# DAVIS RD

# THE RESERVE AT CORRAL BLUFFS SUBDIVISION

RECEIVED OCT 28 2013

EPC DEVELOPMENT SERVICES

olorado Springs, CO

FAX: 719-471-0766 www.jpsengr.com

UBD

Construction Drawings El Paso County, Colorado

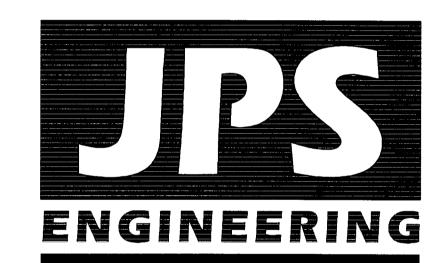
. Revise the construction drawings for the Filing 2 exte only or identify the designs outside of Filing 2 as either illing 1 or future improvements. The plans must be clea that approval of this construction plans is for Filing 2 only

PREPARED FOR:

# Corral Ranch Development Company

6 South Tejon Street, Suite 515 Colorado Springs, CO 80903

PREPARED BY:



19 East Willamette Avenue Colorado Springs, Colorado 80903 OCTOBER 2013

Add the following as a 3rd paragraph In accordance with ECM Section 1.12, these construction documents will be valid for construction for a period o 2 years from the date signed by the El Paso County Engineer. If construction has not started within those 2 years, the plans will need to be resubmitted for approval, including payment of review fees at the Planning and Community Development Directors discretion.

# SITE MAP NOT TO SCALE

NOTE: 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 TO BE ACCEPTABLE.

THE BASIS OF BEARINGS FOR THIS SURVEY IS THE SOUTH LINE OF LOT 1, BLOCK 3, CORRAL RANCHES SUBDIVISION FILING NO. 3, S89'30'43"E, 660.00 FEET. THE DIRECTION IS BASED ON THE RECORDED PLAT AND THE LINE IS MONUMENTED AS

NATIONAL GEODETIC SURVEY CONTROL MONUMENT "CORRAL BLUFFS" FIRST ORDER CONTROL POINT TO BE PRESERVED

# AGENCIES/CONTACTS

DEVELOPER: CORRAL RANCH DEVELOPMENT COMPANY 6 SOUTH TEJON STREET, SUITE 515 COLORADO SPRINGS, CO 80903 MR. JAKE KUNSTLE

> JPS ENGINEERING, INC. 19 E. WILLAMETTE AVENUE COLORADO SPRINGS, CO 80903 MR. JOHN P. SCHWAB, P.E. (719) 477-9429

> EL PASO COUNTY DSD 2880 INTERNATIONAL GIRCLE COLORADO SPRINGS. CO 80910 MR. RICH HARVEY, P.E. <sup>7</sup>(719) 520-6842

GAS DEPARTMENT:

MR. GEORGE PETERSON (719) 393-6625 ELECTRIC DEPARTMENT: MOUNTAIN VIEW ELECTRIC ASSOCIATION

BLACK HILLS ENERGY

11140 E. WOODMEN ROAD COLORADO SPRINGS, CO 80908 MR. DAVE WALDNER (719) 495-2283

QWEST COMMUNICATIONS (LOCATORS) (800) 922-1987

A.T. & T. (LOCATORS) (719) 635-3674

FALCON FIRE DISTRICT FIRE MARSHAL (719) 495-4050

# SHEET INDEX

TITLE SHEET GENERAL NOTES & TYPICAL SECTION GRADING & EROSION CONTROL PLAN EROSION CONTROL NOTES & DETAILS HOOFPRINT ROAD PLAN & PROFILE STA: 1+00 TO 13+50 HOOFPRINT ROAD PLAN & PROFILE STA: 13+50 TO 25+50 HOOFPRINT ROAD PLAN & PROFILE STA: 25+50 TO 39+00 SOLBERG COURT PLAN & PROFILE STA: 1+50 TO 13+00 SOLBERG COURT PLAN & PROFILE STA: 13+00 TO 24+50 CULVERT PROFILES

### DESIGN ENGINEER'S STATEMENT

THESE DETAILED PLANS AND SPECIFICATIONS WERE PREPARED UNDER MY DIRECTION AND SUPERVISION. SAID PLANS AND SPECIFICATIONS HAVE BEEN PREPARED ACCORDING TO THE CRITERIA ESTABLISHED BY THE COUNTY FOR DETAILED ROADWAY, DRAINAGE, GRADING AND EROSION CONTROL PLANS AND SPECIFICATIONS, AND SAID PLANS AND SPECIFICATIONS ARE IN CONFORMITY WITH APPLICABLE MASTER DRAINAGE PLANS AND MASTER TRANSPORTATION PLANS. SAID PLANS AND SPECIFICATIONS MEET THE PURPOSES FOR WHICH THE PARTICULAR ROADWAY AND DRAINAGE FACILITIES ARE DESIGNED AND ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY ANY NEGLIGENT ACTS, ERRORS OR OMISSIONS ON MY PART IN PREPARATION OF THESE DETAILED PLANS AND SPECIFICATIONS.

JOHN P. SCHWAB, P.E. #29891

11/08/13 DATE

10-28-13

DATE

10-31-13

DATE

### OWNER/DEVELOPER'S STATEMENT

THE OWNER/DEVELOPER HAVE READ AND WILL COMPLY WITH ALL OF THE REQUIREMENTS SPECIFIED IN THESE DETAILED PLANS AND SPECIFICATIONS.

JAKE Kunstle han JAKE KUNSTLE, MANAGER CORRAL RANCH DEVELOPMENT COMPANY 6 SOUTH TEJON STREET, SUITE 515 COLORADO SPRINGS, COLORADO 80903

### **EL PASO COUNTY:**

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

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

ANDRE P. BRACKIŃ. P.E.. COUNTY ENGINEER / ECM ADMINISTRATOR

HORZ. SCALE: DESIGNED: 3/17/12 LAST MODIFIED: 10/21/13
NO: MODIFIED BY: MSP. 081104 SHEET:

G

CIVIL ENGINEER:

LOCAL ROADS

& DRAINAGE:

(719) 964 - 5941

TELEPHONE COMPANY:

FIRE DEPARTMENT:

Revise to Gilbert LaForce, P.E.

Update to Jennifer Irvine, P.E.

Add PCD File No. SF-18-010

◆ BENCHMARK:

\_\_\_\_

520-7945

Update any references from Development Services Department (DSD) to Planning and Community Development (PCD)

### COUNTY GENERAL 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. NOT WITH STANDING 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 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 DEVELOPMENT SERVICES DEPARTMENT (DSD) 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 DSD. CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER IMMEDIATELY UPON DISCOVERY OF ANY ERRORS OR INCONSISTENCIES.
- 9. ALL STORM DRAIN PIPE SHALL BE CLASS III RCP WITH CLASS B BEDDING UNLESS OTHERWISE NOTED AND APPROVED BY DSD.
- 10. CONTRACTOR SHALL COORDINATE GEOTECHNICAL TESTING PER ECM STANDARDS. PAVEMENT DESIGN SHALL BE APPROVED BY EL PASO COUNTY DSD 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 DOT AND MUTCD CRITERIA.
- 14. CONTRACTOR SHALL OBTAIN ANY PERMITS REQUIRED BY EL PASO COUNTY DOT, 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.

DESIGN DATA

ROADWAY WIDTH (GRAVEL)

MIN. HORIZONTAL RADIUS:

MIN. K-VALUE (CREST):

MIN. K-VALUE (SAG):

DESIGN SPEED:

POSTED SPEED:

MIN. GRADE:

MAX. GRADE:

ROAD CLASSIFICATION: RURAL LOCAL RESIDENTIAL

30 MPH

30 MPH

300'

1.0%

8.0%

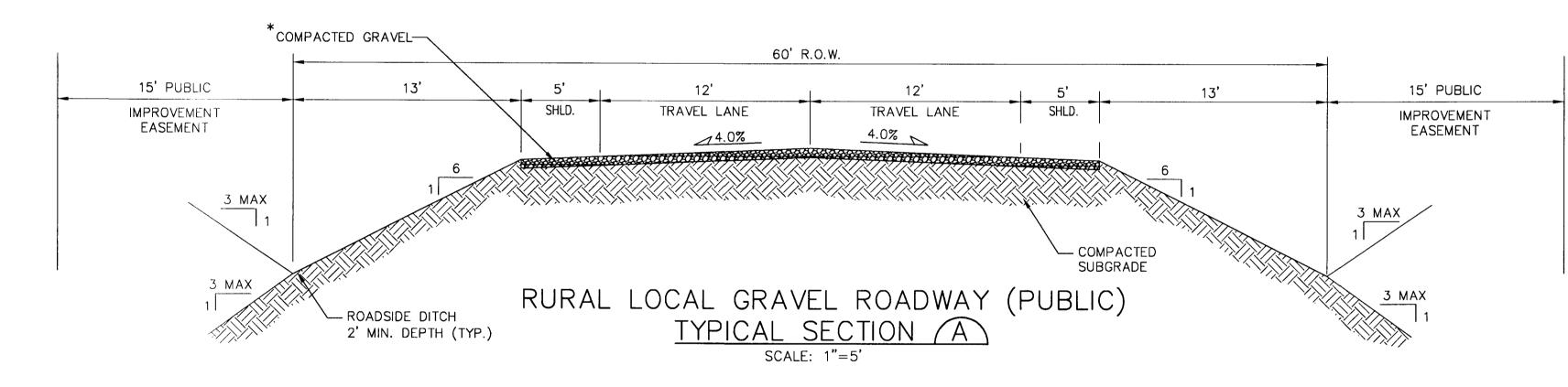
34' EOG-EOG

### COUNTY SIGNING AND STRIPING NOTES:

- 1. ALL SIGNS AND PAVEMENT MARKINGS SHALL BE IN COMPLIANCE WITH THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)
- 2. REMOVAL OF EXISTING PAVEMENT MARKINGS SHALL BE ACCOMPLISHED BY A METHOD THAT DOES NOT MATERIALLY DAMAGE THE PAVEMENT. THE PAVEMENT MARKINGS SHALL BE REMOVED TO THE EXTENT THAT THEY WILL NOT BE VISIBLE UNDER DAY OR NIGHT CONDITIONS. AT NO TIME WILL IT BE ACCEPTABLE TO PAINT OVER EXISTING PAVEMENT MARKINGS.
- 3. ANY DEVIATION FROM THE STRIPING AND SIGNING PLAN SHALL BE APPROVED BY EL PASO COUNTY DEVELOPMENT SERVICES.
- 4. ALL SIGNS SHOWN ON THE SIGNING AND STRIPING PLAN SHALL BE NEW SIGNS. EXISTING SIGNS MAY REMAIN OR BE REUSED IF THEY MEET CURRENT EL PASO COUNTY AND MUTCD STANDARDS.
- 5. STREET NAME AND REGULATORY STOP SIGNS SHALL BE ON THE SAME POST AT INTERSECTIONS.
- 6. ALL REMOVED SIGNS SHALL BE DISPOSED OF IN A PROPER MANNER BY THE CONTRACTOR.
- 7. ALL STREET NAME SIGNS SHALL HAVE "C" SERIES LETTERS, WITH LOCAL ROADWAY SIGNS BEING 4" UPPER-LOWER CASE LETTERING ON 8" BLANK AND COLLECTOR ROADWAY SIGNS BEING 6" LETTERING, UPPER-LOWER CASE ON 12" BLANK, WITH 1/2" WHITE BORDER THAT IS NOT RECESSED.
- 8. ALL TRAFFIC SIGNS SHALL HAVE A MINIMUM HIGH INTENSITY PRISMATIC GRADE SHEETING.
- 9. ALL LOCAL RESIDENTIAL STREET SIGNS SHALL BE MOUNTED ON A 1.75" X 1.75" SQUARE TUBE SIGN POST AND STUB POST BASE. FOR OTHER APPLICATIONS, REFER TO THE CDOT STANDARD S-614-8 REGARDING USE OF THE P2 TUBULAR STEEL POST SLIPBASE DESIGN.
- 10. ALL SIGNS SHALL BE SINGLE SHEET ALUMINUM WITH 0.100" MINIMUM THICKNESS.
- 11. ALL LIMIT LINES/STOP LINES, CROSSWALK LINES, PAVEMENT LEGENDS, AND ARROWS SHALL BE A MINIMUM 125 MIL THICKNESS PREFORMED THERMOPLASTIC PAVEMENT MARKINGS WITH TAPERED LEADING EDGES PER CDOT STANDARD S-627-1. WORD AND SYMBOL MARKINGS SHALL BE THE NARROW TYPE. STOP BARS SHALL BE 24" IN WIDTH. CROSSWALKS LINES SHALL BE 12" WIDE AND 8' LONG PER CDOT S-627-1.
- 12. ALL LONGITUDINAL LINES SHALL BE A MINIMUM 15MIL THICKNESS EPOXY PAINT. ALL NON-LOCAL RESIDENTIAL ROADWAYS SHALL INCLUDE BOTH RIGHT AND LEFT EDGE LINE STRIPING AND ANY ADDITIONAL STRIPING AS REQUIRED BY CDOT S-627-1.
- 13. THE CONTRACTOR SHALL NOTIFY EL PASO COUNTY DEVELOPMENT SERVICES (719) 520-6819 PRIOR TO AND UPON COMPLETION OF SIGNING AND STRIPING.
- 14. THE CONTRACTOR SHALL OBTAIN A WORK IN THE RIGHT OF WAY PERMIT FROM THE EL PASO COUNTY DEPARTMENT OF TRANSPORTATION PRIOR TO ANY SIGNAGE OR STRIPING WORK WITHIN AN EXISTING EL PASO COUNTY ROADWAY.

### PROJECT GENERAL NOTES:

- 1. EXISTING CONTOUR DATA PROVIDED BY OWNER CONSISTS OF AERIAL TOPOGRAPHIC SURVEY DATA PROVIDED BY LWA LAND SURVEYING. JPS ENGINEERING TAKES NO RESPONSIBILITY FOR THE ACCURACY OF EXISTING TOPOGRAPHIC MAPPING.
- 2. STATIONING IS AT CENTERLINE UNLESS OTHERWISE NOTED. ALL ELEVATIONS ARE AT EDGE OF ASPHALT (EQA) UNLESS OTHERWISE NOTED. ALL DIMENSIONS ARE FROM EDGE OF ASPHALT TO EDGE OF ASPHALT UNLESS OTHERWISE NOTED.
- 3. PROPOSED CONTOURS SHOWN ARE TO FINISHED GRADE.
- 4. LENGTHS SHOWN FOR STORM SEWER PIPES ARE TO CENTER OF MANHOLE.
- 5. CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL EXISTING STRUCTURES, DEBRIS, WASTE AND OTHER UNSUITABLE FILL MATERIAL FOUND WITHIN THE LIMITS OF EXCAVATION.
- MATCH INTO EXISTING GRADES AT 3:1 MAX CUT AND FILL SLOPES.
- 7. REVEGETATION OF ALL DISTURBED AREAS SHALL BE DONE WITH SPECIFIED SEED MIX WITHIN 60 DAYS AFTER FINE GRADING IS COMPLETE.
- 8. EROSION CONTROL SHALL CONSIST OF SILT FENCE AND HAY BALES AS SHOWN ON THE DRAWING, AND TOPSOIL WITH GRASS SEED, WHICH WILL BE WATERED UNTIL VEGETATION HAS BEEN REESTABLISHED.
- 9. THE EROSION CONTROL MEASURES OUTLINED ON THIS PLAN ARE THE RESPONSIBILITY OF THE DEVELOPER TO MONITOR AND REPLACE, REGRADE, AND REBUILD AS NECESSARY UNTIL VEGETATION IS REESTABLISHED.
- 10. EROSION CONTROL MEASURES SHALL BE IMPLEMENTED IN A MANNER THAT WILL PROTECT ADJACENT PROPERTIES AND PUBLIC FACILITIES FROM THE ADVERSE EFFECTS OF EROSION AND SEDIMENTATION AS A RESULT OF CONSTRUCTION AND EARTHWORK ACTIVITIES WITHIN THE PROJECT SITE.
- 11. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED AS DETERMINED BY SITE CONDITIONS.
- 12. THE CONTRACTOR WILL TAKE THE NECESSARY PRECAUTIONS TO PROTECT EXISTING UTILITIES FROM DAMAGE DUE TO THIS OPERATION. ANY DAMAGE TO THE UTILITIES WILL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. AND ANY SERVICE DISRUPTION WILL BE SETTLED BY THE CONTRACTOR.
- 13. ALL BACKFILL, SUB-BASE, AND/OR BASE COURSE MATERIAL SHALL BE COMPACTED PER EL PASO COUNTY AND CDOT STANDARDS AND SPECIFICATIONS.
- 14. ALL FINISHED GRADES SHALL HAVE A MINIMUM 1.0% SLOPE TO PROVIDE POSITIVE DRAINAGE.
- 15. WHERE PROPOSED SLOPES CONFLICT WITH PROPOSED SPOT ELEVATIONS, SPOT ELEVATIONS SHALL GOVERN.
- 16. CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS PRIOR TO BEGINNING WORK.
- 17. ELECTRONIC FILE OF SITE DRAWING IS AVAILABLE FROM ENGINEER FOR CONSTRUCTION STAKING PURPOSES.



- \* CLASS 6 BASE COURSE OR ALTERNATIVE GRAVEL MIX APPROVED BY EL PASO COUNTY
- \*\* DEPTH OF GRAVEL TO BE DETERMINED PER COUNTY GENERAL NOTE #10, WITH 6" MINIMUM DEPTH

GENERAL DRAINAGE NOTES:

1. INDIVIDUAL BUILDERS SHALL PROVIDE POSITIVE

ACCOUNT FOR POTENTIAL CROSS-LOT DRAINAGE

IMPLEMENT & MAINTAIN EROSION CONTROL BEST

MANAGEMENT PRACTICES FOR PROTECTION OF

DRAINAGE AWAY FROM STRUCTURES AND

2. BUILDERS AND PROPERTY OWNERS SHALL

DOWNSTREAM PROPERTIES AND FACILITIES

INCLUDING PROTECTION OF EXISTING GRASS BUFFER STRIPS ALONG THE DOWNSTREAM

IMPACTS WITHIN EACH LOT.

PROPERTY BOUNDARIES.

SECTION LINE - NEW/EXISTING ---- EASEMENT LINE - NEW/EXISTING

CONTOUR - NEW/EXISTING PROPERTY LINE - NEW/EXISTING OVERHEAD ELECTRIC LINE W/ POWER POLE NEW/EXISTING

NEW/EXISTING SECTION NUMBER

NEW/EXISTING

SHEET ON WHICH SECTION IS SHOWN

UNDERGROUND ELECTRIC LINEOUS Inal 29391 10/18/13 WOONAL EN

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ENGINEERING

19 E. Willamette Ave

Colorado Springs, CO

PH: 719-477-9429

FAX: 719-471-0766

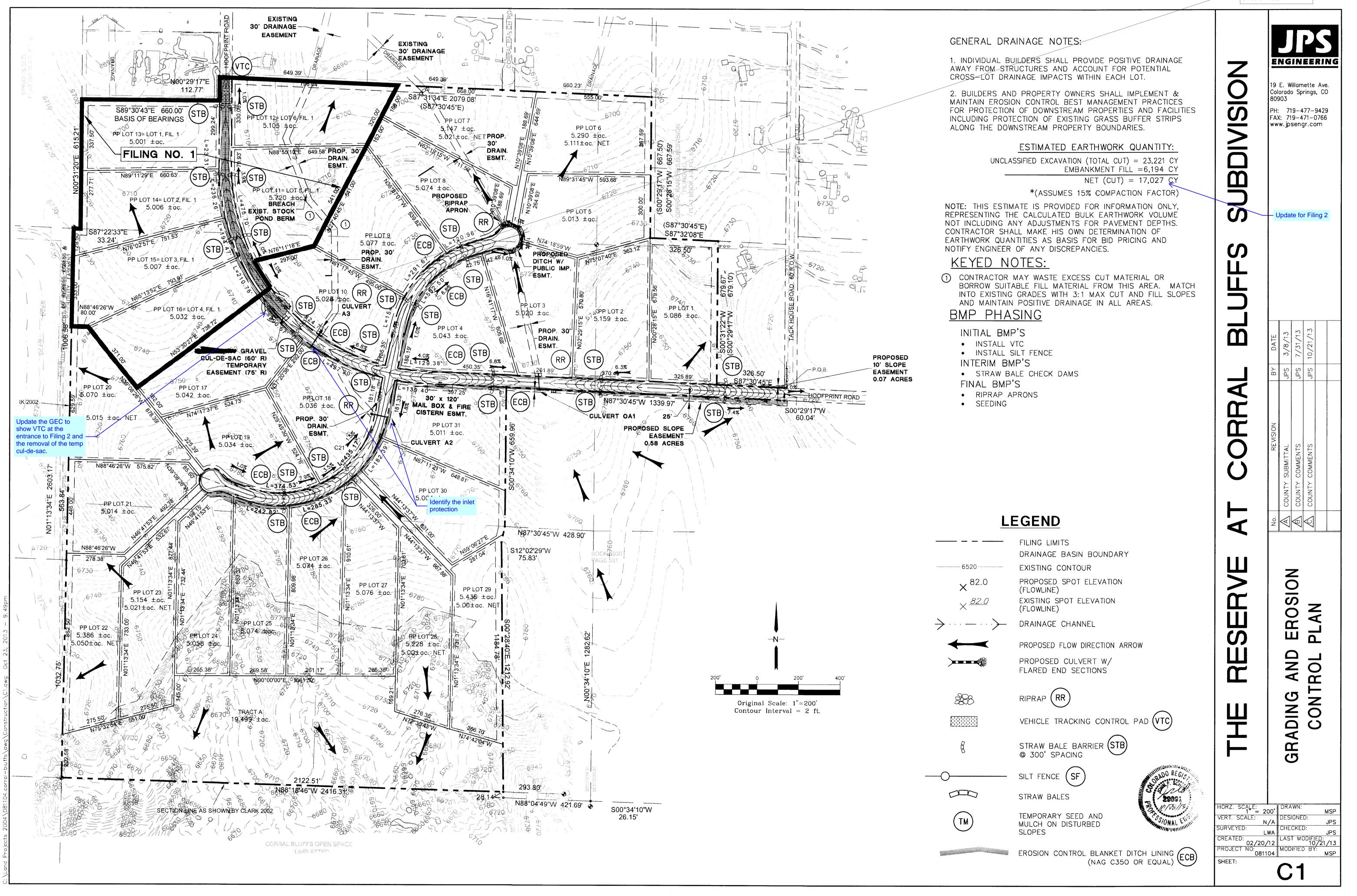
www.jpsengr.com

80903

D

VERT. SCALE: DESIGNED: URVEYED: CHECKED CREATED: 01/30/12 PROJECT NO: MODIFIED BY 081104 SHEET:

G2



## Standard Notes for El Paso County Grading and Erosion Control Plans

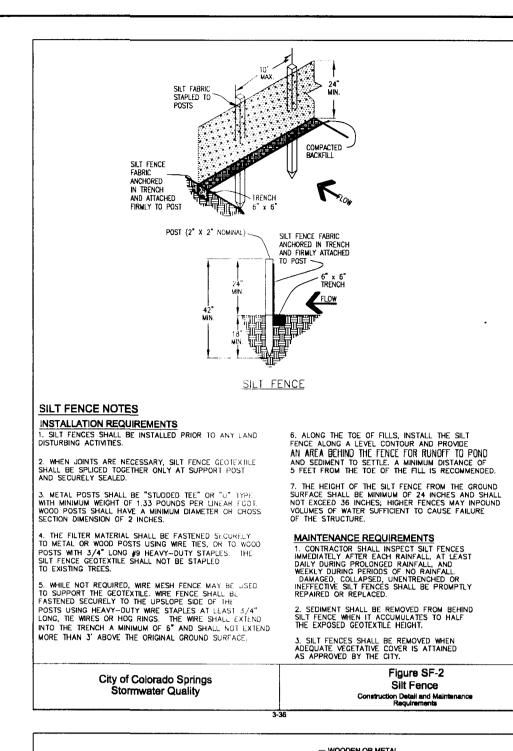
Revised 7/07/10

- 1. Construction may not commence until a Construction Permit is obtained from Development Services and a Preconstruction Conference is held with Development Services Inspectors.
- 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 to regulations and standards must be requested, and approved, in writing.
- 1. A separate Stormwater Management Plan (SMWP) for this project shall be completed and an Erosion and Stormwater Quality Control Permit (ESQCP) issued prior to commencing construction. 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 DSD inspections staff.
- B. 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 is to 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 Engineering 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
- 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
- 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 permitee 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 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

NOTWITHSTANDING ANY DETAILS, NOTES OR PLANS SHOWN ON THESE DRAWINGS, ALL EROSION CONTROL DESIGNS AND INSTALLATIONS SHALL CONFORM TO EL PASO COUNTY STANDARDS AND POLICIES UNLESS OTHERWISE APPROVED IN WRITING.



STRAW BALE BARRIER

STRAW BALE BARRIER NOTES

MAINTENANCE REQUIREMENTS

1. CONTRACTOR SHALL INSPECT STRAW BALE BARRIERS IMMEDIATELY AFTER EACH RAINFALL, AT LEAST DAILY DURING PROLONGED RAINFALL, AND WEEKLY DURING PERIODS NO RAINFALL.

2. DAMAGED OR INEFFECTIVE BARRIERS 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 BALE BARRIERS WHEN IT ACCUMULATES TO APPROXIMATELY  $1/2\,$  THE HEIGHT OF THE BARRIER.

4. STRAW BALE BARRIERS SHALL BE REMOVED WHEN ADEQUATE VEGETATIVE COVER IS ATTAINED AS APPROVED BY THE CITY.

Straw Bale Barrier

Construction Detail and Maintenance Requirements

INSTALLATION REQUIREMENTS

1. STRAW BALE BARRIERS SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.

3. BALES ARE TO BE PLACED IN A SINGLE ROW WITH THE END OF THE BALES TIGHTLY ABUTTING ONE ANOTHER

4. EACH BALE IS TO BE SECURELY ANCHORED WITH AT LEAST TWO STAKES AND THE FIRST STAKE IS TO BE DRIVEN TOWARD THE PREVIOUSLY LAID BALE TO FORCE THE BALES TOGETHER.

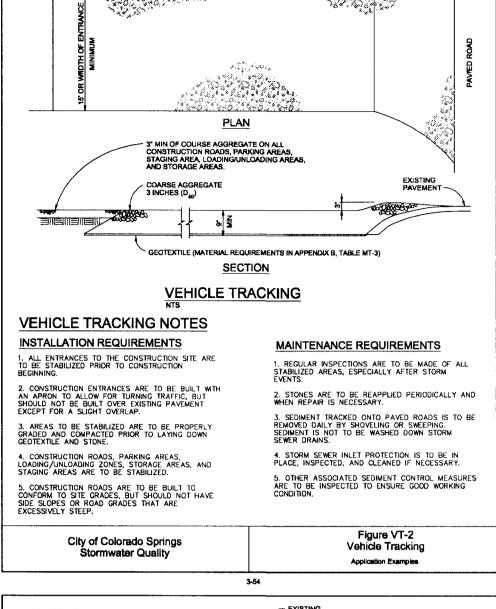
5. STAKES ARE TO BE A MINIMUM OF 42 INCHES LONG. METAL STAKES SHALL BE STANDARD "I" OR "U" TYPE WITH MINIMUM WEIGHT OF 1.33 POUNDS PER LINEAR FOOT. WOOD STAKES SHALL HAVE A MINIMUM DIAMÉTER OR CROSS SECTION DIMENSION OF 2 INCHES.

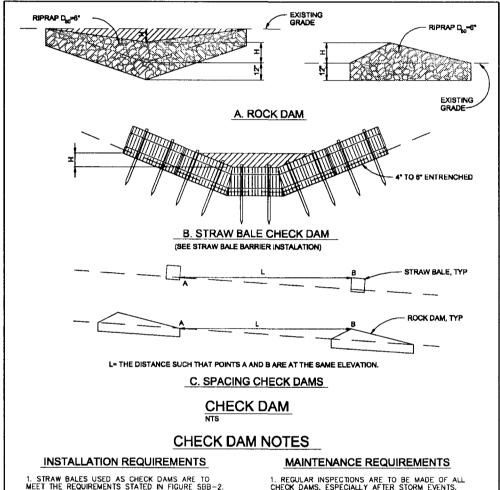
6. BALES ARE TO BE BOUND WITH EITHER WIRE OR STRING AND ORIENTED SUCH THAT THE BINDINGS ARE AROUND THE SIDES AND NOT ALONG THE TOPS AND BOTTOMS OF THE BALE.

7. GAPS BETWEEN BALES ARE TO BE CHINKED (FILLED BY WEDGING) WITH STRAW OR THE SAME MATERIAL OF THE BALE.

8. END BALES ARE TO EXTEND UPSLOPE SO THE TRAPPED RUNOFF CANNOT FLOW AROUND THE ENDS OF THE BARRIER.

City of Colorado Springs





2. REPLACE STONE AS NECESSARY TO MAINTAIN THE CORRECT HEIGHT OF THE DAM. 4. WHEN CHECK DAMS ARE REMOVED THE CHANNEL LINING OR VEGETATION IS TO BE RESTORED.

City of Colorado Springs Stormwater Quality Check Dam Construction Detail and Maintenance Requirements

2. THE "H" DIMENSION SHALL BE SELECTED TO PROVIDE WEIR FLOW CONVEYANCE FOR 2-YEAR FLOW OR

SEEDING MIX:

AMOUNT IN PLS <u>GRASS</u> **VARIETY** LBS. PER ACRE CRESTED WHEAT GRASS EPHRAIM OR HYCREST 4.0 LBS. 2.0 LBS. PERENIAL RYE 3.0 LBS. WESTERN WHEATGRASS SARTON SMOOTH BROME GRASS LINCOLN OR MANCHAR 5.0 LBS. 2.5 LBS. SIDEOATS GRAMA **EPHRAIM** TOTAL: 16.5 LBS.

SEEDING & FERTILIZER APPLICATION:

DRILL SEED OR HYDRO-SEED PER CDOT SPEC. SECTION 212.

CONFORM TO CDOT

MULCHING APPLICATION:

SPEC-SECTION 213.

SEDIMENT CONTROL MAINTENANCE PROGRAM: **FREQUENCY** 

BI-WEEKLY PERIODIC SITE INSPECTIONS RE-VEGETATION OF EXPOSED SOILS WITHIN 21 DAYS OF GRADING SEDIMENT REMOVAL FROM BMP'S MONTHLY REMOVAL OF BMP'S AFTER STABILIZATION ACHIEVED

1 AND AFTER ANY PRECIPITATION OR SNOW MELT EVENT THAT CAUSES SURFACE EROSION.

2ACCUMULATED SEDIMENT AND DEBRIS SHALL BE REMOVED WHEN THE SEDIMENT LEVEL REACHES ONE HALF THE HEIGHT OF THE BMP OR AT ANY TIME THAT SEDIMENT OR DEBRIS ADVERSELY IMPACTS THE FUNCTION OF THE BMP.

### ESTIMATED TIME SCHEDULE:

INSTALL BMP'S ROADWAY GRADING SEEDING & MULCHING STABILIZATION

JANUARY, 2014 JANUARY, 2014 AUGUST, 2014 OCTOBER 2015

0 TR 0 ∠ ≪ 0 S M 0 0  $\mathbf{T}$  $\overline{\mathbf{u}}$  Z

ENGINEERING

9 E. Willamette Ave

Colorado Springs, CO

PH: 719-477-9429

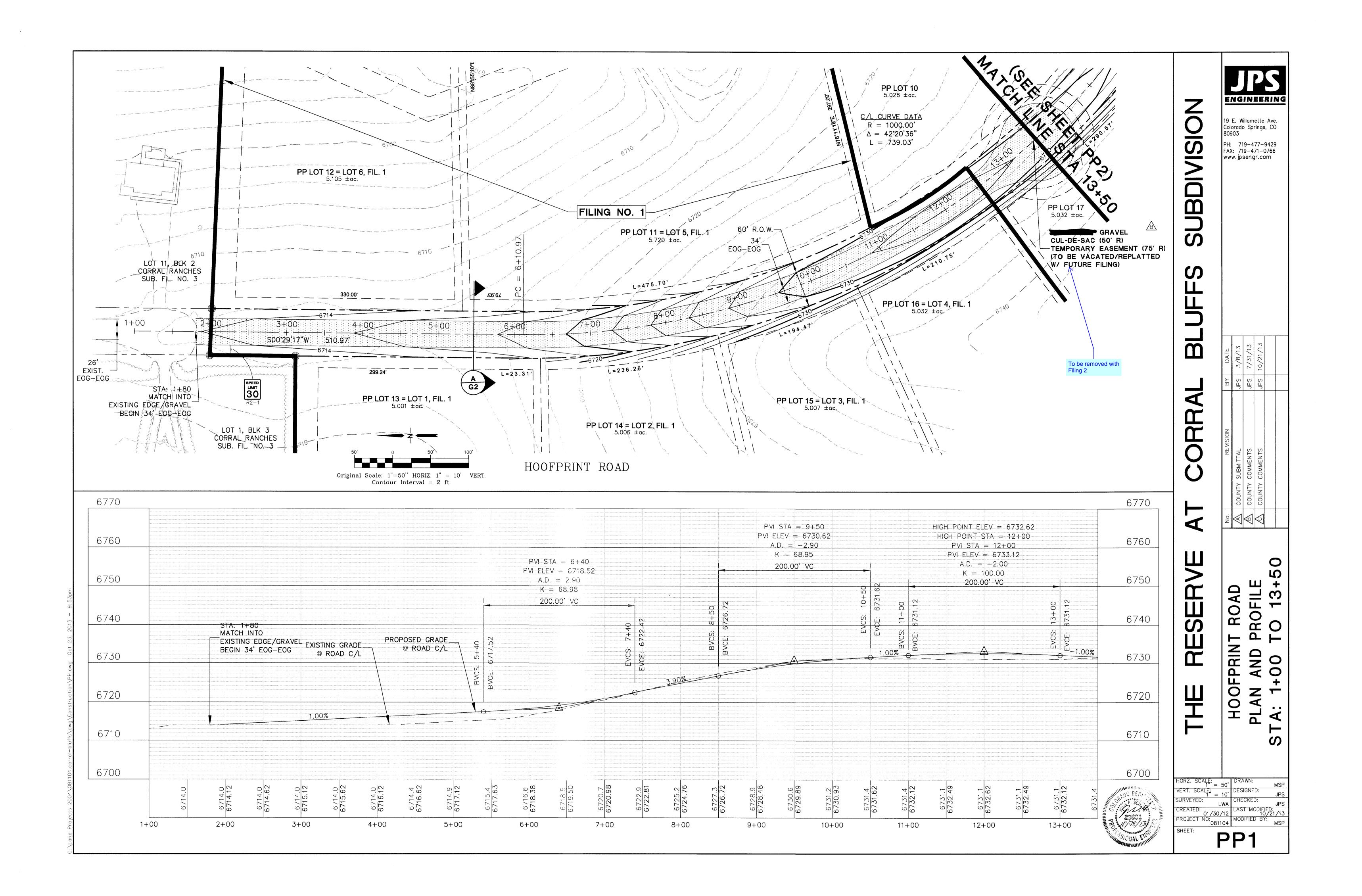
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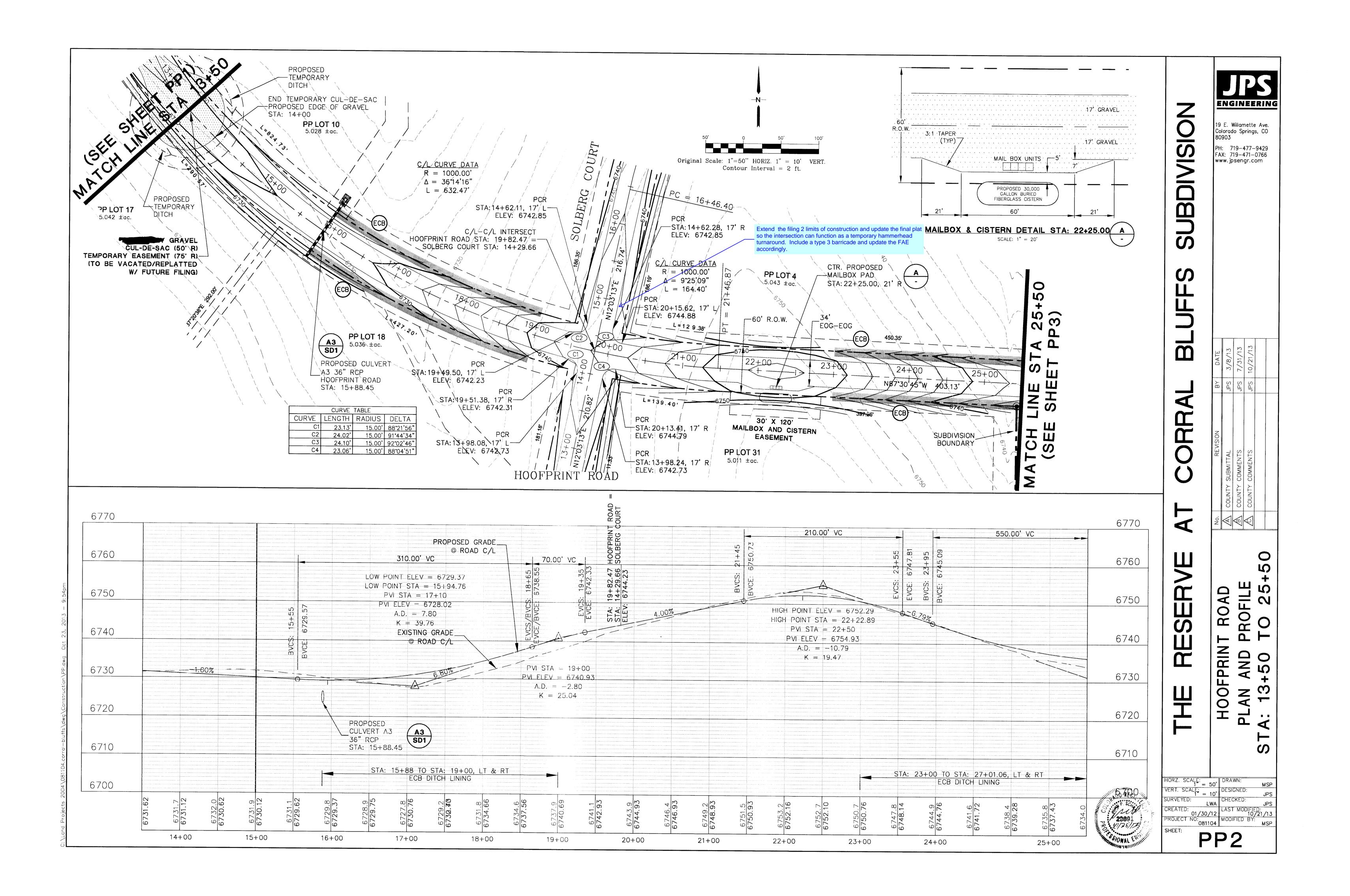
www.jpsengr.com

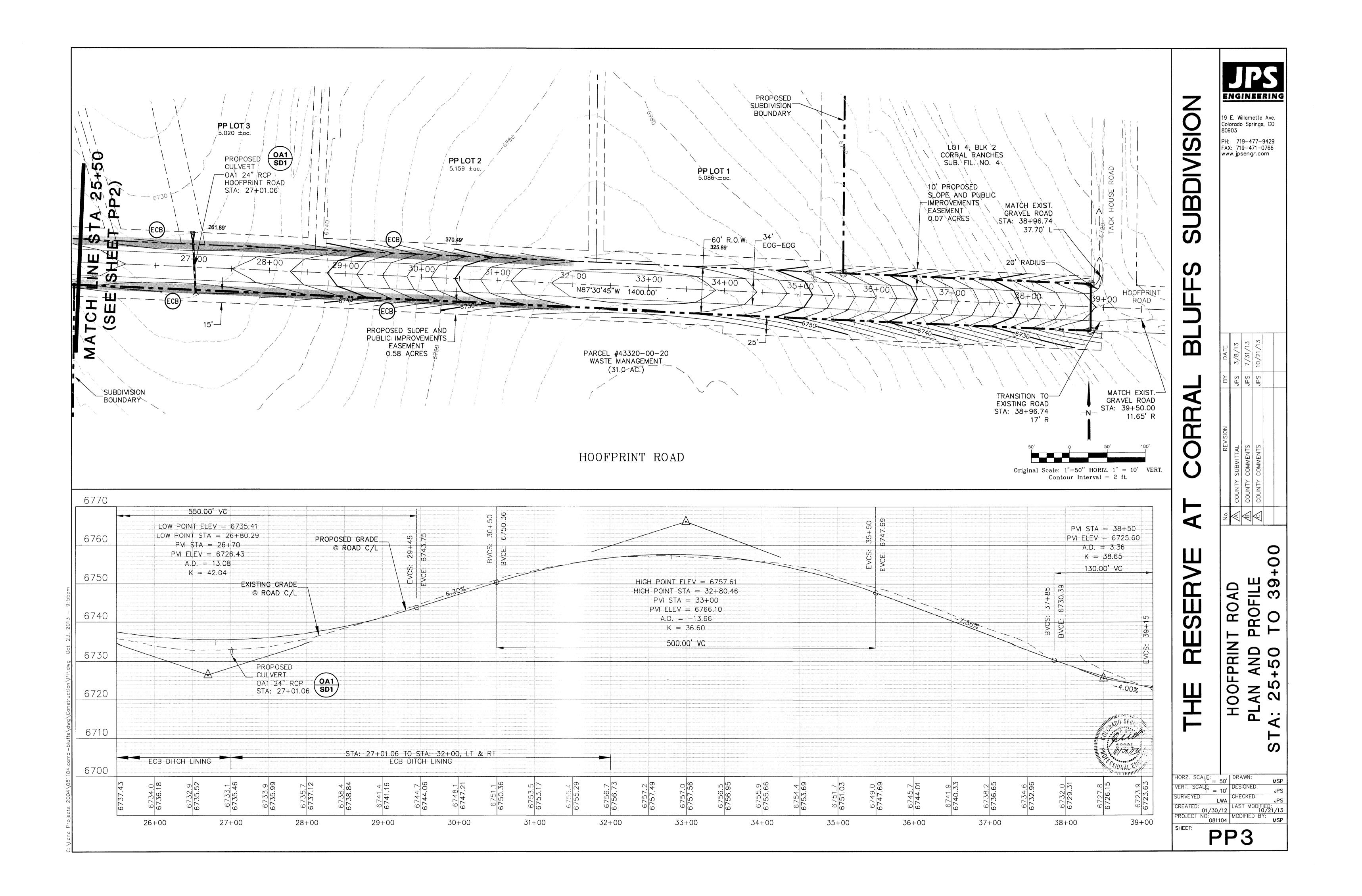
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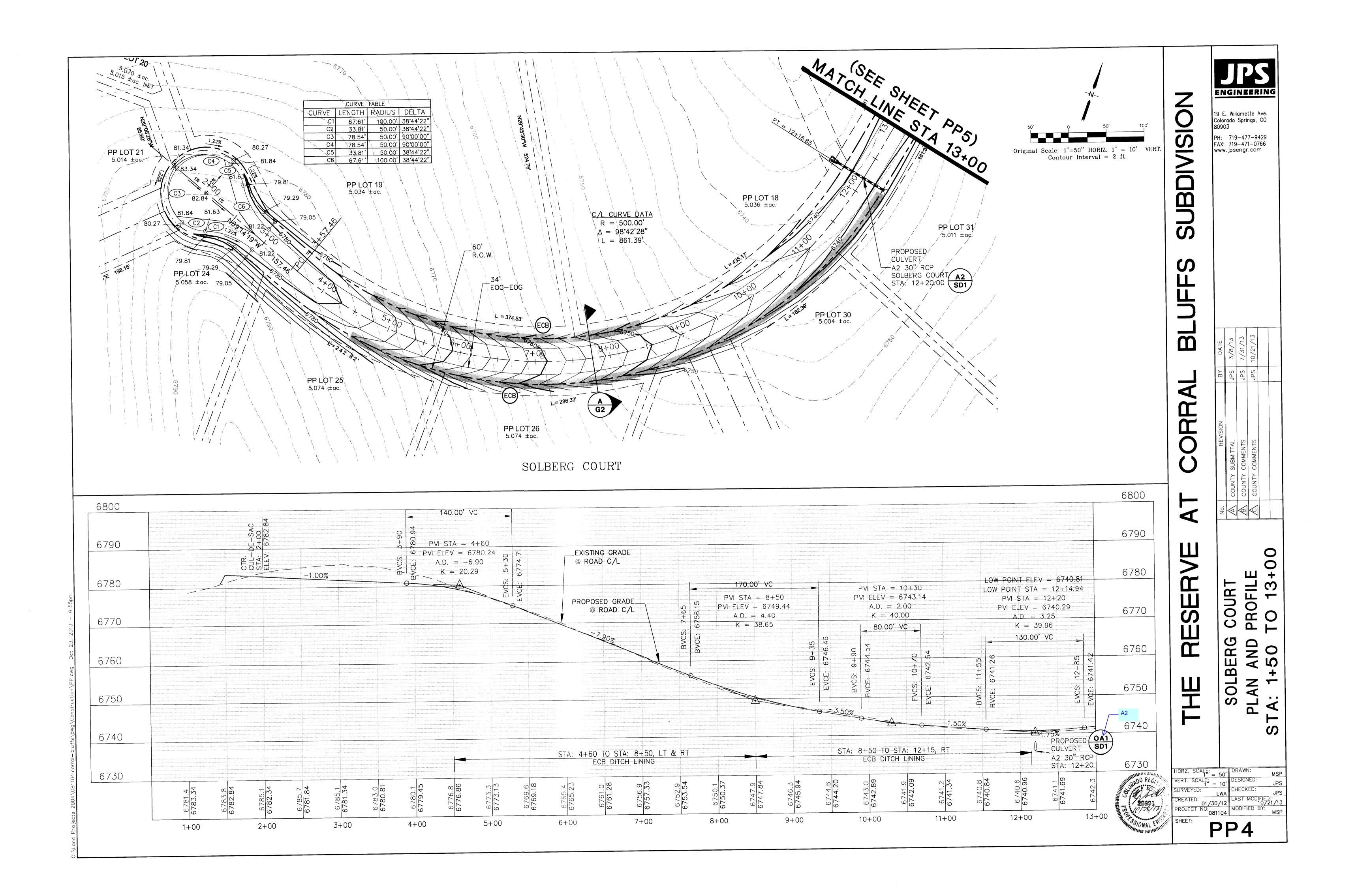
CREATED: 3/1/13 LAST MODIFIED: 10/21/13
PROJECT NO: MODIFIED BY: MSP `081104 ||

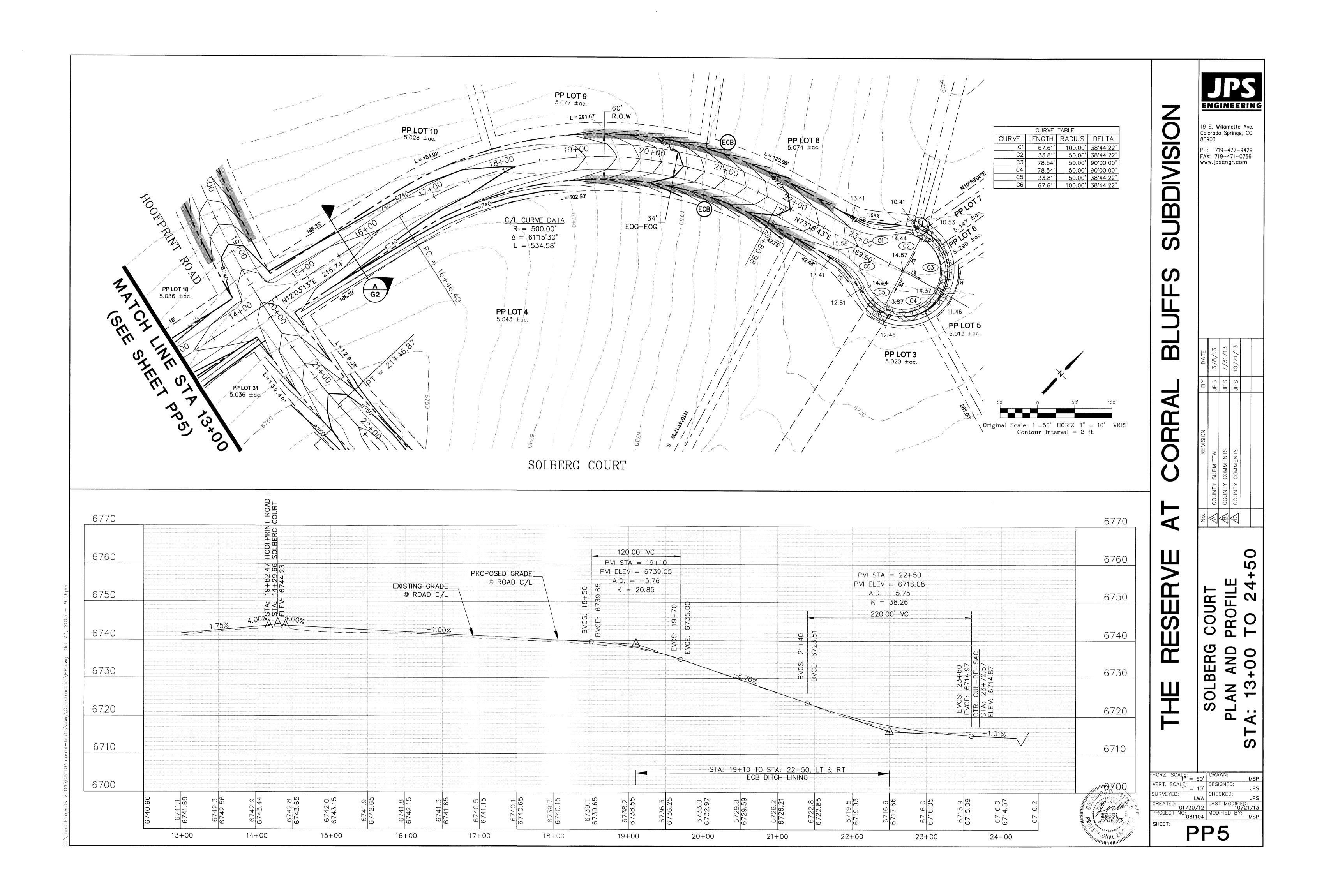
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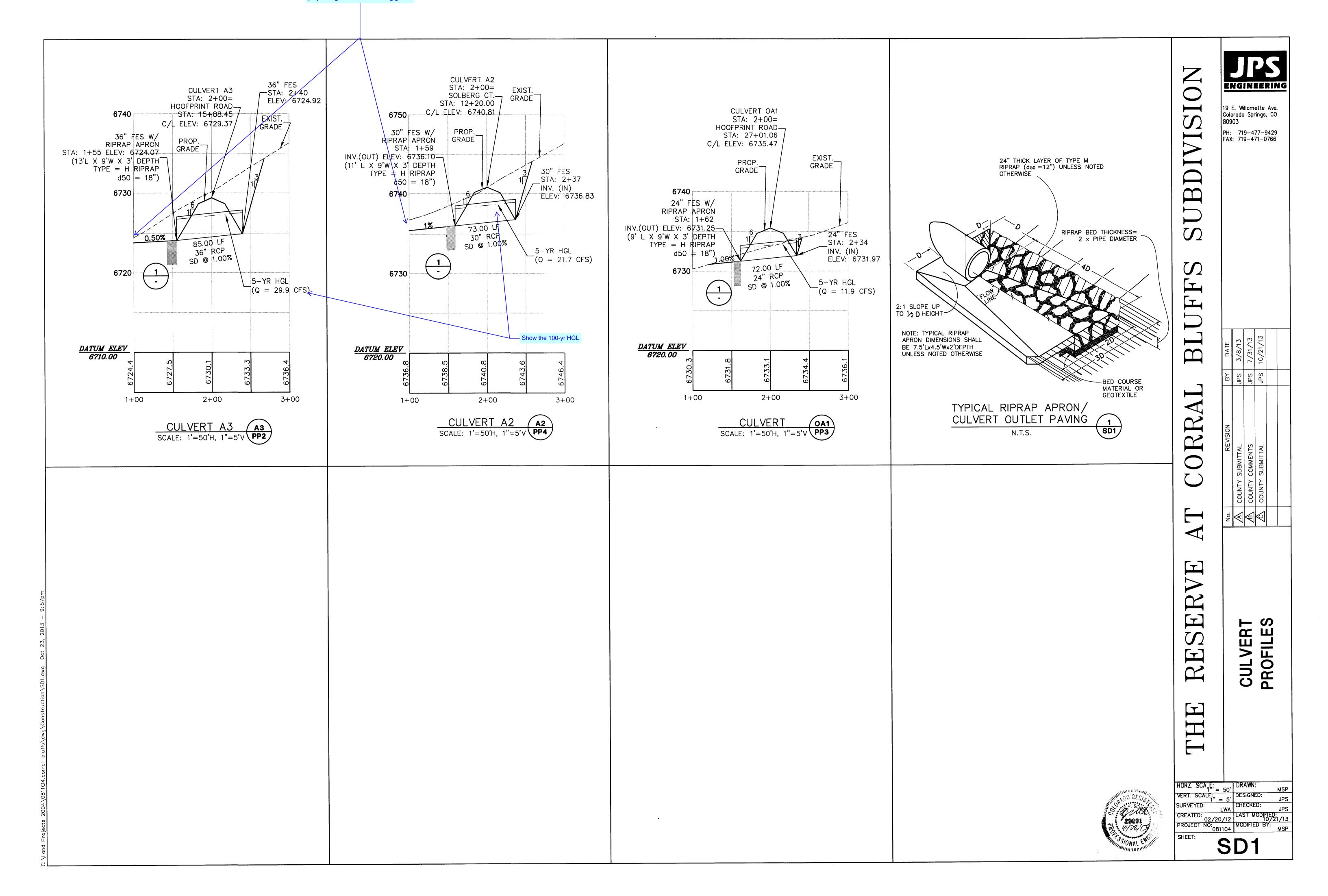












### Markup Summary

### dsdlaforce (16)



Subject: Callout Page Label: 1 Lock: Unlocked

Status:

Checkmark: Unchecked Author: dsdlaforce Date: 4/30/2018 9:21:24 AM

Color:

Revise to Gilbert LaForce, P.E. 520-7945



Subject: Callout Page Label: 1 Lock: Unlocked

Status:

Checkmark: Unchecked Author: dsdlaforce Date: 4/30/2018 9:25:42 AM

Color:

Update any references from Development Services Department (DSD) to Planning and

Community Development (PCD)



Subject: Callout Page Label: 1 Lock: Unlocked

Status:

Checkmark: Unchecked Author: dsdlaforce Date: 4/30/2018 9:19:46 AM

Color:

Add the following as a 3rd paragraph: In accordance with ECM Section 1.12, these construction documents will be valid for construction for a period of 2 years from the date signed by the El Paso County Engineer. If construction has not started within those 2 years, the plans will need to be resubmitted for approval, including payment of review fees at the Planning and Community Development Directors discretion.



Subject: Callout Page Label: 1 Lock: Unlocked

Status:

Checkmark: Unchecked Author: dsdlaforce Date: 4/30/2018 9:18:28 AM

Color:

1. Revise the title to specify Filing 2.

2. Revise the construction drawings for the Filing 2 extents only or identify the designs outside of Filing 2 as either filing 1 or future improvements. The plans must be clear that approval of this construction plans is for Filing 2 only.

Subject: Callout Page Label: 1 Lock: Unlocked Status:

Checkmark: Unchecked Author: dsdlaforce Date: 4/30/2018 9:20:22 AM

Color:

Update to Jennifer Irvine, P.E.



Subject: Text Box Page Label: 1 Lock: Unlocked Status:

Checkmark: Unchecked Author: dsdlaforce Date: 4/30/2018 1:25:18 PM

Color:

Add PCD File No. SF-18-010

Subject: Callout Update for Filing 2 Page Label: 1 Lock: Unlocked Status: Checkmark: Unchecked Author: dsdlaforce Date: 4/30/2018 9:21:57 AM Color: Subject: Callout SUBDIVI Update for Filing 2 Page Label: 3 Lock: Unlocked Status: Ë Checkmark: Unchecked Author: dsdlaforce Date: 4/30/2018 9:48:33 AM Color: Subject: Callout Identify the inlet protection Page Label: 3 Lock: Unlocked Status: Checkmark: Unchecked Author: dsdlaforce Date: 4/30/2018 9:50:05 AM Color: Subject: Callout Update the GEC to show VTC at the entrance to Page Label: 3 Filing 2 and the removal of the temp cul-de-sac. Lock: Unlocked Status: Checkmark: Unchecked Author: dsdlaforce Date: 4/30/2018 9:47:43 AM Color: Subject: Callout Update schedule Page Label: 4 Lock: Unlocked Status: Checkmark: Unchecked Author: dsdlaforce Date: 4/30/2018 9:50:54 AM Color:

OF THE PLANT PLANT OF THE PLANT PLAN

Subject: Callout Page Label: 5 Lock: Unlocked Status:

Checkmark: Unchecked Author: dsdlaforce Date: 4/30/2018 9:51:38 AM

Color:

To be removed with Filing 2



Subject: Callout Page Label: 6 Lock: Unlocked

Status:

Checkmark: Unchecked Author: dsdlaforce Date: 4/30/2018 3:01:13 PM

Color:

Extend the filing 2 limits of construction and update the final plat so the intersection can function as a temporary hammerhead turnaround. Include a type 3 barricade and update the FAE accordingly.

A2 6740

Subject: Callout Page Label: 8 Lock: Unlocked

Status:

Checkmark: Unchecked Author: dsdlaforce Date: 4/30/2018 2:29:19 PM

Color:

A2



Subject: Callout Page Label: 10 Lock: Unlocked

Status:

**Checkmark:** Unchecked **Author:** dsdlaforce

Date: 4/30/2018 10:13:57 AM

Color:

Extend the design so show the proposed grade

tie-in to existing grade.



Subject: Callout Page Label: 10 Lock: Unlocked

Status:

Checkmark: Unchecked Author: dsdlaforce

Date: 4/30/2018 10:14:25 AM

Color:

Show the 100-yr HGL

### dsdparsons (1)



Subject: Callout Page Label: 3 Lock: Unlocked

Status:

Checkmark: Unchecked Author: dsdparsons Date: 4/26/2018 4:17:21 PM

Color:

Identify Filing 2. FAE should match.