

ADDENDUM NO. 1

Lewis + Malm Architecture

2308.01 / LAMOINE STATE PARK / BGS 3519 03OCT2024

This Addendum forms a part of the contract documents. It modifies them as follows:

DISCIPLINES: Civil, Structural, Architecture, Mechanical, Electrical, Plumbing

CLARIFICATIONS:

- 01 79 00 CLARIFICATION: A good amateur digital photographer, capable of providing an in focus and steadily filmed training video w/ decent audible sound for the specified equipment and installations is acceptable.
- ALTERNATE #4 The Owner has determined that this alternate shall include five (5) sets of sliding doors and double tracks, as well as one (1) personnel door (see DWG & SPEC revisions below).

DRAWINGS:

SERIES 000:

S.000	Sheathing Notes: 10d nails indicated may be substituted with galvanized ring shank nails, provided they are a minimum of 2-7/8" long and have a diameter of at least 0.121". GC shall submit samples of nails intended for this purpose.
E001	DELETE DWG in its entirety. ADD E001-REV1 attached to this addendum in its entirety.
<u>SERIES 100:</u> A103	REVISE NOTE READING "Scrape & paint existing siding above 8"-0"", TO READ "Scrape & paint existing siding above 8'-8"".
A104	REVISE NOTE READING "Scrape & paint existing siding above 8"-0"", TO READ "Scrape & paint existing siding above 8'-8"".
A106	DELETE DWG in its entirety. ADD A106-REV1 attached to this addendum in its entirety.
A110	ADD A110 attached to this addendum in its entirety (new DWG).
E101	DELETE DWG in its entirety.



ADDENDUM NO. 1 2308.01 / LAMOINE STATE PARK / BGS 3519 Lewis + Malm Architecture 03OCT2024 ADD E101-REV1 attached to this addendum in its entirety. **SERIES 200:** XXXX No changes in this Addendum. **SERIES 300:** C300 DELETE DWG in its entirety. ADD C300-REV1 attached to this addendum in its entirety. C003 DELETE DWG in its entirety. ADD C003-REV1 attached to this addendum in its entirety. C301 DELETE DWG in its entirety. ADD C301-REV1 attached to this addendum in its entirety. C302 DELETE DWG in its entirety. ADD C302-REV1 attached to this addendum in its entirety. E303 DELETE DWG in its entirety. ADD E303-REV1 attached to this addendum in its entirety. P301 DELETE DWG in its entirety. ADD P301-REV1 attached to this addendum in its entirety. P302 DELETE DWG in its entirety. ADD P302-REV1 attached to this addendum in its entirety. **SERIES 400:** E401 DELETE DWG in its entirety. ADD E401-REV1 attached to this addendum in its entirety. P401 DELETE DWG in its entirety. ADD P401-REV1 attached to this addendum in its entirety.



ADDENDUM NO. 1

Lewis + Malm Architecture

2308.01 / LAMOINE STATE PARK / BGS 3519 03OCT2024

SERIES 500:

C502	DELETE DWG in its entirety. ADD C502-REV1 attached to this addendum in its entirety.
A500	DELETE DWG in its entirety. ADD A500-REV1 attached to this addendum in its entirety.
R501	Inadvertently appeared twice in the original bid documents, the second R501 is a duplicate version and shall be DELETED.
A501	ADD new DWG A501 attached to this addendum in its entirety in place of the duplicate R501 drawing not needed.
A502	DELETE DWG in its entirety. ADD A502-REV1 attached to this addendum in its entirety.
A503	DELETE DWG in its entirety. ADD A503-REV1 attached to this addendum in its entirety.
A504	DELETE DWG in its entirety. ADD A504-REV1 attached to this addendum in its entirety.
A506	DELETE DWG in its entirety. ADD A506-REV1 attached to this addendum in its entirety.
E501	DELETE DWG in its entirety. ADD E501-REV1 attached to this addendum in its entirety.
SERIES 600:	
A601	DELETE DWG in its entirety. ADD A601-REV1 attached to this addendum in its entirety.
A602	DELETE DWG in its entirety. ADD A602-REV1 attached to this addendum in its entirety.

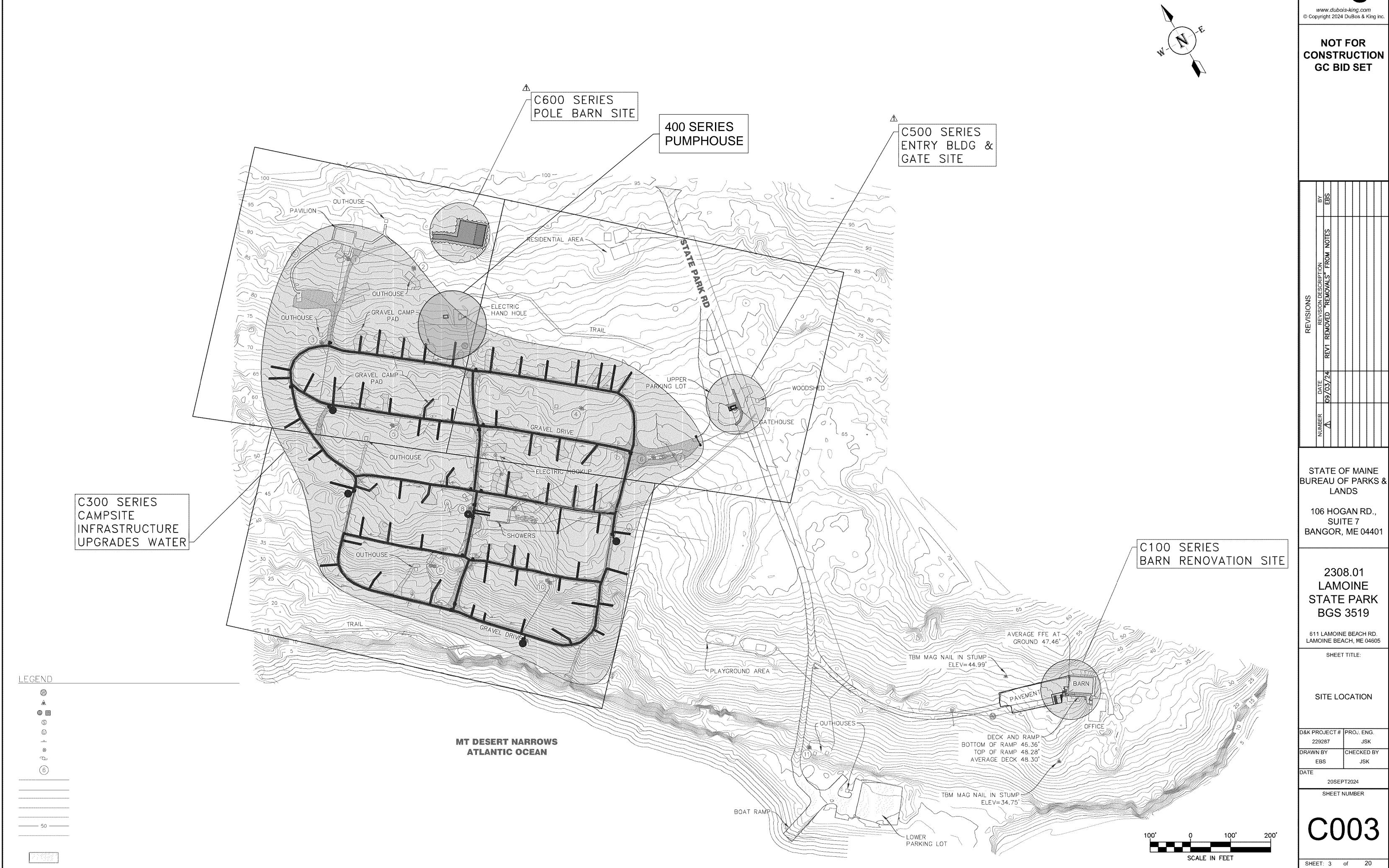


ADDENDUM NO. 1 2308.01 / LAMOINE STATE PARK / BGS 3519 Lewis + Malm Architecture 03OCT2024 SPECIFICATIONS: Note: Specifications apply to all six (6) Sub-Projects according to indicated scope

SPECIFICATIONS:	Note: Specifications apply to all six (6) Sub-Projects according to indicated scope.
01 23 00	DELETE SECTION in its entirety. ADD SECTION 012300-REV1 attached to this Addendum in its entirety.
06 41 13	ADD SECTION 064143 Architectural Cabinets attached to this Addendum in its entirety.
07 31 13	DELETE SECTION in its entirety. ADD SECTION 073113-REV1 attached to this Addendum in its entirety.
32 27 41	PART 2.01.B.: REVISE text reading "12.5mm Superpave" to read "9.5mm Superpave".

ATTACHMENTS: As noted above.

END OF ADDENDUM NO. 1



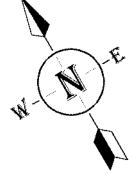


NOT FOR CONSTRUCTION GC BID SET

JSK

CHECKED BY

JSK





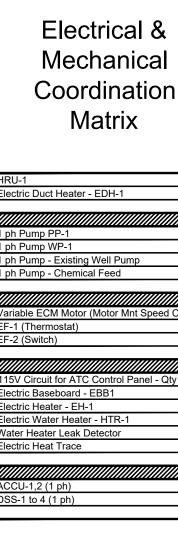
	ELECTRICAL SYMBOLS & INSTRUCTIONS
XXX	ROOM NUMBER.
$\overline{\mathbf{X}}$	KEYED NOTE, SEE NOTE OF SAME LETTER ON SHEET.
[]	INDICATES EXISTING DEVICE OR ITEM.
X x	DETAIL DESIGNATION: UPPER FIELD IS DETAIL IDENTIFIER, LOWER FIELD IS SHEET NUMBER WHERE DETAIL IS SHOWN.
	BRANCH CIRCUIT WIRING ON PLAN DRAWING INDICATES CONCEALED IN CEILING OR WALL. DIAGRAM DRAWING WIRING INDICATES NEW.
	BRANCH CIRCUIT WIRING ON PLAN DRAWING INDICATES CONCEALED IN FLOOR. DIAGRAM DRAWING WIRING INDICATES EXISTING.
	BRANCH CIRCUIT WIRING ON PLAN DRAWING INDICATES EXPOSED WIRING. DIAGRAM DRAWING WIRING INDICATES REMOVED.
·	LOW-VOLTAGE OR SYSTEMS WIRING CONCEALED IN CEILING OR WALL.
	LOW-VOLTAGE OR SYSTEMS WIRING CONCEALED IN FLOOR.
o	WIRING UP TO ABOVE.
•	WIRING DOWN TO BELOW.
	MULTI-CONDUCTOR BRANCH CIRCUIT, NO. OF HASHMARKS IS NO. OF CIRCUIT CONDUCTORS, WITHOUT HASHMARKS TWO CIRCUIT CONDUCTORS. ALL CIRCUITS TO INCLUDE SEPARATE GREEN GROUNDING CONDUCTOR. FOR FLUORESCENT LIGHTING CIRCUITS, INCREASE NEUTRAL CONDUCTOR 1 SIZE OVER PHASE CONDUCTORS (#10 AWG FOR 20A CIRCUIT)
	HOMERUN TO CIRCUIT AND PANELBOARD INDICATED, NO. OF ARROWS IS NO. OF PHASE WIRES, NO. OF HASHMARKS INDICATE NO. OF CIRCUIT CONDUCTORS.
	DIRECTIVE ARROW.
^	CIRCUIT BREAKER.
÷	GROUND.
J S PB	JUNCTION BOX, SPLICE BOX AND PULL BOX.
	FLUORESCENT OR LED LIGHTING FIXTURE WITH AND WITHOUT OUTLET, UPPER CASE LETTER TYPE, LOWER CASE LETTER IS CONTROL GROUP, RECTANGLES INDICATE NO. OF SECTIONS. SEE LIGHTING FIXTURE SCHEDULE FOR TYPES AND MOUNTING.
⊗°	CEILING MOUNTED LIGHTING FIXTURE, LETTER SUBSCRIPTS AS ABOVE.
- (S) a	WALL MOUNTED LIGHTING FIXTURE, LETTER SUBSCRIPTS AS ABOVE.
S ^G SH SP SK SM ST SL SL	SPST FLUSH WALL SWITCH $4'-0"$ UP ON CENTER ADJUSTED TO MINIMUM CUT OF BLOCK OR TILE, LOWER CASE LETTER IS CONTROL GROUP, WITH "H" 6' ABOVE FLOOR, WITH "P" PILOT LIGHT, WITH "K" KEY OPERATED, WITH "M" MOMENTARY, WITH "T" 0-6 HOUR TIMER, WITH "L" LOW-VOLTAGE, WITH SUPERSCRIPT # QUANTITY OF LOW VOLTAGE BUTTONS (ONE PER ZONE).
S2 S3 S4	DOUBLE POLE, THREE-WAY AND FOUR-WAY SWITCHES, SUBSCRIPTS AS ABOVE.
	120/240 VOLT PANELBOARD, FLUSH MOUNTED AND SURFACE MOUNTED.
	UNIVERSAL PANEL OR CABINET, FLUSH MOUNTED AND SURFACE MOUNTED.
<u>}</u>	TRANSFORMER.
X	MOTOR OF SIZE SHOWN, WITH "F" FRACTIONAL HORSEPOWER MOTOR BELOW 1/20 HP OR 100 WATTS.
M	UTILITY POWER METER. MOUNT 5'-0" UP.
ΦΦ	DUPLEX GROUNDED POLARIZED 120 VOLT THREE-WRE CONVENIENCE OUTLET 1'-6" UP VERTICALLY, WITH "U" 4'-0" AFF OR 0'-6" ABOVE COUNTER, ADJUST TO MINIMUM CUT OF BLOCK OR TILE, LETTER IS CIRCUIT GROUP, WITH "WP" WEATHERPROOF, WITH "G" FOR GROUND FAULT PROTECTED BY GFCI RECEPTACLE OR CIRCUIT BREAKER LOCATED UPSTREAM, WITH "H" MOUNT 7'-6" UP OR AS NOTED, WITH "TR" TAMPER RESISTANT, WITH "C" CEILING MOUNTED.
(QUADRUPLEX OUTLET IN ONE BOX, NOTES AND SUBSCRIPTS AS ABOVE.
•	GROUND FAULT CIRCUIT INTERRUPTING (GFCI) DUPLEX RECEPTACLE, 120 VOLT THREE-WIRE 20 AMP, SUBSCRIPTS AND MOUNTING AS ABOVE.
۲	EQUIPMENT CONNECTION.
C	SINGLE THROW HEAVY DUTY FUSED DISCONNECT SWITCH, NO. OF POLES AND SIZE AS REQUIRED FOR THE LOAD, "NF" NON FUSED, "WP" WEATHERPROOF.
<u></u>	ENCLOSED CIRCUIT BREAKER.
ATC	AUTOMATIC TEMPERATURE CONTROLS CIRCUIT, COORDINATE LOCATION WITH CONTROLS CONTRACTOR.
$\nabla \stackrel{2}{\nabla}$	COMPUTER DATA OUTLET 1'-6" AFF, WITH "U" 0'-6" ABOVE COUNTER, QUANTITY AS NOTED.
Ø	ELECTRIC DOOR STRIKE.
CR	PROXIMITY CARD READER.

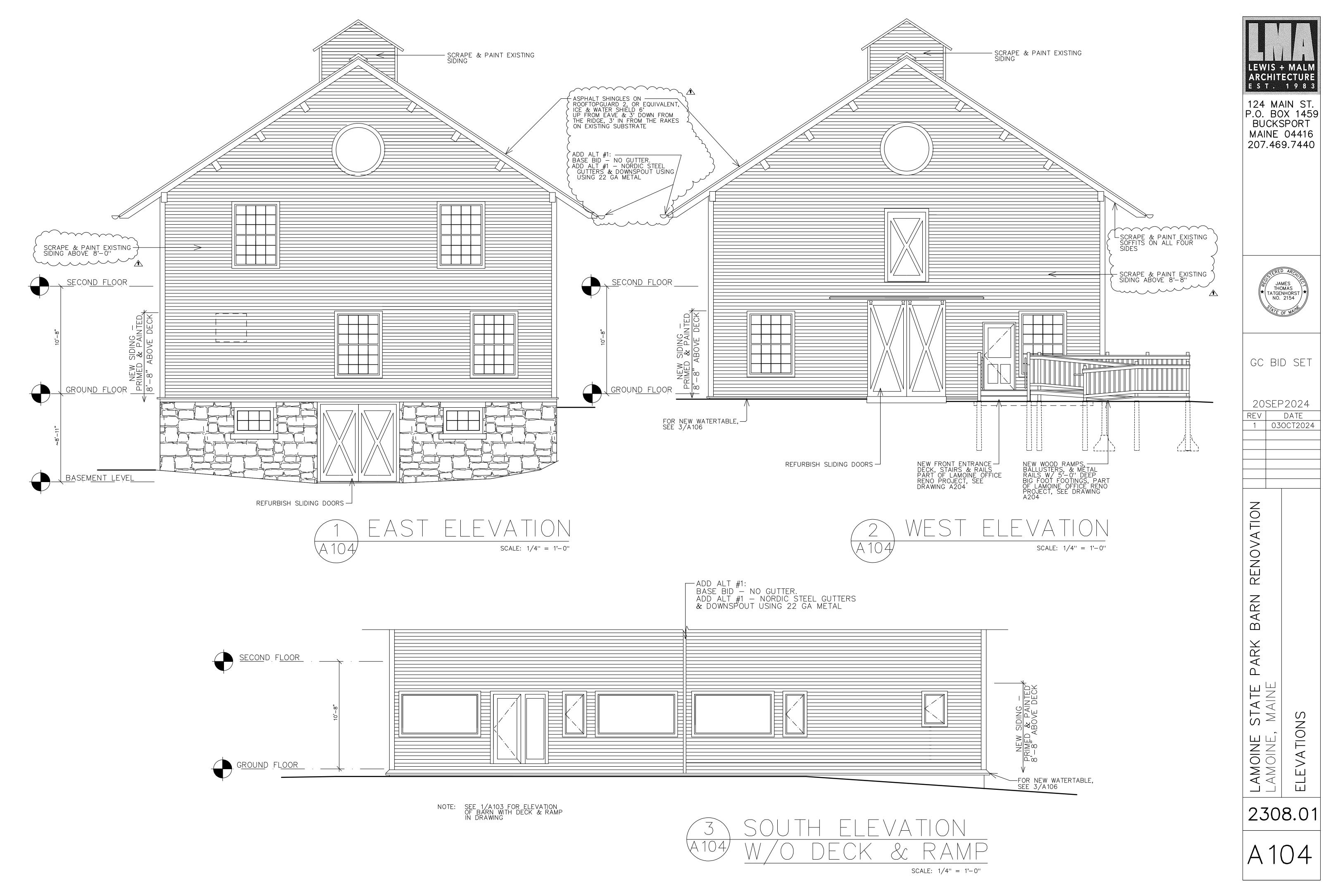
W WM WP WW

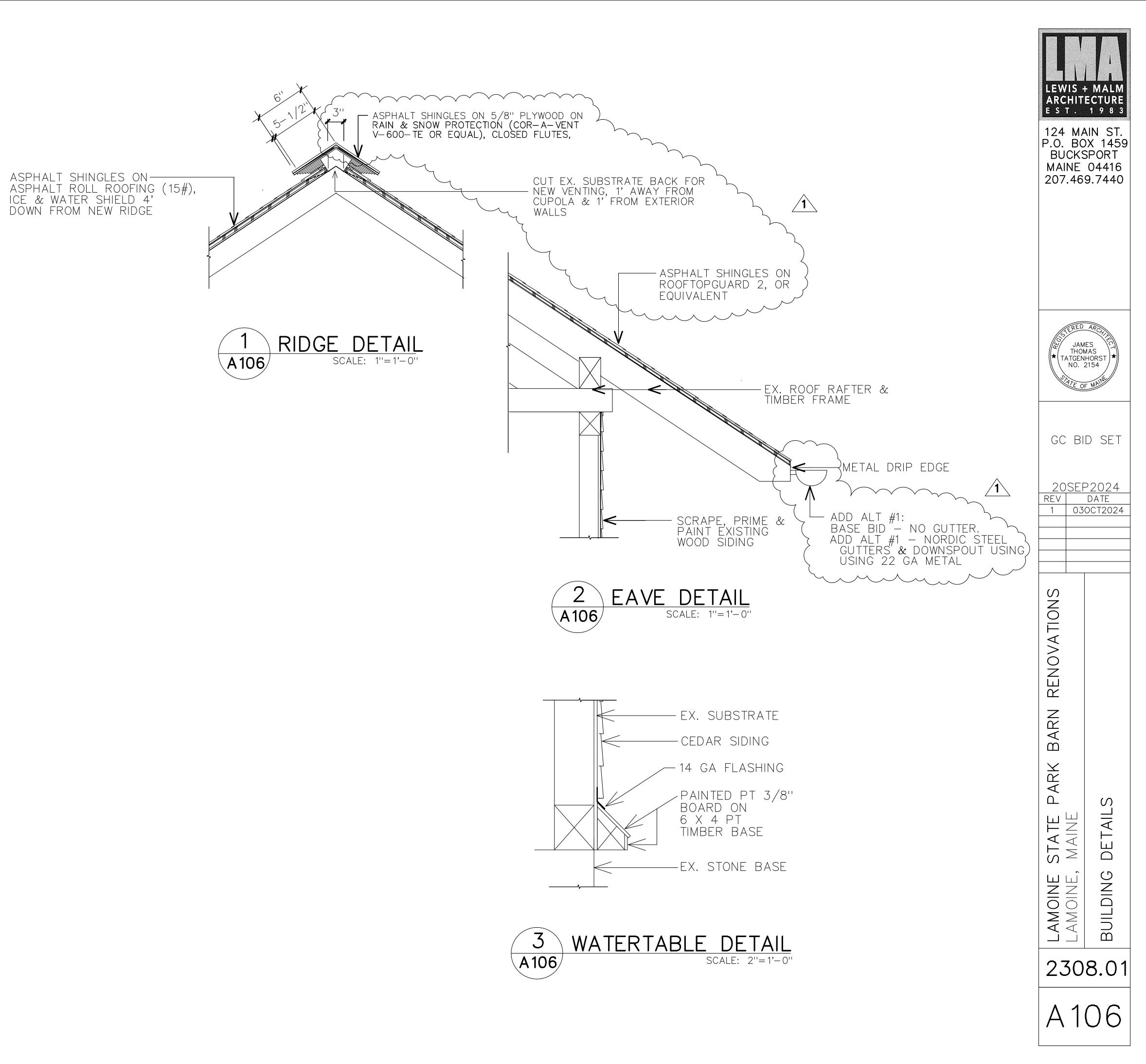
۸RR	REVIATIONS
	AMPERES
	ABOVE FINISHED FLOOR ABOVE FINISHED GRADE
Ή ʹ L	ARCHITECTURAL
	AUTOMATIC TRANSFER SWITCH BANGOR-HYDRO
Т	BATTERY
G	BREAKER BUILDING
0	CONDUIT, CONDUCTOR
	CIRCUIT BREAKER CIRCUIT
	CEILING
)	CENTRAL MAINE POWER CO. CURRENT TRANSFORMER
F	DISTRIBUTION
	DOWN DRAWING
,	EXISTING
C	EXISTING REPLACE ELECTRIC, ELECTRICAL
V	ELEVATION, ELEVATOR
	EMERGENCY ELECTRICAL METALLIC TUBING
IP	EQUIPMENT
	EXTERIOR FIRE ALARM
	FINISH, FINISHED
UT	FLOOR FUTURE
	GROUND
ох	HORSEPOWER, HEAT PUMP JUNCTION BOX
07	KILOWATT(S)
,	
•	MECHANICAL CONTRACTOR
	MINIMUM NEW
	NOT IN CONTRACT
	NETWORK INTERFACE DEMARCATION NUMBER
	ON CENTER
	PANEL, PANELBOARD
	POLYVINYL CHLORIDE POWER
	REMOVE
EP	RECEPTACLE RELOCATE
	RIGID STEEL CONDUIT
	SWITCH TELEPHONE

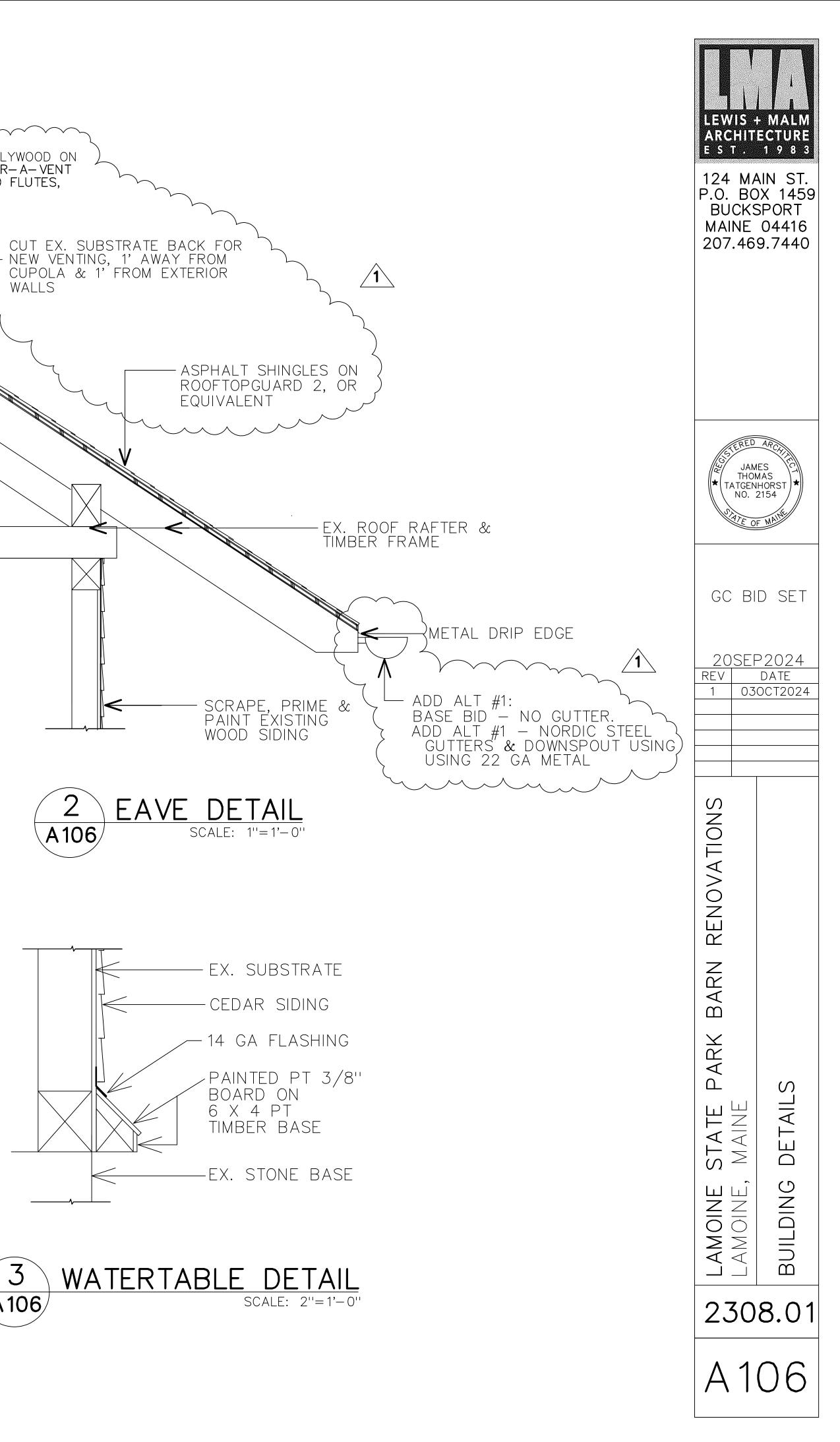
						Electrical & MECHANICAL SYSTEMS 161 MAIN STREET WINTHROP, MAINE Tel 207•377•6969 Fax 207•377•7584	LEWIS + MA ARCHITECTU	RE
	LIGHTING FIXTURE &	1	1			PLOT DATE: Oct 03, 2024	EST. 19	3 3
TYPE A	DESCRIPTION LITHONIA CAT# CPX-2X2-AL07-SWW7-M4-2X2SMKSH 2'x2' LED FLAT PANEL, SWITCHABLE LUMENS SET TO MEDIUM OUTPUT	VOLTS MVOLT	VA 30		LAMPING			
A1	FLAT PANEL, ŚWITCHABLE LUMENS SET TO MEDIUM OUTPUT (3356 LUMENS), 0–10V DIMMING DRIVER, 80 CRI, SATIN WHITE DIFFUSER, IP5X-RATED, NSF-RATED, SHALLOW DEPTH MULTI-USE SURFACE MOUNT KIT LITHONIA CAT# CPX-1X4-AL07-SWW7-M4-1X4SMKSH 1'x4' LED FLAT PANEL, SWITCHABLE LUMENS SET TO MEDIUM OUTPUT (3289 LUMENS) 0–10V DIMMING DRIVER, 80 CRI, SATIN WHITE DIFFUSER, IP5X-RATED, NSF-RATED, SHALLOW DEPTH MULTI-USE SURFACE MOUNT KIT	MVOLT	30	SURFACE MOUNT ON GWB CEILING	3500K LED INCLUDED 3500K			
A4	LITHONIA CAT# CPX-2X4-AL08-SWW7-M2-2X4SMKSH 2'x4' LED FLAT PANEL, SWITCHABLE LUMENS SET TO LOW OUTPUT (3813 LUMENS), 0-10V DIMMING DRIVER, 80 CRI, SATIN WHITE DIFFUSER, IP5X-RATED, NSF-RATED, SHALLOW DEPTH MULTI-USE SURFACE MOUNT KIT	MVOLT	30	SURFACE MOUNT ON GWB CEILING	LED INCLUDED 3500K		COLIN C. HEWETT 8374 CENSE G	
ER	REPLACE EXISTING FIXTURE						Coline MAHOUV	<u> </u> し
	LITHONIA CAT# CLX-L48-4000LM-SEF-FDL-WD-MVOLT-GZ10- 35K-80CRI-WH 4' LED STRIPLIGHT, 4000 LUMENS, 0-10V DIMMING DRIVER, 80 CRI, FLAT DIFFUSE LENS, WIDE DISTRIBUTION, WHITE FINISH	MVOLT	30	SURFACE MOUNT ON GWB CEILING	LED INCLUDED 3500K		GC BID SE	
	LITHONIA CAT# CLX-L96-8000LM-SEF-FDL-WD-MVOLT-GZ10- 35K-80CRI-WH 8' LED STRIPLIGHT, 8000 LUMENS, 0-10V DIMMING DRIVER, 80 CRI, FLAT DIFFUSE LENS, WDE	MVOLT	60	SURFACE MOUNT ON GWB CEILING	LED INCLUDED 3500K			
S-HO	DISTRIBUTION, WHITE FINISH LITHONIA CAT# CLX-L48-7000LM-SEF-FDL-WD-MVOLT-GZ10- 35K-80CRI-WH 4' LED STRIPLIGHT, 7000 LUMENS, 0-10V DIMMING DRIVER, 80 CRI, FLAT DIFFUSE LENS, WIDE DISTRIBUTION, WHITE FINISH	MVOLT		SURFACE MOUNT ON GWB CEILING	LED INCLUDED 3500K		20SEP2024	
V	LITHONIA CAT# WL4-20L-GZ10-LP835 4' LED VANITY LIGHT, APPROX 2000 LUMENS, 0-10V DIMMING DRIVER, WHITE FINISH	MVOLT	20	WALL BRACKET	LED INCLUDED 3500K		REV DATE 1 030CT2024	
	EDWARDS SIGNALING MODEL# 125LEDFR120A RED LED WARNING LIGHT, NEMA 4X-RATED, POLYCARBONATE LENS	120		WALL MOUNT ON EXTERIOR WALL	~~~~~~~			
	BEACON CAT# RFL2-44L-25-4K7-W-UNV-K-XXX LED FLOODLIGHT, APPROX 3000 LUMENS, WIDE FLOOD DISTRIBUTION, MATCH FINISH TO EXISTING FLOOD LIGHT			MATCH EXISTING FLOOD LIGHT ON OPPOSITE END	LED INCLUDED 4000K			
							~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Щ
			1 ph F 1 ph F 1 ph F 1 ph F 1 ph F Varial EF-1	ic Duct Heater - EDH-1       E       E         Pump PP-1       E       E         Pump WP-1       E       E         Pump - Existing Well Pump       E       E         Pump - Chemical Feed       E       E         Determine       E       M	Image: Second	I       I       Immer Switch Mutring         I       Immer Switch Mutring       Immer Switch Mutring         I       I       Immer Switch Mutring         I       Immer Switch Mutring       Immer Switch Mutring         I       Immer Switch Mutring       Switch Mutring         I       Immer Switch Mutring       Switch Mutring         I       Immer Switch Mutring       Immer Switch Mutring         Immer Size       Immer Size       Immer Switch Mutring	DINE STATE PARK DINE, MAINE CTRICAL SYMBOLS LIST	TING FIXTURE SCHEDUL
			EF-2 115V Electr Electr Electr Electr	(Switch)       E       M         Circuit for ATC Control Panel - Qty 2       E       Image: Circuit for ATC Control Panel - Qty 2         Circuit for ATC Control Panel - Qty 2       E       Image: Circuit for ATC Control Panel - Qty 2         Circuit for ATC Control Panel - Qty 2       E       Image: Circuit for ATC Control Panel - Qty 2         Circuit for ATC Control Panel - Qty 2       E       Image: Circuit for ATC Control Panel - Qty 2         Circuit for ATC Control Panel - Qty 2       E       Image: Circuit for ATC Control Panel - Qty 2         Circuit for ATC Control Panel - Qty 2       E       Image: Circuit for ATC Control Panel - Qty 2         Circuit for ATC Control Panel - Qty 2       E       Image: Circuit for ATC Control Panel - Qty 2         Circuit for Heater - EH-1       E       Image: Circuit for Attraction - Qty 2         In Heater Leak Detector       E       E         In Heater Trace       E       E         J-1,2 (1 ph)       E       E         I to 4 (1 ph)       E       E         Image: Signifies Mede       Image: Signifies Mede	E E .	Provide a constraint of the co	E00 [°]	

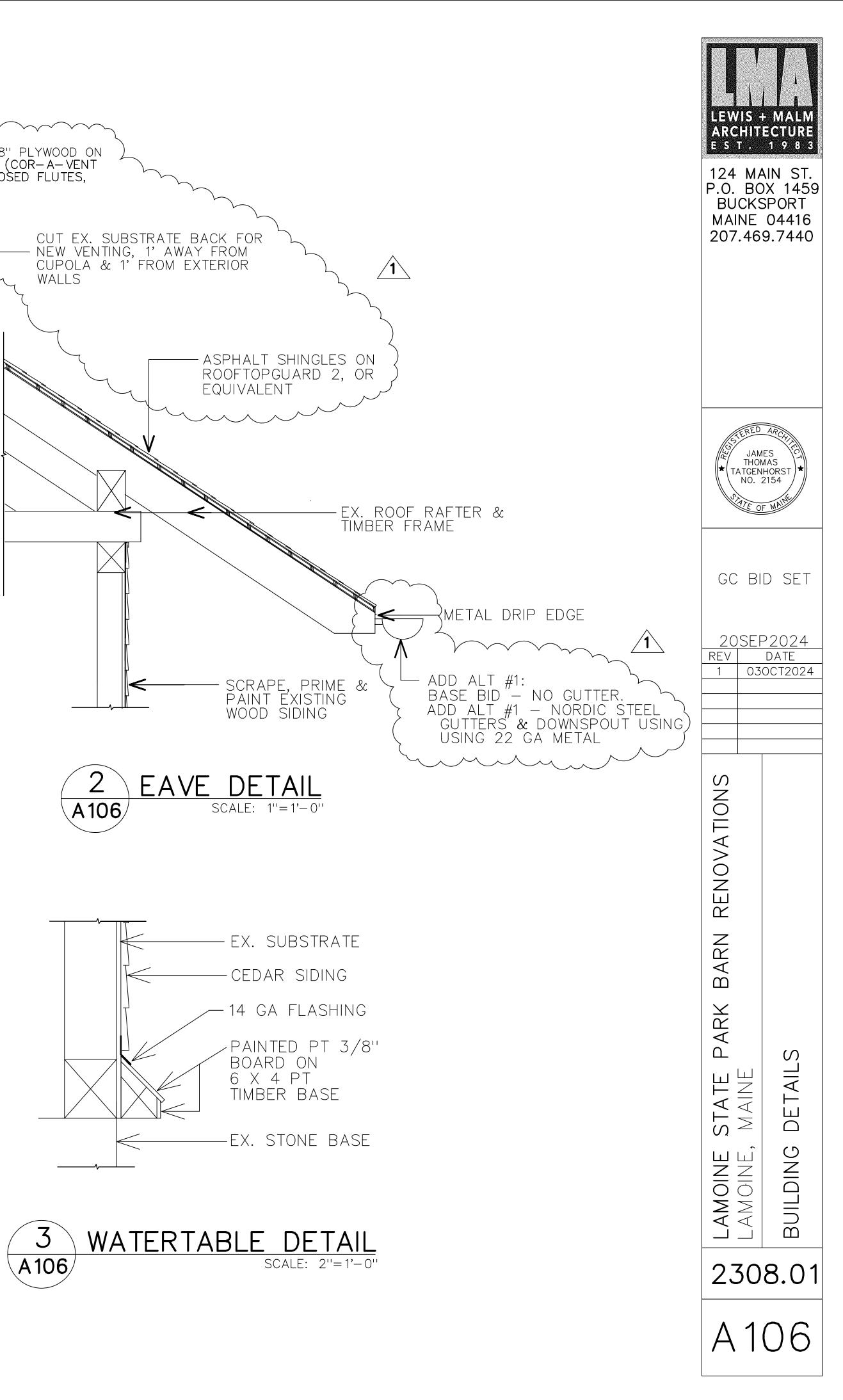
TELEPHONE TRANSFORMER TYPICAL UNDERGROUND VOLTS WATTS WIREMOLD WEATHERPROOF WIREWAY











## ASPHALT SHINGLES ON -ROOFTOPGUARD 2, OR EQUIVALENT

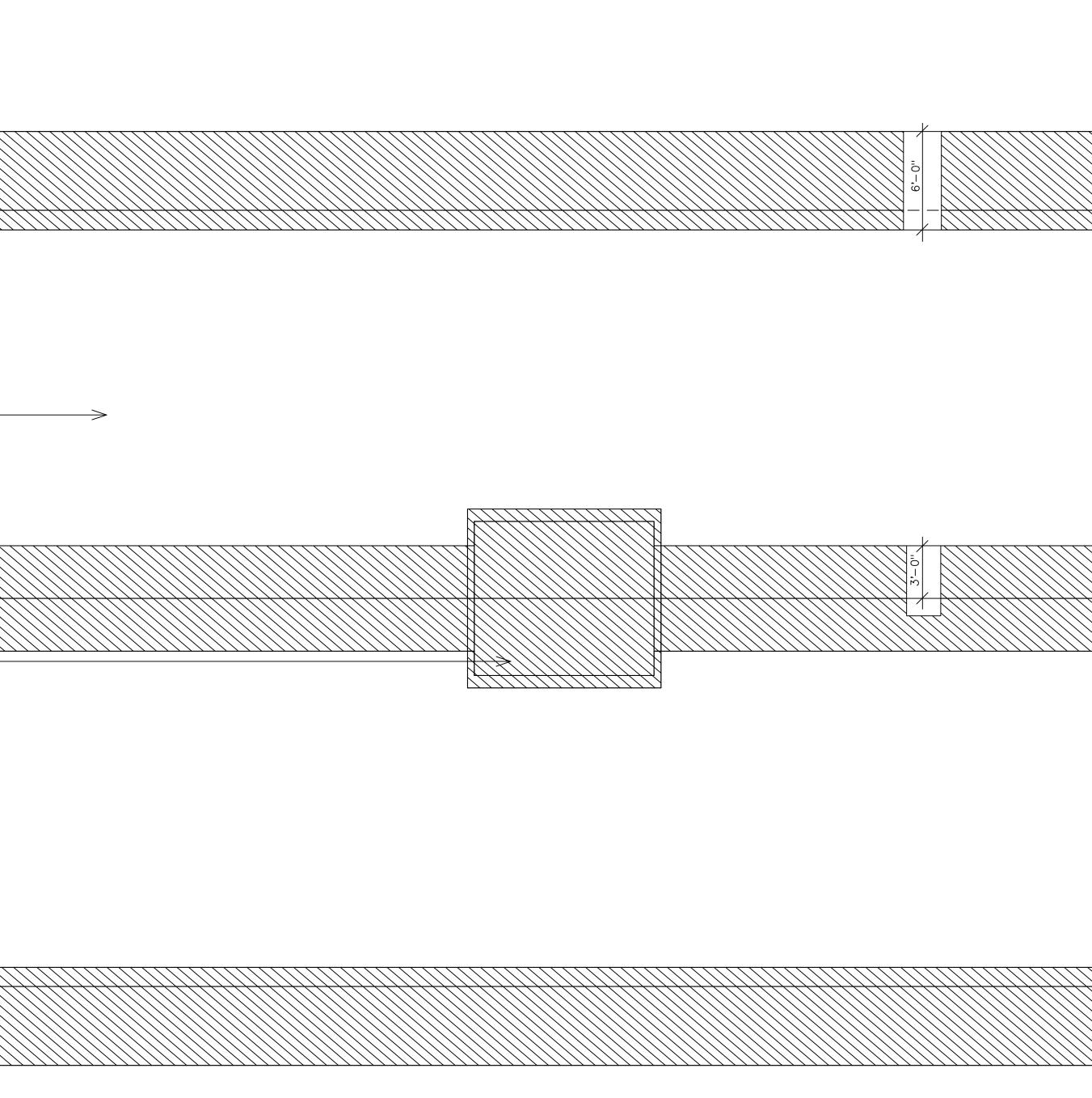
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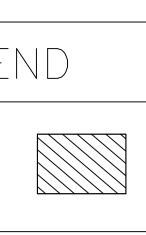
ICE & WATER SHIELD 6' UP FROM EAVE & 3' DOWN FROM THE RIDGE, 3' IN FROM THE RAKES ON EXISTING SUBSTRATE

LEGEND

ICE & WATER SHIELD

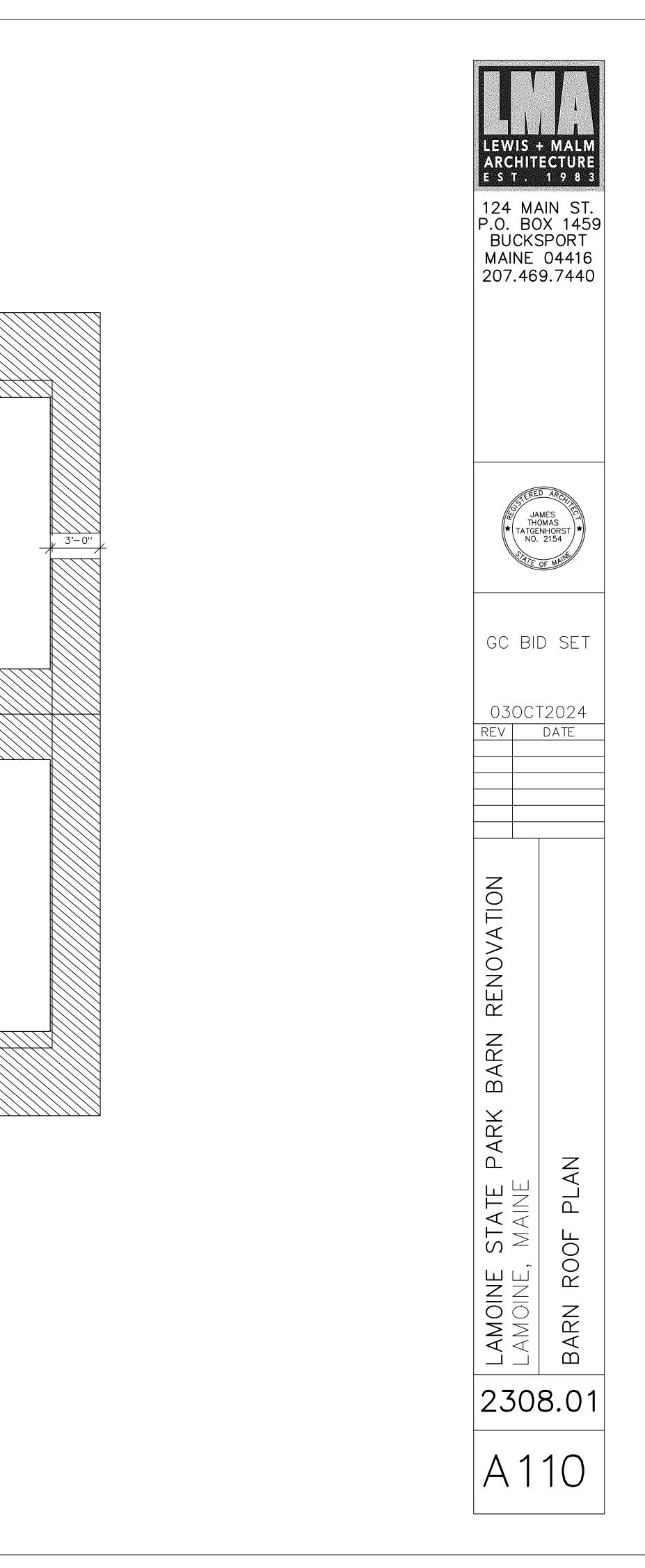
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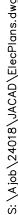


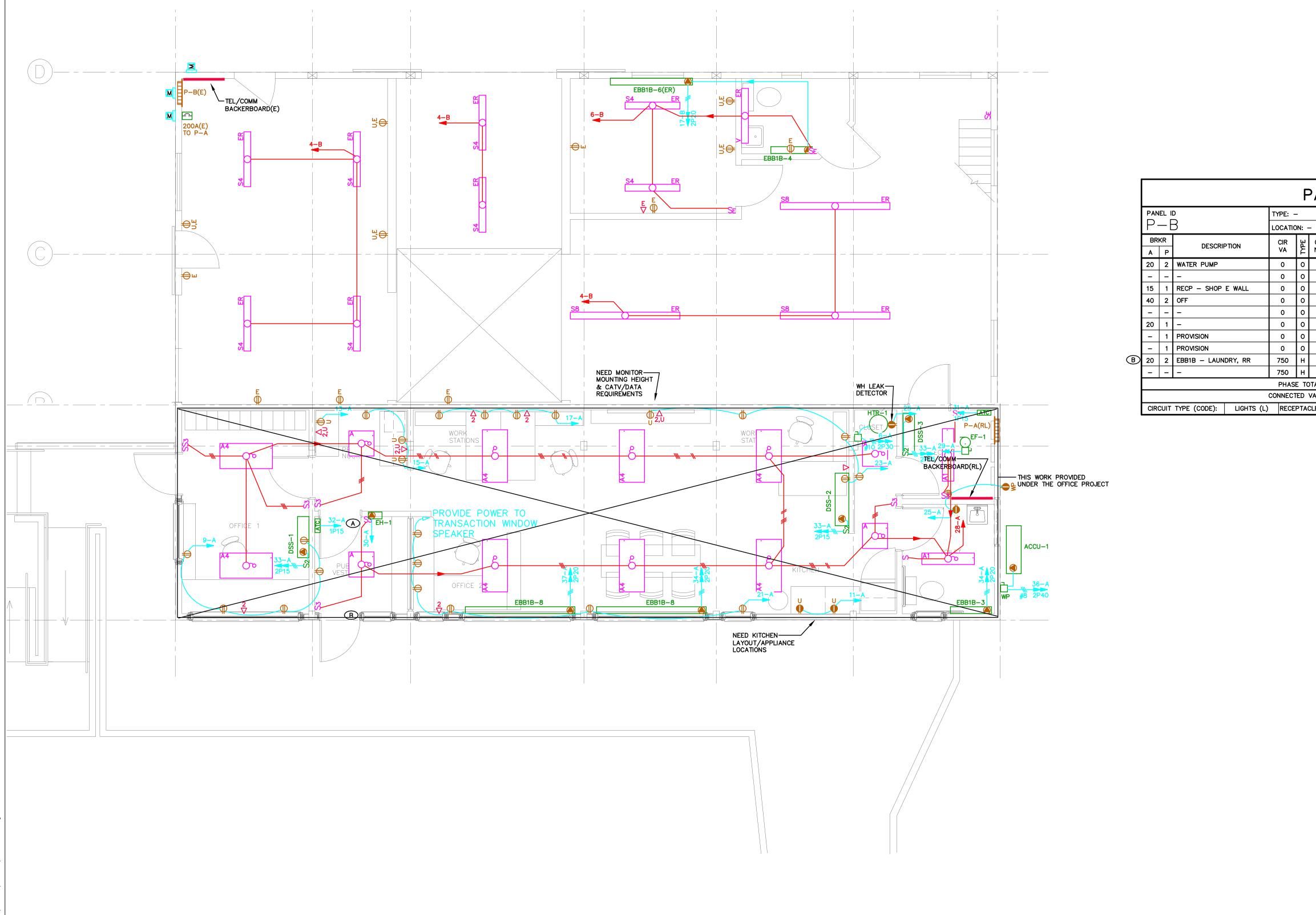














### PANELBOARD NOTES MAINTAIN EXISTING CIRCUIT BREAKERS UNLESS OTHERWISE NOTED. IF OTHER CIRCUITS ARE UNUSED POST-DEMOLITION, INDICATE AS "SPARE" IN CIRCUIT LIST. VERIFY ALL REMAINING CIRCUITS ARE EXTENDED AND RE-SUPPLIED. CIRCUITING MAY BE ADJUSTED IN FIELD TO BEST ADVANTAGE.

A SUPPLY NEW LOAD WITH EXISTING CIRCUIT BREAKER.

B PROVIDE NEW CIRCUIT BREAKER AS INDICATED IN EXISTING PROVISION SPACE.

C REMOVE EXISTING CIRCUIT BREAKER(S) AND PROVIDE NEW AS INDICATED.

<u>KEYED NOTES</u> A PROVIDE CARD READER AND ELECTRIC STRIKE AT THIS LOCATION UNDER BASE BID. B PROVIDE CARD READER AND ELECTRIC STRIKE AT THIS LOCATION UNDER ALTERNATE #2.



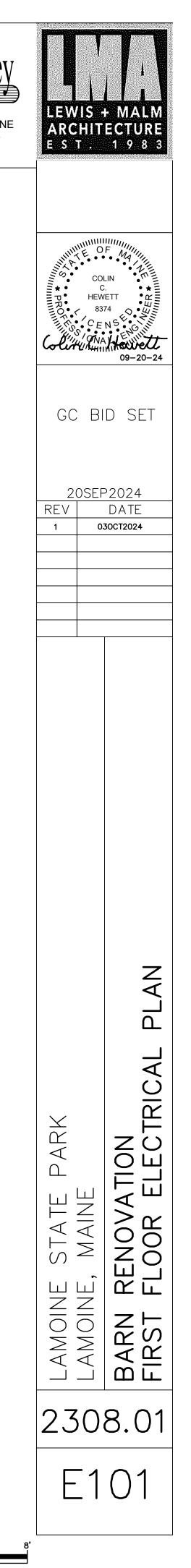
ELECTRICAL & MECHANICAL SYSTEMS 161 MAIN STREET WINTHROP, MAINE Tel 207•377•6969 Fax 207•377•7584 PLOT DATE: Oct 03, 2024

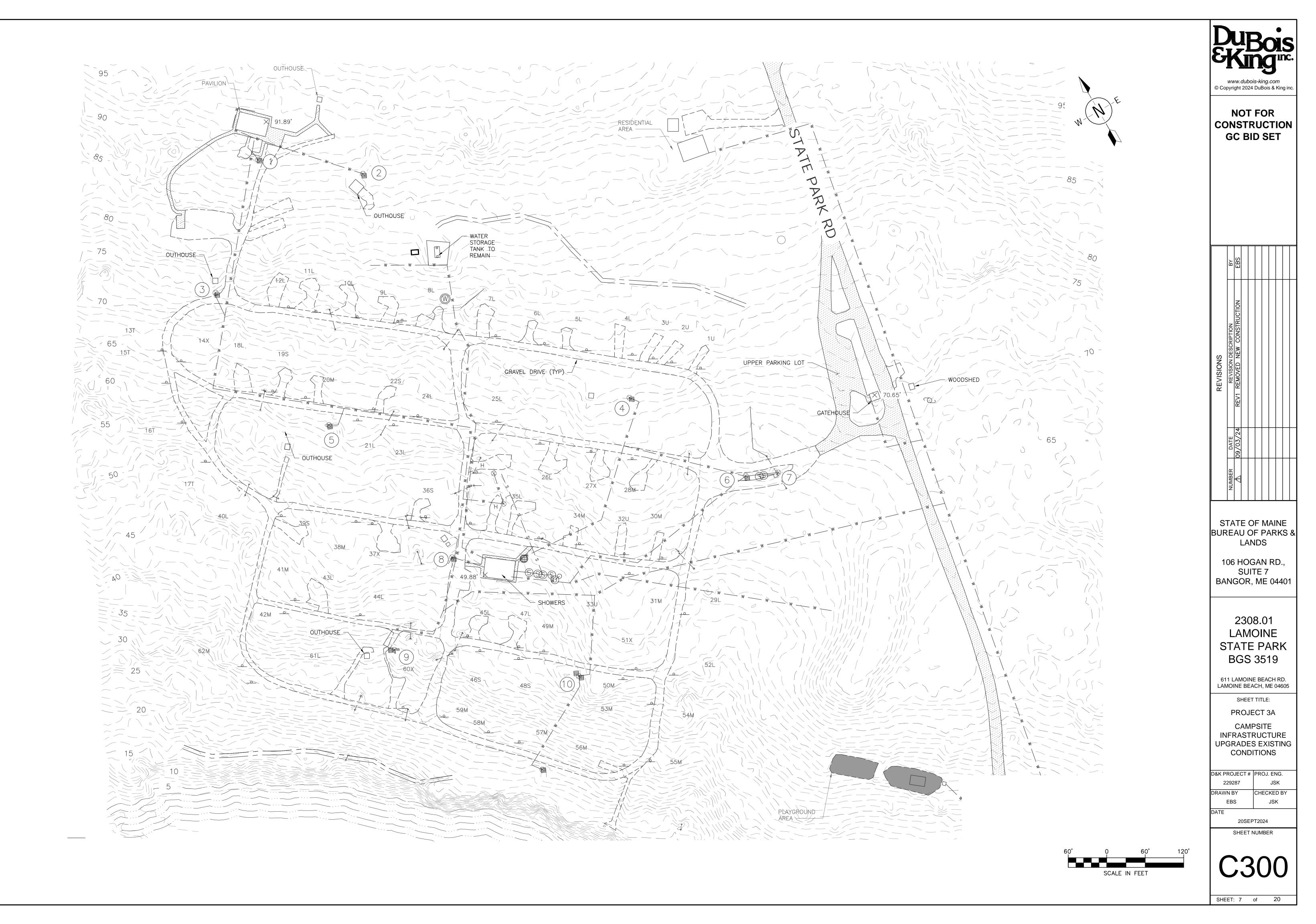
SCALE: 1/4" = 1'-0'

<u>GENERAL NOTES</u>

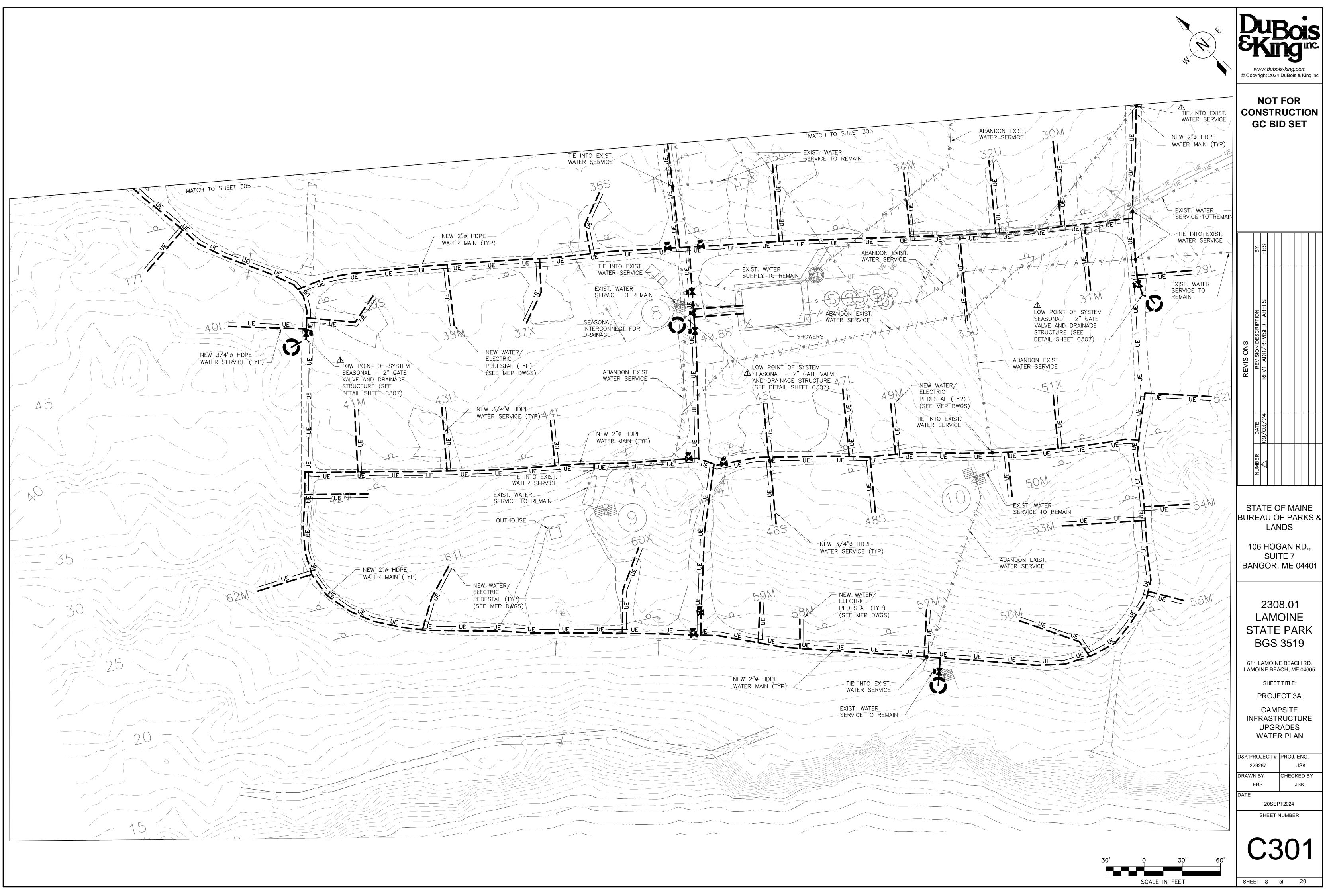
- THIS PLAN HAS BEEN COMPILED FROM FIELD OBSERVATIONS AND OWNER SUPPLIED DRAWINGS. FIELD VERIFY ALL CONDITIONS AND OBSERVE NECESSARY SAFETY PRECAUTIONS BEFORE DOING ANY WORK.
- 2. RUN SURFACE WIRING AS INCONSPICUOUS AS POSSIBLE, IN WALL AND CEILING CORNERS WHERE POSSIBLE, AS INDICATED.
- 3. DEVICES WITH CONTINUOUS LINETYPE ------ INDICATE NEW UNLESS OTHERWISE INDICATED.
- 4. DEVICES WITH DASHED LINETYPE ---- INDICATE EXISTING TO REMAIN UNLESS OTHERWISE INDICATED.
- 5. DEVICES WITH HIDDEN LINETYPE ------ INDICATE REMOVE UNLESS OTHERWISE INDICATED.
- 6. IN EVENT ANY UNSAFE WIRING IS ENCOUNTERED, IMMEDIATELY NOTIFY ENGINEER FOR CORRECTIVE ACTION.
- 7. EXISTING CONDUIT MAY BE RE-USED WHERE POSSIBLE.
- (8. ALL SURFACE WIRING TO BE IN ENT CONDUIT. 1.....

'AN	NEL S	CHED	UL	E							
AM	PS: –	MAIN: -	MOL	INTI	NG: -		VOLTS L-L: 240		PHASE		
		•					VOLTS L-G: 120		WIRE:	3	
CIR	LO	AD	CIR	Ы	CIR		DESCRIPTION		B	RKR	
NO.	А	В	NO.	түре	VA		DESCRIPTION		Р	Α	
1	0		2	0	0	LTG –	- BASEMENT		1	15	
3		360	4	L	360	LTG –	- BARN		1	20	$\bigcirc$
5	1090		6	L	1090	LTG/RECP-OFFC, BATH			1	20	$\bigcirc$
7		0	8	0	0	-			1	20	
9	0		10	0	0	0 HEATER				20	
11		0	12	0	0	RECP-	RECP-RIGHT FOR CHARGER			20	
13	0		14	0	0	RECP-	CP-LEFT FOR CHARGER			20	
15		0	16	0	0 PROVISION			1	-		
17	750		18	0	0 PROVISION				1	-	
19		750	20	0	0 PROVISION				1	-	
TALS	1840	1110		NUMBER BY					Y CIRC	UIT	
/A : 2	950		CONNE	CTE	D AMPS	: 12					
LE (R	) MOTOR (I	M) HEA	т (Н)		OTHER	(0)	SPARE (S)	DI	STRIB	(D)	



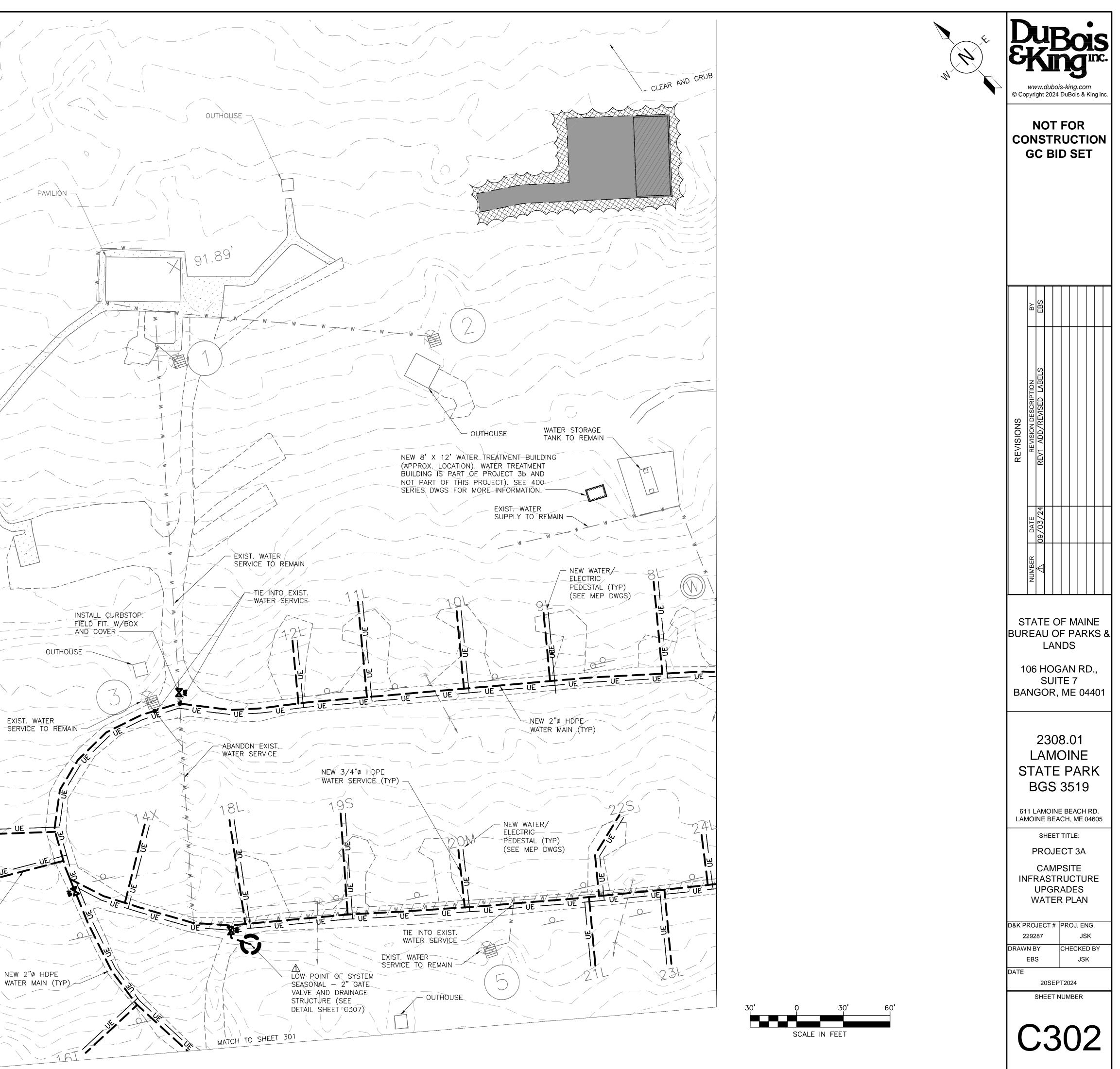


229287L Lamine State Park\Drawings\Civil\Lamoine Sub-projects\03a Campsite Infrastructure\229287-SP101-W-E-G.dwg 10/2/2024 2:30



229287L Lamine State Park\Drawings\Civil\Lamoine Sub-projects\03a Campsite Infrastructure\229287-SP101-W-E-G.dwg 10/2/2024 2:45 P

95 O(65 15'NEW 3/4"Ø HDPE WATER SERVICE (TYP) NEW 2"Ø HDPE WATER MAIN (TYP)



SHEET: 9 of 20

PAN			TYPE: ·	-	AMI	PS: –	MAIN: -	мо	лти	NG: —		VOLTS L-L: 240	PHAS	PHASE: 1	
P-	— (	3	LOCATIO	DN: -	_							VOLTS L-G: 120	WIRE:		
BR	BRKR		CIR	Щ	CIR	LO	AD	CIR	Щ	CIR		DESCRIPTION	BRKF		
Α	Ρ	DESCRIPTION	VA	TYPE	NO.	А	В	NO.	ТҮРЕ	VA		DESCRIPTION	Р		
50	2	PUMP PP-1	4620	м	1	4620		2	0	0	MAIN	BREAKER	2		
-	-	-	4620	м	3		4620	4	0	0	-		-		
-	1	LTG - EXTERIOR	0	0	5	0		6	0	0	LTG -	- WOMENS RM	1		
-	1	LTG — MECH RM	0	0	7		0	8	0	0	LTG -	- MENS ROOM	1		
-	1	LTG - SHOWER	0	0	9	0		10	0	0	RECP	- LFT WOMENS RM	1		
-	1	LTG - SHOWER	0	0	11		0	12	0	0	RECP	- CNTR MENS RM	1		
-	1	LTG - EXTERIOR	0	0	13	0		14	0	0	RECP	- MENS RM	1		
-	1	RECP - WOMENS RM	0	0	15		0	16	0	0	RECP	- MECH RM	1		
-	1	RECP - WOMENS RM	0	0	17	0		18	0	0	HOST		2		
-	1	WOOD SHED	0	0	19		0	20	0	0	-		_		
-	1	SPARE	0	0	21	0		22	0	0	RECP	AT PANEL	1		
-	1	WATER HEATER	0	0	23		0	24	0	0	SEWER	R PUMPS	2		
-	2	WATER PUMPS	0	0	25	0		26	0	0	-		-		
-	-	-	0	0	27		0	28	0	0	BLAN	<	1		
_	1	BLANK	0	0	29	0		30	0	0	BLAN	<	1		
			PHAS	ETC	DTALS	4620	4620					- NUMBER I	BY CIR	c	

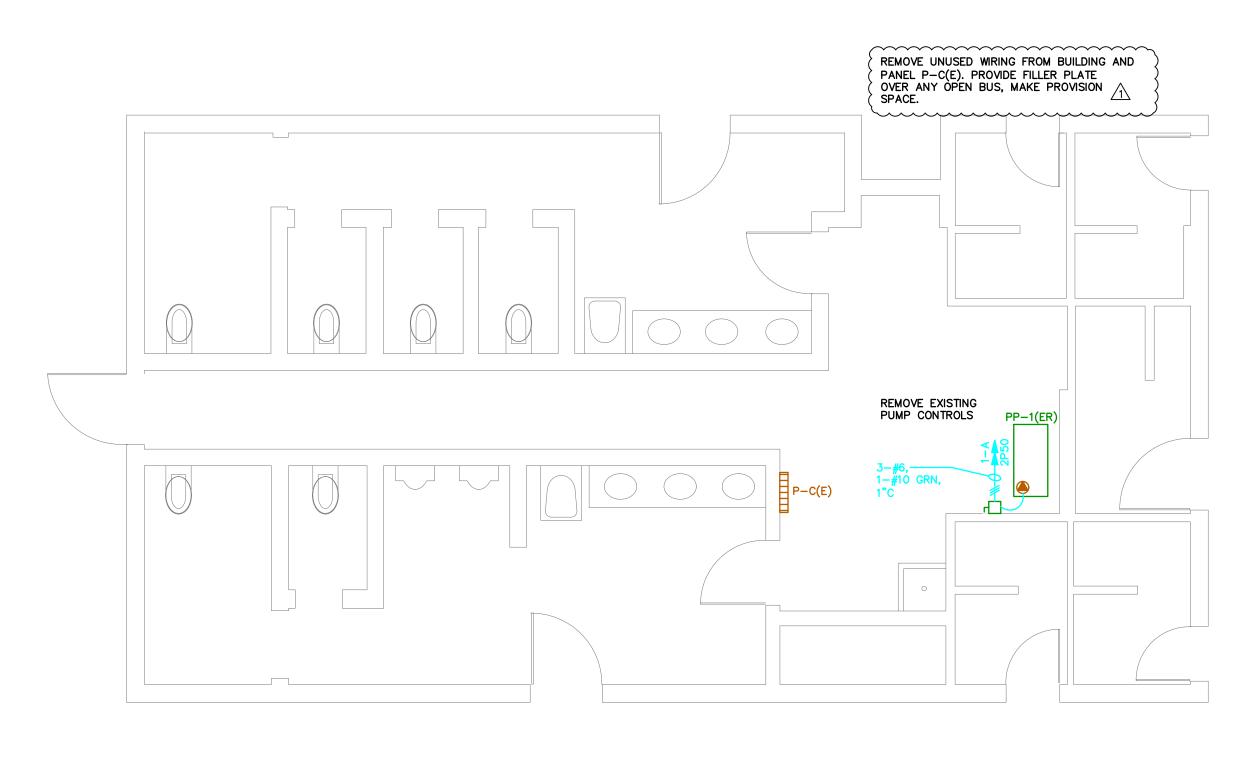
PANELBOARD NOTES

MAINTAIN EXISTING CIRCUIT BREAKERS UNLESS OTHERWISE NOTED. IF OTHER CIRCUITS ARE UNUSED POST-DEMOLITION, INDICATE AS "SPARE" IN CIRCUIT LIST. VERIFY ALL REMAINING CIRCUITS ARE EXTENDED AND RE-SUPPLIED. CIRCUITING MAY BE ADJUSTED IN FIELD TO BEST ADVANTAGE.

A SUPPLY NEW LOAD WITH EXISTING CIRCUIT BREAKER.

B PROVIDE NEW CIRCUIT BREAKER AS INDICATED IN EXISTING PROVISION SPACE.

C REMOVE EXISTING CIRCUIT BREAKER(S) AND PROVIDE NEW AS INDICATED.





161 MAIN STREET WINTHROP, MAINE Tel 207•377•6969 Fax 207•377•7584 PLOT DATE: Oct 03, 2024

LEWIS + MALM ARCHITECTURE EST. 1983 

09-20-24

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RENOVATIONS

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SCALE: 1/4" = 1'-0

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8. All surface wiring to be in ent conduit.  $\triangle$ 

7. EXISTING CONDUIT MAY BE RE-USED WHERE POSSIBLE.

1. THIS PLAN HAS BEEN COMPILED FROM FIELD OBSERVATIONS AND OWNER SUPPLIED DRAWINGS. FIELD VERIFY ALL CONDITIONS AND OBSERVE

3. DEVICES WITH CONTINUOUS LINETYPE ------ INDICATE NEW UNLESS

5. DEVICES WITH HIDDEN LINETYPE ----- INDICATE REMOVE UNLESS

6. IN EVENT ANY UNSAFE WIRING IS ENCOUNTERED, IMMEDIATELY NOTIFY ENGINEER FOR CORRECTIVE ACTION.

4. DEVICES WITH DASHED LINETYPE ---- INDICATE EXISTING TO REMAIN

NECESSARY SAFETY PRECAUTIONS BEFORE DOING ANY WORK. 2. RUN SURFACE WIRING AS INCONSPICUOUS AS POSSIBLE, IN WALL AND

CEILING CORNERS WHERE POSSIBLE, AS INDICATED.

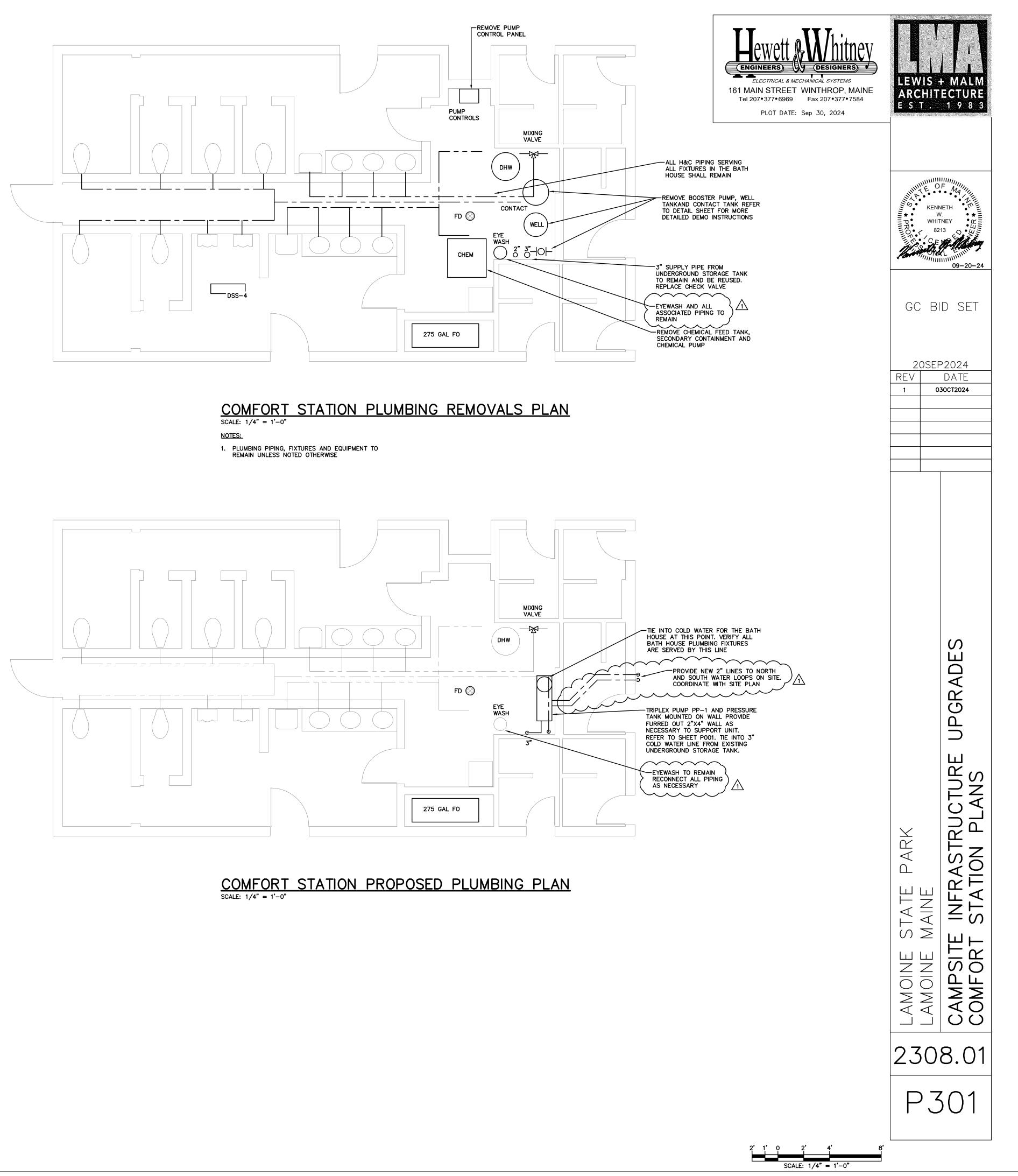
<u>GENERAL NOTES</u>

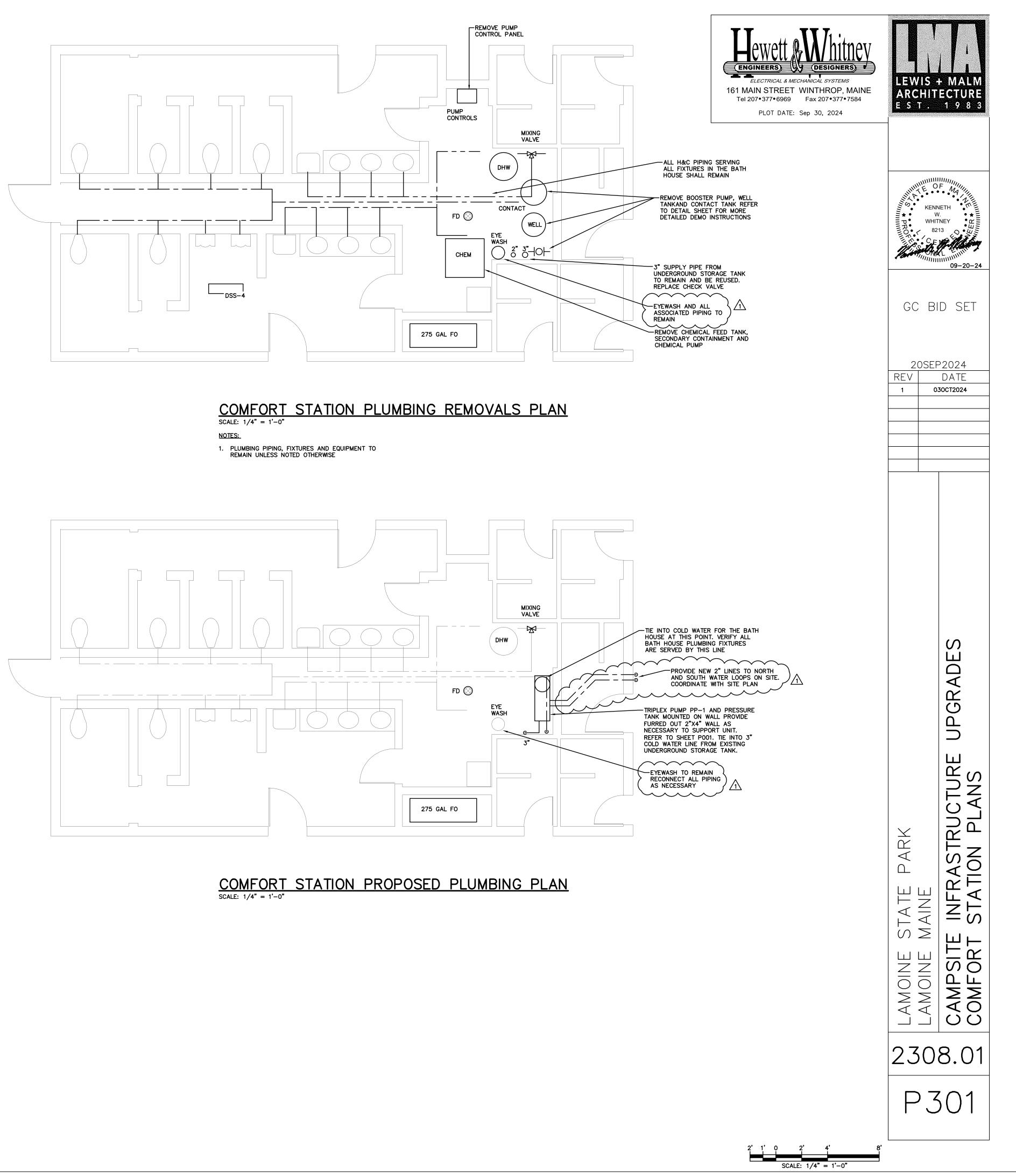
OTHERWISE INDICATED.

OTHERWISE INDICATED.

UNLESS OTHERWISE INDICATED.

COMFORT STATION ELECTRICAL PLAN SCALE: 1/4" = 1'-0"





## PLUMBING LEGEND

PRESSURE REDUCING-

TRIPLEX BOOSTER PUMPS,-

CONTROLLER & PRESSURE

SUCTION. TIE IN AT THIS

TANK. MOUNT ON WALL

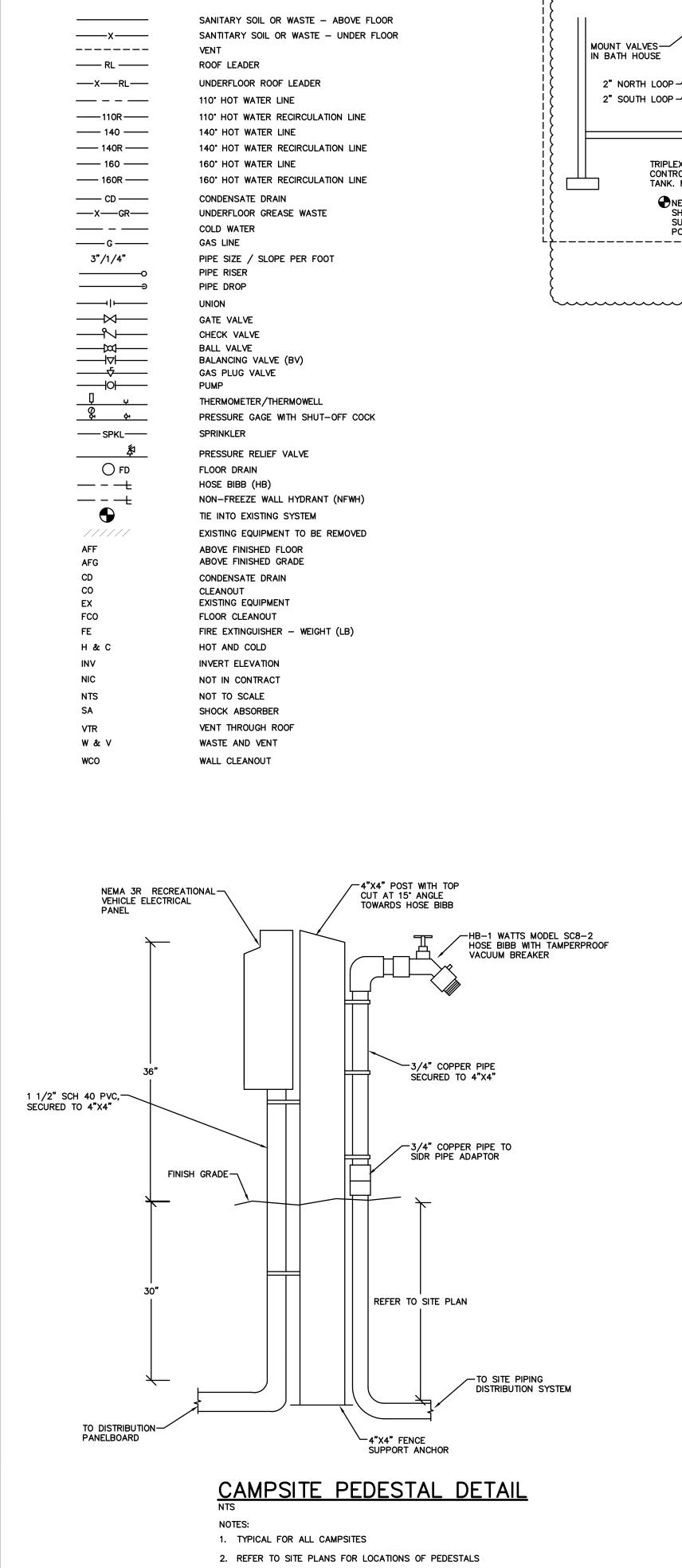
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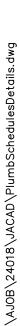
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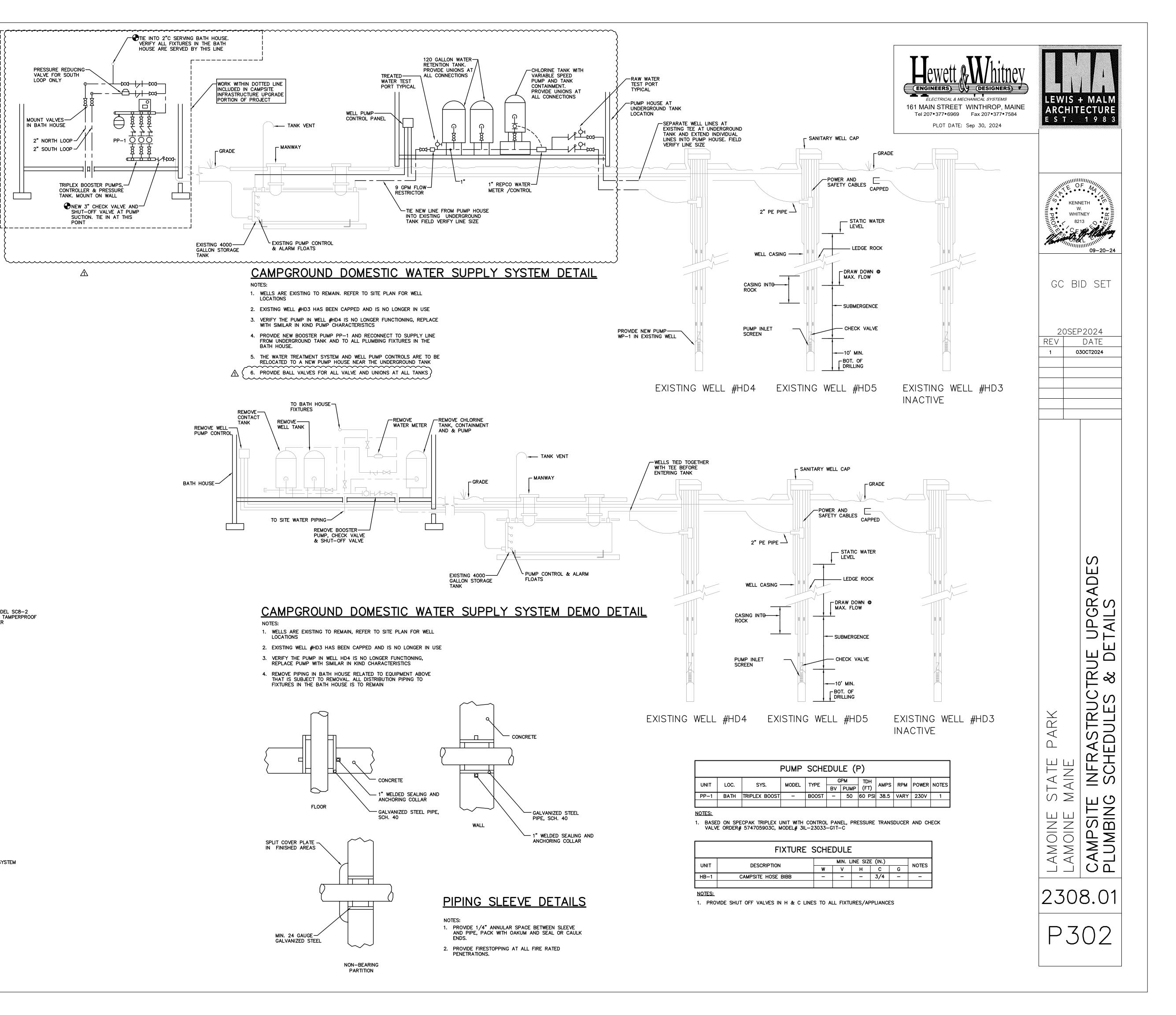
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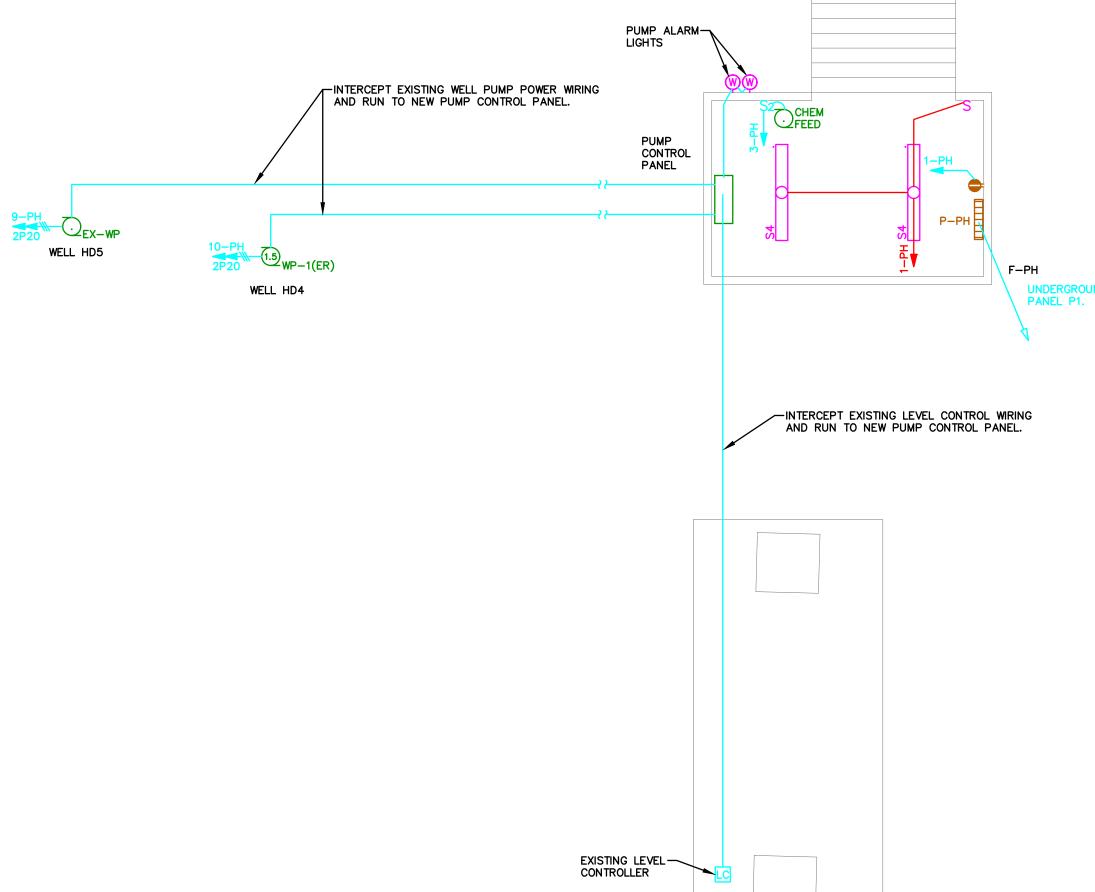
VALVE FOR SOUTH







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20	1	SPARE		0	s	7			0	8	s	0	
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CIRC	CUIT	TYPE (CODE):	LIGHTS (L)	RECE	PTA	CLE (R	) MOTOR	(M)	HEA	т (Н)		OTHER	(







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161 MAIN STREET WINTHROP, MAINE Tel 207•377•6969 Fax 207•377•7584 PLOT DATE: Oct 03, 2024

LEWIS + MALM

ARCHITECTURE

EST. 1983

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COLIN

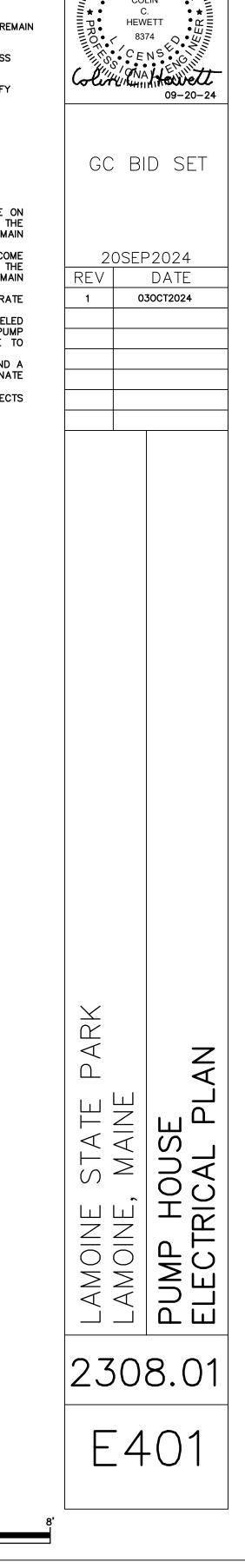
### <u>GENERAL NOTES</u>

- 1. THIS PLAN HAS BEEN COMPILED FROM FIELD OBSERVATIONS AND OWNER SUPPLIED DRAWINGS. FIELD VERIFY ALL CONDITIONS AND OBSERVE NECESSARY SAFETY PRECAUTIONS BEFORE DOING ANY WORK.
- 2. RUN SURFACE WIRING AS INCONSPICUOUS AS POSSIBLE, IN WALL AND CEILING CORNERS WHERE POSSIBLE, AS INDICATED.
- 3. DEVICES WITH CONTINUOUS LINETYPE ------ INDICATE NEW UNLESS
- OTHERWISE INDICATED.
- 4. DEVICES WITH DASHED LINETYPE ---- INDICATE EXISTING TO REMAIN UNLESS OTHERWISE INDICATED.
- 5. DEVICES WITH HIDDEN LINETYPE ------ INDICATE REMOVE UNLESS OTHERWISE INDICATED.
- 6. IN EVENT ANY UNSAFE WIRING IS ENCOUNTERED, IMMEDIATELY NOTIFY ENGINEER FOR CORRECTIVE ACTION.
- 7. EXISTING CONDUIT MAY BE RE-USED WHERE POSSIBLE.
- 8. ALL SURFACE WIRING TO BE IN ENT CONDUIT. 1

### <u>PUMP HOUSE NOTES</u>

- 1. WP-1 WELL PUMP IN WELL HD4: UNIT SHALL COME ON ANYTIME THE EXISTING LEVEL CONTROLLER IN THE EXISTING WATER TANK COMES ON, AND SHALL REMAIN
- OFF OTHERWISE. 2. EXISTING WELL PUMP IN WELL HD5: UNIT SHALL COME ON ANYTIME THE EXISTING LEVEL CONTROLLER IN THE EXISTING WATER TANK COMES ON, AND SHALL REMAIN
- OFF OTHERWISE. 3. IT IS THE INTENT THAT BOTH WELL PUMPS OPERATE TOGETHER OFF THE SAME LEVEL CONTROLLER.
- 4. PROVIDE TWO VISUAL ALARM INDICATOR LIGHTS, LABELED "HD4 WELL PUMP FAILURE" AND "HD5 WELL PUMP FAILURE" ON THE OUTSIDE OF THE PUMP HOUSE TO ACTIVATE IN THE EVENT OF A WELL PUMP FAILURE.
   5. PROVIDE CELL PHONE ALARM COMMUNICATOR TO SEND A
- TEXT IN THE EVENT OF A PUMP FAILURE. COORDINATE WITH THE STATE PARK'S SERVICE PROVIDER 6. PROVIDE CONTROL PARK'S SERVICE PROVIDER AND INDICATOR LIGHTS FOR EACH PUMP. 7. SEE SITE PLAN E300 FOR LOCATIONS.

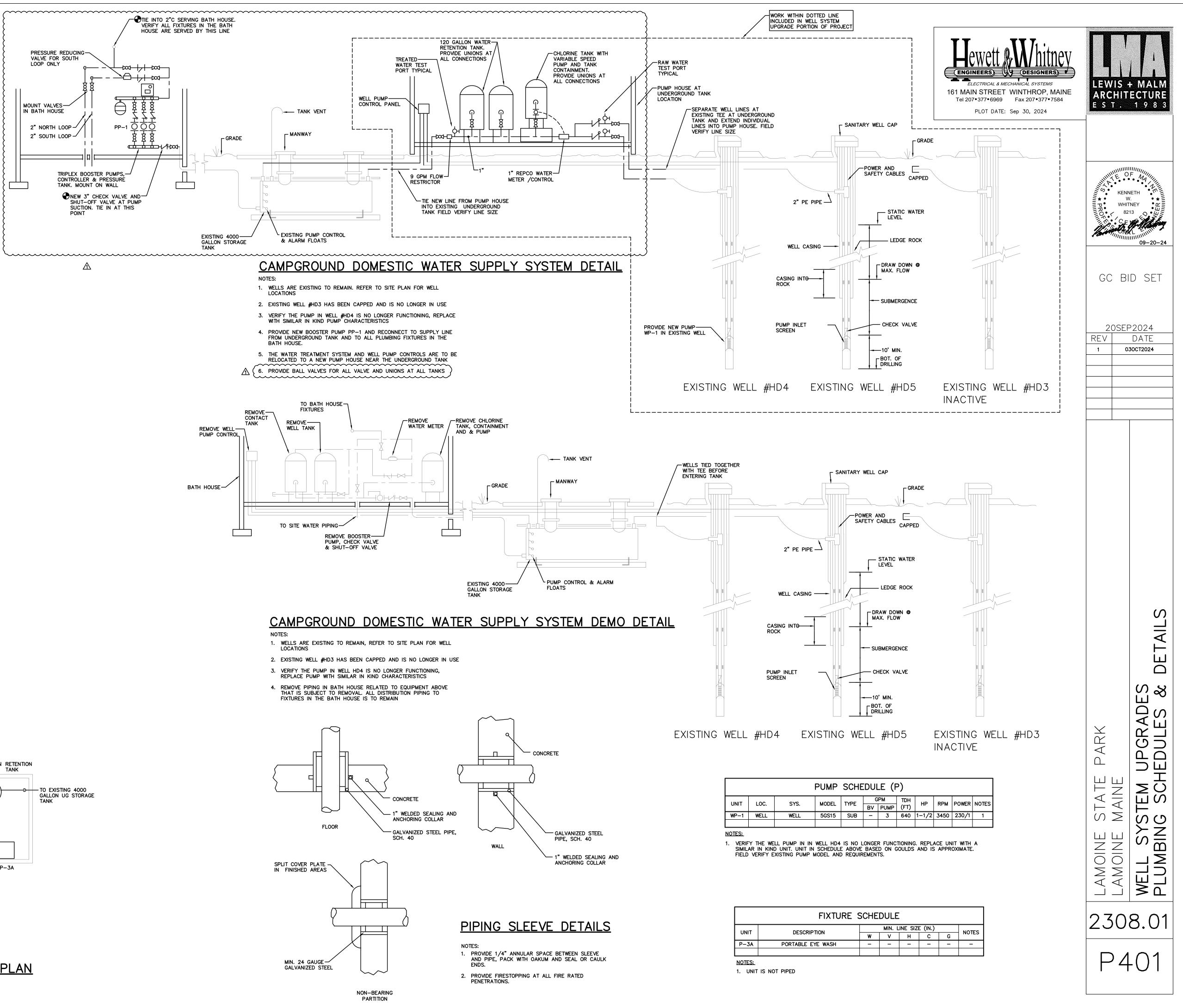
SCALE: 1/4" = 1'-0"

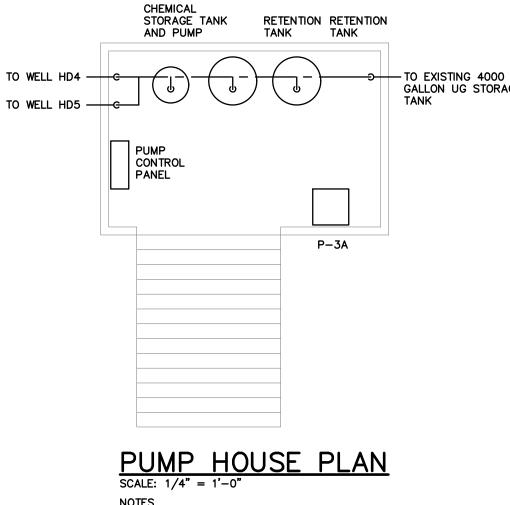


## PLUMBING LEGEND

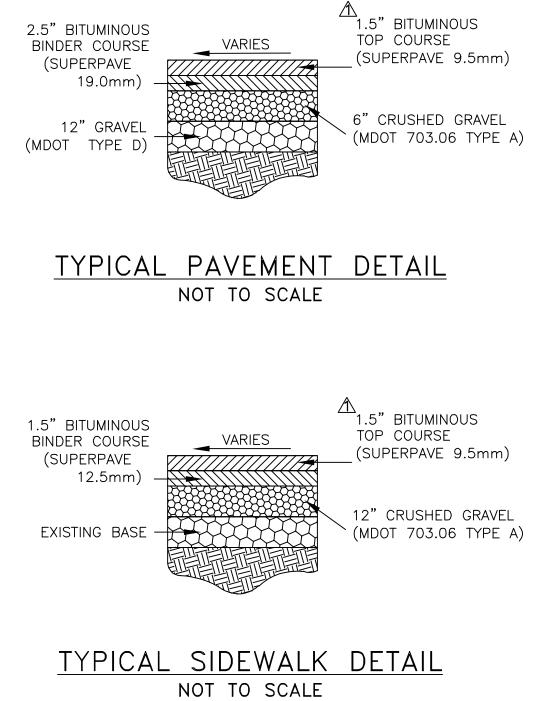
_____ _____X_____ _____ ------ RL ------_____ ----- 140R ------—— 160 —— — 160R — ____ CD _____ _____ _____G _____ 3"/1/4" _____C ______ ______ _____X ______↓▽|______ _____₹_____ Ų ф. _____ 🔿 FD ____ ____  $\bullet$ AFF AFG CD co ΕX FCO FE Н&С INV NIC NTS SA VTR W & V WCO

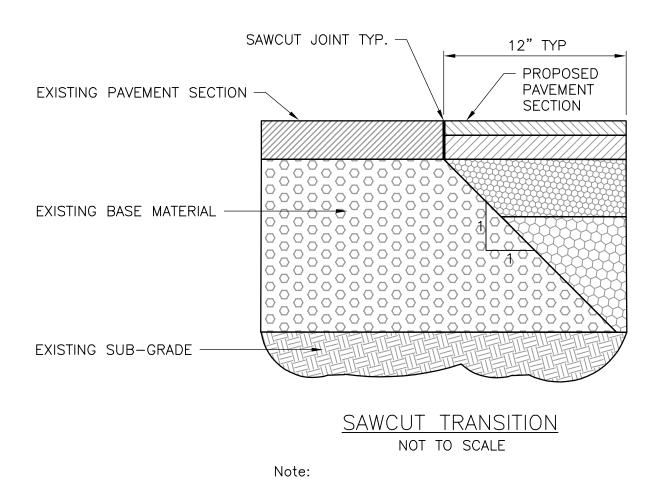
SANITARY SOIL OR WASTE - ABOVE FLOOR SANTITARY SOIL OR WASTE - UNDER FLOOR VENT ROOF LEADER UNDERFLOOR ROOF LEADER 110° HOT WATER LINE 110" HOT WATER RECIRCULATION LINE 140° HOT WATER LINE 140° HOT WATER RECIRCULATION LINE 160° HOT WATER LINE 160° HOT WATER RECIRCULATION LINE CONDENSATE DRAIN UNDERFLOOR GREASE WASTE COLD WATER GAS LINE PIPE SIZE / SLOPE PER FOOT PIPE RISER PIPE DROP UNION GATE VALVE CHECK VALVE BALL VALVE BALANCING VALVE (BV) GAS PLUG VALVE PUMP THERMOMETER/THERMOWELL PRESSURE GAGE WITH SHUT-OFF COCK SPRINKLER PRESSURE RELIEF VALVE FLOOR DRAIN HOSE BIBB (HB) NON-FREEZE WALL HYDRANT (NFWH) TIE INTO EXISTING SYSTEM EXISTING EQUIPMENT TO BE REMOVED ABOVE FINISHED FLOOR ABOVE FINISHED GRADE CONDENSATE DRAIN CLEANOUT EXISTING EQUIPMENT FLOOR CLEANOUT FIRE EXTINGUISHER - WEIGHT (LB) HOT AND COLD INVERT ELEVATION NOT IN CONTRACT NOT TO SCALE SHOCK ABSORBER VENT THROUGH ROOF WASTE AND VENT WALL CLEANOUT





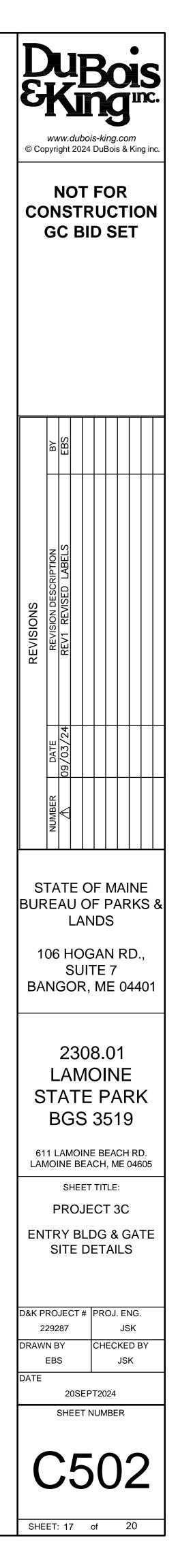
NOTES 1. REFER TO DETAIL THIS SHEET



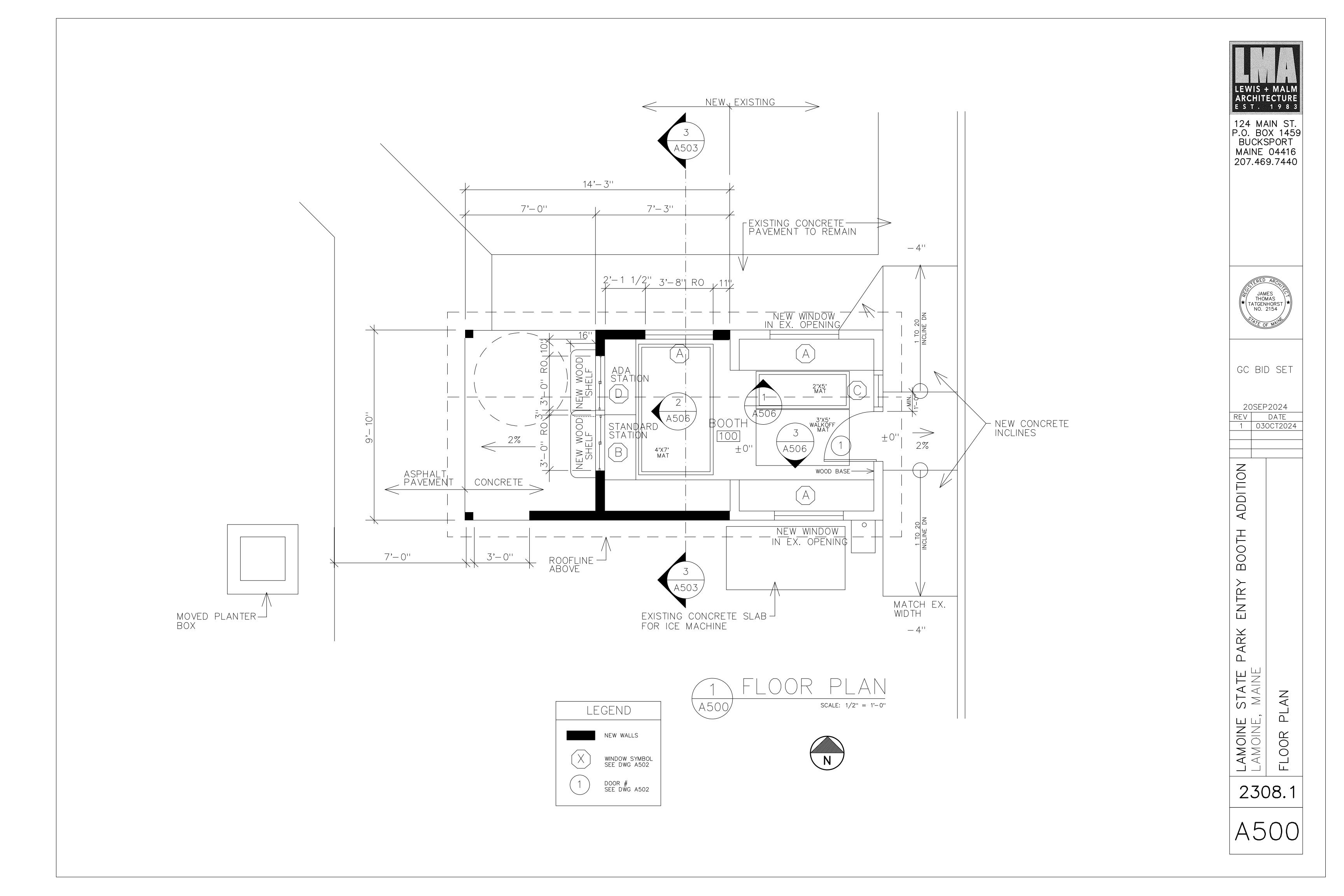


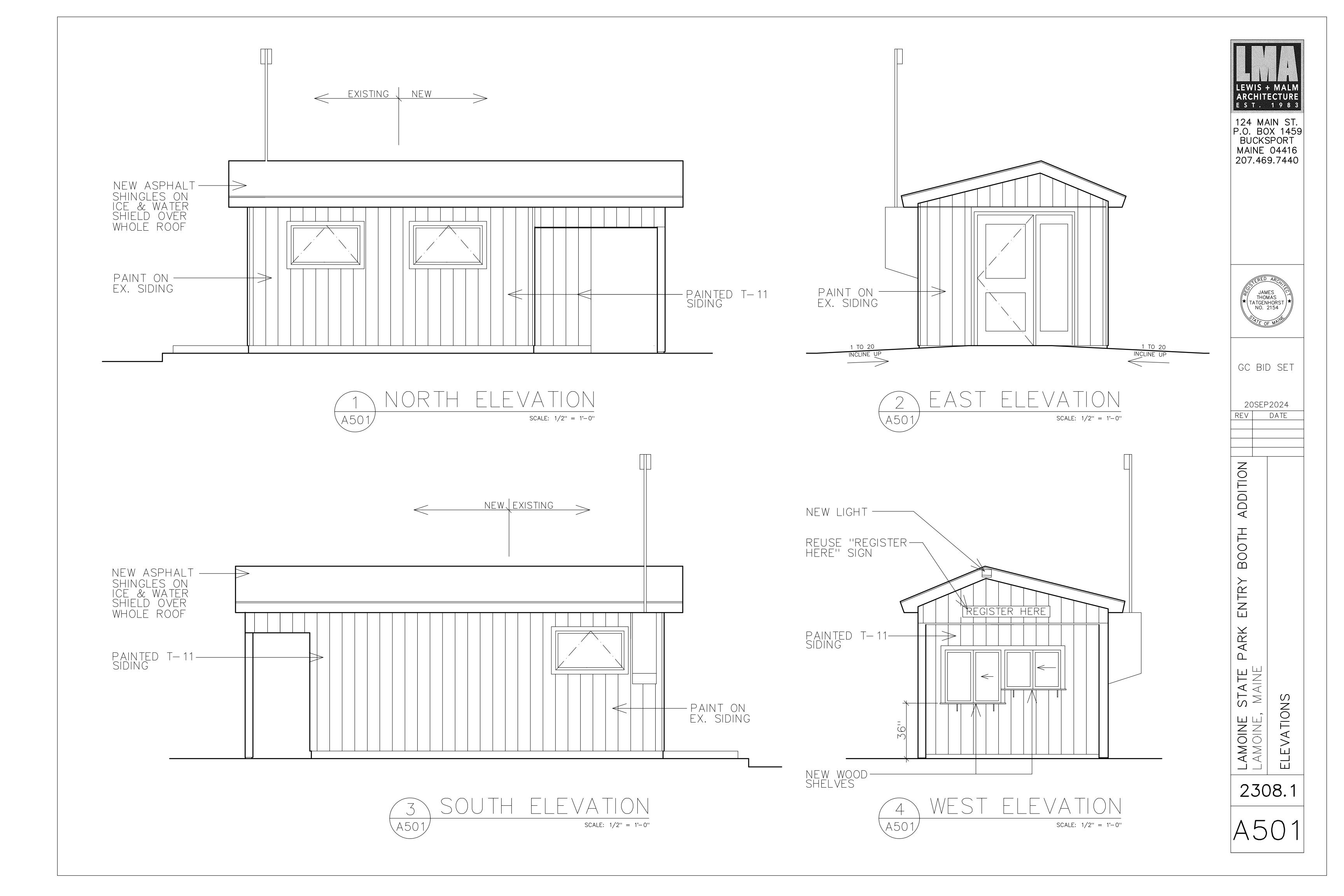
1. APPLY TACK COAT TO CLEAN, SMOOTH VERTICAL SAWCUT EDGE OF EXISTING PAVEMENT

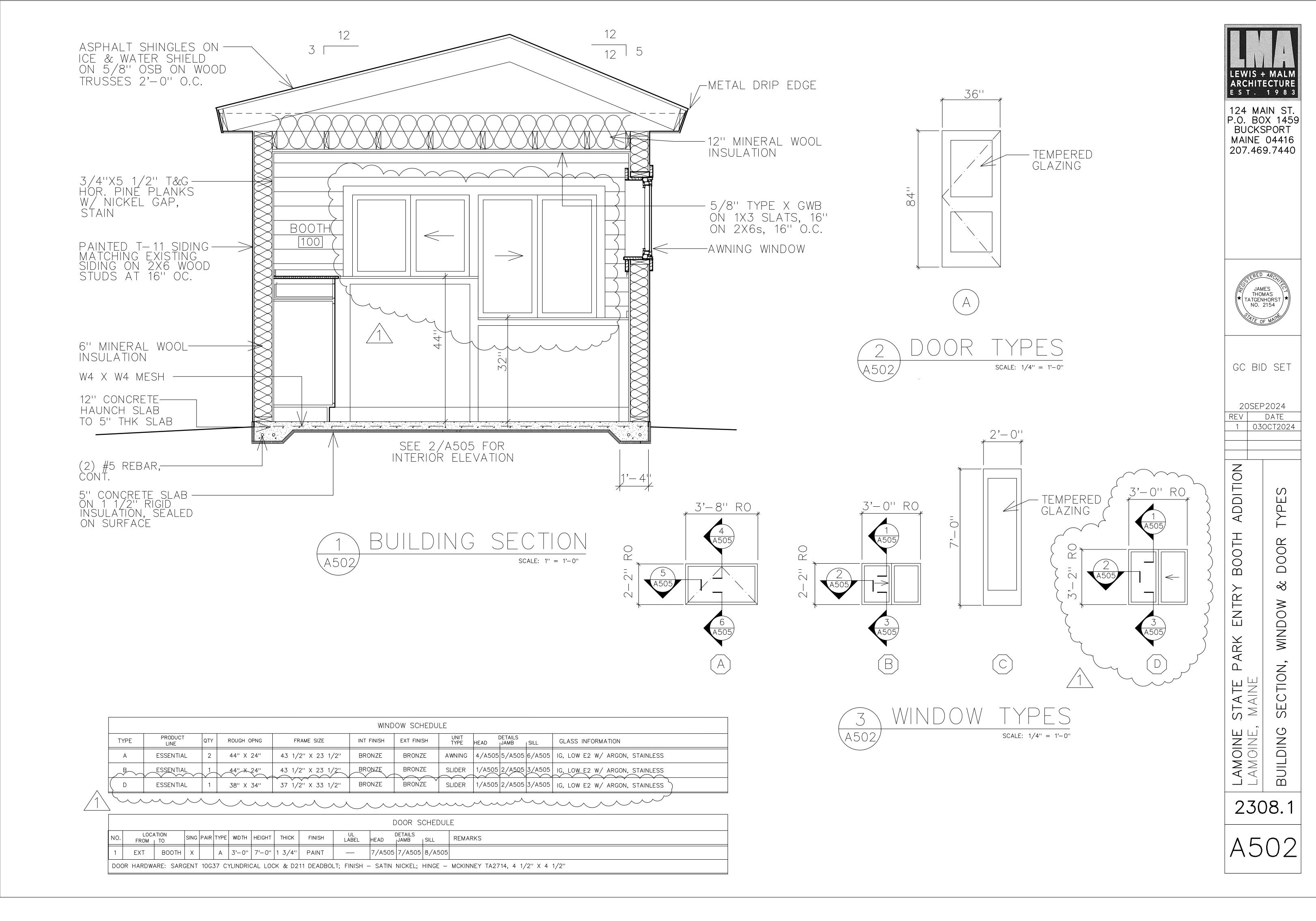
3,000 psi CONCRETE W/ JOINTS EVERY 20 L.F. AND AT ----EACH END OF RADIUS CORNERS 6"-³⁄4" RADIUS EXPOXY ADHESIVE · (TYP.) SEE PAVEMENT DETAIL — //X/ 空む EXTRUDED CONCRETE CURB DETAIL NOT TO SCALE



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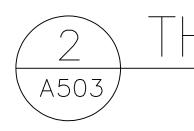


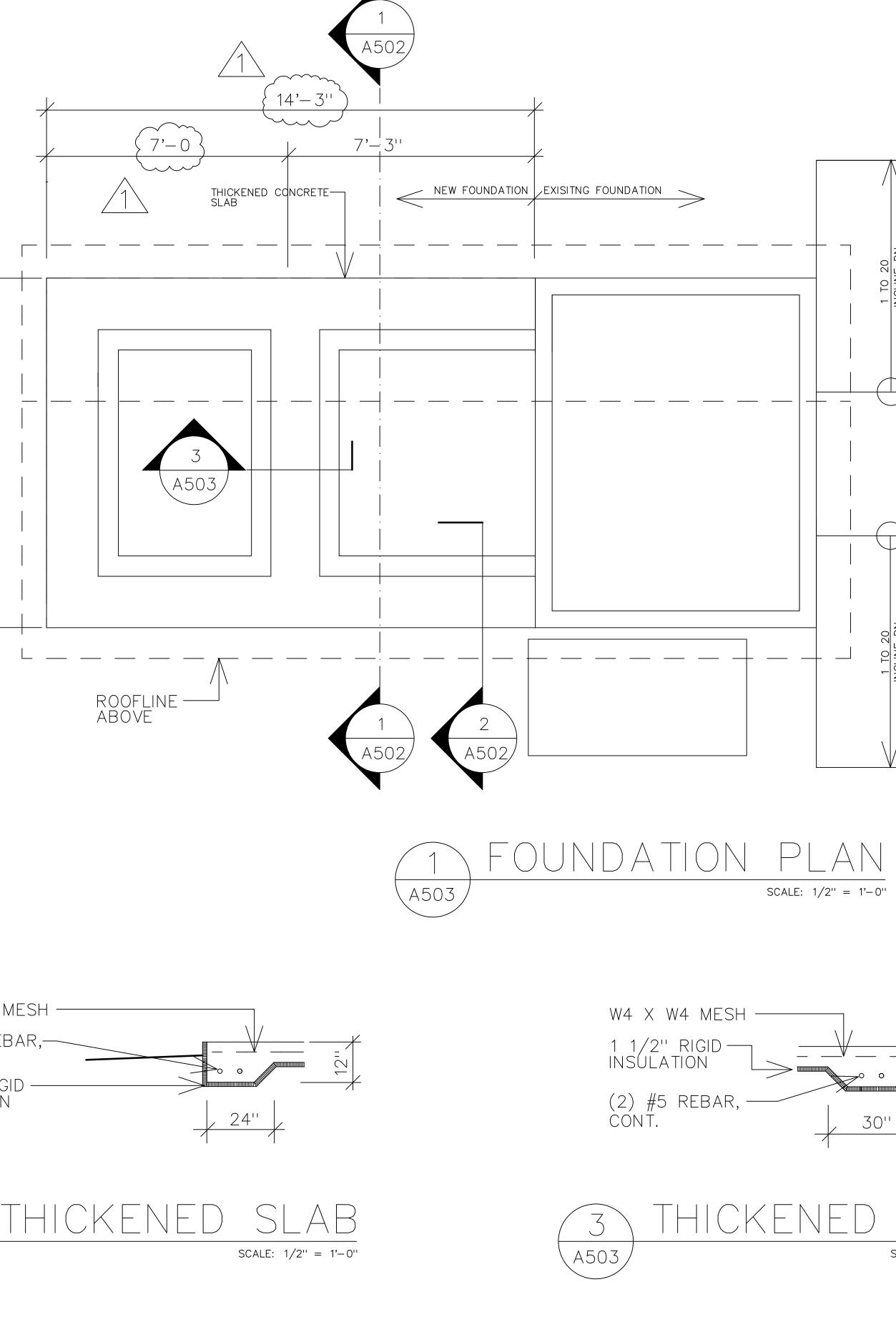
HEDU	LE				
ISH	UNIT TYPE	-	DETAILS  JAMB	SILL	GLASS INFORMATION
ZE	AWNING	4/A505	5/A505	6/A505	IG, LOW E2 W/ ARGON, STAINLESS
ZE	SLIDER	1/A505	2/A505	3/A505	IG, LOW E2 W/ ARGON, STAINLESS
ZE V	SLIDER	1/A505	2/A505	3/A505	IG, LOW E2 W/ ARGON, STAINLESS
$\overline{}$				$\sim$	

S	SCHEDULE					
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)5	8/A505					
;	HINGE –	MCKINNEY TA2714, 4 1/2" X 4 1/2"				

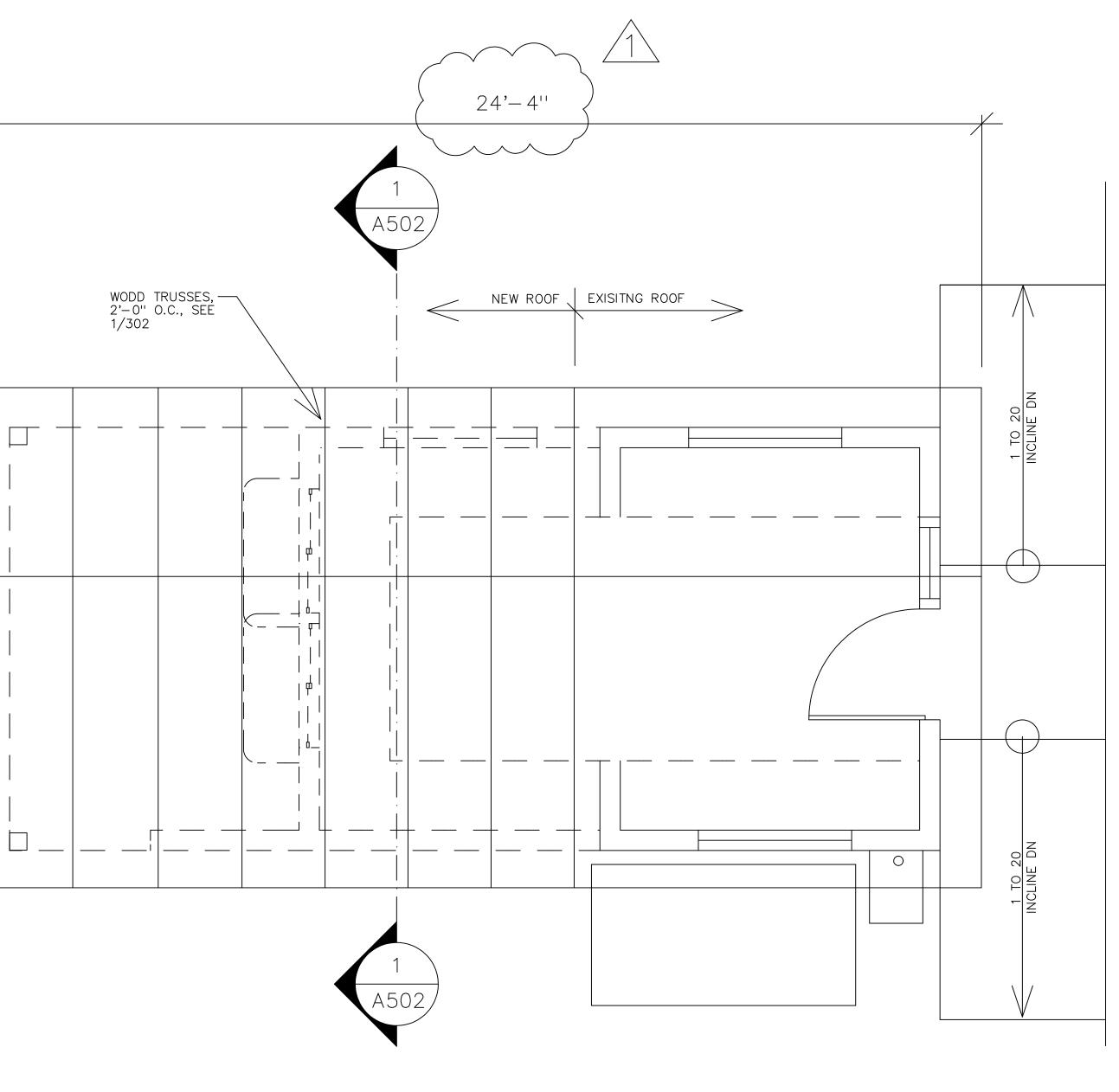


W4 X W4 MESH — (2) #5 REBAR,— CONT. 1 1/2" RIGID — INSULATION

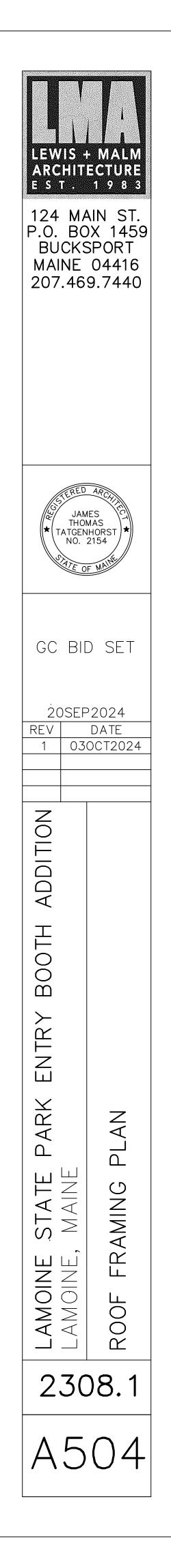




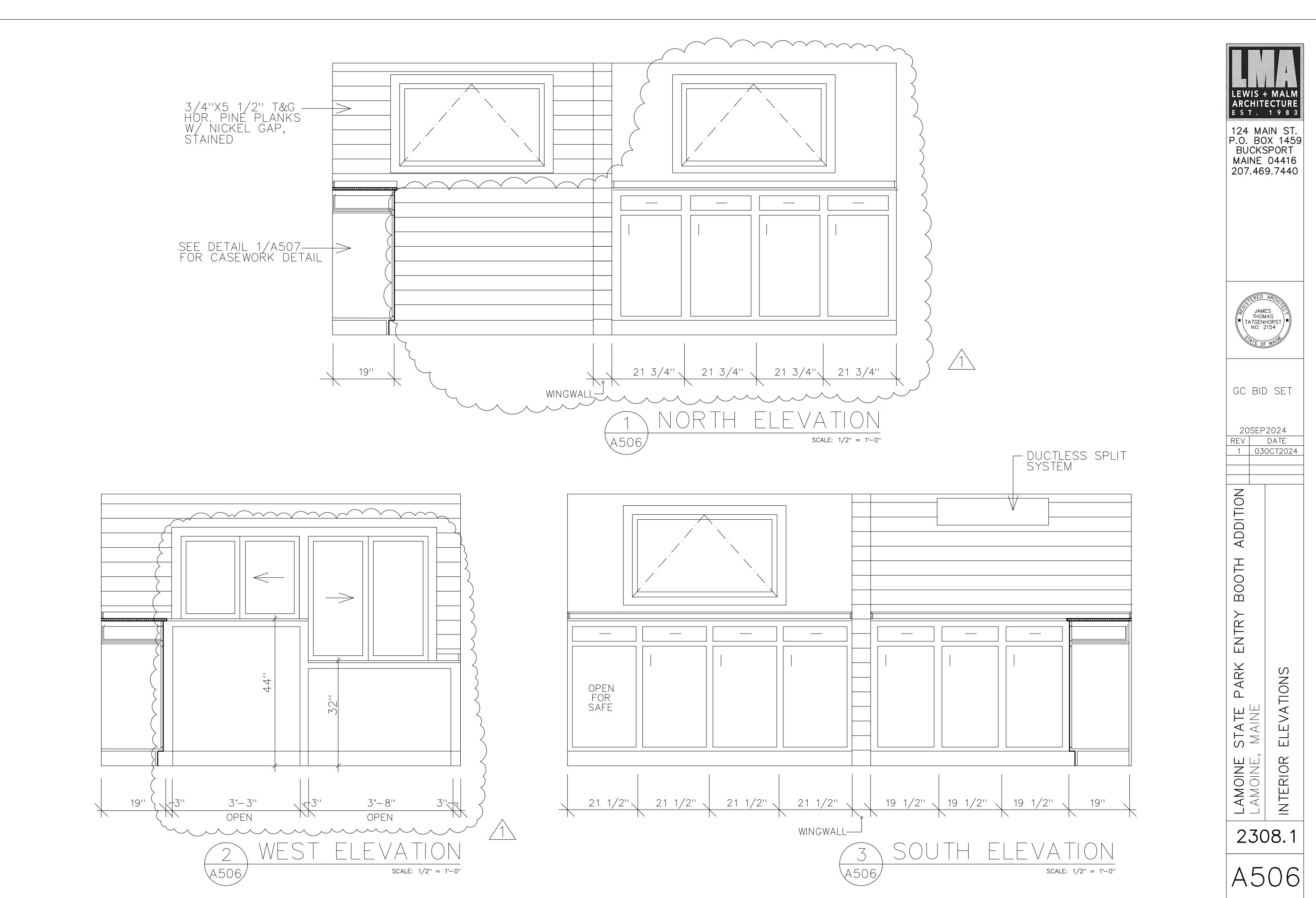
	LEWIS + MALM ARCHITECTURE E S T 1 9 8 3 124 MAIN ST. P.O. BOX 1459 BUCKSPORT MAINE 04416 207.469.7440
	JAMES THOMAS TATGENHORST NO. 2154
	GC BID SET 20SEP2024 REV DATE 1 030CT2024
	Y BOOTH ADDITION
	LAMOINE STATE PARK ENTRY BOOTH ADD LAMOINE, MAINE FOUNDATION PLAN
SLAB SCALE: 1/2" = 1'-0"	2308.1 A503

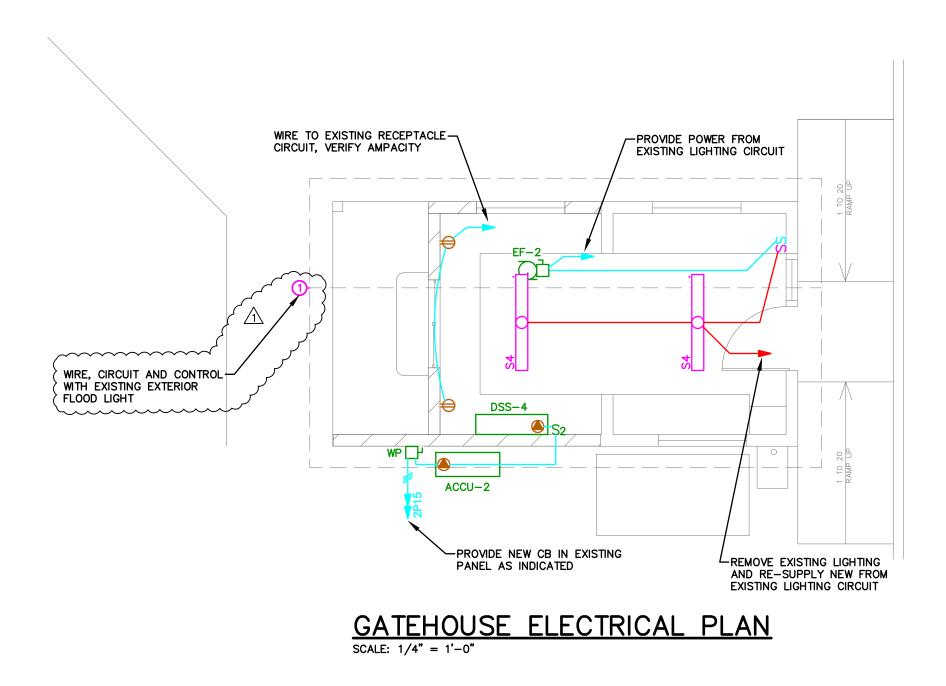












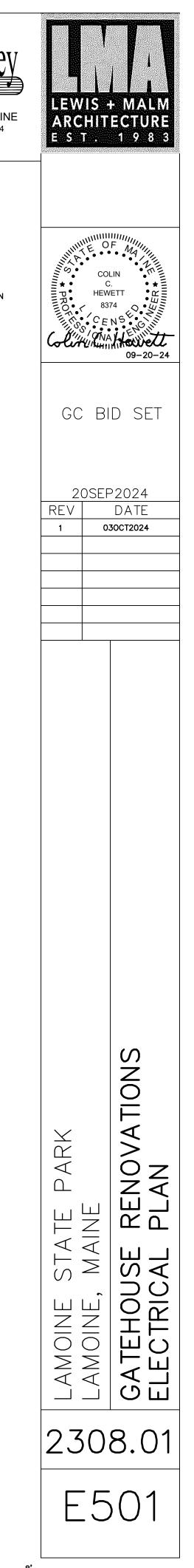


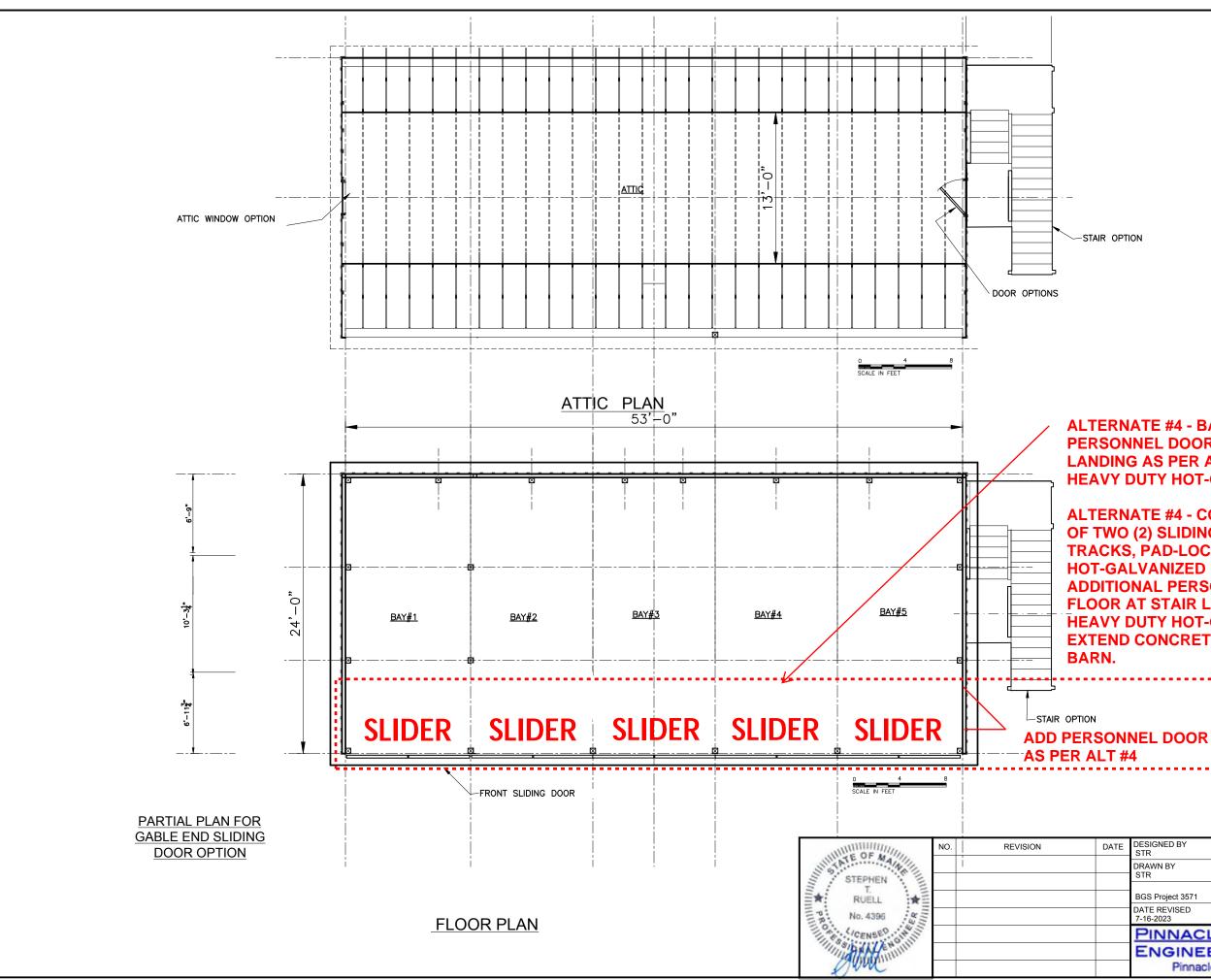
161 MAIN STREET WINTHROP, MAINE Tel 207•377•6969 Fax 207•377•7584 PLOT DATE: Oct 03, 2024

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

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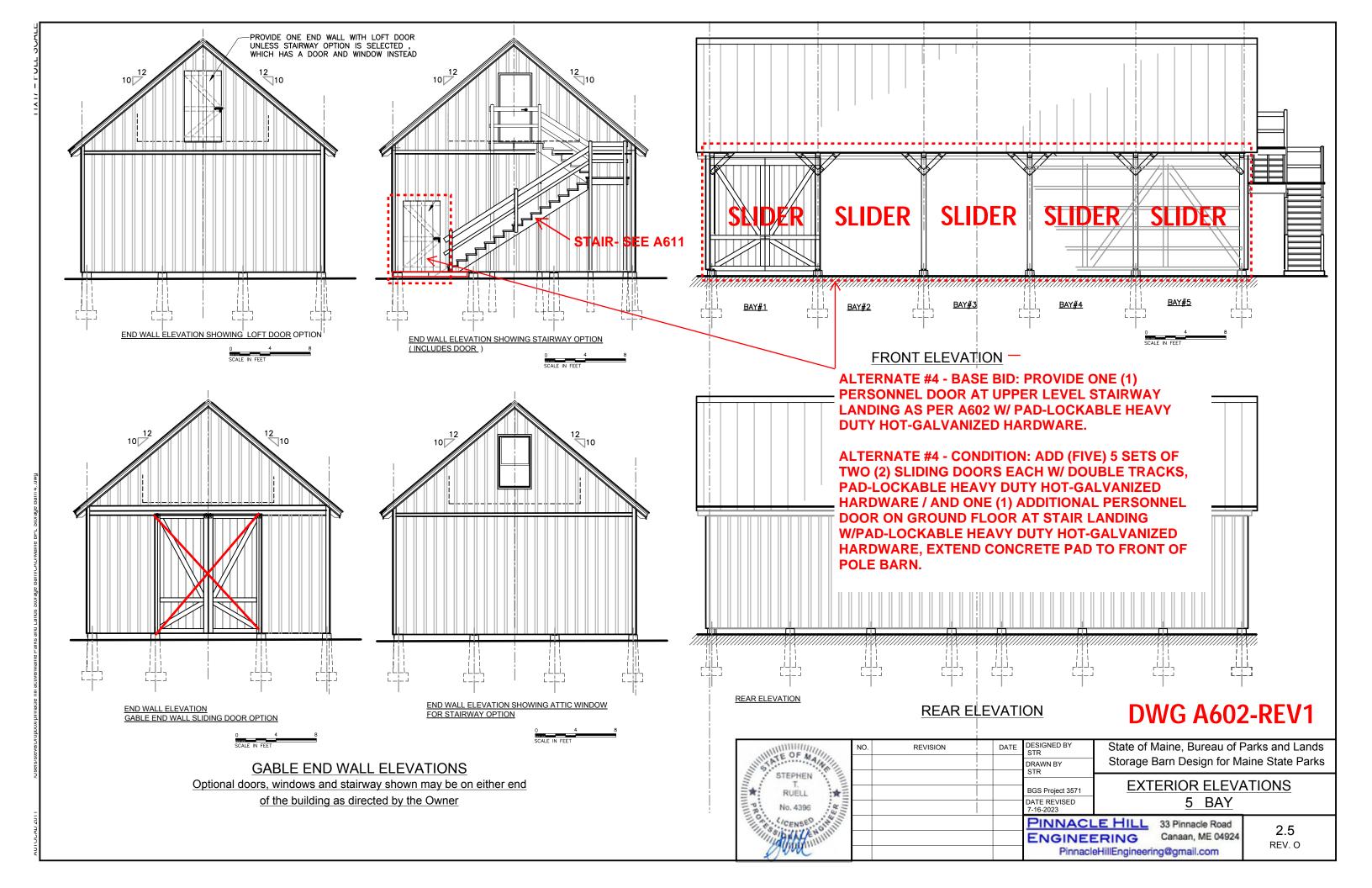


### ALTERNATE #4 - BASE BID: PROVIDE ONE (1) PERSONNEL DOOR AT UPPER LEVEL STAIRWAY LANDING AS PER A602 W/ PAD-LOCKABLE HEAVY DUTY HOT-GALVANIZED HARDWARE.

ALTERNATE #4 - CONDITION: ADD (FIVE) 5 SETS OF TWO (2) SLIDING DOORS EACH W/ DOUBLE TRACKS, PAD-LOCKABLE HEAVY DUTY HOT-GALVANIZED HARDWARE / AND ONE (1) ADDITIONAL PERSONNEL DOOR ON GROUND FLOOR AT STAIR LANDING W/PAD-LOCKABLE **HEAVY DUTY HOT-GALVANIZED HARDWARE, EXTEND CONCRETE PAD TO FRONT OF POLE** 

## **DWG A601-REV1**

ATE	DESIGNED BY STR	State of Maine, Bureau of Parks and Lands		
	DRAWN BY STR	Storage Barn Design for Maine State Parks		
	SIK			
	BGS Project 3571	FLOOR PLANS 5-BAY		
	DATE REVISED 7-16-2023			
	PINNACL	EHILL 33 Pinnacle Road	1.5	
	ENGINE	ERING Canaan, ME 04924	REV. O	
	PinnacleHillEngineering@gmail.com		REV. U	



#### SECTION 012300 - ALTERNATES

#### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

A. Section includes administrative and procedural requirements for alternates.

#### 1.3 DEFINITIONS

- A. Alternate: An amount proposed by bidders and stated on the Bid Form for certain work defined in the Bidding Requirements that may be added to or deducted from the base bid amount if Owner decides to accept a corresponding change either in the amount of construction to be completed or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.
  - 1. Alternates described in this Section are part of the Work only if enumerated in the Agreement.
  - 2. The cost or credit for each alternate is the net addition to or deduction from the Contract Sum to incorporate alternate into the Work. No other adjustments are made to the Contract Sum.

#### 1.4 **PROCEDURES**

- A. Coordination: Modify or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project.
  - 1. Include as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated as part of alternate.
- B. Notification: Immediately following award of the Contract, notify each party involved, in writing, of the status of each alternate. Indicate if alternates have been accepted, rejected, or deferred for later consideration. Include a complete description of negotiated modifications to alternates.
- C. Execute accepted alternates under the same conditions as other work of the Contract.
- D. Schedule: A schedule of alternates is included at the end of this Section. Specification Sections referenced in schedule contain requirements for materials necessary to achieve the work described under each alternate.

#### PART II - SCHEDULE OF ALTERNATES

#### A. Alternate # 1: <u>GUTTERS & DOWNSPOUTS ON BARN (pertains to DRAWING SERIES</u> <u>100: Barn Renovations).</u>

- 1. BASE BID Condition: Do not provide gutters, downspouts, or splash pans at Barn roof, as indicated.
- 2. ALTERNATE BID Condition: Provide 20-23 Guage metal, semi-circular profile (Eurostyle) gutters w/ EDPM gasketed seams, inlets, leaf guards, heavy duty brackets, downspouts/outlets (all w/ "Greencoat" factory painted finish, or equal), and pre-cast concrete splash pans, according to manufacturer's recommendations for this application, 20-Year Warranty (Nordic Steel gutter systems or equal), as indicated. Submit product data, size/flow-rate calculations and shop drawings for Architect's review.

## B. Alternate #2: <u>DMR OFFICE VESTIBULE (pertains to DRAWING SERIES 200: DMR Office Fit-Out).</u>

- 1. BASE BID Condition: Provide Vestibule interior walls & finishes to same, transaction window, communication device, transaction counter & trim w/ finish, interior entry Door #4 w/ trim & finish. Under this Alternate, electric strike and proximity card reader shall be located at interior entry Door #4, as indicated.
- 2. ALTERNATE BID Condition: Do not provide Vestibule interior walls & finishes to same, transaction window, communication device, transaction counter & trim w/ finish, or interior entry Door #4 w/ trim & finish. Under this Alternate the electric strike and proximity card reader shall be relocated to exterior entry Door #3 (which shall be fully finished with interior trim, primed/painted), as indicated.

### C. Alternate # 3: <u>DMR OFFICE CARPET TILE (pertains to DRAWING SERIES 200: DMR</u> <u>Office Fit-Out).</u>

- 1. BASE BID Condition: Provide 12"x12" VCT flooring, including wooden sub-floor leveling skim-coat prep, as required and threshold transitions, as indicated.
- 2. ALTERNATE BID Condition: Provide 24"x24" Carpet Tile, including wooden sub-floor leveling skim-coat prep, as required and threshold transitions, as indicated.

### D. Alternate # 4: ADDITIONAL SLIDING DOORS (pertains to DRAWING SERIES 600: 5-Bay Pole Barn).

- 1. BASE BID Condition: Provide one (1) primed/painted personnel door with lockable hardware at upper level stair landing, as indicated.
- 2. ALTERNATE BID Condition: Provide five (5) sets of fully primed/painted barn doors, dual-tracks with lockable hardware in BAYs #1, #2, #3, #4 and #5, as well as one (1) additional fully primed/painted personnel door with lockable hardware at ground level stair landing, as indicated.

#### END OF SECTION

#### SECTION 064113 - ARCHITECTURAL CABINETS

#### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section Includes:
  - 1. Wood cabinets for transparent finish.
  - 2. Wood cabinets for opaque finish.
  - 3. Cabinet hardware and accessories.
  - 4. Wood furring, blocking, shims, and hanging strips for installing architectural cabinets that are not concealed within other construction.
  - 5. Shop finishing.
- B. Related Requirements:
  - 1. Section 061000 "Rough Carpentry" for wood furring, blocking, shims, and hanging strips required for installing cabinets that are concealed within other construction before cabinet installation.

#### 1.2 COORDINATION

- A. Coordinate sizes and locations of framing, blocking, furring, reinforcements, and other related units of Work specified in other Sections to support loads imposed by installed and fully loaded cabinets.
- B. Hardware Coordination: Distribute copies of approved hardware schedule to manufacturer of architectural cabinets; coordinate Shop Drawings and fabrication with hardware requirements.

#### 1.3 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.

#### 1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Shop Drawings: Mandatory for architectural cabinets.
  - 1. Include plans, elevations, sections, and attachment details.
  - 2. Show full-size details.
  - 3. Show locations and sizes of furring, blocking, and hanging strips, including concealed blocking and reinforcement specified in other Sections.
  - 4. Show locations and sizes of cutouts and holes for items installed in architectural cabinets.

- C. Samples: Mandatory for each exposed product and for each color and finish specified, in manufacturer's standard size.
- D. Samples for Initial Selection: Mandatory for each type of exposed finish.
- E. Samples for Verification: Mandatory for the following:
  - 1. Face Frame Lumber with Shop-Applied Opaque Finish: 5 inches (125 mm) wide by 12 inches (300 mm) long for each finish system and color.
    - a. Provide micro-eased edge sample for each condition.
    - b. Provide joint sample for each condition.
    - c. Finish entire exposed surface.
  - 2. Wood Veneer Panel Products with Shop-Applied Opaque Finish: 12 by 12 inches (300 by 300 mm) for each finish system and color.
    - a. Finish entire exposed surface.
  - 3. Thermally Fused Laminate (TFL) Panels: 12 by 12 inches (300 by 300 mm), for each color, pattern, and surface finish.
    - a. Provide hardwood edge banding on two (2) edges w/ a mitered corner, as indicated.
  - 4. Fully Adhered Plastic Laminate (PLAM) Panels: 12 by 12 inches (300 by 300 mm), for each color, pattern, and surface finish.
    - a. Provide hardwood edge banding on two (2) edges w/ a mitered corner, as indicated.
  - 5. Corner Pieces:
    - a. Cabinet-front frame joints between stiles and rails and at exposed end pieces, 18 inches (450 mm) high by 18 inches (450 mm) wide by 6 inches (150 mm) deep.
    - b. Miter joints for standing trim.
  - 6. Cabinet Hardware and Accessories:
    - a. Exposed door & drawer pulls on exterior of cabinet.
    - b. Exposed locks/keys.
    - c. Hidden hinges on interior of cabinet.
    - d. Cable grommets, if applicable.
    - e. One full-size unit for each type and finish.

#### 1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For manufacturer and installer.
- B. Product Certificates: For the following:

- 1. Composite wood products.
- 2. Fully adhered plastic laminate panels.
- 3. Thermally fused laminate panels.
- 4. Glass.
- 5. Adhesives.
- C. Field quality-control reports.

#### 1.6 QUALITY ASSURANCE

- A. Manufacturer's Qualifications: Employs skilled workers who custom fabricate products similar to those required for this Project and whose products have a record of successful in-service performance.
- B. Mockups: Build mockups to verify selections made under Sample submittals, to demonstrate aesthetic effects, and to set quality standards for materials and execution.
  - 1. Build mockups of typical architectural cabinets as shown on Drawings.
  - 2. A single mock-up piece of cabinetry that contains all of the typical materials, details and hardware is acceptable.
  - 3. Subject to compliance with requirements, approved mockups may become part of the completed Work if protected and undisturbed at time of Substantial Completion.

#### 1.7 DELIVERY, STORAGE, AND HANDLING

- A. Do not deliver cabinets until other wall, ceiling & trim painting and similar finish operations that might damage architectural cabinets have been completed in installation areas. If cabinetry is installed prior to such painting works being completed, protect cabinets as follows:
  - 1. Vertical Surfaces: Rosin paper, full surface, taped and maintained, repair/replace as needed.
  - 2. Horizontal Surfaces: RamBoard, full surface, taped and maintained, repair/replace as needed.
- B. Store cabinets in installation areas or in areas where environmental conditions comply with requirements specified in "Field Conditions" Article.

#### 1.8 FIELD CONDITIONS

- A. Environmental Limitations without Humidity Control: Do not deliver or install cabinets until building is enclosed, wet-work is complete, and HVAC system is operating and maintaining temperature and relative humidity at levels planned for building occupants during the remainder of the construction period.
- B. Field Measurements: Where cabinets are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication, and indicate measurements on Shop Drawings. Coordinate fabrication schedule with construction progress to avoid delaying the Work.

- C. Blocking & Supports: Locate concealed framing, blocking, and reinforcements required to support cabinets and hinder taller cabinets from tipping or falling by taking field measurements before being enclosed/concealed by construction, or required to be added to existing construction and indicate measurements on Shop Drawings.
- D. Established Dimensions: Where cabinets are indicated to fit to other construction (for example: flush fit between existing vertical trim, over horizontal cove base trim, etc.), establish dimensions for areas where cabinets are to fit. Provide allowance for trimming and finishing at site, and coordinate construction to ensure that actual dimensions correspond to established dimensions.

#### PART 2 - PRODUCTS

#### 2.1 ARCHITECTURAL CABINET MANUFACTURERS

- A. Source Limitations: Engage a qualified woodworking firm to assume responsibility for production of architectural cabinets with wood and plastic laminate veneers.
- B. Manufacturers: Subject to compliance with requirements, provide products by the following local mill-working company (Basis of Design Cabinet Maker):
  - 1. Holden Cabinet & Millwork, 658 Main Rd, Holden, ME 04429, Telephone: (207) 843-5915, Email: <u>dougbosse@holdencabinet.com</u>

#### 2.2 CABINETS, GENERAL

- A. Quality Standard: Unless otherwise indicated, comply with the Architectural Woodwork Standards for grades of architectural cabinets indicated for construction, finishes, installation, and other requirements.
  - 1. The Contract Documents may contain requirements that are more stringent than the referenced woodwork quality standard. Comply with requirements of Contract Documents in addition to those of the referenced quality standard.

#### 2.3 WOOD CABINET DRAWER COMPONENTS FOR TRANSPARENT FINISH

- A. Architectural Woodwork Standards Grade:
  - a. Premium Traditional (Cabinetry with doors and drawers).
- B. Type of Construction: Dovetail, glued and vertically pinned.
- C. Door and Drawer-Front Style: Flush face mounted, square edged.
- D. Wood Species for Exposed Surfaces:
  - 1. Drawer Sub-fronts, Backs, and Sides: Solid hardwood, closed grain, select Maple, microeased edges, with shop applied transparent finish, min. 2 coats, smooth to touch.

- 2. Drawer Bottoms: Hardwood plywood 1/4-inch (6.4mm) thick, Maple veneer, rabbited and glued into drawer sub-fronts, backs and sides with shop applied transparent finish min. 2 coats, smooth to touch.\
- 3. Dust Panels: 1/4-inch (6.4-mm) plywood or hardwood framed tempered hardboard above compartments and drawers unless located directly under tops.
- E. Drawer Construction: Fabricate with exposed fronts fastened to sub-front with counter-sunken mounting screws from interior of body, corrosion resistant.
- F. Join sub-fronts, backs, and sides with glued dovetail joints, metal pinned and sanded flush prior to shop applied finishing.

#### 2.4 WOOD CABINETS FOR OPAQUE FINISH

- A. Architectural Woodwork Standards Grade:
  - a. Premium Traditional (Cabinetry with doors and drawers).
- B. Type of Construction: All casework to receive face framing as indicated, typically 1-1/2"x3/4" solid hardwood, closed grain, select maple, shop primed and painted with minimum 2 finish coats, smooth to touch, no burrs.
- C. Door and Drawer-Front Style: Flush face mounted w/ on all sides, square edged w/ front inset panels, matching project door panels.
- D. Species for Exposed Lumber Surfaces:
  - a. Cabinet Bodies: Cabinet grade veneered plywood, select Maple (both sides), micro-eased edges, with shop applied opaque finish, min. 2 coats, smooth to touch.
- E. Substrate Panel Product for Doors & Drawers: Medium Density Fiberboard, square edged panels, warp-resistant, with shop applied opaque finish, min. 2 coats, smooth to touch.
- F. Surfaces Other Than Drawer Bodies: shall be as follows:
  - a. Cabinet Exterior & Interior Walls: Maple or Birch Veneer, cabinet grade, minimum ³/₄" thick 7-ply plywood w/ exposed top surface and 1-1/2"x3/4" hardwood edges, micro-bevel edges at Veneer and Hardwood junctions with shop applied clear finish, min. 2 coats, smooth to touch.
    - 1) Exposed Surfaces: Transparent finish min. 2 coats, smooth to touch.
    - 2) Semi-Exposed (hidden when cabinets are closed): Transparent finish min. 2 coats, smooth to touch.
  - b. Countertops: Cabinet grade, minimum ³/₄" thick 7-ply plywood w/ PLAM exposed top surface and 1-1/2"x3/4" hardwood edges, micro-bevel edges at PLAM and hardwood junctions, hardwood with shop applied clear finish, min. 2 coats, smooth to touch.
  - c. Cabinet Shelves: Maple or Birch Veneer, cabinet grade, minimum ³/₄" thick 7-ply plywood w/ exposed top & bottom surfaces and 1-1/2"x3/4" hardwood front edges, micro-bevel

edges at Veneer and Hardwood junctions, hardwood with shop applied clear finish, min. 2 coats, smooth to touch.

- d. Back Edge Trim (Backsplash): Maple or Birch Hardwood. with shop applied clear finish, min. 2 coats, smooth to touch.
- e. Finish Color: As selected by Owner and Architect, White range.
- f. Join sub-fronts, backs, and sides with glued dovetail joints.

#### 2.5 WOOD MATERIALS

- A. Wood Products: Provide materials that comply with requirements of referenced quality standard for each type of architectural cabinet and quality grade specified unless otherwise indicated.
  - 1. Do not use plain-sawn softwood lumber with exposed, flat surfaces more than 3 inches (75 mm) wide.
  - 2. Wood Moisture Content: 5 to 10 percent.
- B. Composite Wood Products: Provide materials that comply with requirements of referenced quality standard for each type of architectural cabinet and quality grade specified unless otherwise indicated.
  - 1. Medium-Density Fiberboard (MDF): ANSI A208.2, Grade 130
  - 2. Veneer-Faced Panel Products (Hardwood Plywood): HPVA HP-1.
- C. Thermally Fused Laminate (TFL) Panels: MDF finished with thermally fused, melamineimpregnated decorative paper and complying with requirements of NEMA LD 3, Grade VGL, for Test Methods 3.3, 3.4, 3.6, 3.8, and 3.10.

#### 2.6 CABINET HARDWARE AND ACCESSORIES

- A. General: Provide cabinet hardware and accessory materials associated with architectural cabinets.
- B. Frameless Concealed Hinges (European Type): ANSI/BHMA A156.9, B01602, **100** degrees of opening, self-closing.
- C. Back-Mounted Pulls: ANSI/BHMA A156.9, B02011.
- D. Catches: Roller catches, ANSI/BHMA A156.9, B03071
- E. Shelf Rests: ANSI/BHMA A156.9, B04013; metal, corrosion resistant, set in holes drilled into cabinet walls at 3" intervals, provide required units and package of 20 of extra shelf supports (spares).
- F. Drawer Slides: ANSI/BHMA A156.9.
  - 1. Standard Duty Grade 2: Side mount.

- 2. Heavy-Duty Drawers Grade 1HD-200: Undermount.
  - a. Type: Full extension, undermount, Bloom Hardware or equal.
  - b. Material: Stainless steel w/ Zinc-plated ball bearing slides
  - c. Motion Feature: Push to open and Self-closing mechanism.
  - d. Pencil drawers not more than 3 inches (75 mm) high and not more than 24 inches (600 mm) wide, provide 50 lb (22.7 kg) load capacity.
  - e. General purpose drawers more than 3 inches (75 mm) high, but not more than 6 inches (150 mm) high and not more than 24 inches (600 mm) wide, provide 75 lb (34 kg) load capacity.
  - f. File drawers more than 6 inches (150 mm) high or more than 24 inches (600 mm) wide, provide 100 lb (45 kg) load capacity.
  - g. Door Pivot/Slides: HAWA Concepta as provided by Haefele, tailored to cabinetry design intent, clearances, and door size/weight. 1-leaf wooden pivot sliding doors, hinges with soft closing mechanism, Infront, for wooden doors, door weight 50 kg, hinges with soft closing mechanism Item no. 408.30.593
  - h. Provide corrosion resistant Drawer Slides.
- G. Door Locks: ANSI/BHMA A156.11, E07121, Finish: Stainless Steel.
- H. Drawer Locks: ANSI/BHMA A156.11, E07041, Finish: Stainless Steel.
- I. Door and Drawer Silencers: ANSI/BHMA A156.16, L03011.
- J. Tempered Float Glass for Cabinet Doors: If applicable, ASTM C1048, Kind FT, Condition A, Type I, Class 1 (clear), Quality-Q3, 6 mm thick unless otherwise indicated.
- K. Grommets for Cable Passage / Basis of Design: Provide two (2) in Series 500 Entry Gatehouse, Haefele: 1-9/16 inch (40-mm) round, one-piece, heavy duty, metal cable grommets Item no. 429.94.310 with slot for wire passage, 12 x 15 mm opening, finish: as selected by Architect from Manufacturer's full premium range. Website: www.hafele.com/us
- L. Exposed Hardware / Basis of Design: Haefele, 10 mm diameter wire pull, Item no. 115.61.601, 106 x 35 mm, hole spacing 96 mm, provide brushed stainless steel finish that complies with Stainless steel, quality 1.4301/AISI 304, finish code 100SS47 as selected by Architect from Manufacturer's full premium range. Website: www.hafele.com/us
- M. Concealed Hardware: Blum Hardware, European style, swing out for flush inset doors & drawers, heavy duty, fully adjustable. Corrosion resistant, provide manufacturer's standard finish that complies with product class requirements in ANSI/BHMA A156.9. Website: <a href="http://www.build.com">www.build.com</a>

# 2.7 MISCELLANEOUS MATERIALS

- A. Furring, Blocking, Shims, and Hanging Strips: Softwood or hardwood lumber, kiln-dried to less than 15 percent moisture content.
- B. Anchors: Select material, type, size, and finish required for each substrate for secure anchorage. Provide metal expansion sleeves or expansion bolts for post-installed anchors. Use nonferrousmetal or hot-dip galvanized anchors and inserts at inside face of exterior walls and at floors.

### 2.8 FABRICATION

- A. Fabricate architectural cabinets to dimensions, profiles, and details indicated. Ease edges and corners to 1/16-inch (1.5-mm) radius unless otherwise indicated.
- B. Complete fabrication, including assembly and hardware application, to maximum extent possible before shipment to Project site. Disassemble components only as necessary for shipment and installation. Where necessary for fitting at site, provide ample allowance for scribing, trimming, and fitting.
  - 1. Notify Architect seven days in advance of the dates and times architectural cabinet fabrication will be complete.
- C. Trial fit assemblies at manufacturer's shop that cannot be shipped completely assembled. Install dowels, screws, bolted connectors, and other fastening devices that can be removed after trial fitting. Verify that various parts fit as intended and check measurements of assemblies against field measurements before disassembling for shipment.
- D. Shop-cut openings to maximum extent possible to receive hardware, appliances, electrical work, and similar items. Locate openings accurately and use templates or roughing-in diagrams to produce accurately sized and shaped openings. Sand edges of cutouts to remove splinters and burrs.
- E. If applicable, install glass to comply with applicable requirements in Section 088000 "Glazing" and in GANA's "Glazing Manual."
  - 1. Provide min. 1/4:" tempered glazing, clear float glass.
  - 2. For glass in wood frames, secure glass with removable stops, non-rattle.

# 2.9 SHOP FINISHING

- A. General:
  - 1. Finish architectural cabinets at manufacturer's shop as specified in this Section. Defer only final touchup, cleaning, and polishing until after installation.
  - 2. Shop finish transparent-finished architectural cabinets at manufacturer's shop as specified in this Section.
  - 3. Drawings and specifications indicate items that are required to be shop finished. Finish these items at manufacturer's shop as specified in this Section.
  - 4. Shop Priming: Shop apply the prime coat including back-priming, if any.
- B. Preparation for Finishing: Comply with referenced quality standard for sanding, filling countersunk fasteners, sealing concealed surfaces, and similar preparations for finishing architectural cabinets, as applicable to each unit of work.
  - 1. Backpriming: Apply one coat of vinyl sealer or primer, compatible with finish coats, to concealed surfaces of cabinets.
- C. Transparent Finish:

- 1. Architectural Woodwork Standards Grade: Premium, same as item to be finished.
- 2. Transparent Finish System: Lacquer, Pre Catalyzed, over a compatible vinyl sealer prep coat.
- 3. Sheen: Satin, 15-25 gloss units measured on 60-degree gloss meter per ASTM D523.
- D. Opaque Finish System:
  - 1. Architectural Woodwork Standards Grade: Premium, same as item to be finished.
  - 2. Lacquer, Pre Catalyzed, over a compatible vinyl sealer prep coat.
  - 3. Color: As selected by Architect from manufacturer's full range of whites.
  - 4. Sheen: Satin, 15-25 gloss units measured on 60-degree gloss meter per ASTM D523.

#### PART 3 - EXECUTION

#### 3.1 PREPARATION

A. Before installation, condition cabinets to humidity conditions in installation areas for not less than 72 hours.

#### 3.2 INSTALLATION

- A. Architectural Woodwork Standards Grade: Install cabinets to comply with quality standard grade of item to be installed.
- B. Assemble cabinets and complete fabrication at Project site to extent that it was not completed in the shop.
- C. Anchor cabinets to anchors or blocking built in or directly attached to substrates. Secure with countersunk, concealed fasteners and blind nailing. Use fine finishing nails for exposed fastening, countersunk and filled flush with cabinet surface.
  - 1. For shop-finished items, use filler matching finish of items being installed.
- D. Install cabinets level, plumb, and true in line to a tolerance of 1/8 inch in 96 inches (3 mm in 2400 mm) using concealed shims.
  - 1. Scribe and cut cabinets to fit adjoining work, refinish cut surfaces, and repair damaged finish at cuts.
  - 2. Install cabinets without distortion so doors and drawers fit openings and are accurately aligned, level. Adjust hardware to center doors and drawers in openings and to provide unencumbered operation. Complete installation of hardware and accessory items as indicated.
  - 3. Fasten wall cabinets through back, near top and bottom, and at ends not more than 16 inches (400 mm) o.c. with No. 10 wafer-head screws sized for not less than 1-1/2-inch (38-mm) penetration into wood framing, blocking, or hanging strips. Retain "Shop Finishes" or
- E. Shop Finishes: Touch up finishing after installation of architectural cabinets. Fill nail holes with matching filler.

1. Apply specified finish coats, including stains and paste fillers if any, to exposed surfaces where only sealer/prime coats are shop applied.

# 3.3 FIELD QUALITY CONTROL

- A. Inspections: Provide field inspection of installed Work through certifying that woodwork, including installation, complies with requirements of the Architectural Woodwork Standards for the specified grade.
  - 1. Inspection entity is to prepare and submit report of inspection.

# 3.4 ADJUSTING AND CLEANING

- A. Repair damaged and defective cabinets, where possible, to eliminate functional and visual defects. Where not possible to repair, replace architectural cabinets. Adjust joinery for uniform appearance.
- B. Clean, lubricate, and adjust hardware.
- C. Clean cabinets on exposed and semi-exposed surfaces. Touch up finishes to restore damaged or soiled areas.

# END OF SECTION

# SECTION 07 31 13 - ASPHALT SHINGLES

# PART 1 - GENERAL

# 1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including Sections 1, 2, 3, and Division 1 of Section 4 apply to this Section.

# 1.2 SUMMARY

- A. Section Includes:
  - 1. Removal of existing roofing system.
  - 2. Asphalt shingles and factory formed ridge cap asphalt shingles.
  - 3. Underlayment.
  - 4. Self-Adhering Sheet Underlayment.
  - 5. Ridge Vents.
  - 6. Penetration accessories.
- B. Related Sections:
  - 1. Division 06 Section "Rough Carpentry" for wood framing.
  - 2. Division 06 Section "Sheathing" for roof sheathing.
- C. Replace damaged or missing asphalt roof shingles with matching shingles in appearance, color, etc.

#### 1.3 DEFINITION

A. Roofing Terminology: See ASTM D 1079 and glossary of NRCA's "The NRCA Roofing and Waterproofing Manual" for definitions of terms related to roofing work in this Section.

# 1.4 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Samples for Selection: For each type of asphalt shingle indicated.
- C. Product Test Reports: Based on evaluation of comprehensive tests performed by manufacturer and witnessed by a qualified testing agency, for asphalt shingles.
- D. Maintenance Data: For each type of asphalt shingle to include in maintenance manuals.
- E. Warranties: Sample of special warranties.

# 1.5 QUALITY ASSURANCE

- A. Fire-Resistance Characteristics: Where indicated, provide asphalt shingles and related roofing materials identical to those of assemblies tested for fire resistance per test method below by UL or another testing and inspecting agency acceptable to authorities having jurisdiction. Identify products with appropriate markings of applicable testing agency.
  - 1. Exterior Fire-Test Exposure: Class A; ASTM E 108 or UL 790, for application and roof slopes indicated.

# 1.6 DELIVERY, STORAGE, AND HANDLING

- A. Store roofing materials in a dry, well-ventilated, weathertight location according to asphalt shingle manufacturer's written instructions. Store underlayment rolls on end on pallets or other raised surfaces. Do not double stack rolls.
  - 1. Handle, store, and place roofing materials in a manner to avoid significant or permanent damage to roof deck or structural supporting members.
- B. Protect unused underlayment from weather, sunlight, and moisture when left overnight or when roofing work is not in progress.

# 1.7 PROJECT CONDITIONS

- A. Environmental Limitations: Do not deliver or install asphalt shingles until spaces are enclosed and weathertight, wet work in spaces is complete and dry, and temporary HVAC system is operating and maintaining ambient temperature and humidity conditions at occupancy levels during the remainder of the construction period.
  - 1. Install self-adhering sheet underlayment within the range of ambient and substrate temperatures recommended by manufacturer.

# 1.8 WARRANTY

- A. Special Warranty: Standard form in which manufacturer agrees to repair or replace asphalt shingles that fail in materials within specified warranty period.
  - 1. Failures include, but are not limited to, the following:
    - a. Manufacturing defects.
    - b. Structural failures including failure of asphalt shingles to self-seal after a reasonable time.
  - 2. Material Warranty Period: Manufacturer's limited lifetime warranty.
  - 3. Wind-Resistance: Asphalt shingles will resist blow-off or damage caused by wind speeds up to 130 mph.
  - 4. Algae-Discoloration Warranty Period: Asphalt shingles will not discolor 25 years from date of Substantial Completion.
  - 5. Workmanship Warranty Period: 10 years from date of Substantial Completion.

# 1.9 EXTRA MATERIALS

- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
  - 1. Asphalt Shingles: 100 sq. ft of each type, in unbroken bundles.

### PART 2 - PRODUCTS

### 2.1 GLASS-FIBER-REINFORCED ASPHALT SHINGLES

- A. Multitab-Strip Asphalt Shingles: ASTM D 3462, glass-fiber reinforced, mineral-granule surfaced, and self-sealing. Match existing shingles in appearance, color, etc.
  - 1. Manufacturers: Basis of Design: Owes Corning Duration Flex, or proven equal, subject to compliance with requirements, provide products by one of the following:
    - a. CertainTeed Corporation.
    - b. GAF Materials Corporation.
  - 2. Tab Arrangement: Three tabs, regularly spaced.
  - 3. Cutout Shape: Square.
  - 4. Butt Edge: Straight cut.
  - 5. Nailing Strip Type & Size: Manufacturer's standard, web-reinforced for maximum pullout strength.
  - 6. Algae Resistance: Granules treated to resist algae discoloration.
  - 7. Nominal Size: 13-1/4" x 39-3/8".
  - 8. Exposure: 5-5/8".
  - 9. Shingles per Square: 64.
  - 10. Bundles per Square: 3.
  - 11. Coverage per Square: 98.4 SF.
  - 12. Ridge Cap Shingles: Factory formed, field forming is not acceptable. Fasten through specified ridge vent, ensure secure adhesion. Trim each side of lapped portion of unit to taper approximately 1 inch.
  - 13. Color and Blends: Basis of Design: Black Onyx, or as selected by Architect from manufacturer's full range and availability.
- B. Applicable Standards:
  - 1. PRI ER 1378E01
  - 2. ASTM D228
  - 3. ASTM D3018, Type I
  - 4. ASTM D3161, Class F Wind Resistance
  - 5. ASTM D3462
  - 6. ASTM D7158
  - 7. ASTM E108/UL 790, Class A Fire Resistance
  - 8. CSA A123.5
  - 9. FM 4473 (Class 4 Impact Resistance)
  - 10. UL 2218 (Class 4 Impact Resistance)

# 2.2 UNDERLAYMENT MATERIALS

- A. Basis of Design: Rooftopguard II Premium Synthetic, high performance underlayment as provided by Rosenlew RKW Finland Ltd. PO Box 22, FIN-28601 PORI, Finland www.rooftopguard.com. Confirm compliance w/ shingle manufacturer warranty.
  - 1. Applicable Standards:
    - a. ICBO: ITS Report #484-1932, #484-2143
    - b. Metro Dade County: Passed PA 104-95 Testing NOA No.07-0320.03 Exp.06/14/12
    - c. ICC-ES: Approval #ESR-2928
    - d. CAN/CSA: A220.1
    - e. Florida Building Code: FL 1258-RI
    - f. Meets ASTM E108/UL 790 / Class A fire rating
  - 2. Product Data:
    - a. "Fiber Grip" top side construction
    - b. 43 lbs per roll
    - c. Roll width 5 feet, 10 squares per roll
    - d. Deck-side surface composed of high-friction film
    - e. Color: Grey 50-year guarantee
- B. Self-Adhering Sheet Underlayment, Polyethylene Faced: ASTM D 1970, minimum of 40-milthick, slip-resisting, polyethylene-film-reinforced top surface laminated to SBS-modified asphalt adhesive, with release paper backing; cold applied. Confirm compliance w/ shingle manufacturer warranty.
  - Basis of Design: RoofTopGuard SA as provided by Underlayment Specialties Plus, LLC, 805 West 5th Street, Unit 10A, Lansdale, PA 19446, <u>www.uspunderlayment.com</u>
    - a. Self-Adhered High-Temp Underlayment, Synthetic based, high-temp, ice & water roof underlayment.
    - b. Suitable for steep slope applications for use under asphalt based shingles.
    - c. Polyethylene/polypropylene construction, lightweight, extra-wide roll width.
    - d. Adhesive shall allow for very low installation temperatures (15 degrees or higher), while providing a larger service temperature (-20 degrees to 260 degrees).
    - e. Constructed to be directional by having a 5" self-adhered topside selvage provides a secure watertight lap adhesive bond.
  - 2. Subject to compliance with requirements, provide products by the following:
    - a. Grace, W. R. & Co. Conn.
    - b. Certainteed.
    - c. Contractor's proposal, proven equal.

### 2.3 RIDGE VENTS

- A. Rigid Ridge Vent: Manufacturer's standard, rigid section high-density polypropylene or other UV-stabilized plastic ridge vent with nonwoven geotextile filter strips; for use under ridge shingles.
  - 1. Basis of Design: Cor-A-Vent V300, as provided by Cor-A-Vent, Inc.
  - 2. 13.5 sq. in NFVA per lineal foot.
  - 3. 5/8 inch low profile design.
  - 4. Widths to choose from: 11" (5-1/2" on each side of ridge).
  - 5. Suitable for slopes from 3/12 to 16/12.
  - 6. Crush Proof Design.
  - 7. Made from heat resistant polypropylene.
  - 8. Covered with factory formed asphalt cap shingles.
  - 9. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. Air Vent, Inc.; a Gibraltar Industries company.
    - b. Cor-A-Vent, Inc.
    - c. GAF Materials Corporation.
    - d. Obdyke, Benjamin Incorporated.
    - e. Owens Corning.

#### 2.4 ACCESSORIES

- A. Asphalt Roofing Cement: ASTM D 4586, Type II, asbestos free.
- B. Roofing Nails: ASTM F 1667; aluminum, stainless-steel, copper, or hot-dip galvanized-steel wire shingle nails, minimum 0.120-inch- diameter, smooth shank, sharp-pointed, with a minimum 3/8-inch- diameter flat head and of sufficient length to penetrate 3/4 inch into solid wood decking or wood sub-strates.
  - 1. Where nails are in contact with metal flashing, use nails made from same metal as flashing.
- C. Underlayment Nails: Aluminum, stainless-steel, or hot-dip galvanized-steel wire with low-profile capped heads or disc caps, 1-inch minimum diameter.
- D. Staples: Not allowed.

# 2.5 METAL FLASHING AND TRIM

- A. Fabricate sheet metal flashing and trim to comply with recommendations in SMACNA's "Architectural Sheet Metal Manual" that apply to design, dimensions, metal, and other characteristics of the item.
  - 1. Gauge: 24.

- 2. Drip Edges: Fabricate in lengths not exceeding 10 feet with 2-inch roof-deck flange and 1-1/2-inch fascia flange with 3/8-inch drip at lower edge.
- B. Vent Pipe Flashing: Pipes penetrating shingled roofs shall be ARFCO self-sealing neoprene collar with copper flange.

# PART 3 - EXECUTION

#### 3.1 EXAMINATION

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
  - 1. Remove existing roofing materials to wooden substrate. Remove existing fasteners completely top avoid telegraphing.
  - 2. Remove all existing roofing debris from project site immediately and clean ground area around the building of all roofing debris to Owner's satisfaction.
  - 3. Examine roof sheathing to verify that sheathing joints are supported by framing and blocking or metal clips and that installation is within flatness tolerances.
  - 4. Verify that substrate is sound, dry, smooth, clean, sloped for drainage, and completely anchored; and that provision has been made for flashings and penetrations through asphalt shingles.
- B. Prepare written report, endorsed by Installer, listing conditions detrimental to performance of the Work.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

# 3.2 UNDERLAYMENT INSTALLATION

- A. General: Comply with underlayment manufacturer's written installation instructions applicable to products and applications indicated unless more stringent requirements apply.
- B. Single-Layer Underlayment: Install on roof deck parallel with and starting at the eaves. Lap sides a minimum of 2 inches over underlying course. Lap ends a minimum of 4 inches. Stagger end laps between succeeding courses at least 72 inches. Fasten with underlayment nails.
  - 1. Install underlayment on roof deck not covered by self-adhering sheet underlayment. Lap sides of underlayment over self-adhering sheet underlayment not less than 3 inches in direction to shed water. Lap ends of underlayment not less than 6 inches over self-adhering sheet underlayment.
  - 2. Install fasteners at no more than 36 inch o.c.
- C. Self-Adhering Sheet Underlayment: Install, wrinkle free, on roof deck. Comply with low-temperature installation restrictions of underlayment manufacturer if applicable. Install at locations indicated below, lapped in direction to shed water. Lap sides not less than 3-1/2 inches. Lap ends not less than 6 inches staggered 24 inches between courses. Roll laps with roller. Cover underlayment within seven days.

- 1. Eaves: Extend 6'0" from edges of eaves.
- 2. Rakes: Extend 3'0" from edges of rakes.
- 3. Ridge: Extend 3'0" from edges of ridge (6'0" total).
- 4. Cupola Roof: Cover in its entirety.
- 5. Flashing: Tape off continuously with min. 3" wide Self-Adhering Sheet Underlayment rolls, overlap joints min. 6".
- 6. Roll all Self-Adhering Sheet Underlayment flat and secure with weighted rollers.

# 3.3 METAL FLASHING INSTALLATION

- A. Eave Drip Edges: Install eave drip edge flashings below underlayment and fasten to roof sheathing.
- B. Pipe Flashings: Form flashing around pipe penetrations and asphalt shingles. Fasten and seal to asphalt shingles as recommended by Manufacturer.

# 3.4 ASPHALT SHINGLE INSTALLATION

- A. General: Install asphalt shingles according to manufacturer's written instructions, recommendations in ARMA's "Residential Asphalt Roofing Manual," and asphalt shingle recommendations in NRCA's "The NRCA Roofing and Waterproofing Manual."
  - 1. Fasten asphalt shingles, by hand only, to roof sheathing with nails, staples are not permitted.
- B. Install starter strip along lowest roof edge, consisting of an asphalt shingle strip with tabs removed with self-sealing strip face up at roof edge.
  - 1. Install starter strip along rake edge.
- C. Install first and remaining courses of asphalt shingles stair-stepping diagonally across roof deck with manufacturer's recommended offset pattern at succeeding courses, maintaining uniform exposure.
- D. Install first and remaining courses of asphalt shingles stair-stepping diagonally across roof deck with manufacturer's recommended offset pattern at succeeding courses, maintaining uniform exposure.
- E. Fasten asphalt shingle strips with a minimum of six roofing nails per piece, located according to manufacturer's written instructions.
- F. Ridge Vents: Install continuous ridge vents over asphalt shingles according to manufacturer's written instructions. Fasten with roofing nails of sufficient length to penetrate sheathing.
- G. Ridge Cap Shingles: Maintain same exposure of cap shingles as roofing shingle exposure. Lap cap shingles at ridges to shed water away from direction of prevailing winds. Fasten with roofing nails of sufficient length to penetrate sheathing.
  - 1. Fasten ridge cap asphalt shingles to cover ridge vent without obstructing airflow.

# END OF SECTION