

FALCON AREA WATER/WASTEWATER AUTHORITY

BAR-X PIPELINE SEGMENT A2 EROSION CONTROL

EL PASO COUNTY, CO

SEPTEMBER 2024

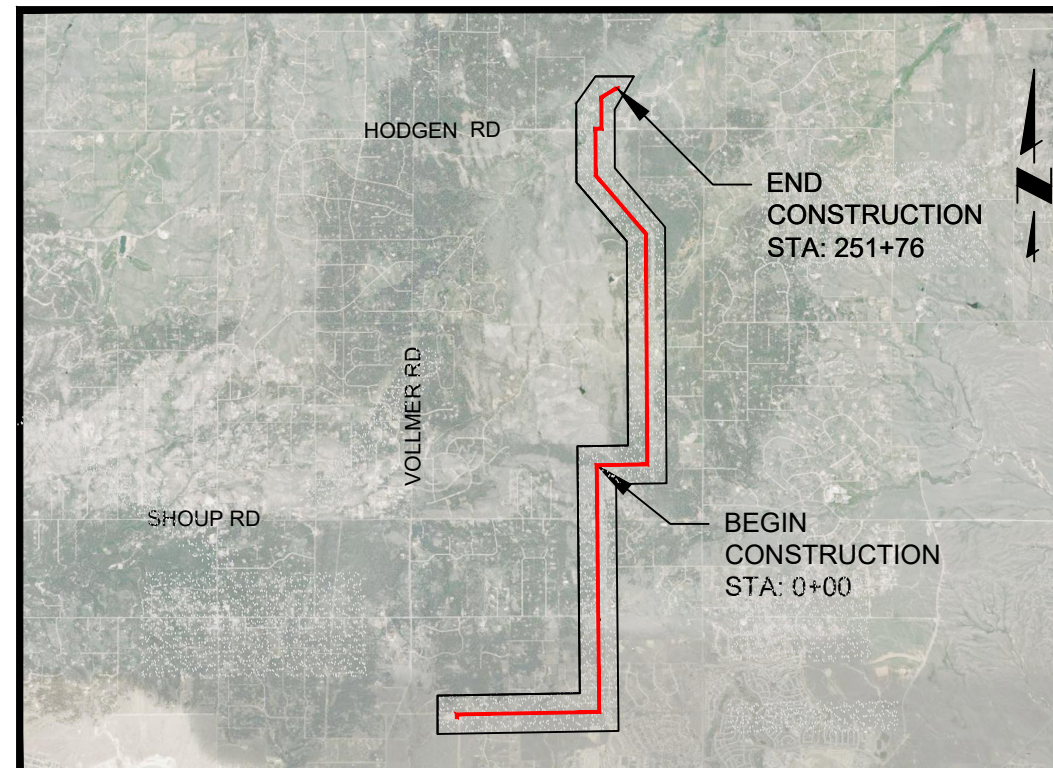
PLAN SET INFORMATION:
PRELIMINARY

PCD File No.

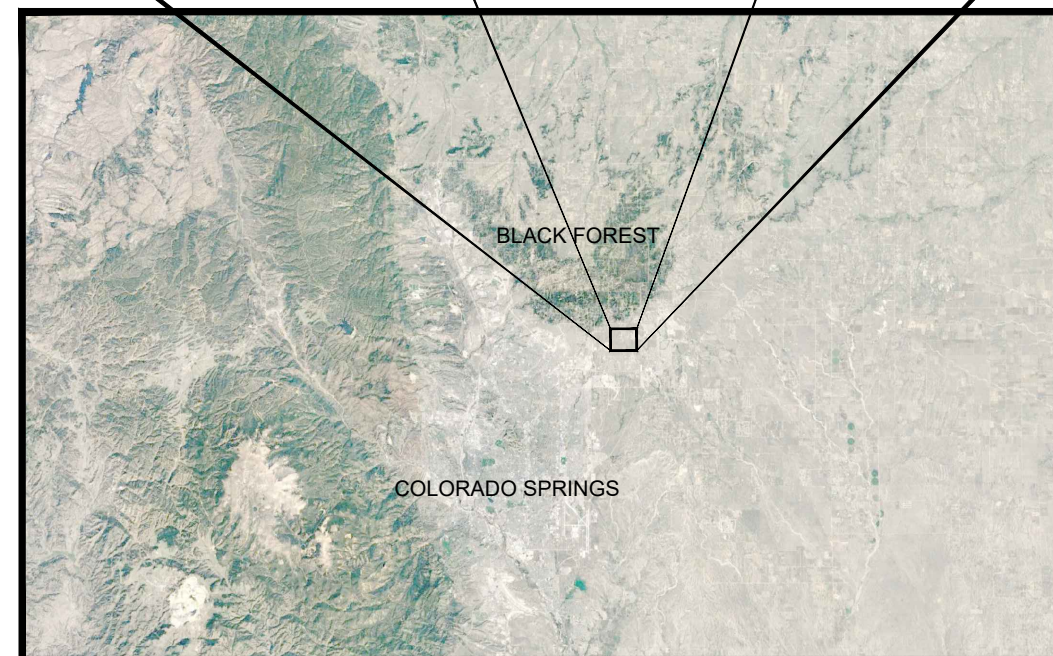
LEGEND

<p>— — — — — EX PROPERTY LINE</p> <p>- - - - - EX RIGHT-OF-WAY</p> <p>— x — — — EX FENCE</p> <p>— W — — — EX WATER LINE</p> <p>— SS — — — EX SANITARY SEWER LINE</p> <p>— OHE — — — EX O.H. ELECTRIC</p> <p>— UGE — — — EX U.G. ELECTRIC LINE</p> <p>— GAS — — — EX U.G. GAS LINE</p> <p>— TEL — — — EX U.G. TELEPHONE LINE</p> <p>— CTV — — — EX U.G. CABLE LINE</p> <p>— — — — — EX CONTOURS—MAJOR</p> <p>- - - - - EX CONTOURS—MINOR</p> <p>— (FH) — — — EX FIRE HYDRANT</p> <p>— (X) — — — EX WATER VALVE</p> <p>— (W) — — — EX WATER MANHOLE</p> <p>— (S) — — — EX SANITARY SEWER MANHOLE</p> <p>— (T) — — — EX TELEPHONE MANHOLE</p> <p>— (ST) — — — EX STORM SEWER MANHOLE</p> <p>— (G) — — — EX GAS METER</p> <p>— (L) — — — EX LIGHT POLE</p> <p>— (U) — — — EX UTILITY POLE</p> <p>— (OHP) — — — EX OVERHANGING LIGHT POLE</p> <p>— (S) — — — EX SIGN</p> <p>— (V) — — — EX VEGETATION (SIZE VARIES)</p>	<p>— 5540 — — — PP CONTOURS—MAJOR</p> <p>— — — — — PP CONTOURS—MINOR</p> <p>— — — — — PP WATER LINE ALIGNMENT</p> <p>— (FH) — — — PP FIRE HYDRANT</p> <p>— (F) — — — PP WATER LINE FITTING</p> <p>— (V) — — — PP WATER VALVE</p> <p>— (X) — — — PP SPOT ELEVATION</p> <p>— (VTP) — — — PP VEHICLE TRACKING PAD (INITIAL, INTERIM)</p> <p>— (SIF) — — — PP EROSION CONTROL SILT FENCE (INITIAL, INTERIM)</p> <p>— (SA) — — — STAGING AREA (INITIAL, INTERIM)</p> <p>— (CW) — — — CONCRETE WASHOUT (INITIAL, INTERIM)</p> <p>— (PDFD) — — — PRE-DEVELOPED FLOW DIRECTION</p> <p>— (AV) — — — AIR/VAC VAULT</p> <p>— (EB) — — — PP EARTHEN BERM (INITIAL, INTERIM)</p> <p>— (ESC) — — — EROSION CONTROL SOCK (INITIAL, INTERIM)</p>
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LOCATION & VICINITY MAPS



VICINITY MAP
N.T.S.



LOCATION MAP
N.T.S.

SHEET INDEX

COVER	
EROSION CONTROL	EROSION CONTROL NOTES
EC-01	VICINITY MAP 1
EC-02	FEMA FLOODPLAIN MAP
EC-03	EROSION CONTROL
EC-04	EROSION CONTROL
EC-05	EROSION CONTROL
EC-06	EROSION CONTROL
EC-07	EROSION CONTROL
EC-08	EROSION CONTROL
EC-09	EROSION CONTROL
EC-10	EROSION CONTROL
EC-11	EROSION CONTROL
EC-12	EROSION CONTROL
EC-13	EROSION CONTROL DETAILS 1
EC-14	EROSION CONTROL DETAILS 2
EC-15	EROSION CONTROL DETAILS 3

SIGNATURES

ENGINEER OF RECORD:

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.

JOHN P. MCGINN, PE #19534

DATE

FAWWA APPROVALS:

FAWWA, THE OWNER/DEVELOPER HAVE READ AND WILL COMPLY WITH THE REQUIREMENTS OF THE GRADING AND EROSION CONTROL PLAN.

FAWWA MANAGER: _____

FAWWA ENGINEER: _____

DATE: _____

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 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.

JOSHUA PALMER, PE

DATE

UTILITY NOTIFICATION

COLOR CODE
For Marking Underground Utility Lines

- Proposed Excavation
- Temporary Survey Markings
- Electric
- Gas, Oil, Steam
- Communication, CATV
- Potable Water
- Irrigation, Reclaimed Water, Slurry Lines
- Sewer

Always contact 811 before you dig.
(800) 922-1987 www.co811.org

SURVEY DATA

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

PARTICIPANTS

OWNER

DESIGN ENGINEER



RESPEC

Colorado Springs, CO
5540 Tech Center Dr., Suite 100
Colorado Springs, CO 80919
Phone: 719.227.0072
www.respec.com

EROSION CONTROL NOTES

1. 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.
2. NOTWITHSTANDING ANYTHING DEPICTED IN THESE PLANS IN WORDS OF 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.
3. A SEPARATE STORMWATER MANAGEMENT PLAN (SWMP) FOR THIS PROJECT SHALL BE COMPLETED AND AN EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP) ISSUED PRIOR TO COMMENCING CONSTRUCTION. MANAGEMENT OF THE SWMP DURING CONSTRUCTION IS THE RESPONSIBILITY OF THE DESIGNATED QUALIFIED STORMWATER MANAGER OR CERTIFIED EROSION CONTROL INSPECTOR. THE SWMP SHALL BE LOCATED ON SITE AT ALL TIMES DURING CONSTRUCTION AND SHALL BE KEPT UP TO DATE WITH WORK PROGRESS AND CHANGES IN THE FIELD.
4. 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.
5. 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.
6. ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE MAINTAINED AND REMAIN IN EFFECTIVE OPERATION CONDITION UNTIL PERMANENT SOIL EROSION CONTROL MEASURE 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.
7. 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.
8. 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.
9. ALL PERMANENT STORMWATER MANAGEMENT FACILITIES SHALL BE INSTALLED AS DESIGNED IN THE APPROVED PLANS. ANY PROPOSED CHANGES THAT EFFECT THE DESIGN OR FUNCTION OF PERMANENT STORMWATER MANAGEMENT STRUCTURES MUST BE APPROVED BY THE ECM ADMINISTRATOR PRIOR TO IMPLEMENTATION.
10. 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.
11. COMPACTION OF SOIL MUST BE PREVENTED IN AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES OR WHERE FINAL STABILIZATION WILL BE ACHIEVED BY VEGETATION COVER. AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES SHALL ALSO BE PROTECTED FROM SEDIMENTATION DURING CONSTRUCTION UNTIL FINAL STABILIZATION IS ACHIEVED. IF COMPACTION PREVENTION IS NOT FEASIBLE DUE TO SITE CONSTRAINTS, ALL AREAS DESIGNATED FOR INFILTRATION AND VEGETATION CONTROL MEASURES MUST BE LOOSENEED PRIOR TO INSTALLATION OF THE CONTROL MEASURE(S).
12. 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.
13. 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.
14. DURING DEWATERING OPERATIONS OF UNCONTAMINATED GROUND WATER MAY BE DISCHARGED ON SITE, BUT SHALL NOT LEAVE THE SITE IN THE FORM OF SURFACE RUNOFF UNLESS AN APPROVED STATE DEWATERING PERMIT IS IN PLACE.
15. EROSION CONTROL BLANKETING OR OTHER PROTECTIVE COVERING SHALL BE USED ON SLOPES 3:1 AND STEEPER.
16. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL WASTES FROM THE CONSTRUCTION SITE FOR DISPOSAL IN ACCORDANCE WITH LOCAL AND STATE REGULATORY REQUIREMENTS. NO CONSTRUCTION DEBRIS, TREE SLASH, BUILDING MATERIAL WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURIED, DUMPED, OR DISCHARGED AT THE SITE.
17. 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.
18. TRACKING OF SOILS AND CONSTRUCTION DEBRIS OFF-SITE SHALL BE MINIMIZED. MATERIALS TRACKED OFF-SITE SHALL BE CLEANED UP AND PROPERLY DISPOSED OF IMMEDIATELY.
19. 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.

20. 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.
21. NO CHEMICAL(S) HAVING THE POTENTIAL TO BE RELEASED IN STORMWATER ARE TO BE STORED OR USED ONSITE UNLESS PERMISSION FOR THE USE OF SUCH CHEMICAL(S) IS GRANTED IN WRITING BY THE ECM ADMINISTRATOR. IN GRANTING APPROVAL FOR THE USE OF SUCH CHEMICAL(S), SPECIAL CONDITIONS AND MONITORING MAY BE REQUIRED.
22. BULK STORAGE OF ALLOWED PETROLEUM PRODUCTS OR OTHER ALLOWED LIQUID CHEMICALS IN EXCESS OF 55 GALLONS SHALL REQUIRE ADEQUATE SECONDARY CONTAINMENT PROTECTION TO CONTAIN ALL SPILLS ONSITE AND TO PREVENT ANY SPILLED MATERIALS FROM ENTERING STATE WATERS, ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR OTHER FACILITIES.
23. NO PERSON SHALL CAUSE THE IMPEDIMENT OF STORMWATER FLOW IN THE CURB AND GUTTER OR DITCH EXCEPT WITH APPROVED SEDIMENT CONTROL MEASURES.
24. 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 OR OTHER FEDERAL, STATE, LOCAL, OR COUNTY AGENCIES, IN THE MOST RESTRICTIVE LAWS, RULES, OR REGULATIONS SHALL APPLY.
25. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE ONLY AT APPROVED CONSTRUCTION ACCESS POINTS.
26. PRIOR TO CONSTRUCTION THE PERMITTEE SHALL VERIFY THE LOCATION OF EXISTING UTILITIES.
27. 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.
28. THE SOILS REPORT FOR THIS SITE HAS BEEN PREPARED BY ENTECH ENGINEERING GROUP AND SHALL BE CONSIDERED A PART OF THESE PLANS. (REV 1: 03/30/22)
29. AT LEAST TEN (10) DAYS PRIOR TO THE ANTICIPATED START OF CONSTRUCTION, FOR PROJECTS THAT WILL DISTURB ON (1) ACRE OR MORE, THE OWNER OR OPERATOR OF CONSTRUCTION ACTIVITY SHALL SUBMIT A PERMIT APPLICATION FOR STORMWATER DISCHARGE TO THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, WATER QUALITY DIVISION. THE APPLICATION CONTAINS CERTIFICATION OF COMPLETION OF A STORMWATER MANAGEMENT PLAN (SWMP), OF WHICH THIS GRADING AND EROSION CONTROL PLAN MAY BE A PART. FOR INFORMATION OR APPLICATION MATERIALS CONTACT:

 COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT
 WATER QUALITY CONTROL DIVISION
 WQCD - PERMITS
 4300 CHERRY CREEK DRIVE SOUTH
 DENVER, CO 80246-1530
 ATTN: PERMITS UNIT
30. EXISTING VEGETATION:
 VEGETATION VARYING FROM 60-90% ALONG THE PIPELINE. VEGETATION IDENTIFIED INCLUDES INTRODUCED AND NATIVE GRASS AND HERBACEOUS SPECIES, SUCH AS SIDE OATS GRAMA, LITTLE BLUESTEM, PRAIRIE DROPSEED, ASTER, WESTERN RAGWEED, YARROW, CATTAIL, PEPPERWEED, SWEET YELLOW CLOVER, AND PRICKLY PEAR. SHURB AND TREE SPECIES OBSERVED INCLUDE PONDEROSA PINE, NARROWLEAF WILLOW, AND GREAT PLAINS COTTONWOOD.
31. THERE WILL BE NO CUT/FILL AREAS FOR THIS PROJECT.
32. NO BATCH PLANTS WILL BE UTILIZED ONSITE.

COMMON NAME	RECOMMENDED CULTIVAR	% OF SEED MIX	NON IRRIGATED PLS RATE PER ACRE DRILL BROADCAST	
BIG BLUESTEM, NATIVE	KAW	20.00%	5.5	11.0
LITTLE BLUESTEM	CAMPER	10.00%	1.5	3.0
GREEN NEEDLEGRASS, NATIVE	LODORM	10.00%	5.0	10.0
WESTERN WHEATGRASS, NATIVE	ARRIBA	20.00%	8.0	16.0
SIDEOATS GRAMA, NATIVE	EL RENO	10.00%	4.5	9.0
SWITCHGRASS	BLACKWELL	10.00%	2.0	4.0
PRAIRIE SANDREED, NATIVE	GOSHEN	10.00%	3.5	7.0
YELLOW INDIANGRASS, NATIVE	CHEYENNE	10.00%	5.0	10.0

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

Area Description	Diameter Of Pipe	Length of Pipe (Ft)	Total Project Area (Acres)	Total Area of Disturbance (Acres)	Total Area Requiring Revegetation (Acres)	Current Impervious Area (Acres)
El Paso County ROW	24"	22,376	41.10	15.41	15.36	0.05
El Paso County ROW	8"	2,800	5.14	1.93	1.93	0.00

Colorado Springs, CO
 5540 Tech Center Dr., Suite 100
 Colorado Springs, CO 80919
 Phone: 719.237.0072
 www.eresec.com



FALCON AREA WATER AND WASTEWATER AUTHORITY
 BAR-X PIPELINE SEGMENT A2 EROSION CONTROL
 EROSION CONTROL NOTES

NO.	REVISIONS		DATE
	DESCRIPTION	BT APP.	
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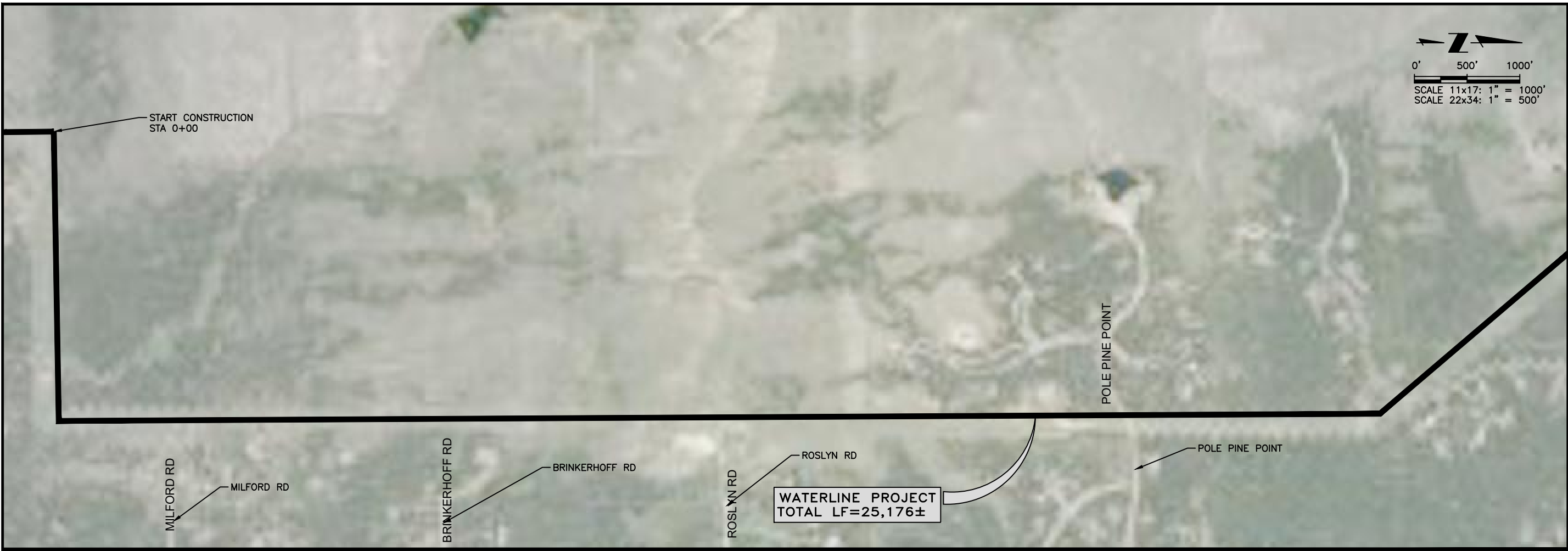
FOR REVIEW



Proj.#: W0242.22004
 Date: 09/26/24
 Design: JPM
 Drawn: AMY
 Check: JPM
 SHEET NUMBER
EC-01

2024/09/27 2:44 PM By: Troy Montague N:\Projects\W0242.22004-FAWWA Bar-X Pipeline\Z_Phase 2\06_CAD\Working\GEC\W0242_BarX_Ph2_Vicinity Map.dwg

1"
IF BAR DOES NOT MEASURE ONE INCH
SCALE OF THE DRAWING HAS BEEN ALTERED



Colorado Springs, CO
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FALCON AREA WATER AND WASTEWATER AUTHORITY
BAR-X PIPELINE SEGMENT A2 EROSION CONTROL
VICINITY MAP 1

REVISIONS			
NO.	DESCRIPTION	BY	DATE
1			
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3			
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FOR REVIEW

Proj.#: W0242.22004
Date: 09/26/24
Design: JPM
Drawn: AMY
Check: JPM

SHEET NUMBER
EC-02

N:\Projects\W0242.22004-FANWA Bar-X Pipeline\Z_Phase 2\06_CAD\Working\SEC\W0242_BarX_P2_Erosion Control\Cover.dwg 2024/09/27 2:44 PM By: Troy Montague

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The community map repository should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where Base Flood Elevations (BFEs) and/or floodways have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the floodways were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by flood control structures. Refer to section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The projection used in the preparation of this map was Universal Transverse Mercator (UTM) zone 13. The horizontal datum was NAD83, GRS80 spheroid. Differences in datum, spheroid, projection or UTM zones zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988 (NAVD88). These flood elevations must be compared to structures and ground elevations referenced to the same vertical datum. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at <http://www.ngs.noaa.gov> or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA/NINGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, MD 20910-3282

To obtain current elevation, description, and/or location information for bench marks shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 713-3242 or visit its website at <http://www.ngs.noaa.gov>.

Base Map information shown on this FIRM was provided in digital format by El Paso County, Colorado Springs Utilities, and Anderson Consulting Engineers, Inc. These data are current as of 2005.

This map reflects more detailed and up-to-date stream channel configurations and floodplain delineations than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study Report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map. The profile baselines depicted on this map represent the hydraulic modeling baselines that match the flood profiles and Floodway Data Tables if applicable. As a result, the profile baselines may deviate significantly from the new base map channel representation and may appear outside of the floodplain.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

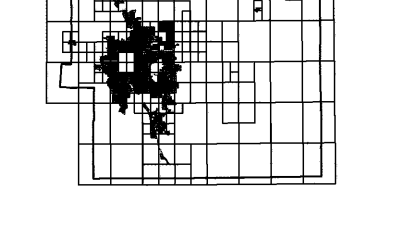
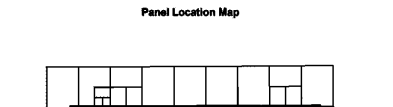
Please refer to the separately printed Map Index for an overview map of the county showing the layout of map panels, community map repository addresses, and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

Contact FEMA Map Service Center (MSC) via the FEMA Map Information eXchange (FMIX) 1-877-338-2627 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. The MSC may also be reached by Fax at 1-800-358-9620 and its website at <http://www.msc.fema.gov>.

If you have questions about this map or questions concerning the National Flood Insurance Program in general, please call 1-877-FEMA MAP (1-877-338-2627) or visit the FEMA website at <http://www.fema.gov/business/nfp>.

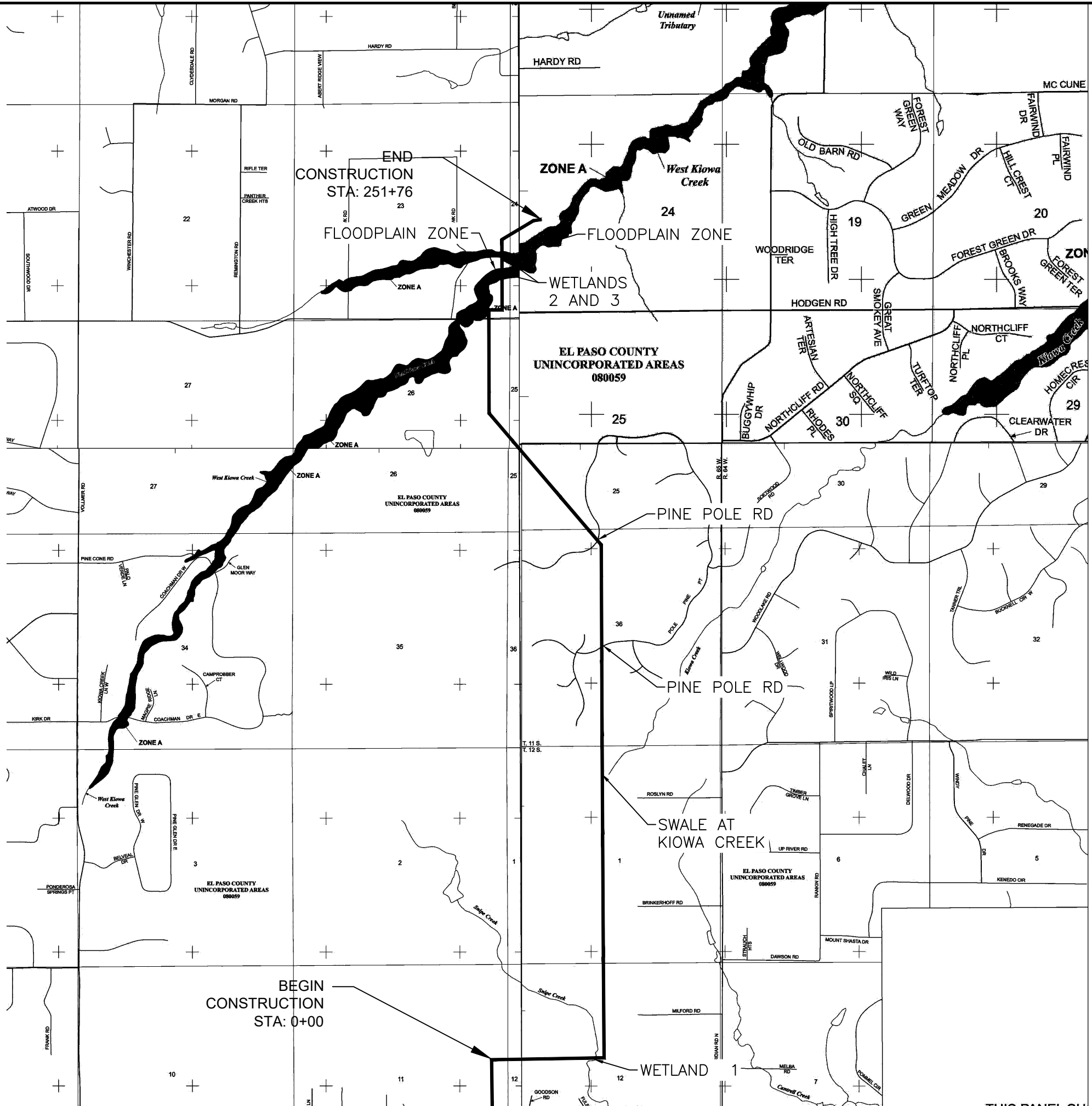
El Paso County Vertical Datum Offset Table

Flooding Source	Vertical Datum Offset (ft)
REFER TO SECTION 3.3 OF THE EL PASO COUNTY FLOOD INSURANCE STUDY FOR STREAM BY STREAM VERTICAL DATUM CONVERSION INFORMATION	



This Digital Flood Insurance Rate Map (DFIRM) was produced through a Cooperating Technical Partner (CTP) agreement between the State of Colorado Water Conservation Board (CWCB) and the Federal Emergency Management Agency (FEMA).

Additional Flood Hazard information and resources are available from local communities and the Colorado Water Conservation Board.



LEGEND

- SPECIAL FLOOD HAZARD AREAS (SPECIAL) SUBJECT TO REGULATION BY THE 1% ANNUAL CHANCE FLOOD
- 1% ANNUAL CHANCE FLOOD (1% ACF) - The 1% annual chance flood (100-year flood) is shown as the area between the 1% ACF and the 0.2% ACF. The 1% ACF is shown as a solid line and the 0.2% ACF is shown as a dashed line.
- 0.2% ANNUAL CHANCE FLOOD (0.2% ACF) - The 0.2% annual chance flood (500-year flood) is shown as a solid line.
- OTHER FLOOD AREAS
- OTHER AREAS
- CONTRACT BARRIERS RESOURCES SYSTEM (CBRS) AREAS
- OTHERWISE PROTECTED AREAS (OPA)

Scale: 1" = 1000'

MAP NUMBER: 0804103030
MAP REVISED: DECEMBER 7, 2018
Federal Emergency Management Agency

FIRM
FLOOD INSURANCE RATE MAP
EL PASO COUNTY,
COLORADO
AND INCORPORATED AREAS

PANEL 0636Q
PANEL 636 OF 1300
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

DATE: 09/26/24
MAP NUMBER: 0804103030
MAP REVISED: DECEMBER 7, 2018
Federal Emergency Management Agency

Colorado Springs, CO
5540 Tech Center Dr., Suite 100
Colorado Springs, CO 80919
Phone: 719.227.0072
www.respic.com

FALCON AREA WATER AND WASTEWATER AUTHORITY
BAR-X PIPELINE SEGMENT A2 EROSION CONTROL
FEMA FLOODPLAIN MAP

NO.	REVISIONS	DESCRIPTION	BY	APP.	DATE
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FOR REVIEW

Proj.#: W0242.22004
Date: 09/26/24
Design: JPM
Drawn: AMY
Check: JPM

SHEET NUMBER
EC-03

N:\Projects\W0242.22004-FAAWA Bar-X Pipeline\Z_Phase 2\06_CAD\Working\GEC\W0242_BarX_Ph2_GEC.dwg
 2024/09/27 2:46 PM By: Troy Montague

NOTE:
ALL DISTURBED
AREAS THAT ARE NOT
IMPERVIOUS MUST BE
RESEEDED.

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FALCON AREA WATER AND WASTEWATER AUTHORITY
BAR-X PIPELINE SEGMENT A2 EROSION CONTROL
 EROSION CONTROL

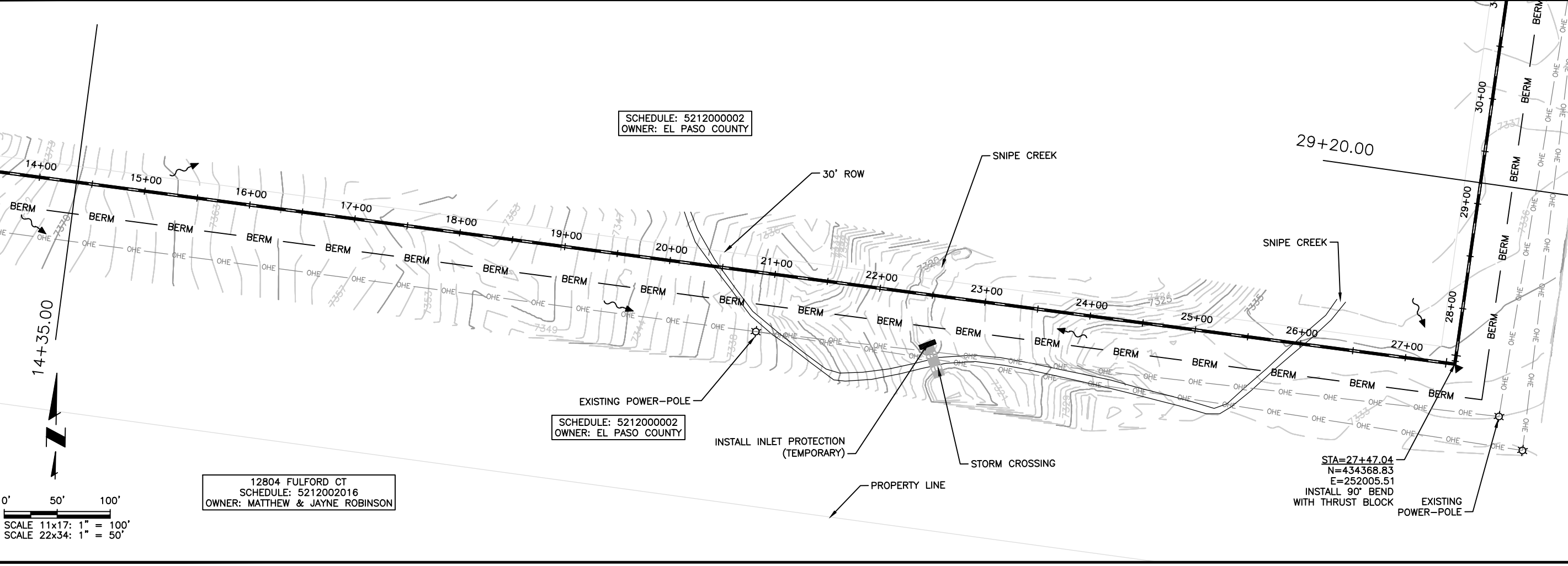
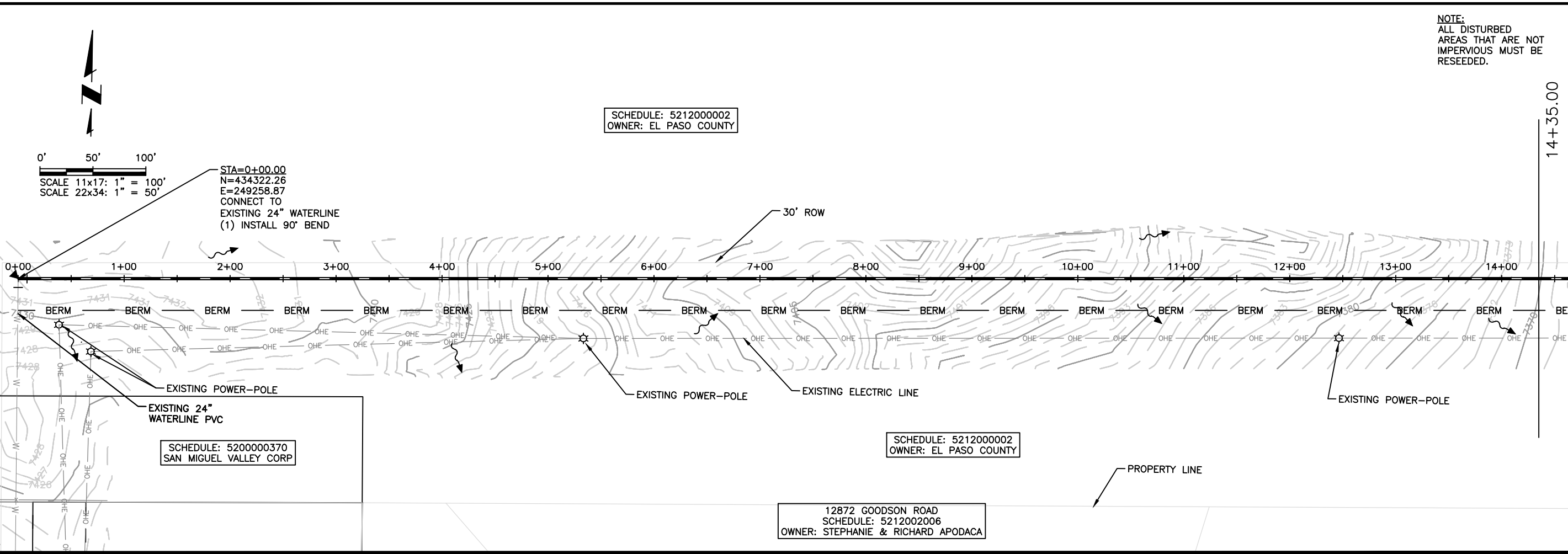
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FOR REVIEW

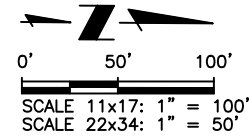


Proj.#: W0242.22004
Date: 09/26/24
Design: JPM
Drawn: AMY
Check: JPM

SHEET NUMBER
EC-04



2024/09/27 2:47 PM By: Troy Montague
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 IF BAR DOES NOT MEASURE ONE INCH SCALE OF THE DRAWING HAS BEEN ALTERED



SCHEDULE: 521200002
OWNER: EL PASO COUNTY

NOTE:
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AREAS THAT ARE NOT
IMPERVIOUS MUST BE
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FALCON AREA WATER AND WASTEWATER AUTHORITY
 BAR-X PIPELINE SEGMENT A2 EROSION CONTROL
 EROSION CONTROL

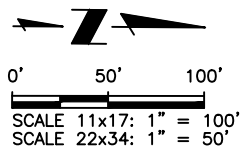
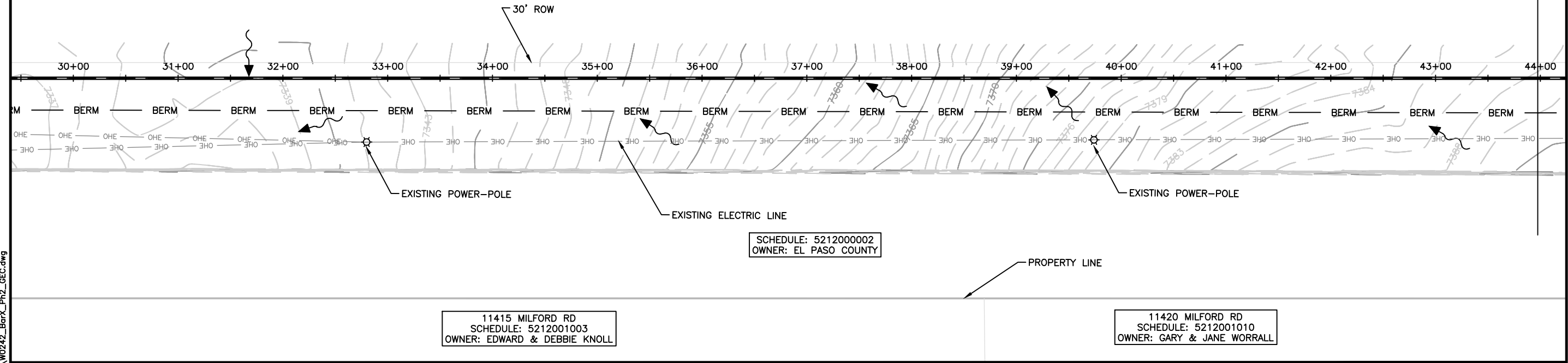
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FOR REVIEW

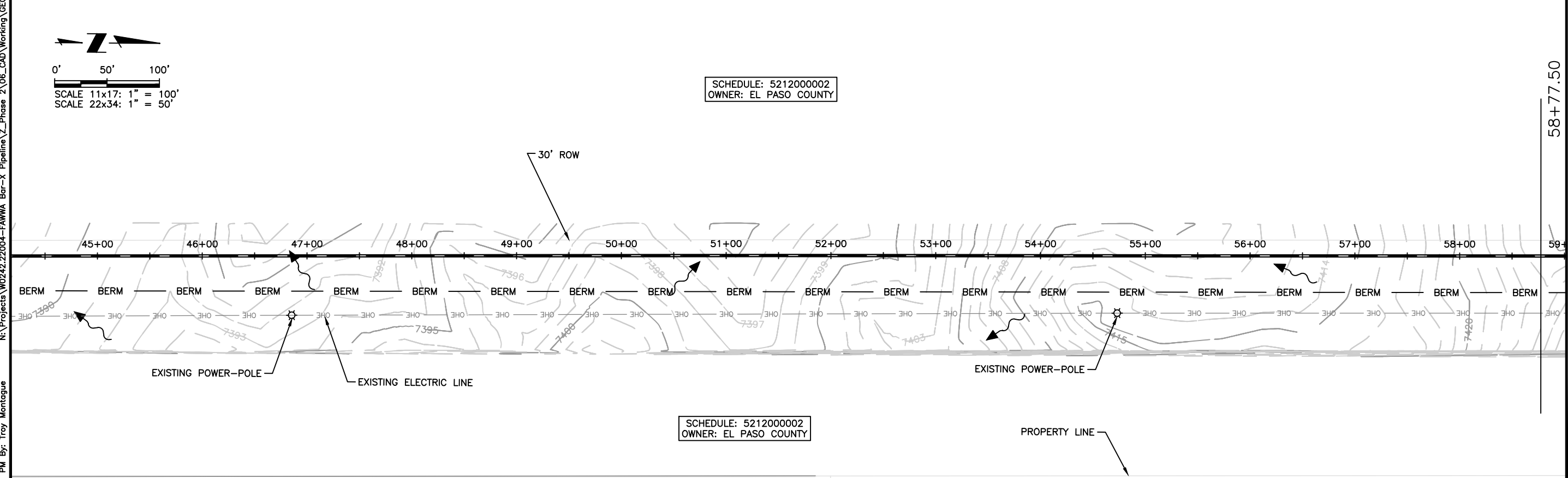


Proj.#: W0242.22004
 Date: 09/26/24
 Design: JPM
 Drawn: AMY
 Check: JPM

SHEET NUMBER
EC-05



SCHEDULE: 521200002
OWNER: EL PASO COUNTY

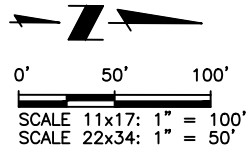


SCHEDULE: 521200002
OWNER: EL PASO COUNTY

11430 MILFORD RD
 SCHEDULE: 5212001009
 OWNER: BRANDSMA LIVING TRUST

11455 BRINKERHOFF RD
 SCHEDULE: 5201001013
 OWNER: WSB PROPRTY LLC

N:\Projects\W0242.22004-FAWA Bar-X Pipeline\Z_Phase 2\06_CAD\Working\GEC\W0242_BarX_Pln2_GEC.dwg 2024/09/27 2:48 PM By: Troy Montague



NOTE:
ALL DISTURBED
AREAS THAT ARE NOT
IMPERVIOUS MUST BE
RESEEDED.

SCHEDULE: 5201000001
OWNER: EL PASO COUNTY

SCHEDULE: 5201000001
OWNER: EL PASO COUNTY

11455 BRINKERHOFF RD
SCHEDULE: 5201001013
OWNER: WSB PROPRTY LLC

11450 BRINKERHOFF RD
SCHEDULE: 5201001012
OWNER: JAMES & DOROTHY HUMESTON

SCHEDULE: 5201000001
OWNER: EL PASO COUNTY

SCHEDULE: 5212000002
OWNER: EL PASO COUNTY

11450 BRINKERHOFF RD
SCHEDULE: 5201001012
OWNER: JAMES & DOROTHY HUMESTON

11435 ROSLYN RD
SCHEDULE: 5201001005
OWNER: PATTY OLNEY

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Colorado Springs, CO 80919
Phone: 719.227.0072
www.rspspec.com



FALCON AREA WATER AND WASTEWATER AUTHORITY
BAR-X PIPELINE SEGMENT A2 EROSION CONTROL
EROSION CONTROL

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Date: 09/26/24
Design: JPM
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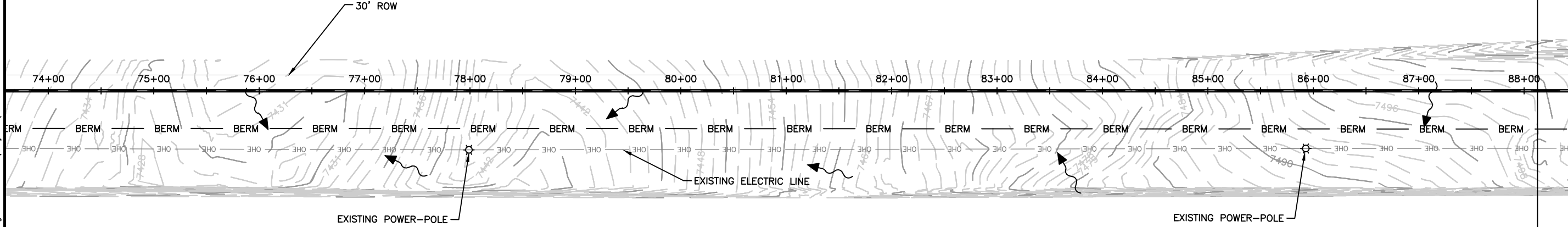
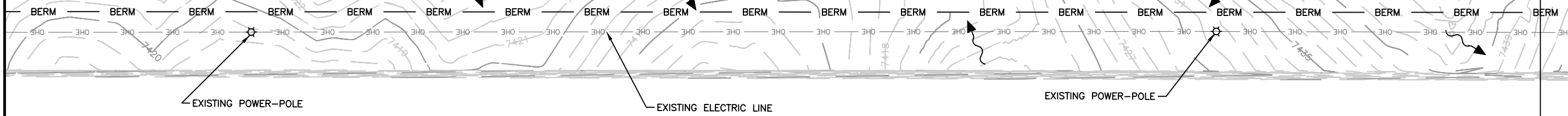
SHEET NUMBER
EC-06

73+57.50

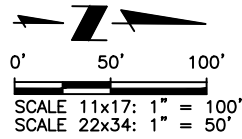
88+12.76

60+00 61+00 62+00 63+00 64+00 65+00 66+00 67+00 68+00 69+00 70+00 71+00 72+00 73+00

74+00 75+00 76+00 77+00 78+00 79+00 80+00 81+00 82+00 83+00 84+00 85+00 86+00 87+00 88+00



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2024/09/27 2:49 PM By: Troy Montague



NOTE:
ALL DISTURBED
AREAS THAT ARE NOT
IMPERVIOUS MUST BE
RESEEDED.

SCHEDULE: 5201000001
OWNER: EL PASO COUNTY

SCHEDULE: 5201000001
OWNER: EL PASO COUNTY

11435 ROSLYN RD
SCHEDULE: 5201001005
OWNER: PATTY OLNEY

11430 ROSLYN RD
SCHEDULE: 5201001004
OWNER: SANDRA POLSON

TRACT L
SCHEDULE: 5136301037
OWNER: BLACK FOREST RESERVE

SCHEDULE: 5136401038
OWNER: SAN MIGUEL VALLEY CORPORATION

14873 SNOWY PINE PT
SCHEDULE: 5136301026
OWNER: TOMMY & KAREN DISARIO

14893 SNOWY PINE PT
SCHEDULE: 5136301025
OWNER: SAN MIGUEL VALLEY CORPORATION

14913 SNOWY PINE PT
SCHEDULE: 5136301024
OWNER: TIMOTHY & MARLINDE KECK

TRACT L
SCHEDULE: 5136301037
OWNER: BLACK FOREST RESERVE

SCHEDULE: 5136401038
OWNER: SAN MIGUEL VALLEY CORPORATION

SCHEDULE: 5136401038
OWNER: SAN MIGUEL VALLEY CORPORATION

11305 LAFORET PT
SCHEDULE: 5136401009
OWNER: MICHAEL CIESNOLEVICZ

FALCON AREA WATER AND WASTEWATER AUTHORITY
BAR-X PIPELINE SEGMENT A2 EROSION CONTROL
EROSION CONTROL

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Colorado Springs, CO 80919
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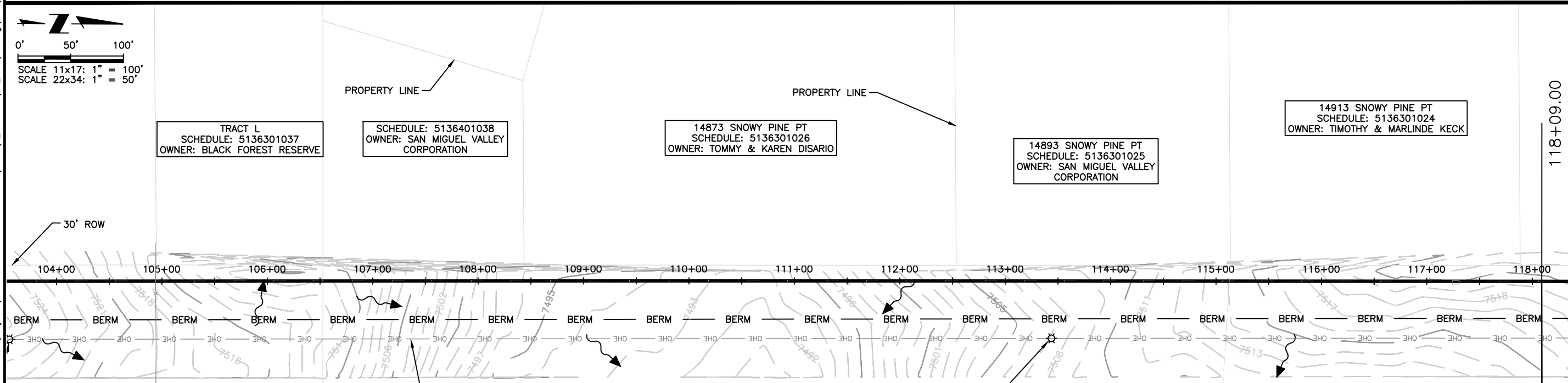
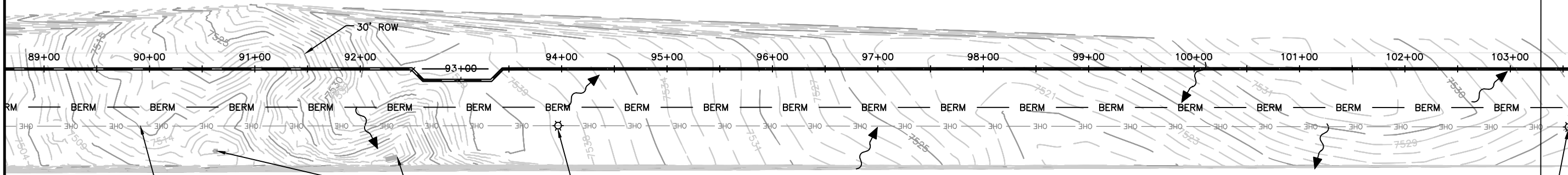
FOR REVIEW

Proj.#: W0242.22004
Date: 09/26/24
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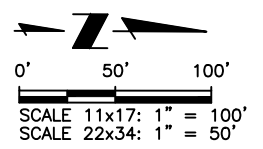
SHEET NUMBER
EC-07

103+29.00

118+09.00



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14933 SNOWY PINE PT
 SCHEDULE: 5136301017
 OWNER: SAN MIGUEL VALLEY CORPORATION

14973 SNOWY PINE PT
 SCHEDULE: 5136301015
 OWNER: DEREK & COURTNEY MILLER

15185 POLE PINE PT
 SCHEDULE: 5136301004
 OWNER: SAN MIGUEL VALLEY CORPORATION

15033 SNOWY POINT PT
 SCHEDULE: 5136301003
 OWNER: ALLEN WOJCIAK

NOTE:
 ALL DISTURBED
 AREAS THAT ARE NOT
 IMPERVIOUS MUST BE
 RESEEDDED.

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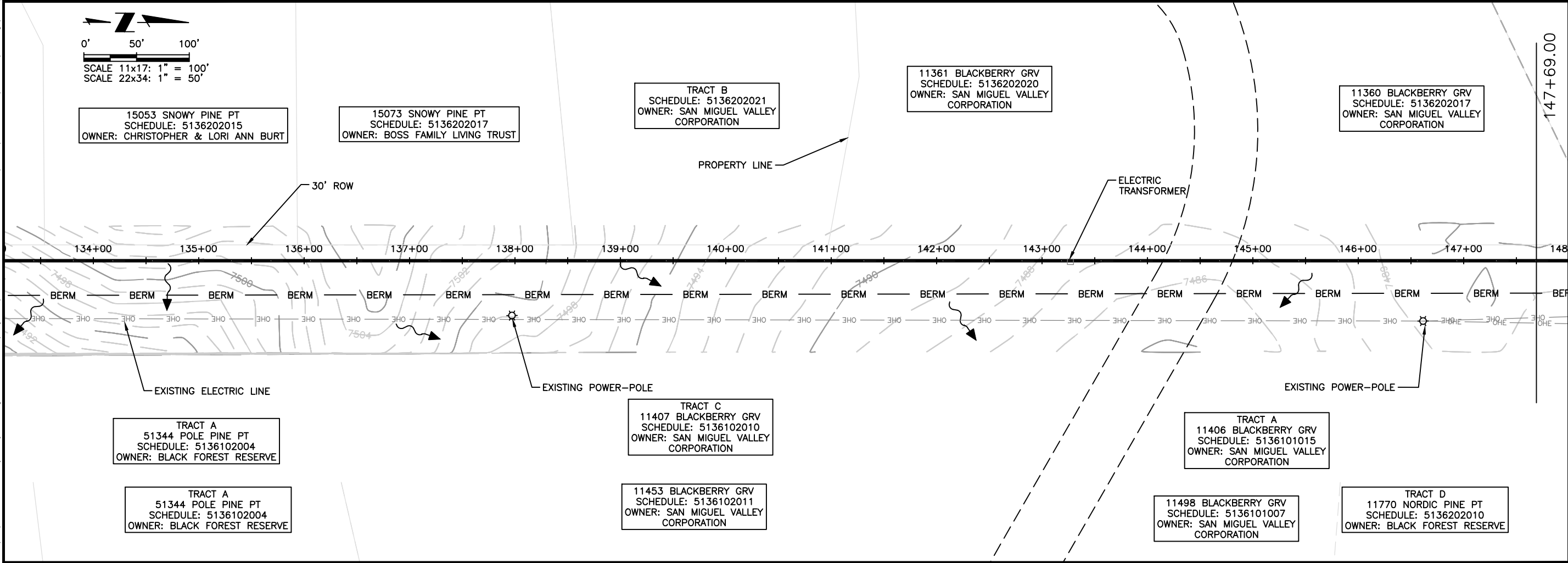
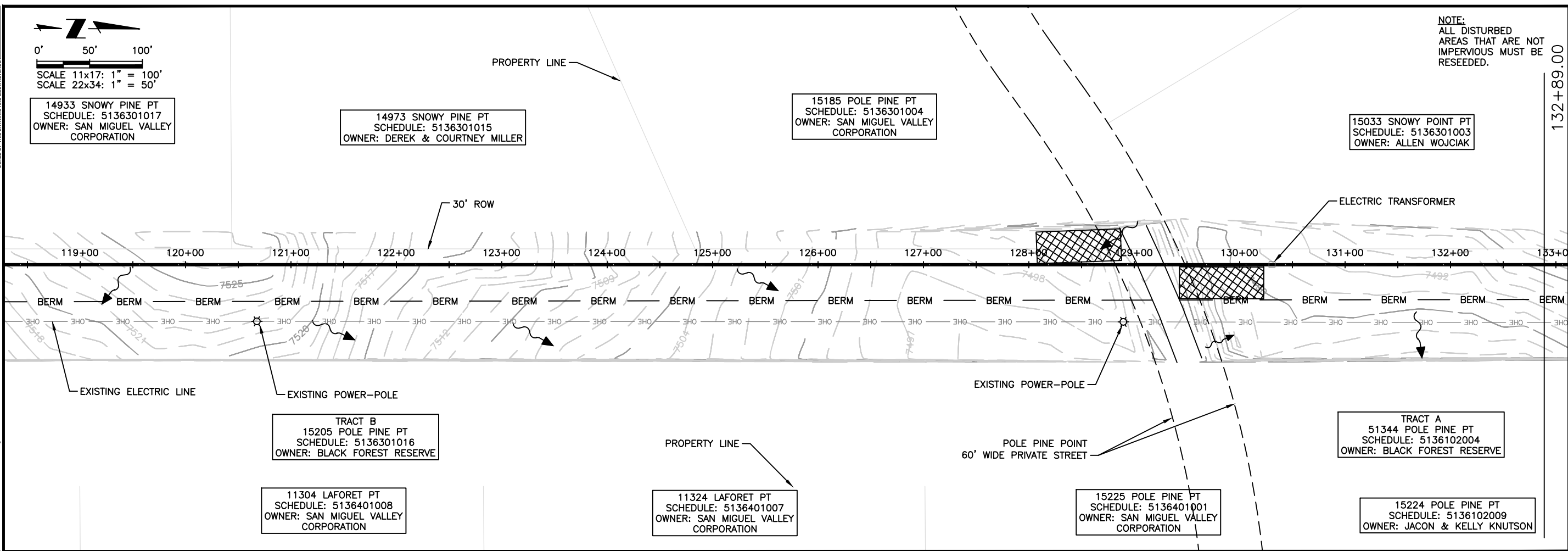
FALCON AREA WATER AND WASTEWATER AUTHORITY
BAR-X PIPELINE SEGMENT A2 EROSION CONTROL
EROSION CONTROL

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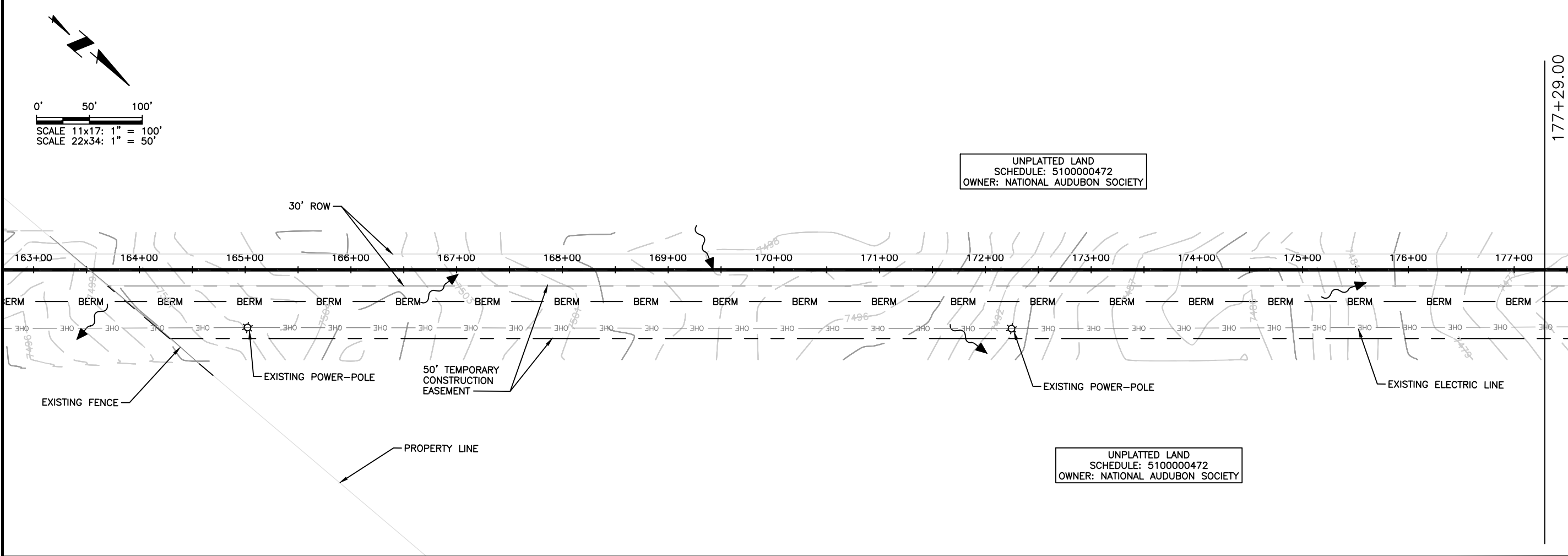
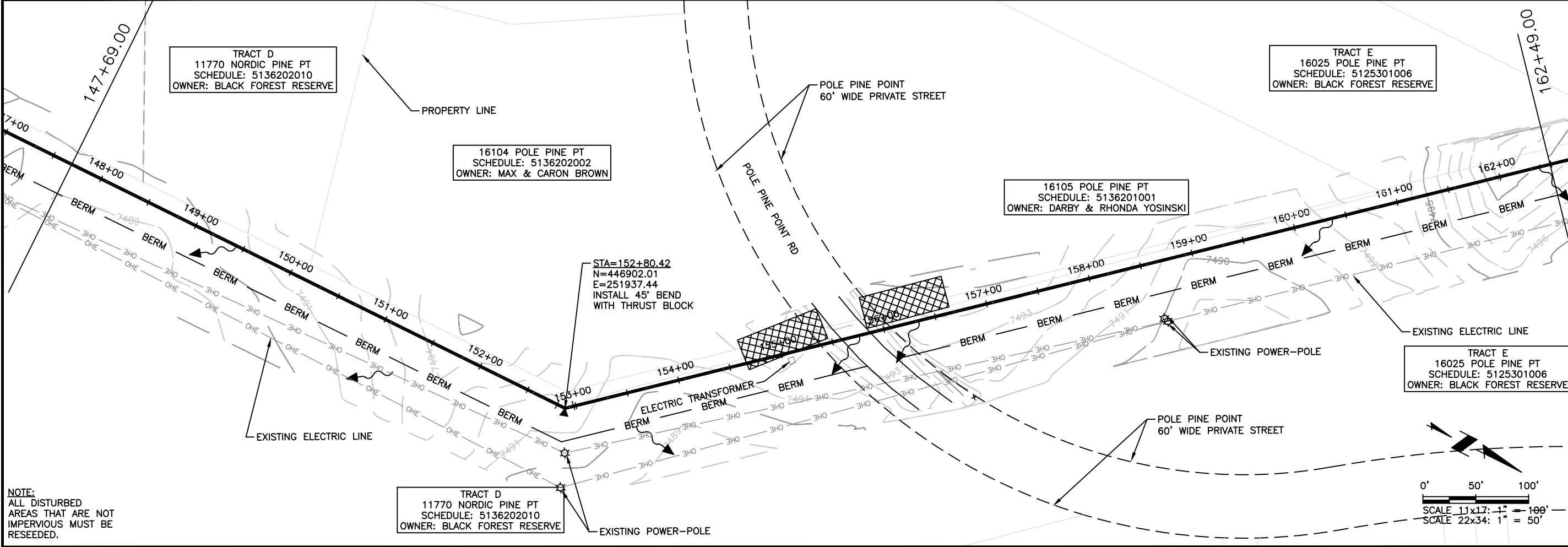
FOR REVIEW

Proj.#: W0242.22004
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SHEET NUMBER
EC-08



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 IF BAR DOES NOT MEASURE ONE INCH SCALE OF THIS DRAWING IS METRIC (FEET)



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FALCON AREA WATER AND WASTEWATER AUTHORITY
 BAR-X PIPELINE SEGMENT A2 EROSION CONTROL
 EROSION CONTROL

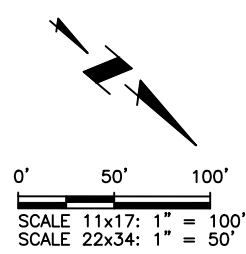
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FOR REVIEW

Proj.#: W0242.22004
 Date: 09/26/24
 Design: JPM
 Drawn: AMY
 Check: JPM

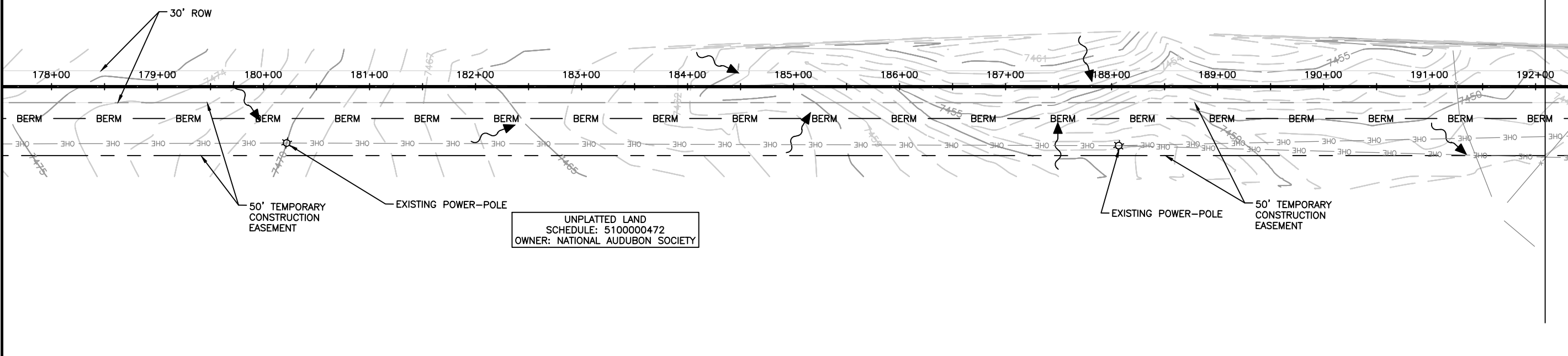
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SCALE 11x17: 1" = 100'
SCALE 22x34: 1" = 50'

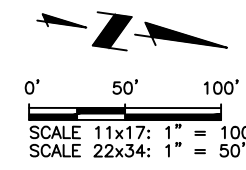
UNPLATTED LAND
SCHEDULE: 5100000472
OWNER: NATIONAL AUDUBON SOCIETY



NOTE:
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AREAS THAT ARE NOT
IMPERVIOUS MUST BE
RESEEDDED.

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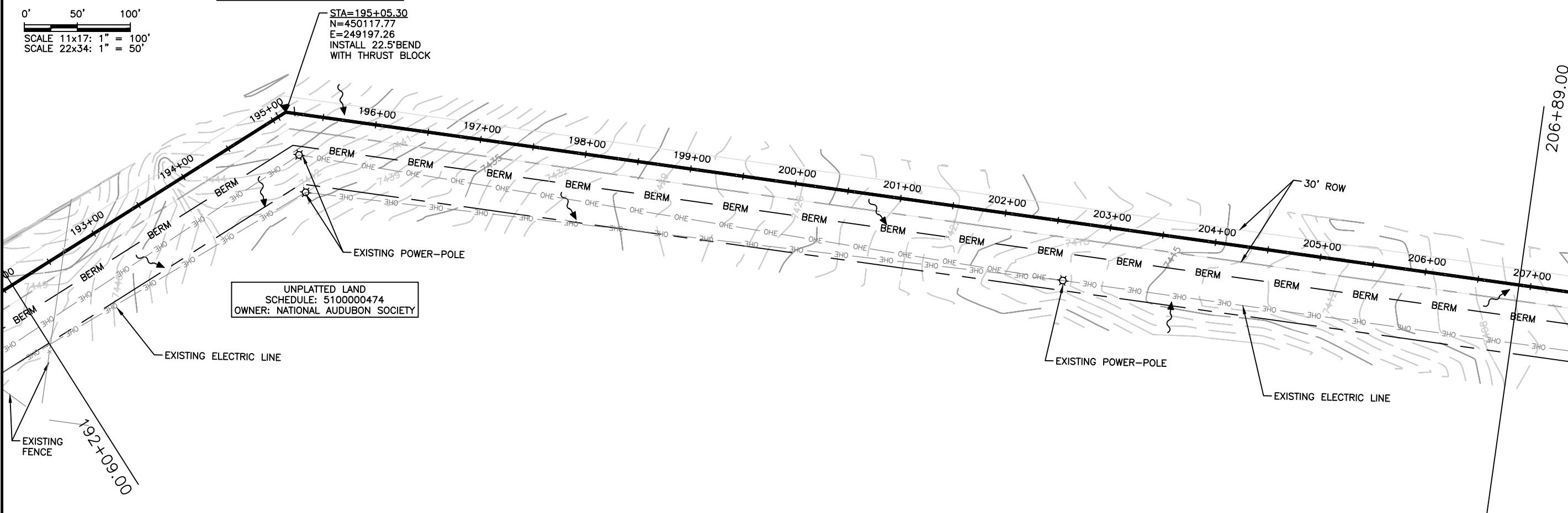
FALCON AREA WATER AND WASTEWATER AUTHORITY
BAR-X PIPELINE SEGMENT A2 EROSION CONTROL
EROSION CONTROL



SCALE 11x17: 1" = 100'
SCALE 22x34: 1" = 50'

UNPLATTED LAND
SCHEDULE: 5100000474
OWNER: NATIONAL AUDUBON SOCIETY

STA=195+05.30
N=450117.77
E=249197.26
INSTALL 22.5° BEND
WITH THRUST BLOCK



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FOR REVIEW

Proj.#: W0242.22004
Date: 09/26/24
Design: JPM
Drawn: AMY
Check: JPM

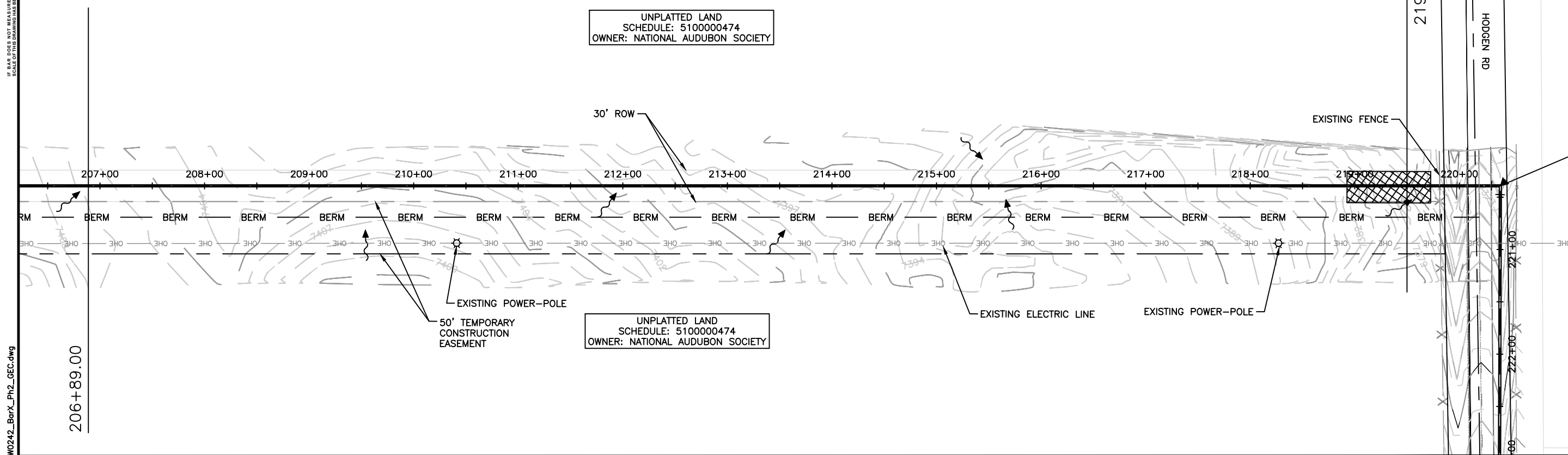
SHEET NUMBER
EC-10

IF BARS DO NOT MEASURE ONE INCH, SCALE OF THIS DRAWING IS 1"=50'

0' 50' 100'

SCALE 11x17: 1" = 100'

SCALE 22x34: 1" = 50'

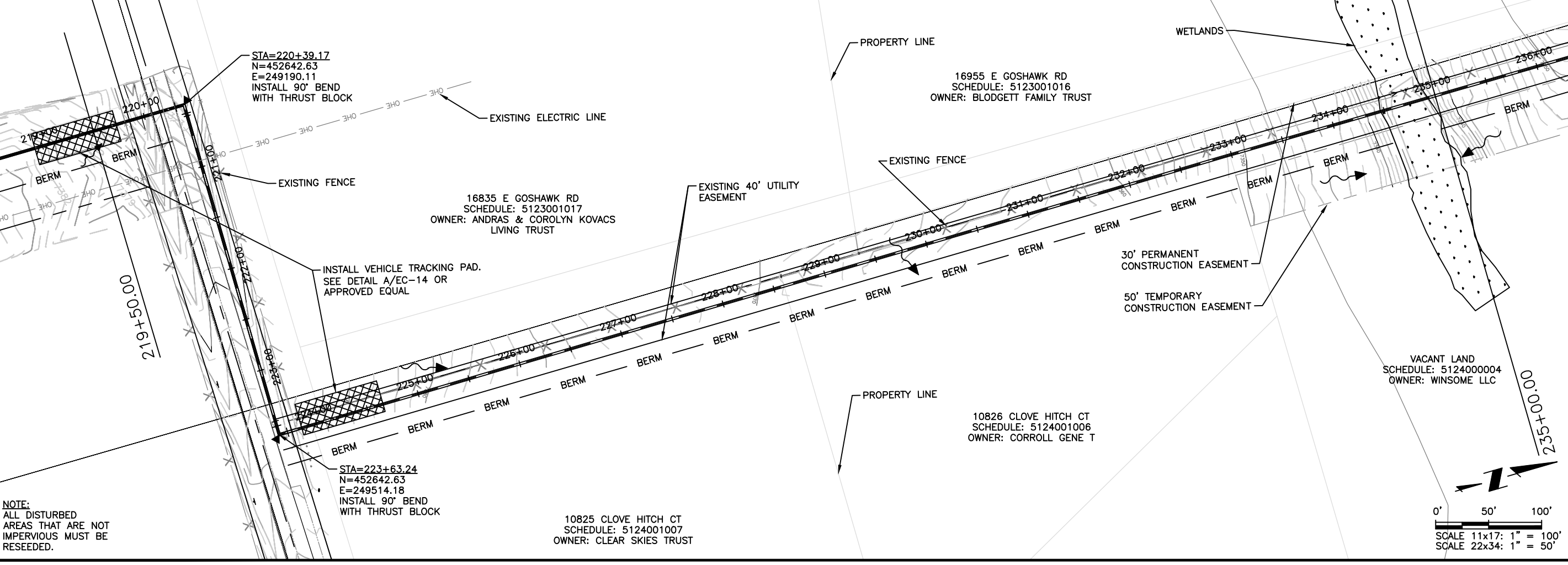


NOTE:
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AREAS THAT ARE NOT
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FALCON AREA WATER AND WASTEWATER AUTHORITY
BAR-X PIPELINE SEGMENT A2 EROSION CONTROL
EROSION CONTROL

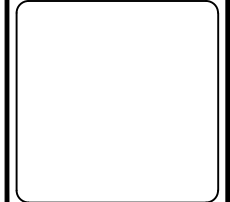
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NOTE:
ALL DISTURBED
AREAS THAT ARE NOT
IMPERVIOUS MUST BE
RESEDED.

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FOR REVIEW



Proj.#: W0242.22004
Date: 09/26/24
Design: JPM
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Check: JPM

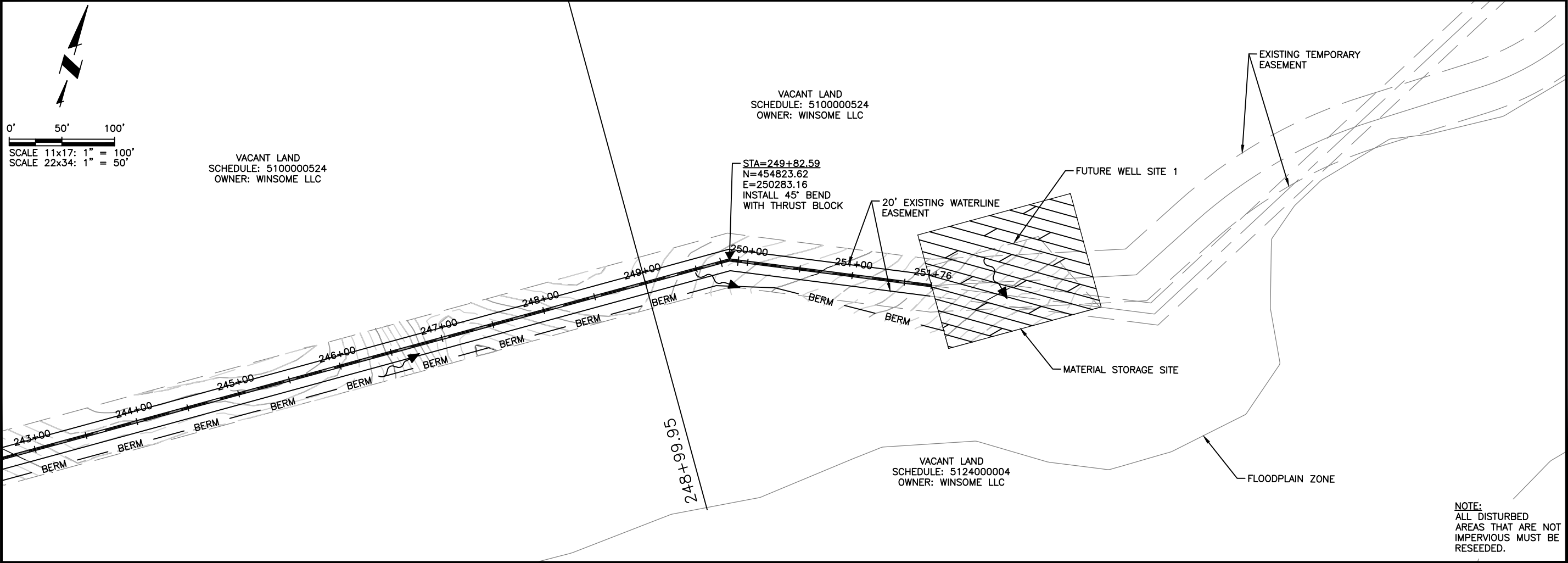
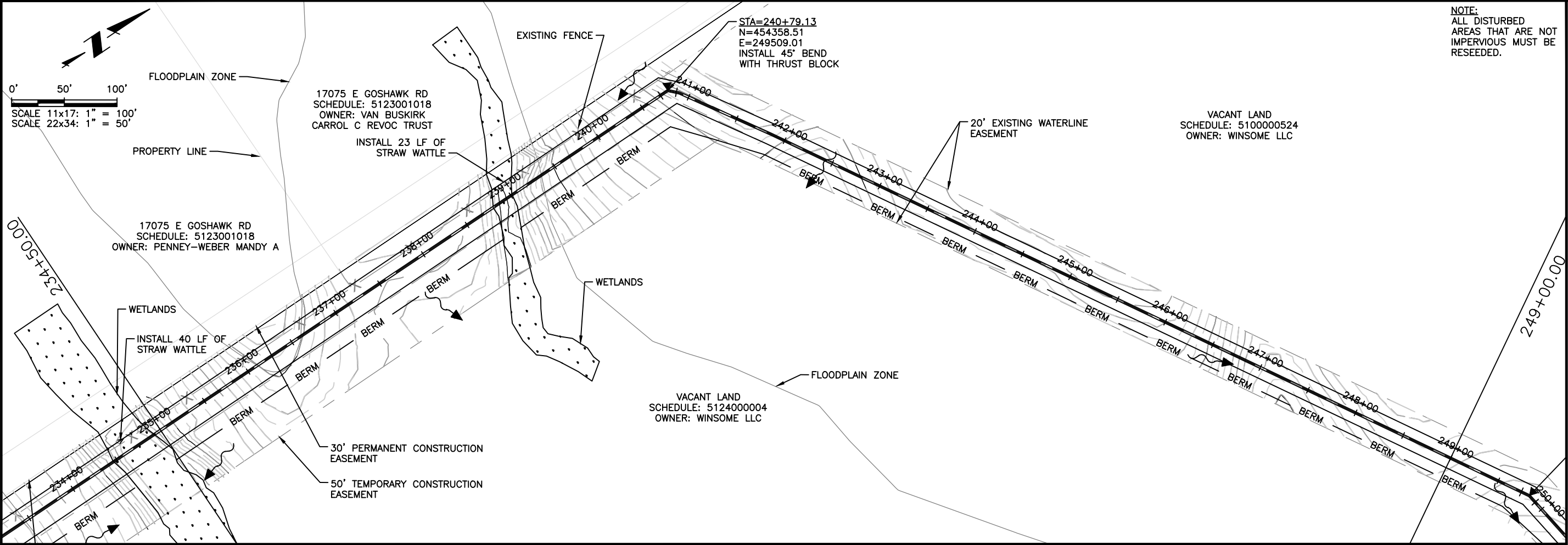
0' 50' 100'

SCALE 11x17: 1" = 100'

SCALE 22x34: 1" = 50'

SHEET NUMBER
EC-11

2024/09/27 2:52 PM By: Troy Montague N:\Projects\W0242.22004-FAWMA Bar-X Pipeline\Z_Phase 2\06_CAD\Working\GEC\W0242_Bar-X_Ph2_GEC.dwg



NOTE:
ALL DISTURBED AREAS THAT ARE NOT IMPERVIOUS MUST BE RESEDED.

NOTE:
ALL DISTURBED AREAS THAT ARE NOT IMPERVIOUS MUST BE RESEDED.

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FALCON AREA WATER AND WASTEWATER AUTHORITY
BAR-X PIPELINE SEGMENT A2 EROSION CONTROL
EROSION CONTROL

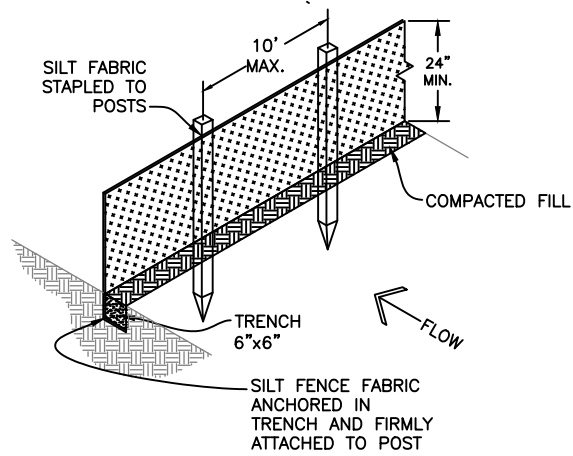
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FOR REVIEW

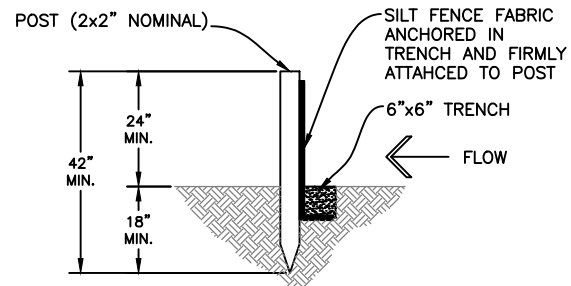
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Date: 09/26/24
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SHEET NUMBER
EC-12

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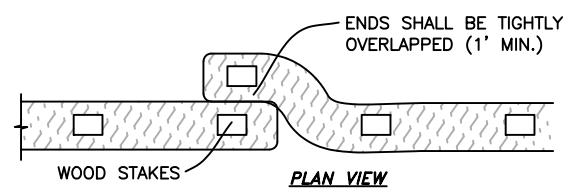


- INSTALLATION REQUIREMENTS:**
- SILT FENCES SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.
 - WHEN JOINTS ARE NECESSARY, SILT FENCE GEOTEXTILE SHALL BE SPICED TOGETHER ONLY AT SUPPORT POST AND SECURELY SEALED.
 - METAL POSTS SHALL BE "STUDDED TEE" OR "U" TYPE WITH MINIMUM WEIGHT OF 1.33 POUNDS PER LINEAR FOOT. WOOD POSTS SHALL HAVE A MINIMUM DIAMETER OR CROSS SECTION DIMENSION OF 2 INCHES.
 - THE FILTER MATERIAL SHALL BE FASTENED SECURELY TO METAL OR WOOD POSTS USING WIRE TIES, OR TO WOOD POSTS WITH 3/4" LONG #9 HEAVY-DUTY STAPLES. THE SILT FENCE GEOTEXTILE SHALL NOT BE STAPLED TO EXISTING TREES.
 - WHILE NOT REQUIRED, WIRE MESH FENCE MAY BE USED TO SUPPORT THE GEOTEXTILE. WIRE FENCE SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY-DUTY WIRE STAPLES AT LEAST 3/4" LONG, TIE WIRES OR HOG RINGS. THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF 6" AND SHALL NOT EXTEND MORE THAN 3" ABOVE THE ORIGINAL GROUND SURFACE.
 - ALONG THE TOE OF FILLS, INSTALL THE SILT FENCE ALONG A LEVEL CONTOUR AND PROVIDE AN AREA BEHIND THE FENCE FOR RUNOFF TO POND AND SEDIMENT TO SETTLE. A MINIMUM DISTANCE OF 5 FEET FROM THE TOE OF THE FILL IS RECOMMENDED.
 - THE HEIGHT OF THE SILT FENCE FROM THE GROUND SURFACE SHALL BE MINIMUM OF 24 INCHES AND SHALL NOT EXCEED 36 INCHES; HIGHER FENCES MAY IMPOUND VOLUMES OF WATER SUFFICIENT TO CAUSE FAILURE OF THE STRUCTURE.

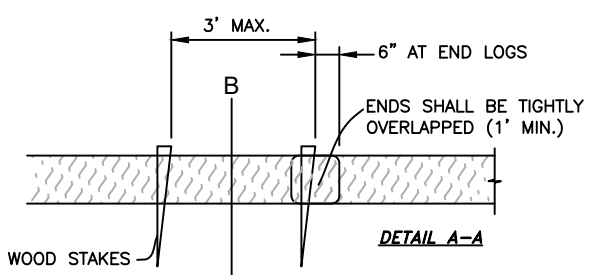


- MAINTENANCE REQUIREMENTS:**
- CONTRACTOR SHALL INSPECT SILT FENCES IMMEDIATELY AFTER EACH RAINFALL, AT LEAST DAILY DURING PROLONGED RAINFALL, AND WEEKLY DURING PERIODS OF NO RAINFALL. DAMAGED, COLLAPSED, UNENTRENCHED OR INEFFECTIVE SILT FENCES SHALL BE PROMPTLY REPAIRED OR REPLACED.
 - SEDIMENT SHALL BE REMOVED FROM BEHIND SILT FENCE WHEN IT ACCUMULATES TO HALF THE EXPOSED GEOTEXTILE HEIGHT.
 - SILT FENCES SHALL BE REMOVED WHEN ADEQUATE VEGETATIVE COVER IS ATTAINED.

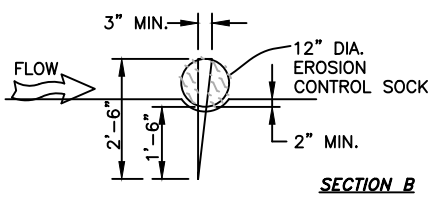
A SILT FENCE DETAIL
EC-13 SCALE: N.T.S.



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

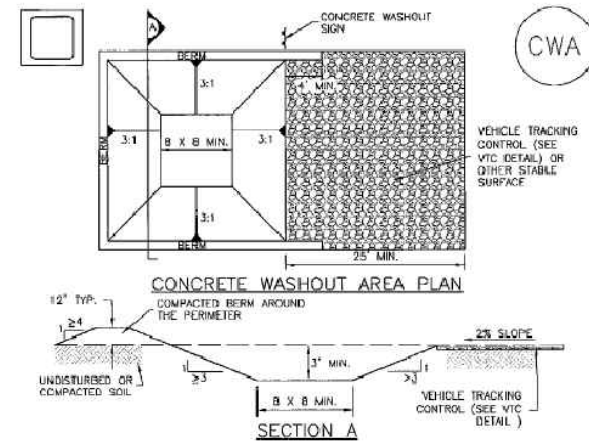


- EROSION CONTROL SOCK MAINTENANCE NOTES**
- CONTRACTOR SHALL INSPECT EROSION CONTROL SOCKS DAILY, DURING AND AFTER ANY STORM EVENT AND MAKE REPAIRS OR CLEAN OUT UPSTREAM SEDIMENT AS NECESSARY.
 - SEDIMENT ACCUMULATED UPSTREAM OF EROSION CONTROL SOCKS SHALL BE REMOVED WHEN THE UPSTREAM SEDIMENT DEPTH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



B EROSION CONTROL SOCK
EC-13 SCALE: N.T.S.

Concrete Washout Area (CWA) MM-1



- CWA-1. CONCRETE WASHOUT AREA**
- CWA INSTALLATION NOTES**
- SEE PLAN VIEW FOR: -CWA INSTALLATION LOCATION.
 - DO NOT LOCATE AN UNLINED CWA WITHIN 400' OF ANY NATURAL DRAINAGE PATHWAY OR WATERBODY. DO NOT LOCATE WITHIN 1,000' OF ANY WELLS OR DRINKING WATER SOURCES. IF SITE CONSTRAINTS MAKE THIS INFEASIBLE, OR IF HIGHLY PERMEABLE SOILS EXIST ON SITE, THE CWA MUST BE INSTALLED WITH AN IMPERMEABLE LINER (16 MIL MIN. THICKNESS) OR SURFACE STORAGE ALTERNATIVES USING PREFABRICATED CONCRETE WASHOUT DEVICES OR A LINED ABOVE GROUND STORAGE ARE SHOULD BE USED.
 - THE CWA SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE.
 - CWA SHALL INCLUDE A FLAT SUBSURFACE PIT THAT IS AT LEAST 8' BY 8' SLOPES LEADING OUT OF THE SUBSURFACE PIT SHALL BE 3:1 OR FLATTER. THE PIT SHALL BE AT LEAST 3' DEEP.
 - BERM SURROUNDING SIDES AND BACK OF THE CWA SHALL HAVE MINIMUM HEIGHT OF 1'.
 - VEHICLE TRACKING PAD SHALL BE SLOPED 2% TOWARDS THE CWA.
 - SIGNS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE CWA, AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CWA TO OPERATORS OF CONCRETE TRUCKS AND PUMP RIGS.
 - USE EXCAVATED MATERIAL FOR PERIMETER BERM CONSTRUCTION.

November 2010 Urban Drainage and Flood Control District
Urban Storm Drainage Criteria Manual Volume 3 CWA-3

MM-1 Concrete Washout Area (CWA)

- CWA MAINTENANCE NOTES**
- 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.
 - FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
 - WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
 - THE CWA SHALL BE REPAIRED, CLEANED, OR ENLARGED AS NECESSARY TO MAINTAIN CAPACITY FOR CONCRETE WASTE. CONCRETE MATERIALS, ACCUMULATED IN PIT, SHALL BE REMOVED ONCE THE MATERIALS HAVE REACHED A DEPTH OF 2'.
 - CONCRETE WASHOUT WATER, WASTED PIECES OF CONCRETE AND ALL OTHER DEBRIS IN THE SUBSURFACE PIT SHALL BE TRANSPORTED FROM THE JOB-SITE IN A WATER-TIGHT CONTAINER AND DISPOSED OF PROPERLY.
 - THE CWA SHALL REMAIN IN PLACE UNTIL ALL CONCRETE FOR THE PROJECT IS PLACED.
 - WHEN THE CWA IS REMOVED, COVER THE DISTURBED AREA WITH TOP SOIL, SEED AND MULCH OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.
- (DETAIL ADAPTED FROM DOUGLAS COUNTY, COLORADO AND THE CITY OF PARKER, COLORADO, NOT AVAILABLE IN AUTOCAD)
NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM USFCO STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

C CONCRETE WASHOUT
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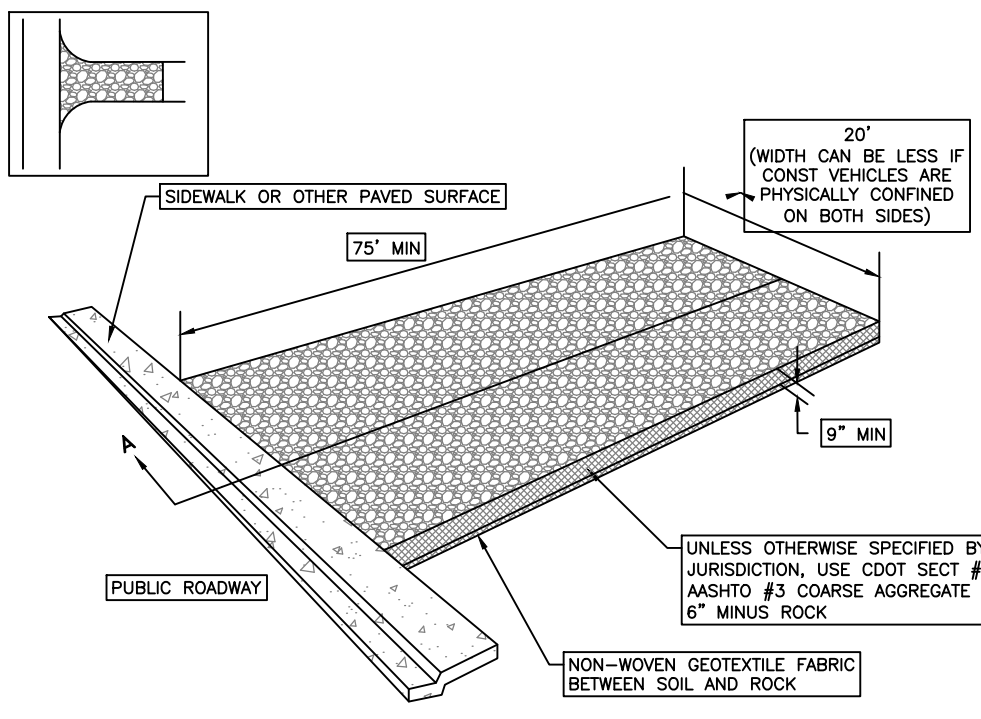
FALCON AREA WATER AND WASTEWATER AUTHORITY
 BAR-X PIPELINE SEGMENT A2 EROSION CONTROL
 EROSION CONTROL DETAILS 1

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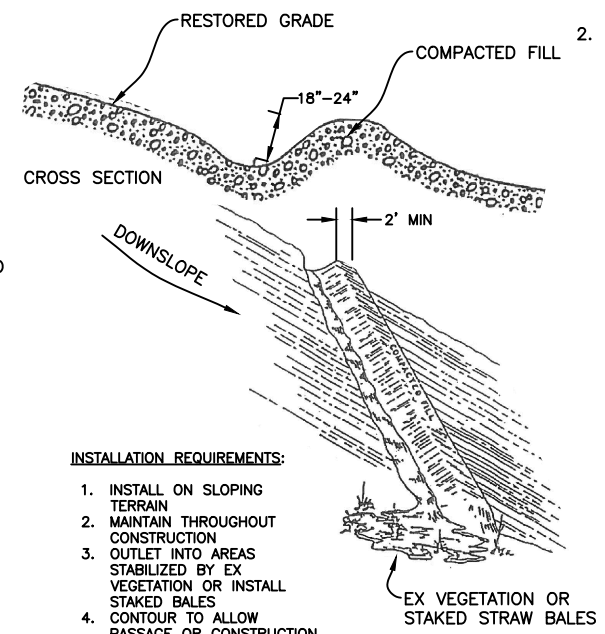
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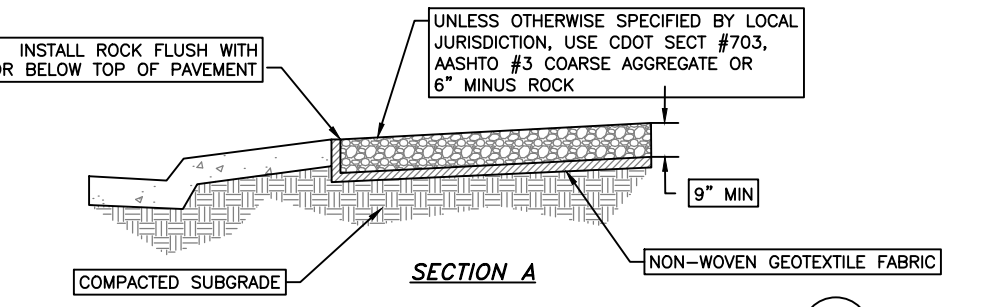
- STABILIZED CONSTRUCTION ENTRANCE/EXIT INSTALLATION NOTES:**
1. SEE PLAN VIEW FOR LOCATION OF CONSTRUCTION ENTRANCE(S)/EXIT(S).
 2. A STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE LOCATED AT ALL ACCESS POINTS WHERE VEHICLES ACCESS THE CONSTRUCTION SITE FROM PAVED RIGHTS-OF-WAY.
 3. STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE INSTALLED PRIOR TO ANY LAND-DISTURBING ACTIVITIES.
 4. A NON-WOVEN GEOTEXTILE FABRIC SHALL BE PLACED UNDER THE STABILIZED CONSTRUCTION ENTRANCE/EXIT PRIOR TO THE PLACEMENT OF ROCK.
 5. UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF DOT SECT #703, AASHTO #3 COARSE AGGREGATE OR 6" (MINUS) ROCK.

- STABILIZED CONSTRUCTION ENTRANCE/EXIT MAINTENANCE NOTES:**
1. INSPECT VEHICLE TRACKING PAD EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT VEHICLE TRACKING PAD 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 VEHICLE TRACKING PAD IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
 3. WHERE VEHICLE TRACKING PAD HAVE FAILED. REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
 4. ROCK SHALL BE REAPPLIED OR REGRADED AS NECESSARY TO THE STABILIZED ENTRANCE/EXIT TO MAINTAIN A CONSISTENT DEPTH.
 5. SEDIMENT TRACKED ONTO PAVED ROADS IS TO BE REMOVED THROUGHOUT THE DAY AND AT THE END OF THE DAY BY SHOVELING OR SWEEPING. SEDIMENT MAY NOT BE WASHED DOWN STORM SEWER DRAINS.
 6. STABILIZED ENTRANCE IS TO BE REMOVED WHEN THERE IS NO LONGER THE POTENTIAL FOR VEHICLE TRACKING. WHEN A CONSTRUCTION ENTRANCE/EXIT IS REMOVED, EXCESS SEDIMENT FOR THE AGGREGATE TO BE REMOVED AND DISPOSED OF APPROPRIATELY.



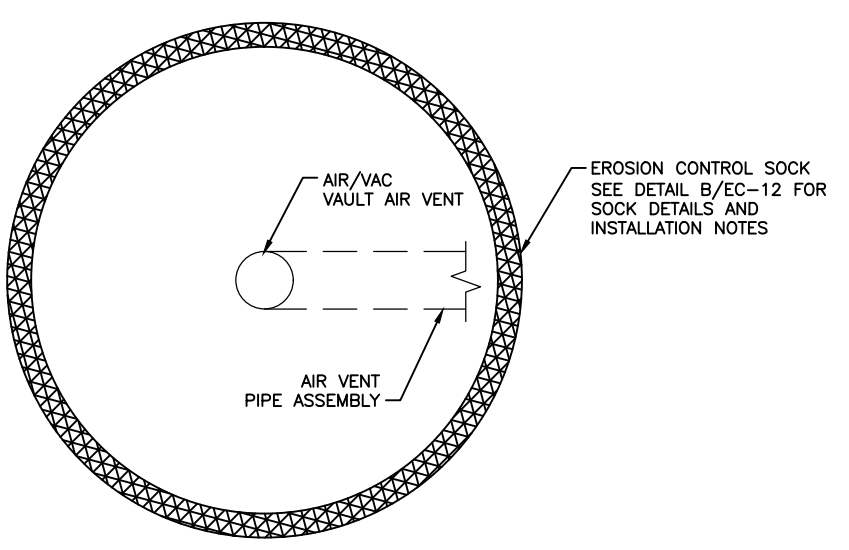
- INSTALLATION REQUIREMENTS:**
1. INSTALL ON SLOPING TERRAIN
 2. MAINTAIN THROUGHOUT CONSTRUCTION
 3. OUTLET INTO AREAS STABILIZED BY EX VEGETATION OR INSTALL STAKED BALES
 4. CONTOUR TO ALLOW PASSAGE OR CONSTRUCTION EQUIPMENT
 5. MAINTAIN 2% LATERAL SLOPE

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

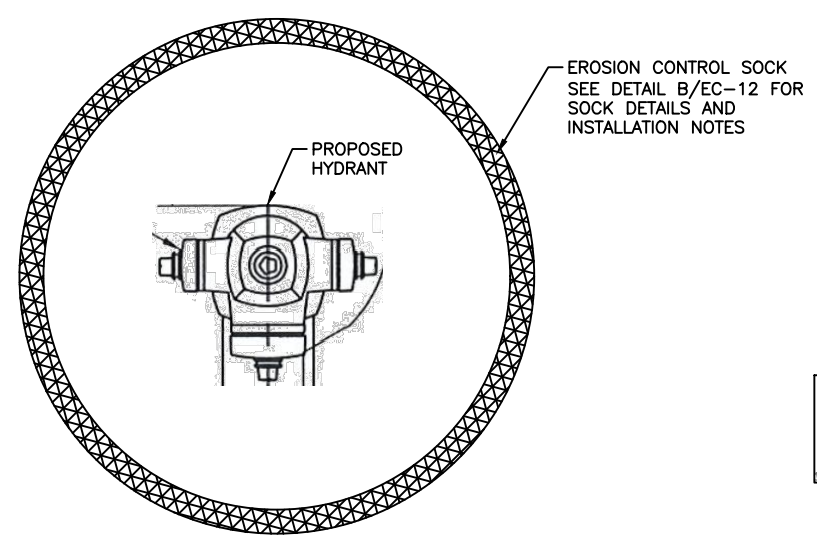


A VEHICLE TRACKING PAD DETAIL
EC-14 SCALE: N.T.S.

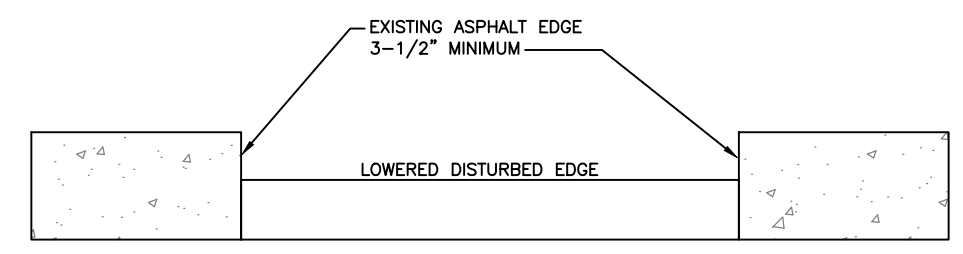
B EARTHEN BERM
EC-14 SCALE: N.T.S.



C VAULT LID EROSION CONTROL
EC-14 SCALE: N.T.S.



D HYDRANT EROSION CONTROL
EC-14 SCALE: N.T.S.



E LOWERED GRADE BMP DETAIL
EC-14 SCALE: N.T.S.

NOTE:
TO BE USED WHERE PIPELINE IS INSTALLED WITHIN PAVED ROAD

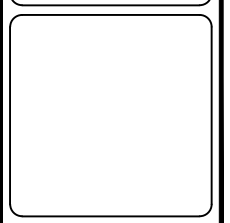
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FALCON AREA WATER AND WASTEWATER AUTHORITY
 BAR-X PIPELINE SEGMENT A2 EROSION CONTROL
 EROSION CONTROL DETAILS 2

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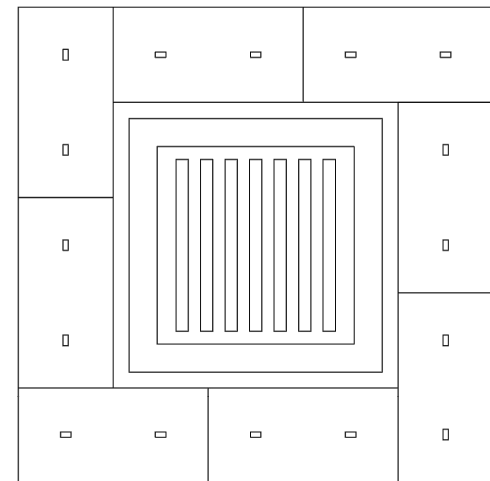
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 IF BAR DOES NOT MEASURE ONE INCH SCALE OF THE DRAWING HAS BEEN ALTERED



STRAW BALE
(SEE FIG. SBB-2
FOR INSTALLATION
REQUIREMENTS)

STRAW BALE INLET PROTECTION

NTS

STRAW BALE INLET PROTECTION NOTES

INSTALLATION REQUIREMENTS

1. INLET PROTECTION SHALL BE INSTALLED IMMEDIATELY AFTER CONSTRUCTION OF INLET.
2. BALES ARE TO BE PLACED IN A SINGLE ROW AROUND THE INLET WITH THE END OF THE BALES TIGHTLY ABUTTING ONE ANOTHER.
3. SEE STRAW BALE BARRIER FIGURE SBB-2 FOR INSTALLATION REQUIREMENTS.

MAINTENANCE REQUIREMENTS

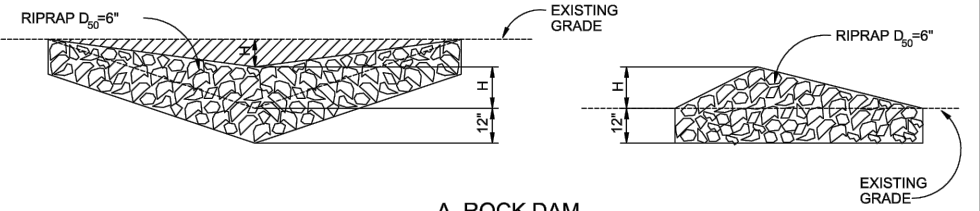
1. CONTRACTOR SHALL INSPECT STRAW BALE INLET PROTECTION IMMEDIATELY AFTER EACH RAINFALL, AT LEAST DAILY DURING PROLONGED RAINFALL, AND WEEKLY DURING PERIODS NO RAINFALL.
2. DAMAGED OR INEFFECTIVE INLET PROTECTION SHALL PROMPTLY BE REPAIRED, REPLACING BALES IF NECESSARY, AND UNENTRENCHED BALES NEED TO BE REPAIRED WITH COMPACTED BACKFILL MATERIAL.
3. SEDIMENT SHALL BE REMOVED FROM BEHIND STRAW BALES WHEN IT ACCUMULATES TO APPROXIMATELY 1/3 THE HEIGHT OF THE BARRIER.
4. INLET PROTECTION SHALL BE REMOVED WHEN ADEQUATE VEGETATIVE COVER IS ATTAINED WITHIN THE DRAINAGE AREA AS APPROVED BY THE CITY.

City of Colorado Springs
Stormwater Quality

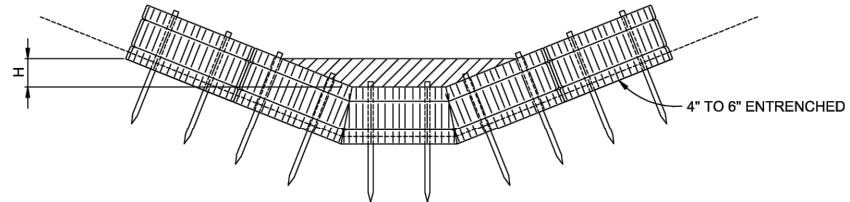
Figure IP-2
Straw Bale Inlet Protection
Construction Detail and Maintenance
Requirements

3-26

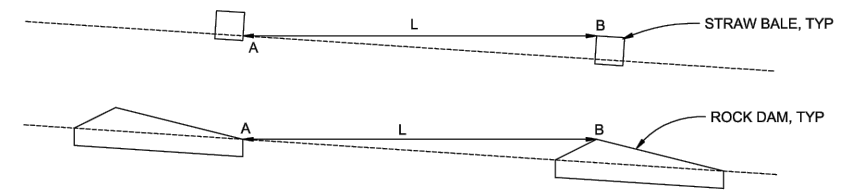
A VEHICLE TRACKING PAD DETAIL
EC-15 SCALE: N.T.S.



A. ROCK DAM



B. STRAW BALE CHECK DAM
(SEE STRAW BALE BARRIER INSTALLATION)



C. SPACING CHECK DAMS

CHECK DAM

NTS

L= THE DISTANCE SUCH THAT POINTS A AND B ARE AT THE SAME ELEVATION.

CHECK DAM NOTES

INSTALLATION REQUIREMENTS

1. STRAW BALES USED AS CHECK DAMS ARE TO MEET THE REQUIREMENTS STATED IN FIGURE SBB-2.
2. THE "H" DIMENSION SHALL BE SELECTED TO PROVIDE WEIR FLOW CONVEYANCE FOR 2-YEAR FLOW OR GREATER.

MAINTENANCE REQUIREMENTS

1. REGULAR INSPECTIONS ARE TO BE MADE OF ALL CHECK DAMS, ESPECIALLY AFTER STORM EVENTS.
2. REPLACE STONE AS NECESSARY TO MAINTAIN THE CORRECT HEIGHT OF THE DAM.
3. ACCUMULATED SEDIMENT AND DEBRIS IS TO BE REMOVED FROM BEHIND THE DAMS AFTER EACH STORM OR WHEN 1/2 OF THE ORIGINAL HEIGHT OF THE DAM IS REACHED.
3. CHECK DAMS ARE TO REMAIN IN PLACE AND OPERATIONAL UNTIL THE DRAINAGE AREA AND CHANNEL ARE PERMANENTLY STABILIZED.
4. WHEN CHECK DAMS ARE REMOVED THE CHANNEL LINING OR VEGETATION IS TO BE RESTORED.

City of Colorado Springs
Stormwater Quality

Figure CD-1
Check Dam
Construction Detail and Maintenance
Requirements

3-20

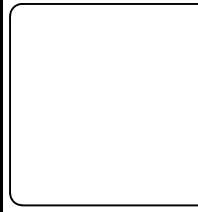
B EARTHEN BERM
EC-15 SCALE: N.T.S.

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 EROSION CONTROL DETAIL 3

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