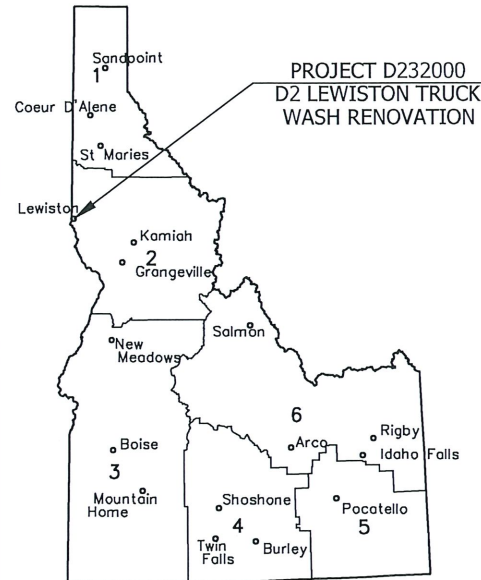


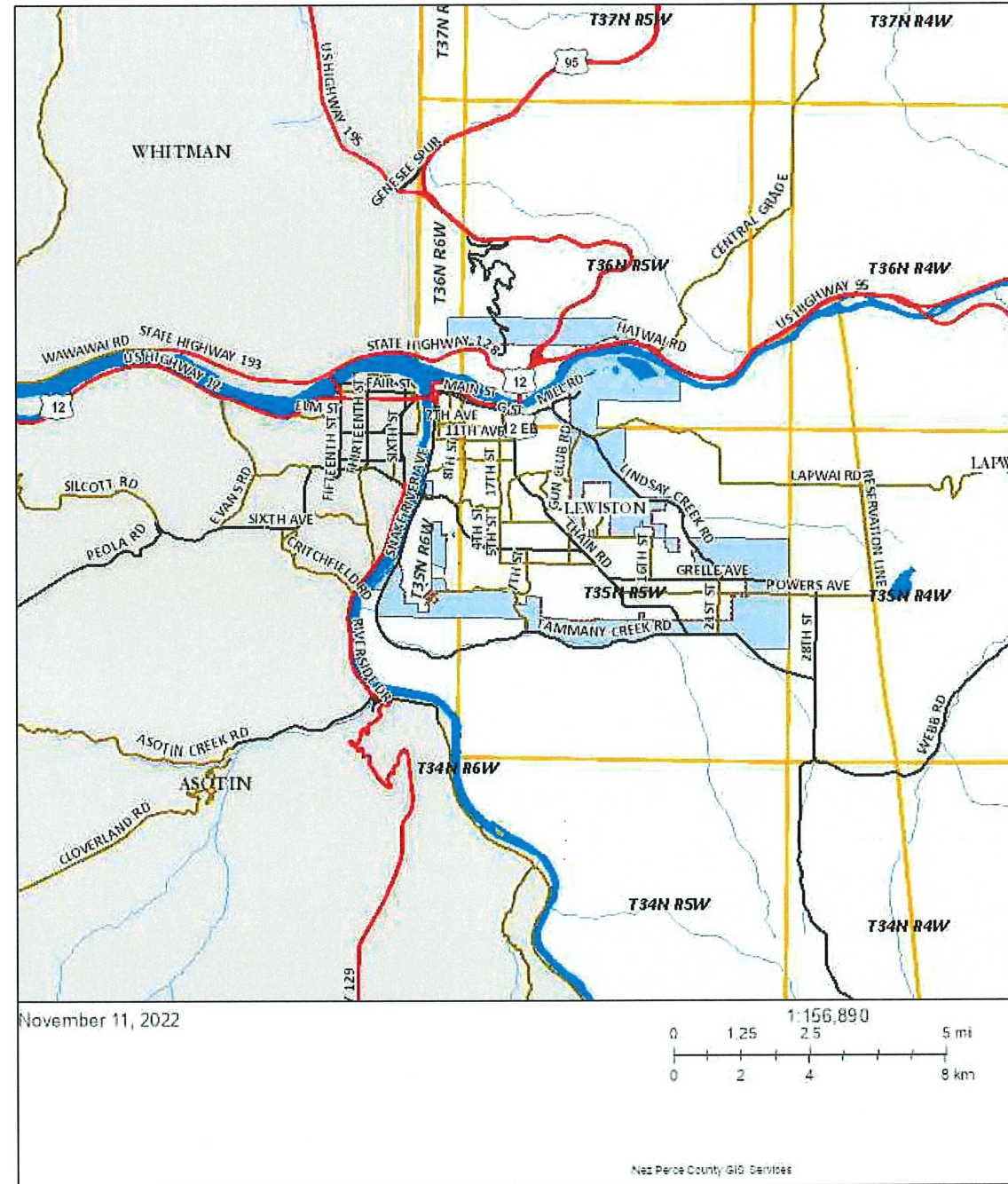
IDAHO TRANSPORTATION DEPARTMENT

D2 LEWISTON TRUCK WASH RENOVATION

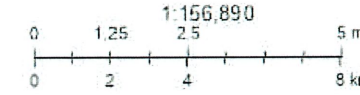


PROJECT D232000
D2 LEWISTON TRUCK
WASH RENOVATION

KELTIC ENGINEERING INC. ERIC HASENOEHL	208.743.2135	ERICH@KELTICENGR.COM
MUSGROVE ENGINEERING CHRIS DYKE NICK SCHAFER	208.384.0585 208.794.4583	CHRISD@MUSGROVEPA.COM NICKS@MUSGROVEPA.COM



November 11, 2022



Nez Perce County GIS Services

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REVISIONS			
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DESIGNED EFH	SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
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DETAILED SDH	CADD FILE NO.
DWG. CHECKED	
CORRECTIONS	DRAWING DATE: APRIL, 2024

IDAHO
TRANSPORTATION
DEPARTMENT

KELTIC ENGINEERING, INC.

PROJECT NO.	COVER SHEET
FM22418	LEWISTON TRUCK WASH

COUNTY	IDAHO
KEY NO.	
SHEET	C1 OF C2

English

ORIGINAL
SIGNED BY:

DATE SIGNED: _____



LEGEND

— RW —	RIGHT OF WAY LINE
— SS —	SANITARY SEWER
- - - W - - -	WATER LINE
- - - NG - - -	NATURAL GAS LINE
— UT —	UNDERGROUND TELEPHONE LINE
— OHP —	OVERHEAD POWER LINE
— UGP —	UNDERGROUND POWER LINE
- - - X - - -	UNKNOWN UNDERGROUND UTILITY
{-x.x'}	DEPTH OF UNDERGROUND UTILITY
- - - X - - -	FENCE
○ ^{PP}	POWER POLE
	ASPHALT AREA
	CONCRETE AREA
	GRAVEL AREA

EXISTING SITE
SCALE: 1" = 40'


REVISIONS

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DWG. CHECKED
CORRECTIONS

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DRAWING DATE:
APRIL, 2024

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KELTIC ENGINEERING, INC.

PROJECT NO.
FM22418

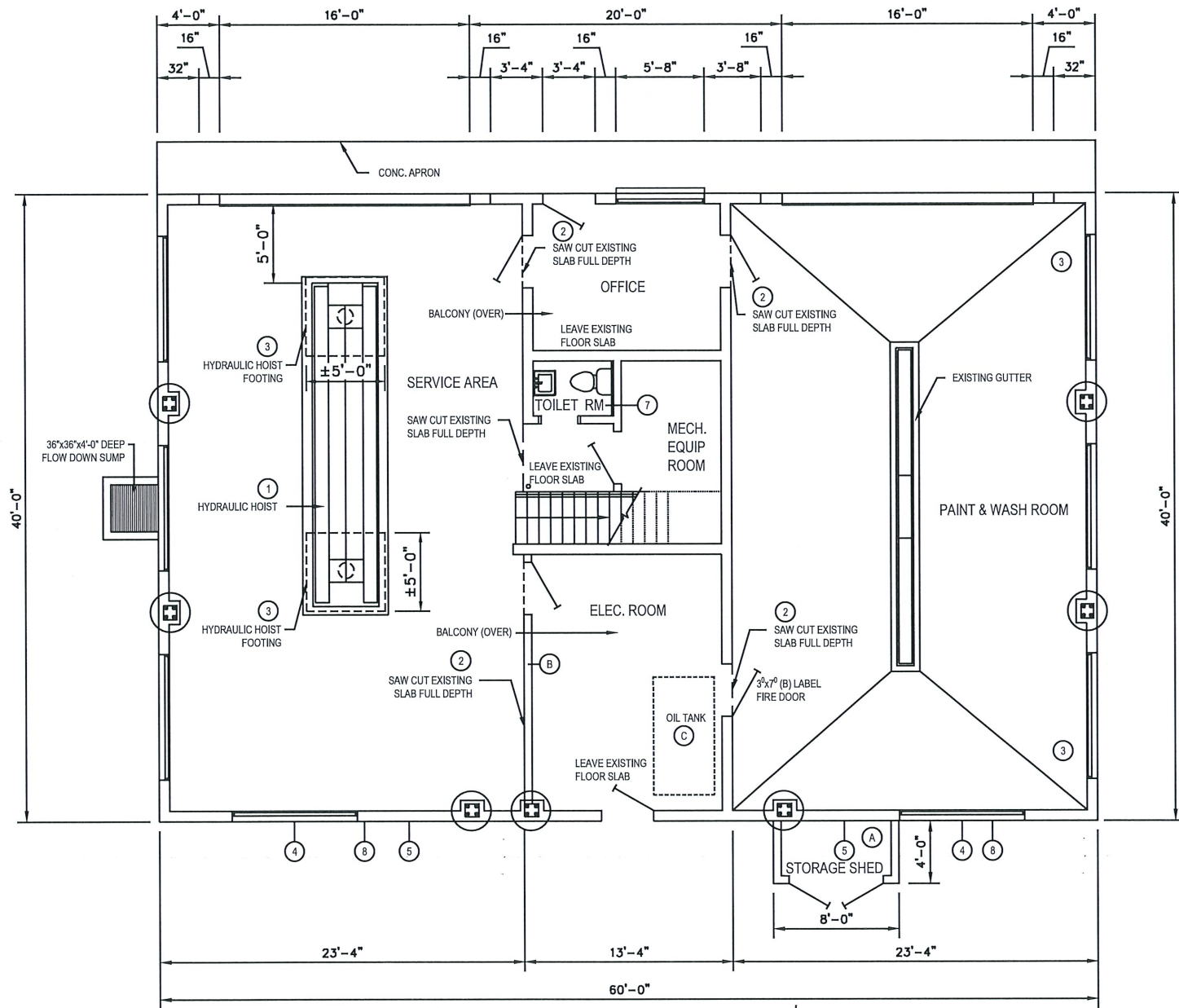
EXISTING SITE & LEGEND
LEWISTON TRUCK WASH

English
COUNTY IDAHO
KEY NO.
SHEET C2 OF C2

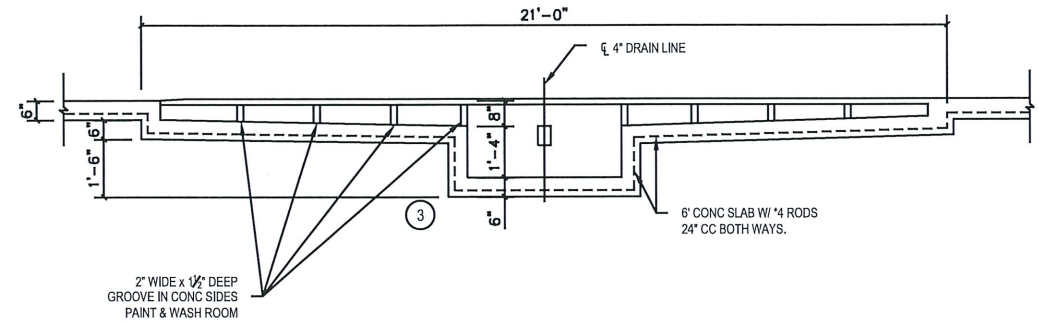
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DATE SIGNED:

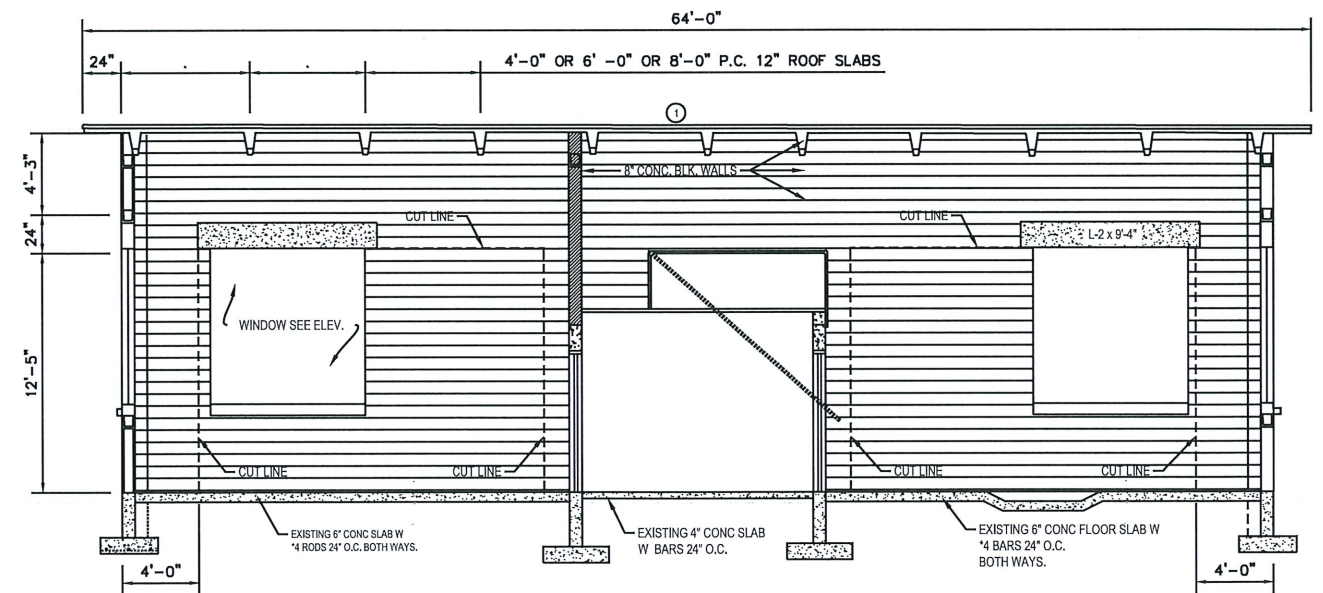


DEMO FLOOR PLAN
SCALE: 1" = 10'



LONGITUDINAL SECTION THRU GUTTER
SCALE: 1" = 5'

1. REMOVE EXISTING HYDRAULIC HOIST LIFT & EXISTING HOIST FOOTINGS FROM SERVICE AREA
2. SAW CUT EXISTING CONCRETE SLAB AS DESIGNATED ON PLANS FULL DEPTH
3. REMOVE EXISTING CONCRETE SLABS AS DESIGNATED ON PLANS TO INCLUDE PAINT & WASH ROOM AND SERVICE AREA TRENCH & SERVICE AREA DO NOT DAMAGE EXISTING EXTERIOR FOOTING FOUNDATION WALLS & COLUMN FOOTINGS
4. REMOVE EXISTING WINDOWS ON SOUTH ELEVATION FOR PROPOSED GARAGE DOORS
5. CUT VERTICAL & HORIZONTAL EXISTING CMU WALL FOR NEW GARAGE DOOR, HEADER, COLUMNS.
6. CAP ALL PLUMBING - SEE PLUMBING & ELECTRICAL PLAN FOR MORE DEMO.
7. DEMO TOILET, AND SINK, AIR FRESHER, CABINETS, PAPER HANGER IN TOILET RM.
8. SAW CUT EXISTING FOUNDATION STEM WALL DEPTH OF PROPOSED CONCRETE SLAB @ NEW GARAGE DOORS.



TRANSVERSE SECTION
SCALE: 1" = 5'

- KEYNOTE**
- A. DEMO EXISTING STORAGE SHED.
 - B. REMOVE EXISTING WALL FOR ACCESS TO TANK.
 - C. REMOVE EXISTING OIL TANK & CONTAINMENT.

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▲				DESIGN CHECKED	CADD FILE NO.
▲				EFH	
▲				DETAILED	DRAWING DATE: APRIL, 2024
▲				SDH	
▲				DWG. CHECKED	
▲				CORRECTIONS	

IDAHO TRANSPORTATION DEPARTMENT

KELTIC ENGINEERING, INC.


PROJECT NO.
FM22418

DEMO PLAN

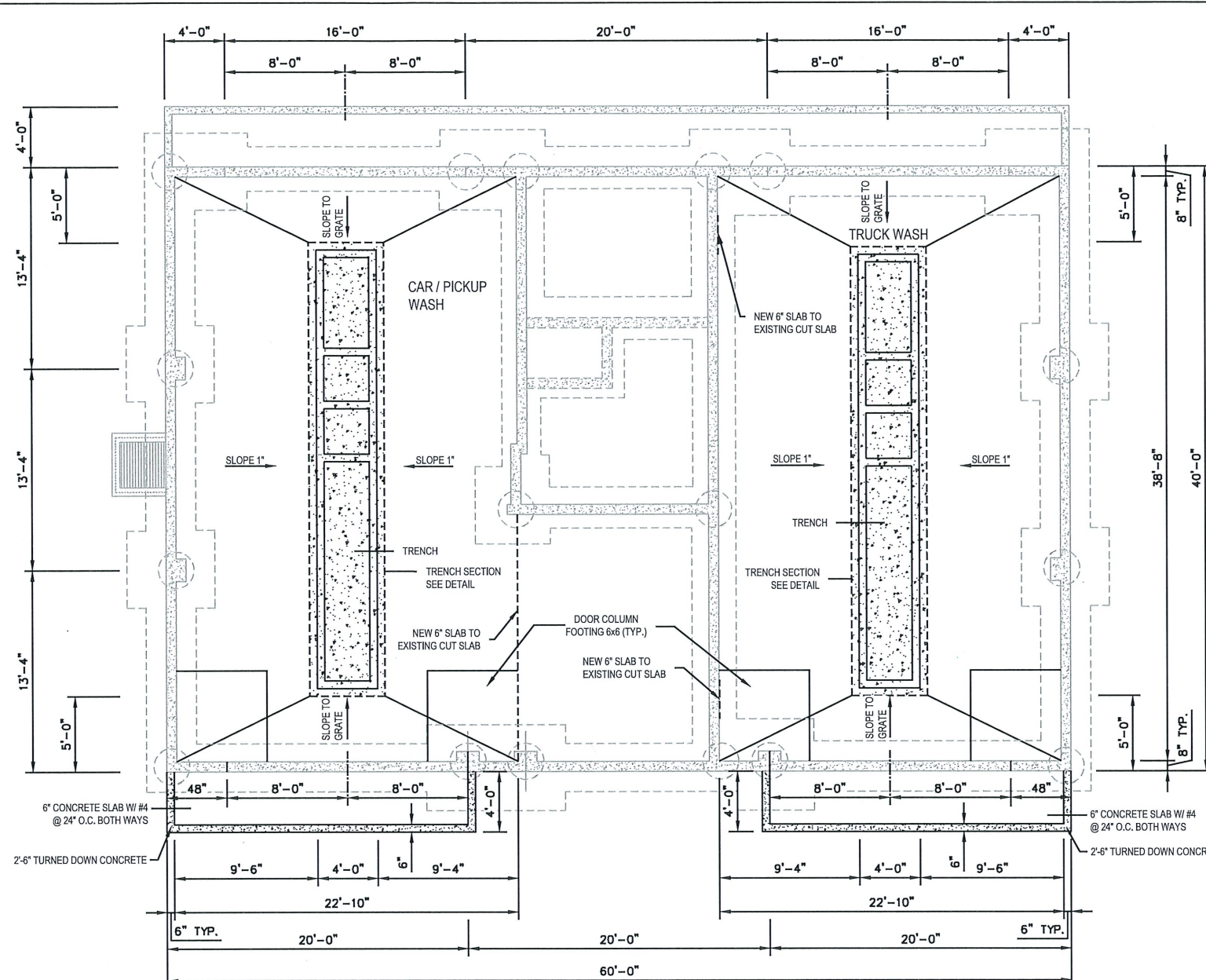
LEWISTON TRUCK WASH

English
 COUNTY **IDAHO**
 KEY NO.
 SHEET **S1 OF S6**

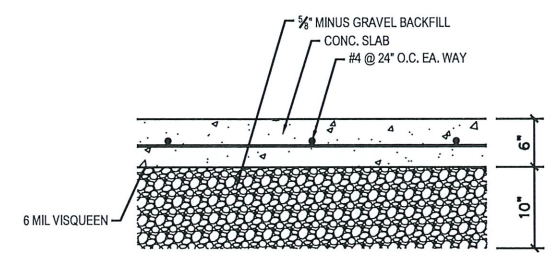
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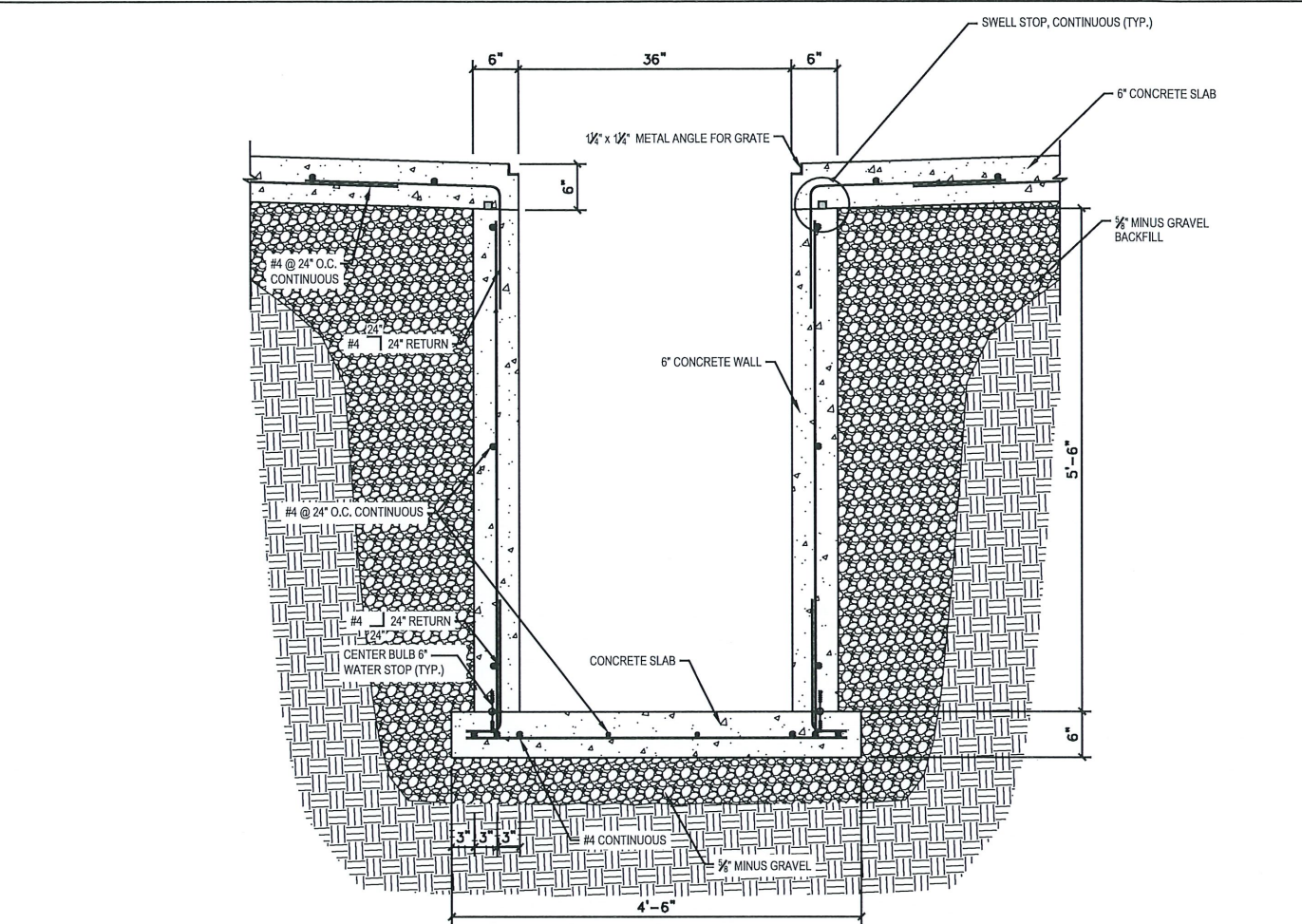
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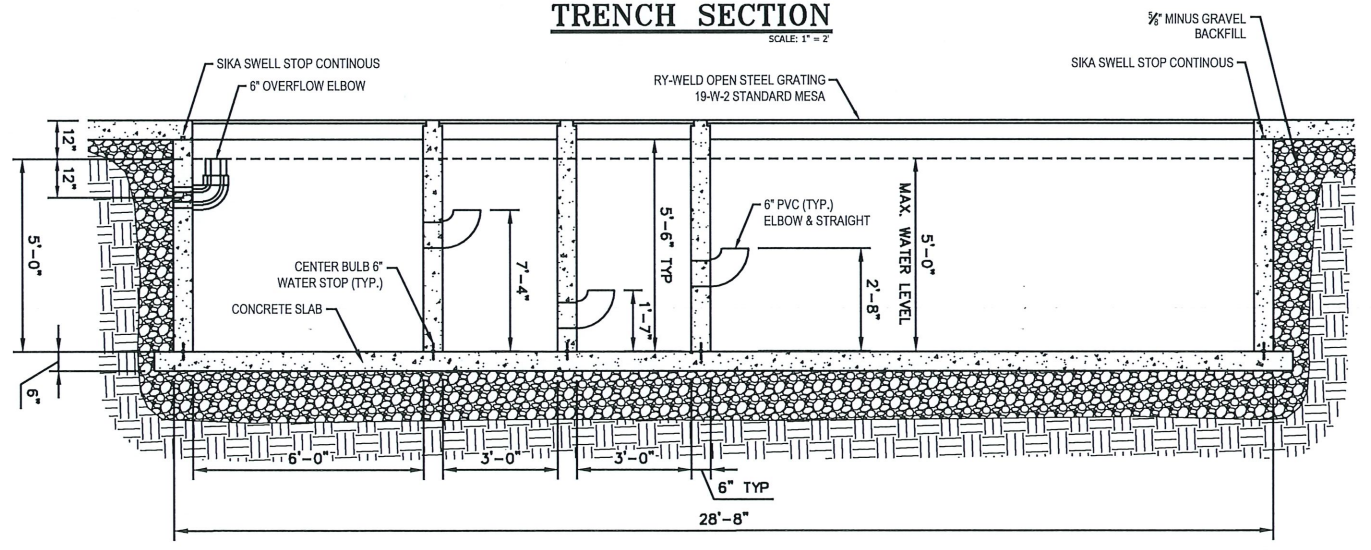
PROPOSED FOUNDATION & FOOTING PLAN
SCALE: 1" = 10'



PROPOSED CONCRETE SLAB
SCALE: 1" = 2'



TRENCH SECTION
SCALE: 1" = 2'



TRENCH ELEVATION
SCALE: 1" = 2'

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED
EFH

DESIGN CHECKED
EFH

DETAILED
SDH

DWG. CHECKED

CORRECTIONS

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

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IDAHO TRANSPORTATION DEPARTMENT

KELTIC ENGINEERING, INC.

PROJECT NO.
FM22418

PROPOSED FOUNDATION & FOOTING PLAN

LEWISTON TRUCK WASH

English

COUNTY IDAHO

KEY NO.

SHEET S2 OF S6

ORIGINAL SIGNED BY:

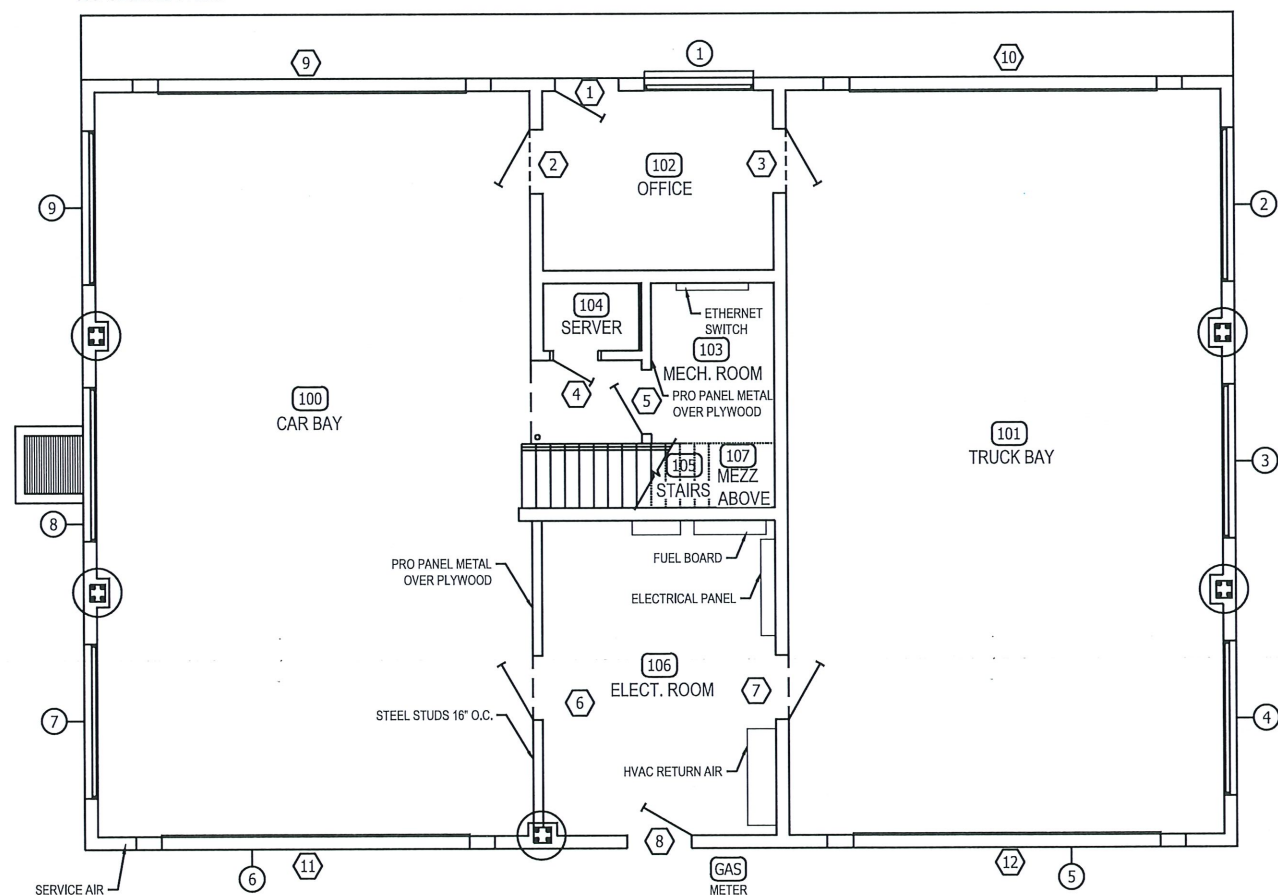
PROFESSIONAL ENGINEER
REGISTERED
6064
4/9/2024
STATE OF IDAHO
ERIC HASENOEHL

DATE SIGNED:

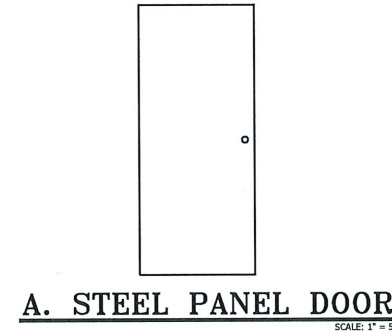
ROOM FINISH SCHEDULE					
ROOM NO.	FLOOR	NORTH WALL	EAST WALL	SOUTH WALL	WEST WALL
	CONCRETE RESILIENT	PAINT	PAINT PRO PANEL METAL	PAINT	PAINT
100	●	●	●	●	●
101	●	●	●	●	●
102	○	○	○	○	○
103	○	○	○	○	○
104	○	●	●	●	●
105	○	○	○	○	○
106	○	●	●	●	●
107	○	●	○	●	○

○ - EXISTING
● - PROPOSED / NEW
NO CEILING PAINT

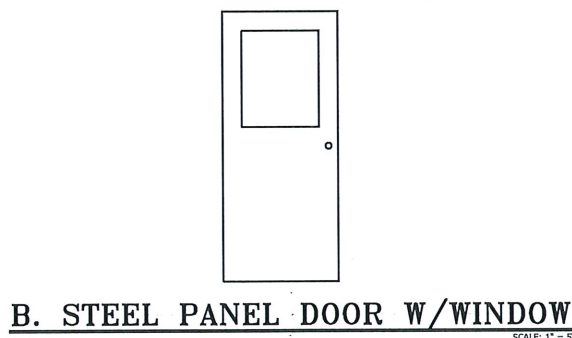
DOOR SCHEDULE										
DOOR NO.	ROOM	TYPE	W	H	D	HARDWARE TYPE	MATERIAL		FINISH	REMARKS
							DOOR	FRAME		
1	OFFICE	B	3'-0"	7'-0"	1 3/4"	KEYED LOCKSET	STEEL	STEEL	PAINT	EXISTING
2	CAR BAY	B	3'-0"	7'-0"	1 3/4"	KEYED LOCKSET	STEEL	STEEL	PAINT	EXISTING
3	TRUCK BAY	A	3'-0"	7'-0"	1 3/4"	KEYED LOCKSET	STEEL	STEEL	PAINT	EXISTING
4	TOILET	A	2'-4"	7'-0"	1 3/4"	PRIVACY	STEEL	STEEL	PAINT	EXISTING
5	MECH. ROOM	C	3'-0"	6'-8"	1 3/8"	PASSAGE	WOOD	WOOD	STAINED	EXISTING
6	ELECT. ROOM	A	3'-0"	7'-0"	1 3/4"	KEYED LOCKSET	STEEL	STEEL	PAINT	NEW DOOR
7	TRUCK BAY	A	3'-0"	7'-0"	1 3/4"	KEYED LOCKSET	STEEL	STEEL	PAINT	EXISTING
8	ELECT. ROOM	A	3'-0"	7'-0"	1 3/4"	KEYED LOCKSET	STEEL	STEEL	PAINT	EXISTING
9	CAR BAY	D	16'-0"	12'-6"		SIDE OPENER		FAB	PAINT	EXISTING
10	TRUCK BAY	D	16'-0"	12'-6"		SIDE OPENER		FAB	PAINT	EXISTING
11	CAR BAY	D	16'-0"	12'-6"	2"	SIDE OPENER	STEEL	FAB	PAINT	NEW DOOR
12	TRUCK BAY	D	16'-0"	12'-6"	2"	SIDE OPENER	STEEL	FAB	PAINT	NEW DOOR



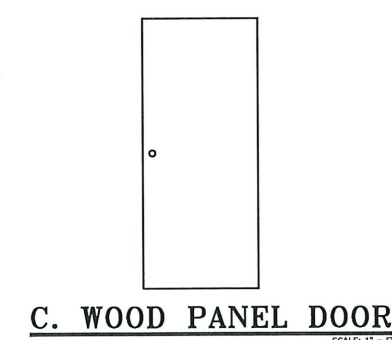
FLOOR PLAN
SCALE: 1" = 10'



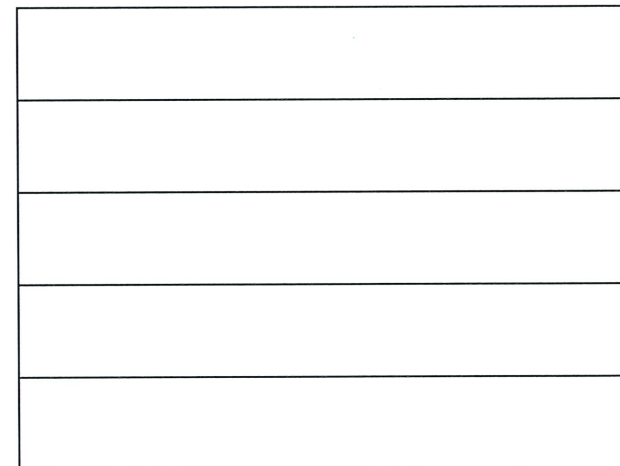
A. STEEL PANEL DOOR
SCALE: 1" = 5'



B. STEEL PANEL DOOR W/WINDOW
SCALE: 1" = 5'



C. WOOD PANEL DOOR
SCALE: 1" = 5'



D. SECTIONAL OVERHEAD DOOR
SCALE: 1" = 5'

REVISIONS			
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DESIGN CHECKED EFH
DETAILED SDH
DWG. CHECKED
CORRECTIONS

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APRIL, 2024

IDAHO TRANSPORTATION DEPARTMENT

KELTIC ENGINEERING, INC.

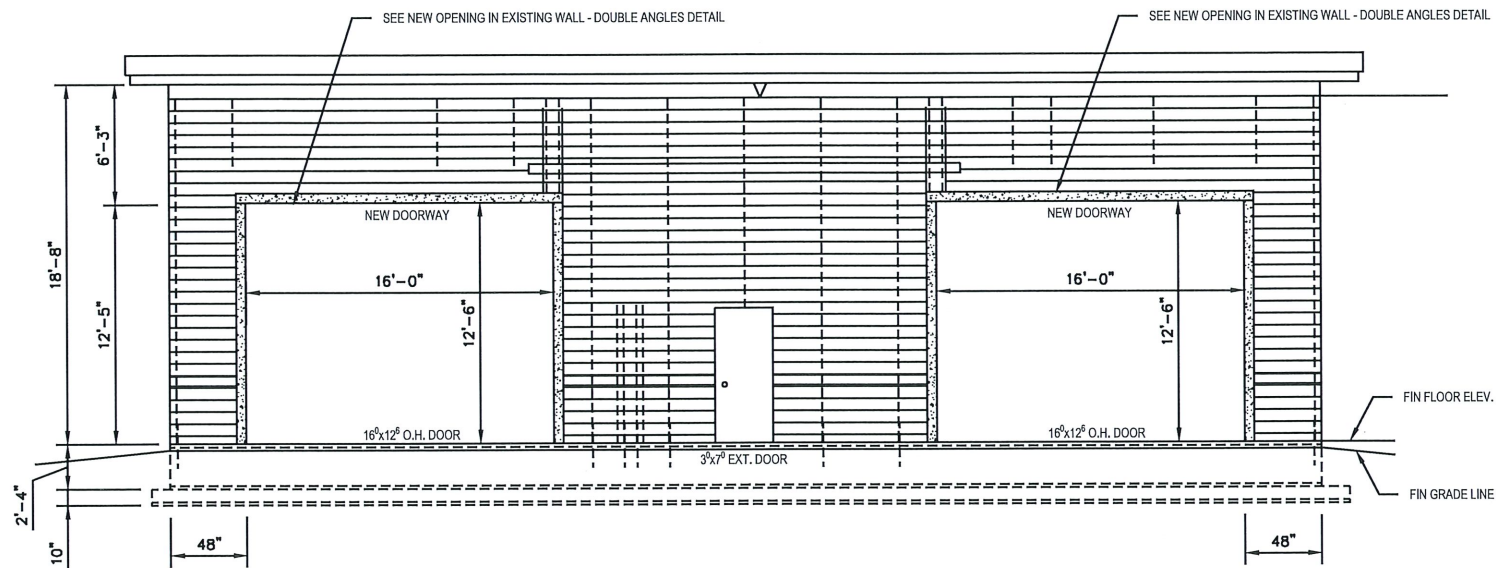
PROJECT NO.
FM22418

FLOOR PLAN
LEWISTON TRUCK WASH

English
COUNTY IDAHO
KEY NO.
SHEET S3 OF S6

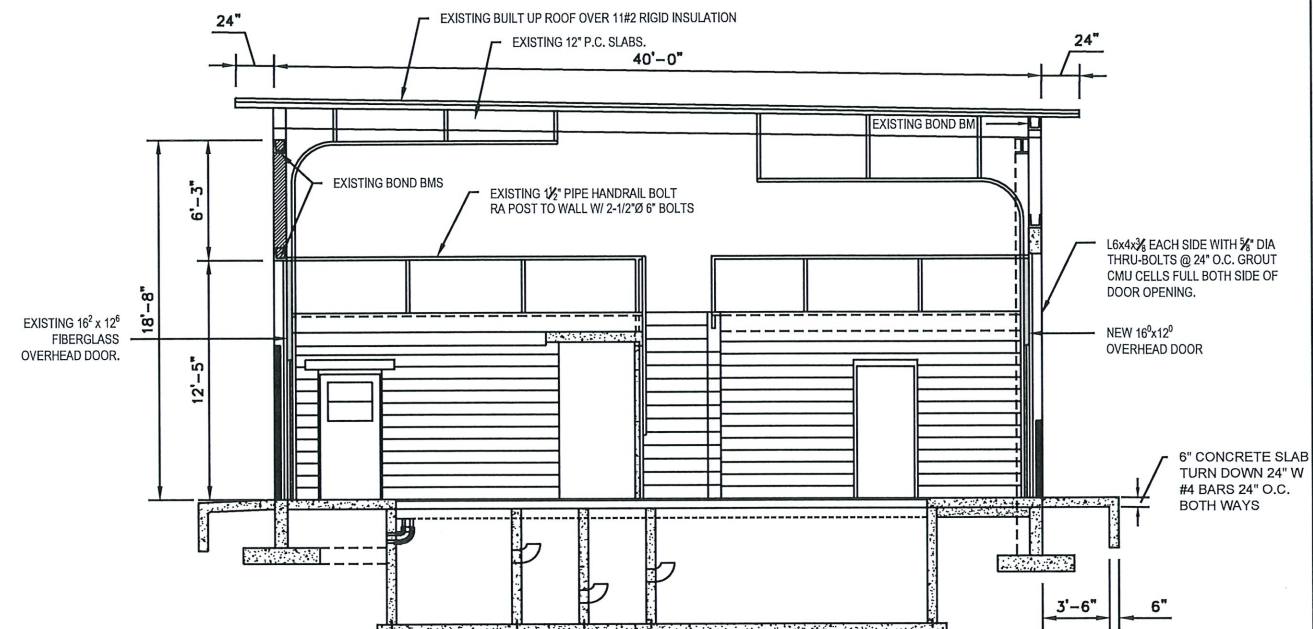
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DATE SIGNED:



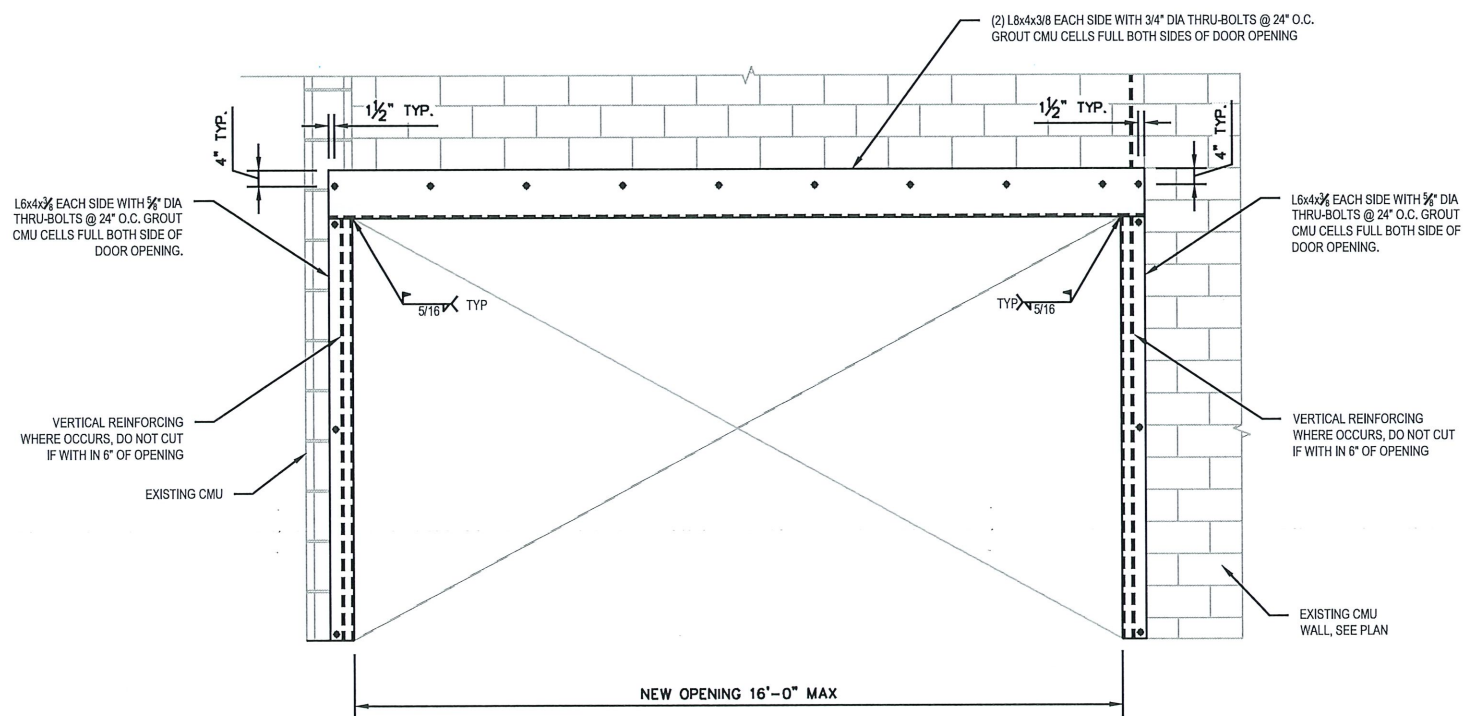
PROPOSED REAR ELEVATION

SCALE: 1" = 10'



CROSS SECTION

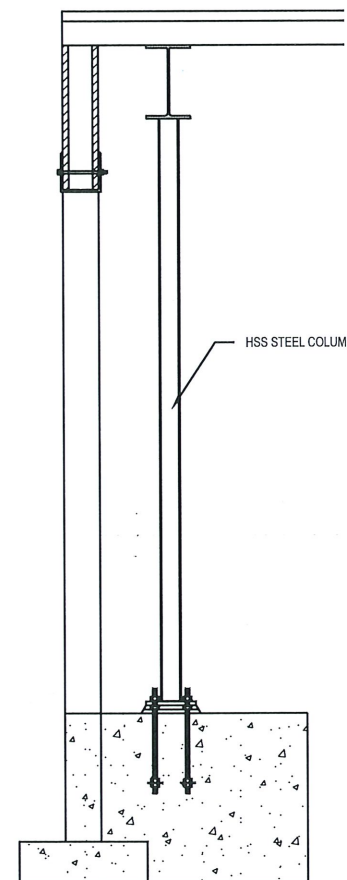
SCALE: 1" = 10'



- NOTES:
1. SAWCUT MASONRY AND INSERT HEAD REINFORCING ANGLE ON ONE SIDE, THEN REPEAT ON OTHER SIDE; INSTALL BOLTS THRU HEAD ANGLES, THEN REMOVE 2'-0" STRIP OF MASONRY AT JAMBS.
 2. SEE ARCH FOR OPENING SIZE.

NEW OPENING IN EXISTING WALL - DOUBLE ANGLES

SCALE: 1" = 4'



OVERHEAD DOOR JAMB DET.

SCALE: 1" = 6'

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CADD FILE NO.
DRAWING DATE: APRIL, 2024

IDAHO TRANSPORTATION DEPARTMENT



KELTIC ENGINEERING, INC.

PROJECT NO.	FM22418
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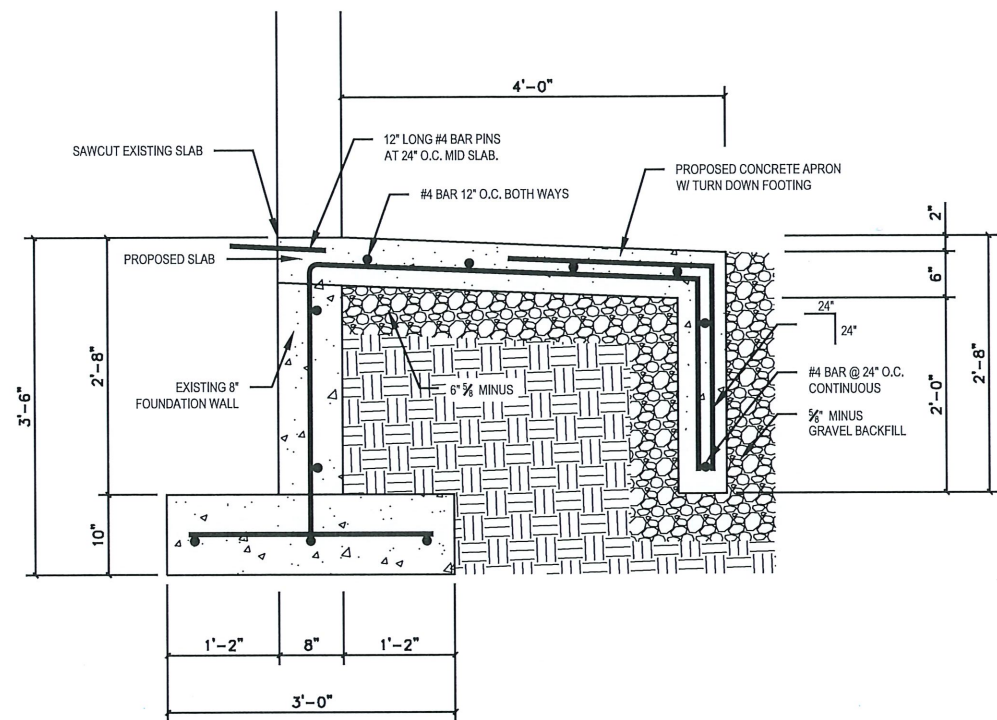
PROPOSED REAR ELEVATION & CROSS SECTION	LEWISTON TRUCK WASH
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English
COUNTY IDAHO
KEY NO.
SHEET S4 OF S6

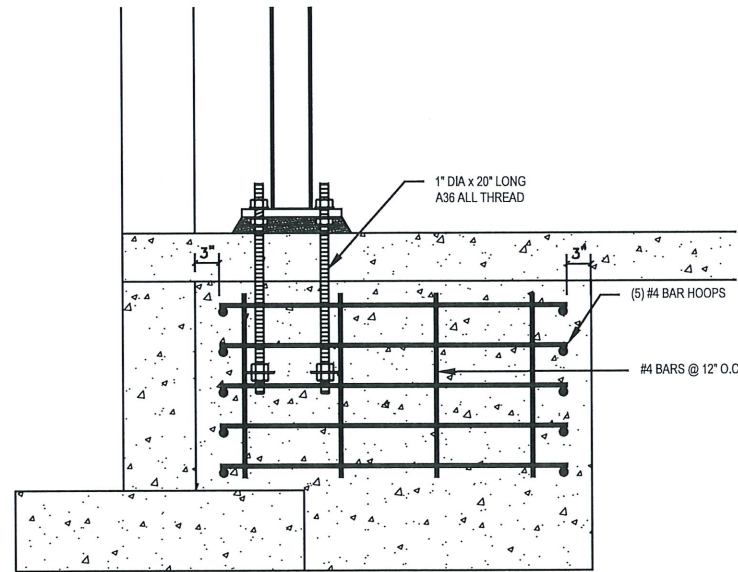
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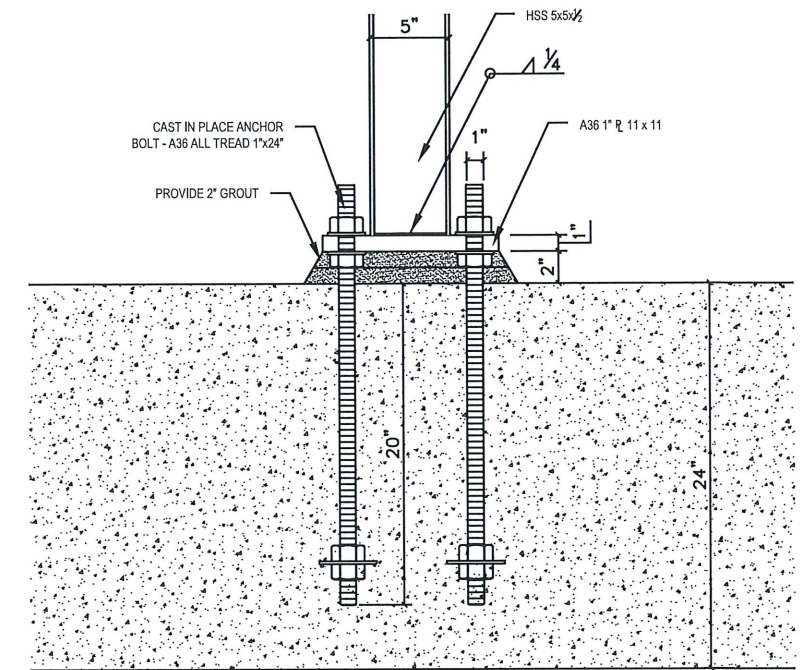
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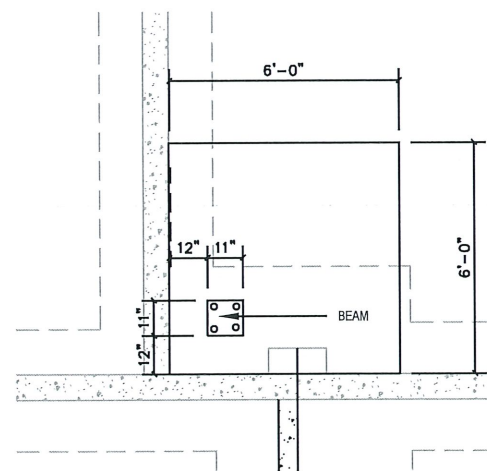
PROPOSED CONCRETE APRON
SCALE: 1" = 2'



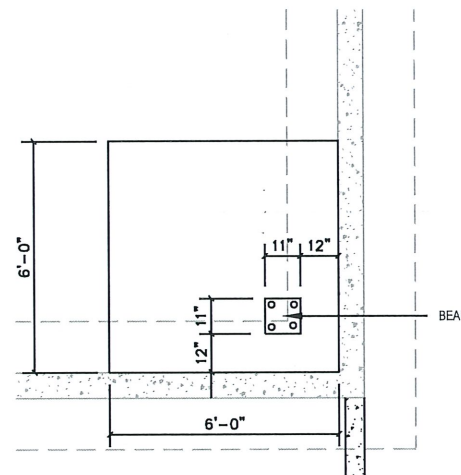
DOOR COLUMN FOOTINGS
SCALE: 1" = 2'



BASE PLATE SECTION
SCALE: 1" = 1'



DOOR COLUMN FOOTING RIGHT
SCALE: 1" = 5'



DOOR COLUMN FOOTING LEFT
SCALE: 1" = 5'

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DETAILED SDH
DWG. CHECKED
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IDAHO TRANSPORTATION DEPARTMENT



KELTIC ENGINEERING, INC.

PROJECT NO.

FM22418

DETAILS

LEWISTON TRUCK WASH

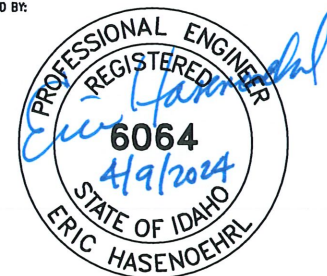
English

COUNTY IDAHO

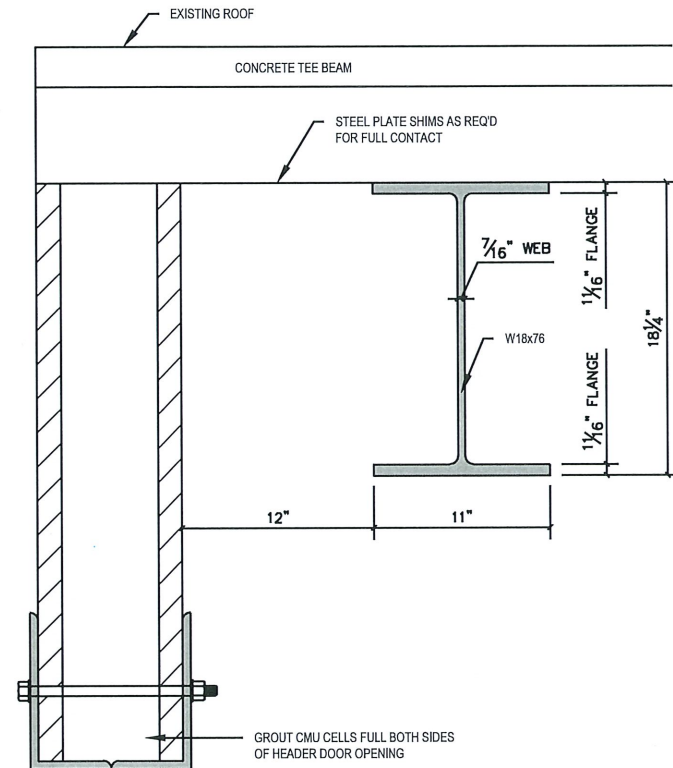
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SHEET S5 OF S6

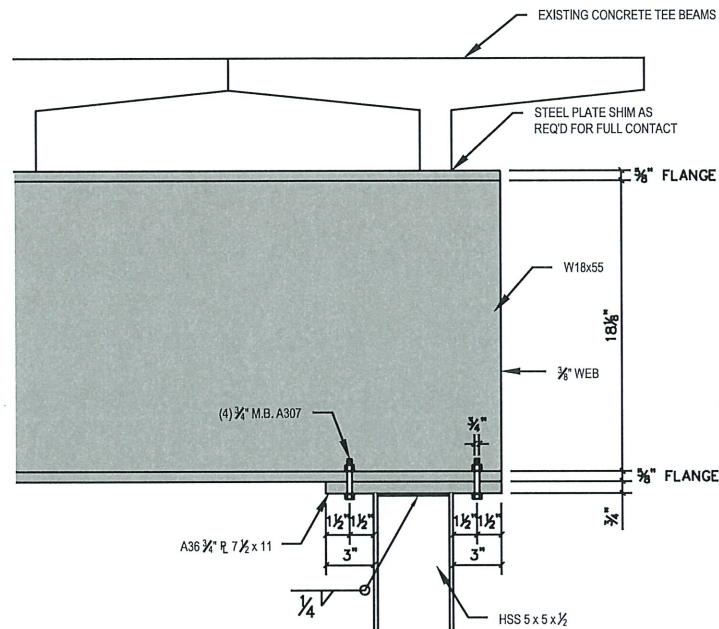
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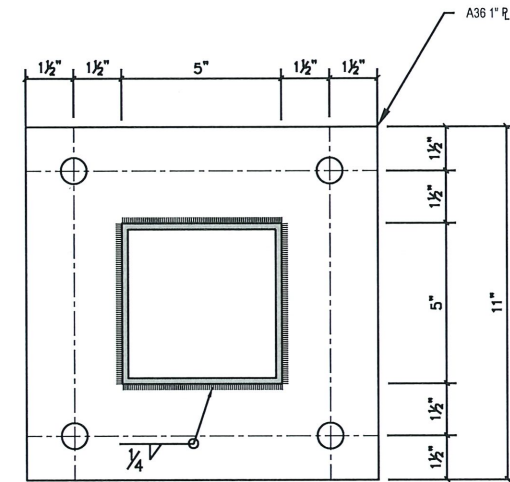
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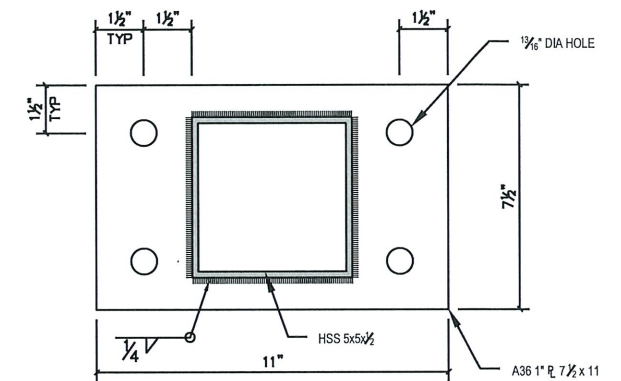
HEADER DETAIL
SCALE: 1" = 1'



COLUMN TO BEAM CONNECTION
SCALE: 1" = 1'



BASE PLATE
SCALE: 1" = 6"



TOP PLATE
SCALE: 1" = 6"

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KELTIC ENGINEERING, INC.

PROJECT NO.
FM22418

DETAILS
LEWISTON TRUCK WASH

English
COUNTY IDAHO
KEY NO.
SHEET S6 OF S6

ORIGINAL SIGNED BY:



DATE SIGNED:

MECHANICAL ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR	LAT	LEAVING AIR TEMPERATURE
ASHRAE	AMERICAN SOCIETY OF HEATING, REFRIGERATION, AND AIR CONDITIONING ENGINEERS	LAV	LAVATORY
		LWT	LEAVING WATER TEMPERATURE
BTU	BRITISH THERMAL UNITS	MAX	MAXIMUM
BTUH	BTUS PER HOUR	MCA	MINIMUM CIRCUIT AMPS
CA	COMBUSTION AIR	MOCP	MAXIMUM OVERCURRENT PROTECTION
CC	COOLING COIL	MIN	MINIMUM
CFM	AIR FLOW RATE (CUBIC FEET PER MINUTE)		
CLG	CEILING	NC	NOISE CRITERIA
CW	COLD WATER	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
		NTS	NOT TO SCALE
DEG or °	DEGREE		
DIA or Ø	DIAMETER	OSA	OUTSIDE AIR
DB	DRY BULB		
		PD	PRESSURE DROP
EA	EXHAUST AIR	PH or Ø	PHASE
EAT	ENTERING AIR TEMPERATURE	PRV	PRESSURE REDUCING VALVE
EER	ENERGY EFFICIENCY RATIO		
ESP	EXTERNAL STATIC PRESSURE	RA	RETURN AIR
EWT	ENTERING WATER TEMPERATURE	RPM	REVOLUTIONS PER MINUTE
FCO	FLOOR CLEANOUT	SA	SUPPLY AIR
FLA	FULL LOAD AMPS	SEER	SEASONAL ENERGY EFFICIENCY RATIO
FLR	FLOOR		
FPM	FEET PER MINUTE	SP	STATIC PRESSURE
FT	FEET	SYM	SYMBOL
GA	GAUGE	T & P	TEMPERATURE AND PRESSURE
GCO	GRADE CLEANOUT	TEMP	TEMPERATURE
GPM	WATER FLOW RATE (GALLONS PER MINUTE)	TYP	TYPICAL
HC	HEATING COIL	UMC	UNIFORM MECHANICAL CODE
HP	HORSE POWER	UPC	UNIFORM PLUMBING CODE
HVAC	HEATING, VENTILATING, AIR CONDITIONING	URL	URINAL
HW	HOT WATER		
		VTR	VENT THROUGH ROOF
IBC	INTERNATIONAL BUILDING CODE	V	VOLTS
IEEC	INTERNATIONAL ENERGY CONSERVATION CODE		
IFC	INTERNATIONAL FIRE CODE	W/	WITH
IFGC	INTERNATIONAL FUEL GAS CODE	WB	WET-BULB
IMC	INTERNATIONAL MECHANICAL CODE	WC	WATER CLOSET
IPC	INTERNATIONAL PLUMBING CODE	WCO	WALL CLEANOUT
		WH	WATER HEATER

NOTE: THIS IS A STANDARD LIST OF COMMONLY USED MECHANICAL ABBREVIATIONS. SOME OF THE ABBREVIATIONS SHOWN ABOVE MAY NOT BE USED IN THIS DRAWING PACKAGE.

ENERGY CODE COMPLIANCE

- A. COMPLIANCE WITH THE LATEST ADOPTED EDITION OF THE INTERNATIONAL ENERGY CONSERVATION CODE IS REQUIRED FOR THIS PROJECT. THESE NOTES COVER MANDATORY REQUIREMENTS OF THE CODE. ADDITIONAL REQUIREMENTS ARE NOTED ON THE DRAWINGS AND IN THE SPECIFICATIONS.
- B. MINIMUM REQUIREMENTS FOR SUPPLY AND RETURN DUCTWORK INSULATION:
 - 1. R-6: DUCTS LOCATED IN UNCONDITIONED SPACES (SPACE NEITHER HEATED NOR COOLED SUCH AS ABOVE CEILING SPACES, WALL SPACES, DUCT CHASES, SOFFITS, ATTICS, CRAWL SPACES, UNHEATED BASEMENTS, AND UNHEATED GARAGES).
 - 2. R-12: DUCTS LOCATED OUTSIDE OF THE BUILDING'S INSULATION ENVELOPE (SUCH AS ABOVE THE ATTIC INSULATION).

TYPICAL INSULATION THICKNESS REQUIRED TO MEET THESE REQUIREMENTS:


 - 1. DUCT WRAP: R-6 = 1-1/2", R-12 = 4"
 - 2. DUCT LINER: R-6 = 1-1/2", R-12 = 3"
- C. CONTRACTOR SHALL VERIFY WITH THE MANUFACTURER, THE R-VALUES OF THE INSULATION USED. R-VALUES SHALL BE INSTALLED VALUES.
- D. WHERE DUCTS USED FOR COOLING ARE EXTERNALLY INSULATED, THE INSULATION SHALL BE COVERED WITH A VAPOR RETARDER HAVING A MAXIMUM PERMEANCE OF 0.05 PERM OR ALUMINUM FOIL HAVING A MINIMUM THICKNESS OF 2 MILS. INSULATION HAVING A PERMEANCE OF 0.05 PERMS OR LESS SHALL NOT BE REQUIRED TO BE COVERED. ALL JOINTS AND SEAMS SHALL BE SEALED TO MAINTAIN THE CONTINUITY OF THE VAPOR RETARDER.
- E. ALL DUCT JOINTS, SEAMS, AND CONNECTIONS SHALL BE FASTENED AND SEALED WITH WELDS, GASKETS, ADHESIVES, MASTIC-PLUS-EMBEDDED-FABRIC SYSTEMS, OR TAPES. TAPES AND MASTICS SHALL BE LISTED AND LABELED PER UL181A OR UL181B. DUCT TAPE IS NOT PERMITTED AS A SEALANT ON ANY METAL DUCTS. DUCT CONNECTIONS TO FLANGES OR EQUIPMENT SHALL BE SEALED AND MECHANICALLY FASTENED.
- F. AN OPERATING AND MAINTENANCE MANUAL SHALL BE PROVIDED PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY. THE O&M MANUAL SHALL CONTAIN THE FOLLOWING INFORMATION AS A MINIMUM: EQUIPMENT CAPACITY (INPUT & OUTPUT), 2. EQUIPMENT OPERATING AND MAINTENANCE INSTRUCTIONS, 3. CONTROL SYSTEM MAINTENANCE AND CALIBRATION INFORMATION, INCLUDING WIRING DIAGRAMS, SCHEMATICS, AND CONTROL SEQUENCES, 4. CONTROL SYSTEM SETPOINTS SHALL BE SHOWN ON CONTROL DRAWINGS OR AT CONTROL DEVICES, & 5. A COMPLETE WRITTEN NARRATIVE ON HOW EACH MECHANICAL SYSTEM IS INTENDED TO OPERATE.

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**IDAHO
TRANSPORTATION
DEPARTMENT**



KELTIC ENGINEERING, INC.

PROJECT NO.
FM22418


<i>MECHANICAL COVER SHEET</i>
<i>LEWISTON TRUCK WASH</i>

English
COUNTY <i>IDAHO</i>
KEY NO.
SHEET <i>M1</i> OF <i>M12</i>



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MECHANICAL AND PLUMBING DRAWINGS LEGEND

	MOTORIZED DAMPER		THREE WAY CONTROL VALVE
	SWITCH		TWO WAY CONTROL VALVE
	THERMOSTAT		PRESSURE REDUCING VALVE
	CARBON MONOXIDE SENSOR		GATE VALVE
	NITROGEN DIOXIDE SENSOR		REDUCER
	EQUIPMENT CALLOUT		GLOBE VALVE
	NEW		BALL VALVE
	DOUBLE CHECK BACKFLOW PREVENTER		BUTTERFLY VALVE
	UNION		BALANCE VALVE
	AIR VENT		CHECK VALVE
	TRIPLE DUTY VALVE		INTAKE OR EXHAUST

	TEMPERATURE GAUGE		GAS PRESSURE REG. W/ GAS COCK
	PRESSURE GAUGE (LIQUID FILLED W/ ISOLATION VALVE)		VENT-THROUGH-ROOF
	STAINLESS STEEL BRAIDED FLEX CONNECTION		VENT
	ELASTOMETRIC FLEX CONNECTOR		SOIL, WASTE, OR SANITARY SEWER
	SUCTION DIFFUSER		DOMESTIC COLD WATER (CW)
	Y TYPE STRAINER (1 1/2" OR LARGER PROVIDED W/ BLOW DOWN VALVE)		LOW PRESSURE NATURAL GAS
	FLOW DIRECTION		SLOPE PIPE IN DIRECTION OF ARROW
	DEMOLITION/EQUIP. TO BE REMOVED		PIPE ANCHOR
	NEW TO EXISTING CONNECTION		PIPE GUIDE
	EXISTING		CAP
NOTE:		THIS IS A LIST OF COMMONLY USED MECHANICAL AND PLUMBING SYMBOLS. SOME OF THE SYMBOLS SHOWN ABOVE MAY NOT BE USED IN THIS DRAWING PACKAGE.	

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MECHANICAL COVER SHEET

LEWISTON TRUCK WASH

English

COUNTY *IDAHO*


KEY NO.

SHEET *M2* OF *M12*



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MECHANICAL GENERAL NOTES

1. ALL MECHANICAL EQUIPMENT AND SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH THE INTERNATIONAL MECHANICAL CODE (IMC) LATEST EDITION, AND ALL LOCAL & STATE CODES.
2. ALL PLUMBING EQUIPMENT AND SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST ADOPTED PLUMBING CODE, AND ALL LOCAL & STATE CODES.
3. ALL MECHANICAL AND PLUMBING EQUIPMENT SHALL BE INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS.
4. MECHANICAL CONTRACTORS SHALL RECEIVE PRIOR APPROVAL FROM THE STRUCTURAL ENGINEER BEFORE MAKING CUTS THROUGH ANY STRUCTURAL MEMBER.
5. MECHANICAL CONTRACTORS SHALL COORDINATE INSTALLATION WITH CONSTRUCTION SUPERVISOR AND WITH ALL OTHER TRADES TO AVOID CONFLICTS.
6. THE MECHANICAL CONTRACTORS SHALL VERIFY MOTOR VOLTAGES WITH THE ELECTRICAL DRAWINGS BEFORE ORDERING MOTORIZED EQUIPMENT AND CONTROLS.
7. DOMESTIC WATER SERVICE IS PROVIDED WITH A DOUBLE CHECK BACKFLOW PREVENTER.
8. ALL MECHANICAL EQUIPMENT TO BE PROPOSED MUST BE ON THE APPROVED LIST PRIOR TO SUBMITTALS. ALL APPROVED MANUFACTURERS MUST BE CAPABLE OF MEETING THE REQUIREMENTS OF THE SPECIFIED EQUIPMENT.
9. PROVIDE REMOTE CEILING ACCESS BALANCE DAMPERS WITH CONCEALED CHROME PLATE COVERS FOR BALANCE DAMPERS LOCATED ABOVE HARD CEILINGS.
10. MAINTAIN MINIMUM OF 10'-0" DISTANCE BETWEEN ALL FRESH AIR INTAKES AND EXHAUST OR GAS FLUE DISCHARGES.
11. THE PLUMBING CONTRACTOR IS RESPONSIBLE FOR ALL BACKFLOW DEVICES TO BE INSPECTED BY A CERTIFIED BACKFLOW TECHNICIAN BEFORE THE USE OF THE BUILDING POTABLE WATER SYSTEM.
12. LOCATE ACCESS HATCHES SO AS TO PROVIDE OPTIMUM SERVICEABILITY TO EQUIPMENT AND/OR VALVING. SEE ARCHITECTURAL SPECIFICATION FOR TYPE AND COLOR. COORDINATE LOCATION WITH STRUCTURAL & LIGHTING.
13. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR VERIFICATION OF EXISTING JOB CONDITIONS PRIOR TO BID. NO ADDITIONAL COST SHALL BE AWARDED TO THE SUCCESSFUL CONTRACTOR (OR THEIR SUBCONTRACTORS) AFTER BIDS HAVE BEEN SUBMITTED AND CONTRACTS AWARDED FOR FAILURE TO VERIFY EXISTING FIELD CONDITIONS. DISCREPANCIES BETWEEN ACTUAL FIELD CONDITIONS AND CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE ENGINEERS ATTENTION FOR ALTERNATIVE METHODS OF INSTALLATION PRIOR TO THE BIDDING OF THIS PROJECT.
14. UNLESS OTHERWISE NOTED ALL EXISTING MECHANICAL EQUIPMENT, PIPING, ETC, TO BE REMOVED SHALL BE DISPOSED OF BY THE CONTRACTOR UNDER THIS CONTRACT. THE OWNER SHALL RETAIN THE RIGHT TO KEEP ANY REMOVED ITEMS.
15. ALL DOMESTIC COLD AND HOT WATER LINES IN THE AREA OF WORK WHICH ARE NO LONGER IN USE DUE TO THIS PROJECT SHALL BE REMOVED BACK TO THE MAINS AND CAPPED.
16. HOLES IN EXISTING WALL OR FLOORS SHALL BE PATCHED TO MATCH EXISTING WHERE PIPING, DUCTWORK, ETC. WERE REMOVED OR ADDED DURING THIS PROJECT.
17. DAMAGE TO THE EXISTING FACILITY DURING THE CONSTRUCTION SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT NO COST TO THE OWNER.

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NO.	DATE	BY	DESCRIPTION							

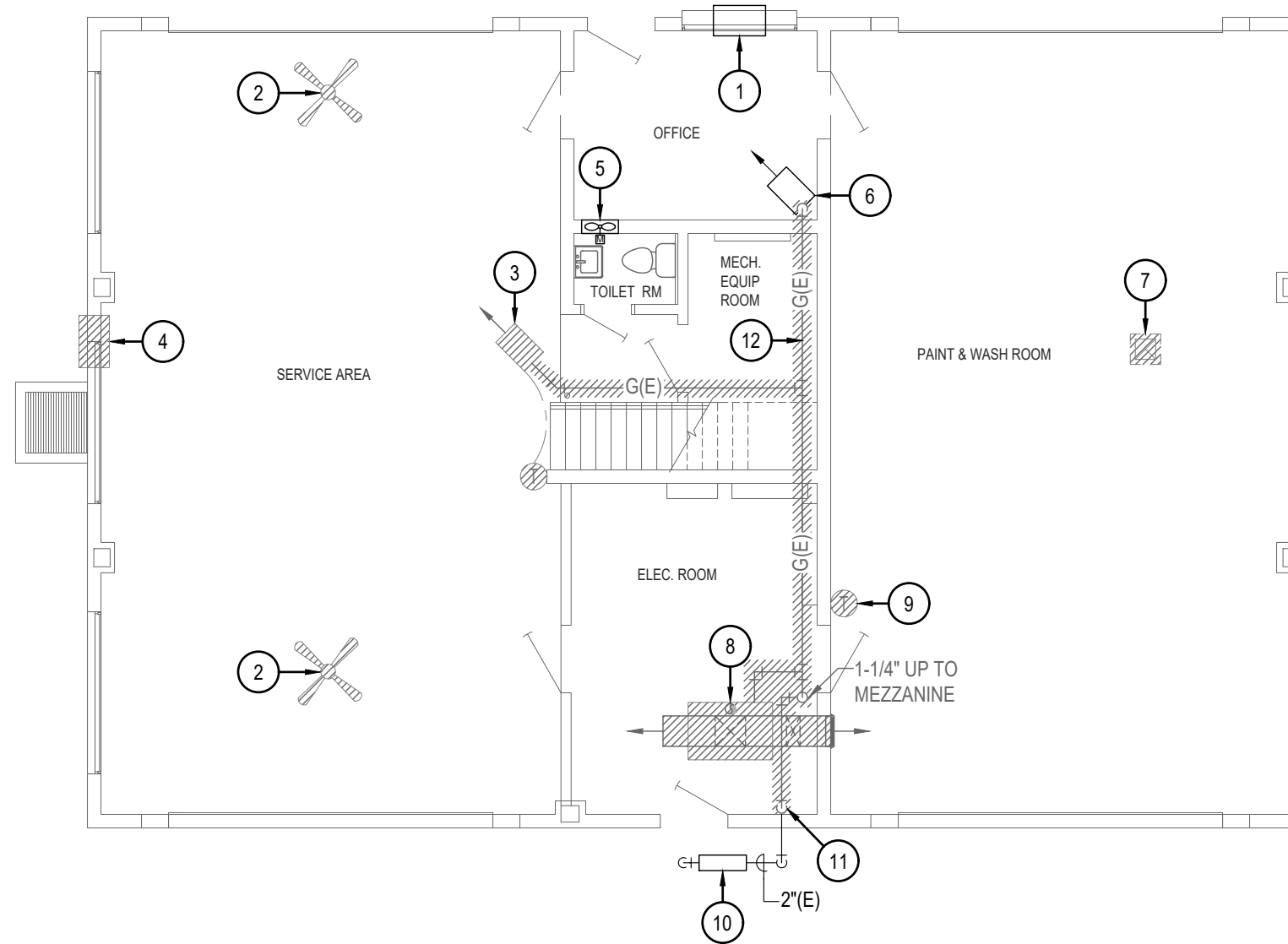


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KEYED NOTES:

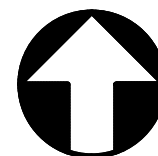
SYMBOL USED FOR NOTE CALLOUT.

1. EXISTING PTAC TO REMAIN AS-IS.
2. REMOVE EXISTING CEILING FAN ASSOCIATED CONTROLS.
3. REMOVE EXISTING GAS UNIT HEATER AND ASSOCIATED CONTROLS. CAP GAS LINE AT MAIN.
4. REMOVE EXISTING PTAC UNIT AND RETURN TO OWNER. MAINTAIN WALL OPENING FOR NEW WORK.
5. EXISTING EXHAUST FAN TO REMAIN AS-IS.
6. EXISTING GAS UNIT HEATER AND CONTROLS TO REMAIN. REMOVE GAS PIPING BACK TO HEATER.
7. REMOVE EXISTING ROOFTOP EXHAUST FAN AND ALL ASSOCIATED CONTROLS. EXISTING ROOF PENETRATION TO REMAIN. SEE NEW PLAN FOR CONTINUATION.
8. EXISTING FURNACE LOCATED ON MEZZANINE TO BE REMOVED ALONG WITH ASSOCIATED CONTROLS, FLUE, AND DUCTWORK. PATCH AND SEAL ROOF PENETRATION. EXISTING WALL PENETRATIONS FOR DUCTWORK TO BE SEALED. SEE CIVIL DRAWINGS FOR PATCH AND REPAIR NOTES.
9. REMOVE FURNACE THERMOSTAT AND WIRING.
10. EXISTING GAS METER TO REMAIN.
11. REMOVE ALL GAS PIPING BACK TO INDICATED POINT.
12. EXISTING GAS LINE TO UNIT HEATER TO REMAIN AND BE REUSED. SEE NEW WORK FOR CONTINUATION.



MECHANICAL DEMOLITION FLOOR PLAN

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

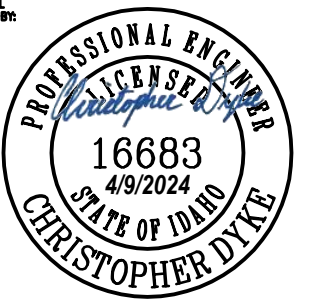


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KELTIC ENGINEERING, INC.

PROJECT NO.	FM22418
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MECHANICAL DEMOLITION FLOOR PLAN
LEWISTON TRUCK WASH

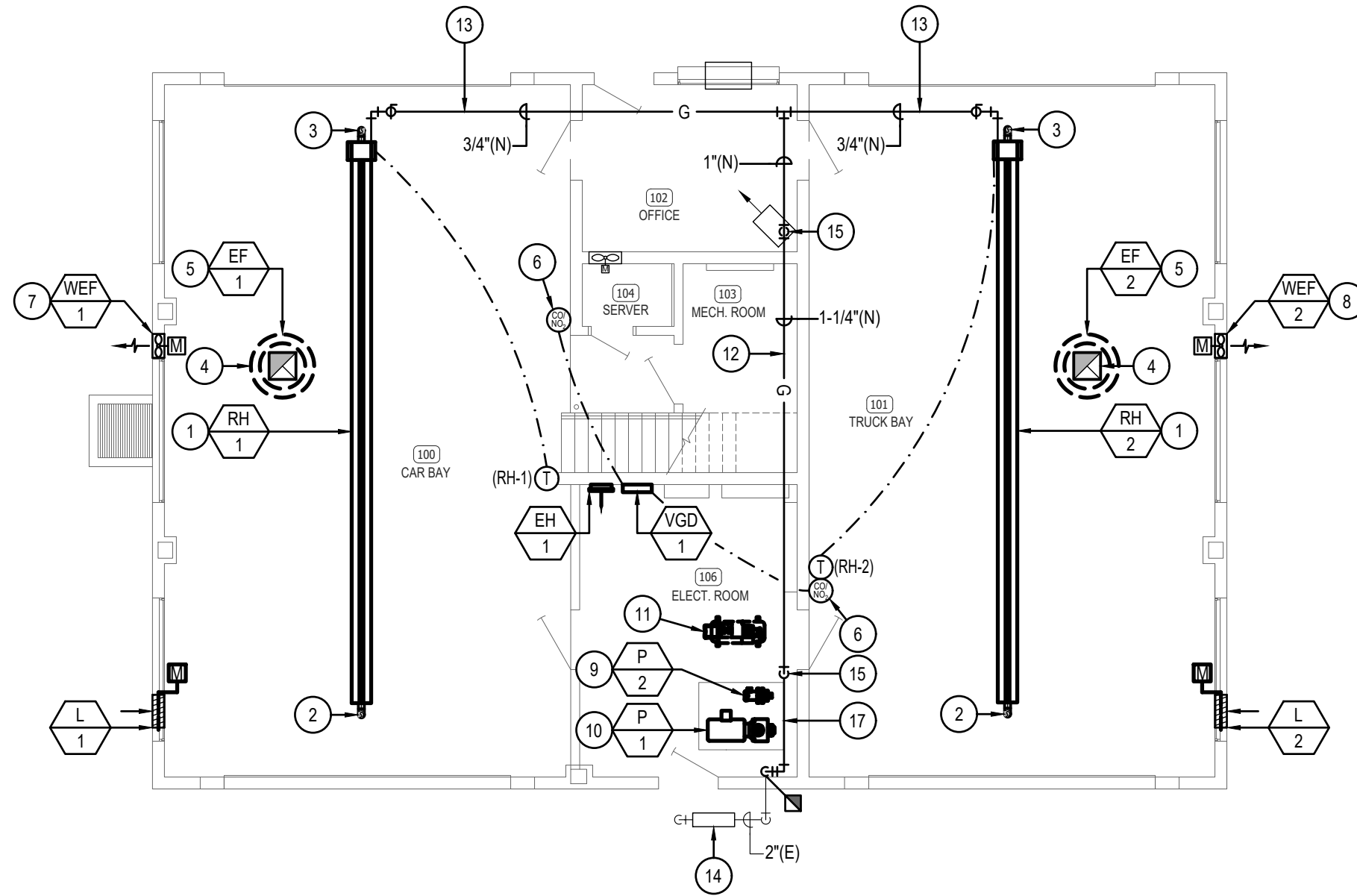
English
COUNTY IDAHO
KEY NO.
SHEET M4 OF M12

DATE SIGNED:

KEYED NOTES:

SYMBOL USED FOR NOTE CALLOUT.

1. MAINTAIN ALL MANUFACTURER CLEARANCE REQUIREMENTS. SEE GAS CONNECTION DETAIL.
2. ROUTE 4"Ø FLUE TO THE ROOF & SEAL PENETRATION.
3. ROUTE 4"Ø INTAKE VENT TO THE ROOF & SEAL PENETRATION.
4. EXTEND A FULL SIZE ALUMINUM DUCT FROM THE ROOF-MOUNTED EXHAUST FAN THROUGH THE ROOF. TERMINATE DUCT WITH EXPANDED ALUMINUM METAL SCREEN AND 1" FRAME. PAINT THE EXPANDED METAL AND ALL VISIBLE DUCTWORK THE SAME COLOR AS THE CEILING.
5. SEE ROOF MOUNTED EXHAUST FAN DETAIL.
6. WALL MOUNTED CO/NO₂ SENSOR.
7. INSTALL NEW WALL-MOUNTED EXHAUST FAN IN EXISTING WALL PENETRATION. FILL AND SEAL AROUND WALL OPENING.
8. INSTALL NEW WALL-MOUNTED EXHAUST FAN & SEAL OPENING.
9. 2-HP PUMP MOUNTED ON 4" CONCRETE CURB. PUMP IS PROVIDED BY TRUCK WASH SYSTEM MANUFACTURER. PUMP IS LOCATED ON MAIN LEVEL. SEE PUMP DETAIL.
10. 40-HP PUMP MOUNTED ON 4" CONCRETE CURB. PUMP IS PROVIDED BY TRUCK WASH SYSTEM MANUFACTURER. PUMP IS LOCATED ON MAIN LEVEL. SEE PUMP DETAIL.
11. AIR COMPRESSOR PROVIDED BY TRUCK WASH SYSTEM MANUFACTURER. LOCATED ON MEZZANINE ABOVE.
12. LPG PIPING LOCATED IN MEZZANINE SPACE ABOVE.
13. ROUTE GAS PIPING NEAR CEILING.
14. THE CONTRACTOR SHALL WORK WITH THE UTILITY TO MODIFY THE EXISTING GAS METER AS REQUIRED TO ACCOMMODATE THE NEW GAS LOAD OF 175-MBH.
15. ROUTE 3/4"Ø GAS LINE DOWN TO EXISTING UNIT HEATER.
16. ROUTE 1-1/4"Ø GAS LINE UP TO MEZZANINE ABOVE.
17. PROVIDE 4" CONCRETE PAD. APPROXIMATE DIMENSIONS ARE 60"X48". CONTRACTOR TO VERIFY PRIOR TO INSTALLATION.

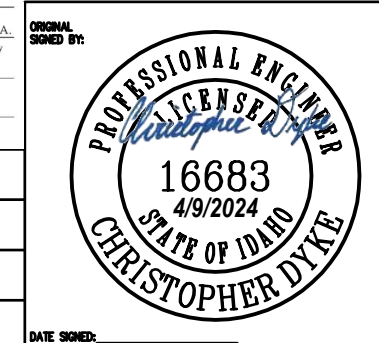


MECHANICAL NEW WORK FLOOR PLAN

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



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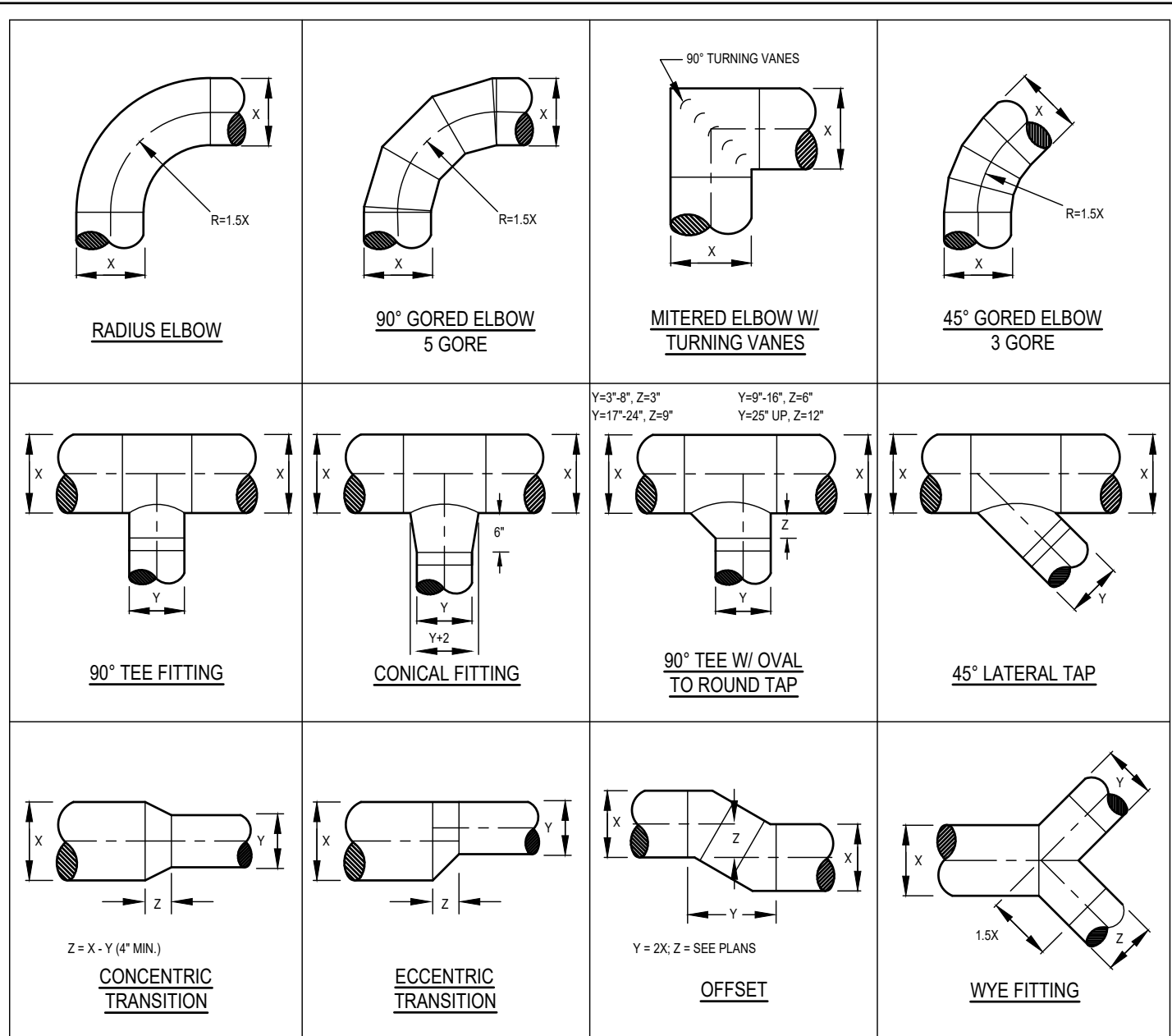
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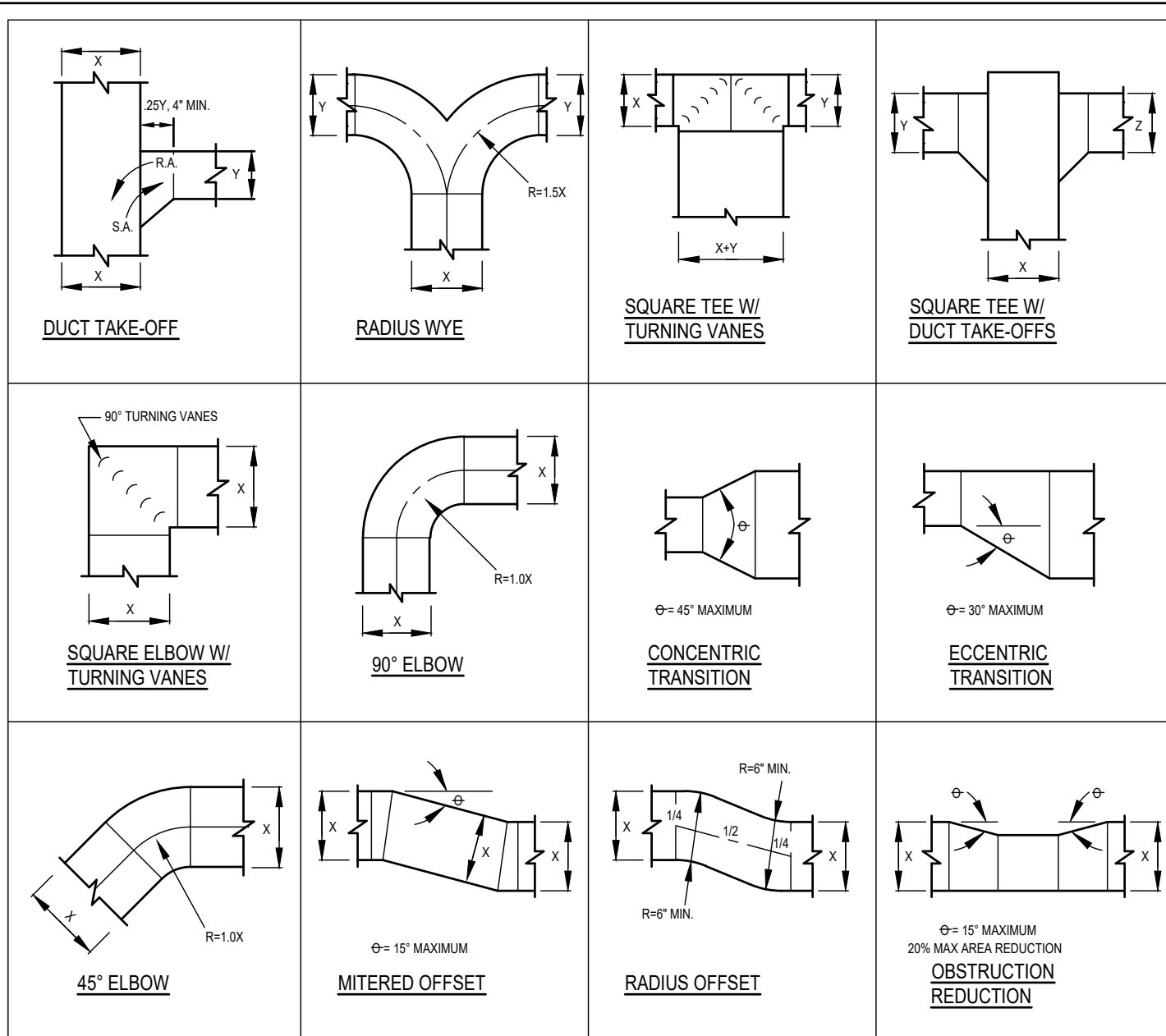
MECHANICAL NEW WORK FLOOR PLAN
LEWISTON TRUCK WASH

English
COUNTY IDAHO
KEY NO.
SHEET M5 OF M12

DATE SIGNED: _____



NOTE:
 1. ALL DUCTWORK TRANSITIONS SHALL BE CONSTRUCTED AND INSTALLED TO SMACNA, SPECIFICATIONS, AND THE ABOVE NOTED STANDARDS. ANY DEVIATIONS SHALL BE COORDINATED WITH THE ENGINEER.



NOTE:
 1. ALL DUCTWORK TRANSITIONS SHALL BE CONSTRUCTED AND INSTALLED TO SMACNA, SPECIFICATIONS AND THE ABOVE NOTED STANDARDS. ANY DEVIATIONS SHALL BE COORDINATED WITH THE ENGINEER.

1 ROUND DUCT FITTING DETAILS

NOT TO SCALE

2 RECTANGULAR DUCT FITTING DETAILS

NOT TO SCALE

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MECHANICAL DETAILS
 LEWISTON TRUCK WASH

English
 COUNTY IDAHO
 KEY NO.
 SHEET M6 OF M12

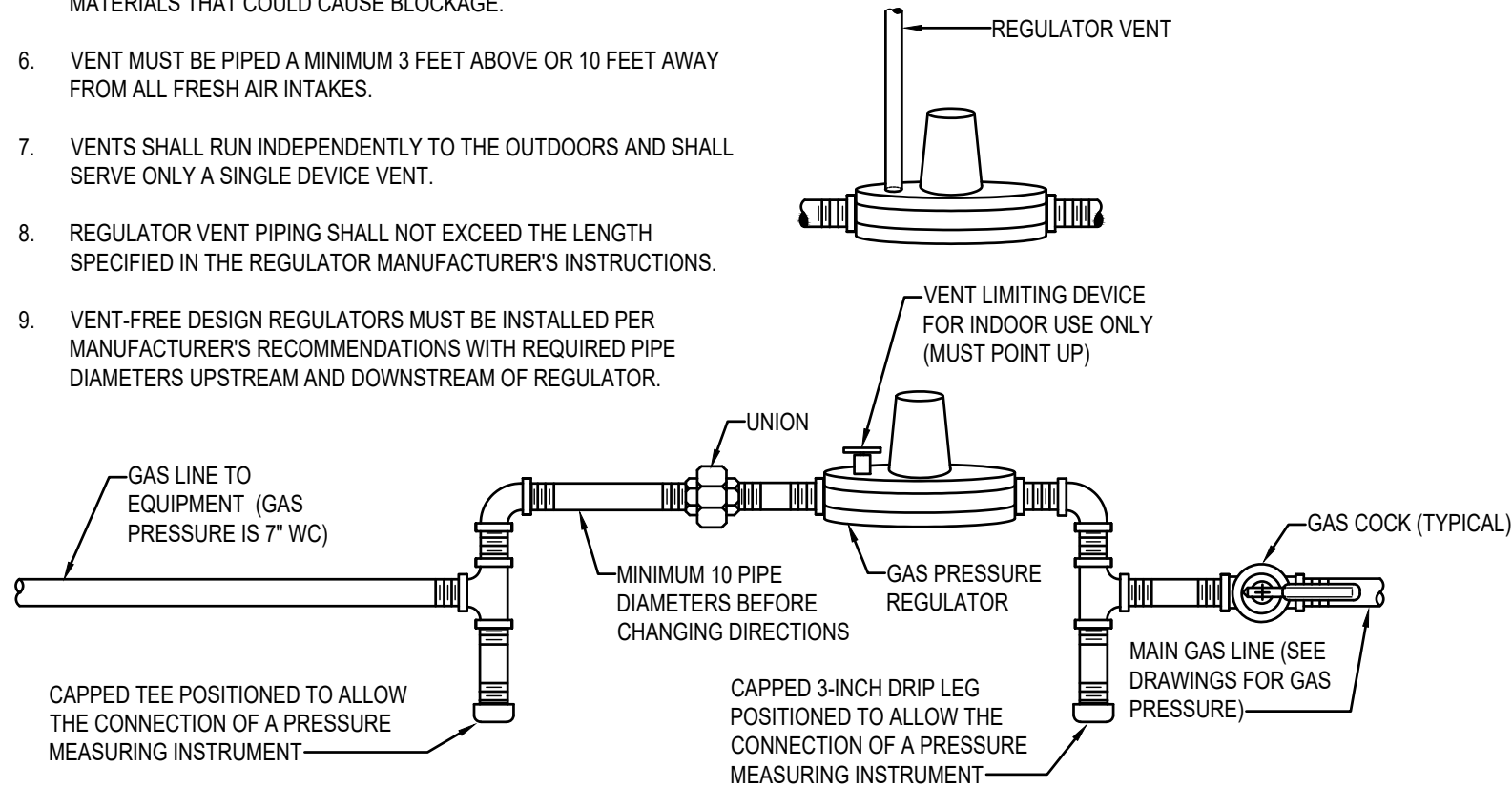
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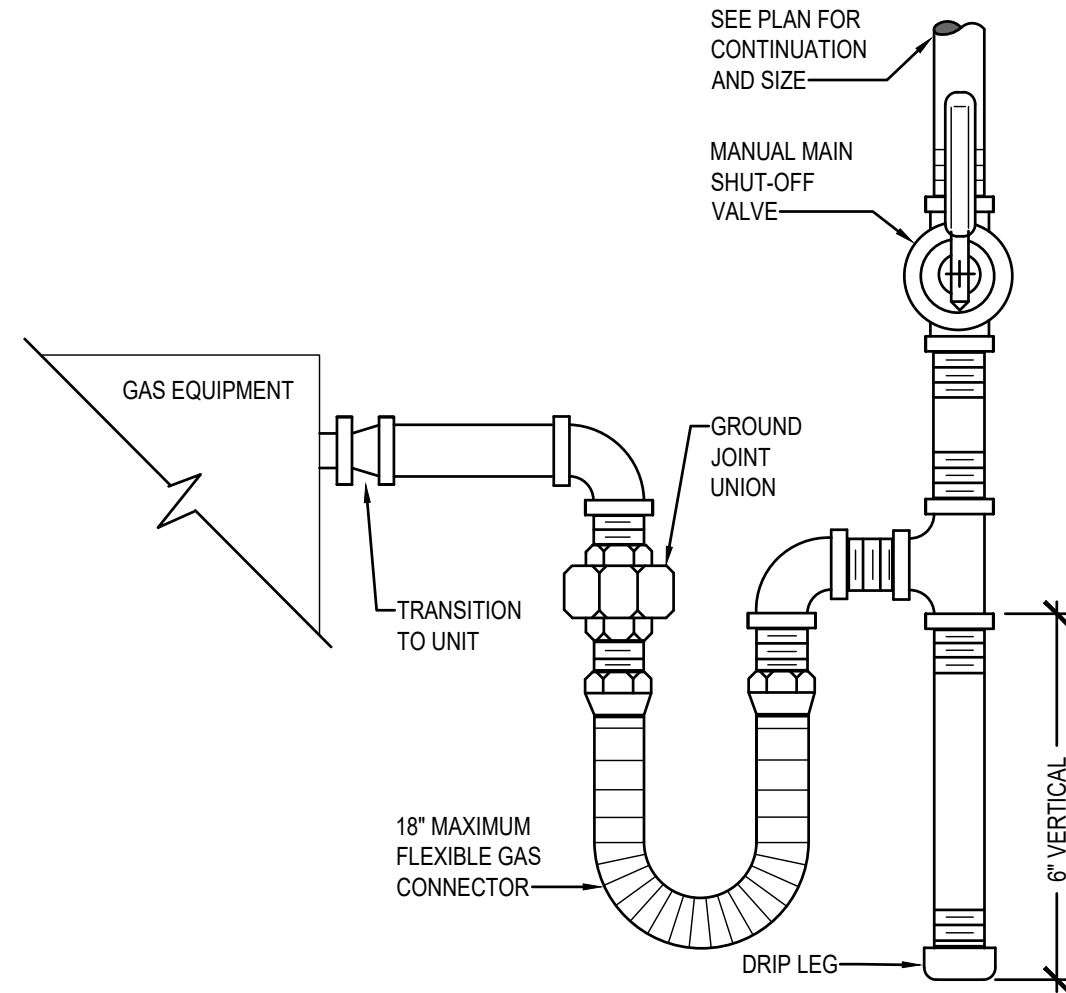
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NOTES:

1. VENT REGULATORS PER MANUFACTURER'S AND LOCAL GAS COMPANY'S REQUIREMENTS.
2. DO NOT REDUCE THE VENT PIPE SIZE FROM THE REGULATOR.
3. TO LIMIT THE CONSEQUENCES OF RAIN, SNOW OR DEBRIS GETTING INTO THE VENT, ALWAYS TURN THE OUTLET OF THE VENT DOWN AND ABOVE POTENTIAL WATER OR SNOW LINES.
4. PROVIDE A BUG SCREEN ON THE VENT OUTLET TO DETER INSECTS FROM NESTING IN THE LINE. NEVER PAINT OVER THE BUG SCREEN.
5. A VENT LINE PROTECTOR MAY BE USED IN OUTDOOR APPLICATIONS TO PREVENT ENTRY OF WATER, INSECTS OR OTHER FOREIGN MATERIALS THAT COULD CAUSE BLOCKAGE.
6. VENT MUST BE PIPED A MINIMUM 3 FEET ABOVE OR 10 FEET AWAY FROM ALL FRESH AIR INTAKES.
7. VENTS SHALL RUN INDEPENDENTLY TO THE OUTDOORS AND SHALL SERVE ONLY A SINGLE DEVICE VENT.
8. REGULATOR VENT PIPING SHALL NOT EXCEED THE LENGTH SPECIFIED IN THE REGULATOR MANUFACTURER'S INSTRUCTIONS.
9. VENT-FREE DESIGN REGULATORS MUST BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS WITH REQUIRED PIPE DIAMETERS UPSTREAM AND DOWNSTREAM OF REGULATOR.



1 **GAS PRESSURE REGULATOR DETAIL**
NOT TO SCALE




2 **GAS EQUIPMENT CONNECTION DETAIL**
NOT TO SCALE

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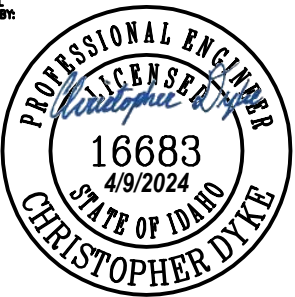
MECHANICAL DETAILS
LEWISTON TRUCK WASH

English
COUNTY IDAHO
KEY NO.
SHEET M7 OF M12

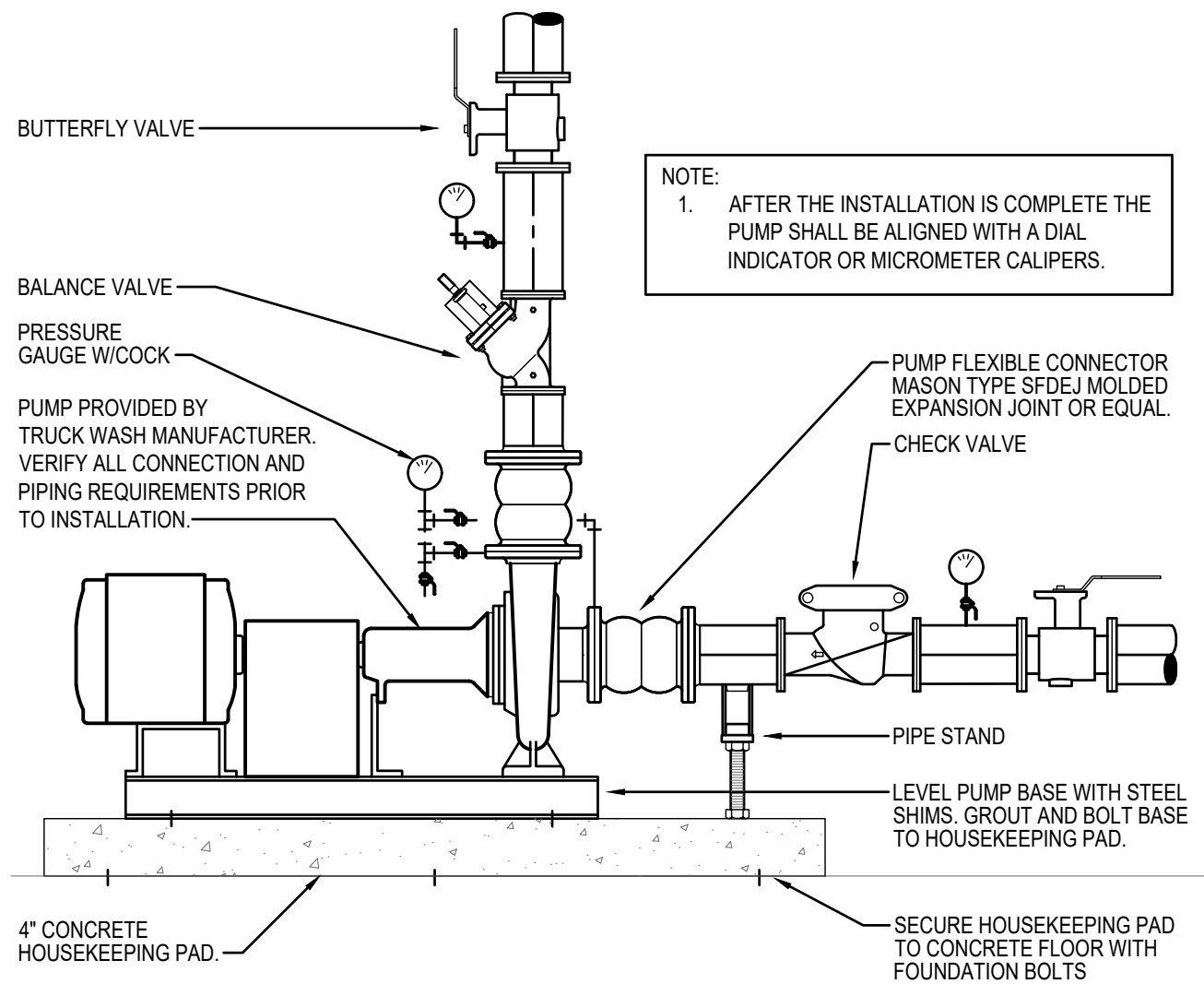
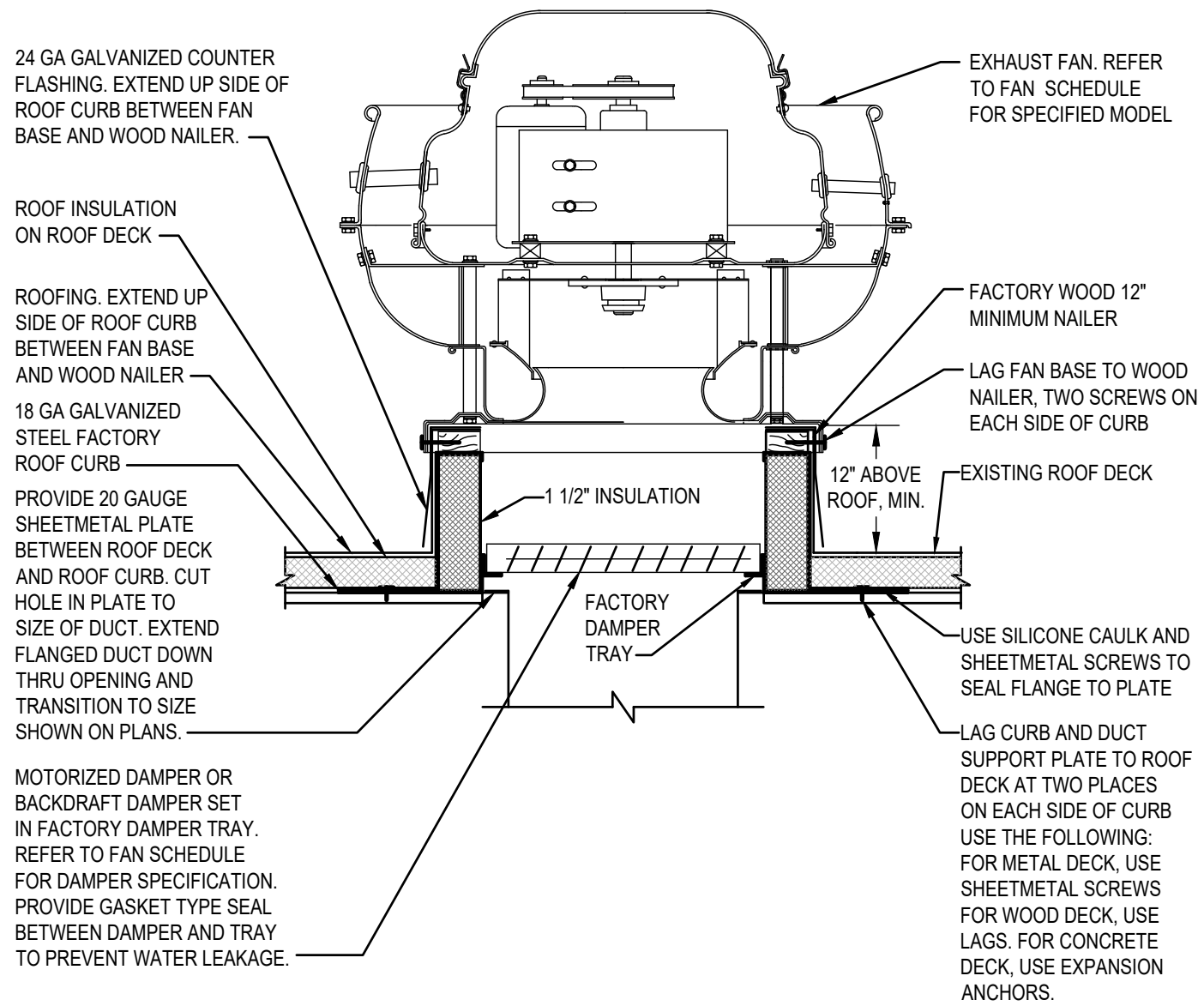


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NOTE:
1. AFTER THE INSTALLATION IS COMPLETE THE PUMP SHALL BE ALIGNED WITH A DIAL INDICATOR OR MICROMETER CALIPERS.

1 EXHAUST FAN MOUNTING DETAIL
NOT TO SCALE

2 BASE MOUNTED PUMP DETAIL - END SUCTION
NOT TO SCALE

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MECHANICAL DETAILS
LEWISTON TRUCK WASH

English

COUNTY IDAHO

KEY NO.

SHEET M8 OF M12

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RADIANT HEATER SCHEDULE

SYMBOL	AREA SERVED	TYPE	TUBE LENGTH (FT)	MOUNTING HEIGHT FROM CEILING (FT)	CLEARANCE TO COMBUSTIBLES			ELECTRICAL		NATURAL GAS	OPERATING WEIGHT (LBS)	MANUFACTURER AND MODEL	REMARKS
					TOP (in)	BELOW (in)	SIDE (in)	AMPS	V/Ø	INPUT MBH			
<u>RH-1</u>	CAR WASH	SINGLE STAGE LOW INTENSITY INFRARED	31'-4"	17'-0"	6"	60"	9"	1.1	120/1	75.0	200	RE-VERBER-RAY MODEL DX2-SS-30-75	1, 2, 3
<u>RH-2</u>	TRUCK WASH	SINGLE STAGE LOW INTENSITY INFRARED	31'-4"	17'-0"	6"	60"	9"	1.1	120/1	75.0	200	RE-VERBER-RAY MODEL DES3-30-75	1, 2, 3

REMARKS:

1. APPROVED ALTERNATE MANUFACTURERS: CO-RAY-VAC, SPACE-RAY, CALCANA, AND MODINE.
2. PROVIDE WALL MOUNTED THERMOSTAT WITH RAIN-TIGHT ENCLOSURE (MODEL #TH-115).
3. PROVIDE WITH ROOF VENT PACKAGE, STAINLESS STEEL BURNER BOX, COMBUSTION TUBES AND RADIANT TUBES, HANGING SUPPORTS, AND WATER RESISTANT CIRCUITRY.

ELECTRIC HEATER SCHEDULE

SYMBOL	AREA SERVED	UNIT TYPE	FAN			ELECTRICAL				MANUFACTURER AND MODEL	REMARKS
			CFM	RPM	HP	KW	STEPS	V/Ø	AMPS		
<u>EH-1</u>	MECHANICAL ROOM	SURFACE MOUNTED	245	1400	1/8	3.0	1	208/1	14.4	MARKEL MODEL 3420 SERIES	1, 2, 3

REMARKS:

1. APPROVED ALTERNATE MANUFACTURERS: BRASCH, QMARK, INDEECO, OUELLET, AND CHROMALOX.
2. MOUNT BOTTOM OF HEATER 24" ABOVE FINISH FLOOR.
3. PROVIDE UNIT WITH AN INTEGRAL THERMOSTAT. THERMOSTAT SHALL BE COVERED WITH A TAMPER-PROOF ACCESS COVER.

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PROJECT NO.
<i>FM22418</i>

<i>MECHANICAL SCHEDULES</i>
<i>LEWISTON TRUCK WASH</i>

English
COUNTY <i>IDAHO</i>
KEY NO.
SHEET <i>M9</i> OF <i>M12</i>



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VEHICLE EXHAUST GAS DETECTION SYSTEM SCHEDULE

SYMBOL	AREA SERVED	EXHAUST FAN INTERLOCK	PRODUCT TYPE	GAS DETECTION RANGE		ELECTRICAL		MANUFACTURER AND MODEL	REMARKS
				CO (PPM)	NO2 (PPM)	SENSORS	CONTROL PANEL		
				LOW / HIGH	LOW / HIGH	VOLTS	V / Ø		
VGD-1	CAR WASH / TRUCK WASH	EF-1 / EF-2	MACURCO GAS VENTILATION CONTROL SYSTEM	0-200	0-20	24V	120 / 1	MACURCO CONTROL PANEL MODEL: DVP-120 MACURCO SENSOR MODEL: CX-6	1, 2, 3

REMARKS:

1. APPROVED ALTERNATE MANUFACTURERS: SUBMIT FOR PRIOR APPROVAL.
2. PROVIDE WITH MANUFACTURER'S CONTROL PANEL, (3) 10-AMP RELAYS, (2) HORNS, (2) STROBE DRIVERS, (12) ANALOG (DVP-120). PANEL INCLUDES TIMED DAY SELECTIONS, ALARMS, WARNINGS, AND TROUBLE INDICATIONS.
3. INSTALL MANUFACTURER SENSORS TO COVER ENTIRE SPACE. MANUFACTURER TO SUBMIT SENSOR LAYOUT FOR FINAL APPROVAL.

LOUVER SCHEDULE

SYMBOL	SERVICE	TYPE	NOMINAL SIZE	MINIMUM FREE AREA (SQ.FT.)	FINISH	MANUFACTURER AND MODEL	REMARKS
L-1	OUTSIDE AIR INTAKE	FIXED DRAINABLE	22" X 22"	3.21	AAMA 2604	RUSKIN ELF375DX	1, 2, 3
L-2	OUTSIDE AIR INTAKE	FIXED DRAINABLE	22" X 22"	3.21	AAMA2604	RUSKIN ELF375DX	1, 2, 4

REMARKS:


1. APPROVED ALTERNATE MANUFACTURERS: GREENHECK, ARROW UNITED, NCA MANUFACTURING, NAILOR, AND UNITED ENERTECH.
2. COLOR TO BE SELECTED BY OWNER.
3. PROVIDE WITH FLANGED FRAME AND BIRD SCREEN, AND 120V/Ø LOW LEAKAGE MOTORIZED DAMPER. INTERLOCK WITH EF-1.
4. PROVIDE WITH FLANGED FRAME AND BIRD SCREEN, AND 120V/Ø LOW LEAKAGE MOTORIZED DAMPER. INTERLOCK WITH EF-2.

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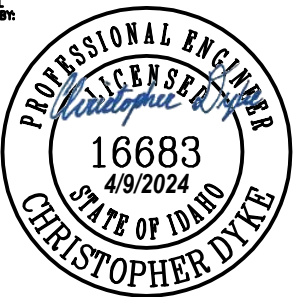
<i>MECHANICAL SCHEDULES</i>
<i>LEWISTON TRUCK WASH</i>



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EXHAUST FAN SCHEDULE

SYMBOL	AREA SERVED	INTERLOCK WITH	UNIT TYPE	BLOWER				ELECTRICAL		MAXIMUM SONES	OPERATING WEIGHT (LBS)	MANUFACTURER AND MODEL	REMARKS
				CFM	ESP	MAXIMUM RPM	DRIVE	HP/W	V/Ø				
<u>WEF-1</u>	CAR WASH	N/A	WALL PROPELLER	125	0.25	1,725	DIRECT	1/8 HP	115 / 1Ø	4.7	65	COOK MODEL 10XW28D17	1, 2, 4
<u>WEF-2</u>	TRUCK WASH	N/A	WALL PROPELLER	125	0.25	1,725	DIRECT	1/8 HP	115 / 1Ø	4.7	65	COOK MODEL 10XW28D17	1, 2, 4
<u>EF-1</u>	CAR WASH	LOUVER (L-1)	ROOF MOUNTED	665	0.25	1,550	DIRECT	1/8 HP	115 / 1Ø	8.5	55	COOK MODEL ACRU-D 101R15D	1, 3, 5
<u>EF-2</u>	TRUCK WASH	LOUVER (L-2)	ROOF MOUNTED	665	0.25	1,550	DIRECT	1/8 HP	115 / 1Ø	8.5	55	COOK MODEL ACRU-D 101R15D	1, 3, 5

REMARKS:

1. APPROVED ALTERNATE MANUFACTURERS: ACME, GREENHECK, PENNBARRY, TWIN CITY FAN COMPANY, AND S&P.
2. PROVIDE UNIT WITH MANUFACTURER'S WIREGUARD - MOTOR SIDE, WIREGUARD PROP SIDE, WEATHER HOOD MOTORIZED DAMPER, THERMAL OVERLOAD PROTECTION, PRE-WIRED NEMA 3R ELECTRICAL DISCONNECT SWITCH, AND AN INTEGRAL BIRD SCREEN.
3. PROVIDE UNIT WITH MANUFACTURER'S ROOF CURB W/ DAMPER TRAY AND BACKDRAFT DAMPER, THERMAL OVERLOAD PROTECTION (120 VOLT ONLY), PRE-WIRED NEMA 3R ELECTRICAL DISCONNECT SWITCH, AND INTEGRAL BIRD SCREEN.
4. FAN SHALL RUN CONTINUOUSLY.
5. FAN SHALL BE CONTROLLED THROUGH GARAGE EXHAUST SENSORS. SEE FLOOR PLAN FOR LOCATION AND QUANTITY. INTERLOCK WITH INDICATED MOTORIZED LOUVER.

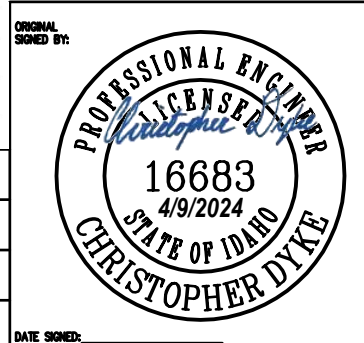
GAS SIZING CHART

SYMBOL	INPUT (MBH)	RUNOUT SIZE LOW PRESSURE (INCHES)	EQUIPMENT CONNECTION SIZES (7" WC) (INCHES)
EXISTING UNIT HEATER	25.0	3/4	1/2
<u>RH-1(N)</u>	75.0	3/4	1/2
<u>RH-2(N)</u>	75.0	3/4	1/2
TOTAL	175.0	EQUIV. LENGTH = 70 FT, PRESSURE = <2 PSI, MAIN SIZE = 2"Ø	

NOTE: GAS SIZES TO EQUIPMENT ARE AS NOTED IN SCHEDULE ABOVE. ROUTE NOTED LOW PRESSURE GAS LINE TO GAS EQUIPMENT. PROVIDE GAS COCK AND PRESSURE REGULATOR SIZED FOR GAS LOAD AT EACH PIECE OF EQUIPMENT. VENT TO ATMOSPHERE PER MANUFACTURERS RECOMMENDATIONS. ROUTE NOTED (7" WC) GAS LINE TO GAS FIRED EQUIPMENT WITH GAS COCK AND FLEX CONNECTOR AT UNIT. SEE GAS CONNECTION DETAILS.



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MECHANICAL SCHEDULES

LEWISTON TRUCK WASH

English

COUNTY *IDAHO*

KEY NO.

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GENERAL

THE VEHICLE EXHAUST SYSTEM SHALL CONSIST OF (2) ZONES WITH (2) MOTORIZED INTAKE LOUVERS, (2) ZONE CO/NO₂ SENSORS, AND A VEHICLE EXHAUST CONTROL PANEL. THE CONTRACTOR SHALL PROVIDE A FULLY OPERABLE EXHAUST SYSTEM CONTROLLING BOTH ZONES INDEPENDENTLY.

ZONE 1 (CAR WASH)

WHEN CARBON MONOXIDE (CO) LEVELS EXCEED 25 PPM (ADJUSTABLE) OR NITROGEN DIOXIDE (NO₂) LEVELS EXCEED 1 PPM (ADJUSTABLE), THE VEHICLE GAS DETECTION SYSTEM CONTROL PANEL (VGD-1) SHALL SEQUENCE THE FOLLOWING:

1. SEND AN ENABLE COMMAND TO THE EXHAUST FAN (EF-1).
2. SEND AN ENABLE COMMAND TO THE INTAKE LOUVER DAMPER (L-1).

WHEN CARBON MONOXIDE (CO) LEVELS FALL BELOW 25 PPM AND NITROGEN DIOXIDE (NO₂) LEVELS FALL BELOW 1 PPM, THE VEHICLE GAS DETECTION SYSTEM CONTROL PANEL (VGD-1) SHALL SEQUENCE THE FOLLOWING:

1. SEND A DISABLE COMMAND TO THE EXHAUST FANS (EF-1).
2. SEND A DISABLE COMMAND TO THE INTAKE LOUVER DAMPER (L-1).

ZONE 2 (TRUCK WASH)

WHEN CARBON MONOXIDE (CO) LEVELS EXCEED 25 PPM (ADJUSTABLE) OR NITROGEN DIOXIDE (NO₂) LEVELS EXCEED 1 PPM (ADJUSTABLE), THE VEHICLE GAS DETECTION SYSTEM CONTROL PANEL (VGD-1) SHALL SEQUENCE THE FOLLOWING:

1. SEND AN ENABLE COMMAND TO THE EXHAUST FANS (EF-2).
2. SEND AN ENABLE COMMAND TO THE INTAKE LOUVER DAMPER (L-2).

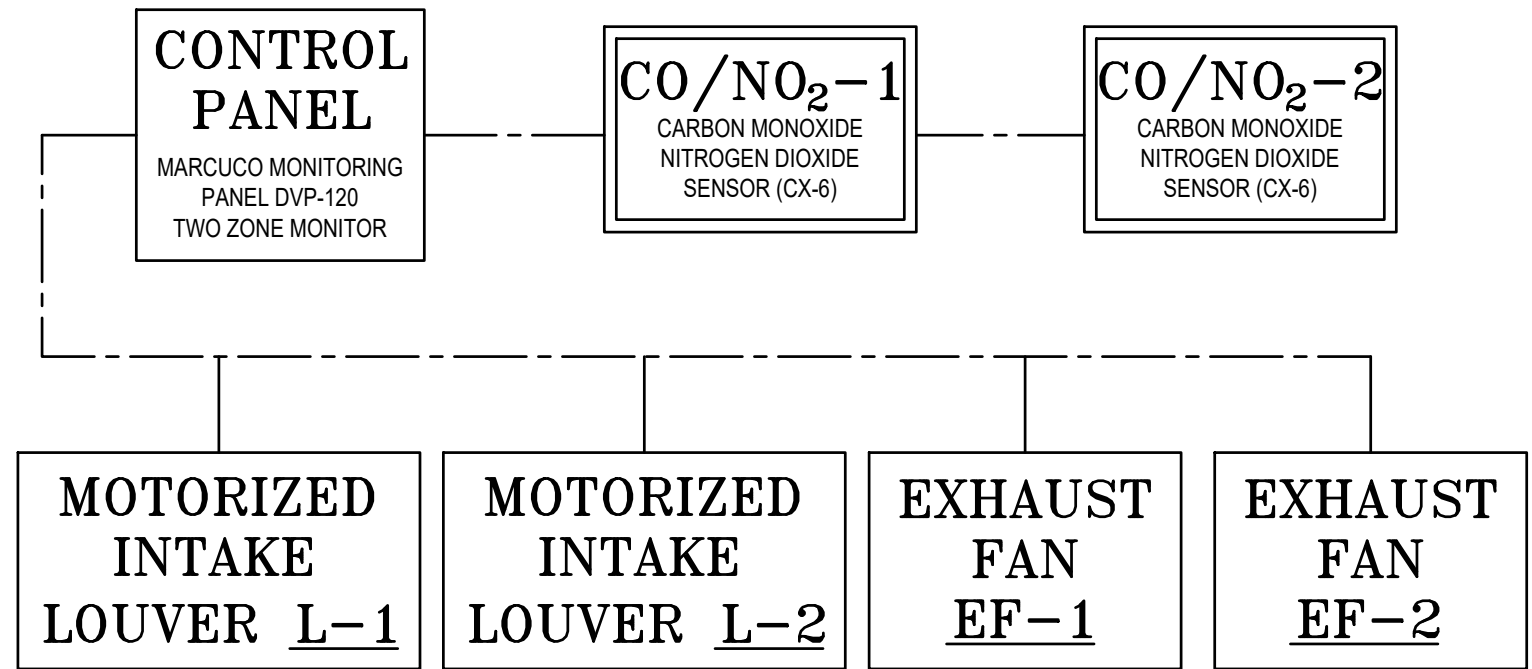
WHEN CARBON MONOXIDE (CO) LEVELS FALL BELOW 25 PPM AND NITROGEN DIOXIDE (NO₂) LEVELS FALL BELOW 1 PPM, THE VEHICLE GAS DETECTION SYSTEM CONTROL PANEL (VGD-1) SHALL SEQUENCE THE FOLLOWING:

1. SEND A DISABLE COMMAND TO THE EXHAUST FANS (EF-2).
2. SEND A DISABLE COMMAND TO THE INTAKE LOUVER DAMPER (L-2).

CO/NO₂ SENSOR REQUIREMENTS:

1. CERTIFIED BY THE MANUFACTURER TO BE ACCURATE WITHIN PLUS OR MINUS 5 PERCENT OF MEASUREMENT.
2. FACTORY CALIBRATED.
3. CERTIFIED BY THE MANUFACTURER TO DRIFT NO MORE THAN 5 PERCENT PER YEAR.
4. CERTIFIED BY THE MANUFACTURER TO REQUIRE CALIBRATION NO MORE FREQUENTLY THAN ONCE A YEAR.

VEHICLE EXHAUST SYSTEM CONTROL SEQUENCE



VEHICLE EXHAUST SYSTEM CONTROL SCHEMATIC

PUMP SCHEDULE					
SYMBOL	AREA SERVED	PROVIDED BY	MOTOR		MANUFACTURER AND MODEL
			HP	V/Ø	
P-1	TRUCK WASH MAIN WASHER LINE	TRUCK WASH MANUFACTURER	40	460/3	PROVIDED BY TRUCK WASH MANUFACTURER
P-2	TRUCK WASH RECIRCULATION LINE	TRUCK WASH MANUFACTURER	2	460/3	PROVIDED BY TRUCK WASH MANUFACTURER

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MECHANICAL SCHEDULES & CONTROLS
LEWISTON TRUCK WASH

English
COUNTY IDAHO
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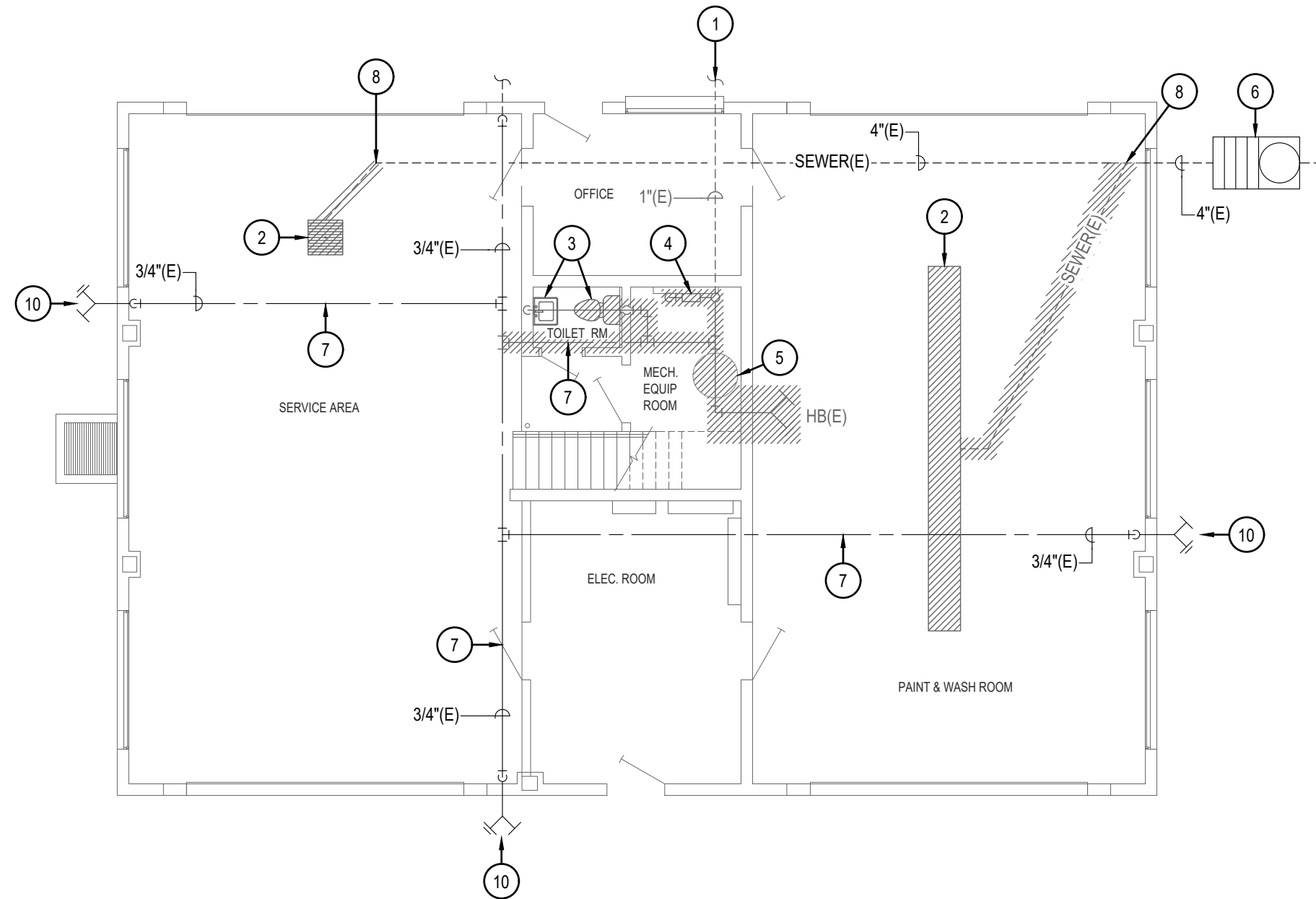
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KEYED NOTES:

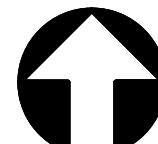
SYMBOL USED FOR NOTE CALLOUT.

1. EXISTING WATER MAIN TO BE ABANDONED BELOW GRADE.
2. REMOVE EXISTING CATCH BASIN. SEE NEW WORK PLAN FOR REQUIREMENTS.
3. REMOVE EXISTING PLUMBING FIXTURES AND ALL CW/HW/WASTE/VENT PIPING. CAP WASTE BELOW GRADE AND PATCH TO MATCH EXISTING.
4. REMOVE EXISTING BACKFLOW PREVENTER ASSEMBLY AND ALL ASSOCIATED WATER PIPING. PATCH FLOOR TO MATCH EXISTING.
5. REMOVE EXISTING WATER HEATER AND ASSOCIATED CONTROLS.
6. EXISTING INTERCEPTOR TO REMAIN.
7. REMOVE CW PIPING LOCATED IN ROOM AS INDICATED.
8. REMOVE WASTE BACK TO INDICATED POINT. COORDINATE EXACT REQUIRED LOCATION IN THE FIELD WITH TRUCK WASH SYSTEM.
9. EXISTING CW LINE SERVING EXISTING HOSE BIBBS TO REMAIN.
10. EXISTING HOSE BIBB TO REMAIN.



PLUMBING DEMOLITION FLOOR PLAN

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

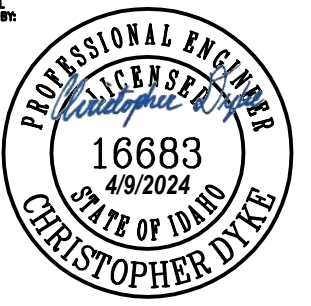


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PLUMBING DEMOLITION FLOOR PLAN
LEWISTON TRUCK WASH

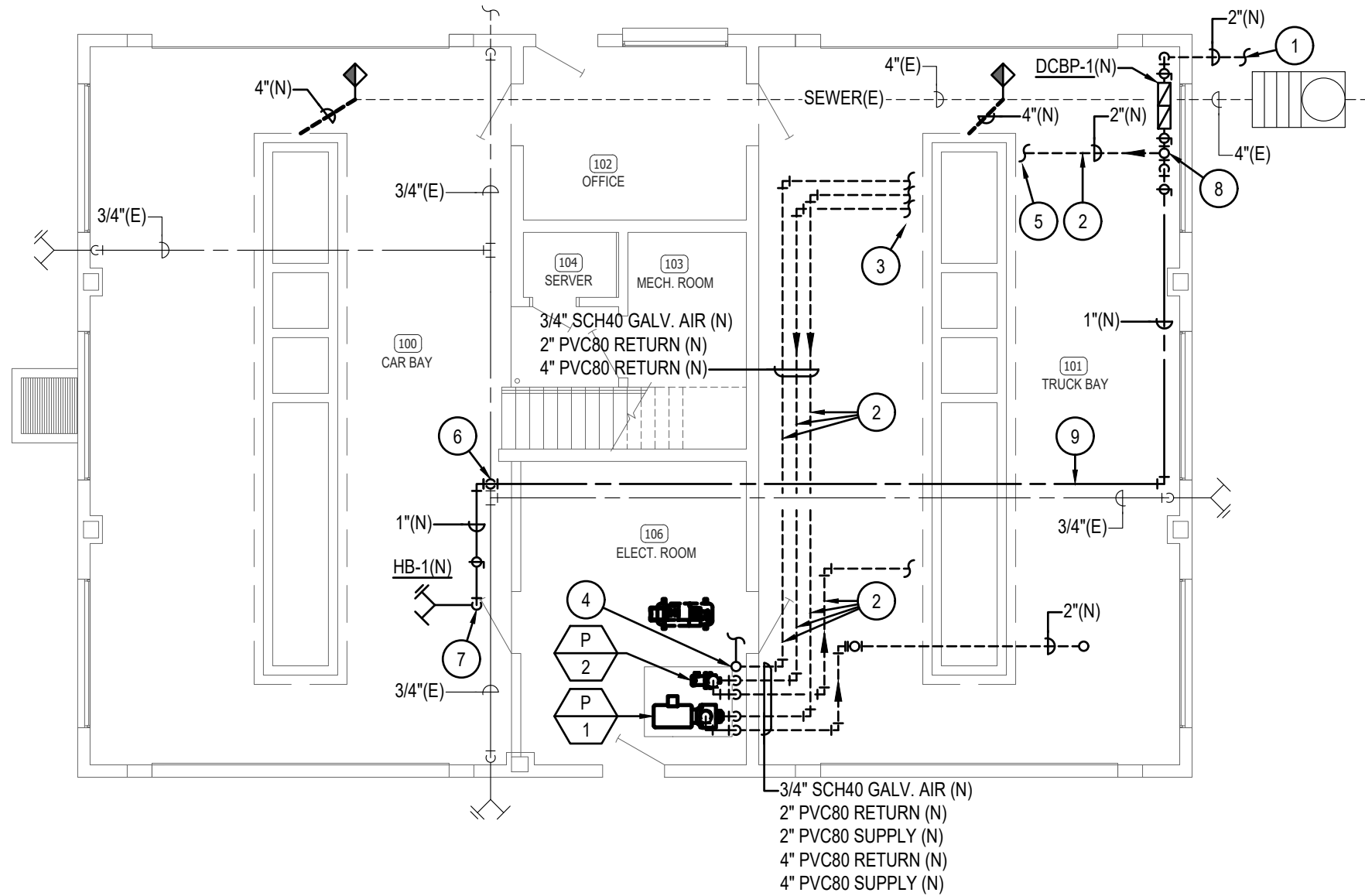
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KEYED NOTES:

SYMBOL USED FOR NOTE CALLOUT.

1. NEW 2" CW LINE FROM NEW 1-1/2" METER. SEE CIVIL DRAWINGS FOR CONTINUATION.
2. ROUTE PIPING BELOW CONCRETE FLOOR. COORDINATE WITH TRUCK WASH MANUFACTURER PRIOR TO INSTALLATION.
3. CONNECT NEW PIPES TO TRENCH CONNECTIONS AT INDICATED LOCATION. CONTRACTOR TO COORDINATE WITH TRUCK WASH MANUFACTURER PRIOR TO INSTALLATION.
4. ROUTE 3/4" AIR LINE UP TO MEZZANINE ABOVE. CONNECT TO NEW COMPRESSOR AS INDICATED.
5. ROUTE 2" CW FILL/MAKEUP WATER TO NEW TRENCH DRAIN. COORDINATE WITH TRUCK WASH MANUFACTURER FOR CONNECTION REQUIREMENTS.
6. ROUTE NEW 3/4" CW DOWN AND CONNECT TO EXISTING 3/4" CW LINE.
7. ROUTE NEW 1" CW DOWN WALL TO NEW HOSE BIBB (HB-1). CONNECT TO NEW CARWASH SYSTEM AS REQUIRED. PROVIDE WITH MANUAL SHUTOFF VALVE. CONTRACTOR TO COORDINATE WITH CARWASH SYSTEM INSTALLATION.
8. ROUTE NEW 2" CW DOWN TO BELOW FLOOR. PROVIDE WITH MANUAL SHUTOFF VALVE ABOVE FLOOR.
9. ROUTE 1" CW LINE TIGHT TO CEILING.



PLUMBING NEW WORK FLOOR PLAN

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

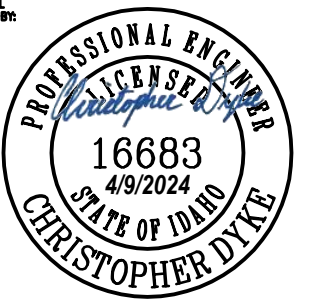


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PLUMBING NEW WORK FLOOR PLAN
LEWISTON TRUCK WASH

English
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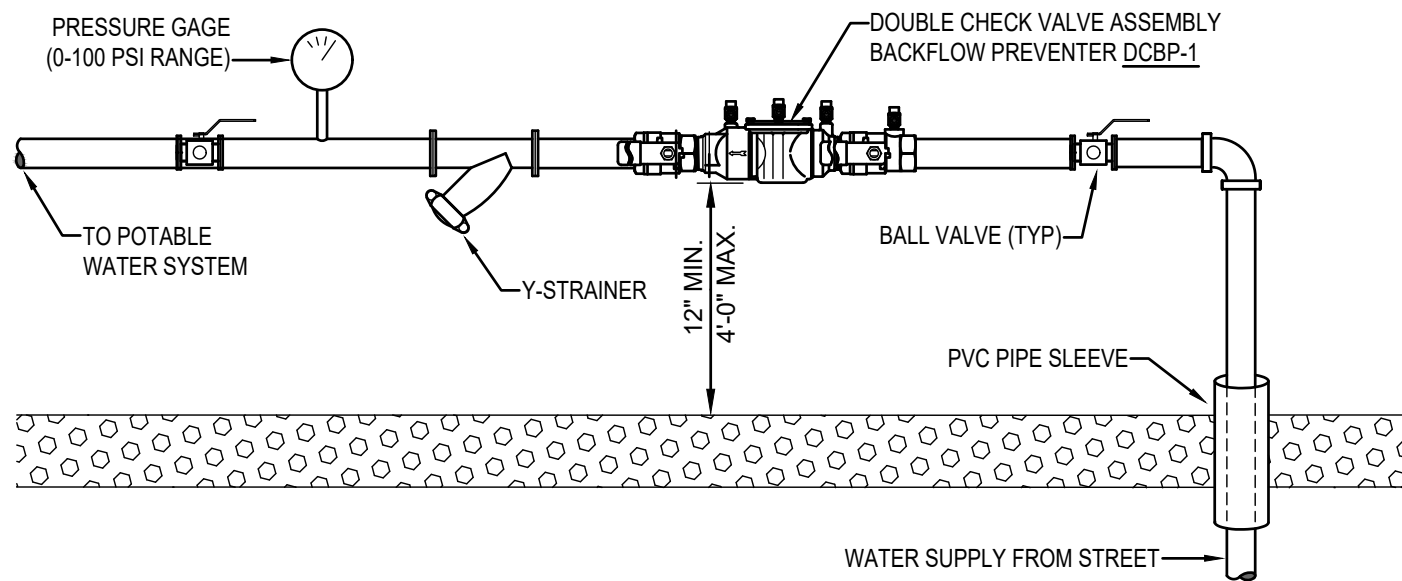
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PLUMBING FIXTURE SCHEDULE

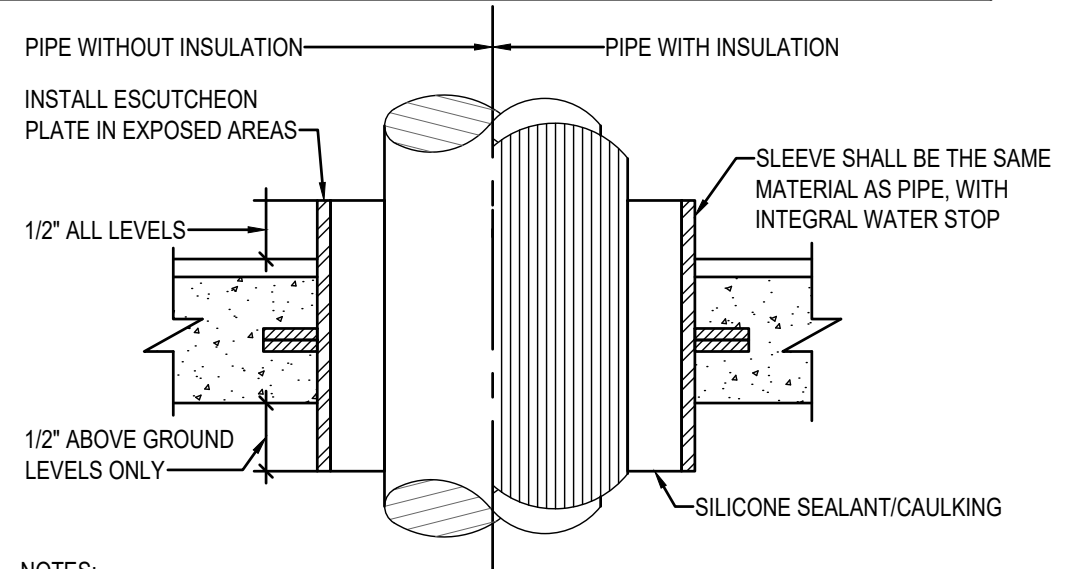
SYMBOL	FIXTURE DESCRIPTION	CONNECTION SIZE					MANUFACTURER / MODEL NUMBER / DESCRIPTION / ADDITIONAL COMMENTS
		WASTE	VENT	TRAP	CW	HW	
<u>DCBP-1</u>	DOUBLE CHECK BACKFLOW PREVENTER	--	--	--	SEE PLANS	--	WATTS SERIES LF007 LEAD FREE, DOUBLE CHECK VALVE ASSEMBLY WITH REPLACEABLE SEATS AND SEAT DISCS, CAST BRONZE BODY CONSTRUCTION - 1/2" THRU 2". PROVIDE WITH STRAINER.
<u>HB-1</u>	HOSE BIBB (INTERIOR)	--	--	--	1"	--	WOODFORD MODEL 26 - EXPOSED STYLE WITH 1" INLET, AND CHROME PLATED. PROVIDE WITH METAL WHEEL HANDLE AND WOODFORD MODEL 50HF BACKFLOW PREVENTER.

NOTES:

1. THE PLUMBING CONTRACTOR IS RESPONSIBLE FOR ALL BACKFLOW DEVICES TO BE INSPECTED BY A CERTIFIED BACKFLOW TECHNICIAN BEFORE THE USE OF THE BUILDING POTABLE WATER SYSTEM.
2. THIS BACKFLOW PREVENTER CAN BE INSTALLED IN A VERTICAL CONFIGURATION WHEN SPACE IN ROOM IS LIMITED. REFERENCE PLANS FOR CONFIGURATION OR CONTACT THE ENGINEER FOR APPROVAL.
3. THIS SYSTEM IS FOR INDOOR INSTALLATIONS ONLY. THIS VALVE SHALL BE EASILY ACCESSIBLE TO FACILITATE TESTING AND SERVICING. DO NOT INSTALL IN A CONCEALED LOCATION.



1 BUILDING WATER SERVICE DETAIL
NOT TO SCALE



NOTES:

1. COORDINATE LOCATION OF SLEEVE WITH BUILDING STRUCTURAL WORK PRIOR TO INSTALLATION.
2. COORDINATE LOCATION OF SLEEVE FOR UNDERGROUND PIPE WITH BUILDING STRUCTURAL FOOTING PRIOR TO INSTALLATION.
3. SILICONE SEALANT SHALL MEET FIRE RATING PER MECHANICAL AND ARCHITECTURAL SPECIFICATIONS.
4. USE LINK SEAL ASSEMBLY FOR PIPING PASSING THROUGH SLAB-ON-GRADE OR PERIMETER WALLS.
5. REFER TO SPECIFICATIONS FOR BELOW GRADE PIPING WRAP. DO NOT BURY WITH CONCRETE. PROVIDE SLEEVE TO 1/2" A.F.F. AS SHOWN HERE.

2 POURED IN PLACE FLOOR PIPE SLEEVE DETAIL
NOT TO SCALE

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PLUMBING SCHEDULES & DETAILS

LEWISTON TRUCK WASH

English

COUNTY *IDAHO*

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















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LIGHTING

REFERENCE FIXTURE SCHEDULE FOR MOUNTING TYPE, MOUNTING HEIGHT, AND FIXTURE TYPE.

-  WALL MOUNTED DOUBLE FACE EXIT SIGN PROVIDE UNSWITCHED CONDUCTOR. MOUNT AT +8'-0" UNO.
-  WALL MOUNTED SINGLE FACE EXIT SIGN PROVIDE UNSWITCHED CONDUCTOR. MOUNT AT +8'-0" UNO.
-  ARROW INDICATES DIRECTION TO BE SHOWN ON SIGN.
-  1'X1' LIGHT FIXTURE.
-  1'X1' LIGHT FIXTURE, PROVIDE EMERGENCY BATTERY BACKUP CONNECTED TO AN UNSWITCHED CONDUCTOR.
-  1'X4' LIGHT FIXTURE.
-  1'X4' LIGHT FIXTURE, PROVIDE EMERGENCY BATTERY BACKUP CONNECTED TO AN UNSWITCHED CONDUCTOR.
-  2'X4' LIGHT FIXTURE.
-  2'X4' LIGHT FIXTURE, PROVIDE EMERGENCY BATTERY BACKUP CONNECTED TO AN UNSWITCHED CONDUCTOR.
-  2'X2' LIGHT FIXTURE.
-  2'X2' LIGHT FIXTURE, PROVIDE EMERGENCY BATTERY BACKUP CONNECTED TO AN UNSWITCHED CONDUCTOR.
-  STRIP LIGHT FIXTURE. SEE SCHEDULE FOR LENGTH.
-  STRIP LIGHT FIXTURE. SEE SCHEDULE FOR LENGTH. PROVIDE EMERGENCY BATTERY BACKUP CONNECTED TO AN UNSWITCHED CONDUCTOR
-  WALL MOUNTED LIGHT FIXTURE.
-  WALL MOUNTED LIGHT FIXTURE, PROVIDE EMERGENCY BATTERY BACKUP CONNECTED TO AN UNSWITCHED CONDUCTOR.
-  RECESSED LIGHT FIXTURE
-  RECESSED LIGHT FIXTURE. PROVIDE EMERGENCY BATTERY BACKUP CONNECTED TO AN UNSWITCHED CONDUCTOR.
-  ROUND LIGHT FIXTURE
-  ROUND EMERGENCY LIGHT FIXTURE. PROVIDE EMERGENCY BATTERY BACKUP CONNECTED TO AN UNSWITCHED CONDUCTOR.
-  WALL MOUNTED LIGHT FIXTURE.
-  WALL MOUNTED EMERGENCY LIGHT FIXTURE. PROVIDE EMERGENCY BATTERY BACKUP CONNECTED TO AN UNSWITCHED CONDUCTOR.
-  POLE LIGHT 1 HEAD WITH POLE
-  EXTERIOR WALL PACK
-  EMERGENCY EXTERIOR WALL PACK. PROVIDE EMERGENCY BATTERY BACKUP CONNECTED TO AN UNSWITCHED CONDUCTOR

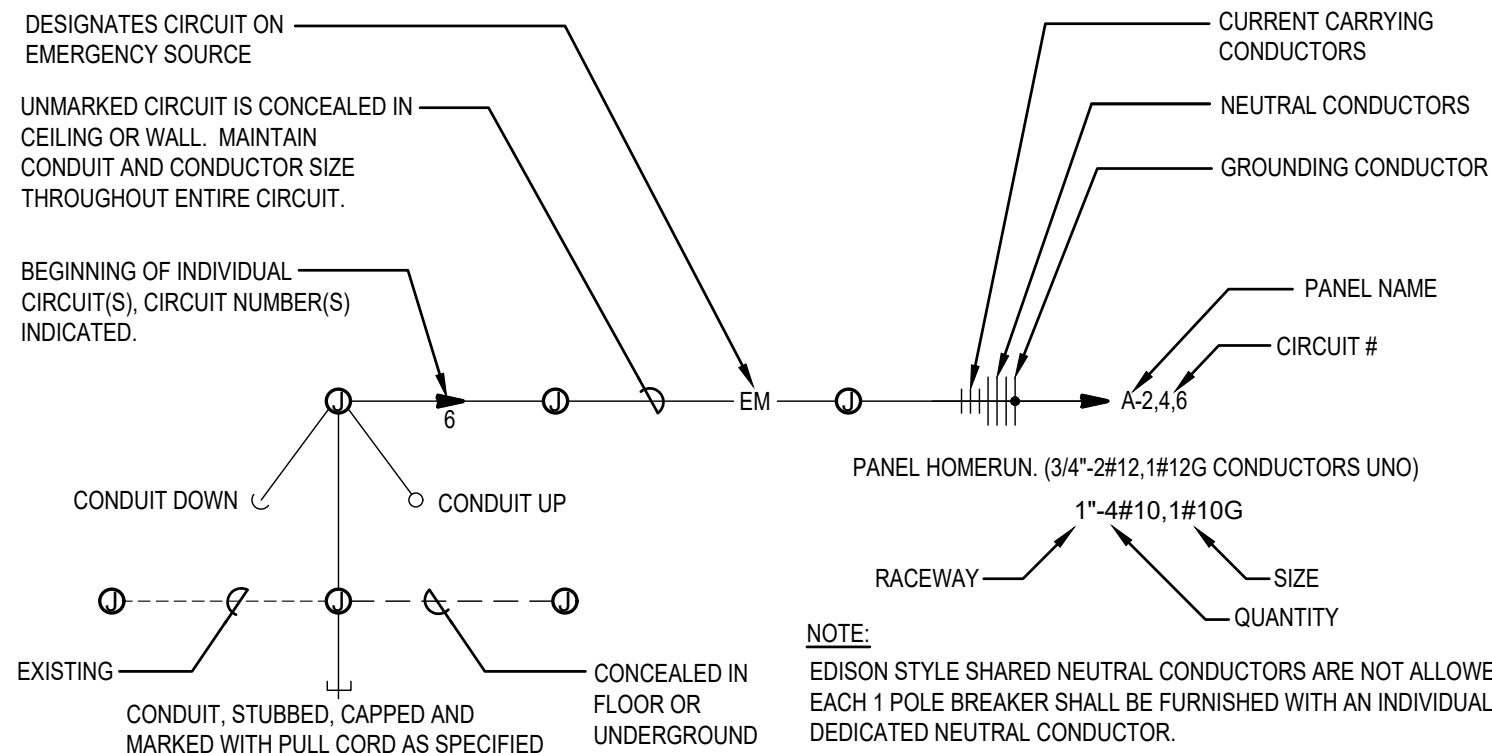
LIGHTING

-  TIME CLOCK
-  PHOTO CONTROL CELL LOCATED 12" ABOVE ROOF FACING NORTH.
-  OCCUPANCY SENSOR. PROVIDE RELAYS AND POWER PACKS AS REQUIRED.
-  EMERGENCY EGRESS LIGHTING. CONNECT TO AN UNSWITCHED CONDUCTOR.
-  WALL MOUNTED SINGLE FACE EXIT SIGN WITH EMERGENCY EGRESS LIGHTING. PROVIDE UNSWITCHED CONDUCTOR. MOUNT AT +8'-0" UNO.
-  XXX INDICATES FIXTURE TYPE. REFER TO FIXTURE SCHEDULE.

DEVICES

- S^x SWITCH, TYPE AS INDICATED. +46" AFF
- 2 DOUBLE POLE
- 3 3-WAY
- 4 4-WAY
- K KEYED
- P PILOT LIGHT
- D DIMMER
- HP HORSEPOWER RATED
- TO THERMAL OVERLOAD
- LV LOW VOLTAGE
- OS OCCUPANCY SENSOR
- OR LOW VOLTAGE, MOMENTARY OVERRIDE
- VS VACANCY SENSOR
- a SUPERScript INDICATES LIGHTS TO BE SWITCHED TOGETHER

CIRCUITING SYMBOLS



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ELECTRICAL LEGEND AND SYMBOLS

LEWISTON TRUCK WASH

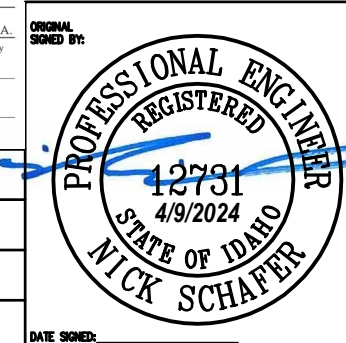
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

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
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







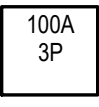

DEVICES

-  SINGLE CONVENIENCE OUTLET, +18" AFF UNO
-  DUPLEX CONVENIENCE OUTLET, +18" AFF UNO
-  EMERGENCY DUPLEX CONVENIENCE OUTLET, +18" AFF UNO
-  SWITCHED DUPLEX CONVENIENCE OUTLET, +18" AFF UNO
-  FOURPLEX CONVENIENCE OUTLET. +18" AFF UNO
-  CONNECTION POINT TO EQUIPMENT SPECIFIED, ELECTRICAL CONTRACTOR TO SUPPLY RACEWAY AND CONDUCTORS AND MAKE FINAL CONNECTION TO EQUIPMENT UNDER THIS SECTION. UNO
-  JUNCTION BOX
-  WALL MOUNTED PUSH BUTTON, MOUNT AT SWITCH HEIGHT UNO

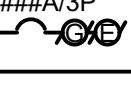



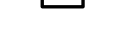
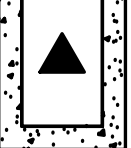
-  WALL MOUNTED PUSH BUTTON, MOUNT AT SWITCH HEIGHT UNO
-  MOTOR STARTER/CONTACTOR, SIZE/POLES NEMA 1 UNO AS INDICATED
-  COMBINATION STARTER AND DISCONNECT, SIZE/POLES, STARTER SIZE AS INDICATED, NEMA 1 UNO
-  FUSED DISCONNECT SWITCH, SIZE/POLES, FUSE SIZES AS INDICATED, NEMA 1 UNO
-  NON-FUSED DISCONNECT SIZE/ POLES AS INDICATED, NEMA 1 UNO
-  THERMOSTAT, +46" AFF PROVIDE CONDUIT, J-BOX, CONDUCTORS AS REQUIRED TO CONTROL ASSOCIATED UNITS. UNO COORDINATE WITH DIVISION 15.
-  HUMIDISTAT, +46" AFF PROVIDE CONDUIT, J-BOX, CONDUCTORS AS REQUIRED TO CONTROL ASSOCIATED UNITS.

-  TRANSFORMER
-  PANELBOARD. SEE SCHEDULE FOR TYPE.
-  EQUIPMENT CABINET, SURFACE MOUNTED
-  EQUIPMENT CABINET FLUSH MOUNTED
-  SURFACE MULTI-OUTLET RACEWAY
-  # # MECHANICAL EQUIPMENT CALL OUT

ONE LINE

-  DELTA WYE TRANSFORMER UNO
-  # PANEL NAME VOLTAGE PHASE
PANEL BOARD, SEE SCHEDULE FOR TYPE AND SIZE
-  ##A #P CIRCUIT BREAKER, SIZE AND POLES INDICATED
-  ##A FUSE, SIZE AND TYPE INDICATED, PROVIDE FUSE FOR EACH POLE
-  ##A #P INTERRUPTER SWITCH, SIZE AND POLES INDICATED
-  ##A #P FUSED SWITCH, SIZE/POLES AND FUSE SIZE INDICATED
-  GFP GROUND FAULT PROTECTION
-  TVSS TRANSIENT VOLTAGE SURGE SUPPRESSION
-  LSIGR ADJUSTABLE BREAKER SETTINGS (PER SPECIFICATIONS):
'L'-LONG TIME
'S'-SHORT TIME
'I'-INSTANTANEOUS
'G'-GROUND FAULT
'R'-ENERGY REDUCING MAINTENANCE SWITCH W/STATUS INDICATOR
-  GROUND
-  ST SHUNT TRIP COIL
-  M MOTOR
-  100A 3P DISCONNECT SWITCH, SIZE AND POLES INDICATED. NEMA 1 UNO
-  OVERHEAD SERVICE DROP


ONE LINE

-  ###A/3P GENERATOR SET, MAIN BREAKER SIZE INDICATED
-  AUTOMATIC TRANSFER SWITCH (ATS)
-  M METER AND BASE
-  N NEUTRAL
-  T DRY TYPE TRANSFORMER
-  PAD MOUNT TRANSFORMER

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IDAHO TRANSPORTATION DEPARTMENT

KELTIC ENGINEERING, INC.

PROJECT NO. FM22418

<i>ELECTRICAL LEGEND AND SYMBOLS</i>
<i>LEWISTON TRUCK WASH</i>

English
COUNTY IDAHO
KEY NO.
SHEET E2 OF 17


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 Project No. 22-337

ORIGINAL SIGNED BY:

 12731
 4/9/2024
 NICK SCHAFER

FIRE ALARM

- PULL STATION, +44" AFF WITH PRE-ALARM COVER
- FIRE ALARM HORN, +84" AFF UNO
- FIRE ALARM STROBE, +84" AFF UNO, STROBE INTENSITY INDICATED. 'C' INDICATES CEILING MOUNTED
- FIRE ALARM HORN/STROBE +84" AFF, UNO, STROBE INTENSITY INDICATED. 'C' INDICATES CEILING MOUNTED
- FIRE ALARM BELL, +84" AFF UNO. 'C' INDICATES CEILING MOUNTED
- FLOW SWITCH, PROVIDE MONITOR MODULE AS REQUIRED
- TAMPER SWITCH, PROVIDE MONITOR MODULE AS REQUIRED
- PRESSURE SWITCH, PROVIDE MONITOR MODULE AS REQUIRED
- FIRE SYSTEM ANNUNCIATOR, FLUSH MOUNTED +54" UNO
- POST INDICATOR VALVE, PROVIDE MONITOR MODULE AS REQUIRED
- ELECTROMAGNETIC DOOR HOLDER
- RELAY
- CONTROL MODULE
- MONITOR MODULE
- FIRE ALARM KNOX BOX
- FIRE ALARM CONTROL PANEL
- NAC EXTENDER PANEL
- FIRE/SMOKE DAMPER
- LED INDICATOR LIGHT, CEILING MOUNTED UNO
- LED INDICATOR LIGHT WITH TEST SWITCH, CEILING MOUNTED UNO
- DUCT-MOUNTED SMOKE DETECTOR
- SMOKE DETECTOR, CEILING MOUNTED UNO
 - H HEAT
 - I IONIZATION
 - ID IN DUCT
 - P PHOTOELECTRIC
 - R RELAY
 - WG PROVIDE PROTECTIVE WIRE GUARD
- BS,BR BEAM DETECTOR, SENDER & RECEIVER

COMMUNICATIONS

- JUNCTION BOX FOR FUTURE TELEPHONE/DATA OUTLET. MOUNT AT 18" A.F.F. UNO. PROVIDE SINGLE-GANG MUD RING WITH BLANK COVER PLATE. PROVIDE 1" CONDUIT TO NEAREST ACCESSIBLE CEILING SPACE.
- TELEPHONE/DATA OUTLET. MOUNT AT 18" A.F.F. UNO. PROVIDE 1" CONDUIT TO NEAREST ACCESSIBLE CEILING. INSTALL QUANTITY OF DATA (#D) AND TELEPHONE (#T) CABLES INDICATED TO THE NEAREST DATA RACK. PROVIDE (2) DATA CABLES IF A CABLE QUANTITY IS NOT INDICATED.
- FLOOR MOUNTED BOX FOR FUTURE TELEPHONE/DATA OUTLET. JUNCTION BOX WITH SINGLE-GANG MUD RING. PROVIDE 1" CONDUIT TO NEAREST ACCESSIBLE CEILING SPACE. PROVIDE BLANK COVER PLATE.
- FLOOR MOUNTED TELEPHONE/DATA OUTLET. PROVIDE 1" CONDUIT TO NEAREST ACCESSIBLE CEILING. INSTALL QUANTITY OF DATA (#D) AND TELEPHONE (#T) CABLES INDICATED TO THE NEAREST DATA RACK. PROVIDE (2) DATA CABLES IF A CABLE QUANTITY IS NOT INDICATED.
- INTERCOM SYSTEM CALL BUTTON. +46" UNO.
- CEILING MOUNTED SPEAKER WITH BACKBOX
- WALL MOUNTED SPEAKER, WITH BACKBOX +80" UNO
- VOLUME CONTROL, +46" UNO
- TELEVISION OUTLET, +18" AFF UNO. PROVIDE 1-1/4" CONDUIT TO NEAREST ACCESSIBLE CEILING SPACE
- CEILING MOUNTED TELEVISION OUTLET
- TELEPHONE TERMINAL BOARD
- CABLE TRAY, 4" DEEP, WIRE BASKET STYLE, 'XX' INDICATES WIDTH PROVIDE ALL FITTINGS AND SUPPORT HARDWARE REQUIRED

SECURITY

- CCTV CAMERA POWER SUPPLY
- CCTV SYSTEM POWER SUPPLY
- ADJUSTABLE CAMERA (PAN/TILT/ZOOM)
- FIXED CAMERA
- CAMERA IN OUTDOOR HOUSING
- ADJUSTABLE CAMERA (PAN/TILT/ZOOM) IN OUTDOOR HOUSING
- CCTV OUTLET, +18" UNO
- CEILING MOUNTED CCTV OUTLET
- SECURITY SYSTEM KEYPAD CONTROLLER COORDINATE BOX SIZE AND MUDRING WITH VENDOR
- CARD READER
- CEILING MOUNTED MOTION SENSOR
- WALL MOUNTED MOTION SENSOR, MOUNTING HEIGHT INDICATED
- PANIC BUTTON - MOUNTED UNDER COUNTER

NOTE: THIS IS A STANDARD LIST OF COMMONLY USED ELECTRICAL SYMBOLS. SOME OF THE SYMBOLS SHOWN MAY NOT HAVE BEEN USED IN THIS DRAWING PACKAGE.

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<i>ELECTRICAL LEGEND AND SYMBOLS</i>	English

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NICK SCHAFER
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ELECTRICAL ABBREVIATIONS

A AMPERES
 AC 6" ABOVE BACKSPLASH
 AFF ABOVE FINISHED FLOOR
 AFG ABOVE FINISHED GRADE
 AF AMP FRAME
 AIC AMPS INTERRUPTING CAPACITY
 AT AMP TRIP
 ATS AUTOMATIC TRANSFER SWITCH
 AWG AMERICAN WIRE GAUGE
 BD BOTTOM OF DECK
 BS BOTTOM OF STRUCTURE
 C CEILING MOUNTED
 C CONDUIT
 CB CIRCUIT BREAKER
 CF COMPACT FLUORESCENT
 CKT CIRCUIT
 CO CONDUIT ONLY, PROVIDE PULL-LINE
 CT CURRENT TRANSFORMER
 CTL CONTROL
 DC DIRECT CURRENT
 (D) DEMOLITION
 DEMO DEMOLITION
 DET DETAIL
 DTT DOUBLE TWIN TUBE
 E EMERGENCY
 (E) EXISTING
 EC ELECTRICAL CONTRACTOR
 EL EMERGENCY LIGHT
 F FUSE
 (F) FUTURE
 FACP FIRE ALARM CONTROL PANEL
 G/GND GROUND
 GFCI GROUND FAULT CIRCUIT INTERRUPTER
 GFI GROUND FAULT INTERRUPTER
 HH HAND HOLE
 HID HIGH INTENSITY DISCHARGE
 HOA HAND-OFF-AUTO
 HPS HIGH PRESSURE SODIUM
 HVAC HEATING, VENTILATION, & AIR CONDITIONING
 IG ISOLATED GROUND
 IPCO IDAHO POWER COMPANY
 J-BOX JUNCTION BOX

KA KILOAMP
 KVA KILO VOLT-AMP
 KW KILOWATT
 KWH KILOWATT HOUR
 LCP LIGHTING CONTROL PANEL
 MB MAIN BREAKER
 MBR MAIN CIRCUIT BREAKER
 MCC MOTOR CONTROL CENTER
 MDP MAIN DISTRIBUTION PANEL
 MLO MAIN LUGS ONLY
 MMC MODULAR METERING CENTER
 MH METAL HALIDE
 MSB MAIN SWITCH BOARD
 MTG MOUNTING
 N NEUTRAL
 (N) NEW
 NC NORMALLY CLOSED
 NEC NATIONAL ELECTRICAL CODE
 NIC NOT IN CONTRACT
 NL NIGHT LIGHT
 NO NORMALLY OPEN
 NTS NOT TO SCALE
 OH OVERHEAD
 OS OCCUPANCY SENSOR
 P POLES
 PC PHOTO-CONTROL
 PVC POLYVINYL CHLORIDE
 PWR POWER
 RE: REFERENCE
 REC RECEPTACLE
 (R) RELOCATED
 SF SQUARE FEET
 TBD TO BE DETERMINED
 TDR TIME DELAY RELAY
 TK TOE KICK
 TSP TWISTED SHIELDED PAIR
 TRT TRIPLE TUBE
 TTB TELEPHONE TERMINAL BOARD
 (TYP.) TYPICAL
 UC UNDERCABINET
 UG UNDERGROUND
 U.N.O. UNLESS NOTED OTHERWISE
 V VOLT

VA VOLT-AMPERE
 W WATT
 WG WIRE GUARD
 WP WEATHER PROOF/NEMA 3R

PROVIDED/ PROVIDE AND INSTALL / PROVIDED AND
 PROVIDE BY INSTALLED BY / PROVIDE AND INSTALL
 INSTALLED/
 INSTALL

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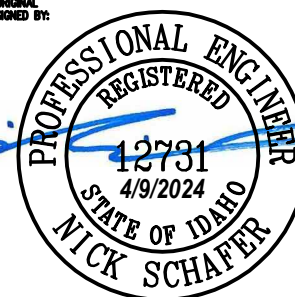
<i>ELECTRICAL ABBREVIATIONS</i>
LEWISTON TRUCK WASH

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SIGNED BY:



DATE SIGNED: _____

ELECTRICAL GENERAL NOTES

- A. THESE ELECTRICAL DRAWINGS ARE DIAGRAMMATIC IN NATURE; THEREFORE, THE ELECTRICAL CONTRACTOR SHALL COORDINATE ALL ELECTRICAL EQUIPMENT AND DEVICE LOCATIONS WITH MECHANICAL, AND PLUMBING DIVISIONS PRIOR TO ROUGH-IN. REFER TO AND COORDINATE WITH ARCHITECTURAL, MECHANICAL, AND PLUMBING DRAWINGS FOR ADDITIONAL WORK THAT IS REQUIRED BY THE ELECTRICAL CONTRACTOR.
- B. PROVIDE PULL-LINE IN ALL EMPTY CONDUITS.
- C. TERMINATE ALL LOW-VOLTAGE CONDUITS WITH INSULATED THROAT BUSHING.
- D. MECHANICAL EQUIPMENT INDICATED IS SHOWN IN AN APPROXIMATE LOCATION. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.

FIRE ALARM:

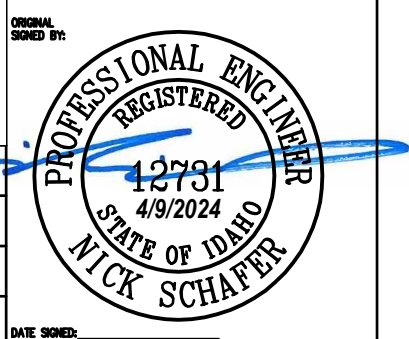
- E. INSTALL PLENUM RATED FIRE ALARM CONDUCTORS FROM ALL FIRE ALARM DEVICES INDICATED TO THE FIRE ALARM CONTROL PANEL OR NAC EXTENDER PANEL(S) AS REQUIRED. STUB 3/4" CONDUIT FROM DEVICE TO VOID ABOVE CEILING. PROVIDE NAC EXTENDER PANELS (QUANTITY AS REQUIRED) IN LOCATIONS INDICATED AND CIRCUITING AS REQUIRED FOR A COMPLETE INSTALLATION. CIRCUIT THE FIRE ALARM NOTIFICATION AND INITIATION DEVICES PER THE ELECTRICAL SPECIFICATIONS. FURNISH AND INSTALL ALL APPURTENANCES AND PROGRAMMING REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM. REFER TO ELECTRICAL FIRE ALARM SPECIFICATIONS FOR SYSTEM REQUIREMENTS AND SUBMITTAL PROCEDURES.
- F. CONTRACTOR SHALL COORDINATE WITH AN UNDERGROUND LOCATING SERVICE PRIOR TO COMMENCING WORK. SEE CIVIL DRAWINGS FOR ADDITIONAL SITE INFORMATION. COORDINATE WITH OTHER SITE DISCIPLINES.
- G. SITE LIGHTING AND UTILITY EQUIPMENT SHOWN IN APPROXIMATE LOCATION. COORDINATE EXACT LOCATION WITH CIVIL DRAWINGS, PROPERTY LINES, AND UTILITY COMPANIES PRIOR TO ROUGH-IN.
- H. REFER TO POLE BASE DETAIL FOR SITE LIGHTING POLE BASE REQUIREMENTS.
- I. ROUTE CONDUITS IN COMMON TRENCH WHERE POSSIBLE REFER TO TRENCHING DETAIL.

DEMO:

- J. THE ELECTRICAL DEMOLITION DRAWING(S) PROVIDED ARE INTENDED TO ASSIST THE ELECTRICAL CONTRACTOR IN ESTABLISHING AREAS REQUIRING DISCONNECTION, REMOVAL, OR RELOCATION OF ELECTRICAL EQUIPMENT, OUTLETS, WIRING, DEVICES, FIXTURES, ETC. AND MAY NOT INDICATE ALL DEVICES OR THE FULL EXTENT OF DEMOLITION AND RECONNECTION WHICH MAY BE REQUIRED. THE ELECTRICAL CONTRACTOR SHALL VISIT THE JOB SITE AND THOROUGHLY EXAMINE ALL REQUIRED DEMOLITION WORK AND INCLUDE ALL LABOR AND INCIDENTALS THAT WILL BE NECESSARY TO PERFORM DEMOLITION RECONNECTION AND TEMPORARY POWER CONNECTIONS IN THE BID.
- K. ALL ELECTRICAL DEVICES AND WALLS INDICATED ON THE ELECTRICAL DEMOLITION DRAWING(S) ARE TO REMAIN UNLESS OTHERWISE NOTED.



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<i>ELECTRICAL GENERAL NOTES</i>
<i>LEWISTON TRUCK WASH</i>

English
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KEY NO.
SHEET E5 OF 17

DATE SIGNED: _____

ELECTRICAL SPECIFICATIONS

- A. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE LOCALLY ADOPTED ELECTRICAL CODE, ALL LOCAL CODES, AND TO THE FULL ACCEPTANCE OF THE AUTHORITY HAVING JURISDICTION.
- B. OBTAIN ALL PERMITS, COORDINATE, FURNISH, INSTALL, CONNECT AND TEST ALL ELECTRICAL EQUIPMENT REQUIRED FOR ALL THE SYSTEMS INSTALLED UNDER THIS CONTRACT TO INSURE COMPLETE AND FULLY OPERATIONAL SYSTEMS.
- C. CONTRACTOR SHALL MAINTAIN A COMPLETE SET OF AS-BUILT DRAWINGS. AS-BUILT SET OF DRAWINGS SHALL BE UPDATED DAILY AND SHALL DOCUMENT THE ACTUAL INSTALLED CONDITION OF THE ENTIRE ELECTRICAL INSTALLATION. AS-BUILT SET OF DRAWINGS SHALL BE AVAILABLE AT ALL TIMES ON THE SITE FOR INSPECTION BY CODE OFFICIALS, OWNER, ARCHITECT, AND ENGINEER.
- D. PROTECT ALL EXISTING WORK FROM DAMAGE DURING CONSTRUCTION.
- E. DESIGN IS BASED ON BEST AVAILABLE INFORMATION. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS TO DETERMINE STATUS OF ACTUAL CONDITIONS AS THEY RELATE TO THE SCOPE OF WORK AS SHOWN ON THESE PLANS.
- F. COORDINATE ALL ELECTRICAL WORK WITH ALL OTHER TRADES.
- G. COORDINATE EXACT LOCATION AND MOUNTING HEIGHTS OF ALL ELECTRICAL EQUIPMENT AND DEVICES WITH THE ARCHITECTURAL ELEVATIONS AND DETAILS PRIOR TO ROUGH-IN.
- H. DEMOLITION WORK IS A PART OF THIS PROJECT. SEE DRAWINGS FOR EXISTING ELECTRICAL DEVICES TO BE REMOVED. REMOVE ASSOCIATED BOXES, RACEWAYS AND CONDUCTORS BACK TO SOURCE, AND MAKE SAFE.
- I. ALL MATERIALS AND EQUIPMENT FURNISHED TO THE PROJECT SHALL BE NEW AND SHALL BEAR THE LISTING LABEL OF A NATIONALLY RECOGNIZED TESTING LAB AS DEFINED BY OSHA.
- J. ALL ELECTRICAL DEVICES AND TERMINALS SHALL BE RATED 75°C MINIMUM.
- K. ALL CONDUCTORS SHALL BE STRANDED COPPER, 600 VOLT RATED. INSULATION TYPE SHALL BE THHN/THWN, FULLY COLOR CODED WITH GAUGE, TYPE AND MANUFACTURER MARKED EVERY 24" ALONG. CONDUCTOR COLOR CODE SHALL BE AS FOLLOWS:

<u>208Y/120 VOLT SYSTEM</u>	<u>480Y/277 VOLT SYSTEM</u>
PHASE A - BLACK	PHASE A - BROWN
PHASE B - RED	PHASE B - ORANGE
PHASE C - BLUE	PHASE C - YELLOW
NEUTRAL - WHITE	NEUTRAL - GRAY
GROUND - GREEN	GROUND - GREEN
- L. MINIMUM SIZE WIRE FOR POWER AND LIGHTING CIRCUITS SHALL BE #12 AWG. ALL POWER AND LIGHTING CONDUCTORS SHALL BE ROUTED IN 3/4" CONDUIT MINIMUM.
- M. EMT OR MC TYPE CABLE IS ALLOWED WHEN CONCEALED IN INTERIOR SPACES. MC TYPE CABLE IS NOT ALLOWED FOR HOMERUNS.
- N. MAKE ALL CONNECTIONS TO EQUIPMENT PER MANUFACTURER'S REQUIREMENTS.
- O. ALL EQUIPMENT, SWITCHING DEVICES AND PANELS SHALL BE MOUNTED SO AS TO BE ACCESSIBLE AND SHALL BE MOUNTED PLUMB AND SQUARE WITH WALLS.

ELECTRICAL SPECIFICATIONS


- P. DEVICES AND RACEWAYS PENETRATING FIRE RATED WALLS AND FLOORS SHALL BE SEALED WITH FIRE RESISTIVE MATERIAL, COMPATIBLE WITH CONSTRUCTION PENETRATED, TO MAINTAIN RATING OF THE WALL. SEALANT SYSTEM SHALL BE A U.L. APPROVED SYSTEM AND INSTALLED PER MANUFACTURER'S INSTRUCTIONS.
- Q. FURNISH AND INSTALL PULL CORD IN ALL EMPTY CONDUITS.
- R. ALL JUNCTION BOX COVERS WITH POWER WIRING SHALL HAVE THE PANEL AND CIRCUIT LABELED ON THE OUTSIDE SURFACE. ALL LABELS FOR EXPOSED JUNCTION BOXES IN "FINISHED AREAS" SHALL BE LABELED UTILIZING SELF ADHESIVE LABELS PRODUCED BY A MECHANICAL LABELING MACHINE. LABELS FOR JUNCTION BOX COVERS IN CONCEALED LOCATIONS SHALL CONSIST OF THE INFORMATION BEING NEATLY HANDWRITTEN ON THE OUTSIDE SURFACE OF THE COVER WITH A PERMANENT STYLE MARKER.
- S. CLEARLY LABEL ALL ACCESSIBLE CONDUIT STUBS WITH SYSTEM NAME AND LOCATION (ROOM NUMBER) WHERE THE OTHER END OF THE CONDUIT TERMINATES. USE INDELIBLE INK. THE LABELS SHALL BE LOCATED ON THE CONDUIT IN A POSITION THAT CAN BE EASILY READ.
- T. ALL 1 POLE BREAKER CIRCUITS SHALL HAVE AN INDEPENDENT NEUTRAL CONDUCTOR. NO EDISON STYLE SHARED NEUTRAL CONDUCTORS ARE ALLOWED.
- U. ALL CONDUCTORS IN ELECTRICAL PANELS, CABINETS AND EQUIPMENT SHALL BE NEATLY TRAINED AND LACED.
- V. THE CONTRACTOR SHALL PROVIDE UPDATED CIRCUIT PANEL DIRECTORIES FOR ALL PANELS. DIRECTORIES SHALL BE TYPED.
- W. PROVIDE ELECTRICAL SUBMITTALS FOR EQUIPMENT SHOWN AS REQUIRED BY DIVISION 1 SPECIFICATIONS.
- X. ELECTRICAL CONTRACTOR SHALL OBTAIN THE AVAILABLE FAULT CURRENT VALUE FROM THE LOCAL UTILITY OR THE ONE-LINE DIAGRAM AND LABEL THE MAIN BREAKER WITH THAT VALUE.
- Y. SWITCH AND RECEPTACLE LABELING: IDENTIFY PANELBOARD AND CIRCUIT NUMBER FROM WHICH DEVICES ARE SERVED. USE MACHINE PRINTED LABEL AND 1/8" TEXT. INSTALL ON THE OUTSIDE OF THE FACEPLATE FOR RECEPTACLES AND INSIDE THE FACEPLATE FOR SWITCHES.

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KELTIC ENGINEERING, INC.

PROJECT NO.	<i>FM22418</i>
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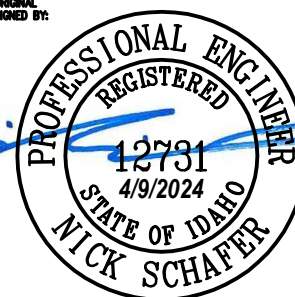
<i>ELECTRICAL SPECIFICATIONS</i>
<i>LEWISTON TRUCK WASH</i>

English
COUNTY <i>IDAHO</i>
KEY NO.
SHEET <i>E6</i> OF <i>17</i>

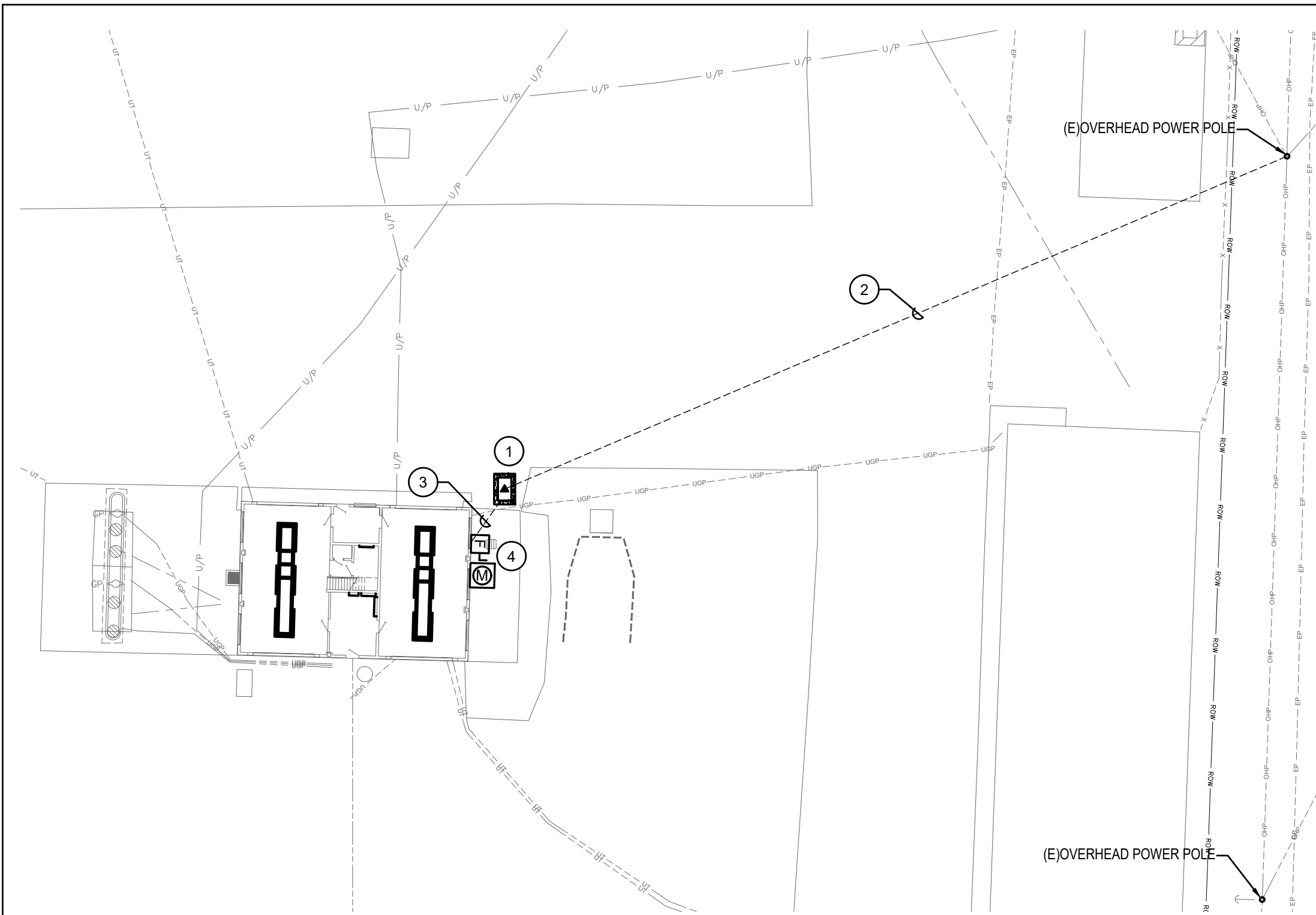


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DATE SIGNED: _____



KEYED NOTES:

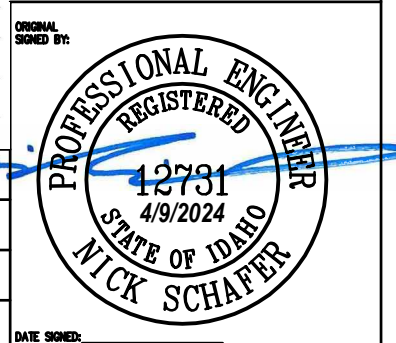
- # SYMBOL USED FOR NOTE CALLOUT.
1. PAD MOUNTED TRANSFORMER REFER TO ONE LINE DIAGRAM.
 2. UNDERGROUND PRIMARY BY AVISTA. REFER TO ONE LINE DIAGRAM.
 3. UNDERGROUND SECONDARY. REFER TO ONE-LINE DIAGRAM.
 4. EXTERIOR MOUNTED FUSED SERVICE DISCONNECT, CT CAB AND METER BASE. REFER TO ONE LINE DIAGRAM.

ELECTRICAL SITE PLAN

SCALE: 1" = 30'



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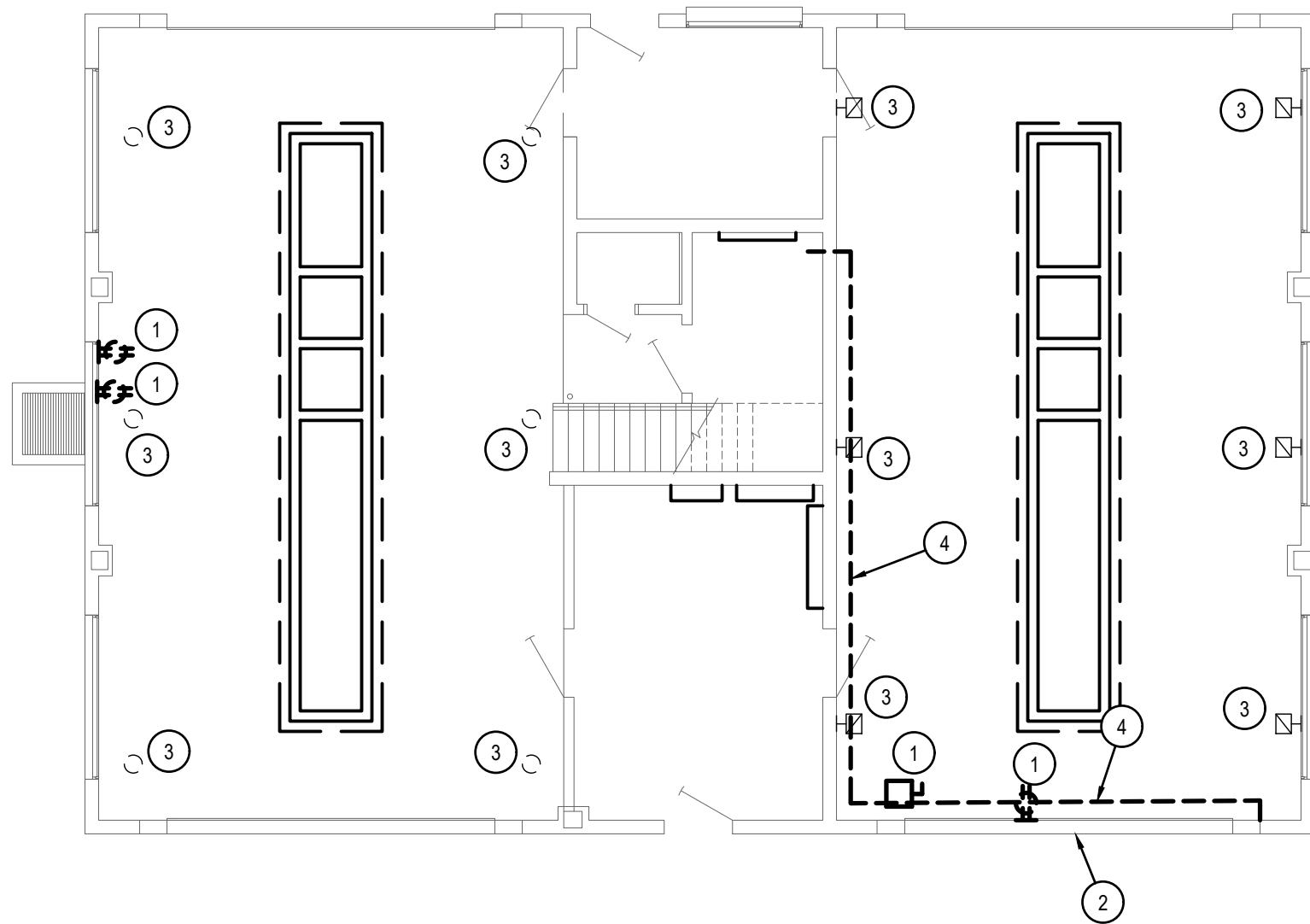
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ELECTRICAL SITE PLAN	LEWISTON TRUCK WASH
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KEYED NOTES:

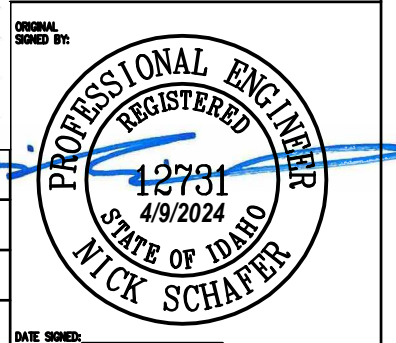
- # SYMBOL USED FOR NOTE CALLOUT.
- EXISTING DEVICES TO BE REMOVED. REMOVE ALL SURFACE MOUNTED CONDUIT AND JUNCTION BOXES AND REMOVAL ALL CONDUCTORS BACK TO SOURCE OR NEAREST UPSTREAM DEVICE THAT IS TO REMAIN. MAINTAIN CONTINUITY TO ALL DOWNSTREAM DEVICES THAT ARE TO REMAIN.
 - EXISTING WALL TO BE REMOVED. REMOVE ALL EXISTING DEVICES AND JUNCTION BOXES. RE-ROUTE CONDUIT AND CONDUCTORS AS REQUIRED TO MAINTAIN POWER TO ALL DOWN STREAM DEVICE THAT ARE EXISTING TO REMAIN.
 - EXISTING LIGHT FIXTURE TO BE REMOVED AND REPLACE IN THIS LOCATION WITH A NEW FIXTURE. MAINTAIN AND PROTECT ALL EXISTING CONDUIT AND CONDUCTORS FOR RECONNECTION TO NEW LIGHT.
 - EXISTING FIBER OPTIC CABLE, SURFACE MOUNTED TO INTERIOR WALL. REMOVE AND SUPPORT TO ALLOW FOR DEMOLITION AND CONSTRUCTION OF NEW DOOR ON SOUTH WALL. RE-ATTACH TO NEW INTERIOR SURFACE, ABOVE THE DOOR, AT COMPLETION OF STRUCTURAL WORK.

ELECTRIAL DEMOLITION FLOOR PLAN

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



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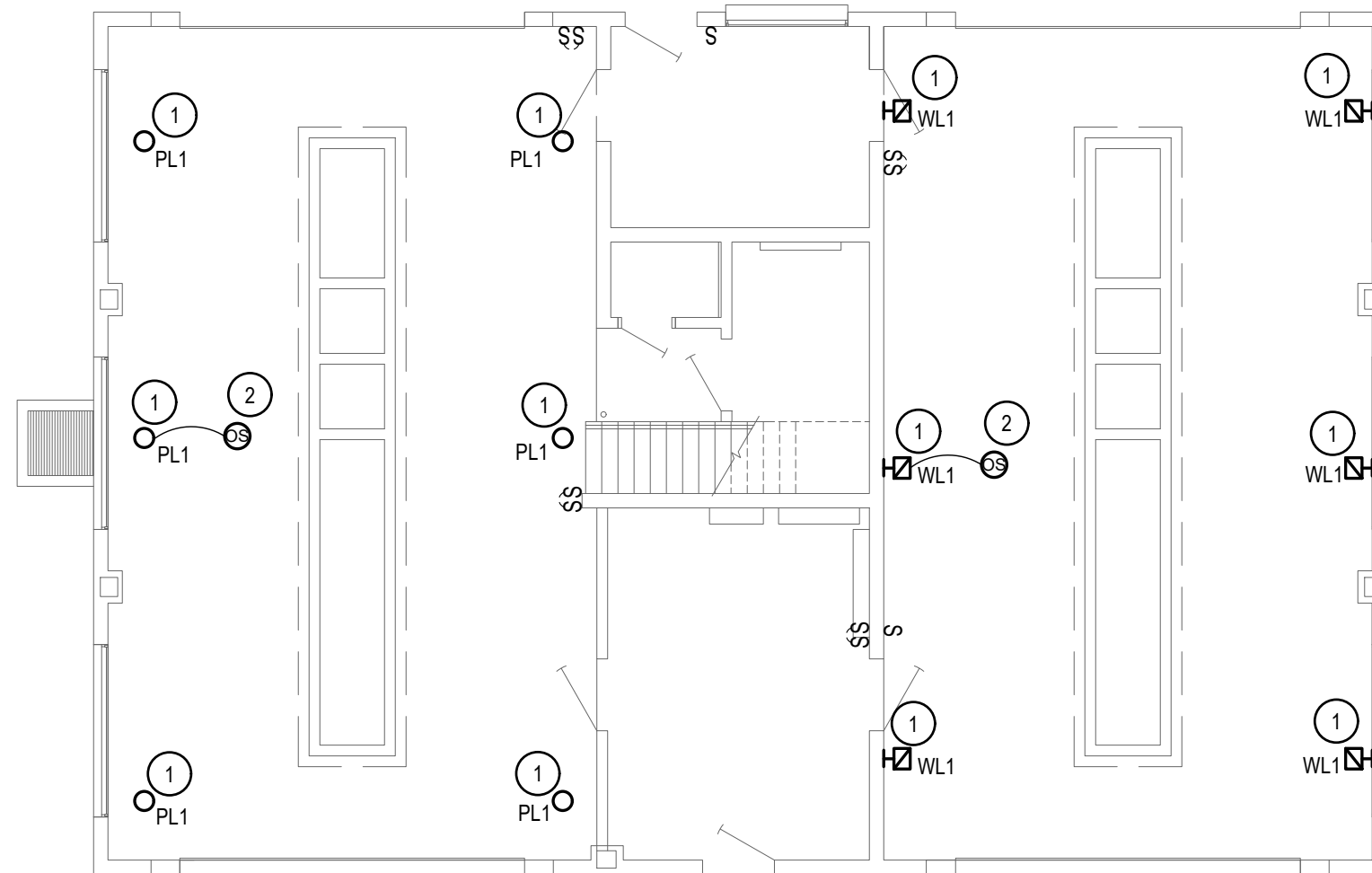
DEMOLITION PLAN
LEWISTON TRUCK WASH

English
COUNTY IDAHO
KEY NO.
SHEET E8 OF 17

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KEYED NOTES:

- # SYMBOL USED FOR NOTE CALLOUT.
- 1. INSTALL NEW FIXTURE ON THE EXISTING JUNCTION BOX LEFT FROM THE REMOVAL OF THE EXISTING FIXTURE. PROVIDE AND INSTALL ALL HARDWARE AND MATERIALS REQUIRED TO CONNECT NEW FIXTURE TO THE EXISTING CONDUIT AND CONDUCTORS LEFT FROM THE REMOVAL OF THE EXISTING FIXTURES.
- 2. INTERCEPT THE EXISTING CIRCUIT AND CONNECT NEW LINE VOLTAGE, OUTDOOR RATED PIR OCCUPANCY SENSOR. PROGRAM TO TURN OFF LIGHTS AFTER 20 MINUTES OF INACTIVITY. SENSOR SWITCH SBO-BTP OR EQUAL. PROVIDE ALL REQUIRED POWER PACKS, AND RELAYS REQUIRED.



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



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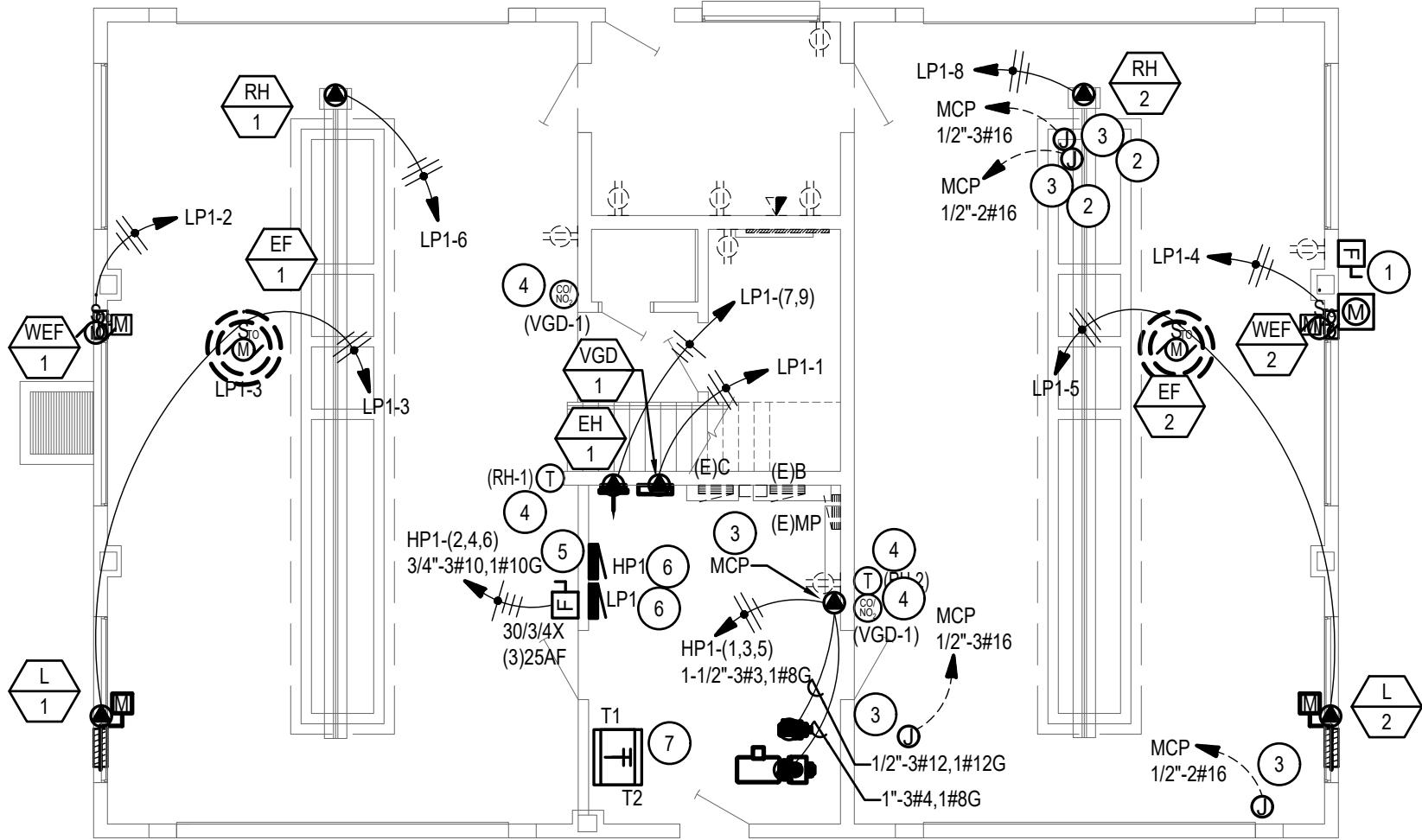
LIGHTING PLAN
LEWISTON TRUCK WASH

English
COUNTY IDAHO
KEY NO.
SHEET E9 OF 17

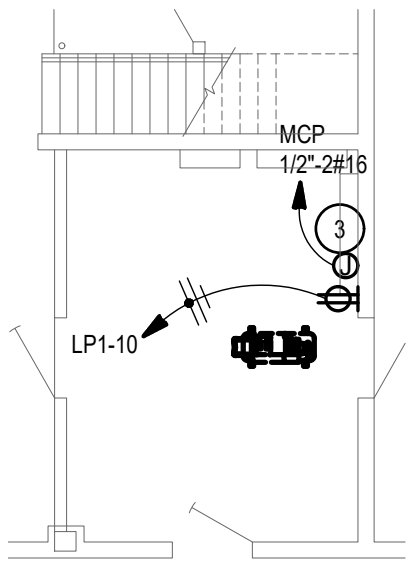
DATE SIGNED:

KEYED NOTES:

- # SYMBOL USED FOR NOTE CALLOUT.
- 1. NEW FUSED SERVICE DISCONNECT, CT CABINET AND METER BASE. REFER TO ONE LINE DIAGRAM.
- 2. ALL CONDUIT, JUNCTION BOXES AND DEVICES TO BE MOUNTED +50" ABOVE PIT FLOOR. ANY CONDUIT, JUNCTION BOXES AND DEVICES MOUNTED BELOW +48" SHALL BE NEMA 4 RATED.
- 3. UNDER ALTERNATE PRICING: CONNECTION FOR CAR WASH EQUIPMENT. COORDINATE WITH CAR WASH EQUIPMENT SUPPLIER PRIOR TO ROUGH IN. PROVIDE AND INSTALL ALL HARDWARE REQUIRED TO MAKE ALL FINAL CONNECTIONS AS EQUIPMENT.
- 4. 1/2" CONDUIT TO CORRESPONDING MECHANICAL UNIT. BOX, CONDUIT, AND CONDUCTORS TO BE PROVIDED BY ELECTRICAL CONTRACTOR. LEAVE 12" SLACK AT BOX AND MECHANICAL UNIT. MECHANICAL CONTRACTOR TO MAKE FINAL CONNECTIONS. COORDINATE BOX SIZE AND QUANTITY OF CONDUCTOR(S) WITH MECHANICAL CONTRACTOR. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR.
- 5. UNDER ALTERNATE PRICING: DISCONNECT FOR MODULAR CAR WASH CONNECTION. MOUNT DISCONNECT ON FLOOR MOUNTED UNISTRUT RACK. COORDINATE CONNECTION REQUIREMENTS WITH CAR WASH INSTALLER PRIOR TO ROUGH IN.
- 6. MOUNT PANELS ON FLOOR MOUNTED UNISTRUT RACK.
- 7. INSTALL TRANSFORMERS STACKED. PROVIDE AND INSTALL UNISTRUT FLOOR MOUNTED RACK TO HOLD THE UPPER TRANSFORMER. REFER TO SINGLE LINE FOR RATING.



ELECTRIAL FLOOR PLAN
SCALE: 1/8" = 1'-0"



ELECTRIAL UPPER FLOOR PLAN
SCALE: 1/8" = 1'-0"

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PROJECT NO.	<i>ELECTRICAL PLAN</i>
<i>FM22418</i>	<i>LEWISTON TRUCK WASH</i>

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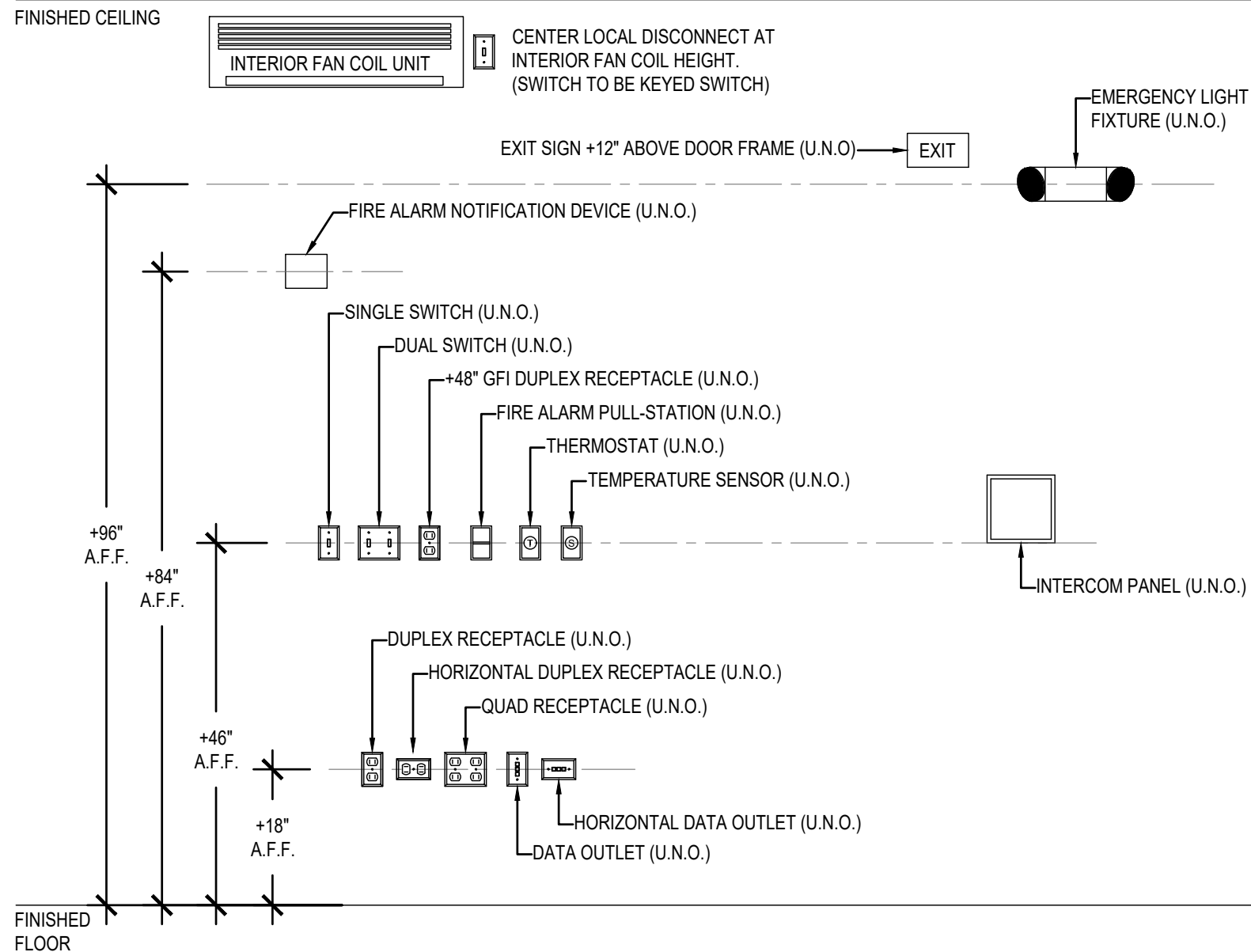


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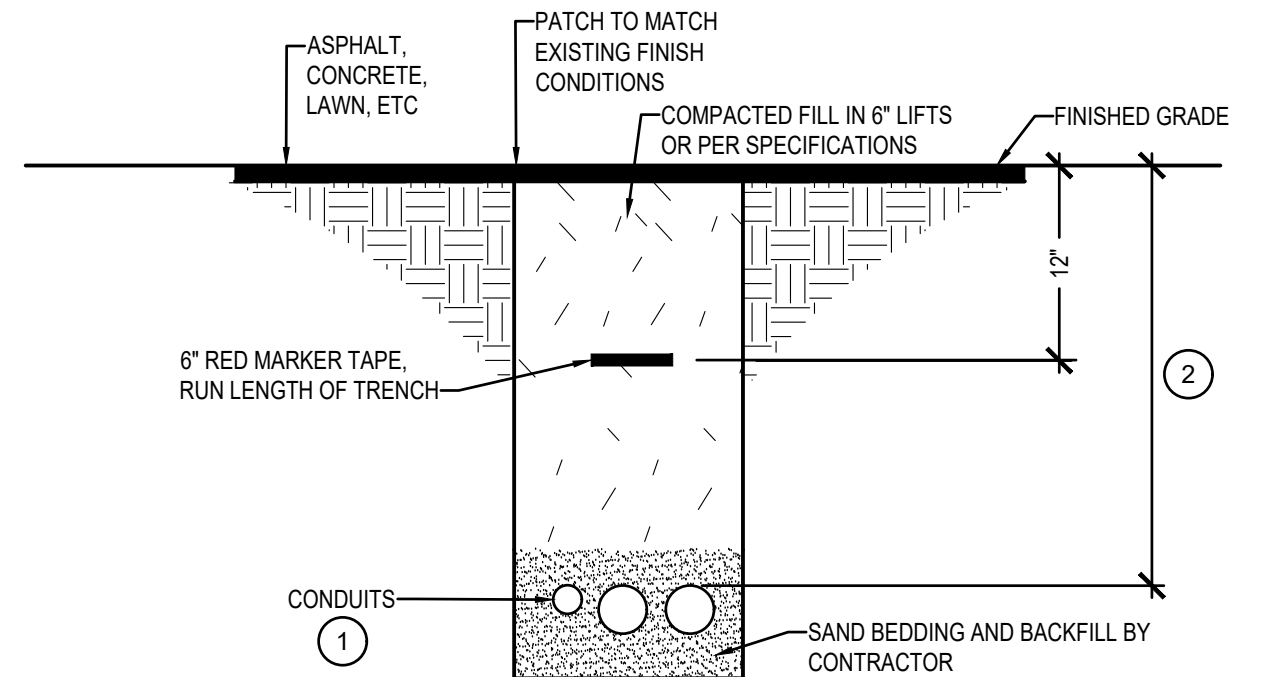


DETAIL GENERAL NOTES:

1. PROVIDE FRAMING AS REQUIRED.

STANDARD MOUNTING HEIGHTS

NTS



DETAIL NOTES:

SYMBOL USED FOR NOTE CALLOUT.

1. IF MULTIPLE CONDUITS SHARE TRENCH, PROVIDE SPACING BETWEEN CONDUITS. PROVIDE ZIP TIES, AND TIE ALL CONDUITS TOGETHER TO ENSURE STABILITY.
2. BURIAL DEPTH TO BE VERIFIED WITH UTILITIES AND AUTHORITY HAVING JURISDICTION:
ELECTRICAL FEEDERS, COMMUNICATIONS: 24" MINIMUM
UNDERGROUND SECONDARY: 30" MINIMUM
UNDERGROUND PRIMARY: 42" MINIMUM

SITE TRENCHING DETAIL

NTS

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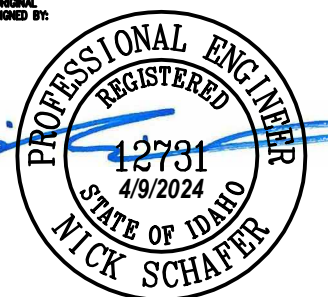
ELECTRICAL DETAILS
LEWISTON TRUCK WASH

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COUNTY IDAHO
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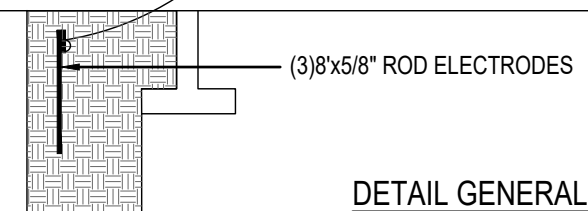
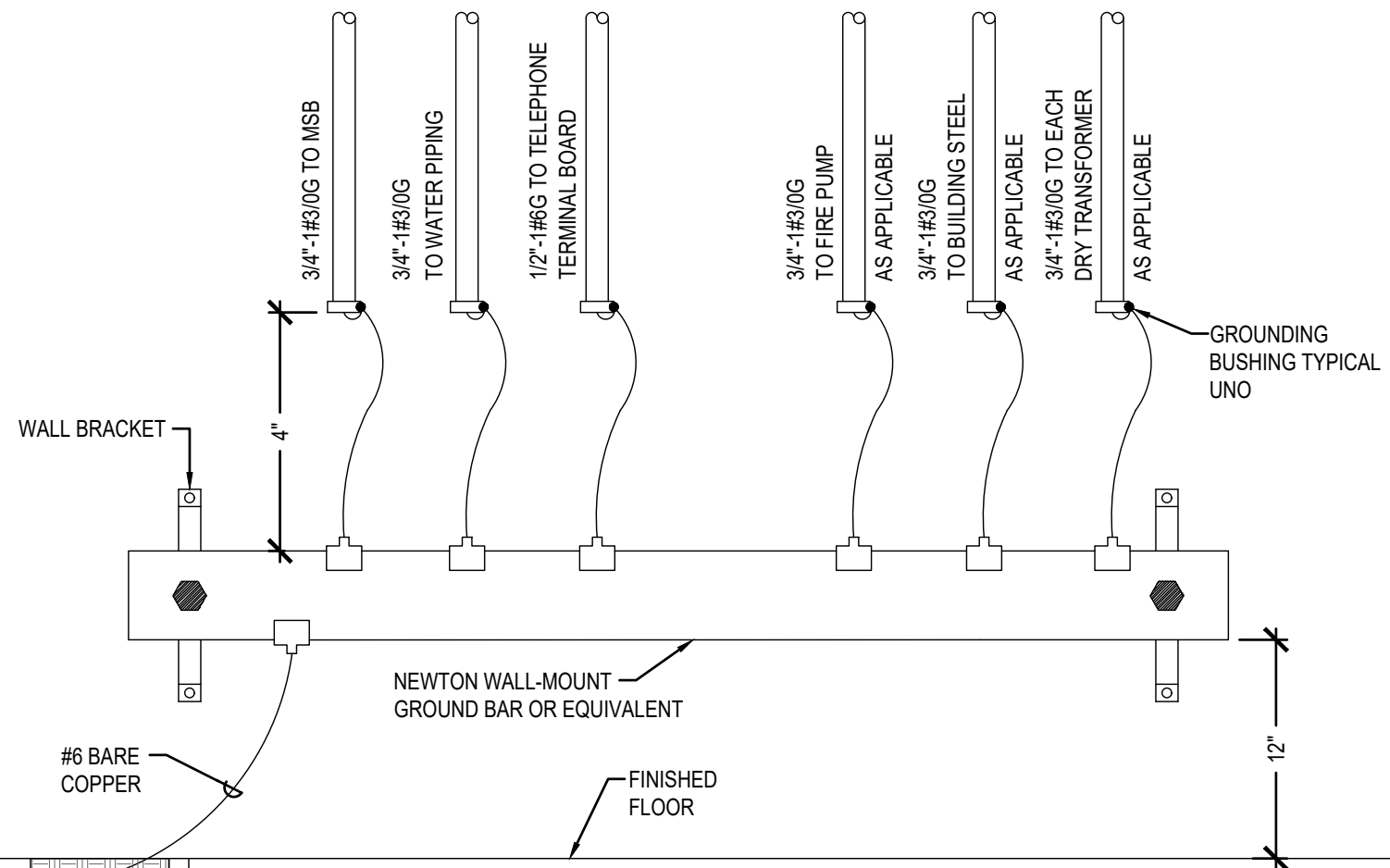


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DETAIL GENERAL NOTES:

- A. ALL CONDUCTORS SHALL BE IN EMT CONDUIT UNLESS NOTED OTHERWISE. ALL CONDUIT SHALL HAVE A GROUNDING BUSHING AT EACH END.
- B. ALL CONNECTIONS SHALL BE EXOTHERMIC WELD, LISTED PRESSURE CONNECTORS, LISTED CLAMPS OR OTHER LISTED MEANS.
- C. PROVIDE BONDING OF GAS PIPING PER NEC 250.104(B)(1).

GROUNDING BAR DETAIL
NTS

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GROUND BAR DETAIL	LEWISTON TRUCK WASH
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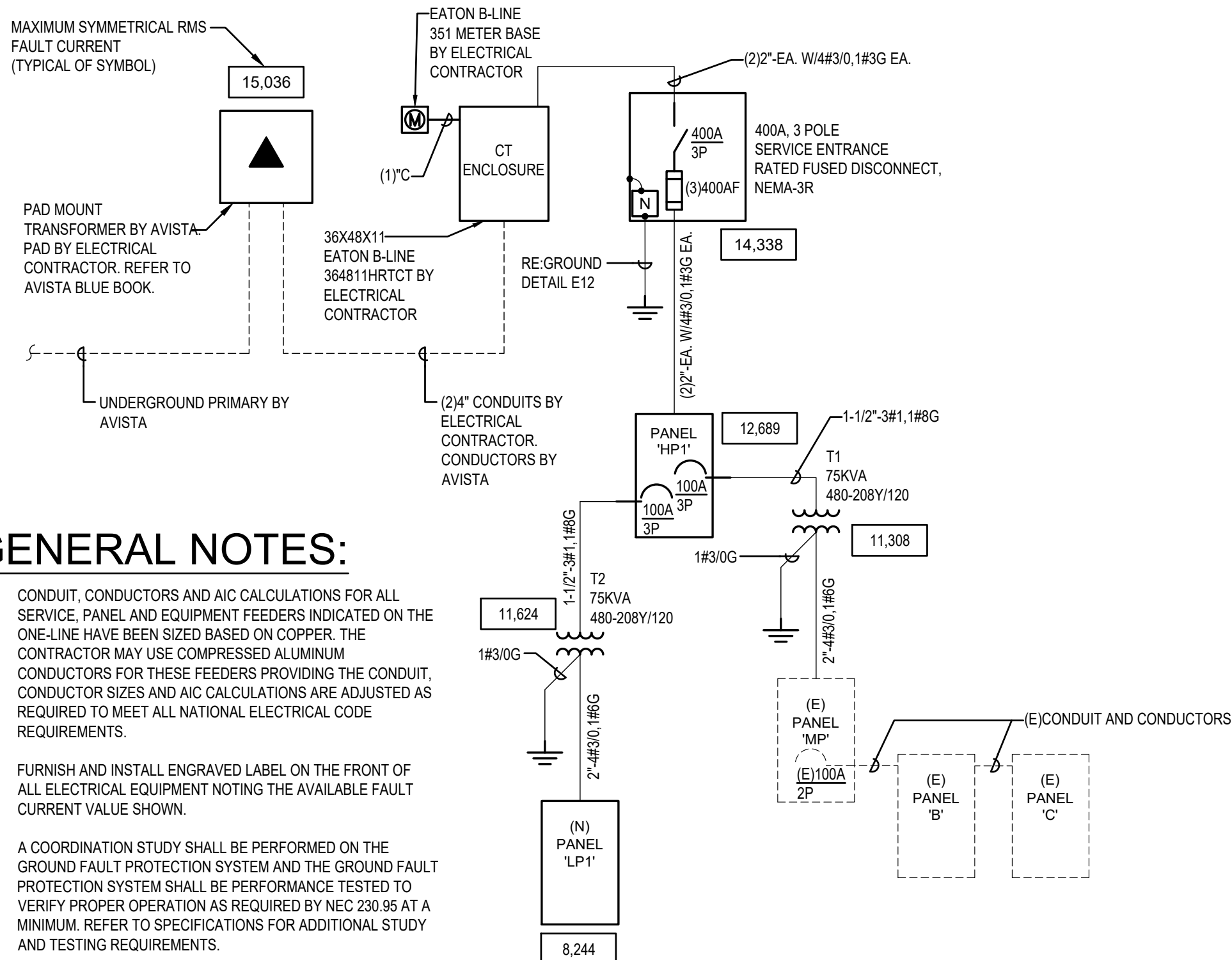


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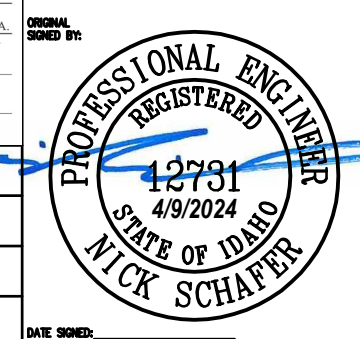
GENERAL NOTES:

- A. CONDUIT, CONDUCTORS AND AIC CALCULATIONS FOR ALL SERVICE, PANEL AND EQUIPMENT FEEDERS INDICATED ON THE ONE-LINE HAVE BEEN SIZED BASED ON COPPER. THE CONTRACTOR MAY USE COMPRESSED ALUMINUM CONDUCTORS FOR THESE FEEDERS PROVIDING THE CONDUIT, CONDUCTOR SIZES AND AIC CALCULATIONS ARE ADJUSTED AS REQUIRED TO MEET ALL NATIONAL ELECTRICAL CODE REQUIREMENTS.
- B. FURNISH AND INSTALL ENGRAVED LABEL ON THE FRONT OF ALL ELECTRICAL EQUIPMENT NOTING THE AVAILABLE FAULT CURRENT VALUE SHOWN.
- C. A COORDINATION STUDY SHALL BE PERFORMED ON THE GROUND FAULT PROTECTION SYSTEM AND THE GROUND FAULT PROTECTION SYSTEM SHALL BE PERFORMANCE TESTED TO VERIFY PROPER OPERATION AS REQUIRED BY NEC 230.95 AT A MINIMUM. REFER TO SPECIFICATIONS FOR ADDITIONAL STUDY AND TESTING REQUIREMENTS.

ONE-LINE DIAGRAM
NTS



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ONE LINE DIAGRAM
LEWISTON TRUCK WASH

English

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LIGHTING FIXTURE SCHEDULE (22-337)

TYPE	DESCRIPTION	MTG.	LAMPS	WATTS	MFG. & CATALOG NUMBER	OR EQUAL BY	NOTES
PL1	CANOPY LIGHT FULL GASKET, POLY LENS	CEILING MOUNTED	LED 4000K 6600LM	52W	LITHONIA NO. CNY-LED-P2-40K-MVOLT-DDB		1
WL1	WALL MOUNTED FIXTURE FULL GASKET, POLY LENS 250W MH REPLACEMENT FIXTURE	WALL MOUNTED	LED 4000K 5000 LM	48W	LITHONIA NO. TWP-LED-ALO-40K-T3M-MVOLT-DDBXD		1

LIGHTING FIXTURE SCHEDULE NOTES:

1 SUBSTITUTIONS WILL BE ALLOWED IF SUBMITTED PRIOR TO BID DATE BY THE GREATER OF: 7 BUSINESS DAYS OR THE TIME PERIOD SPECIFIED BY DIVISION 1 SPECIFICATIONS, AND IF DEEMED EQUAL BY THE ENGINEER. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING SUBSTITUTED FIXTURES MEET OR EXCEED THE SPECIFICATIONS OF THE FIXTURES SPECIFIED.

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LIGHT FIXTURE SCHEDULE

LEWISTON TRUCK WASH



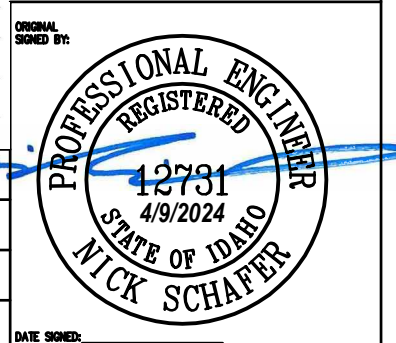
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PANEL: HP1			PROJECT: ITD LEWISTON TRUCK WASH													
VOLTAGE: 480 / 277 V			3 PH		4 WIRE		AMPERE RATING: 400A		WITH		MLO		MOUNTING: SURFACE			
BASIS OF DESIGN PANEL TYPE: PANEL BOARD			NEMA ENCLOSURE TYPE: 1					PANEL AIC RATING: 18000								
CKT NOTES: 1. GFCI FOR PERSONNEL PROTECTION (5mA) 2. GFEP FOR EQUIPMENT PROTECTION (30mA) 3. AFCI COMBINATION STYLE BREAKER 4. RED HANDLE, LOCKABLE BREAKER			REMARKS: 5. EXISTING BREAKER													
CKT	DESCRIPTION	CKT NOTE	LOAD VA	LOAD AMPS	AMPS/POLES	LOAD (VA)			AMPS/POLES	LOAD AMPS	LOAD VA	CKT NOTE	DESCRIPTION	CKT		
						A	B	C								
1	MASTER CONTROL PANEL		16620	60.0	80	3	20498			30	3	14.0	3878		HOTSY CAR WASH SANITIZER	2
3	***		16620	60.0	**	*		20498		**	*	14.0	3878		***	4
5	***		16620	60.0	**	*			20498		**	*	14.0	3878	***	6
7	SPARE			0.0	20	1	0			20	1	0.0			SPARE	8
9	SPARE			0.0	20	1		0		20	1	0.0			SPARE	10
11	SPARE			0.0	20	1			0	20	1	0.0			SPARE	12
13	SPARE			0.0	20	1	0			20	1	0.0			SPARE	14
15	SPARE			0.0	20	1		0		20	1	0.0			SPARE	16
17	SPARE			0.0	20	1			0	20	1	0.0			SPARE	18
19	SPARE			0.0	25	1	0			20	1	0.0			SPARE	20
21	SPARE			0.0	20	1		0		20	1	0.0			SPARE	22
23	SPARE			0.0	20	1			0	20	1	0.0			SPARE	24
25	SPARE			0.0	20	1	0			20	1	0.0			SPARE	26
27	SPARE			0.0	20	1		0		20	1	0.0			SPARE	28
29	SPARE			0.0	20	1			0	20	1	0.0			SPARE	30
31	SPARE			0.0	20	1	0			20	1	0.0			SPARE	32
33	SPARE			0.0	20	1		0		20	1	0.0			SPARE	34
35	SPARE			0.0	20	1			0	20	1	0.0			SPARE	36
37	TRANSFORMER FOR LP1		2388	7.2	100	3	17388			100	3	54.1	15000		TRANSFORMER FOR (E)MP	38
39	***		2808	7.2	**	*		17808		**	*	54.1	15000		***	40
41	***		780	7.2	**	*			15780	**	*	54.1	15000		***	42
							37886.0	38306.0	36278.0	VA						
							136.8	138.3	131.0	AMPS		1E+05 TOTAL VA				

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HP1 PANEL SCHEDULE LEWISTON TRUCK WASH

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PANEL: LP1		PROJECT: ITD LEWISTON TRUCK WASH													
VOLTAGE: 208 / 120 V		3 PH		4 WIRE		AMPERE RATING: 200A		WITH 200A		CB		MOUNTING: SURFACE			
BASIS OF DESIGN PANEL TYPE: PANEL BOARD				NEMA ENCLOSURE TYPE: 1				PANEL AIC RATING: 10000 AIC							
CKT NOTES: 1. GFCI FOR PERSONNEL PROTECTION (5mA) 5. EXISTING BREAKER 2. GFEP FOR EQUIPMENT PROTECTION (30mA) 3. A FCI COMBINATION STYLE BREAKER 4. RED HANDLE, LOCKABLE BREAKER						REMARKS:									
CKT	DESCRIPTION	CKT NOTE	LOAD VA	LOAD AMPS	AMPS/POLES	LOAD (VA)			AMPS/POLES	LOAD AMPS	LOAD VA	CKT NOTE	DESCRIPTION	CKT	
						A	B	C							
1	VGD GAS DETECTION PANEL		180	1.5	20 1	708			20 1	4.4	528		WEF-1	2	
3	EF-1/ L1		600	5.0	20 1		1128		20 1	4.4	528		WEF-2	4	
5	EF-2/L2		600	5.0	20 1			780	20 1	1.5	180		RH-1	6	
7	EH-1		1500	14.4	20 2	1680			20 1	1.5	180		RH-2	8	
9	***		1500	14.4	** *		1680		20 1	1.5	180		REC - MEZZ	10	
11	SPARE			0.0	20 1			0	20 1	0.0			SPARE	12	
13	SPARE			0.0	20 1	0			20 1	0.0			SPARE	14	
15	SPARE			0.0	20 1		0		20 1	0.0			SPARE	16	
17	SPARE			0.0	20 1			0	20 1	0.0			SPARE	18	
19	SPARE			0.0	25 1	0			20 1	0.0			SPARE	20	
21	SPARE			0.0	20 1		0		20 1	0.0			SPARE	22	
23	SPARE			0.0	20 1			0	20 1	0.0			SPARE	24	
25	SPARE			0.0	20 1	0			20 1	0.0			SPARE	26	
27	SPARE			0.0	20 1		0		20 1	0.0			SPARE	28	
29	SPARE			0.0	20 1			0	20 1	0.0			SPARE	30	
31	SPARE			0.0	20 1	0			20 1	0.0			SPARE	32	
33	SPARE			0.0	20 1		0		20 1	0.0			SPARE	34	
35	SPARE			0.0	20 1			0	20 1	0.0			SPARE	36	
37	SPARE			0.0	20 1	0			20 1	0.0			SPARE	38	
39	SPARE			0.0	20 1		0		20 1	0.0			SPARE	40	
41	SPARE			0.0	20 1			0	20 1	0.0			SPARE	42	
						2388.0	2808.0	780.0	VA						
						19.9	23.4	6.5	AMPS		5976 TOTAL VA				

REVISIONS			
NO.	DATE	BY	DESCRIPTION
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DESIGNED NJS
DESIGN CHECKED KEL
DETAILED NJS
DWG. CHECKED
CORRECTIONS

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
 CADD FILE NO.
 DRAWING DATE:
 APRIL, 2024


IDAHO TRANSPORTATION DEPARTMENT
 Keltic ENGINEERING, INC.

PROJECT NO.
 FM22418


LP1 PANEL SCHEDULE
 LEWISTON TRUCK WASH

English
 COUNTY IDAHO
 KEY NO.
 SHEET E16 OF 17



MUSGROVE ENGINEERING, P.A.
 234 S. Whisperwood Way
 Boise, ID 83709
 208.384.0585
 645 West 25th Street
 Idaho Falls, ID 83402
 208.523.2862
 www.musgrovepa.com
 Project No. 22-337

ORIGINAL SIGNED BY:



DATE SIGNED:



COMcheck Software Version 4.1.5.3

Interior Lighting Compliance Certificate

Project Information

Energy Code: 2018 IECC
Project Title:
Project Type: New Construction

Construction Site: Owner/Agent: Designer/Contractor:
Musgrove Engineering
234 S Whisperwood Way
Boise, ID 83709
208-384-0585

Additional Efficiency Package(s)

Credits: 1.0 Required 0.0 Proposed

Allowed Interior Lighting Power

A Area Category	B Floor Area (ft ²)	C Allowed Watts / ft ²	D Allowed Watts (B X C)
1-wash bays (Automotive: Vehicular Maintenance Area)	1737	0.56	973
Total Allowed Watts =			973

Proposed Interior Lighting Power

A Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast	B Lamps/ Fixture	C # of Fixtures	D Fixture Watt.	E (C X D)
1-wash bays (Automotive: Vehicular Maintenance Area)				
LED 1: PL1: CANOPY LIGHT: LED Other Fixture Unit 50W:	1	6	52	312
LED 2: WL1: WALL PACK: LED Other Fixture Unit 46W:	1	6	48	288
Total Proposed Watts =				600

Interior Lighting PASSES: Design 38% better than code

Interior Lighting Compliance Statement

Compliance Statement: The proposed interior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed interior lighting systems have been designed to meet the 2018 IECC requirements in COMcheck Version 4.1.5.3 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

NICK SCHAFER

Name - Title

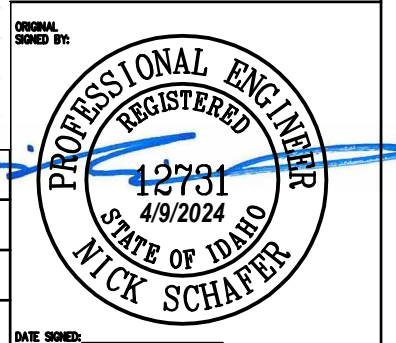
Signature

4/9/24

Date



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IDAHO
TRANSPORTATION
DEPARTMENT

KELTIC ENGINEERING, INC.

PROJECT NO.
FM22418

LIGHTING COMPLIANCE FORM
LEWISTON TRUCK WASH

English
COUNTY IDAHO
KEY NO.
SHEET E17 OF 17

DATE SIGNED: