

BONA VISTA WATER IMPROVEMENT DISTRICT HOT SPRINGS TANK

WEBER COUNTY, UTAH

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PROJECT NO. 55-20-139

JANUARY 2022

PRELIMINARY PLANS
NOT FOR CONSTRUCTION

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J-U-B ENGINEERS, INC.

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OTHER J-U-B COMPANIES



THE LANGDON GROUP



GATEWAY MAPPING INC.

SHEET NUMBER:

G-001

GENERAL PROJECT NOTES

1. GENERAL:

- THE GENERAL NOTES AND SPECIFICATIONS SUPPLEMENT THE PROJECT WRITTEN TECHNICAL SPECIFICATIONS AND THE PROJECT DRAWINGS.
- WHERE CONFLICTS OR DISCREPANCIES EXIST BETWEEN THE PROJECT DRAWINGS, THE CONTRACT DOCUMENTS, AND/OR THE TECHNICAL SPECIFICATIONS, THE MORE STRINGENT REQUIREMENT SHALL APPLY, UNLESS SPECIFICALLY APPROVED IN WRITING BY THE ENGINEER.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION BRACING, TEMPORARY SHORING, AND OTHER SITE SAFETY CONTROLS REQUIRED DURING CONSTRUCTION IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS, TO ENSURE THE STABILITY AND SAFETY OF ALL CONSTRUCTION UNTIL IT IS COMPLETED.
- DETAILS ON THESE PLANS ARE INTENDED TO DEPICT THE GENERAL CONSTRUCTION DETAILS AND METHODS FOR THIS PROJECT. DETAILS AND CONDITIONS NOT SPECIFICALLY SHOWN THAT ARE SIMILAR IN NATURE TO THOSE THAT ARE SPECIFIED SHALL BE ASSUMED ONE AND THE SAME. IF QUESTIONS REGARDING THE APPLICATION OF DETAILS ARE ENCOUNTERED, NOTIFY THE ENGINEER FOR CLARIFICATION OR INSTRUCTION.
- PRIOR TO IMPLEMENTING ANY CHANGES TO THESE PLANS, THE ENGINEER SHALL BE NOTIFIED IN WRITING FOR THEIR WRITTEN APPROVAL. CHANGES IMPLEMENTED WITHOUT THE ENGINEERS WRITTEN APPROVAL SHALL RELIEVE THE ENGINEER OF ANY CLAIM OR LIABILITY RESULTING FROM THAT PORTION OF THE PROJECT CHANGED OR AFFECTED BY THE CHANGE.

2. CONTRACTOR RESPONSIBILITY FOR COORDINATION:

- IT IS THE CONTRACTORS PRIME RESPONSIBILITY TO COORDINATE THE WORK SHOWN ON ALL OF THE PROJECT DRAWINGS, GENERAL, SPECIAL, AND TECHNICAL SPECIFICATIONS.
- THE CONTRACTOR IS RESPONSIBLE TO VERIFY ALL EXISTING CONSTRUCTION MATERIAL TYPES, DIMENSIONS, ELEVATIONS, AND CONDITIONS.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO CAREFULLY STUDY AND COORDINATE THE CONSTRUCTION REQUIREMENTS SHOWN ON THESE DRAWINGS. WHEN CONFLICTS OR DISCREPANCIES ARE FOUND IN THESE DRAWINGS, THE CONTRACTOR SHALL REPORT THEM IMMEDIATELY TO THE PROJECT ENGINEER FOR DIRECTION AND/OR CLARIFICATION.
- ANY CONSTRUCTION WORK DONE BY THE CONTRACTOR BEFORE OBTAINING SUCH CLARIFICATION FROM THE PROJECT ENGINEER SHALL BE AT THE CONTRACTOR'S OWN RISK AND COST. FURTHERMORE; ANY WORK REQUIRED TO CORRECT, REPLACE AND/OR RESTORE THE WORK AS DIRECTED BY THE ENGINEER SHALL BE AT THE CONTRACTOR'S OWN RISK AND COST.
- THE PROJECT WILL REQUIRE COORDINATION BETWEEN SEVERAL GOVERNMENT AND PRIVATE AGENCIES. FOR ANY COORDINATION EFFORTS, THE CONTRACTOR IS TO REFER TO THE LIST OF PROJECT AGENCIES FOR THE APPROPRIATE PERSONS TO CONTACT.

3. PROJECT NOTES:

- THE CONTRACTOR SHALL LIMIT ACTIVITIES TO IMMEDIATE PROJECT AREA TO FULLEST EXTENT POSSIBLE.
- ANY DAMAGE TO PUBLIC OR PRIVATE PROPERTY RESULTING FROM CONSTRUCTION ACTIVITIES SHALL BE RESTORED TO EQUAL OR BETTER CONDITION AT THE CONTRACTOR'S EXPENSE.
- THE ENGINEER WILL PROVIDE VERTICAL AND HORIZONTAL CONTROLS ON THE PROJECT SITE. ANY ADDITIONAL CONSTRUCTION STAKING REQUIRED TO COMPLETE THE PROJECT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- THE CONTRACTOR SHALL LOCATE AND PROTECT ALL EXISTING UTILITIES AND BE RESPONSIBLE FOR DAMAGES TO EXISTING UTILITIES AND EXISTING IMPROVEMENTS AS A RESULT OF THE CONTRACTOR'S CONSTRUCTION ACTIVITIES.
- SEE THE BONA VISTA WATER IMPROVEMENT DISTRICT AND NORTH OGDEN CITY CONSTRUCTION STANDARDS AND TECHNICAL SPECIFICATIONS FOR DETAILS AND INFORMATION NOT SHOWN IN THE PROJECT DRAWINGS OR TECHNICAL SPECIFICATIONS. IF ANY CONFLICT EXISTS BETWEEN THESE PLANS AND ANY REFERENCED STANDARD, THE MORE STRINGENT REQUIREMENT SHALL APPLY. CONTRACTOR IS TO NOTIFY THE ENGINEER OF ANY SUCH CONFLICTS.
- CONTRACTOR SHALL COORDINATE WITH NORTH OGDEN CITY PUBLIC WORKS DEPARTMENT FOR TRUCKING ROUTE REQUIREMENTS.

4. EARTHWORK:

- STRIP AND REMOVE EXISTING VEGETATION, DEBRIS, AND OTHER DELETERIOUS MATERIALS FROM THE EXCAVATION LIMITS.
- IT IS ANTICIPATED THAT NO GROUNDWATER WILL BE FOUND DURING THE EXCAVATION. HOWEVER, IN THE EVENT THAT GROUNDWATER IS PRESENT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DEWATERING DURING THE CONSTRUCTION PERIOD.
- THE CONTRACTOR IS RESPONSIBLE FOR DESIGNING AND CONSTRUCTING STABLE EXCAVATIONS AS REQUIRED TO MAINTAIN STABILITY OF BOTH EXCAVATION SIDES AND BOTTOM. ALL EXCAVATIONS SHOULD BE SLOPED OR SHORED IN THE INTEREST OF SAFETY FOLLOWING LOCAL, STATE, AND FEDERAL REGULATIONS, INCLUDING CURRENT OSHA EXCAVATION AND TRENCH SAFETY STANDARDS.
- THE CONTRACTOR SHALL EXCAVATE THE SITE TO THE LIMITS AND ELEVATIONS SHOWN ON THE PLANS.

5. EXISTING UTILITIES:

- THE LOCATION OF EXISTING UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY.
- DEPTHS AND ELEVATIONS OF UTILITIES ARE UNKNOWN UNLESS OTHERWISE SHOWN.
- UNDERGROUND UTILITY LOCATION AND VERIFICATION IS TO BE AN ONGOING PROCESS.
- CONTRACTOR IS RESPONSIBLE TO:
 - VERIFY EXACT LOCATIONS OF ALL UTILITIES PRIOR TO BEGINNING WORK IN THAT AREA
 - FIELD VERIFY UTILITY LOCATION, DEPTHS, AND ELEVATIONS WHERE CONFLICTING UTILITIES MAY BE PRESENT A MINIMUM OF 500 FEET AHEAD OF TRENCHING OPERATIONS
 - BRING ANY DISCREPANCIES AND/OR CONFLICTS TO THE ATTENTION OF THE ENGINEER

- IMMEDIATELY.
- NOTIFY APPROPRIATE UTILITY COMPANIES WHEN CONSTRUCTION MIGHT INTERFERE WITH NORMAL OPERATION OF ANY UTILITIES.
- MAINTAIN SERVICE OF EXISTING UTILITIES.
- RESTORE ANY UTILITIES DAMAGED DUE TO CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER.

6. INSPECTION AND TESTING:

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TESTING INCLUDING, BUT NOT LIMITED TO, MATERIALS (SUCH AS CONCRETE, ASPHALT, ETC.), COMPACTION, TANK LEAK TESTING, AND TESTING ASSOCIATED WITH BURIED UTILITY CONSTRUCTION (PRESSURE, VACUUM, ETC.). ALL TESTS SHALL MEET MINIMUM ENGINEER REQUIREMENTS. SEE THE CONTRACT DOCUMENTS, SPECIFICATIONS, AND DRAWINGS FOR FREQUENCY OF TESTING. RESULTS ARE TO BE DELIVERED TO SPECIAL INSPECTOR, OWNER AND ENGINEER.
- THE CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH ENGINEER AND SPECIAL INSPECTOR FOR INSPECTIONS OF WORK AT APPROPRIATE INTERVALS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PAY FOR ADDITIONAL INSPECTIONS THAT ARE THE RESULT OF HIS WORKMANSHIP.

7. PERMITTING AND COORDINATION:

- CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND BUSINESS LICENSES PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL LOCAL, STATE, AND FEDERAL PERMITS REQUIRED FOR STORM WATER POLLUTION PREVENTION AS A RESULT OF CONSTRUCTION ACTIVITIES. WHEN CALLED FOR IN THE CONTRACT DOCUMENTS, CONTRACTOR SHALL PREPARE A STORM WATER POLLUTION PREVENTION PLAN FOR APPROVAL BY THE ENGINEER AND FOR SUBMITTAL TO LOCAL AUTHORITIES FOR REVIEW AND APPROVAL. IF THE CONSTRUCTION WILL DISTURB MORE THAN ONE ACRE, CONTRACTOR SHALL FILE A "NOTICE OF INTENT" FOR PERMIT COVERAGE UNDER THE STATE'S UPDES STORM WATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITIES (UTRC00000) AND PAY ALL ASSOCIATED FEES. THE NOI MAY BE FILED ELECTRONICALLY AT THE FOLLOWING WEBSITE: [HTTPS://DEQ.UTAH.GOV/PERMITS/WATER/UPDES/STORMWATERCON.HTM](https://deq.utah.gov/permits/water/updes/stormwatercon.htm) AND FOLLOWING THE DIRECTIONS AND LINKS GIVEN ON THE WEB PAGE. THE CGP DOES NOT RELIEVE CONTRACTOR FROM COMPLIANCE WITH OTHER REGULATIONS OR CONTRACT REQUIREMENTS REGARDING STORM WATER POLLUTION PREVENTION INCLUDING BUT NOT LIMITED TO: PROTECTION OF SURFACE WATERS, PREVENTION OF SOIL RUNOFF INTO DRAINS, DUST CONTROL, PREVENTION OF TRACKING SOILS TO ADJACENT STREETS, FUEL CONTAINMENT, SPILL CONTROL, ETC.
- ANY WORK DONE WITHIN A PUBLIC RIGHT-OF-WAY SHALL BE COORDINATED WITH THE APPROPRIATE TRANSPORTATION AGENCY AND SHALL MEET THE REQUIREMENTS OF THAT AGENCY AND, IN PARTICULAR, REQUIREMENTS OF ANY RIGHT-OF-WAY SPECIAL USE PERMIT, OR OTHER PERMIT. ALL WORK SHALL MEET CURRENT OSHA REQUIREMENTS.
- WHERE WORK IS PERFORMED ON EASEMENTS, THE CONTRACTOR SHALL TAKE EVERY PRECAUTION TO ELIMINATE ANY ADVERSE EFFECTS ON THE ADJACENT PROPERTY AND/OR TO RESTORE IT TO ITS ORIGINAL CONDITION.

8. MISCELLANEOUS:

- CONTRACTOR IS RESPONSIBLE FOR DUST ABATEMENT AND ANY LIABILITY ISSUES RELATED TO DUST AT ANY LOCATION WHICH MAY BE CAUSED BY THIS PROJECT.
- THE CONTRACTOR IS RESPONSIBLE FOR TRAFFIC CONTROL AND PROTECTION OF PEDESTRIANS IN AND AROUND THIS WORK. REFERENCE THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD LATEST EDITION FOR WORK ZONE TRAFFIC CONTROL).
- THE CONTRACTOR SHALL PRESERVE EXISTING CITY, COUNTY, STATE, AND FEDERAL LAND MONUMENTS WHENEVER POSSIBLE. IF A MONUMENT MUST BE MOVED, THE ENGINEER SHALL BE CONTACTED 2 WEEKS PRIOR TO REMOVAL TO ARRANGE FOR RELOCATION.
- SHOULD CONSTRUCTION BE HALTED BECAUSE OF INCLEMENT WEATHER CONDITIONS, THE CONTRACTOR WILL COMPLETELY CLEAN UP ALL AREAS AND MAINTAIN THE SURFACE IN GOOD CONDITION DURING THE SHUT-DOWN PERIOD.

9. PROJECT CONTACT LIST:

J-U-B ENGINEERS, INC.	GREG SEEGMILLER	PROJECT MANAGER	(801) 547-0393
J-U-B ENGINEERS, INC.	ERICK CHRISTIANSEN	PROJECT ENGINEER	(435) 713-9514
BONA VISTA WATER	JERRY ALLEN	GENERAL MANAGER	(801) 621-0474

ABBREVIATIONS	
ABBREV.	TERM
ALUM	ALUMINUM
ASSY	ASSEMBLY
∠	ANGLE
⊙	AT (MEASUREMENTS)
BC	BEGINNING OF CURVE
BLDG	BUILDING
B.M.	BENCH MARK
BP	ALIGNMENT BEGINNING
BREAK	GRADE BREAK
BSC	BITUMINOUS SURFACE COURSE
BSW	BACK OF SIDEWALK
BVC	BEGIN VERTICAL CURVE
BVP	PROFILE START
B.W.	BOTH WAYS
C	CHANNEL (STRUCTURAL)
CJ	CONTROL JOINT
⊕	CENTER LINE
CLR	CLEARANCE
CMP	CORRUGATED METAL PIPE
CO	CLEANOUT
CONC	CONCRETE
CONT	CONTINUOUS
CPLG	COUPLING
CTR	CENTER
CU FT	CUBIC FEET
CU YD	CUBIC YARD
DEG OR °	DEGREE
DIA OR Ø	DIAMETER
DI	DUCTILE IRON
DIST	DISTRIBUTION
DWG	DRAWING
EA	EACH
EC	END OF CURVE
ELB	ELBOW
ELEV OR EL.	ELEVATION
EOA	EDGE OF ASPHALT
EP	ALIGNMENT END
EVP	PROFILE END
E.W.	EACH WAY
EXIST	EXISTING
EVC	END VERTICAL CURVE
FF	FINISH FLOOR
FG	FINISH GRADE
FH	FIRE HYDRANT
FL	FLOW LINE
FLG	FLANGE
FT OR '	FEET
FTG	FOOTING
GALV	GALVANIZED
GB	GRADE BREAK
HORIZ	HORIZONTAL
HP	HIGH POINT

ABBREVIATIONS	
ABBREV.	TERM
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
IN. OR "	INCH
INV.	INVERT
K	CURVE COEFFICIENT
L	LEFT
LB	LINE BEGINNING
LB OR #	POUND
LC	LEVEL CROWN
LE	LINE END
LF	LINEAL FEET
LN	LINEAL
LP	LOW POINT
MAN	MANUAL
MAX	MAXIMUM
MIN	MINIMUM
NO. OR #	NUMBER
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
PE	PLAIN END
PI	TANGENT-TANGENT INTERSECT
PL OR RL	PLATE OR PROPERTY LINE
POLY	POLYETHYLENE
PRC	POINT OF REVERSE CURVATURE
PT	POINT OF TANGENCY
PVC	POLYVINYL-CHLORIDE
PVI	POINT OF VERTICAL INTERSECTION
R	RADIUS OR RIGHT
RC	REVERSE CROWN
REQ'D	REQUIRED
REV	REVISION
R/W	RIGHT-OF-WAY
S	SLOPE
SPEC	SPECIFICATION
STA	STATION
STD	STANDARD
STL	STEEL
ST STL	STAINLESS STEEL
TBC	TOP BACK OF CURB
TFC	TOP FACE OF CONCRETE
THD	THREADED
TOB	TOP OF BEAM
TOC	TOP OF CONCRETE
TOF	TOP OF FOOTING
TOP	TOP OF PIPE
TOW	TOP OF WALL
TYP	TYPICAL
W/	WITH
W/O	WITHOUT
W/REQ'D	WHERE REQUIRED



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PRELIMINARY PLANS
NOT FOR CONSTRUCTION

NO.	DESCRIPTION	BY	DATE

HOT SPRINGS TANK
BONA VISTA WATER IMPROVEMENT DISTRICT
GENERAL NOTES AND ABBREVIATIONS

FILE: 55-20-139_G-001X
JUB PROJ: # 55-20-139
DRAWN BY: BS/ELC
DESIGN BY: ELC
CHECKED BY: AWB
ONE INCH
AT FULL SIZE, IF NOT ONE INCH SCALE ACCORDINGLY
LAST UPDATED: 1/5/2022
SHEET NUMBER:
G-003



Know what's below.
Call before you dig.

CALL 2 BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES



J-U-B ENGINEERS, INC.

J-U-B ENGINEERS, INC.
466 North 900 West
Kaysville, Utah 84037

PRELIMINARY
PLANS
NOT FOR
CONSTRUCTION

NO.	REVISION	DESCRIPTION	BY	DATE

HOT SPRINGS TANK
BONA VISTA WATER IMPROVEMENT DISTRICT
LINE AND SYMBOL LEGENDS AND DETAIL KEY

FILE: 55-20-139_G-001X
JUB PROJ. #: 55-20-139
DRAWN BY: BS/ELC
DESIGN BY: ELC
CHECKED BY: AWB
AT FULL SIZE, IF NOT ONE
INCH SCALE ACCORDINGLY
LAST UPDATED: 1/5/2022
SHEET NUMBER:
G-004

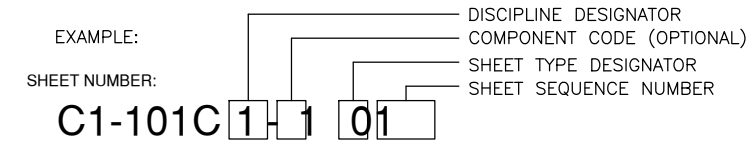
SYMBOL LEGEND

DESCRIPTION	EXIST.	PROP.	DESCRIPTION	EXIST.	PROP.
SANITARY SEWER			IRRIGATION		
CLEANOUT	⊙	⊙	IRRIGATION VALVE	⊗	⊗
SS MANHOLE	⊙	⊙	IRRIGATION VALVE BOX	⊙	⊙
SS VALVE	⊗	⊗	SPRINKLER	△	△
SS METER	⊗	⊗	IRRIGATION GATE	⊙	⊙
SEWER STUB	⊙	⊙	NATURAL GAS		
STORM DRAIN			UTILITIES		
CATCH BASIN	⊞	⊞	GAS METER	⊞	⊞
DRY WELL	⊙	⊙	GAS VALVE	⊗	⊗
SD MANHOLE	⊙	⊙	GAS MANHOLE	⊙	⊙
FLARE END	∇	∇	MANHOLE (GENERIC)		
GREASE TRAP	⊙	⊙	PRESSURE CLEAN OUT AT GRADE	⊙	⊙
COMMUNICATION			THRUST BLOCK	▲	▲
TELE. MANHOLE	⊙	⊙	VAULT	⊞	⊞
TELE. PEDESTAL	⊙	⊙	VALVE (GENERIC)	⊗	⊗
TELE. POLE	⊙	⊙	UTILITY POLE	⊙	⊙
TV PEDESTAL	⊞	⊞	SITE		
GUY WIRE	↑	↑	BOLLARD	⊞	⊞
DOMESTIC WATER			BOULDER	⊙	⊙
FIRE HYDRANT	⊙	⊙	DRINKING FOUNTAIN	⊞	⊞
SPIGOT	⊙	⊙	FLAGPOLE	⊙	⊙
WATER MANHOLE	⊙	⊙	GATE	⊞	⊞
WATER METER	⊞	⊞	MAIL BOX	⊞	⊞
WATER VALVE	⊗	⊗	PARKING METER	⊞	⊞
YARD HYDRANT	⊙	⊙	POST	⊙	⊙
ELECTRIC			SIGN	⊙	⊙
ELEC. MANHOLE	⊙	⊙	SPOT ELEVATION	⊗	⊗
ELEC. METER	⊞	⊞	TREE (SHRUB)	⊙	⊙
ELEC. TRANS.	⊞	⊞	TREE	⊙	⊙
JUNCTION BOX	⊞	⊞	TEST HOLE	⊞	⊞
GUY WIRE	↑	↑	WELL	⊞	⊞
POWER STUB	⊞	⊞	WELL (MONITORING)	⊞	⊞
POWER POLE	⊞	⊞	SURVEY		
STREET LIGHT	⊙	⊙	CAP	⊙	⊙
STREET LIGHT WITH ARM	⊙	⊙	CTRL PT	⊙	⊙
TRAFFIC SIGNAL POLE	⊙	⊙	NAIL	⊙	⊙
			BOLT	⊙	⊙
			REBAR	⊙	⊙

LINE LEGEND

DESCRIPTION	EXIST.	PROP.
STORM DRAIN	---- SD ----	— SD —
DRAIN LINE	---- DL ----	— DL —
SANITARY SEWER	---- SS ----	— SS —
WATER	---- W ----	— W —
IRRIGATION	---- IRR ----	— IRR —
NATURAL GAS	---- G ----	— G —
OVERHEAD POWER	---- OHP ----	— OHP —
UNDERGROUND POWER	---- UP ----	— UP —
OVERHEAD TELEPHONE	---- OHT ----	— OHT —
UNDERGROUND TELEPHONE	---- UT ----	— UT —
FIBER OPTIC	---- F/O ----	— F/O —
CABLE TELEVISION	---- CTV ----	— CTV —
FENCE	---- X ----	— X —
DITCH	----	----
MAJOR CONTOUR	--- 2520 ---	— 2520 —
MINOR CONTOUR	----	----
TOP OF BANK	— TOB —	— TOB —
TOE OF SLOPE	— TOE —	— TOE —
PROPERTY LINE	— P/L —	— P/L —
PROPERTY LINE (OPTIONAL)	----	----
RIGHT OF WAY	— R/W —	— R/W —
TEMPORARY EASEMENT	— T/E —	— T/E —
PERMANENT EASEMENT	— P/E —	— P/E —
ROAD SHOULDER	----	----
ROAD CENTERLINE	----	----
ROAD ASPHALT	----	----
ROAD GRAVEL	---- EG ----	— EG —
ROAD DIRT	----	----
CURB AND GUTTER	----	----

SHEET NUMBERING



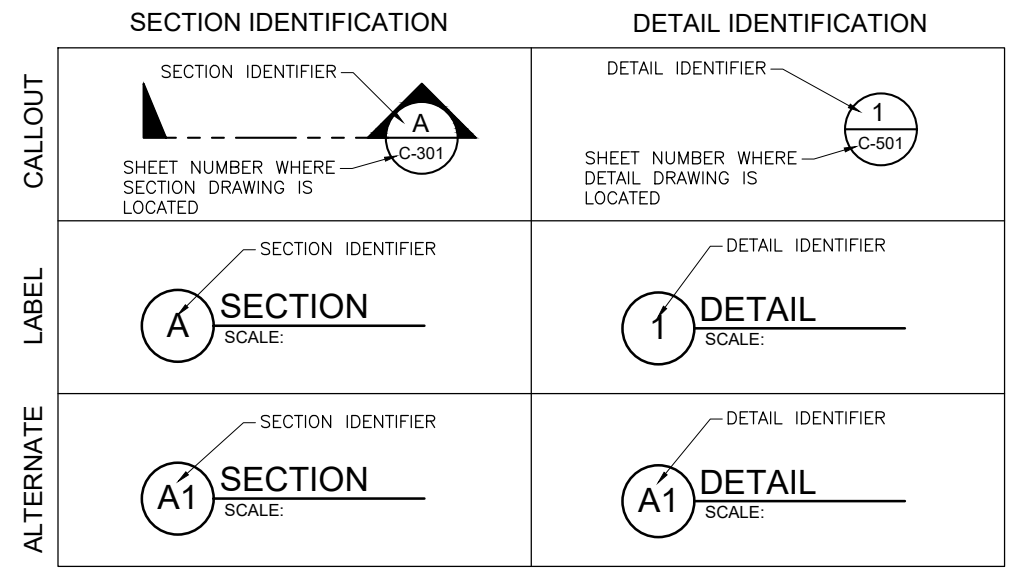
DISCIPLINE DESIGNATORS

DISCIPLINE	DESIGNATOR	DESCRIPTION
GENERAL	G	ALL GENERAL
	GI	GENERAL INFORMATION
	GC	GENERAL CONTRACTUAL
	GR	GENERAL RESOURCE
SURVEY/MAPPING	V	ALL SURVEY
GEOTECHNICAL	B	ALL GEOTECHNICAL
CIVIL	C	ALL CIVIL
LANDSCAPE	L	ALL LANDSCAPE
STRUCTURAL	S	ALL STRUCTURAL
ARCHITECTURAL	A	ALL ARCHITECTURE
EQUIPMENT	Q	ALL EQUIPMENT
MECHANICAL	M	ALL MECHANICAL
ELECTRICAL	E	ALL ELECTRICAL
PLUMBING	P	ALL PLUMBING
PROCESS	D	ALL PROCESS
RESOURCE	R	ALL RESOURCE

SHEET TYPE DESIGNATORS

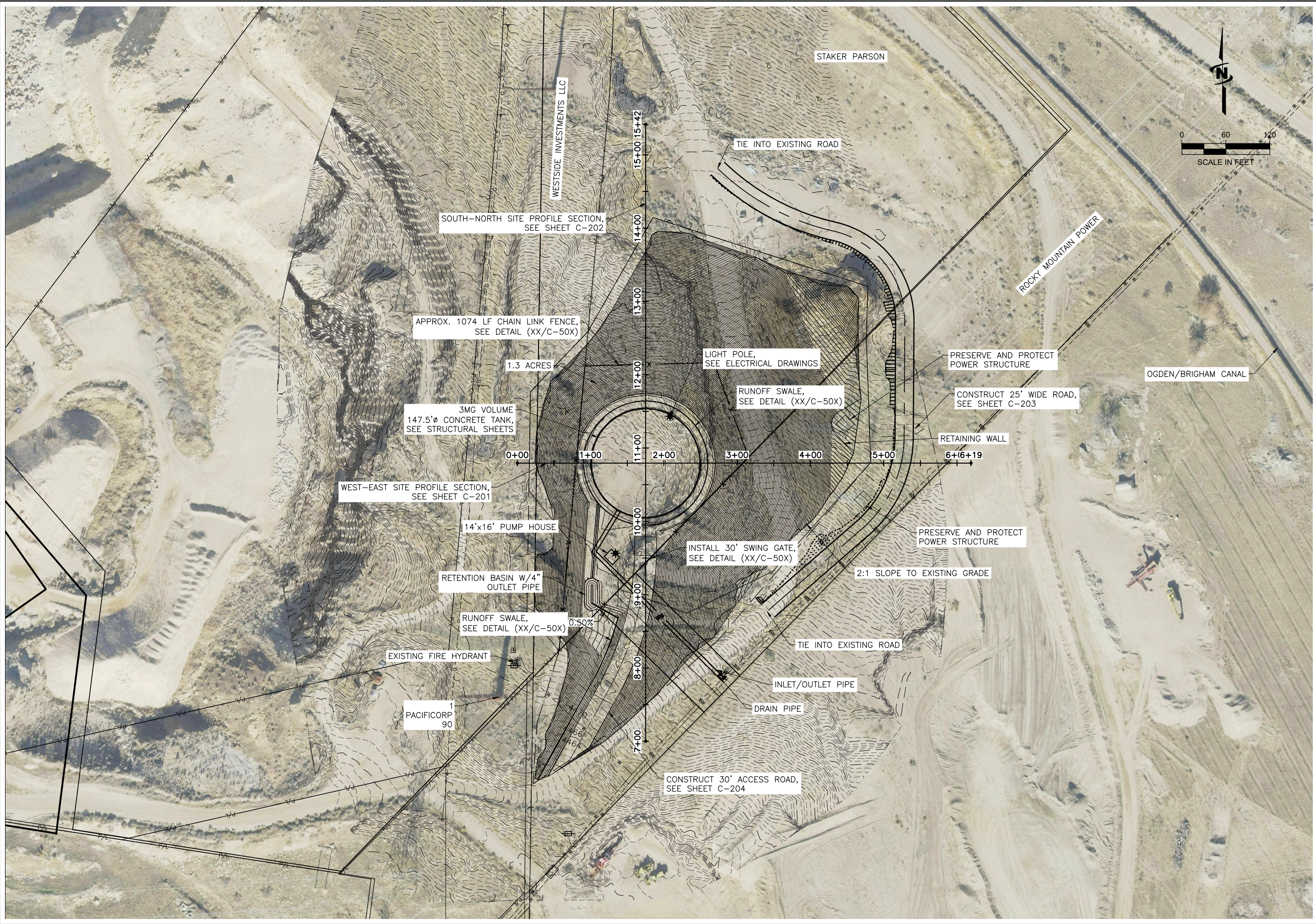
DESIGNATOR	SHEET TYPE
0	GENERAL (SYMBOLS, LEGENDS, NOTES, ETC.)
1	PLANS (HORIZONTAL VIEWS)
2	ELEVATIONS, PROFILES, COMBINED PLAN & PROFILES
3	SECTIONS (SECTIONAL VIEWS)
4	LARGE-SCALE VIEWS (PLANS, ELEVATIONS, ETC.)
5	DETAILS OR COMBINED DETAILS AND SECTIONS
6	USER DEFINED
7	USER DEFINED
8	USER DEFINED
9	3D REPRESENTATIONS (ISOMETRICS, PERSPECTIVES, PHOTOS)

SECTION AND DETAIL IDENTIFIERS



NOTE:
A DASH MAY BE PLACED IN THE LOWER PORTION OF THE IDENTIFIER IF THE DETAIL DRAWING OR SECTION VIEW IS LOCATED ON THE SAME SHEET.

Plot Date: 1/24/2022 5:04 PM Plotted By: Daniel Johnson
 Date Created: 1/24/2022 JUB.COM\CENTRAL\CLIENTS\UT\BONA VISTA\HOTSPRINGS\TANKS\TANKS\DESIGN\CAD\SHEET\55-20-139-101X.DWG



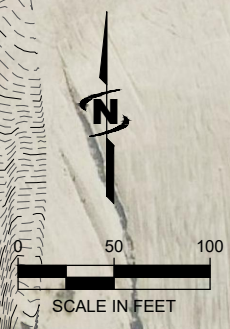
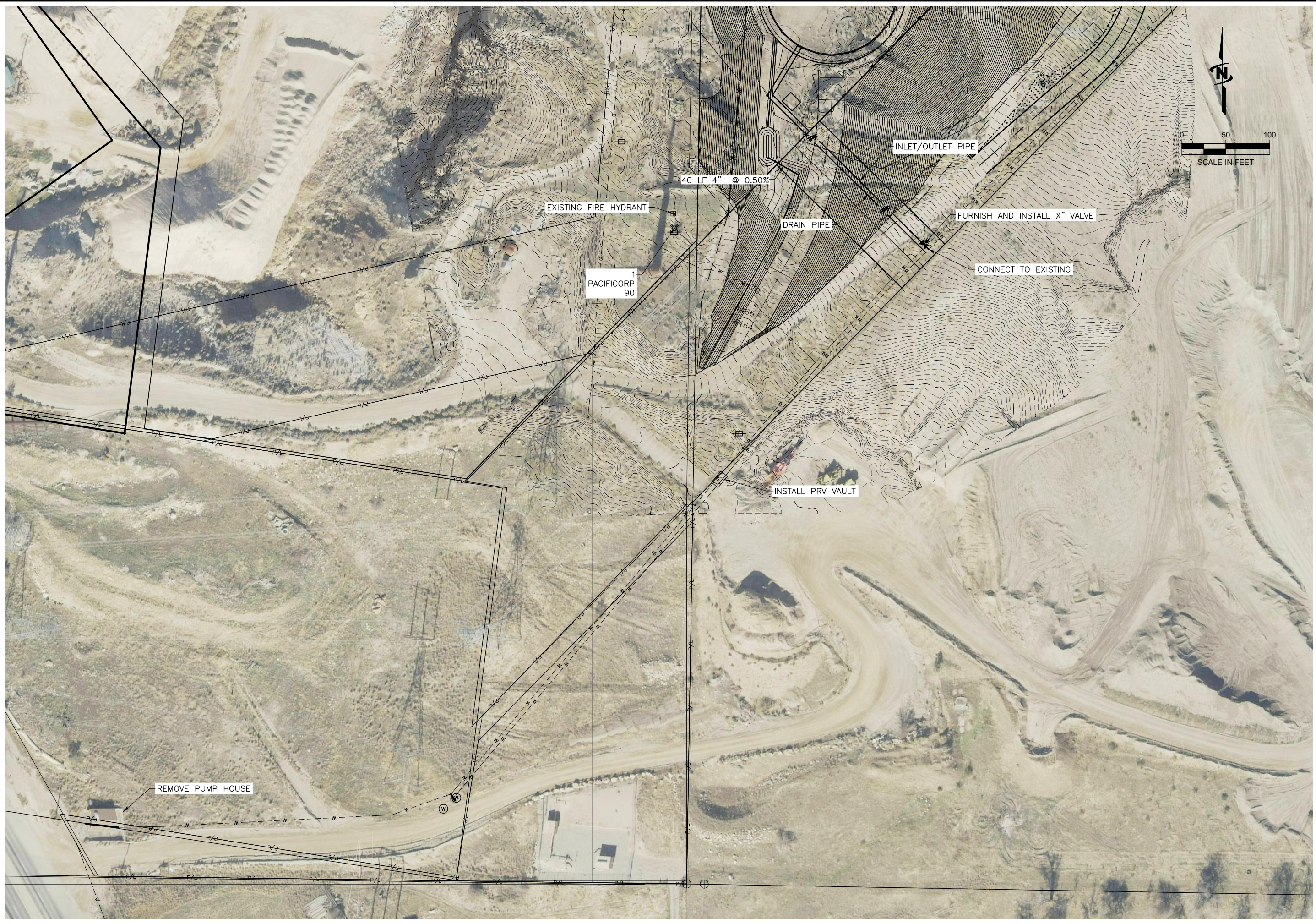
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NO.	REVISION	DESCRIPTION	BY	DATE

HOT SPRINGS TANK
 BONA VISTA WATER IMPROVEMENT DISTRICT
 SITE PLAN

Plot Date: 1/24/2022 5:05 PM Plotted By: Daniel Johnson
 Date Created: 1/5/2022 JUB: C:\CENTRAL\Clients\JUB\COM\CENTRAL\Clients\JUB\COM\CENTRAL\PROJECTS\55-20-139_BONA VISTA HOT SPRINGS TANKS\JUB\DESIGN\CAD\DWG\SHEET55-20-139_101X.DWG



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PRELIMINARY PLANS
NOT FOR CONSTRUCTION

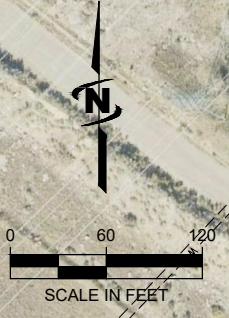
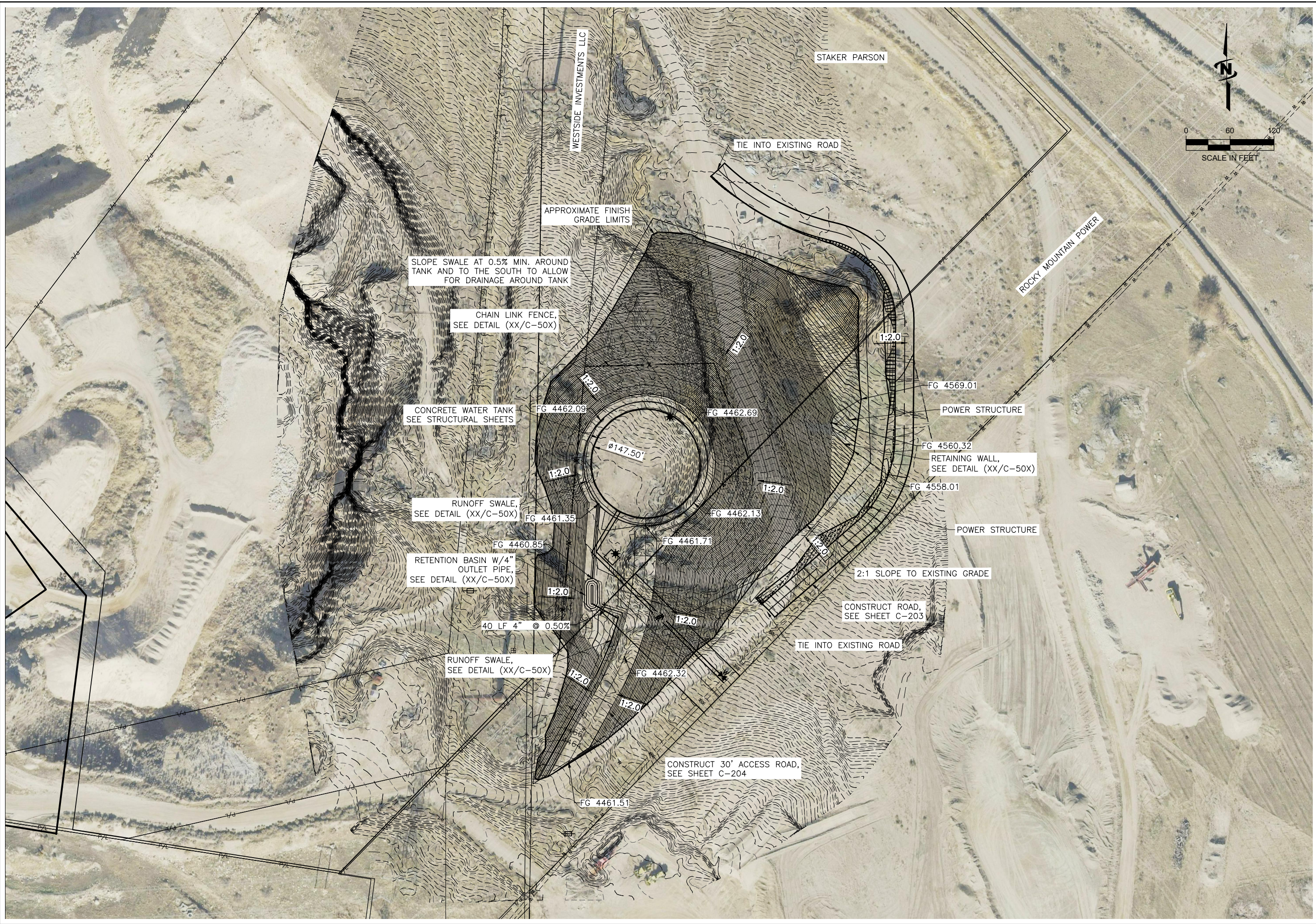
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NO.	REVISION	DESCRIPTION	BY	APPR.	DATE

HOT SPRINGS TANK
BONA VISTA WATER IMPROVEMENT DISTRICT
UTILITY PLAN

FILE: 55-20-139_101X
 JUB PROJ. #: 55-20-139
 DRAWN BY: DTJ
 DESIGN BY: GLS
 CHECKED BY: GLS
 AT FULL SIZE, IF NOT ONE INCH SCALE ACCORDINGLY
 LAST UPDATED: 1/24/2022
 SHEET NUMBER:
C-102

Plot Date: 1/24/2022 5:05 PM Plotted By: Daniel Johnson
 Date Created: 1/5/2022 JUB.COM\CENTRAL\Clients\UT\BONA VISTA\HOTSPRINGS TANK\STAGING\DESIGN\CAD\SHETS\55-20-139-103X.DWG



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 Phone: 801.547.0393
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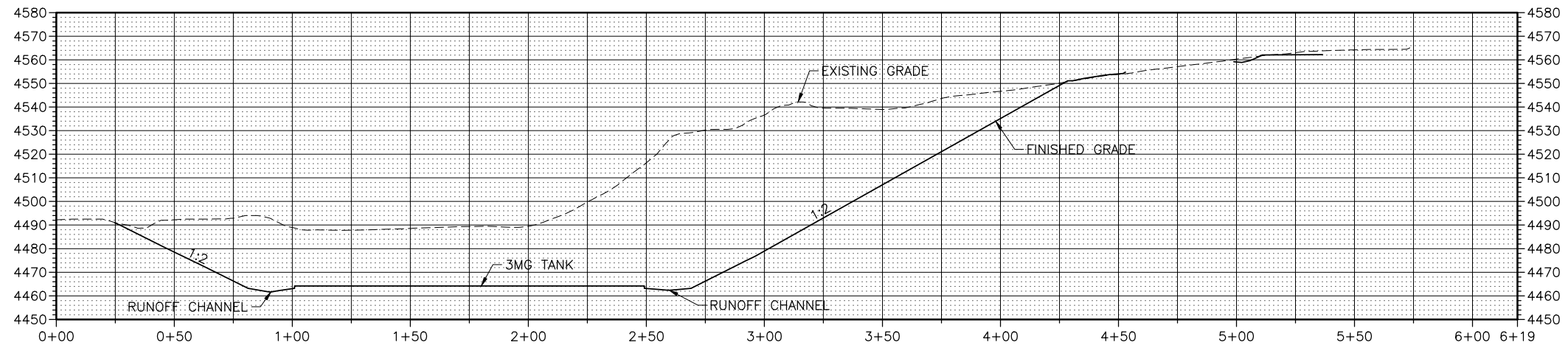
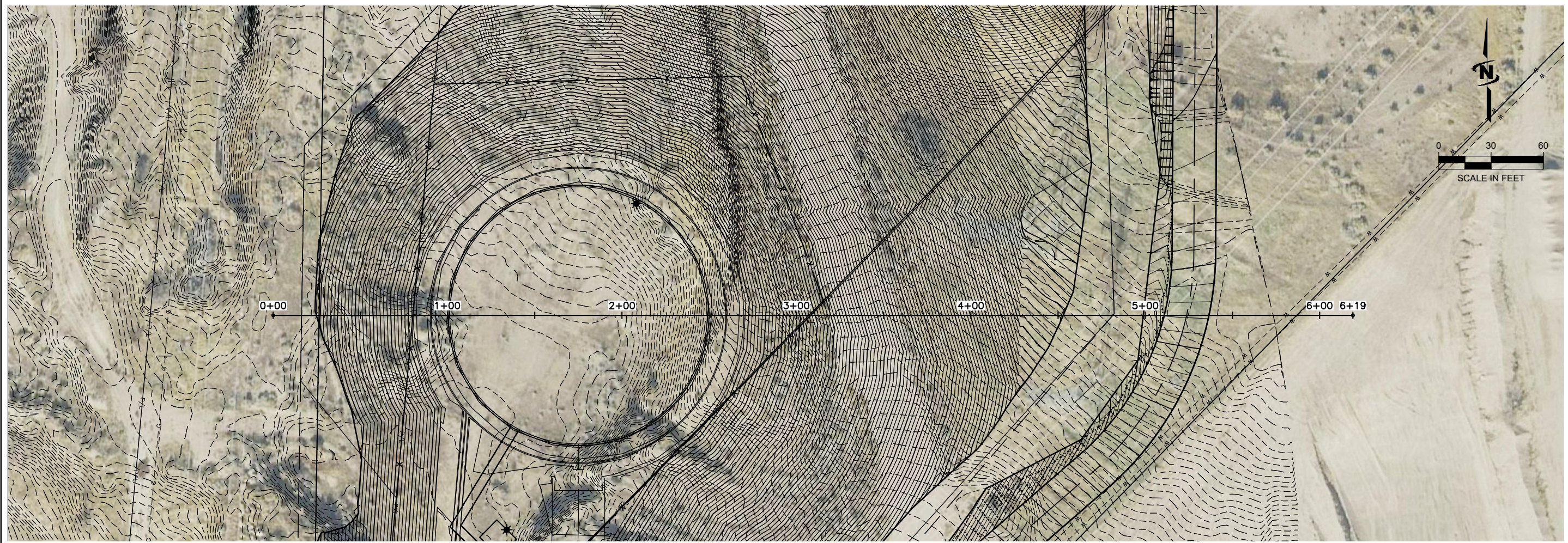
NO.	REVISION	DESCRIPTION	BY	APPR.	DATE

HOT SPRINGS TANK
BONA VISTA WATER IMPROVEMENT DISTRICT
GRADING PLAN

FILE: 55-20-139_103X
 JUB PROJ. #: 55-20-139
 DRAWN BY: DTJ
 DESIGN BY: GLS
 CHECKED BY: GLS

ONE INCH
 AT FULL SIZE, IF NOT ONE INCH SCALE ACCORDINGLY
 LAST UPDATED: 1/5/2022
 SHEET NUMBER:
C-103

Plot Date: 1/26/2022 5:05 PM Plotted By: Daniel Johnson
 Date Created: 1/5/2022 J:\B\CENTRAL\Clients\UT\BONA VISTA\HOTSPRINGS TANK\STAGING\DESIGN\CAD\SHETS\55-20-139-201X.DWG



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HOT SPRINGS TANK
 BONA VISTA WATER IMPROVEMENT DISTRICT

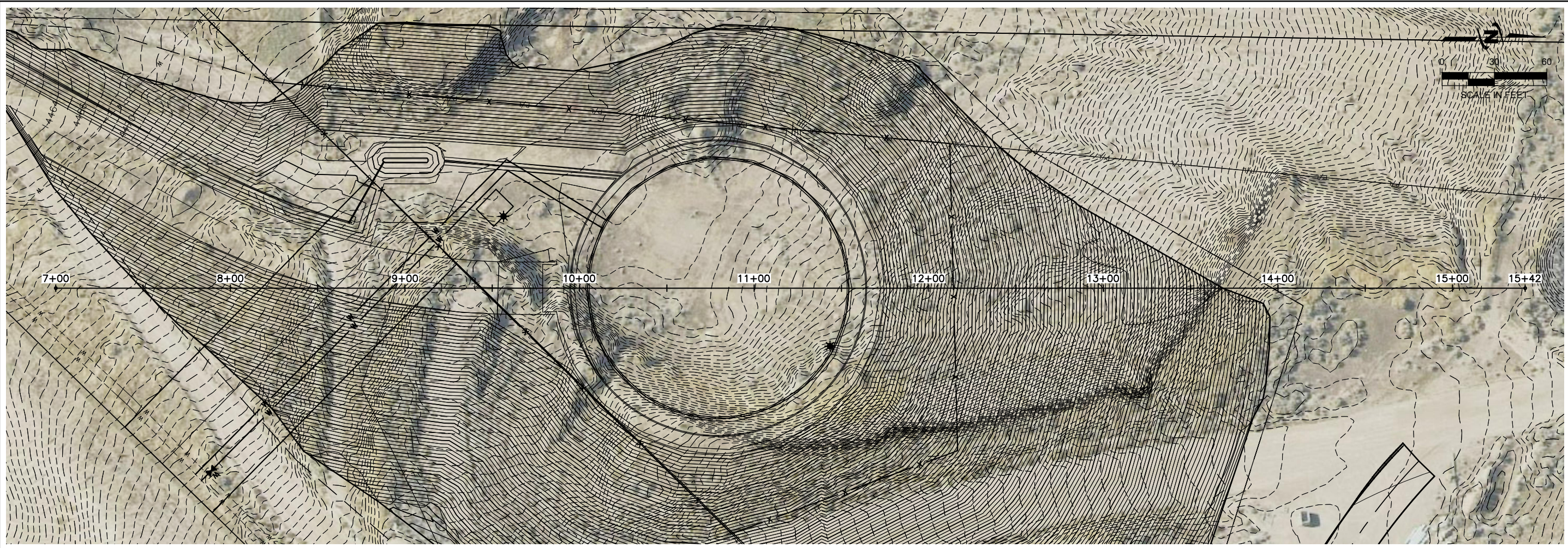
TANK
 PLAN AND PROFILE
 EAST/WEST

FILE: 55-20-139_201X
 JUB PROJ. #: 55-20-139
 DRAWN BY: DTJ
 DESIGN BY: GLS
 CHECKED BY: GLS

ONE INCH
 AT FULL SIZE, IF NOT ONE
 INCH, SCALE ACCORDINGLY

LAST UPDATED: 1/5/2022

SHEET NUMBER:
C-201



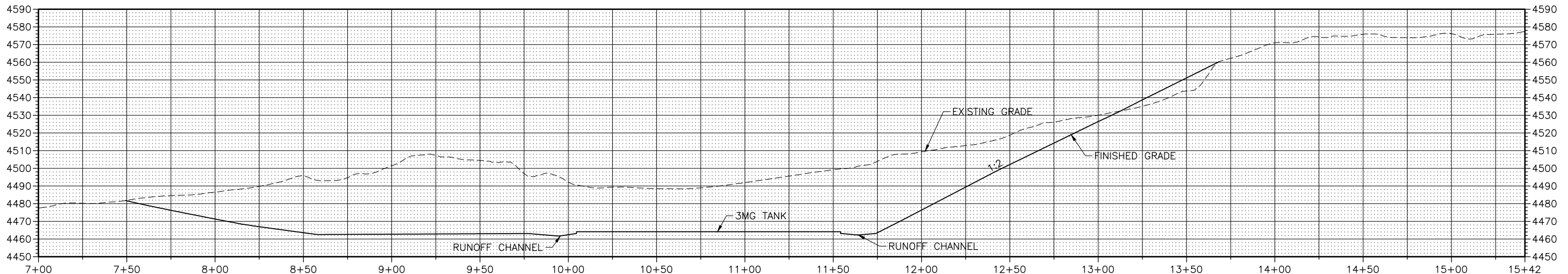
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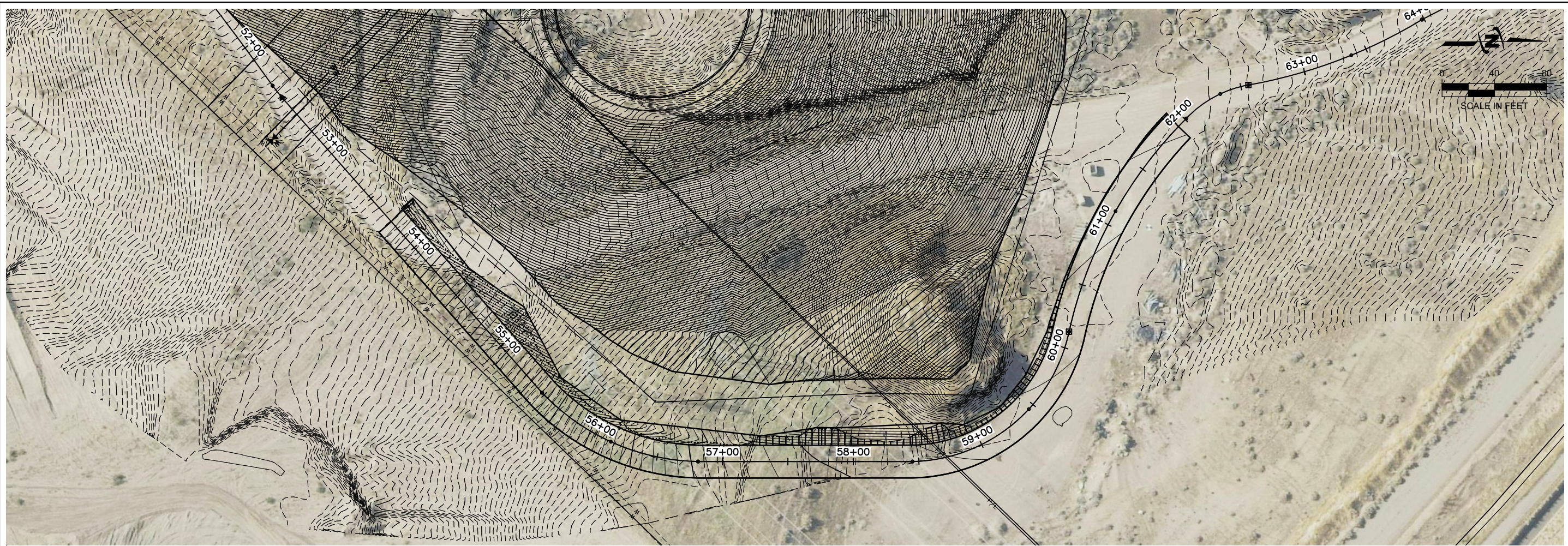
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Plot Date: 1/24/2022 5:05 PM Plotted By: Daniel Johnson
 Date Created: 1/5/2022 JUB\COM\CENTRAL\CALC\SI\BONA VISTA\HOTSPRINGS\TANK\STAN\TANK\DESIGN\CAD\SHETS\20-139-201X.DWG



**HOT SPRINGS TANK
 BONA VISTA WATER IMPROVEMENT DISTRICT**
**TANK
 PLAN AND PROFILE
 NORTH/SOUTH**

FILE: 55-20-139_201X
 JUB PROJ. #: 55-20-139
 DRAWN BY: DTJ
 DESIGN BY: GLS
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 AT FULL SIZE, IF NOT ONE
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 LAST UPDATED: 1/5/2022
 SHEET NUMBER:
C-202

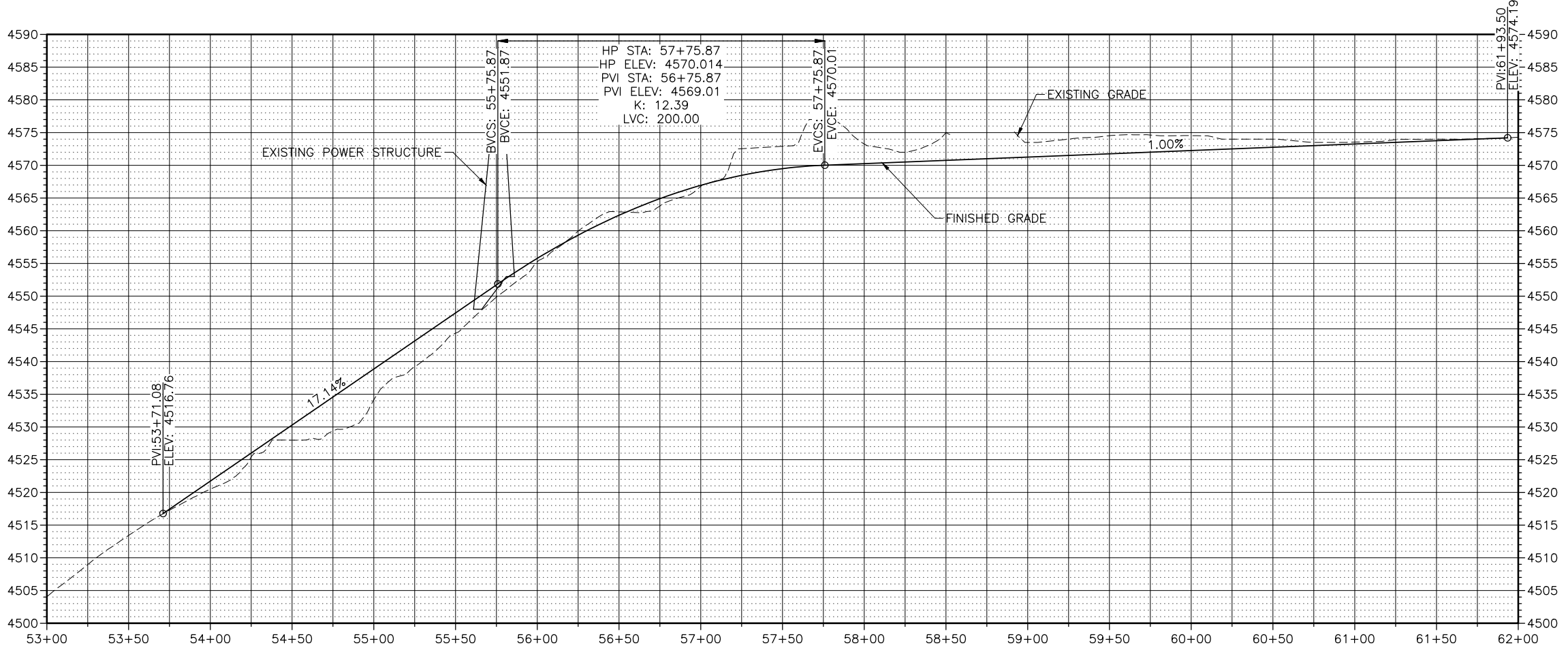


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**HOT SPRINGS TANK
 BONA VISTA WATER IMPROVEMENT DISTRICT**
 ROAD
 PLAN AND PROFILE

FILE: 55-20-139_201X
 JUB PROJ. #: 55-20-139
 DRAWN BY: DTJ
 DESIGN BY: GLS
 CHECKED BY: GLS
 AT FULL SIZE, IF NOT ONE INCH SCALE ACCORDINGLY
 LAST UPDATED: 1/5/2022
 SHEET NUMBER:
C-203

Plot Date: 1/26/2022 5:05 PM Plotted By: Daniel Johnson
 Date Created: 1/5/2022 JUB: C:\CENTRAL\CLIENTS\UT\BONA VISTA\HOTSPRINGS TANK\STAN\DESIGN\CAD\SHETS\20-139_201X.DWG

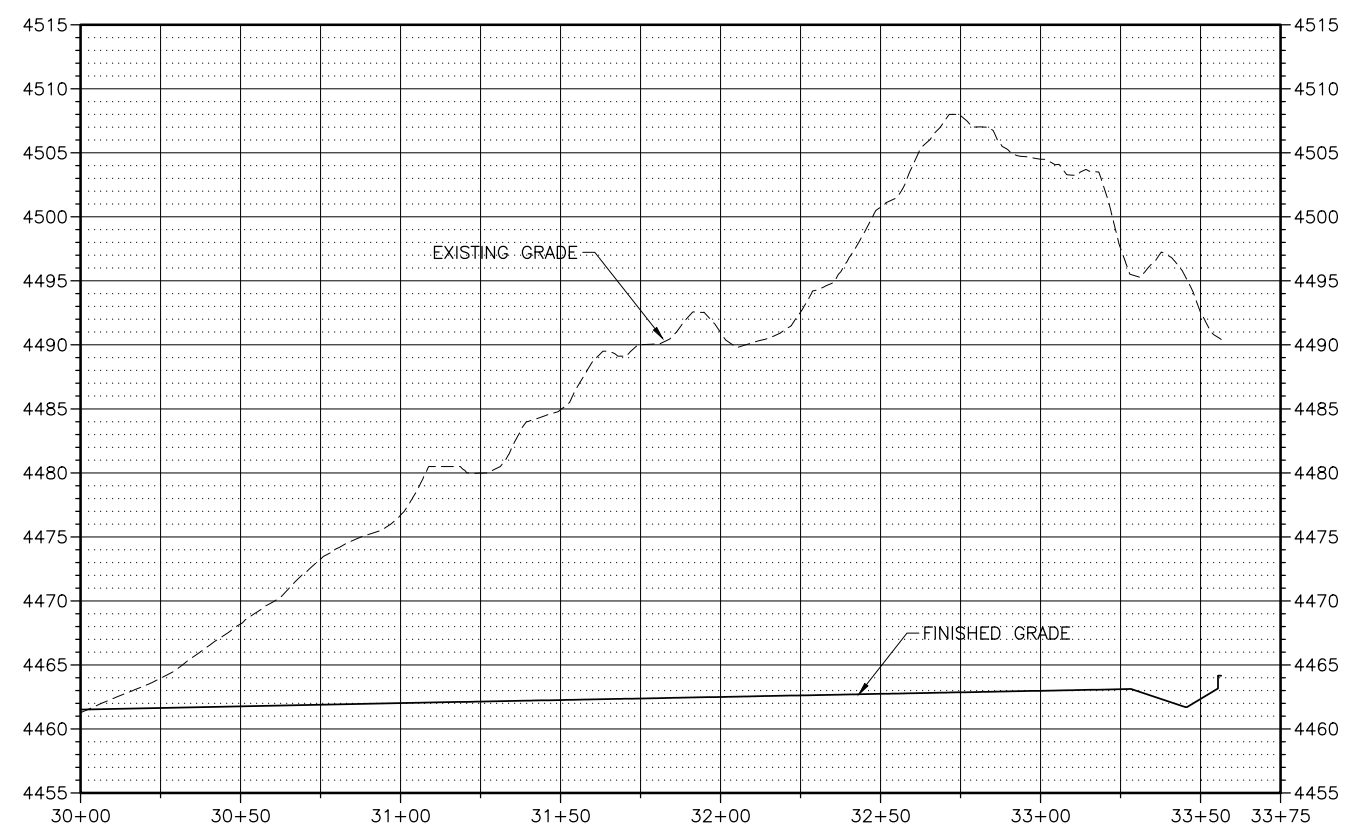


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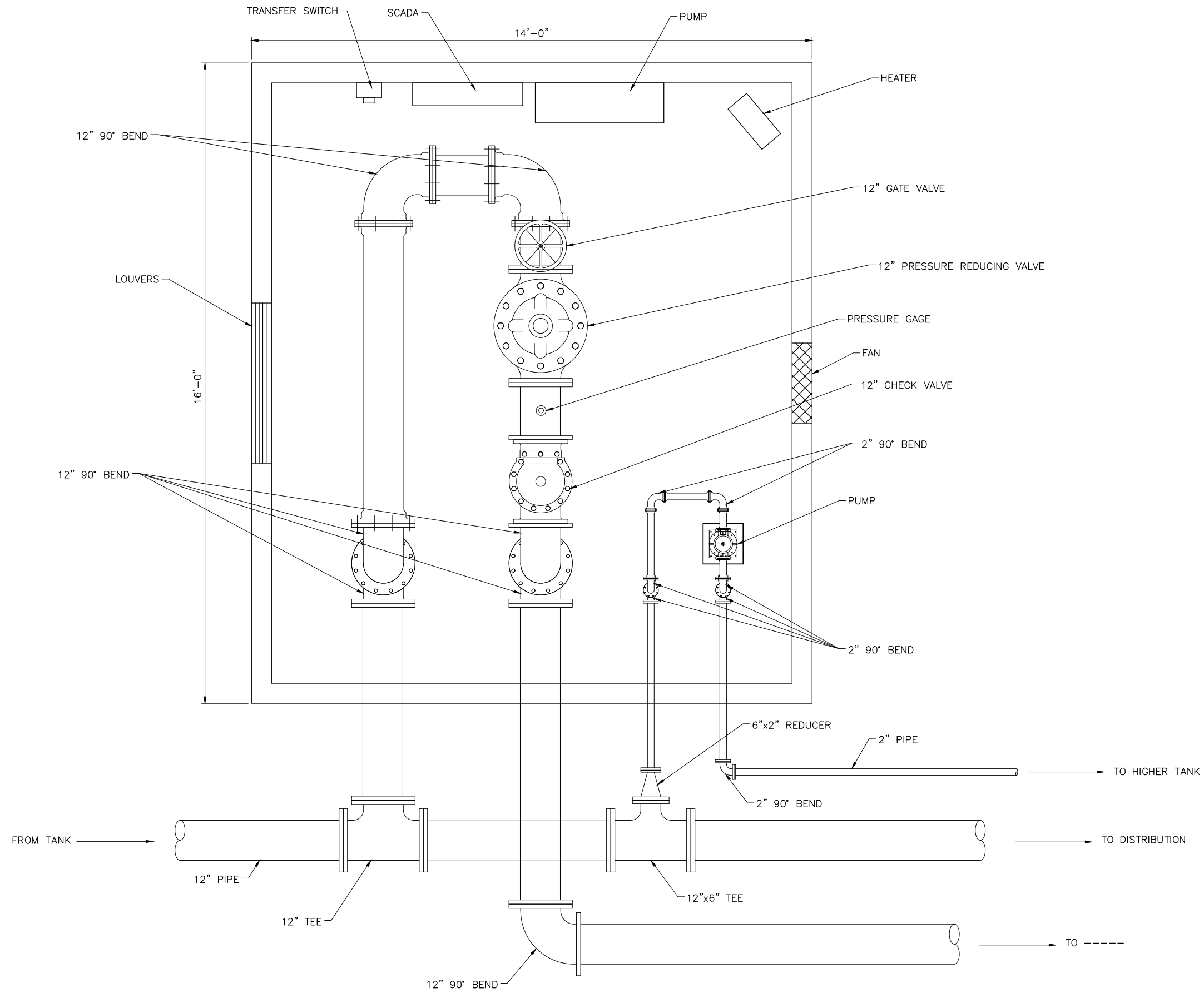


**HOT SPRINGS TANK
 BONA VISTA WATER IMPROVEMENT DISTRICT**
**ACCESS ROAD
 PLAN AND PROFILE**

FILE: 55-20-139_201X
 JUB PROJ. #: 55-20-139
 DRAWN BY: DTJ
 DESIGN BY: GLS
 CHECKED BY: GLS
 AT FULL SIZE, IF NOT ONE INCH SCALE ACCORDINGLY
 LAST UPDATED: 1/5/2022
 SHEET NUMBER:
C-204

Plot Date: 1/26/2022 5:05 PM Printed By: Daniel Johnson
 Date Created: 1/5/2022 JUB: C:\CENTRAL\CLIENTS\UT\BONA VISTA\HOT SPRINGS TANK\DESIGN\CAD\SHETS\55-20-139_201X.DWG

Plot Date: 11/24/2022 3:07 PM Plotted By: Daniel Johnson
 Date Created: 11/22/2021 JUB: C:\CENTRAL\CLIENTS\UT\BONA VISTA\HOTSPRINGS TANK\STANSTING\DESIGN\CAD\SHETS\55-20-139_M-101X.DWG



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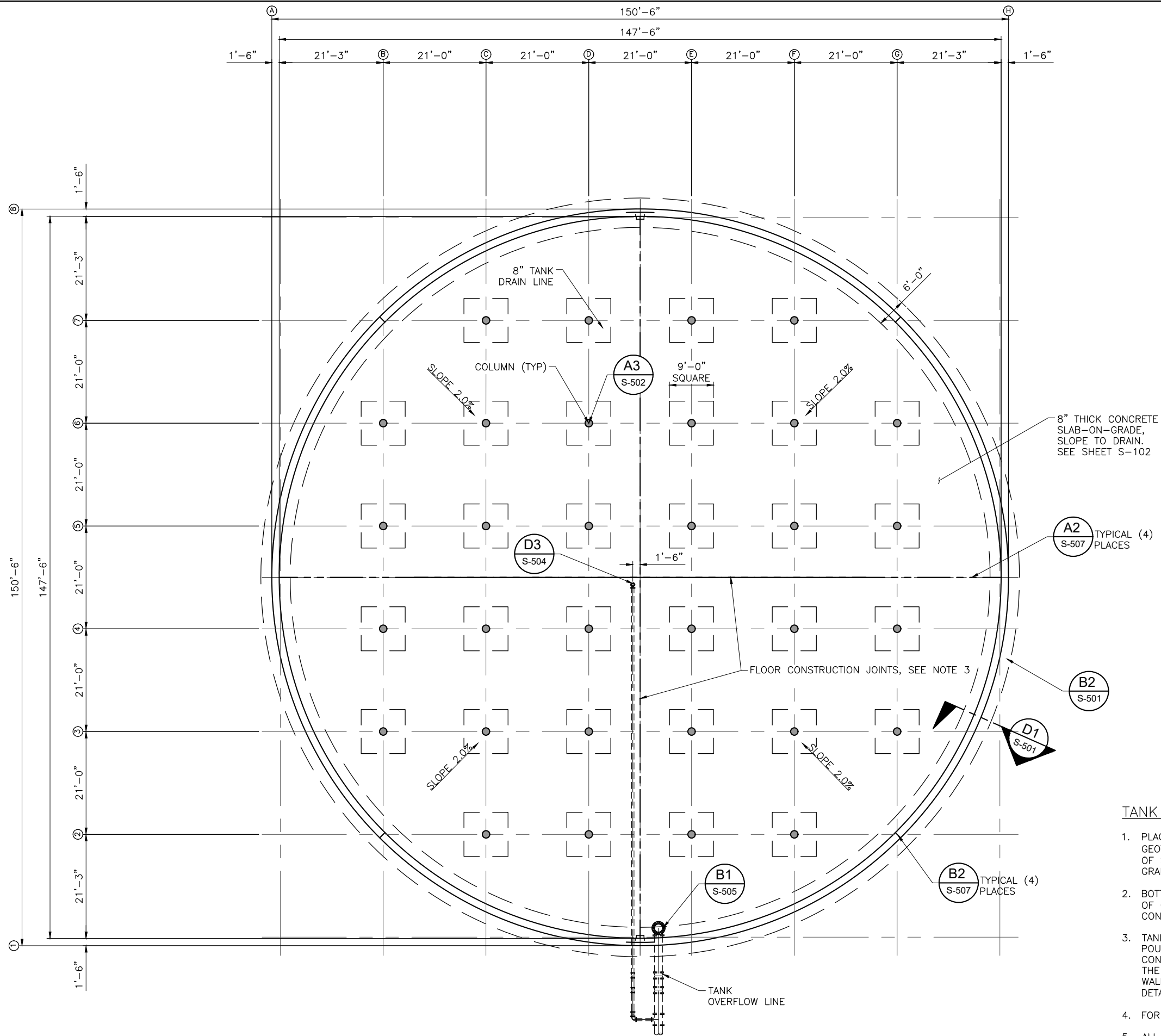
HOT SPRINGS TANK
 BONA VISTA WATER IMPROVEMENT DISTRICT

PUMP HOUSE

FILE: 55-20-139_M-101X
 JUB PROJ. #: 55-20-139
 DRAWN BY: DTJ
 DESIGN BY: GLS
 CHECKED BY: GLS
 AT FULL SIZE, IF NOT ONE
 INCH SCALE ACCORDINGLY
 LAST UPDATED: 11/2/2021
 SHEET NUMBER:
M-101

Plot Date: 1/24/2022 3:07 PM Printed By: Daniel Johnson
 Date Created: 1/14/2022 JUB.COM\CENTRAL\CLIENTS\01\BONA VISTA\HOTSPRINGS\TANK\STANSTING\DESIGN\CAD\DWG\S-101X.DWG

TANK FOUNDATION PLAN
SCALE: 1/8" = 1'-0"



TANK FLOOR AND FOOTING NOTES:

- PLACE 6" MIN. OF FREE DRAINING GRANULAR MATERIAL AND GEOTEXTILE FABRIC BENEATH ENTIRE FOUNDATION OVER 24" OF STRUCTURAL FILL. SEE SHEETS C-601 AND S-301. GRADATION PER SPECIFICATIONS.
- BOTTOM BARS SHALL BE 3" MINIMUM CLEAR FROM BOTTOM OF CONCRETE. CENTER SLAB ON GRADE REINFORCING IN CONCRETE SLAB ON GRADE.
- TANK FLOOR IS TO BE PLACED IN A MINIMUM OF FOUR POURS. IF CONSTRUCTION JOINT LOCATIONS ARE MODIFIED CONSTRUCTION JOINT LOCATIONS SHALL BE APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION. SEE THE TANK WALL FOOTING AND FLOOR SLAB CONSTRUCTION JOINT DETAIL. (A2/S-507)
- FOR PIPING SEE SHEETS M-101, C-202, AND C-203.
- ALL SURFACES, PIPING, MISCELLANEOUS METAL FABRICATIONS, AND RELATED COMPONENTS WITHIN THE TANK INTERIOR, OR IN CONTACT WITH WATER, SHALL BE NSF 61 APPROVED.



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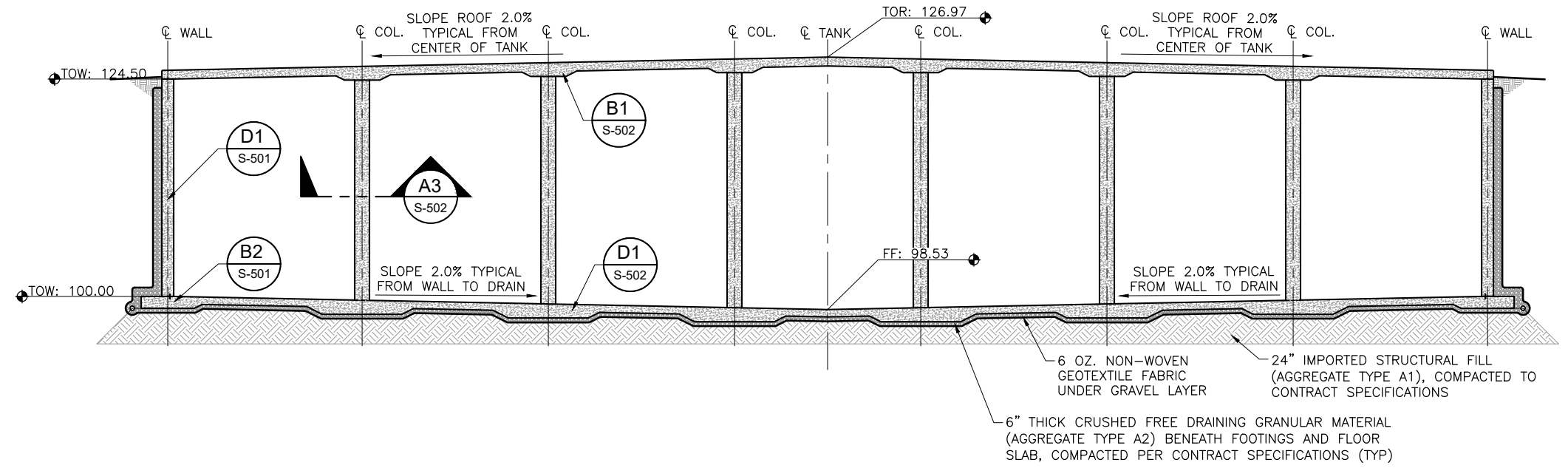
NO.	REVISION	DESCRIPTION	BY	DATE

HOT SPRINGS TANK
BONA VISTA WATER IMPROVEMENT DISTRICT

TANK FOUNDATION PLAN

FILE: 55-20-139_S-101X
JUB PROJ. #: 55-20-139
DRAWN BY: BS/ELC
DESIGN BY: ELC
CHECKED BY: AWB
AT FULL SIZE, IF NOT ONE INCH SCALE ACCORDINGLY
LAST UPDATED: 1/14/2022
SHEET NUMBER:

S-101



B1 TYPICAL TANK SECTION
 SCALE: 1/8" = 1'-0"

NOTE:
 VIEW SHOWN IS FOR A COLUMN STRIP SECTION ADJACENT TO THE TANK CENTERLINE PARALLEL WITH TANK PIPING. OTHER COLUMN STRIP SECTIONS ARE SIMILAR.

PRELIMINARY PLANS

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HOT SPRINGS TANK
 BONA VISTA WATER IMPROVEMENT DISTRICT

TYPICAL TANK SECTION

FILE: 55-20-139_S-101X
 JUB PROJ. #: 55-20-139
 DRAWN BY: BS/ELC
 DESIGN BY: ELC
 CHECKED BY: AWB

ONE INCH
 AT FULL SIZE. IF NOT ONE INCH SCALE ACCORDINGLY

LAST UPDATED: 1/4/2022

SHEET NUMBER:
S-301

PLANTING NOTES

- The Contractor shall be familiar with the planting and irrigation technical specifications -- failure to do so will not relieve the contractor of his responsibility to fulfill all requirements in said specifications.
- Prior to any planting operations, the irrigation system shall be fully operational and all planting areas shall be thoroughly moistened.
- The planting plan is diagrammatic, and all plant locations are approximate. Plant symbols take precedence over plant quantities shown on the plans and in the Plant Material Schedule. The Contractor shall verify all plant quantities and notify the Landscape Architect of any discrepancies between the quantities and the symbols shown. The Plant Materials Schedule is for the Contractor's convenience only.
- No substitution of size, grade, variety or any species shall be permitted except by written permission of the Landscape Architect. Upon receiving Notice to Proceed, the Contractor shall provide written proof that the specified plant material is available and has been secured or reserved specifically for this project. Obtain nursery stock and other plant materials from reliable and stable sources prior to order and delivery.
- Final Grade Preparation
 - The subgrade Material Shall be rough graded to plus or minus one tenth (+0.1) foot of the final rough grade, which will allow the Contractor to achieve final finished grade through the placement of the topsoil.
 - Protect existing trees, shrubs, lawns, existing structures, fences, roads, sidewalks, paving, curb and gutter and other features during Construction.
 - Protect above or below grade utilities. Contact utility companies to repair damage to utilities. Contractor shall pay all cost of repairs which he causes.
 - Maintain all benchmarks, control monuments and stakes, whether newly established by surveyor or previously existing. Protect from damage and dislocation.
 - Grading Intent: Spot elevations and contours indicated are based on the best available data. The intent is to maintain constant slopes between spot elevations.
 - Conduct work in an orderly manner. Do not create a nuisance. Do not permit soil accumulation on streets or sidewalks. Do not allow soil to be washed into sewers and storm drains.
 - Grade slopes to provide adequate drainage after compaction. Do not create water pockets or ridges. Use all means necessary to prevent erosion of freshly graded areas during construction until surfaces have been constructed and landscaping areas have taken hold.
 - Grades shall be smooth, even, and maintain a consistent uniform slope. Grades with undulating surfaces will be rejected and require re-grading.
 - The Contractor shall maintain a minimum of two (2) percent drainage away from all buildings, structures, and walls. Finished grades shall be smoothed to eliminate puddling or standing water.
 - All finished grades shall be approved by the Landscape Architect prior to installation of any plant materials.
- All planting areas shall receive a minimum of four (4) inches of imported topsoil in turf areas and twelve (12) inches in planting beds. All topsoil used on this project shall meet the following criteria:
 - pH:.....5.5 - 8.0
 - EC (electrical conductivity):.....<2.0 mmhos per centimeter
 - SAR (sodium absorption ratio):.....<3.0
 - % OM (percent organic matter):.....2%
 - Texture (particle size per USDA classification):
 - Sand:.....<70%
 - Silt:.....<70%
 - Clay:.....<30%
 - Stone Fragments (gravels or any soil particle Greater than two (2) mm in size):.....<5% (by volume)
 - Rocks > 1.5":.....None
 In addition, the topsoil shall be fertile, friable, natural loam and shall be capable of sustaining vigorous plant growth. It shall be free of stones, lumps, clods of hard earth, plants or their roots, sticks, and other extraneous matter. The topsoil shall contain neither noxious weeds nor their seeds. It shall not be used for planting operations while in a frozen or muddy condition. An appropriate fertilizer may be used to provide needed nutrients for healthy and vigorous plant growth. Follow recommendation of topsoil report.
- The following procedure shall be followed in placing all topsoil:
 - All areas to receive topsoil which have a slope of less than ten (10) percent shall be cross-rippled to a depth of four (4) to six (6) inches.
 - The surface of the subgrade shall be scarified to a depth of two (2) inches to provide a transition zone between the subgrade and the topsoil. Place the topsoil on the subgrade and fine grade to the final finished grade and topsoil depths as indicated on the drawings and in these notes.
 - Any required soil amendments (i.e. organic matter, fertilizer, gypsum, etc.) shall be placed directly on the topsoil at the required rates and spread evenly over the planting area. The amendments shall then be thoroughly blended into the topsoil to a depth of four (4) inches. Where only a dry, granular fertilizer is to be added, it may be applied to the surface and raked in during the fine grading process.
- The Contractor shall obtain a soil analysis from any authorized soil testing agency of any existing stockpiled or imported topsoil to be used on the project to verify that it conforms to the topsoil specifications. Test results shall include horticultural nutrient recommendations. The soil samples shall be obtained per the testing agency directions. Allow ten (10) working days to obtain test results. The costs for such testing shall be the responsibility of the Contractor. Prior to delivery of the imported topsoil to the site, the Contractor shall provide to the Landscape Architect the name and location of the topsoil source, along with the certified soil analysis of the topsoil to be used. The analysis shall verify that the proposed topsoil meets the topsoil specifications, and is capable of supporting healthy plant growth.
- After imported top soil has been delivered to the site, a second soils test may be

- required to verify that it is indeed the same soil as previously tested and designated for use in this project. No substitution of top soil shall be allowed without prior written authorization from the Landscape Architect.
- All plants used for this project shall conform to the following:
 - Any inspection certificates required by law shall accompany each delivery of plants and such certificate shall be filed with the Landscape Architect. All plants shall be subject to inspection and approval at the place of growth or upon delivery to the site for their quality, size, species, and variety. Such approval shall not impair the right of inspection and rejection at the site or during progress of work for size and condition of the plants, latent defects, or injuries. Any and all rejected plants shall be removed immediately from the premises by the Contractor. The Contractor shall make all replacements at his expense should he fail to comply in full with any of the specifications. Necessary replacements will be made as soon as weather conditions permit and all such plants replaced shall conform to all specifications herein.
 - Plants shall be fresh and vigorous, of normal habit and growth, and free of disease, insects and insect eggs and insect larvae, weeds and weed seed. No leaved-in plants from cold storage shall be accepted except on approval by the Landscape Architect prior to installation.
 - All plants shall be installed using the following procedures:
 - Plants shall be generally located as indicated by the drawing. The Contractor shall stake out the location of all plants and planting areas, and no excavation or installation shall commence until such locations have been approved by the Landscape Architect.
 - All trees and shrubs shall be planted in pits as detailed in the planting details contained herein or as noted on the drawings. Tree and shrub pits shall be circular in outline, with 45° angled sides and the base diameter of the plant pit at least two (2) times the diameter of the rootball of each plant to be installed. They shall be one to two and one half (1 - 2 1/2) inches shallower than the rootball depth. When the plant is properly placed in the plant pit, the root collar shall be at or approximately one (1) inch above finished grade. The sides of the plant pit shall be roughened, and not smooth or sculpted.
 - Plant backfill mix shall be one hundred (100) percent native site soil.
 - For container grown plants, remove the container and place the plant vertically in the plant pit, directly on undisturbed soil. The root crown or collar shall be at or approximately one (1) inch above the finished grade. Perennial plants and ornamental grasses shall be planted with root collar at finished grade.
 - For balled and burlapped plants, place the plant vertically in the center of the pit, with the rootball resting on undisturbed soil. Cut and remove the wire basket and burlap or other wrapping material from the rootball. This may be done with the rootball in the pit. Any burlap or wire pieces underneath the rootball may be left in place if they cannot be removed. Do not fold the burlap over, but cut away as much as possible without disturbing the rootball. No burlap shall be pulled from under the rootball. Backfill the bottom one third (1/3) of the pit as the wire and burlap are removed. In all cases, maintain the integrity of the rootball.
 - Specified backfill material shall be carefully and firmly worked and tamped under and around the rootball to fill all voids. When backfilled and compacted to two thirds (2/3) the depth of the pit, thoroughly water with a hose to completely soak the roots and remove any air pockets.
 - The plant pit shall then be completely backfilled with the specified backfill mix and tamped well. A shallow watering basin or rain cup shall be formed around each plant. This basin will be equal in diameter to that of the original planting pit.
 - After planting, the following operations shall be performed:
 - Stake and mulch all trees per installation details.
 - Remove all nursery stakes ties, and tags from all plants. Prune and remove any dead, damaged, or broken branches. Maintain side growth on all trees.
 - Staking shall be performed as follows:
 - Two (2) 2"x 2" square or 2" diameter round wood stakes, minimum ten (10) feet in length, shall be used to support each tree planted under this contract unless otherwise indicated. Metal t-posts shall not be used.
 - Tree ties shall conform to the staking detail shown on the planting detail sheet. Wire and vinyl hose shall not be used.
 - Each stake shall be located adjacent to the rootball, on opposing sides, to provide maximum support to the trunk. Do not penetrate the rootball with the stake.
 - The stakes shall be driven into the pit bottom after the tree has been placed in the pit, but before backfilling begins so as to avoid damage to the roots.
 - Stakes and ties shall be removed after one (1) full growing season from the time the tree was installed.
 - All plants shall be thoroughly watered immediately after planting. This shall mean full and thorough saturation of all backfill in the pits and beds during the same day of planting. Water shall be applied only by open end hose at very low pressure to avoid air pockets, injury to the plant, or washing away of backfill. When installed, watered, and fully settled, the plants shall be vertical. Subsequent watering shall be provided by the site's irrigation system. The Contractor shall insure that all plants, especially trees, receive sufficient water to maintain healthy growth and vigor. Over-watering shall be avoided, and prolonged saturation of the soil around the trees shall be eliminated by appropriately controlling the irrigation circuit which provides water to that area.
 - A weed barrier fabric shall be placed in all planting beds to prevent the growth and spread of unwanted vegetation. The fabric shall be Typar #3301B or approved equal.
 - Mulch (see plant materials schedule and specifications for size requirements) shall be placed to a depth of three (3) inches on top of the topsoil in all planting beds and over tree planting pits. The finished grade of the mulch shall be as follows:
 - Two (2) inches below the surface or finished grade of any paving, mowstrips, or walks adjacent to the planting area.
 - One (1) inch below top of metal edging.
 - At adjacent finished grade of the turf surrounding tree planting pits.
 - In tree pits, the mulch shall be kept six (6) inches away from the base of the tree.
 - Just prior to placement of the mulch, the Contractor shall treat the mulched areas with a pre-emergent herbicide according to the manufacturer's recommendations.
 - For projects with turf grass sod, all sod used for this project shall be free of grassy and broad-leaf weeds, contain no bare or burned spots, and be clean and strongly

- rooted. It shall be of the varieties noted in the plans and Plant Material Schedule. The sod shall be cut using approved methods and equipment. It shall be cut in pieces not exceeding one (1) square yard, with a uniform thickness on all pieces. Sod thickness may vary between a minimum of one (1) inch and maximum one and one half (1 1/2) inches, but must be consistent throughout this project. The Contractor shall notify the Landscape Architect of the source of the sod prior to placement. The sod shall be stripped and delivered to the site not more than twenty four (24) hours prior to laying. It shall be maintained in a moist and healthy condition to encourage immediate growth.
- The following procedure shall be followed when installing the sod:
 - Lay the sod on smooth, moist topsoil, working off planks if required.
 - Rake the topsoil to loosen and level prior to placing each course of sod.
 - Lay strips perpendicular to the direction of the slope. Strips shall be parallel to each other, with their end seams staggered. The sod shall be neither stretched nor overlapped, and all joints shall be butted tightly together.
 - Roll the sod immediately after placing and thoroughly water with a fine spray to a depth sufficient that the underside of the new sod and the soil immediately below the sod are thoroughly wet.
 - On slopes two (2) horizontal to one (1) vertical or steeper, lay the sod perpendicular to the slope and secure every row with wooden pegs at two (2) feet maximum on center. Drive the pegs flush with the soil portion of the sod.
 - Sod pieces shall be laid tightly together. Sod areas with gaps caused by pieces not being laid tightly enough together or areas with ridges from overlapping pieces shall not be accepted and the Contractor will be required to re-lay the sod.
 - For projects with turf grass seed, hydroseeding shall conform to the following general standards:
 - Wood fiber mulch shall be Echofiber or Conwed or equal, that is virgin wood fiber, free of growth--or germination--inhibiting substances. The mulch shall be air dried with not more than fifteen (15) percent moisture by weight. The total organic weight shall be a minimum of ninety eight (98) percent. Inorganic ash content shall be 0.7±0.2 percent. Water holding capacity shall be 1000G/100G (oven dried weight). The pH range shall be 4.0 - 6.0. The fiber length shall meet the following:
 - Fifty (50) percent shall be at least 0.15 inches in length or longer.
 - Fifty (50) percent shall be retained on the twenty eight (28) mesh screen.
 - The seed mix shall be as specified on the plans. Provide written certification that the seed conforms to Utah seed law and is in compliance with Utah State Department of Agriculture regulations.
 - The tackifier shall be M-Binder or Plantego or equal.
 - Application rates shall be as follows:
 - Wood fiber mulch..... 50 pounds (min.)/1,000 SF
 - Seed mix (see plans).....(7 pounds/1,000 SF typ.)
 - Tackifier..... 100 pounds/Acre
 - Fertilizer..... 7 - 8 pounds/1,000 SF
 - Water.....92 gallons/1,000 SF
 - One-step preparation and application of hydroseed mulch shall be as follows:
 - The wood fiber mulch, seed, tackifier, fertilizer, and water shall be mixed together in a hydroseeding machine having a capacity of at least two thousand (2,000) gallons to allow for homogeneous slurry which is thoroughly mixed and can be applied easily without clogging. The machine shall be mounted on a traveling unit which is either self-propelled or drawn by a separate unit. Equipment used in the hydroseeding process shall be thoroughly cleaned of all seed and other materials used in any previous hydroseeding process, prior to hydroseeding on this project.
 - The equipment shall have a built in agitation system and operating capacity sufficient to agitate, suspend, and homogeneously mix a slurry containing not less than fifty (50) pounds of organic mulching amendment plus chemical additives and solids for each one hundred (100) gallons of water.
 - The slurry shall be prepared at the site and its components shall be mixed to supply the rates of application as specified. The slurry preparation shall begin by adding water to the tank when the engine is at one half (1/2) throttle. The engine throttle shall be open to full speed when the tank is one half (1/2) filled with water. All organic amendments, fiber, and chemicals shall then be added by the time the tank is two thirds (2/3) to three fourths (3/4) full. At this time and not before, the seed mix shall also be added. Spraying shall commence immediately when the tank is full and the slurry is mixed.
 - Apply the hydroseed to form even appearing cover over the required areas. The slurry shall be applied in a downward drilling motion via a fan stream nozzle. It is important to ensure that all of the components enter and mix with the soil. Use only qualified and trained personnel to insure uniformity of the hydroseed applications.
 - The hydroseeding slurry components shall not be left in the hydroseed machine for more than two (2) hours in order to avoid seed deterioration.
 - Throughout the course of planting, excess and waste materials as well as excavated subsoil shall be continuously and promptly removed. All areas shall be kept clear and all reasonable precautions taken to avoid damage to existing structures, plants, and grass. When planting has been completed in an area, it shall be thoroughly cleaned of all debris, rubbish, subsoil, and waste materials. These shall be removed from the property and disposed of legally. All planting tools shall also be put away.

(NOTES CONTINUED)



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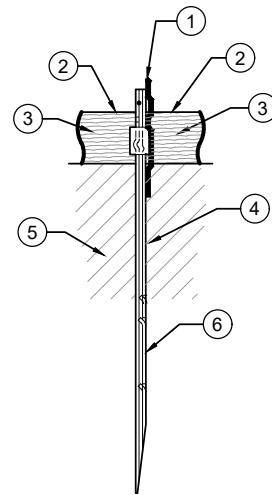
HOT SPRINGS TANK
BONA VISTA WATER IMPROVEMENT DISTRICT
LANDSCAPE NOTES

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JUB PROJ. #: 55-20-139
DRAWN BY: MMC
DESIGN BY: MMC
CHECKED BY: AJN
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LAST UPDATED: 1/18/2022
SHEET NUMBER: LP-001

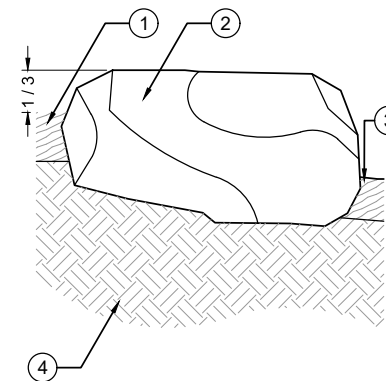
Plot Date: 1/18/2022 5:05 PM
 Printed By: Daniel Johnson
 Date Created: 1/18/2022
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PLANTING NOTES (CONTINUED)

21. Substantial Completion shall be defined as the complete installation of all plant materials, staking, mulching, and other work on the project in its entirety. Substantial completion shall not be given on designated portions of a project.
- At substantial completion of all planting work outlined in these plans, the Contractor shall contact the Landscape Architect to arrange for a walk through to verify that all aspects of the work have been completed. Work must be fully completed (except for final clean-up) according to all plans, notes, and specifications and exhibit professional workmanship.
 - Notice by the Contractor shall be given, in writing, at least three (3) days in advance to the Owner's Representative and Landscape Architect so that proper scheduling can be made for those who are to attend.
 - At the appointed time, an inspection of all plant materials, including staking and mulching, shall be made.
 - A list of uncompleted items (punch list) shall be generated by the Landscape Architect and distributed to the Contractor and other involved parties within three (3) days of the substantial completion inspection. Each item on the punch list shall be corrected before the project will be approved and accepted by the Owner's representative. The Contractor will be back charged for time spent by the Owner and any consultants who have been brought to the site for a final inspection when the project is not ready for said inspection.
22. The maintenance/establishment period shall begin one (1) day after the substantial completion inspection. The Contractor shall complete all punch list items during this period, as well as maintain and operate the entire irrigation system. The Contractor shall maintain all plantings until the turf is fully established. The turf shall be considered fully established when turf grass stands come in uniform and thick, with no bare or thin spots, and roots have begun to spread and knit together. No weeds shall be allowed in the grass areas. This shall be a minimum period of sixty (60) days. If winter weather interrupts the maintenance period, the maintenance period shall be suspended and the balance of the time shall be carried over to the next growing season and completed then. The Owner and Contractor shall mutually determine when the maintenance period is suspended and when it starts up again. The maintenance work required shall include but not be limited to the following:
- Appropriate watering of all plant materials.
 - Weeding and removal of all weeds from groundcover and planting areas.
 - Replacement of any dead, dying, or damaged trees, shrubs, perennials, or groundcover.
 - Filling and replanting of any low areas which may cause standing water.
 - Adjusting of sprinkler head heights and watering patterns.
 - Filling and re-compaction of eroded areas, along with any required re-seeding and/or replanting.
 - The turf grass shall be mowed when the blades reach three (3) inches tall and maintained to a minimum height of two (2) inches. No more than one third (1/3) of the blade shall be removed per cutting. The cutting frequency shall be once every five (5) to seven (7) days depending upon turf grass height and growth rate.
 - Weekly removal of all trash, litter, clippings, and all foreign debris.
 - At thirty (30) days after planting, a balanced fertilizer (16-16-16) shall be applied to the turf grass areas at a rate of one half (1/2) pound of nitrogen per one thousand (1,000) square feet.
 - At intervals of thirty (30) days after the first application of fertilizer to the turf grass, apply a balanced fertilizer (16-16-16) at a rate of one half (1/2) pound of nitrogen per one thousand (1,000) square feet until the turf grass is established.
23. A final inspection shall be held prior to the end of the maintenance period to insure that all punch list items have been completed and the entire project is ready for acceptance by the Owner. Upon satisfaction that the Contractor has completed all punch list items, the irrigation system is fully and completely functional, and the required As-Built drawings, manuals and maintenance manuals have been submitted, the Owner shall accept the project. An official letter of final acceptance shall be prepared and issued to the Contractor, Landscape Architect, and the Owner's representative. Upon final acceptance of the project by the Owner's representative, the Owner shall assume full responsibility for the project, and the guarantee period shall begin.
24. Upon final acceptance of the project as being properly installed, the Contractor shall guarantee the plant materials as follows:
- All shrubs and groundcovers shall be guaranteed by the Contractor as to growth and health for a period of sixty (60) days after completion of the maintenance period and final acceptance.
 - All trees shall be guaranteed by the Contractor to live and grow in an acceptable upright position for a period of one (1) year after completion of the maintenance period and final acceptance.
25. The Contractor shall, within fifteen (15) days after receiving written notification by Owner's representative, remove and replace all guaranteed plant materials which die or become unhealthy or appear to be in a badly impaired condition at any time during the guarantee period. Any plants that settle below or rise above the desired finished grade shall also be reset to the proper grade.
- All replacements shall be plants of the same kind, size, and quality as originally specified in the "plant list" and they shall be furnished, planted, staked, and maintained as specified herein at no additional cost.
 - The Contractor will not be responsible for plants destroyed or lost due to occupancy of the project, vandalism on the part of others, or improper maintenance or lack thereof.



- METAL EDGING
- FINISH GRADE OF MULCH 2" BELOW TOP OF EDGING
- MULCH - SEE PLANNT MATERIAL SCHEDULE FOR TYPE AND SIZE
- COMPACT GRADES ADJACENT TO EDGING TO AVOID SETTLING
- TOPSOIL - SEE NOTES AND SPECIFICATIONS FOR TYPE AND DEPTH
- 12" STAKES @ 4' O.C. (TYP.)



- BACKFILL BEHIND BOULDER
- PLACE BOULDER ON COMPACTED SUBGRADE
- TOPSOIL/MULCH PER PLANS
- COMPACTED SUBGRADE

- NOTES:
- BOULDER LOCATIONS TO BE APPROVED BY OWNER OR LANDSCAPE ARCHITECT.
 - INSTALL SO ROUGHLY 1/3 OF BOULDER IS BURIED SO AS TO APPEAR NATURAL/NATIVE TO THE LANDSCAPE

1 LANDSCAPE METAL EDGING-ROCK MULCH NTS

2 LANDSCAPE BOULDER NTS

CABIN GRASS MIX		
COMMON NAME	BOTANICAL NAME	QUANTITY LBS/ACRE
MOUNTAIN BROMEGRASS	BROMUS MARGINATED	6 PLS LBS
SLENDER WHEATGRASS	ELYMUS TRACHYCAULUS SSP. TRACHYCAULUS	5 PLS LBS
WESTERN WHEATGRASS	PASCOPYRUM SMITHII	4 PLS LBS
IDAHO FESCUE	FESTUCA IDAHOENSIS	2 PLS LBS
BEARDLESS BLUEBUNCH WHEATGRASS	PSEUDOROEGNERIA SPICATA SSP. INERMIS	1 PLS LBS
BIG BLUEGRASS	POA AMPLA	1 PLS LBS
SANDBERG BLUEGRASS	POA SANDBERGII	1 PLS LBS
RUBBER RABBITBRUSH	ERICAMERIA NAUSEOUS SPP. NAUSEOUS	0.5 PLS LBS
WYOMING BIG SAGEBRUSH	ARTEMISIA TRIDENTATA SPP. WYOMINGENSIS	0.25 PLS LBS
TOTAL		20.75 LBS/ACRE

NOTE: SEED RATES FOR ALL MIXES SHALL BE AT A RATE OF LBS/ACRE. TOTAL SQUARE FOOTAGE SHOWN IN PLANTING SCHEDULE IS APPROXIMATE. CONTRACTOR SHALL CALCULATE ACTUAL ACREAGE FOR EACH SEED MIX ACCORDING TO PLANS AND ACTUAL AREAS DISTURBED DURING CONSTRUCTION.

SEED MIX AVAILABLE VIA GRANITE SEED AND EROSION CONTROL. CONTACT JASON STETTLE- (801)768-4422 JASON@GRANITSEED.COM



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HOT SPRINGS TANK
BONA VISTA WATER IMPROVEMENT DISTRICT
LANDSCAPE DETAILS

FILE: 55-20-139_LP-101X
JUB PROJ. #: 55-20-139
DRAWN BY: MMC
DESIGN BY: MMC
CHECKED BY: AJN

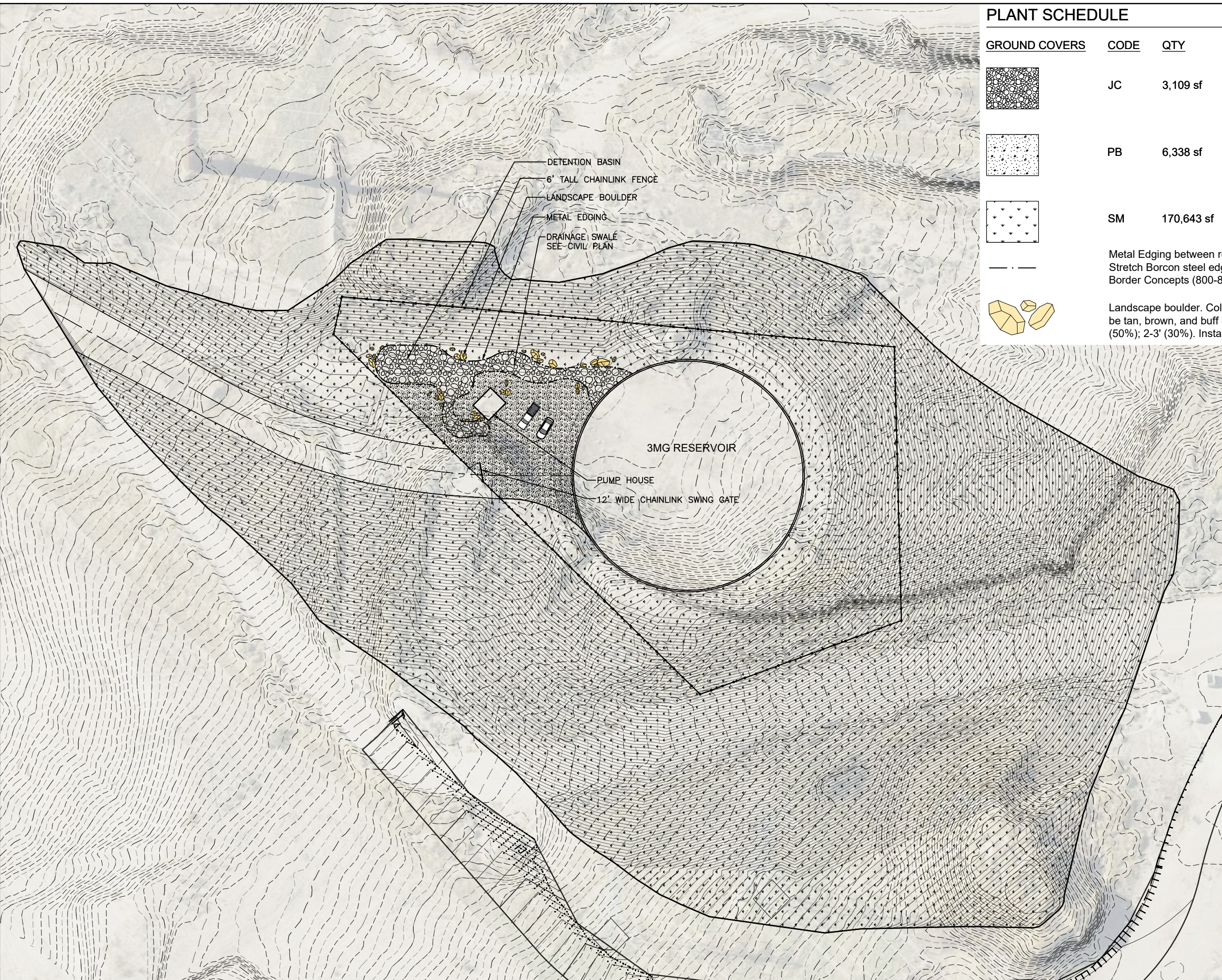
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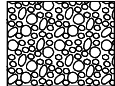
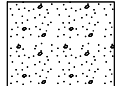
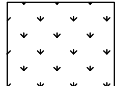
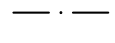
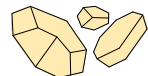
SHEET NUMBER:

LP-002

Plot Date: 1/24/2022 5:05 PM Plotted By: Daniel Johnson
 Date Created: 1/12/2022 JUB.COM\CENTRAL\Clients\UT\BONA VISTA\HOTSPRINGS\TANK\STAN\JUB\DESIGN\LANDSCAPE\LP-101.DWG



PLANT SCHEDULE

GROUND COVERS	CODE	QTY	BOTANICAL / COMMON NAME
	JC	3,109 sf	Jordanelle Cobble 2"-4" Available via Staker Parsons
	PB	6,338 sf	Peanut Brittle 1" Available via Staker Parsons
	SM	170,643 sf	Seed Mix See schedule on LP-501
			Metal Edging between rock mulch types. 1/8" thick, 6" tall. Stretch Borcon steel edging, natural finish. Available via Border Concepts (800-845-3343). Install per detail.
			Landscape boulder. Color to compliment rock mulches and be tan, brown, and buff in color. Sizes: +4; (20%); 3-4" (50%); 2-3' (30%). Install per detail.



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