

EQUIPMENT SCHEDULE

- CT 3**
COOLING TOWER
 COOLING TOWER (AT-112-B12L) TO COOL 1260 GPM OF WATER AT 85 DEG. F. E.W.T. WITH 65 DEG. F. W.B. TO 75 DEG. F. L.W.T. 25 HORSEPOWER 460/3PH/60HZ. UNIT CAPACITY 432.2 TONS. OPERATING WEIGHT = 11,500 POUNDS WITH UNIT DIMENSIONS OF 11'-1 1/4" L. x 11'-10" W. x 15'-8 1/4" H.
- CT 4**
DUCTUVE ALTERNATE
- CWP 2**
CONDENSER WATER PUMP
 PUMP TO MATCH EXISTING BELL AND GOSSETT MODEL VIT-CATM SIZE 12FDLO SINGLE STAGE, VERTICAL TURBINE WET PIT PUMP. 1295 GPM AT 45 FEET TDH. 20 HORSEPOWER AT 460V/3PH/60HZ 1750 RPM. OPERATING WEIGHT = 1200 POUNDS.
- CWP 3**
ACCESSORIES
 1. PREMIUM EFFICIENCY INVERTER RATED MOTOR.
 2. IBC COMPLIANT-1G, SEE SPECIFICATIONS
 3. VIBRATION SWITCH
 4. BOTTOM INLET
 5. BOTTOM OUTLET - OVERSIZED FOR REMOTE SUMP
 6. 301 STAINLESS STEEL WATER BASIN
 7. CUSTOM FACTORY EXTERNAL SERVICE PLATFORM - SINGLE PLATFORM AND LADDER TO SERVICE TWO COOLING TOWERS (SEE DRAWINGS).

GENERAL NOTES

- ALL WORK SHALL COMPLY WITH ALL APPLICABLE CODES, SPECIFICATIONS, LOCAL ORDINANCES AND INDUSTRY STANDARDS.
- COORDINATE ACTUAL LOCATIONS OF COOLING TOWERS WITH ARCHITECTURAL AND STRUCTURAL PLANS.
- INSTALL ALL MECHANICAL EQUIPMENT AND APPURTENANCES IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, CONTRACT DOCUMENTS, AND APPLICABLE CODES REGULATIONS.
- SITE VISIT IS MANDATORY. CONTRACTORS AND THEIR SUB-CONTRACTORS MUST VISIT SITE TO DISCOVER EXTENT OF WORK.
- INFORMATION OF EXISTING CONDITIONS SHOWN ON THE DRAWINGS IS BELIEVED TO BE CORRECT BUT NOT GUARANTEED. CONTRACTOR SHALL RELY ON SITE VISIT AND NECESSARY INVESTIGATION TO INSURE THAT HIS BID IS CORRECT TO MEET THE INTENTION OF THE WORK TO BE PERFORMED. EXTRAS WILL NOT BE ALLOWED FOR FAILURE TO PERFORM THIS TASK.
- PATCH AND PAINT WALLS TO MATCH EXISTING AS REQUIRED WHERE NEW OR EXISTING WORK IS BEING PERFORMED.
- COORDINATE WORK SCHEDULE WITH THE RESIDENT ENGINEER TO MINIMIZE DOWN TIME. WORK SHALL BE ACCOMPLISHED ON PREMIUM TIME IF NECESSARY.
- ALL MATERIALS AND EQUIPMENT TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S PRINTED INSTRUCTIONS.
- FLRESTOP MATERIALS SHALL BE INSTALLED TO PREVENT THE SPREAD OF FIRE, SMOKE AND GASES THROUGH PENETRATIONS IN FIRE RESISTIVE WALLS, FLOORS AND PARTITIONS FOR THE PASSAGE OF PIPES. INSTALLATION MUST CONFORM TO REQUIREMENTS OF QUALIFIED DESIGNERS OR MANUFACTURER APPROVED METHODS AS SUPPORTED BY ENGINEERING REPORTS, AND MUST BE APPROVED BY THE RESIDENT ENGINEER.
- COORDINATE EXACT LOCATION OF PENETRATIONS THROUGH CONCRETE SLAB AND WALLS WITH STRUCTURAL DRAWINGS AND EXISTING CONDITIONS PRIOR TO ANY ROUGH-IN.
- DO NOT FABRICATE PIPING FROM DRAWINGS. SPACE ALLOCATION SHALL BE DETERMINED IN THE FIELD AND COORDINATED WITH OTHER TRADES PRIOR TO FABRICATION.
- DEMOLISH AND REMOVE FROM SITE ALL UNUSED MECHANICAL EQUIPMENT AND PIPING.
- PROVIDE ALL MATERIALS AND EQUIPMENT AND PERFORM ALL LABOR REQUIRED TO INSTALL COMPLETE AND OPERABLE MECHANICAL SYSTEMS AS INDICATED ON THE DRAWINGS, AS SPECIFIED AND AS REQUIRED BY CODE.
- INSTALL ALL MECHANICAL EQUIPMENT AND APPURTENANCES IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, CONTRACT DOCUMENTS, AND APPLICABLE CODES AND REGULATIONS.
- COORDINATE CONSTRUCTION OF ALL MECHANICAL WORK WITH ARCHITECTURAL, STRUCTURAL, CIVIL, ELECTRICAL WORK, ETC., SHOWN ON OTHER CONTRACT DOCUMENT DRAWINGS.
- ALL TESTS SHALL BE COMPLETED BEFORE ANY MECHANICAL EQUIPMENT OR PIPING INSULATION IS APPLIED.
- THE LOCATIONS OF ALL ITEMS SHOWN ON THE DRAWINGS OR CALLED FOR IN THE SPECIFICATIONS THAT ARE NOT DEFINITELY FIXED BY DIMENSIONS ARE APPROXIMATE ONLY. THE EXACT LOCATIONS NECESSARY TO SECURE THE BEST CONDITIONS AND RESULTS MUST BE DETERMINED BY THE PROJECT SITE CONDITIONS AND SHALL HAVE THE APPROVAL OF THE RESIDENT ENGINEER BEFORE BEING INSTALLED. DO NOT SCALE DRAWINGS.
- ALL MISCELLANEOUS STEEL REQUIRED TO ENSURE PROPER INSTALLATION AND AS SHOWN IN DETAILS FOR PIPING AND EQUIPMENT (UNLESS OTHERWISE NOTED) SHALL BE FURNISHED AND INSTALLED BY THE MECHANICAL CONTRACTOR.
- ALL EQUIPMENT, PIPING, DUCTWORK, ETC., SHALL BE SUPPORTED AS REQUIRED TO PROVIDE A VIBRATION FREE INSTALLATION.
- ALL OPENINGS IN FIRE WALL DUE TO PIPING, CONDUIT, ETC., SHALL BE FIRE STOPPED WITH A PRODUCT SIMILAR TO 3M OR APPROVED EQUAL.
- SLOPE ALL GRAVITY CONDENSER WATER PIPING 1" PER FOOT MINIMUM.
- PIPING RUNS SHALL BE AS STRAIGHT AS POSSIBLE AND ALL CHANGES IN DIRECTION MADE WITH FITTINGS. MAKE OFFSETS AT 45 DEGREE OR 90 DEGREES.
- FLANGES AND GASKETS: REQUIRED ON INLET AND OUTLET OF ALL APPARATUS OR EQUIPMENT HAVING SCREWED, WELDED AND CONNECTIONS 2-1/2" AND LARGER. FLANGES SHALL MATCH PIPING MATERIAL.
- DIELECTRIC COUPLINGS: PROVIDE FOR CONNECTION BETWEEN DISSIMILAR METALS IN THE PIPING SYSTEMS TO CONTROL CORROSION CAUSED BY GALVANIC OR ELECTROLYTIC ACTION.
- CHANGE IN PIPE SIZES: MAKE CHANGES IN PIPE SIZES WITH REDUCING ELBOWS, REDUCING TEES, OR INCREASERS. INCREASERS MAY BE CONCENTRIC.
- COORDINATE THE ROUTING OF PIPING WITH EXISTING CONDITIONS AND OTHER SECTIONS PRIOR TO BEGINNING WORK.
- ALL PIPING SHALL NOT OBSTRUCT ACCESS OR REMOVAL OF MECHANICAL OR ELECTRICAL EQUIPMENT.
- DURING THE BALANCING PHASE OF THE WORK THE CONTROL CONTRACTOR AND BALANCING CONTRACTOR SHALL DETERMINE IN THE FIELD THE APPROPRIATE VALVE POSITION OF THE MODULATING COOLING TOWER ISOLATION VALVES FOR EACH COMBINATION OF OPERATING TOWERS. THE CONTROL CONTRACTOR SHALL UTILIZE THIS INFORMATION TO MAINTAIN PROPER CONDENSER WATER FLOWS

MECHANICAL LEGEND

ALL ITEMS SHOWN IN THIS LEGEND ARE NOT NECESSARILY USED ON THE DRAWINGS.

ABBREV.	SYMBOL	DESCRIPTION
SUP		SUPPLY AIR
RET		RETURN AIR
EXH		EXHAUST AIR
CA		COMBUSTION AIR
RA		RELIEF AIR
TA		TRANSFER AIR
OSA		OUTSIDE AIR/MAKE-UP AIR
CD		CEILING DIFFUSER
R		REGISTER WITH OBD
FLEX.D.		FLEXIBLE DUCT
FDC		FLEXIBLE DUCTWORK CONNECTOR
LD		LINED DUCTWORK
MVD		MANUAL VOLUME DAMPER
BDD		BACK DRAFT DAMPER
SGD		SLIDE GATE DAMPER
G		RETURN/EXHAUST GRILLE
SWR		SIDEWALL REGISTER WITH OBD
QBD		OPPOSED BLADE DAMPER
FR		FLOOR REGISTER
AD		ACCESS DOOR
T		THERMOSTAT
TH		ROOM TEMPERATURE SENSOR
TCP		TEMPERATURE CONTROL PANEL
UC		UNDER CUT
DL		DOOR LOUVER
CFM	f	CUBIC FEET PER MINUTE
RD	o	ROUND
REF		REFERENCE
NIACS		NOT IN AIR CONDITIONING SECTION
POC		POINT OF CONNECTION
EBPT		ELECTRIC BY-PASS TIMER
CHL		CHIME AND PILOT LIGHT
FBO		FURNISHED BY OTHERS
L	— L —	LIQUID LINE
S	— S —	SUCTION LINE
D	— D —	CONDENSATE DRAIN
E	(E)	EXISTING
N	(N)	NEW

NOTE TO CONTRACTOR:
 BUILDING MATERIALS THAT MAY BE DISTURBED DURING THE COURSE OF CONSTRUCTION AND/OR DEMOLITION WILL BE TESTED FOR THE PRESENCE OF ASBESTOS. THESE MATERIALS HAVE BEEN IDENTIFIED AS ASBESTOS CONTAINING OR NON-ASBESTOS CONTAINING IN THE BUILDING MATERIAL DISTURBANCES PERMIT BY THE MANAGEMENT PLANNER. THIS PERMIT MUST BE REFERRED TO BEFORE ANY WORK COMMENCES. ALL ASBESTOS CONTAINING MATERIAL MUST BE HANDLED BY CONTRACTORS AND/OR INDIVIDUALS TRAINED AND CERTIFIED IN THE REMOVAL OF ASBESTOS CONTAINING BUILDING MATERIALS. NO ASBESTOS CONTAINING MATERIAL SHALL BE DISTURBED PRIOR TO AUTHORIZATION FROM THE OWNER. IF ANY MATERIAL IS ENCOUNTERED OR DISTURBED THAT IS NOT LISTED ON THIS PERMIT, IT SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE MANAGEMENT PLANNER OF WASHOE COUNTY SCHOOL DISTRICT (851-5673) BEFORE ANY WORK CONTINUES THAT MIGHT DISTURB THIS MATERIAL. IF ANY BUILDING MATERIAL WHICH CONTAINS ASBESTOS IS KNOWINGLY DISTURBED, IT SHALL BE THE CONTRACTOR'S FULL FINANCIAL RESPONSIBILITY FOR ANY RESULTING CONTAMINATION CLEANUP, OR REPLACEMENT OF AFFECTED EQUIPMENT/MATERIALS, ETC. AND ANY LEGAL ACTION THAT MAY RESULT FROM AN ASBESTOS FIBER RELEASE INCIDENT, CAUSED BY THE CONTRACTOR.

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Drawings Title
MECHANICAL EQUIPMENT, NOTES, AND LEGEND
 Approved: Project Director

Project Title
COOLING TOWER REPLACEMENT

Project Number
 654-13-370

Building Number
 8

Location
 975 Kirman Avenue, Reno, NV. 89502

Date
 October 24, 2013

Checked
 JSH

Drawn
 ER

Drawing Number
MP001

Office of
Construction and Facilities Management

Department of
Veterans Affairs