WIDEFIELD WATER AND SANITATION DISTRICT

VETERANS AFFAIRS PIKES PEAK NATIONAL CEMETERY

WATER DELIVERY SYSTEM

EL PASO COUNTY, COLORADO

*El Paso County Conditions:
1. These plans show some areas of "existing right-of-way" that have not yet been dedicated to or accepted by El Paso County. The District and the subdivider shall note that the future right-of-way shall be dedicated in accordance with all provisions of the EPC Land Development Code and the EPC Engineering Criteria Manual (please note that among other requirements, right-of-way dedications shall be free of any encumbrances per Section 8.5 of the El Paso County Land Development Code).
2. Steel casing for the waterline bore across Bradley Road right-of-way shall extend the entire width of the ROW.
3. The WWSD shall provide as-built drawings to EPC in accordance with the EPC Engineering Criteria Manual.

SURVEY INFORMATION

SCHEDULES A AND B ALIGNMENT/VA PUMP STATION/PPNC EQ SURGE TANK:

VA AREA TOPOGRAPHY DERIVED FROM AES GROUP.

SURVEY TOPOGRAPHY AND DATA DERIVED FROM CLARK LAND SURVEYING (DATED 06/08/17, FIELD WORK DATED 06/02/17). 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. THIS SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

SCHEDULE C ALIGNMENT/RH BOOSTER PUMP STATION/LORSON AREA:

RESPECTIVE TOPOGRAPHY DERIVED FROM CORE ENGINEERING ALONG WITH CLARK SURVEYING.

CORE ENGINEERING SURVEY TOPOGRAPHY AND DATA DERIVED FROM M&S CIVIL CONSULTANTS/SURVEYING SURVEYING. SEE SURVEY FOR ESTABLISHED CONTROL. THE FOLLOWING COORDINATE SYSTEM AND DATUM RECORD IS AS FOLLOWS:

HORIZONTAL DATUM:	N/A
VERTICAL DATUM:	NGVD29

LEGEND

PROPERTY LINE/SECTION LINE	EXISTING WATER LINE
RIGHT-OF-WAY	PROPOSED WATER LINE
WWSD BOUNDARY	PROPOSED SILT FENCE
EXISTING EASEMENT	PROPOSED EARTHEN BERM
PROPOSED EASEMENT	PROPOSED STRAW BALE BARRIER
PROPOSED EASEMENT (LORSON AREA)	PROPOSED EROSION CONTROL LOG
EXISTING FENCE	PROPOSED AIR/VAC VAULT
EXISTING CONTOURS-MINOR	EXISTING UTILITY POLE
EXISTING CONTOURS-MAJOR	FOUND MONUMENT (SURVEY)
PROPOSED CONTOURS-MINOR	BORE HOLE LOCATION
PROPOSED CONTOURS-MAJOR	UTILITY MARKER
EXISTING OVERHEAD ELECTRIC LINE	
EXISTING OVERHEAD ELECTRIC LINE (LORSON AREA)	
EXISTING FIBER OPTIC LINE	

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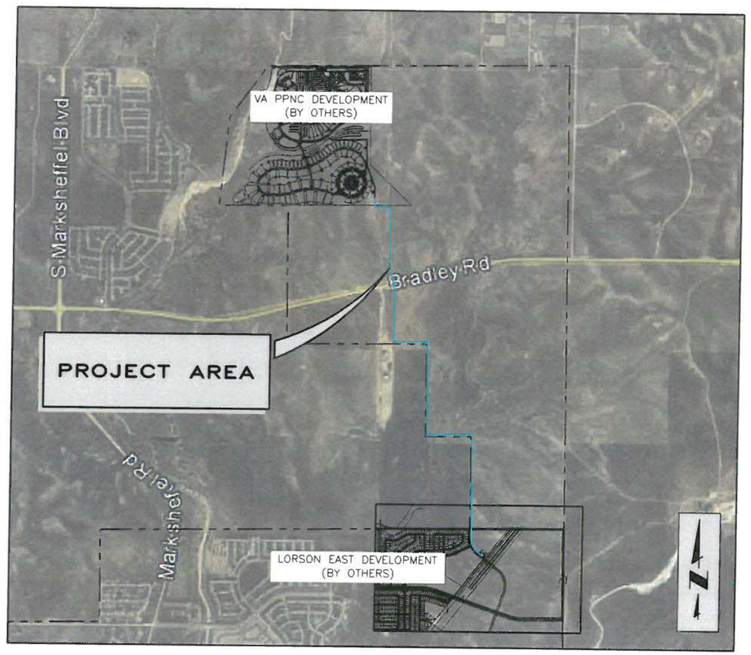

VICINITY MAP
N.T.S.

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 Line 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

Widefield Water and Sanitation District

SIGNATURE BLOCKS/PARTICIPANTS

OWNER
WIDEFIELD WATER AND SANITATION DISTRICT
8495 FONTAINE BLVD
COLORADO SPRINGS, CO 80925
CONTACT: BRANDON BERNARD, WATER DEPT MANAGER
PHONE: (719) 464-2051

CONSULTING/DESIGN/I&C ENGINEER
JDS-HYDRO CONSULTANTS, INC.
545 E. PIKES PEAK AVE., SUITE 300
COLORADO SPRINGS, CO 80903
CONTACT: JOHN MCGINN, PE
PHONE: (719) 227-0072

ELECTRICAL
CHAVEZ, TIFFANY & AYERS
119 W CUCHARRAS ST
COLORADO SPRINGS, CO 80903
CONTACT: JOSH AYERS, PE
PHONE: (719) 636-0021x3

COLORADO SPRINGS UTILITIES
PLAN APPROVAL

APPROVED BY: _____ DATE: 12/20/17
PROJECT NUMBER: 2017-W194 WORK ORDER NUMBER: 32393S4
CSU SHEET 1 OF 3

APPROVAL EXPIRES ONE (1) YEAR FROM THE DATE ABOVE AND RESUBMITTAL OF THESE PLANS FOR REVIEW AND APPROVAL IS REQUIRED IF CONSTRUCTION DOES NOT BEGIN DURING THIS PERIOD.

1. REFER TO LESS 2.6.H.8 "CROSSING RAW WATER TRANSMISSION MAINS"
2. THE CONTRACTOR MUST PROVIDE NOT LESS THAN 48-HOUR PRIOR NOTICE AND A COLORADO SPRINGS UTILITIES' REPRESENTATIVE MUST BE ON SITE TO OBSERVE ANY ACTIVITIES WITHIN SDS EASEMENT.
3. CONTACT COLORADO SPRINGS UTILITIES PRIOR TO ANY POTHOLING OR CONSTRUCTION WITHIN SDS EASEMENT. TO COORDINATE, PLEASE CALL (719) 668-4667.
4. REPLACE CARSONITE WATER MARKERS OVER PIPELINE AFTER CONSTRUCTION. ADDITIONAL MARKERS CAN BE OBTAINED FROM COLORADO SPRINGS UTILITIES
5. ENSURE THAT ALL EXISTING BLOW-OFFS WILL DAYLIGHT TO AN ADEQUATE OUTFALL AFTER COMPLETION OF GRADING

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, 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.

Approved
By:Jennifer Irvine, County Engineer
Date:01/08/2018
El Paso County Department of Public Works

*Conditions above

JENNIFER IRVINE, P.E
COUNTY ENGINEER

DATE

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: 12/20/2017
PROJECT NO. 17-[illegible]

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. 12/19/17

JOHN P. MCGINN, P.E. #19534
DISTRICT ENGINEER, WIDEFIELD WATER AND SANITATION DISTRICT

DATE

CDR 18-001

SHEET INDEX

SHEET NUMBER	DESCRIPTION
	COVER
GENERAL	
G1	SHEET INDEX AND GENERAL NOTES
PROCESS	
P1	OVERALL HYDRAULIC PROFILE
P2	VA PUMP STATION: PROCESS AND INSTRUMENTATION DIAGRAM
P3	RH BOOSTER PUMP STATION: PROCESS AND INSTRUMENTATION DIAGRAM
CIVIL	
C1	OVERALL SITE PLAN
C2	PPNC EQ SURGE TANK: SITE, GRADING AND EROSION CONTROL PLAN
C3	RH BOOSTER PUMP STATION: SITE, GRADING AND EROSION CONTROL PLAN
C4	OVERALL EROSION CONTROL NOTES AND DETAILS
C5	SCHEDULE A: PLAN AND PROFILE STA 10+00 TO 19+50
C6	SCHEDULE A: PLAN AND PROFILE STA 19+50 TO 29+50
C7	SCHEDULE A: PLAN AND PROFILE STA 29+50 TO 40+50
C8	SCHEDULE A: PLAN AND PROFILE STA 40+50 TO 53+34
C8.1	SCHEDULE A: EROSION CONTROL PLAN
C9	SCHEDULE B: PLAN AND PROFILE STA 10+00 TO 36+50
C10	SCHEDULE B: PLAN AND PROFILE STA 36+50 TO 56+50
C11	SCHEDULE B: PLAN AND PROFILE STA 56+50 TO 82+50
C12	SCHEDULE B: PLAN AND PROFILE STA 82+50 TO 108+50
C13	SCHEDULE B: PLAN AND PROFILE STA 108+50 TO 134+50
C14	SCHEDULE B: PLAN AND PROFILE STA 134+50 TO 146+50
C14.1	SCHEDULE B: EROSION CONTROL PLAN
C15	SCHEDULE C: PLAN AND PROFILE STA 184+50 TO 188+00
C16	SCHEDULE C: PLAN AND PROFILE STA 188+00 TO 192+50
C17	SCHEDULE C: PLAN AND PROFILE STA 192+50 TO 198+50
C18	SCHEDULE C: PLAN AND PROFILE STA 198+50 TO 203+87
C18.1	SCHEDULE C: EROSION CONTROL PLAN
C19	PPNC EQ TANK: FEMA FLOODPLAIN MAP
C20	PPNC EQ SURGE TANK DETAILS
C21	PPNC EQ SURGE TANK SITE DETAILS
C22	CIVIL DETAILS
C23	CIVIL DETAILS
C24	CIVIL DETAILS
C25	CIVIL DETAILS
C26	CIVIL DETAILS
C27	CIVIL DETAILS
MECHANICAL	
M1	VA PUMP STATION: MECHANICAL FLOOR PLAN/SCHEDULE
M2	VA PUMP STATION: MECHANICAL SECTIONS
M3	RH BOOSTER PUMP STATION: MECHANICAL PLAN/SECTIONS/SCHEDULE/DETAIL
M4	VA PUMP STATION: PIPE PENETRATION FLOOR PLAN AND SECTIONS
ELECTRICAL	
E1	VA PUMP STATION: ELECTRICAL PLAN
E2	RH BOOSTER PUMP STATION: ELECTRICAL PLAN
E3	VA PUMP STATION: CONDUIT PLAN

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 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 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. CONTRACTOR SHALL REFERENCE APPENDIX A OF THE TECHNICAL SPECIFICATIONS.

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 AND CDPHE STORMWATER CONSTRUCTION ACTIVITY AND DEWATERING PERMITS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN PRIOR TO CONSTRUCTION.

17. WHERE EXISTING SANITARY SEWER OR WATER FACILITIES ARE SHOWN ON THE DRAWINGS TO BE ABANDONED, OR WHERE EXISTING ABANDONED FACILITIES ARE DISCOVERED DURING CONSTRUCTION, CONTRACTOR SHALL ABANDON THESE FACILITIES AS FOLLOWS:

    A. SEAL PIPE ENDS WITH A MINIMUM 2-FOOT-THICK GROUT PLUG.

    B. REMOVE EXISTING MANHOLES TO AT LEAST 2 FEET BELOW FINISHED GRADE. PROVIDE A MINIMUM 6-INCH HOLE IN THE BOTTOM OF THE STRUCTURE AND FILL THE REMAINING PORTION WITH 3/4" CRUSHED ROCK.

    C. SALVAGE ALL CASTINGS, HYDRANTS, AND OTHER MATERIAL AND DELIVER THEM TO A LOCATION DETERMINED BY WWSD. MATERIAL NOT REQUESTED BY THE DISTRICT SHALL BE DISPOSED OF BY THE CONTRACTOR.

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

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

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12/19/17
PROFESSIONAL ENGINEER

WIDEFIELD WATER AND SANITATION DISTRICT
VA PPNC WATER DELIVERY SYSTEM
SHEET INDEX AND GENERAL NOTES

Project No.:	102.106
Scale:	N.T.S.
Date:	12/18/17
Design:	GJD
Drawn:	GGM
Check:	JPM
Revised:	

G1

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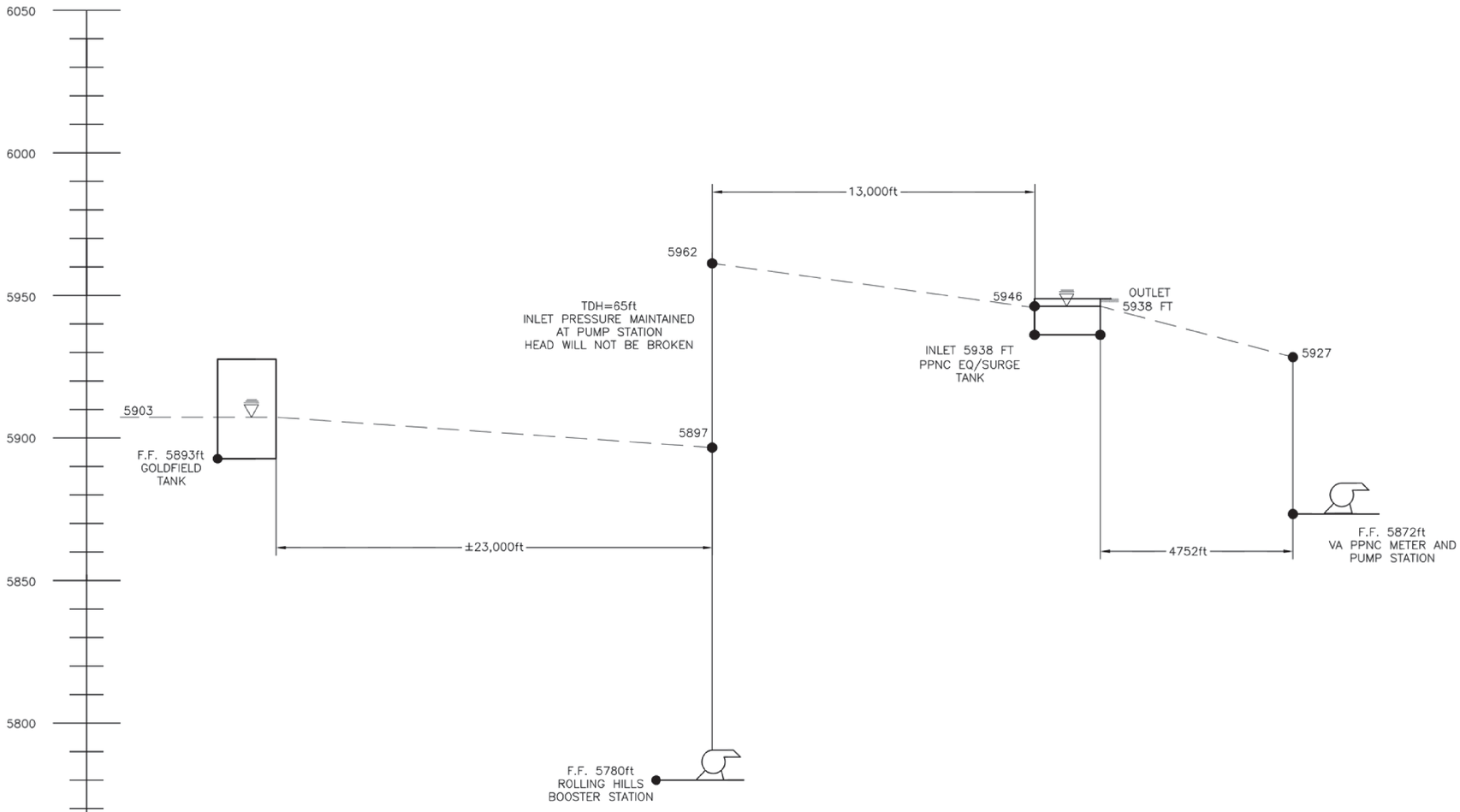

NOTES:
1. HORIZONTAL DISTANCES NOT TO SCALE.
2. HEAD LOSS IN PIPELINES CALCULATED USING MODELING SOFTWARE. SEE APPENDIX FOR MODEL DATA.

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WIDEFIELD WATER AND SANITATION DISTRICT
VA PPNC WATER DELIVERY SYSTEM
OVERALL HYDRAULIC PROFILE

Project No.: 102.106
Scale: AS SHOWN
Date: 11/22/17
Design: GJD
Drawn: ACH
Check: JPM
Revised:

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12/19/17
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P1

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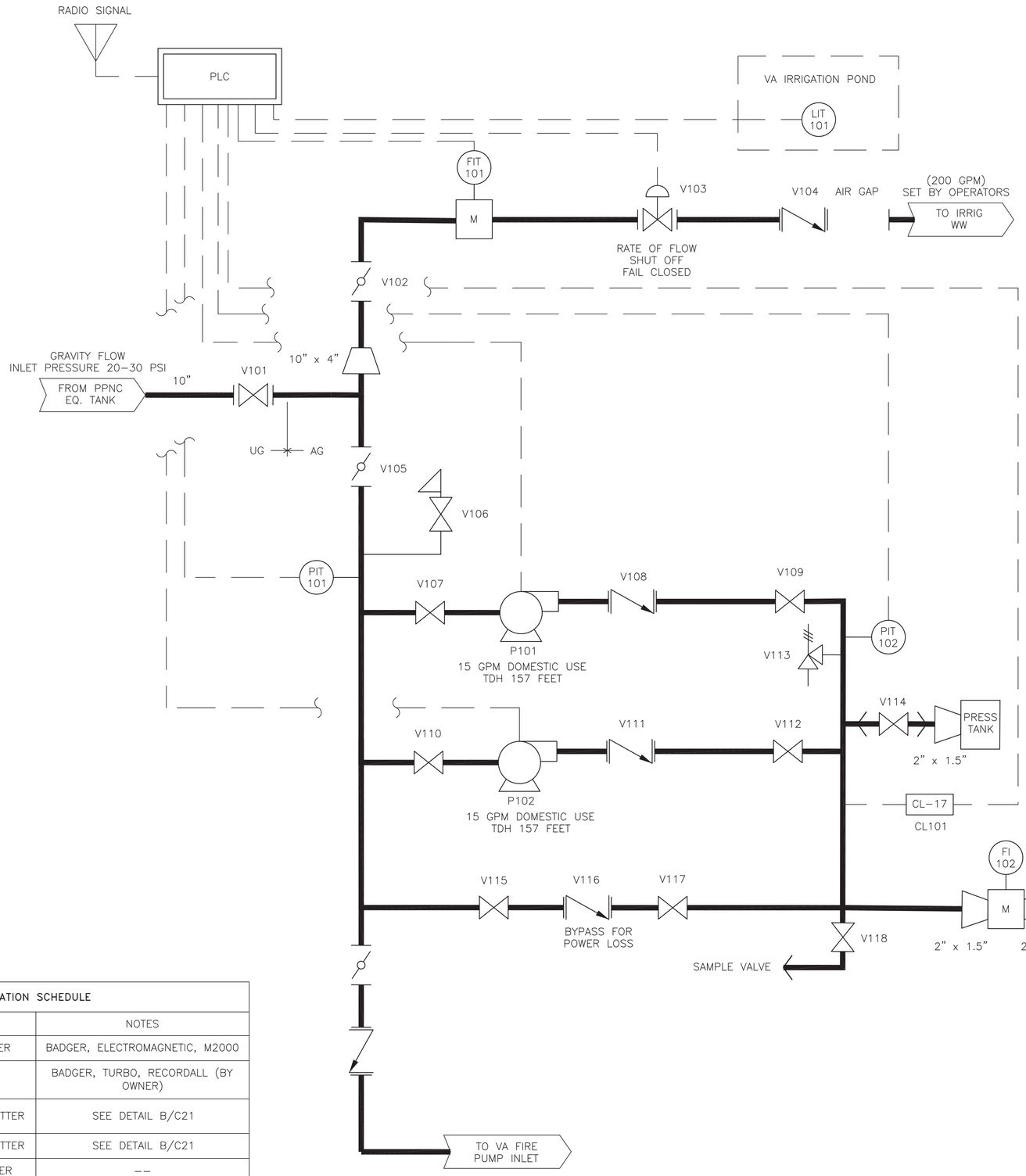

NOTES:
1. CONDUITS, CABINETS, AND ELECTRICAL BY CONTRACTOR.
2. SCADA/PLC AND PROGRAMMING BY OWNER.
3. END POINT DEVICES BY OWNER (FIT, PIT, AND LIT).

VA PUMP STATION CONTROL SCHEME

IRRIGATION VALVE
- OPEN/CLOSE: LIT101
- RATE OF FLOW: FIT101

DOMESTIC PUMP
- LEAD PUMP ON – 90 PSI
- LAG PUMP ON – 80 PSI
- BOTH PUMPS OFF – 120 PSI

MONITOR
- SUCTION PRESSURE: PIT101
- DISCHARGE PRESSURE: PIT102
- FLOW TO IRRIGATION: FIT101
- VA POND LEVEL: LIT101

SEE SPECS FOR ALARMS.

VA PUMP STATION VALVE SCHEDULE

TAG	SIZE, IN.	DESCRIPTION
V101	10	GATE VALVE
V102	4	BUTTERFLY VALVE
V103	4	FLOW CONTROL VALVE
V104	4	ELASTOMERIC CHECK VALVE
V105	8	BUTTERFLY VALVE
V106	0.75	COMBINATION AIR/VACUUM VALVE
V107	2	BALL VALVE
V108	2	CHECK VALVE
V109	2	BALL VALVE
V110	2	BALL VALVE
V111	2	CHECK VALVE
V112	2	BALL VALVE
V113	0.50	PRESSURE RELIEF VALVE
V114	2	BALL VALVE
V115	2	BALL VALVE
V116	2	CHECK VALVE
V117	2	BALL VALVE
V118	0.75	SAMPLE VALVE (THREADED HOSE OUTLET)
V119	2	BALL VALVE
V120	8	BUTTERFLY VALVE
V121	8	CHECK VALVE

VA PUMP STATION INSTRUMENTATION SCHEDULE

TAG	SIZE, IN.	DESCRIPTION	NOTES
FIT101	4	FLOW INDICATOR/TRANSMITTER	BADGER, ELECTROMAGNETIC, M2000
FI102	1.50	FLOW INDICATOR	BADGER, TURBO, RECORDALL (BY OWNER)
PIT101	--	PRESSURE INDICATOR/TRANSMITTER	SEE DETAIL B/C21
PIT102	--	PRESSURE INDICATOR/TRANSMITTER	SEE DETAIL B/C21
LIT101	--	LEVEL INDICATOR/TRANSMITTER	--
V103	4	FLOW CONTROL VALVE	--
CL 101	--	CHLORINE RESIDUAL ANALYZER	--

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WIDEFIELD WATER AND SANITATION DISTRICT
VA PPNC WATER DELIVERY SYSTEM
VA PUMP STATION
PROCESS AND INSTRUMENTATION DIAGRAM

Project No.:	102.106
Scale:	N.T.S.
Date:	12/19/17
Design:	GJD
Drawn:	ACH/GJD/GDS
Check:	JPM
Revised:	

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12/19/17
PROFESSIONAL ENGINEER

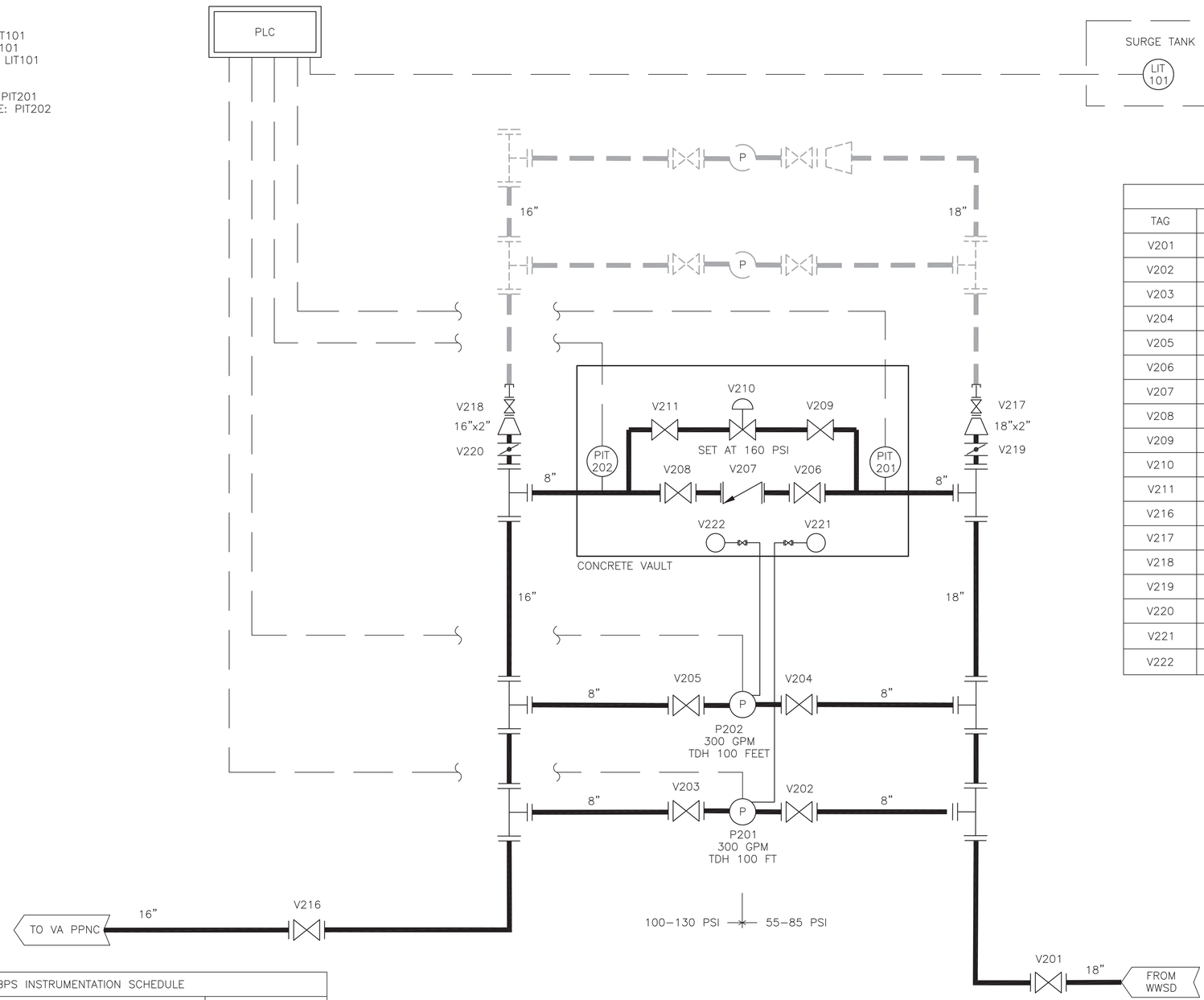
P2

RHBPS CONTROL SCHEME

PUMP OPERATION
- LEAD PUMP ON – LIT101
- LAG PUMP ON – LIT101
- BOTH PUMPS OFF – LIT101

MONITOR
- SUCTION PRESSURE: PIT201
- DISCHARGE PRESSURE: PIT202
- PUMPS ON/OFF
- PUMP FAILURE

SEE SPECS FOR ALARMS.



RHBPS VALVE SCHEDULE		
TAG	SIZE, IN.	DESCRIPTION
V201	18	SIDE OPERATED GATE VALVE
V202	8	GATE VALVE
V203	8	GATE VALVE
V204	8	GATE VALVE
V205	8	GATE VALVE
V206	8	GATE VALVE
V207	8	CHECK VALVE
V208	8	GATE VALVE
V209	1.50	GATE VALVE
V210	1.50	PRESSURE RELIEF VALVE
V211	1.50	GATE VALVE
V216	16	SIDE OPERATED GATE VALVE
V217	2	GATE VALVE
V218	2	GATE VALVE
V219	18	BUTTERFLY VALVE
V220	16	BUTTERFLY VALVE
V221	1	AIR/VAC RELIEF VALVE
V222	1	AIR/VAC RELIEF VALVE

RHBPS INSTRUMENTATION SCHEDULE			
TAG	SIZE, IN.	DESCRIPTION	NOTES
PIT201	--	PRESSURE INDICATOR/TRANSMITTER	SEE DETAIL B/C21
PIT202	--	PRESSURE INDICATOR/TRANSMITTER	SEE DETAIL B/C21
LIT101	--	LEVEL INDICATOR/TRANSMITTER	--
P201	--	BOOSTER PUMP	--
P202	--	BOOSTER PUMP	--

NOTES:
1. MAX OUTLET DESIGN PRESSURE = 200 PSI FOR FUTURE

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WIDEFIELD WATER AND SANITATION DISTRICT
VA PPNC WATER DELIVERY SYSTEM
ROLLING HILLS BOOSTER PUMP STATION
PROCESS AND INSTRUMENTATION DIAGRAM

Project No.:	102.106
Scale:	N.T.S.
Date:	12/08/17
Design:	GGM/GJD
Drawn:	ACH/GJD/GDS
Check:	JPM
Revised:	

COLORADO LICENSED
JOHN P. McGINN
19534
12/19/17
PROFESSIONAL ENGINEER

P3

NOTE:
1. AERIAL IMAGERY IS NOT ACCURATELY SCALED AND SHOULD BE UTILIZED FOR CONCEPTUAL PURPOSES ONLY (SOURCE DATA: EL PASO COUNTY ASSESSOR, BING MAPS MICROSOFT CORP)

0' 1500'

SCALE: 1"=1500'

THE LENGTH OF THIS LINE IS 1" AT FULL SCALE. IF THIS LINE IS NOT 1" LONG, SCALE ACCORDINGLY

MARKSHEFFEL RD

BRADLEY RD

DRENNAN RD

SOUTH MARKSHEFFEL RD

FONTAINE BLVD

PEACEFUL VALLEY RD

JIMMY CAMP CREEK

PP VA PUMP STATION MECHANICAL

PP SCHEDULE A WATER LINE (SEE SHEETS C5–C8)

VA PPNC DEVELOPMENT (BY OTHERS)

PP PPNC EQ SURGE TANK SITE

PP SCHEDULE B WATER LINE (SEE SHEETS C9–C14)

LORSON EAST DEVELOPMENT (BY OTHERS)

PP SCHEDULE C WATER LINE (SEE SHEETS C15–C18)

PP RHRBPS SITE

WILLIAMS CREEK

MERIDIAN RD

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(719) 227-0072

WIDEFIELD WATER AND SANITATION DISTRICT

VA PPNC WATER DELIVERY SYSTEM

OVERALL SITE PLAN

Project No.:	102.106
Scale:	AS SHOWN
Date:	12/14/17
Design:	GJD
Drawn:	GGM
Check:	JPM
Revised:	

C1

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2017/12/14 1:39 PM By: ACH

0' 30'

SCALE: 1"=30'

THE LENGTH OF THIS LINE IS 1" AT FULL SCALE. IF THIS LINE IS NOT 1" LONG, SCALE ACCORDINGLY

PP 24' WIDE ACCESS GATE
SEE CIVIL DETAILS

PP EROSION CONTROL
SILT FENCE (APPROX LOCATION)

PP BENDS AND GV
SEE SHEET C14

PP TANK OUTLET
SEE SHEET C20

PP 30,000 GALLON
UNDERGROUND EQ TANK.
SEE SHEET C20

PP 10" C900 DR18
WATER LINE. SEE CIVIL SHEETS FOR
SCH A ALIGNMENT AND APPURTENANCES

PP 10" C900 DR18 TANK BYPASS LINE
SEE SHEET 20

PP 22.5° BEND W/THRUST BLOCK:
(1) 10" PVC C900 DR18 (OVERFLOW)
(1) 4" PVC C900 DR18 (DRAIN)
SEE SHEET C20

TANK ℄

TANK ℄

PP 10" MJ GV (NORMALLY CLOSED)
SEE SHEET C20

PP 120± LF
10" PVC C900 DR18 (OVERFLOW)
AND 4" PVC C900 DR18 (DRAIN)
@ 0.3% OR GREATER TO
DAYLIGHT. SEE SHEET C21

PP CONCRETE CONTROL
PAD BY OTHERS (SIZE SHOWN IS
APPROXIMATE). SEE SHEET C20

IN-GROUND CREMAIN SECTIONS
(BY OTHERS). SEE CIVIL SHEETS

BOLLARD (TYP 10 TANK SITE)
SEE DETAIL A/C26. NOTE BOLLARDS
ARE NOT TO SCALE. LOCATIONS
TO BE COORDINATED W/ENGINEER
PRIOR TO INSTALLATION

PP SECURITY FENCE (±122'x85')
LOCATION TO VERIFIED BY
ENGINEER PRIOR TO INSTALLATION.
SEE CIVIL DETAILS

TANK INLET
SEE SHEET C20

PP 4" DRAIN LINE GV
SEE SHEET C20

PP TANK OVERFLOW
SEE SHEET C20

PP BENDS AND GV
SEE SHEET C14

PP HEADWALL, 4" AND
10" CHECK VALVES PER
SHEET C21 FOR DETAILS
RIPRAP TO BE 4 FT X 4 FT

PP EROSION CONTROL
STRAW BALES (APPROX LOCATION)

PP EROSION CONTROL
SILT FENCE (APPROX LOCATION)

PP 10" C900 DR18
WATER LINE. SEE CIVIL SHEETS FOR
SCH B ALIGNMENT AND APPURTENANCES

BORE HOLE (TYP 2 THIS AREA)

FOUND #6 REBAR
N: 1342532.0265
E: 3248653.6099

EX POWER POLE

EX OVERHEAD ELECTRIC
SEE CIVIL SHEETS

100' POWERLINE SETBACK
(SOURCE: AES GROUP)

EX FENCE
SEE CIVIL SHEETS

SEE CIVIL SHEETS FOR EXISTING NEARBY
UTILITY LOCATIONS AND EASEMENTS

SEC 2, T15S, R65W
SEC 1, T15S, R65W

5' 24' 56' 195' 25' 50' 80' 251' 138' 199'

5950 5945 5940 5935 5930 5925

NOTE:
1. VA PPNC LAND DEVELOPMENT REFERENCE FILE SOURCE: AES GROUP (2017).
2. GRADE AT TANK SITE TO ALLOW WATER RUNOFF TO PREVENT STANDING WATER WITHIN 50' OF TANK.
3. REVEGETATE ALL DISTURBED AREAS, SEE EROSION CONTROL DETAILS.
4. SLOPES IN EXCESS OF 4:1 ADDITIONALLY REQUIRE EROSION CONTROL MATTING, SEE EROSION CONTROL DETAILS.

COLORADO LICENSED
JOHN P. McGINN
19534
12/19/17
PROFESSIONAL ENGINEER

JDS-HYDRO CONSULTANTS, INC.
545 East Pikes Peak Avenue, Suite 300
Colorado Springs, Colorado 80903
(719) 227-0072

WIDEFIELD WATER AND SANITATION DISTRICT

VA PPNC WATER DELIVERY SYSTEM
PPNC EQ SURGE TANK
SITE, GRADING AND EROSION CONTROL PLAN

Project No.:	102.106
Scale:	AS SHOWN
Date:	12/08/17
Design:	GJD
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Revised:	

C2

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2017/12/08 2:47 PM By: GJS

0' 40'

SCALE: 1"=40'

THE LENGTH OF THIS LINE IS 1" AT FULL SCALE. IF THIS LINE IS NOT 1" LONG, SCALE ACCORDINGLY

PP TEMPORARY CONSTRUCTION EASEMENT

PP EASEMENT

325' ELEC EASEMENT

S52° 01' 21"E 220.01'

PP EROSION CONTROL SILT FENCE (APPROX LOCATION, TIE INTO ANY LORSON BLVD EROSION CONTROL MEASURES)

PP ±88'x95' SECURITY FENCE SEE CIVIL DETAILS

BORE HOLE (TYP 2 THIS AREA)

FUTURE PUMP STATION

N38° 22' 41"E 140.00'

S38° 22' 41"W 140.00'

57'

33'

PP RH BOOSTER PUMP STATION (BURIED VAULT 12'-8"x9'-4") TOP OF VAULT EL=5773.50' SEE CIVIL DETAILS AND MECHANICAL SHEETS

BOLLARD (TYP 4 VAULT SITE) SEE DETAIL A/C26. NOTE BOLLARDS ARE NOT TO SCALE. LOCATIONS TO BE COORDINATED W/ENGINEER PRIOR TO INSTALLATION

PP 10'x12' CONCRETE PAD FOR ELECTRICAL/CONTROL. SEE CIVIL DETAILS

SEE M SHEETS FOR RHRBPS PIPING

SEE M SHEETS FOR RHRBPS PIPING

88'

50'

10'

SEE C SHEETS FOR SCH B BEGINNING STA

SEE C SHEETS FOR SCH C END STA

S52° 01' 21"E 254.48'

5' 24' 66'

PP MVEA TRANSFORMER AND SURROUNDING ELEC EASEMENT

PP 24' WIDE ACCESS GATE SEE CIVIL DETAILS

SS 8

(FUTURE) LORSON BLVD

PP 18" WATER LINE FROM LORSON EAST/FONTAINE (SCHEDULE C). SEE SCH C SHEETS

PP 16" WATER LINE TO PPNC EQ TANK (SCHEDULE B). SEE SCH B SHEETS

10'

SEE SCHED C SHEETS FOR PP EASEMENTS

OVH

UGE

5773 5772 5771 5770 5769 5768 5767 5778 5777 5776 5775 5774

NOTE:

1. LORSON EAST SOURCE FILE DERIVED FROM: CORE ENGINEERING GROUP (2017). BASE FILE SHOWING FUTURE DEVELOPMENT IS SHOWN AS LIGHT GRAY FOR CLARITY PURPOSES.
2. REVEGETATE ENTIRE DISTURBED AREA, SEE EROSION CONTROL DETAILS.
3. FINAL GRADING TO POSITION DRAINAGE TO SOUTH.
4. COORDINATE AND TIE-INTO EROSION CONTROL MEASURES AT FUTURE LORSON BLVD.
5. SCHEDULES A AND B ARE IN CLARK SURVEYING COORDINATE SYSTEM WHEREAS SCHEDULE C IS IN M&S SURVEYING COORDINATE SYSTEM. REFER TO COVER SHEET FOR DETAILS. PROPOSED GRADE AT FUTURE LORSON BLVD SHOWN ON THIS SHEET IS FOR GENERAL REFERENCE ONLY, SEE SHEET C18 SCHEDULE C FOR GRADING INFORMATION IN M&S SURVEYING COORDINATE SYSTEM.

COLORADO LICENSED JOHN P. McGINN 19534 12/19/17 PROFESSIONAL ENGINEER

PROPOSED RHBPS SITE

FUTURE RESIDENTIAL DEVELOPMENT

LORSON EAST

LAMPREY DR

LORSON BLVD

FUTURE SCHOOL SITE

FONTAINE BLVD

VICINITY MAP
N.T.S.

SCHEDULE: 5500000403 OWNER: LORSON LLC NOMINEE FOR MURRAY FOUNTAIN LLC LOCATION: 0 SEC 13-15-65 ZONE: PUD

SCHEDULE: 5513301001 OWNER: BOARD OF CNTY COMMISSIONERS LEGAL: TR J PIONEER LANDING AT LORSON RANCH FIL NO 2, ZONE: PUD

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WIDEFIELD WATER AND SANITATION DISTRICT

VA PPNC WATER DELIVERY SYSTEM
RH BOOSTER PUMP STATION
SITE, GRADING AND EROSION CONTROL PLAN

Project No.:	102.107
Scale:	AS SHOWN
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Revised:	

C3

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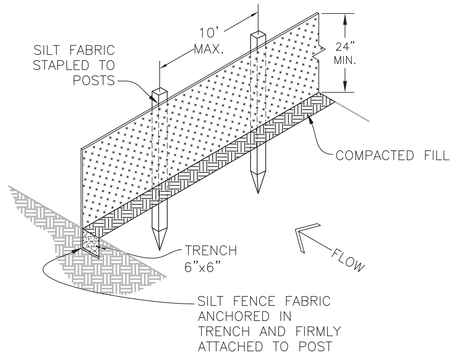
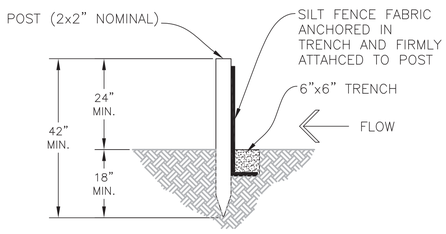
2017/12/08 10:30 AM By: GJS





A / C4 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.

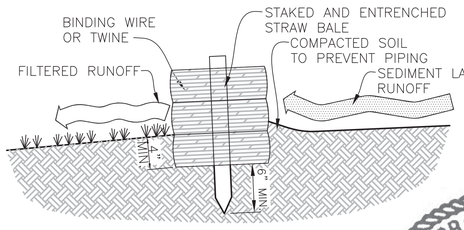
3. SILT FENCES SHALL BE REMOVED WHEN ADEQUATE VEGETATIVE COVER IS ATTAINED

DEFINITION

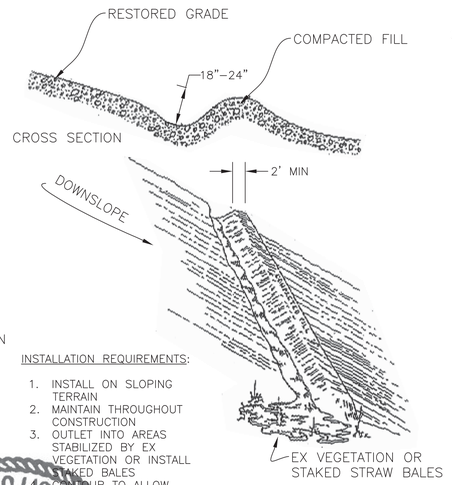
A TEMPORARY SEDIMENT BARRIER CONSISTING OF A ROW OF ENTRENCHED AND ANCHORED STRAW BALES

PURPOSES

1. TO INTERCEPT AND DETAIN SMALL AMOUNTS OF SEDIMENT FROM DISTURBED AREAS OF LIMITED EXTENT IN ORDER TO PREVENT SEDIMENT FROM LEAVING THE SITE.
2. TO DECREASE THE VELOCITY OF SHEET FLOWS AND LOW-TO-MODERATE LEVEL CHANNEL FLOWS.



B / C4 STRAW BALE BARRIER
SCALE: N.T.S.



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 ACCESS OR CONSTRUCTION EQUIPMENT
5. MAINTAIN 2% LATERAL SLOPE

C / C4 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 CTL-THOMPSON, INC. DATED SEPTEMBER 24, 2015, 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:

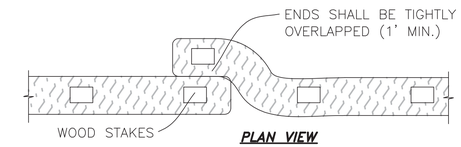
FINAL STABILIZATION MEASURES INCLUDE BASE COURSE AND REVEGETATION

SEED MIX

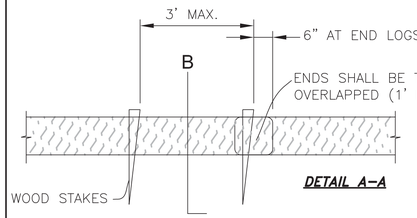
AREAS DISTURBED BY THE EARTHWORK SHALL BE PERMANENTLY REVEGETATED WITH NATIVE GRASSES. NATIVE SEED MIX FOR THIS PROJECT SHALL BE AS FOLLOWS:

SPECIES	VARIETY	pls/acre
WESTERN WHEAT GRASS	Barton	2.5
SIDEOATS GRAMA	El Reno	3.0
SLENDER WHEAT GRASS	Native	2.0
LITTLE BLUESTEM	Pastura	2.0
SAND DROPSEED	Native	0.5
SWITCH GRASS	Nebraska 28	3.0
WEEPING LOVE GRASS	Morpha	1.0
		14.0 lbs

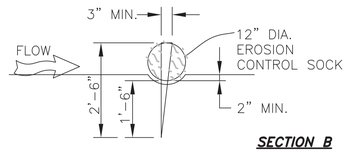
SEEDING APPLICATION: DRILL SEED 1/4" TO 1/2" INTO TOPSOIL. IN AREAS INACCESSIBLE TO A DRILL, HAND BROADCAST AT DOUBLE THE RATE AND RAKE 1/4" TO 1/2" INTO THE TOPSOIL.
MULCHING APPLICATION: 1-1/2 TONS NATIVE HAY PER ACRE, MECHANICALLY CRIMPED INTO THE TOPSOIL.



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.

D / C4 EROSION CONTROL SOCK
SCALE: N.T.S.

COLORADO LICENSED
JOHN P. McGOWN
19534
12/19/17
PROFESSIONAL ENGINEER

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545 East Pikes Peak Avenue, Suite 300
Colorado Springs, Colorado 80903
(719) 227-0072

WIDEFIELD WATER AND SANITATION DISTRICT
VA PPNC WATER DELIVERY SYSTEM
OVERALL EROSION CONTROL NOTES AND DETAILS

Project No.:	102.106
Scale:	AS SHOWN
Date:	12/18/17
Design:	GJD
Drawn:	GGM
Check:	JPM
Revised:	

C4

NOTE:
1. UTILITIES SHOWN HEREIN ARE APPROXIMATE. CONTRACTOR TO VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITIES PRIOR TO EXCAVATION.
2. VA SOURCE FILE BY AES GROUP (2017)

0' 100'
SCALE: 1"=100'

THE LENGTH OF THIS LINE IS 1" AT FULL SCALE. IF THIS LINE IS NOT 1" LONG, SCALE ACCORDINGLY

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

STA=10+00.00
N=1342757.31
E=3248573.25
TIE INTO TANK OUTLET
SEE TANK SHEETS

STA=10+10.00
N=1342767.31
E=3248573.25
PP 90° MJ BEND
W/THRUST BLOCK
(1) 10" GV W/NUT EXTENSION

PP EQ SURGE TANK
SEE TANK SHEETS FOR BYPASS, DRAIN LINES AND APPURTENANCES.
DRAIN LINES NOT SHOWN HERE FOR CLARITY

STA=10+74.48
N=1342767.31
E=3248637.73
PP 10" MJ TEE
W/THRUST BLOCK

PP 10" BYPASS LINE
SEE TANK SHEETS

SEE TANK SITE PLAN FOR PP TANK SITE GRADING

PP 10" WATER LINE TO TANK
SEE SCHEDULE B SHEETS

STA=11+74.86
N=1342867.67
E=3248637.81
PP 22.5° MJ BEND
W/THRUST BLOCK

PP IN-GROUND CREMAIN PLOTS (BY OTHERS)

100' ELEC OFFSET LINE
(SOURCE: AES GROUP)

STA=18+70.54
N=1343518.29
E=3248391.53
PP 22.5° MJ BEND
W/THRUST BLOCK

MAINTAIN 60' OFFSET FROM OVERHEAD ELEC

EX OVERHEAD ELEC

PP 10" PVC C900 DR18 WATER LINE

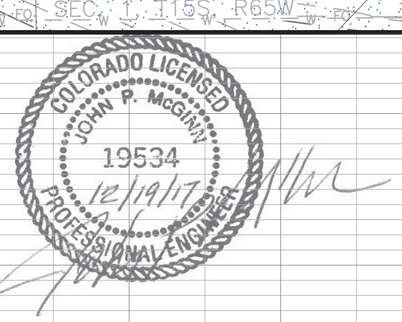
MATCHLINE STA. 19+50

PP FENCE LINE BY OTHERS
(SOURCE: AES GROUP)

SCHEDULE:
5500000385
OWNER:
CS 2005 INVESTMENTS LLC
LOCATION:
0 01-15-65

SEC. 2, T15S, R65W

SEC. 1, T15S, R65W



PROFILE SCALE
HORIZ.-1"=100'
VERT.-1"=10'

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545 East Pikes Peak Avenue, Suite 300
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WIDEFIELD WATER AND SANITATION DISTRICT

VA PPNC WATER DELIVERY SYSTEM

SCHEDULE A

PLAN AND PROFILE STA. 10+00 TO 19+50

Project No.:	102.106
Scale:	AS SHOWN
Date:	12/04/17
Design:	GJD
Drawn:	KMG/GUS/GGM
Check:	JPM
Revised:	

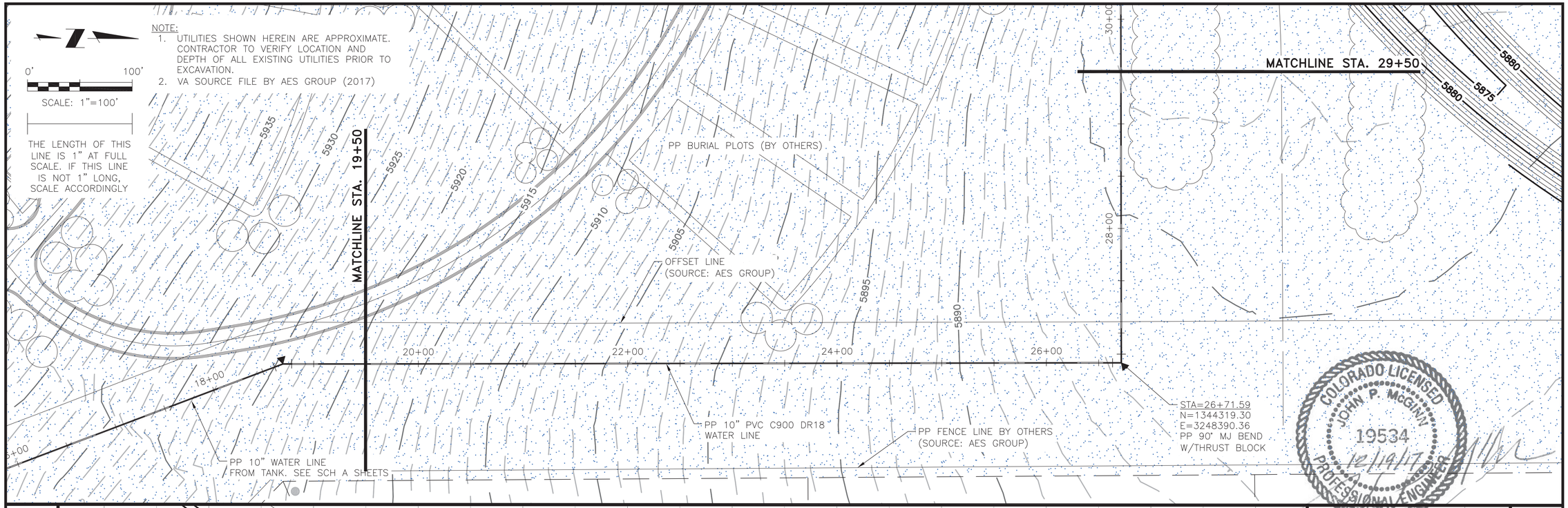
C5

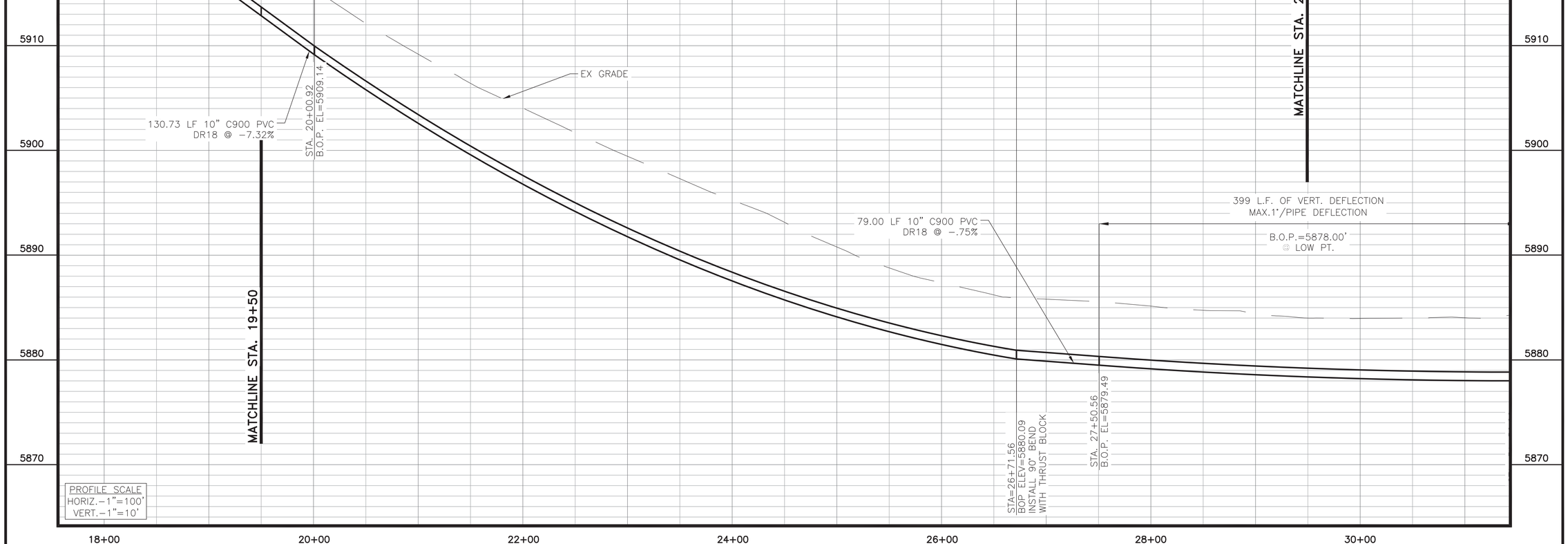
NOTE:
1. UTILITIES SHOWN HEREIN ARE APPROXIMATE. CONTRACTOR TO VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITIES PRIOR TO EXCAVATION.
2. VA SOURCE FILE BY AES GROUP (2017)

0' 100'

SCALE: 1"=100'

THE LENGTH OF THIS LINE IS 1" AT FULL SCALE. IF THIS LINE IS NOT 1" LONG, SCALE ACCORDINGLY





COLORADO LICENSED
JOHN P. McGINN
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PROFESSIONAL ENGINEER

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WIDEFIELD WATER AND SANITATION DISTRICT

VA PPNC WATER DELIVERY SYSTEM

SCHEDULE A

PLAN AND PROFILE STA. 19+50 TO 29+50

Project No.:	102.106
Scale:	AS SHOWN
Date:	11/22/17
Design:	GJD
Drawn:	KMG/GUS/GGM
Check:	JPM
Revised:	

C6

J:\JDS-Hydro\Project Files\102 Widefield Water And San\102.106 VA PPNC\Drawings\CAD\03_CIVIL\102106_Base-Design_Model_P&P_rev2_recover_recover000_recover000_recover.dwg
2017/11/22 3:15 PM By: Kevin

NOTE:
1. UTILITIES SHOWN HEREIN ARE APPROXIMATE. CONTRACTOR TO VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITIES PRIOR TO EXCAVATION.
2. VA SOURCE FILE BY AES GROUP (2017)

0' 100'
SCALE: 1"=100'
THE LENGTH OF THIS LINE IS 1" AT FULL SCALE. IF THIS LINE IS NOT 1" LONG, SCALE ACCORDINGLY

MATCHLINE STA. 29+50

PP BURIAL PLOTS (BY OTHERS)

PP 10" PVC C900 DR18 WATER LINE

STA=30+50.00
N=1344318.88
E=3248011.95
BEGIN PIPE DEFLECTION AS NECESSARY PER REQUIREMENTS

STA=33+35.79
N=1344330.88
E=3247726.40
PP 22.5° MJ BEND W/THRUST BLOCK

STA=34+83.97
N=1344462.54
E=3247658.40
PP AIR/VAC VAULT SEE CIVIL DETAILS

STA=35+50.47
N=1344521.62
E=3247627.87
PP 90° MJ BEND W/THRUST BLOCK

STA=39+45.97
N=1344318.09
E=3247288.79
PP 11.25° MJ BEND W/THRUST BLOCK

PC=41+22.38

PP ROAD (BY OTHERS)

MATCHLINE STA. 40+50

28+00 30+00 32+00 34+00 36+00 38+00 40+00 42+00

5885 5880 5875 5870 5875 5880

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12/19/17
PROFESSIONAL ENGINEER

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

B.O.P.=5878.00'
@ LOW PT.

PROFILE SCALE
HORIZ.-1"=100'
VERT.-1"=10'

5890 5880 5870 5860

MATCHLINE STA. 29+50

185.79 LF 10" C900 PVC DR18 @ 0.00%

STA. 31+50.00
B.O.P. EL=5878.00

32.31 LF 10" C900 PVC DR18 @ -39.78%

STA=33+68.09
BOP ELEV=5865.15
INSTALL 11.25° VERT. BEND WITH THRUST BLOCK

STA=34+18.24
BOP ELEV=5865.15
INSTALL 11.25° VERT. BEND WITH THRUST BLOCK

STA=33+35.79
BOP ELEV=5878.00
INSTALL 22.50° BEND WITH THRUST BLOCK
ROTATE TO PROVIDE VERT. DEFLECTION

PP GRADE

50.15 LF 10" C900 PVC DR18 @ 0.00%

50.15 LF 10" C900 PVC DR18 @ 0.00%

EX GRADE

STA=34+73.97
BOP ELEV=5875.90
INSTALL 11.25° VERT. BEND WITH THRUST BLOCK

STA=34+83.97
PP AIR/VAC VAULT
SEE CIVIL DETAILS

STA=35+50.49
BOP ELEV=5875.37
INSTALL 90° BEND WITH THRUST BLOCK

55.73 LF 10" C900 PVC DR18 @ 19.29%

756.45 LF 10" C900 PVC DR18 @ -0.69%

STA=39+45.99
BOP ELEV=5872.62
INSTALL 11.25° BEND WITH THRUST BLOCK

MATCHLINE STA. 40+50

30+00 32+00 34+00 36+00 38+00 40+00

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WIDEFIELD WATER AND SANITATION DISTRICT
VA PPNC WATER DELIVERY SYSTEM
SCHEDULE A
PLAN AND PROFILE STA. 29+50 TO 40+50

Project No.:	102.106
Scale:	AS SHOWN
Date:	12/04/17
Design:	GJD
Drawn:	KMG/GUS/GGM
Check:	JPM
Revised:	

C7

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2017/12/04 3:09 PM By: GUS

NOTE:
1. UTILITIES SHOWN HEREIN ARE APPROXIMATE. CONTRACTOR TO VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITIES PRIOR TO EXCAVATION.
2. VA SOURCE FILE BY AES GROUP (2017)

0' 100'
SCALE: 1"=100'
THE LENGTH OF THIS LINE IS 1" AT FULL SCALE. IF THIS LINE IS NOT 1" LONG, SCALE ACCORDINGLY

PP 10" PVC C900 DR18 WATER LINE
PP ROAD (BY OTHERS)
PP BURIAL PLOTS (BY OTHERS)
PT=44+12.12
PC=48+44.11
Δ=22°45'11"
L=289.73
R=729.59
42+00
44+00
46+00
48+00
50+00
52+00
5865
5870

STA=41+22.38
N=1344249.37
E=3247126.30
DEFLECT PIPE AS NECESSARY PER REQUIREMENTS

STA=44+12.12
N=1344180.54
E=3246846.82
DEFLECT PIPE AS NECESSARY PER REQUIREMENTS

STA=48+44.11
N=1344185.22
E=3246414.86
DEFLECT PIPE AS NECESSARY PER REQUIREMENTS

STA=52+51.63
N=1344347.52
E=3246050.85
PP 45° MJ BEND W/THRUST BLOCK

STA=52+51.63
N=1344347.52
E=3246050.85
DEFLECT PIPE AS NECESSARY PER REQUIREMENTS

STA=53+28.89
N=1344347.52
E=3245973.59
PP 90° MJ BEND W/THRUST BLOCK
(1) GV

STA=53+33.86
N=1344352.49
E=3245973.71
TIE INTO NEW VA PUMP STATION SEE MECHANICAL SHEETS

NEW VA PUMP STATION, FF EL=5872' (BY OTHERS). SEE MECHANICAL SHEETS FOR PP MECHANICAL SCOPE OF WORK

MATCHLINE STA. 40+50

MATCHLINE STA. 40+50

PROFILE SCALE
HORIZ.-1"=100'
VERT.-1"=10'

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

STA. 42+50.40
B.O.P. EL=5870.51

STA. 43+48.18
B.O.P. EL=5868.73

485.83 LF 10" C900 PVC DR18 @ -2.99%

EX GRADE

98 L.F. OF VERT. DEFLECTION MAX.1°/PIPE DEFLECTION
B.O.P.=5852.78' @ LOW PT.

STA. 48+33.79
B.O.P. EL=5854.21

STA. 49+31.70
B.O.P. EL=5852.78

PP GRADE

38.55 LF 10" C900 PVC DR18 @ 0.00%

STA=49+70.24
BOP ELEV=5852.78
INSTALL 11.25° BEND VERT. WITH THRUST BLOCK

STA=49+91.48
BOP ELEV=5857.83
INSTALL 11.25° VERT. BEND WITH THRUST BLOCK

156.55 LF 10" C900 PVC DR18 @ 0.00%

21.65 LF 10" C900 PVC DR18 @ 19.89%

SEE AES GROUP SITE DEVELOPMENT PLANS FOR PP GRADE SURROUNDING THE VA PUMP STATION

5.00 LF 10" C900 PVC DR18 @ 0.00%

77.34 LF 10" C900 PVC DR18 @ 4.50%

104 L.F. OF VERT. DEFLECTION MAX.1°/PIPE DEFLECTION
B.O.P.=5856.99' @ LOW PT.

STA. 51+48.03
B.O.P. EL=5857.00

PP GRADE

STA=52+51.63
BOP ELEV=5861.09
INSTALL 45° BEND WITH THRUST BLOCK

STA=53+28.89
BOP ELEV=5864.57
INSTALL 90° BEND WITH THRUST BLOCK
(1) 10" GV

5890
5880
5870
5860

COLORADO LICENSED
JOHN P. McGINN
19534
12/19/17
PROFESSIONAL ENGINEER

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545 East Pikes Peak Avenue, Suite 300
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(719) 227-0072

WIDEFIELD WATER AND SANITATION DISTRICT

VA PPNC WATER DELIVERY SYSTEM
SCHEDULE A
PLAN AND PROFILE STA. 40+50 TO 53+34

Project No.:	102.106
Scale:	AS SHOWN
Date:	12/04/17
Design:	GJD
Drawn:	KMG/GUS/GGM
Check:	JPM
Revised:	

C8

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2017/12/04 10:28 AM By: GUS

NOTE:
1. UTILITIES SHOWN HEREIN ARE APPROXIMATE. CONTRACTOR TO VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITIES PRIOR TO EXCAVATION.
2. VA SOURCE FILE BY AES GROUP (2017)

0' 300'

SCALE: 1"=300'

THE LENGTH OF THIS LINE IS 1" AT FULL SCALE. IF THIS LINE IS NOT 1" LONG, SCALE ACCORDINGLY

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

SCHEDULE:
5500000385
OWNER:
CS 2005 INVESTMENTS LLC
LOCATION:
0 01-15-65

PP VA PUMP STATION (BUILDING BY OTHERS)
SEE MECHANICAL SHEETS FOR CONTRACTOR SCOPE OF WORK

VA PPNC DEVELOPMENT (BY OTHERS)

PP SCHEDULE A WATER LINE ALIGNMENT (NOTE: DIA NOT TO SCALE; SHOWN FOR CLARITY PURPOSES ONLY)

±60' WIDE CONSTRUCTION BOUNDARY (NOT AN EASEMENT)

SILT FENCE (BY OTHERS)

PP EROSION CONTROL SOCK (TYP 5 SCHEDULE A). SEE DETAIL D/C4

PP PPNC EQ SURGE TANK. SEE SHEET C2 FOR EROSION CONTROL AT TANK SITE

SEE SHEET C14.1 FOR SCHEDULE B EROSION CONTROL

PP EARTHEN BERM. SEE DETAIL C/C4

PP STRAW BALE CHECK DAM. SEE DETAIL B/C4

PP EARTHEN BERM. SEE DETAIL C/C4

PC=48+44.11
PT=44+12.12
PT=52+51.63
PC=41+22.38

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JOHN P. McGINN
19534
12/19/17
PROFESSIONAL ENGINEER

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Colorado Springs, Colorado 80903
(719) 227-0072

WIDEFIELD WATER AND SANITATION DISTRICT
VA PPNC WATER DELIVERY SYSTEM
SCHEDULE A
EROSION CONTROL PLAN

Project No.:	102.106
Scale:	AS SHOWN
Date:	12/18/17
Design:	GJD
Drawn:	GGM
Check:	JPM
Revised:	

C8.1

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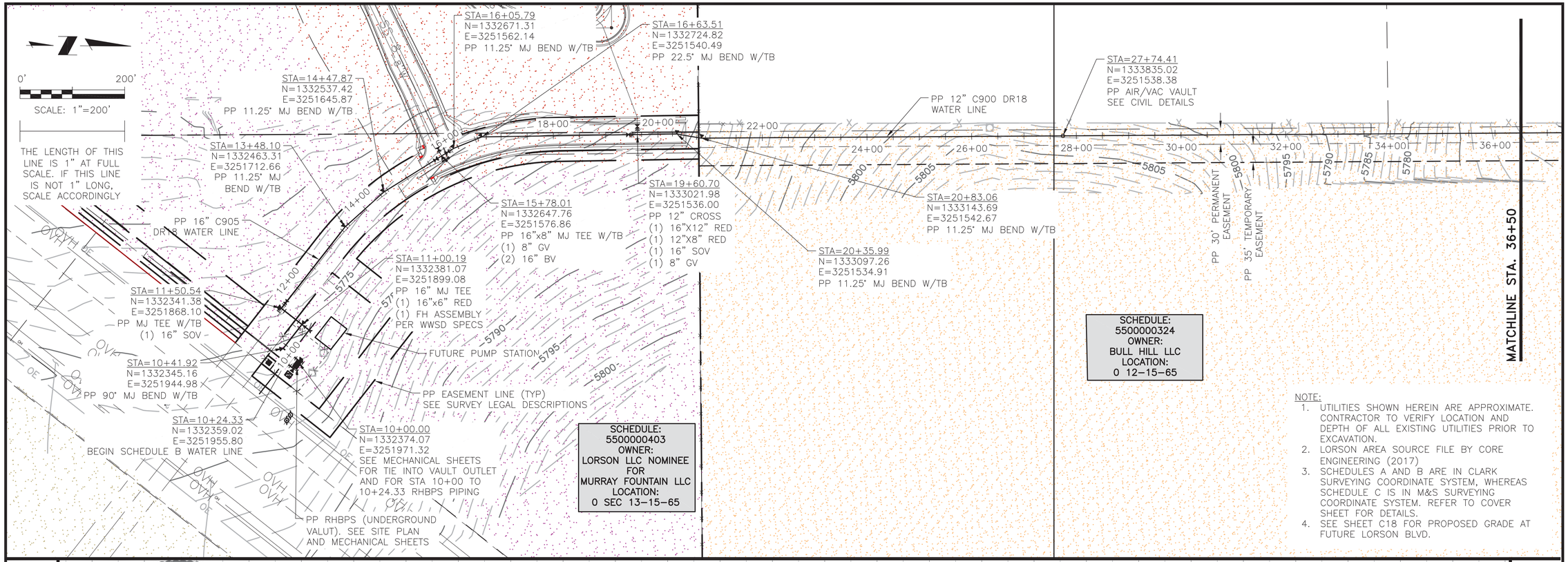
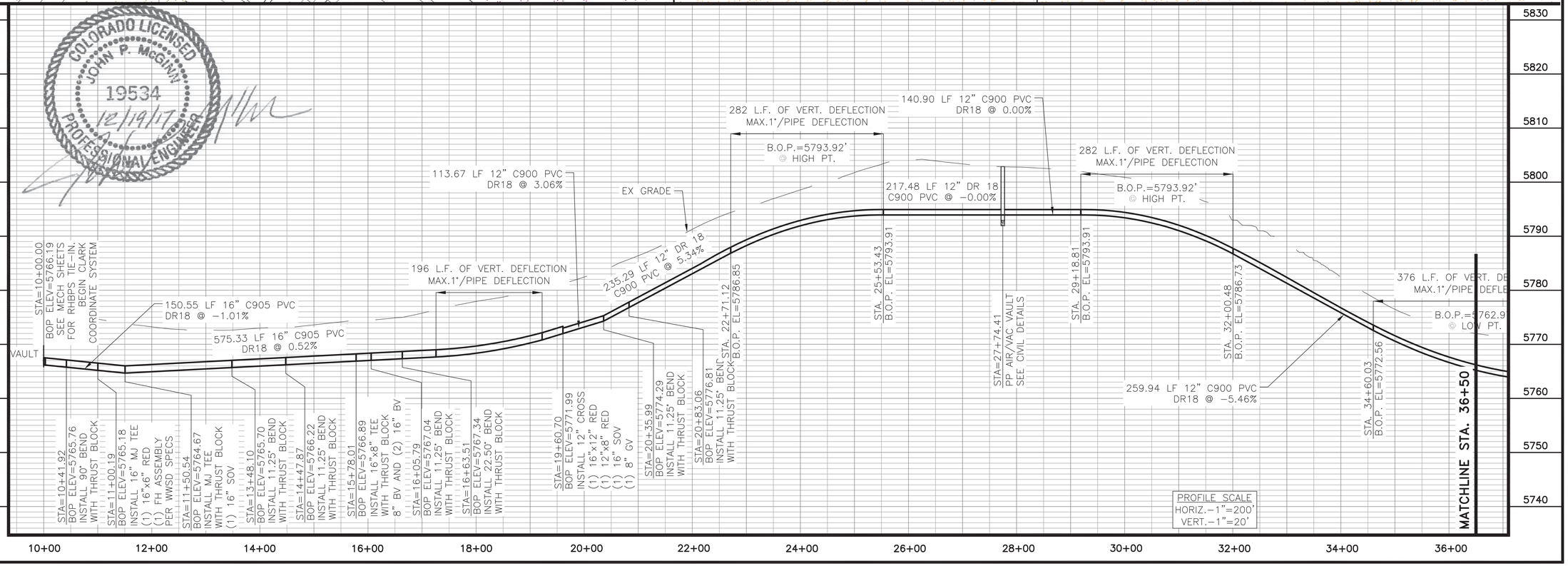
2017-12-18 11:57 AM By: GGM





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545 East Pikes Peak Avenue, Suite 300
Colorado Springs, Colorado 80903
(719) 227-0072

WIDEFIELD WATER AND SANITATION DISTRICT

VA PPNC WATER DELIVERY SYSTEM

SCHEDULE B

PLAND AND PROFILE STA. 10+00 TO 36+50

Project No.:	102.106
Scale:	AS SHOWN
Date:	12/08/17
Design:	GJD
Drawn:	KMG/GUS/GGM
Check:	JPM
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C9

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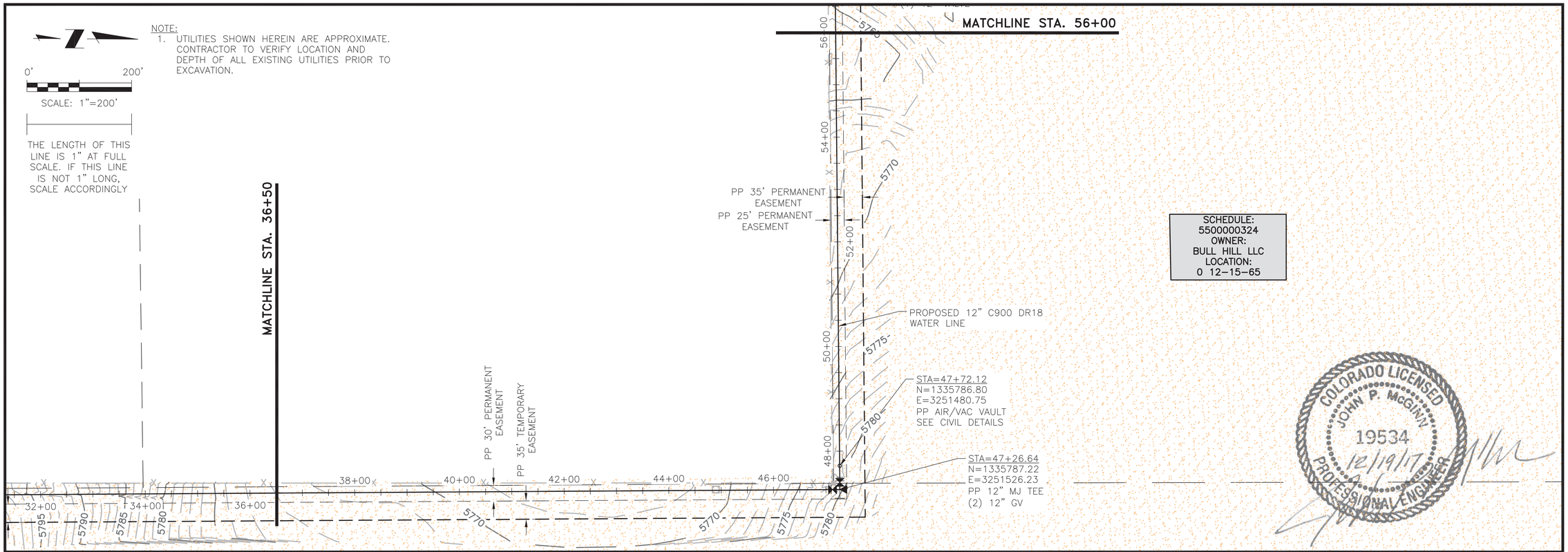
2017/12/08 12:05 PM By: GJS

NOTE:
1. UTILITIES SHOWN HEREIN ARE APPROXIMATE. CONTRACTOR TO VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITIES PRIOR TO EXCAVATION.

0' 200'

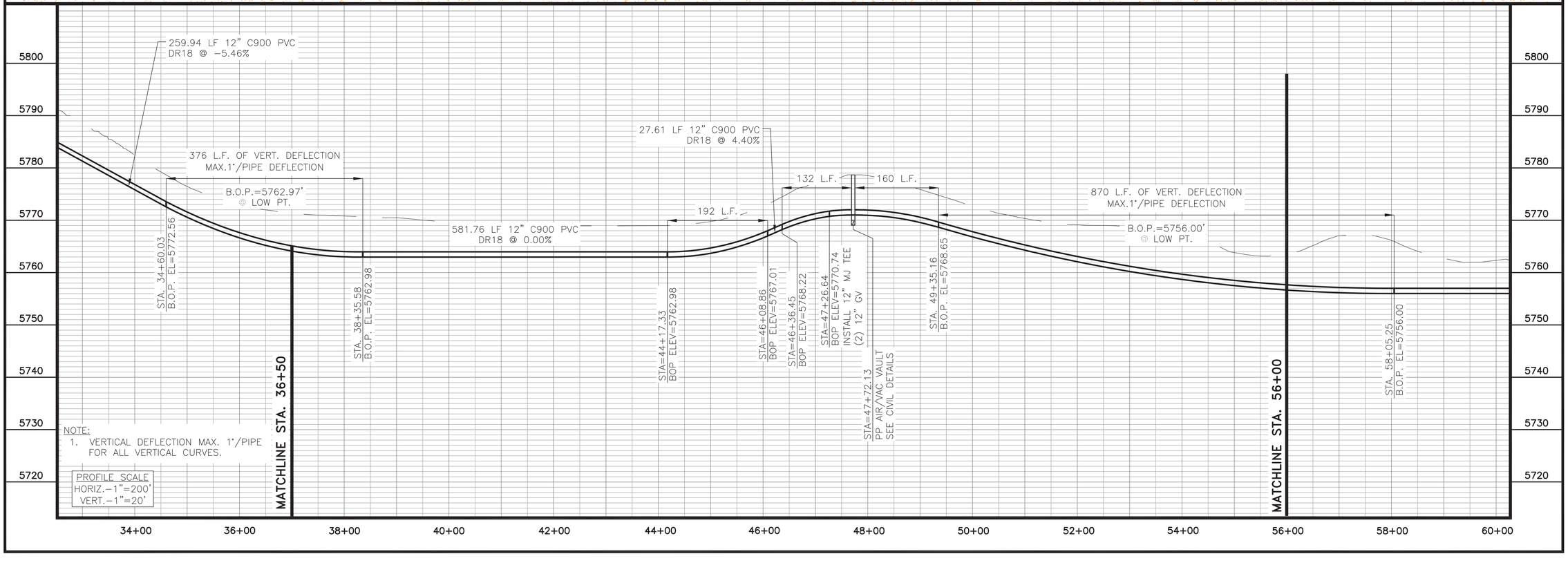
SCALE: 1"=200'

THE LENGTH OF THIS LINE IS 1" AT FULL SCALE. IF THIS LINE IS NOT 1" LONG, SCALE ACCORDINGLY



SCHEDULE:
5500000324
OWNER:
BULL HILL LLC
LOCATION:
0 12-15-65

COLORADO LICENSED
JOHN P. McGINN
19534
12/19/17
PROFESSIONAL ENGINEER



NOTE:
1. VERTICAL DEFLECTION MAX. 1°/PIPE FOR ALL VERTICAL CURVES.

PROFILE SCALE
HORIZ.-1"=200'
VERT.-1"=20'

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WIDEFIELD WATER AND SANITATION DISTRICT

VA PPNC WATER DELIVERY SYSTEM
SCHEDULE B

PLAN AND PROFILE STA. 36+50 TO 56+00

Project No.:	102.106
Scale:	AS SHOWN
Date:	12/04/17
Design:	GJD
Drawn:	KMG/GUS/GGM
Check:	JPM
Revised:	

C10

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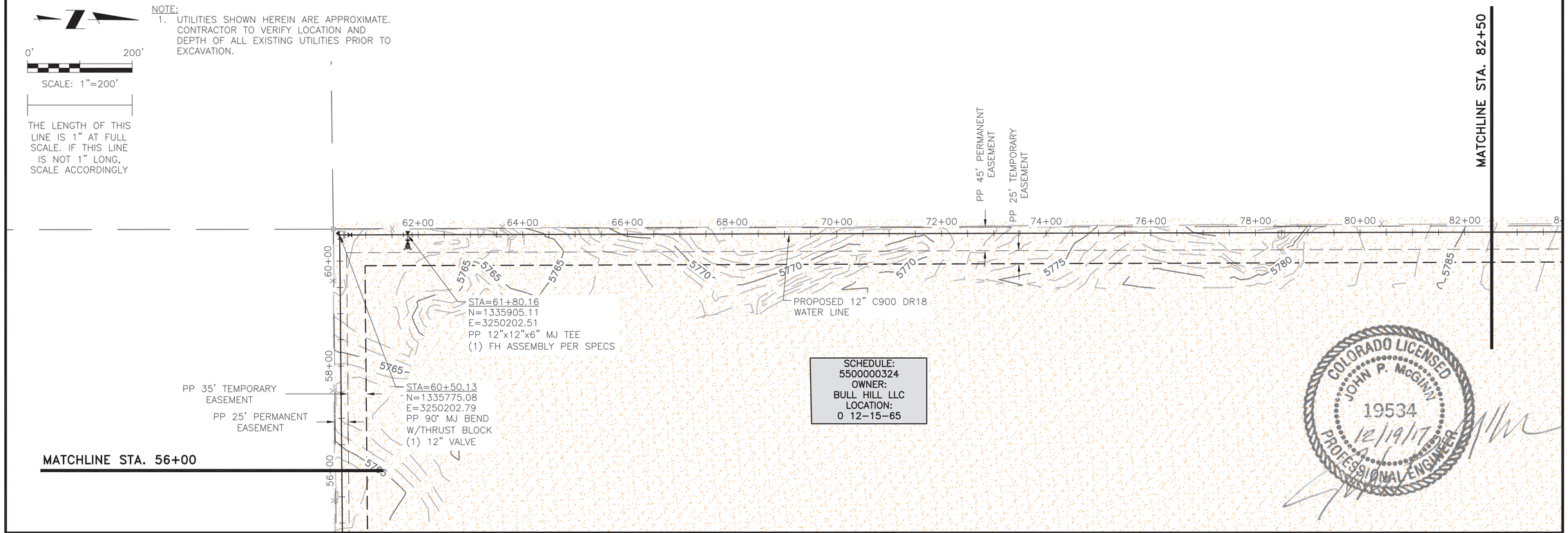
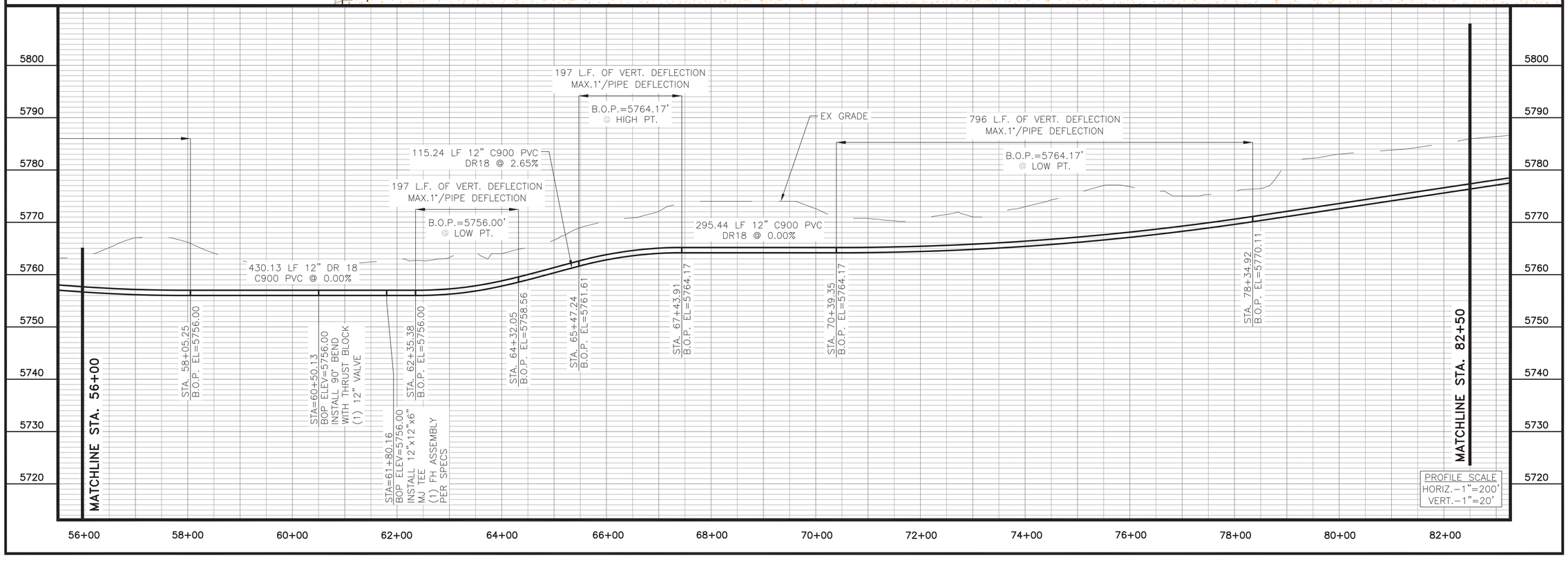
2017/12/04 10:29 AM By: GUS

NOTE:
1. UTILITIES SHOWN HEREIN ARE APPROXIMATE. CONTRACTOR TO VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITIES PRIOR TO EXCAVATION.

0' 200'
SCALE: 1"=200'

THE LENGTH OF THIS LINE IS 1" AT FULL SCALE. IF THIS LINE IS NOT 1" LONG, SCALE ACCORDINGLY





PROFILE SCALE
HORIZ.-1"=200'
VERT.-1"=20'

COLORADO LICENSED
JOHN P. McGINN
19534
12/19/17
PROFESSIONAL ENGINEER

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545 East Pikes Peak Avenue, Suite 300
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WIDEFIELD WATER AND SANITATION DISTRICT

VA PPNC WATER DELIVERY SYSTEM
SCHEDULE B
PLAN AND PROFILE STA. 56+00 TO 82+50

Project No.:	102.106
Scale:	AS SHOWN
Date:	12/04/17
Design:	GJD
Drawn:	KMG/GUS/GGM
Check:	JPM
Revised:	

C11

J:\JDS-Hydro\Project Files\102 Widefield Water And San\102.106 VA PPNC\Drawings\CAD\Addendum 1\102106_C5-C14.dwg
2017/12/04 4:54 PM By: Precision 7510_1

NOTE:
1. UTILITIES SHOWN HEREIN ARE APPROXIMATE. CONTRACTOR TO VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITIES PRIOR TO EXCAVATION.

0' 200'

SCALE: 1"=200'

THE LENGTH OF THIS LINE IS 1" AT FULL SCALE. IF THIS LINE IS NOT 1" LONG, SCALE ACCORDINGLY

SCHEDULE:
5500000382
OWNER:
CITY OF COLO SPRINGS
LOCATION:
0 01-15-65

SCHEDULE:
5500000324
OWNER:
BULL HILL LLC
LOCATION:
0 12-15-65

SCHEDULE:
5500000385
OWNER:
CS 2005 INVESTMENTS LLC
LOCATION:
0 01-15-65

MATCHLINE STA. 82+50

MATCHLINE STA. 108+50

PROPOSED 12" C900 DR18 WATER LINE

STA=97+07.06
N=1338405.72
E=3249182.72
PP 90° MJ BEND
W/THRUST BLOCK

STA=86+93.33
N=1338418.27
E=3250196.37
PP 12" MJ TEE
(2) 12" GV

PP 35' PERMANENT EASEMENT

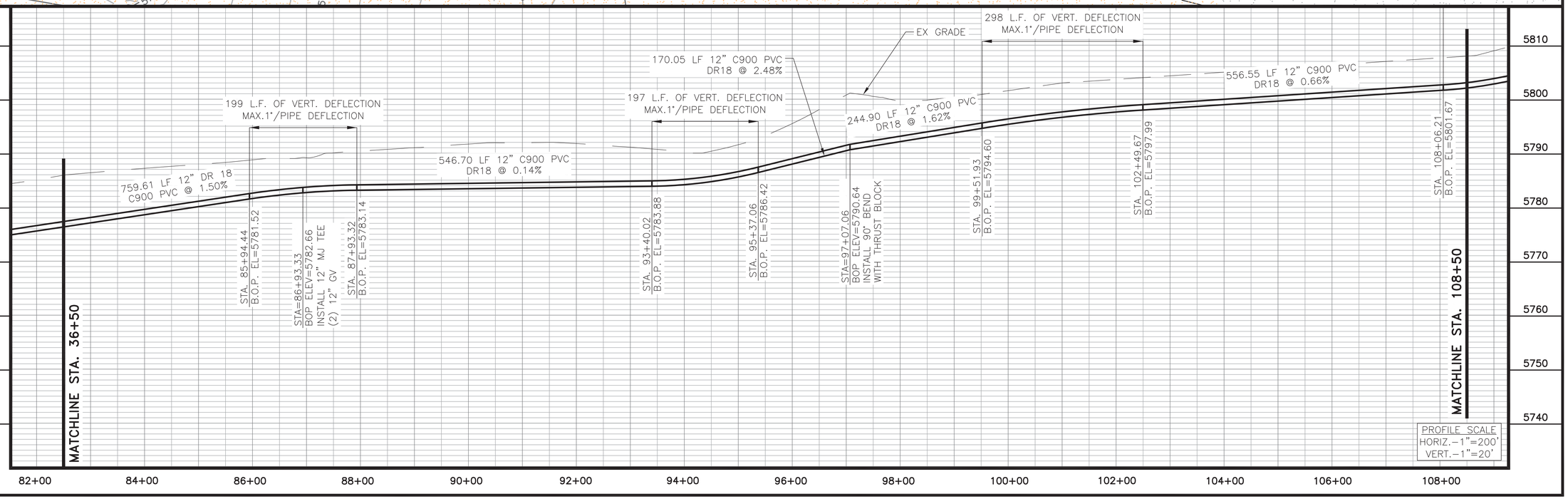
PP 30' PERMANENT EASEMENT

PP 45' PERMANENT EASEMENT

PP 25' TEMPORARY EASEMENT

PP 30' PERMANENT EASEMENT

PP 35' TEMPORARY EASEMENT



COLORADO LICENSED
JOHN P. McGINN
19534
12/19/17
PROFESSIONAL ENGINEER

JDS-HYDRO CONSULTANTS, INC.
545 East Pikes Peak Avenue, Suite 300
Colorado Springs, Colorado 80903
(719) 227-0072

WIDEFIELD WATER AND SANITATION DISTRICT

VA PPNC WATER DELIVERY SYSTEM

SCHEDULE B

PLAN AND PROFILE STA. 82+50 TO 108+50

Project No.:	102.106
Scale:	AS SHOWN
Date:	11/22/17
Design:	GJD
Drawn:	KMG/GUS/GGM
Check:	JPM
Revised:	

C12

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2017/11/22 3:16 PM By: kevin

NOTE:
1. UTILITIES SHOWN HEREIN ARE APPROXIMATE. CONTRACTOR TO VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITIES PRIOR TO EXCAVATION.

0' 200'

SCALE: 1"=200'

THE LENGTH OF THIS LINE IS 1" AT FULL SCALE. IF THIS LINE IS NOT 1" LONG, SCALE ACCORDINGLY

SCHEDULE:
5500000382
OWNER:
CITY OF COLO SPRINGS
LOCATION:
0 01-15-65

SCHEDULE:
5500000385
OWNER:
CS 2005 INVESTMENTS LLC
LOCATION:
0 01-15-65

STA=114+25.01
N=1340123.66
E=3249179.21
PROPOSED 11.25° MJ BEND
W/THRUST BLOCK

STA=115+10.00
N=1340206.17
E=3249158.83
BEGIN 24" STEEL CASING BORE

STA=116+35.00
N=1340327.57
E=3249129.04
END 24" STEEL CASING BORE

STA=116+58.81
N=1340350.69
E=3249123.35
PP 12" TEE
(2) 12" VALVES
(1) 12"x6" RED
(1) FH ASSEMBLY PER SPECS

STA=118+41.04
N=1340307.17
E=3248946.39
PROPOSED 90° MJ BEND
W/THRUST BLOCK

STA=123+80.18
N=1340827.33
E=3248804.60
PROPOSED 11.25° MJ BEND
W/THRUST BLOCK

STA=126+65.49
N=1341110.65
E=3248771.01
PROPOSED 22.5° MJ BEND
W/THRUST BLOCK

STA=133+03.70
N=1341730.51
E=3248922.98
PROPOSED 11.25° MJ BEND
W/THRUST BLOCK

MATCHLINE STA. 108+50

MATCHLINE STA. 134+50

PROPOSED 12" C900 DR18 WATER LINE

BRADLEY ROAD (PUBLIC R.O.W.)

35' TEMPORARY EASEMENT

EX EASEMENT

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

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WIDEFIELD WATER AND SANITATION DISTRICT

VA PPNC WATER DELIVERY SYSTEM

SCHEDULE B

PLAN AND PROFILE STA. 108+50 TO 134+50

Project No.:	102.106
Scale:	AS SHOWN
Date:	11/22/17
Design:	GJD
Drawn:	KMG/GUS/GGM
Check:	JPM
Revised:	

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JOHN P. McGINN
19534
12/19/17
PROFESSIONAL ENGINEER

C13

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2017/11/22 3:16 PM By: kevin

NOTE:
1. UTILITIES SHOWN HEREIN ARE APPROXIMATE. CONTRACTOR TO VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITIES PRIOR TO EXCAVATION.

0' 200'
SCALE: 1"=200'
THE LENGTH OF THIS LINE IS 1" AT FULL SCALE. IF THIS LINE IS NOT 1" LONG, SCALE ACCORDINGLY

EX FIBER OPTIC LINE IS APPROXIMATELY SHOWN. CONTRACTOR TO VERIFY LOCATION OF ALL UTILITIES

MATCHLINE STA. 134+50

STA=146+16.12
N=1342695.23
E=3248573.25
PP 10" 90° MJ BEND W/TB
(1) 10" GV W/NUT EXTENSION

STA=146+26.12
N=1342705.23
E=3248573.25
TIE INTO TANK INLET
SEE TANK SHEETS

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

PP 10" C900 DR18 WATER LINE

STA=141+88.75
N=1342332.54
E=3248637.61
PP 10" 90° MJ BEND W/THRUST BLOCK

PP 12" C900 DR18 PARALLEL WATER SERVICE LINE SEE DETAIL A/C14 BELOW

PP EQ SURGE TANK
SEE TANK SHEETS FOR BYPASS, DRAIN LINES AND APPURTENANCES. DRAIN LINES NOT SHOWN HERE FOR CLARITY

PP 10" WATER LINE FROM TANK. SEE SCH A SHEETS

STA=139+62.68
N=1342333.93
E=3248863.67
FIBER OPTIC LINE CROSSING (APPROX)

PP 10" BYPASS LINE SEE TANK SHEETS

STA=145+51.63
N=1342695.23
E=3248637.75
PP 10" TEE W/TB

SEE TANK SITE PLAN FOR PP TANK SITE GRADING

PP 30' PERMANENT EASEMENT

PP 35' TEMPORARY EASEMENT

PP 12" C900 DR18 WATER LINE

STA=139+58.53
N=1342333.95
E=3248867.82
SDS WATER LINE CROSSING

STA=139+07.48
N=1342334.28
E=3248918.87
PP 12" MJ TEE W/THRUST BLOCK
(1) 12"x10" RED

EXISTING PROPERTY LINE

SCHEDULE:
5500000385
OWNER:
CS 2005 INVESTMENTS LLC
LOCATION:
0 01-15-65

SCHEDULE:
5500000385
OWNER:
CS 2005 INVESTMENTS LLC
LOCATION:
0 01-15-65

CAUTION: 66-INCH SDS RAW WATER TRANSMISSION LINE

COLORADO LICENSED
JOHN P. McGINN
19534
12/19/17
PROFESSIONAL ENGINEER

COLORADO SPRINGS UTILITIES
PLAN APPROVAL

APPROVED BY: Traci Vogt DATE: 12/20/17

PROJECT NUMBER: 2017-W194 WORK ORDER NUMBER: 3239354

CSU SHEET 2 OF 3

APPROVAL EXPIRES ONE (1) YEAR FROM THE DATE ABOVE AND RESUBMITTAL OF THESE PLANS FOR REVIEW AND APPROVAL IS REQUIRED IF CONSTRUCTION DOES NOT BEGIN DURING THIS PERIOD.

1. REFER TO LESS 2.6.H.8 "CROSSING RAW WATER TRANSMISSION MAINS"
2. THE CONTRACTOR MUST PROVIDE NOT LESS THAN 48-HOUR PRIOR NOTICE AND A COLORADO SPRINGS UTILITIES' REPRESENTATIVE MUST BE ON SITE TO OBSERVE ANY ACTIVITIES WITHIN SDS EASEMENT.
3. CONTACT COLORADO SPRINGS UTILITIES PRIOR TO ANY POTHOLING OR CONSTRUCTION WITHIN SDS EASEMENT. TO COORDINATE, PLEASE CALL (719) 668-4667.
4. REPLACE CARSONITE WATER MARKERS OVER PIPELINE AFTER CONSTRUCTION. ADDITIONAL MARKERS CAN BE OBTAINED FROM COLORADO SPRINGS UTILITIES
5. ENSURE THAT ALL EXISTING BLOW-OFFS WILL DAYLIGHT TO AN ADEQUATE OUTFALL AFTER COMPLETION OF GRADING

5960
5950
5940
5930
5920
5910
5900
5890
5880
5870
5860

PP GRADE (APPROX)
EX GRADE
74.57 LF 10" C900 PVC DR18 @ 4.52%
362.95 LF 10" C900 PVC DR18 @ 3.41%
281.98 LF 10" C900 PVC DR18 @ 6.31%
604.49 LF 12" C900 PVC DR18 @ 4.85%
638.74 LF 12" C900 PVC DR18 @ 4.07%

STA=146+26.13
ELEV=5942.52
TIE INTO EQ SURGE TANK

STA=146+16.12
BOP ELEV=5942.07
INSTALL 90° MJ BEND WITH THRUST BLOCK
(1) 10" GV WITH NUT EXTENSION

STA=145+51.63
BOP ELEV=5939.15
INSTALL 10" MJ TEE WITH THRUST BLOCK

STA=141+88.89
BOP ELEV=5926.79
INSTALL 90° BEND WITH THRUST BLOCK

STA=139+07.48
BOP ELEV=5908.88
INSTALL 12" MJ TEE WITH THRUST BLOCK
(1) 12"x10" RED

SDS CROSSING
SEE DETAIL A/C23

CAUTION: 66-INCH SDS RAW WATER TRANSMISSION LINE

MATCHLINE STA. 134+50

PROFILE SCALE
HORIZ.-1"=200'
VERT.-1"=20'

128+00 130+00 132+00 134+00 136+00 138+00 140+00 142+00 144+00 146+00

10' EXTEND AND CAP LINE FOR FUTUTRE USE

END STA=141+88.90; OFF-3.00'
N=1342332.50
E=3248634.47
PP 12" C900 DR18 WATER LINE. INSTALL AND CAP LINE AS SHOWN

PP 10" WATER LINE (SEE ABOVE)

PP 12" PARALLEL WATER LINE (SEE ABOVE)

BEGIN STA=139+04.49; OFF-3.00'
N=1342331.28
E=3248918.89
PP 12" C900 DR18 WATER LINE. INSTALL AND CAP LINE AS SHOWN

10' EXTEND AND CAP LINE FOR FUTURE USE

CAUTION: 66-INCH SDS RAW WATER TRANSMISSION LINE

A C14 PARALLEL WATER SERVICE LINE
SCALE: 1"=80'

JDS-HYDRO CONSULTANTS, INC.
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WIDEFIELD WATER AND SANITATION DISTRICT
VA PPNC WATER DELIVERY SYSTEM
SCHEDULE B
PLAN AND PROFILE STA. 134+50 TO 146+26

Project No.:	102.106
Scale:	AS SHOWN
Date:	12/14/17
Design:	GJD
Drawn:	KMG/GUS/CGM
Check:	JPM
Revised:	

C14

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2017/12/14 12:08 PM By: Precision 7510_1

NOTE:
1. UTILITIES SHOWN HEREIN ARE APPROXIMATE. CONTRACTOR TO VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITIES PRIOR TO EXCAVATION.
2. LORSON AREA SOURCE FILE BY CORE ENGINEERING (2017)

0' 400'
SCALE: 1"=400'

THE LENGTH OF THIS LINE IS 1" AT FULL SCALE. IF THIS LINE IS NOT 1" LONG, SCALE ACCORDINGLY

LORSON EAST DEVELOPMENT (BY OTHERS)

LAMPREY DR (FUTURE)

LORSON BLVD (FUTURE)

PP EROSION CONTROL SOCK (TYP 7 SCHEDULE B, BEGINNING STA TO 82+50). SEE DETAIL D/C4

PP EARTHEN BERM. SEE DETAIL C/C4

PP SCHEDULE B WATER LINE ALIGNMENT (NOTE: DIA NOT TO SCALE; SHOWN FOR CLARITY PURPOSES ONLY)

PP EARTHEN BERM. SEE DETAIL C/C4

PP STRAW BALE CHECK DAM. SEE DETAIL B/C4

PP EARTHEN BERM. SEE DETAIL C/C4

MATCHLINE STA. 82+50

SCHEDULE: 5500000403 OWNER: LORSON LLC NOMINEE FOR MURRAY FOUNTAIN LLC LOCATION: 0 SEC 13-15-65

PP RHBPS (UNDERGROUND VAULT). SEE SHEET C3 FOR EROSION CONTROL AT SITE

CONSTRUCTION BOUNDARY (PERMANENT AND TEMPORARY CONSTRUCTION EASEMENT LINES)

PP EARTHEN BERM. SEE DETAIL C/C4

SCHEDULE: 5500000324 OWNER: BULL HILL LLC LOCATION: 0 12-15-65

SEE SHEET C8.1 FOR SCHEDULE A EROSION CONTROL AND CONSTRUCTION LIMITS

PP PPNC EQ SURGE TANK. SEE SHEET C2 FOR EROSION CONTROL AT TANK SITE

PP EROSION CONTROL SOCK (TYP 12 SCHEDULE B, STA 82+50 TO END STATION). SEE DETAIL D/C4

PP EARTHEN BERM. SEE DETAIL C/C4

SCHEDULE: 5500000382 OWNER: CITY OF COLO SPRINGS LOCATION: 0 01-15-65

PP EARTHEN BERM. SEE DETAIL C/C4

PP EARTHEN BERM. SEE DETAIL C/C4

PP STRAW BALE CHECK DAM. SEE DETAIL B/C4

MATCHLINE STA. 82+50

BRADLEY RD (PUBLIC R.O.W.)

PP EARTHEN BERM. SEE DETAIL C/C4

CONSTRUCTION BOUNDARY (PERMANENT AND TEMPORARY CONSTRUCTION EASEMENT LINES)

SCHEDULE: 5500000385 OWNER: CS 2005 INVESTMENTS LLC LOCATION: 0 01-15-65

CONSTRUCTION BOUNDARY WITHIN R.O.W. (APPROXIMATE; NOT AN EASEMENT)

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

VA PPNC DEVELOPMENT (BY OTHERS)

COLORADO LICENSED JOHN P. McGINN 19534 12/19/17 PROFESSIONAL ENGINEER

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545 East Pikes Peak Avenue, Suite 300
Colorado Springs, Colorado 80903
(719) 227-0072

WIDEFIELD WATER AND SANITATION DISTRICT
VA PPNC WATER DELIVERY SYSTEM
SCHEDULE B
EROSION CONTROL PLAN

Project No.:	102.106
Scale:	AS SHOWN
Date:	12/18/17
Design:	GJD
Drawn:	GGM
Check:	JPM
Revised:	

C14.1

J:\JDS-Hydro\Project Files\102 Widefield Water And San\102.106 VA PPNC\Drawings\CAD\FIELD ORDER_1\102106_C5-C14.dwg
2017/12/18 11:26 AM By: GGM

NOTE:
1. UTILITIES SHOWN HEREIN ARE APPROXIMATE. CONTRACTOR TO VERIFY LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO EXCAVATION.
2. LORSON AREA SOURCE FILE BY CORE ENGINEERING (2017).

0' 25' 50'

SCALE: 1"=50'

THE LENGTH OF THIS LINE IS 1" AT FULL SCALE. IF THIS LINE IS NOT 1" LONG, SCALE ACCORDINGLY

SCHEDULE:
5513301001
OWNER:
BOARD OF CNTY COMMISSIONERS
LEGAL:
TR J POINEER LANDING AT LORSON RANCH FIL NO 2, ZONE: PUD

PP WATER LINE BY OTHERS

STA=186+17.11
PP STORM SEWER CROSSING
(STORM SEWER LINE BY OTHERS)

PP 18" SOV

PP 18" C905
DR 18 PVC WATER LINE

FONTAINE BLVD

ROCK CASTLE DR

MATCHLINE STA. 188+00

5760 5755 5750 5745

184+50 185+00 186+00 187+00 188+00 189+00 190+00

UGE OVH W-12 8"SS 8"W

EX GRADE

PP GRADE

PP 18"
STORM SEWER BY OTHERS

446.76 LF OF 18" DR 18
C905 PVC @ 0.00%

STA=184+50.00
BOP ELEV=5737.10
TIE INTO 18" WATER LINE (SOURCE WATER LINE BY OTHERS)
(1) 18" SOV

MATCHLINE STA. 188+00

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

5760 5750 5740 5730 5720

185+00 186+00 187+00 188+00

JDS-HYDRO CONSULTANTS, INC.
545 East Pikes Peak Avenue, Suite 300
Colorado Springs, Colorado 80903
(719) 227-0072

WIDEFIELD WATER AND SANITATION DISTRICT

VA PPNC WATER DELIVERY SYSTEM
SCHEDULE C
PLAN AND PROFILE STA. 184+50 TO STA. 188+00

Project No.:	102.107
Scale:	AS SHOWN
Date:	12/04/17
Design:	GJD
Drawn:	KMG
Check:	JPM
Revised:	

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JOHN P. McGINN
19534
12/19/17
PROFESSIONAL ENGINEER

C15

J:_JDS-Hydro\Project Files\102 Widefield Water And San\102.107 Lorson E Fontaine Pipeline\Drawings\CAD\ADDENDUM 1\102107_SCHEDULE-C.dwg
2017/12/04 10:42 AM By: GJS

NOTE:
1. UTILITIES SHOWN HEREIN ARE APPROXIMATE. CONTRACTOR TO VERIFY LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO EXCAVATION.
2. LORSON AREA SOURCE FILE BY CORE ENGINEERING (2017).

0' 25' 50'
SCALE: 1"=50'

THE LENGTH OF THIS LINE IS 1" AT FULL SCALE. IF THIS LINE IS NOT 1" LONG, SCALE ACCORDINGLY

MATCHLINE STA. 188+00

MATCHLINE STA. 192+50

ROCK CASTLE DR

FONTAINE BLVD

STA=188+35.40
N=23395.98
E=28525.89
PP 18"x18"x8" TEE
W/THRUST BLOCK
(1) 8" GV

STA=188+15.40
PP STORM
SEWER CROSSING
(STORM SEWER LINE
BY OTHERS)

STA=189+11.54
N=23389.98
E=28588.72
PP 22.5° MJ BEND
W/THRUST BLOCK

PP 50' TEMPORARY
CONSTRUCTION EASEMENT

SCHEDULE:
5513301001
OWNER:
BOARD OF CNTY
COMMISSIONERS
LEGAL:
TR J POINEER LANDING
AT LORSON RANCH FIL
NO 2, ZONE: PUD

PP 30' WATER EASEMENT

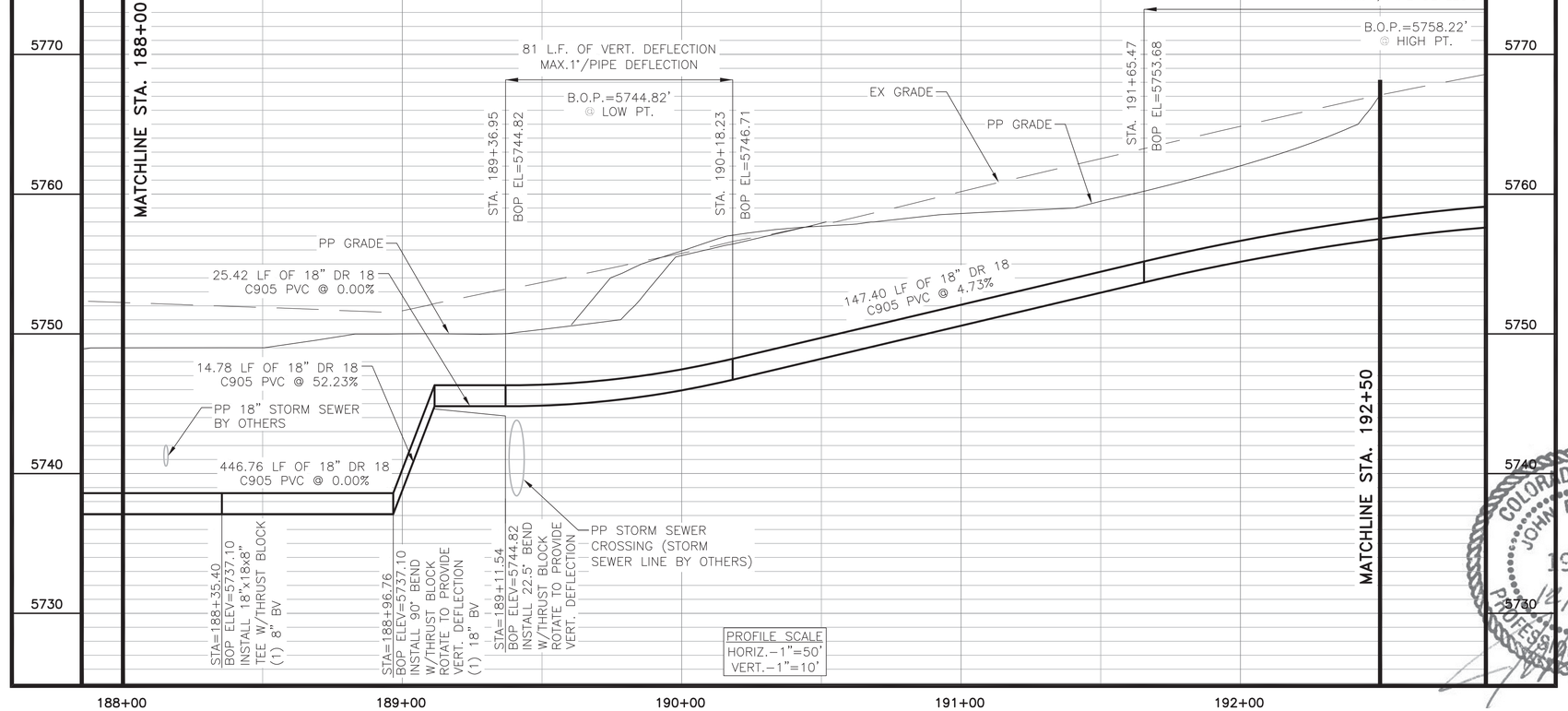
STA=188+96.76
N=23376.01
E=28583.91
PP 90° MJ BEND
W/THRUST BLOCK
(1) 18" BV

STA=189+40.93
PP STORM
SEWER CROSSING
(STORM SEWER LINE BY OTHERS)

PP 18" C905
DR 18 PVC WATER LINE

PP 10' SHARED
ELEC EASEMENT

PP 10' ELEC EASEMENT



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WIDEFIELD WATER AND SANITATION DISTRICT

VA PPNC WATER DELIVERY SYSTEM

SCHEDULE C

PLAN AND PROFILE STA. 188+00 TO STA. 192+50

Project No.:	102.107
Scale:	AS SHOWN
Date:	12/08/17
Design:	GJD
Drawn:	KMG/GGM
Check:	JPM
Revised:	

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JOHN P. McGINN
19534
12/19/17
PROFESSIONAL ENGINEER

C16

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2017/12/08 9:58 AM By: GJS

NOTE:
1. UTILITIES SHOWN HEREIN ARE APPROXIMATE. CONTRACTOR TO VERIFY LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO EXCAVATION.
2. LORSON AREA SOURCE FILE BY CORE ENGINEERING (2017).

SCHEDULE:
5500000403
OWNER:
LORSON LLC NOMINEE FOR MURRAY FOUNTAIN LLC
LEGAL:
TR J POINEER LANDING AT LORSON RANCH FIL NO 2, ZONE: PUD

0' 25' 50'
SCALE: 1"=50'

THE LENGTH OF THIS LINE IS 1" AT FULL SCALE. IF THIS LINE IS NOT 1" LONG, SCALE ACCORDINGLY

MATCHLINE STA. 192+50

MATCHLINE STA. 198+50

PP 50' TEMPORARY CONSTRUCTION EASEMENT

PP 30' WATER EASEMENT

PP 18" C905 DR 18 PVC WATER LINE

PP 10' SHARED ELEC EASEMENT

PP 10' ELEC EASEMENT

UGE OVH

5765 5770 5763 5766

192+00 193+00 194+00 195+00 196+00 197+00 198+00 199+00

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

B.O.P.=5758.22'
@ HIGH PT.

STA. 193+60.15
BOP EL=5758.22

EX GRADE

527.85 LF OF 18" DR 18
C905 PVC @ 0.00%

5780 5770 5760 5750 5740

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

COLORADO LICENSED
JOHN P. McGINN
19534
12/19/17
PROFESSIONAL ENGINEER

193+00 194+00 195+00 196+00 197+00 198+00

J:\JDS-Hydro\Project Files\102 Widefield Water And San\102.107 Larson E Fontaine Pipeline\Drawings\CAD\ADDENDUM 1\102107_SCHEDULE-C.dwg
2017/12/04 10:44 AM By: GUS

JDS-HYDRO CONSULTANTS, INC.
545 East Pikes Peak Avenue, Suite 300
Colorado Springs, Colorado 80903
(719) 227-0072

WIDEFIELD WATER AND SANITATION DISTRICT

VA PPNC WATER DELIVERY SYSTEM
SCHEDULE C
PLAN AND PROFILE STA. 192+50 TO STA. 198+50

Project No.:	102.107
Scale:	AS SHOWN
Date:	12/04/17
Design:	KMG
Drawn:	KMG
Check:	JPM
Revised:	

C17

NOTE:
1. UTILITIES SHOWN HEREIN ARE APPROXIMATE. CONTRACTOR TO VERIFY LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO EXCAVATION.
2. LORSON AREA SOURCE FILE BY CORE ENGINEERING (2017).
3. SCHEDULES A AND B ARE IN CLARK SURVEYING COORDINATE SYSTEM, WHEREAS SCHEDULE C IS IN M&S SURVEYING COORDINATE SYSTEM. REFER TO COVER SHEET FOR DETAILS.

0' 25' 50'
SCALE: 1"=50'

THE LENGTH OF THIS LINE IS 1" AT FULL SCALE. IF THIS LINE IS NOT 1" LONG, SCALE ACCORDINGLY

SCHEDULE:
5500000403
OWNER:
LORSON LLC NOMINEE FOR MURRAY FOUNTAIN LLC
LEGAL:
TR J POINEER LANDING AT LORSON RANCH FIL NO 2, ZONE: PUD

MATCHLINE STA. 198+50

PP 50' TEMPORARY CONSTRUCTION EASEMENT

PP 30' WATER EASEMENT

PP 10' SHARED ELEC EASEMENT

PP 10' ELEC EASEMENT

PP 18" C905 DR 18 PVC WATER LINE

PP 16" WATER LINE TO PPNC EQ TANK (SCHEDULE B). SEE SCH B SHEETS FOR WATER LINE AND APPURTENANCES

SEE C SHEETS FOR SCH B BEGINNING STA

SEE M SHEETS FOR RHRBPS PIPING

PP 18" SOV

PP RHBPS (UNDERGROUND VAULT). SEE SHEET C3 FOR SITE PLAN AND MECHANICAL SHEETS FOR PIPING BEYOND STA 203+87

198+00 199+00 200+00 201+00 202+00 203+00 203+87

5765 5770 5771 5772 5773 5774

UGE OVH

MATCHLINE STA. 198+50

EX GRADE

PP GRADE

499.22 LF OF 18" DR 18 C905 PVC @ 1.60%

STA=198+88.00
BOP ELEV=5758.22
GRADE BREAK

STA=203+87.16
BOP ELEV=5766.19
TIE INTO RHBPS PIPING
SEE SHEET C3 AND MECH. SHEETS.
END M&S COORDINATE SYSTEM

5780 5770 5760 5750 5740

198+00 199+00 200+00 201+00 202+00 203+00 204+00

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

COLORADO LICENSED
JOHN P. McGINN
19534
12/19/17
PROFESSIONAL ENGINEER

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WIDEFIELD WATER AND SANITATION DISTRICT

VA PPNC WATER DELIVERY SYSTEM
SCHEDULE C
PLAN AND PROFILE STA. 198+50 TO STA. 203+87

Project No.:	102.107
Scale:	AS SHOWN
Date:	12/08/17
Design:	GJD
Drawn:	KMG/GGM
Check:	JPM
Revised:	

C18

J:\JDS-Hydro\Project Files\102 Widefield Water And San\102.107 Lorson E Fontaine Pipeline\Drawings\CAD\ADDENDUM 3\102107_SCHEDULE-C.dwg
2017/12/08 12:19 PM By: GJS

NOTE:
1. UTILITIES SHOWN HEREIN ARE APPROXIMATE. CONTRACTOR TO VERIFY LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO EXCAVATION.
2. LORSON AREA SOURCE FILE BY CORE ENGINEERING (2017).

0' 200'

SCALE: 1"=200'

THE LENGTH OF THIS LINE IS 1" AT FULL SCALE. IF THIS LINE IS NOT 1" LONG, SCALE ACCORDINGLY

SEE SHEET C14.1 FOR SCHEDULE B EROSION CONTROL AND CONSTRUCTION LIMITS

LORSON BLVD (FUTURE)

LAMPREY DR (FUTURE)

PP RHBPS (UNDERGROUND VAULT). SEE SHEET C3 FOR EROSION CONTROL AT SITE

SCHEDULE:
5500000403
OWNER:
LORSON LLC NOMINEE FOR
MURRAY FOUNTAIN LLC
LOCATION:
0 SEC 13-15-65

CONSTRUCTION BOUNDARY (PERMANENT AND TEMPORARY CONSTRUCTION EASEMENT LINES)

PP SCHEDULE C WATER LINE ALIGNMENT (NOTE: DIA NOT TO SCALE; SHOWN FOR CLARITY PURPOSES ONLY)

SCHEDULE:
5513301001
OWNER:
BOARD OF CNTY COMMISSIONERS
LOCATION:
0 FONTAINE BLVD

PP EARTHEN BERM. SEE DETAIL C/C4

CONSTRUCTION BOUNDARY WITHIN R.O.W. (APPROXIMATE; NOT AN EASEMENT)

PP EROSION CONTROL SOCK (TYP 6 SCHEDULE C). SEE DETAIL D/C4

PP STRAW BALE CHECK DAM. SEE DETAIL B/C4

PP EARTHEN BERM. SEE DETAIL C/C4

FONTAINE BLVD

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545 East Pikes Peak Avenue, Suite 300
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(719) 227-0072

WIDEFIELD WATER AND SANITATION DISTRICT

VA PPNC WATER DELIVERY SYSTEM
SCHEDULE C
EROSION CONTROL PLAN

Project No.:	102.107
Scale:	AS SHOWN
Date:	12/18/17
Design:	GJD
Drawn:	GGM
Check:	JPM
Revised:	

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19534
12/19/17
PROFESSIONAL ENGINEER

C18.1

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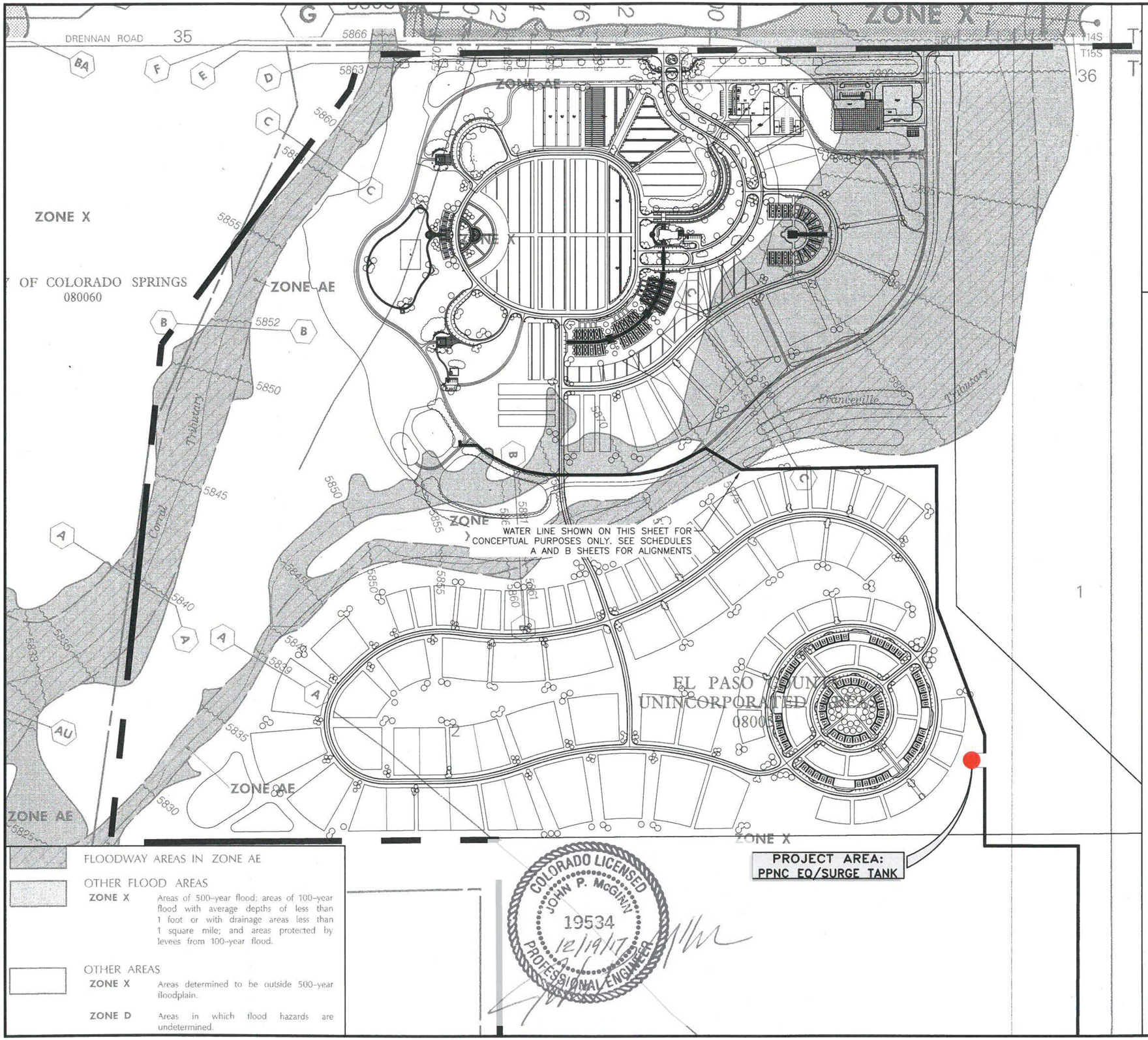
2017/12/18 12:09 PM By: GGM



FLOODWAY AREAS IN ZONE AE

OTHER FLOOD AREAS

ZONE X Areas of 500-year flood; areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 100-year flood.

OTHER AREAS

ZONE X Areas determined to be outside 500-year floodplain.

ZONE D Areas in which flood hazards are undetermined.

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EFFECTIVE DATE OF
COUNTYWIDE FLOOD INSURANCE RATE MAP:

MARCH 17, 1997

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL:

Refer to the FLOOD INSURANCE RATE MAP EFFECTIVE DATE shown on this map to determine when actuarial rates apply to structures in zones where elevations or depths have been established.

To determine if flood insurance is available, contact an insurance agent or call the National Flood Insurance Program at (800) 638-6620.

APPROXIMATE SCALE IN FEET

500 0 500

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

EL PASO COUNTY, COLORADO AND INCORPORATED AREAS

PANEL 769 OF 1300
(SEE MAP INDEX FOR PANELS NOT PRINTED)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
COLORADO SPRINGS, CITY OF	080060	0769	F
EL PASO COUNTY, UNINCORPORATED AREAS	080059	0769	F

MAP NUMBER
08041C0769 F

EFFECTIVE DATE:
MARCH 17, 1997

Federal Emergency Management Agency

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WIDEFIELD WATER AND SANITATION DISTRICT
VA PPNC WATER DELIVERY SYSTEM
PPNC EQ TANK
FEMA FLOODPLAIN MAP

Project No.:	102.106
Scale:	AS SHOWN
Date:	11/22/17
Design:	GJD
Drawn:	GGM
Check:	JPM
Revised:	

C19

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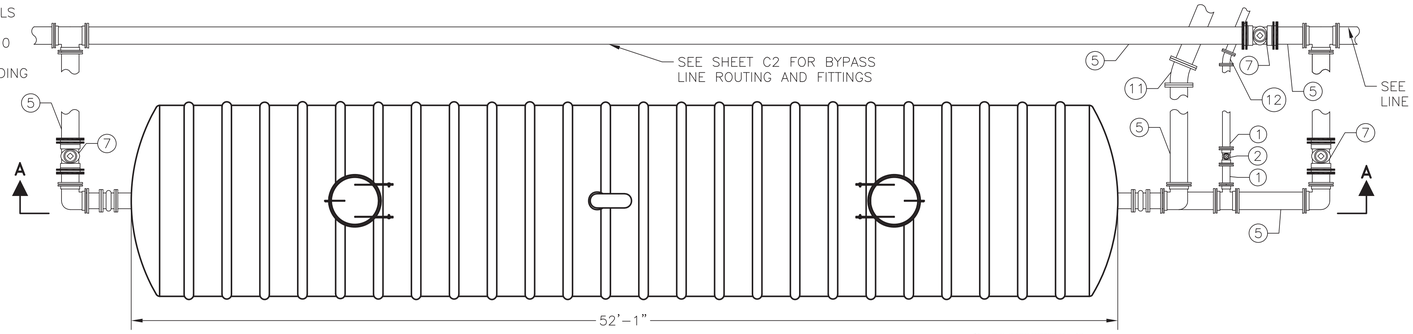
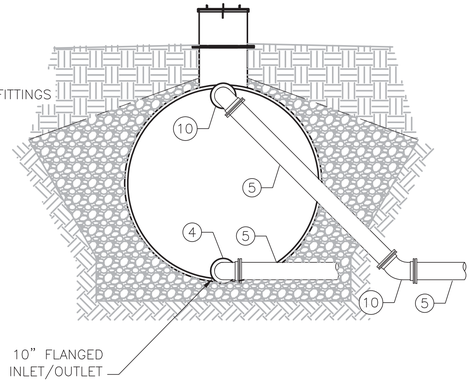
20177/12/20 9:47 AM By: AGH

NOTES:
1. MINIMUM TANK VOLUME EQUALS 30,000 GALLONS.
2. NOMINAL DIAMETER EQUALS 10 FEET.
3. TANK INSTALLATION AND BEDDING REQUIREMENTS PER MANUFACTURER'S REQUIREMENTS.

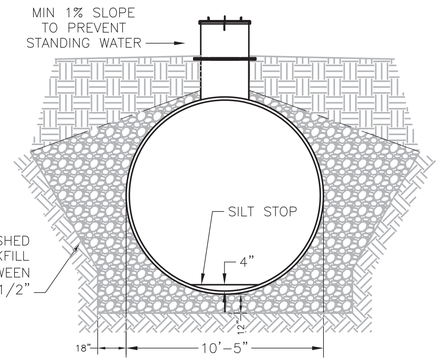


PIPING SCHEDULE		
1	4"	PIPE SPOOL, MJxMJ
2	4"	VALVE, MJxMJ
3	4"x10"	REDUCING TEE, MJxMJ
4	10"	ELBOW, MJxMJ
5	10"	PIPE SPOOL, MJxMJ
6	10"	PIPE SPOOL, FLxFL
7	10"	GATE VALVE, MJxMJ
8	10"	DARCO FLEX COUPLING, FLxFL OR APPROVED EQUAL
9	10"	PIPE SPOOL, FLxMJ
10	10"	45 DEG ELBOW, MJxMJ
11	10"	22 ½ DEG BEND MJ
12	4"	22 ½ DEG BEND MJ

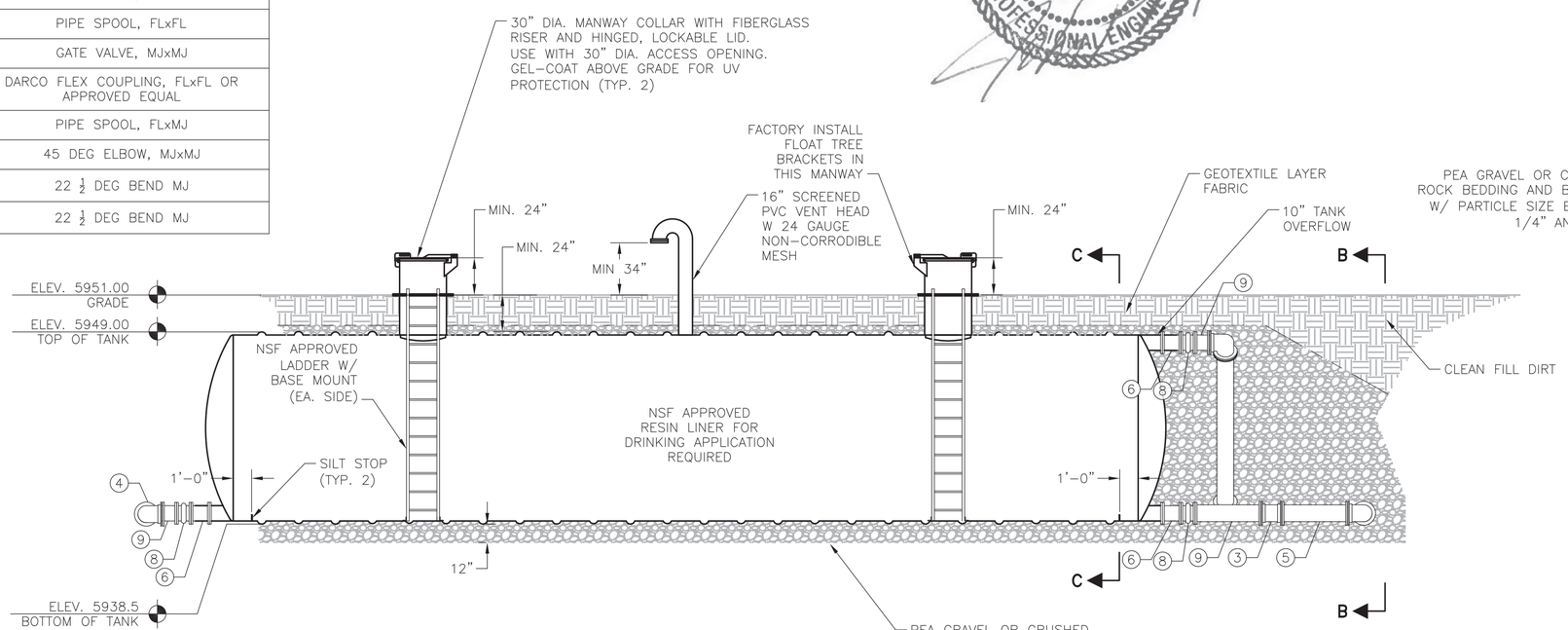
A / C20 **TANK PLAN**
SCALE: 1/8"=1'-0"



TANK OVERFLOW SECTION B-B
SCALE: 1/8"=1'-0"



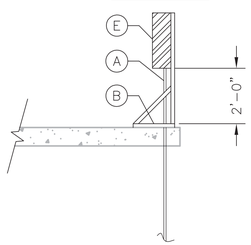
TANK SECTION C-C
SCALE: 1/8"=1'-0"



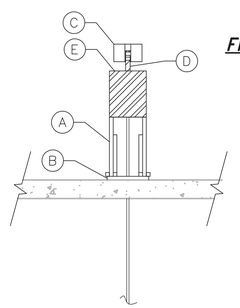
TANK SECTION A-A
SCALE: 1/8"=1'-0"

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	2" X 2' TALL GALVANIZED STEEL POST
E	NEMA TYPE 4 ENCLOSURE WITH MOUNTING PANEL

SIDE VIEW



FRONT VIEW



B / C20 **SOLAR PANEL/RTU (BY OTHERS)**
SCALE: N.T.S.

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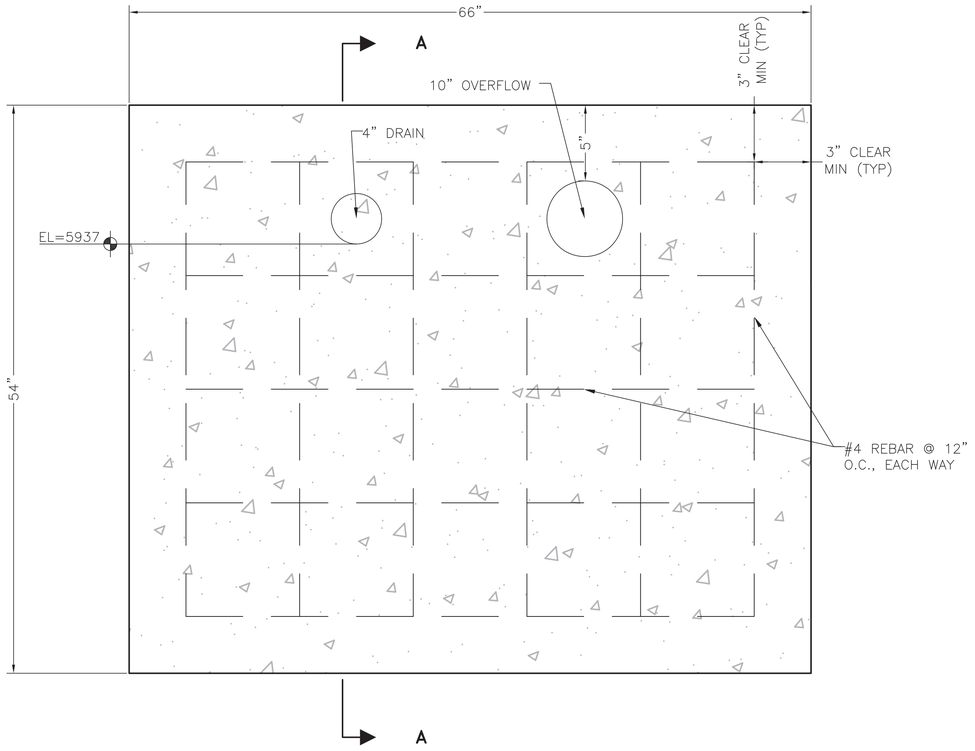
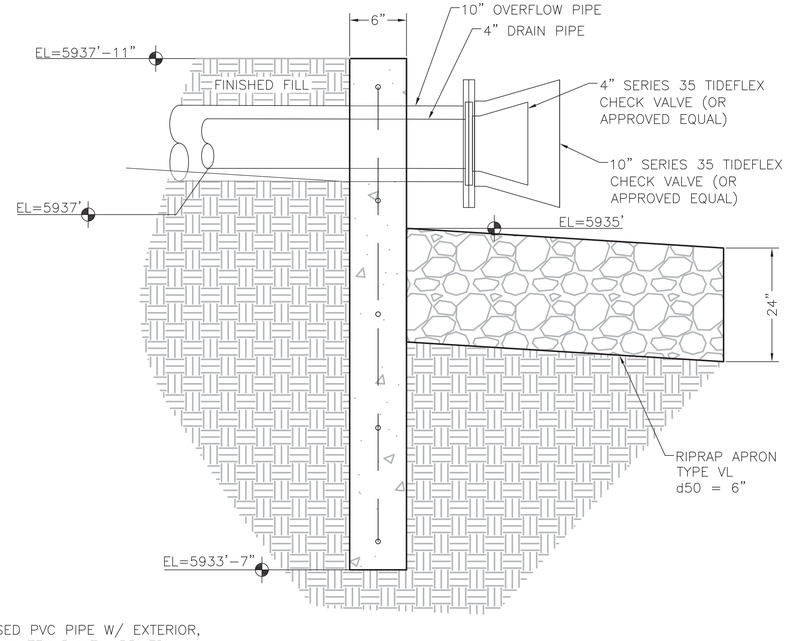
WIDEFIELD WATER AND SANITATION DISTRICT
VA PPNC WATER DELIVERY SYSTEM
PPNC EQ SURGE TANK DETAILS

Project No.:	102.106
Scale:	AS SHOWN
Date:	11/22/17
Design:	GJD
Drawn:	ACH
Check:	JPM
Revised:	

C20

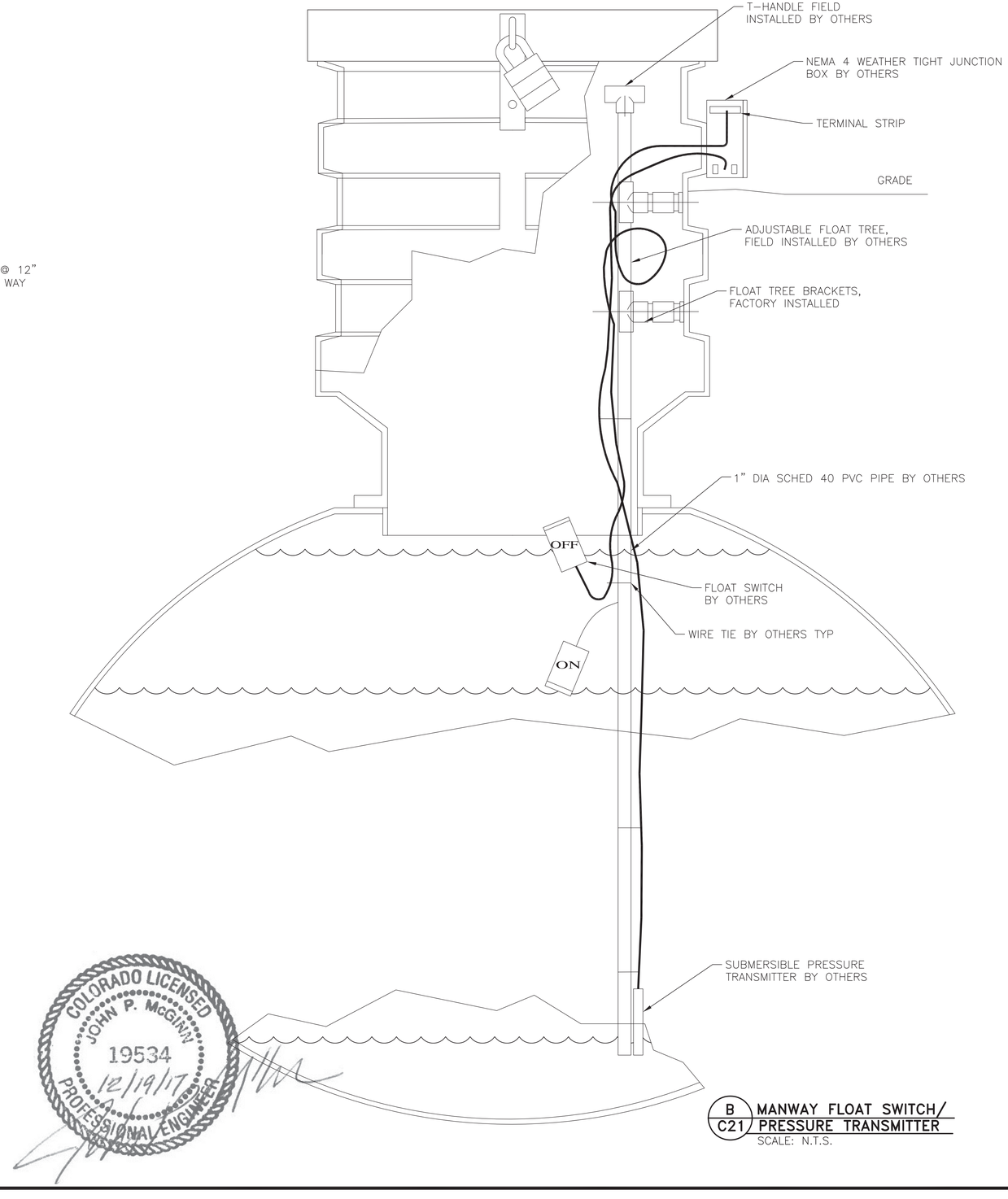


A C21 **CONCRETE HEADWALL**
SCALE: N.T.S.



NOTE:
COVER EXPOSED PVC PIPE W/ EXTERIOR, WATER-BASED LATEX PAINT, APPLIED GENEROUSLY. SAND PIPE LIGHTLY PRIOR TO PAINTING. COLOR TO BE SELECTED BY OWNER

CONCRETE HEADWALL SECTION A-A



B C21 **MANWAY FLOAT SWITCH/ PRESSURE TRANSMITTER**
SCALE: N.T.S.

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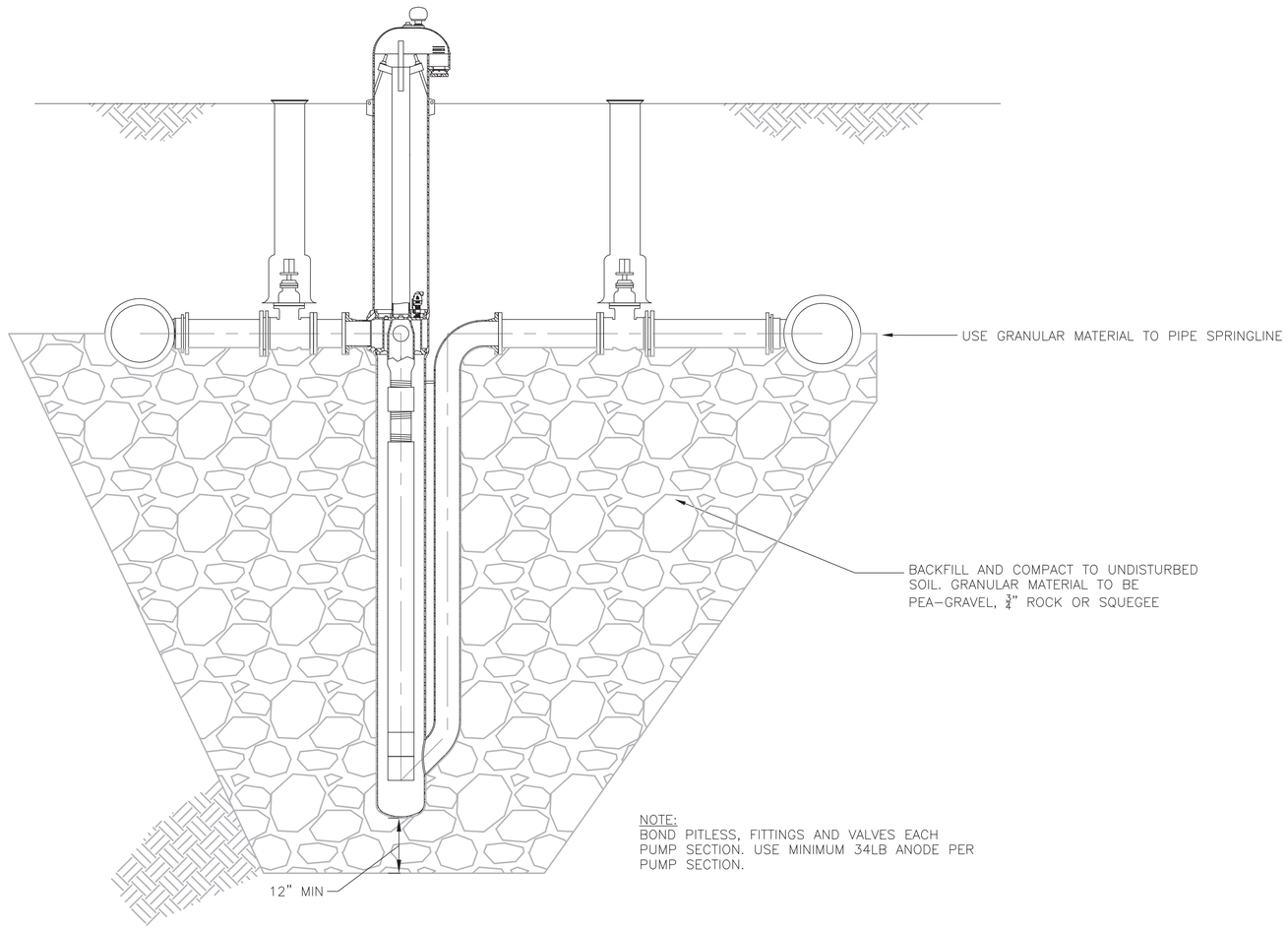
WIDEFIELD WATER AND SANITATION DISTRICT
VA PPNC WATER DELIVERY SYSTEM
PPNC EQ SURGE TANK SITE DETAILS

Project No.: 102.106
Scale: AS SHOWN
Date: 11/22/17
Design: GJD
Drawn: GGM
Check: JPM
Revised:

C21



NOTE:
BOND PITLESS, FITTINGS AND VALVES EACH PUMP SECTION. USE MINIMUM 34LB ANODE PER PUMP SECTION.

A / C22 RHBPS TRENCH BACKFILL DETAIL
SCALE: N.T.S.

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WIDEFIELD WATER AND SANITATION DISTRICT
VA PPNC WATER DELIVERY SYSTEM
CIVIL DETAILS

Project No.:	102.106
Scale:	AS SHOWN
Date:	11/22/17
Design:	GJD
Drawn:	GUS/TLM
Check:	JPM
Revised:	

C22

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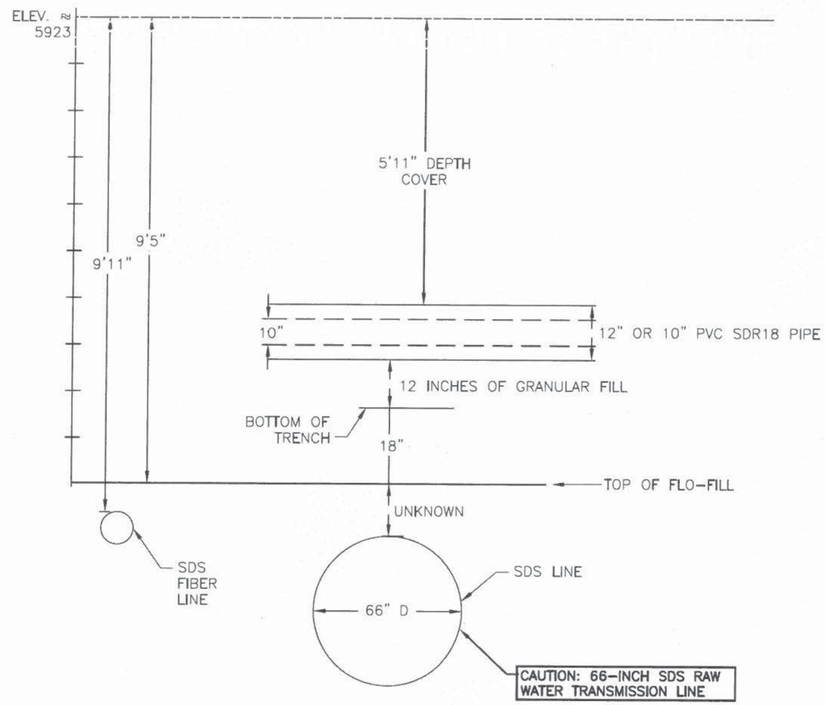
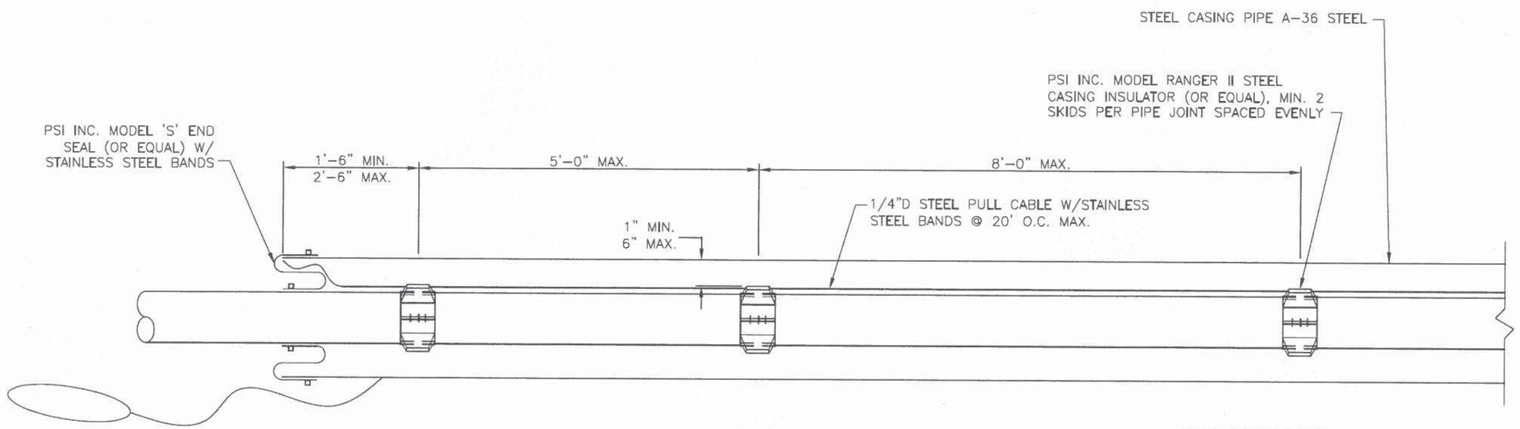
2017/11/22 3:42 PM By: kevin



A/C23 SDS CROSSING DETAIL
SCALE: N.T.S.



B/C23 STEEL CASING DETAIL
SCALE: N.T.S.

STEEL CASING TABLE

CARRIER PIPE ø	CASING DIAMETER	CASING THICKNESS
12"	24"	5/16"

COLORADO SPRINGS UTILITIES
PLAN APPROVAL

APPROVED BY: [signature] DATE: 12/20/17

PROJECT NUMBER: 2017-W194 WORK ORDER NUMBER: 3239354

CSU SHEET 3 OF 3

APPROVAL EXPIRES ONE (1) YEAR FROM THE DATE ABOVE AND RESUBMITTAL OF THESE PLANS FOR REVIEW AND APPROVAL IS REQUIRED IF CONSTRUCTION DOES NOT BEGIN DURING THIS PERIOD.

1. REFER TO LESS 2.6.H.8 "CROSSING RAW WATER TRANSMISSION MAINS"
2. THE CONTRACTOR MUST PROVIDE NOT LESS THAN 48-HOUR PRIOR NOTICE AND A COLORADO SPRINGS UTILITIES' REPRESENTATIVE MUST BE ON SITE TO OBSERVE ANY ACTIVITIES WITHIN SDS EASEMENT.
3. CONTACT COLORADO SPRINGS UTILITIES PRIOR TO ANY POTHOLING OR CONSTRUCTION WITHIN SDS EASEMENT. TO COORDINATE, PLEASE CALL (719) 668-4667.
4. REPLACE CARSONITE WATER MARKERS OVER PIPELINE AFTER CONSTRUCTION. ADDITIONAL MARKERS CAN BE OBTAINED FROM COLORADO SPRINGS UTILITIES
5. ENSURE THAT ALL EXISTING BLOW-OFFS WILL DAYLIGHT TO AN ADEQUATE OUTFALL AFTER COMPLETION OF GRADING.

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WIDEFIELD WATER AND SANITATION DISTRICT

VA PPNC WATER DELIVERY SYSTEM

CIVIL DETAILS

Project No.:	102.106
Scale:	AS SHOWN
Date:	12/14/17
Design:	GJD
Drawn:	TLM
Check:	JPM
Revised:	

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C23

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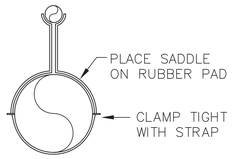
2017/12/14 12:05 PM By: Precision 7510_1

NOTES:

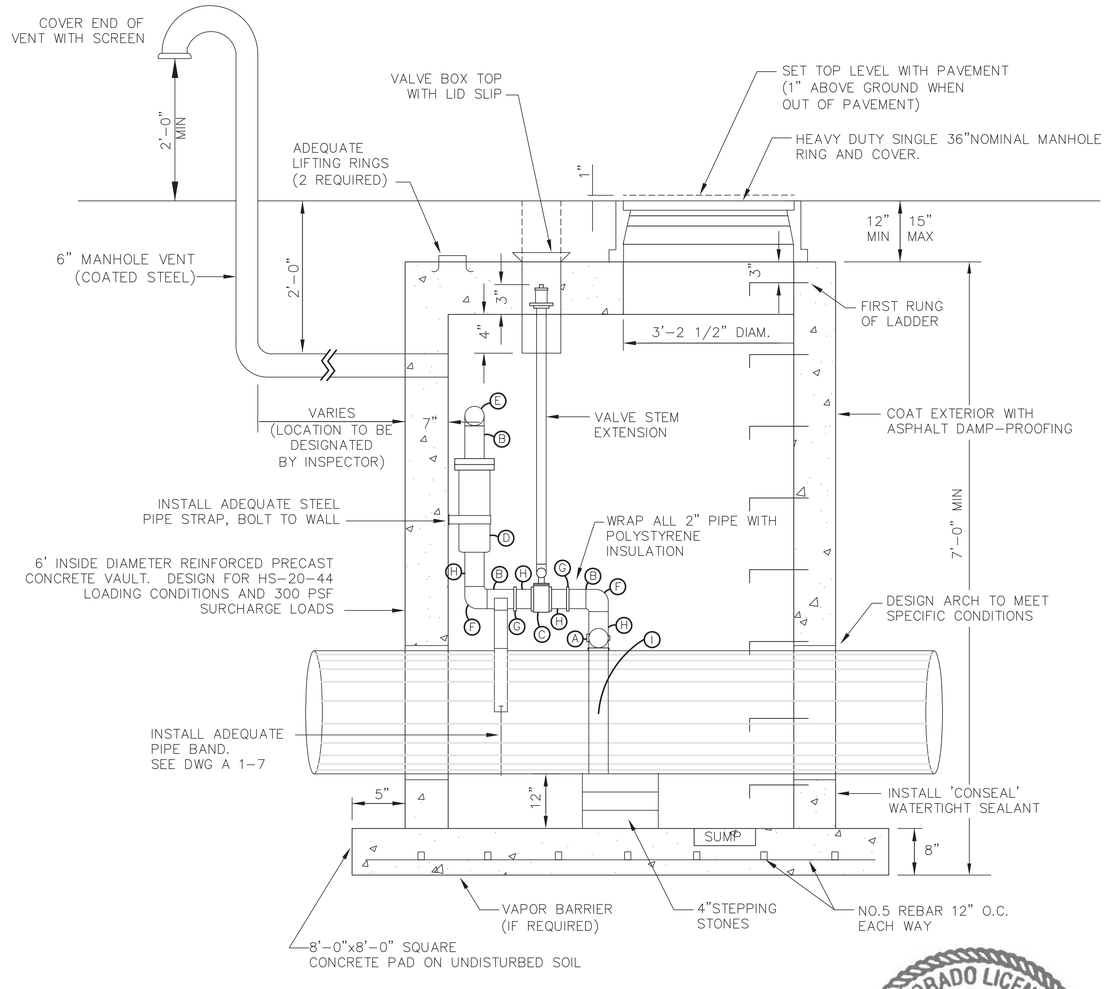
1. ALL CONCRETE WORK SHALL COMPLY WITH LATEST ACI-318 SPECIFICATIONS.
2. AIR VALVE ASSEMBLY LARGER THAN 2" SIZE OR FOR MAINS LARGER THAN 16" SHALL BE SPECIALLY DESIGNED AND MEET WATER DISTRICT REQUIREMENTS.
3. ALL SUPPORT MATERIALS SHALL BE GIVEN 2 COATS OF RUST INHIBITIVE PAINT.
4. ALL LADDER RUNGS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

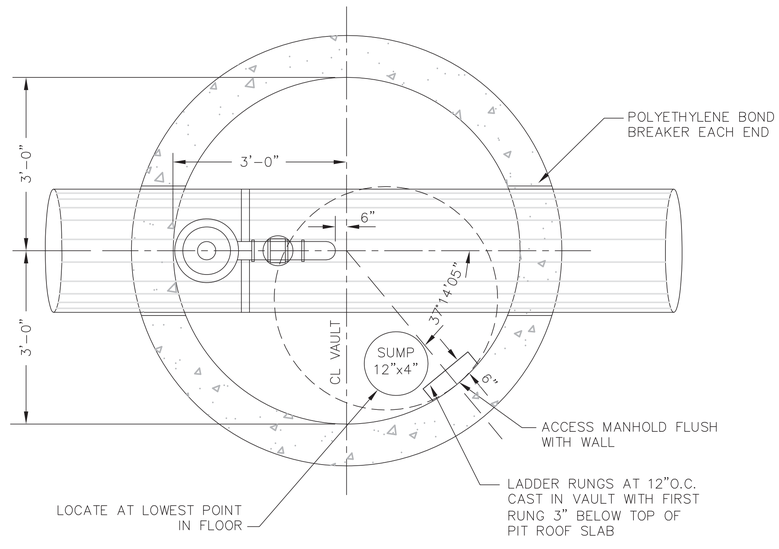
LEGEND

- (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"x90° PLASTIC ELBOW
- (F) 2"x90° BRASS THREADED ELBOW
- (G) 2" QUICK COUPLER
- (H) 2" THREADED BRASS NIPPLE
- (I) 2" ROMAC MODEL 202BS TAPPING SADDLE



A/C24 PIPE STAND DETAIL
SCALE: N.T.S.





B/C24 2" AIR/VAC PRESSURE VALVE PIT
SCALE: N.T.S.

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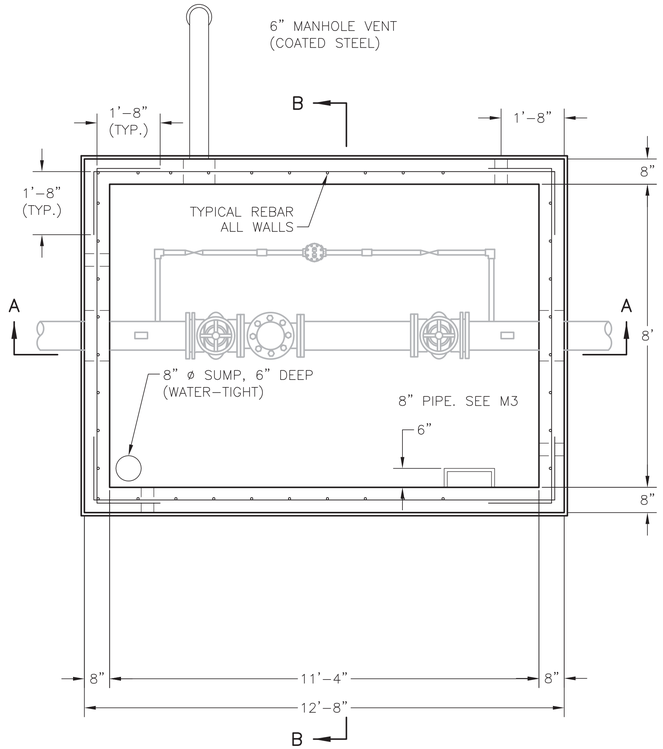
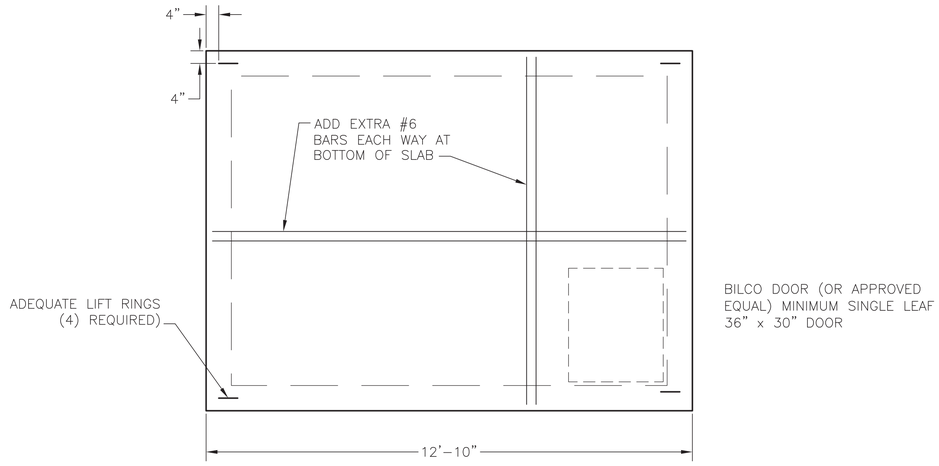
WIDEFIELD WATER AND SANITATION DISTRICT
VA PPNC WATER DELIVERY SYSTEM
CIVIL DETAILS

Project No.:	102.106
Scale:	AS SHOWN
Date:	11/22/17
Design:	GJD
Drawn:	GUS
Check:	JPM
Revised:	

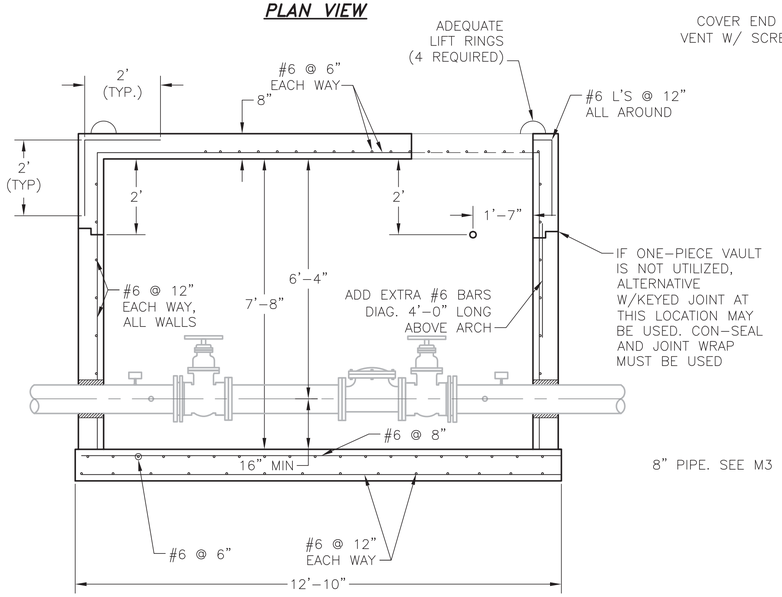
C24



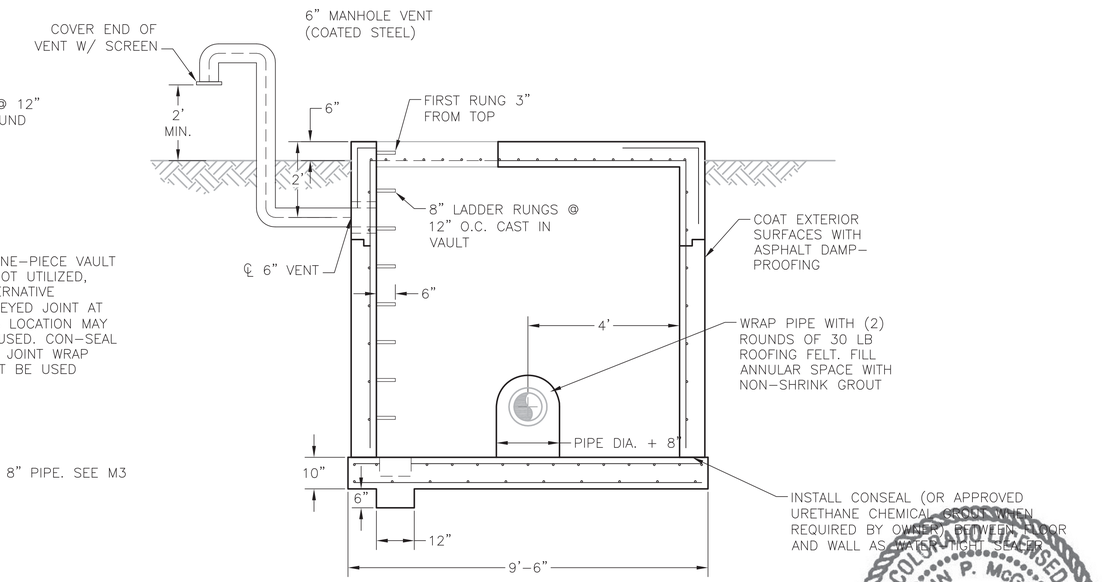
PLAN VIEW



ROOF/HATCH PLAN



SECTION A-A



SECTION B-B

NOTES:
1. ALL CONCRETE WORK SHALL COMPLY WITH DISTRICT STANDARD SPECIFICATIONS AND LATEST A.C.I.-318 CODE.
2. MINIMUM CONCRETE CLEARANCES FOR REBAR:
   - 3" WHERE POURED AGAINST EARTH
   - 2" WHERE FORMED AND THEN EXPOSED TO GROUND OR WEATHER FOR #6 OR LARGER. 1.5" FOR #5 AND SMALLER.
   - 1" WHERE EXPOSED TO INTERIOR SURFACES
3. ALL VAULTS SHALL BE CONSTRUCTED TO MEET HS20-44 TRAFFIC LOADING CONDITIONS AND 300 PSF SURCHARGE LOAD.

A / C25 **RHBPS VAULT DETAIL**
SCALE: 1/4"=1'-0"

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WIDEFIELD WATER AND SANITATION DISTRICT
VA PPNC WATER DELIVERY SYSTEM
ROLLING HILLS BOOSTER PUMP STATION VAULT
CIVIL DETAILS

Project No.:	102.106
Scale:	AS SHOWN
Date:	12/04/17
Design:	GJD
Drawn:	ACH/TLM
Check:	JPM
Revised:	

C25

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12/19/17
PROFESSIONAL ENGINEER

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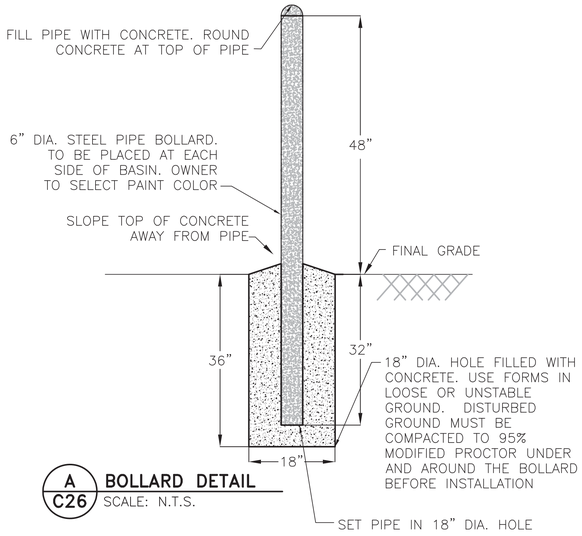
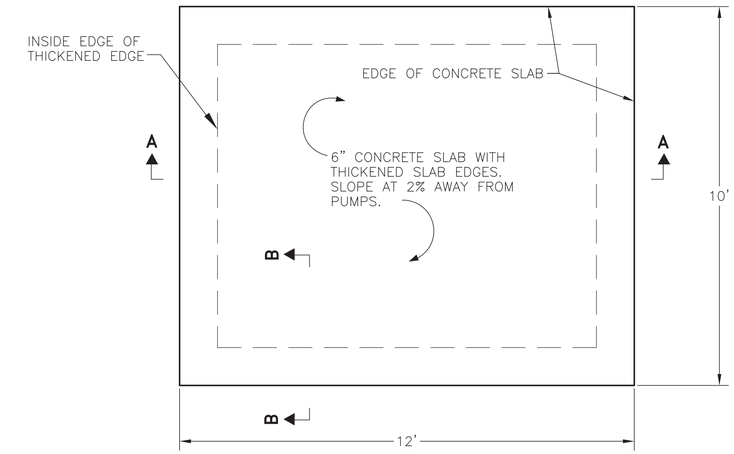
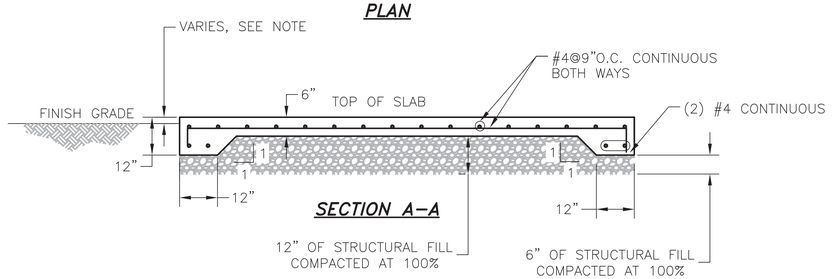
2017/12/04 5:19 PM By: Precision 7510_1



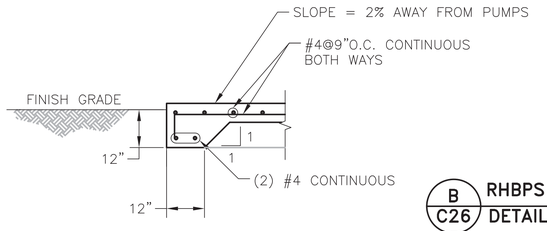
A / C26 BOLLARD DETAIL
SCALE: N.T.S.



PLAN



SECTION A–A

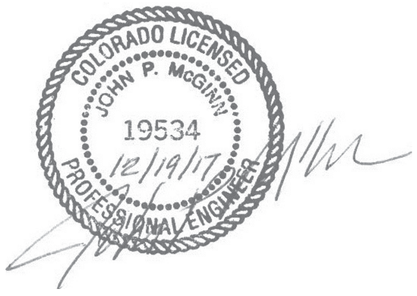


SECTION B–B

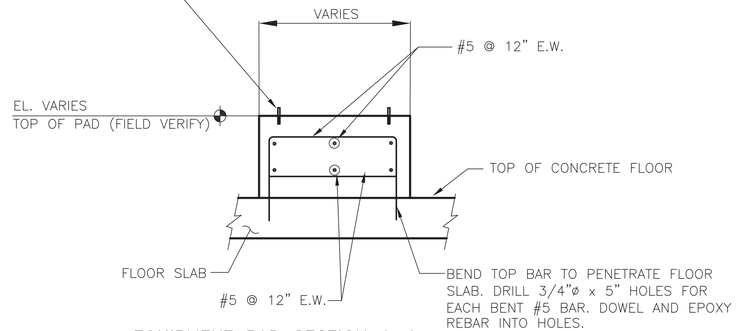
NOTES:
1. THE DEPTH OF FINISH GRADE TO TOP OF CONCRETE SLAB VARIES. 2" FOR SOD OR LANDSCAPE APPLICATIONS. MATCH TOP OF ADJACENT CONCRETE OR ASPHALT.

B / C26 RHBPS ELECTRICAL & CONTROLS PAD DETAIL
SCALE: 1/4"=1'–0"

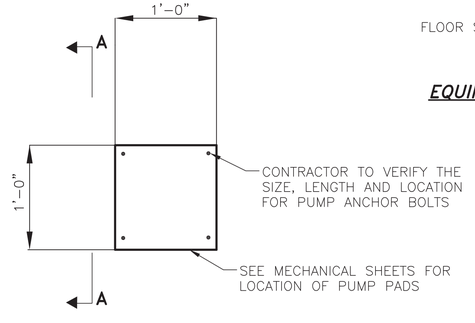
CONDUIT SCHEDULE		
CONDUIT ID	SIZE	EQUIPMENT CONNECTION
C–100	3"	POWER IN (MAIN) FROM MVEA TRANSFORMER
C–101	2"	TO PUMP 1
C–102	2"	TO PUMP 2
C–103	2"	–SPARE–
C–104	1"	120V TO VAULT
C–201	3/4"	DISCHARGE PT (VAULT)
C–202	3/4"	SUCTION PT (VAULT)
C–203	3/4"	–SPARE–
C–204	3/4"	–SPARE–



CONTRACTOR TO VERIFY THE SIZE, LENGTH AND LOCATION FOR PUMP ANCHOR BOLTS.



EQUIPMENT PAD SECTION A–A



EQUIPMENT PAD – PLAN VIEW

PUMP PAD SCHEDULE		
PAD #	DIMENSIONS	
	A	B
1	12"	12"
2	12"	12"

NOTE:
PAD HEIGHT – CONTRACTOR TO SET PUMP FIRST BEFORE CASTING PUMP PAD. CONTRACTOR TO SET ANCHOR BOLTS INTO FLOOR USING ALL–THREAD BOLTS. DRILL ALL–THREAD INTO FLOOR AND EPOXY. USE PUMP BASE AS ANCHOR USING NUTS W/ ALL–THREAD TO MATCH INLET AND OUTLET PIPING. AFTER PUMP HAS BEEN SET ON ALL–THREAD AND PLUMBED TO INLET AND OUTLET PIPING, CONTRACTOR SHALL CAST PUMP PADS ACCORDING TO DIMENSIONS SHOWN IN SCHEDULE.

C / C26 EQUIPMENT PAD DETAIL
SCALE: N.T.S.

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WIDEFIELD WATER AND SANITATION DISTRICT
VA PPNC WATER DELIVERY SYSTEM
CIVIL DETAILS

Project No.:	102.106
Scale:	AS SHOWN
Date:	11/22/17
Design:	GJD
Drawn:	ACH/GUS/TLM
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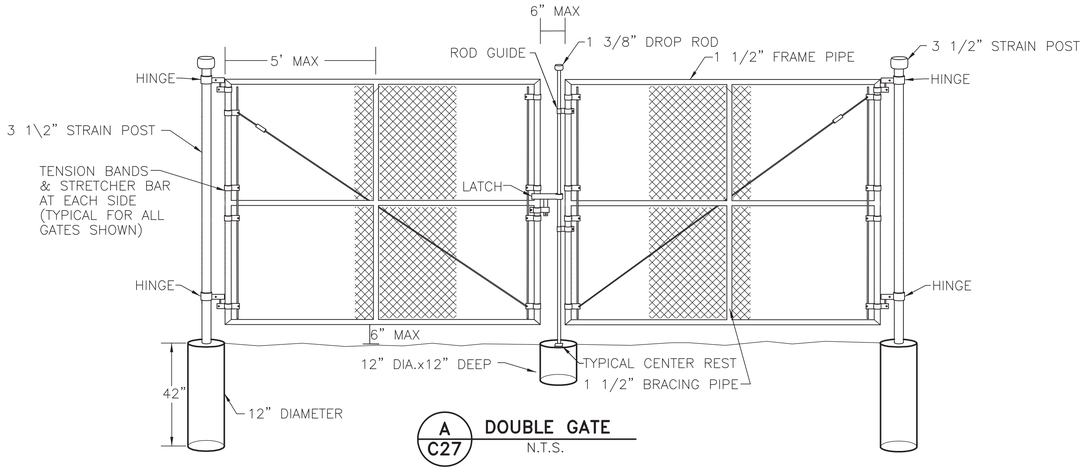
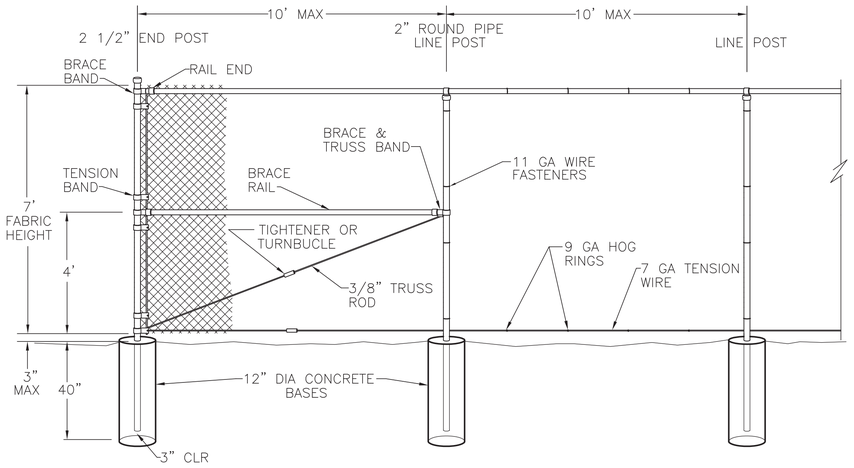
C26

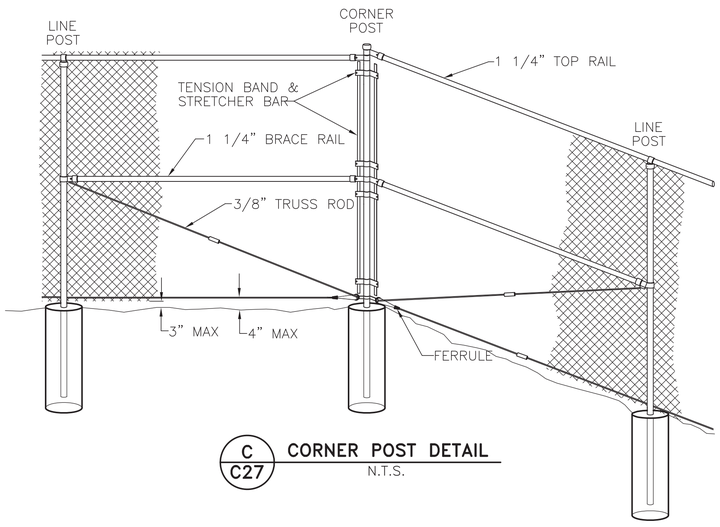


A/C27 **DOUBLE GATE**
N.T.S.

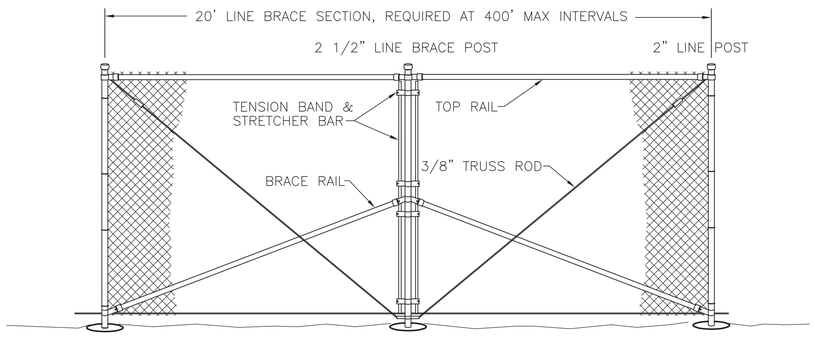
NOTES:
1. CHAIN LINK FENCE SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M 181.
2. CHAIN LINK FABRIC SHALL BE 2" MESH NO. 9 GAGE GALVANIZED OR ALUMINUM COATED WIRE SECURELY FASTENED TO TENSION WIRE, LINE POSTS, RAILS, BRACES AND STRETCHER BARS SPACED AS SHOWN HEREON. WIRE FASTENERS AND TIE CLIPS SHALL 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 TIGHTENING 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 BARBED ON THE TOP SELVAGE AND KNUCKLED ON THE BOTTOM SELVAGE.
8. ATTACH FABRIC TO ALL FENCE & GATE STRUCTURES AT 12" INTERVALS VERTICALLY & AT 20" HORIZONTALLY.



B/C27 **END POST DETAIL**
N.T.S.



C/C27 **CORNER POST DETAIL**
N.T.S.



D/C27 **LINE BRACE POST DETAIL**
N.T.S.

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WIDEFIELD WATER AND SANITATION DISTRICT
VA PPNC WATER DELIVERY SYSTEM
CIVIL DETAILS

Project No.:	102.106
Scale:	AS SHOWN
Date:	11/22/17
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Drawn:	GGM
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Revised:	

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JOHN P. McGINN
19534
12/19/17
PROFESSIONAL ENGINEER

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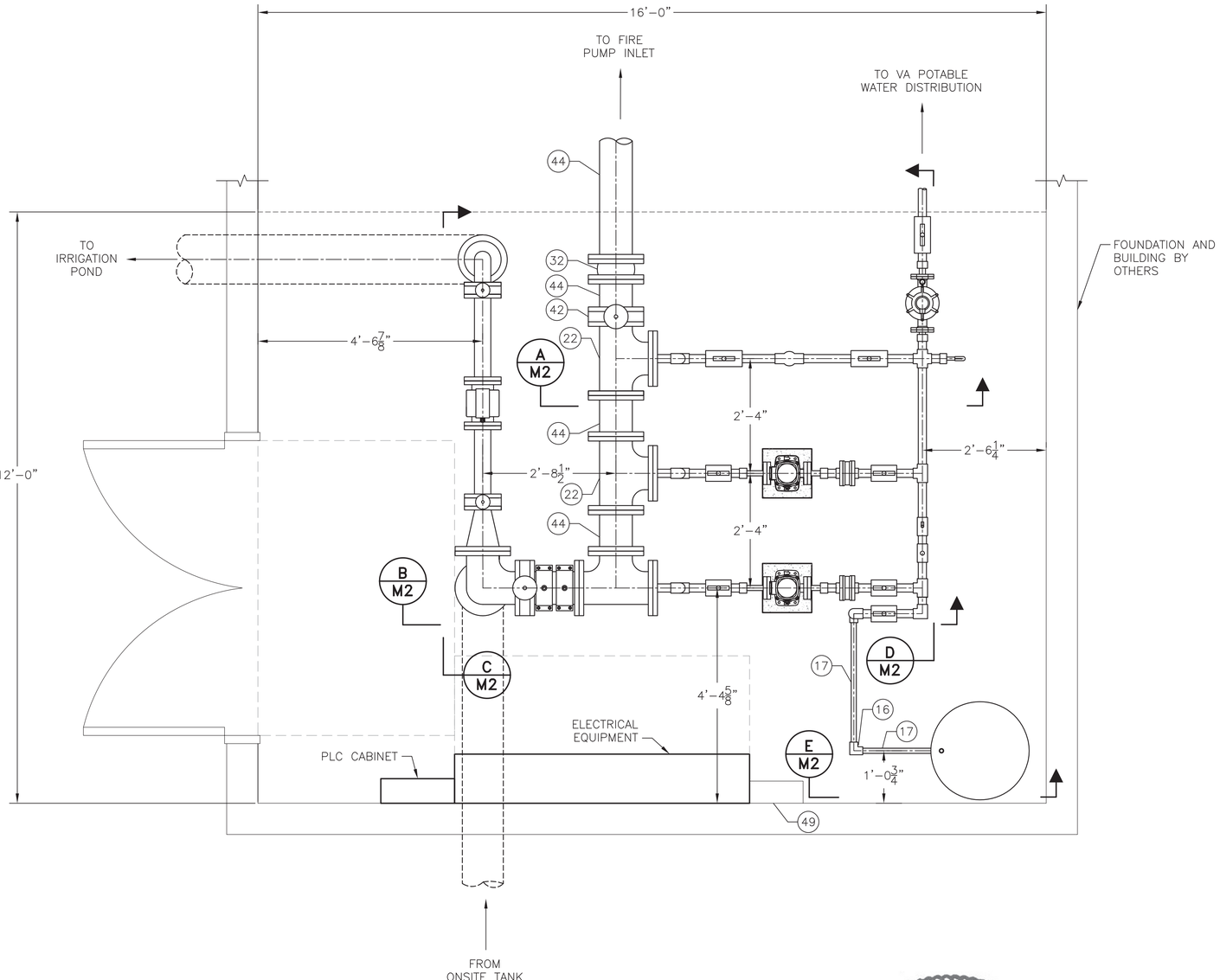

NOTES:
1. PIPE DISCHARGE FROM PRESSURE RELIEF VALVE UNDER PIPE STACK TO 12" IRRIGATION LINE PAD.
2. 3/4" AIR VAC VALVE, USE 3/4" TAPPING SADDLE W/ 3/4" GATE VALVE. TO 3/4" ARV.

VA PUMP STATION MECHANICAL FLOOR PLAN

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

SCHEDULE		
MARK	SIZE	DESCRIPTION
1	1/2"	PRESSURE RELIEF VALVE, SET AT 125 PSI. SEE NOTE 1
2	3/4"x2"	TEE, S80 PVC
3	1/2"	PIPE SPOOL, SOCKET X MNPT
4	1/2" X 2"	TEE, S80 PVC
5	3/4"	SAMPLE VALVE, BRASS, FNPT (THREADED HOSE OUTLET)
6	1-1/2" X 2"	BUSHING, REDUCING, S80 PVC, SOCKET X FNPT
7	3/4"	PIPE SPOOL, MNPT X MNPT
8	1-1/2"	PIPE SPOOL, MNPT X MNPT
9	1-1/2"	METER, BADGER, TURBO, RECORDALL (BY OWNER)
10	3/4"	COMBINATION AIR/VACUUM RELIEF VALVE. SEE NOTE 2
11	3/4"	PIPE SPOOL, SOCKET X MNPT
12	3/4"	PIT TAP (SEE DETAIL C/M3)
13	2"	VALVE, CHECK S80 PVC SOCKET X SOCKET
14	1-1/4" X 2"	CONCENTRIC, REDUCER, SOCKET X SOCKET
15	1-1/4"	PIPE SPOOL, S80 PVC, SOCKET X SOCKET
16	1-1/4"	ELBOW, S80 PVC, SOCKET X FNPT
17	1-1/4"	PIPE SPOOL, MNPT X MNPT
18	1-1/4"	WELLX-TROL WX404 WITH FNPT ELBOW
19	1-1/4" X 2"	BUSHING, REDUCING, S80 PVC, SOCKET X FNPT
20	1-1/4"	FLANGE, W/1-1/4" THREADED TAP, BLACK, 250# GRUNDFOS OR EQUAL TO MATCH PUMP
21	1-1/4"	PUMP, CENTRIFUGAL, VERTICAL GRUNDFOS MODEL # CR3-9
22	8"	TEE, DUCTILE IRON
23	2"	FLANGE, S80 PVC, SOCKET
24	2"	PIPE SPOOL, S80 PVC, SOCKET X SOCKET
25	2"	ELBOW, S80 PVC, SOCKET
26	2"	VALVE, BALL, FULL BORE, S80 PVC, SOCKET X SOCKET
27	2"	VALVE,TRUE UNION, BALL, FULL BORE, S80 PVC, SOCKET X SOCKET
28	2"	TEE, S80 PVC
29	2"	CROSS, S80 PVC
30	2"	VALVE, CHECK, DUAL DISC, WAFER, DUCTILE IRON
31	2"	PIPE SPOOL, S80 PVC, MNPT X SOCKET
32	8"	VALVE, CHECK, DUAL DISC, WAFER, DUCTILE IRON
33	1-1/2"	ELIPTICAL FLANGE, 1-1/2" FNPT
34	4"	METER, BADGER, ELECTROMAGNETIC, M2000 (BY OWNER)
35	4"	VALVE, CHECK, FLANGED, TIDEFLEX SERIES 35
36	4"	ELBOW, DUCTILE IRON
37	4"	VALVE, BUTTERFLY, ELECTRONICALLY ACTUATED
38	4"	PIPE SPOOL, FLANGE X FLANGE, DUCTILE IRON
39	4"	VALVE, BUTTERFLY, LUG STYLE
40	8"	ELBOW, SIDE OUTLET, DUCTILE IRON, FLANGED
41	8"	FLANGE W/ 2" FNPT
42	8"	VALVE, BUTTERFLY, LUG STYLE
43	8" X 4"	REDUCER, CONCENTRIC, DUCTILE IRON
44	8"	PIPE SPOOL, DUCTILE IRON
45	10" X 8"	REDUCER, CONCENTRIC, DUCTILE IRON
46	10"	FLANGE ADAPTER, RESTRAINED TO CONNECT TO PLAIN END DUCTILE IRON
47	10"	PIPE SPOOL, DUCTILE IRON
48	12"	PIPE SPOOL, DUCTILE IRON
49	---	HACH CHLORINE RESIDUAL ANALYZER (BY OWNER)

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WIDEFIELD WATER AND SANITATION DISTRICT
VA PPNC WATER DELIVERY SYSTEM
VA PUMP STATION
MECHANICAL FLOOR PLAN/SCHEDULE

Project No.:	102.106
Scale:	AS SHOWN
Date:	12/06/17
Design:	GJD
Drawn:	GGM/ACH/GDS
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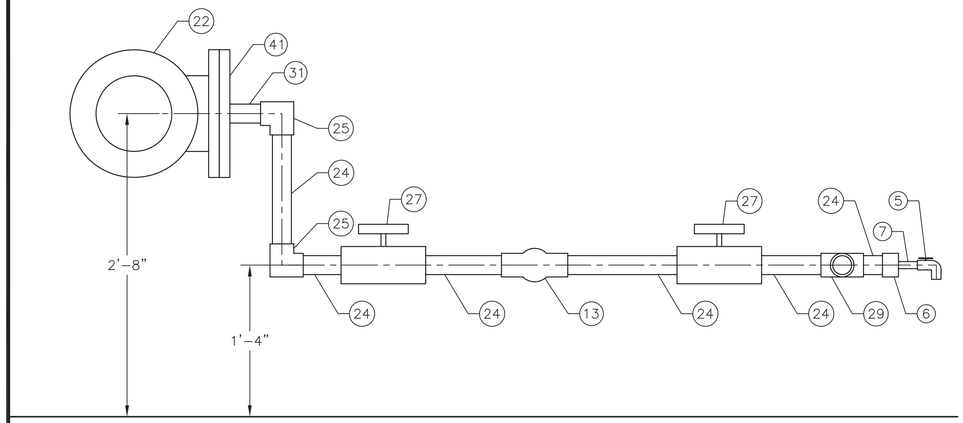
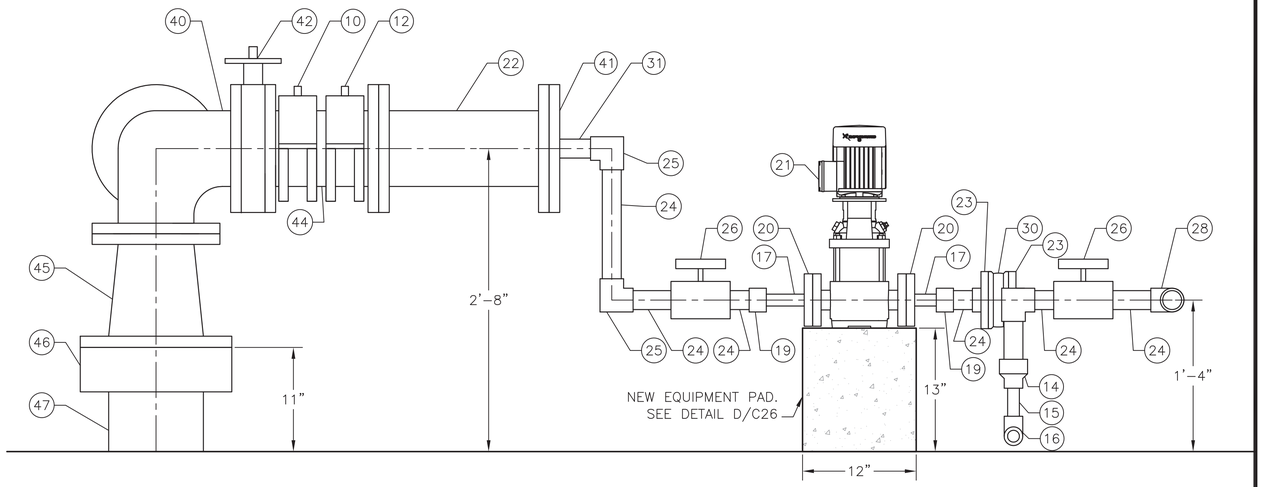
M1



A / M2 SECTION
SCALE: 3/4"=1'-0"



B / M2 SECTION
SCALE: 3/4"=1'-0"

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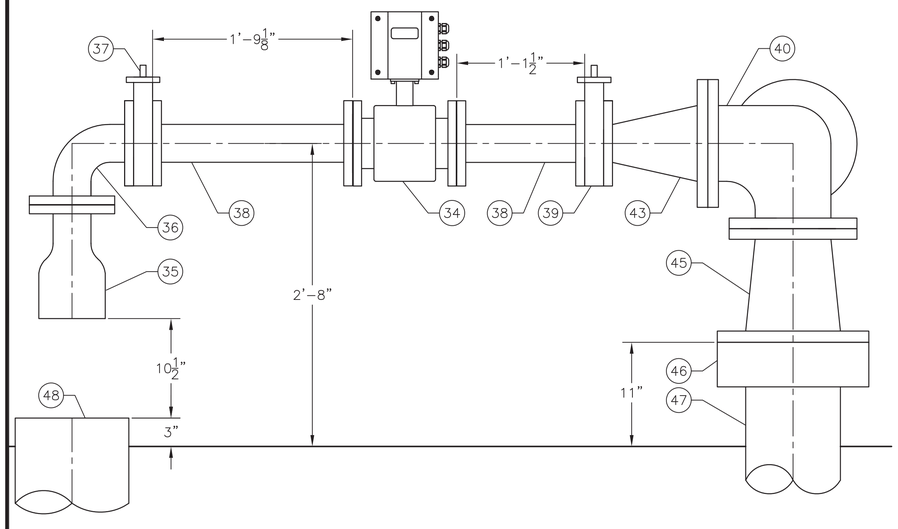

C / M2 SECTION
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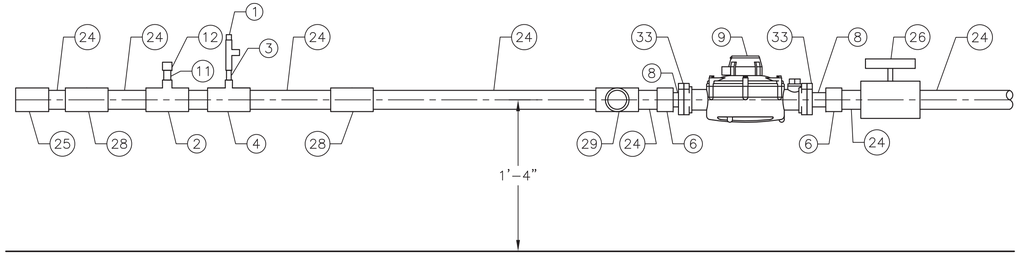

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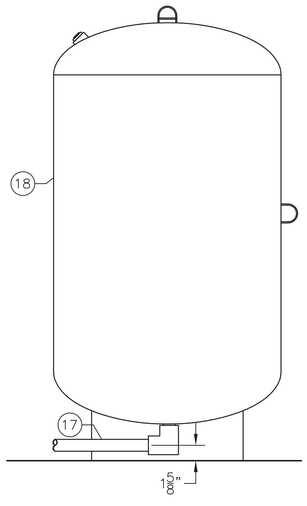
SCALE: 3/4"=1'-0"



E / M2 SECTION
SCALE: 3/4"=1'-0"

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WIDEFIELD WATER AND SANITATION DISTRICT
VA PPNC WATER DELIVERY SYSTEM
VA PUMP STATION
MECHANICAL SECTIONS

Project No.:	102.106
Scale:	AS SHOWN
Date:	12/04/17
Design:	GJD
Drawn:	ACH/GDS
Check:	JPM
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M2

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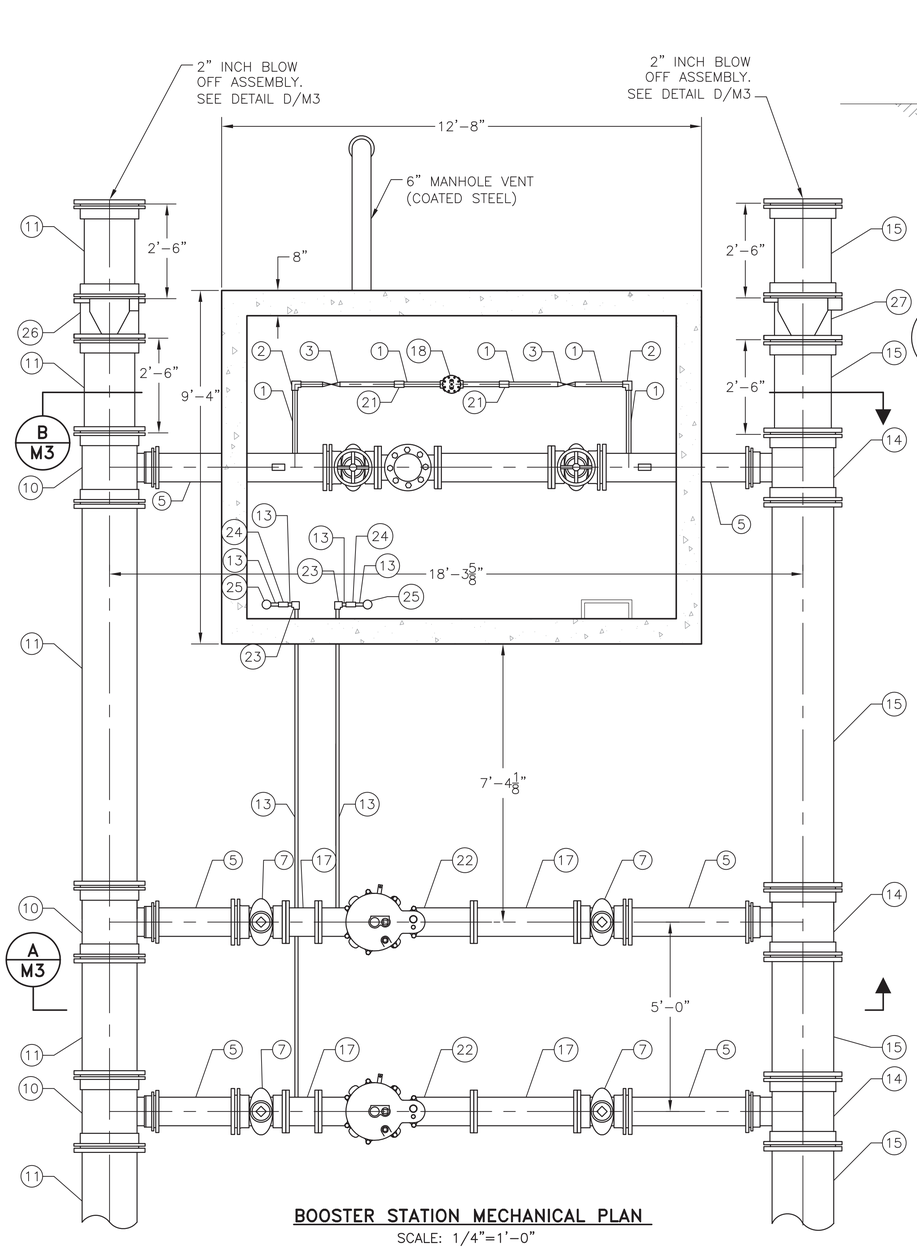
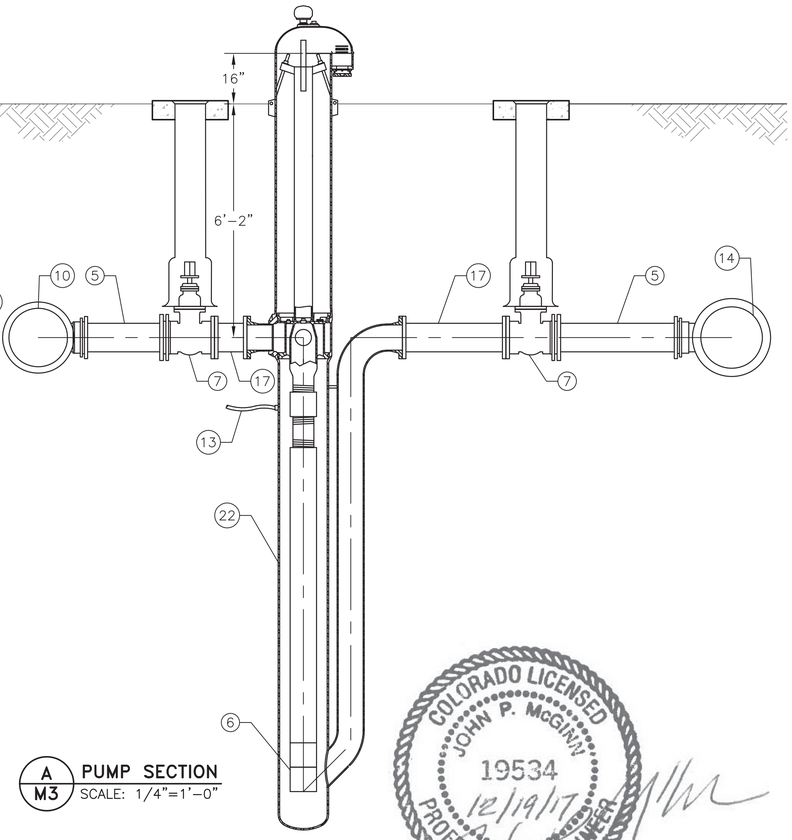
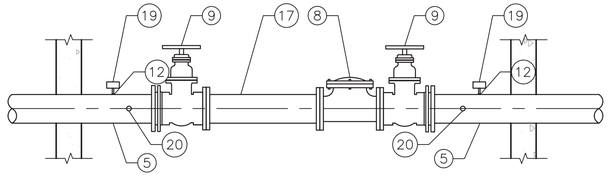


BOOSTER STATION MECHANICAL PLAN

SCALE: 1/4"=1'-0"



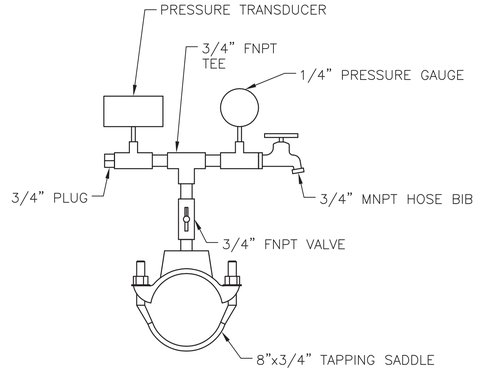
A M3 **PUMP SECTION**
SCALE: 1/4"=1'-0"



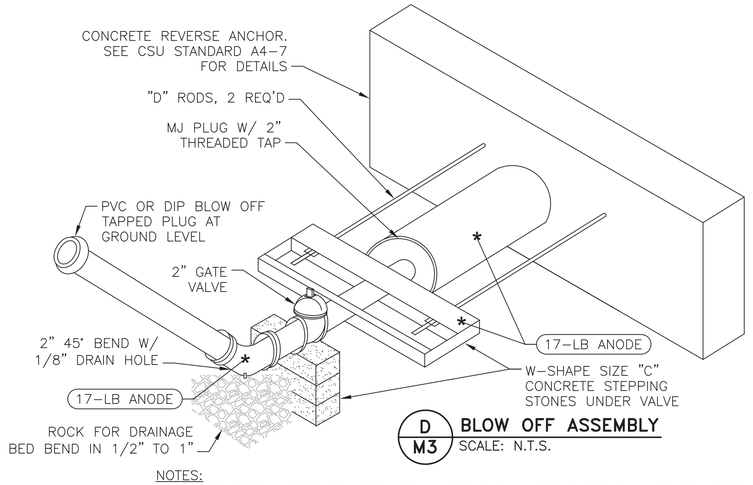
NOTES:
1. ALL PIPE, VALVES, AND FITTINGS ON OUTLET OF PUMP TO BE RATED FOR 200 PSI.

B M3 **VAULT SECTION**
SCALE: 1/4"=1'-0"

NOTES:
1. IF PIT IS 1/4" MNPT, INSTALL AS SHOWN. IF 3/4" IN-LINE PIT IS USED, INSTALL TEE IN VERTICAL POSITION.
2. USE 0-100 PSI GAUGE - SUCTION
   0-200 PSI GAUGE - DISCHARGE



C M3 **PRESSURE INDICATOR/TRANSMITTER ASSEMBLY DETAIL**
SCALE: N.T.S.



D M3 **BLOW OFF ASSEMBLY**
SCALE: N.T.S.

NOTES:
1. PIPE DOPE APPROVED FOR USE IN POTABLE WATER SYSTEMS MUST BE USED ON ALL THREADED JOINTS.
2. ENTIRE BLOW OFF ASSEMBLY MUST BE FULLY SUPPORTED SO NO LOAD BEARS ON BLOW-OFF PIPING.
3. IF APPROPRIATE LOCATION FOR DISCHARGED WATER CANNOT BE REACHED BY ROLLING THE BEND, ADDITIONAL BENDS MAY BE REQUIRED.
4. COAT TIE RODS, BEAMS AND BLACK IRON PIPE WITH EPOXY POLYAMIDE COATING, 10 MILS MIN.

SCHEDULE		
MARK	SIZE	DESCRIPTION
1	1-1/2"	PIPE SPOOL, MNPT X MNPT S40, HOT DIP GALVANIZED STEEL
2	1-1/2"	ELBOW, GALV, FNPT
3	1-1/2"	GATE VALVE, GALV, FNPT
4	1-1/2"	PRESSURE CONTROL VALVE, FNPT
5	8"	PIPE SPOOL, DUCTILE IRON, MJ X MJ
6	8"	PUMP, GOULDS, STAINLESS STEEL SUBMERSIBLE PUMP W/ 15 HP 3PH MOTOR, 6" DIA MODEL 320L15
7	8"	VALVE, GATE, RESILENT, FL X MJ W/ 2" SQUARE HEAD
8	8"	CHECK VALVE, FLANGED
9	8"	VALVE, GATE, RESILENT, FL X MJ W/ HANDWHEEL, OPEN RIGHT
10	16" X 8"	REDUCING TEE, DUCTILE IRON, MJ X MJ
11	16"	PIPE SPOOL, PVC C905, PE X PE
12	1/2"	THREADED TAP
13	1"	HDPE PIPE
14	18" X 8"	REDUCING TEE, DUCTILE IRON, MJ X MJ
15	18"	PIPE SPOOL, PVC C905, PE X PE
16	18"	TEE, DUCTILE IRON, MJ X MJ
17	8"	PIPE SPOOL, DUCTILE IRON, PE X PE
18	1-1/2"	CLA-VAL 50-01, PRESSURE RELIEF ANSI 150, THRD, 20-200 PSI
19	1/2"	PRESSURE INDICATOR/TRANSMITTER (SEE DETAIL C/M3)
20	1-1/2"	THREADED TAP
21	1-1/2"	UNION, THREADED
22	8"	MONITOR 5.5 PS1618WBWX18F8138FE2 PITLESS, (5.5' BURY DISCHARGE AND INLET, 16" DIA X 13" LONG TANK, 8" DROP PIPE, 8" F; DISCHARGE AND INLET CONNECTION, SEALED CONDUIT CONNECTION
23	1"	ELBOW, THREADED
24	1"	VALVE, BALL
25	1"	AIR VAC
26	16"	VALVE, BUTTERFLY, MJ X MJ
27	18"	VALVE, BUTTERFLY, MJ X MJ

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WIDEFIELD WATER AND SANITATION DISTRICT
VA PPNC WATER DELIVERY SYSTEM
RH BOOSTER PUMP STATION
MECHANICAL PLAN/SECTIONS/SCHEDULE/DETAIL

Project No.:	102.106
Scale:	AS SHOWN
Date:	12/08/17
Design:	GJD
Drawn:	ACH/GDS
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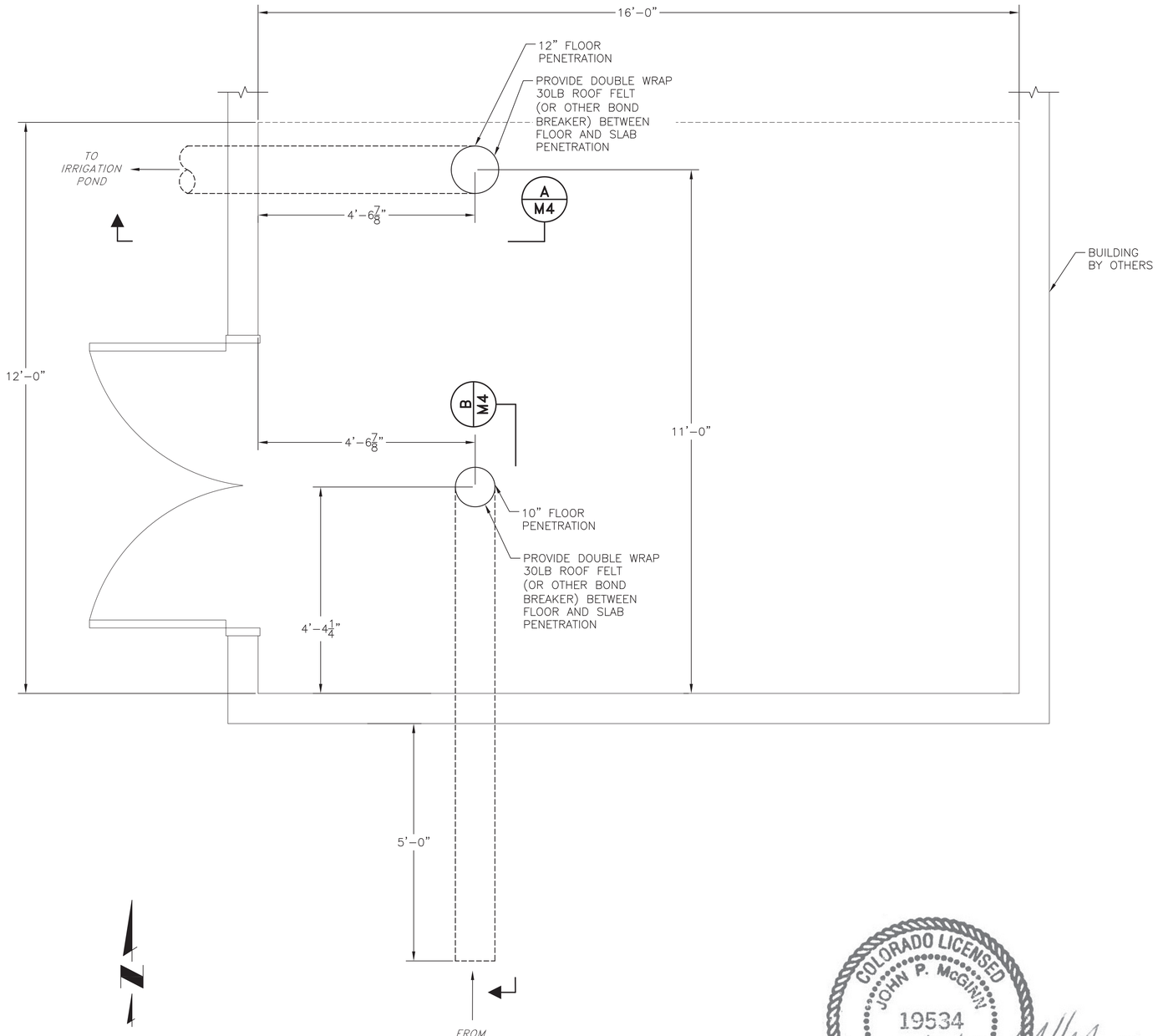
Revised:	

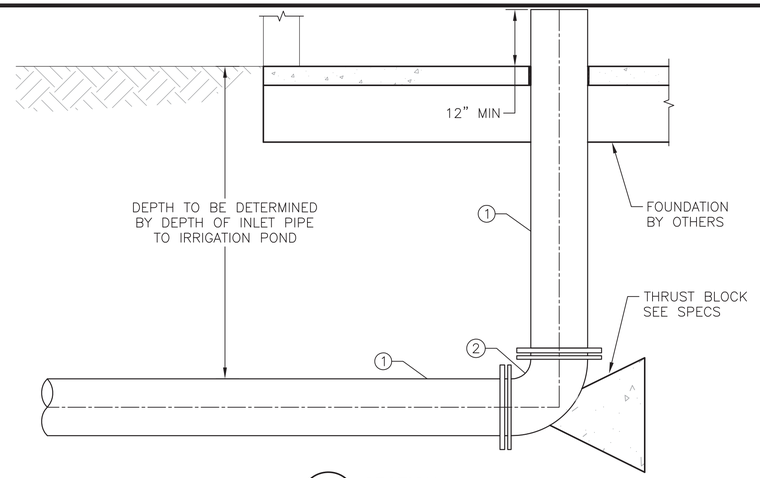
M3

NOTES:
1. REFER TO AES GROUP BUILDING PLANS FOR ARCHITECTURAL AND STRUCTURAL INFORMATION. PIPE PENETRATIONS SHOWN HEREIN ARE APPROXIMATE. COORDINATE ALL PIPE PENETRATION LOCATIONS WITH WWSD PRIOR TO INSTALLATION.
2. BUILDING SOURCE FILE BY AES GROUP (2017).

WORK BY OTHERS



VA PUMP STATION
PIPE PENETRATION FLOOR PLAN
SCALE: 3/8"=1'-0"



A M4 SECTION
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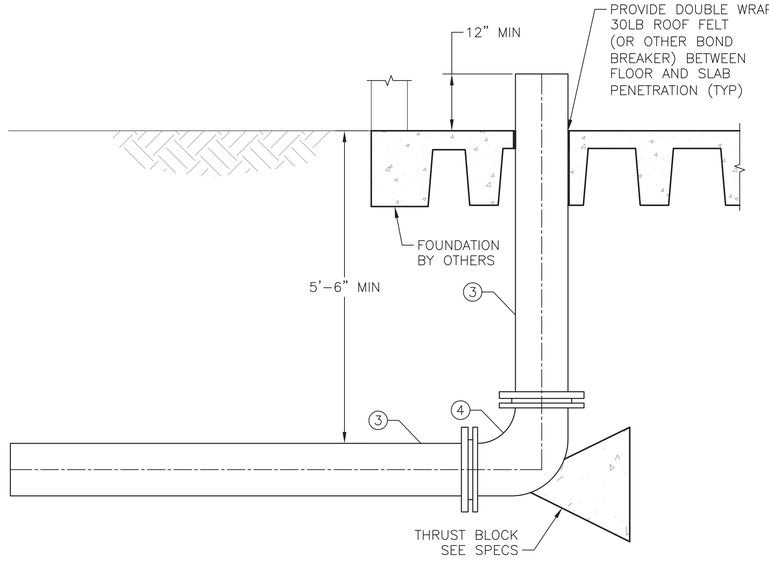

B M4 SECTION
SCALE: 3/8"=1'-0"

SCHEDULE		
MARK	SIZE	DESCRIPTION
1	12"	PIPE SPOOL, DUCTILE IRON, MJ
2	12"	ELBOW, DUCTILE IRON, MJ
3	10"	PIPE SPOOL, DUCTILE IRON, MJ
4	10"	ELBOW, DUCTILE IRON, MJ

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WIDEFIELD WATER AND SANITATION DISTRICT
VA PPNC WATER DELIVERY SYSTEM
VA PUMP STATION
PIPE PENETRATION FLOOR PLAN AND SECTIONS

Project No.:	102.106
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M4

SYMBOL	DESCRIPTION
	LIGHT FIXTURES
	RECESSED FLUORESCENT LIGHT FIXTURE, WITH TYPE NOTED IN PLAN. SEE FIXTURE SCHEDULE FOR DETAILS.
	SURFACE FLUORESCENT LIGHT FIXTURE, WITH TYPE NOTED IN PLAN. SEE FIXTURE SCHEDULE FOR DETAILS.
	FLUORESCENT STRIP LIGHT FIXTURE, WITH TYPE NOTED IN PLAN. SEE FIXTURE SCHEDULE FOR DETAILS.
	WALL BRACKET FLUORESCENT LIGHT FIXTURE, WITH TYPE NOTED IN PLAN. SEE FIXTURE SCHEDULE FOR DETAILS.
	WALL MOUNTED LIGHT FIXTURE, WITH TYPE NOTED IN PLAN. SEE FIXTURE SCHEDULE FOR DETAILS.
	RECESSED CEILING MOUNTED DOWNLIGHT, WITH TYPE NOTED IN PLAN. SEE FIXTURE SCHEDULE FOR DETAILS.
	SURFACE MOUNTED CEILING DOWNLIGHT, WITH TYPE NOTED IN PLAN. SEE FIXTURE SCHEDULE FOR DETAILS.
	PENDANT FIXTURE, WITH TYPE NOTED IN PLAN. SEE FIXTURE SCHEDULE FOR DETAILS.
	TRACK HEAD FIXTURE, WITH TYPE NOTED IN PLAN. SEE FIXTURE SCHEDULE FOR DETAILS.
	SPOTLIGHT FIXTURE, WITH TYPE NOTED IN PLAN. SEE FIXTURE SCHEDULE FOR DETAILS.
	BOLLARD OR POST LIGHT, WITH TYPE NOTED IN PLAN. SEE FIXTURE SCHEDULE FOR DETAILS.
	PARKING LOT POLE LIGHT, WITH TYPE NOTED IN PLAN. SEE FIXTURE SCHEDULE FOR DETAILS.
	LIGHT FIXTURE WITH EMERGENECY BALLAST, WITH TYPE NOTED IN PLAN. SEE FIXTURE SCHEDULE FOR DETAILS.
	EMERGECY LIGHT, WITH TYPE NOTED IN PLAN. SEE FIXTURE SCHEDULE FOR DETAILS.
	EXIT SIGN, WITH TYPE NOTED IN PLAN, SEE PLAN FOR ARROWS AND FACE OF EXIT NEEDED. SEE FIXTURE SCHEDULE FOR DETAILS.
	SWITCHES
S	TOGGLE SWITCH, 20A, SINGLE POLE, VOLTAGE AS REQUIRED. MOUNTED AT 48" ABOVE FINISHED FLOOR.
OSW	OCCUPANCY SENSOR, WALL MTD., 48" AFF. SENSOR SWITCH WSD PDT, OR EQUAL
OS	OCCUPANCY SENSOR, CEILING MTD. SENSOR SWITCH CMR PDT OR EQUAL
PC	PHOTOCELL SWITCH, MOUNT ON NORTH FACING EXTERIOR WALL, UNO.
	SUBSCRIPTS FOR SWITCHES
3	THREE-WAY TOGGLE SWITCH
4	FOUR-WAY TOGGLE SWITCH
D	0 - 10 VOLT ELECTRONIC DIMMER SWITCH, 1000W, 120V LUTRON DIVA OR EQUAL, UNO. COORDINATE COMPATIBLE DIMMER WITH LIGHTING MANUFACTURER.
M	MANUAL MOTOR STARTER WITH THERMAL OVERLOAD
	RECEPTACLES
	DUPLEX RECEPTACLE, 20A, 120V, 3 WIRE GROUNDED, NEMA 5-20R, UNO., MOUNT 18" AFF.
	QUAD RECEPTACLE, 20A, 120V, 3 WIRE GROUNDED, NEMA 5-20R, UNO., MOUNT 18" AFF.
	SIMPLEX RECEPTACLE, 20A, 120V, 3 WIRE GROUNDED, NEMA 5-20R, UNO. MOUNT 18" AFF.
	SPECIAL RECEPTACLE, 220V, TYPE AS INDICATED OR MATCH EQUIPMENT CAP., MOUNT AT HEIGHT AS REQUIRED PER EQUIPMENT.
	DUPLEX RECEPTACLE, 20A, 120V, 3 WIRE GROUNDED, NEMA 5-20R, UNO., WITH TIE-BAR REMOVED FOR SWITCHING., MOUNT 18" AFF.
	SPECIAL PURPOSE RECEPTACLE, NEMA TYPE AS INDICATED., MOUNT AT HEIGHT AS REQUIRED PER EQUIPMENT.
IN	FLOOR BOX DUPLEX RECEPTACLE, FLUSH MOUNTED, PROVIDE COVER AS REQUIRED.
IS	FLOOR BOX QUAD RECEPTACLE, FLUSH MOUNTED, PROVIDE COVER AS REQUIRED.
	SUBSCRIPTS FOR RECEPTACLES
C	CLOCK RECEPTACLE
CE	CEILING FLUSH MOUNTED
IG	ISOLATED GROUND
GFI	GROUND FAULT INTERRUPTER
WR	WEATHER RESISTANT WITH GROUND FAULT INTERRUPTER IN WEATHER PROOF BOX
OC	OVER COUNTER, MOUNT RECEPTACLE MOUNTED 6" ABOVE BACKSPLASH.
UC	UNDER COUNTER
USB	DUPLEX RECEPTACLE WITH TWO USB CHARGER PORTS (HUBBELL USB20X2W OR EQUAL)
	POWER SYMBOLS
	JUNCTION BOX, FLUSH/SURFACE MTD.
	POWER POLE WITH COMM AND POWER.
	MOTOR
	NON FUSIBLE DISCONNECT SWITCH, RATING AS INDICATED.
	FUSIBLE DISCONNECT SWITCH, RATING AS INDICATED.
	PANELBOARD/LOADCENTER.
	CEILING MOUNTED PAD FAN.

NOTE: NOT ALL SYMBOLS ARE USED. VERIFY ALL CONNECTIONS AND RECEPTACLE TYPES FOR EQUIPMENT FROM APPROVED MECHANICAL AND EQUIPMENT SUBMITTALS PRIOR TO INSTALLATION.

SYMBOL	DESCRIPTION
	SPECIAL SYSTEM SYMBOLS
	PUSHBUTTON OPERATOR
S	CEILING MOUNTED SPEAKER
	WALL MOUNTED SPEAKER
	NURSE/EMERGENCY CALL BUTTON
	NURSE/EMERGENCY CALL BUTTON
	COMMUNICATION SYSTEM SYMBOLS
	TELEPHONE OUTLET. WIRING BY OTHERS, UNO. MOUNT 18" AFF.
	TELEPHONE OUTLET. WIRING BY OTHERS, UNO., WALL PHONE, MOUNT 48" AFF.
	DATA OUTLET. WIRING BY OTHERS, UNO. MOUNT 18" AFF.
	DATA/TELEPHONE OUTLET, WIRING BY OTHERS UNO. MOUNT 18" AFF.
TV	AV/DATA OUTLET FOR TV/MONITOR CONNECTION. WIRING BY OTHERS, WIRING BY OTHERS, UNO. MOUNT 18" AFF.
T	LINE VOLTAGE THERMOSTAT. PROVIDED BY MECHANICAL., INSTALLED BY ELECTRICIAN.
	FIRE ALARM SYMBOLS
H	HORN ONLY
H	HORN AND STROBE
H	STROBE ONLY
F	MANUAL PULL STATION
S	SMOKE DETECTOR
H	HEAT DETECTOR
D	DUCT SMOKE DETECTOR
	MAGNETIC DOOR HOLD OPEN
	FIRE/SMOKE DAMPER
FACP	FIRE ALARM CONTROL PANEL
FAA	ANNUNCIATION PANEL
	ONE-LINE SYMBOLS
	CIRCUIT BREAKER, FRAME AND TRIP AS INDICATED.
	POWER TRANSFORMER, RATING AS INDICATED.
	GROUND ELECTRODE
	CURRENT TRANSFORMER (CT)
	NON-FUSIBLE SWITCH, RATING AS INDICATED.
	FUSIBLE SWITCH, RATING AND FUSE SIZE AS INDICATED.
	FEEDER SCHEDULE KEY TAG
	UTILITY TRANSFORMER
	UTILITY ELECTRIC METER
	MOTOR WITH DISCONNECT
	MOTOR WITH CONTROLLER AND DISCONNECT
G	GENERATOR
	TRANSFER SWITCH
	WEATHERHEAD
225 A MLO 42 SPACES	PANELBOARD OR LOADCENTER, IDENTIFICATION, AMPERES AND VOLTAGE.
	ABBREVIATIONS
UNO	UNLESS NOTED OTHERWISE.
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
EWC	ELECTRIC WATER COOLER, PROVIDE GFI PROTECTION
E	EXISTING DEVICE TO REMAIN.
N	NEW DEVICE TO BE INSTALLED
H	MOUNT DEVICE 6" AFF, HORIZONTALLY.
TP	TAMPER-PROOF
SWD	SWITCH RATED BREAKERS
NL	NIGHTLIGHT WIRED FIXTURE

PANEL 05-NL1

VOLTAGE (L-N):	120		ENCLOSURE TYPE:	NEMA1	
VOLTAGE (L-L):	208		MOUNTING:	SURFACE	
PHASES, WIRES:	3 ϕ 4 W		AIC RATING (A):	10000	
MINIMUM BUS CAPACITY (A):	100 A		NOTES:	FULLY RATED	
MAIN O.C. DEVICE (A):	50 A				

CKT NO	DESCRIPTION	TRIP AMPS	POLE	PHASE LOADS (VA) A		B		C		POLE	TRIP AMPS	DESCRIPTION	CKT NO
1	EXISTING- RECEPTACLE	20	1	360	0					1	20	SPARE	2
3	EXISTING- IT RACK	20	1			1000	0			1	20	SPARE	4
5	EXISTING- FAN	20	1					0	787	1	20	METER [34]	6
7	LIGHTS	20	1	54	1667					3	20	HEATER	8,10,12
9	GFI RECEPTACLE	20	1			180	1667			3	20	HEATER	8,10,12
11	PANEL RECEP AND PLC	20	1					180	1667	3	20	HEATER	8,10,12
13	----	20	1	0	0					1	20	----	14
15	----	20	1			0	0			1	20	----	16
17	----	20	1					0	0	1	20	----	18
19	----	20	1	0	0					1	20	----	20
21,23	PUMP [21] 1.5HP	20	2			1144	1144			2	20	PUMP [21] 1.5HP	22,24
21,23	PUMP [21] 1.5HP	20	2					1144	1144	2	20	PUMP [21] 1.5HP	22,24
				CONNECTED LOAD PHASE TOTALS (VA)									
				2081		5135		4922					

	CONNECTED LOAD (KVA)	DEMAND FACTOR	DEMAND LOAD (KVA)
Heating	5.0	1.00	5.0
Lighting	0.1	1.25	0.1
Motors	3.0	1.00	3.0
Motors (Largest)	2.3	1.25	2.9
Receptacles (0 - 10 KVA)	0.7	1.00	0.7
Standard	1.1	1.00	1.1
TOTAL:	12.1		12.7
LOAD (AMPS):	33.7		35.3

DEMAND LOAD	12.7 KVA
SPARE CAPACITY	23.3 KVA
SPARE CAPACITY	64.7 AMPS
SPARE CAPACITY	65 %
PHASE BALANCE	
A TO B	41%
B TO C	96%
C TO A	42%

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ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC) 2014 AND ALL OTHER APPLICABLE LOCAL CODES AND ORDINANCES. ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS.

USE OF DRAWINGS: DO NOT SCALE FROM THE ELECTRICAL DRAWINGS. FOR EXACT LOCATIONS USE ARCHITECT'S DIMENSIONED DRAWINGS, SHOP DRAWINGS AND FIELD MEASUREMENTS. VERIFY ALL LOCATIONS WITH THE ARCHITECT PRIOR TO ELECTRICAL ROUGH-IN.

WIRING METHODS: ALL WIRING FOR LIGHTING AND POWER SYSTEMS WILL BE IN CONDUIT OR CABLE ASSEMBLIES APPROVED BY THE GOVERNING AUTHORITIES. ALL EXPOSED CABLING SHALL BE IN CONDUIT. CONDUCTOR SIZES SHOWN ARE BASED ON AMPACITIES FOR COPPER CONDUCTORS, UNLESS OTHERWISE NOTED. WHEN APPROVED BY ENGINEER, FEEDERS MAY BE ALUMINUM. CONDUCTORS OF EQUIVALENT AMPACITIES.
GROUNDING CONDUCTORS SHALL BE PROVIDED FOR ALL CIRCUITS SHOWN ON THE DRAWINGS. PROVIDE BLOCKING AND OTHER NECESSARY SUPPORTS IN WALLS AND CEILINGS FOR MATERIAL AND EQUIPMENT TO BE PROVIDED. BRANCH CIRCUIT NUMBERS SHOWN ON THE DRAWINGS MAY BE REARRANGED WITHIN A GIVEN PANELBOARD TO SUIT THE NEEDS OF THE INSTALLATION. ELECTRICAL BRANCH CIRCUITS SHALL BE BALANCED BETWEEN LINES AND PHASES. MULTIWIRE BRANCH CIRCUITS SHALL HAVE A MEANS TO SIMULTANEOUSLY DISCONNECT ALL UNDERGROUNDED CONDUCTORS AT THE POINT WHERE BRANCH CIRCUITS ORIGINATE (HANDLE TIES ARE AN APPROVED MEANS).
THE GROUNDED AND UNDERGROUNDED CONDUCTOR OF EACH MULTIWIRE BRANCH CIRCUIT SHALL BE GROUPED BY WIRE TIES AT ONE LOCATION IN PANELBOARD. ALL PATIENT CARE AREAS SHALL COMPLY WITH NEC 517.13(A)(B) TO INCLUDE LUMINAIRES AND NEC 250.118, CAN NOT BE IN PVC.

UTILITY COORDINATION: PROVIDE ALL COORDINATION WITH THE UTILITY INCLUDING LOAD DATA FORMS AND APPLICATION FOR SERVICE AS APPLICABLE. INSTALLATION OF SERVICE, PRIMARY OR SECONDARY FEEDERS AND METERING SHALL BE PERFORMED IN ACCORDANCE WITH THE UTILITIY REQUIREMENTS.

GROUNDING: PROVIDE A COMPLETE GROUNDING SYSTEM AS REQUIRED BY THE NEC AND LOCAL AUTHORITIES HAVING JURISDICTION. ALL BRANCH CIRCUITS SHALL INCLUDE A GROUND CONDUCTOR. USE OF RACEWAY FOR GROUNDING IS NOT PERMITTED. GALVANIZED GROUND RODS ARE NOT PERMITTED.

PANELBOARDS: PROVIDE MINIMUM INTEGRATED EQUIPMENT SHORT CIRCUIT RATING AS INDICATED ON PANEL SCHEDULES. PROVIDE BOLT-ON BREAKERS UNLESS OTHERWISE NOTED. PROVIDE CIRCUIT BREAKERS SHOWN ON THE PANELBOARD SCHEDULES. ALL TERMINATIONS AND LUGS SHALL BE RATED FOR 75-DEGREE CONDUCTORS.
PROVIDE TYPEWRITTEN CIRCUIT SCHEDULES TO IDENTIFY PANELBOARD AND EACH BRANCH BREAKER.
ACCEPTABLE MANUFACTURERS ARE SQUARE D, SIEMENS AND EATON.

WIRING DEVICES: PROVIDE SPECIFICATION GRADE 15 AND 20- AMPERE SWITCH AND RECEPTACLE DEVICES, AS APPLICABLE. OTHER DEVICES SHALL BE PROVIDED AS INDICATED AND SHALL MATCH PLUG-CONNECTED EQUIPMENT FURNISHED FOR THE PROJECT. DEVICE WALL PLATES SHALL BE SMOOTH, NYLON TYPE AND SHALL BE OFFICE WHITE IN COLOR OR AS OTHERWISE SPECIFIED. DEVICE COLOR SHALL MATCH WALL PLATES. RECEPTACLES IN PATIENT CARE AREAS MUST BE HOSPITAL GRADE.

DISCONNECT SWITCHES: HEAVY DUTY QUICK-MAKE, QUICK-BREAK TYPE, NON-FUSED UNLESS OTHERWISE NOTED. PROVIDE MEANS TO LOCK SWITCH IN OFF POSITION WITH PAD-LOCK. ENCLOSURES SHALL BE NEMA TYPE 1 OR NEMA TYPE 3R FOR OUTDOOR INSTALLATION. PROVIDE PERMANENT LABELS FOR DISCONNECTS TO INDICATE EQUIMENT SERVED.

LIGHTING FIXTURES: SEE LIGHT FIXTURE SCHEDULE. PROVIDE ALL FIXTURES WITH LAMPS AS INDICATED. WHERE REQUIRED, FIXTURES SHALL BE WET OR DAMP LOCATION LABELED. VERIFY MOUNTING HEIGHTS PRIOR TO ELECTRICAL ROUGH-IN. PROVIDE ALL REQUIRED MOUNTING ACCESSORIES REQUIRED FOR PROPER MOUNTING TO SURFACES SUCH ACCESSORIES TO INCLUDE BUT NOT LIMITED TO SLOPE ADAPTORS. CANOPIES, AND VAULTED CEILING CANOPIES, ETC.
PROVIDE DISCONNECTING MEANS FOR LUMINAIRES THAT UTILIZE DOUBLE-ENDED LAMPS AND BALLASTS(S) IN ACCORDANCE WITH NEC 410.130(G)(1). ALTERNATES NOT ACCEPTABLE UNLESS NOTED AS "OR EQUAL" ON LIGHT FIXTURE SCHEDULE.

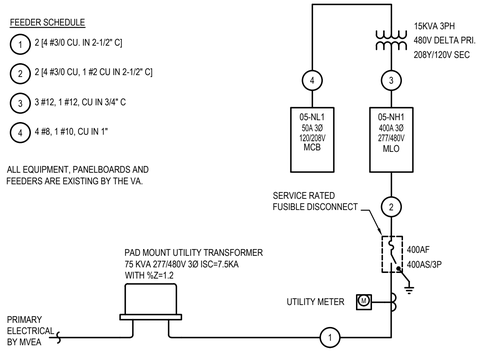
VOICE/DATA: RACEWAY SYSTEM BY CONTRACTOR. ALL RACEWAYS SHALL BE PROVIDED WITH PULLSTRINGS OF MINIMUM OF 400-LB. TEST STRENGTH. ALL EQUIPMENT, RECEPTACLES AND CABLING BY OTHERS. PROVIDE BLANK COVERS OVER ALL UNUSED OUTLETS. CABLES, DEVICES AND CABLE TERMINATION IS BY OTHERS.

FIRE ALARM: DESIGN BUILD CONTRACTOR TO PROVIDE AS REQUIRED PER FIRE AND LOCAL CODES.

FEEDER SCHEDULE

1. 2 [4 #3/0 CU. IN 2-1/2" C]
2. 2 [4 #3/0 CU, 1 #2 CU IN 2-1/2" C]
3. 3 #12, 1 #12, CU IN 3/4" C
4. 4 #8, 1 #10, CU IN 1"

ALL EQUIPMENT, PANELBOARDS AND FEEDERS ARE EXISTING BY THE VA.



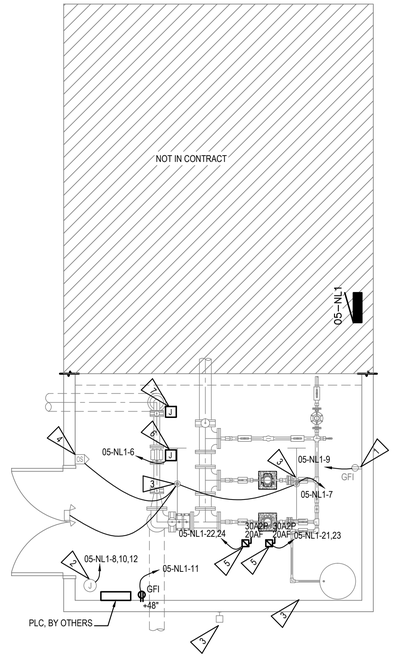
ONE-LINE DIAGRAM
SCALE: NTS

SHEET NOTES:

1. VA SHALL PROVIDE LIGHTING AND DEVICES AS SHOWN.
2. ALL NEW WORK BY ELECTRICIAN UNDER WIDEFIELD WATER CONTRACT. CONNECT ALL NEW DEVICES AND EQUIPMENT TO EXISTING PANEL 05-NL1 PROVIDED BY THE VA.

FLAG NOTES:

1. EXISTING DEVICE BY VA.
2. EXISTING CONNECTION FOR HEATER BY VA.
3. EXISTING LIGHT BY VA.
4. EXISTING SWITCH BY VA.
5. PROVIDE FUSIBLE DISCONNECT FOR 1.5HP PUMP, ITEM 21. MOUNT AS REQUIRED TO MEET NEC WORKING CLEARANCES.
6. 120V CONNECTION FOR METER, ITEM 34.
7. 24V CONNECTION FOR SHUT-OFF VALVE, ITEM 37



ELECTRICAL FLOOR PLAN
SCALE: 1/4"=1'-0"

Chavez Tiffany & Ayers Engineering Corporation
119 West Cucharras Street
Colorado Springs, Colorado 80903
P (719)636-0021

COLORADO LICENSED JOSHUA J. AYERS 45886 PROFESSIONAL ENGINEER

JDS-HYDRO CONSULTANTS, INC.
545 East Pikes Peak Avenue, Suite 300
Colorado Springs, Colorado 80903
(719) 227-0072

WIDEFIELD WATER AND SANITATION DISTRICT
VA PPNC WATER DELIVERY SYSTEM
VA PUMP STATION
ELECTRICAL PLAN

Project No.:	102.106
Scale:	AS NOTED
Date:	12/06/2017
Design:	JJA
Drawn:	JJA
Check:	JJA
Revised:	

E1

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2017/12/19 2:44 PM By: Josh Ayers

SYMBOL	DESCRIPTION
	LIGHT FIXTURES
	RECESSED FLUORESCENT LIGHT FIXTURE, WITH TYPE NOTED IN PLAN. SEE FIXTURE SCHEDULE FOR DETAILS.
	SURFACE FLUORESCENT LIGHT FIXTURE, WITH TYPE NOTED IN PLAN. SEE FIXTURE SCHEDULE FOR DETAILS.
	FLUORESCENT STRIP LIGHT FIXTURE, WITH TYPE NOTED IN PLAN. SEE FIXTURE SCHEDULE FOR DETAILS.
	WALL BRACKET FLUORESCENT LIGHT FIXTURE, WITH TYPE NOTED IN PLAN. SEE FIXTURE SCHEDULE FOR DETAILS.
	WALL MOUNTED LIGHT FIXTURE, WITH TYPE NOTED IN PLAN. SEE FIXTURE SCHEDULE FOR DETAILS.
	RECESSED CEILING MOUNTED DOWNLIGHT, WITH TYPE NOTED IN PLAN. SEE FIXTURE SCHEDULE FOR DETAILS.
	SURFACE MOUNTED CEILING DOWNLIGHT, WITH TYPE NOTED IN PLAN. SEE FIXTURE SCHEDULE FOR DETAILS.
	PENDANT FIXTURE, WITH TYPE NOTED IN PLAN. SEE FIXTURE SCHEDULE FOR DETAILS.
	TRACK HEAD FIXTURE, WITH TYPE NOTED IN PLAN. SEE FIXTURE SCHEDULE FOR DETAILS.
	SPOTLIGHT FIXTURE, WITH TYPE NOTED IN PLAN. SEE FIXTURE SCHEDULE FOR DETAILS.
	BOLLARD OR POST LIGHT, WITH TYPE NOTED IN PLAN. SEE FIXTURE SCHEDULE FOR DETAILS.
	PARKING LOT POLE LIGHT, WITH TYPE NOTED IN PLAN. SEE FIXTURE SCHEDULE FOR DETAILS.
	LIGHT FIXTURE WITH EMERGENECY BALLAST, WITH TYPE NOTED IN PLAN. SEE FIXTURE SCHEDULE FOR DETAILS.
	EMERGECY LIGHT, WITH TYPE NOTED IN PLAN. SEE FIXTURE SCHEDULE FOR DETAILS.
	EXIT SIGN, WITH TYPE NOTED IN PLAN, SEE PLAN FOR ARROWS AND FACE OF EXIT NEEDED. SEE FIXTURE SCHEDULE FOR DETAILS.
	SWITCHES
S	TOGGLE SWITCH, 20A, SINGLE POLE, VOLTAGE AS REQUIRED. MOUNTED AT 48" ABOVE FINISHED FLOOR.
OS	OCCUPANCY SENSOR, WALL MTD., 48" AFF. SENSOR SWITCH WSD PDT, OR EQUAL
OS	OCCUPANCY SENSOR, CEILING MTD. SENSOR SWITCH CMR PDT OR EQUAL
PC	PHOTOCELL SWITCH, MOUNT ON NORTH FACING EXTERIOR WALL, UNO.
	SUBSCRIPTS FOR SWITCHES
3	THREE-WAY TOGGLE SWITCH
4	FOUR-WAY TOGGLE SWITCH
D	0 - 10 VOLT ELECTRONIC DIMMER SWITCH, 1000W, 120V LUTRON DIVA OR EQUAL, UNO. COORDINATE COMPATIBLE DIMMER WITH LIGHTING MANUFACTURER.
M	MANUAL MOTOR STARTER WITH THERMAL OVERLOAD
	RECEPTACLES
	DUPLEX RECEPTACLE, 20A, 120V, 3 WIRE GROUNDED, NEMA 5-20R, UNO., MOUNT 18" AFF.
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	FLOOR BOX DUPLEX RECEPTACLE, FLUSH MOUNTED, PROVIDE COVER AS REQUIRED.
	FLOOR BOX QUAD RECEPTACLE, FLUSH MOUNTED, PROVIDE COVER AS REQUIRED.
	SUBSCRIPTS FOR RECEPTACLES
C	CLOCK RECEPTACLE
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GFI	GROUND FAULT INTERRUPTER
WR	WEATHER RESISTANT WITH GROUND FAULT INTERRUPTER IN WEATHER PROOF BOX
OC	OVER COUNTER, MOUNT RECEPTACLE MOUNTED 6" ABOVE BACKSPLASH.
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USB	DUPLEX RECEPTACLE WITH TWO USB CHARGER PORTS (HUBBELL USB20X2W OR EQUAL)
	POWER SYMBOLS
	JUNCTION BOX, FLUSH/SURFACE MTD.
	POWER POLE WITH COMM AND POWER.
	MOTOR
	NON FUSIBLE DISCONNECT SWITCH, RATING AS INDICATED.
	FUSIBLE DISCONNECT SWITCH, RATING AS INDICATED.
	PANELBOARD/LOADCENTER.
	CEILING MOUNTED PAD FAN.

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	DATA OUTLET. WIRING BY OTHERS, UNO. MOUNT 18" AFF.
	DATA/TELEPHONE OUTLET, WIRING BY OTHERS UNO. MOUNT 18" AFF.
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H	HORN AND STROBE
H	STROBE ONLY
F	MANUAL PULL STATION
S	SMOKE DETECTOR
H	HEAT DETECTOR
D	DUCT SMOKE DETECTOR
	MAGNETIC DOOR HOLD OPEN
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FACP	FIRE ALARM CONTROL PANEL
FA	ANNUNCIATION PANEL
	ONE-LINE SYMBOLS
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	NON-FUSIBLE SWITCH, RATING AS INDICATED.
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	UTILITY TRANSFORMER
	UTILITY ELECTRIC METER
	MOTOR WITH DISCONNECT
	MOTOR WITH CONTROLLER AND DISCONNECT
G	GENERATOR
	TRANSFER SWITCH
	WEATHERHEAD
40 AMPS N.O.	PANELBOARD OR LOADCENTER, IDENTIFICATION, AMPERES AND VOLTAGE.
	ABBREVIATIONS
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TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
EWC	ELECTRIC WATER COOLER, PROVIDE GFI PROTECTION
E	EXISTING DEVICE TO REMAIN.
N	NEW DEVICE TO BE INSTALLED
H	MOUNT DEVICE 6" AFF, HORIZONTALLY.
TP	TAMPER-PROOF
SWD	SWITCH RATED BREAKERS
NL	NIGHTLIGHT WIRED FIXTURE

PANEL RHPS

VOLTAGE (L–N):	120	ENCLOSURE TYPE:	NEMA1
VOLTAGE (L–L):	208	MOUNTING:	SURFACE
PHASES, WIRES:	3 Ø 4 W	AIC RATING (A):	10000
MINIMUM BUS CAPACITY (A):	25 A	NOTES:	FULLY RATED
MAIN O.C. DEVICE (A):	25 A		

CKT NO	DESCRIPTION	TRIP AMPS	POLE	PHASE LOADS (VA) A		B		C	POLE	TRIP AMPS	DESCRIPTION	CKT NO
1	HEATER	20	1	200	60				1	20	EXHAUST FAN	2
3	UTILITY RECEPTACLE	20	1			180	180		1	20	PLC	4
				CONNECTED LOAD PHASE TOTALS (VA)								
				260		360		0				

	CONNECTED LOAD (KVA)	DEMAND FACTOR	DEMAND LOAD (KVA)
Heating	0.2	1.00	0.2
Motors	0.0	1.00	0.0
Motors (Largest)	0.1	1.25	0.1
Receptacles (0 – 10 KVA)	0.4	1.00	0.4
TOTAL:	0.6		0.6
LOAD (AMPS):	1.7		1.8

DEMAND LOAD	0.6 KVA
SPARE CAPACITY	8.4 KVA
SPARE CAPACITY	23.2 AMPS
SPARE CAPACITY	93 %
PHASE BALANCE	
A TO B	72 %
B TO C	0 %
C TO A	0 %

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USE OF DRAWINGS: DO NOT SCALE FROM THE ELECTRICAL DRAWINGS. FOR EXACT LOCATIONS USE ARCHITECT'S DIMENSIONED DRAWINGS, SHOP DRAWINGS AND FIELD MEASUREMENTS. VERIFY ALL LOCATIONS WITH THE ARCHITECT PRIOR TO ELECTRICAL ROUGH-IN.

WIRING METHODS: ALL WIRING FOR LIGHTING AND POWER SYSTEMS WILL BE IN CONDUIT OR CABLE ASSEMBLIES APPROVED BY THE GOVERNING AUTHORITIES. ALL EXPOSED CABLING SHALL BE IN CONDUIT. CONDUCTOR SIZES SHOWN ARE BASED ON AMPACITIES FOR COPPER CONDUCTORS, UNLESS OTHERWISE NOTED. WHEN APPROVED BY ENGINEER, FEEDERS MAY BE ALUMINUM. CONDUCTORS OF EQUIVALENT AMPACITIES.
GROUNDING CONDUCTORS SHALL BE PROVIDED FOR ALL CIRCUITS SHOWN ON THE DRAWINGS. PROVIDE BLOCKING AND OTHER NECESSARY SUPPORTS IN WALLS AND CEILINGS FOR MATERIAL AND EQUIPMENT TO BE PROVIDED. BRANCH CIRCUIT NUMBERS SHOWN ON THE DRAWINGS MAY BE REARRANGED WITHIN A GIVEN PANELBOARD TO SUIT THE NEEDS OF THE INSTALLATION. ELECTRICAL BRANCH CIRCUITS SHALL BE BALANCED BETWEEN LINES AND PHASES. MULTIWIRE BRANCH CIRCUITS SHALL HAVE A MEANS TO SIMULTANEOUSLY DISCONNECT ALL UNDERGROUNDED CONDUCTORS AT THE POINT WHERE BRANCH CIRCUITS ORIGINATE (HANDLE TIES ARE AN APPROVED MEANS).
THE GROUNDED AND UNDERGROUNDED CONDUCTOR OF EACH MULTIWIRE BRANCH CIRCUIT SHALL BE GROUPED BY WIRE TIES AT ONE LOCATION IN PANELBOARD. ALL PATIENT CARE AREAS SHALL COMPLY WITH NEC 517.13(A)(B) TO INCLUDE LUMINAIRES AND NEC 250.118, CAN NOT BE IN PVC.

UTILITY COORDINATION: PROVIDE ALL COORDINATION WITH THE UTILITY INCLUDING LOAD DATA FORMS AND APPLICATION FOR SERVICE AS APPLICABLE. INSTALLATION OF SERVICE, PRIMARY OR SECONDARY FEEDERS AND METERING SHALL BE PERFORMED IN ACCORDANCE WITH THE UTILITY REQUIREMENTS.

GROUNDING: PROVIDE A COMPLETE GROUNDING SYSTEM AS REQUIRED BY THE NEC AND LOCAL AUTHORITIES HAVING JURISDICTION. ALL BRANCH CIRCUITS SHALL INCLUDE A GROUND CONDUCTOR. USE OF RACEWAY FOR GROUNDING IS NOT PERMITTED. GALVANIZED GROUND RODS ARE NOT PERMITTED.

PANELBOARDS: PROVIDE MINIMUM INTEGRATED EQUIPMENT SHORT CIRCUIT RATING AS INDICATED ON PANEL SCHEDULES. PROVIDE BOLT-ON BREAKERS UNLESS OTHERWISE NOTED. PROVIDE CIRCUIT BREAKERS SHOWN ON THE PANELBOARD SCHEDULES. ALL TERMINATIONS AND LUGS SHALL BE RATED FOR 75-DEGREE CONDUCTORS.
PROVIDE TYPEWRITTEN CIRCUIT SCHEDULES TO IDENTIFY PANELBOARD AND EACH BRANCH BREAKER.
ACCEPTABLE MANUFACTURERS ARE SQUARE D, SIEMENS AND EATON.

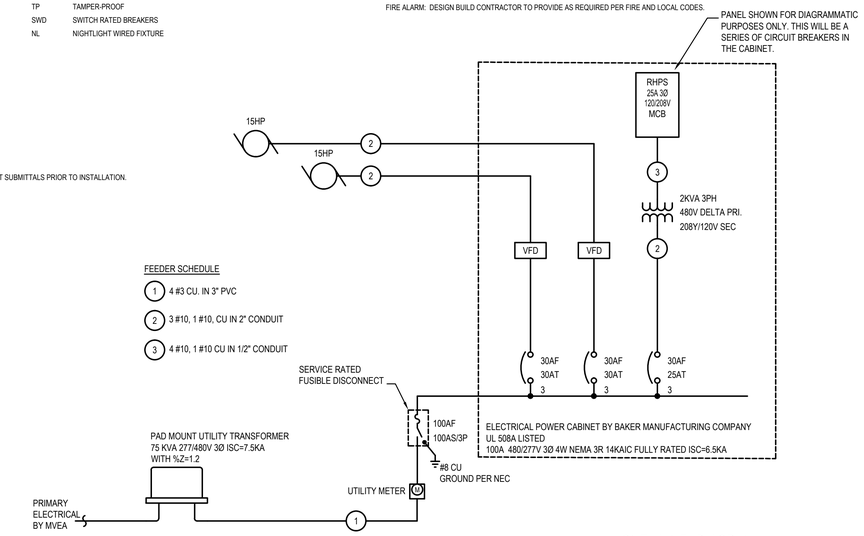
WIRING DEVICES: PROVIDE SPECIFICATION GRADE 15 AND 20- AMPERE SWITCH AND RECEPTACLE DEVICES, AS APPLICABLE. OTHER DEVICES SHALL BE PROVIDED AS INDICATED AND SHALL MATCH PLUG-CONNECTED EQUIPMENT FURNISHED FOR THE PROJECT. DEVICE WALL PLATES SHALL BE SMOOTH, NYLON TYPE AND SHALL BE OFFICE WHITE IN COLOR OR AS OTHERWISE SPECIFIED. DEVICE COLOR SHALL MATCH WALL PLATES. RECEPTACLES IN PATIENT CARE AREAS MUST BE HOSPITAL GRADE.

DISCONNECT SWITCHES: HEAVY DUTY QUICK-MAKE, QUICK-BREAK TYPE, NON-FUSED UNLESS OTHERWISE NOTED. PROVIDE MEANS TO LOCK SWITCH IN OFF POSITION WITH PAD-LOCK. ENCLOSURES SHALL BE NEMA TYPE 1 OR NEMA TYPE 3R FOR OUTDOOR INSTALLATION. PROVIDE PERMANENT LABELS FOR DISCONNECTS TO INDICATE EQUIMENT SERVED.

LIGHTING FIXTURES: SEE LIGHT FIXTURE SCHEDULE. PROVIDE ALL FIXTURES WITH LAMPS AS INDICATED. WHERE REQUIRED, FIXTURES SHALL BE WET OR DAMP LOCATION LABELED. VERIFY MOUNTING HEIGHTS PRIOR TO ELECTRICAL ROUGH-IN. PROVIDE ALL REQUIRED MOUNTING ACCESSORIES REQUIRED FOR PROPER MOUNTING TO SURFACES SUCH ACCESSORIES TO INCLUDE BUT NOT LIMITED TO SLOPE ADAPTORS. CANOPIES, AND VAULTED CEILING CANOPIES, ETC.
PROVIDE DISCONNECTING MEANS FOR LUMINAIRES THAT UTILIZE DOUBLE-ENDED LAMPS AND BALLASTS(S) IN ACCORDANCE WITH NEC 410.130(G)(1). ALTERNATES NOT ACCEPTABLE UNLESS NOTED AS "OR EQUAL" ON LIGHT FIXTURE SCHEDULE.

VOICE/DATA: RACEWAY SYSTEM BY CONTRACTOR. ALL RACEWAYS SHALL BE PROVIDED WITH PULLSTRINGS OF MINIMUM OF 400-LB. TEST STRENGTH. ALL EQUIPMENT, RECEPTACLES AND CABLING BY OTHERS. PROVIDE BLANK COVERS OVER ALL UNUSED OUTLETS. CABLES, DEVICES AND CABLE TERMINATION IS BY OTHERS.

FIRE ALARM: DESIGN BUILD CONTRACTOR TO PROVIDE AS REQUIRED PER FIRE AND LOCAL CODES.



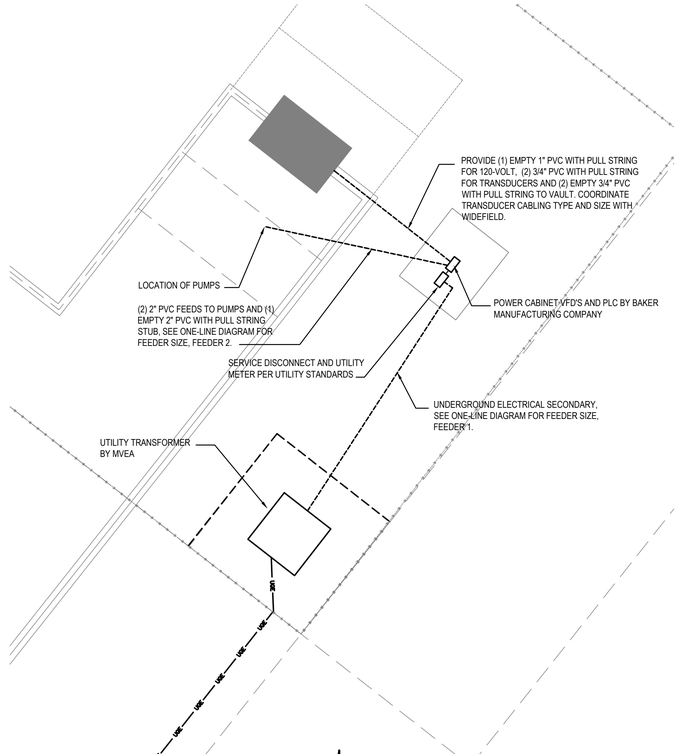
FEEDER SCHEDULE

1. 4 #3 CU. IN 3" PVC
2. 3 #10, 1 #10, CU IN 2" CONDUIT
3. 4 #10, 1 #10 CU IN 1/2" CONDUIT

ONE–LINE DIAGRAM
SCALE: NTS

SHEET NOTES:

1. ELECTRICAL CONTRACTOR SHALL REFER TO WIRING DIAGRAMS PROVIDED BY BAKER MANUFACTURING COMPANY.
2. PROVIDE ROUND JACKETED THW/PVC SUBMERSIBLE PUMP CABLE FOR ALL PUMP RUNS.
3. ELECTRICAL CONTRACTOR SHALL MAKE ALL SPLICES AT PUMP FACTORY LEAD SO THAT LEAD IS SUBMERSED. MAKE ALL SUBMERSIBLE SPLICES USING SUBMERSIBLE SPLICE CONNECTORS.
4. PANEL SCHEDULE IS FOR LOAD INFORMATION ONLY. ALL CIRCUIT BREAKERS AND TRANSFORMER RESIDE IN POWER CABINET.



ELECTRICAL SITE PLAN
SCALE: 1"=10'–0"

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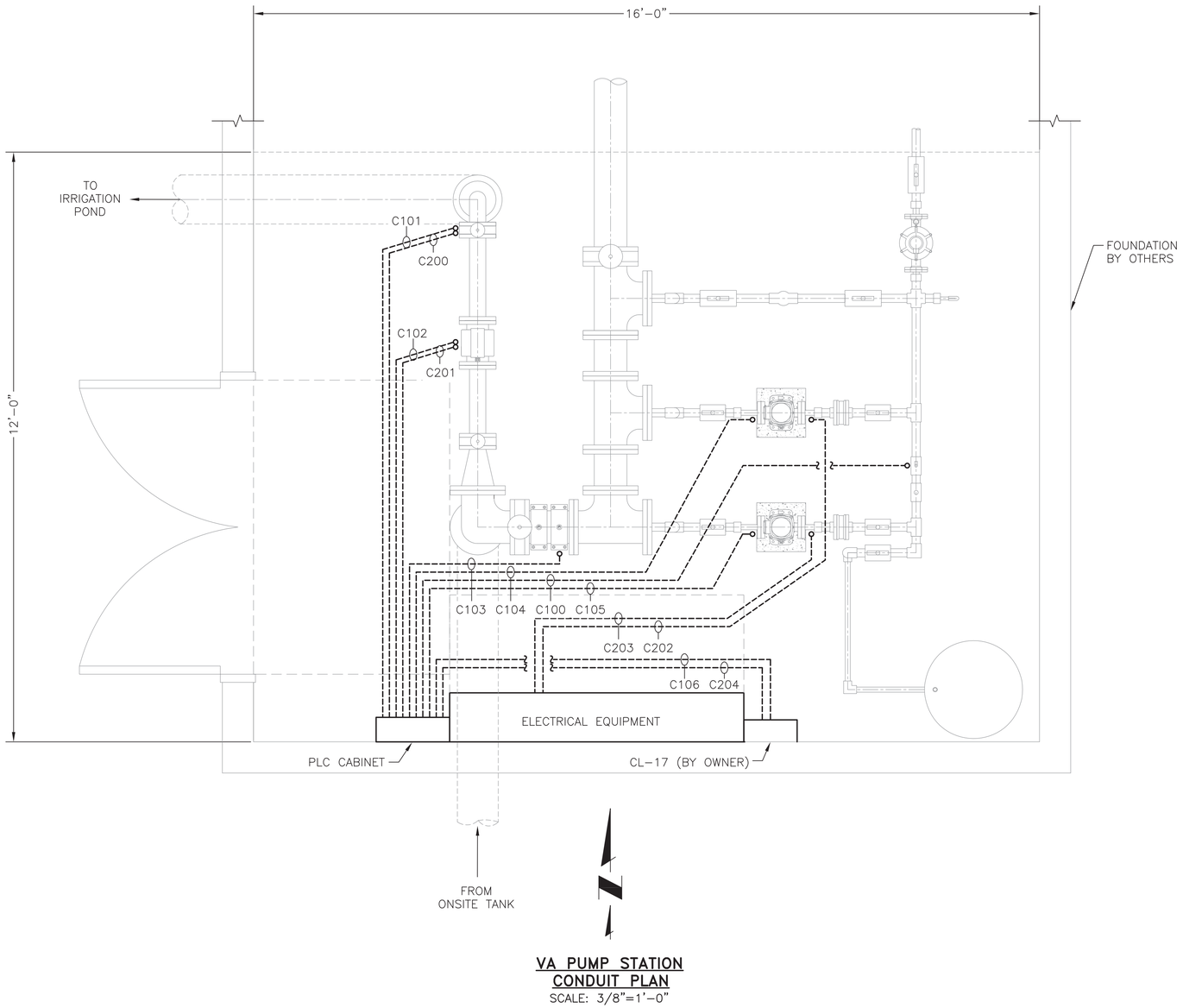
WIDEFIELD WATER AND SANITATION DISTRICT
VA PPNC WATER DELIVERY SYSTEM
RHBPS
ELECTRICAL PLAN

Project No.:	102.106
Scale:	AS NOTED
Date:	11/22/2017
Design:	JJA
Drawn:	JJA
Check:	JJA
Revised:	

E2

NOTES:
1. REFER TO AES GROUP BUILDING PLANS FOR ARCHITECTURAL AND STRUCTURAL INFORMATION. PIPE PENETRATIONS SHOWN HEREIN ARE APPROXIMATE. COORDINATE ALL PIPE PENETRATION LOCATIONS WITH WWSD PRIOR TO INSTALLATION.
2. BUILDING SOURCE FILE BY AES GROUP (2017).



VA PUMP STATION CONDUIT PLAN
SCALE: 3/8"=1'-0"

CONDUIT SCHEDULE		
CONDUIT ID	SIZE	EQUIPMENT CONNECTED
C100	1/2"	PRESSURE TRANSMITTER
C101	1/2"	CONTROL VALVE TO IRRIGATION POND
C102	1/2"	IRRIGATION METER – CONTROLS
C103	1/2"	PRESSURE TRANSMITTER
C104	3/4"	PUMP MOTOR
C105	3/4"	PUMP MOTOR
C106	1/2"	CL-17 CONTROLS
C200	3/4"	POWER 120V CONTROL VALVE
C201	3/4"	POWER 120V 4" METER
C202	1"	PUMP POWER
C203	1"	PUMP POWER
C204	1/2"	CL-17 POWER

WORK BY OTHERS

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WIDEFIELD WATER AND SANITATION DISTRICT
VA PPNC WATER DELIVERY SYSTEM
CONDUIT PLAN

Project No.:	102.106
Scale:	AS SHOWN
Date:	12/04/17
Design:	GJD
Drawn:	ACH
Check:	JPM
Revised:	

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12/19/17
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E3