ADDENDUM No. 3 TO PROCUREMENT CONTRACT DOCUMENTS

BRIDGEPORT PUBLIC UTILITY DISTRICT (BPUD)

Arsenic Removal Project – Arsenic Removal System Procurement Contract

May 17, 2017

THE BIDDER SHALL EXECUTE THE CERTIFICATION WITHIN THE BID FORM ACKNOWLEDGING RECEIPT OF THIS ADDENDUM.

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ADVERTISEMENT FOR BIDS

1. The Bid Opening date shall be changed to Wednesday May 31, 2017.

DRAWINGS

- 1. The drawings have been revised. The attached document lists changes by sheet number.
- 2. The electrical drawings have been revised significantly to change the control system to XiO cloud based SCADA. Contacts at XiO that are available for discussion of this project are:
 - a. Paul Sagues at 415-446-9002
 - b. Mark Puckett 415-299-9095
 - c. Kevin Liscovitz 815-245-1363
- 3. Sheet E4 note 1 states Yaskawa VFD. An "or equal" will be considered.
- 4. The General Contractor is responsible for all piping shown on Sheet C7.

SPECIFICATION SECTION 13530 – PACKAGE ARSENIC REMOVAL SYSTEM

1. Revise Section 1.5 Submittals as such:

In subsections B, C, D, and G, replace the word "Contractor" with "ARS Supplier".

- 2. Delete Section 1.9.B Installer in its entirety.
- 3. Revise 2.1.B to read as such:

PART 2 - PRODUCTS

- 2.1 ARSENIC REMOVAL SYSTEM (ARS)
 - B. Manufacturers:

1.

- Isolux MELsorb by MEL Chemicals, Inc.
 - a. 500 Point Breeze Road, Flemington, NJ 08822.
 - b. 1 (908) 782-1280
 - c. <u>www.zrpure.com</u>
- 2. Evoqua Water Technologies by Siemens Corp.
 - a. 1 (719) 622-5320
 - b. <u>www.siemens.com/water</u>
- 3. AdEdge Water Technologies, LLC
 - a. (866) 823-3343
 - b. www.adedgetech.com
- 4. Layne Christensen Company
 - a. 1138 N Alma School Rd, Ste 207
 - b. (602) 345-8600
 - c. www.layne.com
- 4.<u>5.</u> Engineer Approved Equal

CLARIFICATIONS

- 1. A hard copy of the bid must be received in the BPUD office by the bid deadline. Please double check delivery schedules as overnight courier service may not be possible. The bidder does not need to be present at the opening.
- 2. The division of responsibilities between the Arsenic Removal System (ARS) Supplier and the General Contractor are outlined in Specification 13530 (see specifically section 1.1.C, 1.2.B, and Part 3). Generally, the ARS Supplier will be responsible for assembly of the treatment system and the General Contractor will be responsible for installation of the assembled system to connect to the building piping. The General Contractor's responsibility with respect to the pilot study is limited to allowing space for the pilot study to occur undisturbed.
- 3. The bidder may propose any configuration that will fit within the proposed building space as shown on the drawings. The size and number of vessels shown on the drawings is not a requirement.

- 4. The General Contractor will be required to insure the Arsenic Removal System when it is delivered to site until it is accepted by the Owner.
- 5. Further information regarding answers to submitted questions and specifically the pilot study requirements is forthcoming.
- 6. We will endeavor to answer all questions that are submitted, even after the date specified in the previous addendum.



END OF ADDENDUM No. 3

Prepared By: R.O. ANDERSON ENGINEERING, INC. 1603 Esmeralda Avenue Minden, NV 89423

SHEET C1

- 1. New Sheet A1.1 Well House added to Project Index.
- 2. Date changed to 5/12/2017 throughout drawing set.

SHEET C2

- 1. New General Note #24: All concrete exposed to freeze/thaw environments shall be 4,000 psi 28-day compressive strength, with 5% ±1% air entrainment, see concrete specification 03300.
- 2. New General Note #25: Traffic and street parking on Twin Lakes Road shall not be impacted by construction in the right-of-way during the week of the Fourth of July.

SHEET C4

1. Note pointing to existing well house now reads: "Remove Ex Well House, Ref Sheet C7 for Piping Modifications".

SHEET C5

 Correction to Landscape Notes #1, now reads: "Top Dress Landscape Area and Disturbed Slopes with 3'-8" Native Cobble". This was specifically changed to address the area to the north of the new treatment building.

SHEET C6

- 1. Addition to the 21" Storm Drain/Driveway Crossing Detail: Addition of Slurry Backfill below the Concrete Cap.
- 2. Addition to the 21" Storm Drain/Driveway Crossing Detail: Addition of reinforcing steel.
- 3. Addition of clean-out to the 10" PVC Storm Drain line.
- 4. Deletion of drainage swale around the Twin Lakes Well House in favor of Positive Surface Drainage as sheet flow @ S=1%.
- 5. Lowering of the Finished Grade surface on the northern side of the building affecting the foundation depth on that wall and on the north end of the west wall.

- 6. Correction to the Finished Floor Elevation of the New Water Treatment Building, now reads 6472.70.
- 7. Correction to the Edge of Pavement elevation at the north-east corner of the new treatment building, now reads 72.5.

SHEET C7

- 1. Addition of note pointing to the spacing in front of the new electrical panel that reads: "30" Minimum clear space is required in front of electrical panels".
- 2. Addition of illustration of the piping from the bag filters to the new vessels to match the Section D-D Detail.
- 3. Previous connection from the Twin Lakes Well existing underground raw water line to new treatment building will now connect inside the new Twin Lakes Well house to the rotated pump discharge.

SHEET PP1

1. Extend AC Pavement Patch areas to large square at Kingsley Street and full width of Twin Lakes Road in front of site.

SHEET A1

1. Addition of leader/text in front of electrical panel that reads "30" Minimum Clear Space is Required in Front of Electrical Panels."

SHEET A1.1

1. Entire new sheet requiring changes to the well discharge and a new building.

SHEETS E1 THROUGH E7

1. Significant revisions.





GENERAL NOTES

ALL WORK SHALL CONFORM TO THE STANDARDS FOR PUBLIC WORKS CONSTRUCTION BY MONO COUNTY. THE OWNER SHALL OBTAIN PERMITS FROM MONO COUNTY PUBLIC WORKS AND BUILDING DEPARTMENTS PRIOR TO THE START OF CONSTRUCTION.

- 2. ALL TRAFFIC CONTROL AND BARRICADING WITHIN THE PUBLIC RIGHTS-OF-WAY SHALL CONFORM TO PART VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION. NO STREET CLOSURES WILL BE ALLOWED WITHOUT PRIOR WRITTEN APPROVAL OF A TRAFFIC CONTROL PLAN BY THE MONO COUNTY DEPARTMENT OF PUBLIC WORKS.
- 3. THE CONTRACTOR SHALL CALL UNDERGROUND SERVICE ALERT "CALL BEFORE YOU DIG" (1-800-227-2600) FORTY-EIGHT (48) HOURS PRIOR TO START OF CONSTRUCTION.
- 4. THE CONTRACTOR SHALL CALL MONO COUNTY PUBLIC WORKS, (760) 932-5252, AND BUILDING DEPT., (760) 932-5231 AND BRIDGEPORT PUD FORTY-EIGHT (48) HOURS PRIOR TO START OF CONSTRUCTION. CONTRACTOR SHALL CALL TWENTY-FOUR (24) HOURS PRIOR TO REQUIRED THE CONTRACTOR SHALL PROTECT ALL EXISTING WORK DURING CONSTRUCTION & REPAIR ALL DAMAGE TO THE SITE AT NO COST TO THE OWNER. INSPECTIONS AND TESTING. ALL POST CARE & REQUIRED MAINTENANCE SHALL BEGIN IMMEDIATELY UPON THE COMPLETION OF THE WORK UNTIL THE FINAL PROJECT ACCEPTANCE IS
- 5. THE APPROVED PLANS, PERMITS AND INSPECTION RECORDS MUST BE ON THE JOB SITE AT ALL TIMES
- 6. MODIFICATIONS TO THE APPROVED PLANS REQUIRE REVIEW AND APPROVAL BY THE OWNER AND ENGINEER. WORK PERFORMED WITHOUT WRITTEN APPROVAL WILL REQUIRE REMOVAL AT THE CONTRACTORS EXPENSE.
- 7. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO POTHOLE EXISTING WATERLINES AND UTILITIES SURROUNDING THE AREA TO DETERMINE THE EXACT LOCATION AND DEPTH. POTHOLING SHALL OCCUR A MINIMUM OF 7 DAYS PRIOR TO THE COMMENCEMENT OF WORK IN ANY AREA.
- 8. ALL EXISTING VALVES AND SALVAGEABLE EQUIPMENT REMOVED DURING THE PROJECT SHALL BE RETURNED TO BRIDGEPORT PUD.
- 9. RESTRAINED FITTINGS: ALL FITTINGS ON HYDRANT ASSEMBLIES, BENDS, TEES, AND VALVES SHALL BE RESTRAINED. RESTRAINT SHALL BE PROVIDED BY ROMAC GRIPRING, EBAA IRON MEGAFLANGE, OR EQUAL
- 10. FLANGE COUPLING ADAPTERS SHALL BE ROMAC 501 COUPLING WITH RESTRAINT (RFCA), OR EBAA IRON MEGALUG, OR EQUAL. RESTRAINTS ON PVC PIPE SHALL BE SPECIFIED FOR USE ON PVC PIPE.
- 11. ALL DUCTILE IRON PIPE ON THIS PROJECT SHALL BE FULLY RESTRAINED, ALL BURIED DUCTILE IRON PIPE OR EPOXY COATED PIPE AND FITTINGS SHALL BE DOUBLE-WRAPPED IN PLASTIC PER AWWA
- 12. ALL WATER MAINS SHALL BE CLASS 150 OR 200 C900 PVC, AS SPECIFIED ON THE PLANS AND AS APPROVED BY BRIDGEPORT PUD. ALL WATER SERVICES 2" OR LESS SHALL BE CTS PE TUBING. SERVICES 4" OR GREATER SHALL BE CLASS 150, C900 PVC OR AS SPECIFIED ON THE PLANS.
- 13. ALL WATER MAINS SHALL BE DISINFECTED PER AWWA C651 & C653 AND BACTERIOLOGICAL ANALYSIS MEETING PRIMARY STANDARDS FOR COLIFORM BACTERIA OBTAINED AND REPORTED TO BRIDGEPORT
- 14. ALL WATER MAINS SHALL BE PRESSURE TESTED PER AWWA C605.
- 15. VARIATION OF ALL LOCATOR WIRE AT GATE VALVES, AIR RELEASE VALVES, AND LOCATE STATIONS SHALL BE PERFORMED BY THE INSPECTOR PRIOR TO PROJECT COMPLETION.
- 16. ALL NONPOTABLE INFLUENT PIPE SHALL HAVE A BLUE STRIPE MARKING ON THE PIPE WITH PURPLE MARKING TAPE PLACED AT TWO (2) LOCATIONS: SECURED TO THE TOP OF THE PIPE AND PLACED DURING BACKFILL I' ABOVE PIPE. WARNING TAPE SHALL INCLUDE THE FOLLOWING TEXT: "CAUTION BURIED NON-POTABLE RAW WATERLINE BELOW".
- 17. COAT ALL EXPOSED BOLTS, WASHERS, NUTS, TIE RODS, AND ALL OTHER METAL PARTS INSTALLED UNDERGROUND WITH TWO (2) COATS OF APPROVED MASTIC PRIOR TO WRAPPING WITH POLYETHYLENE PLASTIC.
- 18. ALL PIPE FITTINGS AND VALVES OF A WATER DISTRIBUTION SYSTEM AND ANY FIRE HYDRANTS CONNECTED TO A PUBLIC WATER SYSTEM MUST COMPLY WITH THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION 'GREEN BOOK' AND THE AWWA STANDARDS.
- 19. UNLESS OTHERWISE SPECIFIED, ALL SANITARY SEWER LINES SHALL BE PVC SDR 35.
- 20. EVERY EFFORT IS TO BE MADE TO KEEP WATER 18" ABOVE SEWER MAINS AND WATER 12" ABOVE SEWER LATERALS. OTHERWISE, THE FOLLOWING SPECIAL CONSTRUCTION METHODS APPLY: EFFORT SHALL BE MADE TO KEEP PIPELINE JOINTS EQUAL DISTANCE FROM THE POINT OF CROSSING
- PIPELINES MUST BE 6" APART. IF 6" IS NOT ATTAINABLE RELOCATE WATER MAIN PER PROJECT DETAILS.
- WATER LINE MUST BE INSPECTED TO INSURE SUFFICIENT RESTRAINTS ARE IN PLACE. SEWER MUST HAVE A SLEEVE OR BE ENCASED IN 4" OF CONCRETE SLURRY FOR 20' CENTERED ON D. POINT THE POINT OF CROSSING.
- 21. IF ARCHAEOLOGICAL FEATURES OR MATERIALS ARE UNEARTHED DURING ANY PHASE OF PROJECT ACTIVITIES, ALL WORK IN THE IMMEDIATE VICINITY OF THE FIND SHALL HALT UNTIL BPUD HAS CONTACTED THE STATE WATERBOARDS ENVIRONMENTAL REVIEW UNIT (ERU) AND THE SIGNIFICANCE OF THE RESOURCE HAS BEEN EVALUATED. ANY MITIGATION MEASURES THAT MAY BE DEEMED NECESSARY MUST HAVE THE APPROVAL OF THE ERU, AND SHALL BE IMPLEMENTED, PURSUANT TO THE SECRETARY OF THE INTERIOR'S STANDARDS AND GUIDELINES FOR ARCHAEOLOGY AND HISTORIC PRESERVATION, 48 CFR 44716, BY A "QUALIFIED" ARCHAEOLOGIST REPRESENTING BPUD PRIOR TO THE RESUMPTION OF CONSTRUCTION ACTIVITIES.
- 22. IF HUMAN REMAINS ARE EXPOSED BY ACTIVITY RELATED TO THE PROJECT, BPUD SHALL COMPLY WITH CALIFORNIA STATE HEALTH AND SAFETY CODE, SECTION 7050.5, WHICH STATES THAT NO FURTHER DISTURBANCE SHALL OCCUR UNTIL THE COUNTY CORONER HAS MADE THE NECESSARY FINDINGS AS TO ORIGIN AND DISPOSITION PURSUANT TO CALIFORNIA PUBLIC RESOURCES CODE. SECTION 5097.98. BPUD WILL PROVIDE THE OPPORTUNITY FOR (A) NATIVE AMERICAN MONITOR (S) TO PARTICIPATE IN THE IDENTIFICATION, EVALUATION, AND MITIGATION OF EFFECTS UPON ANY NATIVE AMERICAN HUMAN REMAINS OR CULTURAL RESOURCES INADVERTENTLY EXPOSED DURING THE PROPOSED UNDERTAKING. CONSULTATION WITH PERSONNEL DESIGNATED BY THE NATIVE AMERICAN HERITAGE COMMISSION WOULD BE ACCEPTABLE. SHOULD TRIBAL REPRESENTATIVES AGREE TO CONSULT ON ANY SUCH DISCOVERIES; COSTS INCURRED WILL BE THE RESPONSIBILITY OF BPUD.
- 23. ALL SANITARY SEWER LATERALS SHALL BE PRESSURE TESTED WITH AIR AT 5 PSI IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, "GREEN BOOK".
- 24. ALL CONCRETE EXPOSED TO FREEZE/THAW ENVIRONMENT SHALL BE 4,000 PSI 28 DAY COMPRESSIVE 5%, ±1.0% AIR ENTRAINMENT, SEE CONCRETE SPECIFICATIONS 03300. STRENGTH, WITH
- 25. TRAFFIC AND STREET PARKING ON TWIN LAKES ROAD SHALL NOT BE IMPACTED BY CONSTRUCTION IN THE RIGHT-OF-WAY DURING THE WEEK OF FOURTH OF JULY.

NO.	DATE	REVISION BLOCK	BY	
				R O Anderson
				3 3
-				1603 ESMERALDA AVENUE / POST OFFICE BOX 2: MINDEN, NEVADA 89423
				PHONE: (775) 782-2322 / FAX: (775) 782-708- WEB SITE: WWW.ROANDERSON.COM

GENERAL LANDSCAPE NOTES

- ALL LANDSCAPE WORK SHALL BE PERFORMED BY A CALIFORNIA LICENSED LANDSCAPE CONTRACTOR. VERIFY LOCATIONS OF PERTINENT SITE EXISTING OR PROPOSED IMPROVEMENTS. IF ANY PARTS OF THIS PLAN CAN NOT BE FOLLOWED DUE TO SITE CONDITIONS, CONTACT THE LANDSCAPE ARCHITECT FOR INSTRUCTIONS PRIOR TO COMMENCING WORK. REFER TO THE IMPROVEMENT PLANS FOR UTILITY LOCATIONS & FINAL GRADING. IF ACTUAL SITE CONDITIONS VARY FROM WHAT IS SHOWN ON THE
- PLANS, CONTACT THE LANDSCAPE ARCHITECT FOR DIRECTIONS ON HOW TO PROCEED. PRIOR TO COMMENCING CONSTRUCTION, CONTACT THE UNDERGROUND UTILITY LOCATION SERVICES OR UTILITY LOCATION & IDENTIFICATION
- -800-227-2600. VERIFY PLANT COUNTS. QUANTITIES ARE PROVIDED AS OWNER INFORMATION ONLY. IF QUALITIES ON PLANTING LIST DIFFER FROM GRAPHIC INDICATIONS
- THEN GRAPHICS SHALL PREVAIL. PERFORM EXCAVATION IN THE VICINITY OF UNDERGROUND UTILITIES WITH CARE & IF NECESSARY BY HAND. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR THIS WORK & DISRUPTION OR DAMAGE TO UTILITIES SHALL BE REPAIRED IMMEDIATELY AT NO EXPENSE TO THE OWNER.
- COMPLETE. ALL INSTALLATION MANUALS, OPERATION SHEETS, & AS-BUILT DRAWINGS SHALL BE SUBMITTED UPON FINAL INSPECTION. 10. ALL PLANT MATERIALS SHALL BE FIELD LOCATED TO AVOID ALL FINAL CIVIL IMPROVEMENTS, \$ TO AVOID STREET LIGHT ILLUMINATION INTERFERENCE.
- ALL TREES SHALL BE FIELD LOCATED WITH A MIN. 10' OFFSET FROM ALL UNDERGROUND & ABOVE GROUND UTILITY LINES. LANDSCAPE ARCHITECT TO REVIEW PLANT MATERIALS AT SOURCE OR BY PHOTOGRAPH PRIOR TO DIGGING OR SHIPPING OF PLANT MATERIALS THE CONTRACTOR SHALL PROVIDE ALL PLANT MATERIALS IN SUFFICIENT QUANTITIES & SIZES TO COMPLETE ALL SHOWN PLANTINGS. 12 13.
- ALL PLANT MATERIAL SHALL CONFORM TO CURRENT INDUSTRY STANDARDS ADOPTED BY THE AMERICAN STANDARDS FOR NURSERY STOCK AS WELL AS CRITERIA ADOPTED BY THE AMERICAN ASSOCIATION OF NURSERYMEN. ~ ALL PLANT MATERIALS SHALL BE HEALTHY, VIGOROUS, WELL ROOTED, & ESTABLISHED IN THE APPROPRIATE CONTAINER
- ~ All plant materials shall have an appropriately sized established root ball \$ be free of excessive root growth ~ ALL PLANT MATERIALS SHALL BE FREE OF LARGE WOUNDS (LARGER THAN 1"), INSECTS, DISEASE, WINDBURN, RODENT, WEED, OR MECHANICAL DAMAGE.
- ALL PLANT MATERIALS SHALL CONTAIN MATERIALS APPROPRIATE LEADERS, COLOR, BUDS, FOLIAGE, STRUCTURE, & TAPER.
 14. ALL PLANT MATERIALS SHALL BE FREE OF ANY PLASTIC OR METAL ROOT BALL CONTAINERS. ALL FABRIC STYLE POTS SHALL HAVE SIDES REMOVED BEFORE PLANTING. ALL CONTAINER GROWN PLANT MATERIAL SHALL BE INSPECTED FOR, & REJECTED IF, ROOT BOUND.
- ALIGN & EQUALLY SPACE IN ALL DIRECTIONS PLANT MATERIALS AS DESIGNATED PER THESE NOTES & DRAWINGS.
- ALL PLANT MATERIALS SHALL MAINTAIN THE SAME RELATION TO FINISHED GRADE WHEN PLANTED AS THEIR ORIGINAL GRADE. PRUNE NEWLY PLANTED PLANT MATERIALS ONLY UPON APPROVAL BY THE LANDSCAPE ARCHITECT.
- SOILS SHALL BE TESTED FOR CORRECT PH & FERTILITY, & SHALL BE ADJUSTED WITH LIME, SULFUR OR FERTILIZER TO CORRECT ANY IMBALANCES. APPLY PROPERLY LABELED PRE-EMERGENT HERBICIDE IN PLANTING AREA & WET ACCORDING TO THE MANUFACTURERS DIRECTIONS PRIOR TO APPLYING MULCH OR ROCK.
- 20. ALL PLANTER AREAS NOT TOP DRESSED WITH MULCH SHALL BE TOP DRESSED WITH 3"-8" NATIVE COBBLE 6" DEEP MIN. FINISH GRADE IN PLANTED AREAS (COBBLE LAYER) SHALL BE 1 1/2 INCHES BELOW ADJACENT PAVING OR HEADER.
- 22. ALL SETTLING BELOW GRADE SHALL BE FILLED WITH MOIST BACKFILL TO THE TOP OF THE SOIL BALL
- 23. CARE SHALL BE TAKEN TO REDUCE ANY SOIL COMPACTION TO PLANTED AREAS. IF SOIL COMPACTION OCCURS LOOSEN AS NECESSARY.

GENERAL IRRIGATION CONSTRUCTION INFORMATION:

- IRRIGATION DESIGN TO BE PROVIDED BY CONTRACTOR AND SHALL PROVIDE SUFFICIENT IRRIGATION WATER TO SUPPORT THE PROPOSED LANDSCAPE IMPROVEMENTS PERPETUALLY.
- ALL IRRIGATION COMPONENTS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S & LOCAL GOVERNMENT REQUIREMENTS ALL IRRIGATION COMPONENTS SHALL BE KEPT TO THE SIDE OF ALL PLANTING MATERIALS.
- ALL IRRIGATION COMPONENTS SHALL BE NEW & HAVE NO DEFECTS.
- COORDINATE ALL SLEEVE INSTALLATION WITH THE PAVING CONTRACTOR. ALL SOIL COMPACTION FOR BACKFILL SHALL MATCH ADJACENT SOIL COMPACTION DENSITY
- A COMPLETE SYSTEM FLUSHING, AT 1.5 TIMES THE STATIC PRESSURE FOR 2 CONTINUOUS HOURS, \$ INITIAL SYSTEM TESTING SHALL BE CONDUCTED BEFORE BACKFILLING. ALL LEAKS & SYSTEM MALFUNCTIONS SHALL BE REPAIRED & THE SYSTEM SHALL BE RETESTED UNTIL A SATISFACTORY RESULT IS PRODUCED.

BRIDGEPORT PUBLIC UTILITY DISTRICT ALDA AVENUE / POST OFFICE BOX 222

ARSENIC REMOVAL

SCHEDULE OF WORK

• THE CONTRACTOR SHALL SUBMIT A SCHEDULE OF WORK TO THE ENGINEER FOR APPROVAL IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. ALL WORK SHALL BE IN ACCORDANCE WITH THE APPROVED SCHEDULE.

SURVEY INFORMATION

BASIS OF BEARING

- N 00°27'49" E THE WEST LINE OF SECTION 33, T. 5 N., R. 25 E., M.D.M. SEE SITE PLAN FOR REFERENCE LINES.
- DATUM

• IDENTICAL TO THE AERIAL SURVEY PERFORMED BY TRI-STATE AERIAL SURVEYING, LTD. FOR BRIDGEPORT PUBLIC UTILITY DISTRICT, DATED SEPTEMBER 20, 2001. SEE GRADING PLAN FOR SITE BENCH MARKS.

DESIGN CRITERIA

- · GROUND SNOW LOAD IS 65 PSF PER MONO COUNTY BUILDING DEPARTMENT.
- FLAT ROOF SNOW LOAD IS 50 PSF PER MONO COUNTY BUILDING DEPARTMENT
- DESIGN WIND SPEED IS 90 MPH, EXPOSURE C
- SEISMIC DESIGN CATEGORY D

THE MONO COUNTY CODE.

- FROST DEPTH = 18" PER MONO COUNTY BUILDING DEPARTMENT
- CLIMATE ZONE: 16

MONO COUNTY GRADING and EARTHWORK SPECIFICATIONS

- 1. ALL WORK SHALL CONFORM TO POLICIES AND STANDARDS IN THE MONO COUNTY GENERAL PLAN AND
- 2. SITE-DISTURBING CONSTRUCTION ACTIVITIES MUST BE RESTRICTED TO THE BOUNDARIES OF THIS SITE. AREAS TO BE GRADED SHALL BE CLEARED OF BRUSH, VEGETATION, LARGE BOULDERS AND OTHER DELETERIOUS MATERIALS. CLEARED MATERIALS SHALL BE DISPOSED OF BY THE CONTRACTOR TO A DESIGNATED DUMP SITE OR OTHER LOCATION APPROVED BY THE MONO COUNTY DEPARTMENT OF PUBLIC WORKS.
- 3. TOPSOIL SHALL BE STOCKPILED WITHIN THE CONSTRUCTION PERIMETER AREAS, AS APPROVED BY THE OWNER, FOR USE ON SLOPES AND DISTURBED AREAS. ALL GRADING SHALL BE PERFORMED IN ACCORDANCE WITH MONO COUNTY ORDINANCES AND STANDARDS.
- 4. ANY EVIDENCE OF THE HISTORICAL PRESENCE OF MAN FOUND DURING CONSTRUCTION SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER, ENGINEER AND MONO COUNTY PLANNING DEPARTMENT AND CONSTRUCTION SHALL STOP UNTIL FURTHER NOTICE.
- 5. CONTRACTOR SHALL CONDUCT ALL GRADING OPERATIONS IN ACCORDANCE WITH THE MONO COUNTY ORDINANCES AND STANDARDS, AND IN CONFORMANCE WITH THE CONSTRUCTION SAFETY ORDERS OF THE STATE OF CALIFORNIA, DEPARTMENT OF INDUSTRIAL RELATIONS, DIVISION OF INDUSTRIAL SAFETY. IN ADDITION, CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF GENERAL OSHA STANDARDS FOR THE PROTECTION OF WORKMEN AND THE GENERAL PUBLIC. OSHA PERMITS ARE REQUIRED FOR ANY EXCAVATED TRENCHES OVER 4 FEET.
- 6. CONTRACTOR SHALL TAKE ALL SUCH MEASURES NECESSARY TO CONTROL DUST IN CONSTRUCTION AREAS OR ON ACCESS ROADS. SUFFICIENT WATER TRUCKS SHALL BE MADE AVAILABLE FOR DUST CONTROL PURPOSES. ALL EXPOSED SOIL SURFACES SHALL BE MOISTENED AS REQUIRED TO AVOID NUISANCE CONDITIONS AND INCONVENIENCES FOR LOCAL RESIDENTS AND TRAVELERS OF NEARBY ROADWAYS.
- 7. AGGREGATE BASE SHALL BE CLASS 2, 3/4" MAXIMUM GRADING, AND SHALL CONFORM TO THE PROVISIONS OF SECTION 26, "AGGREGATE BASES," OF 1992 CALTRANS STANDARD SPECIFICATIONS AND SHALL BE COMPACTED TO A MINIMUM OF 95% OF THE MATERIAL'S MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D-1557-92 (OR MOST RECENT EDITION).
- 8. SHOULD ANY COMPACTION TEST FAIL TO MEET THE MINIMUM REQUIRED DENSITY AS SPECIFIED ON THE PLANS OR IN THE GEOTECHNICAL REPORT, THE DEFICIENCY SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE SOILS ENGINEER. THE EXPENSE OF RETESTING SUCH AN AREA SHALL BE BORNE BY THE CONTRACTOR, AT NO COST TO THE OWNER.
- 9. THE LIMITS OF CONSTRUCTION SHALL BE CAREFULLY AND FULLY FLAGGED PRIOR TO THE START OF CONSTRUCTION, AND POSTED SO AS TO PREVENT DAMAGE TO VEGETATION AND DISTURBANCE TO SOILS OUTSIDE OF THE AREA OF CONSTRUCTION.
- 10. CONSTRUCTION AND DELIVERY OF MATERIALS SHALL BE LIMITED TO 7:00 AM TO 8:00 PM, MONDAY THROUGH FRIDAY (NO OPERATIONS ON SATURDAY, SUNDAY OR CALIFORNIA LEGAL HOLIDAYS). NOISE LEVELS OF CONSTRUCTION EQUIPMENT WILL BE KEPT TO A MINIMUM, USING SOUND MUFFLING DEVICES IN ACCORDANCE WITH PREVAILING REQUIREMENTS. SITE PREPARATION AND CONSTRUCTION SHALL BE CONDUCTED SO AS TO MINIMIZE EXCESSIVE NOISE, DUST, DEBRIS AND DISTURBANCE TO NEIGHBORS WITHIN 500'.
- 11. RESTRICTIONS ON THE MOVEMENTS OF HEAVY EQUIPMENT SHALL BE ACCOMPLISHED THROUGH THE ESTABLISHMENT OF DESIGNATED TRAVEL ROUTES, AND BARRIERS WHICH PREVENT CUTTING, SCARRING AND ROOT DAMAGE TO TREES AND SHRUBS NOT BEING REMOVED. IF DAMAGE IS DONE, REVEGETATION SHALL OCCUR AS SOON AS FEASIBLE.
- 12. ALL EXPOSED SOIL SURFACES SHALL BE STABILIZED WITH ADEQUATE EROSION CONTROL SYSTEMS PRIOR to the onset of winter weather.
- 13. NO MATERIALS, DEBRIS OR OTHER ARTICLES SHALL BE STORED OR PLACED WITHIN ANY ROADWAY AREA PRIOR TO CONSTRUCTION.
- 14. CUT AND FILL SLOPES SHALL NOT EXCEED A STEEPNESS OF 2:1, UNLESS OTHERWISE NOTED. TO CONTROL EROSION, SLOPES SHALL BE REVEGETATED WITH A NATIVE SEED MIX OR LANDSCAPED WITHIN TWO WEEKS OF ESTABLISHING FINISHED GRADE, BY INDIVIDUAL SECTION. STOCKPILED TOPSOIL SHALL BE SPREAD EVENLY OVER SLOPES AND DISTURBED AREAS, THEN SEED SHALL BE BROADCASTED OR HYDROSEEDED WITH THE FOLLOWING SEED MIXTURE:
 - ANTELOPE BITTER BRUSH (PUSHIA TRIDENTATA) @ 10 16/Ac
 - LUPIN (LUPINUS ARGENTEUS) @ 5 16/Ac CRESTED WHEAT GRASS (AGROPYRON DESERTORIUM) @ 20 1b/Ac
 - BIG SAGEBRUSH (ARTEMISIA TRIDENTATA) @ 5 16/Ac
 - RABBIT BRUSH (CHRYSANTHAMNUS NAUSEOSUS) @ 10 16/Ac NEEDLEGRASS (ACHNATHERUN) @ 20 1b/Ac
- 15. THESE AREAS SHALL THEN BE IMMEDIATELY STABILIZED WITH .76 Ib/sayd STRAW AND FIBER, CRIMPED OR TRACKED IN PLACE. ANY DISTURBANCE OF AREAS NOT INTENDED FOR CONSTRUCTION WILL BE IMMEDIATELY REPAIRED.



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		5	STORM DRAIN CATCH BASIN					
	nini r	iumi C	STORM DRAIN CULVERT INVERT					
	•	Ô	STORM DRAIN DROP INLET					
	9	9	STORM DRAIN MANHOLE			· · · · · · · · · · · · · · · · · · ·		
	ST	ST	STREET SIGN					
	\$	*	STREET LIGHT					
	æ	+	SURVEY CONTROL POINT					
	-0	- D	TELEPHONE GUY POLE					
	T	T T	TELEPHONE HAND HOLE					
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	f	f	TELEPHONE RISER					
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ABBREVIATIONS

ASHTO AMERICAN ASSOCIATION OF STATE	NNORTH
OFFICIALS	NEC NATIONAL ELECTRIC CODE
BAGGREGATE BASE	NFIP NATIONAL FLOOD INSURANCE PROGRAM NSF NATIONAL SANITATION FOUNDATION
DA AMERICANS WITH DISABILITIES ACT OF	No
DT AVERAGE DAILY TRAFFIC	ADMINISTRATION
AMERICAN NATIONAL STANDARDS	NRCS NATIONAL RESOURCE CONSERVATION
INSTITUTE	NTS NOT TO SCALE
PN ASSESSOR'S PARCEL NUMBER	NW NORTHWEST NWS NATIONAL WEATHER SERVICE
WA AMERICAN PUBLIC WORKS ASSOCIATION	
CE AMERICAN SOCIETY OF CIVIL ENGINEERS	OCON CENTER
STM AMERICAN SOCIETY OF TESTING AND	OSHA OCCUPATIONAL SAFETY AND HEALTH ACT
	OF 1970 OVERHEAD
NS AMERICAN WELDING SOCIETY	
	± Plus or minus Device
BEGIN CURVE	PC POINT OF CURVATURE
E BASE FLOOD ELEVATION	PDL PADDLE PE PROFESSIONAL ENGINEER LICENSED BY
	THE STATE OF CALIFORNIA
IBACK OF WALK IBARBED WIRE	PEDX PEDESTRIAN CROSSING
	PK PARKING FRCENT
P CORRUGATED ALUMINUM PIPE	P/L PROPERTY LINE
GCURB AND GUTTER	PMF PROBABLE MAXIMUM FLOOD PNT POINT
CARSON CITY	PNT PAINT MARK
CUBIC FOOT	PSI POUNDS PER SQUARE INCH
CHAIN LINK CURB INLET (THROUGH)	PT POINT OF TANGENCY P.U.D PUBLIC UTILITY DISTRICT
COPPLICATED METAL DIDE	PUE PUBLIC UTILITY EASEMENT
CLEAN OUT	rvc Poltvintl Chloride
MP COMPACTION N CONIFEROUS	RRADIUS
N CROWN OF ROAD	K ROCK R RISER
PA CORRUGATED STEEL PIPE ARCH	RBRIVER BED
L CULVERT INVERT	RCP REINFORCED CONCRETE PIPE
	Row Right of way
Degrees	SSIGN
DIRT	SSLOPE SSOUTH
DECIDIOUS DECOMPOSED GRANITE	SDSTORM DRAIN
Δ(Φ) DIAMETER	SDR STANDARD DIMENSION RATIO
	SE SOUTHEAST SET SET MONUMENT. CORNER OR CONTROL
EAST	POINT CONTENT
EACH	SPR STRUCTURAL PLATE PIPE
EDGE	SPPA STRUCTURAL PLATE PIPE ARCH
L ENERGY GRADE LINE	SS SANITARY SEWER
EV ELEVATION	Sonth Sanitart Sewer Manhole St Street
A EDGE OF PAVEMENT	STA STATION
C END VERTICAL CURVE	STD STANDARD
EXISTING	SWSOUTHWEST S/WSIDEWALK
FAHRENHEIT	
FIRE CONNECTION	T TELEPHONE TBC TOP BACK OF CURB
MA FEDERAL EMERGENCY MANAGEMENT AGENCY	TC TOP OF CURB
FINISHED FLOOR	TOE TOE OF SLOPE
	TOP TOP OF SLOPE
ELOWLINE	TRF TRAFFIC CONTROL
D FOUND MONUMENT, CORNER OR	TYP TELEVISION TYP
CONTROL POINT	
(') FOOT (FEET)	UUTILITY UBC UNIFORM BUILDING CODE
GAS	UGUNDERGROUND
GATE	UPC UNIFORM PLUMBING CODE
GRADE BREAK	USACE UNITED STATES ARMY CORPS OF ENGINEERS
D GENERAL IMPROVEMENT DISTRICT	USBR UNITED STATES BUREAU OF RECLAMATION
M GALLONS PER MINUTE	USGS UNITED STATES GEOLOGICAL SURVEY
GROUND SHOT	
CHANDICAP	VC VERTICAL CURVE
PEHIGH DENSITY POLYETHYLENE	VG VALLEY GUTTER VERT VERTICAL
C HTDRAULIC DESIGN SERIES C	VPC VERTICAL POINT OF CURVATURE
RCP HORIZONTAL ELLIPTICAL REINFORCED	YF H VERTICAL FUINT OF TANGENCT
L HYDRAULIC GRADE LINE	
RIZ HORIZONTAL	WEF WATER ENVIRONMENT FEDERATION
HOG WIRE	
INNER DIAMETER	WV WATER GATE VALVE
	YRYEAR
INCORPORATED	
X INTERSECTION	
INSTITUTE OF TRANSPORTATION	
ENGINEERS	
TLATERAL	
JLEVEL OF SERVICE LUMP SUM	
LIGHT	
METED	
D MILLION GALLONS PER DAY	
N MINIMUM	
K MIXED	
H MILES PER HOUR	
DEVICES	
UNIT	
- WENE E	

ARSENIC REMOVAL

BRIDGEPORT PUBLIC UTILITY DISTRICT

R O Anderson

ESMERALDA AVENUE / POST OFFICE BOX 2229 MINDEN, NEVADA 89423 HONE: (775) 782-2322 / FAX: (775) 782-7084 WEB SITE: WWW.ROANDERSON.COM

EXISTING	NEW	
		ADJACENT PROPERTY LINE
		ON-SITE PROPERTY LINE
	<u> </u>	BUILDING ENVELOPE
		CENTERLINE OF RIGHT-OF-WAY
100		CONTOUR - FIVE FOOT INTERVAL
99		CONTOUR - ONE FOOT INTERVAL
		EASEMENT OR ON-SITE R.O.W.
		EDGE OF PAVEMENT AND/OR CURB
		FLOW LINE
EX_4"_G	4 ⁴ G	GAS LINE
		STREET R.O.W.
	OHP	OVERHEAD POWER
— — UGP —	UGP	UNDERGROUND POWER
EX 8" 55	8" 55	SANITARY SEWER MAIN
EX 12" SD		STORM DRAIN
EX_12"W_]	12 [#] W	WATER MAIN
		BARBED WIRE FENCE
	XXX	OTHER FENCE





DRAWN:	JOB:
MCR/WAN	0883-029
ENGINEER:	DRAWING:
SJRM	SEE PLOT STAMP
SCALE:	SHEET:
AS NOTED	C3
DATE:	
5/12/17	OF: 31 SHEETS



DEMOLITION NOTES: I. REMOVE AND DISPOSE OF 4' HOGWIRE FENCE, 262 LF± TOTAL. 2. APPROXIMATE LOCATION OF GAS LINE, CONTRACTOR SHALL VERIFY. PROPANE TANK: REMOVE AND RESET. REMOVE EX BOLLARDS AND STORE FOR RE-USE. 3. EX BUILDING, GENERATOR AND WELL HOUSE SHALL BE PROTECTED FROM DAMAGE. 4. REMOVE AND DISPOSE OF EX PIPING AS SHOWN. 5. FOR ELECTRIC SERVICE SEE PLANS BY SOUTHERN CALIFORNIA EDISON, FOR POLE REMOVAL COORDINATE WITH SOUTHERN CALIFORNIA EDISON. 6. SEE SPECIFICATIONS FOR SCHEDULING TIMES THAT THE TWIN LAKES WELL IS WITHOUT POWER. 7. PROPERTY BOUNDARY LINE BEARINGS AND DISTANCES ARE PER RECORD OF SURVEY No. 32-84, PREPARED FOR BRIDGEPORT PUBLIC UTILITY DISTRICT, FILED IN MONO COUNTY IN BOOK 4 ON PAGE 99, APRIL 29, 2011. DRAWN: MCR/WAN JOB: SUSAN J.R. MCREAVY DEMOLITION PLAN 0883-029 ENGINEER: DRAWING: No.C69438 SJRM SEE PLOT STAMP SCALE: SHEET: 1" = 10' **C4** DATE: 5/12/17 OF: 31 SHEETS





GENERAL NOTES:

- I. ADD 6400 TO ALL SPOT ELEVATIONS.
- 2. CLEAR AND GRUB ANY VEGETATION WITHIN THE STRUCTURAL AREAS OF THE BUILDING AND PAVEMENT.
- 3. A.C. PAVEMENT IN DRIVEWAY AND PARKING AREAS (APPROX. 3,437 S.F.) SHALL CONSIST OF 4" A.C. ON 6" TYPE 2, CL. B, AGGREGATE BASE COMPACTED TO 90% MDD ON NATIVE MATERIALS, STRIPPED, GRUBBED, GRADED AND COMPACTED TO 90% MDD. CORRECT ANY SOFT OR LOOSE AREAS IN ACCORDANCE WITH THE GEOTECHNICAL REPORT.
- 4. REFER TO STRUCTURAL PLANS FOR CONCRETE SLAB AND FOOTINGS. THE AREA OF FOOTINGS SHALL BE OVER-EXCAVATED 18" BELOW FOOTING GRADE. THE BOTTOM AND SIDES OF THE FOOTING OVER-EXCAVATIONS COVERED WITH A NON-WOVEN GEOTEXTILE SIMILAR TO MIRAFI 140N THEN BACKFILLED WITH CAL-TRANS CLASS I OR II DRAIN ROCK. THE DRAIN ROCK SHALL BE DENSIFIED (WACKED) UNTIL NO FURTHER DEFLECTION IS OBSERVED. THE AREA OF THE CONCRETE SLAB SHALL BE STRIPPED, GRUBBED AND GRADED. ANY SOFT OR LOOSE AREAS CORRECTED IN ACCORDANCE WITH THE GEOTECHNICAL REPORT AND COMPACTED TO 90% MDD. THEN 6" OF CAL-TRANS CLASS 2, 3/4-INCH AGGREGATE BASE PLACED AND COMPACTED TO 95% MDD FOLLOWED BY SAND AND VAPOR BARRIER PER THE ARCHITECTURAL PLANS.

		Tororess Drug		
		SUSAN J.R.	DRAWN: MCR/WAN	JOB: 0883-029
GRADING	FLAN	No.C69438	ENGINEER: SJRM	DRAWING: SEE PLOT STAMP
		* Civil Still	SCALE: 1" = 10'	SHEET: C6
		OF CALIFON	DATE: 5/12/17	OF: 31 SHEETS



LEGEND:

---- 3" AND/OR 6" D.I. PIPING ---- PIPING UNDERGROUND SIZE & TYPE UNKNOWN ----- 1/2" GALVANIZED PIPING ---- 1/4" SOFT COPPER PIPING

EXISTING BUILDING PIPING MODIFICATIONS

THE OF CALIT

PROFESS

DRAWN:	JOB:		
MCR/WAN	0883-029		
ENGINEER:	DRAWING:		
SJRM	SEE PLOT STAMP		
SCALE:	SHEET:		
N.T.S.	C8		
DATE:	00		
5/12/17	OF: 31 SHEETS		

LEGEND

	EXISTING PAVEMENT
0	FILTER FENCE
	FIBER ROLL/STRAW WATTLE
СММ	HANDLING AND DISPOSAL OF CONCRETE AND CEMENT
M S	MATERIAL DELIVERY, HANDLING AND STORAGE

(S M

55

E

7-10-7-1

53A

STOCKPILE MANAGEMENT

SANITARY / SEPTIC WASTE MANAGEMENT

SPILL PREVENTION AND CONTROL

CONSTRUCTION SITE ENTRANCE AND EXIT

TRAILER CONTRACTOR TEMPORARY OFFICE TRAILER

NOTES

- 1. DDP #I = DEWATERING DISCHARGE POINT INFILTRATION BASIN
- 2. DDP#2 = STRAW BALE BARRIER
- 3. CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE LAHONTAN REGIONAL WATER QUALITY CONTROL BOARD (LRWQCB) DEWATERING DISCHARGE PERMIT.
- 4. TEMPORARY CONSTRUCTION ACCESS WITH SEDIMENT BASIN IF NECESSARY, TO BE REMOVED PRIOR TO PLACING BASE FOR PAVING.
- 5. INSTALL FIBER ROLL / STRAW WATTLE. MAINTAIN THROUGHOUT COURSE OF CONSTRUCTION. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
- 6. PROTECT EXISTING INFRASTRUCTURE IN PLACE.
- 7. THE CONTRACTOR SHALL MAINTAIN A CLEAN PROJECT SITE, REMOVING CONSTRUCTION DEBRIS AT THE END OF EACH ACTIVITY DAY. TRASH SHALL BE DISPOSED IN A COVERED ON-SITE DUMPSTER OR DEBRIS BOX OR HAULED TO A LICENSED DISPOSAL FACILITY. NO CONSTRUCTION WASTE MATERIALS SHALL BE BURIED ON SITE.
- 8. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED IN GOOD WORKING ORDER. IF A REPAIR IS NECESSARY IT SHALL BE INITIATED WITHIN 24 HOURS OF REPORT.
- 9. BUILT-UP SEDIMENT SHALL BE REMOVED AS NECESSARY TO MAINTAIN PROPER FUNCTIONING OF THE BMP'S.
- 10. REPORT RELEASES OF REPORTABLE QUANTITIES OF OIL OR HAZARDOUS MATERIALS (IF THEY OCCUR) TO LRWQCB AND THE OWNER WITHIN 24 HOURS.

TYPICAL FIBER ROLL INSTALLATION

TYPICAL FIBER ROLL INSTALLATION

FIBER ROLLS DETAIL

NOT TO SCALE

BRIDGEPORT PUBLIC UTILITY DISTRICT

ARSENIC REMOVAL

NT PATCH DETAIL	1-1/2" - 2" METER SET
N.T.S.	N.T.S.
DETAILS	SUSAN J.R. MCREAVY No.C69438 MCREAVY No.C69438 MCREAVY SJRM SEE PLOT STAMP
	Civil Civil Civil DATE: DATE: 5/12/17 OF: 31 SHEETS

NOTE:

1. ROMAC "CB" SEWER SADDLES OR EQUAL MAY BE USED ON SEWER MAINS OTHER THAN PVC.

2. SEWER SERVICE SADDLE SHALL BE ENCASED IN CONCRETE.

FRONT VIEW

SIDE VIEW

SEWER SERVICE SADDLE NO SCALE

D2

1603 ESME

1603 ESMERALDA AVENUE / POST OFFICE BOX 2229 MINDEN, NEVADA 89423 PHONE: (775) 782-2322 / FAX: (775) 782-7084 WEB SITE: WWW.ROANDERSON.COM

R O Anderson

ARSENIC REMOVAL BRIDGEPORT PUBLIC UTILITY DISTRICT

GENERAL CONSTRUCTION NOTES:

I. GENERAL

a) All work shall conform to the 2016 CBC and applicable local codes.

b) Where applicable, allowable stresses have been increased 15% for snow, 33% seismic and 33% for wind and seisimic connections (timber)

c) All codes and standards shall be the most current edition as of the date of the calculations.

d) The Engineer is responsible for the structural items in the plans only. Should any changes be made from the design as detailed in these calculations without written approval from the Engineer then the Engineer assumes no responsibility for the entire structure or any portion thereof. Should the results of the calculations not be fully or properly transferred to the plans, the Engineer assumes no responsibility for the structure.

e) These calculations are based upon a completed structure. Should an unfinished structure be subjected to loads, the Engineer should be consulted for an interim design or if not, will assume no responsibility. f) The details shown on the drawings are typical. Similar details apply to similar conditions.

2. <u>BITE WORK</u>

a) Assumed soil bearing pressure shall be determined in accordance with IBC Table 18042.

b) Building sites are assumed to be drained and free of clay or expansive soil. These calculations assume stable, undisturbed soils and level or stepped footings. Any other conditions should be reported to this Engineer.

c) Foundations shall bear on non-expansive native soil or compacted structural fill. Any loose soil in the bottom of the footing excavations shall be compacted to at least 90% relative compaction or removed to expose firm, unyielding material. d) All footings shall bear on undisturbed soil with a footing depth below frostline, (18" or 24" as per local requirements).

e) All finished grade shall slope a minimum of 2% away from foundation for a minimum of 10 ft. f) This Engineer has not made a geotechnical review of the building site and is not responsible for general site stability

or soil suitability for the proposed project. q) Foundation design is based on minimum footing dimensions and bearing capacities set forth in Table 18042 of Chapter

18 in the IBC. Assume Class 4 soil with allowable soil bearing pressure of 2000 psf, uno, with a constant expansion index less than 20. Footings shall extend 18' or 24' (minimum) below finish grade at exterior walls for frost protection. Footings shall bottom 12" (minimum) below natural undisturbed grade.

3. FILL & BACKFILL

a) Fill material shall be free from debris, vegetation, and other foreign substances.

b) Backfill trenches shall be compacted to 90% density per ASTM DI557 to within 12' of finished grade. The top 12' shall be landscape fill.

c) Backfill at pipe trenches shall be compacted on both sides of pipe in 6' lifts.

d) Waterproof exterior faces of all foundation walls adjacent to usable spaces.

e) Backfill at foundation walls shall be compacted to 30% relative density, uno.

f) Use 4' diameter PVC, uno, perforated pipe sub-drain behind all retaining walls. Slope pipe to drain to daylight and drywell.

4. CONCRETE / MASONRY

a) Concrete shall have a minimum 28 day compressive strength of 2500 psi, 3000 psi at I.C.F. walls.

b) Concrete shall be air entrained to not less than 5% and not more than 1%. c) All slabs on grade shall have a minimum thickness of 4' and be reinforced with 6x6x10000 mesh at centerline as per ASTM A185, or with fibermesh as per manufacturers specifications, uno.

d) All slabs on grade shall be placed over 4' minimum of free draining aggregate base compacted to a minimum of 95% relative compaction. Provide 2' sand above and below a 6 mil. (min.) vapor barrier at all living areas and areas

requiring moisture protection. e) All slab on grade subgrade (upper six inches) shall be scarified, moisture conditioned to within 2% of optimum, and

uniformly compacted to at least 90% of maximum dry density as determined by ASTM DI557. This will not be required if slabs are to be placed directly on undisturbed compacted structural fill.

f) Waterproofing of foundations and retaining walls is the responsibility of the owner.

g) Reinforcement shall be grade 60 as per ASTM A615 uno. Lap reinforcing bar splices 40 bar diameters, uno. h) Concrete stem walls and footings are to be a monolithic pour, uno. Provide vertical 4 horizontal 44's # 18' oc. developed

into footing for stemwalls over 28' in height, uno. Stemwalls 36' or greater in height shall be designed as retaining walls. i) All masonry units shall conform to ASTM C90 grade N.

j) All masonry cells are to be solid grouted with mortar conforming to ASTM C279 Type 8, with a 28 day compressive strength of 2000 psi min.

k) Reinforcement cover in cast-in-place concrete shall be as follows:

3' - Concrete cast against and permanently exposed to earth.

 $1\frac{1}{2}$ - Concrete exposed to earth or weather with 5 bars or smaller.

 $|i_2|$ - Concrete not exposed to weather or in contact with ground, "Il bars and smaller. 1¹/₂" - Beams, columns, and pilaster, cover over ties.

 $1\frac{1}{2}$ - Clear to top for reinforcement in slabs on grade.

1) Provide slab control joints (saw cut or plastic inserts) at 20'-0" maximum spacing each way for 4" slab. Joint depth to be $\frac{1}{4}$ of slab depth. m) Vertical steel placement in masonry stem walls to be *4 bars at 32° o.c. maximum spacing, uno.

n) Horizontal steel placement in masonry stem walls to be *4 bars at 24" o.c. maximum spacing, uno.

o) Reinforced concrete shall conform to applicable requirements of CBC and ACI Standards.

p) Aggregate shall conform to ASTM C33 for stone aggregate.

q) Use normal weight concrete (145 pcf) for all concrete, uno. Use Type II cement, uno. Use Type V cement if soil contains sulfate concentrations of 0.2% or more.

r) Weather protection:

1) In hot weather, follow 'Recommended Practice for Hot Weather Concreting', ACI 305.

2) In cold weather, follow 'Recommended Practice for Cold Weather Concreting', ACI 306.

s) All reinforcing steel and anchor bolts shall be accurately located and adequately secured in position before and during placement of concrete.

t) All details of fabrication and installation of reinforcing steel shall be in accordance with the ACI Manual of Standard Practice.

5. FRAMING / LUMBER

a) Roof plywood thickness is per APA load tables based upon roof live load and framing spacing. Apply face grain perpendicular to framing, stagger panels and nail with 8d Per IBC Table 23063.1, uno.

b) Floor plywood shall be APA rated plywood and glued and nailed with 8d or 10d # 6" o.c. edge, 10" o.c. field, uno. c) Plywood shall conform to APA, PS 1. Shear plywood shall be 'Exposure I' C-D or C-C. Alternate sheathing may be substituted for floors, roofs, and shear walls provided they are structurally equivalent to plywood. Plywood permanently exposed to weather and/or moisture shall be rated 'Exterior'.

d) Wood structural panel diaphragms and shear walls shall be constructed with wood structural panel sheets not less than 4 feet by 8 feet, except at boundaries and changes in framing where minimum sheet dimensions shall be 2 feet by 4 feet. Framing members or blocking shall be provided at the edges of all sheets in shear walls.

e) Headers that are not specifically addressed in the calculations shall be typical header specified on the plans. (OK by observation). Use (2) trimmers on all openings 5'-0" and larger, uno.

f) Floor joists shall be Douglas Fir *2 min. Size and space in accordance with IBC Table 2308.8.

Engineer recommends using E less than 12. Manufactured "I" joists (such as Truss Joists) may be substituted for saun lumber, size and spacing as per manufacturer's recommendations. Use manufactured rim joist (such as Timber Strand) with all "!" joists. g) All foundation sill plates, nailers, and ledgers in direct contact with concrete and within 8' of ground shall be pressure treated Douglas Fir or Hem Fir.

h) Studs shall be stud grade or better. In no instance shall a stud wall be used to retain soil or resist lateral pressure due to snow loading. In the case of snow build up against a stud wall the owner shall be responsible to eliminate snow to stud wall contact.

NO. DATE

p)	All	non-k	pearir

GENERAL CONSTRUCTION NOTES (CONT.):

1) All framing lumber shall be Douglas Fir Larch with moisture content less than 19%, uno.

i) Glu-lams shall be 24F-V4 uno. Glu-lams exposed to weather must be rated for exterior use by the manufacturer or approved protection from exposure to be provided. k) Micro-lams (laminated veneer lumber) and parallams (parallel strand lumber) specified shall have the following minimum design

strengths: 134' wide : Fb=2600 psi, Fv=220 psi, E=1,800,000 psi and 2-11/16' wide 4 up: Fb=2900 psi, Fv=290 psi, E=2,000,000 psi. 1) Splice all beams over supports or saucut top 1/3 at support (not @ cantilevers), uno.

m) Where multiple trimmers or studs are specified, those trimmers are to be stacked in all wall framing and solid vertical grain blocking shall be provided @ all floor levels down to the foundation, uno.

n) Where posts with column caps, straps, or bearing plates are called out for, the load is to be transferred to the foundation with posts as specified and solid vertical grain blocking shall be provided @ all floor levels down to the foundation, uno. o) All built up, laminated double or multiple 2X joists and beams shall be nailed together with (3) rows of 16d nails at 12' oc.

staggered, uno. Three piece members shall be nailed from each side. p) All 4x and 6x posts, columns, and headers shall be DF. # or better, uno. All other 4x and 6x framing members shall be

q) All framing members specified in these calculations are minimums, and larger members may be substituted.

r) All floor openings shall be between joists, uno. s) DO NOT drill holes, notch, or cut into beams, studs, and joists, unless detailed on the plans.

t) Provide double joists below all parallel partition walls.

u) When using 'green' lumber, care shall be taken to allow for the effects of shrinkage. If necessary to avoid sagging, joists, rafters, and beams shall be braced at midspan until lumber has dried out and reached a stable moisture content.

6. HARDWARE / STRUCTURAL STEEL

DF. 2 or better, uno.

T. TRUSSES

a) All hardware specified shall be Simpson Strong-Tie Co. (or equal) installed per manufacturer's specifications, uno. b) Structural steel shall conform to ASTM A36, uno. Pipe columns shall conform to ASTM A53, Type E or S, uno. Tube sections shall conform to ASTM 500, Grade B, uno.

c) All welding shall conform to the American Welding Society specifications. All welding shall be done by welders certified by the local building authority. All shop welding shall be in an approved fabricators shop authorized by the local building authority or special inspection per the IBC shall be provided. All field welding shall require special inspection per IBC Section 1701.

d) All welding electrodes shall be ETOXX or shielded wires with Fy greater than Toksi.

e) All nails specified are common nails. No substitutions unless specified on plans or in these calculations or approved in writing by Engineer. For all hardware specified, use nails or bolts per manufacturer's recommendations.

f) The minimum nailing for all framing shall conform to IBC Table 23-11-B-1. g) All bolts specified must meet ASTM A307. Bolt holes shall be 1/32 to 1/16 larger than the specified bolt. Washers shall be used at each bolt head and nut next to wood. All washers to be not less than standard cut washers.

h) Provide 3' x 3' x 1/4' plate washers on all foundation anchor bolts in Seismic Design Categories D, E, & F.

a) All prefabricated trusses shall be fabricated by a code approved manufacturer. The manufacturer shall be responsible for the design and certification of the trusses.

b) It is the responsibility of the manufacturer to conform the truss design according to the loading conditions as called for in these calculations, such as (1) live and dead loads: (2) truss spacing: (3) spans and eave overhangs: (4) roof pitch: (5) bearing points: and (6) drag loads.

c) Truss manufacturer shall supply to the Engineer calculations and shop drawings for approval prior to fabrication. d) All calculations and shop drawings shall be signed by a registered engineer in the state in which the structure is being

e) Trusses shall be designed in accordance with the latest local approved codes and ordinances for all loads imposed, including lateral loads and mechanical equipment loads. Truss fabricator shall review all architectural drawings and meet

architectural profiles as indicated. f) Shop drawings shall also include the following information:

1) Project name and location.

2) All design loads as set forth in these calculations.

3) Member stresses, deflections, type of joint plates, and allowable design values. Truss joints shall be designed per requirements of Truss Plate Institute (TPI).

4) Type, size, and location of hangers to be used for the project. Hangers shall be designed to support the full vertical load and a lateral load equal to 20% of the vertical reaction. All connectors shall be code approved and of adequate strength to resist stresses due to the loading involved.

g) The truss manufacturer shall be responsible for all truss to truss connections, all truss to girder connections, and if the girder truss is made up of more than one truss, all connections between these trusses.

h) The truss manufacturer shall insure that the truss package meets the profile as required by the contract documents. 1) Total load deflection shall be limited to the lesser of L/240 or I' max. Live load deflection shall be limited to L/360. j) Trusses are to be handled, installed, and braced in accordance with HIB-91 of the TPI. Cross bridging and/or

bracing shall be provided for and detailed by truss manufacturer as required to adequately brace all trusses. k) Where truss blocking is called out, the blocking piece shall be the same depth as the adjoining members and capable

of resisting a lateral load equal to 500 pounds in its plane, or be sheathed with $\frac{1}{2}$ CDX plywood and nailed with 10d common nails at 6' o.c. edge nailing. 1) The truss manufacturer shall be responsible for the design of all trusses used as drag or chord members and shall

insure that such trusses are placed as required on the framing plans. The amount of load to be laterally transmitted by the member shall be a minimum of 2000 pounds unless otherwise shown on the framing plans.

m) The truss manufacturer shall provide a means of attic access when spacing is 16' oc or less. n) Gable end trusses shall be structural, designed to support overhang and to allow a top chord notch of 1 1/2".

o) Girder trusses are to be supported by multiple trimmers.

ing walls are to have a 1/2" gap to the bottom chord of trusses. q) When snow loads exceed 50 psf the trusses shall be stacked over wall stude at bearing points.

Shear wall schedule

<u>SYMBOL</u>	SHEAR PLY	EDGE NAIL SPACING **	igd Nail Spacing	3x P.T. MUDSILL AND FRAMING MEMBERS @ ALL" <u>ABUTTING PANEL EDGES</u>
Â	³ ⁄8"	8d @ 6'	6° 0.c.	NO
<u>A</u>	3/8"	8d @ 4"	4' <i>o.c.</i>	NO
3	3%°	8d @ 3"	3' <i>o.c.</i> STAGG	YES
2	3/8"	8d @ 2'	2' <i>o.c.</i> STAGG	YES
412*	(2) ³ /3"	8d @ 4" B/S	PER PLANS	NO
3/2*	(2) 3/8"	8d @ 3" B/S	PER PLANS	YES
212*	(2) 3/8"	8d @ 2" B/S	PER PLANS	YES
\mathbf{A}	1/2 *	8d @ 2"	PER PLANS	YES
<u>A</u>	1/2 "	10d @ 2"	PER PLANS	YES
	5/8	10d @ 2"	PER PLANS	YES
S	58' GYP. BD.	6d @ 4"	8' o.c.	NO
LOUISIANA F	ACIFIC SMART PA	NEL SIDING		
La	19/32" Smart panel siding	8d a 6'	6° 0.C.	NO
	19/32" Smart panel siding	8d @ 4"	4° o.c.	NO
13	19/32' Smart panel siding	8d @ 3"	3" <i>o.c.</i> STAGG	YES
$\underline{\Lambda}$	19/32' Smart panel siding	8d @ 2"	2" O.C. STAGG	YES

- Use Minimum 3/8' APA Rated Shear Ply / OSB or Rated Equivalent UN.O.

- Use Common Nails And Field Nail @ 12" o.c., UN.O.

- Nail All Shear Plywood With Edge Nail Spacing @ Top >, Mud Sill, All Posts, All King Studs, Sole Plates, & All Studs W/ Holdowns.

* - Double Shear Walls To Have Shear Ply With Specified Nailing Both Sides. Offset Plywood Edges Or Provide 3x Stude At Location Where Edge Nailing is Located On Both Sides Of Wall Stud. ** - Provide 3x Minimum Foundation Sills Unless Otherwise Specified On Plans And 3x Minimum Framing Members (Top », Sole », Studs, Posts, Blocking, Etc.) Receiving Edge Nailing From Two Abutting

Shear Plywood Panels. All Edge Nailing At These Members Shall Be Staggered. - Use SIMPSON MSTC28 To Strap Top 's Across All Beams And Breaks in Top Plates, U.N.O.

- Provide Blocking * All Horizontal Edges Of Shear Plywood Or Gyp. Bd.

- Nailing Of Gyp. Bd. w/ 6d @ 4" o.c. Applies To Edge 4 Field Nailing.

PIER SCHEDULE				
STMBOL	WIDTH (each side)	DEPTH	GTEEL (each usy)	
(12)	12'	10'	(2) *4's	
$\langle 14 \rangle$ or $\langle 16 \rangle \phi$	14"	1Ø'	(2) •4's	
6 or (18)	16°	10'	(2) *4'a	
$\langle 18 \rangle$ or $\langle 21 \rangle \phi$	18'	10'	(2) *4's	
$\langle 21 \rangle$ or $\langle 24 \rangle \phi$	21"	10'	(2) *4's	
<u><24</u>	24'	10'	(3) *4's	
28	28'	12"	(3) *4's	
32	32'	12"	(4) •4'8	
36>	36'	12'	(5) •4'a	
<u>\</u>	42'	12'	(6) *4's	
<u> </u>	48'	14"	(7) •4'8	•
54	54'	l4°	(8) •4's	
60	60'	14"	(9) *4'8	
SYMBOL	<u>WIDTH</u>	DEPTH NAUTO MONOPOUR	STEEL (CATTRUCE)	
12	12"	10'	(2) *4'8	
16	16'	8'	(2) *4's	
18	18"	8'	(2) •4's	
	WIDTH	DEPTH	FOOTING STEEL	STEMWALL STEEL
168	16'	18'	(2) *4'6 CONTINUOUS T & B & '3 SHEAR TIES * 18' O.C.	N/A
166	16"	24'	(2) *4'6 CONTINUOUS T & B & *3 SHEAR TIES = 18' O.C.	N/A

STEMUALL

- 6" Wide w/ (1) #4 Cont. @ Tob, UN.O. Provide #4 Verticals @ 48" o.c., Hook @ Footing

(Alternate Hooks). Provide #4 Vert. # 32" o.c. # #4 Horiz # 24" o.c. at CMU Stemualis. - If Stemwall Exceeds 28' Above Top Of Footing, Use #4's @ 18' o.c. Horizontal Cont. and

*4's @ 18' O.C. Vert., UN.O. Stemwalls 36' and Greater Shall be Designed as Retaining Walls.

- All Footings Shall Bear On Undisturbed Soil, Assumed Soil Bearing Pressure is

Determined & Increased in Accordance w/ IBC Table 1804.2.

- Exterior Footings To Be Placed 18' Or 24' Below Grade Per Applicable Local Codes - Footings Supporting Three Stories Or More Shall have a Minimum Depth of 10". - Stemwalls Supporting Three Stories Or More Shall have a Minimum Thickness of 10".

ABBREVIATIONS

A states and a		÷	terests as		
Additional	ADD'L	rooting	FIG	Pressure Treated or	
Anchor Bolt	AB.	Foundation	FDN	Preservative Treated	PT
At	ର	Glued Laminated Beam	GLB	Redwood	RWD
Beam	BM	Gypsum Board	GYP BD	Required	req'd
Bearing	BRG	Hanger	HGR	Schedule	SCHED
Blocking	BLKG	Header	HDR	Shear Wall	SUU
Both Sides	B/S	Hem-Fir	HF	Similar	SIM
Boundary Nailing	BN.	Holdown	HD	Specification	SPEC
Cantilever	CANT	Horizontal	HORIZ	Square	SQ
Centerline	٢.	Interior	INT	Square Footage	#
Column	COL	Joist	JST	Staggered	STAGG
Concrete	CONC	Laminated Veneer Lumber	LVL	Standard	STD
Concrete Masonry Unit	CMU	Live Load	LL.	Steel	STL
Continuous	CONT	Machine Bolt	M.B.	Structural	STRUC
Dead Load	DL.	Manufacturer	MFR	Threaded	THR'D
Detail	DET/DTL	Maximum	MAX	Toe Nail	TN
Diameter	ф	Micro-Lam (Truss Joist)	ML	Tonque & Groove	TIG
Double	DBL	Minimum	MIN	Top Of	t.O.
Douglas Fir, North	DF	Not Applicable	N/A	Tube Steel	T.S.
Drawing	DUG	Not to Scale	NTS	Tupical	TYP
Each	EA	Number / Pounds	+	Uniform Building Code	UBC
Each End	EE	On Center	oc.	Unless Noted Otherwise	UNO
Each Side	ES	One Side	0/5	Verifu in Field	VIF
Edge Nailing	EN.	Over / On	0/	Vertical	VERT
Embedment	EMBED	Parallel Strand Lumber	PSL	Welded Wire Fabric	WUF
Equal	EQ	Plate	>	Welded Wire Mesh	ШШM
Existing	(E)	Plumood	PLY	With	ш/
Exterior	EXT	Pounds Per Square Foot	PSF		
Field Nail / Face Nail	FN.	Pounds Per Square Inch	PSI		
Floor	FLR				

R O Anderson

1603 ESMERALDA AVENUE / POST OFFICE BOX 222 1INDEN, NEVADA 89423 PHONE: (775) 782-2322 / FAX: (775) 782-7084 WEB SITE: WWW.ROANDERSON.CON

ARSENIC TREATMENT BRIDGEPORT PUBLIC UTILITY DISTRICT

HOLDOWN SCHEDULE

HOLDOWNS

(2L) HDU2-5D525 or LTT20B o/ (2) 2x STUDS, UNO. (Nail Double Studs w/ (2) 16d @ 8' o.c. Staggered) (2M) HDU2-5D525 or MTT28B o/ (2) 2x STUDS, UNO. (Nail Double Studs w/ (2) 16d @ 6' o.c. Staggered) (P2) PHD2 or HTT22 o/ (2) 2x STUD UNO.

- (41) HDU4-SDS25 or MTT28B o/ (2) 2x STUDS UNO. (Nail Studs w/ (2) 16d @ 6" o.c.)
- (5) HDU5-SDS2.5 0/ (2) 2x STUDS UNO.
- (Nail Studs w/ (2) 16d @ 4" o.c.)
- (8) HDU8-SDS25 0/ (2) 2x STUDS UNO. (Nail Studs w/ (2) 16d @ 4" o.c.)
- (I) HDUII-SDS25 o/ 6x STUDS UNO.
- (14) HDU14-SDS25 O/ 6x STUDS UNO.
- (Nail Studs w/ (2) 16d @ 41/2" o.c.) (P5) PHD5 or HTT22 o/ (2) STUDS UN.O. (P6) PHD6 0/ (2) STUDS UN.O.
- (P8) PHD8 0/ (2) STUDS UN.O.
- (Q8) HDQ8-SDS3 o/ 4x STUD UN.O.
- (all) HHDQII-SDS25 o/ 4x STUD UN.O.
- (QI4) HHDQI4-SDS25 0/6x STUD UN.O.
- (HP) HPAHD22 o/ 4x4 STUD or FACE of (2) 2x STUDS, UNO. (Nail Dbl. Stude w/ (2) 16d @ 6" o.c. Stagg.) (PA) PAHD42 0/ 4x4 STUD or FACE of (2) 2x STUDS, UNO. (Nail Dbl. Studs w/ (2) 16d @ 12" oc. Stagg.)
- (HT) HTTIG o/ (2) 2x STUD, UNO. (Nail Double Stude w/(2) lod # $4\frac{1}{2}$ o.c. Staggered)
- (ST8) STHD8 (RJ) 0/ (2) 2x STUDS, UNO. (Nail Dbl. Stude w/ (2) 16d @ 6" o.c. Stagg.)
- (STID) STHDIO (RJ) 0/ (2) 2x STUDS, UNO. (Nail Dbl. Studs w/ (2) 16d @ 6" o.c. Stagg.)
- (3114) STHD14 (RJ) 0/ (2) 2x STUDS, UNO. (Nail Dbl. Studs w/ (2) 16d # 4" o.c. Stagg.)

HOLDOWN INFORMATION

- All Holdowns To Be Installed Per Manufacturers Specifications.
- All Holdown Anchor Bolts Shall Be Specified Per Plan And Shall Meet Manufacturers Minimum Installation Requirements.
- All Holdowns To Be Bolted, Nailed, Or Screwed To (2) Studs Min., UN.O. Above.
- All Threaded Rod Options To Be Tied To (1) 4 Vertical (2) 4 Vertical for HDIØA Or HDQ8 & Greater, Developed into Fing. w/ 90° Bend. Provide (1) *4 Horizontal @ Top of Stemwall @ All HD Anchor Bolts. - Holdown SSTB Anchor Bolts At Blocked Out Footings Shall Have (1) 4 Vertical - (2) 4 Vertical for
- HDIØA Or HDQ8 & Greater, Developed Into Footing w/ 90° Bend.
- Holdown Anchor Bolts Are Designed For Uplift Only, Standard Mudsill Anchor Bolts Are Required (Spacing Per Plan)

- Provide Rim Joist Or Solid Blocking @ HD2A, HD5A, LTT2ØB, MTT28B, HPAHD22, PAHD42,

PHD2, PHD5, HTT22, & HTT16 Holdowns.

- Provide Double Solid Blocking * HD6A, HD10A, HD15A, HD20A, PHD6, PHD8, & Straps Across Floors. - Screws For PHD Holdowns Shall Be Simpson SDS1/4x3.

- All End Conditions For Threaded Rods Shall Have (2) Nuts And (1) Washer Per Manufacturer.

HOLDOWN SPECIFICATION TABLE

H. DOWN	CL	MIN. THKNESS	STUD BOLTS	FOR THRE	ADED-ROD EMBEDMENT	SSTB BOLT (MONOPOUR)	SSTB BOLT EMBEDMENT					
HDU2-SDS2.5	11/4"	3'	6-5D5 ¹ 4'x2 ¹ /2'	⁵ ⁄8 "¢	13'	SSTB 16	13'					
HDU4-SDS2.5	11/4*	3'	10-5D514"x21/2"	⁵ ⁄8"¢	14"	SSTB 20	דו.					
HDU5-SDS2.5	11/4 "	3'	14-5D514"x21/2"	⁸ ⁄8"¢	2Ø"	66TB 24	25'					
HDU8-SDS2.5	14'	3'	2Ø-SDS ¹ 4'x2 ¹ /2'	7∕و'¢	26'	N / A	N/A					
HDUII-SDS2.5	11/4	51/2"	3Ø-6D614'x21/2'	 " \$	26'	N / A	N/A					
HDU14-9D62.5	19/16'	51/2"	36-9D914'x21/2'	 " \$	26'	N/A	N/A					
HTTI6	11/2"	3'	(18) 16d's	⁵ ⁄8"¢	21"	SSTB 16	, 13'					
HTT22	11/2"	3'	(32) 16d SINKERS	⁵ ∕8 [™] ¢	21"	SSTB 24	21"					
PHD2	³ ⁄8"	3'	10-90914×3	⁵ ∕6 [°] ¢	13'	997B 16	13'					
PHD5	1 ³ ⁄8"	3'	14-6D6 ¹ 4x3	5%°¢	۳	SSTB 20	17'					
PHD6	³ ⁄8"	3'	18-6D6 ¹ 4×3	Τ ΄ 6'Φ	18'	991B 28	25'					
PHD8	1 ³ ⁄8"	3'	24-6D6 ¹ /4×3	7∕ ⊗ "¢	25'	SSTB 28	25'					
HDQ8	11/4*	3'	20-505 ¹ 4×3	7∕8'¢	25*	SSTB 28	25'					
HHDQII	11/2"	31/2"	24-8D8 ¹ /4	1 " Φ	26'	N/A	N / A					
HHDQ14	11/2"	31/2"	30-9D91/4	1" Φ	26'	N/A	N/A					

DESIGN CRITERIA

SNOW, WIND, & SEISMIC DESIGN FACTORS Site Elevation: 6470 Ft. Design Wind Speed: 90 mph Seismic Design Category: D Ground Snow Load: 55 PSF Seismic Base Shear: 134 W Exposure: C

ROOF FRAMING DEGIGN LOADS

Loading:			Truss Spacing= 24 'o.c.		
T.C. LIVE LOAD = T.C. DEAD LOAD = B.C. DEAD LOAD =	55 10 10	P97 P97 P97	Rafter Loading: LIVE/SNOW LOAD =	55	P
TOTAL LOAD =	75	PSF	DEAD LOAD =	15	P9

TOTAL LOAD =

70 PSF

ROOF PLYWOOD

5 / 8 ' CDX APA Rated (40/20) Or OSB Equivalent-Apply Face Grain Perpendicular To Framing. Stagger Panels And Nail w/ 8d Common Per IBC Table 2306.3.1, uno. Edge Nail At Supported Edges, Gable Ends, And Frieze Blocks.

TOP PE SPLICES

Use (8) IGd Nails At All Top , Splices (48" Long), UN.O.

HEADER FRAMING

Use 6 x 8 DF * 2 @ Typical Header, UNO. Use (2) Trimmers @ Openings 5'-0' And Greater.

WALL FRAMING

Use 2 x 6 DF. *2 @ 16' o.c. (UNO)

CTDUCTUDAI	DRAWN: MAB	JOB: 0883-029
STRUCTURAL	ENGINEER:	DRAWING: SEE PLOT STAMP
SPECIFICATIONS	SCALE:	SHEET:
	DATE: 01/26/16	OF: 29 SHEETS

W	D	DESCRIPTION
3'-0 "	2"	EXTERIOR, METAL, INSULATED, GLAZED, 3/4 HR. FIRE RATED
10 ¹	-	EXTERIOR, 20 MINUTE (MIN.) FIRE-RATED ROLL-UP W/ AUTOMATIC DOOR OPENER
		WATER CLOSET, COMMERCIAL GRADE, HANDICAP COMPLIANCE
		LAVATORY, COMMERCIAL GRADE, WALL MOUNTED
		EMERGENCY SHOWER/EYEWASH
3'-0"	2*	INTERIOR, CORROSION RESISTANT, METAL, WITH 1.5 S.F. THROUGH VENT IN LOWER HALF OF DOOR. W/ CHEMICAL PLACARD
		4 S.F. LOUVERED AIR INTAKE
		FIRE EXTINGUISHER
	-	WALL MOUNTED THERMOSTAT WITH HUMIDITY CONTROL THAT ALLOWS 50'F TEMPERATURE SETTING AND CONTROLS PUHI, PUH2 & EFI
		WOOD SHELVE ABOVE CHEMICAL CONTAINERS FOR FEED PUMPS
30"		METAL-GLAZED WITH STRUCTURAL SILICONE GLAZING 1/4" (MIN.) LAMINATED ANNEALED GLASS AND INSULATED GLASS UNITS WITH ONE TEMPERED PANE SLIDER WINDOW
36"	12"	STEEL WALL CABINET W/ SHELVES

over door, see specifications $\langle 7 \rangle$

ENERGY STAR[®]RATED CEILING MOUNTED EXHAUST FAN 75-155 CFM/W, ADJUSTABLE SPEED, WALL-MOUNTED SWITCH, EXHAUST THROUGH WALL

GENERAL NOTES:

THE BUILDING WILL BE A H-5 OCCUPANCY GROUP AND TYPE III-B CONSTRUCTION. WORK PERFORMED SHALL COMPLY TO THE FOLLOWING:

ALL APPLICABLE LOCAL, STATE AND FEDERAL CODES, ORDINANCES, LAWS, REGULATIONS AND PROTECTIVE COVENANTS GOVERNING THE SITE OF WORK IN CASE OF CONFLICT, THE MORE STRINGENT REQUIREMENTS SHALL GOVERN.

THE CONTRACTOR/OWNER SHALL BE RESPONSIBLE FOR THE GENERAL SAFETY DURING CONSTRUCTION, AND ALL WORK SHALL CONFORM TO PERTINENT SAFETY REGULATIONS.

INSTALLATION OF ALL MATERIALS AND FINISHES MUST BE DONE IN STRICT ACCORDANCE WITH THE RELATED MANUFACTURER'S SPECIFICATIONS AND DETAILS.

THE OWNER SHALL SECURE AND PAY FOR THE BUILDING PERMIT AND FOR OTHER PERMITS AND GOVERNMENTAL FEE, LICENSES AND INSPECTIONS NECESSARY FOR THE PROPER EXECUTION AND COMPLETION OF THE WORK, IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. ROOFING:

COMMERCIAL GRADE STANDING SEAM METAL ROOF WITH GAFGLAS"MINERAL SURFACED CAP SHEET INSTALL PER MANUFACTURER'S SPECS. AND 2016 CBC SECTION 1507, OVER UNDERLAYMENT PER SECTION 1507.4.5

FLASHING:

ALL JOINTS AND PENETRATIONS AT EXTERIOR WALLS, CEILINGS AND FLOORS SHALL BE FULLY CAULKED AND SEALED.

ROOF FLASHING AT VERTICAL WALL JUNCTIONS BASE AND COUNTER FLASHINGS ARE REQUIRED WHERE ROOFING MATERIAL MEETS WALLS. FORM FLASHING WITH A 4" MIN. TURN-UP AGAINST THE WALL AND FORM HORIZONTAL LEG 6" MIN. AWAY FROM THE WALL BASE FLASHINGS SHOULD BE FASTENED TO THE SHEATHING TO PREVENT SLIPPAGE "RAKE" COUNTER FLASHING ALONG WALL AS REQUIRED PER SIDING CONDITION. FLASHING SHALL BE MINIMUM 26 GAGE GALVANIZED SHEET METAL.

SIDING

8" HORIZONTAL HARDIEPLANK®LAP SIDING UNDER HZ5®CLIMATE ZONE INSTALLED PER MFG. SPECS. AND PER 2016 CBC SECTION 1405 o/ HARDIEWRAP®WEATHER BARRIER. INSTALL SECTION 1404.2 o/ 3/8" P.W. SHEATHING OR EQUIVALENT (SEE SHEAR CALLOUTS)

DOORS:

EXTERIOR MAN DOOR TO BE METAL INSULATED, GLAZED, 3/4 HR. FIRE RATED ALL DOOR HARDWARE SHALL BE COMMERCIAL GRADE SCHLAGE WITH BRUSHED ALUMINUM FINISH.

MAN DOOR SHALL BE EQUIPPED WITH PUSH-BUTTON COMBINATION LOCKS.

ALL EXTERIOR DOORS SHALL BE KEYED ALIKE.

EXIT DOOR SHALL NOT REQUIRE MORE THAN ONE OPERATION TO UNLATCH AS EXACT DOOR HARDWARE HAS NOT BEEN SPECIFIED

EXIT DOOR SHALL BE OPERABLE FROM INSIDE WITHOUT THE USE OF A KEY OR ANY SPECIAL KNOWLEDGE OR EFFORT PER 2016 CBC.

FIRE SPRINKLER:

UNDER 5,000 SQ. FT. FIRE SPRINKLERS NOT REQUIRED

FRAMING:

ALL CONSTRUCTION TO BE 2x6 WOOD STUD LIGHT FRAME CONSTRUCTION. ALL STUDS TO BE 16" O.C. U.N.O. ON PLANS. INSULATION:

FIBERGLASS BATT INSULATION SHALL BE INSTALLED THROUGHOUT THE BUILDING ENVELOPE IN ACCORDANCE WITH THE FOLLOWING:

FLAT CEILINGS WITH ATTICS OVER HEATED SPACES R-38 EXTERIOR WALLS AT HEATED SPACES R-19

CONCRETE SLAB TO BE UN-INSULATED

INTERIOR MATERIAL/FINISHES:

5/8" GYPSUM WALL BOARD INSTALLED AT INTERIOR SHALL BE TYPE W.R. OR "GREENBOARD" PER 2016 CBC

INTERIOR WALLS AND CEILINGS SHALL BE PRIMED AND PAINTED WITH SEMI-GLOSS LATEX ENAMEL

ALL FINAL INTERIOR FINISH MATERIALS SELECTIONS WILL BE MADE BY OWNER.

CARPENTRY:

CONTRACTOR MUST COORDINATE ALL PLUMBING, MECHANICAL AND ELECTRICAL ROUGH OPENING REQUIREMENTS WITH FRAMING AND FINISHES TO ALLOW FOR PROPER CLEARANCES.

EXTERIOR FLATWORK: SEE SITE PLAN

MISCELLANEOUS FIRE CODE:

COMBUSTIBLE WASTE MATERIAL CREATING A FIRE HAZARD SHALL NOT BE ALLOWED TO ACCUMULATE IN THE BUILDING CFC SECT. 304.1 VEGETATION SUCH AS WEEDS THAT ARE CAPABLE OF BEING IGNITED SHALL BE CUT DOWN

OR REMOVED BY OWNER CFC SECT. 304.1.2 SMOKING SHALL BE PROHIBITED WHERE CONDITIONS MAKE SMOKING A HAZARD AND IN

SPACES OF FLAMMABLE OR COMBUSTABLE MATERIALS CFC SECT. 310.2 OUTSIDE STORAGE OF COMBUSTABLE MATERIALS SHALL NOT BE LOCATED WITHIN 10 FEET OF A PROPERTY LINE CFC 315.3

POST, FENCES, VEHICLES, GROWTH, TRASH, STORAGE OR OTHER MATERIALS SHALL NOT BE PLACED NEAR FIRE HYDRANTS IN A MANNER THAT WOULD PREVENT FIRE HYDRANTS FROM BEING DESCERNIBLE. THE FIRE DEPT. SHALL NOT BE HINDERED FROM IMMEDIATE ACCESS TO FIRE HYDRANTS OR EQUIPMENT CFC SECT. 508.5.4. A 3 FOOT CLEAR SPACE SHALL BE MAINTAINED AROUND FIRE HYDRANTS CFC SECT. 508.5.5

HVAC SCHEDULE:

PUH 1 \$ PUH 2	PROPANE FIRED UNIT HEATERS THERMOSTATICALLY CONTROLLED 35 MBH (MIN.) REQUIRED HEATING CAPACITY 500 CFM (MIN.) AIRFLOW, SEE SPECIFICATIONS
EF 1	ELECTRIC SIDE MOUNT EXHAUST FAN 600 CFM CONTINUOUS OPERATION @ 1/8" W.C. 750 CFM HIGH SPEED ON THERMOSTAT CONTROL 120/208V, 60Hz, 1 ¢, SEE SPECIFICATIONS
EF 2	ELECTRIC SIDE MOUNT EXHAUST FAN 300 CFM CONTINUOUS OPERATION @ 1/8" W.C. 120/208V, 60Hz, 1 DIA., SEE SPECIFICATIONS
EF 3	ENERGY STAR [®] RATED ELECTRIC CEILING MOUNT EXHAUST FAN, 75-155 CFM/W, ADJUSTABLE SWITCH, 120V, 60Hz, ADJUSTABLE SPEED MEET ENERGY STAR [®] LUMINAIRES SPEC. IF LIGHT WILL BE INTEGRATED
	BRIDGEPORT: ELEVATION 6470, DERATE 0.89 DESIGN DRYBULB MINIMUM TEMPERATURE (0.2%): -15°F DESIGM MIN. BUILDING TEMPERATURE: 50°F AT: 65°F MBHRE0: 600 CFM (65)(.89)= 35 MBH
	$\bigcap - \bigcap \bigcap$

DRAWN:

SCALE:

DATE:

ENGINEER:

 $1/4^{11} = 1^{1} - 0^{11}$

JOB:

SJRM SEE PLOT STAMF

5/12/17 OF: 31 SHEETS

SHEET:

A

DRAWING:

MCR/WAN 0883-029

5.12.17

PROFESSION

MCREAVY

No.C69438

S SUSAN

SEE SHEET CG, GRADING PLAN AND SHEETS SI & S2, STRUCTURAL PLANS.

5/8" DIA. X 10" A.B. @ 4'-0" O.C. (UNO). MAX. 2 ANCHOR BOLTS PER BOARD MINIMUM, 12" FROM ENDS MAXIMUM. ANCHOR BOLTS EMBEDDED 7" INTO CONC. MINIMUM. INSTALL 3" x 3" x 1/4" PLATE WASHERS ON EACH ANCHOR BOLT.

6 MIL. VISQUEEN VAPOR BARRIER (OR EQUIVALENT) LAID ON SAND.

 \odot - symbol indicates a holdown - see holdown schedule, sheet si. PROVIDE ANCHOR BOLT TO MATCH HOLDOWN SPECIFIED - SEE HOLDOWN SPECIFICATION TABLE, SHEET SI - SYMBOL INDICATES A FOOTING - SEE FOOTING SCHEDULE, SHEET SI. O - SYMBOL INDICATES A PIER - SEE PIER SCHEDULE, SHEET SI. - CONTRACTOR TO VERIFY HOLDOWN LOCATIONS AT SHEAR WALLS - SEE SHEET S2 FOR STANDARD STRUCTURAL DETAILS PER APPLICATION.

A.	REGESSION
IS * REGIST	SUSAN J.R. MCREAVY No.C69438
	E OF CALIFORNI

DRAWN:	JOB:
MCR/WAN	0883-029
ENGINEER:	DRAWING:
SJRM	SEE PLOT STAMP
SCALE: 1∕4" = 1'-0"	SHEET:
DATE: 5/12/17	OF: 31 SHEETS

COMMERCIAL GRADE, PAINTED METAL ROOFING, TYPICAL. COLOR BY BRIDGEPORT P.U.D. -6 PITCH_ ALL METAL'S AND FLASHING'S SHALL BE PAINTED TO MATCH ADJACENT SURFACES ----48" CEMPANEL® VERTICAL SIDING, TYPICAL, COLOR BY BRIDGEPORT P.U.D. PLATE HEIGHT 2x8 HARDIETRIM BOARDS W/ IX SHINGLE MOLD ----1-0" 1'-0'_ HARDIETRIM[®]BOARDS EDGE TRIM (TYP.) Ο HARDIETRIM®BOARDS AROUND WINDOWS & DOORS (TYP.) ------8" HORIZONTAL HARDIEPLANK®LAP SIDING, TYPICAL. COLOR BY BRIDGEPORT P.U.D. FIN. FLR. ELEV. REAR (WEST) ELEVATION SCALE: 1/4" = 1'-0" COMMERCIAL GRADE, PAINTED CONCENTR METAL ROOFING, TYPICAL. COLOR BY BRIDGEPORT P.U.D. ----FOR PUH I PITCH ALL METAL'S AND FLASHING'S SHALL BE PAINTED TO MATCH ADJACENT SURFACES 48" CEMPANEL® VERTICAL SIDING, TYPICAL, COLOR BY BRIDGEPORT P.U.D. PLATE HEIGHT SCONSE LIGHT 2x8 HARDIETRIM®BOARDS W/ IX SHINGLE MOLD 1-0 _ HEADER HEIGHT 1'-0"_e LOUVERED 8" HORIZONTAL HARDIEPLANK®LAP SIDING, TYPICAL. COLOR BY BRIDGEPORT P.U.D. ELECTRICAL SHUNT TRIP ____ HARDIETRIM EDGE TRIM (TYP.)-(2) CHEMICAL PLACARDS, PLACARD #1 # PLACARD #2 -MOUNTED AT 60" MIN. A.F.F. SEE DETAIL, SHEET TFI HARDIETRIM[®]BOARDS AROUND WINDOWS \$ DOORS (TYP.) -----FIN. FLR. ELEV. FRONT (EAST) ELEVATION SCALE: 1/4" = 1'-0" NO. DATE REVISION BLOCK BY 1/4" 1/2" /⊿" 0 1603 ESMER SCALE: 1/4'' = 1' - 0''PHONE: (ME

																6:12														
RIC IN 1 \$ 2	ITAK	<e ex<="" th=""><th>HAUST</th><th></th><th></th><th></th><th><u> 50</u></th><th>DUT</th><th></th><th>S</th><th>IDI</th><th></th><th><u>ELE</u></th><th></th><th>\<u>+</u> </th><th>ON</th><th></th><th>SCALE</th><th>: 1/4[∎] ≖</th><th>:]¹0[*]</th><th></th><th></th><th>306 INS FIR</th><th>8 META ULATEE E RATII</th><th>AL DOOF D, GLAZ NG</th><th>R w/ WI ΈD, 3/4</th><th>INDOW —</th><th></th><th></th><th></th></e>	HAUST				<u> 50</u>	DUT		S	IDI		<u>ELE</u>		\ <u>+</u>	ON		SCALE	: 1/4 [∎] ≖	:] ¹ 0 [*]			306 INS FIR	8 META ULATEE E RATII	AL DOOF D, GLAZ NG	R w/ WI ΈD, 3/4	INDOW —			
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RALD. M (7775) B SI	A AU 7822	∆n /ENUE N, NE 2-2322 WWW.	/ POS VADA / FAX ROANI	ST OF 8942 X: (7 DERSO	FICE E 3 75) 78 0N.COM	30X 22 2-7084 1	229		BI	RI	D	GE	P(25	SE F	: N >U	IC BL		R	EI U ⁻	0\ 1		∧ L - I	-)!:	51	R	10-	1	

1,368 SQ. FT.

= 9.1 SQ. FT. OF REQUIRED VENTILATION 150

PROVIDED A MINIMUM OF 50% OF THE REQUIRED VENTILATING AREA IS PROVIDED BY VENTS LOCATED IN THE UPPER PORTION OF THE SPACE TO BE VENTILATED AT LEAST 3'-0" ABOVE EAVE OR CORNICE VENTS PROVIDE 4.5 SQ. FT. OF VENTILATION AT OR NEAR RIDGE. PROVIDE 4.6 SQ. FT. OF VENTILATION AT EAVE LINE.

ATTIC VENTILATION PER 2016 CBC SECTION RI203.2

NOTE: THE VENTILATING AREA MAY BE 1/300 OF THE AREA OF SPACE VENTILATED PROVIDED A VAPOR RETARDER IN ACCORDANCE WITH ASTM E % IS INSTALLED ON THE WARM SIDE OF THE ATTIC INSULATION

STANDING SEAM METAL ROOF w/ GAFGLAS[®]MINERAL SURFACED CAP SHEET INSTALL PER MANUFACTURER'S SPECIFICATIONS AND 2016 CBC SECTION 1507, OVER UNDERLAYMENT PER SECTION 1507.4.5

5/8" CDX PLYWOOD (OR EQUAL) EXPOSURE 1, APA SPAN RATED (40/20). STAGGER JOINTS - NAIL WITH & COMMON PER 2016 CBC TABLE 2306.3(1), UNO.

PRE-MANUFACTURED ENGINEERED TRUSSES @ 24" o.c.

PROVIDE 2x STUD PER TRUSS PLY @ ALL GIRDER BRG. POINTS, U.N.O. DOWN TO HEADER OR SOLE PLATE. SOLID VERTICAL BLOCK AT FLOOR SYSTEM. STACK IN WALL FRAMING IN ALL LEVELS DOWN TO FOUNDATION.

NOTE: SEE TRUSS CALCULATIONS FOR TRUSS DESCRIPTIONS

6x8 D.F. #1 (TYPICAL UNLESS OTHERWISE NOTED)

DOUBLE TRIMMERS AT OPENINGS GREATER THAN 6'-0" DOUBLE KING STUDS AT OPENINGS GREATER THAN 8'-0"

SIMPSON HI CLIPS @ ALL TRUSS BEARING POINTS ON PLATES & BEAMS

SIMPSON H3 CLIPS (O/S) @ ALL RAFTER BEARING POINTS ON PLATES \$ BEAMS SIMPSON H5 CLIPS (B/S) @ ALL GIRDER TRUSS BEARING POINTS, UNO.

SIMPSON PC & CC POST CAPS (AS NOTED) SIMPSON ST, MST, & LSTA STRAPS (AS NOTED)

2x4 D.F. #2 OUTLOOKERS AT 24" O.C.

22"x30" MIN. - PER 2016 CBC 1209.2

STRUCTURAL ENGINEERING NOTES

SEE SHEET S2 FOR STANDARD STRUCTURAL DETAILS PER APPLICATION. - WHERE POSTS AND MULTIPLE STUDS ARE SPECIFIED, THEY ARE TO BE STACKED IN ALL WALL FRAMING AND SOLID VERTICAL GRAIN BLOCKING SHALL BE

PROVIDED AT ALL FLOOR LEVELS DOWN TO THE FOUNDATION OR HEADOUT. CONTRACTOR TO PROVIDE TRUSS CALCS FOR REVIEW AND APPROVAL BY PROJECT ENGINEER. DO NOT CHANGE TRUSS MANUFACTURERS OR TRUSS LAYOUT

SHOWN HERE WITHOUT THE APPROVAL OF THIS PROJECT ENGINEER. CONTRACTOR TO VERIFY TRUSS SPANS, DEFLECTIONS, PROFILES, CONNECTIONS,

ETC. WITH TRUSS MANUFACTURER PRIOR TO CONSTRUCTION. DO NOT DEVIATE FROM HANGERS SPECIFIED ON PLANS UNLESS VERIFIED BY PROJECT ENGINEER.

> DRAWN: MCR/WAN JOB: 0883-029 ENGINEER: DRAWING: SJRM SEE PLOT STAMP SCALE: 1/4" == 1'-0" SHEET: A4 DATE: 5/12/17 OF: 31 SHEETS

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2016 CBC APPENDIX F RODENTPROOFING

FI01.2 FOUNDATION WALL VENTILATION OPENINGS. FOUNDATION WALL VENTILATION OPENINGS SHALL BE COVERED FOR THEIR HEIGHT AND WIDTH WITH PERFORATED SHEET METAL PLATES NO LESS THAN 0.070 INCH (1.8 MM) THICK, EXPANDED SHEET METAL PLATES NOT LESS THAN 0.047 INCH (1.2 MM) THICK, CAST-IRON GRILLS OR GRATING, EXTRUDED ALUMINUM LOAD-BEARING VENTS OR WITH HARDWARE CLOTH OF 0.035 INCH (0.89 MM) WIRE OR HEAVIER. THE OPENINGS THEREIN SHALL NOT EXCEED 0.25 INCH (6.4 MM).

FI01.5.1 RODENT-ACCESSIBLE OPENINGS. WINDOWS AND OTHER OPENINGS FOR THE PURPOSE OF LIGHT AND VENTILATION IN THE EXTERIOR WALLS NOT COVERED IN THIS CHAPTER, ACCESSIBLE TO RODENTS BY WAY OF EXPOSED PIPES, WIRES, CONDUITS AND OTHER APPURTENANCES, SHALL BE COVERED WITH WIRE CLOTH OF AT LEAST 0.035-INCH (0.89 MM) WIRE. IN LIEU OF WIRE CLOTH COVERING, SAID PIPES, WIRES, CONDUITS AND OTHER APPURTENANCES SHALL BE BLOCKED FROM RODENT USAGE BY INSTALLING SOLID SHEET METAL GUARDS 0.024 INCH (0.61 MM) THICK OR HEAVIER. GUARDS SHALL BE FITTED AROUND PIPES, WIRES, CONDUITS OR OTHER APPURTENANCES. IN ADDITION, THEY SHALL BE FASTENED SECURELY TO AND SHALL EXTEND PERPENDICULARLY FROM THE EXTERIOR WALL FOR A MINIMUM DISTANCE OF 12 INCHES (305 MM) BEYOND AND ON EITHER SIDE OF PIPES, WIRES, CONDUITS OR APPURTENANCES.

SECTION 4.505.3 MOISTURE CONTENT OF BUILDING MATERIALS

BUILDING MATERIALS WITH VISIBLE SIGNS OF WATER DAMAGE SHALL NOT BE INSTALLED. WALL AND FLOOR FRAMING SHALL NOT BE ENCLOSED WHEN THE FRAMING MEMBERS EXCEED 19-PERCENT MOISTURE CONTENT. MOISTURE CONTENT SHALL BE VERIFIED IN COMPLIANCE WITH THE FOLLOWING:

- MOISTURE CONTENT SHALL BE DETERMINED WITH EITHER A PROBE-TYPE OR CONTACT-TYPE MOISTURE METER. EQUIVALENT MOISTURE VERIFICATION METHODS MAY BE APPROVED BY THE ENFORCING AGENCY AND SHALL SATISFY REQUIREMENTS FOUND IN SECTION 101.8 OF THIS CODE.
- 2. MOISTURE READINGS SHALL BE TAKEN AT A POINT 2 FEET (610 MM) TO 4 FEET (1219 MM) FROM THE GRADE STAMPED END OF EACH PIECE TO BE VERIFIED.
- 3. AT LEAST THREE RANDOM MOISTURE READINGS SHALL BE PERFORMED ON WALL AND FLOOR FRAMING WITH DOCUMENTATION ACCEPTABLE TO THE ENFORCING AGENCY PROVIDED AT THE TIME OF APPROVAL TO ENCLOSE THE WALL AND FLOOR FRAMING.

INSULATION PRODUCTS WHICH ARE VISIBLY WET OR HAVE A HIGH MOISUTRE CONTENT SHALL BE REPLACED OR ALLOWED TO DRY PRIOR TO ENCLOSURE IN WALL OR FLOOR CAVITIES. WET-APPLIED INSULATION PRODUCTS SHALL FOLLOW THE MANUFACTURERS' DRYING RECOMMENDATIONS PRIOR TO ENCLOSURE.

SECTION 4.505.6 INDOOR AIR QUALITY AND EXHAUST

EACH BATHROOM SHALL BE MECHANICALLY VENTILATED AND SHALL COMPLY WITH THE FOLLOWING: 1. FANS SHALL BE ENERGY STAR COMPLIANT AND BE DUCTED TO TERMINATE

- OUTSIDE THE BUILDING. 2. UNLESS FUNCTIONING AS A COMPONENT OF A WHOLE HOUSE VENTILATION SYSTEM, FANS MUST BE CONTROLLED BY A HUMIDITY CONTROL.
- 2.a. HUMIDITY CONTROLS SHALL BE CAPABLE OF ADJUSTMENT BETWEEN A RELATIVE HUMIDITY RANGE OF LESS THAN OR EQUAL TO 50-PERCENT TO A MAXIMUM OF 80 PERCENT. A HUMIDITY CONTROL MAY UTILIZE MANUAL OR AUTOMATIC MEANS OF ADJUSTMENT.
- 2.b. A HUMIDITY CONTROL MAY BE A SEPARATE COMPONENT TO THE EXHAUST FAN AND IS NOT REQUIRED TO BE INTEGRAL (I.E., BUILT-IN).

NOTES: LIGHTING INTEGRAL TO BATHROOM EXHAUST FANS SHALL COMPLY WITH THE CALIFORNIA ENERGY CODE.

NO. DATE REVISION BLOCK BY

TABLE 5.504.4 ADHESIVE VOC 1	4.1 _IMIT_
ARCHITECTURAL APPLICATIONS	CURRENT VOC LIMIT
INDOOR CARPET ADHESIVES CARPET PAD ADHESIVES OUTDOOR CARPET ADHESIVES WOOD FLOORING ADHESIVES RUBBER FLOOR ADHESIVES SUBFLOOR ADHESIVES CERAMIC TILE ADHESIVES CERAMIC TILE ADHESIVES VCT AND ASPHALT TILE ADHESIVES DRYWALL AND PANEL ADHESIVES COVE BASE ADHESIVES MULTIPURPOSE CONSTRUCTION ADHESIVES STRUCTURAL GLAZING ADHESIVES SINGLE-PLY ROOF MEMBRANE ADHESIVES OTHER ADHESIVE NOT SPECIFICALLY LISTED	50 50 150 100 60 50 65 50 50 50 70 100 250 50
SPECIALTY APPLICATIONS	P10
PVC WELDING CPVC WELDING ABS WELDING PLASTIC CEMENT WELDING ADHESIVE PRIMER FOR PLASTIC CONTACT ADHESIVE SPECIAL PURPOSE CONTACT ADHESIVE STRUCTURAL WOOD MEMBER ADHESIVE TOP AND TRIM ADHESIVE	510 490 325 250 550 80 250 140 250
SUBSTRATE SPECIFIC APPLICATION	DNS
METAL TO METAL PLASTIC FOAMS POROUS MATERIAL (EXCEPT WOOD) WOOD FIBERGLASS	30 50 50 30 80

	·
TABLE 5 SEALANT V	.504.4.2 OC LIMIT
SEALANTS	CURRENT VOC LIMIT
ARCHITECTURAL MARINE DECK NONMEMBRANE ROOF ROADWAY SINGLE-PLY ROOF MEMBRANE OTHER SEALANT PRIMERS ARCHITECTURAL NONPOROUS ARCHITECTURAL POROUS MODIFIED BITUMINOUS	250 760 300 250 450 420 250 775 500
MARINE DECK OTHER	760 750

TABLE 5.504.4.3 VOC CONTENT LIMITS FOR ARCHI	3 ITECTURAL COATINGS
COATING CATEGORY	CURRENT LIMIT
FLAT COATINGS	50
NONFLAT COATINGS	100
NONFLAT-HIGH GLOSS COATINGS	150
SPECIALTY COATINGS	
ALUMINUM ROOF COATINGS	400
BASEMENT SPECIALTY COATINGS	400
BITUMINOUS ROOF COATINGS	50
BITUMINOUS ROOF PRIMERS	350
BOND BREAKERS	350
CONCRETE CURING COMPOUNDS	350
CONCRETE/MASONRY SEALERS	100
DRIVEWAY SEALERS	50
DRY FOG COATINGS	150
FAUX FINISHING COATINGS	350
FIRE RESISTIVE COATINGS	350
FLOOR COATINGS	100
FORM-RELEASE COMPOUNDS	250
GRAPHIC ARTS COATINGS (SIGN PAINTS)	500
HIGH TEMPERATURE COATINGS	420
INDUSTRIAL MAINTENANCE COATINGS	250
LOW SOLIDS COATINGS	120
MAGNESITE CEMENT COATINGS	450
MASTIC TEXTURE COATINGS	100
METALLIC PIGMENTED COATINGS	500
MULTICOLOR COATINGS	250
PRETREATMENT WASH PRIMERS	420
PRIMERS, SEALERS, AND UNDERCOATERS	100
REACTIVE PENETRATING SEALERS	350
RECYCLED COATINGS	250
ROOF COATINGS	50
RUST PREVENTATIVE COATINGS	250
SHELLACS CLEAR	730
SHELLACS OPAQUE	550
SPECIALTY PRIMERS, SEALERS AND UNDERCOATERS	5 100
STAINS	250
STONE CONSOLIDANTS	450
SWIMMING POOL COATINGS	340
TRAFFIC MARKING COATINGS	100
TUB AND TILE REFINISH COATINGS	420
WATERPROOFING MEMBRANES	250
wood coatings	275
WOOD PRESERVATIVES	350
ZINC-RICH PRIMERS	340

FORMALDEHYD	E LIMITS
PRODUCT	CURRENT LIMIT
HARDWOOD PLYWOOD VENEER CORE	0.05
HARDWOOD PLYWOOD COMPOSITE CORE	0.05
MEDIUM DENSITY FIBERBOARD	0.11
THIN MEDIUM DENSITY FIBERBOARD	0.13

ARSENIC REMOVAL R O Anderson BRIDGEPORT PUBLIC UTILITY DISTRICT 603 ESMERALDA AVENUE / POST OFFICE BOX 2224 MINDEN, NEVADA 89423 PHONE: (775) 782-2322 / FAX: (775) 782-7084 WEB SITE: WWW.ROANDERSON.COM

SECTION 5.504 POLLUTANT CONTROL

5.504.1 TEMPORARY VENTILATION.

THE PERMANENT HVAC SYSTEM SHALL ONLY BE USED DURING CONSTRUCTION IF NECESSARY TO CONDITION THE BUILDING OR AREAS OF ADDITION OR ALTERATION WITHIN THE REQUIRED TEMPERATURE RANGE FOR MATERIAL AND EQUIPMENT INSTALLATION. IF THE HVAC SYSTEM IS USED DURING CONSTRUCTION, USE RETURN AIR FILTERS WITH A MINIMUM EFFICIENCY REPORTING VALUE (MERV) OF 8, BASED ON ASHRAE 52.2-1999, OR AN AVERAGE EFFICIENCY OF 30 PERCENT BASED ON ASHRAE 52.1-1992. REPLACE ALL FILTERS IMMEDIATELY PRIOR TO OCCUPANCY, OR, IF THE BUILDING IS OCCUPIED DURING ALTERATION, AT THE CONCLUSION OF CONSTRUCTION.

5.504..3 COVERING OF DUCT OPENINGS AND PROTECTION OF MECHANICAL EQUIPMENT DURING CONSTRUCTION. AT THE TIME OF ROUGH INSTALLATION AND DURING STORAGE ON THE

CONSTRUCTION SITE UNTIL FINAL STARTUP OF THE HEATING, COOLING, AND VENTILATING EQUIPMENT, ALL DUCT AND OTHER RELATED AIR DISTRIBUTION COMPONENT OPENINGS SHALL BE COVERED WITH TAPE, PLASTIC, SHEETMETAL OR OTHER METHODS ACCEPTABLE TO THE ENFORCING AGENCY TO REDUCE THE AMOUNT OF DUST, WATER AND DEBRIS WHICH MAY ENTER THE SYSTEM.

SECTION 5.410.4.5 OPERATION AND MAINTENANCE (O & M) MANUAL

PROVIDE THE BUILDING OWNER OR REPSENTATIVE WITH DETAILED OPERATING AND MAINTENANCE INSTRUCTIONS AND COPIES OF GUARANTIES/WARRANTIES FOR EACH SYSTEM. O & M INSTRUCTIONS SHALL BE CONSISTENT WITH OSHA REQUIREMENTS IN CCR, TITLE 8, SECTION 5142, AND OTHER RELATED REGULATIONS.

5.410.4.5.1 INSPECTIONS AND REPORTS. INCLUDE A COPY OF ALL INSPECTION VERIFICATIONS AND REPORTS REQUIRED BY THE ENFORCING AGENCY.

CHAPTER 8 BASELINE WATER USE AND WATER USE REDUCTION

THE PLUMBING FIXTURES DETAILED IN THIS PLAN SET REQUIRE A 20% REDUCTION FROM BASELINE FOR WATER USE. FIXTURES INCLUDE, BUT NOT LIMITED TO, LAVATORY FAUCETS AND FLUSHOMETER TANK WATER CLOSET.

5.303.3.1 WATER CLOSETS. THE EFFECTIVE FLUSH VOLUME OF ALL WATER CLOSETS SHALL NOT EXCEED 1.28 GALLONS PER FLUSH. TANK-TYPE WATER CLOSETS SHALL BE CERTIFIED TO THE PERFORMANCE CRITERIA OF THE U.S. EPA WATERSENSE SPECIFICATION FOR TANK-TYPE TOILETS.

5.303.3.4.1 NONRESIDENTIAL LAVATORY FAUCETS. LAVATORY FAUCETS SHALL HAVE A MAXIMUM FLOW RATE OF NOT MORE THAN 0.5 GALLONS PER MINUTE AT 60 PSI.

CPC, APPENDIX L, SECTION 402.8. EMERGENCY SAFETY SHOWERS AND EYE WASH STATIONS. EMERGENCY SAFETY SHOWERS AND EMERGENCY EYE WASH STATIONS SHALL NOT BE LIMITED IN THEIR WATER SUPPLY FLOW RATES,

MCR/WAN	0883-029
ENGINEER:	DRAWING:
SJRM	SEE PLOT STAMP
SCALE:	SHEET
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DATE:	
5/12/17	OF: 31 SHEETS

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	ELECTRICAL SYMBOL LIST				1PH	SINGLE-PHASE	(E)	ELECTRICAL ABBREVIATIONS EXISTING	MAX	MAXIMUM
					1P 2/C	SINGLE POLE TWO-CONDUCTOR	ĊÉ/OI	CONTRACTOR FURNISHED/OWNER INSTALLED	MC MCA	METAL-CLAD MINIMUM CIRCUIT AMPS
	CONDUIT RUN IN OR ON CEILING OR WALL	-	ELECTRICAL PANELBOARD - SURFACE MOUNTED		3/C 3PH	THREE-CONDUCTOR THREE-PHASE	CFE CKT	CONTRACTOR FURNISHED EQUIPMENT CIRCUIT	MCB MCC	MAIN CIRCUIT BREAKER MOTOR CONTROL CENTER
	CONDUIT RUN IN OR UNDER FLOOR OR UNDERGROUND	L	ELECTRICAL PANELBOARD - FLUSH MOUNTED		4/C 4W	FOUR-CONDUCTOR FOUR-WIRE	CKT BRKR CLF	CIRCUIT BREAKER CURRENT LIMITING FUSE	MDP MECH	MAIN DISTRIBUTION PANEL MECHANICAL
———————————————————————————————————————	HASH MARKS INDICATE NUMBER OF #12 AWG CONDUCTORS IN CONDUIT. NO MARKS INDICATE 2 #12'S. DOES NOT INCLUDE GROUND WIRE. IF NON-METALLIC		SERVICE OR DISTRIBUTION EQUIPMENT		A/C UNIT	AIR CONDITIONING UNIT	COAX COMM	COAX CABLE COMMUNICATION	MG MH	MOTOR GENERATOR MANHOLE
LA-1	CONDUIT ADD GROUND PER NEC.	C	T TRANSFORMER		A/E AAP	ARCHITECT/ENGINEER ALARM ANNUNCIATOR PANEL	COMPT CONC	COMPARTMENT CONCRETE	MIN MOCP	MINIMUM MAXIMUM OVERCURRENT PROTECTION
L-(2.4) -	HOMERUN TO PANEL WITH PANEL AND CIRCUIT INDICATED		AUXILIARY SYSTEM TERMINAL CABINET		AC	ALTERNATING CURRENT OR ARMORED CABLE	CONT CONTR	CONTINUE CONTRACTOR	MLO MT	MAIN LUGS ONLY MOUNT
	HOMERUN TO PANEL WITH CIRCUIT NUMBER IN BRACKETS INDICATING MULTI-POLE BREAKER.		REMOTE METER ENCLOSURE +6'-0" AFG TO CENTE	ERLINE	ACC ADDL	ACCESSIBLE ADDITIONAL	COORD CPT	COORDINATE CONTROL POWER TRANSFORMER	MTD MTG	MOUNTED MOUNTING
0	RACEWAYUP	F	SD FIRE SMOKE DAMPER		ADJ ADO	ADJACENT, ADJOINING AUTOMATIC DOOR OPENER	FC		MTS MV	MANUAL TRANSFER SWITCH MEDIUM VOLTAGE
•	RACEWAY DOWN	[S COMBINATION CO2/SMOKE DETECTOR		AF AFC	AMPERE FRAME OR AMP FUSE ABOVE FINISHED COUNTER. AUTOMATIC	EG	EQUIPMENT GROUND	NA NEC	NOT APPLICABLE NATIONAL ELECTRICAL CODE
		٢	SMOKE DOOR CLOSURE - (HOLD OPEN DEVICE)		/ C	FREQUENCY CONTROL, OR AVAILABLE	ELEC ELEV	ELECTRIC OR ELECTRICAL	NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
ON HA-6	"ON" INDICATES CIRCUITING IS SPLIT AT DIFFERENT LOCATIONS	L	EMERGENCY SHUNT TRIP DISCONNECT		AFF AFG	ABOVE FINISHED FLOOR ABOVE FINISHED GRADE	EMCP	EMERGENCY MONITORING CONTROL	NEUT OR I NEPA	N NEUTRAL NATIONAL FIRE PROTECTION
	ELUORESCENT EIXTURE - SURFACE OR PENDANT MOUNT	<u> </u>	1 SHEET NOTE		AH AHJ	AMPERE HOUR AUTHORITY HAVING JURISDICTION	EMER	EMERGENCY	NIC	ASSOCIATION NOT IN CONTRACT
			$\frac{A}{20}$ LIGHT FIXTURE DESIGNATION & WATTAGE. SEE FIX	XTURE SCHEDULE	AIC	AMPERE INTERRUPTING CAPACITY	EMI EMT	ELECTROMAGNETIC INTERFERENCE	NO	NORMALLY OPEN
	FLUORESCENT FIXTURE - LAY-IN	A	$\frac{AC}{1}$ MECHANICAL EQUIPMENT DESIGNATION.		AMB OR A	AMBIENT	ENCL		NTS	NOT TO SCALE
	FLUORESCENT FIXTURE - RECESSED		2 FEEDER - SIZE AS INDICATED ON SINGLE LINE DIAG	GRAM	ARCH		EPRF	EXPLOSION PROOF		ON CENTER
$\vdash O \dashv$	FLUORESCENT FIXTURE - STRIP LIGHT	E3	$\frac{B}{3.1}$ DETAIL DESIGNATION - "B" INDICATES DETAIL # ON	SHEET E3.1	AGC AT	AMPERE TRIP	EWC	ELECTRIC WATER COOLER	OL	OVERLOAD
	FLUORESCENT FIXTURE - WITH 90 MINTUE BATTERY	A1	100 ROOM NUMBER		AUTO		EXIST	EXISTING	P	
	CIRCUIT	~(>~ POWER POLE				FA		PA PB	POBLIC ADDRESS PANELBOARD, PULL BOX, OR
O O	CAN FIXTURE - CEILING, PENDANT OR WALL MOUNTED	K			BC	BARE COPPER	FAAP FABL	FIRE ALARM ANNUNCIATOR PANEL FIRE ALARM BELL	PBPU	POSHBUTTON PREFABRICATED BEDSIDE PATIENT
0	CAN FIXTURE - RECESSED	(F	FM) FLOW METER		BD BFF	BOARD BELOW FINISH FLOOR	FABX FACP	FIRE ALARM BOX FIRE ALARM CONTROL PANEL	PCB	
	EXIT LIGHT - WITH OR WITHOUT DIRECTIONAL ARROWS AS	(L	_T) LEVEL TRANSDUCER		BIL BLDG	BASIC INSULATION LEVEL BUILDING	FC FI	FOOTCANDLE FILM ILLUMINATOR	PEC PED	PHOTOELECTRIC CELL PEDESTAL
∇	SURFACE) - ON UNSWITCHED CIRCUIT	N	MOISTURE SENSOR		BAIN	PANEL	FIXT FLA	FIXTURE FULL LOAD AMPS	PEND PF	PENDANT POWER FACTOR
Δ	TRACK LIGHT	(F	PRESSURE TRANSDUCER		BRKR BYP	BREAKER BY PASS	FLEX FLT	FLEXIBLE METALLIC CONDUIT FLOODLIGHT	PH PNL	PHASE PANEL
Ø	BOLLARD				С	CONDUIT	FLUOR FLUOR FIX	FLUORESCENT FLUORESCENT FIXTURE	POD PT	POWER OPERATED DAMPER POTENTIAL TRANSFORMER
	EMERGENCY BATTERY UNIT ON UNSWITCHED CIRCUIT	∗ ΝC	OTE: ALL MOUNTING HEIGHTS AS INDICATED UNLESS NOTE	D OTHERWISE.	CAB CALC	CABINET CALCULATE	FOUTT FP	TELEPHONE FLOOR OUTLET FIRE PROTECTION	PTRV PVC	POWER TYPE ROOF VENTILATION POLYVINYL CHLORIDE (PLASTIC)
HO	FLOOD LIGHT		ALL SYMBOLS MAY NOT BE USED ON PROJECTS.		CAP CAT	CAPACITY CATALOG	FT FU SW	FEET OR FOOT FUSED SWITCH	PWR	POWER
\$	SINGLE POLE SWITCH +48" AFF				CATV CCR	COMMUNITY ANTENNA TELEVISION CONTROL CONTACTOR	FVNR FVR	FULL VOLTAGE NON-REVERSING FULL VOLTAGE REVERSING	(RR) RCP	REMOVE AND RELOCATE REFLECTED CEILING PLAN
	FRACTIONAL HORSEPOWER MOTOR MANUAL STARTER				CCTV cd	CLOSED CIRCUIT TELEVISION CANDELA	G OR GND	GROUND OR GENERATOR	REC RECPT	RECESSED RECEPTACLE
¢					CD CF	CONSTRUCTION DOCUMENTS CONTRACTOR FURNISHED	GEN GFCI	GENERATOR GROUND FAULT CIRCUIT INTERRUPTER	RGS RM	RIGID GALVANIZED STEEL ROOM
Фмом					CF/CI	CONTRACTOR FURNISHED/CONTRACTOR INSTALLED	GTB	GROUND TERMINAL BOX	RMS REQD	ROOT MEAN SQUARE REQUIRED
\mathcal{P}_{W}	AUTOMATIC WALL SWITCHES, GREENGATE #ONVV-D-1001-WV-N. +48 AFF				СТ	CURRENT TRANSFORMER	HID HOA	HIGH INTENSITY DISCHARGE HAND-OFF-AUTOMATIC	SCC	SHORT CIRCUIT CAPACITY
\$ _{w2}	DUAL LEVEL AUTOMATIC WALL SWITCHES, GREENGATE #ONW-P-1001-DMV-W +48"AFF				CTV CU	CABLE TELEVISION COPPER	HP HT	HORSEPOWER HEIGHT	SES SD	SERVICE ENTRANCE SECTION SMOKE DETECTOR
\$ _n	MANUAL DIMMER SWITCH, +48" AFF				CU FT CUR	CUBIC FEET CURRENT	HZ	HERTZ	SF SHT	SQUARE FOOT (FEET) SHEET
\$_	AUTOMATIC TIMER SWITCH + 48 AFE				DB	DECIBEL OR DIRECT BURIAL	IESNA	ILLUMINATION ENGINEERING SOCIETY OF NORTH AMERICA	SI SPEC	INTERNATIONAL SYSTEM OF UNITS SPECIFICATION
Ψĭ					DC DCS	DIRECT CURRENT DISTRIBUTED CONTROL SYSTEM	IMC INCAND	INTERMEDIATE METAL CONDUIT INCANDESCENT	SPST SURF	SINGLE POLE, SINGLE THROW SURFACE
MD	MOTION DETECTOR				DEG C DEG F	DEGREES CELSIUS DEGREES FAHRENHEIT	IR IWH	INFRARED INSTANTANEOUS WATER HEATER	SW SWBD	SWITCH SWITCHBOARD
60	PHOTOCELL SENSOR				DEMO DIAG	DEMOLITION DIAGRAM	J-BOX	JUNCTION BOX	SWGR	SWITCHGEAR
××	MOTOR SYMBOL - HORSEPOWER AS INDICATED				DISC DISTR	DISCONNECT DISTRIBUTION	kV	KILOVOLT	B.P.U.D.	BRIDGEPORT PUBLIC UTILITIES DISTRICT
F	DISCONNECT SWITCH (30A/3P UNLESS INDICATED ON DWGS) "F" INDICATES FUSES PER MANUFACTURERS NAMEPLATE RATING				DISTR PNL DMR SW	DISTRIBUTION PANEL DIMMER SWITCH	kVA kVAH	KILOVOLT AMPERE KILOVOLT AMPERE PER HOUR	TP TPS	TWISTED PAIR TWISTED PAIR SHIELDED
	MAGNETIC MOTOR STARTER (SIZE AS INDICATED ON DRAWINGS)				DN DPDT	DOWN DOUBLE POLE, DOUBLE THROW	kVAR kW	KILOVOLT AMPERE REACTIVE KILOWATT	TTB TYP	TELEPHONE TERMINAL BOARD TYPICAL
					DPST DRSW	DOUBLE POLE, SINGLE THROW DOOR SWITCH	kWH kWHM	KILOWATT HOUR KILOWATT HOUR METER	UGND	UNDERGROUND
L L	DRAWINGS - FUSES SIZED PER MANUFACTURER'S NAMEPLATE RATING)				DS DWG	DISCONNECT SWITCH DRAWING	LED	LIGHT EMITTING DIODE	UL UON	UNDERWRITERS LABORATORY UNLESS OTHERWISE NOTED
Þ	120V DUPLEX CONVENIENCE RECEPTACLE +18" AFF						LF LM	LINEAR FEET (FOOT) LUMEN	UPS UTIL	UNINTERRUPTIBLE POWER SUPPLY UTILITY
Ο	JUNCTION BOX AS REQUIRED BY NATIONAL ELECTRIC CODE						LP LPS	LIGHT POLE LOW PRESSURE SODIUM	V	VOLT
	AUXILIARY SYSTEM TERMINAL CABINET						LRA	LOCKED ROTOR AMPS	VA VAR	VOLT AMPERE VOLT AMPERE REACTIVE
	PRECAST CONCRETE PULL BOX (SIZE AS INDICATED)						LT		VFD VOLT	VARIABLE FREQUENCY DRIVE
	REMOTE METER ENCLOSURE +6'-0" AFG TO CENTERI INF							LIGHTING PANEL LIGHTNING	W	WATT
	JUNCTION BOX AS REQUIRED BY NATIONAL ELECTRIC CODE						LV	LOW VOLTAGE	WP	WEATHERPROOF
-									XFER XFMR	TRANSFER TRANSFORMER
DAIE	REVISION BLOCK			1 A						

	NO.	DATE	REVISION BLOCK	ΒY		
					DINTER	385 Gentry Way Reno, NV 89502 Pb: 775 826 4044
0101-010					Airfield Electrical Mechanical Web: dinter.com J-4502	Fax: 775.826.4190
5+/ ·						

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ARSENIC REMOVAL

ELECTRICAL SYMBOLS TLF 0883-023 DRAWING: КСН 140157-E1 SHEET: SCALE: E-1 NTS DATE: 02/08/16 OF: 28 SHEETS

SHEET NOTES: (THIS SHEET ONLY)

- NEW MCC "MSB" PROVIDE HOUSEKEEPING PAD AND STRUCTURAL BRACING PER MANUFACTURERS RECOMMENDATIONS.
- 2 ROUTE VIA RTU/CONTROLS PROVIDE WIRING PER MANUFACTURING REQUIREMENTS.
- 3 WATER TREATMENT SYSTEM CONTROL PANEL, F.B.O.
- PROVIDE A INTOUCH STANDARD PANEL PC 19" PRELOADED WITH LATEST WONDERWARE SOFTWARE. CONNECT TO PLC PER MANUFACTURERS REQUIREMENTS.
- 5 provide 120v control relay interlocked and energized with pump motor.

	LIGHT FIXTURE SCHEDULE							
TYPE	SYMBOL	DESCRIPTION & MANUFACTURER	LAMPS					
$\begin{pmatrix} A \\ \hline 70 \end{pmatrix}$		4–FOOT LED SURFACE MOUNT WRAP LITHONIA FEM4 LED 3L IMACD	LED					
A1 130		4–FOOT LED SURFACE MOUNT WRAP LITHONIA FEM4 LED 3L IMACD	LED					
B 55	НО	BUILDING MOUNTED EXTERIOR WALL PACK LITHONIA WST-50S-MD-MVOLT-PC	LED					
C 10	0	HUBBELL, KILLARK, MBL SERIES COMPACT, LED, 120V, GLOBE & GAURD,CEILING MOUNT, 3/4" BASE, MBL4530X2GLG.	LED					
E 10	4 ∰⊳	LITHONIA, EMERGENCY LIGHT, TITAN ELT50 H1212, TD, (2) 12W 12V SEAL-BEAM HALOGENS. LAMP,	MR 16(2)					
$\begin{pmatrix} E1\\ 5 \end{pmatrix}$	łO	EDWARDS SIGNALING 48 XBRM RED, STEADY ON.	MR 16(2)					

SHEET NOTES:

PANEL BOARD 'LA'	воо	STE	R Pl	ЈМР	B	UILI	DING	ì			
DIRECTORY	LOAD	BKR	CIR	_		CIR	BKR	LOAD	DIRECTORY		
LIGHTING	400	20/1	1	Α		2	20/1	600	TREATMENT CONTROLS	1	
EF-2	600		3	В		4		1000	EF-1 & UH-2	7	
RECEPTACLES	600		5	С		6		1440	RECEPTACLES	7	
Roll up door	600		7	Α		8		200	INTOUCH AND RECEPT	7	
P-1	750		9	В		10	20/1	1200	UH-1 & EF-3	7	
P-2	750		11	С		12	30	1662	CP-1	7	
WH-1	1250		13	Α		14	$\sqrt{2}$	1662	CP-1		
SOLENOID	500	20/1	15	В		16	20/1	800	Gate Operator	-	
SPARE	500	20/1	17	С		18	20/1	100	CONTROL POWER		
SPARE	100	20/1	19	Α		20	30 /	0	SPARE	7	
SPARE	0		21	В		22	17	0	SPARE		
SPARE	0		23	С		24	/ 3	0	SPARE		
SPARE			25	Α		26			SPACE		
SPACE			27	В		28			SPACE		
SPACE			29	С		30			SPACE		
			31	Α		32					
			33	В		34					
			-35	с /		-36					
			-37	A		38	<u> </u>				
			39	В		40					
			41	С		42					
CONNECTED LOAD	14714	VA	(41	A)				OTHER NOTES:		
	A= 4812	VA	_	40	А				120/208V., 3PH, 4W		
	B= 4850	VA		40	A	_			150 AMP MCB, 10kAIC		
	C= 5052	VA	_	42	Α	-			200 AMP BUS		

NO. DATE

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BRIDGEPORT PUBLIC UTILITY DISTRICT

ARSENIC REMOVAL

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)_<u>TYPICAL TRENCH SECTION</u> 2

ELECTRICAL SCHEMATIC AND DETAILS

SCALE:

DRAWN:		JOB	:	
	TLF		088	83-023
ENGINEER:		DRA	WINC	; :
	КСН	1	401	57-E4C
SCALE:		SHE	ET:	
	NTS			F-4
DATE:				
02/0	8/16	OF:	28	SHEETS

	SHEET NOTES:	
	1 NOT USED.	
7	ALL WIRING TO AND FROM INSTRUMENTATION COORDINATED WITH XIO FOR COMPATIBILITY	I DEVICES DRIVES WITH FIU, TYPICAL
	(3) CONTROL PANEL XIO FIU TO BE PROVIDED, INSTALLED BY ELECTRICAL CONTRACTOR.	PROGRAMMED ANI
	general note	S:
	1. PROGRAMMING, PERFORMED BY	TESTING AND TRA XiO.
	2. REFER TO SEQU ALL I&C COMPO SYSTEM	JENCE OF OPERAT ONENTS FOR A CO
	3. ALL INSTRUMEN	T CABLING TO BE
	TWIN LAKES WELL PUMP 1 START	
	ALARM LED 2	
	1 <u>Xio control fiu panel</u> no scale	
	ARSENIC REMOVAL	
DA AVENUE / POST OFFICE BOX MINDEN, NEVADA 89423	2229	
) 782–2322 / FAX: (775) 782– SITE: WWW.ROANDERSON.COM	BRIDGEPORT PUBLIC UTILITY DISTRICT	

I DEVICES DRIVES, SENSORS ETC. SHALL BE WITH FIU, TYPICAL. PROGRAMMED AND COMMISSIONED BY XIO,

TESTING AND TRAINING FOR CONTROL SYSTEMS WORK TO BE XiO.

QUENCE OF OPERATION IN SPEC. SECTION. CONTRACTOR TO INCLUDE PONENTS FOR A COMPLETE OPERATING SYSTEM INTEGRATING WITH XIO

NT CABLING TO BE SHIELDED UNLESS NOTED OTHERWISE.

I&C SCHEMATIC

	JOR:	•	
TLF		08	83–023
	DRA	WING	;
КСН	1	401	57-E40
	SHE	ET:	
NTS			F-5
8/16	OF:	28	SHEETS
	TLF KCH NTS 08/16	TLF KCH NTS 08/16 OF:	TLF 08 KCH DRAWING 1401 NTS SHEET: 08/16 OF: 28

MAIN SWITCHBOARD AND EQUIPMENT ELEVATION SCALE: N.T.S.

0/-E4	NO.	DATE	REVISION BLOCK	BY			1.
1401						385 Gentry Way Reno, NV 89502	RO
4549\4					ENGINEERING CONFIDENCE Airfield Electrical Mechanical Web: dinter.com	Ph: 775.826.4044 Fax: 775.826.4190	1603 ESMERALDA
): \4500-					J-4502		MIN PHONE: (775) 78 WEB SITE

Anderson

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ARSENIC REMOVAL

BRIDGEPORT PUBLIC UTILITY DISTRICT

FURNISHED BY XIO INSTALLED BY ELECTRICAL CONTRACTOR. ALL WIRING TO AND FROM INSTRUMENTATION DEVICES DRIVES, SENSORS ETC. SHALL BE COORDINATED WITH XIO FOR COMPATIBILITY WITH FIU.

NSB	ELEVATION

DETAILS

	PROFESSION
A	xp. 6/30/17
	OF CALIFOR

DRAWN:		JOB:
	TLF	0883-023
ENGINEER:		DRAWING:
	КСН	140157-E4C
SCALE:		SHEET:
SCALE:	NTS	SHEET: F-7
SCALE:	NTS	SHEET: E-7