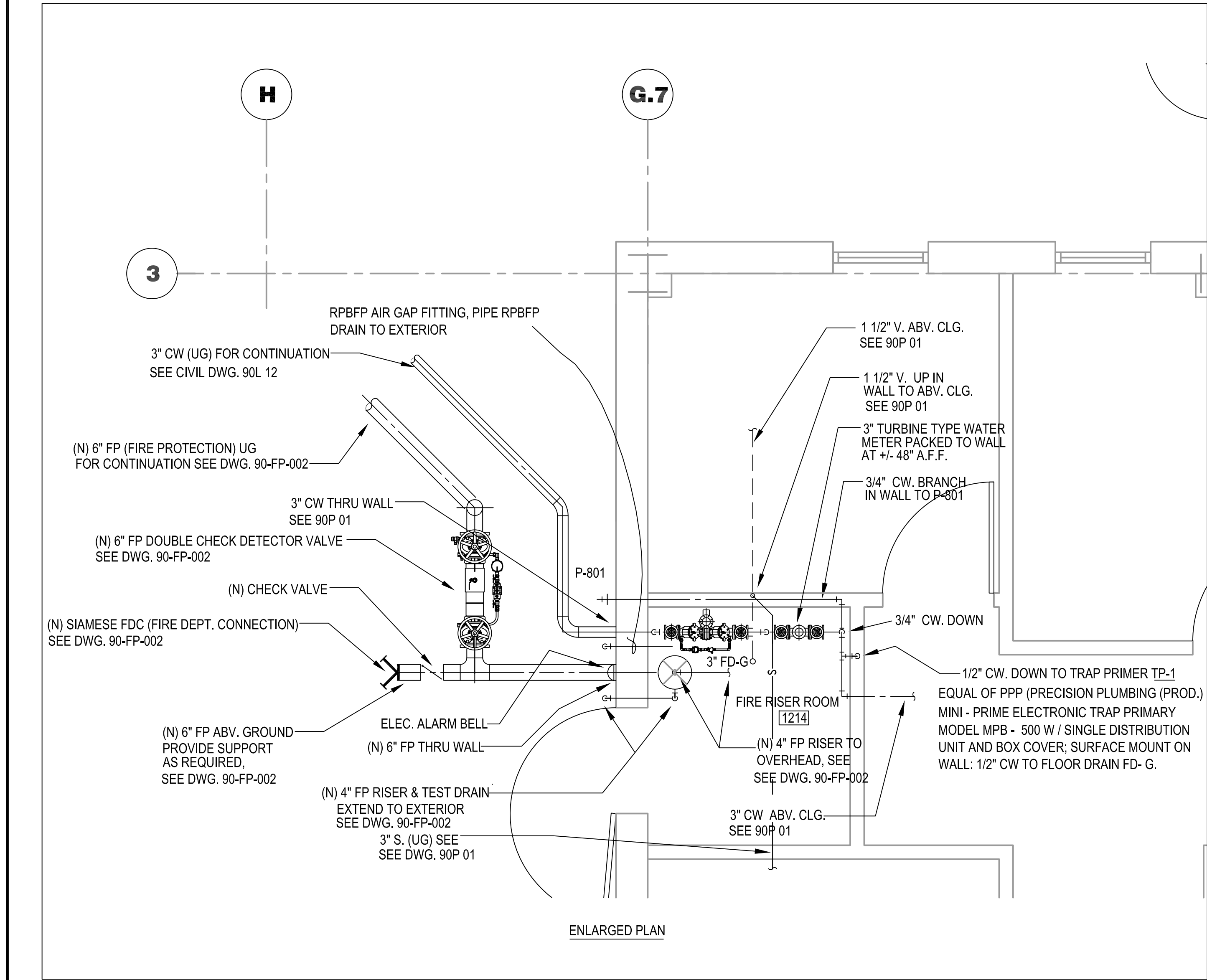
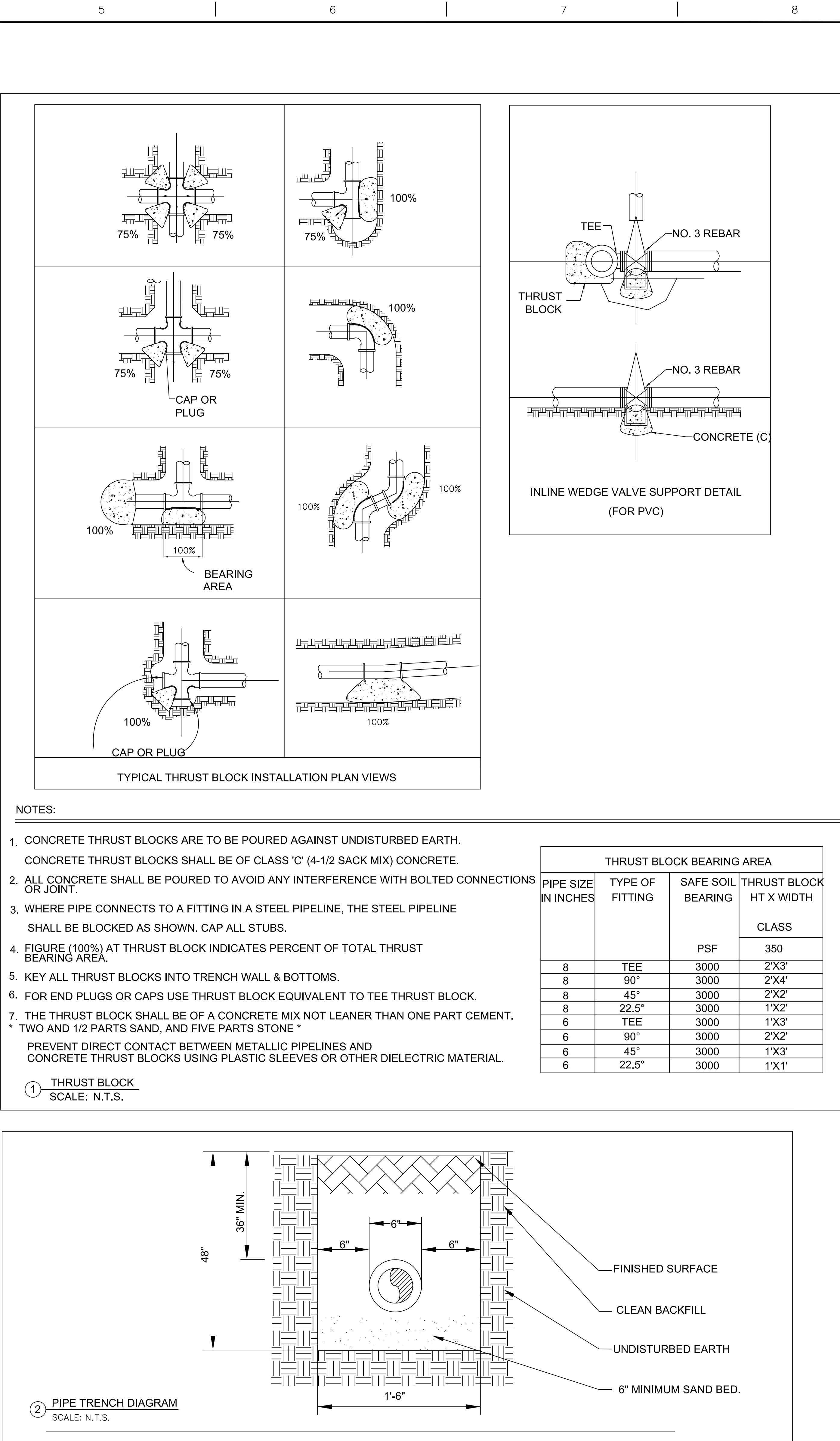
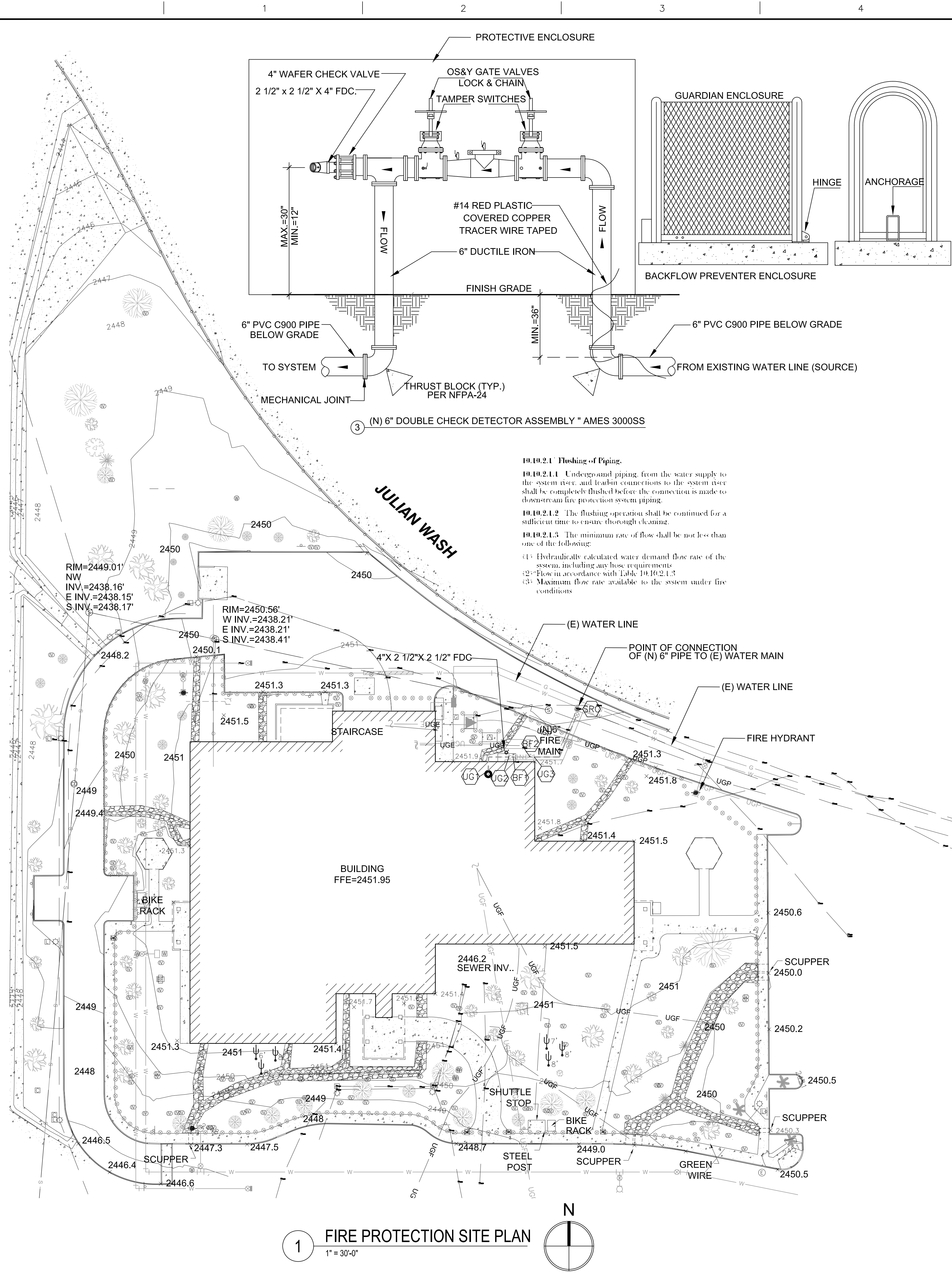


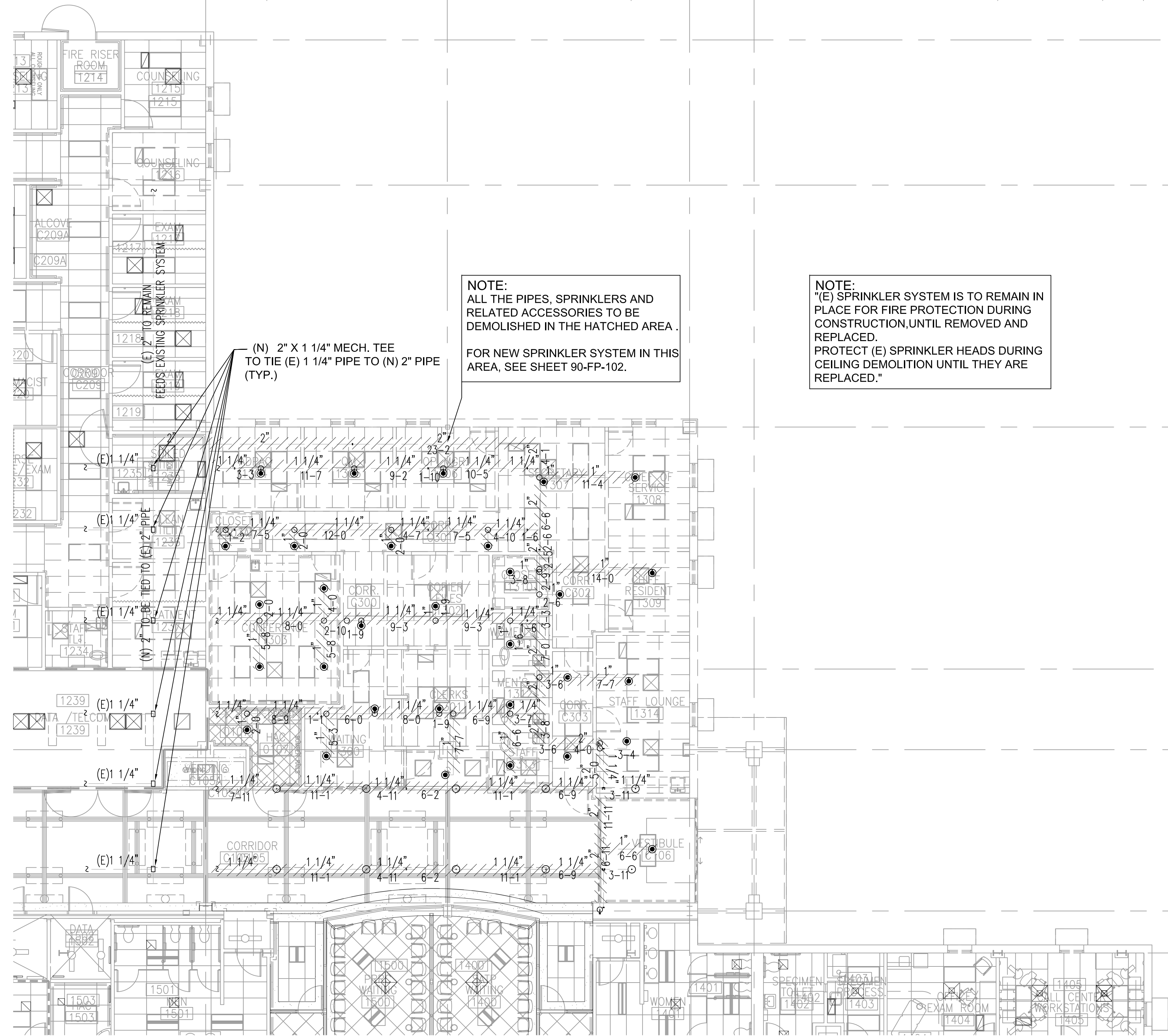
three inches = one foot
one and one half inches = one foot
one inch = one foot
three quarters inch = one foot
one half inch = one foot
three eighths inch = one foot
one eighth inch = one foot
one quarter inch = one foot
one eighth inch = one foot



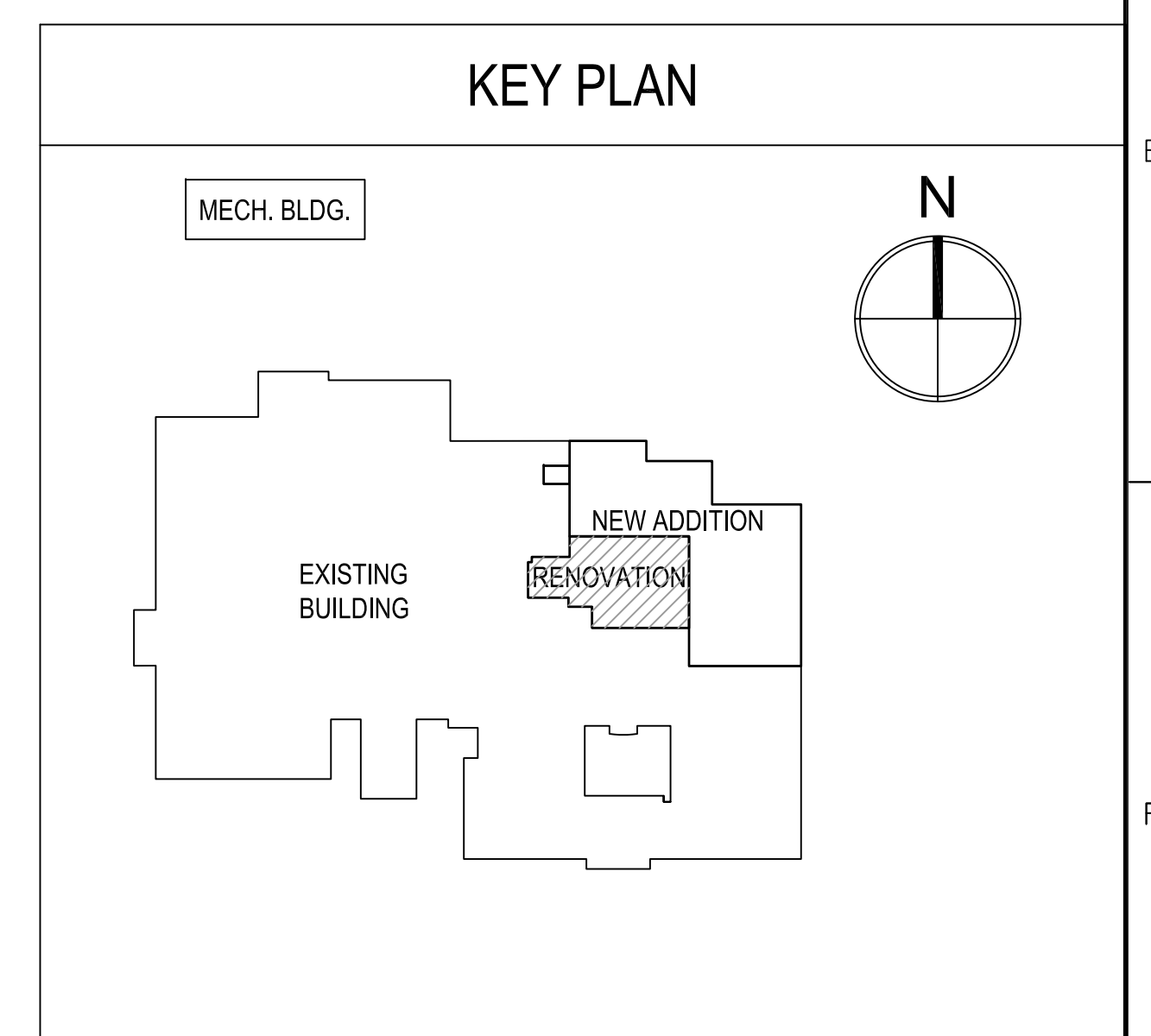
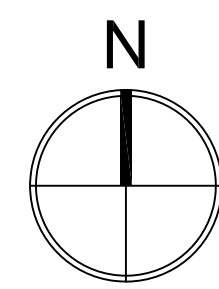
TOLBrace™ Seismic Bracing Calculations			
Project Address: Expand Mental Health Clinic, B90 Savahcs, Tucson Tucson, AZ Job # 56024190.00		Contractor: Schwab Engineering Address: 212 Arden Ave. #20 Glendale, CA 91205 Phone: (818) 458-8795 License: 39448 EATON Resistor Business Products	
Calculations based on 2016 NFPA Pumpset #13			
Brace Information		TOLCO™ Brace Components	
Maximum Brace Length	7' 0" (2.134 m)	TOLCO™ Component	Unstated Load
Diameter of Brace	1" 8.9142	Fig. 1001 Clamp	2016 lbs (914 kg)
Type of Brace	89h, 10	Fig. 800 No-Thread Stud Bolt	2016 lbs (914 kg)
Angle of Brace	48° Min.	Fig. 825A-Along Beam	1286 lbs (574 kg)
Least Rad. of Gyration	0.42" (1.07 mm)	Fig. 825A-Along Beam	1286 lbs (574 kg)
L/R Value	200	Fig. 825A-Along Beam	1286 lbs (574 kg)
Max Horizontal Load	1312 lbs (594 kg)	Fig. 825A-Along Beam	1286 lbs (574 kg)
Fastener Information		TOLCO™ Brace Components	
Orientation to Connecting Surface	NFPA Type E	Fig. 1001 Clamp	2016 lbs (914 kg)
Type	Fig. 825A-Along Beam	Fig. 800 No-Thread Stud Bolt	2016 lbs (914 kg)
Diameter	N/A	Fig. 825A-Along Beam	1286 lbs (574 kg)
Length	N/A	Fig. 825A-Along Beam	1286 lbs (574 kg)
Maximum Load	894 lbs (405 kg)	Fig. 825A-Along Beam	1286 lbs (574 kg)
Prying Factor	N/A	Fig. 825A-Along Beam	1286 lbs (574 kg)
Brace Identification on Plans		TOLCO™ Brace Components	
Brace Type	Unstated Load	Fig. 1001 Clamp	2016 lbs (914 kg)
Length (ft)	7' 0"	Fig. 800 No-Thread Stud Bolt	2016 lbs (914 kg)
4-Way (1)		Fig. 825A-Along Beam	1286 lbs (574 kg)
Sprinkler System Load Calculation (P _{row} = C _p W _{row})			
Diameter	Type	Length	Total Length
2.0" (50 mm)	89h, 10	2016 lbs (914 kg)	2016 lbs (914 kg)
1.0" (25 mm)	89h, 10	2016 lbs (914 kg)	2016 lbs (914 kg)
Total Weight			
116 lbs (53 kg)			
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one eighth inch = one foot
one quarter inch = one foot
one half inch = one foot
three eighths inch = one foot
one inch = one foot
one and one half inches = one foot
two inches = one foot
three inches = one foot
four inches = one foot
five inches = one foot
six inches = one foot
seven inches = one foot
eight inches = one foot
nine inches = one foot
ten inches = one foot
eleven inches = one foot
twelve inches = one foot
thirteen inches = one foot
fourteen inches = one foot
fifteen inches = one foot
sixteen inches = one foot
seventeen inches = one foot
eighteen inches = one foot
nineteen inches = one foot
twenty inches = one foot
twenty one inches = one foot
twenty two inches = one foot
twenty three inches = one foot
twenty four inches = one foot
twenty five inches = one foot
twenty six inches = one foot
twenty seven inches = one foot
twenty eight inches = one foot
twenty nine inches = one foot
thirty inches = one foot
thirty one inches = one foot
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thirty three inches = one foot
thirty four inches = one foot
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thirty seven inches = one foot
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sixty seven inches = one foot
sixty eight inches = one foot
sixty nine inches = one foot
seventy inches = one foot
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seventy two inches = one foot
seventy three inches = one foot
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seventy six inches = one foot
seventy seven inches = one foot
seventy eight inches = one foot
seventy nine inches = one foot
eighty inches = one foot
eighty one inches = one foot
eighty two inches = one foot
eighty three inches = one foot
eighty four inches = one foot
eighty five inches = one foot
eighty six inches = one foot
eighty seven inches = one foot
eighty eight inches = one foot
eighty nine inches = one foot
ninety inches = one foot
ninety one inches = one foot
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ninety three inches = one foot
ninety four inches = one foot
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ninety six inches = one foot
ninety seven inches = one foot
ninety eight inches = one foot
ninety nine inches = one foot
one hundred inches = one foot



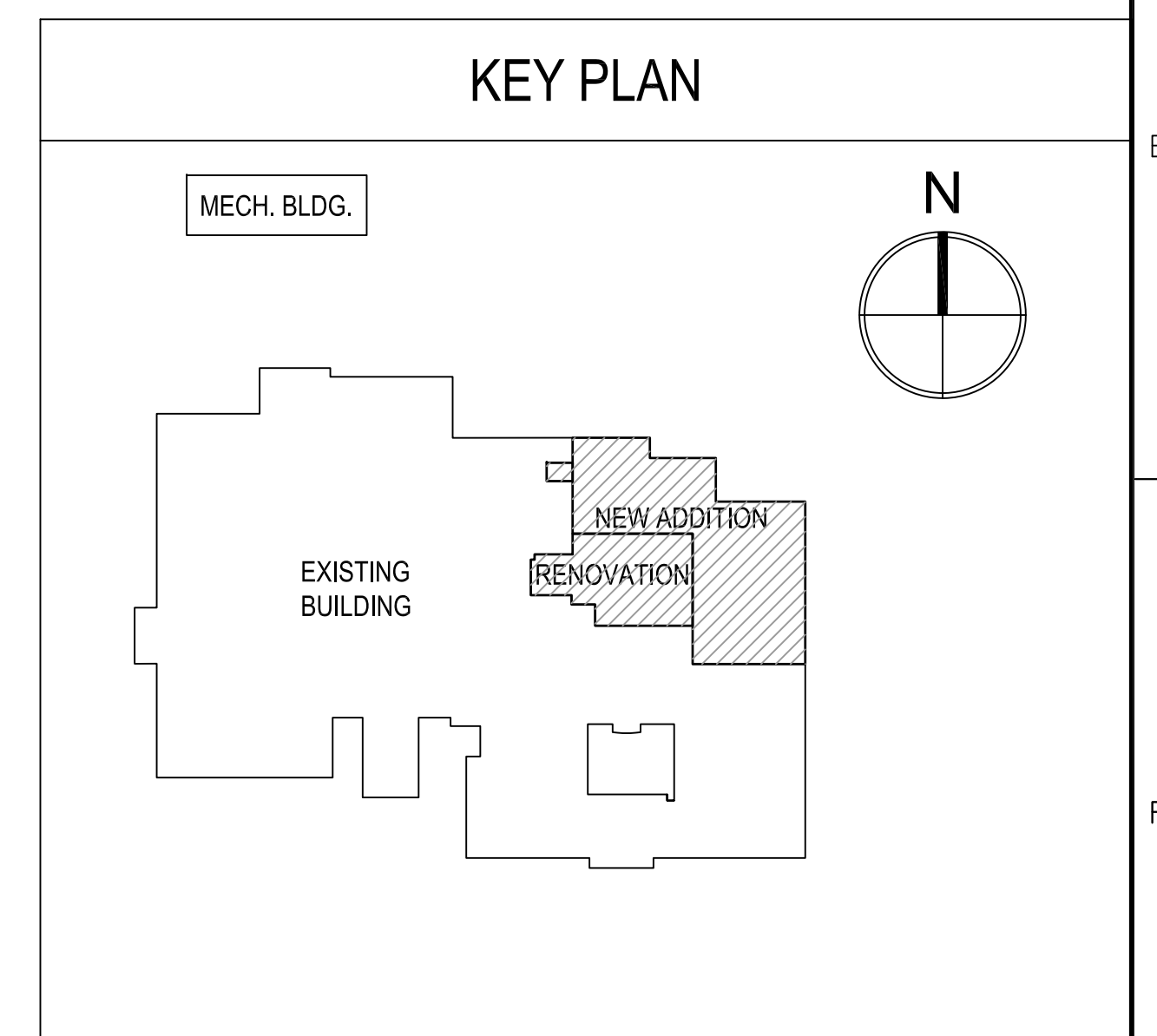
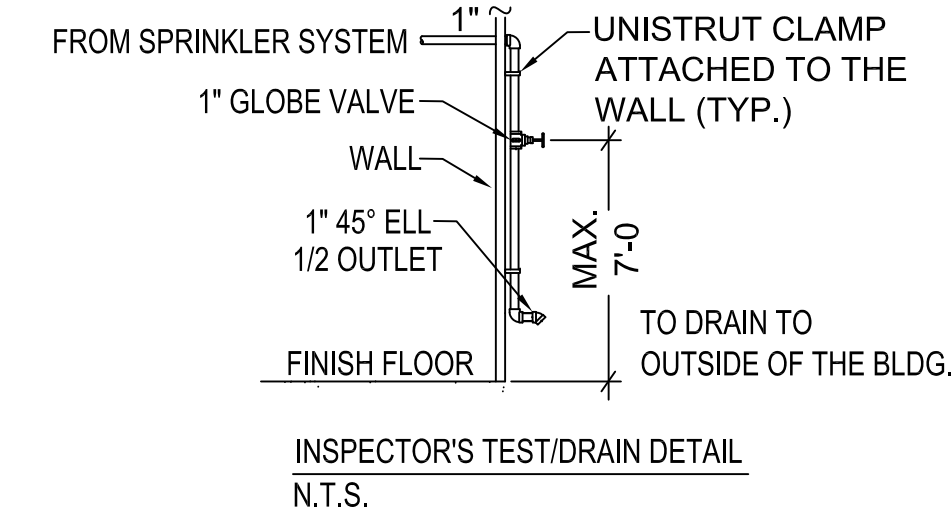
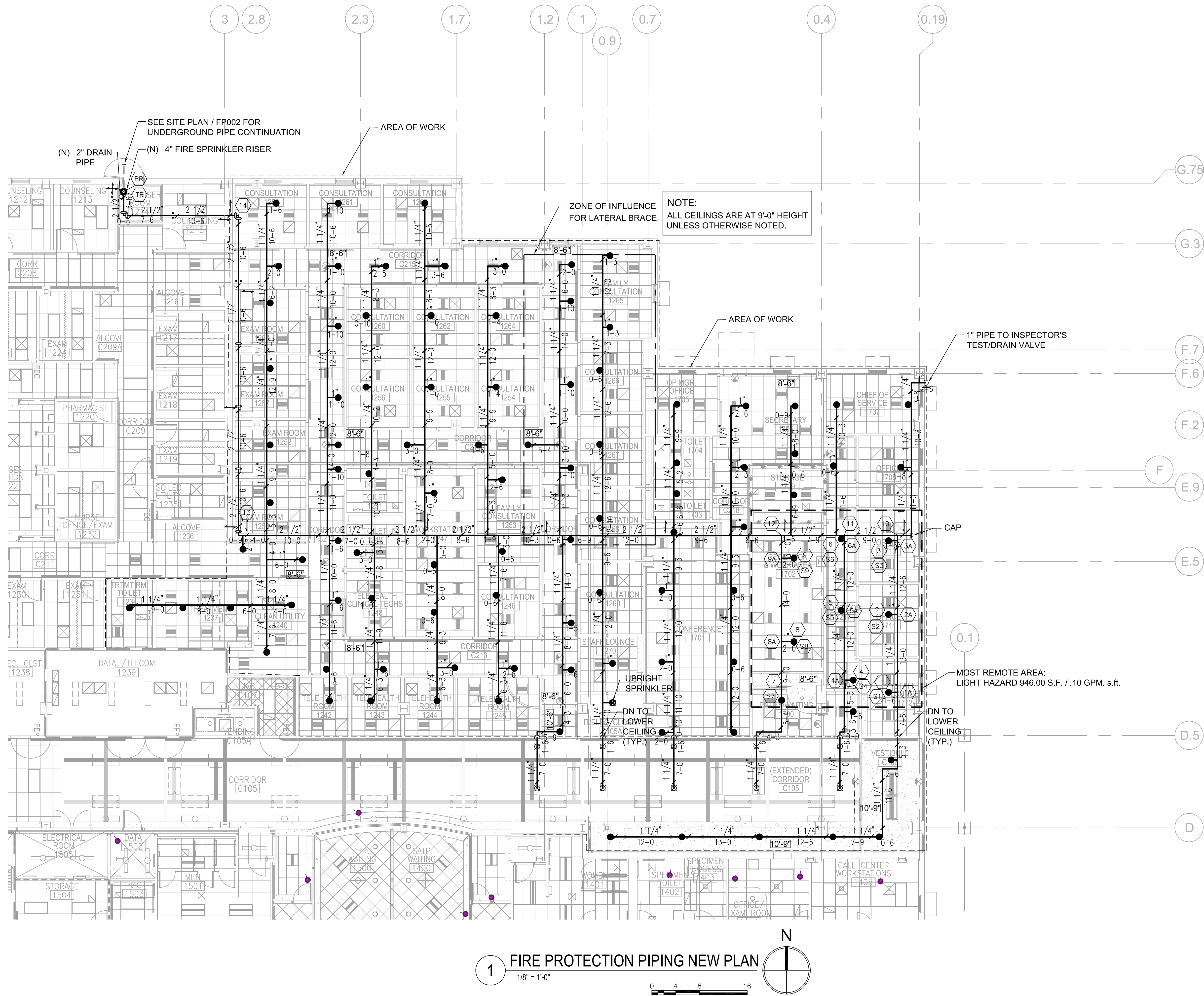


1 FIRE PROTECTION PIPING DEMO PLAN
1/8" = 1'-0"



		ARCHITECT/ENGINEERS/CONSULTANTS:		STAMP		Approved: Director		Drawing Title FIRE PROTECTION PIPING DEMO PLAN		Project Title EXPAND MENTAL HEALTH CLINIC, B90		Date 12-06-2019		Office of Facilities Management  U.S. Department of Veterans Affairs			
		 Schwab Engineering & Management A Certified SB/DVBE Firm 310 ARDEN AVE, SUITE 28, GLENDALE, CA 91203 www.schwabeng.com Project No.: S66204180.00				Approved: Associate Director						Project No. 678-329					
						Approved: Chief of Staff		Approved: Assistant Director		Building Number 90		Checked S.M.	Drawn S.M.			DRAWING NO. 90-FD-101	
						Approved: Chief, Facilities Management		Approved: Associate Director — Patient Care Services		Location SAVAHCS, TUCSON, AZ 85723		90-FD-101 Dwg. 65 of 120					
Revisions		Date															

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



ARCHITECT/ENGINEERS/CONSULTANTS: Schwab Engineering & Management A Certified SB/DVBE Firm 315 ARDEN AVE, SUITE 26, GLENDALE, CA 91203 www.schwabeng.com Project No.: S60204190.00		STAMP 	Approved: Director Approved: Associate Director Approved: Chief of Staff Approved: Chief, Facilities Management	Drawing Title FIRE PROTECTION PIPING NEW PLAN	Project Title EXPAND MENTAL HEALTH CLINIC, B90	Date 12-06-2019 Project No. 678-329	Building Number 90 Checked S.M. Drawn S.M.	DRAWING NO. 90-FP-102 Dwg. 66 of 120	Bid Set Office of Facilities Management VA U.S. Department of Veterans Affairs
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