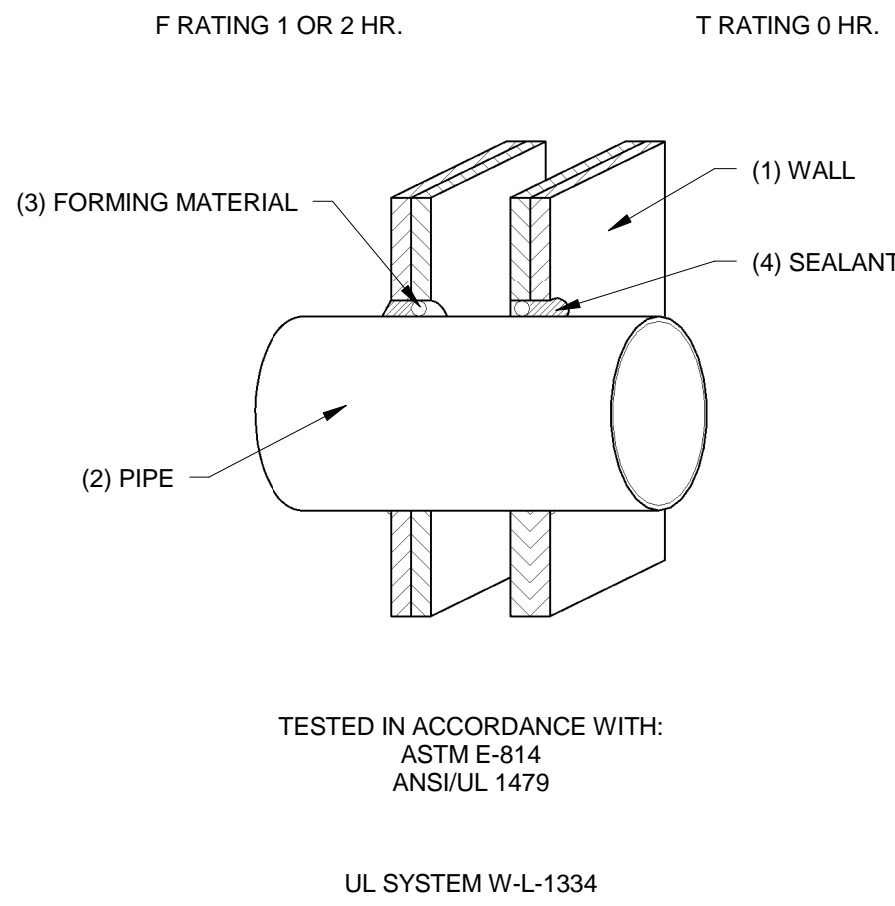


three inches = one foot
one and one half inches = one foot
one inch = one foot
three quarters inch = one foot
three eighths inch = one foot
one half inch = one foot
one quarter inch = one foot
one eighth inch = one foot
one eighth inch = one foot
one eighth inch = one foot

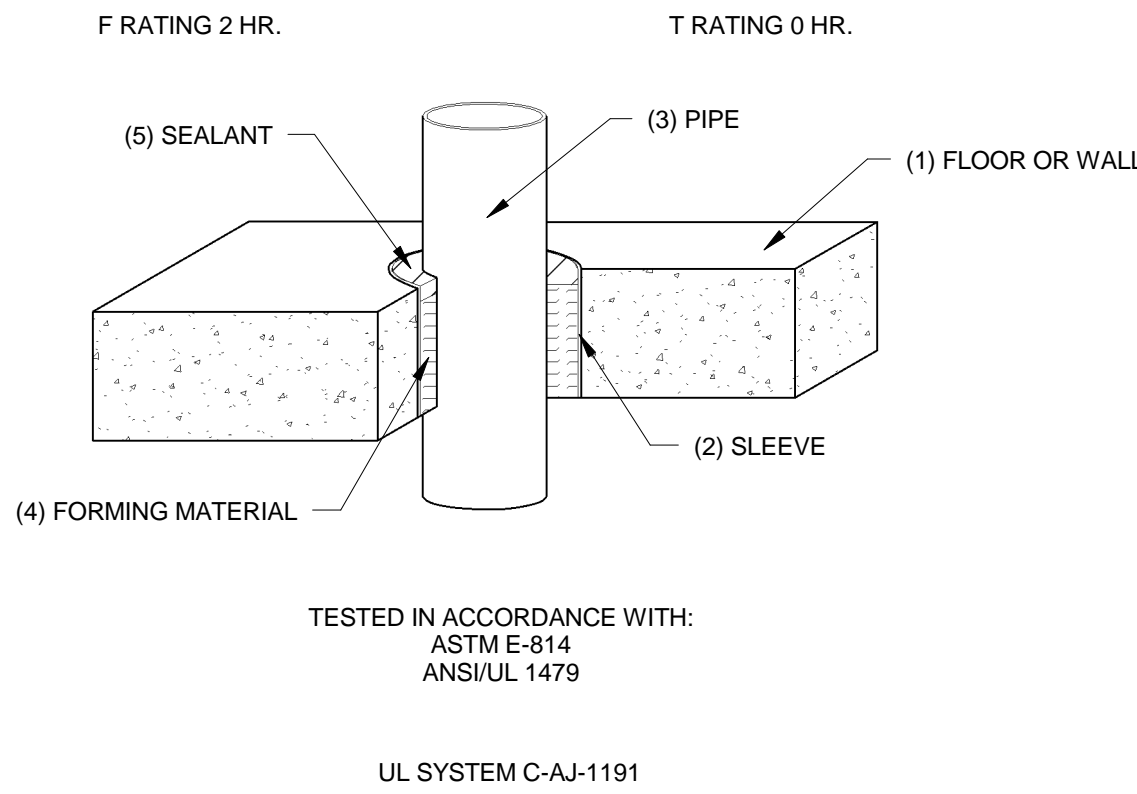
SPRINKLER DESIGN CHART			
	MECHANICAL AND ELECTRICAL AREAS	STORAGE AREAS	ALL OTHER AREAS
OCCUPANCY CLASSIFICATION:	ORDINARY GROUP 1	ORDINARY GROUP 1	LIGHT
TYPE OF SPRINKLER SYSTEM:	WET PIPE	WET PIPE	WET PIPE
DESIGN AREA OF WATER APPLICATION:	1500 SQ FT	1500 SQ FT	1500 SQ FT
MINIMUM DENSITY:	.15 GPM/SQ FT	.15 GPM/SQ FT	.10 GPM/SQ FT
MAXIMUM AREA PER SPRINKLER:	130 SQ FT	130 SQ FT	225 SQ FT
MINIMUM SPRINKLER TEMPERATURE RATING:	200°F (288°F NEAR HEATING EQUIPMENT)	155°F	155°F
SPRINKLER "K" FACTOR:	K=5.5	K=5.5	K=5.5
SPRINKLER TYPE:	QUICK RESPONSE RECESSED PENDENT OR UPRIGHT WITH CAGE GUARD AS INDICATED	QUICK RESPONSE RECESSED PENDENT OR UPRIGHT WITH CAGE GUARD AS INDICATED	QUICK RESPONSE RECESSED PENDENT OR UPRIGHT WITH CAGE GUARD AS INDICATED

- FOOTNOTES:
- FIRE SPRINKLER WATER DEMAND INDICATED ABOVE PENDING INSURANCE UNDERWRITER AND AUTHORITY HAVING JURISDICTION APPROVAL.
 - REFER TO SPECIFICATIONS FOR REQUIREMENTS OF MATERIALS, COLOR, FINISHES, INSTALLATION, APPROVED EQUAL MANUFACTURERS, ETC.



- WALL ASSEMBLY - CONSTRUCTED IN THE MANNER SPECIFIED IN THE U300 OR U400 SERIES DESIGNS AS SHOWN IN THE UL FIRE RESISTANCE DIRECTORY. MAX. DIAMETER OF OPENING IS 26-3/8" (670MM) FOR STEEL STUD WALLS AND 14-1/2" (368MM) FOR WOOD STUD WALLS.
- METALLIC PIPE OR CONDUIT - THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES, CONDUITS OR TUBING MAY BE USED:
 - STEEL PIPE - NOM 24" (610MM) DIAMETER (OR SMALLER) SCH. 10 (OR HEAVIER) STEEL PIPE.
 - IRON PIPE - NOM 24" (610) DIAMETER (OR SMALLER) CAST OR DUCTILE IRON PIPE.
 - CONDUIT - NOM 4" (102MM) DIAMETER (OR SMALLER) STEEL ELECTRICAL METALLIC TUBING OR NOM 6" (152MM) DIAMETER (OR SMALLER) STEEL CONDUIT.
 - COPPER TUBING OR PIPE - NOM 6" (152MM) DIAMETER (OR SMALLER) TYPE L (OR HEAVIER) COPPER TUBING OR REGULAR (OR HEAVIER) COPPER PIPE.THE ANNULAR SPACE BETWEEN PIPES, TUBING OR CONDUITS AND PERIPHERY OF OPENING SHALL BE MIN. 0" (POINT OF CONTACT) TO MAX. 2" (51MM).
- FORMING MATERIAL - USED TO PREVENT THE LEAKAGE OF SEALANT DURING INSTALLATION IN 2 HR. FIRE-RATED ASSEMBLIES. INSTALL BACKER ROD INTO THE OPENING AND RECESS 5/8" (16MM) FROM BOTH SURFACES OF THE WALL.
- NELSON LBS3 SEALANT - APPLY WITHIN THE ANNULAR SPACE AROUND THE THROUGH PENETRANT TO A MIN. 5/8" (16MM) DEPTH. FLUSH WITH BOTH SURFACES OF THE WALL. AT AREAS OF POINT OF CONTACT, APPLY A 3/8" (10MM) BEAD AT THE INTERFACE BETWEEN THE THROUGH PENETRANT AND BOTH SURFACES OF THE WALL. AN ADDITIONAL 1/4" (6MM) CROWN OF SEALANT SHALL BE APPLIED AROUND THE ENTIRE CIRCUMFERENCE OF THE PENETRANT AT BOTH WALL SURFACES.

1 GYPSUM WALL METALLIC PIPE OR CONDUIT
NOT TO SCALE



- FLOOR OR WALL ASSEMBLY - MIN. 4-1/2" (114MM) THICK LIGHTWEIGHT OR NORMAL WEIGHT CONCRETE FLOOR OR 5" (127MM) THICK WALL OR CMU BLOCK WALL. FLOOR MAY ALSO BE CONSTRUCTED OF MIN. 6" (152MM) THICK HOLLOW-CORE PRECAST CONCRETE UNITS.
- METALLIC SLEEVE - MAX. NOMINAL 6" (152MM) DIAMETER (OR SMALLER) SCH. 10 (OR HEAVIER) STEEL SLEEVE CAST OR GROUTED INTO THE FLOOR OR WALL. FLUSH WITH BOTH SURFACES. MAX. ANNULAR SPACE WITHIN THE SLEEVE IS 15/16" (24MM).
- METALLIC PIPE OR CONDUIT - THE FOLLOWING TYPES AND SIZES OF METALLIC PIPES, CONDUITS OR TUBING MAY BE USED:
 - STEEL PIPE - NOM 4" (102MM) DIAMETER (OR SMALLER) SCH.10 (OR HEAVIER) STEEL PIPE.
 - IRON PIPE - NOM 4" (102MM) DIAMETER (OR SMALLER) CAST OR DUCTILE IRON PIPE.
 - THE MAX. ANNULAR SPACE IS 1/4" (6MM).
- FORMING MATERIAL - TIGHTLY PACK MIN. 4PCF (64 KG/CUBIC METER) MINERAL WOOL OR CERAMIC FIBER INTO THE ANNULAR SPACE TO A MIN. 4" (102MM) DEPTH. RECESS FIBER 1/2" (13MM) FROM TOP SURFACE OF FLOOR OR FROM BOTH WALL OR HOLLOW-CORE FLOOR SURFACES.
- NELSON CLK SEALANT - APPLY OVER FORMING MATERIAL, WITHIN THE ANNULAR SPACE TO A MIN. 1/2" (13MM) DEPTH. FLUSH WITH THE TOP SURFACE OF THE FLOOR OR WITH BOTH SURFACES OF THE WALL OR HOLLOW-CORE FLOOR.

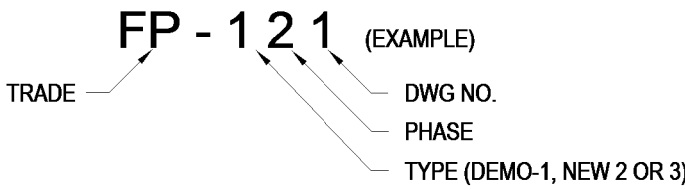
2 CONCRETE FLOOR OR WALL METALLIC PIPE OR CONDUIT
NOT TO SCALE

GENERAL FIRE PROTECTION NOTES:

- SPRINKLER HEAD LOCATIONS ARE INDICATED ON DRAWING FOR BID PURPOSES ONLY. SPRINKLER PIPE SIZES AND LOCATIONS SHALL CONFORM TO NFPA REQUIREMENTS. PIPING SHALL BE HYDRAULICALLY CALCULATED AND SIZED. THE SPRINKLER SYSTEM AND HEAD LOCATION SHALL BE DESIGNED AND INSTALLED AS SPECIFIED.
- ALL SPRINKLER HEADS SHALL BE PLACED IN THE CENTER OF ALL CEILING TILES WHERE ACOUSTICAL CEILING TILES ARE LOCATED.
- SPRINKLER CONTRACTOR SHALL COORDINATE SPRINKLER HEAD INSTALLATION WITH LIGHTING AND DIFFUSER LOCATIONS.
- ALL DIMENSIONS AND EXISTING CONDITIONS SHALL BE CHECKED AND VERIFIED BY THE CONTRACTOR AT THE SITE.
- ALL FIRE SPRINKLER PIPING SHALL BE CONCEALED ABOVE CEILING OR IN WALLS.
- EXISTING HARD COPY BUILDING FIRE SPRINKLER DRAWINGS MAY BE OBTAINED UPON REQUEST FROM THE VA RESIDENT ENGINEER'S OFFICE FOR ADDITIONAL INFORMATION NEEDED FOR DESIGN CALCULATIONS IN REGARDS TO THE EXISTING SYSTEM BEYOND THE LIMITS OF THE CONTRACT AREA SHOWN.
- THE CONTRACTOR SHALL REMOVE THE EXISTING SPRINKLER HEADS AND ASSOCIATED PIPING IN THE RENOVATION AREAS AS NOTED. AT LOCATIONS WHERE EXISTING FIRE SPRINKLERS AND ASSOCIATED PIPING ARE TO REMAIN, PROVISIONS SHALL BE MADE TO PROVIDE FIRE PROTECTION WATER SUPPLY THROUGH TEMPORARY OR PERMANENT MEANS.
- THE CONTRACTOR SHALL PROVIDE AND INSTALL APPROVED PIPE SLEEVES AND FIRE STOPPING AT ALL NEW AND EXISTING FLOOR/CEILING SLAB AND WALL PENETRATIONS WITHIN THE LIMITS OF THE CONTRACT WORK AREA TO MAINTAIN THE TIME-RATED CONSTRUCTION SPECIFIED.
- COORDINATE LOCATIONS OF ALL LINES AND EQUIPMENT WITH OTHER CONTRACTORS.
- REMOVE ALL EXPOSED PIPING NOT A PART OF THE REMODELED SYSTEM IN THE EXISTING BUILDING. RENDER CONCEALED PIPING NOT A PART OF THE REMODELED SYSTEM IN THE EXISTING BUILDING COMPLETELY "DEAD". WHERE CONCEALED PIPING IS IN EXISTING PARTITIONS TO BE REMOVED OR INTERFERES WITH REMODELING CONSTRUCTION, THE CONTRACTOR SHALL REMOVE PIPING AND RENDER REMAINING PIPING COMPLETELY "DEAD" OR RELOCATE PIPING IF IT IS PART OF THE REMODELED SYSTEM.
- AT LOCATIONS INDICATED TO CONNECT NEW FIRE SPRINKLER LINES TO EXISTING FIRE PROTECTION WATER LINES, DETERMINE EXACT LOCATION AND SIZE AT SITE BEFORE INSTALLING THE NEW FIRE PROTECTION WATER LINES.
- FOR COMPLETE ROOM NAMES AND NUMBERS, SEE ARCHITECTURAL DRAWINGS.

NOTE ON DRAWING NUMBERING

FLOOR PLAN DRAWING DESIGNATIONS FOR DRAWINGS 100 THRU 300
SERIES USE THE FOLLOWING FORMAT:



DRAWING SERIES 400 AND HIGHER ARE DETAILS, SCHEDULES, DIAGRAMS, ETC. WITH NO SPECIFIC PHASE DESIGNATION

<div>Revisions</div> <div>Date</div>		CONSULTANTS:		KEY PLAN:		ARCHITECT:		Project Number 3515		Scale As indicated		Drawing Title FIRE PROTECTION NOTES AND DETAILS		Project Title REPLACEMENT OF AC-19 AND LABORATORY RENOVATION		VA Project Number VA244-P-1786		<div>Office of Facilities Management</div>	
		Lab Consultant HERA		MEP Engineer H.F. Lenz		<div> ARRAY</div> <div>healthcare facilities solutions</div>		2520 Renaissance Boulevard, Suite 110 King of Prussia, PA 19406 t: 610.270.0599 f: 610.270.0995 www.arrayhfs.com		Approved: Project Director		Location 3900 WOODLAND AVENUE PHILADELPHIA, PA 19104		Building Number 2					
		230 S. Broad Street, Suite 201 Philadelphia, PA 19102 Tel (215) 870-5333 Fax (215) 870-5334		1407 Scalp Avenue Johrstran, PA 15904 Tel (814) 269-9366 Fax (814) 269-9371										Drawing Number FP-001					
														Date 04-12-2012		Checked TME		Drawn JAM	
																		<div> Department of Veterans Affairs</div>	

FULLY SPRINKLERED
ISSUED FOR BID