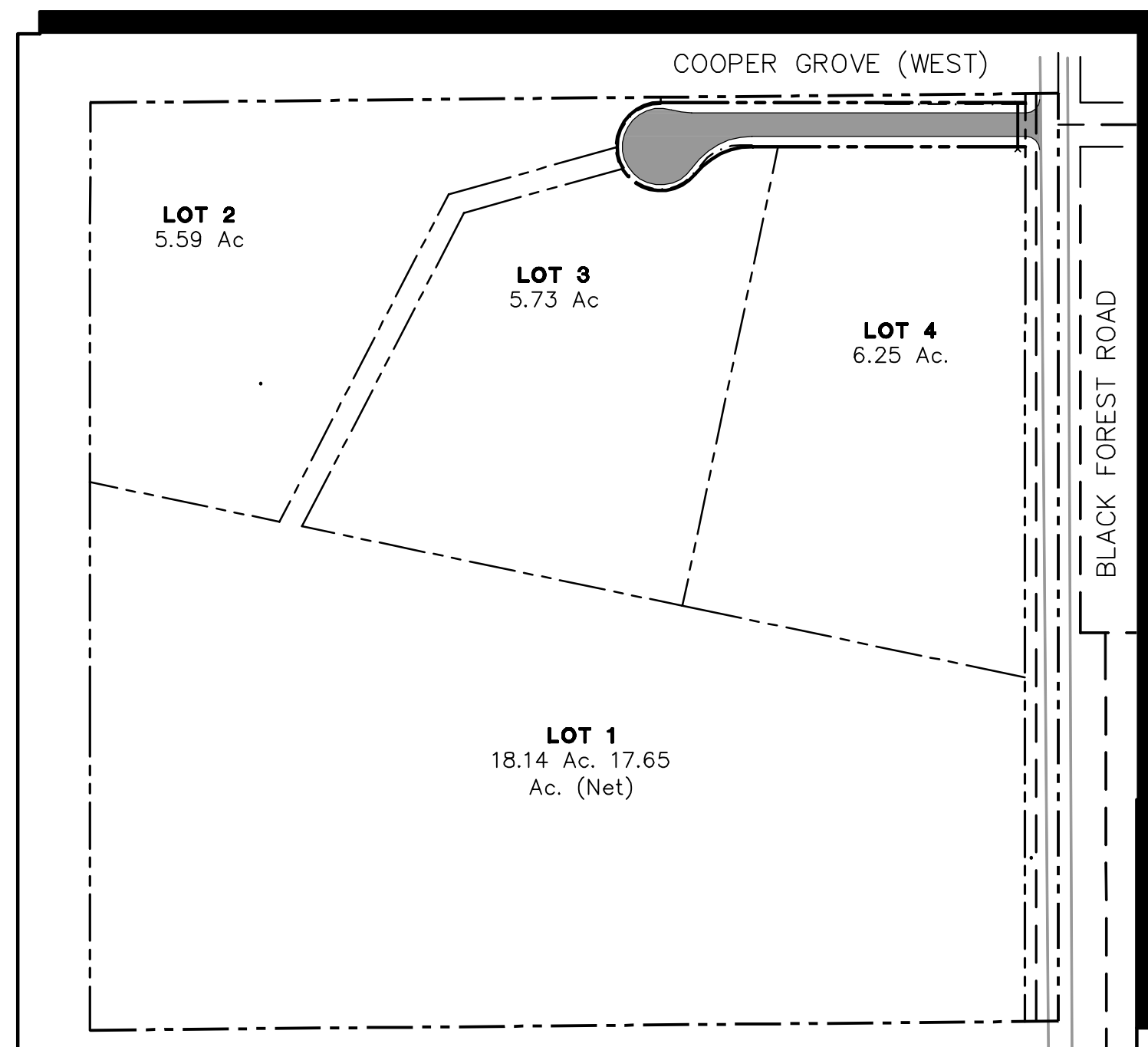


VICINITY MAP
NOT TO SCALE



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.

BASIS OF BEARING:
THE BASIS OF BEARINGS FOR THE PROJECT IS THE WEST LINE WHICH IS ASSUMED TO BEAR NORTH 0 DEGREES 01 MINUTES 14 SECONDS EAST.

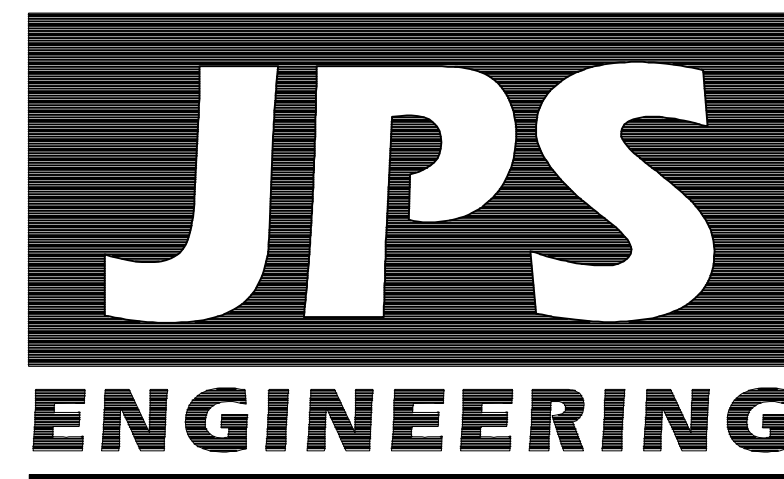
BENCHMARK:
THE BENCHMARK IS THE WEST 1/4 CORNER WHICH HAS AN ASSUMED ELEVATION OF 7364.16

HUDSON MINOR SUBDIVISION Construction Drawings El Paso County, Colorado

PREPARED FOR:

MR. GREGORY HUDSON
20310 BLACK FOREST ROAD
COLORADO SPRINGS, CO 80908

PREPARED BY:



19 East Willamette Avenue
Colorado Springs, Colorado 80903
MARCH 2018

AGENCIES/CONTACTS

| | | | |
|----------------------------|--|----------------------|---|
| DEVELOPER: | MR. GREGORY HUDSON 20310 BLACK FOREST ROAD COLORADO SPRINGS, CO 80908 | GAS DEPARTMENT: | BLACK HILLS ENERGY MR. SEBASTIAN SCHWENDER (719) 359-3716 |
| PLANNER/ SURVEYOR: | JEROME W. HANNIGAN & ASSOCIATES, INC. 19360 SPRING VALLEY ROAD MONUMENT, CO 80132 (719) 481-8292 | ELECTRIC DEPARTMENT: | MOUNTAIN VIEW ELECTRIC ASSOCIATION 11140 E. WOODMEN ROAD COLORADO SPRINGS, CO 80908 MR. DAVE WALDNER (719) 495-2283 |
| CIVIL ENGINEER: | JPS ENGINEERING, INC. 19 E. WILLAMETTE AVENUE COLORADO SPRINGS, CO 80903 MR. JOHN P. SCHWAB, P.E. (719) 477-9429 | TELEPHONE COMPANY: | QWEST COMMUNICATIONS (LOCATORS) (800) 922-1987 A.T. & T. (LOCATORS) (719) 635-3674 |
| LOCAL ROADS & DRAINAGE: | EL PASO COUNTY DSD 2880 INTERNATIONAL CIRCLE COLORADO SPRINGS, CO 80910 MR. GILBERT LAFORCE, P.E. (719) 520-7945 | FIRE DEPARTMENT: | TRI-LAKES MONUMENT FIRE PROTECTION DISTRICT (719) 484-0911 |

Add 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.

SHEET INDEX

| | |
|-----|---|
| G1 | TITLE SHEET |
| G2 | GENERAL NOTES & LEGEND |
| C1 | GRADING & EROSION CONTROL PLAN |
| C2 | EROSION CONTROL NOTES & DETAILS |
| PP1 | COOPER GROVE (WEST) PLAN & PROFILE STA: 1+00 TO 6+60 |

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 LIABILITY CAUSED BY NEGLIGENT ACTS, ERRORS OR OMISSIONS ON MY PART IN PREPARATION OF THESE DETAILED PLANS AND SPECIFICATIONS.

JOHN P. SCHWAB, P.E. #29891 _____ DATE _____

OWNER/DEVELOPER'S STATEMENT:

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

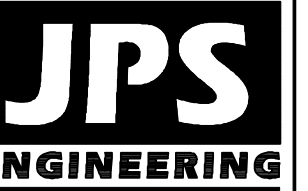
MR. GREGORY HUDSON
20310 BLACK FOREST ROAD
COLORADO SPRINGS, CO 80908

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.

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



19 E. Willamette Ave.
Colorado Springs, CO
80903
PH: 719-477-9429
FAX: 719-471-0766
www.jpsengr.com



CALL UTILITY NOTIFICATION
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BEFORE YOU DIG, GRADE, OR EXCAVATE
FOR THE MARKING OF UNDERGROUND
MEMBER UTILITIES.

HUDSON MINOR SUBDIVISION

TITLE SHEET

| NO. | REVISION | BY | DATE |
|-----|------------------|-----|--------|
| 1 | COUNTY SUBMITTAL | JPS | 3/8/18 |

| | | | |
|---------------|----------|----------------|--------|
| HORIZ. SCALE: | NA | DRAWN: | MSP |
| VERT. SCALE: | NA | DESIGNED: | JPS |
| SURVEYED: | HANNIGAN | CHECKED: | JPS |
| CREATED: | 1/24/18 | LAST MODIFIED: | 3/7/18 |
| PROJECT NO.: | 121703 | MODIFIED BY: | MSP |

G1

COUNTY GENERAL NOTES:

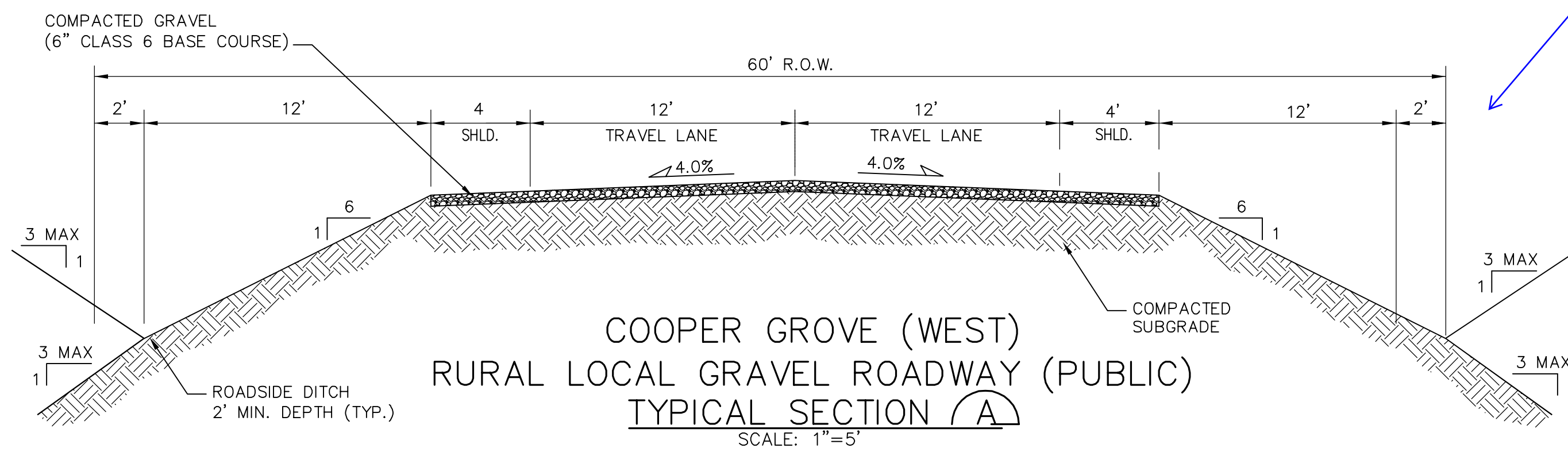
- ALL DRAINAGE AND ROADWAY CONSTRUCTION SHALL MEET THE STANDARDS AND SPECIFICATIONS OF THE CITY OF COLORADO SPRINGS/EL PASO COUNTY DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2, AND THE EL PASO COUNTY ENGINEERING CRITERIA MANUAL.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE NOTIFICATION AND FIELD NOTIFICATION 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).
- 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:
 - EL PASO COUNTY ENGINEERING CRITERIA MANUAL (ECM)
 - CITY OF COLORADO SPRINGS/EL PASO COUNTY DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2
 - COLORADO DEPARTMENT OF TRANSPORTATION (CDOT) STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION
 - CDOT M & S STANDARDS
- 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.
- 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.
- CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH EL PASO COUNTY DEVELOPMENT SERVICES DEPARTMENT (DSD) - INSPECTIONS, PRIOR TO STARTING CONSTRUCTION.
- 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.
- 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.
- ALL STORM DRAIN PIPE SHALL BE CLASS III RCP WITH CLASS B BEDDING UNLESS OTHERWISE NOTED AND APPROVED BY DSD.
- 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.
- ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE AT APPROVED CONSTRUCTION ACCESS POINTS.
- 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.
- SIGNING AND STRIPING SHALL COMPLY WITH EL PASO COUNTY DOT AND MUTCD CRITERIA.
- CONTRACTOR SHALL OBTAIN ANY PERMITS REQUIRED BY EL PASO COUNTY DOT, INCLUDING WORK WITHIN THE RIGHT-OF-WAY AND SPECIAL TRANSPORT PERMITS.
- 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.

COUNTY SIGNING AND STRIPING NOTES:

- ALL SIGNS AND PAVEMENT MARKINGS SHALL BE IN COMPLIANCE WITH THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
- 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.
- ANY DEVIATION FROM THE STRIPING AND SIGNING PLAN SHALL BE APPROVED BY EL PASO COUNTY DEVELOPMENT SERVICES.
- 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.
- STREET NAME AND REGULATORY STOP SIGNS SHALL BE ON THE SAME POST AT INTERSECTIONS.
- ALL REMOVED SIGNS SHALL BE DISPOSED OF IN A PROPER MANNER BY THE CONTRACTOR.
- 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.
- ALL TRAFFIC SIGNS SHALL HAVE A MINIMUM HIGH INTENSITY PRISMATIC GRADE SHEETING.
- 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.
- ALL SIGNS SHALL BE SINGLE SHEET ALUMINUM WITH 0.100" MINIMUM THICKNESS.
- 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.
- 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.
- THE CONTRACTOR SHALL NOTIFY EL PASO COUNTY DEVELOPMENT SERVICES (719) 520-6819 PRIOR TO AND UPON COMPLETION OF SIGNING AND STRIPING.
- 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:

- EXISTING CONTOUR DATA PROVIDED BY OWNER CONSISTS OF AERIAL TOPOGRAPHIC SURVEY DATA PROVIDED BY OWNER. JPS ENGINEERING TAKES NO RESPONSIBILITY FOR THE ACCURACY OF EXISTING TOPOGRAPHIC MAPPING.
- STATIONING IS AT CENTERLINE UNLESS OTHERWISE NOTED. ALL ELEVATIONS ARE AT EDGE OF ASPHALT (EOA) UNLESS OTHERWISE NOTED. ALL DIMENSIONS ARE FROM EDGE OF ASPHALT TO EDGE OF ASPHALT UNLESS OTHERWISE NOTED.
- PROPOSED CONTOURS SHOWN ARE TO FINISHED GRADE.
- LENGTHS SHOWN FOR STORM SEWER PIPES ARE TO CENTER OF MANHOLE.
- 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.
- REVEGETATION OF ALL DISTURBED AREAS SHALL BE DONE WITH SPECIFIED SEED MIX WITHIN 60 DAYS AFTER FINE GRADING IS COMPLETE.
- 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.
- 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.
- 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.
- ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED AS DETERMINED BY SITE CONDITIONS.
- 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.
- ALL BACKFILL, SUB-BASE, AND/OR BASE COURSE MATERIAL SHALL BE COMPACTED PER EL PASO COUNTY AND CDOT STANDARDS AND SPECIFICATIONS.
- ALL FINISHED GRADES SHALL HAVE A MINIMUM 1.0% SLOPE TO PROVIDE POSITIVE DRAINAGE.
- WHERE PROPOSED SLOPES CONFLICT WITH PROPOSED SPOT ELEVATIONS, SPOT ELEVATIONS SHALL GOVERN.
- CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS PRIOR TO BEGINNING WORK.
- ELECTRONIC FILE OF SITE DRAWING IS AVAILABLE FROM ENGINEER FOR CONSTRUCTION STAKING PURPOSES.



DESIGN DATA

| | |
|-------------------------|-------------------------|
| ROAD CLASSIFICATION: | RURAL LOCAL RESIDENTIAL |
| DESIGN SPEED: | 30 MPH |
| POSTED SPEED: | 30 MPH |
| ROADWAY WIDTH: | 32' EOG-EOG |
| MIN. HORIZONTAL RADIUS: | 300' |
| MIN. GRADE: | 1.0% |
| MAX. GRADE: | 8.0% |
| MIN. K-VALUE (CREST): | 19 |
| MIN. K-VALUE (SAG): | 37 |

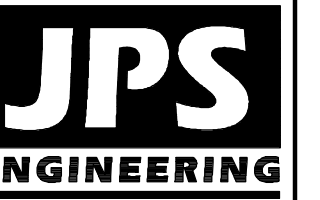
GENERAL DRAINAGE NOTES:

- FINAL LOT AND HOME SITE GRADING IS THE RESPONSIBILITY OF THE INDIVIDUAL LOT OWNERS AND BUILDERS.
- BUILDERS SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM STRUCTURES AND ACCOUNT FOR POTENTIAL CROSS-LOT DRAINAGE IMPACTS WITHIN EACH LOT.
- BUILDERS AND PROPERTY OWNERS SHALL IMPLEMENT & MAINTAIN EROSION CONTROL BEST MANAGEMENT PRACTICES FOR PROTECTION OF DOWNSTREAM PROPERTIES AND FACILITIES INCLUDING PROTECTION OF EXISTING GRASS BUFFER STRIPS ALONG THE DOWNSTREAM PROPERTY BOUNDARIES.

LEGEND:

| | |
|-----|---|
| --- | NEW/EXISTING |
| --- | SECTION LINE - NEW/EXISTING |
| --- | EASEMENT LINE - NEW/EXISTING |
| --- | CONTOUR - NEW/EXISTING |
| --- | PROPERTY LINE - NEW/EXISTING |
| --- | OVERHEAD ELECTRIC LINE W/ POWER POLE NEW/EXISTING |
| --- | UNDERGROUND ELECTRIC LINE NEW/EXISTING |
| ▲ | SECTION NUMBER |
| ▲ | SHEET ON WHICH SECTION IS SHOWN |

HUDSON MINOR SUBDIVISION



19 E. Willamette Ave.
Colorado Springs, CO 80903
PH: 719-477-9429
FAX: 719-471-0766
www.jpsenr.com



CALL UTILITY NOTIFICATION CENTER OF COLORADO
1-800-922-1987
CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.

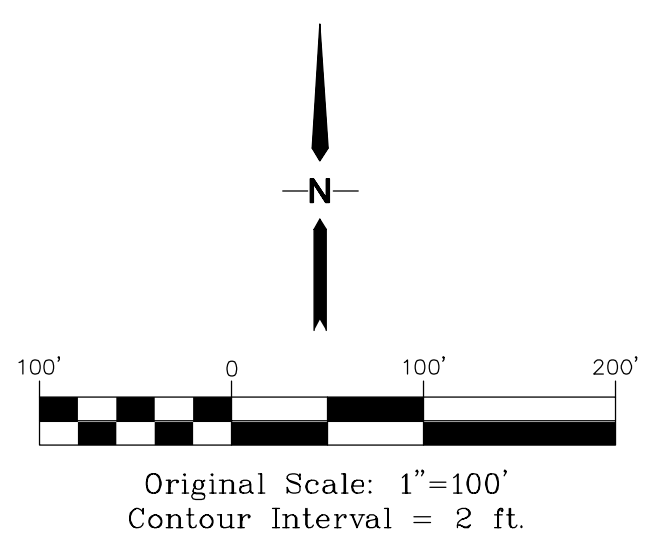
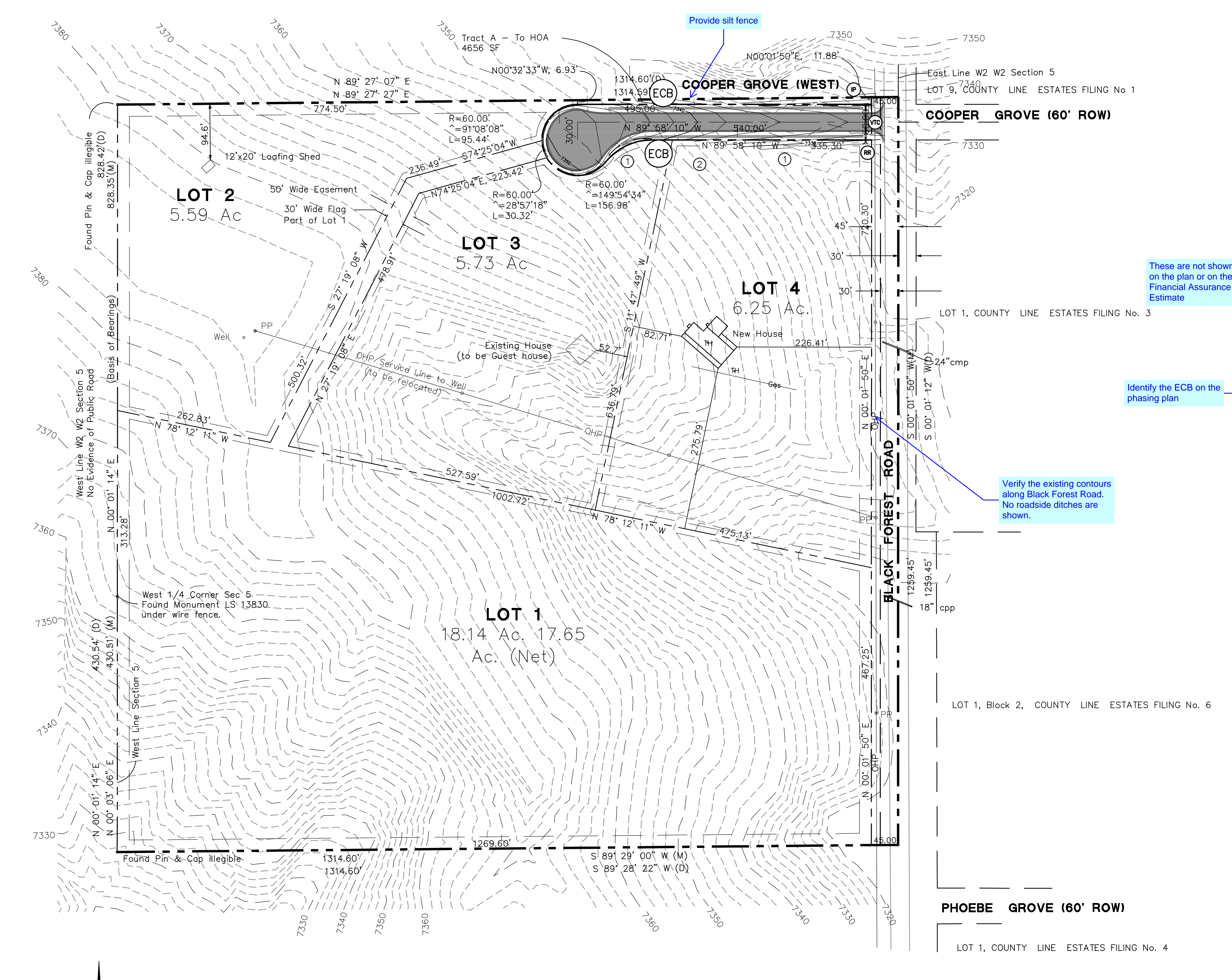
| | |
|----------|------------------|
| DATE | 3/8/18 |
| BY | JPS |
| REVISION | COUNTY SUBMITTAL |
| No. | 1 |

GENERAL NOTES & LEGEND

| | | | |
|---------------|----------|----------------|--------|
| HORIZ. SCALE: | N/A | DRAWN: | MSP |
| VERT. SCALE: | N/A | DESIGNED: | JPS |
| SURVEYED: | HANNIGAN | CHECKED: | JPS |
| CREATED: | 1/24/18 | LAST MODIFIED: | 3/7/18 |
| PROJECT NO: | 121703 | MODIFIED BY: | MSP |

G2

C:\civil3d\2018\projects\121703\hudson\dwg\Civil\1.dwg Mar. 07. 2018 - 4:06pm



ESTIMATED EARTHWORK QUANTITY:
 UNCLASSIFIED EXCAVATION (TOTAL CUT) = 440 CY
 EMBANKMENT FILL = 3,952 CY
 NET (CUT) = 3,512 CY
 *(ASSUMES 15% COMPACTION FACTOR)

NOTE: THIS ESTIMATE IS PROVIDED FOR INFORMATION ONLY, REPRESENTING THE CALCULATED BULK EARTHWORK VOLUME NOT INCLUDING ANY ADJUSTMENTS FOR PAVEMENT DEPTHS. CONTRACTOR SHALL MAKE HIS OWN DETERMINATION OF EARTHWORK QUANTITIES AS BASIS FOR BID PRICING AND NOTIFY ENGINEER OF ANY DISCREPANCIES.

KEYED NOTES:
 ① CONTRACTOR MAY WASTE EXCESS CUT MATERIAL OR BORROW SUITABLE FILL MATERIAL FROM THIS AREA. MATCH INTO EXISTING GRADES WITH 3:1 MAX CUT AND FILL SLOPES AND MAINTAIN POSITIVE DRAINAGE IN ALL AREAS.
 ② TOPSOIL STOCKPILE AREA

BMP PHASING
 INITIAL BMP'S
 • INSTALL VTC
 • INSTALL SILT FENCE
 INTERIM BMP'S
 • STRAW BALE CHECK DAMS
 FINAL BMP'S
 • RIPRAP APRONS
 • SEEDING

LEGEND

| | |
|--|--|
| | FILING LIMITS |
| | PROPERTY LINES |
| | EXISTING CONTOUR |
| | PROPOSED SPOT ELEVATION (FLOWLINE) |
| | EXISTING SPOT ELEVATION (FLOWLINE) |
| | DRAINAGE CHANNEL |
| | PROPOSED FLOW DIRECTION ARROW |
| | PROPOSED CULVERT W/ FLARED END SECTIONS |
| | RIPRAP (RR) |
| | VEHICLE TRACKING CONTROL PAD (VTC) |
| | STRAW BALE BARRIER (STB) @ 300' SPACING |
| | SILT FENCE (SF) |
| | STRAW BALES |
| | TEMPORARY SEED AND MULCH ON DISTURBED SLOPES |
| | EXTENDED DETENTION BASIN |
| | EROSION CONTROL BLANKET DITCH LINING (NAG C350 OR EQUAL) (ECB) |
| | INLET PROTECTION (IP) |

These are not shown on the plan or on the Financial Assurance Estimate

Identify the ECB on the phasing plan

Verify the existing contours along Black Forest Road. No roadside ditches are shown.

HUDSON MINOR SUBDIVISION

JPS ENGINEERING
 19 E. Willamette Ave.
 Colorado Springs, CO 80903
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| NO. | REVISION | DATE |
|-----|------------------|--------|
| 1 | COUNTY SUBMITTAL | 3/8/18 |

GRADING AND EROSION CONTROL PLAN

| | |
|-----------------------|-----------------------|
| HORIZ. SCALE: 1"=100' | DRAWN: MSP |
| VERT. SCALE: N/A | DESIGNED: JPS |
| SURVEYED: HANNIGAN | CHECKED: JPS |
| CREATED: 1/24/18 | LAST MODIFIED: 3/7/18 |
| PROJECT NO: 121703 | MODIFIED BY: MSP |

C1

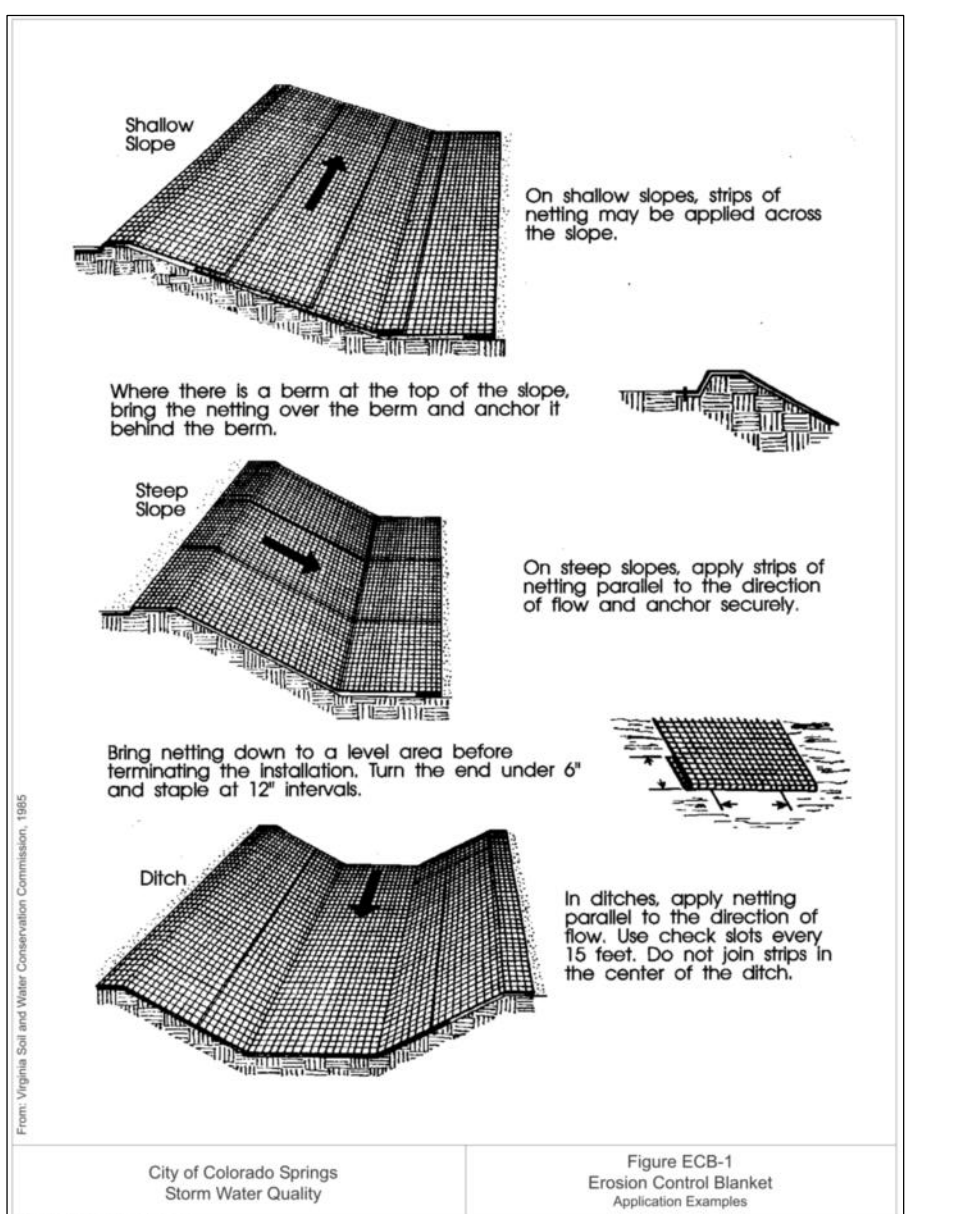
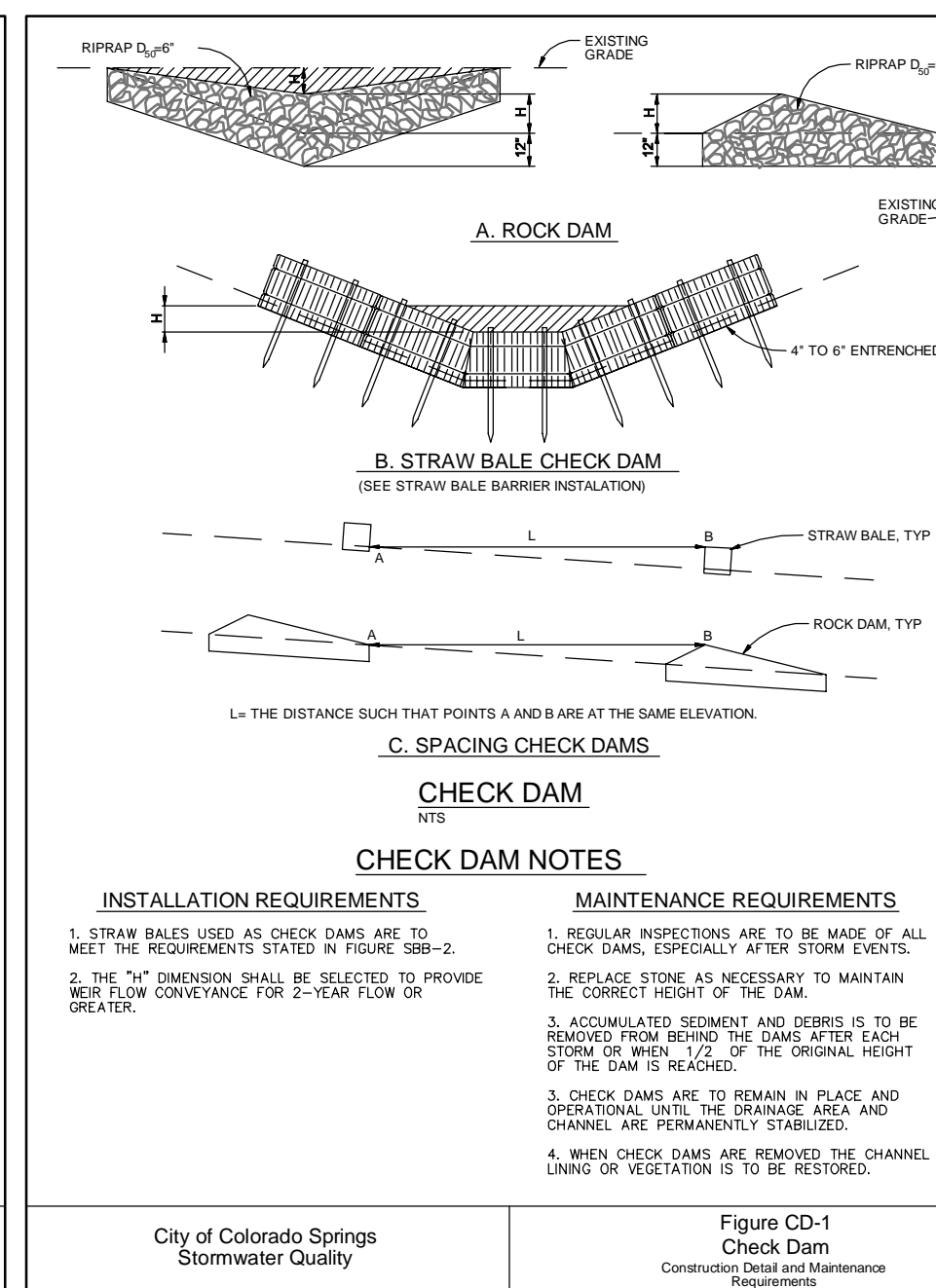
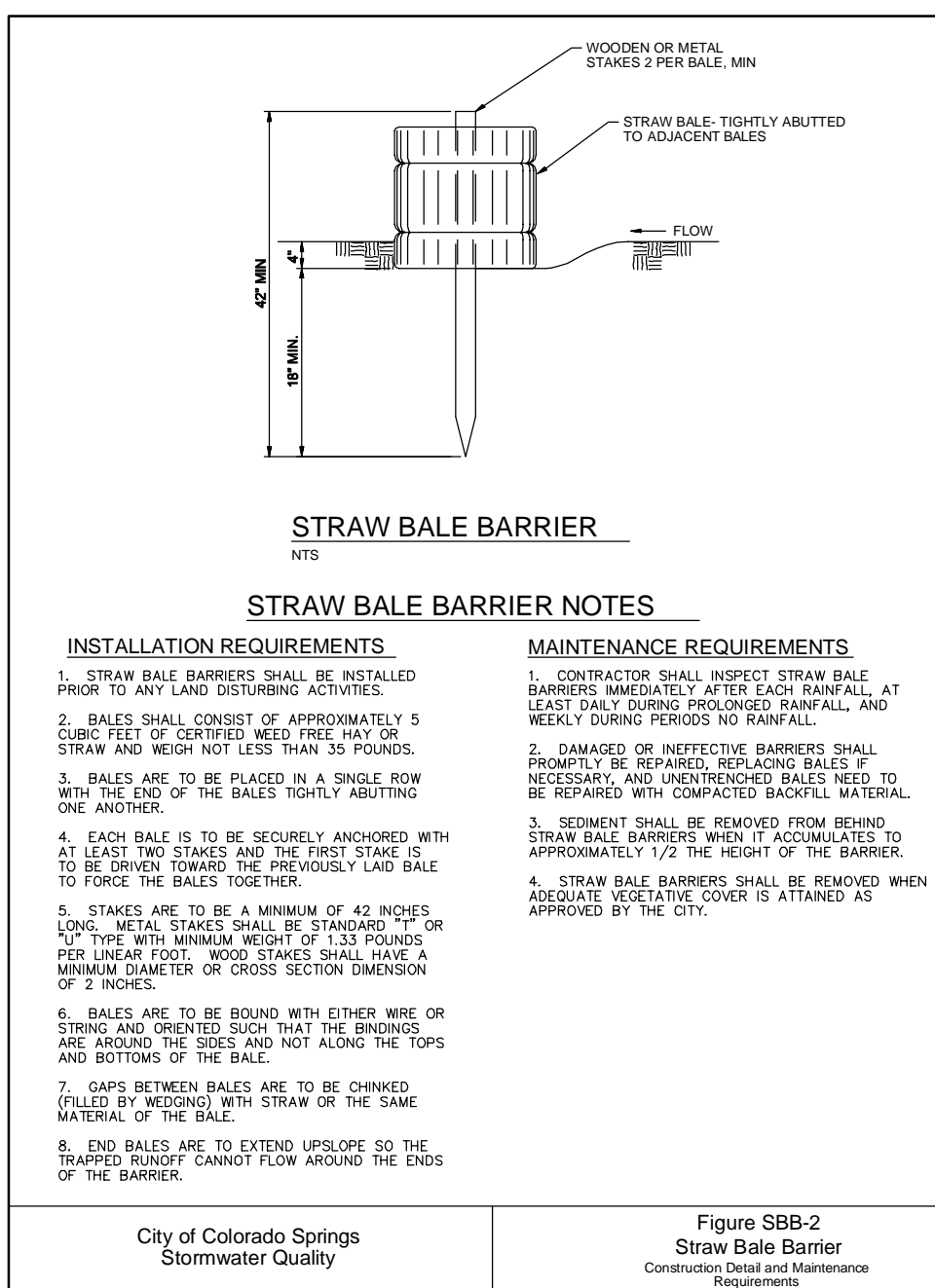
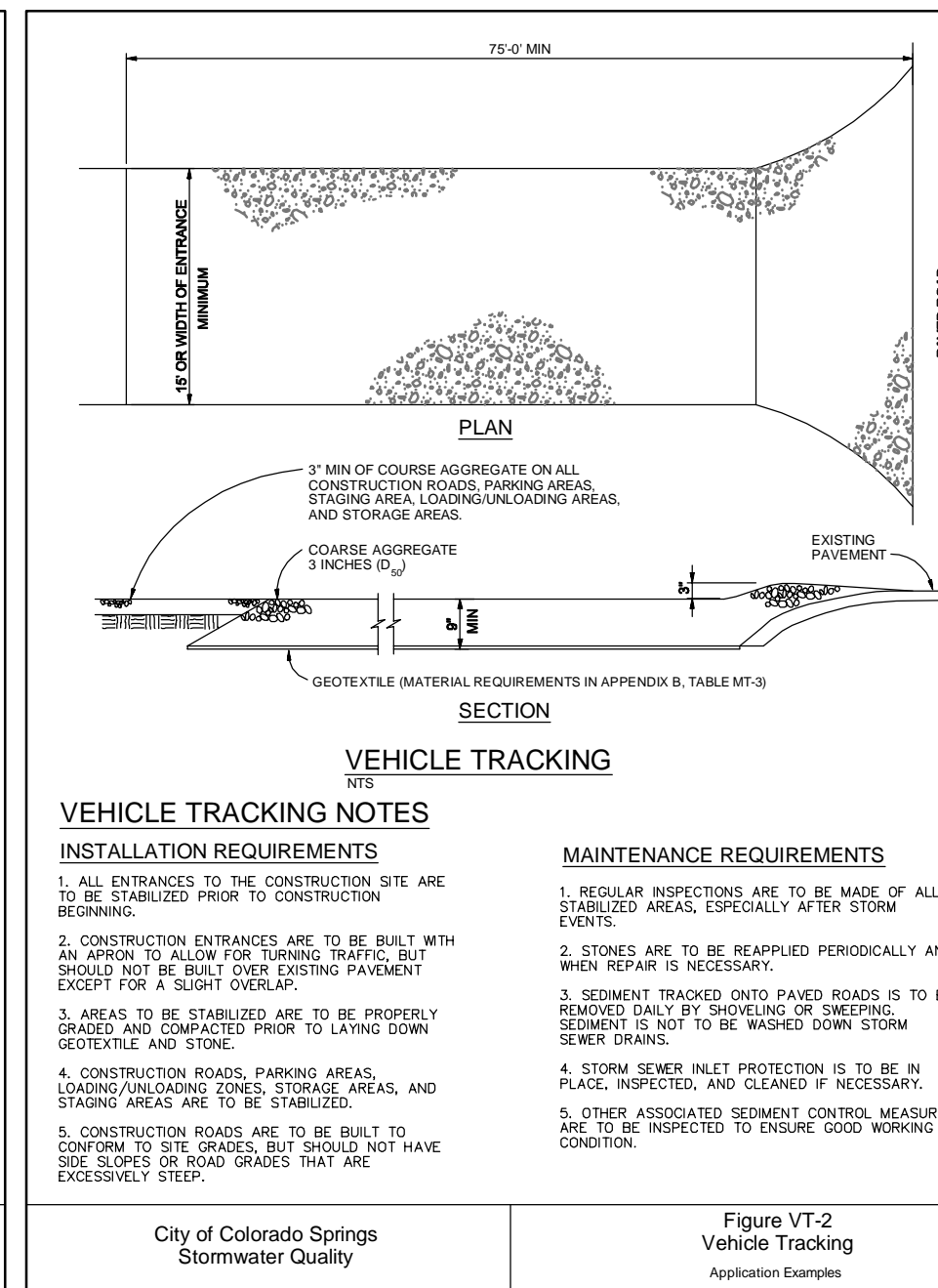
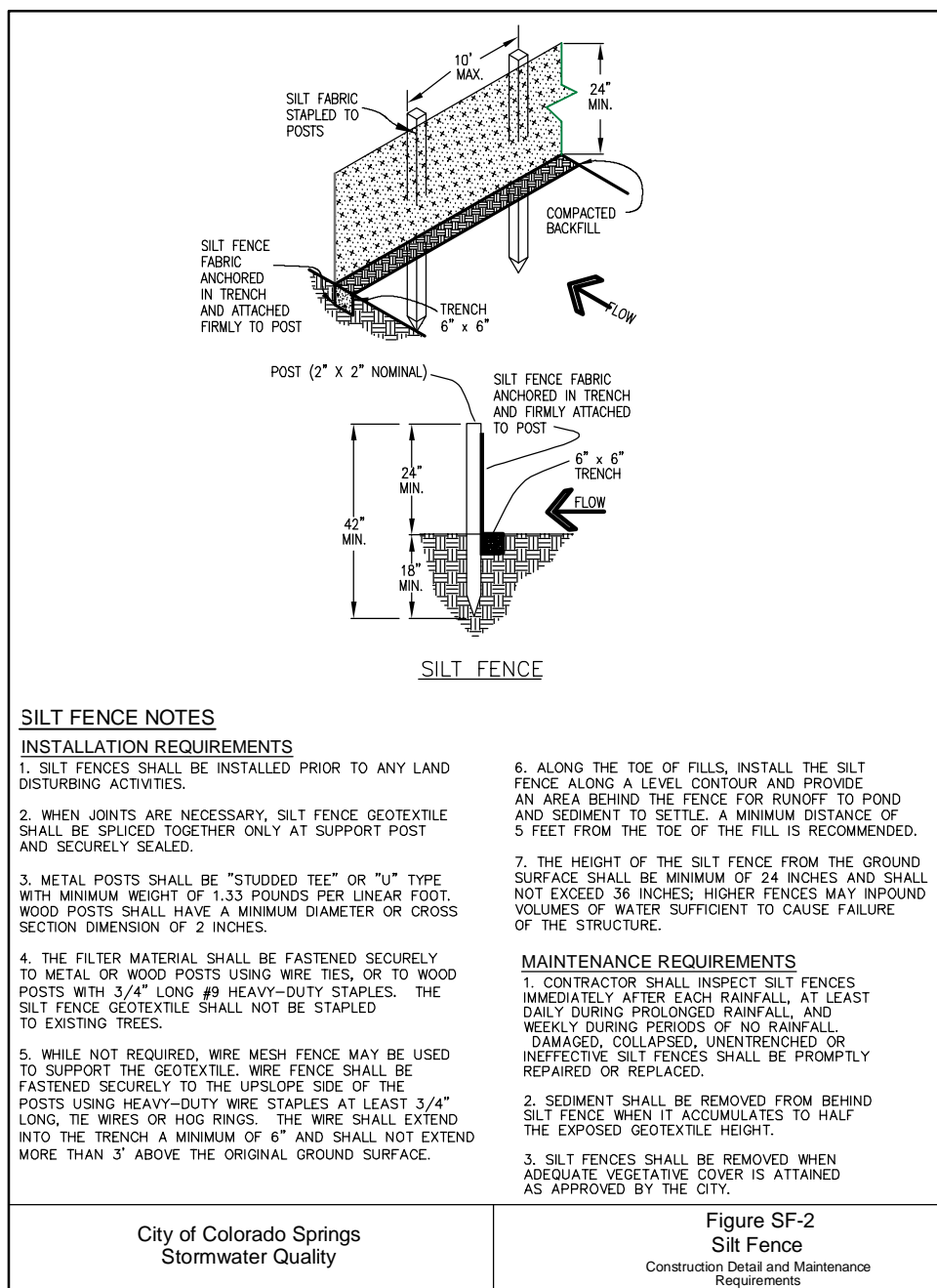
Standard Notes for El Paso County Grading and Erosion Control Plans

Revised 7/07/10

- Construction may not commence until a Construction Permit is obtained from Development Services and a Preconstruction Meeting is held with Development Services Inspectors. Update any any reference to "Development Services" to "Planning and Community Development"
- Stormwater discharges from construction sites shall not cause or threaten to cause pollution, contamination, or degradation of state waters. All work and earth disturbance shall be done in a manner that minimizes pollution of any on-site or off site waters, including wetlands.
- Notwithstanding anything depicted in these plans in words or graphic representation, all design and construction related to roads, storm drainage and erosion control shall conform to the standards and requirements of the most recent version of the relevant adopted El Paso County standards, including the Land Development Code, the Engineering Criteria Manual, the Drainage Criteria Manual, and the Drainage Criteria Manual Volume 2. Any deviations to regulations and standards must be requested, and approved, in writing.
- A separate Stormwater Management Plan (SMWP) for this project shall be completed and an Erosion and Stormwater Quality Control Permit (ESQCP) issued prior to commencing construction. During construction the SMWP 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.
- 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 DSS inspections staff.
- 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.
- 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.
- 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).
- 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.
- 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.
- 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.
- 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.
- Erosion control blanketing is to be used on slopes steeper than 3:1.
- 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.
- Vehicle tracking of soils and construction debris off-site shall be minimized. Materials tracked offsite shall be cleaned up and properly disposed of immediately.
- 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.
- 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.
- The quantity of materials stored on the project site shall be limited, as much as practical, to that quantity required to perform the work in an orderly sequence. All materials stored on-site shall be stored in a neat, orderly manner, in their original containers, with original manufacturer's labels.
- No 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.
- 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.
- No person shall cause the impediment of stormwater flow in the flow line of the curb and gutter or in the ditchline.
- 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.
- All construction traffic must enter/exit the site at approved construction access points.
- Prior to actual construction the permittee shall verify the location of existing utilities.
- A water source shall be available on site during earthwork operations and utilized as required to minimize dust from earthwork equipment and wind.
- The soils report for this site shall be considered a part of these plans. Update to reference the specific report.
- 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

NOTE: 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.



SEEDING MIX:

| GRASS | VARIETY | AMOUNT IN PLS LBS. PER ACRE |
|---------------------|--------------------|--------------------------------|
| CRESTED WHEAT GRASS | EPHRAIM OR HYCREST | 4.0 LBS. |
| PERENNIAL RYE | LINN | 2.0 LBS. |
| WESTERN WHEATGRASS | SARTON | 3.0 LBS. |
| SMOOTH BROME GRASS | LINCOLN OR MANCHAR | 5.0 LBS. |
| SIDEOATS GRAMA | EPHRAIM | 2.5 LBS. |
| TOTAL: | | 16.5 LBS. |

SEEDING & FERTILIZER APPLICATION: DRILL SEED OR HYDRO-SEED PER CDOT SPEC. SECTION 212.

MULCHING APPLICATION: CONFORM TO CDOT SPEC-SECTION 213.

SEDIMENT CONTROL MAINTENANCE PROGRAM:

PERIODIC SITE INSPECTIONS BI-WEEKLY¹
RE-VEGETATION OF EXPOSED SOILS WITHIN 21 DAYS OF GRADING
SEDIMENT REMOVAL FROM BMP'S MONTHLY²
REMOVAL OF BMP'S AFTER STABILIZATION ACHIEVED

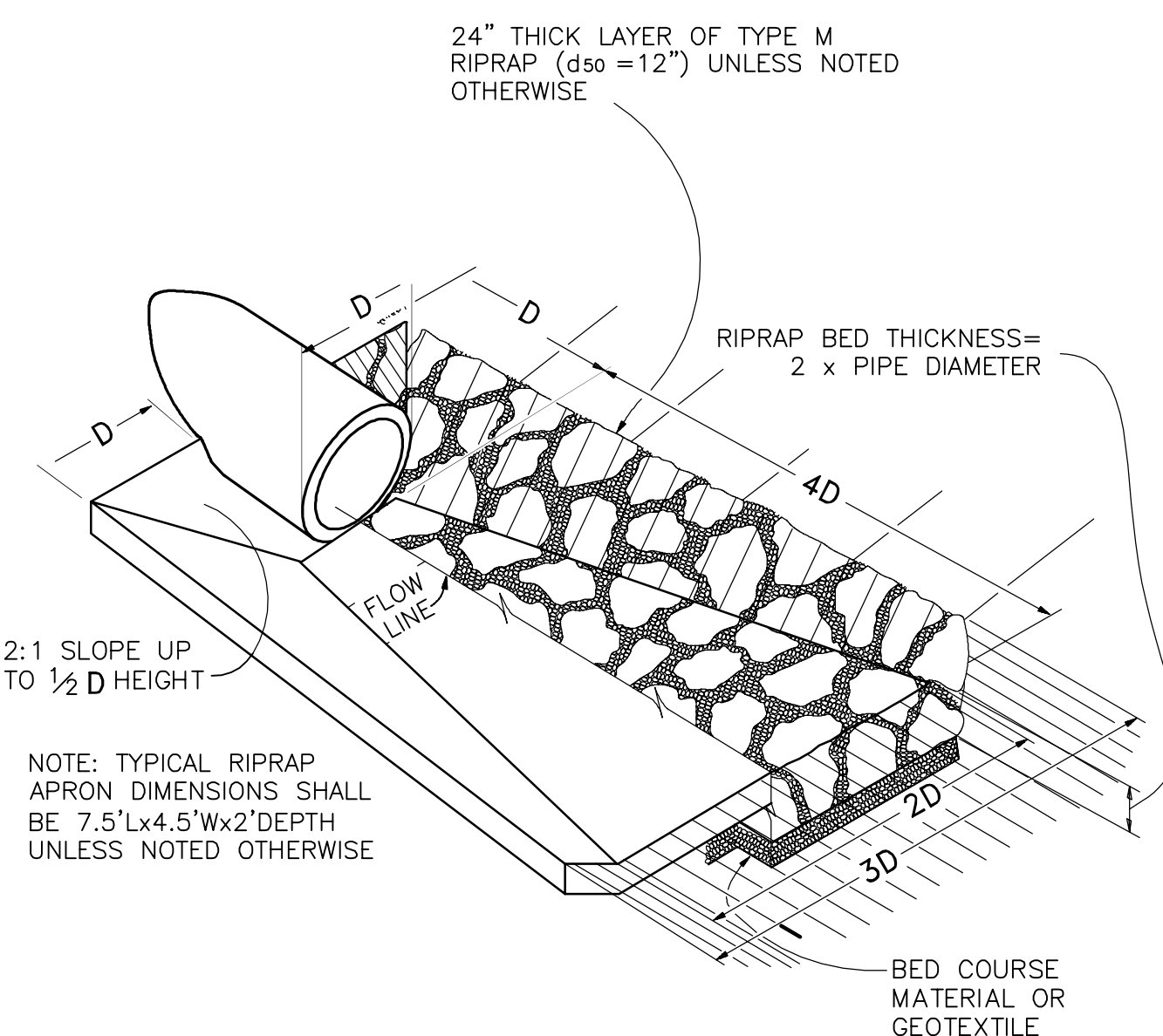
1 AND AFTER ANY PRECIPITATION OR SNOW MELT EVENT THAT CAUSES SURFACE EROSION.

2 ACCUMULATED 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.

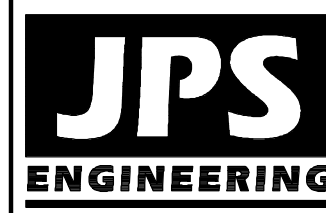
ESTIMATED TIME SCHEDULE:

INSTALL BMP'S JUNE 2018
ROADWAY GRADING JUNE 2018
SEEDING & MULCHING MAY 2019
STABILIZATION SEPTEMBER 2019

INSTALL BMP'S JUNE 2018
ROADWAY GRADING JUNE 2018
SEEDING & MULCHING MAY 2019
STABILIZATION SEPTEMBER 2019



HUDSON MINOR SUBDIVISION



19 E. Willamette Ave.
Colorado Springs, CO 80903
PH: 719-477-9429
FAX: 719-471-0766
www.jpseng.com



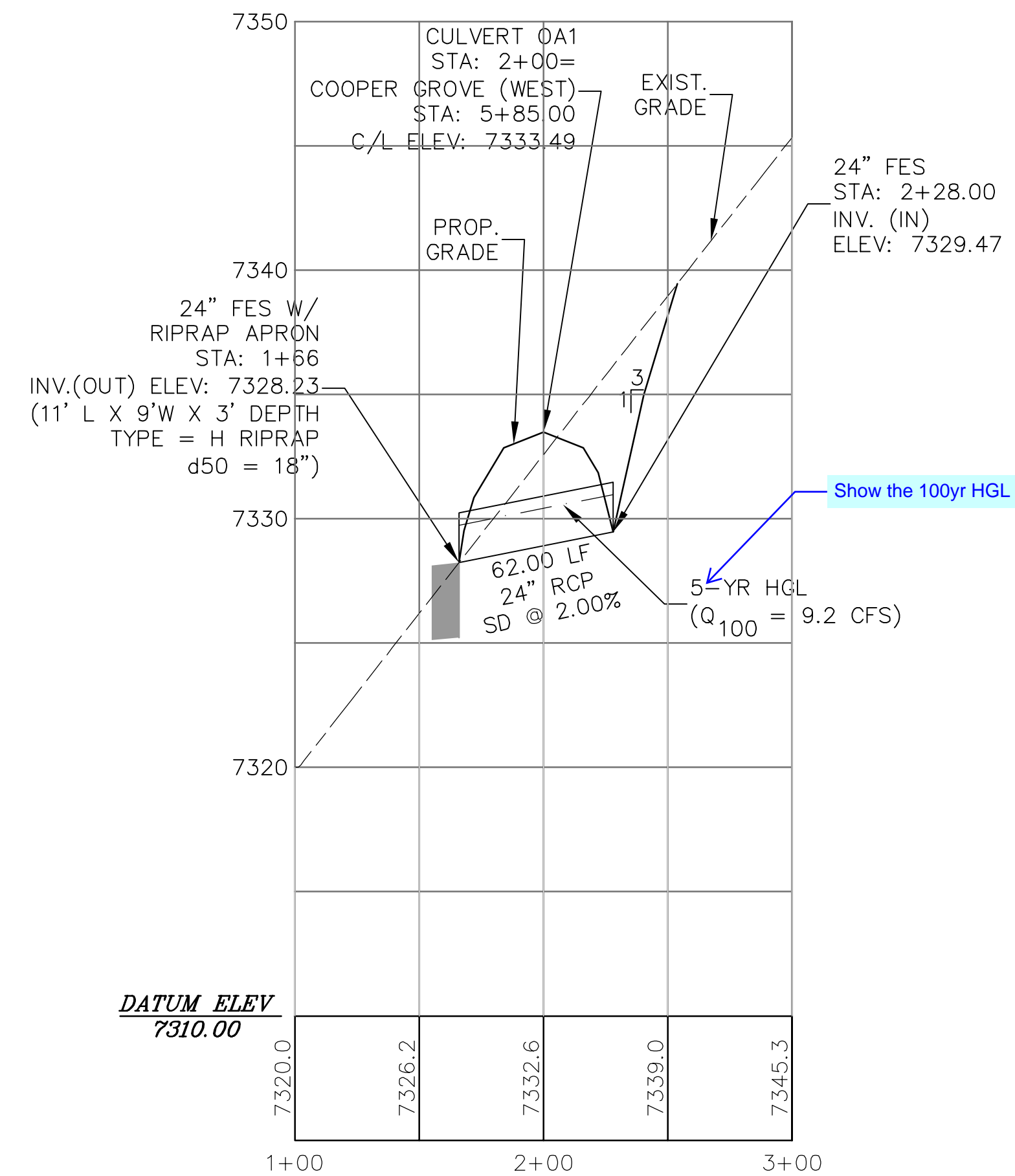
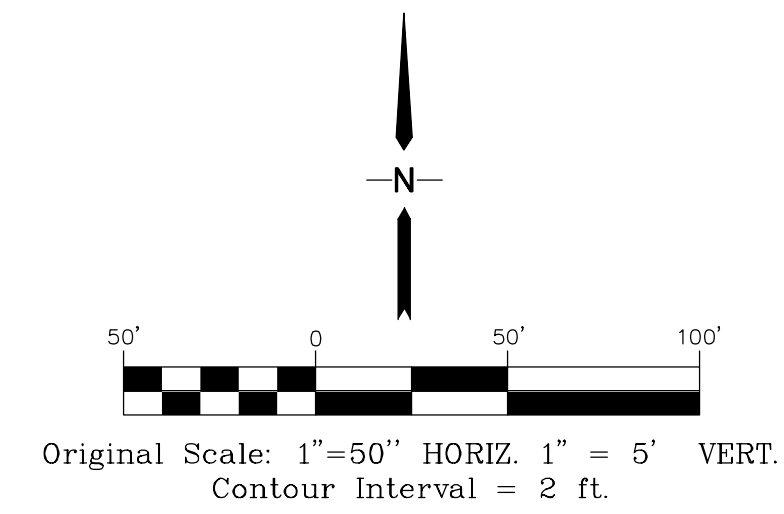
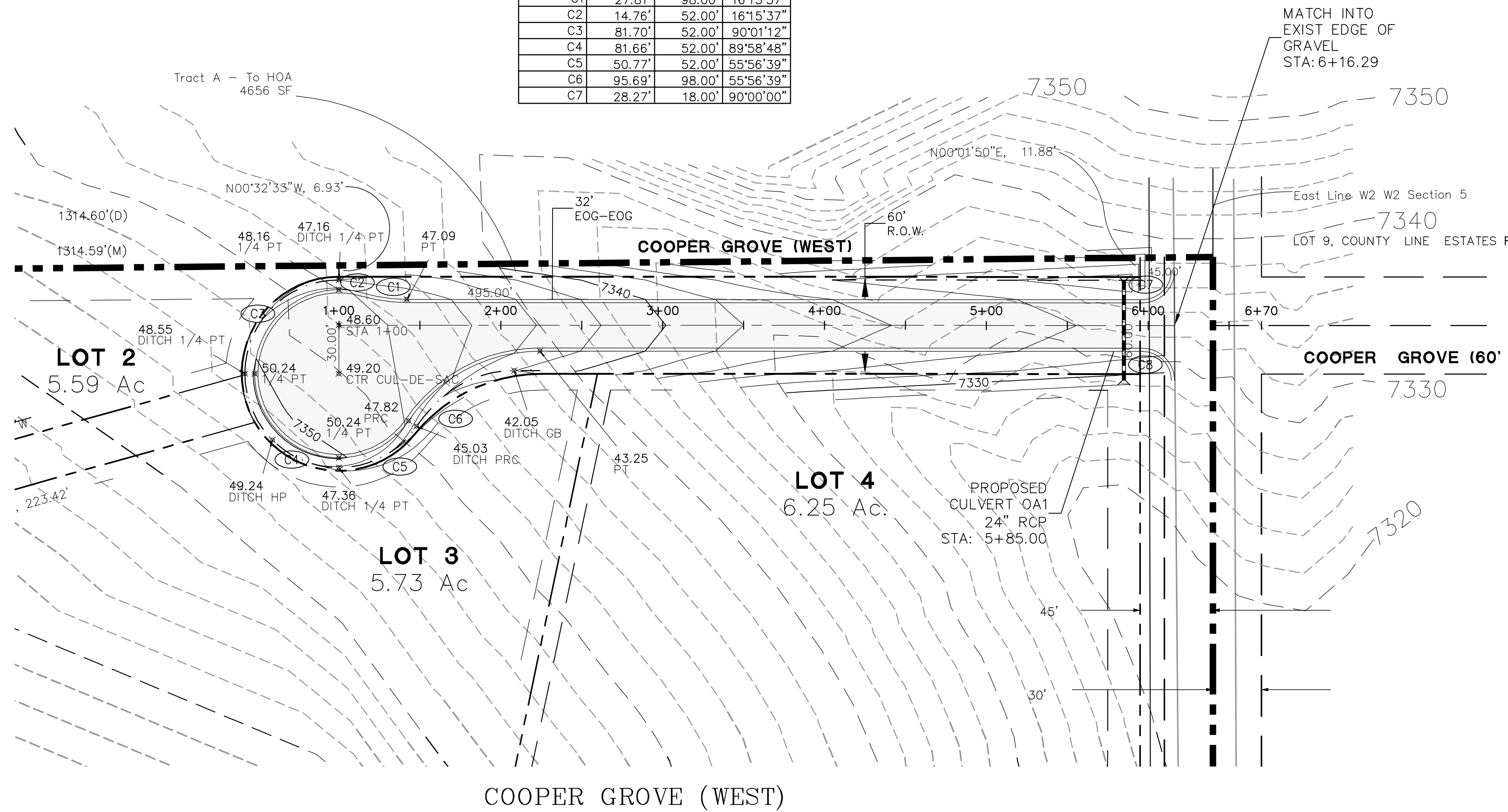
CALL UTILITY NOTIFICATION CENTER OF COLORADO
1-800-922-1987
CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.

| NO. | REVISION | DATE |
|-----|------------------|--------|
| 1 | COUNTY SUBMITTAL | 3/8/18 |

EROSION CONTROL NOTES & DETAILS

| | |
|--------------------|-----------------------|
| HORIZ. SCALE: N/A | DRAWN: MSP |
| VERT. SCALE: N/A | DESIGNED: JPS |
| SURVEYED: HANNIGAN | CHECKED: JPS |
| CREATED: 1/24/18 | LAST MODIFIED: 3/7/18 |
| PROJECT NO: 121703 | MODIFIED BY: MSP |
| SHEET: | C2 |

| CURVE TABLE - EOG | | | |
|-------------------|--------|--------|-----------|
| CURVE | LENGTH | RADIUS | DELTA |
| C1 | 27.81' | 98.00' | 16°15'37" |
| C2 | 14.76' | 52.00' | 16°15'37" |
| C3 | 81.70' | 52.00' | 90°01'12" |
| C4 | 81.66' | 52.00' | 89°58'48" |
| C5 | 50.77' | 52.00' | 55°56'39" |
| C6 | 95.69' | 98.00' | 55°56'39" |
| C7 | 28.27' | 18.00' | 90°00'00" |



| Station | Elevation | Notes |
|---------|-----------|---|
| 1+00 | 7348.0 | |
| 1+00 | 7348.60 | PVI STA = 1+50, PVI ELEV = 7347.60, A.D. = -3.00, K = 10.00 |
| 1+35 | 7345.4 | BVCS: 1+35, BVCE: 7347.90 |
| 1+65 | 7347.49 | EVCS: 1+65, EVCE: 7346.85 |
| 2+00 | 7341.7 | |
| 2+00 | 7345.10 | |
| 2+00 | 7337.8 | |
| 2+00 | 7342.60 | |
| 3+00 | 7333.9 | |
| 3+00 | 7340.10 | |
| 3+00 | 7331.0 | |
| 3+00 | 7338.01 | |
| 4+00 | 7331.8 | |
| 4+00 | 7336.73 | |
| 4+00 | 7333.9 | |
| 4+00 | 7335.85 | |
| 5+00 | 7331.3 | |
| 5+00 | 7334.98 | |
| 5+00 | 7331.4 | |
| 5+00 | 7334.10 | |
| 5+00 | 7332.9 | |
| 5+00 | 7333.23 | |
| 6+00 | 7333.7 | |

HUDSON MINOR SUBDIVISION

COOPER GROVE (WEST) PLAN AND PROFILE STA: 1+00 TO 6+70

JPS ENGINEERING
 19 E. Willamette Ave.
 Colorado Springs, CO 80903
 PH: 719-477-9429
 FAX: 719-471-0766
 www.jpsengr.com

CALL UTILITY NOTIFICATION CENTER OF COLORADO
1-800-922-1987
 CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.

| No. | REVISION | DATE |
|-----|------------------|--------|
| 1 | COUNTY SUBMITTAL | 3/8/18 |

HORIZ. SCALE: 1"=50'
 VERT. SCALE: 1"=5'
 SURVEYED: HANNIGAN
 CREATED: 1/24/18
 PROJECT NO: 121703
 SHEET: PP1

Markup Summary

4/18/2018 6:53:01 PM (1)



Subject: Callout
Page Label: 1
Author: dsdlaforce
Date: 4/18/2018 6:53:01 PM
Color: ■

Add 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.

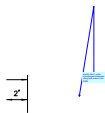
4/18/2018 6:53:46 PM (1)



Subject: Text Box
Page Label: 1
Author: dsdlaforce
Date: 4/18/2018 6:53:46 PM
Color: ■

Add: PCD File No. MS-18-002

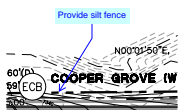
4/18/2018 6:55:54 PM (1)



Subject: Callout
Page Label: 2
Author: dsdlaforce
Date: 4/18/2018 6:55:54 PM
Color: ■

identify the 5' public improvement easement along both sides of the ROW

4/18/2018 7:06:36 PM (1)



Subject: Callout
Page Label: 3
Author: dsdlaforce
Date: 4/18/2018 7:06:36 PM
Color: ■

Provide silt fence

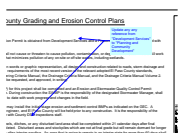
4/18/2018 7:11:16 PM (1)



Subject: Callout
Page Label: 4
Author: dsdlaforce
Date: 4/18/2018 7:11:16 PM
Color: ■

Update to reference the specific report.

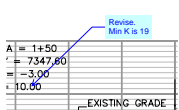
4/18/2018 7:12:27 PM (1)



Subject: Callout
Page Label: 4
Author: dsdlaforce
Date: 4/18/2018 7:12:27 PM
Color: ■

Update any any reference from "Development Services" to "Planning and Community Development"

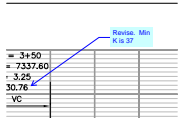
4/18/2018 7:19:27 PM (1)



Subject: Callout
Page Label: 5
Author: dsdlaforce
Date: 4/18/2018 7:19:27 PM
Color: ■

Revise. Min K is 19

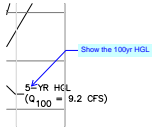
4/18/2018 7:20:02 PM (1)



Subject: Callout
Page Label: 5
Author: dsdlaforce
Date: 4/18/2018 7:20:02 PM
Color: ■

Revise. Min K is 37

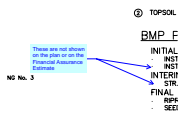
4/18/2018 7:23:07 PM (1)



Subject: Callout
Page Label: 5
Author: dsdlaforce
Date: 4/18/2018 7:23:07 PM
Color: ■

Show the 100yr HGL

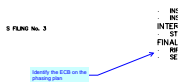
4/18/2018 7:25:13 PM (1)



Subject: Callout
Page Label: 3
Author: dsdlaforce
Date: 4/18/2018 7:25:13 PM
Color: ■

These are not shown on the plan or on the Financial Assurance Estimate

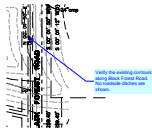
4/18/2018 7:26:12 PM (1)



Subject: Callout
Page Label: 3
Author: dsdlaforce
Date: 4/18/2018 7:26:12 PM
Color: ■

Identify the ECB on the phasing plan

4/19/2018 4:38:10 PM (1)



Subject: Callout
Page Label: 3
Author: dsdlaforce
Date: 4/19/2018 4:38:10 PM
Color: ■

Verify the existing contours along Black Forest Road. No roadside ditches are shown.