SHOCK ABSORBER SCHEDULE										
P.D.I. DESIG.	S.F.U. RATING	SIZE	ZURN	WADE	SMITH	JOSAM				
"A"	1–11	3/4"	100	W-5	5005	75001				
"B"	12-32	1"	200	W-10	5010	75002				
"C"	33-60	1"	300	W-20	5020	_				
"D"	61–113	1"	400	W-50	5030	_				

FLO	W RATES
PLUMBING FIXTURE	MAXIMUM FLOW RATE
WATER CLOSET	1.6 GALLONS PER FLUSHING CYCLE
URINAL	1.0 GALLONS PER FLUSHING CYCLE
SHOWER HEAD	2.5 GPM AT 80 PSI
LAVATORY, PUBLIC	0.5 GPM AT 80 PSI
LAVATORY PUBLIC, METERING	0.25 GALLONS PER METERING CYCLE
SINK FAUCET	2.2 GPM AT 60 PSI

DO	DOMESTIC HOT WATER EXPANSION TANK										
DESIGNATION	SERVES		MAXIMUM ACCEPTANCE VOLUME, GALL	REMARKS							
ET-1	NEW BUILDING	14.4	7.5	MODEL: EXTROL AST-42 VERTICAL TYPE, FLOOR MOUNTED.							
ET-2	EXISTING BUILDING	1.1	0.6	MODEL: EXTROL AST-5 VERTICAL TYPE.							

FI	RE PROTEC	TION DES	IGN CRITER	IA.
OCCUPANCY CLASSIFICATION	DESIGN DENSITY GPM/SF	DESIGN AREA SF	HOSE GPM	DURATION OF SUPPLY MIN
LIGHT	.10	1500	100	30
ORDINARY	.15	1500	250	60

			HEAD			ELECTRICAL	DATA			BASIS OF	
PUMP	SERVES	GPM	(FT)	VOLTS	AMPS	PHASE	CYCLE	HP	RPM	DESIGN	REMARKS AND ACCESSORIES
SP-1	AREAWAYS (8) SUB-DRAINAGE, & CONDENSATE WATER	85	22	460	2.5	THREE	60	1.0	1750 (WEIL 1418	DUPLEX SUPMERSIBLE, 2" NPT, 3' DIAMETER X 6' DEEP FIBERGLASS BASIN WITH WATERTIGHT COVER. LISTE CAPACITIES ARE FOR EACH MOTOR.
SP-2	POOL HEATING PUMPS	30	22	115	7.2	SINGLE	60	0.33	1750	WEIL 1422	SIMPLEX SUBMERSIBLE, 1-1/4" NPT, 3' DIAMETER X 4' DEEP FIBERGLASS BASIN WITH WATERTIGHT COVER.
SP-3	PUMP PIT	66.5	16.4	115	11	SINGLE	60	0.5	1750	WEIL 1413	SIMPLEX SUBMERSIBLE, 2" NPT, 2'-6" DIAMETER X 5' DEEP FIBERGLA BASIN WITH WATERTIGHT COVER.
SP-4	ELEVATOR PIT	20	5	115	5	SINGLE	60	0.5	3600	STANCOR SE-40	SUBMERSIBLE, 2", WITH OPEN GRATIN
SP-5	FOUNDATION DRAINAGE SOUTH WALL	30.5	20.1	115	7.2	SINGLE	60	0.33	1750	WEIL 1408	DUPLEX SUBMERSIBLE, 3' DIAMETER 10' DEEP FIBERGLASS, 2" NPT, BASIN WITH STAINLESS STEEL COVER. CONTO PANEL LOCKABLE, WATERPROOF, 6' A LISTED CAPACITIES ARE FOR EACH

	DOMESTIC HOT WATER RECIRCULATING PUMP SCHEDULE										
PUMP SERVE	CEDVEC	CDM	HEAD	HEAD ELECTRICAL DATA				BASIS	REMARKS AND ACCESSORIES		
	SER VE S	GPM	(FT)	VOLTS	AMPS	PHASE	CYCLE	HP	OF DESIGN	NEWANNS AND ACCESSOMES	
RP-1	NEW BUILDING	1.5	13	115	0.74	SINGLE	60	1/25	GRUNDFOS UPS 15-42F SPD 2	IN LINE TYPE	
RP-2	EXIST. BUILDING	1.0	4	115	0.71	SINGLE	60	1/25	GRUNDFOS UPS 15-42F SPD 1	IN LINE TYPE	

			G	AS	FIRED	DC	M	EST	TC	HC	N TC	/ATE	R HEAT	ER
DESIG.	SERVES	STORAGE TANK CAP. GAL	RECOVERY RATE GPH	WATER IN (°F)	TEMPERATURE OUT (°F)			ECTRICA PHASE			G/ TYPE	AS INPUT CFH	BASIS OF DESIGN	REMARKS
WH-1	NEW BUILDING	250	340	40	120	120	1.30	SINGLE	60	1/5	NATURAL	270	PVI MAXIM 27N250A-MX	VERTICAL STORAGE TANK, QUANTITY OF THREE REQUIRED. REQUIRED CAPACITIES LISTED ARE FOR EACH HEATER.
														PROVIDE ONE TEMPERATURE, THREE— HEATER, MANIFOLD WITH BASE BUILDING RECIRCULATION.

			ELEC	TRIC	DOM	IESTIC	НОТ	WAT	TER HEATER
DECIC	CEDVEC	STORAGE	WATER IN	WATER OUT		ELECTRICAL DATA			DEMARKS DASIS OF DESIGN
DESIG.	SERVES	CAPACITY, GALLON	(°F)	(°F)	VOLTS	PHASE	HERTZ	KW	REMARKS, BASIS OF DESIGN
WH-2	EXISTING BUILDING	50	40	120	480	3	60	6	A.O. SMITH DEN-52 MODEL, 50-GALLON CAPACITY FROM 40°F TO 120°F HOT WATER STORAGE TANK.

FIRE PROTECTION NOTES

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- PROVIDE A COMPLETE FULLY AUTOMATIC HYDRAULICALLY CALCULATED WET-PIPE FIRE SPRINKLER
- 2. ENTIRE SPRINKLER SYSTEMS SHALL BE DESIGNED IN ACCORDANCE WITH APPLICABLE EDITIONS OF NFPA 13, ALL OTHER APPLICABLE CODES, REGULATIONS IN ACCORDANCE WITH THE DISTRICT OF COLUMBIA REQUIREMENTS, AND OWNERS INSURANCE CARRIER REQUIREMENTS.
- 3. ALL WORK SHOWN ON THE CONTRACT DOCUMENTS ARE INTENDED AS A GUIDE ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRODUCING COMPLETE SHOP DRAWINGS AND CALCULATIONS. SHALL BE PREPARED IN ACCORDANCE WITH NOTE #2 AND SHALL HAVE A SEAL AND SIGNATURE OF A REGISTERED PROFESSIONAL ENGINEER IN FIRE PROTECTION FOR THE DISTRICT OF COLUMBIA. THE COMPLETE DESIGN, COORDINATION WITH ALL TRADES AND BUILDING STRUCTURES SHALL BE RESPONSIBILITY OF THE FIRE PROTECTION CONTRACTOR.
- ANY DISCREPANCIES BETWEEN THE SPECIFICATIONS AND DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE OR THE ARCHITECT/ENGINNER. THE CONTRACTOR SHALL NOT PROCEED WITH ANY WORK, EXCEPT AT THEIR OWN RISK, UNTIL CLARIFICATION TO THE DISCREPANCIES IS ISSUED BY THE OWNERS REPRESENTATIVE OF THE ARCHITECT/ENGINNER.
- 5. COORDINATE WORK WITH ALL TRADES. SHOP DRAWING SHALL BE SUBMITTED AND APPROVED BY THE DISTRICT OF COLUMBIA AND ARCHITECT/ENGINEER PRIOR TO INSTALLATION.
- 6. CPVC PIPING MAY BE USED ON SPRINKLER SYSTEMS IN AREAS OF BUILDING CLASSIFIED AS A LIGHT HAZARD OR RESIDENTIAL IN ACCORDANCE WITH NFPA 13. HOWEVER, CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ASSOCIATED ACCESSORIES/ITEMS WHICH ARE REQUIRED FOR CODE COMPLIANCE.
- 7. SEE ARCHITECTURAL REFLECTED CEILING PLANS AND SECTIONS FOR SPRINKLER HEAD LAYOUTS. SPRINKLERS SHALL BE INSTALLED IN THE CENTER OF CEILING TILES OR CENTER OF HALF TILE, UNLESS OTHERWISE NOTED. COORDINATE WITH LIGHT FIXTURES AND HVAC DIFFUSERS.
- 8. IN AREAS PROVIDED WITH A CEILING, ALL SPRINKLER PIPING TO BE CONCEALED ABOVE CEILING. IN AREAS WITHOUT A CEILING, SPRINKLER PIPING TO BE INSTALLED AS CLOSE AS POSSIBLE TO CEILING, IN ACCORDANCE WITH NFPA 13 AND THE DISTRICT OF COLUMBIA.
- 9. THE CONTRACTOR SHALL PROVIDE THE DISTRICT OF COLUMBIA CODE OFFICIAL WITH A CERTIFICATE INDICATING THAT THE SYSTEM IS INSTALLED IN COMPLIANCE WITH THE CODE AND APPROPRIATE TEST HAVE BEEN CONDUCTED. THE CONTRACTOR SHALL SUBMIT CERTIFIED TEST RESULTS FOR RECORD OF ALL ACCEPTANCE TESTS REQUIRED BY THE APPLICABLE NFPA STANDARDS FOR THE INSTALLED FIRE PROTECTION SYSTEMS TO THE OWNERS REPRESENTATIVE OR THE ARCHITECT/ENGINEER.
- 10. PROVIDE VALVE SUPERVISORY SWITCHES FOR ALL FIRE PROTECTION CONTROL VALVES. 11. PROVIDE WATER CURTAIN SPRINKLER PROTECTION AND DRAFT STOPS WHERE INDICATED ON DRAWINGS

AND/OR REQUIRED BY CODE.

12. FIRE DEPARTMENT CONNECTIONS (FDC) SHALL BE INSTALLED IN ACCORDANCE WITH NFPA 13, DISTRICT OF COLUMBIA REQUIREMENTS AND OWNERS INSURANCE CARRIER.

ABBREVIATIONS

ABV	ABOVE	LPS	LITERS PER SECOND
ASME	AMERICAN SOCIETY OF MECHANICAL	MB	MOP BASIN
/ (OIVIL	ENGINEERS	MIN	MINIMUM/MINUTE
BFP	BACKFLOW PREVENTER	MV	MIXING VALVE
BT	BACKWASH TANK	NFPA	NATIONAL FIRE PROTECTION
CFH	CUBIC FEET PER HOUR	INI I A	
CLG	CEILING	NIC	ASSOCIATION NOT IN CONTRACT
CONT.	CONTINUATION	OS&Y	
CONT.	CLEANOUT	PD	OUTSIDE SCREW & YOKE
CPVC	CHLORINATED POLYVINYL CHLORIDE	PDI	PUMPED DISCHARGE
			PLUMBING DRAINAGE INSTITUTE
CW	COLD WATER	PLBG	PLUMBING
DD	DECK DRAIN	PRV	PRESSURE REDUCING VALVE
DN	DOWN	PSI	
DS	DOWNSPOUT	RD	ROOF DRAIN
DW	DISHWASHER	RP DD7	RECIRCULATING PUMP
DWG	DRAWING	RPZ	REDUCED PRESSURE BACKFLOW
EL	ELEVATION		PREVENTER
ES	EMERGENCY SHOWER	SA	SHOCK ABSORBER
ET	EXPANSION TANK	S OR SAN	SANITARY
EW	EYEWASH	SF	SQUARE FEET
EWC	ELECTRIC WATER COOLER	SH	SHOWER
EXIST	EXISTING	SIM	SIMILAR
FDC	FIRE DEPARTMENT CONNECTION	SK	SINK
°F	DEGREES FAHRENHEIT	SP	SPRINKLER
F	FIRE SERVICE	SS	STAINLESS STEEL
FCO	FLOOR CLEANOUT	TD	TRENCH DRAIN
FL	FLOOR	TDH	TOTAL DINAMIC HEAD
FD	FLOOR DRAIN	TP	TRAP PRIMER
FPWH	FREEZEPROOF WALL HYDRANT	UR	URINAL
FT	FEET	TYP	TYPICAL
FU	FIXTURE UNIT	VTR	VENT THROUGH ROOF
GAL	GALLON	WC	WATER CLOSET
GAL/HR	GALLON PER HOUR	W/C	WATER COLUMN
ĞPM	GALLON PER MINUTE	WF	WALL FAUCET
HB	HOSE BIBB	WH	DOMESTIC WATER HEATER
HW	HOT WATER	WM	CLOTHES WASHER MACHINE
I.E.	INVERT ELEVATION	W/	WITH
KS	KITCHEN SINK	w/o	WITHOUT
L OR LAV	LAVATORY	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	
		T. Control of the Con	

	PLUMBIN	IG FI	XTUF	RE S	CHE	DULE
ITEM	DESIGNATION	WASTE	VENT	CW	HW	REMARKS
WC-1	WATER CLOSET	4"	2"	1"	_	WALL MOUNTED, FLUSH VALVE
WC-2	WATER CLOSET	4"	2"	1"	_	WALL MOUNTED, FLUSH VALVE, A.D.A. ACCESSIBLE
UR-1	URINAL	2"	1-1/2"	3/4"	_	WALL MOUNTED, FLUSH VALVE
L-1	LAVATORY	1-1/2"	1-1/2"	1/2"	1/2"	COUNTERTOP, SEE ARCH. DWGS.
SH-1	SHOWER	2"	1-1/2"	1/2"	1/2"	
SH-2	SHOWER	2"	1-1/2"	1/2"	1/2"	A.D.A. ACCESSIBLE
MB-1	MOP BASIN	3"	1-1/2"	1/2"	1/2"	24"X24"
SK-1	KITCHEN SINK	1-1/2"	1-1/2"	1/2"	1/2"	COUNTERTOP, A.D.A. ACCESSIBLE DOUBLE BOWL
EWC-1	ELECTRIC WATER COOLER	1-1/2"	1-1/2"	1/2"	_	RECESSED, A.D.A. ACCESSIBLE
DW-1	DISHWASHER	_	_	_	1/2"	CONNECT TO DISPOSER VIA AIR GAP

1. MINIMUM PIPE SIZE SHALL BE 3/4", 1/2" SIZE LISTED SHALL BE USED AT CONNECTION ONLY. 2. ALL FIXTURES SHALL MEET CURRENT APPLICABLE WATER CONSERVATION REQUIREMENTS: 1.6 GALLON TOILETS, 1.0 GALLON URINALS, .5 GPM FAUCETS ETC. REFER TO SPECIFICATION FOR FIXTURES AND TRIM.

	DRAIN SCHEDULE								
DESIG.	DESCRIPTION	REMARKS, BASIS OF DESIGN							
FD-1	FLOOR DRAIN	WADE MODEL W-1200 W/ NICKEL BRONZE STRAINER PROVIDE WITH TRAP PRIMER							
FD-2	FLOOR DRAIN	WADE MODEL W-1100 W/ NICKEL BRONZE STRAINER PROVIDE WITH ELECTRONIC TRAP PRIMER							
FD-3	FLOOR DRAIN	WADE MODEL W-1100 W/O TOP AND W/O TRAP PRIMER							
FD-4	FLOOR DRAIN	WADE MODEL W-1200 W/ NICKEL BRONZE W/O TRAP PRIMER, TAPPING PLUGGED.							
FD-5	FLOOR DRAIN	WADE MODEL W-1100 W/ NICKEL BRONZE W/O TRAP PRIMER, TAPPING PLUGGED.							

GENERAL NOTES

- 1. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH INTERNATIONAL PLUMBING CODE 1995, LOCAL AMENDMENTS AND JURISDICTIONS HAVING AUTHORITY.
- 2. PLUMBING CONTRACTOR SHALL VERIFY ALL INVERTS PRIOR TO CONSTRUCTION. COORDINATE GAS, STORM,
- SEWER AND WATER CONNECTIONS WITH CIVIL ENGINEERING DRAWINGS AND APPROPRIATE AGENCIES. 3. PROVIDE ACCESS PANELS FOR ALL CONCEALED VALVES, SHOCK ABSORBERS, CLEANOUTS, ETC.
- 4. PROVIDE TRAP PRIMERS FOR ALL FLOOR DRAINS, OPEN SITE DRAINS, CONNECTED TO THE SANITARY SYSTEM ETC. LOCATED IN MECHANICAL ROOMS, BATHROOMS AND OTHER AREAS WHERE TRAP EVAPORATION CAN OCCUR.
- 5. PLUMBING CONTRACTOR SHALL CONNECT ALL ITEMS OF EQUIPMENT FURNISHED BY OTHERS AND UNDER OTHER SECTIONS OF THE SPECIFICATIONS, CONTRACTOR SHALL PROVIDE ALL ITEMS NECESSARY
- TO COMPLETE THE PLUMBING INSTALLATION.
- 6. PROVIDE BACKFLOW PROTECTION FOR WATER PIPING IN ACCORDANCE WITH SPECIFICATIONS, DRAWINGS AND WITH INTERNATIONAL PLUMBING CODE 1995.
- 7. PROVIDE UNIONS FOR ALL PIPING CONNECTIONS TO EQUIPMENT.

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- 8. ALL PLUMBING FIXTURES AND EQUIPMENT SHALL BE IN COMPLIANCE WITH CURRENT APPLICABLE ENERGY CONSERVATION CODES.
- 9. ALL SANITARY DRAINAGE PIPING 2-1/2" AND SMALLER SHALL BE INSTALLED AT 1/4" PER FOOT FALL, 3" TO 6" AT 1/8" PER FOOT FALL, ÚNLESS NOTED OTHERWISE. ALL STORM DRAINÁGE PIPING SHALL BE INSTALLED AT 1/8" PER FOOT FALL, UNLESS NOTED OTHERWISE.
- 10. ALL VALVES AND ACCESSORIES SERVING EQUIPMENT SHALL BE INSTALLED TO ALLOW PROPER SERVICING AND/OR REMOVAL WITHOUT DISCONNECTING ALL PIPING AND ACCESSORIES.
- 11. ALL PIPING AND SYSTEMS SHOWN SCHEMATIC. IT IS NOT POSSIBLE TO INDICATE EVERY OFFSET, ELBOW, UNION, VALVE, TRAP, ACCESS PANEL, ETC. THAT IS REQUIRED FOR A PROPER WORKING SYSTEM. NO ADDITIONAL COST WILL BE ALLOWED FOR FITTINGS THAT ARE REQUIRED TO INSTALL THE ENTIRE PLUMBING SYSTEM IN THE SPACE PROVIDED AND NECESSARY FOR A COMPLETE WORKING SYSTEM.
- 12. OBTAIN AND PAY FOR ALL INSPECTIONS, LICENSES, PERMITS AND APPROVALS REQUIRED BY GOVERNING AUTHORITIES AND INSTALL ALL WORK IN COMPLIANCE THEREOF.
- 13. THIS CONTRACTOR SHALL COORDINATE WITH ALL OTHER CONTRACTORS AS TO THE LOCATION OF THEIR WORK BEFORE BEGINNING THE PLUMBING WORK. ALL PLUMBING WORK SHALL BE INSTALLED IN SUCH A MANNER AS TO AVOID INTERFERENCE WITH ALL OTHER TRADES.
- 14. INCOMING GAS SERVICE, ASSOCIATED PIPING, ACCESSORIES UP TO OUTLET OF GAS METER, AND GAS
- VENTS ASSOCIATED WITH THE METER SHALL BE BY GAS COMPANY. 15. INVERT ELEVATION OF UNDERGROUND PIPING SUBJECT TO FREEZING SHALL BE LOCATED AT 3 FEET BELOW SURFACE.

PLUMBING SYMBOLS LIST

	PD	PUMPED DISCHARGE	
	G	GAS PIPING	G
		SANITARY PIPING	SAN
		STORM PIPING	ST
		VENT PIPING	V
		DOMESTIC COLD WATER PIPING	CW
		DOMESTIC HOT WATER PIPING (120 DEGREES F.)	HW
	>	DOMESTIC HOT WATER RECIRCULATING	HWR
	——————————————————————————————————————	PRESSURE REDUCING VALVE BALL VALVE	PRV VALVE
	→ L	CHECK VALVE	VALVE
		UNION	
	2	WATER HAMMER ARRESTER	НА
		PIPE TURNING UP	117.
	Э	PIPE TURNING DOWN	
	 5	PIPE TURNING DOWN WITH VALVE ON VERTICAL	
]	PIPE CAP	
	•	FLOOR CLEANOUT	FCO
		VERTICAL CLEANOUT (WALL / RISER)	СО
		WALL HYDRANT / HOSE BIBB	WH / HB
-		FIRE DEPARTMENT CONNECTION	FDC
	$\left(\begin{array}{c} S \\ \# \end{array}\right)$	SANITARY RISER DESIGNATION	
	(ST)	STORM RISER DESIGNATION	
	W #	DOMESTIC WATER RISER DESIGNATION	
	G #	GAS RISER DESIGNATION	
	•	VENT THRU ROOF	VTR
	© ©	ROOF DRAIN	RD
	⊃⊞ ⊃∅	OPEN SITE DRAIN FLOOR DRAIN	OSD
	(1)	INDICATES SEE KEYNOTE #1	FD
		POINT OF CONNECTION NEW TO EXISTING	
		TEE DOWN	
		PIPE BREAK	
	<u> </u>	THERMOMETER	
		OSY VALVE WITH TAMPER SWITCH	
	P	FLOW SWITCH	
		TRENCH DRAIN	
	——————————————————————————————————————	DOUBLE CHECK BACKFLOW PREVENTER	BFP
		REDUCED PRESSURE BACKFLOW PREVENTER	RPZ
	▼	GAS SHUT-OFF VALVE	
	œ œ	GAS PRESSURE REDUCING VALVE	PRV

DRAWING LIST		
DWG. NO.	DRAWING TITLE	
P001	SYMBOLS, ABBREVIATIONS SCHEDULES AND GENERAL NOTES	
P101	BASEMENT FLOOR PLUMBING PLAN	
P102	FIRST FLOOR PLUMBING PLAN	
P103	ROOF PLUMBING PLAN	
P201	ENLARGED PARTIAL PLUMBING PLAN	
P202	ENLARGED PARTIAL PLUMBING PLAN	
P301	SANITARY RISER DIAGRAMS	
P302	RISER DIAGRAMS	
P401	PLUMBING DETAILS	
P402	PLUMBING DETAILS	

REVISED CONSTRUCTION DOCUMENT

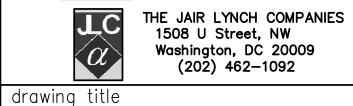
no.	revisions/submissions/last update	date
1	Schematic Design Submission	11/21/01
2	Design Development Submission	02/01/02
3	Permit Set	04/29/02
4	Bid Set— Not For Construction	06/14/02
5	Construction Document	06/21/02
6	V.E. BID SET	11/22/02
$\overline{\Lambda}$	AFTER VE BID SET	02/06/03
8	FOUNDATION DRAIN REVISION	11/04/03



ARCHITECTURE & ENGINEERING, P.C ALBANY, NY BOSTON, MA WHITE PLAINS, N' NEW YORK CITY, NY LOS ANGELES, C.

TAKOMA RECREATION CENTER

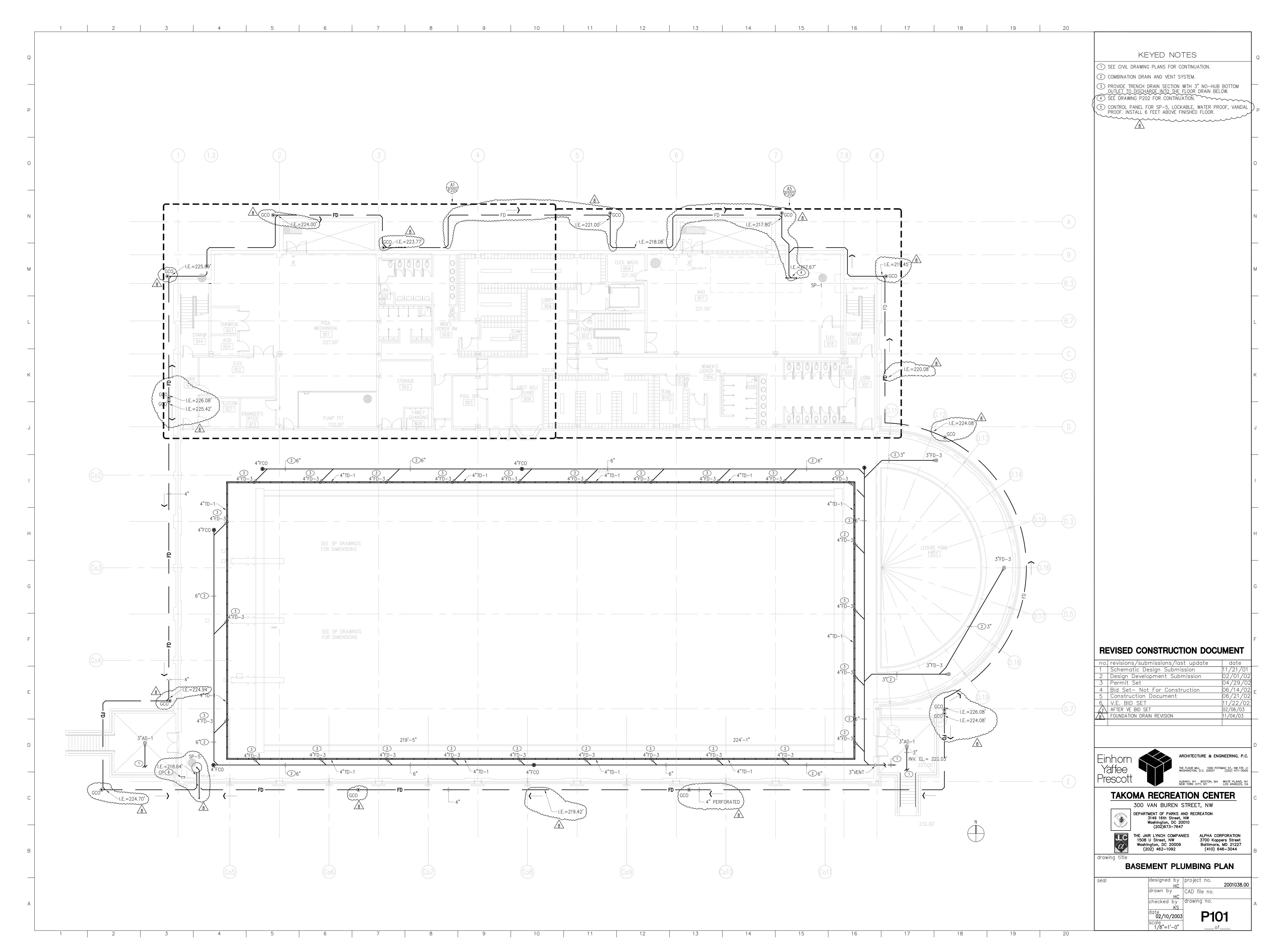
300 VAN BUREN STREET, NW DEPARTMENT OF PARKS AND RECREATION 3149 16th Street, NW Washington, DC 20010

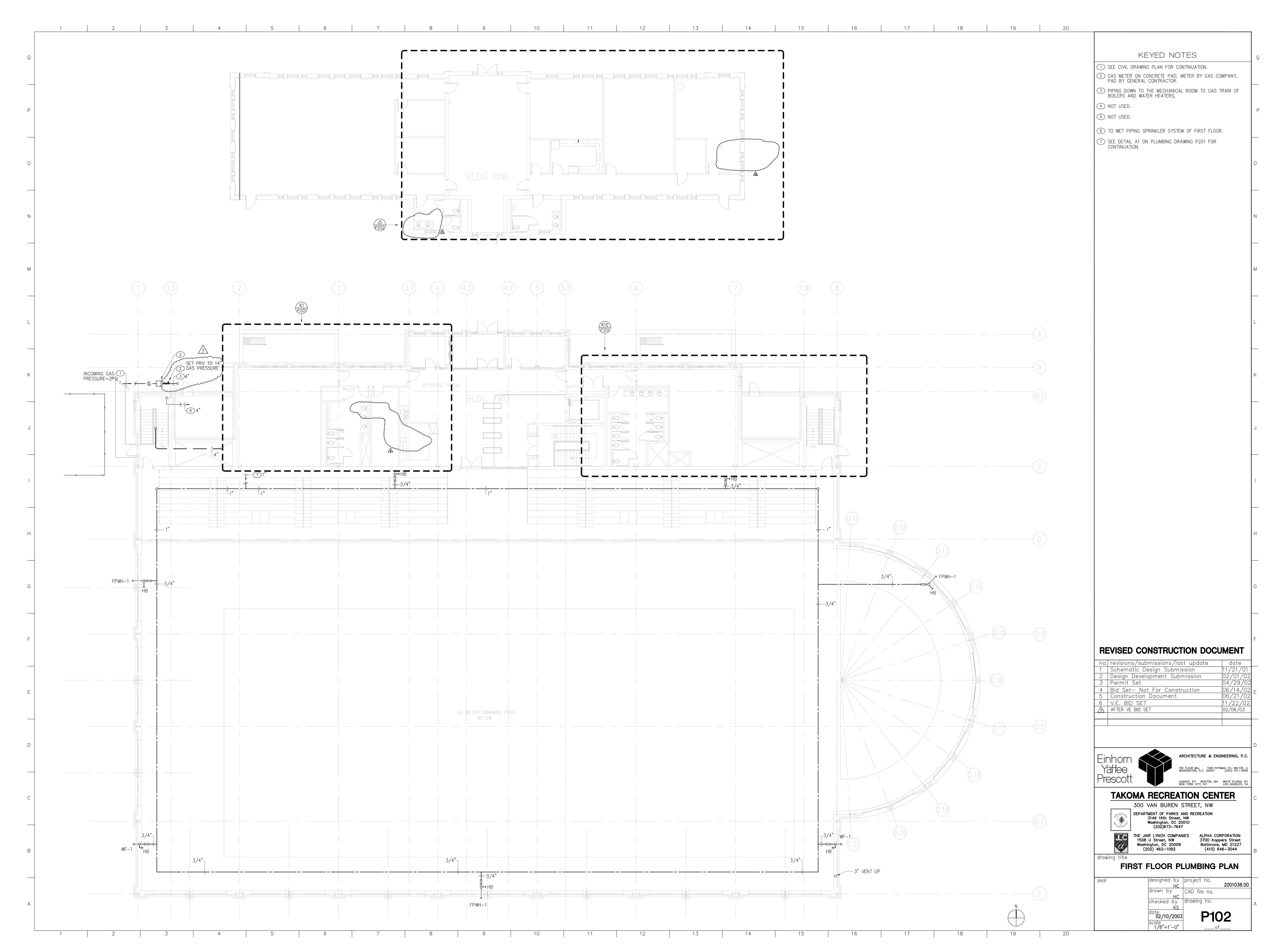


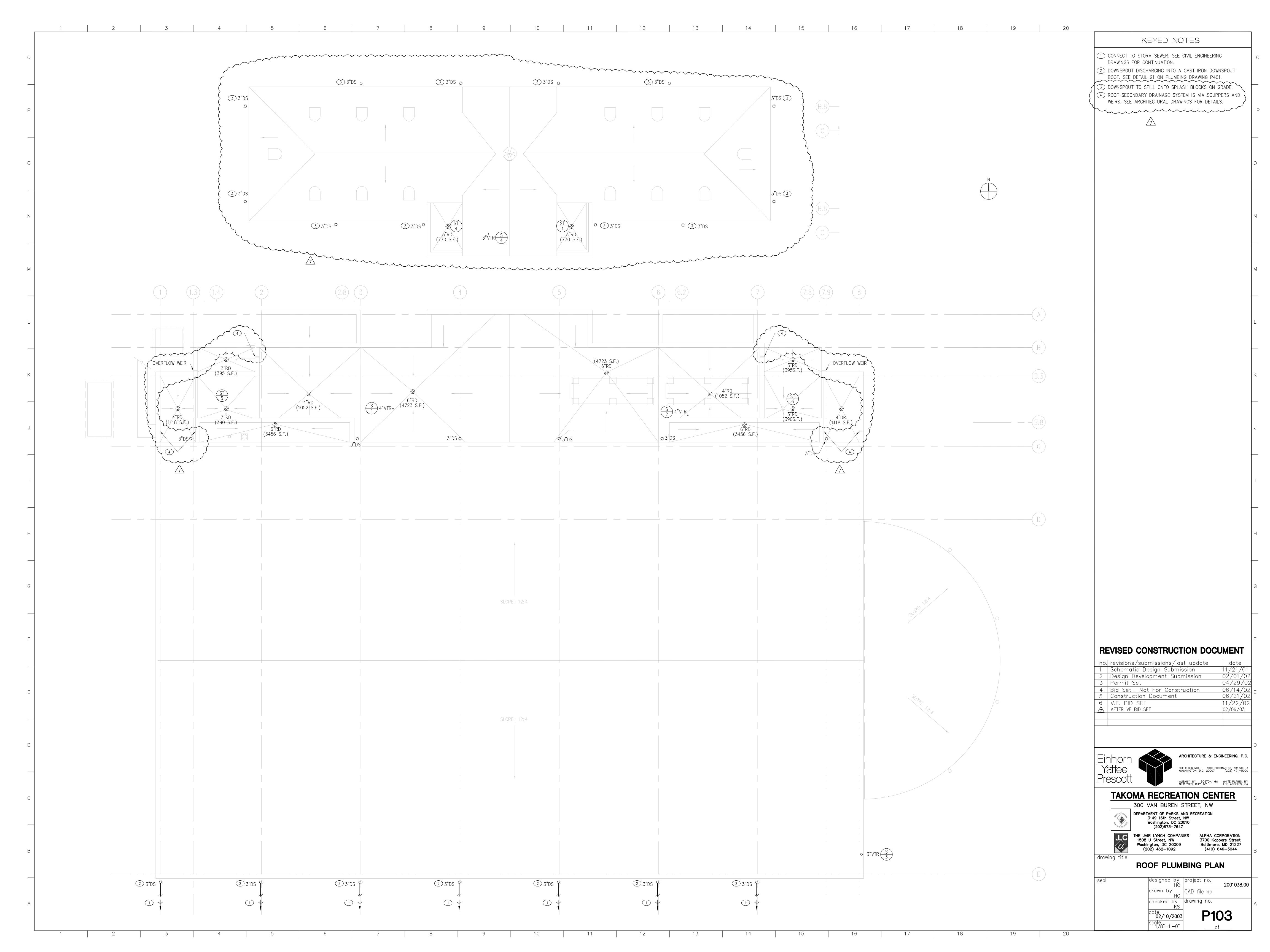
ALPHA CORPORATION 1508 U Street, NW 3700 Koppers Street Washington, DC 20009 (202) 462-1092 Baltimore, MD 21227 (410) 646-3044

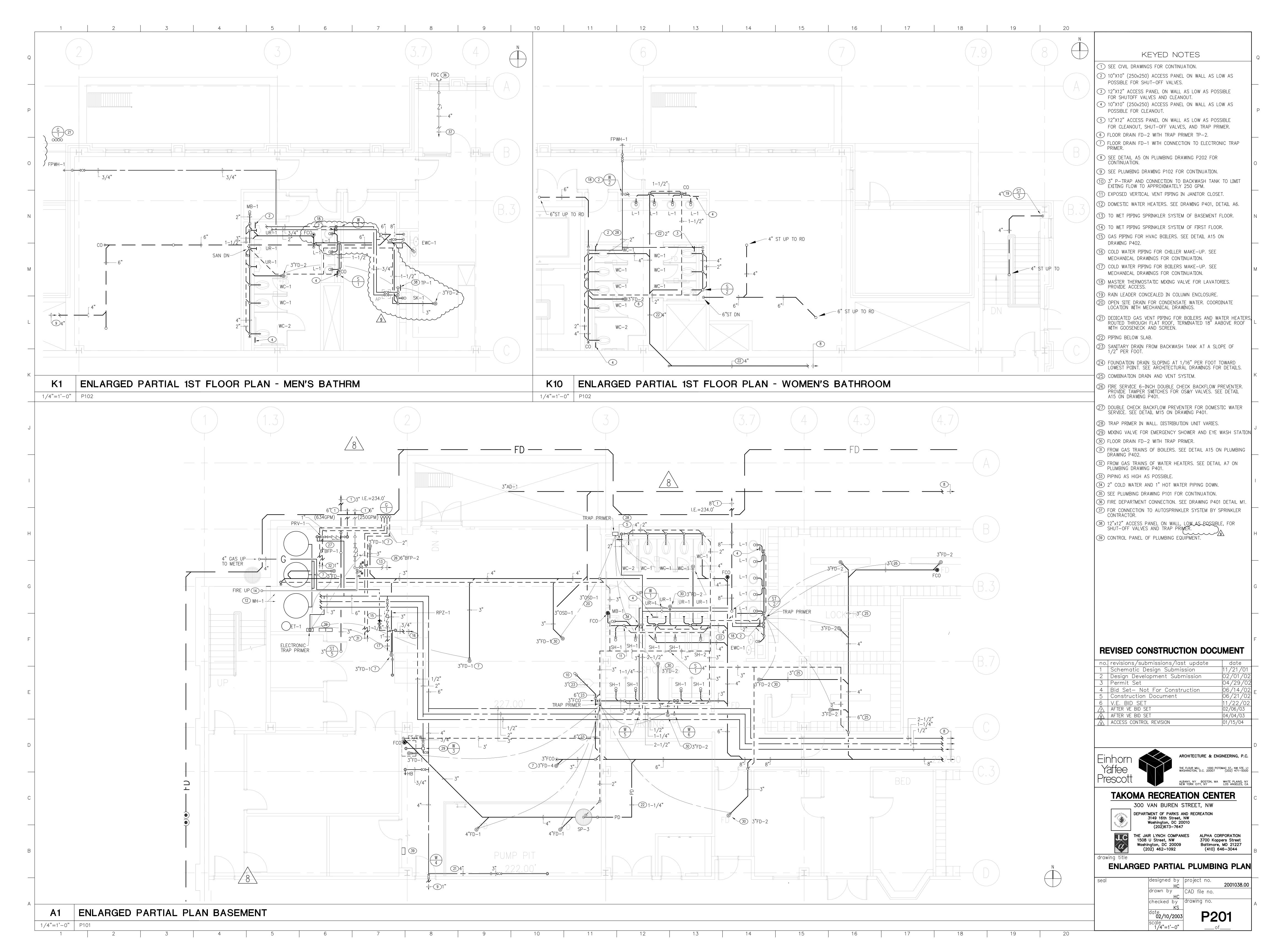
SYMBOLS, ABBREVIATIONS SCHEDULES, ÁND GENERAL NOTES

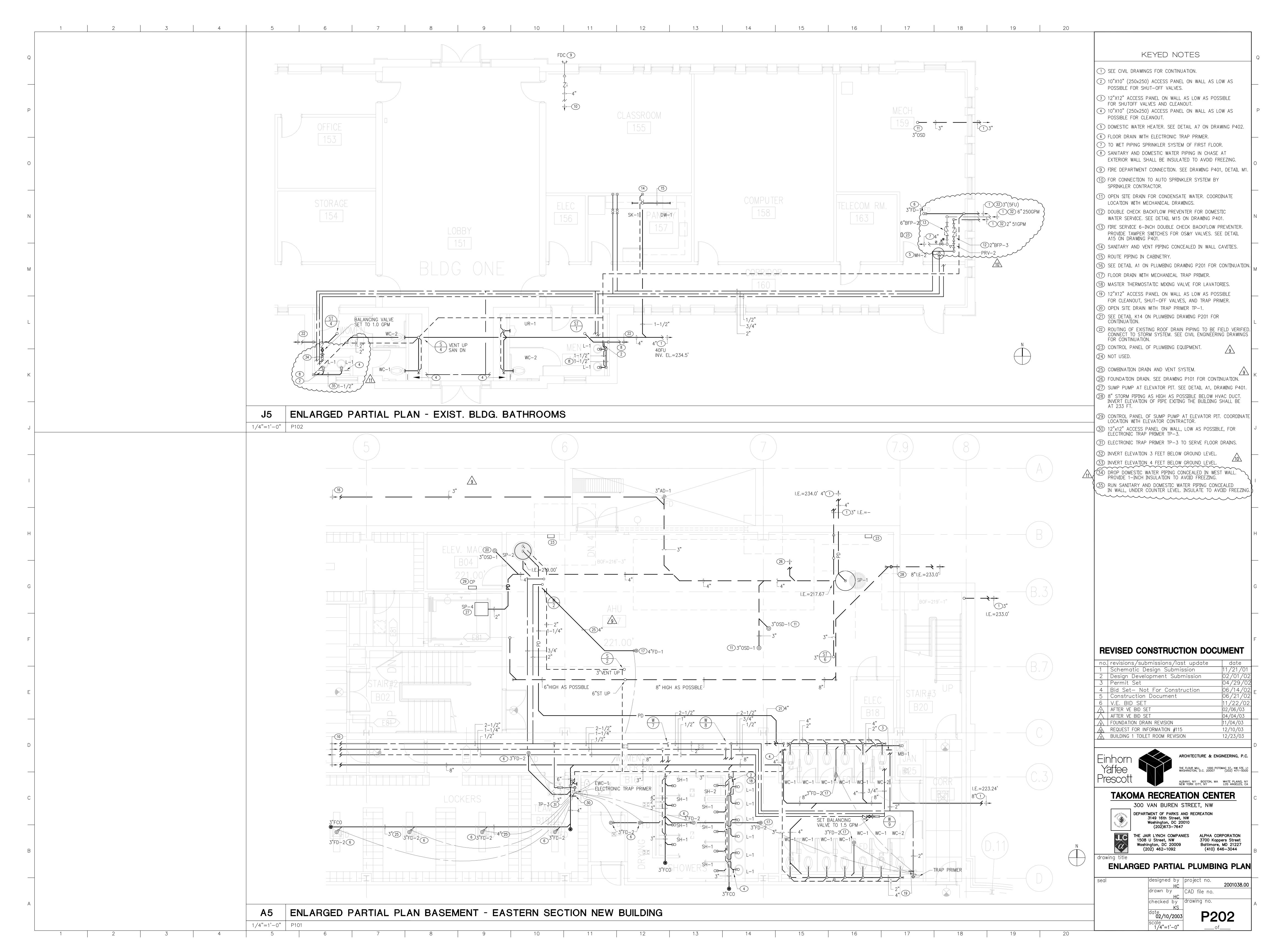
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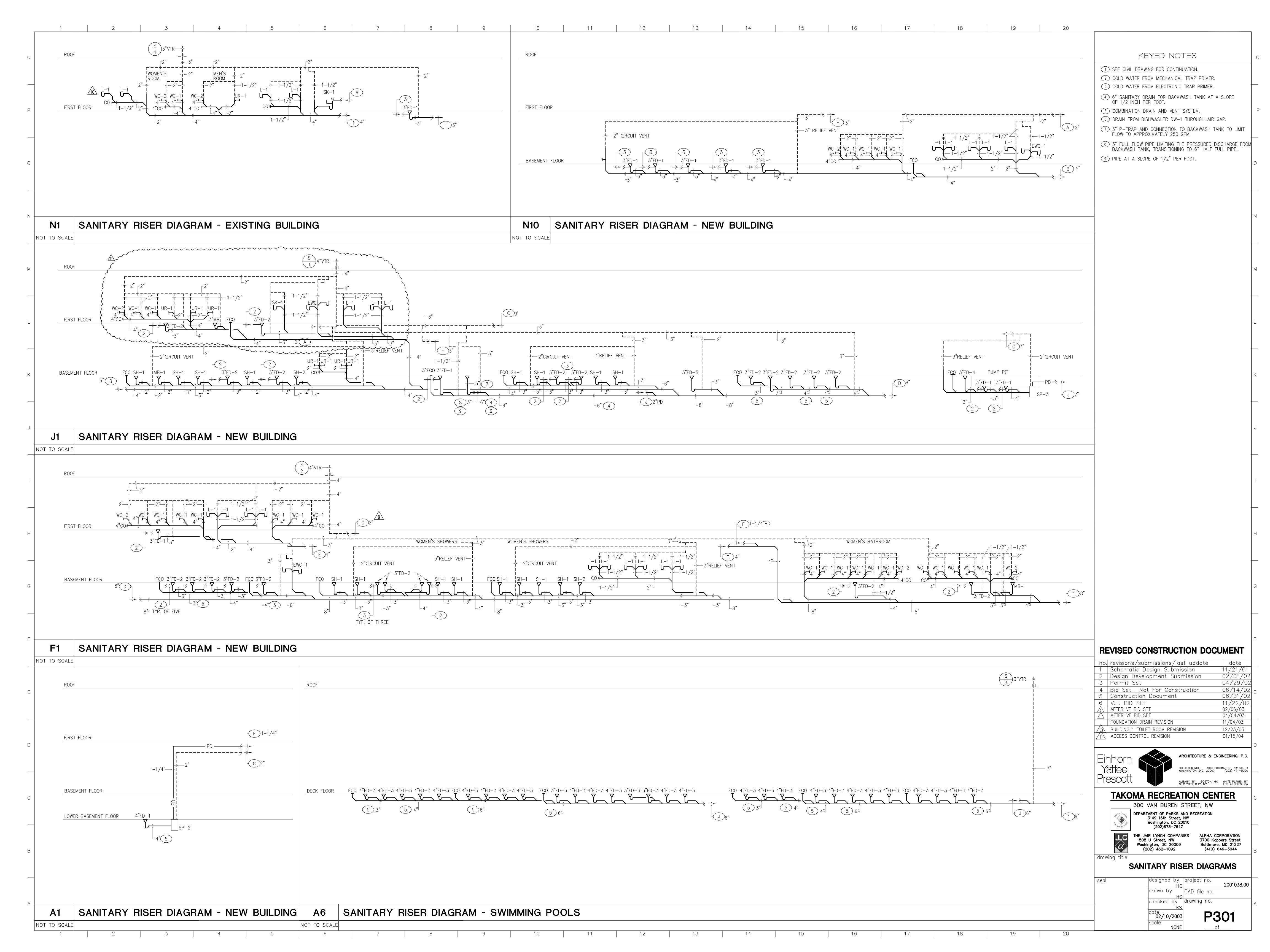


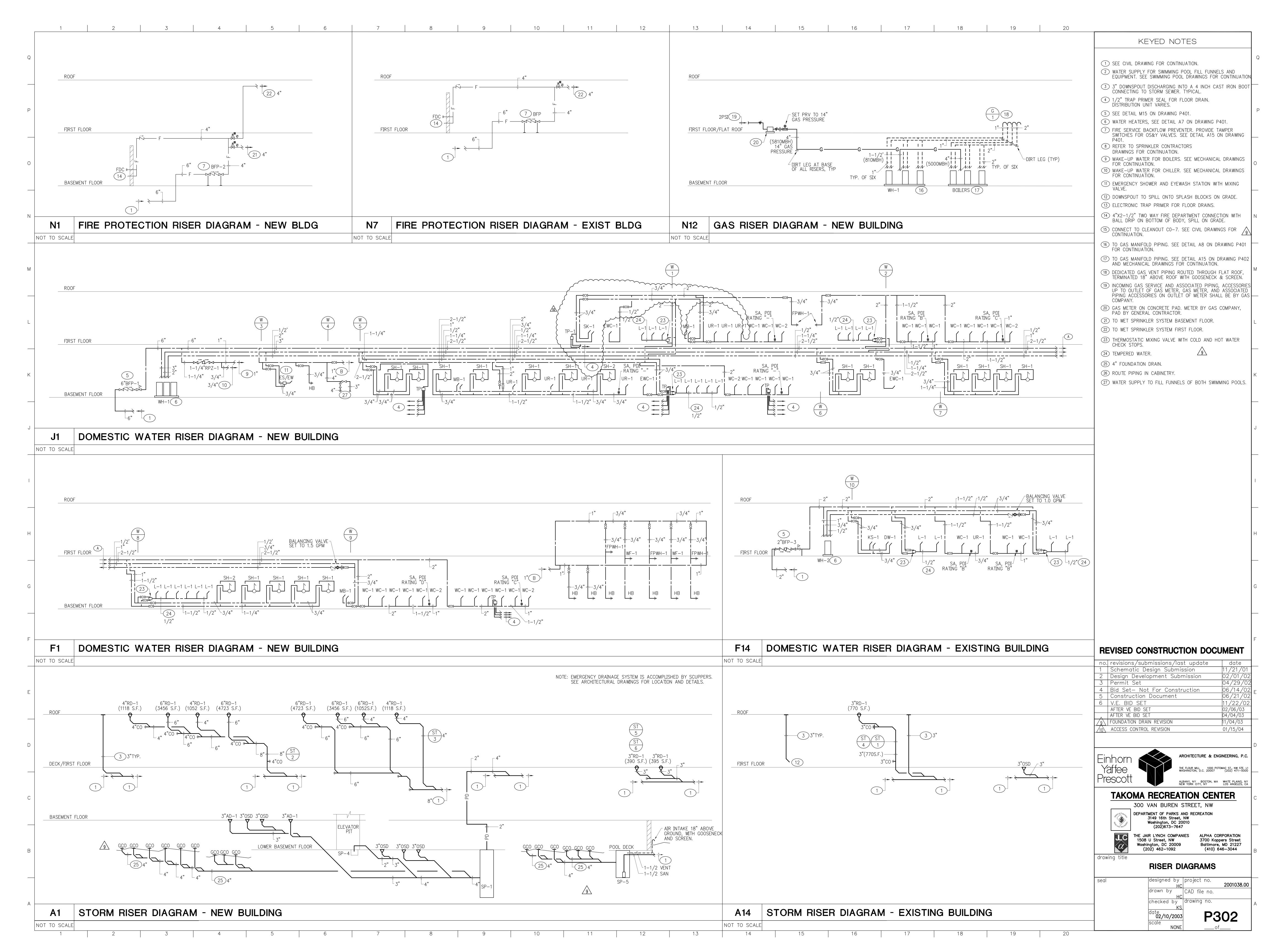


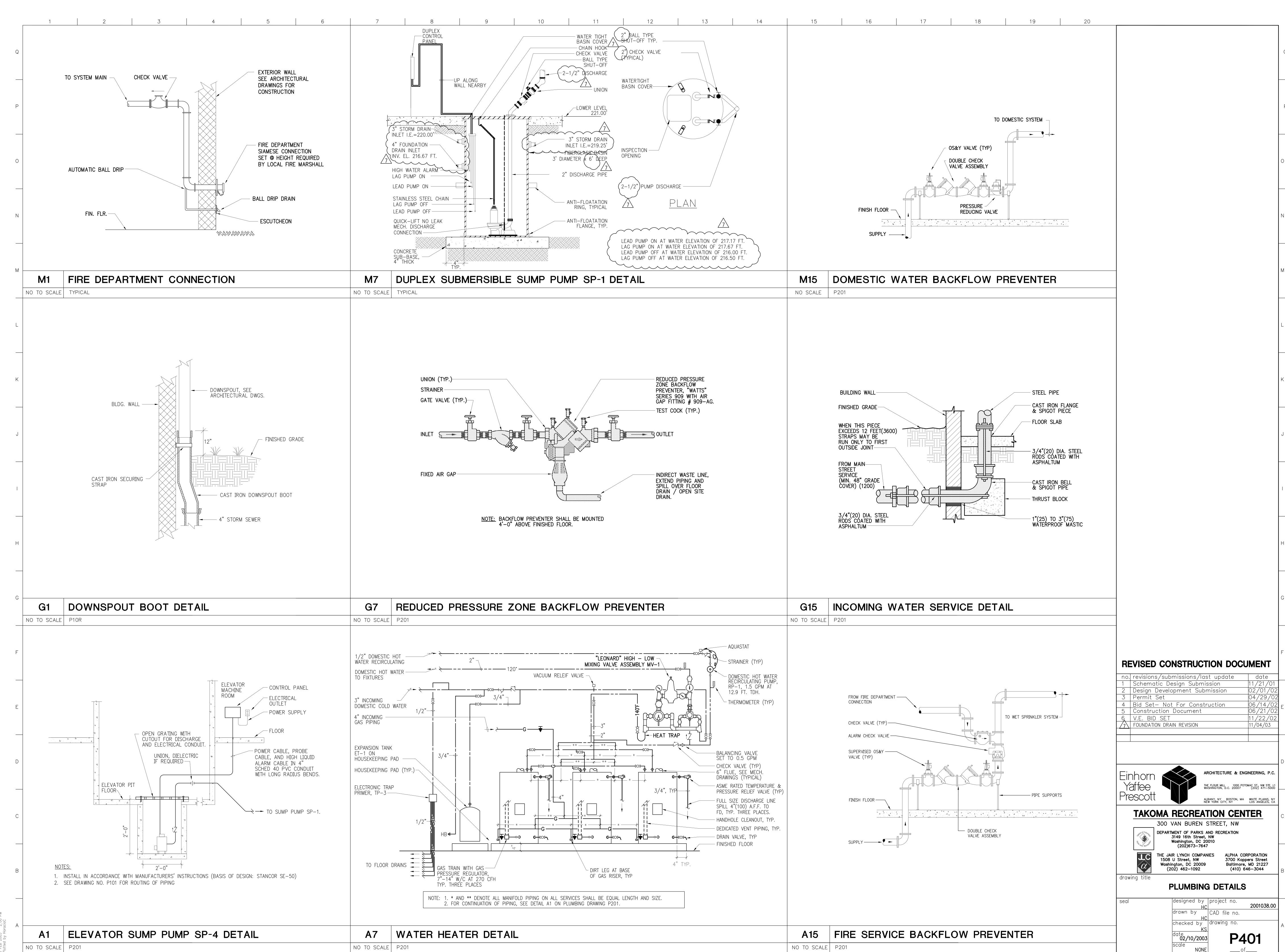












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