

COLORADO SPRINGS AIRPORT

PONDS 500 & 600 DOWNSTREAM STABILIZATION PLANS

LOCATED IN A PORTION OF SECTIONS 4, 5, & 6, TOWNSHIP 15 SOUTH, RANGE 65 WEST OF THE 6TH PRINCIPLE MERIDIAN,
LOCATED IN THE CITY OF COLORADO SPRINGS, COUNTY OF EL PASO, STATE OF COLORADO.

ENGINEER'S STATEMENT

THESE DETAILED PLANS AND SPECIFICATIONS WERE PREPARED UNDER MY DIRECTION AND SUPERVISION. SAID DETAILED PLANS AND SPECIFICATIONS HAVE BEEN PREPARED ACCORDING TO THE ESTABLISHED CRITERIA FOR DETAILED DRAINAGE PLANS AND SPECIFICATIONS, AND SAID DETAILED PLANS AND SPECIFICATIONS ARE IN CONFORMITY WITH THE MASTER PLAN OF THE DRAINAGE BASIN. SAID DETAILED DRAINAGE PLANS AND SPECIFICATIONS MEET THE PURPOSES FOR WHICH THE PARTICULAR DRAINAGE FACILITY(S) IS DESIGNED. I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY ANY NEGLIGENT ACTS, ERRORS OR OMISSIONS ON MY PART IN PREPARATION OF THE DETAILED DRAINAGE PLANS AND SPECIFICATIONS.

SIGNATURE: _____ DATE: _____

PRINTED NAME: JEFFREY M. MOHR

EMAIL ADDRESS: JEFF.MOHR@ENERTIACG.COM

DEVELOPER'S STATEMENT

COLORADO SPRINGS AIRPORT HEREBY CERTIFIES THAT THE CHANNEL STABILIZATION PLANS FOR DOWNSTREAM PONDS 500 & 600 SHALL BE CONSTRUCTED ACCORDING TO THE DESIGN PRESENTED IN THIS PLAN. I UNDERSTAND THAT THE CITY OF COLORADO SPRINGS DOES NOT AND WILL NOT ASSUME LIABILITY FOR THE DRAINAGE FACILITIES DESIGNED AND/OR CERTIFIED BY MY ENGINEER AND THAT ARE SUBMITTED TO THE CITY OF COLORADO SPRINGS PURSUANT TO SECTION 7.4.701 OF THE CITY CODE; AND CANNOT, ON BEHALF OF DOWNSTREAM PONDS 500 & 600, GUARANTEE THAT THE FINAL DRAINAGE DESIGN REVIEW WILL ABSOLVE COLORADO SPRINGS AIRPORT AND / OR THEIR SUCCESSORS AND / OR ASSIGNS OF FUTURE LIABILITY FOR IMPROPER DESIGN.

NAME OF DEVELOPER/OWNER: COLORADO SPRINGS AIRPORT

AUTHORIZED SIGNATURE : _____ DATE: _____

PRINTED NAME: TROY STOVER

TITLE: AIRPORT BUSINESS PARK DIRECTOR EMAIL: TSTOVER@SPRINGSGOV.COM

ADDRESS: 30 S. NEVADA AVENUE, SUITE 604
COLORADO SPRINGS, CO 80903 PHONE: (719) 550-1967

OWNER'S STATEMENT

CYGNET LAND, LLC HEREBY CERTIFIES THAT THE CHANNEL STABILIZATION PLANS FOR DOWNSTREAM PONDS 500 & 600 SHALL BE CONSTRUCTED ACCORDING TO THE DESIGN PRESENTED IN THIS PLAN. I UNDERSTAND THAT THE CITY OF COLORADO SPRINGS DOES NOT AND WILL NOT ASSUME LIABILITY FOR THE DRAINAGE FACILITIES DESIGNED AND/OR CERTIFIED BY MY ENGINEER AND THAT ARE SUBMITTED TO THE CITY OF COLORADO SPRINGS PURSUANT TO SECTION 7.4.701 OF THE CITY CODE; AND CANNOT, ON BEHALF OF DOWNSTREAM PONDS 500 & 600, GUARANTEE THAT THE FINAL DRAINAGE DESIGN REVIEW WILL ABSOLVE COLORADO SPRINGS AIRPORT AND / OR THEIR SUCCESSORS AND / OR ASSIGNS OF FUTURE LIABILITY FOR IMPROPER DESIGN.

NAME OF DEVELOPER/OWNER: CYGNET LAND, LLC

AUTHORIZED SIGNATURE : _____ DATE: _____

PRINTED NAME: RANDALL STEICHEN

TITLE: CO-MANAGER EMAIL: STEICHEN.RANDALL@GMAIL.COM

ADDRESS: _____ PHONE: _____

OWNER'S STATEMENT

WATERVIEW METROPOLITAN DISTRICT HEREBY CERTIFIES THAT THE CHANNEL STABILIZATION PLANS FOR DOWNSTREAM PONDS 500 & 600 SHALL BE CONSTRUCTED ACCORDING TO THE DESIGN PRESENTED IN THIS PLAN. I UNDERSTAND THAT THE CITY OF COLORADO SPRINGS DOES NOT AND WILL NOT ASSUME LIABILITY FOR THE DRAINAGE FACILITIES DESIGNED AND/OR CERTIFIED BY MY ENGINEER AND THAT ARE SUBMITTED TO THE CITY OF COLORADO SPRINGS PURSUANT TO SECTION 7.4.701 OF THE CITY CODE; AND CANNOT, ON BEHALF OF DOWNSTREAM PONDS 500 & 600, GUARANTEE THAT THE FINAL DRAINAGE DESIGN REVIEW WILL ABSOLVE COLORADO SPRINGS AIRPORT AND / OR THEIR SUCCESSORS AND / OR ASSIGNS OF FUTURE LIABILITY FOR IMPROPER DESIGN.

NAME OF DEVELOPER/OWNER: WATERVIEW METROPOLITAN DISTRICT

AUTHORIZED SIGNATURE : _____ DATE: _____

PRINTED NAME: _____

TITLE: _____ EMAIL: _____

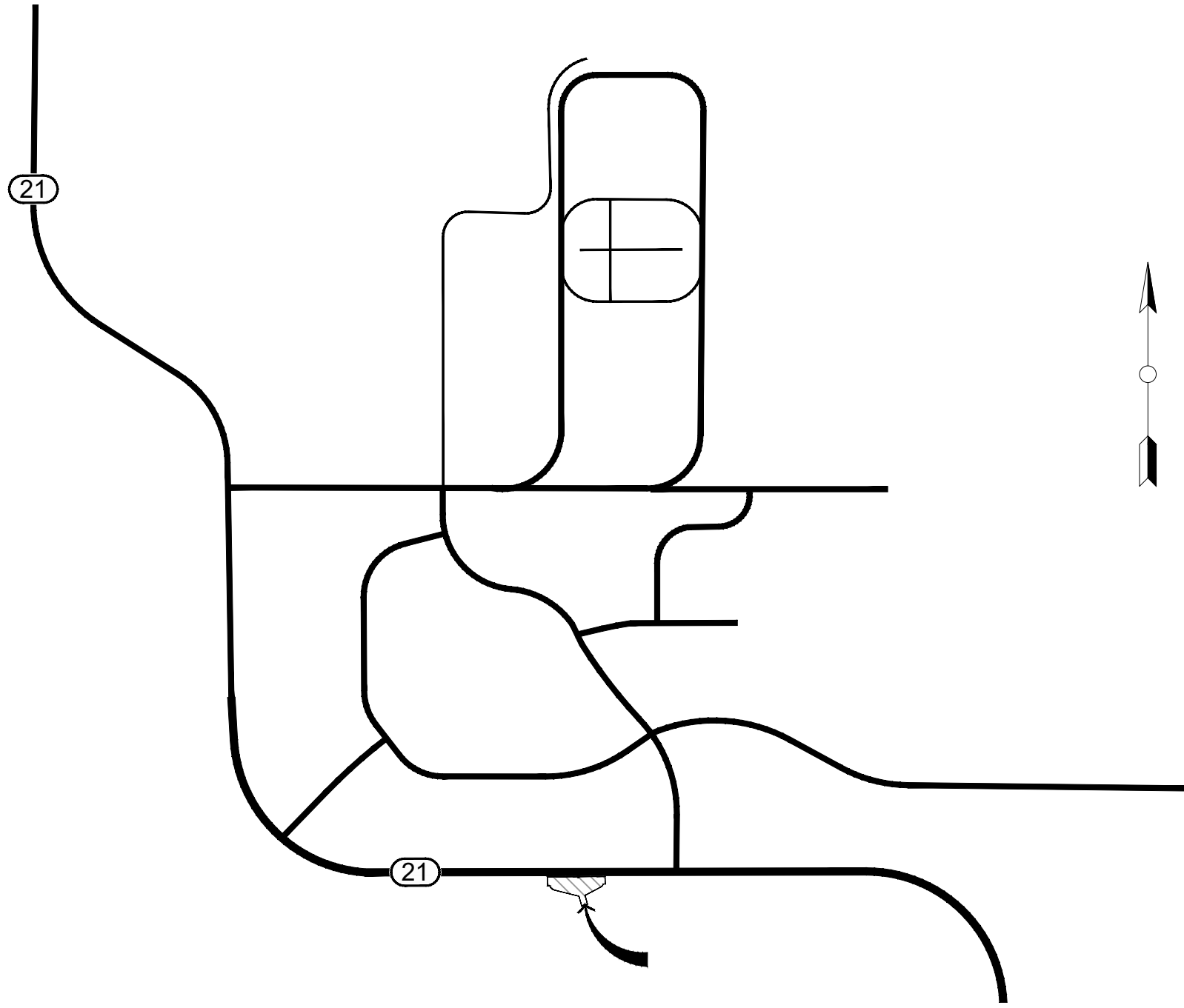
ADDRESS: _____ PHONE: _____

CITY OF COLORADO SPRINGS STATEMENT

FILED IN ACCORDANCE WITH SECTION 7.4.701 OF THE CODE OF THE CITY OF COLORADO SPRINGS, 2023, AS AMENDED.

FOR THE CITY ENGINEER: _____ DATE: _____

THE CITY OF COLORADO SPRINGS APPROVES THESE PLANS BASED UPON THE NON-JURISDICTIONAL STATUS OF THE FACILITY. IT IS THE DESIGN ENGINEER'S RESPONSIBILITY TO FOLLOW UP WITH THE STATE DIVISION OF WATER RESOURCES FOR JURISDICTIONAL DETERMINATION. IF, UPON STATE REVIEW, THE CLASSIFICATION CHANGES TO JURISDICTIONAL, ADDITIONAL CITY REVIEW AND APPROVAL WILL BE NECESSARY.



VICINITY MAP

SCALE 1" = 2000'

GENERAL LEGEND

	PROPERTY LINE		WATER LINE
	CATCH CURB & GUTTER		FIRE HYDRANT
	SPILL CURB & GUTTER		MANHOLE
	CENTERLINE		SIGN
	PR. 5' CONTOUR		GATE VALVE
	PR. 1' CONTOUR		CONC. S/W
	EX. 5' CONTOUR		IRRIGATION SLEEVE
	EX. 1' CONTOUR		EASEMENT
	STORM INLET		PHASELINE
	STORM DRAIN		RIP RAP
	SANITARY SEWER		FENCE
	SS		
	EX. ROAD EDGE		

ABBREVIATIONS

AD = ANGLE DIFFERENCE	HP = HIGH POINT
BC = BOTTOM OF CURB	LIP = LIP OF CONCRETE
BOP = BOTTOM OF POND	LP = LOW POINT
BVC = BEGIN VERTICAL CURVE	M.E. = MATCH EXISTING
C&G = CURB & GUTTER	PC = POINT OF CURVATURE
CB = CATCHBASIN	PCC = POINT OF COMPOUND CURVATURE
CL = CENTERLINE	PI = POINT OF INFLECTION
EL = ELEVATION	PRC = POINT OF REVERSE CURVATURE
EOA = EDGE OF ASPHALT	ROW = RIGHT OF WAY
EVC = END VERTICAL CURVE	SD = STORM DRAIN
FES = FLARED END SECTION	SS = SANITARY SEWER
FG = FINISHED GRADE	SW = SIDEWALK
FH = FIRE HYDRANT	TOP = TOP OF POND
FL = FLOWLINE	WL = WATER LINE
GB = GRADE BREAK	

COLORADO SPRINGS STANDARD CHANNEL IMPROVEMENT NOTES

- THIS CHANNEL STABILIZATION PLAN WILL BE SUBJECT TO RE-REVIEW AND RE-ACCEPTANCE BY SWENT IF WORK ON THE CHANNEL IMPROVEMENTS DO NOT COMMENCE WITHIN TWELVE (12) MONTHS OF PLAN APPROVAL, OR SHOULD ANY OF THE FOLLOWING OCCUR: A CHANGE IN PROPERTY OWNERSHIP, PROPOSED DEVELOPMENT CHANGES, OR PROPOSED CHANNEL IMPROVEMENT REVISIONS.
- THE CONTRACTOR SHOULD CONTACT THE ENGINEER OF RECORD AND SWENT LEAD REVIEWER IMMEDIATELY SHOULD CONSTRUCTION OF THE CHANNEL STABILIZATION PLAN VARY IN ANY WAY FROM THE PLANS.
- A PROFESSIONAL ENGINEER (PE) CERTIFICATION THAT THE CHANNEL STABILIZATION PLAN HAS BEEN INSTALLED AND CONSTRUCTED IN GENERAL CONFORMANCE WITH THESE PLANS WILL BE REQUIRED ONCE THE CHANNEL IMPROVEMENTS ARE FULLY CONSTRUCTED. AN AS-CONSTRUCTED SURVEY MUST BE COMPLETED TO VERIFY FACILITY VOLUMES AND ELEVATIONS. THE AS-BUILT DRAWINGS MUST BE SUBMITTED ALONG WITH THE PE CERTIFICATION. A PE CERTIFICATION REQUIRES PERIODIC ON-SITE OBSERVATIONS BY THE ENGINEER OF RECORD OR A PERSON UNDER THEIR RESPONSIBLE CHARGE. COORDINATION WITH THE ENGINEER OF RECORD TO ENSURE THAT THE NECESSARY ON-SITE OBSERVATIONS ARE COMPLETED IS THE RESPONSIBILITY OF THE APPLICANT.
- ACCEPTANCE OF THIS PLAN DOES NOT CONSTITUTE APPROVAL TO GRADE OR CAUSE ANY DISTURBANCE WITHIN IN ANY UTILITY EASEMENT OR RIGHT-OF-WAY. APPROVALS TO WORK WITHIN UTILITY EASEMENTS MUST BE OBTAINED FROM THE APPROPRIATE UTILITY COMPANY. IT IS NOT PERMISSIBLE FOR ANY PERSON TO MODIFY THE GRADE OF THE EARTH ON ANY UTILITY EASEMENT OR RIGHT-OF-WAY WITHOUT THE APPROPRIATE WRITTEN APPROVAL. THE PLAN SHALL NOT INCREASE OR DIVERT WATER TOWARD UTILITY FACILITIES. ANY CHANGES TO EXISTING UTILITY FACILITIES TO ACCOMMODATE THE PLAN MUST BE APPROVED BY THE AFFECTED UTILITY OWNER PRIOR TO IMPLEMENTING THE PLAN. THE APPLICANT IS RESPONSIBLE FOR THE COST TO RELOCATE OR PROTECT EXISTING UTILITIES OR TO PROVIDE INTERIM ACCESS.

PROJECT DATA

- A. **PARCEL NUMBER THAT CHANNEL STABILIZATION IS LOCATED IN:** 55000000380 (EL PASO COUNTY MAP NUMBER 55060)
- B. **REPORT CONTAINING CHANNEL STABILIZATION DESIGN CALCULATIONS:** PONDS 500 & 600 DOWNSTREAM TRIBUTARY DESIGN REPORT PREPARED BY OLSSON DATE FEBRUARY, 2025.
- C. **NAME OF THE GRADING AND EROSION CONTROL PLAN:** COSA PONDS 500 & 600 DOWNSTREAM STABILIZATION GRADING AND EROSION CONTROL PLAN PREPARED BY ENERTIA CONSULTING GROUP LLC.
- D. **FUNCTIONAL MAINTENANCE OF THE CHANNEL STRUCTURES TO BE COMPLETED BY:** PEAK METRO DISTRICT #2
- E. **AESTHETIC MAINTENANCE OF THE CHANNEL TO BE COMPLETED BY:** PEAK METRO DISTRICT #2
- F. **FLOODPLAIN ZONE:** OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN PER FEMA FIRM NUMBER 08041C0764G, DATED DECEMBER 7, 2018.

BENCHMARK

BENCH MARK: #5 REBAR LOCATED APPROXIMATELY 75' SOUTHEAST OF THE SOUTHEAST CORNER OF THE LIFT STATION BUILDING MARKED WITH 4" CROSS LATH.

NORTHING: 62654.52
EASTING: 29107.44
ELEVATION: 5924.01

DATUM: NAVD 88

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2	GENERAL NOTES
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6	OVERALL GRADING PLAN
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8	HORIZONTAL CONTROL PLAN
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12	TYPICAL DETAILS (3)
13	STRUCTURAL NOTES (1)
14	STRUCTURAL NOTES (2)

PROJECT TEAM

OWNER

WATERVIEW METROPOLITAN DISTRICT
2370 ANTELOPE RIDGE TRAIL
PARKER, COLORADO 80138

OWNER

CYGNET LAND, LLC
CONTACT: RANDALL STICHEN

ENGINEER

ENERTIA CONSULTING GROUP, LLC
1515 MARKET STREET
DENVER, CO 80202
CONTACT: JEFF MOHR, PE
(720) 250-8305

DEVELOPER

COLORADO SPRINGS AIRPORT
30 S. NEVADA AVENUE, SUITE 604
COLORADO SPRINGS, CO 80903
CONTACT: TROY STOVER
(719) 550-1967

WATER RESOURCES

OLSSON
1525 N. RALEIGH ST, SUITE 400
DENVER, CO 80204
CONTACT: TIM FRY, PhD PE
(303) 237-2072

SURVEYOR


POLARIS SURVEYING, INC.
1903 LELARAY STREET, SUITE 102
COLORADO SPRINGS, CO 80909
CONTACT: RANDALL HENGY, PLS
(719) 448-0844

CONSTRUCTION COST ESTIMATE


ITEM	QUANTITY	UNIT	UNIT COST	TOTAL COST
CONCRETE FOREBAY	2	EA	\$ 15,000.00	\$ 30,000.00
STM-1.0 TOTAL =			\$	30,000.00
STORM CONVEYANCE & POND SUB-TOTAL =			\$	30,000.00
10% CONTINGENCY =			\$	3,000.00
TOTAL =			\$	33,000.00

NOTES:

- This Engineer's Estimate is based on plan sets titled "Colorado Springs Airport Pond 500 & 600 Downstream Stabilization Civil Construction Plans" prepared by Enertia Consulting Group, LLC.
- This estimate provides an approximate cost of construction for the items listed and was prepared based on the most accurate information available to the Engineer. This is provided for information purposes only, and in no way guarantees these cost as actual construction cost for the Project.



FOR BURIED UTILITY INFORMATION
**THREE (3) BUSINESS DAYS
BEFORE YOU DIG**
CALL 811
(OR 1-800-922-1987)
UTILITY NOTIFICATION
CENTER OF COLORADO (UNCC)
WWW.UNCC.ORG



COLORADO SPRINGS AIRPORT
PONDS 500 & 600 DOWNSTREAM STABILIZATION
CIVIL CONSTRUCTION PLANS
COLORADO SPRINGS, COLORADO

COVER SHEET

VERIFY SCALE
BAR IS ONE INCH ON
ORIGINAL DRAWING.
0 1"

DATE: FEBRUARY 28, 2025
SHEET

1 OF 14

GENERAL CONSTRUCTION NOTES

1. DEFINITIONS
A. OWNER - CITY OF COLORADO SPRINGS AIRPORT
B. CONTRACTOR - AS DETERMINED BY BID.
C. ENGINEER - ENERTIA CONSULTING GROUP, LLC.
D. AGENCY OF JURISDICTION - THE CITY OF COLORADO SPRINGS - AUTHORIZED REPRESENTATIVE(S) OF THE CITY ENGINEERING DIVISION AND PUBLIC WORKS DEPARTMENT.
- CONTRACTOR SHALL HAVE IN CONTRACTOR'S POSSESSION AT ALL TIMES ONE (1) COPY OF CONSTRUCTION DOCUMENTS STAMPED AND SIGNED BY ENGINEER AND COLORADO SPRINGS, AND ONE (1) COPY OF THE LATEST EDITION OF THE COLORADO SPRINGS STANDARD SPECIFICATION MANUAL. ALL WORK SHALL COMPLY WITH THE *COLORADO SPRINGS STANDARD SPECIFICATIONS*, LATEST EDITION. THE ENGINEERING DESIGN AND CONCEPT REMAINS THE RESPONSIBILITY OF THE PROFESSIONAL ENGINEER WHOSE STAMP AND SIGNATURE APPEAR ON THE CONSTRUCTION DOCUMENTS. CONTRACTOR SHALL REPORT ANY DISCREPANCIES TO ENGINEER IMMEDIATELY.
2. WORK HOURS
A. ALL WORK ON THE PROJECT SHALL BE PERFORMED DURING REGULAR WORK HOURS, 7:00 A.M. UNTIL 7:00 P.M., MONDAY THROUGH FRIDAY, UNLESS OTHERWISE APPROVED BY THE CITY AND AIRPORT.
B. CONTRACTOR SHALL NOT PERFORM WORK OUTSIDE REGULAR WORK HOURS OR ON SATURDAY, SUNDAY OR ANY CITY HOLIDAY WITHOUT RECEIVING WRITTEN CONSENT FROM THE CITY AND AIRPORT. OBSERVED HOLIDAYS INCLUDE: NEW YEAR'S DAY, MARTIN LUTHER KING DAY, PRESIDENT'S DAY, MEMORIAL DAY, INDEPENDENCE DAY, LABOR DAY, VETERAN'S DAY, THANKSGIVING DAY, CHRISTMAS EVE, CHRISTMAS DAY.
C. REQUEST FOR WORK OUTSIDE REGULAR WORK HOURS SHALL BE RECEIVED TWO BUSINESS DAYS PRIOR TO THE PROPOSED DATE OF THE WORK.
3. PRECONSTRUCTION MEETINGS
A. CONTRACTOR SHALL SCHEDULE A PRECONSTRUCTION MEETING WITH COLORADO SPRINGS ENGINEERING STAFF AT LEAST 3 BUSINESS DAYS PRIOR TO THE START OF CONSTRUCTION. THOSE IN ATTENDANCE SHALL INCLUDE:

CONTRACTOR
OWNER
ENGINEER
COLORADO SPRINGS PUBLIC WORKS
CONTRACTOR
GEOTECHNICAL ENGINEER
ANY OTHER AFFECTED AGENCIES

B. CONSTRUCTION DOCUMENTS WITH THE COLORADO SPRINGS REVIEW STAMP AND SIGNATURE SHALL BE DISTRIBUTED AT THE PRECONSTRUCTION MEETING.
4. CONTRACTOR SHALL RESTRICT CONSTRUCTION ACTIVITY TO THE DESIGNATED LIMIT OF CONSTRUCTION AND AREAS DEFINED AS PERMANENT AND/OR TEMPORARY CONSTRUCTION EASEMENTS, AND AREAS UNDER OWNERSHIP OF OWNER, UNLESS OTHERWISE AUTHORIZED BY THE AFFECTED PROPERTY OWNER AND ACKNOWLEDGED BY COLORADO SPRINGS AND THE AIRPORT. PRIOR TO BEGINNING CONSTRUCTION ACTIVITIES, CONTRACTOR SHALL OBTAIN WRITTEN AGREEMENTS FOR INGRESS AND EGRESS TO THE WORK SITE FROM ADJACENT PRIVATE PROPERTY OWNERS. ACCESS TO ANY ADJACENT PRIVATE PROPERTY SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD.
5. CONTRACTOR SHALL VERIFY ACCURACY BETWEEN WORK SET FORTH ON THESE CONSTRUCTION DOCUMENTS AND WORK REQUIRED IN THE FIELD. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF ENGINEER PRIOR TO START OF CONSTRUCTION.
6. ENGINEER SHALL COORDINATE ANY PROPOSED CHANGES WITH COLORADO SPRINGS PUBLIC WORKS.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR THE FOLLOWING NOTIFICATIONS:

A. UTILITY NOTIFICATION CENTER OF COLORADO, 1-800-922-1987. CALL TWO (2) BUSINESS DAYS PRIOR (NOT INCLUDING THE DAY OF THE CALL) TO DIGGING, GRADING OR EXCAVATING FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.

I. LOCATION OF EXISTING UTILITIES SHALL BE VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATION, SUPPORT, PROTECTION AND RESTORATION OF ALL EXISTING UTILITIES AND APPURTENANCES, WHETHER SHOWN OR NOT SHOWN ON THE APPROVED CONSTRUCTION DOCUMENTS.

II. PROVIDING NOTIFICATION AND RECEIVING MARKINGS OF UNDERGROUND MEMBER UTILITIES IN NO WAY CONSTITUTES PERMISSION TO PERFORM CONSTRUCTION.

B. COLORADO SPRINGS 24 HOURS IN ADVANCE FOR OBSERVATIONS OF WORK IN PROGRESS. OBSERVATION AND ONSITE VISITS ARE NOT TO BE CONSTRUED AS A GUARANTEE OR APPROVAL BY COLORADO SPRINGS STAFF OF CONTRACTOR'S WORK OR CONTRACTUAL COMMITMENT. IF WORK IS SUSPENDED FOR LONGER THAN 5 DAYS AFTER INITIAL START-UP, CONTRACTOR SHALL NOTIFY THE COLORADO SPRINGS CONSTRUCTION INSPECTION SUPERVISOR ONE (1) BUSINESS DAYS (24 HOURS) PRIOR TO RESTART OF CONSTRUCTION.

C. COLORADO SPRINGS, THE OWNER AND FIRE DISTRICT FOR ANY STREET CLOSURES AND EXISTING FIRE HYDRANTS TAKEN OUT OF SERVICE, AT LEAST 2 BUSINESS DAYS (48 HOURS) PRIOR TO THE START OF CONSTRUCTION.
8. FOR DEVELOPMENT WORK, OWNER SHALL OBTAIN AT OWNER'S EXPENSE, ALL PERMITS NECESSARY TO PERFORM THE PROPOSED WORK.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL DURING CONSTRUCTION:

A. CONTRACTOR SHALL SUBMIT TRAFFIC CONTROL PLANS TO COLORADO SPRINGS PUBLIC WORKS FOR APPROVAL PRIOR TO CONSTRUCTION.

B. ALL SIGNS, STRIPING AND TRAFFIC CONTROL DEVICES SHALL CONFORM TO AND PLACEMENT SHALL BE PERFORMED IN ACCORDANCE WITH THE *MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)*, LATEST EDITION AND CDOT M&S STANDARDS, LATEST EDITION.

C. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE AND CLEANING OF TRAFFIC CONTROL DEVICES.

D. CONTRACTOR SHALL MAINTAIN EXISTING PAVEMENT MARKINGS DURING CONSTRUCTION OPERATIONS, IN CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS AND *COLORADO SPRINGS STANDARDS AND SPECIFICATIONS*.

E. REMOVAL OF EXISTING PAVEMENT MARKINGS SHALL BE ACCOMPLISHED BY A METHOD THAT DOES NOT MATERIALLY DAMAGE THE SURFACE OR TEXTURE OF THE PAVEMENT OR EXISTING SURFACING. THE PAVEMENT MARKINGS SHALL BE REMOVED TO THE EXTENT THAT THEY ARE NOT VISIBLE UNDER DAY OR NIGHT CONDITIONS.
10. WHEN DISCHARGING GROUNDWATER (IF APPLICABLE), ALL DEWATERING METHODS SHALL BE IN CONFORMANCE WITH ALL LAWS AND REGULATIONS OF THE STATE--INCLUDING OBTAINING A COLORADO DISCHARGE PERMIT SYSTEM FOR CONSTRUCTION DEWATERING WASTEWATER DISCHARGE--AND SUBJECT TO THE APPROVAL OF COLORADO SPRINGS. CONTRACTOR SHALL TAKE ALL NECESSARY AND PROPER PRECAUTIONS TO PROTECT ADJACENT PROPERTIES FROM ANY AND ALL DAMAGE THAT MAY OCCUR FROM STORMWATER RUNOFF AND/OR DEPOSITION OF DEBRIS RESULTING FROM ANY AND ALL WORK.
11. CONTRACTOR SHALL RESTORE ANY DISTURBED AREAS TO EQUAL OR BETTER CONDITION THAN EXISTED BEFORE CONSTRUCTION. DRAINAGE DITCHES OR WATERCOURSES THAT ARE DISTURBED BY CONSTRUCTION SHALL BE RESTORED TO THE GRADES AND CROSS-SECTIONS THAT EXISTED BEFORE CONSTRUCTION, UNLESS OTHERWISE SHOWN ON THE CONSTRUCTION DOCUMENTS.
12. CONTRACTOR SHALL CAREFULLY PRESERVE BENCHMARKS, PROPERTY CORNERS, REFERENCE POINTS, STAKES AND OTHER SURVEY REFERENCE MONUMENTS OR MARKERS. IN CASES OF WILLFUL OR CARELESS DESTRUCTION, CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORATIONS. RESETTING OF MARKERS SHALL BE PERFORMED UNDER THE DIRECTION OF A COLORADO LICENSED PROFESSIONAL LAND SURVEYOR AND AS APPROVED BY COLORADO SPRINGS.
13. CONTRACTOR SHALL IMMEDIATELY REMOVE ANY CONSTRUCTION DEBRIS AND MUD TRACKED ONTO EXISTING ROADWAYS. CONTRACTOR SHALL REPAIR ANY EXCAVATION OR PAVEMENT FAILURES CAUSED BY THE CONSTRUCTION.
14. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL STATE AND COLORADO SPRINGS DUST AND EROSION CONTROL ORDINANCES. CONSTRUCTION VEHICLES SHALL USE TRUCK ROUTES DESIGNATED BY COLORADO SPRINGS.
15. ALL CONCRETE AND ASPHALT MIXTURE DESIGNS SHALL BE APPROVED BY COLORADO SPRINGS PUBLIC WORKS PRIOR TO PLACEMENT OF CONCRETE AND ASPHALT.
16. WORK IN PUBLIC STREETS SHALL BE PERFORMED IN A MANNER THAT PROVIDES MINIMUM INCONVENIENCE TO ADJACENT PROPERTY OWNERS AND THE GENERAL PUBLIC.
17. ALL PAVEMENT CUTS AND EXPLORATORY POTHoles SHALL BE REPAIRED AS REQUIRED BY COLORADO SPRINGS PUBLIC WORKS AND THE OWNER.
18. NO ROADWAY SHALL BE OPEN CUT UNLESS APPROVED BY COLORADO SPRINGS PUBLIC WORKS AND THE OWNER.
19. OWNER SHALL SUBMIT A PAPER COPY OF REDLINED RECORD CONSTRUCTION DOCUMENTS TO COLORADO SPRINGS PRIOR TO THE CONSTRUCTION ACCEPTANCE INSPECTION. REFER TO THE *COLORADO SPRINGS STANDARDS AND SPECIFICATIONS* FOR ADDITIONAL RECORD DOCUMENT SUBMITTAL REQUIREMENTS.
20. PRIOR TO CONSTRUCTION ACCEPTANCE, ENGINEER SHALL SUBMIT A PLAN OF PROPOSED LOCATIONS FOR INSTALLATION OF RANGE POINTS TO COLORADO SPRINGS FOR APPROVAL. RANGE POINTS SHALL BE SET IN ACCORDANCE WITH THE REQUIREMENTS OF ARTICLES 51 AND 53 OF TITLE 38 OF THE *COLORADO REVISED STATUTES*, AND AS REQUIRED BY THE BYLAWS AND RULES OF PROCEDURE OF THE COLORADO STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND PROFESSIONAL LAND SURVEYORS. RANGE POINTS SHALL BE SET IN VALVE BOXES THAT COMPLY WITH THE *COLORADO SPRINGS STANDARDS AND SPECIFICATIONS* WITH BOX LIDS MARKED "SURVEY POINT", OR AS OTHERWISE APPROVED BY THE CITY ENGINEER.

GENERAL ENGINEERING NOTES (CONT)

1. CONTRACTOR SHALL BE RESPONSIBLE FOR THE FOLLOWING NOTIFICATIONS AND VERIFICATIONS:

a. UTILITY NOTIFICATION CENTER OF COLORADO, 1-800-922-1987. CALL TWO (2) BUSINESS DAYS PRIOR TO ANY AND ALL DIGGING, GRADING OR EXCAVATING FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.

b. LOCATION OF EXISTING UTILITIES SHALL BE VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATION, SUPPORT, PROTECTION AND RESTORATION OF ALL EXISTING UTILITIES AND APPURTENANCES, WHETHER SHOWN OR NOT SHOWN ON THE APPROVED CONSTRUCTION DOCUMENTS.

c. PROVIDING NOTIFICATION AND RECEIVING MARKINGS OF UNDERGROUND MEMBER UTILITIES IN NO WAY CONSTITUTES PERMISSION TO PERFORM CONSTRUCTION.

d. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION, PROTECTION, AND REPAIR OF ALL UTILITIES ENCOUNTERED DURING CONSTRUCTION, WHETHER SHOWN ON THESE PLANS OR NOT. THE CONTRACTOR SHALL CONTACT ALL RESPECTIVE UTILITIES AND HAVE ALL UTILITIES FIELD LOCATED PRIOR TO CONSTRUCTION. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY THE LOCATION OF ALL EXISTING STRUCTURES AND UTILITIES SHOWN ON THE DRAWINGS, TO ASCERTAIN WHETHER ANY STRUCTURES AND UTILITIES MAY EXIST, AND TO REPAIR OR REPLACE ANY STRUCTURES AND UTILITIES THAT MIGHT BE DAMAGED.

e. LOCATIONS OF UTILITIES REPRESENT THE BEST KNOWN LOCATIONS AT THE TIME OF PREPARATION OF DRAWINGS. THE CONTRACTOR SHALL FIELD LOCATE ALL UTILITIES IN ADVANCE OF EXCAVATION. RELOCATION OF UTILITIES IS ANTICIPATED FOR THIS PROJECT. WHERE REQUIRED, THE CONTRACTOR SHALL COOPERATE WITH COMPANIES TRYING TO COORDINATE THE RELOCATION EFFORT. LINES NOT RELOCATED SHALL BE PROTECTED BY THE CONTRACTOR. NO ADDITIONAL PAYMENT WILL BE ALLOWED FOR THE MINOR ADJUSTMENT OF STRUCTURES IN ORDER TO CLEAR A CONFLICTING UTILITY.
2. THE CONTRACTOR SHALL NOTIFY CITY OF COLORADO SPRINGS PUBLIC WORKS AT LEAST 48 HOURS PRIOR TO STARTING CONSTRUCTION WITHIN THE RIGHT-OF-WAY.
3. THE CONTRACTOR SHALL PROVIDE ALL SIGNS, BARRICADES, FLAGMEN, LIGHTS OR OTHER DEVICES NECESSARY FOR SAFE TRAFFIC CONTROL IN ACCORDANCE WITH THE CURRENT EDITION OF THE *MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES* AND AS MODIFIED BY THE COLORADO SUPPLEMENT TO THE MUTCD. A TRAFFIC CONTROL PLAN SHALL BE SUBMITTED TO AND APPROVED BY THE CITY OF COLORADO SPRINGS PUBLIC WORKS PRIOR TO THE ISSUANCE OF ANY CONSTRUCTION PERMIT FOR WORK WITHIN RIGHT-OF-WAY.
4. EXISTING ASPHALT PAVEMENT SHALL BE STRAIGHT SAWCUT OR BLADECUT WHEN ADJOINING WITH NEW ASPHALT PAVEMENT. EXISTING PAVEMENT THAT IS TO REMAIN IN PLACE SHALL BE SAW CUT TO A NEAT VERTICAL LINE WITH A CONCRETE PAVEMENT SAW OR OTHER METHOD AS APPROVED BY THE ENGINEER AND GOVERNING MUNICIPALITY. REMOVED PAVEMENT SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF OFF-SITE. ANY AND ALL WORK ASSOCIATED WITH ASPHALT PAVEMENT SAWING AND/OR DISPOSAL SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCIDENTAL TO THE ITEM OF WORK. WHERE EXISTING BITUMINOUS PAVEMENT IS SAWCUT TO ABUT THE NEW BITUMINOUS PAVEMENT, THE SAWCUT VERTICAL EDGE SHALL BE PAINTED WITH EMULSIFIED ASPHALT (SLOW-SETTING).
5. STRUCTURAL SECTION SHALL BE PER THE FINAL PAVEMENT DESIGN REPORT BY THE GEOTECHNICAL ENGINEER AND APPROVED BY THE CITY OF COLORADO SPRINGS PUBLIC WORKS WITH PAVEMENT DESIGN IN ACCORDANCE WITH THE CITY OF COLORADO SPRINGS ROADWAY DESIGN AND CONSTRUCTION MANUAL.
6. CONCRETE MAY BE PLACED BY MACHINE METHODS PROVIDED THAT ALL FINISH LINES ARE WITHIN 1/8" +/- TOLERANCE OF THE LINES SHOWN ON THE PLANS. THE FLOWLINE MUST BE FREE DRAINING.
7. CONTRACTOR SHALL HAVE IN CONTRACTOR'S POSSESSION AT ALL TIMES ONE (1) COPY OF THE GEOTECHNICAL REPORT.
8. PROOF ROLLING WILL NOT BE MEASURED AND PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED INCIDENTAL TO THE WORK. PROOF ROLLING MUST OCCUR PRIOR TO PAVING.
9. ANY LAYER OF BITUMINOUS PAVEMENT THAT IS TO HAVE A SUCCEEDING LAYER PLACED THEREON SHALL BE COMPLETED FULL WIDTH BEFORE THE SUCCEEDING LAYER IS PLACED.
10. A TACK COAT IS REQUIRED PRIOR TO THE PLACEMENT OF SUBSEQUENT LIFTS OF HOT BITUMINOUS PAVEMENT (HBP).
11. BEFORE PLACEMENT OF THE TACK COAT, THE CONTRACTOR SHALL CLEAN THE ROADWAY AS DIRECTED BY ENGINEER. CLEANING SHALL NOT BE MEASURED AND PAID FOR SEPARATELY BUT SHALL BE CONSIDERED AS INCIDENTAL TO THE HBP.
12. IF NECESSARY, A PICK-UP TYPE BROOM SHALL PERFORM ALL SWEEPING OPERATIONS. SWEEPING OPERATIONS NOT BE MEASURED AND PAID FOR SEPARATELY, BUT SHALL BE CONSIDERED INCIDENTAL TO THE WORK.
13. ALL EXCESS PAVING MATERIAL WILL BECOME THE PROPERTY OF THE CONTRACTOR AND WILL BE DISPOSED PROPERLY BY THE CONTRACTOR.
14. ALL STRIPING SHALL MEET THE REQUIREMENTS OUTLINED IN THE MUTCD AND BY THE CITY OF COLORADO SPRINGS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE PLACEMENT AND MAINTENANCE OF ALL NECESSARY TEMPORARY AND PERMANENT PAVEMENT MARKINGS UNTIL CONSTRUCTION ACCEPTANCE IS ISSUED.
15. ALL ASPHALT MIXTURE DESIGNS SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF CONCRETE AND ASPHALT.

SUPPLEMENTAL CONSTRUCTION NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION, PROTECTION, AND REPAIR OF ALL UTILITIES ENCOUNTERED DURING CONSTRUCTION, WHETHER SHOWN ON THESE PLANS OR NOT. THE CONTRACTOR SHALL CONTACT ALL RESPECTIVE UTILITIES AND HAVE ALL UTILITIES FIELD LOCATED PRIOR TO CONSTRUCTION. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY THE LOCATION OF ALL EXISTING STRUCTURES AND UTILITIES SHOWN ON THE DRAWINGS. TO ASCERTAIN WHETHER ANY STRUCTURES AND UTILITIES MAY EXIST, AND TO REPAIR OR REPLACE ANY STRUCTURES AND UTILITIES THAT MIGHT BE DAMAGED.
2. ALL OFFSITE WORK (IF APPLICABLE) WILL REQUIRE A WRITTEN AUTHORIZATION OR TEMPORARY CONSTRUCTION EASEMENT FROM THE PROPERTY OWNER PRIOR TO THE COMMENCEMENT OF WORK.
3. SEE LANDSCAPING CONSTRUCTION DOCUMENTS FOR DETAILS AND SPECIFICATIONS FOR LANDSCAPING AND WALLS (IF APPLICABLE).
4. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF COLORADO SPRINGS STANDARDS.
5. VERIFY EXISTING UTILITY LOCATIONS PRIOR TO CONSTRUCTION AND NOTIFY THE ENGINEER IF ANY CONFLICTS WITH THE DRAWINGS OCCUR.
6. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT EXISTING UTILITY LINES WHICH MAY NOT BE SHOWN.

AMENDMENT

DATE

NO.



COLORADO SPRINGS AIRPORT
PONDS 500 & 600 DOWNSTREAM STABILIZATION
CIVIL CONSTRUCTION PLANS
COLORADO SPRINGS, COLORADO

GENERAL NOTES



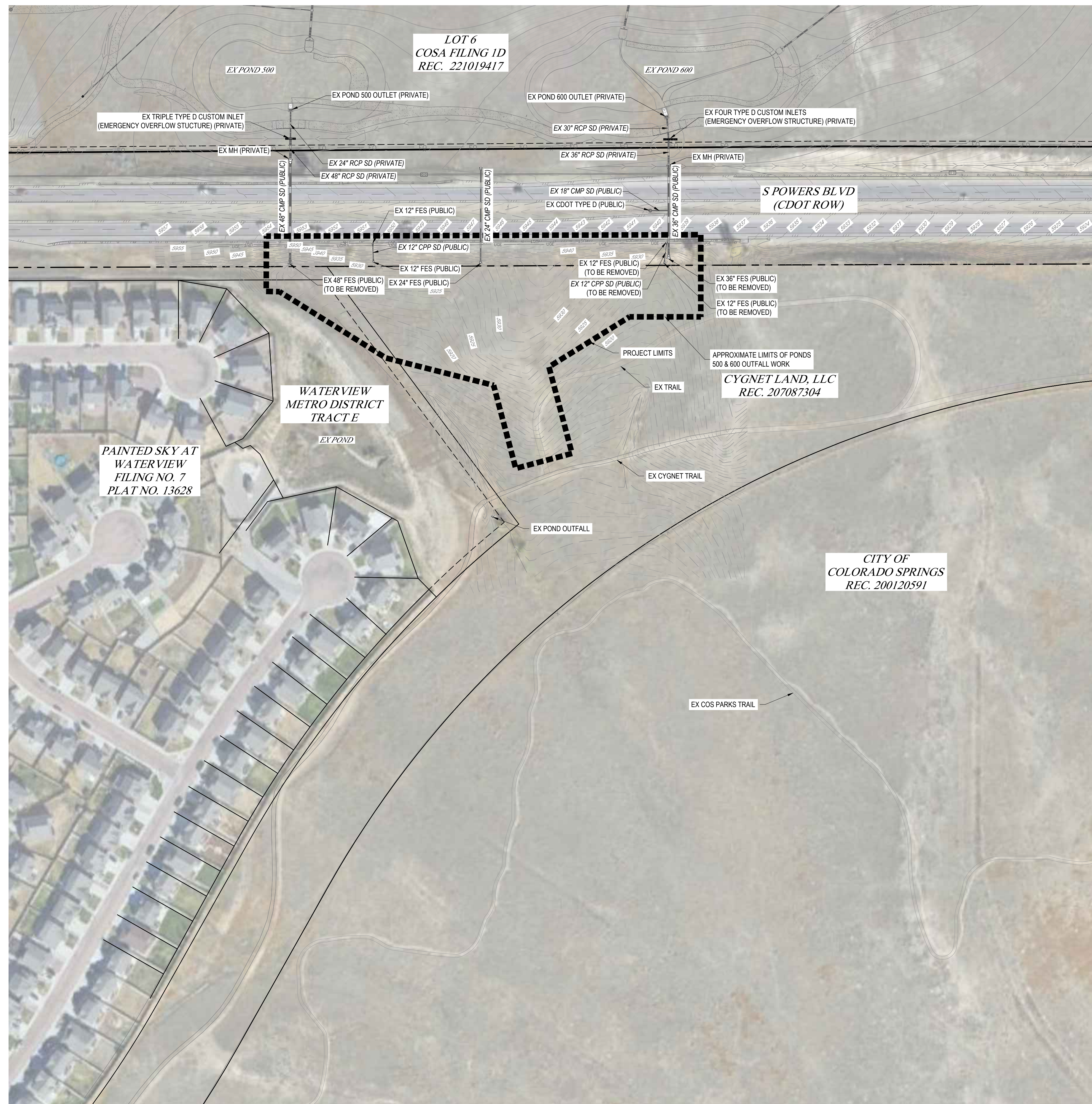
FOR BURIED UTILITY INFORMATION
**THREE (3) BUSINESS DAYS
BEFORE YOU DIG**
CALL 811
(OR 1-800-922-1987)
UTILITY NOTIFICATION
CENTER OF COLORADO (UNCC)
WWW.UNCC.ORG



VERIFY SCALE
BAR IS ONE INCH ON
ORIGINAL DRAWING:
0 1"

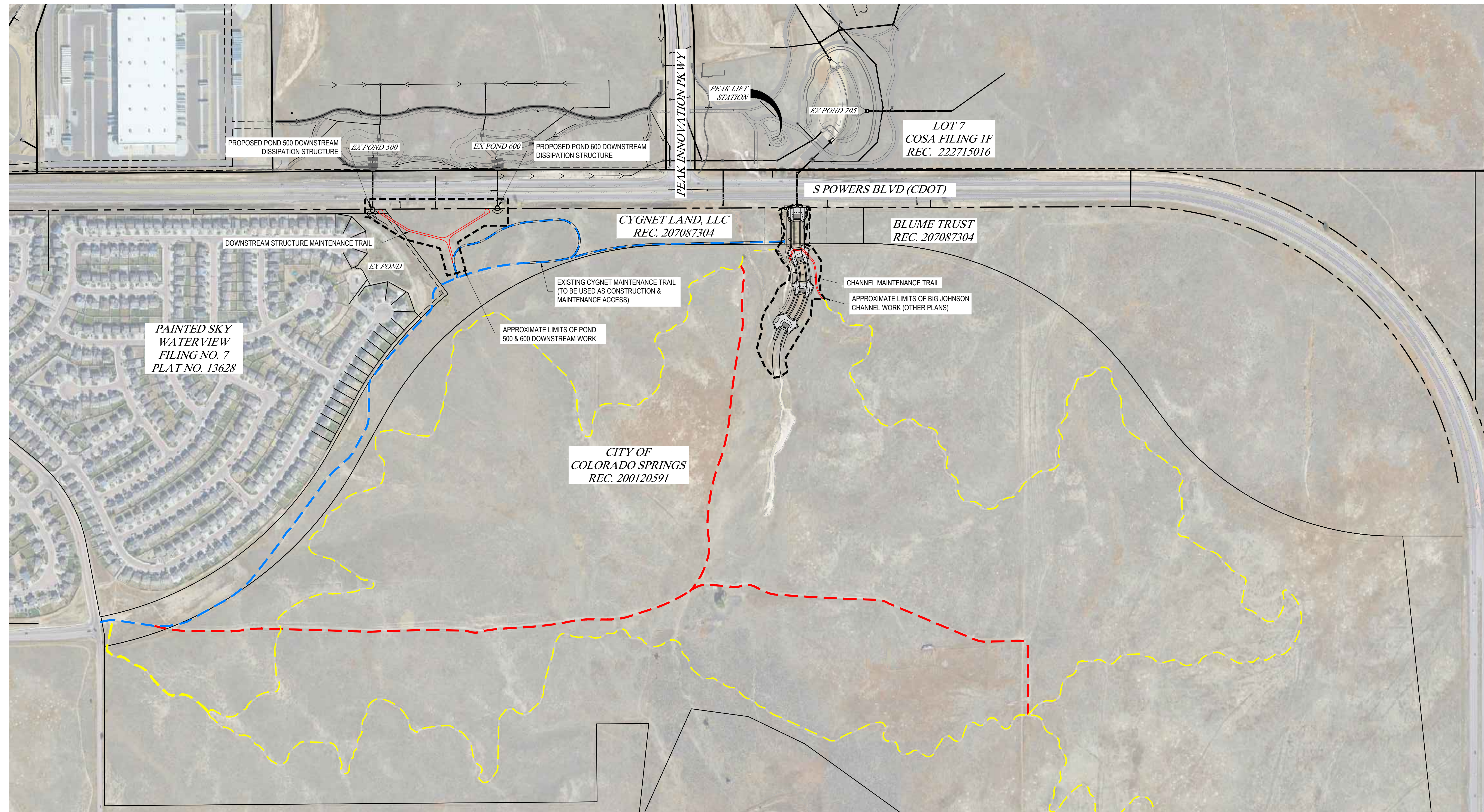
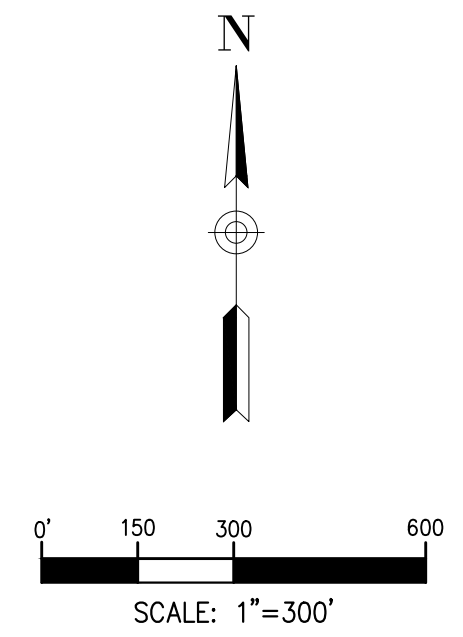
DATE FEBRUARY 28, 2025
SHEET

2 OF 14



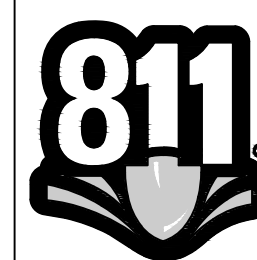
3 OF 14

 EX. COS PARKS PEDESTRIAN TRAIL
 EX. COS PARKS MAINTENANCE TRAIL
 EX. CYGNET MAINTENANCE TRAIL
 (PROPOSED CONSTRUCTION ACCESS)
 PROPOSED CHANNEL MAINTENANCE TRAIL

[illegible]


COLORADO SPRINGS AIRPORT
PONDS 500 & 600 DOWNSTREAM STABILIZATION
CIVIL CONSTRUCTION PLANS
COLORADO SPRINGS, COLORADO

OVERALL TRAIL PLAN

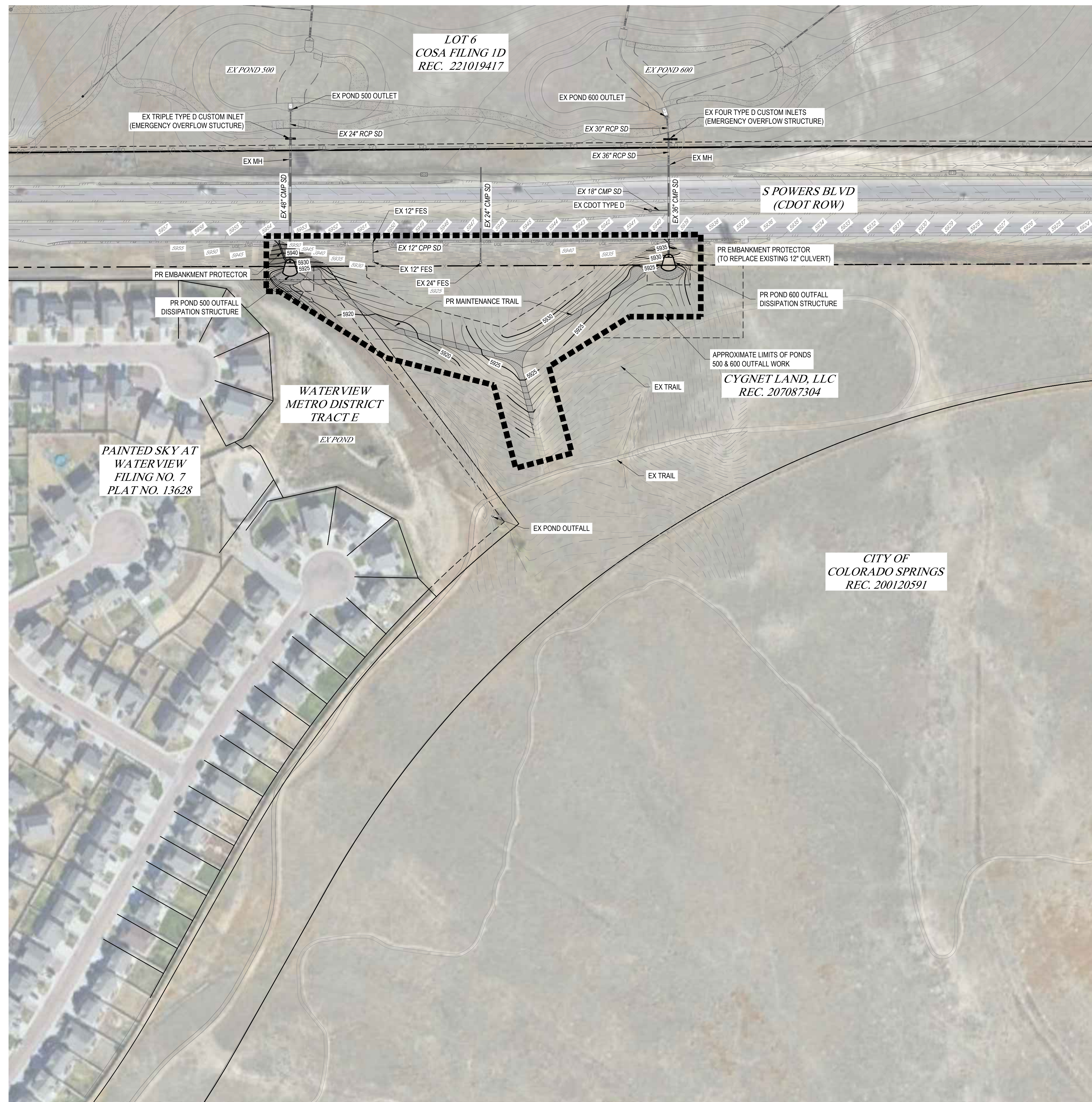


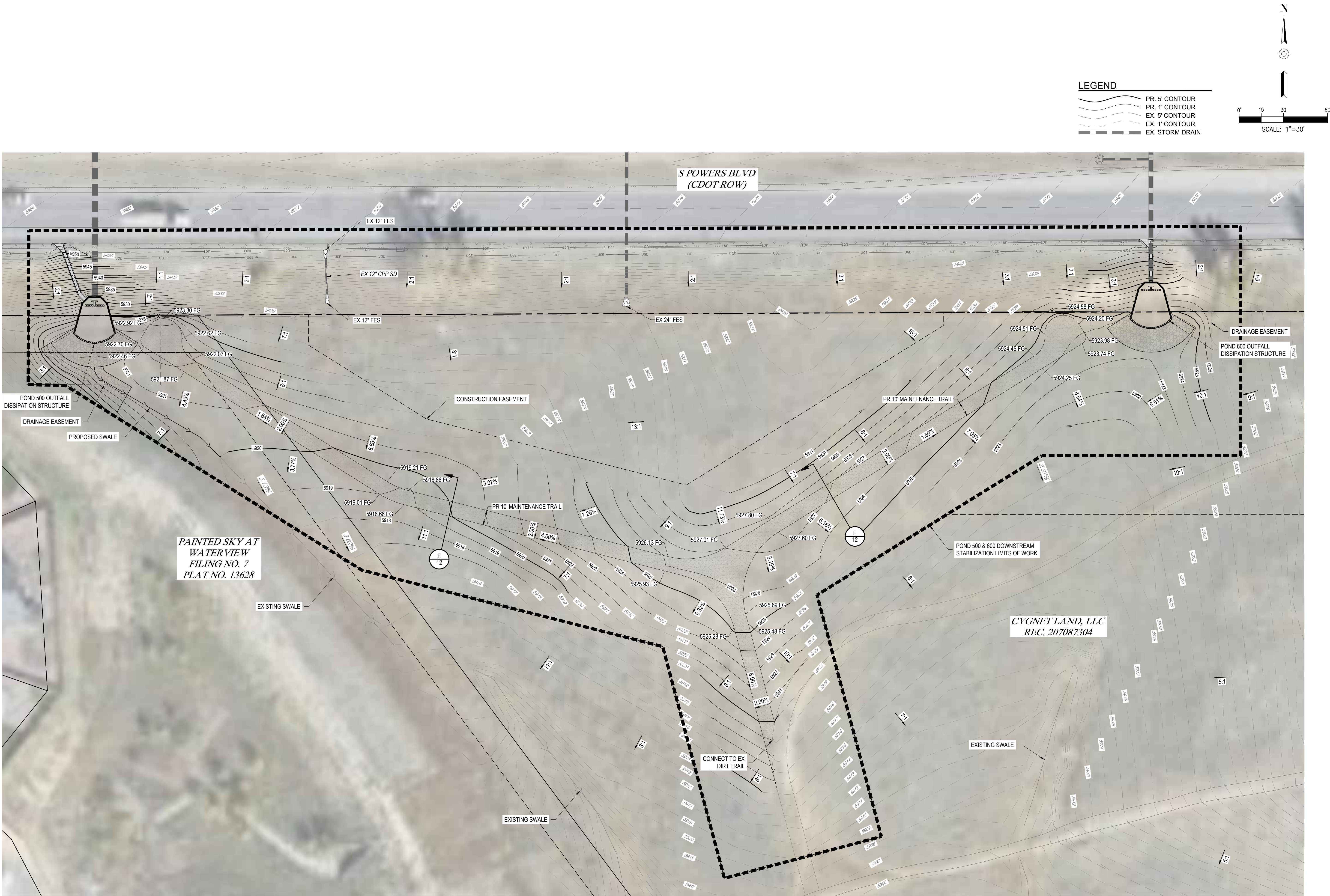
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VERIFY SCALE
BAR IS ONE INCH ON
ORIGINAL DRAWING.
0  1"

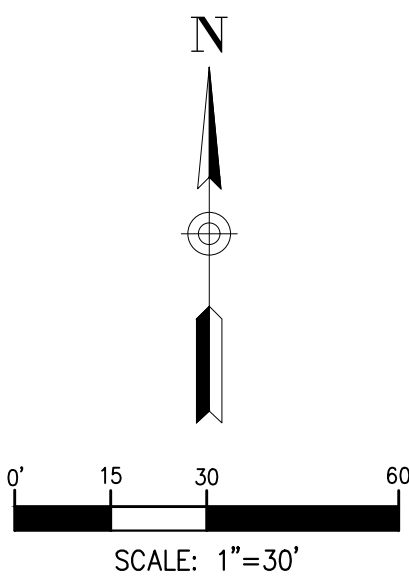
DATE FEBRUARY 28, 2025
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LEGEND

- PR. 5' CONTOUR
- PR. 1' CONTOUR
- EX. 5' CONTOUR
- EX. 1' CONTOUR
- EX. STORM DRAIN



AMENDMENT

NO. DATE



COLORADO SPRINGS AIRPORT
PONDS 500 & 600 DOWNSTREAM STABILIZATION
CIVIL CONSTRUCTION PLANS
COLORADO SPRINGS, COLORADO

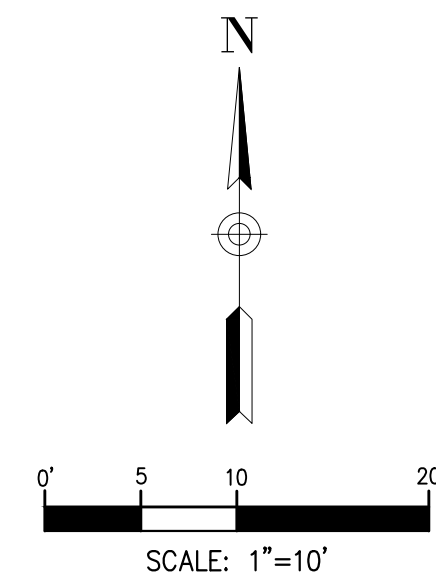
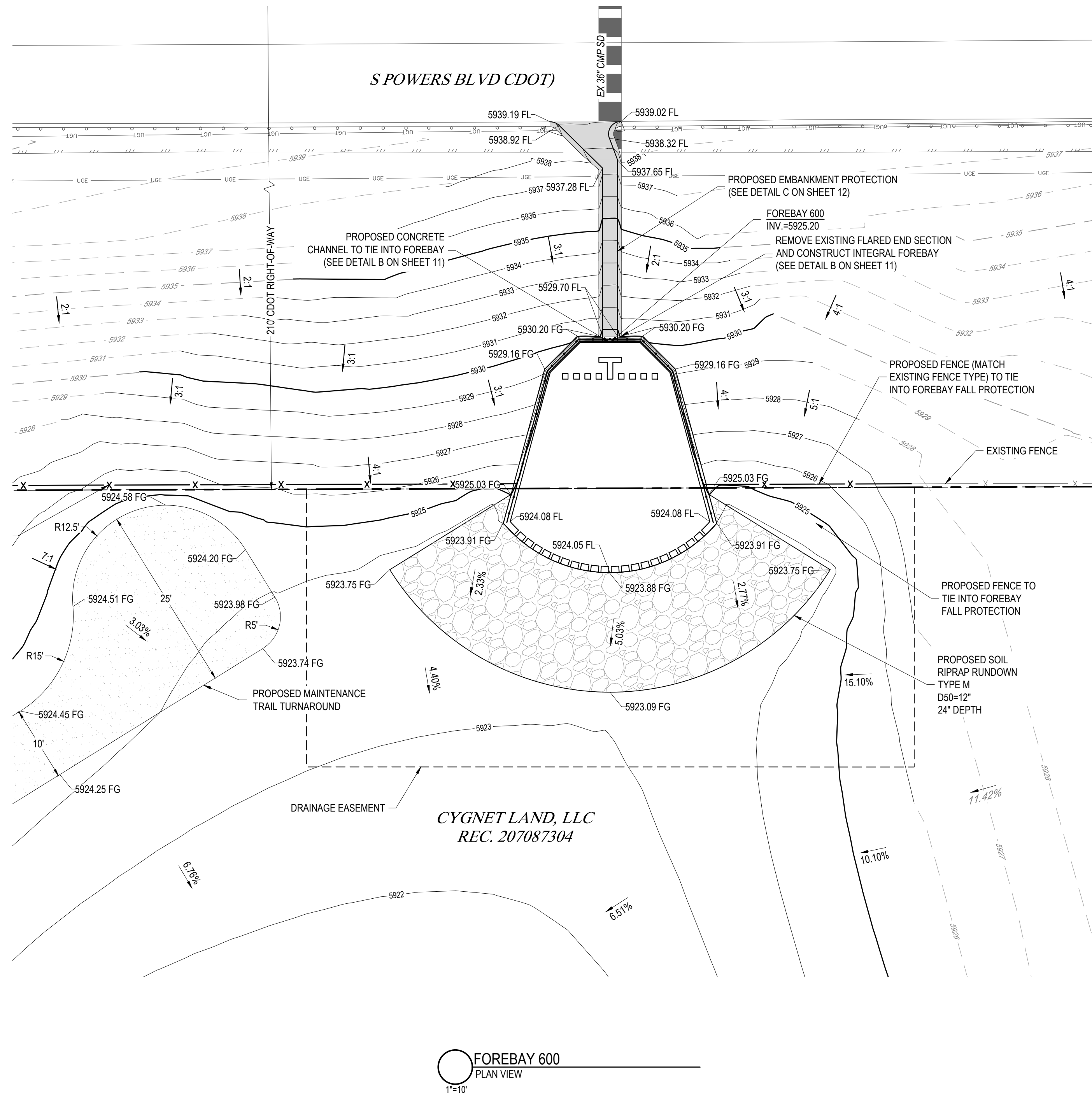
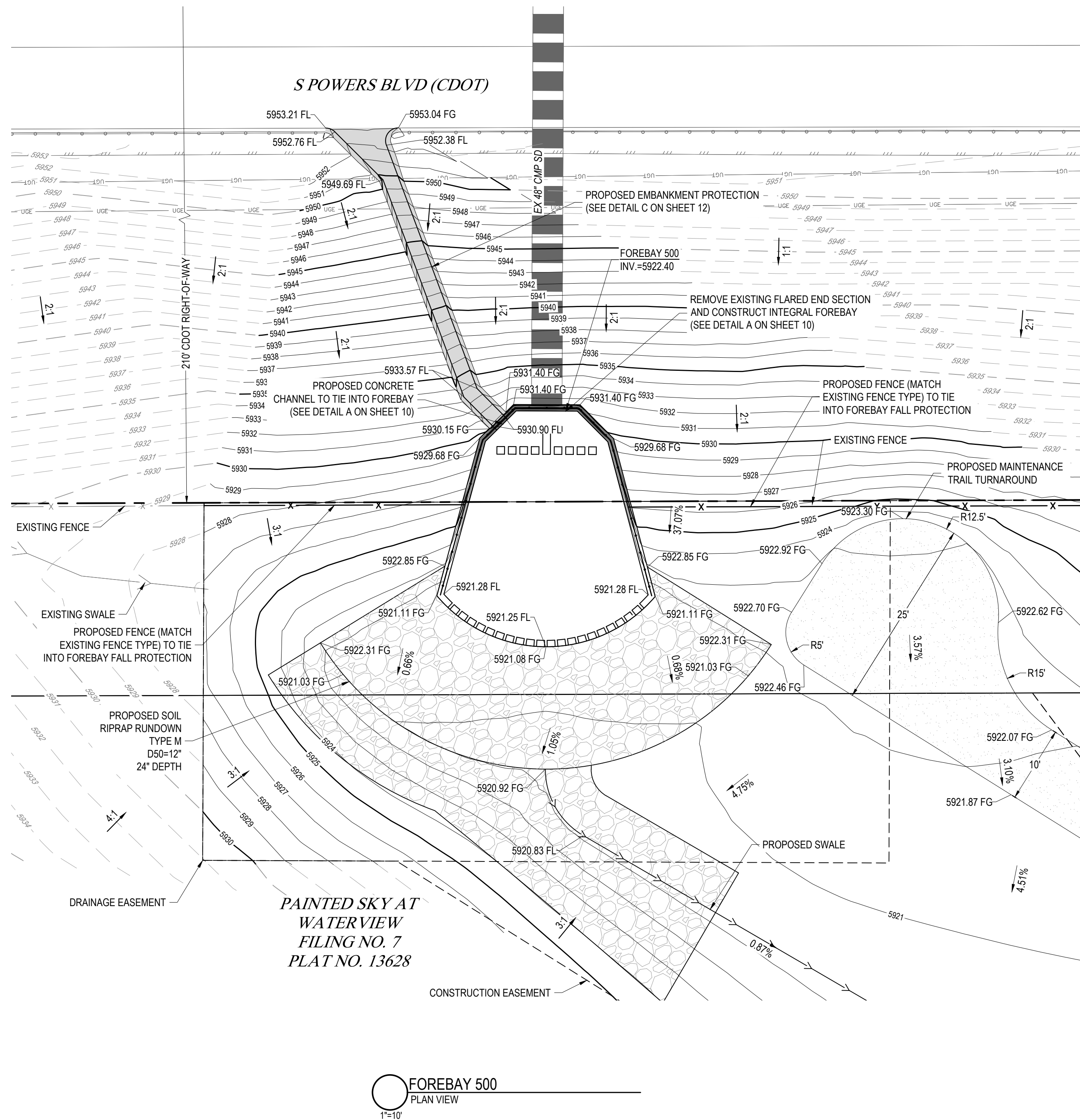
OVERALL GRADING PLAN




FOR BURIED UTILITY INFORMATION
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VERIFY SCALE
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DATE: FEBRUARY 28, 2025
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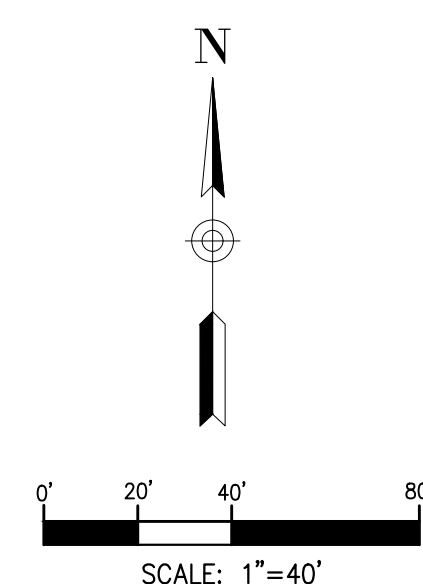
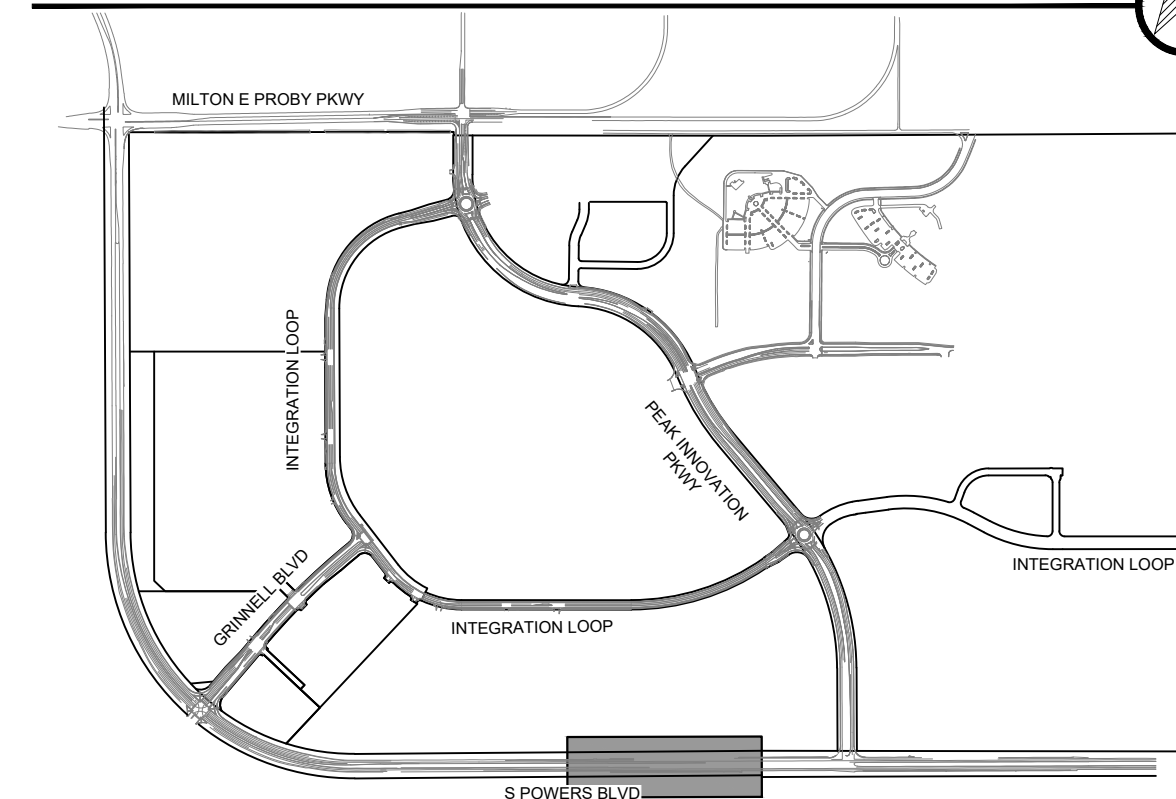
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AMENDMENT		DATE		NO.	
<div></div>					
COLORADO SPRINGS AIRPORT		PONDS 500 & 600 DOWNSTREAM STABILIZATION CIVIL CONSTRUCTION PLANS COLORADO SPRINGS, COLORADO			
DETAILED GRADING PLAN		VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING. DATE: FEBRUARY 28, 2025 SHEET			
		7 OF 14			

1 EMBANKMENT PROTECTOR. SEE DETAIL ON SHEET 12.

2 DOWNSTREAM DISSIPATION FOREBAY. SEE DETAIL ON SHEET 10 & 11.

[illegible]

EL PASO COUNTY LOW GROW SEED MIX				
COMMON NAME	SCIENTIFIC NAME	GROWTH SEASON / FORM	% OF MIX	POUNDS PLS
				Irrigated broadcast Irrigated hydroseed
				80 seeds/ sq ft
Buffalograss	Buchloe dactyloides	Warm, sod	25	9.6
Grama, blue	Bouteloua gracilis	Warm, bunch	20	10.8
Grama, sideoats	Bouteloua curtipendula	Warm, bunch	29	5.6
Green needlegrass	Nassella viridula	Cool, bunch	5	3.2
Wheatgrass, western	Pascopyrum smithii	Cool, sod	20	1.2
Dropseed, sadn	Sporobolus cryptandrus	Wrm, bunch	1	0.8
Seed rate (lbs PLS/acrea)				42

NOTE: BEST PLANTED BETWEEN NOV. 1 AND MAY 1

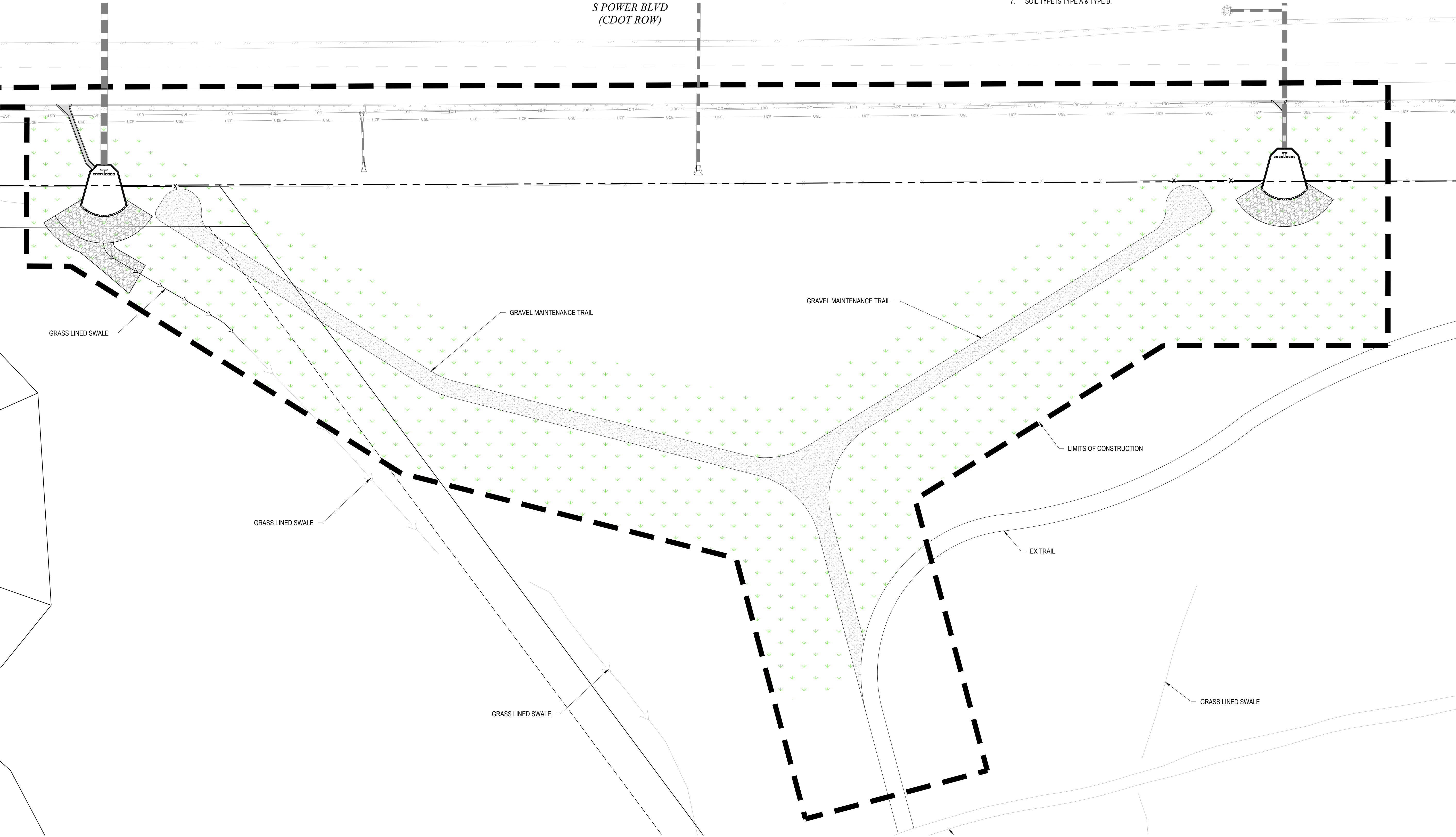
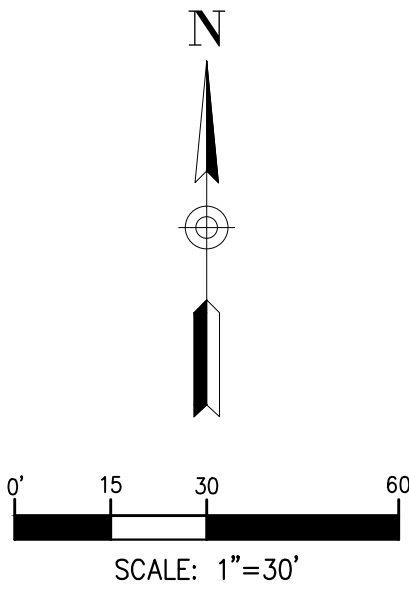
HYDROZONE:		
	IRRIGATED TURF	-
	SHRUB BEDS	-
	NON-IRRIGATED POND SEED	-
✓	NON-IRRIGATED SEED	83,812 SF
	TOTAL	83,812 SF

SEEDING NOTES

1. TEMP. IRRIGATION FOR SEED AREA FOR FIRST 2 YEARS FOR ESTABLISHMENT. ALL TREES RECEIVE DROP IRRIGATION.
2. EL PASO COUNTY LOW SEED MIX TO BE MOWED AT MAXIMUM 2 TIMES PER YEAR @ 12" HT.

STANDARD CITY OF COLORADO SPRINGS LANDSCAPE NOTES:

1. A FINAL LANDSCAPE AND IRRIGATION PLAN, WITH APPLICABLE SUPPORTING MATERIAL, SHALL BE SUBMITTED AT TIME OF BUILDING PERMIT APPLICATION AND SHALL BE APPROVED BEFORE ANY BUILDING PERMIT APPROVAL, ANY LANDSCAPE OR IRRIGATION CONSTRUCTION, AND ISSUANCE OF A CERTIFICATE OF OCCUPANCY.
2. ALL PROPOSED LANDSCAPING SHALL BE WATERED BY AN AUTOMATIC IRRIGATION SYSTEM WHICH WILL PROVIDE DRIP IRRIGATION TO ALL SHRUB BEDS AND TREES WITHIN NATIVE SEED AREAS AND SPRAY IRRIGATION TO ALL HIGH-WATER USE TURF AND NATIVE SEED AREAS.
3. THE OWNER OR DEVELOPER IS REQUIRED TO PROVIDE INSPECTION AFFIDAVITS EXECUTED BY THE COLORADO LICENSED LANDSCAPE ARCHITECT OR CERTIFIED IRRIGATION DESIGNER OF RECORD FOR THE PROJECT, WHICH CERTIFIES THAT THE PROJECT WAS INSTALLED AND IN COMPLIANCE WITH THE APPROVED FINAL LANDSCAPE AND IRRIGATION PLAN ON FILE IN CITY PLANNING. THIS SHOULD REQUIRE LIMITED CONSTRUCTION OBSERVATION VISITS TO ACCURATELY COMPLETE THE AFFIDAVITS, WHEN READY TO CALL FOR INSPECTION AND SUBMIT AFFIDAVITS, FIRST CONTACT THE CITY PLANNER OF RECORD FOR THE PROJECT (719-385-5905) AND AS NECESSARY OUR DRE OFFICE (719-385-5982).
4. COPIES OF RECEIPTS/DELIVERY TICKETS FOR SOIL AMENDMENTS INSTALLED ON THE PROJECT ARE REQUIRED TO BE PROVIDED WITH THE INSPECTION AFFIDAVITS.
5. IF SOIL IN THE PARKING LOT HAS BEEN COMPACTED BY GRADING OPERATIONS, THE SOIL WITHIN THE PLANTER SHALL BE TILLED, OR REMOVED TO A DEPTH OF THIRTY (30) INCHES AND REPLACED WITH AN ACCEPTABLE GROWING MEDIUM FOR THE SPECIES BEING INSTALLED.
6. TILLING OF THE EXISTING SOIL TO INCORPORATE AMENDMENTS AND COUNTER ANY COMPACTION OR SOIL CONSOLIDATION SHALL BE REQUIRED FOR ALL LANDSCAPE PLANTING AREAS.
7. SOIL TYPE IS TYPE A & TYPE B.




AMENDMENT


NO. DATE



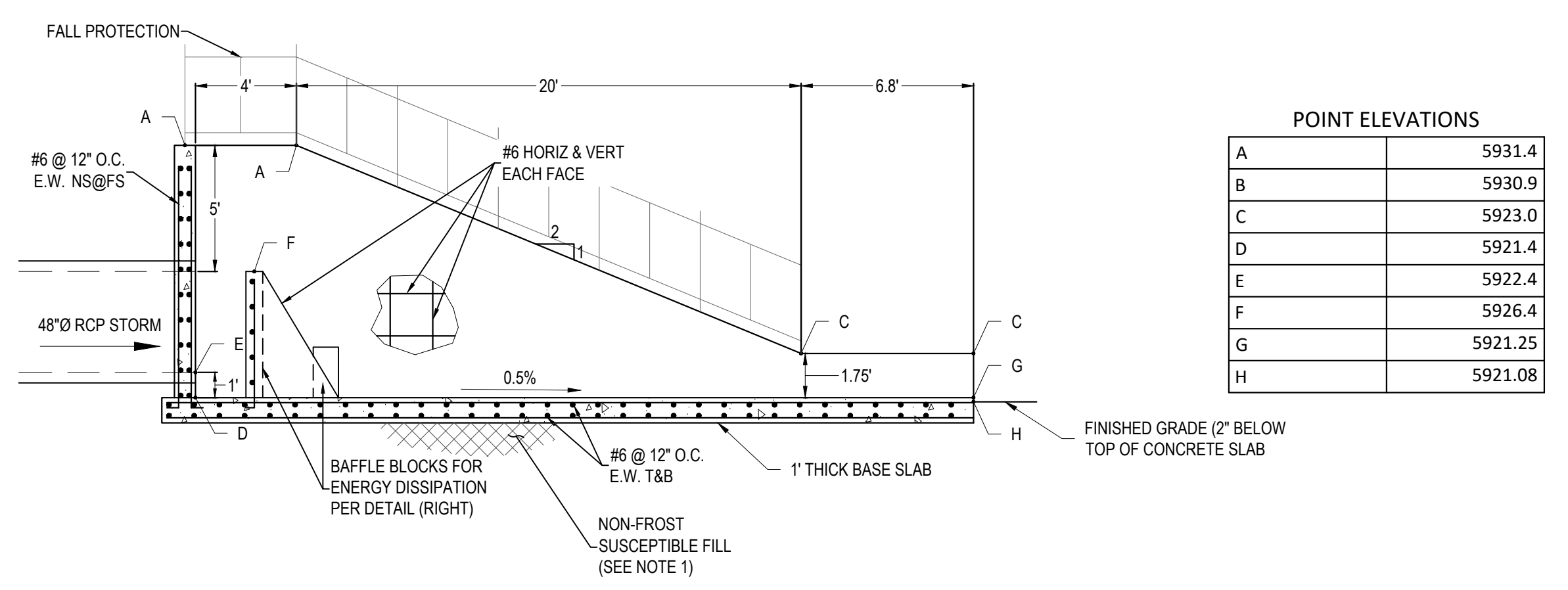
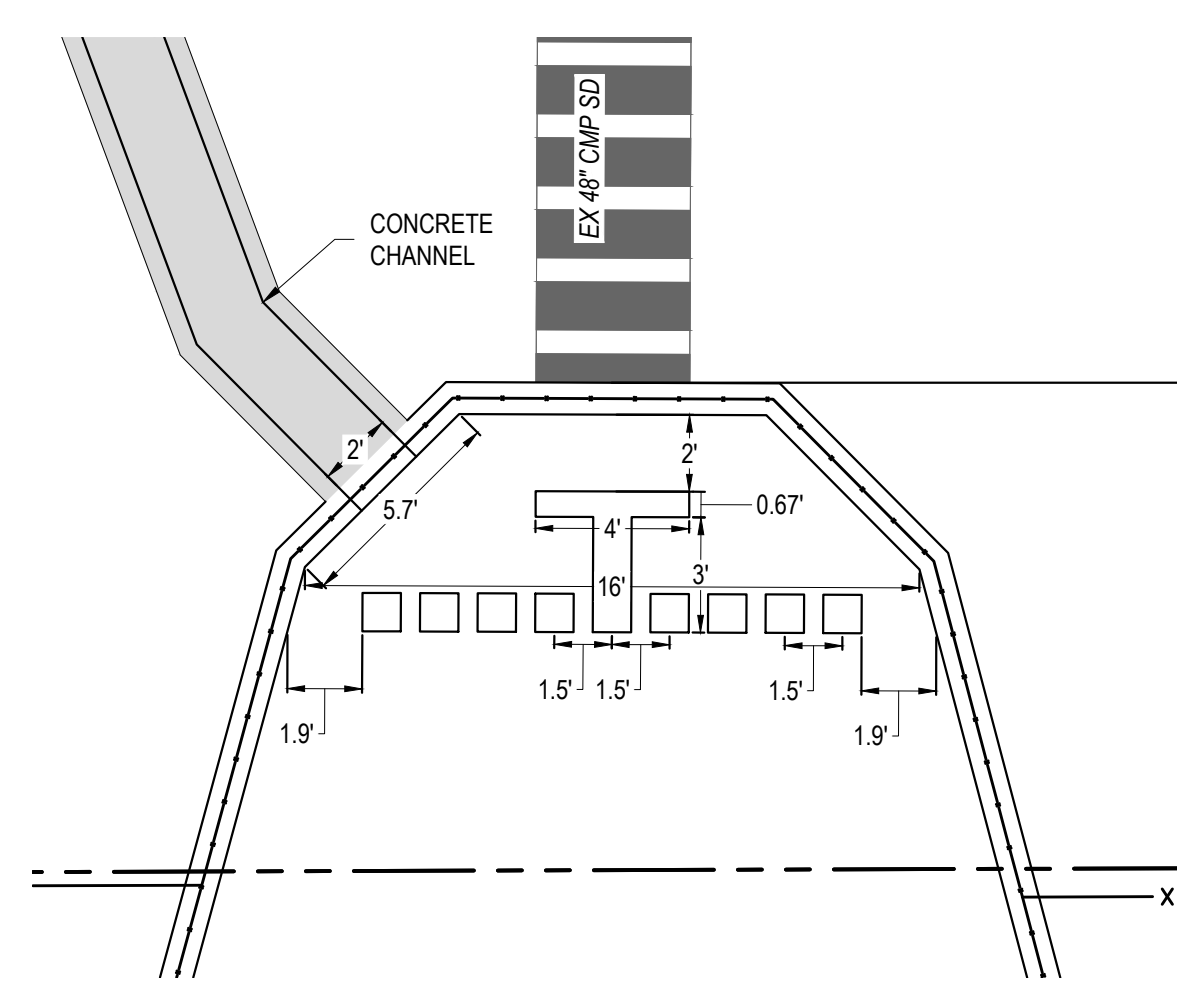
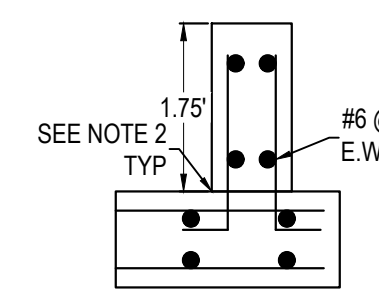
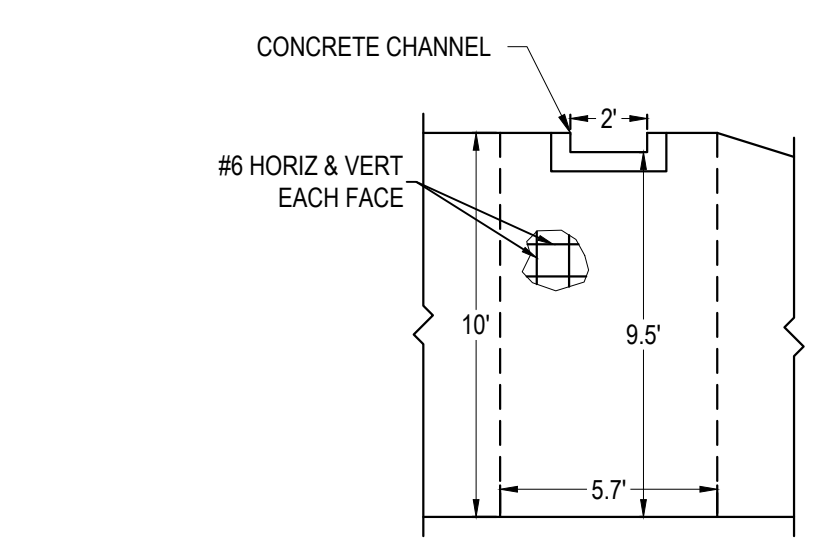
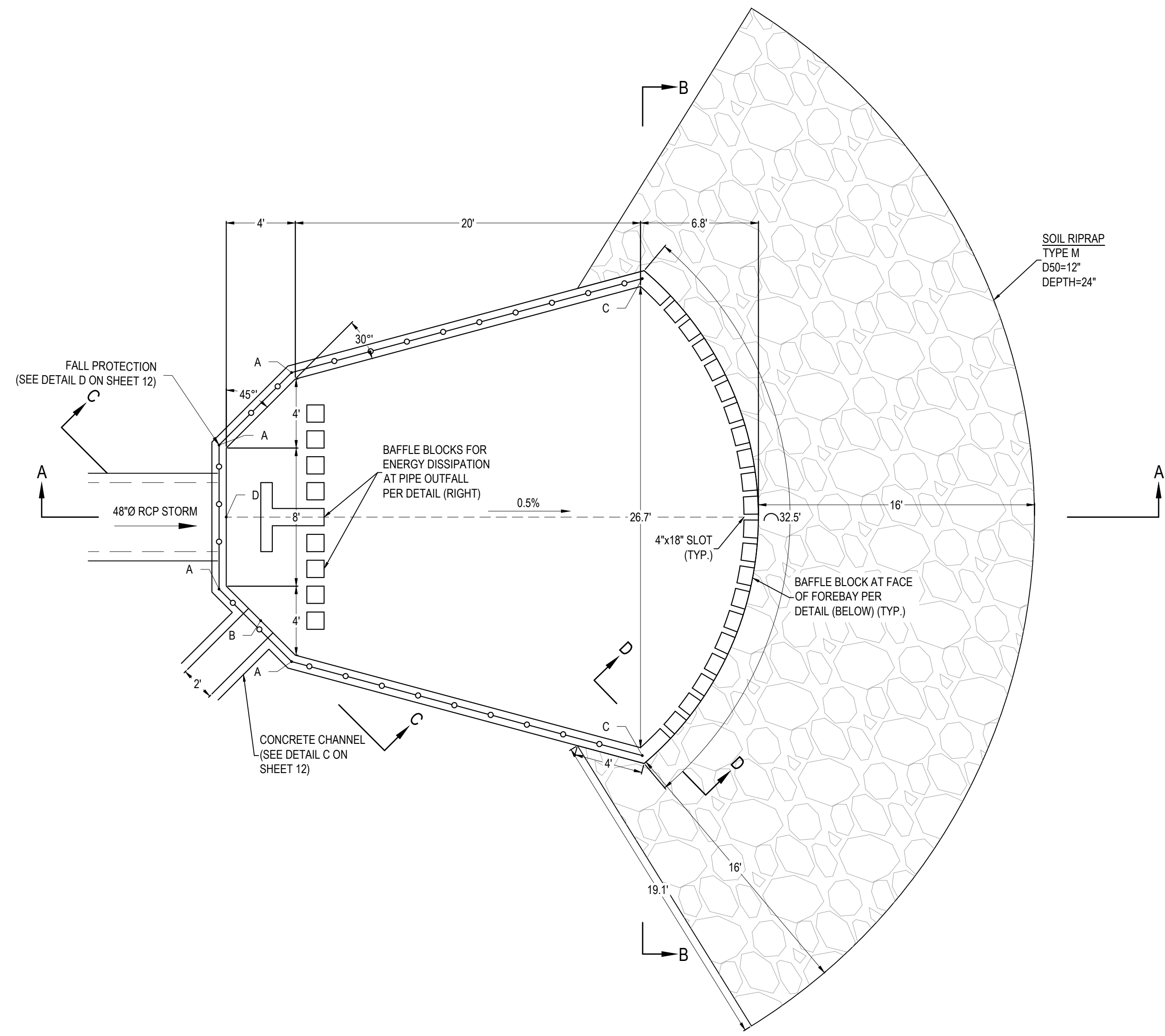
COLORADO SPRINGS AIRPORT
PONDS 500 & 600 DOWNSTREAM STABILIZATION
CIVIL CONSTRUCTION PLANS
COLORADO SPRINGS, COLORADO
REVEGETATION PLAN



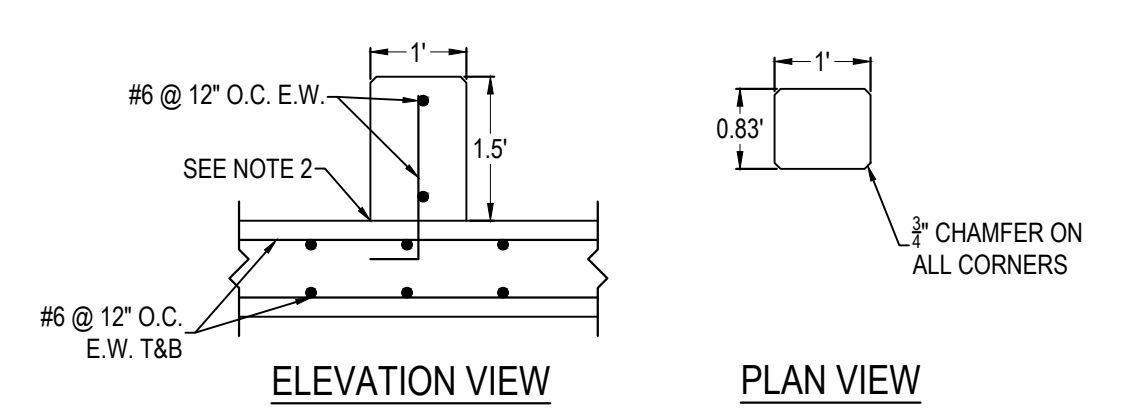
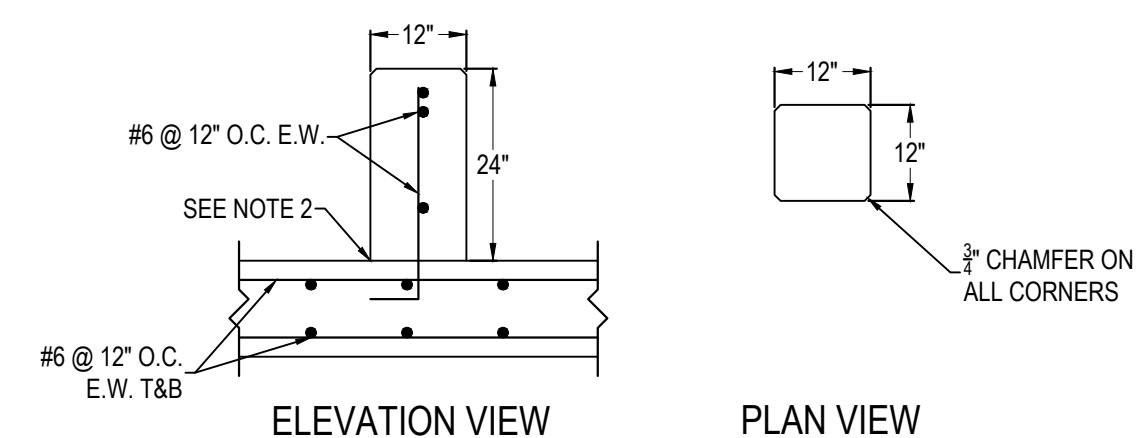
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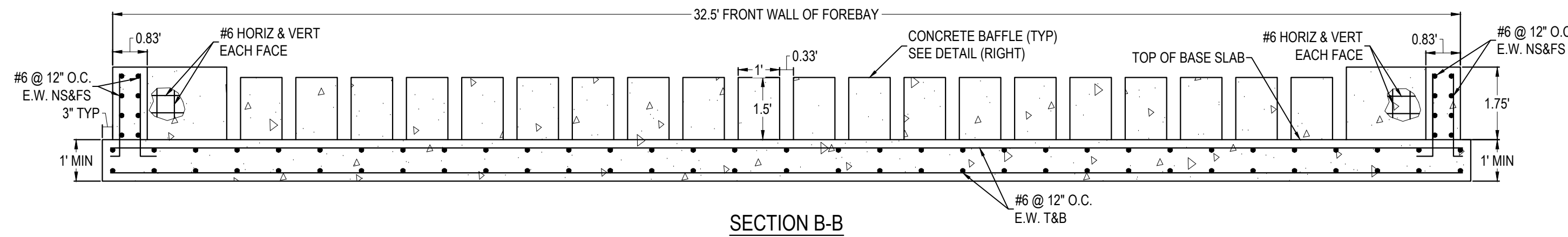
VERIFY SCALE
BAR IS ONE INCH ON
ORIGINAL DRAWING
DATE: FEBRUARY 28, 2025
SHEET



POINT ELEVATIONS	
A	5931.4
B	5930.9
C	5923.0
D	5921.4
E	5922.4
F	5926.4
G	5921.25
H	5921.08

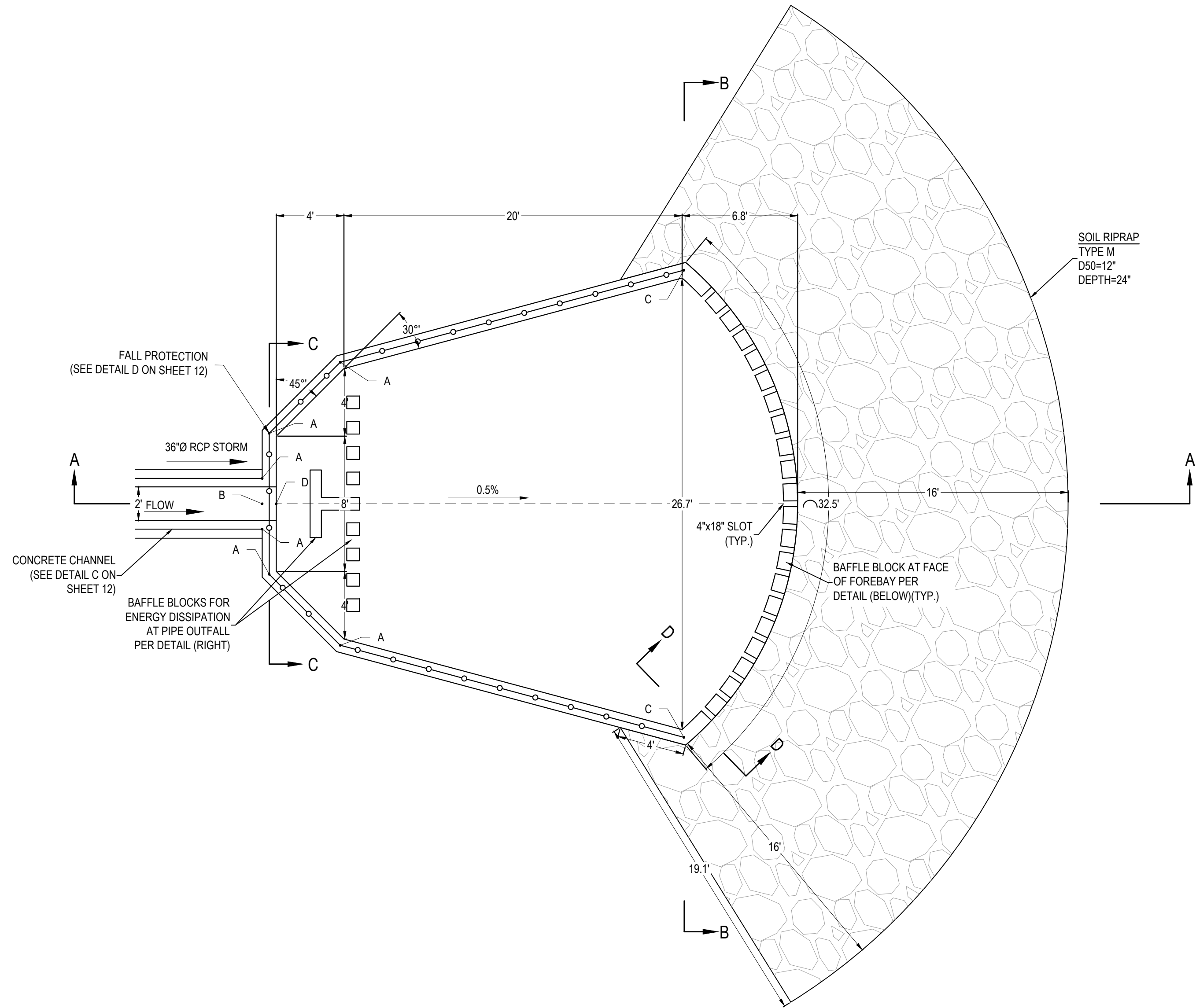


NOTES:
1. REFER TO INTEGRAL FOREBAY NOTES ON SHEET 13.

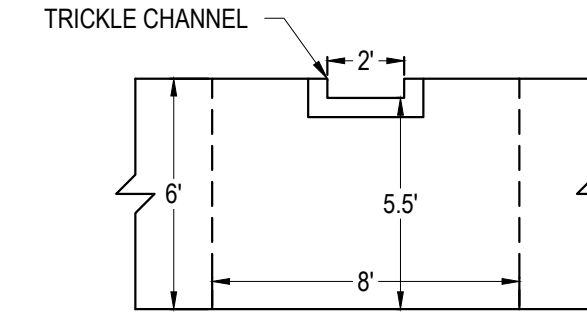


A
NTS
INTEGRAL FOREBAY - POND 500 DOWNSTREAM
TYPICAL DETAIL

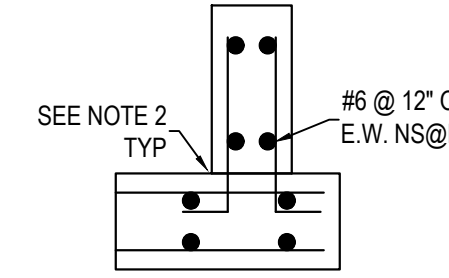
AMENDMENT									
NO.									
DATE									
COLORADO SPRINGS AIRPORT PONDS 500 & 600 DOWNSTREAM STABILIZATION CIVIL CONSTRUCTION PLANS COLORADO SPRINGS, COLORADO TYPICAL DETAILS (1)									
VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING: 0 1"									
DATE: FEBRUARY 28, 2025 SHEET									
10 OF 14									



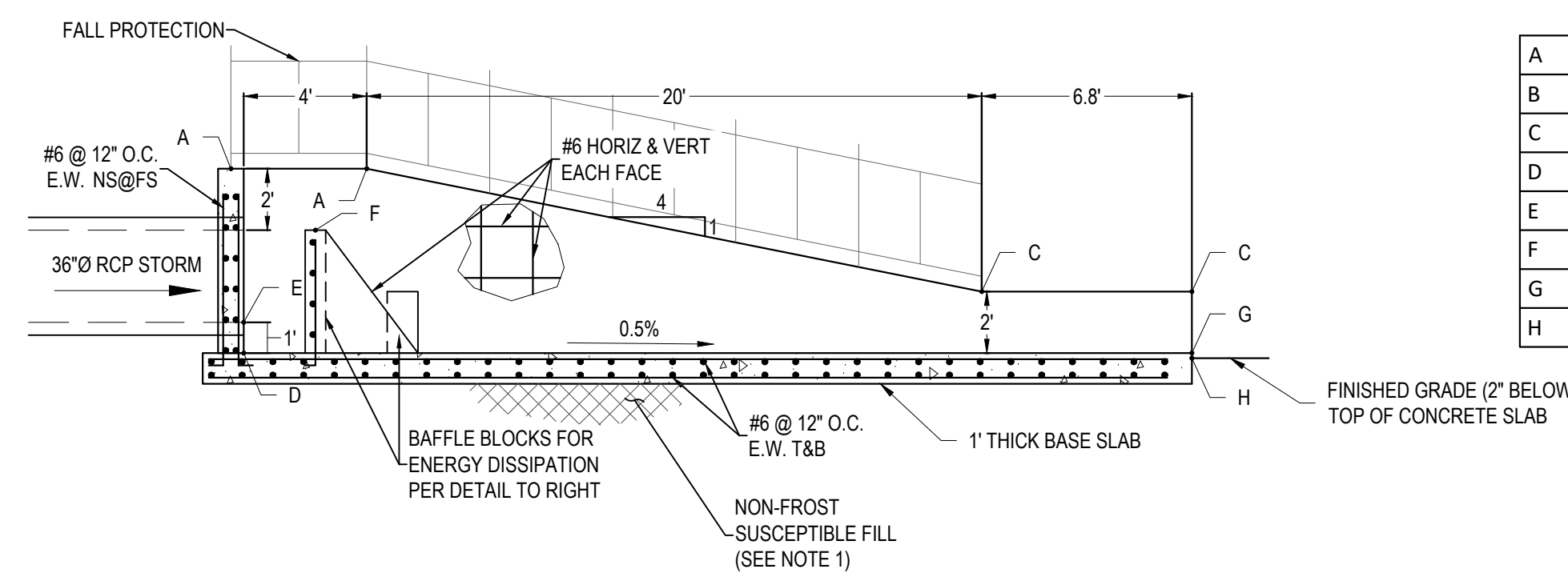
PLAN VIEW



SECTION C-C

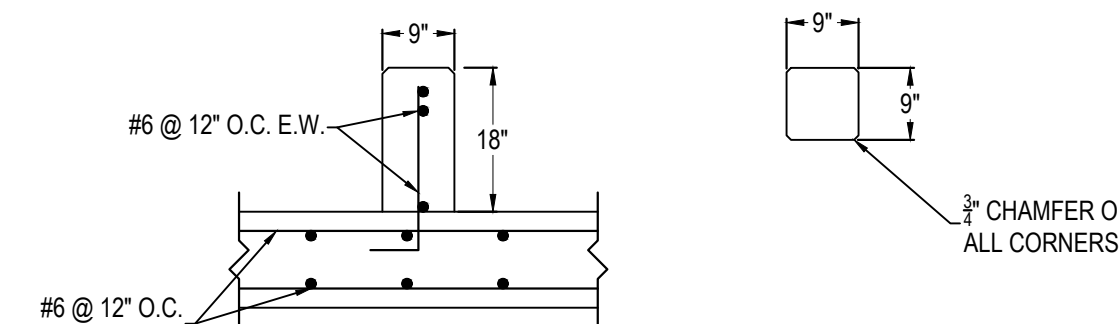


SECTION D-D



SECTION A-A

POINT ELEVATIONS	
A	5930.2
B	5929.7
C	5926.05
D	5924.2
E	5925.25
F	5928.2
G	5924.05
H	5923.88

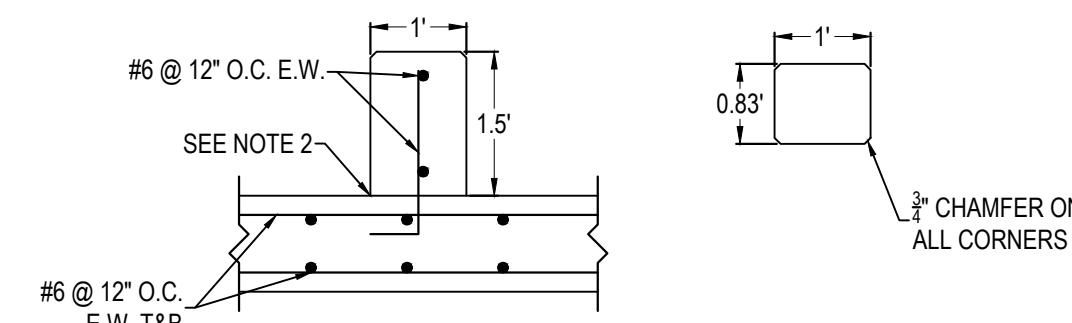


ELEVATION VIEW

PLAN VIEW

BAFFLE BLOCKS
(AT PIPE OUTFALL)

NOTES:
1. REFER TO INTEGRAL FOREBAY NOTES ON SHEET 4.

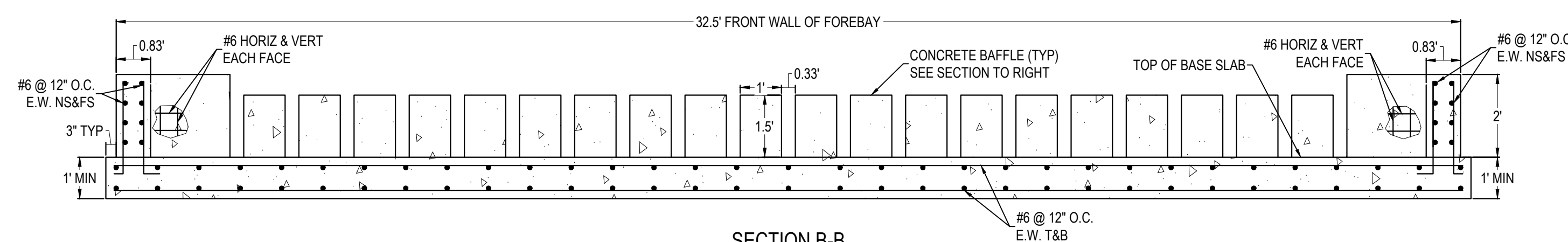


ELEVATION VIEW

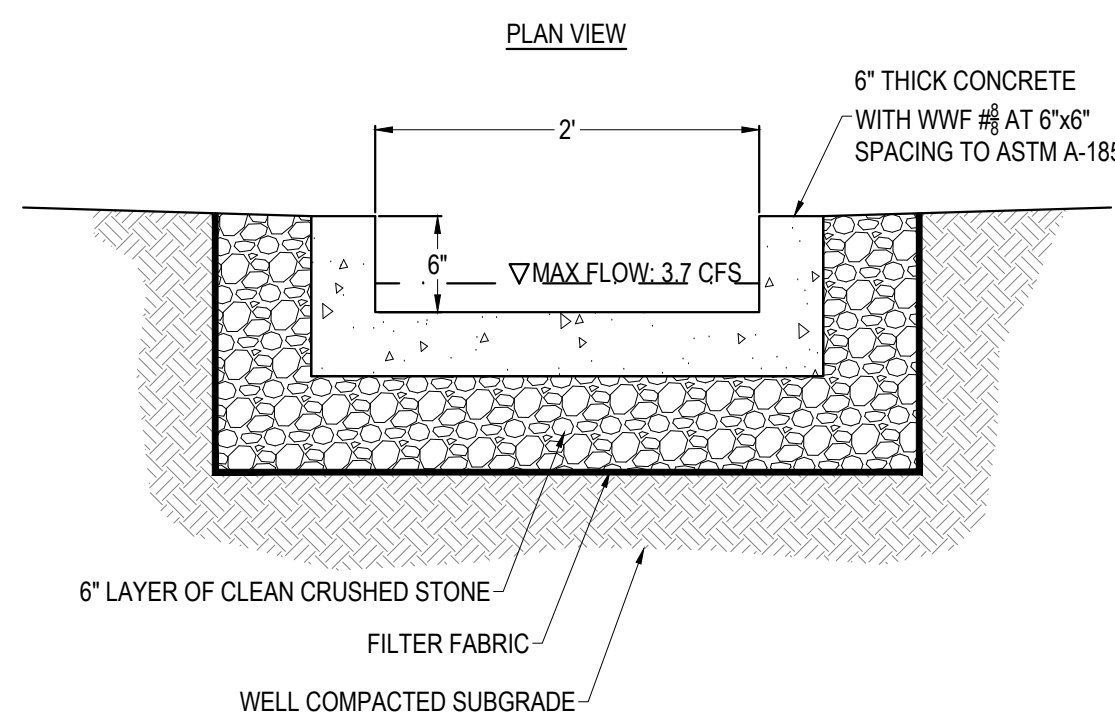
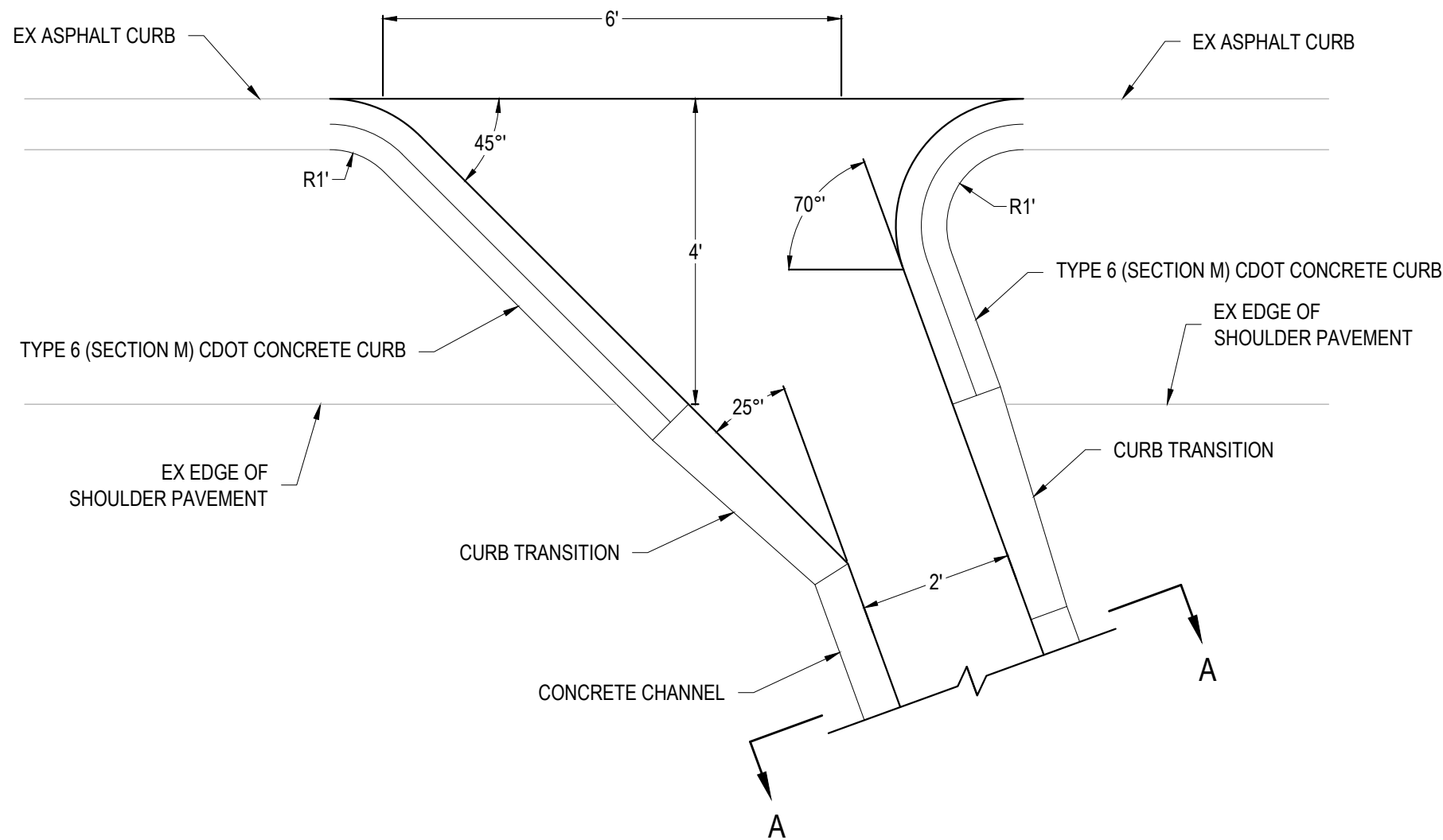
PLAN VIEW

BAFFLE BLOCKS
(FRONT WALL OF FOREBAY)

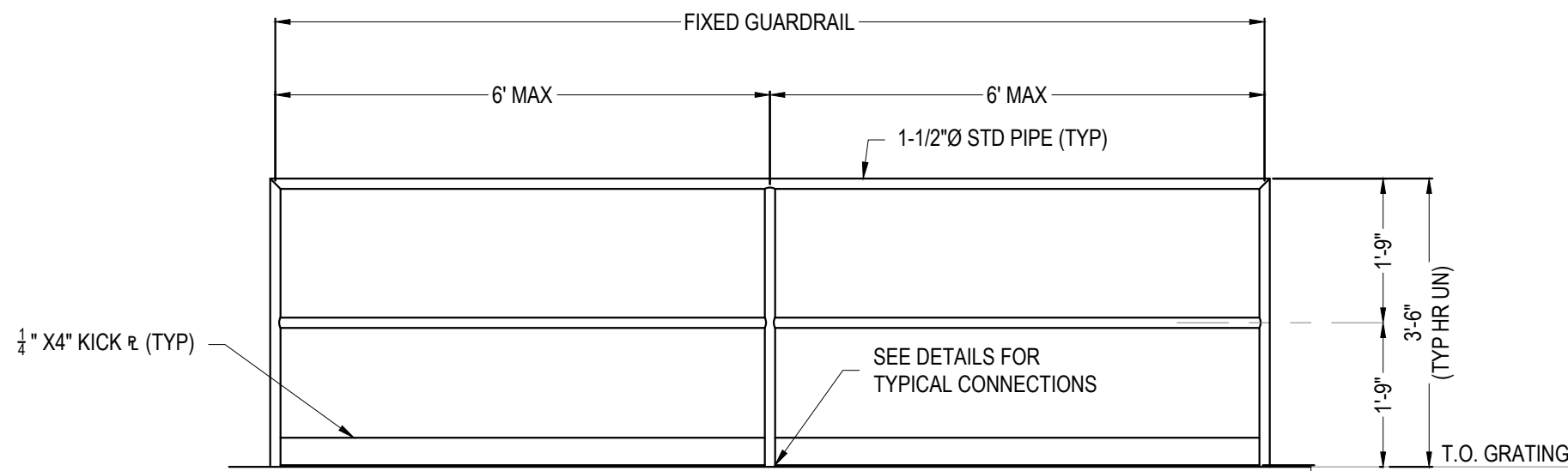
NOTES:
1. REFER TO INTEGRAL FOREBAY NOTES ON SHEET 13.



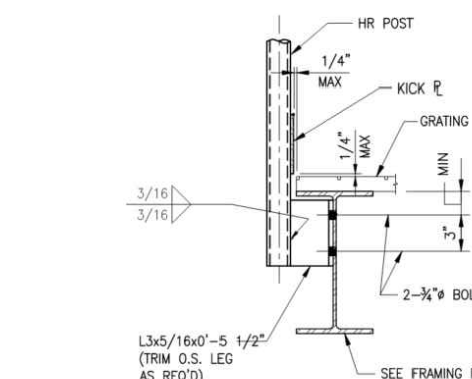
SECTION B-B



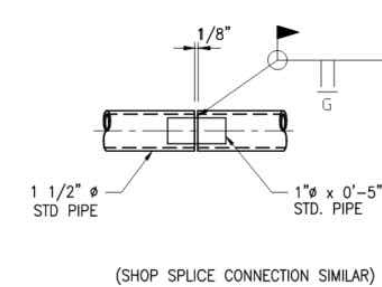
SECTION A-A



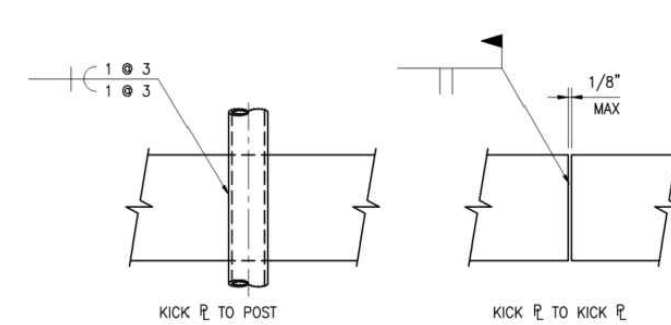
TYPICAL GUARDRAIL ELEVATION



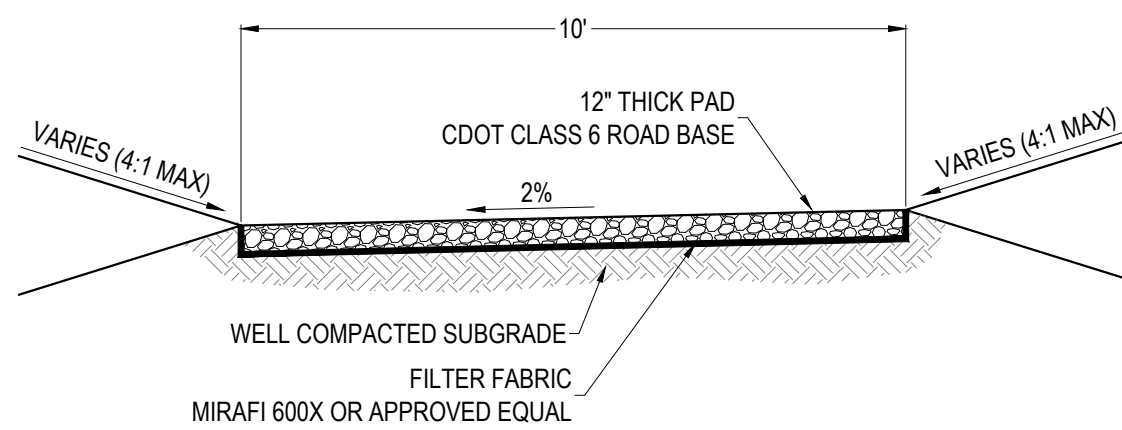
BOLTED CONNECTION



TYPICAL GUARDRAIL SPLICE DETAIL



KICK PLATE CONNECTION DETAILS

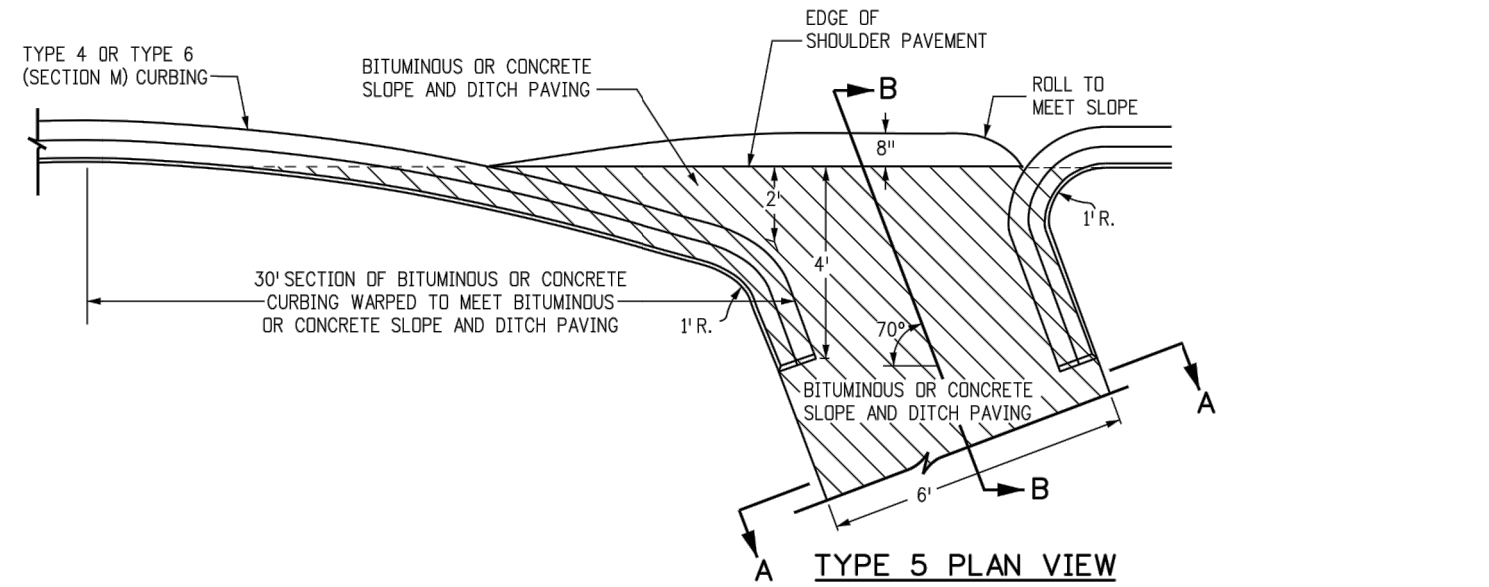


MAINTENANCE TRAIL TYPICAL SECTION

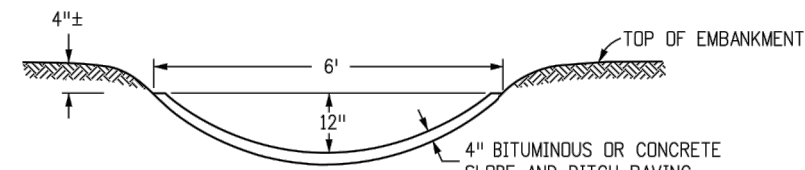
C EMBANKMENT PROTECTOR TYPICAL DETAIL

D FALL PROTECTION TYPICAL SECTION

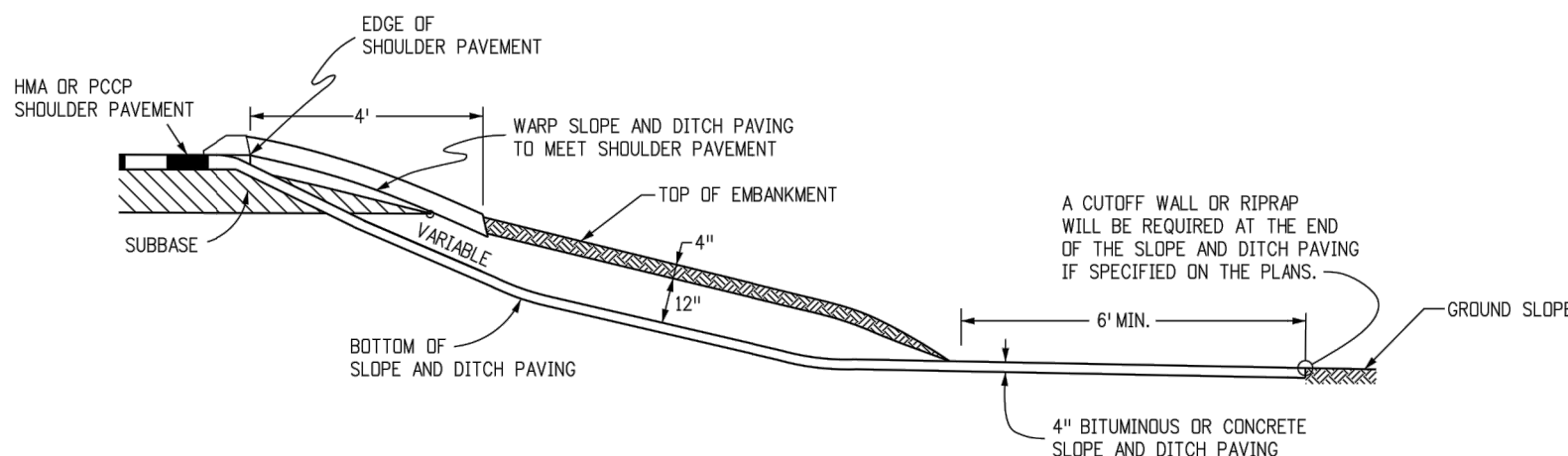
E



TYPE 5 PLAN VIEW



SECTION A-A



SECTION B-B

(WITH 4 IN BITUMINOUS OR CONCRETE SLOPE AND DITCH PAVING)

GENERAL NOTES

- IF THE EMBANKMENT PROTECTOR IS LOCATED IN THE BOTTOM OF A SAG VERTICAL CURVE, FLARE THE CURB ON EACH SIDE OF THE INLET TO ALLOW FOR FLOW FROM BOTH DIRECTIONS.
- DETAILS OF CURBING ARE SHOWN IN STANDARD PLAN M-609-1.
- STRUCTURE BACKFILL MATERIAL SHALL NOT BE USED IN THIS WORK. EMBANKMENT MATERIAL SHALL BE USED WITH CONSTRUCTION REQUIREMENTS IN ACCORDANCE WITH SECTION 203. EMBANKMENT MATERIAL WILL NOT BE PAID FOR SEPARATELY, BUT SHALL BE INCLUDED IN THE PAY ITEM FOR EMBANKMENT PROTECTOR (TYPE 5).
- PAYMENT FOR THE QUANTITIES SHOWN ON THE PLANS FOR THIS WORK SHALL BE AS FOLLOWS:
507 - BITUMINOUS SLOPE AND DITCH PAVING (ASPHALT) TON
507 - CONCRETE SLOPE AND DITCH PAVING CU. YD.
609 - CURB, TYPE 4 OR TYPE 6 (SECTION M) LINEAR FT.
615 - EMBANKMENT PROTECTOR (TYPE 5) EACH
NOTE: THIS PAYMENT INCLUDES THE STRUCTURE EXCAVATION, ANY OTHER EARTHWORK, AND ANY EXTRA WORK REQUIRED TO MODIFY OTHER PAY ITEMS.

Computer File Information		Sheet Revisions		Colorado Department of Transportation 2829 West Howard Place CDOT HQ, 3rd Floor Denver, CO 80204 Phone: 303-757-9021 FAX: 303-757-9868 Project Development Branch JBK	EMBANKMENT PROTECTOR TYPE 5 Issued by the Project Development Branch: July 31, 2019	STANDARD PLAN NO. M-615-2 Standard Sheet No. 1 of 1 Project Sheet Number:
Creation Date: 07/31/19		Date:	Comments:			
Designer Initials: JBK	(C-2)					
Last Modification Date: 07/31/19	(C-2)					
Detailer Initials: LTA	(C-2)					
CAD Ver.: MicroStation V8 Scale: Not to Scale Units: English	(C-2)					

COLORADO SPRINGS AIRPORT
PONDS 500 & 600 DOWNSTREAM STABILIZATION
CIVIL CONSTRUCTION PLANS
COLORADO SPRINGS, COLORADO
TYPICAL DETAILS (3)

VERIFY SCALE BAR IS ONE INCH ON ORIGINAL DRAWING 0 1"
DATE: FEBRUARY 28, 2025
SHEET

DESIGN DATA			GEOTECHNICAL INFORMATION			REINFORCING STEEL NOTES		
1.	THE DESIGN OF THE STRUCTURE AND PARTS THEREOF IS IN ACCORDANCE WITH THE 2018 INTERNATIONAL BUILDING CODE, AS AMENDED AND ADOPTED BY COLORADO SPRINGS, CO (PIKES PEAK REGIONAL CODE).		1.	THE GEOTECHNICAL ENGINEER OF RECORD (GER) IS SOLELY RESPONSIBLE FOR ESTABLISHING FOUNDATION, SLAB-ON-GRADE AND PAVEMENT DESIGN CRITERIA, AND FOR THE CONSTRUCTION RECOMMENDATIONS FOR EXCAVATION, SUBGRADE PREPARATION, BACKFILLING AND COMPACTION.		1.	ALL REINFORCING STEEL SHALL BE NEW DEFORMED BILLET STEEL CONFORMING TO ASTM A615, GRADE 60.	
2.	LIVE LOADS : FLUID WEIGHT ABOVE OUTLET TO SPILLWAY		2.	GEOTECHNICAL INFORMATION INDICATED IN THE STRUCTURAL CONSTRUCTION DOCUMENTS IS INTENDED TO REPLICATE THE RECOMMENDATIONS STATED IN THE GEOTECHNICAL ENGINEERING REPORT. PRESENTATION OF THIS INFORMATION IN THE STRUCTURAL DOCUMENTS DOES NOT DEMONSTRATE, STATE OR IMPLY GEOTECHNICAL EXPERTISE ON THE PART OF MCCLISH STRUCTURAL CONSULTING. THE CONTRACTOR SHALL OBTAIN A COPY OF THE REPORT AND COMPLY WITH THE RECOMMENDATIONS INDICATED THEREIN.		2.	ALL WELDED WIRE FABRIC SHALL CONFORM TO ASTM 185.	
3.	SNOW LOADS: 30 PSF SNOW EXPOSURE FACTOR, Ce 1 SNOW LOAD IMPORTANCE FACTOR, 1 THERMAL FACTOR, Ct 1		3.	IF DISCREPANCIES BETWEEN THE REPORT AND CONSTRUCTION DOCUMENTS ARE DISCOVERED, THE REPORT SHALL GOVERN. ALL CLARIFICATIONS AND INTERPRETATIONS OF THE REPORT SHALL BE MADE BY THE GER AND REPORTED TO THE ARCHITECT FOR COORDINATION WITH THE DESIGN TEAM.		3.	DETAILING OF REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE ACI DETAILING MANUAL.	
4.	WIND DESIGN DATA: BASIC WIND SPEED (UIt) 130 MPH WIND IMPORTANCE FACTOR, I 1.0 OCCUPANCY CATEGORY II WIND EXPOSURE C INTERNAL PRESSURE COEF. +/- 0.18 COMPONENTS AND CLADDING PER ASCE 7		4.			4.	REINFORCING BARS MAY BE SPLICED ONLY AS SHOWN ON THE DRAWINGS EXCEPT THAT REINFORCING DESIGNATED AS "CONTINUOUS" MAY BE CONTACT LAP SPLICED 30 BAR DIAMETERS. LAP SPLICES OF CONTINUOUS GRADE BEAM REINFORCING SHALL BE MADE OVER SUPPORTS FOR BOTTOM AND INTERMEDIATE BARS AND AT MIDSPAN FOR TOP BARS. AT GRADE BEAM END SUPPORTS, TOP BARS SHALL BE HOOKED DOWN AND BOTTOM BARS SHALL BE HOOKED UP.	
5.	SEISMIC LOADS: SEISMIC DESIGN CATEGORY: B IMPORTANCE FACTOR: 1.25 SPECTRAL RESPONSE ACCELERATIONS: Ss = .2186 S1 = .5933 SPECTRAL RESPONSE COEFFICIENTS: SDS = .233 SD1 = .095 SEISMIC RESPONSE COEFFICIENT: CS = .1865		5.			5.	PROVIDE CORNERS BARS OF SAME SIZE AND QUANTITY AS CONTINUOUS TOP AND BOTTOM REINFORCING OF GRADE BEAMS AT ALL GRADE BEAM CORNERS AND INTERSECTIONS.	
GENERAL NOTES			FOUNDATION NOTES			REBAR DOWEL OR ADHESIVE ANCHORS		
1.	THE GENERAL CONTRACTOR SHALL VERIFY THE SIZE, WEIGHT, LOCATION, AND SUPPORT CONDITIONS OF ALL MECHANICAL EQUIPMENT SUPPORTED ON OR SUSPENDED FROM THE ROOF OR SUSPENDED FLOORS. NOTIFY THE ARCHITECT OF ANY DISCREPANCIES BEFORE PROCEEDING WITH WORK.		1.	FOUNDATION ALLOWABLE DESIGN SOIL VALUES FOR NEW FOOTINGS: CONTINUOUS FOOTING BEARING - 2 ksf ISOLATED FOOTING BEARING - 2 ksf		1.	DOWELING/ANCHORING ADHESIVE: "HII-RE 500 SD" EPOXY AS MANUFACTURED BY HILTI.	
2.	PRINCIPAL OPENINGS ARE SHOWN ON THESE DRAWINGS. SEE ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS FOR SLEEVES, CURBS, INSERTS AND OTHER OPENINGS NOT SHOWN. IF OPENINGS MUST PENETRATE A STRUCTURAL ELEMENT, THE GENERAL CONTRACTOR SHALL VERIFY THE ADEQUACY OF SUCH MEMBERS PRIOR TO CONSTRUCTION.		2.	FOUNDATION DESIGN AND SUBSURFACE INFORMATION IS BASED ON GEOTECHNICAL REPORT # 1844322 PREPARED FOR THIS PROJECT BY ATLAS AND DATED JANUARY 25, 2023.		2.	DRILL HOLES IN CURED CONCRETE WITH CARBIDE-TIPPED DRILL BITS CONFORMING TO ANSI B212.15 AND BLAST CLEAN - HOLE DIAMETER PER HILTI.	
3.	SEE ARCHITECTURAL DRAWINGS FOR ELEVATIONS NOT SHOWN AND FOR EXACT LOCATIONS OF ALL WALL AND FOOTING STEPS		3.	ALL FOOTING EXCAVATIONS SHALL BE CLEANED TO REMOVE ALL LOOSE SOIL MATERIAL AND OTHER DEBRIS AND SHOULD NOT BE ALLOWED TO DESICCATE PRIOR TO PLACEMENT OF CONCRETE.		3.	INSTALL IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS AND SPECIFICATIONS, AND LATEST ICC EVALUATION SERVICES, INC. ES REPORT (ESR-2508).	
4.	THE CONTRACTOR SHALL COMPARE STRUCTURAL DIMENSIONS AND SECTIONS WITH ARCHITECTURAL DIMENSIONS AND SECTIONS AND REPORT ANY DISCREPANCY TO THE ARCHITECT PRIOR TO FABRICATION OR INSTALLATION OF STRUCTURAL MEMBERS.		4.	CONCRETE FOR FOUNDATIONS SHALL BE FORMED ON THE SIDES (EARTH FORMED FOUNDATIONS WILL NOT BE ALLOWED). PROPERLY PLACE AND COMPACT FILL MATERIAL AROUND SIDES OF FOOTINGS.		4.	REFERENCES: 1.1. ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE".	
5.	ALL TEMPORARY SHORING AND BRACING OF WALLS DURING CONSTRUCTION, PRIOR TO THE COMPLETION OF ALL BRACING ELEMENTS, IS THE RESPONSIBILITY OF THE CONTRACTOR. SHORE ALL WALLS DURING THE BACKFILLING AND COMPACTION PROCESS.		ALL FOUNDATION EXCAVATIONS SHALL BE INSPECTED BY THE GEOTECHNICAL ENGINEER.			5.	EXPANSION JOINT MATERIAL: 2.1. ASTM D994 ASPHALT FIBER TYPE. 2.2. ASTM D1752, TYPE 1 (SPONGE RUBBER) OR CLOSED CELL PLASTIC FOAM, (PVC OR POLYETHYLENE) PREFORMED FILLERS.	
6.	THE GENERAL CONTRACTOR SHALL COORDINATE CONSTRUCTION WITH THE CONSTRUCTION OF ADJACENT STRUCTURES. NOTIFY THE ARCHITECT OF ANY CONFLICTING REQUIREMENTS PRIOR TO CONSTRUCTION.		TRENCH SAFETY			6.	JOINT SEALANT: SILICONE BASE SUCH AS DOW 888 UNLESS NOTED OTHERWISE.	
7.	SELECTION OF CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND/OR PROCEDURES, AS WELL AS SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK, ARE SOLELY THE CONTRACTOR'S RIGHTS AND RESPONSIBILITIES. AS SUCH, ANY REQUIRED CONSTRUCTION ENGINEERING AND/OR DESIGN RESULTING FROM THESE SELECTIONS IS THE RESPONSIBILITY OF THE CONTRACTOR.		CONCRETE NOTES			7.	VOID FORM MATERIAL SHALL BE BY "SURE VOID" OR APPROVED EQUAL KEEP VOID FORM MATERIAL DRY DURING PLACEMENT. AND INSTALL IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. 4.1. PROVIDE AND INSTALL BACKFILL RETAINER BOARDS.	
8.	DIMENSIONS TO EXISTING OR ADJACENT CONSTRUCTION ARE BASED ON THE ORIGINAL CONSTRUCTION DOCUMENTS AND/OR APPROXIMATE FIELD MEASUREMENTS. THEY ARE TO BE USED FOR BID PURPOSES ONLY AND NOT FOR SHOP DRAWING PREPARATION OR CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL FIELD MEASUREMENTS REQUIRED FOR PROPER FIT UP OF MEMBERS FRAMING TO AND AROUND EXISTING CONSTRUCTION.		1.	CONCRETE IN THE FOLLOWING AREAS SHALL HAVE SAND AND GRAVEL OR CRUSHED STONE AGGREGATES AND THE DESIGNATED COMPRESSIVE STRENGTH IN 28 DAYS UNLESS NOTED OTHERWISE. NORMAL WEIGHT AGGREGATES SHALL CONFORM TO ASTM C33. LIGHTWEIGHT AGGREGATES SHALL CONFORM TO ASTM C330. LIGHTWEIGHT CONCRETE SHALL HAVE A MAXIMUM DRY DENSITY OF 120 pcf. FOOTINGS AND FOUNDATION WALLS----- f'c=4000 psi ALL OTHER CONCRETE ----- f'c=4000 psi		5.	WATER STOPS: SEE DRAWINGS FOR TYPE 5.1. GENERAL: PVC RIBBED WITH CENTER BULB BY GREENSTREAK, STYLE 702. 5.2. CHEMICAL RESISTANT: ENVIROSTOP "TPE-R" STYLE NO. 618 BY WESTEC, 4" RIBBED WITH CENTER BULB. MITER CUT AND SPLICE BY HEAT WELDING AT DIRECTION CHANGES AND INTERSECTIONS TO MAINTAIN ALIGNMENT AND CONTINUITY OF THE RIBS AND CENTER BULB. 5.3. SELF EXPANDING: VOLCLAY RX-101 WITH CONCRETE PRIMER.	
			2.	ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH ACI 318		CONCRETE BONDING AGENT		
			3.	CONCRETE PROTECTION FOR REINFORCEMENT SHALL BE AS FOLLOWS: REFER TO SECTION 7.7 ACI 318FOR CONDITIONS NOT NOTED.		1. STRUCTURAL BONDING AGENT FOR CONCRETE: THREE-COMPONENT WATER BASED EPOXY RESIN/PORTLAND CEMENT TYPE "ARMATEC 110" BY SIKA CORP OR "CORR-BOND" AS MANUFACTURED BY EUCLID CHEMICAL CO		
				SLABS-ON-GRADE ----- CENTERED COLUMNS ----- 1 1/2" SLABS ABOVE GRADE ----- 3/4" CONCRETE JOISTS ----- 1" BEAMS ABOVE GRADE ----- 1 1/2" WALL PANELS ----- 1 1/2"		CONCRETE ANCHORS		
			4.	MAXIMUM NOMINAL COARSE AGGREGATE SIZE SHALL BE 1" MAX UNLESS NOTED OTHERWISE.		1. DEFORMED BAR: ASTM A706, GRADE 60		
			5.	CONCRETE SLUMPS SHALL BE AS FOLLOWS: PIERS -----7" MAX, 5" MIN ALL OTHER CONCRETE ----- 5" MAX, 2" MIN		2. CAST IN PLACE ANCHORS: REFERENCE THE ANCHOR BOLT SCHEDULE & DETAIL DRAWING. 2.1. ALL ANCHOR BOLTS, NUTS, WASHERS AND ANCHOR HARDWARE SHALL BE CORROSION PROTECTED BY EITHER: 2.1.1. HOT DIPPED GALVANIZED PER ASTM F2329 OR 2.1.2. FIELD PAINTED TO MATCH STRUCTURAL STEEL OR EQUIPMENT		
			6.	THERE SHALL BE NO HORIZONTAL CONSTRUCTION JOINTS IN CONCRETE POURS. ALL CONSTRUCTION JOINTS SHALL BE MADE IN THE CENTER OF SPANS WITH VERTICAL BULK HEADS. THE LOCATION OF CONSTRUCTION JOINTS SHALL BE APPROVED BY THE STRUCTURAL ENGINEER.		3. EMBEDDED STEEL ANCHORAGE: HOT DIP GALVANIZED EXTERIOR ASSEMBLY PER ASTM F2329. 3.1. PLATES, ROLLED SHAPES: ASTM A36, Fy=36 KSI 3.2. HEADED ANCHOR STUDS: ASTM A108 GRADE 1010-1020 TYPE B, Fu=60 KSI		
			7.	ALL GRADE BEAMS, CAST IN PLACE WALLS AND PIER CAPS SHALL BE FORMED ON SIDES. ALL ELEMENTS OF THE FORMS, FORMWORK, BRACING AND SHORING SHALL CONSIST OF WOOD, METAL OR OTHER MANUFACTURED PRODUCTS AS SPECIFIED. EARTH MAY NOT BE USED AS A FORM, EITHER DIRECTLY OR INDIRECTLY. NEITHER EARTH TRENCHES NOR EARTH TRENCHES LINED WITH ANOTHER MATERIAL ARE ACCEPTABLE.		4. POST INSTALLED ADHESIVE (CHEMICAL) SET ANCHORS: REFERENCE 'CONCRETE SECTION C' FOR ADHESIVE AND SEE DRAWINGS FOR TYPE. 4.1. HAS-E ZINC PLATED ROD (ISO 898 CLASS 5.8) BY HILTI. 4.2. SUPER HAS ZINC PLATED ROD (ASTM A193 GRADE B7) BY HILTI. 4.3. STAINLESS HAS ROD (ASTM F593, 304/316) BY HILTI. 5. POST INSTALLED MECHANICAL ANCHORS: KWIK BOLT TZ EXPANSION ANCHOR BY HILT OR "STRONG-BOLT" WEDGE ANCHOR BY SIMPSON STRONG-TIE.		
			8.	CONCRETE EXPOSED TO WEATHER SHALL BE AIR-ENTRAINED AS FOLLOWS: 3/4" NOMINAL AGGREGATE SIZE 4% TO 8% 1" NOMINAL AGGREGATE SIZE 3.5% TO 6.5% 1 1/2" NOMINAL AGGREGATE SIZE 3% TO 6%		5. INSTALLATION OF ALL POST INSTALLED ANCHORS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS AND LATEST ICC EVALUATION SERVICES, INC ES REPORT (ESR-1771).		

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