

FIXTURE	MARK	MH	CW	HW	VENT	WASTE
WATER CLOSET(HC)	WC-1	17"	1"	--	2"	4"
WATER CLOSET	WC-2	15"	1"	--	2"	4"
LAVATORY	L-1	34"	1/2"	1/2"	1-1/2"	2"
LAVATORY	L-2	COUNTER	1/2"	1/2"	1-1/2"	2"
JANITOR SINK	JS-1	FLOOR	1/2"	1/2"	1-1/2"	2"
SHOWER	SH-1	72"(A)	1/2"	1/2"	--	--
ELECTRIC WATER COOLER	EW-1	36"(B)	1/2"	--	1-1/2"	2"
SINK	S-1	COUNTER	1/2"	1/2"	1-1/2"	2"
SINK	S-2	FLOOR	1/2"	1/2"	1-1/2"	2"

3. ALL PUBLIC FAUCETS SHALL BE PROVIDED WITH TEMPERING VALVE, WILKINS MODEL #ZW1070 OR EQUAL AS REQUIRED.

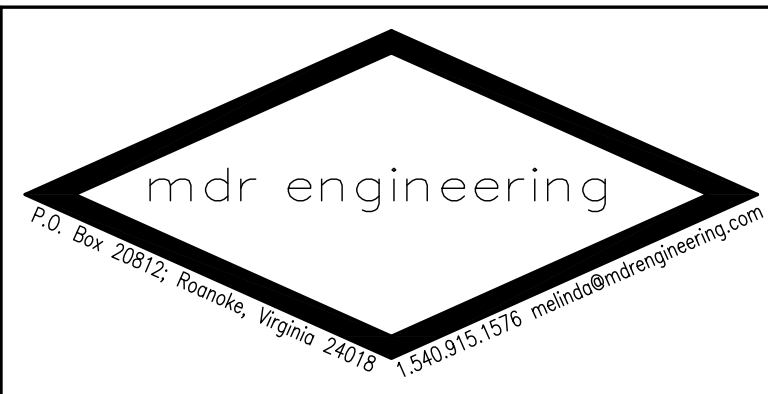
	TOTO CT708E, ELONGATED VITREOUS CHINA WATER CLOSET (FLUSH VALVE WALL MTD., 1.28 GPF); SIPHON JET, BEMIS 1955SCCT ELONGATED SEAT, TOTO TET11A32 SENSOR TOILET FLUSH VALVE; SIPHON JET CARRIER.
WC-2	TOTO CT708E, ELONGATED VITREOUS CHINA WATER CLOSET (FLUSH VALVE WALL MTD., 1.28 GPF); SIPHON JET, BEMIS 1955SCCT ELONGATED SEAT, TOTO TET11A32 SENSOR TOILET FLUSH VALVE; SIPHON JET CARRIER.
L-1	AMERICAN STANDARD LUCERNE #0356.041, VITREOUS CHINA; MOEN 8210F15 FAUCET WITH WHEELCHAIR OFFSET GRID DRAIN STRAINER AND ANGLE SUPPLIES WITH LOOSE KEY STOPS; PROVIDE ZURN I2131 CARRIER. PROVIDE THERMOSTATIC MIXING VALVE, WILKINS MODEL ZW1070 AND P-TRAP.
L-2	AMERICAN STANDARD AQUALYN 0475.020, VITREOUS CHINA; MOEN FAUCET MODEL NO. 8210F15 WITH WHEELCHAIR OFFSET; GRID DRAIN STRAINER, AND ANGLE SUPPLIES WITH LOOSE KEY STOPS. PROVIDE TUBERO #102W PRE-MOLDED INSULATION TO COVER INSULATING BATH SUPPLIES AND DRAIN. PROVIDE THERMOSTATIC MIXING VALVE, WILKINS MODEL ZW1070, ASSE 1070 COMPLANT.
S-1	ELKAY #LRAD-2522 LUSTERSTONE STAINLESS STEEL SINGLE BOWL HANDICAP KITCHEN SINK, 18 GA. TYPE 304 STAINLESS SELF RIM, 4-HOLE, 8-1/2 DEEP; #120 DELTA FAUCET WITH 8" SPOUT, SINGLE LEVER CONTROLLING SPRAY ATTACHMENT, CHROME P-TRAP AND SUPPLIES, #JX35 STRAINERS.
S-2	FIAT FL-1 MOLDED STONE SERV-A-SINK; FIAT A-1 DECK MOUNTED FAUCET, CHROME P-TRAP AND SUPPLIES.
SH-1	FREEDOM SHOWER APP06337BF875, 6X3X8 SHOWER COMPLETE PACKAGE TO INCLUDE CURTAIN ROD, SEAT, GRAB BARS, DRAIN; MOEN 2352 SINGLE HANDLE SHOWER VALVE WITH SHOWER HEAD, PRESSURE BALANCED. COLOR TO BE WHITE.
JS-1	FIAT #MSB-2424 MOLDED STONE MOP SERVICE BASIN, 24"x24"x10"; #630-AA WALL MTD FAUCET W/VACUUM BREAKER & BUCKET HOOK; #632-AA HOSE & BRACKET, #E-77-AA VINYL BUMPER GUARD, #689-CC MOP HANGER & #0DC-3-2 QUICK DRAIN CONNECTOR, #MS62424 STAINLESS STEEL WALL GUARDS.
EW-1	OASIS #P08BFSLT TOUCHLESS TWO STATION ELECTRIC WATER COOLER, STAINLESS STEEL, LEAD FREE WORKING COMPONENTS; 6.0 GPM CAPACITY AND 4.6 FPS.
HB-1	CHICAGO FAUCETS 293-EZ7CP INSIDE SILL FITTING, POLISHED CHROME PLATED FIN. SPLIT BRASS BODY CONSTRUCTION, 2-1/4" TEE HANDLE, 1/2", NPT FEMALE INLET, 3/4" MALE GARDEN HOSE THREAD OUTLET, SLOW COMPRESSION RENEWABLE CARTRIDGE, VACUUM BREAKER.
FD-1	JOSAM #30000-5A-2-17 FLOOR DRAIN, SATIN FINISH BRONZE TOP, NON-CLOG STRAINER, SECURED GRATE; 4"DEEP SEAL TRAP. SET RIM FLUSH WITH FINISH FLOOR.
FD-2	JOSAM #30000-5A-2-17 FLOOR DRAIN, SATIN FINISH BRONZE TOP, NON-CLOG STRAINER, SECURED GRATE; 4"DEEP SEAL TRAP, CLAMPING RING. SET RIM FLUSH WITH FINISH FLOOR.
FS-1	JOSAM #49300 FLOOR SINK, 8" SQUARE CAST IRON WITH 5-7/8" DEEP SUMP, CLAMPING RING
CO	JOSAM CLEANOUT FLOOR ROUND, SATIN BRONZE TOP, RECESSED PLUG. WALL CHROME FLUSH WALL PLATE, RECESSED PLUG.
OIL/ SEDIMENT TRAP	ZURN Z1188 OIL INTERCEPTOR, 100 GPM. 110 GALLON
ST-1	ZURN Z1187-SI SEDIMENT INTERCEPTOR, 20 GPM FLOW RATE, 60 GALLON STATO CAPACITY
EW-1	HAMS MODEL 7360B-7460B EMERGENCY EYE WASH OR EQUAL WITH THERMOSTATIC MIXING VALVE
WMB	ABS BOXES, ONE BOX WITH CENTER DRAIN AND ONE BOX WITH TWO WATER VALVE & WATER HAMMER ARRESTORS. PROVIDE FLANGED BOXES SUITABLE FOR DRYWALL
TD-1	ZURN Z884 4" WIDE TRENCH DRAIN SYSTEM, 3.25" THROAT; CHANNEL TO HAVE 1.04X BUILT-IN SLOPE & INVERT TO BE DETERMINED BY CONTRACTOR; PROVIDE WITH 2" END OUTLET, CAST IRON SLOTTED GRATE AND END CAP. TRENCH DRAIN TOTAL LENGTH SHALL BE 8'-0".
HHW-1	STATE PCE-6-10MSA-25 ELECTRIC WATER HEATER, SINGLE ELEMENT, 10 GAL. CAPACITY TANK, 10 GAL/HR RECOVERY AT 40 DEG. F. AND 100 DEG.F. RISE, 2500 W; 230/1; T&P RELIEF VALVE.
HHW-2	STATE PCE-6-10MSA-15 ELECTRIC WATER HEATER, SINGLE ELEMENT, 10 GAL. CAPACITY TANK, 6 GAL/HR RECOVERY AT 40 DEG. F. AND 100 DEG.F. RISE, 1500 W; 230/1; T&P RELIEF VALVE.
HHW-3	STATE PCE-20-10MSA-35 ELECTRIC WATER HEATER, SINGLE ELEMENT, 10 GAL. CAPACITY TANK, 14 GAL/HR RECOVERY AT 40 DEG. F. AND 100 DEG.F. RISE, 3500 W; 230/1; T&P RELIEF VALVE.
HHW-4	STATE SUF119-400E GAS FIRED WATER HEATER, 119 GALLON CAPACITY TANK, 460 GAL/HR RECOVERY AT 40 DEG. F. ENT. AND 100 DEG.F. RISE, 120W/16; 399.9 MBH; T&P RELIEF VALVE.
HHW-5	STATE PCE-40-20LSA-55 ELECTRIC WATER HEATER, SINGLE ELEMENT, 40 GAL. CAPACITY TANK, 23 GAL/HR RECOVERY AT 40 DEG. F. AND 100 DEG.F. RISE, 5500 W; 230/1; T&P RELIEF VALVE.
HHW-6	STATE PCE-20-10MSA-4 ELECTRIC WATER HEATER, SINGLE ELEMENT, 20 GAL. CAPACITY TANK, 17 GAL/HR RECOVERY AT 40 DEG. F. AND 100 DEG.F. RISE, 4000 W; 230/1; T&P RELIEF VALVE.
HHW-7	STATE PCE-40-20LSA-5 ELECTRIC WATER HEATER, SINGLE ELEMENT, 40 GAL. CAPACITY TANK, 21 GAL/HR RECOVERY AT 40 DEG. F. AND 100 DEG.F. RISE, 5000 W; 230/1; T&P RELIEF VALVE.
HHW-8	STATE PCE-40-20LSA-5 ELECTRIC WATER HEATER, SINGLE ELEMENT, 40 GAL. CAPACITY TANK, 21 GAL/HR RECOVERY AT 40 DEG. F. AND 100 DEG.F. RISE, 5000 W; 230/1; T&P RELIEF VALVE.
SP-1	ZOELLER N153 SUMP PUMP, 1/2 HP., 120/1 PHASE, 50 GPM AT 20 FT. HEAD, 1-1/2" EFFLUENT, DIAPHRAGM PRESSURE SWITCH, PROVIDE DISCONNECT. UNIT TO BE HYDRAULIC FLUID SENSING TYPE WITH ALARM PANEL.
RPZ	WATTS #909 REDUCED PRESSURE ZONE BACKFLOW PREVENTOR, BRONZE CONSTRUCTION, EPOXY COATED CAST IRON CHECK VALVE BODY WITH BRONZE SEATS, FAD APPROVED EPOXY COATED CAST IRON RELIEF VALVE WITH TRIM.

This block contains 15 electrical symbols, including:

- Two types of switches: a single-pole switch and a double-pole switch.
- A switch with a spring return.
- A switch with a label 'E'.
- A switch with a label 'G'.
- A switch with a label 'O'.
- A switch with a label 'RL'.
- A switch with a label 'SD'.
- A switch with a label 'CO'.
- A switch with a label 'CO'.
- A switch with a label 'T'.
- A switch with a label 'T'.
- A switch with a label 'T'.
- A switch with a label 'T'.
- A switch with a label 'T'.
- A switch with a label 'T'.

BRANCH CONNECTION – BOTTOM OF MAIN
BRANCH CONNECTION – SIDE OF MAIN
BRANCH CONNECTION – TOP OF MAIN
PIPE DOWN OR PIPE FROM BELOW
PIPE UP OR PIPE FROM ABOVE
DIRECTION OF FLOW
DOMESTIC COLD WATER
DOMESTIC HOT WATER
SPRINKLER HEAD
SANITARY SEWER OR DRAIN
SANITARY VENT
RAIN LEADER ABOVE LOWEST FLOOR
STORM SEWER OR DRAIN
CLEANOUT FLUSH WITH FLOOR
CLEANOUT BELOW FLOOR
HOSE BIBBS (PLAN & ELEVATION)
GATE VALVE
BALL VALVE
THERMOMETER
PRESSURE REDUCING VALVE (PRV)
RELIEF VALVE
BACKFLOW PREVENTER (BFP)
CONNECT TO EXISTING

ABV	ABOVE
BTU	BRITISH THERMAL UNIT
BEL	BELOW
BET	BETWEEN
CLG	CEILING
CO	CLEANOUT
CONC	CONCRETE
CONN	CONNECT, CONNECTION
CW	COLD WATER
CONT	CONTINUED
DN	DOWN
EA	EACH
EW	ELECTRIC WATER COOLER
F	DEGREES FAHRENHEIT
FD	FLOOR DRAIN
FL	FLOOR
FR	FROM
FT	FEET
GPM	GALLONS PER MINUTE
GV	GATE VALVE
HW	HOSE BIBB
IN	INCH, INCHES
MAX	MAXIMUM
MIN	MINIMUM
RD	ROOF DRAIN
REQD	REQUIRED
RL	ROOF LEADER
SH	SHEET
TEMP	TEMPERATURE
TP	TYPICAL
V	VENT
VTR	VENTIL THRU ROOF
W	SANITARY WASTE
WH	WALL HYDRANT



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REV'D BY:	MDR
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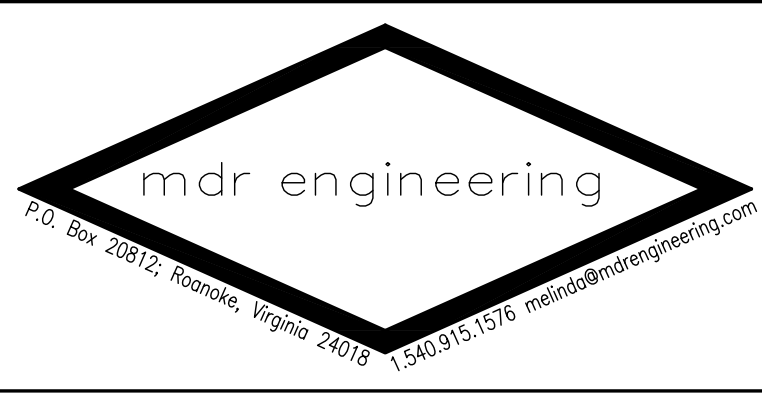
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SCALE:	AS SHOWN
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P0.1

SHEET _____ of _____ X _____





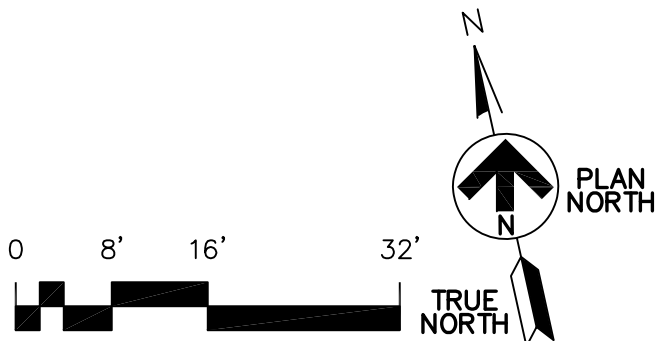
A circular professional engineer seal for the Commonwealth of Virginia. The outer ring contains the text "COMMONWEALTH OF VIRGINIA" at the top and "PROFESSIONAL ENGINEER" at the bottom. Inside the ring, the name "Melinda D. Ruble" is written in blue cursive script. Below the signature, the text "MELINDA D. RUBLE", "No. 028163", and "06.17.2022" are printed in black.

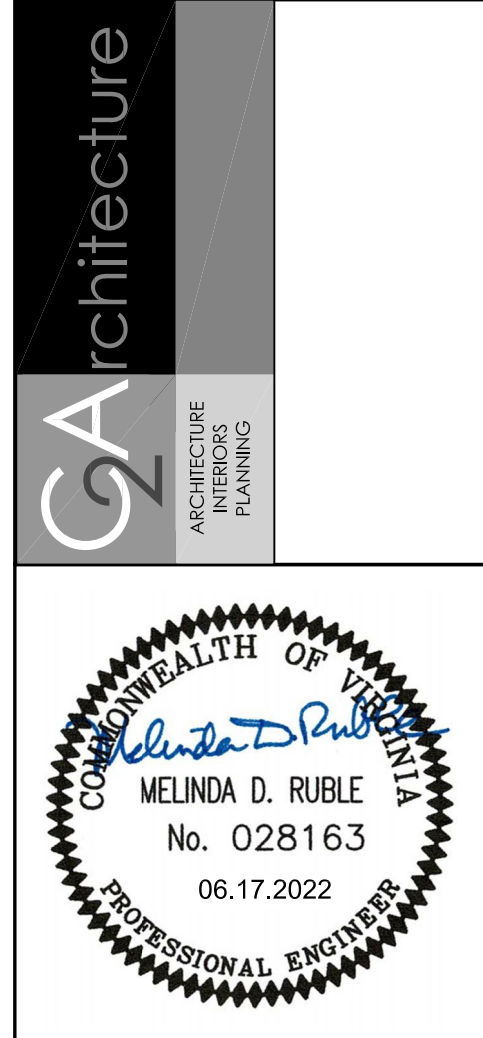
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[illegible]

1 GROUND FLOOR OVERALL PLUMBING NEW WORK PLAN
P1.1 SCALE: 1/16" = 1'-0"





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[illegible]



mdr engineering

P.O. Box 20512, Roanoke, Virginia 24018 1.540.315.1576 meiminda@mdrengineering.com

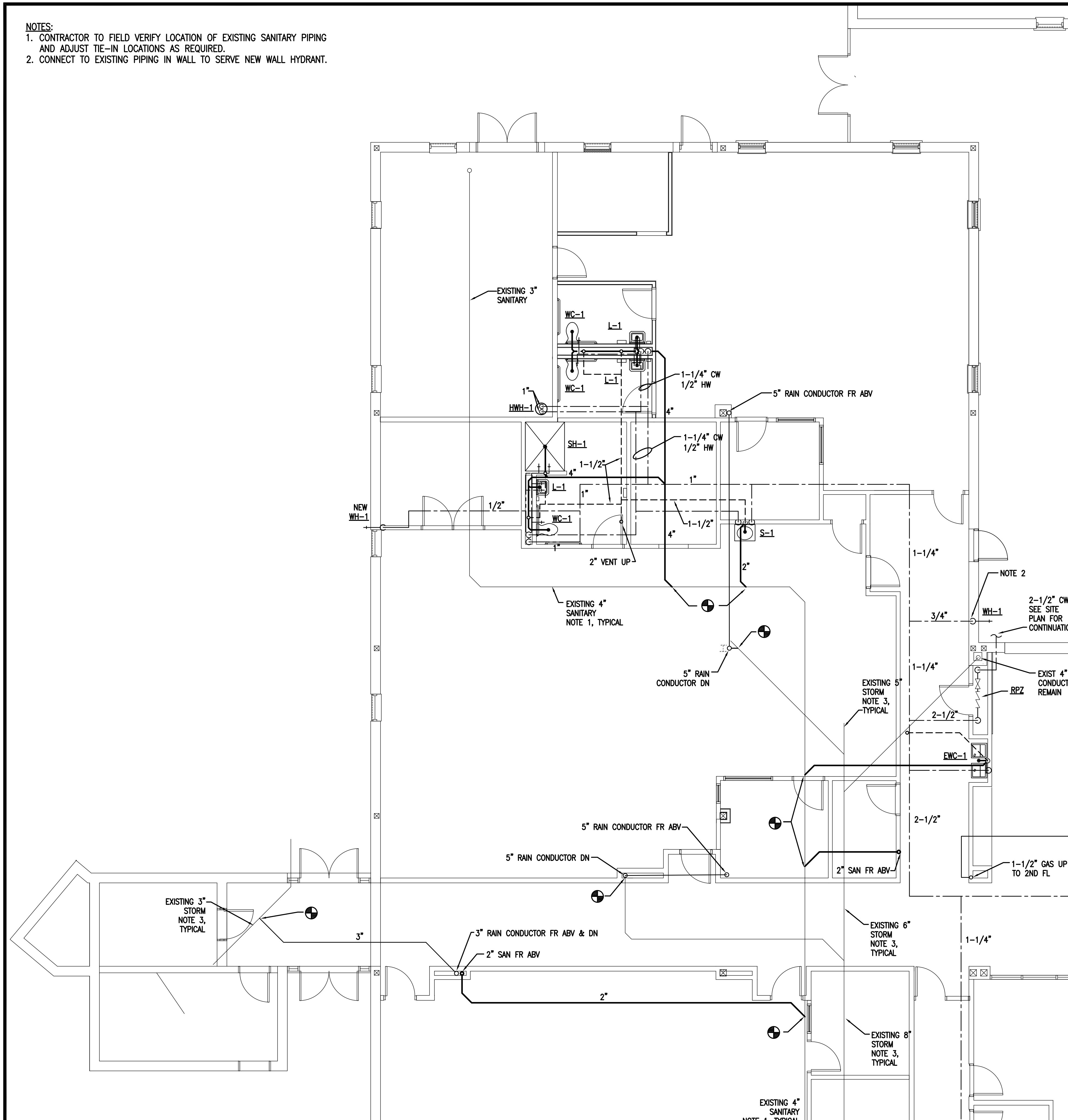
Architecture

ARCHITECTURE
PLANNING

COMMONWEALTH OF VIRGINIA
Helinda D. Ruble
HELINDA D. RUBLE
No. 028163
06.17.2022
PROFESSIONAL ENGINEER

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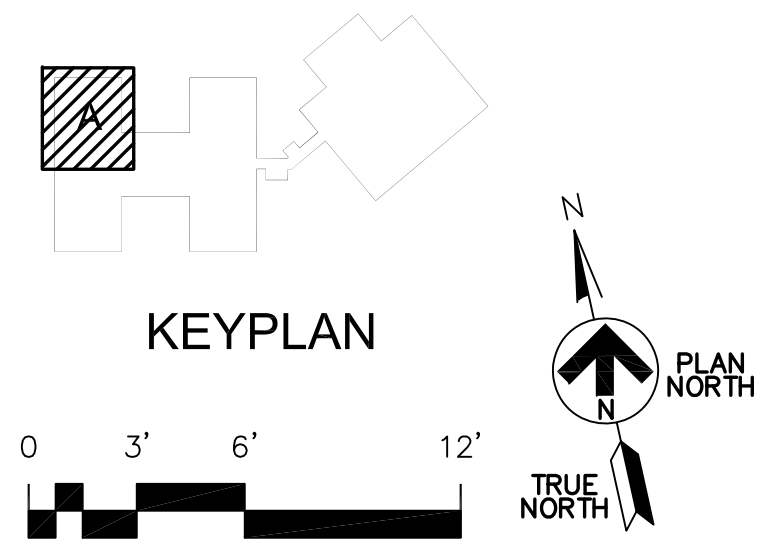
ROANOKE, VIRGINIA

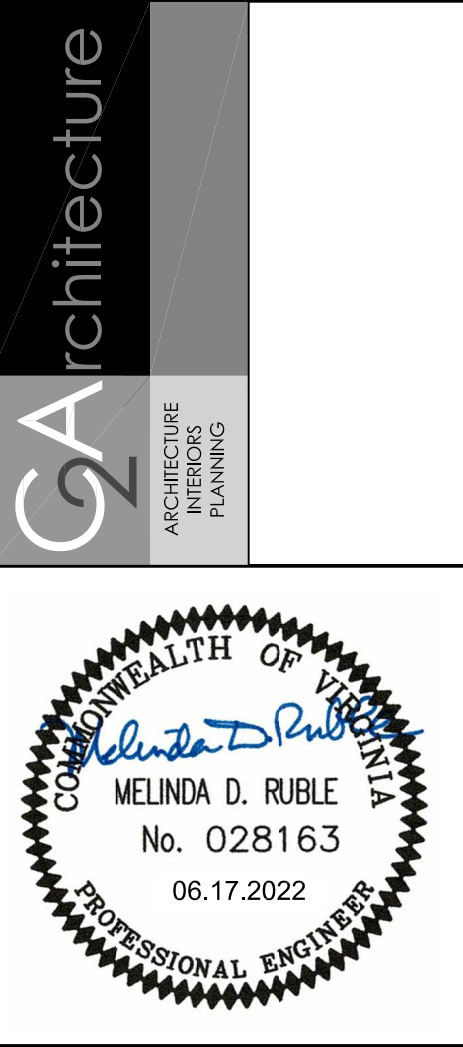
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P2.1

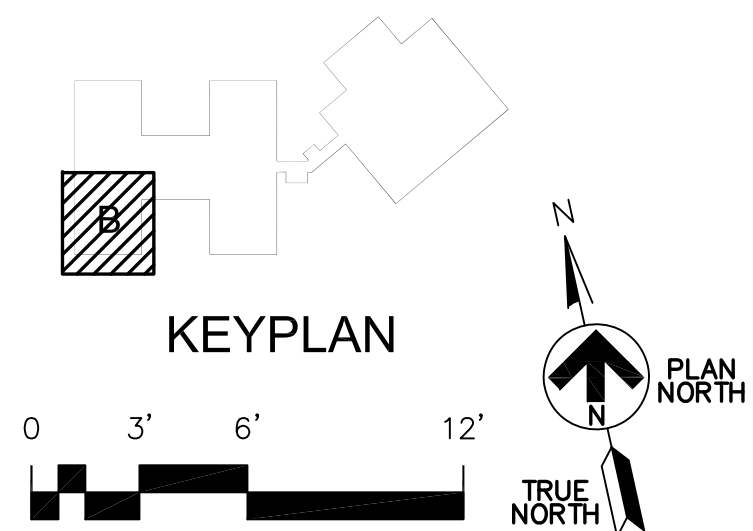
GROUND FLOOR PARTIAL PLUMBING NEW WORK PLAN - AREA A

SCALE: 3/16" = 1'-0"





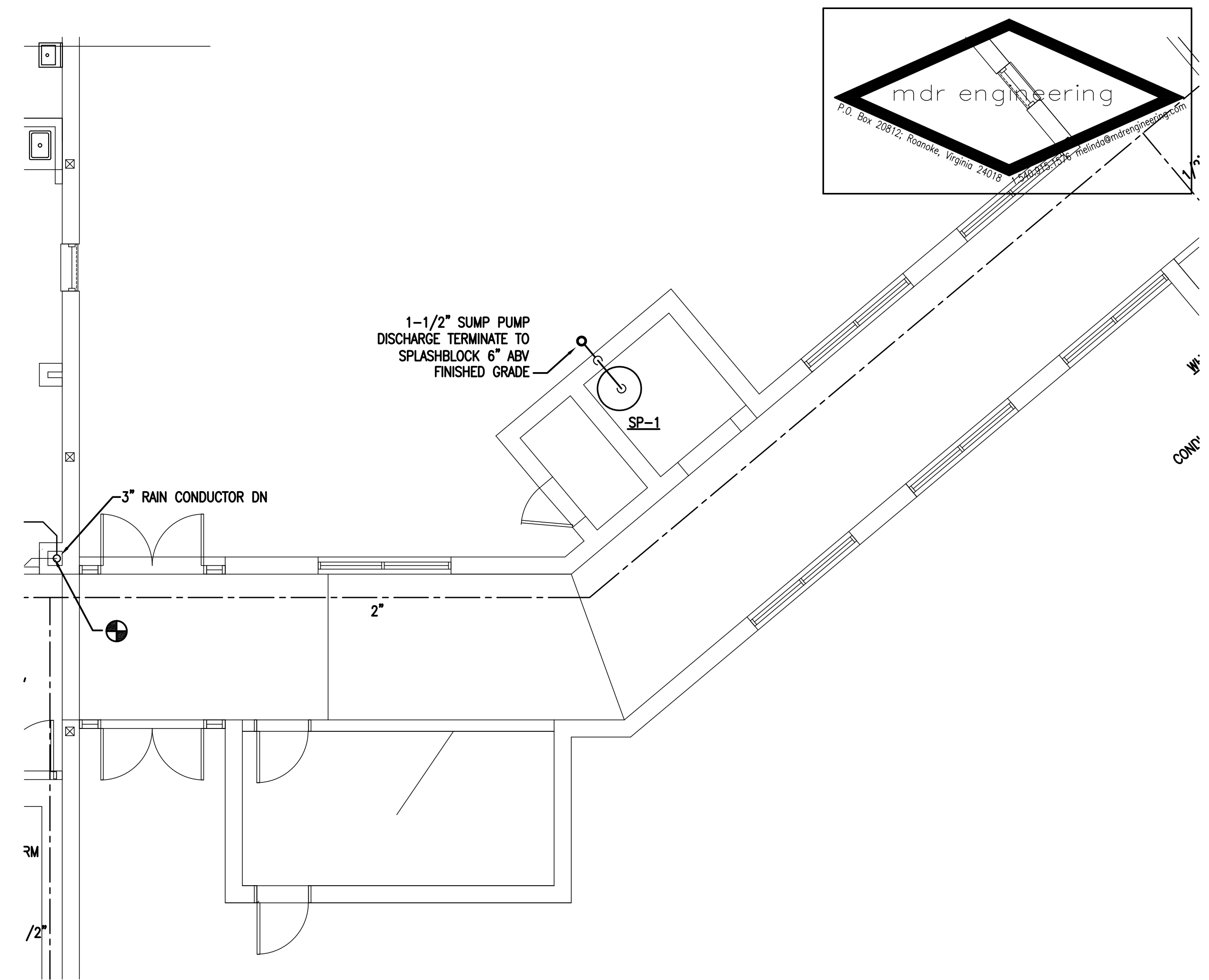
ROANOKE, VIRGINIA

[illegible]

1
P2.2

GROUND FLOOR ENLARGED PARTIAL PLUMBING NEW WORK PLAN

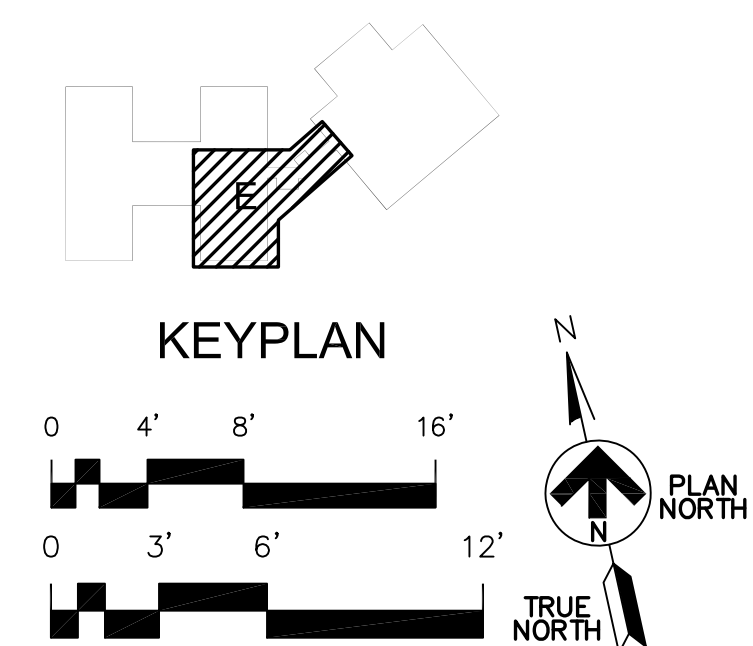
SCALE: 3/16" = 1'-0"



1
P2.5

GROUND FLOOR PARTIAL PLUMBING NEW WORK PLAN - AREA E

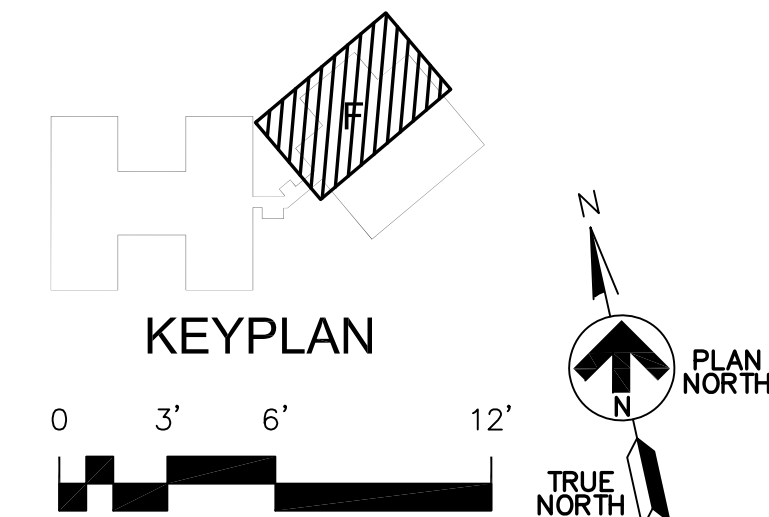
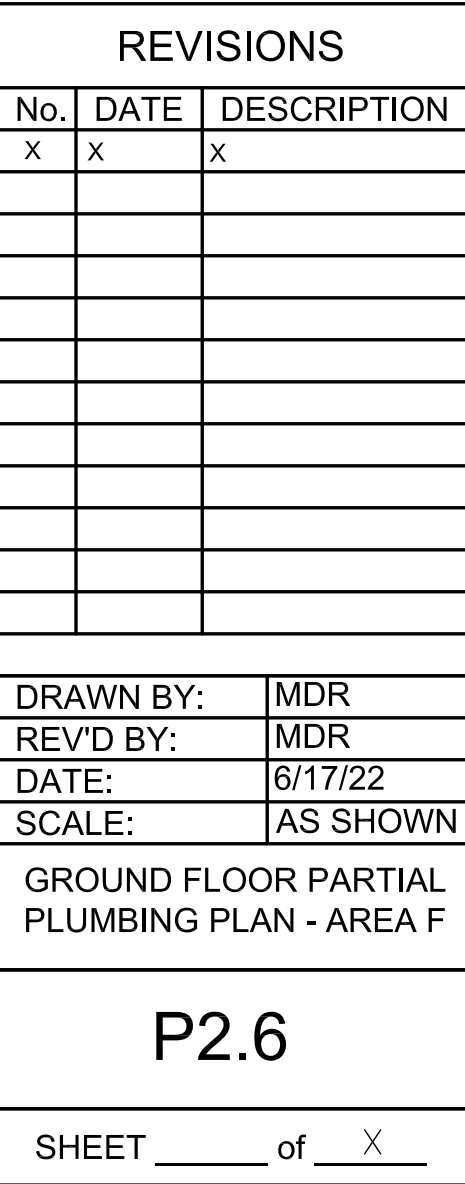
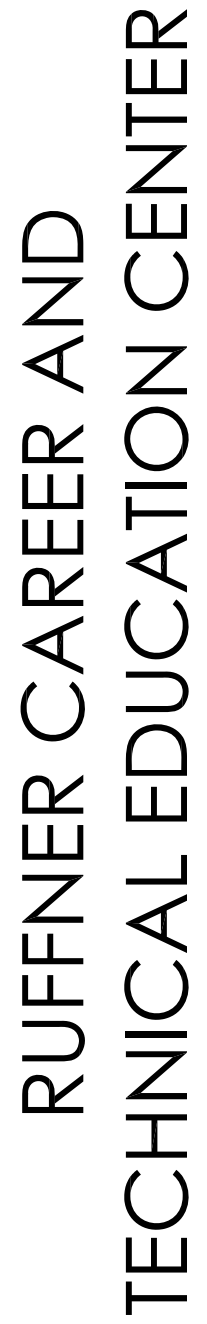
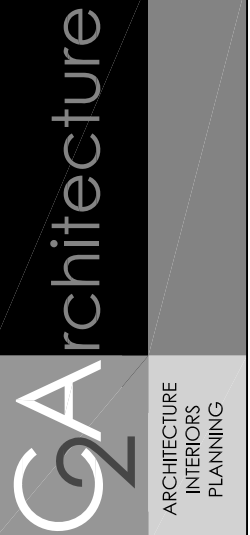
SCALE: 3/16" = 1'-0"

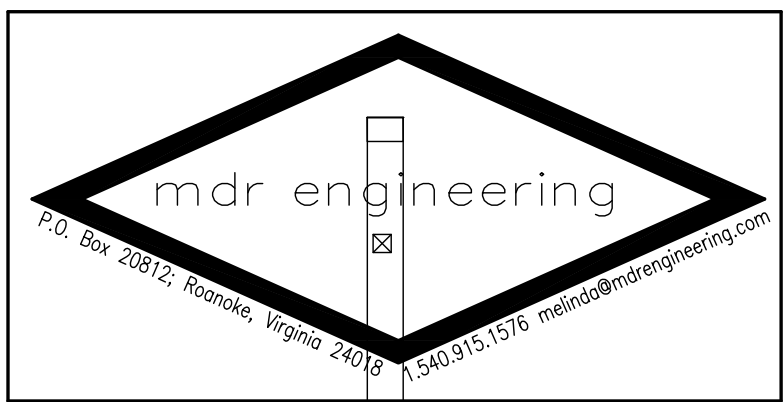


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KEYPLAN

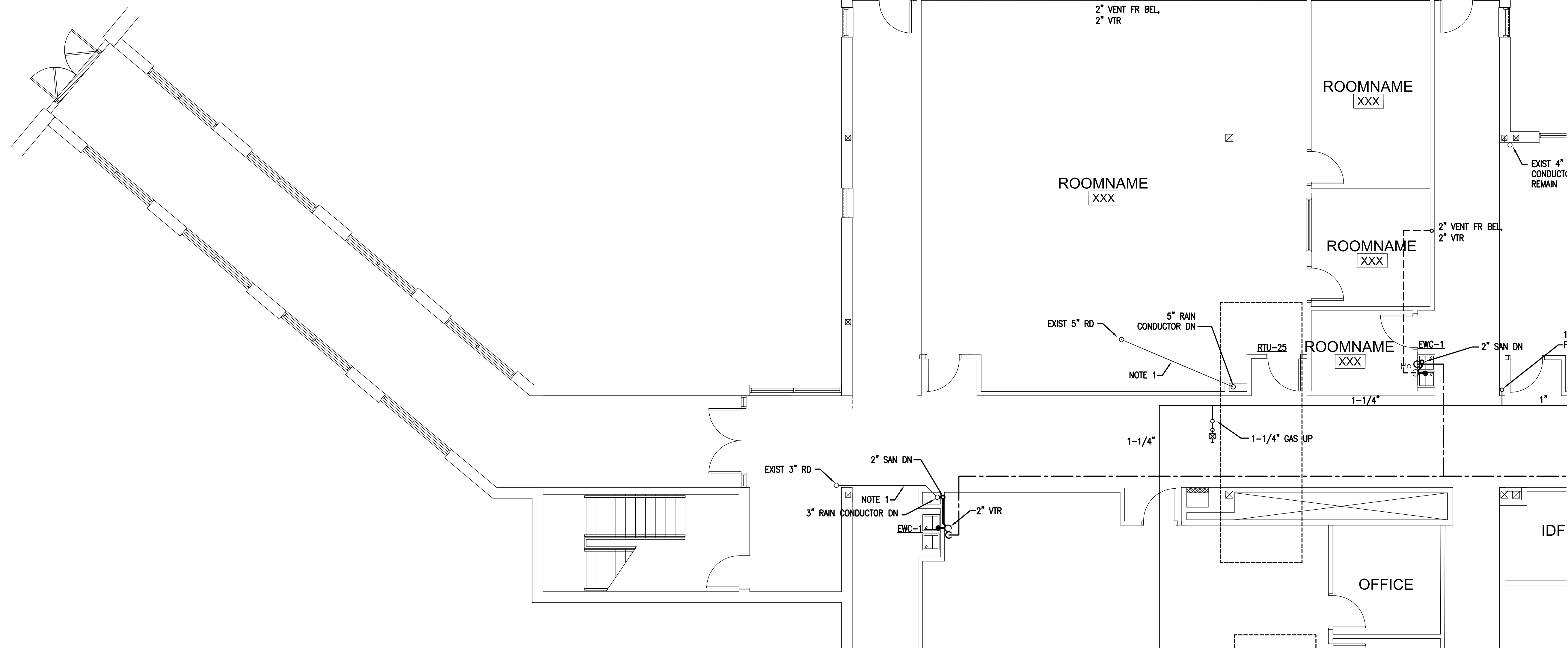
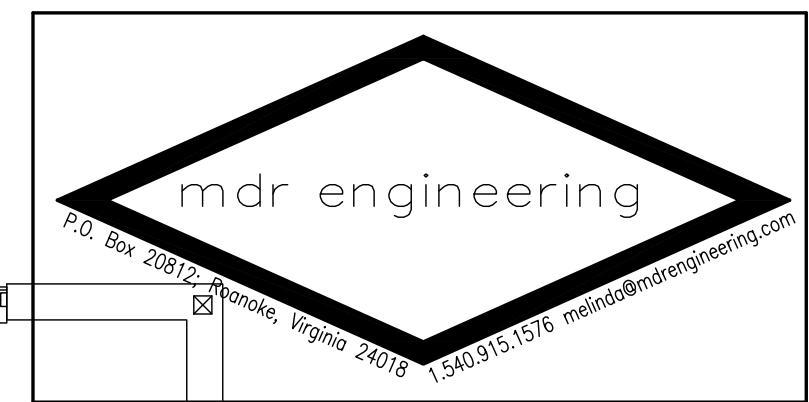
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TRUE NORTH

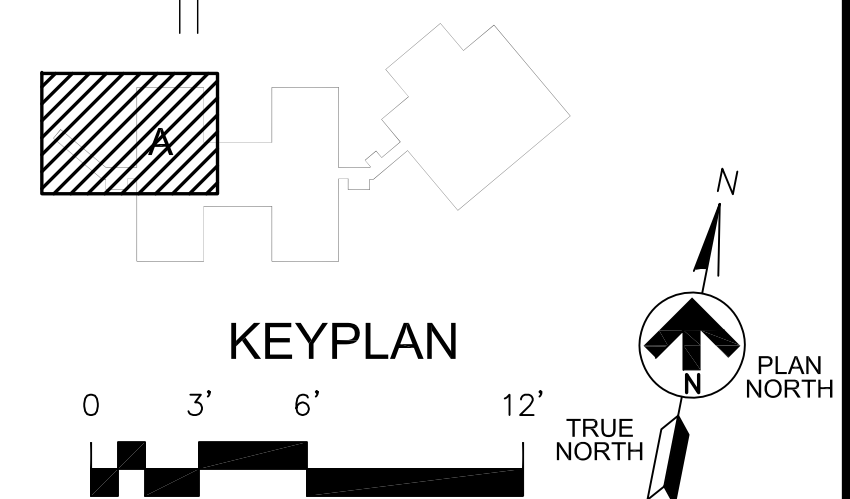
PLAN NORTH

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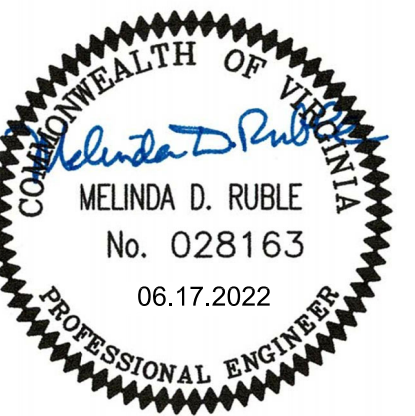
NOTES:
1. EXTEND NEW RAIN CONDUCTOR FROM EXISTING ROOF DRAIN TO NEW RISER. RAIN CONDUCTOR TO BE SIZE OF ROOF DRAIN.



1 SECOND FLOOR PARTIAL PLUMBING NEW WORK PLAN - AREA A
P3.1 SCALE: 3/16" = 1'-0"



2Architecture



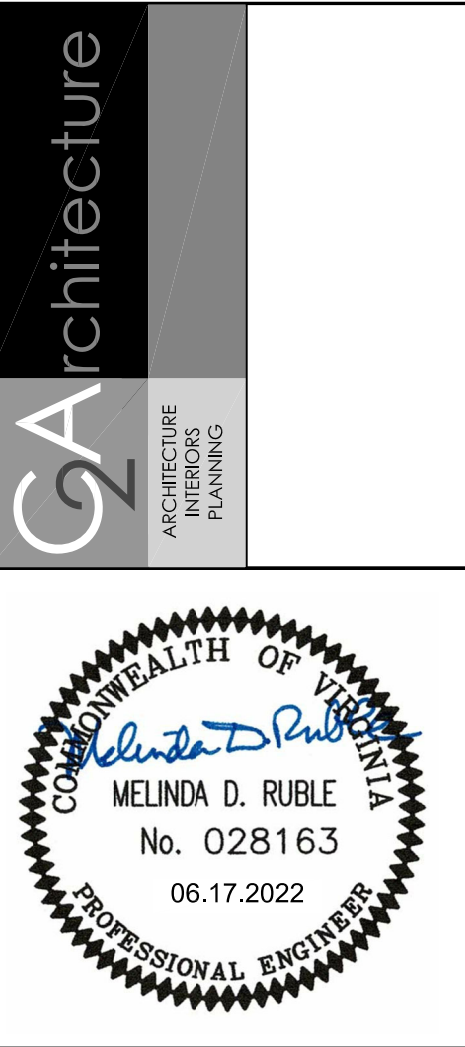
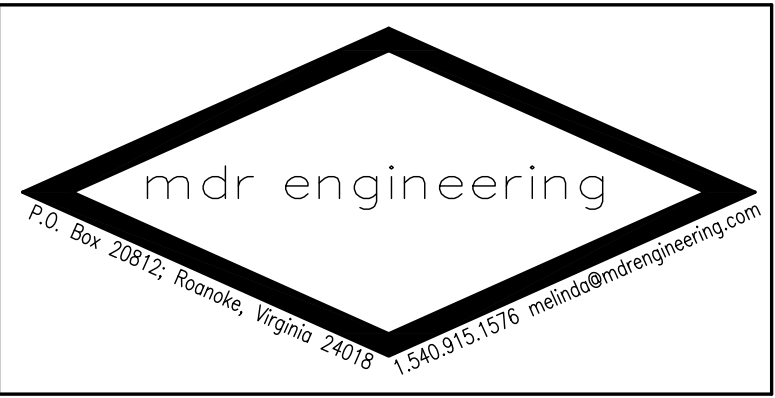
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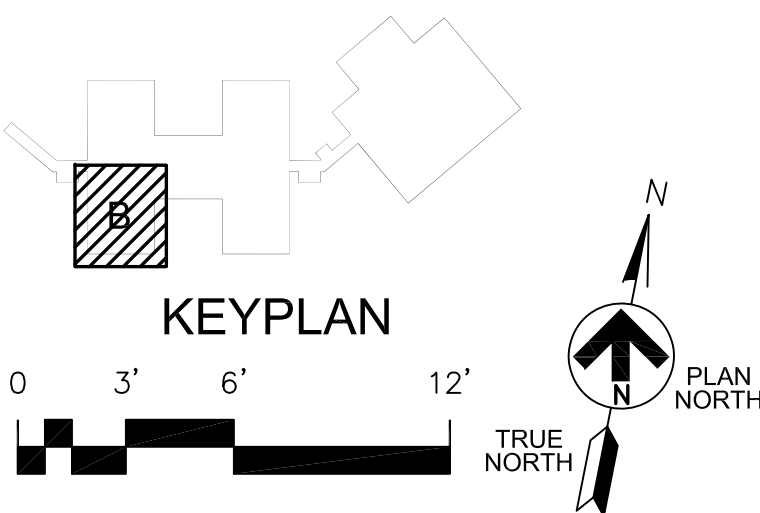
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REV'D BY:	MDR
DATE:	6/17/22
SCALE:	AS SHOWN

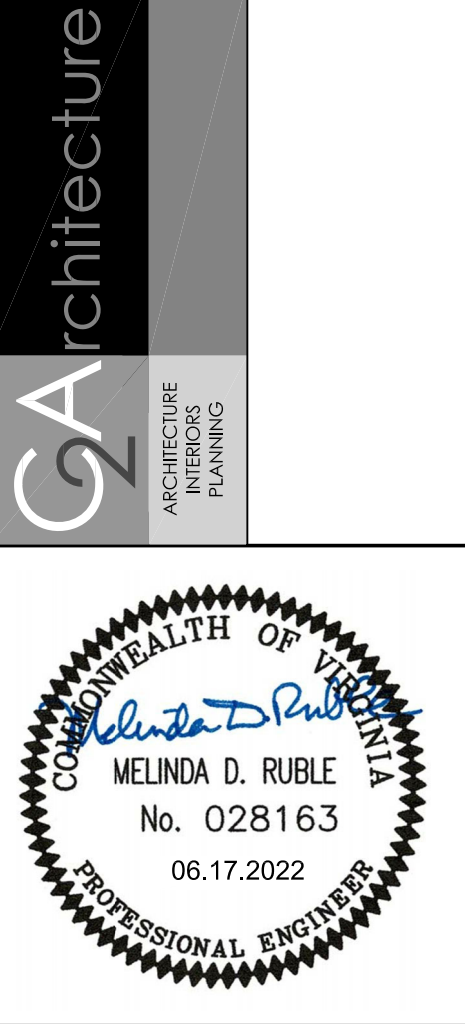
SECOND FLOOR PARTIAL
PLUMBING NEW WORK
PLAN - AREA B

P3.2

SHEET _____ of _____ X _____

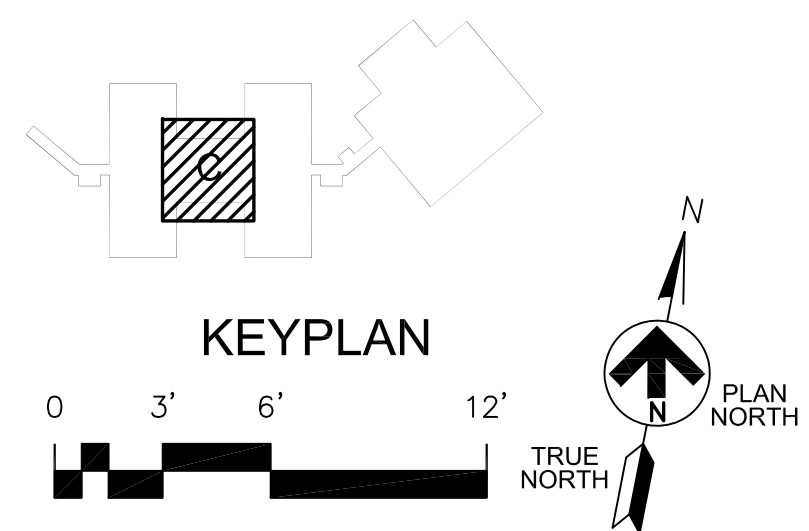
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P3.2 SCALE: 3/16" = 1'-0"

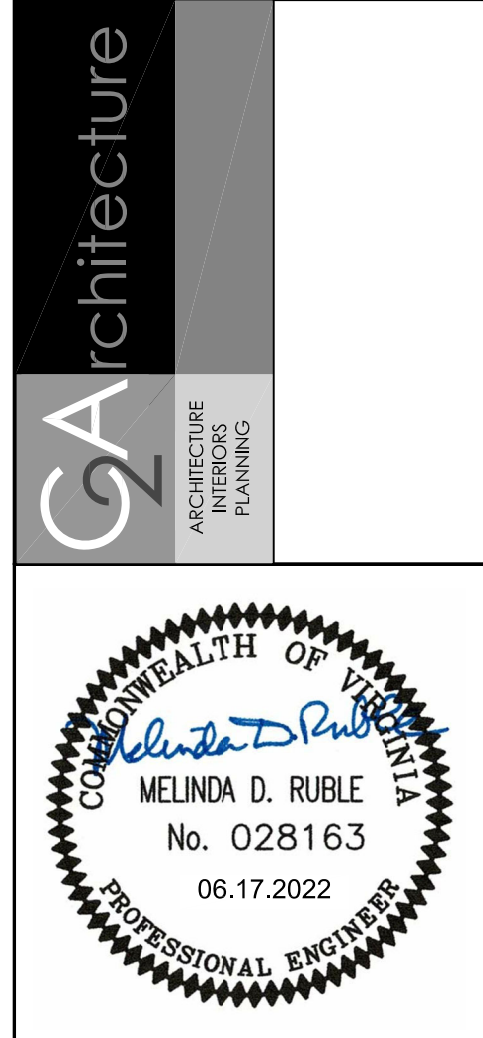




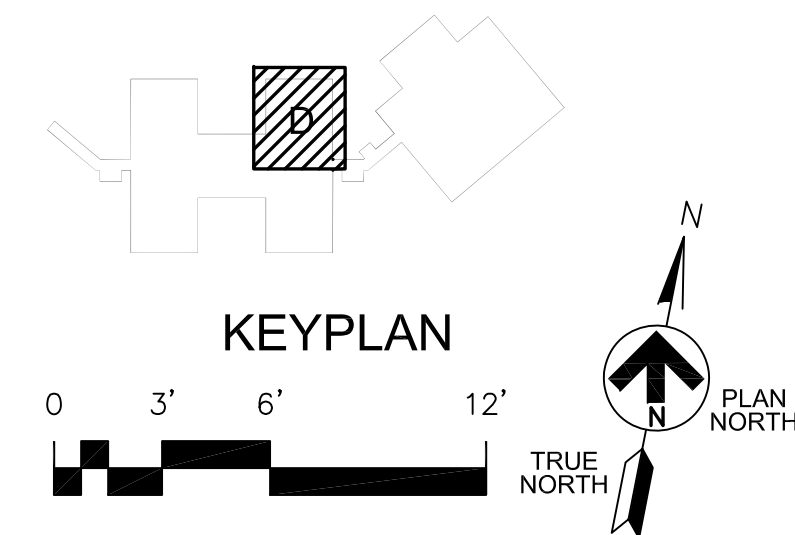
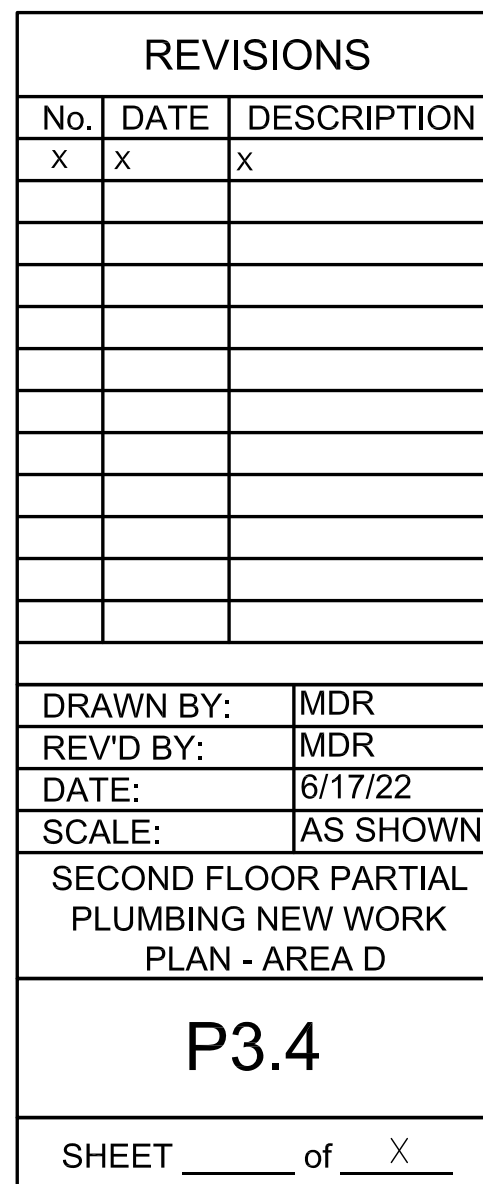
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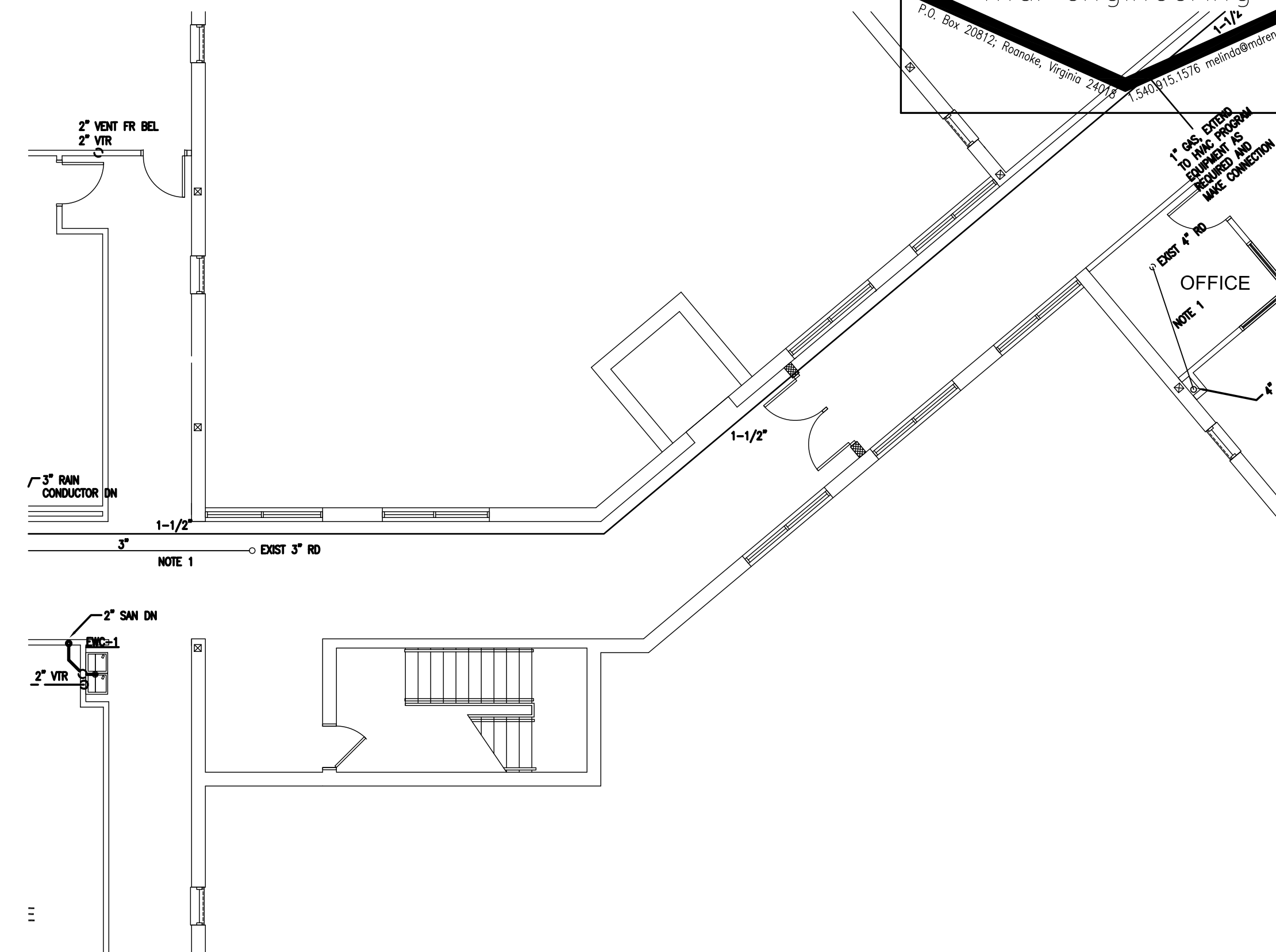
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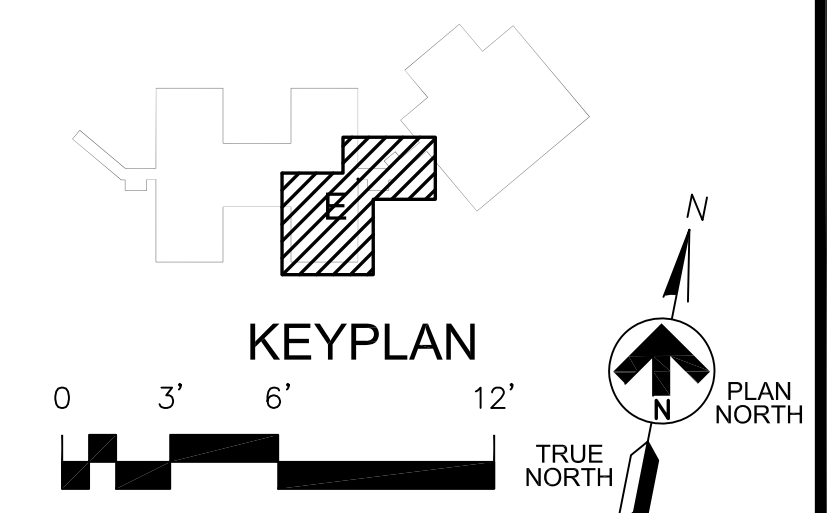
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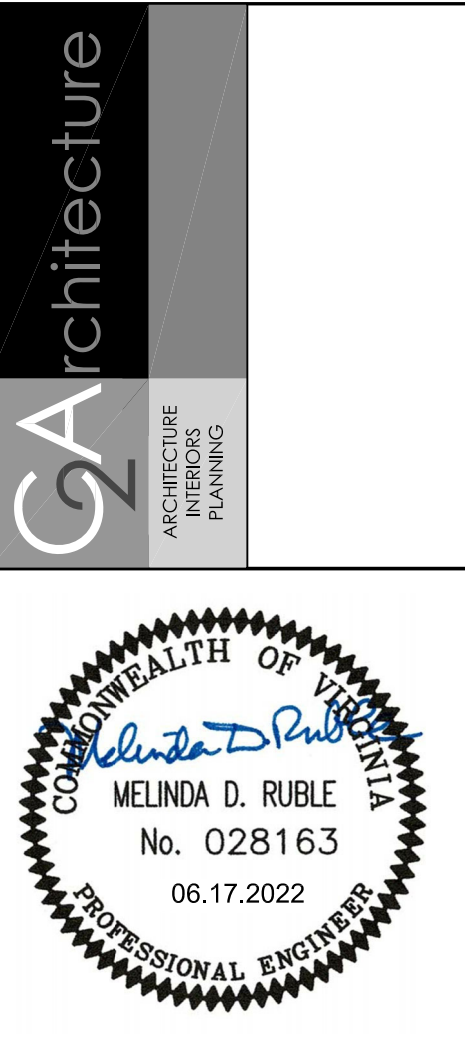
1 SECOND FLOOR PARTIAL PLUMBING NEW WORK PLAN - AREA D
P3.4 SCALE: 3/16" = 1'-0"



2 SECOND FLOOR PARTIAL MECHANICAL NEW WORK PLAN - AREA E
M3.5 SCALE: 3/16" = 1'-0"

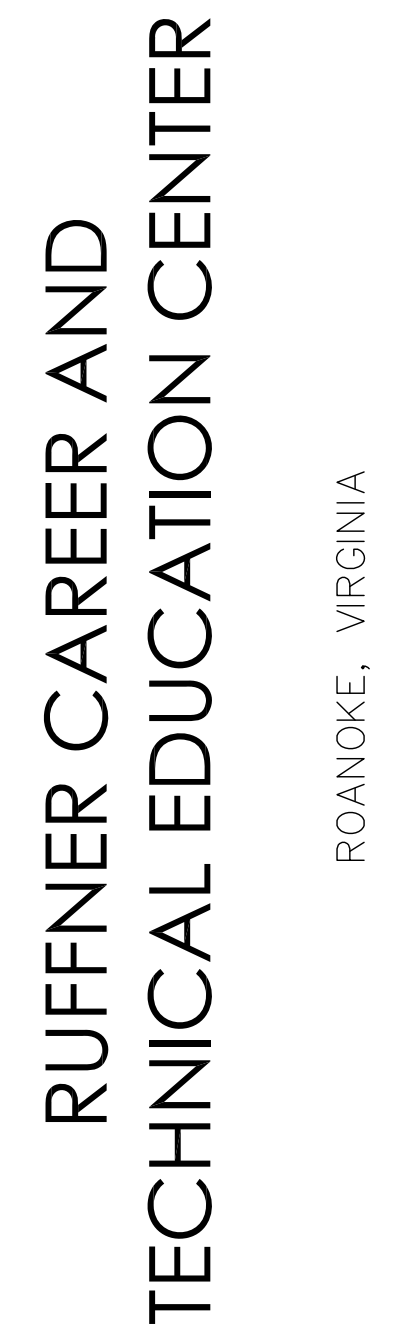
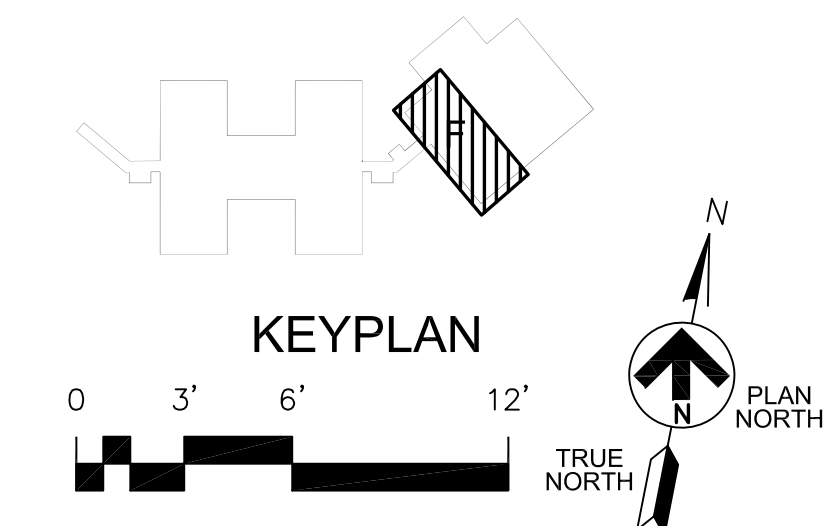


1 SECOND FLOOR PARTIAL PLUMBING NEW WORK PLAN - AREA E
P3.5 SCALE: 3/16" = 1'-0"

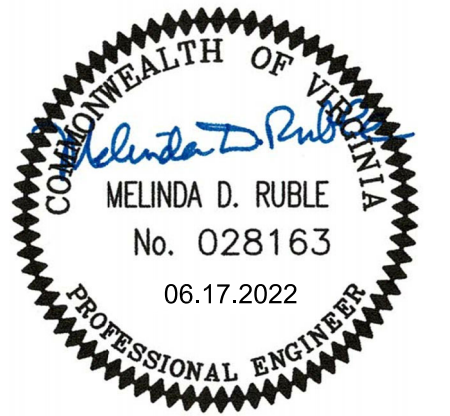
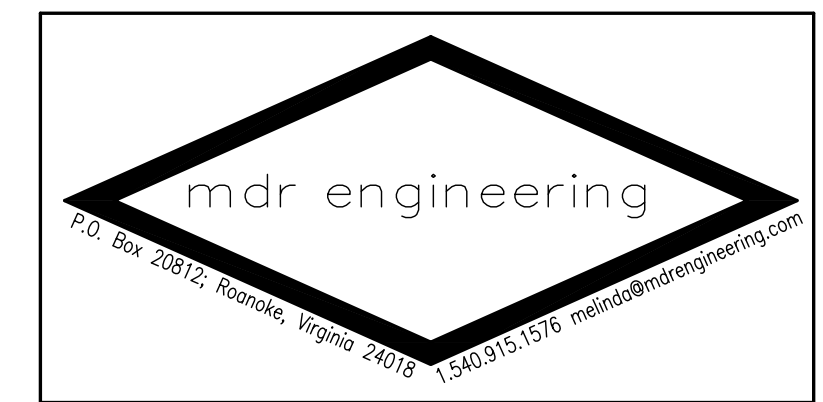


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REVISIONS		
No.	DATE	DESCRIPTION
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REV'D BY:	MDR	
DATE:	6/17/22	
SCALE:	AS SHOWN	
SECOND FLOOR PARTIAL PLUMBING NEW WORK PLAN - AREA F		
P3.6		
SHEET _____ of X _____		



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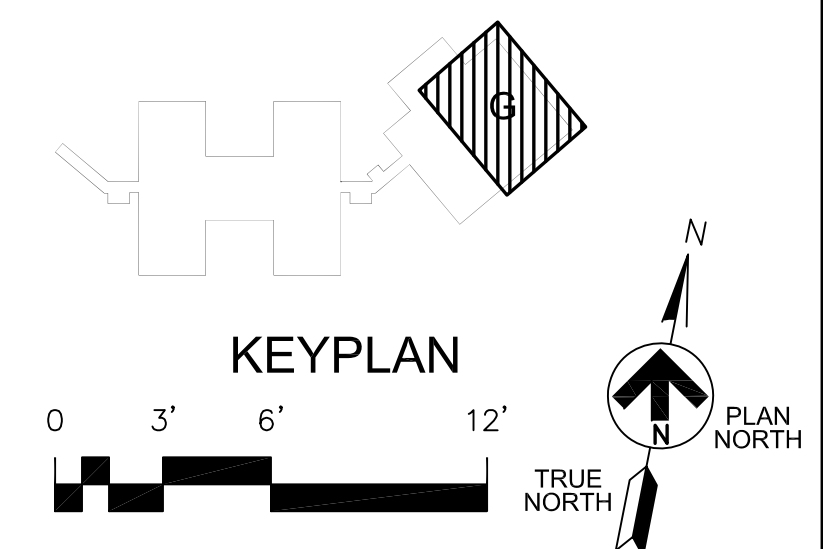


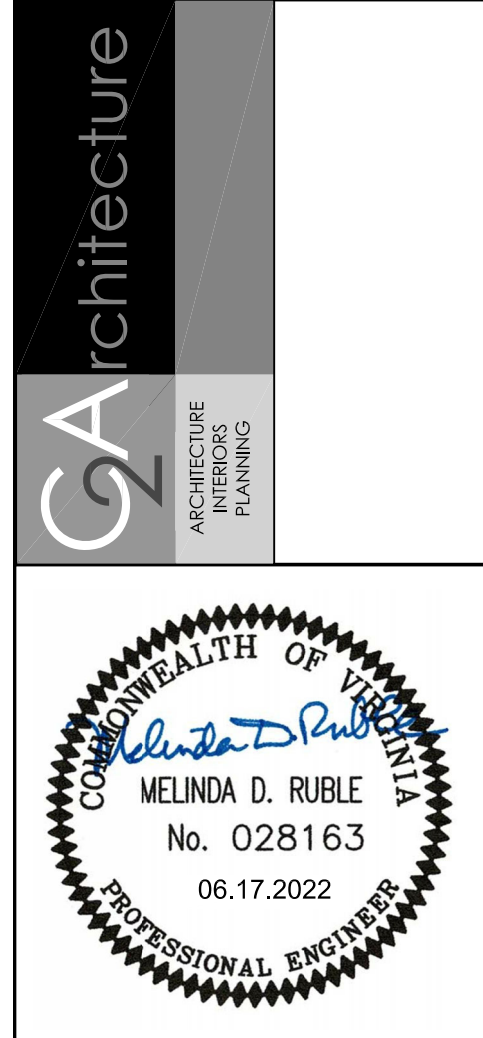
DRAWN BY:	MDR
REV'D BY:	MDR
DATE:	6/17/22
SCALE:	AS SHOWN
SECOND FLOOR PARTIAL PLUMBING NEW WORK PLAN - AREA G	

P3.7

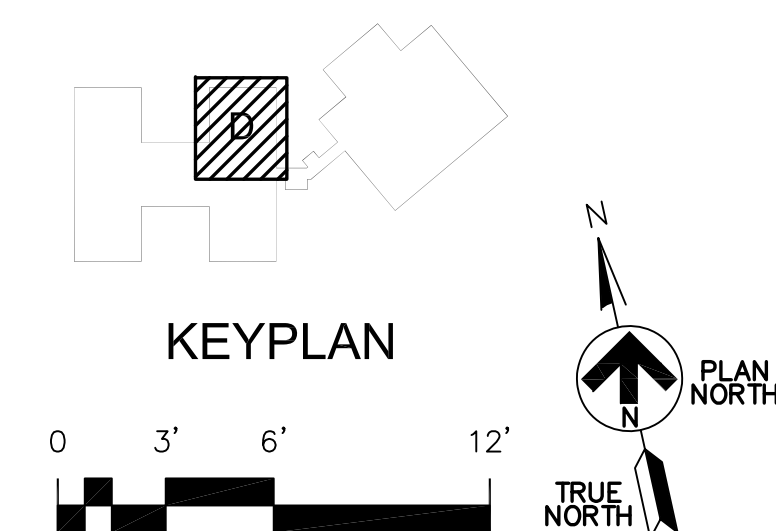
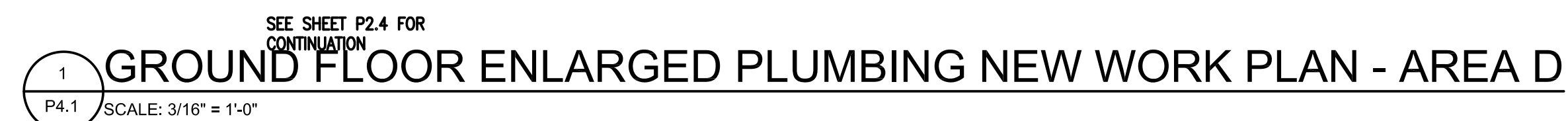
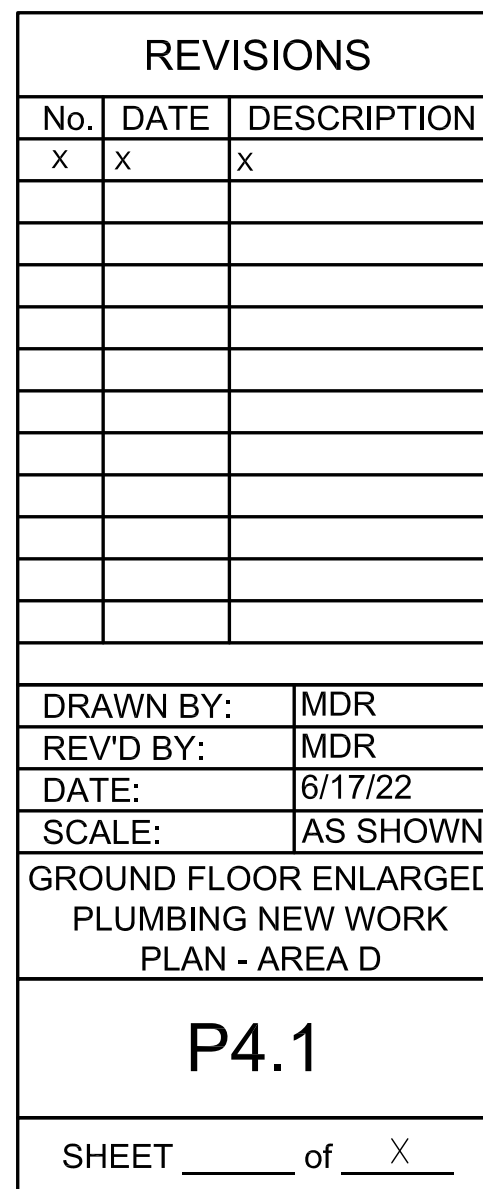
SHEET _____ of _____ X _____

1 SECOND FLOOR PARTIAL NEW WORK PLAN - AREA G
P3.7 SCALE: 3/16" = 1'-0"





ROANOKE, VIRGINIA





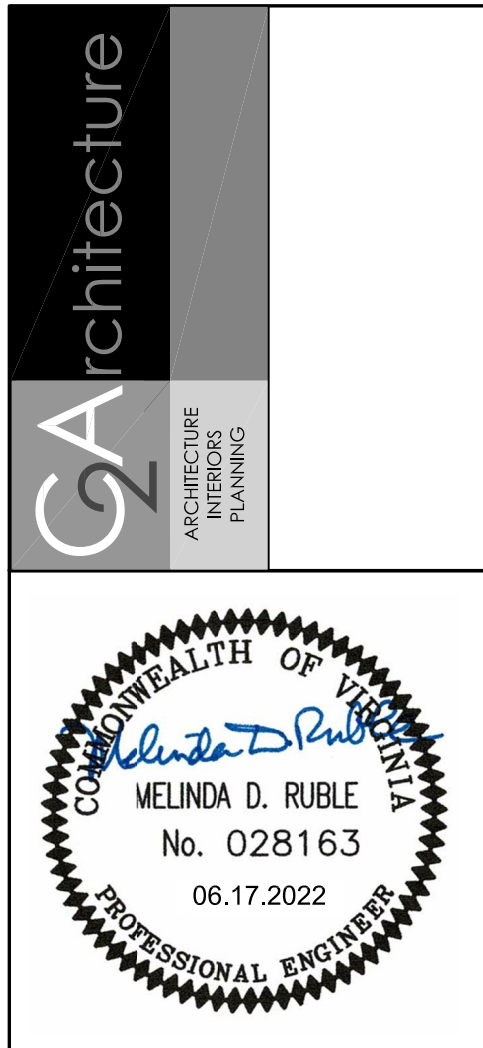
NOTE: INSULATE TRAP & SUPPLIES AS SPECIFIED.



DETAIL-CLEANOUT @ STACK



NO SCALE



RUFFNER CAREER AND
TECHNICAL EDUCATION CENTER

[illegible]