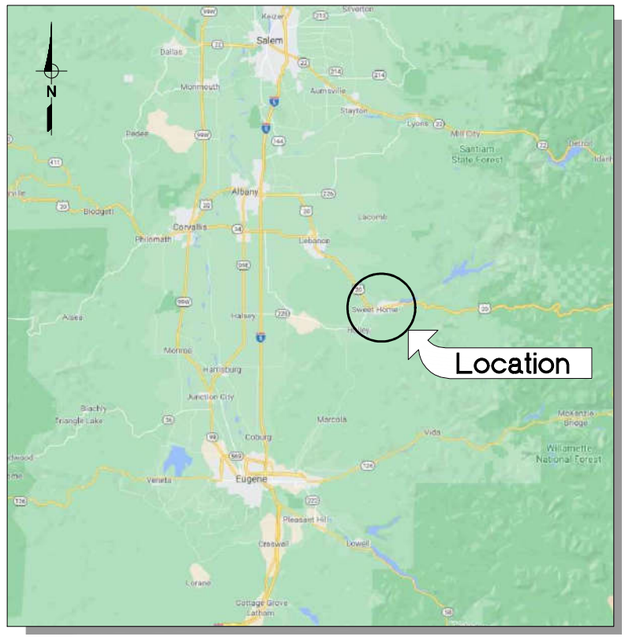
SWEET HOME, OREGON

SWEET HOME WATER TREATMENT PLANT

FINISHED WATER AND BACKWASH PUMPING SYSTEMS IMPROVEMENTS

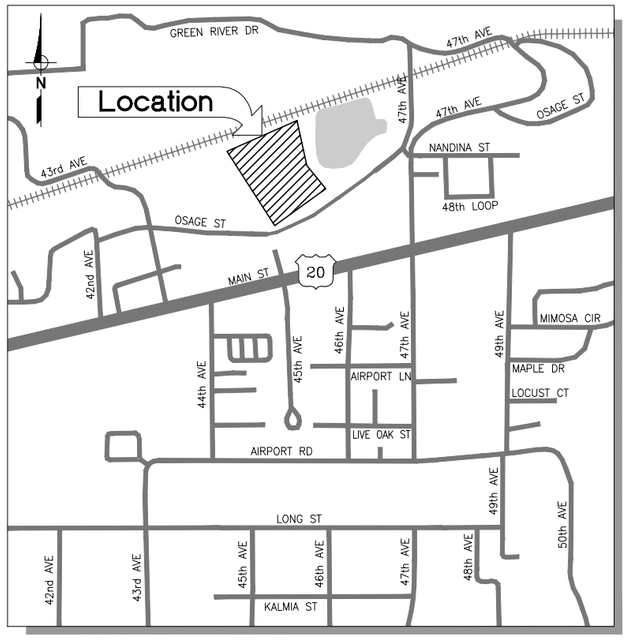
NOVEMBER 2021



LOCATION MAP

NOT TO SCALE

INDEX OF DRAWINGS



VICINITY MAP

NOT TO SCALE

REGISTERED PROFESSIONAL ENGINEER
PRESTON VAN METER
JAN. 02, 2009
EXPIRES : 6/30/2022

QC REVIEW: _____

DATE: _____

THIS LINE IS 1 INCH
AT FULL SCALE IF NOT SCALE ACCORDINGLY

SCALE : NONE
DRAWN BY : SMB
DESIGNED BY : ANK
PROJ. MGR. : PLV

No.	ZONE	REVISIONS	BY	DATE

WEST YOST
Water. Engineered.

SWEET HOME
FINISHED WATER AND BACKWASH PUMPING SYSTEMS IMPROVEMENTS
TITLE SHEET, LOCATION AND VICINITY MAPS, DRAWING INDEX

JOB NUMBER 936-50-20-03
DRAWING NUMBER **G001**
SHEET NUMBER 1 OF 15
REVISION

P:\Clients\936 City of Sweet Home\50-20-03 WTP Finish Water\CAD\Production\936-50-20-03-G001.dwg 11-03-21 12:54:00 PM sbarber

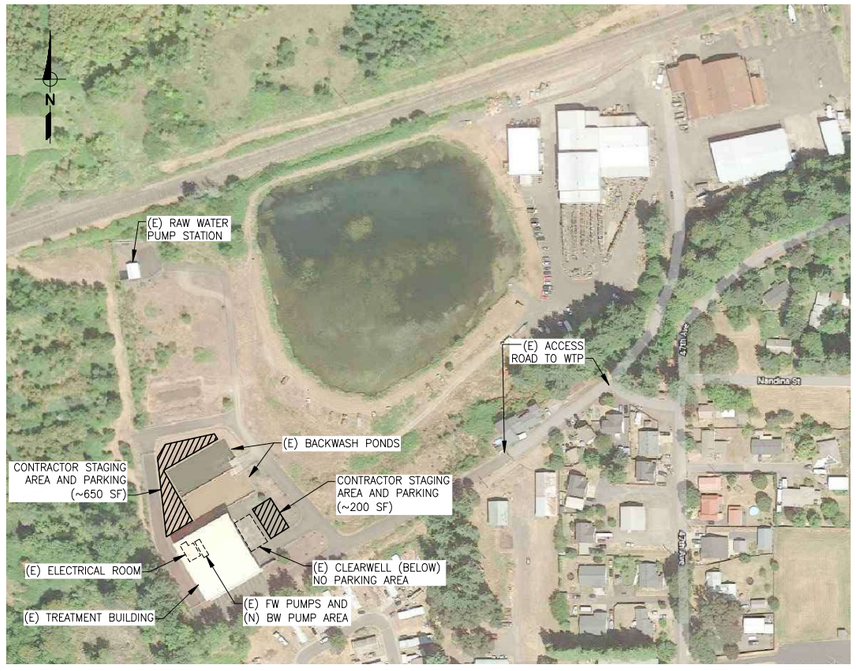
GENERAL NOTES

1. CONTRACTOR SHALL VERIFY DIMENSIONS, LOCATIONS, AND CONDITIONS OF ALL EXISTING ITEMS WITHIN OR ADJACENT TO THE WORK OR THAT MAY BE DISTURBED BY THE WORK BEFORE STARTING THE WORK AND SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
2. CONTRACTOR SHALL PROTECT ALL EXISTING APPURTENANCES THAT REMAIN.
3. CONTRACTOR SHALL RESTORE ALL DAMAGED OR DISTURBED AREAS TO THEIR ORIGINAL CONDITION AFTER COMPLETION OF THE WORK.
4. REFER TO SECTION 01140 FOR WORK RESTRICTIONS INCLUDING SCHEDULE AND SEQUENCING CONSTRAINTS AND REQUIREMENTS.
5. ADDITIONAL SITE PREPARATION AND DEMOLITION REQUIREMENTS ARE INCLUDED IN THE TECHNICAL SPECIFICATIONS.
6. CONTRACTOR SHALL REFER TO ALL RELATED DRAWINGS AND TO MANUFACTURER'S DRAWINGS FOR EQUIPMENT AND FACILITY DETAILS.
7. MAINTAIN ACCESS FOR CITY EMPLOYEES AT ALL TIMES DURING CONSTRUCTION.
8. OBSERVE SPEED LIMITS AT THE SITE AT ALL TIMES. THE ACCESS ROAD AND SOUTH SIDE OF THE WATER TREATMENT PLANT ARE BORDERED BY RESIDENCES AND THERE ARE OFTEN CHILDREN PLAYING ON THE ROADS.

DEFERRED SUBMITTALS

1. THE FOLLOWING PORTIONS OF THE PROJECT ARE DEFERRED SUBMITTAL ITEMS. DEFERRED SUBMITTALS LISTED BELOW ARE THE RESPONSIBILITY OF THE CONTRACTOR. DEFERRED SUBMITTAL ITEMS HAVE NOT BEEN DESIGNED BY THE ENGINEER OF RECORD. REFER TO CONTRACT DOCUMENTS FOR ADDITIONAL INFORMATION.
   a. ANCHORAGE CALCULATIONS
2. UNLESS OTHERWISE NOTED, DEFERRED SUBMITTAL ITEMS SHALL BE STAMPED AND SIGNED BY A PROFESSIONAL CIVIL OR WHERE APPLICABLE BY A STRUCTURAL ENGINEER REGISTERED IN THE STATE OF OREGON.
3. DEFERRED SUBMITTAL ITEMS SHALL BE SUBMITTED TO THE OWNER FOR APPROVAL DURING THE CONSTRUCTION PHASE OF THE PROJECT.
4. DEFERRED SUBMITTAL ITEMS SHALL NOT BE FABRICATED UNTIL THE ENGINEER OF RECORD HAS REVIEWED THE SUBMITTAL DOCUMENTS AND INDICATED THAT THEY HAVE BEEN REVIEWED AND THAT THEY HAVE BEEN FOUND TO BE IN GENERAL CONFORMANCE WITH THE CONTRACT DOCUMENTS AND THE SUBMITTAL DOCUMENTS HAVE BEEN FAVORABLY REVIEWED BY THE OWNER.

SITE PLAN



NOT TO SCALE

ABBREVIATIONS

AB	AGGREGATE BASE
AC	ASPHALT CONCRETE
AFF	ABOVE FINISH FLOOR
AL, ALUM	ALUMINUM
APPROX	APPROXIMATE
ARV	AIR RELIEF VALVE
ASPH	ASPHALT
BC	BEGIN CURVE
B.C.	BACK OF CURB
BF	BLIND FLANGE
BFV	BUTTERFLY VALVE
B.O.	BLOW OFF
BM	BENCH MARK
BW	BACKWASH
CB	CATCH BASIN
CL, ℄	CENTER LINE
CLR	CLEAR
CLSM	CONTROLLED LOW STRENGTH MATERIAL
CMU	CONCRETE MASONRY UNIT
CO	CLEAN OUT
CONC	CONCRETE
CONT.	CONTINUOUS
CPE	COPOLYESTER
CV	CHECK VALVE
CY	CUBIC YARDS
DEMO	DEMOLITION
DI	DRAIN INLET
DIA, ø	DIAMETER
DIP	DUCTILE IRON PIPE
DWG	DRAWING
E	EAST
EA	EACH
EF	EACH FACE
EL	ELEVATION
ELEC	ELECTRIC
EP	EDGE OF PAVEMENT
EQUIP	EQUIPMENT
EW	EACH WAY
(E), EX	EXISTING
EXP	EXPANSION
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FF	FINISHED FLOOR
FG	FINISHED GRADE
FH	FIRE HYDRANT
FL, ℄	FLOW LINE
FLG	FLANGE
FO	FIBER OPTIC
FOC	FACE OF CURB
FOT	FLAT ON TOP
FRP	FIBERGLASS REINFORCED PLASTIC
FSW	FIRE SERVICE WATER
FT, '	FEET, FOOT
FUT, F, (F)	FUTURE
FW	FINISHED WATER
GA	GAUGE
GALV	GALVANIZED
GB	GRADE BREAK
GS	GROUND SURFACE
GSP	GROUND SURFACE PROFILE
GV	GATE VALVE
HC	HANDICAPPED
HP	HIGH POINT IN PVMT, HIGH PRESSURE
HPI	HORIZONTAL POINT OF INFLECTION
HORZ	HORIZONTAL
IE	INVERT ELEVATION
IN, "	INCH
INV	INVERT
IPS	IRON PIPE SIZE
LF	LINEAL FEET
M	METER
MFR	MANUFACTURER
MAX	MAXIMUM
MIN	MINIMUM
MH	MANHOLE
MON	MONUMENT, MONITORING
MOV	MOTOR OPERATED VALVE
MSB	MAINTENANCE SERVICES BUILDING
N	NORTH
NIC	NOT IN CONTRACT
No., #	NUMBER
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OF	OVERFLOW
OH	OVERHEAD
PCC	PORTLAND CEMENT CONCRETE
PE	PLAIN END, POLYETHYLENE
PG	PRESSURE GAUGE
PL, ℄	PLATE, PROPERTY LINE
PRV	PRESSURE REDUCING VALVE
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PSV	PRESSURE RELIEF VALVE
PV	PLUG VALVE
PVC	POLYVINYL CHLORIDE
PVM'T	PAVEMENT
R	RADIUS
REQ'D	REQUIRED
REV	REVISION
R/W	RIGHT OF WAY
S	SEWER, SOUTH, SLOPE
SCH	SCHEDULE
SDMH	STORM DRAIN MANHOLE
SPD	SUMP PUMP DISCHARGE
SQ	SQUARE
SS	SANITARY SEWER
SSB	STAINLESS STEEL BOLT
SSMH	SANITARY SEWER MANHOLE
SST	STAINLESS STEEL
STA	STATION
ST	STREET
STD	STANDARD
STL	STEEL
SVC	SERVICE
SW	SIDEWALK
T	TELEPHONE
T&B	TOP & BOTTOM
TC	TOP OF CURB
TOC	TOP OF CONCRETE
TOW	TOP OF WALL
TYP	TYPICAL
UG	UNDERGROUND
VAR	VARIOUS
VTR	VENT THROUGH ROOF
W	WEST
W/	WITH
W/O	WITH OUT
WCT	WASTE CONTAINMENT TANK
WL	WATER LEVEL
WS	WATER SURFACE
WSE	WATER SURFACE ELEVATION
WTP	WATER TREATMENT PLANT
WV	WATER VALVE
WWF	WELDED WIRE FABRIC

SECTION & DETAIL DESIGNATIONS

SECTION CUT ON DWG M21 — A / M23
- A: SECTION LETTER
- M23: DRAWING WHERE SECTION APPEARS

ON DWG M23 THIS SECTION IS IDENTIFIED AS: — A / M21
- A: SECTION LETTER
- M21: DRAWING FROM WHICH SECTION WAS TAKEN

DETAILS ARE CROSS REFERENCED IN A SIMILAR MANNER, EXCEPT THAT DETAILS ARE IDENTIFIED BY NUMBER

PIPING DESIGNATIONS

NEW PIPING: 12" W
- 12": PIPE SIZE
- W: PIPING SYSTEM ABBREVIATION

EXISTING PIPING: 12" W

FUTURE PIPING: (12" W)

SYMBOLS

NEW (PROPOSED)

- PAVEMENT SECTION
- CONCRETE SECTION
- AGGREGATE BASE/CRUSHED ROCK
- GRAVEL
- COMPACTED SOIL
- STRUCTURE
- FENCE
- SINGLE LINE PIPE
- SINGLE LINE BURIED PIPE
- DOUBLE LINE PIPE
- DOUBLE LINE BURIED PIPE
- CENTERLINE

EXISTING

- CONCRETE SECTION
- COMPACTED SOIL
- STRUCTURE
- FENCE
- SINGLE LINE PIPE
- SINGLE LINE BURIED PIPE
- DOUBLE LINE PIPE
- DOUBLE LINE BURIED PIPE
- CENTERLINE
- 110 — ELEVATION CONTOUR
- × 34.8 — SPOT ELEVATION
- DEMOLITION

MECHANICAL PIPE, FITTINGS AND VALVES

SINGLE LINE	DOUBLE LINE	
		UNION
		ELASTOMER & FABRIC EXPANSION JOINT
		REDUCER
		CHECK VALVE
		BUTTERFLY VALVE
M	M	BUTTERFLY VALVE WITH MOTOR OPERATOR

SINGLE LINE	DOUBLE LINE	
		ELBOW UP
		ELBOW DOWN
		TEE
		GATE VALVE
		FLOW METER
		PRESSURE REDUCING VALVE

SINGLE LINE

- THREE WAY VALVE
- BALL VALVE (NORMALLY OPEN)
- BALL VALVE (NORMALLY CLOSED)
- SAMPLING OR FLUSHING CONNECTION
- GLOBE VALVE
- PRESSURE RELIEF VALVE
- BALL CHECK VALVE
- HOSE VALVE
- M — MOTOR OPERATED VALVE
- BACK PRESSURE REGULATING VALVE
- S — SOLENOID VALVE
- DIAPHRAGM OPERATED VALVE
- STRAINER
- PRESSURE REGULATING VALVE
- AIR RELEASE VALVE OR DEGASSING VALVE
- NEEDLE VALVE
- U — UTILITY STATION
- BACK FLOW PREVENTER

REGISTERED PROFESSIONAL ENGINEER — OREGON — JAN. 02, 2009 — PRESTON VAN METER — EXPIRES : 6/30/2022

QC REVIEW: _____ DATE: _____

THIS LINE IS 1 INCH — AT FULL SCALE IF NOT SCALE ACCORDINGLY

SCALE :	NONE
DRAWN BY :	SMB
DESIGNED BY :	ANK
PROJ. MGR. :	PLV

No.	ZONE	REVISIONS	BY	DATE

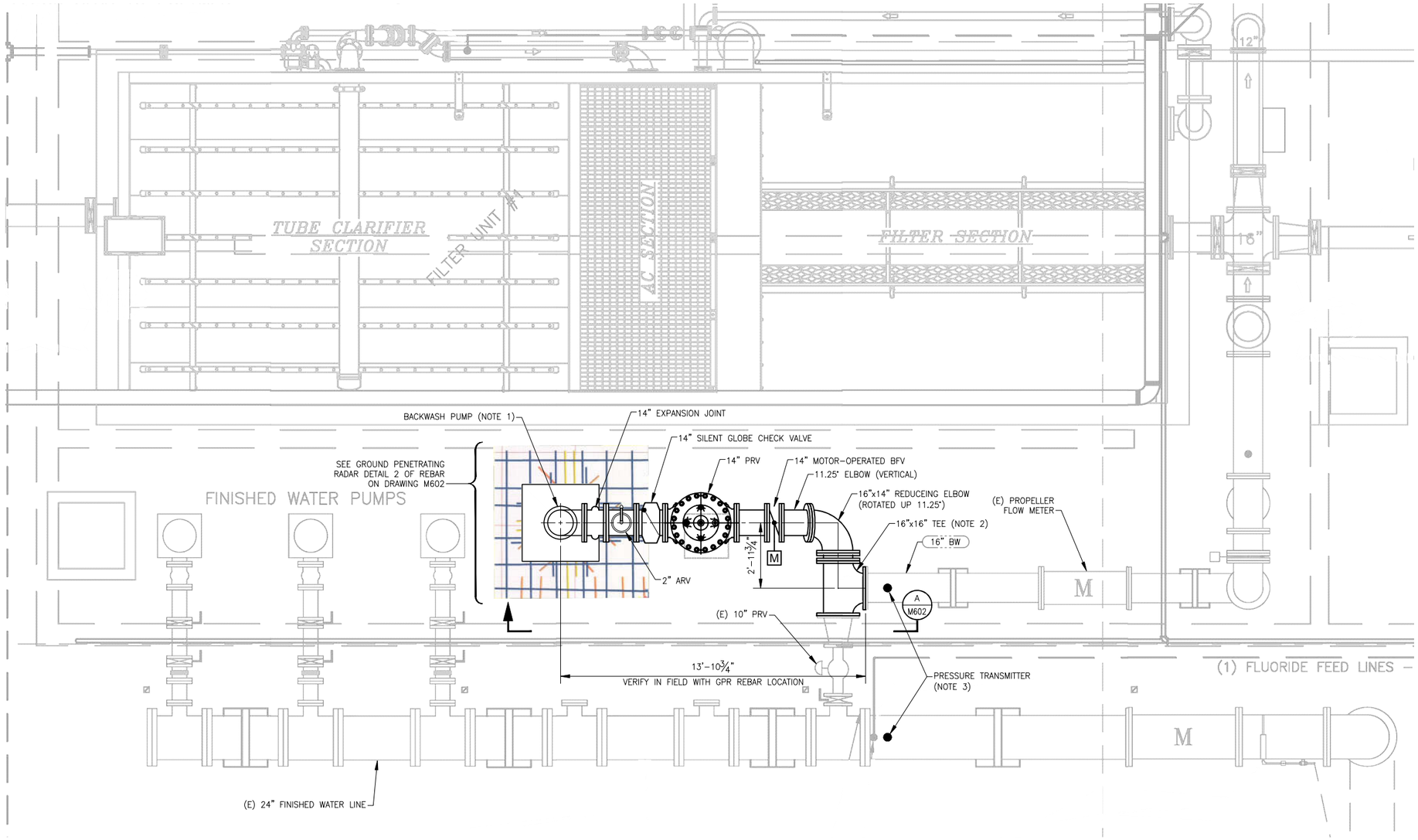
WEST YOST — Water. Engineered.

Sweet Home — Oregon ...at its best!

SWEET HOME
FINISHED WATER AND BACKWASH PUMPING SYSTEMS IMPROVEMENTS
GENERAL NOTES, ABBREVIATIONS, SYMBOLS AND SITE PLAN

JOB NUMBER	936-50-20-03
DRAWING NUMBER	G002
SHEET NUMBER	2 OF 15
REVISION	

P:\Clients\936 City of Sweet Home\50-20-03 WTP Finish Water\CAD\Production\936-50-20-03-G002.dwg 11-03-21 12:55:09 PM sbarber



BW PUMP AND PIPING

PLAN

SCALE: 3/8"=1'-0"

NOTES:

1. THE ORIGINAL WTP DESIGN INCLUDED TWO PENETRATIONS OVER THE CLEARWELL FOR FUTURE FW PUMP INSTALLATIONS. THE BW PUMP SHALL BE INSTALLED IN THE NORTH-MOST (E) PENETRATION.
2. REMOVE (E) 16" 90° ELBOW ON THE (E) 16" BW PIPELINE FOR INSTALLATION OF A 16"x16" TEE. PROVIDE NEW GASKET AND BOLTS FOR THE CONNECTION TO THE (E) 16" BW PIPELINE. SALVAGE AND RETURN THE (E) 16" 90° ELBOW TO THE OWNER.
3. CO-LOCATE PRESSURE TRANSMITTER WITH (E) PRESSURE GAUGES.
4. TOUCH-UP ALL EQUIPMENT AND PIPING WITH FACTORY FINISHES THAT ARE DAMAGED DURING SHIPPING, STORAGE, OR INSTALLATION AS FOLLOWS:
   a. CLEAN SURFACE WITH APPROPRIATE SOLVENT TO REMOVE GREASE, OIL, OR OTHER SOLUBLE CONTAMINANTS BY SCRUBBING WITH BRISTLE BRUSH SOAKED IN SOLVENT.
   b. REMOVE SOLVENT BY WIPING CLEAN WITH LINT-FREE RAGS.
   c. REMOVE RAG RESIDUE (IF ANY) WITH DRY, OIL-FREE COMPRESSED AIR.
   d. TOUCH-UP COATING IN MANNER COMPATIBLE WITH THE FACTORY COATING WITH RESPECT TO PAINT TYPE, COLOR, AND TEXTURE.
   e. TOUCH-UP FUSION EPOXY-COATED ITEMS ONLY WITH MATERIALS PROVIDED BY THE FUSION EPOXY FABRICATOR.
   f. IF MORE THAN 5% OF THE SURFACE REQUIRES TOUCH-UP, RETURN THE ITEM TO THE FABRICATOR FOR RECOATING.

REGISTERED PROFESSIONAL ENGINEER
PRESTON VAN METER
EXPIRES : 6/30/2022

QC REVIEW: _____
DATE: _____

THIS LINE IS 1 INCH
AT FULL SCALE IF NOT SCALE ACCORDINGLY

SCALE : 3/8"=1'-0"
DRAWN BY : SMB
DESIGNED BY : ANK
PROJ. MGR. : PLV

No.	ZONE	REVISIONS	BY	DATE

WEST YOST
Water. Engineered.

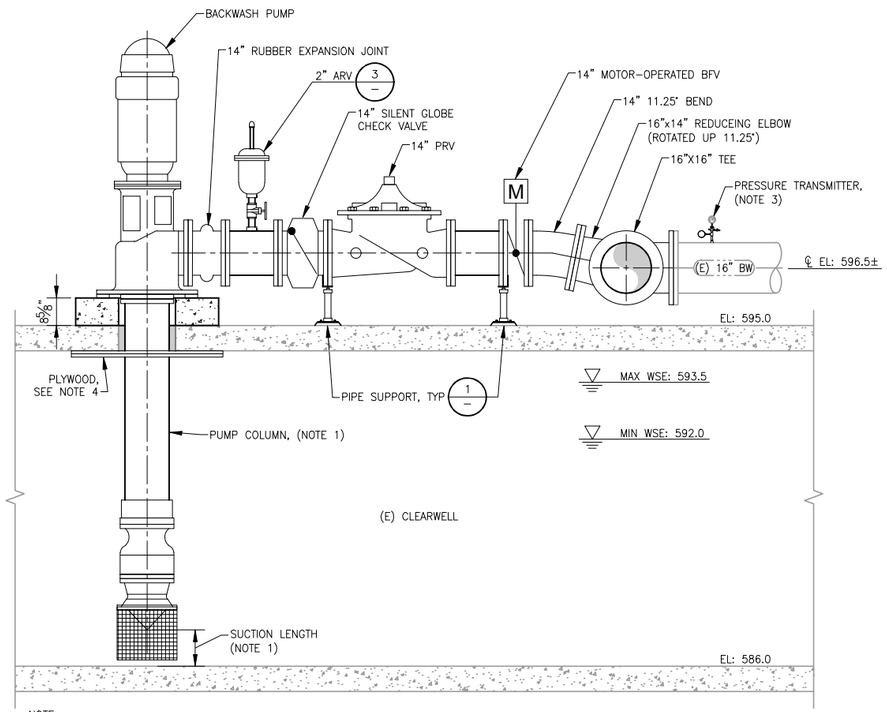
Sweet Home
Oregon ...at it's best!

SWEET HOME
FINISHED WATER AND BACKWASH PUMPING SYSTEMS IMPROVEMENTS

BW PUMP - MECHANICAL PLAN

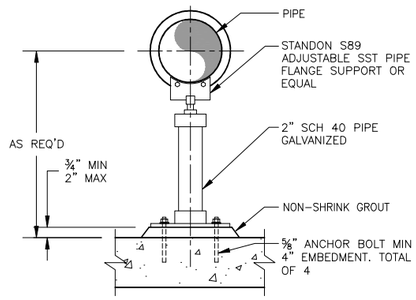
JOB NUMBER 936-50-20-03
DRAWING NUMBER **M601**
SHEET NUMBER 3 OF 15
REVISION

P:\Clients\936 City of Sweet Home\50-20-03 WTP Finish Water\CAD\Production\936-50-20-03-M601.dwg 11-03-21 12:58:21 PM sbarber



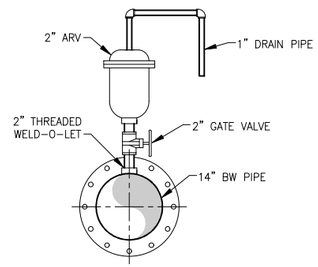
NOTE:
1. BACKWASH PUMP SUCTION LENGTH ABOVE THE (E) CLEARWELL FLOOR SHALL BE AS RECOMMENDED BY THE PUMP MANUFACTURER. PUMP COLUMN LENGTH SHALL BE AS NEEDED TO PROVIDE THE MANUFACTURER RECOMMENDED SUCTION LENGTH. FIELD VERIFY DIMENSIONS.
2. PUMP BASE THICKNESS SHALL BE 8" MINIMUM. CONTRACTOR TO FIELD VERIFY DIMENSIONS DURING FIELD LAYOUT AND MODIFY PIPING AS REQUIRED WHILE PROVIDING THE MINIMUM REQUIRED PUMP BASE AS SPECIFIED ON SHEET S601.
3. PROVIDE ADDITIONAL APPURTENANCES AS NEEDED TO RECONFIGURE THE (E) PRESSURE GAUGE ASSEMBLY TO INCORPORATE THE PRESSURE TRANSMITTER.
4. TO PROTECT CLEARWELL, CONTRACTOR SHALL INSTALL AND ANCHOR PLYWOOD ON THE UNDERSIDE OF EXISTING CONCRETE PAD. ANCHORS SHALL BE SPECIFIED BY CONTRACTOR TO PROTECT CLEARWELL DURING CORE DRILLING OPERATIONS.

SECTION A/M601
SCALE: 1/2"=1'-0"



NOTE:
ALL COMPONENTS SHALL BE TYPE 316 SST UNLESS OTHERWISE NOTED.

PIPE SUPPORT (FLANGE MOUNTED)
DETAIL 1/VAR
NOT TO SCALE

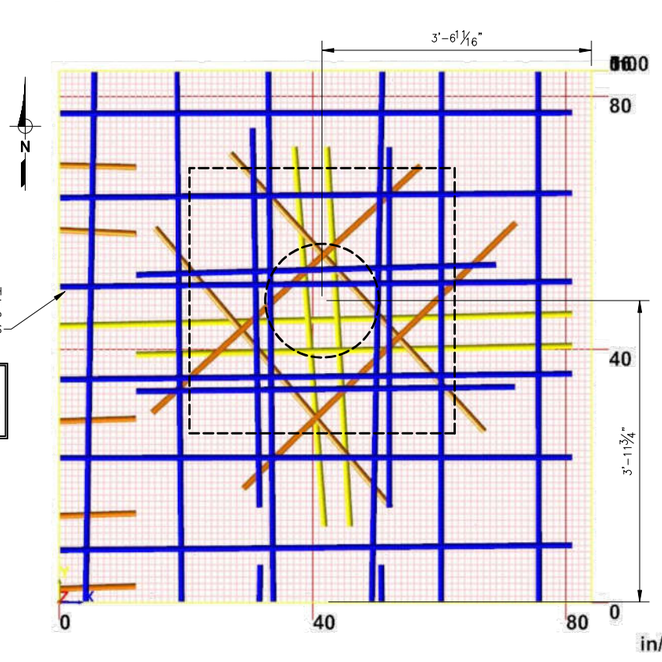


2" ARV ASSEMBLY
DETAIL 3/—
NOT TO SCALE

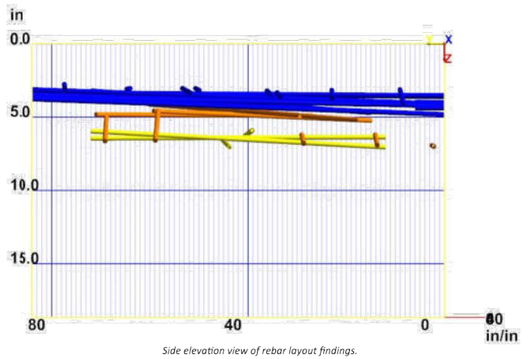
NOTE: ONLY ONE (1) FULL LENGTH BAR SPANNING IN THE EAST-WEST DIRECTIONS MAY BE CUT IN TOP AND BOTTOM REBAR LAYERS

NOTE:
PLAN VIEW IS ROTAED 90 DEGREES CLOCKWISE FROM PLAN VIEW ON DRAWING M601.

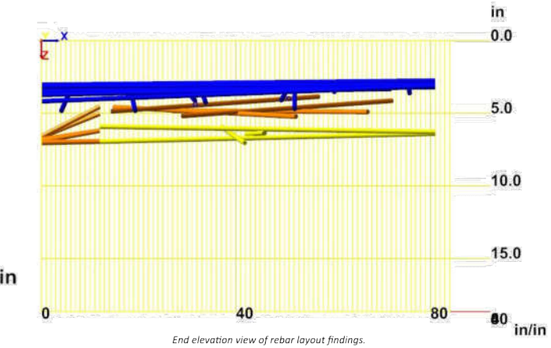
Rebar layout findings. Rebar are color coded by depth, from blue (shallow) to yellow (deep). Minor gridlines in X and Y are 1" scale. Bottom mat of rebar at 14" spacing is not consistently visible in data but appears to be generally in-line with the top mat.



Plan view of rebar layout findings.



Side elevation view of rebar layout findings.



End elevation view of rebar layout findings.

GROUND PENETRATING RADAR OF REBAR
DETAIL 2/M601
SCALE: 1"=1'-0"

REGISTERED PROFESSIONAL ENGINEER — OREGON — JAN. 02, 1985 — PRESTON VAN METER
EXPIRES : 6/30/2022

QC REVIEW: _____
DATE: _____

THIS LINE IS 1 INCH
AT FULL SCALE IF NOT SCALE ACCORDINGLY

SCALE : AS SHOWN
DRAWN BY : SMB
DESIGNED BY : ANK
PROJ. MGR. : PLV

No.	ZONE	REVISIONS	BY	DATE

WEST YOST
Water. Engineered.

Sweet Home
Oregon ...at its best!

SWEET HOME
FINISHED WATER AND BACKWASH PUMPING SYSTEMS IMPROVEMENTS

BW PUMP - SECTION AND DETAIL

JOB NUMBER 936-50-20-03
DRAWING NUMBER **M602**
SHEET NUMBER 4 OF 15
REVISION

P:\Clients\936 City of Sweet Home\50-20-03 WTP Finish Water\CAD\Production\936-50-20-03-M602.dwg 11-03-21 01:20:35 PM sbarber

ABBREVIATIONS:

ARCH	ARCHITECT
CJ	CONSTRUCTION JOINT OR CONTROL JOINT
CLR	CLEAR
CLG	CEILING
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUOUS
DBL	DOUBLE
DIAG	DIAGONAL
DN	DOWN
DO	DITTO
DWG	DRAWING
(E)	EXISTING
EA	EACH
EF	EACH FACE
EL	ELEVATION
ELEV	ELEVATOR
EQ	EQUAL
EW	EACH WAY
FNDTN	FOUNDATION
FOC	FACE OF CONCRETE
FOM	FACE OF MASONRY
FOS	FACE OF STUD
FS	FAR SIDE
FTG	FOOTING
GA	GAUGE
GALV	GALVANIZED
GLB	GLUE LAMINATED BEAM
HDR	HEADER
HORIZ	HORIZONTAL
HSB	HIGH STRENGTH BOLT
HSS	HOLLOW STRUCTURAL SECTION
ID	INSIDE DIAMETER
LAG	LAG BOLT
LLBB	LONG LEG BACK TO BACK
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LOC	LOCATION
OD	OUTSIDE DIAMETER
OH	OPPOSITE HAND
OPP	OPPOSITE
OWSJ	OPEN WEB STEEL JOIST
PDF	POWDER DRIVEN FASTENER
PLY	PLYWOOD
PJP	PARTIAL JOINT PENETRATION
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	PRESSURE TREATED
REINF	REINFORCING
REQD	REQUIRED
SCHED	SCHEDULE
SHT	SHEET
SIM	SIMILAR
SM	SHEET METAL
SMS	SHEET METAL SCREW
SPEC	SPECIFICATIONS
SQ	SQUARE
STD	STANDARD
STL	STEEL
STS	SELF TAPPING SCREW
STRUCT	STRUCTURAL
SYM	SYMETRICAL
T&G	TONGUE AND GROOVE
TO	TOP OF
TOF	TOP OF FOOTING
TOP	TOP OF PLATE
TOS	TOP OF SLAB OR STEEL
TOW	TOP OF WALL
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VERT	VERTICAL
W/	WITH
WF	WIDE FLANGE
WP	WORK POINT
WT	WEIGHT
WWF	WELDED WIRE FABRIC

STRUCTURAL SPECIFICATIONS:

GENERAL
ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE CURRENT GOVERNING EDITION OF THE OREGON STRUCTURAL SPECIALTY CODE.

CONCRETE
CONCRETE SHALL BE CONSTRUCTED IN ACCORDANCE WITH ACI 301 & 318 CURRENT EDITION. CONCRETE SHALL BE READY MIXED IN ACCORDANCE WITH ASTM C94.

CONCRETE SHALL BE HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4000 PSI WITH A MAXIMUM SLUMP OF 5".

MAXIMUM WATER–CEMENT RATIO, BY WEIGHT SHALL BE 0.50.

AN AIR ENTRAINING ADMIXTURE CONFORMING TO THE LATEST REVISION OF ASTM SPECIFICATION C260 MAY BE ADDED TO THE CONCRETE TO PROVIDE 4% +/– 1.5% ENTRAINED AIR FOR SLABS, WALKS & CURBS EXPOSED TO WEATHER

CEMENT SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR PORTLAND CEMENT PER ASTM C150, TYPE II.

ALL CONCRETE SHALL BE PLACED WITH MECHANICAL VIBRATION, UNLESS NOTED OTHERWISE.

REINFORCING STEEL
REINFORCING STEEL SHALL BE GRADE 60 DEFORMED BARS CONFORMING TO ASTM A615 OR A706, UNLESS NOTED OTHERWISE. BARS TO BE WELDED OR FIELD BENT SHALL BE ASTM A706.

NON–SHRINK GROUT
NON–SHRINK GROUT SHALL BE NON–METALLIC GROUT CONFORMING TO ASTM C827 AND C1107. THE NON–SHRINK GROUT SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 5000 PSI AT AT 28 DAYS. SLUMP SHALL NOT EXCEED 8 INCHES.

ADHESIVE ANCHORING
ADHESIVE ANCHORING SHALL BE SIMPSON AT–XP SYSTEM WHEN THE BASE MATERIAL IS LESS THAN 50°F OR SIMPSON SET–XP SYSTEM WHEN THE BASE MATERIAL IS GREATER THAN 50°F OR APPROVED EQUAL. INSTALLATION OF ANCHOR AND ADHESIVE INCLUDING DRILLING AND CLEANING OF HOLES SHALL BE IN ACCORDANCE WITH THE CURRENT EVALUATION REPORT. ADHESIVES SHALL BE USED ONLY IN APPLICATIONS PERMITTED BY THE ADHESIVE'S EVALUATION REPORT.

STRUCTURAL STEEL & MISCELLANEOUS IRON
STRUCTURAL STEEL AND MISCELLANEOUS IRON SHALL BE CONSTRUCTED IN ACCORDANCE WITH AISC CODE OF STANDARD PRACTICE – CURRENT EDITION.
1. WIDE FLANGE & STRUCTURAL TEE SHAPES SHALL CONFORM TO ASTM A992.
2. CHANNELS & ANGLES SHALL CONFORM TO ASTM A36.
3. STRUCTURAL PLATE SHALL CONFORM TO ASTM A36 OR ASTM A572.
ALL STRUCTURAL STEEL & MISCELLANEOUS IRON SHALL RECEIVE A SHOP PRIME COAT, EXCEPT ON SURFACES RECEIVING WELDS, EMBEDDED IN CONCRETE OR AT SLIP CRITICAL HIGH STRENGTH BOLTED SURFACES, WHICH SHALL BE TOUCHED UP AFTER CONNECTION IS COMPLETE. STRUCTURAL STEEL PERMANENTLY EXPOSED TO WEATHER SHALL RECEIVE TWO COATS OF SEMI–GLOSS ALKYD ENAMEL COMPATIBLE WITH PRIMER.

HOLLOW STRUCTURAL SECTIONS
HOLLOW STRUCTURAL SECTIONS (HSS OR TS) SHALL CONFORM TO ASTM A500, GRADE B.

STEEL PIPE
STEEL PIPE SHALL CONFORM TO ASTM A53, GRADE B.

WELDING
ALL WELDING SHALL BE PERFORMED BY CERTIFIED WELDERS IN ACCORDANCE WITH AWS 'STANDARD QUALIFICATION PROCEDURE' TO PERFORM THE TYPE OF WORK REQUIRED. ALL WELDING SHALL BE IN ACCORDANCE WITH THE CURRENT AWS WELDING CODE. ARC WELDING ELECTRODES SHALL BE E70xx SERIES FOR A36, A572 & A992 MATERIAL.

MACHINE BOLTS, ANCHOR BOLTS, STUDS & THREADED RODS
BOLTS AND RODS SHALL CONFORM TO ASTM A307 GRADE A OR B OR A36.
NUTS SHALL BE ASTM A563–A HEX WITH FINISH TO MATCH FASTENER. HEADED STUDS AND WELDING SHALL CONFORM TO AWS D1.1–CURRENT EDITION, TYPE B STUDS.

BRACING AND SHORING NOTES:

1. DURING CONSTRUCTION, THE STABILITY AND INTEGRITY OF THE EXISTING STRUCTURE SHALL BE MAINTAINED AT LEVELS GENERALLY ACCPETABLE WITHIN THE CONSTRUCITON INDUSTRY BY THE USE OF BRACING, SHORING AND UNDERPINNING UNTIL THE PROPOSED STRUCTURAL MODIFICATIONS ARE COMPLETED. IN NO CASE SHALL THE EXISITNG STRUCTURE BE ALLOWED TO BECOME UNSAFE DURING CONSTRUCTION.
2. BRACING AND SHORING SYSTEMS REQUIRED TO PROVIDE TEMPORARY SUPPORT OF THE EXISITNG STRUCTURE DURING CONSTRUCTION SHALL BE DESIGNED TO SUPPORT THE DEAD, LIVE, SOIL, EARTHQUAKE AND WIND LOADS THAT MAY BE IMPOSED ON THE STRUCTURE DURING CONSTRUCTION IN ACCORDANCE WITH INDUSTRY STANDARDS AND GENERALLY ACCEPTED ENGINEERING PRINCIPLES.
3. THE CONTRACTOR SHALL SUBMIT PROPOSED SHORING AND BRACING SYSTEMS TO THE ENGINEER OF RECORD FOR REVIEW. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SUCCESSFUL COMPLETION OF THE WORK.
4. NO CONSTRUCTION OF THE BRACING AND SHORING SYSTEMS, DEMOLITION FOR ITS CONSTRUCTION OR ORDERING MATERIALS TAKE PLACE UNTIL THE CONTRACTOR HAS RECEIVED APPROVED SUBMITTALS BY THE ENGINEER OF RECORD.
5. THE SUBMITTALS SHALL SHOW LAYOUT, SIZE OF MEMBERS, CONNECTION DETAILS AND CONSTRUCTION SEQUENCE.

GENERAL NOTES:

1. PLANS AND CALCULATIONS FOR THE STRUCTURAL DESIGN WERE BASED UPON:
   – THE 2019 OREGON STRUCTURAL SPECIALTY CODE (2018 IBC)
2. DESIGN LOADS ARE AS FOLLOWS:
   VERTICAL:
   FLOOR DEAD LOAD: 150 PSF
   FLOOR LIVE LOAD: 100 PSF
   LATERAL:
   SEISMIC: RISK CATEGORY: IV, SITE CLASS: D, IE=1.5, Ss=0.628, S1=0.340, SDS=0.543, SD1=0.400,
   WIND: 104 MPH, EXPOSURE B, GCpi=+/–0.18
   SPECIAL INSPECTIONS:
   CONCRETE:
   CONTINUOUS: PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TEST, DETERMINE TEMPERATURE OF THE CONCRETE. VERIFY CONCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.
   PERIODIC: ANCHORS INSTALLED IN CONCRETE, VERIFY MIX DESIGN, VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF CONCRETE MEMBER BEING FORMED.

REGISTERED PROFESSIONAL ENGINEER
64238PE
OREGON
MAY 9, 2000
ALLAN T GOFFE
EXPIRES 6/30/2023

QC REVIEW: _____
DATE: _____

THIS LINE IS 1 INCH
AT FULL SCALE IF NOT SCALE ACCORDINGLY

SCALE : NO SCALE
DRAWN BY : ATG
DESIGNED BY : ATG
PROJ. MGR. : PLV

No.	ZONE	REVISIONS	BY	DATE

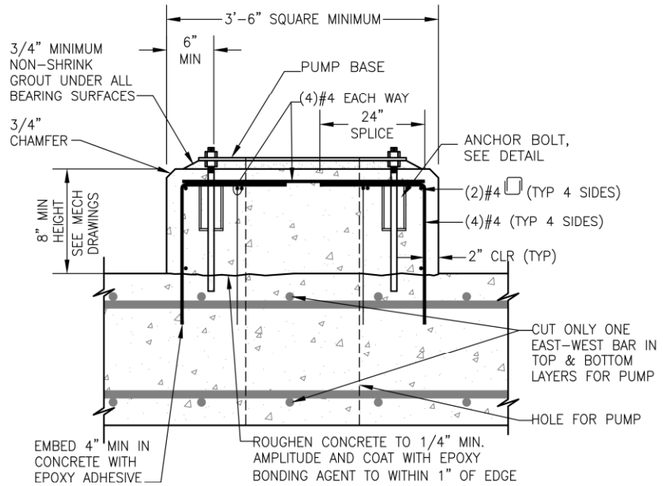
WEST YOST
Water. Engineered.

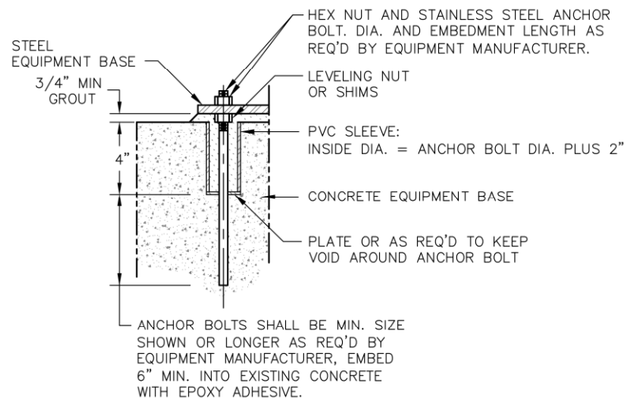
Sweet Home
Oregon at its best!

SWEET HOME
FINISHED WATER AND BACKWASH PUMPING SYSTEMS IMPROVEMENTS

STRUCTURAL NOTES

JOB NUMBER 936-50-20-03
DRAWING NUMBER **S001**
SHEET NUMBER 5 OF 15
REVISION





TYPICAL PUMP BASE

1. THE MINIMUM PAD SIZE SHALL PROVIDE THE ANCHOR BOLT EDGE DISTANCE SHOWN OR AS DETERMINED BY THE EQUIPMENT MANUFACTURER, WHICHEVER IS GREATER.

2. THE SIZE, NUMBER, TYPE, LOCATION AND THREAD PROJECTION OF THE ANCHOR BOLTS SHALL BE DETERMINED BY THE EQUIPMENT MANUFACTURER. HOLD CONCRETE ANCHOR BOLTS IN POSITION WITH A TEMPLATE WHILE PAD IS BEING PLACED.

3. USE ANCHOR BOLT SLEEVES TO PROVIDE THE ANCHOR BOLT A MINIMUM MOVEMENT OF 1/2" IN ALL DIRECTIONS. SLEEVES SHALL BE FILLED WITH NON-SHRINK GROUT.

4. ANCHOR BOLT SLEEVES SHALL HAVE A MINIMUM INTERNAL DIAMETER 1" GREATER AND A MAXIMUM INTERNAL DIAMETER 3" GREATER THAN ANCHOR BOLT DIAMETER.

5. EQUIPMENT BASES SHALL BE INSTALLED LEVEL U.O.N.

6. PROVIDE WEDGES OR SHIMS TO SUPPORT THE BASE WHILE THE NON-SHRINK GROUT IS PLACED. TEMPORARY LEVELING NUTS SHALL BE BACKED OFF. REMOVE WEDGES OR SHIMS AFTER NON-SHRINK GROUT IS SET AND FILL VOIDS WITH NON-SHRINK GROUT.

7. WHERE CONCRETE SLAB OR BEAM THICKNESS WILL NOT ACCOMMODATE THE ANCHOR BOLT, PROVIDE EXTRA THICKNESS OF PAD.

8. CONTRACTOR TO PROVIDE STRUCTURAL CALCULATIONS FOR EQUIPMENT ANCHORAGE STAMPED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF OREGON.

9. CONTRACTOR TO VERIFY PUMP PAD DIMENSIONS AND COORDINATE PLACEMENT WITH ENGINEER/CITY PRIOR TO POURING PUMP PAD.

REGISTERED PROFESSIONAL ENGINEER
64238PE
OREGON
MAY 9, 2000
ALLAN T GOFFE
EXPIRES 6/30/2023

QC REVIEW: _____

DATE: _____

THIS LINE IS 1 INCH
AT FULL SCALE IF NOT SCALE ACCORDINGLY

SCALE : NO SCALE
DRAWN BY : ATG
DESIGNED BY : ATG
PROJ. MGR. : PLV

No.	ZONE	REVISIONS	BY	DATE

WEST YOST
Water. Engineered.

Sweet Home
Oregon, at its best!

SWEET HOME
FINISHED WATER AND BACKWASH PUMPING SYSTEMS IMPROVEMENTS

BW PUMP - STRUCTURAL DETAILS

JOB NUMBER 936-50-20-03
DRAWING NUMBER **S601**
SHEET NUMBER 6 OF 15
REVISION

Electrical Abbreviations, General Notes, & Symbol Legend

Abbreviations

A	AMPERE
AC	ALTERNATING CURRENT, AIR CONDITIONING UNIT
AHJ	AUTHORITY HAVING JURISDICTION
AI	ANALOG INPUT
AIC	AVAILABLE INTERRUPTING CAPACITY
AF	AMPERE FRAME / AMPERE FUSED
AFC	ABOVE FINISHED CEILING
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
AO	ANALOG OUTPUT
ARMS	ARC FLASH REDUCTION MAINTENANCE SYSTEM
AT	AMPERE TRIP
AV	AUDIO / VIDEO
AWG	AMERICAN WIRE GAUGE
BAS	BUILDING AUTOMATION SYSTEM
BFG	BELOW FINISHED GRADE
BLDG	BUILDING
C	CONDUIT
CAT	CATEGORY
CB	CIRCUIT BREAKER
CFCI	CONTRACTOR FURNISHED, CONTRACTOR INSTALLED
CFOI	CONTRACTOR FURNISHED, OWNER INSTALLED
CKT	CIRCUIT
CPT	CONTROL POWER TRANSFORMER
CR	CONTROL RELAY
CU	COPPER
dB	DECIBAL
DC	DIRECT CURRENT
DI	DIGITAL INPUT
DIM	DIMENSION
DIV	DIVISION
DO	DIGITAL OUTPUT
DTL	DETAIL
DWG	DRAWING
EIP	ETHERNET IP
EL	ELEVATION
EMT	ELECTRICAL METALLIC TUBING
EOLR	END OF LINE RESISTOR
FACP	FIRE ALARM CONTROL PANEL
FF	FINISH FLOOR
FLA	FULL LOAD AMPERES
FT	FOOT, FEET
FBO	FURNISHED BY OTHERS
G, GND	GROUND
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
HH	HAND HOLE
HP	HORSEPOWER
ID	IDENTIFICATION
IDC	INITIATING DEVICE CIRCUIT
IDF	INTERMEDIATE DISTRIBUTION FRAME
IEEE	INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS
IG	ISOLATED GROUND
IT	INFORMATION TECHNOLOGY
JB	JUNCTION BOX
KAIC	THOUSAND AMPS INTERRUPTING CURRENT
KCMIL	THOUSAND CIRCULAR MILS
KVA	KILOVOLT-AMPERE
KW	KILOWATT
LAN	LOCAL AREA NETWORK
LED	LIGHT EMITTING DIODE
LS	LIMIT SWITCH
LSI	ELECTRONIC TRIP UNIT ADJUSTABLE LONG TIME DELAY, SHORT TIME DELAY, INSTANTANEOUS TRIP
LSIG	ELECTRONIC TRIP UNIT WITH ADJUSTABLE LONG TIME DELAY, SHORT TIME DELAY, INSTANTANEOUS TRIP, AND GROUND FAULT
LV	LOW VOLTAGE
MCA	MINIMUM CIRCUIT AMPACITY
MCC	MOTOR CONTROL CENTER
MCP	MOTOR CIRCUIT PROTECTOR
MDF	MAIN DISTRIBUTION FRAME
MHz	MEGAHERTZ
MISC	MISCELLANEOUS
MLO	MAIN LUGS ONLY
MOCP	MAXIMUM OVERCURRENT PROTECTION
N	NEUTRAL
NAC	NOTIFICATION APPLIANCE CIRCUIT
N/A	NOT APPLICABLE
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NEX	REPLACE EXISTING WIRING DEVICE AND FACEPLATE WITH NEW. BACK BOX AND CONDUIT SHALL REMAIN.
NL	NIGHT LIGHT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OC	ON CENTER
OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED, OWNER INSTALLED
Ø	PHASE
PB	PULL BOX, PANIC BUTTON, PUSH BUTTON
PE	PHOTO EYE
PNL	PANEL
POE	POWER OVER ETHERNET
PTZ	PAN, TILT, ZOOM
RF	RADIO FREQUENCY
RFI	REQUEST FOR INFORMATION
SLC	SIGNALING LINE CIRCUIT
SPD	SURGE PROTECTION DEVICE
STD	STANDARD
SW	SWITCH
T/M	THERMAL MAGNETIC CIRCUIT BREAKER
TBD	TO BE DETERMINED
TV	TELEVISION / MONITOR OUTLET
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
TYP	TYPICAL
UH	UNIT HEATER
UG	UNDERGROUND
UL	UNDERWRITERS LABORATORIES
UPS	UNINTERRUPTIBLE POWER SUPPLY
UON	UNLESS OTHERWISE NOTED
USB	UNIVERSAL SERIAL BUS
V	VOLTS, VOLTAGE
VA	VOLT-AMPERE
VFD	VARIABLE FREQUENCY DRIVE
W	WATT, WIRE
WAN	WIDE AREA NETWORK
WAP	WIRELESS ACCESS POINT
WI-FI	WIRELESS FIDELITY
W/	WITH
W/O	WITHOUT
XFMR	TRANSFORMER
Y	WYE
1P	ONE POLE
2P	TWO POLE
3P	THREE POLE
4P	FOUR POLE

General Electrical Notes

1. ALL LIGHTING BRANCH CIRCUITS SHALL BE 2#10, 1#10G IN 3/4" CONDUIT, UON.
2. ALL 20-AMP RECEPTACLE AND HARDWIRED BRANCH CIRCUITS SHALL BE 2#12, 1#12G IN 3/4" CONDUIT, UON.
3. ALL EXIT SIGNS SHALL BE WIRED TO THE LOCAL LIGHTING BRANCH CIRCUIT AHEAD OF ALL SWITCHING.
4. PROVIDE 0-10V DIMMING CONDUCTORS TO ALL LUMINAIRES WHICH ARE CONTROLLED BY 0-10V DIMMERS SHOWN ON THE DRAWINGS.

Annotation

(N)	INDICATES NEW EQUIPMENT.
(E)	INDICATES EXISTING EQUIPMENT TO REMAIN.
(D)	INDICATES EXISTING EQUIPMENT TO BE DEMOLISHED.
(RR)/(RD)	INDICATED EXISTING EQUIPMENT OR DEVICE TO BE REMOVED AND REINSTALLED.
XXX	CONDUIT & CONDUCTOR CALLOUT. REFER TO CONDUIT & CONDUCTOR SCHEDULE.
XX	KEYED NOTE CALLOUT. REFER TO CORRESPONDING SHEET KEYNOTES.
XX	KEYED NOTE CALLOUT. REFER TO CORRESPONDING SHEET KEYNOTES.
XX	KEYED NOTE CALLOUT. REFER TO CORRESPONDING SHEET KEYNOTES.
XX	MECHANICAL EQUIPMENT CALLOUT. REFER TO MECHANICAL EQUIPMENT CONNECTION SCHEDULE.
XX / EX.XX	DETAIL CALLOUT. REFER TO DETAIL AND SHEET AS INDICATED ON CALLOUT.
XX'-XX"	FIXTURE MOUNTING CALLOUT. HEIGHT ABOVE FINISHED FLOOR (A.F.F.)
XXXXX	EQUIPMENT CALLOUT. REFER TO NEMA CONNECTION SCHEDULE.
	SECTION CALLOUT. REFER TO SECTION AND SHEET AS INDICATED ON CALLOUT.
EX.XX	ELEVATION CALLOUT. REFER TO ELEVATION AND SHEET AS INDICATED ON CALLOUT.

EQUIPMENT	OWNER FURNISHED	INTALLED BY OITHERS	CONTRACTOR INSTALLED
50A ACTIVE HARMONIC FILTER	X		X
50A ACTIVE HARMONIC FILTER CT'S	X		X
100A ACTIVE HARMONIC FILTER	X		X
100A ACTIVE HARMONIC FILTER CT'S	X		X
FWP401 VFD	X	X	
FWP402 VFD	X	X	
FWP403 VFD	X	X	
BACKWASH PUMP SOFT START	X	X	
BACKWASH PUMP MCC SECTION	X		X

SEISMIC BRACING - REFER TO SECTION 16070 FOR REQUIREMENTS
50A ACTIVE HARMONIC FILTER
100A ACTIVE HARMONIC FILTER
BACKWASH PUMP MCC SECTION

REGISTERED PROFESSIONAL ENGINEER — 86683 — Digital Signature — OREGON — MAY 08, 2012 — BENJAMIN E. FERRY — EXPIRES: 12-31-2022

QC REVIEW: _____

DATE: _____

THIS LINE IS 1 INCH
AT FULL SCALE IF NOT SCALE ACCORDINGLY

SCALE : _____
DRAWN BY : EJC
DESIGNED BY : MH
PROJ. MGR. : _____

No.	ZONE	REVISIONS	BY	DATE

Landis Consulting
ENGINEERING SERVICES
Salem | Lake Oswego
503-584-1576
www.landisconsulting.com

Sweet Home — Oregon ...at it's best!

SWEET HOME
FINISHED WATER AND BACKWASH PUMPING SYSTEMS IMPROVEMENTS

ELECTRICAL ABBREVIATIONS, NOTES, AND LEGEND

JOB NUMBER 936-50-20-03
DRAWING NUMBER E001
SHEET NUMBER 7 OF 15
REVISION

G:\PROJECTS\103 - West Yost Associates\1032007 - Sweet Home WTP\Design\(2) Drawings\Current\Sweet Home WTP\Sheets\E001 Electrical Abbreviations, Notes, and Legend.dwg 11-03-21 12:15:40 PM eclose

Electrical Symbol Legend

Power Distribution

- DUPLEX RECEPTACLE, MOUNTED AT 18" AFF, UON.
- SIMPLEX RECEPTACLE, MOUNTED AT 18" AFF, UON.
- QUADPLEX RECEPTACLE, MOUNTED AT 18" AFF, UON.
- GFCI DUPLEX RECEPTACLE, MOUNTED AT 18" AFF, UON.
- GFCI QUADPLEX RECEPTACLE, MOUNTED AT 18" AFF, UON.
- TAMPERPROOF DUPLEX RECEPTACLE, MOUNTED AT 18" AFF, UON.
- TAMPERPROOF QUADPLEX RECEPTACLE, MOUNTED AT 18" AFF, UON.
- SWITCHED DUPLEX RECEPTACLE, MOUNTED AT 18" AFF, UON.
- NEMA SPECIAL RECEPTACLE, MOUNTED AT 18" AFF, UON. NEMA CONFIGURATION AS INDICATED.
- CENTER HATCHED RECEPTACLE TO BE WIRED TO EMERGENCY CIRCUIT.
- RECEPTACLE MOUNTED ON CEILING.
- RECEPTACLE MOUNTED IN-COUNTER.
- DISCONNECT SWITCH.
- FUSED DISCONNECT SWITCH.
- ENCLOSED CIRCUIT BREAKER.
- COMBINATION STARTER.
- FLOORBOX COMBINATION POWER & DATA.
- FLOORBOX POWER.
- POKETHRU COMBINATION POWER & DATA.
- POKETHRU POWER.
- POWER/DATA POLE.
- PANELBOARD SURFACE MOUNT.
- PANELBOARD FLUSH MOUNT.
- MAIN DISTRIBUTION PANEL.
- UTILITY CT METER.
- UTILITY TRANSFORMER.

Drawing Symbol Variables

3	THREE WAY SWITCH.
4	FOUR WAY SWITCH.
#J	QUANTITY OF JACKS AND HORIZONTAL CABLES. J = CAT6, JA = CAT6A, JE = CAT5E
+XX	MOUNTING UNITS EXPRESSED IN INCHES TO CENTERLINE ABOVE FINISHED FLOOR OR GRADE.
C	MOUNTED HORIZONTALLY AT 4" ABOVE COUNTERTOP.
CL	CLOCK.
DR	DUAL RELAY.
E	RED EMERGENCY SWITCH.
EL	ELEVATOR RECALL.
ETR	EXISTING DEVICE SHALL REMAIN.
G	GLASS BREAK SENSOR.
K	KEYED SWITCH.
LF	LOW FREQUENCY.
LV	LOW VOLTAGE SWITCH.
M	MOTOR RATED TOGGLE SWITCH.
NEX	REPLACE EXISTING WIRING DEVICE AND FACEPLATE WITH NEW. BACK BOX AND CONDUIT SHALL REMAIN.
O	INTEGRAL OCCUPANCY SENSOR.
P	ADA PHONE, VERIFY HEIGHT WITH ARCHITECT / OWNER.
REX	REMOVE EXISTING DEVICE / EQUIPMENT.
TK	MOUNTED IN TOE KICK OF CASEWORK.
TV	MOUNTED ADJACENT TO TV AT 60" AFF, UON.
V	VANDAL RESISTANT.
WG	WIREGUARD.
WP	WEATHERPROOF.

Lighting

- TROFFER LUMINAIRE, SURFACE OR RECESS MOUNTED AS INDICATED ON THE DRAWINGS.
- DOWNLIGHT LUMINAIRE, SURFACE, RECESS, OR PENDANT MOUNTED AS INDICATED ON THE DRAWINGS.
- UNDERCABINET LUMINAIRE.
- EMERGENCY BATTERY PACK LUMINAIRE, WALL OR CEILING MOUNTED.
- LINEAR PENDANT MOUNTED LUMINAIRE.
- LINEAR WALL MOUNTED LUMINAIRE.
- BOLLARD LUMINAIRE.
- SITE LUMINAIRE POLE MOUNTED. NUMBER OF HEADS AS SHOWN.
- TRACK LUMINAIRE.
- SPOT LUMINAIRE.
- WALL MOUNTED LUMINAIRE.
- EXIT SIGN, WALL OR CEILING MOUNTED, SINGLE FACE WITH DIRECTIONAL CHEVRONS AS INDICATED ON DRAWINGS.
- EXIT SIGN, WALL OR CEILING MOUNTED, DOUBLE FACE WITH DIRECTIONAL CHEVRONS AS INDICATED ON DRAWINGS.
- HALF HATCHED LUMINAIRE TO BE WIRED TO EMERGENCY CIRCUIT.
- FULL HATCHED LUMINAIRE TO BE WIRED TO NIGHTLIGHT CIRCUIT.
- WALL WASH LUMINAIRE POINTED IN DIRECTION AS SHOWN

Raceways

- CONDUIT AND/OR CONDUCTORS INSTALLED ABOVE GRADE, CONCEALED IN WALL OR CEILING SPACE.
- CONDUIT AND/OR CONDUCTORS INSTALLED BELOW GRADE, BELOW SLAB.
- CONDUIT TURNED DOWN.
- CONDUIT TURNED UP.
- CONDUIT STUBBED AND CAPPED.
- CONDUIT DIRECT CONNECTION TO EQUIPMENT.
- FLEXIBLE CONNECTION TO EQUIPMENT.
- CONDUIT / WIRING CONTINUATION.
- HOMERUN TO PANELBOARD.
- CABLE TRAY. SIZE AND TYPE AS INDICATED ON DRAWINGS.

Switches

- SINGLE POLE SWITCH - MOUNTED AT 42" AFF, UON.
- LOW VOLTAGE 0-10 VOLT DIMMING SWITCH - MOUNTED AT 42" AFF, UON.
- OCCUPANCY SENSOR - CEILING OR WALL MOUNTED.
- OCCUPANCY SENSOR POWER PACK.
- PHOTOCELL - CEILING OR WALL MOUNTED.
- ADA DOOR PUSHPLATE.
- EMERGENCY STOP SWITCH, MUSHROOM HEAD.
- PUSHBUTTON, SINGLE OR DOUBLE.

One-Line Diagram

- CIRCUIT BREAKER.
- DRAWOUT CIRCUIT BREAKER.
- ENCLOSED CIRCUIT BREAKER.
- MOTOR STARTER CONTACT.
- DISCONNECT SWITCH.
- ENCLOSED DISCONNECT SWITCH.
- FUSED DISCONNECT SWITCH.
- ENCLOSED FUSED DISCONNECT SWITCH.
- CURRENT TRANSFORMER METER.
- FUSE, RATING AS SHOWN ON DRAWINGS.
- GENERATOR, CONFIGURATION AS INDICATED ON DRAWING.
- GROUND ROD.
- EQUIPMENT GROUND.
- MOTOR, RATED AS INDICATED ON DRAWINGS.
- NEMA CONNECTION.
- PANEL.
- MINI POWER CENTER.
- SHUNT TRIP.
- HEATER.
- REMOTE ANNUNCIATOR.
- BATTERY CHARGER.
- SURGE SUPPRESSION DEVICE.
- DIGITAL METER.
- VARIABLE FREQUENCY DRIVE.
- SOFT STARTER.
- TRANSFER SWITCH, WITH FUSES OR BREAKERS AS SHOWN ON DRAWINGS.
- TRANSFORMER.

Miscellaneous

- JUNCTION BOX (ROUND, SQUARE).
- THERMOSTAT.
- RELAY.
- CORD REEL.
- MOTOR / EXHAUST FAN.
- CEILING FAN.
- UTILITY POLE.
- WEATHERHEAD.
- GROUND ROD.
- GROUND ROD WITH TEST WELL.
- SURFACE RACEWAY / WIREMOLD.
- FIRE RATED BACKBOARD.
- GROUND BUS BAR.

Access Control & Security

- ACCESS CONTROL - DOOR CONTACT. PROVIDE 3/4" CONDUIT FROM DOOR FRAME TO ACCESSIBLE CEILING OR SECURITY JUNCTION BOX AS SHOWN ON THE DRAWINGS.
- ACCESS CONTROL - CARD READER. PROVIDE 3/4" CONDUIT FROM DOOR FRAME TO ACCESSIBLE CEILING OR SECURITY JUNCTION BOX AS SHOWN ON THE DRAWINGS.
- ACCESS CONTROL - ELECTRIC STRIKE. PROVIDE 3/4" CONDUIT FROM DOOR FRAME TO ACCESSIBLE CEILING OR SECURITY JUNCTION BOX AS SHOWN ON THE DRAWINGS.
- ACCESS CONTROL - KEY PAD. PROVIDE 3/4" CONDUIT FROM DOOR FRAME TO ACCESSIBLE CEILING OR SECURITY JUNCTION BOX AS SHOWN ON THE DRAWINGS.
- ACCESS CONTROL - MAGNETIC LOCK. PROVIDE 3/4" CONDUIT FROM DOOR FRAME TO ACCESSIBLE CEILING OR SECURITY JUNCTION BOX AS SHOWN ON THE DRAWINGS.
- ACCESS CONTROL - REQUEST TO EXIT. PROVIDE 3/4" CONDUIT FROM DOOR FRAME TO ACCESSIBLE CEILING OR SECURITY JUNCTION BOX AS SHOWN ON THE DRAWINGS.
- ACCESS CONTROL - ELECTRIFIED PANIC BAR. PROVIDE 3/4" CONDUIT FROM DOOR FRAME TO ACCESSIBLE CEILING OR SECURITY JUNCTION BOX AS SHOWN ON THE DRAWINGS.
- ACCESS CONTROL - SECURITY JUNCTION BOX. SIZED AS RECOMMENDED BY SECURITY SYSTEM MANUFACTURER.
- ACCESS CONTROL - CAMERA / INTERCOM.
- ACCESS CONTROL - PANIC BUTTON.
- SECURITY CAMERA - CEILING MOUNTED. PROVIDE ONE (1) CAT6.
- SECURITY CAMERA - WALL MOUNTED. PROVIDE ONE (1) CAT6.
- INTRUSION SENSOR - CEILING MOUNTED.
- INTRUSION SENSOR - WALL MOUNTED.
- INTRUSION KEYPAD.

Low Voltage

- ETHERNET OUTLET MOUNTED AT 18" AFF, UON.
- COAXIAL OUTLET MOUNTED AT 18" AFF, UON.
- PHONE OUTLET MOUNTED AT 18" AFF, UON.
- LOW VOLTAGE OUTLET CEILING MOUNTED.
- WIRELESS ACCESS POINT CEILING MOUNTED.
- WIRELESS ACCESS POINT WALL MOUNTED.
- DIGITAL CLOCK.
- FLOORBOX DATA.
- POKETHRU DATA.
- IT RACK.
- VERTICAL WIRE MANAGEMENT.

REGISTERED PROFESSIONAL ENGINEER
86683
Digital Signature
OREGON
MAY 08, 2012
BENJAMIN E. PERRY
EXPIRES: 12-31-2022

QC REVIEW: _____
DATE: _____

THIS LINE IS 1 INCH
AT FULL SCALE IF NOT SCALE ACCORDINGLY

SCALE : _____
DRAWN BY : EJC
DESIGNED BY : MH
PROJ. MGR. : _____

No.	ZONE	REVISIONS	BY	DATE

Landis Consulting
ENGINEERING SERVICES
Salem | Lake Oswego
503-584-1576
www.landisconsulting.com

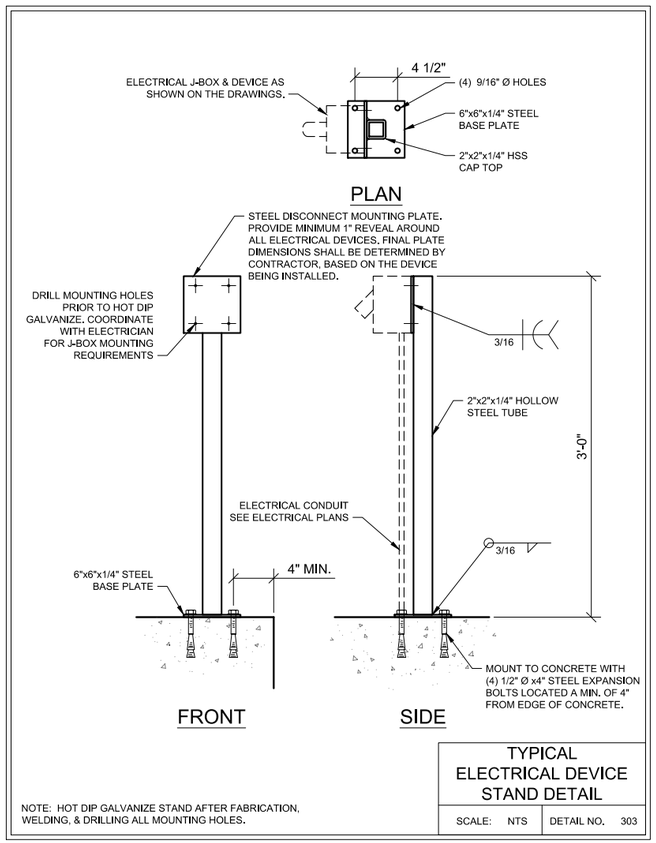
Sweet Home
Oregon, at its best!

SWEET HOME
FINISHED WATER AND BACKWASH PUMPING SYSTEMS IMPROVEMENTS

ELECTRICAL SYMBOL LEGEND

JOB NUMBER 936-50-20-03
DRAWING NUMBER **E002**
SHEET NUMBER 8 OF 15
REVISION

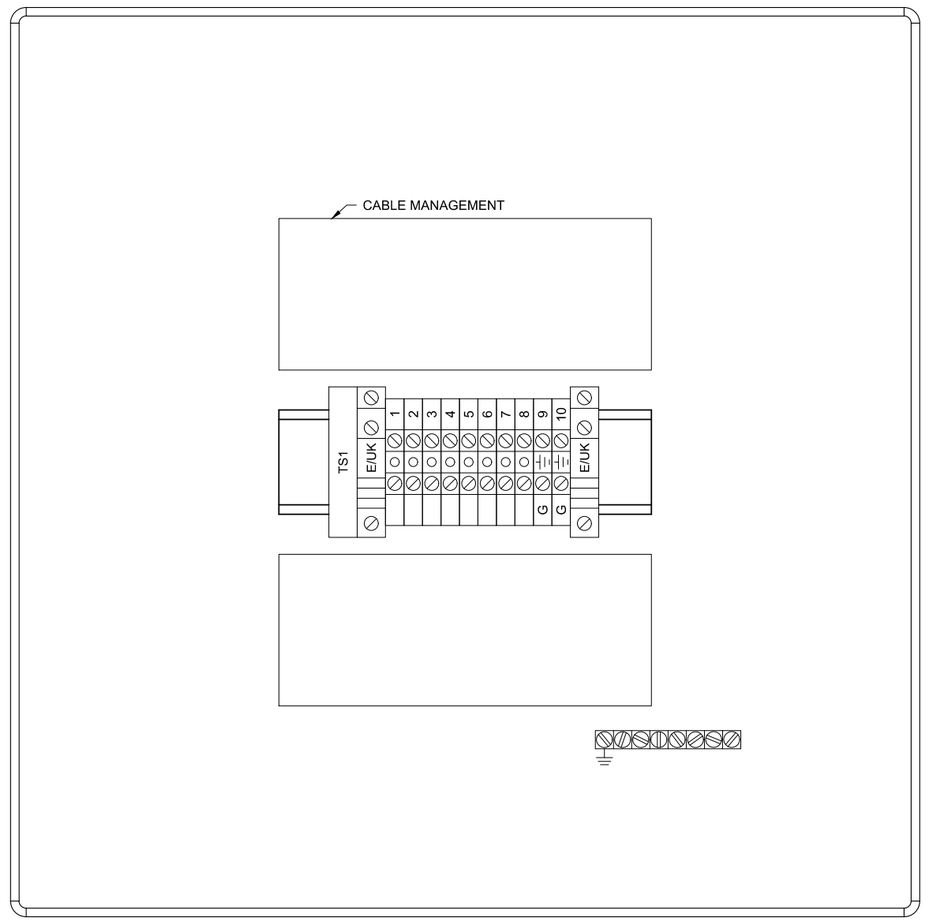
G:\PROJECTS\103 - West Yost Associates\1032007 - Sweet Home WTP\Design\(2) Drawings\Current\Sweet Home WTP\Sheets\E002 Electrical Symbol Legend.dwg 11-03-21 12:15:56 PM eclose



TYPICAL ELECTRICAL DEVICE STAND DETAIL

SCALE: NTS | DETAIL NO. 303

NOTE: HOT DIP GALVANIZE STAND AFTER FABRICATION, WELDING, & DRILLING ALL MOUNTING HOLES.



1 TERMINAL BOX
SCALE: NTS

REGISTERED PROFESSIONAL ENGINEER
86683
Digital Signature
OREGON
MAY 08, 2012
BENJAMIN E. FERRY
EXPIRES: 12-31-2022

QC REVIEW: _____

DATE: _____

THIS LINE IS 1 INCH
AT FULL SCALE IF NOT SCALE ACCORDINGLY

SCALE : _____
DRAWN BY : EJC
DESIGNED BY : MH
PROJ. MGR. : _____

No.	ZONE	REVISIONS	BY	DATE

Landis Consulting
ENGINEERING SERVICES
Salem | Lake Oswego
503-584-1576
www.landisconsulting.com

Sweet Home
Oregon, at it's best!

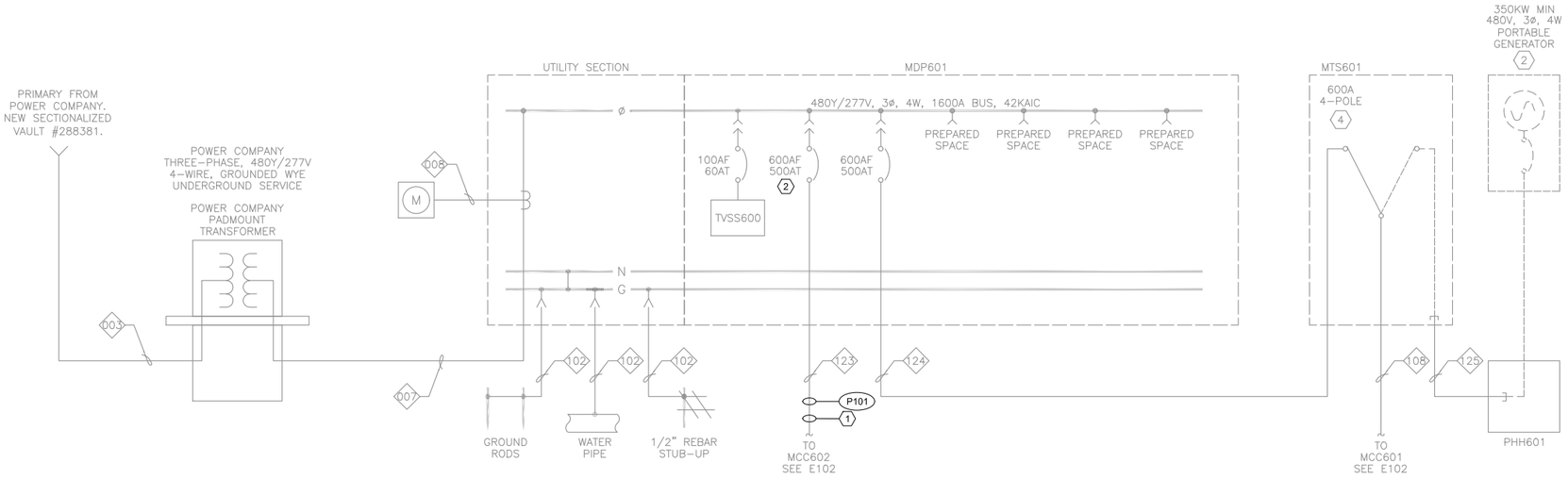
SWEET HOME
FINISHED WATER AND BACKWASH PUMPING SYSTEMS IMPROVEMENTS

ELECTRICAL DETAILS

JOB NUMBER 936-50-20-03
DRAWING NUMBER **E003**
SHEET NUMBER 9 OF 15
REVISION

SHEET KEY NOTES

1. REMOVE EXISTING CONDUCTORS. MANDREL EXISTING CONDUITS PRIOR TO INSTALLING NEW CONDUCTORS AS SHOWN.
2. REMOVE EXISTING 500A TRIP PLUG. PROVIDE NEW 600A TRIP PLUG. COORDINATE EXACT PLUG WITH MANUFACTURER PRIOR TO ORDERING EQUIPMENT.



TREATMENT BUILDING ONE-LINE DIAGRAM

REGISTERED PROFESSIONAL ENGINEER
86683
Digital Signature
OREGON
MAY 08, 2012
BENJAMIN E. PERRY
EXPIRES: 12-31-2022

QC REVIEW: _____
DATE: _____

THIS LINE IS 1 INCH
AT FULL SCALE IF NOT SCALE ACCORDINGLY
SCALE : _____
DRAWN BY : EJC
DESIGNED BY : MH
PROJ. MGR. : _____

No.	ZONE	REVISIONS	BY	DATE

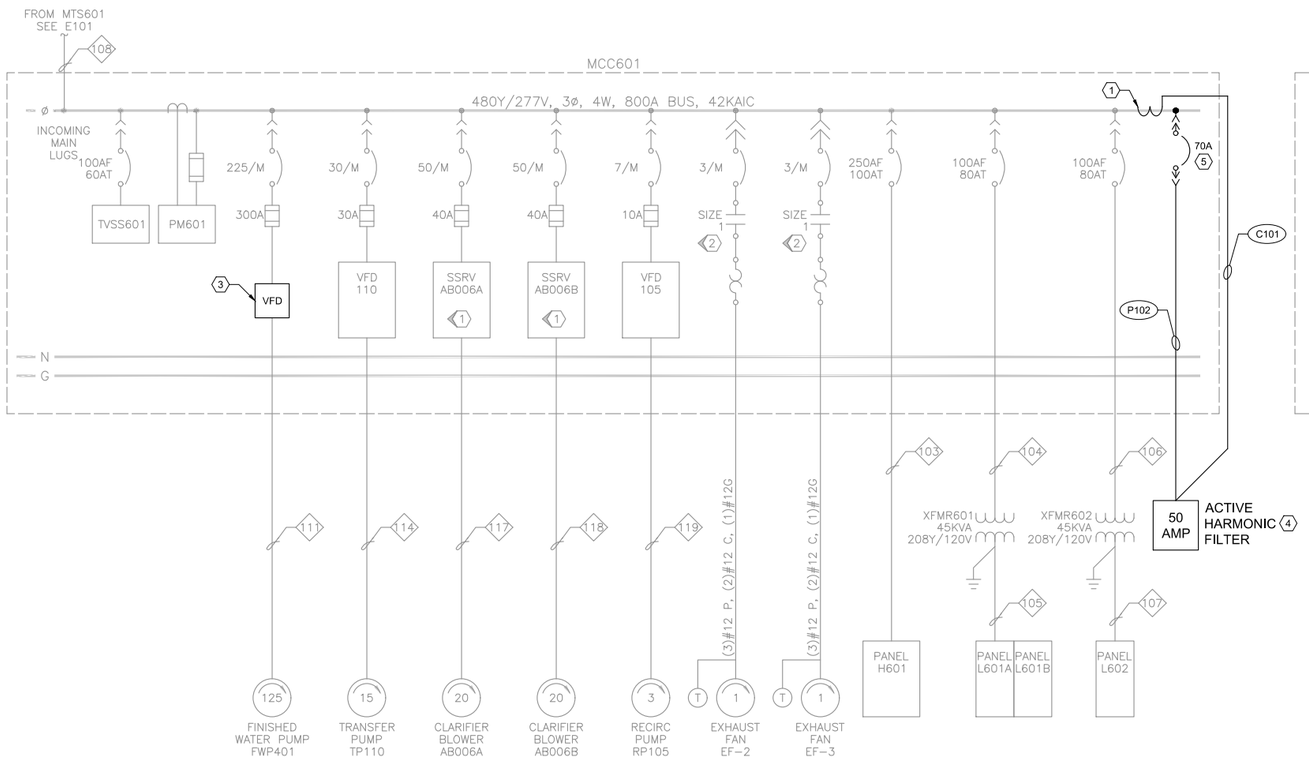
Landis Consulting
ENGINEERING SERVICES
Salem | Lake Oswego
503-584-1576
www.landisconsulting.com

Sweet Home
Oregon, at its best!

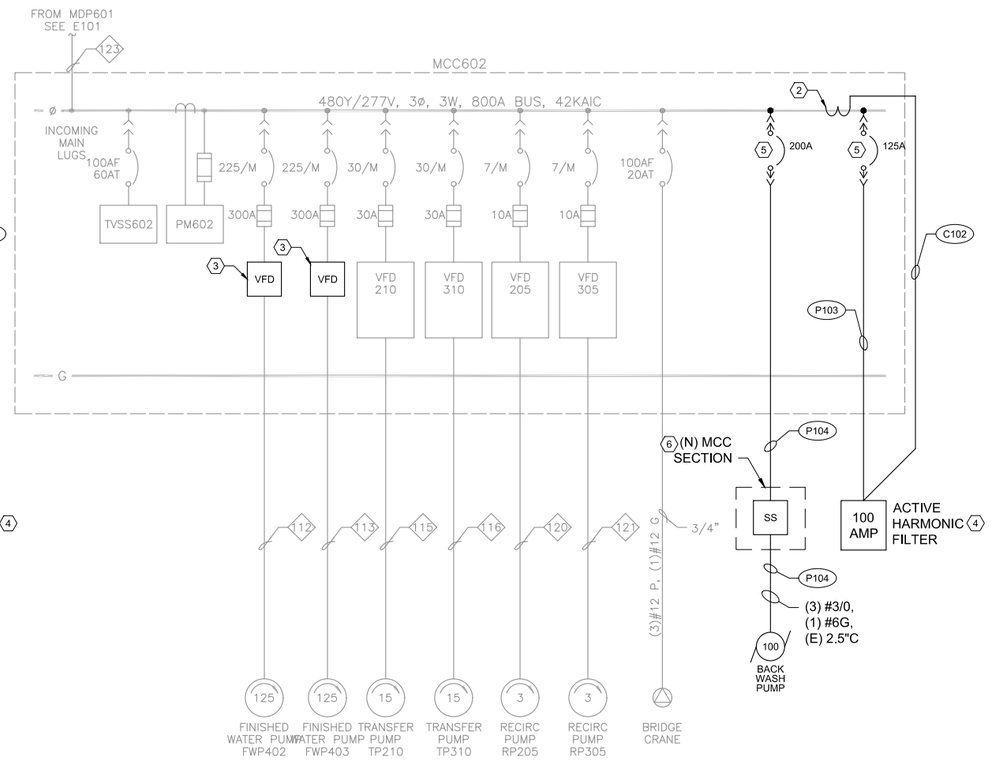
SWEET HOME
FINISHED WATER AND BACKWASH PUMPING SYSTEMS IMPROVEMENTS

TREATMENT BUILDING ONE-LINE DIAGRAM

JOB NUMBER 936-50-20-03
DRAWING NUMBER **E101**
SHEET NUMBER 10 OF 15
REVISION



MCC601 ONE-LINE DIAGRAM



MCC602 ONE-LINE DIAGRAM

MCC601 LOAD SUMMARY

			FLA	AMPS	KVA
LARGEST MOTOR LOAD	TAG				
Finished Water Pump No.1	FWP401	125 HP	156.0 x 1.25	195.0	162.1
OTHER MOTOR LOADS					
Transfer Pump No.1	TP110	15 HP	21.0 x 1	21.0	17.5
Clarifier Blower No.1	AB006C	20 HP	27.0 x 1	27.0	22.4
Clarifier Blower No.2	AB006D	20 HP	27.0 x 1	27.0	22.4
Recirc Pump No.1	RP105	3 HP	4.8 x 1	4.8	4.0
Compressor No.1		1.5 HP	3.0 x 1	3.0	2.5
Compressor No.2		1.5 HP	3.0 x 1	3.0	2.5
Exhaust Fan No.1	EF-2	1 HP	2.1 x 1	2.1	1.7
Exhaust Fan No.2	EF-3	1 HP	2.1 x 1	2.1	1.7
Overhead Crane		3 HP	4.8 x 1	4.8	4.0
TOTAL MOTOR LOAD:		191 HP	251 A	290 A	241
NON-MOTOR CONTINUOUS LOADS					
Transformer	XFMR601	45 KVA	54.1 x 1.25	67.7	56.3
Transformer	XFMR602	45 KVA	54.1 x 1.25	67.7	56.3
Water Heater	WH-1	4.5	5.4 x 1.25	6.8	5.6
Chlorine Generation System	CL001	24.9 KVA	30.0 x 1.25	37.5	31.2
Chlorine Gen. Water Heater	CL005	6 KVA	7.2 x 1.25	9.0	7.5
Lighting		12 KVA	14.4 x 1.25	18.0	15.0
Subtotal Continuous Load		137 KVA	165 A	207 A	172
TOTAL CONNECTED LOAD:			416 A	496 A	413

MCC602 LOAD SUMMARY

			FLA	AMPS	KVA
LARGEST MOTOR LOAD	TAG				
Finished Water Pump No.2	FWP402	125 HP	156.0 x 1.25	195.0	162.1
OTHER MOTOR LOADS					
Finished Water Pump No.3	FWP403	125 HP	156.0 x 1	156.0	129.7
Transfer Pump No.2	TP210	15 HP	21.0 x 1	21.0	17.5
Transfer Pump No.3	TP310	15 HP	21.0 x 1	21.0	17.5
Recirc Pump No.2	RP205	3 HP	4.8 x 1	4.8	4.0
Recirc Pump No.3	RP305	3 HP	4.8 x 1	4.8	4.0
Overhead Crane		3 HP	4.8 x 1	4.8	4.0
TOTAL CONNECTED LOAD:			368 A	407 A	339
(N) 100HP BACKWASH PUMP				120A	103KVA
TOTAL NEW CONNECTED LOAD				531A	442KVA

GENERAL SHEET NOTES

1. THE AUTOMATIC GROUP (TAG) IS THE INTEGRATOR OF RECORD. CONTACT IS GARY JENKS, PHONE # (541) 359-3755.

SHEET KEY NOTES

1. CT'S PROVIDED BY INTEGRATOR OF RECORD. INSTALL THREE ACTIVE HARMONIC FILTER CT'S ON THE MAIN BUS OF MCC 601, ONE PER PHASE BUS. PROVIDE CONDUIT AND TWISTED SHIELDED PAIR FROM CT'S BACK TO ACTIVE HARMONIC FILTER.
2. CT'S PROVIDED BY INTEGRATOR OF RECORD. INSTALL THREE ACTIVE HARMONIC FILTER CT'S ON THE MAIN BUS OF MCC602, ONE PER PHASE BUS. PROVIDE CONDUIT AND TWISTED SHIELDED PAIR FORM CT'S BACK TO ACTIVE HARMONIC FILTER.
3. EXISTING SOFT STARTER SHALL BE REPLACED WITH NEW VFD BY INTEGRATOR OF RECORD. DISCONNECT AND RECONNECT EXISTING CONDUCTORS AS REQUIRED, COORDINATE WORK WITH INTEGRATOR OF RECORD.

SHEET KEY NOTES

4. ACTIVE HARMONIC FILTERS SHALL BE PROVIDED BY INTEGRATOR OF RECORD CONTRACTOR TO INSTALL AND MOUNT ACTIVE HARMONIC FILTERS. PROVIDE ALL NEW CONDUCTORS AND CONDUITS AS SHOWN FOR A COMPLETE SYSTEM. COORDINATE WORK WITH INTEGRATOR OF RECORD.
5. CIRCUIT BREAKERS SHALL BE PROVIDED AND INSTALLED BY INTEGRATOR OF RECORD. PROVIDE ALL NEW CONDUCTORS AND CONDUIT AS SHOWN FOR A COMPLETE SYSTEM. COORDINATE WORK WITH INTEGRATOR OF RECORD.
6. SOFT STARTER AND NEW STAND-ALONE MCC SECTION SHALL BE PROVIDED BY INTEGRATOR OF RECORD. CONTRACTOR SHALL INSTALL NEW MCC SECTION. PROVIDE ALL CONDUCTORS AND CONDUIT AS SHOWN FOR A COMPLETE SYSTEM. COORDINATE WORK WITH INTEGRATOR OF RECORD.

REGISTERED PROFESSIONAL ENGINEER
86683
Digital Signature
OREGON
MAY 08, 2012
BENJAMIN E. PERRY
EXPIRES: 12-31-2022

QC REVIEW: _____
DATE: _____

THIS LINE IS 1 INCH
AT FULL SCALE IF NOT SCALE ACCORDINGLY
SCALE : _____
DRAWN BY : EJC
DESIGNED BY : MH
PROJ. MGR. : _____

No.	ZONE	REVISIONS	BY	DATE

Landis Consulting
ENGINEERING SERVICES
Salem | Lake Oswego
503-584-1576
www.landisconsulting.com

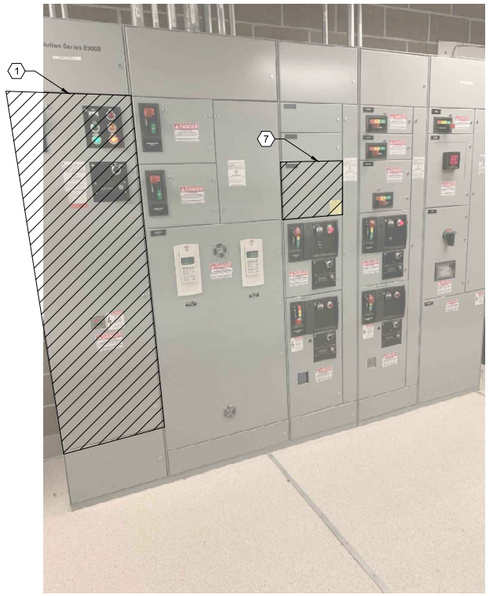
Sweet Home
Oregon, at its best!

SWEET HOME
FINISHED WATER AND BACKWASH PUMPING SYSTEMS IMPROVEMENTS

MCC601 AND MCC602 ONE-LINE DIAGRAMS

JOB NUMBER 936-50-20-03
DRAWING NUMBER **E102**
SHEET NUMBER 11 OF 15
REVISION

G:\PROJECTS\103 - West Yost Associates\1032007 - Sweet Home WTP\Design\(2) Drawings\Current\Sweet Home WTP\Sheets\E102 MCC601 and MCC602 One-Line Diagrams.dwg 11-03-21 12:16:42 PM eclose



1 MCC 601 ELEVATION
SCALE: NTS

2 MCC 602 ELEVATION
SCALE: NTS

3 NEW MCC ELEVATION
SCALE: NTS

4 SPARE CONDUITS
SCALE: NTS

GENERAL SHEET NOTES

1. THE AUTOMATION GROUP (TAG) IS THE INTEGRATOR OF RECORD. CONTACT IS GARY JENKS, PHONE # (541) 359-3755.

SHEET KEY NOTES

1. FINISHED WATER PUMP FWP401 BUCKET. DISCONNECT EXISTING POWER CONDUCTORS FROM PUMP TO EXISTING SOFT STARTER. RECONNECT POWER CONDUCTORS TO NEW VFD. EXISTING SOFT STARTER SHALL BE REMOVED BY INTEGRATOR OF RECORD. NEW VFD SHALL BE PROVIDED AND INSTALLED BY INTEGRATOR OF RECORD. SEE SHEET E102 FOR ADDITIONAL INFORMATION.
2. FINISHED WATER PUMP FWP402 BUCKET. DISCONNECT EXISTING POWER CONDUCTORS FROM PUMP TO EXISTING SOFT STARTER. RECONNECT POWER CONDUCTORS TO NEW VFD. EXISTING SOFT STARTER SHALL BE REMOVED BY INTEGRATOR OF RECORD. NEW VFD SHALL BE PROVIDED AND INSTALLED BY INTEGRATOR OF RECORD. SEE SHEET E102 FOR ADDITIONAL INFORMATION.
3. FINISHED WATER PUMP FWP403 BUCKET. DISCONNECT EXISTING POWER CONDUCTORS FROM PUMP TO EXISTING SOFT STARTER. RECONNECT POWER CONDUCTORS TO NEW VFD. EXISTING SOFT STARTER SHALL BE REMOVED BY INTEGRATOR OF RECORD. NEW VFD SHALL BE PROVIDED AND INSTALLED BY INTEGRATOR OF RECORD. SEE SHEET E102 FOR ADDITIONAL INFORMATION.
4. NEW MCC SECTION AND SOFT STARTER SHALL BE PROVIDED BY INTEGRATOR OF RECORD. CONTRACTOR SHALL INSTALL NEW MCC SECTION. CONNECT NEW POWER CONDUCTORS TO SOFT START AS SHOWN SHEET E102.
5. UTILIZE EXISTING 2" CONDUIT FOR POWER TO NEW BACKWASH PUMP. SEE SHEET E601 FOR ADDITIONAL INFORMATION.
6. UTILIZE EXISTING 2" CONDUIT FOR CONTROL CABLES TO NEW BACK WASH PUMP. SEE SHEET E601 FOR ADDITIONAL INFORMATION.
7. NEW CIRCUIT BREAKER SHALL BE PROVIDED AND INSTALLED BY INTEGRATOR OF RECORD. CONNECT NEW POWER CONDUCTORS TO CIRCUIT BREAKER AS SHOWN ON E101.
8. EXISTING MCC BUCKET SHALL BE REARRANGED FOR TWIN CIRCUIT BREAKERS BY INTEGRATOR OF RECORD. DISCONNECT AND RECONNECT EXISTING CONDUCTORS TO EXISTING CIRCUIT BREAKER. CONNECT NEW POWER CONDUCTORS TO NEW CIRCUIT BREAKER AS SHOWN E101.

REGISTERED PROFESSIONAL ENGINEER
86683
Digital Signature
OREGON
MAY 08, 2012
BENJAMIN E. FERRY
EXPIRES: 12-31-2022

QC REVIEW: _____
DATE: _____

THIS LINE IS 1 INCH
AT FULL SCALE IF NOT SCALE ACCORDINGLY
SCALE : _____
DRAWN BY : EJC
DESIGNED BY : MH
PROJ. MGR. : _____

No.	ZONE	REVISIONS	BY	DATE

Landis Consulting
ENGINEERING SERVICES
Salem | Lake Oswego
503-584-1576
www.landisconsulting.com

Sweet Home
Oregon, at its best!

SWEET HOME
FINISHED WATER AND BACKWASH PUMPING SYSTEMS IMPROVEMENTS

MCC ELEVATIONS & ELECTRICAL PHOTOS

JOB NUMBER 936-50-20-03
DRAWING NUMBER **E103**
SHEET NUMBER 12 OF 15
REVISION

G:\PROJECTS\103 - West Yost Associates\1032007 - Sweet Home WTP\Design\(2) Drawings\Current\Sweet Home WTP\Sheets\1032007-E103 MCC Elevations & Electrical Photos.dwg 11-03-21 12:17:10 PM eclose

POWER CONDUIT / CONDUCTOR SCHEDULE

CONDUIT ID NO.	CONDUIT		CONDUCTORS PER CONDUIT					FROM	TO	DESCRIPTION	NOTES
	QUANTITY	SIZE	UNGROUNDED	GROUNDED	GROUNDING	CABLE	SPARE				
P101	2	3.0 INCH	3 - #350	1 - # 1/0	1 - #1	-	-	MDP601	MCC602	UTILIZE EXISTING CONDUITS. THERE ARE THREE CONDUITS. ONE SHALL REMAIN SPARE.	-
P102	1	1.25 INCH	3 - #4	-	1 - #8	-	-	MCC601	50A AHF	-	-
P103	1	1.25 INCH	3 - #2	-	1 - #6	-	-	MCC602	100A AHF	-	-
P104	1	2.0 INCH	3 - #2/0	-	1 - #6	-	-	MCC602	(N) BACKWASH PUMP	-	-
P105	1	0.75 INCH	1 - #12	1 - #12	1 - #12	-	-	PANEL L602	(N) CONTROL PANEL	-	-
P106	1	0.75 INCH	1 - #12	1 - #12	1 - #12	-	-	PANEL L602	(N) MOTORIZED VALVE	-	-
PXXX	-	-	-	-	-	-	-	-	-	-	-
PXXX	-	-	-	-	-	-	-	-	-	-	-

NOTES:

CONTROL CONDUIT / CONDUCTOR SCHEDULE

CONDUIT ID NO.	CONDUIT		CONDUCTORS PER CONDUIT					FROM	TO	DESCRIPTION	NOTES
	QUANTITY	SIZE	UNGROUNDED	GROUNDED	GROUNDING	CABLE	SPARE				
C101	1	1.0 INCH	-	-	-	3 - TSP	-	MCC601 CT'S	50A AHF	-	-
C102	1	1.0 INCH	-	-	-	3 - TSP	-	MCC602 CT'S	100A AHF	-	-
C103	1	2.5 INCH	-	-	-	3 - CAT6	-	INSTRUMENTATION JUNCTION BOX	(N) CONTROL PANEL	MOTORIZED VALVE AND TWO PRESSURE TRANSMITTERS	-
C104	1	1.0 INCH	-	-	-	1 - CAT6	-	MCC601 FWP601 VFD	(N) CONTROL PANEL	NEW CONDUIT TO CABLE TRAY. UTILIZE CABLE TRAY FOR CAT6 HOMERUN.	-
C105	1	1.0 INCH	-	-	-	3 - CAT6	-	MCC602 FWP402 VFD MCC602 FWP403 VFD (N) BACKWASH PUMP SS	(N) CONTROL PANEL	NEW CONDUIT TO CABLE TRAY. UTILIZE CABLE TRAY FOR CAT6 HOMERUN.	-
C106	1	0.75 INCH	-	-	-	1 - CAT6	-	PRESSURE TRANSMITTER	(N) INSTRUMENTATION JUNCTION BOX	-	-
C107	1	0.75 INCH	-	-	-	1 - CAT6	-	PRESSURE TRANSMITTER	(N) INSTRUMENTATION JUNCTION BOX	-	-
C108	1	0.75 INCH	-	-	-	1 - CAT6	-	INSTRUMENTATION JUNCTION BOX	MOTORIZED VALVE	-	-
C109	-	-	-	-	-	-	-	-	-	-	-
C110	-	-	-	-	-	-	-	-	-	-	-
C111	-	-	-	-	-	-	-	-	-	-	-
C112	-	-	-	-	-	-	-	-	-	-	-
C113	-	-	-	-	-	-	-	-	-	-	-
C114	-	-	-	-	-	-	-	-	-	-	-
C115	-	-	-	-	-	-	-	-	-	-	-
C116	-	-	-	-	-	-	-	-	-	-	-

NOTES:

PANEL NAME: L602 — LOCATION: XXX

VOLT/PHASE: 208/120V, 3Ø — FED FROM: MCC 601 VIA XFMR 602

NUM. POLES: 42 — BREAKER MOUNTING: BOLTED

AIC RATING: 42,000 — MAIN BREAKER AMPS: 175

NOTES: EXISTING PANEL — BUS RATING AMPS: 225

REF. KEY NOTE #: — SPD: NO

NOTES	LOAD DESCRIPTION	LOAD TYPE	VA L1	VA L2	VA L3	TRIP RATING AMPS	CIRCUIT NUMBER	CIRCUIT NUMBER	TRIP RATING AMPS	VA L1	VA L2	VA L3	LOAD TYPE	LOAD DESCRIPTION	NOTES
	CU-1		-			25	1	2		-					
				-			3	4	30		-			SPARE	
	SPARE				-	30	5	6				-			
			-				7	8		-					
	CU-2			-		40	9	10	20		-			SPARE	
					-		11	12				-			
	RCPT: P201		-			20	13	14	20	-				EWH-2	
	RCPT: P202			-		20	15	16	20		-			CP101	
	RCPT: ACH201				-	20	17	18	20			-		CP210	
	POLYMER MIX UNIT		-			20	19	20	20	500				(N) CONTROL PANEL	[1]
	RCPT: CL201			-		20	21	22	20		500			(N) MOTORIZED VALVE	[1]
	RCPT: SA201				-	20	23	24	20			-		SPARE	
	RCPT: F201		-			20	25	26	20	-				SPARE	
	RCPT: PROCESS AREA			-		20	27	28	20		-			EWH-1	
	RCPT: PROCESS AREA				-	20	29	30	20			-		UH-1, 2, 4, 6 & 10	
	RCPT: FILTER 2		-			20	31	32	20	-				F-2	
	SPARE			-		20	33	34	20		-			FC-1	
	SPARE				-	20	35	36				-			
	RCPT: PROCESS AREA		-			20	37	38	20	-				EF-1	
	RCPT: PROCESS AREA			-		20	39	40	20		-			RCPT: SCM AIT012 / 022	
	RCPT: CHEM AREA				-	20	41	42	20			-		RCPT: CHEM AREA	

TOTAL LOAD:	0	0	0	TOTAL LOAD:	500	500	0
COMBINED LOAD:	500	500	0	CONNECTED LOAD:	1,000	DEMAND LOAD:	0
						DEMAND AMPS:	0

Load Type Key		Demand Factor	Connected Load	Demand Load	
R	General Purpose Receptacle	100% First 10kVA, 50% thereafter	0	0	
L	Lighting	125% Load	0	0	
M1	Largest Motor	125% Load	0	0	
M	Motor	100% Load	0	0	
A	Appliance	100% Load	0	0	
H	HVAC	100% Load	0	0	
K	Kitchen	65% Load	0	0	6 - Units of Equipment - See NEC Table 220.56
E	Equipment	100% Load	0	0	
T	Transformer	100% Load	0	0	
W	Welder	100% Load	0	0	
RV	Recreational Vehicle	XX% Load	0	0	XX - RV Sites - See NEC Table 551.71 (A)

NOTES: [1] CONNECT TO EXISTING SPARE 20A, 120V, 1-PHASE CIRCUIT BREAKER FOR NEW LOAD AS SHOWN.

REGISTERED PROFESSIONAL ENGINEER — 86683 — Digital Signature — OREGON — MAY 08, 2012 — BENJAMIN E. PERRY — EXPIRES: 12-31-2022

QC REVIEW: _____ DATE: _____

THIS LINE IS 1 INCH
AT FULL SCALE IF NOT SCALE ACCORDINGLY

SCALE : _____
DRAWN BY : EJC
DESIGNED BY : MH
PROJ. MGR. : _____

No.	ZONE	REVISIONS	BY	DATE

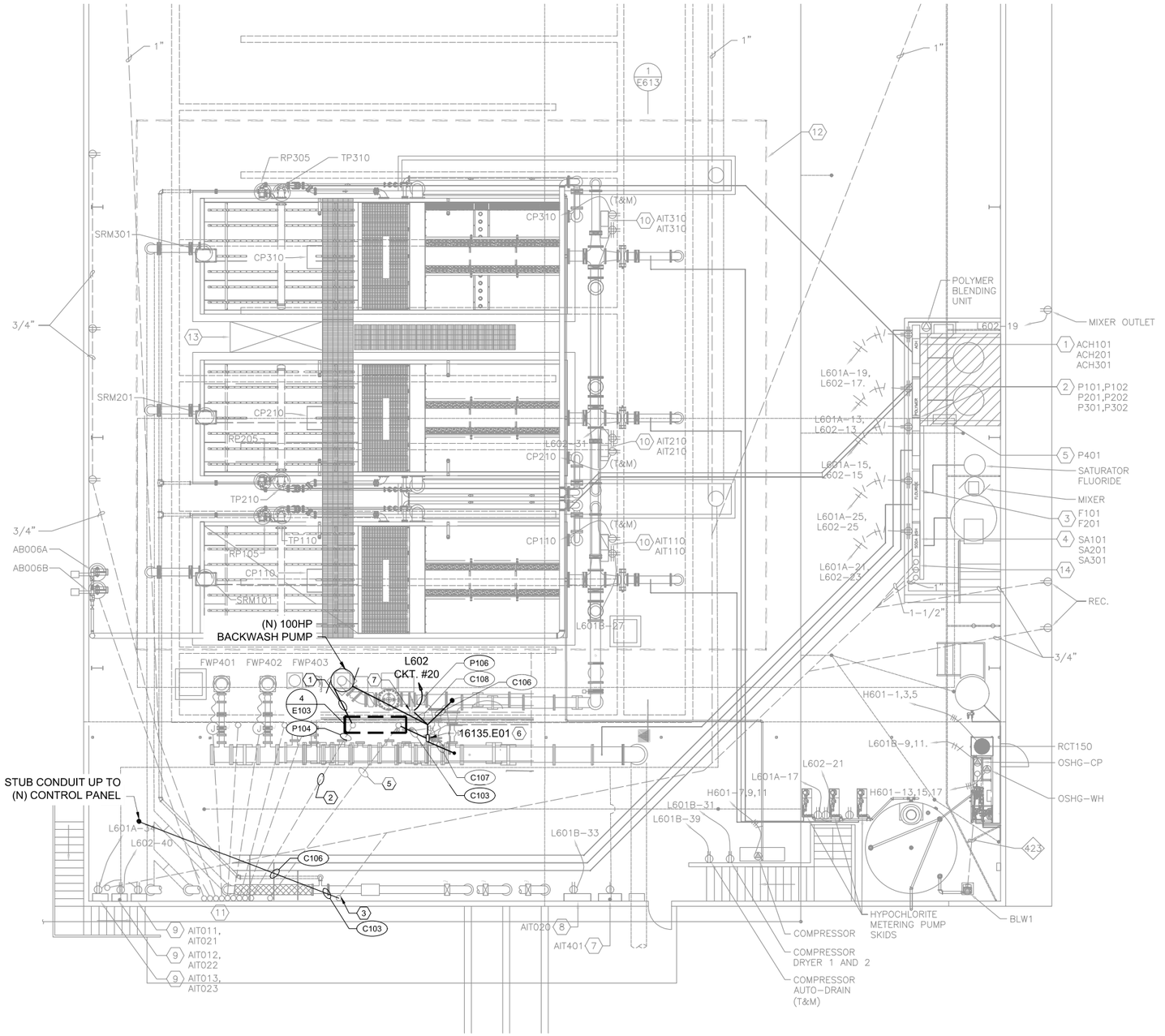
Landis Consulting
ENGINEERING SERVICES
Salem | Lake Oswego
503-584-1576
www.landisconsulting.com

Sweet Home — Oregon, at its best!

SWEET HOME
FINISHED WATER AND BACKWASH PUMPING SYSTEMS IMPROVEMENTS

CONDUIT AND PANEL SCHEDULES

JOB NUMBER 936-50-20-03
DRAWING NUMBER **E106**
SHEET NUMBER 13 OF 15
REVISION



REFERENCE KEY NOTES

DIVSION 16

16135.E01 - GENERAL ENCLOSURES

SHEET KEY NOTES

1. EXTEND 2.5" CONDUIT FROM (E) SPARE CONDUIT TO MOTOR CONNECTION. PROVIDE CONDUCTORS AS SHOWN ON ONE-LINE.
2. UTILIZE (E) SPARE 2.5" CONDUIT FOR NEW CONDUCTORS FROM SOFT STARTER IN MCC602 TO (N) BACKWASH PUMP.
3. INTERCEPT (E) SPARE 2.5" CONDUIT AND EXTEND IT ALONG THE UNDERSIDE OF THE ABOVE MEZZANINE TO THE LOCATION OF (N) CONTROL PANEL.
4. STUB (N) CONDUIT UP TO (N) CONTROL PANEL LOCATION.
5. PROVIDE (1) CAT6 CABLE FROM (N) PRV TO (N) CONTROL PANEL. CAT6 CABLE SHALL PASS THROUGH (N) JUNCTION BOX AS SHOWN. CABLE SHALL NOT BE TERMINATED IN JUNCTION BOX.
6. PROVIDE INSTRUMENTATION JUNCTION BOX WITH TERMINAL STRIP. MOUNT JUNCTION BOX TO COLUMN. EXTEND (E) OCNDUIT TO JUNCTION BOX LOCATION. PROVIDE (N) 1" CONDUIT FROM JUNCTION BOX TO (N) PRV.
7. PROVIDE 120V CIRCUIT FROM (E) LP602 CIRCUIT 22 TO (N) MOTORIZED VALVE. UTILIZE (E) SPARE 20A, 1-POLE CIRCUIT BREAKER.

REGISTERED PROFESSIONAL ENGINEER
86683
Digital Signature
OREGON
MAY 08, 2012
BENJAMIN E. FERRY
EXPIRES: 12-31-2022

QC REVIEW: _____

DATE: _____

THIS LINE IS 1 INCH
AT FULL SCALE IF
NOT SCALE ACCORDINGLY

SCALE : _____
DRAWN BY : EJC
DESIGNED BY : MH
PROJ. MGR. : _____

No.	ZONE	REVISIONS	BY	DATE

Landis Consulting
ENGINEERING SERVICES
Salem | Lake Oswego
503-584-1576
www.landisconsulting.com

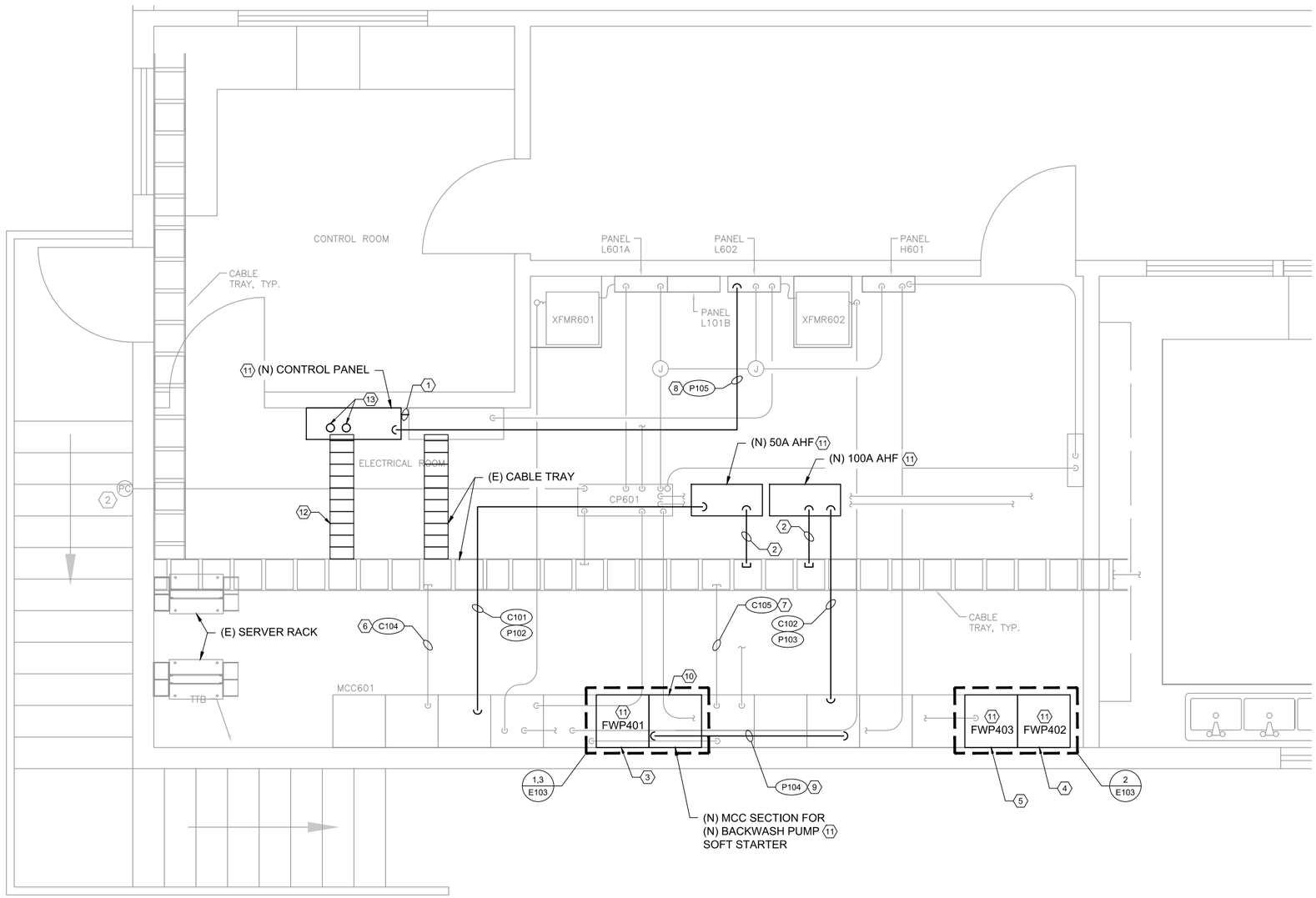
Sweet Home
Oregon ...at its best!

SWEET HOME
FINISHED WATER AND BACKWASH PUMPING SYSTEMS IMPROVEMENTS

PROCESS POWER PLAN - FIRST FLOOR

JOB NUMBER 936-50-20-03
DRAWING NUMBER **E601**
SHEET NUMBER 14 OF 15
REVISION

G:\PROJECTS\103 - West Yost Associates\1032007 - Sweet Home WTP\Design\(2) Drawings\Current\Sweet Home WTP_Process Power Plan - First Floor.dwg 11-03-21 12:18:05 PM eclose



1 SECOND FLOOR
PROCESS POWER AND SIGNAL PLAN
SCALE: NTS

SHEET KEY NOTES

1. PROVIDE (4) 2" CONDUIT NIPPLES BETWEEN (E) CP101 AND (N) CONTROL PANEL AS SHOWN.
2. PROVIDE (1) 1" CONDUIT FROM AHF STUBBED OUT TO (E) CABLE TRAY. PROVIDE (1) CAT6 CABLE FROM AHF TO (N) CONTROL PANEL.
3. SEE E102 AND E103 FOR INFORMATION ON SCOPE OF WORK FOR STARTER FWP401 IN MCC601.
4. SEE E102 AND E103 FOR INFORMATION ON SCOPE OF WORK FOR STARTER FWP402 IN MCC602.
5. SEE E102 AND E103 FOR INFORMATION ON SCOPE OF WORK FOR STARTER FWP403 IN MCC602.
6. PROVIDE (1) CAT6 CABLE FROM FWP01 VFD TO (N) CONTROL PANEL. UTILIZE (E) CONDUIT FROM MCC601 TO (E) CABLE TRAY AS SHOWN. ROUTE CAT6 CABLES THROUGH (E) CABLE TRAY TO (E) CP-101 AND THROUGH THE CONDUIT NIPPLES TO (N) CONTROL PANEL.
7. PROVIDE (1) CAT6 CABLE FROM FWP402 VFD, (1) CAT6 CABLE FROM FWP403 VFD, (1) CAT6 CABLE FROM BACKWASH PUMP SOFT START, ALL THREE TO THE (N) CONTROL PANEL. UTILIZE (E) CONDUIT PATHWAY FROM MCC602 TO (E) CABLE TRAY AS SHOWN. ROUTE CAT6 CABLES THROUGH (E) CABLE TRAY TO (E) CP-101 AND THROUGH THE CONDUIT NIPPLE TO (N) CONTROL PANEL.
8. PROVIDE 120V CIRCUIT FROM (E) LP602 CIRCUIT 20 TO (N) CONTROL PANEL. UTILIZE (E) SPARE 20A, 1-POLE CIRCUIT BREAKER.
9. PROVIDE CABLING FROM CIRCUIT BREAKER IN MCC602 TO (N) BACKWASH PUMP SOFT START MCC SECTION. INTENT IS TO RUN CABLING INSIDE (E) MCC602 CABLE THROUGH TO (N) MCC SECTION. SEE E102 FOR MORE INFORMATION.
10. PROVIDE (1) CAT6 CABLE FROM (N) BACKWASH PUMP SOFT STARTER TO THE (N) CONTROL PANEL. TUILIZE (E) WIRING TROUGH IN (E) MCC602 AND (E) CONDUIT PATHWAY FROM MCC602 TO (E) CABLE TRAY AS SHOWN. ROUTE CAT6 CABLES THROUGH (E) CABLE TRAY TO (E) CP-101 AND THROUGH THE CONDUIT NIPPLE TO (N) CONTROL PANEL.
11. EQUIPMENT PROVIDED BY INTEGRATOR OF RECORD, CONTRACTOR TO INSTALL. SEE E102 FOR ADDITIONAL INFORMATION.
12. PROVIDE NEW WIRE BASKET CABLE TRAY FROM EXISTING CABLE TRAY TO NEW CONTROL PANEL. MATCH WIDTH, HEIGHT, AND TYPE OF EXISTING CABLE TRAY. PROVIDE ALL ACCESSORIES TO CONNECT TO EXISTING TRAY. CONNECT INTO AND EXTEND EXISTING CABLE TRAY GROUNDING SYSTEM, MATCH CONDUCTOR SIZE.
13. PROVIDE (3) 2" EMT CONDUITS FORM (N) CONTROL PANEL TO (N) CABLE TRAY. PROVIDE GROUND BUSHINGS CONNECT TO GROUNDING SYSTEM ON TRAY.

REGISTERED PROFESSIONAL ENGINEER
86683
Digital Signature
OREGON
MAY 08, 2012
BENJAMIN E. FERRY
EXPIRES: 12-31-2022

QC REVIEW: _____
DATE: _____

THIS LINE IS 1 INCH
AT FULL SCALE IF NOT SCALE ACCORDINGLY

SCALE : _____
DRAWN BY : EJC
DESIGNED BY : MH
PROJ. MGR. : _____

No.	ZONE	REVISIONS	BY	DATE

Landis Consulting
ENGINEERING SERVICES
Salem | Lake Oswego
503-584-1576
www.landisconsulting.com

Sweet Home
Oregon ...at its best!

SWEET HOME
FINISHED WATER AND BACKWASH PUMPING SYSTEMS IMPROVEMENTS

PROCESS POWER AND SIGNAL PLAN
- SECOND FLOOR

JOB NUMBER 936-50-20-03
DRAWING NUMBER **E602**
SHEET NUMBER 15 OF 15
REVISION

G:\PROJECTS\103 - West Yost Associates\1032007 - Sweet Home WTP\Design\(2) Drawings\Current\Sweet Home WTP\Sheets\1032007-E602 Process Power and Signal Plan - Second Floor.dwg 11-03-21 12:18:28 PM eclose