

FINAL SITE GRADING CONSTRUCTION PLANS
FOR
LORSON RANCH EAST FILING NO. 4
FINAL GRADING / EROSION CONTROL PLANS



Know what's below.
Call before you dig.

CALL 2-BUSINESS DAYS IN ADVANCE
BEFORE YOU DIG, GRADE OR
EXCAVATE FOR THE MARKING OF
UNDERGROUND MEMBER UTILITIES

SHEET INDEX	
SHEET NO.	SHEET DESCRIPTION
C0.1	COVER SHEET
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C5.1 ~ C5.3	OFFSITE POND C1, C3, AND E2 GRADING PLAN
C12.1 ~ C12.2	DETAILS

DEVELOPER'S STATEMENT

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

BUSINESS NAME LORSON, LLC

BY JEFF MARK DATE _____
MANAGER
TITLE
ADDRESS 212 N. WAHSATCH AVE. SUITE 301
COLORADO SPRINGS, CO 80903

CONSTRUCTION APPROVAL

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

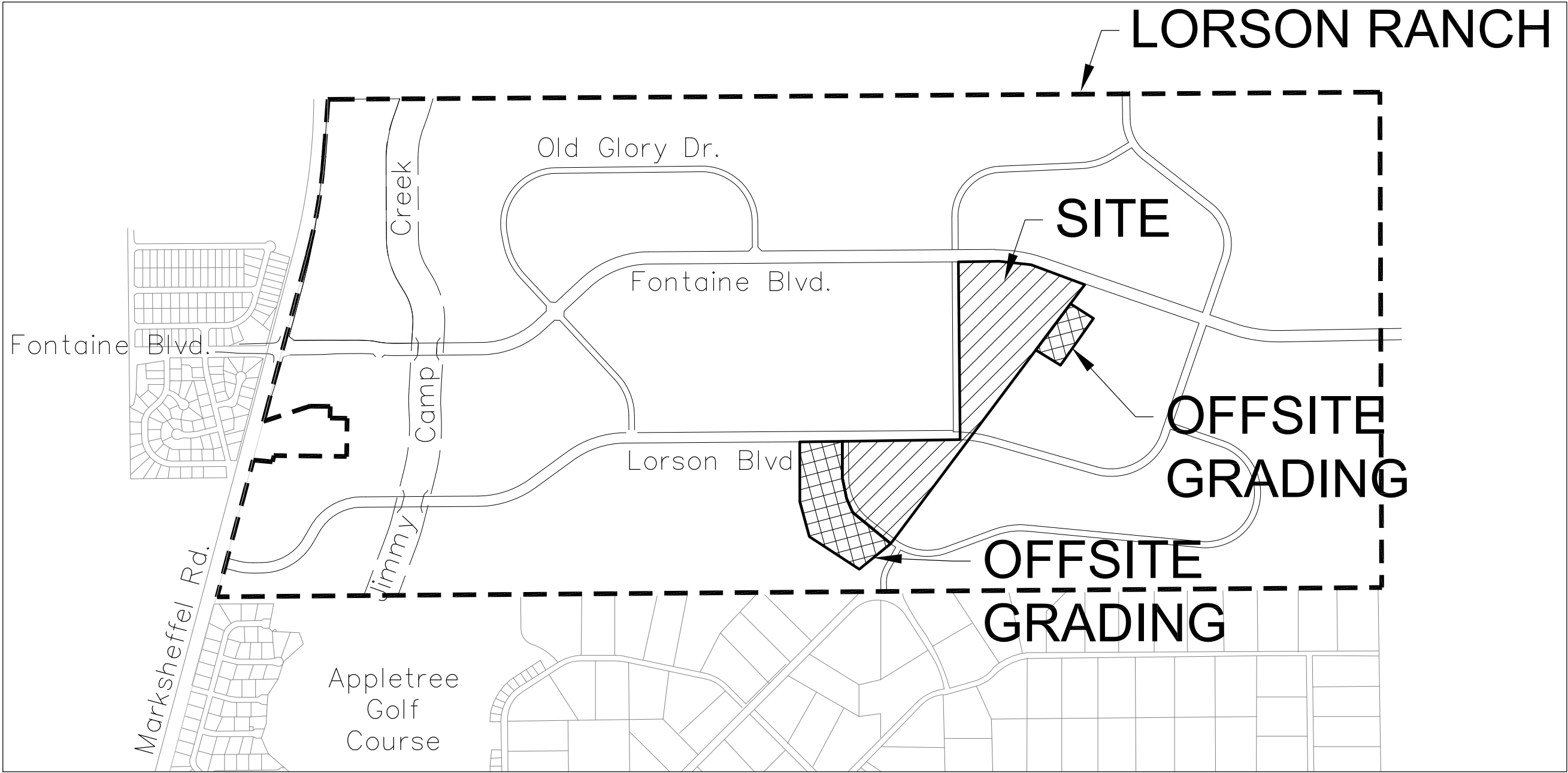
FILED IN ACCORDANCE WITH THE REQUIREMENTS OF THE EL PASO COUNTY LAND
DEVELOPMENT CODE, DRAINAGE CRITERIA MANUALS VOLUME 1 AND 2, AND
ENGINEERING CRITERIA MANUAL AS AMENDED. CONSTRUCTION DOCUMENTS WILL
BE VALID FOR A PERIOD OF 2 YEARS FROM THE DATE SIGNED BY THE EL PASO
COUNTY ENGINEER.

JENNIFER IRVINE, P.E., COUNTY ENGINEER/ECM ADMINISTRATOR DATE _____
CONDITIONS:

ENGINEER'S APPROVAL

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 NEGLIGENT ACTS, ERRORS, OR OMISSIONS ON MY PART
IN PREPARING THIS PLAN

RICHARD L. SCHINDLER, P.E. # 33997
FOR AND ON BEHALF OF CORE ENGINEERING GROUP



VICINITY MAP
NO SCALE

PREPARED FOR:
LORSON, LLC
N. WAHSATCH AVE., SUITE 301
COLORADO SPRINGS, CO 80903
719-635-3200
CONTACT: JEFF MARK

PREPARED BY:
CORE ENGINEERING GROUP
15004 1ST AVENUE S.
BURNSVILLE, MN 55306
719-570-1100
CONTACT: RICHARD L. SCHINDLER P.E.

LEGEND
--- STREET R.O.W.
--- PROPOSED STORM SEWER

WATER / SANITARY
WIDEFIELD WATER AND SANITATION
DISTRICT
8495 FONTAINE BLVD.
COLORADO SPRINGS, CO 80925
719-390-7111

CABLE
COMCAST
P.O. BOX 173838
DENVER, CO 80217
970-641-4774

ELECTRIC
MOUNTAIN VIEW ELECTRIC
11140 E. WOODMEN RD.
COLORADO SPRINGS, CO 80831
719-495-2283

**SECURITY FIRE PROTECTION
DISTRICT**
400 SECURITY BOULEVARD
SECURITY, CO 80911
719-392-7121

TELEPHONE
CENTURYLINK
7925 INDUSTRY ROAD
COLORADO SPRINGS, CO 80939
719-278-4651

GAS
BLACK HILLS ENGERGY
7060 ALLEGRE ST.
FOUNTAIN, CO 80817
719-393-6639

EL PASO COUNTY
PLANNING AND COMMUNITY
DEVELOPMENT
2880 INTERNATIONAL CIRCLE
COLORADO SPRINGS, CO 80910
719-520-6300

BASIS OF BEARING

BEARINGS ARE BASED ON THE SOUTH LINE OF THE NORTH HALF OF SECTION 23, TOWNSHIP 15 SOUTH, RANGE
65 WEST OF THE 6TH PRINCIPAL MERIDIAN AS BEING SOUTH 8941°52" WEST. THE EAST QUARTER CORNER OF
SAID SECTION 23 IS A FOUND 3-1/2" ALUMINUM CAP MONUMENT AND THE WEST QUARTER CORNER OF SAID
SECTION 23 IS A FOUND 2-1/2" ALUMINUM CAP MONUMENT

BENCHMARK

FIMS MONUMENT F204 LOCATED AT THE NORTHWEST CORNER OF FONTAINE BLVD AND COTTONWOOD GROVE DR.
ELEVATION 5724.072 (N.G.V.D. 29)

TRAFFIC CONTROL NOTE

THE CONTRACTOR SHALL PROVIDE ALL TRAFFIC CONTROL DEVICES AND MONITORING NECESSARY TO
SAFELY COMPLETE THE WORK SHOWN IN THESE CONSTRUCTION DOCUMENTS IN CONFORMANCE WITH
M.U.T.C.D. GUIDELINES. THE CONTRACTOR SHALL COMPLETE ALL NECESSARY WORK FOR PLAN
REVIEW, PERMITS AND PROCESSING. TRAFFIC CONTROL WILL NOT BE PAID SEPARATELY BUT IS
INCLUDED IN THE COST OF THE PROJECT.

SF-19-008

PUDSP-16-003
EGP 18-002
SF-19-0XX

**CORE
ENGINEERING GROUP**
15004 1ST AVENUE S.
BURNSVILLE, MN 55306
PH: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: Rich@cgl.com

DATE
DESCRIPTION
NO
PROJECT FOR:
LORSON, LLC
212 N. WAHSATCH AVE. SUITE 301
COLORADO SPRINGS, COLORADO 80903
CONTACT: JEFF MARK

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

LORSON RANCH EAST FIL. NO. 4
GRADING & EROSION CONTROL PLAN
COVER SHEET

DATE:
FEBRUARY 28, 2018

PROJECT NO.
100.048

SHEET NUMBER
C0.1

TOTAL SHEETS: 13

CONSTRUCTION NOTES

1. ALL WORK SHALL COMPLY WITH THE CODES AND POLICIES FOR EL PASO COUNTY.
2. EXISTING TOPOGRAPHIC INFORMATION SHOWN ON THIS GRADING PLAN WAS OBTAINED FROM AERIAL CONTOURS AND PREVIOUS CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE TO EXAMINE THE SITE AND BE FAMILIAR WITH THE EXISTING CONDITIONS.
3. DEPTH OF MOISTURE–DENSITY CONTROL FOR THIS PROJECT SHALL BE AS FOLLOWS:
BASE OF ALL CUTS AND FILLS – 12 INCHES,
FULL DEPTH OF ALL EMBANKMENTS
4. THE CONTRACTOR IS RESPONSIBLE FOR THE RE–ESTABLISHMENT OF ALL SURVEY MONUMENTS DISTURBED WITHIN THE PROJECT LIMITS.
5. THE CONTRACTOR SHALL PROTECT ALL WORK AREAS AND FACILITIES FROM FLOODING AT ALL TIMES. AREAS AND FACILITIES SUBJECTED TO FLOODING, REGARDLESS OF THE SOURCE OF WATER, SHALL BE PROMPTLY DEWATERED AND RESTORED.
6. PRIOR TO PAVING OPERATIONS, THE ENTIRE SUBGRADE SHALL BE PROOF–ROLLED WITH A LOADED 988 FRONT–END LOADER OR SIMILAR HEAVY RUBBER Tired VEHICLE (GVW OF 50,000 POUNDS WITH 18 KIP PER AXLE AT TIRE PRESSURES OF 90 PSI) TO DETECT ANY SOFT OR LOOSE AREAS. IN AREAS WHERE SOFT OR LOOSE SOILS, PUMPING OR EXCESSIVE MOVEMENT IS OBSERVED, THE EXPOSED MATERIALS SHALL BE OVER–EXCAVATED TO A MINIMUM DEPTH OF TWO FEET BELOW PROPOSED FINAL GRADE OR TO A DEPTH AT WHICH SOILS ARE STABLE. AFTER THIS HAS BEEN COMPLETED, THE EXPOSED MATERIALS SHALL BE SCARIFIED TO A DEPTH OF 12 INCHES AND MOISTURE CONDITIONED. THE SUBGRADE SHALL THEN BE UNIFORMLY COMPACTED TO A MINIMUM OF 95% OF STANDARD PROCTOR DENSITY (ASTM D–698) AT 0 TO +4.0% OF OPTIMUM MOISTURE CONTENT FOR A–6 AND A–7–6 SOILS ENCOUNTERED. OTHER SUBGRADE TYPES SHALL BE UNIFORMLY COMPACTED TO A MINIMUM OF 95% OF MODIFIED PROCTOR DENSITY (ASTM D–1557) AT PLUS OR MINUS 2.0% OF OPTIMUM MOISTURE CONTENT. AREAS WHERE STABLE NATURAL SOILS ARE ENCOUNTERED AT PROPOSED SUBGRADE ELEVATION SHALL ALSO BE SCARIFIED (18 INCHES FOR A–7–6 SOILS BELOW FULL–DEPTH ASPHALT CONCRETE) AND COMPACTED AS OUTLINED ABOVE PRIOR TO PAVING OPERATIONS. SUBGRADE FILL SHALL BE PLACED IN SIX–INCH LIFTS AND UNIFORMLY COMPACTED, MEETING THE REQUIREMENTS AS PREVIOUSLY DESCRIBED.
7. SUBGRADE MATERIALS DEEMED UNSUITABLE BY THE ENGINEER SHALL BE EXCAVATED, DISPOSED OF AND REPLACED WITH APPROVED MATERIALS.
8. FILL SHALL BE PLACED IN 8–INCH MAXIMUM LOOSE LIFTS AND SHALL BE COMPACTED PRIOR TO SUCCESSIVE LIFTS.
9. THE CONTRACTOR IS RESPONSIBLE FOR PREVENTING AND CONTROLLING EROSION DURING CONSTRUCTION ACTIVITIES AT ALL TIMES DURING GRADING AND CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE THE FOLLOWING EROSION AND SEDIMENT CONTROL MEASURES:
 - HAY BALE BARRIERS WHERE NEEDED AND/OR AS DIRECTED BY THE ENGINEER.
 - SILT FENCE WHERE NEEDED AND/OR AS DIRECTED BY THE ENGINEER.
 - TEMPORARY SEDIMENTATION BASINS WHERE NEEDED AND/OR AS DIRECTED BY THE ENGINEER.
 - MULCHING AND SEEDING OF EXCESSIVE SLOPED AREAS AS NEEDED OR AS DIRECTED BY THE ENGINEER.
 - TEMPORARY VEHICLE TRACKING CONTROL AS NEEDED AND/OR DIRECTED BY THE ENGINEER.
 - CONCRETE WASH AREAS.
 - INLET PROTECTION.THESE AND ALL EROSION CONTROL BEST MANAGEMENT PRACTICES AS SHOWN IN THE GRADING AND EROSION CONTROL PLANS SHALL BE STRICTLY ADHERED TO.
10. FINISHED CONTOURS/SPOT ELEVATIONS SHOWN HEREON REPRESENT FINISHED GRADES. ALL PAVEMENT SUBGRADES ARE BASED ON THE COMPOSITE ASPHALT PAVEMENT RECOMMENDATIONS MADE IN THE "GEOTECHNICAL STUDY" FOR THIS PROJECT.
11. ALL GRADING SHALL CONFORM TO THE GEOTECHNICAL RECOMMENDATIONS FOR LORSON RANCH EAST PREPARED BY RMG, "PRELIMINARY SOILS AND GEOLOGY FOR LORSON RANCH EAST", DATED SEPTEMBER 7, 2016. CONSTRUCTION OF DETENTION PONDS SHALL CONFORM TO THE GEOTECHNICAL RECOMMENDATIONS IN A REPORT BY RMG TITLED "LORSON RANCH EAST DETENTION PONDS" DATED NOVEMBER 28, 2017. THIS INCLUDES POND OUTFALL DESIGN, KEY–IN, AND SLOPE/EMBANKMENT COMPACTION REQUIREMENTS.
12. THERE MAY BE SOME TOPSOIL WITHIN LORSON RANCH EAST THAT IS NOT SUITABLE FOR RE–USE. CONTRACTOR SHALL AMEND THE TOPSOIL AS NECESSARY AND RE–SPREAD IN ACCORDANCE WITH THE GEOTECHNICAL RECOMMENDATIONS. IF TOPSOIL CANNOT BE AMENDED IT SHALL BE USED AS FILL WHERE NO FUTURE STRUCTURES OR ROADS WILL BE BUILT.

EL PASO COUNTY STANDARD CONSTRUCTION NOTES:

1. ALL DRAINAGE AND ROADWAY CONSTRUCTION SHALL MEET THE STANDARDS AND SPECIFICATIONS OF THE CITY OF COLORADO SPRINGS/EL PASO COUNTY DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2, AND THE EL PASO COUNTY ENGINEERING CRITERIA MANUAL.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR THE NOTIFICATION AND FIELD NOTIFICATION OF ALL EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, BEFORE BEGINNING CONSTRUCTION. LOCATION OF EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CALL 811 TO CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO (UNCC).
3. CONTRACTOR SHALL KEEP A COPY OF THESE APPROVED PLANS, THE GRADING AND EROSION CONTROL PLAN, THE STORMWATER MANAGEMENT PLAN (SWMP), THE SOILS AND GEOTECHNICAL REPORT, AND THE APPROPRIATE DESIGN AND CONSTRUCTION STANDARDS AND SPECIFICATIONS AT THE JOB SITE AT ALL TIMES, INCLUDING THE FOLLOWING:
 - a. EL PASO COUNTY ENGINEERING CRITERIA MANUAL (ECM)
 - b. CITY OF COLORADO SPRINGS/EL PASO COUNTY DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2
 - c. COLORADO DEPARTMENT OF TRANSPORTATION (CDOT) STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION
 - d. CDOT M & S STANDARDS
4. NOTWITHSTANDING ANYTHING DEPICTED IN THESE PLANS IN WORDS OR GRAPHIC REPRESENTATION, ALL DESIGN AND CONSTRUCTION RELATED TO ROADS, STORM DRAINAGE AND EROSION CONTROL SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE MOST RECENT VERSION OF THE RELEVANT ADOPTED EL PASO COUNTY STANDARDS, INCLUDING THE LAND DEVELOPMENT CODE, THE ENGINEERING CRITERIA MANUAL, THE DRAINAGE CRITERIA MANUAL, AND THE DRAINAGE CRITERIA MANUAL VOLUME 2. ANY DEVIATIONS FROM REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING. ANY MODIFICATIONS NECESSARY TO MEET CRITERIA AFTER–THE–FACT WILL BE ENTIRELY THE DEVELOPER’S RESPONSIBILITY TO RECTIFY.
5. IT IS THE DESIGN ENGINEER’S RESPONSIBILITY TO ACCURATELY SHOW EXISTING CONDITIONS, BOTH ONSITE AND OFFSITE, ON THE CONSTRUCTION PLANS. ANY MODIFICATIONS NECESSARY DUE TO CONFLICTS, OMISSIONS, OR CHANGED CONDITIONS WILL BE ENTIRELY THE DEVELOPER’S RESPONSIBILITY TO RECTIFY.
6. CONTRACTOR SHALL SCHEDULE A PRE–CONSTRUCTION MEETING WITH EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT (PCD) – INSPECTIONS, PRIOR TO STARTING CONSTRUCTION.
7. IT IS THE CONTRACTOR’S RESPONSIBILITY TO UNDERSTAND THE REQUIREMENTS OF ALL JURISDICTIONAL AGENCIES AND TO OBTAIN ALL REQUIRED PERMITS, INCLUDING BUT NOT LIMITED TO EL PASO COUNTY EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP), REGIONAL BUILDING FLOODPLAIN DEVELOPMENT PERMIT, U.S. ARMY CORPS OF ENGINEERS–ISSUED 401 AND/OR 404 PERMITS, AND COUNTY AND STATE FUGITIVE DUST PERMITS.
8. CONTRACTOR SHALL NOT DEVIATE FROM THE PLANS WITHOUT FIRST OBTAINING WRITTEN APPROVAL FROM THE DESIGN ENGINEER AND PCD. CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER IMMEDIATELY UPON DISCOVERY OF ANY ERRORS OR INCONSISTENCIES.
9. ALL STORM DRAIN PIPE SHALL BE CLASS III RCP UNLESS OTHERWISE NOTED AND APPROVED BY PCD.
10. CONTRACTOR SHALL COORDINATE GEOTECHNICAL TESTING PER ECM STANDARDS. PAVEMENT DESIGN SHALL BE APPROVED BY EL PASO COUNTY PCD PRIOR TO PLACEMENT OF CURB AND GUTTER AND PAVEMENT.
11. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE AT APPROVED CONSTRUCTION ACCESS POINTS.
12. SIGHT VISIBILITY TRIANGLES AS IDENTIFIED IN THE PLANS SHALL BE PROVIDED AT ALL INTERSECTIONS. OBSTRUCTIONS GREATER THAN 18 INCHES ABOVE FLOWLINE ARE NOT ALLOWED WITHIN SIGHT TRIANGLES.
13. SIGNING AND STRIPING SHALL COMPLY WITH EL PASO COUNTY PUBLIC WORK DEPARTMENT AND MUTCD CRITERIA.
14. CONTRACTOR SHALL OBTAIN ANY PERMITS REQUIRED BY EL PASO COUNTY PWD, INCLUDING WORK WITHIN THE RIGHT–OF–WAY AND SPECIAL TRANSPORT PERMITS.
15. THE LIMITS OF CONSTRUCTION SHALL REMAIN WITHIN THE PROPERTY LINE UNLESS OTHERWISE NOTED. THE OWNER/DEVELOPER SHALL OBTAIN WRITTEN PERMISSION AND EASEMENTS, WHERE REQUIRED, FROM ADJOINING PROPERTY OWNER(S) PRIOR TO ANY OFF–SITE DISTURBANCE, GRADING, OR CONSTRUCTION.

PROJECT SITE NOTES:

1. THE PROJECT SITE VEGETATION CONSISTS OF NATIVE GRASSES THAT HAVE BEEN HEAVILY GRAZED FOR YEARS. THERE ARE NO TREES OR BRUSH WITHIN THE DISTURBED AREA. EXISTING VEGETATIVE COVER IS ESTIMATED AT 85%.
2. THERE ARE NO EXISTING STRUCTURES WITHIN THE LIMITS OF DISTURBANCE.
3. EXISTING UTILITY EASEMENTS WITHIN THE PROJECT SITE CONSIST OF A CSU WATERMAIN EASEMENT (SOUTHERN DELIVERY SYSTEM) BUT NO GRADING IS LIMITED IN THE CSU EASEMENT. OFFSITE GRADING FOR POND C3 IS LOCATED WITHIN A XCEL/TRI–STATE UTILITY EASEMENT AND A WATERMAIN EASEMENT AS SHOWN ON THESE DRAWINGS.

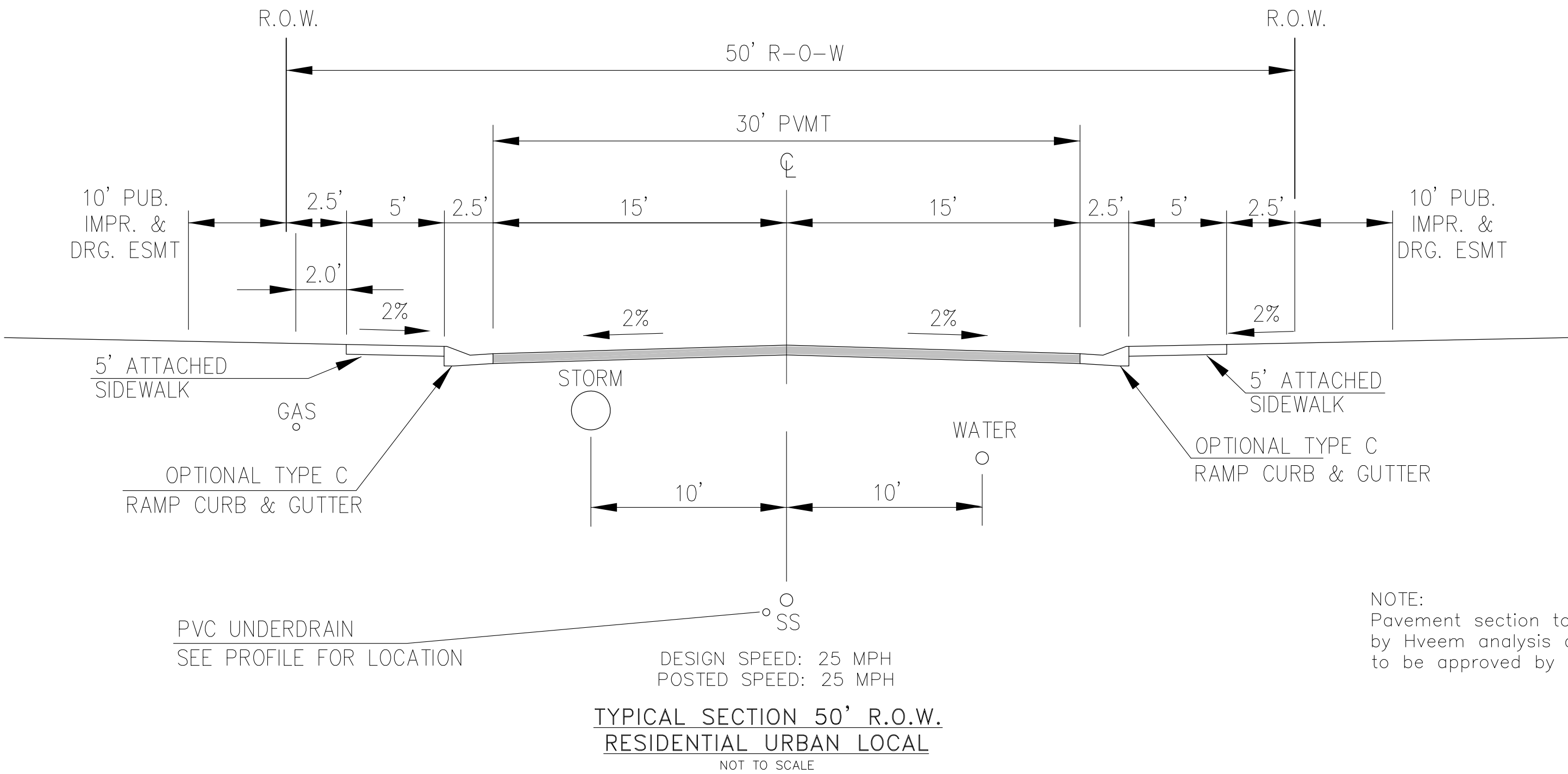
The Developer/Home builder shall install side lot and rear lot swales to minimize the lot to lot drainage.

STANDARD NOTES FOR EL PASO COUNTY GRADING AND EROSION CONTROL PLANS

1. CONSTRUCTION MAY NOT COMMENCE UNTIL A CONSTRUCTION PERMIT IS OBTAINED FROM PCD AND A PRECONSTRUCTION CONFERENCE IS HELD WITH PCD INSPECTIONS.
2. STORMWATER DISCHARGES FROM CONSTRUCTION SITES SHALL NOT CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION, OR DEGRADATION OF STATE WATERS. ALL WORK AND EARTH DISTURBANCE SHALL BE DONE IN A MANNER THAT MINIMIZES POLLUTION OF ANY ON–SITE OR OFF SITE WATERS, INCLUDING WETLANDS.
3. NOTWITHSTANDING ANYTHING DEPICTED IN THESE PLANS IN WORDS OR GRAPHIC REPRESENTATION, ALL DESIGN AND CONSTRUCTION RELATED TO ROADS, STORM DRAINAGE AND EROSION CONTROL SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE MOST RECENT VERSION OF THE RELEVANT ADOPTED EL PASO COUNTY STANDARDS, INCLUDING THE LAND DEVELOPMENT CODE, THE ENGINEERING CRITERIA MANUAL, THE DRAINAGE CRITERIA MANUAL, AND THE DRAINAGE CRITERIA MANUAL VOLUME 2. ANY DEVIATIONS FROM REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING.
4. A SEPARATE STORMWATER MANAGEMENT PLAN (SWMP) FOR THIS PROJECT SHALL BE COMPLETED AND AN EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP) ISSUED PRIOR TO COMMENCING CONSTRUCTION. DURING CONSTRUCTION THE SWMP IS THE RESPONSIBILITY OF THE DESIGNATED STORMWATER MANAGER, SHALL BE LOCATED ON SITE AT ALL TIMES AND SHALL BE KEPT UP TO DATE WITH WORK PROGRESS AND CHANGES IN THE FIELD.
5. ONCE THE ESQCP HAS BEEN ISSUED, THE CONTRACTOR MAY INSTALL THE INITIAL STAGE EROSION AND SEDIMENT CONTROL BMPs AS INDICATED ON THE GEC. A PRECONSTRUCTION MEETING BETWEEN THE CONTRACTOR, ENGINEER, AND EL PASO COUNTY WILL BE HELD PRIOR TO ANY CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE APPLICANT TO COORDINATE THE MEETING TIME AND PLACE WITH COUNTY PCD INSPECTIONS STAFF.
6. SOIL EROSION CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, OR ANY DISTURBED LAND AREA SHALL BE COMPLETED WITHIN 21 CALENDAR DAYS AFTER FINAL GRADING, OR FINAL EARTH DISTURBANCE, HAS BEEN COMPLETED. DISTURBED AREAS AND STOCKPILES WHICH ARE NOT AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN 30 DAYS SHALL ALSO BE MULCHED WITHIN 21 DAYS AFTER INTERIM GRADING. AN AREA THAT IS GOING TO REMAIN IN AN INTERIM STATE FOR MORE THAN 60 DAYS SHALL ALSO BE SEEDED. ALL TEMPORARY SOIL EROSION CONTROL MEASURES AND BMPs SHALL BE MAINTAINED UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED AND ESTABLISHED.
7. TEMPORARY SOIL EROSION CONTROL FACILITIES SHALL BE REMOVED AND EARTH DISTURBANCE AREAS GRADED AND STABILIZED WITH PERMANENT SOIL EROSION CONTROL MEASURES PURSUANT TO STANDARDS AND SPECIFICATION PRESCRIBED IN THE DCM VOLUME II AND THE ENGINEERING CRITERIA MANUAL (ECM) APPENDIX I.
8. ALL PERSONS ENGAGED IN EARTH DISTURBANCE SHALL IMPLEMENT AND MAINTAIN ACCEPTABLE SOIL EROSION AND SEDIMENT CONTROL MEASURES INCLUDING BMPs IN CONFORMANCE WITH THE EROSION CONTROL TECHNICAL STANDARDS OF THE DRAINAGE CRITERIA MANUAL (DCM) VOLUME II AND IN ACCORDANCE WITH THE STORMWATER MANAGEMENT PLAN (SWMP).
9. ALL TEMPORARY EROSION CONTROL FACILITIES INCLUDING BMPs AND ALL PERMANENT FACILITIES INTENDED TO CONTROL EROSION OF ANY EARTH DISTURBANCE OPERATIONS, SHALL BE INSTALLED AS DEFINED IN THE APPROVED PLANS, THE SWMP AND THE DCM VOLUME II AND MAINTAINED THROUGHOUT THE DURATION OF THE EARTH DISTURBANCE OPERATION.
10. ANY EARTH DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER SO AS TO EFFECTIVELY REDUCE ACCELERATED SOIL EROSION AND RESULTING SEDIMENTATION. ALL DISTURBANCES SHALL BE DESIGNED, CONSTRUCTED, AND COMPLETED SO THAT THE EXPOSED AREA OF ANY DISTURBED LAND SHALL BE LIMITED TO THE SHORTEST PRACTICAL PERIOD OF TIME.
11. ANY TEMPORARY OR PERMANENT FACILITY DESIGNED AND CONSTRUCTED FOR THE CONVEYANCE OF STORMWATER AROUND, THROUGH, OR FROM THE EARTH DISTURBANCE AREA SHALL BE DESIGNED TO LIMIT THE DISCHARGE TO A NON–EROSIVE VELOCITY.
12. CONCRETE WASH WATER SHALL BE CONTAINED AND DISPOSED OF IN ACCORDANCE WITH THE SWMP. NO WASH WATER SHALL BE DISCHARGED TO OR ALLOWED TO RUNOFF TO STATE WATERS, INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES.
13. EROSION CONTROL BLANKETING SHALL BE USED ON SLOPES STEEPER THAN 3:1.
14. BUILDING, CONSTRUCTION, EXCAVATION, OR OTHER WASTE MATERIALS SHALL NOT BE TEMPORARILY PLACED OR STORED IN THE STREET, ALLEY, OR OTHER PUBLIC WAY, UNLESS IN ACCORDANCE WITH AN APPROVED TRAFFIC CONTROL PLAN. BMP’S MAY BE REQUIRED BY EL PASO COUNTY PCD IF DEEMED NECESSARY, BASED ON SPECIFIC CONDITIONS AND CIRCUMSTANCES.
15. VEHICLE TRACKING OF SOILS AND CONSTRUCTION DEBRIS OFF–SITE SHALL BE MINIMIZED. MATERIALS TRACKED OFFSITE SHALL BE CLEANED UP AND PROPERLY DISPOSED OF IMMEDIATELY.
16. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL WASTES FROM THE CONSTRUCTION SITE FOR DISPOSAL IN ACCORDANCE WITH LOCAL AND STATE REGULATORY REQUIREMENTS. NO CONSTRUCTION DEBRIS, TREE SLASH, BUILDING MATERIAL WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURIED, DUMPED, OR DISCHARGED AT THE SITE.
17. THE OWNER, SITE DEVELOPER, CONTRACTOR, AND/OR THEIR AUTHORIZED AGENTS SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL CONSTRUCTION DEBRIS, DIRT, TRASH, ROCK, SEDIMENT, AND SAND THAT MAY ACCUMULATE IN THE STORM SEWER OR OTHER DRAINAGE CONVEYANCE SYSTEM AND STORMWATER APPURTENANCES AS A RESULT OF SITE DEVELOPMENT.
18. THE QUANTITY OF MATERIALS STORED ON THE PROJECT SITE SHALL BE LIMITED, AS MUCH AS PRACTICAL, TO THAT QUANTITY REQUIRED TO PERFORM THE WORK IN AN ORDERLY SEQUENCE. ALL MATERIALS STORED ON–SITE SHALL BE STORED IN A NEAT, ORDERLY MANNER, IN THEIR ORIGINAL CONTAINERS, WITH ORIGINAL MANUFACTURER’S LABELS.
19. NO CHEMICALS ARE TO BE USED BY THE CONTRACTOR, WHICH HAVE THE POTENTIAL TO BE RELEASED IN STORMWATER UNLESS PERMISSION FOR THE USE OF A SPECIFIC CHEMICAL IS GRANTED IN WRITING BY THE ECM ADMINISTRATOR. IN GRANTING THE USE OF SUCH CHEMICALS, SPECIAL CONDITIONS AND MONITORING MAY BE REQUIRED.
20. BULK STORAGE STRUCTURES FOR PETROLEUM PRODUCTS AND OTHER CHEMICALS SHALL HAVE ADEQUATE PROTECTION SO AS TO CONTAIN ALL SPILLS AND PREVENT ANY SPILLED MATERIAL FROM ENTERING STATE WATERS, INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES.
21. NO PERSON SHALL CAUSE THE IMPEDIMENT OF STORMWATER FLOW IN THE FLOW LINE OF THE CURB AND GUTTER OR IN THE DITCHLINE.
22. INDIVIDUALS SHALL COMPLY WITH THE "COLORADO WATER QUALITY CONTROL ACT" (TITLE 25, ARTICLE 8, CRS), AND THE "CLEAN WATER ACT" (33 USC 1344), IN ADDITION TO THE REQUIREMENTS INCLUDED IN THE DCM VOLUME II AND THE ECM APPENDIX I. ALL APPROPRIATE PERMITS MUST BE OBTAINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION (NPDES, FLOODPLAIN, 404, FUGITIVE DUST, ETC.). IN THE EVENT OF CONFLICTS BETWEEN THESE REQUIREMENTS AND LAWS, RULES, OR REGULATIONS OF OTHER FEDERAL, STATE, OR COUNTY AGENCIES, THE MORE RESTRICTIVE LAWS, RULES, OR REGULATIONS SHALL APPLY.
23. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE AT APPROVED CONSTRUCTION ACCESS POINTS.
24. PRIOR TO ACTUAL CONSTRUCTION THE PERMITTEE SHALL VERIFY THE LOCATION OF EXISTING UTILITIES.
25. A WATER SOURCE SHALL BE AVAILABLE ON SITE DURING EARTHWORK OPERATIONS AND UTILIZED AS REQUIRED TO MINIMIZE DUST FROM EARTHWORK EQUIPMENT AND WIND.
26. THE SOILS REPORT FOR THIS SITE HAS BEEN PREPARED BY RMG AND SHALL BE CONSIDERED A PART OF THESE PLANS.
27. AT LEAST TEN DAYS PRIOR TO THE ANTICIPATED START OF CONSTRUCTION, FOR PROJECTS THAT WILL DISTURB 1 ACRE OR MORE, THE OWNER OR OPERATOR OF CONSTRUCTION ACTIVITY SHALL SUBMIT A PERMIT APPLICATION FOR STORMWATER DISCHARGE TO THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, WATER QUALITY DIVISION. THE APPLICATION CONTAINS CERTIFICATION OF COMPLETION OF A STORMWATER MANAGEMENT PLAN (SWMP), OF WHICH THIS GRADING AND EROSION CONTROL PLAN MAY BE A PART. FOR INFORMATION OR APPLICATION MATERIALS CONTACT:

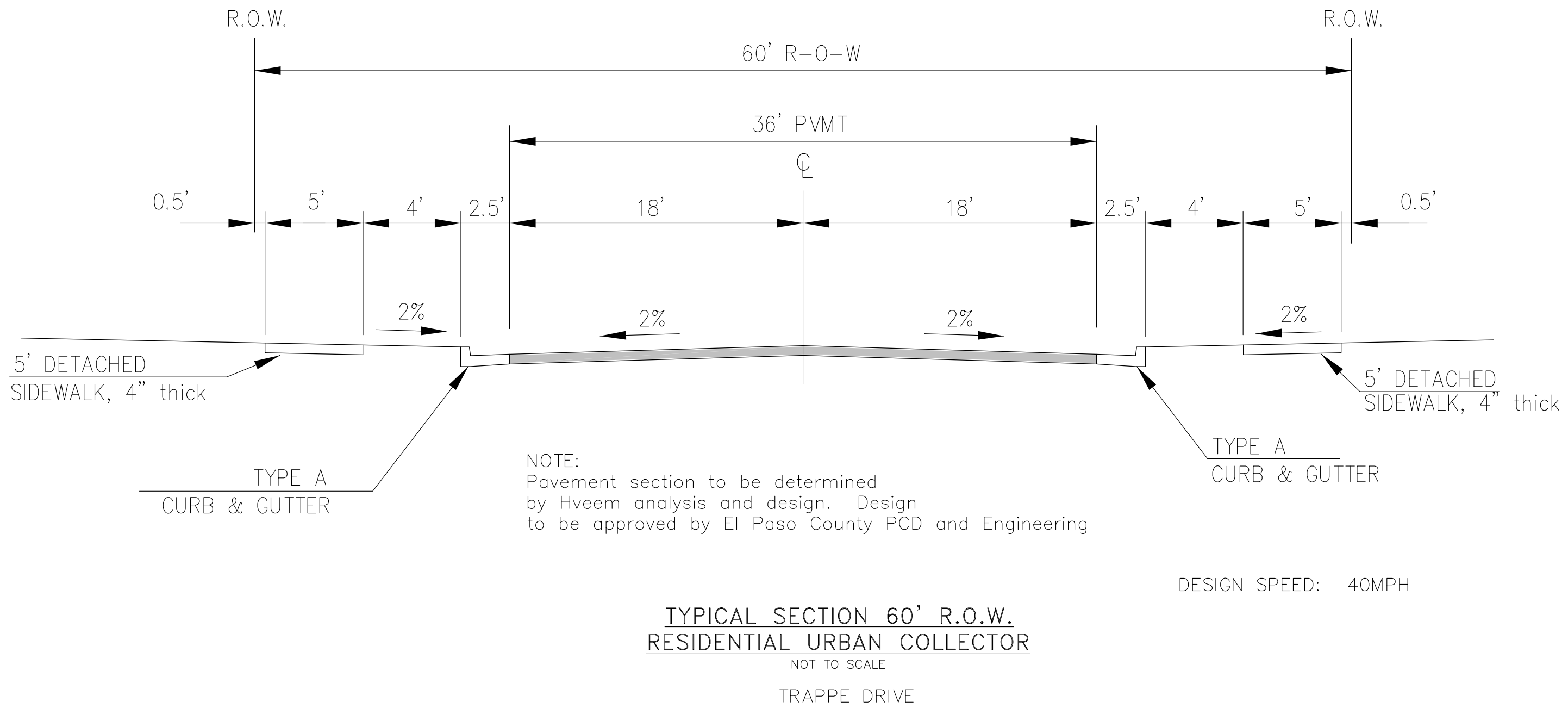
COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT
WATER QUALITY CONTROL DIVISION
WQCD – PERMITS
4300 CHERRY CREEK DRIVE SOUTH
DENVER, CO 80246–1530
ATTN: PERMITS UNIT

<div>CORE</div> <div>ENGINEERING GROUP</div> <div>15004 1ST AVENUE S. BURNSVILLE, MN 55306 PH: 719.570.1100 CONTACT: RICHARD L. SCHINDLER, P.E. EMAIL: Rich@cegi.com</div>		DATE	
NO.		DESCRIPTION	PREPARED FOR: LORSON, LLC 212 N. WAHSATCH AVE, SUITE 301 COLORADO SPRINGS, COLORADO 80903 (719) 635-3200 CONTACT: JEFF MARK
PROJECT: LORSON RANCH EAST FILING NO. 4 LORSON BLVD.-LAMPREY DR COLORADO SPRINGS, COLORADO			
DRAWN: RLS DESIGNED: RLS CHECKED: RLS			
FINAL GRADING PLAN			
NOTES			
DATE: FEBRUARY 28, 2018			
PROJECT NO. 100.048			
SHEET NUMBER C0.2			
TOTAL SHEETS: 13			

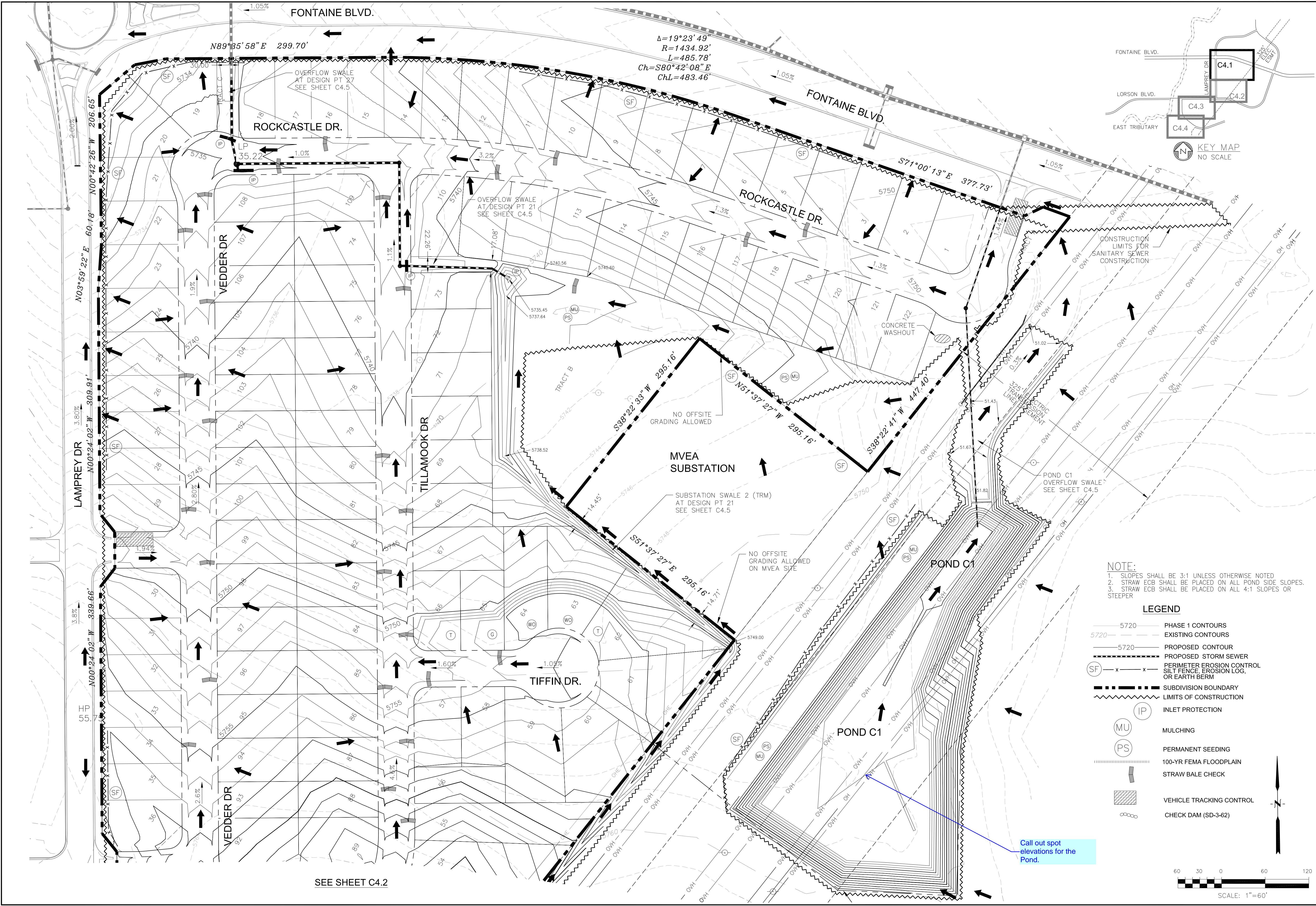


NOTE:
ADDITIONAL PUBLIC IMPROVEMENT EASEMENTS ARE REQUIRED WHERE
SIDEWALK ENCROACHES INTO THE PRIVATE LOTS. SEE CONSTRUCTION DRAWINGS
AND THE FINAL PLAT. SEE CONSTRUCTION DRAWINGS AND PLAT FOR SIGHT TRIANGLES

VEDDER DRIVE, ROCKCASTLE DRIVE, TILLAMOOK DRIVE, TIFFIN DRIVE, MAGOTHY DRIVE
VOLGA DRIVE, WITCHER DRIVE, HORTON DRIVE, YOCONA DRIVE, ABITA DRIVE, SKUNA DRIVE



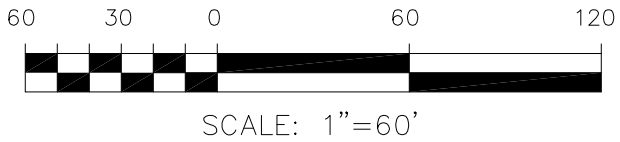
CORE		ENGINEERING GROUP	
15004 1ST AVENUE S	15004 1ST AVENUE S	15004 1ST AVENUE S	15004 1ST AVENUE S
BURNSVILLE, MN 55306	BURNSVILLE, MN 55306	BURNSVILLE, MN 55306	BURNSVILLE, MN 55306
PH: 719.570.1100	PH: 719.570.1100	PH: 719.570.1100	PH: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.	CONTACT: RICHARD L. SCHINDLER, P.E.	CONTACT: RICHARD L. SCHINDLER, P.E.	CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: Rich@ceg1.com	EMAIL: Rich@ceg1.com	EMAIL: Rich@ceg1.com	EMAIL: Rich@ceg1.com
DATE	DESCRIPTION	NO.	PROJECT
			LORSON RANCH EAST
			FILING NO. 4
			212 N. WAHSATCH AVE, SUITE 301
			COLORADO SPRINGS, COLORADO 80903
			CONTACT: JEFF MARK
DRAWN: RLS	DESIGNED: RLS	CHECKED: RLS	PROJECT: LORSON RANCH EAST
FINAL GRADING PLAN			
TYPICAL ROADWAY SECTIONS			
DATE: FEBRUARY 28, 2018			
PROJECT NO. 100.048			
SHEET NUMBER C0.3			
TOTAL SHEETS: 13			



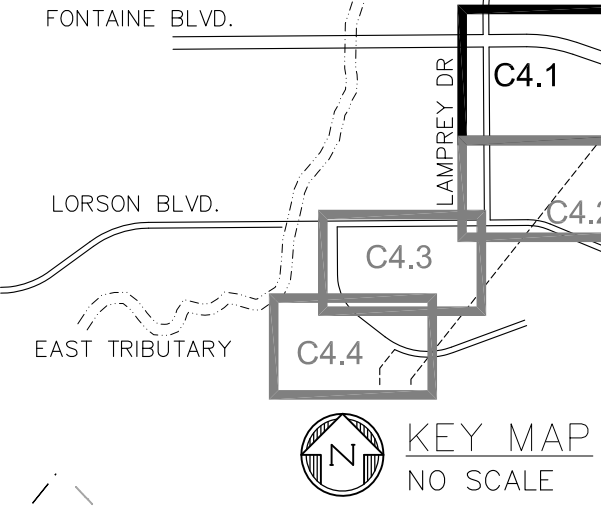
NOTE:
1. SLOPES SHALL BE 3:1 UNLESS OTHERWISE NOTED.
2. STRAW ECB SHALL BE PLACED ON ALL POND SIDE SLOPES.
3. STRAW ECB SHALL BE PLACED ON ALL 4:1 SLOPES OR STEEPER.

LEGEND

- 5720 PHASE 1 CONTOURS
- 5720 EXISTING CONTOURS
- 5720 PROPOSED CONTOUR
- PROPOSED STORM SEWER
- (SF) PERIMETER EROSION CONTROL
SILT FENCE, EROSION LOG,
OR EARTH BERM
- SUBDIVISION BOUNDARY
- LIMITS OF CONSTRUCTION
- INLET PROTECTION
- MULCHING
- PERMANENT SEEDING
- 100-YR FEMA FLOODPLAIN
- STRAW BALE CHECK
- VEHICLE TRACKING CONTROL
- CHECK DAM (SD-3-62)



Call out spot
elevations for the
Pond.



CORE
ENGINEERING GROUP
15004 1ST AVENUE S.
DENVER, CO 80202
PHONE: 303.750.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: Rich@ceg.com

DATE: _____
DESCRIPTION: _____
NO: _____

PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE, SUITE 301
COLORADO SPRINGS, COLORADO 80903
CONTACT: JEFF MARK

PROJECT:
**LORSON RANCH EAST
FILING NO. 4**
LORSON BLVD.-LAMPREY DR
COLORADO SPRINGS, COLORADO

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

**LORSON RANCH EAST FILING NO. 4
FINAL GRADING AND E.C. PLAN
NORTH AREA**

DATE:
FEBRUARY 28, 2018

PROJECT NO.
100.048

SHEET NUMBER
C4.1

TOTAL SHEETS: 13



CORE

ENGINEERING GROUP

15004 1ST AVENUE S.
DENVER, CO 80202
PHONE: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: Rich@ceg1.com

DATE

DESCRIPTION

NO.

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

PROJECT:

LORSON RANCH EAST
FILING NO. 4

PREPARED FOR:

LORSON, LLC
212 N. WAHSATCH AVE, SUITE 301
COLORADO SPRINGS, COLORADO 80903
(719) 635-3200
CONTACT: JEFF MARK

LORSON RANCH EAST FILING NO. 4
FINAL GRADING AND E.C. PLAN
NORTH AREA

DATE:

FEBRUARY 28, 2018

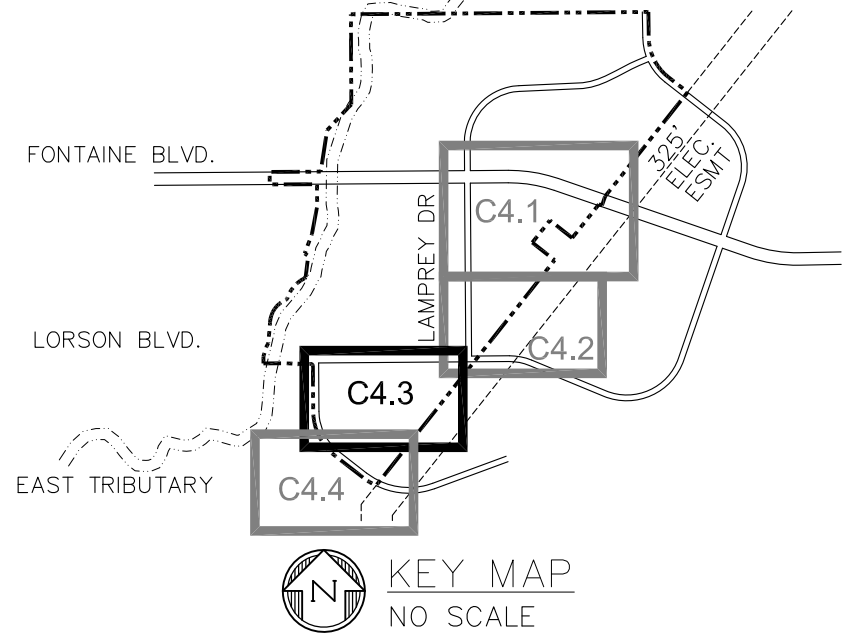
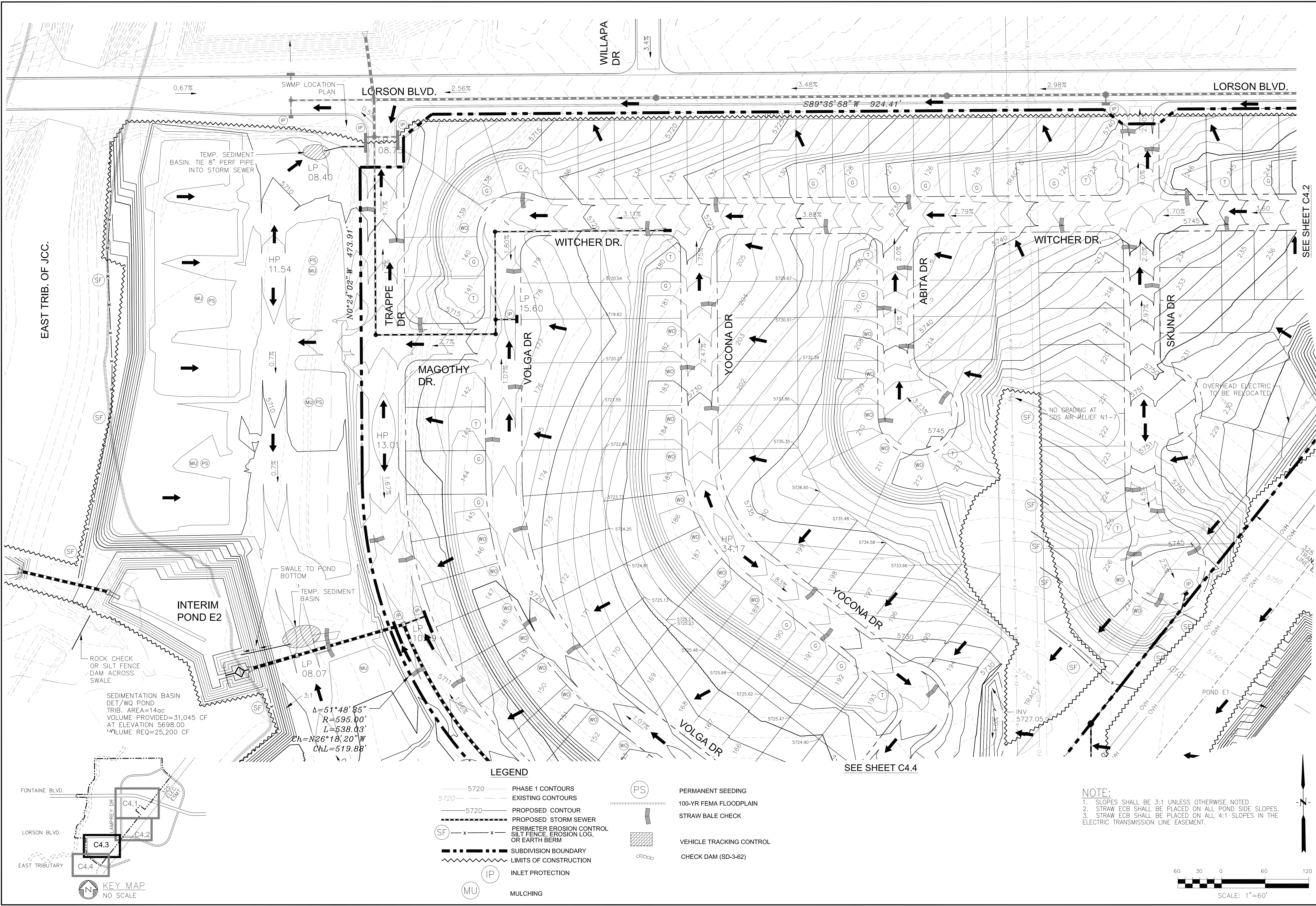
PROJECT NO.

100.048

SHEET NUMBER

C4.2

TOTAL SHEETS: 13



- LEGEND**
- 5720 PHASE 1 CONTOURS
 - 5720 EXISTING CONTOURS
 - 5720 PROPOSED CONTOUR
 - PROPOSED STORM SEWER
 - PERIMETER EROSION CONTROL
 - SILT FENCE, EROSION LOG, OR EARTH BERM
 - SUBDIVISION BOUNDARY
 - LIMITS OF CONSTRUCTION
 - INLET PROTECTION
 - MULCHING
 - PERMANENT SEEDING
 - 100-YR FEMA FLOODPLAIN
 - STRAW BALE CHECK
 - VEHICLE TRACKING CONTROL
 - CHECK DAM (SD-3-62)

NOTE:

- SLOPES SHALL BE 3:1 UNLESS OTHERWISE NOTED
- STRAW ECB SHALL BE PLACED ON ALL POND SIDE SLOPES.
- STRAW ECB SHALL BE PLACED ON ALL 4:1 SLOPES IN THE ELECTRIC TRANSMISSION LINE EASEMENT.

SCALE: 1"=60'

CORE

ENGINEERING GROUP

15004 1ST AVENUE S.
DENVER, CO 80202
PHONE: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: Rich@ceg1.com

DATE: _____

DESCRIPTION: _____

NO: _____

PROJECT: _____

PREPARED FOR: **LORSON, LLC**

212 N. WAHSATCH AVE, SUITE 301
COLORADO SPRINGS, COLORADO 80903
(719) 635-3200
CONTACT: JEFF MARK

DRAWN: RLS

DESIGNED: RLS

CHECKED: RLS

LORSON RANCH EAST FILING NO. 4

FINAL GRADING AND E.C. PLAN

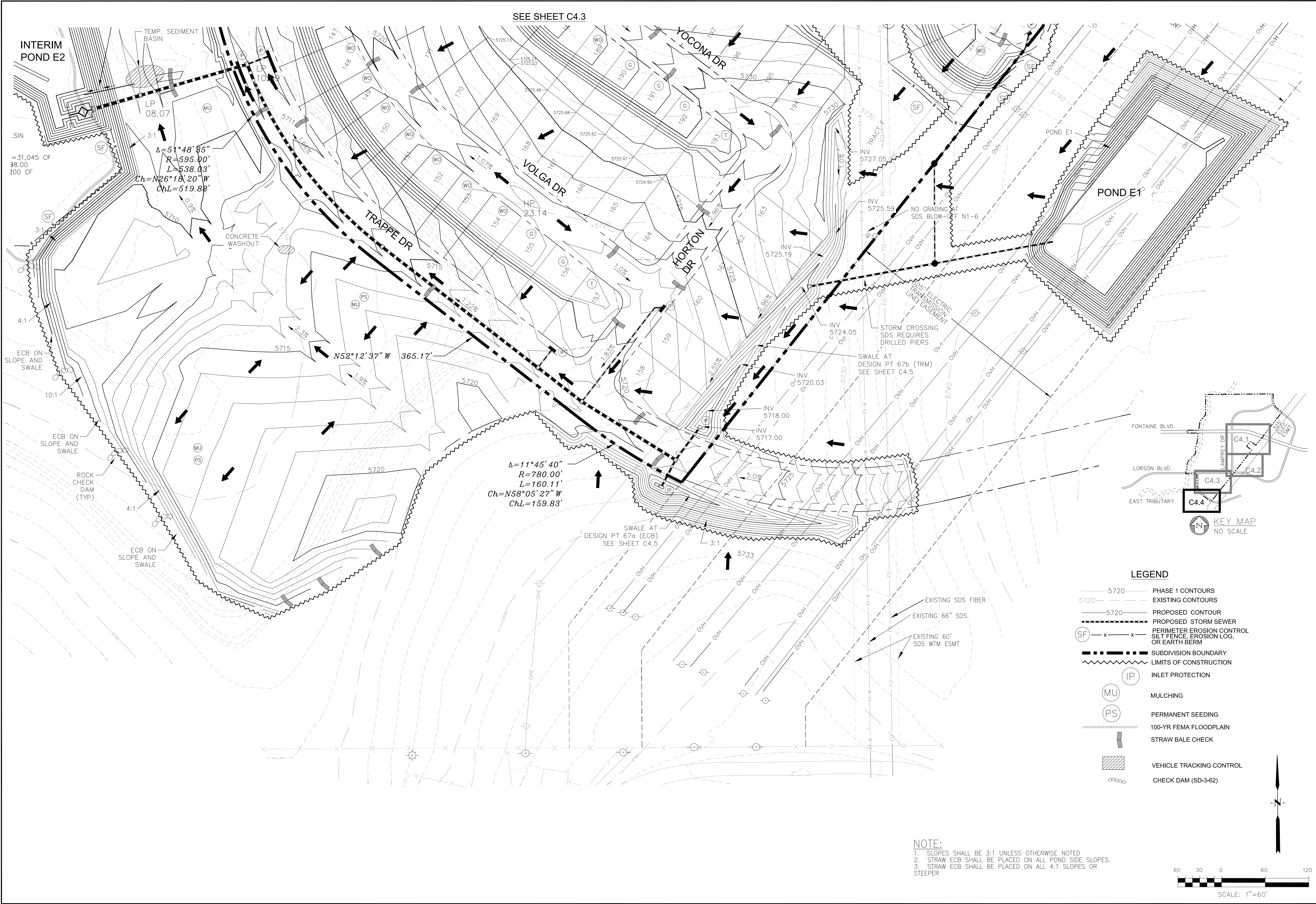
SOUTH AREA

DATE: **FEBRUARY 28, 2018**

PROJECT NO. **100.048**

SHEET NUMBER **C4.3**

TOTAL SHEETS: 13



CORE

ENGINEERING GROUP

15004 1ST AVENUE S,
SUITE 100
DENVER, CO 80202
PHONE: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: Rich@ceg1.com

DATE

DESCRIPTION

NO.

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

PROJECT NO.
100.048

SHEET NUMBER
C4.4

TOTAL SHEETS: 13

PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE, SUITE 301
COLORADO SPRINGS, COLORADO 80903
(719) 635-3200
CONTACT: JEFF MARK

PROJECT:
LORSON RANCH EAST
FILING NO. 4
LORSON BLVD.-LAMPREY DR
COLORADO SPRINGS, COLORADO

LORSON RANCH EAST FILING NO. 4

FINAL GRADING AND E.C. PLAN

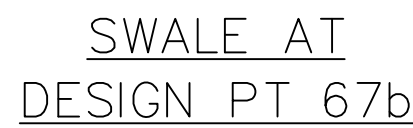
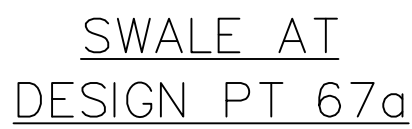
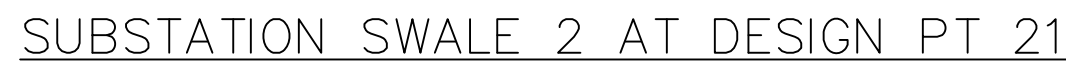
SOUTH AREA

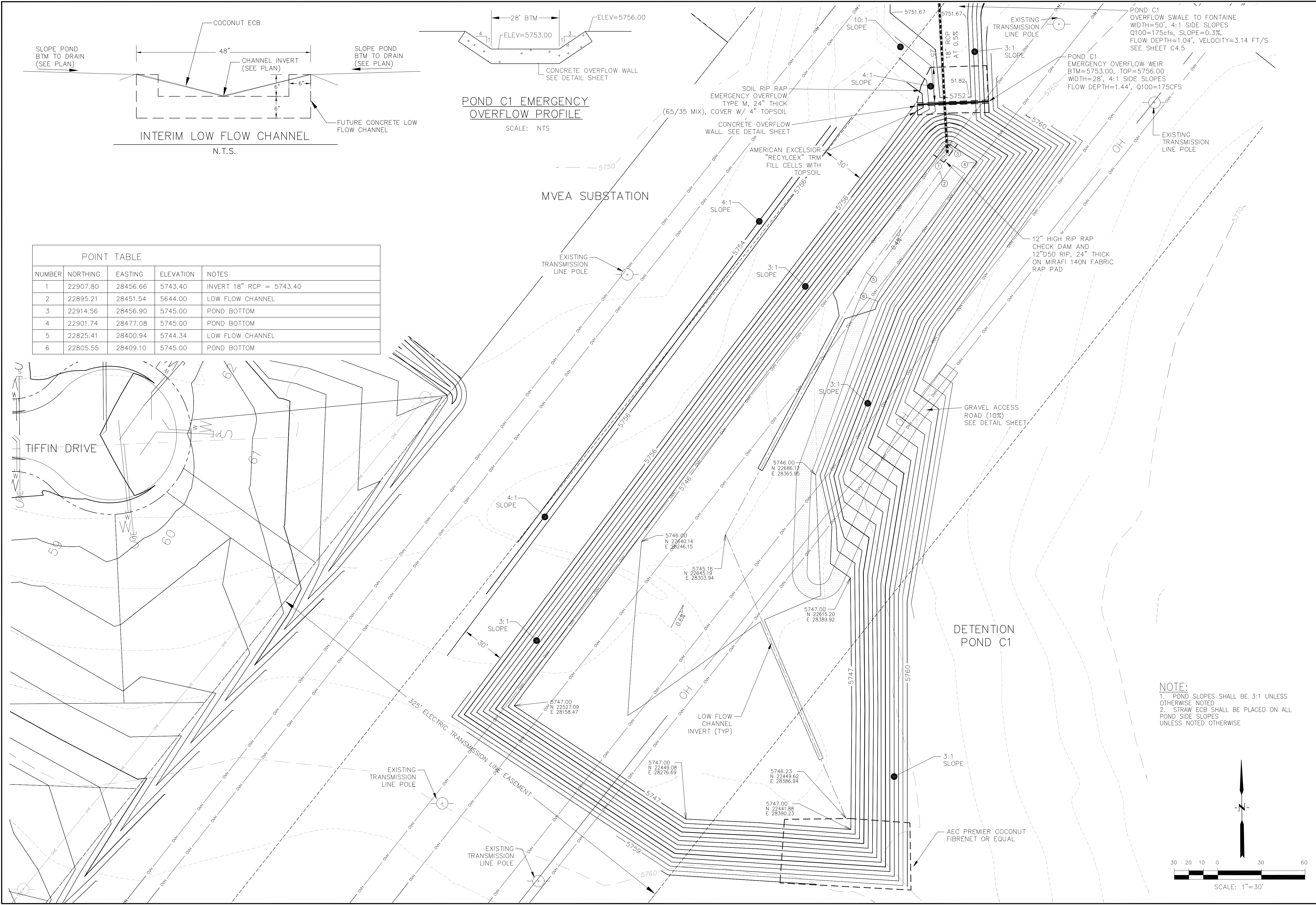
DATE:
FEBRUARY 28, 2018

PROJECT NO.
100.048

SHEET NUMBER
C4.4

TOTAL SHEETS: 13





POINT TABLE				
NUMBER	NORTHING	EASTING	ELEVATION	NOTES
1	22907.80	28456.66	5743.40	INVERT 18" RCP = 5743.40
2	22895.21	28451.54	5644.00	LOW FLOW CHANNEL
3	22914.56	28456.90	5745.00	POND BOTTOM
4	22901.74	28477.08	5745.00	POND BOTTOM
5	22825.41	28400.94	5744.34	LOW FLOW CHANNEL
6	22805.55	28409.10	5745.00	POND BOTTOM

CORE
ENGINEERING GROUP

15004 1ST AVENUE S.
BURNING WOOD, CO 80903
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: Rich@ceg.com

DATE:

DESCRIPTION:

NO:

PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE. SUITE 301
COLORADO SPRINGS, COLORADO 80903
CONTACT: JEFF MARK

PROJECT:
LORSON RANCH EAST
FILING NO. 4
LORSON BLVD.-LAMPREY DR
COLORADO SPRINGS, COLORADO

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

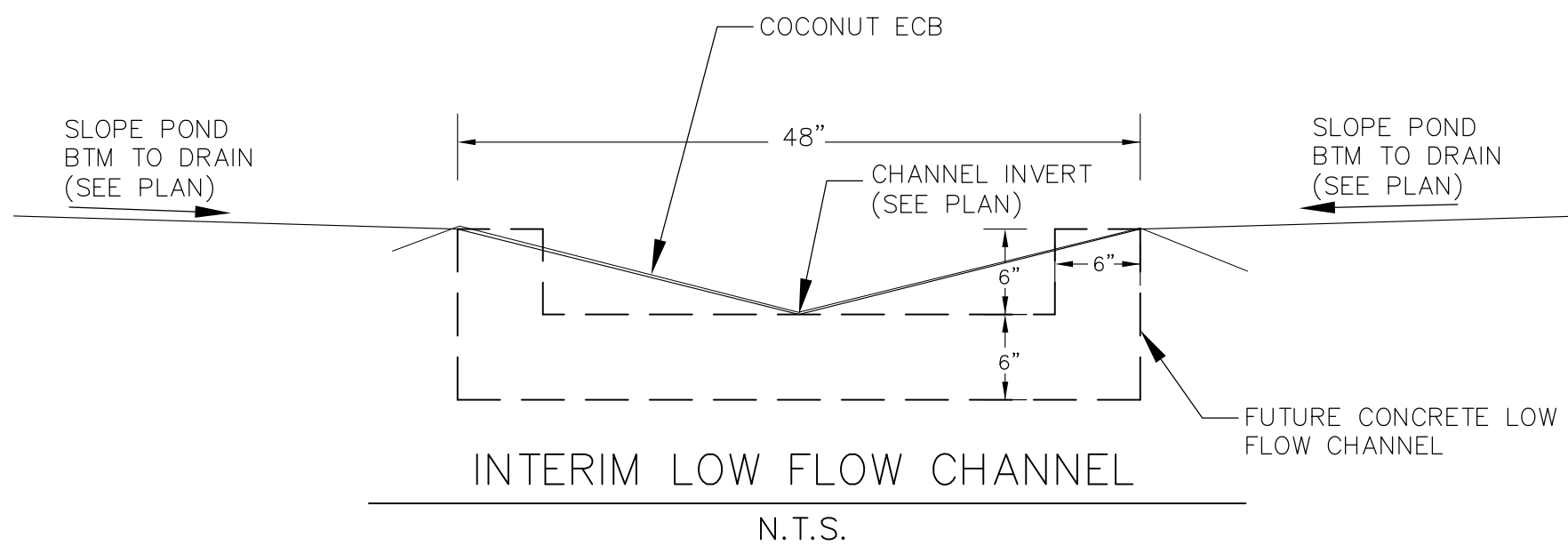
LORSON RANCH EAST FILING NO. 4
DETENTION POND C1

DATE:
FEBRUARY 28, 2018

PROJECT NO.
100.048

SHEET NUMBER
C5.1

TOTAL SHEETS: 13



HORTON DRIVE 163

TRACT 226

SKUNA DRIVE

GRAVEL ACCESS ROAD (10%)
SEE SHEET C4.5

5729.00
N 20760.02
E 26787.07

3:1 SLOPE

24" RCP
AT 0.5%

12" HIGH RIP RAP
CHECK DAM AND
12"D50 RIP, 24" THICK
ON MIRAFI 140N FABRIC
RAP PAD

5728.31
N 20736.73
E 26778.89

5729.63
N 20661.16
E 26844.00

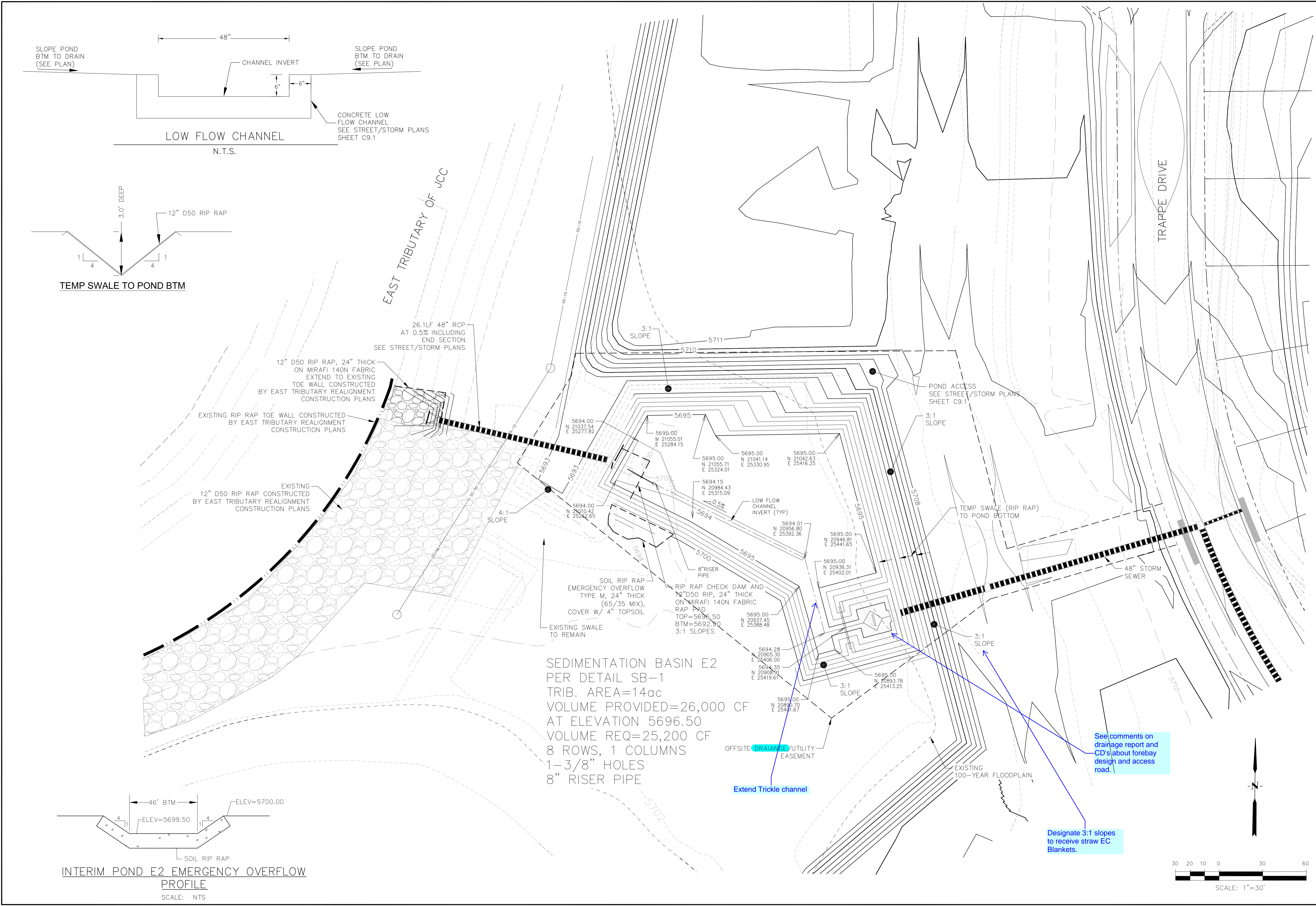
24" RCP
INV=5727.90
N 20735.16
E 26772.79

DETENTION
POND E1

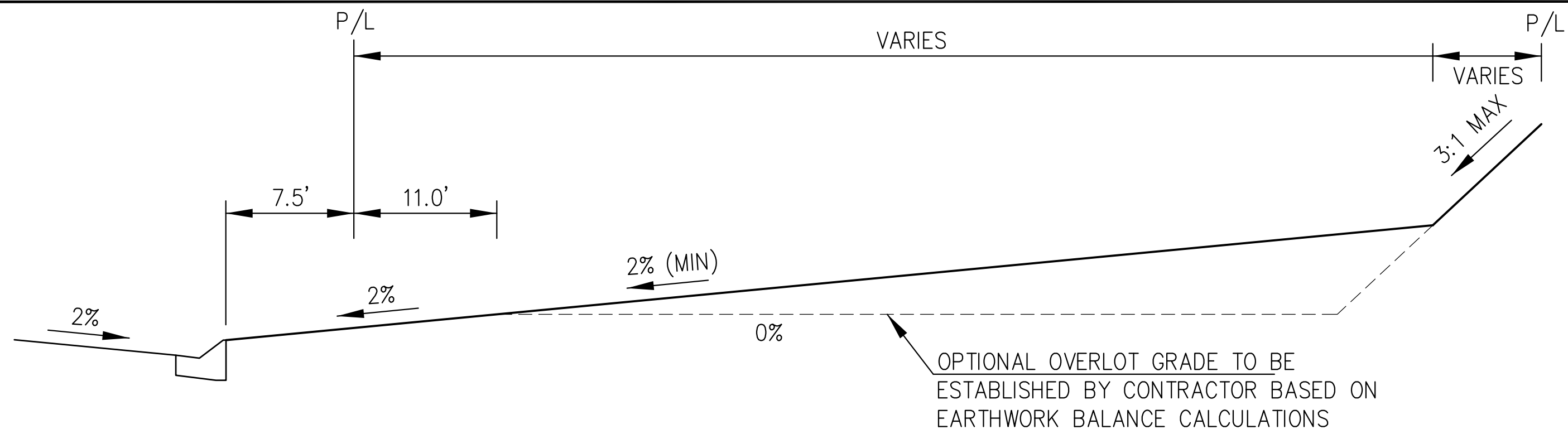
30 20 10 0 30 60
SCALE: 1"=30'



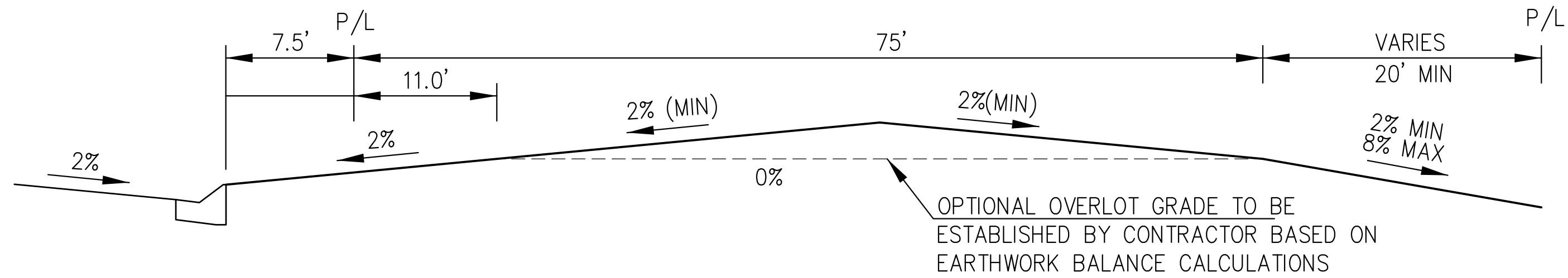
CORE ENGINEERING GROUP 15004 1ST AVENUE S. SUITE 100 BOULDER, CO 80501 PHONE: 303.440.1100 CONTACT: RICHARD L. SCHINDLER, P.E. EMAIL: Rich@ceg1.com	
DATE:	
DESCRIPTION:	
NO.:	
PROJECT: LORSON RANCH EAST FILING NO. 4 LORSON, LLC 212 N. WAHSATCH AVE. SUITE 301 COLORADO SPRINGS, COLORADO 80903 LORSON BLVD.-LAMPREY DR COLORADO SPRINGS, COLORADO CONTACT: JEFF MARK	
DRAWN:	RLS
DESIGNED:	RLS
CHECKED:	RLS
LORSON RANCH EAST FILING NO. 4 DETENTION POND E1	
DATE: FEBRUARY 28, 2018	
PROJECT NO. 100.048	
SHEET NUMBER C5.2	
TOTAL SHEETS: 13	



CORE ENGINEERING GROUP 15004 1ST AVENUE S. BURNING WOOD, CO 80903 CONTACT: RICHARD L. SCHINDLER, P.E. EMAIL: Rich@ceg.com	
DATE	
DESCRIPTION	
NO.	
PROJECT:	LORSON RANCH EAST FILING NO. 4
PREPARED FOR:	LORSON, LLC 212 N. WAHSATCH AVE. SUITE 301 COLORADO SPRINGS, COLORADO 80903 (719) 635-3200 CONTACT: JEFF MARK
DRAWN:	RLS
DESIGNED:	RLS
CHECKED:	RLS
LORSON RANCH EAST FILING NO. 4 DETENTION POND E2	
DATE: FEBRUARY 28, 2018	
PROJECT NO. 100.048	
SHEET NUMBER C5.3	
TOTAL SHEETS: 13	

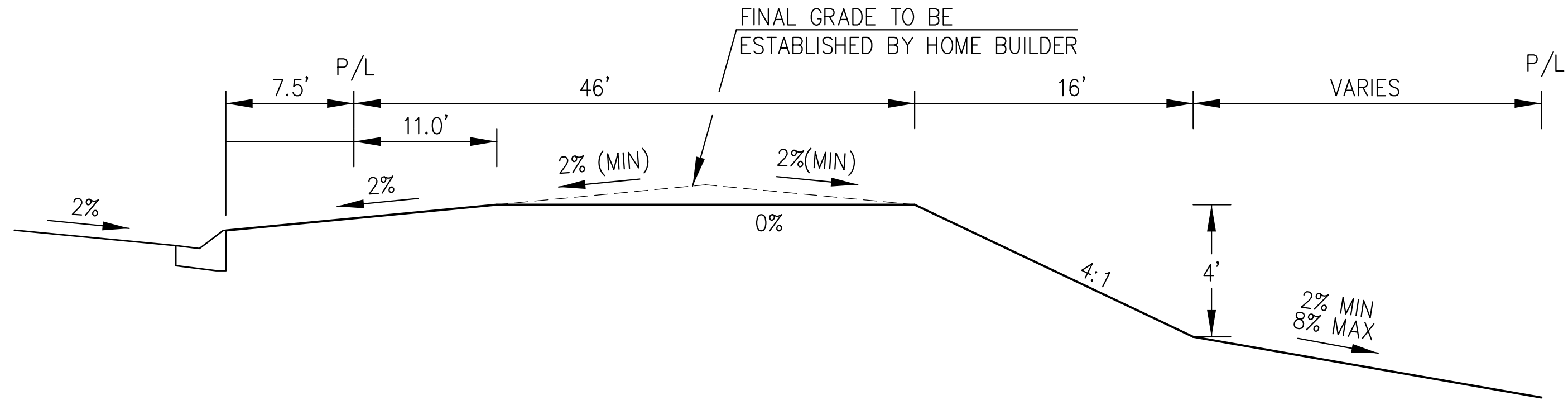


TYPICAL "A" LOT

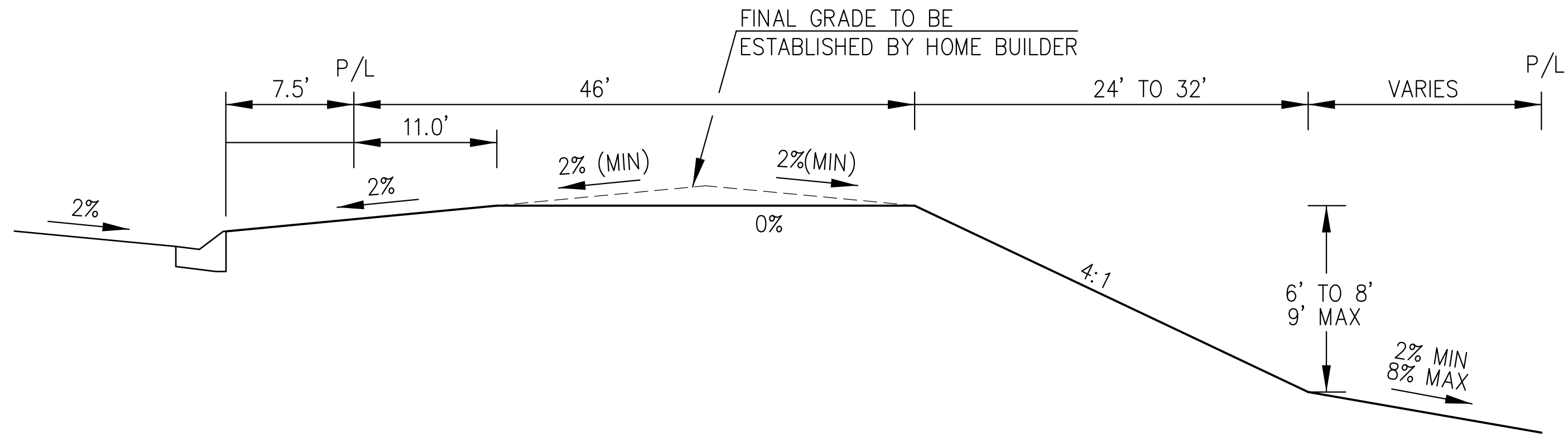


TYPICAL "B" LOT

Please provide a note or a detail that calls out side lot swales. To avoid overlot grading or homebuilder grading that sends more than one lot's drainage toward a neighboring lot.

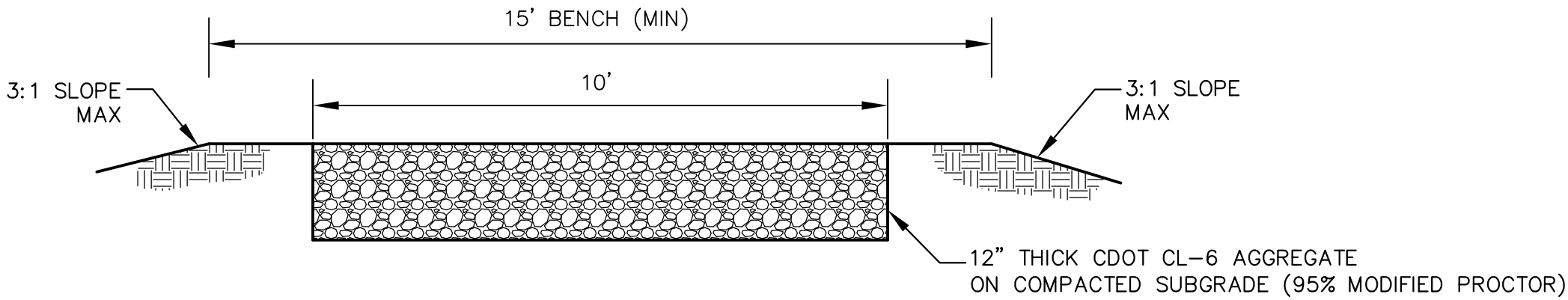


TYPICAL "GARDEN" LOT

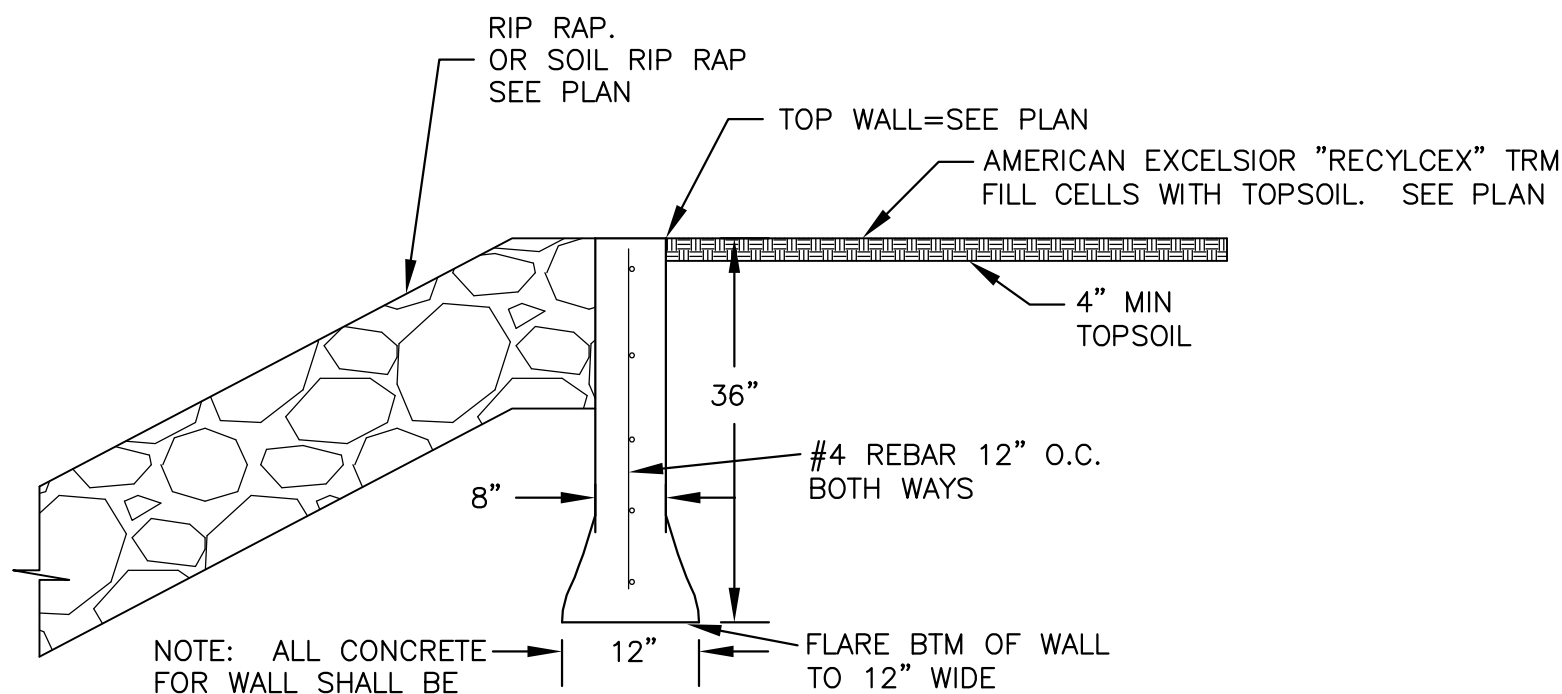


TYPICAL "WALKOUT" LOT

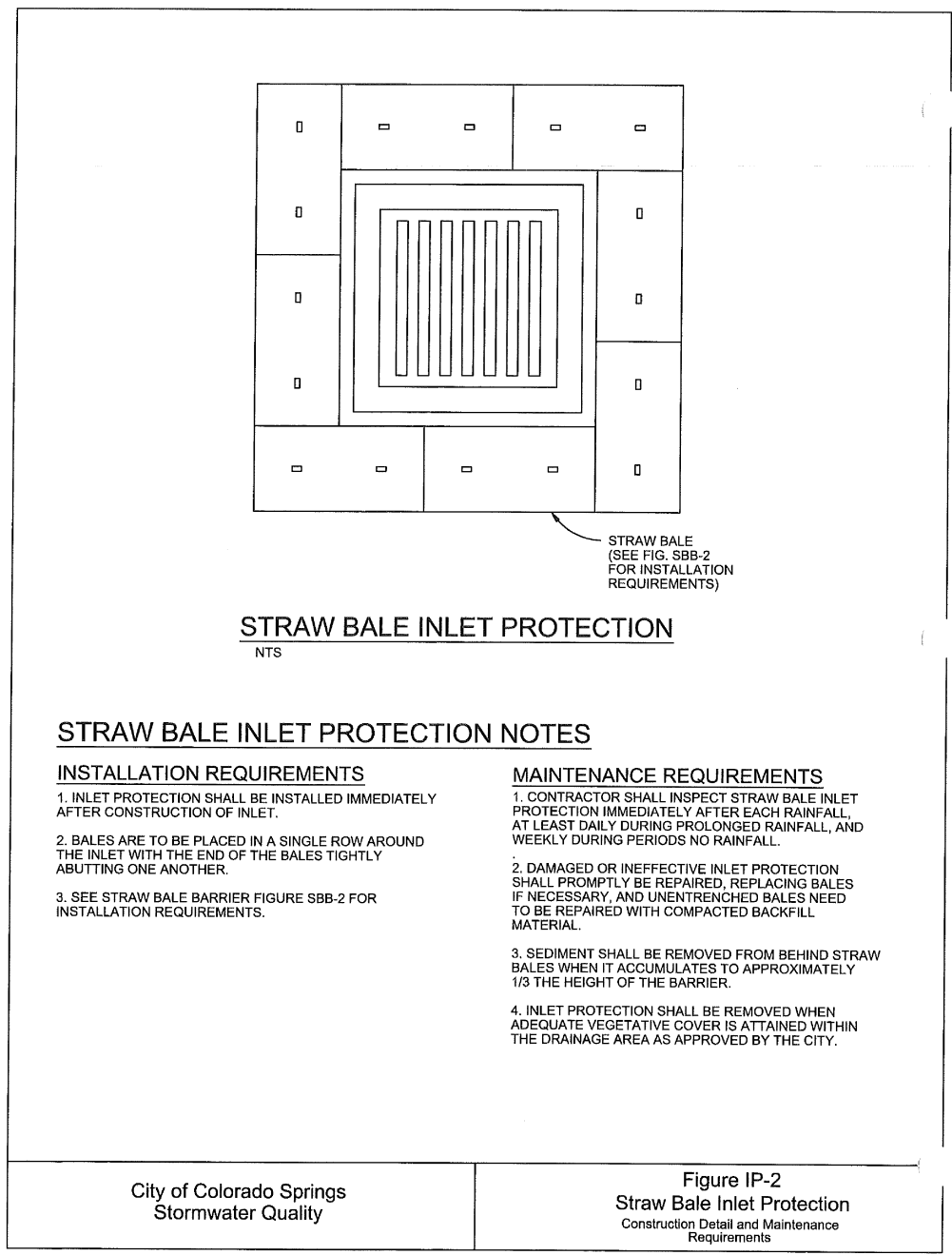
Some lots are identified as "T" lots. On the plan sheets. Please clarify on this sheet or the plan sheets.



POND MAINTENANCE ACCESS ROAD
NO SCALE



POND OVERFLOW CONCRETE WALL
NO SCALE



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 ADJUTING ONE ANCHOR.
3. SEE STRAW BALE BARRIER FIGURE 98B-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 OF RAINFALL.
2. DAMAGED OR INEFFECTIVE INLET PROTECTION SHALL PROMPTLY BE REPAIRED, REPLACING BALES IF NECESSARY, AND UNINTENDED 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
Contractor Detail and Maintenance
Requirements

3-26

CORE

ENGINEERING GROUP

15004 1ST AVENUE S.
DENVER, CO 80202
PHONE: 303.733.5506
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: Rich@ceg.com

DATE

DESCRIPTION

NO.

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

FINAL GRADING PLAN
DETAILS

DATE:
FEBRUARY 28, 2018

PROJECT NO.
100.048

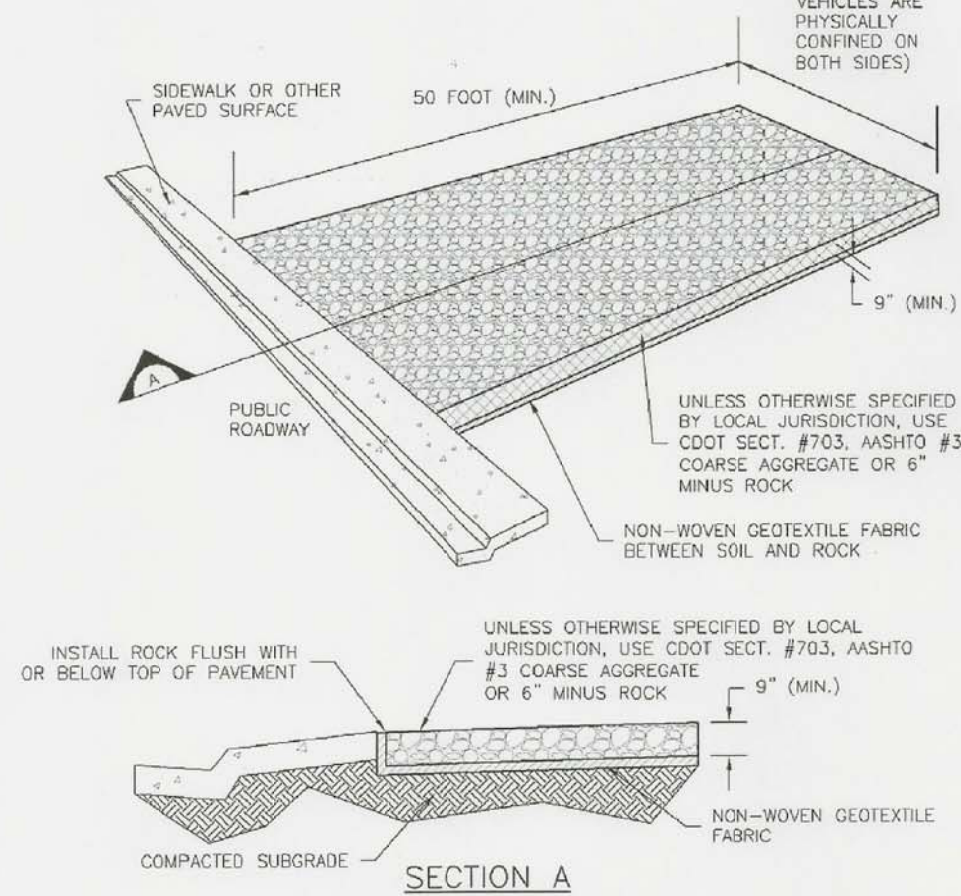
SHEET NUMBER
C12.1

TOTAL SHEETS: 13

PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE, SUITE 301
COLORADO SPRINGS, COLORADO 80903
(719) 635-3200
CONTACT: JEFF MARK

PROJECT:
LORSON RANCH EAST
FILING NO. 4
LORSON BLVD.-LAMPREY DR
COLORADO SPRINGS, COLORADO

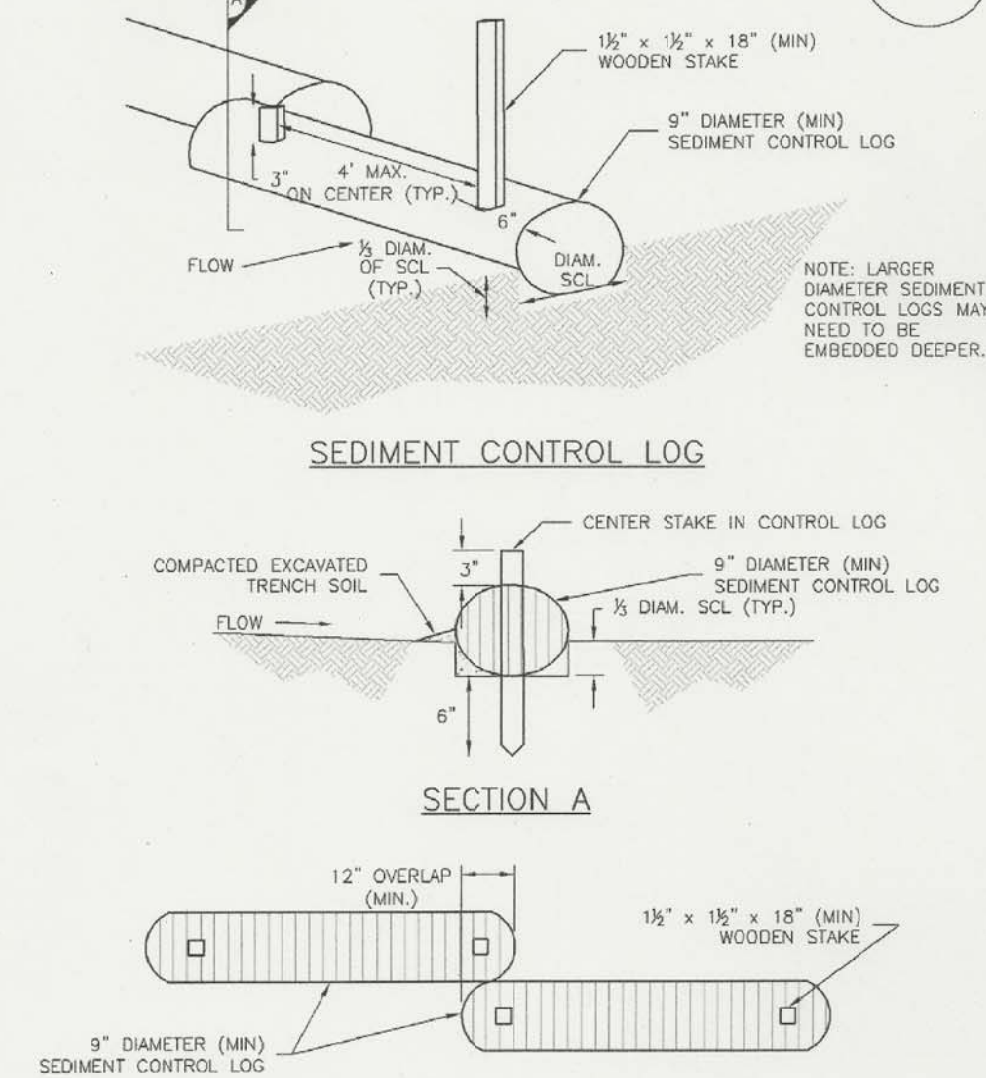
SM-4



VTC-1. AGGREGATE VEHICLE TRACKING CONTROL

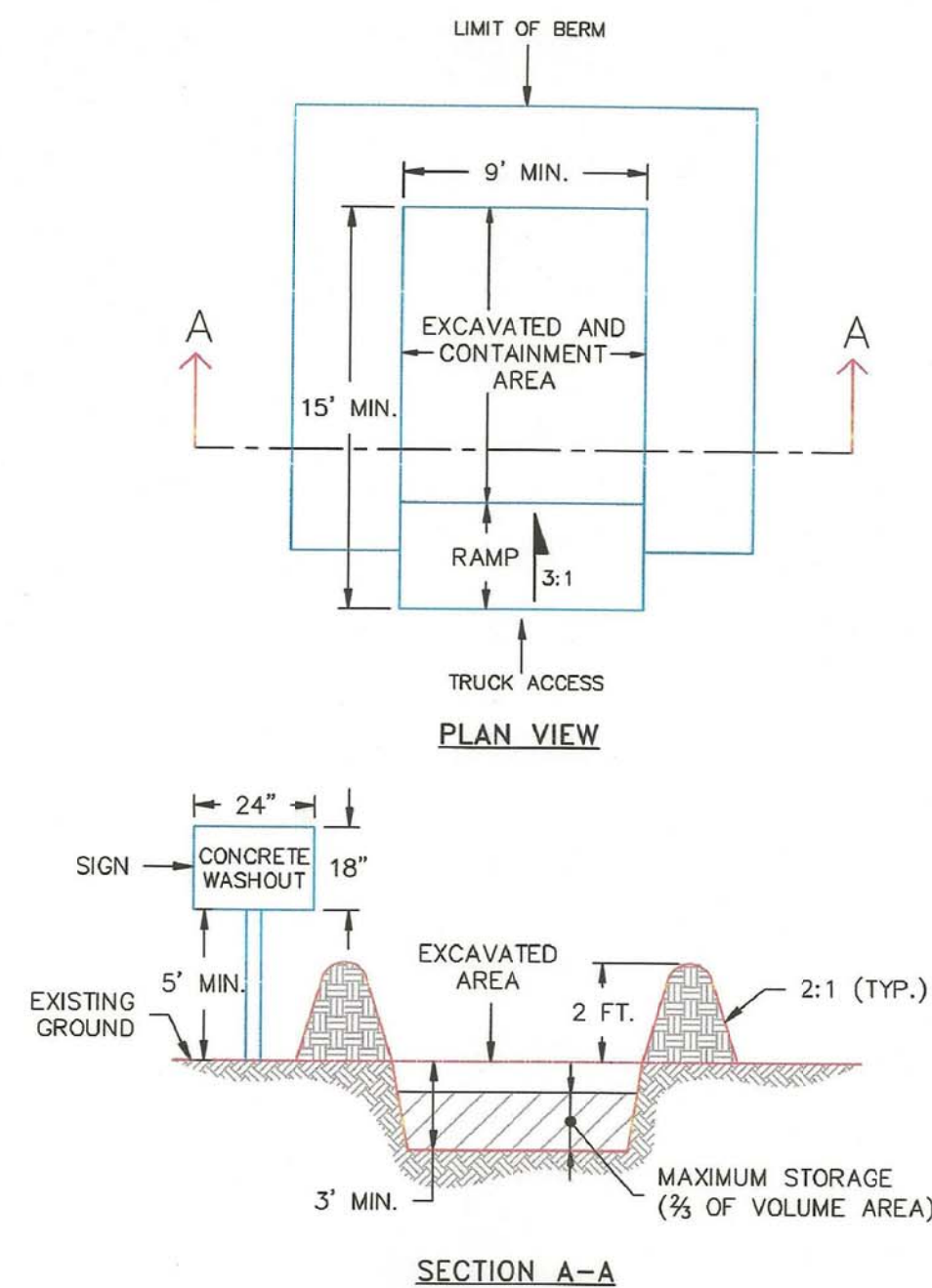
November 2010 Urban Drainage and Flood Control District VTC-3
 Urban Storm Drainage Criteria Manual Volume 3

SC-2

SEDIMENT CONTROL LOG JOINTS

SCL-1. SEDIMENT CONTROL LOG

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



NOTES:

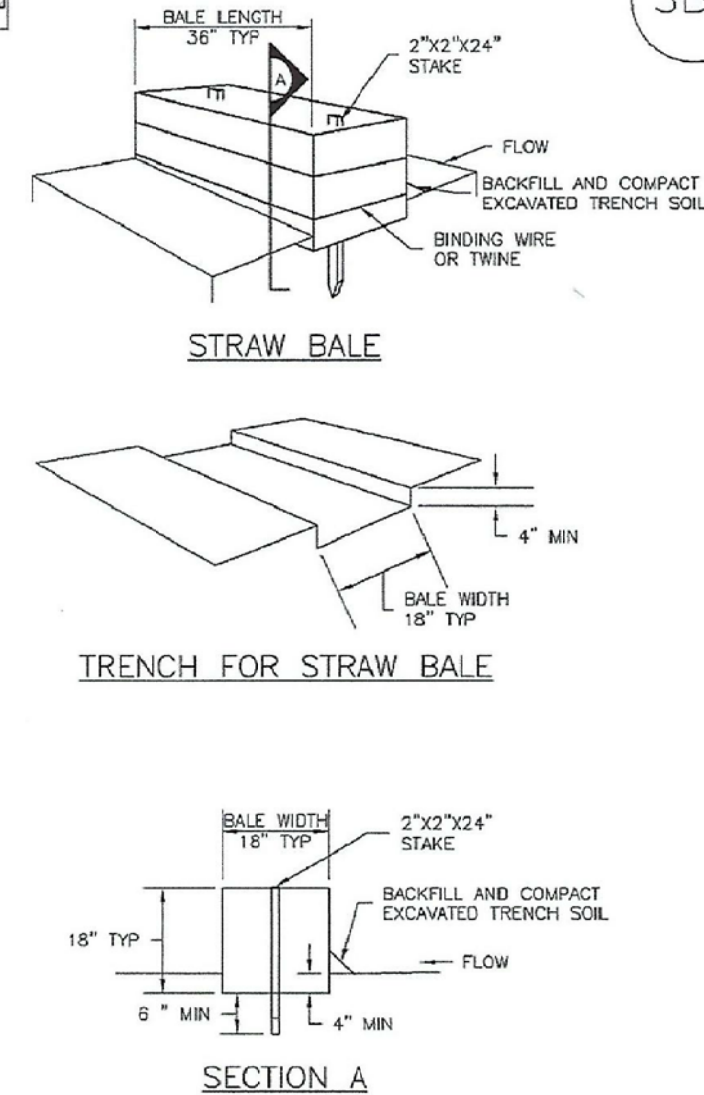
1. SIGN MATERIAL, EXCAVATION, AND RESTORATION ARE INCLUDED IN THE COST OF THE CONCRETE WASHOUT STRUCTURE.
2. EROSION BALES MAY BE USED AS AN ALTERNATIVE FOR THE BERM.

1/1/08
DATE APPROVED: _____ Concrete Washout Structure

John A. McCarty	Standard Drawing	
DEPARTMENT OF TRANSPORTATION	REVISION DATE: 7/17/07	FILE NAME: SD 3-84

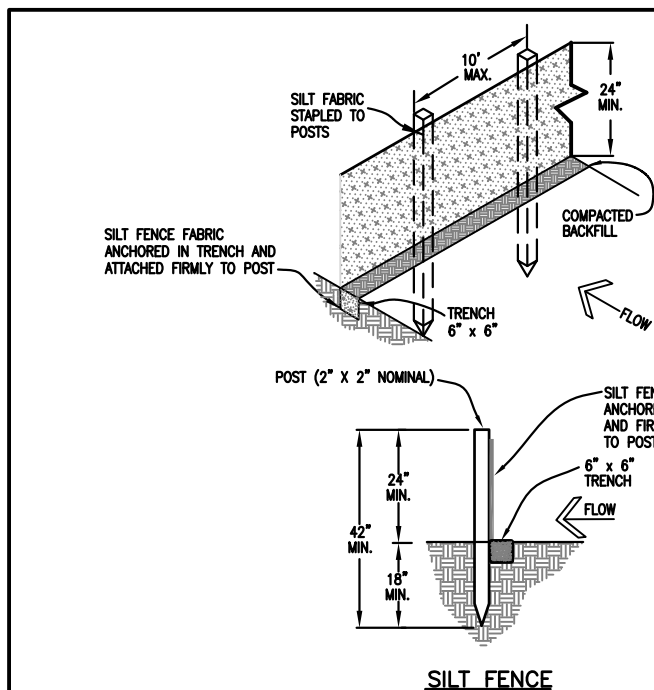


Straw Bale Barrier (SBB)



SBB-1. STRAW BALE

SBB-2
Urban Drainage and Flood Control District
Urban Storm Drainage Criteria Manual Volume 3
November 2010



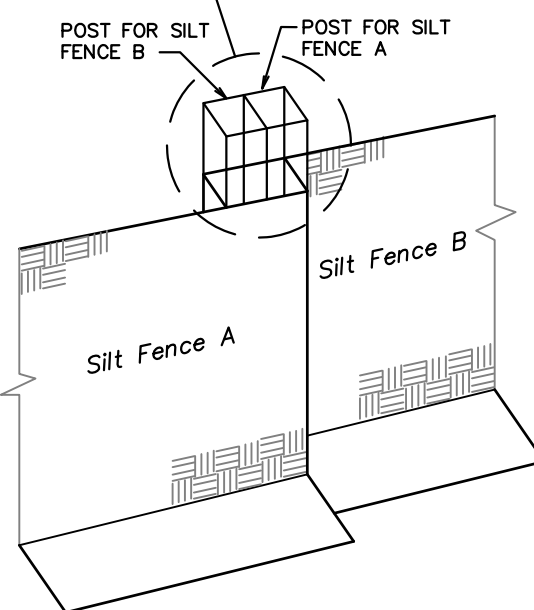
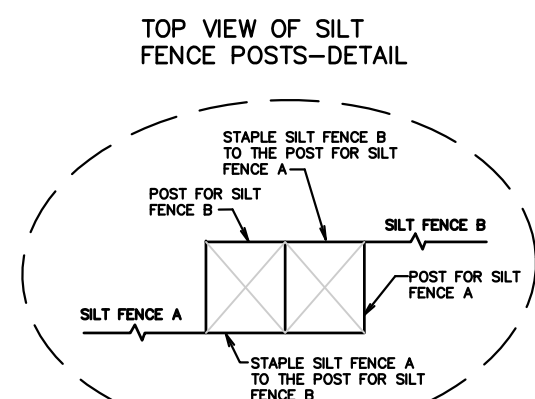
SILT FENCE

INSTALLATION REQUIREMENTS

1. FENCE SADDLES SHALL BE INSTALLED PRIOR TO ANY LAND CLEARING OR GRADING.
 2. WHEN SADDLES ARE NECESSARY, SADDLE FENCE CORDS SHALL BE SPLICED TOGETHER ONLY AT SUPPORT POSTS AND SHALL NOT BE SPLICED AT ANY OTHER POINTS.
 3. METAL POSTS SHALL BE "STUDDED TYPE" OR "U" TYPE WITH MINIMUM HEIGHT OF 13.5 POUNDS PER LINEAR FOOT. WOOD POSTS SHALL BE 4" X 6" OR 6" X 6" WITH A MINIMUM DIMENSION OF 2 INCHES.
 4. FENCE SADDLES SHALL BE PARTIALLY STUDDED TO METAL OR WOOD POSTS USING WIRE TIES OR TO WOOD POSTS USING LONG WIRE TIES. WIRE TIES SHALL BE FENCE SADDLE CORDS THAT DO NOT STAY IN THE EXISTING LINE.
 5. WHILE NOT REQUIRED, WHEN WESH FENCE MAY BE USED TO PROTECT EXISTING OR NEW UTILITIES, THE FENCE SHALL BE SECURELY TO THE UPSIDE SIDE OF THE POSTS USING WIRE TIES. THE WIRE TIES SHALL BE SECURELY TO THE UPSIDE OF OR HOUSING. THE WIRE SHALL EXTEND INTO THE TRENCH AT LEAST 12 INCHES AND MORE THAN 3" ABOVE THE ORIGINAL GROUND SURFACE.
 6. ALONG THE TOE OF PILES, INSTALL THE SADDLE FENCE TO THE TOE OF THE PILE. THE SADDLE FENCE FOR RUNOFF TO FLATS AND SEDIMENT TO BE REMOVED MUST BE INSTALLED AT LEAST 5 FEET FROM THE TOE OF THE PILE IS RECOMMENDED.
 7. THE HEIGHT OF THE SADDLE FENCE FROM THE GROUND SURFACE SHALL BE 36 INCHES. THE SADDLE FENCE SHALL NOT EXCEED 36 INCHES. HIGHER FENCES MAY INCREASE THE RISK OF DAMAGE TO THE STRUCTURE.
- MAINTENANCE REQUIREMENTS**
1. REMOVE ANY DAMAGED FENCES IMMEDIATELY AFTER EACH RAINFALL, AT LEAST DURING THE RAINFALL. REMOVE ANY DAMAGED FENCES IMMEDIATELY AFTER EACH RAINFALL. REMOVE ANY DAMAGED, DAMAGED, DAMAGED, UNENFORCED OR UNENFORCED FENCES IMMEDIATELY AFTER EACH RAINFALL.
2. SEDIMENT SHALL BE REMOVED FROM BEHIND SADDLE FENCE IMMEDIATELY AFTER EACH RAINFALL. REMOVE SEDIMENT IMMEDIATELY AFTER EACH RAINFALL.
3. REMOVE ANY FENCES THAT BECOME TOO INADEQUATE. NEGATIVE CORD IS ATTAINED AS APPROVED BY THE CITY.

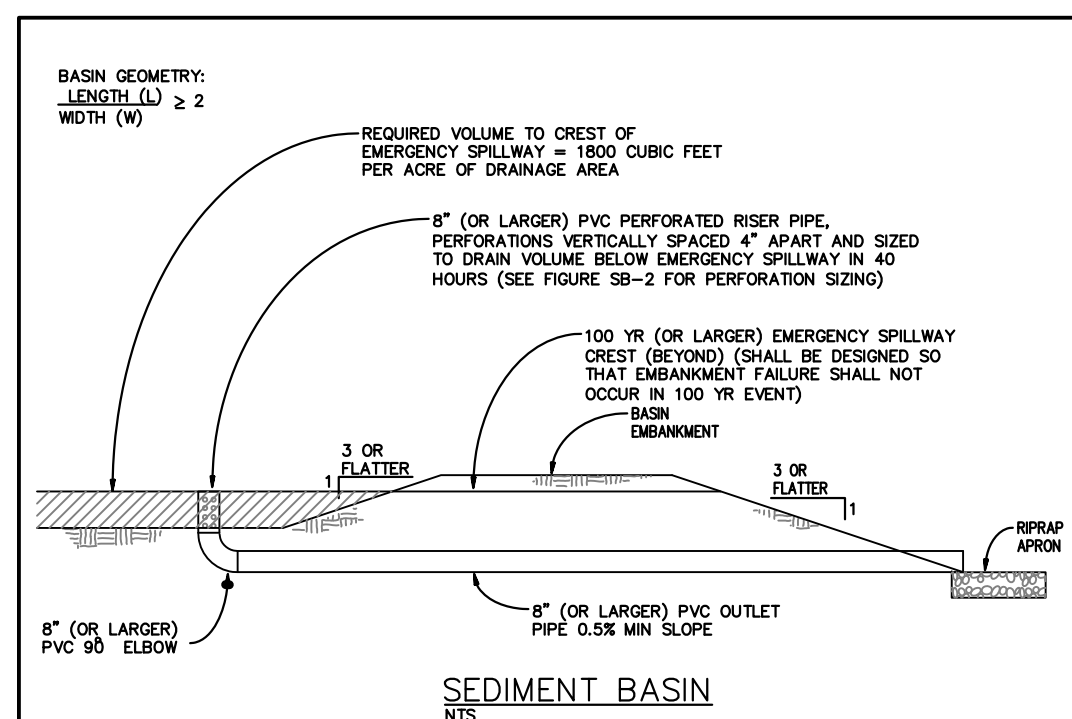
Figure SF-2
Silt Fence
Construction Detail and Maintenance
Requirements

City of Colorado Springs

City of Colorado Springs
Stormwater Quality

**Figure SF-3 Silt Fence
Joint Tying**
Construction Detail and Maintenance
Requirements

Figure SF-join



SEDIMENT BASIN NOTES

INSTALLATION REQUIREMENTS

1. SEDIMENT BASINS SHALL BE INSTALLED BEFORE ANY CLEARING AND/OR GRADING IS UNDER TAKEN.
2. THE AREA UNDER WHICH THE EMBANKMENT IS TO BE INSTALLED SHALL BE CLEARED, GRUBBED, AND STRIPPED OF ALL VEGETATION AND ROOT MAT.
3. THE OUTLET OF THE BASIN SHALL BE DESIGNED TO DRAIN ITS VOLUME IN 40 HOURS.
4. THE OUTLET IS TO BE LOCATED AT THE FURTHEST DISTANCE FROM THE INLET OF THE BASIN. THE BASIN MAY BE SLOPED TO INCREASE THE FLOW LENGTH AND SETTLING TIME.
5. EMBANKMENT MATERIAL SHALL CONSIST OF SOIL WITH A MINIMUM OF 15% PASSING A #200 SIEVE. EXCELLENT SOIL CAN BE USED IF IT MEETS THIS REQUIREMENT.
6. EMBANKMENT IS TO BE COMPACTED TO AT LEAST 95% OF THE MAXIMUM DRY DENSITY AT OPTIMUM MOISTURE CONTENT ACCORDING TO ASTM D 698.
7. WHEN A BASIN IS INSTALLED NEAR A RESIDENTIAL AREA, FOR SAFETY REASONS, A SIGN SHALL BE PLACED AT THE BASIN AREA.

MAINTENANCE REQUIREMENTS

1. CONTRACTOR SHALL INSPECT SEDIMENT BASINS AFTER EACH RAINFALL, AT LEAST DAILY DURING PROPOSED CONSTRUCTION, AND WEEKLY DURING PERIODS OF RAINFALL.
2. SEDIMENT BASINS SHALL BE CLEANED OUT BEFORE SEDIMENT HAS FILLED HALF THE VOLUME OF THE BASIN.
3. SEDIMENT BASINS SHALL REMAIN OPERATIONAL AND PROPERLY MAINTAINED UNTIL THE AREA IS PERMANENTLY STABILIZED WITH ADEQUATE VEGETATIVE COVER AND/OR OTHER PERMANENT STRUCTURE AS APPROVED BY THE CITY.

City of Colorado Springs
Stormwater Quality

Figure SB-1 Sediment Basin
Construction Detail and Maintenance Requirements

3-32

FINAL GRADING PLAN DETAILS

DATE:
FEBRUARY 28, 2018

PROJECT NO.
100.048

SHEET NUMBER
C12.2

TOTAL SHEETS: 13

[illegible]

Markup Summary

Steve Kuehster (14)



Subject: text box
Page Label: 2
Author: Steve Kuehster
Date: 4/23/2019 1:37:20 PM
Color: ■

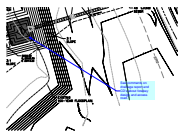
The Developer/Home builder shall install side lot and rear lot swales to minimize the lot to lot drainage.

SF-19-008



Subject: text box
Page Label: 1
Author: Steve Kuehster
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SF-19-008



Subject: arrow & box
Page Label: 11
Author: Steve Kuehster
Date: 4/23/2019 12:30:33 PM
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See comments on drainage report and CD's about forebay design and access road.



Subject: arrow & box
Page Label: 11
Author: Steve Kuehster
Date: 4/23/2019 12:31:17 PM
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Extend Trickle channel

SITE DRAINAGE/UTILITY EASEMENT

Subject: Highlight
Page Label: 11
Author: Steve Kuehster
Date: 4/23/2019 12:31:22 PM
Color: ■

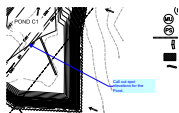
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Date: 4/23/2019 12:31:51 PM
Color: ■



Subject: arrow & box
Page Label: 11
Author: Steve Kuehster
Date: 4/23/2019 12:33:22 PM
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Designate 3:1 slopes to receive straw EC Blankets.



Subject: arrow & box
Page Label: 4
Author: Steve Kuehster
Date: 4/24/2019 9:05:38 AM
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Call out spot elevations for the Pond.

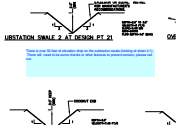


Subject: Highlight
Page Label: 5
Author: Steve Kuehster
Date: 4/24/2019 9:22:52 AM
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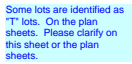
Subject: arrow & box
Page Label: 5
Author: Steve Kuehster
Date: 4/24/2019 9:23:33 AM
Color:

Show inlet and pipe.



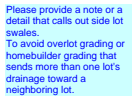
Subject: text box
Page Label: 8
Author: Steve Kuehster
Date: 4/24/2019 9:31:46 AM
Color:

There is over 50 feet of elevation drop on the substation swale (looking at sheet 4.1). There will need to be some checks or other features to prevent erosion, please call out.



Subject: text box
Page Label: 12
Author: Steve Kuehster
Date: 4/24/2019 9:38:31 AM
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Some lots are identified as "T" lots. On the plan sheets. Please clarify on this sheet or the plan sheets.



Subject: text box
Page Label: 12
Author: Steve Kuehster
Date: 4/24/2019 9:44:29 AM
Color:

Please provide a note or a detail that calls out side lot swales.
To avoid overlot grading or homebuilder grading that sends more than one lot's drainage toward a neighboring lot.