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DEVIATION REQUEST AND DECISION FORM

Updated: 6/26/2019

PROJECT INFORMATION

PCD File No. _____

Project Name :	SF221: Skyline at Lorson Ranch Filing 1
Schedule No.(s) :	#:5500000275, 5500000403, 5500000440, 5513300002, 5513310105, 5513403068
Legal Description :	A REPLAT OF TRACT B, "LORSON RANCH EAST FILING NO. 3" AS RECORDED UNDER RECEPTION NO. 220714474 IN THE EL PASO COUNTY, COLORADO RECORDS, AND A PORTION OF THE NORTHWEST QUARTER OF THE SOUTHEAST QUARTER (NW 1/4 SE 1/4) OF SECTION 13, T15S, R65W OF THE 6TH P.M., EL PASO COUNTY, COLORADO, AND BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS: BEGINNING AT THE CENTER QUARTER CORNER OF SECTION 13, SAID POINT BEING ON THE NORTH LINE OF "LORSON RANCH EAST FILING NO. 3"; THENCE N89°31'43"E ALONG THE EAST-WEST CENTERLINE OF SAID SECTION 13 A DISTANCE OF 32.00 FEET TO THE NORTHEAST CORNER OF "LORSON RANCH EAST FILING NO. 3"; THENCE N89°31'43"E ALONG THE EAST-WEST CENTERLINE OF SAID SECTION 13 A DISTANCE OF 1,206.87 FEET TO THE WESTERLY LINE OF THE 225 FOOT WIDE EASEMENT AS RECORDED IN BOOK 2030 AT PAGE 238 OF THE EL PASO COUNTY RECORDS; THENCE S38°22'41"W ALONG SAID WESTERLY LINE 1,158.91 FEET; THENCE N52°01'21"W A DISTANCE OF 100.00 FEET TO THE WESTERLY LINE OF THE 100 FOOT WIDE "TRI-STATE GENERATION AND TRANSMISSION ASSOCIATION INC. EASEMENT" AS RECORDED IN BOOK 2665 AT PAGE 715 AND IN BOOK 2846 AT PAGE 719 OF THE EL PASO COUNTY RECORDS; THENCE N38°22'41"E ALONG SAID LINE, 2.00 FEET; THENCE N52°OT21"W A DISTANCE OF 254.47 FEET TO A POINT OF CURVE; THENCE 213.93 FEET ALONG THE ARC OF A CURVE TO THE RIGHT, SAID CURVE HAVING A RADIUS OF 533.00 FEET, A CENTRAL ANGLE OF 22°59‘49", THE CHORD OF 212.50 FEET BEARS N40°31'27"W; THENCE N07°28'57"E, NON-TANGENT TO THE PREVIOUS COURSE, 33.43 FEET; THENCE N22°54'14"W A DISTANCE OF 56.00 FEET; THENCE N57°42'38"W A DISTANCE OF 30.65 FEET TO THE NORTH RIGHT-OF-WAY LINE OF LAMPREY DRIVE AS SHOWN ON THE AFORESAID PLAT OF "LORSON RANCH EAST FILING NO. 3"; THENCE S72°50'06"W ALONG THE NORTH LINE THEREOF 77.00 FEET TO THE EAST LINE OF TRACT A, "LORSON RANCH EAST FILING NO. 3" THENCE ALONG SAID EAST LINE THE FOLLOWING THREE (3) COURSES; 1. THENCE 141.92 FEET ALONG THE ARC OF A CURVE TO THE RIGHT, SAID CURVE HAVING A RADIUS OF 610.00 FEET, A CENTRAL ANGLE OF 13°19'48", AND A CHORD OF 141.60 FEET WHICH BEARS N10°29'59"W; 2. THENCE N08°18'15"E A DISTANCE OF 76.43 FEET; 3. THENCE N00°52'02"W A DISTANCE OF 223.62 FEET TO THE SOUTH LINE OF THE NORTHWEST QUARTER OF SECTION 13; THENCE N89°32'23"E ALONG SAID SOUTH LINE 32.00 FEET TO THE POINT OF BEGINNING. SAID PARCEL CONTAINS 686,693 S.F. (15.764 ACRES MORE OR LESS). BASIS OF BEARINGS: THE NORTH LINE OF THE SOUTHEAST QUARTER OF SECTION 13, T15S, R65W OF THE 6th P.M. AS MONUMENTED AT THE CENTER QUARTER OF SAID SECTION 13 WITH A NO.6 REBARAND 3.25" ALUMINUM CAP STAMPED "NOLTE, T15S R65W, C1/4 S13, 2005, PLS 23044" AND AT THE QUARTER CORNER COMMON TO SECTION 13 AND SECTION 18, T15S, R64W WITH A NO. 6 REBAR AND 3.25" ALUMINUM CAP STAMPED "JR ENG LTD, T15S, R65W R64W, 1/4, S13 \ S18, 2002, RLS 31161", SAID LINE BEARS N89°31'43"E A DISTANCE OF 2663.24 FEET.

APPLICANT INFORMATION

Company :	Eagle Development Company
Name :	Jeff Mark
	☒ Owner ☐ Consultant ☐ Contractor
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ENGINEER INFORMATION

Company :	Basecamp AEC, Inc.		
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Phone Number :	813-422-0931		
FAX Number :			
Email Address :	steve@basecampaec.com		

OWNER, APPLICANT, AND ENGINEER DECLARATION

To the best of my knowledge, the information on this application and all additional or supplemental documentation is true, factual and complete. I am fully aware that any misrepresentation of any information on this application may be grounds for denial. I have familiarized myself with the rules, regulations and procedures with respect to preparing and filing this application. I also understand that an incorrect submittal will be cause to have the project removed from the agenda of the Planning Commission, Board of County Commissioners and/or Board of Adjustment or delay review until corrections are made, and that any approval of this application is based on the representations made in the application and may be revoked on any breach of representation or condition(s) of approval.

Signature of owner (or authorized representative) — Date: 05/28/2026

Engineer's Seal, Signature And Date of Signature

5/28/2026

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DEVIATION REQUEST (Attach diagrams, figures, and other documentation to clarify request)

A deviation from the standards of or in Section **El Paso County Standard Drawing of the Engineering Criteria Manual (ECM) Detail SD_4-20,** is requested.

Identify the specific ECM standard which a deviation is requested:

The ECM manual does not include chemical grout as a repair method for roadways and utility trenches. Currently, the ECM standard drawings, previously found in Appendix F, Detail SD_4-20, outline the process for utility trench repair in asphalt pavement. This process involves excavating down to the bottom of the utility line, compacting the soil in 6-inch lifts, and then placing a new base course followed by new pavement.

State the reason for the requested deviation:

Deviation request for the use of the chemical grout to stabilize the soils within the roadway and utility trenches where settlement and distress were observed and to lift and relevel pavement, concrete flatwork, and stormwater catch basins. The deviation request is requested for Skyline at Lorson Ranch Filing 1 (File# SF221)

Explain the proposed alternative and compare to the ECM standards (May provide applicable regional or national standards used as basis):

The proposed alternative of chemical grouting to stabilize the observed settlement/distress is a less invasive methodology that doesn't require excavation and replacement of asphalt, sidewalks, or curb/gutters. El Paso County – Engineering Criteria Manual, Revision 6. December 13, 2016, utility trench repair detail for asphalt pavement (File name SD_4-20) was utilized in the northern half of Lorson Ranch Hills Filing 1. However, more than half of the repaired locations are exhibiting ongoing settlement. The proposed chemical grout injection alternative addresses the settlement by injecting an initial stabilizing layer/lens at a depth of approximately 4', approximately 1' above the existing water lateral, and a second lifting layer/lens at approximately a depth of 1.5' to 2'. The initial stabilizing layer minimizes overburden pressure/stresses from further compacting the soils below 4'. The second lifting injection works similarly but also mitigates surficial dynamic loads from further compacting underlying soils. Together, the multiple layers of injection, when controlled and monitored, can effectively stabilize, lift, and relevel pavement, stormwater structures, and concrete flatwork in minimal time without excavation and its associated disturbance and disruption. Chemical grout injection as a repair method to stabilize soils and lift/relevel foundations/roads/concrete has been utilized in the construction industry since the 1980s and is considered common and customary.

The chemical grout injection should be high-density polymer resins that, when mixed, will create a rapidly expanding (full rise time of between approximately 15 to 30 seconds or less at the intended injection temperature [115 to 130 degrees Fahrenheit]) polyurethane foam that can lift, realign, and fill voids under concrete slabs and asphalt being supported by base soils. Hydrophilic or permeation-type chemical grouts should not be utilized. In addition, the resulting polyurethane foam should be a closed-cell material that is hydro-insensitive and should have an unconfined expansion ratio of between 15:1 and 20:1 and 4-5 pounds per cubic foot (pcf) free rise density. Once injected, the recommended resin mixture should rapidly expand into the composite material (foam), binding and densifying soils, filling voids, and exerting a controlled compressive uplift force under a limited area of the slab/pavement. The foam should then cure to 90 percent of its compressive strength within 25 minutes of injection into a stable replacement base material.

The chemical grout should initially be injected approximately 4 feet on center within the utility trenches through a 1/2" injection rod advanced to a depth no greater than 4 feet below land surface (bls) through 5/8" diameter drilled holes. After an initial stabilizing injection volume that will be determined on a case-by-case basis, the injection rod tip will be raised to approximately 1.5' to 2' bls or within 0' to 1' ft bls of the base of the cement-treated subgrade (CTS) to lift and relevel the concrete slabs or pavement. When being utilized to relevel installed stormwater vaults, concrete sidewalks, or concrete curbs, the material will be injected directly beneath the concrete. The elevations of the pavement/slabs should be monitored continuously during the chemical grouting

Explain the proposed alternative and compare to the ECM standards (May provide applicable regional or national standards used as basis):

process.

The proposed materials will consist of Utah Foam Products, Inc., AT-840-8 or AT-840-10, or NCFI Polyurethanes NCFI-4RH (formerly 24-003). The material utilized will depend on the outside temperature, pavement temperature (colder pavement will deflect/bend less), the presence/absence of CTS, and/or product availability. The contractor is offering a two-year warranty on the injected areas such that if some additional settlement of significance occurs, the contractor will return to reinject that area. Note that the rate of expansion can be adjusted via the injection plant preheating temperature, with high temperatures resulting in quicker reaction/rise times.

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LIMITS OF CONSIDERATION
(At least one of the conditions listed below must be met for this deviation request to be considered.)

☐ The ECM standard is inapplicable to the particular situation.
☐ Topography, right-of-way, or other geographical conditions or impediments impose an undue hardship and an equivalent alternative that can accomplish the same design objective is available and does not compromise public safety or accessibility.
☒ A change to a standard is required to address a specific design or construction problem, and if not modified, the standard will impose an undue hardship on the applicant with little or no material benefit to the public.

Provide justification:

The proposed alternative of chemical grouting to stabilize the observed settlement/distress is much quicker and less invasive methodology that doesn't require excavation and replacement of asphalt, sidewalks, or curb/gutters. El Paso County – Engineering Criteria Manual, Revision 6. December 13, 2016, utility trench repair detail for asphalt pavement (File name SD_4-20) was utilized in the northern half of Lorson Ranch Hills Filing 1. However, more than half of the repaired locations are exhibiting ongoing settlement.

CRITERIA FOR APPROVAL

Per ECM section 5.8.7 the request for a deviation may be considered if the request is **not based exclusively on financial considerations**. The deviation must not be detrimental to public safety or surrounding property. The applicant must include supporting information demonstrating compliance with **all of the following criteria**:

The deviation will achieve the intended result with a comparable or superior design and quality of improvement.

The requested deviation will achieve the intended results of repair by stabilizing and lifting/releveling roadways, concrete flatwork, and stormwater structures that have been affected by ground settlement with a reduced risk to the underlying utilities when compared to the current standard of excavation and backfill. Additionally, the requested deviation will be accomplished in far less time (hours compared to days), with minimal disturbance to the public.

The deviation will not adversely affect safety or operations.

The deviation will not affect safety or operations. The chemical grout repair is non-invasive and causes minimal disturbance to the public. The injected material (structural polyurethane foam) is safe (inert and non-reactive) and can be excavated, by hand, or machine, if necessary, and disposed of as normal waste.

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The deviation will not adversely affect maintenance and its associated cost.

The deviation will not affect maintenance and its associated cost. The chemical grout can be hand-excavated and excavated without issues and can be disposed as normal waste

The deviation will not adversely affect aesthetic appearance.

The deviation will not affect aesthetic appearance. The chemical grout is injected into the subsurface soils and helps reduce observed settlement by re-leveling roadways and sidewalks. This method will reduce the number of locations that will require surficial patching and, therefore, will improve aesthetic appearance when compared to the current method of excavation and patching.

The deviation meets the design intent and purpose of the ECM standards.

The deviation is a common industry repair and stabilization method and, based on previous attempts of repair by the design content of Detail SD_4-20 that still show signs of ongoing settlement, will improve upon the intent and purpose of the ECM standard.

The deviation meets the control measure requirements of Part I.E.3 and Part I.E.4 of the County's MS4 permit, as applicable.

Not Applicable

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REVIEW AND RECOMMENDATION:

Approved by the ECM Administrator
This request has been determined to have met the criteria for approval. A deviation from Section _____ of the ECM is hereby granted based on the justification provided.

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Denied by the ECM Administrator
This request has been determined not to have met criteria for approval. A deviation from Section _____ of the ECM is hereby denied.

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ECM ADMINISTRATOR COMMENTS/CONDITIONS:

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1.1. PURPOSE

The purpose of this resource is to provide a form for documenting the findings and decision by the ECM Administrator concerning a deviation request. The form is used to document the review and decision concerning a requested deviation. The request and decision concerning each deviation from a specific section of the ECM shall be recorded on a separate form.

1.2. BACKGROUND

A deviation is a critical aspect of the review process and needs to be documented to ensure that the deviations granted are applied to a specific development application in conformance with the criteria for approval and that the action is documented as such requests can point to potential needed revisions to the ECM.

1.3. APPLICABLE STATUTES AND REGULATIONS

Section 5.8 of the ECM establishes a mechanism whereby an engineering design standard can be modified when if strictly adhered to, would cause unnecessary hardship or unsafe design because of topographical or other conditions particular to the site, and that a departure may be made without destroying the intent of such provision.

1.4. APPLICABILITY

All provisions of the ECM are subject to deviation by the ECM Administrator provided that one of the following conditions is met:

- The ECM standard is inapplicable to a particular situation.
- Topography, right-of-way, or other geographical conditions or impediments impose an undue hardship on the applicant, and an equivalent alternative that can accomplish the same design objective is available and does not compromise public safety or accessibility.
- A change to a standard is required to address a specific design or construction problem, and if not modified, the standard will impose an undue hardship on the applicant with little or no material benefit to the public.

1.5. TECHNICAL GUIDANCE

The review shall ensure all criteria for approval are adequately considered and that justification for the deviation is properly documented.

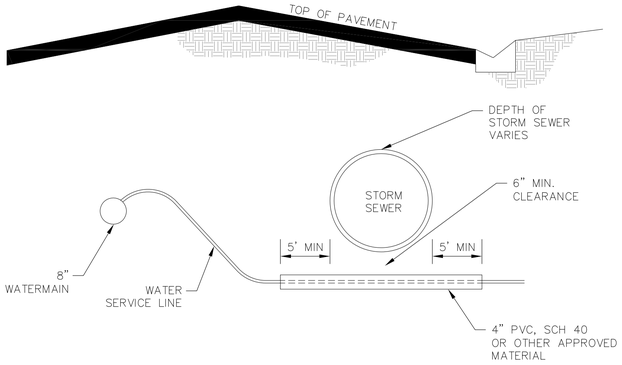
1.6. LIMITS OF APPROVAL

Whether a request for deviation is approved as proposed or with conditions, the approval is for project-specific use and shall not constitute a precedent or general deviation from these Standards.

1.7. REVIEW FEES

A Deviation Review Fee shall be paid in full at the time of submission of a request for deviation. The fee for Deviation Review shall be as determined by resolution of the BoCC.

Exhibit showing Chemical Grout Locations on Skyline at Lorson Ranch Filing 1



WATER SERVICE UNDER STORM SEWER DETAIL

NTS

NOTE:
1. WATER SERVICES ON ALL LOTS CROSSING STORM SEWER SHALL BE INTALLED IN SLEEVES