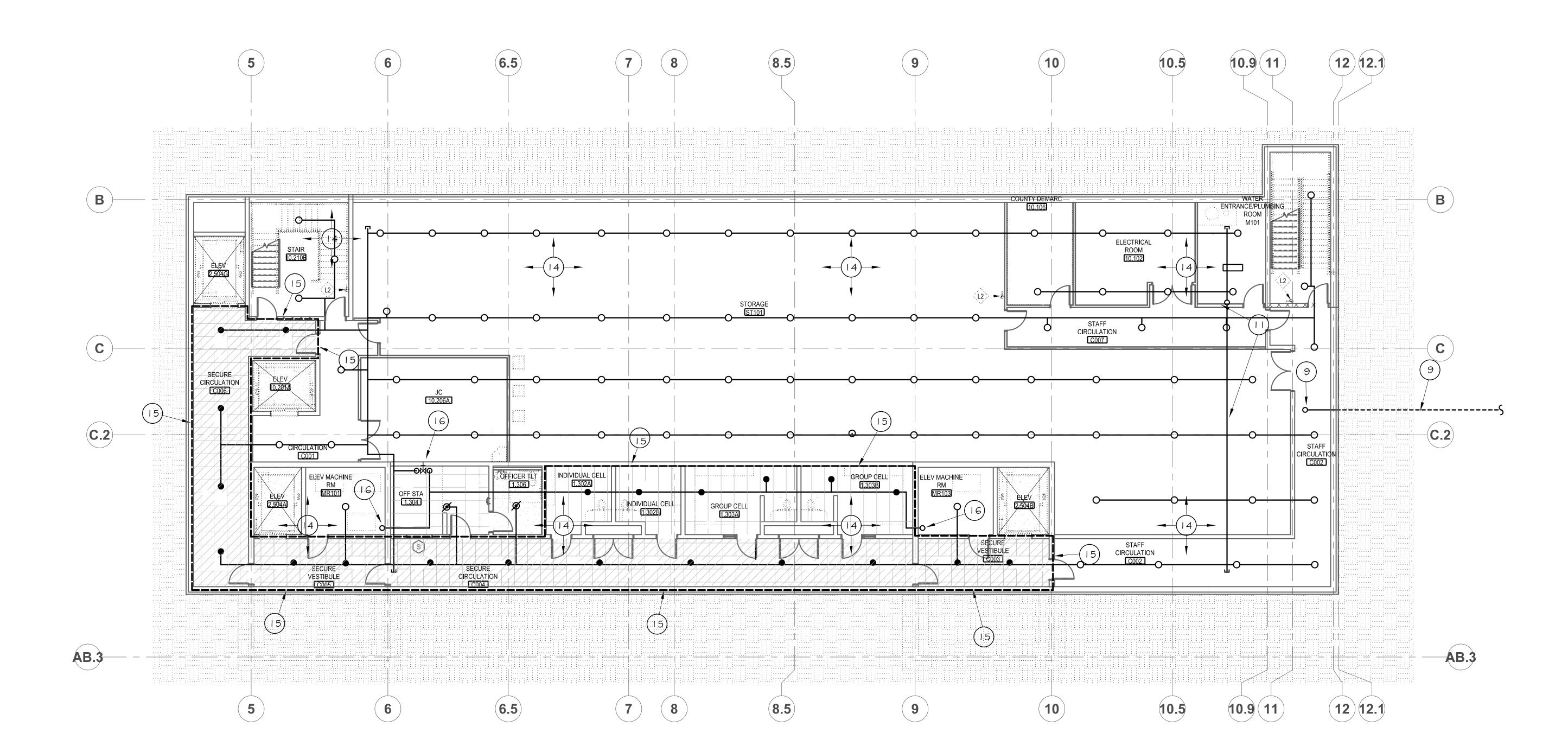


FIRE SPRINKLER RISER SCHEMATIC SCALE: NONE



EXISTING FIRE SPRINKLER RISER TO BE DEMOLISHED TO FACILITATE REMODEL OF EXISTING BUILDING. REMOVE ALL CONTROL VALVES, APPURTENANCES, BACKFLOW PREVENTER, PIPING, FITTINGS AND SUPPORTS. REMOVE PIPING FROM 12" BELOW FLOOR SLAB TO HORIZONTAL PIPING ABOVE CEILING.

EXISTING WALL MOUNTED FIRE DEPARTMENT CONNECTION (FDC) FOR EXISTING FIRE SPRINKLER SYSTEM TO BE DEMOLISHED. REMOVE FDC, PIPING, FITTINGS AND PIPE SUPPORTS/BRACES. REMOVE PIPING BACK TO POINT OF CONNECTION TO EXISTING 2-1/2" CROSS MAIN AND CAP. PATCH REMAINING HOLE IN EXTERIOR WALL. EXISTING FIRE SPRINKLER FEED OR CROSS MAIN TO REMAIN. CONTRACTOR TO FIELD VERIFY LOCATION. ELEVATION AND SIZE. EXISTING FIRE SPRINKLER FEED OR CROSS MAIN TO BE DEMOLISHED TO FACILITATE CONSTRUCTION OF 2 STORY ADDITION. REMOVE PIPING, FITTINGS, SUPPORTS AND BRACES

EXISTING FIRE PROTECTION HOSE CABINET TO BE DEMOLISHED. HOSE CABINET IS NOT REQUIRED BY CODE IN A BUILDING PROTECTED THROUGHOUT BY AN AUTOMATIC FIRE SPRINKLER SYSTEM. REMOVE HOSE, VALVE, CABINET, PIPING, FITTINGS, SUPPORTS AND BRACES. DEMOLISH PIPING BACK TO POINT OF CONNECTION TO WATER SOURCE AND CAP.

BUILDING REMODEL TO OCCUR IN HATCHED AREA. DEMO, MODIFY, ADJUST AND/OR ADD FIRE SPRINKLERS AND PIPING AS REQUIRED TO ACCOMMODATE REMODEL AND ENSURE FIRE SPRINKLER PROTECTION THROUGHOUT BUILDING IN ACCORDANCE WITH NFPA 13. REMOVE ALL EXISTING PENDENT FIRE SPRINKLERS AND PIPING DROPS AND CAP OUTLETS ON BRANCH LINES. EXISTING CROSS MAINS AND GRIDDED BRANCH LINE PIPING MAY REMAIN TO BE RE USED TO SUPPLY NEW FIRE SPRINKLERS. REFER TO ARCHITECTURAL PLANS TO DETERMINE SCOPE AND EXTENT OF REMODEL. COORDINATE WITH MECHANICAL AND ELECTRICAL SYSTEMS. LOCATIONS OF FIRE SPRINKLERS AND PIPING ON DRAWINGS IS APPROXIMATE AND SHOULD BE FIELD VERIFIED BY CONTRACTOR.

CROSS HATCHING DENOTES PORTIONS OF EXISTING BUILDING TO BE DEMOLISHED. REMOVE ALL FIRE SPRINKLERS, DROPS, PIPING, FITTINGS, SUPPORTS AND BRACES. REMOVE PIPING BACK TO POINT OF CONNECTION TO PORTIONS OF EXISTING FIRE SPRINKLER SYSTEM TO REMAIN AND CAP.

NEW 6" UNDERGROUND FIRE PROTECTION WATER SUPPLY (BY OTHERS) TO BUILDING. DESIGN, INSTALL AND TEST WATER SUPPLY IN ACCORDANCE WITH ALL APPLICABLE PROVISIONS OF NFPA 13, 24 AND LOCAL WATER PURVEYOR. CONNECT TO EXISTING PUBLIC WATER SYSTEM UNDER 6TH AVENUE. THE PUBLIC WATER SYSTEM PROVIDES THE FOLLOWING PRESSURES/FLOW: STATIC PRESSURE 78 PSI RESIDUAL PRESSURE: 640 PSI

RESIDUAL PRESSURE: 640 PSI FLOW: 1,021 GPM PIPING ENTERS BASEMENT THROUGH FOUNDATION WALL (PROVIDE PIPE SLEEVE WITH LINK SEAL). RUN PIPING OVERHEAD ACROSS CORRIDOR AND RISE UP TO FIRE RISER ROOM ABOVE. ALL PIPING BETWEEN CONNECTION TO PUBLIC WATER SYSTEM AND INLET SIDE OF BACKFLOW PREVENTER SHALL BE APPROVED FOR POTABLE WATER USE.

RISER FOR WET-PIPE FIRE SPRINKLER SYSTEM TO PROTECT EXISTING BUILDING AND PROPOSED EXPANSION. PROVIDE A SEPARATE RISER/ZONE FOR EACH FLOOR LEVEL OF THE BUILDING (3 TOTAL). RISER SHALL CONSIST OF DOUBLE CHECK ASSEMBLY, SUPERVISED CONTROL VALVE, RISER CHECK VALVE, 2" MAIN DRAIN, PRESSURE GAUGE, VANE TYPE FLOW SWITCH AND TEST VALVE. SEE DETAIL ON SHEET FP10 FEED/CROSS MAIN FOR FIRE SPRINKLER SYSTEM (SUGGESTED LOCATION). PIPING SHALL BE INSTALLED CONCEALED ABOVE CEILINGS WHERE CEILINGS ARE PROVIDED. COORDINATE WITH BUILDING CEILINGS, STRUCTURE AND MECHANICAL/ELECTRICAL SYSTEMS.

EXTEND WATER SUPPLY TO EXISTING 2" CROSS MI AN FOR GRIDDED FIRE SPRINKLER SYSTEM IN EXISTING BUILDING. WALL MOUNT, 2-WAY FIRE DEPARTMENT CONNECTION (FDC). INSTALL FDC APPROXIMATELY 36" ABOVE FINISHED EXTERIOR GRADE. CONNECT FDC TO FIRE PROTECTION WATER SUPPLY BETWEEN BACKFLOW PREVENTER AND ZONE CONTROL VALVES. CONFIGURE FDC TO ALLOW PRESSURIZATION OF ALL FIRE SPRINKLER ZONES SIMULTANEOUSLY.

INSTALL WET-PIPE FIRE SPRINKLERS TO PROVIDE FIRE PROTECTION THROUGHOUT INSTALL WET-PIPE FIRE SPRINKLERS TO PROVIDE FIRE PROTECTION THROUGHOUT EXISTING BUILDING AND BUILDING ADDITION INCLUDING ANY COMBUSTIBLE CONCEALED SPACES. DESIGN, INSTALL AND TEST IN ACCORDANCE WITH ALL APPLICABLE PROVISIONS OF NFPA 13. FIRE SPRINKLER SYSTEM SHALL BE HYDRAULICALLY DESIGNED TO PROTECT HAZARD CLASSIFICATIONS OF ORDINARY HAZARD OR LIGHT HAZARD AS APPROPRIATE FOR USE OF EACH ROOM/AREA.

FIRE SPRINKLERS INSTALL TO PROTECT INMATE HOLDING AND TRANSFER AREAS SHALL BE INSTITUTIONAL TYPE FIRE SPRINKLERS (TAMPER RESISTANCE AND ANTI-LIGATURE): QUICK RESPONSE, STANDARD ORIFICE (K-5.6), ORDINARY TEMPERATURE; WHITE PAINTED, PENDENT FIRE SPRINKLER WITH WHITE FINISH AND TRIM BLATE (TYCO TY3381) AND TRIM PLATE (TYCO TY3281)

ALL FIRE SPRINKLERS PROTECTING HOLDING CELL AREAS (ON ALL LEVELS) SHALL BE ISOLATED FROM THE FIRE SPRINKLER SYSTEM BY A SEPARATE CONTROL VALVE INSTALLED IN A READILY ACCESSIBLE LOCATION TO ALLOW SECURITY THE SOUNDLE INSTALLED IN A READILY ACCESSIBLE LOCATION TO ALLOW SECURITY THE HOLDING TO RAPIDLY STOP THE FLOW OF WATER TO THE FIRE SPRINKLERS IN THE HOLDING CELLS IN THE EVENT OF FIRE SPRINKLER TAMPERING WITHOUT INTERRUPTING FIRE SPRINKLER PROTECTION IN THE REMAINDER OF THE BUILDING. INSTALL A SUPERVISED CONTROL VALVE IN OFFICER STATION 1.304 LOCATED IN BASEMENT SECURITY AREA. MOUNT CONTROL VALVE EXPOSED ALONG WALL AT A HEIGHT OF 5'-0" ABOVE FINISHED FLOOR AND PROVIDE SIGN TO CLEAR INDICATE VALVE FUNCTION. COORDINATE LOCATION WITH WALL MOUNTED FIXTURES AND WALL FINISHES AND ADJUST LOCATION AS REQUIRED TO AVOID CONFLICTS. INSTALL SUPPLY PIPING FROM CONTROL VALVE TO ALL FIRE SPRINKLERS LOCATED WITHIN HOLDING CELLS ON ALL LEVELS. VERTICAL PIPING BETWEEN FLOORS MAY BE INSTALLED IN PLUMBING SHAFTS SERVING HOLDING CELL TOILET FIXTURES. COORDINATE WITH WATER, DRAIN AND VENT PIPING. LLS IN THE EVENT OF FIRE SPRINKLER TAMPERING WITHOUT INTERRUPTING **GENERAL NOTES - FIRE SPRINKLER** 

THE FIRE SPRINKLER SYSTEMS SHALL BE DESIGNED TO COMPLY WITH THE APPLICABLE PROVISIONS OF THE FOLLOWING CODES AND STANDARDS:
A. INTERNATIONAL BUILDING CODE (IBC) - 2018 EDITION
B. INTERNATIONAL FIRE CODE (IFC) - 2018 EDITION
C. NFPA 13 INSTALLATION OF FIRE SPRINKLER SYSTEMS 2016 EDITION FURNISH ALL MATERIALS, EQUIPMENT AND SUPPLIES AND PERFORM ALL WORK AND OPERATIONS TO DESIGN, CONSTRUCT AND MAKE FUNCTIONAL FIRE SPRINKLER SYSTEMS TO PROVIDE FIRE PROTECTION OF ALL AREAS OF THE BUILDING. PROVIDE PARTIAL DEMOLITION AND REMODEL OF FIRE SPRINKLER SYSTEM PROTECTING PORTIONS OF EXISTING BUILDING TO BE REMODELED. THE SYSTEM DESIGN SHALL MEET THE REQUIREMENTS OF CODES AND STANDARDS LISTED IN NOTE 1 ABOVE AND SHALL BE IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS. THE DESIGN OF THE FIRE SPRINKLER SYSTEMS CONTAINED ON THESE DRAWINGS IS CONCEPTUAL IN NATURE AND IS BASED ON INFORMATION PROVIDED IN THE DESIGN DEVELOPMENT DRAWINGS. THE LOCATIONS SHOWN ON THESE DRAWINGS FOR PIPING AND OTHER FIRE PROTECTION EQUIPMENT ARE APPROXIMATE AND MUST BE ADJUSTED WHERE REQUIRED TO MATCH ACTUAL BUILDING CONDITIONS. INSTALLING CONTRACTOR IS RESPONSIBLE TO COMPLETE DETAILED DESIGN OF THE FIRE SPRINKLER SYSTEMS INCLUDING HYDRAULIC CALCULATIONS ALL DEVICES AND MATERIALS USED FOR THE INSTALLATION OF THE FIRE SPRINKLER SYSTEMS SHALL BE U.L. LISTED OR FM APPROVED FOR USE IN FIRE PROTECTION SYSTEMS.

OFF-PREMISE SUPERVISION OF FIRE SPRINKLER SYSTEM CONTROL VALVES AND FLOW SWITCHES AS WELL AS PROVISION OF LOCAL WATER FLOW ALARM DEVICE PROVIDED BY FIRE ALARM CONTRACTOR. CONTRACTOR SHALL PREPARE AND SUBMIT COMPLETE SHOP DRAWING, PRODUCT DATA, SEISMIC CALCULATIONS AND HYDRAULIC CALCULATIONS IN ACCORDANCE WITH NFPA 13 FOR REVIEW AND APPROVAL TO THE LOCAL FIRE DEPARTMENT, PROJECT INSTALLING ANY EQUIPMENT. SHOP DRAWING SUBMITTALS SHALL MEET ALL APPLICABLE REQUIREMENTS OF NFPA 13 AND LOCAL FIRE DEPARTMENT

WATER SUPPLY AVAILABLE FOR FIRE SPRINKLER SYSTEMS STATIC PRESSURE: 78 PSI RESIDUAL PRESSURE: 64 PSI FLOW: 1,021 GPM TEST BY: PCI TEST LOCATION: 6TH AVENUE BETWEEN GOODING AND SHOSHONE

FIRE SPRINKLER DESIGN DENSITIES:
A. LIBRARY STACK AREAS, FILE ROOMS, STORAGE, MECHANICAL, ELECTRICAL, COMMUNICATIONS, JANITORIAL AND SIMILAR AREAS: ORDINARY HAZARD GROUP 2, 0.20 GPM/SQ. FT. OVER THE MOST REMOTE 1,500 SQ. FT. INCLUDING 250 GPM HOSE ALLOWANCE.

B. COURTROOMS, OFFICES, CORRIDORS, LOBBIES, CONFERENCE ROOMS, OFFICES, STAIRS, COMMON AREAS AND SIMILAR SPACES: LIGHT HAZARD, 0.10 GPM/SQ. FT. OVER THE MOST REMOTE 1,500 SQ. FT. INCLUDING 100 GPM HOSE ALLOWANCE. MAXIMUM COVERAGE AREA PER SPRINKLER: A. ORDINARY HAZARD: 130 SQ FT B. LIGHT HAZARD: 225 SQ FT

A. ALL AREAS WITH FINISHED CEILINGS (EXCEPT INMATE HOLDING AND TRANSFER AREAS): QUICK RESPONSE, STANDARD ORIFICE (K-5.6), ORDINARY TEMPERATURE, WHITE PAINTED, PENDENT FIRE SPRINKLER WITH WHITE RECESSED TYPE ESCUTCHEON. ESCUTCHEON.
B. INMATE HOLDING AND TRANSFER AREAS: QUICK RESPONSE, STANDARD ORIFICE (K-5.6), ORDINARY TEMPERATURE, WHITE PAINTED, INSTITUTIONAL TYPE (TAMPER-PROOF) PENDENT FIRE SPRINKLER WITH WHITE FINISH AND TRIM PLATE (TYCO TY3281 OR EQUAL)
C. AREAS WITHOUT FINISHED CEILINGS: QUICK RESPONSE, STANDARD ORIFICE (K-5.6), ORDINARY OR INTERMEDIATE TEMPERATURE, BRASS, UPRIGHT FIRE SPRINKLERS ALL FIRE SPRINKLER PIPING SHALL BE STEEL PIPE CONFORMING TO ANSI/ASTM A53, ASTM A135 OR A795
2-1/2" AND LARGER - SCHEDULE 10
2" AND SMALLER - SCHEDULE 30

A. STEEL PIPING 2" AND SMALLER IN NOMINAL DIAMETER SHALL BE JOINED WITH THREADED JOINTS USING CAST IRON FITTINGS AND COUPLINGS.
B. STEEL PIPING 2-1/2" AND LARGER IN NOMINAL DIAMETER SHALL BE JOINED WITH ROLL GROOVED JOINTS USING RUBBER GASKETED VICTAULIC STYLE FITTINGS AND COUPLINGS. C. SPRINKLERS ON BRANCH LINES SHALL BE INSTALLED USING 1/2" OR 3/4" OUTLET THREADED TEES. HANGERS SHALL MEET REQUIREMENTS OF NFPA 13: 1-1/4" AND SMALLER PIPE: MINIMUM ONE HANGER PER LENGTH OF PIPE AND MAXIMUM

12-0" BETWEEN HANGERS.

1-1/2" AND LARGER: MINIMUM ONE HANGER PER LENGTH OF PIPE AND MAXIMUM 15'-0" 14 SEISMIC BRACING: PROVIDE SWAY BRACING FOR PIPING ONLY WHERE REQUIRED BY LOCAL AHJ. WHERE REQUIRED, BRACING SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF NFPA 13. INSTALL ALL PIPING PITCHED TO DRAIN. PROVIDE AUXILIARY DRAINS PER NFPA 13 TO FACILITATE DRAINAGE OF TRAPPED PORTIONS OF FIRE SPRINKLER PIPING. PROVIDE FIRE SPRINKLER PROTECTION FOR ALL CONCEALED SPACES ENCLOSED WHOLLY OR PARTLY BY EXPOSED COMBUSTIBLE CONSTRUCTION OR THAT CONTAIN EXPOSED COMBUSTIBLE MATERIALS (NOT SHOWN ON PLANS). INSTALL FIRE RATED CAULKING AROUND FIRE SPRINKLER PIPING TO SEAL ALL PENETRATIONS OF FIRE RATED WALLS/PARTITIONS. CONTRACTOR SHALL PERFORM ALL TESTING AND COMMISSIONING REQUIRED BY NFPA 13 AND RECOMMENDED BY EQUIPMENT MANUFACTURERS. ALL TESTING SHALL BE WITNESSED AND APPROVED BY OWNER AND LOCAL FIRE DEPARTMENT.

**KEY PLAN** 

1 FIRE SPRINKLER PLAN - BASEMENT

04-03-23

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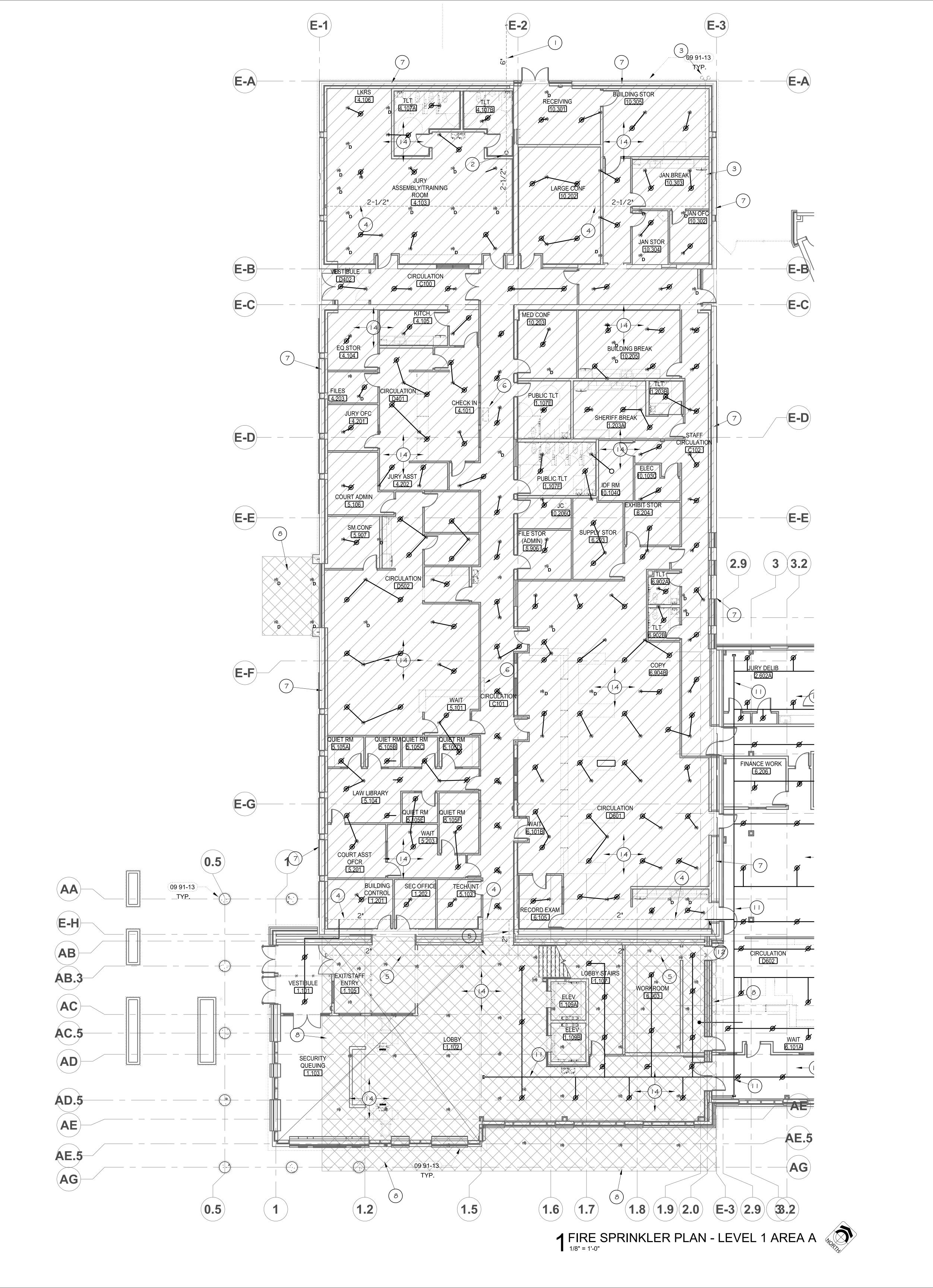
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PROJECT DATE 21403.000 DRAWN CHECKED GTJ REVISED

FIRE SPKR **PLAN BASEMENT** 

**FP10** 

ORIGINAL SHEET SIZE 36" x 48"



EXISTING FIRE SPRINKLER RISER TO BE DEMOLISHED TO FACILITATE REMODEL OF EXISTING BUILDING. REMOVE ALL CONTROL VALVES, APPURTENANCES, BACKFLOW PREVENTER, PIPING, FITTINGS AND SUPPORTS. REMOVE PIPING FROM 12" BELOW FLOOR SLAB TO HORIZONTAL PIPING ABOVE CEILING.

EXISTING WALL MOUNTED FIRE DEPARTMENT CONNECTION (FDC) FOR EXISTING FIRE SPRINKLER SYSTEM TO BE DEMOLISHED. REMOVE FDC, PIPING, FITTINGS AND PIPE SUPPORTS/BRACES. REMOVE PIPING BACK TO POINT OF CONNECTION TO EXISTING

2-1/2" CROSS MAIN AND CAP. PATCH REMAINING HOLE IN EXTERIOR WALL. EXISTING FIRE SPRINKLER FEED OR CROSS MAIN TO REMAIN. CONTRACTOR TO FIELD VERIFY LOCATION. ELEVATION AND SIZE. EXISTING FIRE SPRINKLER FEED OR CROSS MAIN TO BE DEMOLISHED TO FACILITATE CONSTRUCTION OF 2 STORY ADDITION. REMOVE PIPING, FITTINGS, SUPPORTS AND BRACES.

EXISTING FIRE PROTECTION HOSE CABINET TO BE DEMOLISHED. HOSE CABINET IS NOT REQUIRED BY CODE IN A BUILDING PROTECTED THROUGHOUT BY AN AUTOMATIC FIRE SPRINKLER SYSTEM. REMOVE HOSE, VALVE, CABINET, PIPING, FITTINGS, SUPPORTS AND BRACES. DEMOLISH PIPING BACK TO POINT OF CONNECTION TO WATER SOURCE AND CAP.

BUILDING REMODEL TO OCCUR IN HATCHED AREA. DEMO, MODIFY, ADJUST AND/OR ADD FIRE SPRINKLERS AND PIPING AS REQUIRED TO ACCOMMODATE REMODEL AND ENSURE FIRE SPRINKLER PROTECTION THROUGHOUT BUILDING IN ACCORDANCE WITH NFPA 13. REMOVE ALL EXISTING PENDENT FIRE SPRINKLERS AND PIPING DROPS AND CAP OUTLETS ON BRANCH LINES. EXISTING CROSS MAINS AND GRIDDED BRANCH LINE PIPING MAY REMAIN TO BE RE USED TO SUPPLY NEW FIRE SPRINKLERS. REFER TO ARCHITECTURAL PLANS TO DETERMINE SCOPE AND EXTENT OF REMODEL. COORDINATE WITH MECHANICAL AND ELECTRICAL SYSTEMS. LOCATIONS OF FIRE SPRINKLERS AND PIPING ON DRAWINGS IS APPROXIMATE AND SHOULD BE FIELD VERIFIED BY CONTRACTOR.

CROSS HATCHING DENOTES PORTIONS OF EXISTING BUILDING TO BE DEMOLISHED. REMOVE ALL FIRE SPRINKLERS, DROPS, PIPING, FITTINGS, SUPPORTS AND BRACES. REMOVE PIPING BACK TO POINT OF CONNECTION TO PORTIONS OF EXISTING FIRE SPRINKLER SYSTEM TO REMAIN AND CAP.

NEW 6" UNDERGROUND FIRE PROTECTION WATER SUPPLY (BY OTHERS) TO BUILDING. DESIGN, INSTALL AND TEST WATER SUPPLY IN ACCORDANCE WITH ALL APPLICABLE PROVISIONS OF NFPA 13, 24 AND LOCAL WATER PURVEYOR. CONNECT TO EXISTING PUBLIC WATER SYSTEM UNDER 6TH AVENUE. THE PUBLIC WATER SYSTEM PROVIDES THE FOLLOWING PRESSURES/FLOW: STATIC PRESSURE 78 PSI RESIDUAL PRESSURE: 640 PSI RESIDUAL PRESSURE: 640 PSI FLOW: 1,021 GPM PIPING ENTERS BASEMENT THROUGH FOUNDATION WALL (PROVIDE PIPE SLEEVE WITH LINK SEAL). RUN PIPING OVERHEAD ACROSS CORRIDOR AND RISE UP TO FIRE RISER ROOM ABOVE. ALL PIPING BETWEEN CONNECTION TO PUBLIC WATER SYSTEM AND INLET SIDE OF BACKFLOW PREVENTER SHALL BE APPROVED FOR POTABLE WATER USE.

RISER FOR WET-PIPE FIRE SPRINKLER SYSTEM TO PROTECT EXISTING BUILDING AND PROPOSED EXPANSION. PROVIDE A SEPARATE RISER/ZONE FOR EACH FLOOR LEVEL OF THE BUILDING (3 TOTAL). RISER SHALL CONSIST OF DOUBLE CHECK ASSEMBLY, SUPERVISED CONTROL VALVE, RISER CHECK VALVE, 2" MAIN DRAIN, PRESSURE GAUGE, VANE TYPE FLOW SWITCH AND TEST VALVE. SEE DETAIL ON SHEET FP10 FEED/CROSS MAIN FOR FIRE SPRINKLER SYSTEM (SUGGESTED LOCATION). PIPING SHALL BE INSTALLED CONCEALED ABOVE CEILINGS WHERE CEILINGS ARE PROVIDED. COORDINATE WITH BUILDING CEILINGS, STRUCTURE AND

MECHANICAL/ELECTRICAL SYSTEMS. EXTEND WATER SUPPLY TO EXISTING 2" CROSS MI AN FOR GRIDDED FIRE SPRINKLER SYSTEM IN EXISTING BUILDING.

WALL MOUNT, 2-WAY FIRE DEPARTMENT CONNECTION (FDC). INSTALL FDC APPROXIMATELY 36" ABOVE FINISHED EXTERIOR GRADE. CONNECT FDC TO FIRE PROTECTION WATER SUPPLY BETWEEN BACKFLOW PREVENTER AND ZONE CONTROL VALVES. CONFIGURE FDC TO ALLOW PRESSURIZATION OF ALL FIRE SPRINKLER ZONES SIMULTANEOUSLY. INSTALL WET-PIPE FIRE SPRINKLERS TO PROVIDE FIRE PROTECTION THROUGHOUT EXISTING BUILDING AND BUILDING ADDITION INCLUDING ANY COMBUSTIBLE CONCEALED SPACES. DESIGN, INSTALL AND TEST IN ACCORDANCE WITH ALL APPLICABLE PROVISIONS OF NFPA 13. FIRE SPRINKLER SYSTEM SHALL BE HYDRAULICALLY DESIGNED TO PROTECT HAZARD CLASSIFICATIONS OF ORDINARY HAZARD OR LIGHT HAZARD AS APPROPRIATE FOR USE OF EACH ROOM/AREA.

FIRE SPRINKLERS INSTALL TO PROTECT INMATE HOLDING AND TRANSFER AREAS SHALL BE INSTITUTIONAL TYPE FIRE SPRINKLERS (TAMPER RESISTANCE AND ANTI-LIGATURE): QUICK RESPONSE, STANDARD ORIFICE (K-5.6), ORDINARY TEMPERATURE, WHITE PAINTED, PENDENT FIRE SPRINKLER WITH WHITE FINISH AND TRIM PLATE (TYPE TYSTER) AND TRIM PLATE (TYCO TY3281)

ALL FIRE SPRINKLERS PROTECTING HOLDING CELL AREAS (ON ALL LEVELS) SHALL BE ISOLATED FROM THE FIRE SPRINKLER SYSTEM BY A SEPARATE CONTROL VALVE INSTALLED IN A READILY ACCESSIBLE LOCATION TO ALLOW SECURITY PERSONNEL TO RAPIDLY STOP THE FLOW OF WATER TO THE FIRE SPRINKLERS IN THE HOLDING TO RAPIDLY STOP THE FLOW OF WATER TO THE FIRE SPRINKLERS IN THE HOLDING CELLS IN THE EVENT OF FIRE SPRINKLER TAMPERING WITHOUT INTERRUPTING FIRE SPRINKLER PROTECTION IN THE REMAINDER OF THE BUILDING. INSTALL A SUPERVISED CONTROL VALVE IN OFFICER STATION 1.304 LOCATED IN BASEMENT SECURITY AREA. MOUNT CONTROL VALVE EXPOSED ALONG WALL AT A HEIGHT OF 5'-0" ABOVE FINISHED FLOOR AND PROVIDE SIGN TO CLEAR INDICATE VALVE FUNCTION. COORDINATE LOCATION WITH WALL MOUNTED FIXTURES AND WALL FINISHES AND ADJUST LOCATION AS REQUIRED TO AVOID CONFLICTS. INSTALL SUPPLY PIPING FROM CONTROL VALVE TO ALL FIRE SPRINKLERS LOCATED WITHIN HOLDING CELLS ON ALL LEVELS. VERTICAL PIPING BETWEEN FLOORS MAY BE INSTALLED IN PLUMBING SHAFTS SERVING HOLDING CELL TOILET FIXTURES. COORDINATE WITH WATER, DRAIN AND VENT PIPING. **GENERAL NOTES - FIRE SPRINKLER** 

THE FIRE SPRINKLER SYSTEMS SHALL BE DESIGNED TO COMPLY WITH THE APPLICABLE PROVISIONS OF THE FOLLOWING CODES AND STANDARDS:
A. INTERNATIONAL BUILDING CODE (IBC) - 2018 EDITION
B. INTERNATIONAL FIRE CODE (IFC) - 2018 EDITION
C. NFPA 13 INSTALLATION OF FIRE SPRINKLER SYSTEMS 2016 EDITION FURNISH ALL MATERIALS, EQUIPMENT AND SUPPLIES AND PERFORM ALL WORK AND OPERATIONS TO DESIGN, CONSTRUCT AND MAKE FUNCTIONAL FIRE SPRINKLER SYSTEMS TO PROVIDE FIRE PROTECTION OF ALL AREAS OF THE BUILDING. PROVIDE PARTIAL DEMOLITION AND REMODEL OF FIRE SPRINKLER SYSTEM PROTECTING PORTIONS OF EXISTING BUILDING TO BE REMODELED. THE SYSTEM DESIGN SHALL MEET THE REQUIREMENTS OF CODES AND STANDARDS LISTED IN NOTE 1 ABOVE AND SHALL BE IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS. THE DESIGN OF THE FIRE SPRINKLER SYSTEMS CONTAINED ON THESE DRAWINGS IS CONCEPTUAL IN NATURE AND IS BASED ON INFORMATION PROVIDED IN THE DESIGN DEVELOPMENT DRAWINGS. THE LOCATIONS SHOWN ON THESE DRAWINGS FOR PIPING AND OTHER FIRE PROTECTION EQUIPMENT ARE APPROXIMATE AND MUST BE ADJUSTED WHERE REQUIRED TO MATCH ACTUAL BUILDING CONDITIONS. INSTALLING CONTRACTOR IS RESPONSIBLE TO COMPLETE DETAILED DESIGN OF THE FIRE SPRINKLER SYSTEMS INCLUDING HYDRAULIC CALCULATIONS

ALL DEVICES AND MATERIALS USED FOR THE INSTALLATION OF THE FIRE SPRINKLER SYSTEMS SHALL BE U.L. LISTED OR FM APPROVED FOR USE IN FIRE PROTECTION SYSTEMS. OFF-PREMISE SUPERVISION OF FIRE SPRINKLER SYSTEM CONTROL VALVES AND FLOW SWITCHES AS WELL AS PROVISION OF LOCAL WATER FLOW ALARM DEVICE PROVIDED BY FIRE ALARM CONTRACTOR. CONTRACTOR SHALL PREPARE AND SUBMIT COMPLETE SHOP DRAWING, PRODUCT DATA, SEISMIC CALCULATIONS AND HYDRAULIC CALCULATIONS IN ACCORDANCE WITH NFPA 13 FOR REVIEW AND APPROVAL TO THE LOCAL FIRE DEPARTMENT, PROJECT ARCHITECT, ENGINEER AND THE OWNER PRIOR TO ORDERING, FABRICATING OR INSTALLING ANY EQUIPMENT. SHOP DRAWING SUBMITTALS SHALL MEET ALL APPLICABLE REQUIREMENTS OF NFPA 13 AND LOCAL FIRE DEPARTMENT

WATER SUPPLY AVAILABLE FOR FIRE SPRINKLER SYSTEMS STATIC PRESSURE: 78 PSI RESIDUAL PRESSURE: 64 PSI FLOW: 1,021 GPM TEST BY: PCI

TEST LOCATION: 6TH AVENUE BETWEEN GOODING AND SHOSHONE FIRE SPRINKLER DESIGN DENSITIES:
A. LIBRARY STACK AREAS, FILE ROOMS, STORAGE, MECHANICAL, ELECTRICAL, COMMUNICATIONS, JANITORIAL AND SIMILAR AREAS: ORDINARY HAZARD GROUP 2, 0.20 GPM/SQ. FT. OVER THE MOST REMOTE 1,500 SQ. FT. INCLUDING 250 GPM HOSE ALLOWANCE.

B. COURTROOMS, OFFICES, CORRIDORS, LOBBIES, CONFERENCE ROOMS, OFFICES, STAIRS, COMMON AREAS AND SIMILAR SPACES: LIGHT HAZARD, 0.10 GPM/SQ. FT. OVER THE MOST REMOTE 1,500 SQ. FT. INCLUDING 100 GPM HOSE ALLOWANCE.

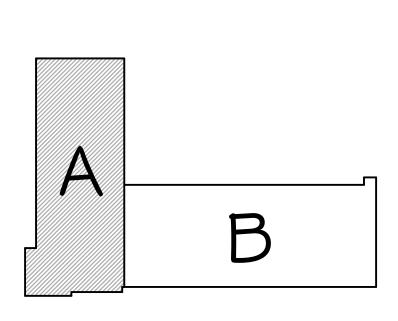
MAXIMUM COVERAGE AREA PER SPRINKLER: A. ORDINARY HAZARD: 130 SQ FT B. LIGHT HAZARD: 225 SQ FT A. ALL AREAS WITH FINISHED CEILINGS (EXCEPT INMATE HOLDING AND TRANSFER AREAS): QUICK RESPONSE, STANDARD ORIFICE (K-5.6), ORDINARY TEMPERATURE, WHITE PAINTED, PENDENT FIRE SPRINKLER WITH WHITE RECESSED TYPE ESCUTCHEON. B. INMATE HOLDING AND TRANSFER AREAS: QUICK RESPONSE, STANDARD ORIFICE (K-5.6), ORDINARY TEMPERATURE, WHITE PAINTED, INSTITUTIONAL TYPE (TAMPER-2224 OR FOLIAL) (TYCO TY3281 OR EQUAL)

C. AREAS WITHOUT FINISHED CEILINGS: QUICK RESPONSE, STANDARD ORIFICE (K-5.6), ORDINARY OR INTERMEDIATE TEMPERATURE, BRASS, UPRIGHT FIRE SPRINKLERS

ALL FIRE SPRINKLER PIPING SHALL BE STEEL PIPE CONFORMING TO ANSI/ASTM A53, ASTM A135 OR A795
2-1/2" AND LARGER - SCHEDULE 10
2" AND SMALLER - SCHEDULE 30 A. STEEL PIPING 2" AND SMALLER IN NOMINAL DIAMETER SHALL BE JOINED WITH THREADED JOINTS USING CAST IRON FITTINGS AND COUPLINGS.
B. STEEL PIPING 2-1/2" AND LARGER IN NOMINAL DIAMETER SHALL BE JOINED WITH ROLL GROOVED JOINTS USING RUBBER GASKETED VICTAULIC STYLE FITTINGS AND COUPLINGS. C. SPRINKLERS ON BRANCH LINES SHALL BE INSTALLED USING 1/2" OR 3/4" OUTLET THREADED TEES.

HANGERS SHALL MEET REQUIREMENTS OF NFPA 13: 1-1/4" AND SMALLER PIPE: MINIMUM ONE HANGER PER LENGTH OF PIPE AND MAXIMUM 12'-0" BETWEEN HANGERS. 1-1/2" AND LANGER: MINIMUM ONE HANGER PER LENGTH OF PIPE AND MAXIMUM 15'-0" 14 SEISMIC BRACING: PROVIDE SWAY BRACING FOR PIPING ONLY WHERE REQUIRED BY LOCAL AHJ. WHERE REQUIRED, BRACING SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF NFPA 13. INSTALL ALL PIPING PITCHED TO DRAIN. PROVIDE AUXILIARY DRAINS PER NFPA 13 TO FACILITATE DRAINAGE OF TRAPPED PORTIONS OF FIRE SPRINKLER PIPING. PROVIDE FIRE SPRINKLER PROTECTION FOR ALL CONCEALED SPACES ENCLOSED WHOLLY OR PARTLY BY EXPOSED COMBUSTIBLE CONSTRUCTION OR THAT CONTAIN EXPOSED COMBUSTIBLE MATERIALS (NOT SHOWN ON PLANS).

INSTALL FIRE RATED CAULKING AROUND FIRE SPRINKLER PIPING TO SEAL ALL PENETRATIONS OF FIRE RATED WALLS/PARTITIONS. CONTRACTOR SHALL PERFORM ALL TESTING AND COMMISSIONING REQUIRED BY NFPA 13 AND RECOMMENDED BY EQUIPMENT MANUFACTURERS. ALL TESTING SHALL BE WITNESSED AND APPROVED BY OWNER AND LOCAL FIRE DEPARTMENT.



**KEY PLAN** 



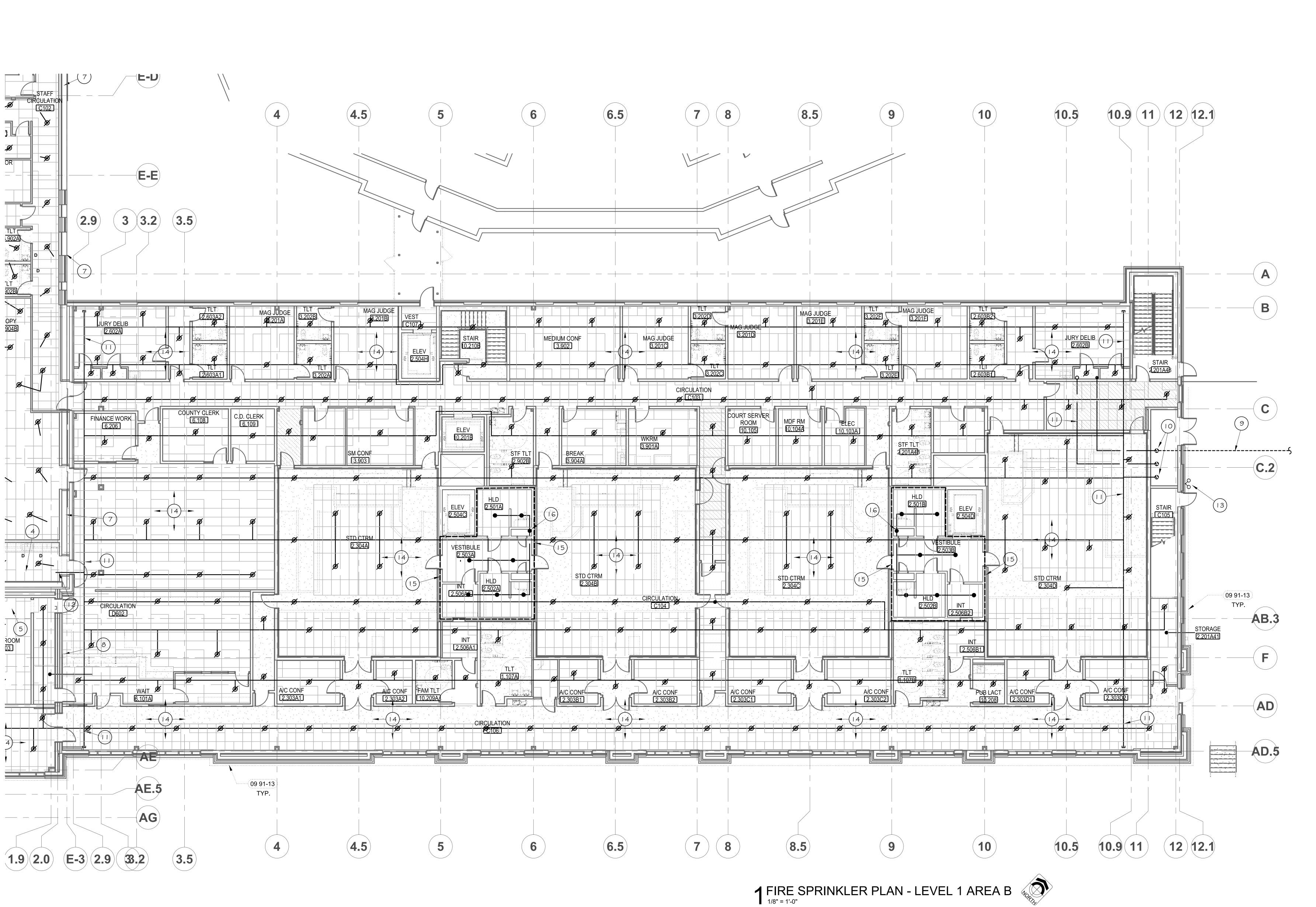
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PROJECT DATE 21403.000 DRAWN CHECKED NMJ GTJ REVISED

FIRE SPKR **PLAN** LEVEL 1 **AREA A** 

FP11A ORIGINAL SHEET SIZE 36" x 48"



EXISTING FIRE SPRINKLER RISER TO BE DEMOLISHED TO FACILITATE REMODEL OF EXISTING BUILDING. REMOVE ALL CONTROL VALVES, APPURTENANCES, BACKFLOW PREVENTER, PIPING, FITTINGS AND SUPPORTS. REMOVE PIPING FROM 12" BELOW FLOOR SLAB TO HORIZONTAL PIPING ABOVE CEILING.

EXISTING WALL MOUNTED FIRE DEPARTMENT CONNECTION (FDC) FOR EXISTING FIRE SPRINKLER SYSTEM TO BE DEMOLISHED. REMOVE FDC, PIPING, FITTINGS AND PIPE SUPPORTS/BRACES. REMOVE PIPING BACK TO POINT OF CONNECTION TO EXISTING 2-1/2" CROSS MAIN AND CAP. PATCH REMAINING HOLE IN EXTERIOR WALL. EXISTING FIRE SPRINKLER FEED OR CROSS MAIN TO REMAIN. CONTRACTOR TO FIELD VERIFY LOCATION. ELEVATION AND SIZE.

EXISTING FIRE SPRINKLER FEED OR CROSS MAIN TO BE DEMOLISHED TO FACILITATE CONSTRUCTION OF 2 STORY ADDITION. REMOVE PIPING, FITTINGS, SUPPORTS AND BRACES. EXISTING FIRE PROTECTION HOSE CABINET TO BE DEMOLISHED. HOSE CABINET IS NOT REQUIRED BY CODE IN A BUILDING PROTECTED THROUGHOUT BY AN AUTOMATIC FIRE SPRINKLER SYSTEM. REMOVE HOSE, VALVE, CABINET, PIPING, FITTINGS, SUPPORTS AND BRACES. DEMOLISH PIPING BACK TO POINT OF CONNECTION TO WATER SOURCE AND CAP.

BUILDING REMODEL TO OCCUR IN HATCHED AREA. DEMO, MODIFY, ADJUST AND/OR ADD FIRE SPRINKLERS AND PIPING AS REQUIRED TO ACCOMMODATE REMODEL AND ENSURE FIRE SPRINKLER PROTECTION THROUGHOUT BUILDING IN ACCORDANCE WITH NFPA 13. REMOVE ALL EXISTING PENDENT FIRE SPRINKLERS AND PIPING DROPS AND CAP OUTLETS ON BRANCH LINES. EXISTING CROSS MAINS AND GRIDDED BRANCH LINE PIPING MAY REMAIN TO BE RE USED TO SUPPLY NEW FIRE SPRINKLERS. REFER TO ARCHITECTURAL PLANS TO DETERMINE SCOPE AND EXTENT OF REMODEL. COORDINATE WITH MECHANICAL AND ELECTRICAL SYSTEMS. LOCATIONS OF FIRE SPRINKLERS AND PIPING ON DRAWINGS IS APPROXIMATE AND SHOULD BE FIELD VERIFIED BY CONTRACTOR.

CROSS HATCHING DENOTES PORTIONS OF EXISTING BUILDING TO BE DEMOLISHED. REMOVE ALL FIRE SPRINKLERS, DROPS, PIPING, FITTINGS, SUPPORTS AND BRACES. REMOVE PIPING BACK TO POINT OF CONNECTION TO PORTIONS OF EXISTING FIRE SPRINKLER SYSTEM TO REMAIN AND CAP.

NEW 6" UNDERGROUND FIRE PROTECTION WATER SUPPLY (BY OTHERS) TO BUILDING. DESIGN, INSTALL AND TEST WATER SUPPLY IN ACCORDANCE WITH ALL APPLICABLE PROVISIONS OF NFPA 13, 24 AND LOCAL WATER PURVEYOR. CONNECT TO EXISTING PUBLIC WATER SYSTEM UNDER 6TH AVENUE. THE PUBLIC WATER SYSTEM PROVIDES THE FOLLOWING PRESSURES/FLOW: STATIC PRESSURE 78 PSI RESIDUAL PRESSURE: 640 PSI RESIDUAL PRESSURE: 640 PSI FLOW: 1,021 GPM PIPING ENTERS BASEMENT THROUGH FOUNDATION WALL (PROVIDE PIPE SLEEVE WITH LINK SEAL). RUN PIPING OVERHEAD ACROSS CORRIDOR AND RISE UP TO FIRE RISER ROOM ABOVE. ALL PIPING BETWEEN CONNECTION TO PUBLIC WATER SYSTEM AND INLET SIDE OF BACKFLOW PREVENTER SHALL BE APPROVED FOR POTABLE WATER USE.

RISER FOR WET-PIPE FIRE SPRINKLER SYSTEM TO PROTECT EXISTING BUILDING AND PROPOSED EXPANSION. PROVIDE A SEPARATE RISER/ZONE FOR EACH FLOOR LEVEL OF THE BUILDING (3 TOTAL). RISER SHALL CONSIST OF DOUBLE CHECK ASSEMBLY, SUPERVISED CONTROL VALVE, RISER CHECK VALVE, 2" MAIN DRAIN, PRESSURE GAUGE, VANE TYPE FLOW SWITCH AND TEST VALVE. SEE DETAIL ON SHEET FP10

FEED/CROSS MAIN FOR FIRE SPRINKLER SYSTEM (SUGGESTED LOCATION). PIPING SHALL BE INSTALLED CONCEALED ABOVE CEILINGS WHERE CEILINGS ARE PROVIDED. COORDINATE WITH BUILDING CEILINGS, STRUCTURE AND MECHANICAL/ELECTRICAL SYSTEMS. EXTEND WATER SUPPLY TO EXISTING 2" CROSS MI AN FOR GRIDDED FIRE SPRINKLER SYSTEM IN EXISTING BUILDING.

WALL MOUNT, 2-WAY FIRE DEPARTMENT CONNECTION (FDC). INSTALL FDC APPROXIMATELY 36" ABOVE FINISHED EXTERIOR GRADE. CONNECT FDC TO FIRE PROTECTION WATER SUPPLY BETWEEN BACKFLOW PREVENTER AND ZONE CONTROL VALVES. CONFIGURE FDC TO ALLOW PRESSURIZATION OF ALL FIRE SPRINKLER ZONES SIMULTANEOUSLY. INSTALL WET-PIPE FIRE SPRINKLERS TO PROVIDE FIRE PROTECTION THROUGHOUT EXISTING BUILDING AND BUILDING ADDITION INCLUDING ANY COMBUSTIBLE CONCEALED SPACES. DESIGN, INSTALL AND TEST IN ACCORDANCE WITH ALL APPLICABLE PROVISIONS OF NFPA 13. FIRE SPRINKLER SYSTEM SHALL BE HYDRAULICALLY DESIGNED TO PROTECT HAZARD CLASSIFICATIONS OF ORDINARY HAZARD OR LIGHT HAZARD AS APPROPRIATE FOR USE OF EACH ROOM/AREA.

FIRE SPRINKLERS INSTALL TO PROTECT INMATE HOLDING AND TRANSFER AREAS SHALL BE INSTITUTIONAL TYPE FIRE SPRINKLERS (TAMPER RESISTANCE AND ANTI-LIGATURE): QUICK RESPONSE, STANDARD ORIFICE (K-5.6), ORDINARY TEMPERATURE; WHITE PAINTED, PENDENT FIRE SPRINKLER WITH WHITE FINISH AND TRIM BLATE (TYCO TY3381) AND TRIM PLATE (TYCO TY3281)

ALL FIRE SPRINKLERS PROTECTING HOLDING CELL AREAS (ON ALL LEVELS) SHALL BE ISOLATED FROM THE FIRE SPRINKLER SYSTEM BY A SEPARATE CONTROL VALVE INSTALLED IN A READILY ACCESSIBLE LOCATION TO ALLOW SECURITY PERSONNEL TO RAPIDLY STOP THE FLOW OF WATER TO THE FIRE SPRINKLERS IN THE HOLDING CELLS IN THE EVENT OF FIRE SPRINKLER TAMPERING WITHOUT INTERRUPTING FIRE SPRINKLER PROTECTION IN THE REMAINDER OF THE BUILDING. INSTALL A SUPERVISED CONTROL VALVE IN OFFICER STATION 1.304 LOCATED IN BASEMENT SECURITY AREA. MOUNT CONTROL VALVE EXPOSED ALONG WALL AT A HEIGHT OF 5'-0" ABOVE FINISHED FLOOR AND PROVIDE SIGN TO CLEAR INDICATE VALVE FUNCTION. COORDINATE LOCATION WITH WALL MOUNTED FIXTURES AND WALL FINISHES AND ADJUST LOCATION AS REQUIRED TO AVOID CONFLICTS. INSTALL SUPPLY PIPING FROM CONTROL VALVE TO ALL FIRE SPRINKLERS LOCATED WITHIN HOLDING CELLS ON ALL LEVELS. VERTICAL PIPING BETWEEN FLOORS MAY BE INSTALLED IN PLUMBING SHAFTS SERVING HOLDING CELL TOILET FIXTURES. COORDINATE WITH WATER, DRAIN AND VENT PIPING. LS IN THE EVENT OF FIRE SPRINKLER TAMPERING WITHOUT INTERRUPTING.

**GENERAL NOTES - FIRE SPRINKLER** THE FIRE SPRINKLER SYSTEMS SHALL BE DESIGNED TO COMPLY WITH THE APPLICABLE PROVISIONS OF THE FOLLOWING CODES AND STANDARDS:
A. INTERNATIONAL BUILDING CODE (IBC) - 2018 EDITION
B. INTERNATIONAL FIRE CODE (IFC) - 2018 EDITION
C. NFPA 13 INSTALLATION OF FIRE SPRINKLER SYSTEMS 2016 EDITION FURNISH ALL MATERIALS, EQUIPMENT AND SUPPLIES AND PERFORM ALL WORK AND OPERATIONS TO DESIGN, CONSTRUCT AND MAKE FUNCTIONAL FIRE SPRINKLER SYSTEMS TO PROVIDE FIRE PROTECTION OF ALL AREAS OF THE BUILDING, PROVIDE PARTIAL DEMOLITION AND REMODEL OF FIRE SPRINKLER SYSTEM PROTECTING PORTIONS OF EXISTING BUILDING TO BE REMODELED. THE SYSTEM DESIGN SHALL MEET THE REQUIREMENTS OF CODES AND STANDARDS LISTED IN NOTE 1 ABOVE AND SHALL BE IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS.

THE DESIGN OF THE FIRE SPRINKLER SYSTEMS CONTAINED ON THESE DRAWINGS IS CONCEPTUAL IN NATURE AND IS BASED ON INFORMATION PROVIDED IN THE DESIGN DEVELOPMENT DRAWINGS. THE LOCATIONS SHOWN ON THESE DRAWINGS FOR PIPING AND OTHER FIRE PROTECTION EQUIPMENT ARE APPROXIMATE AND MUST BE ADJUSTED WHERE REQUIRED TO MATCH ACTUAL BUILDING CONDITIONS. INSTALLING CONTRACTOR IS RESPONSIBLE TO COMPLETE DETAILED DESIGN OF THE FIRE SPRINKLER SYSTEMS INCLUDING HYDRAULIC CALCULATIONS ALL DEVICES AND MATERIALS USED FOR THE INSTALLATION OF THE FIRE SPRINKLER SYSTEMS SHALL BE U.L. LISTED OR FM APPROVED FOR USE IN FIRE PROTECTION OFF-PREMISE SUPERVISION OF FIRE SPRINKLER SYSTEM CONTROL VALVES AND FLOW SWITCHES AS WELL AS PROVISION OF LOCAL WATER FLOW ALARM DEVICE PROVIDED BY FIRE ALARM CONTRACTOR. CONTRACTOR SHALL PREPARE AND SUBMIT COMPLETE SHOP DRAWING, PRODUCT DATA, SEISMIC CALCULATIONS AND HYDRAULIC CALCULATIONS IN ACCORDANCE WITH NFPA 13 FOR REVIEW AND APPROVAL TO THE LOCAL FIRE DEPARTMENT, PROJECT ARCHITECT, ENGINEER AND THE OWNER PRIOR TO ORDERING, FABRICATING OR INSTALLING ANY EQUIPMENT. SHOP DRAWING SUBMITTALS SHALL MEET ALL APPLICABLE REQUIREMENTS OF NFPA 13 AND LOCAL FIRE DEPARTMENT

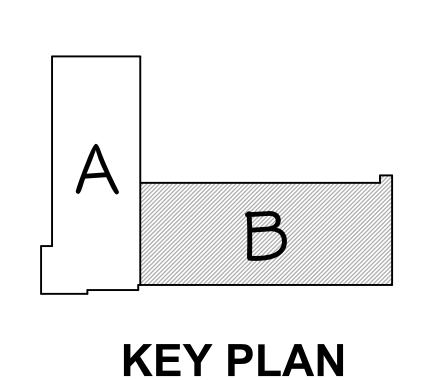
WATER SUPPLY AVAILABLE FOR FIRE SPRINKLER SYSTEMS STATIC PRESSURE: 78 PSI RESIDUAL PRESSURE: 64 PSI FLOW: 1,021 GPM TEST BY: PCI

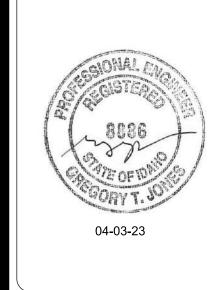
TEST LOCATION: 6TH AVENUE BETWEEN GOODING AND SHOSHONE FIRE SPRINKLER DESIGN DENSITIES:
A. LIBRARY STACK AREAS, FILE ROOMS, STORAGE, MECHANICAL, ELECTRICAL, COMMUNICATIONS, JANITORIAL AND SIMILAR AREAS: ORDINARY HAZARD GROUP 2, 0.20 GPM/SC. FT. OVER THE MOST REMOTE 1,500 SQ. FT. INCLUDING 250 GPM HOSE ALLOWANCE.
B. COURTROOMS, OFFICES, CORRIDORS, LOBBIES, CONFERENCE ROOMS, OFFICES, STAIRS, COMMON AREAS AND SIMILAR SPACES: LIGHT HAZARD, 0.10 GPM/SQ. FT. OVER THE MOST REMOTE 1,500 SQ. FT. INCLUDING 100 GPM HOSE ALLOWANCE. MAXIMUM COVERAGE AREA PER SPRINKLER: A. ORDINARY HAZARD: 130 SQ FT B. LIGHT HAZARD: 225 SQ FT

A. ALL AREAS WITH FINISHED CEILINGS (EXCEPT INMATE HOLDING AND TRANSFER AREAS): QUICK RESPONSE, STANDARD ORIFICE (K-5.6), ORDINARY TEMPERATURE, WHITE PAINTED, PENDENT FIRE SPRINKLER WITH WHITE RECESSED TYPE ESCUTCHEON.
B. INMATE HOLDING AND TRANSFER AREAS: QUICK RESPONSE, STANDARD ORIFICE (K-5.6), ORDINARY TEMPERATURE, WHITE PAINTED, INSTITUTIONAL TYPE (TAMPER-PROOF) PENDENT FIRE SPRINKLER WITH WHITE FINISH AND TRIM PLATE (TYCO TY3281 OR EQUAL)
C. AREAS WITHOUT FINISHED CEILINGS: QUICK RESPONSE, STANDARD ORIFICE (K-5.6), ORDINARY OR INTERMEDIATE TEMPERATURE, BRASS, UPRIGHT FIRE SPRINKLERS ALL FIRE SPRINKLER PIPING SHALL BE STEEL PIPE CONFORMING TO ANSI/ASTM A53, ASTM A135 OR A795
2-1/2" AND LARGER - SCHEDULE 10
2" AND SMALLER - SCHEDULE 30

A. STEEL PIPING 2" AND SMALLER IN NOMINAL DIAMETER SHALL BE JOINED WITH THREADED JOINTS USING CAST IRON FITTINGS AND COUPLINGS.
B. STEEL PIPING 2-1/2" AND LARGER IN NOMINAL DIAMETER SHALL BE JOINED WITH ROLL GROOVED JOINTS USING RUBBER GASKETED VICTAULIC STYLE FITTINGS AND COUPLINGS. C. SPRINKLERS ON BRANCH LINES SHALL BE INSTALLED USING 1/2" OR 3/4" OUTLET THREADED TEES. HANGERS SHALL MEET REQUIREMENTS OF NFPA 13:
1-1/4" AND SMALLER PIPE: MINIMUM ONE HANGER PER LENGTH OF PIPE AND MAXIMUM

12'-0" BETWEEN HANGERS.
1-1/2" AND LARGER: MINIMUM ONE HANGER PER LENGTH OF PIPE AND MAXIMUM 15'-0" 14 SEISMIC BRACING: PROVIDE SWAY BRACING FOR PIPING ONLY WHERE REQUIRED BY LOCAL AHJ. WHERE REQUIRED, BRACING SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF NFPA 13. INSTALL ALL PIPING PITCHED TO DRAIN. PROVIDE AUXILIARY DRAINS PER NFPA 13 TO FACILITATE DRAINAGE OF TRAPPED PORTIONS OF FIRE SPRINKLER PIPING. PROVIDE FIRE SPRINKLER PROTECTION FOR ALL CONCEALED SPACES ENCLOSED WHOLLY OR PARTLY BY EXPOSED COMBUSTIBLE CONSTRUCTION OR THAT CONTAIN EXPOSED COMBUSTIBLE MATERIALS (NOT SHOWN ON PLANS). INSTALL FIRE RATED CAULKING AROUND FIRE SPRINKLER PIPING TO SEAL ALL PENETRATIONS OF FIRE RATED WALLS/PARTITIONS. 18 CONTRACTOR SHALL PERFORM ALL TESTING AND COMMISSIONING REQUIRED BY NFPA 13 AND RECOMMENDED BY EQUIPMENT MANUFACTURERS. ALL TESTING SHALL BE WITNESSED AND APPROVED BY OWNER AND LOCAL FIRE DEPARTMENT.





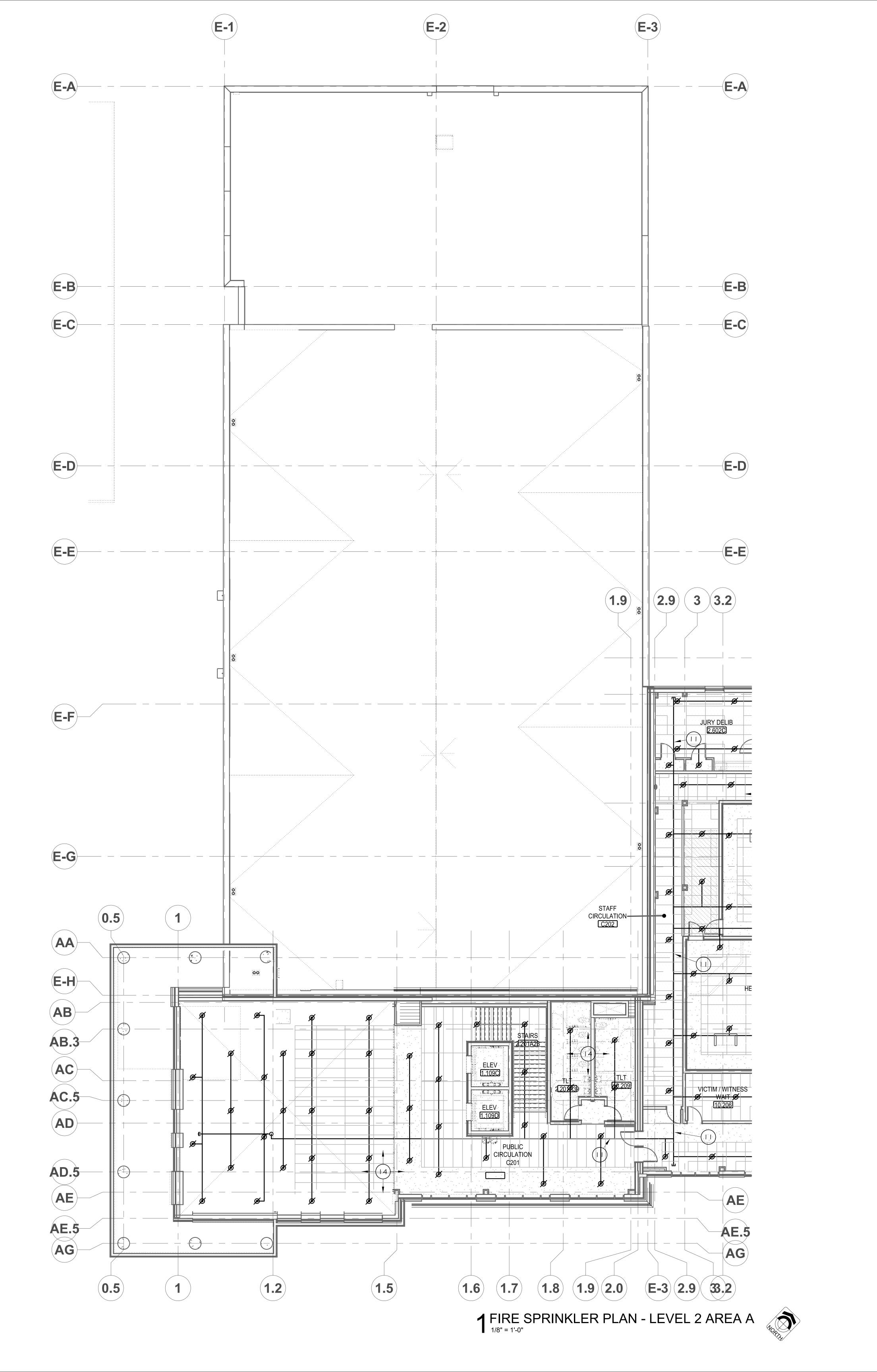
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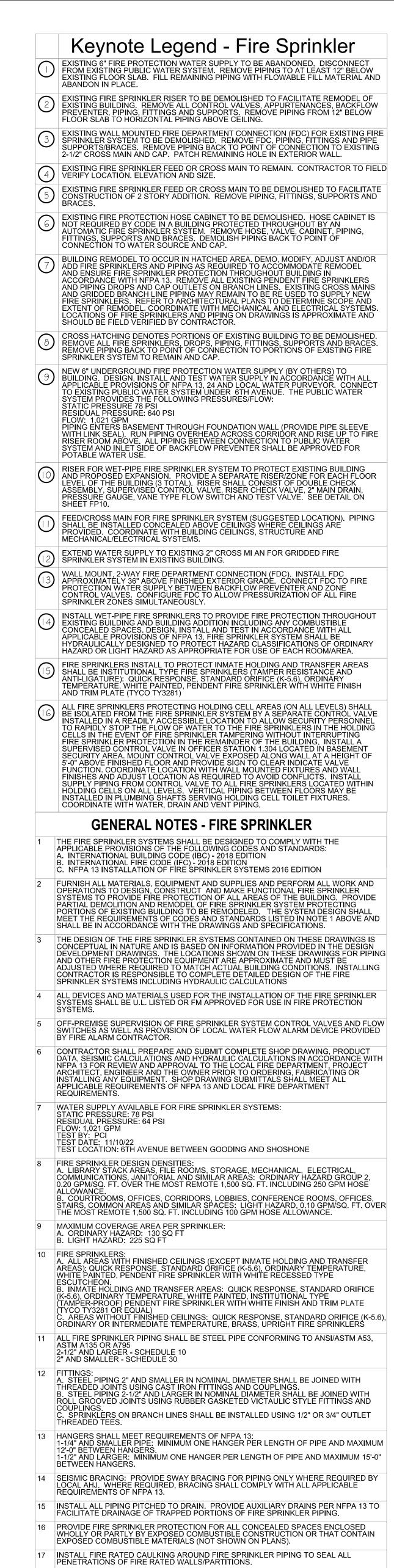
**Permit Set** 

PROJECT 21403.000 DRAWN CHECKED GTJ REVISED

FIRE SPKR LEVEL 1 **AREA B** 

FP11B ORIGINAL SHEET SIZE 36" x 48"





04-03-23

**Permit Set** 

DATE

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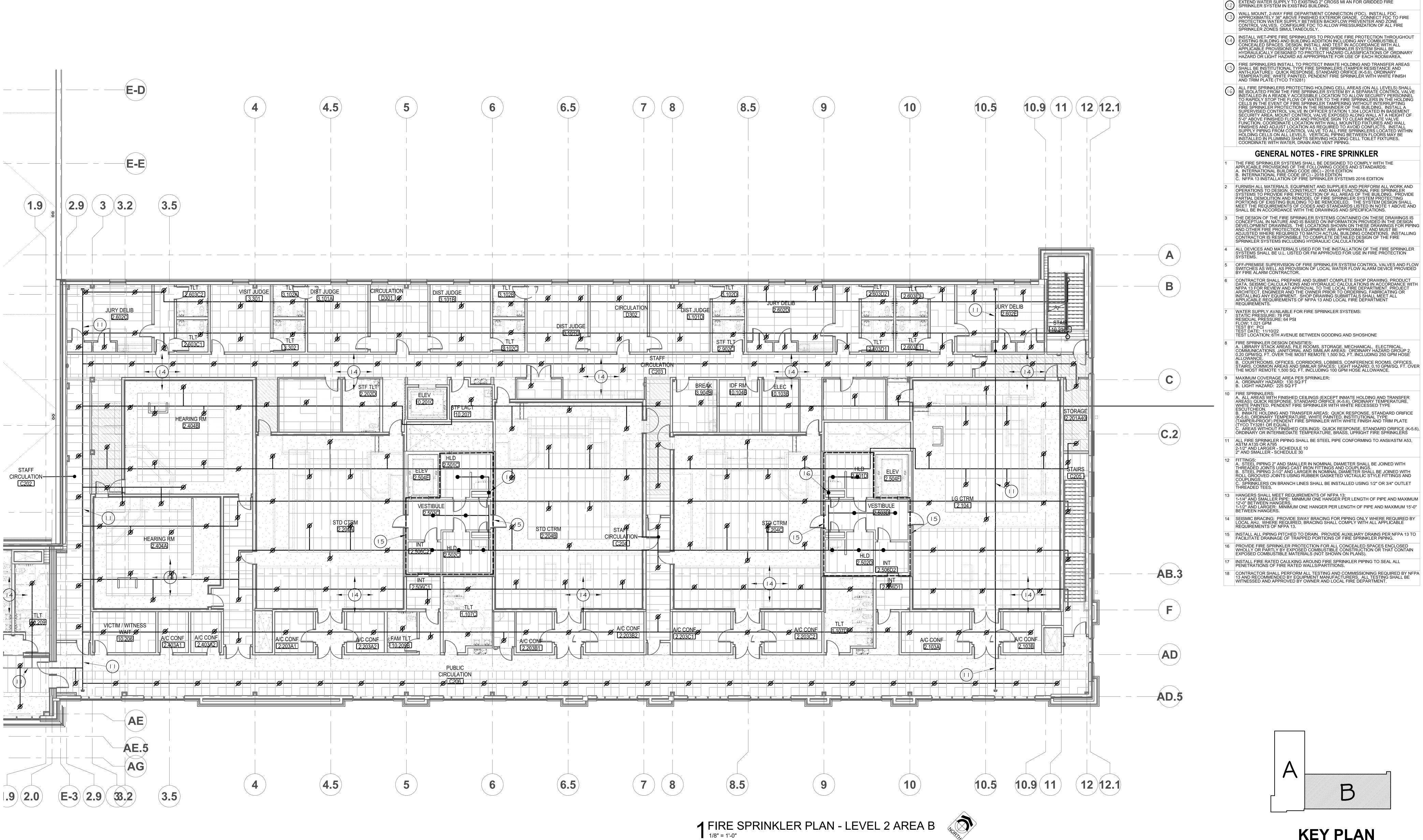
FIRE SPKR **PLAN** LEVEL 2 AREA A SHEET

FP12A

ORIGINAL SHEET SIZE 36" x 48"

**KEY PLAN** 

8 CONTRACTOR SHALL PERFORM ALL TESTING AND COMMISSIONING REQUIRED BY NFPA 13 AND RECOMMENDED BY EQUIPMENT MANUFACTURERS. ALL TESTING SHALL BE WITNESSED AND APPROVED BY OWNER AND LOCAL FIRE DEPARTMENT.



EXISTING FIRE SPRINKLER RISER TO BE DEMOLISHED TO FACILITATE REMODEL OF EXISTING BUILDING. REMOVE ALL CONTROL VALVES, APPURTENANCES, BACKFLOW PREVENTER, PIPING, FITTINGS AND SUPPORTS. REMOVE PIPING FROM 12" BELOW FLOOR SLAB TO HORIZONTAL PIPING ABOVE CEILING.

EXISTING WALL MOUNTED FIRE DEPARTMENT CONNECTION (FDC) FOR EXISTING FIRE SPRINKLER SYSTEM TO BE DEMOLISHED. REMOVE FDC, PIPING, FITTINGS AND PIPE SUPPORTS/BRACES. REMOVE PIPING BACK TO POINT OF CONNECTION TO EXISTING 2-1/2" CROSS MAIN AND CAP. PATCH REMAINING HOLE IN EXTERIOR WALL. EXISTING FIRE SPRINKLER FEED OR CROSS MAIN TO REMAIN. CONTRACTOR TO FIELD VERIFY LOCATION. ELEVATION AND SIZE.

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BUILDING REMODEL TO OCCUR IN HATCHED AREA. DEMO, MODIFY, ADJUST AND/OR ADD FIRE SPRINKLERS AND PIPING AS REQUIRED TO ACCOMMODATE REMODEL AND ENSURE FIRE SPRINKLER PROTECTION THROUGHOUT BUILDING IN ACCORDANCE WITH NFPA 13. REMOVE ALL EXISTING PENDENT FIRE SPRINKLERS AND PIPING DROPS AND CAP OUTLETS ON BRANCH LINES. EXISTING CROSS MAINS AND GRIDDED BRANCH LINE PIPING MAY REMAIN TO BE RE USED TO SUPPLY NEW FIRE SPRINKLERS. REFER TO ARCHITECTURAL PLANS TO DETERMINE SCOPE AND EXTENT OF REMODEL. COORDINATE WITH MECHANICAL AND ELECTRICAL SYSTEMS. LOCATIONS OF FIRE SPRINKLERS AND PIPING ON DRAWINGS IS APPROXIMATE AND SHOULD BE FIELD VERIFIED BY CONTRACTOR.

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NEW 6" UNDERGROUND FIRE PROTECTION WATER SUPPLY (BY OTHERS) TO BUILDING. DESIGN, INSTALL AND TEST WATER SUPPLY IN ACCORDANCE WITH ALL APPLICABLE PROVISIONS OF NFPA 13, 24 AND LOCAL WATER PURVEYOR. CONNECT TO EXISTING PUBLIC WATER SYSTEM UNDER 6TH AVENUE. THE PUBLIC WATER SYSTEM PROVIDES THE FOLLOWING PRESSURES/FLOW: STATIC PRESSURE 78 PSI RESIDUAL PRESSURE: 640 PSI RESIDUAL PRESSURE: 640 PSI FLOW: 1,021 GPM PIPING ENTERS BASEMENT THROUGH FOUNDATION WALL (PROVIDE PIPE SLEEVE WITH LINK SEAL). RUN PIPING OVERHEAD ACROSS CORRIDOR AND RISE UP TO FIRE RISER ROOM ABOVE. ALL PIPING BETWEEN CONNECTION TO PUBLIC WATER SYSTEM AND INLET SIDE OF BACKFLOW PREVENTER SHALL BE APPROVED FOR POTABLE WATER USE.

RISER FOR WET-PIPE FIRE SPRINKLER SYSTEM TO PROTECT EXISTING BUILDING AND PROPOSED EXPANSION. PROVIDE A SEPARATE RISER/ZONE FOR EACH FLOOR LEVEL OF THE BUILDING (3 TOTAL). RISER SHALL CONSIST OF DOUBLE CHECK ASSEMBLY, SUPERVISED CONTROL VALVE, RISER CHECK VALVE, 2" MAIN DRAIN, PRESSURE GAUGE, VANE TYPE FLOW SWITCH AND TEST VALVE. SEE DETAIL ON SHEET FP10 FEED/CROSS MAIN FOR FIRE SPRINKLER SYSTEM (SUGGESTED LOCATION). PIPING SHALL BE INSTALLED CONCEALED ABOVE CEILINGS WHERE CEILINGS ARE PROVIDED. COORDINATE WITH BUILDING CEILINGS, STRUCTURE AND MECHANICAL/ELECTRICAL SYSTEMS.

EXTEND WATER SUPPLY TO EXISTING 2" CROSS MI AN FOR GRIDDED FIRE SPRINKLER SYSTEM IN EXISTING BUILDING. WALL MOUNT, 2-WAY FIRE DEPARTMENT CONNECTION (FDC). INSTALL FDC APPROXIMATELY 36" ABOVE FINISHED EXTERIOR GRADE. CONNECT FDC TO FIRE PROTECTION WATER SUPPLY BETWEEN BACKFLOW PREVENTER AND ZONE CONTROL VALVES. CONFIGURE FDC TO ALLOW PRESSURIZATION OF ALL FIRE SPRINKLER ZONES SIMULTANEOUSLY.

INSTALL WET-PIPE FIRE SPRINKLERS TO PROVIDE FIRE PROTECTION THROUGHOUT EXISTING BUILDING AND BUILDING ADDITION INCLUDING ANY COMBUSTIBLE CONCEALED SPACES. DESIGN, INSTALL AND TEST IN ACCORDANCE WITH ALL APPLICABLE PROVISIONS OF NFPA 13. FIRE SPRINKLER SYSTEM SHALL BE HYDRAULICALLY DESIGNED TO PROTECT HAZARD CLASSIFICATIONS OF ORDINARY HAZARD OR LIGHT HAZARD AS APPROPRIATE FOR USE OF EACH ROOM/AREA. FIRE SPRINKLERS INSTALL TO PROTECT INMATE HOLDING AND TRANSFER AREAS SHALL BE INSTITUTIONAL TYPE FIRE SPRINKLERS (TAMPER RESISTANCE AND ANTI-LIGATURE): QUICK RESPONSE, STANDARD ORIFICE (K-5.6), ORDINARY TEMPERATURE; WHITE PAINTED, PENDENT FIRE SPRINKLER WITH WHITE FINISH AND TRIM BLATE (TYCO TY3381) AND TRIM PLATE (TYCO TY3281)

ALL FIRE SPRINKLERS PROTECTING HOLDING CELL AREAS (ON ALL LEVELS) SHALL BE ISOLATED FROM THE FIRE SPRINKLER SYSTEM BY A SEPARATE CONTROL VALVE INSTALLED IN A READILY ACCESSIBLE LOCATION TO ALLOW SECURITY PERSONNEL TO RAPIDLY STOP THE FLOW OF WATER TO THE FIRE SPRINKLERS IN THE HOLDING CELLS IN THE EVENT OF FIRE SPRINKLER TAMPERING WITHOUT INTERRUPTING FIRE SPRINKLER PROTECTION IN THE REMAINDER OF THE BUILDING. INSTALL A SUPERVISED CONTROL VALVE IN OFFICER STATION 1.304 LOCATED IN BASEMENT SECURITY AREA. MOUNT CONTROL VALVE EXPOSED ALONG WALL AT A HEIGHT OF 5'-0" ABOVE FINISHED FLOOR AND PROVIDE SIGN TO CLEAR INDICATE VALVE FUNCTION. COORDINATE LOCATION WITH WALL MOUNTED FIXTURES AND WALL FINISHES AND ADJUST LOCATION AS REQUIRED TO AVOID CONFLICTS. INSTALL SUPPLY PIPING FROM CONTROL VALVE TO ALL FIRE SPRINKLERS LOCATED WITHIN HOLDING CELLS ON ALL LEVELS. VERTICAL PIPING BETWEEN FLOORS MAY BE INSTALLED IN PLUMBING SHAFTS SERVING HOLDING CELL TOILET FIXTURES. COORDINATE WITH WATER, DRAIN AND VENT PIPING. LS IN THE EVENT OF FIRE SPRINKLER TAMPERING WITHOUT INTERRUPTING.

**GENERAL NOTES - FIRE SPRINKLER** THE FIRE SPRINKLER SYSTEMS SHALL BE DESIGNED TO COMPLY WITH THE APPLICABLE PROVISIONS OF THE FOLLOWING CODES AND STANDARDS:
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B. INTERNATIONAL FIRE CODE (IFC) - 2018 EDITION
C. NFPA 13 INSTALLATION OF FIRE SPRINKLER SYSTEMS 2016 EDITION FURNISH ALL MATERIALS, EQUIPMENT AND SUPPLIES AND PERFORM ALL WORK AND OPERATIONS TO DESIGN, CONSTRUCT AND MAKE FUNCTIONAL FIRE SPRINKLER SYSTEMS TO PROVIDE FIRE PROTECTION OF ALL AREAS OF THE BUILDING. PROVIDE PARTIAL DEMOLITION AND REMODEL OF FIRE SPRINKLER SYSTEM PROTECTING PORTIONS OF EXISTING BUILDING TO BE REMODELED. THE SYSTEM DESIGN SHALL MEET THE REQUIREMENTS OF CODES AND STANDARDS LISTED IN NOTE 1 ABOVE AND SHALL BE IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS. THE DESIGN OF THE FIRE SPRINKLER SYSTEMS CONTAINED ON THESE DRAWINGS IS CONCEPTUAL IN NATURE AND IS BASED ON INFORMATION PROVIDED IN THE DESIGN DEVELOPMENT DRAWINGS. THE LOCATIONS SHOWN ON THESE DRAWINGS FOR PIPING AND OTHER FIRE PROTECTION EQUIPMENT ARE APPROXIMATE AND MUST BE ADJUSTED WHERE REQUIRED TO MATCH ACTUAL BUILDING CONDITIONS. INSTALLING CONTRACTOR IS RESPONSIBLE TO COMPLETE DETAILED DESIGN OF THE FIRE

SPRINKLER SYSTEMS INCLUDING HYDRAULIC CALCULATIONS ALL DEVICES AND MATERIALS USED FOR THE INSTALLATION OF THE FIRE SPRINKLER SYSTEMS SHALL BE U.L. LISTED OR FM APPROVED FOR USE IN FIRE PROTECTION OFF-PREMISE SUPERVISION OF FIRE SPRINKLER SYSTEM CONTROL VALVES AND FLOW SWITCHES AS WELL AS PROVISION OF LOCAL WATER FLOW ALARM DEVICE PROVIDED BY FIRE ALARM CONTRACTOR. CONTRACTOR SHALL PREPARE AND SUBMIT COMPLETE SHOP DRAWING, PRODUCT DATA, SEISMIC CALCULATIONS AND HYDRAULIC CALCULATIONS IN ACCORDANCE WITH NFPA 13 FOR REVIEW AND APPROVAL TO THE LOCAL FIRE DEPARTMENT, PROJECT ARCHITECT, ENGINEER AND THE OWNER PRIOR TO ORDERING, FABRICATING OR INSTALLING ANY EQUIPMENT. SHOP DRAWING SUBMITTALS SHALL MEET ALL APPLICABLE REQUIREMENTS OF NFPA 13 AND LOCAL FIRE DEPARTMENT

WATER SUPPLY AVAILABLE FOR FIRE SPRINKLER SYSTEMS: STATIC PRESSURE: 78 PSI RESIDUAL PRESSURE: 64 PSI FLOW: 1,021 GPM TEST BY: PCI

TEST LOCATION: 6TH AVENUE BETWEEN GOODING AND SHOSHONE FIRE SPRINKLER DESIGN DENSITIES:
A. LIBRARY STACK AREAS, FILE ROOMS, STORAGE, MECHANICAL, ELECTRICAL, COMMUNICATIONS, JANITORIAL AND SIMILAR AREAS: ORDINARY HAZARD GROUP 2, 0.20 GPM/SQ. FT. OVER THE MOST REMOTE 1,500 SQ. FT. INCLUDING 250 GPM HOSE ALLOWANCE.

B. COURTROOMS, OFFICES, CORRIDORS, LOBBIES, CONFERENCE ROOMS, OFFICES, STAIRS, COMMON AREAS AND SIMILAR SPACES: LIGHT HAZARD, 0.10 GPM/SQ. FT. OVER THE MOST REMOTE 1,500 SQ. FT. INCLUDING 100 GPM HOSE ALLOWANCE. MAXIMUM COVERAGE AREA PER SPRINKLER: A. ORDINARY HAZARD: 130 SQ FT B. LIGHT HAZARD: 225 SQ FT

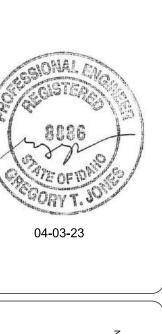
A. ALL AREAS WITH FINISHED CEILINGS (EXCEPT INMATE HOLDING AND TRANSFER AREAS): QUICK RESPONSE, STANDARD ORIFICE (K-5.6), ORDINARY TEMPERATURE, WHITE PAINTED, PENDENT FIRE SPRINKLER WITH WHITE RECESSED TYPE ESCUTCHEON. ESCUTCHEON.
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C. AREAS WITHOUT FINISHED CEILINGS: QUICK RESPONSE, STANDARD ORIFICE (K-5.6), ORDINARY OR INTERMEDIATE TEMPERATURE, BRASS, UPRIGHT FIRE SPRINKLERS ALL FIRE SPRINKLER PIPING SHALL BE STEEL PIPE CONFORMING TO ANSI/ASTM A53, ASTM A135 OR A795
2-1/2" AND LARGER - SCHEDULE 10
2" AND SMALLER - SCHEDULE 30

A. STEEL PIPING 2" AND SMALLER IN NOMINAL DIAMETER SHALL BE JOINED WITH THREADED JOINTS USING CAST IRON FITTINGS AND COUPLINGS.

B. STEEL PIPING 2-1/2" AND LARGER IN NOMINAL DIAMETER SHALL BE JOINED WITH ROLL GROOVED JOINTS USING RUBBER GASKETED VICTAULIC STYLE FITTINGS AND COUPLINGS. C. SPRINKLERS ON BRANCH LINES SHALL BE INSTALLED USING 1/2" OR 3/4" OUTLET THREADED TEES. HANGERS SHALL MEET REQUIREMENTS OF NFPA 13: 1-1/4" AND SMALLER PIPE: MINIMUM ONE HANGER PER LENGTH OF PIPE AND MAXIMUM

12'-0" BETWEEN HANGERS.
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**KEY PLAN** 



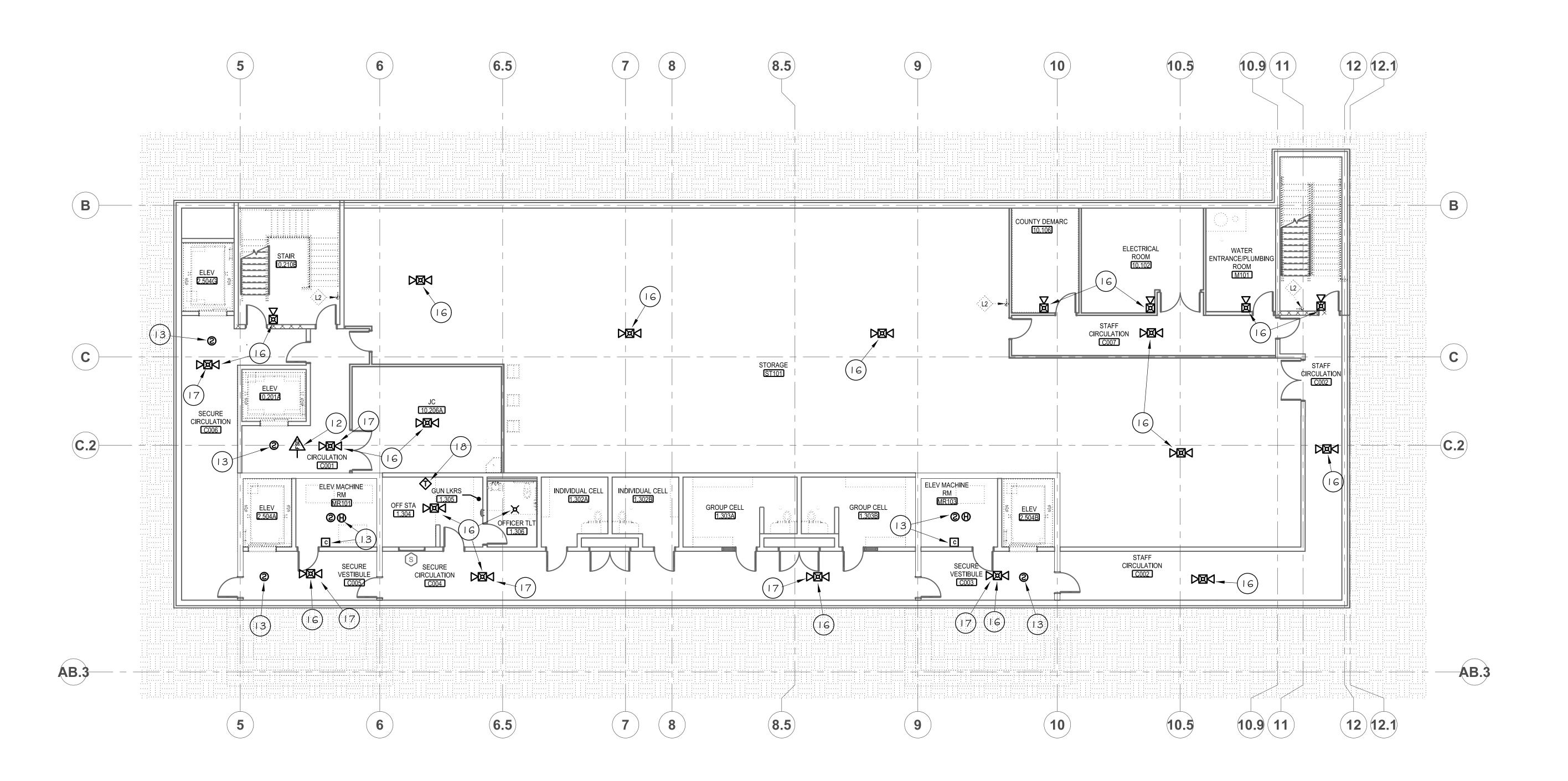
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**Permit Set** 

PROJECT DATE 21403.000 DRAWN CHECKED GTJ REVISED

FIRE SPKR LEVEL 2 **AREA B** 

FP12B ORIGINAL SHEET SIZE 36" x 48"



1 FIRE ALARM PLAN - BASEMENT

FIRE ALARM LEGEND SYMBOL DESCRIPTION FACP FIRE/EMERGENCY VOICE ALARM CONTROL PANEL FIRE/EMERGENCY VOICE ALARM ANNUNCIATOR PANEL FIRE/EMERGENCY VOICE ALARM NOTIFICATION APPLIANCE POWER SUPPLY/AMPLIFIER POWER SUPPLY/AMPLIFIER **②** SMOKE DETECTOR HEAT DETECTOR FIRE ALARM PULL STATION FIRE SPRINKLER VALVE SUPERVISORY SWITCH FIRE SPRINKLER WATER FLOW SWITCH DUCT MOUNTED SMOKE DETECTOR FIRE/SMOKE DAMPER C FIRE ALARM RELAY MAGNETIC FIRE DOOR HOLD-OPEN FIRE/EMERGENCY VOICE ALARM SPEAKER/STROBE - CEILING FIRE/EMERGENCY VOICE ALARM STROBE FIRE/EMERGENCY VOICE ALARM SPEAKER/STROBE - WALL

Keynote Legend - Fire Alarm EXISTING FIRE ALARM NOTIFICATION APPLIANCE POWER SUPPLY TO BE
DEMOLISHED TO FACILITATE REMODEL OF AREA. POWER SUPPLY PROVIDES 24 VDC
POWER TO EXISTING NOTIFICATION APPLIANCES IN BUILDING. DISCONNECT FROM
EXISTING FIRE ALARM CONTROL PANEL (IN ADJACENT BUILDING). REMOVE POWER
SUPPLY, CABINET, BATTERIES, PRIMARY POWER CIRCUIT AND NOTIFICATION
APPLIANCE CIRCUITS. PHASE DEMOLITION OF NOTIFICATION APPLIANCES AND POWER SUPPLY TO OCCUR WHEN BUILDING IS NO LONGER OCCUPIED. FIRE ALARM CONTROL PANEL WITH VOICE ALARM CAPABILITIES (FACP) FOR BOTH EXISTING BUILDING AND BUILDING EXPANSION. SURFACE MOUNT ON WALL WITH CENTER OF CABINET AT 54" AFF. PANEL SHALL BE ADDRESSABLE TYPE WITH SUFFICIENT CAPACITY FOR ALL INITIATING DEVICES IN BUILDING WITH AN ADDITIONAL SPARE CAPACITY OF 20%. AMPLIFIER(S) SHALL HAVE SUFFICIENT CAPACITY FOR ALL SPEAKERS IN BUILDING WITH AN ADDITIONAL SPARE CAPACITY OF 20%. PROVIDE 120 VAC PRIMARY POWER SUPPLY AND 24 VAC SECONDARY POWER SUPPLY (BATTERIES) PER NFPA 72. NOTIFICATION APPLIANCE POWER SUPPLIES AND AMPLIFIERS TO PROVIDE 24 VDC POWER TO ALL STROBES AND POWER/AUDIO SIGNALS TO ALL SPEAKERS IN BUILDING. SURFACE MOUNT ON WALL OF FIRE RISER ROOM OR OTHER SUITABLE UTILITY / SURFACE MOUNT ON WALL OF FIRE RISER ROOM OR OTHER SUITABLE UTILITY?
ELECTRICAL ROOM. REQUIRED NUMBER AND LOCATION OF POWER
SUPPLIES/AMPLIFIERS TO BE DETERMINED BY CONTRACTOR. CONFIGURE POWER
SUPPLIES/AMPLIFIERS TO SYNCHRONIZE AUDIBLE AND VISIBLE SIGNALS OF ALL
NOTIFICATION APPLIANCES IN BUILDING. PROVIDE 120 VAC PRIMARY POWER SUPPLY
AND 24 VAC SECONDARY POWER SUPPLY (BATTERIES) PER NFPA 72.

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SHEET TITLE

SHEET

FIRE ALARM

**PLAN** 

**BASEMENT** 

**FA10** 

ORIGINAL SHEET SIZE 36" x 48"

FIRE ALARM ANNUNCIATOR PANEL AT MAIN BUILDING ENTRANCE. MOUNT ON RECESSED J-BOX AT 54" AFF. ALL CONDUIT AND WIRING SHALL BE INSTALLED CONCEALED WITHIN WALL. EXISTING FIRE SPRINKLER RISER TO BE DEMOLISHED. DISCONNECT WATER FLOW AND VALVE SUPERVISORY SWITCHES FROM EXISTING FACP (IN ADJACENT BUILDING) AND ADJUST PROGRAMMING AS REQUIRED. REMOVE SWITCHES, CONDUIT J-BOXES AND WIRING. FIRE SPRINKLER RISERS (NEW) WITH WATER FLOW SWITCHES AND VALVE SUPERVISORY SWITCHES PROVIDED BY FIRE SPRINKLER INSTALLER. CONNECT SWITCHES TO NEW FACP TO PROVIDE ELECTRONIC MONITORING. PROGRAM ACTIVATION OF WATER FLOW SWITCH AS A FIRE ALARM SIGNAL. PROGRAM ACTIVATION OF VALVE SWITCH AS A SUPERVISORY SIGNAL. EXISTING FIRE ALARM PULL STATION TO BE DEMOLISHED TO FACILITATE REMODEL OF AREA. DISCONNECT FROM EXISTING FIRE ALARM CONTROL PANEL (IN ADJACENT BUILDING) AND ADJUST PROGRAMMING AS REQUIRED. REMOVE DEVICE, J-BOX, CONDUIT AND WIRING. PHASE DEMOLITION OF PULL STATION TO OCCUR WHEN BUILDING IS NO LONGER OCCUPIED. MANUAL FIRE ALARM PULL STATION. PROVIDE SINGLE MANUAL FIRE ALARM PULL STATION IN SECURITY AREA TO COMPLY WITH NFPA 72 23.8.5.1.2. PULL STATIONS AT BUILDING EXITS ARE NOT REQUIRED IN ACCORDANCE WITH EXCEPTION TO IBC 907.2.1 INSTALL PULL STATION 48" ABOVE FINISHED FLOOR LEVEL. PROGRAM ACTUATION OF PULL STATION AS A FIRE ALARM SIGNAL.

EXISTING SMOKE DETECTOR TO BE DEMOLISHED TO FACILITATE REMODEL OF AREA. DISCONNECT FROM EXISTING FIRE ALARM CONTROL PANEL (IN ADJACENT BUILDING) AND ADJUST PROGRAMMING AS REQUIRED. REMOVE DEVICE, J-BOX, CONDUIT AND WIRING. PHASE DEMOLITION OF DETECTOR TO OCCUR WHEN BUILDING IS NO LONGER OCCUPIED. INSTALL SMOKE DETECTOR ABOVE FIRE ALARM CONTROL EQUIPMENT IN ACCORDANCE WITH NFPA 72 10.4.4. PROGRAM ACTIVATION OF SMOKE DETECTOR AS A FIRE ALARM SIGNAL.

INSTALL NEW DUCT MOUNTED SMOKE DETECTORS (LISTED COMPATIBLE WITH NEW FACP) ON THE SUPPLY AND/OR RETURN SIDE OF ALL AIR MOVEMENT SYSTEMS WITH A CAPACITY IN EXCESS OF 2,000 CFM. CONTRACTOR TO FIELD VERIFY NUMBER AND LOCATION OF ALL DETECTORS AND CAPACITY OF ALL AIR MOVEMENT SYSTEMS. INSTALL CONTROL RELAY AND INTERFACE WITH AIR MOVEMENT SYSTEM CONTROLLER. PROGRAM RELAY TO SHUT DOWN AIR HANDLER UPON OPERATION OF DUCT SMOKE DETECTOR OR ANY OTHER FIRE ALARM INITIATING DEVICE IN BUILDING FIRE/SMOKE DAMPER. COORDINATE WITH MECHANICAL DRAWINGS FOR REQUIRED NUMBER AND LOCATIONS. INSTALL SMOKE DETECTOR PER NFPA 72 17.7.5.5 TO
INITIATE DAMPER OPERATION. USE SPOT TYPE SMOKE DETECTORS WITHIN DUCT
WHERE AIR VELOCITY DOES NOT EXCEED 300 FEET PER MINUTE AND DUCT TYPE
SMOKE DETECTORS WITH HOUSING AND SAMPLING TUBES WHERE AIR VELOCITY
EXCEEDS 300 FEET PER MINUTE. INSTALL PROGRAMMABLE RELAY TO CLOSE
DAMPERS (VIA INTERRUPTION OF POWER SUPPLY TO DAMPERS) UPON ACTUATION
OF SMOKE DETECTORS OF ANY OTHER FIRE ALAPM INITIATING DEVICE IN THE

OF SMOKE DETECTORS OR ANY OTHER FIRE ALARM INITIATING DEVICE IN THE INSTALL SMOKE AND HEAT DETECTORS IN ELEVATOR EQUIPMENT AREA, LOBBIES AND SHAFT TO INITIATE EMERGENCY FUNCTIONS. PROVIDE FIRE ALARM SYSTEM RELAYS TO INTERFACE WITH ELEVATOR CONTROLS TO INITIATE THE FOLLOWING FUNCTIONS A. PRIMARY RECALL B. SECONDARY RECALL
C. FIRE HAT FLASH
D. ELEVATOR POWER SHUNT-TRIP

DOORS AT REAR OF COURTROOMS AND IN CIRCULATION C100 ARE SECURED FOR AUTHORIZED USE ONLY AND NOT AVAILABLE FOR PUBLIC USE UNDER NORMAL OPERATIONS. OCCUPANT LOAD OF COURTROOMS EXCEEDS 50 OCCUPANTS REQUIRING A SECOND EXIT PER IBC TABLE 1006.2.1. INSTALL ADDRESSABLE RELAY AND INTERFACE WITH SECURITY SYSTEM TO RELEASE SECURED DOOR UPON ACTIVATION OF ANY FIRE ALLARM INSTALLABLE DIVISION COUNTRICE. ACTIVATION OF ANY FIRE ALARM INITIATING DEVICE IN THE BUILDING. CONNE POWER TO DOOR SECURITY CONTROLLER OR HARDWARE (MAGNETIC PLATE OR ELECTRIC STRIKE) THROUGH NORMALLY CLOSED CONTACTS OF RELAY AND PROGRAM RELAY CONTACTS TO OPEN UPON ACTIVATION OF FIRE ALARM SYSTEM INTERRUPTING POWER SUPPLY TO SECURITY HARDWARE AND RELEASING DOOR. RELAY SHALL NOT RESET UNTIL THE FIRE ALARM SYSTEM IS RESTORED TO NORMAL CONDITION

EXISTING FIRE ALARM NOTIFICATION APPLIANCE TO BE DEMOLISHED TO FACILITATE REMODEL OF AREA. DISCONNECT FROM EXISTING FIRE ALARM NOTIFICATION APPLIANCE POWER SUPPLY (SEE KEY NOTE 1 ABOVE). REMOVE DEVICE, J-BOX, CONDUITABLE DEMOLITION OF NOTIFICATION APPLIANCE TO OCCUR WHEN BUILDING IS NO LONGER OCCUPIED.

FURNISH AND INSTALL NEW FIRE ALARM NOTIFICATION APPLIANCES (SPEAKERS, STROBES OR SPEKAER/STROBES) THROUGHOUT BUILDING TO CONFORM TO OCCUPANT NOTIFICATION (EMERGENCY VOICE ALARM SYSTEM) REQUIREMENTS OF NFPA 72 AND THE INTERNATIONAL BUILDING CODE. CONNECT DEVICES TO FACP, SPEAKER AMPLIFIERS OR NOTIFICATION CIRCUIT POWER SUPPLIES. NUMBER, LAYOUT AND WIRE SIZE OF CIRCUITS SHALL LIMIT VOLTAGE DROP TO 20% MAXIMUM AND SPEAKER SIGNAL LOSS TO A MAXIMUM OF -1.5 dB. PROVIDE PROTECTIVE PLASTIC ENCLOSURES FOR NOTIFICATION APPLIANCES LOCATED IN AREAS FREQUENTLY OCCUPIED BY INCARCERATED INDIVIDUALS.

FIRE SPRINKLER CONTROL VALVE WITH SUPERVISORY SWITCH TO ISOLATE FIRE SPRINKLERS IN HOLDING CELL AREAS PROVIDED BY FIRE SPRINKLER INSTALLER. CONNECT SWITCH TO NEW FACP TO PROVIDE ELECTRONIC MONITORING. PROGRAM ACTIVATION OF VALVE SWITCH AS A SUPERVISORY SIGNAL. FIRE DOOR WITH MAGNETIC HOLD-OPEN DEVICE. INSTALL SMOKE DETECTORS ON BOTH SIDE OF FIRE DOOR IN ACCORDANCE WITH NFPA 72 17.7.5.6. INSTALL 24VDC POWER SUPPLY TO MAGNETIC DOOR HOLDERS FROM FIRE ALARM SYSTEM. INSTALL PROGRAMMABLE FIRE ALARM CONTROL RELAY WITH 24VDC POWER WIRED THROUGH NORMALLY CLOSED CONTACTS OF RELAY. PROGRAM RELAY TO OPEN (CUTTING POWER TO MAGNETS AND RELEASING FIRE DOOR) UPON ACTUATION OF SMOKE DETECTOR ON EITHER SIDE OF DOOR.

**GENERAL NOTES - FIRE ALARM** 

THE FIRE/EMERGENCY VOICE ALARM SYSTEM SHALL BE DESIGNED TO COMPLY WITH THE APPLICABLE PROVISIONS OF THE FOLLOWING CODES AND STANDARDS:
A. INTERNATIONAL BUILDING CODE (IBC) - 2018 EDITION
B. INTERNATIONAL FIRE CODE (IFC) - 2018 EDITION
C. NFPA 70 NATIONAL ELECTRICAL CODE 2017 EDITION
D. NFPA 72 NATIONAL FIRE ALARM AND SIGNALING CODE - 2016 EDITION
E. NFPA 101 LIFE SAFETY CODE - 2018 EDITION FURNISH ALL MATERIALS, EQUIPMENT AND SUPPLIES AND PERFORM ALL WORK AND OPERATIONS TO DESIGN, CONSTRUCT AND MAKE FUNCTIONAL FIRE/EMERGENCY VOICE ALARM SYSTEM TO PROVIDE FIRE PROTECTION OF ALL AREAS OF THE BUILDING. THE SYSTEM DESIGN SHALL MEET THE REQUIREMENTS OF CODES AND STANDARDS LISTED IN NOTE 1 ABOVE AND SHALL BE IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS

THE DESIGN OF THE FIRE/EMERGENCY VOICE ALARM SYSTEM CONTAINED ON THESE DRAWINGS IS CONCEPTUAL IN NATURE AND IS BASED ON INFORMATION PROVIDED IN THE DESIGN DEVELOPMENT DRAWINGS. THE LOCATIONS SHOWN ON THESE DRAWINGS FOR PIPING AND OTHER FIRE PROTECTION EQUIPMENT ARE APPROXIMATE AND MUST BE ADJUSTED WHERE REQUIRED TO MATCH ACTUAL BUILDING CONDITIONS. INSTALLING CONTRACTOR IS RESPONSIBLE TO COMPLETE DETAILED DESIGN OF THE FIRE ALARM SYSTEM INCLUDING BATTERY AND VOLTAGE DROP CALCULATIONS. ALL DEVICES AND MATERIALS USED FOR THE INSTALLATION OF THE FIRE/EMERGENCY VOICE ALARM SYSTEM SHALL BE U.L. LISTED OR FM APPROVED FOR USE IN FIRE

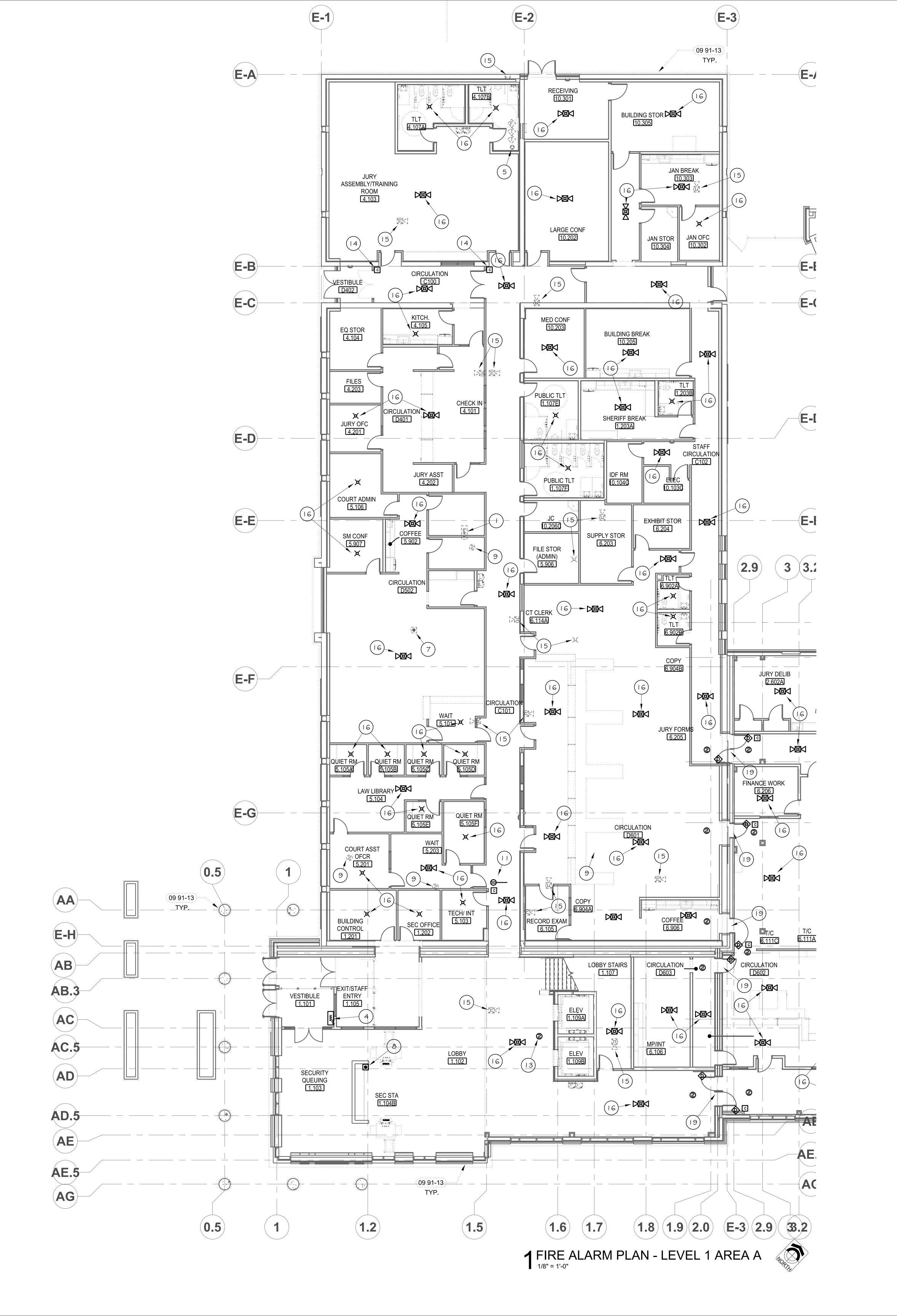
ALL WIRING USED IN THE FIRE/EMERGENCY VOICE ALARM SYSTEM INSTALLATION SHALL BE MINIMUM 18-GAUGE, 300-V, FPL, INSTALLED IN EMT OR FLEXIBLE CONDUIT. WHERE WIRE WILL BE RUN IN SPACES ABOVE CEILINGS OR IN TRUSS SPACE, CONDUIT IS NOT REQUIRED. CONTRACTOR SHALL PREPARE AND SUBMIT COMPLETE SHOP DRAWINGS, EQUIPMENT CONTRACTOR SHALL PREPARE AND SUBMIT COMPLETE SHOP DRAWINGS, EQUIPMENT DATA SHEETS, SEQUENCE OF OPERATION, SYSTEM RISER DETAILS, DEVICE MOUNTING DETAILS AND BATTERY/VOLTAGE DROP CALCULATIONS IN ACCORDANCE WITH NFPA 72 FOR REVIEW AND APPROVAL TO THE LOCAL FIRE DEPARTMENT, PROJECT ARCHITECT, ENGINEER AND THE OWNER PRIOR TO ORDERING, FABRICATING OR INSTALLING ANY EQUIPMENT. SHOP DRAWING SUBMITTALS SHALL MEET ALL APPLICABLE REQUIREMENTS OF NFPA 72 AND LOCAL FIRE DEPARTMENT REQUIREMENTS.

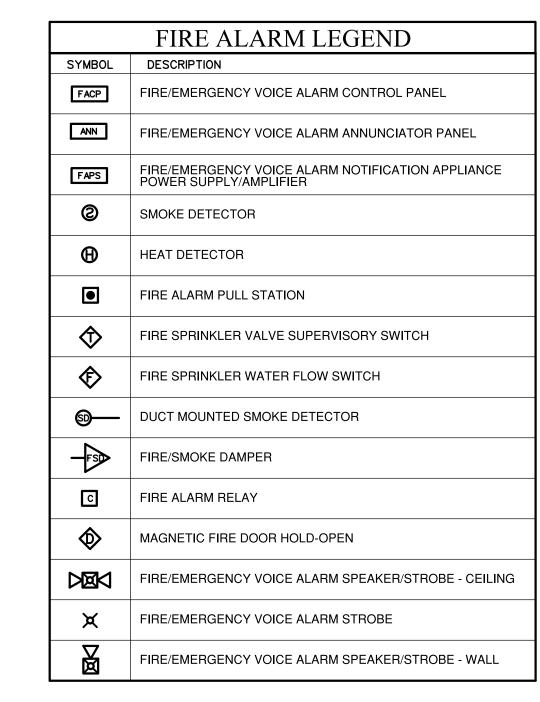
THE POWER SUPPLY (UN SWITCHED) TO THE FIRE ALARM CONTROL PANEL SHALL BE A DEDICATED BRANCH CIRCUIT PROVIDED FROM A NEARBY POWER DISTRIBUTION PANEL. SEE ELECTRICAL PLANS FOR PANEL LOCATION AND CIRCUIT DESIGNATION. FIRE/EMERGENCY VOICE ALARM INITIATING DEVICES SHALL ACTIVATE ALL LOCAL NOTIFICATION APPLIANCES, SOUND AN AUDIBLE ALARM AT THE FIRE ALARM ANNUNCIATOR PANEL AND TRANSMIT A FIRE ALARM SIGNAL TO THE REMOTE MONITORING STATION. SUPERVISORY DEVICES SHALL SOUND AN AUDIBLE ALARM AT THE FIRE ALARM ANNUNCIATOR PANEL AND TRANSMIT A SUPERVISORY SIGNAL TO THE REMOTE MONITORING STATION

REMOTE MONITORING STATION. FIRE ALARM DEVICES: SMOKE/HEAT DETECTORS, PULL STATIONS, FIRE SPRINKLER WATER FLOW SWITCH SUPERVISORY DEVICES: DUCT SMOKE DETECTORS, FIRE SPRINKLER VALVE

CONTRACTOR SHALL CONNECT FIRE/EMERGENCY VOICE ALARM SYSTEM TO A SUITABLE CELLULAR DIALER (FURINSIHED AND INSTALLED BY CONTRACTOR) TO RELAY FIRE ALARM SIGNALS FROM PROTECTED PREMISE TO CENTRAL MONITORING STATION PROVIDE SECONDARY POWER SUPPLY (BATTERIES) PER NFPA 72. BATTERIES SHALL BE LEAD-ACID TYPE SIZED TO OPERATE THE FIRE ALARM SYSTEM IN NORMAL SUPERVISORY CONDITION FOR 24-HOURS WITH ADEQUATE RESERVE TO OPERATE SYSTEM IN ALARM CONDITION FOR AN ADDITIONAL 5-MINUTES. INITIATING DEVICE CIRCUIT WIRING SHALL BE CLASS B. NOTIFICATION APPLIANCE CIRCUIT WIRING SHALL BE CLASS B. DATA LOOP SHALL BE CLASS A. PROTECTED PREMISE FIRE SAFETY FUNCTIONS: INSTALL PROGRAMMABLE OUTPUT MODULES WITH RELAY CONTACTS TO INITIATE REQUIRED FIRE SAFETY FUNCTIONS (FAN SHUTDOWN, ELEVATOR CONTROL, FIRE DAMPER ACTUATION, SECURE DOOR UNLOCK, ETC.). OUTPUT MODULES SHALL BE INSTALLED WITHIN 36" OF DEVICE OR CIRCUIT CONTROLLED. NOTIFICATION APPLIANCES: PROVIDE AUDIBLE (VOICE) AND VISUAL NOTIFICATION APPLIANCES THROUGHOUT BUILDING WHERE INDICATED ON PLANS. NOTIFICATION APPLIANCES SHALL BE SPEAKER/STROBE TYPE DEVICES WITH ADJUSTABLE LIGHT INTENSITY (15Cd-110Cd) AND VOLUME SETTINGS (1/4W - 2W). VOLUME OF SPEAKERS SHALL BE SUFFICIENT TO PROVIDE A SOUND LEVEL (ALERT TONE) OF 15 Db ABOVE AMBIENT AND SUFFICIENT TO PRODUCE VOICE INTELLIGIBILITY (AVERAGE STI OF 0.50) IN ALL OCCUPIED AREAS. VOICE INTELLIGIBILITY IS NOT REQUIRED IN MECHANICAL SPACES, ATRIUM, INMATE HOLDING CELLS OR PRIVATE OFFICES. VISIBLE ALARMS SHALL BE PROVIDED THROUGHOUT ALL PUBLIC AND COMMON AREAS OF EACH BUILDING INCLUDING AREAS WITH POSSIBLE OCCUPANCY BY HEARING IMPAIRED PERSONS. STROBES SHALL FLASH IN SYNCHRONIZATION. NOTIFICATION APPLIANCES MAY BE WALL OR CEILING MOUNT. LOCATE WALL MOUNT DEVICES BETWEEN 80" AND 96" ABOVE FLOOR. 14 NOTIFICATION APPLIANCE ZONING: PROVIDE A SEPARATE ZONE OF NOTIFICATION APPLIANCES FOR EACH FLOOR LEVEL OF BUILDING. CONFIGURE VOICE ALARM CONTROL EQUIPMENT TO ALLOW MANUAL PAGING TO THREE SEPARATE ZONES (BASEMENT, LEVEL 1 AND LEVEL 2) AS WELL AS TO THE ENTIRE BUILDING. AUTOMATIC VOICE ALARM MESSAGES SHALL BE TRANSMITTED THROUGHOUT THE ENTIRE BUILDING WHERE FIRE ALARM INITIATING DEVICES HAVE ACTIVATED.

**KEY PLAN** 





Keynote Legend - Fire Alarm EXISTING FIRE ALARM NOTIFICATION APPLIANCE POWER SUPPLY TO BE DEMOLISHED TO FACILITATE REMODEL OF AREA. POWER SUPPLY PROVIDES 24 VDC POWER TO EXISTING NOTIFICATION APPLIANCES IN BUILDING. DISCONNECT FROM EXISTING FIRE ALARM CONTROL PANEL (IN ADJACENT BUILDING). REMOVE POWER SUPPLY, CABINET, BATTERIES, PRIMARY POWER CIRCUIT AND NOTIFICATION
APPLIANCE CIRCUITS. PHASE DEMOLITION OF NOTIFICATION APPLIANCES AND POWER SUPPLY TO OCCUR WHEN BUILDING IS NO LONGER OCCUPIED. FIRE ALARM CONTROL PANEL WITH VOICE ALARM CAPABILITIES (FACP) FOR BOTH EXISTING BUILDING AND BUILDING EXPANSION. SURFACE MOUNT ON WALL WITH CENTER OF CABINET AT 54" AFF. PANEL SHALL BE ADDRESSABLE TYPE WITH SUFFICIENT CAPACITY FOR ALL INITIATING DEVICES IN BUILDING WITH AN ADDITIONAL SPARE CAPACITY OF 20%. AMPLIFIER(S) SHALL HAVE SUFFICIENT CAPACITY FOR ALL SPEAKERS IN BUILDING WITH AN ADDITIONAL SPARE CAPACITY OF 20%. PROVIDE 120 VAC PRIMARY POWER SUPPLY AND 24 VAC SECONDARY POWER SUPPLY (BATTERIES) PER NFPA 72. NOTIFICATION APPLIANCE POWER SUPPLIES AND AMPLIFIERS TO PROVIDE 24 VDC POWER TO ALL STROBES AND POWER/AUDIO SIGNALS TO ALL SPEAKERS IN BUILDING. SURFACE MOUNT ON WALL OF FIRE RISER ROOM OR OTHER SUITABLE UTILITY / ELECTRICAL ROOM. REQUIRED NUMBER AND LOCATION OF POWER SUPPLIES/AMPLIFIERS TO BE DETERMINED BY CONTRACTOR. CONFIGURE POWER SUPPLIES/AMPLIFIERS TO SYNCHRONIZE AUDIBLE AND VISIBLE SIGNALS OF ALL NOTIFICATION APPLIANCES IN BUILDING. PROVIDE 120 VAC PRIMARY POWER SUPPLY AND 24 VAC SECONDARY POWER SUPPLY (BATTERIES) PER NFPA 72. FIRE ALARM ANNUNCIATOR PANEL AT MAIN BUILDING ENTRANCE. MOUNT ON RECESSED J-BOX AT 54" AFF. ALL CONDUIT AND WIRING SHALL BE INSTALLED CONCEALED WITHIN WALL. EXISTING FIRE SPRINKLER RISER TO BE DEMOLISHED. DISCONNECT WATER FLOW AND VALVE SUPERVISORY SWITCHES FROM EXISTING FACP (IN ADJACENT BUILDING) AND ADJUST PROGRAMMING AS REQUIRED. REMOVE SWITCHES, CONDUIT J-BOXES AND WIRING. FIRE SPRINKLER RISERS (NEW) WITH WATER FLOW SWITCHES AND VALVE SUPERVISORY SWITCHES PROVIDED BY FIRE SPRINKLER INSTALLER. CONNECT SWITCHES TO NEW FACP TO PROVIDE ELECTRONIC MONITORING. PROGRAM ACTIVATION OF WATER FLOW SWITCH AS A FIRE ALARM SIGNAL. PROGRAM ACTIVATION OF VALVE SWITCH AS A SUPERVISORY SIGNAL. EXISTING FIRE ALARM PULL STATION TO BE DEMOLISHED TO FACILITATE REMODEL OF AREA. DISCONNECT FROM EXISTING FIRE ALARM CONTROL PANEL (IN ADJACENT BUILDING) AND ADJUST PROGRAMMING AS REQUIRED. REMOVE DEVICE, J-BOX, CONDUIT AND WIRING. PHASE DEMOLITION OF PULL STATION TO OCCUR WHEN BUILDING IS NO LONGER OCCUPIED. MANUAL FIRE ALARM PULL STATION. PROVIDE SINGLE MANUAL FIRE ALARM PULL STATION IN SECURITY AREA TO COMPLY WITH NFPA 72 23.8.5.1.2. PULL STATIONS AT BUILDING EXITS ARE NOT REQUIRED IN ACCORDANCE WITH EXCEPTION TO IBC 907.2.1 INSTALL PULL STATION 48" ABOVE FINISHED FLOOR LEVEL. PROGRAM ACTUATION OF PULL STATION AS A FIRE ALARM SIGNAL. EXISTING SMOKE DETECTOR TO BE DEMOLISHED TO FACILITATE REMODEL OF AREA. DISCONNECT FROM EXISTING FIRE ALARM CONTROL PANEL (IN ADJACENT BUILDING) AND ADJUST PROGRAMMING AS REQUIRED. REMOVE DEVICE, J-BOX, CONDITION OF DETECTOR TO OCCUR WHEN BUILDING IS NO LONGER OCCUPIED. INSTALL SMOKE DETECTOR ABOVE FIRE ALARM CONTROL EQUIPMENT IN ACCORDANCE WITH NFPA 72 10.4.4. PROGRAM ACTIVATION OF SMOKE DETECTOR AS A FIRE ALARM SIGNAL. INSTALL NEW DUCT MOUNTED SMOKE DETECTORS (LISTED COMPATIBLE WITH NEW FACP) ON THE SUPPLY AND/OR RETURN SIDE OF ALL AIR MOVEMENT SYSTEMS WITH A CAPACITY IN EXCESS OF 2,000 CFM. CONTRACTOR TO FIELD VERIFY NUMBER AND LOCATION OF ALL DETECTORS AND CAPACITY OF ALL AIR MOVEMENT SYSTEMS. INSTALL CONTROL RELAY AND INTERFACE WITH AIR MOVEMENT SYSTEM CONTROLLER. PROGRAM RELAY TO SHUT DOWN AIR HANDLER UPON OPERATION OF DUCT SMOKE DETECTOR OR ANY OTHER FIRE ALARM INITIATING DEVICE IN BUILDING FIRE/SMOKE DAMPER. COORDINATE WITH MECHANICAL DRAWINGS FOR REQUIRED NUMBER AND LOCATIONS. INSTALL SMOKE DETECTOR PER NFPA 72 17.7.5.5 TO
INITIATE DAMPER OPERATION. USE SPOT TYPE SMOKE DETECTORS WITHIN DUCT
WHERE AIR VELOCITY DOES NOT EXCEED 300 FEET PER MINUTE AND DUCT TYPE
SMOKE DETECTORS WITH HOUSING AND SAMPLING TUBES WHERE AIR VELOCITY
EXCEEDS 300 FEET PER MINUTE. INSTALL PROGRAMMABLE RELAY TO CLOSE
DAMPERS (VIA INTERRUPTION OF POWER SUPPLY TO DAMPERS) UPON ACTUATION
OF SMOKE DETECTORS OF ANY OTHER FIRE ALL ADMINISTRATING DEVICES IN THE OF SMOKE DETECTORS OR ANY OTHER FIRE ALARM INITIATING DEVICE IN THE INSTALL SMOKE AND HEAT DETECTORS IN ELEVATOR EQUIPMENT AREA, LOBBIES AND SHAFT TO INITIATE EMERGENCY FUNCTIONS. PROVIDE FIRE ALARM SYSTEM RELAYS TO INTERFACE WITH ELEVATOR CONTROLS TO INITIATE THE FOLLOWING FUNCTIONS A. PRIMARY RECALL B. SECONDARY RECALL C. FIRE HAT FLASH D. ELEVATOR POWER SHUNT-TRIP DOORS AT REAR OF COURTROOMS AND IN CIRCULATION C100 ARE SECURED FOR AUTHORIZED USE ONLY AND NOT AVAILABLE FOR PUBLIC USE UNDER NORMAL OPERATIONS. OCCUPANT LOAD OF COURTROOMS EXCEEDS 50 OCCUPANTS REQUIRING A SECOND EXIT PER IBC TABLE 1006.2.1. INSTALL ADDRESSABLE RELAY AND INTERFACE WITH SECURITY SYSTEM TO RELEASE SECURED FOR ACTIVATION OF ANY FIRE ALARM INITIATING DEVICE IN THE BUILDING. CONNE POWER TO DOOR SECURITY CONTROLLER OR HARDWARE (MAGNETIC PLATE OR ELECTRIC STRIKE) THROUGH NORMALLY CLOSED CONTACTS OF RELAY AND PROGRAM RELAY CONTACTS TO OPEN UPON ACTIVATION OF FIRE ALARM SYSTEM INTERRUPTING POWER SUPPLY TO SECURITY HARDWARE AND RELEASING DOOR. RELAY SHALL NOT RESET UNTIL THE FIRE ALARM SYSTEM IS RESTORED TO EXISTING FIRE ALARM NOTIFICATION APPLIANCE TO BE DEMOLISHED TO FACILITATE REMODEL OF AREA. DISCONNECT FROM EXISTING FIRE ALARM NOTIFICATION APPLIANCE POWER SUPPLY (SEE KEY NOTE 1 ABOVE). REMOVE DEVICE, J-BOX, CONDUIT AND WIRING. PHASE DEMOLITION OF NOTIFICATION APPLIANCE TO OCCUR WHEN BUILDING IS NO LONGER OCCUPIED. FURNISH AND INSTALL NEW FIRE ALARM NOTIFICATION APPLIANCES (SPEAKERS, STROBES OR SPEKAER/STROBES) THROUGHOUT BUILDING TO CONFORM TO OCCUPANT NOTIFICATION (EMERGENCY VOICE ALARM SYSTEM) REQUIREMENTS OF NFPA 72 AND THE INTERNATIONAL BUILDING CODE. CONNECT DEVICES TO FACP, SPEAKER AMPLIFIERS OR NOTIFICATION CIRCUIT POWER SUPPLIES. NUMBER, LAYOUT AND WIRE SIZE OF CIRCUITS SHALL LIMIT VOLTAGE DROP TO 20% MAXIMUM AND SPEAKER SIGNAL LOSS TO A MAXIMUM OF -1.5 dB. PROVIDE PROTECTIVE PLASTIC ENCLOSURES FOR NOTIFICATION APPLIANCES LOCATED IN AREAS FREQUENTLY OCCUPIED BY INCARCERATED INDIVIDUALS. FIRE SPRINKLER CONTROL VALVE WITH SUPERVISORY SWITCH TO ISOLATE FIRE SPRINKLERS IN HOLDING CELL AREAS PROVIDED BY FIRE SPRINKLER INSTALLER. CONNECT SWITCH TO NEW FACP TO PROVIDE ELECTRONIC MONITORING. PROGRAM ACTIVATION OF VALVE SWITCH AS A SUPERVISORY SIGNAL. FIRE DOOR WITH MAGNETIC HOLD-OPEN DEVICE. INSTALL SMOKE DETECTORS ON BOTH SIDE OF FIRE DOOR IN ACCORDANCE WITH NFPA 72 17.7.5.6. INSTALL 24VDC POWER SUPPLY TO MAGNETIC DOOR HOLDERS FROM FIRE ALARM SYSTEM. INSTALL PROGRAMMABLE FIRE ALARM CONTROL RELAY WITH 24VDC POWER WIRED THROUGH NORMALLY CLOSED CONTACTS OF RELAY. PROGRAM RELAY TO OPEN (CUTTING POWER TO MAGNETS AND RELEASING FIRE DOOR) UPON ACTUATION OF SMOKE DETECTOR ON EITHER SIDE OF DOOR. **GENERAL NOTES - FIRE ALARM** THE FIRE/EMERGENCY VOICE ALARM SYSTEM SHALL BE DESIGNED TO COMPLY WITH THE APPLICABLE PROVISIONS OF THE FOLLOWING CODES AND STANDARDS:

A. INTERNATIONAL BUILDING CODE (IBC) - 2018 EDITION

B. INTERNATIONAL FIRE CODE (IFC) - 2018 EDITION

C. NEPA 70 NATIONAL ELECTRICAL CODE 2017 EDITION D. NFPA 72 NATIONAL FIRE ALARM AND SIGNALING CODE - 2016 EDITION E. NFPA 101 LIFE SAFETY CODE - 2018 EDITION FURNISH ALL MATERIALS, EQUIPMENT AND SUPPLIES AND PERFORM ALL WORK AND OPERATIONS TO DESIGN, CONSTRUCT AND MAKE FUNCTIONAL FIRE/EMERGENCY VOICE ALARM SYSTEM TO PROVIDE FIRE PROTECTION OF ALL AREAS OF THE BUILDING. THE SYSTEM DESIGN SHALL MEET THE REQUIREMENTS OF CODES AND STANDARDS LISTED IN NOTE 1 ABOVE AND SHALL BE IN ACCORDANCE WITH THE DRAWINGS AND THE DESIGN OF THE FIRE/EMERGENCY VOICE ALARM SYSTEM CONTAINED ON THESE DRAWINGS IS CONCEPTUAL IN NATURE AND IS BASED ON INFORMATION PROVIDED IN THE DESIGN DEVELOPMENT DRAWINGS. THE LOCATIONS SHOWN ON THESE DRAWINGS FOR PIPING AND OTHER FIRE PROTECTION EQUIPMENT ARE APPROXIMATE AND MUST BE ADJUSTED WHERE REQUIRED TO MATCH ACTUAL BUILDING CONDITIONS. INSTALLING CONTRACTOR IS RESPONSIBLE TO COMPLETE DETAILED DESIGN OF THE FIRE ALARM SYSTEM INCLUDING BATTERY AND VOLTAGE DROP CALCULATIONS. ALL DEVICES AND MATERIALS USED FOR THE INSTALLATION OF THE FIRE/EMERGENCY VOICE ALARM SYSTEM SHALL BE U.L. LISTED OR FM APPROVED FOR USE IN FIRE ALL WIRING USED IN THE FIRE/EMERGENCY VOICE ALARM SYSTEM INSTALLATION SHALL BE MINIMUM 18-GAUGE, 300-V, FPL, INSTALLED IN EMT OR FLEXIBLE CONDUIT. WHERE WIRE WILL BE RUN IN SPACES ABOVE CEILINGS OR IN TRUSS SPACE, CONDUIT IS NOT REQUIRED. CONTRACTOR SHALL PREPARE AND SUBMIT COMPLETE SHOP DRAWINGS, EQUIPMENT CONTRACTOR SHALL PREPARE AND SUBMIT COMPLETE SHOP DRAWINGS, EQUIPMENT DATA SHEETS, SEQUENCE OF OPERATION, SYSTEM RISER DETAILS, DEVICE MOUNTING DETAILS AND BATTERY/VOLTAGE DROP CALCULATIONS IN ACCORDANCE WITH NFPA 72 FOR REVIEW AND APPROVAL TO THE LOCAL FIRE DEPARTMENT, PROJECT ARCHITECT, ENGINEER AND THE OWNER PRIOR TO ORDERING, FABRICATING OR INSTALLING ANY EQUIPMENT. SHOP DRAWING SUBMITTALS SHALL MEET ALL APPLICABLE REQUIREMENTS OF NFPA 72 AND LOCAL FIRE DEPARTMENT REQUIREMENTS. THE POWER SUPPLY (UN SWITCHED) TO THE FIRE ALARM CONTROL PANEL SHALL BE A DEDICATED BRANCH CIRCUIT PROVIDED FROM A NEARBY POWER DISTRIBUTION PANEL. SEE ELECTRICAL PLANS FOR PANEL LOCATION AND CIRCUIT DESIGNATION. FIRE/EMERGENCY VOICE ALARM INITIATING DEVICES SHALL ACTIVATE ALL LOCAL NOTIFICATION APPLIANCES, SOUND AN AUDIBLE ALARM AT THE FIRE ALARM ANNUNCIATOR PANEL AND TRANSMIT A FIRE ALARM SIGNAL TO THE REMOTE MONITORING STATION. SUPERVISORY DEVICES SHALL SOUND AN AUDIBLE ALARM AT THE FIRE ALARM ANNUNCIATOR PANEL AND TRANSMIT A SUPERVISORY SIGNAL TO THE REMOTE MONITORING STATION REMOTE MONITORING STATION. FIRE ALARM DEVICES: SMOKE/HEAT DETECTORS, PULL STATIONS, FIRE SPRINKLER WATER FLOW SWITCH SUPERVISORY DEVICES: DUCT SMOKE DETECTORS, FIRE SPRINKLER VALVE CONTRACTOR SHALL CONNECT FIRE/EMERGENCY VOICE ALARM SYSTEM TO A SUITABLE CELLULAR DIALER (FURINSIHED AND INSTALLED BY CONTRACTOR) TO RELAY FIRE ALARM SIGNALS FROM PROTECTED PREMISE TO CENTRAL MONITORING STATION PROVIDE SECONDARY POWER SUPPLY (BATTERIES) PER NFPA 72. BATTERIES SHALL BE LEAD-ACID TYPE SIZED TO OPERATE THE FIRE ALARM SYSTEM IN NORMAL SUPERVISORY CONDITION FOR 24-HOURS WITH ADEQUATE RESERVE TO OPERATE SYSTEM IN ALARM CONDITION FOR AN ADDITIONAL 5-MINUTES.

**Permit Set** 

DATE

04-03-23

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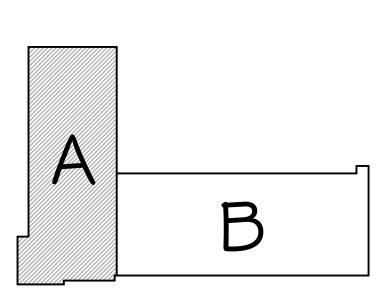
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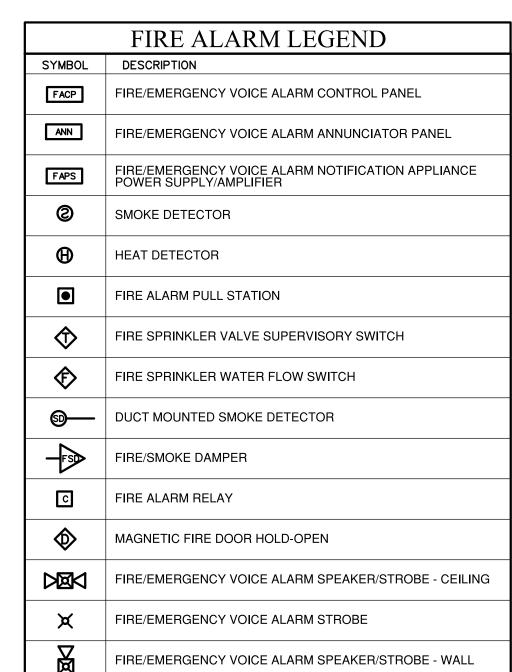
INITIATING DEVICE CIRCUIT WIRING SHALL BE CLASS B. NOTIFICATION APPLIANCE CIRCUIT WIRING SHALL BE CLASS B. DATA LOOP SHALL BE CLASS A. PROTECTED PREMISE FIRE SAFETY FUNCTIONS: INSTALL PROGRAMMABLE OUTPUT MODULES WITH RELAY CONTACTS TO INITIATE REQUIRED FIRE SAFETY FUNCTIONS (FAN SHUTDOWN, ELEVATOR CONTROL, FIRE DAMPER ACTUATION, SECURE DOOR UNLOCK, ETC.). OUTPUT MODULES SHALL BE INSTALLED WITHIN 36" OF DEVICE OR CIRCUIT CONTROLLED. NOTIFICATION APPLIANCES: PROVIDE AUDIBLE (VOICE) AND VISUAL NOTIFICATION APPLIANCES THROUGHOUT BUILDING WHERE INDICATED ON PLANS. NOTIFICATION APPLIANCES SHALL BE SPEAKER/STROBE TYPE DEVICES WITH ADJUSTABLE LIGHT INTENSITY (15Cd-110Cd) AND VOLUME SETTINGS (1/4W - 2W). VOLUME OF SPEAKERS SHALL BE SUFFICIENT TO PROVIDE A SOUND LEVEL (ALERT TONE) OF 15 Db ABOVE AMBIENT AND SUFFICIENT TO PRODUCE VOICE INTELLIGIBILITY (AVERAGE STI OF 0.50) IN ALL OCCUPIED AREAS. VOICE INTELLIGIBILITY IS NOT REQUIRED IN MECHANICAL SPACES, ATRIUM, INMATE HOLDING CELLS OR PRIVATE OFFICES. VISIBLE ALARMS SHALL BE PROVIDED THROUGHOUT ALL PUBLIC AND COMMON AREAS OF EACH BUILDING INCLUDING AREAS WITH POSSIBLE OCCUPANCY BY HEARING IMPAIRED PERSONS. STROBES SHALL FLASH IN SYNCHRONIZATION. NOTIFICATION APPLIANCES MAY BE WALL OR CEILING MOUNT. LOCATE WALL MOUNT DEVICES BETWEEN 80" AND 96" ABOVE FLOOR. NOTIFICATION APPLIANCE ZONING: PROVIDE A SEPARATE ZONE OF NOTIFICATION APPLIANCES FOR EACH FLOOR LEVEL OF BUILDING. CONFIGURE VOICE ALARM CONTROL EQUIPMENT TO ALLOW MANUAL PAGING TO THREE SEPARATE ZONES (BASEMENT, LEVEL 1 AND LEVEL 2) AS WELL AS TO THE ENTIRE BUILDING. AUTOMATIC VOICE ALARM MESSAGES SHALL BE TRANSMITTED THROUGHOUT THE ENTIRE BUILDING WHERE FIRE ALARM INITIATING DEVICES HAVE ACTIVATED.

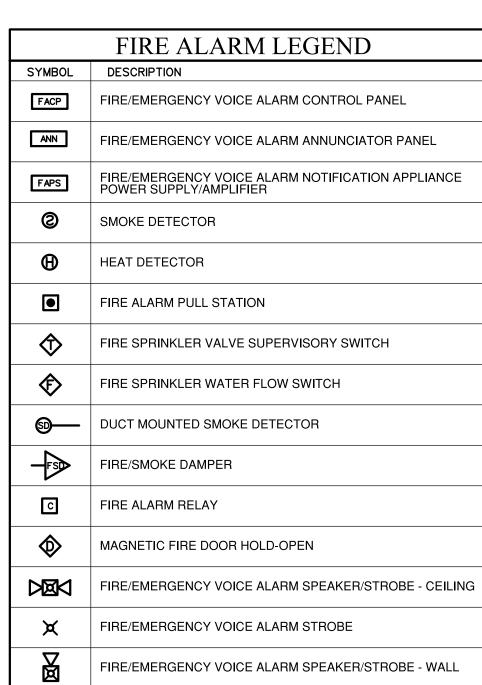


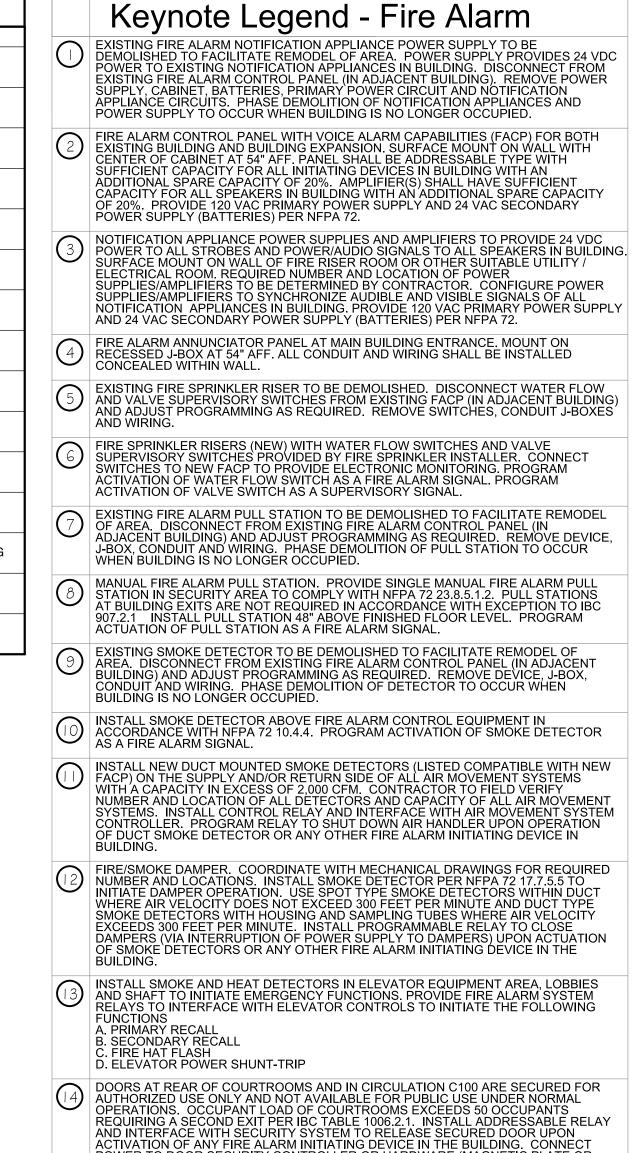
**KEY PLAN** 

**FIRE ALARM** LEVEL ' **AREA A** SHEET

FA11A ORIGINAL SHEET SIZE 36" x 48"







04-03-23

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**Permit Set** 

FIRE ALARM

LEVEL '

SHEET

**AREA B** 

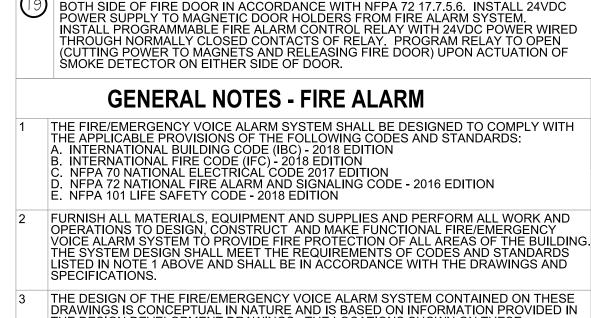
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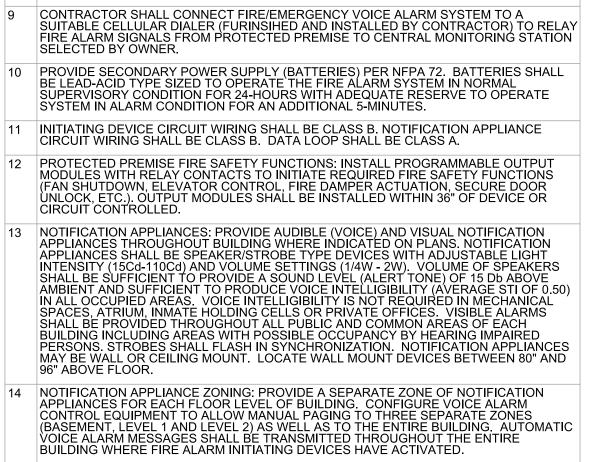
|     | AND INTERFACE WITH SECURITY SYSTEM TO RELEASE SECURED DOOR UPON ACTIVATION OF ANY FIRE ALARM INITIATING DEVICE IN THE BUILDING. CONNECT POWER TO DOOR SECURITY CONTROLLER OR HARDWARE (MAGNETIC PLATE OR ELECTRIC STRIKE) THROUGH NORMALLY CLOSED CONTACTS OF RELAY AND PROGRAM RELAY CONTACTS TO OPEN UPON ACTIVATION OF FIRE ALARM SYSTE INTERRUPTING POWER SUPPLY TO SECURITY HARDWARE AND RELEASING DOOF RELAY SHALL NOT RESET UNTIL THE FIRE ALARM SYSTEM IS RESTORED TO NORMAL CONDITION. |
|-----|---|
| 15  | EXISTING FIRE ALARM NOTIFICATION APPLIANCE TO BE DEMOLISHED TO FACILITY REMODEL OF AREA. DISCONNECT FROM EXISTING FIRE ALARM NOTIFICATION APPLIANCE POWER SUPPLY (SEE KEY NOTE 1 ABOVE). REMOVE DEVICE, J-BOX, CONDUIT AND WIRING. PHASE DEMOLITION OF NOTIFICATION APPLIANCE TO OCCUR WHEN BUILDING IS NO LONGER OCCUPIED.   |
| 16) | FURNISH AND INSTALL NEW FIRE ALARM NOTIFICATION APPLIANCES (SPEAKERS, STROBES OR SPEKAER/STROBES) THROUGHOUT BUILDING TO CONFORM TO OCCUPANT NOTIFICATION (EMERGENCY VOICE ALARM SYSTEM) REQUIREMENTS NFPA 72 AND THE INTERNATIONAL BUILDING CODE. CONNECT DEVICES TO FACP, SPEAKER AMPLIFIERS OR NOTIFICATION CIRCUIT POWER SUPPLIES. NUMBER, LAYOUT AND WIRE SIZE OF CIRCUITS SHALL LIMIT VOLTAGE DROP TO 20% MAXIM   |

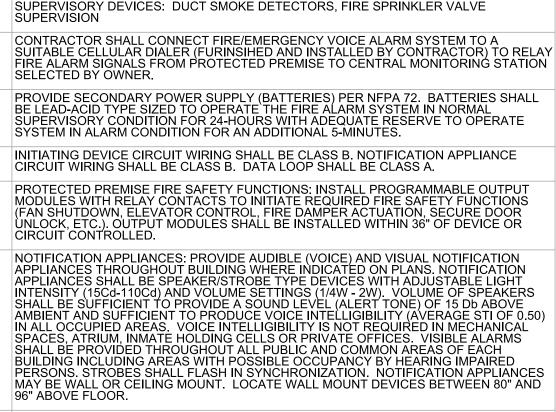
|  |      | LAYOUT AND WIRE SIZE OF CIRCUITS SHALL LIMIT VOLTAGE DROP TO 20% MA<br>AND SPEAKER SIGNAL LOSS TO A MAXIMUM OF -1.5 dB.   |
|--|------|---|
|  | 17   | PROVIDE PROTECTIVE PLASTIC ENCLOSURES FOR NOTIFICATION APPLIANCE LOCATED IN AREAS FREQUENTLY OCCUPIED BY INCARCERATED INDIVIDUALS   |
|  | (18) | FIRE SPRINKLER CONTROL VALVE WITH SUPERVISORY SWITCH TO ISOLATE F<br>SPRINKLERS IN HOLDING CELL AREAS PROVIDED BY FIRE SPRINKLER INSTALI<br>CONNECT SWITCH TO NEW FACP TO PROVIDE ELECTRONIC MONITORING.<br>PROGRAM ACTIVATION OF VALVE SWITCH AS A SUPERVISORY SIGNAL. |
|  | (19) | FIRE DOOR WITH MAGNETIC HOLD-OPEN DEVICE. INSTALL SMOKE DETECTOR BOTH SIDE OF FIRE DOOR IN ACCORDANCE WITH NEPA 72 17.7.5.6. INSTALL 24   |

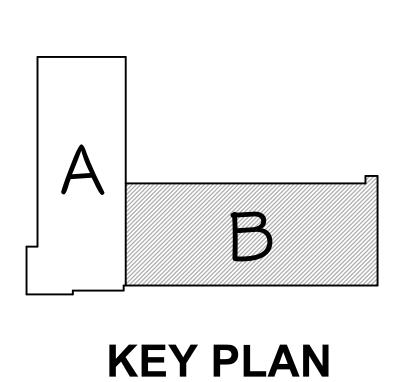


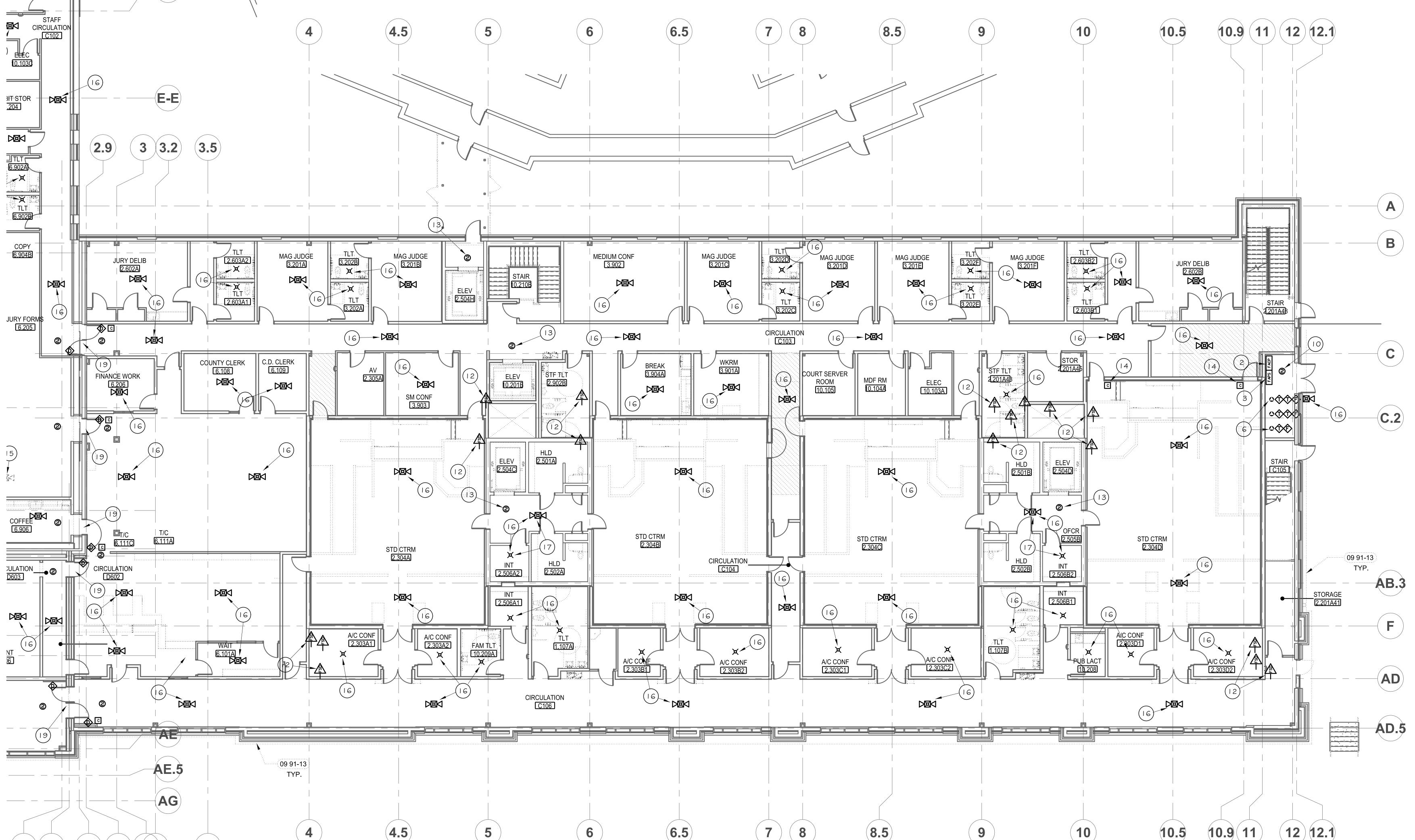
| 1  |
|--|
| THE DESIGN OF THE FIRE/EMERGENCY VOICE ALARM SYSTEM CONTAINED ON THESE DRAWINGS IS CONCEPTUAL IN NATURE AND IS BASED ON INFORMATION PROVIDED IN THE DESIGN DEVELOPMENT DRAWINGS. THE LOCATIONS SHOWN ON THESE DRAWINGS FOR PIPING AND OTHER FIRE PROTECTION EQUIPMENT ARE APPROXIMATE AND MUST BE ADJUSTED WHERE REQUIRED TO MATCH ACTUAL BUILDING CONDITIONS INSTALLING CONTRACTOR IS RESPONSIBLE TO COMPLETE DETAILED DESIGN OF THE FIRE ALARM SYSTEM INCLUDING BATTERY AND VOLTAGE DROP CALCULATIONS. |
| ALL DEVICES AND MATERIALS USED FOR THE INSTALLATION OF THE FIRE/EMERGENCY VOICE ALARM SYSTEM SHALL BE U.L. LISTED OR FM APPROVED FOR USE IN FIRE PROTECTION SYSTEMS.   |
| ALL WIRING USED IN THE FIRE/EMERGENCY VOICE ALARM SYSTEM INSTALLATION SHALL BE MINIMUM 18-GAUGE, 300-V, FPL, INSTALLED IN EMT OR FLEXIBLE CONDUIT. WHERE WIRE WILL BE RUN IN SPACES ABOVE CEILINGS OR IN TRUSS SPACE, CONDUIT IS NOT REQUIRED.   |
| CONTRACTOR SHALL PREPARE AND SUBMIT COMPLETE SHOP DRAWINGS, EQUIPMENT DATA SHEETS, SEQUENCE OF OPERATION, SYSTEM RISER DETAILS, DEVICE MOUNTING DETAILS AND BATTERY/VOLTAGE DROP CALCULATIONS IN ACCORDANCE WITH NFPA 72 FOR REVIEW AND APPROVAL TO THE LOCAL FIRE DEPARTMENT, PROJECT ARCHITECT, ENGINEER AND THE OWNER PRIOR TO ORDERING, FABRICATING OR INSTALLING ANY EQUIPMENT. SHOP DRAWING SUBMITTALS SHALL MEET ALL APPLICABLE REQUIREMENTS OF NFPA 72 AND LOCAL FIRE DEPARTMENT REQUIREMENTS.   |
|  |

| THE POWER SUPPLY (UN SWITCHED) TO THE FIRE ALARM CONTROL PANEL SHALL DEDICATED BRANCH CIRCUIT PROVIDED FROM A NEARBY POWER DISTRIBUTION PANEL. SEE ELECTRICAL PLANS FOR PANEL LOCATION AND CIRCUIT DESIGNATIO   |
|---|
| FIRE/EMERGENCY VOICE ALARM INITIATING DEVICES SHALL ACTIVATE ALL LOCAL NOTIFICATION APPLIANCES, SOUND AN AUDIBLE ALARM AT THE FIRE ALARM ANNUNCIATOR PANEL AND TRANSMIT A FIRE ALARM SIGNAL TO THE REMOTE MONITORING STATION. SUPERVISORY DEVICES SHALL SOUND AN AUDIBLE ALARM THE FIRE ALARM ANNUNCIATOR PANEL AND TRANSMIT A SUPERVISORY SIGNAL TO REMOTE MONITORING STATION. |
| FIRE ALARM DEVICES: SMOKE/HEAT DETECTORS, PULL STATIONS, FIRE SPRINKLE WATER FLOW SWITCH  |
| CUREDUICORY DEVICES. DUCT SMOVE DETECTORS, FIRE SPRINKI ER VALVE  |







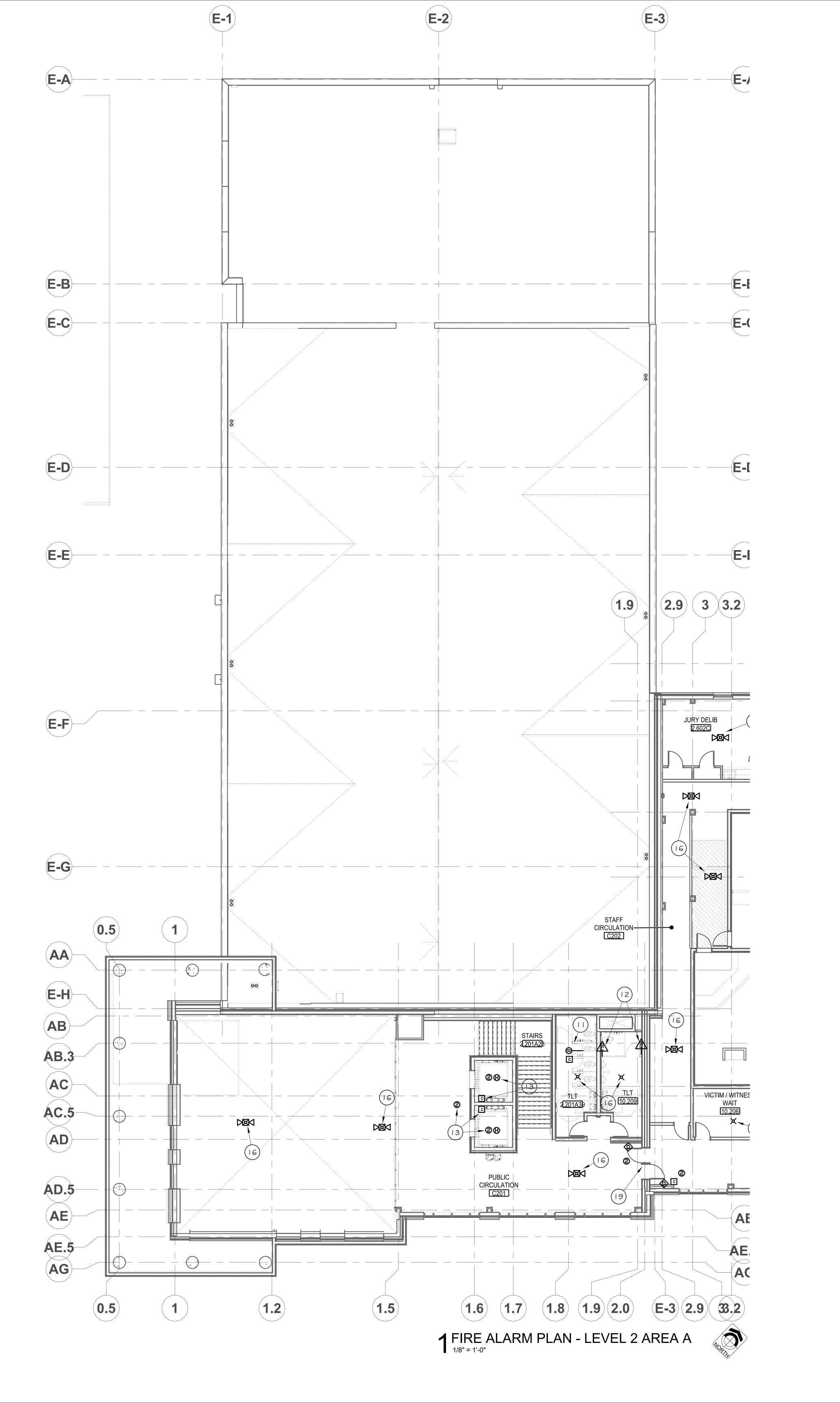


1 FIRE ALARM PLAN - LEVEL 1 AREA B

(**E-3**)

**(2.9**)

FA11B ORIGINAL SHEET SIZE 36" x 48"





FIRE ALARM LEGEND

SYMBOL DESCRIPTION

SMOKE DETECTOR

HEAT DETECTOR

FIRE/SMOKE DAMPER

c FIRE ALARM RELAY

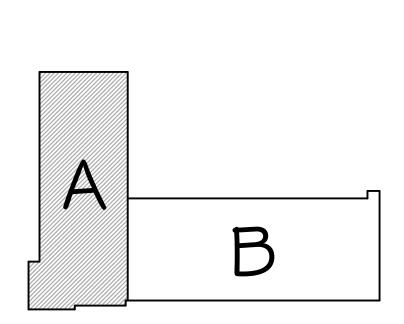
FIRE ALARM PULL STATION

FIRE SPRINKLER WATER FLOW SWITCH

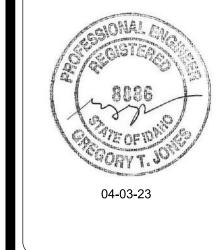
DUCT MOUNTED SMOKE DETECTOR

MAGNETIC FIRE DOOR HOLD-OPEN

FIRE/EMERGENCY VOICE ALARM STROBE



**KEY PLAN** 



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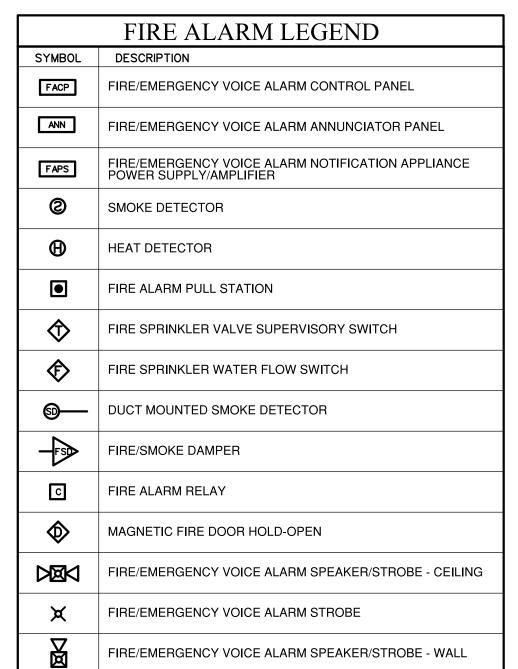
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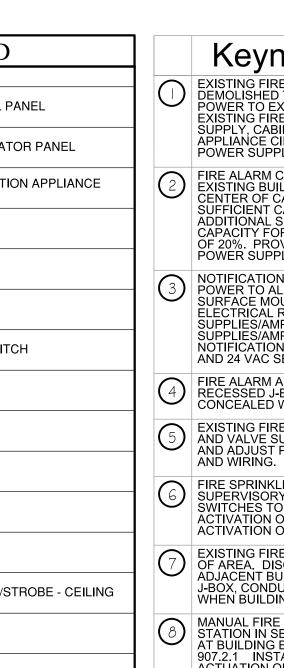
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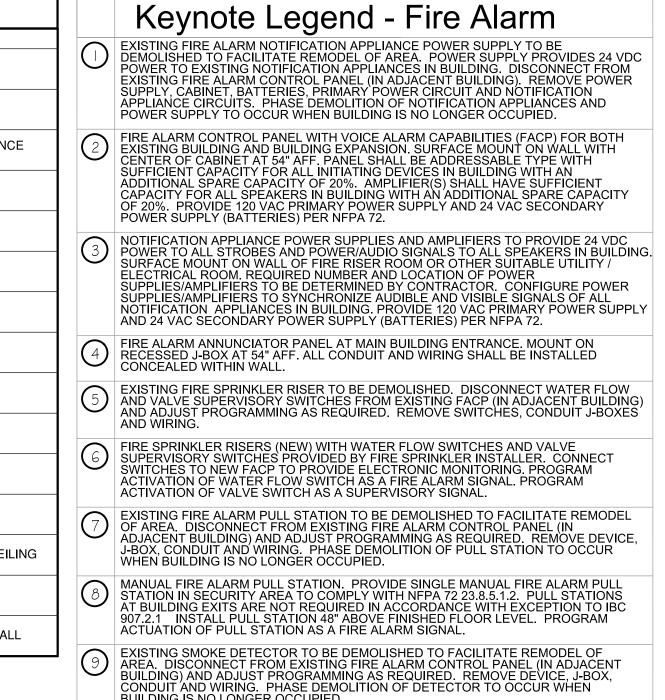
FIRE ALARM LEVEL 2 **AREA A** 

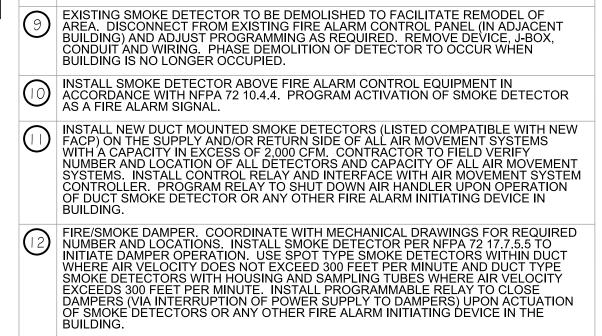
SHEET

FA12A ORIGINAL SHEET SIZE 36" x 48"







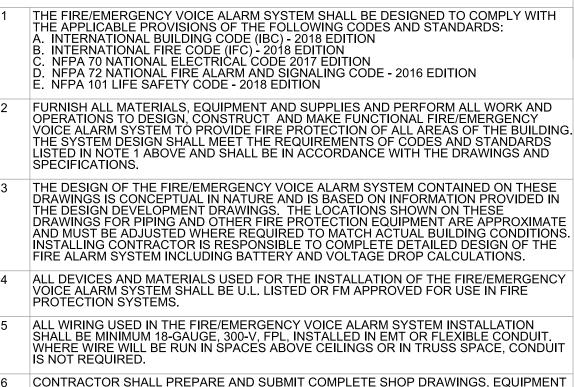


|    | BUILDING.  |
|----|--|
| 3) | INSTALL SMOKE AND HEAT DETECTORS IN ELEVATOR EQUIPMENT AREA, LOBBIES AND SHAFT TO INITIATE EMERGENCY FUNCTIONS. PROVIDE FIRE ALARM SYSTEM RELAYS TO INTERFACE WITH ELEVATOR CONTROLS TO INITIATE THE FOLLOWING FUNCTIONS  A. PRIMARY RECALL B. SECONDARY RECALL C. FIRE HAT FLASH D. ELEVATOR POWER SHUNT-TRIP   |
| 4) | DOORS AT REAR OF COURTROOMS AND IN CIRCULATION C100 ARE SECURED FOR AUTHORIZED USE ONLY AND NOT AVAILABLE FOR PUBLIC USE UNDER NORMAL OPERATIONS. OCCUPANT LOAD OF COURTROOMS EXCEEDS 50 OCCUPANTS REQUIRING A SECOND EXIT PER IBC TABLE 1006.2.1. INSTALL ADDRESSABLE RELAY AND INTERFACE WITH SECURITY SYSTEM TO RELEASE SECURED DOOR UPON ACTIVATION OF ANY FIRE ALARM INITIATING DEVICE IN THE BUILDING. CONNECT POWER TO DOOR SECURITY CONTROLLER OR HARDWARE (MAGNETIC PLATE OR ELECTRIC STRIKE) THROUGH NORMALLY CLOSED CONTACTS OF RELAY AND PROGRAM RELAY CONTACTS TO OPEN UPON ACTIVATION OF FIRE ALARM SYSTEM INTERRUPTING POWER SUPPLY TO SECURITY HARDWARE AND RELEASING DOOR. RELAY SHALL NOT RESET UNTIL THE FIRE ALARM SYSTEM IS RESTORED TO |

| (15) | EXISTING FIRE ALARM NOTIFICATION APPLIANCE TO BE DEMOLISHED TO FACILITATE REMODEL OF AREA. DISCONNECT FROM EXISTING FIRE ALARM NOTIFICATION APPLIANCE POWER SUPPLY (SEE KEY NOTE 1 ABOVE). REMOVE DEVICE, J-BOX, CONDUIT AND WIRING. PHASE DEMOLITION OF NOTIFICATION APPLIANCE TO OCCUR WHEN BUILDING IS NO LONGER OCCUPIED.   |
|------|---|
| (6)  | FURNISH AND INSTALL NEW FIRE ALARM NOTIFICATION APPLIANCES (SPEAKERS, STROBES OR SPEKAER/STROBES) THROUGHOUT BUILDING TO CONFORM TO OCCUPANT NOTIFICATION (EMERGENCY VOICE ALARM SYSTEM) REQUIREMENTS OF NFPA 72 AND THE INTERNATIONAL BUILDING CODE. CONNECT DEVICES TO FACP, SPEAKER AMPLIFIERS OR NOTIFICATION CIRCUIT POWER SUPPLIES. NUMBER, LAYOUT AND WIRE SIZE OF CIRCUITS SHALL LIMIT VOLTAGE DROP TO 20% MAXIMUM AND SPEAKER SIGNAL LOSS TO A MAXIMUM OF -1.5 dB. |
|      | PROVIDE PROTECTIVE PLASTIC ENCLOSURES FOR NOTIFICATION APPLIANCES   |

|      | AND SPEAKER SIGNAL LOSS TO A MAXIMUM OF -1.5 dB.   |
|------|--|
| (17) | PROVIDE PROTECTIVE PLASTIC ENCLOSURES FOR NOTIFICATION APPLIANCES LOCATED IN AREAS FREQUENTLY OCCUPIED BY INCARCERATED INDIVIDUALS.  |
| (8)  | FIRE SPRINKLER CONTROL VALVE WITH SUPERVISORY SWITCH TO ISOLATE FIRE SPRINKLERS IN HOLDING CELL AREAS PROVIDED BY FIRE SPRINKLER INSTALLER. CONNECT SWITCH TO NEW FACP TO PROVIDE ELECTRONIC MONITORING. PROGRAM ACTIVATION OF VALVE SWITCH AS A SUPERVISORY SIGNAL.   |
| [9]  | FIRE DOOR WITH MAGNETIC HOLD-OPEN DEVICE. INSTALL SMOKE DETECTORS ON BOTH SIDE OF FIRE DOOR IN ACCORDANCE WITH NFPA 72 17.7.5.6. INSTALL 24VDC POWER SUPPLY TO MAGNETIC DOOR HOLDERS FROM FIRE ALARM SYSTEM. INSTALL PROGRAMMABLE FIRE ALARM CONTROL RELAY WITH 24VDC POWER WIRED THROUGH NORMALLY CLOSED CONTACTS OF RELAY. PROGRAM RELAY TO OPEN (CUTTING POWER TO MAGNETS AND RELEASING FIRE DOOR) UPON ACTUATION OF SMOKE DETECTOR ON EITHER SIDE OF DOOR. |

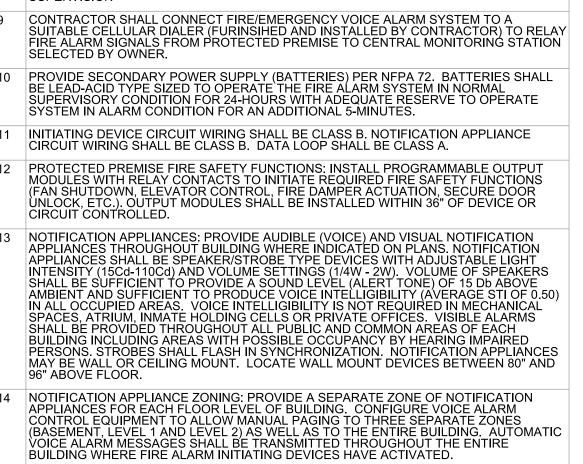
## **GENERAL NOTES - FIRE ALARM**

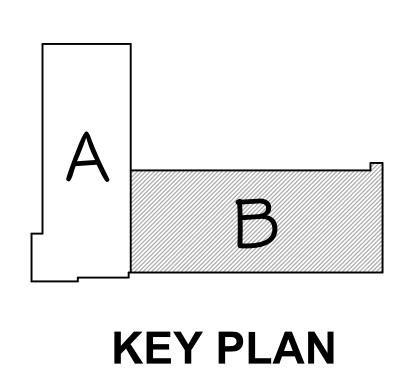


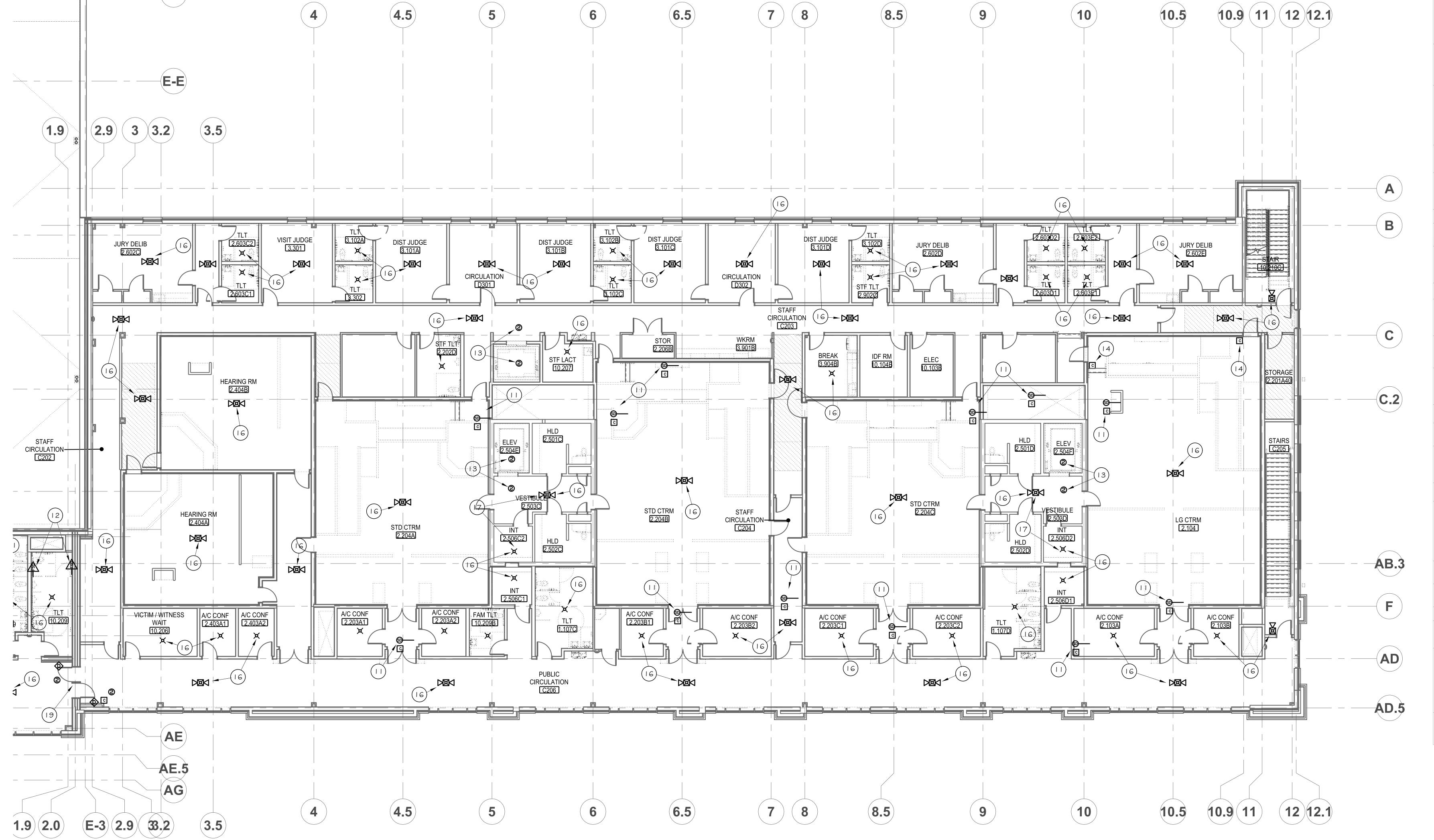
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|--|--|
| THE POWER SUPPLY (UN SWITCHED) TO THE FIRE ALARM CONTROL PANEL SHALL BE A DEDICATED BRANCH CIRCUIT PROVIDED FROM A NEARBY POWER DISTRIBUTION PANEL. SEE ELECTRICAL PLANS FOR PANEL LOCATION AND CIRCUIT DESIGNATION.   |  |
| FIRE/EMERGENCY VOICE ALARM INITIATING DEVICES SHALL ACTIVATE ALL LOCAL NOTIFICATION APPLIANCES, SOUND AN AUDIBLE ALARM AT THE FIRE ALARM ANNI INCIATOR PANEL AND TRANSMIT A FIRE ALARM SIGNAL TO THE REMOTE  |  |

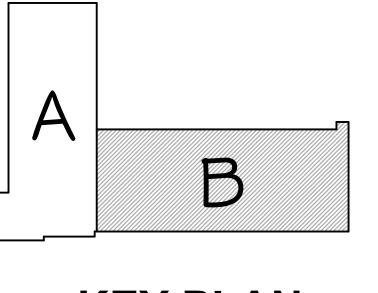
| NNUNCIATOR PANEL AND TRANSMIT A FIRE ALARM SIGNAL TO THE REMOTE<br>MONITORING STATION. SUPERVISORY DEVICES SHALL SOUND AN AUDIBLE ALARM A<br>THE FIRE ALARM ANNUNCIATOR PANEL AND TRANSMIT A SUPERVISORY SIGNAL TO<br>REMOTE MONITORING STATION. |
|--|
| FIRE ALARM DEVICES: SMOKE/HEAT DETECTORS, PULL STATIONS, FIRE SPRINKLEF<br>VATER FLOW SWITCH   |
| SUPERVISORY DEVICES: DUCT SMOKE DETECTORS, FIRE SPRINKLER VALVE<br>SUPERVISION   |
| CONTRACTOR SHALL CONNECT FIRE/EMERGENCY VOICE ALARM SYSTEM TO A  |

|    | SUITABLE CELLULAR DIALER (FURINSIHED AND INSTALLED BY CONTRACTOR) T<br>FIRE ALARM SIGNALS FROM PROTECTED PREMISE TO CENTRAL MONITORING S<br>SELECTED BY OWNER.  |
|----|---|
| 10 | PROVIDE SECONDARY POWER SUPPLY (BATTERIES) PER NFPA 72. BATTERIES<br>BE LEAD-ACID TYPE SIZED TO OPERATE THE FIRE ALARM SYSTEM IN NORMAL<br>SUPERVISORY CONDITION FOR 24-HOURS WITH ADEQUATE RESERVE TO OPER<br>SYSTEM IN ALARM CONDITION FOR AN ADDITIONAL 5-MINUTES.   |
| 11 | INITIATING DEVICE CIRCUIT WIRING SHALL BE CLASS B. NOTIFICATION APPLIAN<br>CIRCUIT WIRING SHALL BE CLASS B. DATA LOOP SHALL BE CLASS A.   |
| 12 | PROTECTED PREMISE FIRE SAFETY FUNCTIONS: INSTALL PROGRAMMABLE OU'MODULES WITH RELAY CONTACTS TO INITIATE REQUIRED FIRE SAFETY FUNCT (FAN SHUTDOWN, ELEVATOR CONTROL, FIRE DAMPER ACTUATION, SECURE DOWNLOCK, ETC.). OUTPUT MODULES SHALL BE INSTALLED WITHIN 36" OF DEVICE CIRCUIT CONTROLLED.  |
| 13 | NOTIFICATION APPLIANCES: PROVIDE AUDIBLE (VOICE) AND VISUAL NOTIFICAT APPLIANCES THROUGHOUT BUILDING WHERE INDICATED ON PLANS. NOTIFICAT APPLIANCES SHALL BE SPEAKER/STROBE TYPE DEVICES WITH ADJUSTABLE LIGHTENSITY (15Cd-110Cd) AND VOLUME SETTINGS (1/4W - 2W). VOLUME OF SPEASHALL BE SUFFICIENT TO PROVIDE A SOUND LEVEL (ALERT TONE) OF 15 Db ABOMBIENT AND SUFFICIENT TO PRODUCE VOICE INTELLIGIBILITY (AVERAGE STICTION OF AREAS. VOICE INTELLIGIBILITY IS NOT REQUIRED IN MECHAN SPACES, ATRIUM, INMATE HOLDING CELLS OR PRIVATE OFFICES. VISIBLE ALAFF SHALL BE PROVIDED THROUGHOUT ALL PUBLIC AND COMMON AREAS OF EACH BUILDING INCLUDING AREAS WITH POSSIBLE OCCUPANCY BY HEARING IMPAIR PERSONS. STROBES SHALL FLASH IN SYNCHRONIZATION. NOTIFICATION APPL MAY BE WALL OR CEILING MOUNT. LOCATE WALL MOUNT DEVICES BETWEEN 896" ABOVE FLOOR. |
| 14 | NOTIFICATION APPLIANCE ZONING: PROVIDE A SEPARATE ZONE OF NOTIFICATI<br>APPLIANCES FOR EACH FLOOR LEVEL OF BUILDING. CONFIGURE VOICE ALARM<br>CONTROL EQUIPMENT TO ALLOW MANUAL PAGING TO THREE SEPARATE ZONE   |









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FA12B ORIGINAL SHEET SIZE 36" x 48"