

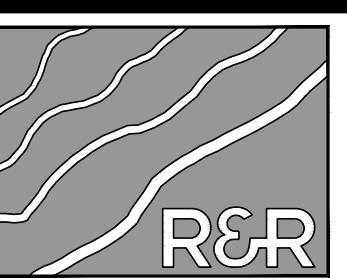
# GRADING & EROSION CONTROL PLANS MAYBERRY, COLORADO - FILING NO. 3

A REPLAT OF PART OF TRACT M AND ALL OF TRACT P, MAYBERRY, COLORADO SPRINGS FILING NO. 1, AND ALL OF TRACTS A, B, C AND D, MAYBERRY, COLORADO SPRINGS FILING NO. 2,  
AND THAT PART OF SPRINGS ROAD RIGHT-OF-WAY LYING SOUTH OF SAID TRACT A AND THAT PART OF VILLAGE MAIN STREET RIGHT-OF-WAY LYING EAST OF ATCHISON WAY  
ALL LOCATED IN THE NORTH HALF OF SECTION 14, TOWNSHIP 14 SOUTH, RANGE 63 WEST OF THE 6TH PRINCIPAL MERIDIAN  
COUNTY OF EL PASO (UNINCORPORATED), STATE OF COLORADO



Know what's below.  
Call before you dig.

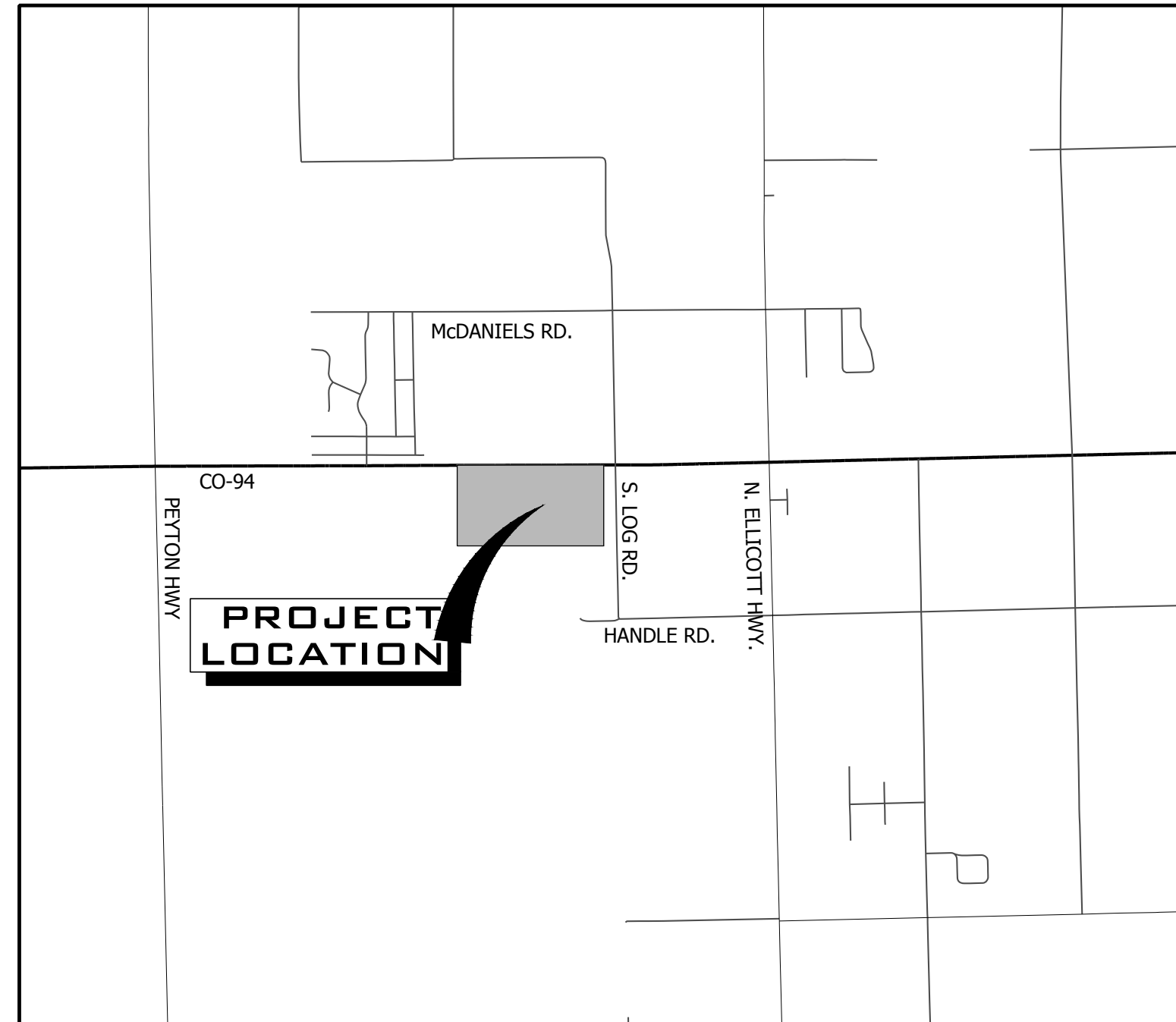
NO.	REVISION	DATE
2ND SUBMISSION		09/01/22
3RD SUBMISSION		01/17/23
4TH SUBMISSION		04/10/23



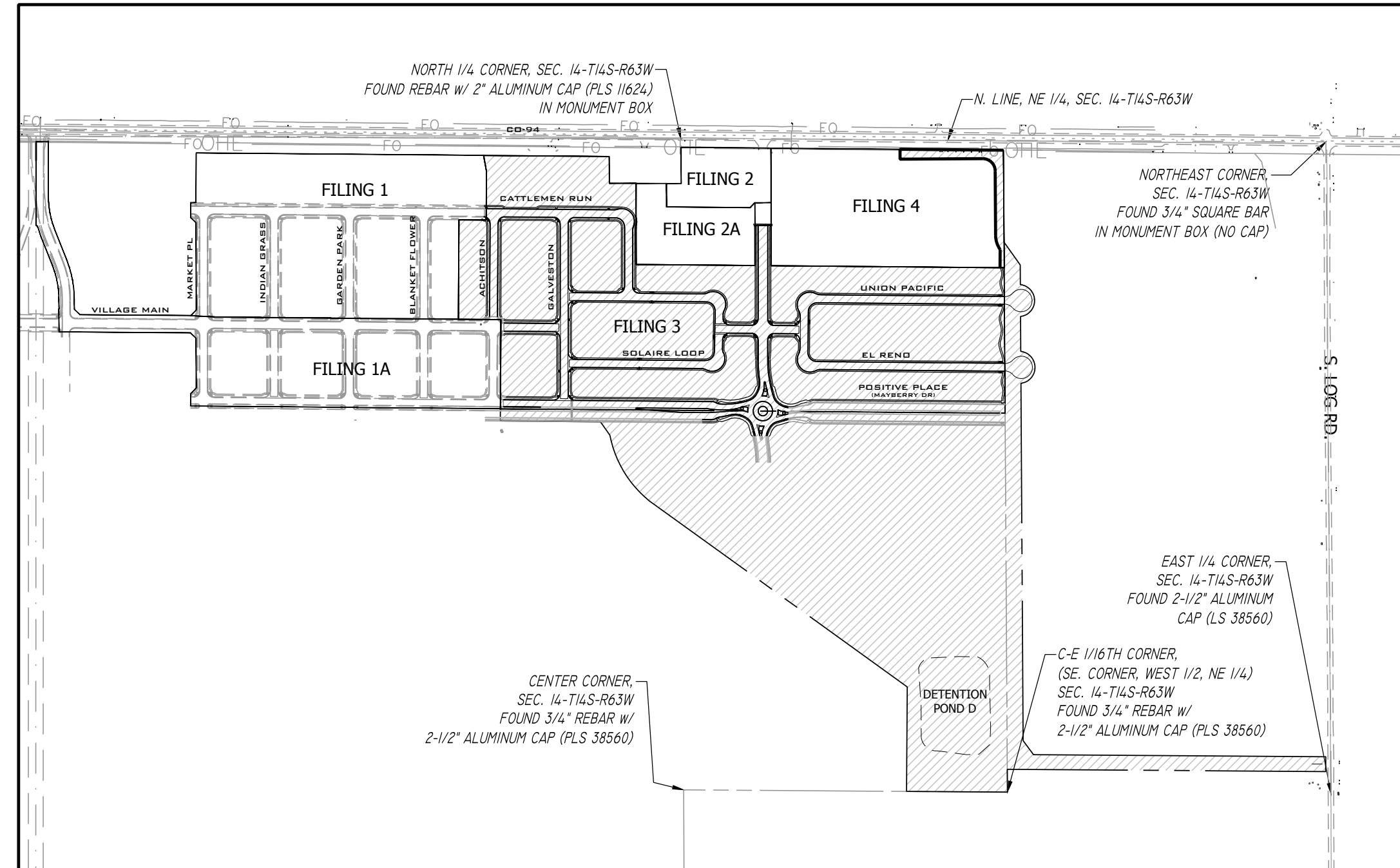
**R&R ENGINEERS-SURVEYORS, INC.**

1635 WEST 13TH AVENUE, SUITE 310  
DENVER, COLORADO 80204  
PHONE: 303-753-6730

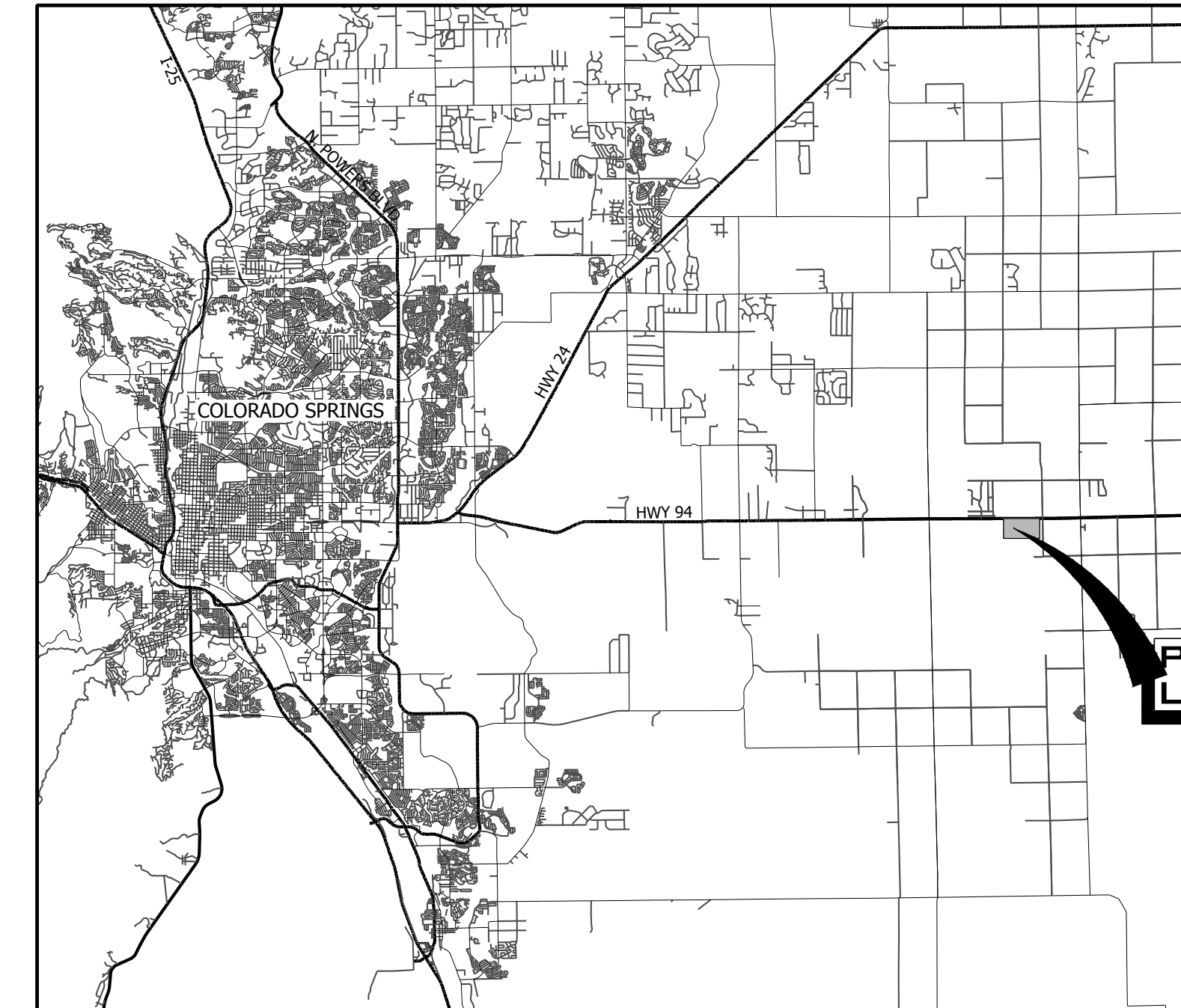
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**VICINITY MAP**  
SCALE 1" = 5,000'



**SITE MAP**  
SCALE 1" = 500'



**VICINITY MAP**  
SCALE 1" = 20,000'

CONTACT LIST			
DEVELOPER	CIVIL ENGINEER	SURVEYOR	COUNTY ENGINEERING
MAYBERRY COMMUNITIES, LLC	R&R ENGINEERS-SURVEYORS, LLC	R&R ENGINEERS-SURVEYORS, LLC	EL PASO COUNTY DEVELOPMENT SERVICES
3296 DIVINE HEIGHTS #208 COLORADO SPRINGS, CO 80922 719-922-2181 CONTACT: SCOTT SOUDERS, P.E.	1635 WEST 13TH AVENUE, SUITE 310 DENVER, CO 80204 303-753-6730 CONTACT: CLIF DAYTON, P.E.	1635 13TH AVENUE, SUITE 310 DENVER, CO 80204 303-753-6730 CONTACT: MR. DARELL DeLAP	2880 INTERNATIONAL CIRCLE COLORADO SPRINGS, CO 80922 719-520-6300
STATE HIGHWAY	WATER/WASTEWATER	GAS DEPARTMENT	ELECTRIC DEPARTMENT
COLORADO DEPARTMENT OF TRANSPORTATION, REGION 2	ELLCOTT UTILITIES COMPANY, LLC	BLACK HILLS ENERGY	MOUNTAIN VIEW ELECTRIC ASSOCIATION
5615 WILLS BLVD. PUEBLO, CO 81008 MR. ART GONZALES (REFERENCE CDOT ACCESS PERMITS NO. 218053 & 218054)	719-426-7810 CONTACT: JASON KVOLS	1515 WYNKOOP ST #500 DENVER, CO 80202 719-359-3176 CONTACT: SEBASTIAN SCHWENDER	11140 E. WOODMEN ROAD COLORADO SPRINGS, CO 80908 719-495-2283 CONTACT: MR. DAVE WALDNER

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C8.23	DETENTION POND DETAILS

**BENCHMARK:**  
NGS Benchmark PID: JK003, Designation: Z 76  
Disk Stamped Z 76 1935 in top of concrete monument.  
Project Elevation: 6041.98 Feet  
Elevation Note: Project Vertical Datum is based upon previous surveys conducted by Rampart Surveys LLC where the elevation of 6041.98 feet was established on this benchmark. This elevation has been verified by R&R Engineers and Surveyors by running closed bench level loops from Z 76 to other aerial control points that were used for the topographic survey and design on previous projects. The current NGS published elevation was Not Used.  
Benchmark Located in the Southeast quadrant of the intersection of State Highway 94 and Log Road. The benchmark lies 65.5 feet South and 30 feet East of the intersection.  
Horizontal Values:  
State Plane 1983 Central Coordinate Values in US Survey Feet:  
Grid Northing: 1367803.3380' Grid Easting: 3311725.4580'  
Project Coordinate Values in US Survey Feet:  
Northing: 1368261.2691' Easting: 3312880.8395'

**BASIS OF BEARING:**  
Bearings are based on the North line of the Northeast Quarter of Section 14, Township 14 South, Range 63 West of the 6th Principal Meridian having a bearing of South 89° 44' 50" East as shown on the recorded plats of Mayberry, Colorado Springs Filing No. 1 recorded as Reception No. 220714655 and as shown on Mayberry, Colorado Springs Filing No. 2 recorded as Reception No. 221714698, said North line having a ground distance of 2606.58 feet and monumented at each end as shown on sheet 2 of the Mayberry, Colorado Springs Filing No. 3 Plat.

PCD FILE NO. SF2219

Engineer's Statement (for standalone GEC Plan):  
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.  
Clif Dayton, P.E. #48189 Date 06-05-2023

Owner's Statement (for standalone GEC Plan):  
I, the owner/developer have read and will comply with the requirements of the Grading and Erosion Control Plan.  
Owner Signature Date 06/05/23

El Paso County:  
County plan review is provided only for general conformance with County Design Criteria. The County is not responsible for the accuracy and adequacy of the design, dimensions, and/or elevations which shall be confirmed at the job site. The County through the approval of this document assumes no responsibility for completeness and/or accuracy of this document.

Filed in accordance with the requirements of the El Paso County Land Development Code, Drainage Criteria Manual Volumes 1 and 2, and Engineering Criteria Manual, as amended.

In accordance with ECM Section 1.12, these construction documents will be valid for construction for a period of 2 years from the date signed by the El Paso County Engineer. If construction has not started within those 2 years, the plans will need to be resubmitted for approval, including payment of review fees at the Planning and Community Development Director's discretion.

Approved  
Joshua Palmer, P.E.  
County Engineer/ECM Administrator  
06/14/2023 10:27:27 AM

MAYBERRY PUD PH 1 - FILING NO. 3  
SITE ADDRESS: MAYBERRY, COLORADO SPRINGS EL PASO COUNTY  
PREPARED FOR: MAYBERRY COMMUNITIES, LLC 3296 DIVINE HEIGHTS #208 COLORADO SPRINGS, CO 80922

GESC PLANS	
JOB NO.	MC22110
ORG. SUBM. DATE	06/16/2022
DWN.	LAO
CHKD.	CJD

GESC COVER SHEET

NO. C8.0

P:\14-10-2022\MAYBERRY FILING NO. 3\ENGINEERING\DRAWINGS\PLANS\GDS - COVER & NOTES\MC22110 - GEC - CD.DWG, PLOT DATE: 6/17/2023 11:48:30 AM, BY: LINA GORDY



**EL PASO COUNTY GRADING & 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 SMWP DURING CONSTRUCTION IS THE RESPONSIBILITY OF THE DESIGNATED QUALIFIED STORMWATER MANAGER OR CERTIFIED EROSION CONTROL INSPECTOR. THE SMWP 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 LOOSENED 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, UNCONTAMINATED GROUNDWATER 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 ON-SITE 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 ON-SITE 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, FUGITIVE DUST, 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.
- THE SOILS REPORT FOR THIS SITE HAS BEEN PREPARED BY CTL THOMPSON, DATED FEBRUARY 6, 2019 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 (SMWP), 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

**MASTER LEGEND**

EXISTING	DESCRIPTION	PROPOSED
---	PROPERTY LINE	---
---	LOT LINE	---
---	RIGHT OF WAY	---
---	CENTERLINE	---
---	FLOOD PLAIN	---
---	LIMITS OF DISTURBANCE	--- LOD ---
---	SWALE / STREAM FLOWLINE	---
---	OVERFLOW RELIEF PATH	---
X	FENCE LINE	X
---	EASEMENT	---
---	EDGE OF PAVEMENT	---
---	VERTICAL CURB AND GUTTER	---
---	MOUNTABLE CURB AND GUTTER	---
---	SPILL GUTTER	---
---	TRANSITION GUTTER	---
---	CONCRETE SIDEWALK	---
---	HANDICAP PARKING	---
---	SIGHT TRIANGLE	---
---	SIGN(S)	---
---	PARKING COUNT INDICATOR	---
5825	MAJOR CONTOUR	5825
5822	MINOR CONTOUR	5822
---	GRADE BREAK	---
52 22 FG	SPOT ELEVATION	52 22 FG
5236 22 FG		5236 22 FG
---	RIP RAP	---
W	WATER LINE	W
M	WATER METER	M
V	WATER VALVE	V
R	WATER REDUCER	R
F	WATER FITTINGS	F
H	FIRE HYDRANT	H
SS	SANITARY LINE	SS
SM	SANITARY MANHOLE	SM
SC	SANITARY CLEANOUT	SC
---	STORM SEWER PIPE	---
---	STORM SEWER MANHOLE	---
---	STORM SEWER INLET	---
---	STORM SEWER FLARED END SECTION	---
---	STORM SEWER HEADWALL	---
E	UNDERGROUND ELECTRIC	E
OHE	OVERHEAD ELECTRIC	OHE
U	UTILITY POLE	U
SL	STREET LIGHT	SL
CATV	CABLE TV SERVICE	CATV
T	TELECOM SERVICE	T
FO	FIBER OPTIC SERVICE	FO
G	NATURAL GAS SERVICE	G
U	DRY UTILITIES ALIGNMENT	U
---	TRANSFORMER & PEDESTAL	---
T	TREE	T
---	TREE LINE	---

**BMP LEGEND**

	CD	ROCK CHECK DAM
	CB	COMPOST BLANKET
	CFB	COMPOST FILTER BERM
	CWA	CONCRETE WASHOUT AREA
	CF	CONSTRUCTION FENCE
	CM	CONSTRUCTION MARKERS
	DW	DEWATERING
	DD	DIVERSION DITCH
		ROCK AND RIPRAP GRADATIONS
	ECB	EROSION CONTROL BLANKET
	IP	INLET PROTECTION
	RCD	REINFORCED CHECK DAM
	RRB	REINFORCED ROCK BERM
	RRC	RRB FOR CULVERT PROTECTION
	SB	SEDIMENT BASIN
	SCL	SEDIMENT CONTROL LOG
	ST	SEDIMENT TRAP
	SM	SEEDING AND MULCHING
	SF	SILT FENCE
	SSA	STABILIZED STAGING AREA
	SR	SURFACE ROUGHENING
	TRC	TEMPORARY ROAD CROSSING
	TSD	TEMPORARY SLOPE DRAIN
	TSC	TEMPORARY STREAM CROSSING
	TER	TERRACING
	VTC	VEHICLE TRACKING CONTROL
	VWC	VTC WITH WHEEL WASH
	A	A LOT EROSION CONTROL
	B	B LOT EROSION CONTROL
	LOC	LIMITS OF CONSTRUCTION/LIMITS OF DISTURBANCE
	TS	TEMPORARY SEEDING
	CS	CURB SOCK
		PROP. STORMWATER FLOW ARROWS
		EX. STORMWATER FLOW ARROWS
		PROP. CUT/FILL BOUNDARY

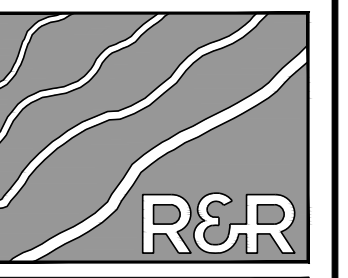
**GENERAL NOTES:**

- THE EXISTING VEGETATION INCLUDES NATIVE GRASSES AND NO TREES.
- NO BATCH PLANTS WILL BE UTILIZED ONSITE.



Know what's below.  
Call before you dig.

NO.	REVISION	BY	DATE
	2ND SUBMISSION		09/01/22
	3RD SUBMISSION		01/17/23
	4TH SUBMISSION		04/10/23



ENGINEERS SURVEYORS

**R&R ENGINEERS-SURVEYORS, INC.**  
 1635 WEST 13TH AVENUE, SUITE 310  
 DENVER, COLORADO 80204  
 PHONE: 303-753-6730

WWW.RRENGINEERS.COM



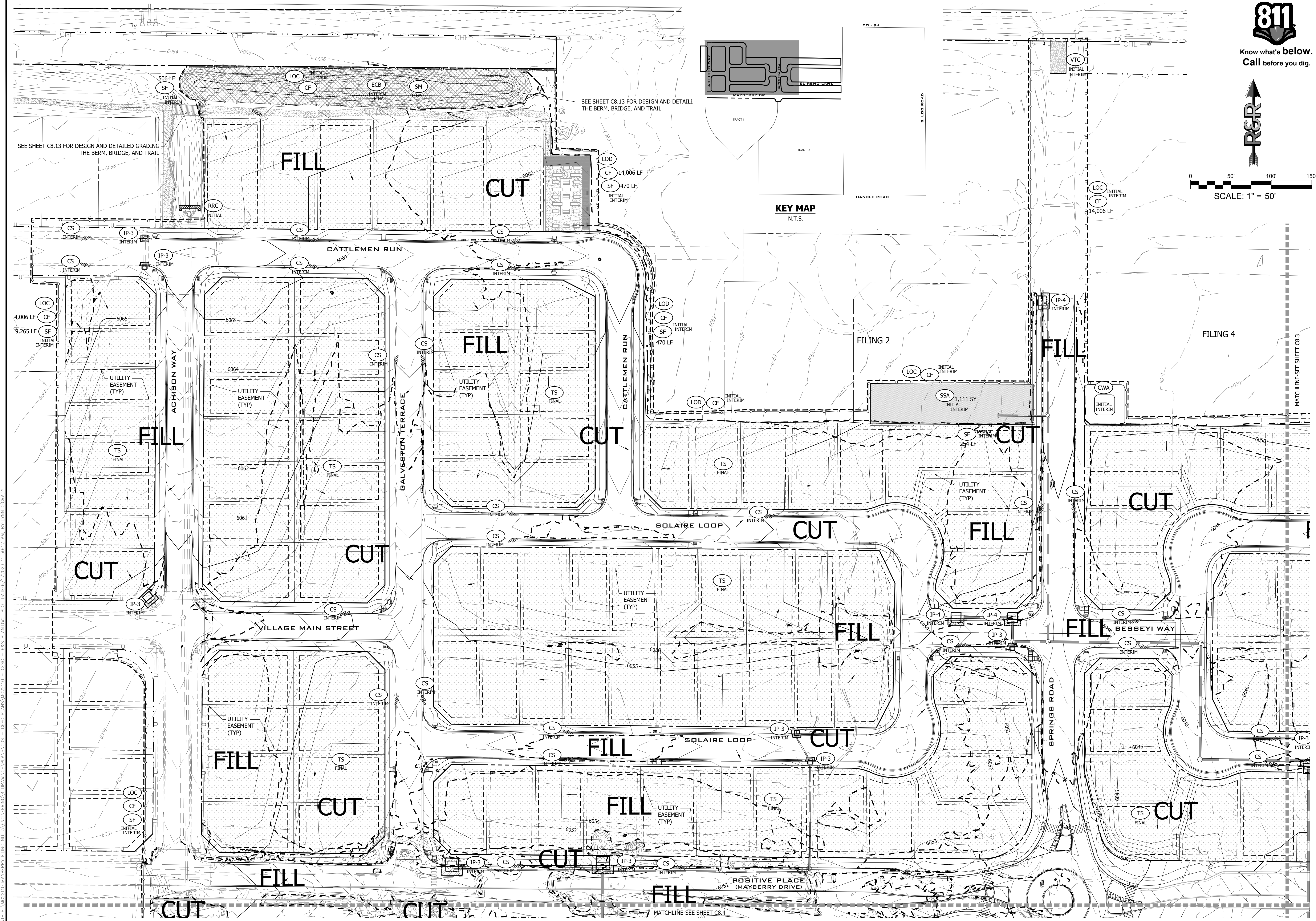
**MAYBERRY PUD PH 1 - FILING NO. 3**  
 SITE ADDRESS: MAYBERRY, COLORADO SPRINGS  
 EL PASO COUNTY  
 PREPARED FOR: MAYBERRY COMMUNITIES, LLC  
 3206 DIVINE HEIGHTS #208  
 COLORADO SPRINGS, CO 80922

GEC PLANS	
JOB NO.	MC22110
ORG. SUBM. DATE	06/16/2022
DWN:	LAO
CHKD:	CJD
NAME	

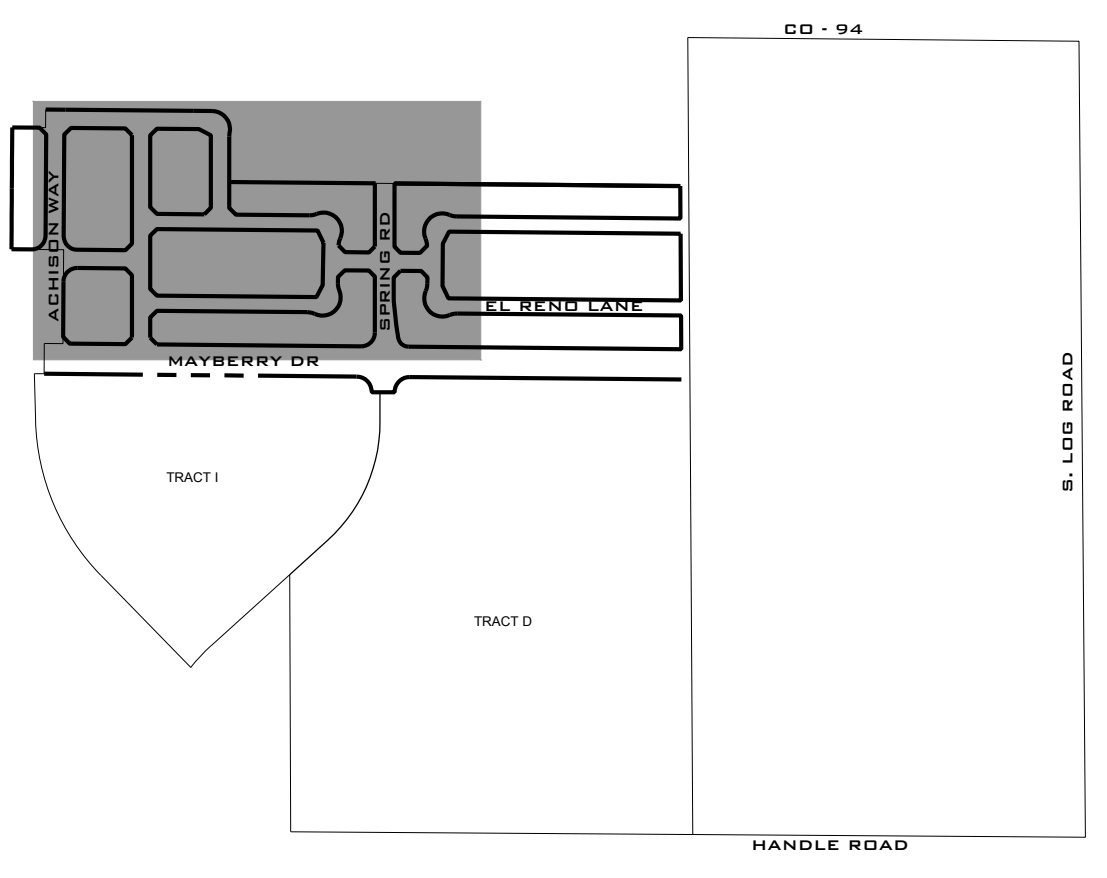
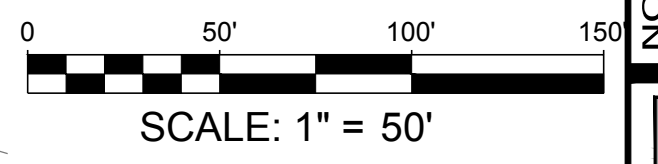
**GENERAL NOTES & LEGEND**

NO.  
**C8.1**

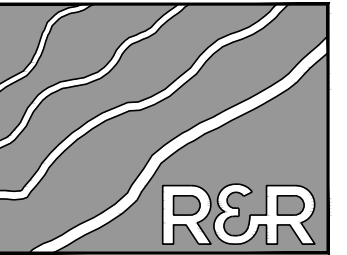




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ENGINEERS  
SURVEYORS

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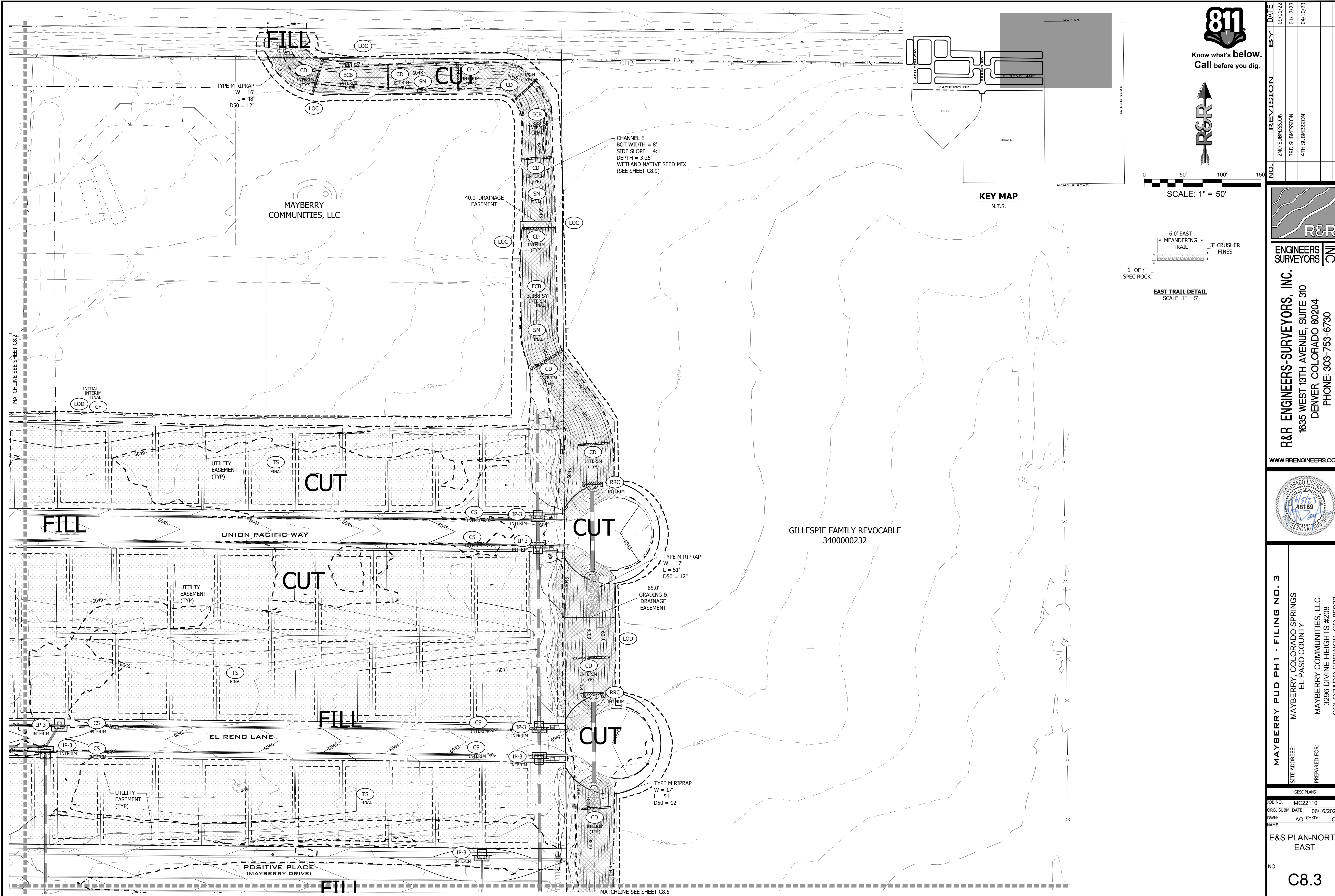
E&S PLAN	
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CHKD.	CJD

E&S PLAN-NORTH  
WEST

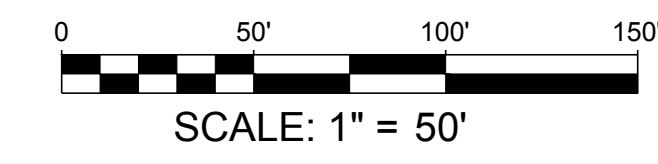
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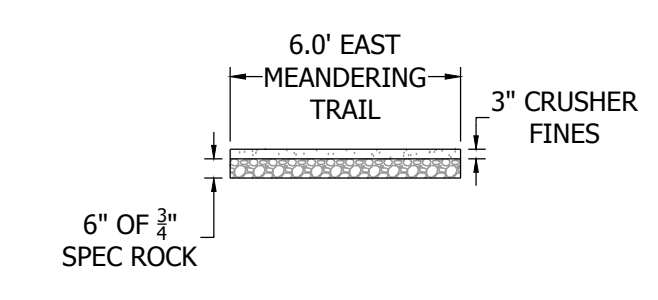




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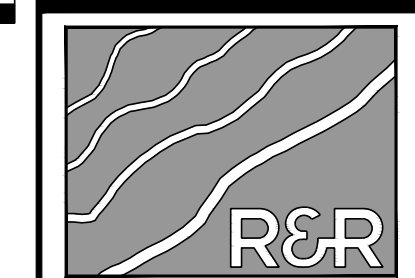


SCALE: 1" = 50'



EAST TRAIL DETAIL  
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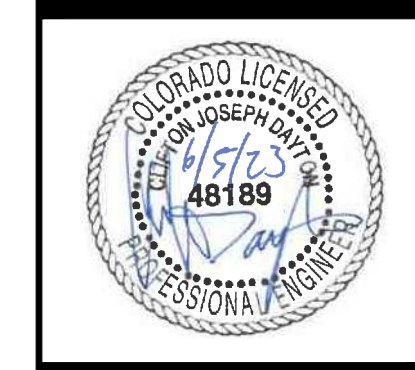
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2ND SUBMISSION		09/01/22
3RD SUBMISSION		01/17/23
4TH SUBMISSION		04/10/23



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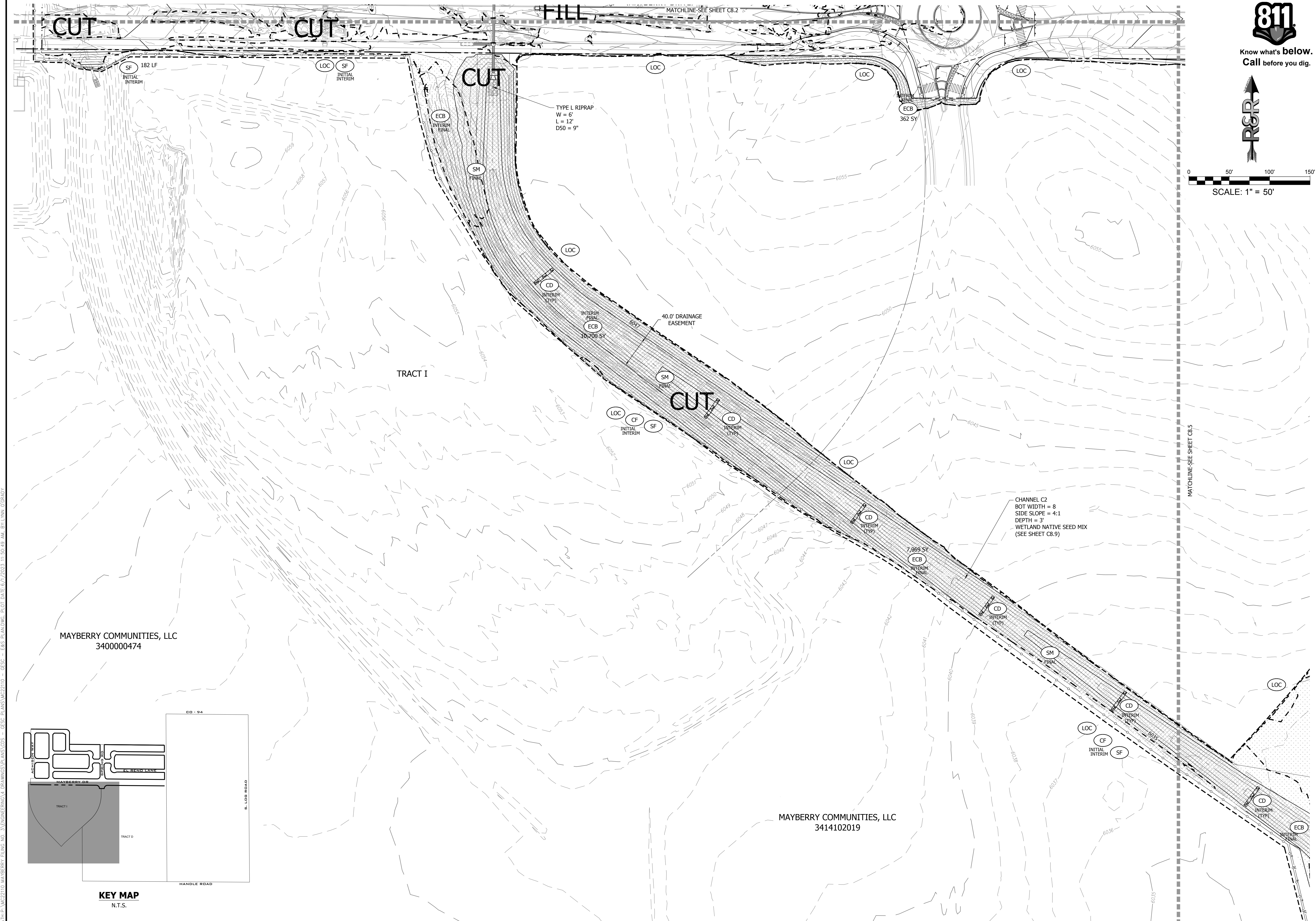
MAYBERRY PUD PH1 - FILING NO. 3  
MAYBERRY, COLORADO SPRINGS  
EL PASO COUNTY  
MAYBERRY COMMUNITIES, LLC  
3296 DIVINE HEIGHTS #208  
COLORADO SPRINGS, CO 80922

JOB NO.	MC22110
ORG. SUBM. DATE	06/16/2022
DWN: LAO	CHKD: CJD

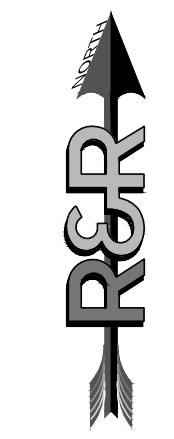
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NO. **C8.3**



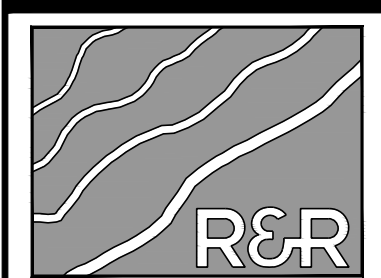


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SCALE: 1" = 50'

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EL PASO COUNTY  
PREPARED FOR: MAYBERRY COMMUNITIES, LLC  
3296 DIVINE HEIGHTS #208  
COLORADO SPRINGS, CO 80922

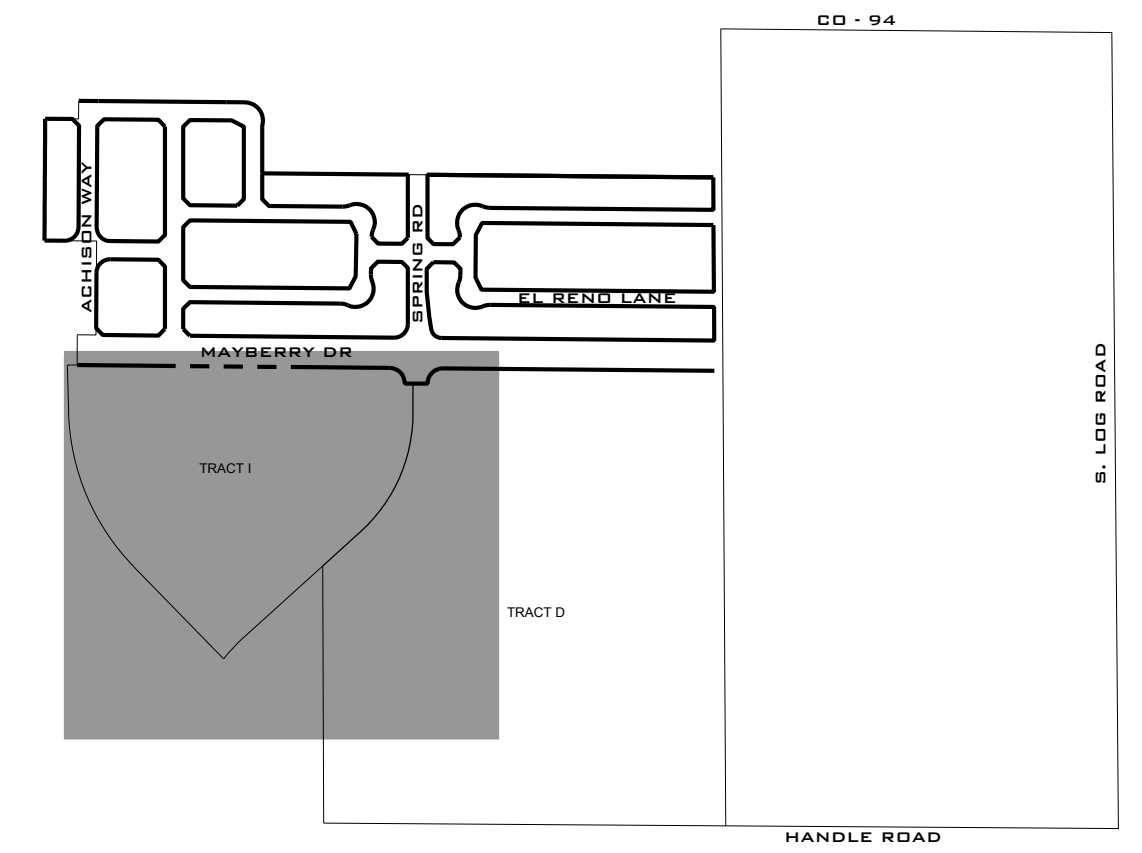
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JOB NO.	MC22110
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E&S PLAN-SOUTH WEST

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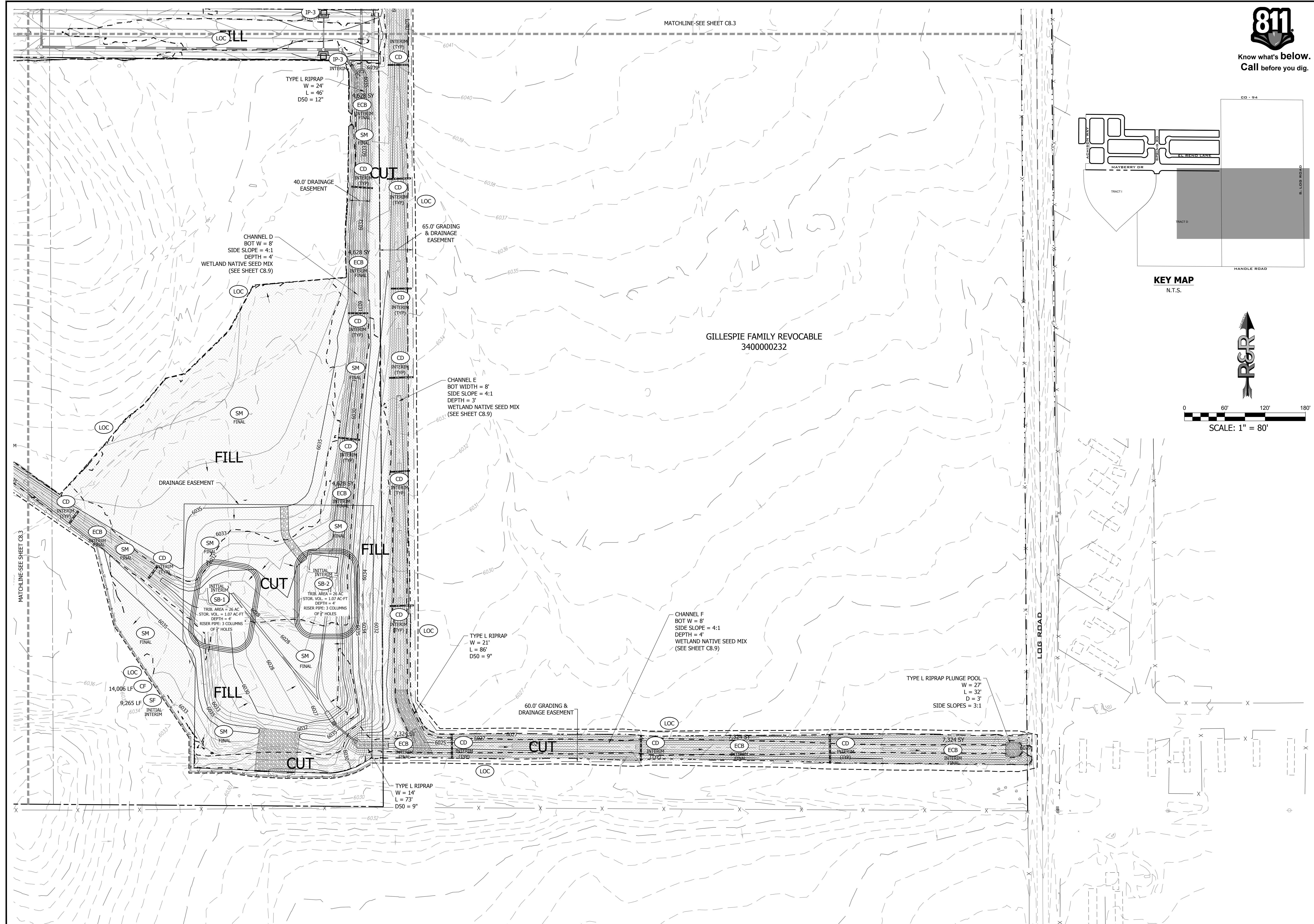
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MAYBERRY COMMUNITIES, LLC  
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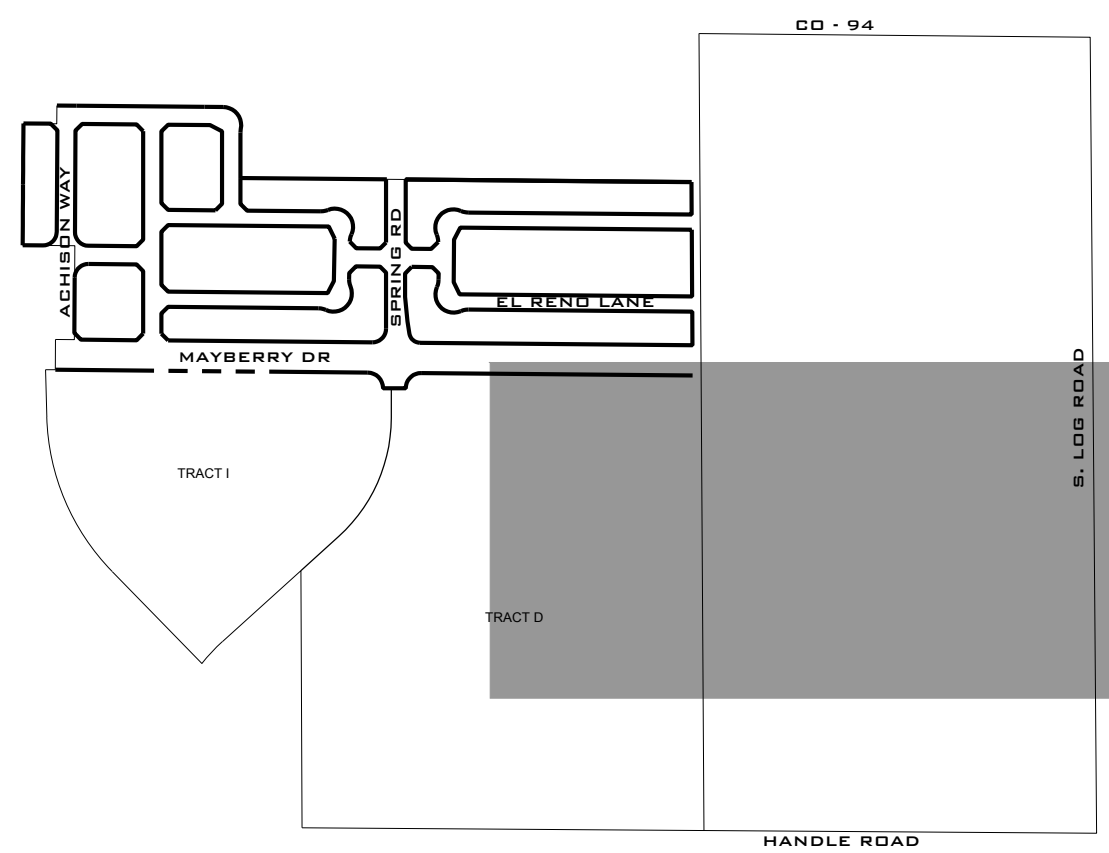




MATCHLINE-SEE SHEET C8.3

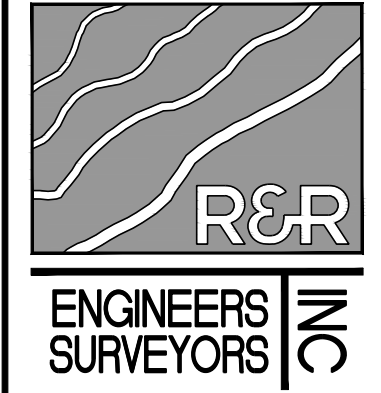


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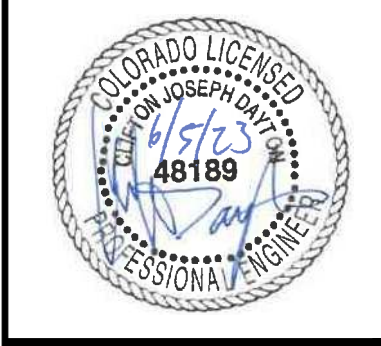
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EL PASO COUNTY  
PREPARED FOR: MAYBERRY COMMUNITIES, LLC  
3296 DIVINE HEIGHTS #208  
COLORADO SPRINGS, CO 80922

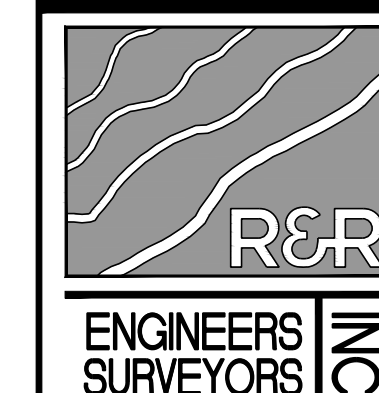
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ORG. SUBM. DATE	06/16/2022
DWN:	LAO
CHKD:	CJD

E&S PLAN-SOUTH EAST

NO. **C8.5**



DATE	BY	REVISION
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		4TH SUBMISSION



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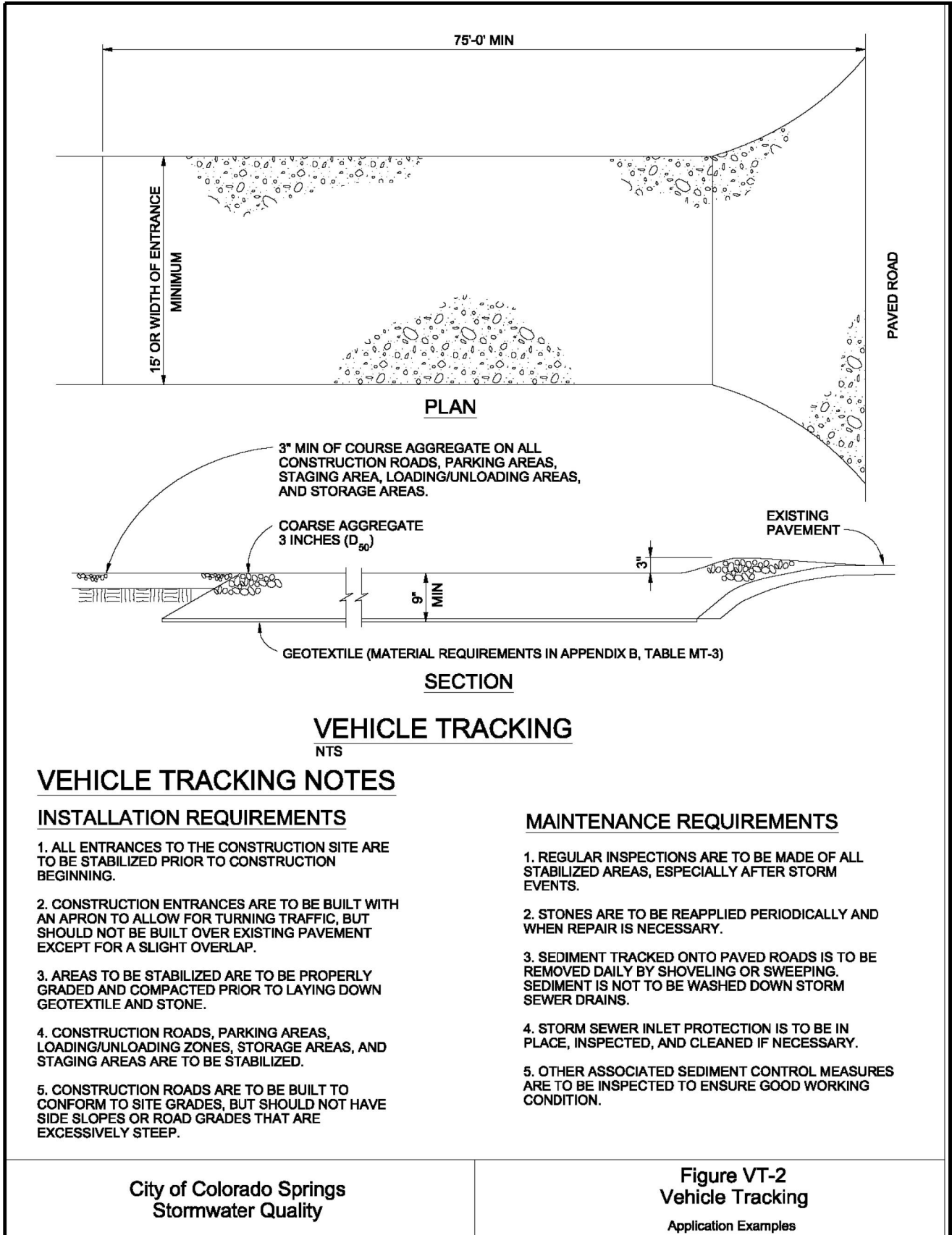
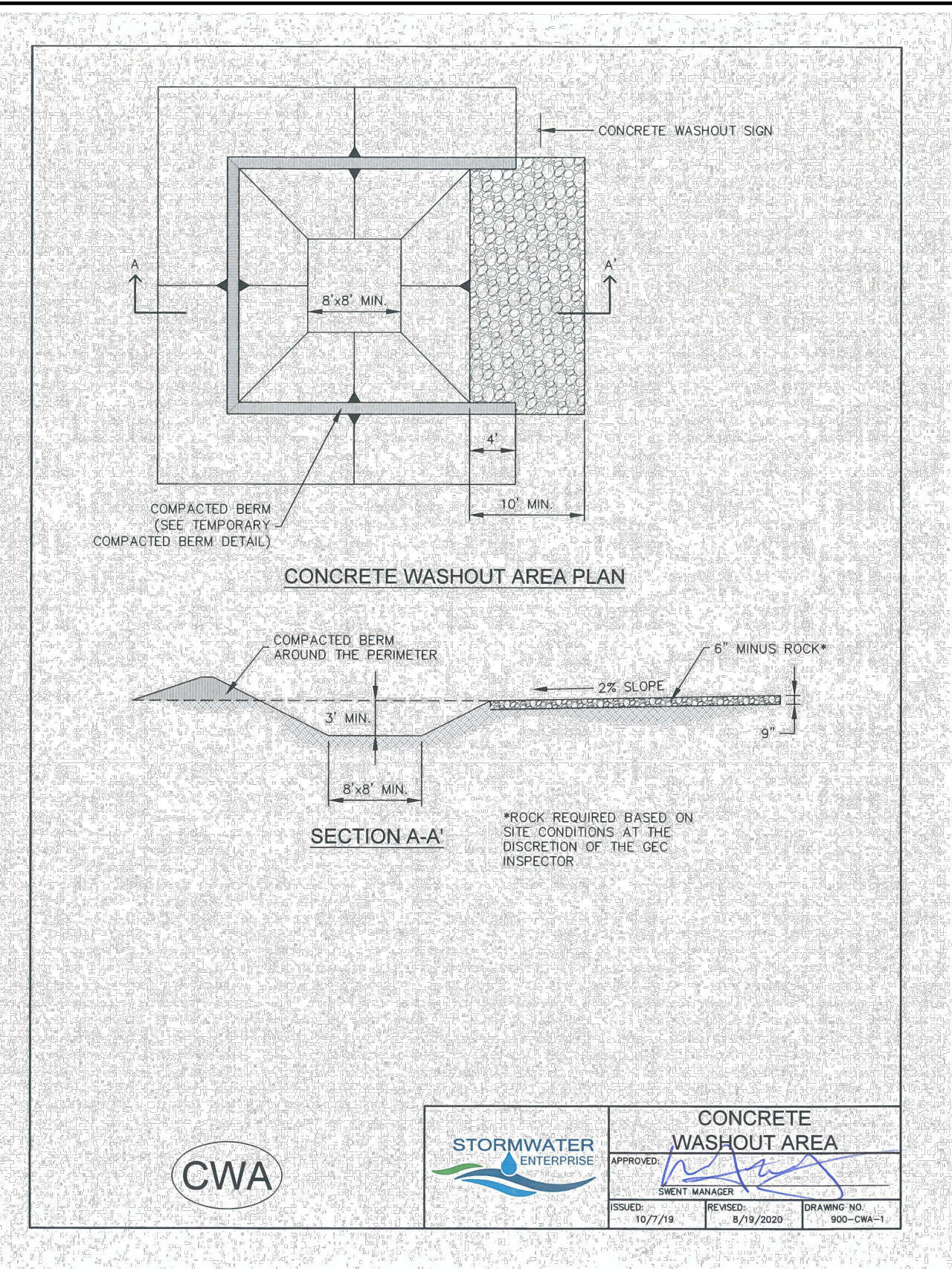
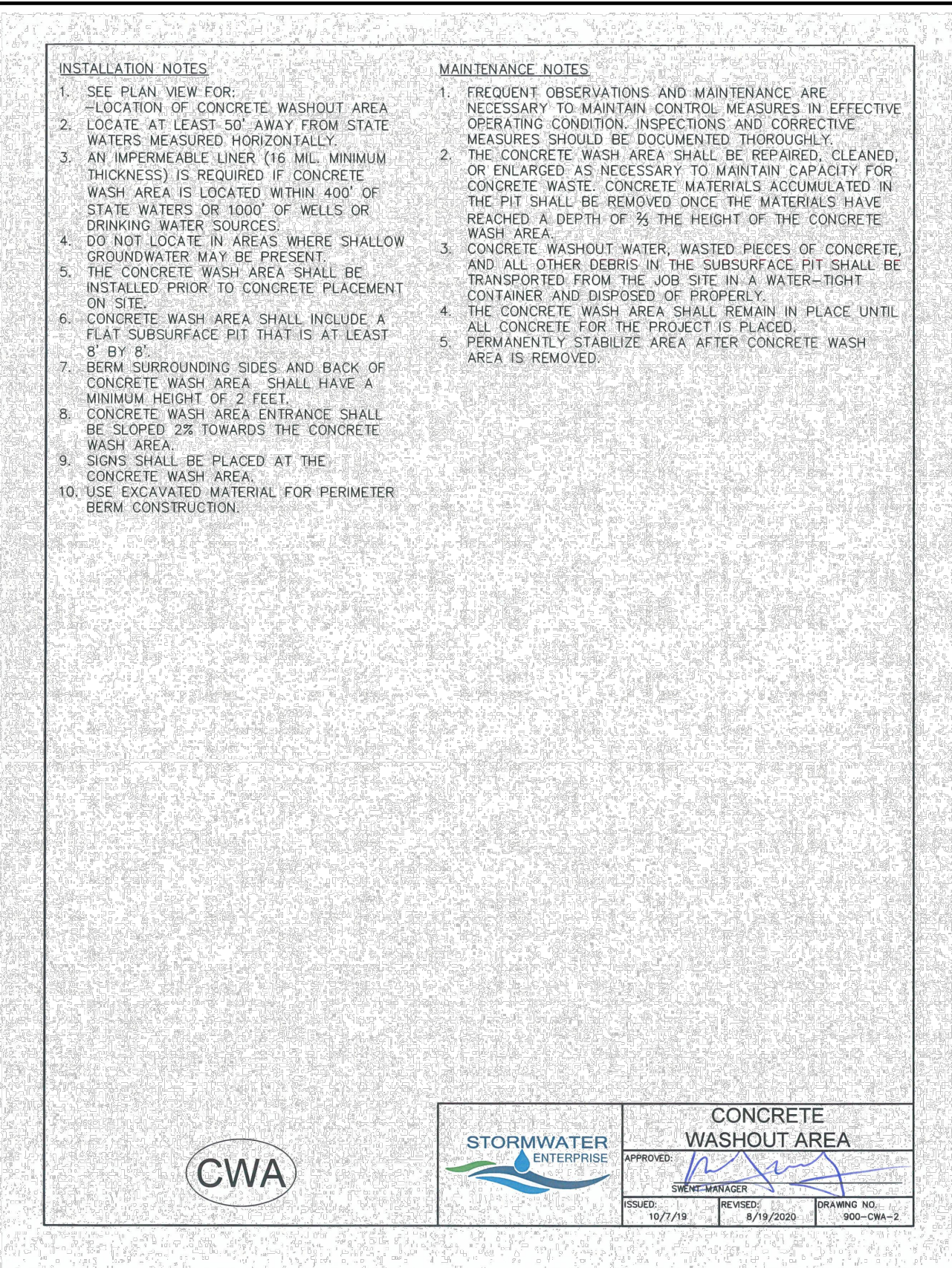
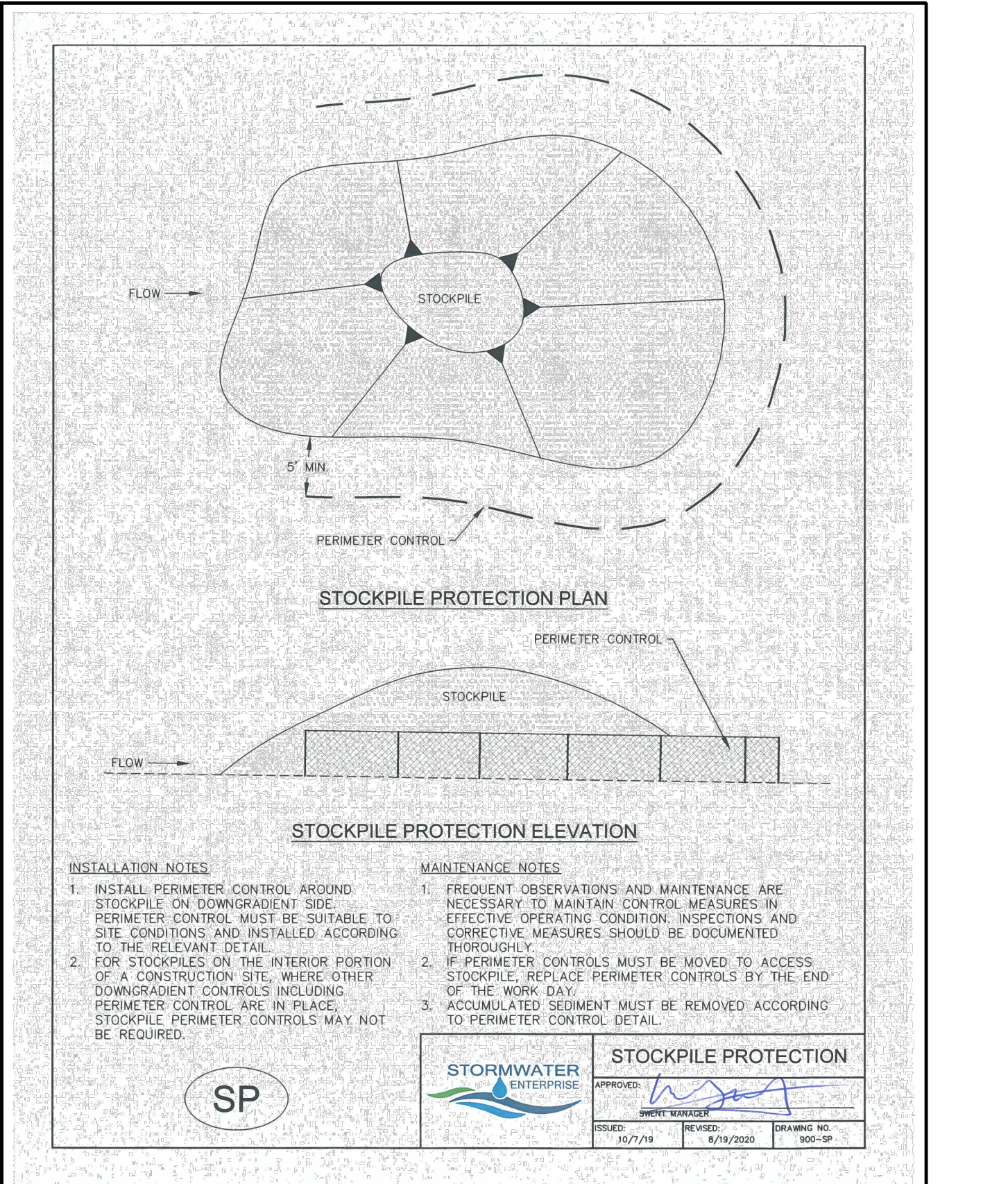
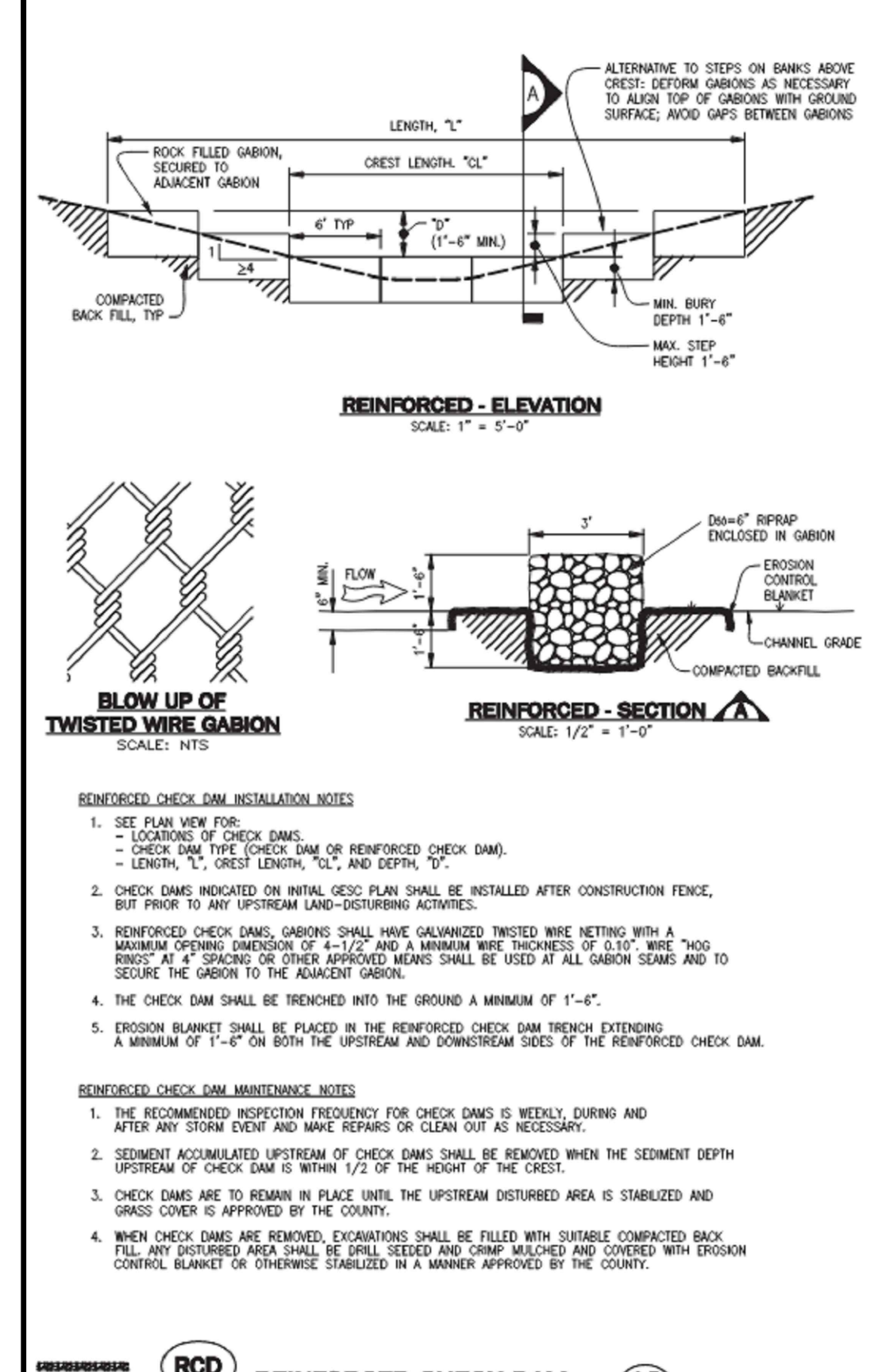
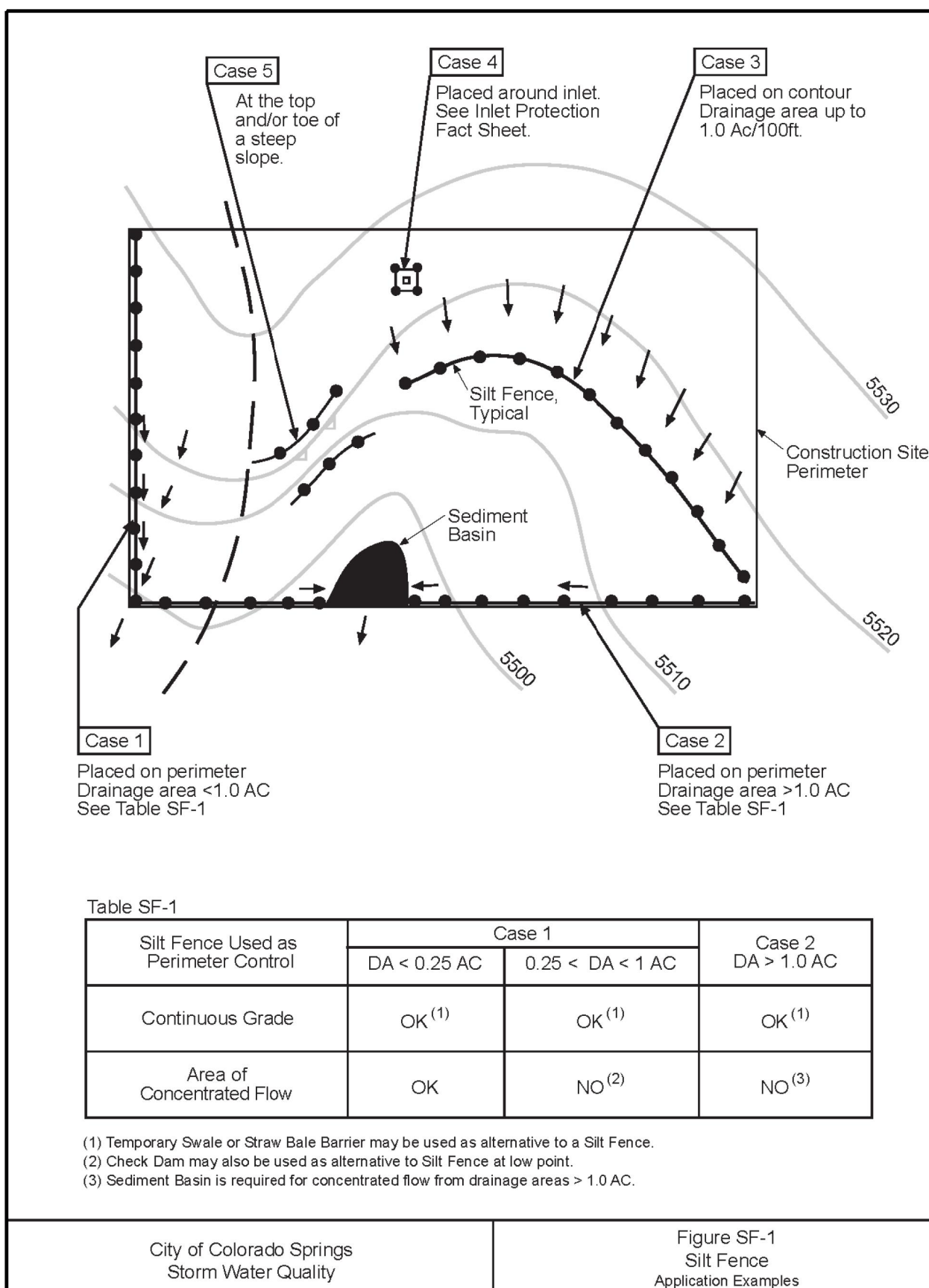
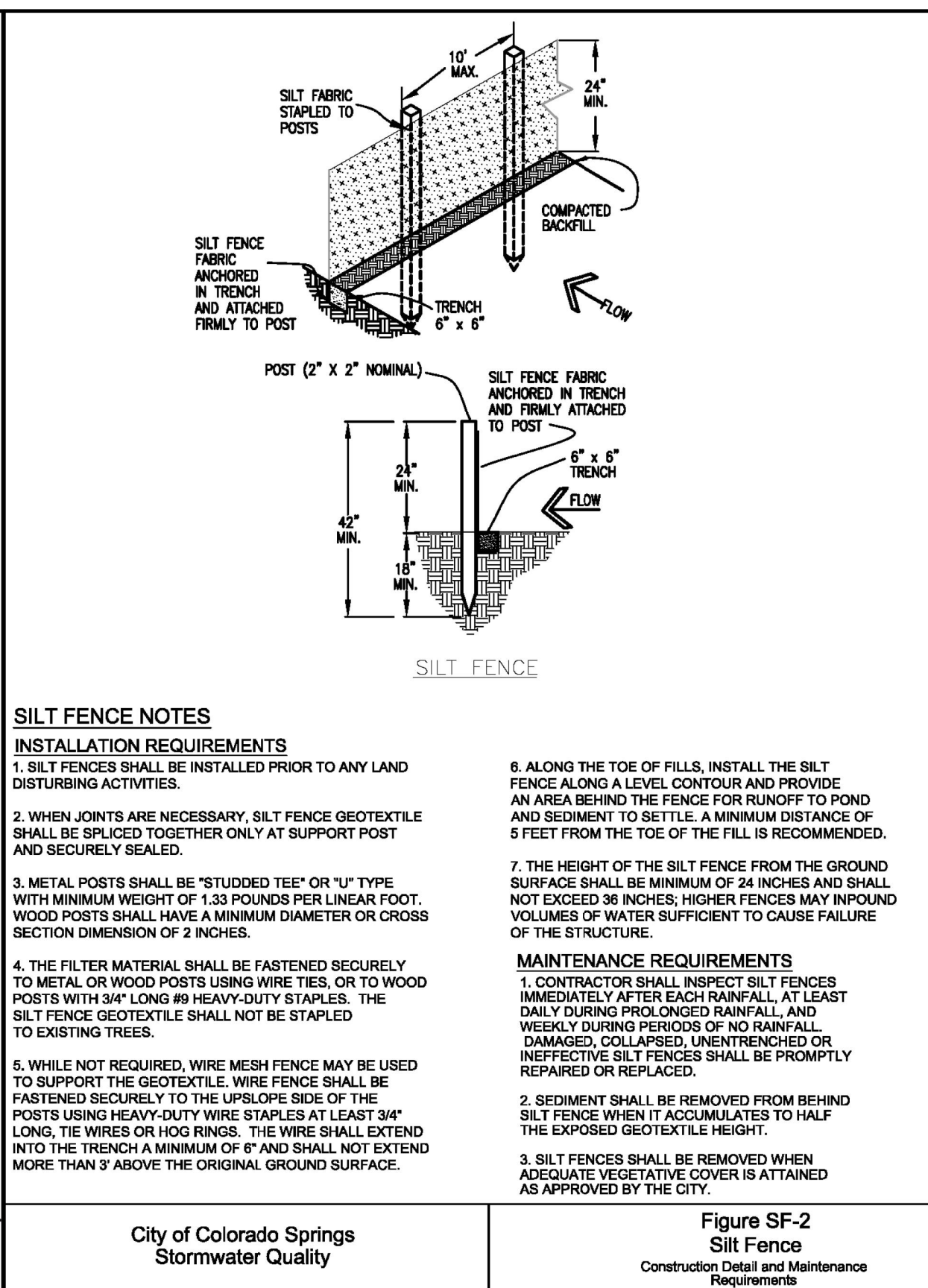
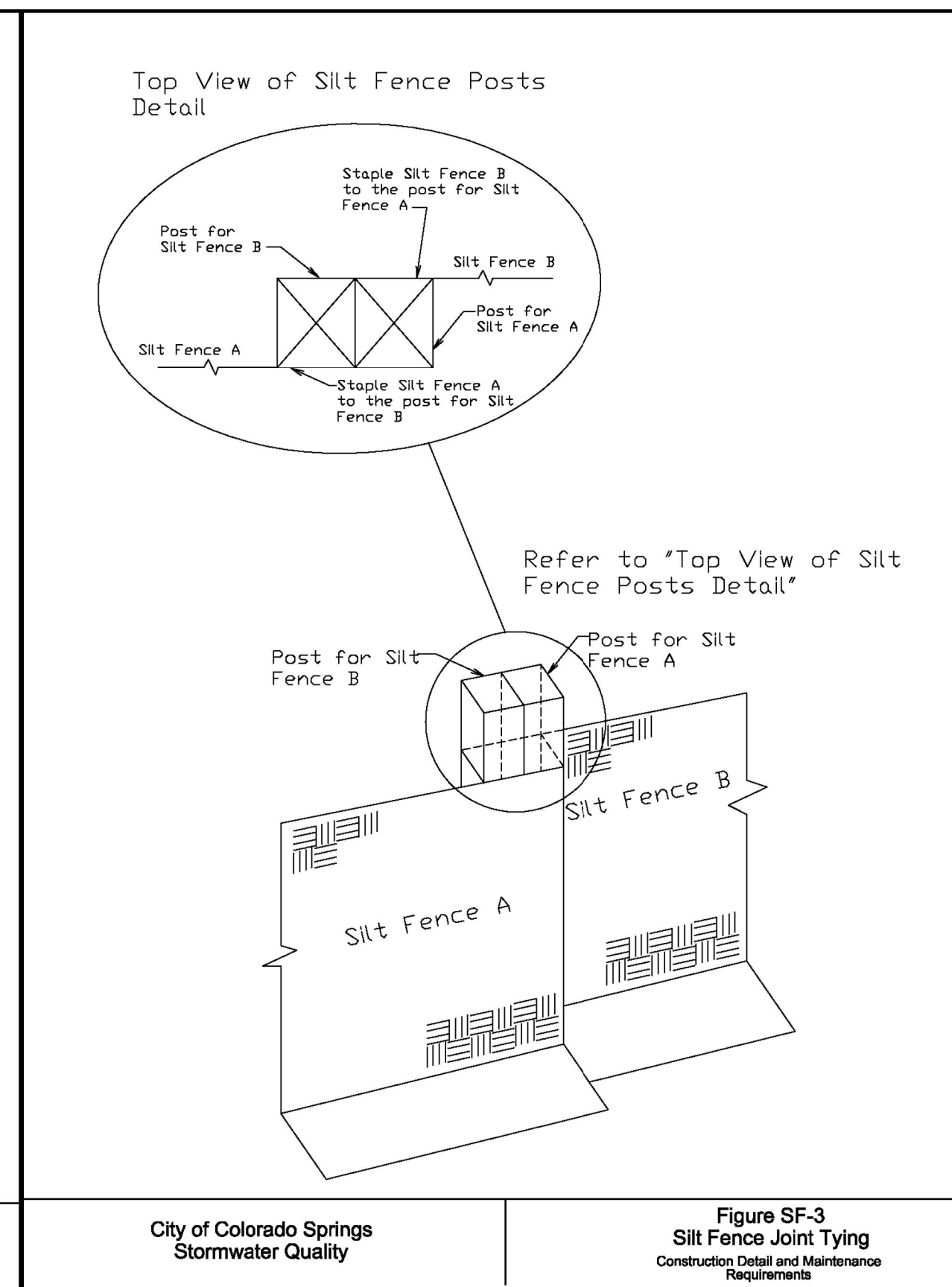
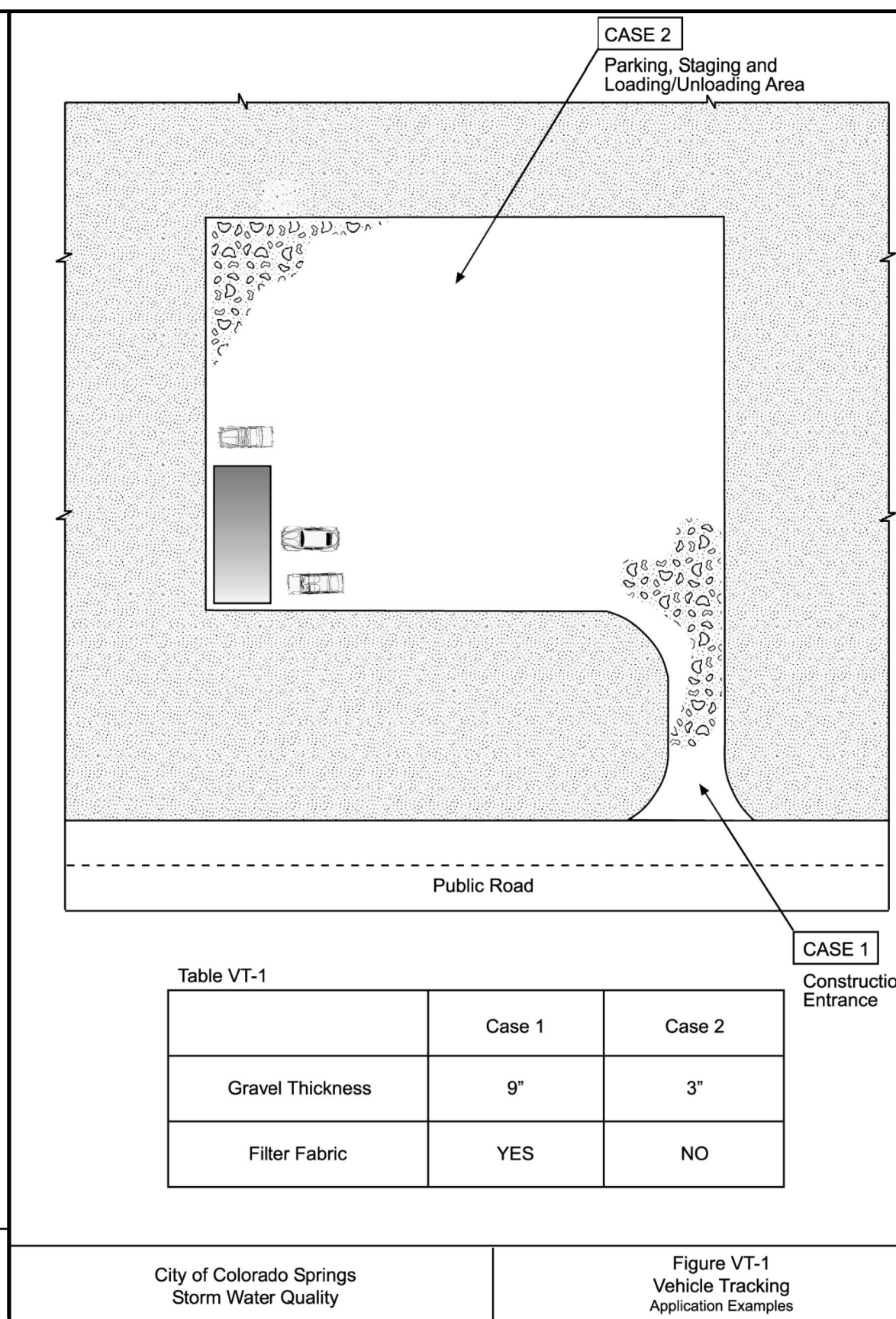


**MAYBERRY PUD PH 1 - FILING NO. 3**  
 MAYBERRY, COLORADO SPRINGS  
 EL PASO COUNTY  
 PREPARED FOR:  
 MAYBERRY COMMUNITIES, LLC  
 3296 DIVINE HEIGHTS #208  
 COLORADO SPRINGS, CO 80922

JOB NO.	MC22110
ORG. SUBM. DATE	06/16/2022
DWN:	LAO
NAME	CHKD: CJD

E&S DETAILS

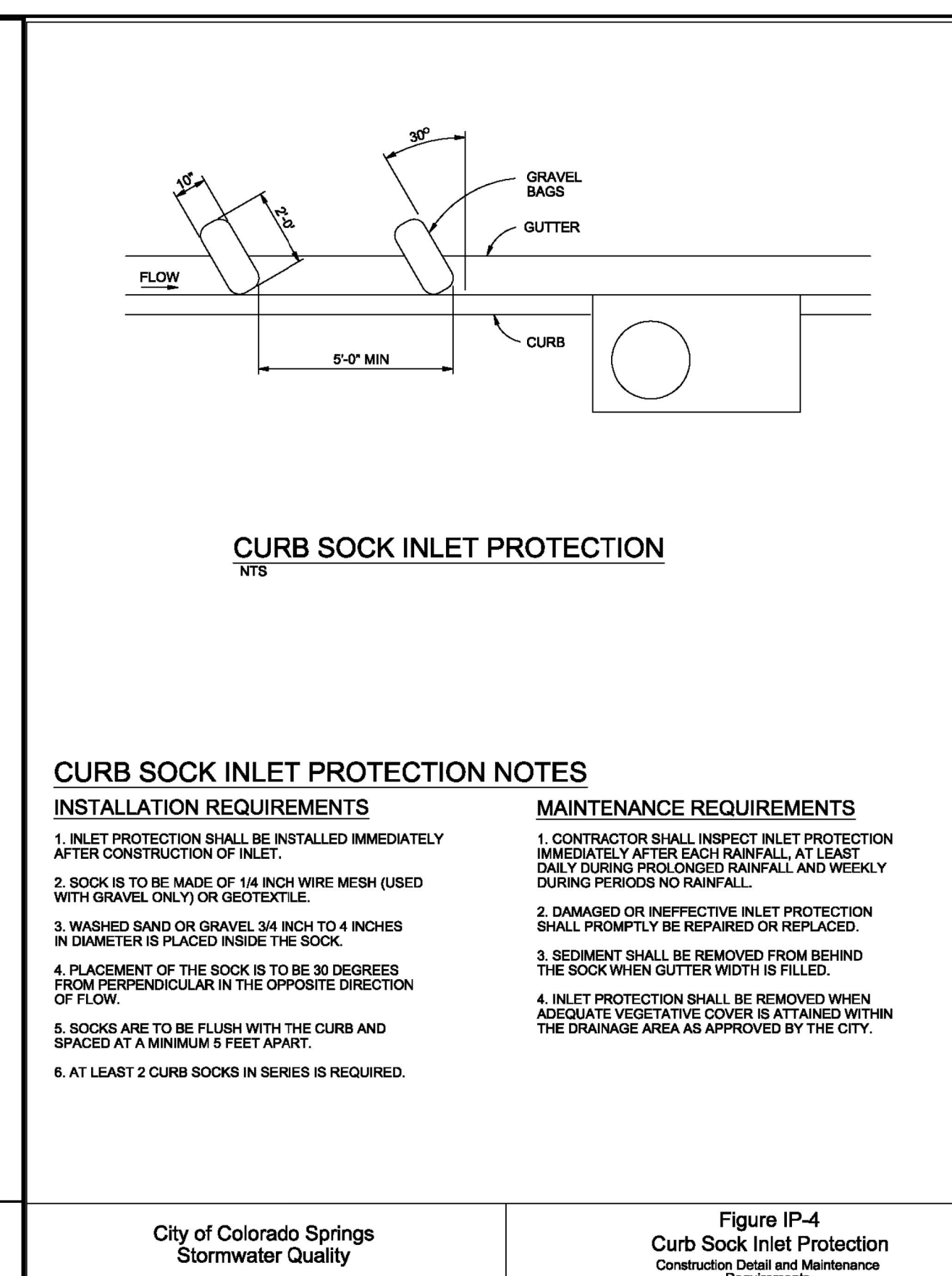
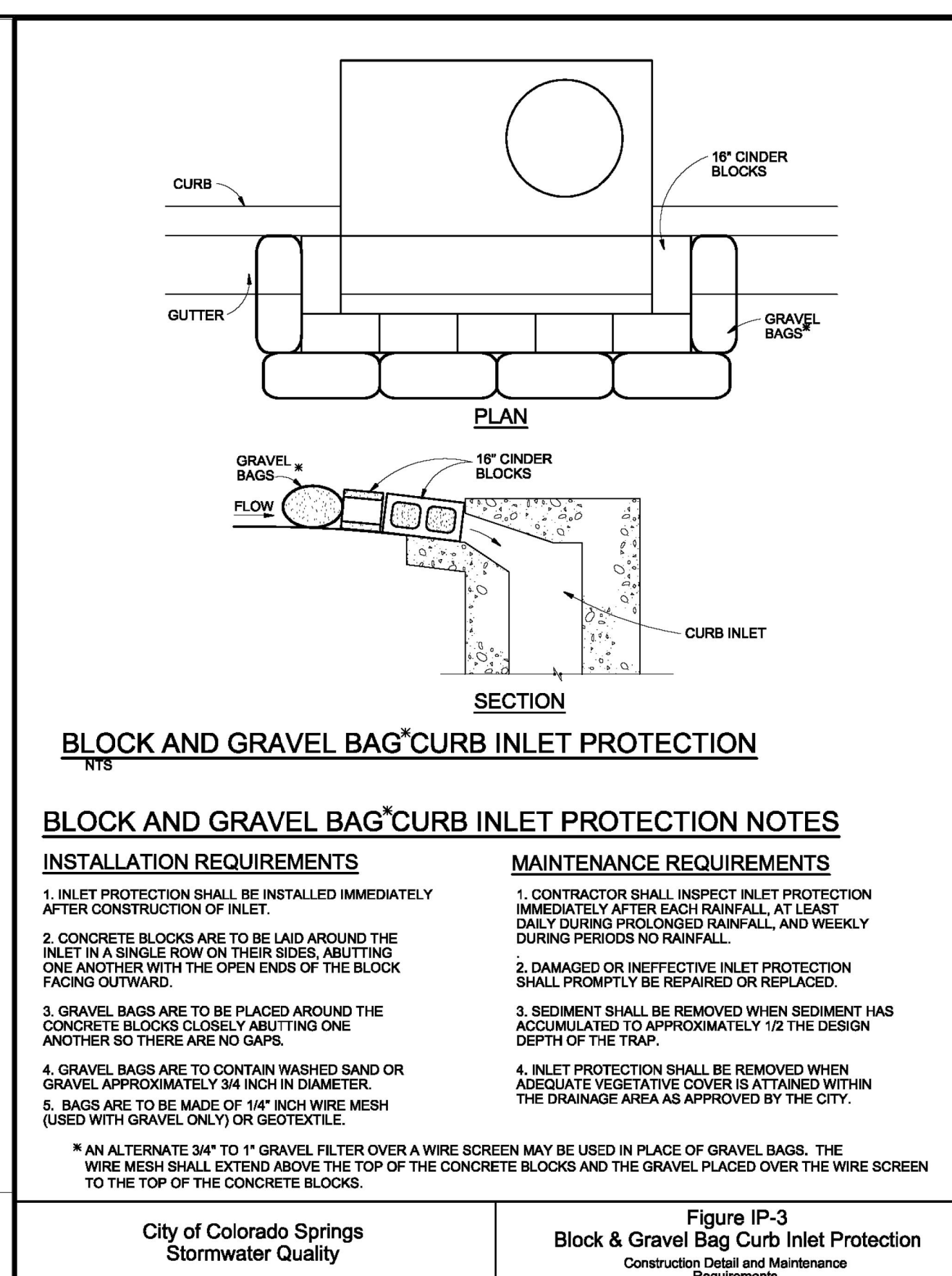
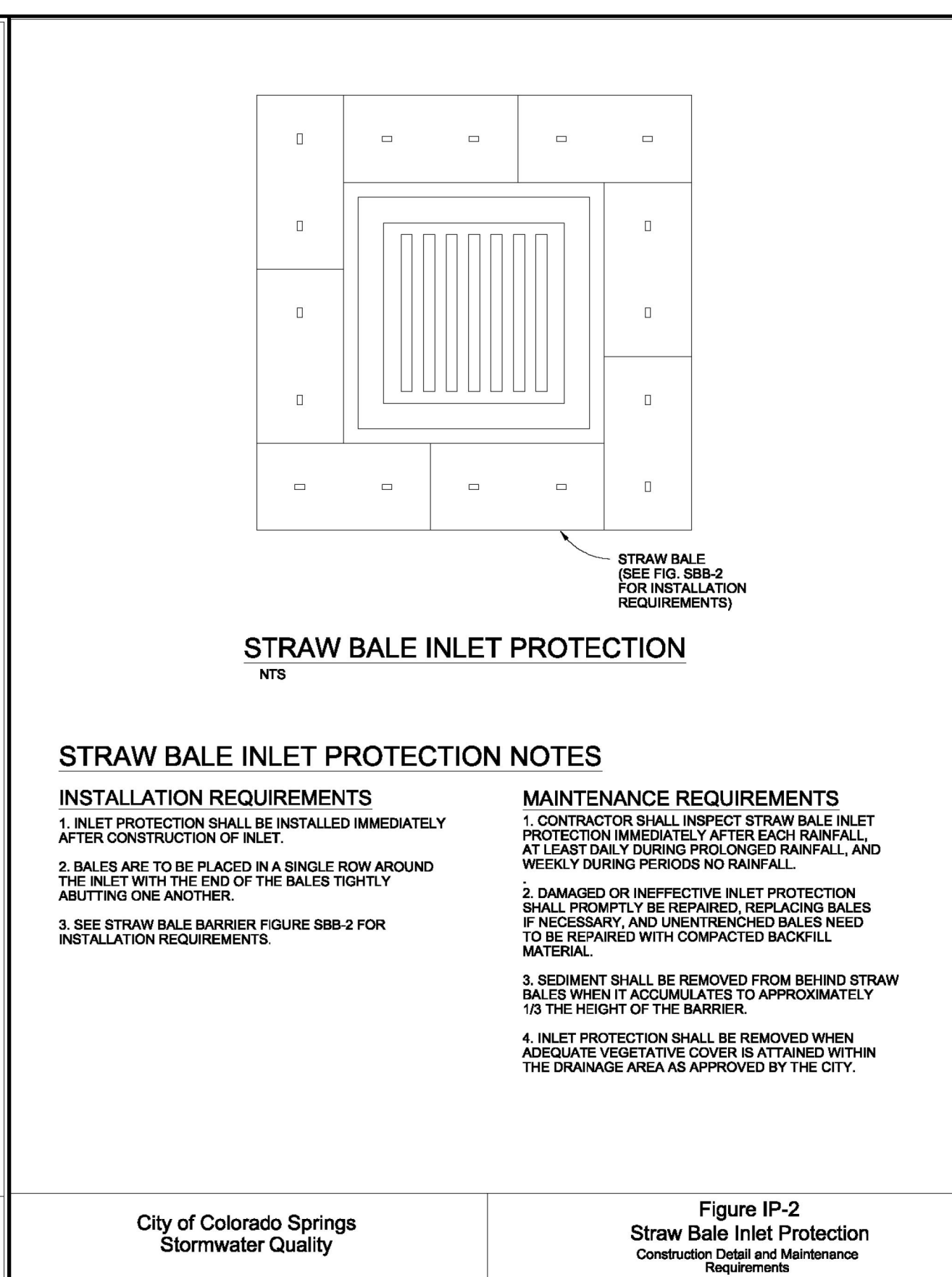
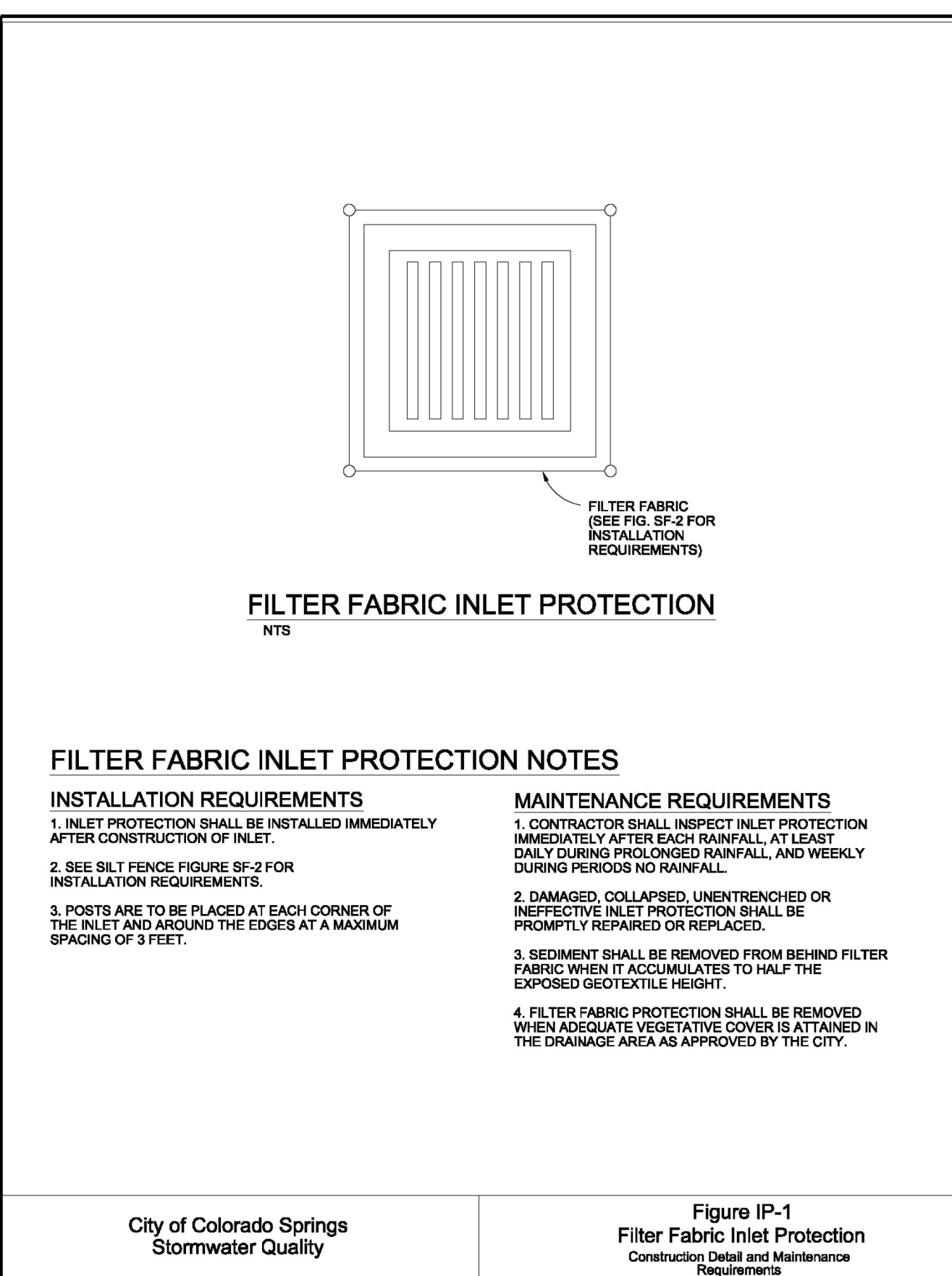
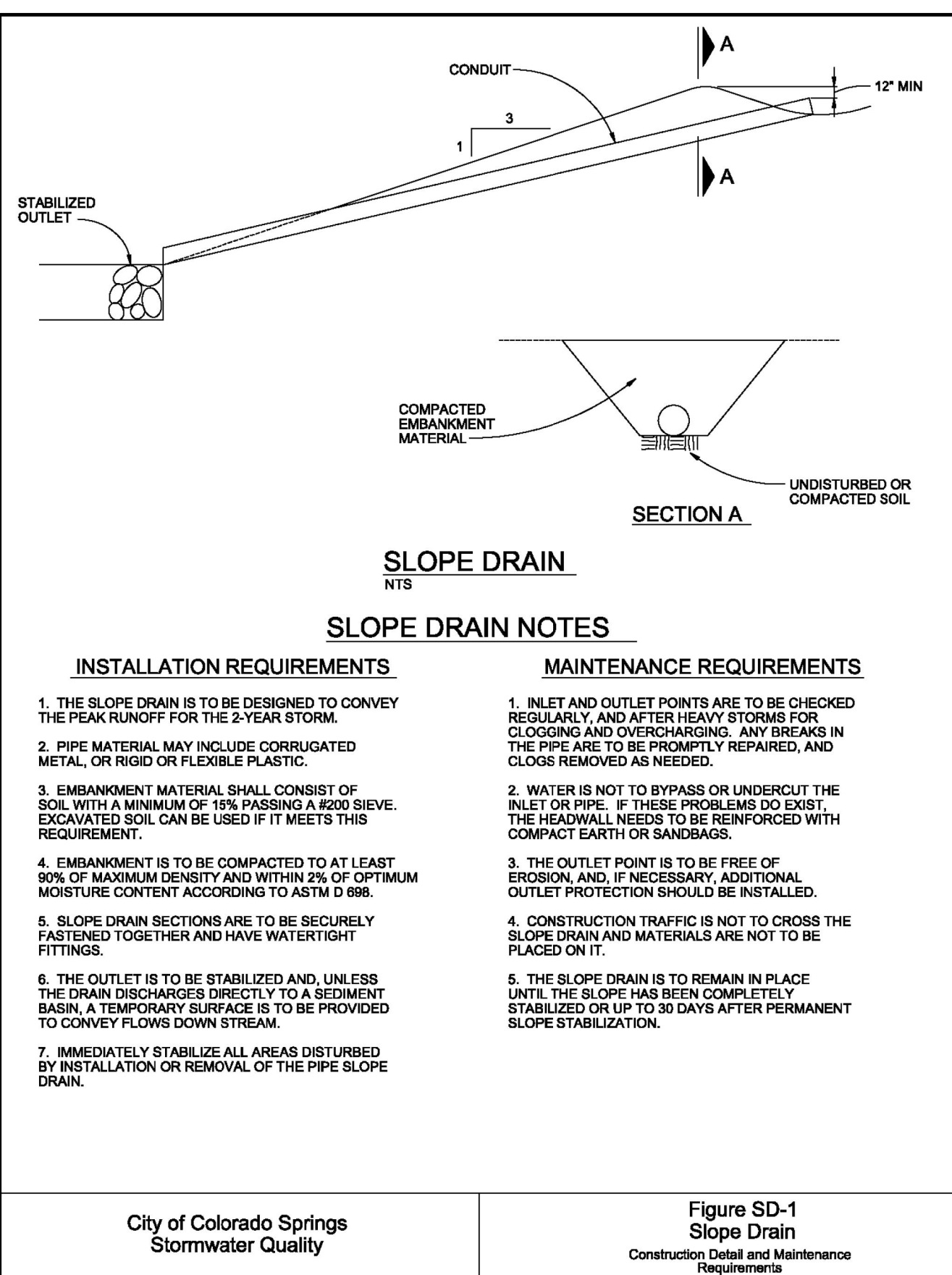
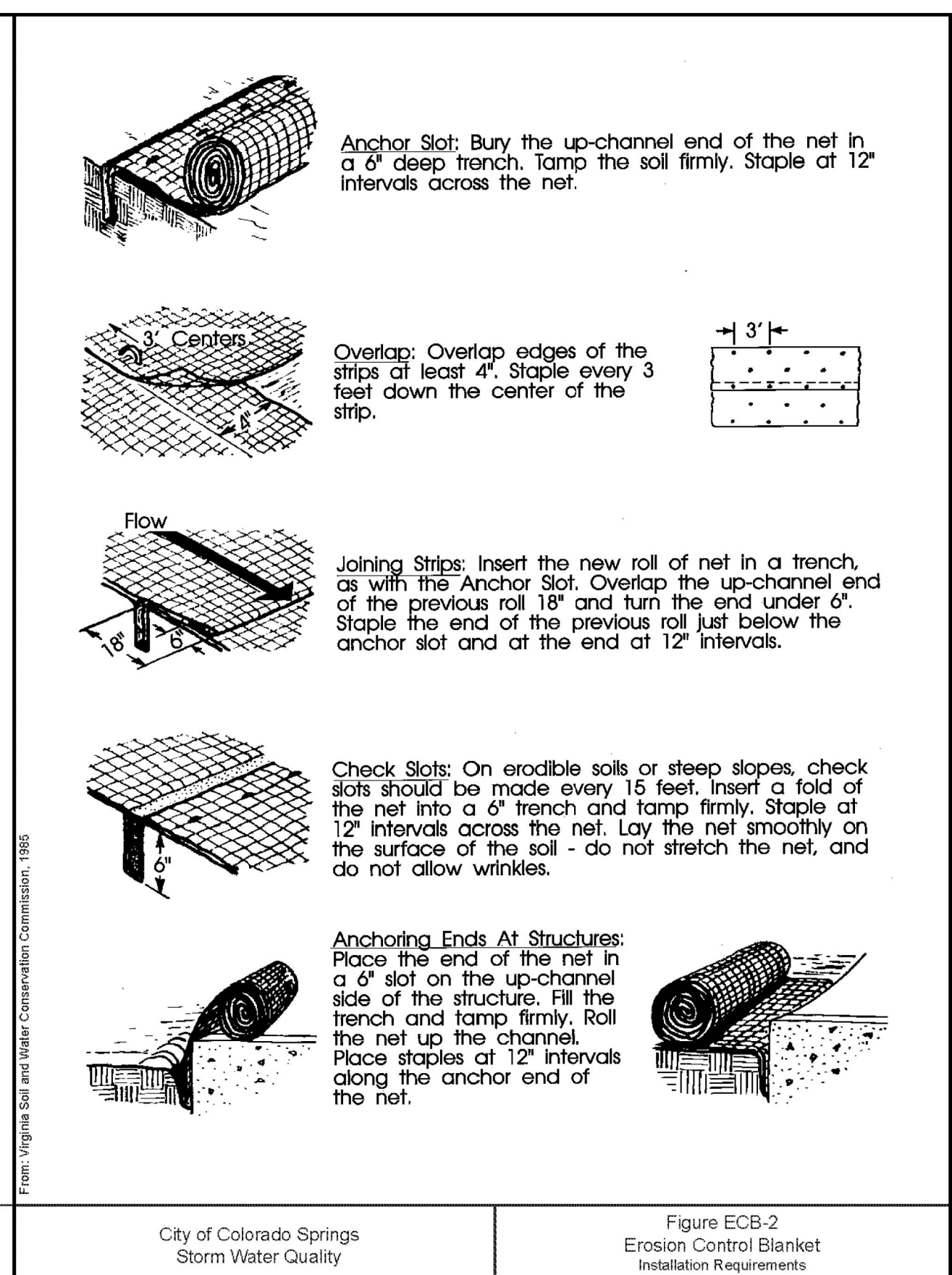
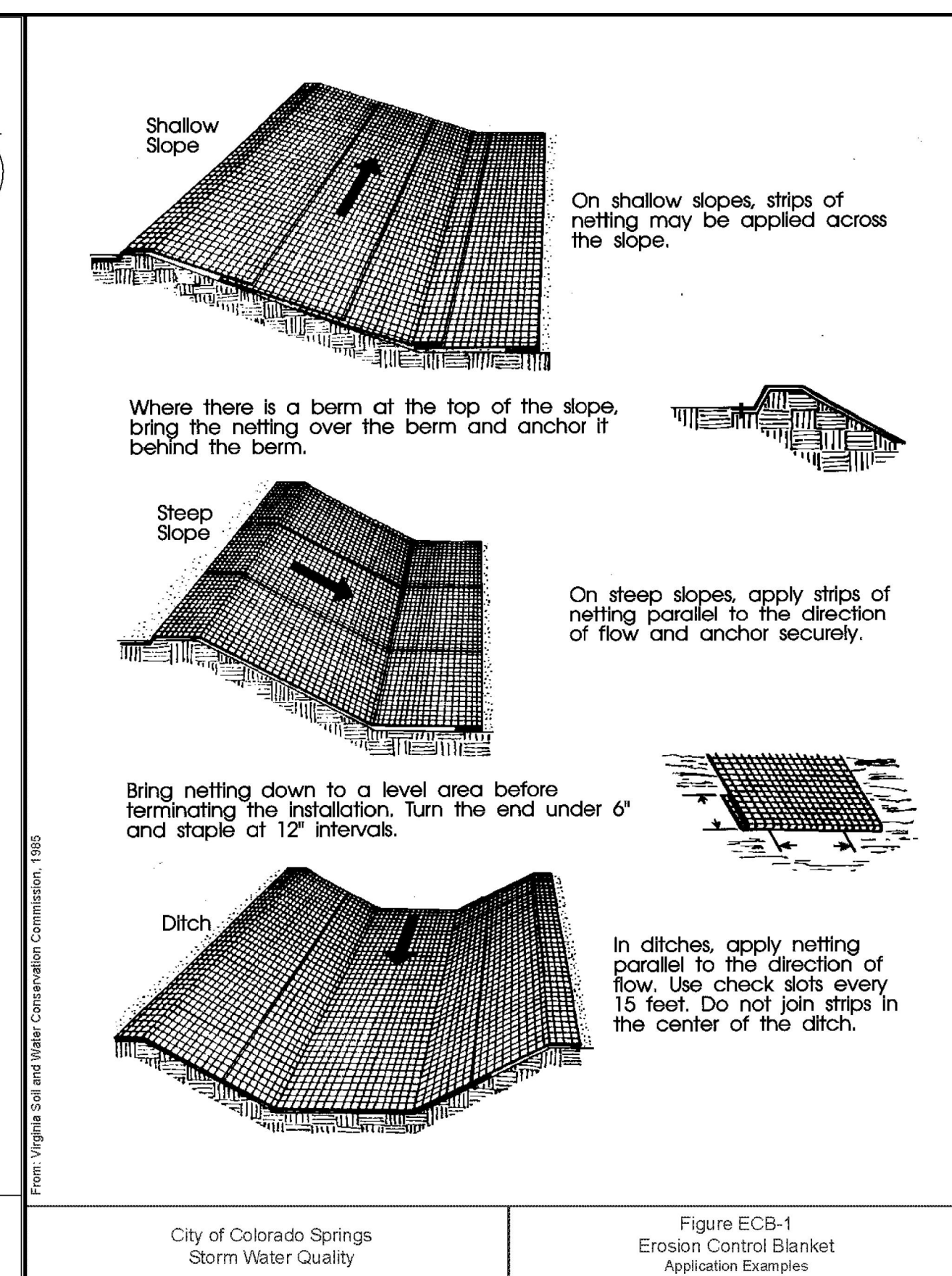
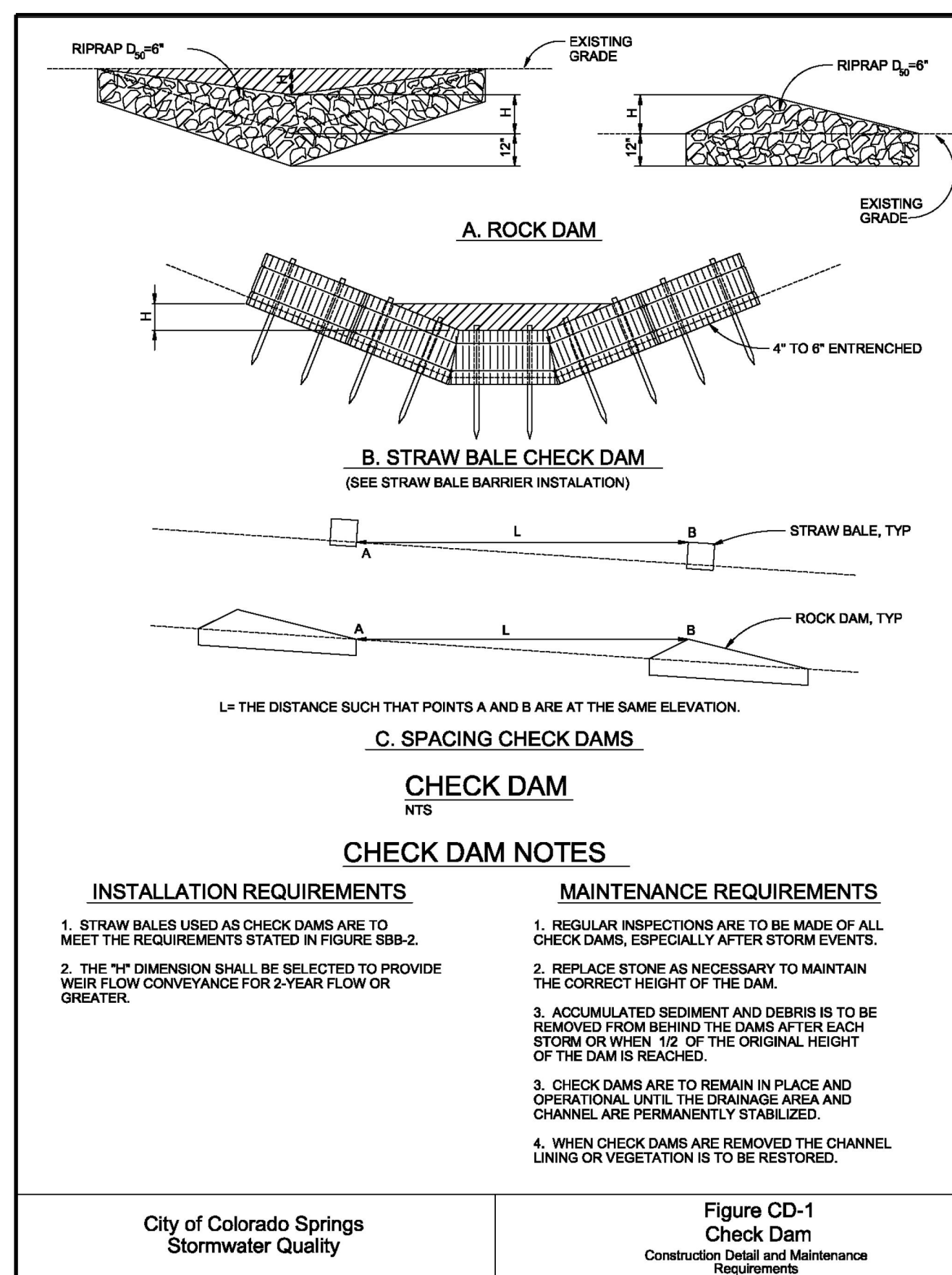
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**RCD REINFORCED CHECK DAM**  
 City of Colorado Springs Storm Water Quality

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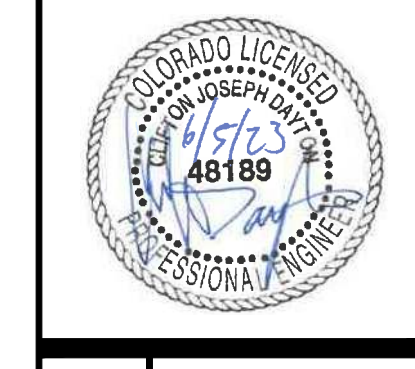


NO.	REVISION	DATE
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4TH SUBMISSION		04/10/23

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3296 DIVINE HEIGHTS #208  
COLORADO SPRINGS, CO 80922

GESC PLANS

JOB NO. MC22110  
ORG. SUBM. DATE 06/16/2022  
DWN: LAO CHD: CJD

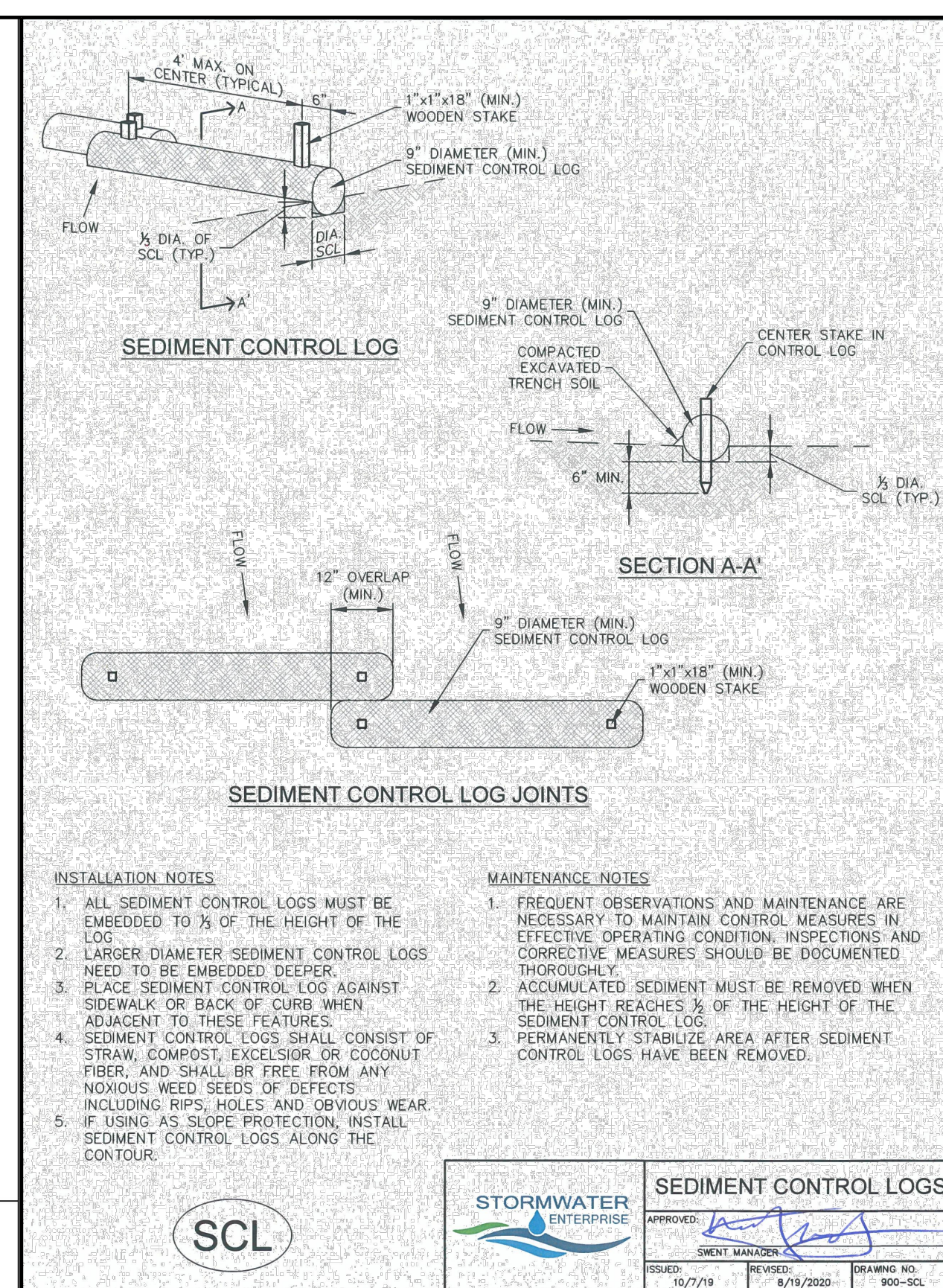
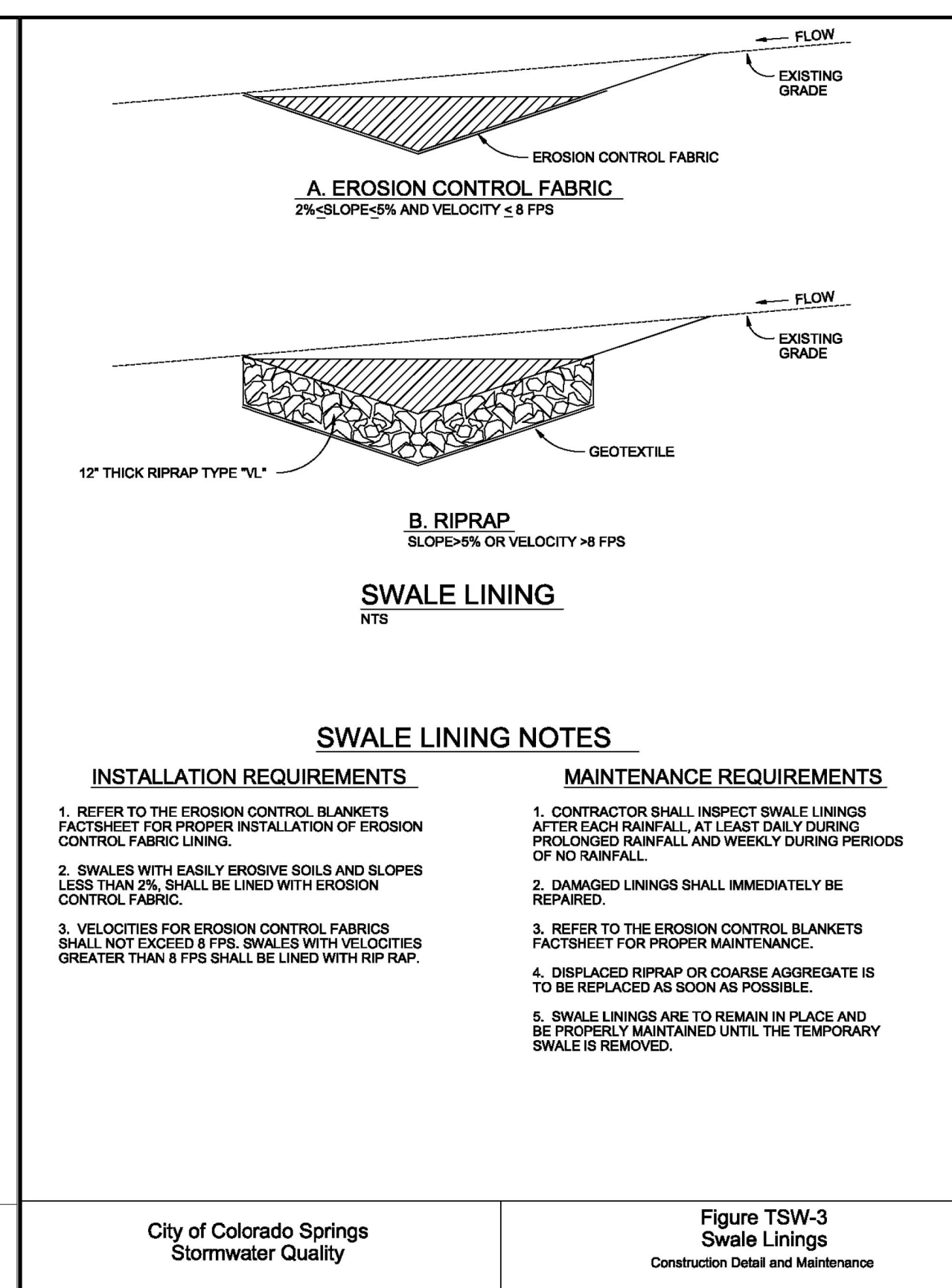
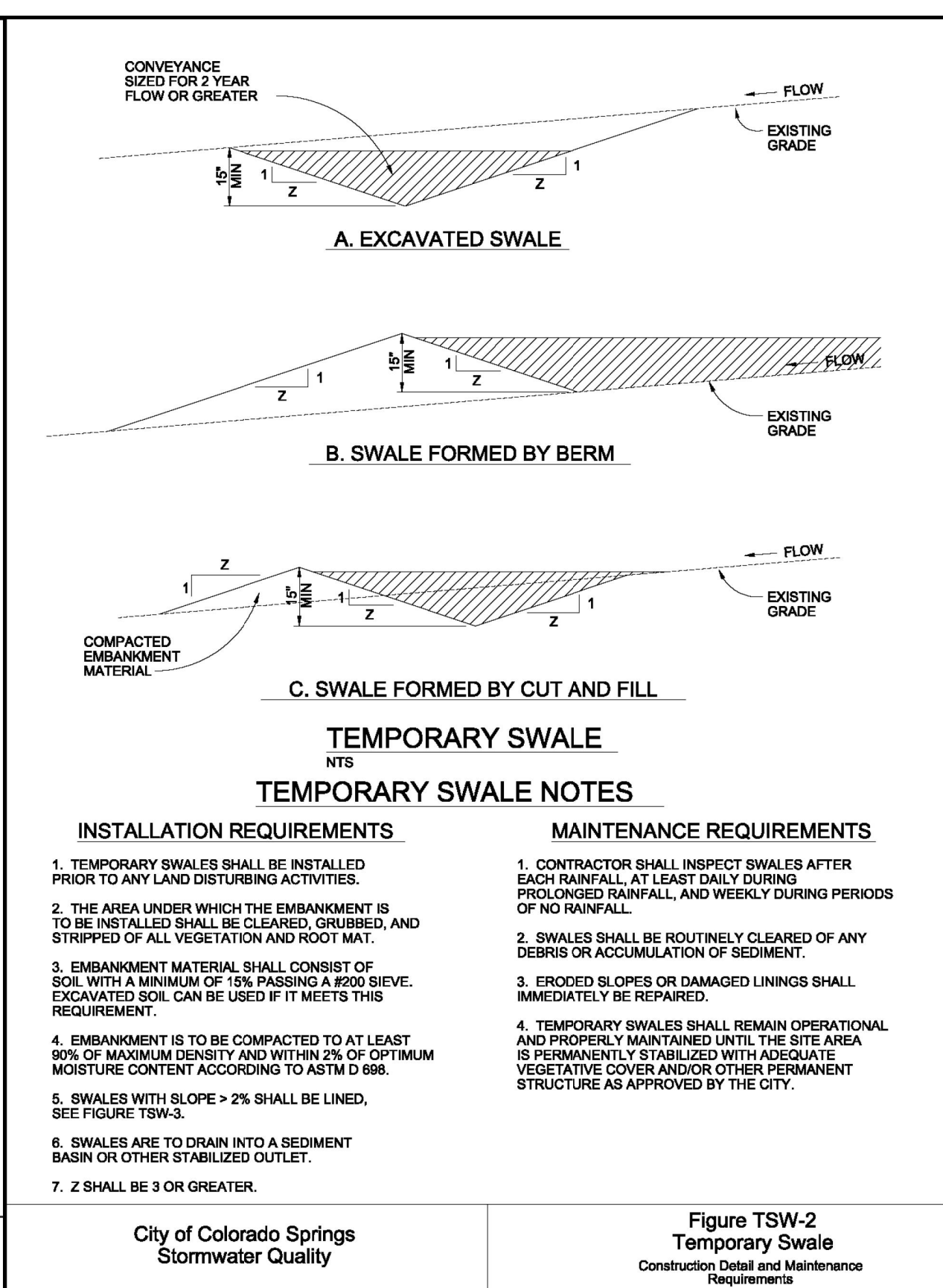
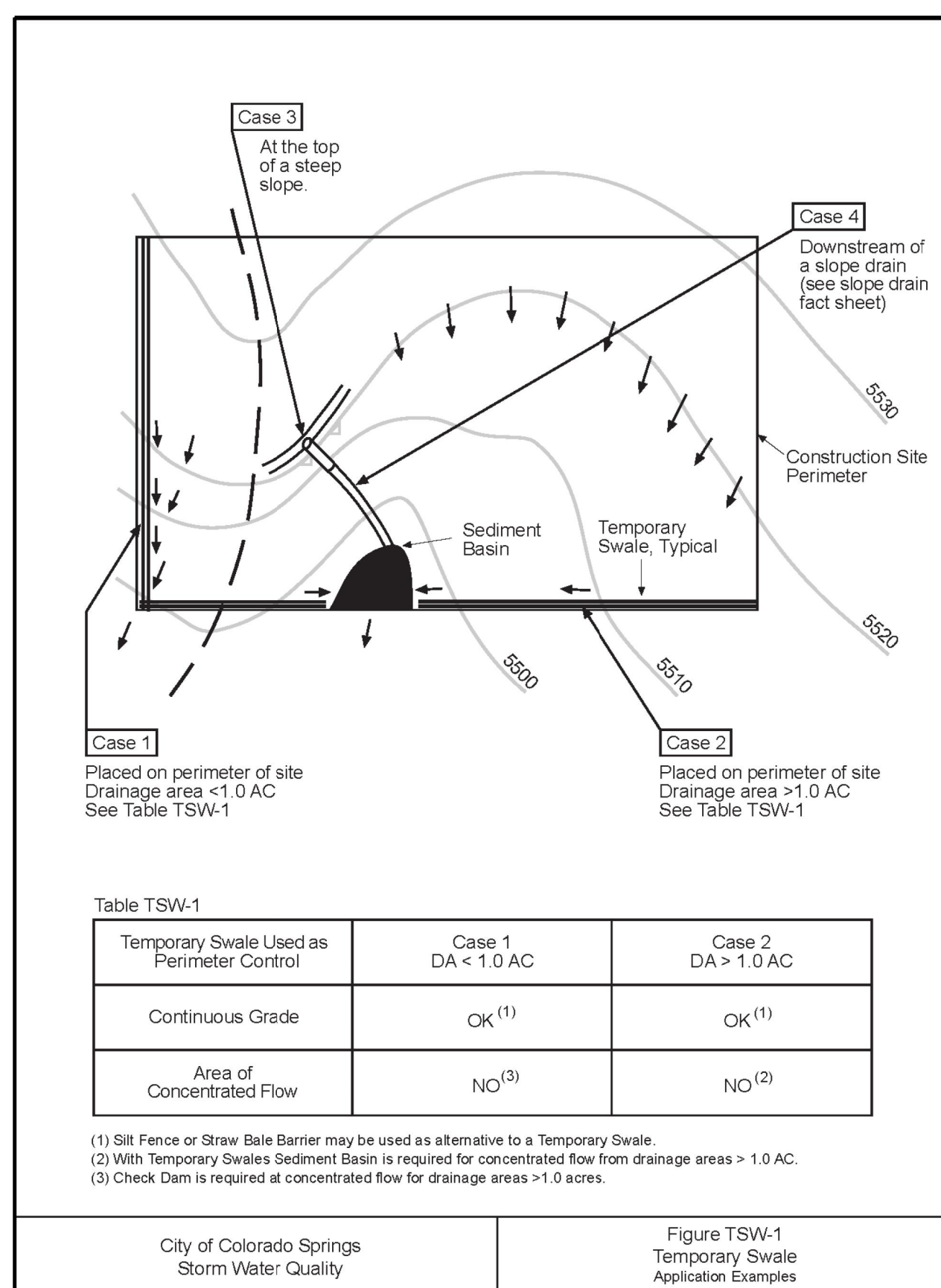
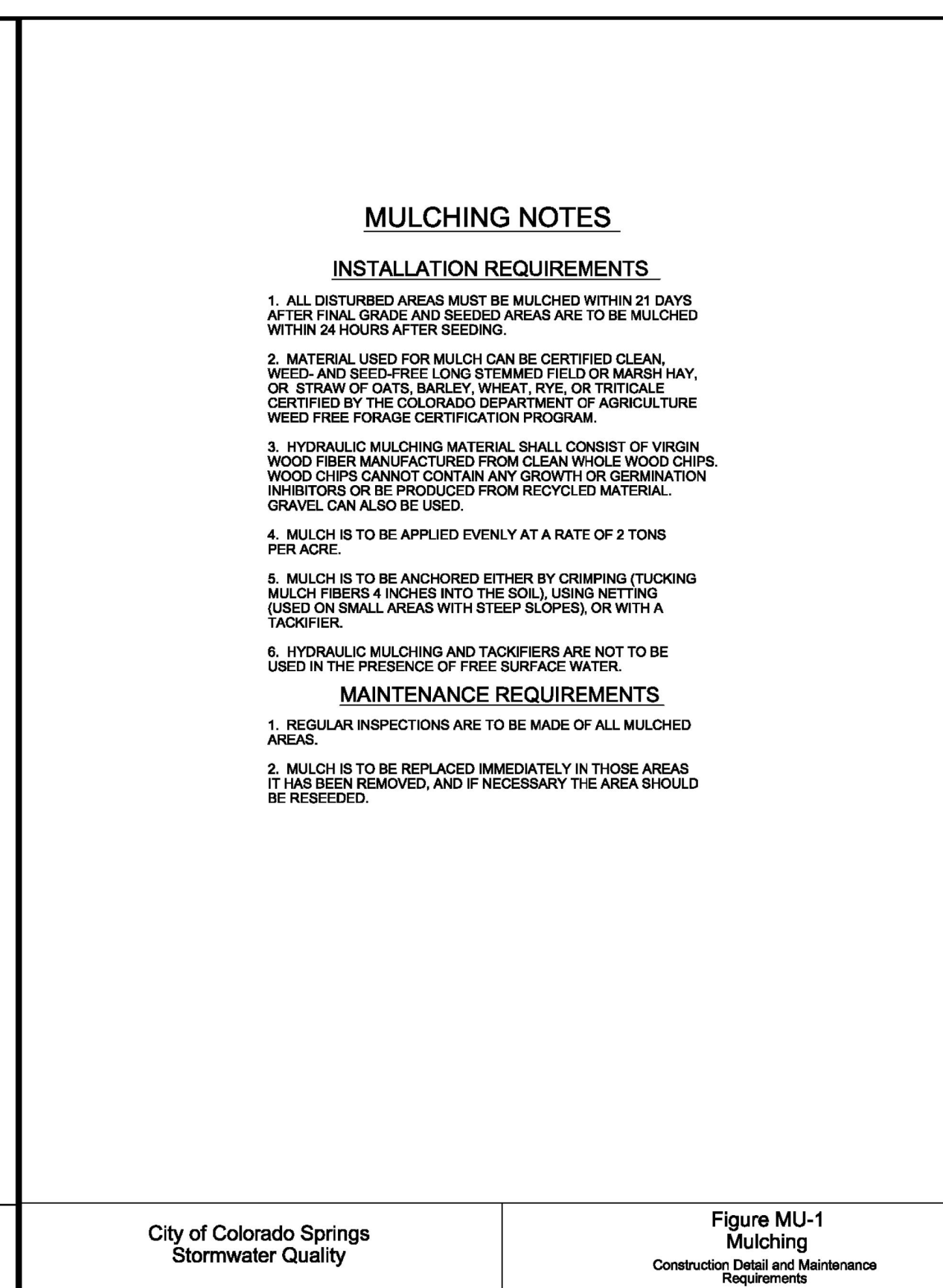
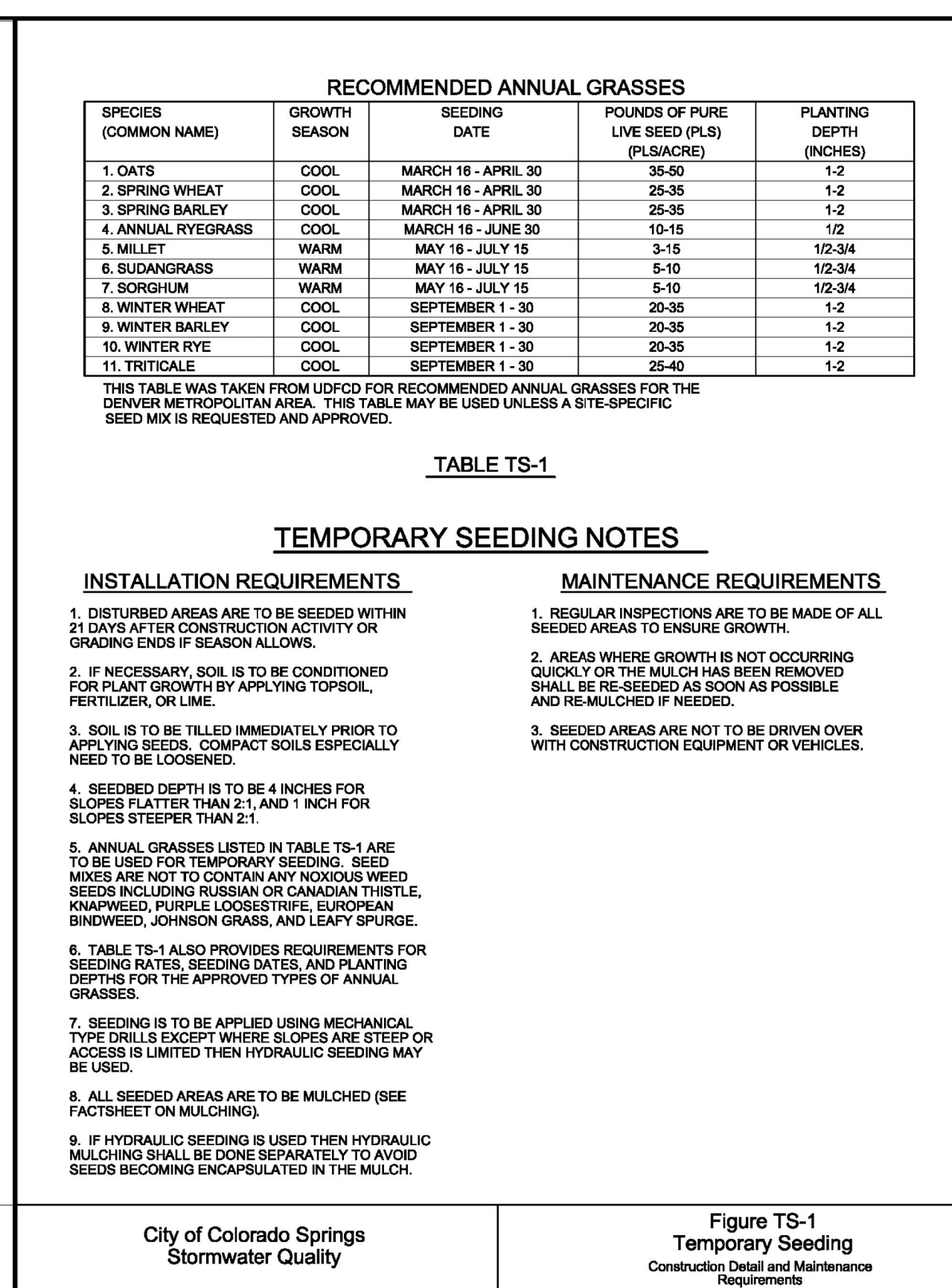
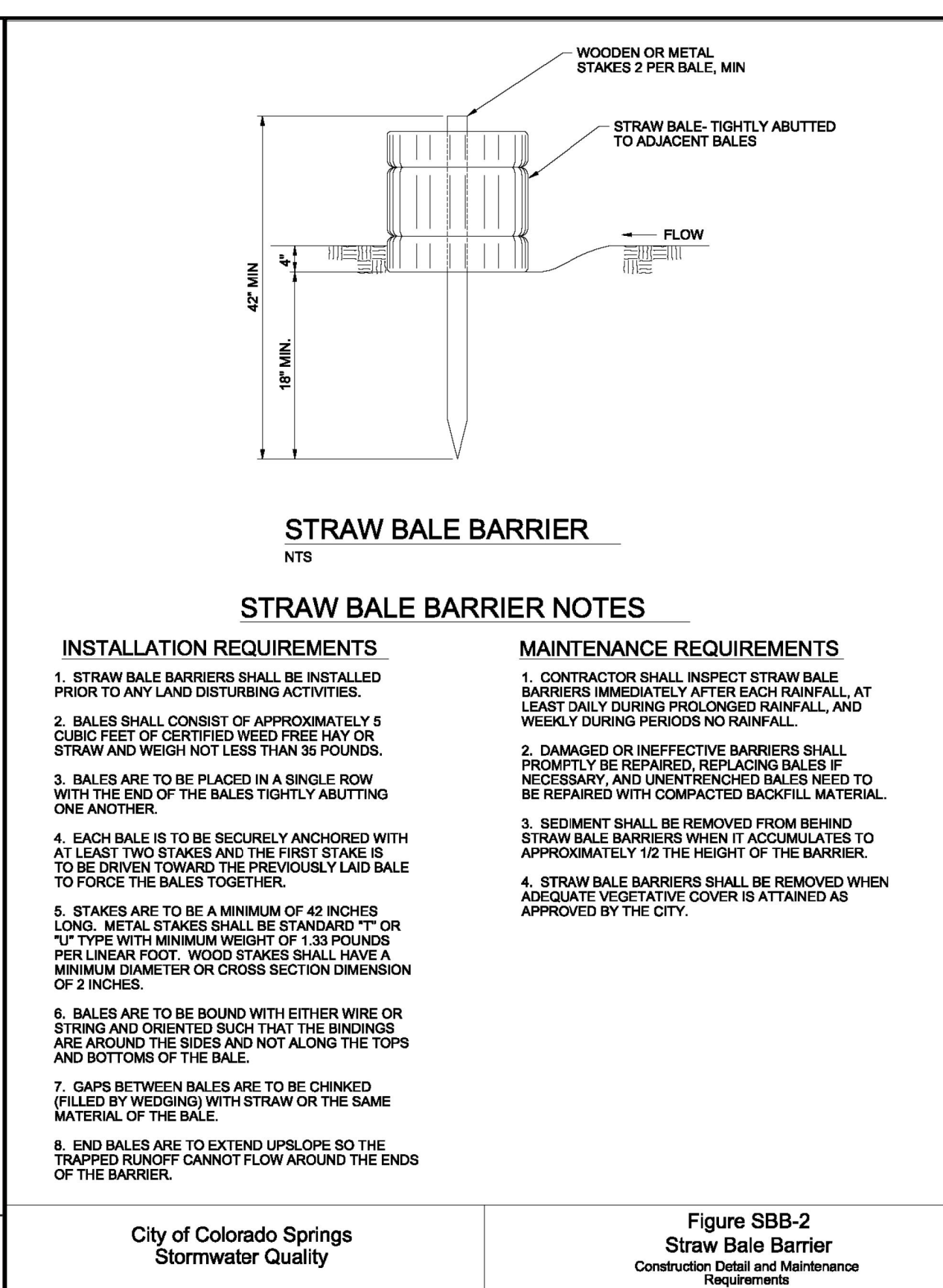
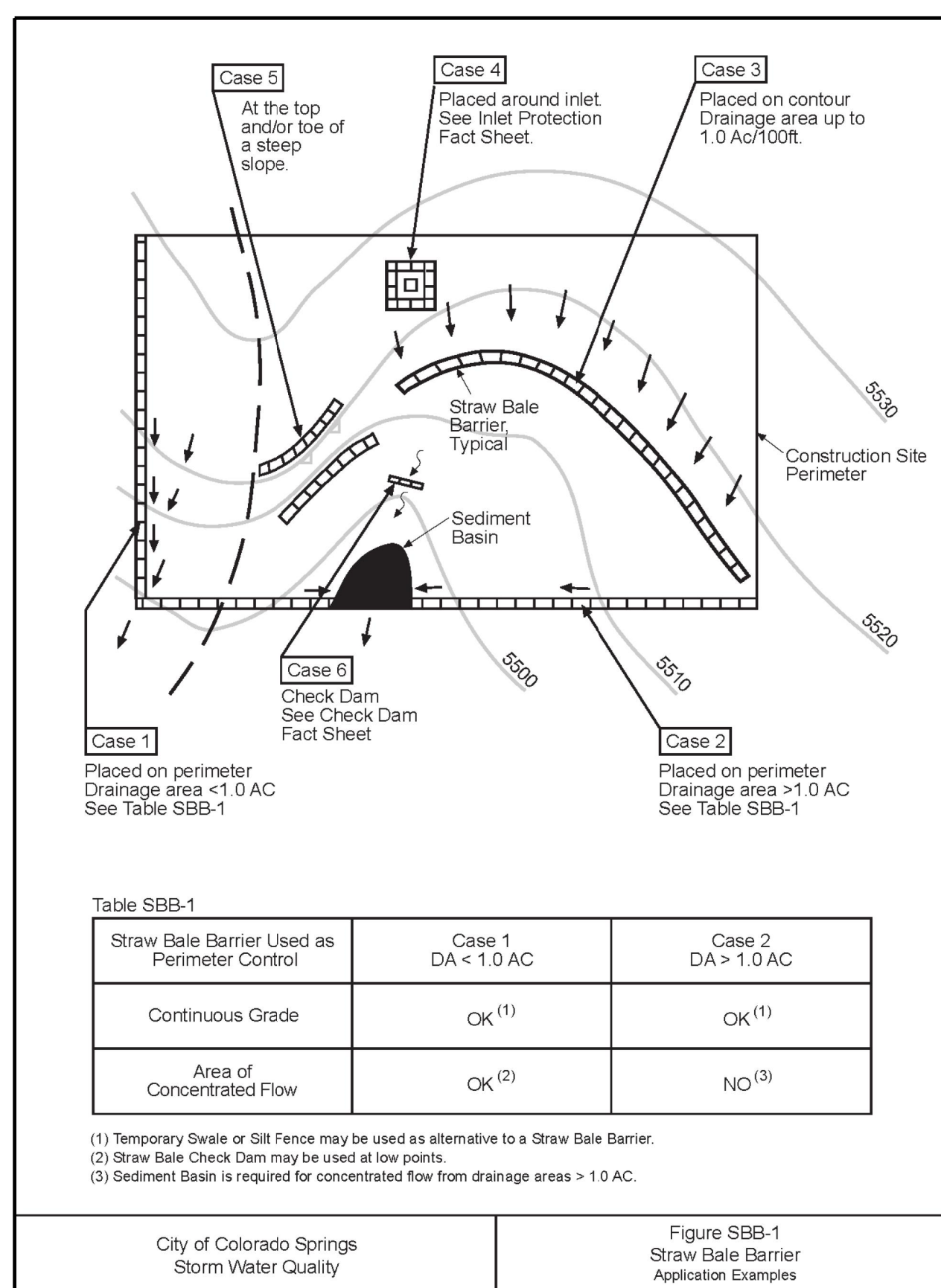
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**MAYBERRY PUD PH 1 - FILING NO. 3**

SITE ADDRESS: MAYBERRY, COLORADO SPRINGS EL PASO COUNTY

PREPARED FOR: MAYBERRY COMMUNITIES, LLC  
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COLORADO SPRINGS, CO 80922

JOB NO.	MC22110
ORG. SUBM. DATE	06/16/2022
DWN: LAO	CHKD: CJD

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DATE: 06/16/2022 11:51:38 AM BY: LNK, GORDAY  
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Wetland Native Seed Mixes

Table A-8. Wetland seed mix - loamy to sandy soils (Recommended for detention ponds and less eroding wetland areas.)

Table with 7 columns: Common Name, Scientific Name, Growth Season, Growth Form, % Mix, Wetland Indicator\*, Lb/acre (PLS)\*. Includes species like American Sloughgrass, Prairie cordgrass, Switchgrass, etc.

TOTAL PLS POUNDS/ACRE 100

\*PLS = Pure Live Seed - If broadcast seeding, double the rate

Table A-9. Wetland seed mix - clay and alkali soils (Recommended for detention ponds and wetland areas.)

Table with 7 columns: Common Name, Scientific Name, Growth Season, Growth Form, % Mix, Wetland Indicator\*, Lb/acre (PLS)\*. Includes species like Alkali sacaton, Inland saltgrass, Nuttall's alkali grass, etc.

TOTAL PLS POUNDS/ACRE 20.1

\*PLS = Pure Live Seed - If broadcast seeding, double the rate

Note: Wildflowers species not recommended for clay or alkali soils.

Wetland Indicator Key for Tables A-8 and A-9:

FAC = Facultative - Equally occurs in both wetlands and uplands.

FACU = Facultative Upland - Occurs mostly in uplands, but can occur in wetlands about 1/3 of the time.

FACW = Facultative Wetland - Occurs mostly in wetlands, but can occur in uplands about 1/3 of the time.

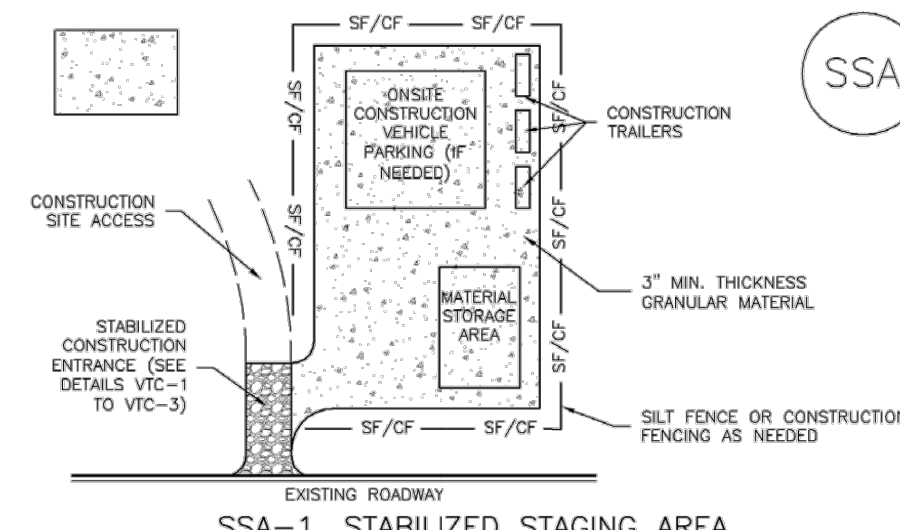
OBL = Obligate Wetlands - Almost always occurs in wetlands.

UPL = Upland - Almost always occurs in uplands.

13-70 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 2 January 2016

Figure SB-1: Sediment Basin. Includes diagrams of basin geometry, installation requirements, and maintenance requirements. Also includes Table SB-1 (Required Area per Row) and Table SB-2 (Circular Perforation Sizing).

Stabilized Staging Area (SSA) SM-6



SSA-1. STABILIZED STAGING AREA

STABILIZED STAGING AREA INSTALLATION NOTES

- 1. SEE PLAN VIEW FOR - LOCATION OF STAGING AREA(S) - CONTRACTOR MAY ADJUST LOCATION AND SIZE OF STAGING AREA WITH APPROVAL FROM THE LOCAL JURISDICTION. 2. STABILIZED STAGING AREA SHOULD BE APPROPRIATE FOR THE NEEDS OF THE SITE. OVERSIZING RESULTS IN A LARGER AREA TO STABILIZE FOLLOWING CONSTRUCTION. 3. STAGING AREA SHALL BE STABILIZED PRIOR TO OTHER OPERATIONS ON THE SITE. 4. THE STABILIZED STAGING AREA SHALL CONSIST OF A MINIMUM 3" THICK GRANULAR MATERIAL. 5. UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF DOT SECT. #703, #8020 #3 COARSE AGGREGATE OR 4" (MINUS) ROCK. 6. ADDITIONAL PERIMETER BMPs MAY BE REQUIRED INCLUDING BUT NOT LIMITED TO SILT FENCE AND CONSTRUCTION FENCING.

STABILIZED STAGING AREA MAINTENANCE NOTES

- 1. INSPECT BMPs EACH WORKDAY AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE. 2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY. 3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE. 4. ROCK SHALL BE REAPPLIED OR REGRADED AS NECESSARY IF RUTTING OCCURS OR UNDERLYING SUBGRADE BECOMES EXPOSED.

Stabilized Staging Area (SSA) SM-6

STABILIZED STAGING AREA MAINTENANCE NOTES

- 5. STABILIZED STAGING AREA SHALL BE ENLARGED IF NECESSARY TO CONTAIN PARKING, STORAGE, AND UNLOADING/LOADING OPERATIONS. 6. THE STABILIZED STAGING AREA SHALL BE REMOVED AT THE END OF CONSTRUCTION. THE GRANULAR MATERIAL SHALL BE REMOVED OR, IF APPROVED BY THE LOCAL JURISDICTION, USED ON SITE, AND THE AREA COVERED WITH TOPSOIL, SEED, AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY LOCAL JURISDICTION.

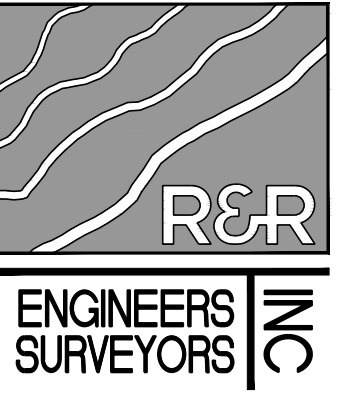
NOTE: MANY MUNICIPALITIES PROHIBIT THE USE OF RECYCLED CONCRETE AS GRANULAR MATERIAL FOR STABILIZED STAGING AREAS DUE TO DIFFICULTIES WITH RE-ESTABLISHMENT OF VEGETATION IN AREAS WHERE RECYCLED CONCRETE WAS PLACED.

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM LEICD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

(DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO, NOT AVAILABLE IN AUTOCAD)

PLAN: P:\MC22110.MAYBERRY.FILING.ND... 11:51:48 AM. BY: J.N.M. CORDAY

Table with columns: DATE, REVISION, NO., NO. Includes submission dates and revision numbers.



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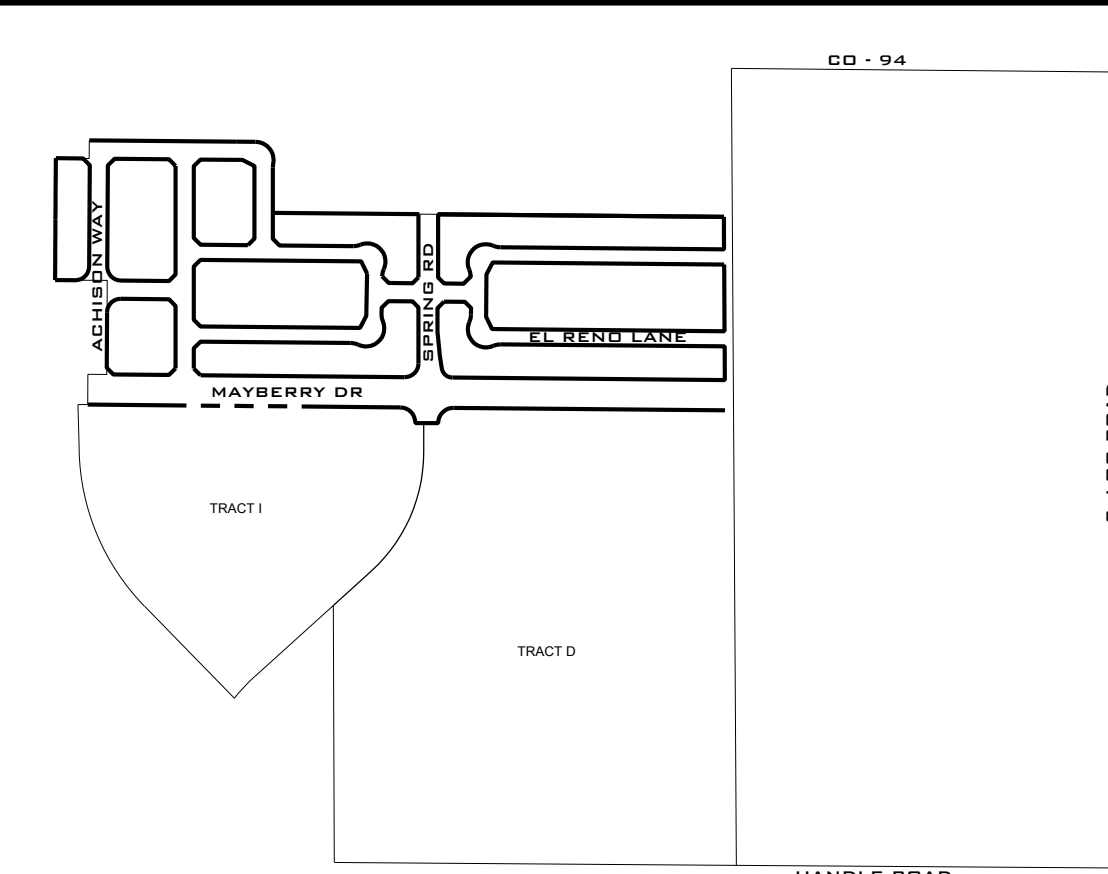
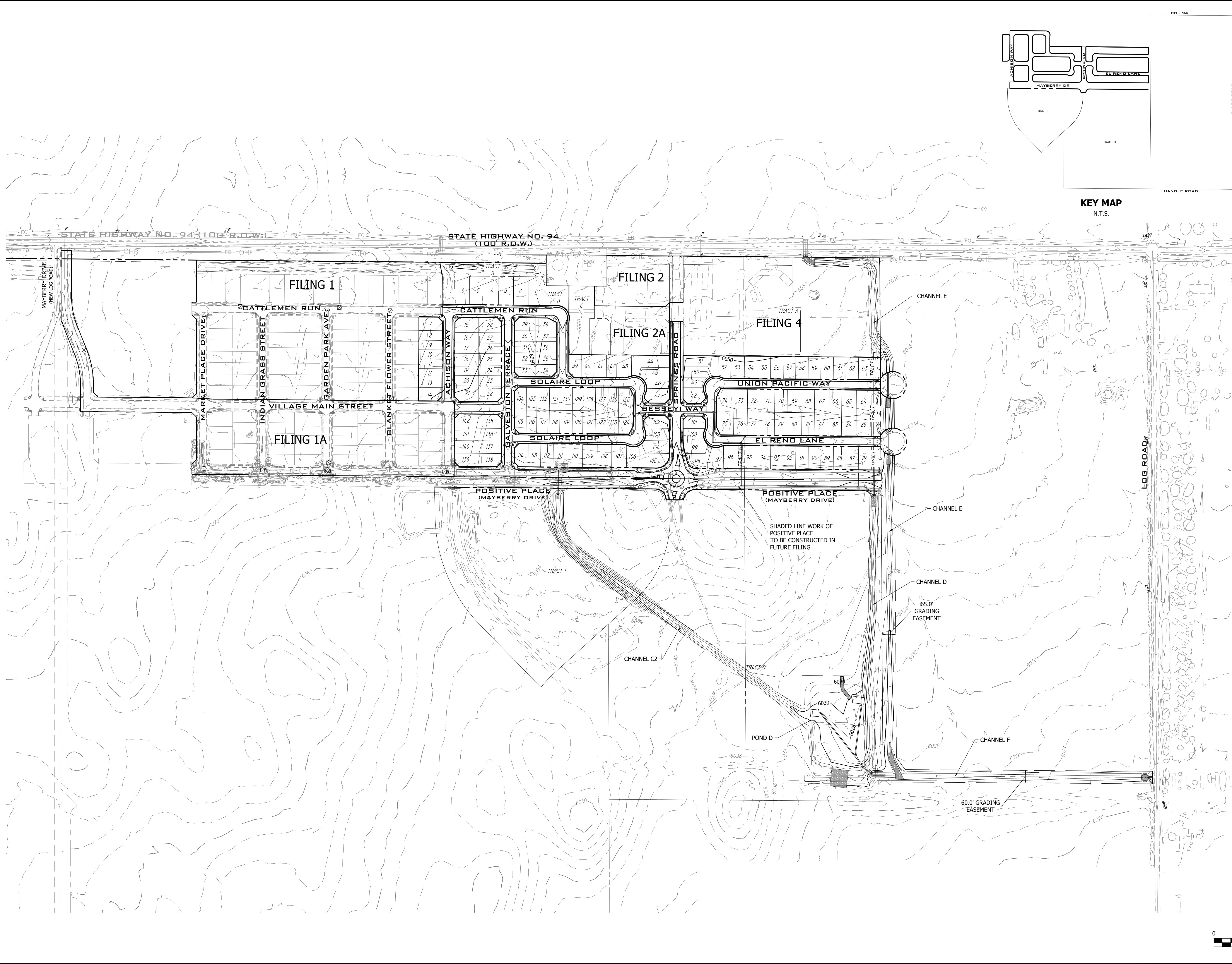
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E&S DETAILS

NO. C8.9

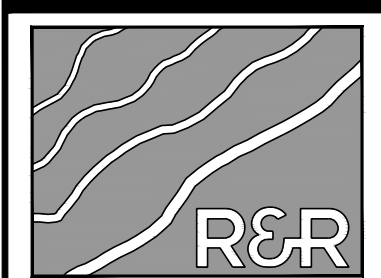


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**811**  
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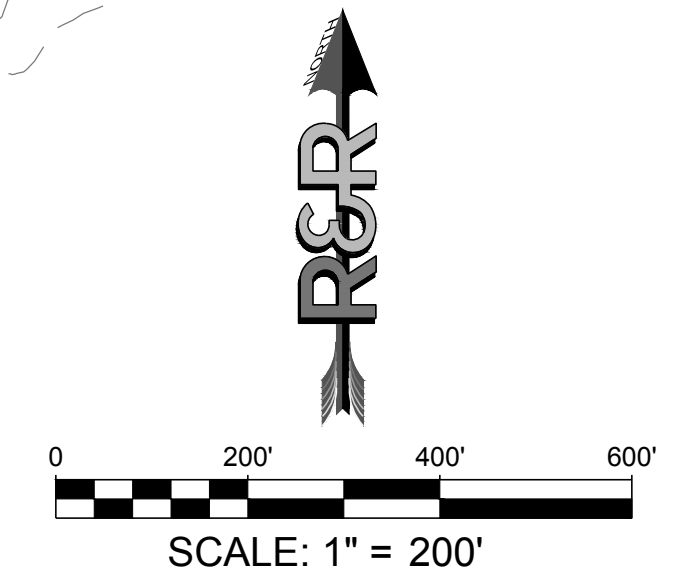


**MAYBERRY PUD PH1 - FILING NO. 3**  
SITE ADDRESS: MAYBERRY, COLORADO SPRINGS  
EL PASO COUNTY  
PREPARED FOR: MAYBERRY COMMUNITIES, LLC  
3296 DIVINE HEIGHTS #208  
COLORADO SPRINGS, CO 80922

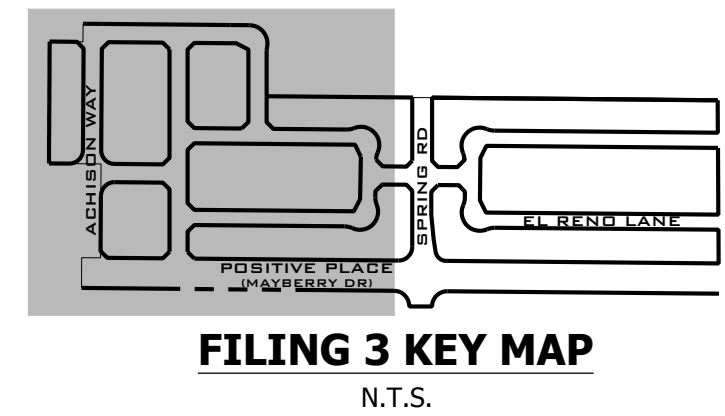
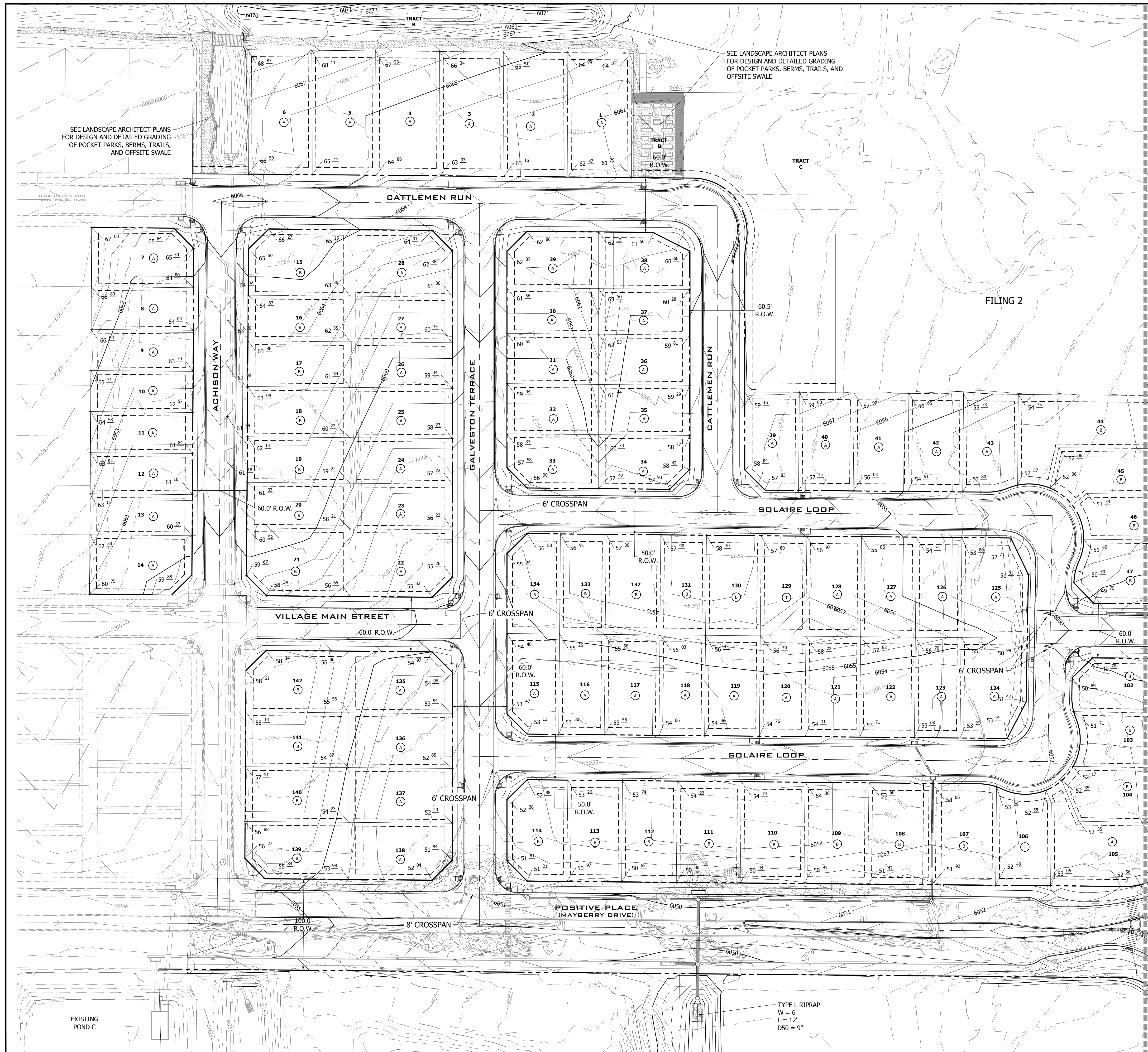
CONSTRUCTION DOCUMENTS	
JOB NO.	MC22110
ORG. SUBM. DATE	06/16/2022
DWN:	LAO
CHKD:	CJD
NAME	

OVERALL GRADING PLAN

NO. **C8.10**

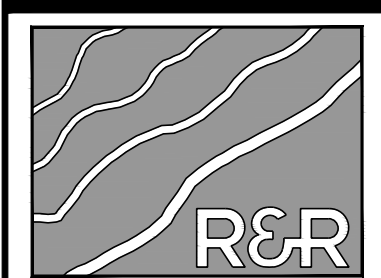






**811**  
Know what's below.  
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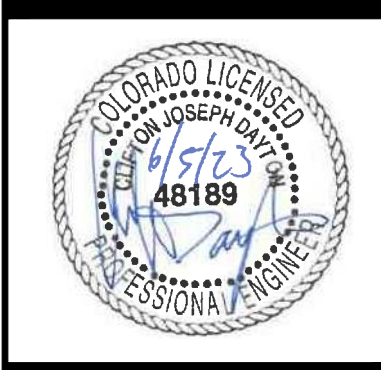
NO.	REVISION	DATE
2ND SUBMISSION		09/01/22
3RD SUBMISSION		01/17/23
4TH SUBMISSION		04/10/23



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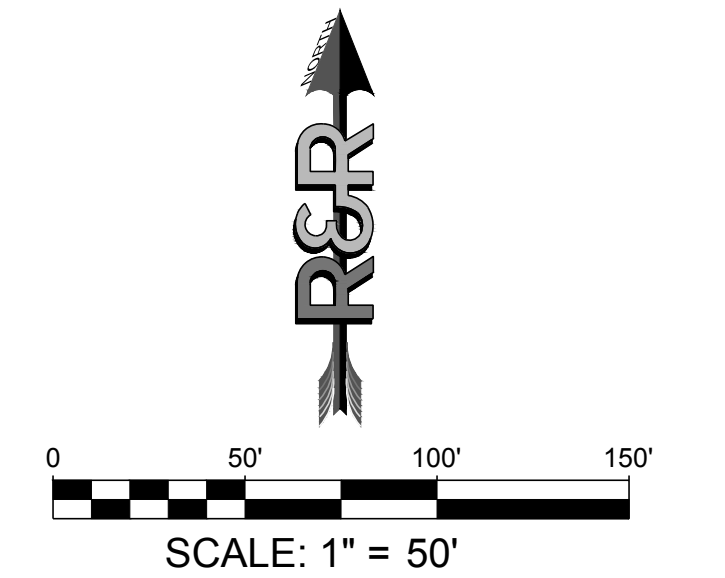


MAYBERRY PUD PH1 - FILING NO. 3  
MAYBERRY, COLORADO SPRINGS  
EL PASO COUNTY  
MAYBERRY COMMUNITIES, LLC  
3296 DIVINE HEIGHTS #208  
COLORADO SPRINGS, CO 80922

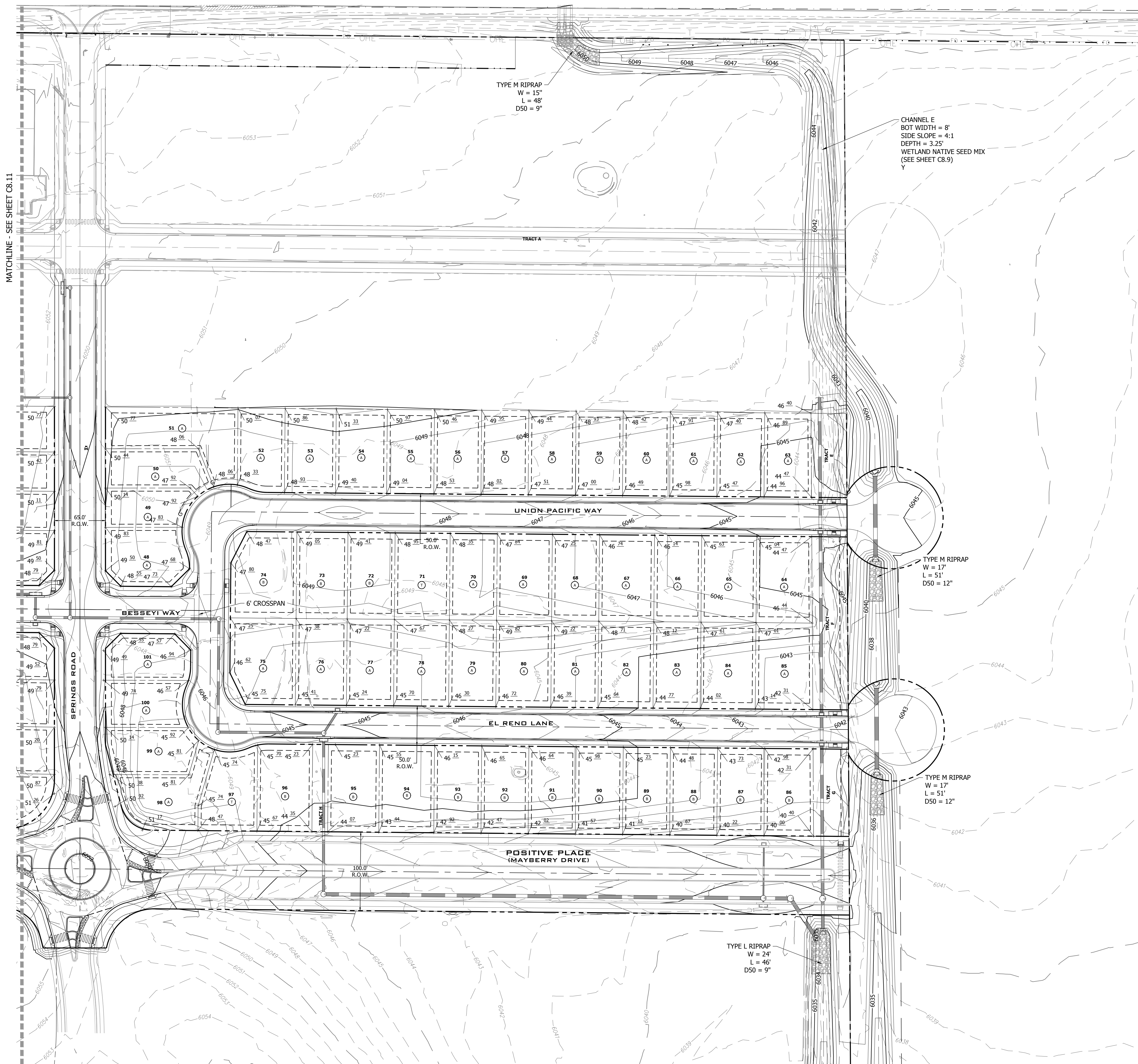
GESC PLANS  
JOB NO. MC22110  
ORG. SUBM. DATE 06/16/2022  
DWN: LAO CHKD: CJD

GRADING PLAN - WEST

NO. C8.11







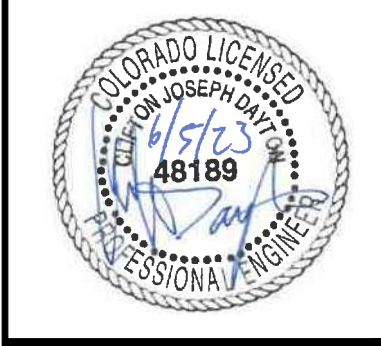
**811**  
Know what's below.  
Call before you dig.

**FILING 3 KEY MAP**  
N.T.S.

NO.	REVISION	DATE
2ND SUBMISSION		09/01/22
3RD SUBMISSION		01/17/23
4TH SUBMISSION		04/10/23

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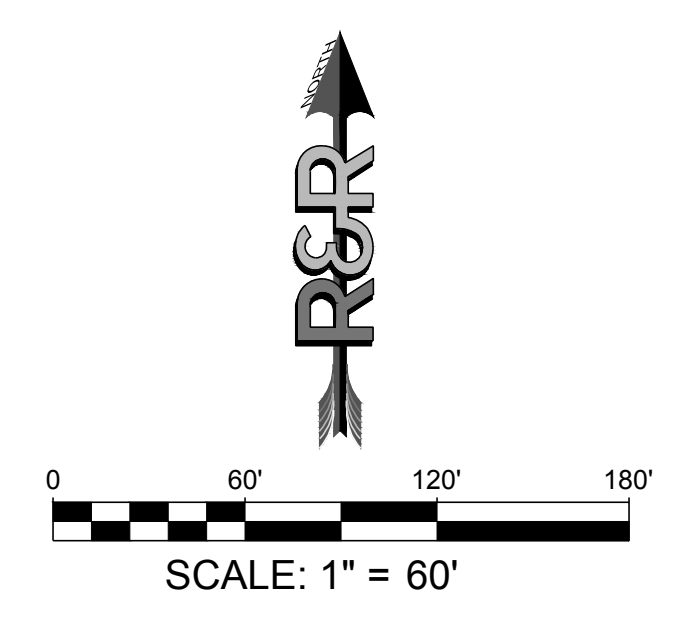


**MAYBERRY PUD PH1 - FILING NO. 3**  
SITE ADDRESS: MAYBERRY, COLORADO SPRINGS  
EL PASO COUNTY  
PREPARED FOR: MAYBERRY COMMUNITIES, LLC  
3296 DIVINE HEIGHTS #208  
COLORADO SPRINGS, CO 80922

GESC PLANS	
JOB NO.	MC22110
ORG. SUBM. DATE	06/16/2022
DWN: LAO	CHKD: CJD
NAME	

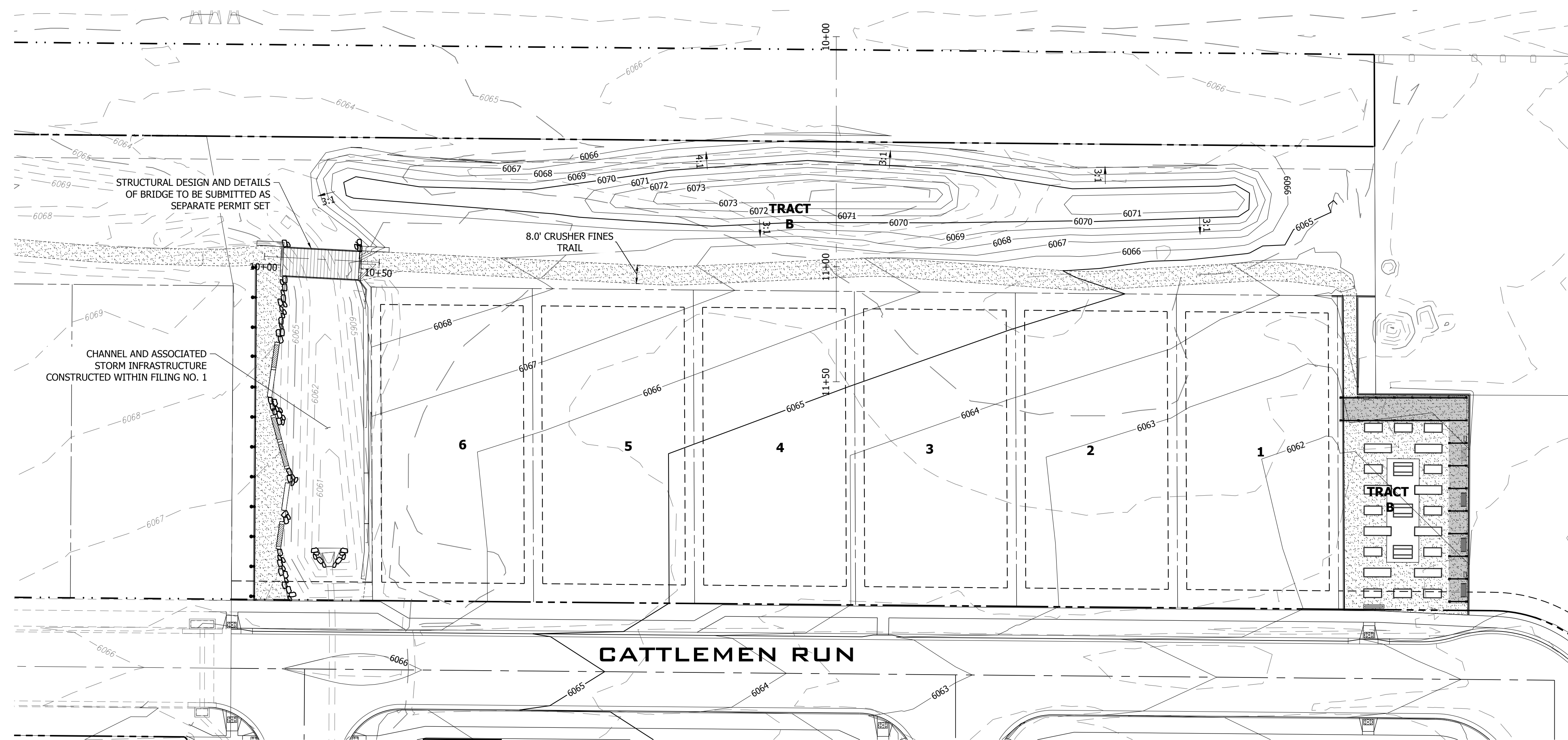
GRADING PLAN - EAST

NO. C8.12



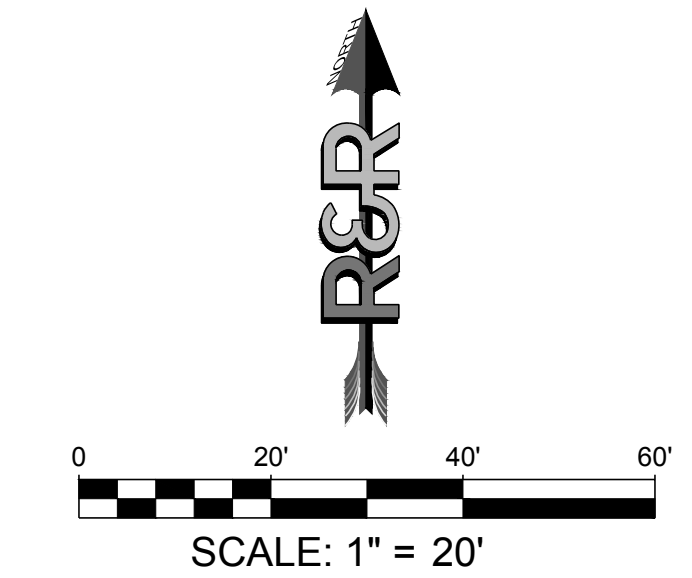
MATCHLINE - SEE SHEET C8.11





**811**  
Know what's below.  
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**FILING 3 KEY MAP**  
N.T.S.



NO.	REVISION	DATE
2ND SUBMISSION		09/01/22
3RD SUBMISSION		01/17/23
4TH SUBMISSION		04/10/23

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**MAYBERRY PUD PH1 - FILING NO. 3**  
SITE ADDRESS: MAYBERRY, COLORADO SPRINGS, EL PASO COUNTY  
PREPARED FOR: MAYBERRY COMMUNITIES, LLC  
3296 DIVINE HEIGHTS #208  
COLORADO SPRINGS, CO 80922

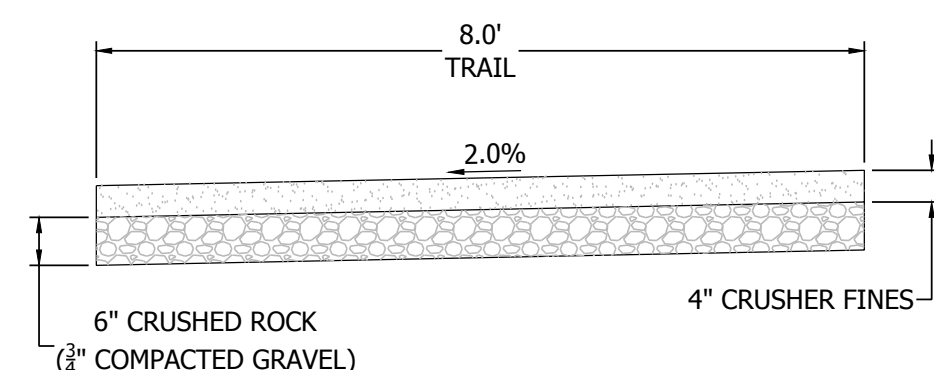
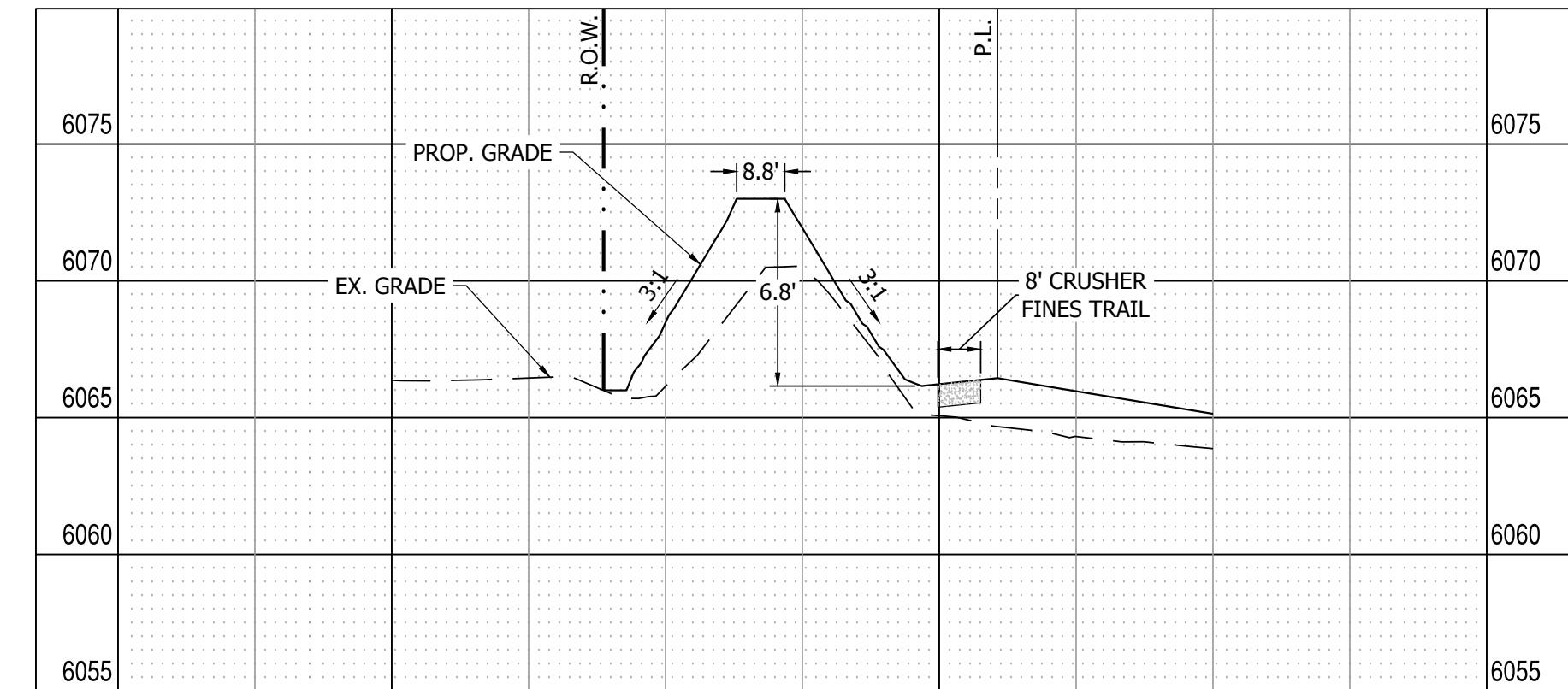
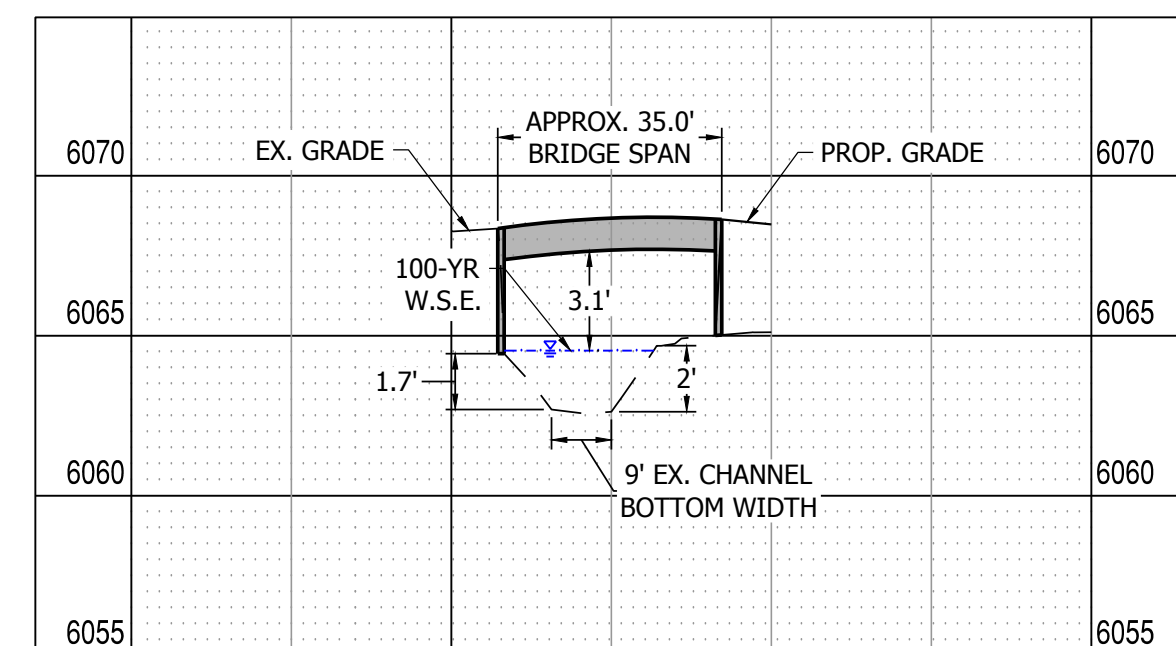
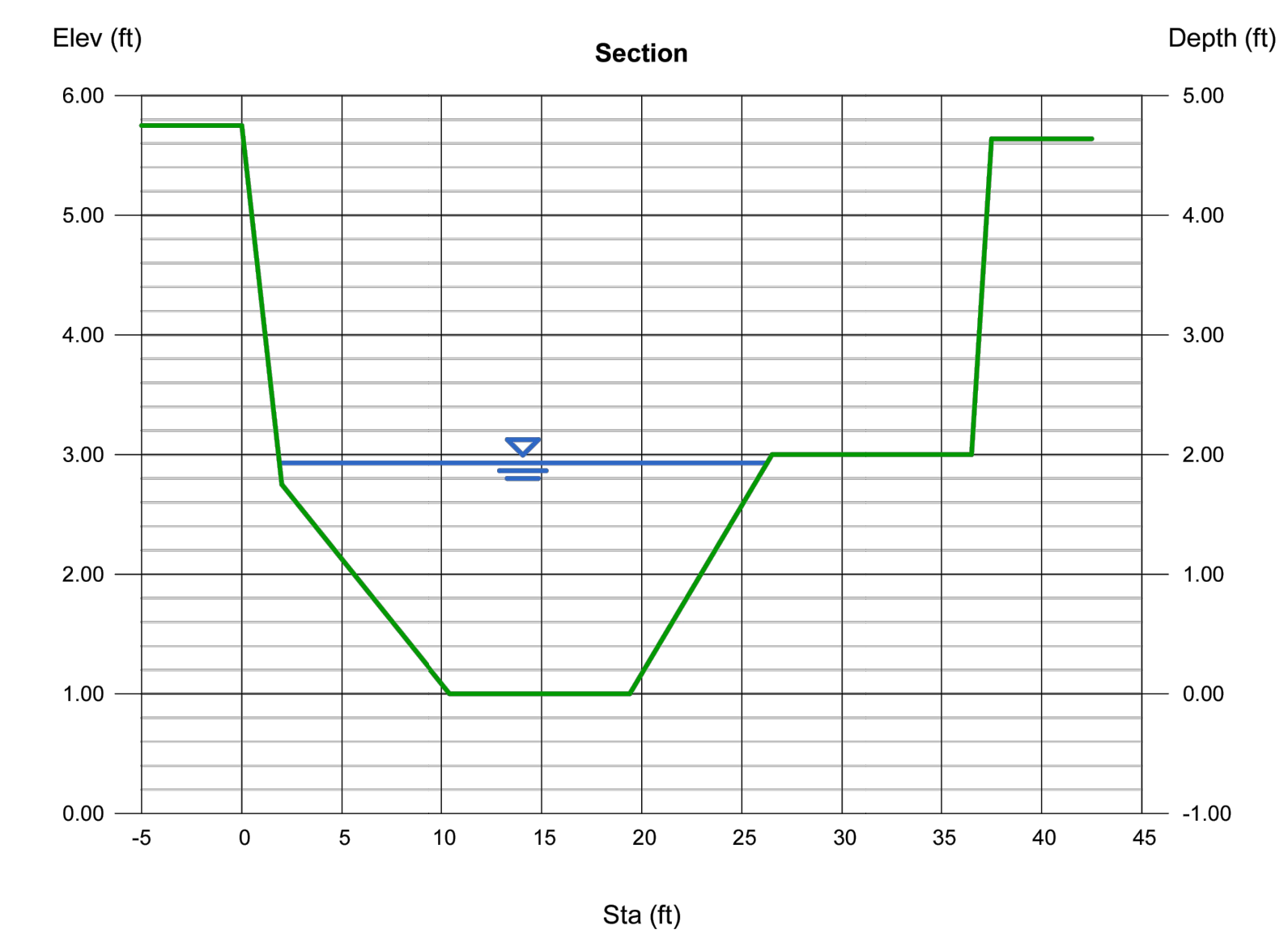
**Channel Report**

Hydraflow Express Extension for Autodesk® Civil 3D® by Autodesk, Inc. Wednesday, Dec 14 2022

**MAYBERRY FILING NO. 1 CHANNEL DEPTH**

<b>User-defined</b>		<b>Highlighted</b>	
Invert Elev (ft)	= 1.00	Depth (ft)	= 1.93
Slope (%)	= 1.00	Q (cfs)	= 196.00
N-Value	= 0.030	Area (sqft)	= 32.85
		Velocity (ft/s)	= 5.97
<b>Calculations</b>		Wetted Perim (ft)	= 24.91
Compute by:	Known Q	Crit Depth, Yc (ft)	= 1.84
Known Q (cfs)	= 196.00	Top Width (ft)	= 24.37
		EGL (ft)	= 2.48

(Sta, El, n)-(Sta, El, n)...



JOB NO.	MC22110
ORG. SUBM. DATE	06/16/2022
DWN:	LAO
CHKD:	CJD

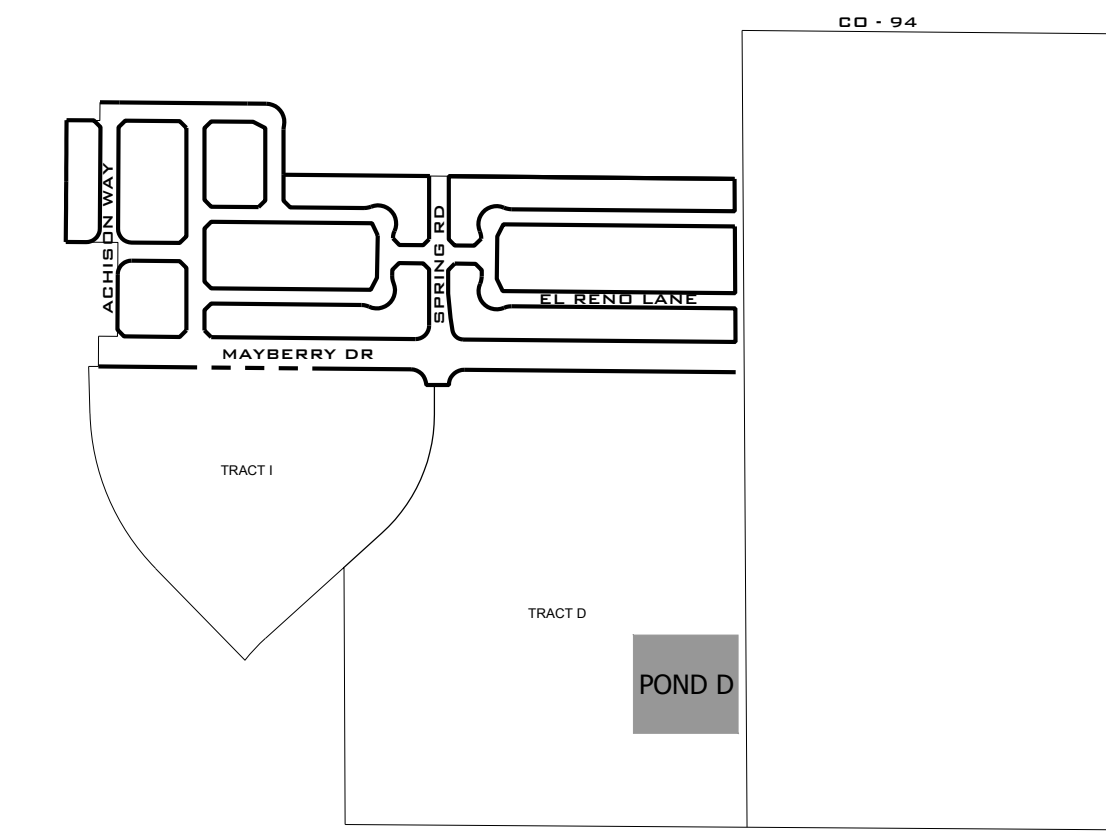
BERM, BRIDGE, & TRAIL DETAILS

NO. C8.13



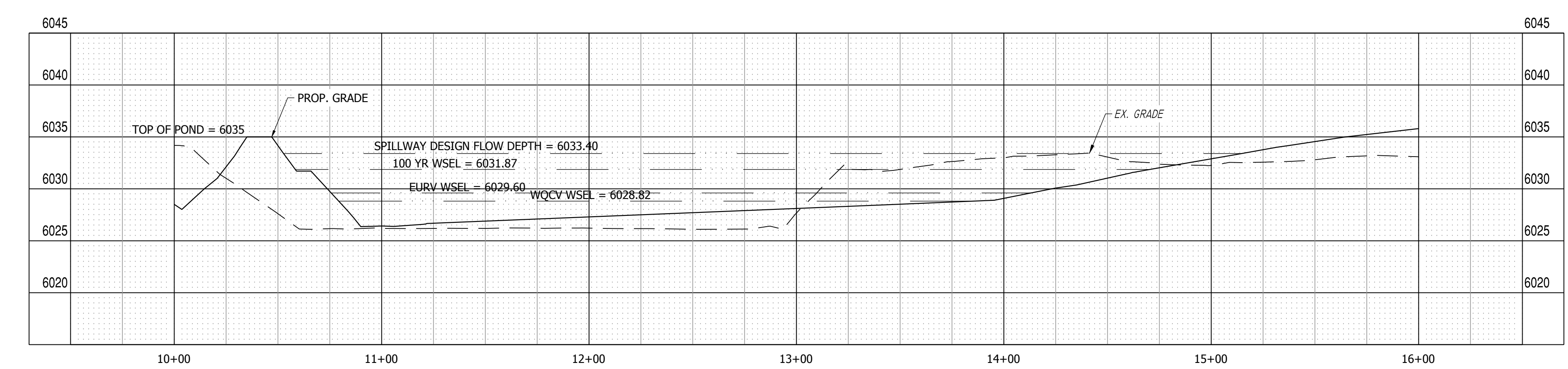
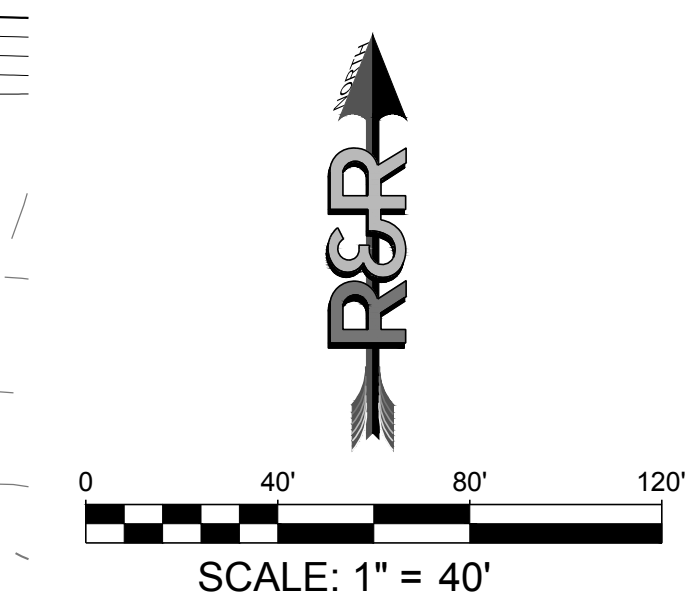
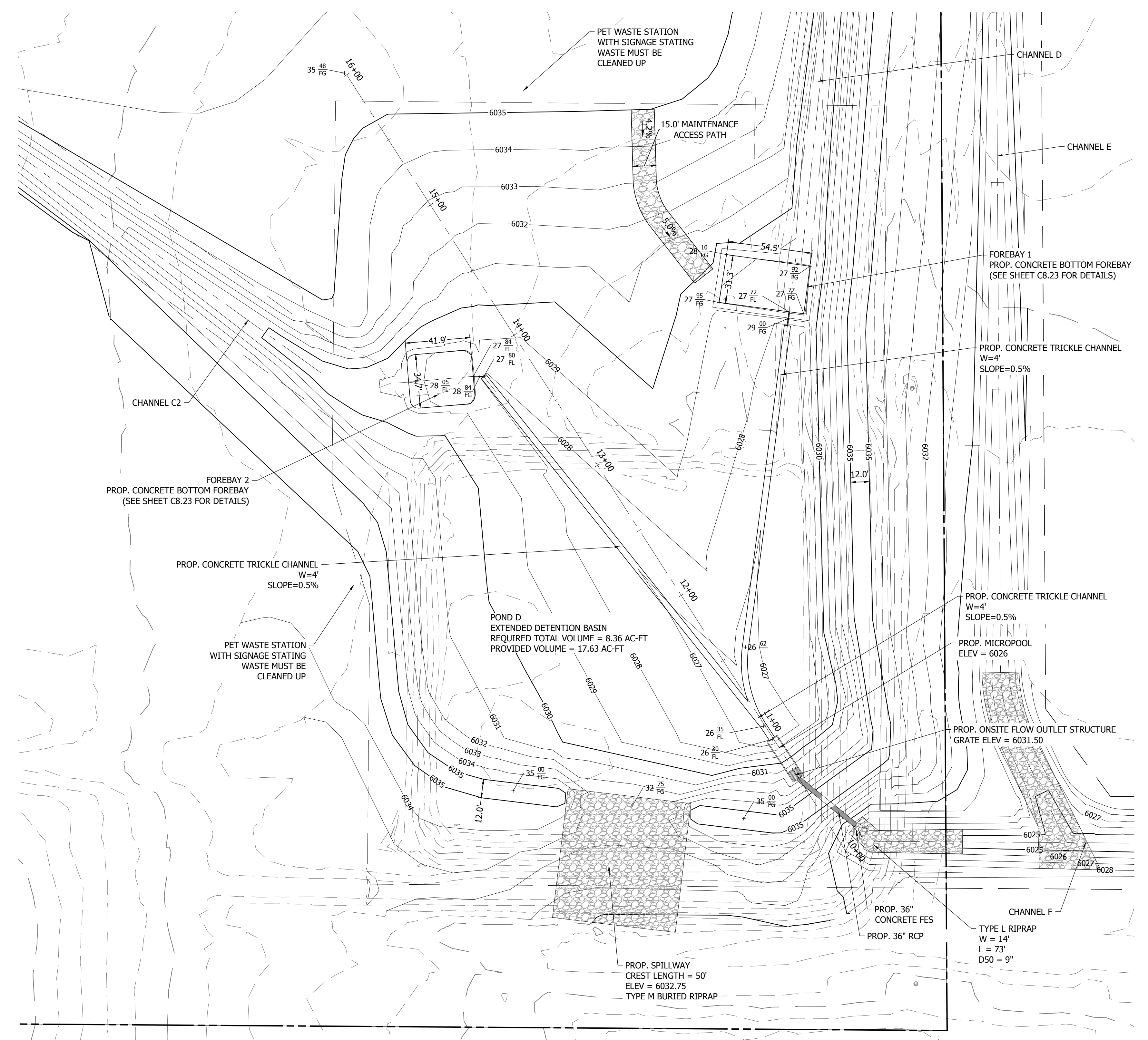


Know what's below.  
Call before you dig.



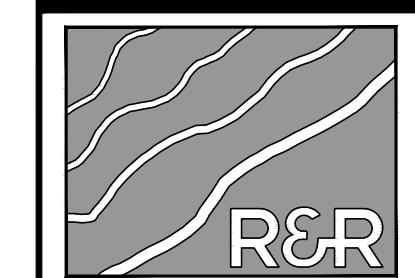
KEY MAP  
N.T.S.

NOTES:  
SEE SHEET C8.23 FOR FOREBAY DETAILS



POND D PROFILE VIEW  
HORIZONTAL SCALE: 1"=40'  
VERTICAL SCALE: 1"=8'

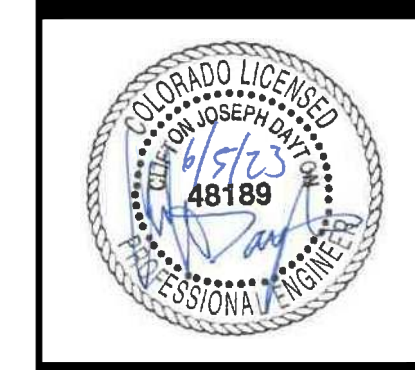
NO.	REVISION	BY	DATE
	2ND SUBMISSION		09/01/22
	3RD SUBMISSION		01/17/23
	4TH SUBMISSION		04/10/23



ENGINEERS  
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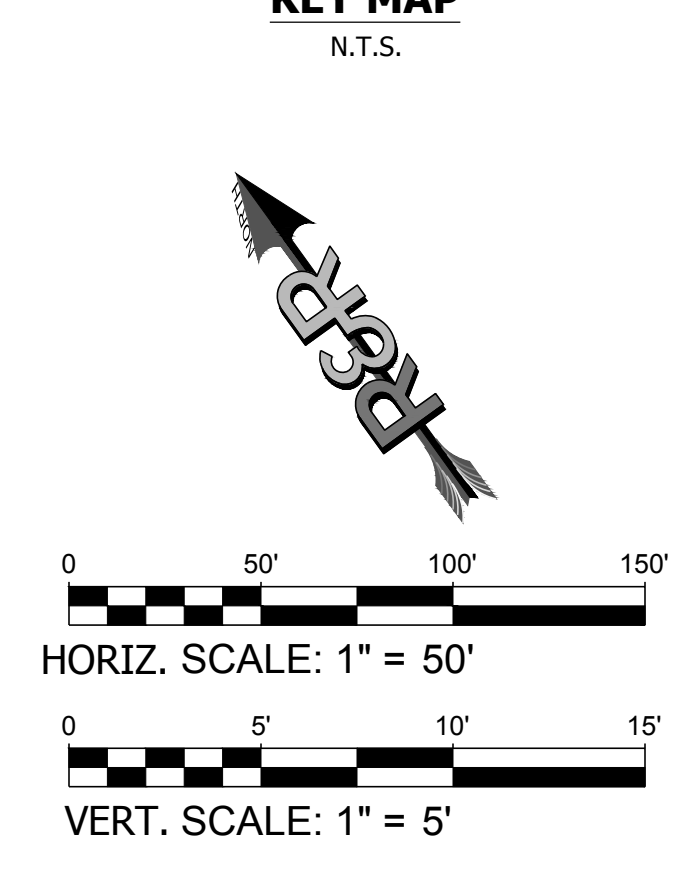
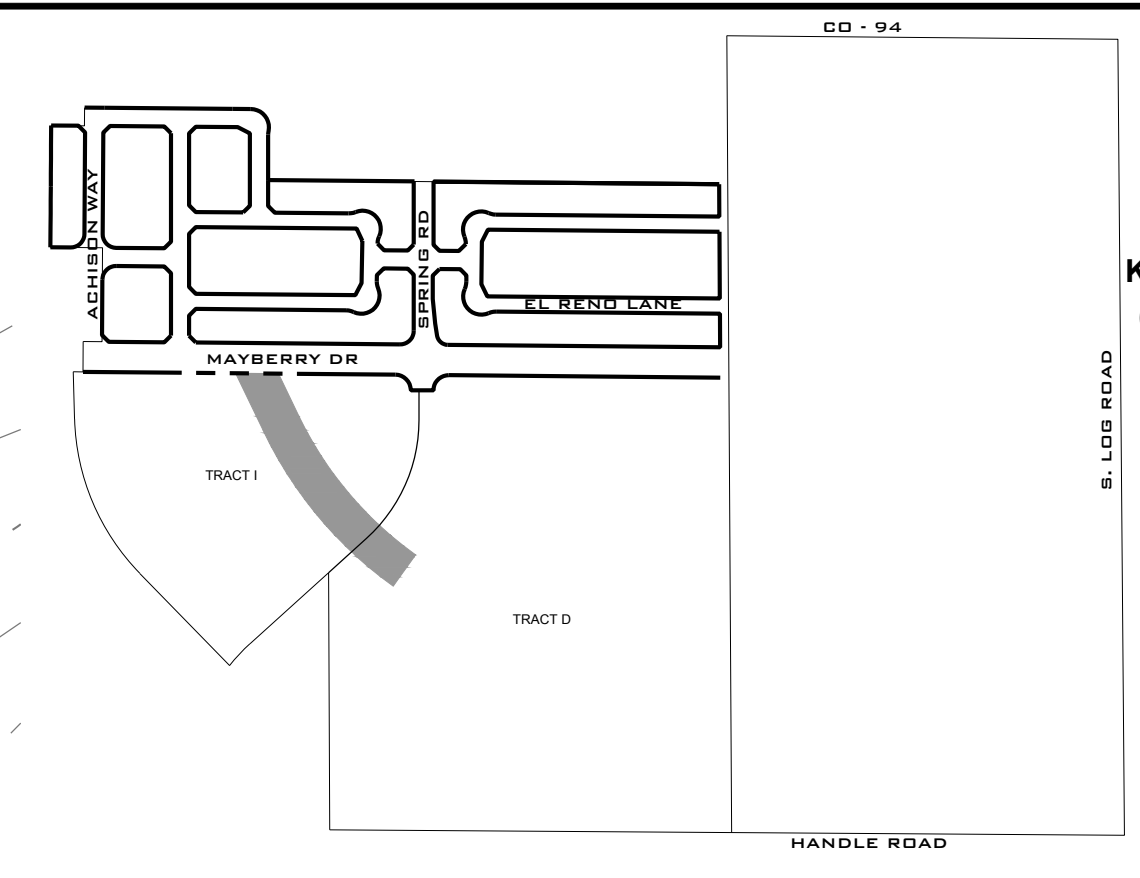
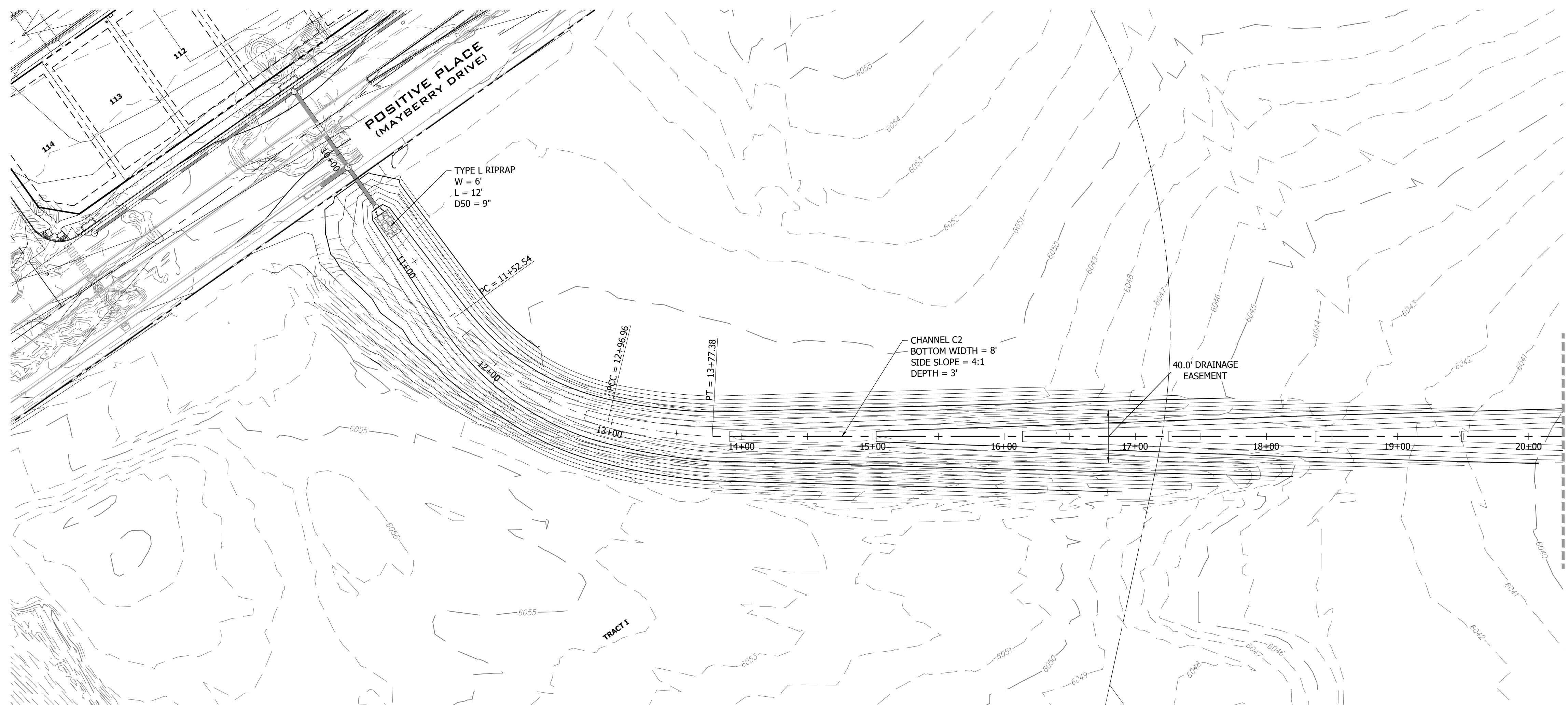
**MAYBERRY PUD PH 1 - FILING NO. 3**  
MAYBERRY, COLORADO SPRINGS  
EL PASO COUNTY  
PREPARED FOR:  
MAYBERRY COMMUNITIES, LLC  
3296 DIVINE HEIGHTS #208  
COLORADO SPRINGS, CO 80922

GESC PLANS	
JOB NO.	MC22110
ORG. SUBM. DATE	06/16/2022
DWN:	LAO
CHKD:	CJD
NAME	

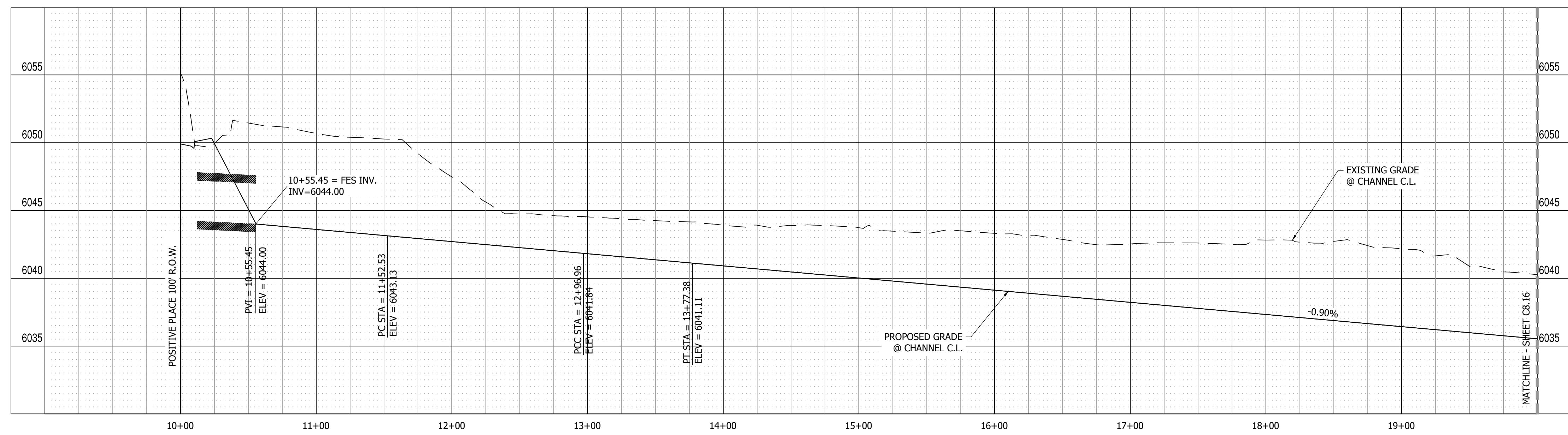
GRADING PLAN -  
DETENTION POND

NO.  
**C8.14**

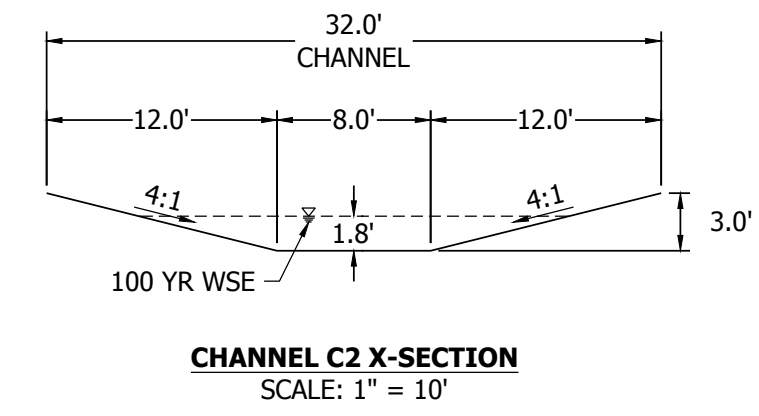




CHANNEL C2 9+00 TO 20+00  
SCALE: 1" = 50'



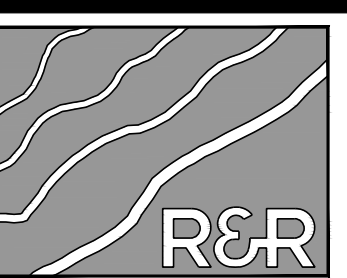
CHANNEL C2 PROFILE VIEW  
HORIZONTAL SCALE: 1"=50'  
VERTICAL SCALE: 1"=5'



CHANNEL C2 X-SECTION  
SCALE: 1" = 10'



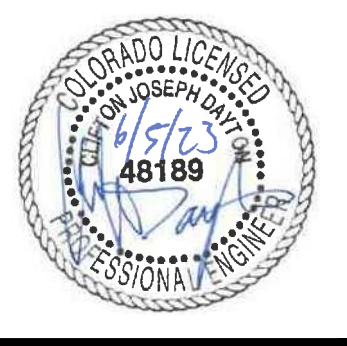
NO.	REVISION	BY	DATE
2ND SUBMISSION			09/01/22
3RD SUBMISSION			01/17/23
4TH SUBMISSION			04/10/23



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MAYBERRY PUD PH1 - FILING NO. 3  
SITE ADDRESS: MAYBERRY, COLORADO SPRINGS, EL PASO COUNTY  
PREPARED FOR: MAYBERRY COMMUNITIES, LLC  
3296 DIVINE HEIGHTS #208  
COLORADO SPRINGS, CO 80922

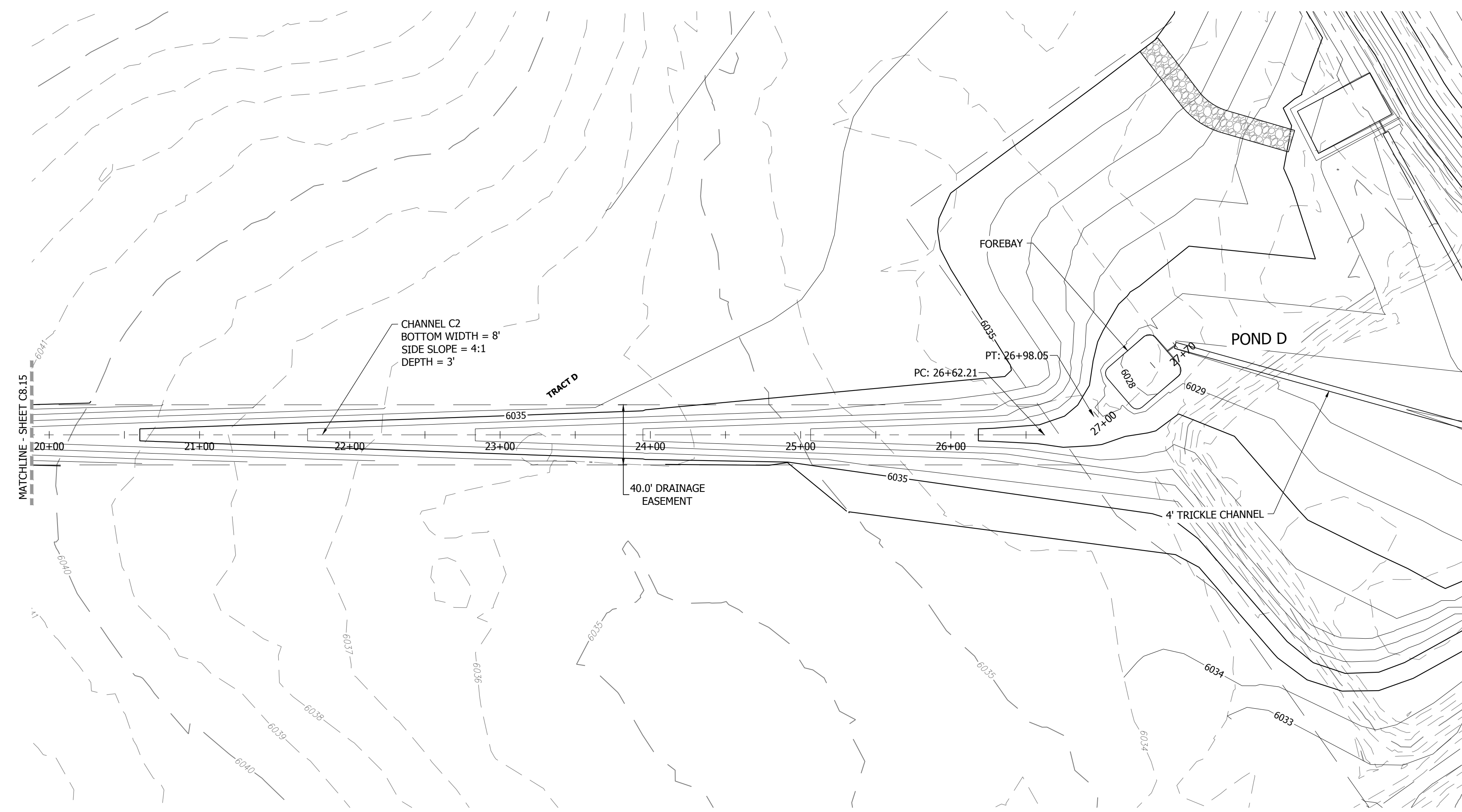
GESC PLANS	
JOB NO.	MC22110
ORG. SUBM. DATE	06/16/2022
DWN:	LAO
CHKD:	CJD

CHANNEL C2  
PLAN & PROFILE  
9+00 TO 20+00

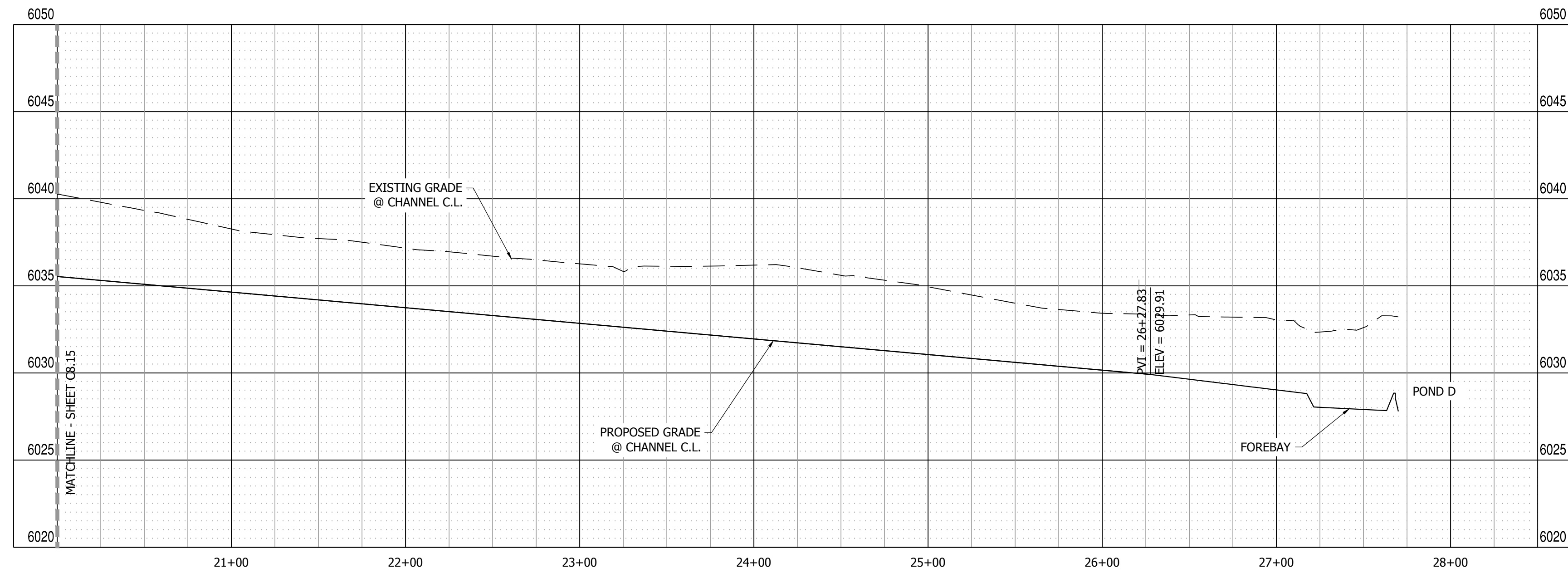
NO.  
C8.15

PATH: P:\MC22110 MAYBERRY FILING NO. 3\ENGINEERING\DRAWINGS\PLANS\GESC - CHANNEL C2.DWG. PLOT DATE: 6/1/2023 11:56:28 AM. BY: LYNN O'GRADY

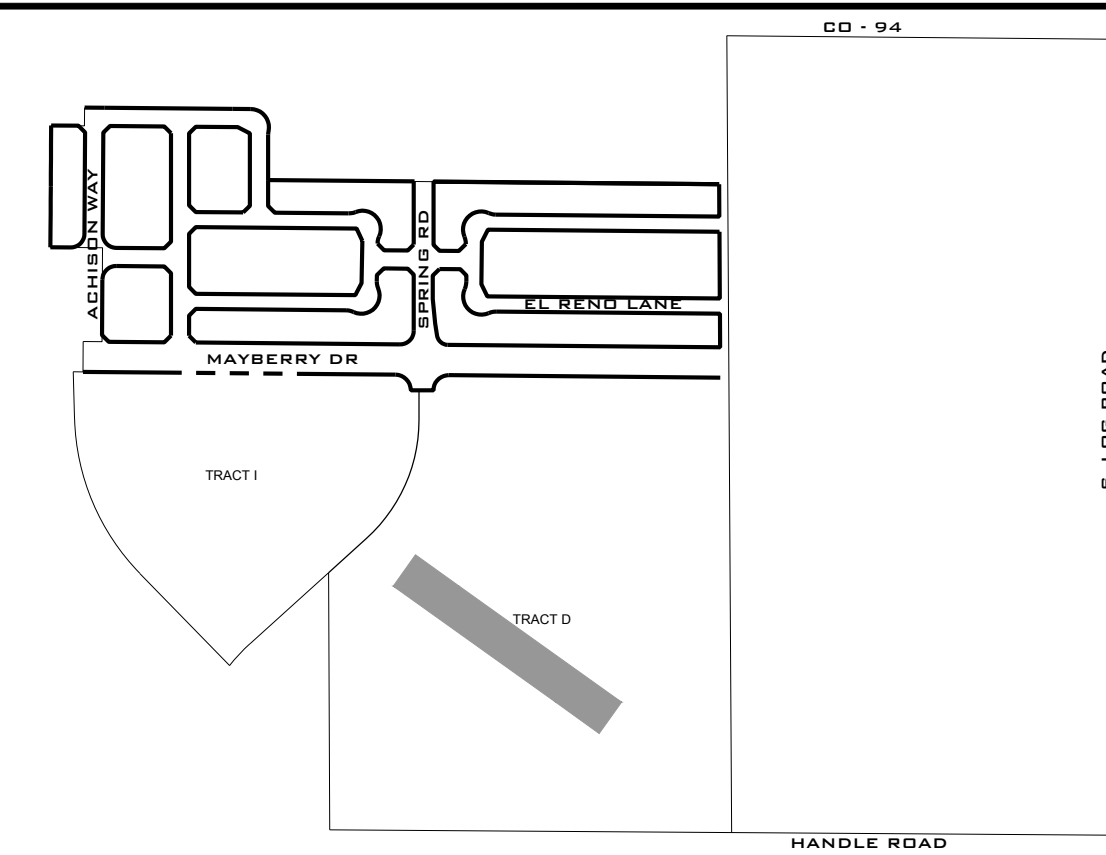




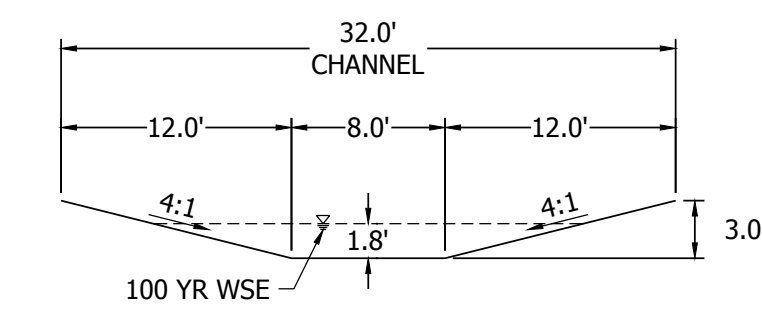
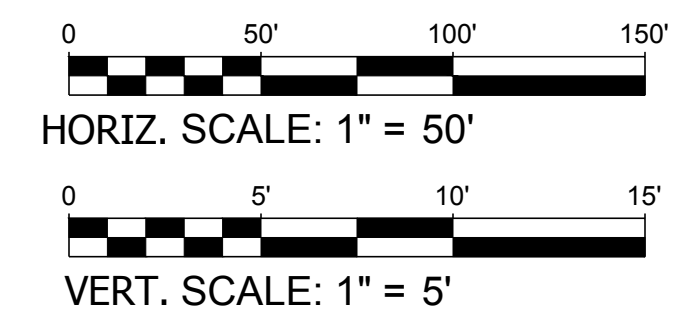
**CHANNEL C2 9+00 TO 29+00**  
SCALE: 1" = 50'



**CHANNEL C2 PROFILE VIEW**  
HORIZONTAL SCALE: 1"=50'  
VERTICAL SCALE: 1"=5'



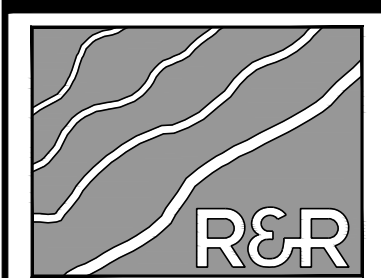
**KEY MAP**  
N.T.S.



**CHANNEL C2 X-SECTION**  
SCALE: 1" = 10'



NO.	REVISION	BY	DATE
	2ND SUBMISSION		09/01/22
	3RD SUBMISSION		01/17/23
	4TH SUBMISSION		04/10/23



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EL PASO COUNTY  
PREPARED FOR: MAYBERRY COMMUNITIES, LLC  
3296 DIVINE HEIGHTS #208  
COLORADO SPRINGS, CO 80922

JOB NO: MC22110  
ORG. SUBM. DATE: 06/16/2022  
DWN: LAO CHKD: CJD

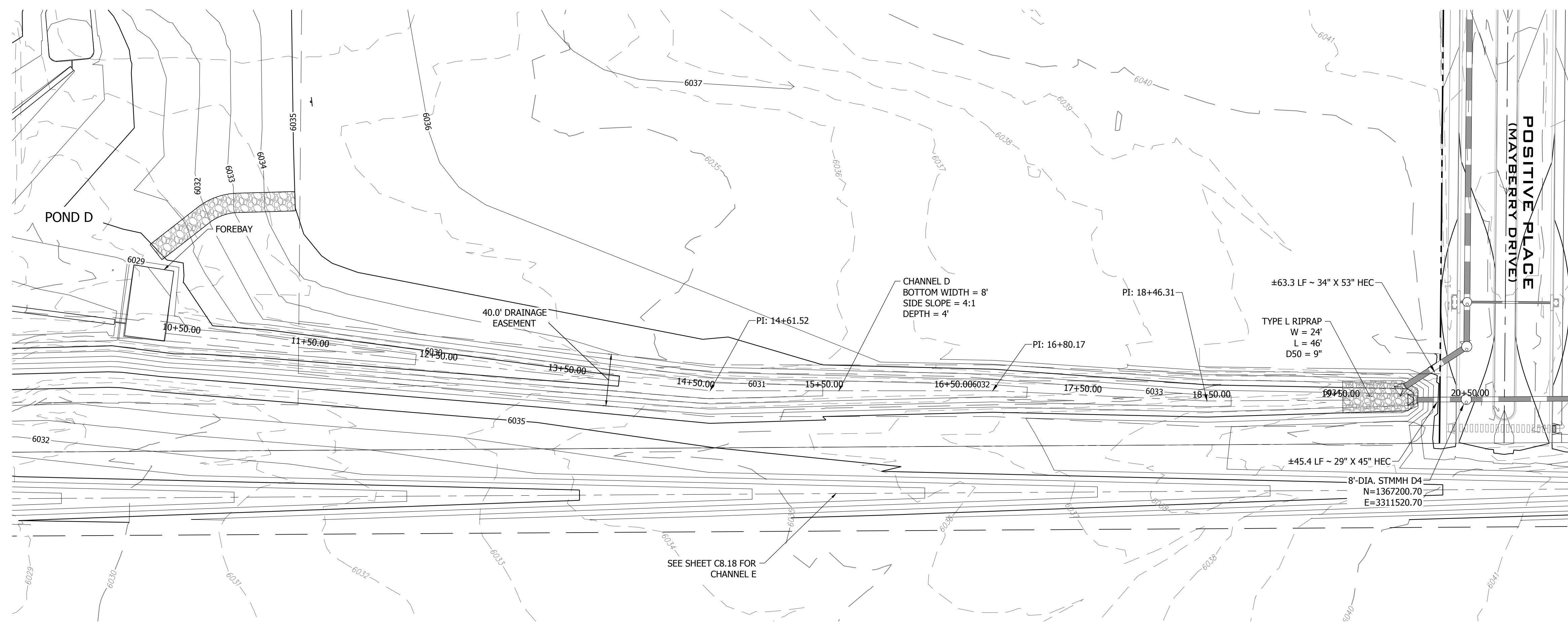
**CHANNEL C2  
PLAN & PROFILE  
20+00 TO 29+00**

NO. **C8.16**

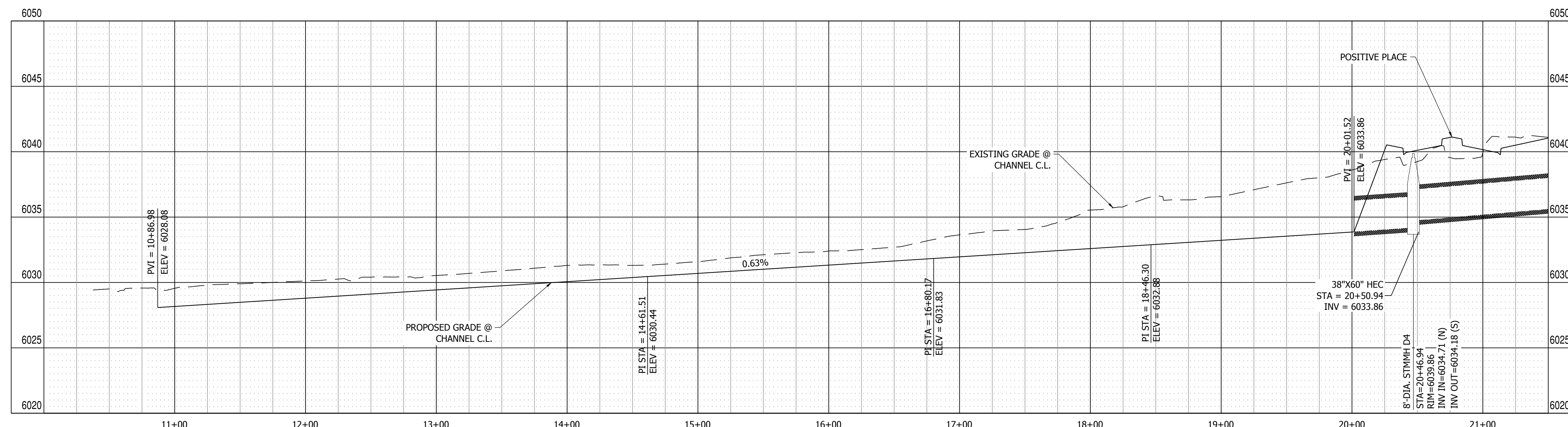
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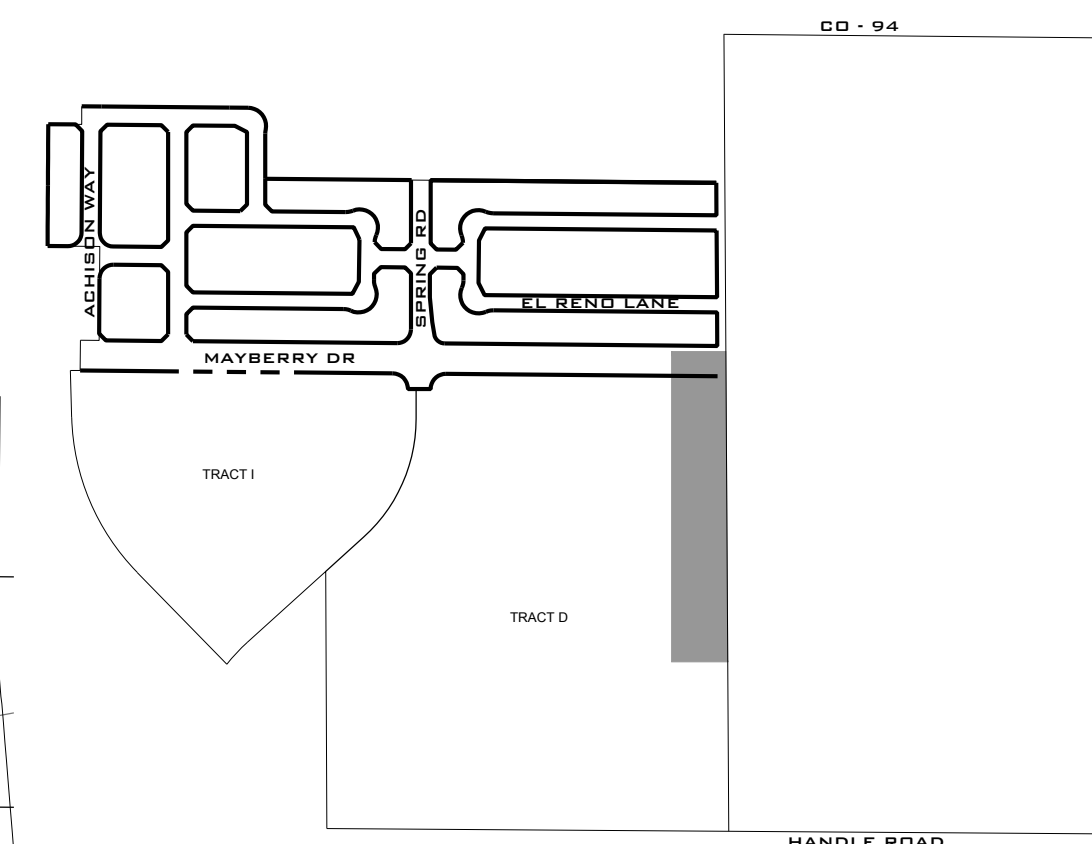
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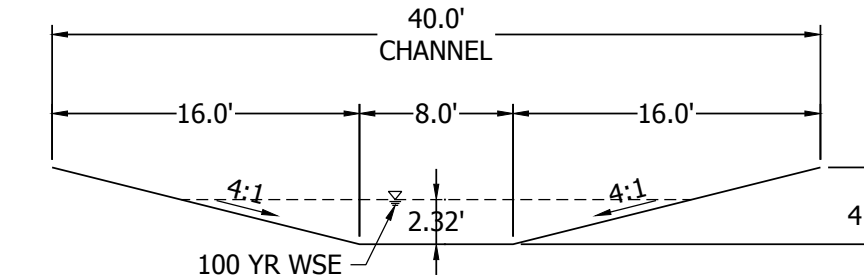
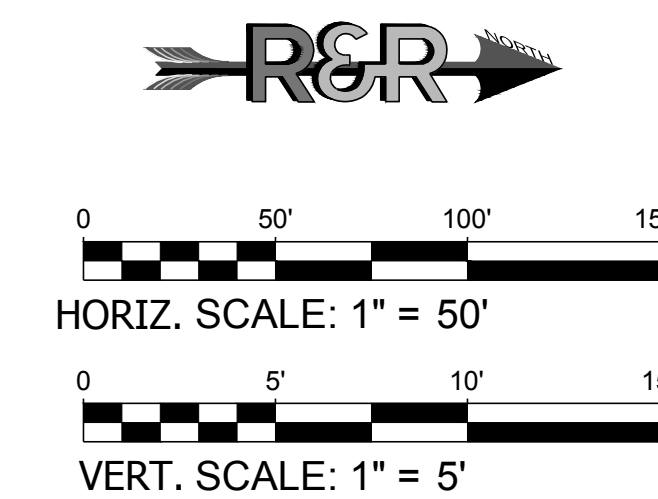
**CHANNEL D**  
SCALE: 1" = 50'



**CHANNEL D PROFILE VIEW**  
HORIZONTAL SCALE: 1"=50'  
VERTICAL SCALE: 1"=5'



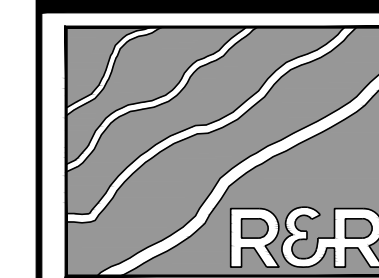
**KEY MAP**  
N.T.S.



**CHANNEL D X-SECTION**  
SCALE: 1" = 10'

**811**  
Know what's below.  
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NO.	REVISION	BY	DATE
	2ND SUBMISSION		09/01/22
	3RD SUBMISSION		01/17/23
	4TH SUBMISSION		04/10/23



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**MAYBERRY PUD PH1 - FILING NO. 3**  
SITE ADDRESS: MAYBERRY, COLORADO SPRINGS, EL PASO COUNTY  
PREPARED FOR: MAYBERRY COMMUNITIES, LLC, 3296 DIVINE HEIGHTS #208, COLORADO SPRINGS, CO 80922

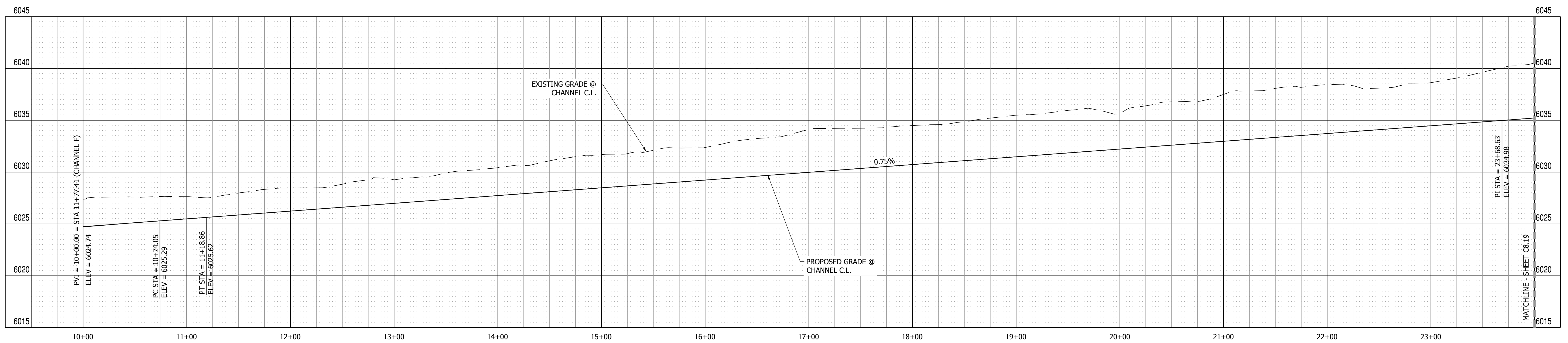
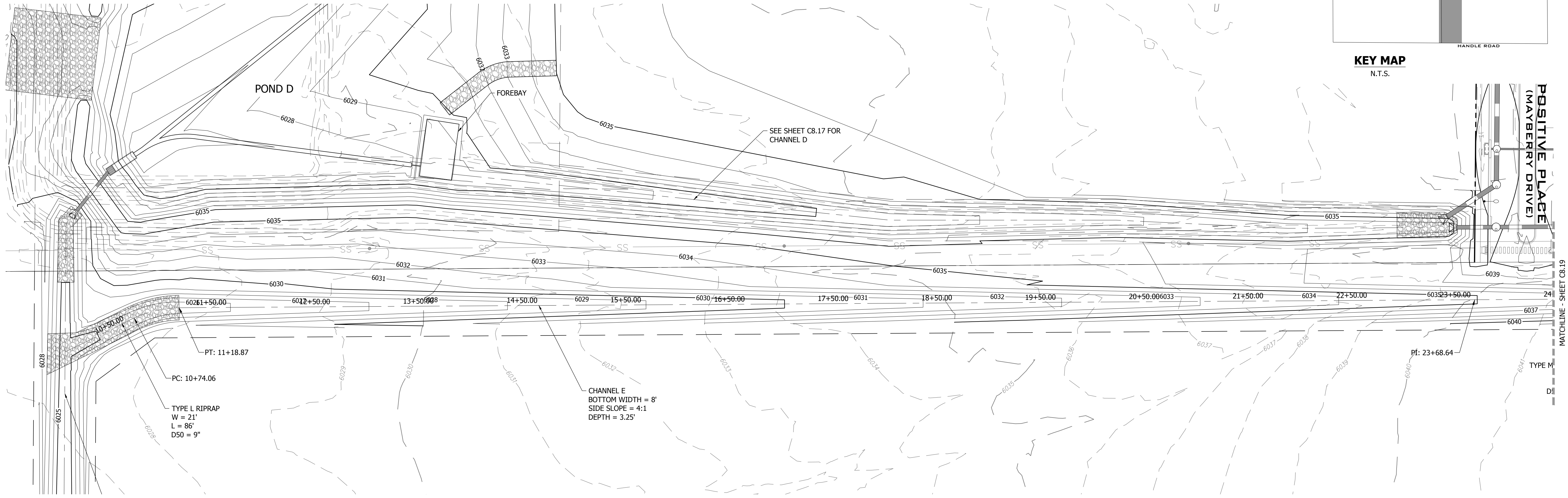
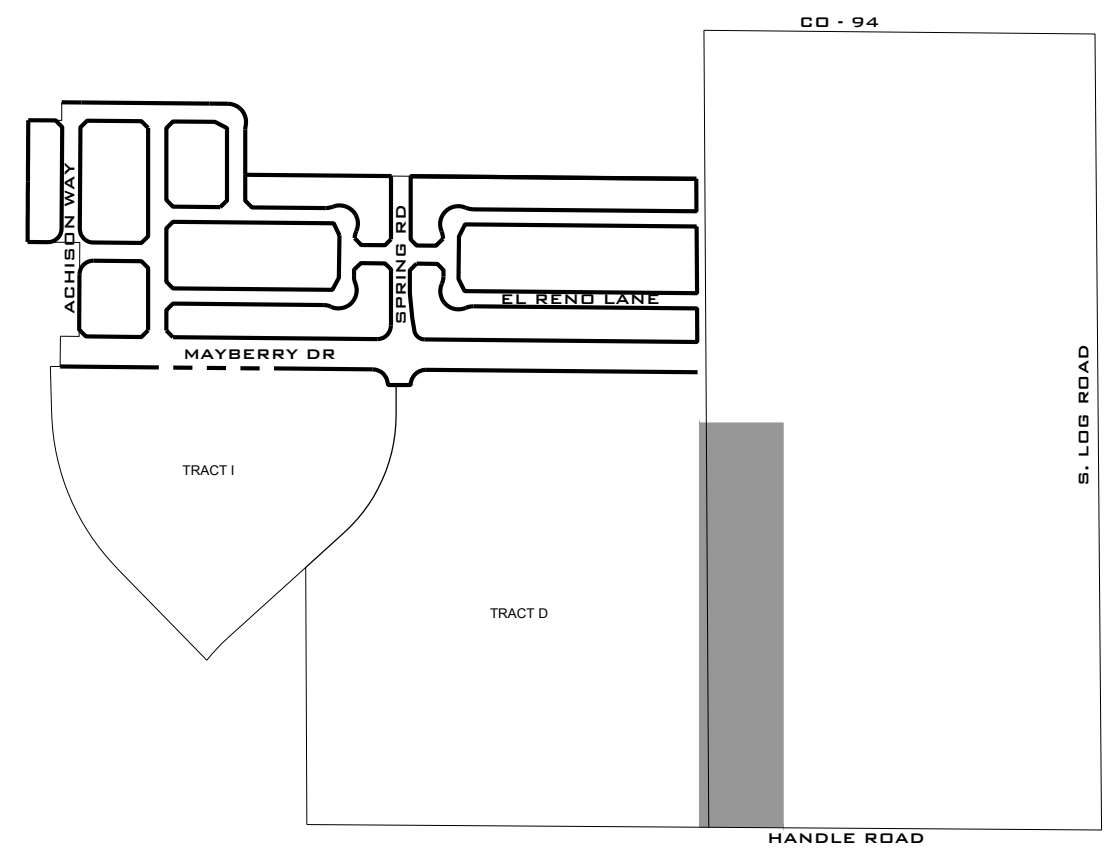
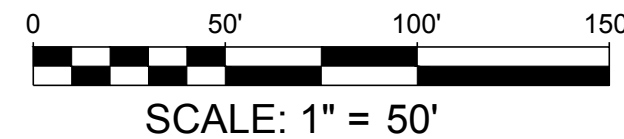
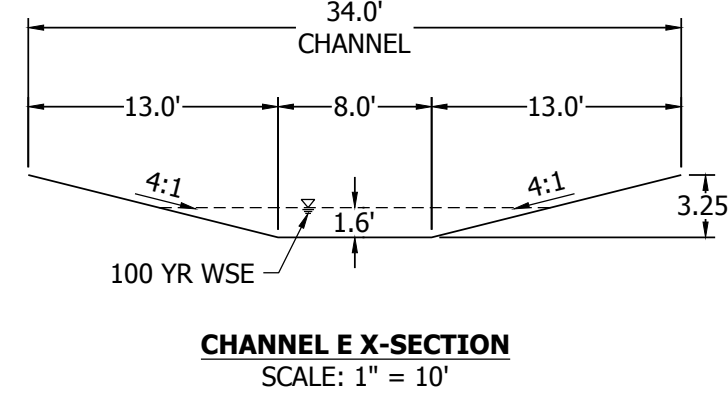
GESC PLANS	
JOB NO.	MC22110
ORG. SUBM. DATE	06/16/2022
DWN:	LAO
CHKD:	CJD
NAME	

**CHANNEL D PLAN & PROFILE**

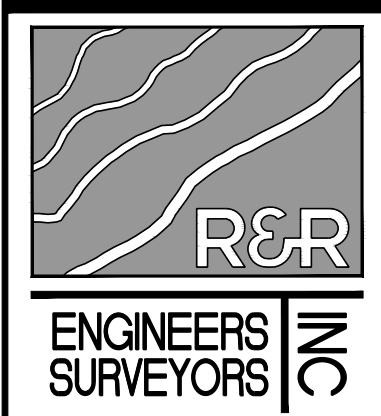
NO. **C8.17**



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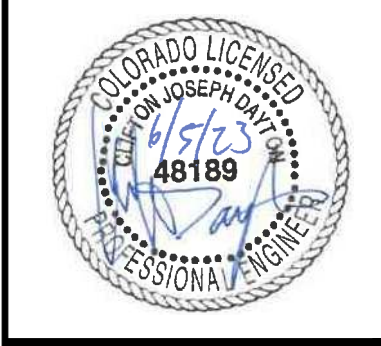


NO.	REVISION	BY	DATE
2ND SUBMISSION			09/01/22
3RD SUBMISSION			01/17/23
4TH SUBMISSION			04/10/23



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 DENVER, COLORADO 80204  
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**MAYBERRY PUD PH1 - FILING NO. 3**  
 SITE ADDRESS: MAYBERRY, COLORADO SPRINGS  
 EL PASO COUNTY  
 PREPARED FOR: MAYBERRY COMMUNITIES, LLC  
 3296 DIVINE HEIGHTS #208  
 COLORADO SPRINGS, CO 80922

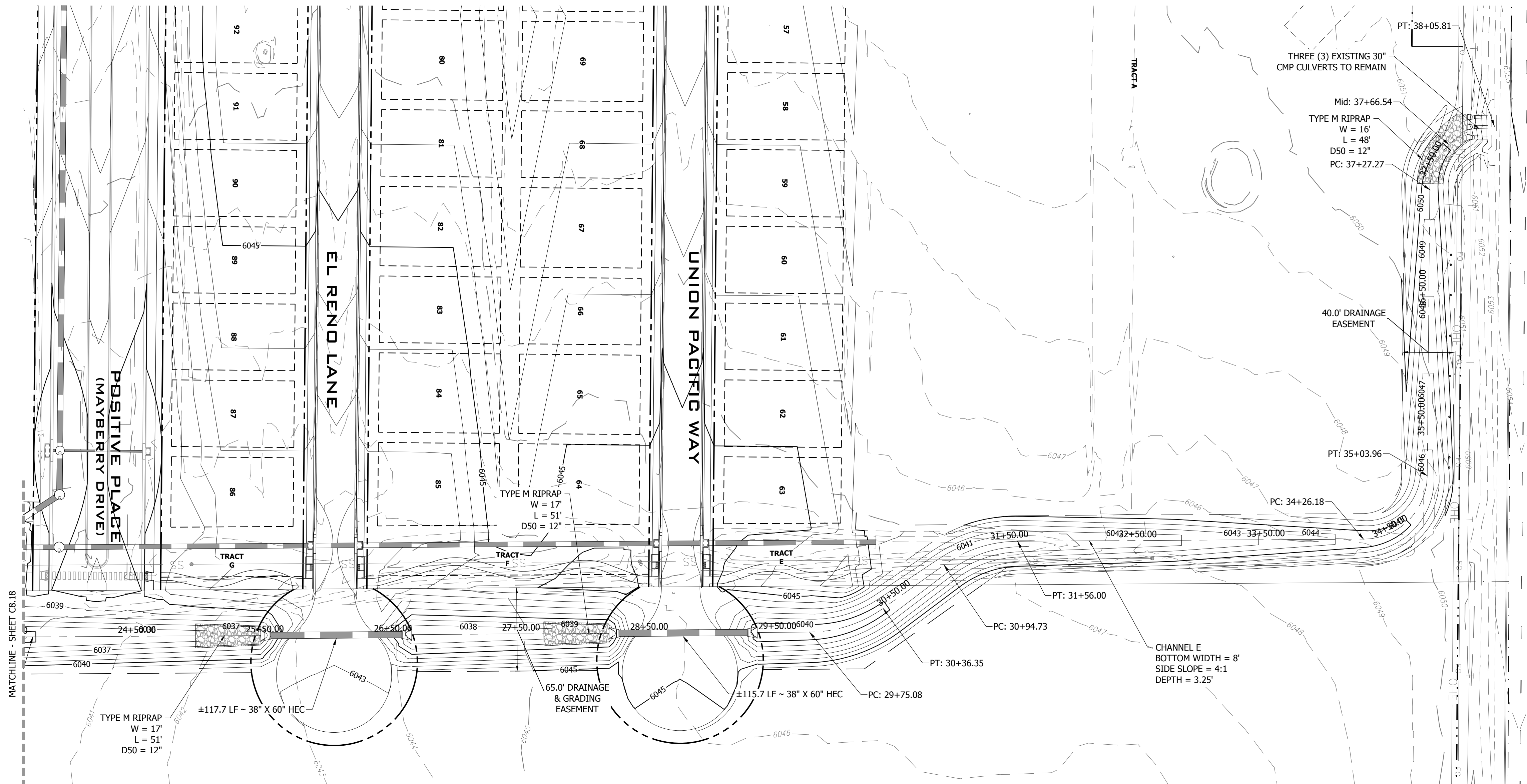
GESC PLANS  
 JOB NO. MC22110  
 ORG. SUBM. DATE 06/16/2022  
 DWN: LAO CHKD: CJD

CHANNEL E 9+50 TO 24+00

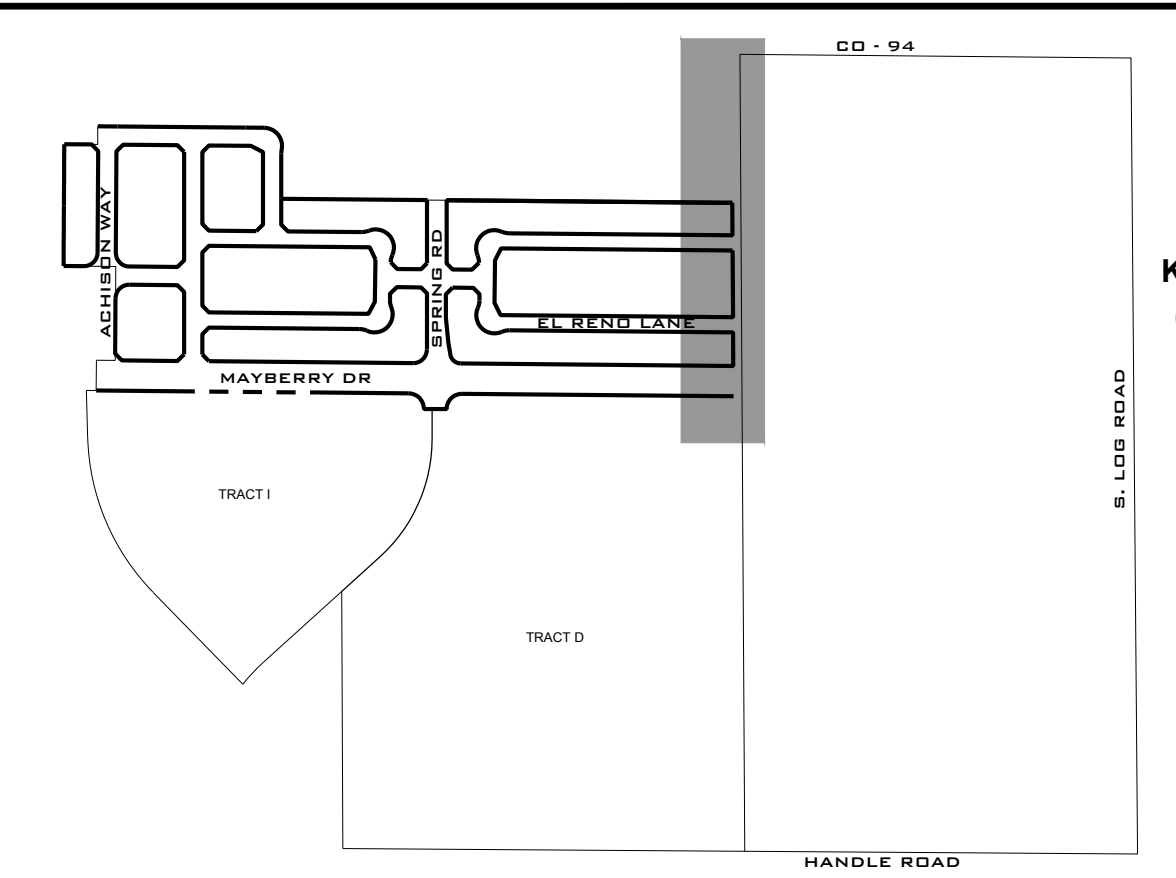
NO. C8.18



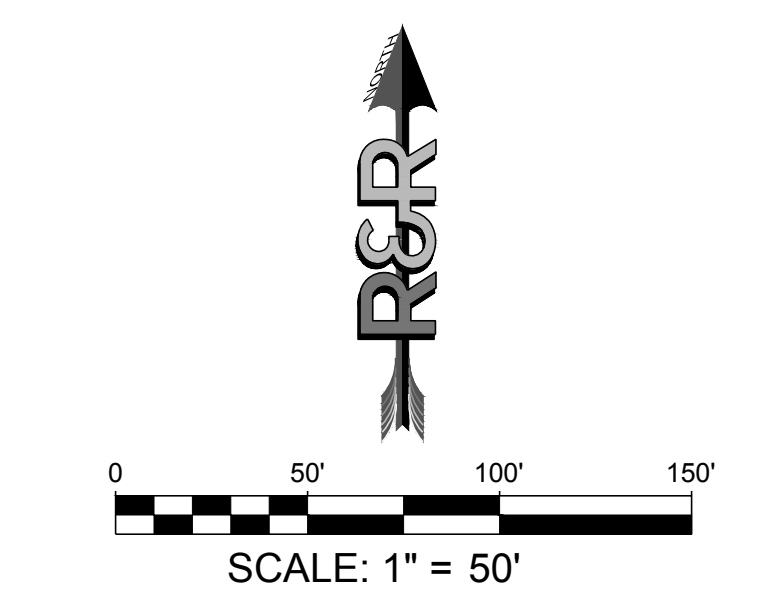
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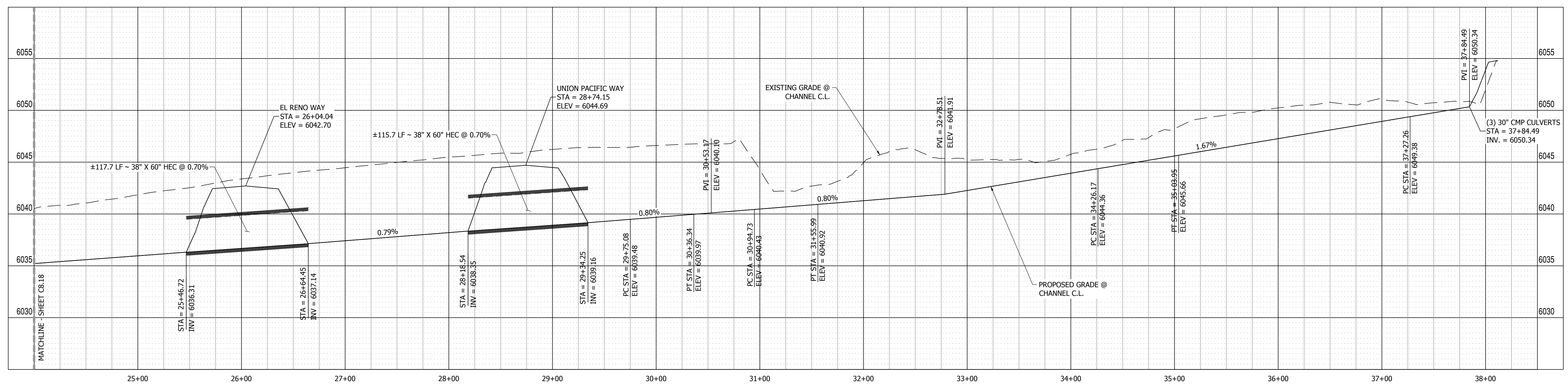
**CHANNEL E STA. 24+00.00 TO 38+50.00**  
SCALE: 1" = 50'



**KEY MAP**  
N.T.S.



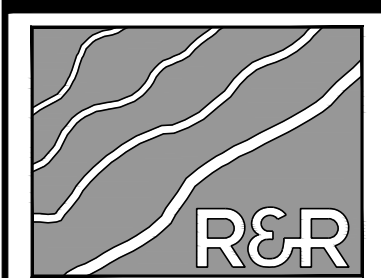
**CHANNEL E X-SECTION**  
SCALE: 1" = 10'



**CHANNEL E PROFILE VIEW**  
HORIZONTAL SCALE: 1"=50'  
VERTICAL SCALE: 1"=5'

**811**  
Know what's below.  
Call before you dig.

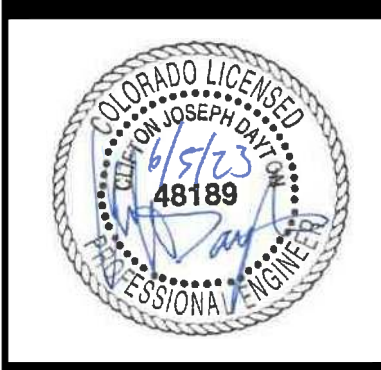
NO.	REVISION	BY	DATE
2ND	SUBMISSION		09/01/22
3RD	SUBMISSION		01/17/23
4TH	SUBMISSION		04/10/23



**R&R ENGINEERS-SURVEYORS, INC.**  
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DENVER, COLORADO 80204  
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**MAYBERRY PUD PH1 - FILING NO. 3**  
SITE ADDRESS: MAYBERRY, COLORADO SPRINGS  
EL PASO COUNTY  
PREPARED FOR: MAYBERRY COMMUNITIES, LLC  
3296 DIVINE HEIGHTS #208  
COLORADO SPRINGS, CO 80922

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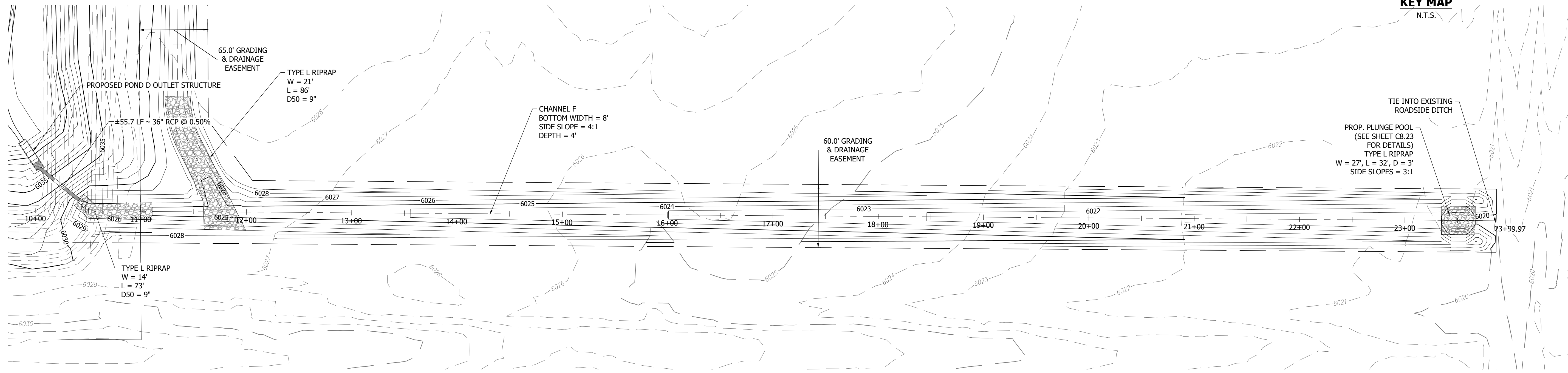
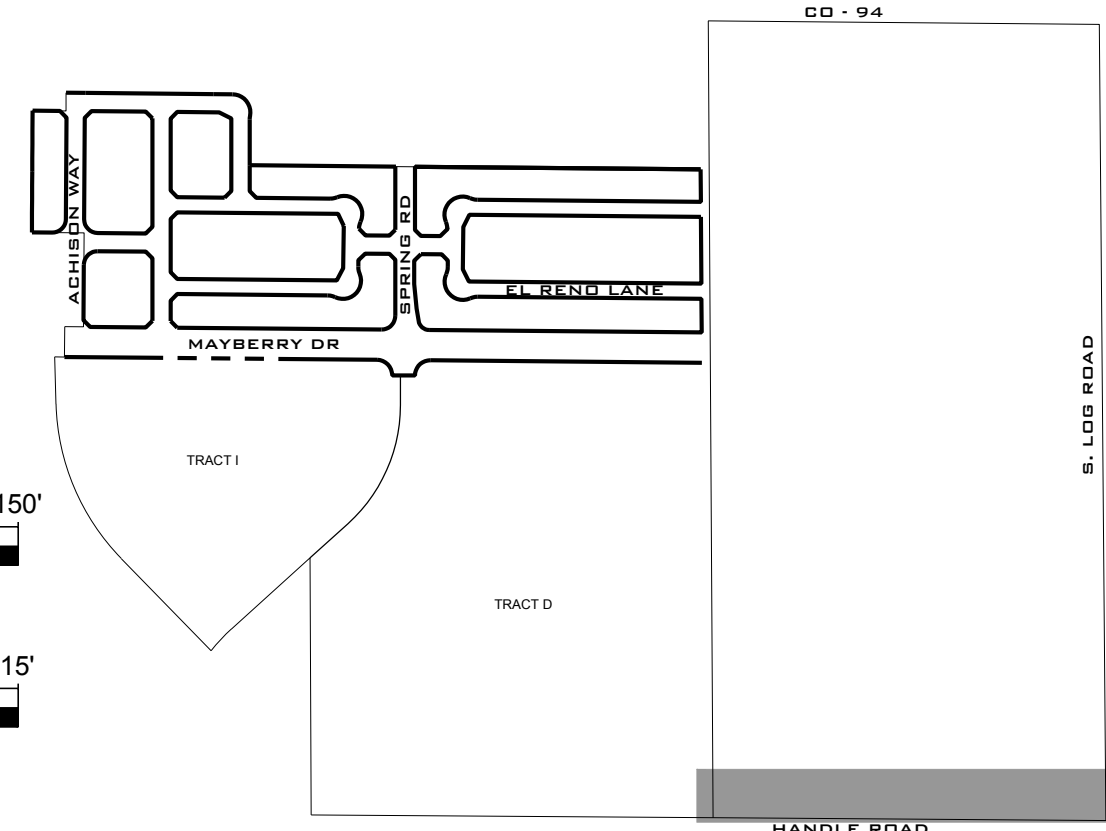
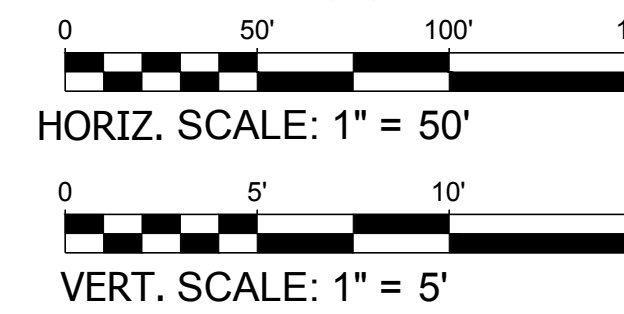
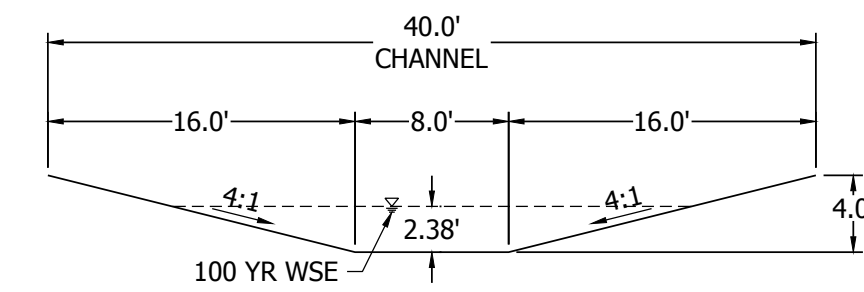
GESC PLANS  
JOB NO. MC22110  
ORG. SUBM. DATE 06/16/2022  
DWN: LAO CHKD: CJD  
NAME

**CHANNEL E 24+00 TO 38+50**

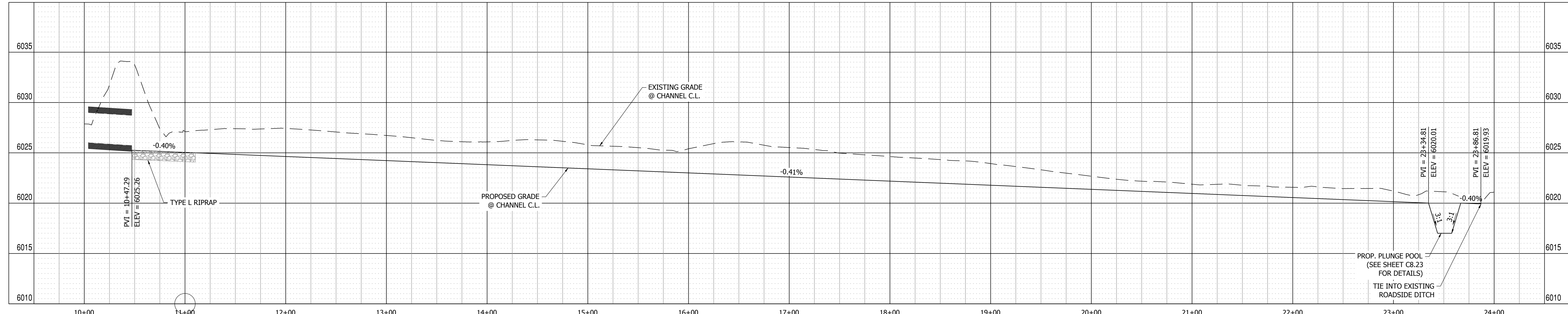
NO. **C8.19**



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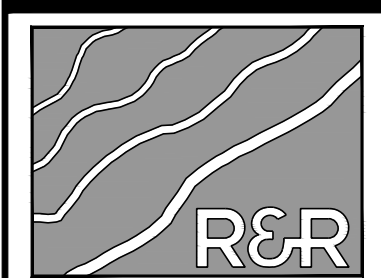


**CHANNEL F**  
SCALE: 1" = 50'



**CHANNEL F PROFILE VIEW**  
HORIZONTAL SCALE: 1" = 50'  
VERTICAL SCALE: 1" = 5'

NO.	REVISION	BY	DATE
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4TH	SUBMISSION		04/10/23



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 COLORADO SPRINGS, CO 80922

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**CHANNEL F PLAN & PROFILE**

NO. **C8.20**





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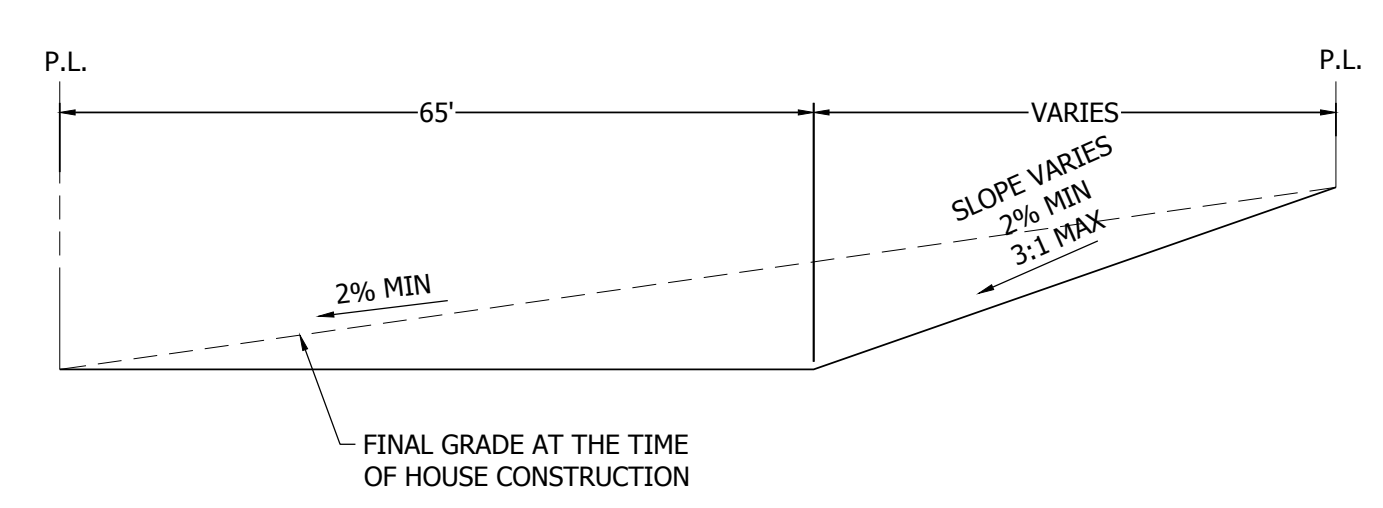


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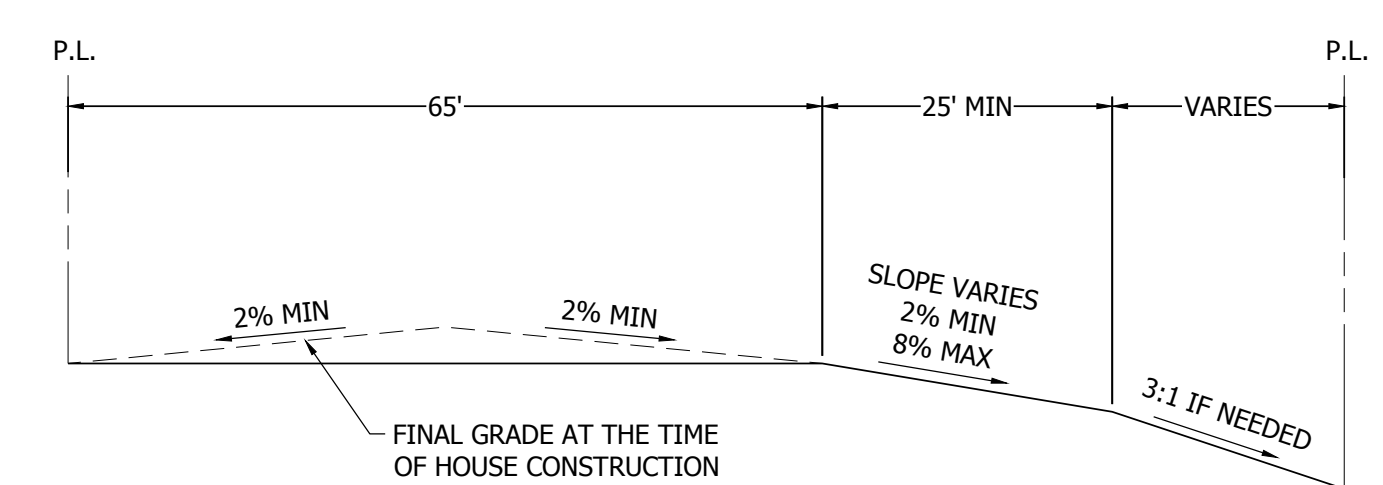
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JOB NO.	MC22110
ORG. SUBM. DATE	06/16/2022
DWN:	LAO
CHKD:	CJD

LOT GRADING  
DETAILS

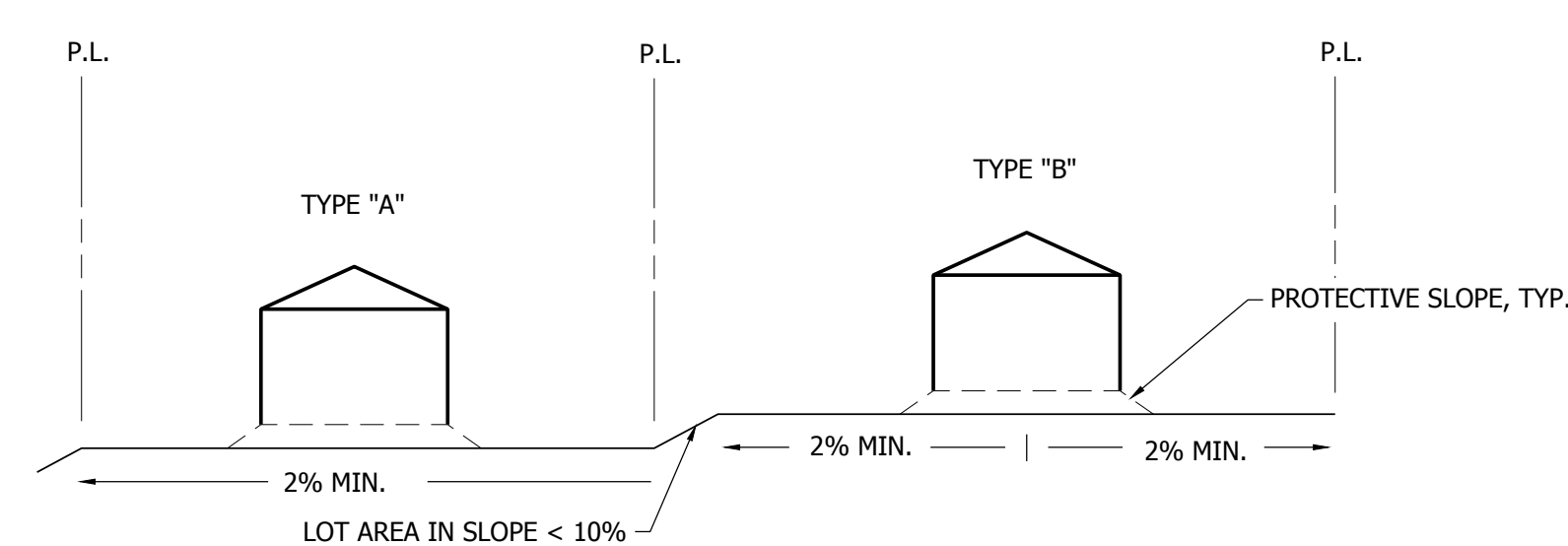
NO.  
**C8.21**



**TYPICAL "A" LOT**  
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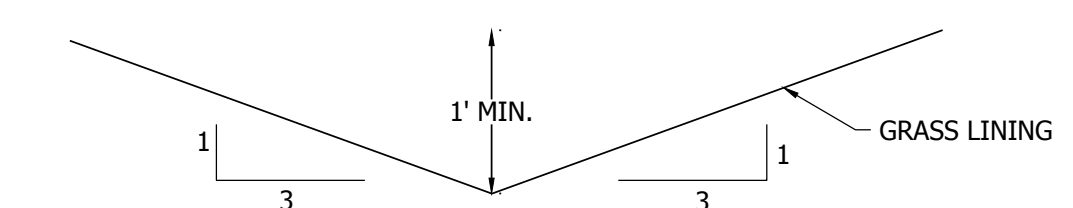


**TYPICAL "B" LOT**  
N.T.S.



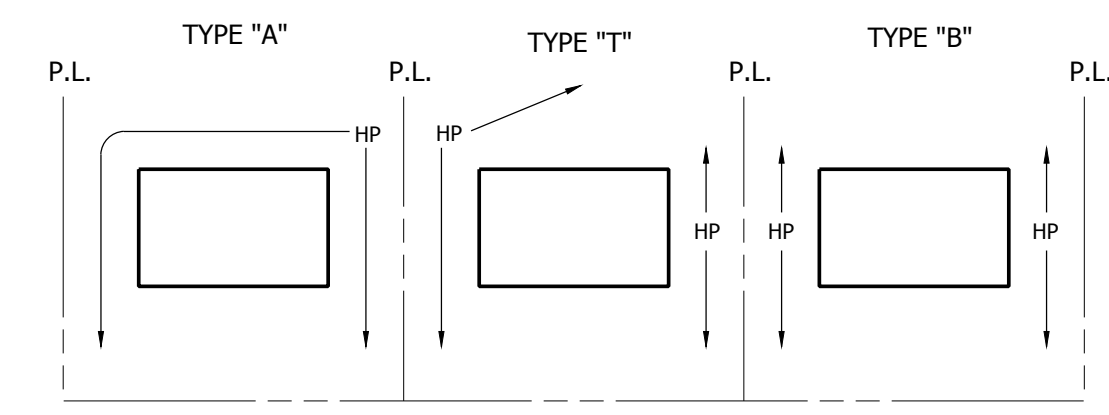
**TYPICAL LOT SECTION DETAIL**  
N.T.S.

NOTE:  
FINAL GRADING TO COMPLY WITH H.U.D. STANDARDS CONTAINED IN SECTION 310 AND 602 OF THE MINIMUM PROPERTY STANDARDS (MPS) 4900.1, HANDBOOK 4140.3 CHG (DATA SHEET 79G), IF APPLICABLE, AND ALL LEGAL STANDARDS.

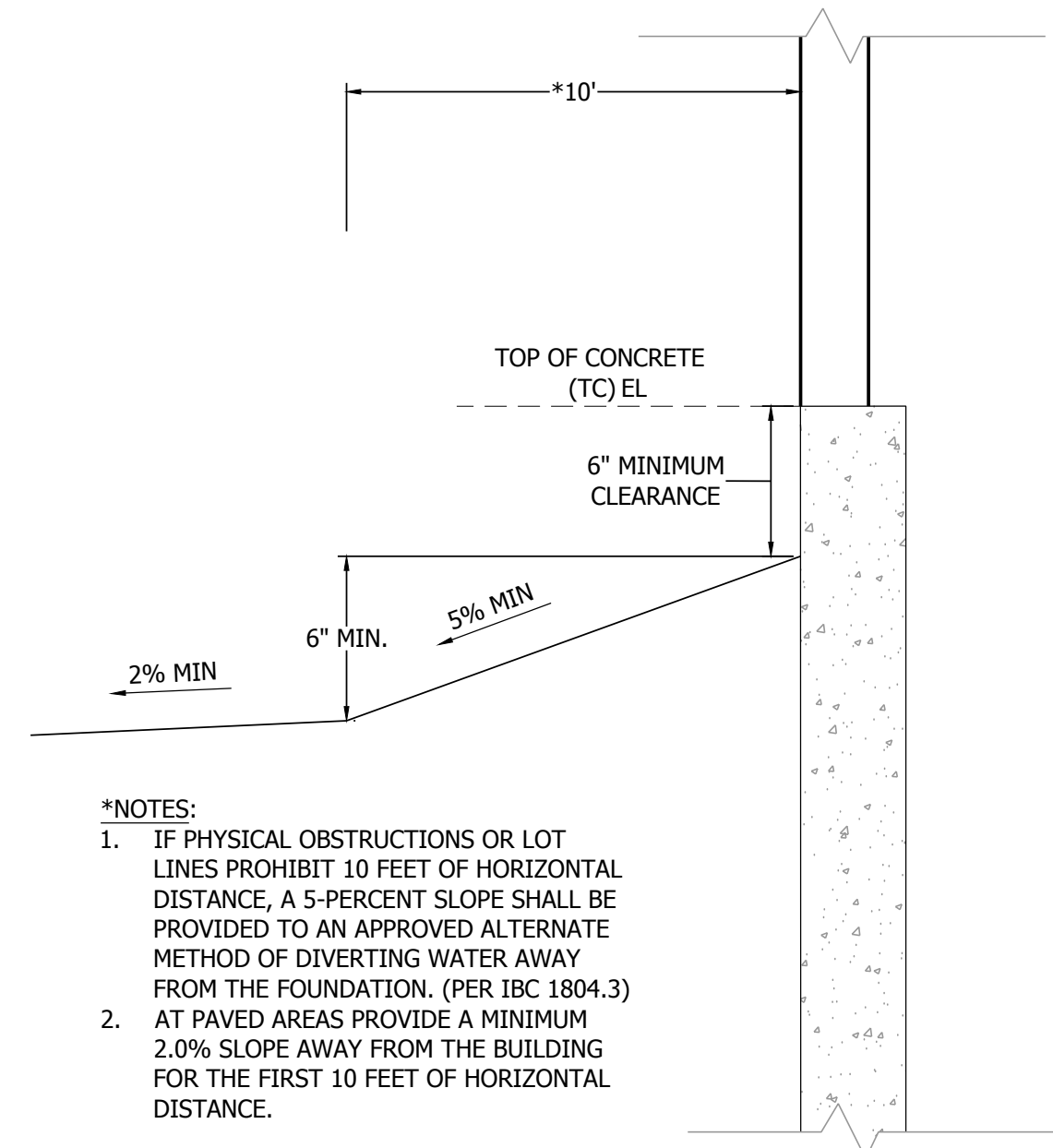


**TYPICAL SIDE/REAR LOT SWALE**  
N.T.S.

NOTE:  
BUILDERS AND OWNERS SHALL MAINTAIN PROPER PROTECTIVE SLOPES AND SIDE/REAR LOT SWALES DURING AND AFTER HOME CONSTRUCTION.



**LOT DRAINAGE TYPES**  
N.T.S.



**TYPICAL BUILDING DRAINAGE DETAIL**  
N.T.S.

- \*NOTES:
- IF PHYSICAL OBSTRUCTIONS OR LOT LINES PROHIBIT 10 FEET OF HORIZONTAL DISTANCE, A 5-PERCENT SLOPE SHALL BE PROVIDED TO AN APPROVED ALTERNATE METHOD OF DIVERTING WATER AWAY FROM THE FOUNDATION. (PER IBC 1804.3)
  - AT PAVED AREAS PROVIDE A MINIMUM 2.0% SLOPE AWAY FROM THE BUILDING FOR THE FIRST 10 FEET OF HORIZONTAL DISTANCE.

- NOTES:
- LOT GRADING & DRAINAGE IS THE RESPONSIBILITY OF THE INDIVIDUAL LOT BUILDERS AND OWNERS
  - INDIVIDUAL BUILDERS SHALL PROVIDE POSITIVE DRAINAGE WITHIN EACH LOT AND ACCOUNT FOR POTENTIAL CROSS-LOT DRAINAGE ON DOWN GRADIENT LOTS.
  - FINAL GRADING TO COMPLY WITH H.U.D. STANDARDS CONTAINED IN SECTION 310 AND 602 OF THE MINIMUM PROPERTY STANDARDS (MPS) 4900.1, HANDBOOK 4140.3 CHG (DATA SHEET 79G), IF APPLICABLE AND ALL LEGAL STANDARDS.

PATH:\P\MC22110\_MAYBERRY\_PUD\_PH1 - FILING NO. 3\ENGINEERING\DRAWINGS\PLANS\GDS - GESC - LOT GRADING DETAILS.DWG - PLOT DATE: 6/1/2023 12:00:05 PM BY: LNN CGR001





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 COLORADO SPRINGS, CO 80922

GESC PLANS	
JOB NO.	MC22110
ORG. SUBM. DATE	06/16/2022
DWN:	LAO
CHKD:	CJD
NAME	

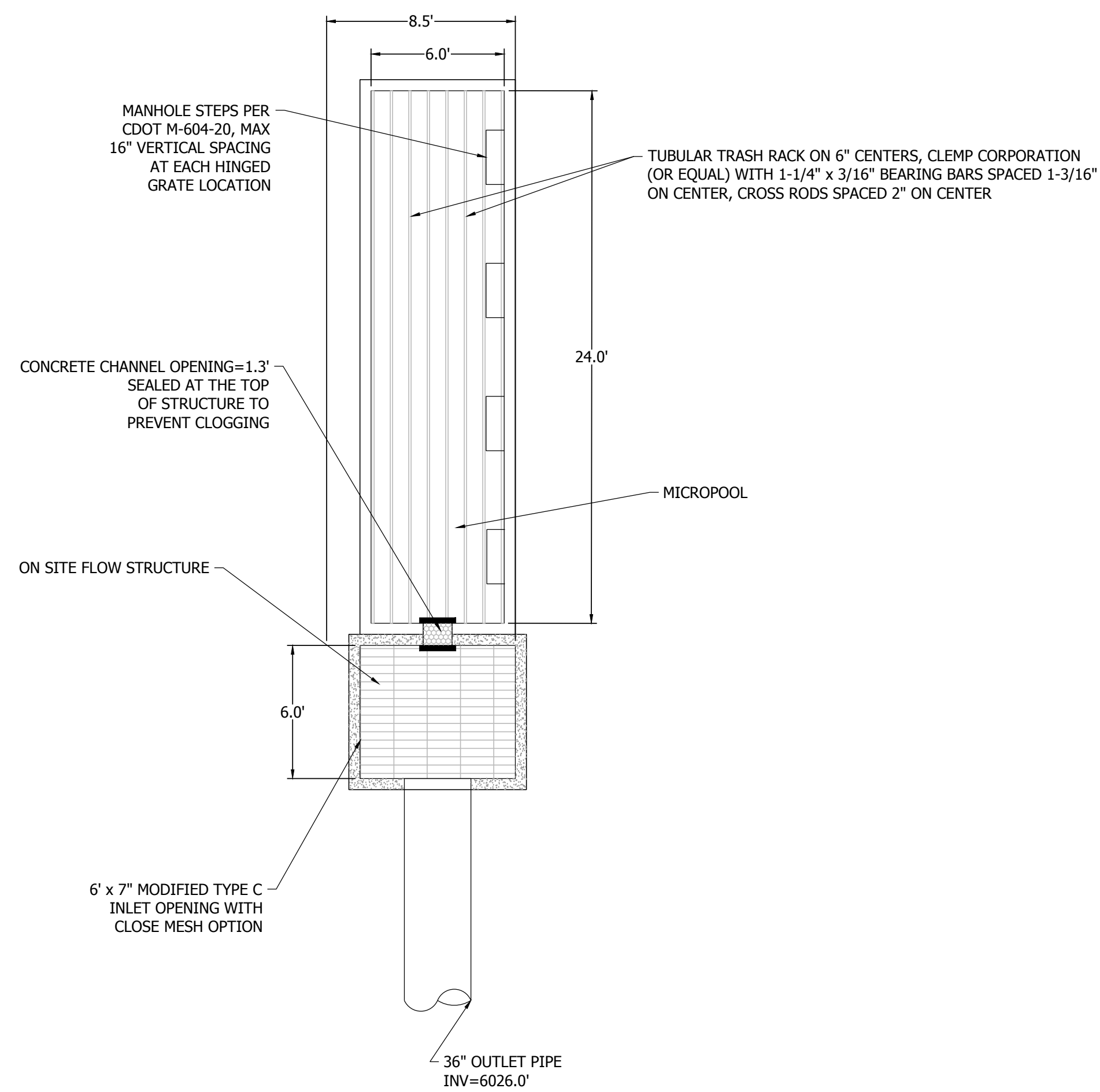
DETENTION POND DETAILS

NO. C8.22

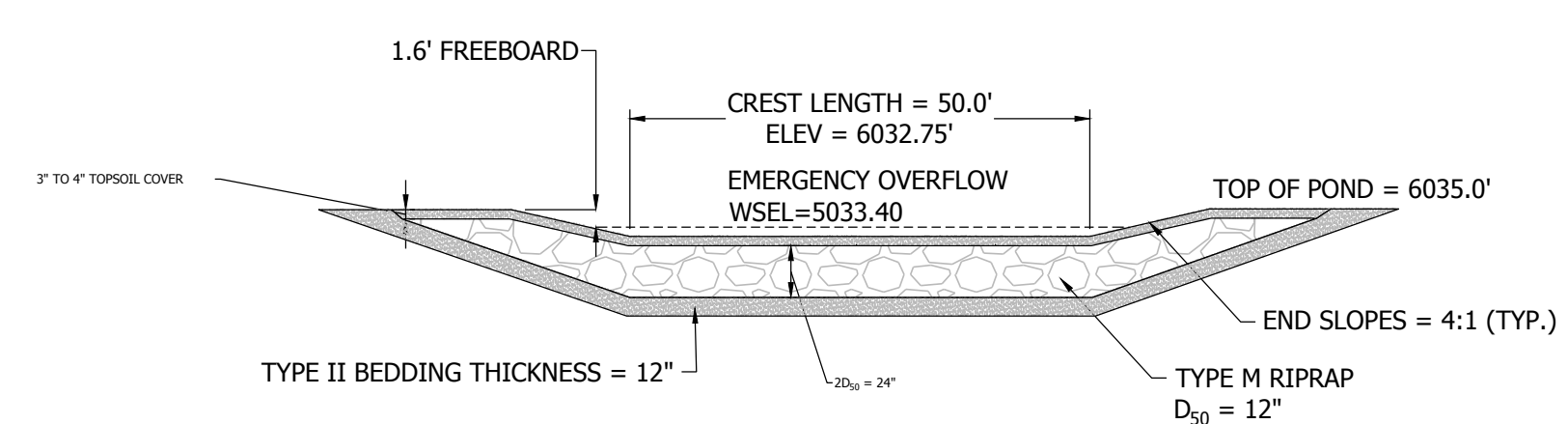
**DETENTION POND FOUNDATION PREPARATION AND EMBANKMENT CONSTRUCTION (PER CTL THOMPSON LETTER DATED 8/31/22)**  
 PRIOR TO PLACEMENT OF EMBANKMENT FILL, THE EXISTING GROUND SURFACE SHOULD BE SCARIFIED, MOISTURE CONDITIONED, AND RECOMPACTED. EMBANKMENT FILL MAY CONSIST OF ONSITE MATERIALS PROVIDED THEY ARE SUBSTANTIALLY FREE OF DEBRIS, VEGETATION/ORGANICS, DELETERIOUS MATERIALS, AND MATERIAL GREATER THAN 3-INCHES. FILL SHOULD BE PLACED IN THIN, LOOSE LIFTS NO MORE THAN 8-INCHES, MOISTURE CONDITIONED AND COMPACTED PRIOR TO PLACEMENT OF THE NEXT LIFT. FILL SHOULD BE COMPACTED ACCORDING TO TABLE A. THE PLACEMENT AND COMPACTION OF NEW FILL SHOULD BE OBSERVED, AND THE DENSITY TESTED BY OUR REPRESENTATIVE DURING CONSTRUCTION. WE RECOMMEND EMBANKMENT SLOPES BE OVERBUILT AT LEAST 12-INCHES AND CUT BACK DUE TO THE INHERENT DIFFICULTY OF ACHIEVING COMPACTION AT THE EDGE OF A SLOPE.

Table A - Compaction Specifications

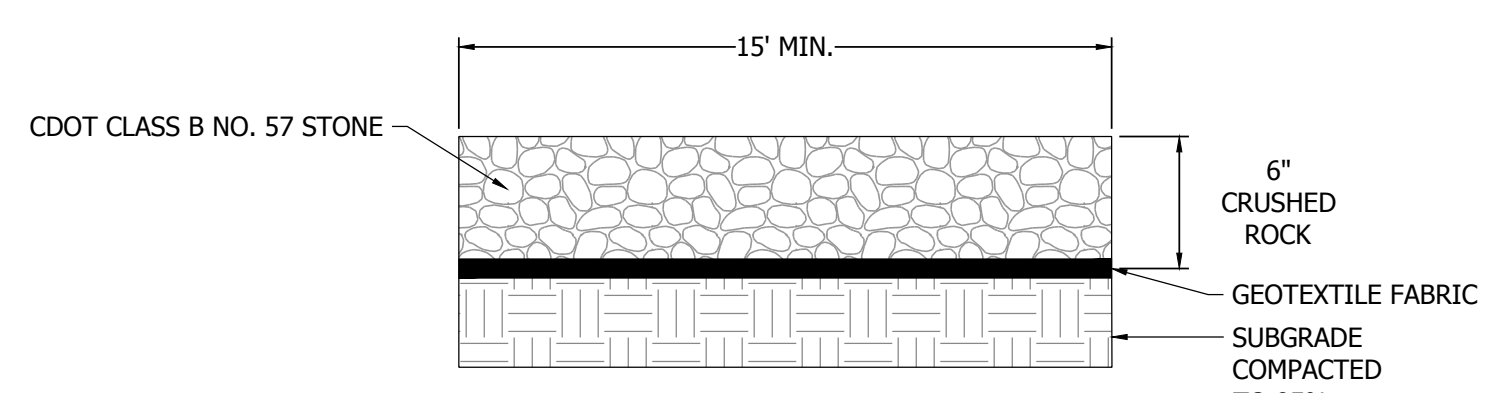
Soil Type	Minimum Compaction	Moisture Content From Optimum
Clay	95% ASTM D698	-2 to +2
Sand	95% ASTM D1557	-2 to +2



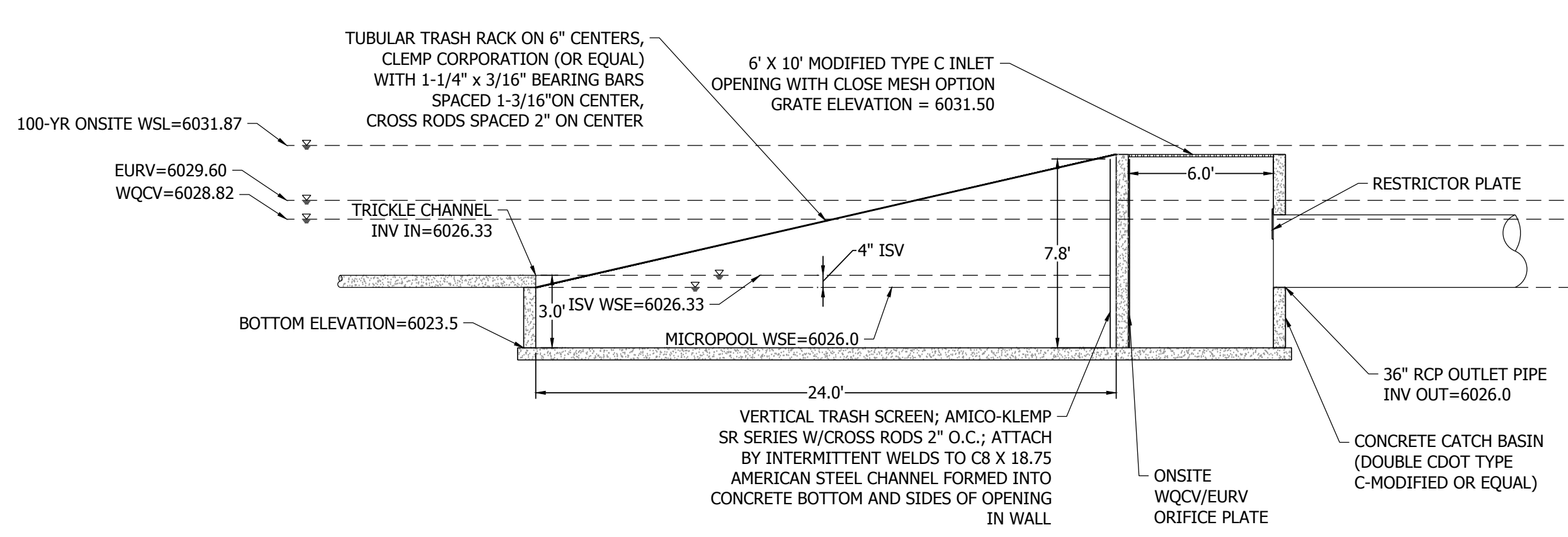
PLAN VIEW  
DETENTION POND OUTLET STRUCTURE PLAN  
N.T.S.



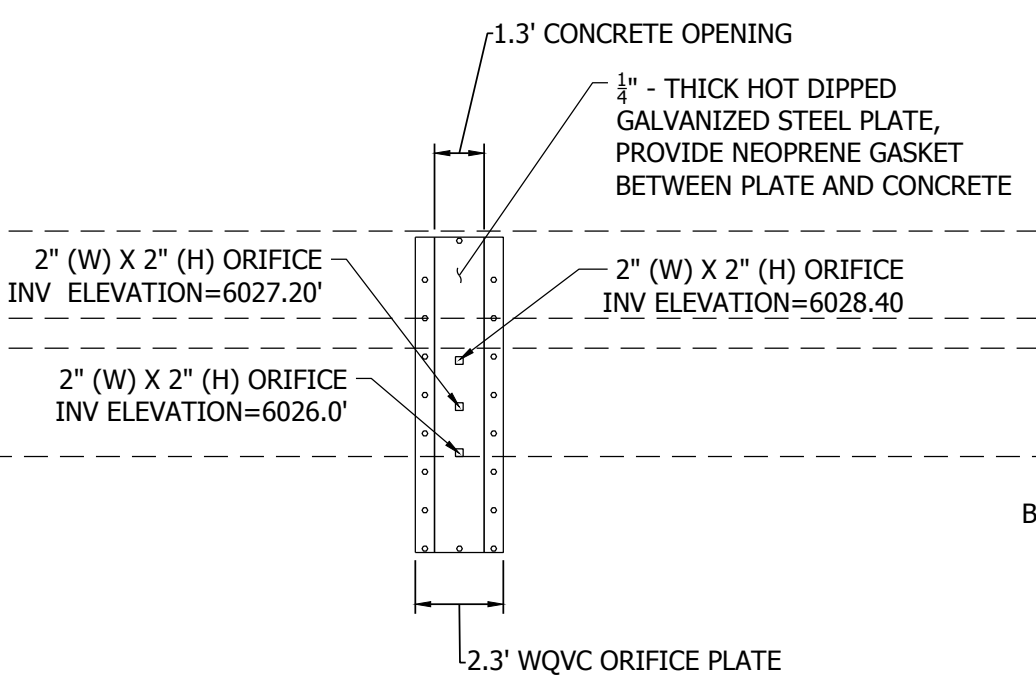
EMERGENCY SPILLWAY DETAIL  
N.T.S.



POND ACCESS PATH DETAIL  
N.T.S.

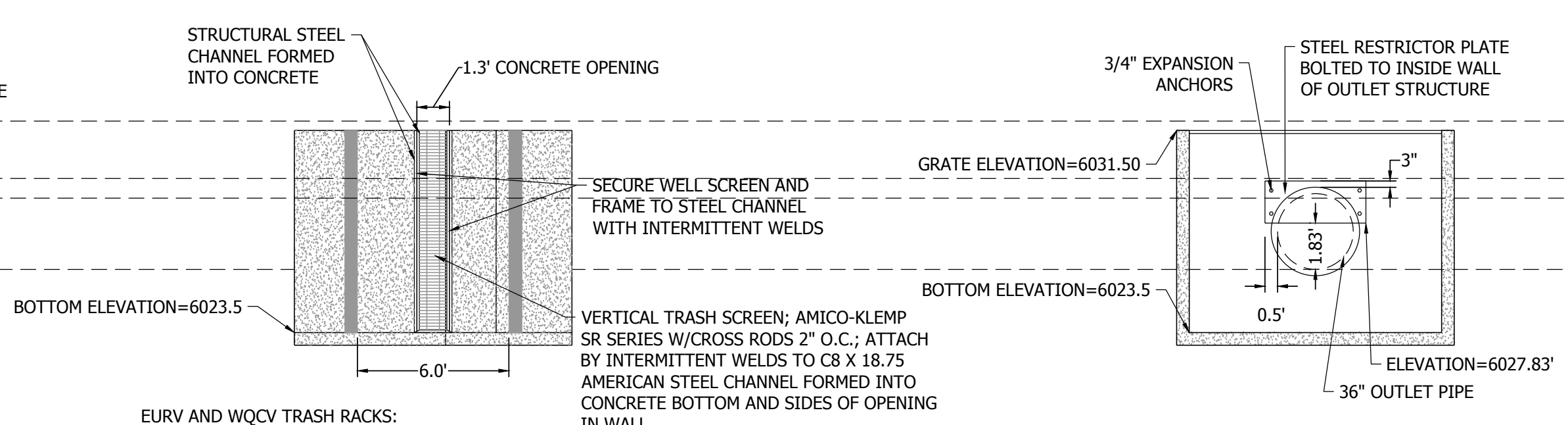


DETENTION POND OUTLET STRUCTURE SECTION  
N.T.S.



ORIFACE PLATE NOTES:  
 1. MINIMIZE THE NUMBER OF COLUMNS.  
 2. PROVIDE GASKET MATERIAL BETWEEN THE ORIFICE PLATE AND CONCRETE.  
 3. BOLT PLATE TO CONCRETE 12\"/>

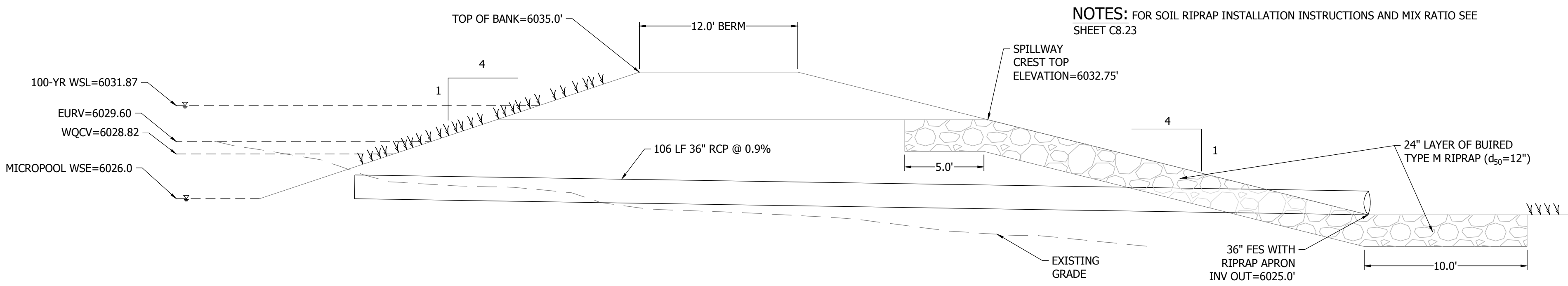
ORIFACE PLATE DETAIL  
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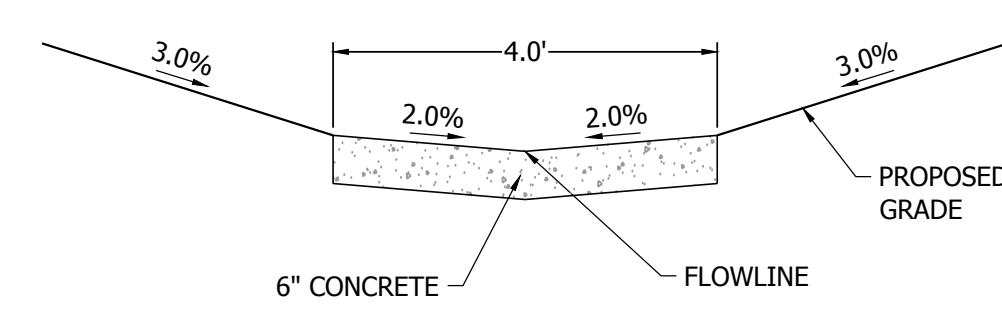
RESTRICTOR PLATE DETAIL  
N.T.S.

- EURV AND WQCV TRASH RACKS:**
- WELL-SCREEN TRASH RACKS SHALL BE ATTACHED BY INTERMITTENT WELDS ALONG THE EDGE OF THE MOUNTING FRAME.
  - STRUCTURAL DESIGN OF TRASH RACKS SHALL BE BASED ON FULL HYDROSTATIC HEAD WITH ZERO HEAD DOWNSTREAM OF THE RACK.
- OVERFLOW TRASH RACKS:**
- ALL TRASH RACKS SHALL BE MOUNTED USING STAINLESS STEEL HARDWARE AND PROVIDED WITH HINGED AND LOCKABLE OR BOLTABLE ACCESS PANELS.
  - TRASH RACKS SHALL BE STAINLESS STEEL, ALUMINUM, OR STEEL. STEEL TRASH RACKS SHALL BE HOT DIP GALVANIZED AND MAY BE HOT POWDER COATED AFTER GALVANIZING.
  - TRASH RACKS SHALL BE DESIGNED SUCH THAT THE DIAGONAL DIMENSION OF THE EACH OPENING IS SMALLER THAN THE DIAMETER OF THE OUTLET PIPE.
  - STRUCTURAL DESIGN OF TRASH RACKS SHALL BE BASED ON FULL HYDROSTATIC HEAD WITH ZERO HEAD DOWNSTREAM OF THE RACK.

VERTICAL TRASH SCREEN DETAIL  
N.T.S.



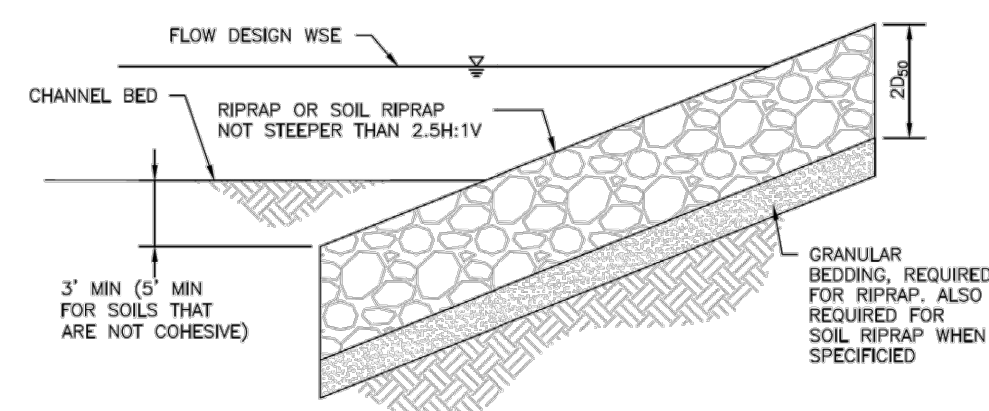
SPILLWAY SECTION  
N.T.S.



TYPICAL CONCRETE TRICKLE CHANNEL  
N.T.S.

NOTES: FOR SOIL RIPRAP INSTALLATION INSTRUCTIONS AND MIX RATIO SEE SHEET C8.23





RIPRAP DESIGNATION	% SMALLER THAN GIVEN SIZE BY WEIGHT	INTERMEDIATE ROCK DIMENSION (INCHES)	D <sub>50</sub> * (INCHES)
TYPE VL	70 - 100	12	6
	50 - 70	9	
	35 - 50	6	
TYPE L	70 - 100	15	9
	50 - 70	12	
	35 - 50	9	
TYPE M	70 - 100	21	12
	50 - 70	18	
	35 - 50	12	
TYPE H	70 - 100	30	18
	50 - 70	24	
	35 - 50	18	

\*D<sub>50</sub> = MEAN ROCK SIZE.

Figure 8-34. Riprap and soil riprap placement and gradation (part 1 of 3)

- SOIL RIPRAP NOTES:
- ELEVATION TOLERANCES FOR THE SOIL RIPRAP SHALL BE 0.10 FEET. THICKNESS OF SOIL RIPRAP SHALL BE NO LESS THAN THICKNESS SHOWN AND NO MORE THAN 2-INCHES GREATER THAN THE THICKNESS SHOWN.
  - WHERE "SOIL RIPRAP" IS DESIGNATED ON THE CONTRACT DRAWINGS, RIPRAP VOIDS ARE TO BE FILLED WITH NATIVE SOIL. THE RIPRAP SHALL BE PRE-MIXED WITH THE NATIVE SOIL AT THE FOLLOWING PROPORTIONS BY VOLUME: 65PERCENT RIPRAP AND 35 PERCENT SOIL. THE SOIL USED FOR MIXING SHALL BE NATIVE TOPSOIL AND SHALL HAVE A MINIMUM FINES CONTENT OF 15 PERCENT. THE SOIL RIPRAP SHALL BE INSTALLED IN A MANNER THAT RESULTS IN A DENSE, INTERLOCKED LAYER OF RIPRAP WITH RIPRAP VOIDS FILLED COMPLETELY WITH SOIL. SEGREGATION OF MATERIALS SHALL BE AVOIDED AND IN NO CASE SHALL THE COMBINED MATERIAL CONSIST PRIMARILY OF SOIL. THE DENSITY AND INTERLOCKING NATURE OF RIPRAP IN THE MIXED MATERIAL SHALL ESSENTIALLY BE THE SAME AS IF THE RIPRAP WAS PLACED WITHOUT SOIL.
  - WHERE SPECIFIED (TYPICALLY AS "BURIED SOIL RIPRAP"), A SURFACE LAYER OF TOPSOIL SHALL BE PLACED OVER THE SOIL RIPRAP ACCORDING TO THE THICKNESS SPECIFIED ON THE CONTRACT DRAWINGS. THE TOPSOIL SURFACE LAYER SHALL BE COMPACTED TO APPROXIMATELY 85% OF MAXIMUM DENSITY AND WITHIN TWO PERCENTAGE POINTS OF OPTIMUM MOISTURE IN ACCORDANCE WITH ASTM D698. TOPSOIL SHALL BE ADDED TO ANY AREAS THAT SETTLE.
  - ALL SOIL RIPRAP THAT IS BURIED WITH TOPSOIL SHALL BE REVIEWED AND APPROVED BY THE ENGINEER PRIOR TO ANY TOPSOIL PLACEMENT.

U.S. STANDARD SIEVE SIZE	GRADATION FOR GRANULAR BEDDING	
	PERCENT PASSING BY WEIGHT	
	TYPE I CDOT SECT. 703.01	TYPE II CDOT SECT. 703.09 CLASS A
3 INCHES	-	90 - 100
1 1/2 INCHES	-	-
3/4 INCHES	-	20 - 90
3/8 INCHES	100	-
#4	95 - 100	0 - 20
#16	45 - 80	-
#50	10 - 30	-
#100	2 - 10	-
#200	0 - 2	0 - 3

RIPRAP BEDDING

Figure 8-34. Riprap and soil riprap placement and gradation (part 2 of 3)

RIPRAP DESIGNATION	THICKNESS REQUIREMENTS FOR GRANULAR BEDDING		
	MINIMUM BEDDING THICKNESS (INCHES)		
	FINE-GRAINED SOILS <sup>1</sup>	COARSE-GRAINED SOILS <sup>2</sup>	
VL (D <sub>50</sub> = 6 IN)	4	4	5
L (D <sub>50</sub> = 9 IN)	4	4	6
M (D <sub>50</sub> = 12 IN)	4	4	6
H (D <sub>50</sub> = 18 IN)	4	6	8
VH (D <sub>50</sub> = 24 IN)	4	6	8

- NOTES:
- MAY SUBSTITUTE ONE 12-INCH LAYER OF TYPE II BEDDING. THE SUBSTITUTION OF ONE LAYER OF TYPE I BEDDING SHALL NOT BE PERMITTED AT DROP STRUCTURES. THE USE OF A COMBINATION OF FILTER FABRIC AND TYPE II BEDDING AT DROP STRUCTURES IS ACCEPTABLE.
  - FIFTY PERCENT OR MORE BY WEIGHT RETAINED ON THE #40 SIEVE.

Figure 8-34. Riprap and soil riprap placement and gradation (part 3 of 3)

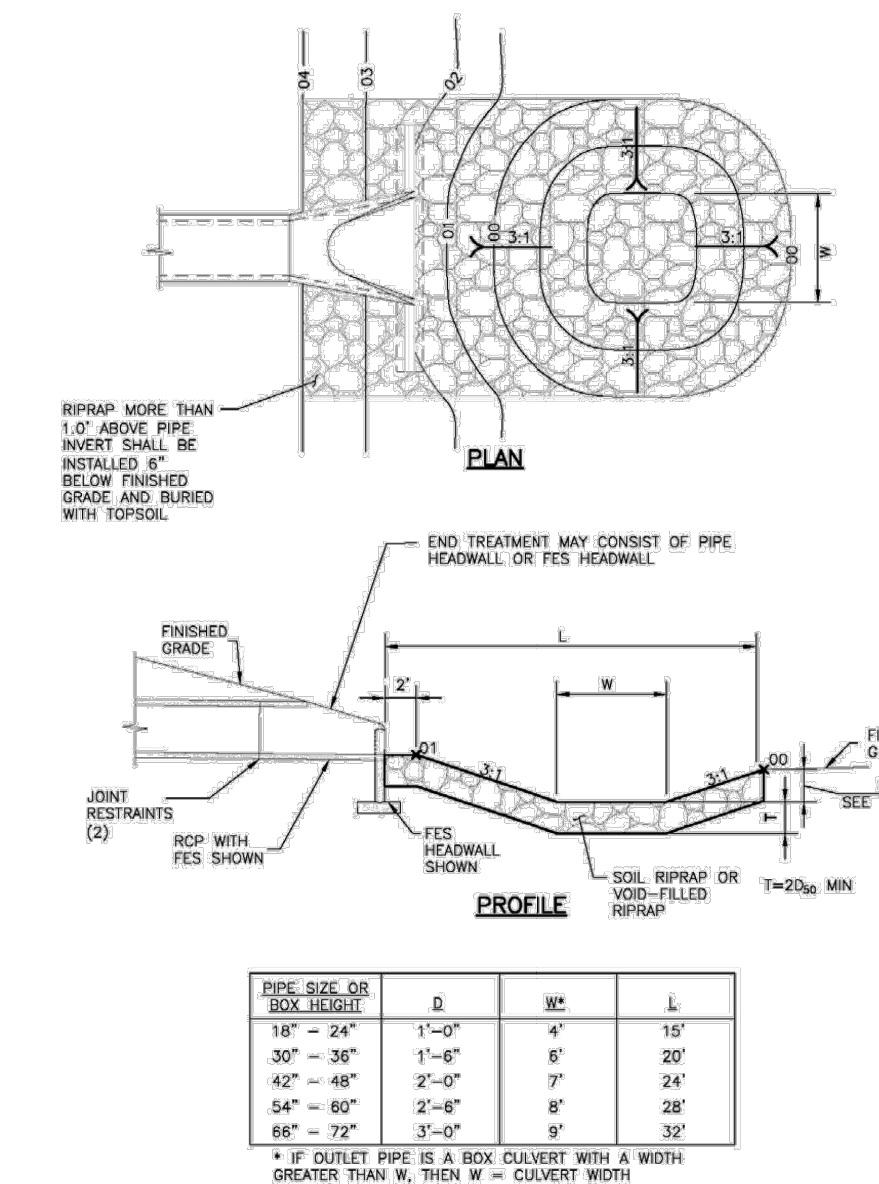
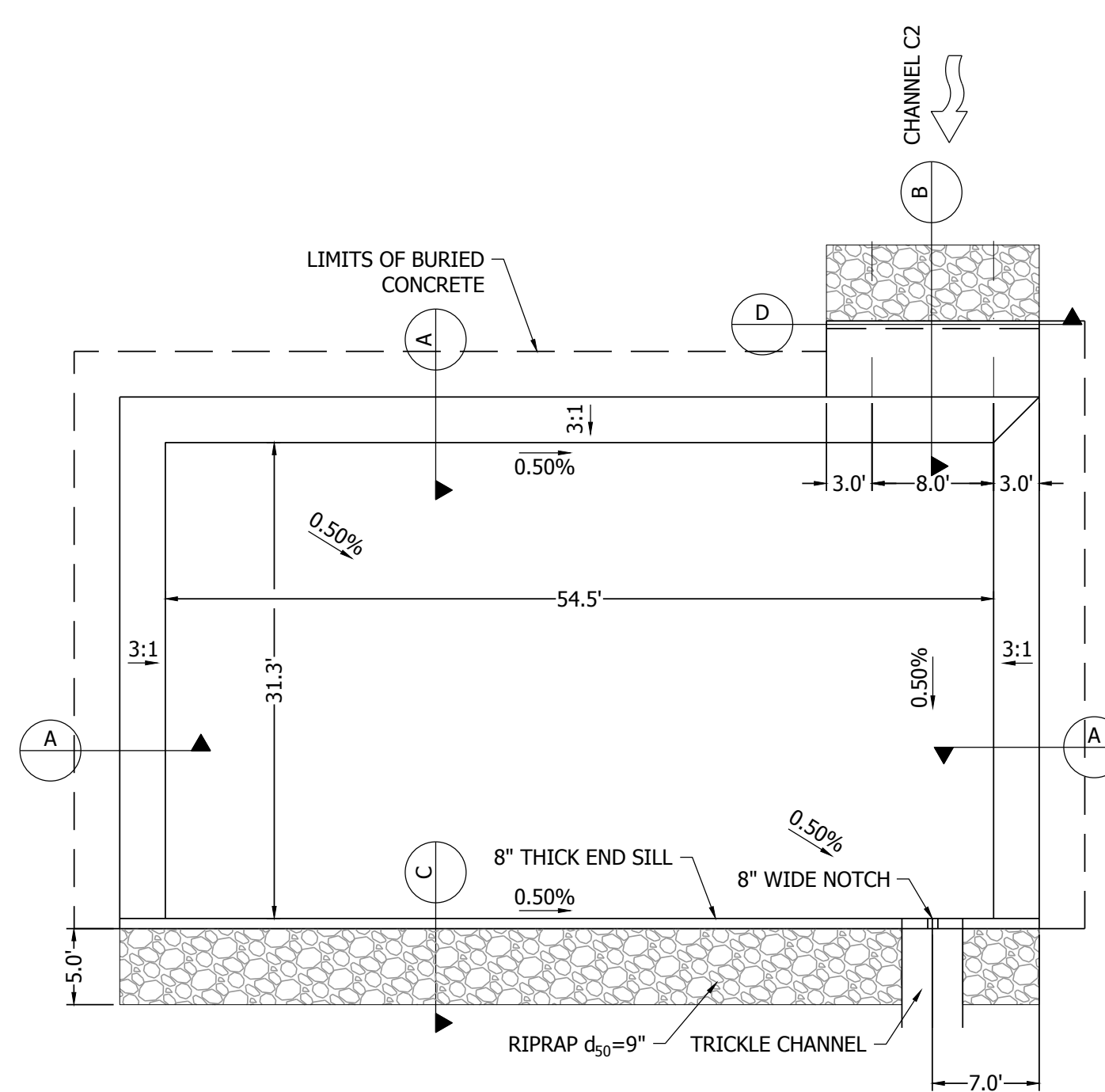
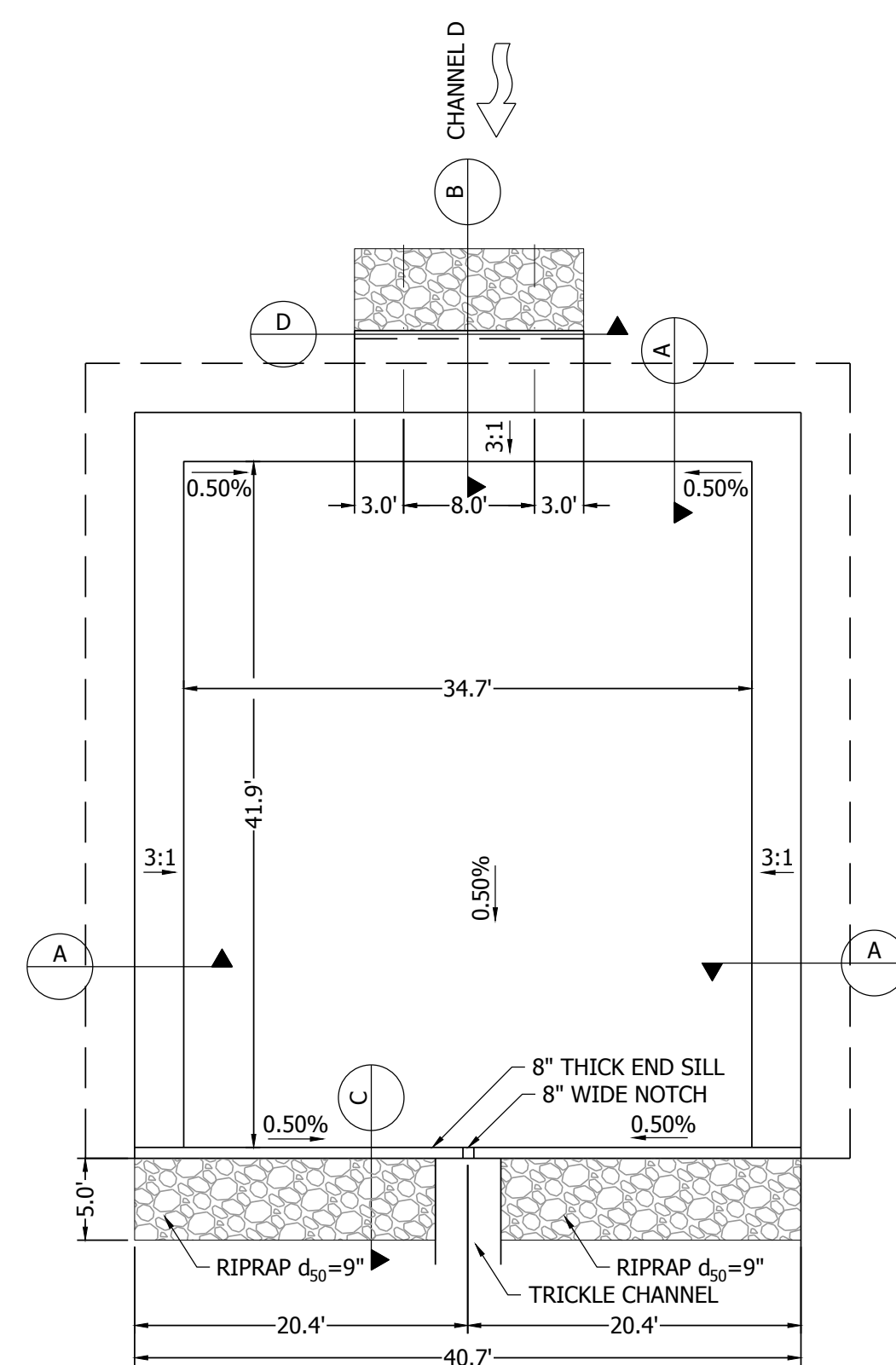


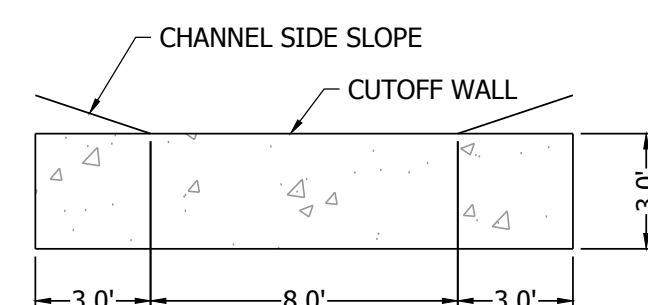
Figure 9-37. Low tailwater riprap basin



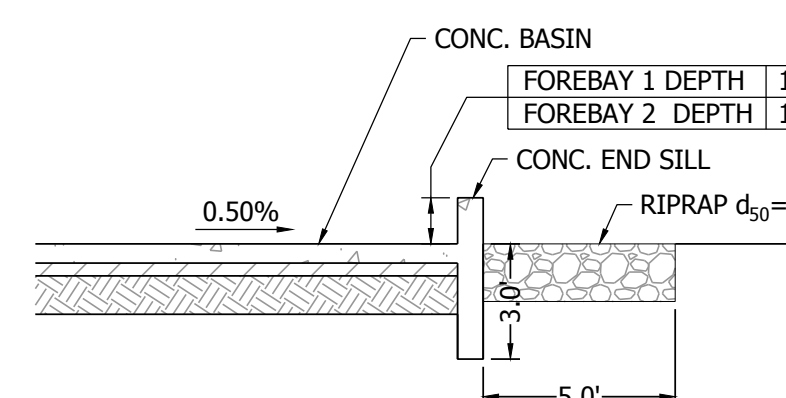
FOREBAY 1 PLAN  
SCALE 1" = 10'



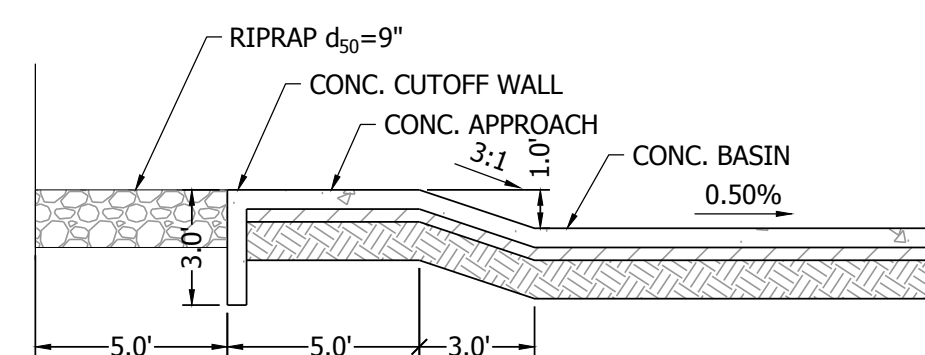
FOREBAY 2 PLAN  
SCALE 1" = 10'



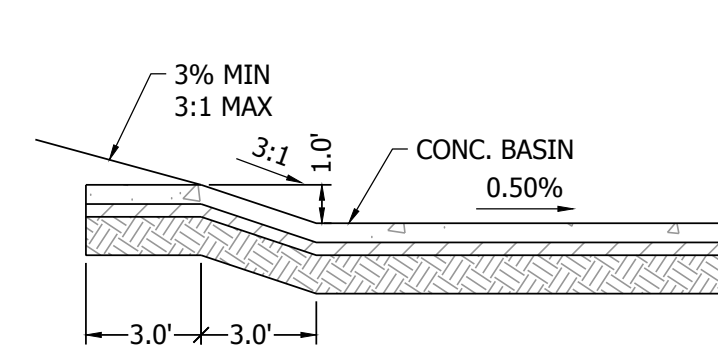
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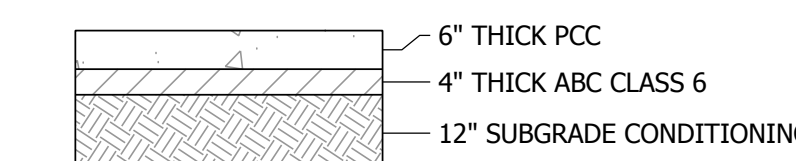
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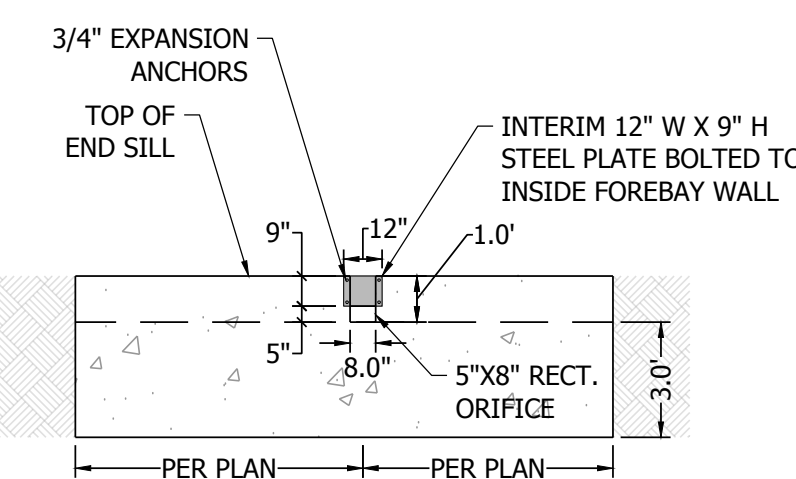
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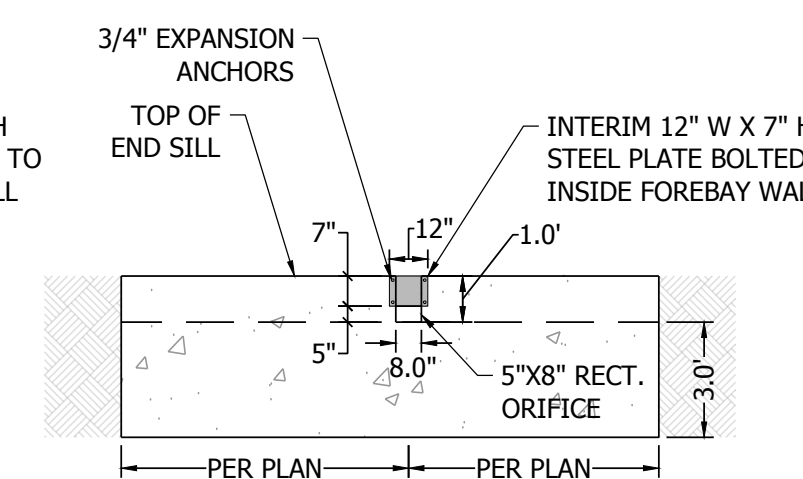
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PAVEMENT SECTION  
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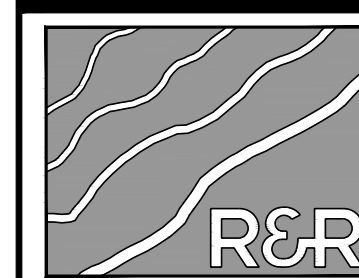


FOREBAY 1 END SILL NOTCH  
N.T.S.



FOREBAY 2 END SILL NOTCH  
N.T.S.

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MAYBERRY PUD PH 1 - FILING NO. 3  
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3296 DIVINE HEIGHTS #208  
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GESC PLANS	
JOB NO.	MC22110
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CHKD:	CJD
NAME	

DETENTION POND  
DETAILS

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