WIDEFIELD WATER AND SANITATION DISTRICT

ROLLING HILLS 2MG POTABLE WATER TANK AND INLET PIPELINE

2019.829.2030

EL PASO COUNTY, COLORADO

CODE STATEMENT

I. APPLICABLE CODES INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING:

A. INTERNATIONAL BUILDING CODE (2015)
B. PIKES PEAK REGIONAL BUILDING CODE (2017)
C. INTERNATIONAL PLUMBING CODE OF THE INTERNATIONAL ASSOCIATION OF PLUMBING AND MECHANICAL OFFICIALS (LATEST EDITION)
D. INTERNATIONAL PLUMBING CODE (2015)
E. INTERNATIONAL FIRE CODE (2015)
E. INTERNATIONAL MECHANICAL CODE (2015)
F. NATIONAL ELECTRICAL CODE (2014)
G. ICC/ANSI 117.1 (2009)
H. INTERNATIONAL ENERGY CONSERVATION CODE (2015)

II. CODE ABSTRACT:

A. GENERAL INFORMATION:

LOCATION:	ADDRESS: TBD COLORADO SPRINGS, CO 80908
OWNER:	WIDEFIELD WATER AND SANITATION DISTRICT
TAX ID #:	19871569515
PROPERTY STATUS:	EXEMPT
TOTAL BUILDING AREA:	7,620 SF
BUILDING CONSTRUCTION TYPE	II-B
EPC SCHEDULE #:	55000-00-385
PARCEL OWNER:	CS2005 INVESTMENTS, LLC

B. OCCUPANCY TYPE(S):

OCCUPANCY TYPE: N/A

C. OCCUPANCY LOAD CALCULATION:

N/A – UNOCCUPIED STRUCTURE

LEGEND

EX PROPERTY LINE	PP SANITARY SEWER LINE ALIGNMENT
EX RIGHT-OF-WAY	PP WATER LINE ALIGNMENT
EX FENCE	PP CONTOURS-MAJOR
EX WATER LINE	PP CONTOURS-MINOR
EX SANITARY SEWER LINE	PP FENCE
EX O.H. ELECTRIC	PP U.G. ELECTRIC LINE
EX U.G. GAS LINE	PP EASEMENT
EX CONTOURS-MAJOR	PP TEMP. CONSTRUCTION EASEMENT
EX CONTOURS-MINOR	PP EROSION CONTROL SILT FENCE
EX EASEMENT	PP EROSION CONTROL EARTHEN BERM
EX WATER MANHOLE	PP EROSION CONTROL BALES
EX GAS METER	PP EROSION CONTROL LOG
EX UTILITY POLE	PP WATER LINE FITTING
BORE HOLE	PP WATER VALVE
	PP HYDRANT ASSEMBLY (ISOLATION VALVE INCLUDED)

SURVEY DATA

TOPOGRAPHY SURVEY CONDUCTED BY CLARK LAND SURVEYING (DATED 01/24/20). SEE SURVEY FOR ESTABLISHED CONTROL. THE FOLLOWING COORDINATE SYSTEM AND DATUM RECORD IS AS FOLLOWS:

HORIZONTAL DATUM:	MODIFIED COLO STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE, NORTH AMERICAN DATUM 1983. SCALE FACTOR 1.000321070
VERTICAL DATUM:	BASED ON OPUS SOLUTION RAN ON CONTROL POINT #100 (3-1/2" BRASS CAP IN CONCRETE, "EL PASO CALIBRATION BASELINE" "2003"). ELEVATION=5815.45' (NAVD1988)

UTILITIES SHOWN WITHIN THE SURVEY HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION, EXISTING DRAWINGS AND/OR UTILITY LOCATE MARKINGS. THE SURVEYOR NOR ENGINEER MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR AND ENGINEER FURTHER DO NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE.

Widefield Water and Sanitation District

80% DESIGN

VICINITY MAP

N.T.S.

PRE-EXCAVATION CHECKLIST

- ☐ Gas and Other Utility Lines Shown on Construction Plans
- ☐ Utility Notification Center of Colorado (UNCC)-Call at Least Two (2) Business Days Ahead-1-800-922-1987
- ☐ Utilities Located & Marked on the Ground
- ☐ Employees Briefed on Marking and Color Codes*
- ☐ Employees Trained on Excavation and Safety Procedures for Natural Gas Lines
- ☐ When Excavation Approaches Gas Lines, Employees must Expose Lines by Careful Probing and Hand-Digging

COLOR CODE
FOR MARKING UNDERGROUND UTILITY LINES

WHITE	PROPOSED EXCAVATION
MAGENTA	TEMPORARY SURVEY MARKINGS
RED	ELECTRIC
YELLOW	GAS, OIL, STEAM
ORANGE	COMMUNICATION, CATV
BLUE	POTABLE WATER
PURPLE	IRRIGATION, RECLAIMED WATER, SLURRY LINES
GREEN	SEWER

UNCC UTILITY NOTIFICATION CENTER OF COLORADO
3 Days Before You Dig:
Call: 1-800-922-1987
Click: www.UNCC.org

JDS-HYDRO CONSULTANTS, INC.
5540 TECH CENTER DR., SUITE 100
COLORADO SPRINGS, COLORADO 80919
(719) 227-0072

THE PARTIES RESPONSIBLE FOR THIS PLAN HAVE FAMILIARIZED THEMSELVES WITH ALL CURRENT ACCESSIBILITY CRITERIA AND SPECIFICATION AND THE PROPOSED PLAN REFLECTS ALL SITE ELEMENTS REQUIRED BY THE APPLICABLE ADA DESIGN STANDARDS AND GUIDELINES AS PUBLISHED BY THE UNITED STATES DEPARTMENT OF JUSTICE. APPROVAL OF THIS PLAN BY THE CITY OF FOUNTAIN DOES NOT ASSURE COMPLIANCE WITH THE ADA OR ANY OTHER FEDERAL OR STATE ACCESSIBILITY LAWS OR ANY REGULATIONS OR GUIDELINES ENACTED OR PROMULGATED UNDER OR WITH RESPECT TO SUCH LAWS.

PARTICIPANTS

OWNER
WIDEFIELD WATER AND
SANITATION DISTRICT
8495 FONTAINE BLVD
COLORADO SPRINGS, CO 80925
CONTACT: ROBERT BANNISTER, PE
PHONE: (719) 955-6118

CONSULTING/DESIGN ENGINEER
JDS-HYDRO CONSULTANTS, INC.
5540 TECH CENTER DR, STE 100
COLORADO SPRINGS, CO 80903
CONTACT: GWEN DALL, PE
PHONE: (719) 227-0072

SIGNATURE BLOCKS

EL PASO COUNTY:

COUNTY PLAN REVIEW IS PROVIDED ONLY FOR GENERAL CONFORMANCE WITH COUNTY DESIGN CRITERIA. THE COUNTY IS NOT RESPONSIBLE FOR THE ACCURACY AND ADEQUACY OF THE DESIGN DIMENSIONS, AND/OR ELEVATIONS WHICH SHALL BE CONFIRMED AT THE JOB SITE. THE COUNTY THROUGH THE APPROVAL OF THIS DOCUMENT ASSUMES NO RESPONSIBILITY FOR COMPLETENESS AND/OR ACCURACY OF THIS DOCUMENT.

FILED IN ACCORDANCE WITH THE REQUIREMENTS OF THE EL PASO COUNTY LAND DEVELOPMENT CODE, DRAINAGE CRITERIA MANUAL VOLUMES 1 AND 2, AND ENGINEERING CRITERIA MANUAL, AS AMENDED.
IN ACCORDANCE WITH ECM SECTION 1.12, THESE CONSTRUCTION DOCUMENTS WILL BE VALID FOR CONSTRUCTION FOR A PERIOD OF 2 YEARS FROM THE DATE SIGNED BY THE EL PASO COUNTY ENGINEER. IF CONSTRUCTION HAS NOT STARTED WITHIN THOSE 2 YEARS, THE PLANS WILL NEED TO BE RESUBMITTED FOR APPROVAL, INCLUDING PAYMENT OF REVIEW FEES AT THE PLANNING AND COMMUNITY DEVELOPMENT DIRECTOR'S DISCRETION.

JENNIFER E. IRVINE, P.E., DATE
COUNTY ENGINEER / ECM ADMINISTRATOR

DISTRICT APPROVALS

THE WIDEFIELD WATER AND SANITATION DISTRICT RECOGNIZES THE DESIGN ENGINEER AS HAVING RESPONSIBILITY FOR THE DESIGN. THE WIDEFIELD WATER AND SANITATION DISTRICT HAS LIMITED ITS SCOPE OF REVIEW ACCORDINGLY.

WIDEFIELD WATER AND SANITATION DISTRICT DESIGN APPROVAL

BY: DATE:

2019-829-2030
CIP NO.

IN CASE OF ERRORS OR OMISSIONS WITH THE WATER DESIGN AS SHOWN ON THIS DOCUMENT, THE STANDARDS AS DEFINED IN THE "RULES AND REGULATIONS FOR INSTALLATION OF WATER MAINS AND SERVICES" SHALL RULE. APPROVAL EXPIRES 180 DAYS FROM DESIGN APPROVAL.

ENGINEER'S STATEMENT:

THESE DETAILED PLANS AND SPECIFICATIONS WERE PREPARED UNDER MY DIRECTION AND SUPERVISION. SAID DETAILS AND SPECIFICATIONS HAVE BEEN PREPARED ACCORDING TO THE CRITERIA ESTABLISHED BY THE APPLICABLE GOVERNING AGENCIES.

GWEN DALL, P.E. #51810 DATE PROJECT NO. 102.121
JDS-HYDRO CONSULTANTS, INC.

GENERAL NOTES

1. ALL UTILITY CONSTRUCTION TO BE CONDUCTED IN CONFORMANCE WITH THE CURRENT WIDEFIELD WATER AND SANITATION DISTRICT SPECIFICATIONS. COMPACTION REQUIREMENTS SHALL BE 95% STANDARD PROCTOR AS DETERMINED BY ASTM D698, UNLESS OTHERWISE APPROVED BY THE WIDEFIELD WATER AND SANITATION DISTRICT OR A HIGHER STANDARD IS IMPOSED BY ANOTHER AGENCY HAVING RIGHT-OF-WAY JURISDICTION. CONTRACTOR IS ALSO REQUIRED TO COMPLY WITH THE REQUIREMENTS OF THE EL PASO COUNTY ENGINEERING CRITERIA MANUAL.

2. ALL MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO INSPECTION BY THE WIDEFIELD WATER AND SANITATION DISTRICT. THE WIDEFIELD WATER AND SANITATION DISTRICT RESERVES THE RIGHT TO ACCEPT OR REJECT ANY SUCH MATERIALS AND WORKMANSHIP THAT DOES NOT CONFORM TO ITS STANDARDS AND SPECIFICATIONS. WIDEFIELD WATER AND SANITATION DISTRICT CONSTRUCTION SPECIFICATIONS MAY BE OBTAINED FROM THEIR WEBSITE: www.wwsdonline.com

3. ALL CARBON STEEL AND DUCTILE IRON PIPE, TO INCLUDE FITTINGS, VALVES AND FIRE HYDRANTS WILL BE WRAPPED WITH POLYETHEYLENE TUBING, BONDED AT EACH JOINT AND ELECTRICALLY ISOLATED.

4. ALL CARBON STEEL AND DUCTILE IRON PIPE AND FITTINGS SHALL HAVE CATHODIC PROTECTION USING NO. 6 WIRE WITH 17 LB. MAGNESIUM ANODES EVERY 400 FEET AND 1 LB. MAGNESIUM ANODES AT EVERY FITTING.

5. PVC MAIN LINES SHALL BE INSTALLED WITH COATED NO. 12 TRACER WIRE.

6. THE CONTRACTOR IS REQUIRED TO NOTIFY THE WIDEFIELD WATER AND SANITATION DISTRICT A MINIMUM OF 48 HOURS AND A MAXIMUM OF 96 HOURS PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL ALSO NOTIFY WWSD A WEEK IN ADVANCE OF ANY REQUIRED BASIN OR UTILITY SHUTDOWNS.

7. THE LOCATION OF ALL UTILITIES AS SHOWN ON THESE DRAWINGS ARE APPROXIMATE ONLY. THE LOCATION OF ALL UTILITIES SHALL BE VERIFIED PRIOR TO CONSTRUCTION BY THE CONTRACTOR.

8. THE CONTRACTOR SHALL FIELD EXCAVATE AND VERIFY THE VERTICAL AND HORIZONTAL LOCATION OF ALL TIE-INS. CONTRACTOR SHALL NOTIFY THE WIDEFIELD WATER AND SANITATION DISTRICT AND THE ENGINEER OF THE FIELD VERIFIED INFORMATION PRIOR TO CONSTRUCTION.

9. ALL BENDS SHALL BE FIELD STAKED PRIOR TO CONSTRUCTION.

10. ANY WATER UTILITY MATERIAL REMOVED AND NOT REUSED SHALL BE RETURNED TO THE WIDEFIELD WATER AND SANITATION DISTRICT IF THE DISTRICT SO REQUESTS.

11. THE CONTRACTOR SHALL AT HIS EXPENSE SUPPORT AND PROTECT ALL UTILITY MAINS SO THAT THEY WILL FUNCTION CONTINUOUSLY DURING CONSTRUCTION. SHOULD A UTILITY MAIN FAIL AS A RESULT OF THE CONTRACTOR'S OPERATION, IT WILL BE REPLACED IMMEDIATELY BY EITHER THE CONTRACTOR OR THE WIDEFIELD WATER AND SANITATION DISTRICT AT FULL COST OF LABOR AND MATERIALS TO THE CONTRACTOR.

12. CONTRACTOR IS RESPONSIBLE FOR ALL DEWATERING EFFORTS. ANY PUMPING OR BYPASS OPERATIONS MUST BE REVIEWED AND APPROVED PRIOR TO EXECUTION BY BOTH THE WIDEFIELD WATER AND SANITATION DISTRICT AND THE ENGINEER.

13. CONTRACTOR MUST REPLACE OR REPAIR ANY DAMAGE TO ALL SURFACE IMPROVEMENTS, INCLUDING BUT NOT LIMITED TO FENCES, CURB AND GUTTER AND/OR ASPHALT THAT MAY BE CAUSED DURING CONSTRUCTION.

14. ALL SITE UTILITIES AND IMPROVEMENTS SHALL HAVE AS "AS-BUILT" PLANS PREPARED AND APPROVED PRIOR TO FINAL ACCEPTANCE BY THE WIDEFIELD WATER AND SANITATION DISTRICT.

15. PRIOR TO CONSTRUCTION, A PRE-CONSTRUCTION CONFERENCE IS REQUIRED A MINIMUM OF 72 HOURS IN ADVANCE OF COMMENCEMENT OF WORK.

16. EL PASO COUNTY STORMWATER AND/OR EROSION CONTROL PERMITS, CDPHE STORMWATER CONSTRUCTION ACTIVITY AND DEWATERING PERMITS, AND CITY OF COLORADO SPRINGS WORK IN THE R.O.W. PERMIT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN PRIOR TO CONSTRUCTION.

17. ALL MAIN LINES (PVC AND DUCTILE IRON) SHALL BE INSTALLED WITH COATED NO. 12 TRACER WIRE WITH TEST STATIONS EVERY 500 FT.

18. AERIAL BASEMAP IMAGERY, IF DEPICTED HEREIN, IS NOT TO SCALE AND IS SHOWN FOR CONCEPTUAL REFERENCE ONLY.

19. SEE WIDEFIELD WATER AND WASTEWATER SYSTEM STANDARD SPECIFICATIONS FOR ALL GENERAL AND DESIGN STANDARDS/CIVIL DRAWINGS DETAILS.

20. WATER MAIN INSTALLATION:
    THE UNIT PRICE SHALL INCLUDE ALL PIPE, PIPE INSTALLATION, TRENCHING, STABILIZATION, AND BEDDING AS SHOWN ON THE TYPICAL DETAIL, DEWATERING, BACKFILL, TRACER WIRE, COMPACTION, CLEAN-UP, REVEGETATION, FLUSHING, TESTING, GRADING AND ALL WORK INCIDENTAL THERTO TO COMPLETE THE WORK AS SHOWN ON THE DRAWINGS AND SPECIFIED HEREIN.

21. CONTRACTOR IS TO COORDINATE WITH THE RANCHER WHO RUNS CATTLE ON THE PROPERTY TO ENSURE NO CATTLE ARE HARMED DURING CONSTRUCTION.

22. NO WATER FACILITY SHALL BE PLACED IN SERVICE UNTIL AFTER COMPLETION OF ALL PRESSURE TESTING, DISINFECTION, AND COMPACTION TESTING.

23. SUBSURFACE UTILITY ENGINEERING
    23.1. UTILITIES ARE DEPICTED ON THESE PLANS IN ACCORDANCE WITH THEIR ACHIEVED "QUALITY LEVELS" AS DEFINED IN THE AMERICAN SOCIETY OF CIVIL ENGINEER'S DOCUMENT ASCE 38, "STANDARD GUIDELINE FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA."
    23.2. RELIANCE UPON THESE DATA FOR RISK MANAGEMENT PURPOSES DURING BIDDING DOES NOT RELIEVE THE EXCAVATOR OR UTILITY OWNER FROM FOLLOWING ALL APPLICABLE UTILITY DAMAGE PREVENTION STATUTES, POLICIES, AND/OR PROCEDURES DURING EXCAVATION. IT IS IMPORTANT THAT THE CONTRACTOR INVESTIGATES AND UNDERSTANDS THE SCOPE OF WORK BETWEEN THE PROJECT OWNER AND THEIR ENGINEER REGARDING THE SCOPE AND LIMITS OF THE UTILITY INVESTIGATIONS LEADING TO THESE UTILITY DEPICTIONS.

24. DISINFECTION OF FACILITIES
    24.1. THE CONTRACTOR SHALL DISINFECT ALL DOMESTIC WATER LINES ACCORDING TO AWWA C651-14 AND TANK ACCORDING TO AWWA C652-11.
    24.2. THE CONTRACTOR SHALL COLLECT SAMPLES FROM THE PIPELINE AND TANK AFTER FINAL FLUSHING AND PRIOR TO PLACING FACILITIES IN SERVICE AND TEST FOR COLIFORM ORGANISMS. THE NUMBER AND FREQUENCY OF SAMPLES SHALL CONFORM WITH THE REQUIREMENTS OF THE PUBLIC HEALTH AGENCY HAVING JURISDICTION.
    24.3. REPEAT DISINFECTION UNTIL SATISFACTORY SAMPLES HAVE BEEN OBTAINED IF INITIAL OR SUBSEQUENT DISINFECTION FAILS TO PRODUCE SATISFACTORY SAMPLES

SHEET INDEX

ABBREVIATIONS

WWSD	WIDEFIELD WATER AND SANITATION DISTRICT
VA PPNC	VETERANS AFFAIRS PIKES PEAK NATIONAL CEMETERY
RHBPS	ROLLING HILLS BOOSTER PUMP STATION
SDS	SOUTHERN DELIVERY SYSTEM
PP	PROPOSED
EX	EXISTING
SCH	SCHEDULE
STA	STATION
FNPT	FEMALE NATIONAL PIPE THREAD
MNPT	MALE NATIONAL PIPE THREAD
FL	FLANGE
FH	FIRE HYDRANT
TB	THRUST BLOCK
MJ	MECHANICAL JOINT
BV	BUTTERFLY VALVE
GV	GATE VALVE
SOV	SIDE OPERATED VALVE
RED	REDUCER

JDS-HYDRO CONSULTANTS, INC.
5540 TECH CENTER DR., SUITE 100
COLORADO SPRINGS, COLORADO 80919
(719) 227-0072

WIDEFIELD WATER AND SANITATION DISTRICT

ROLLING HILLS 2MG POTABLE WATER TANK AND INLET PIPELINE

GENERAL NOTES

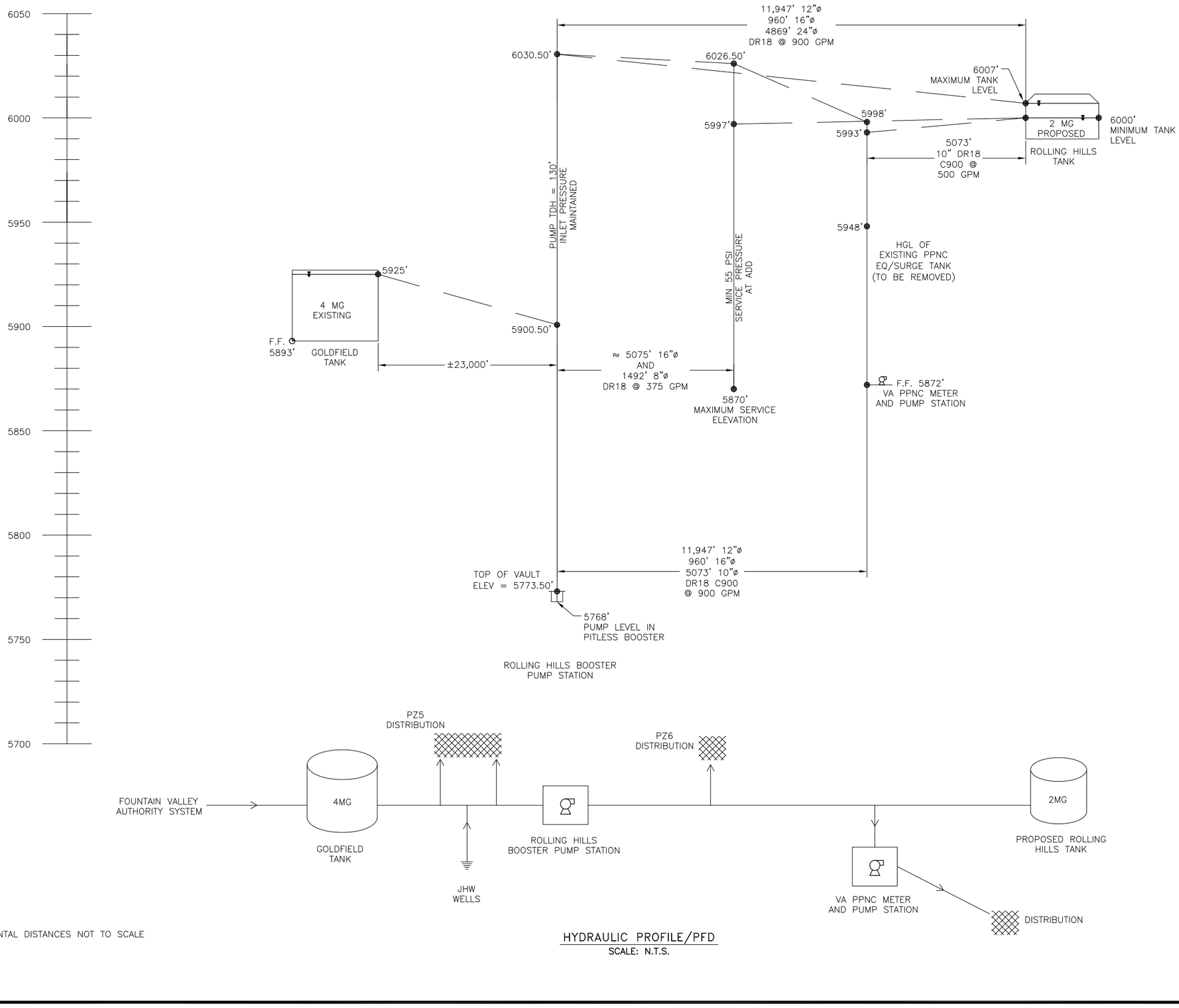
REVISIONS			
NO.	DESCRIPTION	BY	APP.	DATE
1				
2				
3				
4				
5				
6				
7				

80% DESIGN

Project No.: 102.121
Date: 01/28/21
Design: GJD
Drawn: SNW
Check: JPM

G1

SHEET 1 OF 37



NOTE:
HORIZONTAL DISTANCES NOT TO SCALE

HYDRAULIC PROFILE/PFD
SCALE: N.T.S.

JDS-HYDRO CONSULTANTS, INC.
5540 TECH CENTER DR., SUITE 100
COLORADO SPRINGS, COLORADO 80919
(719) 227-0072

WIDEFIELD WATER AND SANITATION DISTRICT

ROLLING HILLS 2MG POTABLE WATER TANK AND INLET PIPELINE

HYDRAULIC PROFILE/PFD

REVISIONS

NO.	DESCRIPTION	BY	APP.	DATE
1				
2				
3				
4				
5				
6				
7				

80% DESIGN

Project No.: 102.121
Date: 01/28/21
Design: GJD
Drawn: SNW
Check: JPM

G2

SHEET 2 OF 37

0 250' 500'
SCALE 11x17: 1" = 500'
SCALE 24x36: 1" = 250'

SCHEDULE #: 5500000385
OWNER: CS 2005 INVESTMENTS LLC
LOCATION: 01-15-65

WIDEFIELD WATER AND SANITATION DISTRTICT SERVICE AREA BOUNDARY

TANK SITE EASEMENT – 3.472 ACRES

DRENNAN ROAD

PROPOSED 24" WATER LINE

PROPOSED 16" WATER LINE

PROPOSED 12" WATER LINE

PROPOSED CONNECTION TO EXISTING WWSD WATER SYSTEM

EXISTING WWSD WATER LINE

SEC. 2 SEC. 1

SEC 1, T15S, R65W
SEC 12, T15S, R65W
SEC 2, T15S, R65W
SEC 11, T15S, R65W
SEC 12, T15S, R65W
SEC 11, T15S, R65W

BRADLEY ROAD

SCHEDULE #: 5500000384
OWNER: UNITED STATES OF AMERICA
LOCATION: 10545 DRENNAN RD

BOOSTER PUMP STATION
3.47 ACRE TANK SITE
0.75–1.5 MG ELEVATED TANK
2 MG GROUND STORAGE TANK
2–5 MG GROUND STORAGE TANK

NOTE:
THE 2 MG TANK IS PROPOSED TO BE CONSTRUCTED IN 2021. THE 2–5 MG TANK, ELEVATED TANK, AND/OR BOOSTER PUMP STATION WILL BE BUILT IF/WHEN THEY ARE NEEDED.

NOTES:
1. TANK SITE ACCESS TO BE PROVIDED BY ROADS INSTALLED TO SUPPORT FUTURE DEVELOPMENT. LOCATION UNKNOWN AT THIS TIME.
2. DRAINAGE FOR FULL TANK SITE TO BE PROVIDED BY STORM SEWER SYSTEM INSTALLED TO SUPPORT FUTURE DEVELOPMENT. DETAILS UNKNOWN AT THIS TIME.

JDS-HYDRO CONSULTANTS, INC.
5540 TECH CENTER DR., SUITE 100
COLORADO SPRINGS, COLORADO 80919
(719) 227-0072

WIDEFIELD WATER AND SANITATION DISTRICT

POTABLE WATER TANK AND INLET PIPELINE

ROLLING HILLS 2MG POTABLE WATER TANK

BUILD OUT SITE PLAN

REVISIONS

NO.	DESCRIPTION	BY	APP.	DATE
1				
2				
3				
4				
5				
6				
7				

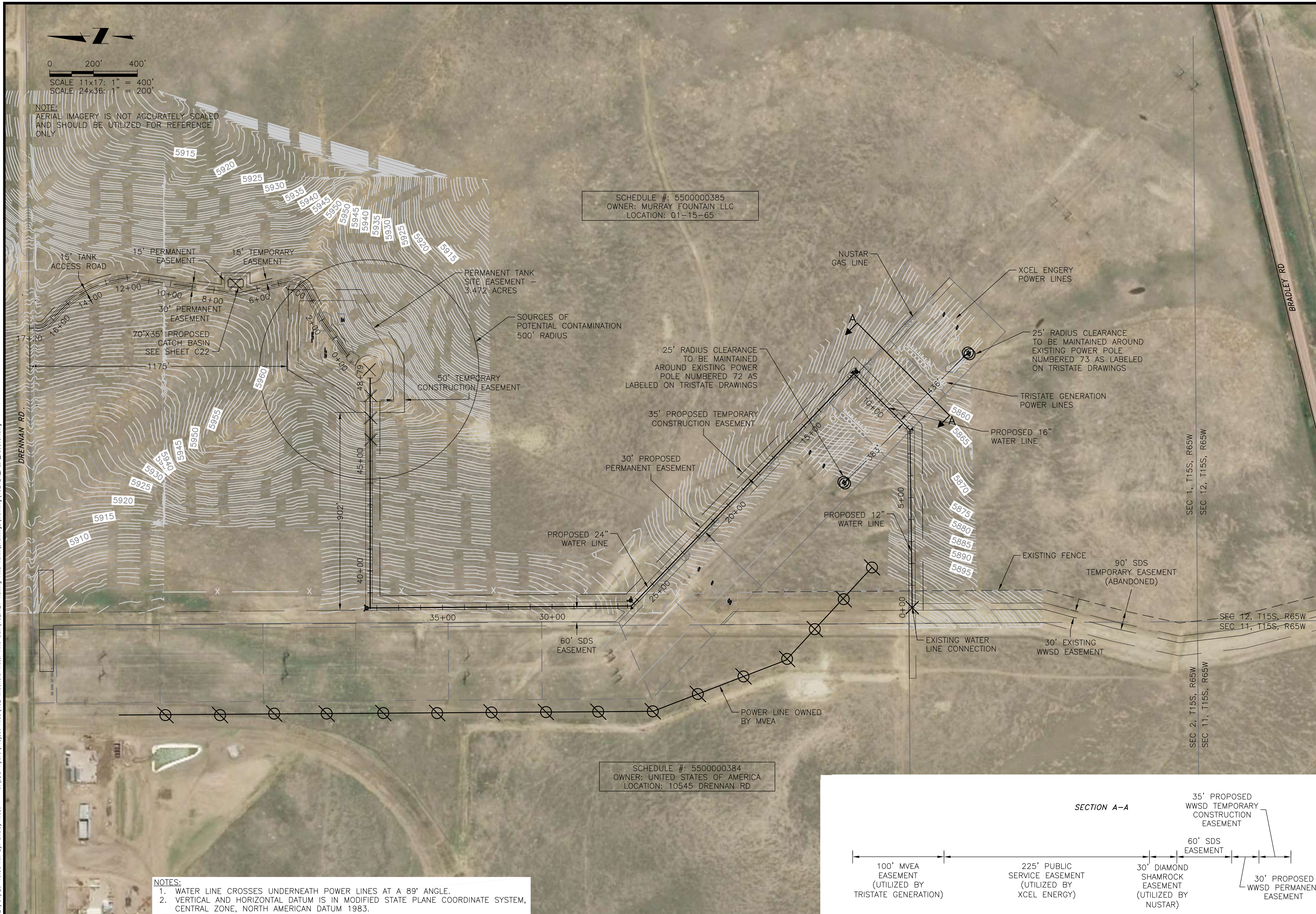
80% DESIGN

Project No.: 102.121
Date: 10/19/20
Design: GJD
Drawn: SNW
Check: JPM

G3

SHEET 3 OF 37

2021/01/29 10:50 AM By: Shelby West J:\JDS-Hydro\Project Files\102 Widefield Water And San\102.121 Rolling Hills Tank\Drawings\Working\102121_P&P_recover.dwg



N
0 200' 400'
SCALE 11x17: 1" = 400'
SCALE 24x36: 1" = 200'
NOTE:
AERIAL IMAGERY IS NOT ACCURATELY SCALED AND SHOULD BE UTILIZED FOR REFERENCE ONLY
15' TANK ACCESS ROAD
15' PERMANENT EASEMENT
15' TEMPORARY EASEMENT
30' PERMANENT EASEMENT
70'X35' PROPOSED CATCH BASIN SEE SHEET C22
PERMANENT TANK SITE EASEMENT – 3.472 ACRES
SOURCES OF POTENTIAL CONTAMINATION 500' RADIUS
50' TEMPORARY CONSTRUCTION EASEMENT
1175'
902'
17+20
16+00
14+00
12+00
10+00
8+00
6+00
4+00
2+00
0+00
48+79
45+00
40+00
35+00
30+00
25+00
20+00
15+00
10+00
5+00
0+00
DRENNAN RD.
SCHEDULE #: 5500000385
OWNER: MURRAY FOUNTAIN LLC
LOCATION: 01-15-65
NUSTAR GAS LINE
XCEL ENGERY POWER LINES
25' RADIUS CLEARANCE TO BE MAINTAINED AROUND EXISTING POWER POLE NUMBERED 73 AS LABELED ON TRISTATE DRAWINGS
25' RADIUS CLEARANCE TO BE MAINTAINED AROUND EXISTING POWER POLE NUMBERED 72 AS LABELED ON TRISTATE DRAWINGS
TRISTATE GENERATION POWER LINES
PROPOSED 16" WATER LINE
35' PROPOSED TEMPORARY CONSTRUCTION EASEMENT
30' PROPOSED PERMANENT EASEMENT
PROPOSED 24" WATER LINE
PROPOSED 12" WATER LINE
436'
383'
A
A
EXISTING FENCE
90' SDS TEMPORARY EASEMENT (ABANDONED)
60' SDS EASEMENT
EXISTING WATER LINE CONNECTION
30' EXISTING WWSD EASEMENT
POWER LINE OWNED BY MVEA
BRADLEY RD
SEC 1, T15S, R65W
SEC 12, T15S, R65W
SEC 2, T15S, R65W
SEC 11, T15S, R65W
SCHEDULE #: 5500000384
OWNER: UNITED STATES OF AMERICA
LOCATION: 10545 DRENNAN RD
5910
5915
5920
5925
5930
5935
5940
5945
5950
5955
5960
5860
5865
5870
5875
5880
5885
5890
5895
SECTION A–A
100' MVEA EASEMENT (UTILIZED BY TRISTATE GENERATION)
225' PUBLIC SERVICE EASEMENT (UTILIZED BY XCEL ENERGY)
30' DIAMOND SHAMROCK EASEMENT (UTILIZED BY NUSTAR)
60' SDS EASEMENT
35' PROPOSED WWSD TEMPORARY CONSTRUCTION EASEMENT
30' PROPOSED WWSD PERMANENT EASEMENT

NOTES:
1. WATER LINE CROSSES UNDERNEATH POWER LINES AT A 89° ANGLE.
2. VERTICAL AND HORIZONTAL DATUM IS IN MODIFIED STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE, NORTH AMERICAN DATUM 1983.

JDS-HYDRO CONSULTANTS, INC.
5540 TECH CENTER DR., SUITE 100
COLORADO SPRINGS, COLORADO 80919
(719) 227-0072

WIDEFIELD WATER AND SANITATION DISTRICT

ROLLING HILLS 2MG POTABLE WATER TANK AND INLET PIPELINE

OVERALL SITE PLAN

REVISIONS

NO.	DESCRIPTION	BY	APP.	DATE
1				
2				
3				
4				
5				
6				
7				

80% DESIGN

Project No.: 102.121
Date: 01/28/21
Design: GJD
Drawn: SNW
Check: JPM

C1

0 30' 60'
SCALE 11x17: 1" = 60'
SCALE 24x36: 1" = 30'

SCHEDULE: 5500000385
OWNER: MURRAY FOUNTAIN, LLC
LOCATION: 01-15-65

PROPOSED TANK SITE EASEMENT
TOTAL AREA = 3.472 ACRES

PROPOSED 50' TEMPORARY EASEMENT

TANK ACCESS ROAD

15' TEMPORARY EASEMENT

30' PERMANENT EASEMENT

284'

CLASS 6 BASE COURSE @ 4" DEEP

FUTURE 1MG POTABLE WATER ELEVATED TANK 86' DIA

FUTURE 5MG POTABLE WATER TANK 156' DIA

2+00

333'

254'

24' WIDE CHAIN LINK LOCKABLE DOUBLE GATE. SEE SHEET C20

BORE HOLE LOCATIONS (TYP)

PARKING SPACES (OPERATIONS STAFF ONLY)

FUTURE BOOSTER PUMP STATION 1500 SF

15' WIDE SPACE AROUND TANK. CLASS 6 BASE COURSE @ 4" DEEP, FOR WALKWAY/ MAINTENANCE ACCESS ONLY

SWALE EL: 5974.1'

STA. 48+79.29
N=1344805.19
E=3249966.30
2MG TANK INLET/OUTLET

0+80

6' HIGH CHAIN LINK PERIMETER FENCE SEE SHEET C20

232'

SWALE EL: 5974.3'

179'

STA. 48+50.00
N=1344805.19
E=3249937.01
INSTALL (1) 24" ISOLATION VALVE

WWSD PIPELINE EASEMENT

PROPOSED 24" C900 DR 18 PVC WATER LINE

20'

10'

PROPOSED 2.0 MG POTABLE WATER TANK 98.5' DIA

35' SWD
F.F. = 5972'
O.F. = 6007'

48+79

154'

128'

281'

317'

PROPOSED 50' TEMPORARY EASEMENT

SWALE EL: 5974.3'

CONCRETE HEADWALL, 12" CHECK VALVE AND PLUNGE POOL. SEE DETAIL B/C19. RIPRAP TO BE 4FT X 4FT

DRAIN/OVERFLOW MANHOLE. SEE DETAIL D/S8

TO DAYLIGHT

5' MIN

5' MIN

PT VAULT SEE DETAIL B/S8

YARD HYDRANT (SAMPLE POINT)
N: 1344785.25
E: 3250073.87

SWALE EL: 5974.5'

EXTERIOR ACCESS LADDER. SOLAR PANEL AND ANTENNA FOR SCADA MOUNTED ON LADDER

169'

195'

SWALE EL: 5974.5'

FENCE CORNER
N: 1344718.87
E: 3249879.07

10' X 5' CONCRETE PAD FOR CONTROLS, SOLAR POWER, AND CONTROL PANEL LIGHTING. SEE SHEET S11

15' VEGETATION BUFFER ALLOWED FOR FUTURE DEVELOPMENT

5955 5960 5965 5970 5975 5950

JDS-HYDRO CONSULTANTS, INC.
5540 TECH CENTER DR., SUITE 100
COLORADO SPRINGS, COLORADO 80919
(719) 227-0072

WIDEFIELD WATER AND SANITATION DISTRICT

ROLLING HILLS 2MG POTABLE WATER TANK AND INLET PIPELINE

SITE DEVELOPMENT PLAN

REVISIONS			
NO.	DESCRIPTION	BY	APP.	DATE
1				
2				
3				
4				
5				
6				
7				

80% DESIGN

Project No.:	102.121
Date:	01/28/21
Design:	GJD
Drawn:	SNW
Check:	JPM

C2

SHEET 5 OF 37

NOTE:
SEE FIRM 08041C0709G (12/07/08)
REVALIDATIONS PER FEMA.GOV

MAP PANEL 08041C0769G

MAP PANEL 08041C0790G

EL PASO COUNTY
UNINCORPORATED AREAS
080059

TANK SITE
(APPROXIMATE)

ZONE AE

DRENNAN RD

BRADLEY RD

MERIDIAN RD S

MOCKINGBIRD LN

CITY OF COLORADO S

EL PASO COUN

T. 14 S.
T. 15 S.

Corral Tributary

Franceville Tributary - Jimmy Camp Creek

Jimmy Camp Creek - East Tributary

FLOODING EFFECTS FROM JIMMY CAMP CREEK - EAST TRIBUTARY

EL PASO COUNTY
CITY OF COLORADO SPRINGS

LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAS) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

ZONE AE — Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

Floodway boundary

513 — Base Flood Elevation line and value; elevation in feet*

A — A — Cross section line

MAP SCALE 1" = 1000'

500 0 1000 2000 FEET

300 0 300 600 METERS

NFIP

PANEL 0790G

FIRM

FLOOD INSURANCE RATE MAP

EL PASO COUNTY, COLORADO
AND INCORPORATED AREAS

PANEL 790 OF 1300

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
COLORADO SPRINGS, CITY OF	080060	0790	G
EL PASO COUNTY	080059	0790	G

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
08041C0790G

MAP REVISED
DECEMBER 7, 2018

Federal Emergency Management Agency

NATIONAL FLOOD INSURANCE PROGRAM

JDS-HYDRO CONSULTANTS, INC.
5540 TECH CENTER DR., SUITE 100
COLORADO SPRINGS, COLORADO 80919
(719) 227-0072

WIDEFIELD WATER AND SANITATION DISTRICT

ROLLING HILLS 2MG POTABLE WATER TANK AND INLET PIPELINE

FEMA FLOODPLAIN MAP

REVISIONS

NO.	DESCRIPTION	BY	APP.	DATE
1				
2				
3				
4				
5				
6				
7				

80% DESIGN

Project No.: 102.121
Date: 01/28/21
Design: GJD
Drawn: SNW
Check: JPM

C3

SHEET 6 OF 37

2020/09/02 10:52 AM By: Shelby West J:\JDS-Hydro\Project Files\102 Widefield Water And San\102.121 Rolling Hills Tank\Drawings\Working\102121_FEMA.dwg

SCALE 11x17: 1" = 100'
SCALE 24x36: 1" = 50'

SCHEDULE: 5500000384
OWNER: UNITED STATES OF AMERICA
LOCATION: 10545 DRENNAN RD

SCHEDULE: 5500000385
OWNER: MURRAY FOUNTAIN, LLC
LOCATION: 01-15-65

30' PERMANENT EASEMENT

35' CONSTRUCTION EASEMENT

PP EROSION CONTROL SOCK (TYP. 6, BEGINNING TO STA 15+00) SEE DETAIL C/C6

PP WATER LINE ALIGNMENT

100' EASEMENT TRI-STATE GENERATION

225' EASEMENT PUBLIC SERVICE OF COLORADO

MATCHLINE STA 15+00

30' EASEMENT NUSTAR GAS

PP EARTHEN BERM (APPROX. 18 LF) SEE DETAIL B/C6

PP SILT FENCE (APPRX. 11 LF) SEE DETAIL A/C6

SCHEDULE: 5500000385
OWNER: MURRAY FOUNTAIN, LLC
LOCATION: 01-15-65

SCHEDULE: 5500000385
OWNER: MURRAY FOUNTAIN, LLC
LOCATION: 01-15-65

PP EROSION CONTROL SOCK (TYP. 7, STA 15+00 TO STA 30+00) SEE DETAIL C/C6

30' PERMANENT EASEMENT

35' CONSTRUCTION EASEMENT

PP WATER LINE ALIGNMENT

PP EARTHEN BERM (APPROX. 19 LF) SEE DETAIL B/C7

SDS EASEMENT

EXISTING FENCE

SCHEDULE: 5500000385
OWNER: MURRAY FOUNTAIN, LLC
LOCATION: 01-15-65

MATCHLINE STA 15+00

MATCHLINE STA 30+00

JDS-HYDRO CONSULTANTS, INC.
5540 TECH CENTER DR., SUITE 100
COLORADO SPRINGS, COLORADO 80919
(719) 227-0072

WIDEFIELD WATER AND SANITATION DISTRICT

ROLLING HILLS 2MG POTABLE WATER TANK AND INLET PIPELINE

EROSION CONTROL PLAN

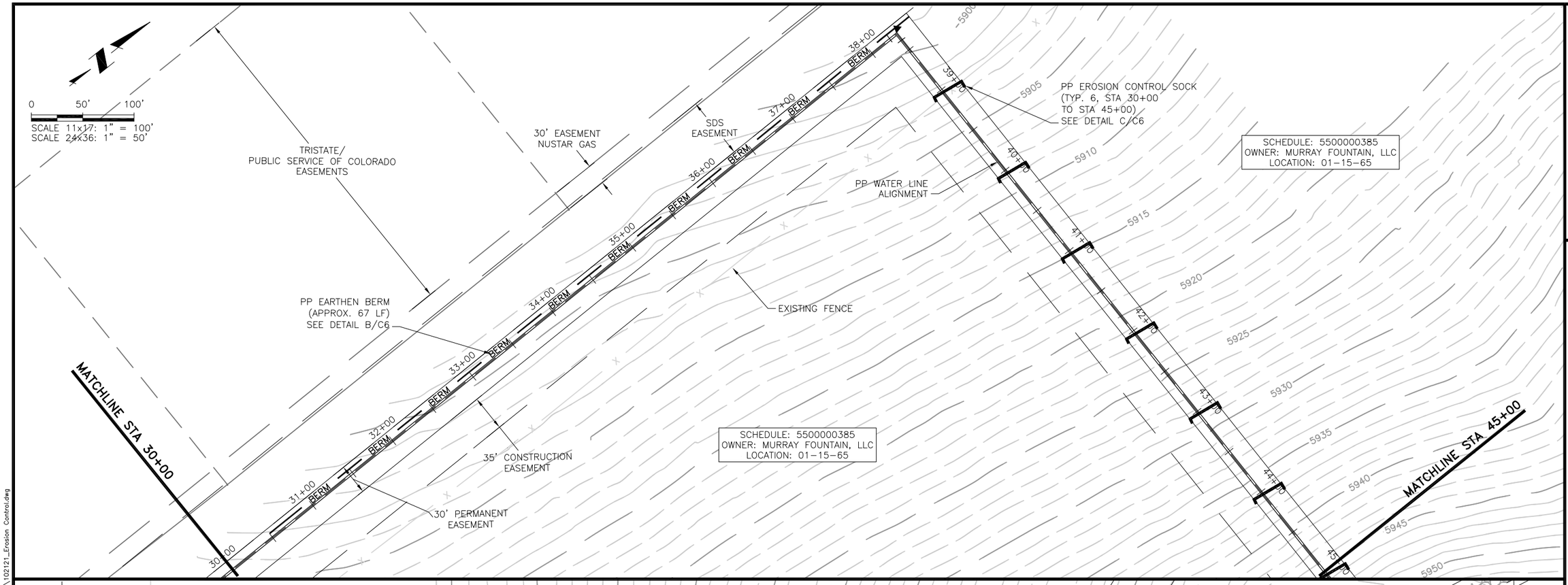
REVISIONS			
NO.	DESCRIPTION	BY	APP.	DATE
1				
2				
3				
4				
5				
6				
7				

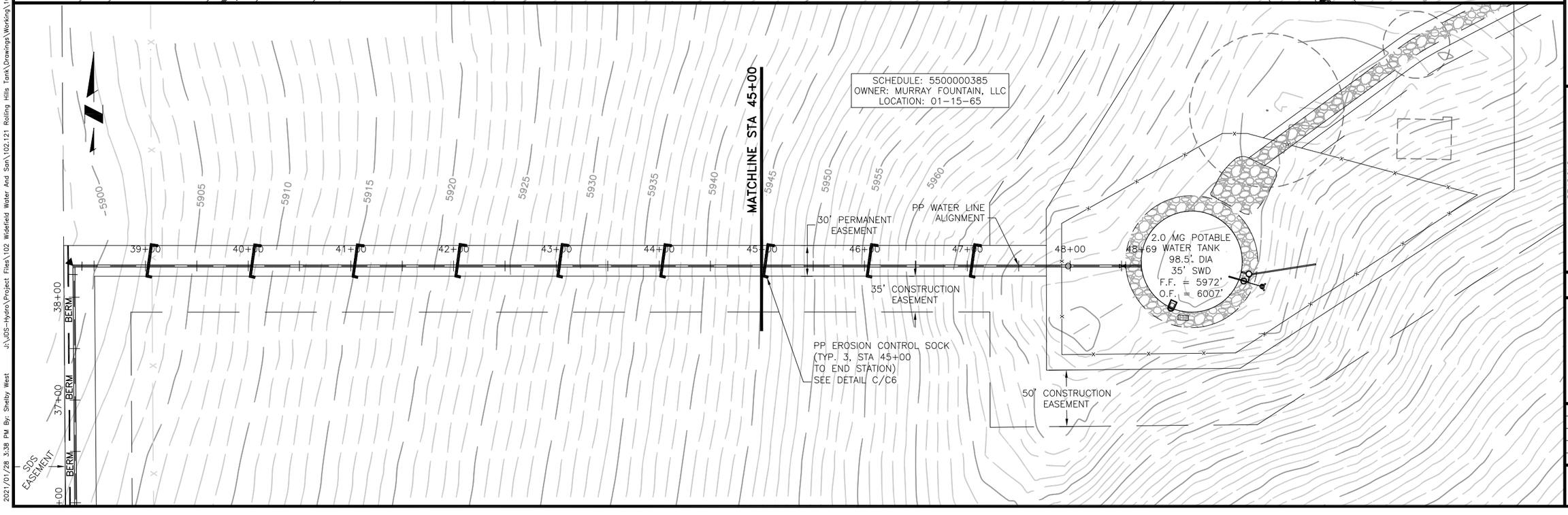
80% DESIGN

Project No.:	102.121
Date:	01/28/21
Design:	GJD
Drawn:	SNW
Check:	JPM

C4

SHEET 7 OF 37





JDS-HYDRO CONSULTANTS, INC.
5540 TECH CENTER DR., SUITE 100
COLORADO SPRINGS, COLORADO 80919
(719) 227-0072

WIDEFIELD WATER AND SANITATION DISTRICT

ROLLING HILLS 2MG POTABLE WATER TANK AND INLET PIPELINE

EROSION CONTROL PLAN

REVISIONS			
NO.	DESCRIPTION	BY	APP.	DATE
1				
2				
3				
4				
5				
6				
7				

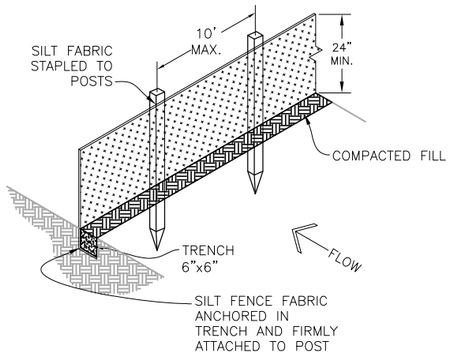
80% DESIGN

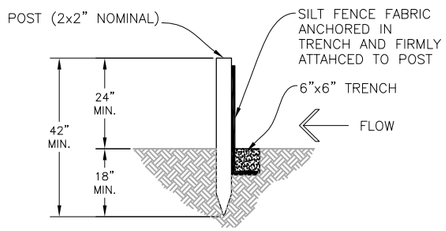
Project No.:	102.121
Date:	01/28/21
Design:	GJD
Drawn:	SNW
Check:	JPM

C5

SHEET 8 OF 37

2021/01/28 3:38 PM By: Shelby West J:\JDS-Hydro\Project Files\102 Widefield Water And San\102.121 Rolling Hills Tank\Drawings\Working\102121_Erosion Control.dwg





A / C6 **SILT FENCE DETAIL**
SCALE: N.T.S.

INSTALLATION REQUIREMENTS:

1. SILT FENCES SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.

2. WHEN JOINTS ARE NECESSARY, SILT FENCE GEOTEXTILE SHALL BE SPLICED TOGETHER ONLY AT SUPPORT POST AND SECURELY SEALED.

3. METAL POSTS SHALL BE "STUDDED TEE" OR "U" TYPE WITH MINIMUM WEIGHT OF 1.33 POUNDS PER LINEAR FOOT. WOOD POSTS SHALL HAVE A MINIMUM DIAMETER OR CROSS SECTION DIMENSION OF 2 INCHES.

4. THE FILTER MATERIAL SHALL BE FASTENED SECURELY TO METAL OR WOOD POSTS USING WIRE TIES, OR TO WOOD POSTS WITH 3/4" LONG #9 HEAVY-DUTY STAPLES. THE SILT FENCE GEOTEXTILE SHALL NOT BE STAPLED TO EXISTING TREES.

5. WHILE NOT REQUIRED, WIRE MESH FENCE MAY BE USED TO SUPPORT THE GEOTEXTILE. WIRE FENCE SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY-DUTY WIRE STAPLES AT LEAST 3/4" LONG, TIE WIRES OR HOG RINGS. THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF 6" AND SHALL NOT EXTEND MORE THAN 3' ABOVE THE ORIGINAL GROUND SURFACE.

6. ALONG THE TOE OF FILLS, INSTALL THE SILT FENCE ALONG A LEVEL CONTOUR AND PROVIDE AN AREA BEHIND THE FENCE FOR RUNOFF TO POND AND SEDIMENT TO SETTLE. A MINIMUM DISTANCE OF 5 FEET FROM THE TOE OF THE FILL IS RECOMMENDED.

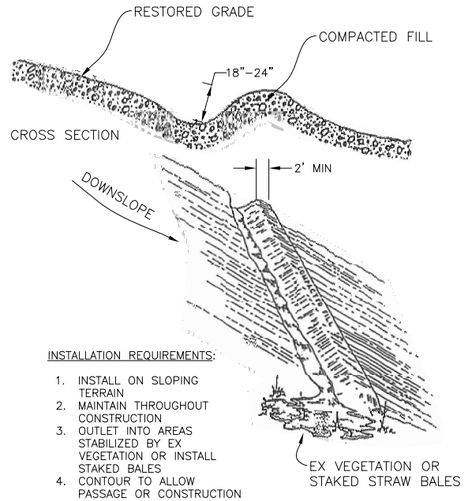
7. THE HEIGHT OF THE SILT FENCE FROM THE GROUND SURFACE SHALL BE MINIMUM OF 24 INCHES AND SHALL NOT EXCEED 36 INCHES; HIGHER FENCES MAY INPOUND VOLUMES OF WATER SUFFICIENT TO CAUSE FAILURE OF THE STRUCTURE.

MAINTENANCE REQUIREMENTS:

1. CONTRACTOR SHALL INSPECT SILT FENCES IMMEDIATELY AFTER EACH RAINFALL, AT LEAST DAILY DURING PROLONGED RAINFALL, AND WEEKLY DURING PERIODS OF NO RAINFALL. DAMAGED, COLLAPSED, UNENTRENCHED OR INEFFECTIVE SILT FENCES SHALL BE PROMPTLY REPAIRED OR REPLACED.

2. SEDIMENT SHALL BE REMOVED FROM BEHIND SILT FENCE WHEN IT ACCUMULATES TO HALF THE EXPOSED GEOTEXTILE HEIGHT.

3. SILT FENCES SHALL BE REMOVED WHEN ADEQUATE VEGETATIVE COVER IS ATTAINED



INSTALLATION REQUIREMENTS:

1. INSTALL ON SLOPING TERRAIN
2. MAINTAIN THROUGHOUT CONSTRUCTION
3. OUTLET INTO AREAS STABILIZED BY EX VEGETATION OR INSTALL STAKED BALES
4. CONTOUR TO ALLOW PASSAGE OR CONSTRUCTION EQUIPMENT
5. MAINTAIN 2% LATERAL SLOPE

B / C6 **EARTHEN BERM**
SCALE: N.T.S.

MATERIALS HANDLING SPECIFICATIONS:

1. DEBRIS, OVERBURDEN, SOIL STOCKPILES AND WASTE MATERIALS SHALL BE PLACED AWAY FROM AREAS OF RUNOFF

2. THERE ARE SEVERAL BEST MANAGEMENT PRACTICES THAN CAN BE EMPLOYED TO PREVENT OR MITIGATE THE SOURCE OF POLLUTANTS AND CONTAMINATION OF STORM WATER RUNOFF. THE CONTRACTOR IS NOT LIMITED TO THESE MEASURES WHICH MAY REQUIRE ADJUSTING THE BMP'S AS THE PROJECT PROGRESSES AND IMPLEMENT FURTHER CONTROLS AS PRUDENCE AND GOOD JUDGMENT DEEM NECESSARY. SOME OF THESE ARE:
   A. ALL REFUSE DUMPSTERS AND RECEPTACLES SHALL BE EQUIPPED WITH FUNCTIONAL LIDS TO PREVENT RAIN AND SNOW FROM ENTERING. LIDS MUST BE CLOSED WHEN DUMPSTERS AND RECEPTACLES ARE NOT ACTIVELY IN USE
   B. STORAGE CONTAINERS, DRUMS, AND BAGS SHALL BE STORED AWAY FROM DIRECT TRAFFIC ROUTES TO PREVENT ACCIDENTAL SPILLS. ENSURE PACKAGES AND CONTAINERS ARE INTACT
   C. EMPTY DRUMS SHALL BE COVERED TO PREVENT COLLECTION OF PRECIPITATION
   D. CONTAINERS SHALL BE STORED ON PALLETS TO PREVENT CORROSION OF CONTAINERS, WHICH CAN RESULT WHEN CONTAINERS COME IN CONTACT WITH MOISTURE ON THE GROUND
   E. REGULARLY SCHEDULED REMOVAL OF CONSTRUCTION TRASH AND DEBRIS
   F. WHERE APPLICABLE, TRACKING CONTROL MUST BE IMPLEMENTED BY THE CONTRACTOR TO PREVENT UNNECESSARY SOIL FROM ENTERING PAVED SURFACES. THE MEASURES TO BE USED WILL BE PREVENTING EQUIPMENT IN THE CONSTRUCTION AREA FROM MOVING OFF-SITE. IF THE CONTRACTOR CANNOT DO THIS, THEN A VEHICLE TRACKING PAD WILL BE REQUIRED ACCORDING TO COUNTY SPECIFICATIONS. BROOMS AND SHOVELS MAY BE REQUIRED FOR TRACKING CONTROL

EROSION CONTROL NOTES:

1. CONSTRUCTION MAY NOT COMMENCE UNTIL A CONSTRUCTION PERMIT IS OBTAINED FROM THE PLANNING & COMMUNITY DEVELOPMENT DEPARTMENT.

2. STORMWATER DISCHARGES FROM CONSTRUCTION SITES SHALL NOT CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION, OR DEGRADATION OF STATE WATERS. ALL WORK AND EARTH DISTURBANCE SHALL BE DONE IN A MANNER THAT MINIMIZES POLLUTION OF ANY ON-SITE OR OFF SITE WATERS, INCLUDING WETLANDS.

3. NOTWITHSTANDING ANYTHING DEPICTED IN THESE PLANS IN WORDS OR GRAPHIC REPRESENTATION, ALL DESIGN AND CONSTRUCTION RELATED TO ROADS, STORM DRAINAGE AND EROSION CONTROL SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE MOST RECENT VERSION OF THE RELEVANT ADOPTED EL PASO COUNTY STANDARDS, INCLUDING THE LAND DEVELOPMENT CODE, THE ENGINEERING CRITERIA MANUAL, THE DRAINAGE CRITERIA MANUAL, AND THE DRAINAGE CRITERIA MANUAL VOLUME 2. ANY DEVIATIONS TO REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING.

4. A SEPARATE STORMWATER MANAGEMENT PLAN (SWMP) FOR THIS PROJECT SHALL BE COMPLETED AND AN EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP) ISSUED PRIOR TO COMMENCING CONSTRUCTION. DURING CONSTRUCTION THE SWMP IS THE RESPONSIBILITY OF THE DESIGNATED STORMWATER MANAGER, SHALL BE LOCATED ON SITE AT ALL TIMES AND SHALL BE KEPT UP TO DATE WITH WORK PROGRESS AND CHANGES IN THE FIELD.

5. ONCE THE ESQCP HAS BEEN ISSUED, THE CONTRACTOR MAY INSTALL THE INITIAL STAGE EROSION AND SEDIMENT CONTROL BMPS AS INDICATED ON THE GEC. A PRECONSTRUCTION MEETING BETWEEN THE CONTRACTOR, ENGINEER, AND EL PASO COUNTY WILL BE HELD PRIOR TO ANY CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE APPLICANT TO COORDINATE THE MEETING TIME AND PLACE WITH COUNTY DSD INSPECTIONS STAFF.

6. SOIL EROSION CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, OR ANY DISTURBED LAND AREA SHALL BE COMPLETED WITHIN 21 CALENDAR DAYS AFTER FINAL GRADING, OR FINAL EARTH DISTURBANCE, HAS BEEN COMPLETED. DISTURBED AREAS AND STOCKPILES WHICH ARE NOT AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN 30 DAYS SHALL ALSO BE MULCHED WITHIN 21 DAYS AFTER INTERIM GRADING. AN AREA THAT IS GOING TO REMAIN IN AN INTERIM STATE FOR MORE THAN 60 DAYS SHALL ALSO BE SEEDED. ALL TEMPORARY SOIL EROSION CONTROL MEASURES AND BMPS SHALL BE MAINTAINED UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED AND ESTABLISHED.

7. TEMPORARY SOIL EROSION CONTROL FACILITIES SHALL BE REMOVED AND EARTH DISTURBANCE AREAS GRADED AND STABILIZED WITH PERMANENT SOIL EROSION CONTROL MEASURES PURSUANT TO STANDARDS AND SPECIFICATION PRESCRIBED IN THE DCM VOLUME II AND THE ENGINEERING CRITERIA MANUAL (ECM) APPENDIX I.

8. ALL PERSONS ENGAGED IN EARTH DISTURBANCE SHALL IMPLEMENT AND MAINTAIN ACCEPTABLE SOIL EROSION AND SEDIMENT CONTROL MEASURES INCLUDING BMPS IN CONFORMANCE WITH THE EROSION CONTROL TECHNICAL STANDARDS OF THE DRAINAGE CRITERIA MANUAL (DCM) VOLUME II AND IN ACCORDANCE WITH THE STORMWATER MANAGEMENT PLAN (SWMP).

9. ALL TEMPORARY EROSION CONTROL FACILITIES INCLUDING BMPS AND ALL PERMANENT FACILITIES INTENDED TO CONTROL EROSION OF ANY EARTH DISTURBANCE OPERATIONS, SHALL BE INSTALLED AS DEFINED IN THE APPROVED PLANS, THESWMP AND THE DCM VOLUME II AND MAINTAINED THROUGHOUT THE DURATION OF THE EARTH DISTURBANCE OPERATION.

10. ANY EARTH DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER SO AS TO EFFECTIVELY REDUCE ACCELERATED SOIL EROSION AND RESULTING SEDIMENTATION. ALL DISTURBANCES SHALL BE DESIGNED, CONSTRUCTED, AND COMPLETED SO THAT THE EXPOSED AREA OF ANY DISTURBED LAND SHALL BE LIMITED TO THE SHORTEST PRACTICAL PERIOD OF TIME.

11. ANY TEMPORARY OR PERMANENT FACILITY DESIGNED AND CONSTRUCTED FOR THE CONVEYANCE OF STORMWATER AROUND, THROUGH, OR FROM THE EARTH DISTURBANCE AREA SHALL BE DESIGNED TO LIMIT THE DISCHARGE TO A NON-EROSIVE VELOCITY.

12. CONCRETE WASH WATER SHALL BE CONTAINED AND DISPOSED OF IN ACCORDANCE WITH THE SWMP. NO WASH WATER SHALL BE DISCHARGED TO OR ALLOWED TO RUNOFF TO STATE WATERS, INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES.

13. EROSION CONTROL BLANKETING IS TO BE USED ON SLOPES STEEPER THAN 3:1.

14. BUILDING, CONSTRUCTION, EXCAVATION, OR OTHER WASTE MATERIALS SHALL NOT BE TEMPORARILY PLACED OR STORED IN THE STREET, ALLEY, OR OTHER PUBLIC WAY, UNLESS IN ACCORDANCE WITH AN APPROVED TRAFFIC CONTROL PLAN. BMP'S MAY BE REQUIRED BY EL PASO COUNTY ENGINEERING IF DEEMED NECESSARY, BASED ON SPECIFIC CONDITIONS AND CIRCUMSTANCES.

15. VEHICLE TRACKING OF SOILS AND CONSTRUCTION DEBRIS OFF-SITE SHALL BE MINIMIZED. MATERIALS TRACKED OFFSITE SHALL BE CLEANED UP AND PROPERLY DISPOSED OF IMMEDIATELY.

16. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL WASTES FROM THE CONSTRUCTION SITE FOR DISPOSAL IN ACCORDANCE WITH LOCAL AND STATE REGULATORY REQUIREMENTS. NO CONSTRUCTION DEBRIS, TREE SLASH, BUILDING MATERIAL WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURIED, DUMPED, OR DISCHARGED AT THE SITE.

17. THE OWNER, SITE DEVELOPER, CONTRACTOR, AND/OR THEIR AUTHORIZED AGENTS SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL CONSTRUCTION DEBRIS, DIRT, TRASH, ROCK, SEDIMENT, AND SAND THAT MAY ACCUMULATE IN THE STORM SEWER OR OTHER DRAINAGE CONVEYANCE SYSTEM AND STORMWATER APPURTENANCES AS A RESULT OF SITE DEVELOPMENT.

18. THE QUANTITY OF MATERIALS STORED ON THE PROJECT SITE SHALL BE LIMITED, AS MUCH AS PRACTICAL, TO THAT QUANTITY REQUIRED TO PERFORM THE WORK IN AN ORDERLY SEQUENCE. ALL MATERIALS STORED ON-SITE SHALL BE STORED IN A NEAT, ORDERLY MANNER, IN THEIR ORIGINAL CONTAINERS, WITH ORIGINAL MANUFACTURER'S LABELS.

19. NO CHEMICALS ARE TO BE USED BY THE CONTRACTOR, WHICH HAVE THE POTENTIAL TO BE RELEASED IN STORMWATER UNLESS PERMISSION FOR THE USE OF A SPECIFIC CHEMICAL IS GRANTED IN WRITING BY THE ECM ADMINISTRATOR. IN GRANTING THE USE OF SUCH CHEMICALS, SPECIAL CONDITIONS AND MONITORING MAY BE REQUIRED.

20. BULK STORAGE STRUCTURES FOR PETROLEUM PRODUCTS AND OTHER CHEMICALS SHALL HAVE ADEQUATE PROTECTION SO AS TO CONTAIN ALL SPILLS AND PREVENT ANY SPILLED MATERIAL FROM ENTERING STATE WATERS, INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES.

21. NO PERSON SHALL CAUSE THE IMPEDIMENT OF STORMWATER FLOW IN THE FLOW LINE OF THE CURB AND GUTTER OR IN THE DITCHLINE.

22. INDIVIDUALS SHALL COMPLY WITH THE "COLORADO WATER QUALITY CONTROL ACT" (TITLE 25, ARTICLE 8, CRS), AND THE "CLEAN WATER ACT" (33 USC 1344), IN ADDITION TO THE REQUIREMENTS INCLUDED IN THE DCM VOLUME II AND THE ECM APPENDIX I. ALL APPROPRIATE PERMITS MUST BE OBTAINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION (NPDES, FLOODPLAIN, 404, FUGITIVE DUST, ETC.). IN THE EVENT OF CONFLICTS BETWEEN THESE REQUIREMENTS AND LAWS, RULES, OR REGULATIONS OF OTHER FEDERAL, STATE, OR COUNTY AGENCIES, THE MORE RESTRICTIVE LAWS, RULES, OR REGULATIONS SHALL APPLY.

23. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE AT APPROVED CONSTRUCTION ACCESS POINTS.

24. PRIOR TO ACTUAL CONSTRUCTION THE PERMITEE SHALL VERIFY THE LOCATION OF EXISTING UTILITIES.

25. A WATER SOURCE SHALL BE AVAILABLE ON SITE DURING EARTHWORK OPERATIONS AND UTILIZED AS REQUIRED TO MINIMIZE DUST FROM EARTHWORK EQUIPMENT AND WIND.

26. THE SOILS REPORT FOR THIS SITE HAS BEEN PREPARED BY VIVID ENGINEERING GROUP, INC. DATED FEBRUARY 28, 2020, AND SHALL BE CONSIDERED A PART OF THESE PLANS.

27. AT LEAST TEN DAYS PRIOR TO THE ANTICIPATED START OF CONSTRUCTION, FOR PROJECTS THAT WILL DISTURB 1 ACRE OR MORE, THE OWNER OR OPERATOR OF CONSTRUCTION ACTIVITY SHALL SUBMIT A PERMIT APPLICATION FOR STORMWATER DISCHARGE TO THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, WATER QUALITY DIVISION. THE APPLICATION CONTAINS CERTIFICATION OF COMPLETION OF A STORMWATER MANAGEMENT PLAN (SWMP), OF WHICH THIS GRADING AND EROSION CONTROL PLAN MAY BE A PART. FOR INFORMATION OR APPLICATION MATERIALS CONTACT:

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT
WATER QUALITY CONTROL DIVISION
WQCD - PERMITS
4300 CHERRY CREEK DRIVE SOUTH
DENVER, CO 80246-1530
ATTN: PERMITS UNIT

28. ALL AREAS NOTED TO BE RESEEDED SHALL BE SEEDED WITH A NATIVE AND INTRODUCED GRASS MIXTURE. THE SEED WILL BE APPLIED USING MECHANICAL TYPE DRILLS AT 0.25"-0.5" INTO TOPSOIL. AREA NOT ACCESSIBLE TO A DRILL SEEDER AND SLOPES STEEPER THAN 2:1 SHALL BE HAND BROADCAST AT DOUBLE THE ABOVE SEED RATE AND RAKED AT 1/4 TO 1/2 INTO THE TOPSOIL. ALL SEEDED AREAS WILL BE MULCHED: 1-1/2 TONS CERTIFIED WEED FREE NATIVE HAY PER ACRE MECHANICALLY CRIMPED IN TOPSOIL IN COMBINATION WITH AN ORGANIC MULCH TACKIFIER. MAINTENANCE OF ANY SWALES WILL INCLUDE EROSION CONTROL AND PREVENTION, DEBRIS REMOVAL AND OCCASIONAL MOWING. CARE SHALL BE USED DURING THE REMOVAL OF SEDIMENT FROM ANY DRAINAGE WAYS. ANY SEEDING OR EROSION CONTROL MEASURE THAT IS DISTURBED DURING MAINTENANCE SHALL BE IMMEDIATELY REPAIRED. THE SEED MIX SHALL BE MADE UP OF THE MIX LISTED (SEE RIGHT).

ESTIMATED TIMING, CONSTRUCTION STAGING AND SEQUENCING:

INSTALL TEMPORARY EROSION CONTROL - 1 WEEK
PERIMETER SILT FENCING - STRAW BALE BARRIERS
PROJECT INSTALLATION - 5 MONTHS
INSTALL FINAL SITE IMPROVEMENTS - 4 WEEKS
REMOVE TEMPORARY EROSION CONTROL - 2 DAYS

MINIMUM BEST MANAGEMENT PRACTICES ELEMENTS:

STEP 1- EROSION AND SEDIMENT CONTROL
INSTALL SEDIMENT TRAPPING DEVICES (PERIMETER CONTROLS) PRIOR TO THE START OF CONSTRUCTION.
STEP 2- SPILL PREVENTION AND RESPONSE
STEP 3- MATERIAL MANAGEMENT
MATERIAL AND EQUIPMENT STORAGE AREAS SHALL BE SECURE AND CONTAINED TO PREVENT DISCHARGE OF ANY MATERIAL IN RUNOFF. WASTE SHALL BE CONTAINED AND DISPOSED OF PROPERLY.
MAINTAIN BMP'S DURING BUILDING AND UTILITY CONSTRUCTION.
STEP 4- INSPECTION AND MAINTENANCE
(SEE EROSION CONTROL NOTES)
STEP 5- INSTALL FINAL STABILIZATION - BASE COURSE, LANDSCAPING, EROSION CONTROL BLANKETS, AND SEEDING.
STEP 6- REMOVE TEMPORARY CONTROLS - SILT FENCING AFTER PERMANENT FEATURES ARE INSTALLED.

FINAL STABILIZATION AND LONG-TERM STORMWATER MANAGEMENT:

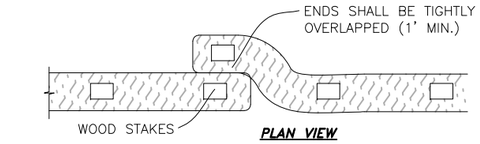
FINAL STABILIZATION MEASURES INCLUDE BASE COURSE AND REVEGETATION

SEED MIX

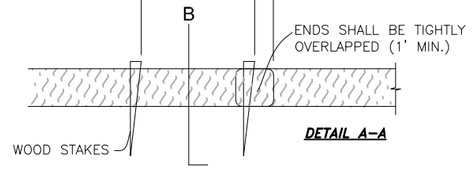
AREAS DISTURBED BY THE EARTHWORK SHALL BE PERMANENTLY REVEGETATED WITH NATIVE GRASSES. NATIVE SEED MIX FOR THIS PROJECT SHALL BE AS FOLLOWS:

COMMON NAME	RECOMMENDED CULTIVAR	% OF SEED MIX	NON IRRIGATED PLS RATE PER ACRE DRILL	BROADCAST
BIG BLUESTEM, NATIVE	KAW, BISON, CHAMP	20.00%	5.5	11.0
BLUE GRAMA, NATIVE	LOVINGTON, HACHITA, ALMA	10.00%	1.5	3.0
GREEN NEEDLEGRASS, NATIVE	LODORM	10.00%	5.0	10.0
WESTERN WHEATGRASS, NATIVE	ARRIBA, BARTON	20.00%	8.0	16.0
SIDEOATS GRAMA, NATIVE	VAUGHN, BUTTE, EL RENO, NINER	10.00%	4.5	9.0
SWITHGRASS, NATIVE	BLACKWELL, GREENVILLE	10.00%	2.0	4.0
PRAIRIE SANDREED, NATIVE	GOSHEN, PRONGHORN	10.00%	3.5	7.0
YELLOW INDIANGRASS, NATIVE	CHEYENNE, HOLT, LLANO	10.00%	5.0	10.0

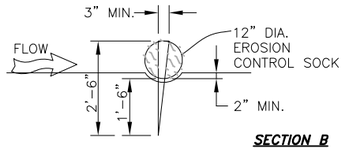
SEEDING APPLICATION: DRILL SEED 1/4" TO 1/2" INTO TOPSOIL. IN AREAS INACCESSIBLE TO A DRILL, HAND BROADCAST AT DOUBLE THE RATE AND RAKE 1/4" TO 1/2" INTO THE TOPSOIL. MULCHING APPLICATION: 1-1/2 TONS NATIVE HAY PER ACRE, MECHANICALLY CRIMPED INTO THE TOPSOIL.



PLAN VIEW



DETAIL A-A



SECTION B

EROSION CONTROL SOCK INSTALLATION NOTES

1. SEE PLAN VIEW FOR THE LOCATION AND LENGTH OF EROSION CONTROL SOCK.
2. EROSION CONTROL SOCKS INDICATED ON THE PLANS SHALL BE INSTALLED AFTER ANY LAND-DISTURBING ACTIVITIES OCCUR.
3. EROSION CONTROL SOCKS SHALL CONSIST OF STRAW, COMPOST, EXCELSIOR, OR COCONUT FIBER.
4. NOT FOR USE IN CONCENTRATED FLOW AREAS.
5. THE EROSION CONTROL SOCK SHALL BE TRENCHED INTO THE GROUND A MINIMUM OF ⅓ OF THE DIAMETER OF THE ECS.

EROSION CONTROL SOCK MAINTENANCE NOTES

1. CONTRACTOR SHALL INSPECT EROSION CONTROL SOCKS DAILY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT UPSTREAM SEDIMENT AS NECESSARY.
2. SEDIMENT ACCUMULATED UPSTREAM OF EROSION CONTROL SOCKS SHALL BE REMOVED WHEN THE UPSTREAM SEDIMENT DEPTH IS WITHIN ½ THE HEIGHT OF THE CREST OF LOG.
3. EROSION CONTROL SOCKS SHALL BE REMOVED AT THE END OF CONSTRUCTION. IF ANY DISTURBED AREA EXISTS AFTER REMOVAL, IT SHALL BE DRILL SEEDED AND CRIMP MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE OWNER.

C / C6 **EROSION CONTROL SOCK**
SCALE: N.T.S.

JDS-HYDRO CONSULTANTS, INC.
5540 TECH CENTER DR., SUITE 100
COLORADO SPRINGS, COLORADO 80919
(719) 227-0072

WIDEFIELD WATER AND SANITATION DISTRICT

ROLLING HILLS 2MG POTABLE WATER TANK AND INLET PIPELINE

OVERALL EROSION CONTROL NOTES AND DETAILS

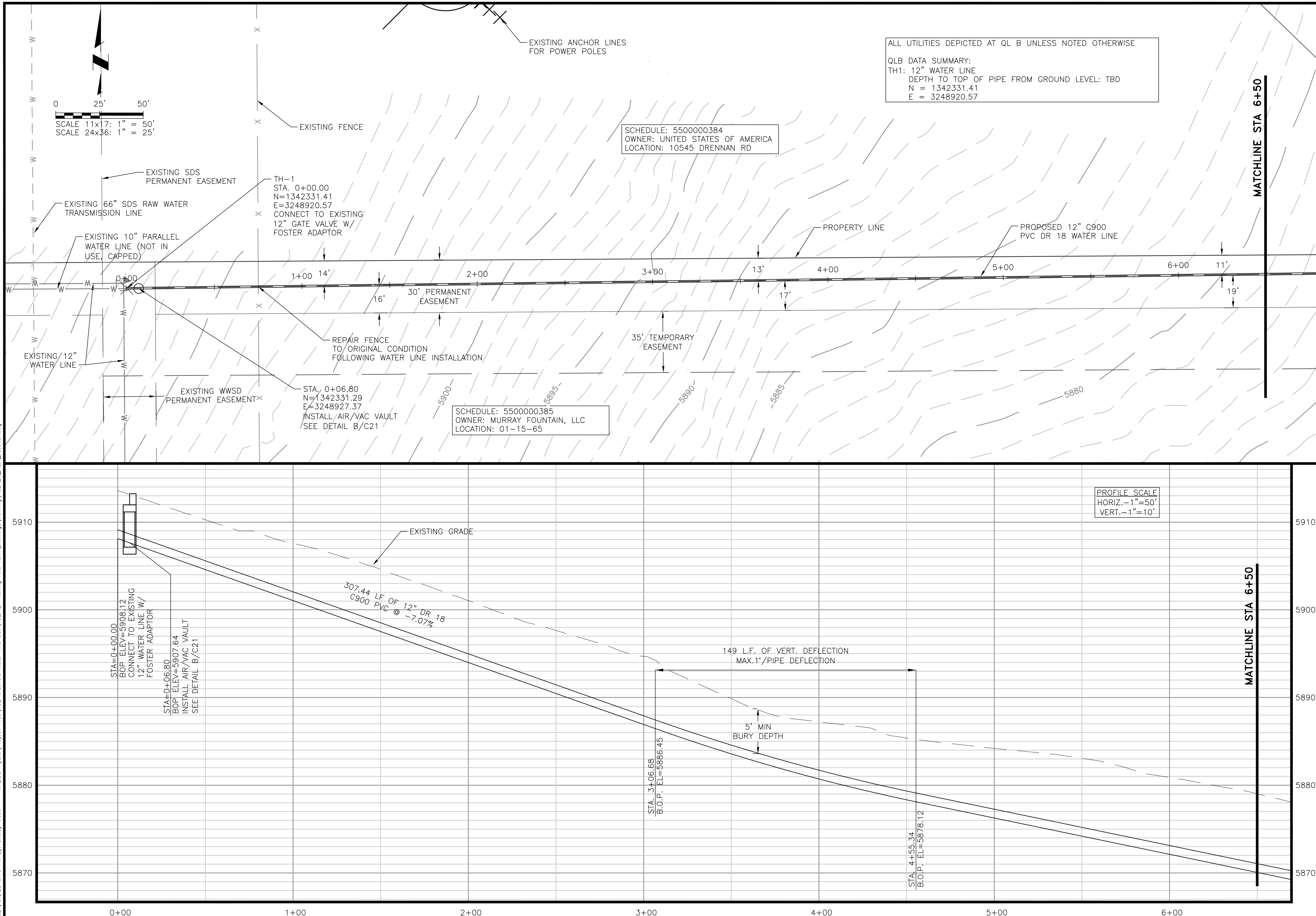
REVISIONS				
NO.	DESCRIPTION	BY	APP.	DATE
1				
2				
3				
4				
5				
6				
7				

80% DESIGN

Project No.: 102.121
Date: 01/28/21
Design: GJD
Drawn: SNW
Check: JPM

C6

SHEET 9 OF 37



2021/01/28 3:46 PM By: Shelby West J:\JDS-Hydro\Project Files\102 Widefield Water And San\102.121 Rolling Hills Tank\Drawings\Working\102121_P&P_recover.dwg

JDS-HYDRO CONSULTANTS, INC.
5540 TECH CENTER DR., SUITE 100
COLORADO SPRINGS, COLORADO 80919
(719) 227-0072

DISCLAIMER: THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS. ANY ERRORS OR OMISSIONS SHALL BE REPORTED TO JDS-HYDRO CONSULTANTS, INC. JDS-HYDRO ASSUMES NO LIABILITY FOR UNAUTHORIZED CHANGES AND/OR REVISIONS MADE TO PLANS.

WIDEFIELD WATER AND SANITATION DISTRICT

ROLLING HILLS 2MG POTABLE WATER TANK AND INLET PIPELINE

PLAN AND PROFILE

ALIGNMENT STA 0+00 TO 6+50

REVISIONS

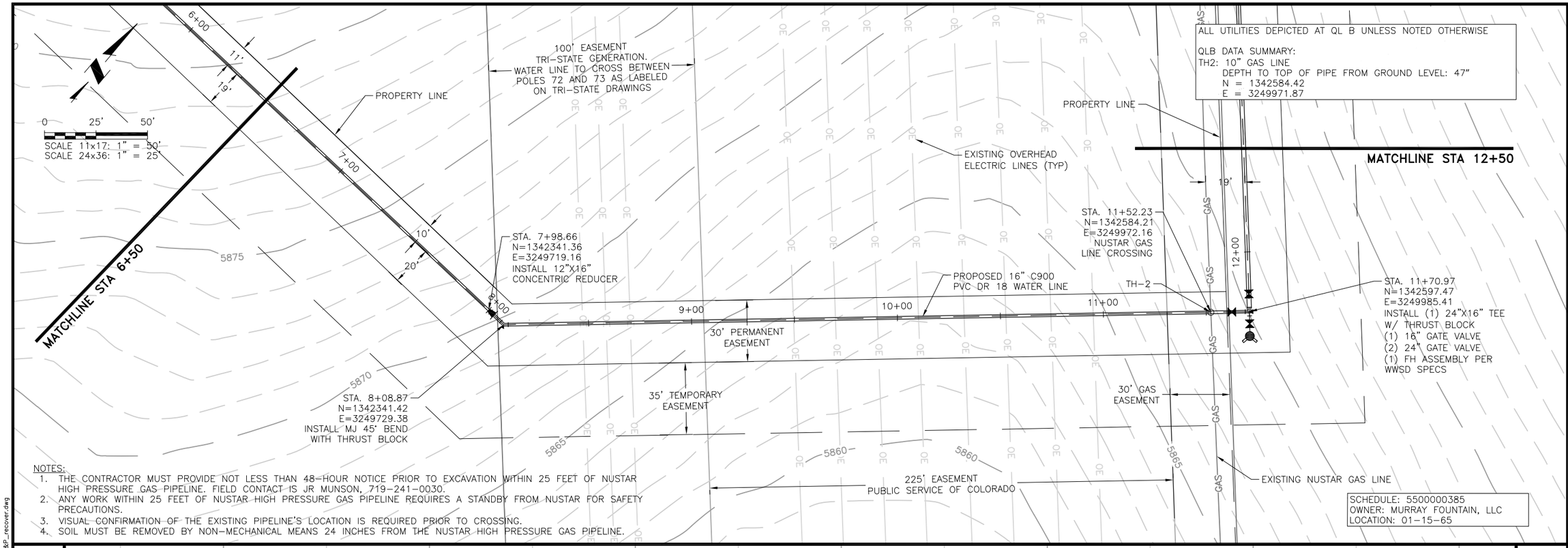
NO.	DESCRIPTION	BY	APP.	DATE
1				
2				
3				
4				
5				
6				
7				

80% DESIGN

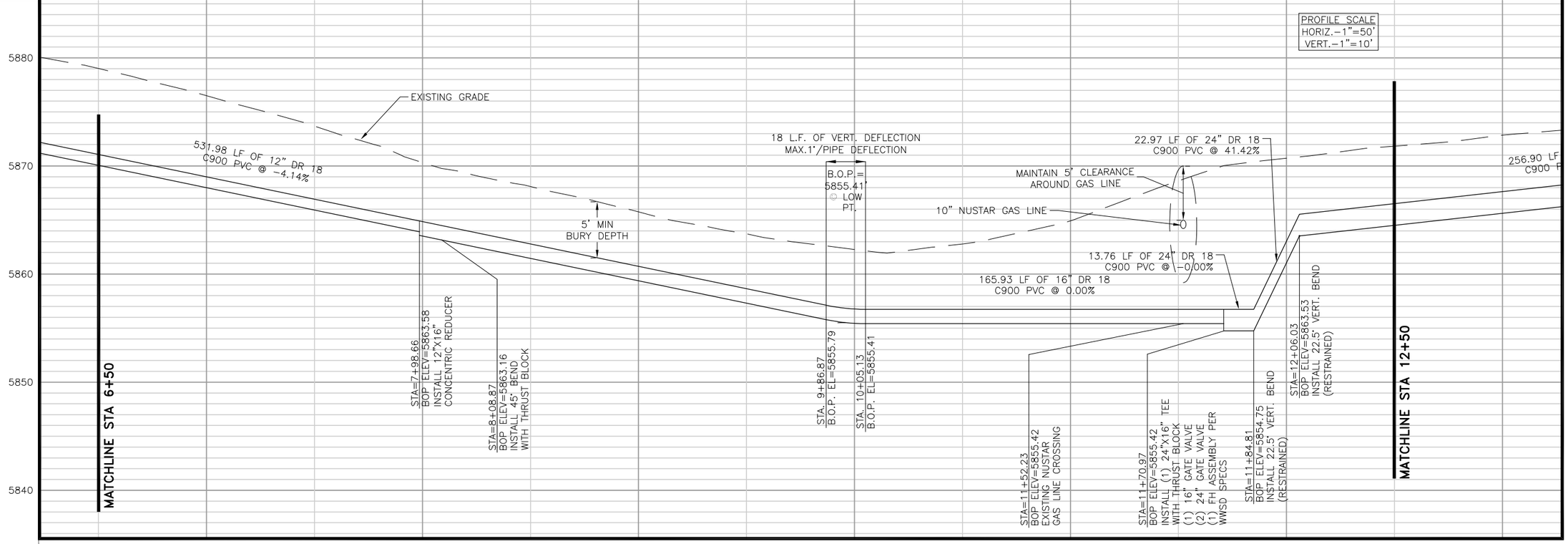
Project No.: 102.121
Date: 01/28/21
Design: GJD
Drawn: SNW
Check: JPM

C7

SHEET 10 OF 37



NOTES:
1. THE CONTRACTOR MUST PROVIDE NOT LESS THAN 48-HOUR NOTICE PRIOR TO EXCAVATION WITHIN 25 FEET OF NUSTAR HIGH PRESSURE GAS PIPELINE. FIELD CONTACT IS JR MUNSON, 719-241-0030.
2. ANY WORK WITHIN 25 FEET OF NUSTAR HIGH PRESSURE GAS PIPELINE REQUIRES A STANDBY FROM NUSTAR FOR SAFETY PRECAUTIONS.
3. VISUAL CONFIRMATION OF THE EXISTING PIPELINE'S LOCATION IS REQUIRED PRIOR TO CROSSING.
4. SOIL MUST BE REMOVED BY NON-MECHANICAL MEANS 24 INCHES FROM THE NUSTAR HIGH PRESSURE GAS PIPELINE.



JDS-HYDRO CONSULTANTS, INC.
5540 TECH CENTER DR., SUITE 100
COLORADO SPRINGS, COLORADO 80919
(719) 227-0072

WIDEFIELD WATER AND SANITATION DISTRICT

ROLLING HILLS 2MG POTABLE WATER TANK AND INLET PIPELINE

PLAN AND PROFILE

ALIGNMENT STA 6+50 TO 12+50

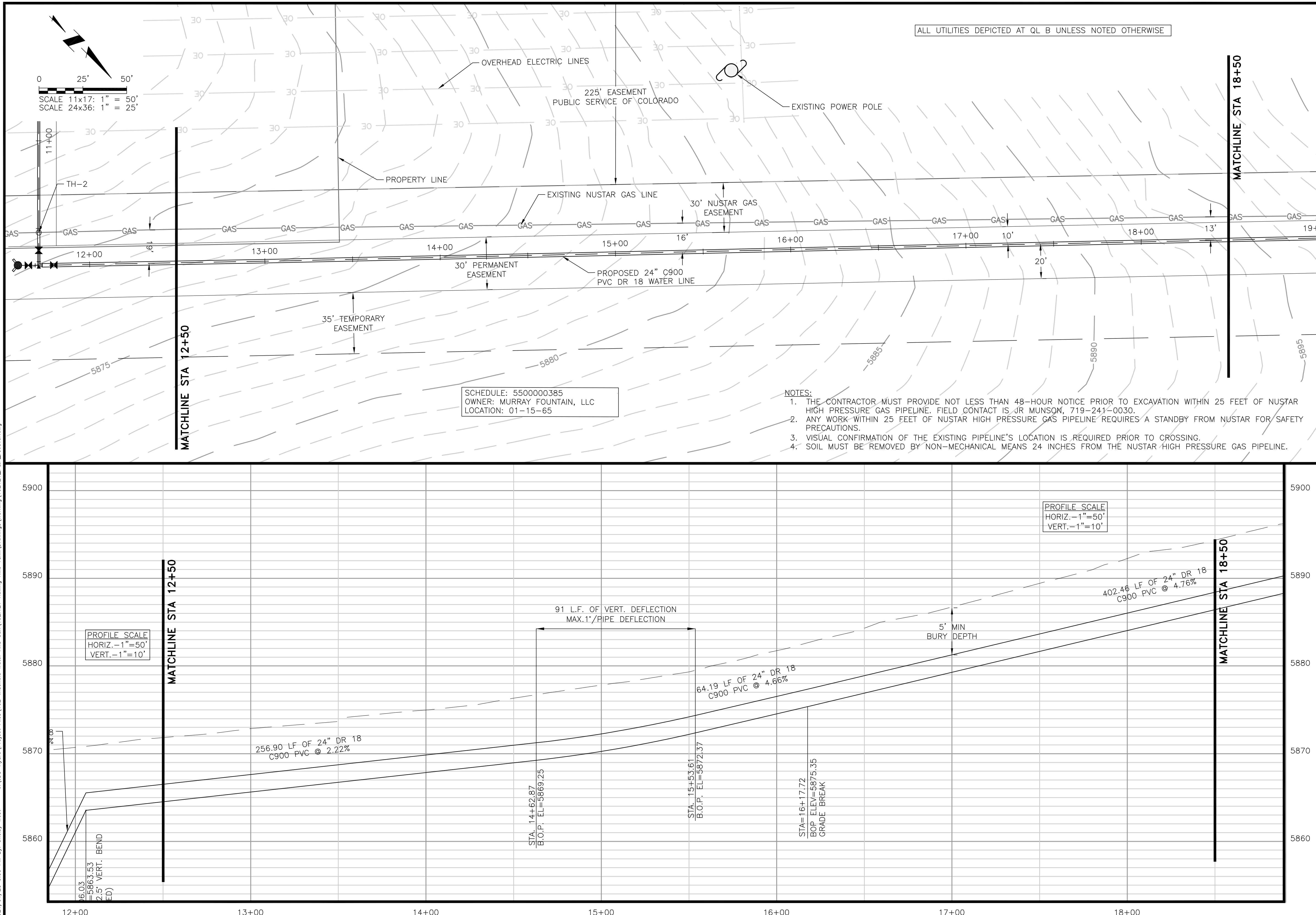
REVISIONS				
NO.	DESCRIPTION	BY	APP.	DATE
1				
2				
3				
4				
5				
6				
7				

80% DESIGN

Project No.:	102.121
Date:	01/28/21
Design:	GJD
Drawn:	SNW
Check:	JPM

C8

SHEET 11 OF 37


ALL UTILITIES DEPICTED AT QL B UNLESS NOTED OTHERWISE
0 25' 50'
SCALE 11x17: 1" = 50'
SCALE 24x36: 1" = 25'
OVERHEAD ELECTRIC LINES
225' EASEMENT
PUBLIC SERVICE OF COLORADO
EXISTING POWER POLE
PROPERTY LINE
TH-2
11+00
EXISTING NUSTAR GAS LINE
30' NUSTAR GAS
EASEMENT
GAS
12+00
13+00
14+00
15+00
16+00
17+00
18+00
19+00
19'
16'
10'
13'
20'
30' PERMANENT
EASEMENT
PROPOSED 24" C900
PVC DR 18 WATER LINE
35' TEMPORARY
EASEMENT
5875
5880
5885
5890
5895
MATCHLINE STA 12+50
MATCHLINE STA 18+50
SCHEDULE: 5500000385
OWNER: MURRAY FOUNTAIN, LLC
LOCATION: 01-15-65
NOTES:
1. THE CONTRACTOR MUST PROVIDE NOT LESS THAN 48-HOUR NOTICE PRIOR TO EXCAVATION WITHIN 25 FEET OF NUSTAR HIGH PRESSURE GAS PIPELINE. FIELD CONTACT IS JR MUNSON, 719-241-0030.
2. ANY WORK WITHIN 25 FEET OF NUSTAR HIGH PRESSURE GAS PIPELINE REQUIRES A STANDBY FROM NUSTAR FOR SAFETY PRECAUTIONS.
3. VISUAL CONFIRMATION OF THE EXISTING PIPELINE'S LOCATION IS REQUIRED PRIOR TO CROSSING.
4. SOIL MUST BE REMOVED BY NON-MECHANICAL MEANS 24 INCHES FROM THE NUSTAR HIGH PRESSURE GAS PIPELINE.
5900
5890
5880
5870
5860
PROFILE SCALE
HORIZ.-1"=50'
VERT.-1"=10'
91 L.F. OF VERT. DEFLECTION
MAX.1°/PIPE DEFLECTION
5' MIN
BURY DEPTH
256.90 LF OF 24" DR 18
C900 PVC @ 2.22%
64.19 LF OF 24" DR 18
C900 PVC @ 4.66%
402.46 LF OF 24" DR 18
C900 PVC @ 4.76%
STA. 14+62.87
B.O.P. EL=5869.25
STA. 15+53.61
B.O.P. EL=5872.37
STA=16+17.72
BOP ELEV=5875.35
GRADE BREAK
=5863.53
2.5° VERT. BEND

JDS-HYDRO CONSULTANTS, INC.
5540 TECH CENTER DR., SUITE 100
COLORADO SPRINGS, COLORADO 80919
(719) 227-0072

WIDEFIELD WATER AND SANITATION DISTRICT

ROLLING HILLS 2MG POTABLE WATER TANK AND INLET PIPELINE

PLAN AND PROFILE

ALIGNMENT STA 12+50 TO 18+50

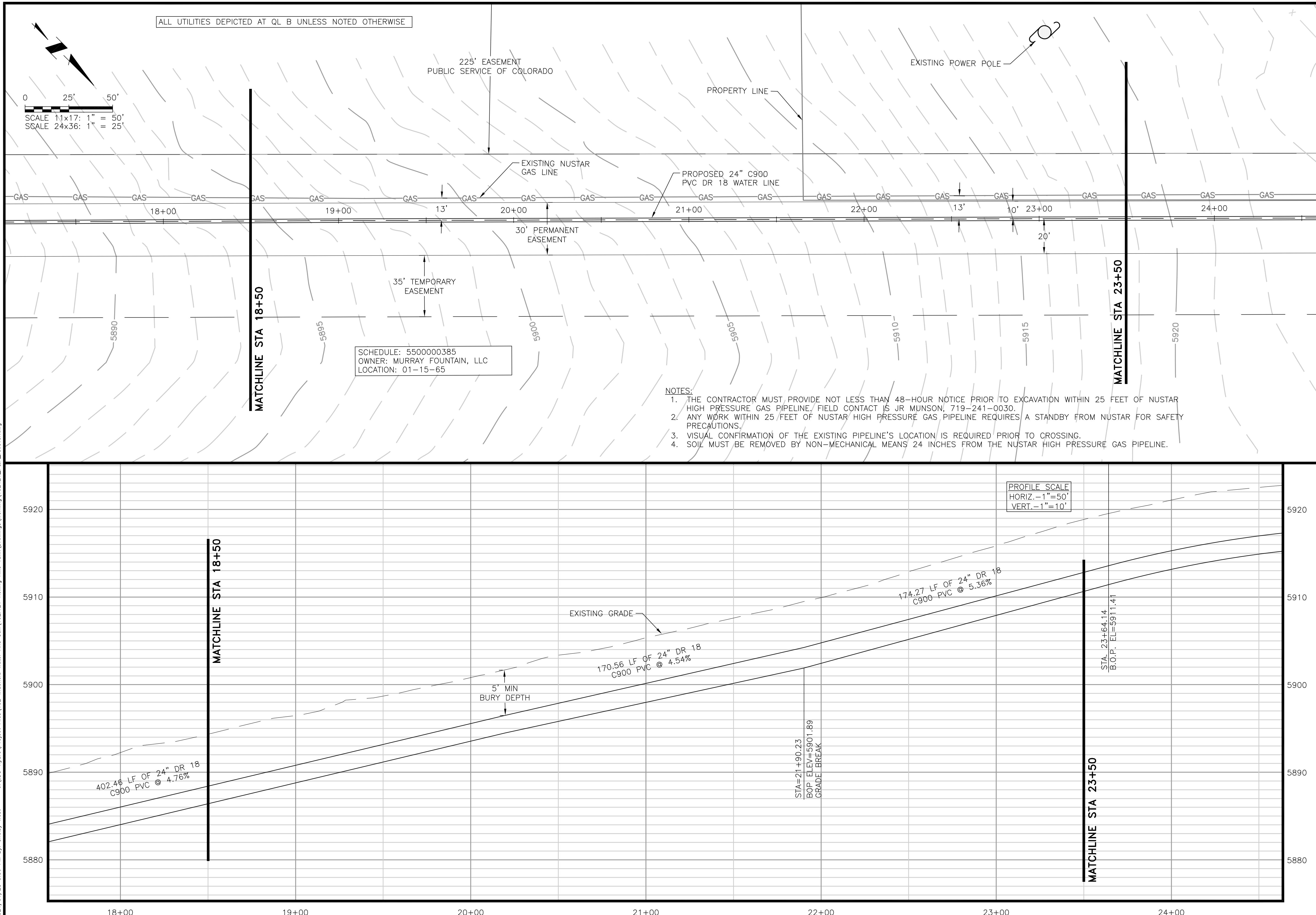
REVISIONS				
NO.	DESCRIPTION	BY	APP.	DATE
1				
2				
3				
4				
5				
6				
7				

80% DESIGN

Project No.: 102.121
Date: 01/28/21
Design: GJD
Drawn: SNW
Check: JPM

C9

SHEET 12 OF 37



JDS-HYDRO CONSULTANTS, INC.
5540 TECH CENTER DR., SUITE 100
COLORADO SPRINGS, COLORADO 80919
(719) 227-0072

DISCLAIMER: THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS. ANY ERRORS OR OMISSIONS SHALL BE REPORTED TO JDS-HYDRO CONSULTANTS, INC. JDS-HYDRO ASSUMES NO LIABILITY FOR UNAUTHORIZED CHANGES AND/OR REVISIONS MADE TO PLANS.

WIDEFIELD WATER AND SANITATION DISTRICT

ROLLING HILLS 2MG POTABLE WATER TANK AND INLET PIPELINE

PLAN AND PROFILE

ALIGNMENT STA 18+50 TO 23+50

REVISIONS

NO.	DESCRIPTION	BY	APP.	DATE
1				
2				
3				
4				
5				
6				
7				

80% DESIGN

Project No.: 102.121
Date: 01/28/21
Design: GJD
Drawn: SNW
Check: JPM

C10

SHEET 13 OF 37

J:\JDS-Hydro\Project Files\102 Widefield Water And San\102.121 Rolling Hills Tank\Drawings\Working\102121_P&P_recover.dwg

2021/01/28 3:56 PM By: Shelby West

0 25' 50'
SCALE 11x17: 1" = 50'
SCALE 24x36: 1" = 25'

STA. 26+19.65
N=1,343,600.34
E=3,248,939.98
INSTALL (2) 24" GATE VALVES
(1) 24" X 6" SWIVEL TEE
(1) FH ASSEMBLY PER
WWSD SPECS

SDS EASEMENT

ALL UTILITIES DEPICTED AT QL B UNLESS NOTED OTHERWISE

27+00 10' 28+00 29+00 30+00

20'

30' PERMANENT EASEMENT

35' TEMPORARY EASEMENT

STA. 26+38.94
N=1343613.71
E=3248926.07
MJ 45° BEND
WITH THRUST BLOCK

PROPERTY LINE

30" GAS EASEMENT

225' EASEMENT
PUBLIC SERVICE OF COLORADO

PROPOSED 24" C900
PVC DR 18 WATER LINE

REPAIR FENCE TO ORIGINAL
CONDITION FOLLOWING
WATER LINE INSTALLATION

EXISTING FENCE

STA. 25+47.07
N=1343550.06
E=3248992.33
INSTALL AIR/VAC VAULT
SEE DETAIL B/C21

MATCHLINE STA 29+50

SCHEDULE: 5500000385
OWNER: MURRAY FOUNTAIN, LLC
LOCATION: 01-15-65

MATCHLINE STA 23+50

NOTES:
1. THE CONTRACTOR MUST PROVIDE NOT LESS THAN 48-HOUR NOTICE PRIOR TO EXCAVATION WITHIN 25 FEET OF NUSTAR HIGH PRESSURE GAS PIPELINE. FIELD CONTACT IS JR MUNSON, 719-241-0030.
2. ANY WORK WITHIN 25 FEET OF NUSTAR HIGH PRESSURE GAS PIPELINE REQUIRES A STANDBY FROM NUSTAR FOR SAFETY PRECAUTIONS.
3. VISUAL CONFIRMATION OF THE EXISTING PIPELINE'S LOCATION IS REQUIRED PRIOR TO CROSSING.
4. SOIL MUST BE REMOVED BY NON-MECHANICAL MEANS 24 INCHES FROM THE NUSTAR HIGH PRESSURE GAS PIPELINE.

294 L.F. OF VERT. DEFLECTION
MAX.1°/PIPE DEFLECTION

B.O.P.=5915.97'
@ HIGH PT.

PROFILE SCALE
HORIZ.-1"=50'
VERT.-1"=10'

5' MIN
BURY DEPTH

153.72 LF OF 24" DR 18
C900 PVC @ -4.18%

333.89 LF OF 24" DR 18
C900 PVC @ -2.38%

STA. 23+64.14
B.O.P. EL=5911.41

STA=25+47.07
BOP ELEV=5915.92
RIM ELEV= 5923.00'
INSTALL AIR/VAC VAULT
SEE DETAIL B/C21

STA=26+19.65
BOP ELEV=5914.67
INSTALL (2) GATE VALVES
(1) 24" X 6" SWIVEL TEE
(1) FH ASSEMBLY PER
WWSD SPECS

STA=26+38.94
BOP ELEV=5914.04
INSTALL 45° BEND
WITH THRUST BLOCK

STA. 26+58.16
B.O.P. EL=5913.30

STA=28+11.75
BOP ELEV=5906.87
GRADE BREAK

5930
5920
5910
5900

24+00 25+00 26+00 27+00 28+00 29+00 30+00

JDS-HYDRO CONSULTANTS, INC.
5540 TECH CENTER DR., SUITE 100
COLORADO SPRINGS, COLORADO 80919
(719) 227-0072

WIDEFIELD WATER AND SANITATION DISTRICT

ROLLING HILLS 2MG POTABLE WATER TANK AND INLET PIPELINE

PLAN AND PROFILE

ALIGNMENT STA 23+50 TO 29+50

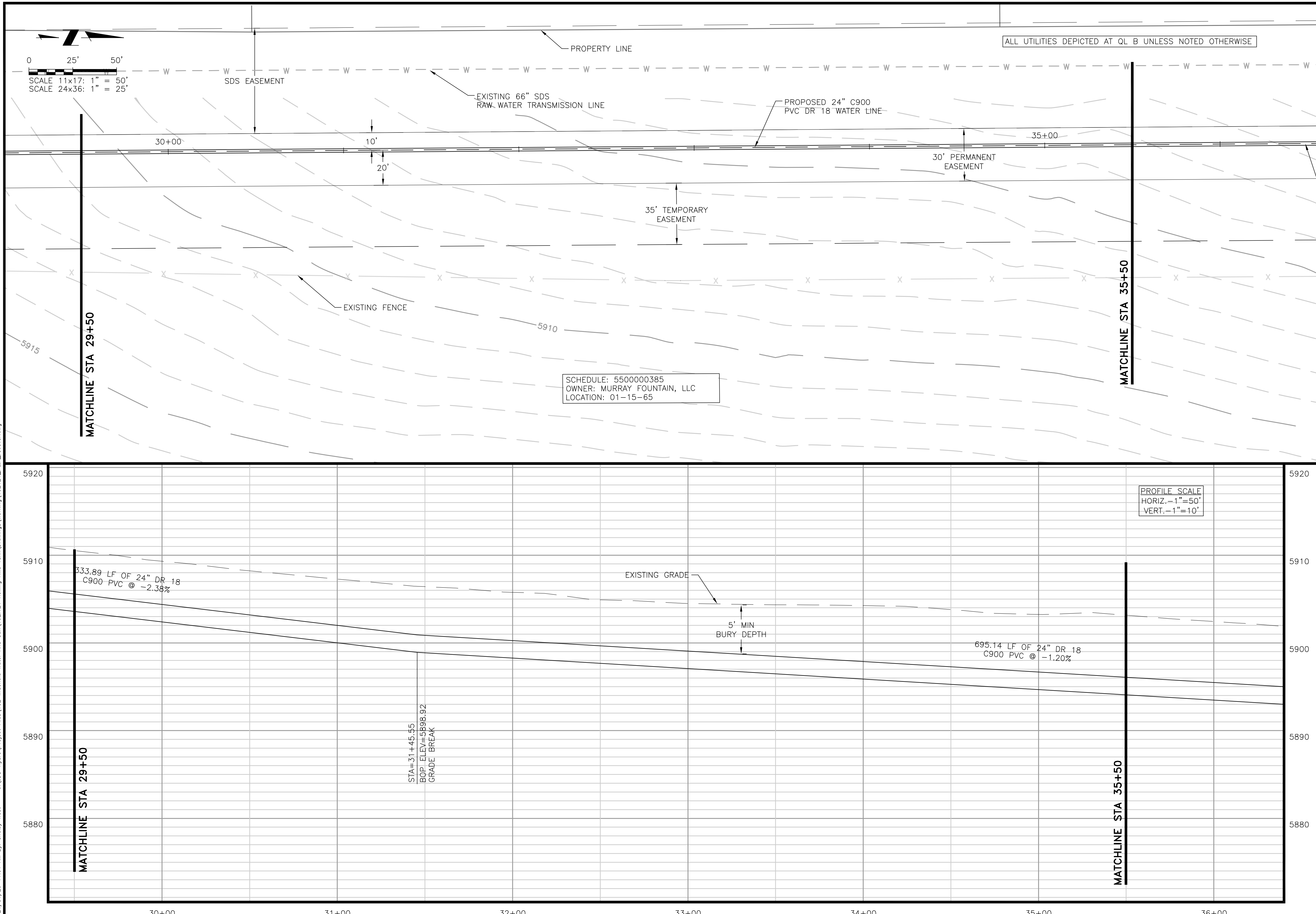
REVISIONS			
NO.	DESCRIPTION	BY	APP.	DATE
1				
2				
3				
4				
5				
6				
7				

80% DESIGN

Project No.: 102.121
Date: 01/28/21
Design: GJD
Drawn: SNW
Check: JPM

C11

SHEET 14 OF 37



2021/01/29 11:01 AM By: Shelby West J:\JDS-Hydro\Project Files\102 Widefield Water And San\102.121 Rolling Hills Tank\Drawings\Working\102121_P&P_recover.dwg

JDS-HYDRO CONSULTANTS, INC.
5540 TECH CENTER DR., SUITE 100
COLORADO SPRINGS, COLORADO 80919
(719) 227-0072

WIDEFIELD WATER AND SANITATION DISTRICT

ROLLING HILLS 2MG POTABLE WATER TANK AND INLET PIPELINE

PLAN AND PROFILE

ALIGNMENT STA 29+50 TO 35+50

REVISIONS

NO.	DESCRIPTION	BY	APP.	DATE
1				
2				
3				
4				
5				
6				
7				

80% DESIGN

Project No.: 102.121
Date: 01/28/21
Design: GJD
Drawn: SNW
Check: JPM

C12

ALL UTILITIES DEPICTED AT QL B UNLESS NOTED OTHERWISE

0 25' 50'
SCALE 11x17: 1" = 50'
SCALE 24x36: 1" = 25'

39+00 40+00 41+00 42+00 43+00 44+00

20' 30' PERMANENT EASEMENT
10'
35' TEMPORARY EASEMENT

38+00 37+00 36+00

REPAIR FENCE TO ORIGINAL CONDITION FOLLOWING WATER LINE INSTALLATION

STA. 38+30.52
N=1344805.25
E=3248916.85
INSTALL MJ 24" TEE
WITH THRUST BLOCK
(2) 24" GATE VALVES
(1) 24" X 6" REDUCER
(1) FH ASSEMBLY PER
WWSD SPECS

SDS EASEMENT

EXISTING FENCE

EXISTING 66" SDS
RAW WATER
TRANSMISSION LINE

PROPOSED 24" C900
PVC DR 18 WATER LINE

SCHEDULE: 5500000385
OWNER: MURRAY FOUNTAIN, LLC
LOCATION: 01-15-65

5910 5915 5920 5925 5930 5935 5940

MATCHLINE STA 41+50

MATCHLINE STA 35+50

5910 5900 5890 5880

EXISTING GRADE

5' MIN
BURY DEPTH

6' MIN
BURY DEPTH

286.57 LF OF 24" DR 18
C900 PVC @ 6.20%

STA. 41+26.66
B.O.P. EL=5908.33

PROFILE SCALE
HORIZ.-1"=50'
VERT.-1"=10'

MATCHLINE STA 35+50

STA=38+30.52
BOP ELEV=5890.72
INSTALL 24" TEE
WITH THRUST BLOCK
(2) 24" GATE VALVES
(1) 24" X 6" REDUCER
(1) FH ASSEMBLY PER
WWSD SPECS

STA=38+40.64
BOP ELEV=5890.60
GRADE BREAK

MATCHLINE STA 41+50

36+00 37+00 38+00 39+00 40+00 41+00 42+00

JDS-HYDRO CONSULTANTS, INC.
5540 TECH CENTER DR., SUITE 100
COLORADO SPRINGS, COLORADO 80919
(719) 227-0072

WIDEFIELD WATER AND SANITATION DISTRICT

ROLLING HILLS 2MG POTABLE WATER TANK AND INLET PIPELINE

PLAN AND PROFILE
ALIGNMENT STA 35+50 TO 41+50

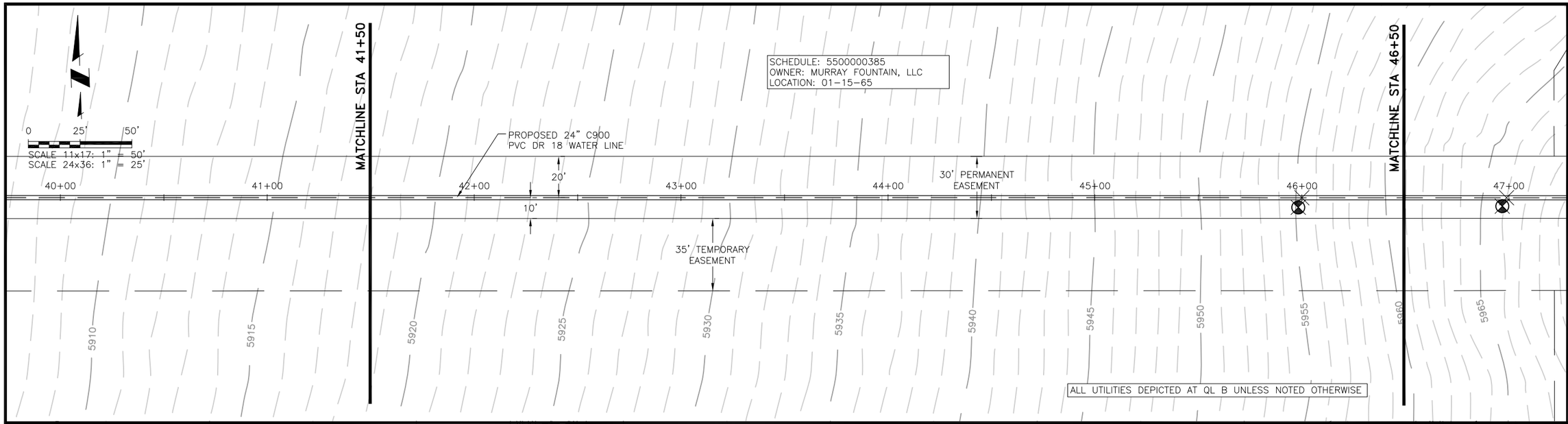
REVISIONS				
NO.	DESCRIPTION	BY	APP.	DATE
1				
2				
3				
4				
5				
6				
7				

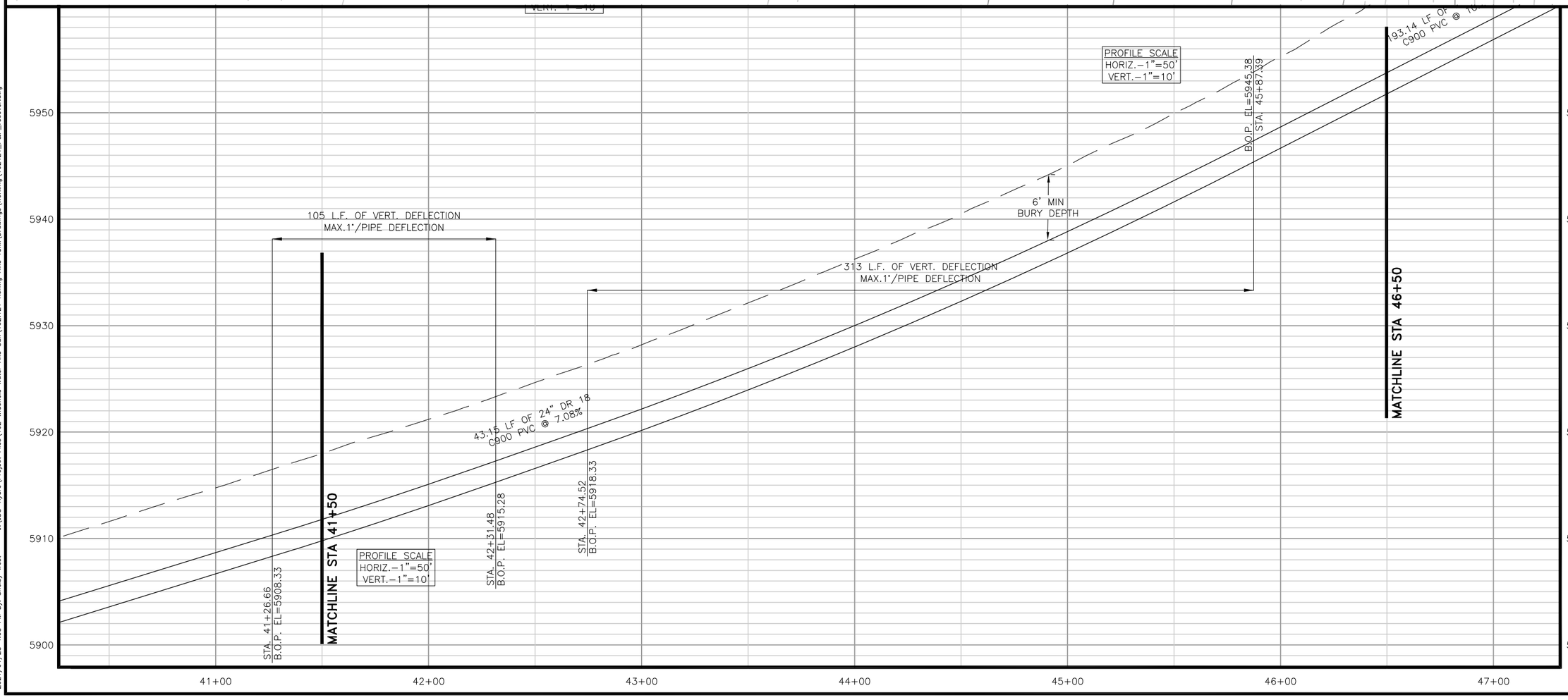
80% DESIGN

Project No.:	102.121
Date:	01/28/21
Design:	GJD
Drawn:	SNW
Check:	JPM

C13

SHEET 16 OF 37





JDS-HYDRO CONSULTANTS, INC.
5540 TECH CENTER DR., SUITE 100
COLORADO SPRINGS, COLORADO 80919
(719) 227-0072

WIDEFIELD WATER AND SANITATION DISTRICT

ROLLING HILLS 2MG POTABLE WATER TANK AND INLET PIPELINE

PLAN AND PROFILE

ALIGNMENT STA 41+50 TO 46+50

REVISIONS

NO.	DESCRIPTION	BY	APP.	DATE
1				
2				
3				
4				
5				
6				
7				

80% DESIGN

Project No.: 102.121
Date: 01/28/21
Design: GJD
Drawn: SNW
Check: JPM

C14

SHEET 17 OF 37

NOTES:
1. SEE SHEET C2 FOR TANK SITE DETAILS.
2. ALL UTILITIES DEPICTED AT QL B UNLESS NOTED OTHERWISE

0 25' 50'
SCALE 11x17: 1" = 50'
SCALE 24x36: 1" = 25'

MATCHLINE STA 46+50

STA. 48+50.00
N=1344805.19
E=3249937.01
INSTALL (1) 24" ISOLATION VALVE

PROPOSED 24" C900 DR 18 PVC WATER LINE

30' PERMANENT EASEMENT

35' TEMPORARY EASEMENT

20'

10'

44+00 45+00 46+00 47+00 48+00

STA. 48+79.29
N=1344805.19
E=3249966.30
2MG TANK INLET/OUTLET

PROPOSED 2.0 MG POTABLE WATER TANK 98.5' DIA

35' SWD
F.F. = 5972'
O.F. = 6007'

48+79 1+00 1+73

5940 5945 5950 5955 5960 5965 5970 5975

SF

PROFILE SCALE
HORIZ - 1"=50'
VERT. - 1"=10'

MATCHLINE STA 46+50

PROPOSED GRADE

17.81 LF OF 24" DR 18 C900 PVC @ 0.00%

76.95 LF OF 24" DR 18 C900 PVC @ 0.76%

EXISTING GRADE

6' MIN BURY DEPTH

TANK F.F. = 5972'

193.14 LF OF 24" DR 18 C900 PVC @ 10.21%

STA=47+66.61
BOP ELEV=5962.09
INSTALL 22.5° VERT. BEND (RESTRAINED)

STA=48+50.00
BOP ELEV=5965.53
INSTALL 24" ISOLATION VALVE

STA=48+58.74
BOP ELEV=5965.58
PVC TO STEEL TRANSITION RESTRAINED

STA=48+79.29
BOP ELEV=5965.58
TANK INLET/OUTLET
SEE DETAIL A/S7

5990 5980 5970 5960 5950

47+00 48+00 49+00

JDS-HYDRO CONSULTANTS, INC.
5540 TECH CENTER DR., SUITE 100
COLORADO SPRINGS, COLORADO 80919
(719) 227-0072

WIDEFIELD WATER AND SANITATION DISTRICT

ROLLING HILLS 2MG POTABLE WATER TANK AND INLET PIPELINE

PLAN AND PROFILE

ALIGNMENT STA 46+50 TO STA 48+79.29

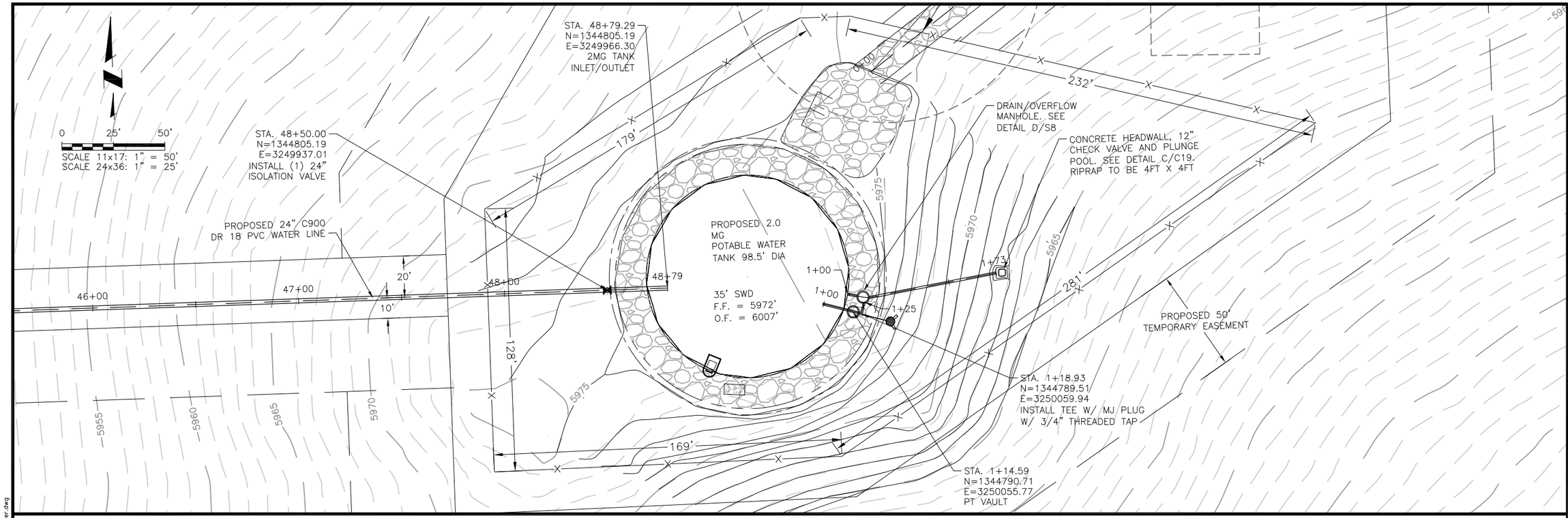
REVISIONS				
NO.	DESCRIPTION	BY	APP.	DATE
1				
2				
3				
4				
5				
6				
7				

80% DESIGN

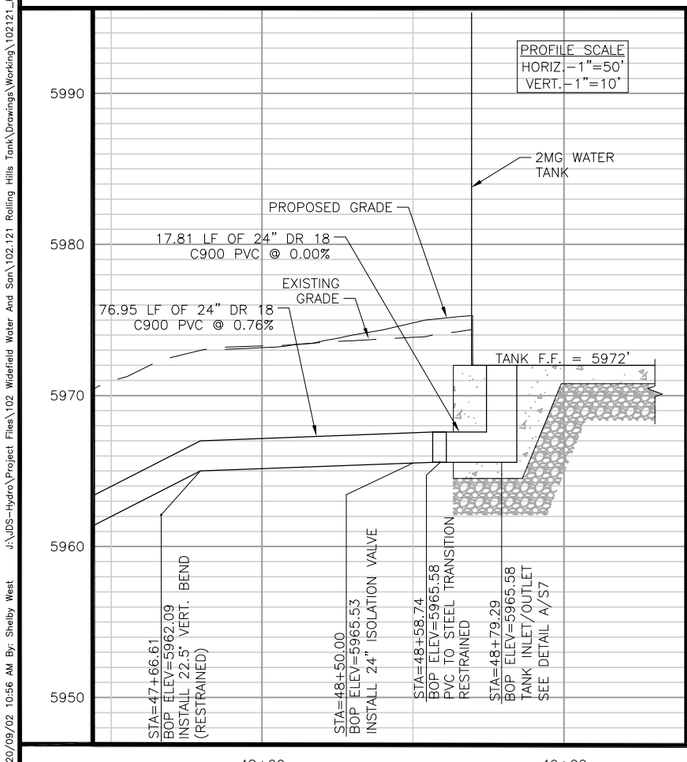
Project No.: 102.121
Date: 01/28/21
Design: GJD
Drawn: SNW
Check: JPM

C15

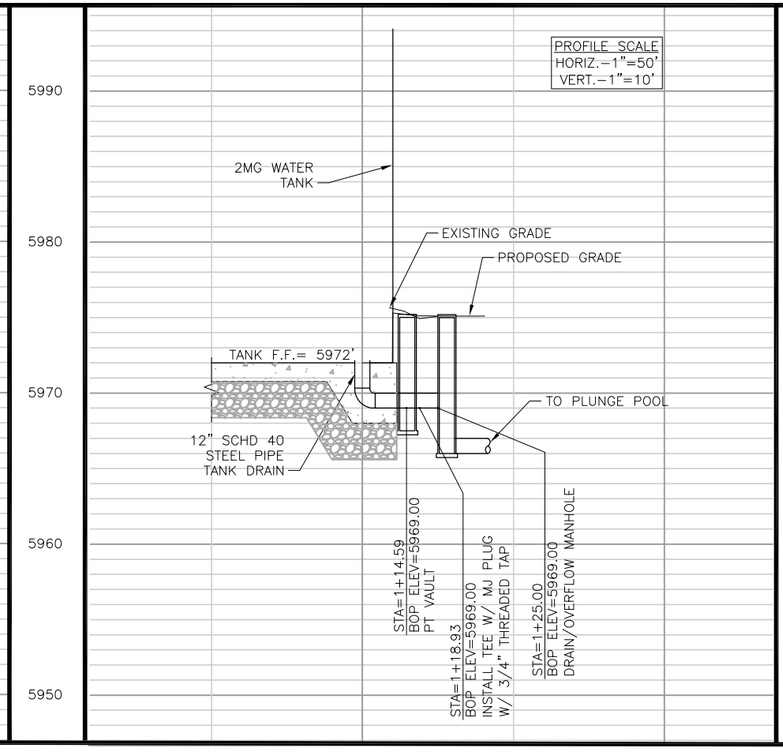
SHEET 18 OF 37



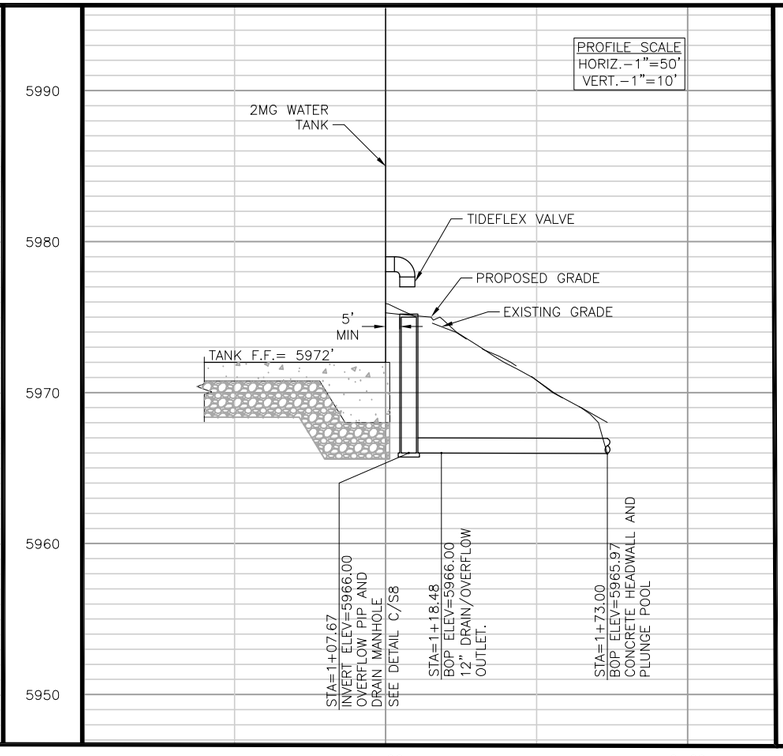
24" TANK INLET



12" TANK DRAIN



12" TANK OVERFLOW



JDS-HYDRO CONSULTANTS, INC.
5540 TECH CENTER DR., SUITE 100
COLORADO SPRINGS, COLORADO 80919
(719) 227-0072

WIDEFIELD WATER AND SANITATION DISTRICT

ROLLING HILLS 2MG POTABLE WATER TANK AND INLET PIPELINE

TANK INLET, DRAIN, AND OVERFLOW PLAN AND PROFILE

REVISIONS				
NO.	DESCRIPTION	BY	APP.	DATE
1				
2				
3				
4				
5				
6				
7				

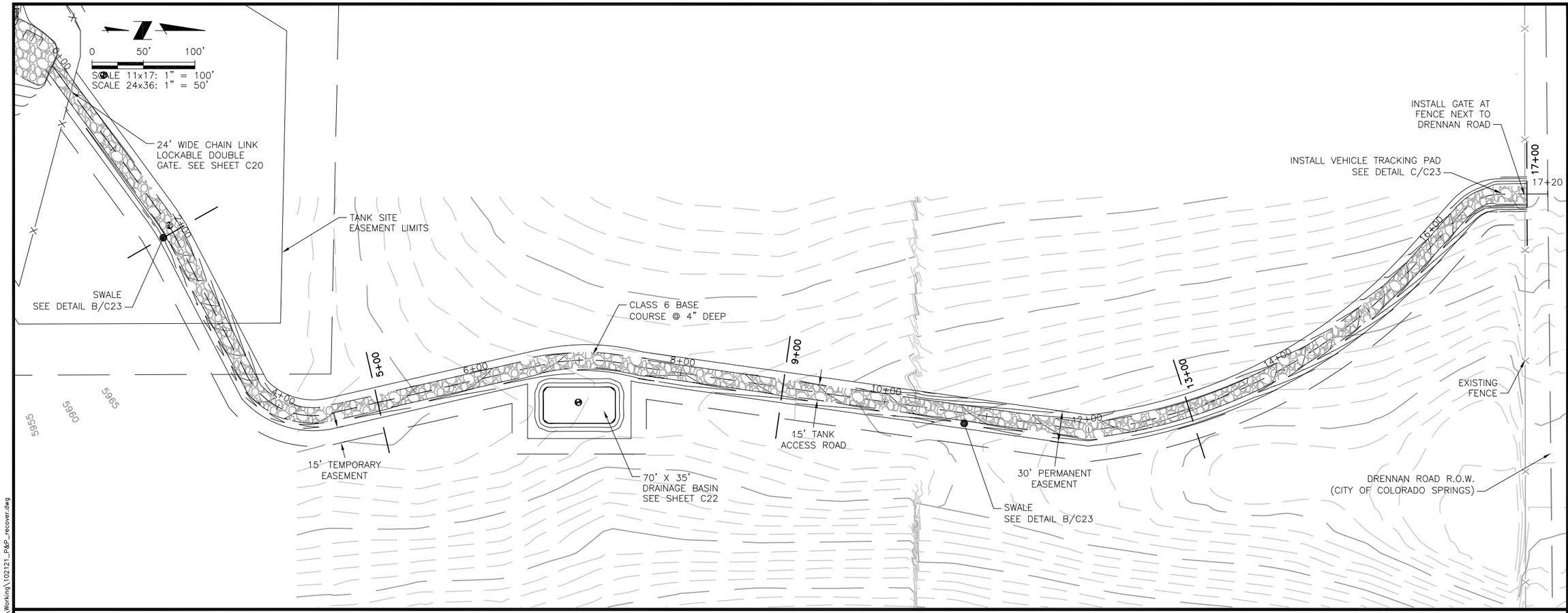
80% DESIGN

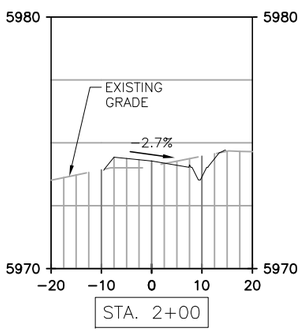
Project No.: 102.121
Date: 01/28/21
Design: GJD
Drawn: SNW
Check: JPM

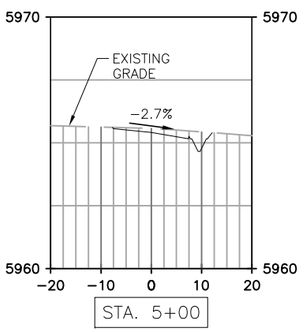
C16

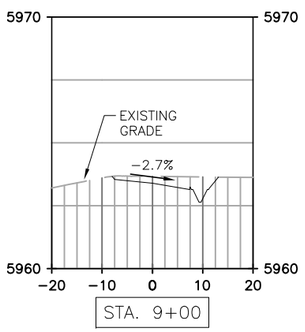
SHEET 19 OF 37

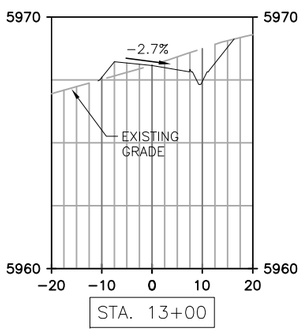
2020/09/02 10:56 AM By: Shelby West J:\JDS-Hydro\Project Files\102 Widefield Water And San\102.121 Rolling Hills Tank\Drawings\Working\102121_P&P_recover.dwg

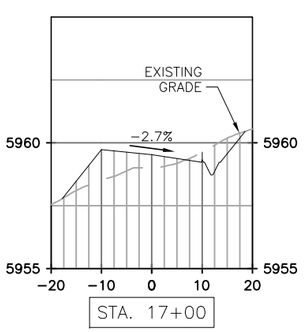












JDS-HYDRO CONSULTANTS, INC.
5540 TECH CENTER DR., SUITE 100
COLORADO SPRINGS, COLORADO 80919
(719) 227-0072

WIDEFIELD WATER AND SANITATION DISTRICT

ROLLING HILLS 2MG POTABLE WATER TANK AND INLET PIPELINE

ACCESS ROAD PLAND AND SECTION VIEW

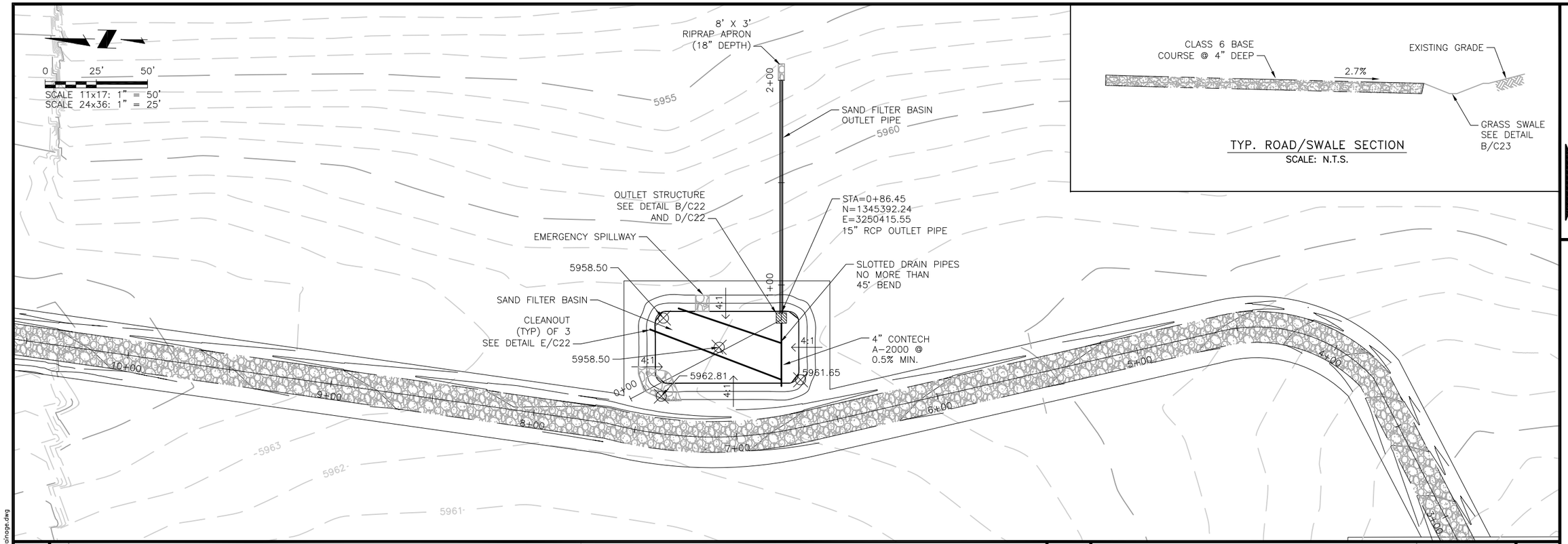
REVISIONS			
NO.	DESCRIPTION	BY	APP.	DATE
1				
2				
3				
4				
5				
6				
7				

80% DESIGN

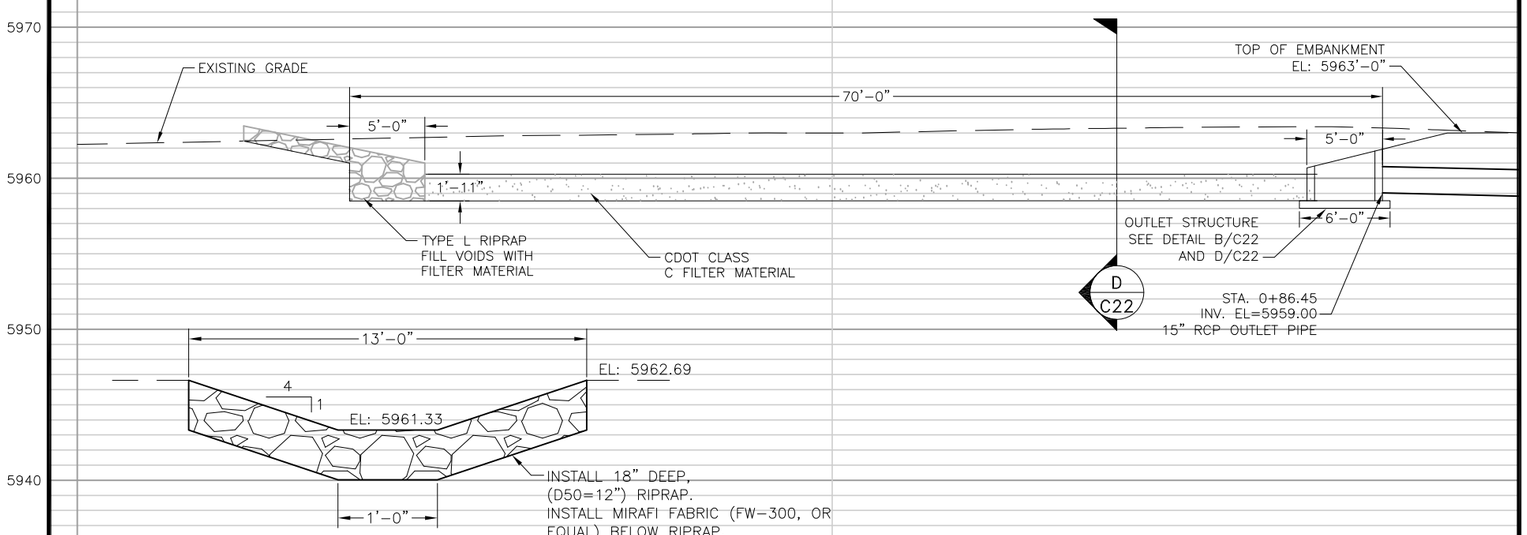
Project No.:	102.121
Date:	01/28/21
Design:	GJD
Drawn:	SNW
Check:	JPM

C17

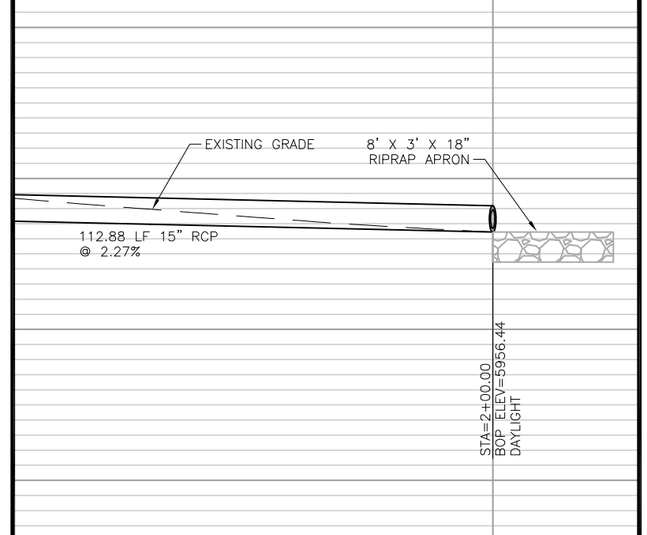
SHEET 20 OF 37



TYP. ROAD/SWALE SECTION
SCALE: N.T.S.



SPILLWAY CROSS-SECTION
N.T.S.



JDS-HYDRO CONSULTANTS, INC.
5540 TECH CENTER DR., SUITE 100
COLORADO SPRINGS, COLORADO 80919
(719) 227-0072

WIDEFIELD WATER AND SANITATION DISTRICT

ROLLING HILLS 2MG POTABLE WATER TANK AND INLET PIPELINE

DRAINAGE BASIN PLAN AND PROFILE

REVISIONS				
NO.	DESCRIPTION	BY	APP.	DATE
1				
2				
3				
4				
5				
6				
7				

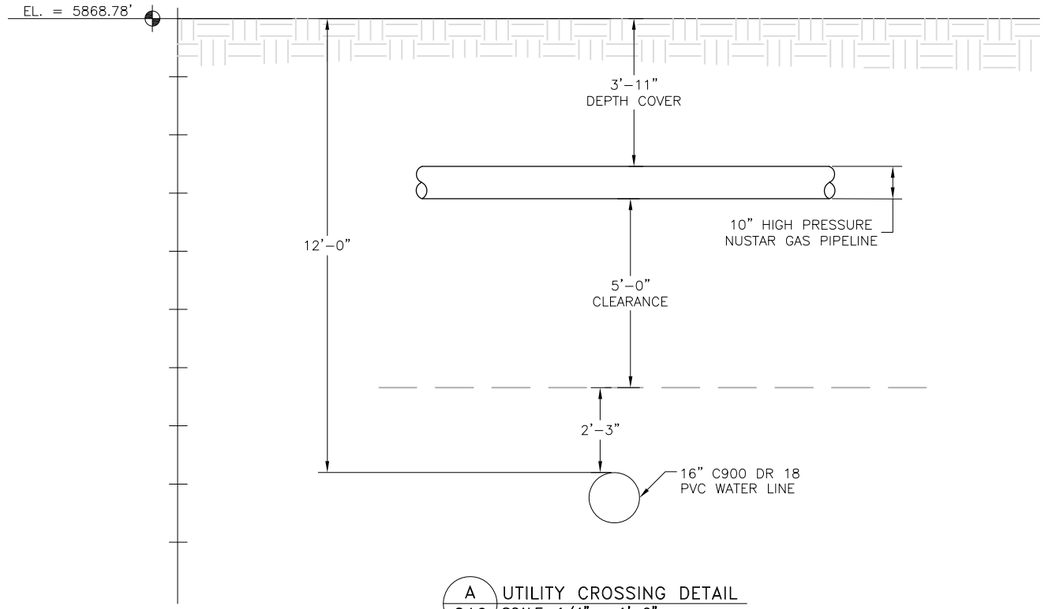
80% DESIGN

Project No.:	102.121
Date:	01/28/21
Design:	GJD/EMS
Drawn:	SNW
Check:	JPM

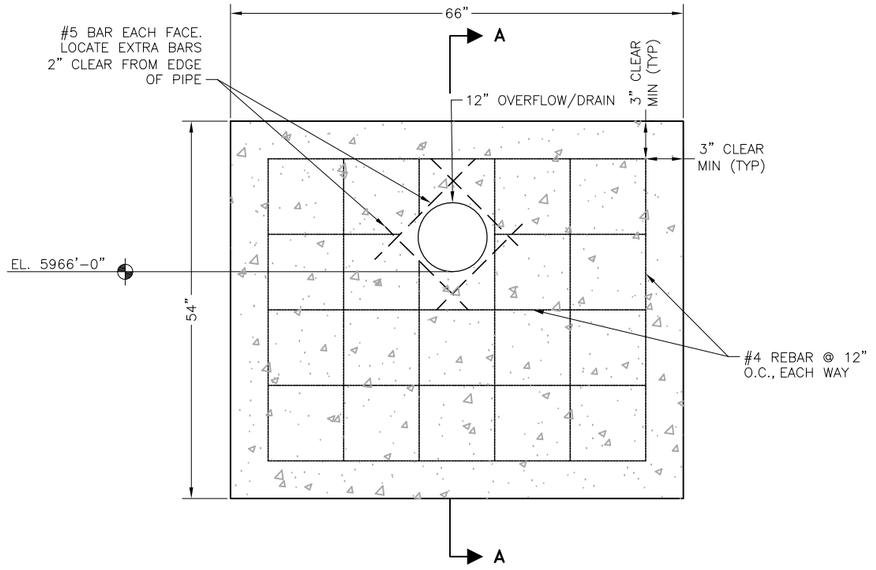
C18

SHEET 21 OF 37

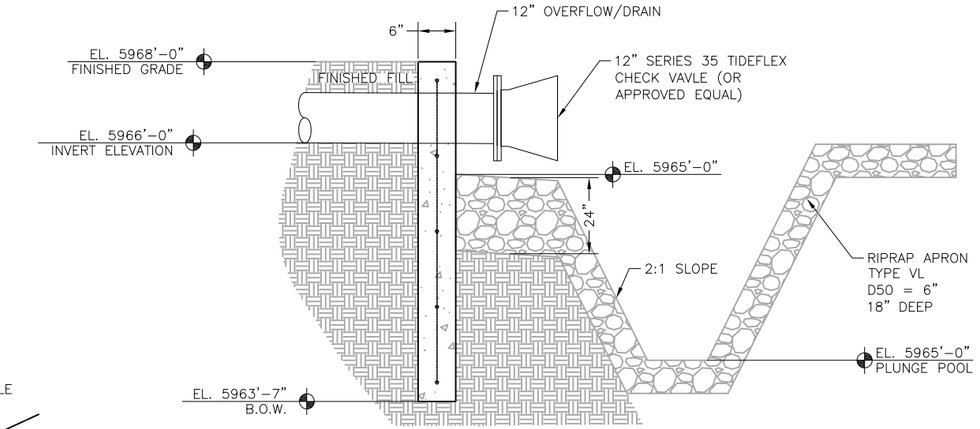
2020/09/02 10:58 AM By: Shelby West J:\JDS-Hydro\Project Files\102 Widefield Water And San\102.121 Rolling Hills Tank\Drawings\Working\102121_Drainage.dwg



A C19 UTILITY CROSSING DETAIL
SCALE: 1/4" = 1'-0"



B C19 TANK MAINTENACE ROAD
SCALE: N.T.S.



SECTION A-A

C C19 CONCRETE HEADWALL AND PLUNGE POOL
SCALE: N.T.S.

JDS-HYDRO CONSULTANTS, INC.
5540 TECH CENTER DR., SUITE 100
COLORADO SPRINGS, COLORADO 80919
(719) 227-0072

WIDEFIELD WATER AND SANITATION DISTRICT

ROLLING HILLS 2MG POTABLE WATER TANK AND INLET PIPELINE

CIVIL DETAILS

REVISIONS

NO.	DESCRIPTION	BY	APP.	DATE
1				
2				
3				
4				
5				
6				
7				

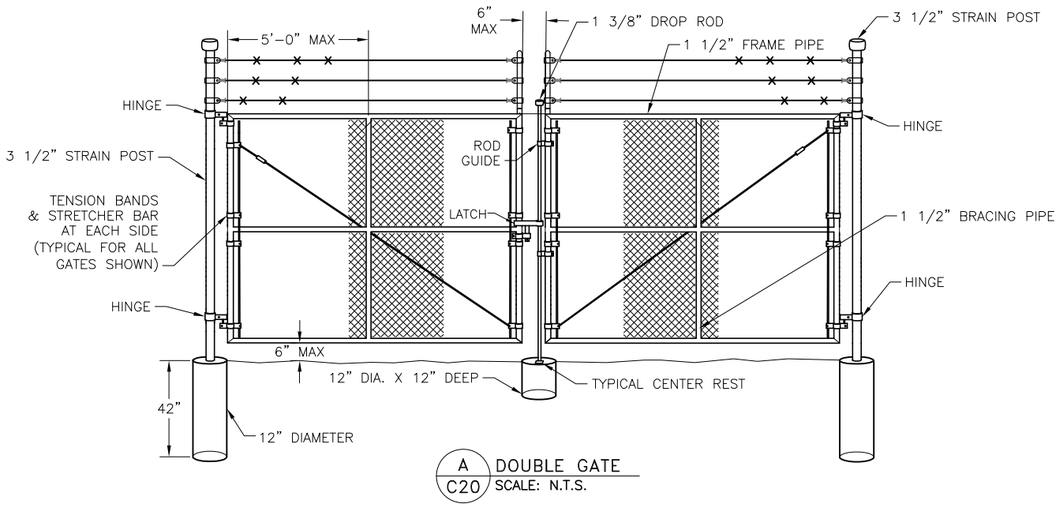
80% DESIGN

Project No.:	102.121
Date:	01/28/21
Design:	GJD
Drawn:	SNW
Check:	JPM

C19

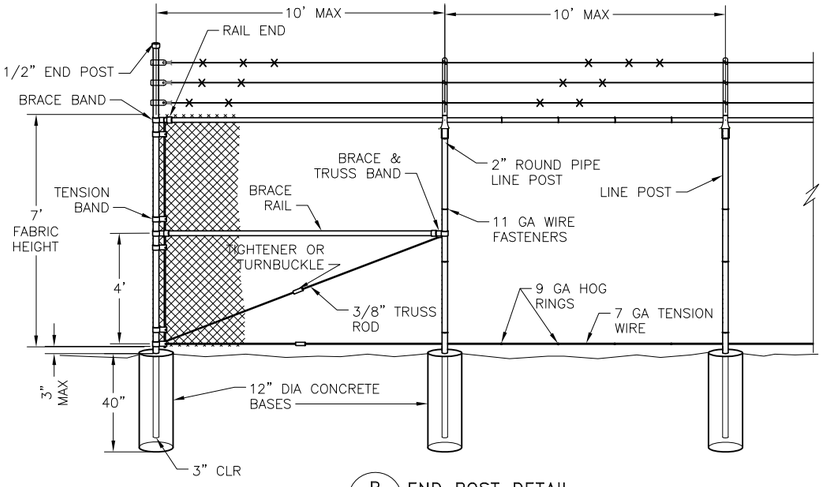
SHEET 22 OF 37

2020/09/02 10:59 AM By: Shelby West J:\JDS-Hydro\Project Files\102 Widefield Water And San\102.121 Rolling Hills Tank\Drawings\Working\102121_Civil Details.dwg

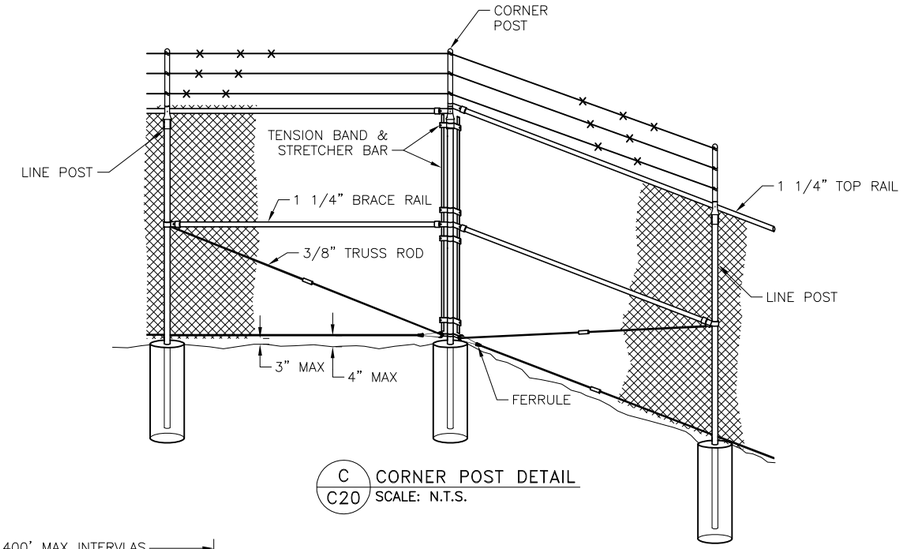


A C20 DOUBLE GATE
SCALE: N.T.S.

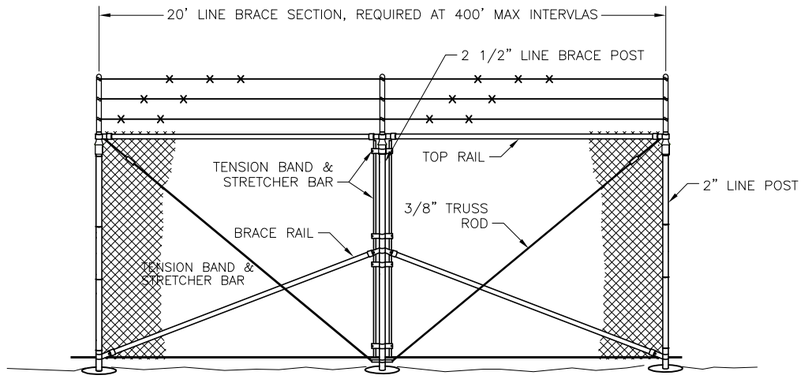
NOTES:
1. CHAIN LINK FENCE SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 181.
2. CHAIN LINK FABRIC SHALL BE 2" MESH NO. 9 GAGE GALVANIZED OR ALUMINUM COATED WIRE SECURELY FASTENED TO TENSION WIRE, LINE POSTS, RAILS, BRACES AND STRETCHER BARS SPACED AS SHOWN HEREON. WIRE FASTENERS AND TIE CLIPS SHALL BE NO. 11 GAGE (W&M) GALVANIZED STEEL WIRE OR NO. 7 GAGE (B&S) ALUMINUM WIRE, AND HOG RINGS SHALL BE NO. 9 GAGE, ALL IN CONFORMANCE WITH ASTM F 626.
3. STEEL POSTS, RAILS AND GATE FRAMES SHALL CONFORM TO AASHTO M 181 TYPE 1, GRADE 1, OR GRADE 2.
4. TENSION WIRE SHALL BE CONTINUOUS BETWEEN END OR CORNER POST AND LINE BRACE POST. A TURNBUCKLE OR OTHER APPROVED TIGHENING DEVICE SHALL BE USED FOR EACH CONTINUOUS SPAN OF TENSION WIRE.
5. TENSION WIRE SHALL BE AS SPECIFIED IN AASHTO M 181.
6. CONCRETE FOOTINGS SHALL HAVE TOPS CROWNED AT GROUND LEVEL AND SHALL BE CLASS A, AX, OR B.
7. CHAIN LINK FABRIC OVER 5 FEET HIGH SHALL BE TWISTED AND BARDED ON THE TOP SELVAGE AND KNUCKLED ON THE BOTTOM SELVAGE.
8. ATTACH FABRIC TO ALL FENCE AND GATE STRUCTURES AT 12" INTERVALS VERTICALLY AND AT 20" HORIZONTALLY.



B C20 END POST DETAIL
SCALE: N.T.S.



C C20 CORNER POST DETAIL
SCALE: N.T.S.



D C20 LINE BRACE POST DETAIL
SCALE: N.T.S.

JDS-HYDRO CONSULTANTS, INC.
5540 TECH CENTER DR., SUITE 100
COLORADO SPRINGS, COLORADO 80919
(719) 227-0072

WIDEFIELD WATER AND SANITATION DISTRICT
2MG POTABLE WATER TANK AND INLET PIPELINE
ROLLING HILLS 2MG POTABLE WATER TANK
CIVIL DETAILS

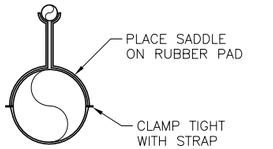
REVISIONS

NO.	DESCRIPTION	BY	APP.	DATE
1				
2				
3				
4				
5				
6				
7				

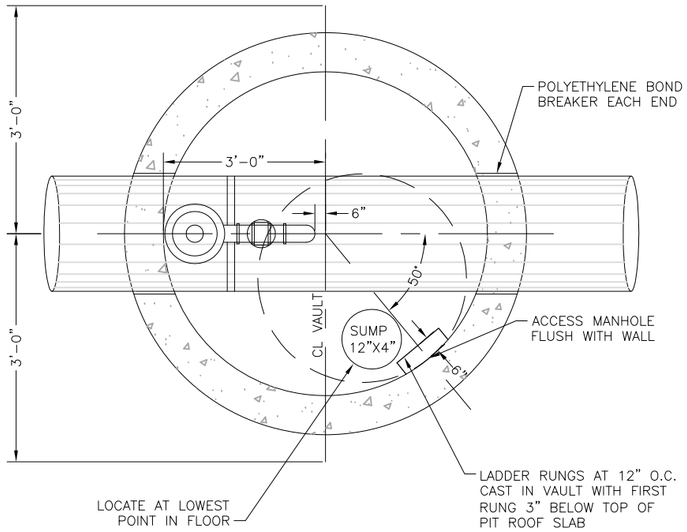
80% DESIGN

Project No.: 102.121
Date: 01/28/21
Design: GJD
Drawn: SNW
Check: JPM

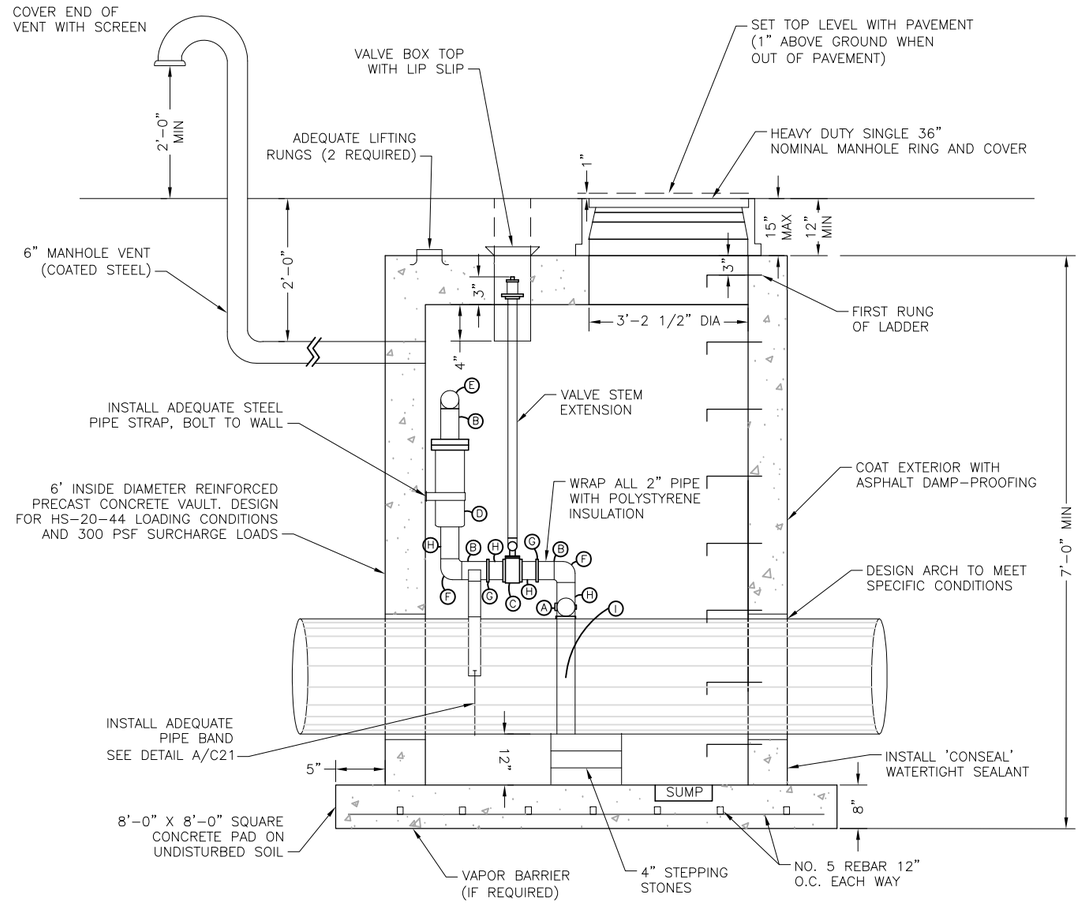
C20
SHEET 23 OF 37



A / C21 PIPE STAND DETAIL
SCALE: 1/8" = 1'-0"



TOP VIEW



B / C21 2" AIR/VAC PRESSURE VALVE PIT
SCALE: 1/8" = 1'-0"

NOTES:
1. ALL CONCRETE WORK SHALL COMPLY WITH LATEST ACI-318 SPECIFICATIONS.
2. AIR VALVE ASSEMBLY LARGER THAN 2" SIZE OR FOR MAINS LARGER THAN 16" SHALL BE SPECIALLY DESIGNED AND MEET WATER DISTRICT REQUIREMENTS.
3. ALL SUPPORT MATERIALS SHALL BE GIVEN 2 COATS OF RUST INHIBITIVE PAINT.
4. ALL LADDER RUNGS MUST LINE UP BOTH HORIZONTALLY AND VERTICALLY.
5. ALL SMALL DIAMETER PIPE AND AIR RELEASE VALVE SHALL BE WRAPPED WITH INSULATION AND TAPED.

SCHEDULE	
A	2" CORPORATION TAPERED THREADS INLET WITH 2" FEMALE IRON PIPE OUTLET (MUELLER OR FORD)
B	2" CLOSE THREADED BRASS NIPPLE
C	2" THREADED GATE VALVE WITH STANDARD OPENING NUT
D	2" THREADED INLET VAL-MATIC AIR/VACUUM COMBINATION AIR VALVE, MODEL 202C
E	2" 90° PLASTIC ELBOW
F	2" 90° BRASS THREADED ELBOW
G	2" QUICK COUPLER
H	2" THREADED BRASS NIPPLE
I	2" ROMAC MODEL 202BS TAPPING SADDLE

JDS-HYDRO CONSULTANTS, INC.
5540 TECH CENTER DR., SUITE 100
COLORADO SPRINGS, COLORADO 80919
(719) 227-0072

WIDEFIELD WATER AND SANITATION DISTRICT

ROLLING HILLS 2MG POTABLE WATER TANK AND INLET PIPELINE

CIVIL DETAILS

REVISIONS

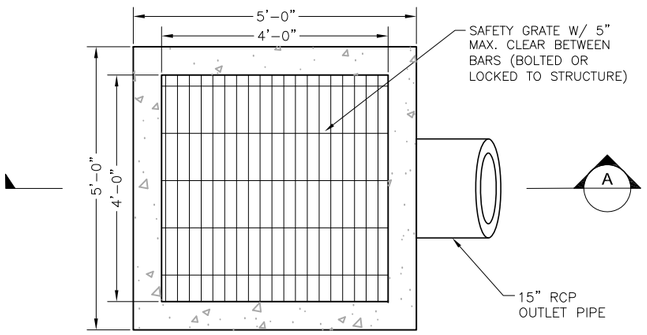
NO.	DESCRIPTION	BY	APP.	DATE
1				
2				
3				
4				
5				
6				
7				

80% DESIGN

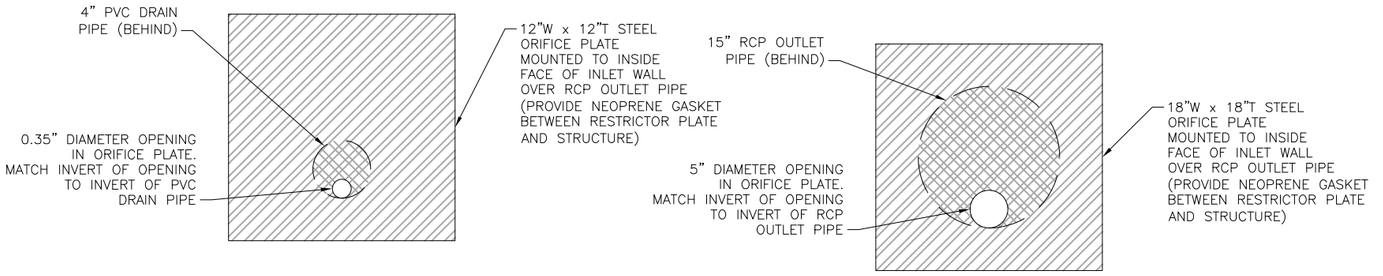
Project No.: 102.121
Date: 01/28/21
Design: GJD
Drawn: SNW
Check: JPM

C21

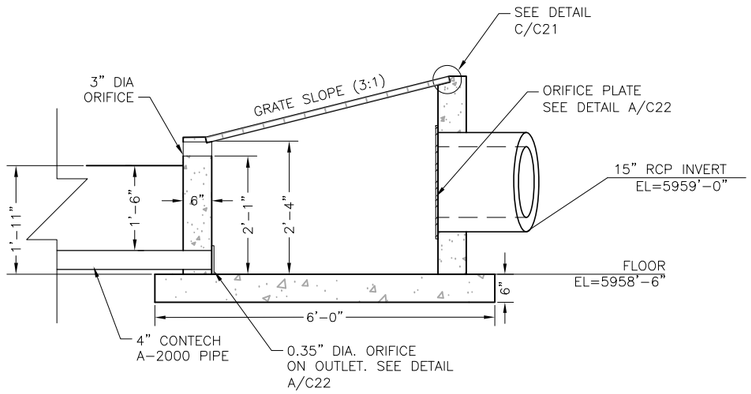
SHEET 24 OF 37



PLAN

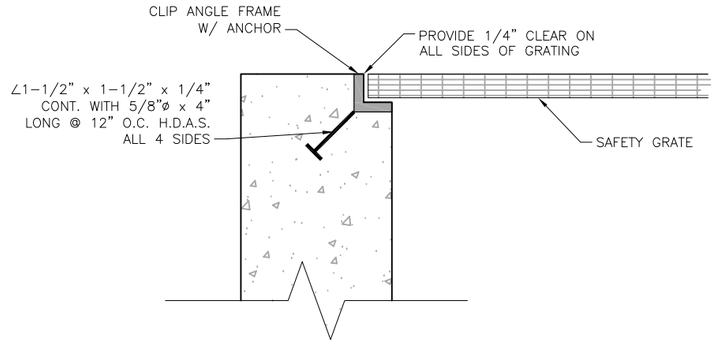


A / C22 ORIFICE PLATES
SCALE: N.T.S.

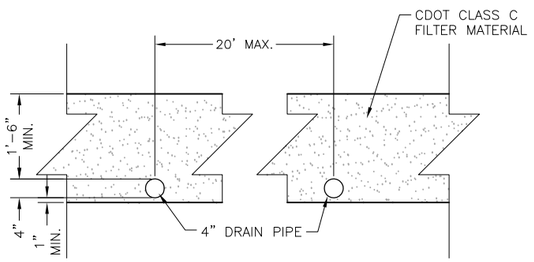


SECTION A

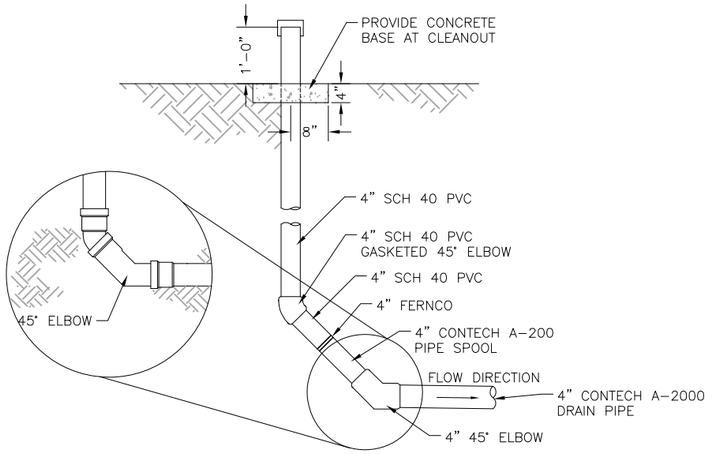
B / C22 OUTLET STRUCTURE
SCALE: 3/8" = 1'-0"



C / C22 GRATING DETAIL
SCALE: N.T.S.



D / C22 DRAINAGE BASIN SECTION (SEE SHEET C18)
SCALE: 3/8" = 1'-0"



E / C22 CLEANOUT
SCALE: N.T.S.

JDS-HYDRO CONSULTANTS, INC.
5540 TECH CENTER DR., SUITE 100
COLORADO SPRINGS, COLORADO 80919
(719) 227-0072

WIDEFIELD WATER AND SANITATION DISTRICT
ROLLING HILLS 2MG POTABLE WATER TANK AND INLET PIPELINE
CIVIL DETAILS

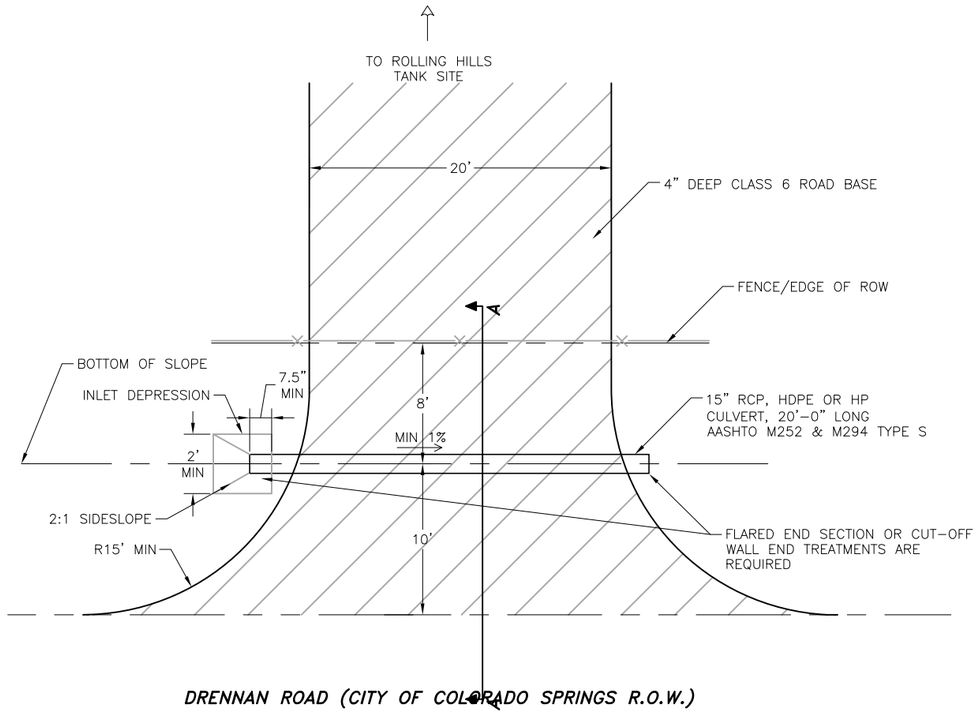
REVISIONS

NO.	DESCRIPTION	BY	APP.	DATE
1				
2				
3				
4				
5				
6				
7				

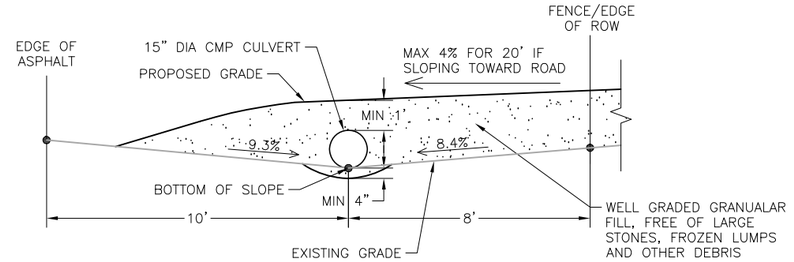
80% DESIGN

Project No.: 102.121
Date: 01/28/21
Design: GJD
Drawn: SNW
Check: JPM

C22
SHEET 25 OF 37

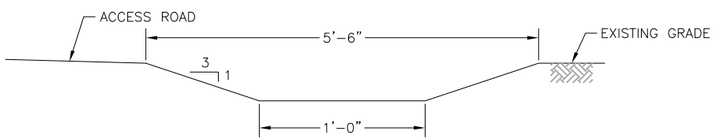


A C23 DRIVEWAY ACCESS ROAD
SCALE: N.T.S.

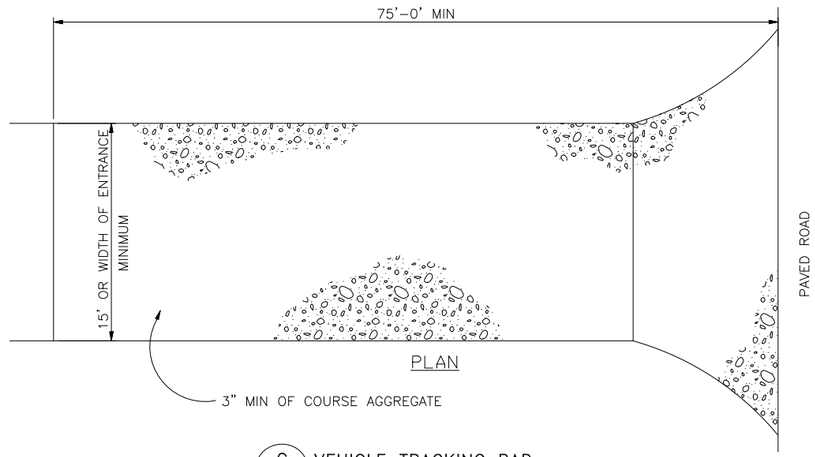


SECTION A-A
SCALE: N.T.S.

NOTES:
1. SURFACE TREATMENT OF DRIVEWAY TO BE CLASS 6 ROAD BASE AT 4" DEEP.
2. DRAIN PIPE TO BE 15" DIAMETER MINIMUM.
3. PIPE SLOPE TO BE CONSISTANT WITH FLOW LINE OF DITCH, MINIMUM OF 1%.
4. BACKFILL TO BE PLACED IN 6" LAYERS, DEPOSITED AND COMPACTED ON ALTERNATING SIDES OF THE PIPE.
5. MEASUREMENTS ARE APPROXIMATE AND SHOULD BE FIELD VERIFIED PRIOR TO COMMENCING CONSTRUCTION.



B C23 TYPICAL GRASS SWALE SECTION
SCALE: N.T.S.



C C23 VEHICLE TRACKING PAD
SCALE: N.T.S.

INSTALLATION REQUIREMENTS:

1. ALL ENTRANCES TO THE CONSTRUCTION SITE ARE TO BE STABILIZED PRIOR TO COMMENCEMENT OF CONSTRUCTION.
2. CONSTRUCTION ENTRANCES ARE TO BE BUILT WITH AN APRON TO ALLOW FOR TURNING TRAFFIC, BUT SHOULD NOT BE BUILT OVER EXISTING PAVEMENT EXCEPT FOR A SLIGHT OVERLAP.
3. AREAS TO BE STABILIZED ARE TO BE PROPERLY GRADED AND COMPACTED.
4. CONSTRUCTION ROADS, PARKING AREAS, LOADING/UNLOADING ZONES, STORAGE AREAS, AND STAGING AREAS ARE TO BE STABILIZED.
5. CONSTRUCTION ROADS ARE TO BE BUILT TO CONFORM TO SITE GRADES, BUT SHOULD NOT HAVE SIDE SLOPES OR ROAD GRADES THAT ARE EXCESSIVELY STEEP.

MAINTENANCE REQUIREMENTS

1. REGULAR INSPECTIONS ARE TO BE MADE OF ALL STABILIZED AREAS, ESPECIALLY AFTER STORM EVENTS.
2. STONES ARE TO BE REAPPLIED PERIODICALLY AND WHEN REPAIR IS NECESSARY.
3. SEDIMENT TRACKED ONTO PAVED ROADS IS TO BE REMOVED DAILY BY SHOVELING OR SWEEPING. SEDIMENT IS NOT TO BE WASHED DOWN STORM SEWER DRAINS.
4. OTHER ASSOCIATED SEDIMENT CONTROL MEASURES ARE TO BE INSPECTED TO ENSURE GOOD WORKING CONDITION.
5. TO BE REMOVED JUST PRIOR TO FINAL SURFACING AND STABILIZATION.

JDS-HYDRO CONSULTANTS, INC.
5540 TECH CENTER DR., SUITE 100
COLORADO SPRINGS, COLORADO 80919
(719) 227-0072

WIDEFIELD WATER AND SANITATION DISTRICT

ROLLING HILLS 2MG POTABLE WATER TANK AND INLET PIPELINE

CIVIL DETAILS

REVISIONS

NO.	DESCRIPTION	BY	APP.	DATE
1				
2				
3				
4				
5				
6				
7				

80% DESIGN

Project No.: 102.121
Date: 01/28/21
Design: GJD
Drawn: SNW
Check: JPM

C23

SHEET 26 OF 37

GENERAL DESIGN CRITERIA:

1. BUILDING CODES:

   A. THESE GENERAL NOTES APPLY TO ALL STRUCTURAL DRAWINGS. THIS PROJECT IS DESIGNED IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE (IBC), 2015 EDITION, THE MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES (ASCE 7), AND THE PIKES PEAK REGIONAL BUILDING CODE, 2017 EDITION.
   B. ALL MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH APPLICABLE PROVISIONS OF THE CODES SPECIFIED ABOVE.

2. FOUNDATION DESIGN IN ACCORDANCE WITH SUBSURFACE SOIL INVESTIGATION BY VIVID ENGINEERING GROUP, DATED MARCH 5, 2020. (VIVID PROJECT NO. D20-2-282, REV 1)

3. TANK DESIGN SHALL CONFORM TO AWWA D110 TYPE III

4. TANK DATA:
   - NOMINAL CAPACITY 2,000,000 GALLONS
   - INSIDE DIAMETER 98.5 FEET
   - WALL HEIGHT 35 FEET
   - OVERFLOW ELEV. 6007.00 FEET
   - FINISH FLOOR ELEV. 5972.00 FEET
   - DRAIN PIPE SIZE 12 INCHES
   - INLET/OUTLET PIPE SIZE 24 INCHES
   - ROOF VENT SHALL HAVE SUFFICIENT CAPACITY TO PASS 267.4 CFM OF AIR DURING FILLING AND 668.4 CFM WHILE EMPTYING SO THAT EXCESSIVE PRESSURE/VACUUM WILL NOT DEVELOP.
   - THE MAXIMUM DESIGNED FLOWRATE INTO THE TANK IS 2,700 GPM
   - THE MAXIMUM DESIGN FLOWRATE OUT OF THE TANK IS 45,000 GPM TO ACCOUNT FOR A PIPE BREAK.
   - THE VENT SHALL BE CONSTRUCTED TO PREVENT THE ENTRANCE OF BIRDS, INSECTS, OR CONTAMINATING MATERIALS. THE VENT SHALL BE EASILY DISMANTLED FOR CLEANING.
   - THE VENT SHALL BE SCREENED WITH FIBERGLASS 24 MESH SCREEN.

4. NO BACKFILLING OPERATIONS SHALL BE PERFORMED AGAINST FOUNDATION WALLS UNTIL THE CONCRETE HAS BEEN ALLOWED TO SUFFICIENTLY CURE.

5. SIZE AND LOCATION OF ALL EXISTING FACILITIES SHALL BE VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION.

6. EROSION CONTROL MEASURES SHALL BE IMPLEMENTED IN A MANNER THAT WILL PROTECT ADJACENT PROPERTIES AND PUBLIC FACILITIES FROM ADVERSE EFFECTS OF EROSION AND SEDIMENTATION AS A RESULT OF EARTHWORK AND CONSTRUCTION ACTIVITIES WITHIN THE PROJECT SITE.

7. REFER TO THE GEOTECHNICAL REPORT FOR LEVELING BASE SPECIFICATION, COMPACTION REQUIREMENTS, AND FOUNDATION PREPARATION. LEVELING BASE MATERIAL SHALL BE PROVIDED BENEATH THE TANK FLOOR, FOOTING, AND BOTTOM OF PIPE ENCASEMENTS.

8. THE GEOTECHNICAL ENGINEER SHALL EVALUATE THE SUBGRADE PRIOR TO PLACEMENT OF THE LEVELING BASE TO DETERMINE CONFIRMATION WITH THE GEOTECHNICAL REPORT.

TANK MATERIAL SPECIFICATIONS:

LOCATION OF CONCRETE	28 DAY COMPRESSIVE STRENGTH	MAXIMUM AGGREGATE SIZE
PRECAST DOME PANELS	4,000 PSI	3/4
CIP CONCRETE DOME	4,000 PSI	3/8
DOME SLOTS	4,000 PSI	3/8
DOME RING	4,000 PSI	3/8
PRECAST WALL PANELS	4,000 PSI	3/4
WALL SLOTS	4,000 PSI	#4 SIEVE
WALL ENCASEMENT	4,000 PSI	3/4
COVE	4,000 PSI	3/8
FOUNDATION & FLOOR	4,000 PSI	1-1/4
FLOOR PIPE ENCASEMENTS	4,000 PSI	1-1/4

		MIX PROPORTIONS
COREWALL SHOTCRETE	4,500 PSI	1:3
WIRE COVER SHOTCRETE	4,500 PSI	1:3
COVERCOAT SHOTCRETE	4,500 PSI	1:4
TEMPORARY OPENING SHOTCRETE	4,500 PSI	1:3

- CONCRETE: SHALL CONFORM TO ACI 301 & 372R.
- SHOTCRETE: SHALL CONFORM TO ACI 506.
- REINFORCING BARS: SHALL BE ASTM A615, GRADE 60, DEFORMED, UNCOATED.
- REINFORCING MESH: SHALL BE ASTM A1064.
- PRESTRESS WIRE: SHALL BE ASTM A821, MIN. TENSILE STRENGTH = 210 ksi
- STEEL DIAPHRAGM: SHALL BE ASTM A1008, MIN. THICKNESS = 0.017 in
- WALL SLOT PLATE (IF REQUIRED): SHALL BE ASTM A569, 10 GAUGE, LOW CARBON STEEL, NOT PICKLED OR OILED.
- TANK WALL PVC WATERSTOP: SHALL BE 9" RIBBED CENTER BULB WATERSTOP #718 AS MANUFACTURED BY GREENSTREAK OR EQUAL.
- PIPE ENCASEMENT PVC WATERSTOP: SHALL BE 6" FLATSTRIP WATERSTOP #783 AS MANUFACTURED BY GREENSTREAK OR EQUAL.
- DUROMETER PAD: SHALL BE NEOPRENE WITH ASTM D2000 CALLOUT M2 BC 410 A14 B14 OR NEOPRENE ASTM D2000 CALLOUT M 2 BC 414 A14 B14 C12 E014 E034 F17 OR NATURAL RUBBER WITH ASTM D2000 CALLOUT M4 AA 414 A13
- SPONGE FILLER PAD: SHALL BE CLOSED CELL NEOPRENE, CONFORMING TO ASTM D1056, TYPE 2 CLASS A, GRADE 1.
- POLYSULFIDE: SHALL BE PSI-275 BY POLYMERIC SYSTEMS INC., T-2235-M BY POLYSPEC, OR EQUAL.
- NON-SHRINK GROUT: SHALL BE QUICKCRETE 1585-01 GROUT, NON-SHRINK, NON-STAIN, NON-METALLIC, OR EQUAL.
- ADEKA: SHALL BE UNTRASEAL P-201, OR EQUAL.
- EXTERIOR TANK COATING: CAST-IN-PLACE DOME SURFACE SHALL RECEIVE ONE COAT OF TAMOSEAL W/AKKRO-7T, OR EQUAL FOLLOWED BY ONE COAT OF TAMMSCOAT, OR EQUAL. THE EXPOSED TANK WALL SURFACE SHALL RECEIVE TWO COATS OF TAMMSCOAT SMOOTH, OR EQUAL. THE COATING IS MANUFACTURED BY THE EUCLID CHEMICAL COMPANY, OR EQUAL.
- LADDER SAFETY CLIMBING DEVICE SHALL BE S.S. LAD-SAF CABLE SYSTEM AS MANUFACTURED BY DBI-SALA, INC., OR APPROVED EQUAL.

TANK DESIGN CRITERIA:

- GOVERNING BUILDING CODES: 2015 INTERNATIONAL BUILDING CODE
- ADDITIONAL CODES USED: AWWA D110 "STANDARD FOR WIRE AND STRAND-WOUND, CIRCULAR, PRESTRESSED CONCRETE WATER TANKS"

  ACI 350 "CODE REQUIREMENTS FOR ENVIRONMENTAL ENGINEERING CONCRETE STRUCTURES AND COMMENTARY"

  ACI 350.03 "SEISMIC DESIGN OF LIQUID-CONTAINING CONCRETE STRUCTURES AND COMMENTARY"
- STRUCTURAL DESIGN LOADS:

ROOF LIVE LOADS:
- SITE ELEVATION . . . . . 5975 FT
- GROUND SNOW LOAD (Pg) . . . . . 27 PSF MIN.
- SNOW LOAD EXPOSURE FACTOR (Ce) 1.0
- SNOW LOAD IMPORTANCE FACTOR (Is) 1.1
- SNOW LOAD THERMAL FACTOR (Ct) 1.0
- FLAT ROOF SNOW LOAD (Pf) . . . . . 40 PSF MIN.
- ROOF DEAD LOAD: . . . . . 55 PSF

WIND LOAD:
- ULTIMATE DESIGN WIND SPEED (Vult) . . . . . 140 MPH
- NOMINAL DESIGN WIND SPEED (Vasd) . . . . . 101 MPH
- WIND EXPOSURE CATEGORY C

SEISMIC DESIGN:
- SEISMIC ZONE . . . . . 1 (AWWA D110)
- IMPORTANCE FACTOR . . . . . 1 = 1.25 (AWWA D110)
- SOIL PROFILE COEFFICIENT . . . . . 1.2 (AWWA D110)

SITE CLASSIFICATION . . . . . C (ASCE 7 & D110)
IMPORTANCE FACTOR . . . . . 1 = 1.5 (ASCE 7 & D110)
RESPONSE MODIFICATION FACTORS:
- AWWA D110 . . . . . Ri = 2.0 FOR IMPULSIVE
- AWWA D110 . . . . . Rc = 1.0 FOR CONVECTIVE
- ASCE 7 . . . . . R = 1.5

MAPPED SPECTRAL RESPONSE ACCELERATIONS:
- Ss 0.167
- S_1 . . . . . 0.059

SEISMIC DESIGN OCCUPANCY CATEGORY IV

SEISMIC RESPONSE COEFFICIENTS:
- AWWA D110 . . . . . Cs = 0.091 FOR IMPULSIVE
- AWWA D110 . . . . . Csc = 0.028 FOR CONVECTIVE
- ASCE 7 . . . . . Cs = 0.041 FOR IMPULSIVE
- ASCE 7 . . . . . Csc = 0.022 FOR CONVECTIVE

JDS-HYDRO CONSULTANTS, INC.
5540 TECH CENTER DR., SUITE 100
COLORADO SPRINGS, COLORADO 80919
(719) 227-0072

WIDEFIELD WATER AND SANITATION DISTRICT
ROLLING HILLS 2MG POTABLE WATER TANK AND INLET PIPELINE

STRUCTURAL NOTES

REVISIONS

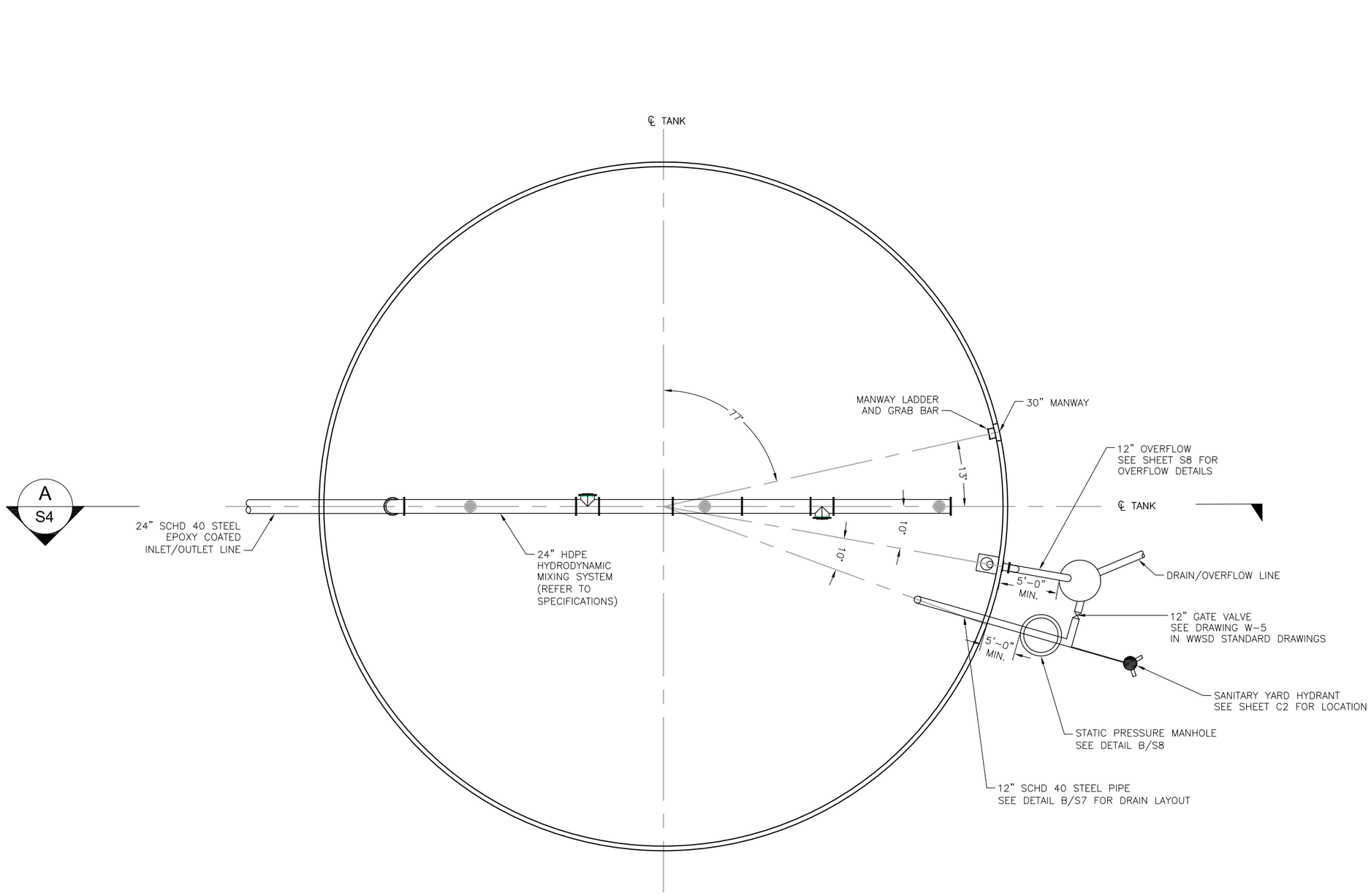
NO.	DESCRIPTION	BY	APP.	DATE
1				
2				
3				
4				
5				
6				
7				

80% DESIGN

Project No.: 102.121
Date: 01/28/21
Design: GJD
Drawn: SNW
Check: JPM

S1

SHEET 27 OF 37



NOTES:
1. SPLICE CIRCUMFERENTIAL JOINT REINFORCING BETWEEN RADIAL JOINTS.
2. DOME PANELS, OR CAST-IN-PLACE DOME, DOME RING, AND DOME SLOTS SHALL RECEIVE A LIGHT BROOM FINISH.
3. ALL APPURTENANCE LOCATIONS SHOWN ON THIS DRAWING ARE OF A DIAGRAMIC NATURE AND FINAL LOCATIONS ARE TO BE LOCATED IN THE FIELD.
4. TEMPORARY WALL OPENING LOCATION TO BE DETERMINED IN THE FIELD.

A/S2 TANK APPURTENANCE LAYOUT
SCALE: 1/16" = 1'-0"

JDS-HYDRO CONSULTANTS, INC.
5540 TECH CENTER DR., SUITE 100
COLORADO SPRINGS, COLORADO 80919
(719) 227-0072

WIDEFIELD WATER AND SANITATION DISTRICT

ROLLING HILLS 2MG POTABLE WATER TANK AND INLET PIPELINE

TANK APPURTENANCE LAYOUT

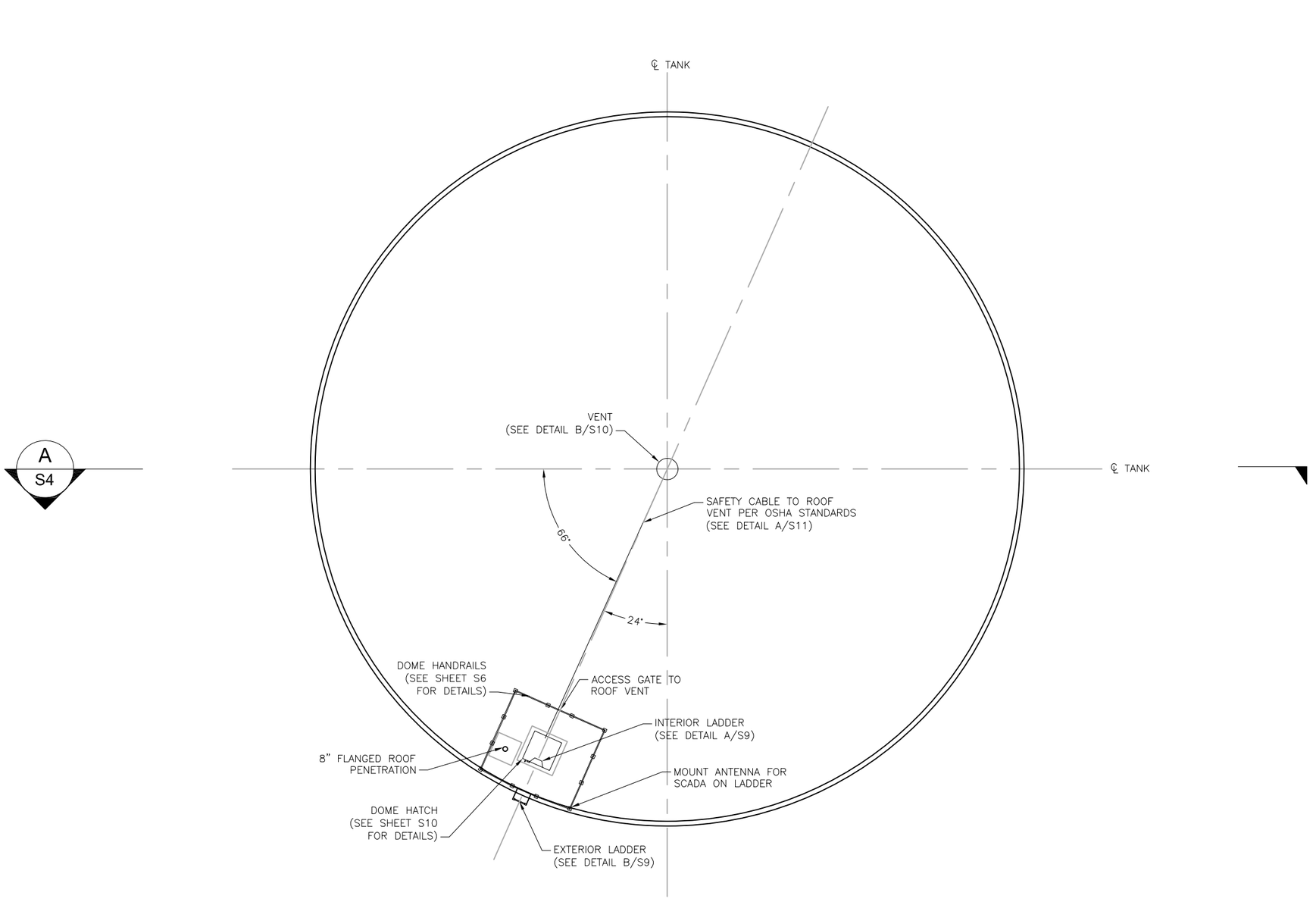
REVISIONS

NO.	DESCRIPTION	BY	APP.	DATE
1				
2				
3				
4				
5				
6				
7				

80% DESIGN

Project No.: 102.121
Date: 01/28/21
Design: GJD
Drawn: SNW
Check: JPM

S2
SHEET 28 OF 37



A / S4

A / S3 DOME APPURTENANCE LAYOUT
SCALE:1/16" = 1'-0"

NOTES:
1. SPLICE CIRCUMFERENTIAL JOINT REINFORCING BETWEEN RADIAL JOINTS.
2. DOME PANELS OR CAST-IN-PLACE DOME, DOME RING, AND DOME SLOTS SHALL RECEIVE A LIGHT BROOM FINISH.
3. ALL APPURTENANCE LOCATIONS SHOWN ON THIS DRAWING ARE OF A DIAGRAMMIC NATURE AND FINAL LOCATIONS ARE TO BE LOCATED IN THE FIELD.
4. TEMPORARY WALL OPENING LOCATION TO BE DETERMINED IN THE FIELD.

JDS-HYDRO CONSULTANTS, INC.
5540 TECH CENTER DR., SUITE 100
COLORADO SPRINGS, COLORADO 80919
(719) 227-0072

WIDEFIELD WATER AND SANITATION DISTRICT

ROLLING HILLS 2MG POTABLE WATER TANK AND INLET PIPELINE

DOME APPURTENANCE LAYOUT

REVISIONS

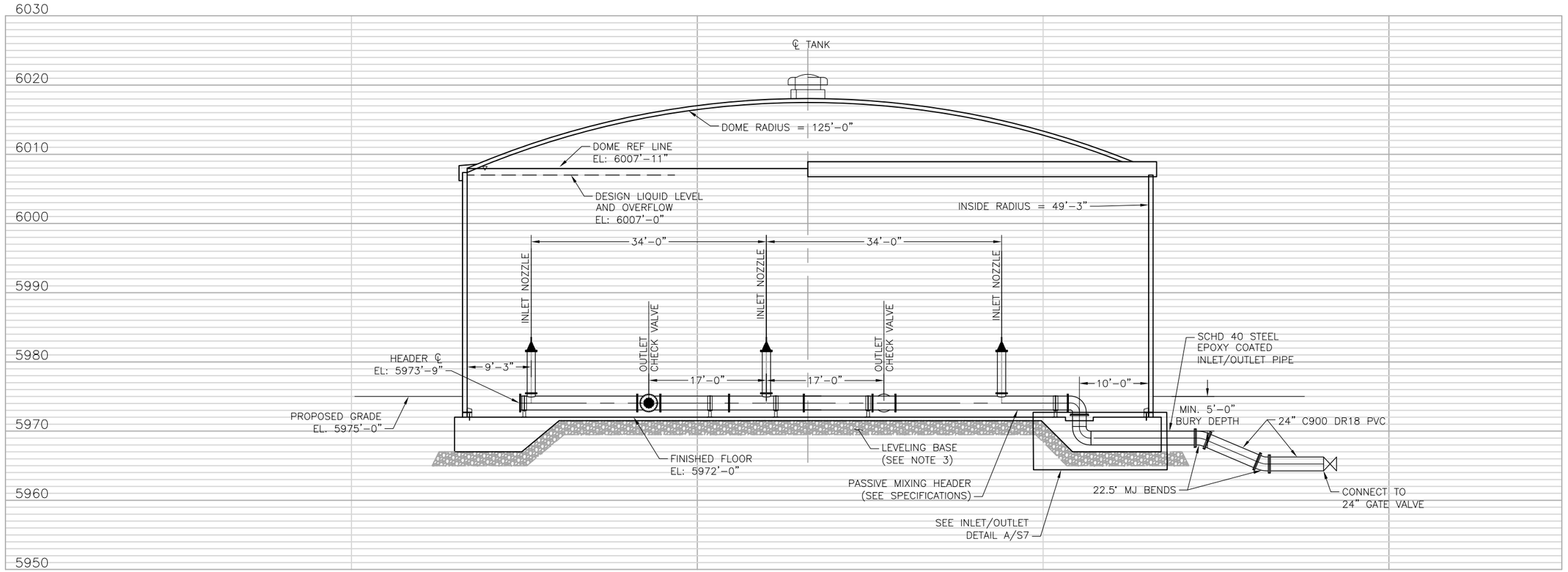
NO.	DESCRIPTION	BY	APP.	DATE
1				
2				
3				
4				
5				
6				
7				

80% DESIGN

Project No.:	102.121
Date:	01/28/21
Design:	GJD
Drawn:	SNW
Check:	JPM

S3

SHEET 29 OF 37



A / S4 TANK SECTION A
SCALE: 1/16" = 1'-0"

NOTES:

1. REFER TO CONTRACT DOCUMENTS FOR INFORMATION CONCERNING TANK BASE PREPARATION, BACKFILLING, AND SITE GRADING.
2. GEOTECHNICAL ENGINEER MUST INSPECT AND EVALUATE THE SUB-GRADE PRIOR TO PLACEMENT OF LEVELING BASE TO CONFIRM MINIMUM DESIGN CRITERIA IS BEING MET.
3. LEVELING BASE SHALL CONSIST OF 12 INCHES OF IMPORTED, CRUSHED STONE MEETING NO. 57 CONCRETE AGGREGATE PER TABLE 703-1 CDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2019, OR CLASS 5 OR 6 AGGRAGATE BASE COURSE PER TABLE 703-2 CDOT STANDARD SPECIFICATIONS, 2019. LEVELING BASE SHALL EXTEND A MINIMUM OF 48 INCHES BEYOND EDGE OF FOOTINGS.
4. REFER TO TANK & PIPING SECTION DRAWINGS IN CIVIL SHEETS AND STRUCTURAL DETAIL SHEETS FOR BURIED PIPE PENETRATIONS.
5. REFER TO SPECIFICATIONS FOR HYDRODYNAMIC MIXING SYSTEM INFORMATION.

JDS-HYDRO CONSULTANTS, INC.
5540 TECH CENTER DR., SUITE 100
COLORADO SPRINGS, COLORADO 80919
(719) 227-0072

WIDEFIELD WATER AND SANITATION DISTRICT
ROLLING HILLS 2MG POTABLE WATER TANK AND INLET PIPELINE
TANK SECTION

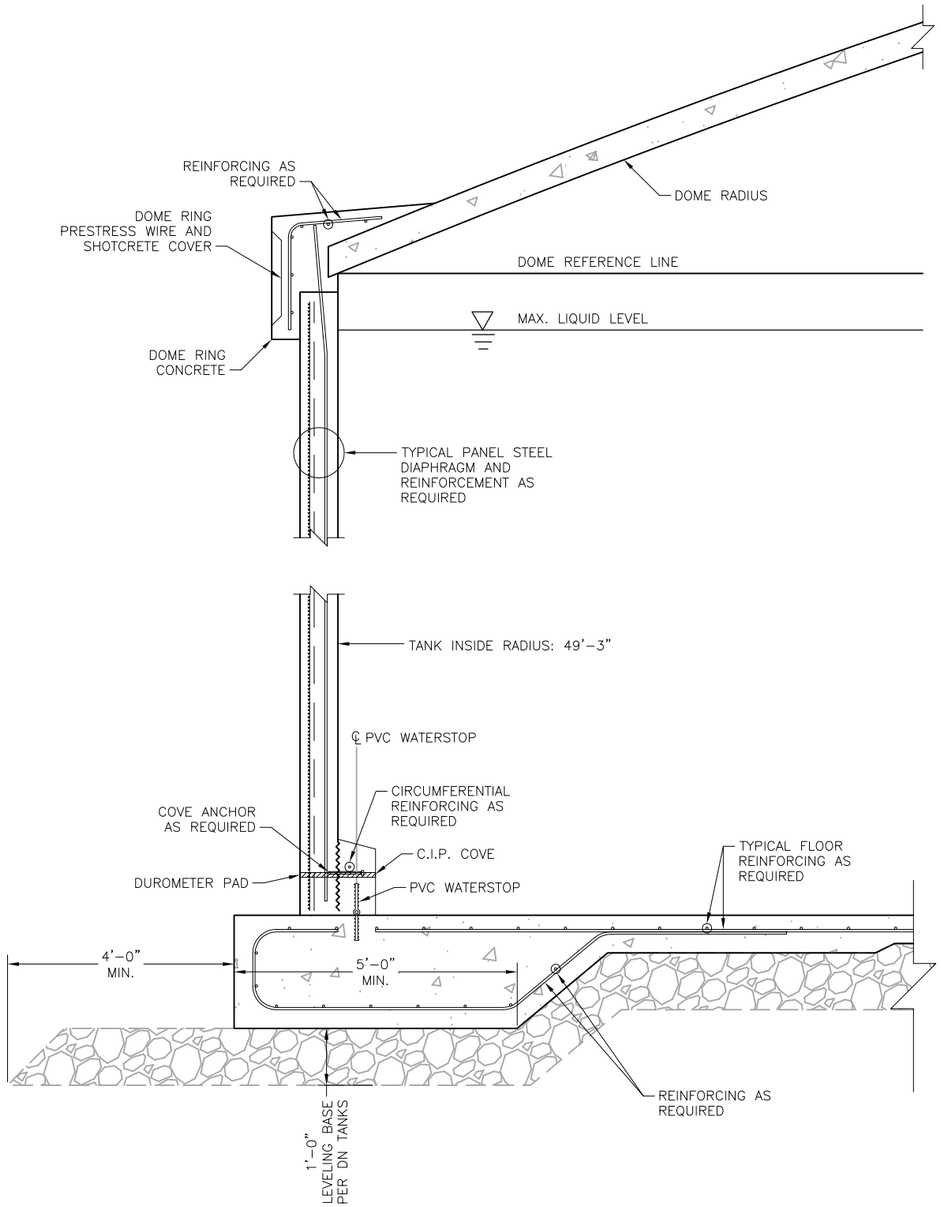
REVISIONS

NO.	DESCRIPTION	BY	APP.	DATE
1				
2				
3				
4				
5				
6				
7				

80% DESIGN

Project No.: 102.121
Date: 01/28/21
Design: GJD
Drawn: SNW
Check: JPM

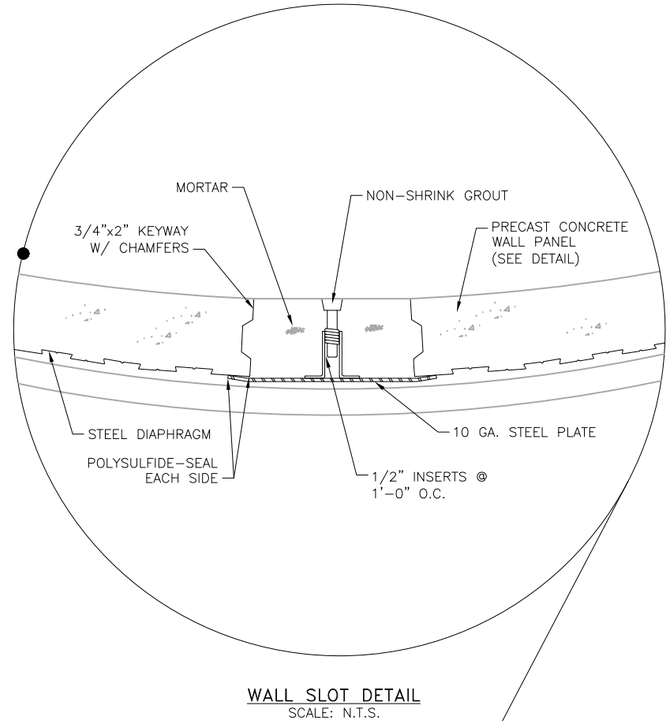
S4
SHEET 30 OF 37



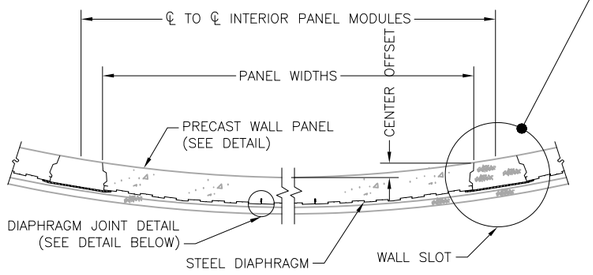
A/S5 TANK WALL SECTION
SCALE: 1/16" = 1'-0"

NOTES:

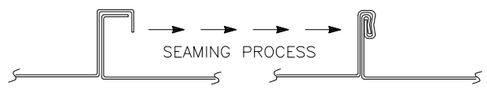
1. ALL REINFORCEMENT SHALL BE GRADE 60 AND DETERMINED BY TANK DESIGNER/MANUFACTURER.
2. TANK FLOOR SHALL RECEIVE A BULL-FLOAT AND/OR A FRESNO FINISH.
3. SECURE WATERSTOP WITH GROMMETS AND TIE-WIRE TO REBAR.
4. LEVELING BASE MATERIAL SHALL BE PROVIDED BENEATH TANK FLOOR, FOOTING, AND BOTTOM OF PIPE ENCASEMENTS.
5. LEVELING BASE MATERIAL SHALL BE WELL-COMPACTED NO. 57 STONE OR CDOT CLASS 5 OR 6 AGGREGATE COURSE BASE.



WALL SLOT DETAIL
SCALE: N.T.S.



TYPICAL CIRCUMFERENTIAL WALL SECTION



DIAPHRAGM JOINT DETAIL

B/S5 WALL PANEL & JOINT
SCALE: N.T.S.

JDS-HYDRO CONSULTANTS, INC.
5540 TECH CENTER DR., SUITE 100
COLORADO SPRINGS, COLORADO 80919
(719) 227-0072

WIDEFIELD WATER AND SANITATION DISTRICT

ROLLING HILLS 2MG POTABLE WATER TANK AND INLET PIPELINE

STRUCTURAL DETAILS

REVISIONS

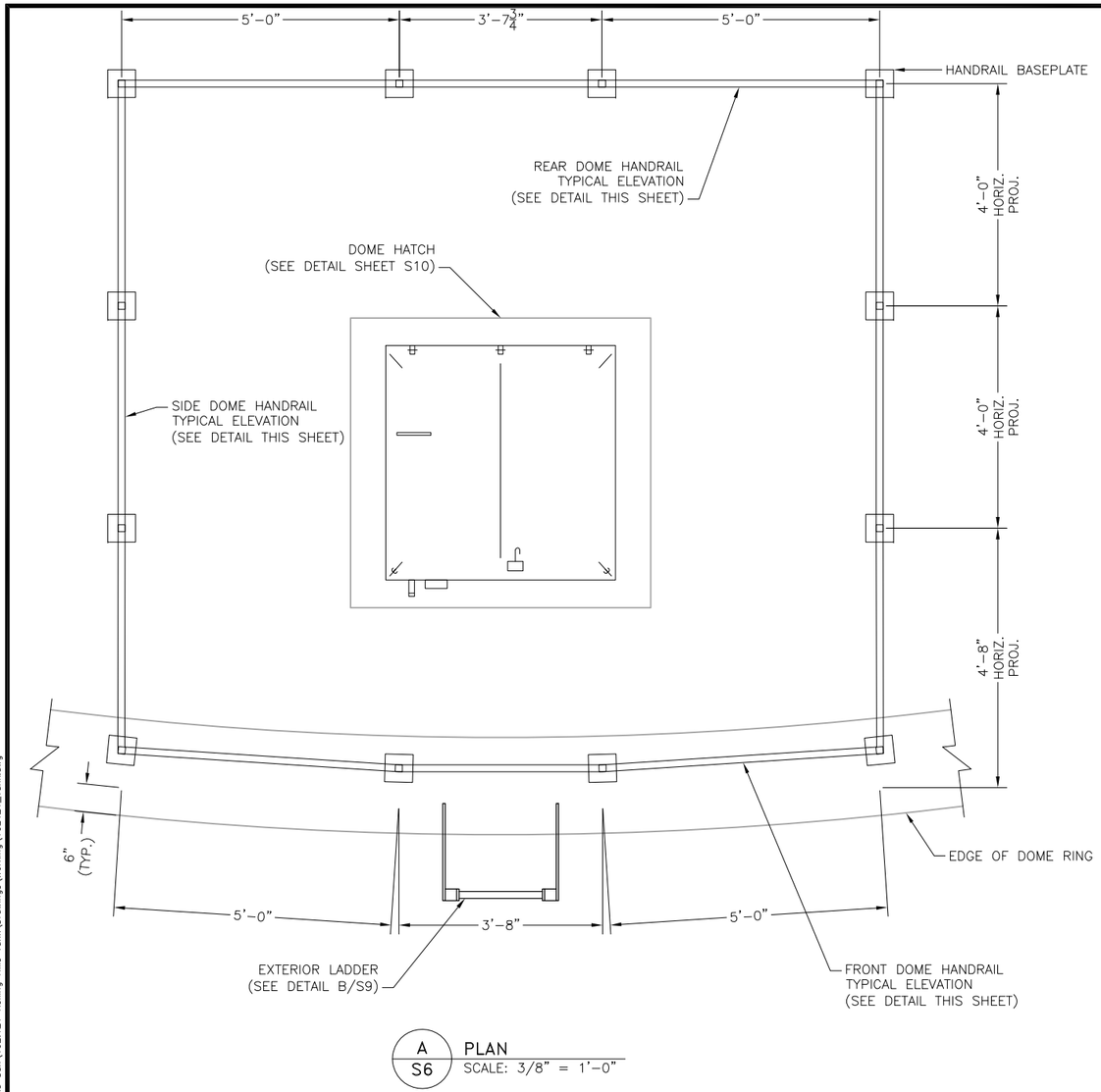
NO.	DESCRIPTION	BY	APP.	DATE
1				
2				
3				
4				
5				
6				
7				

80% DESIGN

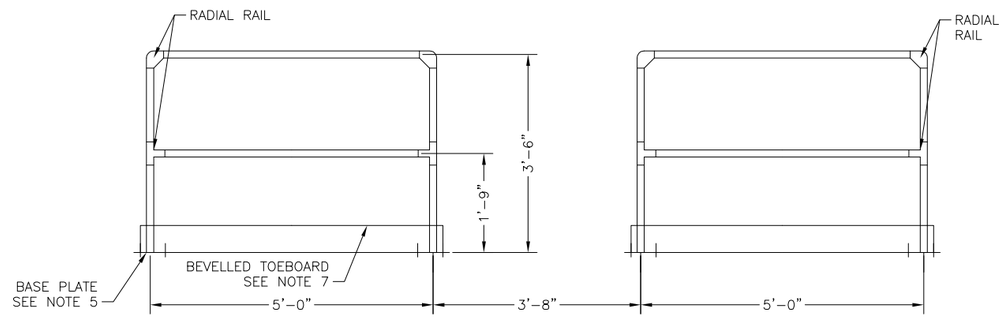
Project No.: 102.121
Date: 01/28/21
Design: GJD
Drawn: SNW
Check: JPM

S5

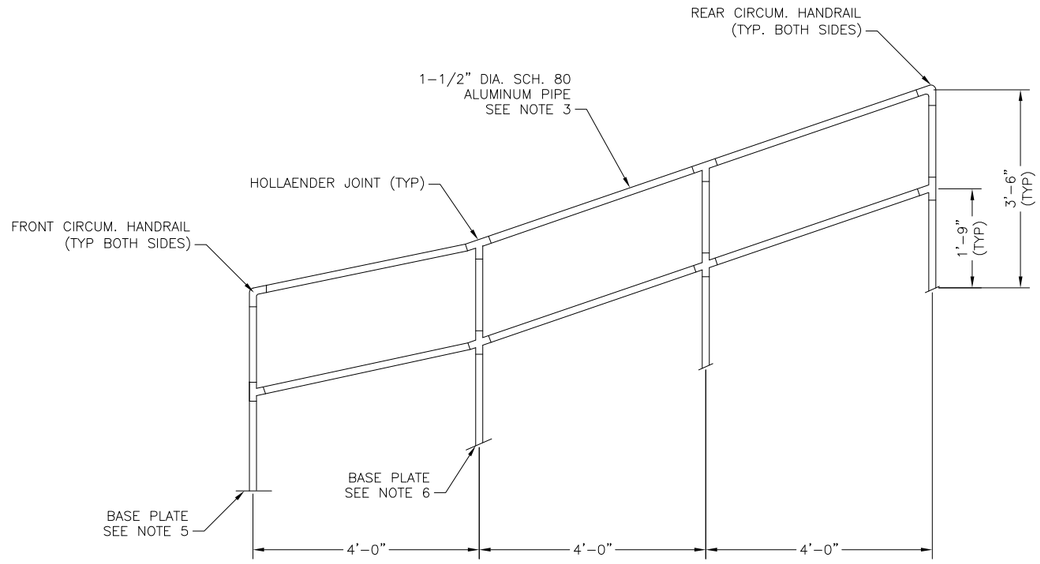
SHEET 31 OF 37



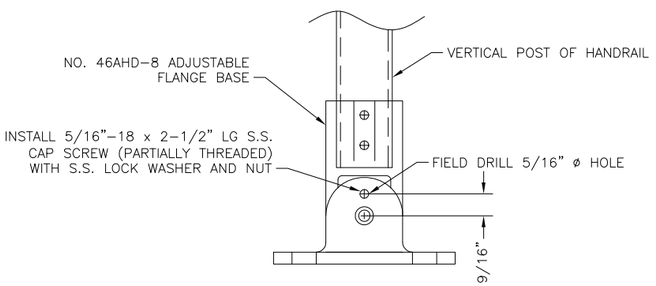
A/S6 PLAN
SCALE: 3/8" = 1'-0"



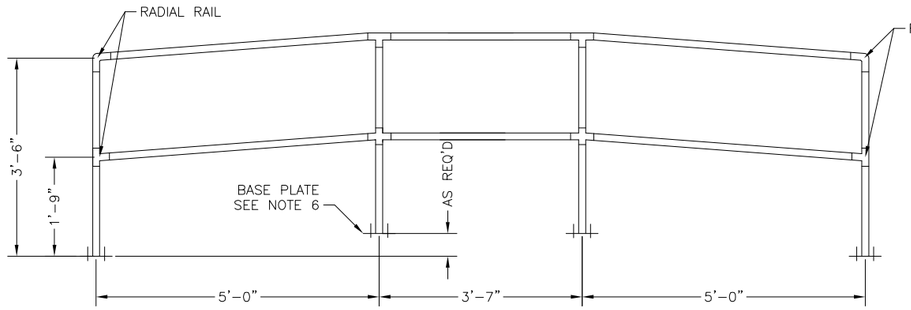
B/S6 FRONT ELEVATION
SCALE: 3/8" = 1'-0"



C/S6 SIDE ELEVATION – TYP BOTH SIDES, BOTH HANDRAILS
SCALE: 3/8" = 1'-0"



D/S6 PLATE DETAIL
SCALE: N.T.S.



E/S6 REAR ELEVATION
SCALE: 3/8" = 1'-0"

NOTES:
1. HANDRAIL FITTINGS SHALL BE SPEED-RAIL BY HOLLAENDER, INC OR EQUAL.
2. HANDRAIL SHALL BE LOCATED AS SHOWN ON SHEET S3.
3. HANDRAIL SHALL BE 1-1/2" DIA. SCH. 80 6061-T6 OR 6005-T5 ANODIZED ALUMINUM PIPE HANDRAIL.
4. ISOLATE ALUMINUM FROM THE CONCRETE WITH THICK NEOPRENE GASKETS.
5. FRONT BASEPLATES SHALL BE SQUARE FIXED NO. 45SBCS FLOOR FLANGE OR EQUAL. SECURE TO DOME WITH 1/2" x 3-3/4" 316 S.S. WEDGE ANCHORS (4 REQ'D PER PLATE) (2-1/4" MIN. EMBEDMENT).
6. ALL OTHER BASEPLATES SHALL NO. 46 AHD-8 ADJUSTABLE FLANGES OR EQUAL. THESE BASEPLATES SHALL BE FIELD DRILLED AND SECURED WITH A 5/16" -18 x 2-1/2" LG. S.S. HEX HEAD CAP SCREW W/SPLIT LOCKWASHER AND NUT. SEE DETAIL THIS SHEET. ROTATE THESE BASEPLATES AS REQUIRED TO MAINTAIN A PLUMB POST. SECURE TO DOME WITH 1/2" x 3-3/4" 316 S.S. WEDGE ANCHORS (4 REQ'D PER PLATE) (2-1/2" MIN. EMBEDMENT).
7. HOLLAENDER BEVELED TOE BOARD SHALL BE ATTACHED TO FRONT RAIL USING #49C HOLLAENDER CLIPS.
8. ALL HANDRAIL JOINTS SHALL BE ADJUSTABLE.
9. ALL SET SCREWS SHALL BE 316 S.S.

JDS-HYDRO CONSULTANTS, INC.
5540 TECH CENTER DR., SUITE 100
COLORADO SPRINGS, COLORADO 80919
(719) 227-0072

WIDEFIELD WATER AND SANITATION DISTRICT
ROLLING HILLS 2MG POTABLE WATER TANK AND INLET PIPELINE
STRUCTURAL DETAILS

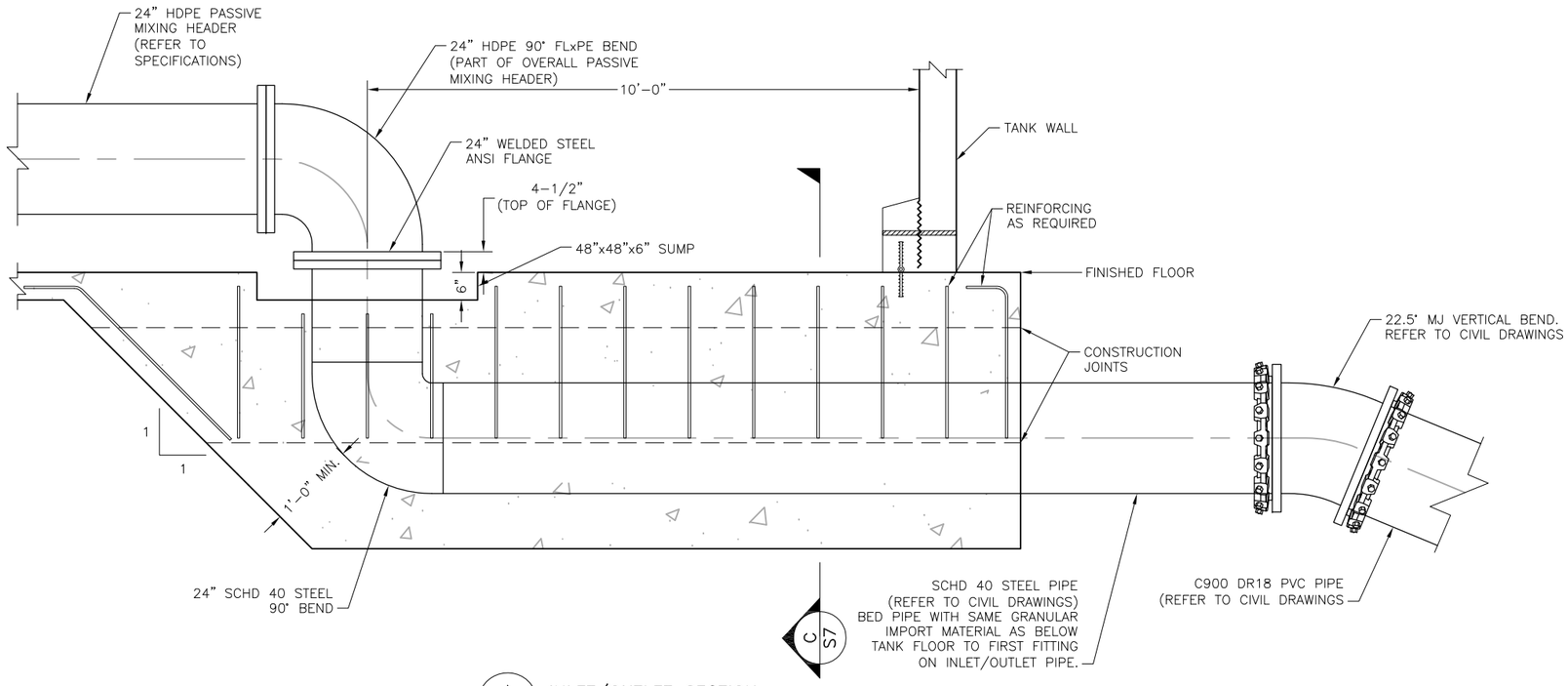
REVISIONS

NO.	DESCRIPTION	BY	APP.	DATE
1				
2				
3				
4				
5				
6				
7				

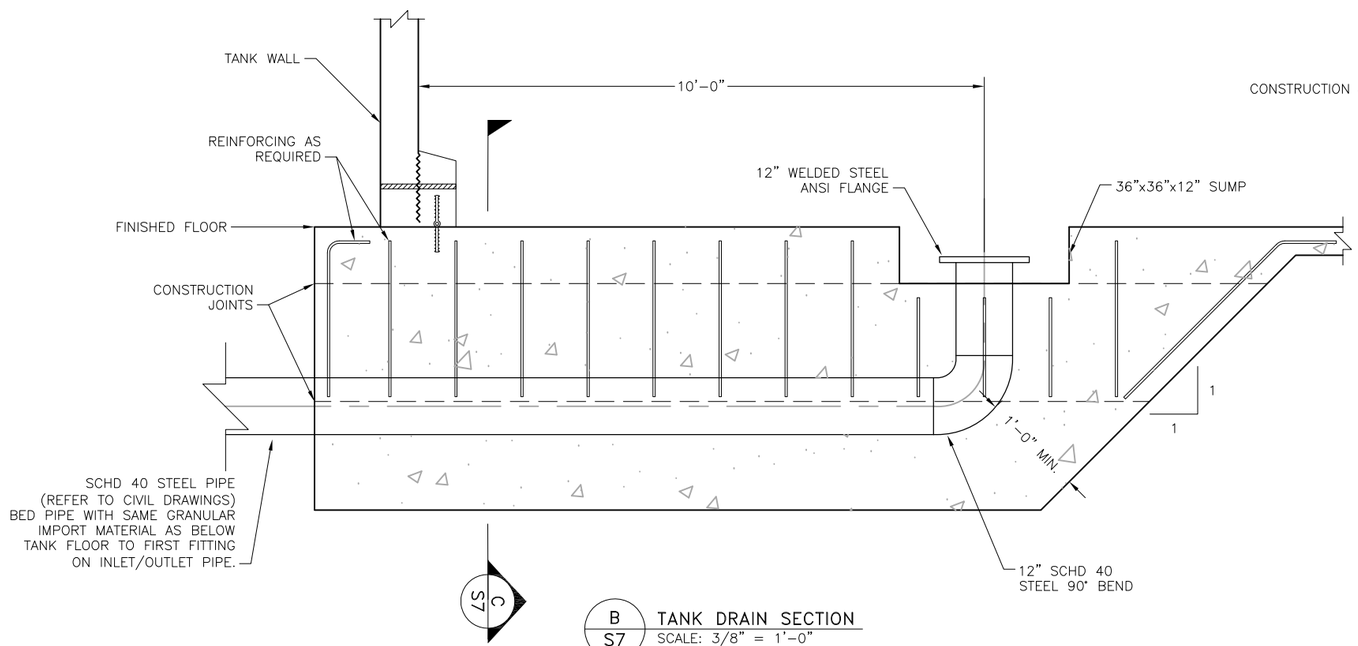
80% DESIGN

Project No.: 102.121
Date: 01/28/21
Design: GJD
Drawn: SNW
Check: JPM

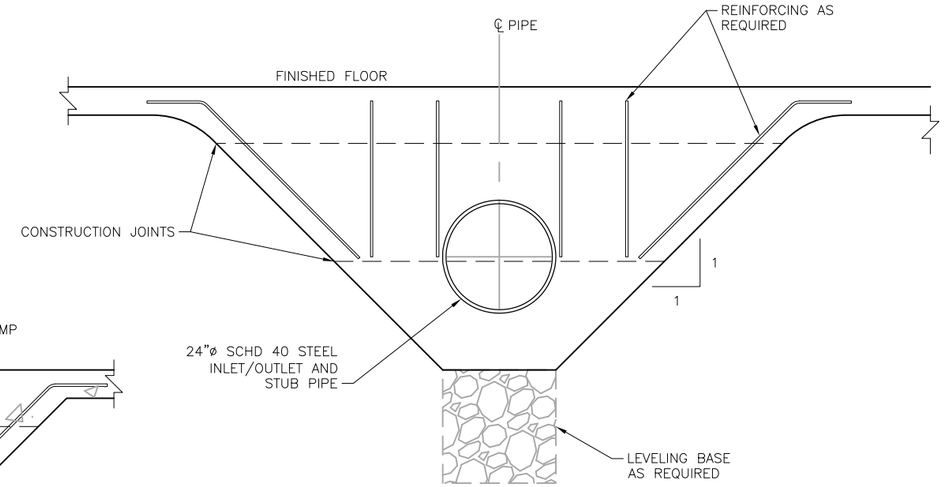
S6
SHEET 32 OF 37



A / S7 INLET/OUTLET SECTION
SCALE: 3/8" = 1'-0"



B / S7 TANK DRAIN SECTION
SCALE: 3/8" = 1'-0"



C / S7 PENETRATIONS
SCALE: 3/8" = 1'-0"

NOTES:

1. INLET/OUTLET AND FUTURE STUB SHALL BE ANSI SCHD 40 STEEL PIPE FROM TANK TO FIRST OUTER FITTING CONNECTION (I.E. MJ VALVE, MJ BEND).
2. INTERIOR OF SCHD 40 STEEL PIPING SHALL BE COATED WITH AN AWWA APPROVED EPOXY FOR DRINKING WATER.
3. EXTERIOR OF SCHD 40 PIPING SHALL BE EPOXY COATED AS DESCRIBED IN THE SPECIFICATIONS.
4. ALL BURIED DUCTILE IRON, STEEL PIPE, AND MJ FITTINGS SHALL BE CATHODICALLY PROTECTED USING 17 L.B MAGNESIUM ANODES.

JDS-HYDRO CONSULTANTS, INC.
5540 TECH CENTER DR., SUITE 100
COLORADO SPRINGS, COLORADO 80919
(719) 227-0072

WIDEFIELD WATER AND SANITATION DISTRICT

ROLLING HILLS 2MG POTABLE WATER TANK AND INLET PIPELINE

STRUCTURAL DETAILS

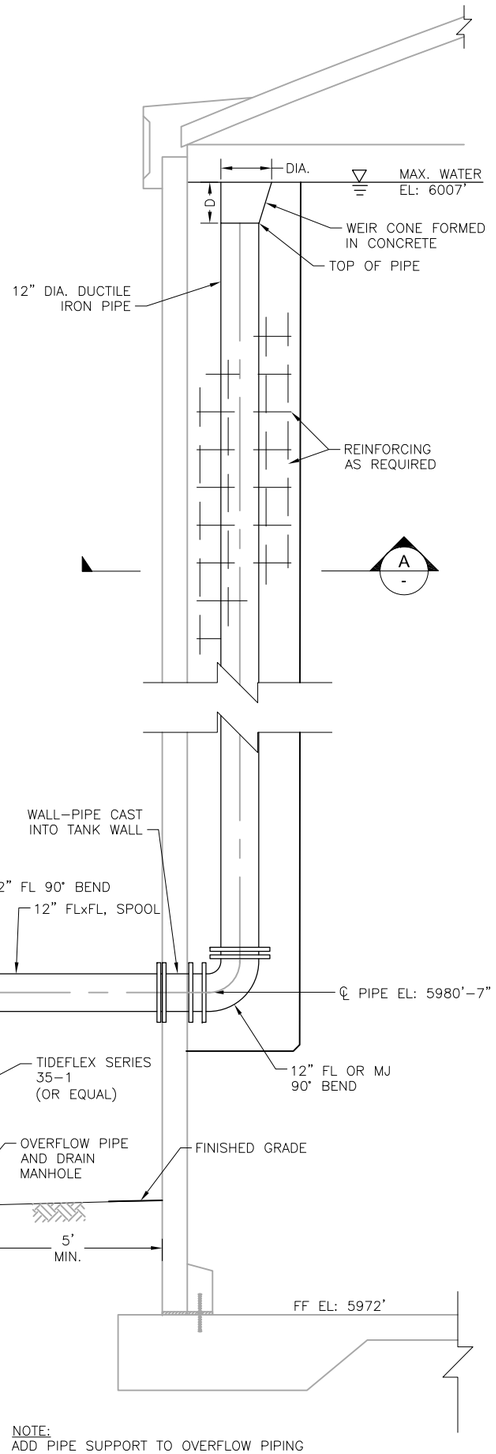
REVISIONS			
NO.	DESCRIPTION	BY	APP.	DATE
1				
2				
3				
4				
5				
6				
7				

80% DESIGN

Project No.:	102.121
Date:	01/28/21
Design:	GJD
Drawn:	SNW
Check:	JPM

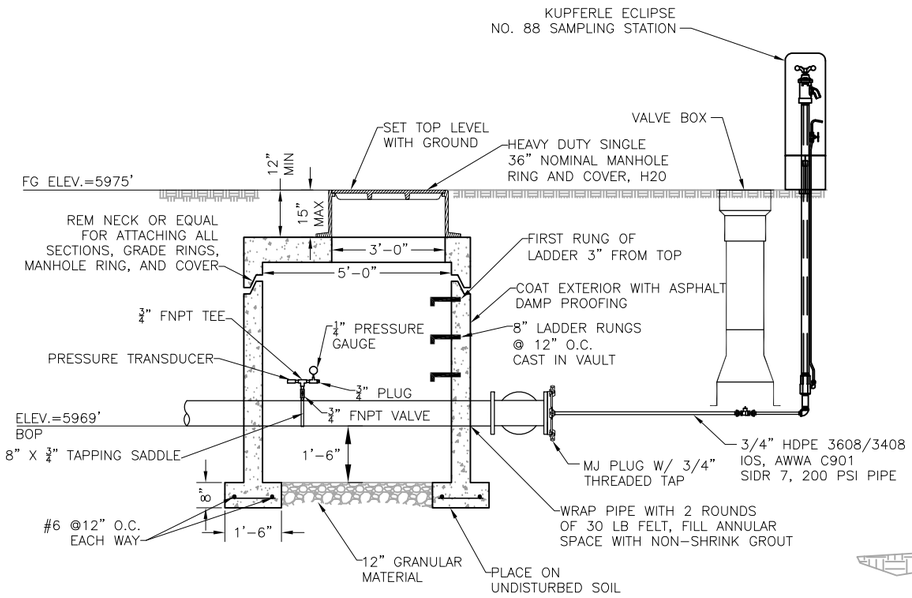
S7

SHEET 33 OF 37



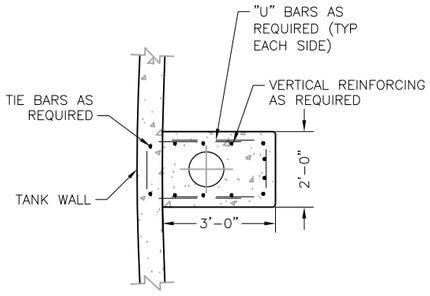
NOTE:
ADD PIPE SUPPORT TO OVERFLOW PIPING

A / S8 OVERFLOW PIPE SECTION
SCALE: 1/4" = 1'-0"

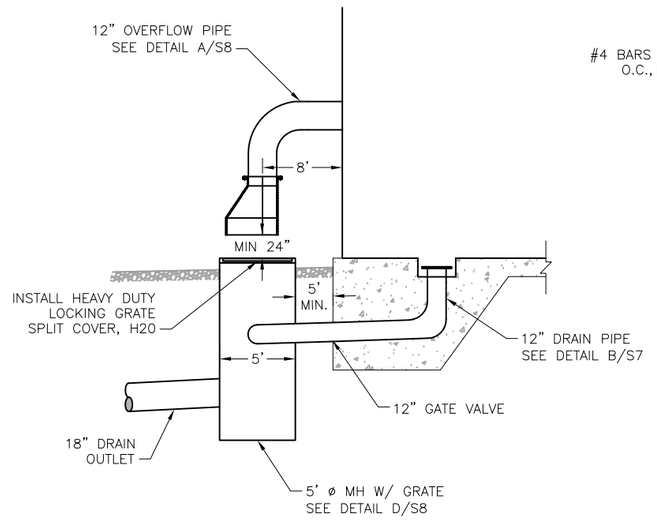


B / S8 STATIC PRESSURE MANHOLE DETAIL
SCALE: N.T.S.

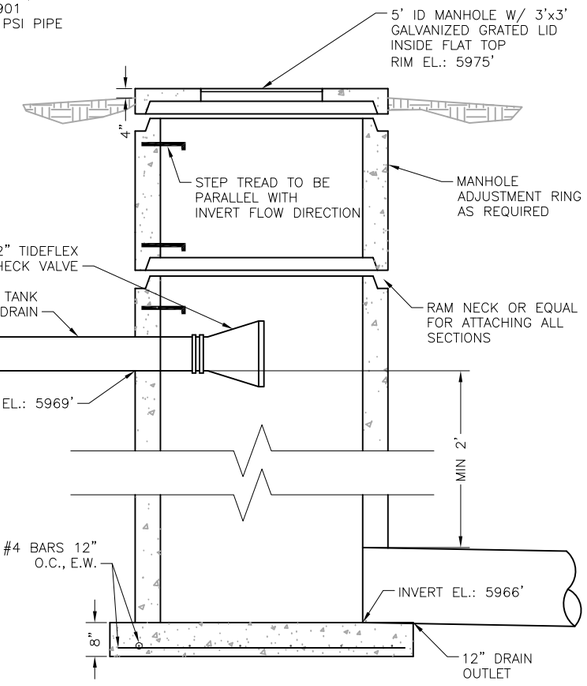
NOTES:
1. OVERFLOW DUCTILE IRON PIPE AND FITTINGS ARE NOT REQUIRED TO BE COATED (ONLY PRIMED/COATED FROM THE MANUFACTURER).
2. ADEKA (OR EQUAL) SEAL AROUND ALL PIPE PENETRATIONS.
3. WEIR CONE MAY BE CONCENTRIC OR ECCENTRIC.



SECTION A



C / S8 OVERFLOW PIPE & DRAIN MANHOLE SECTION
SCALE: N.T.S.



D / S8 DRAIN OUTLET MANHOLE
SCALE: N.T.S.

JDS-HYDRO CONSULTANTS, INC.
5540 TECH CENTER DR., SUITE 100
COLORADO SPRINGS, COLORADO 80919
(719) 227-0072

WIDEFIELD WATER AND SANITATION DISTRICT

ROLLING HILLS 2MG POTABLE WATER TANK AND INLET PIPELINE

STRUCTURAL DETAILS

REVISIONS

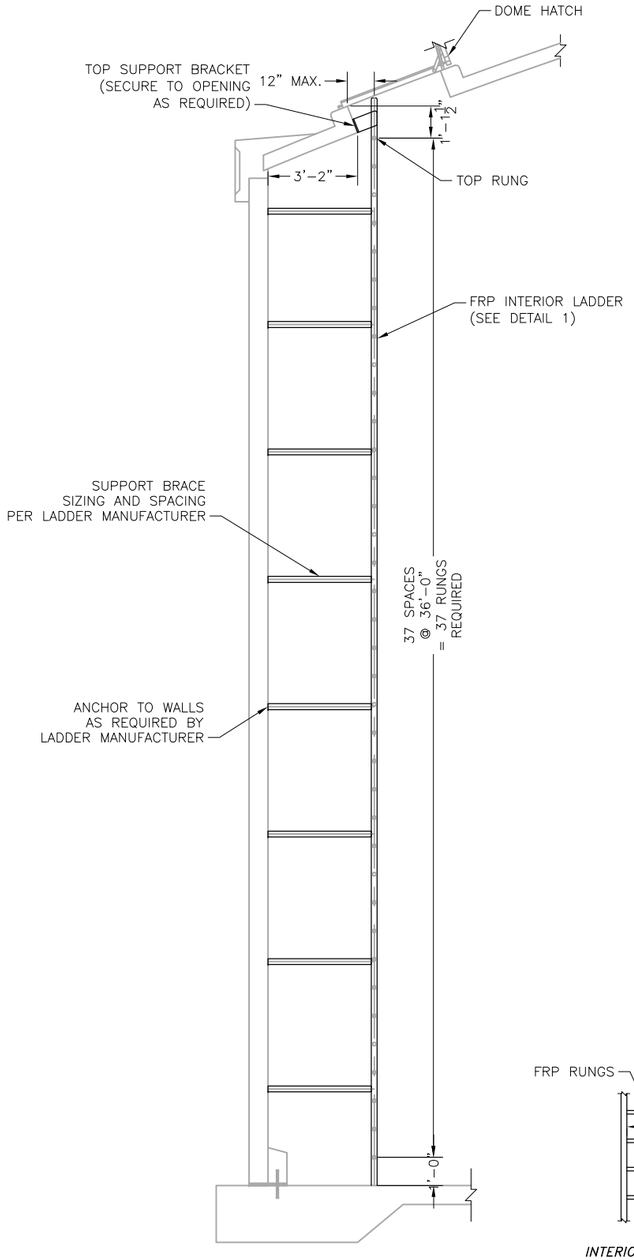
NO.	DESCRIPTION	BY	APP.	DATE
1				
2				
3				
4				
5				
6				
7				

80% DESIGN

Project No.: 102.121
Date: 01/28/21
Design: GJD
Drawn: SNW
Check: JPM

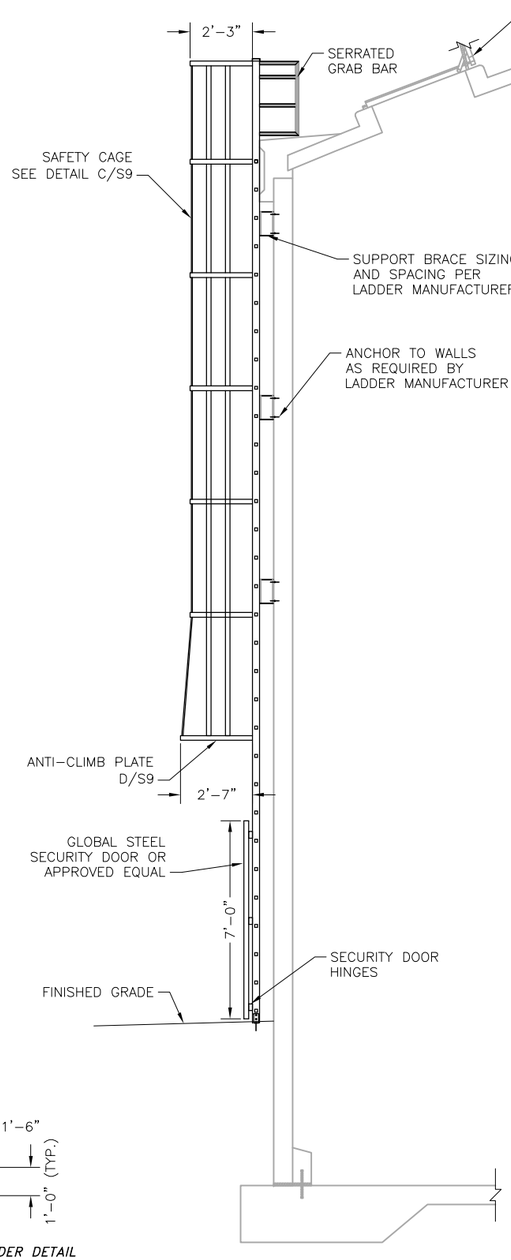
S8

SHEET 34 OF 37



NOTE:
1. STAINLESS STEEL OSHA COMPLIANT TRACK RESTRAINT SYSTEM SHALL BE INSTALLED ON BOTH INTERIOR AND EXTERIOR LADDERS.

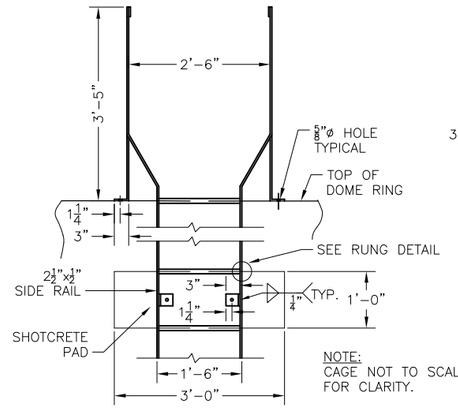
A / S9 INTERIOR LADDER SECTION
SCALE: 3/16" = 1'-0"



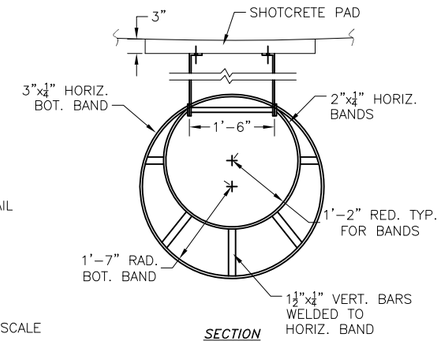
INTERIOR LADDER DETAIL

NOTE:
1. OSHA COMPLIANT TRACK RESTRAINT SYSTEM SHALL BE INSTALLED (S.S.)

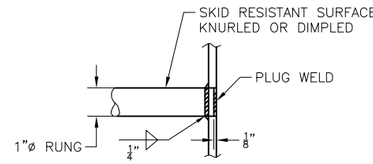
B / S9 EXTERIOR LADDER SECTION
SCALE: 3/16" = 1'-0"



ELEVATION



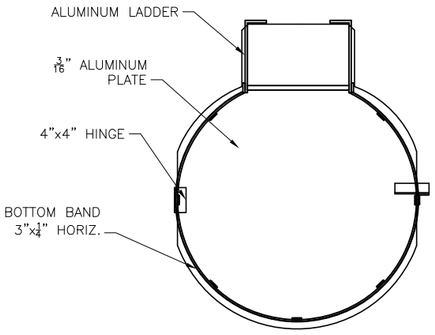
SECTION



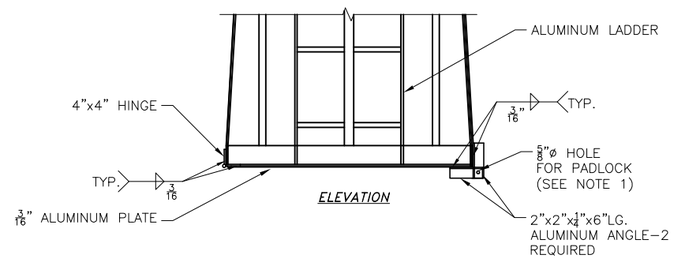
RUNG DETAIL

NOTES:
1. LADDER SHALL BE 6061-T6 ALUMINUM.
2. ALL ALUMINUM SURFACES IN CONTACT WITH CONCRETE SHALL RECEIVE A PVC SHIM.
3. LADDERS SHALL BE CONNECTED TO TANK USING STAINLESS STEEL WEDGE ANCHORS.
4. BASE OF LADDER SHALL BE EQUIPPED WITH ANTI-CLIMB PLATE.

C / S9 EXTERIOR LADDER DETAIL
SCALE: 3/16" = 1'-0"



PLAN



ELEVATION

NOTES:
1. CONTRACTOR TO FURNISH PADLOCK AND KEYS.
2. MATERIAL SHALL BE ALUMINUM 6061-T6.

D / S9 ANTI-CLIMB PLATE
SCALE: N.T.S.

JDS-HYDRO CONSULTANTS, INC.
5540 TECH CENTER DR., SUITE 100
COLORADO SPRINGS, COLORADO 80919
(719) 227-0072

WIDEFIELD WATER AND SANITATION DISTRICT
ROLLING HILLS 2MG POTABLE WATER TANK AND INLET PIPELINE

STRUCTURAL DETAILS

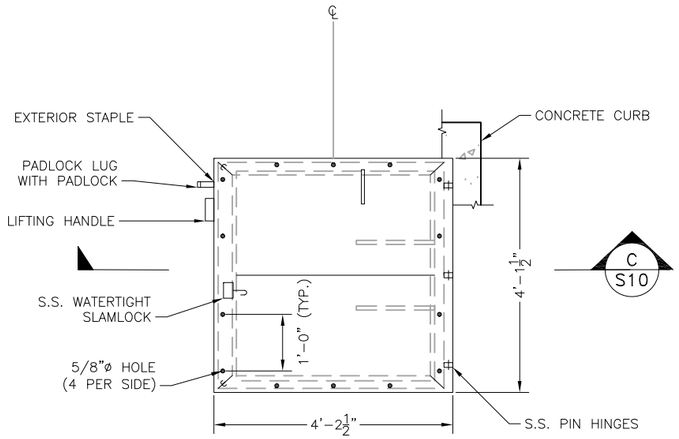
REVISIONS

NO.	DESCRIPTION	BY	APP.	DATE
1				
2				
3				
4				
5				
6				
7				

80% DESIGN

Project No.: 102.121
Date: 01/28/21
Design: GJD
Drawn: SNW
Check: JPM

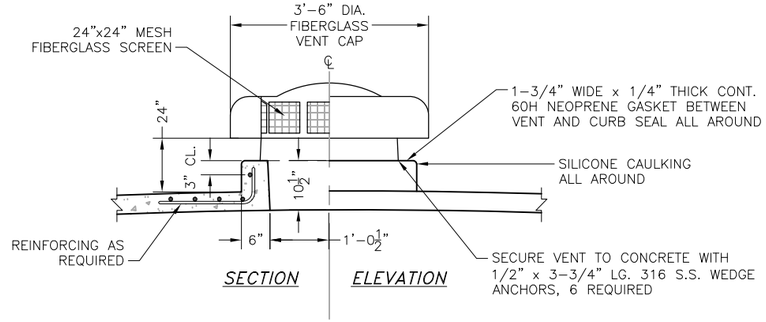
S9
SHEET 35 OF 37



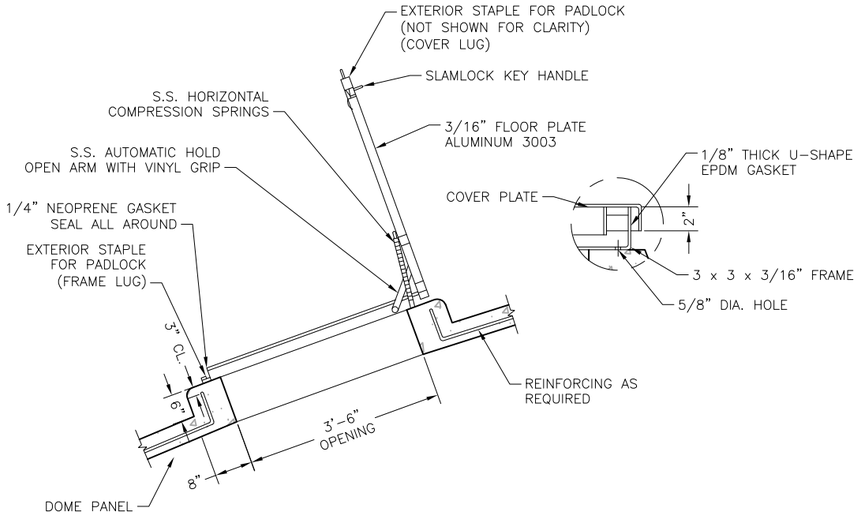
A S10 DOME HATCH PLAN
SCALE: N.T.S.

NOTES:

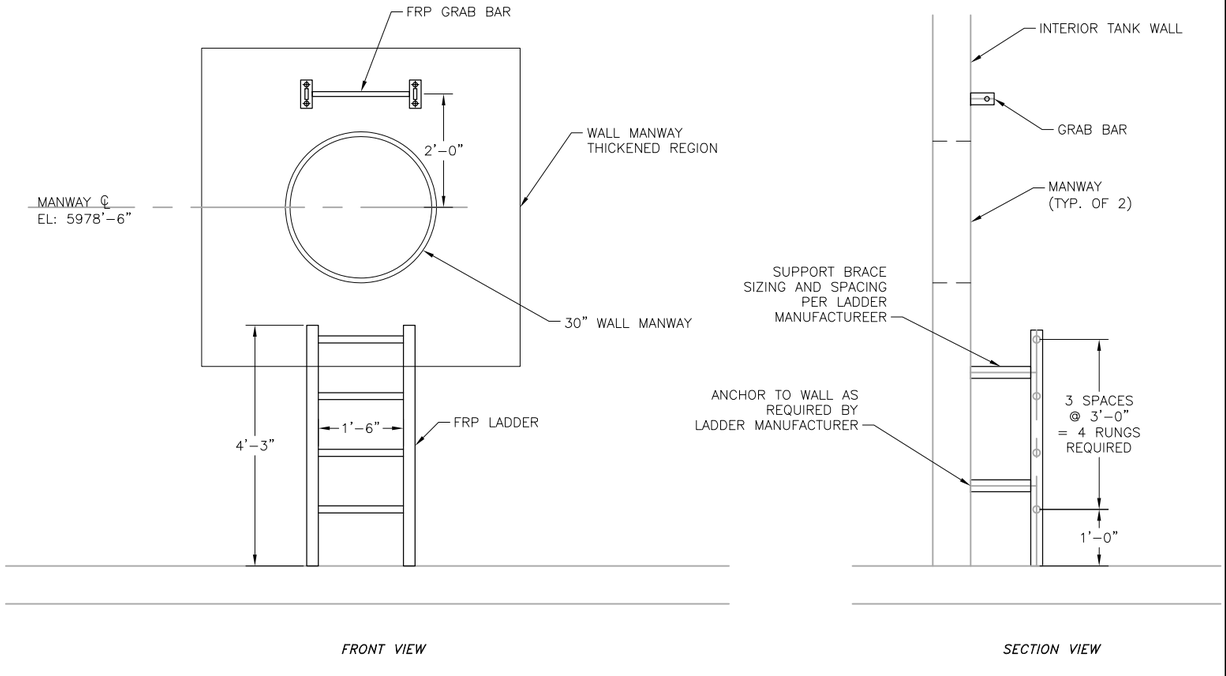
1. ALL ALUMINUM SHALL BE ISOLATED FROM CONCRETE BY A NEOPRENE GASKET.
2. COVER HATCH WITH POLYETHYLENE FOR PROTECTION DURING CONSTRUCTION.
3. LOCATE HATCH AS SHOWN ON SHEET S2.
4. ONE (1) HATCH REQUIRED THIS TYPE.
5. HATCH TO BE SECURED TO DOME WITH 3-1/2" x 3-3/4" LG. 316 S.S. WEDGE ANCHORS EACH SIDE (11 REQUIRED).
6. CONTRACTOR TO PROVIDE PADLOCK AND KEYS.
7. HATCH TO BE RATED FOR 150 PSF AT L/75 DEFLECTION.



B S10 VENT SECTION & ELEVATION
SCALE: N.T.S.



C S10 DOME HATCH SECTION
SCALE: N.T.S.



D S10 WALL MANWAY, LADDER & GRAB BAR (TYP. OF 2)
SCALE: 3/8" = 1'-0"

JDS-HYDRO CONSULTANTS, INC.
5540 TECH CENTER DR., SUITE 100
COLORADO SPRINGS, COLORADO 80919
(719) 227-0072

WIDEFIELD WATER AND SANITATION DISTRICT

ROLLING HILLS 2MG POTABLE WATER TANK AND INLET PIPELINE

STRUCTURAL DETAILS

REVISIONS

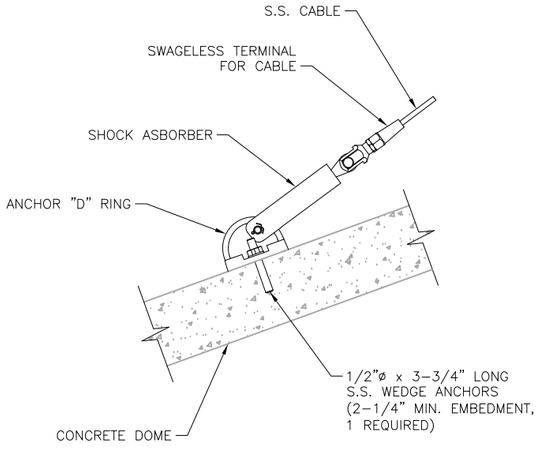
NO.	DESCRIPTION	BY	APP.	DATE
1				
2				
3				
4				
5				
6				
7				

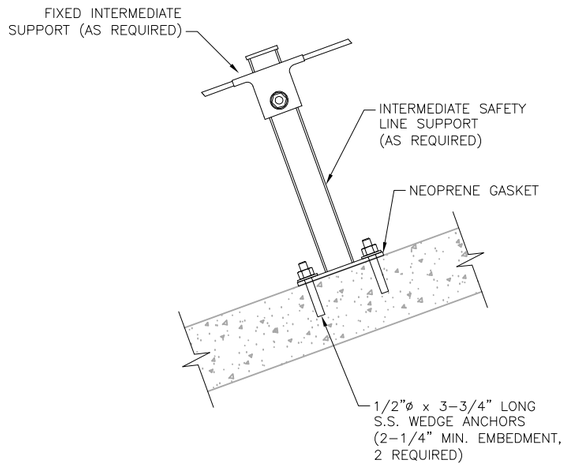
80% DESIGN

Project No.: 102.121
Date: 01/28/21
Design: GJD
Drawn: SNW
Check: JPM

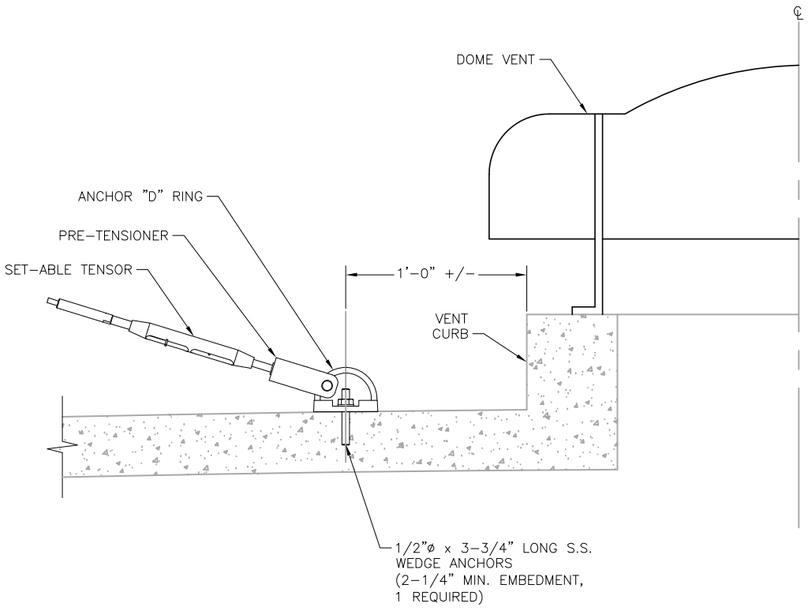
S10

SHEET 36 OF 37

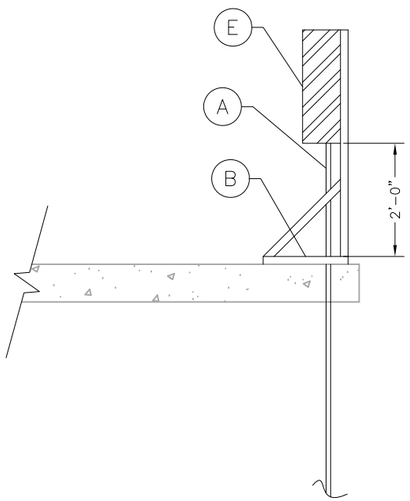




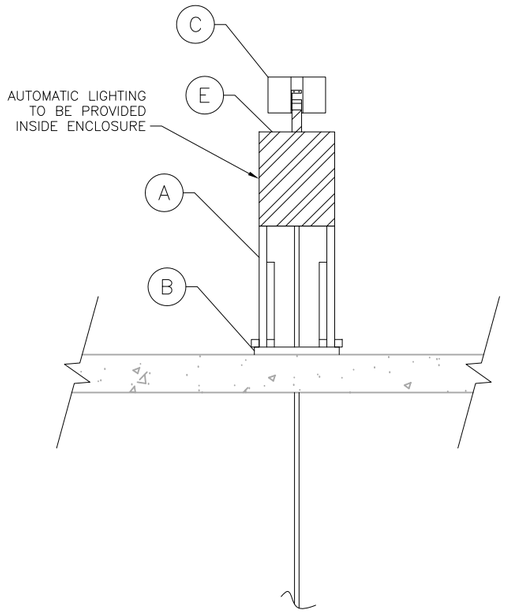
NOTE:
INSTALL SAFETY RUNNERS ON CABLE AS REQUIRED BY DESIGN.



A S11 DOME SAFTEY LINE
SCALE: N.T.S.



SIDE VIEW



FRONT VIEW

B S11 SOLAR PANEL/RTU
SCALE: N.T.S.

SOLAR PANEL/RTU SCHEDULE	
A	1" ELECTRICAL CONDUIT
B	1-3/8" 12 GAUGE UNISTRUT STANCHION
C	SOLAR PANEL INCLUDING BATTERY AND CHARGE CONTROLLER
D	ANTENNA – TO BE MOUNTED ON TANK LADDER
E	NEMA TYPE 4 ENCLOSURE WITH MOUNTING PANEL

NOTE:
SOLAR PANEL AND ANTENNA TO BE MOUNTED ON TOP OF TANK ON LADDER/HANDRAIL

JDS-HYDRO CONSULTANTS, INC.
5540 TECH CENTER DR., SUITE 100
COLORADO SPRINGS, COLORADO 80919
(719) 227-0072

WIDEFIELD WATER AND SANITATION DISTRICT

ROLLING HILLS 2MG POTABLE WATER TANK AND INLET PIPELINE

STRUCTURAL DETAILS

REVISIONS			
NO.	DESCRIPTION	BY	APP.	DATE
1				
2				
3				
4				
5				
6				
7				

80% DESIGN

Project No.: 102.121
Date: 01/28/21
Design: GJD
Drawn: SNW
Check: JPM

S11

SHEET 37 OF 37