

FIRE SAFETY DURING CONSTRUCTION

FIRE SAFETY DURING CONSTRUCTION, ALTERATIONS AND DEMOLITION:

- COORDINATE WITH THE FACILITY PRIOR TO AND CONCURRENT WITH CONSTRUCTION.
- FIRE PROTECTION DURING CONSTRUCTION SHALL COMPLY WITH VA MASTER CONSTRUCTION SPECIFICATION (VAMCS) 01 00 00, GENERAL REQUIREMENTS.
- SEPARATE ALL OCCUPIED AREAS FROM DEMOLITION, RENOVATION, OR CONSTRUCTION ACTIVITIES BY TEMPORARY SMOKE-TIGHT CONSTRUCTION PARTITIONS OF GYPSUM BOARD OR OTHER APPROVED NONCOMBUSTIBLE OR LIMITED-COMBUSTIBLE MATERIAL. PARTITIONS SHALL BE FULL HEIGHT, EXTENDING THROUGH SUSPENDED CEILINGS TO THE FLOOR SLAB OR ROOF DECK ABOVE AND SHALL BE ONE-HOUR FIRE RATED, UNLESS SPRINKLERS ARE INSTALLED AND ARE OPERATIONAL ON BOTH SIDES OF THE TEMPORARY PARTITION WHEREUPON THE PARTITION MAY BE PERMITTED TO TERMINATE AT THE CEILING IN ACCORDANCE WITH NFPA 241. WHERE THE CEILING ON ONE SIDE OF THE TEMPORARY CONSTRUCTION BARRIER HAS BEEN REMOVED, THE TEMPORARY PARTITION MUST EXTEND TO THE DECK ABOVE.
 - THIS REQUIREMENT IS DUE TO THE INHERENTLY GREATER POTENTIAL FOR FIRE OR HAZARDOUS MATERIALS INCIDENTS ASSOCIATED WITH THE COMBUSTIBLES AND OPERATIONS OF DEMOLITION/CONSTRUCTION. THIS RISK IS MADE WORSE BY THE LIKELIHOOD OF COMPROMISED FIRE PROTECTION SYSTEMS AND FIRE/SMOKE RESISTANT CONSTRUCTION. THIS DOES NOT OBIVATE THE NEED TO PROVIDE OTHER PROTECTIVE MEASURES TO CONTAIN DUST AND DEBRIS AS SPECIFIED BY VAMCS 01 00 00 SECTION 1.8(D)(2). SPRINKLERS ARE CONSIDERED TO BE OPERATIONAL WHEN THEY ARE INSTALLED IN ACCORDANCE WITH NFPA 13 (SPACING, PROTECTION, DISTANCE FROM THE CEILING, ETC.) AND THERE IS A SUFFICIENT AUTOMATIC WATER SUPPLY. IF THE CEILING WAS REMOVED AND THE SPRINKLERS REMAIN AT THE ORIGINAL CEILING LEVEL, THEY WOULD LIKELY NOT BE CONSIDERED OPERATIONAL.
- PHASE CONSTRUCTION AS NECESSARY TO ENSURE THAT OBSTRUCTION OF EXITS IS MINIMIZED OR AVOIDED, IF EXITS ARE OBSTRUCTED DURING CONSTRUCTION, PROVIDE ALTERNATE EXIT ROUTES DURING EACH PHASE OF CONSTRUCTION AND IDENTIFY THE ALTERNATE ROUTES ON THE CONSTRUCTION DRAWINGS.
- MINIMIZE OR AVOID DISRUPTIONS TO FIRE ALARM AND SPRINKLER SYSTEMS. DELINEATE PHASING OF CONSTRUCTION TO ENSURE THAT INSTALLATIONS OF NEW SYSTEMS ARE EXPEDITED, AND WHERE POSSIBLE, MAINTAIN EXISTING SYSTEMS IN SERVICE UNTIL THE REPLACEMENT SYSTEM IS OPERATIONAL. IF FIRE PROTECTION SYSTEMS ARE TO BE DISRUPTED, ENSURE PROCEDURES ARE INCORPORATED TO MAINTAIN EQUIVALENT LEVELS OF FIRE PROTECTION AND PROVIDE FORMAL NOTIFICATION TO THE FACILITY WHILE SYSTEMS ARE DOWN.
- REQUIRED MEANS OF EGRESS SHALL BE MAINTAINED DURING CONSTRUCTION AND DEMOLITION, REMODELING OR ALTERATIONS AND ADDITIONS TO ANY BUILDING.
- USE OF PLASTIC OR VINYL DUST BARRIERS IN LIEU OF FIRE RATED SEPARATION IS PROHIBITED. TEMPORARY CONSTRUCTION BARRIERS ARE NOT REQUIRED WHERE ADEQUATE FIRE-RESISTIVE SEPARATION CAN BE DEMONSTRATED TO EXIST BETWEEN OCCUPIED AREA AND CONSTRUCTION AREAS.
- FIRE PROTECTION SYSTEMS SHALL BE MAINTAINED OPERATIONAL AT ALL TIMES. TEMPORARY COVERINGS OF FIRE PROTECTION DEVICES, COVERINGS PLACED ON OR OVER FIRE PROTECTION DEVICES TO PROTECT THEM FROM DAMAGE DURING CONSTRUCTION PROCESSES SHALL BE IMMEDIATELY REMOVED UPON THE COMPLETION OF THE CONSTRUCTION PROCESSES IN THE ROOM OR AREA IN WHICH THE DEVICES ARE INSTALLED.
- FIRE EXTINGUISHERS SHALL BE PROVIDED FOR BUILDINGS UNDER CONSTRUCTION. THE NUMBER AND TYPE OF EXTINGUISHERS SHALL BE AS REQUIRED BY THE VA FIRE LIFE SAFETY OFFICER (FLSO) OR LOCAL FIRE PROTECTION OFFICIALS.
- COMBUSTIBLE DEBRIS SHALL NOT ACCUMULATE WITHIN BUILDING. COMBUSTIBLE DEBRIS SHALL NOT BE ACCUMULATED WITHIN THE BUILDING, COMBUSTIBLE DEBRIS, RUBBISH AND WASTE MATERIAL SHALL BE REMOVED FROM BUILDINGS AT THE END OF EACH SHIFT OF WORK. COMBUSTIBLE DEBRIS, RUBBISH AND WASTE MATERIAL SHALL NOT BE DISPOSED OF BY BURNING ON THE SITE UNLESS APPROVED.
- CUTTING AND WELDING OPERATIONS SHALL BE IN ACCORDANCE WITH IFC 2012. OPERATIONS INVOLVING THE USE OF CUTTING WELDING SHALL BE DONE IN ACCORDANCE WITH IFC.
- STRUCTURES UNDER CONSTRUCTION, ALTERATION OR DEMOLITION SHALL BE PROVIDED WITH NOT LESS THAN ONE APPROVED PORTABLE FIRE EXTINGUISHER IN ACCORDANCE WITH IFC AND SIZED FOR NOT LESS THAN ORDINARY HAZARD AS FOLLOWS:
 - AT EACH STAIRWAY ON ALL FLOOR LEVELS WHERE COMBUSTIBLE MATERIALS HAVE ACCUMULATED.
 - IN EVERY STORAGE AND CONSTRUCTION SHED.
 - ADDITIONAL PORTABLE FIRE EXTINGUISHERS SHALL BE PROVIDED WHERE SPECIAL HAZARDS EXIST INCLUDING, BUT NOT LIMITED TO THE STORAGE AND USE OF FLAMMABLE AND COMBUSTIBLE LIQUIDS.

DRAWING LIST

FX001 COVER SHEET FIRE PROTECTION
FX002 LEGEND AND ABBREVIATIONS FIRE PROTECTION
FX101 SITE PLAN FIRE PROTECTION
FX102 FIRST FLOOR PLAN FIRE PROTECTION
FX103 SECOND FLOOR PLAN FIRE PROTECTION
FX104 ROOF PLAN FIRE PROTECTION
FX301 SECTION AND DETAILS FIRE PROTECTION

FIRE PROTECTION GENERAL NOTES

A. PROVIDE A COMPLETE AUTOMATIC WET FIRE SPRINKLER SYSTEM FOR THE ENTIRE BUILDING. THE AUTOMATIC SPRINKLER SYSTEM SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:

- NFPA 13, 2013 EDITION: STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS.
- NFPA 24, 2013 EDITION: STANDARD FOR THE INSTALLATION OF PRIVATE FIRE SERVICE MAINS AND THEIR APPURTANCES.
- INTERNATIONAL FIRE CODE, 2012 EDITION.
- VA FIRE PROTECTION DESIGN MANUAL, 6TH EDITION.

B. INSTALLATION OF THE SPRINKLER SYSTEMS SHALL NOT BE STARTED UNTIL COMPLETE PLANS AND CALCULATIONS (INCLUDING WATER SUPPLY INFORMATION) HAVE BEEN APPROVED BY VA FIRE MARSHAL. AT VARIOUS STAGES AND UPON COMPLETION, THE SYSTEM SHALL BE TESTED IN THE PRESENCE OF VA REPRESENTATIVE.

C. ALL FIRE SPRINKLER WORK SHALL BE PERFORMED BY A LICENSED FIRE PROTECTION CONTRACTOR WITH A CURRENT STATE OF CALIFORNIA C-16 LICENSE.

D. PROVIDE SPRINKLERS BELOW ALL EXPOSED DUCTS, OBSTRUCTIONS AND OPEN GRATINGS GREATER THAN FOUR FEET WIDE.

E. PENETRATIONS OF FIRE RATED ASSEMBLIES SHALL BE FIRE STOPPED. FIRE STOPPING SHALL BE APPROVED MATERIALS AS PRESCRIBED IN IBC STANDARDS.

F. ALL FIRE SPRINKLER PIPING SHALL BE CONCEALED WHERE POSSIBLE. EXPOSED PIPING ONLY ALLOWED WHERE SHOWN ON THE FIRE PROTECTION DRAWINGS.

G. FURNISH AND INSTALL ANY INCIDENTAL WORK NOT SHOWN OR SPECIFIED WHICH ARE NECESSARY TO PROVIDE A COMPLETE AND WORKABLE SYSTEM.

H. KEEP FIRE SPRINKLER AS HIGH AS POSSIBLE TO STRUCTURE ABOVE AND OFFSET PIPING AS REQUIRED.

I. FOR ANY CONFLICT IN THE DRAWINGS AND/OR SPECIFICATIONS, THE MORE STRINGENT REQUIREMENT SHALL APPLY. ANY SUCH CONFLICT SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT OR ENGINEER FOR RESOLUTION PRIOR TO CONSTRUCTION OF SUCH ITEMS.

J. SPRINKLER BRANCH LAYOUTS ARE SHOWN AS CONCEPT ONLY. FINAL LAYOUTS SHALL BE COORDINATED WITH THE ARCHITECT AND ENGINEER.

K. LOCATIONS OF PIPE PENETRATIONS THROUGH NEW BEAMS, CONCRETE WALLS AND FLOORS SHALL BE APPROVED BY THE STRUCTURAL ENGINEER.

L. PROVIDE STEEL PIPE SLEEVES WHERE PIPES PASS THROUGH NEW CONCRETE SHEAR WALLS. CORE DRILL WHERE PIPES PASS THROUGH EXISTING CONCRETE WALLS. REFER TO STRUCTURAL DRAWINGS AND STRUCTURAL DETAILS FOR PIPE SLEEVE REQUIREMENTS. REFER TO STRUCTURAL DRAWINGS FOR CLEARANCE REQUIREMENTS BETWEEN SLEEVES AND PIPES.

M. PROVIDE FLEXIBLE HEAD DROPS FOR ALL CEILING MOUNTED SPRINKLER HEADS THROUGHOUT TO COMPLY WITH IBC 2012 AND NFPA 13 REQUIREMENTS FOR (1") ONE INCH CLEARANCE BETWEEN THE SPRINKLER HEAD AND THE CEILING. THE USE OF OVERSIZED CEILING ESCUTCHEONS ARE NOT ACCEPTABLE.

WATER SUPPLY DATA

A. HYDRANT PRESSURE: 85 PSI STATIC, 73 PSI/1125 GPM

SCOPE OF WORK

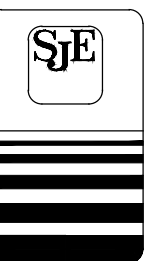
A. PROVIDE A HYDRAULICALLY CALCULATED WET AUTOMATIC FIRE SPRINKLER SYSTEM FOR THE ENTIRE BUILDING INCLUDING THE FIRE DEPARTMENT CONNECTION, BACKFLOW PREVENTER AND UNDERGROUND CONNECTION TO EXTERIOR STUB-OUT PROVIDED UNDER CIVIL WORK.

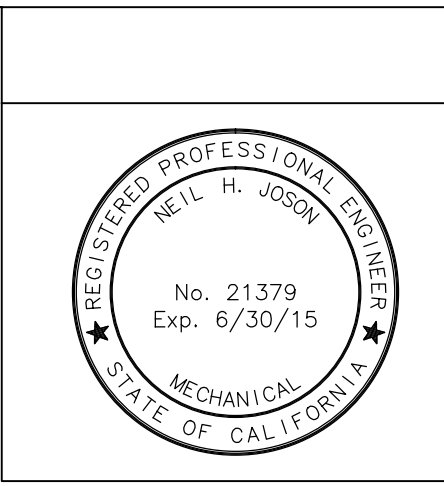
B. FIRE PROTECTION WORK SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF NFPA 13, NFPA 24, NFPA 101, VA FIRE PROTECTION DESIGN MANUAL 6TH EDITION, INTERNATIONAL FIRE CODE 2012 EDITION AND THE VA SAFETY AND FIRE PROTECTION ENGINEER (VA FIRE MARSHAL)

FINAL BID DOCUMENTS

Revisions:	Date

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Drawing Title
**COVER SHEET
FIRE PROTECTION**

Approved: Project Director

Project Title
**GENOMICS CLINICAL
RESEARCH CENTER,
PALO ALTO**

Project Number
640-389

Building Number
51

Location
VAPAHCs - PALO ALTO

Date
06/05/2014

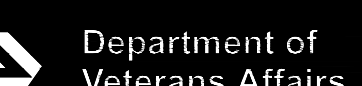
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FX001

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and Facilities
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Veterans Affairs

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

ABBREVIATIONS			
ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION
∠	ANGLE	KW	KILOWATTS
⊙	AT	LBS	POUNDS
⊕	CENTERLINE	LD	LEAK DETECTOR
⊖	DIAMETER, ROUND or PHASE	LF	LINEAR FEET
ABV	ABOVE	LG	LENGTH
AD	ACCESS DOOR	LVL	LEVEL
ADA	AMERICAN'S WITH DISABILITY ACT	LWT	LEAVING WATER TEMPERATURE
AFF	ABOVE FINISHED FLOOR	MAX	MAXIMUM
AG	ABOVE GRADE	MBH	THOUSAND BTU PER HOUR
AMPS	AMPERES	MECH	MECHANICAL
AP	ACCESS PANEL	MED	MEDICAL
ARCH	ARCHITECT or ARCHITECTURAL	MER	MECHANICAL EQUIPMENT ROOM
ASD	AUTOMATIC SPRINKLER DRAIN	MEZZ	MEZZANINE
ASR	AUTOMATIC SPRINKLER RISER	MFG	MANUFACTURING
ASSY	ASSEMBLY	MFR	MANUFACTURER
AUTO	AUTOMATIC	MH	MANHOLE
AVG	AVERAGE	MIN	MINIMUM
BEL	BELOW	MISC	MISCELLANEOUS
BF	BELOW FLOOR	MTD	MOUNTED
BFF	BELOW FINISHED FLOOR	(N)	NEW
BC	BELOW GRADE	NA	NOT APPLICABLE
BMS	BUILDING MANAGEMENT SYSTEM	NC	NORMALLY CLOSED
BOF	BOTTOM OF FOOTING	NFA	NET FREE AREA
BOS	BOTTOM OF STEEL	NIC	NOT IN CONTRACT
BHP	BRAKE HORSEPOWER	NIFPW	NOT IN FIRE PROTECTION WORK
BLDG	BUILDING	NO	NORMALLY OPEN
BMT	BASEMENT	NPT	NATIONAL PIPE THREAD
BTU	BRITISH THERMAL UNIT	NTS	NOT TO SCALE
BTUH	BRITISH THERMAL UNIT PER HOUR		
CALCS	CALCULATIONS	O	OPEN
CAP	CAPACITY	OC	ON CENTER
CAT	CATEGORY	OD	OUTSIDE DIAMETER or OUTSIDE DIMENSION
CB	CATCH BASIN	OPER	OPERATING
CFF	CAPPED FOR FUTURE	OPP	OPPOSITE
CFH	CUBIC FEET PER HOUR	P	PUMP
CFM	CUBIC FEET PER MINUTE	PD	PRESSURE DROP
CFS	CUBIC FEET PER SECOND	PENTH	PENTHOUSE
CI	CAST IRON	PH	PHASE
CLG	CEILING	PIV	POST INDICATING VALVE
COL	COLUMN	PKG	PACKAGE
CONC	CONCRETE	PLBG	PLUMBING
CONN	CONNECT or CONNECTION	PNL	PANEL
CONT	CONTINUATION	PSI	POUNDS PER SQUARE INCH
CSP	COMBINATION STANDPIPE	PSIG	POUNDS PER SQUARE INCH GAUGE
CTE	CONNECT TO EXISTING	PUB	PUBLIC
DIA	DIAMETER	PVT	PRIVATE
DICA	DRILLED-IN CONCRETE ANCHOR	QC	QUICK COUPLER
DIM	DIMENSION	QTY	QUANTITY
DN	DOWN	(R)	RELOCATED
DT	DAYTANK	RCP	REINFORCED CONCRETE PIPE
DTL	DETAIL	RE	RIM ELEVATION
DWG	DRAWING	REF	REFERENCE
(E)	EXISTING	REQD	REQUIRED
EA	EACH	RIO	ROUGH-IN-ONLY
EFF%	EFFICIENCY (PERCENTAGE)	RM	ROOM
ELEC	ELECTRIC or ELECTRICAL	RPM	REVOLUTIONS PER MINUTE
EL	ELEVATION	SAD	SEE ARCHITECTURAL DRAWINGS
ELEV	ELEVATOR	SCHED	SCHEDULE
EMGY	EMERGENCY	SECT	SECTION
ENGR	ENGINEER	SF	SQUARE FEET
EQ	EQUAL	SFT	SHEET
EQPT	EQUIPMENT	SHT	SHEET
(F)	FUTURE	SIM	SIMILAR
F	DEGREE FAHRENHEIT	SJ	SEISMIC JOINT
FC	FLEXIBLE CONNECTION	SL	SLOPE
FDC	FIRE DEPARTMENT CONNECTION	SP	SUMP PUMP
FF	FINISHED FLOOR	SPECS	SPECIFICATIONS
FFE	FINISHED FLOOR ELEVATION	SQ	SQUARE
FH	FIRE HYDRANT	SST	STAINLESS STEEL
FHC	FIRE HOSE CABINET	STD	STANDARD
FHR	FIRE HOSE RACK	STRUCT	STRUCTURAL
FHV	FIRE HOSE VALVE	SVA	SPRINKLER VALVE ASSEMBLY
FIN	FINISHED	SYST	SYSTEM
FLA	FULL LOAD AMPS	TEMP	TEMPERATURE
FLR	FLOOR	TOF	TOP OF FOOTING
FP	FIRE PROTECTION	TOS	TOP OF STEEL
FPM	FEET PER MINUTE	TP	TOTAL PRESSURE
FPS	FEET PER SECOND	TS	TAMPER SWITCH
FRE	FIRE RATED ENCLOSURE	TYP	TYPICAL
FT	FEET	UF	UNDERFLOOR
FTG	FOOTING	UG	UNDERGROUND
GA	GAUGE	UON	UNLESS OTHERWISE NOTED
GAL	GALLONS	V	VOLTS
GC	GENERAL CONTRACTOR	VB	VACUUM BREAKER
GEN	GENERAL	VEL	VELOCITY
GND	GROUND	VIF	VERIFY IN FIELD
GPH	GALLONS PER HOUR	VOL	VOLUME
GPM	GALLONS PER MINUTE	W	WATTS
GRD	GRADE	WH	WALL HYDRANT
HD	HEAD or HUB DRAIN	WM	WATER METER
HORIZ	HORIZONTAL	WT	WEIGHT
HP	HORSEPOWER	WxH	WIDTH x HEIGHT
HR	HOUR	WxHxD	WIDTH x HEIGHT x DEPTH
HT	HEIGHT	WxL	WIDTH x LENGTH
HV	HOSE VALVE	ZN	ZONE
HVAC	HEATING, VENTILATING & AIR CONDITIONING		
HZ	HERTZ		
ID	INSIDE DIAMETER or INSIDE DIMENSION		
IE	INVERT ELEVATION		
IFS	IN FURRED SPACE		
IFW	IN FURRED WALL		
IN	INCH		

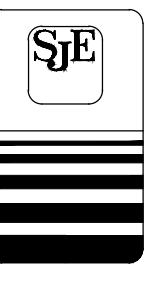
LEGEND		
SYMBOL	ABBREVIATION	DESCRIPTION
		SECTION REFERENCE } SECTION TAG
		DRAWING NUMBER } DETAIL TAG
		DETAIL NUMBER } DETAIL TAG
		EQUIPMENT TYPE } EQUIPMENT TAG
		EQUIPMENT NUMBER } EQUIPMENT TAG
		RISER TYPE } RISER TAG
		RISER NUMBER } RISER TAG
		SHEET NOTE TAG
	POC	POINT OF CONNECTION
		PIPE RISER/PIPE UP
		PIPE DROP/PIPE DOWN
		BRANCH TOP PIPE CONNECTION
		BRANCH BOTTOM PIPE CONNECTION
		PIPE CAPPED
		FLOW IN DIRECTION OF ARROW
		PIPE SLOPE DOWN IN DIRECTION OF ARROW
		LINE CONTINUED
		PIPING OF TYPE INDICATED BELOW FLOOR OR BELOW GRADE
		PIPING OF TYPE INDICATED ABOVE FLOOR OR ABOVE CEILING
	F	FIRE PROTECTION WATER SUPPLY PIPING
	SPR	FIRE SPRINKLER PIPING
	ASD	AUTOMATIC SPRINKLER DRAIN PIPING
	CR	CONCENTRIC REDUCER
	ER	ECCENTRIC REDUCER

LEGEND		
SYMBOL	ABBREVIATION	DESCRIPTION
	UN	UNION
	PG	PIPE GUIDE
	PA	PIPE ANCHOR
	ST	STRAINER
	ST	STRAINER WITH BLOWDOWN VALVE
	PG	PRESSURE GAUGE WITH PET COCK
	DCDA	DOUBLE CHECK DETECTOR ASSEMBLY
	SVA	FIRE SPRINKLER CONTROL VALVE ASSEMBLY
	NO	NORMALLY OPEN TYPE OF VALVE INDICATED
	SOV	SHUT-OFF VALVE
	SOVR	SHUT-OFF VALVE RISER
	CV	CHECK VALVE
	SCV	SILENT CHECK VALVE
	OS&Y	OUTSIDE SCREW AND YOKE VALVE
	TS	VALVE WITH TAMPER SWITCH
	FS	FLOW SWITCH
	PS	PRESSURE SWITCH
	FDC	FIRE DEPARTMENT CONNECTION
	FH	FIRE HYDRANT
		FIRE SPRINKLER HEAD
		(E) FIRE SPRINKLER HEAD
		SIDEWALL FIRE SPRINKLER HEAD

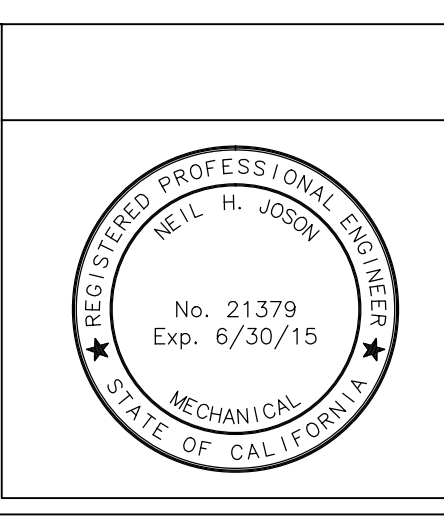
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 one quarter inch = one foot
 one sixteenth inch = one foot

Revisions:	Date

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Drawing Title
**LEGEND AND ABBREVIATIONS
 FIRE PROTECTION**

Approved: Project Director

Project Title
**GENOMICS CLINICAL
 RESEARCH CENTER,
 PALO ALTO**

Location
 VAPAHCS - PALO ALTO

Date
 06/05/2014

Checked
 NHJ

Drawn
 JHY


Project Number
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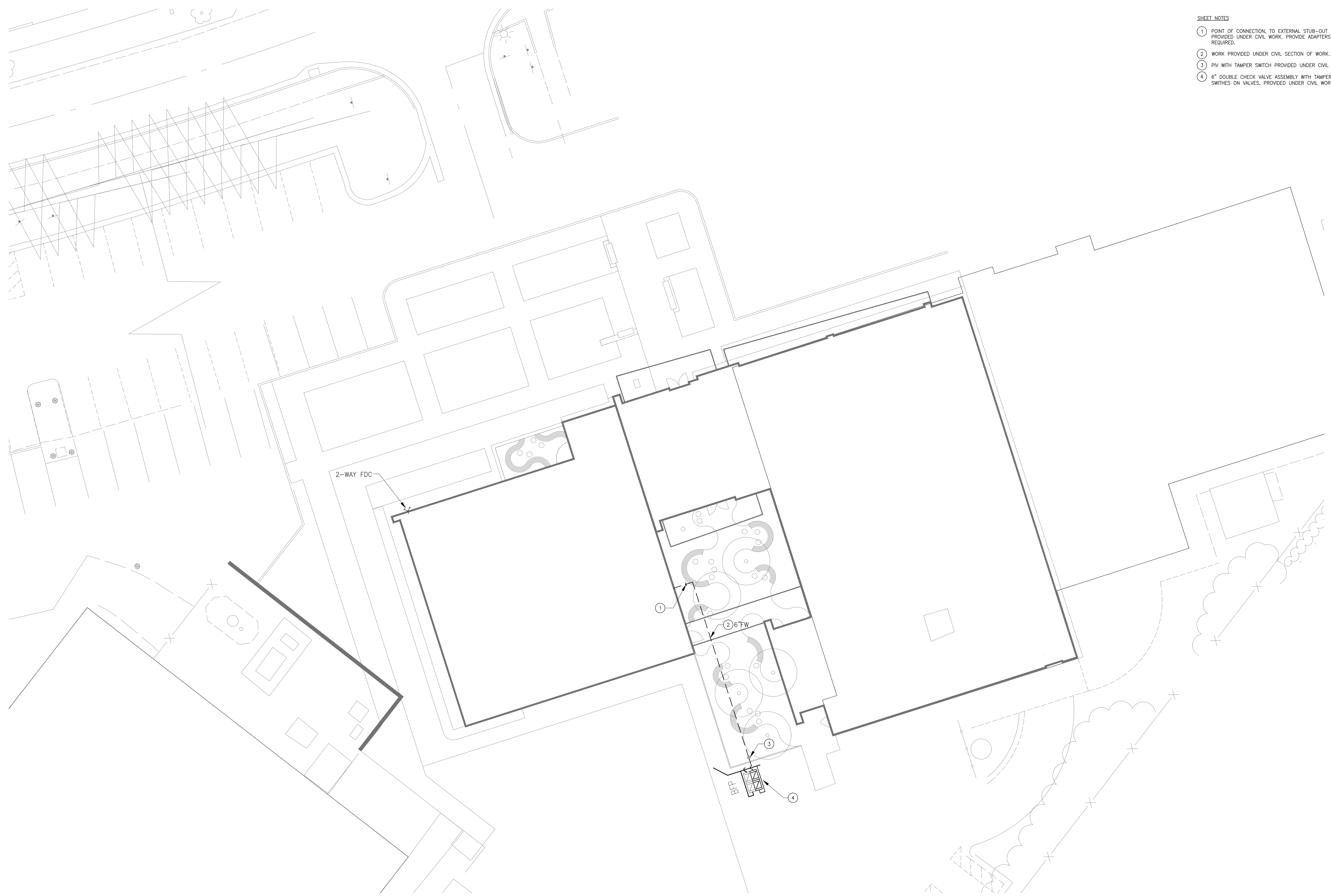
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Department of
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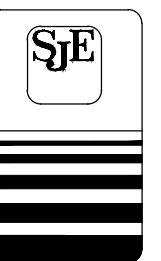
- SHEET NOTES**
- ① POINT OF CONNECTION, TO EXTERNAL STUB-OUT PROVIDED UNDER CIVIL WORK. PROVIDE ADAPTERS AS REQUIRED.
 - ② WORK PROVIDED UNDER CIVIL SECTION OF WORK.
 - ③ PIV WITH TAMPER SWITCH PROVIDED UNDER CIVIL WORK.
 - ④ 6" DOUBLE CHECK VALVE ASSEMBLY WITH TAMPER SWITCHES ON VALVES, PROVIDED UNDER CIVIL WORK.



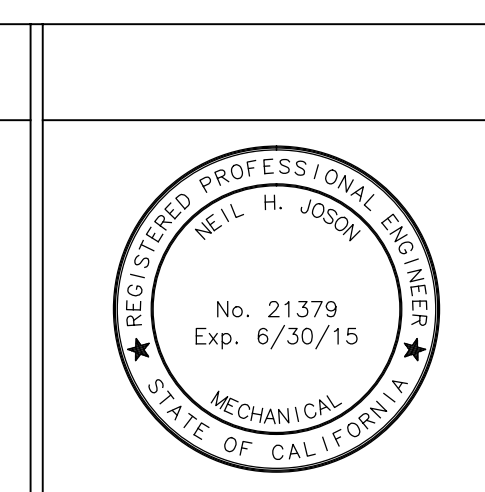
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 one and one half inches = one foot
 3
 one inch = one foot
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 three quarters inch = one foot
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 one half inch = one foot
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 three eighths inch = one foot
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 one quarter inch = one foot
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 one eighth inch = one foot
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 one sixteenth inch = one foot
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Drawing Title
**SITE PLAN
 FIRE PROTECTION**

Approved: Project Director

Project Title
**GENOMICS CLINICAL
 RESEARCH CENTER,
 PALO ALTO**

Location
 VAPAHCS - PALO ALTO

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Project Number
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Drawing Number
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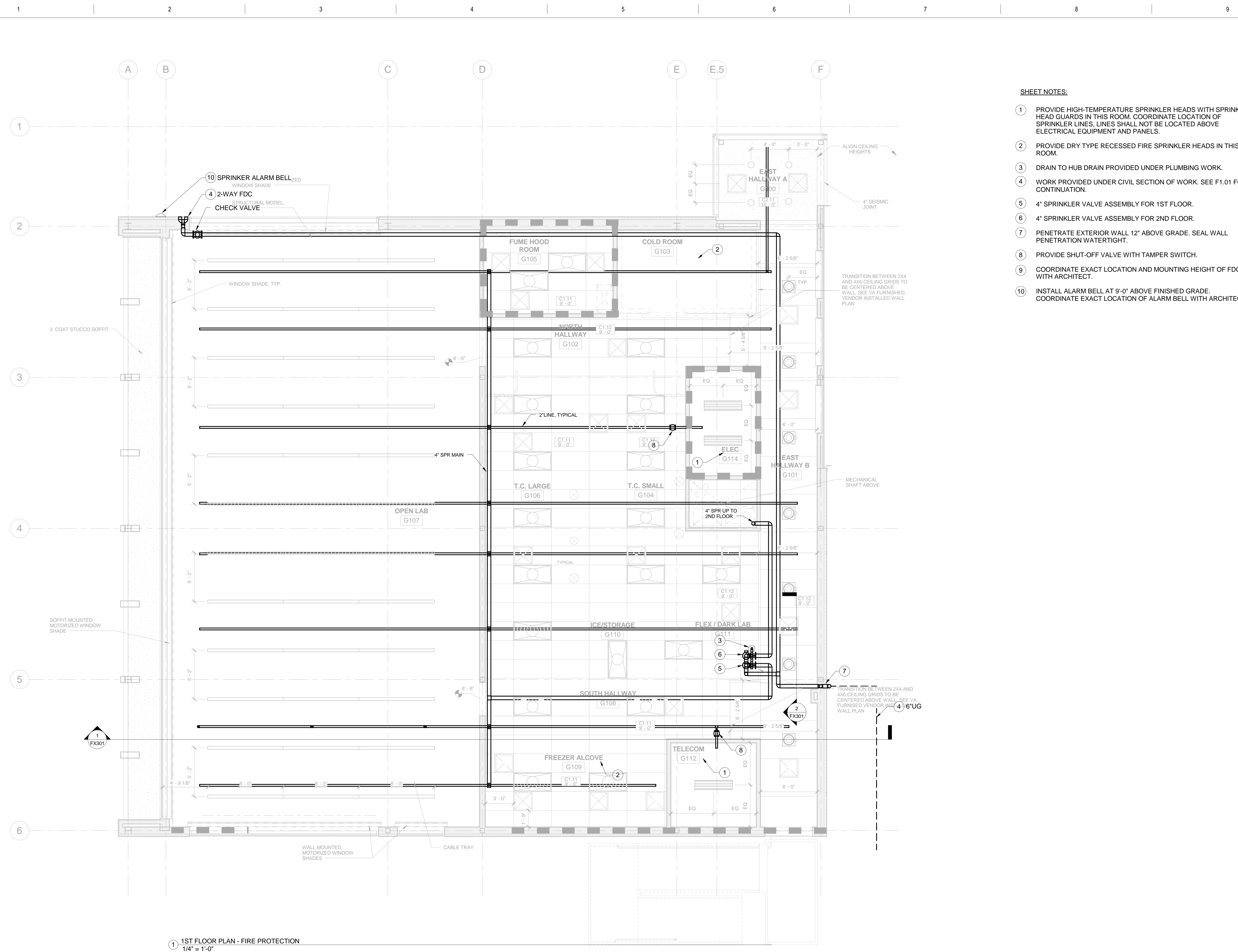
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FINAL BID DOCUMENTS



- SHEET NOTES:**
- ① PROVIDE HIGH-TEMPERATURE SPRINKLER HEADS WITH SPRINKLER HEAD GUARDS IN THIS ROOM. COORDINATE LOCATION OF SPRINKLER LINES. LINES SHALL NOT BE LOCATED ABOVE ELECTRICAL EQUIPMENT AND PANELS.
 - ② PROVIDE DRY TYPE RECESSED FIRE SPRINKLER HEADS IN THIS ROOM.
 - ③ DRAIN TO HUB DRAIN PROVIDED UNDER PLUMBING WORK.
 - ④ WORK PROVIDED UNDER CIVIL SECTION OF WORK. SEE F1.01 FOR CONTINUATION.
 - ⑤ 4" SPRINKLER VALVE ASSEMBLY FOR 1ST FLOOR.
 - ⑥ 4" SPRINKLER VALVE ASSEMBLY FOR 2ND FLOOR.
 - ⑦ PENETRATE EXTERIOR WALL 12" ABOVE GRADE. SEAL WALL PENETRATION WATERTIGHT.
 - ⑧ PROVIDE SHUT-OFF VALVE WITH TAMPER SWITCH.
 - ⑨ COORDINATE EXACT LOCATION AND MOUNTING HEIGHT OF FDC WITH ARCHITECT.
 - ⑩ INSTALL ALARM BELL AT 9'-0" ABOVE FINISHED GRADE. COORDINATE EXACT LOCATION OF ALARM BELL WITH ARCHITECT.

① 1ST FLOOR PLAN - FIRE PROTECTION
1/4" = 1'-0"

three inches = one foot
 one inch = one foot
 one half inch = one foot
 one quarter inch = one foot
 one eighth inch = one foot
 one sixteenth inch = one foot
 one thirtysecond inch = one foot
 one sixtyfourth inch = one foot
 one onehundredth inch = one foot

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Drawing Title
**FIRST FLOOR PLAN
 FIRE PROTECTION**

Approved: Project Director

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**GENOMICS CLINICAL
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 PALO ALTO**

Location
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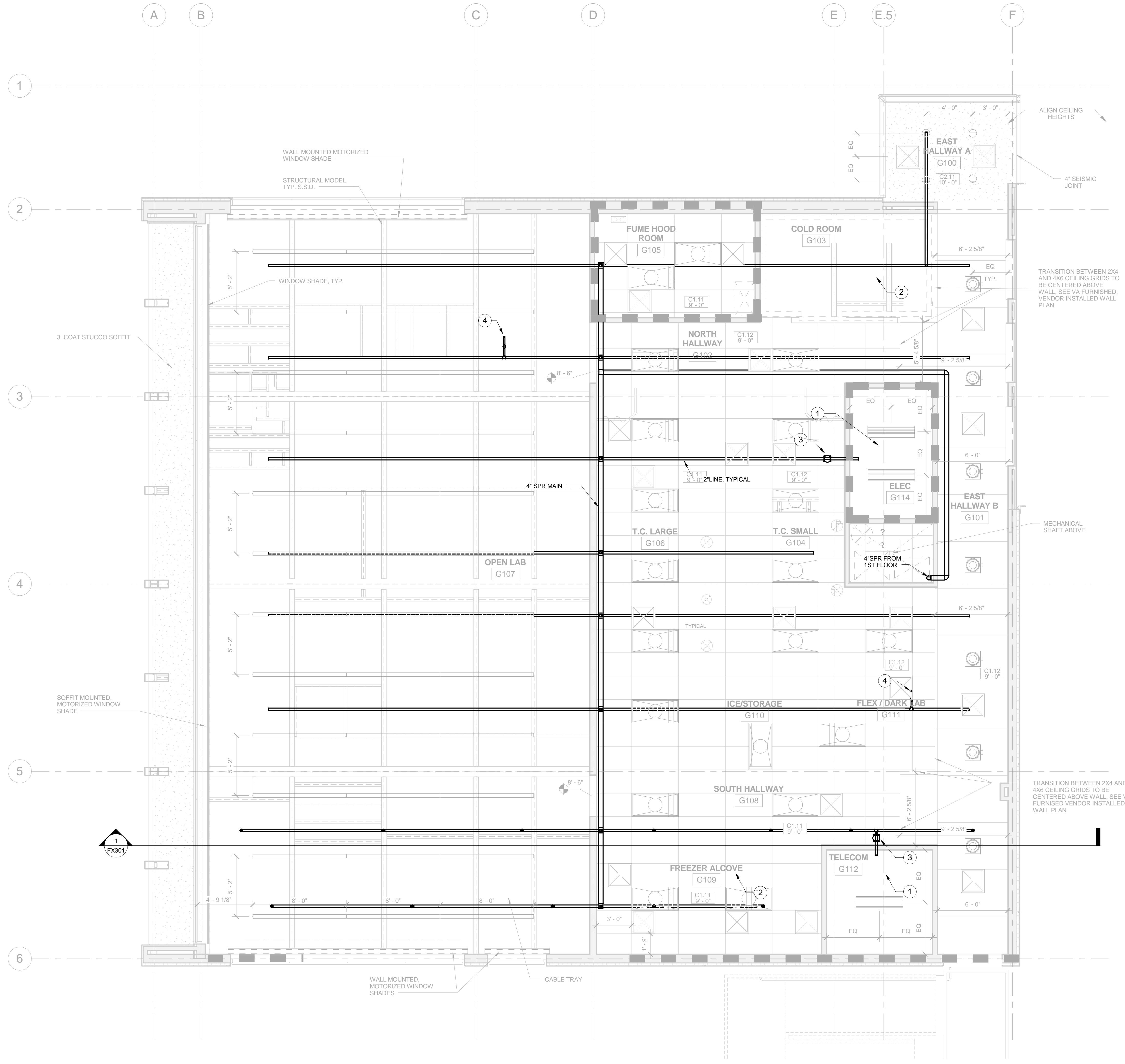
Building Number
 51

Drawing Number
FX102

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- SHEET NOTES:**
- 1 PROVIDE HIGH-TEMPERATURE SPRINKLER HEADS WITH SPRINKLER HEAD GUARDS IN THIS ROOM. COORDINATE LOCATION OF SPRINKLER LINES, LINES SHALL NOT BE LOCATED ABOVE ELECTRICAL EQUIPMENT AND PANELS.
 - 2 PROVIDE DRY TYPE RECESSED FIRE SPRINKLER HEADS IN THIS ROOM FOR FREEZE PROTECTION.
 - 3 PROVIDE SHUT-OFF VALVE WITH TAMPER SWITCH.
 - 4 PIPE UP TO SPRINKLERS FOR 'DOG HOUSE' ON THE ROOF.

1 2ND FLOOR PLAN - FIRE PROTECTION
1/4" = 1'-0"

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Revisions:	Date

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Drawing Title
**SECOND FLOOR PLAN
FIRE PROTECTION**

Approved: Project Director

Project Title
**GENOMICS CLINICAL
RESEARCH CENTER,
PALO ALTO**

Location
VAPAHCS - PALO ALTO

Date
06/05/2014

Checked
NHJ

Drawn
JHY

Project Number
640-389

Building Number
51

Drawing Number
FX103

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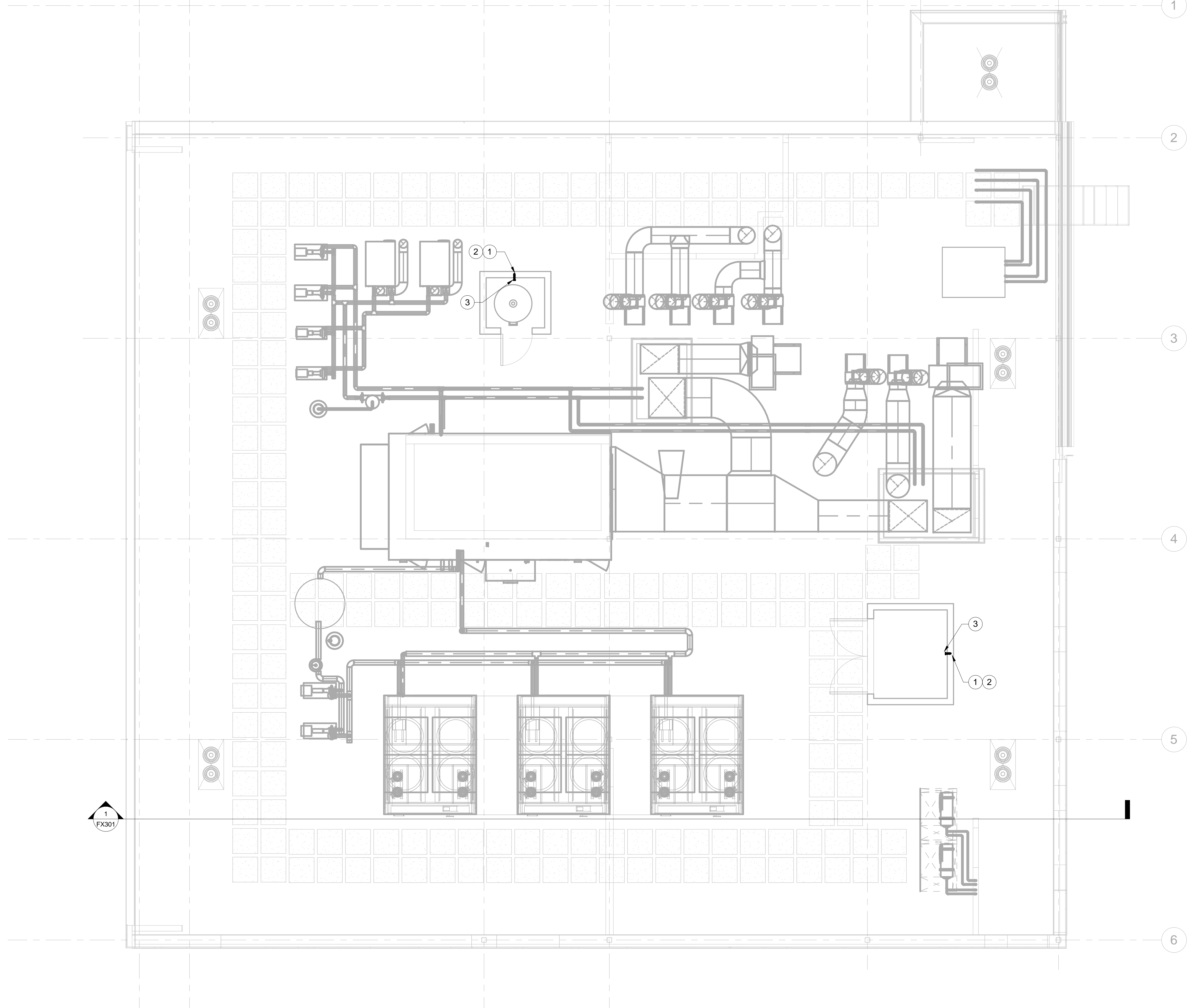
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SHEET NOTES:

- ① SPRINKLER PIPE DOWN TO SECOND FLOOR CEILING. PROVIDE 1-1/2" PIPE INSULATION FOR FREEZE PROTECTION.
- ② SEAL ROOF PENETRATION WATERTIGHT.
- ③ HIGH TEMPERATURE SIDEWALL FIRE SPRINKLER HEAD WITH HEAD GUARD.



① ROOF PLAN - FIRE PROTECTION
1/4" = 1'-0"

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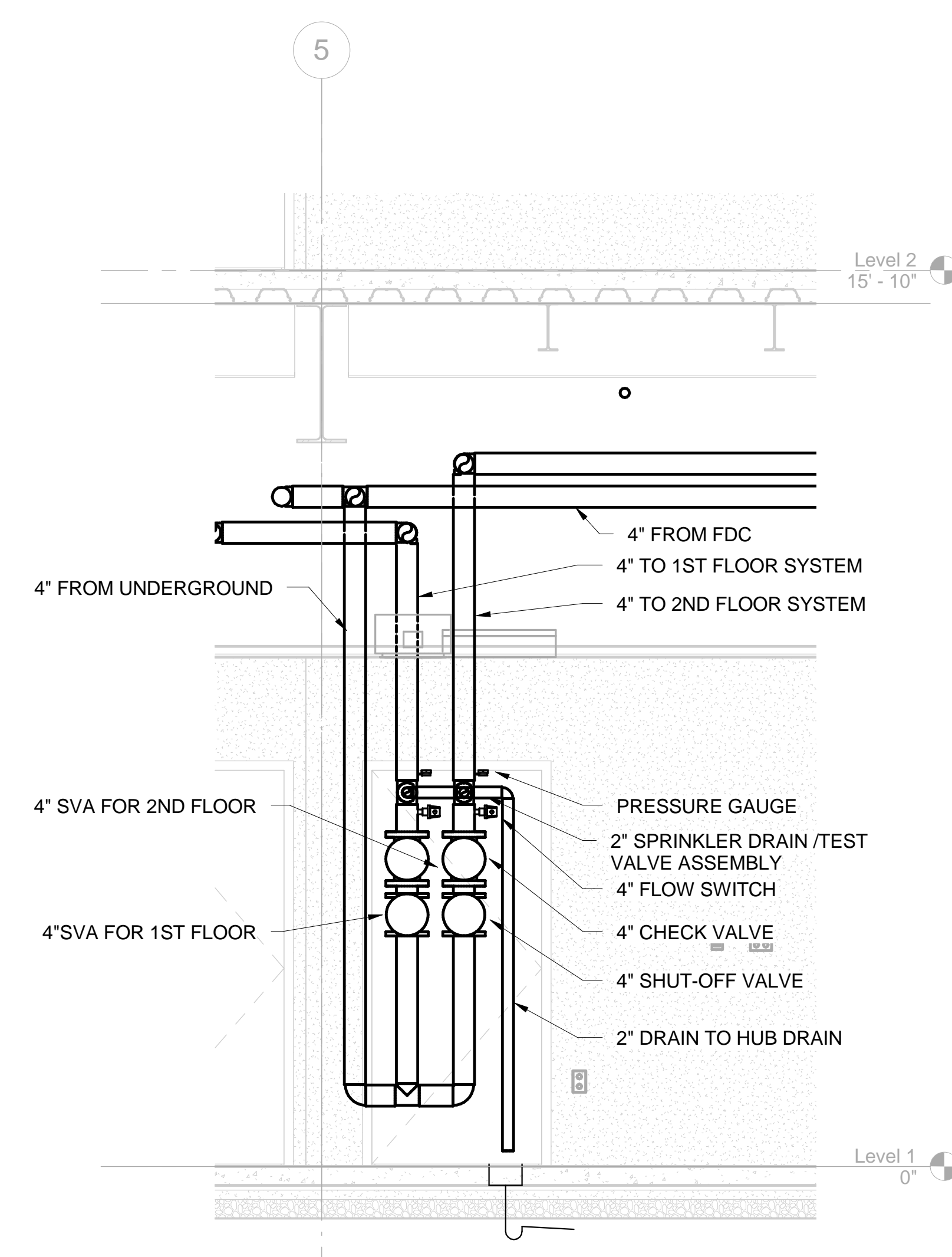
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Drawing Title	ROOF PLAN FIRE PROTECTION
Approved: Project Director	

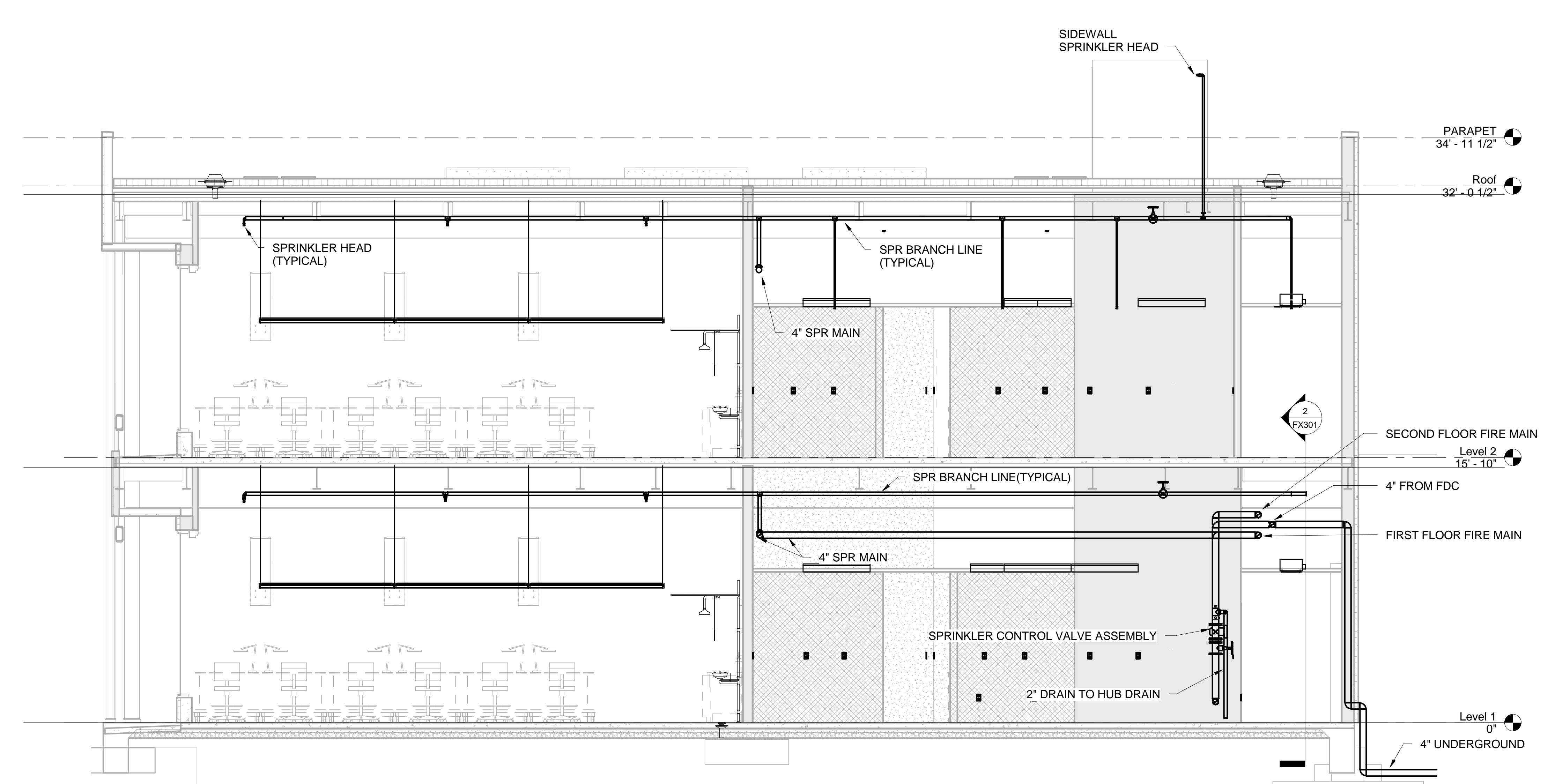
Project Title	GENOMICS CLINICAL RESEARCH CENTER, PALO ALTO	
Location	VAPAHCS - PALO ALTO	
Date	06/05/2014	Checked
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		Author
Project Number	640-389	Building Number
		51
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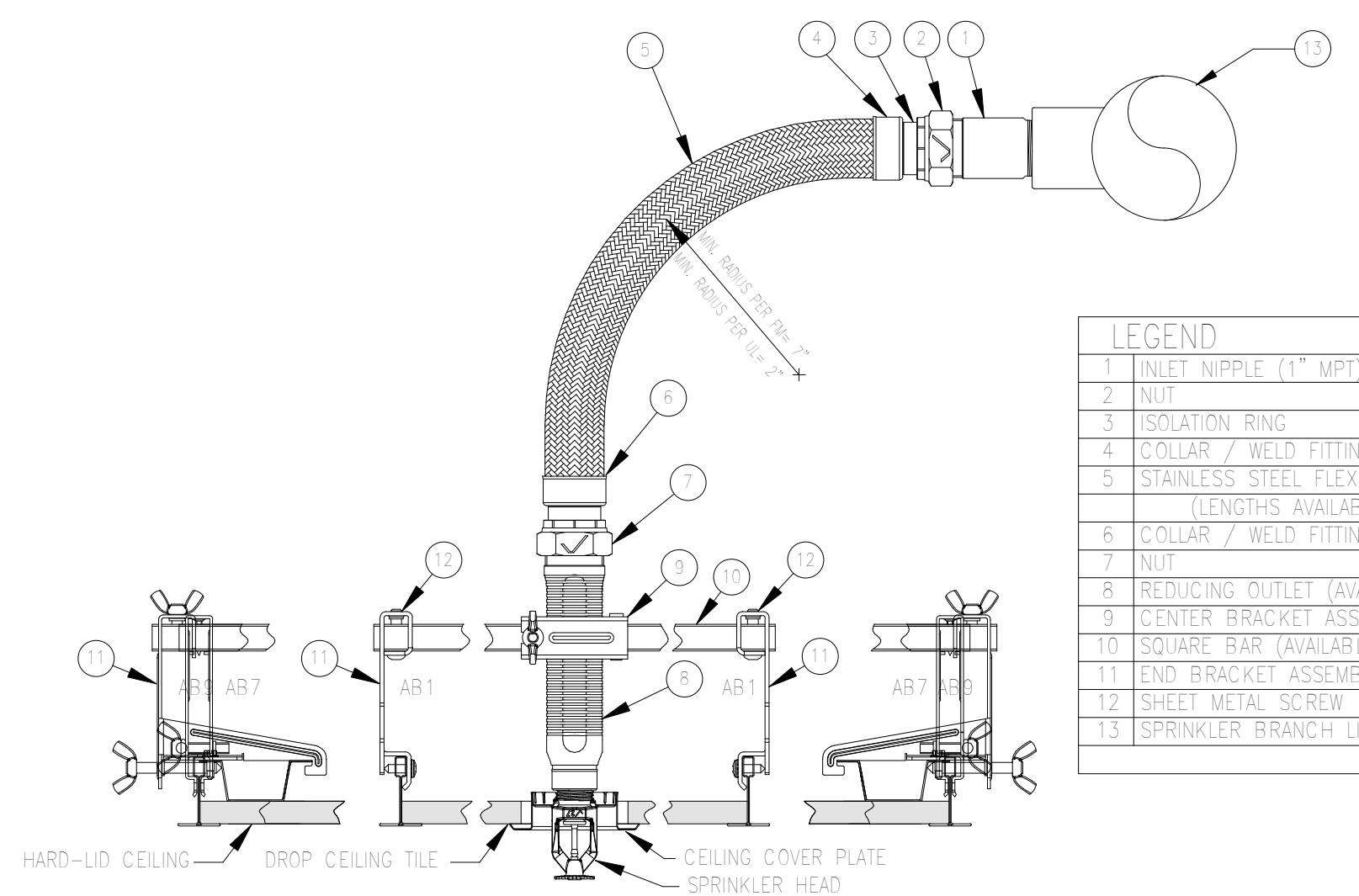


2 SPRINKLER RISER DETAIL
1/2" = 1'-0"



NOTE: FIRE SPRINKLER CONTRACTOR SHALL DETERMINE THE FINAL PIPE SIZES, LOCATION / QUANTITY OF SPRINKLER HEADS, AND FINAL COORDINATION WITH OTHER TRADES.

1 SECTION
1/4" = 1'-0"



LEGEND	
1	INLET NIPPLE (1" FPT)
2	PIPE
3	ISOLATION RING
4	COLLAR / WELD FITTING
5	STAINLESS STEEL FLEXIBLE BRAIDED HOSE (1" NOMINAL DIAMETER) (LENGTHS AVAILABLE: 31", 38", 48", 60", & 72")
6	COLLAR / WELD FITTING
7	NUT
8	REDUCING OUTLET (AVAILABLE 1/2" OR 3/4" FPT)
9	CEILING BRACKET ASSEMBLY
10	SQUARE BAR (AVAILABLE IN 24" AND 48" LENGTHS)
11	END BRACKET ASSEMBLY
12	SHEET METAL SCREW
13	SPRINKLER BRANCH LINE

3 FLEXIBLE SPRINKLER DROP DETAIL
NOT TO SCALE

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Drawing Title
**SECTION AND DETAILS
FIRE PROTECTION**

Approved: Project Director

Project Title
**GENOMICS CLINICAL
RESEARCH CENTER,
PALO ALTO**

Location
VAPAHCS - PALO ALTO

Date
06/05/2014

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Project Number
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Drawing Number
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