND AT NO ADDITIONAL COST.
11. EQUIPMENT INDICATED ON THE CONSTRUCTION DOCUMENTS, TOGETHER WITH ITS BASE AND/OR SUPPORT, DUCTWORK, ROOF OPENINGS, ELECTRICAL SERVICE, REFRIGERANT PIPING, AND HEATING HOT WATER ARE BASED ON THE MAKE AND MODEL INDICATED IN THE EQUIPMENT SCHEDULE. SHOULD AN EQUIVALENT ALTERNATE MAKE OF EQUIPMENT BE SELECTED, EVEN IF APPROVED BY THE OWNER AS EQUAL, COORDINATE AND MAKE THE MODIFICATIONS IN THE WORK WITH NO CHANGE IN THE CONTRACT AMOUNT.
12. UNLESS OTHERWISE SHOWN ON CONSTRUCTION DOCUMENTS OR SPECIFIED HEREIN, PRODUCTS USED IN THE WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND RECOMMENDATIONS. ANY CHANGES OR MODIFICATIONS PROPOSED WHICH ARE BELIEVED TO IMPROVE THE INSTALLATION SHALL BE APPROVED BY THE OWNER AND/OR ITS REPRESENTATIVE.
13. MAINTAIN SECURITY, LIFE SAFETY, FIRE AND SMOKE CONSTRUCTION INTEGRITY, FIRE ESCAPES AND EGRESS PATHS AT ALL TIMES.
14. REFER TO CONTRACT DOCUMENTS AND PROJECT SPECIFICATIONS FOR ADDITIONAL SCOPE AND INFORMATION.
15. SAFETY STANDARDS DICTATE THAT LIFTING OF EQUIPMENT ON THE ROOF OR IN THE SPACE MUST BE DONE WHEN THERE ARE NO PERSONNEL PRESENT IN THE SPACE.
16. CONTRACTOR WILL BE RESPONSIBLE FOR REPAIRING ANY AND ALL DAMAGE CAUSED BY CRANE AND/OR EQUIPMENT USED DURING LIFTING PROCESS AND/OR CAUSED DURING CONSTRUCTION PROCESS.
17. CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING A COMPLETE AND WORKING SYSTEM.
18. CONTRACTOR IS RESPONSIBLE FOR FINAL CLEANING OF PROJECT AREA(S).
19. PROVIDE ALL REQUIRED ACCESSORIES, INCLUDING MISCELLANEOUS SUPPORT STEEL, REQUIRED FOR PROPER INSTALLATION.
20. CONTRACTOR SHALL PROVIDE SUBMITTALS ON ALL EQUIPMENT FOR APPROVAL BEFORE PURCHASING.
21. PROTECT BUILDING FROM DUST MIGRATION USING APPROPRIATE SEALED BARRIERS TO SEPARATE AND SEGREGATE CONSTRUCTION AREAS FROM ACTIVE TENANT AREAS INCLUDING SHARED CEILING PLENUMS AND MECHANICAL SYSTEMS.
22. ALL PIPING TO BE SUPPORTED IN ACCORDANCE WITH ANSI/MSS SP-58 (2015 MICHIGAN MECHANICAL CODE, SECTION 305).
23. CONTRACTOR SHALL COORDINATE WITH ANN ARBOR HOUSING COMMISSION REPRESENTATIVES FOR ACCESS TO TENANT ROOMS.

PROJECT DIRECTORY

OWNER:	**ANN ARBOR HOUSING COMMISSION**	
	2000 S INDUSTRIAL	
	ANN ARBOR, MI 48104	
OWNERS REPRESENTATIVE:	**DMC REAL ESTATE SERVICES**	
	PROJECT MANAGER:	DARREN MCKINNON
	OFFICE:	(734) 845-9199
	CELL:	(734) 904-5044
	EMAIL:	DMCKINNON@DMC-RES.COM
ENGINEER:	**IMEG**	
	201 S. ANN ARBOR ST.	
	SALINE, MI 48176-1303	
	PROJECT ENGINEER:	DALE W. NIETHAMMER
	CELL:	(734) 678-2605
	EMAIL:	DALE.W.NIETHAMMER@IMEGCORP.COM
	PROJECT DESIGNER:	RYAN M. O'QUINN
	CELL:	(734) 657-1852
	EMAIL:	RYAN.M.OQUINN@IMEGCORP.COM

SITE LOCATION

2 PROJECT LOCATION
NO SCALE

CITY OF ANN ARBOR MICHIGAN

BAKER COMMONS FIRE SUPPRESSION DESIGN
106 PACKARD ST
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PROFESSIONAL SEAL

CONSULTANT

FOR BIDS ONLY
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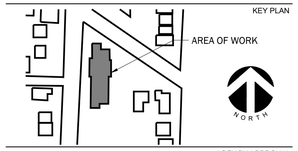
KEY PLAN



AGENCY APPROVAL

DISCLAIMER

REFERENCE SCALE IN INCHES
0 1 2

REVISIONS

No.	Date	Revision / Issue
A	04/29/2022	75% REVIEW
B	04/10/2023	90% REVIEW
C	04/15/2024	ISSUED FOR BIDS

SHEET INFORMATION

Issue	ISSUED FOR BIDS
Date	04/15/2024
Job Number	22001234.00
Drawn	I. PLACE
Checked	D. LLEWELLYN
Approved	D. NIETHAMMER

SHEET TITLE
TITLE SHEET

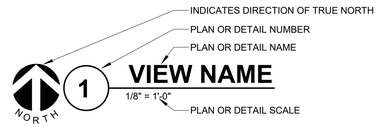
SCALE
Scale: NONE

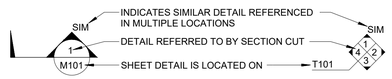
SHEET NUMBER
T001

VIEW KEY

NAME — LEVEL NAME
10' - 0" — HEIGHT ABOVE PROJECT 0' - 0"

1 — INDICATES NOTE USED TO DESCRIBE ADDITIONAL INFORMATION ABOUT WORK REQUIRED, SPECIFIC TO THE SHEET AND/OR DETAIL





LINE TYPE AND TAG KEY:

NEW WORK BY THIS CONTRACTOR (BOLD, WIDE LINE)
NEW
NEW UNDERFLOOR, UNDERGROUND, OR ABOVE (LONG DASHED PATTERN)

EXISTING TO REMAIN OR WORK BY OTHERS (BLACK, NARROW LINE)
EXISTING
EXISTING UNDERFLOOR, UNDERGROUND, OR ABOVE (LONG DASHED PATTERN)

HALFTONING DOES NOT MODIFY SCOPE.

'TAG' (E) — TAGS WITH '(E)' INDICATES THE REFERENCED OBJECT IS EXISTING

TAG-01 — UNDERLINED TEXT INDICATES ADDITIONAL INFORMATION CAN BE FOUND ELSEWHERE IN A SCHEDULE, MATERIAL LIST, OR SYMBOL LIST

INDICATES AN EXISTING SYSTEM'S POINT OF CONNECTION/REMOVAL

CONTRACTOR ABBREVIATION KEY

ABBR:	DESCRIPTION:
A.C.	ASBESTOS ABATEMENT CONTRACTOR
C.M.	CONSTRUCTION MANAGER
E.C.	ELECTRICAL CONTRACTOR
F.P.C.	FIRE PROTECTION CONTRACTOR

FIRE PROTECTION ABBREVIATION KEY

ABBR:	DESCRIPTION:
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
BFP	BACKFLOW PREVENTER
N.C.	NORMALLY CLOSED
NIC	NOT IN CONTRACT
N.O.	NORMALLY OPEN
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE

APPLICABLE CODES

CONTRACTOR SHALL COMPLY WITH APPLICABLE CODES AND LOCAL AMENDMENTS.

BUILDING CODE:	MICHIGAN BUILDING CODE/2015
MECHANICAL CODE:	MICHIGAN MECHANICAL CODE/2021
PLUMBING CODE:	MICHIGAN PLUMBING CODE/2021
ELECTRICAL CODE:	NATIONAL ELECTRICAL CODE/2017
FIRE PREVENTION CODE:	NFPA FIRE CODE/2015

APPLICABLE CITY OF ANN ARBOR RULES AND REGULATIONS

FIRE PROTECTION SYMBOL LIST

NOT ALL SYMBOLS MAY APPLY.

SYMBOL:	DESCRIPTION:
CAF	COMPRESSED AIR - FIRE PROTECTION
DFP	DRAIN
FP	FIRE PROTECTION
FPD	FIRE PROTECTION - DRY SYSTEM
W	SERVICE WATER - POTABLE
	PIPE CAP
	PIPE DOWN
	PIPE UP OR UP/DOWN
	UNION/FLANGE
	DIRECTION OF FLOW IN PIPE
	ROUTE TO DRAIN
	SHUTOFF VALVE NORMALLY OPEN
	AUTOMATIC DRAIN VALVE
	AIR PRESSURE MAINTENANCE DEVICE
	AIR SUPERVISORY SWITCH
	ANGLE VALVE
	BUTTERFLY VALVE WITH MONITOR SWITCH
	CHECK VALVE
	AUTOMATIC AIR VENT
	BACKFLOW PREVENTER
	INSPECTOR TEST AND DRAIN VALVE
	OS&Y GATE VALVE
	OS&Y GATE VALVE WITH MONITOR SWITCH
F	FLOW SWITCH
P	PRESSURE SWITCH
P	PRESSURE GAUGE (FURNISHED WITH BALL VALVE)
	MONITOR SWITCH
	AREA BOUNDARY
	SPRINKLER - WALL MOUNTED
	SPRINKLER - PENDANT
	SPRINKLER - CONCEALED PENDANT
	HORNSTROBE - WALL MOUNTED

FIELD TESTING AND FLUSHING:

1. OVERHEAD SYSTEM HYDROSTATIC TEST @ 200 PSI FOR 2 HOURS.
2. PROVIDE INSPECTION AND HYDROSTATIC TEST CERTIFICATE AND SUBMIT THE CONTRACTOR'S MATERIAL AND TEST CERTIFICATES FOR ABOVE GROUND PIPING.

HANGER NOTES:

1. HANGING OF SYSTEM PIPING SHALL BE PER NFPA 13, SECTION 9.1 & 9.2.
2. BUILDING STRUCTURAL BEAMS SHALL BE ADEQUATE TO SUPPORT THE SYSTEM. SPRINKLER PIPING OR HANGERS SHALL NOT BE USED TO SUPPORT NON-SYSTEM COMPONENTS. THE DISTANCE BETWEEN A HANGER AND THE CENTERLINE OF AN UPRIGHT SPRINKLER SHALL BE LESS THAN 3 INCHES (76 MM).
3. HOLES THROUGH SOLID STRUCTURAL MEMBERS SHALL BE PERMITTED TO SERVE AS HANGERS FOR THE SUPPORT OF SYSTEM PIPING PROVIDED SUCH HOLES ARE PERMITTED BY APPLICABLE BUILDING CODES AND THE SPACING AND SUPPORT PROVISIONS FOR HANGERS OF NFPA 13 ARE SATISFIED.
4. THE MAXIMUM DISTANCE BETWEEN HANGERS SHALL NOT EXCEED THAT SPECIFIED IN TABLE NFPA 13, 9.2.2.1(A), EXCEPT WHERE THE PROVISIONS OF NFPA 13, SECTION 9.2.4 APPLY. TABLE 9.2.2.1(a) MAXIMUM DISTANCE BETWEEN HANGERS

	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	3 1/2"	4"	5"	6"	8"
STEEL PIPE EXCEPT THREADED LIGHTWALL	N/A	12'-0"	12'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"
THREADED LIGHTWALL	N/A	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	N/A	N/A	N/A	N/A	N/A

5. THERE SHALL BE NOT LESS THAN ONE HANGER FOR EACH SECTION OF PIPE, EXCEPT WHERE SPRINKLERS AND MULTIPLE PIPE FITTINGS ARE SPACED LESS THAN 6 FT APART. HANGERS SHALL BE SPACED UP TO A MAXIMUM OF 12'-0". HANGERS ARE NOT REQUIRED WHERE BRANCH LINES STARTER LENGTHS ARE LESS THAN 6'-0", UNLESS ON THE END LINE OF A SIDE FEED SYSTEM OR WHERE AN INTERMEDIATE CROSS MAIN HANGER HAS BEEN OMITTED.
6. THE UNSUPPORTED LENGTH BETWEEN THE END SPRINKLER AND THE LAST HANGER ON THE LINE SHALL NOT BE GREATER THAN 36" FOR 1" PIPE, 48" FOR 1 1/4" PIPE, AND 60" FOR 1 1/2" OR LARGER PIPE. WHERE THE LIMITS ARE EXCEEDED, THE PIPE SHALL BE EXTENDED BEYOND THE END SPRINKLER AND SHALL BE SUPPORTED BY AN ADDITIONAL HANGER.
7. THE CUMULATIVE HORIZONTAL LENGTH OF AN UNSUPPORTED ARMOVER TO A SPRINKLER, SPRINKLER DROP OR SPRIG SHALL NOT EXCEED 24" FOR STEEL PIPE.
8. LOCATION OF HANGERS ON MAINS SHALL COMPLY WITH NFPA 13, SECTION 9.2.4 FOR STEEL PIPE CROSS MAINS. A HANGER CAN BE INSTALLED BETWEEN EVERY TWO BRANCH LINES OR, ALTERNATIVELY, ON EACH BRANCH LINE AS NEAR AS POSSIBLE TO THE CROSS MAIN, WHILE OMITTING ONE INTERMEDIATE CROSS MAIN HANGER IN EACH BAY. THE OPTION TO OMIT THE INTERMEDIATE CROSS MAIN HANGER APPLIES TO THE LAST PIECE OF CROSS MAIN ONLY IF THE MAIN IS EXTENDED TO THE NEXT FRAMING MEMBER AND HANGER IS INSTALLED AT THAT POINT.

FIRE PROTECTION GENERAL NOTES:

1. THE SYMBOLS AND THE MATERIAL LIST ARE FOR THE CONVENIENCE OF THE CONTRACTOR. CONTRACTOR SHALL VERIFY QUANTITIES AND FURNISH ALL MATERIALS REQUIRED FOR FULLY OPERATIONAL SYSTEMS, WHETHER SPECIFIED OR NOT.
2. CATALOG NUMBERS SHALL NOT BE CONSIDERED COMPLETE, BUT ARE GIVEN AS AN AID TO THE CONTRACTOR AND TO INDICATE THE QUALITY REQUIRED. CONTRACTOR IS RESPONSIBLE FOR COMPLETE DESCRIPTION OF MATERIAL ON THESE DRAWINGS AND IN THE SPECIFICATIONS BEFORE ORDERING. THE DESCRIPTION OF THE MATERIAL TAKES PRECEDENCE OVER THE CATALOG NUMBER. THE FIRST MANUFACTURER IS THE BASIS OF DESIGN.
3. FIRE PROTECTION PIPE ROUTING IS SHOWN TO INDICATE DESIGN INTENT. FIRE PROTECTION CONTRACTOR SHALL DETERMINE EXACT NUMBER OF SPRINKLERS, PIPE SIZING, AND PIPE ROUTING BASED ON HYDRAULIC CALCULATIONS AND DETAILED WORKING DRAWINGS REQUIRED IN NFPA 13.
4. DO NOT SCALE DRAWINGS. VERIFY ALL DIMENSIONS AND CLEARANCES FROM ARCHITECTURAL, STRUCTURAL, SUBMITTALS, AND OTHER APPROPRIATE DRAWINGS OR PHYSICALLY AT SITE. REVIEW ALL DRAWINGS, INCLUDING THOSE OF OTHER TRADES.
5. COORDINATE ALL WORK WITH ALL OTHER TRADES PRIOR TO INSTALLATION TO PROVIDE CLEARANCES REQUIRED FOR OPERATION, MAINTENANCE, CODE COMPLIANCE, AND TO VERIFY NON-INTERFERENCE WITH OTHER WORK. DO NOT FABRICATE PRIOR TO VERIFICATION OF NECESSARY CLEARANCES FOR ALL TRADES. BRING ANY INTERFERENCES OR CONFLICTS TO THE ATTENTION OF THE ARCHITECT/ENGINEER BEFORE PROCEEDING WITH FABRICATION OR EQUIPMENT ORDERS.
6. ANY CHANGES REQUIRED TO ELIMINATE CONFLICTS OR THAT RESULT FROM A FAILURE TO COORDINATE SHALL BE MADE BY THE CONTRACTOR WITHOUT ADDITIONAL COST OR EXPENSE TO OTHERS.
7. CENTER SPRINKLERS IN CEILING TILES IN BOTH DIRECTIONS IN ALL AREAS. IN AREAS WITH 2'X4' CEILING TILES CENTERING USING A 2'X2' CEILING PATTERN IS ACCEPTABLE. SPRINKLER HEADS SHALL BE ALIGNED WITH OTHER SPRINKLER HEADS, LIGHTING, DIFFUSERS, AND ANY OTHER FEATURES IN THE CEILING.
8. NEW SPRINKLERS SHALL BE QUICK RESPONSE TYPE, UNLESS OTHERWISE NOTED. CONTRACTOR SHALL NOT MIX STANDARD RESPONSE SPRINKLERS WITH QUICK RESPONSE SPRINKLERS IN UNPARTITIONED SPACES.
9. PROVIDE COVERAGE ABOVE AND BELOW ALL DUCTWORK GREATER THAN 48" WIDE.
10. PROVIDE COVERAGE ABOVE (IF APPLICABLE) AND BELOW FLOATING CEILINGS, REFER TO ARCHITECTURAL PLANS.
11. PROVIDE RISER ROOM IDENTIFICATION SIGNAGE OUTSIDE THE FIRE RISER ROOM. COORDINATE EXACT SIGN LANGUAGE WITH AHJ.
12. WHERE FEASIBLE INSTALL PIPES HIGH AS POSSIBLE TO AVOID CONFLICT WITH OTHER DISCIPLINES.
13. INSTALL SYSTEM DRAINS AT LOW POCKET AREAS CONTAINING FIVE GALLONS OF WATER OR MORE, PROVIDE WITH ISOLATION VALVE AND THREADED HOSE CONNECTION.
14. FOLLOW STRUCTURAL DETAILS WHEN PENETRATING OR PASSING THROUGH STRUCTURAL ELEMENTS. ALTERNATE DESIGNS WILL NEED TO BE APPROVED THROUGH THE STRUCTURAL ENGINEER.
15. PROVIDE INTERMEDIATE TEMPERATURE SPRINKLER HEADS WHERE REQUIRED BY NFPA UNLESS OTHERWISE NOTED.
22. FINAL SPRINKLER LOCATION, TYPE AND FINISH SHALL BE REVIEWED AND APPROVED BY THE ARCHITECT PRIOR TO ORDERING OR FABRICATING SYSTEM.
23. PAINT ALL EXPOSED PIPING TO MATCH BACKGROUND OR AS DIRECTED BY THE OWNER.
24. FIRE PROTECTION PIPE ROUTING IS SHOWN FOR GENERAL LAYOUT. DETERMINE EXACT NUMBER OF SPRINKLERS, PIPE SIZING, AND PIPE ROUTING.
25. THE FIRE PROTECTION SYSTEM SHALL BE DESIGNED TO MEET OWNER'S INSURANCE COMPANY STANDARDS WHERE APPLICABLE. THE MORE STRINGENT OF THE OWNER'S INSURANCE UNDERWRITER'S DESIGN CRITERIA AND THE NFPA STANDARDS SHALL BE USED.
26. ALL BUILDING AREAS SHALL BE FULLY SPRINKLERED INCLUDING CANOPIES, WALKWAYS, OVERHANGS, SOFFITS, AND BUILDING PROJECTIONS. ALL ACCESSIBLE COMBUSTIBLE CONCEALED SPACES SHALL BE FULLY PROTECTED BY THE SPRINKLER SYSTEM.
27. EACH ASSEMBLY SHALL INCLUDE CHECK VALVE, BUTTERFLY CONTROL VALVE INDICATING "OPEN" OR "CLOSED" POSITION, TEST INSPECTION VALVE, FLOW SWITCH AND PRESSURE GAUGES.
28. PROVIDE RISER ROOM IDENTIFICATION SIGNAGE OUTSIDE THE FIRE RISER ROOM. COORDINATE EXACT SIGN LANGUAGE WITH AHJ.
29. MAIN PIPING PASSING BELOW SKYLIGHTS OR CLERESTORIES ARE NOT PERMITTED.
30. THE OWNER MUST BE NOTIFIED PRIOR TO EACH AND EVERY DRAINING OR RECHARGING OF THE SPRINKLER SYSTEM.
31. THE CONTRACTOR SHALL PREPARE A COORDINATED SET OF SHOP DRAWINGS AND SHALL OBTAIN APPROVAL FROM THE AUTHORITIES HAVING JURISDICTION AND THE LOCAL FIRE DEPARTMENT PRIOR TO ANY INSTALLATION.
32. DRAWING SHOW LOCATIONS OF EQUIPMENT, DUCTWORK, PIPING, ETC. ARE DIAGRAMMATIC AND MAY NOT ALWAYS REFLECT EXACT INSTALLATION CONDITIONS. DRAWINGS SHOW THE GENERAL ARRANGEMENT OF DUCTWORK, PIPING, EQUIPMENT, ETC. AND MAY NOT INCLUDE ALL OFFSETS AND FITTINGS REQUIRED FOR COMPLETE INSTALLATION. THE DRAWINGS SHALL BE FOLLOWED AS CLOSELY AS ACTUAL BUILDING CONSTRUCTION AND THE WORK OF OTHERS WILL PERMIT.
33. VERIFY ALL DIMENSIONS AND CLEARANCES FROM ARCHITECTURAL, STRUCTURAL, SUBMITTALS, AND OTHER APPROPRIATE DRAWINGS OR PHYSICALLY AT SITE. REVIEW ALL DRAWINGS, INCLUDING THOSE OF OTHER TRADES.
34. CONTRACTOR TO PROVIDE FIRE WATCH ANY TIME THE FIRE SUPPRESSION SYSTEM IS DEACTIVATED.

CITY OF ANN ARBOR — ORGANIZED 1851 — INCORPORATED 1851 — MICHIGAN

BAKER COMMONS FIRE SUPPRESSION DESIGN

106 PACKARD ST
ANN ARBOR, MI 48104

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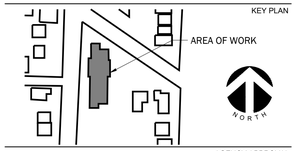
KEY PLAN



AGENCY APPROVAL

DISCLAIMER

REFERENCE SCALE IN INCHES
0 1 2

REVISIONS

No.	Date	Revision / Issue
A	04/29/2022	75% REVIEW
B	04/10/2023	90% REVIEW
C	04/15/2024	ISSUED FOR BIDS

SHEET INFORMATION

Issue	ISSUED FOR BIDS
Date	04/15/2024
Job Number	22001234.00
Drawn	I. PLACE
Checked	D. LLEWELLYN
Approved	D. NIETHAMMER

SHEET TITLE

GENERAL INFORMATION, LEGEND, AND ABBREVIATIONS

SCALE

NONE

SHEET NUMBER

G001

21 13 00 FIRE PROTECTION SYSTEMS

QUALITY ASSURANCE

WELDING MATERIALS AND PROCEDURES: CONFORM TO ASME CODE.

EQUIPMENT AND COMPONENTS: BEAR UL/FM LABEL OR MARKING.

VALVES: BEAR UL/FM LABEL OR MARKING. PROVIDE MANUFACTURER'S NAME AND PRESSURE RATING MARKED ON VALVE BODY. PRESSURE RATING SHALL MATCH SPECIFIED PIPE SYSTEM PRESSURE RATING. REMANUFACTURED VALVES ARE NOT ACCEPTABLE.

SPECIALIST FIRM: COMPANY SPECIALIZING IN SPRINKLER SYSTEMS WITH MINIMUM THREE YEARS EXPERIENCE.

SPRINKLER DESIGN DRAWINGS SUBMITTED BY THE CONTRACTOR SHALL BE DESIGNED, CERTIFIED, AND SHALL INCLUDE THE NICET CERTIFICATION BLOCK OR THE PROFESSIONAL ENGINEER SEAL OF THE FIRE PROTECTION DESIGNER. FIRE PROTECTION DESIGNER SHALL BE NICET LEVEL III OR LEVEL IV CERTIFIED OR BE A LICENSED PROFESSIONAL ENGINEER.

SUBMITTALS
SUBMIT SHOP DRAWINGS INDICATING PIPE MATERIALS, JOINING METHODS, SUPPORTS, FLOOR AND WALL PENETRATION SEALS, SPRINKLERS, EQUIPMENT DATA AND RATINGS, AND HYDRAULIC CALCULATIONS.

SUBMIT DETAILED PIPE AND SPRINKLER LAYOUT AND OTHER CALCULATIONS AND FORMS AS DESCRIBED IN NFPA 13.

SUBMIT DETAILED WORKING DRAWINGS AND OBTAIN REVIEW OF THEM IN THE FOLLOWING ORDER:
1. ENGINEER
2. AUTHORITY HAVING JURISDICTION

BEGIN CONSTRUCTION AFTER ALL APPROVALS ARE RECEIVED.

WORKING DRAWINGS SHALL INCLUDE PIPING AND SPRINKLER LAYOUT, SPRINKLER TYPES AND RATINGS, SECTIONS AND ELEVATIONS AT CRITICAL POINTS. SHOW COORDINATION WITH LIGHTING, DUCTWORK, AND DIFFUSERS, AND INDICATE BASIC FLOW AND HYDRAULIC DESIGN INFORMATION, INCLUDING MAIN LOCATION AND DATE THAT THE TEST WAS TAKEN.

PROVIDE THE OWNER WITH ONE COPY OF NFPA 25. STANDARD FOR THE INSPECTION TESTING AND MAINTENANCE OF WATER-BASED FIRE PROTECTION SYSTEMS.

EXTRA STOCK
PROVIDE METAL STORAGE CABINET, WRENCHES FOR EACH SPRINKLER TYPE, AND EXTRA SPRINKLERS PER NFPA 13 AND APPLICABLE BUILDING CODE.

DELIVERY, STORAGE, AND HANDLING
STORE VALVES AND SPRINKLERS IN SHIPPING CONTAINERS, WITH LABELS IN PLACE.

PROVIDE TEMPORARY PROTECTIVE COATING ON IRON AND STEEL VALVES.

MAINTAIN TEMPORARY END CAPS AND CLOSURES IN PLACE UNTIL INSTALLATION.

SYSTEM DESCRIPTION

SYSTEM SHALL COVER BUILDING AREAS NOTED.

SYSTEM INTERFACE WITH BUILDING FIRE ALARM SYSTEM INCLUDING ALL REQUIRED WIRING SHALL BE BY OTHERS.

REGULATORY REQUIREMENTS
ALL MATERIAL, EQUIPMENT, AND INSTALLATION SHALL BE APPROVED BY THE AUTHORITIES HAVING JURISDICTION. THE AUTHORITIES HAVING JURISDICTION SHALL HAVE PRECEDENCE OVER THE DRAWINGS AND SPECIFICATIONS IN CASE OF DISCREPANCIES. THE ENTIRE INSTALLATION SHALL COMPLY WITH ALL APPLICABLE CODES.

SYSTEM DESIGN
DESIGN AND INSTALL A COMPLETE, HYDRAULICALLY CALCULATED WET PIPE SPRINKLER SYSTEM FOR THE ENTIRE AREA OF WORK IDENTIFIED ON DRAWINGS. PROVIDE ALL REQUIRED EQUIPMENT AND ACCESSORIES.

SYSTEM SHALL INCLUDE A 5 PSI ALLOWANCE FOR FUTURE DECREASE IN AVAILABLE PRESSURE AND AN ALLOWANCE FOR INSIDE AND OUTSIDE HOSE STREAMS.

PROVIDE MONITOR SWITCHES ON ALL SHUTOFF VALVES.

PROVIDE FLOW SWITCHES, MONITOR SWITCHES, AND PRESSURE GAUGES WHERE REQUIRED BY CODE.

PROVIDE MAIN DRAIN VALVE PIPED TO OUTSIDE THE BUILDING. LOCATE SO DISCHARGE DOES NOT DAMAGE LAWN OR OTHER SURFACES.

OPERATION AND MAINTENANCE DATA
SUBMIT MANUFACTURERS' OPERATION AND MAINTENANCE DATA. INCLUDE WRITTEN MAINTENANCE DATA ON COMPONENTS OF SYSTEM, SERVICING REQUIREMENTS, AND RECORD DRAWINGS.

JOB CONDITIONS
FIRE PROTECTION CONTRACTOR SHALL DETERMINE THE FLOW AND PRESSURE AVAILABLE AT THE SERVICE CONNECTION. THE FIRE PROTECTION CONTRACTOR IS RESPONSIBLE TO VERIFY THIS INFORMATION AND MAKE ALL TESTS REQUIRED. BASE ALL PIPE SIZING AND HYDRAULIC CALCULATIONS ON FLOW TEST DATA NO OLDER THAN 12 MONTHS.

PIPE SIZING SHOWN ON DRAWINGS IS PRELIMINARY FOR COORDINATION PURPOSES ONLY. CONTRACTOR IS RESPONSIBLE FOR FINAL SIZING FROM HYDRAULIC CALCULATIONS.

PIPE AND FITTINGS
STEEL PIPE (INSIDE BUILDING ABOVE GRADE):
1. PIPE: 2" AND UNDER - SCHEDULE 40, BLACK STEEL (OR DUCTILE IRON, MATCH EXISTING MATERIAL), ASTM A53. THREADED AND COUPLED OR FLANGED.
2. JOINTS: 2" AND UNDER - SCREWED OR FLANGED.
3. FITTINGS: SCREWED - CAST IRON (OR DUCTILE IRON, MATCH EXISTING MATERIAL), 125 LB., BLACK, ANSI/ASME B16.4 OR MALLEABLE IRON, 150 LB., BLACK, ANSI/ASME B16.3. FLANGED CAST IRON, 125 LB., ANSI/ASME B16.1.
5. PAINT WHERE INDICATED: LOW-LUSTER, ACRYLIC-ENAMEL FINISH: TWO FINISH COATS OVER A FACTORY-APPLIED PRIMER, OR INDICATED PRIMER AS APPLICABLE:
   A. PRIMER (FOR FACTORY-UNPRIMED WORK): WATERBORNE, RUST INHIBITIVE, ACRYLIC PRIMER; TOTAL DRY FILM THICKNESS OF NOT LESS THAN 2.0 MILS. 1) SUPERSPEC HP ACRYLIC METAL PRIMER P04.
   B. FINISH COATS: LOW-LUSTER (EGGSHELL), ACRYLIC-LATEX, INTERIOR ENAMEL; TOTAL DRY FILM THICKNESS OF NOT LESS THAN 2.6 MILS. 1) SUPER SPEC LATEX EGGSHELL ENAMEL 274. 2)
   C. COLOR: SELECTED BY OWNER.

STEEL PIPE (INSIDE BUILDING ABOVE GRADE):
1. PIPE: 2-1/2" AND OVER - SCHEDULE 10, BLACK STEEL (OR DUCTILE IRON, MATCH EXISTING MATERIAL), GROOVED, ASTM A135.
2. JOINTS: MECHANICALLY COUPLED GROOVED.
3. FITTINGS: 500 LB. WOG, BLACK, MALLEABLE IRON, ASTM A47.
4. PLAIN END FITTINGS AND COUPLINGS ARE NOT ACCEPTABLE.
5. PAINT WHERE INDICATED: LOW-LUSTER, ACRYLIC-ENAMEL FINISH: TWO FINISH COATS OVER A FACTORY-APPLIED PRIMER, OR INDICATED PRIMER AS APPLICABLE:
   A. PRIMER (FOR FACTORY-UNPRIMED WORK): WATERBORNE, RUST INHIBITIVE, ACRYLIC PRIMER; TOTAL DRY FILM THICKNESS OF NOT LESS THAN 2.0 MILS. 1) SUPERSPEC HP ACRYLIC METAL PRIMER P04.
   B. FINISH COATS: LOW-LUSTER (EGGSHELL), ACRYLIC-LATEX, INTERIOR ENAMEL; TOTAL DRY FILM THICKNESS OF NOT LESS THAN 2.6 MILS. 1) SUPER SPEC LATEX EGGSHELL ENAMEL 274. 2)
   C. COLOR: SELECTED BY OWNER.

UNIONS AND COUPLINGS
UNIONS: 175 PSI MALLEABLE IRON FOR THREADED FERROUS PIPING.

MECHANICAL GROOVED COUPLINGS: MALLEABLE IRON HOUSING CLAMPS TO ENGAGE AND LOCK, DESIGNED TO PERMIT SOME ANGULAR AND LONGITUDINAL DEFLECTION; "C" SHAPED COMPOSITION SEALING GASKET, STEEL BOLTS, NUTS, AND WASHERS. 175 PSI, ASTM A47. PLAIN END FITTINGS AND COUPLINGS ARE NOT ACCEPTABLE.
ROLLED GROOVE COUPLINGS
FOR SCHEDULE 10 PIPE. CUT GROOVE COUPLINGS FOR SCHEDULE 40 PIPE. COUPLINGS SHALL BE ENAMEL COATED FOR WET SYSTEMS AND GALVANIZED FOR DRY PIPE SYSTEMS. ACCEPTABLE MANUFACTURERS: VICTAULIC, ITT, GRINNELL, CENTRAL, ANVIL GRUVLOK, STAR FITTINGS.

COUPLINGS USED IN SEISMIC AREAS SHALL BE "FLEXIBLE" TYPE.

COUPLING GASKETS FOR WET SYSTEMS SHALL BE GRADE "E" EDPM TYPE A. GASKETS FOR DRY PIPE SYSTEMS SHALL BE LISTED FOR DRY PIPE SERVICE, VICTAULIC FLUSHSEAL OR EQUIVALENT.

VALVE CONNECTIONS
PROVIDE ALL CONNECTIONS TO MATCH PIPE JOINTS. VALVES SHALL BE SAME SIZE AS PIPE.

INSTALLATION - PIPING
COORDINATE PIPING AND SPRINKLER LOCATIONS WITH ALL OTHER TRADES. DUCTWORK, DIFFUSERS AND LIGHT FIXTURE LOCATIONS SHALL HAVE PRIORITY OVER SPRINKLER PIPING AND SPRINKLERS. LOCATE PIPING TO MINIMIZE OBSTRUCTION OF OTHER WORK. ROUTE PIPING IN CONCEALED SPACES ABOVE FINISHED CEILING. USE FULL AND DOUBLE LENGTHS OF PIPE WHEREVER POSSIBLE. SLOPE ALL PIPING FOR COMPLETE DRAINAGE. INSTALL AUXILIARY DRAINS FOR ALL TRAPPED PIPING PER NFPA 13.

REAM PIPE AND TUBE ENDS TO FULL INSIDE DIAMETER. REMOVE BURRS. REMOVE SCALE AND FOREIGN MATERIAL, INSIDE AND OUTSIDE, BEFORE ASSEMBLY.

DIE CUT SCREW JOINTS WITH FULL CUT STANDARD TAPER PIPE THREADS. COAT THREADS WITH PIPE JOINT COMPOUND OR WRAP WITH TEFLON TAPE.

REDUCERS ARE GENERALLY NOT SHOWN. WHERE PIPE SIZES CHANGE AT TEE, THE TEE SHALL BE THE SIZE OF THE LARGEST PIPE SHOWN CONNECTING TO IT.

COMPLY WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS.

STEEL PIPING:
IN STEEL PIPING, MAIN SIZED SADDLE BRANCH CONNECTIONS OR DIRECT CONNECTION OF BRANCHES TO MAIN IS PERMITTED IF MAIN IS ONE PIPE SIZE LARGER THAN THE BRANCH FOR UP TO 6" MAINS AND IF MAIN IS TWO PIPE SIZES LARGER THAN BRANCH FOR 8" AND LARGER MAINS. DO NOT PROJECT BRANCH PIPES INTO MAIN PIPES.

WALL/FLOOR PENETRATION:
PROVIDE SLEEVES WHEN PENETRATING FLOORS AND WALLS.

SEAL PIPES PASSING THROUGH EXTERIOR WALLS WITH A WALL SEAL PER SECTION 21 05 29. PROVIDE SCHEDULE 40 GALVANIZED SLEEVE AT LEAST 2 PIPE SIZES LARGER THAN THE PIPE. SLEEVES THROUGH FLOORS SHALL EXTEND MINIMUM 1.5" ABOVE FINISHED FLOOR.

FIRE SEAL ALL PIPE AND SLEEVE PENETRATIONS (BOTH WALL AND FLOOR) TO MAINTAIN FIRE SEPARATION REQUIRED WITHOUT RESTRAINING PIPE.

INSTALLATION REQUIREMENTS IN ELECTRICAL ROOMS:
DO NOT INSTALL PIPING OR OTHER EQUIPMENT ABOVE ELECTRICAL SWITCHBOARDS OR PANELBOARDS. THIS INCLUDES A DEDICATED SPACE EXTENDING 25 FEET FROM THE FLOOR TO THE STRUCTURAL CEILING WITH WIDTH AND DEPTH EQUAL TO THE EQUIPMENT. FIRE PROTECTION EQUIPMENT DEDICATED TO THE ELECTRICAL EQUIPMENT ROOM OR SPACE MAY BE INSTALLED ABOVE EQUIPMENT IF OTHER ALTERNATIVES ARE NOT AVAILABLE.

HANGERS AND SUPPORTS:
PROVIDE HANGERS AND SUPPORTS AS REQUIRED BY NFPA 13 AND UL/FM, WITH THE FOLLOWING EXCEPTIONS:
1. DO NOT USE POWDER DRIVEN DEVICES, EXPLOSIVE DEVICES, WOODEN PLUGS, OR PLASTIC INSERTS.
2. DO NOT INSTALL FASTENERS TO CARRY THE LOAD IN TENSION, UNLESS ABSOLUTELY NECESSARY.

EXPOSED PIPING:
1. INSTALL CHROME PLATED STEEL ESCUTCHEONS WHERE EXPOSED PIPES PENETRATE WALLS OR FLOORS.

INSTALLATION - VALVES
INSTALL GATE VALVES WITH STEMS UPRIGHT OR HORIZONTAL, NOT INVERTED. PROVIDE DRAIN VALVES AT MAIN SHUTOFF VALVES, LOW POINTS OF PIPING AND APPARATUS.

INSTALLATION - EQUIPMENT
LOCATE SPRINKLERS TO CLEAR LIGHTS, DUCTS AND DIFFUSERS. DO NOT RUN SPRINKLER PIPES THROUGH DUCTS. DUCTWORK HAS PRIORITY OVER SPRINKLER PIPES. OFFSET PIPES AS NEEDED.

CENTER SPRINKLERS IN TWO DIRECTIONS IN CEILING TILES AND PROVIDE OFFSETS AS REQUIRED.

DO NOT ALLOW CONCEALED SPRINKLER COVER PLATES TO BE PAINTED. SPRINKLER COVER PLATES ARE TO BE FACTORY PAINTED ONLY. DO NOT FIELD PAINT.

APPLY STRIPPABLE OR PAPER COVERS SO CONCEALED SPRINKLER COVER PLATES DO NOT RECEIVE FIELD PAINT FINISH.

CITY OF ANN ARBOR MICHIGAN

BAKER COMMONS FIRE SUPPRESSION DESIGN

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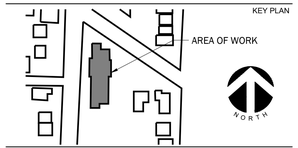
KEY PLAN



AGENCY APPROVAL

DISCLAIMER

REFERENCE SCALE IN INCHES
0 1 2

REVISIONS

No.	Date	Revision / Issue
A	04/29/2022	75% REVIEW
B	04/10/2023	90% REVIEW
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SHEET INFORMATION

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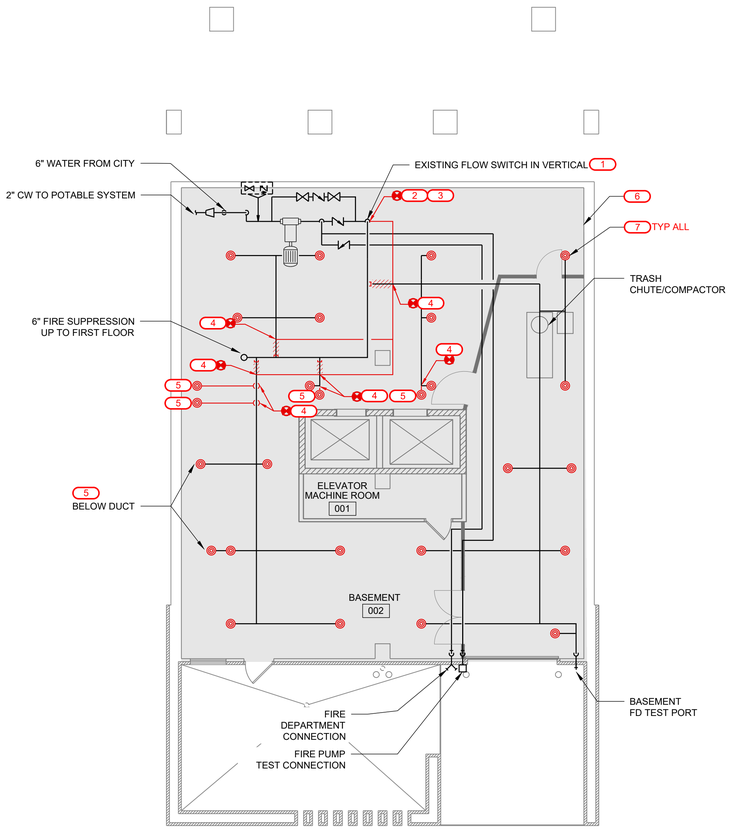
Date	04/15/2024
Job Number	22001234.00
Drawn	I. PLACE
Checked	D. LLEWELLYN
Approved	D. NIETHAMMER

SHEET TITLE
SPECIFICATIONS

SCALE
NONE

SHEET NUMBER
G002



1 BASEMENT PLAN - FIRE SUPRESSION DEMOLITION AND NEW WORK

1/8" = 1'-0" (FOR 24"x36" DRAWINGS ONLY)

DRAWING NOTES:

1. FIRE PROTECTION PIPE ROUTING IS SHOWN TO INDICATE DESIGN INTENT. FIRE PROTECTION CONTRACTOR SHALL PROVIDE DETAILED WORKING DRAWINGS, INCLUDING BUT NOT LIMITED TO; EXACT NUMBER AND LOCATION OF SPRINKLERS, PIPE SIZING AND ROUTING BASED ON HYDRAULIC CALCULATIONS, HANGER LOCATIONS, SIESMIC BRACING CALCULATIONS, ETC. REFER TO NFPA 13 FOR COMPLETE LIST OF REQUIREMENTS. SUBMIT TO A/E AND AHJ FOR APPROVAL.
2. SEE GENERAL NOTES, SPECIFICATIONS, AND ADDITIONAL PROJECT INFORMATION ON GENERAL DRAWINGS.
3. NEW WORK SHOWN IN RED.
4. DRAWINGS DIAGRAMMATICALLY INDICATE THE GENERAL SCOPE OF WORK, BUT DO NOT PROVIDE EXACT SCALE OR LOCATIONS. PROPER INSTALLATION OF ALL SYSTEMS, AFTER COORDINATION WITH OTHER TRADES, IS THE CONTRACTORS RESPONSIBILITY.
5. ELEVATIONS ON DRAWINGS ARE TO BOTTOM OF FIXTURE OR AS OTHERWISE NOTED.
6. PAINT ALL EXPOSED PIPING TO MATCH BACKGROUND OR AS DIRECTED BY OWNER.
7. CONTRACTOR IS RESPONSIBLE FOR ALL ARCHITECTURAL REPAIRS ASSOCIATED WITH THIS PROJECT.
8. ACTIVATION OF FIRE SUPPRESSION SYSTEM SHALL ALSO ACTIVATE FIRE ALARM SYSTEM/STROBE AND ANNUNCIATOR SYSTEM.
9. CONTRACTOR TO PROVIDE FIRE WATCH ANY TIME THE FIRESUPPRESSION SYSTEM IS DEACTIVATED.
10. COORDINATE WORK WITH OWNER, ENGINEER, OTHER TRADES, AND FIRE ALARM COMPANY.
11. NEW FIRE SUPPRESSION PIPING SHALL BE ROUTED TO AVOID BLOCKING EXISTING ELECTRICAL JUNCTION BOXES.

KEYNOTES: (X)

1. DEMOLISH EXISTING FLOW SWITCH FOR BUILDING. COORDINATE DEMOLITION OF FLOW SWITCH WITH PROJECT SCHEDULE AND REQUIREMENTS FOR MAINTAINING BUILDING LIFE SAFETY. INSTALL NEW FLOW SWITCH FOR BASEMENT.
2. TIE-INTO EXISTING 4" PIPING. INSTALL VALVES PER DETAIL ON DRAWING F202. NO NEW INSPECTOR TEST AND DRAIN VALVE IS REQUIRED (EXISTING ON WEST EXTERIOR WALL). FLOW SWITCHS INSTALLED UNDER THIS FIRE SUPPRESSION CONTRACT. WIRED TO PANEL BY FIRE ALARM CONTRACTOR.
3. INSTALL NEW PIPING AS SHOWN
4. DISCONNECT EXISTING BASEMENT PIPING FROM FIRE SUPPRESSION MAIN AND CAP. TIE EXISTING SPRINKLERS AND PIPING INTO NEW AS SHOWN.
5. INSTALL NEW SPRINKLER HEADS BELOW DUCTWORK (TYP OF 4)
6. SHADED AREAS SHALL BE REVIEWED FOR COMPLIANCE WITH CURRENT FIRE SUPPRESSION CODES BY CONTRACTOR.
7. REPLACE ALL EXISTING SPRINKLER HEADS WITH NEW.

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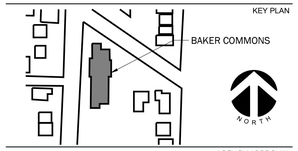
KEY PLAN



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SHEET INFORMATION

Issue	ISSUED FOR BIDS
Date	04/15/2024
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Drawn	I. PLACE
Checked	D. LLEWELLYN
Approved	D. NIETHAMMER

SHEET TITLE

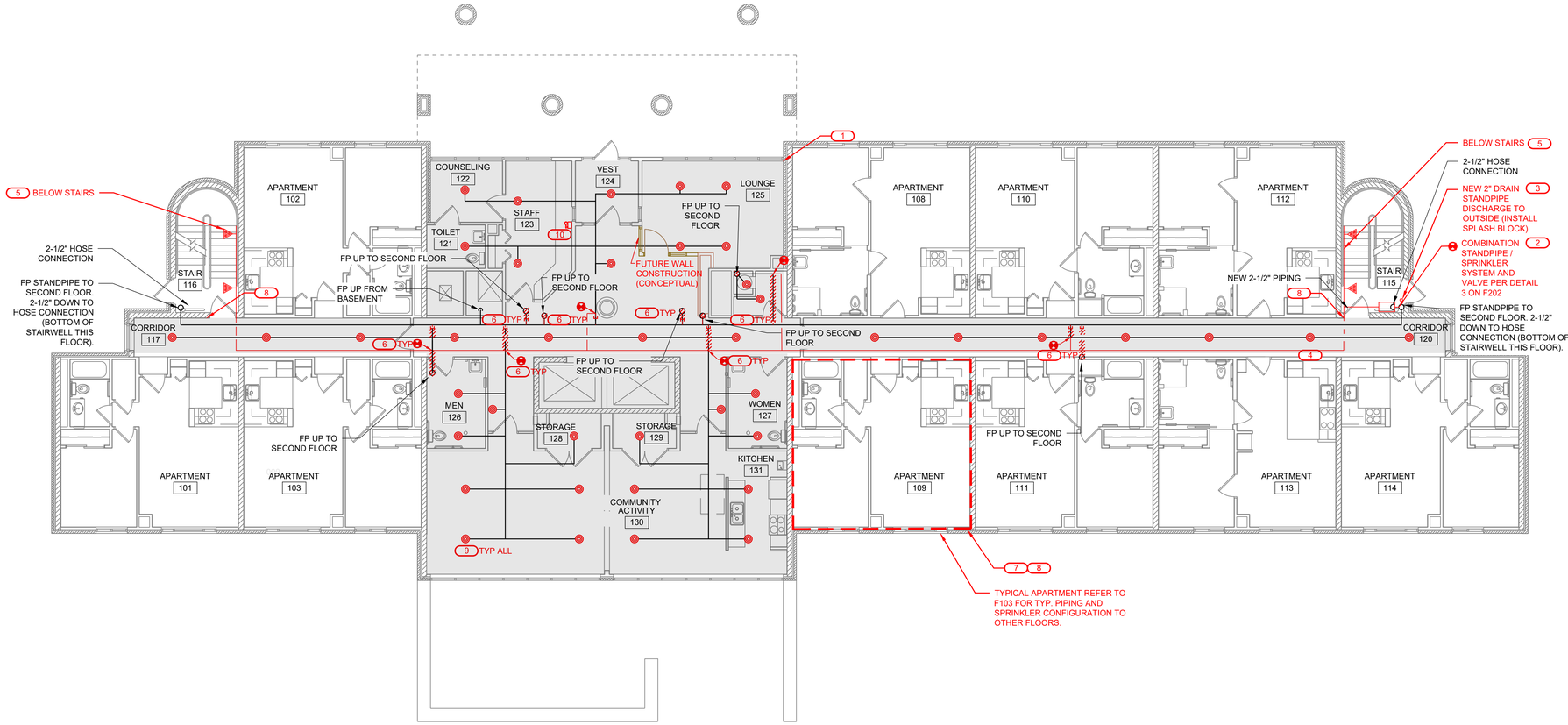
BASEMENT PLAN FIRE SUPPRESSION DEMOLITION AND NEW WORK

SCALE

NONE

SHEET NUMBER

F101



1 FIRST FLOOR PLAN - FIRE SUPRESSION NEW WORK

1/8" = 1'-0" (24"x36" DRAWINGS)

DRAWING NOTES:

1. FIRE PROTECTION PIPE ROUTING IS SHOWN TO INDICATE DESIGN INTENT. FIRE PROTECTION CONTRACTOR SHALL PROVIDE DETAILED WORKING DRAWINGS, INCLUDING BUT NOT LIMITED TO; EXACT NUMBER AND LOCATION OF SPRINKLERS, PIPE SIZING AND ROUTING BASED ON HYDRAULIC CALCULATIONS, HANGER LOCATIONS, SIESMIC BRACING CALCULATIONS, ETC. REFER TO NFPA 13 FOR COMPLETE LIST OF REQUIREMENTS. SUBMIT TO A/E AND AHJ FOR APPROVAL.
2. SEE GENERAL NOTES, SPECIFICATIONS, AND ADDITIONAL PROJECT INFORMATION ON GENERAL DRAWINGS.
3. NEW WORK SHOWN IN RED.
4. DRAWINGS DIAGRAMMATICALLY INDICATE THE GENERAL SCOPE OF WORK, BUT DO NOT PROVIDE EXACT SCALE OR LOCATIONS. PROPER INSTALLATION OF ALL SYSTEMS, AFTER COORDINATION WITH OTHER TRADES, IS THE CONTRACTORS RESPONSIBILITY.
5. ELEVATIONS ON DRAWINGS ARE TO BOTTOM OF FIXTURE OR AS OTHERWISE NOTED.
6. PAINT ALL EXPOSED PIPING TO MATCH BACKGROUND OR AS DIRECTED BY OWNER.
7. CONTRACTOR IS RESPONSIBLE FOR ALL ARCHITECTURAL REPAIRS ASSOCIATED WITH THIS PROJECT.
8. ACTIVATION OF FIRE SUPPRESSION SYSTEM SHALL ALSO ACTIVATE FIRE ALARM SYSTEM/STROBE AND ANNUNCIATOR SYSTEM.
9. CONTRACTOR TO PROVIDE FIRE WATCH ANY TIME THE FIRESUPPRESSION SYSTEM IS DEACTIVATED.
10. COORDINATE WORK WITH OWNER, ENGINEER, OTHER TRADES, AND FIRE ALARM COMPANY.
11. NEW FIRE SUPPRESSION PIPING SHALL BE ROUTED TO AVOID BLOCKING EXISTING ELECTRICAL JUNCTION BOXES.

KEYNOTES: (X)

1. SHADED AREAS TO BE REVIEWED FOR COMPLIANCE WITH CURRENT FIRE SUPPRESSION CODES.
2. INSTALL NEW TAP AT 4" STANDPIPE AND COMPONENTS AS SHOWN. FLOW SWITCH INSTALLED UNDER THIS FIRE SUPPRESSION CONTRACT. WIRED TO PANEL BY FIRE ALARM CONTRACTOR.
3. INSTALL NEW DRAIN STANDPIPE AS SHOWN. REFER TO SCHEMATIC ON F201 FOR ADDITIONAL INFORMATION.
4. INSTALL NEW FIRE SUPPRESSION PIPING DOWN HALLWAY AS SHOWN.
5. INSTALL NEW FIRE SUPPRESSION PIPING AND SPRINKLERS IN STAIRWELL AS SHOWN.
6. DISCONNECT SPRINKLERS AND PIPING FROM EXISTING RISERS BETWEEN FLOORS AS SHOWN. ABANDON RISERS IN PLACE AND RECONNECT EXISTING SPRINKLER PIPING TO NEW HALLWAY MAIN PIPING AS SHOWN.
7. INSTALL FIRE SUPPRESSION SPRINKLERS IN TYPICAL APARTMENTS AS SHOWN ON ALL FLOORS.
8. ALL WALL PENETRATIONS AND SLEEVES BY FIRE SUPPRESSION CONTRACTOR. FIRE SUPPRESSION CONTRACTOR TO COORDINATE WITH FIRE ALARM CONTRACTOR ON LOCATION AND SIZE OF WALL OPENINGS. FIRE ALARM CONDUIT AND WIRING BY FIRE ALARM CONTRACTOR.
9. REPLACE ALL EXISTING SPRINKLER HEADS WITH NEW.
10. INSTALL NEW HORNSTROBE IN LOBBY ALARMING DURING WATER FLOW. PROVIDE SIGN DENOTING A WATER FLOW EVENT (COORDINATE WITH OWNER FOR EXACT SIGNAGE WORDING).

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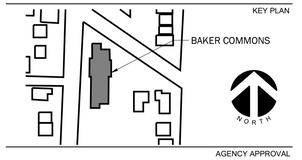

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SHEET INFORMATION

Issue	ISSUED FOR BIDS
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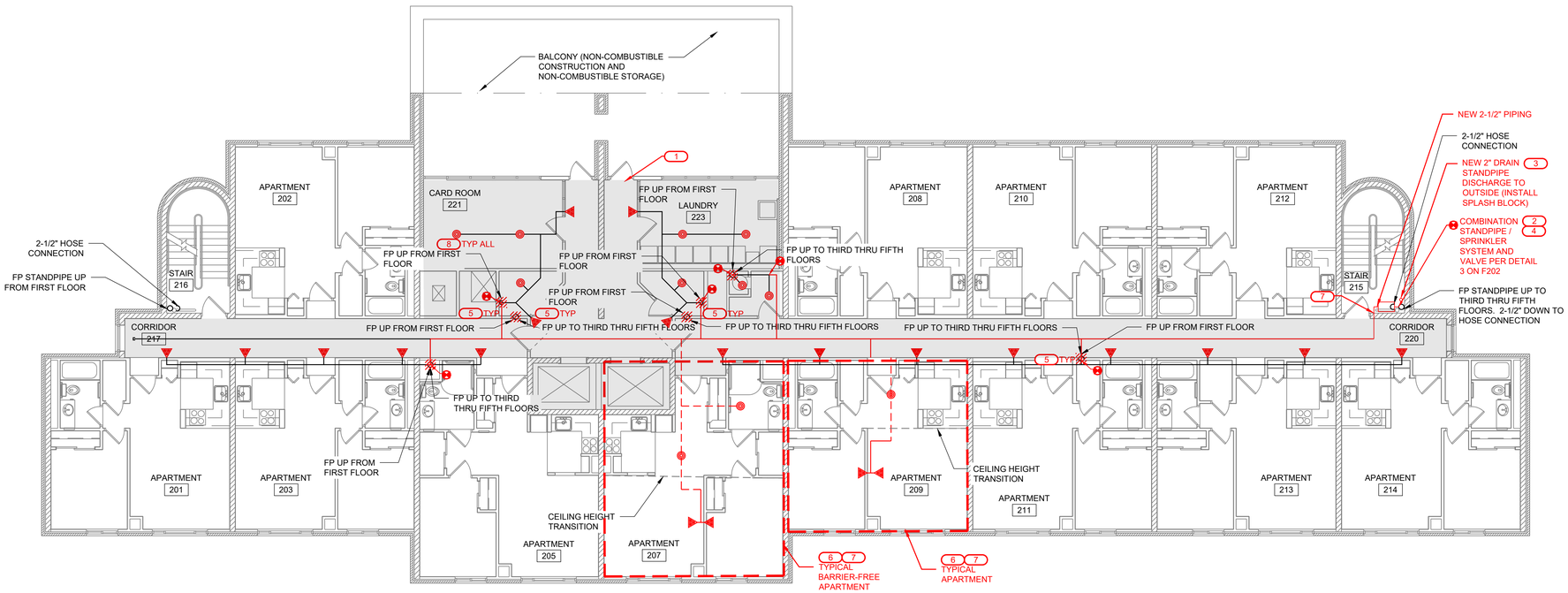
Job Number	22001234.00
Drawn	I. PLACE
Checked	D. LLEWELLYN
Approved	D. NIETHAMMER

SHEET TITLE
FIRST FLOOR PLAN
FIRE SUPPRESION NEW WORK

SCALE
NONE

SHEET NUMBER
F102



1 SECOND FLOOR PLAN - FIRE SUPRESSION NEW WORK

1/8" = 1'-0" (24"x36" DRAWINGS)

DRAWING NOTES:

1. FIRE PROTECTION PIPE ROUTING IS SHOWN TO INDICATE DESIGN INTENT. FIRE PROTECTION CONTRACTOR SHALL PROVIDE DETAILED WORKING DRAWINGS, INCLUDING BUT NOT LIMITED TO; EXACT NUMBER AND LOCATION OF SPRINKLERS, PIPE SIZING AND ROUTING BASED ON HYDRAULIC CALCULATIONS, HANGER LOCATIONS, SIESMIC BRACING CALCULATIONS, ETC. REFER TO NFPA 13 FOR COMPLETE LIST OF REQUIREMENTS. SUBMIT TO A/E AND AHJ FOR APPROVAL.
2. SEE GENERAL NOTES, SPECIFICATIONS, AND ADDITIONAL PROJECT INFORMATION ON GENERAL DRAWINGS.
3. NEW WORK SHOWN IN RED.
4. DRAWINGS DIAGRAMMATICALLY INDICATE THE GENERAL SCOPE OF WORK, BUT DO NOT PROVIDE EXACT SCALE OR LOCATIONS. PROPER INSTALLATION OF ALL SYSTEMS, AFTER COORDINATION WITH OTHER TRADES, IS THE CONTRACTORS RESPONSIBILITY.
5. ELEVATIONS ON DRAWINGS ARE TO BOTTOM OF FIXTURE OR AS OTHERWISE NOTED.
6. PAINT ALL EXPOSED PIPING TO MATCH BACKGROUND OR AS DIRECTED BY OWNER.
7. CONTRACTOR IS RESPONSIBLE FOR ALL ARCHITECTURAL REPAIRS ASSOCIATED WITH THIS PROJECT.
8. ACTIVATION OF FIRE SUPPRESSION SYSTEM SHALL ALSO ACTIVATE FIRE ALARM SYSTEM/STROBE AND ANNUNCIATOR SYSTEM.
9. CONTRACTOR TO PROVIDE FIRE WATCH ANY TIME THE FIRESUPPRESSION SYSTEM IS DEACTIVATED.
10. COORDINATE WORK WITH OWNER, ENGINEER, OTHER TRADES, AND FIRE ALARM COMPANY.
11. NEW FIRE SUPPRESSION PIPING SHALL BE ROUTED TO AVOID BLOCKING EXISTING ELECTRICAL JUNCTION BOXES.

KEYNOTES: (X)

1. SHADED AREAS TO BE REVIEWED FOR COMPLIANCE WITH CURRENT FIRE SUPPRESSION CODES.
2. INSTALL NEW TAP AT 4" STANDPIPE AND COMPONENTS AS SHOWN. FLOW SWITCHES INSTALLED UNDER THIS FIRE SUPPRESSION CONTRACT. WIRED TO PANEL BY FIRE ALARM CONTRACTOR.
3. INSTALL NEW DRAIN STANDPIPE AS SHOWN. REFER TO SCHEMATIC ON F201 FOR ADDITIONAL INFORMATION.
4. INSTALL NEW FIRE SUPPRESSION PIPING DOWN HALLWAY AS SHOWN.
5. DISCONNECT SPRINKLERS AND PIPING FROM EXISTING RISERS BETWEEN FLOORS AS SHOWN. ABANDON RISERS IN PLACE AND RECONNECT EXISTING SPRINKLER PIPING TO NEW HALLWAY MAIN PIPING AS SHOWN.
6. INSTALL FIRE SUPPRESSION SPRINKLERS IN TYPICAL APARTMENTS AS SHOWN ON ALL FLOORS.
7. ALL WALL PENETRATIONS AND SLEEVES BY FIRE SUPPRESSION CONTRACTOR. FIRE SUPPRESSION CONTRACTOR TO COORDINATE WITH FIRE ALARM CONTRACTOR ON LOCATION AND SIZE OF WALL OPENINGS. FIRE ALARM CONDUIT AND WIRING BY FIRE ALARM CONTRACTOR.
8. REPLACE ALL EXISTING SPRINKLER HEADS WITH NEW.

CITY OF ANN ARBOR MICHIGAN

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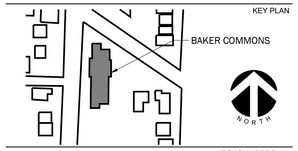
KEY PLAN



AGENCY APPROVAL

REFERENCE SCALE IN INCHES

0 1 2

REVISIONS

No.	Date	Revision / Issue
A	04/29/2022	75% REVIEW
B	04/10/2023	90% REVIEW
C	04/15/2024	ISSUED FOR BIDS

SHEET INFORMATION

Issue	ISSUED FOR BIDS
Date	04/15/2024
Job Number	22001234.00
Drawn	I. PLACE
Checked	D. LLEWELLYN
Approved	D. NIETHAMMER

SHEET TITLE

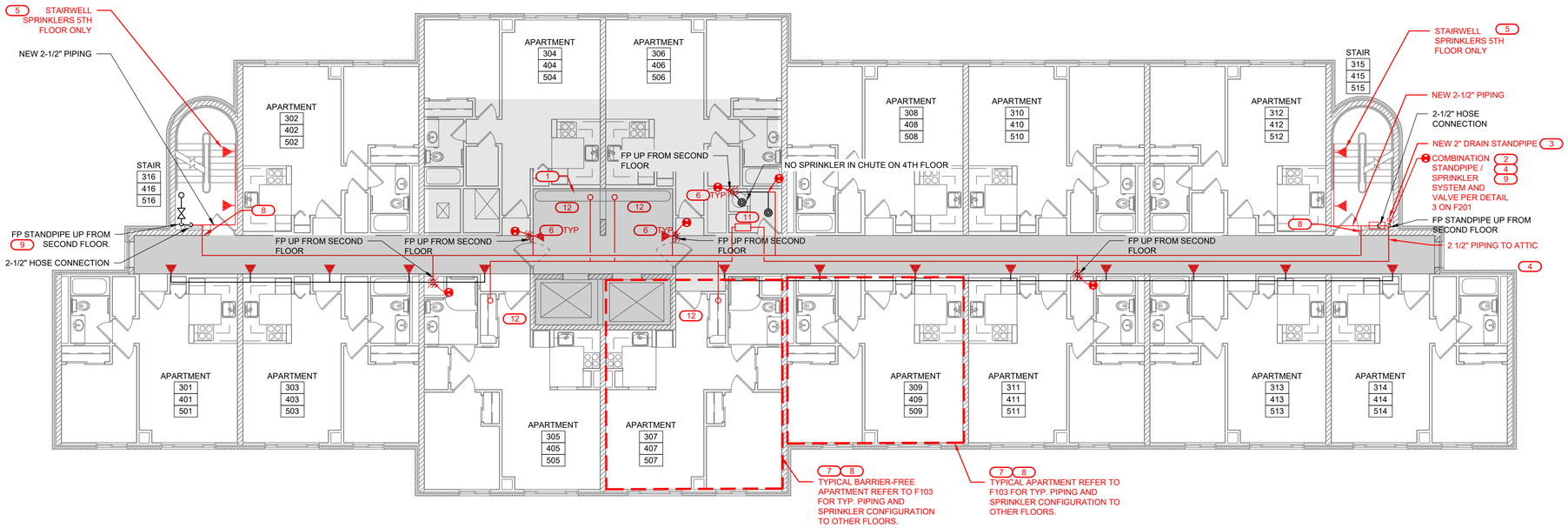
SECOND FLOOR PLAN
FIRE SUPPRESSION NEW WORK

SCALE

NONE

SHEET NUMBER

F103



NORTH

1 THIRD THRU FIFTH FLOOR PLAN - FIRE SUPRESSION NEW WORK

1/8" = 1'-0" (24"x36" DRAWINGS)

DRAWING NOTES:

1. FIRE PROTECTION PIPE ROUTING IS SHOWN TO INDICATE DESIGN INTENT. FIRE PROTECTION CONTRACTOR SHALL PROVIDE DETAILED WORKING DRAWINGS, INCLUDING BUT NOT LIMITED TO; EXACT NUMBER AND LOCATION OF SPRINKLERS, PIPE SIZING AND ROUTING BASED ON HYDRAULIC CALCULATIONS, HANGER LOCATIONS, SIESMIC BRACING CALCULATIONS, ETC. REFER TO NFPA 13 FOR COMPLETE LIST OF REQUIREMENTS. SUBMIT TO A/E AND AHJ FOR APPROVAL.
2. SEE GENERAL NOTES, SPECIFICATIONS, AND ADDITIONAL PROJECT INFORMATION ON GENERAL DRAWINGS.
3. NEW WORK SHOWN IN RED.
4. DRAWINGS DIAGRAMMATICALLY INDICATE THE GENERAL SCOPE OF WORK, BUT DO NOT PROVIDE EXACT SCALE OR LOCATIONS. PROPER INSTALLATION OF ALL SYSTEMS, AFTER COORDINATION WITH OTHER TRADES, IS THE CONTRACTORS RESPONSIBILITY.
5. ELEVATIONS ON DRAWINGS ARE TO BOTTOM OF FIXTURE OR AS OTHERWISE NOTED.
6. PAINT ALL EXPOSED PIPING TO MATCH BACKGROUND OR AS DIRECTED BY OWNER.
7. CONTRACTOR IS RESPONSIBLE FOR ALL ARCHITECTURAL REPAIRS ASSOCIATED WITH THIS PROJECT.
8. ACTIVATION OF FIRE SUPPRESSION SYSTEM SHALL ALSO ACTIVATE FIRE ALARM SYSTEM/STROBE AND ANNUNCIATOR SYSTEM.
9. CONTRACTOR TO PROVIDE FIRE WATCH ANY TIME THE FIRESUPPRESSION SYSTEM IS DEACTIVATED.
10. COORDINATE WORK WITH OWNER, ENGINEER, OTHER TRADES, AND FIRE ALARM COMPANY.
11. NEW FIRE SUPPRESSION PIPING SHALL BE ROUTED TO AVOID BLOCKING EXISTING ELECTRICAL JUNCTION BOXES.

KEYNOTES: (X)

1. AREAS TO BE REVIEWED FOR COMPLIANCE WITH CURRENT FIRE SUPPRESSION CODES.
2. INSTALL NEW TAP AT 4" STANDPIPE AND COMPONENTS AS SHOWN. FLOW SWITCHS INSTALLED UNDER THIS FIRE SUPPRESSION CONTRACT. WIRED TO PANEL BY FIRE ALARM CONTRACTOR.
3. INSTALL NEW DRAIN STANDPIPE AS SHOWN. REFER TO SCHEMATIC ON F201 FOR ADDITIONAL INFORMATION.
4. INSTALL NEW FIRE SUPPRESSION PIPING DOWN HALLWAY AS SHOWN.
5. INSTALL NEW FIRE SUPPRESSION PIPING AND SPRINKLERS IN STAIRWELL AS SHOWN.
6. DISCONNECT SPRINKLERS AND PIPING FROM EXISTING RISERS BETWEEN FLOORS AS SHOWN. ABANDON RISERS IN PLACE AND RECONNECT EXISTING SPRINKLER PIPING TO NEW HALLWAY MAIN PIPING AS SHOWN.
7. INSTALL FIRE SUPPRESSION SPRINKLERS IN TYPICAL APARTMENTS AS SHOWN ON ALL FLOORS.
8. ALL WALL PENETRATIONS AND SLEEVES BY FIRE SUPPRESSION CONTRACTOR. FIRE SUPPRESSION CONTRACTOR TO COORDINATE WITH FIRE ALARM CONTRACTOR ON LOCATION AND SIZE OF WALL OPENINGS. FIRE ALARM CONDUIT AND WIRING BY FIRE ALARM CONTRACTOR.
9. INSTALL NEW AUTOMATIC AIR VENT ON TOP OF STANDPIPE.
10. REPLACE ALL EXISTING SPRINKLER HEADS WITH NEW.
11. INSTALL NEW FLOWSWITCH, ISOLATION VALVE, DRAIN, AND GLYCOL FILL FOR ATTIC ANTIFREEZE FIRE PROTECTION SYSTEM.
12. INSTALL ISOLATION VALVE FOR EACH OF FOUR ATTIC SECTIONS AND PENETRATE CEILING.

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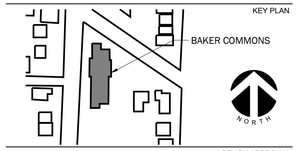

AGENCY APPROVAL

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REVISIONS

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SHEET INFORMATION

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Date	04/15/2024
Job Number	22001234.00
Drawn	I. PLACE
Checked	D. LLEWELLYN
Approved	D. NIETHAMMER

SHEET TITLE

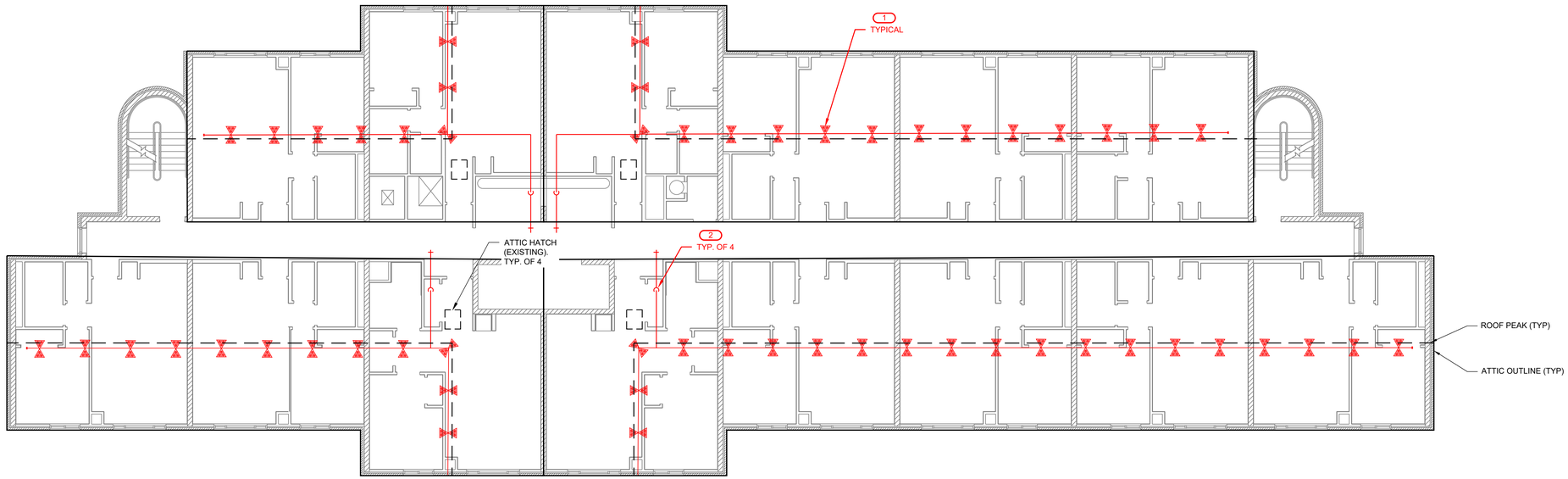
THIRD THRU FIFTH FLOOR PLAN FIRE SUPPRESSION NEW WORK

SCALE

NONE

SHEET NUMBER

F104



NORTH

1 ATTIC FLOOR PLAN - FIRE SUPRESSION NEW WORK

1/8" = 1'-0" (24"x36" DRAWINGS)

DRAWING NOTES:

1. FIRE PROTECTION PIPE ROUTING IS SHOWN TO INDICATE DESIGN INTENT. FIRE PROTECTION CONTRACTOR SHALL PROVIDE DETAILED WORKING DRAWINGS, INCLUDING BUT NOT LIMITED TO; EXACT NUMBER AND LOCATION OF SPRINKLERS, PIPE SIZING AND ROUTING BASED ON HYDRAULIC CALCULATIONS, HANGER LOCATIONS, SIESMIC BRACING CALCULATIONS, ETC. REFER TO NFPA 13 FOR COMPLETE LIST OF REQUIREMENTS. SUBMIT TO A/E AND AHJ FOR APPROVAL.
2. SEE GENERAL NOTES, SPECIFICATIONS, AND ADDITIONAL PROJECT INFORMATION ON GENERAL DRAWINGS.
3. NEW WORK SHOWN IN RED.
4. DRAWINGS DIAGRAMMATICALLY INDICATE THE GENERAL SCOPE OF WORK, BUT DO NOT PROVIDE EXACT SCALE OR LOCATIONS. PROPER INSTALLATION OF ALL SYSTEMS, AFTER COORDINATION WITH OTHER TRADES, IS THE CONTRACTORS RESPONSIBILITY.
5. ELEVATIONS ON DRAWINGS ARE TO BOTTOM OF FIXTURE OR AS OTHERWISE NOTED.
6. PAINT ALL EXPOSED PIPING TO MATCH BACKGROUND OR AS DIRECTED BY OWNER.
7. CONTRACTOR IS RESPONSIBLE FOR ALL ARCHITECTURAL REPAIRS ASSOCIATED WITH THIS PROJECT.
8. ACTIVATION OF FIRE SUPPRESSION SYSTEM SHALL ALSO ACTIVATE FIRE ALARM SYSTEM/STROBE AND ANNUNCIATOR SYSTEM.
9. CONTRACTOR TO PROVIDE FIRE WATCH ANY TIME THE FIRESUPPRESSION SYSTEM IS DEACTIVATED.
10. COORDINATE WORK WITH OWNER, ENGINEER, OTHER TRADES, AND FIRE ALARM COMPANY.
11. NEW FIRE SUPPRESSION PIPING SHALL BE ROUTED TO AVOID BLOCKING EXISTING ELECTRICAL JUNCTION BOXES.

KEYNOTES: (X)

1. INSTALL NEW ANTIFREEZE FIRE SUPPRESSION SYSTEM IN ATTIC AS SHOWN.
2. INSTALL DRAIN FOR EACH OF FOUR ATTIC SECTIONS TO ROOF IN ADDITION TO SYSTEM MAIN DRAIN.

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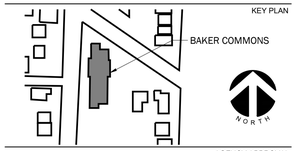

AGENCY APPROVAL

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Drawn	I. PLACE
Checked	D. LLEWELLYN
Approved	D. NIETHAMMER

SHEET TITLE

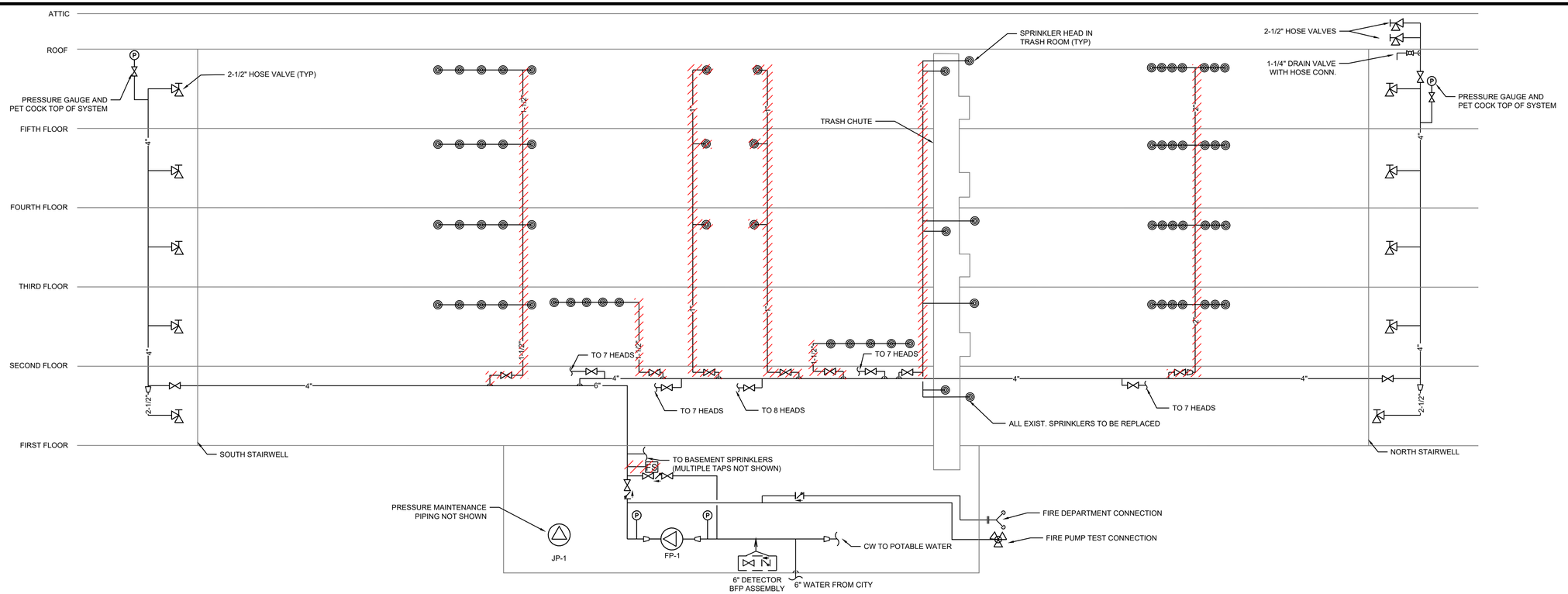
ATTIC FLOOR PLAN
FIRE SUPPRESSION NEW WORK

SCALE

NONE

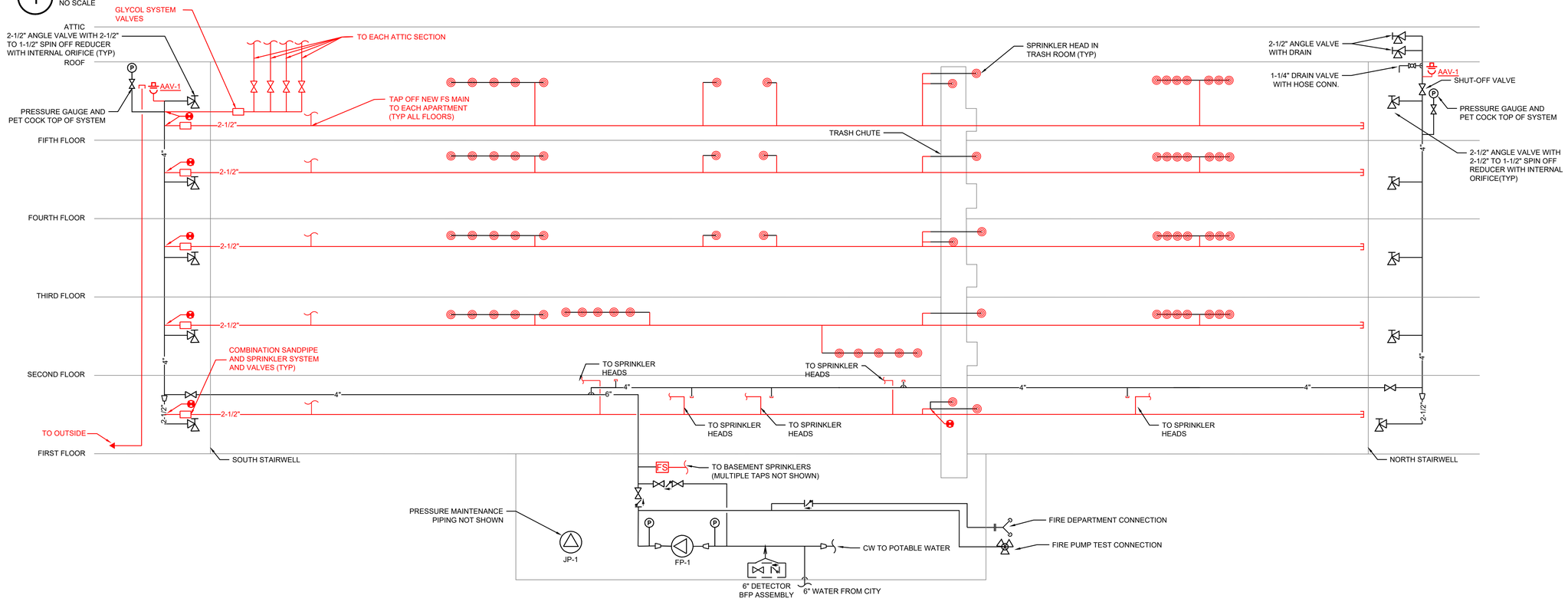
SHEET NUMBER

F105



1 FIRE SUPPRESION RISER DIAGRAM - DEMOLITION

NO SCALE



2 FIRE SUPPRESION RISER DIAGRAM - NEW WORK

NO SCALE

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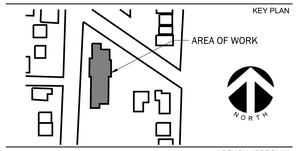

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Drawn	I. PLACE
Checked	D. LLEWELLYN
Approved	D. NIETHAMMER

SHEET TITLE

FIRE SUPPRESSION RISER DIAGRAM DEMO AND NEW WORK

SCALE

NONE

SHEET NUMBER

F201

FIRE SPRINKLER USAGE SCHEDULE

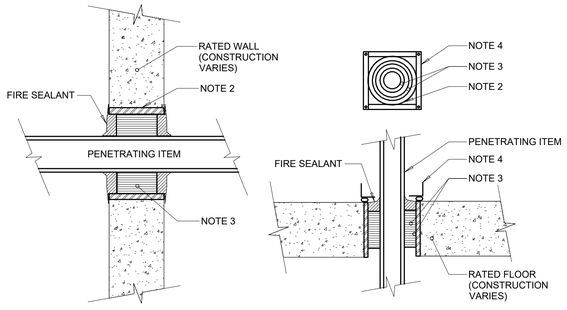
NOTES:
1.REFER TO FLOOR PLANS.
2.SPRINKLER SHALL HAVE COLOR CODED BULB THERMAL ELEMENT.
3.ALL SPRINKLERS SHALL BE UL LISTED.
4.CONTRACTOR TO VERIFY SPRINKLER REQUIREMENTS BASED ON ACTUAL INSTALLATION, USAGE, AND NFPA 13 REQUIREMENTS.
5.TAG NAME IS PRIMARILY FOR IDENTIFIYING SPRINKLERS IN SUBMITTALS. IT MAY OR MAY NOT BE FOUND ELSEWHERE ON THE DRAWINGS. CONTRACTOR TO SUBMIT ALL SPRINKLER TYPES TO BE USED.
6.AREAS ARE GENERAL IN NATURE. CONTRACTOR TO MATCH UNSCHEDULED AREAS TO SIMILAR SPACES.
7.SPRINKLERS SPECIFIED WITHIN FIRE SPRINKLER USAGE SCHEDULE ARE STANDARD COVERAGE TYPE. EXTENDED COVERAGE SPRINKLERS ARE PERMITTED PROVIDED SPRINKLERS MEET THE REQUIREMENTS OF UL.
8.SPRINKLERS SHALL BE ORDINARY TEMPERATURE RATING UNLESS REQUIRED TO BE INTERMEDIATE OR HIGH TEMPERATURE DUE TO PROXIMITY TO HEAT SOURCE. REFER TO NFPA 13 REQUIREMENTS.
CONTRACTOR SHALL REVIEW CONTRACT DRAWINGS IN FULL TO DETERMINE LOCATION OF HEAT SOURCES.

AREA TYPE (NOTE 1 & 6)	AREA HAZARD	SPRINKLER				TEMPERATURE RATING (NOTE 2)	MANUFACTURER	NOTES
		TAG NAME (NOTE 4 & 5)	SPRINKLER TYPE	RESPONSE CATEGORY	FINISH			
LIGHT HAZARD - EXPOSED STRUCTURE (ROOMS WITH NO CEILINGS, ETC.)	SEE PLANS	SPR-1	PENDENT	QUICK	ROUGH BRASS	ORDINARY (PER NFPA)	VIKING, RELIABLE, TYCO, VICTAULIC	NOTES 3, 7, 8
LIGHT HAZARD - EXPOSED STRUCTURE (ROOMS WITH NO CEILINGS, ETC.)	SEE PLANS	SPR-2	UPRIGHT	QUICK	ROUGH BRASS	ORDINARY (PER NFPA)	VIKING, RELIABLE, TYCO, VICTAULIC	NOTES 3, 7, 8
LIGHT HAZARD – ROOMS WITH DROP CEILINGS	SEE PLANS	SPR-3	FLUSH CONCEALED	QUICK	WHITE	ORDINARY (PER NFPA)	VIKING, RELIABLE, TYCO, VICTAULIC	NOTES 3, 7, 8
ORDINARY/EXTRA HAZARD - EXPOSED STRUCTURE (PARKING GARAGE, ROOMS WITH NO CEILINGS, ETC.)	SEE PLANS	SPR-4	PENDENT	STANDARD	ROUGH BRASS	ORDINARY (PER NFPA)	VIKING, RELIABLE, TYCO, VICTAULIC	NOTES 3, 7, 8
ORDINARY/EXTRA HAZARD - EXPOSED STRUCTURE (PARKING GARAGE, ROOMS WITH NO CEILINGS, ETC.)	SEE PLANS	SPR-5	UPRIGHT	STANDARD	ROUGH BRASS	ORDINARY (PER NFPA)	VIKING, RELIABLE, TYCO, VICTAULIC	NOTES 3, 7, 8
RESIDENTIAL UNITS, ADJOINING CORRIDORS	SEE PLANS	SPR-6	RESIDENTIAL FLUSH CONCEALED	RESIDENTIAL	WHITE	ORDINARY (PER NFPA)	VIKING, RELIABLE, TYCO, VICTAULIC	NOTES 3, 7, 8

FIRE PROTECTION MATERIAL LIST

NOTES:
1. INSTALL AUTOMATIC AIR VENTS (AAV) AT TOP OF STANDPIPES AND FOR EACH SPRINKLER SYSTEM.
2. CONTRACTOR TO NOTIFY ENGINEER IF SUPPRESSION SYSTEM PRESSURE (STATIC AND PUMP CHURN) IS ABOVE 175 PSI.

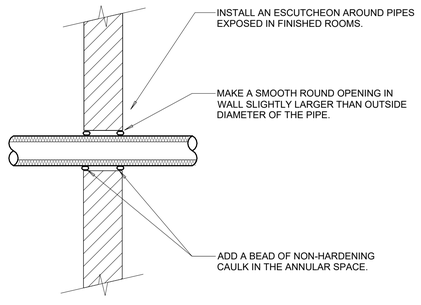
TAG NAME	DESCRIPTION	MANUFACTURER & MODEL	NOTES
AAV-1	AUTOMATIC AIR VENT, 175 PSI, CAST IRON BODY, STAINLESS STEEL ORIFICE, LINKAGE, AND FLOAT, CAST IRON VALVE COVER WITH GASKET, THREADED NPT INLET AND OUTLET, 1/2 BALL VALVE AND 1/2" STRAINER, UL/FM.	METRAFLEX MVC-15, POTTER PAV, AGF M7900AAV	NOTE 1
CK-1	SWING CHECK VALVE, 300 PSI WWP, GROOVED/FLANGED TYPE, DUCTILE IRON BODY, STAINLESS STEEL HINGE ASSOCIATED WITH RUBBER FACED CLAPPER, BRASS SEAT RING, ACCESS COVER, 1/2" OR 3/4" TAPPED BOSSES, VALVE LISTED FOR HORIZONTAL OR VERTICAL INSTALLATION, UL/FM. FLANGED TYPE IS ACCEPTABLE PROVIDED VALVE HAS THE FEATURES LISTED ABOVE.	VIKING G-1, TYCO CV-1F	NONE
FS-1	FLOW SWITCH - VANE TYPE, 450 PSI, FLOW SENSITIVITY OF 4-10 GPM, TWO SINGLE POLE DOUBLE THROW SWITCHES, PNEUMATIC RETARD ADJUSTABLE FROM 0-90 SECONDS WITH AUTOMATIC RESET, NEMA 4 INDOOR/OUTDOOR RATED METAL HOUSING, UL/FM.	POTTER VSR, SYSTEM SENSOR WFD	NONE
BF-1	INDICATING BUTTERFLY VALVE, NORMALLY OPEN, 175 PSI WWP, GROOVED TYPE, DUCTILE IRON BODY WITH PROTECTIVE COATING, ELECTROLESS NICKEL OR EPDM COATED DUCTILE IRON DISC, STAINLESS STEEL STEM AND SCREWS, CAST OR DUCTILE IRON HANDWHEEL, EPDM SEAT, INDICATOR FLAG, FACTORY MOUNTED INTEGRAL MONITOR SWITCHES, UL/FM. LUGGED OR WAFER VALVES ARE ACCEPTABLE PROVIDED THEY HAVE THE FEATURES LISTED ABOVE.	NIBCO GD-4765-8N, VICTAULIC SERIES 705, TYCO BFV-300, KENNEDY G300, GLOBE GLR300G, REL-BFG-300	NOTE 2
IT-1	COMBINATION INSPECTOR'S TEST AND DRAIN VALVE, 300 PSI, INTEGRAL SIGHT GLASS, BALL VALVE PLATE INDICATING OFF-TEST-DRAIN POSITIONS, FURNISHED WITH TEST ORIFICE GIVING FLOW EQUIVALENT TO ONE SPRINKLER OF A TYPE HAVING THE SMALLEST ORIFICE INSTALLED ON THE SYSTEM, PRESSURE RELIEF VALVE, UL/FM.	AGF M1011A, RELIABLE MODEL TD, VICTAULIC TESTMASTER, GLOBE UTD W/ MODEL ARV PRV	NONE



NOTES:

1. THIS GENERAL DETAIL APPLIES TO ALL ITEMS PENETRATING FIRE RATED WALLS OR FLOORS. THE INTENT IS TO MAINTAIN THE FIRE RATING AND TO ALLOW LONGITUDINAL MOVEMENT. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
2. PIPE SLEEVE IN WALL OR FLOOR, OR SMOOTH CORE DRILL. SMOOTH CORE DRILL. COORDINATE SLEEVE LOCATIONS, AND DEBUR SLEEVE. ALLOW NO GAP AROUND SLEEVE. SLEEVE SIZE SHALL ALLOW ANNULAR SPACE REQUIRED BY THE SELECTED FIRE STOP SYSTEM.
3. INSTALL BACKING MATERIAL, SUCH AS MINERAL WOOL SAFING, AS REQUIRED FOR FIRE STOP SYSTEM. INSTALL IN ACCORDANCE WITH FIRE STOP SYSTEM APPLICATION LISTING. SECURE TO WALL OR FLOOR TO ALLOW LONGITUDINAL MOVEMENT OF PENETRATING ITEM WITHOUT MOVEMENT OF FIRE BARRIER.
4. WATERTIGHT WELDED 1"x1" 20 GAUGE MINIMUM GALVANIZED SHEET METAL ANGLE FRAME, BY CONTRACTOR IN EQUIPMENT ROOMS FOR WATER STOP. PLACE A BEAD OF WATERPROOF SEALANT BETWEEN FLOOR AND BOTTOM OF ANGLE FRAME. SECURE TO FLOOR WITH MASONRY ANCHORS IN CORNERS AND ON 12" MAXIMUM CENTERS. MULTIPLE PENETRATING ITEMS MAY BE ENCLOSED IN ONE FRAME.

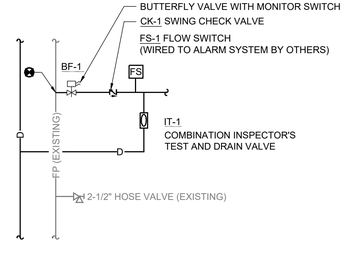
1 FLOOR/WALL PENETRATION - RATED FIRE BARRIER
NO SCALE



NOTES:

1. THIS DETAIL APPLIES TO ALL PIPES. THE INTENTION IS TO SEAL AIRTIGHT AROUND UNINSULATED PIPES FOR NOISE TRANSMISSION CONTROL.
2. FLOOR OPENINGS ARE SIMILAR.
3. REFER TO SPECIFICATION FOR ADDITIONAL INFORMATION.

2 WALL PENETRATION - NON-FIRE RATED
NO SCALE



3 COMBINATION STANDPIPE/SPRINKLER SYSTEM VALVE DETAIL
NO SCALE

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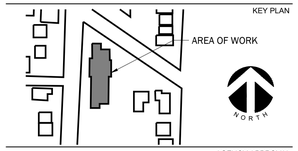

AGENCY APPROVAL

DISCLAIMER

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Checked	D. LLEWELLYN
Approved	D. NIETHAMMER

SHEET TITLE
SCHEDULES AND DETAILS

SCALE
NONE

SHEET NUMBER
F202