

STORMWATER MANAGEMENT PLAN

FOR LORSON BOULEVARD BRIDGE

OVER JIMMY CAMP CREEK MAIN CHANNEL

Stormwater Permit # _____

Certification # _____

Owner/Developer:

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SWMP Location

On-site (copy) and Lorson, LLC (original)

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APPENDIX A: VICINITY MAP

APPENDIX B: LORSON BOULEVARD BRIDGE OVER JIMMY CAMP CREEK MAIN CHANNEL CONSTRUCTION PLANS, DATED SEPTEMBER 15, 2017 BY CORE ENGINEERING GROUP. THE BRIDGE PLANS BY LORIS & ASSOCIATES FOR JIMMY CAMP BRIDGE CONSTRUCTION NOT INCLUDED.

APPENDIX C: STORMWATER INSPECTION REPORTS (BY REFERENCE ONLY NOT ATTACHED)

APPENDIX D: SPILL REPORT FORM

APPENDIX E: RECORD OF STABILIZATION AND CONSTRUCTION ACTIVITY DATES

APPENDIX F: FEDERAL, STATE, OR LOCAL STORM WATER OR OTHER ENVIRONMENTAL INSPECTOR SITE VISIT LOG

APPENDIX G: GENERAL PERMIT AND APPLICATION

SWMP REPORT REVISION LOG

REV. #	DATE:	BY:	COMMENTS	Initials
1.				
2.				
3.				
4.				
5.				

1.0 INTRODUCTION

The proposed **Lorson Boulevard Bridge Over Jimmy Camp Creek Main Channel Construction** is currently an existing creek and vacant land. Approximately 4.8 acres will be disturbed with this project. The bridge is located on Jimmy Camp Creek at Lorson Boulevard and the street construction will extend Lorson Boulevard east 800 feet. A watermain lateral will be extended east under the creek and along Lorson Boulevard as part of this project. See vicinity map in the appendix. The property drains generally south towards the East Tributary of Jimmy Camp Creek.

Lorson Boulevard Bridge Over Jimmy Camp Creek Main Channel Construction consists of one 260' span bridge over Jimmy Camp Creek and 800 feet of Lorson Boulevard street construction. Lorson, LLC is the overall developer and will construct major infrastructure. Access to the bridge will be Lorson Boulevard on the west and an access road to Old Glory Drive on the east.

2.0 SEQUENCE OF MAJOR ACTIVITIES – Exhibit 1 Construction

The anticipated date for beginning construction activities is September, 2018 and will be complete in June, 2019. Implementation of the storm water management plan should be in place prior to initiating construction activities. The anticipated sequence of construction is as follows:

1. Installation of perimeter erosion control measures and vehicle tracking pads as shown on Exhibit 1
2. Construct downstream rock check dam in Jimmy Camp Creek
3. Site Clearing/Grubbing and topsoil stockpiling.
4. Construct bridge and street
5. Armor creek, replace topsoil, and final stabilize disturbed areas
6. Final erosion control measures as areas are completed
7. Remove rock check dam in creek

3.0 PRE-DEVELOPMENT CONDITIONS

According to the current FEMA Flood Insurance Rate Map (FIRM) number 08041CO957 F, this site is located within the 100-year floodplain. Grading is proposed within the floodplain which is included in CLOMR Case No. _____. Grading shall not occur until the CLOMR has been approved by FEMA.

Existing Vegetation:

The site is currently undeveloped and has been used as a farm field (alfalfa) for the past several years but is now vacant. The creek is a dry waterway with a natural sand bottom and sparse vegetation. Ground cover is estimated at 70% coverage

Existing Slopes:

Existing slopes are around 1% that direct runoff southwesterly to Jimmy Camp Creek. The creek slopes to the south at 0.5% and has a natural sand bottom. Jimmy Camp Creek was reconstructed in 2005 to a trapezoidal section with armored side slopes and a natural sand bottom. See construction plans (Page C1.3) for a typical channel section for Jimmy Camp Creek used in the 2005 Jimmy Camp Creek Construction plans.

Existing Drainage Patterns:

Pre-development drainage patterns include flowing southwesterly to Jimmy Camp Creek. The drainage patterns will remain the same after construction. The creek was reconstructed in 2005 and flows south at 0.5% slope

Existing Soil Types:

The following table summarizes the characteristics of the soil type.

Table 3.1: SCS Soils Survey

Soil	Hydro. Group	Shrink/Swell Potential	Permeability	Surface Runoff Potential	Erosion Hazard
Blendon Sandy Loam (10)	B	Low	Moderately Rapid	Slow	Moderate
Ellicott Loam (28)	A	Low	Rapid	Slow	Moderate to High

Based upon the location of the different soil types and type of construction, the contractor shall employ the most appropriate method of erosion control measures based on the El Paso County/City of Colorado Springs Drainage Criteria Manual, Vol. 2 or as directed by the SWMP administrator or his representative.

More detailed soils information can be found in the SCS soils survey for El Paso County.

4.0 DEVELOPED CONDITIONS

The overall drainage concept for **Lorson Boulevard Bridge Over Jimmy Camp Creek Main Channel Construction** will not be changed due to this construction.

Proper erosion protection will be installed so no sediment is discharged offsite. No land use changes are proposed with this construction.

Construction Site Estimates:

- Project Site: 4.8 acres
- Disturbed Area: 4.8 acres

- Percent Impervious before Construction: 0%
- Runoff Coefficient before Construction: 0.35

- Percent Impervious after Construction: 0%
- Runoff Coefficient after Construction: 0.35

What about road and bridge?

Receiving Waters:

- Jimmy Camp Creek

- Description: The creek channel is a dry creek bed that flow water intermittently after significant rainfall events in the drainage basin.
- Description of Storm Sewer System: There is no existing storm sewer system on the site.
- Description of impaired waters or waters subject to TMDLs: The site contains no impaired waters or waters subject to TMDLs.
- Description of unique features that are to be preserved: There are no known protected plant species within the project limits.
- Describe measures to protect these features: N/A

Site Features and Sensitive Areas to be Protected:

Portions of this site are located within waters of the state (100-year floodplain) but they contain no other sensitive areas including wetlands or endangered species.

5.0 POTENTIAL SOURCES OF POLLUTION AND CONTROL STRATEGIES

Potential sources of sediment to stormwater runoff include earth moving and concrete activities associated with grading, bridge construction, and re-vegetation.

Potential pollutants and sources, other than sediment, to stormwater runoff include Trash, debris, line transfer, Dewatering, fueling and equipment failure.

A dewatering permit is not required  not anticipated to be?

Construction activities produce many different kinds of pollutants which may cause storm water contamination problems. Grading activities remove rocks, vegetation and other erosion controlling surfaces, resulting in the exposure of underlying soil to the elements. Because the soil surface is unprotected, soil and sand particles are easily picked up by wind and/or washed away by rain or other water sources.

The following sections highlight the potential sources of pollution at the Project Site and list the “Best Management” strategies that will be used to prevent migration of pollution offsite. Chemical materials stored indoors or that have no reasonable chance of impacting storm water quality will not be discussed in this plan.

Materials of significance stored on the project site include:

- Sediment
- Concrete Washout
- Cement
- Trash & Debris
- Sanitary Wastes
- Fuels & Oils

5.1 Wind Erosion & Dust Control

Pollutant: Sediment

Best Management Strategies:

- Daily inspections will occur for areas experiencing excessive winds, vehicle traffic, or precipitation events.
- Water trucks will spray down dust on the project Site as needed to not impact adjacent properties.
- Attention will be given to prevent the over use of water in dust control operations to minimize any muddying of the surface and possible sediment transportation.

5.2 Vehicular Transport

Pollutant: Sediment Tracking

Best Management Strategies:

- Construct a stabilized construction entrance to provide ingress and egress of the site.
- Restrict access to the stabilized construction entrance.
- Fencing will be erected if problems with access control are evident.
- Maintain track out pads by fluffing up the rock material or by adding additional rock as needed.
- Inspect, sweep and clean adjacent streets where track out is evident.

5.3 Stockpiles

Pollutant: Sediment

Best Management Strategies:

- Locate stockpiles clear of any water flow paths.
- Locate stockpiles within the property boundary.
- Stockpiles will have erosion control devices as needed installed around the base to prevent the migration of soil.
- Topsoil stock piles and disturbed portions of the site where construction activity temporarily ceases for at least 14 days will be stabilized with temporary seed and mulch no later than 14 days from the last construction activity in the area.

5.4 Grading, Trenching, Export/Import

Pollutant: Sediment

Best management Strategies:

- Earth moving will be minimized by the engineering balancing of the site.
- Disturbed portions of the site where construction activity temporarily ceases for at least 14 days will be stabilized with temporary seed and mulch no later than 14 days from the last construction activity in the area.
- Seed bed preparation is not required if soil is in loose condition.
- Prior to seeding, fertilizer shall be applied to each acre to be stabilized in accordance with the manufacturer's specifications.
- If required seeding areas shall be mulched with straw to a uniformed cover. The straw mulch is to be tacked into place by a disk with blades set nearly straight.
- A site specific erosion control drawing has been developed showing the location of Best Management practices to be used during site construction.
- Where indicated on the erosion control plan, Best Management Practices will be installed.
- Material shall be in accordance with the plans and specifications and all construction shall be provided in accordance with the manufacturer's specifications.
- All BMP's will be inspected bi-weekly and cleaned/maintained as required.

5.5 Waste, Residual Concrete

Pollutant: Concrete, paint, and Phosphoric Acid

Best Management Strategies:

- A cleanup and washout area will be designated and posted.
- Subcontractors will be instructed on the locations and importance of the washout and cleanup areas. No on-site disposal is allowed.
- Instruct subcontractors to remove waste for which proper onsite disposal facilities are not provided back to their own facilities for ultimate transport, storage & disposal.
- Subcontractors and subcontractor employees are held responsible for improper washout.

5.6 Sanitary Facilities, Trash Containers & Littering

Pollutant: Bacteria, Ammonia, Trash

Best Management Strategies:

- Portable facilities will be regularly serviced to prevent excessive waste containment and overflow.
- All waste materials will be collected and stored in a container which will meet all local and any state solid waste management regulations.
- Trash dumpsters will be emptied prior to becoming 90% full or when debris control becomes an issue.
- Employees will be instructed on the importance of recycling and waste management, and will be held responsible for improper waste management.

5.7 Fueling, Hazardous Materials, Equipment Leakage, Fertilizer

Pollutant: Petroleum Hydrocarbons, Ethylene Glycol, Sediment

Best Management Strategies:

- MSDS sheets will be maintained in the project trailer for all onsite materials
- All dry materials such as cement will be covered and protected from rain.
- Secondary containment will be provided for stored fuel, oil, paint and any material classified as hazardous.
- Subcontractors are responsible for hazardous waste removal back to their own facilities for ultimate transportation, storage and disposal.
- Supplies will be kept onsite as necessary to control any potential spill.
- Employees will be held responsible for any illegal dumping.
- Seals will be checked by a qualified professional on all equipment and containers containing significant materials that could contribute potential pollutants and will be replaced as necessary.
- Equipment will be inspected by a qualified professional.
- Drip pans will be available for minor leaks and during fueling operations.
- Fueling nozzles, gauges, hoses, seals, and emergency shutoff valves will be inspected for leaks prior to use.
- Under no circumstances during fueling will the fueling hose/nozzle be left unattended.
- Fertilizers used will be applied only in the minimum amounts recommended by soil tests.
- Once applied, fertilizers will be worked into the soil to limit exposure to storm water.
- Stored fertilizer will be protected from exposure to precipitation and storm water runoff.

5.8 Dewatering – not needed. This shown for information only

Pollutant: Sediment, Oil and/or Grease and Phosphoric Acid

Best Management Strategies:

- All dewatering will be filtered through rock and/or woven geo mesh fabric.

- All dewatering will be tested for Pollutants per state guidelines weekly.

6.0 BEST MANAGEMENT PRACTICES (BMP's)

Also refer to attached Erosion and Sediment Control notes and plans included in the site plans

6.1 – Erosion and Sediment Control BMP's

6.1.1 Minimize Disturbed Area and Protect Natural Features and Soil

All work will occur inside the limits of construction per the erosion Control Site Plan. See Exhibit 1

6.1.2 Phase Construction Activity

The sequence for the installation and removal of erosion and sediment control measures is as follows:

8. Installation of perimeter erosion control measures and vehicle tracking pads as shown on Exhibit 1
9. Construct downstream rock check dam in Jimmy Camp Creek
10. Site Clearing/Grubbing and topsoil stockpiling.
11. Construct bridge and street
12. Armor creek, replace topsoil, and final stabilize disturbed areas
13. Final erosion control measures as areas are completed
14. Remove rock check dam in creek

6.1.3 Control Stormwater Flowing onto and through the Project

Narrative:

There is no offsite stormwater flowing onto this project site. On-site runoff includes flows in Jimmy Camp Creek which only occurs after significant rainfall events in the drainage basin. A rock check dam will be installed in the bottom of the creek at the downstream end of the project so that no sediment is deposited in the downstream receiving waters. In the event that water flows in Jimmy Camp Creek the rock check dam will allow the runoff to flow downstream as in existing conditions.

6.1.4 Stabilize Soils

No disturbed area which is not actively being worked shall remain denuded for more than 14 calendar days unless otherwise authorized by the director. Temporary cover by seeding or mulching should be provided on areas which will be exposed for a period greater than 14 days before permanent stabilization can be achieved. Permanent cover should be provided on all areas as soon as possible, by means of seeding and mulching, straw or hay mulch is required. All soil stock piles and borrow areas must be protected with silt fence within 14 days after grading. All slopes within the project limits that are found to be eroding excessively within two years of permanent stabilization shall be provided additional slope stabilization methods such as seeding and mulching.

Water is to be used for dust control. The Contractor will prevent the escape of this water and any sediment it may carry from the construction site.

shown on plan?

6.1.5 Protect Slopes

Temporary stabilization will include the installation of silt fences on level contours spaces at 10-20 foot intervals. Slopes will be seeded and covered with hay, straw or erosion control blankets on slopes greater than 3:1 as needed to provide for temporary stabilization until vegetation is permanently established.

All slopes within the project limits that are found to be eroding excessively within two years of permanent stabilization shall be provided additional slope stabilization methods such as seeding and mulching. Where slopes are steeper than 3:1 erosion control blankets (per specification requirements) will be utilized for final stabilization.

6.1.6 Protect Storm Drain Inlets

Inlet protection will be installed as soon as storm drain inlets are installed and before land-disturbance activities begin in areas with existing storm drain systems.

At the Contractor's discretion, additional temporary erosion control practices to include rock bags and sand bag barriers may be installed to prevent sediment movement. Inlet protection will include rock bags erosion logs curb inlet sediment filters where an overflow capacity is necessary to prevent excessive ponding in front of the curb inlet. Concrete block and wire screen inlet protection if used detail will be included Appendix C prior to installation, will be used where heavy flows are expected and where an overflow capacity is necessary to prevent excessive ponding around the inlet.

Inlet protection devices will be inspected and accumulated sediment will be removed as needed.

6.1.7 Establish Perimeter Controls and Sediment Barriers

Temporary stabilization will include the installation of silt fences on the downslope perimeter of project area. The silt fence will be trenched in on the uphill side 6 inches deep and 6 inches wide as detailed in the silt fence exhibit. Sediment will be removed when it reaches 1/3 the height of the fence. Silt fence will be inspected and replaced or repaired as needed.

6.1.8 Retain Sediment On-Site

Temporary sediment traps shall be installed to detain sediment laden runoff from small watersheds for a period long enough to allow sediment to settle before discharge into receiving waters. For small drainage locations smaller sediment traps should be used. At a minimum, silt fences, vegetative buffer strips or equivalent sediment controls are required for all down-slope boundaries (and for those side slope boundaries deemed appropriate as dictated by individual site conditions) of the construction. The use of a combination of sediment and erosion control measures in order to achieve maximum pollutant removal will be utilized. Sediment traps will be checked regularly for sediment cleanout. Sediments shall be removed and the trap restored to its original dimensions when the sediment has accumulated to one half the design volume of the wet storage. Sediment shall be disposed in suitable areas and in such a manner that will not erode or cause sedimentation problems.

The gravel outlets will be checked regularly for sediment buildup which will prevent damage. If the gravel is clogged by sediment, it shall be removed and cleaned or replaced.

An alternate to sediment traps are temporary sediment basins.

6.1.9 Establish Stabilized Construction Exits

The construction entrance will be established in the entry points of roads. The construction entrance will be at least 50 feet in length and approximately 12 feet wide and graded so runoff does not leave the site. The aggregate will be established at 8 inches thick on top of 4 inch minimum thick free draining material on top of geotextile and will consist of Type G dense

graded material. A stabilized stone pad with a filter fabric under liner will be placed at points of vehicular ingress and egress.

6.1.10 Additional BMP's

BMP Schedule:

All Sediment and Erosion control BMP's (detailed below and only on BMP site map and details if utilized onsite) will be installed prior to any excavation or demolition and will be coordinated with the construction schedule.

As construction changes and new temporary BMP's are needed to control sediment and erosion temporary BMP's will be installed within 24 hours of inspection report.

Recommended BMP's:

ALL RECOMMENDED BMP'S WILL BE INSTALLED PRIOR TO EXCAVATION NEAR ANY SENSITIVE AREAS.

Culvert Inlet Protection will be used to protect existing and new culvert inlets. Inlet Protection Detail will be included in Appendix before using onsite. Removal of this BMP will occur only after vegetation is established to a minimum of 70% pre construction coverage and after removal of BMP all sediment builds up will be removed and the area exposed shall be seeded.

Silt Fence is to be installed in sensitive areas to protect stream channels, pond, and overland runoff. On this site it will be used to protect runoff from the slip pits. See Silt Fence Detail. Removal of this BMP will occur only after vegetation is established to a minimum of 70% pre construction coverage and after removal of BMP all sediment builds up will be removed and the area exposed shall be seeded.

Vehicle Tracking Control is needed at the main construction entrance location. Vehicle tracking control shall be installed at the edge of the construction staging area where construction vehicles regularly exit onto existing asphalt road. If sediment tracking occurs it will be cleaned within 24 hours.

See Vehicle Tracking Control Detail in Appendix C. Removal of this BMP will occur only after project is substantially complete and is ready for seeding operations; the area will then be seeded per specification with the rest of the project.

Check Dams (rip rap) will be used to reduce storm water velocities in drainage channels during construction as a temporary measure until permanent stabilization can be created and vegetation has been established. Check Dam Detail will be included in the the Appendix before using onsite. Removal of this BMP will occur only after vegetation is established to a minimum of 70% pre construction coverage and after removal of BMP all sediment build-up will be removed and the area exposed shall be seeded.

Portable Toilets: Portable toilets are brought in from a service contractor and will be maintained in accordance with standard waste disposal practices using vacuum trucks and place on stable ground to minimize risk of spillage. All portable toilets will be kept a minimum of 500' from any waterway.

Waste Disposal: If needed Roll offs will be utilized for standard construction waste. A qualified contractor will remove waste weekly and take to an appropriate dump site off this project.

6.1.11 Permanent BMP'S:

Re-vegetation:

During construction any disturbed area not being currently worked left dormant longer than 14 days will be re-vegetated per specification with native seed and mulched and crimped with weed free straw.

Final Stabilization will be considered complete when all disturbed areas have a minimum of 70% preconstruction coverage for the specification requirements. Then all temporary BMP's will be removed and the exposed areas left behind will be seeded.

6.2 Good Housekeeping BMP'S

6.2.1 Material Handling and Waste Management

The site will use a private refuse collector that will remove litter twice weekly. No less than one litter receptacle will be present at the construction site. In the event that unusual items such as tanks, cylinders, unidentified containers, etc. which could contain potentially hazardous materials are discovered or disturbed, the Fire and Rescue services will be notified.

Litter and debris will be picked up and disposed of properly daily.

Temporary toilet facilities will be located 500 feet away from any storm drain inlets and all waters of the state.

6.2.2 Establish Proper Building Material Staging Areas

A designated staging area will be used, location to be determined based on available space in the field and plans will be redline. The staging area will be contained per SWMP guidelines. All Equipment and Materials will be brought into the site as needed.

6.2.3 Designate Washout Areas

A concrete washout will be installed to detail as shown in the APPENDIX , and will be placed more than 500 feet away from any waters of the state.

6.2.4 Establish Proper Equipment/Vehicle Fueling and Maintenance Practices

During construction the site will be exposed to operation and maintenance of construction equipment. The contractor shall be responsible for all activities such as fueling, oil changing, lubrication and repair which require use of petroleum products. Such products shall be transported to and from the site in special trucks equipped for that purpose. No waste petroleum products, rags, residue, or equipment parts shall be left on site. In the event of a spill or leak, causing soil to be contaminated, that soil shall be excavated placed in sealed barrels and removed from the site for transport to an approved location for disposal.

See section 6.2.6 for the Spill Plan.

6.2.5 Control Equipment/Vehicle Washing

N/A WILL NOT BE ALLOWED ONSITE

6.2.6 Any Additional BMPs

N/A

6.2.7 Allowable Non-Stormwater Discharge Management



Discuss why this is N/A.

6.2.8: SELECTING POST-CONSTRUCTION BMPs

Post Construction BMPs. Re-vegetation including seeding, mulching and erosion control blanket will be final BMP's. Permanent stabilization will be achieved with 70% pre construction vegetative establishment.

Address where any permanent BMPs will be.

7.0 SPILL PREVENTION AND CONTROL PLAN

The SITE SUPERINTENDENT will act as the point of contact for any spill that occurs at this jobsite. The project manager will be responsible for implementation of prevention practices, spill containment / cleanup, worker training, reporting and complete documentation in the event of a spill. The ECO shall immediately notify the Owner, /Construction Manager, STATE and the Local Fire Department in addition to the legally required Federal, State, and Local reporting channels (including the National Response Center, 800.424.8802) if a reportable quantity is released to the environment

7.1 SPILL PREVENTION BEST MANAGEMENT PRACTICES

This section describes spill prevention methods Best Management Practices (BMP) that will be practiced to eliminate spills before they happen.

7.1.a Equipment Staging and Maintenance

Store and maintain equipment in a designated area Reduce the amount of hazardous materials and waste by substituting non-hazardous or less hazardous materials. Use secondary containment (drain pan) to catch spills when removing or changing fluids. Use proper equipment (pumps, funnels) to transfer fluids Keep spill kits readily accessible Check incoming vehicles for leaking oil and fluids. Transfer used fluids and oil filters to waste or recycling drums immediately following generation. Inspect equipment routinely for leaks and spills Repair equipment immediately, if necessary implement a preventative maintenance schedule for equipment and vehicles.

7.1.b Fueling Area

Perform fueling in designated fueling area minimum 50' away from federal waters Use secondary containment (drain pan) to catch spills Use proper equipment (pumps, funnels) to transfer fluids Keep spill kits readily accessible Inspect fueling areas routinely for leaks and spills

Hazardous Material Storage Areas

Reduce the amount of hazardous materials by substituting non-hazardous or Less hazardous materials.

7.1. c Hazardous Material Storage Areas

Minimize the quantity of hazardous materials brought onsite Store hazardous materials in a designated area away from drainage points.

7.1. d Unexpected Contaminated Soil and Water

- Investigate historical site use
- Perform all excavation activities carefully and only after the Owner/Construction

Manager directed any activities

7.2 SPILL CONTAINMENT METHODS

The following discussion identifies the types of secondary containment that will be used in the event of a spill. Table 1 summarizes the containment methods for each potential source.

- **Equipment Staging and Maintenance Area.** An equipment leak from a fuel tank, equipment seal, or hydraulic line will be contained within a spill containment cell placed beneath all stationary potential leak sources. An undetected leak from parked equipment will be cleaned up using hand shovels and containerized in a 55-gallon steel drum for offsite disposal.
- **Fueling Area.** A small spill during fueling operations will be contained using fuel absorbent pads at the nozzle. The transfer of fuel into portable equipment will be performed using a funnel and/or hand pump and a spill pad used to absorb any incidental spills/drips. Any leaking tanks or drums will have fluids removed and transferred to another tank, drum, or container for the fluids. A spill response kit will be located near the fueling area or on the fuel truck for easy access. The spill response kit will include plastic sheeting, tarps, over pack drums, absorbent litter, and shovels.
- **Hazardous Material Storage Area.** A spill from containers or cans in a hazardous material storage area will be contained within the storage cabinet these materials are kept in.
- **Unexpected Contaminated Soil.** If contaminated soil is encountered during the project, the Owner/Construction Manager will be notified immediately. Small quantities of suspected contaminated soil will be placed on a 6-mil plastic liner and covered with 6-mil plastic. A soil berm or silt fence will be used to contain the stockpile and prevent migration of contaminated liquids in the soil.

Table 1: Spill Prevention and Containment Methods

Potential Spill Source	Potential Spill Source
Equipment Staging and Maintenance Area	Spill containment pad, spill kit, pumps, funnels
Fueling Area (site equipment only)	Spill containment pad, spill kit, pumps, funnels
Hazardous Material Staging Area	Spill containment pad, spill kit, pumps, funnels
Unexpected Contaminated Soil	Plastic liner, plastic cover, soil berm, hay bales, lined super sacks

7.3 SPILL COUNTERMEASURES

Every preventative measure shall be taken to keep contaminated or hazardous materials contained. If a release occurs, the following actions shall be taken:

1. **Stop the Spill:** The severity of a spill at the site is anticipated to be minimal as large containers/quantities of Hazardous Materials (HM) are not anticipated. The type of spill would occur while dispensing material at the HM storage facility and would likely be

contained in secondary containment. Thus, the use spill kits or other available absorbent materials should stop the spill.

2. **Warn Others:** Notify co-workers and supervisory personnel of the release. Notify emergency responders if appropriate. For site personnel, an alarm system will consist of three one second blasts on an air horn sounded by the person discovering a spill or fire. In the event of any spill, the Superintendent and Project Manager shall be notified **if the spill is 5 gallons or more the STATE will be contacted along with the Fire Department.**

3. **Isolate the Area:** Prevent public access to the area and continue to minimize the spread of the material. Minimize personal exposure throughout emergency response actions.

4. **Containment:** A spill shall only be contained by trained personnel and if it is safe to do so. **DO NOT PLACE YOURSELF IN DANGER.** Attempt to extinguish a fire only if it is in the incipient stage; trash can size or smaller. For larger spills, wait for the arrival of emergency response personnel and provide directions to the location of the emergency.

5. **Complete a Spill and Incident Report:** For each spill of a Hazardous Material a spill and incident report shall be completed and submitted to the Owner/Construction Manager and if applicable to the Engineer and the State of Colorado Department of Public Health and Environment

8.0 INSPECTIONS

8.1 Inspections

Inspections will occur at least every 14 days and within 24 hours of a precipitation event producing runoff, which from past experience this occurs with precipitation of 1/4 inch of rain or more , the primary site for tracking weather data and rainfall measurements will be taken from Weather Underground and a rain gauge will be onsite for verification only.

1. Inspection Personnel:

The contract Stormwater Inspector will conduct the site inspections as mentioned above in Section 1.

2. Inspection Schedule and Procedures:

The inspection schedule will be routinely accomplished every 14 days and after every storm event for the entire site with all BMP's evaluated for performance and need. Any BMP found to be ineffective will be re-accomplished or replaced with a new BMP to provide the level of protection needed. BMP's found to be no longer needed will be removed. Inspections will also be accomplished as soon as practical, but within 24 hours of the end of a precipitation event causing surface erosion, over 1/4" or more.

The general procedures for correcting problems when they are identified will be to document the problem in the log and devise a solution utilizing all resources available to formulate BMP's that will correct the problem as soon as possible.

A copy of the inspection report to be used for the site is attached. See Appendix.

8.2 Delegation of Authority

Duly Authorized Representative(s) or Position(s):

Authorized representatives for the SWMP plan will be: Jeff Mark – Primary Contact
SWMP INSPECTOR – Trevor Terril

8.3 Revisions to the SWMP

The SWMP Inspector and/or the site superintendent have the authority to add/subtract/revise BMP's as necessary to accommodate construction activities. However, the engineer should be notified when any major redirection of runoff, offsite runoff, pond modifications, or other substantial changes are made to this SWMP. Changes should be documented per Section 9.0.

9.0 RECORDKEEPING AND TRAINING

9.1 Recordkeeping

Records will be retained for a minimum period of at least 3 years after the permit is terminated.

Major activities will start on 09/2018:

Date(s) when construction activities permanently cease on a portion of the site: 06/2019

Date(s) when an area is either temporarily or permanently stabilized: 6/2019

9.2 Changes to the SWMP

Any changes will be referenced in APPENDIX. See Section 8.3 for authority to change the SWMP.

9.3 Training

Individual(s) Responsible for Training:

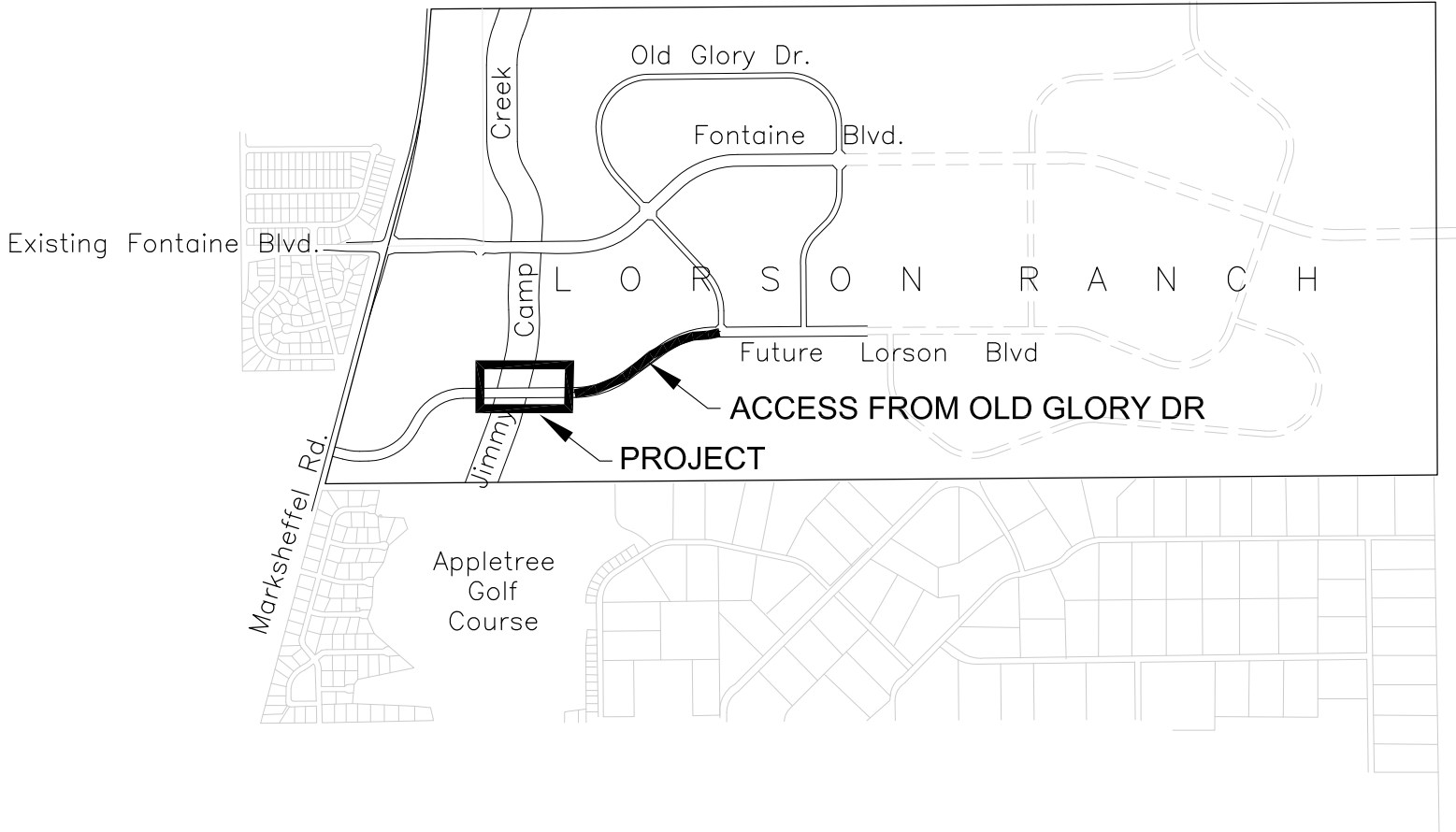
All personnel on site will trained on the site specific SWMP requirements to be conducted by the SWMP Inspector and/or the site superintendent.

10.0 FINAL STABILIZATION

Final stabilization will be accomplished by contractors to re-vegetate the area of disturbance per the approved plans and specifications. Final stabilization may include permanent seeding/mulching of disturbed areas, erosion control blankets, turf reinforcement mats, and permanent BMP's.

Once 70% of the pre-development vegetative cover has been established and has been accepted, temporary BMP's will be removed and the permit will be terminated and filed.

APPENDIX A



VICINITY MAP

NO SCALE

APPENDIX B

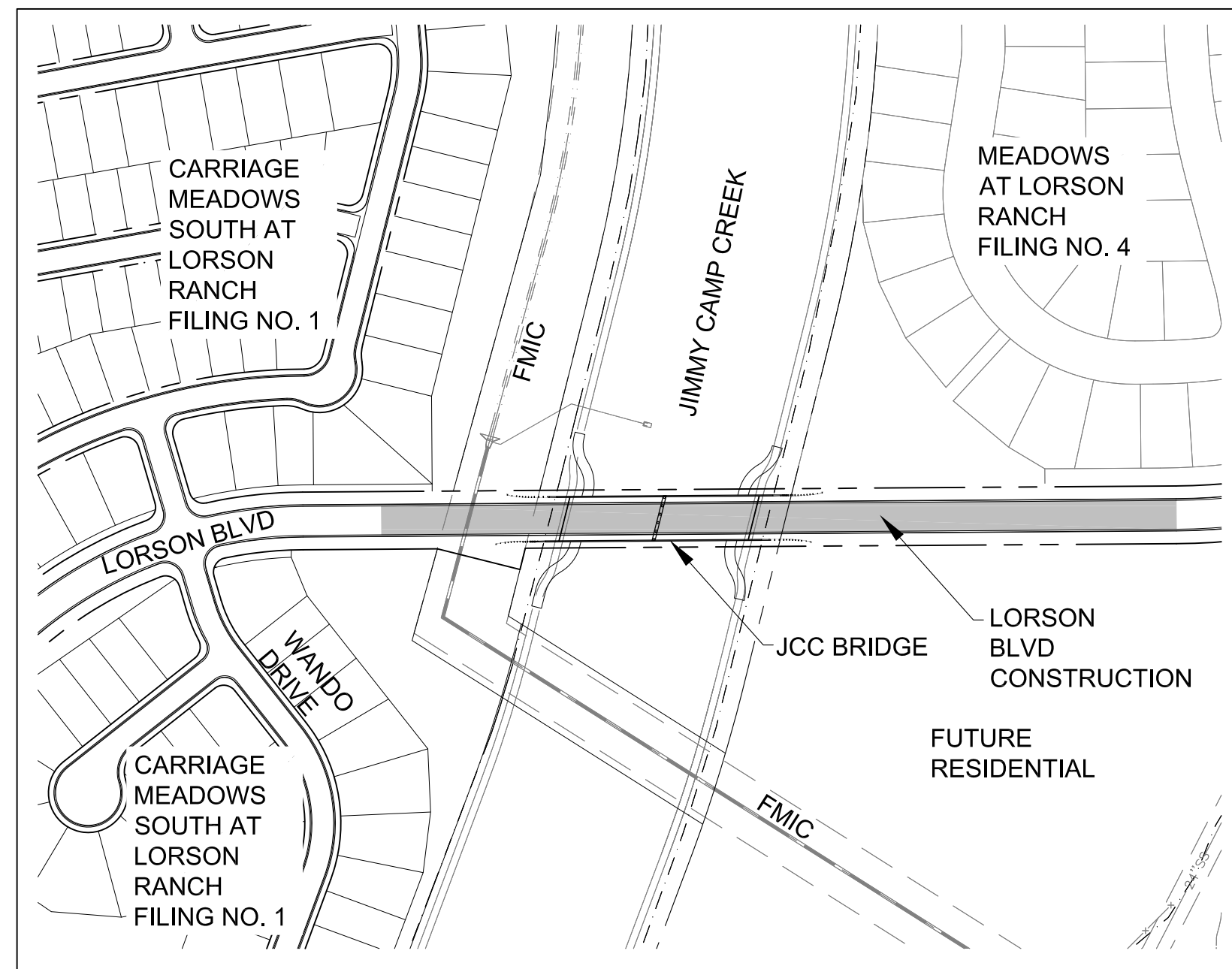
CONSTRUCTION PLANS FOR LORSON BLVD BRIDGE OVER JIMMY CAMP CREEK MAIN CHANNEL

FINAL GRADING/EROSION CONTROL PLAN WATERMAIN AND STREET CONSTRUCTION PLANS

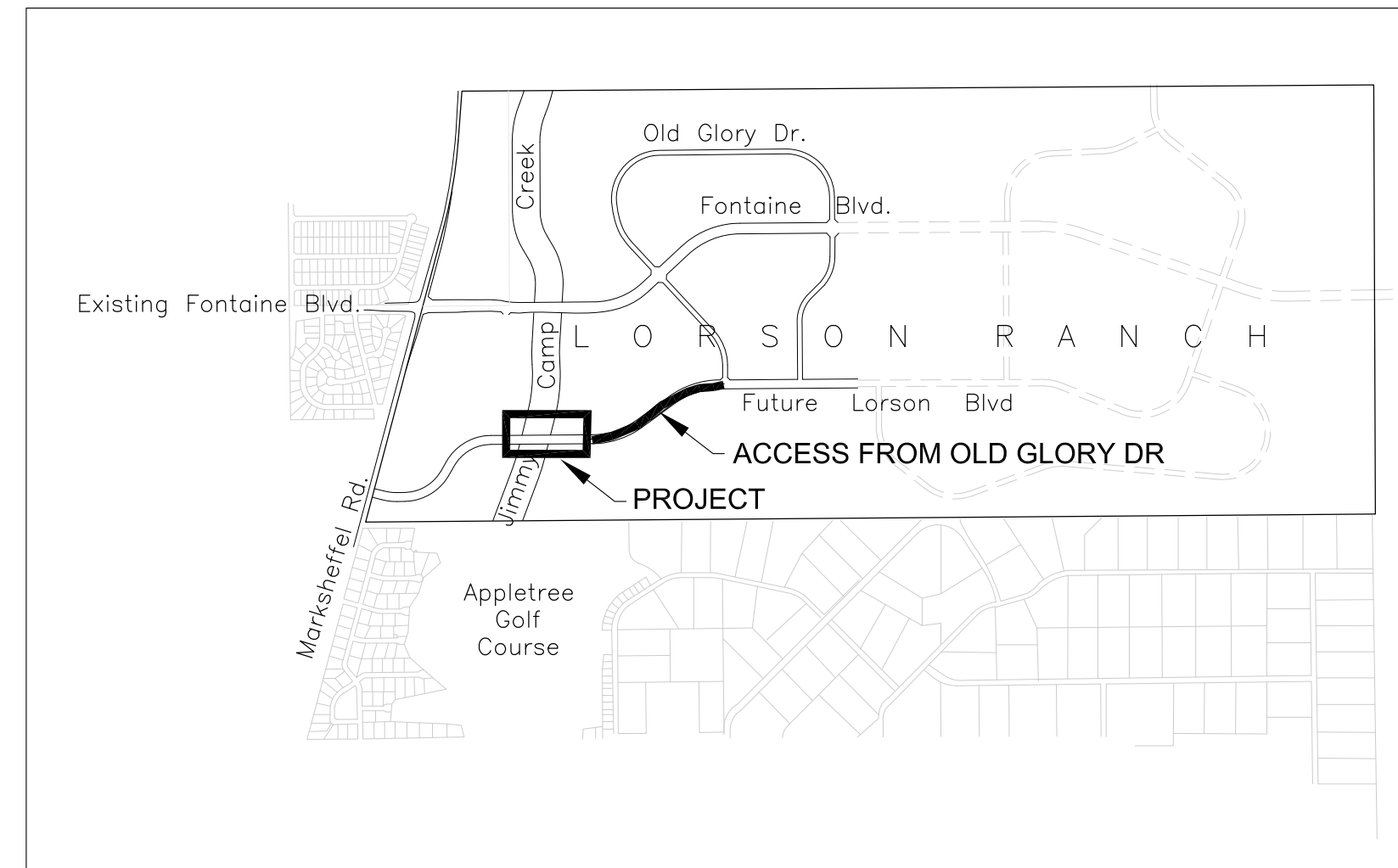


**Know what's below.
Call before you dig.**

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



KEY MAP
SCALE: 1"=200'



VICINITY MAP
NO SCALE

SHEET INDEX	
SHEET NO.	SHEET DESCRIPTION
C1.1	COVER SHEET
C1.2	NOTES - GRADING/E.C., STREET, WATERMAIN
C1.3	WATERMAIN DETAILS & STREET TYPICAL SECTION
C4.1	GRADING & EROSION CONTROL PLAN
C6.1-C6.2	STREET PLAN AND PROFILE
C8.1-C8.2	WATERMAIN PLAN AND PROFILE
C12.1	GRADING/EROSION CONTROL DETAILS
B01-B27	JCC BRIDGE PLANS - LORIS & ASSOCIATES

DEVELOPER'S STATEMENT

THE UNDERSIGNED OWNER/DEVELOPER HAS READ AND WILL COMPLY WITH ALL THE REQUIREMENTS SPECIFIED IN THESE CONSTRUCTION PLANS AND THE ACCOMPANYING DRAINAGE REPORT.

BUSINESS NAME LORSON, LLC

BY _____ DATE _____

TITLE _____

ADDRESS 212 N. WAHSATCH AVE., SUITE 301
 COLORADO SPRINGS, CO 80903

WATER / SANITARY
WIDEFIELD WATER AND SANITATION DISTRICT
37 WIDEFIELD BLVD.
SECURITY, CO 80911
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

PREPARED FOR:
LORSON, LLC
212 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.

LORIS & ASSOCIATES
100 SUPERIOR PLAZA WAY, SUITE 220
SUPERIOR, CO, 80027
303-444-2073
CONTACT: DAN BELTZER P.E.

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

CONSTRUCTION APPROVAL

FOUNTAIN MUTUAL IRRIGATION COMPANY FOR CONSTRUCTION WITHIN THE FMIC EASEMENT

FMIC REPRESENTATIVE _____ DATE _____

DISTRICT APPROVAL (WATER)

THE WIDEFIELD WATER AND SANITATION DISTRICT RECOGNIZES THE DESIGN ENGINEER AS HAVING RESPONSIBILITY FOR THE DESIGN. THE WIDEFIELD WATER AND SANITATION DISTRICT HAS LIMITED ITS SCOPE OF REVIEW ACCORDINGLY.

WIDEFIELD WATER AND SANITATION DISTRICT
WATER DESIGN APPROVAL

DATE _____ BY _____

PROJECT NO. _____

IN CASE OF ERRORS OR OMISSIONS WITH THE WATER DESIGN AS SHOWN ON THIS DOCUMENT THE STANDARDS AS DEFINED IN THE "RULES AND REGULATIONS FOR INSTALLATION OF WATER MAINS AND SERVICES" SHALL RULE.

APPROVAL EXPIRES 180 DAYS FROM DESIGN APPROVAL

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, COUNTY ENGINEER/ECM ADMINISTRATOR _____ DATE _____
CONDITIONS:

ENGINEER'S APPROVAL

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.

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

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 89°41'52" 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.

CORE ENGINEERING GROUP
15004 1ST AVENUE S.
BURNSVILLE, MN 55306
PH: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: Rich@ceg1.com

PROJECT:
JCC BRIDGE
JCC MAIN CHANNEL - LORSON BLVD.
EL PASO COUNTY, COLORADO

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

DATE: _____
DESCRIPTION: _____

DRAWN: LJA
DESIGNED: RLS
CHECKED: RLS

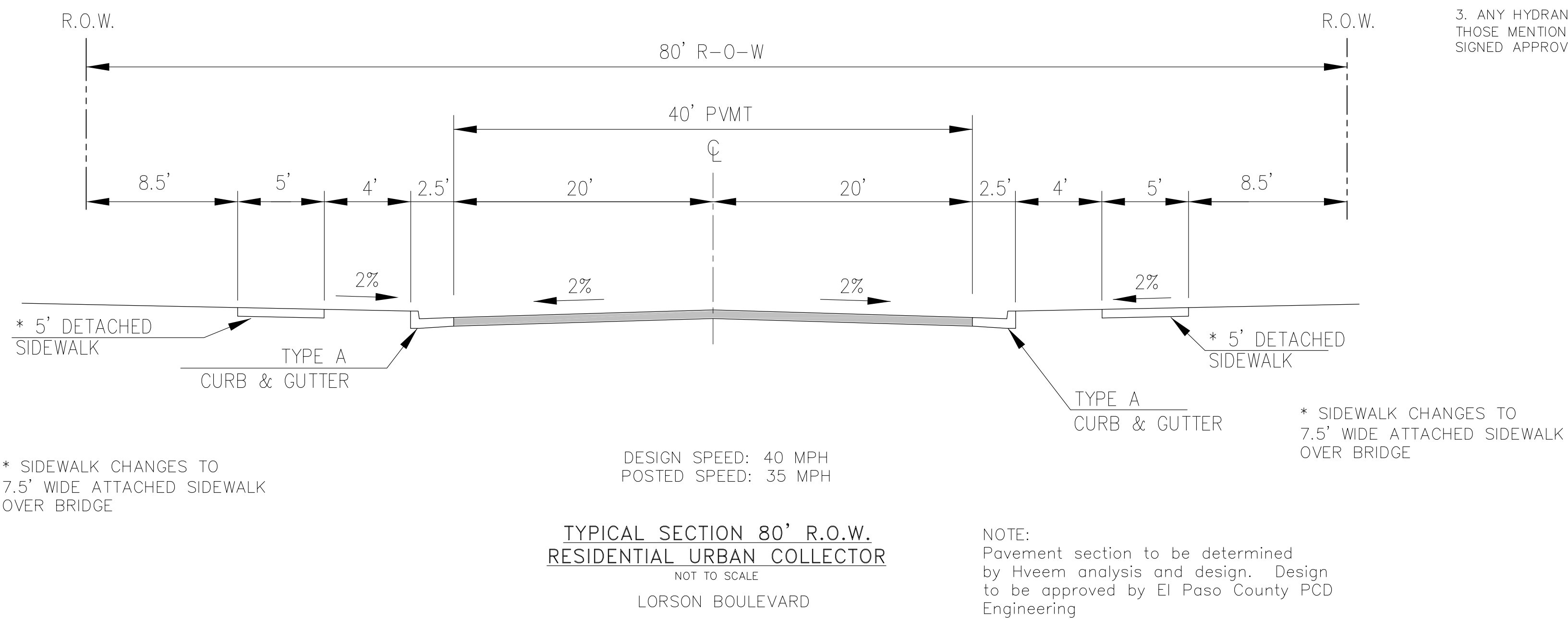
COVER SHEET
BRIDGE AT JCC MAIN CHANNEL
CONSTRUCTION PLANS

DATE: SEPT 15, 2017

PROJECT NO.: 100.030

SHEET NUMBER: C1.1

TOTAL SHEETS: 36

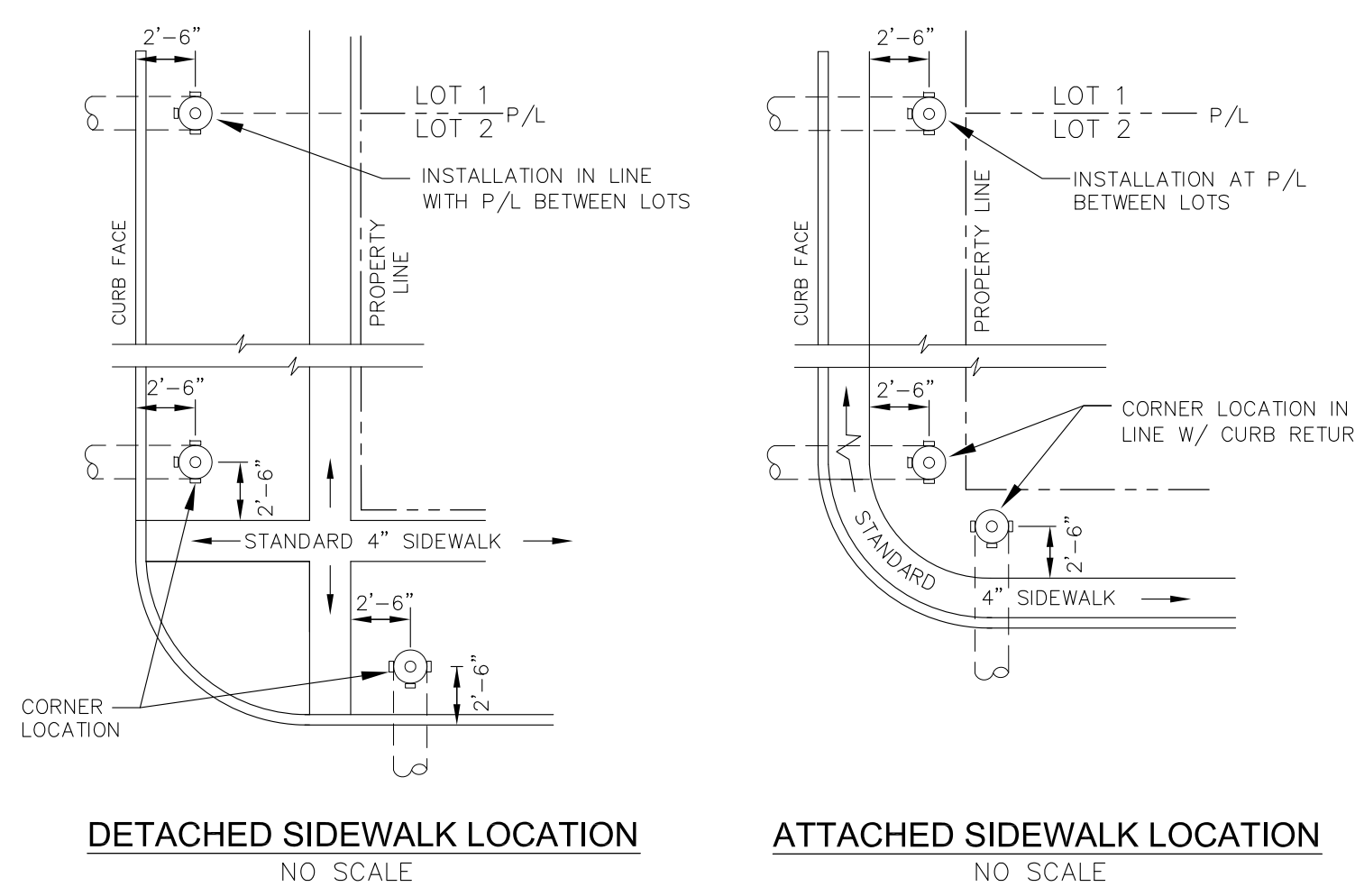
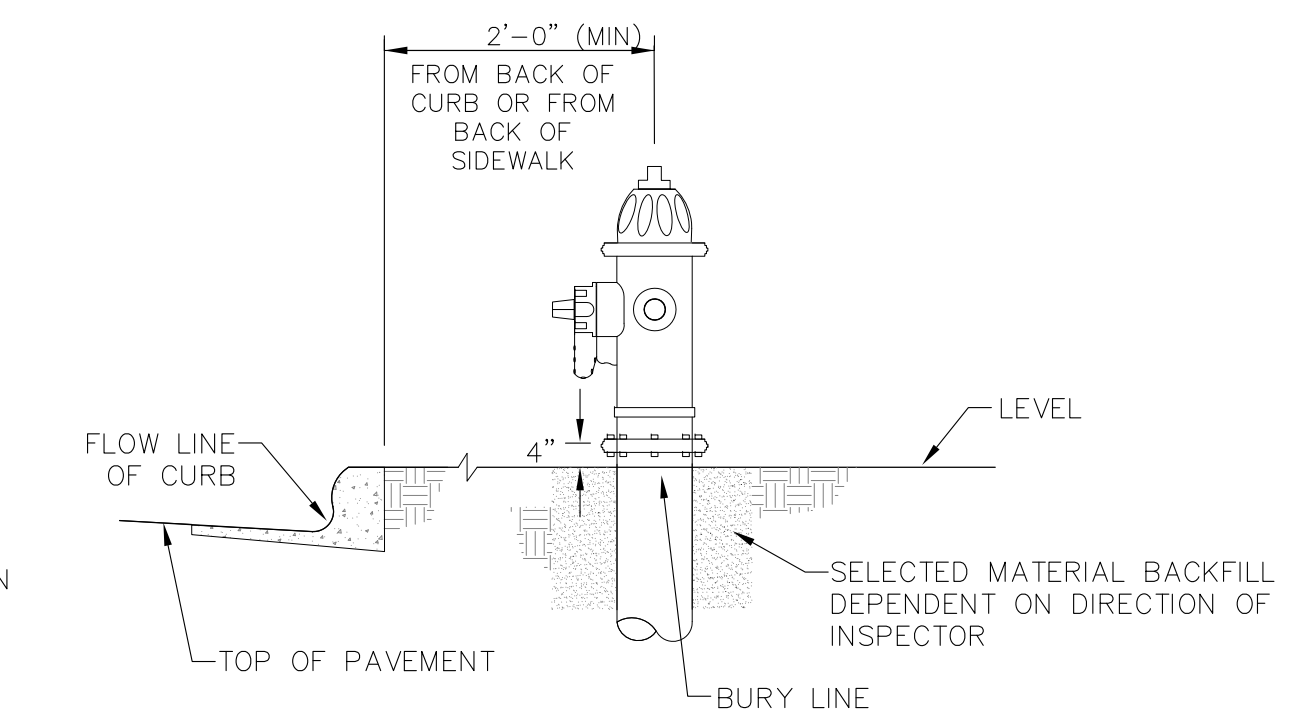


* SIDEWALK CHANGES TO 7.5' WIDE ATTACHED SIDEWALK OVER BRIDGE

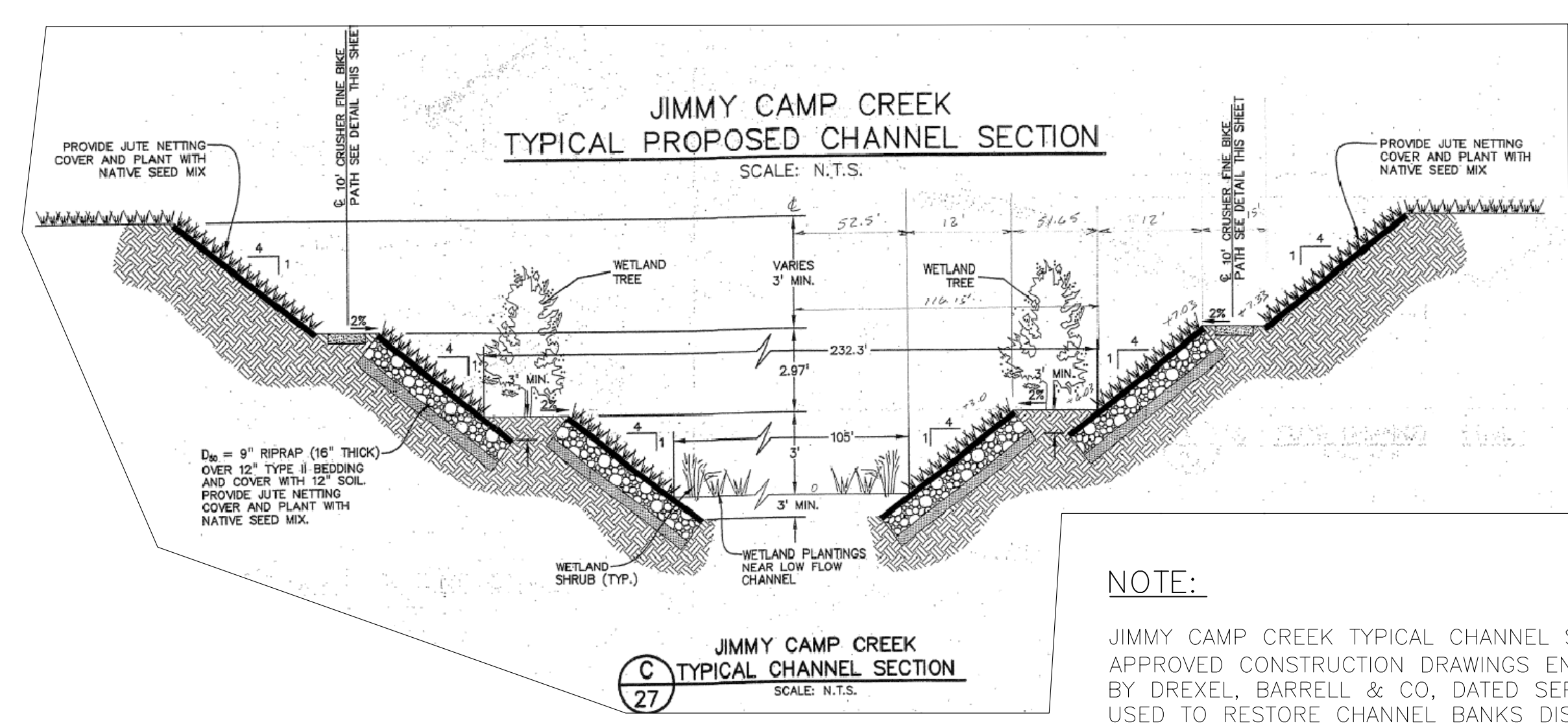
TYPICAL SECTION 80' R.O.W. RESIDENTIAL URBAN COLLECTOR
NOT TO SCALE
LORSON BOULEVARD

NOTE:
Pavement section to be determined by Hveem analysis and design. Design to be approved by El Paso County PCD Engineering

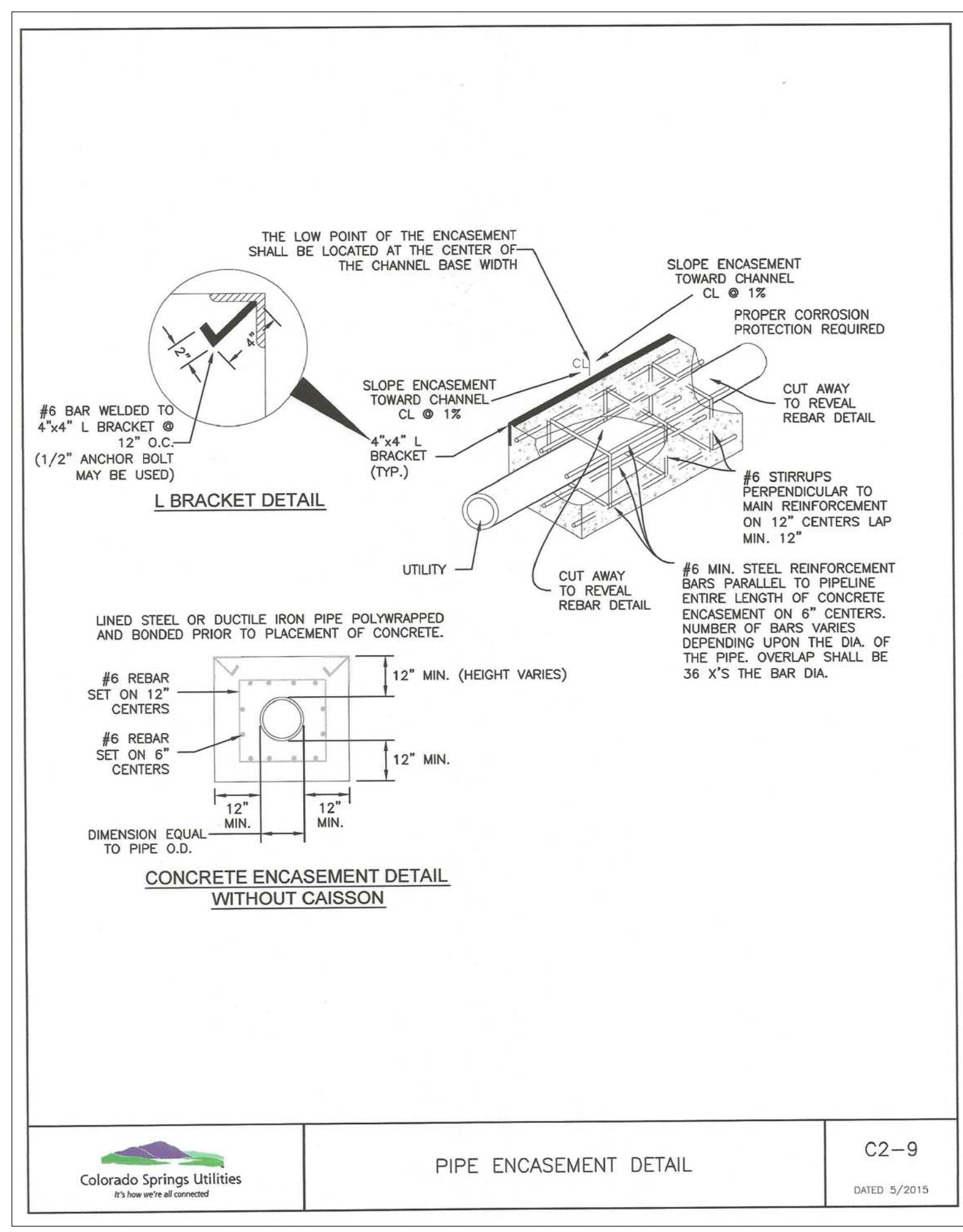
- NOTE**
ALL HYDRANTS SHALL BE MEULLER SUPER CENTURION 200.
- NOTES**
1. HYDRANT NOZZLE SHALL BE POSITIONED AT RIGHT ANGLES TO CURB. IF NO CURB OR SIDEWALK EXIST, NOZZLE SHALL BE PLACED AT RIGHT ANGLE TO STREET OR ALLEY.
 2. HYDRANTS WILL BE PLACED A MINIMUM OF 5.0 FEET FROM ANY UTILITY OR DRAINAGE STRUCTURE (TO BE CO-ORDINATED WITH JOINT TRENCH INSTALLATION)
 3. ANY HYDRANT BEING INSTALLED WITH CONDITIONS OTHER THAN THOSE MENTIONED AND/OR DETAILED BELOW WILL REQUIRE SIGNED APPROVAL FROM SECURITY FIRE PROTECTION DISTRICT.



FIRE HYDRANT LOCATIONS
NO SCALE



NOTE:
JIMMY CAMP CREEK TYPICAL CHANNEL SECTION IS TAKEN FROM APPROVED CONSTRUCTION DRAWINGS ENTITLED "JIMMY CAMP CREEK REALIGNMENT" BY DREXEL, BARRELL & CO, DATED SEPTEMBER 6, 2005. THIS SECTION IS TO BE USED TO RESTORE CHANNEL BANKS DISTURBED BY WATERMAIN CONSTRUCTION SHOWN ON SHEET C8.1 TO THE ARMORED CONDITION.



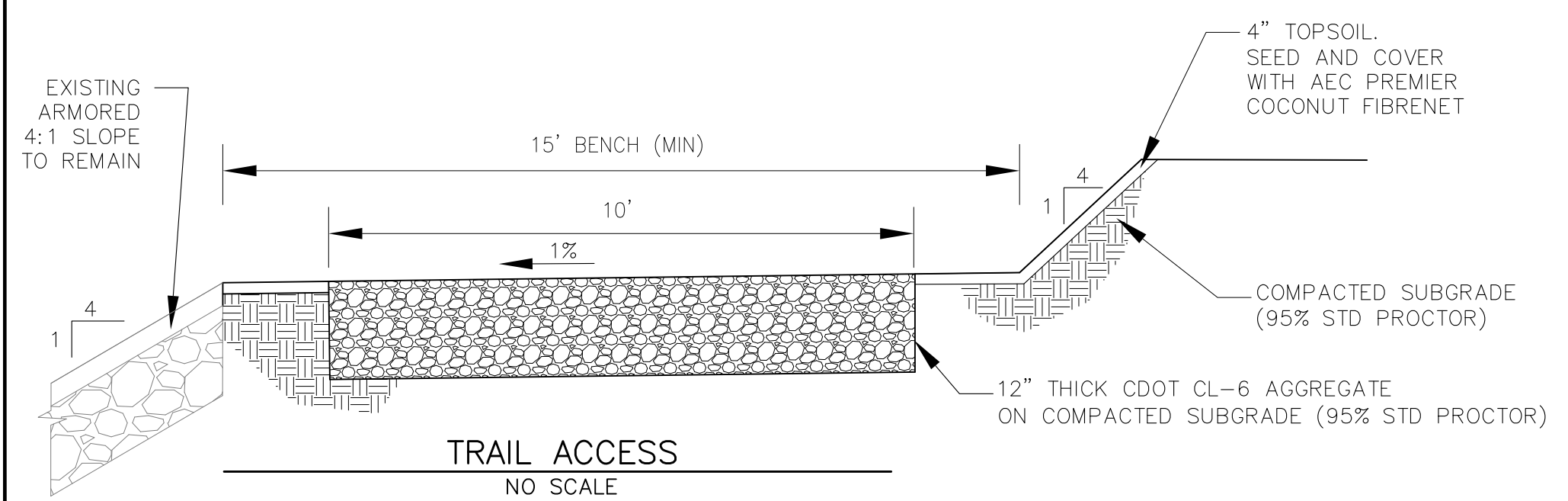
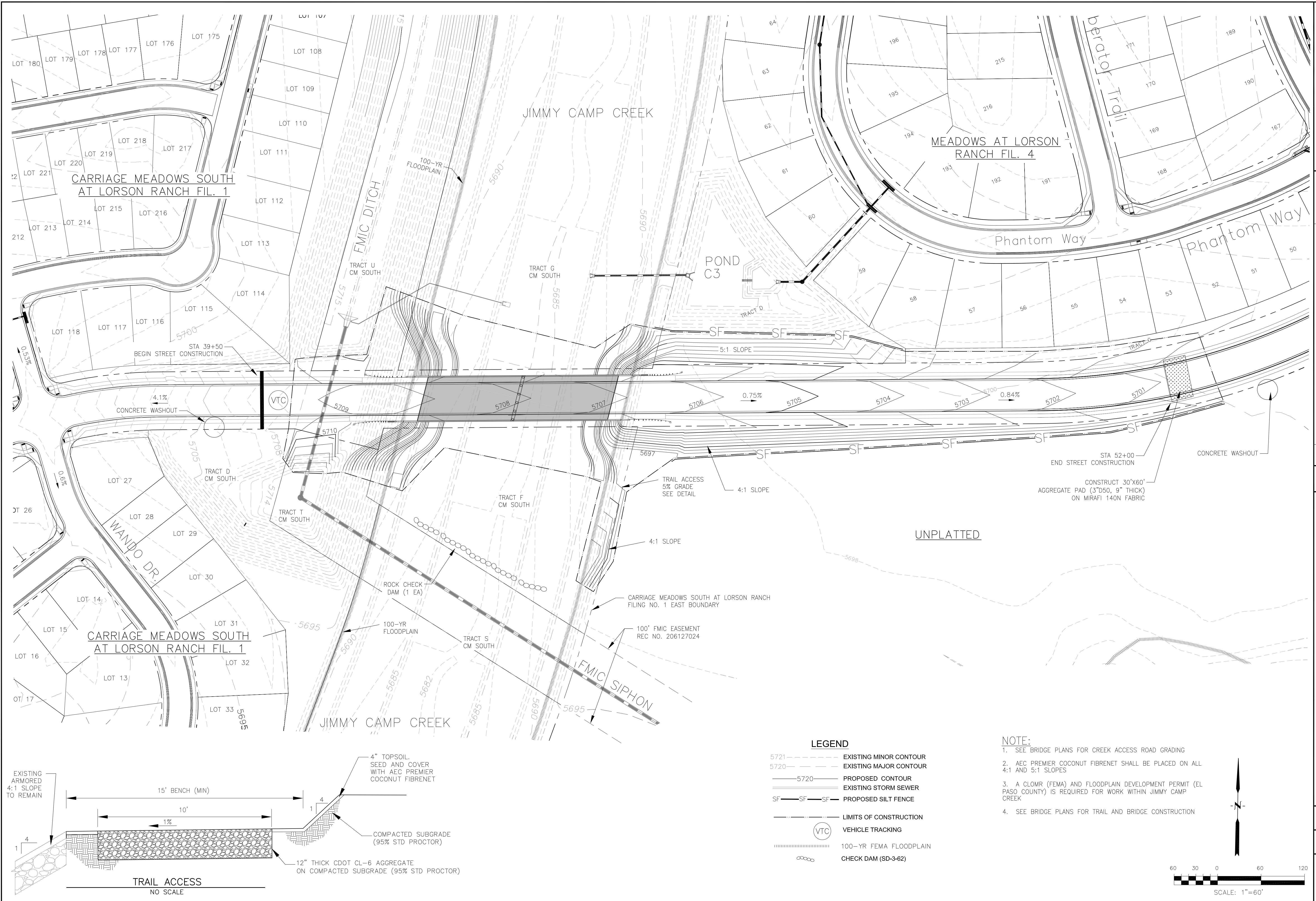
PIPE ENCASEMENT DETAIL
C2-9
DATED 5/2015

NO.	1.		
DESCRIPTION			
DATE	X		
PROJECT	JCC BRIDGE		
PREPARED FOR:	LORSON, LLC		
	212 N. WAHSATCH AVE., SUITE 301		
	COLORADO SPRINGS, COLORADO 80903		
	(719) 635-3200		
	CONTACT: JEFF MARK		

DRAWN: LJA
DESIGNED: RLS
CHECKED: RLS

WATERMAIN DETAILS AND STREET TYPICAL SECTION
JCC BRIDGE AT MAIN CHANNEL

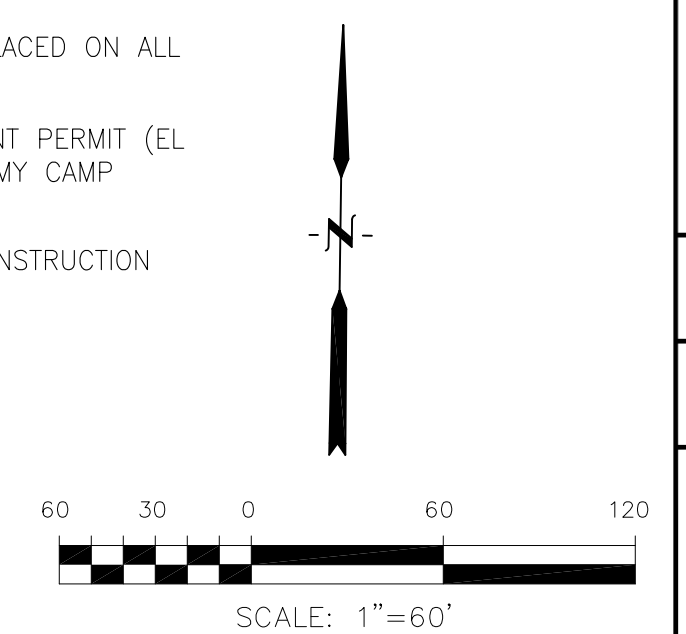
DATE	SEPT 15, 2017
PROJECT NO.	100.030
SHEET NUMBER	C1.3
TOTAL SHEETS:	36



LEGEND

---	EXISTING MINOR CONTOUR
---	EXISTING MAJOR CONTOUR
---	PROPOSED CONTOUR
---	EXISTING STORM SEWER
SF	PROPOSED SILT FENCE
---	LIMITS OF CONSTRUCTION
(VTC)	VEHICLE TRACKING
-----	100-YR FEMA FLOODPLAIN
o-o-o	CHECK DAM (SD-3-62)

- NOTE:**
- SEE BRIDGE PLANS FOR CREEK ACCESS ROAD GRADING
 - AEC PREMIER COCONUT FIBRENET SHALL BE PLACED ON ALL 4:1 AND 5:1 SLOPES
 - A CLOMR (FEMA) AND FLOODPLAIN DEVELOPMENT PERMIT (EL PASO COUNTY) IS REQUIRED FOR WORK WITHIN JIMMY CAMP CREEK
 - SEE BRIDGE PLANS FOR TRAIL AND BRIDGE CONSTRUCTION



CORE ENGINEERING GROUP
 1500S 151ST AVENUE, SUITE 100, BOULDER, CO 80506
 PH: 719.570.1100
 CONTACT: RICHARD L. SCHINDLER, P.E.
 EMAIL: Rich@ceg1.com

DATE: X
 DESCRIPTION: X
 NO. 1: X

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

PROJECT: **JCC BRIDGE**
 JCC MAIN CHANNEL - LORSON BLVD.
 EL PASO COUNTY, COLORADO

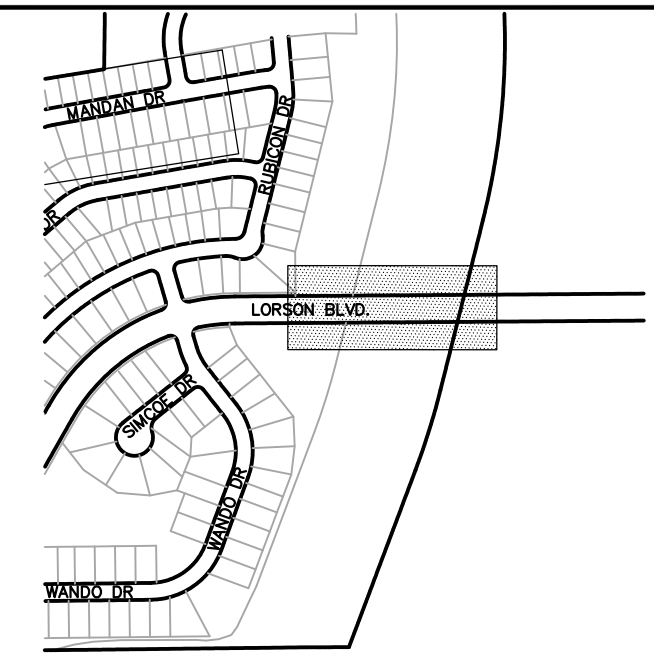
DRAWN:	LJA
DESIGNED:	RLS
CHECKED:	RLS

**GRADING AND
EROSION CONTROL PLAN
JCC BRIDGE AT MAIN CHANNEL**

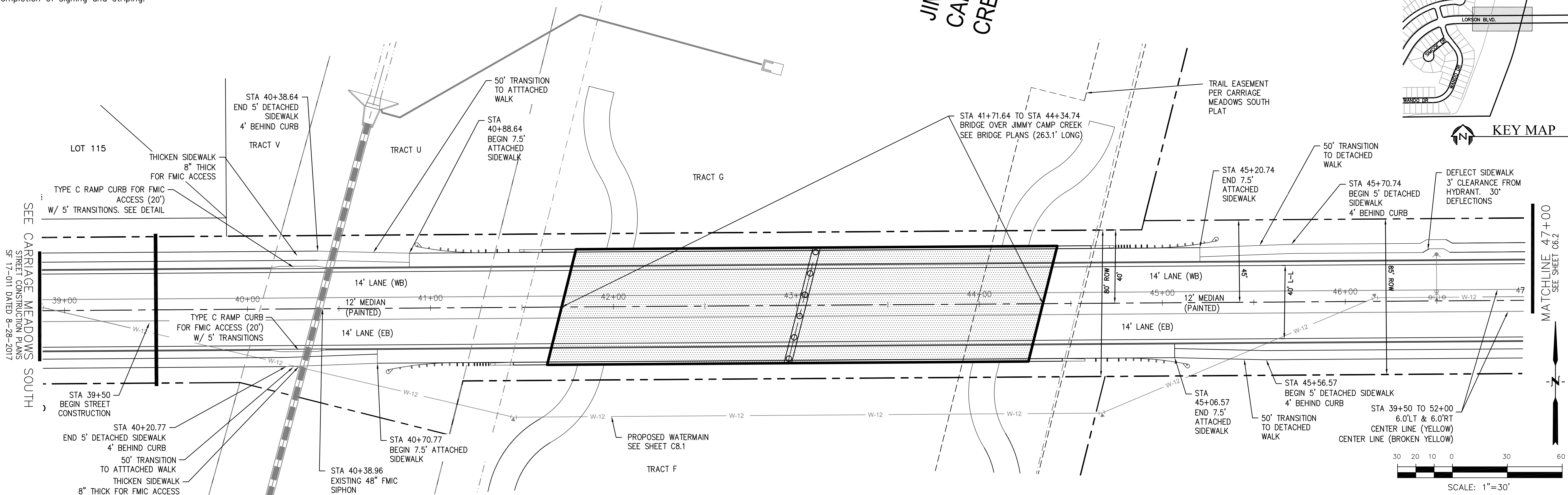
DATE	SEPT 15, 2017
PROJECT NO.	100.030
SHEET NUMBER	C4.1
TOTAL SHEETS:	36

- Striping Notes:
1. All pavement markings shall be in compliance with the current Manual on Uniform Traffic Control Devices (MUTCD).
 2. Any deviation from the striping plan shall be approved by El Paso County Planning and Community Development.
 3. All longitudinal lines shall be a minimum 15mil thickness epoxy paint.
 4. The contractor shall notify El Paso County Planning and Community Development (719) 520-6819 prior to and upon completion of signing and striping.

JIMMY
CAMP
CREEK



CORE ENGINEERING GROUP
 15004 1ST AVENUE S.
 BLDG 79 570 1100
 P.O. BOX 1100
 COLORADO SPRINGS, COLORADO 80903
 CONTACT: RICHARD L. SCHINDLER, P.E.
 EMAIL: Rich@cegi.com

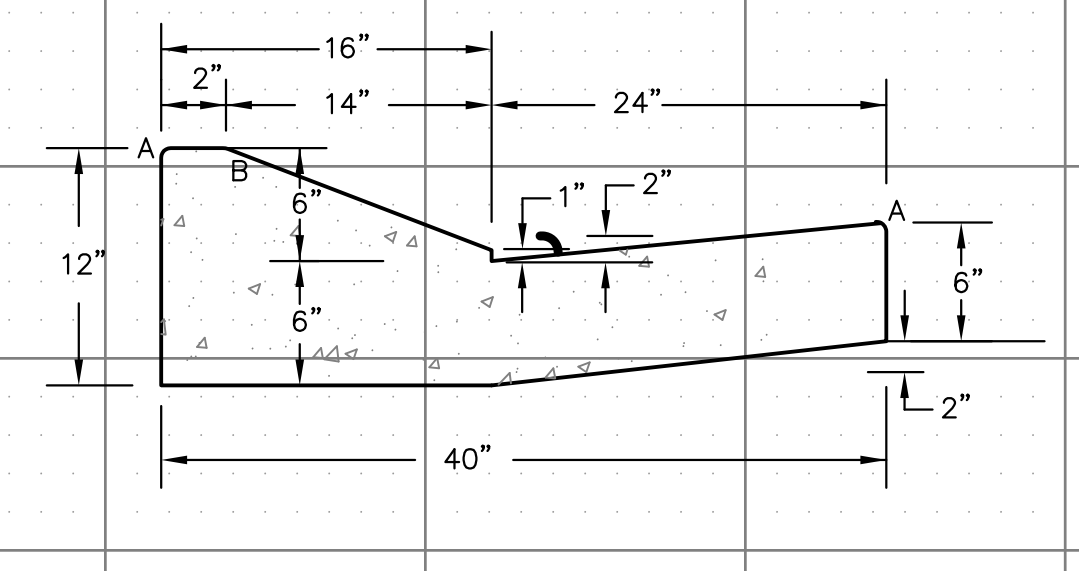
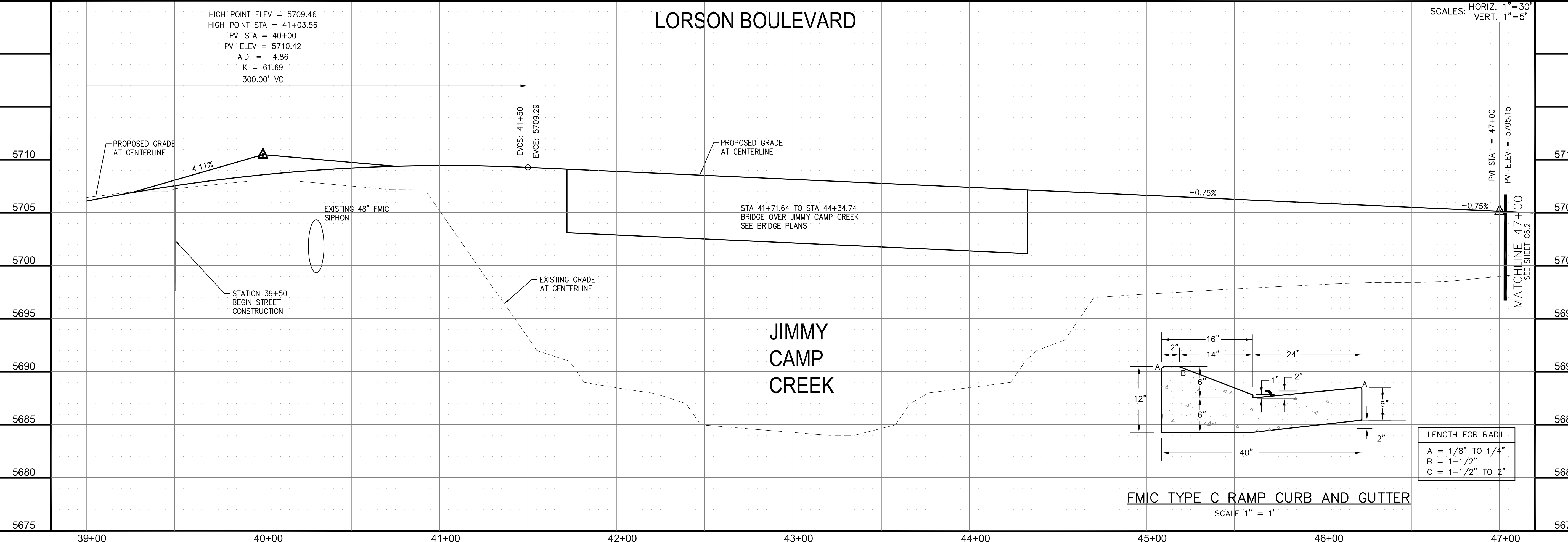


DATE: X
 DESCRIPTION: X
 NO. 1
 PROJECT: JCC BRIDGE
 JCC MAIN CHANNEL - LORSON BLVD.
 EL PASO COUNTY, COLORADO
 PREPARED FOR: LORSON, LLC
 212 N. WAHSATCH AVE., SUITE 301
 COLORADO SPRINGS, COLORADO 80903
 CONTACT: JEFF MARK

LORSON BOULEVARD

HIGH POINT ELEV = 5709.46
 HIGH POINT STA = 41+03.56
 PVI STA = 40+00
 PVI ELEV = 5710.42
 A.D. = -4.86
 K = 61.69
 300.00' VC

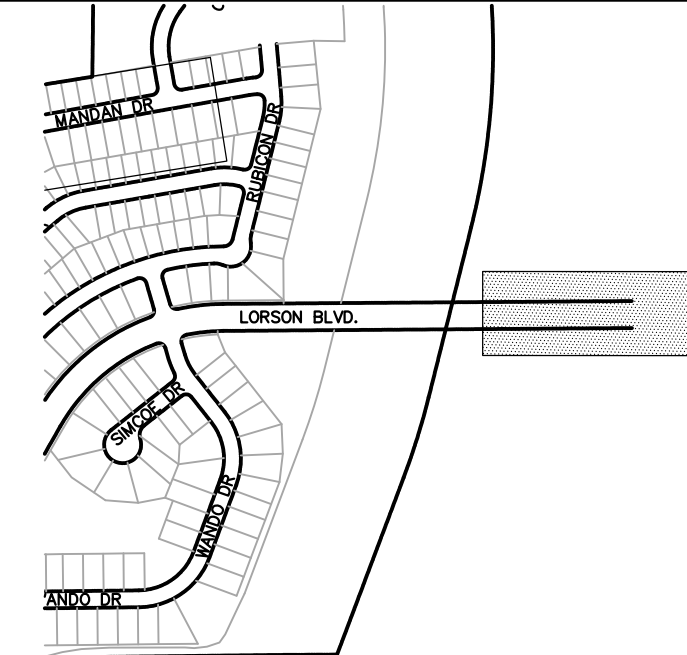
SCALES: HORIZ. 1"=30'
 VERT. 1"=5'



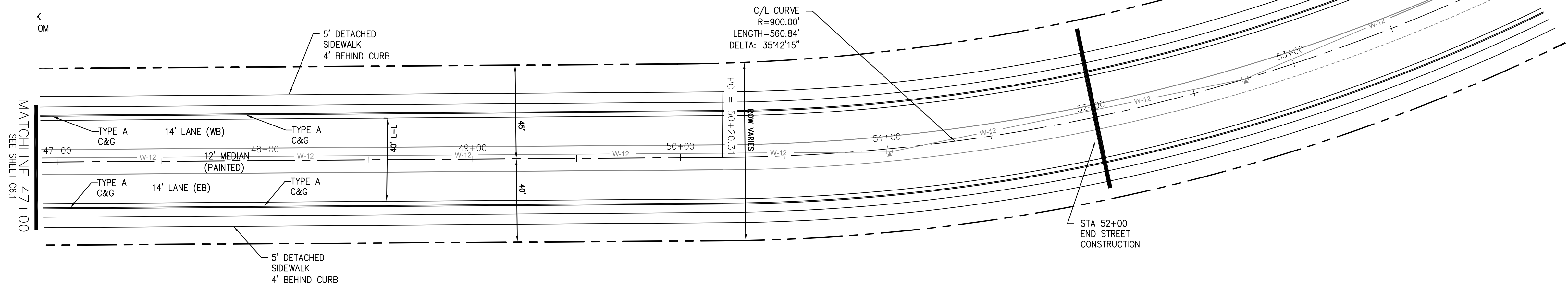
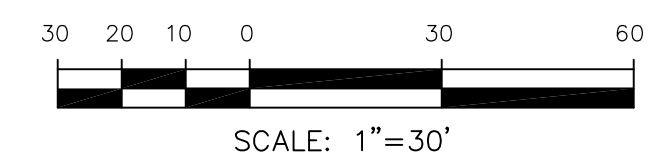
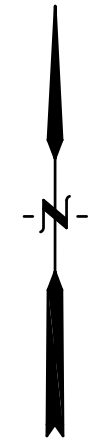
LENGTH FOR RADII
 A = 1/8" TO 1/4"
 B = 1-1/2"
 C = 1-1/2" TO 2"

STREET STA 39+50 TO STA 47+00
 LORSON BOULEVARD

DATE: SEPT 15, 2017
 PROJECT NO. 100.030
 SHEET NUMBER C6.1
 TOTAL SHEETS: 36

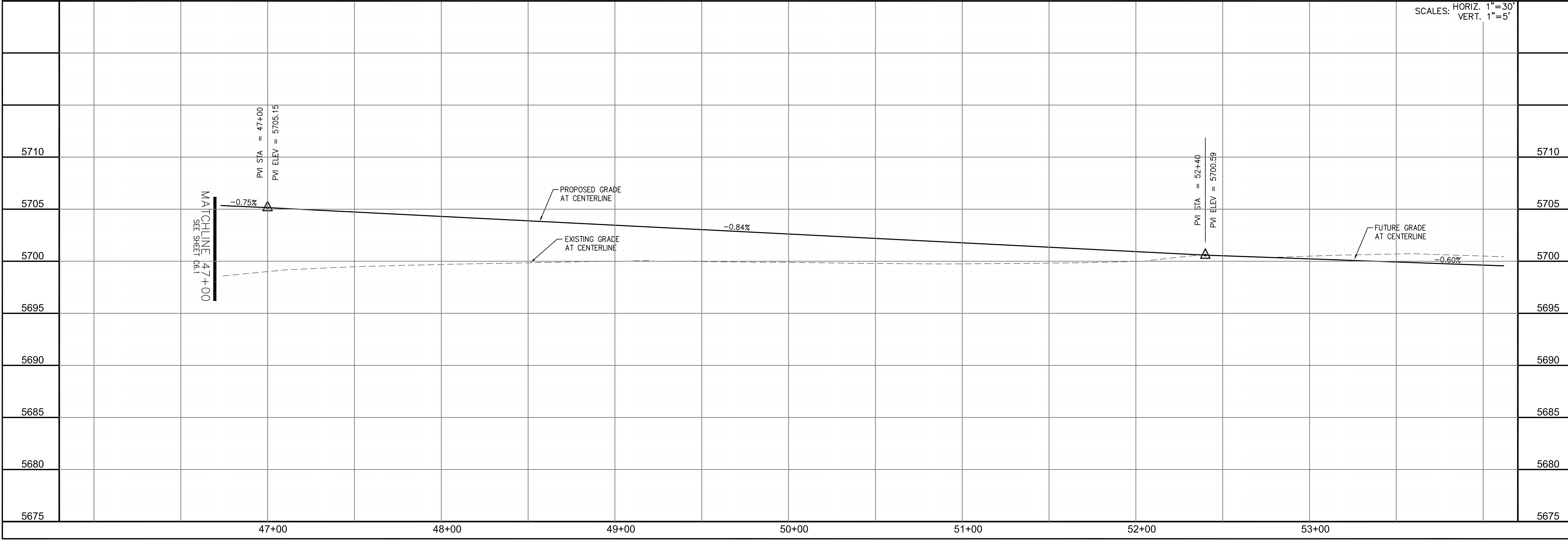


KEY MAP



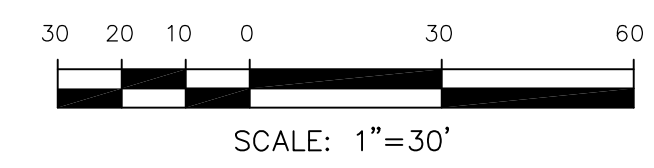
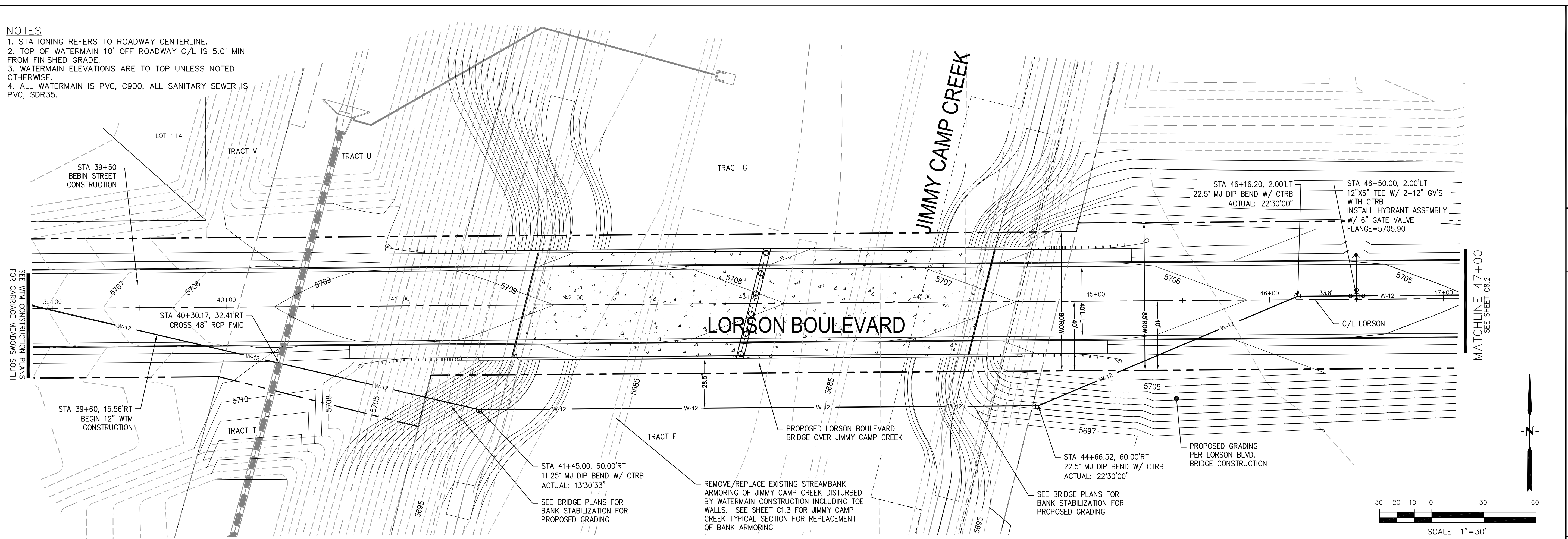
LORSON BOULEVARD

SCALES: HORIZ. 1"=30'
 VERT. 1"=5'



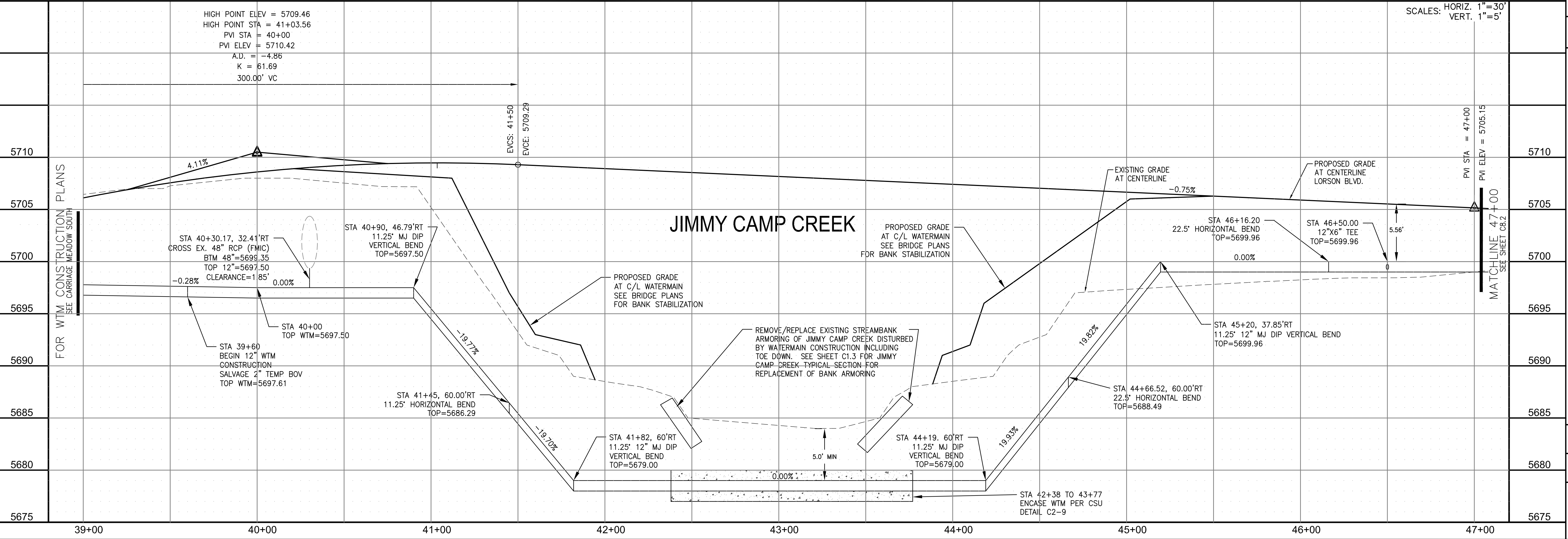
STREET
 STA 47+00 TO STA 52+00
 LORSON BOULEVARD

- NOTES**
1. STATIONING REFERS TO ROADWAY CENTERLINE.
 2. TOP OF WATERMAIN 10' OFF ROADWAY C/L IS 5.0' MIN FROM FINISHED GRADE.
 3. WATERMAIN ELEVATIONS ARE TO TOP UNLESS NOTED OTHERWISE.
 4. ALL WATERMAIN IS PVC, C900. ALL SANITARY SEWER IS PVC, SDR35.



CORE ENGINEERING GROUP
 15004 1ST AVENUE S.
 BLDG 790
 DENVER, CO 80232
 CONTACT: RICHARD L. SCHINDLER, P.E.
 EMAIL: Rich@cegi.com

DATE: X
 DESCRIPTION: X
 NO. 1
 PROJECT: JCC BRIDGE
 JCC MAIN CHANNEL - LORSON BLVD.
 EL PASO COUNTY, COLORADO
 PREPARED FOR: LORSON, LLC
 212 N. WAHSATCH AVE., SUITE 301
 COLORADO SPRINGS, COLORADO 80903
 CONTACT: JEFF MARK

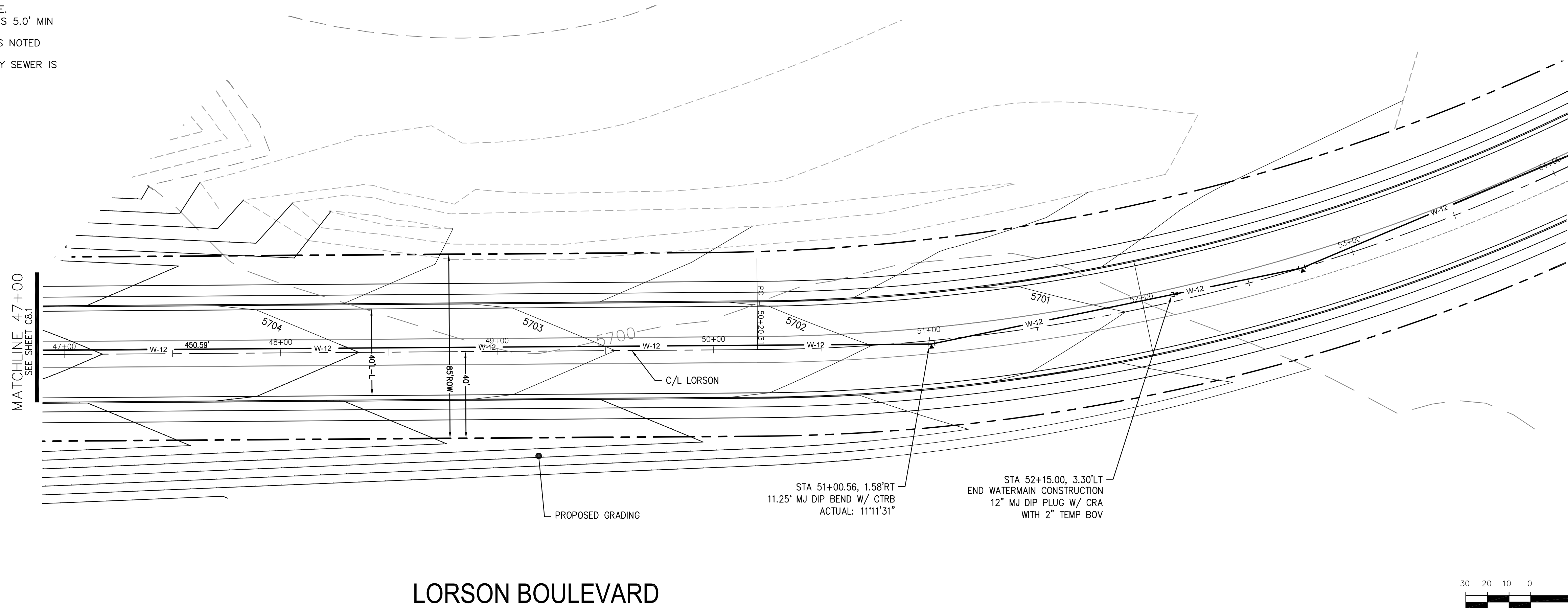


SCALES: HORIZ. 1"=30'
 VERT. 1"=5'

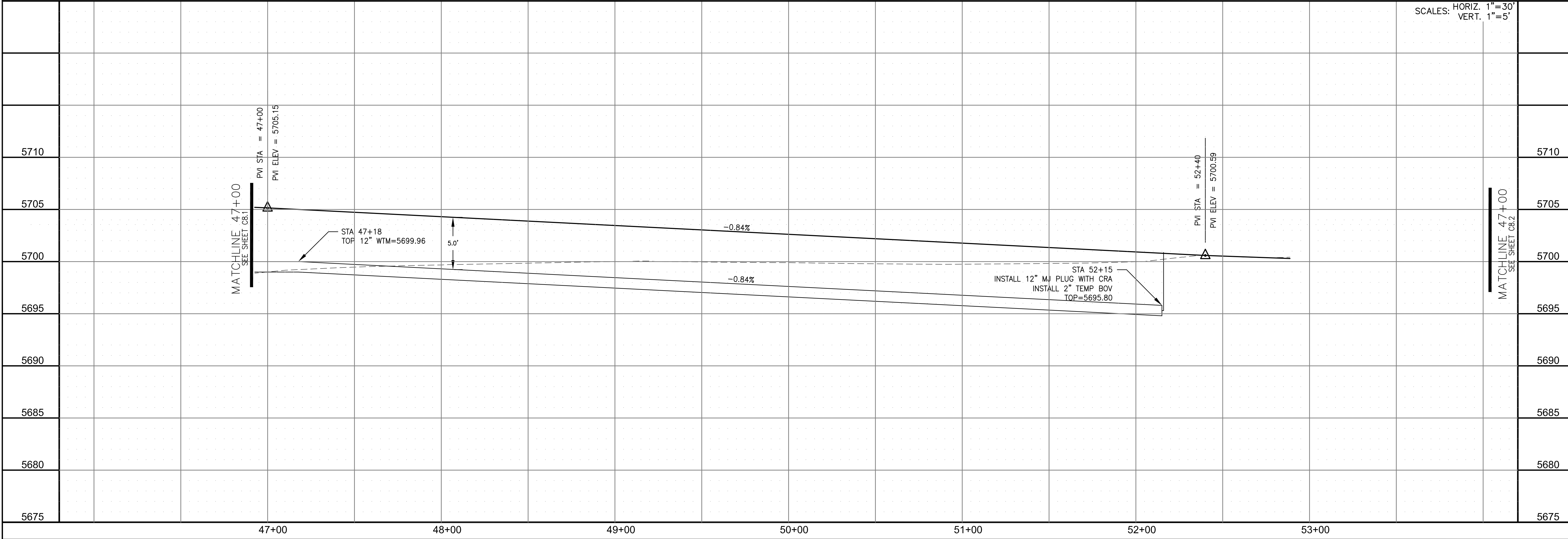
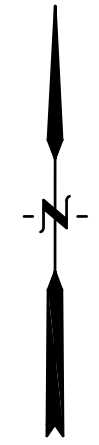
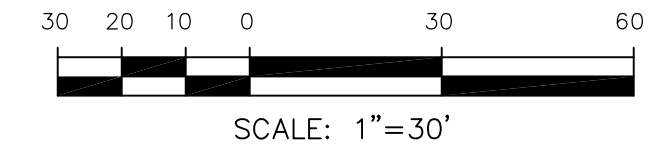
DATE: SEPT 15, 2017
 PROJECT NO. 100.030
 SHEET NUMBER C8.1
 TOTAL SHEETS: 36

NOTES

1. STATIONING REFERS TO ROADWAY CENTERLINE.
2. TOP OF WATERMAIN 10' OFF ROADWAY C/L IS 5.0' MIN FROM FINISHED GRADE.
3. WATERMAIN ELEVATIONS ARE TO TOP UNLESS NOTED OTHERWISE.
4. ALL WATERMAIN IS PVC, C900. ALL SANITARY SEWER IS PVC, SDR35.



LORSON BOULEVARD



SCALES: HORIZ. 1"=30'
VERT. 1"=5'

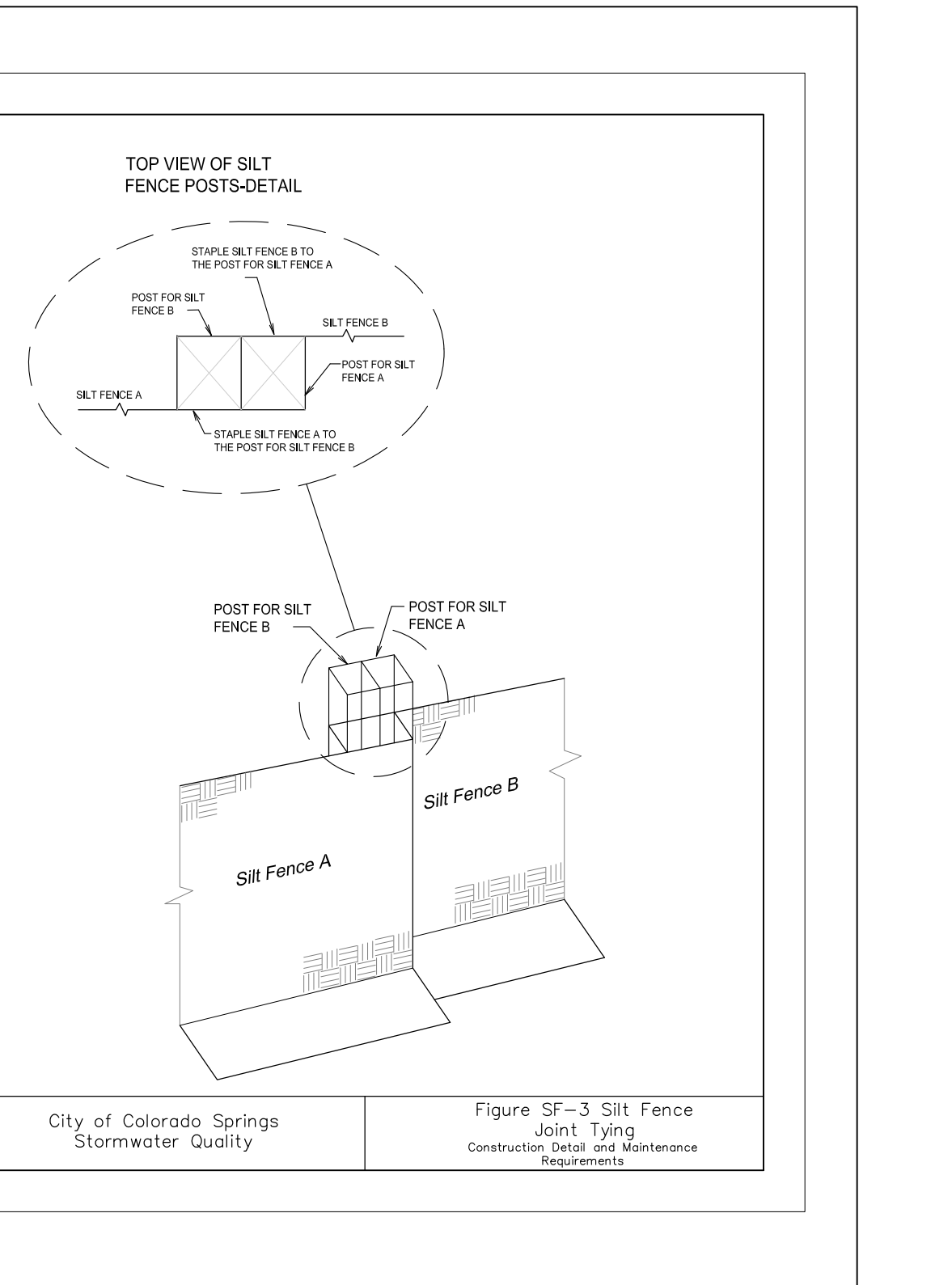
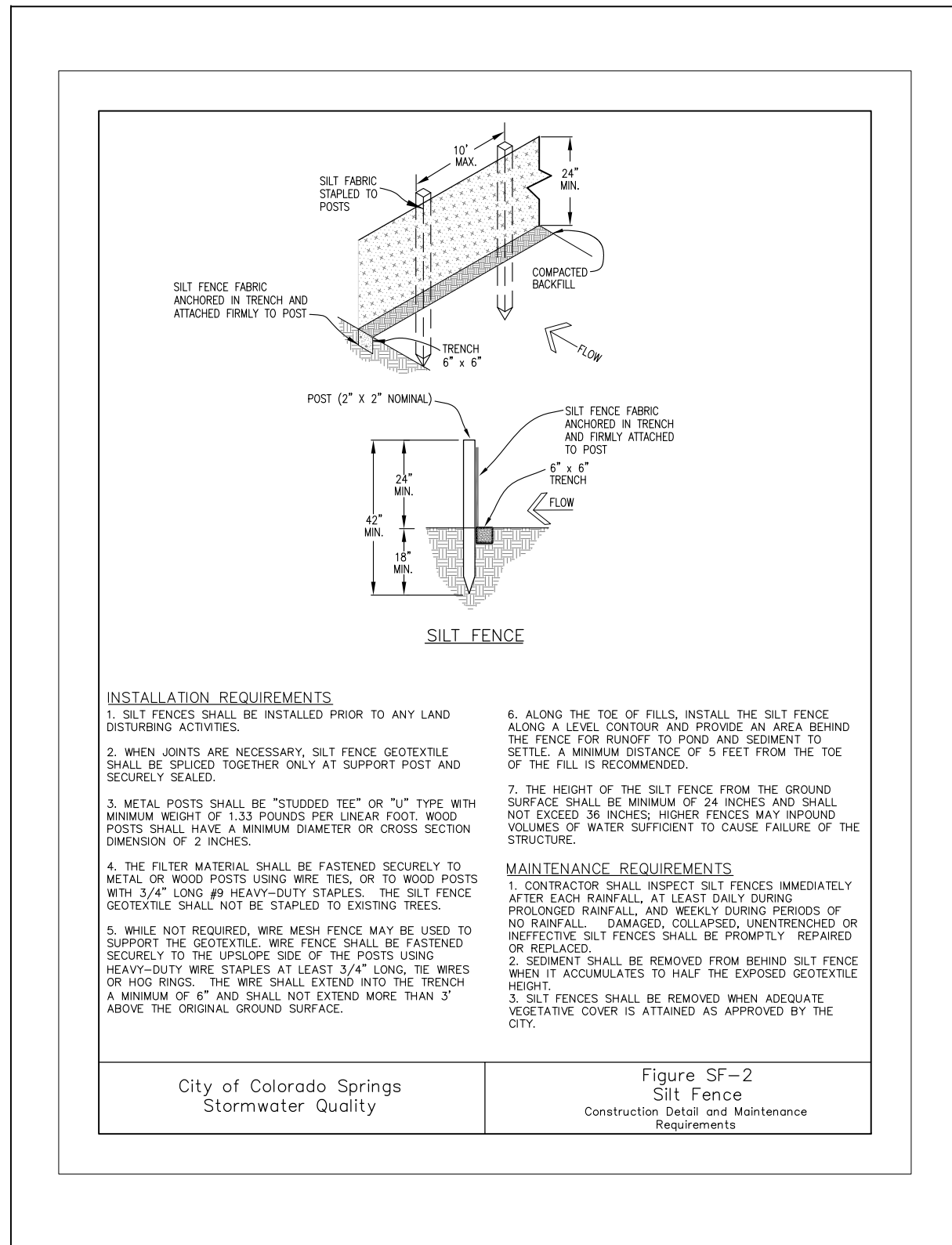
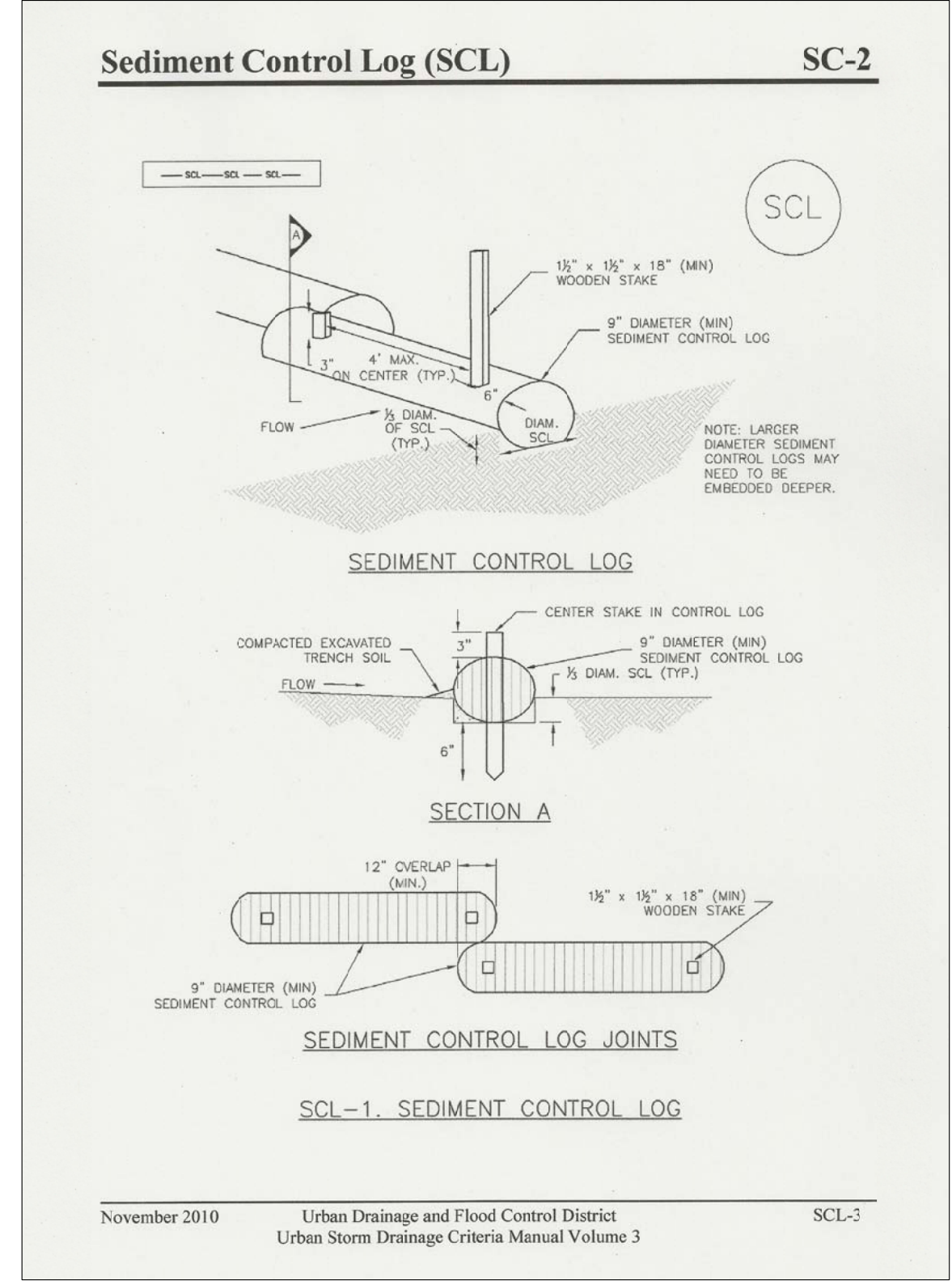
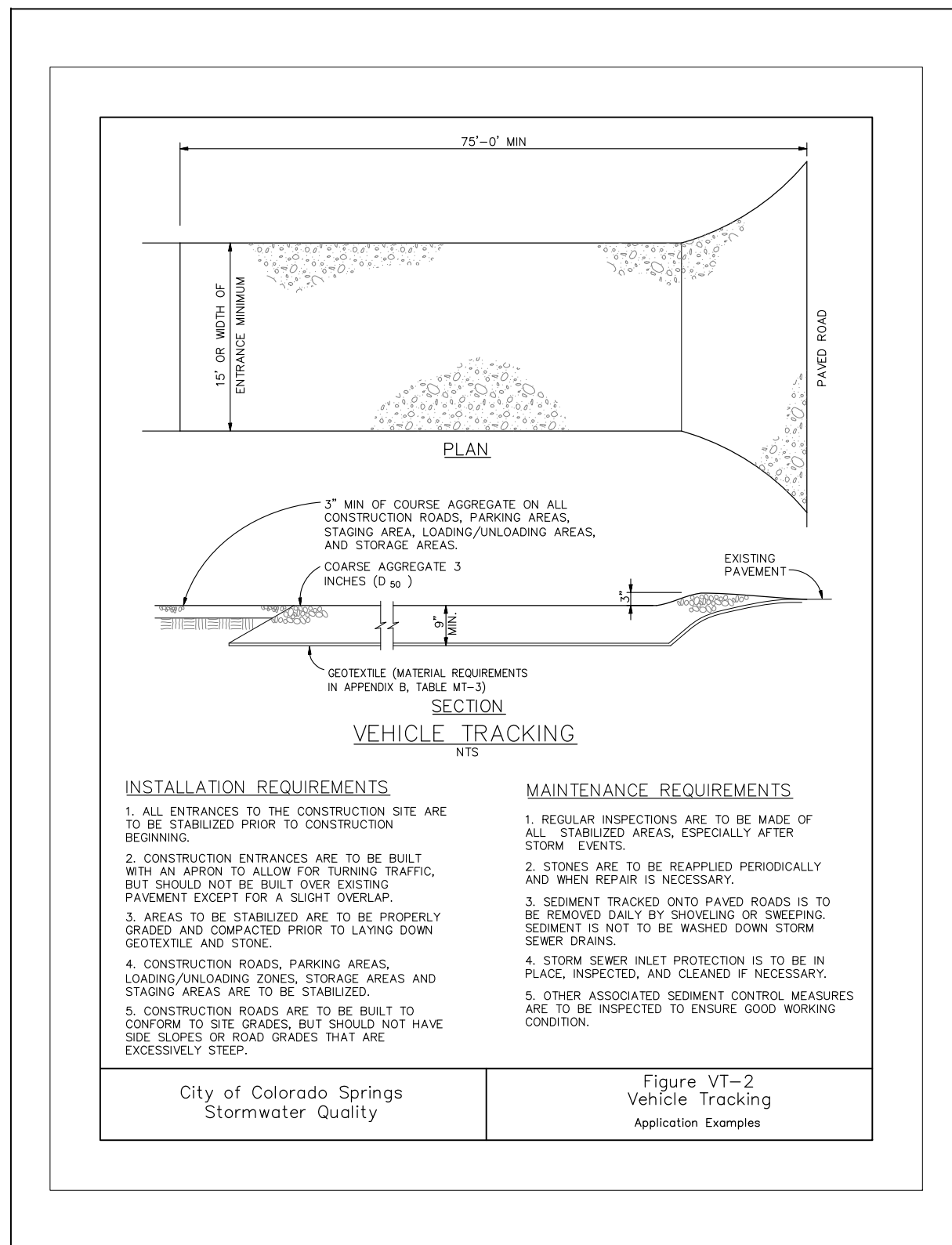
CORE ENGINEERING GROUP
 15004 1ST AVENUE S.
 BIRMGHAM, AL 35206
 PH: 205 970 1100
 CONTACT: RICHARD L. SCHINDLER, P.E.
 EMAIL: Rich@cegi.com

DATE: X
 DESCRIPTION: X
 NO.: 1
 PROJECT: JCC BRIDGE
 JCC MAIN CHANNEL - LORSON BLVD.
 EL PASO COUNTY, COLORADO
 PREPARED FOR: LORSON, LLC
 212 N. WAHSATCH AVE., SUITE 301
 COLORADO SPRINGS, COLORADO 80903
 CONTACT: JEFF MARK

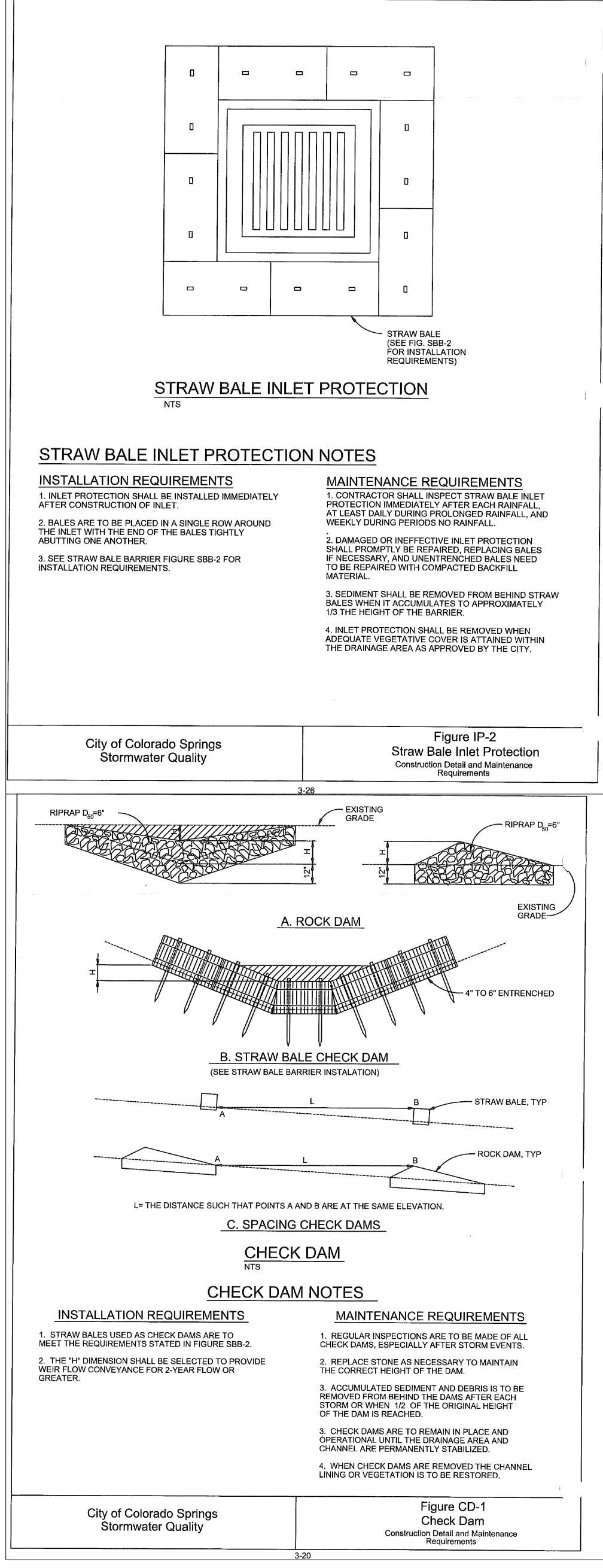
DRAWN: RLS
 DESIGNED: RLS
 CHECKED: RLS

WATERMAIN
STA 47+00 TO STA 52+15
LORSON BOULEVARD

DATE: SEPT 15, 2017
 PROJECT NO.: 100.030
 SHEET NUMBER: C8.2
 TOTAL SHEETS: 36



SEED MIX TABLE		
GRASS MIX FOR QUICK REVEGETATION ALL SITES:		
GRASS	VARIETY	AMOUNT IN PLS LBS PER ACRE
CRESTED WHEAT GRASS	EPHRAIM OR HYCREST	4.0
PERENNIAL RYE	LINN	2.0
WESTERN WHEAT GRASS	BARTON	3.0
SMOOTH BROME GRASS	LINCOLN OR MANCHAR	5.0
SIDEOATS GRAMA	EL RENO	2.5
		TOTAL 16.5 LBS
GRASS MIX FOR SANDY SOILS:		
GRASS	VARIETY	AMOUNT IN PLS LBS PER ACRE
SIDEOATS GRAMA	EL RENO	3.0
WESTERN WHEAT GRASS	BARTON	2.5
SLENDER WHEAT GRASS	NATIVE	2.0
LITTLE BLUESTEM	PASTURA	2.0
SAND DROPSEED	NATIVE	0.5
SWITCH GRASS	NEBRASKA 28	3.0
WEEPING LOVE GRASS	MORPHA	1.0
		TOTAL 14.0 LBS
GRASS MIX FOR HEAVIER SOIL AREAS:		
GRASS	VARIETY	AMOUNT IN PLS LBS PER ACRE
WESTERN WHEAT GRASS	BARTON	5.0
SIDEOATS GRAMA	EL RENO	3.0
SLENDER WHEAT GRASS	SODAR	2.5
SMOOTH BROME	LINCOLN OR MANCHAR	4.0
CRESTEDWHEAT GRASS	EPHRAIM	3.0
		TOTAL 17.5 LBS



APPENDIX C

STORMWATER INSPECTION REPORT

Stormwater Inspection Report

Project Name and Location: _____

Inspector Name and Title: _____ Director: _____

Date/Time of Inspection: _____ Weather Conditions: _____

Schedule Completion Date: _____ Construction Stage (circle all that apply):
 Clearing/Grubbing Paving Rough Grading Infrastructure Building Construction Final
 Grading Final Stabilization Terminate Permit _____

Type of Control	Describe status, identify problems, maintenance needs, or non-conformance with details or temporary alteration	Problem addressed (date and description of corrective action)
Structural:		
Silt Fence <input type="checkbox"/> OK <input type="checkbox"/> N/A	<input type="checkbox"/> Tears/Holes <input type="checkbox"/> Burial <input type="checkbox"/> Sed. Accum. <input type="checkbox"/> Sediment bypass	
Const. Exit <input type="checkbox"/> OK <input type="checkbox"/> N/A	<input type="checkbox"/> Voids Filled <input type="checkbox"/> Trackout	
Check Dam <input type="checkbox"/> OK <input type="checkbox"/> N/A	<input type="checkbox"/> Sediment Accumulation	
Inlet Protection <input type="checkbox"/> OK <input type="checkbox"/> N/A	<input type="checkbox"/> Sed. Accum. <input type="checkbox"/> Sed. Bypass <input type="checkbox"/> Application not appropriate	
Diversion Ditch/Berm <input type="checkbox"/> OK <input type="checkbox"/> N/A	<input type="checkbox"/> Erosion <input type="checkbox"/> Stabilization	
Sediment Trap <input type="checkbox"/> OK <input type="checkbox"/> N/A	<input type="checkbox"/> Sediment Accumulation	
Sediment Basin <input type="checkbox"/> OK <input type="checkbox"/> N/A	<input type="checkbox"/> Sed. Accumulation <input type="checkbox"/> Bank erosion <input type="checkbox"/> Stabilization	
Discharge Point <input type="checkbox"/> OK <input type="checkbox"/> N/A	<input type="checkbox"/> Erosion <input type="checkbox"/> Sediment Discharge	
Material Storage/Secondary Contain. <input type="checkbox"/> OK <input type="checkbox"/> N/A	<input type="checkbox"/> Not shown on Site Map <input type="checkbox"/> Spills <input type="checkbox"/> Out of design. area <input type="checkbox"/> Improper storage: chemicals; solvents; paint; fuels, etc.	

Other Structural Controls <input type="checkbox"/> OK <input type="checkbox"/> N/A		
Non-Structural:		
Good Housekeeping <input type="checkbox"/> OK <input type="checkbox"/> N/A	<input type="checkbox"/> Solid Waste <input type="checkbox"/> Sanitary Waste <input type="checkbox"/> Dust Control	

Project Name and Location: _____ Date: _____ Page 2

Equip. Wash/Maint. <input type="checkbox"/> OK <input type="checkbox"/> N/A	<input type="checkbox"/> Spills <input type="checkbox"/> Outside designated area	
Concrete Washout <input type="checkbox"/> OK <input type="checkbox"/> N/A	<input type="checkbox"/> Spills out of designated area <input type="checkbox"/> Not shown on Site Map	
Stabilization:		
Seed/Sod Mulching, Geotextile, Blankets <input type="checkbox"/> OK <input type="checkbox"/> N/A	<input type="checkbox"/> Need Temp. stab. <input type="checkbox"/> Need final stab. <input type="checkbox"/> Health of veg.	
Record Keeping:		
Entrance Postings <input type="checkbox"/> OK <input type="checkbox"/> N/A	<input type="checkbox"/> NOI <input type="checkbox"/> Permits <input type="checkbox"/> Construction Site Notice	
SWPPP Notebook <input type="checkbox"/> OK <input type="checkbox"/> N/A	<input type="checkbox"/> Missing Sections <input type="checkbox"/> Missing Forms	
Site Map/Details <input type="checkbox"/> OK <input type="checkbox"/> N/A	<input type="checkbox"/> Activities not up-to-date <input type="checkbox"/> Deviate from details <input type="checkbox"/> BMP Additions <input type="checkbox"/> Modifications <input type="checkbox"/> Not up-to-date	
Other <input type="checkbox"/> OK <input type="checkbox"/> N/A		

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Inspector's Signature

Date

APPENDIX D

SPILL REPORT FORM

Spill Report Form

Project Type and Location: _____

Spill Reported by: _____

Date/Time Spill: _____

Describe spill location and events leading to spill: _____

Material spilled: _____

Source of spill: _____

Amount spilled: _____ Amount spilled to waterway: _____

Containment or clean up action: _____

Approximate depth of soil excavation: _____

List Injuries or Personal Contamination: _____

Action to be taken to prevent future spills: _____

Modifications to the SWPPP necessary due to this spill: _____

Agencies notified of the spill: _____

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Contractor Superintendent

Date

APPENDIX E

**RECORD OF STABILIZATION AND
CONSTRUCTION ACTIVITY DATES**

SITE STABILIZATION and CONSTRUCTION ACTIVITY DATES

A record of dates when BMPs are installed or removed, stabilization measures are initiated, major grading activities occur, and construction activities temporarily or permanently cease on a portion of the site shall be maintained until final site stabilization is achieved.

MAJOR STABILIZATION AND GRADING ACTIVITIES

Description of Activity: _____

Site Contractor: _____ Begin (date): _____
End(date): _____

Location: _____

Description of Activity: _____

Site Contractor: _____ Begin (date): _____
End(date): _____

Location: _____

Description of Activity: _____

Site Contractor: _____ Begin (date): _____
End(date): _____

Location: _____



APPENDIX F

**FEDERAL, STATE, OR LOCAL STORM WATER OR OTHER
ENVIRONMENTAL INSPECTOR SITE VISIT LOG**

Federal, State, or Local Storm Water or other Environmental Inspector Site Visit Log

Inspectors Name: _____ Agency: _____

Contractors Representative Present: _____

Others Present: _____

Comments: _____

Time and Date: _____ Report Prepared:

Yes No

Inspectors Name: _____ Agency: _____

Contractors Representative Present: _____

Others Present: _____

Comments: _____

Time and Date: _____ Report Prepared:

Yes No

Inspectors Name: _____ Agency: _____

Contractors Representative Present: _____

Others Present: _____

Comments: _____

Time and Date: _____ Report Prepared:

Yes No

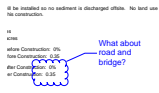
APPENDIX G
GENERAL PERMIT

Markup Summary

dsdrice (6)

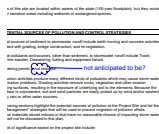


Subject: Highlight
Page Label: 4
Lock: Unlocked
Status:
Checkmark: Unchecked
Author: dsdrice
Date: 11/28/2017 2:19:51 PM
Color: ■



Subject: Cloud+
Page Label: 5
Lock: Unlocked
Status:
Checkmark: Unchecked
Author: dsdrice
Date: 11/28/2017 2:22:16 PM
Color: ■

What about road and bridge?



Subject: Cloud+
Page Label: 6
Lock: Unlocked
Status:
Checkmark: Unchecked
Author: dsdrice
Date: 11/28/2017 2:31:32 PM
Color: ■

not anticipated to be?



Subject: Callout
Page Label: 10
Lock: Unlocked
Status:
Checkmark: Unchecked
Author: dsdrice
Date: 11/28/2017 2:35:08 PM
Color: ■

shown on plan?



Subject: Callout
Page Label: 13
Lock: Unlocked
Status:
Checkmark: Unchecked
Author: dsdrice
Date: 11/28/2017 2:41:34 PM
Color: ■

Address where any permanent BMPs will be.



Subject: Cloud+
Page Label: 13
Lock: Unlocked
Status:
Checkmark: Unchecked
Author: dsdrice
Date: 11/28/2017 2:40:44 PM
Color: ■

Discuss why this is N/A.