

VOLLMER RV STORAGE

SECTION 34, TOWNSHIP 12 SOUTH AND RANGE 65 WEST OF THE 6TH PRINCIPAL MERIDIAN
 COUNTY OF EL PASO
 STATE OF COLORADO



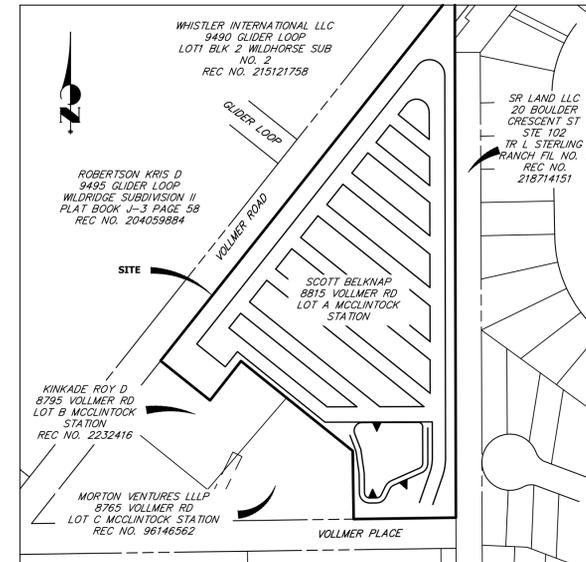
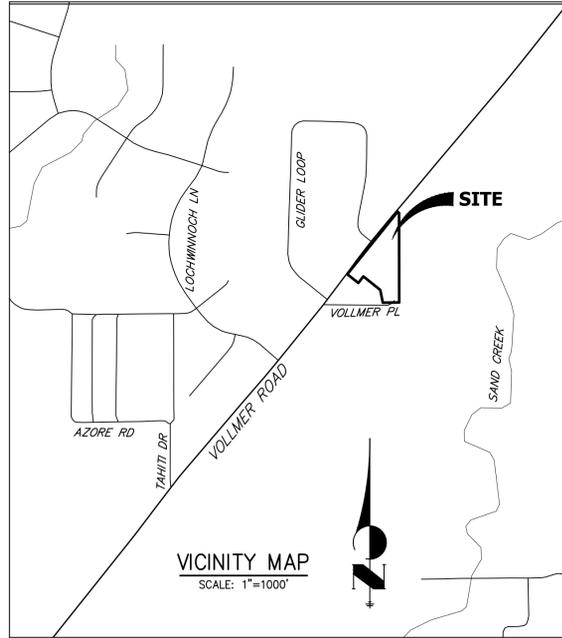
Know what's below.
 Call before you dig.

GRADING AND EROSION CONTROL STANDARD NOTES

- 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.
- 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 FROM REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING.
- A SEPARATE STORMWATER MANAGEMENT PLAN (SMWP) FOR THIS PROJECT SHALL BE COMPLETED AND AN EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP) ISSUED PRIOR TO COMMENCING CONSTRUCTION. MANAGEMENT OF THE SWMP DURING CONSTRUCTION IS THE RESPONSIBILITY OF THE DESIGNATED QUALIFIED STORMWATER MANAGER OR CERTIFIED EROSION CONTROL INSPECTOR. THE SWMP SHALL BE LOCATED ON SITE AT ALL TIMES DURING CONSTRUCTION AND SHALL BE KEPT UP TO DATE WITH WORK PROGRESS AND CHANGES IN THE FIELD.
- ONCE THE ESQCP IS APPROVED AND A 'NOTICE TO PROCEED' HAS BEEN ISSUED, THE CONTRACTOR MAY INSTALL THE INITIAL STAGE EROSION AND SEDIMENT CONTROL MEASURES AS INDICATED ON THE APPROVED 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 STAFF.
- CONTROL MEASURES MUST BE INSTALLED PRIOR TO COMMENCEMENT OF ACTIVITIES THAT COULD CONTRIBUTE POLLUTANTS TO STORMWATER. CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, AND DISTURBED LAND AREAS SHALL BE INSTALLED IMMEDIATELY UPON COMPLETION OF THE DISTURBANCE.
- ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE MAINTAINED AND REMAIN IN EFFECTIVE OPERATING CONDITION UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED AND FINAL STABILIZATION IS ESTABLISHED. ALL PERSONS ENGAGED IN LAND DISTURBANCE ACTIVITIES SHALL ASSESS THE ADEQUACY OF CONTROL MEASURES AT THE SITE AND IDENTIFY IF CHANGES TO THOSE CONTROL MEASURES ARE NEEDED TO ENSURE THE CONTINUED EFFECTIVE PERFORMANCE OF THE CONTROL MEASURES. ALL CHANGES TO TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES MUST BE INCORPORATED INTO THE STORMWATER MANAGEMENT PLAN.
- TEMPORARY STABILIZATION SHALL BE IMPLEMENTED ON DISTURBED AREAS AND STOCKPILES WHERE GROUND DISTURBING CONSTRUCTION ACTIVITY HAS PERMANENTLY CEASED OR TEMPORARILY CEASED FOR LONGER THAN 14 DAYS.
- FINAL STABILIZATION MUST BE IMPLEMENTED AT ALL APPLICABLE CONSTRUCTION SITES. FINAL STABILIZATION IS ACHIEVED WHEN ALL GROUND DISTURBING ACTIVITIES ARE COMPLETE AND ALL DISTURBED AREAS EITHER HAVE A UNIFORM VEGETATIVE COVER WITH INDIVIDUAL PLANT DENSITY OF 70 PERCENT OF PRE-DISTURBANCE LEVELS ESTABLISHED OR EQUIVALENT PERMANENT ALTERNATIVE STABILIZATION METHOD IS IMPLEMENTED. ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE REMOVED UPON FINAL STABILIZATION AND BEFORE PERMIT CLOSURE.
- ALL PERMANENT STORMWATER MANAGEMENT FACILITIES SHALL BE INSTALLED AS DESIGNED IN THE APPROVED PLANS. ANY PROPOSED CHANGES THAT AFFECT THE DESIGN OR FUNCTION OF PERMANENT STORMWATER MANAGEMENT STRUCTURES MUST BE APPROVED BY THE ECM ADMINISTRATOR PRIOR TO IMPLEMENTATION.
- EARTH DISTURBANCES SHALL BE CONDUCTED IN SUCH A MANNER SO AS TO EFFECTIVELY MINIMIZE 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. PRE-EXISTING VEGETATION SHALL BE PROTECTED AND MAINTAINED WITHIN 50 HORIZONTAL FEET OF A WATERS OF THE STATE UNLESS SHOWN TO BE INFEASIBLE AND SPECIFICALLY REQUESTED AND APPROVED.
- COMPACTION OF SOIL MUST BE PREVENTED IN AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES OR WHERE FINAL STABILIZATION WILL BE ACHIEVED BY VEGETATIVE COVER. AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES SHALL ALSO BE PROTECTED FROM SEDIMENTATION DURING CONSTRUCTION UNTIL FINAL STABILIZATION IS ACHIEVED. IF COMPACTION PREVENTION IS NOT FEASIBLE DUE TO SITE CONSTRAINTS, ALL AREAS DESIGNATED FOR INFILTRATION AND VEGETATION CONTROL MEASURES MUST BE LOOSENEED PRIOR TO INSTALLATION OF THE CONTROL MEASURE(S).
- ANY TEMPORARY OR PERMANENT FACILITY DESIGNED AND CONSTRUCTED FOR THE CONVEYANCE OF STORMWATER AROUND, THROUGH, OR FROM THE EARTH DISTURBANCE AREA SHALL BE A STABILIZED CONVEYANCE DESIGNED TO MINIMIZE EROSION AND THE DISCHARGE OF SEDIMENT OFF SITE.
- CONCRETE WASH WATER SHALL BE CONTAINED AND DISPOSED OF IN ACCORDANCE WITH THE SWMP. NO WASH WATER SHALL BE DISCHARGED TO OR ALLOWED TO ENTER STATE WATERS, INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES. CONCRETE WASHOUTS SHALL NOT BE LOCATED IN AN AREA WHERE SHALLOW GROUNDWATER MAY BE PRESENT, OR WITHIN 50 FEET OF A SURFACE WATER BODY, CREEK OR STREAM.
- DURING DEWATERING OPERATIONS OF UNCONTAMINATED GROUND WATER MAY BE DISCHARGED ON SITE, BUT SHALL NOT LEAVE THE SITE IN THE FORM OF SURFACE RUNOFF UNLESS AN APPROVED STATE DEWATERING PERMIT IS IN PLACE.
- EROSION CONTROL BLANKETING OR OTHER PROTECTIVE COVERING SHALL BE USED ON SLOPES STEEPER THAN 3:1.
- 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.
- 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. CONTROL MEASURES MAY BE REQUIRED BY EL PASO COUNTY ENGINEERING IF DEEMED NECESSARY, BASED ON SPECIFIC CONDITIONS AND CIRCUMSTANCES.
- TRACKING OF SOILS AND CONSTRUCTION DEBRIS OFF-SITE SHALL BE MINIMIZED. MATERIALS TRACKED OFF-SITE SHALL BE CLEANED UP AND PROPERLY DISPOSED OF IMMEDIATELY.
- THE OWNER/DEVELOPER SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL CONSTRUCTION DEBRIS, DIRT, TRASH, ROCK, SEDIMENT, SOIL, AND SAND THAT MAY ACCUMULATE IN ROADS, STORM DRAINS AND OTHER DRAINAGE CONVEYANCE SYSTEMS AND STORMWATER APPURTENANCES AS A RESULT OF SITE DEVELOPMENT.
- 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.
- NO CHEMICAL(S) HAVING THE POTENTIAL TO BE RELEASED IN STORMWATER ARE TO BE STORED OR USED ONSITE UNLESS PERMISSION FOR THE USE OF SUCH CHEMICAL(S) IS GRANTED IN WRITING BY THE ECM ADMINISTRATOR. IN GRANTING APPROVAL FOR THE USE OF SUCH CHEMICAL(S), SPECIAL CONDITIONS AND MONITORING MAY BE REQUIRED.
- BULK STORAGE OF ALLOWED PETROLEUM PRODUCTS OR OTHER ALLOWED LIQUID CHEMICALS IN EXCESS OF 55 GALLONS SHALL REQUIRE ADEQUATE SECONDARY CONTAINMENT PROTECTION TO CONTAIN ALL SPILLS ONSITE AND TO PREVENT ANY SPILLED MATERIALS FROM ENTERING STATE WATERS, ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR OTHER FACILITIES.
- NO PERSON SHALL CAUSE THE IMPEDIMENT OF STORMWATER FLOW IN THE CURB AND GUTTER OR DITCH EXCEPT WITH APPROVED SEDIMENT CONTROL MEASURES.
- OWNER/DEVELOPER AND THEIR AGENTS 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 OF THE LAND DEVELOPMENT CODE, DCM VOLUME II AND THE ECM APPENDIX I. ALL APPROPRIATE PERMITS MUST BE OBTAINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION (1041, NPDES, FLOODPLAIN, 404(F), ETC.). IN THE EVENT OF CONFLICTS BETWEEN THESE REQUIREMENTS AND OTHER LAWS, RULES, OR REGULATIONS OF OTHER FEDERAL, STATE, LOCAL, OR COUNTY AGENCIES, THE MOST RESTRICTIVE LAWS, RULES, OR REGULATIONS SHALL APPLY.
- ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE ONLY AT APPROVED CONSTRUCTION ACCESS POINTS.
- PRIOR TO CONSTRUCTION THE PERMITTEE SHALL VERIFY THE LOCATION OF EXISTING UTILITIES.
- A WATER SOURCE SHALL BE AVAILABLE ON SITE DURING EARTHWORK OPERATIONS AND SHALL BE UTILIZED AS REQUIRED TO MINIMIZE DUST FROM EARTHWORK EQUIPMENT AND WIND.
- A SOILS AND GEOLOGY HAZARD LETTER HAS BEEN PREPARED BY JR ENGINEERING AND SHALL BE CONSIDERED A PART OF THESE PLANS.
- AT LEAST TEN (10) DAYS PRIOR TO THE ANTICIPATED START OF CONSTRUCTION, FOR PROJECTS THAT WILL DISTURB ONE (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

GRADING AND EROSION CONTROL PLAN



SITE MAP
 SCALE: 1"=150'

CONTACTS:

OWNER/DEVELOPER: BELKNAP VENTURES LLC
 ATTN: SCOTT BELKNAP
 3603 FIRST LIGHT DRIVE
 CASTLE ROCK, CO 80109
 P~(719) 322-3556

ENGINEER/SURVEYOR: JR ENGINEERING LLC
 ATTN: RYAN E. BURNS
 5475 TECH CENTER DRIVE, SUITE 235
 COLORADO SPRINGS, CO 80919
 P~(303) 267-6178

ELECTRIC DEPARTMENT: MOUNTAIN VIEW ELECTRIC
 1140 E. WOODMAN ROAD
 FALCON, CO 80831
 (719) 495-2283

SHEET INDEX:

1	-	COVER SHEET
2	-	LEGEND
3	-	EROSION CONTROL PLAN
4-5	-	STORM SEWER PLAN AND PROFILE
6-7	-	POND PLANS
8-11	-	POND DETAILS
12-13	-	GEC DETAILS
13	-	TOTAL SHEETS

NOTATION: 18" Culvert pipe for the driveway access to Vollmer Road shown on sheets 3 and 5 is privately owned and maintained, not public.

OWNER/DEVELOPER STATEMENT

I, THE OWNER/DEVELOPER HAVE READ AND WILL COMPLY WITH THE REQUIREMENT OF THE GRADING AND EROSION CONTROL PLANS.

SCOTT BELKNAP
 DATE: 11/22/23

3603 FIRST LIGHT DRIVE
 CASTLE ROCK, CO 80109

EL PASO COUNTY STATEMENT

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

FILED IN ACCORDANCE WITH THE REQUIREMENTS OF THE EL PASO COUNTY LAND DEVELOPMENT CODE, DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2, AND ENGINEERING CRITERIA MANUAL AS AMENDED.

IN ACCORDANCE WITH ECM SECTION 1.12, THESE CONSTRUCTION DOCUMENTS WILL BE VALID FOR CONSTRUCTION FOR A PERIOD OF 2 YEARS FROM THE DATE SIGNED BY THE EL PASO COUNTY ENGINEER. IF CONSTRUCTION HAS NOT STARTED WITHIN THOSE 2 YEARS, THE PLANS WILL NEED TO BE RESUBMITTED FOR APPROVAL, INCLUDING PAYMENT OF REVIEW FEES AT THE PLANNING AND COMMUNITY DEVELOPMENT DIRECTORS DISCRETION.

JOSHUA PALMER, P.E. DATE: _____
 COUNTY ENGINEER/ECM ADMINISTRATOR

ENGINEER'S STATEMENT

THIS GRADING AND EROSION CONTROL PLAN WAS PREPARED UNDER MY DIRECTION AND SUPERVISION AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. SAID PLAN HAS BEEN PREPARED ACCORDING TO THE CRITERIA ESTABLISHED BY THE COUNTY FOR GRADING AND EROSION CONTROL PLANS. I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY ANY NEGLIGENT ACTS, ERRORS OR OMISSIONS ON MY PART IN PREPARING THIS PLANS.

RYAN E. BURNS, P.E. DATE: 3/26/24
 COLORADO P.E. 0054412
 FOR AND ON BEHALF OF JR ENGINEERING

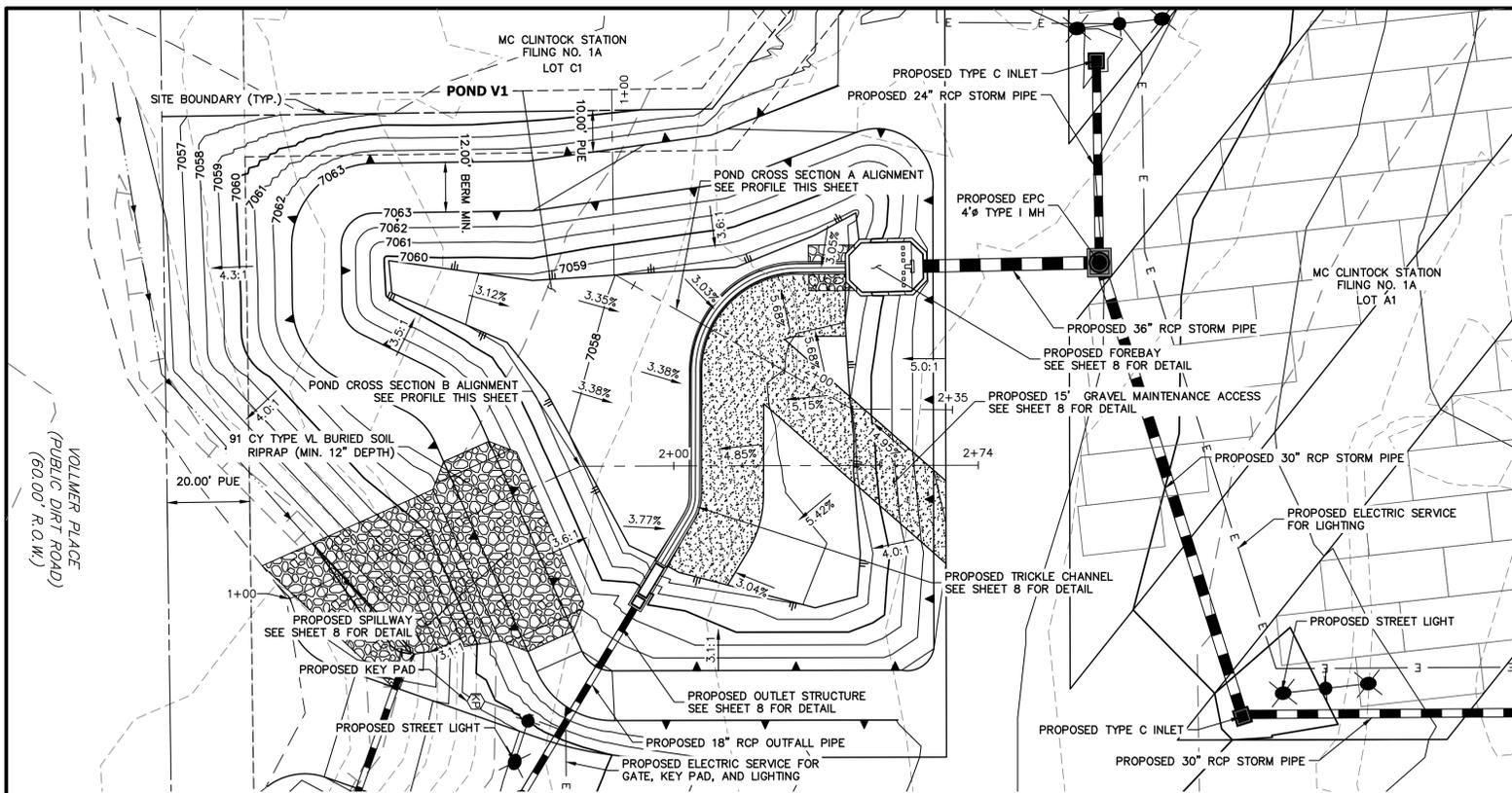


VOLLMER RV STORAGE	BY	DATE							
	REVISION	No.							
COVER SHEET	H-SCALE	N/A							
	V-SCALE	N/A							
	DATE	01/15/24							
	DESIGNED BY	PAL							
	DRAWN BY	PAL							
	CHECKED BY								
SHEET	1	OF	13						
JOB NO.	25251.00								

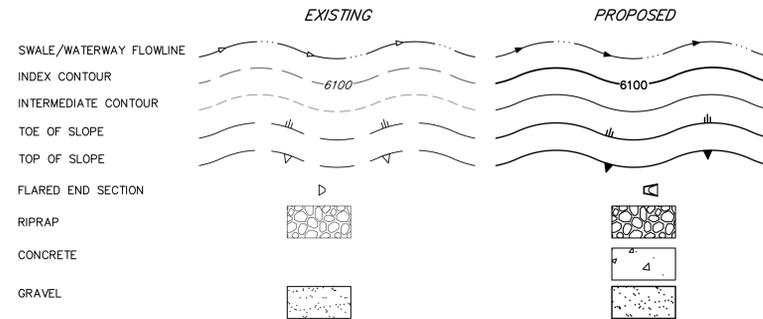
PREPARED FOR: BELKNAP VENTURES LLC
 3603 FIRST LIGHT DRIVE
 CASTLE ROCK, CO 80109
 (719) 322-3556
 SCOTT.BELKNAP@YAHOO.COM
 ATTN: SCOTT BELKNAP

J.R. ENGINEERING
 A Westman Company
 Centennial 300-740-9888 • Colorado Springs 719-583-2593
 Fort Collins 970-491-9888 • www.jrengineering.com

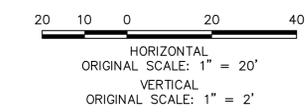
UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE APPROPRIATE REVIEWING AGENCIES, OR ENGINEERING APPROVES THEIR USE, THESE DRAWINGS ARE DESIGNATED BY WRITTEN AUTHORIZATION.



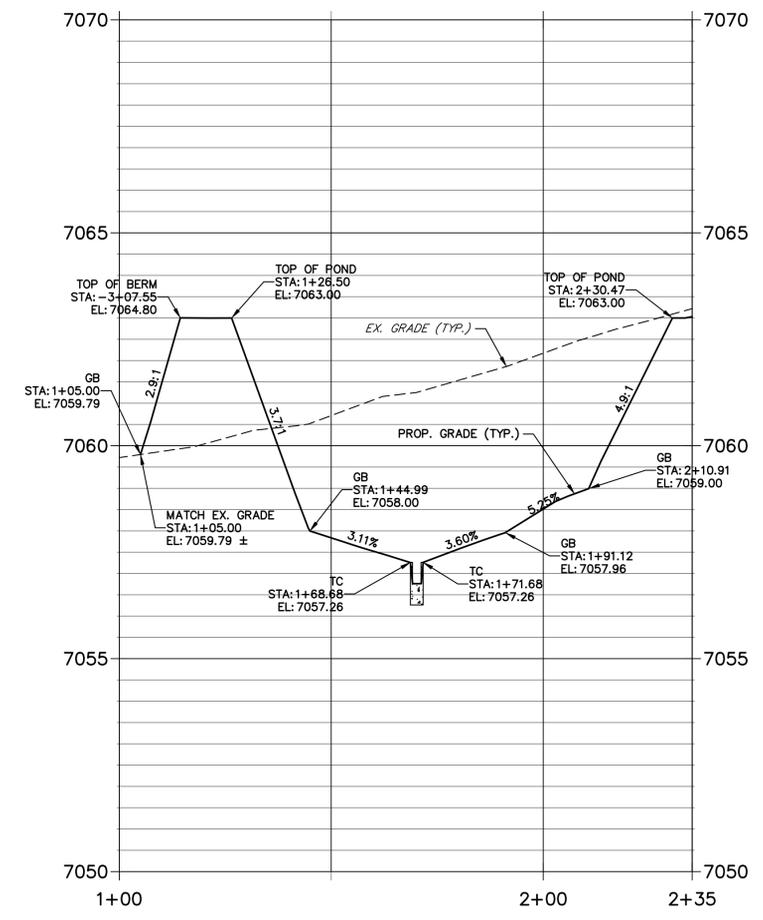
LAYER LINETYPE LEGEND



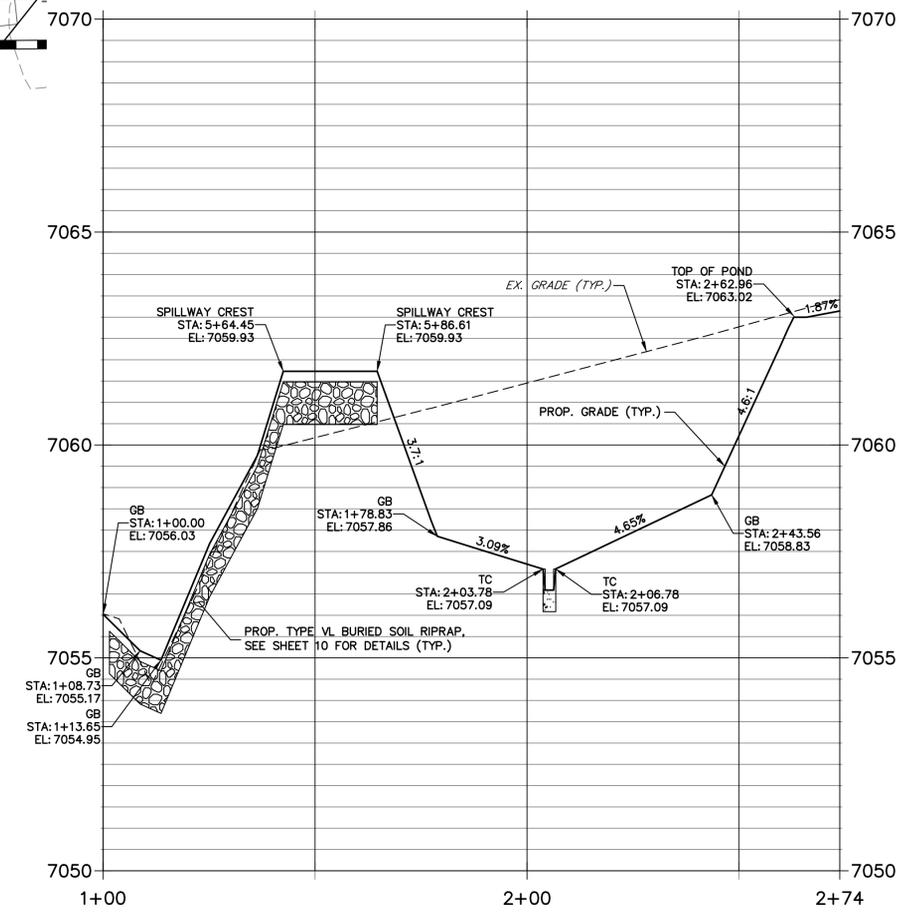
Know what's below.
Call before you dig.



**POND CROSS SECTION A PROFILE
STA 1+00.00 TO 2+35.14**



**POND CROSS SECTION B PROFILE
STA 1+00.00 TO 2+73.77**



THE LOCATIONS OF EXISTING ABOVE GROUND AND UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL ABOVE GROUND AND UNDERGROUND UTILITIES.

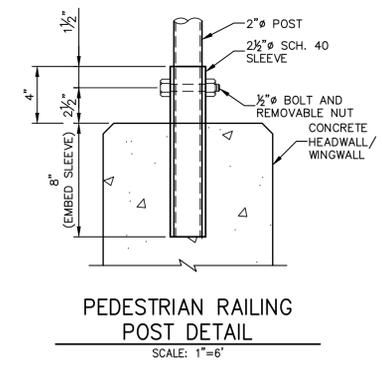
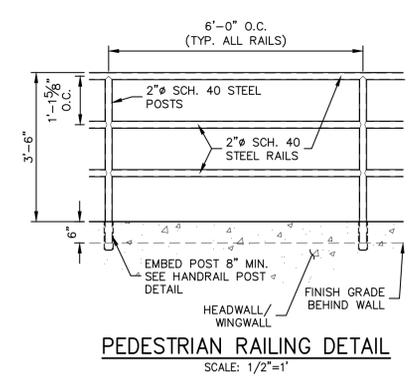
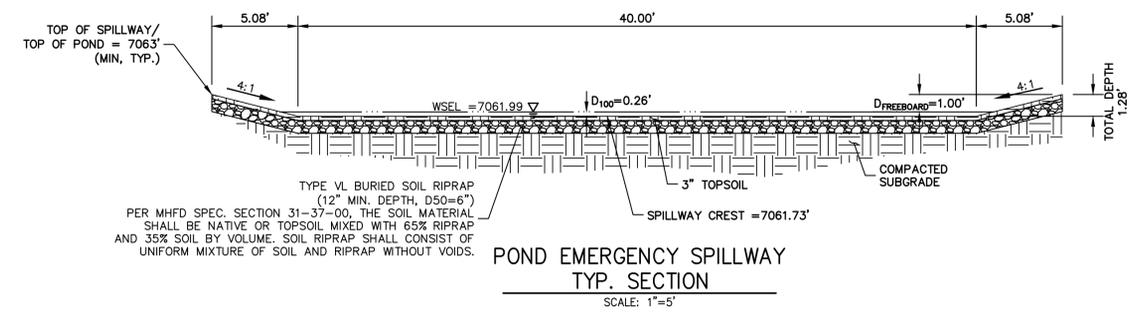
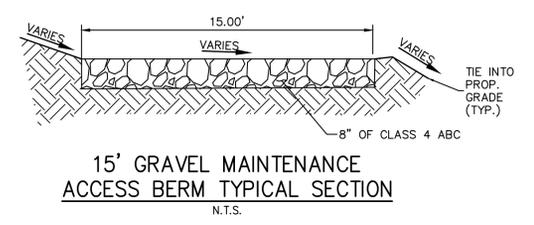
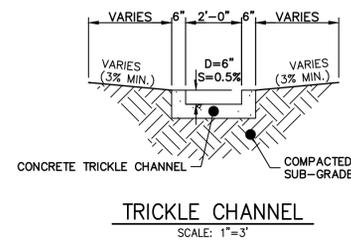
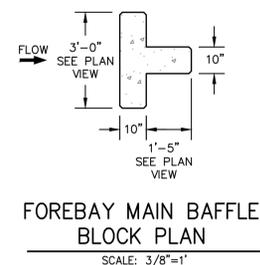
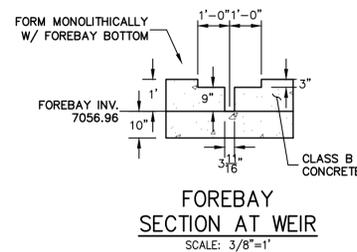
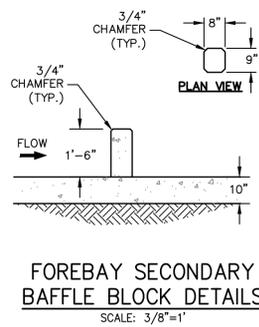
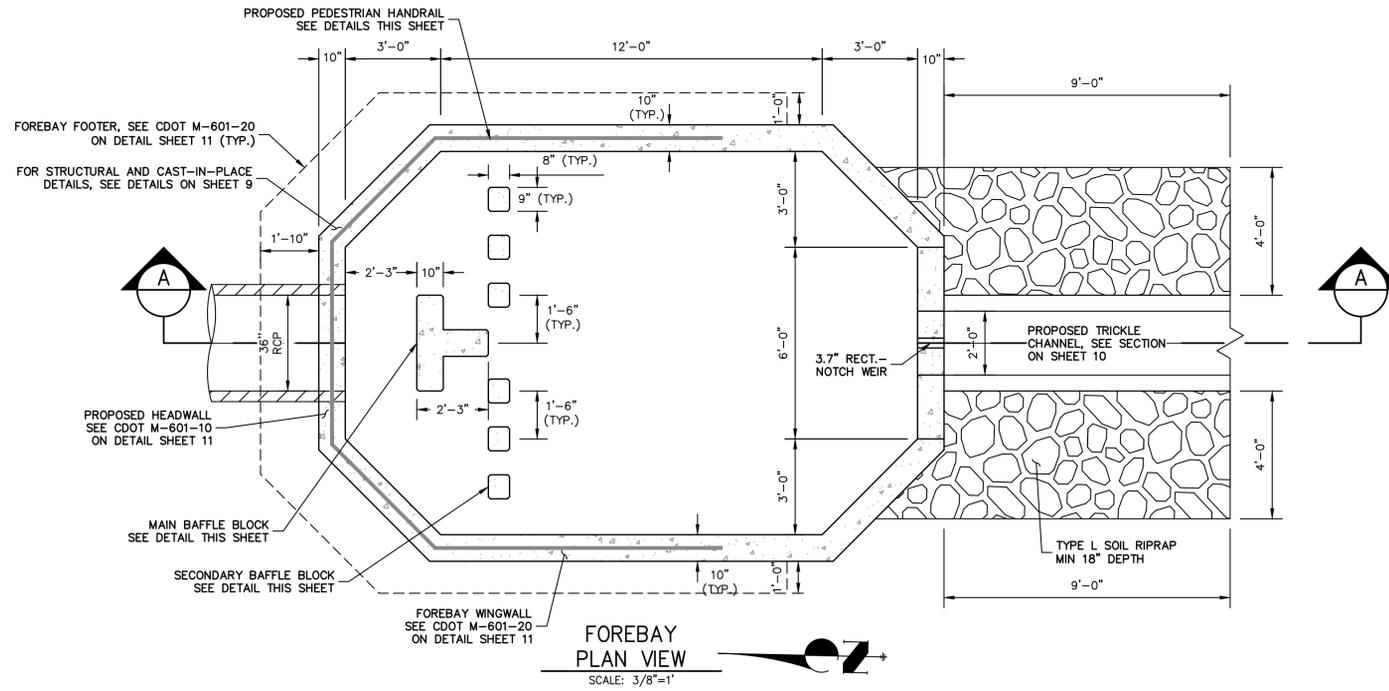
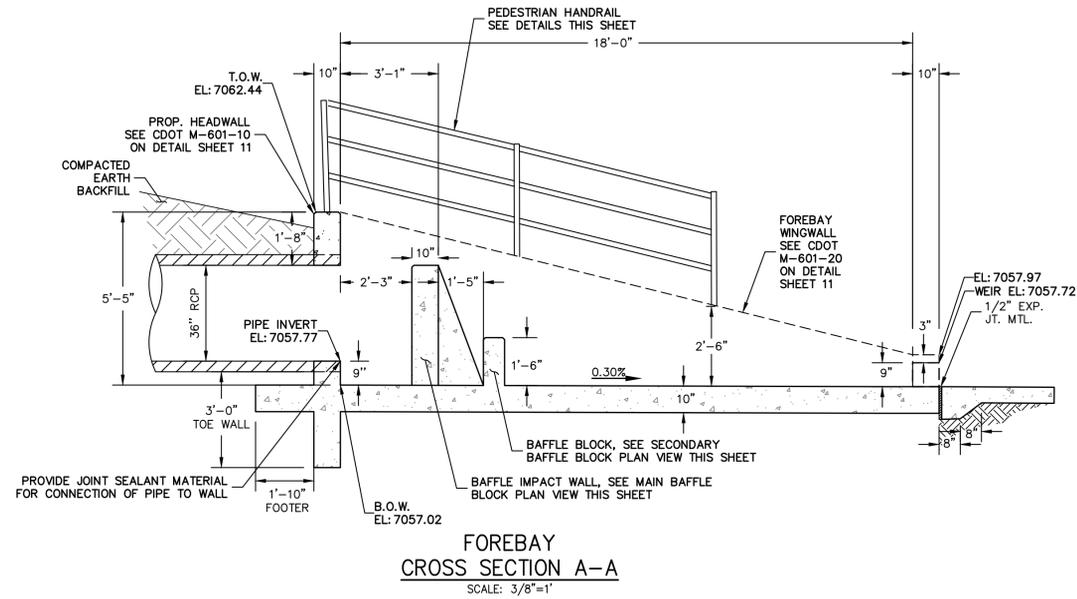
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[Signature]
 RYAN E. BURNS, P.E.
 COLORADO P.E. 0054412
 FOR AND ON BEHALF OF JR ENGINEERING

0054412
 3/26/24

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE APPROPRIATE REVIEWING AGENCIES, OR ENGINEERING APPROVES THEIR USE, THESE DRAWINGS ARE DESIGNATED BY WRITTEN AUTHORIZATION. PREPARED FOR BELKNAP VENTURES LLC 3603 FIRST LIGHT DRIVE CASTLE ROCK, CO 80109 (719)-322-3556 SCOTT.BELKNAP@TAHOOC.COM ATTN: SCOTT BELKNAP	
J.R. ENGINEERING A Westman Company Centennial 300-740-9888 • Colorado Springs 719-583-2583 Fort Collins 970-491-9888 • www.jrengineering.com	
BY	DATE
No.	REVISION
H-SCALE	1"=20'
V-SCALE	1"=2'
DATE	01/15/24
DESIGNED BY	APL
DRAWN BY	APL
CHECKED BY	
VOLLMER RV STORAGE POND PLANS	
SHEET	6 OF 13
JOB NO.	25251.00

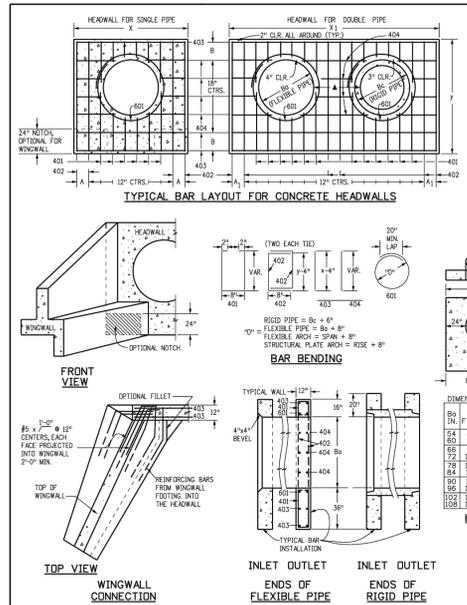


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RYAN E. BURNS, P.E.
COLORADO P.E. 0054412
FOR AND ON BEHALF OF JR ENGINEERING

0054412
3/26/24

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE AGENCIES, OR ENGINEERING APPROVES THEIR USE DESIGNATED BY WRITTEN AUTHORIZATION.	
PREPARED FOR	BELKNAP VENTURES LLC 3603 FIRST LIGHT DRIVE CASTLE ROCK, CO 80109 (719)-322-3556 SCOTT.BELKNAP@YAHOO.COM ATTN: SCOTT BELKNAP
J.R. ENGINEERING A Westman Company	Central 303-740-9888 • Colorado Springs 719-583-2583 Fort Collins 970-491-9888 • www.jrengineering.com
BY	DATE
No.	REVISION
H-SCALE	V-SCALE
DATE	DESIGNED BY
DRAWN BY	CHECKED BY
VOLLMER RV STORAGE	
POND DETAILS	
SHEET 8	OF 13
JOB NO. 25251.00	



GENERAL NOTES

- CONCRETE SHALL BE PERPENDICULAR TO THE PIPE & UNLESS OTHERWISE SHOWN ON THE PLANS, TABULATED DIMENSIONS AND QUANTITIES MUST BE ADJUSTED FOR SKEWED INSTALLATIONS.
- FOR WINGWALL DETAILS, SEE STANDARD PLAN M-601-20.
- VOLUME OCCUPIED BY PIPE HAS BEEN DEDUCTED FROM STEEL AND CONCRETE QUANTITIES.
- EXPOSED CONCRETE CORNERS SHALL BE CHAMFERED 1/4" IN.
- ALL REINFORCING BARS SHALL HAVE A 2 IN. MINIMUM CLEARANCE.
- WHEN TWO OR MORE PIPES ARE LINED UP BY SIDE, THEY SHALL BE PLACED SO THAT THE ADJACENT PIPES WILL BE 1/2" INSIDE DIAMETER APART OR 1/2" INSIDE SPAN BARS OR 3 FT. APART INCLUDING WALL THICKNESS, WHICHEVER IS LESS.
- ADD 0.89 x (X OR Y) (LBS) WHEN APRON IS REQUIRED.

QUANTITIES

CONCRETE	STEEL	
	CONCRETE (CU. YD.)	STEEL (LBS.)
54	8.9	15.6
55	10.3	18.6
56	11.7	21.6
57	13.1	24.6
58	14.5	27.6
59	15.9	30.6
60	17.3	33.6
61	18.7	36.6
62	20.1	39.6
63	21.5	42.6
64	22.9	45.6
65	24.3	48.6
66	25.7	51.6
67	27.1	54.6
68	28.5	57.6
69	29.9	60.6
70	31.3	63.6
71	32.7	66.6
72	34.1	69.6
73	35.5	72.6
74	36.9	75.6
75	38.3	78.6
76	39.7	81.6
77	41.1	84.6
78	42.5	87.6
79	43.9	90.6
80	45.3	93.6
81	46.7	96.6
82	48.1	99.6
83	49.5	102.6
84	50.9	105.6
85	52.3	108.6
86	53.7	111.6
87	55.1	114.6
88	56.5	117.6
89	57.9	120.6
90	59.3	123.6
91	60.7	126.6
92	62.1	129.6
93	63.5	132.6
94	64.9	135.6
95	66.3	138.6
96	67.7	141.6
97	69.1	144.6
98	70.5	147.6
99	71.9	150.6
100	73.3	153.6

HEADWALL FOR RIGID ROUND PIPE

HEADWALL FOR FLEXIBLE ROUND PIPE

HEADWALL FOR STRUCTURAL PLATE ARCH

SKIEW FACTOR TABLE

SKIEW ANGLE (°)	90	85	80	75	70	65	60	55	50	45	40	35	30
1.000	1.004	1.015	1.035	1.064	1.103	1.155	1.222	1.305	1.414	1.556	1.743	2.000	

Computer File Information

Creation Date: 07/31/19
 Designer: JBC
 Last Modification Date: 07/31/19
 Detailer: LTA
 CDD Ver: Modification V8 - Scale: Not to Scale - Units: English

Sheet Revisions

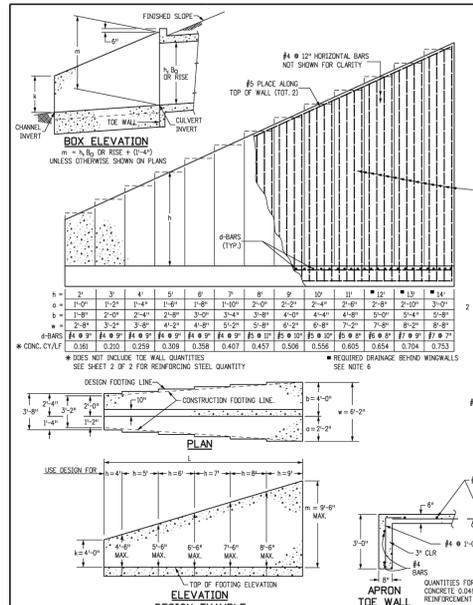
Date	Comments

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HEADWALL FOR PIPES

STANDARD PLAN NO. M-601-10
 Standard Sheet No. 1 of 1

Computer File Information: Creation Date: 07/31/19, Designer: JBC, Last Modification Date: 07/31/19, Detailer: LTA, CDD Ver: Modification V8 - Scale: Not to Scale - Units: English



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WINGWALLS FOR PIPE OR BOX CULVERTS

STANDARD PLAN NO. M-601-20
 Standard Sheet No. 1 of 2

Computer File Information: Creation Date: 07/31/19, Designer: JBC, Last Modification Date: 07/31/19, Detailer: LTA, CDD Ver: Modification V8 - Scale: Not to Scale - Units: English

C-BARS AND REINFORCING STEEL QUANTITY (EXCLUDE THE WALL)

REINFORCING STEEL QUANTITY INCLUDES STEEL AND FITTING QUANTITIES, BUT DOES NOT INCLUDE THE WALL QUANTITIES.

m (MULTIPLE OF) m (FT)	S (0.75 x m)			S (0.25 x m)														
	# REIN	# REIN	# REIN	# REIN	# REIN	# REIN	# REIN	# REIN	# REIN	# REIN	# REIN	# REIN	# REIN	# REIN	# REIN	# REIN	# REIN	
14	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
13	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
12	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
11	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
10	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
9	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
8	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	
7	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	

EXAMPLE:

SELECT THE C-BARS SIZE, SPACING AND STEEL QUANTITY FOR A 2.0 FT. DEEP WINGWALL WITH W = 1.8 FT. AND L = 6.3 FT.

SOLUTION:

- DETERMINE WINGWALL LENGTH IN MULTIPLE OF m: L = 2.0 / 0.25 = 8.0
- ROUND TO NEAREST WHOLE NUMBER FOR m AND L: m = 1.8 FT. USE m = 1.2 FT. L = (1.2 x 8) = 9.6 FT.
- DETERMINE C-BARS BY USING THE TABLE: L = 9.6 FT. USE L = 10.0 FT. m = 1.2
- C-BARS #6 @ 12" REIN. STEEL = 60.80 LB. / FT. DETERMINE REINFORCING STEEL QUANTITY = 25.0 x 60.80 = 1520 LB.

LIMITS OF CONCRETE SEALER AND WINGWALL DRAIN DETAILS

NOTES: 1. THE GEDCOMPOSITE SHALL BE SECURED TO THE WALL TO PREVENT MOVEMENT DURING BACKFILLING.
 2. COST OF GEDCOMPOSITE DRAIN AND CONCRETE SEALER SHALL BE INCLUDED IN THE WORK.

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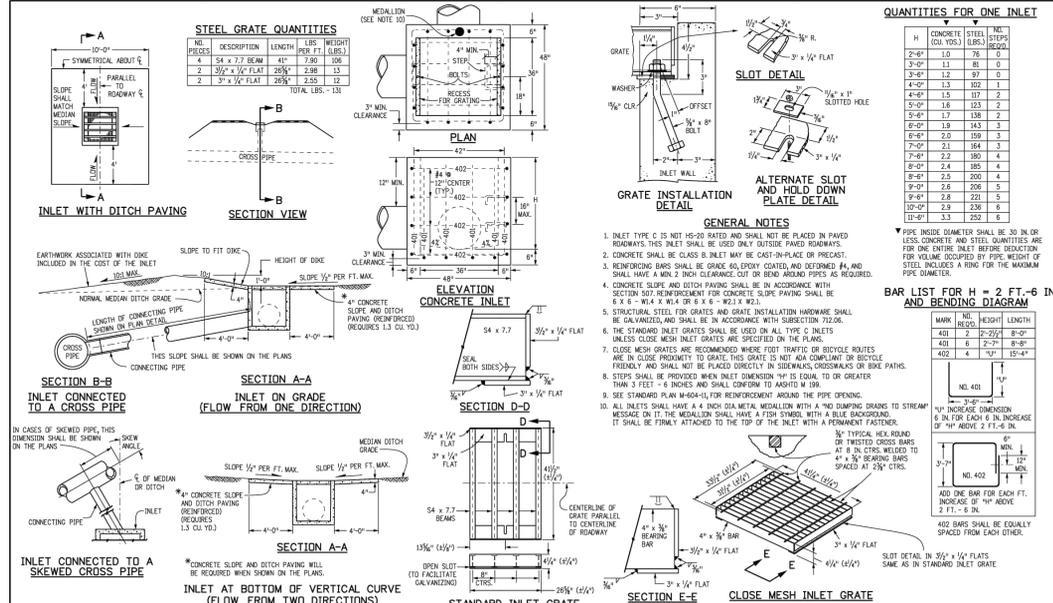
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WINGWALLS FOR PIPE OR BOX CULVERTS

STANDARD PLAN NO. M-601-20
 Standard Sheet No. 2 of 2

Computer File Information: Creation Date: 07/31/19, Designer: JBC, Last Modification Date: 07/31/19, Detailer: LTA, CDD Ver: Modification V8 - Scale: Not to Scale - Units: English



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INLET, TYPE C

STANDARD PLAN NO. M-604-10
 Standard Sheet No. 1 of 1

Computer File Information: Creation Date: 07/31/19, Designer: JBC, Last Modification Date: 07/31/19, Detailer: LTA, CDD Ver: Modification V8 - Scale: Not to Scale - Units: English

QUANTITIES FOR ONE INLET

H (CONCRETE CURB) (IN)	STEEL (LBS.)	CONCRETE (CU. YD.)
2'-0"	1.0	0.78
3'-0"	1.1	0.81
4'-0"	1.2	0.84
5'-0"	1.3	0.87
6'-0"	1.4	0.90
7'-0"	1.5	0.93
8'-0"	1.6	0.96
9'-0"	1.7	0.99
10'-0"	1.8	1.02

GENERAL NOTES

- INLET TYPE C IS NOT RECOMMENDED AND SHALL NOT BE PLACED IN PAVED ROADWAYS. THIS INLET SHALL BE USED ONLY IN UNPAVED ROADWAYS.
- CONCRETE SHALL BE CLASS B. INLET MAY BE CAST-IN-PLACE OR PRECAST.
- REINFORCING BARS SHALL BE GRADE 60 EPOXY COATED AND OBTAINED #4 AND SHALL HAVE A MIN. 2 INCH CLEARANCE FROM CONCRETE SURFACE AS REQUIRED.
- CONCRETE SEALER AND DITCH PAVING SHALL BE IN ACCORDANCE WITH SECTION 01.05.00 REINFORCING CONCRETE SURFACE PAVING SHALL BE 6" X 6" W/4" X W/4" OR 6" X 6" W/3" X W/3".
- THE STANDARD INLET GRATES SHALL BE USED ON ALL TYPE C INLETS UNLESS CLOSE MESH INLET GRATES ARE SPECIFIED ON THE PLANS.
- CLOSE MESH GRATES ARE RECOMMENDED WHERE FOOT TRAFFIC OR BICYCLE ROUTES ARE IN CLOSE PROXIMITY TO GRATE. THIS GRATE IS NOT AN COMPLIANT OR BICYCLE FRIENDLY AND SHALL NOT BE PLACED DIRECTLY IN SIDEWALKS, CROSSWALKS OR BIKE PATHS.
- STEPS SHALL BE PROVIDED WHEN INLET DIMENSION IS NOT EQUAL TO OR GREATER THAN 3 FEET - 6 INCHES AND SHALL CONFORM TO AASHTO M 199.
- SEE STANDARD PLAN M-604-10 FOR REINFORCEMENT AROUND THE PIPE OPENING.
- ALL INLETS SHALL HAVE A 1/2" INCH DIA. MEDALLION WITH A NON-SKIDING GRATE TO STREAM MESSAGE ON IT. THE MEDALLION SHALL HAVE A FISH SYMBOL WITH A BLUE BACKGROUND. IT SHALL BE FINELY ATTACHED TO THE TOP OF THE INLET WITH A PERMANENT FASTENER.

BAR LIST FOR H = 2 FT. - 6 IN. AND BENDING DIMENSION

MARK	NO.	HEIGHT	LENGTH
NO. 401	2	2'-0"	8'-0"
NO. 402	4	2'-0"	8'-0"
NO. 403	4	2'-0"	8'-0"

402 BARS SHALL BE EQUALLY SPACED FROM EACH OTHER.

ENGINEER'S STATEMENT

THIS GRADING AND EROSION CONTROL PLAN WAS PREPARED UNDER MY DIRECTION AND SUPERVISION AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. SAID PLAN HAS BEEN PREPARED ACCORDING TO THE CRITERIA ESTABLISHED BY THE COUNTY FOR GRADING AND EROSION CONTROL PLANS. I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY ANY NEGLIGENT ACTS, ERRORS OR OMISSIONS ON MY PART IN PREPARING THIS PLAN.

811

Know what's below. Call before you dig.

RYAN E. BURNS, P.E.
 COLORADO P.E. 0054412
 FOR AND ON BEHALF OF JR ENGINEERING

DATE: 3/26/24

DESIGNED BY: APL
 DRAWN BY: APL
 CHECKED BY:

VOLLMER RV STORAGE
 POND DETAILS

SHEET 11 OF 13
 JOB NO. 25251.00

PREPARED FOR

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE APPROPRIATE REVIEWING AGENCIES, OR ENGINEERING APPROVES THEIR USE, THESE DRAWINGS ARE DESIGNATED BY WRITTEN AUTHORIZATION.

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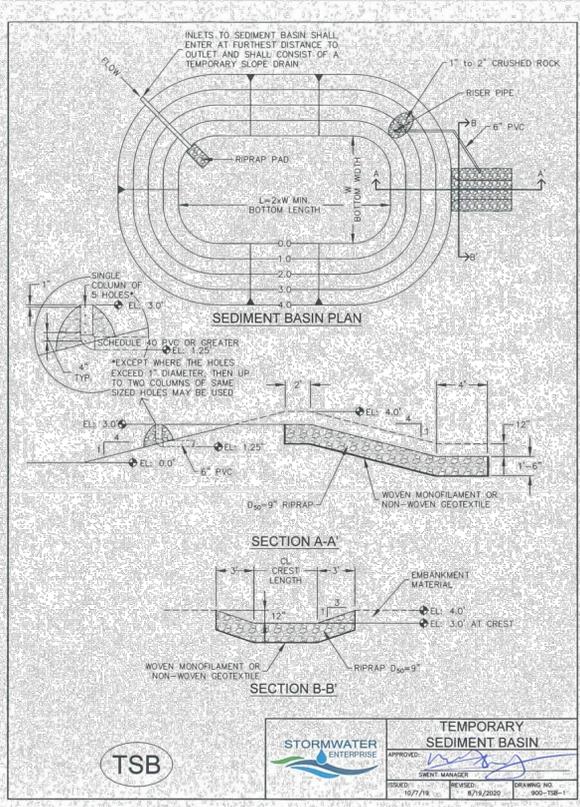
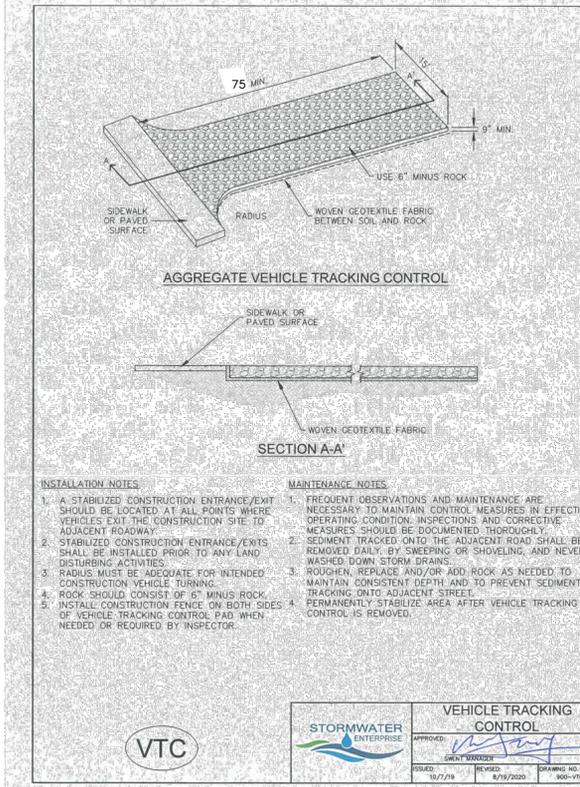
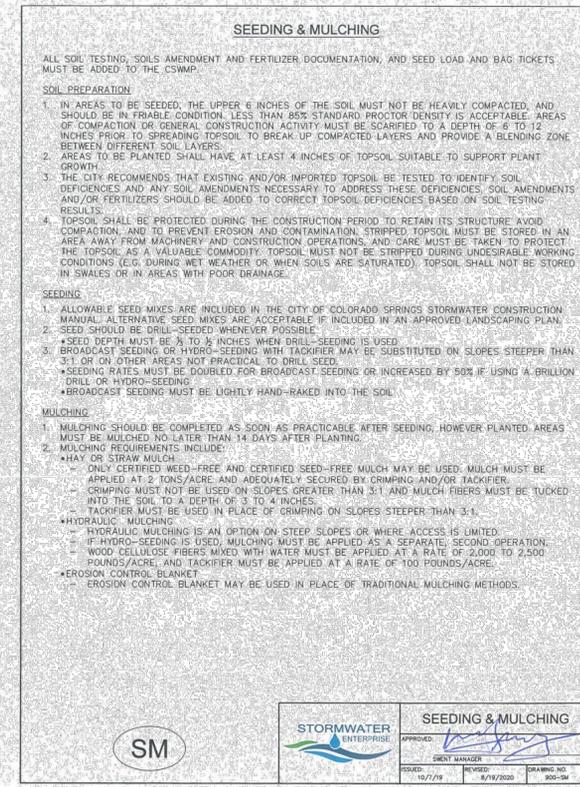
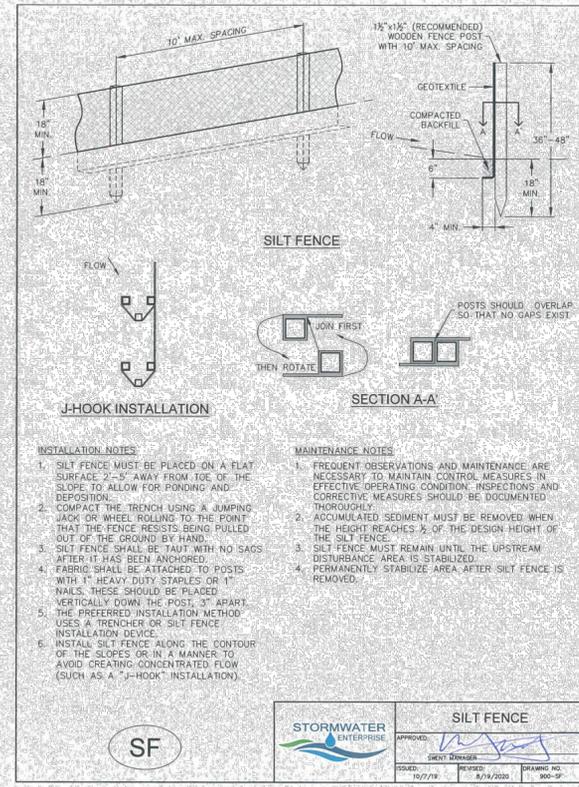
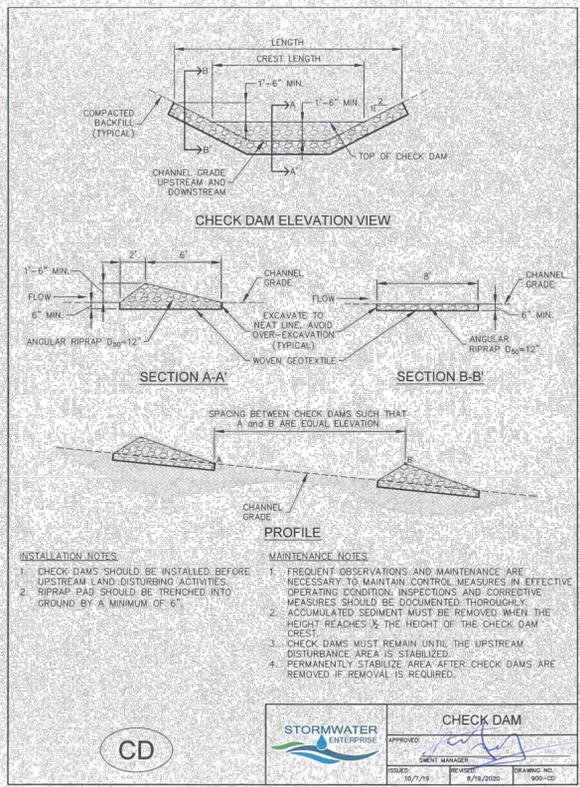


TABLE SB-1. SIZING INFORMATION FOR STANDARD SEDIMENT BASIN

UPSTREAM DRAINAGE AREA (ROUNDED TO NEAREST ACRE), (AC)	BASIN BOTTOM WIDTH (W), (FT)	SPILLWAY CREST LENGTH (CL), (FT)	HOLE DIAMETER (HD), (IN)
1	12 1/2	2	3 1/2
2	21	3	5 1/4
3	28	4	6 3/4
4	33 1/2	6	9 1/4
5	38 1/2	8	12 1/4
6	43	10	15 1/4
7	47 1/2	11	18 1/4
8	51	12	21 1/4
9	55	13	24 1/4
10	58 1/2	15	27 1/4
12	64	16	30 1/4
14	67 1/2	21	36 1/4
15	70 1/2	22	39 1/4

INSTALLATION NOTES

- FOR STANDARD BASIN, BOTTOM DIMENSION MAY BE MODIFIED AS LONG AS BOTTOM AREA IS NOT REDUCED.
- EMBANKMENT MATERIAL SHALL CONSIST OF SOIL FREE OF DEBRIS, ORGANIC MATERIAL, AND ROCKS OR CONCRETE GREATER THAN 3 INCHES AND SHALL HAVE A MINIMUM OF 15 PERCENT BY WEIGHT PASSING THE NO. 200 SIEVE.
- EMBANKMENT MATERIAL SHALL BE COMPACTED TO AT LEAST 90 PERCENT OF MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D-698. PIPE, SCHEDULE 40 OR GREATER SHALL BE USED.
- THE DETAILS SHOWN ON THESE SHEETS PERTAIN TO STANDARD SEDIMENT BASIN(S) FOR DRAINAGE AREAS LESS THAN 15 ACRES. SEE CONSTRUCTION DRAWINGS FOR EMBANKMENT, STORAGE VOLUME, SPILLWAY, OUTLET, AND OUTLET PROTECTION DETAILS FOR ANY SEDIMENT BASIN(S) THAT HAVE BEEN INDIVIDUALLY DESIGNED FOR DRAINAGE AREAS LARGER THAN 15 ACRES. DESIGN CALCULATIONS MUST BE APPROVED PRIOR TO IMPLEMENTATION.

MAINTENANCE NOTES

- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- SEDIMENT ACCUMULATED IN BASIN SHALL BE REMOVED AS NEEDED TO MAINTAIN CONTROL MEASURE EFFECTIVENESS, TYPICALLY WHEN SEDIMENT DEPTH REACHES ONE FOOT (I.E. TWO FEET BELOW SPILLWAY CREST).
- SEDIMENT BASINS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS PERMANENTLY STABILIZED.
- PERMANENTLY STABILIZE AREA AFTER SEDIMENT BASIN REMOVAL.

TSB

STORMWATER ENTERPRISE

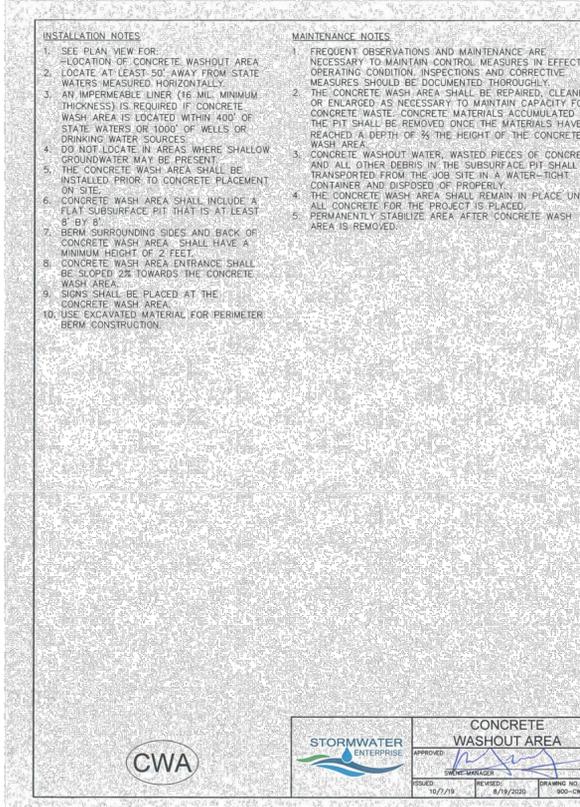
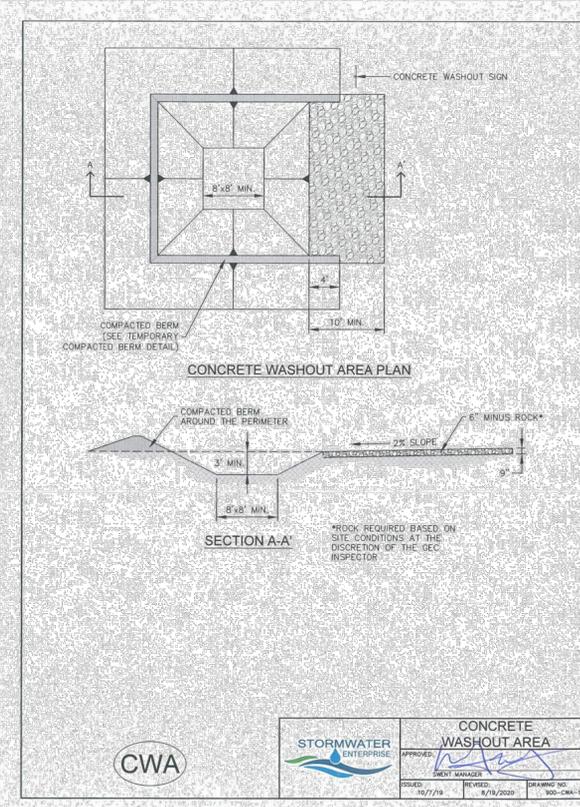
TEMPORARY SEDIMENT BASIN

APPROVED: [Signature]

DATE: 10/7/19

REVISION: 8/18/2020

DRAWING NO: 900-TSB-2



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PREPARED FOR
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BY	DATE	No.	REVISION	H-SCALE	V-SCALE	DATE	DESIGNED BY	DRAWN BY	CHECKED BY	VOLLMER RV STORAGE	GEC DETAILS



ENGINEER'S STATEMENT

STANDARD DETAILS SHOWN WERE REVIEWED ONLY AS TO THEIR APPLICATION ON THIS PROJECT

[Signature]

0054412

3/26/24

RYAN E. BURNS, P.E.
COLORADO P.E. 0054412
FOR AND ON BEHALF OF JR ENGINEERING

