

FORT FISHER
AQUARIUM
RENOVATION
& EXPANSION:
PHASE 1

SCO #17-18042-02A
CODE: 42014-4G02
ITEM: 41414-4Y4A

900 LOGGERHEAD RD,
KURE BEACH, NC 28449

NORTH CAROLINA DEPT. OF
NATURAL & CULTURAL RESOURCES

SZOSTAK DESIGN, INC.

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CHapel Hill, NC 27514
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STRUCTURAL ENGINEER
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LICENSE # F-3132

LIGHTSWITCH

LIGHTING DESIGNER
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RANCHO CUCUMBERG, CA 91730
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TUNSTALL CONSULTING ENGINEERS PLLC

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LANDSCAPE ARCHITECT
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CHEATHAM & ASSOCIATES, PA

RFI PROTECTION ENGINEER
3412 EMBERSIDE DRIVE
WILMINGTON, NC 28405
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WWW.CHEATHAMPAC.COM
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PALACIO COLLABORATIVE

COST ESTIMATOR
4810 EMBERSIDE BOULEVARD SUITE 400
DURHAM, NC 27707
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WWW.PALACIOCOLLABORATIVE.COM

NOTE: IF THIS DRAWING IS NOT 30" X 42", IT IS A
REDUCED PRINT. REFER TO GRAPHIC SCALE.

NOT FOR
CONSTRUCTION

SEAL
20851
ENGINEER
DAVID M. HAN

NOT FOR
CONSTRUCTION

NO. DATE DESCRIPTION
1 9-8-25 BID SET

PLUMBING NOTES,
ABBREVIATIONS,
SCHEDULES

PLUMBING GENERAL NOTES:

- SCOPE OF WORK: THESE DRAWINGS AND ACCOMPANYING SPECIFICATIONS DESCRIBE SCOPE OF WORK REQUIRED FOR PLUMBING SYSTEMS. LABOR AND MATERIAL SHALL BE PROVIDED AS REQUIRED FOR A COMPLETE, WORKMANLIKE INSTALLATION OF ALL SYSTEMS SHOWN ON DIAGRAMMATIC DRAWINGS AND/OR AS SPECIFIED HEREIN.
- CONTRACTOR: THE WORD "CONTRACTOR", "PLUMBING CONTRACTOR", AND "P.C." AS USED HEREIN SHALL MEAN THE PLUMBING INSTALLER UNLESS OTHERWISE QUALIFIED.
- DRAWINGS: DRAWINGS ARE DIAGRAMMATIC AND MAY NOT COMPLETELY DESCRIBE EVERY DETAIL OF THE INSTALLATION. HOWEVER, CONTRACTOR IS RESPONSIBLE FOR FURNISHING COMPLETE SYSTEMS INCLUDING ALL REQUIRED EQUIPMENT AND ACCESSORIES TO OBTAIN FULLY FUNCTIONING PLUMBING SYSTEMS.
- CODE COMPLIANCE: COMPLY WITH THE LATEST EDITIONS OF THE FOLLOWING STANDARDS AND CODES, INsofar AS THEY APPLY:

NORTH CAROLINA STATE BUILDING CODE (CODE), LATEST EDITION AND REVISIONS.

LOCAL JURISDICTION REQUIREMENTS.
- PERMITS AND INSPECTIONS: OBTAIN ALL PERMITS, LICENSES, INSPECTIONS, ETC., REQUIRED FOR THE WORK AND PAY FOR SAME. FURNISH A FINAL CERTIFICATE OF INSPECTION AND APPROVAL FROM THE AUTHORITY HAVING JURISDICTION PRIOR TO ACCEPTANCE OF THE WORK.
- SUPERVISION: PROVIDE SKILLED SUPERINTENDENTS TO SUPERVISE THE WORK FROM THE BEGINNING TO COMPLETION AND FINAL INSPECTION.
- PROGRESS OF WORK: PERFORM WORK IN ACCORDANCE WITH SCHEDULE AND REQUIREMENTS OF THE GENERAL CONTRACTOR. UNDER NO CIRCUMSTANCES SHALL THIS CONTRACTOR DELAY THE OVERALL PROJECT SCHEDULE.
- COORDINATION: COORDINATE PLUMBING WORK WITH THE WORK OF OTHER TRADES. LOCATIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE UNLESS SPECIFICALLY DIMENSIONED. ARRANGE PLUMBING SO AS NOT TO INTERFERE WITH THE WORK OF OTHER TRADES. VERIFY ACTUAL BUILDING STRUCTURE PRIOR TO DUCT FABRICATION AND ADJUST LAYOUT AS REQUIRED. INCLUDE ALL OFFSETS IN DUCTS, FITTINGS, PIPING, ETC. AS REQUIRED TO PROPERLY INSTALL EQUIPMENT.
- EQUIPMENT LOCATIONS: DETERMINE EXACT EQUIPMENT AND MATERIALS LOCATIONS TO PROVIDE BEST ARRANGEMENT AND TO FACILITATE PROPER MAINTENANCE AND SERVICING OF EQUIPMENT.
- LISTING AND LABELING: ALL EQUIPMENT SHALL BE LABELED OR LISTED BY UL OR OTHER APPROVED TESTING AGENCY WHERE REQUIRED.
- STORAGE SPACE: CONSULT WITH THE GENERAL CONTRACTOR REGARDING JOB SITE STORAGE FOR PLUMBING MATERIALS TO BE INSTALLED UNDER THIS PROJECT. STORAGE SPACE MUST BE SECURED AND CONTRACTOR'S REPRESENTATIVE MUST BE ON JOB BEFORE ANY MATERIAL MAY BE RECEIVED.
- CLEANUP: REMOVE ALL DEBRIS GENERATED IN THE ACCOMPLISHMENT OF WORK UNDER THIS PROJECT. CLEAN, REPLACE OR REPAIR ALL SURFACES SOILED OR DAMAGED DURING THE COURSE OF THE WORK. REMOVE DEBRIS DAILY SO TO MAINTAIN SAFE WORKING CONDITIONS.
- RECORD DRAWINGS: MAINTAIN ONE SET OF "RED-LINED" RECORD DRAWINGS ON SITE AT ALL TIMES AND PROVIDE DRAWINGS TO ARCHITECT/ENGINEER PRIOR TO FINAL INSPECTION.
- EXISTING BUILDINGS AND CONSTRUCTION:
 - WORK UNDER THIS CONTRACT IS TO BE PERFORMED IN AN EXISTING BUILDING. BUILDING LAYOUT INDICATED IS DEVELOPED FROM EXISTING RECORD DOCUMENTS AND LIMITED FIELD VERIFICATION FOR THE PURPOSES OF DESCRIBING THE WORK. VERIFY ALL EXISTING CONDITIONS AND ADJUST WORK AS REQUIRED TO SUIT ACTUAL FIELD CONDITIONS.
 - PERFORM ALL WORK IN ACCORDANCE WITH SAFETY REGULATIONS.
 - DO NOT CUT ANY STRUCTURAL MEMBERS WITHOUT EXPRESS WRITTEN INSTRUCTIONS FROM ARCHITECT/ENGINEER. PROVIDE CUTTING AND PATCHING FOR EXISTING FINISHES AS REQUIRED.
 - COORDINATE INSTALLATION OF NEW PLUMBING SYSTEMS WITH EXISTING BUILDING SYSTEMS. ADJUST ARRANGEMENTS AS REQUIRED TO ACCOMMODATE INTERFERENCES.

PLUMBING DEMOLITION NOTES:

- THE PLUMBING CONTRACTOR SHALL REVIEW THE DRAWINGS AND SPECIFICATIONS FOR DEMOLITION REQUIREMENTS AND LAYOUT HIS WORK IN A COMPATIBLE AND COMPLEMENTARY MANNER. REMOVE ALL FIXTURES, EQUIPMENT, PIPING, SUPPORTS, ACCESSORIES, ETC. MADE OBSOLETE BY THESE ALTERATIONS AS SHOWN IN THE PLUMBING DRAWINGS. ALL ITEMS TO BE REMOVED OR MODIFIED MAY NOT BE SHOWN, HOWEVER, THIS CONTRACTOR SHALL REMOVE ANY PLUMBING WORK AS REQUIRED BY THE CONSTRUCTION OR AS DIRECTED BY THE OWNER OR THE ENGINEER. SURVEY THE AFFECTED AREAS BEFORE SUBMITTING A BID.
- ALL EXISTING PLUMBING FIXTURES, EQUIPMENT AND PIPING SHALL REMAIN UNLESS SPECIFICALLY NOTED TO BE REMOVED.
- THESE DRAWINGS ARE COMPLIED BY THE ARCHITECT/ENGINEER FROM THE OWNERS AS-BUILT RECORD DRAWINGS AND LIMITED FIELD VERIFICATION OF EXISTING CONDITIONS FOR THE PURPOSE OF INDICATING THE WORK REQUIRED AND ARE BELIEVED TO BE CORRECT. NOTWITHSTANDING, THE PLUMBING CONTRACTOR SHALL VERIFY ALL PIPING, FIXTURE LOCATIONS, DIMENSIONS, MATERIALS AND ALL FIELD CONDITIONS AFFECTING HIS WORK.
- WHERE PLUMBING SYSTEMS PASS THROUGH THE DEMOLITION AREAS TO SERVE OTHER PORTIONS OF THE PREMISES, THEY SHALL REMAIN OR BE SUITABLY RELOCATED AND THE SYSTEM RESTORED TO NORMAL OPERATION. ADVISE THE ARCHITECT/ENGINEER IMMEDIATELY IF SUCH CONDITIONS ARE UNCOVERED BEFORE PROCEEDING WITH ADDITIONAL WORK.
- PROTECT ALL EXISTING LIFE SAFETY SYSTEMS, FIRE ALARM AND PUBLIC ADDRESS SYSTEMS AND MAINTAIN THEM IN OPERATION THROUGHOUT THE PROGRESS OF THE WORK. NOTIFY THE OWNER AND ARCHITECT/ENGINEER IN WRITING WHEN SHUTDOWNS ARE REQUIRED PRIOR TO ANY OUTAGE OF SERVICE. WHERE THE DURATION OF A PROPOSED OUTAGE CANNOT BE TOLERATED BY THE OWNER, PROVIDE TEMPORARY CONNECTIONS AS REQUIRED TO MAINTAIN SERVICE.
- SURVEY THE EFFECTED AREAS BEFORE SUBMITTING A BID AS ALL EXISTING CONDITIONS CANNOT BE COMPLETELY DEPICTED ON THE DRAWINGS AND SOME UNUSUAL CONDITIONS MAY EXIST.

PLUMBING FIXTURE SCHEDULE

DRAWING FIXTURE CODE		DESCRIPTION	MANUFACTURER	MODEL	ALTERNATE APPROVED MANUFACTURERS	NOTES	PIPE SIZE DCW	DHW	WASTE	VENT	
WC1	FLUSH VALVE WATER CLOSET, WALL HUNG, 1.28GPF, ADA	BOWL	ELONGATED, SIPHON JET, V.C., 2-1/8" TRAPWAY, TOP SPUD, WALL, MOUNT 17-19"A.F.F.	K-84325-L	ZURN, AMERICAN STANDARD						
		FLUSH VALVE	BATTERY POWERED SENSOR, 1.28 GPF, POLISHED CHROME, DIAPHRAM, TOP SPUD, LESS HANDLE, COURTESY FLUSH OVERRIDE BUTTON	G2 8111-1.28	KOHLER, ZURN		6,7	1"	-	4"	2"
		SEAT	OFLC w/ SELF-SUSTAINING S.S. CHECK HINGE; HEIGHT 17-19" AFF	295SCT	BEMIS, OLSONITE						
		CARRIER	VERTICAL FLOOR MOUNT	JR SMITH	ZURN, JOSAM						
WC2	FLUSH VALVE WATER CLOSET, WALL HUNG, 1.28GPF	CARRIER	HORIZONTAL FLOOR MOUNT	0240-MS8-M54	ZURN, JOSAM						
		BOWL	ELONGATED, SIPHON JET, V.C., 2-1/8" TRAPWAY, TOP SPUD, WALL, MOUNT 17-19"A.F.F.	0210Y-M54	ZURN, AMERICAN STANDARD		7	1"	-	4"	2"
		FLUSH VALVE	BATTERY POWERED SENSOR, 1.28 GPF, POLISHED CHROME, DIAPHRAM, TOP SPUD, LESS HANDLE, COURTESY FLUSH OVERRIDE BUTTON	K-84325-L	KOHLER, ZURN						
		SEAT	OFLC w/ SELF-SUSTAINING S.S. CHECK HINGE	G2 8111-1.28	KOHLER, ZURN						
WC3	FLUSH VALVE WATER CLOSET, WALL HUNG, 1.28GPF, ADA (AMBULATORY)	CARRIER	VERTICAL FLOOR MOUNT	295SCT	BEMIS, OLSONITE		6,7	1"	-	4"	2"
		CARRIER	HORIZONTAL FLOOR MOUNT	0240-MS8-M54	ZURN, JOSAM						
		BOWL	ELONGATED, SIPHON JET, V.C., 2-1/8" TRAPWAY, TOP SPUD, WALL, MOUNT 17-19"A.F.F.	0210Y-M54	ZURN, AMERICAN STANDARD						
		FLUSH VALVE	BATTERY POWERED SENSOR, 1.28 GPF, POLISHED CHROME, DIAPHRAM, TOP SPUD, LESS HANDLE, COURTESY FLUSH OVERRIDE BUTTON	K-84325-L	KOHLER, ZURN						
WC4	FLUSH VALVE WATER CLOSET, FLOOR MOUNT, 1.6GPF, ADA	CARRIER	HORIZONTAL FLOOR MOUNT	G2 8111-1.28	KOHLER, ZURN		6	1"	-	4"	2"
		CARRIER	BATTERY POWERED SENSOR, 1.28 GPF, POLISHED CHROME, DIAPHRAM, TOP SPUD, LESS HANDLE, COURTESY FLUSH OVERRIDE BUTTON	295SCT	BEMIS, OLSONITE						
		BOWL	ELONGATED, SIPHON JET, V.C., 2-1/8" TRAPWAY, TOP SPUD, WALL, MOUNT 17-19" AFF	K-4991-ETSS-0	ZURN, AMERICAN STANDARD						
		FLUSH VALVE	1.025 GPF, POLISHED CHROME, TOP SPUD, SINGLE FLUSH, LITHIUM BATTERIES INCLUDED, COURTESY FLUSH OVERRIDE BUTTON	R186-0.125	KOHLER, ZURN		1	3/4"	-	2"	2"
UR1	HANDS FREE URINAL, WALL HUNG, 0.125GPF, ADA	BOWL	HIGH EFFICIENCY, WASHOUT, TOP SPUD, ANTIMICROBIAL	K-4991-ETSS-0	ZURN, AMERICAN STANDARD		1	3/4"	-	2"	2"
		FLUSH VALVE	0.125 GPF, POLISHED CHROME, TOP SPUD, SINGLE FLUSH, LITHIUM BATTERIES INCLUDED, COURTESY FLUSH OVERRIDE BUTTON	R186-0.125	KOHLER, ZURN						
		CARRIER	VERTICAL FLOOR MOUNT	K-20000	AMERICAN STANDARD						
		FAUCET	20x16 VITREOUS CHINA, RIM 3/4" AFF MAX.	8559	ZURN, DELTA		1,2,3,9	1/2"	1/2"	2"	2"
LAV1	UNDERMOUNT LAVATORY, 0.5GPM, ADA	CARRIER	CAST BRASS, CHROME PLATED, OPEN GRID STRAINER P.O. PLUG WITH BRASS TAILPIECE	1554	DEARBORN, DELTA						
		MIXING VALVE	LEAD FREE THERMOSTATIC MIXING VALVE - SETPOINT = 105%KDF INSTALL ON HOT WATER SUPPLY, ASSE 1070	HG-135	CASH A/CME						
		BOWL	20x16 VITREOUS CHINA, RIM 3/4" AFF MAX.	K-4991-ETSS-0	ZURN, AMERICAN STANDARD		1,2,3,9	1/2"	1/2"	2"	2"
		FAUCET	4" CENTERSET, SINGLE LEVER HANDLE, SOLID BRASS CONSTRUCTION, CERAMIC CARTRIDGE, HIGH TEMP LIMIT STOP	8413F05	ZURN, DELTA						
LAV2	UNDERMOUNT LAVATORY, 0.5GPM, ADA STAFF	CARRIER	CAST BRASS, CHROME PLATED, OPEN GRID STRAINER P.O. PLUG WITH BRASS TAILPIECE	1554	DEARBORN, DELTA						
		MIXING VALVE	LEAD FREE THERMOSTATIC MIXING VALVE - SETPOINT = 105%KDF INSTALL ON HOT WATER SUPPLY, ASSE 1070	HG-135	CASH A/CME						
		BOWL	4" CENTERSET, SINGLE LEVER HANDLE, SOLID BRASS CONSTRUCTION, CERAMIC CARTRIDGE, HIGH TEMP LIMIT STOP	K-4991-ETSS-0	ZURN, AMERICAN STANDARD		1,2,3,9	1/2"	1/2"	2"	2"
		FAUCET	16"x20", 12" DEEP, 8" HIGH SPLASH, STAINLESS OPEN FRAME BASE, SIDE CROSSRAILS, 18 GAUGE, TYPE 304 STAINLESS	8413F05	ZURN, DELTA						
SK1	ONE COMPARTMENT STAINLESS SINK	CARRIER	6" SWIVEL GOOSENECK, BRASS CHROME PLATED BODY, SPLASH MOUNT, WRISTBLADE HANDLES	8559	DEARBORN, DELTA		1,2,3,9	1/2"	1/2"	2"	2"
		MIXING VALVE	LEAD FREE THERMOSTATIC MIXING VALVE - SETPOINT = 105%KDF INSTALL ON HOT WATER SUPPLY, ASSE 1070	HG-135	CASH A/CME						
		BOWL	16"x20", 12" DEEP, 8" HIGH SPLASH, STAINLESS OPEN FRAME BASE, SIDE CROSSRAILS, 18 GAUGE, TYPE 304 STAINLESS	8413F05	ZURN, DELTA						
		FAUCET	6" SWIVEL GOOSENECK, BRASS CHROME PLATED BODY, SPLASH MOUNT, WRISTBLADE HANDLES	K-6	DEARBORN, DELTA		1,2,3,9	1/2"	1/2"	2"	2"
SK2	ONE COMPARTMENT STAINLESS SINK	CARRIER	CAST BRASS, CHROME PLATED BASKET STRAINER WITH BRASS TAILPIECE	8559	DEARBORN, DELTA		1,2,3,9	1/2"	1/2"	2"	2"
		MIXING VALVE	LEAD FREE THERMOSTATIC MIXING VALVE - SETPOINT = 105%KDF INSTALL ON HOT WATER SUPPLY, ASSE 1070	HG-135	CASH A/CME						
		BOWL	16"x20", 12" DEEP, 8" HIGH SPLASH, STAINLESS OPEN FRAME BASE, SIDE CROSSRAILS, 18 GAUGE, TYPE 304 STAINLESS	8413F05	ZURN, DELTA						
		FAUCET	6" SWIVEL GOOSENECK, BRASS CHROME PLATED BODY, SPLASH MOUNT, WRISTBLADE HANDLES	K-6	DEARBORN, DELTA		1,2,3,9	1/2"	1/2"	2"	2"
SK3	TWO COMPARTMENT STAINLESS SINK	CARRIER	CAST BRASS, CHROME PLATED BASKET STRAINER WITH BRASS TAILPIECE	8559	DEARBORN, DELTA		1,2,3,9	1/2"	1/2"	2"	2"
		MIXING VALVE	LEAD FREE THERMOSTATIC MIXING VALVE - SETPOINT = 105%KDF INSTALL ON HOT WATER SUPPLY, ASSE 1070	HG-135	CASH A/CME						
		BOWL	16"x20", 12" DEEP, 8" HIGH SPLASH, STAINLESS OPEN FRAME BASE, SIDE CROSSRAILS, 18 GAUGE, TYPE 304 STAINLESS	8413F05	ZURN, DELTA						
		FAUCET	6" SWIVEL GOOSENECK, BRASS CHROME PLATED BODY, SPLASH MOUNT, WRISTBLADE HANDLES	K-6	DEARBORN, DELTA		1,2,3,9	1/2"	1/2"	2"	2"
SK4	UNDERMOUNT SINK, 1.0GPM, ADA STAFF	CARRIER	CAST BRASS, CHROME PLATED, OPEN GRID STRAINER P.O. PLUG WITH BRASS TAILPIECE	1554	DEARBORN, DELTA						
		MIXING VALVE	LEAD FREE THERMOSTATIC MIXING VALVE - SETPOINT = 105%KDF INSTALL ON HOT WATER SUPPLY, ASSE 1070	HG-135	CASH A/CME						
		BOWL	20x16 VITREOUS CHINA, RIM 3/4" AFF MAX.	K-4991-ETSS-0	ZURN, AMERICAN STANDARD		1,2,3,9	1/2"	1/2"	2"	2"
		FAUCET	4" CENTERSET, SINGLE LEVER HANDLE, SOLID BRASS CONSTRUCTION, CERAMIC CARTRIDGE, HIGH TEMP LIMIT STOP	8413F05	ZURN, DELTA						
SK5	UNDERMOUNT SINK, 1.0GPM, ADA STAFF	CARRIER	CAST BRASS, CHROME PLATED, OPEN GRID STRAINER P.O. PLUG WITH BRASS TAILPIECE	1554	DEARBORN, DELTA						
		MIXING VALVE	LEAD FREE THERMOSTATIC MIXING VALVE - SETPOINT = 105%KDF INSTALL ON HOT WATER SUPPLY, ASSE 1070	HG-135	CASH A/CME						
		BOWL	20x16 VITREOUS CHINA, RIM 3/4" AFF MAX.	K-4991-ETSS-0	ZURN, AMERICAN STANDARD		1,2,3,9	1/2"	1/2"	2"	2"
		FAUCET	4" CENTERSET, SINGLE LEVER HANDLE, SOLID BRASS CONSTRUCTION, CERAMIC CARTRIDGE, HIGH TEMP LIMIT STOP	8413F05	ZURN, DELTA						
SK6	3-COMPARTMENT CORNER STAINLESS STEEL SINK	CARRIER	CAST BRASS, CHROME PLATED, OPEN GRID STRAINER P.O. PLUG WITH BRASS TAILPIECE	1554	DEARBORN, DELTA						
		MIXING VALVE	LEAD FREE THERMOSTATIC MIXING VALVE - SETPOINT = 105%KDF INSTALL ON HOT WATER SUPPLY, ASSE 1070	HG-135	CASH A/CME						
		BOWL	16GA, TYPE 304, 2 DRAINBOARDS	K-4991-ETSS-0	ZURN, AMERICAN STANDARD		1,2,3,9	1/2"	1/2"	2"	2"
		FAUCET	6" SWIVEL GOOSENECK, BRASS CHROME PLATED BODY, SPLASH MOUNT, WRISTBLADE HANDLES	K-6	DEARBORN, DELTA		1,2,3,9	1/2"	1/2"	2"	2"
SH1	JOB-BUILT ROLL IN SHOWER, ADA	CARRIER	SPLASH MOUNT PRERINSE FAUCET, P.O.C., 1/4" TURN HANDLES, SPRAY HEAD WITH CONTINUOUS WATER FLOW RING, HEAVY DUTY SPRING, WALL MOUNT	DTA-53	ZURN, DELTA		1,2,3,9	1/2"	1/2"	2"	2"
		ENCLOSURE	60"x36" JOB-BUILT BY G.C. W/ GRAB BARS per ADA	K-6	DEARBORN, DELTA						
		VALVE	PRESS. BALANCED MIXING VALVE, LEVER HANDLE, DIVERTER, HEAD W/ ARM, FLANGE, WALL/HAND SHOWER, FLEXIBLE METAL HOSE, IN-LINE VAC. BREAKER, 30'SLIDE BAR, 1.5GPM	8342EP15	DELTA, SYMMONS		1/2"	1/2"	2"	2"	2"
		BASE	60"x34 ROLL IN, ACRYLIC, CENTER DRAIN	F603ADPAN							
SH2	JOB-BUILT TRANSFER SHOWER, ADA	ENCLOSURE	36"x36" TRANSFER SHOWER, JOB-BUILT BY G.C.	AQUATIC							
		VALVE	PRESS. BALANCED MIXING VALVE, LEVER HANDLE, HEAD W/ ARM, FLANGE, 1.5GPM	8375EP15	DELTA, SYMMONS		1/2"	1/2"	2"	2"	2"
		BASE	36"x36" ACRYLIC, CENTER DRAIN	S83636	SMITH, ZURN						
		ENCLOSURE	JOB-BUILT BY G.C.								
SH3	JOB-BUILT SHOWER	VALVE	PRESS. BALANCED MIXING VALVE, LEVER HANDLE, HEAD W/ ARM, FLANGE, 1.5GPM	8375EP15	DELTA, SYMMONS		1/2"	1/2"	2"	2"	2"
		BASE	48"x48" ACRYLIC, CENTER DRAIN, ACRYLIC, 48" ALUMINUM	K-8332-SH	KOHLER, ZURN		1/2"	1/2"	2"	2"	2"
		DRAIN COVER	ROUND SHOWER DRAIN, POLISHED CHROME FINISH	K-8332-CP	KOHLER, ZURN						
		DRAIN	ADA COMPLIANT, 2" DRAIN HOSE, 2 FOOT FLEX STATIONS, COLOR SELECTION BY ARCHITECT	K-8332-CP	KOHLER, ZURN						
SH4	FLOOR MOUNT SERVICE SINK	CARRIER	23"x22"x12" MOLDED STONE w/ GRID DRAIN	FIAT	SWANSTONE, MUSTEE		1/2"	1/2"	-	-	-
		FAUCET	CHROME PLATED BRASS, 4" WRIST BLADE HANDLES, VANDAL RESISTANT, CERAMIC CARTRIDGE	74998	DELTA, ZURN						
		ENCLOSURE	24"x24"x10" MOLDED STONE w/ STAINLESS STEEL DRAIN	MSB-2424	FLORESTONE, ZURN						
		BASE	BRASS CONSTRUCTION, ROUGH CHROME FINISH, INTEGRAL VACUUM BREAKER, INTEGRAL CHECK STOPS, 3/4"THREADED SPOUT, SERVICE STOPS, WALL MOUNT, VANDAL RESISTANT, LEVER HANDLES	8124	DELTA, ZURN		1/2"	1/2"	3"	2"	2"
MS1	MOP SINK	CARRIER	STAINLESS STEEL, THREE STATION MOPBROOM HOLDER	8198	DELTA, ZURN						
		ENCLOSURE	STAINLESS STEEL, HOSE BRACKET WITH 30" HEAVY DUTY RUBBER HOSE, GHT THREADED CONNECTION	8198	DELTA, ZURN						
		FAUCET	PEDESTAL, MOUNTED, STAINLESS BOWL, STAY-OPEN BALL VALVE, THERMOSTATIC MIXING VALVE	L7160	BAYLEIGH, HAWS		1/2"	1/2"	2"	-	-
		ENCLOSURE	SPLIT LEVEL, S.S. TOP, LIGHT GREY BODY, BOTTLE FILLING STATION, 8 GPH @ 90/90/90, 120V/1PH WITH FILTER	G2128LWSLK	KURDAY		1,11	1/2"	1/2"	-	-
EW1	EYEFACE WASH STATION WALL HUNG WATER COOLER, ADA	CARRIER	ADJUSTABLE ABOVE GRATE FLASHING DRAIN, NICKEL BRONZE STRAINER, 5-1/2" ROUND STRAINER	833	ZURN, SMITH		10	-	-	-	-
		ENCLOSURE	PVC BODY, 14"x14" PLASTIC TOP w/ 1/2" GRATE, BEEHIVE STRAINER	861	ZURN, SMITH						
		FAUCET	80"x64" HOPE FRAME WITH HEEL PROOF POLYETHYLENE GRATE - CLASS A	2064HP	ZURN, SMITH						
		ENCLOSURE	15" DIAMETER ROOF DRAIN, ENAMEL COATED CAST IRON BODY, GRAVEL GUARD AND DOME STRAINER, DECK CLAMP	868-1504	ZURN, SMITH						
RD1	OVERFLOW ROOF DRAIN	CARRIER	15" DIAMETER ROOF DRAIN, ENAMEL COATED CAST IRON BODY, GRAVEL GUARD AND DOME STRAINER, DECK CLAMP, INTERNAL WATER DAM	868-1504P	ZURN, SMITH						
		ENCLOSURE	POLISHED CHROME, VACUUM BREAKER, WHEEL HANDLE, 3/4" HOSE THREAD	24	ZURN, PRIER		1/2"	-	-	-	-
		FAUCET	CHROME PLATED BRASS, ANTI-SIPHON, VACUUM BREAKER, REMOVABLE TEE HANDLE, 3/4" HOSE THREAD	65	ZURN, PRIER		3/4"	-	-	-	-
		ENCLOSURE	CHROME PLATED BRASS, ANTI-SIPHON, VACUUM BREAKER, HOT AND COLD, WHEEL HANDLE, 3/4" HOSE THREAD	SRH	ZURN, PRIER		3/4"	-	-	-	-
RH1	ROOF HYDRANT	CARRIER	FREEZELESS, ANTI-SIPHON, VACUUM BREAKER, 3/4" HOSE THREAD	SRH	ZURN, PRIER		8	1"	-	1/8"	-
		ENCLOSURE									
		FAUCET									
		ENCLOSURE									
NOTES	1. PROVIDE MATCHING CAST IRON AND STEEL FLOOR SUPPORT CARRIER WITH BEARING PLATE AND WALL HANGER.										
	2. PROVIDE BRASS 1/2" TAILPIECE, CAST BRASS SLOP JOINT, TRAP WITH CLEANOUT, PROVIDE ADA OFFSET ARRANGEMENT WHERE REQUIRED.										
	3. PROVIDE ADA INSULATION KIT										
	4. COORDINATE ADA MILWOK ENCLOSURE FOR WATER AND DRAIN PIPING UNDER SINK.										
	6. TRIP LEVER OR FLUSH HANDLE TO BE LOCATED ON WIDE SIDE OF STALL OR TOILET ROOM.										
	7. REFER TO PLANS TO DETERMINE WHETHER HORIZONTAL OR VERTICAL CARRIER IS REQUIRED.										
	8. FIELD ROUTE 1" DRAIN TO CLOSEST INDIRECT DRAIN OR SPLIT TO GRADE.										
	9. PROVIDE 1/2" IPS x 3/8" OD ANGLE BRASS STOPS w/ RIGID COPPER RISERS. ALL EXPOSED PIPING SHALL BE CHROME PLATED.										
	10. PROVIDE TRAP PRIMER										
	11. PROVIDE 1/2" IPS x 3/8" O.D. BRASS STOP CONCEALED BEHIND CABINET.										

FORT FISHER
AQUARIUM
RENOVATION
& EXPANSION:
PHASE 1

0 LOGGERHEAD RD,
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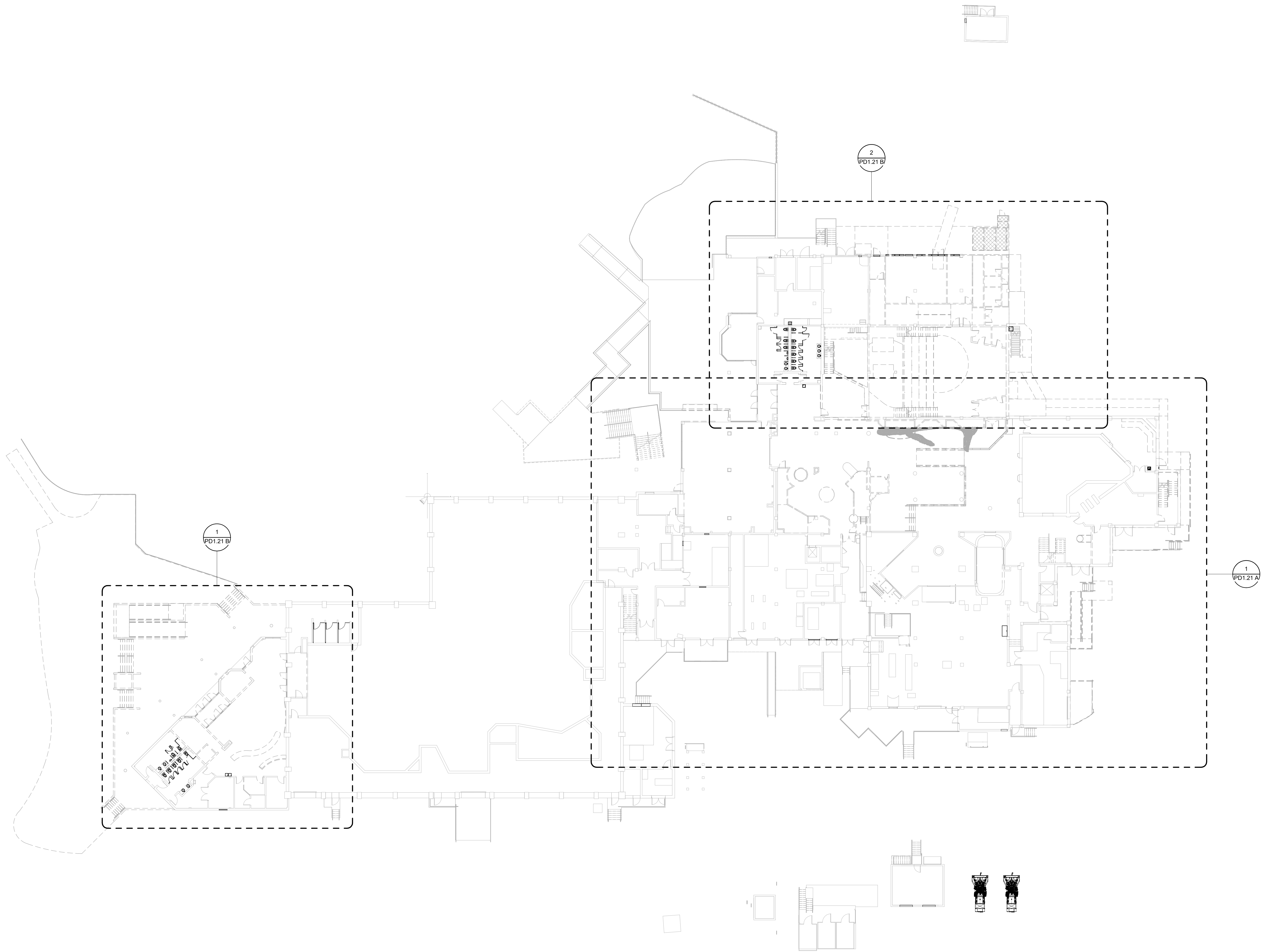
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FIRST FLOOR DEMO PLAN

PD1.11

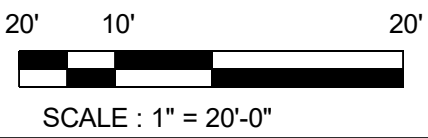
1. SEE ENLARGED PLANS FOR DEMOLITION DETAILS.



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OVERALL 1ST FLOOR - DEMO - WASTE VENT PLAN

SCALE : 1" = 20'-0"

1

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FORT FISHER
AQUARIUM
RENOVATION
& EXPANSION:
PHASE 1

SCO #17-18042-02A
CODE: 42014-4G02
ITEM: 41414-4Y4A

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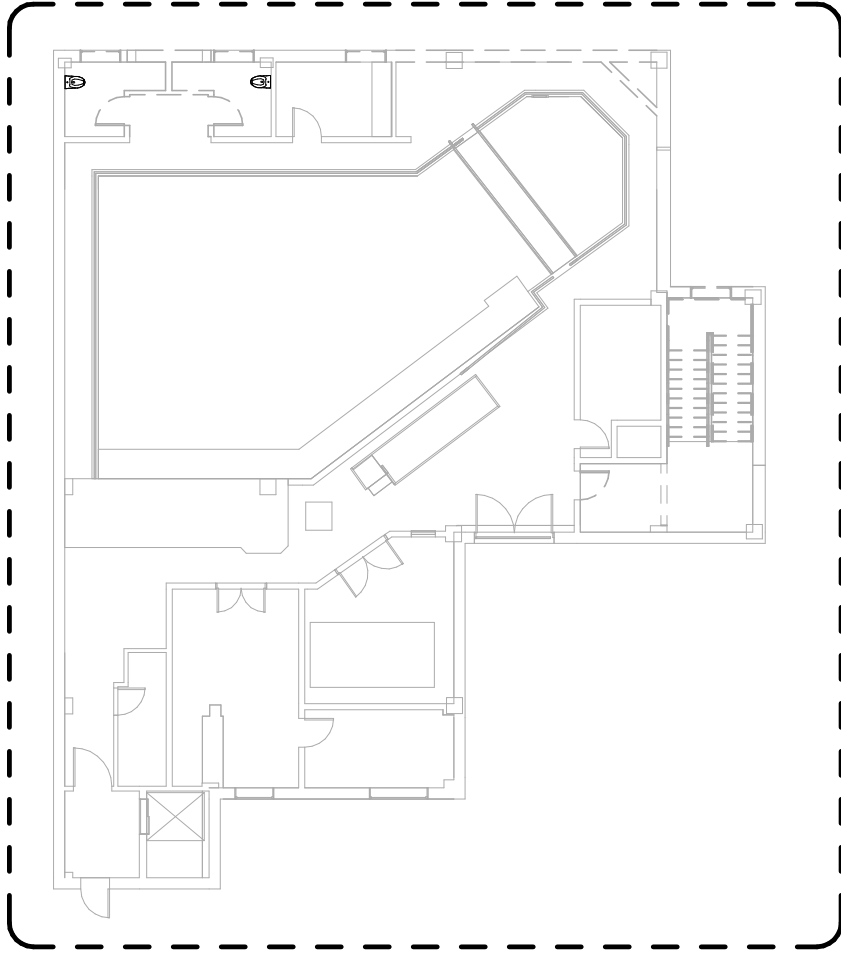
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SECOND AND THIRD
FLOOR DEMO PLANS

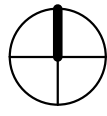
PD1.12

NOTES THIS SHEET

1. SEE ENLARGED PLANS FOR DEMOLITION DETAILS.

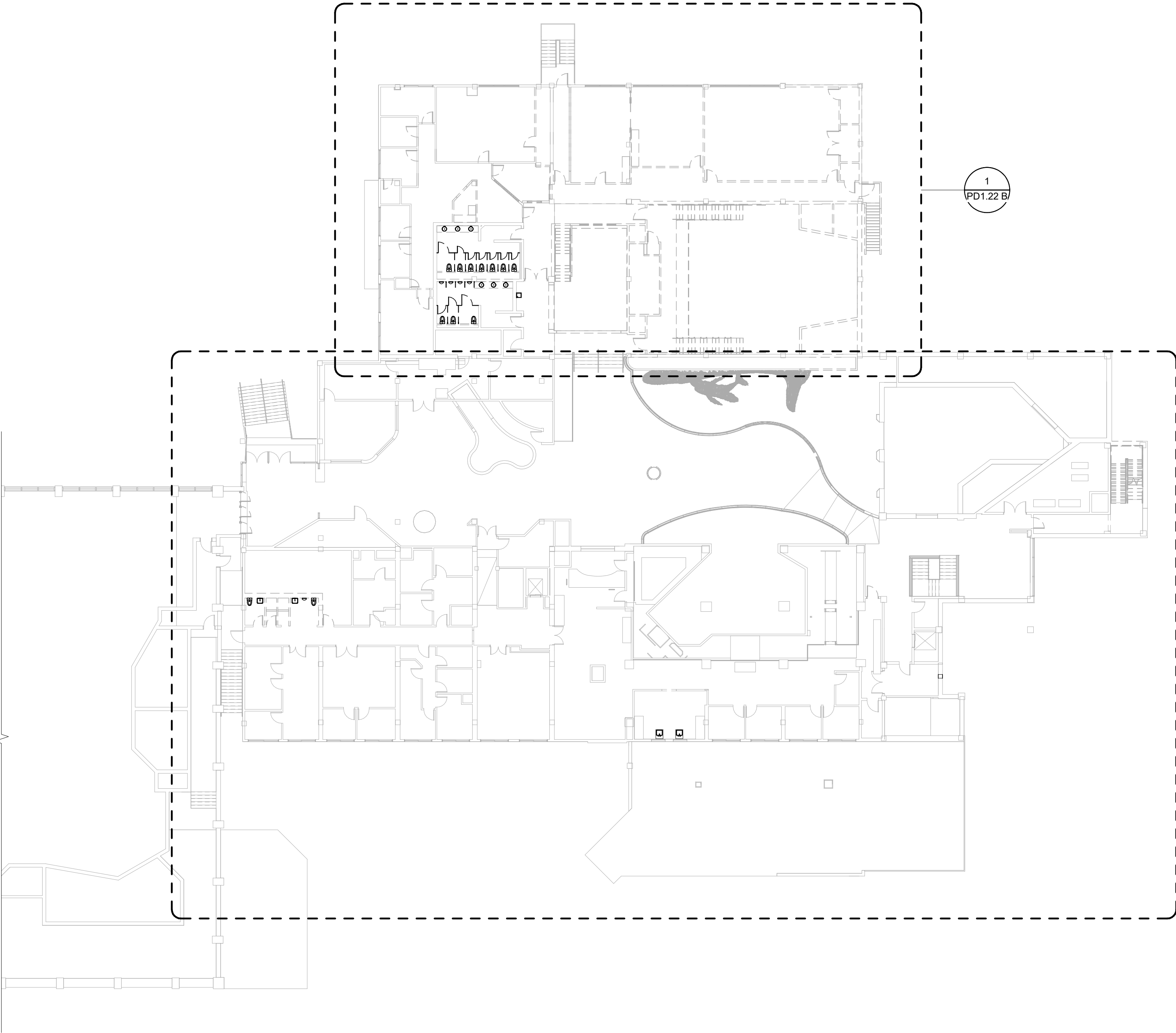


20' 10' 20'
SCALE : 1" = 20'-0"

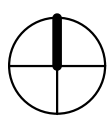


OVERALL 3RD FLOOR - DEMO - WASTE-VENT PLAN
SCALE : 1" = 20'-0"

2



20' 10' 20'
SCALE : 1" = 20'-0"



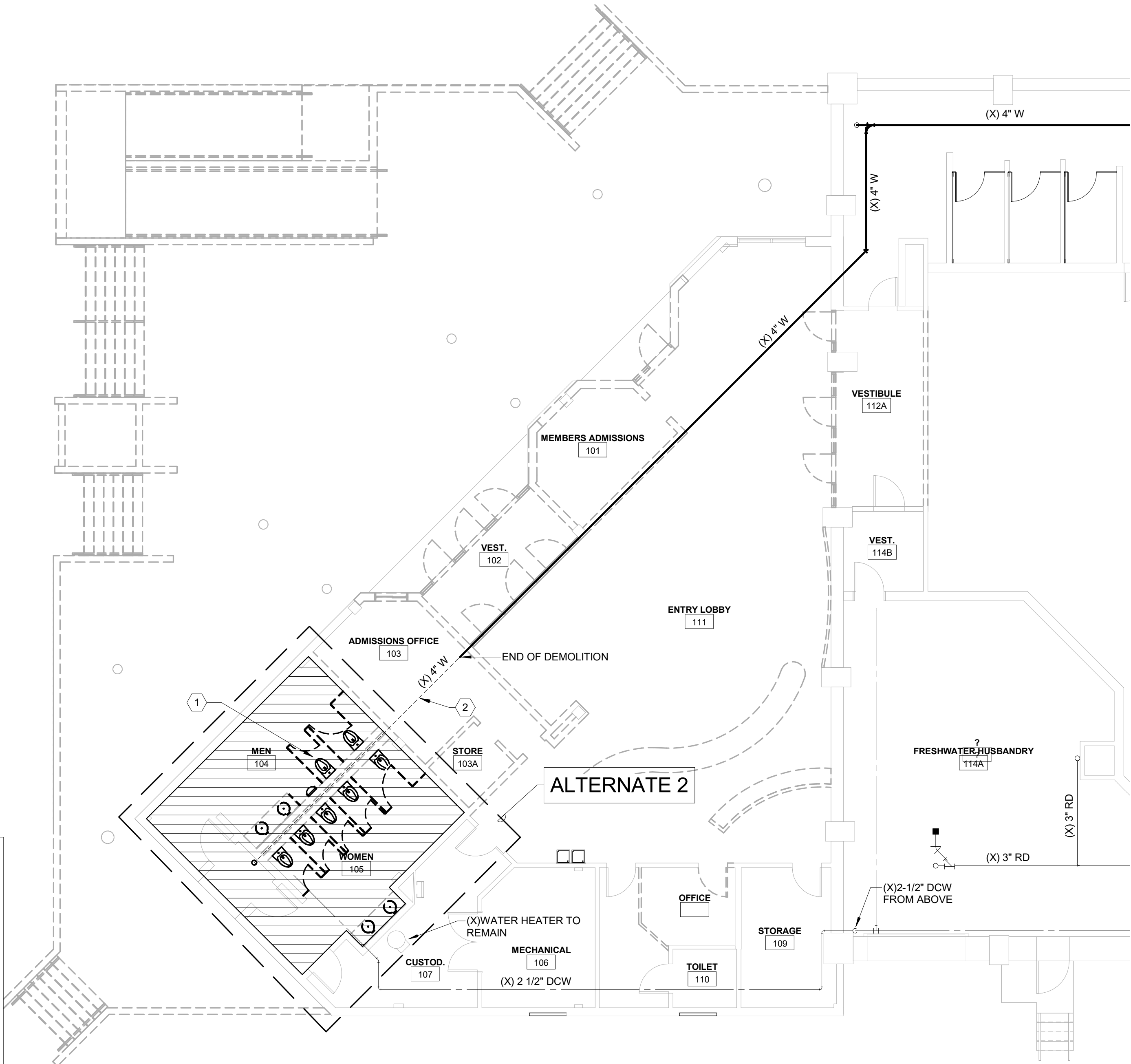
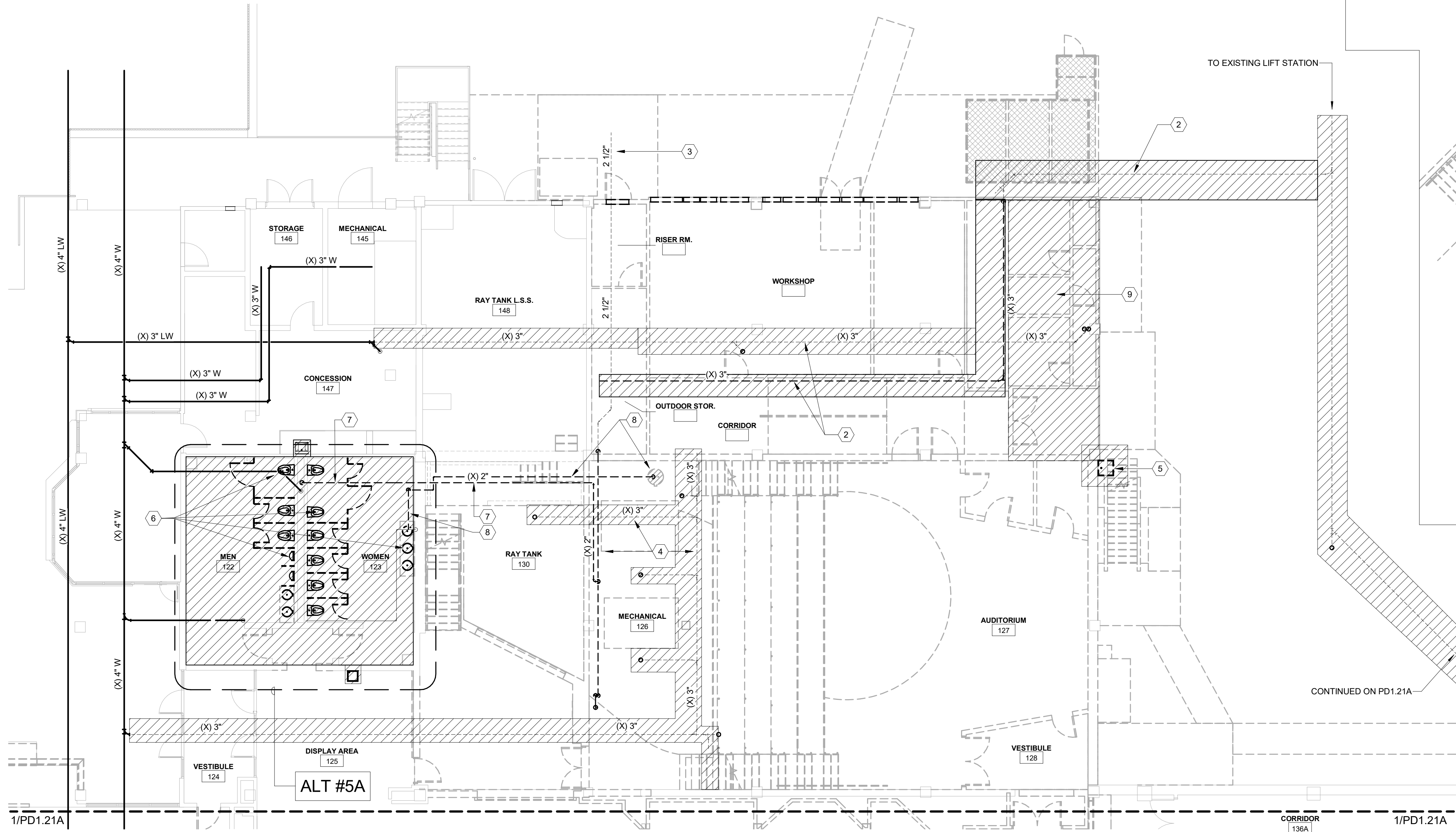
OVERALL 2ND FLOOR - DEMO - WASTE-VENT PLAN
SCALE : 1" = 20'-0"

1

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KEYNOTES	
1	ALL EXISTING PLUMBING FIXTURES, PIPING, FITTINGS, ETC WITHIN THIS AREA TO BE REMOVED AND PROPERLY DISPOSED OF.
2	EXISTING WASTE PIPING TO BE DEMOLISHED TO END POINT OF DEMOLITION AS INDICATED ON PLAN.
3	EXISTING WATER SERVICE TO BE DEMOLISHED. GC TO COORDINATE KEEPING SERVICE ACTIVE UNTIL NEW WATER SERVICE COMES ONLINE
4	ALL PLUMBING IN MECHANICAL SPACE BELOW AUDITORIUM TO BE DEMOLISHED. EXISTING BOOSTER PUMP TO BE TEMPORARILY RELOCATED AS REQUIRED TO MAINTAIN ADEQUATE PRESSURE UNTIL NEW SERVICE AND BOOSTER PUMP ARE ON LINE
5	EXISTING SERVICE SINK AND ALL ASSOCIATED WASTE, VENT AND WATER PIPING TO BE DEMOLISHED.
6	ALL EXISTING PLUMBING FIXTURES WITHIN THIS SPACE TO BE REMOVED AND PROPERLY DISPOSED OF AS PART OF ALTERNATE #5A.
7	EXISTING DCW PIPING TO BE DEMOLISHED AS PART OF PHASE ONE BASE BID.
8	EXISTING WATER HEATER, DCW AND DHW PIPING TO BE DEMOLISHED AS PART OF PHASE ONE BASE BID.
9	ALL EXISTING PLUMBING FIXTURES, PIPING, FITTINGS, ETC WITHIN THIS AREA TO BE REMOVED AND PROPERLY DISPOSED OF AS PART OF ALTERNATE #2.



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DEMOLITION LEGEND
INDICATES AREA OF DEMOLITION

SZOSTAK DESIGN

FORT FISHER
AQUARIUM
RENOVATION
& EXPANSION:
PHASE 1

SCO #17-18042-02A
CODE: 42014-4G02
ITEM: 41414-4Y4A

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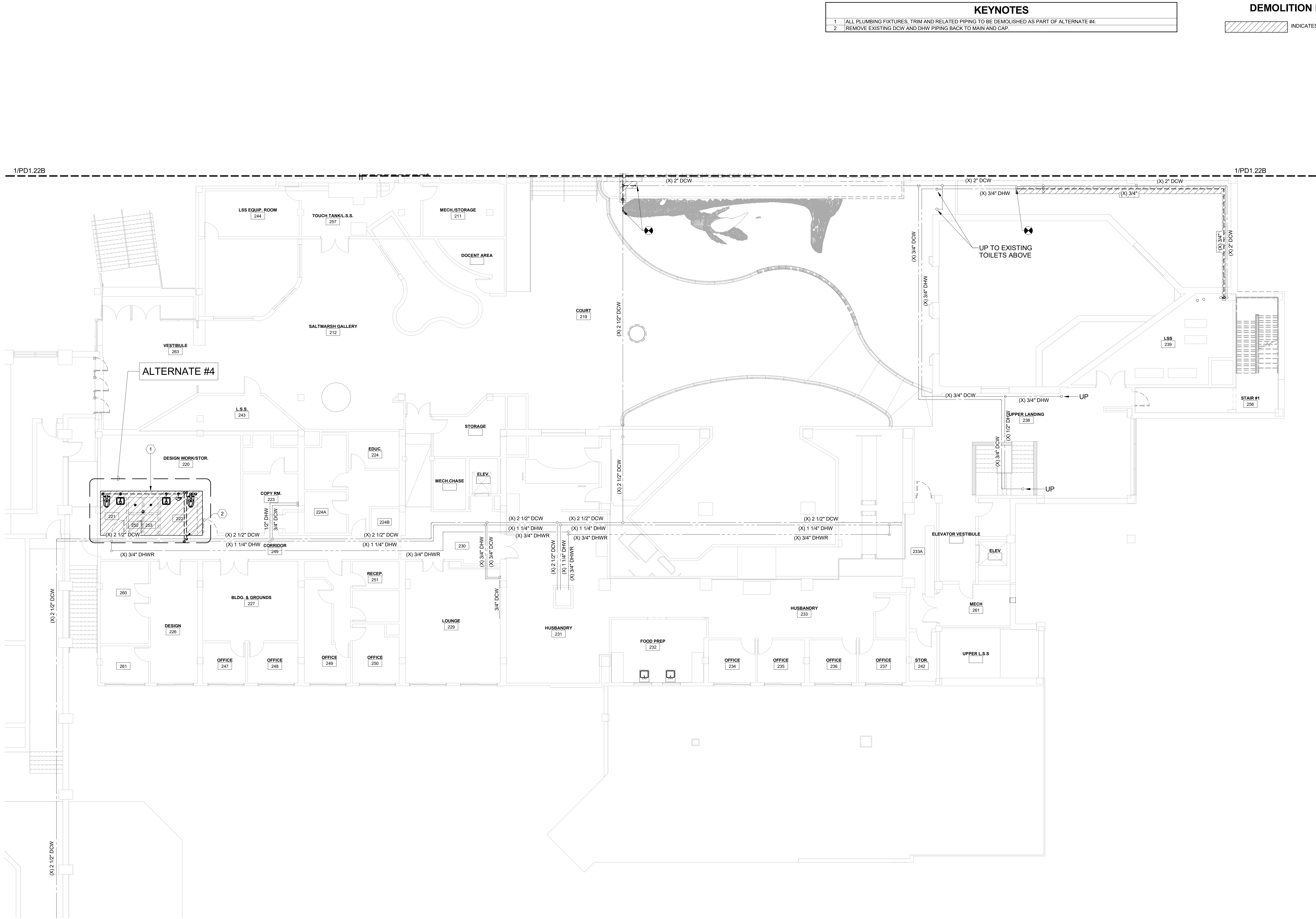
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FIRST FLOOR DEMO PLAN -
MAIN ENTRY & TOUCH
TANK

PD1.21 B



KEYNOTES	
1	ALL PLUMBING FIXTURES, TRIM AND RELATED PIPING TO BE DEMOLISHED AS PART OF ALTERNATE #4.
2	REMOVE EXISTING DCW AND DHW PIPING BACK TO MAIN AND CAP.

DEMOLITION LEGEND	
	INDICATES AREA OF DEMOLITION

SZOSTAK DESIGN

FORT FISHER
AQUARIUM
RENOVATION
& EXPANSION:
PHASE 1

SCO #17-18042-02A
CODE: 42014-4G02
ITEM: 41414-4Y4A

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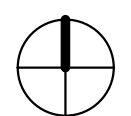
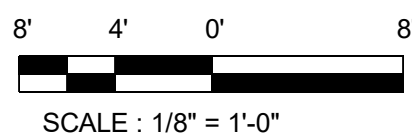
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SECOND FLOOR DEMO
PLAN - CAPE FEAR

PD1.22 A

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2ND FLOOR - DEMO - CAPE FEAR

SCALE: 1/8" = 1'-0"

KEYNOTES	
1	EXISTING DOMESTIC WATER PIPING TO BE DEMOLISHED.
2	ALL EXISTING PLUMBING FIXTURES, PIPING, FITTINGS, ETC WITHIN THIS AREA TO BE REMOVED AND PROPERLY DISPOSED OF AS PART OF ALTERNATE #5B.

 INDICATES AREA OF DEMOLITION

FORT FISHER
AQUARIUM
RENOVATION
& EXPANSION:
PHASE 1

SCO #17-18042-02A
CODE: 42014-4G02
ITEM: 41414-4Y4A

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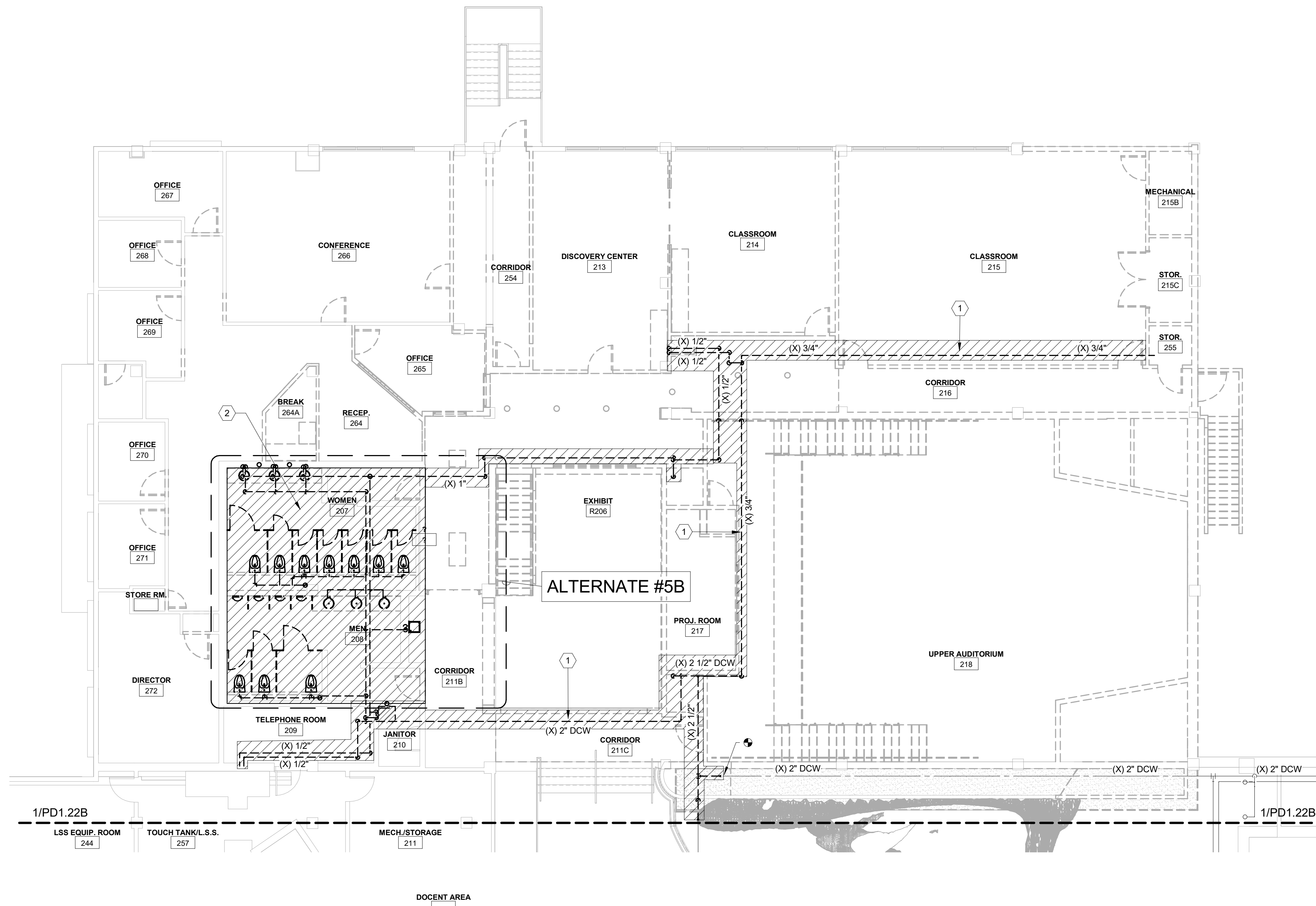
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SECOND FLOOR DEMO
PLAN - TOUCH TANK

PD1.22 B



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8' 4' 0' 8'



SCALE : 1/8" = 1'-0"

2ND FLOOR - DEMO - TOUCH AND SHARK TANK

SCALE : 1/8" = 1'-0"

1

KEYNOTES	
1	ALL EXISTING PLUMBING FIXTURES , TRIM, ETC. WITHIN THIS AREA TO BE DEMOLISHED. EXISTING PIPING TO REMAIN AND BE RE-USED.

1	ALL EXISTING PLUMBING FIXTURES , TRIM, ETC. WITHIN THIS AREA TO BE DEMOLISHED. EXISTING PIPING TO REMAIN AND BE RE-USED.
---	--

 INDICATES AREA OF DEMOLITION

FORT FISHER
AQUARIUM
RENOVATION
& EXPANSION:
PHASE 1

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CODE: 42014-4G02
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215 MORRIS STREET SUITE 150
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TELE: 919.419.1199
FAX: 919.419.1669
WWW.SURFACE678.COM
LIFE: J. C. 000

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FIRE PROTECTION ENGINEER
3412 ENTERPRISE DRIVE
WILMINGTON, NC 28405
TELE: 910.452.4210
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LICENSE # C-1073

PALACIO COLLABORATIVE

COST ESTIMATOR
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WWW.PALACIOCOLLABORATIVE.COM

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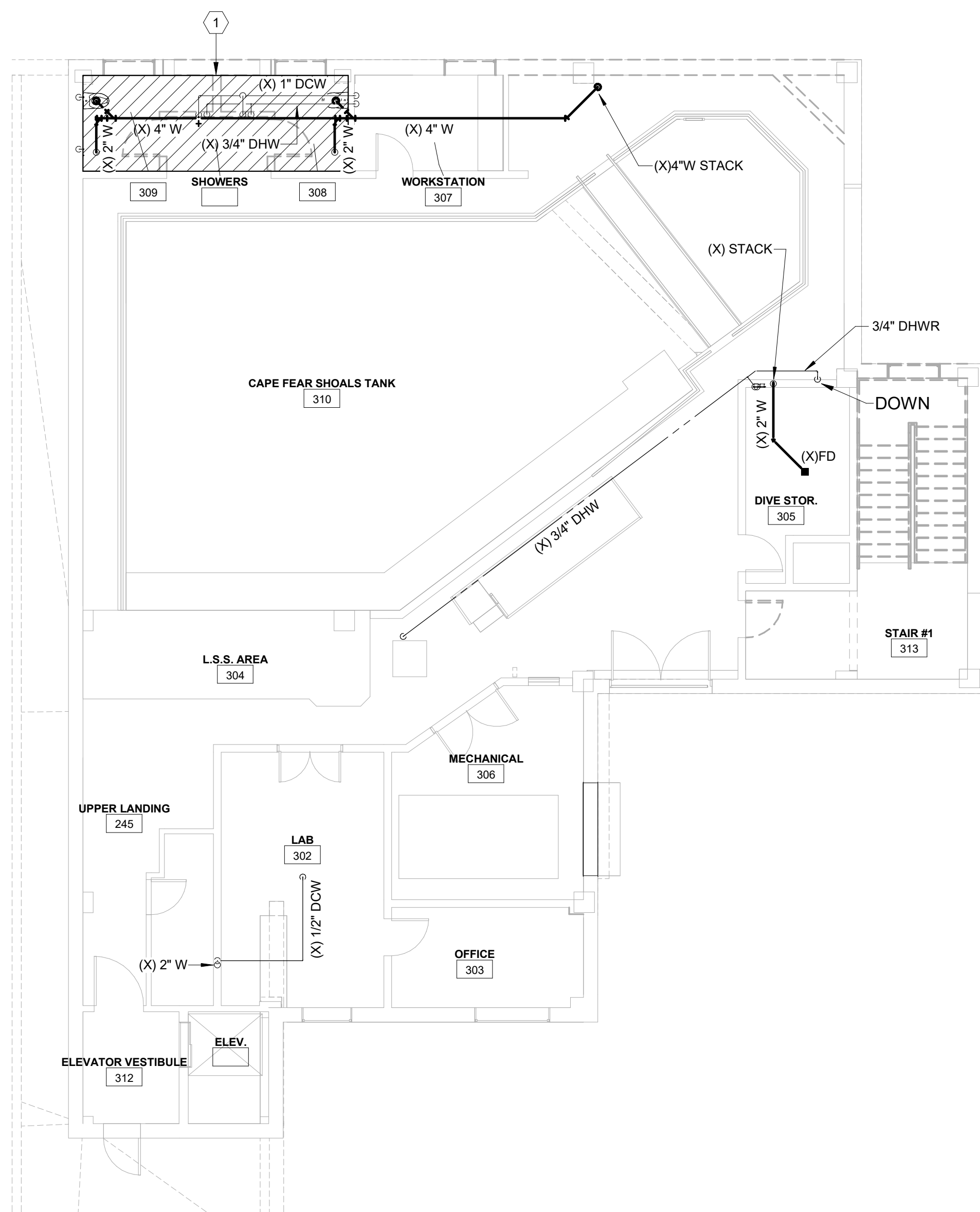
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NO.	DATE	DESCRIPTION
1	9-8-25	BID SET

THIRD FLOOR DEMO PLAN
- CAPE FEAR

PD1.23 A



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8' 4' 0' 8'

SCALE : 1/8" = 1'-0"



3RD FLOOR - DEMO - CAPE FEAR

SCALE: 1/8" = 1'-0"

SCO #17-18042-02A
CODE: 42014-4G02
ITEM: 41414-4Y4A

900 LOGGERHEAD RD,
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ARCHITECT

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FAX: 919.960.7967
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LIFE SUPPORT SYSTEMS ENGINEER
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TELE: 909.360.2900
WWW.LIGHTSWITCH.NET

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SEAL
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ENGINEER
DAVID M. HAHN

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NO.	DATE	DESCRIPTION
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FIRST FLOOR PLAN -
WASTE-VENT

PS2.11

REFER TO ARCHITECTURAL DRAWING SET FOR CONSTRUCTION PHASING REQUIREMENTS. COORDINATE WORK CLOSELY WITH GENERAL CONTRACTOR AND ALL OTHER TRADES.

 EXISTING BUILDING
 RENOVATED AREA
 UPFIT BY OTHERS

----- 1-HR RATED WALL
----- 2-HR RATED WALL
----- 3-HR RATED WALL

1. PLUMBING CONTRACTOR TO COORDINATE WITH OTHER TRADES PRIOR TO BEGINNING WORK.
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5. LISTING AND LABELING: ALL EQUIPMENT SHALL BE LABELED OR LISTED BY UL OR OTHER APPROVED TESTING AGENCY WHERE REQUIRED.

20' 10' 20'

SCALE : 1" = 20'-0"

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OVERALL 1ST FLOOR - WASTE VENT PLAN

SCALE : 1" = 20'-0"

1

FORT FISHER
AQUARIUM
RENOVATION
& EXPANSION:
PHASE 1

9000 LOGGERSHEAD RD,
LAUREL BEACH, NC 28449

NORTH CAROLINA DEPT. OF
NATURAL & CULTURAL RESOURCE

CHTECT
1/2 WEST FRANKLIN STREET
CAPEL HILL, NORTH CAROLINA 27516
E: 919.929.5244
X: 919.960.7967
WWW.S2OSTAKDESIGN.COM
ENSE # 51679

180 VENTURE LANE SUITE 205N
 SEASIDE, OR 97707
 TEL: 619.423.8700
 WWW.TJENGINEERING.COM
 ENSE # C-3505

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WWW.LIGHTSWITCH.NET

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E: 910.343.9653
F: 910.343.9604
WWW.ENTENGINEERS.COM
ENSE # P-3152

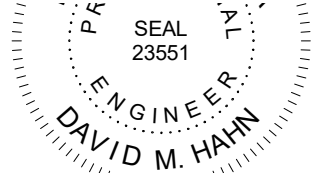
LANDSCAPE ARCHITECT
6 MORRIS STREET SUITE 150
RHAM, NC 27701
E: 919.419.1159
X: 919.419.1669
WWW.SURFACE678.COM
ENSE # C-098

2 ENTERPRISE DRIVE
WINGTON, NC 28405
E: 910.452.4210
WWW.CHEATHAMPA.COM
FAX: 910.452.1073

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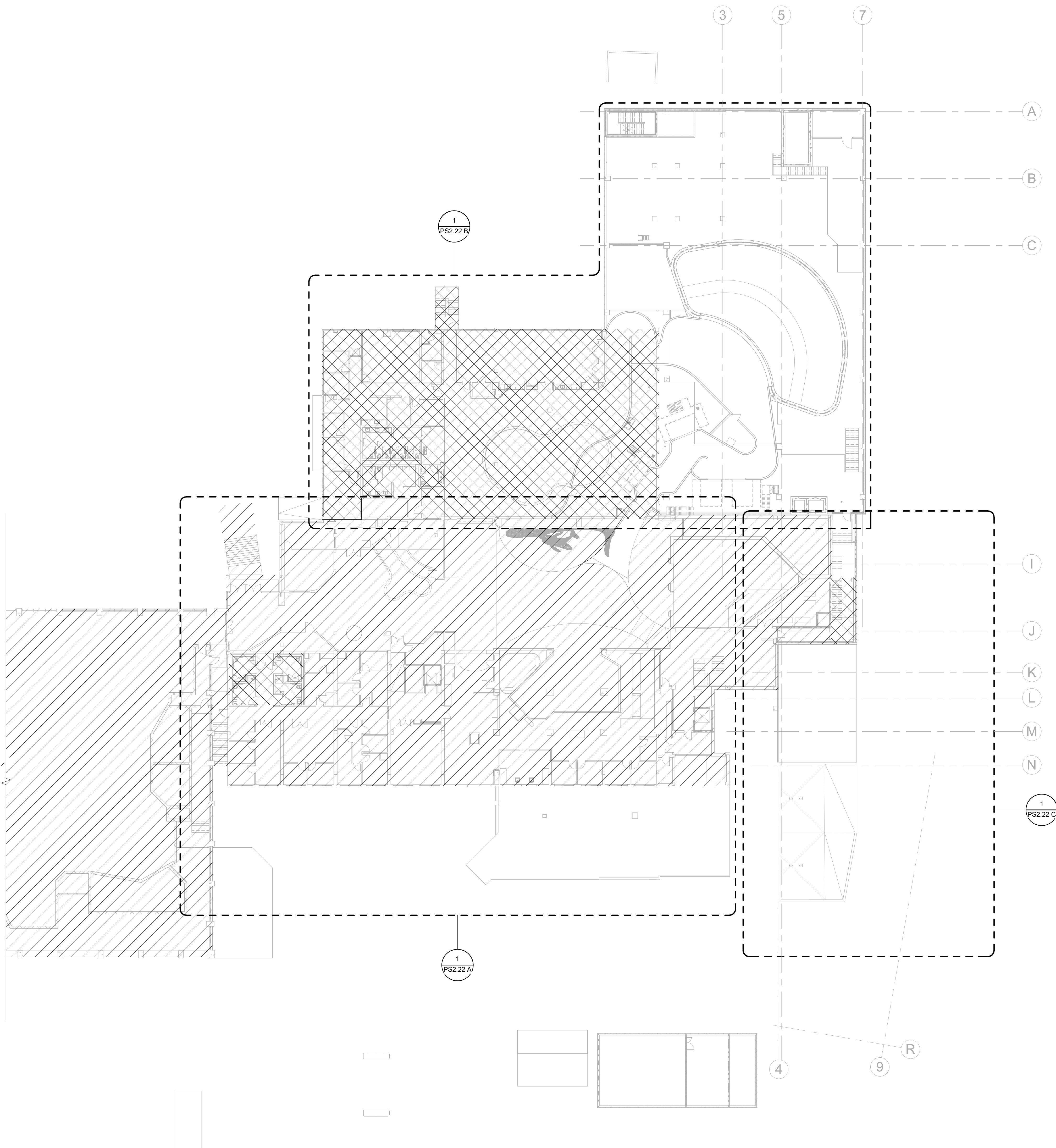
SECOND FLOOR PLAN WASTE-VENT

PS2.12

REFER TO ARCHITECTURAL DRAWING SET FOR CONSTRUCTION PHASING REQUIREMENTS. COORDINATE WORK CLOSELY WITH GENERAL CONTRACTOR AND ALL OTHER TRADES.

- 3-HR RATED WALL

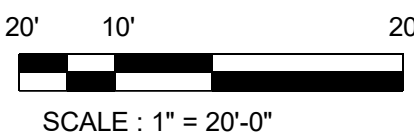
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OVERALL 2ND FLOOR - WASTE-VENT PLAN
SCALE : 1" = 20'-0"

SZOSTAK DESIGN

FORT FISHER
AQUARIUM
RENOVATION
& EXPANSION:
PHASE 1

SCO #17-18042-02A
CODE: 42014-4G02
ITEM: 41414-4Y4A

900 LOGGERHEAD RD,
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LICENSE # F-1105

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SURFACE 678, PA

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DURHAM, NC 27701
TEL: 919.419.1199
FAX: 919.419.1689
WWW.SURFACE678.COM
LICENSE # C-096

CHEATHAM & ASSOCIATES, PA

FIRE PROTECTION ENGINEER
3412 ENTERPRISE DRIVE
WILMINGTON, NC 28405
TEL: 910.452.4510
WWW.CHEATHAMPA.COM
LICENSE # C-1073

PALACIO COLLABORATIVE

COST ESTIMATOR
4817 ENTERPRISE BOULEVARD SUITE 400
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THIRD FLOOR PLAN -
WASTE-VENT

PS2.13

PHASING REQUIREMENTS

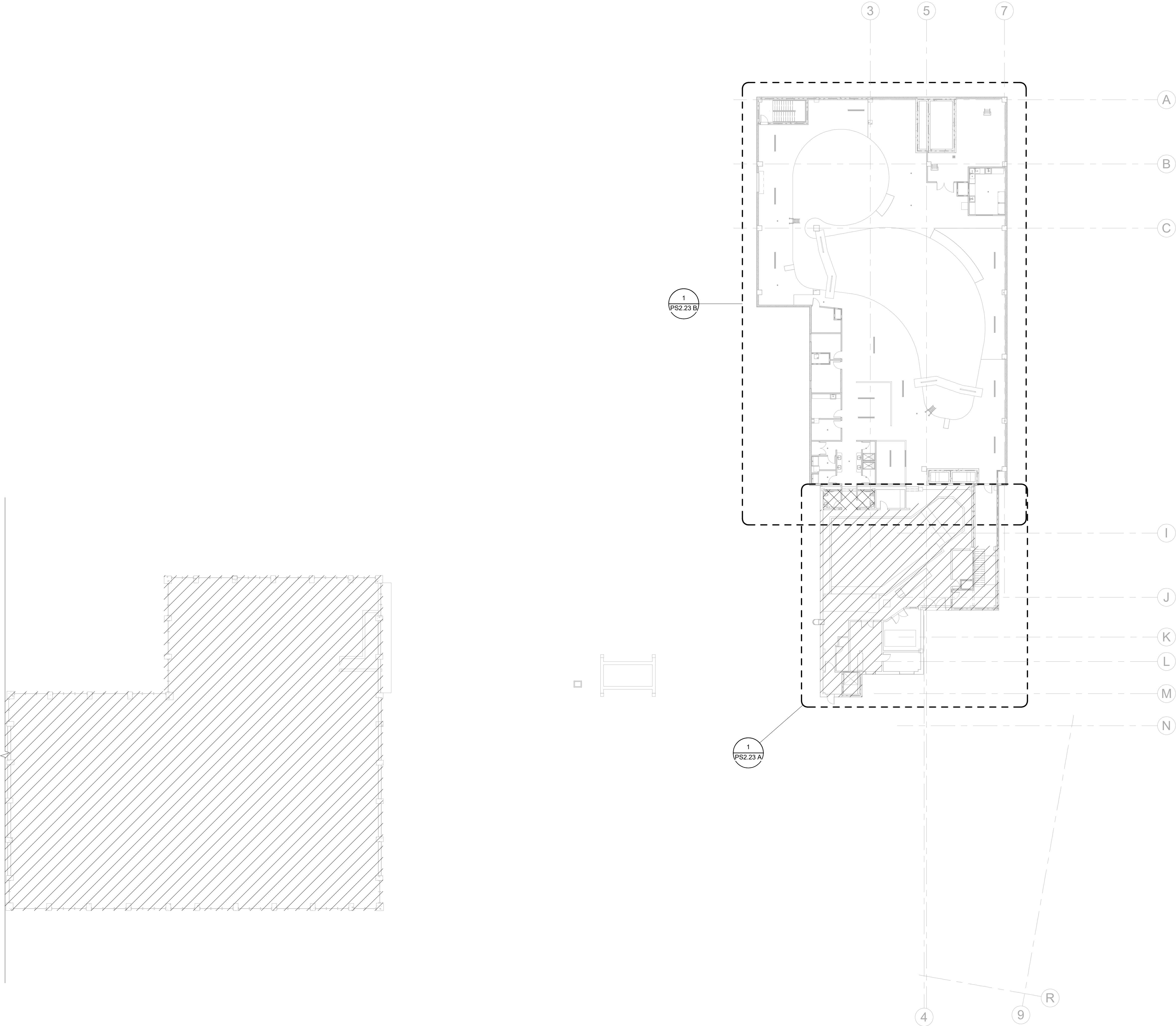
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REQUIREMENTS. COORDINATE WORK CLOSELY WITH GENERAL CONTRACTOR
AND ALL OTHER TRADES.

FLOOR PLAN LEGEND

- EXISTING BUILDING
- RENOVATED AREA
- UPFIT BY OTHERS
- 1-HR RATED WALL
- 2-HR RATED WALL
- 3-HR RATED WALL

FLOOR PLAN SHEET NOTES

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20' 10' 20'
SCALE : 1" = 20'-0"

OVERALL 3RD FLOOR - WASTE-VENT PLAN
SCALE : 1" = 20'-0"

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RENOVATION
& EXPANSION:
PHASE 1

SCO #17-18042-02A
CODE: 42014-4G02
ITEM: 41414-4Y4A

900 LOGGERHEAD RD,
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ENGINEER
DAVID M. HARR

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NO. DATE DESCRIPTION

1 9-8-25 BID SET

ROOF PLAN

PS2.14

PHASING REQUIREMENTS

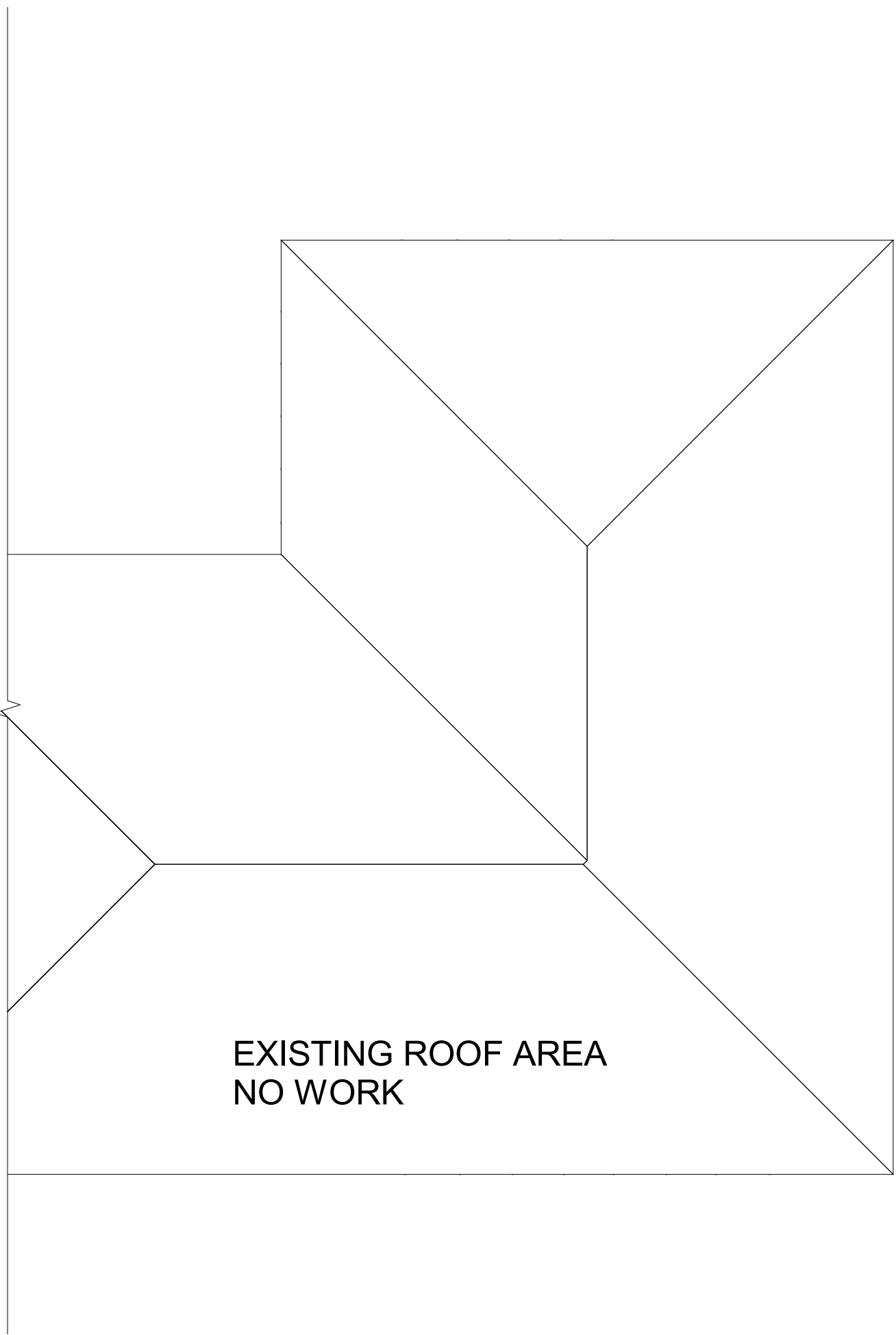
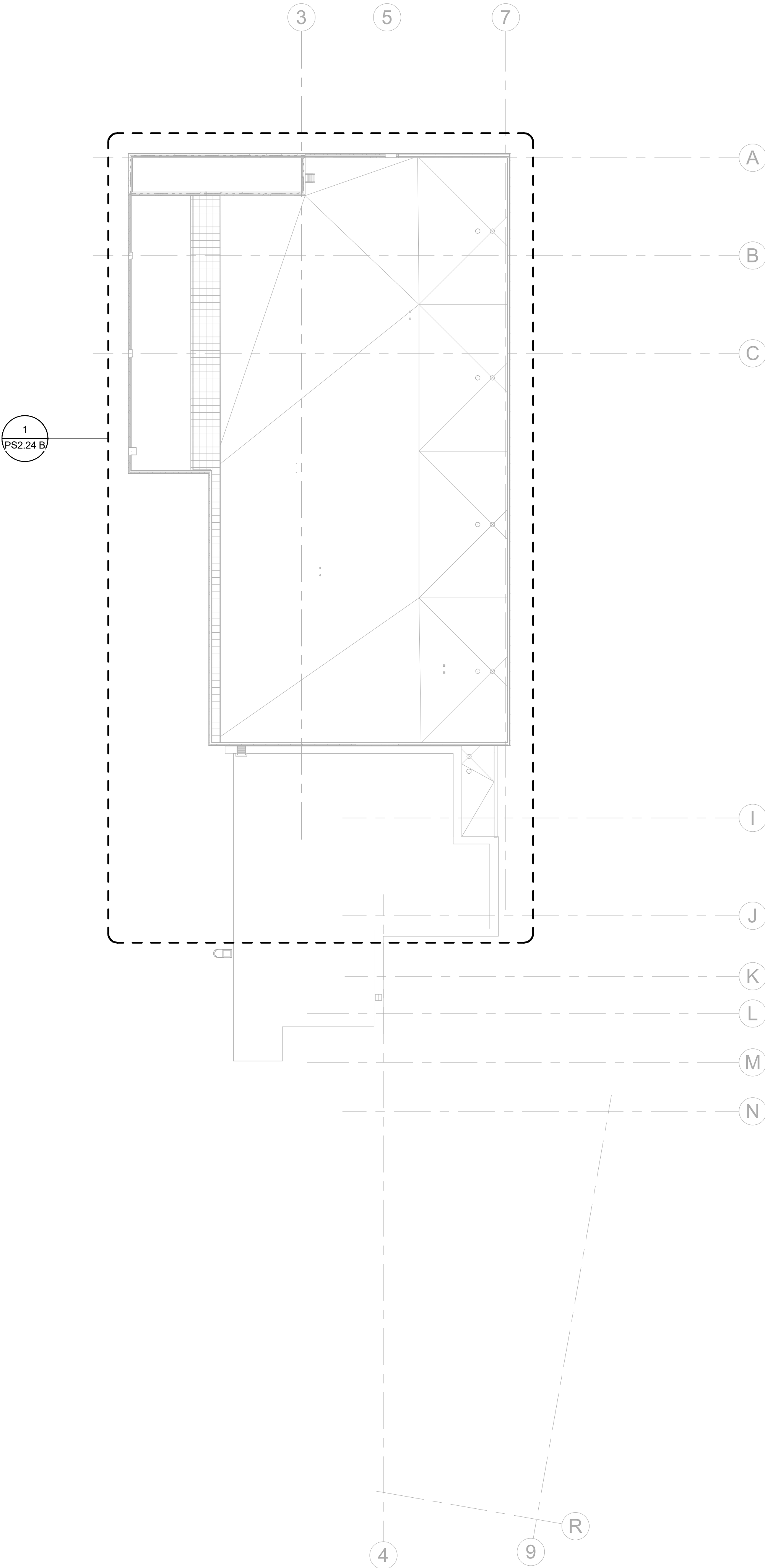
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FLOOR PLAN LEGEND

- EXISTING BUILDING
- RENOVATED AREA
- UPFIT BY OTHERS
- 1-HR RATED WALL
- 2-HR RATED WALL
- 3-HR RATED WALL

FLOOR PLAN SHEET NOTES

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20' 10' 20'
SCALE : 1" = 20'-0"

ROOF PLAN
SCALE : 1" = 20'-0"

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SCO #17-18042-02A
CODE: 42014-4G02
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LWENKE & CO.

CHEATHAM & ASSOCIATES, PA

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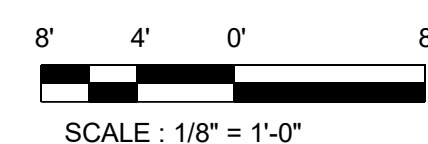
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FIRST FLOOR PLAN - CAPE
FEAR SHOALS -
WASTE-VENT

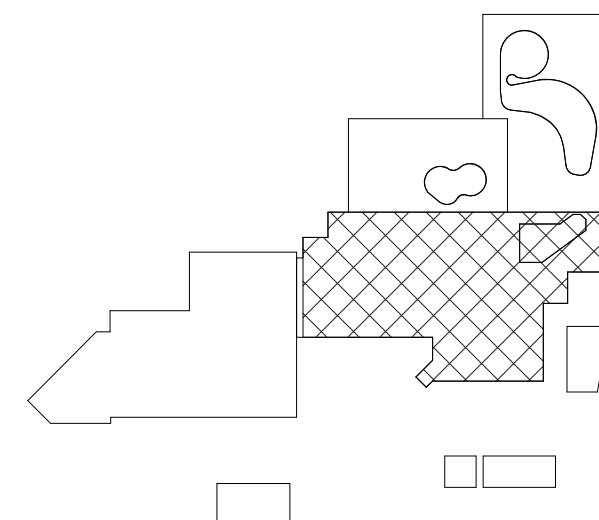
PS2.21 A

FLOOR PLAN SHEET NOTES

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KEY PLAN



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Fax: 910.791.5266
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1ST FLOOR - CAPE FEAR SHOALS - WASTE VENT - CONST

SCALE : 1/8" = 1'-0"

KEYNOTES THIS SHEET	
1	2" VENT. INSTALL PER 2018 NCPC SECTION 905.4, EXCEPTION 2.
2	2" CIRCUIT VENT
3	EXISTING 4" WASTE TO BE CONNECTED TO NEW PIPING SYSTEM. EXISTING PIPING SYSTEM TO REMAIN ACTIVE.
4	2" VENT UP IN WALL. PROVIDE WCO IN RISER WITH ACCESS FROM INSIDE CUSTODIAL CLOSET
5	6" ORDL FROM ABOVE
6	4" W STACK FROM ABOVE. INSTALL CLEANOUT AT BASE OF STACK.
7	INSTALL CLEANOUT AT BASE OF STACK
8	2" VENT UP
9	4" W STACK FROM ABOVE. INSTALL CLEANOUT AT BASE OF STACK.
10	2" V-UP. 2" AAV. SEE 1/PS2.22B FOR CONTINUATION.
11	PROVIDE AUTOMATIC BACKWATER VALVE ON SANITARY MAIN SERVING FIXTURES AND FLOOR DRAINS LOCATED WITHIN DRY FLOODPROOFED AREA. VALVE SHALL BE LOCATED OUTSIDE OR AT THE EDGE OF THE FLOODPROOFED ENVELOPE AND BE ACCESSIBLE FOR MAINTENANCE. BACKWATER VALVE SHALL BE DESIGNED TO CLOSE AUTOMATICALLY UNDER BACKFLOW CONDITIONS.
12	4" RDL FROM ABOVE. SEE SHEET PS2.22B FOR CONTINUATION.
13	4" STORM LINE TO DROP INLET DI-2.3. SEE SHEET C-2.1 FOR CONTINUATION.

PHASING REQUIREMENTS

REFER TO ARCHITECTURAL DRAWING SET FOR CONSTRUCTION PHASING REQUIREMENTS. COORDINATE WORK CLOSELY WITH GENERAL CONTRACTOR AND ALL OTHER TRADES.

FLOOR PLAN LEGEND	
	EXISTING BUILDING
	RENOVATED AREA
	UPFIT BY OTHERS
	1-HR RATED WALL
	2-HR RATED WALL
	3-HR RATED WALL

FLOOR PLAN SHEET NOTES

- PLUMBING CONTRACTOR TO COORDINATE WITH OTHER TRADES PRIOR TO BEGINNING WORK.
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SZOSTAK DESIGN

FORT FISHER
AQUARIUM
RENOVATION
& EXPANSION:
PHASE 1

SCO #17-18042-02A
CODE: 42014-4G02
ITEM: 41414-4Y4A

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SEAL
23551
ENGINEER
DAVID M. HARRIS

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CONSTRUCTION

NO.	DATE	DESCRIPTION
1	9-8-25	BID SET

FIRST FLOOR PLAN -
TOUCH AND SHARK TANK -
WASTE-VENT

PS2.21 B

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8' 4' 0' 8'
SCALE: 1/8" = 1'-0"

1ST FLOOR - TOUCH AND SHARK TANK - WASTE-VENT
SCALE: 1/8" = 1'-0"

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NO.	DATE	DESCRIPTION
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FIRST FLOOR PLAN - MAIN
ENTRY & MECH BLDG -
WASTE-VENT

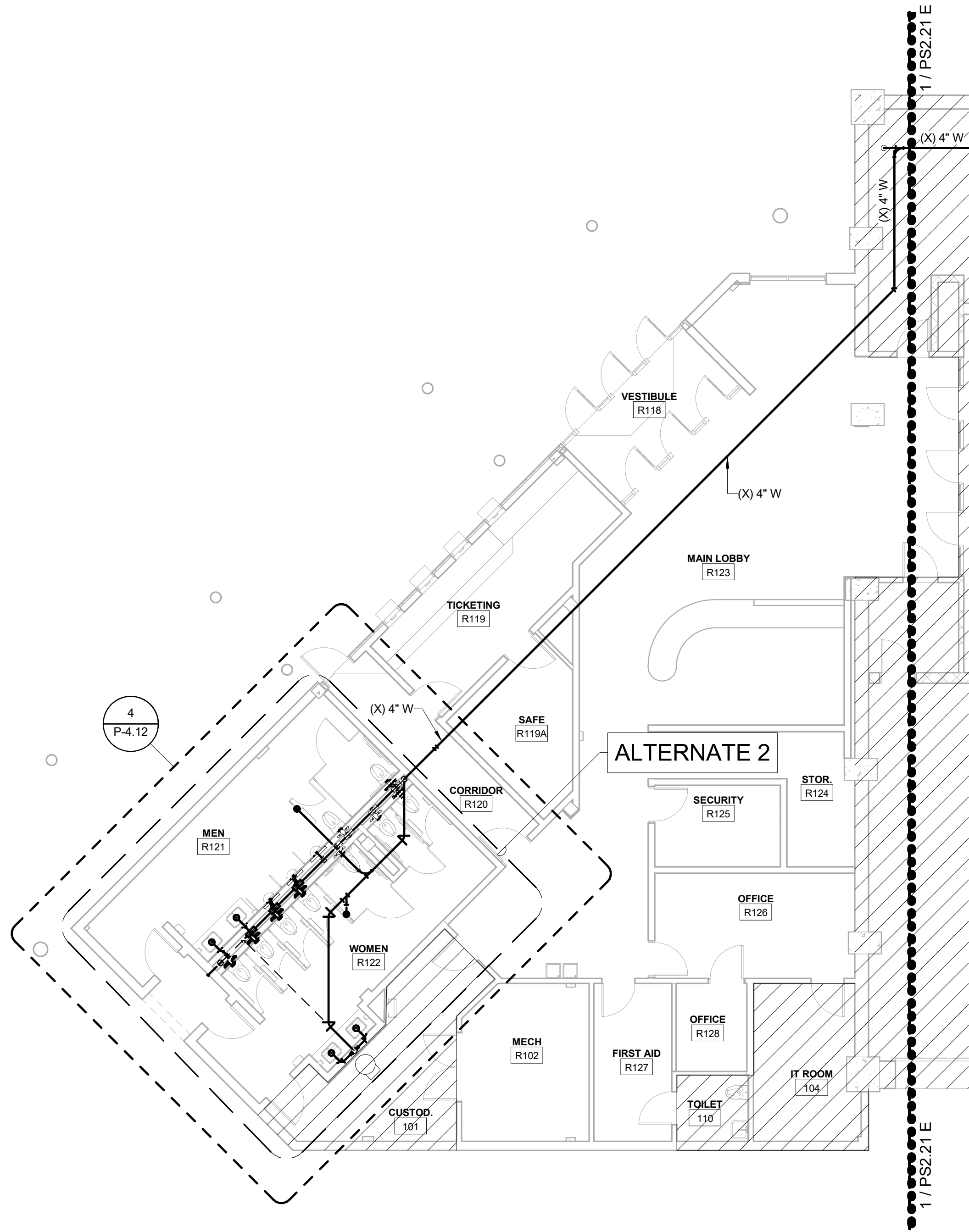
PS2.21 D

FLOOR PLAN LEGEND

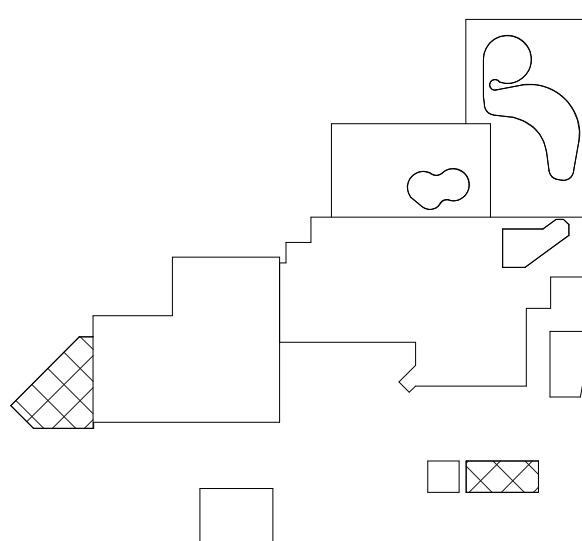
- EXISTING BUILDING
- RENOVATED AREA
- UPFIT BY OTHERS
- 1-HR RATED WALL
- 2-HR RATED WALL
- 3-HR RATED WALL

FLOOR PLAN SHEET NOTES

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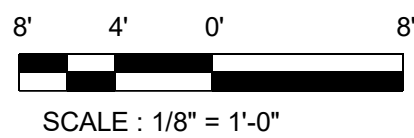


KEY PLAN



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SCALE: 1/8" = 1'-0"



1ST FLOOR - MAIN ENTRY - WASTE-VENT

SCALE: 1/8" = 1'-0"

SCO #17-18042-02A
CODE: 42014-4G02
ITEM: 41414-4Y4A

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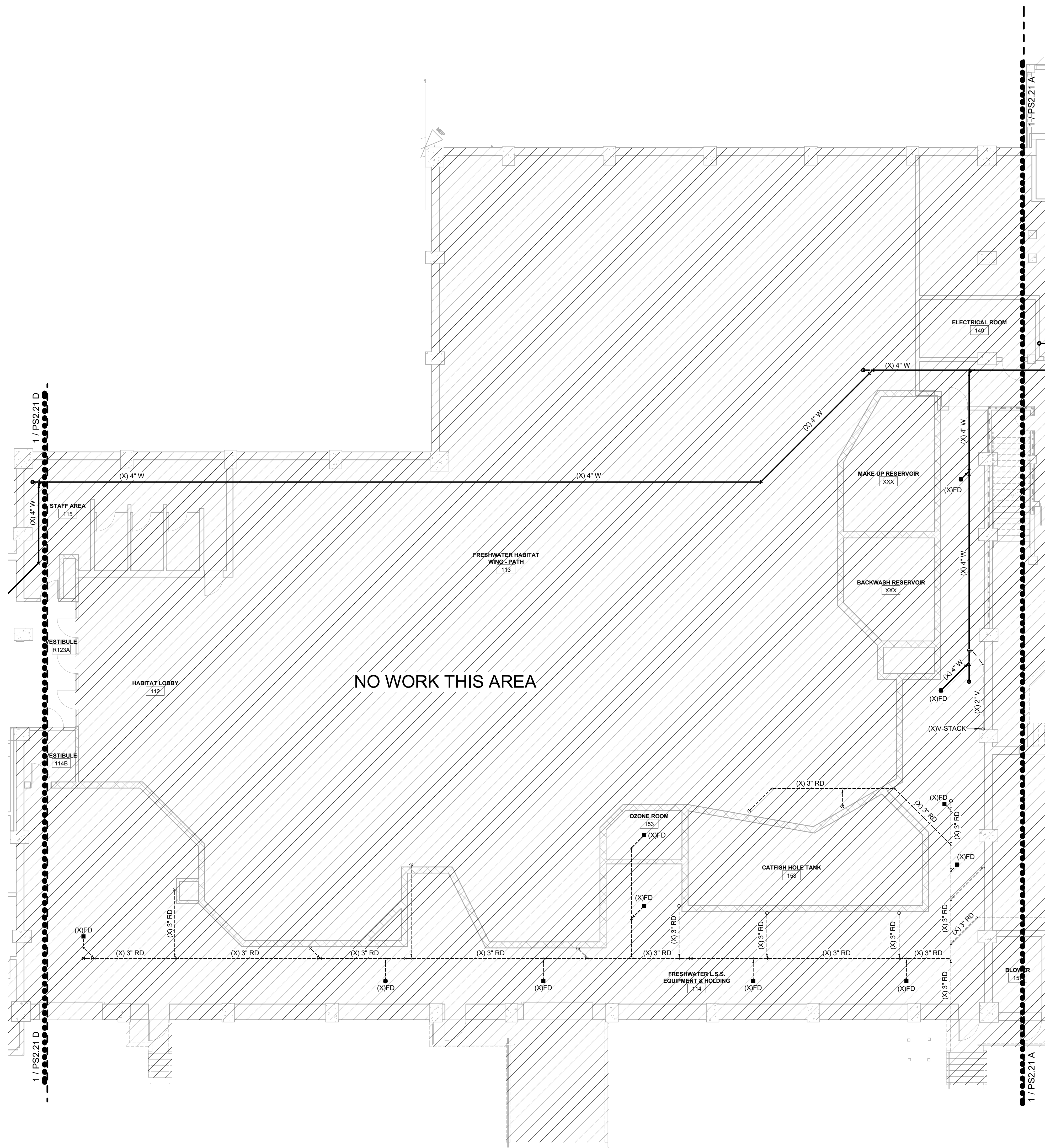
NO.	DATE	DESCRIPTION
1	9-8-25	BID SET

FIRST FLOOR PLAN -
FRESHWATER HABITAT -
WASTE-VENT

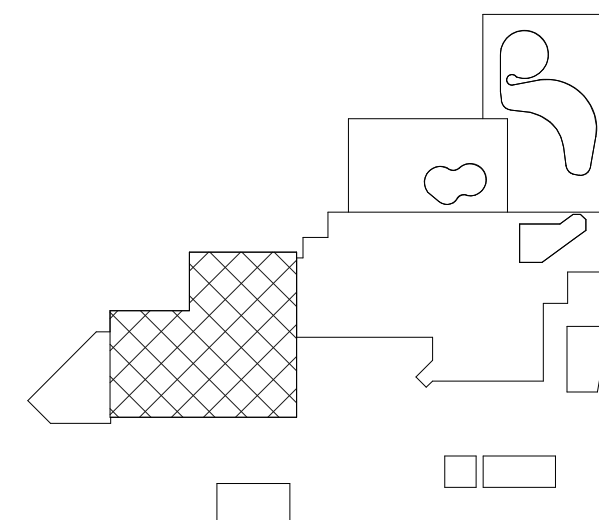
PS2.21 E

	EXISTING BUILDING
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	UPFIT BY OTHERS
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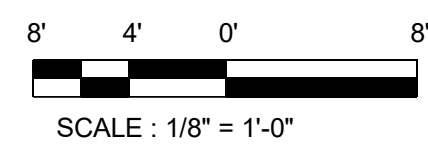
KEY PLAN



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1ST FLOOR - FRESHWATER HABITAT - WASTE-VENT

SCO #17-18042-02A
CODE: 42014-4G02
ITEM: 41414-4Y4A

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NO.	DATE	DESCRIPTION
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1	9-8-25	BID SET
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SECOND FLOOR PLAN

TOUCH AND SHARK TANK

WASTE-VENT

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8' 4' 0' 8'



SCALE : 1/8" = 1'-0"

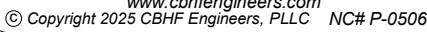
2ND FLOOR - SHARK TANK - WASTE-VENT

SCALE: 1/8" = 1'-0'

1

1

PS2.23 A



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8' 4' 0' 8'



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3RD FLOOR - SOUTHEAST WING - WASTE-VENT
SCALE : 1/8" = 1'-0"

1

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PS2.23 B

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1	4"RDL DOWN. SEE SHEET PS2.22B FOR CONTINUATION
---	--



8' 4' 0' 8'



SCALE : 1/8" = 1'-0"

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FORT FISHER AQUARIUM RENOVATION & EXPANSION: PHASE 1

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TELE: 909.360.2900
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FAX: 910.343.9604
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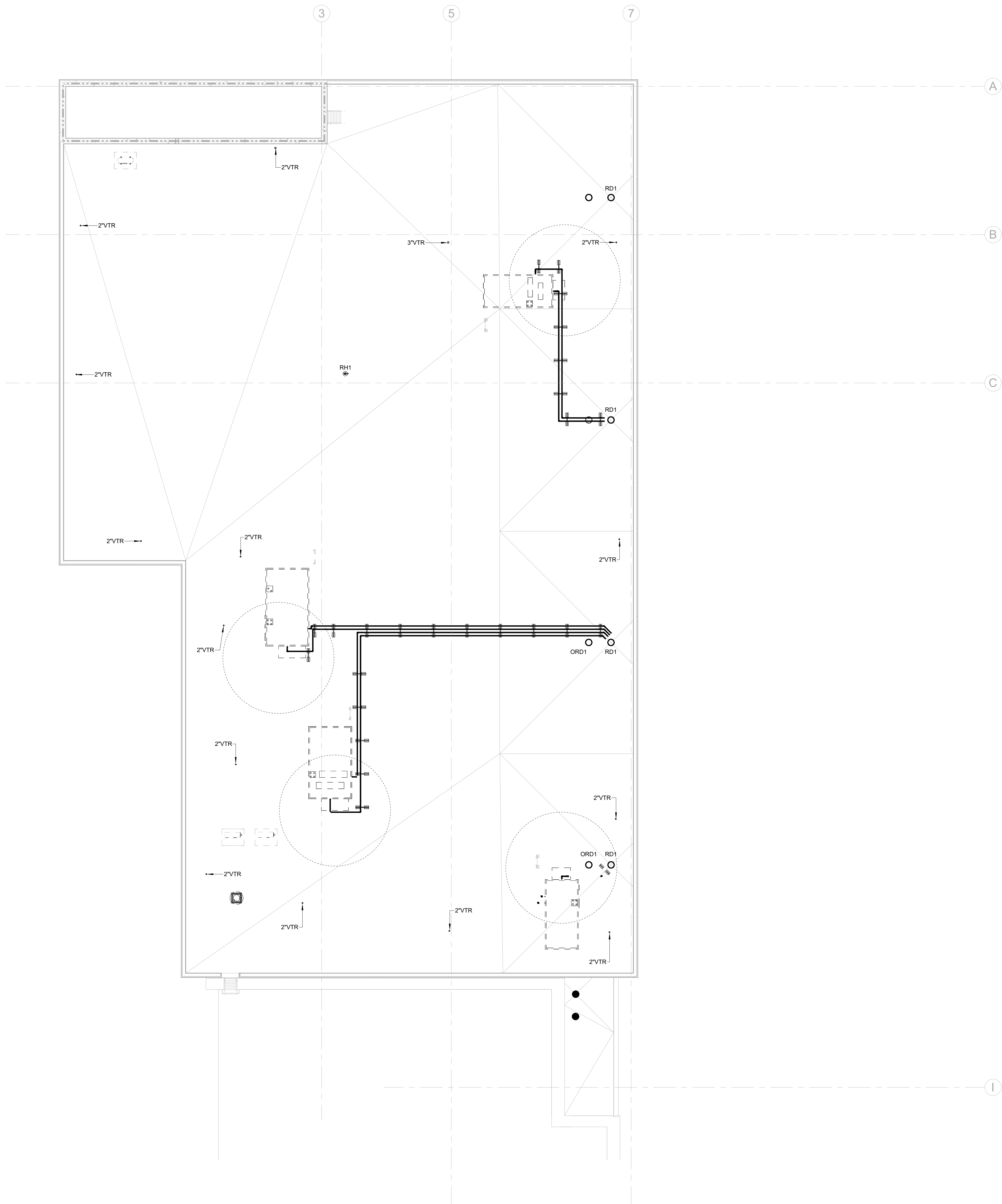
NO.	DATE	DESCRIPTION
1	9-8-25	BID SET

ROOF PLAN - SHARK TANK

PS2.24 B

FLOOR PLAN SHEET NOTES

1. PLUMBING CONTRACTOR TO COORDINATE WITH OTHER TRADES PRIOR TO BEGINNING WORK.
2. REFER TO ARCHITECT'S SPECIFICATIONS FOR RATED ASSEMBLY UL NUMBERS (WALLS, FLOOR / CEILING, ETC.).
3. FINISHES: DRAWINGS ARE DIAGRAMMATIC AND MAY NOT COMPLETELY DESCRIBE EVERY DETAIL OF THE INSTALLATION. HOWEVER, CONTRACTOR IS RESPONSIBLE FOR FURNISHING COMPLETE SYSTEMS INCLUDING ALL REQUIRED EQUIPMENT AND ACCESSORIES TO OBTAIN FULLY FUNCTIONING SYSTEM.
4. EQUIPMENT LOCATIONS: DETERMINE EXIST EQUIPMENT AND MATERIALS LOCATIONS TO DETERMINE BEST AREA FOR INSTALLATION. FACILITATE PROPER MAINTENANCE AND SERVING OF EQUIPMENT.
5. LABELING AND LABELING: ALL EQUIPMENT SHALL BE LABELED OR LISTED BY UL OR OTHER APPROVED TESTING AGENCY WHERE REQUIRED.

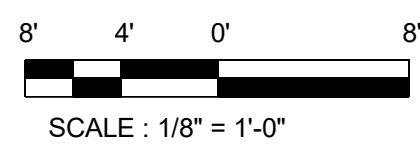


KEY PLAIN

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ENLARGED SHARKTANK ROOF PLAN
SCALE : 1/8" = 1'-0"

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LICENSE # 31079

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FIRST FLOOR PLAN -
DOMESTIC WATER

PW2.11

FLOOR PLAN LEGEND

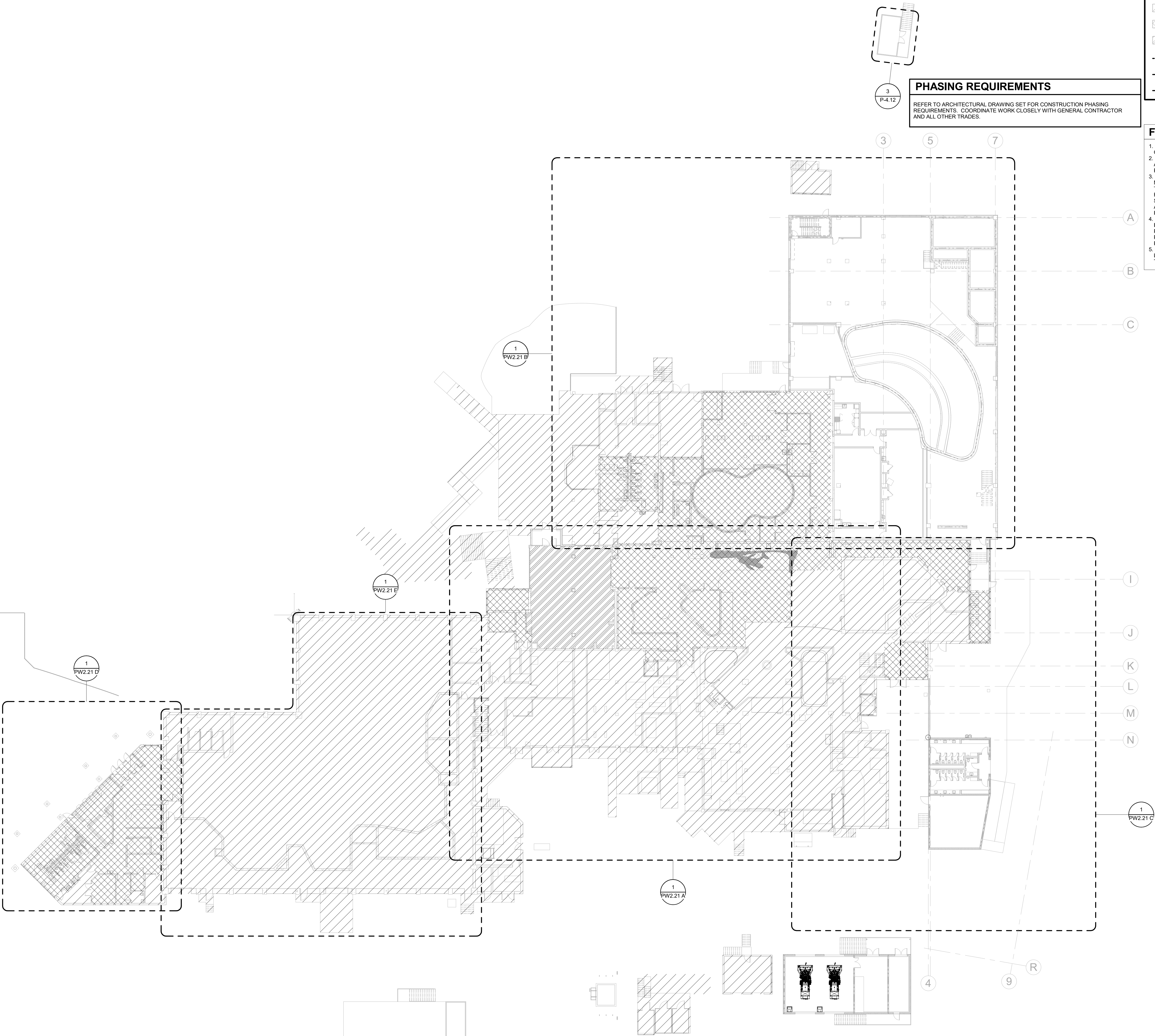
- EXISTING BUILDING
- RENOVATED AREA
- UPFIT BY OTHERS
- 1-HR RATED WALL
- 2-HR RATED WALL
- 3-HR RATED WALL

PHASING REQUIREMENTS

REFER TO ARCHITECTURAL DRAWING SET FOR CONSTRUCTION PHASING REQUIREMENTS. COORDINATE WORK CLOSELY WITH GENERAL CONTRACTOR AND ALL OTHER TRADES.

FLOOR PLAN SHEET NOTES

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- REFER TO ARCHITECTURAL DRAWINGS FOR RATED ASSEMBLY UL NUMBERS (WALLS, FLOOR / CEILING, ETC.).
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20' 10' 20'
SCALE: 1" = 20'-0"

OVERALL 1ST FLOOR - DOMESTIC WATER PLAN
SCALE: 1" = 20'-0"

SZOSTAK DESIGN

FORT FISHER
AQUARIUM
RENOVATION
& EXPANSION:
PHASE 1

SCO #17-18042-02A
CODE: 42014-4G02
ITEM: 41414-4Y4A

900 LOGGERHEAD RD,
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ENGINEER
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1	9-8-25	BID SET

SECOND FLOOR PLAN -
DOMESTIC WATER

PW2.12

PHASING REQUIREMENTS

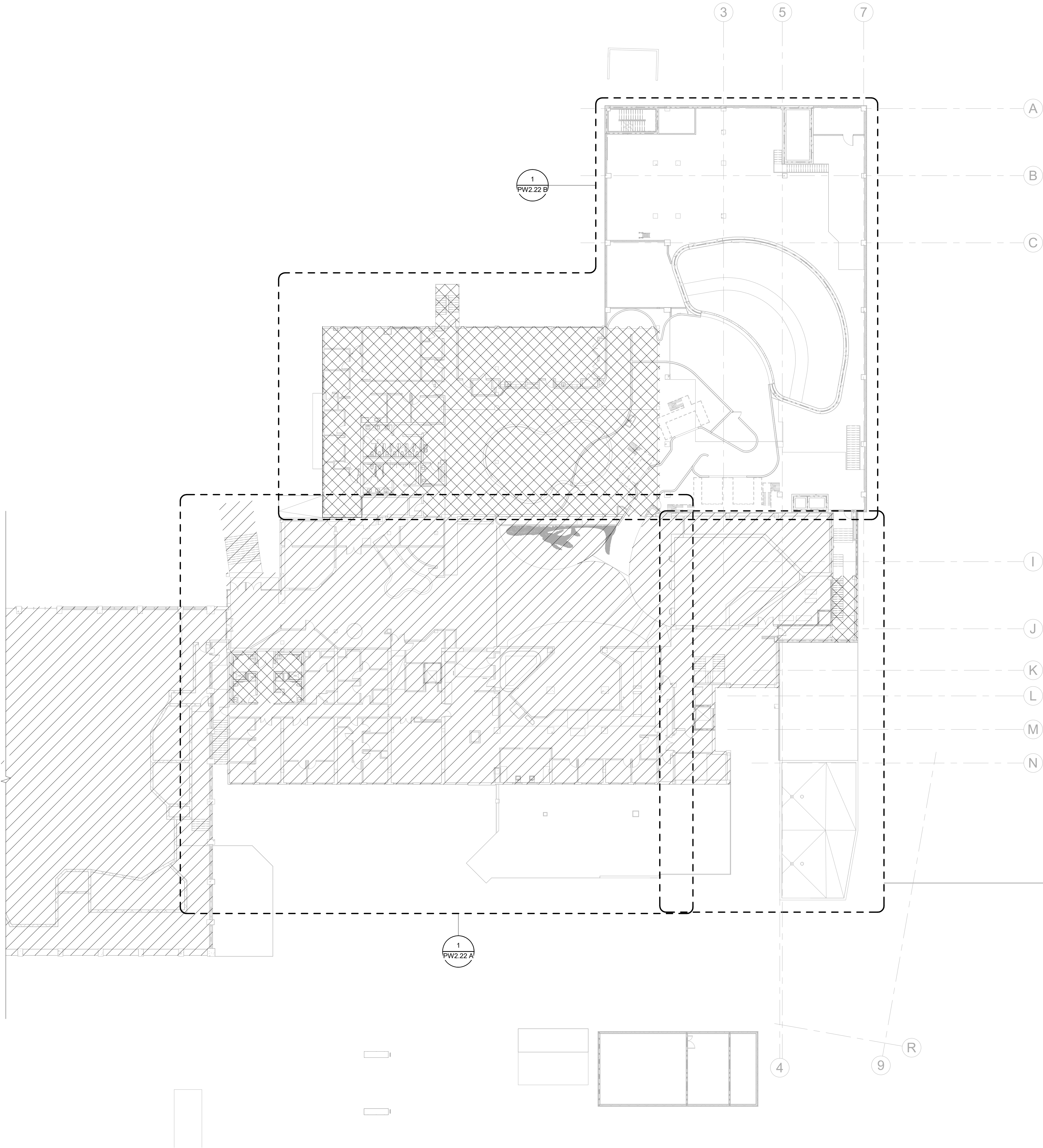
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AND ALL OTHER TRADES.

FLOOR PLAN LEGEND

- EXISTING BUILDING
- RENOVATED AREA
- UPFIT BY OTHERS
- 1-HR RATED WALL
- 2-HR RATED WALL
- 3-HR RATED WALL

FLOOR PLAN SHEET NOTES

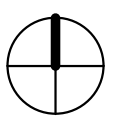
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20' 10' 20'
SCALE: 1" = 20'-0"

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OVERALL 2ND FLOOR -DOMESTIC WATER PLAN

SCALE: 1" = 20'-0"

SZOSTAK DESIGN

FORT FISHER
AQUARIUM
RENOVATION
& EXPANSION:
PHASE 1

SCO #17-18042-02A
CODE: 42014-4G02
ITEM: 41414-4Y4A

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NO.	DATE	DESCRIPTION
1	9-8-25	BID SET

FIRST FLOOR PLAN - CAPE
FEAR SHOALS - DOMESTIC
WATER

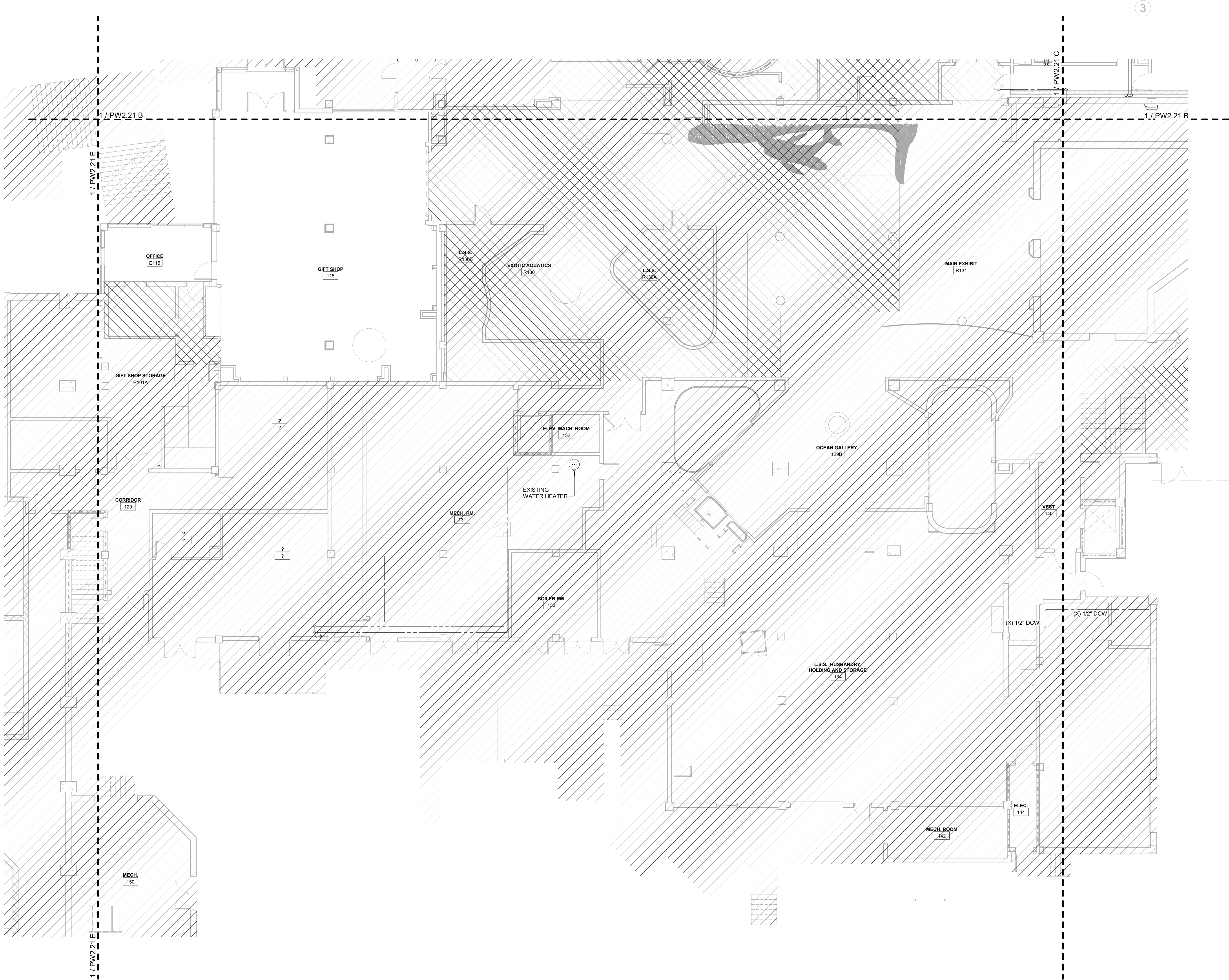
PW2.21 A

FLOOR PLAN LEGEND

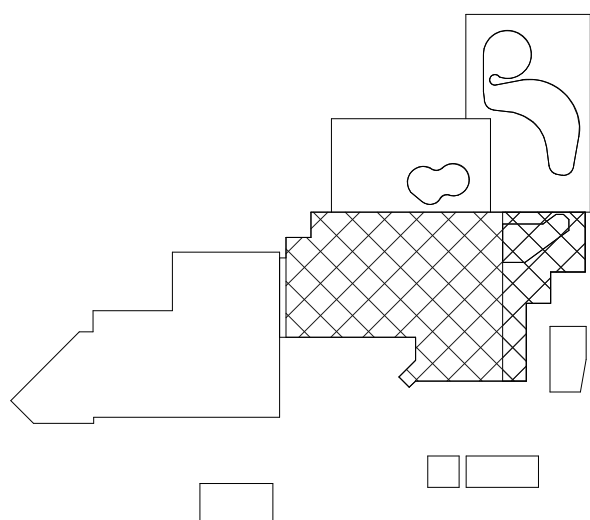
- EXISTING BUILDING
- RENOVATED AREA
- UPFIT BY OTHERS
- 1-HR RATED WALL
- 2-HR RATED WALL
- 3-HR RATED WALL

FLOOR PLAN SHEET NOTES

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KEY PLAN



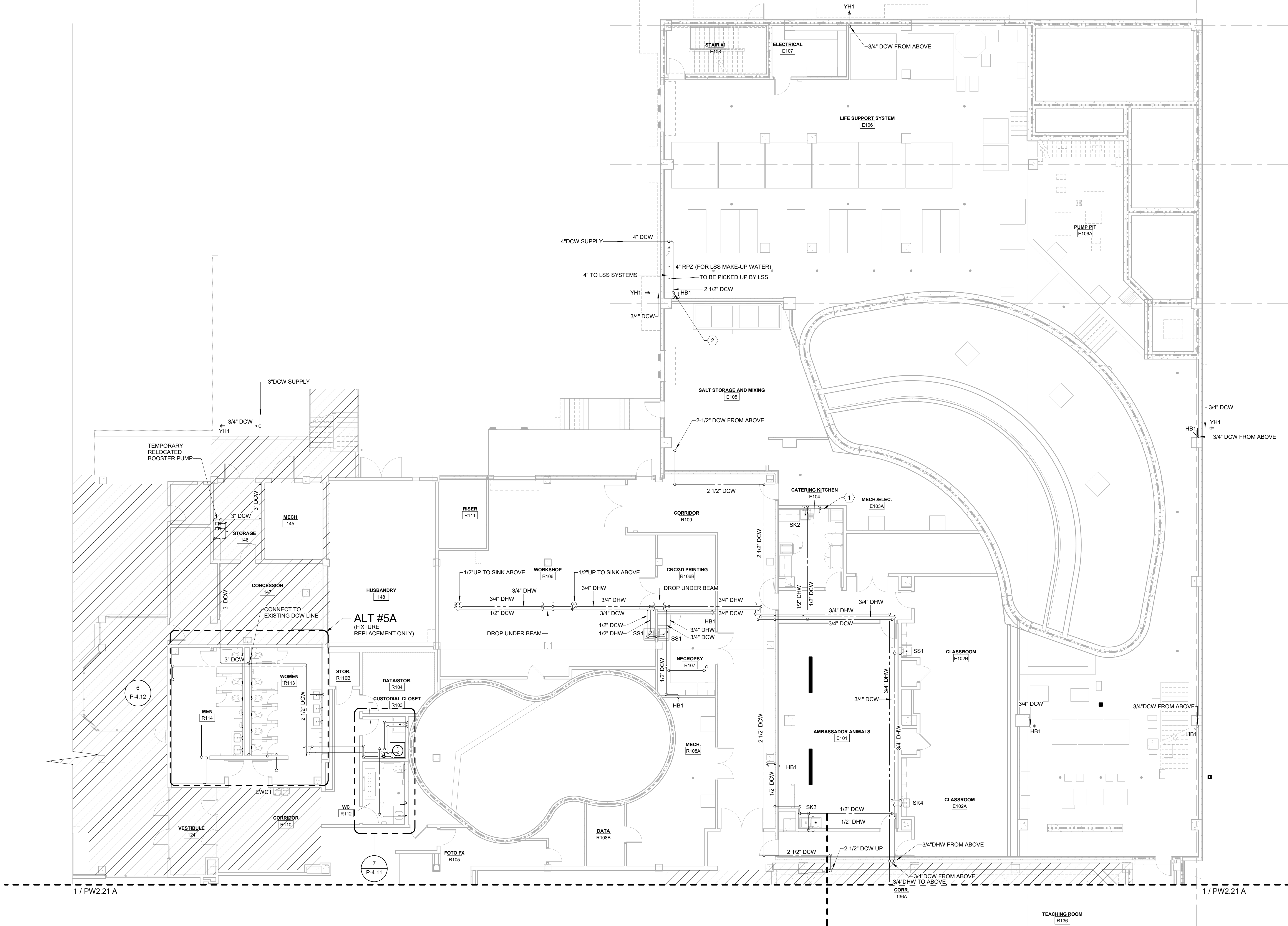
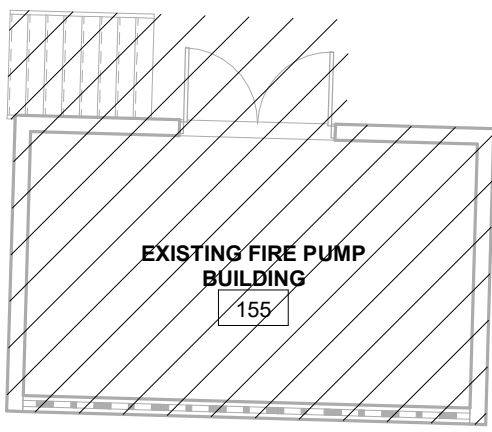
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8' 4' 0' 8'
SCALE: 1/8" = 1'-0"

1ST FLOOR - CAPE FEAR SHOALS - DOMESTIC WATER
SCALE: 1/8" = 1'-0"

KEYNOTES THIS SHEET	
1	1/2" DCW TO ICE MACHINE. CONTRACTOR MUST INSTALL INLINE FILTER AND BACKFLOW PREVENTION DEVICE MEETING ASSE 1024.
2	2-1/2" DCW UP. SEE DRAWING PW2.22B FOR CONTINUATION.



FLOOR PLAN LEGEND	
	EXISTING BUILDING
	RENOVATED AREA
	UPFIT BY OTHERS
	1-HR RATED WALL
	2-HR RATED WALL
	3-HR RATED WALL

FLOOR PLAN SHEET NOTES	
1	PLUMBING CONTRACTOR TO COORDINATE WITH OTHER TRADES PRIOR TO BEGINNING WORK.
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SZOSTAK DESIGN

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AQUARIUM
RENOVATION
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PHASE 1

SCO #17-18042-02A
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LIGHTSWITCH

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ENGINEER
DAVID M. HARRIS

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NO.	DATE	DESCRIPTION
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FIRST FLOOR PLAN -
TOUCH AND SHARK TANK -
DOMESTIC WATER

PW2.21 B

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8' 4' 0' 8'
SCALE: 1/8" = 1'-0"

1ST FLOOR - TOUCH AND SHARK TANK - DOMESTIC WATER
SCALE: 1/8" = 1'-0"

- 1

SZOSTAK DESIGN

FORT FISHER
AQUARIUM
RENOVATION
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LICENSE # P-3132

SURFACE 678, PA

LANDSCAPE ARCHITECT
215 A MORRIS STREET SUITE 150
DURHAM, NC 27701
TEL: 919.419.1199
FAX: 919.419.1689
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LICENSE # C-098

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FIRE PROTECTION ENGINEER
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WWW.CHEATHAMPA.COM
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4817 ENTERPRISE BOULEVARD SUITE 400
DURHAM, NC 27705
TEL: 919.403.9700
WWW.PALACIOCOLLABORATIVE.COM

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ENGINEER
DAVID M. HARR

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CONSTRUCTION

NO.	DATE	DESCRIPTION
1	9-8-25	BID SET

FIRST FLOOR PLAN - MAIN
ENTRY & MECH BLDG -
DOMESTIC WATER

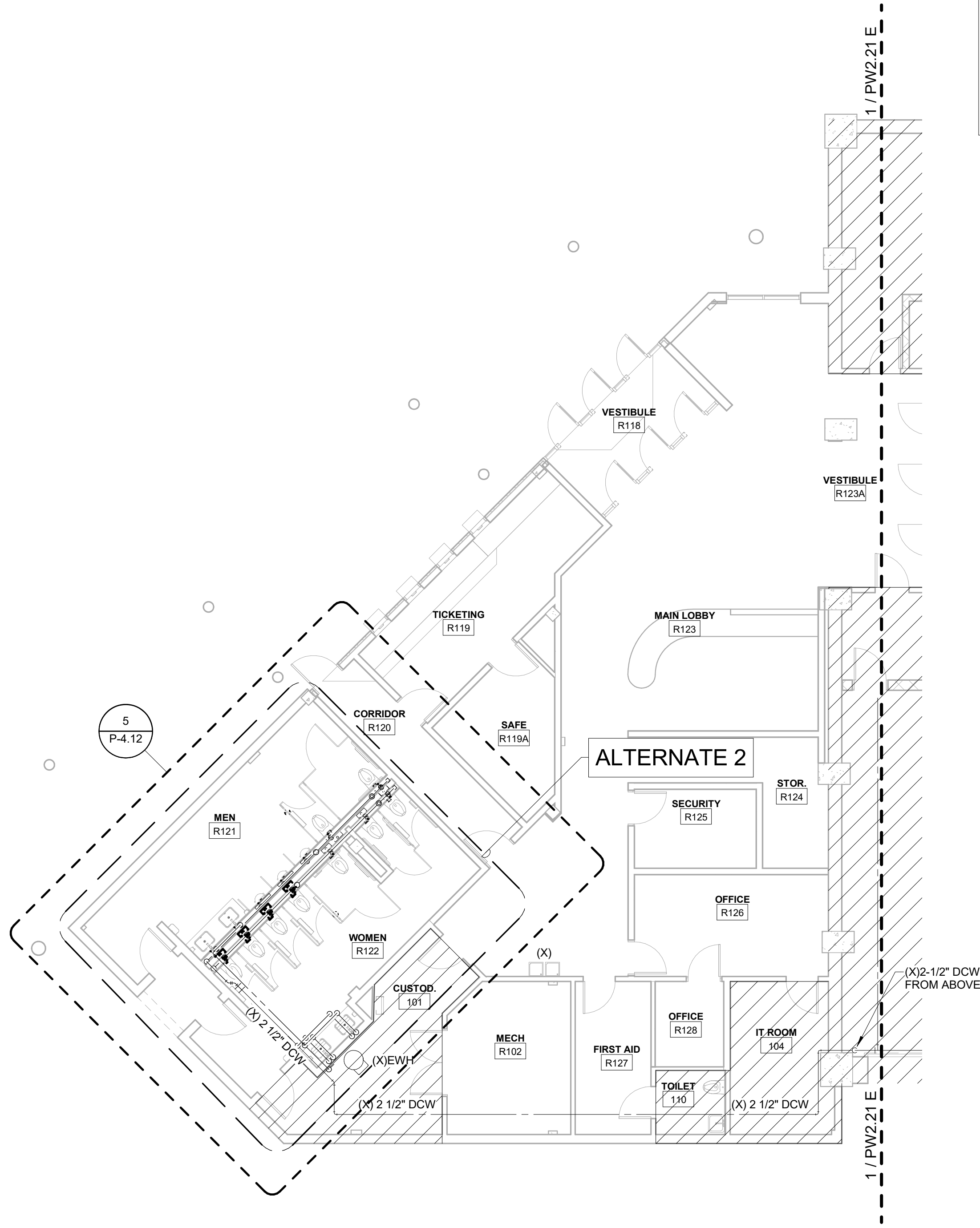
PW2.21 D

FLOOR PLAN LEGEND

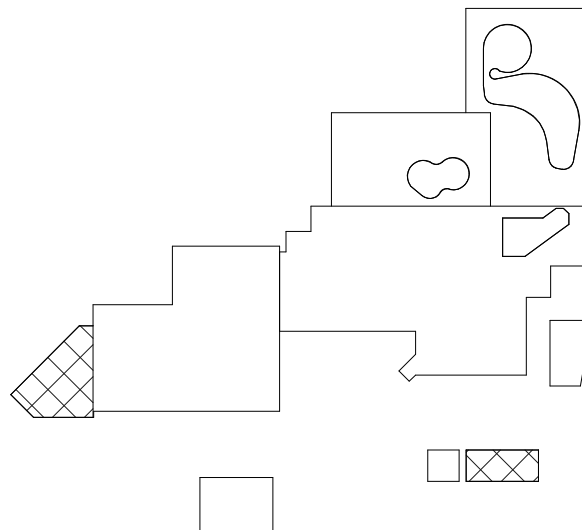
- | | |
|--|-------------------|
| | EXISTING BUILDING |
| | RENOVATED AREA |
| | UPFIT BY OTHERS |
| | 1-HR RATED WALL |
| | 2-HR RATED WALL |
| | 3-HR RATED WALL |

FLOOR PLAN SHEET NOTES

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KEY PLAN



CBHF
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2246 Yaupon Drive
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Phone: 910.791.4000
Fax: 910.791.5266
www.cbhfenr.com
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8' 4' 0' 8'
SCALE: 1/8" = 1'-0"

1ST FLOOR - MAIN ENTRY - DOMESTIC WATER
SCALE: 1/8" = 1'-0"

SZOSTAK DESIGN

FORT FISHER
AQUARIUM
RENOVATION
& EXPANSION:
PHASE 1

SCO #17-18042-02A
CODE: 42014-4G02
ITEM: 41414-4Y4A

900 LOGGERHEAD RD,
KURE BEACH, NC 28449

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LICENSE # 31679

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BEND, OR 97007
TEL: 503.433.0300
WWW.TJPEENGINEERING.COM
LICENSE # C-3505

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WWW.BENNETT-PLESS.COM
LICENSE # F-1105

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WWW.LIGHTSWITCH.NET

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SURFACE 678, PA

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FIRST FLOOR PLAN -
FRESHWATER HABITAT -
DOMESTIC WATER

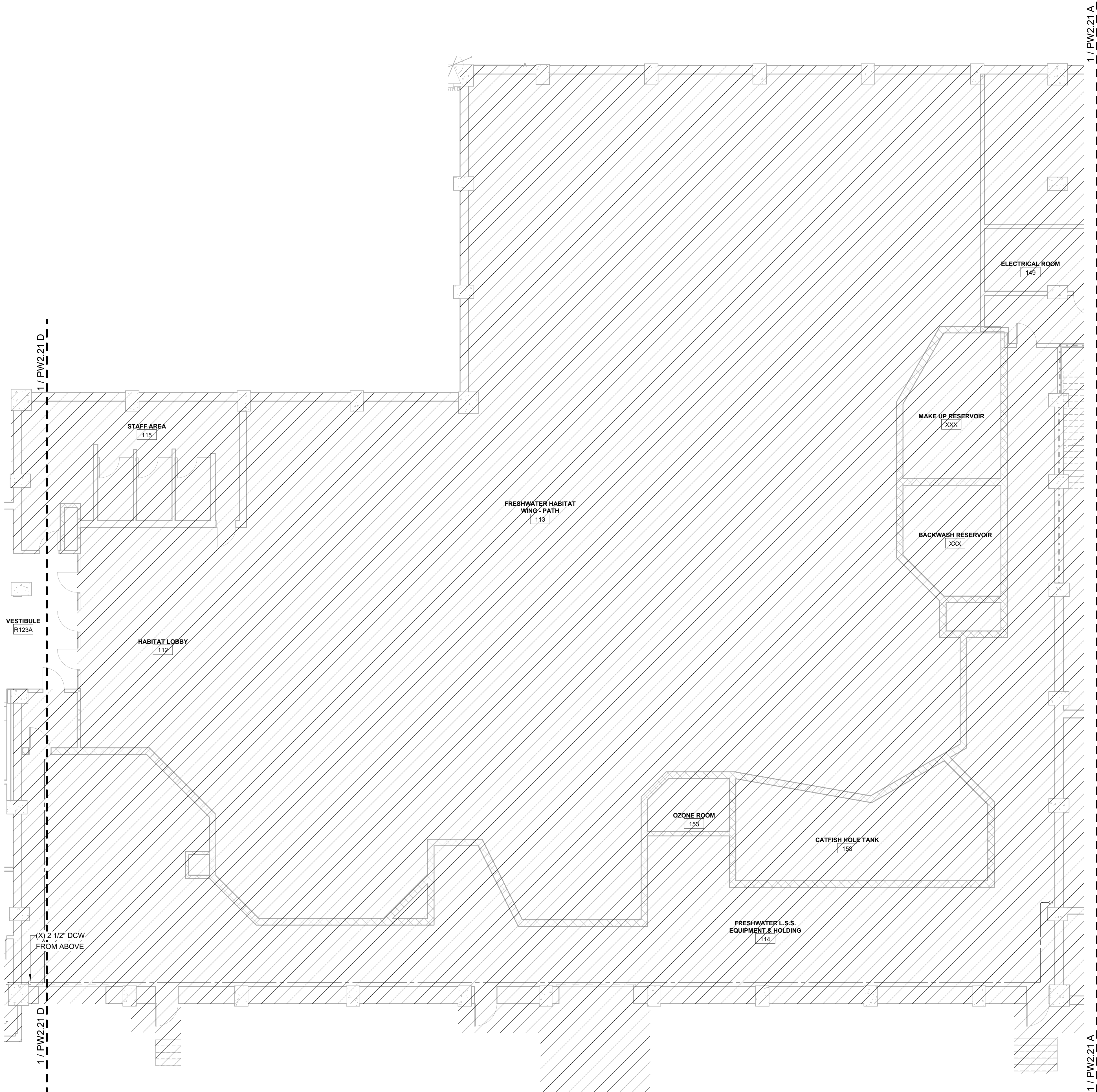
PW2.21 E

FLOOR PLAN LEGEND

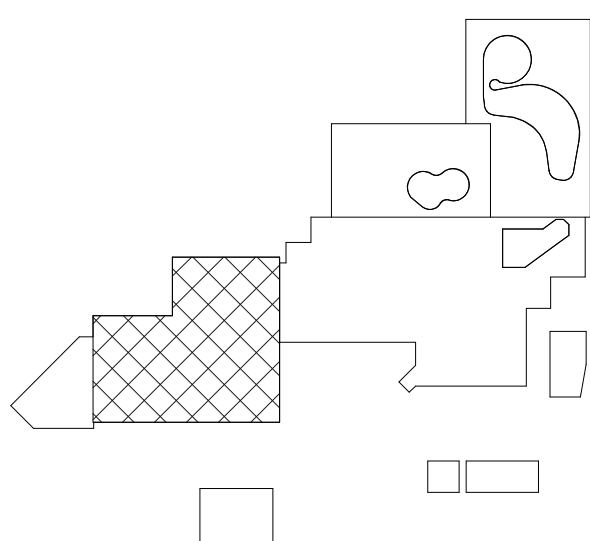
- EXISTING BUILDING
- RENOVATED AREA
- UPFIT BY OTHERS
- 1-HR RATED WALL
- 2-HR RATED WALL
- 3-HR RATED WALL

FLOOR PLAN SHEET NOTES

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8' 4' 0' 8'
SCALE: 1/8" = 1'-0"

1ST FLOOR - FRESHWATER HABITAT - DOMESTIC WATER
SCALE: 1/8" = 1'-0"

SCO #17-18042-02A
CODE: 42014-4G02
ITEM: 41414-4Y4A

900 LOGGERHEAD RD,
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TEL: 919.419.1199
FAX: 919.419.1669
WWW.SURFACE678.COM

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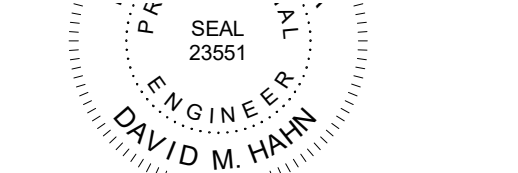
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TELE: 910.452.4210
WWW.CHEATHAMPA.COM
LICENSE # C-1073

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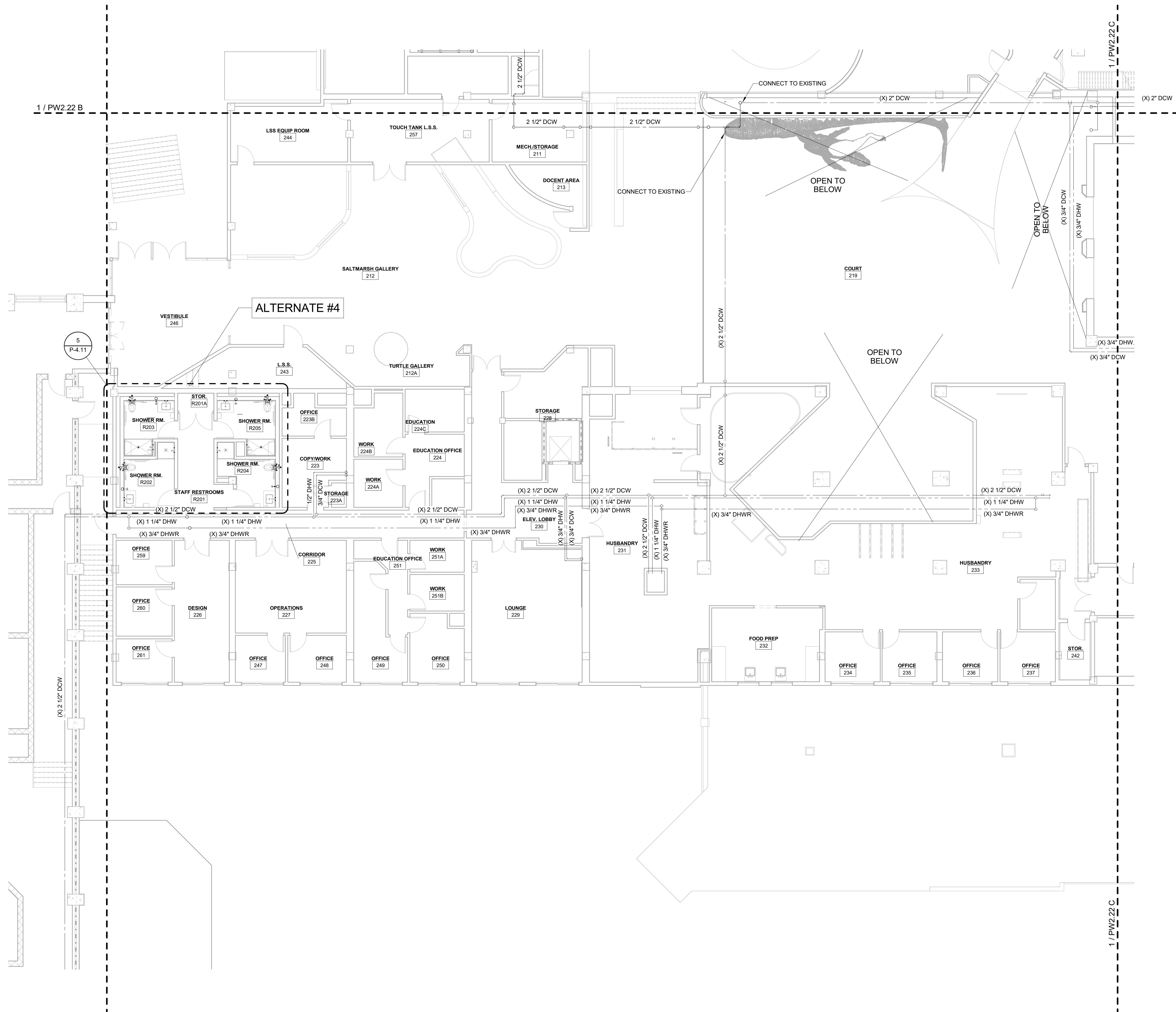
NO.	DATE	DESCRIPTION
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SECOND FLOOR PLAN -
CAPE FEAR SHOALS -
DOMESTIC WATER

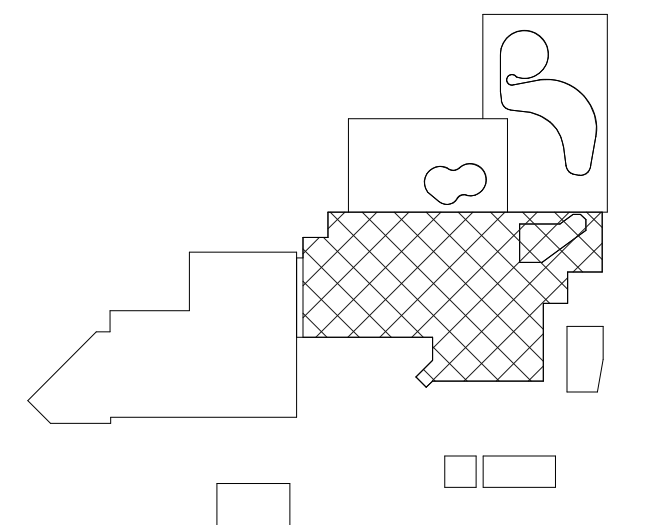
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	EXISTING BUILDING
	RENOVATED AREA
	UPFIT BY OTHERS
	1-HR RATED WALL
	2-HR RATED WALL
	3-HR RATED WALL

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Fax: 910.791.5266
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8' 4' 0' 8'



SCALE: 1/8" = 1'-0"

2ND FLOOR - CAPE FEAR SHOALS - DOMESTIC WATER
SCALE : 1/8" = 1'-0"

1

SZOSTAK DESIGN

FORT FISHER
AQUARIUM
RENOVATION
& EXPANSION:
PHASE 1

SCO #17-18042-02A
CODE: 42014-4G02
ITEM: 41414-4Y4A

900 LOGGERHEAD RD,
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CHAPEL HILL, NORTH CAROLINA 27514
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LIFE SUPPORT SYSTEMS ENGINEER
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WWW.TJPEENGINEERING.COM
LICENSE # C-3505

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MFP ENGINEER
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LICENSE # P-6564

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10665 INDIANA COURT
RANCHO CUCAMONGA, CA 91730
TEL: 909.360.7000
WWW.LIGHTSWITCH.NET

TUNSTALL CONSULTING ENGINEERS PLLC

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WILMINGTON, NC 28412
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FAX: 910.343.9404
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SURFACE 678, PA

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215 MORRIS STREET SUITE 150
DURHAM, NC 27701
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FAX: 919.419.1688
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LICENSE # C-3086

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PALACIO COLLABORATIVE

COST ESTIMATOR
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WWW.PALACIOCOLLABORATIVE.COM

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ENGINEER
DAVID M. HARRIS

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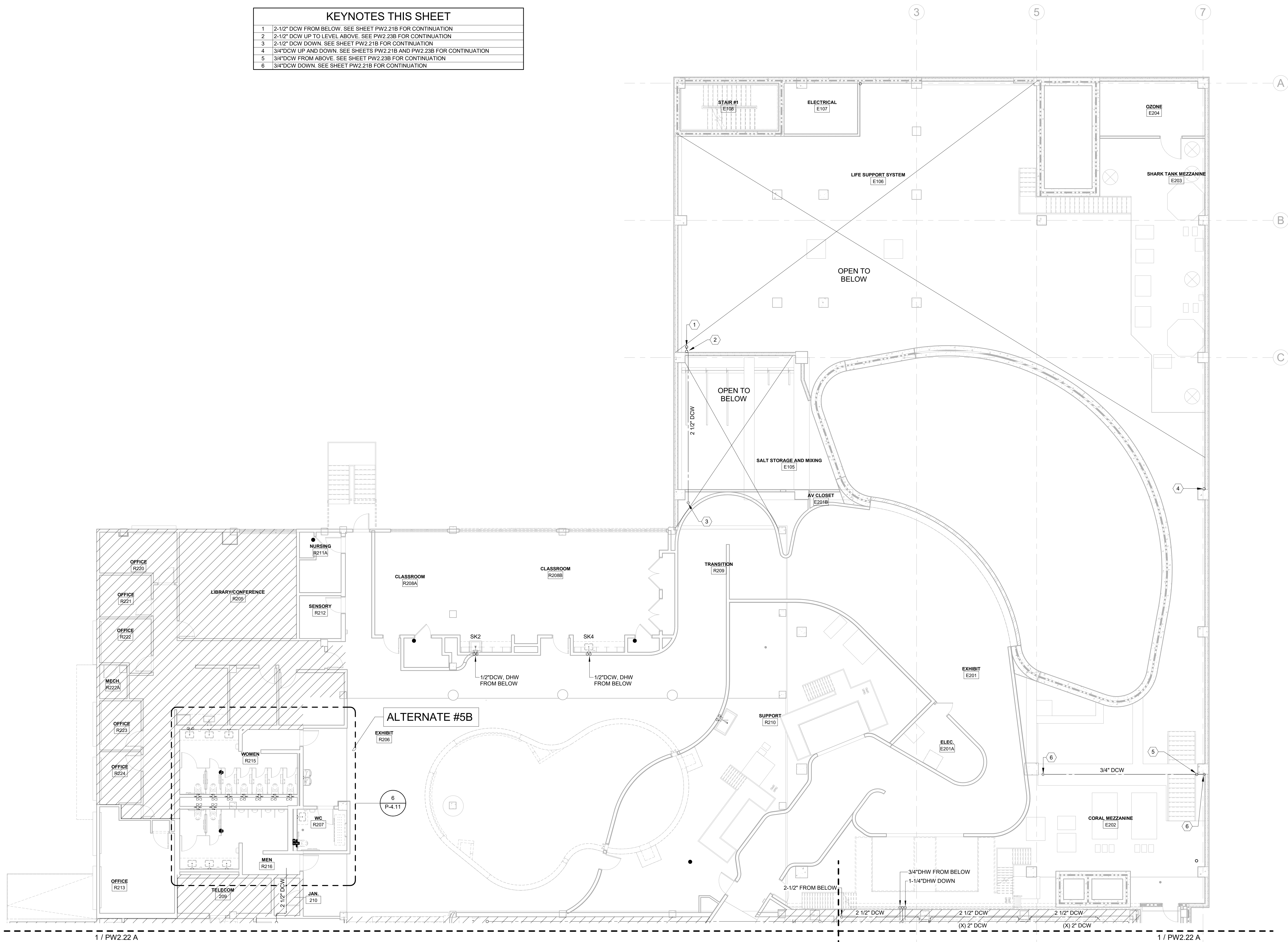
NO.	DATE	DESCRIPTION
1	9-8-25	BID SET

SECOND FLOOR PLAN -
TOUCH AND SHARK TANK -
DOMESTIC WATER

PW2.22 B

KEYNOTES THIS SHEET

1	2-1/2" DCW FROM BELOW. SEE SHEET PW2.21B FOR CONTINUATION
2	2-1/2" DCW UP TO LEVEL ABOVE. SEE PW2.23B FOR CONTINUATION
3	2-1/2" DCW DOWN. SEE SHEET PW2.21B FOR CONTINUATION
4	3/4" DCW UP AND DOWN. SEE SHEETS PW2.21B AND PW2.23B FOR CONTINUATION
5	3/4" DCW FROM ABOVE. SEE SHEET PW2.23B FOR CONTINUATION
6	3/4" DCW DOWN. SEE SHEET PW2.21B FOR CONTINUATION



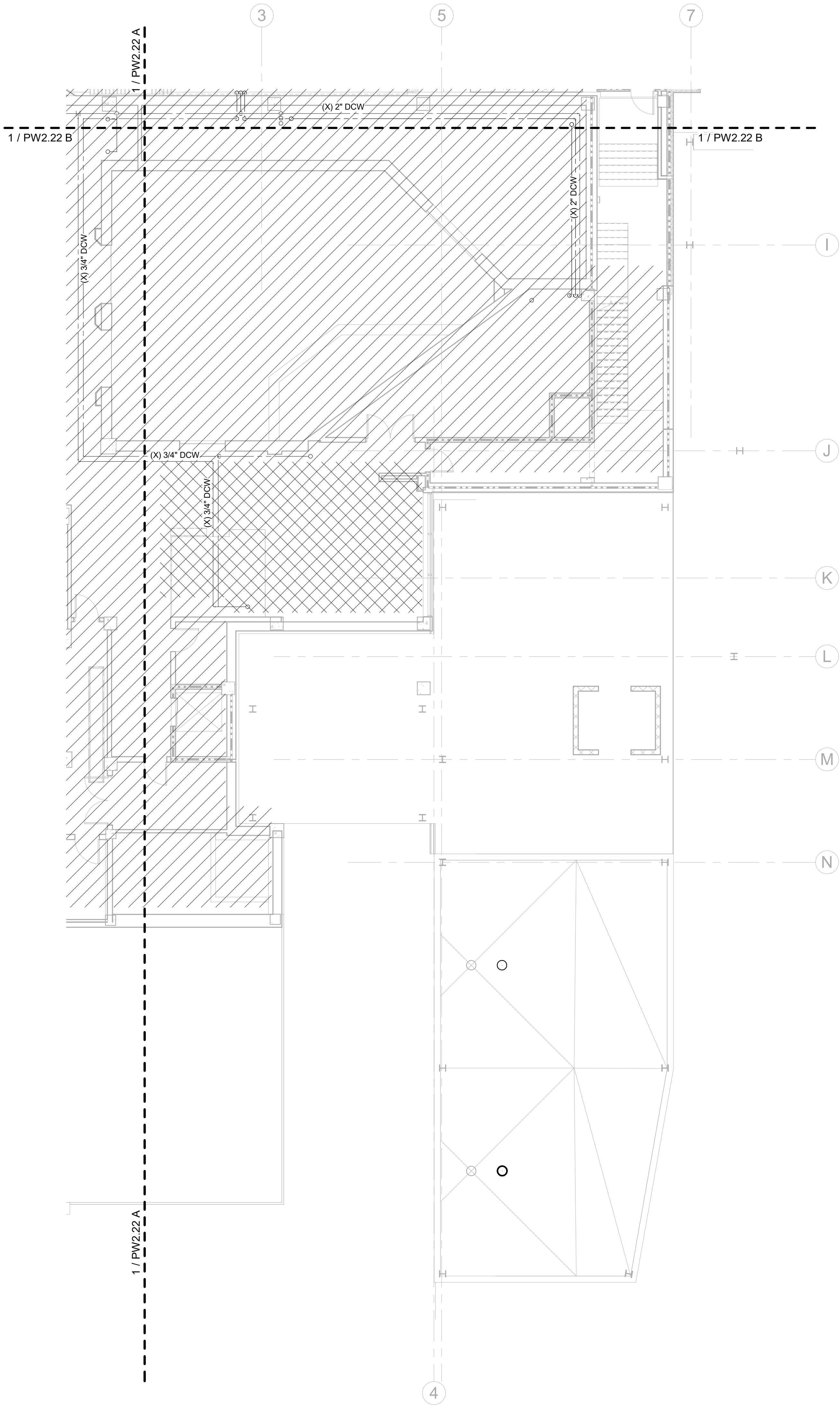
KEY PLAN

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8' 4' 0' 8'
SCALE: 1/8" = 1'-0"

2ND FLOOR - TOUCH AND SHARK TANK - DOMESTIC WATER
SCALE: 1/8" = 1'-0"



FLOOR PLAN LEGEND	
	EXISTING BUILDING
	RENOVATED AREA
	UPFIT BY OTHERS
	1-HR RATED WALL
	2-HR RATED WALL
	3-HR RATED WALL

- FLOOR PLAN SHEET NOTES**
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SZOSTAK DESIGN

FORT FISHER AQUARIUM RENOVATION & EXPANSION: PHASE 1

SCO #17-18042-02A
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900 LOGGERHEAD RD,
KURE BEACH, NC 28449

NORTH CAROLINA DEPT. OF
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SZOSTAK DESIGN, INC.

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WWW.SZOSTAKDESIGN.COM
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LICENSE # F-1105

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LICENSE # P-6564

LIGHTSWITCH

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WWW.LIGHTSWITCH.NET

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LICENSE # C-096

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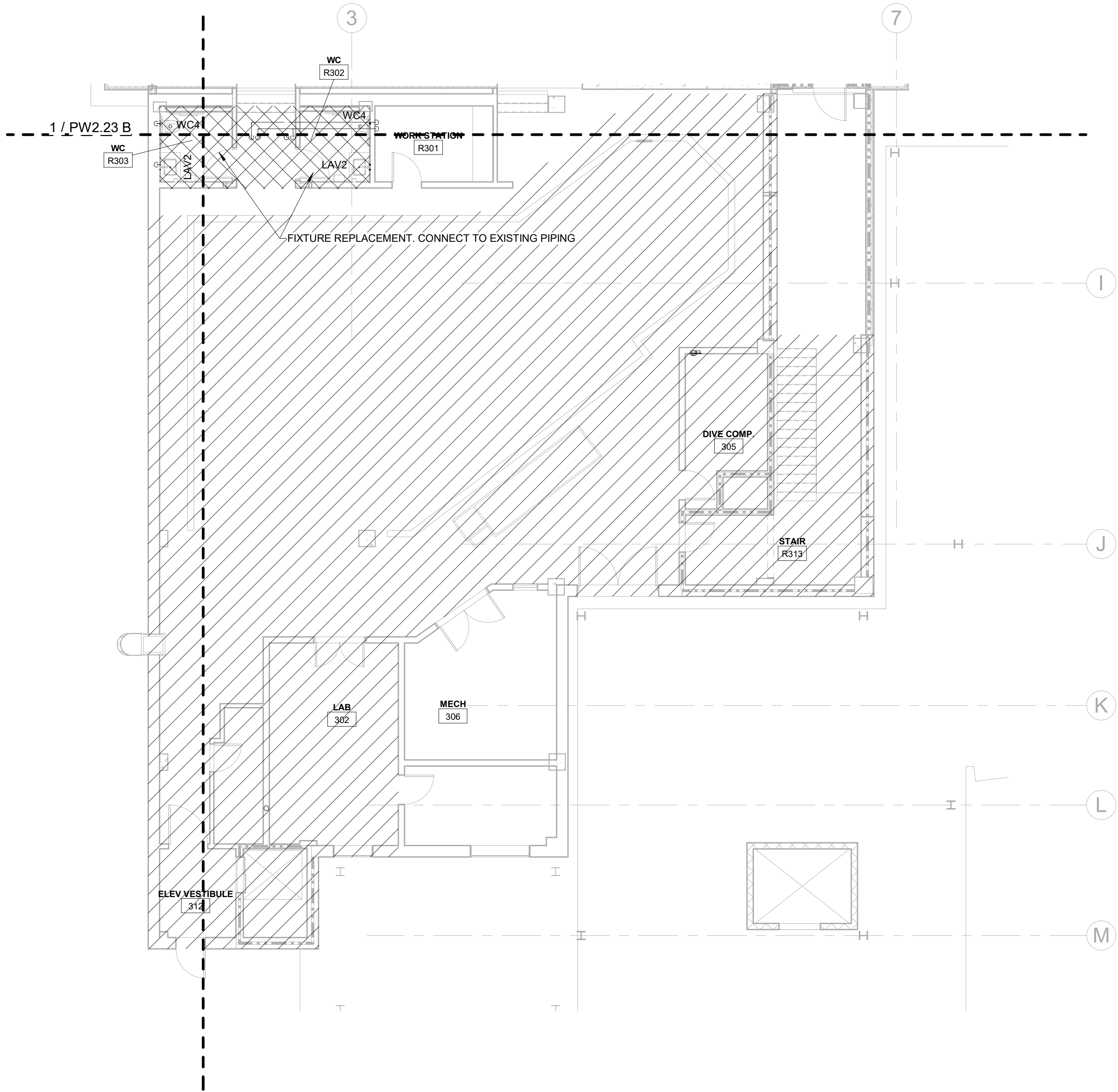
SECOND FLOOR PLAN -
SOUTHEAST WING -
DOMESTIC WATER

PW2.22 C

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8' 4' 0' 8'
SCALE: 1/8" = 1'-0"

2ND FLOOR - SOUTHEAST WING - DOMESTIC WATER
SCALE: 1/8" = 1'-0"



FLOOR PLAN LEGEND	
	EXISTING BUILDING
	RENOVATED AREA
	UPFIT BY OTHERS
	1-HR RATED WALL
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	3-HR RATED WALL

- FLOOR PLAN SHEET NOTES**
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- SZOSTAK DESIGN, INC.**
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TEL: 910.343.9433
FAX: 910.343.9404
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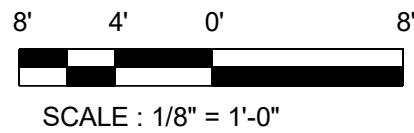
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NO.	DATE	DESCRIPTION
1	9-8-25	BID SET

THIRD FLOOR PLAN -
SOUTHEAST WING -
DOMESTIC WATER

PW2.23 A

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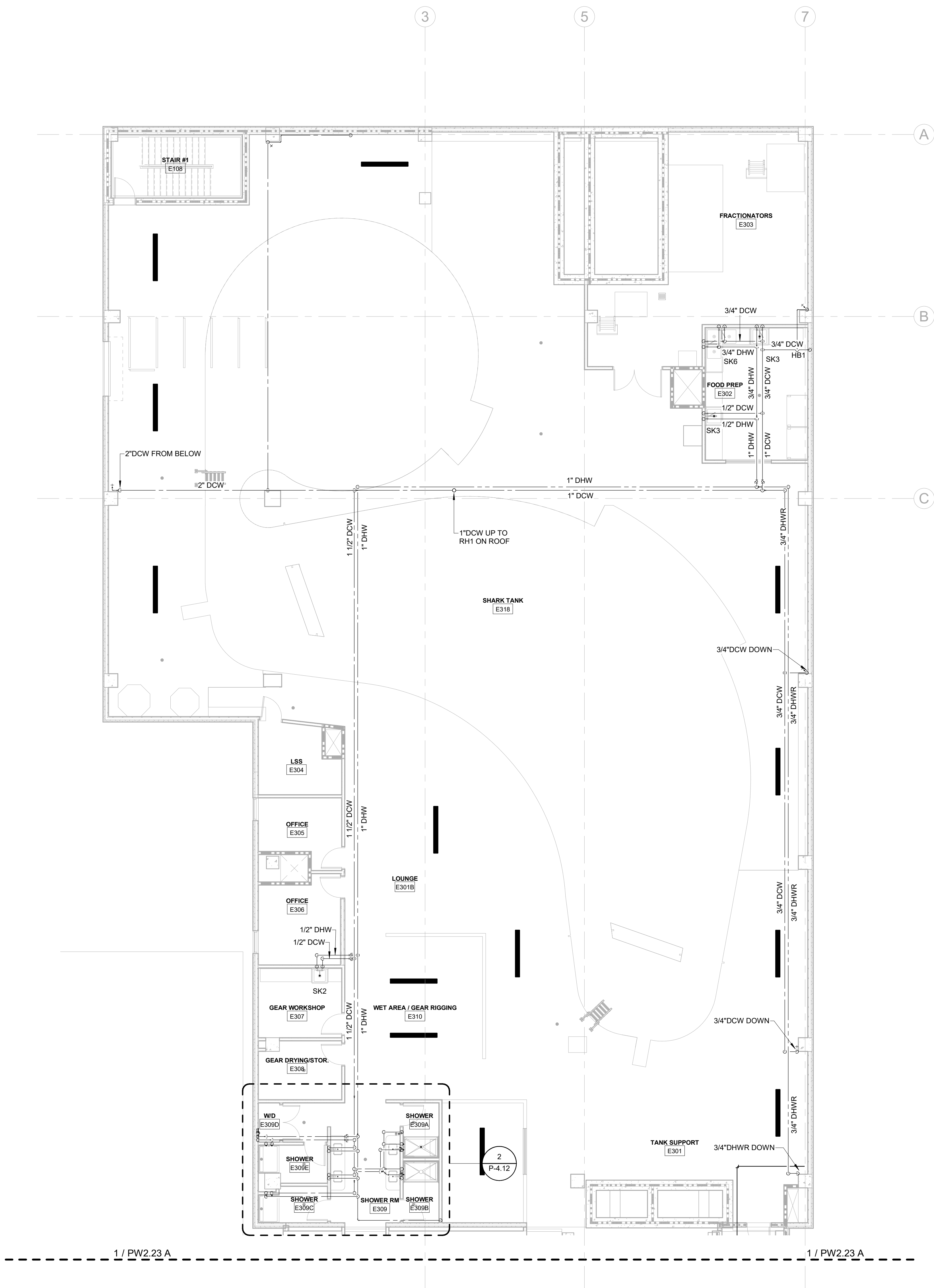
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THIRD FLOOR PLAN -
SHARK TANK - DOMESTIC
WATER

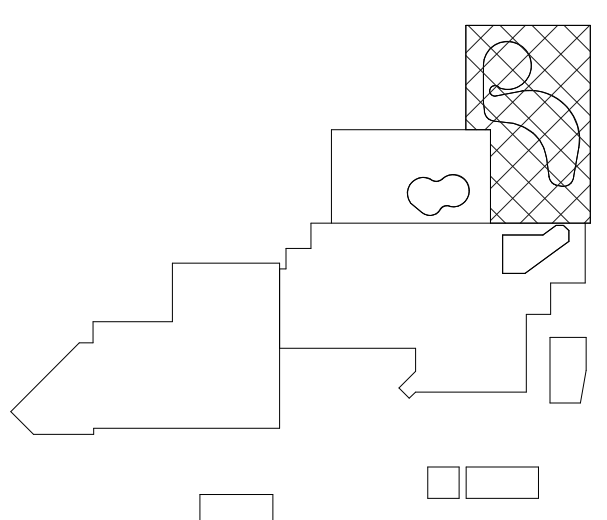
PW2.23 B

FLOOR PLAN SHEET NOTES

1. PLUMBING CONTRACTOR TO COORDINATE WITH OTHER TRADES PRIOR TO BEGINNING WORK.
2. REFER TO ARCHITECTURAL DRAWINGS FOR RATED ASSEMBLY UL NUMBERS (WALLS, FLOOR / CEILING, ETC.)
3. DRAWINGS: DRAWINGS ARE DIAGRAMMATIC AND MAY NOT COMPLETELY DESCRIBE EVERY DETAIL OF THE INSTALLATION. HOWEVER, CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL SYSTEMS INCLUDING ALL REQUIRED EQUIPMENT AND ACCESSORIES TO OBTAIN FULLY FUNCTIONING PLUMBING SYSTEMS.
4. EQUIPMENT LOCATIONS: DETERMINE EXACT EQUIPMENT AND MATERIALS LOCATIONS TO PROVIDE BEST ARRANGEMENT AND TO FACILITATE PROPER MAINTENANCE AND SERVICING OF EQUIPMENT.
5. LISTING AND LABELING: ALL EQUIPMENT SHALL BE LABELED OR LISTED BY UL OR OTHER APPROVED TESTING AGENCY WHERE REQUIRED.

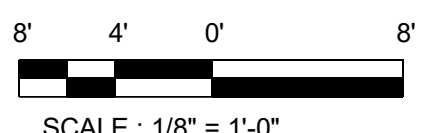


KEY PLAIN



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TANK - DOMESTIC WATER

1

KEYNOTES THIS SHEET	
1	INSTALL SHUTOFF VALVE IN WALL WITH WALL MOUNTED ACCESS HATCH
2	HAMMER ARRESTOR, P.D.1, SIZE "D"
3	<varies>
4	2-1/2" DCW FROM BELOW
5	HAMMER ARRESTOR, P.D.1, SIZE "B"
6	INSTALL BRANCH VALVE ABOVE CEILING
7	TRAP PRIMER VALVE

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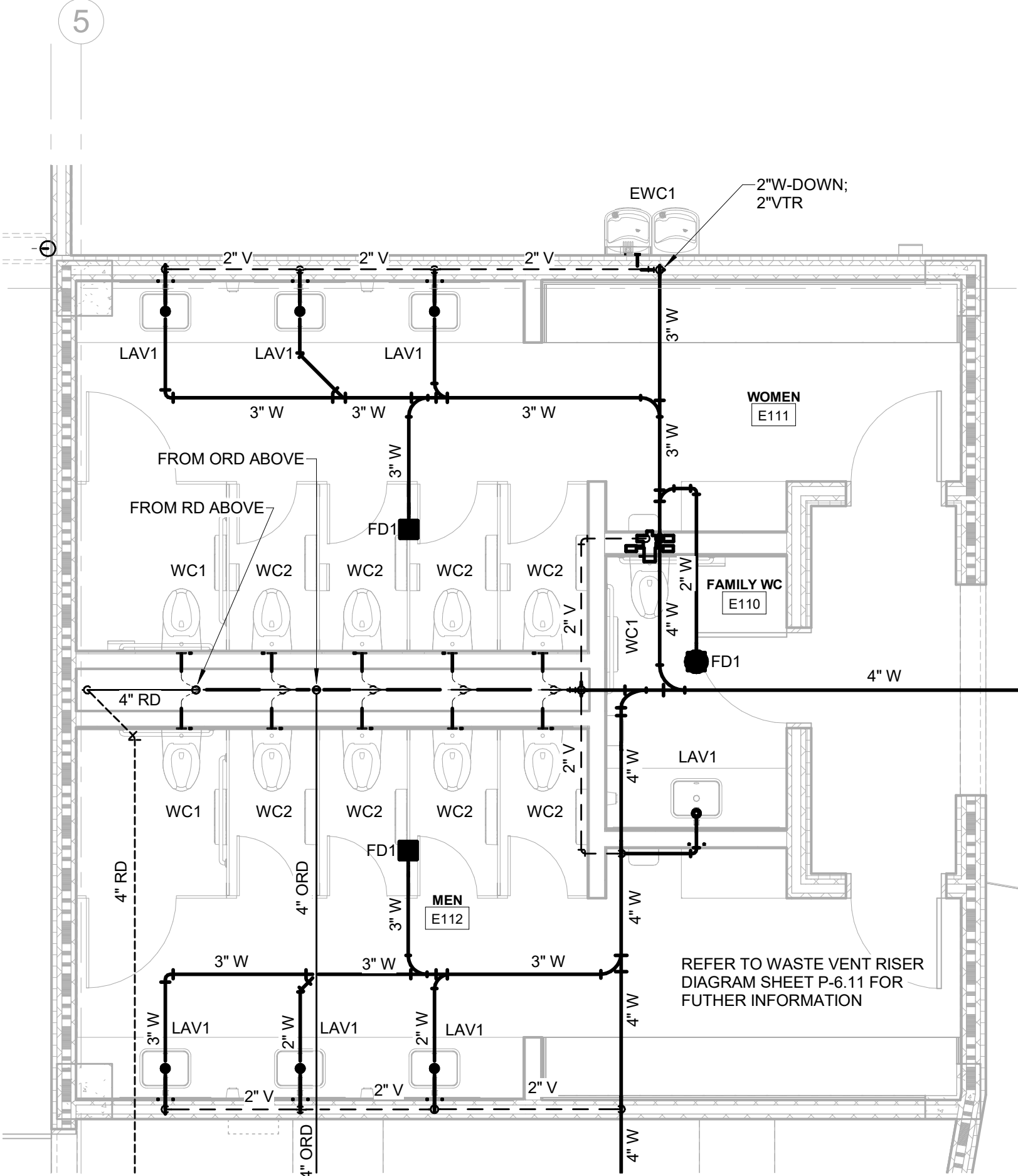
ENLARGED PLANS

P-4.11

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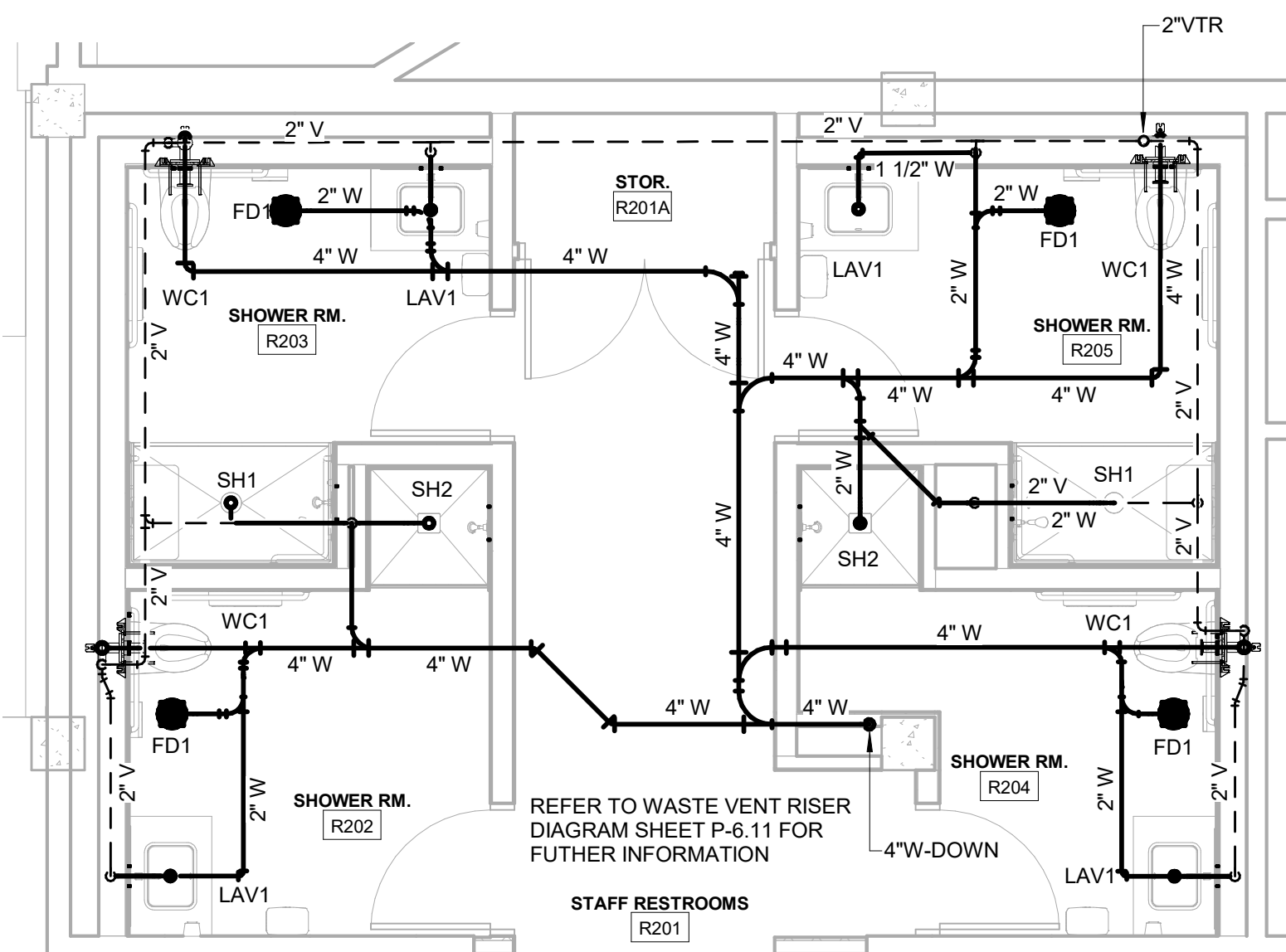
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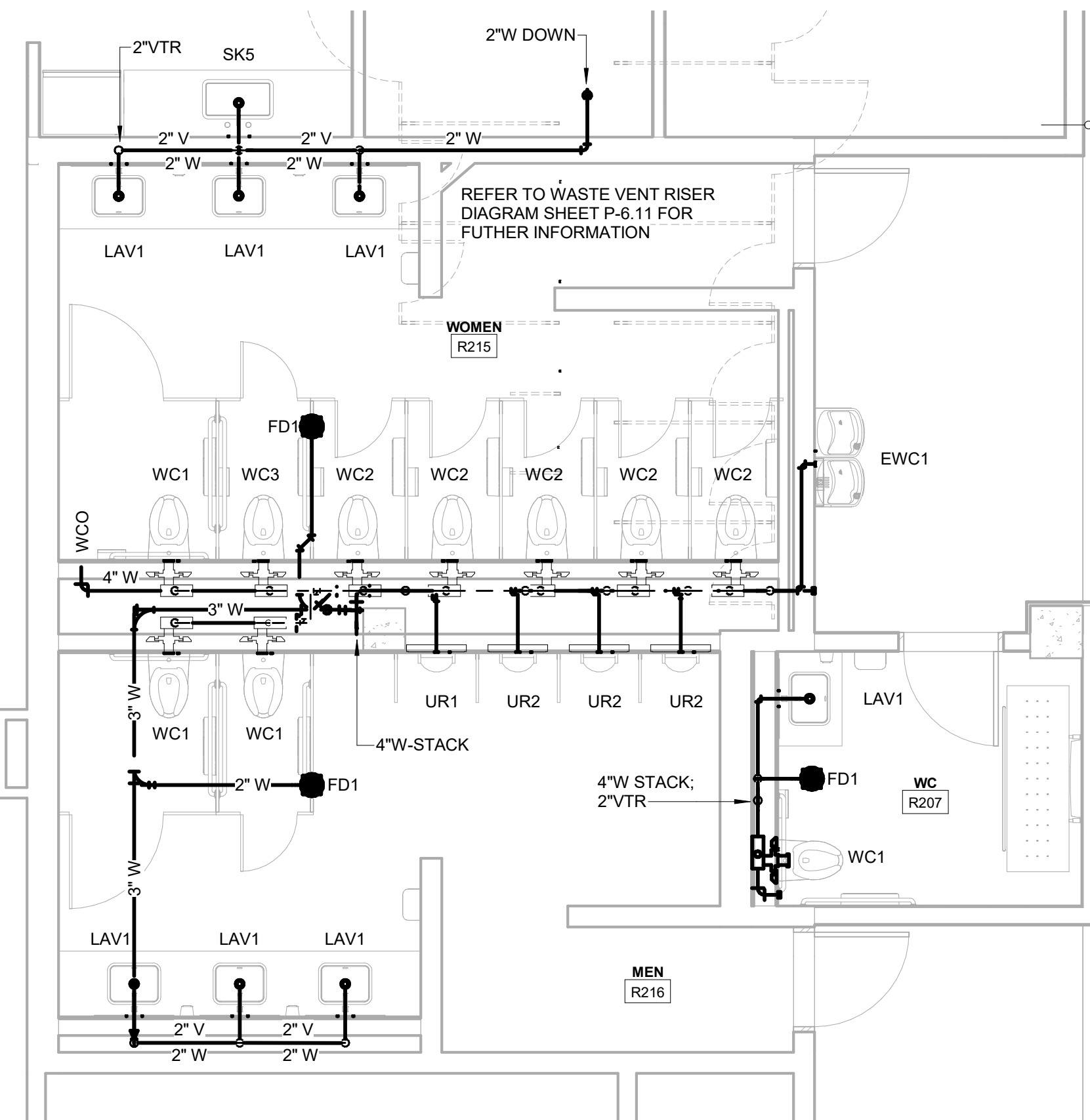
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SCALE: 1/4" = 1'-0"

1



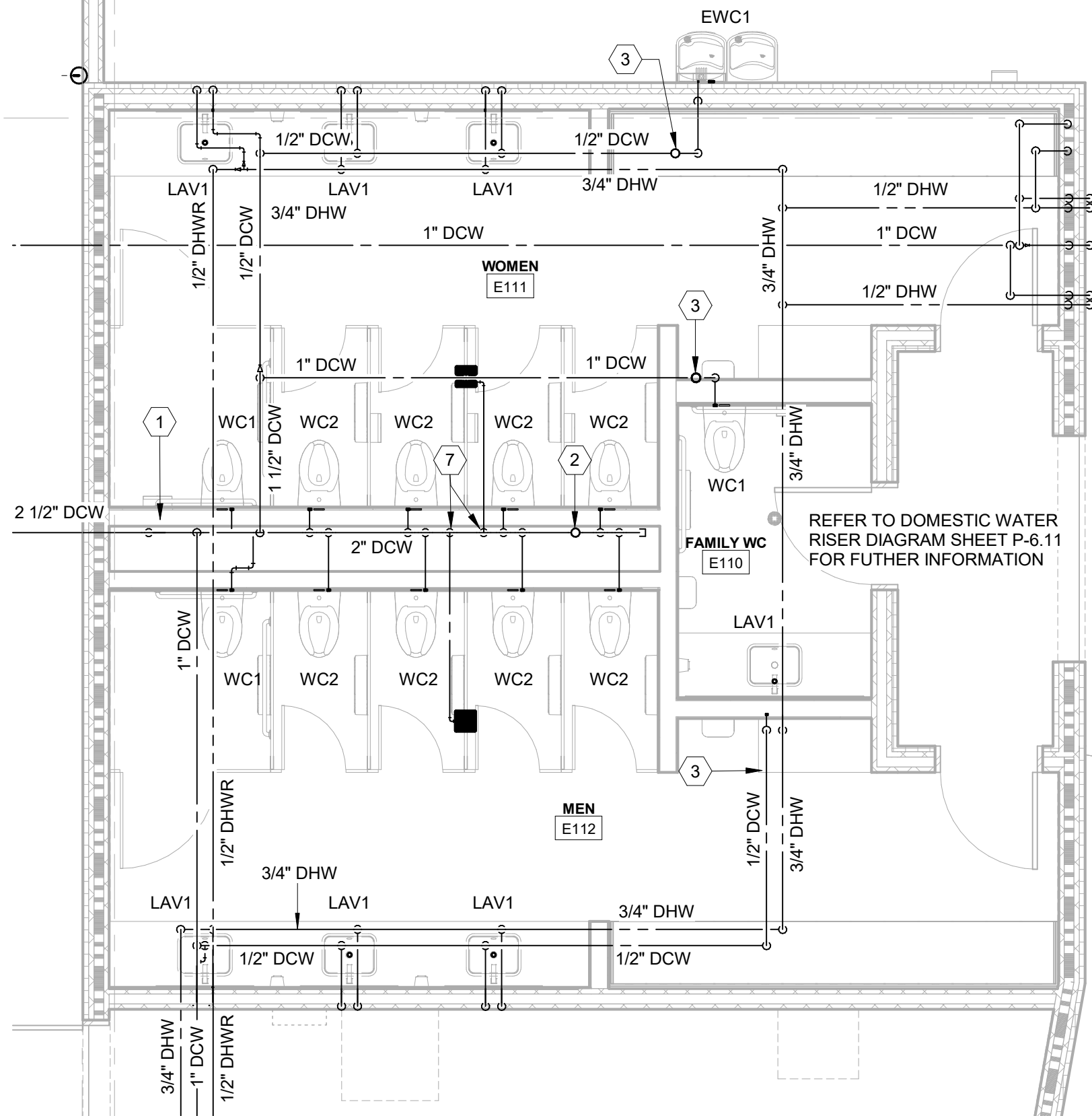
TOILETS R201 ENLARGED WASTE-VENT PLAN
SCALE: 1/4" = 1'-0"

2



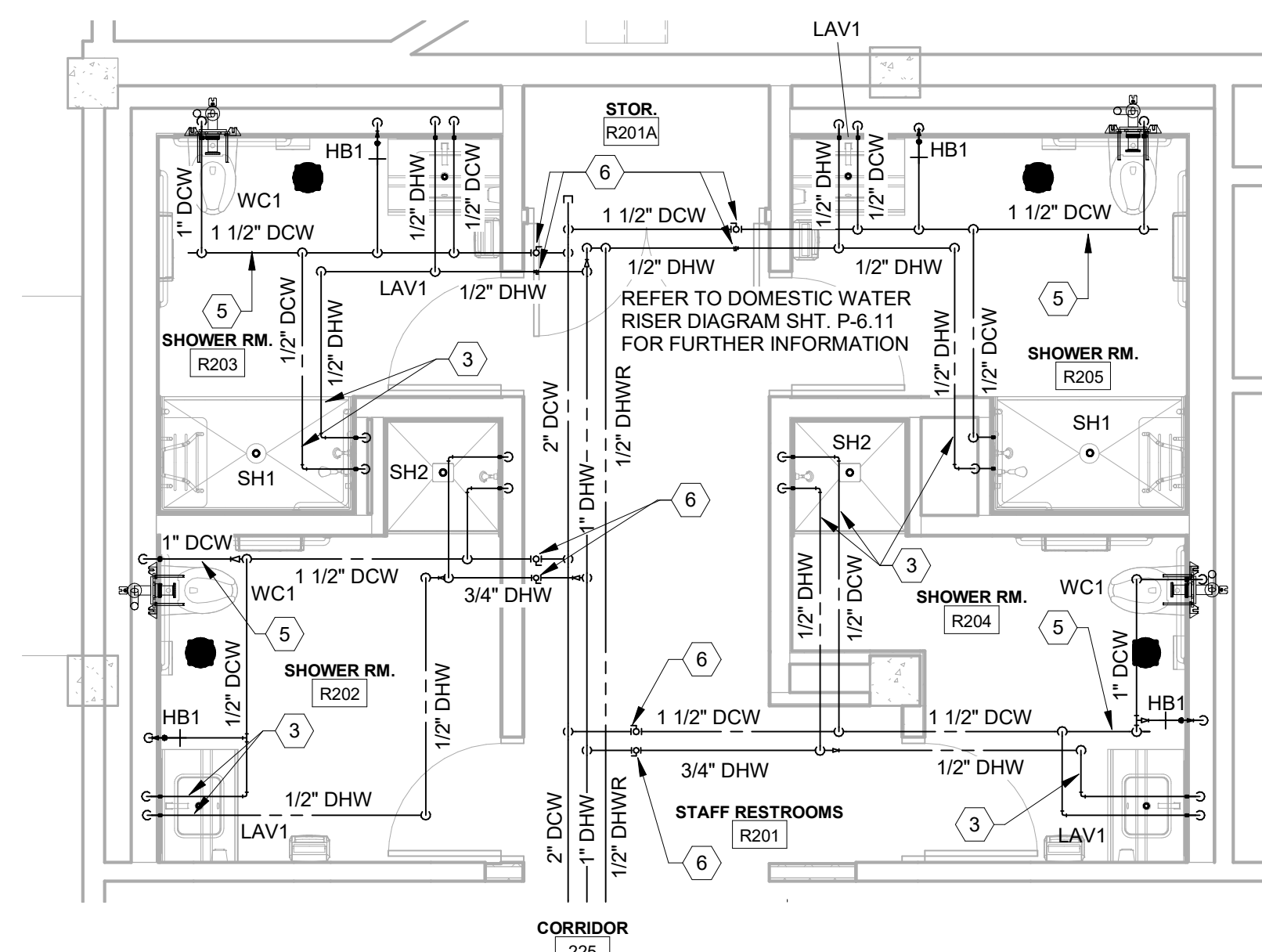
TOILETS R215-R216 ENLARGED WASTE-VENT PLAN
SCALE: 1/4" = 1'-0"

3



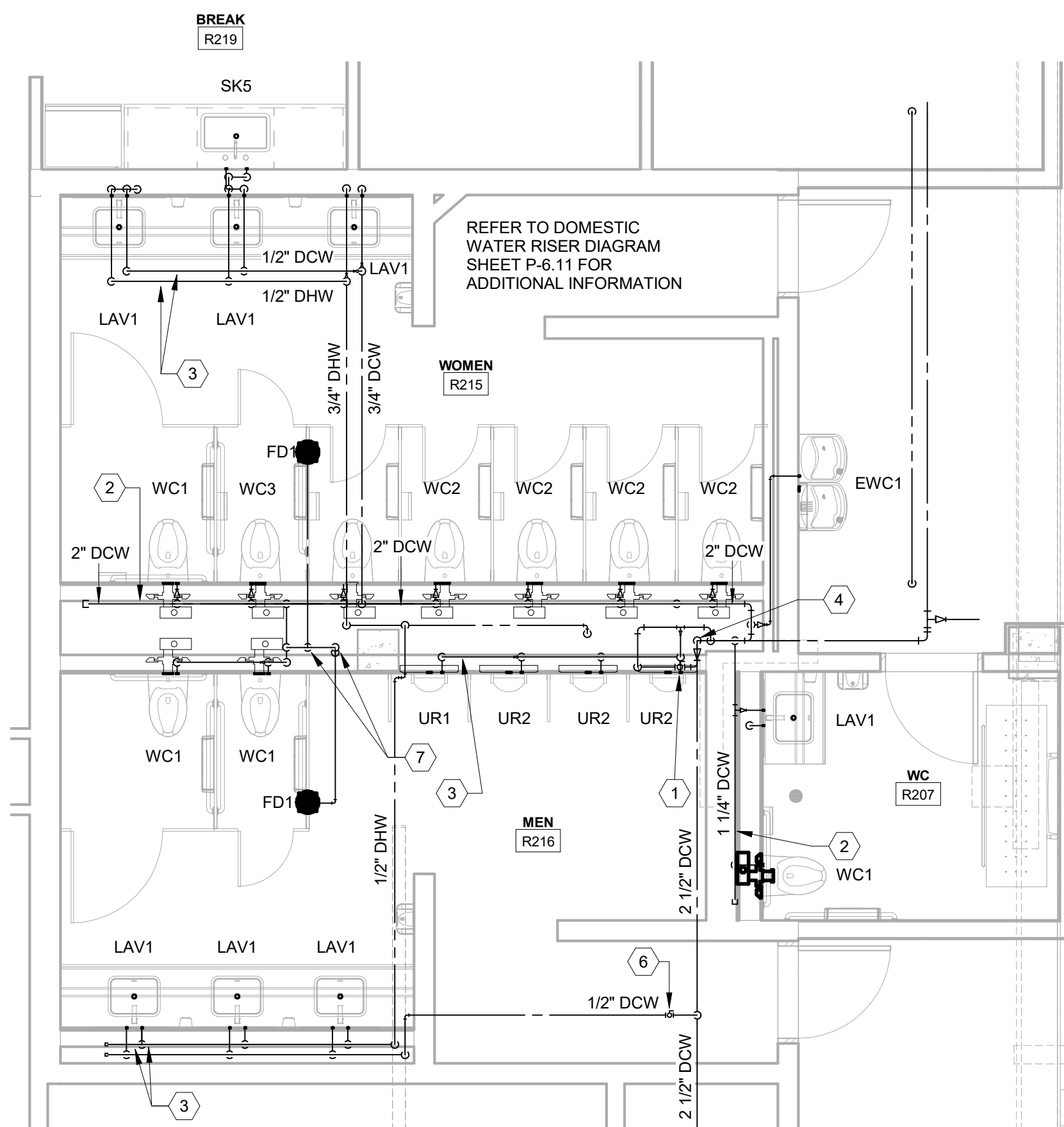
TOILETS E111/E112 ENLARGED DOMESTIC WATER PLAN
SCALE: 1/4" = 1'-0"

4



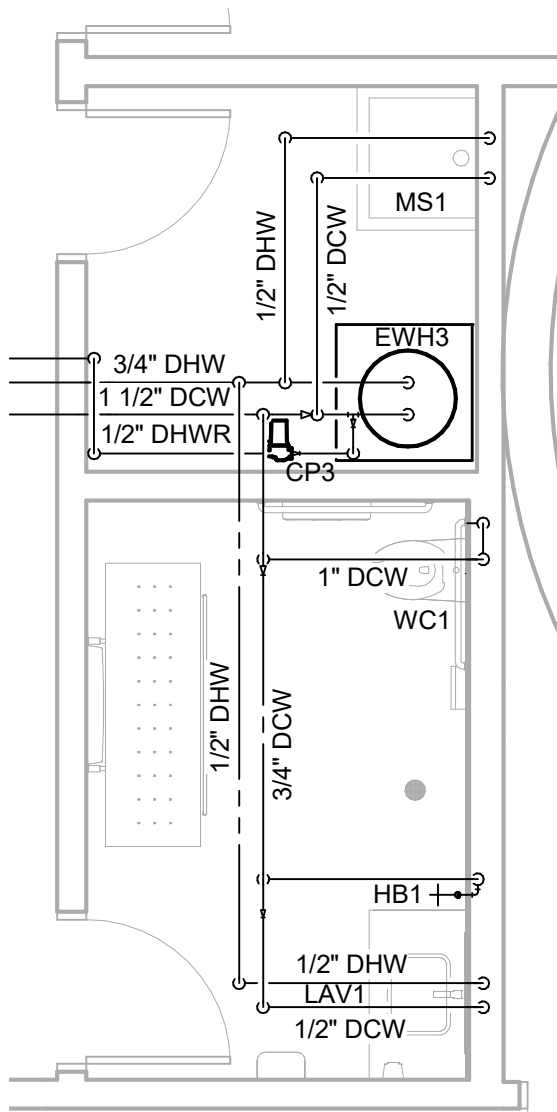
STAFF TOILETS R201 ENLARGED DOMESTIC WATER PLAN
SCALE: 1/4" = 1'-0"

5



TOILETS R215-216 ENLARGED DOMESTIC WATER PLAN
SCALE: 1/4" = 1'-0"

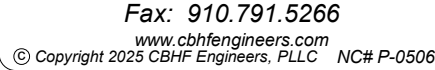
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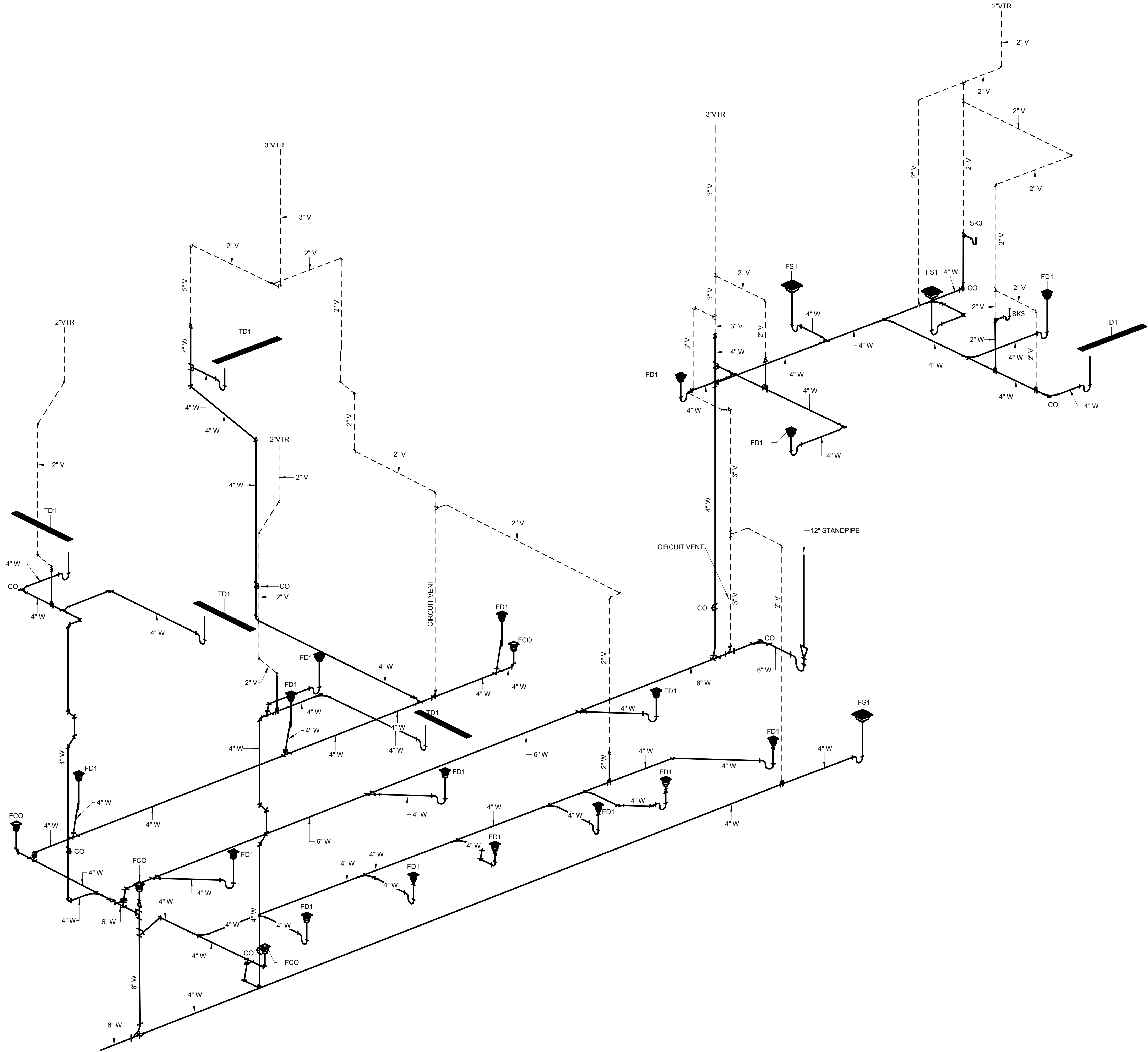


TOILET R112 ENLARGED DOMESTIC WATER PLAN
SCALE: 1/4" = 1'-0"

7

P-5.11



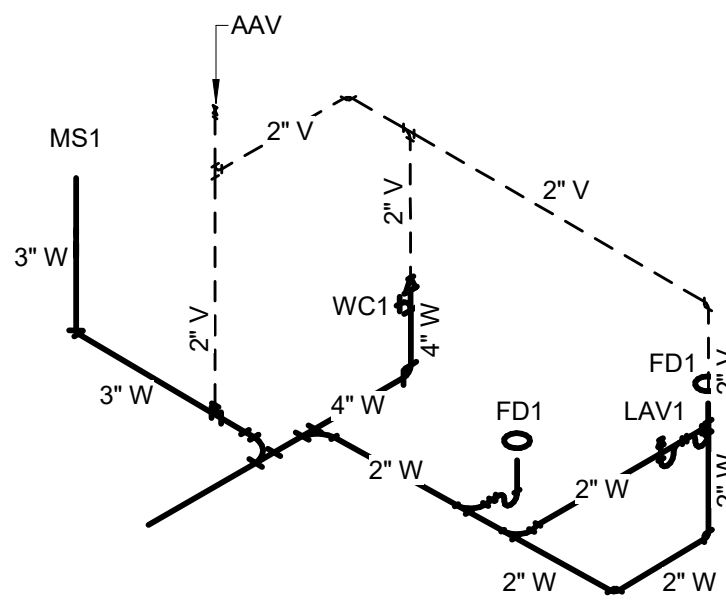


SHARK TANK WASTE-VENT RISER DIAGRAM
SCALE : NO SCALE

1

TOILET R112 WASTE-VENT RISER DIAGRAM
SCALE : NO SCALE

2



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PLUMBING RISER
DIAGRAMS

P-6.12

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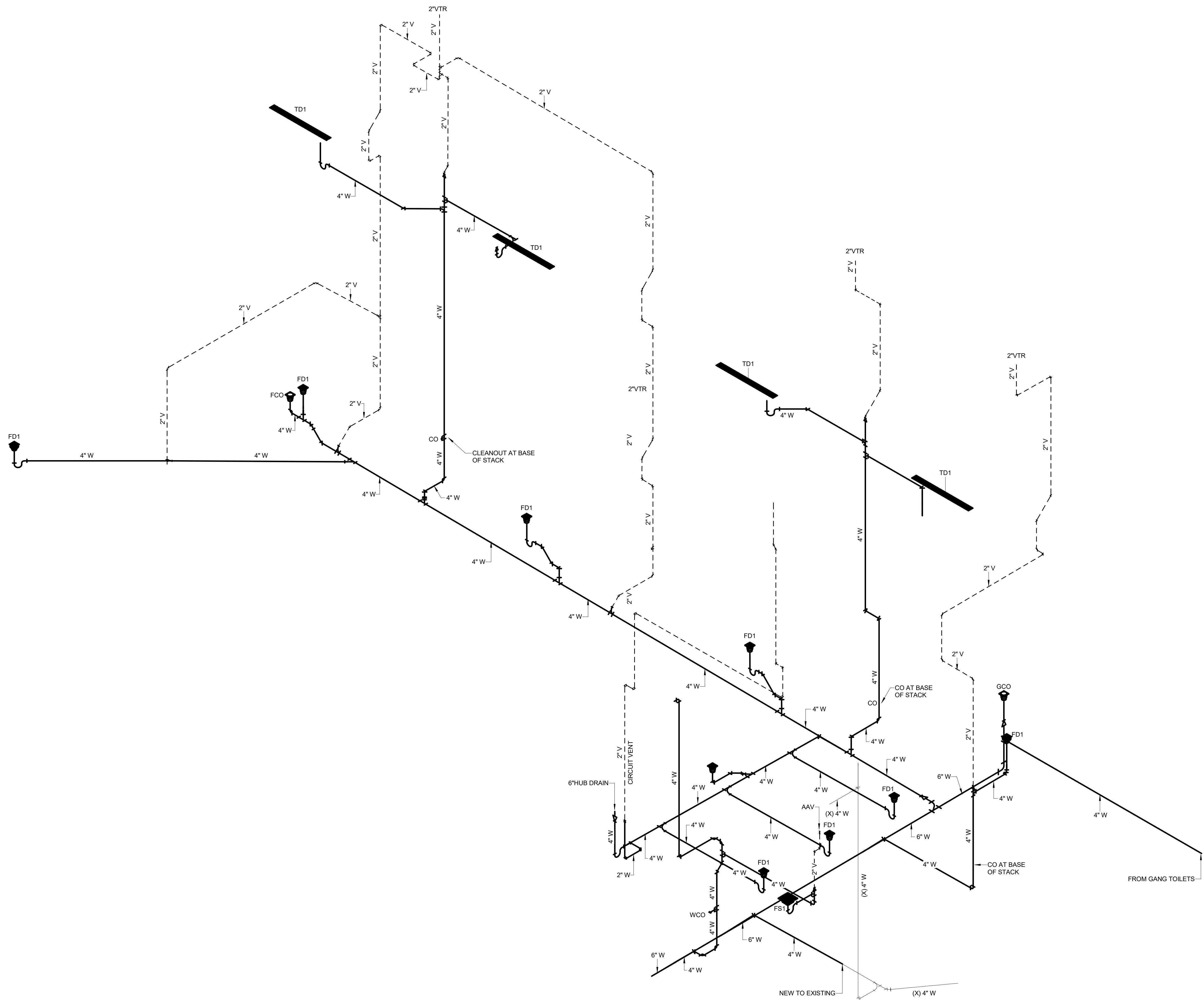
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PLUMBING RISER DIAGRAMS

P-6.13



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EAST SHARK TANK WASTE VENT RISER DIAGRAM

SCALE : NO SCALE

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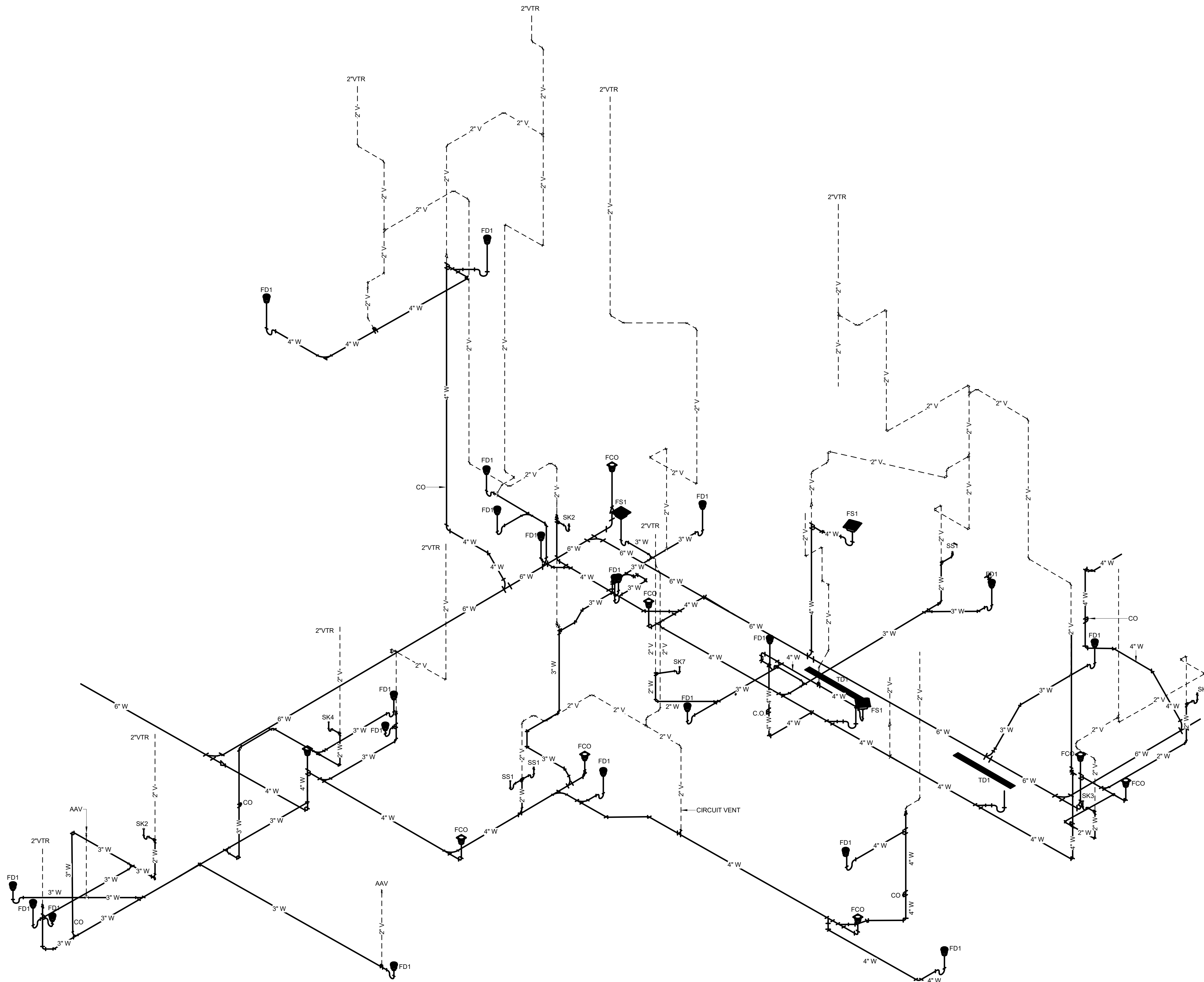


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P-6.14

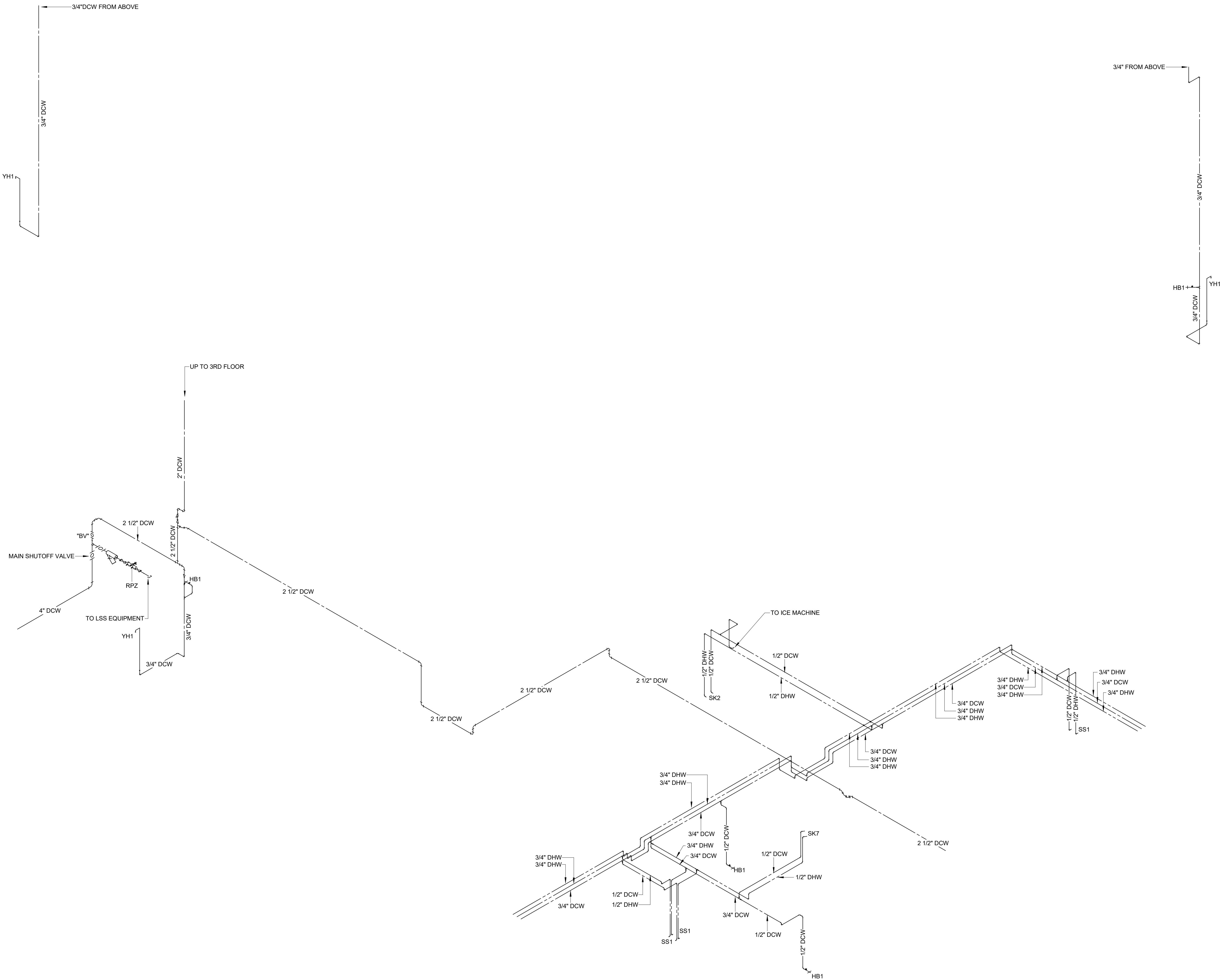


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Ambassador Animals Waste Vent Riser Diagram

SCALE :



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FIRST FLOOR SHARK TANK DOMESTIC WATER RISER DIAGRAM - "A"

SCALE:

1

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2246 YAUPOIN DRIVE
WILMINGTON, NC 28401
TEL: 910.791.4000
FAX: 910.791.5566
WWW.CBHFENGINEERS.COM
LICENSE # P-0554

LIGHTSWITCH

LIGHTING DESIGNER
10365 INDIANA COURT
RANCHO CUCAMONGA, CA 91730
TEL: 909.360.0900
WWW.LIGHTSWITCH.NET

TUNSTALL CONSULTING ENGINEERS PLLC

CIVIL ENGINEER
2402 IRON GATE DRIVE SUITE 102
WILMINGTON, NC 28412
TEL: 910.343.9423
FAX: 910.343.9404
WWW.TUNSTALLENGINEERS.COM
LICENSE # F-3132

SURFACE 678, PA

LANDSCAPE ARCHITECT
215 AGGERS STREET SUITE 150
DURHAM, NC 27703
TEL: 919.419.1199
FAX: 919.419.1688
WWW.SURFACE678.COM
LICENSE # C-098

CHEATHAM & ASSOCIATES, PA

FIRE PROTECTION ENGINEER
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PALACIO COLLABORATIVE

COST ESTIMATOR
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ENGINEER
DAVID M. HARR

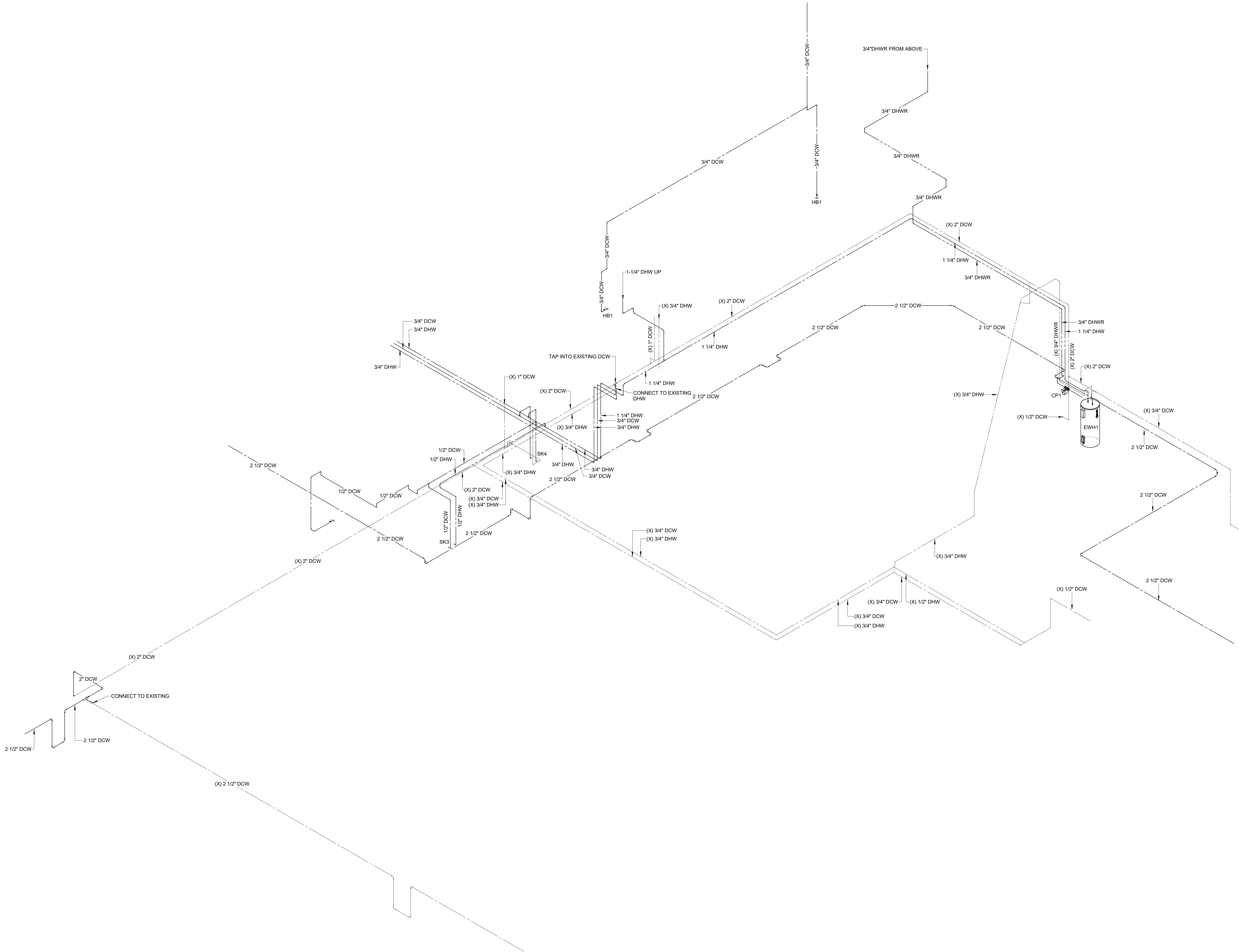
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NO.	DATE	DESCRIPTION
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PLUMBING RISER
DIAGRAMS

P-6.15



CBHF
Engineers, PLLC

2246 Yaupon Drive
Wilmington, NC 28401
Phone: 910.791.4000
Fax: 910.791.5266
www.cbhfengineers.com

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FIRST FLOOR SHARK TANK DOMESTIC WATER RISER DIAGRAM

SCALE :

1

SZOSTAK DESIGN

FORT FISHER
AQUARIUM
RENOVATION
& EXPANSION:
PHASE 1

SCO #17-18042-02A
CODE: 42014-4G02
ITEM: 41414-4Y4A

900 LOGGERHEAD RD,
KURE BEACH, NC 28449

NORTH CAROLINA DEPT. OF
NATURAL & CULTURAL RESOURCES

SZOSTAK DESIGN, INC.

ARCHITECT
310 1/2 WEST FRANKLIN STREET
CHAPEL HILL, NORTH CAROLINA 27514
TEL: 919.929.5244
FAX: 919.960.7967
WWW.SZOSTAKDESIGN.COM
LICENSE # 31079

TJP ENGINEERING, INC.

LIFE SUPPORT SYSTEMS ENGINEER
56885 VENTURE LANE SUITE 205H
BEND, OR 97007
TEL: 814.423.0300
WWW.TJPEENGINEERING.COM
LICENSE # C-3505

ROTO GROUP, LLC.

EXHIBIT DESIGNER
7001 DISCOVERY BOULEVARD
DURHAM, NC 27707
TEL: 817.760.6895
WWW.ROTO.COM

BENNETT & PLESS

STRUCTURAL ENGINEER
5430 WADE PARK BOULEVARD SUITE 400
RALEIGH, NC 27607
TEL: 919.832.5587
WWW.BENNETT-PLESS.COM
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LICENSE # F-0554

LIGHTSWITCH

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TEL: 919.419.1199
FAX: 919.419.1688
WWW.SURFACE678.COM
LICENSE # C-096

CHEATHAM & ASSOCIATES, PA

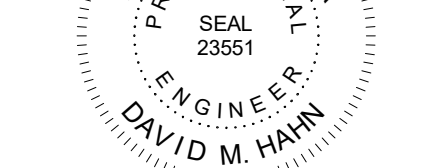
FIRE PROTECTION ENGINEER
3412 ENTERPRISE DRIVE
WILMINGTON, NC 28405
TEL: 910.452.4110
WWW.CHEATHAMPA.COM
LICENSE # C-1073

PALACIO COLLABORATIVE

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PLUMBING RISER
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