South Valley Water Reclamation Facility

Drawings for the Construction of

PROJECT 5

MARCH 2019

VOLUME 4

REV	DATE	BY	DESCRIPTION

DESIGNED JD
DRAWN KHB
CHECKED RWB/JD
DATE MARCH 2019

REGISTERED PROFESSIONAL ENGINEER
No. 4775621-2202
BRAD D. JEPPSON
STATE OF UTAH

carollo

South Valley WATER RECLAMATION FACILITY
7495 South 1300 West
West Jordan, Utah 84084

SOUTH VALLEY WATER RECLAMATION FACILITY
PROJECT 5
GENERAL
COVER SHEET

VERIFY SCALES
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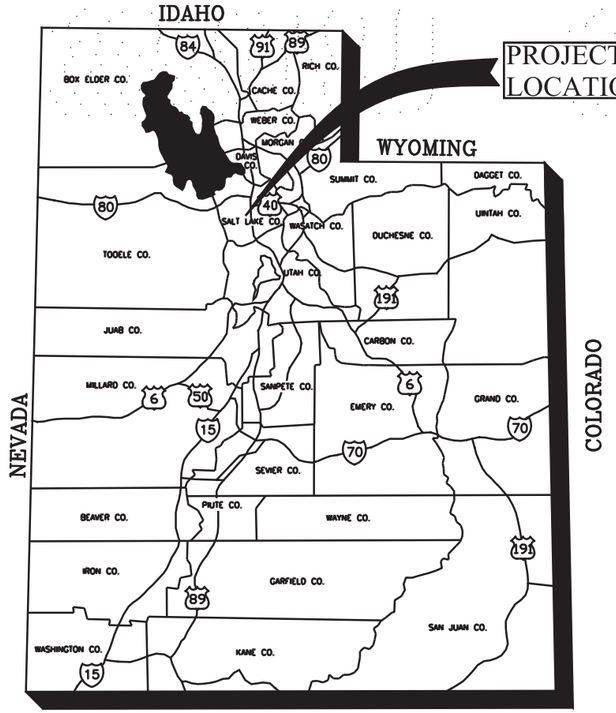
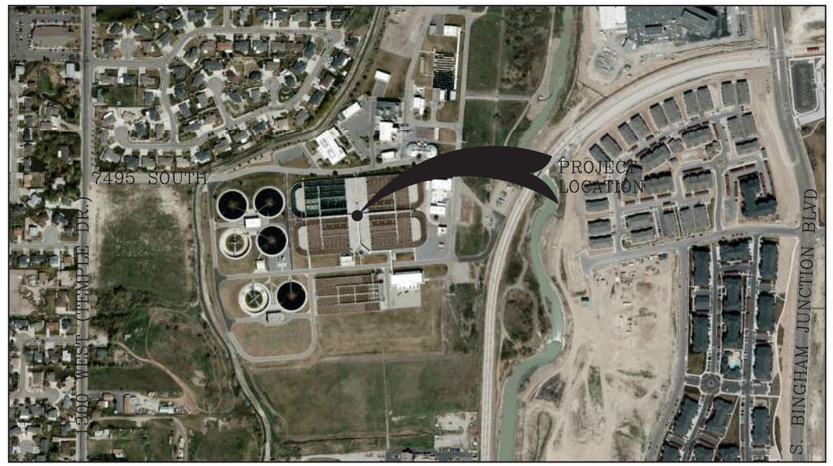
JOB NO. 10548A.10
DRAWING NO. G-01
SHEET NO. 1 OF 159



PROJECT LOCATION MAP
NO SCALE



VICINITY MAP
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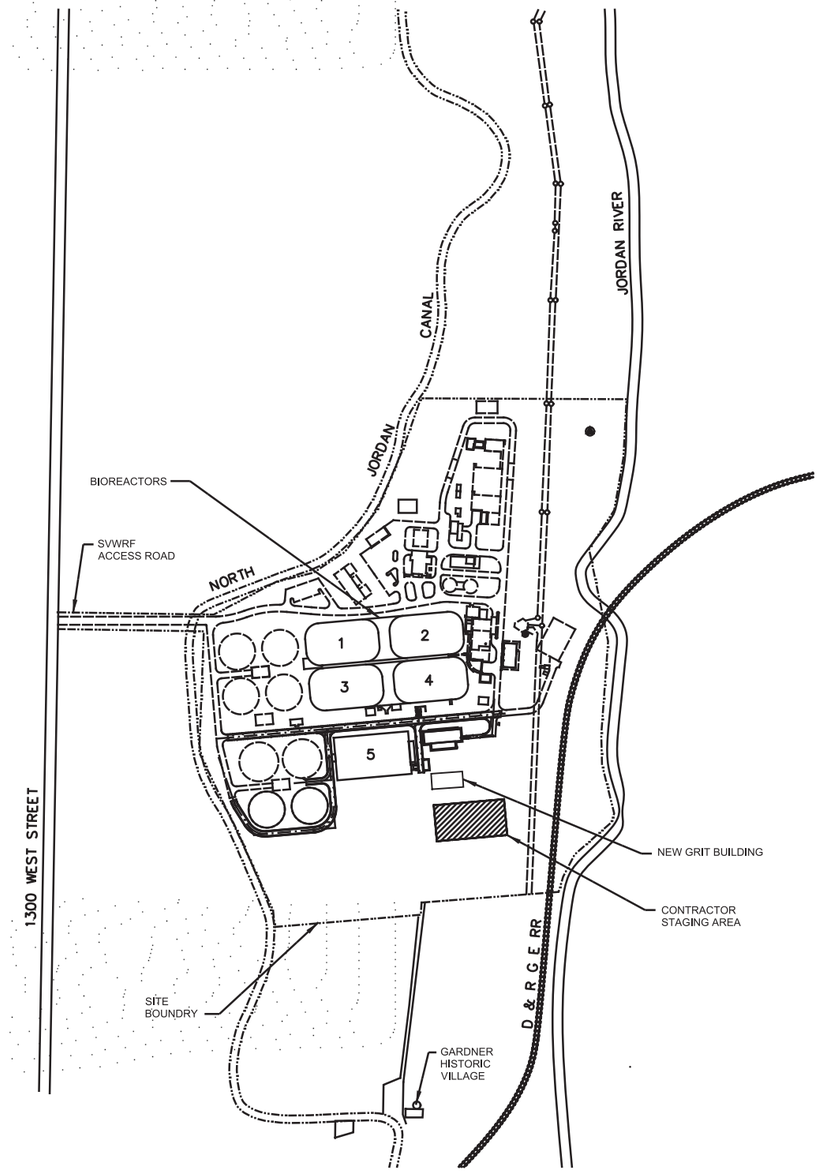

SITE MAP
NO SCALE

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CHECKED TL/GCS
DATE MARCH 2019

REGISTERED PROFESSIONAL ENGINEER — No. 9039577-2202 — JAMES W. DIXON — STATE OF UTAH

REGISTERED PROFESSIONAL ENGINEER — No. 4773621-2202 — BRAD D. JEPPSON — STATE OF UTAH

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South Valley WATER RECLAMATION FACILITY
7495 South 1300 West
West Jordan, Utah 84084

SOUTH VALLEY WATER RECLAMATION FACILITY
PROJECT 5
GENERAL
LOCATION, VICINITY AND SITE MAPS

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JOB NO. 10548A.10
DRAWING NO. G-02
SHEET NO. 2 OF 159

PROJECT NO. 10548A10 FILE NAME: 10548A1000G02.dgn

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3	G-03	SHEET INDEX
4	G-04	SITE DEVELOPMENT PLAN
5	G-05	GENERAL NOTES AND SYMBOLS
6	G-06	ABBREVIATIONS
7	G-07	DESIGN CRITERIA
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20	GC-YP-11	YARD PIPING PLAN - AREA 11
21	GC-YP-12	YARD PIPING PLAN - AREA 12
22	GC-YP-17	YARD PIPING PLAN - AREA 17
23	GC-YP-18	YARD PIPING PLAN - AREA 18
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30	C-04	PIPE PROFILES 3 - 63" PI (PLANT INFLUENT)
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112	GM-05	PIPING TYPICAL DETAILS 3
113	GM-06	PIPING TYPICAL DETAILS 4
114	GM-07	PIPING TYPICAL DETAILS 5
115	GM-08	PIPING TYPICAL DETAILS 6
116	GM-09	PIPING TYPICAL DETAILS 7
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121	M16-03	BIOREACTORS - TYPICAL ENLARGED LOWER PLAN
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135	M21-06	GRIT HANDLING FACILITY - SECTIONS AND DETAILS 3
136	M21-07	GRIT HANDLING FACILITY - SECTIONS AND DETAILS 4
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159	H21-05	GRIT HANDLING FACILITY - AIRFLOW SCHEMATIC

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SOUTH VALLEY WATER RECLAMATION FACILITY
PROJECT 5
GENERAL
SHEET INDEX

VERIFY SCALES
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JOB NO. 10548A.10
DRAWING NO. G-03
SHEET NO. 3 OF 159

PROJECT NO. 10548A10 FILE NAME: 10548A1000G03a.dgn

0 50' 100' 200'

SCALE: 1" = 100'

LEGEND		LEGEND (CONT'D)	
AB	ADMINISTRATION BUILDING	MV	METER VAULT
ASH	AEROBIC SLUDGE HOLDING BASIN	PA	POST AERATION
BB	BLOWER BUILDING	RW	RAS/WAS PUMPING STATION
BF	BIOFILTER	S	STORAGE BUILDING
BR	BIOREACTOR	SB	SPLITTER BOX
BS	BIOSELECTOR (IN REACTOR)	SG	STANDBY GENERATOR BUILDING
CB	CHEMICAL BUILDING	SM	SECONDARY MAINTENANCE BLDG
CC	CHLORINE CONTACT TANK	SP	SOLIDS PROCESSING BUILDING
FB	FILTER WASTE WASHWATER	SPS	SLUDGE PUMP STATION
FBB	FILTER BYPASS BOX	TB	THICKENER BUILDING
FC	FINAL CLARIFIER	TC	TRENCH DRAIN COLLECTION BOX
FCCB	CLARIFIER CHEM BUILDING	TD	THERMAL DRYING BUILDING
GR	GRIT BUILDING	DAFT	THICKENER
UWF	UTILITY WATER FILTERS	SS	ELECTRICAL SUBSTATION
HW	HEADWORKS	UV	UV DISINFECTION
MB	MAINTENANCE BUILDING	UW	UTILITY WATER PUMPING STA
		VD	VAULT DUMPING STATION

(1) UNIT NUMBER

PROJECT 5

FUTURE

KEY NOTES:

(1) CONTRACTOR SHALL NOT DISTURB LANDSCAPING OR IRRIGATION OF THE DESIGNATED AREA.

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DRAWN TSD
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South Valley WATER RECLAMATION FACILITY
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SOUTH VALLEY WATER RECLAMATION FACILITY
PROJECT 5
CIVIL
SITE DEVELOPMENT PLAN

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JOB NO. 10548A.10
DRAWING NO. G-04
SHEET NO. 4 OF 159

Plot Date: 28-FEB-2019 11:51:29 AM
User: svcPW
PlotScale: 2:1
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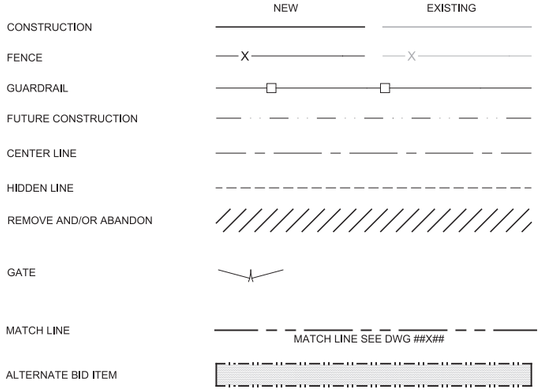
ColorTable: gshade.ctb
Model: Layout1
LAST SAVED BY: dscheele

PROJECT NO. 10548A10 FILE NAME: 10548A1000G04.dgn

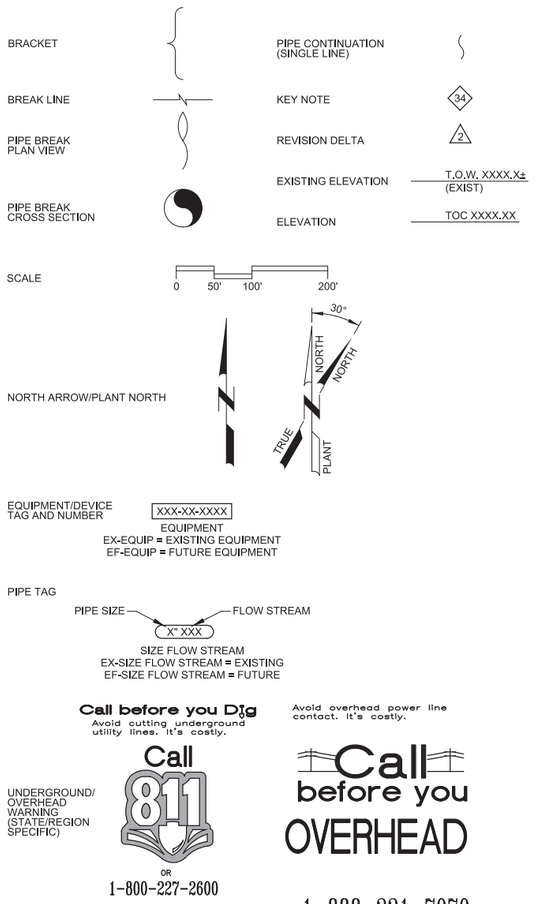
GENERAL NOTES

1. FOLLOWING NOTES ARE GENERAL AND APPLY TO ALL SHEETS OF THESE CONTRACT DOCUMENTS AS IF THEY WERE WRITTEN IN THEIR ENTIRETY ON EACH SHEET.
2. CONTRACTOR SHALL VERIFY ALL DIMENSIONS BEFORE STARTING WORK AND SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES. CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING ALL EXISTING CONDITIONS INCLUDING LOCATION AND DIMENSIONS OF ALL EXISTING CONSTRUCTION AND UTILITIES. CONTRACTOR SHALL NOTIFY ENGINEER IF THERE IS A CONFLICT BETWEEN THE CONTRACT DOCUMENTS AND EXISTING CONSTRUCTION BEFORE PROCEEDING WITH WORK.
3. UNLESS DETAILED, SPECIFIED, OR OTHERWISE INDICATED ON THE DRAWINGS, CONSTRUCTION SHALL BE AS INDICATED IN THE APPLICABLE TYPICAL DETAILS AND GENERAL NOTES. TYPICAL DETAILS SHALL APPLY EVEN THOUGH NOT REFERENCED AT SPECIFIC LOCATIONS ON DRAWINGS.
4. WHERE NO CONSTRUCTION DETAILS ARE SHOWN OR NOTED FOR ANY PART OF WORK, DETAILS SHALL BE IN THE SAME AS FOR OTHER SIMILAR WORK.
5. CONTRACTOR SHALL COMPLY WITH LOCAL CONSTRUCTION STORM WATER DISCHARGE REGULATIONS AND REQUIREMENTS.
6. PRIOR TO EXCAVATION FOR NEW STRUCTURES, ELECTRICAL CONDUIT, FABRICATION OF NEW PIPING AND/OR OTHER PROPOSED UTILITIES, CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL EXISTING PIPING AND UTILITIES IN THE CONSTRUCTION AREA. THE CONTRACTOR SHALL TEMPORARILY RELOCATE CONFLICTING EXISTING UTILITIES AT TIE-IN/CONNECTION LOCATIONS AND REINSTALL THEM AS REQUIRED TO ELIMINATE THE CONFLICT AT NO ADDITIONAL COST TO THE OWNER.
7. ALL PIPELINES 12" AND LARGER SHALL HAVE A MINIMUM COVER OF 36" UNLESS THE COVER DEPTH IS SPECIFICALLY INDICATED ON THE DRAWINGS. PIPE SMALLER THAN 12" SHALL HAVE A MINIMUM COVER OF 30" UNLESS NOTED OTHERWISE. PIPES SHALL BE ROUTED AS SHOWN UNLESS MINOR REVISIONS ARE NECESSARY TO MISS EXISTING PIPES, STRUCTURES, ETC. CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING ALL FITTINGS AND ADAPTERS REQUIRED TO MAKE THE ROUTING CHANGES AT NO ADDITIONAL COST TO THE OWNER. CONTRACTOR SHALL INCLUDE COST FOR THIS IN THE BID.
8. EXISTING FACILITY AND UTILITY INFORMATION SHOWN ON THE DRAWINGS WAS OBTAINED FROM AVAILABLE RECORDS OR ELECTRONIC FILES. NEITHER THE OWNER NOR ENGINEER ASSUMES ANY RESPONSIBILITY FOR FACILITIES AND UTILITIES NOT SHOWN OR NOT IN THE LOCATION SHOWN. THE CONTRACTOR SHALL FIELD VERIFY ALL LOCATIONS, SIZES, MATERIAL TYPES, AND ELEVATIONS SHOWN AROUND OR NEAR AREAS OF NEW CONSTRUCTION PRIOR TO START OF CONSTRUCTION.
9. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONARY MEASURES NECESSARY TO PROTECT FROM DAMAGE EXISTING FACILITIES AND UTILITIES SHOWN OR NOT SHOWN THAT ARE TO REMAIN IN PLACE. ALL FACILITIES DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE EXPEDITIOUSLY REPAIRED OR RECONSTRUCTED TO THE ORIGINAL OR BETTER CONDITION AT THE CONTRACTOR'S EXPENSE WITHOUT ADDITIONAL COMPENSATION.
10. CONTRACTOR SHALL MAKE CONNECTIONS TO EXISTING PIPE, EQUIPMENT, ETC. AS REQUIRED AND SHALL PROVIDE ALL FITTINGS, ADAPTERS, AND APPURTENANCES REQUIRED TO MAKE THE CONNECTIONS. PROVIDE ALL SUPPORTS REQUIRED FOR A RIGIDLY SUPPORTED COMPLETE AND WORKING SYSTEM.
11. ADJUST ALL VALVE BOXES, VAULTS, PULL BOXES, AND MANHOLES TO FINISHED GRADE UNLESS OTHERWISE SHOWN OR DIRECTED. MANHOLES IN OPEN FIELDS SHALL BE SET TWELVE INCHES ABOVE FINISHED GRADE AND VAULTS SHALL BE SIX INCHES ABOVE FINISHED GRADE.
12. THE CONTRACTOR SHALL CONTACT THE OWNER FOR QUESTIONS OR COORDINATION OF CONSTRUCTION RELATED TO EXISTING UTILITIES.
13. CONTRACTOR SHALL VERIFY THAT PIPING SHOWN TO BE ABANDONED OR AS ABANDONED PREVIOUSLY IS NO LONGER IN SERVICE. LINES IN SERVICE SHALL BE MAINTAINED UNTIL NO LONGER REQUIRED BY THE PLANT.
14. ALL EXISTING PIPES THAT ARE TO BE ABANDONED IN PLACE OR REMOVED MAY NOT BE SHOWN. WHERE PIPING IS TO BE ABANDONED AND MUST REMAIN IN SERVICE UNTIL COMPLETION OF OTHER PHASES OF WORK, AND IT CONFLICTS WITH NEW PIPING, TEMPORARILY RELOCATE PIPING AS REQUIRED TO MAINTAIN SERVICE BY THE PLANT.
15. CONTRACTOR SHALL REROUTE THE EXISTING PIPING IF REQUIRED TO MISS THE PROPOSED STRUCTURES. THE EXISTING PIPE SHALL REMAIN IN SERVICE UNTIL NEW PIPING IS READY TO BE PLACED INTO SERVICE. DOWNTIME SHALL BE A MAXIMUM OF 2 HOURS, UNLESS SPECIFIED OR SHOWN OTHERWISE.
16. ALL SIDEWALKS TO BE 3'-0" WIDE UNLESS SHOWN OTHERWISE.
17. THE CONTRACTOR SHALL TAKE SPECIAL PRECAUTIONS IN THE VICINITY OF ANY OVERHEAD ELECTRIC LINES. CONTRACTOR SHALL ABIDE BY THE NATIONAL ELECTRIC CODE AND ANY REQUIREMENT BY THE OWNER OF THE ELECTRIC LINES.
18. PROVIDE ALL SHEETING/SHORING REQUIRED TO PROTECT EXISTING STRUCTURES, PIPES AND FACILITIES.
19. CONTRACTOR SHALL VERIFY LOCATION OF ALL ARCHITECTURAL, MECHANICAL, AND ELECTRICAL ITEMS BEFORE PLACING ANY STRUCTURAL STEEL OR CONCRETE. ALSO, STRUCTURAL DIMENSIONS AND OPENINGS CONTROLLED BY ARCHITECTURAL, MECHANICAL, OR ELECTRICAL EQUIPMENT SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
20. MECHANICAL AND ELECTRICAL EQUIPMENT SUPPORTS, ANCHORAGES, OPENINGS, RECESSES, AND REVEALS NOT SHOWN ON THE STRUCTURAL DRAWINGS, THAT ARE REQUIRED BY OTHER CONTRACT DRAWINGS, SHALL BE PROVIDED PRIOR TO CASTING CONCRETE.
21. CONTRACTOR SHALL COORDINATE ANY PROPOSED TEMPORARY RELOCATION OF EXISTING EQUIPMENT IN THE BIOREACTORS WITH THE OWNER AND ENGINEER PRIOR TO REMOVAL. NO EQUIPMENT SHALL BE REMOVED WITHOUT APPROVAL FROM THE OWNER AND ENGINEER.

LINE WORK



SYMBOLS



Call before you Dig
Avoid cutting underground utility lines. It's costly.

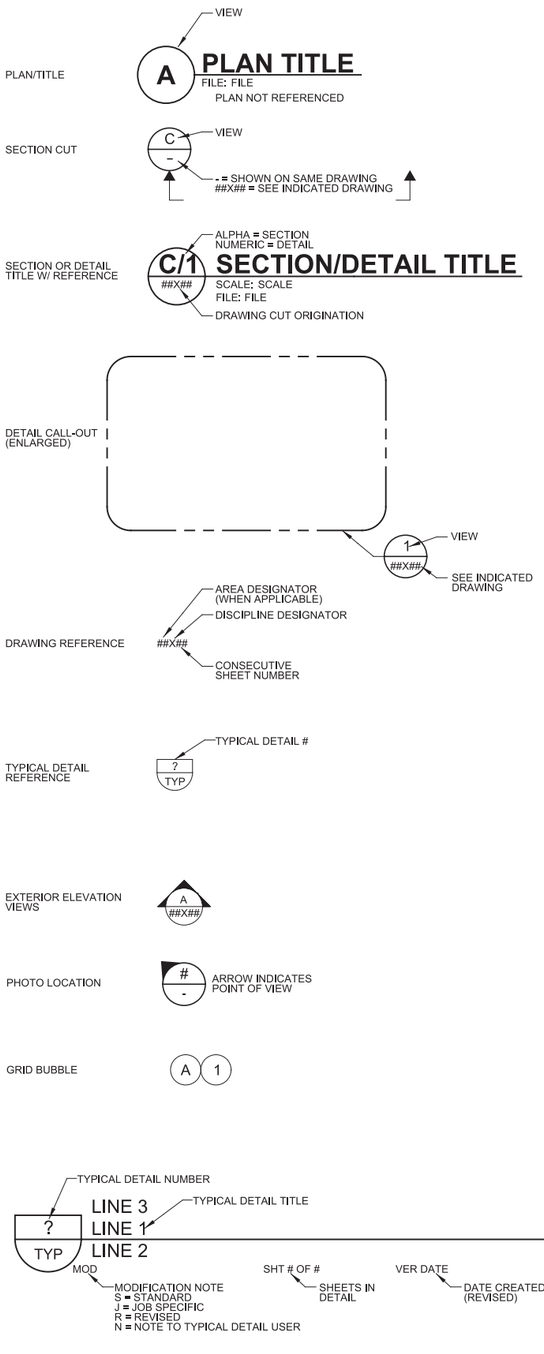
UNDERGROUND/ OVERHEAD WARNING (STATE/REGION SPECIFIC)

Call 811
OR
1-800-227-2600

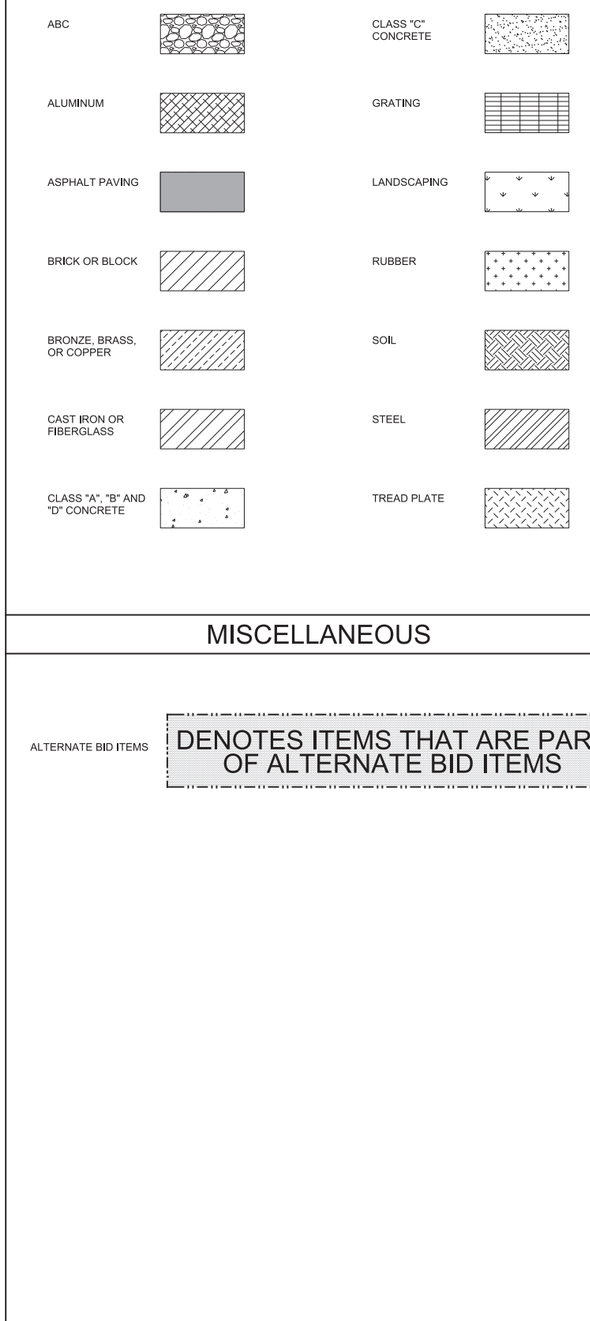
Avoid overhead power line contact. It's costly.

Call before you
OVERHEAD
1-888-221-7070

DETAIL REFERENCES



HATCH PATTERNS



MISCELLANEOUS

ALTERNATE BID ITEMS

DENOTES ITEMS THAT ARE PART OF ALTERNATE BID ITEMS

REV	DATE	BY	DESCRIPTION

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PROJECT 5
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GENERAL NOTES AND SYMBOLS

VERIFY SCALES
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0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO. 10548A.10
DRAWING NO. G-05
SHEET NO. 5 OF 159

@	AT (MEASUREMENT)
△	DEFLECTION ANGLE, CENTRAL ANGLE
#	NUMBER (REBAR Ø)

A

AB	ANCHOR BOLT
ABC	AGGREGATE BASE COURSE
ABS	ACRYLONITRILE BUTADIENE STYRENE
ABI	ADDITIVE BID ITEM
AC	ASPHALTIC CONCRETE
ACB	AIR CIRCUIT BREAKER
ACI	AMERICAN CONCRETE INSTITUTE
ACP	ASBESTOS CEMENT PIPE
ACU	AIR CONDITIONING UNIT
AD	AREA DRAIN
ADDL	ADDITIONAL
ADJ	ADJACENT, ADJUST, ADJUSTABLE
ADMIN	ADMINISTRATION
ADR	ACCESS DOOR
AED	AREA EQUIPMENT DRAIN
AER	AERAT(ION)(OR)
AFC	AFTERCOOLER
AFF	ABOVE FINISHED FLOOR
AFM	AIR FLOW MONITOR
AHU	AIR HANDLING UNIT
AIC	AIR COMPRESSOR
AIL	AIR INTAKE LOUVER
ALT	ALTERNATE
AL	ALUMINUM
ANCH	ANCHOR
ANV	ANGLE VALVE
APPROX	APPROXIMATE, APPROXIMATELY
ARCH	ARCHITECTURAL
ARV	AIR RELEASE VALVE
ASSY	ASSEMBLY
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AV	ACID VENT
AVG	AVERAGE
AVV	AIR AND VACUUM VALVE
AW	ACID WASTE

B

BC	BEGIN CURVE, BRASS CAP, BACK OF CURB, BOLT CIRCLE
BCKR	BACKER BOARD
BCM	BATCHMETER
BD	BOARD
BDD	BACKDRAFT DAMPER
BDR	BASIN DRAIN LINE
BF	BLIND FLANGE
BFG	BELOW FINISHED GRADE
BFP	BELT FILTER PRESS
BFV	BUTTERFLY VALVE
BG	BREAK GLASS HAND SWITCH
BKW	BACKWASH
BLDG	BUILDING
BLK	BLOCK
BLKHD	BULKHEAD
BLR	PROCESS BLOWER
BM	BEAM, BENCH MARK
BOTT	BOTTOM
BOTTS	BOTTOM SLUDGE
BPV	BACK PRESSURE VALVE
BRG	BEARING
BSP	BLACK STEEL PIPE
BTU	BRITISH THERMAL UNITS
BTWN	BETWEEN
BV	BALL VALVE

C

C	CLOSE, CONDUIT CHANNEL (STRUCTURAL)
CA	CONCRETE ANCHOR
CAUSTIC	CAUSTIC SOLUTION (CONCENTRATED OR DILUTE)
CB	CATCH BASIN
CC	CENTER OF CURVATURE, CENTER TO CENTER
CCB	CHLORINE CONTACT BASIN
CD	CEILING DIFFUSER, CONDENSATE DRAIN
CDL	CHEMICAL DRAIN LINE
CDT	CONDUIT
CEF	CEILING EXHAUST FAN
CF	CUBIC FEET
CFM	CUBIC FEET PER MINUTE
CFS	CUBIC FEET PER SECOND
CHEMD	CHEMICAL DRAIN
CHF	CHEMICAL FEEDER
CHKD PL	CHECKERED PLATE
CI	CAST IRON
CIP	CAST IRON PIPE
CIRC	CIRCUMFERENTIAL/CIRCUMFERENCE
CJ	CONSTRUCTION JOINT
CKA	CHECK VALVE, ANGLE
CKB	CHECK VALVE, BALL
CKF	CHECK VALVE, FLAP
CKS	CHECK VALVE, SWING
CL	CENTER LINE
CLK	CHAIN LINK
CLD	CHLORINE LEAK DETECTOR
CLL	CHLORINE LIQUID
CLP	CHLORINE GAS (PRESSURE)
CLR	CLEAR
CLS	CHLORINE SOLUTION
CLSM	CONTROLLED LOW STRENGTH MATERIAL
CLV	CHLORINE GAS (VACUUM)
CML	CEMENT MORTAR LINED
CMLC	CEMENT MORTAR LINED AND COATED
CMP	CORRUGATED METAL PIPE
CMU	CONCRETE MASONRY UNIT
CNV	CONVEYOR
CO	CLEANOUT
COL(S)	COLUMN(S)
CONC	CONCRETE
CONN	CONNECT, CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUOUS OR CONTINUATION OR (D) (OUS)
CORR	CORRUGATE(D), CORROSION
CP	CONTROL POINT
CPLG	COUPLING
CPT	CARPET
CPVC	CHLORINATED POLYVINYL CHLORIDE
CS	CARBON STEEL, CIRCULATING SLUDGE
CSP	CHEMICAL SUMP PUMP, CORRUGATED STEEL PIPE
CT	CURRENT TRANSFORMER, CERAMIC TILE
CTJ	CONTROL JOINT
CTL	CONTROL
CTR	CENTER, CENTERED
CTSK	COUNTERSUNK
CU	CUBIC
CUP	COPPER PIPE
CV	CHECK VALVE
CW	COLD WATER
CWV	COMBINATION WASTE AND VENT
CY	CUBIC YARD

D

D	DEPTH, DIGITAL OR DISCRETE, DRAIN
D/W	DRIVEWAY
DBL	DOUBLE
DDR	DESICCANT DRYER
DEG or °	DEGREE
DEMO	DEMOLISH, DEMOLITION
DET	DETAIL
DFL	DECANT/FILTRATE
DG	DOOR GRILLE
DIA or Ø	DIAMETER
DIAG	DIAGONAL
DIF	DIFFUSER
DIG	DIGESTER
DIM	DIMENSION
DIP	DUCTILE IRON PIPE
DISCH	DISCHARGE
DIW	DEIONIZED WATER
DL	DEAD LOAD, DRAIN LINE
DLV	DOOR LOUVER
DMP	DAMPER
DMS	DIAPHRAGM SEAL
DN	DOWN
do	DITTO
DO	DOOR OPENING
DP	DEEP (OR DEPTH)
DPV	DIAPHRAGM VALVE
DR	DOOR, DRAIN
DRT	DRIP TRAP
DRV	DRAIN VALVE
DS	DIGESTED SLUDGE, DOWN SPOUT
DSW	DISTILLED WATER, DOOR SWITCH
DUC	DUST COLLECTOR
DUH	DUCT HEATER UNIT
DW	DISTILLED WATER
DWD	DEWATERING DRAIN
DWG(S)	DRAWING(S)
DWL(S)	DOWEL(S)

E

E	EAST
EA	EACH
EC	END OF CURVE
ECC RED	ECCENTRIC REDUCER
ECU	EVAPORATOR COOLING UNIT
ED	EQUIPMENT DRAIN
EF	EXHAUST FAN, EACH FACE
EFF	EFFLUENT
EG	EXHAUST GRILLE
EIFS	EXTERIOR INSULATION AND FINISH SYSTEM
EJ	EXPANSION JOINT
EJR	INJECTOR/EDUCTOR
EL	ELEVATION
ELEC	ELECTRICAL
ELL	ELBOW
EMBED	EMBEDMENT
EMH	ELECTRICAL MANHOLE
EP	EDGE OF PAVEMENT
EPS	EXPANDED POLYSTYRENE
EPV	ECCENTRIC PLUG VALVE
EQ	EQUAL
EQUIP	EQUIPMENT
ER	EXHAUST REGISTER
ES	EACH SIDE
ESEW	EMERGENCY SHOWER AND EYE WASH
ESS	EMERGENCY HAND SWITCH
ET	ELECTRICALLY HEAT TRACED
EUH	ELECTRIC UNIT HEATER
EVR	EVAPORATOR
EW	EACH WAY
EWC	ELECTRIC WATER COOLER
EWEF	EACH WAY EACH FACE
EWH	ELECTRIC WATER HEATER, EXHAUST
EX	EXISTING
EXIST	EXISTING
EXP	EXPANSION, EXPANSION TANK
EXPO	EXPOSED
EXT	EXTERIOR

F

FACT	FACTORY
FAD	FOUL AIR DUCT
FB	FLAT BAR
FBW	FILTER BACKWASH
FBV	FURNISHED BY VENDOR
FC	FACE OF CURB, FLEXIBLE COUPLING
FCA	FLANGE COUPLING ADAPTER
FCO	FLOOR CLEANOUT
FCU	FAN COIL UNIT
FD	FIRE DAMPER, FLOOR DRAIN, FOUND
FDC	FIRE DEPARTMENT CONNECTION
FDL	FLOOR DRAIN LINE
FDR	FEEDER
FEFF	FINAL EFFLUENT
FG	FLAP GATE
FH	FIRE HYDRANT
FILT	FILTRATE
FIN	FINISH
FIN FL	FINISHED FLOOR
FIN GR	FINISHED GRADE
FL	FLOOR, FLOW LINE, FLANGE
FLA	FOUL AIR
FLD	FILTER DRAIN
FLE	FILTER EFFLUENT
FLEX	FLEXIBLE
FLG	FLANGE, OR FLANGED
FLR	FILTER
FM	FORCE MAIN
FND	FOUNDATION
FO	FUEL OIL
FOB	FLAT ON BOTTOM
FOT	FLAT ON TOP
FPM	FEET PER MINUTE
FPP	FLEXIBLE PLASTIC PIPE
FRP	FIBERGLASS REINFORCED PLASTIC
FRPP	FIBERGLASS REINFORCED PLASTIC PIPE
FRS	FROTH SPRAY
FS	FAR SIDE
FSTN	FASTEN(ED)
FT or '	FOOT, FEET
FTG	FOOTING
FUP	FUEL DISPENSER
FV	FLAP VALVE
FW	FLUSHING WATER
FX	FIRE EXTINGUISHER
FXC	FIRE EXTINGUISHER CABINET
FXE	FIRE EXTINGUISHER - ELECTRICAL

G

G	GAS, GROUND, GUTTER
GA	GAUGE or GAGE
GAL	GALLONS
GALV	GALVANIZE(D)
GAV	GRAVITY VENTILATOR
GB	GRADE BREAK
GBT	GRAVITY BELT THICKENER
GC	GROOVED COUPLING
GEL	GRAVITY EXHAUST LUVER
GEN	GENERAL, GENERATOR
GL	GLASS
GLV	GLOBE VALVE
GM	GAS METER
GND	GROUND
GPD	GALLONS PER DAY
GPM	GALLONS PER MINUTE
GR	GRADE
GRTG	GRATING
GRV	GRAVITY VENTILATOR
GSP	GALVANIZED STEEL PIPE
GV	GATE VALVE
GYP	GYPSUM

H

H	EXPLOSION-PROOF, HIGH, HORIZONTAL
H1E	HOOK ONE END
H2E	HOOK TWO ENDS
HAS	HEADED ANCHOR STUD
HB	HOSE BIBB
HDPE	HIGH DENSITY POLYEHTYLENE
HDW	HARDWARE
HDWL	HEADWALL
HEF	HOOD EXHAUST FAN
HGT	HEIGHT
HORIZ	HORIZONTAL
HP	HEAT PUMP, HORSEPOWER, HIGH PRESSURE
HPA	HIGH PRESSURE AIR
HPT	HIGH POINT
HPU	HEAT PUMP UNIT AIR
HR	HANDRAIL, HOSE REEL, HOUR
HSF	HOOD SUPPLY FAN
HSS	HOLLOW STRUCTURAL SECTION (STEEL)
HTX	HEAT EXCHANGER
HV	HOSE VALVE
HW	HOT WATER
HWL	HIGH WATER LEVEL
HWR	HOT WATER RETURN
HWS	HOT WATER SUPPLY
HxW	HEIGHT BY WIDTH
HYD	HYDRANT

I

IA	INSTRUMENT AIR
ID	INSIDE DIAMETER, INSIDE DIMENSION, IDENTIFICATION
I.F.	INSIDE FACE
IN or "	INCHES
INCL	INCLUDE, INCLUDING
INF	INFLUENT
INJ	INJECTOR
INSTR	INSTRUMENTATION
INSUL	INSULAT(E)(ED)(ING)(ION)
INT	INTERIOR
INV	INVERT
IP	IRON PIPE
ISR	INTRINSICALLY SAFE RELAY

J

JST	JOIST
JT	JOINT

K

KGV	KNIFE GATE VALVE

L

L	ANGLE (STRUCTURAL), LENGTH, LOUVER
LAB	LABORATORY
LAV	LAVATORY
LB(S)	POUND(S)
LDF	LIQUID DIESEL FUEL
LDFR	LIQUID DIESEL FUEL RETURN
LF	LINEAL FEET
LG	LONG
LH	LEFT HAND
LHR	LEFT HAND REVERSE
LHRA	LEFT HAND REVERSE ACTIVE
LHRB	LEFT HAND REVERSE BEVEL
LL	LIVE LOAD
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LP	LOW PRESSURE
LPA	LOW PRESSURE AIR
LPG	LIQUIFIED PROPANE GAS
LPT	LOW POINT
LR	LONG RADIUS
LS	LAB SINK
LT	LEFT
LWL	LOW WATER LEVEL

M

M	MOTOR
MAINT	MAINTENANCE
MAN	MANUAL
MASY	MASONRY
MATL	MATERIAL
MAU	MAKE-UP AIR UNIT
MAX	MAXIMUM
MB	MACHINE BOLT
MBH	THOUSAND BTUS PER HOUR
MC	MECHANICAL COUPLING
MCJ	MASONRY CONTROL JOINT
MD	MOTORIZED DAMPER
MECH	MECHANICAL
MET	METAL
MFR	MANUFACTURER
MG/L	MILLIGRAMS PER LITER
MGD	MILLION GALLONS PER DAY
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MIX	MIXER
MJ	MECHANICAL JOINT
MK	MARK
ML	MIXED LIQUOR
MO	MASONRY OPENING
MOD	MODIFIED
MOIST	MOISTURE
MON	MONUMENT
MOS	MOISTURE SEPARATOR
MPM	METERING PUMP
MS	MOP SINK
MTD	MOUNTED

N

N	NORTH, NEUTRAL
NA	NOT APPLICABLE
NC	NORMALLY CLOSED
NEV	VALVE, NEEDLE
NG	NATURAL GRADE, NATURAL OR LP GAS
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NO., #	NUMBER
NOM	NOMINAL
NPT	NATIONAL PIPE THREAD
NPW	NON-POTABLE WATER
NS	NEAR SIDE
NTS	NOT TO SCALE

O

O	OPEN
OBD	OPPOSED BLADE DAMPER
OC	ON CENTER
OD	OUTSIDE DIAMETER, OUTSIDE DIMENSION
OED	OPEN EQUIPMENT DRAIN
O.F.	OUTSIDE FACE
OFL	OVERFLOW
OPNG	OPENING
OPP	OPPOSITE
OPP HND	OPPOSITE HAND
OZ	OUNCE

P

P	POLE
PBL	POLYMER BLENDER
PC	POINT OF CURVATURE
PCC	PLANT CONTROL CENTER
PCCP	PRESTRESSED CONCRETE CYLINDER PIPE
PCP	PROGRESSIVE CAVITY PUMP
PD	POSITIVE DISPLACEMENT, PLANT DRAIN
PD, PLD	PULSATION DAMPENER
PDP	POSITIVE DISPLACEMENT PUMP
PE	PLAIN END
PERP	PERPENDICULAR
PG	PRESSURE GAUGE
PH	PHASE, PHYSICALLY HANDICAPPED
PI	POINT OF INTERSECTION
PIV	POST INDICATOR VALVE
PL	PLATE, PROPERTY LINE
PLAS	PLASTIC
PLCS	PLACES
PLG	PLUG VALVE
PLS	POLYMER SOLUTION
PLWD	PLYWOOD
PMP	PUMP
PNL(S)	PANEL(S)
POL	POLYMER
POLY	POLYETHYLENE
POS	POSITION
POW	POTABLE WATER
PP	POWER POLE
PPMV	PARTS PER MILLION (VOLUME)
PRC	POINT OF REVERSE CURVATURE
PREFAB	PREFABRICATED
PRG	PRESSURE REGULATOR
PRI	PRIMARY
PROJ	PROJECTION
PRR	PRESSURE OR VACUUM RELIEF VALVE
PRV	PRESSURE REDUCING VALVE, PRESSURE REGULATION VALVE, PRESSURE RELIEF VALVE
PS	PUMP STATION, PIPE SUPPORT
PSF	POUNDS PER SQUARE FOOT
PSG	PRESSURE GAUGE
PSI	POUNDS PER SQUARE INCH
PSIG	POUNDS PER SQUARE INCH GAUGE
PT	POINT, POINT OF TANGENCY
PV	PLUG VALVE
PVC	POINT OF VERTICAL CURVATURE, POLYVINYL CHLORIDE
PVDF	POLYVINYLIDENEFLUORIDE
PVI	POINT OF VERTICAL INTERSECTION
PVMT	PAVEMENT
PVT	POINT OF VERTICAL TANGENCY
PLW	PLANT WATER

Q

QTY	QUANTITY

R

R/W	RIGHT OF WAY
RAD	RADIUS, RADIAL
RAS	RETURN ACTIVATED SLUDGE
RCP	REINFORCED CONCRETE PIPE
RD	ROOF DRAIN
RDL	ROOF DRAIN LINE
RDOF	ROOF DRAIN OVERFLOW
RECIRC	RECIRCULATING
RED	REDUCER, ROOF EQUIPMENT DRAIN
REF	REFERENCE
REG	REGULATOR, REGULATING
REINF	REINFORCE(D)(ING)(MENT)
REJ	RUBBER EXPANSION JOINT
REQD	REQUIRED
RER	REACTOR
RES	RESERVOIR
REV	REVISION, REVERSE
RF	RETURN FAN
RG	RETURN GRILLE RUBBER GASKET
RH	RIGHT HAND
RHR	RIGHT HAND REVERSE
RHRA	RIGHT HAND REVERSE ACTIVE
RHRB	RIGHT HAND REVERSE BEVEL
RLS	REGISTERED LAND SURVEYOR
RM	ROOM
RO	ROUGH OPENING
ROT	ROTAMETER
RP	RADIUS POINT
RPM	REVOLUTIONS PER MINUTE
RPMP	REINFORCED PLASTIC MORTAR PIPE
RR	RETURN REGISTER
RSR	RISER
RT	RIGHT
RTF	ROTARY FEEDER
RTU	ROOF TOP UNIT
RUD	RUPTURE DISK
RW	RECLAIMED WATER, REUSE WATER
RWR	RECLAIMED WATER RETURN
RWW	RAW WASTEWATER

S

S/W	SIDEWALK
S	SOUTH, SWITCH, SLOPE
SA	SAMPLE
SC	SECONDARY CLARIFIER
SCB	SCRUBBER
SCD	SMOKE CONTROL DAMPER
SCFM	STANDARD CUBIC FEET PER MINUTE
SCH	SCHEDULE
SCO	SURFACE CLEANOUT
SCR	BAR SCREEN
SCR	SILICON CONTROL RECTIFIER
SD	SMOKE DETECTOR, SPLITTER DAMPER, STORM DRAIN
SDL	SUMP DISCHARGE DRAIN LINE
SDO	SLUDGE DRAWOFF
SE	SECONDARY EFFLUENT
SEC	SECONDARY, SECOND
SECT	SECTION
SED	SEDIMENTATION
SEP	SEPTAGE
SF	SUPPLY FAN
SFW	SOFTENED WATER
SG	SUPPLY GRILLE
SGS	STORE FRONT GLAZING SYSTEM
SHD	SHOWER DRAIN
SHDR	SOLIDS HANDLING-RECYCLE
SHR	SHOWER
SHT	SHEET
SIM	SIMILAR
SK	SKIMMINGS
SL	SLOPE, SLUDGE
SLC	SLUDGE COLLECTOR DRIVE
SLG	SLIDE GATE
SLV	SLEEVE VALVE
SMP	SAMPLER, SUMP PUMP
SN	SUPERNATANT OR SUBNATANT
SOL	SOLUTION
SP	STATIC PRESSURE, SET POINT
SPD	SUMP PUMP DRAIN
SPDT	SINGLE POLE DOUBLE THROW
SPEC(S)	SPECIFICATION(S)
SPL	SPLITTER BOX
SPR	SPARE
SPS	SAMPLE SINK
SPW	SAMPLE WATER
SQ	SQUARE
SQ FT	SQUARE FEET
SQ IN(S)	SQUARE INCH(ES)
SR	SHORT RADIUS, SUPPLY REGISTER
SRL	SCRUBBER RECIRCULATION LIQUID (CAUSTIC)
SS	SANITARY SEWER, SELECTOR SWITCH
SSK	SERVICE SINK
SSL	SECONDARY SLUDGE
SST	STAINLESS STEEL
ST	SLUDGE TRANSFER
STA	STATION
STB	STABILIZER
STD(S)	STANDARDS(S)
STIFF	STIFFENER
STIR	STIRRUPS
STL	STEEL
STM	STEAM
STP	STEEL PIPE
STR	STRAINER
STRUCT	STRUCTURAL
SUG	SLUICE GATE
SUPT	PIPE SUPPORT, SUPPORT
SV	SERVICE VALVE, SHUTOFF VALVE, SOLENOID VALVE
SW	SANITARY WASTE
SWR	SEAL WATER
SYM	SYMMETRICAL
SYN	SYNTHETIC

T

T	TANGENT LENGTH, THERMOSTAT, TIMER
T&B	TOP AND BOTTOM
TAS	THREADED ANCHOR STUD
TBM	TEMPORARY BENCHMARK
TC	TOP OF CURB
TCV	TEMPERATURE CONTROL VALVE
TDH	TOTAL DYNAMIC HEAD
TDR	TIME DELAY RELAY, TOWEL DISPENSER/RECEPTACLE
TEL	TELEPHONE
TH	TEST HOLE
THK	THICKENER, THICKNESS, THICK
TKS	THICKENED SLUDGE
TLV	TELESCOPING VALVE
TMH	TELEPHONE MANHOLE
TMP	TEMPERATURE
TNK	TANK
T.O.	TOP OF
TOC	TOP OF CONCRETE
TOG	TOP OF GRATING
TOM	TOP OF MASONRY
TOS	TOP OF STEEL
T.O.W.	TOP OF WALL
TR	TRIAD (THREE CONDUCTOR SHIELDED CABLE), TIMING RELAY
TRD	TREAD
TS	THICKENER SUPERNATANT OR SUBNATANT
TSD	THICKENED SLUDGE DECANT
TSPL	TURBIDIMETER SAMPLE
TSTAT	THERMOSTAT
TTB	TELEPHONE TERMINAL BOARD
TUR	TURBINE
TV	TURNING VANES
TWV	THREE-WAY VALVE
TYP	TYPICAL

U

UC	UNDERCUT
UG	UNDERGROUND
UHMWPE	ULTRA HIGH MOLECULAR WEIGHT POLYETHYLENE
UHMW	ULTRA HIGH MOLECULAR WEIGHT
UNO	UNLESS NOTED OTHERWISE
US	UTILITY SINK

V

V	VALVE
VAR	VARIES
VB	VALVE BOX
VCP	VITRIFIED CLAY PIPE
VEC	VINYL ESTER COATING
VERT	VERTICAL
VFR	VOLUMETRIC FEEDER
VG	VACUUM GAUGE, VALLEY GUTTER
VOL	VOLUME
VRV	VACUUM REGULATING VALVE
VTR	VENT THROUGH ROOF

W

W	WEST, WIDTH
W/	WITH
W/O	WITHOUT
WAS	WASTE ACTIVATED SLUDGE
WC	WATER COLUMN
WCO	WALL CLEANOUT
WEF	WALL EXHAUST FAN
WF	WALL FITTING, WASH FOUNTAIN
WH	WATER HEATER
WI	WEIGHT INDICATOR
WL	WALL LOUVER, WATER LEVEL
WM	WATER METER
WOD	WASTE OIL DRAIN
WP	WEATHERPROOF, WATERPROOF
WPT	WORKING POINT
WRG	WEIR GATE
WRS	WATER SOFTENER
WS	WATER SURFACE
WSTP	WATERSTOP
WT	WALK THROUGH, WEIGHT
WTF	WATER TREATMENT FACILITY
WTP	WATER TREATMENT PLANT
WTR	WATER
WV	WATER CONTROL VALVE
WW	WASTEWATER
WWF	WELDED WIRE FABRIC
WWTF	WASTEWATER TREATMENT FACILITY
WWTP	WASTEWATER TREATMENT PLANT

Y

Y	WYE
YCO	YARD CLEANOUT
YH	YARD HYDRANT

REV	DATE	BY	DESCRIPTION

DESIGNED JD
DRAWN TLR
CHECKED TL/GCS
DATE MARCH 2019

REGISTERED PROFESSIONAL ENGINEER — No. 9039577-2202 — JAMES W. DIXON — STATE OF UTAH

REGISTERED PROFESSIONAL ENGINEER — No. 4779621-2202 — BRAD D. JEPPSON — STATE OF UTAH

carollo®

South Valley WATER RECLAMATION FACILITY
7495 South 1300 West
West Jordan, Utah 84084

SOUTH VALLEY WATER RECLAMATION FACILITY
PROJECT 5
GENERAL
ABBREVIATIONS

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 — 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO. 10548A.10
DRAWING NO. G-06
SHEET NO. 6 OF 159

PROJECT NO. 10548A10 FILE NAME: 10548A1000G06.dgn

LAST SAVED BY: Jefevre
Model: Layout1 ColorTable: gshade.ctb DesignScript: Carollo_Std_Pen_v0905.pen PlotScale: 2:1
User: svcPW
Plot Date: 27-FEB-2019 11:49:15 AM

DESIGN CRITERIA - BIOREACTOR NO. 2-4

DESCRIPTION	UNITS	VALUE
GENERAL		
DESIGN FLOWS		
ANNUAL AVERAGE	MGD	48
MAX MONTH FLOW	MGD	50
PEAK HOUR FLOW	MGD	77
INFLUENT CHARACTERISTICS (MAX MONTH)		
BOD	PPD	97,000
TSS	PPD	111,000
NH3	PPD	12,000
TP	PPD	2,300
EFFLUENT CHARACTERISTICS (30-DAY AVG)		
NH3	MG/L	0.13
NO3	MG/L	6.8
TP	MG/L	0.4/0.6
TIN	MG/L	6.9/6.5
BIOREACTORS		
NUMBER OF ZONES / BASIN		
ANAEROBIC	NO.	2
SWING	NO.	1
ANOXIC	NO.	3
AEROBIC	NO.	7
PROCESS CHARACTERICS		
MLSS	MG/L	3,500
VOLATILE SOLIDS CONTENT OF MLSS	%	79
SLUDGE PRODUCTION (MAX MONTH)	LB/DAY	15,800
AEROBIC SLUDGE AGE (SRT)	HRS	9.5
ANAEROBIC ZONE MIXERS		
TYPE	-	FIXED, VERTICAL SHAFT
TOTAL PER BIOREACTOR (NEW/EXISTING)	NO.	0/2
TOTAL (BIOREACTORS 2-4)	NO.	6
MOTOR SIZE	HP	5
MOTOR SPEED, NOMINAL	RPM	1,750
DRIVE TYPE	-	CONSTANT SPEED
IMPELLER SPEED	RPM	28.7
TYPE	-	FLOATING
TOTAL PER BIOREACTOR (NEW/EXISTING)	NO.	0/3
TOTAL (BIOREACTORS 2-4)	NO.	9
MOTOR SIZE	HP	5
MOTOR SPEED, NOMINAL	RPM	1,200
DRIVE TYPE	-	CONSTANT SPEED
ANOXIC ZONE MIXERS		
TYPE	-	FLOATING
TOTAL PER BIOREACTOR (NEW/EXISTING)	NO.	2/1
TOTAL (BIOREACTORS 2-4)	NO.	9
MOTOR SIZE	HP	5
MOTOR SPEED, NOMINAL	RPM	1,200
DRIVE TYPE	-	CONSTANT SPEED
TYPE	-	FIXED, VERTICAL SHAFT
TOTAL PER BIOREACTOR (NEW/EXISTING)	NO.	2/0
TOTAL (BIOREACTORS 2-4)	NO.	6
MOTOR SIZE	HP	5
MOTOR SPEED, NOMINAL	RPM	1,750
DRIVE TYPE	-	CONSTANT SPEED
IMPELLER SPEED	RPM	28.7
OXIC ZONE AERATION/MIXING		
TYPE	-	FINE BUBBLE, FIXED GRID
MLSS RECIRCULATION PUMPS		
NUMBER OF PUMPS PER BIOREACTOR	NO.	2
TOTAL (BIOREACTORS 2-4)	NO.	6
TYPE	-	HORIZONTAL, PROPELLER PUMP
MAX CAPACITY-EACH	MGD	15
MAX PUMP SPEED	RPM	600
TOTAL DYNAMIC HEAD	FT	3.5
MOTOR SIZE	HP	25
MOTOR SPEED, NOMINAL	RPM	1,800
DRIVE TYPE	-	GEAR DRIVE, VFD

DESIGN CRITERIA - GRIT REMOVAL FACILITY

DESCRIPTION	UNITS	VALUE
GENERAL		
DESIGN FLOWS		
DESIGN FLOW	MGD	40
MAX HYDRAULIC THROUGHPUT FLOW	MGD	66
EXISTING INFLUENT PUMP STATION		
EXISTING INFLUENT PUMPS		
TYPE		DRY PIT SUBMERSIBLE
NUMBER		6
CAPACITY - EA	MGD	18.3
TDH	FT	62
DRIVE SIZE, EACH	HP	250
CONTROL		VFD
GRIT		
GRIT BASINS		
TYPE		MULTI-TRAY VORTEX
NUMBER		2+1 BID ALT
TRAY DIAMETER	FT	12
NO. OF TRAYS PER BASIN		12
TREATMENT CAPACITY, EA	MGD	22.5
HYDRAULIC CAPACITY, EA	MGD	36
GRIT PUMPS		
TYPE		RECESSED IMPELLER
NUMBER		4 + 2 BID ALT
CONFIGURATION		1+1
CAPACITY, EA	GPM	300
HEAD	FT	26.5
DRIVE SIZE, EA	HP	7.5
CONTROL		FIXED
GRIT WASHERS		
TYPE		INVERTED CONE-SHAPED VORTEX CHAMBER WITH SCREW CONVEYOR
NUMBER		2+1 BID ALT
SOLIDS LOADING CAPACITY, EA	TON/HR	1.5
HYDRAULIC CAPACITY, EA	GPM	300
HORSEPOWER	HP	3
GRIT STORAGE BIN		
DIMENSIONS		8' x 11' x 6' H
TYPE		15 CY ROLL-OFF BIN
NUMBER		2

REV	DATE	BY	DESCRIPTION

DESIGNED JD
DRAWN KHB
CHECKED TL/GCS
DATE MARCH 2019

REGISTERED PROFESSIONAL ENGINEER — No. 9039577-2202 — JAMES W. DIXON — STATE OF UTAH

REGISTERED PROFESSIONAL ENGINEER — No. 4775621-2202 — BRAD D. JEPPSON — STATE OF UTAH

carollo

South Valley WATER RECLAMATION FACILITY
7495 South 1300 West
West Jordan, Utah 84084

SOUTH VALLEY WATER RECLAMATION FACILITY
PROJECT 5
GENERAL
DESIGN CRITERIA

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JOB NO. 10548A.10
DRAWING NO. G-07
SHEET NO. 7 OF 159

PROJECT NO. 10548A10 FILE NAME: 10548A1000G07.dgn

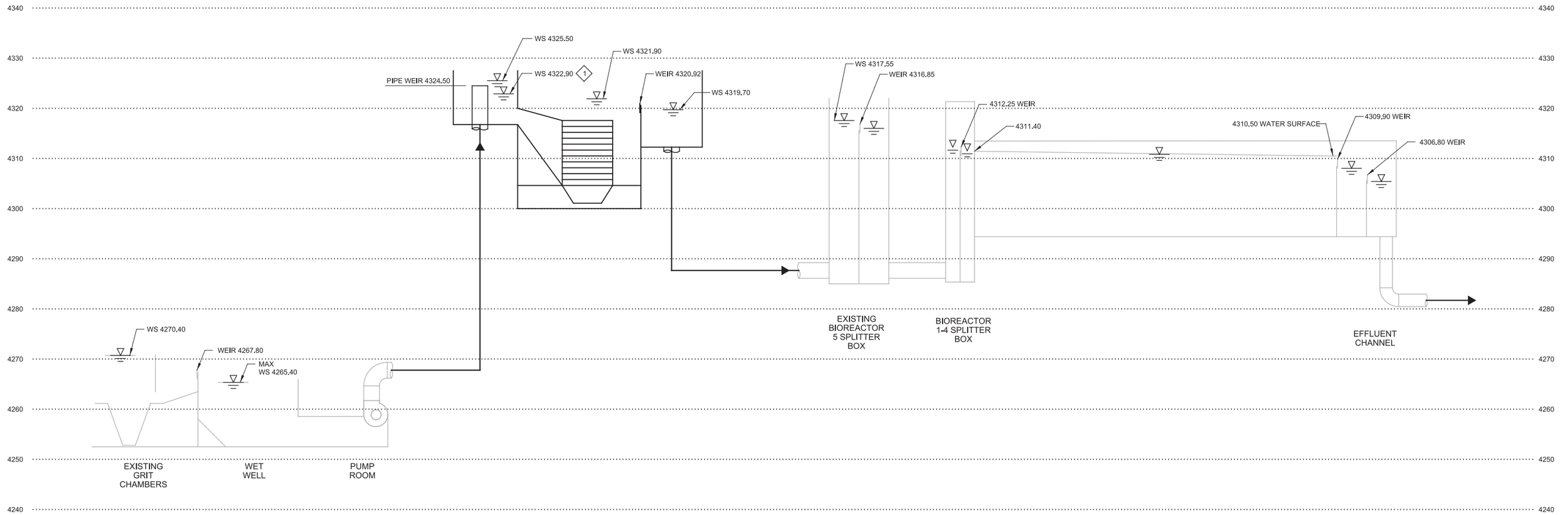
GENERAL NOTES:

1. WATER SURFACE ELEVATIONS REFLECT THE FOLLOWING OPERATING CONFIGURATION AT MAX PLANT FLOWS OF 66 MGD.

UNITS IN SERVICE	PHF
BIOREACTORS	4
GRIT BASINS	2

KEY NOTES:

(1) WATER SURFACE ELEVATIONS BASED ON FLOWS THROUGH GRIT BASINS. OVERFLOW WEIR BETWEEN INFLUENT AND BYPASS CHANNELS SET AT 4323.50.



REV	DATE	BY	DESCRIPTION

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GENERAL
HYDRAULIC PROFILE

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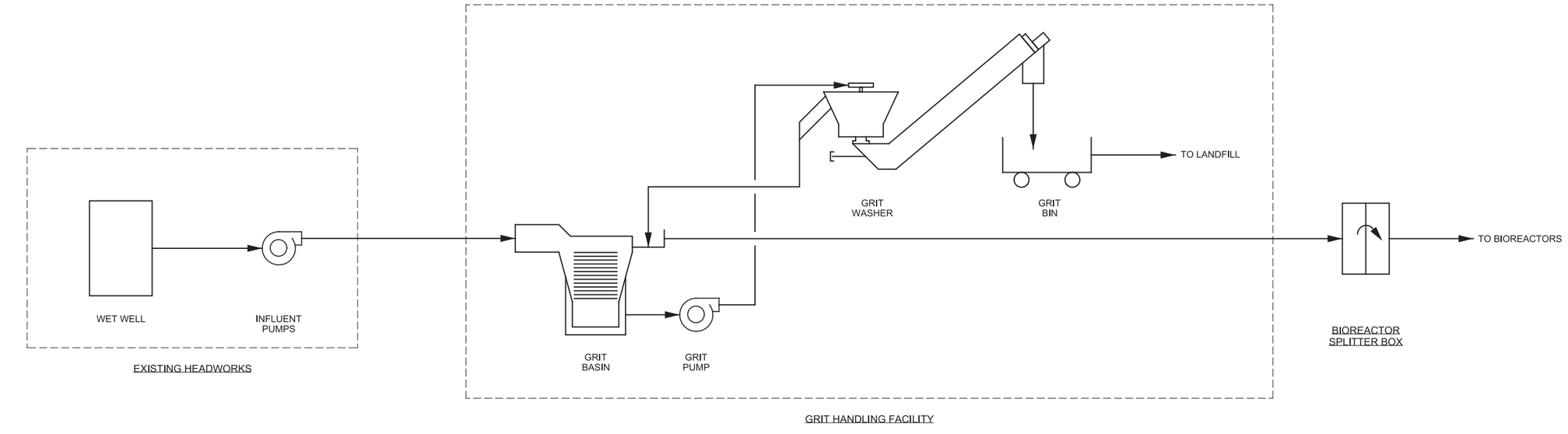
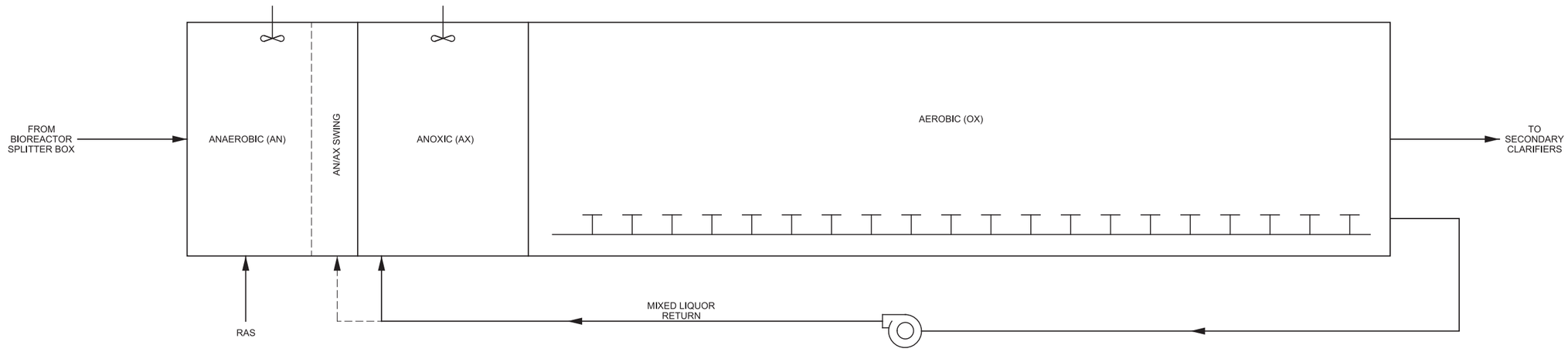
JOB NO. 10548A.10
DRAWING NO. G-08
SHEET NO. 8 OF 159





REV	DATE	BY	DESCRIPTION

DESIGNED JD
DRAWN JRL
CHECKED TL/GCS
DATE MARCH 2019

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West Jordan, Utah 84084

SOUTH VALLEY WATER RECLAMATION FACILITY
PROJECT 5
GENERAL
PROCESS FLOW DIAGRAM

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JOB NO. 10548A.10
DRAWING NO. G-09
SHEET NO. 9 OF 159

PIPING SCHEDULE

FLOW STREAM IDENTIFIER	SERVICE	PIPE SIZE (1)	MATERIAL	PRESSURE CLASS/WALL THICKNESS	PIPE SPEC. SECTION	JOINTS/FITTINGS	LINING	COATING	TESTING		NOTES
									METHOD	PRESSURE (psi)	
A	AIR										
	EXPOSED	ALL SIZES	316L SST	10S	15286	WLD/FL			AM	25	
CD	CONDENSATE DRAINS	ALL SIZES	PVC	SCH 40	15245	SW			GR		
D	DRAINS										
	BURIED/BELOW STRUCTURES	LESS THAN 4"	PVC	SCH 40	15245	SW			GR		NO 90° BENDS
	BURIED/BELOW STRUCTURES	4" AND LARGER	PVC	SDR 35	15244	B&SP			GR		NO 90° BENDS
	EXPOSED	ALL SIZES	PVC	SCH 40	15245	SW			GR		NO 90° BENDS
FA	FOUL AIR										
	INTERIOR (SUCTION)	ALL SIZES	304 SS		15816	FL		FP	AM	25	
	INTERIOR (DISCHARGE)	ALL SIZES	FRP	SEE SPECIFICATION	15814	FL OR FUSED			AM	25	
	BURIED/BELOW STRUCTURES	ALL SIZES	FRP	SEE SPECIFICATION	15814	FL OR FUSED			AM	25	
GR	GRIT SLURRY										
	EXPOSED	ALL SIZES	DIP	PRESSURE CLASS 53	15211	GE/FL	GL	FA	HH	25	NO 90° BENDS - 45° BENDS OR LONG RADIUS 90° BENDS
HPW	HOT POTABLE WATER										
	EXPOSED	ALL SIZES	COPPER	ASTM B88 TYPE-L	15281	SOLDERED			HH	150	
MLR	MIXED LIQUOR										
	SUBMERGED	ALL SIZES	STEEL	AWWA C200	15278	FL	HSE	HSE	LL	10	
NG	NATURAL GAS										
	BURIED	ALL SIZES	HDPE	DR 17	15241	BW			PER APPLICABLE FUEL GAS CODE	PER APPLICABLE FUEL GAS CODE	
	EXPOSED	ALL SIZES	BSP	SCH 40	15270	SCRD or WLD		COATING PER 09960 - HIGH PERFORMANCE COATINGS	PER APPLICABLE FUEL GAS CODE	PER APPLICABLE FUEL GAS CODE	
PD	PROCESS DRAIN										
	EXPOSED	All SIZES	PVC	SCH 80	15244	B&SP			GR		NO 90° BENDS - 45° BENDS OR LONG RADIUS 90° BENDS
	BURIED/BELOW STRUCTURES	LESS THAN 4"	PVC	SCH 40	15245	SW/B&SP			GR		NO 90° BENDS
	BURIED/BELOW STRUCTURES	4" AND LARGER	PVC	SDR 35	15244	B&SP			GR		NO 90° BENDS
PI	PLANT INFLUENT										
	BURIED (PUMPED LINE)	63"	HDPE	SDR 26	15241	BW			HH	50	
	BURIED (GRAVITY PRESSURE LINE)	63"	HDPE	SDR 32.5	15241	BW			LH	20	
	BURIED/EXPOSED/ BELOW STRUCTURES (PUMPED LINE)	60"	STEEL	AWWA C200	15278	WLD	CM	CM	HH	50	SEE DRAWINGS FOR FLANGED CONNECTIONS TO HDPE
	BURIED/EXPOSED/ BELOW STRUCTURES (GRAVITY PRESSURE LINE)	60"	STEEL	AWWA C201	15279	WLD	CM	CM	LH	20	SEE DRAWINGS FOR FLANGED CONNECTIONS TO HDPE
	BURIED	54"	STEEL	AWWA C200	15278	WLD	CM	CM	LH	20	SEE DRAWINGS FOR FLANGED CONNECTIONS TO HDPE
PW	POTABLE WATER										
	BURIED	LESS THAN 4"	PVC	SCH 80	15244	B&SP			HH	125	
	BURIED	4" AND LARGER	PVC	C900	15244	R-MJ/R-B&SP			HH	125	
	EXPOSED	ALL SIZES	COPPER	ASTM B88 TYPE-L	15281	Soldered			HH	125	
RWL	RAIN WATER LEADER										
	EXPOSED	ALL SIZES	PVC	SCH 40	15245	B&SP/SW			GR		
SS	SANITARY SEWER										
	BURIED/BELOW STRUCTURES	4" AND LARGER	PVC	SDR 35	15244	MJ or B&SP			GR		NO ELBOW 90° BENDS
SW	SEAL WATER										
	BURIED	1/2"	PVC	SCH 80	15244	B&SP			HH	80	
	EXPOSED	ALL SIZES	PVC	SCH 80	15244	B&SP			HH	80	
UW	UTILITY WATER										
	BURIED	4" AND LARGER	PVC	C900	15244	R-MJ/R-B&S			HH	125	
	BURIED	LESS THAN 4"	PVC	SCH 80	15244	B&S			HH	125	
	EXPOSED	ALL SIZES	PVC	SCH 80	15244	FL/SW			HH	125	
V	VENT	ALL SIZES	PVC	SCH 40	15244	B&SP/SW			AM		
VTR	VENT TO ROOF	ALL SIZES	PVC	SCH 40	15244	B&SP/SW			AM		

NOTES:

(1) NOMINAL DIAMETER (INCHES)

PIPE MATERIAL AND JOINT/FITTING ABBREVIATIONS:

BW	BUTT WELD
B&SP	BELL AND SPIGOT
CF	COMPRESSION FITTING
CI	CAST IRON
CISP	CAST IRON SOIL PIPE
CL	CLASS, FOLLOWED BY DESIGNATION
CM	CEMENT MORTAR
CTP	COAL TAR PITCH
DIP	DUCTILE IRON PIPE
DWV	DRAIN, WASTE AND VENT
FL	FLANGE
FRP	FIBERGLASS PIPE
GA	GAUGE, PRECEEDED BY THE DESIGNATION
GE	GROOVED END PIPE
GSP	GALVANIZED STEEL PIPE
MJ	MECHANICAL JOINT
NPS	NOMINAL PIPE SIZE, FOLLOWED BY THE NUMBER IN INCHES
PVC	POLYVINYL CHLORIDE
R-B&SP	RESTRAINED BELL AND SPIGOT
SCH	SCHEDULE, FOLLOWED BY THE DESIGNATION
SCRD	SCREWED-ON/THREADED
SST	STAINLESS STEEL
SW	SOLVENT WELD
WLD	WELD

LINING AND COATING ABBREVIATIONS:

CM	CEMENT MORTAR
CP	CARRIER PIPE
EPP	EPOXY POLYERETHANE COATING
FA	FIELD APPLIED COATING
GC	GEL COAT
GL	GLASS LINED
HSE	HIGH SOLIDS EPOXY
I	INSULATED (ONLY)
P	PAINTED
POL	POLYETHYLENE LINED
PE	POLYETHYLENE-WRAPPED
PVC	POLYVINYL CHLORIDE
CE	CERAMIC EPOXY
CT	COAL TAR ENAMEL
CTX	COAL TAR EPOXY
TW	TAPE WRAPPED
FP	FLUOROPOLYMER
R	RUBBER LINING
EPX	EPOXY LINED

TEST PRESSURE METHOD:

AM	AIR METHOD
GR	GRAVITY METHOD
HH	HIGH HEAD METHOD
LH	LOW HEAD METHOD
SC	SPECIAL CASE
PSI	POUNDS PER SQUARE INCH

REV	DATE	BY	DESCRIPTION

DESIGNED RWB
DRAWN JRL
CHECKED TL/GCS
DATE MARCH 2019

REGISTERED PROFESSIONAL ENGINEER No. 10171556-2202 RYAN W. BENCH STATE OF UTAH

REGISTERED PROFESSIONAL ENGINEER No. 4775621-2202 BRAD D. JEPPSON STATE OF UTAH

carollo

South Valley WATER RECLAMATION FACILITY
7495 South 1300 West
West Jordan, Utah 84084

SOUTH VALLEY WATER RECLAMATION FACILITY
PROJECT 5
GENERAL
PIPE SCHEDULE

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JOB NO. 10548A.10
DRAWING NO. G-10
SHEET NO. 10 OF 159

PROJECT NO. 10548A10 FILE NAME: 10548A1000G10.dgn

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Model: Layout1
LAST SAVED BY: jlefevre

VALVE SCHEDULE							
TAG NO.	LOCATION	ZONE	TYPE	SERVICE	SIZE (INCH)	OPERATOR	DESCRIPTION
VAL-16,201	BIO 2	AX-1	BFV	MLR	36	MANUAL	MIXED LIQUOR RETURN ISOLATION VALVE
VAL-16,202	BIO 2	AN-3	BFV	MLR	36	MANUAL	MIXED LIQUOR RETURN ISOLATION VALVE
VAL-16,203	BIO 2	-	PLG	PD	12	MANUAL	TRENCH COLLECTION BOX UPSTREAM VALVE (ABI #1)
VAL-16,204	BIO 2	-	PLG	PD	6	MANUAL	TRENCH COLLECTION BOX DOWNSTREAM VALVE (ABI #1)
VAL-16,301	BIO 3	AX-1	BFV	MLR	36	MANUAL	MIXED LIQUOR RETURN ISOLATION VALVE
VAL-16,302	BIO 3	AN-3	BFV	MLR	36	MANUAL	MIXED LIQUOR RETURN ISOLATION VALVE
VAL-16,303	BIO 3	-	PLG	PD	12	MANUAL	TRENCH COLLECTION BOX UPSTREAM VALVE (ABI #1)
VAL-16,304	BIO 3	-	PLG	PD	6	MANUAL	TRENCH COLLECTION BOX DOWNSTREAM VALVE (ABI #1)
VAL-16,401	BIO 4	AX-1	BFV	MLR	36	MANUAL	MIXED LIQUOR RETURN ISOLATION VALVE
VAL-16,402	BIO 4	AN-3	BFV	MLR	36	MANUAL	MIXED LIQUOR RETURN ISOLATION VALVE
VAL-16,403	BIO 4	-	PLG	PD	12	MANUAL	TRENCH COLLECTION BOX UPSTREAM VALVE (ABI #1)
VAL-16,404	BIO 4	-	PLG	PD	6	MANUAL	TRENCH COLLECTION BOX DOWNSTREAM VALVE (ABI #1)
VAL-16,221	BIO 2	OX-4	BFV	AIR	8	ELECTRIC	EXISTING VALVE - ADD ELECTRIC ACTUATOR
VAL-16,222	BIO 2	OX-5A	BFV	AIR	6	ELECTRIC	EXISTING VALVE - ADD ELECTRIC ACTUATOR
VAL-16,223	BIO 2	OX-5B	BFV	AIR	6	ELECTRIC	EXISTING VALVE - ADD ELECTRIC ACTUATOR
VAL-16,224	BIO 2	OX-6A	BFV	AIR	6	ELECTRIC	EXISTING VALVE - ADD ELECTRIC ACTUATOR
VAL-16,225	BIO 2	OX-6B	BFV	AIR	6	ELECTRIC	REPLACE EXISTING 4" VALVE WITH NEW 6" AWWA VALVE
VAL-16,226	BIO 2	OX-6C	BFV	AIR	6	ELECTRIC	REPLACE EXISTING 4" VALVE WITH NEW 6" AWWA VALVE
VAL-16,227	BIO 2	OX-7A	BFV	AIR	6	ELECTRIC	EXISTING VALVE - ADD ELECTRIC ACTUATOR
VAL-16,228	BIO 2	OX-7B	BFV	AIR	6	ELECTRIC	EXISTING VALVE - ADD ELECTRIC ACTUATOR
VAL-16,229	BIO 2	OX-7C	BFV	AIR	6	ELECTRIC	EXISTING VALVE - ADD ELECTRIC ACTUATOR
VAL-16,230	BIO 2	OX-8A	BFV	AIR	4	ELECTRIC	EXISTING VALVE - ADD ELECTRIC ACTUATOR
VAL-16,231	BIO 2	OX-8B	BFV	AIR	6	ELECTRIC	EXISTING VALVE - ADD ELECTRIC ACTUATOR
VAL-16,232	BIO 2	OX-8C	BFV	AIR	6	ELECTRIC	EXISTING VALVE - ADD ELECTRIC ACTUATOR
VAL-16,233	BIO 2	OX-9A	BFV	AIR	6	ELECTRIC	EXISTING VALVE - ADD ELECTRIC ACTUATOR
VAL-16,234	BIO 2	OX-9B	BFV	AIR	6	ELECTRIC	EXISTING VALVE - ADD ELECTRIC ACTUATOR
VAL-16,235	BIO 2	OX-10A	BFV	AIR	4	ELECTRIC	EXISTING VALVE - ADD ELECTRIC ACTUATOR
VAL-16,236	BIO 2	OX-10B	BFV	AIR	4	ELECTRIC	EXISTING VALVE - ADD ELECTRIC ACTUATOR
VAL-16,321	BIO 3	OX-4	BFV	AIR	8	ELECTRIC	EXISTING VALVE - ADD ELECTRIC ACTUATOR
VAL-16,322	BIO 3	OX-5A	BFV	AIR	6	ELECTRIC	EXISTING VALVE - ADD ELECTRIC ACTUATOR
VAL-16,323	BIO 3	OX-5B	BFV	AIR	6	ELECTRIC	EXISTING VALVE - ADD ELECTRIC ACTUATOR
VAL-16,324	BIO 3	OX-6A	BFV	AIR	6	ELECTRIC	EXISTING VALVE - ADD ELECTRIC ACTUATOR
VAL-16,325	BIO 3	OX-6B	BFV	AIR	6	ELECTRIC	REPLACE EXISTING 4" VALVE WITH NEW 6" AWWA VALVE
VAL-16,326	BIO 3	OX-6C	BFV	AIR	6	ELECTRIC	REPLACE EXISTING 4" VALVE WITH NEW 6" AWWA VALVE
VAL-16,327	BIO 3	OX-7A	BFV	AIR	6	ELECTRIC	EXISTING VALVE - ADD ELECTRIC ACTUATOR
VAL-16,328	BIO 3	OX-7B	BFV	AIR	6	ELECTRIC	EXISTING VALVE - ADD ELECTRIC ACTUATOR
VAL-16,329	BIO 3	OX-7C	BFV	AIR	6	ELECTRIC	EXISTING VALVE - ADD ELECTRIC ACTUATOR
VAL-16,330	BIO 3	OX-8A	BFV	AIR	4	ELECTRIC	EXISTING VALVE - ADD ELECTRIC ACTUATOR
VAL-16,331	BIO 3	OX-8B	BFV	AIR	6	ELECTRIC	EXISTING VALVE - ADD ELECTRIC ACTUATOR
VAL-16,332	BIO 3	OX-8C	BFV	AIR	6	ELECTRIC	EXISTING VALVE - ADD ELECTRIC ACTUATOR
VAL-16,333	BIO 3	OX-9A	BFV	AIR	6	ELECTRIC	EXISTING VALVE - ADD ELECTRIC ACTUATOR
VAL-16,334	BIO 3	OX-9B	BFV	AIR	6	ELECTRIC	EXISTING VALVE - ADD ELECTRIC ACTUATOR
VAL-16,335	BIO 3	OX-10A	BFV	AIR	4	ELECTRIC	EXISTING VALVE - ADD ELECTRIC ACTUATOR
VAL-16,336	BIO 3	OX-10B	BFV	AIR	4	ELECTRIC	EXISTING VALVE - ADD ELECTRIC ACTUATOR
VAL-16,421	BIO 4	OX-4	BFV	AIR	8	ELECTRIC	EXISTING VALVE - ADD ELECTRIC ACTUATOR
VAL-16,422	BIO 4	OX-5A	BFV	AIR	6	ELECTRIC	EXISTING VALVE - ADD ELECTRIC ACTUATOR
VAL-16,423	BIO 4	OX-5B	BFV	AIR	6	ELECTRIC	EXISTING VALVE - ADD ELECTRIC ACTUATOR
VAL-16,424	BIO 4	OX-6A	BFV	AIR	6	ELECTRIC	EXISTING VALVE - ADD ELECTRIC ACTUATOR
VAL-16,425	BIO 4	OX-6B	BFV	AIR	6	ELECTRIC	REPLACE EXISTING 4" VALVE WITH NEW 6" AWWA VALVE
VAL-16,426	BIO 4	OX-6C	BFV	AIR	6	ELECTRIC	REPLACE EXISTING 4" VALVE WITH NEW 6" AWWA VALVE
VAL-16,427	BIO 4	OX-7A	BFV	AIR	6	ELECTRIC	EXISTING VALVE - ADD ELECTRIC ACTUATOR
VAL-16,428	BIO 4	OX-7B	BFV	AIR	6	ELECTRIC	EXISTING VALVE - ADD ELECTRIC ACTUATOR
VAL-16,429	BIO 4	OX-7C	BFV	AIR	6	ELECTRIC	EXISTING VALVE - ADD ELECTRIC ACTUATOR
VAL-16,430	BIO 4	OX-8A	BFV	AIR	4	ELECTRIC	EXISTING VALVE - ADD ELECTRIC ACTUATOR
VAL-16,431	BIO 4	OX-8B	BFV	AIR	6	ELECTRIC	EXISTING VALVE - ADD ELECTRIC ACTUATOR
VAL-16,432	BIO 4	OX-8C	BFV	AIR	6	ELECTRIC	EXISTING VALVE - ADD ELECTRIC ACTUATOR
VAL-16,433	BIO 4	OX-9A	BFV	AIR	6	ELECTRIC	EXISTING VALVE - ADD ELECTRIC ACTUATOR
VAL-16,434	BIO 4	OX-9B	BFV	AIR	6	ELECTRIC	EXISTING VALVE - ADD ELECTRIC ACTUATOR
VAL-16,435	BIO 4	OX-10A	BFV	AIR	4	ELECTRIC	EXISTING VALVE - ADD ELECTRIC ACTUATOR
VAL-16,436	BIO 4	OX-10B	BFV	AIR	4	ELECTRIC	EXISTING VALVE - ADD ELECTRIC ACTUATOR
VAL-21,115	GRIT BASIN NO. 1	-	PLG	UW	4	ELECTRIC	GRIT BASIN FILL VALVE
VAL-21,116	GRIT BASIN NO. 1	-	PLG	WW	4	ELECTRIC	GRIT BASIN DRAIN VALVE
VAL-21,125	GRIT BASIN NO. 2	-	PLG	UW	4	ELECTRIC	GRIT BASIN FILL VALVE
VAL-21,126	GRIT BASIN NO. 2	-	PLG	WW	4	ELECTRIC	GRIT BASIN DRAIN VALVE
VAL-21,135	GRIT BASIN NO. 3 (BID ALT)	-	PLG	UW	4	ELECTRIC	GRIT BASIN FILL VALVE
VAL-21,136	GRIT BASIN NO. 3 (BID ALT)	-	PLG	WW	4	ELECTRIC	GRIT BASIN DRAIN VALVE
VAL-21,211	GRIT PUMP NO. 1	-	PLG	GRIT	4	ELECTRIC	GRIT PUMP SUCTION VALVE - GLASSED LINED
VAL-21,221	GRIT PUMP NO. 2	-	PLG	GRIT	4	ELECTRIC	GRIT PUMP SUCTION VALVE - GLASSED LINED
VAL-21,231	GRIT PUMP NO. 3	-	PLG	GRIT	4	ELECTRIC	GRIT PUMP SUCTION VALVE - GLASSED LINED
VAL-21,241	GRIT PUMP NO. 4	-	PLG	GRIT	4	ELECTRIC	GRIT PUMP SUCTION VALVE - GLASSED LINED
VAL-21,251	GRIT PUMP NO. 5 (BID ALT)	-	PLG	GRIT	4	ELECTRIC	GRIT PUMP SUCTION VALVE - GLASSED LINED
VAL-21,261	GRIT PUMP NO. 6 (BID ALT)	-	PLG	GRIT	4	ELECTRIC	GRIT PUMP SUCTION VALVE - GLASSED LINED
VAL-21,113	GRIT BASIN NO. 1	-	BV	UW	1	ELECTRIC	GRIT FLUIDIZING VALVE
VAL-21,123	GRIT BASIN NO. 2	-	BV	UW	1	ELECTRIC	GRIT FLUIDIZING VALVE
VAL-21,133	GRIT BASIN NO. 3 (BID ALT)	-	BV	UW	1	ELECTRIC	GRIT FLUIDIZING VALVE
SV-21,215	GRIT PUMP NO. 1	-	SV	UW	1/2	ELECTRIC	GRIT PUMP SEAL WATER VALVE
SV-21,225	GRIT PUMP NO. 2	-	SV	UW	1/2	ELECTRIC	GRIT PUMP SEAL WATER VALVE
SV-21,235	GRIT PUMP NO. 3	-	SV	UW	1/2	ELECTRIC	GRIT PUMP SEAL WATER VALVE
SV-21,245	GRIT PUMP NO. 4	-	SV	UW	1/2	ELECTRIC	GRIT PUMP SEAL WATER VALVE
SV-21,255	GRIT PUMP NO. 5 (BID ALT)	-	SV	UW	1/2	ELECTRIC	GRIT PUMP SEAL WATER VALVE
SV-21,265	GRIT PUMP NO. 6 (BID ALT)	-	SV	UW	1/2	ELECTRIC	GRIT PUMP SEAL WATER VALVE

VALVE SCHEDULE (CONTINUED)							
SV-21,265	GRIT PUMP NO. 6 (BID ALT)	-	SV	UW	1/2	ELECTRIC	GRIT PUMP SEAL WATER VALVE
SV-21,314	GRIT WASHER NO. 1	-	SV	UW	1	ELECTRIC	WASH WATER VALVE FOR GRIT WASHER (FBV)
SV-21,324	GRIT WASHER NO. 2	-	SV	UW	1	ELECTRIC	WASH WATER VALVE FOR GRIT WASHER (FBV)
SV-21,334	GRIT WASHER NO. 3 (BID ALT)	-	SV	UW	1	ELECTRIC	WASH WATER VALVE FOR GRIT WASHER (FBV)

PUMP SCHEDULE											
TAG NO.	LOCATION	ZONE	TYPE	SERVICE	HP	FLOW (MGD)	TDH (FT)	CONTROL	MAX SPEED	VOLTAGE	PHASE	DESCRIPTION
PMP-16,261	BIO 2	OX-10	SUBMERSIBLE AXIAL FLOW	MLR	25	15	3,5	VFD	590	460	3	INTERNAL RECYCLE BIO. 2
PMP-16,262	BIO 2	OX-10	SUBMERSIBLE AXIAL FLOW	MLR	25	15	3,5	VFD	590	460	3	INTERNAL RECYCLE BIO. 2
PMP-16,361	BIO 3	OX-10	SUBMERSIBLE AXIAL FLOW	MLR	25	15	3,5	VFD	590	460	3	INTERNAL RECYCLE BIO. 3
PMP-16,362	BIO 3	OX-10	SUBMERSIBLE AXIAL FLOW	MLR	25	15	3,5	VFD	590	460	3	INTERNAL RECYCLE BIO. 3
PMP-16,461	BIO 4	OX-10	SUBMERSIBLE AXIAL FLOW	MLR	25	15	3,5	VFD	590	460	3	INTERNAL RECYCLE BIO. 4
PMP-16,462	BIO 4	OX-10	SUBMERSIBLE AXIAL FLOW	MLR	25	15	3,5	VFD	590	460	3	INTERNAL RECYCLE BIO. 4
PMP-21,210	GRIT	-	HORIZONTAL RECESSED IMPELLER CENTRIFUGAL	GRIT	7,5	300	26,5	FIXED	1500	480	3	GRIT PUMP NO. 1
PMP-21,220	GRIT	-	HORIZONTAL RECESSED IMPELLER CENTRIFUGAL	GRIT	7,5	300	26,5	FIXED	1500	480	3	GRIT PUMP NO. 2
PMP-21,230	GRIT	-	HORIZONTAL RECESSED IMPELLER CENTRIFUGAL	GRIT	7,5	300	26,5	FIXED	1500	480	3	GRIT PUMP NO. 3
PMP-21,240	GRIT	-	HORIZONTAL RECESSED IMPELLER CENTRIFUGAL	GRIT	7,5	300	26,5	FIXED	1500	480	3	GRIT PUMP NO. 4
PMP-21,250	GRIT	-	HORIZONTAL RECESSED IMPELLER CENTRIFUGAL	GRIT	7,5	300	26,5	FIXED	1500	480	3	GRIT SLURRY PUMP NO. 5 (BID ALT)
PMP-21,260	GRIT	-	HORIZONTAL RECESSED IMPELLER CENTRIFUGAL	GRIT	7,5	300	26,5	FIXED	1500	480	3	GRIT SLURRY PUMP NO. 6 (BID ALT)

SLIDE GATE SCHEDULE													
TAG NO.	LOCATION	TYPE	SERVICE	MAX HEAD (FT)		TYPE OF CLOSURE[1]	OPENING DIMENSIONS[2]			MOUNTING[3]	TYPE OF FRAME[4]	STEM[5]	OPERATOR[6]	DESCRIPTION
				SEATING	UNSEATING		PIPE ID	WIDTH	HEIGHT					
GAT-21,112	GRIT INFLUENT CHANNEL NO. 1	SLIDE GATE	GRIT BASIN NO. 1	6.25'	-	FB	-	4'	6.5'	FM	SC	NRS	MO	GATES TO BE CONTRAINED FOR ODOR CONTROL
GAT-21,122	GRIT INFLUENT CHANNEL NO. 2	SLIDE GATE	GRIT BASIN NO. 2	6.25'	-	FB	-	4'	6.5'	FM	SC	NRS	MO	GATES TO BE CONTRAINED FOR ODOR CONTROL
GAT-21,132	GRIT INFLUENT CHANNEL NO. 3	SLIDE GATE	GRIT BASIN NO. 3	6.25'	-	FB	-	4'	6.5'	FM	SC	NRS	MO	GATES TO BE CONTRAINED FOR ODOR CONTROL
GAT-16,263	BIO 2 MLR	SLIDE GATE	MLR	15,7'	12,7'	STD	-	3'	3'	FM	NSC	NRS	CO	TERMINATE STEM AT GRATING
GAT-16,363	BIO 3 MLR	SLIDE GATE	MLR	15,7'	12,7'	STD	-	3'	3'	FM	NSC	NRS	CO	TERMINATE STEM AT GRATING
GAT-16,463	BIO 4 MLR	SLIDE GATE	MLR	15,7'	12,7'	STD	-	3'	3'	FM	NSC	NRS	CO	TERMINATE STEM AT GRATING

Notes:

-1 Closure: DO = Downward Opening; FB = Flush Bottom; STD = Standard.

-2 Gate design pressure applied at centerline of gate.

-3 Mounting: FM = Face Mounted; EC = Inside Existing Channel; EMB = Embedded; SP = Spigot back; FWT = "F" Wall Thimble; EWT = "E" Wall Thimble

-4 Frame: SC = Self-Contained; NSC = Non-Self Contained; F = Flatback; FL = Flange back.

-5 Stem: RS = Rising Stem; NRS = Non-Rising Stem.

-6 Operator: CO = Hand crank operator with 24-inch AWWA nut for portable operator; HW = Handwheel; HC = Hand crank; MO = Motor Operator; MOD = Modulating Motor Operator; HO = Hydraulic Operator; MHO = Manual Hydraulic Operator (Hand Pump); BS = Bench Stand; FS = Floor Stand; IFS = Interconnect Floor Stand; PS = Pedestal Support.

STOP PLATE SCHEDULE							
TAG NO.	LOCATION	WIDTH OF OPENING	HEIGHT OF STOP PLATE	MAX HEAD (FT)		MATERIAL	DESCRIPTION
				SEATING	UNSEATING		
GAT-21,151	GRIT INFLUENT CHANNELS	4'	8'	6.25'	-	FRP	PLACED UPSTREAM OF GRIT INFLUENT CHANNEL SLIDE GATE DURING MAINTENANCE
GAT-16,265	BIO 2	7"	9"	14'	-	FRP	PROVIDES ACCESS TO TRENCH DRAIN THROUGH EXISTING WALL
GAT-16,266	BIO 2	7"	9"	14'	-	FRP	PROVIDES ACCESS TO TRENCH DRAIN THROUGH EXISTING WALL
GAT-16,267	BIO 2	7"	9"	14'	-	FRP	PROVIDES ACCESS TO TRENCH DRAIN THROUGH EXISTING WALL
GAT-16,365	BIO 3	7"	9"	14'	-	FRP	PROVIDES ACCESS TO TRENCH DRAIN THROUGH EXISTING WALL
GAT-16,366	BIO 3	7"	9"	14'	-	FRP	PROVIDES ACCESS TO TRENCH DRAIN THROUGH EXISTING WALL
GAT-16,367	BIO 3	7"	9"	14'	-	FRP	PROVIDES ACCESS TO TRENCH DRAIN THROUGH EXISTING WALL
GAT-16,465	BIO 4	7"	9"	14'	-	FRP	PROVIDES ACCESS TO TRENCH DRAIN THROUGH EXISTING WALL
GAT-16,466	BIO 4	7"	9"	14'	-	FRP	PROVIDES ACCESS TO TRENCH DRAIN THROUGH EXISTING WALL
GAT-16,467	BIO 4	7"	9"	14'	-	FRP	PROVIDES ACCESS TO TRENCH DRAIN THROUGH EXISTING WALL

MIXER SCHEDULE							
TAG NO.	LOCATION	ZONE	TYPE	SERVICE	HP	DESCRIPTION
BRXA-602	BIO 2	AN-1	VERTICAL	MIXED LIQUOR	5	EXISTING MIXER - REPLACE IMPELLER ONLY
BRXB-602	BIO 2	AN-1	VERTICAL	MIXED LIQUOR	5	EXISTING MIXER - REPLACE IMPELLER ONLY
BRX-16,207	BIO 2	AX-2	FLOATING	MIXED LIQUOR	5	ANOXIC ZONE MIXING
BRX-16,208	BIO 2	AX-2	FLOATING	MIXED LIQUOR	5	ANOXIC ZONE MIXING
BRX-16-209	BIO 2	AX-3	VERTICAL	MIXED LIQUOR	5	ANOXIC ZONE MIXING
BRX-16,210	BIO 2	AX-3	VERTICAL	MIXED LIQUOR	5	ANOXIC ZONE MIXING
BRXA-603	BIO 3	AN-1	VERTICAL	MIXED LIQUOR	5	EXISTING MIXER - REPLACE IMPELLER ONLY
BRXB-603	BIO 3	AN-1	VERTICAL	MIXED LIQUOR	5	EXISTING MIXER - REPLACE IMPELLER ONLY
BRX-16,307	BIO 3	AX-2	FLOATING	MIXED LIQUOR	5	ANOXIC ZONE MIXING
BRX-16,308	BIO 3	AX-2	FLOATING	MIXED LIQUOR	5	ANOXIC ZONE MIXING
BRX-16,309	BIO 3	AX-3	VERTICAL	MIXED LIQUOR	5	ANOXIC ZONE MIXING
BRX-16,310	BIO 3	AX-3	VERTICAL	MIXED LIQUOR	5	ANOXIC ZONE MIXING
BRXA-604	BIO 4	AN-1	VERTICAL	MIXED LIQUOR	5	EXISTING MIXER - REPLACE IMPELLER ONLY
BRXB-604	BIO 4	AN-1	VERTICAL	MIXED LIQUOR	5	EXISTING MIXER - REPLACE IMPELLER ONLY
BRX-16,407	BIO 4	AX-2	FLOATING	MIXED LIQUOR	5	ANOXIC ZONE MIXING
BRX-16,408	BIO 4	AX-2	FLOATING	MIXED LIQUOR	5	ANOXIC ZONE MIXING
BRX-16,409	BIO 4	AX-3	VERTICAL	MIXED LIQUOR	5	ANOXIC ZONE MIXING
BRX-16,410	BIO 4	AX-3	VERTICAL	MIXED LIQUOR	5	ANOXIC ZONE MIXING

MISCELLANEOUS EQUIPMENT SCHEDULE						
TAG NO.	LOCATION	TYPE	SERVICE	CAPACITY/SIZE	HP	DESCRIPTION
GRW-21,310	GRIT BUILDING - UPPER FLOOR	GRIT WASHER	GRIT	1.5 TON/HR	3	-
GRW-21,320	GRIT BUILDING - UPPER FLOOR	GRIT WASHER	GRIT	1.5 TON/HR	3	-
GRW-31,330	GRIT BUILDING - UPPER FLOOR	GRIT WASHER	GRIT	1.5 TON/HR	3	(BID ALT)
-	GRIT BUILDING - LOWER FLOOR	12 TRAY HEADCELL UNIT	GRIT	12 ' DIA. TRAY	-	GRIT BASIN NO. 1
-	GRIT BUIDING - LOWER FLOOR	12 TRAY HEADCELL UNIT	GRIT	12' DIA. TRAY	-	GRIT BASIN NO. 2
-	GRIT BUILDING - LOWER FLOOR	12 TRAY HEADCELL UNIT	GRIT	12' DIA. TRAY	-	GRIT BASIN NO. 3 (BID ALT)

REV	DATE	BY	DESCRIPTION

DESIGNED RWB
DRAWN JRL
CHECKED TL/GCS
DATE MARCH 2019

Registered Professional Engineer — No. 10171556-2202 — RYAN W. BENCH — STATE OF UTAH

Registered Professional Engineer — No. 4775621-2202 — BRAD D. JEPPSON — STATE OF UTAH

carollo®

South Valley WATER RECLAMATION FACILITY
7495 South 1300 West
West Jordan, Utah 84084

SOUTH VALLEY WATER RECLAMATION FACILITY
PROJECT 5
GENERAL
EQUIPMENT SCHEDULES

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

JOB NO. 10548A.10
DRAWING NO. G-11
SHEET NO. 11 OF 159

PROJECT NO. 10548A10 FILE NAME: 10548A1000G11.dgn