



Planning and Community
Development Department
2880 International Circle
Colorado Springs, Colorado 80910

Phone: 719.520.6300
Fax: 719.520.6695
Website www.elpasoco.com

DEVIATION REQUEST AND DECISION FORM

Updated: 6/26/2019

PROJECT INFORMATION

Project Name : Grandwood Ranch
Schedule No.(s) : 6119000003
Legal Description : S2N2, EX PT TO HIGBY RD CONV BY REC# 205092691 W/MR SEC 19-11-66

APPLICANT INFORMATION

Company : Grandwood Enterprises
Name : Bill Herebic
☒ Owner ☐ Consultant ☐ Contractor
Mailing Address : 270 Lodgepole Way
Monument, CO 80232

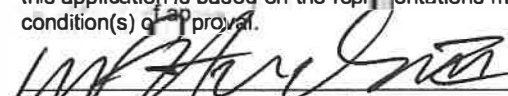
Phone Number : 719-651-9152
FAX Number : N/A
Email Address : Herebic5@msn.com

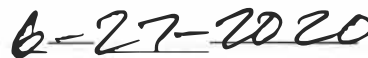
ENGINEER INFORMATION

Company : LSC Transportation Consultants, Inc.
Name : Jeffrey C. Hodsdon
Colorado P.E. Number : 31684
Mailing Address : 2504 E. Pikes Peak Ave
Suite 304
Colorado Springs, CO 80909
Phone Number : 719-633-2868
FAX Number : 719-633-5430
Email Address : Jeff@LSCTrans.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

Engineer's Seal, Signature
And Date of Signature



DEV #5

PCD File No. SP-195

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

A deviation from the standards of or in Sections **2.3.4.B** and **2.3.7.C.4** of the Engineering Criteria Manual (ECM) is requested.

Identify the specific ECM standard which a deviation is requested:

2.3.4.B Maximum and Minimum Grades for Roadways

Table 2-15: Minimum and Maximum Roadway Grades (Rural Collector)

- Minimum centerline grade (rural) – 1%
- Maximum centerline grade (rural) – 8%

2.3.7.C.4 Intersection Alignment (Vertical Alignment)

Tables 2-22 & 2-23: Intersection Grades by Roadway Functional Classification (Rural Collector & Rural Minor Arterial)

- Minimum intersection grade (rural) – 1%
- Maximum intersection grade (rural) – 4%

Minimum intersection profile grade length – 125 feet

State the reason for the requested deviation:

Furrow Road (Proposed)

The design plans were prepared to minimize the intersection approach grades and roadway centerline grades. However, the natural grade is approximately 10% for about 900 to 1,000 feet south of Minglewood Trail. The change in elevation between the current terminus of Furrow Road (at Lamplight) and Higby Road and the horizontal distance between these two locations requires a deviation to the centerline roadway grade.

- North of the intersection (between the intersections of Copper Valley Court and Minglewood Tr.), the centerline roadway grade is proposed to be 9.8%

The centerline roadway grade deviation is needed to meet the intersection grade standard at the proposed Furrow Road/Copper Valley Court intersection.

Higby Road/Furrow Road Intersection (Proposed New Intersection)

The location for the Higby/Furrow intersection has been coordinated with this applicant and the Homeplace Ranch property owner to the south. It is our understanding that shifting the intersection to the west would require significantly more grading on the south side of the roadway.

- The proposed westbound approach to the Higby Road/Furrow Road intersection is about 6.5 percent
- West of the proposed intersection, the grades moderate for the eastbound intersection approach at approximately 5.5 percent.

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

Furrow Road (Proposed)

The proposed "mid-block" centerline roadway grade north of the intersection (between the intersections of Copper Valley Court and Minglewood Trail) would exceed the ECM maximum. The centerline roadway grade is proposed to be 9.8%. The ECM standard for Rural Collectors is 8% maximum (10% maximum grade permitted at the discretion of the ECM Administrator). The proposed section of 9.8% grade would exceed the 8% standard by 1.8%. The proposed 9.8% meets (by 0.2%) the allowable maximum grade permitted with ECM Administrator approval (10%). See the attached deviation exhibit and the attached plan and profile exhibit prepared by Matrix Design Group.

Higby Road/Furrow Road Intersection (Proposed Intersection)

The location for the Higby/Furrow intersection has been coordinated with this applicant and the Homeplace Ranch property owner to the south. It is our understanding that shifting the intersection to the west would require significantly more grading on the south side of the roadway.

- The westbound approach grade to the proposed Higby Road/Furrow Road intersection would be about 6.5 percent.
- West of the proposed intersection, the grades moderate for the eastbound intersection approach at approximately 5.5 percent..

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:

Furrow Road

Furrow Road between Higby Road and the south terminus of Furrow Road at Minglewood Trail are "fixed" points in terms of elevation and the horizontal distance between. The natural grade is approximately 10% for about 900 to 1,000 feet south of Minglewood Trail. Given the change in elevation between the current terminus of Furrow Road (at Minglewood/Lamplight) and Higby Road and the horizontal distance between these two locations, a deviation is required to the centerline roadway grade to meet the intersection grade standard at the proposed Furrow Road/Copper Valley Court intersection.

Higby Road/Furrow Road

The location for the Higby/Furrow intersection has been coordinated with this applicant and the Homeplace Ranch property owner to the south. It is our understanding that shifting the intersection to the west would require significantly more grading on the south side of the roadway. Also, it is our understanding that shifting the intersection to the west would impact the Preble's Meadow Jumping Mouse habitat.

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.

Furrow Road

The design plans were prepared to minimize the intersection approach grades and roadway centerline grades. However, the natural grade is approximately 10% for about 900 to 1,000 feet south of Minglewood Trail. Given the change in elevation between the current terminus of Furrow Road (at Minglewood/Lamplight) and Higby Road and the horizontal distance between these two locations, a deviation to the centerline roadway grade is needed in order to meet the intersection grade standard at the proposed Furrow Road/Copper Valley Court intersection. The proposed 9.8% meets (by 0.2%) the allowable maximum grade permitted with ECM Administrator approval (10%).

The deviation will not adversely affect safety or operations.

Furrow Road/Copper Valley Court

The ECM standard for Rural Collectors is 8% maximum (10% maximum grade permitted at the discretion of the ECM Administrator). The proposed 9.8% meets (by 0.2%) the allowable maximum grade permitted with ECM Administrator approval (10%).

Higby Road

The westbound approach grade to the proposed Higby Road/Furrow Road intersection would be about 6.5 percent. Future Stop signs would likely be placed on the northbound and southbound approaches with no stop condition on the westbound approach for the westbound through movement. The applicant will **dedicate ROW** for westbound right turn and left turn lanes (with length adjusted for the downgrade) on Higby Road if needed in the future. Note: The TIS shows the recommended eastbound left turn lane.

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

The roadway grades would not affect the ability of County maintenance vehicles and snowplows to complete their work. The proposed Furrow Road is within County criteria, with approval of 10% grade, and Higby Road conditions will remain as existing

The deviation will not adversely affect aesthetic appearance.

Roadway cross-sections will be constructed to County standards. There will be no adverse effect on appearance with respect to the requested grades. Proposed grades will blend with surrounding terrain throughout the site.

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

The proposed 9.8% grade on Furrow would meet (by 0.2%) the allowable maximum grade permitted with ECM Administrator approval (10%).

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.

The requested deviation meets control measure requirements of Part I.E.3 and Part I.E.4 of the MS4 Permit. Grading and Erosion Control Plans and SWMP Report will provide protection of existing conditions and erosion control measures per standards.

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.

2.3.4.B and 2.3.7.C.4

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DEV #5

APPROVED
Engineering Department

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09/10/2020 5:23:12 PM

dsdnijkamp

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**EPC Planning & Community
Development Department**

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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:

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

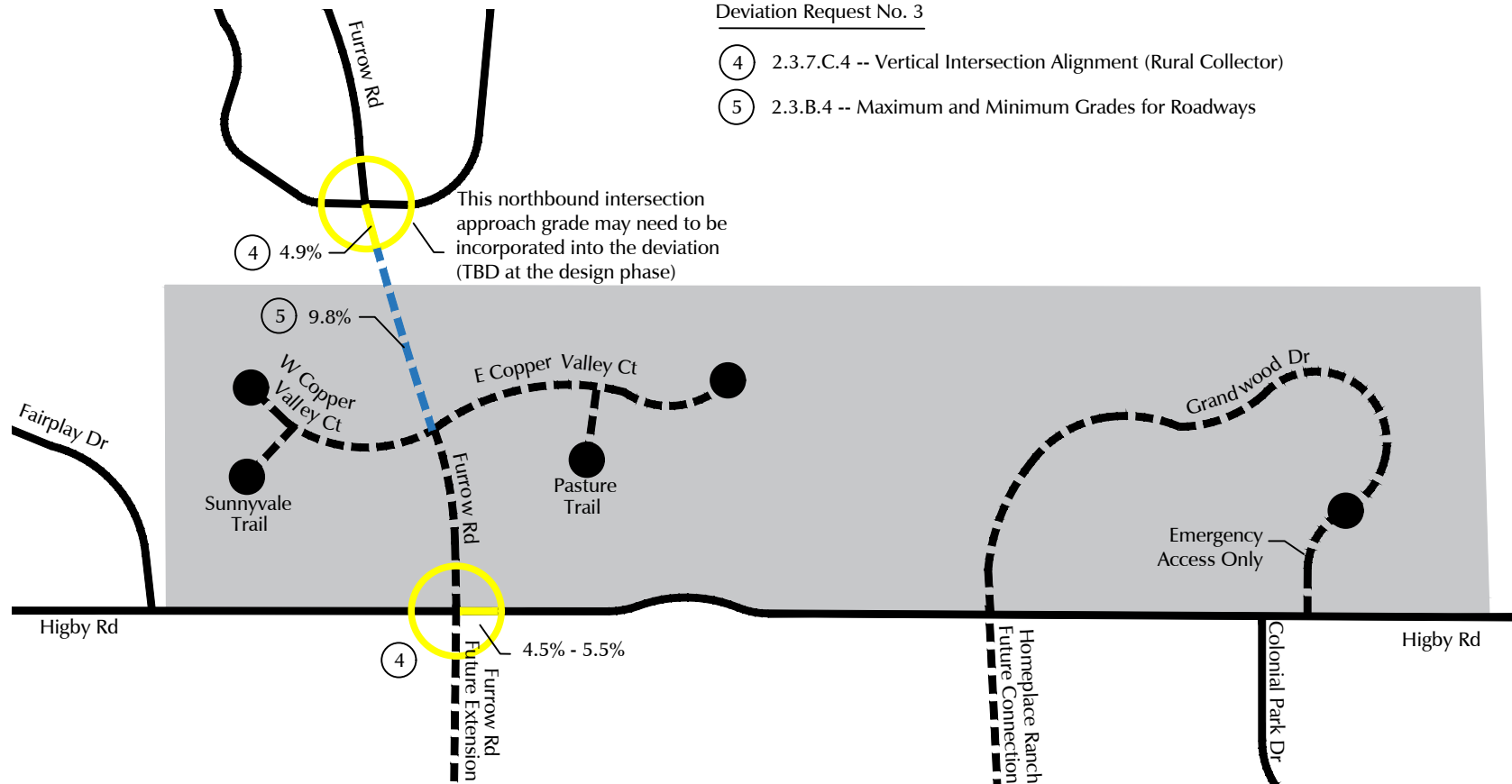
A Deviation Review Fee shall be paid in full at the time of submission of a request for deviation. The fee for Deviation Review shall be as determined by resolution of the BoCC.



Not to
scale

Deviation Request No. 3

- (4) 2.3.7.C.4 -- Vertical Intersection Alignment (Rural Collector)
- (5) 2.3.B.4 -- Maximum and Minimum Grades for Roadways

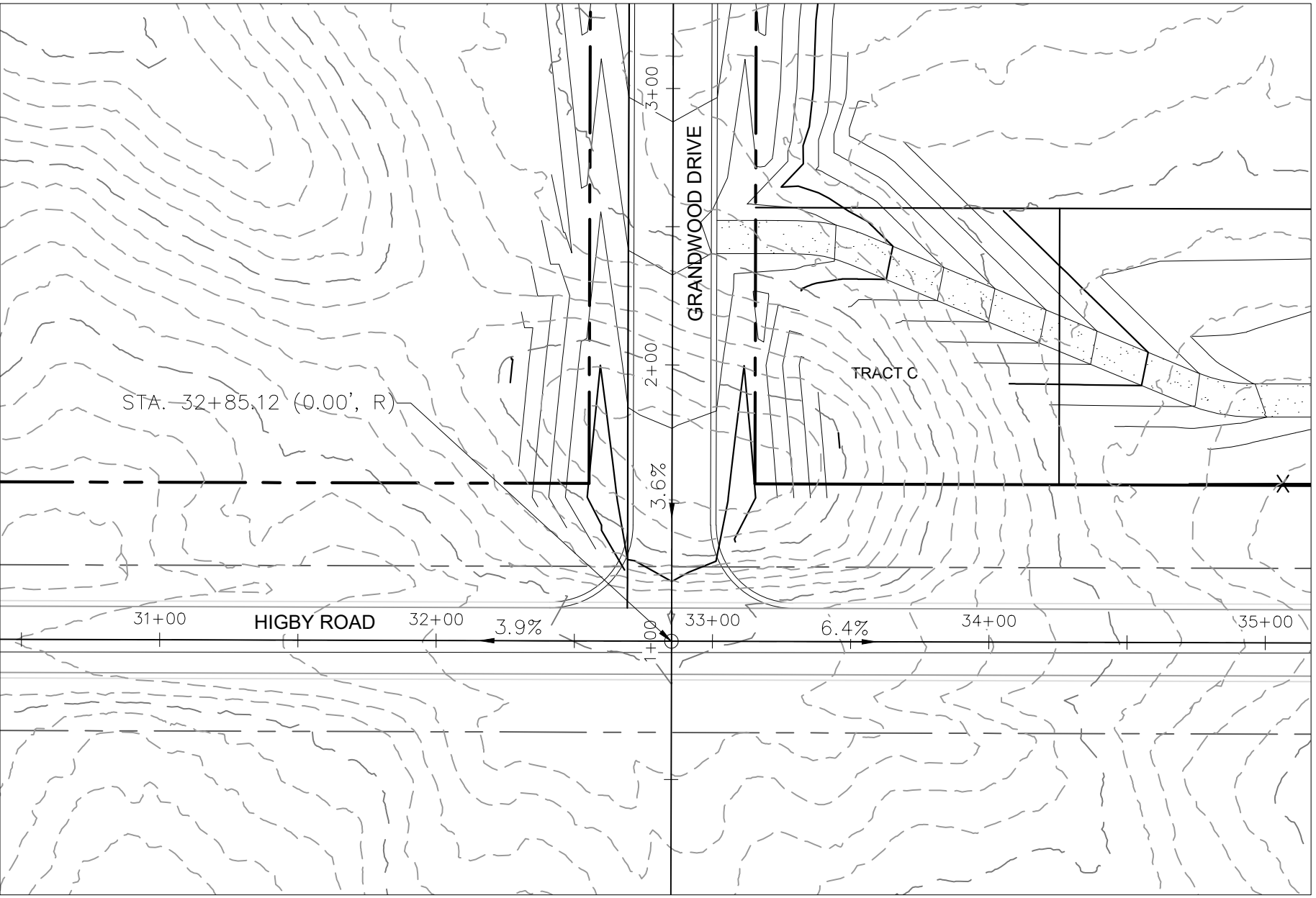
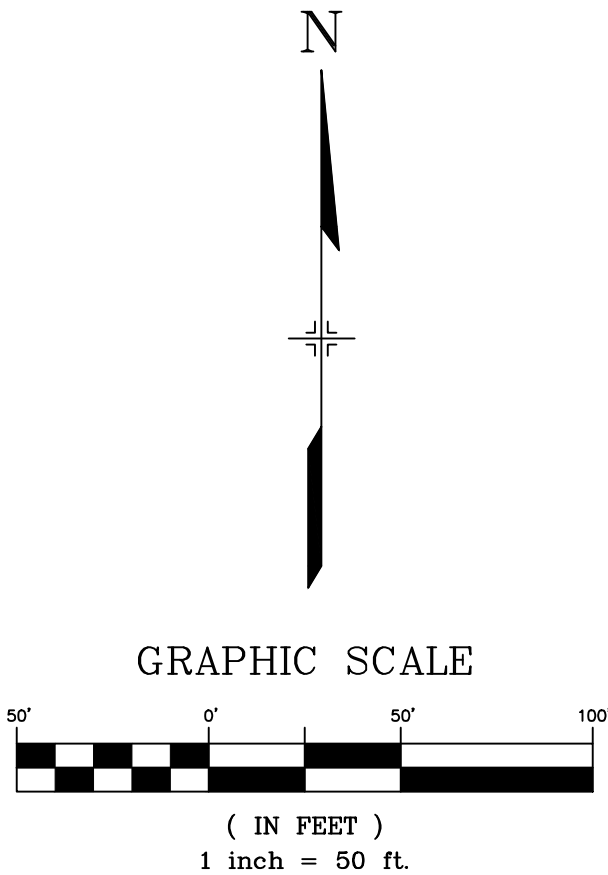
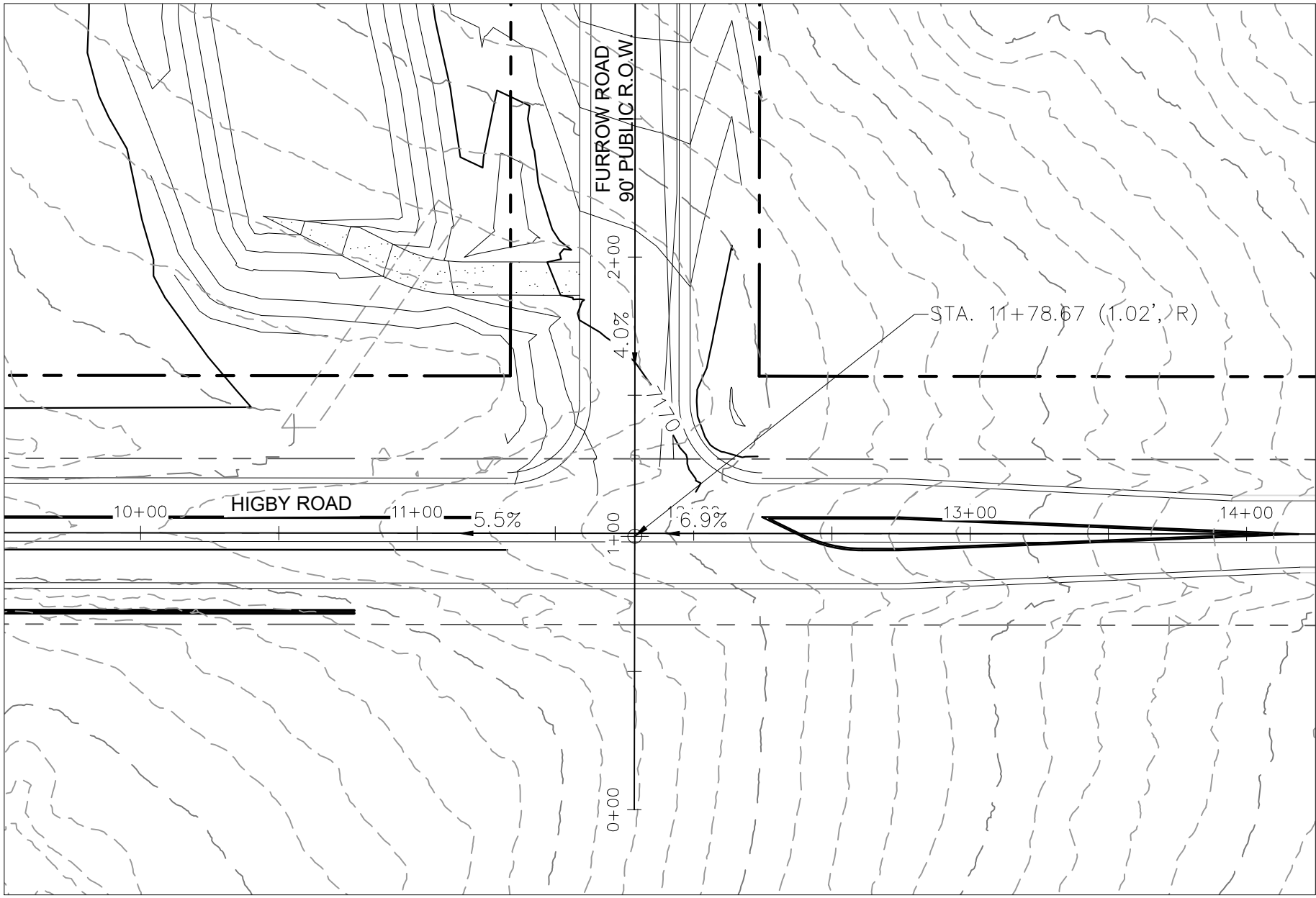
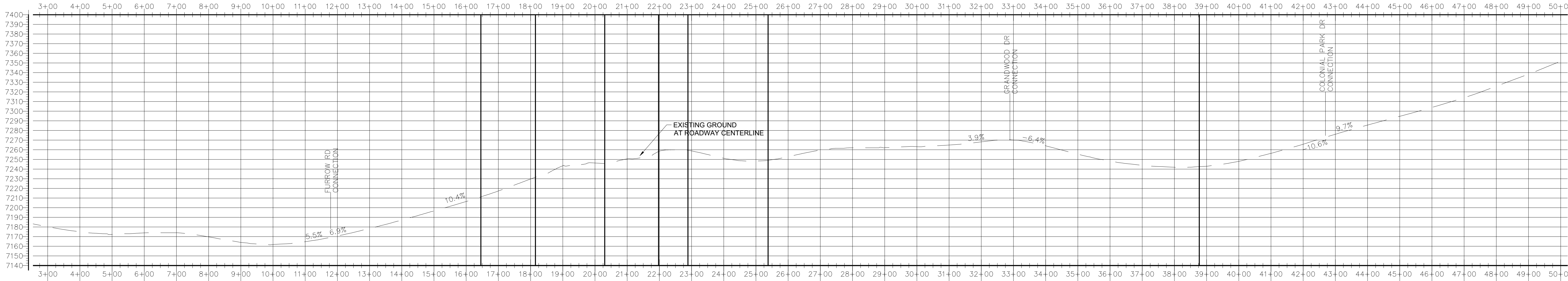
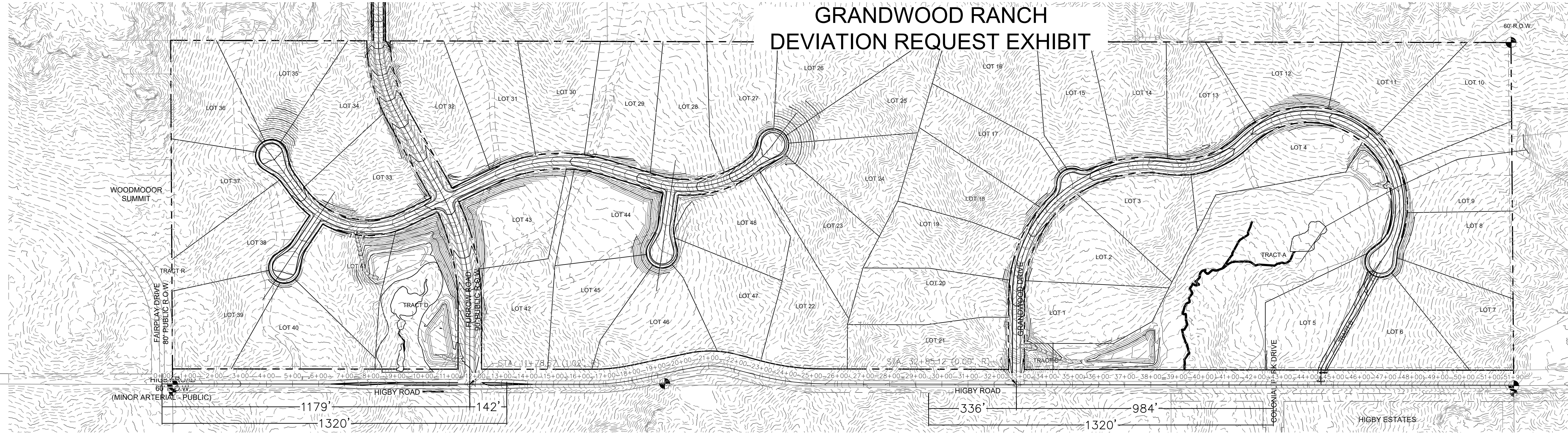


- Existing roadway
- Intersection approach for which deviation is requested
- "Mid-block" roadway grade for which deviation is requested
- - - Proposed roadway
- Intersection and approach leg(s) for which deviation is requested
- XX% Maximum intersection roadway centerline grade or intersection approach grade (per plan and profile sheet)

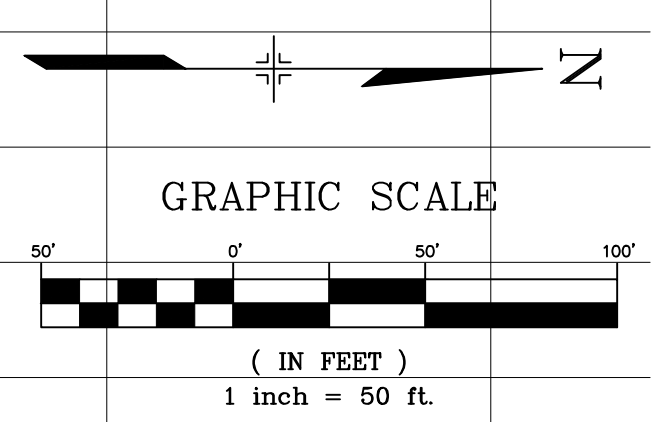
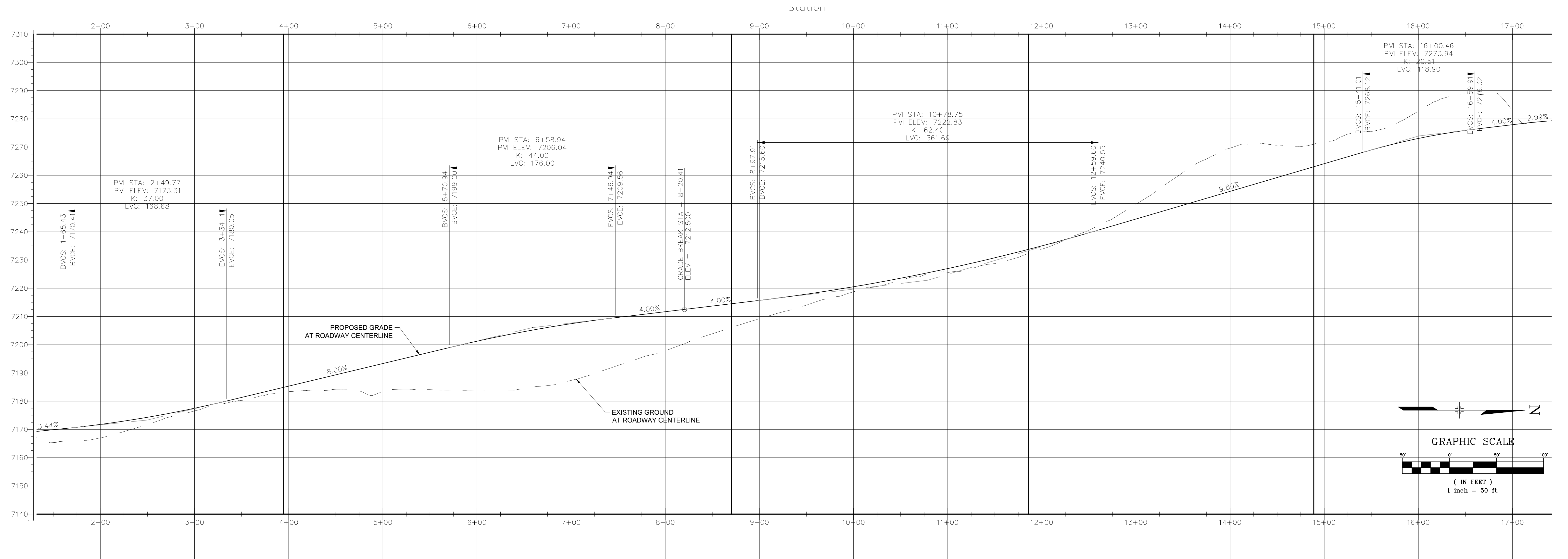
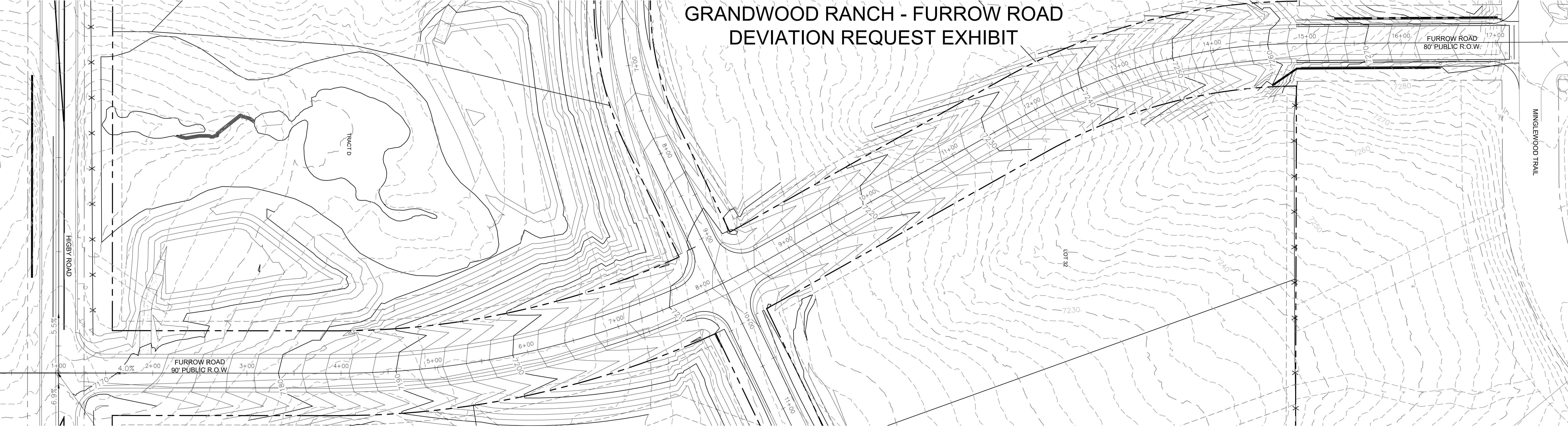


Deviation Exhibit 3
**Centerline
Roadway Grades**
Grandwood Ranch (LSC# 185020)

GRANDWOOD RANCH
DEVIATION REQUEST EXHIBIT



GRANDWOOD RANCH - FURROW ROAD
DEVIATION REQUEST EXHIBIT





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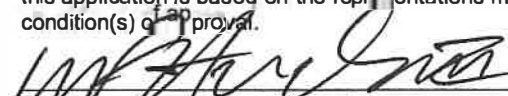
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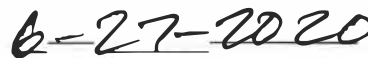
ENGINEER INFORMATION

Company : LSC Transportation Consultants, Inc.
Name : Jeffrey C. Hodsdon
Colorado P.E. Number : 31684
Mailing Address : 2504 E. Pikes Peak Ave
Suite 304
Colorado Springs, CO 80909
Phone Number : 719-633-2868
FAX Number : 719-633-5430
Email Address : Jeff@LSCTrans.com

OWNER, APPLICANT, AND ENGINEER DECLARATION

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Signature of owner (or authorized representative)


Date

Engineer's Seal, Signature
And Date of Signature



DEV #2

PCD File No. SP-195

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

A deviation from the standards of or in Sections **2.3.8.A** of the Engineering Criteria Manual (ECM) is requested.

Identify the specific ECM standard which a deviation is requested:

2.3.8.A Roadway Terminations - Cul-de-Sacs

Cul-de-sacs shall have a maximum length of 1,600 feet for rural condition. The request is to allow a non-through street, Grandwood Drive, with a length of 2,542 feet. Please refer to Deviation 2 Exhibit. An emergency-use only connection is proposed from the end of the cul-de-sac to Higby Road, as shown in the exhibit.

State the reason for the requested deviation:

- Challenging topography on the site and along the adjacent Higby Road, including vertical and horizontal curves
- Preservation of natural land features within the site – which is the reason for the two separate proposed development areas
- El Paso County intersection spacing requirement for Minor Arterials
- Except for the Higby Road frontage and a right-of-way stub connection to Cambrook Ct., no other opportunity for a public road connection exists.
- A road connection via existing platted ROW in Bent Tree to Cambrook Ct. was investigated as an option. However, such a connection would result in excessive slopes and grading within private lots.
- The layout of 2.5-acre lots (which are significantly greater than suburban or urban lots), the shape of the parcel and the developable area force the proposed road layout. An alternate layout that would meet the standard would be impractical.
- A second connection of Grandwood Drive to Higby Road would bring three separate intersections within approximately 1900-feet. A deviation request for intersection spacing with Grandwood Drive for one single connection. A second connection to Higby Road would create a difficult travel-way.
- Tri-Lakes Fire department has stated preference of an emergency access only connection opposed to an additional intersection along Higby Road.

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

- The cul-de-sac termination on the east access (located 2,542 feet from Higby Road) would exceed the ECM standard of 1,600 feet by 942 feet.
- The proposed cul-de-sac is shown in the attached exhibit Figure 2 (site plan).
- An emergency-use only connection is proposed from the end of the cul-de-sac to Higby Road, as shown in the attached deviation exhibit.
- A knuckle has been provided along Grandwood Drive for intermediate vehicle use. This will allow passenger, maintenance and emergency vehicles make use of without having to travel to full cul-de-sac length.
- Twenty-one 2.5-acre lots would access this proposed cul-de-sac roadway. Five of these lots would also have frontage along Higby Road, although the homesite driveway accesses would be taken from the proposed internal road.
- Please refer to the attached letter from the fire district.

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:

- Sensitive natural features within the site to the west that are required of preservation.
- Limited connectivity to public roads. Although there is an established public right-of-way northeast to Cambrook Ct., a road connection to Cambrook Ct. via this ROW in Bent Tree would result in excessive slopes into private property. See attached Exhibit by Matrix Design Group showing extensive slope work that would be required.
- Challenging topography and existing intersections along Higby Road that prevents access spacing from meeting County requirements for intersection spacing and sight distance.
- Twenty-one total lots would access the cul-de-sac. The Land Development Code indicates, "A corner lot is not counted in the maximum number of lots on a dead-end road when the fire department determines that adequate emergency access is provided to the corner lot by an alternative road." Five of these lots would also have frontage along Higby Road, although the homesite driveway access would be taken from the proposed internal road.
- An emergency-use only connection to Higby Road is proposed. Please refer to the attached letter from the fire district.

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 proposed subdivision roadway will be built to county standards.
- An emergency-use only connection is proposed to Higby Road.
- A midblock knuckle will be constructed to compensate for the extended cul-de-sac.
- The proposed number of dwelling units (21 units) on a non-through street would not exceed the limit (25 units) established by the Land Development Code. Therefore, an LDC waiver would not be necessary.

The deviation will not adversely affect safety or operations.

- The projected ADT of 232 vehicles/day (vpd) would be relatively low and significantly lower than the design ADT for a Rural Local road (750 vpd).
- An emergency-use-only connection to Higby Road is proposed. Please refer to the attached letter from the fire district.
- A knuckle has been proposed along Grandwood Drive for intermediate vehicle use. This will allow passenger, maintenance and emergency vehicles make use of without having to travel to full cul-de-sac length.

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

- The deviation will not adversely affect maintenance cost as the roadway will be built to county Rural Local roadway standards and a county-standard cul-de-sac "bulb" will be constructed at the terminus of the road (which will accommodate County maintenance vehicles and snow plows).
- The owner's association will maintain the emergency access connection.

The deviation will not adversely affect aesthetic appearance.

- The roadway will be built to Rural Local roadway standards.
- The subdivision has been designed to minimize the disturbance of natural features on the site. The approval of the deviation will result in a more aesthetically appealing project due to preservation of natural features.
- The owner's association will be responsible for maintaining the emergency access road and easement (including the aesthetic appearance).
- The deviation would result in significantly better aesthetic appearance than a resulting road connection up to Cambrook Court. See attached Exhibit by Matrix Design Group showing extensive slope work that would be required

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

The intent can be met, given the relatively low traffic volume and the addition of the emergency-only connection. The number of lots does not exceed the threshold number requiring a waiver of the Land Development Code.

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.

The requested deviation meets control measure requirements of Part I.E.3 and Part I.E.4 of the MS4 Permit. Grading and Erosion Control Plans and SWMP Report will provide protection of existing conditions and erosion control measures per standards.

REVIEW AND RECOMMENDATION:

Approved by the ECM Administrator

This request has been determined to have met the criteria for approval. A deviation from Section 2.3.4B, 2.3.7C of the ECM is hereby granted based on the justification provided.

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DEV #2

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Approved

By: Elizabeth Nijkamp

Date: 08/11/2020

El Paso County Planning & Community Development



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:

The proposed emergency access road shall be placed in a tract, owned and maintained by the owners association. The access road shall be constructed using a gravel surface course in conformance with the ECM for gravel roadways (ECM table D-7). The width will be determined and shown on the preliminary plan.

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

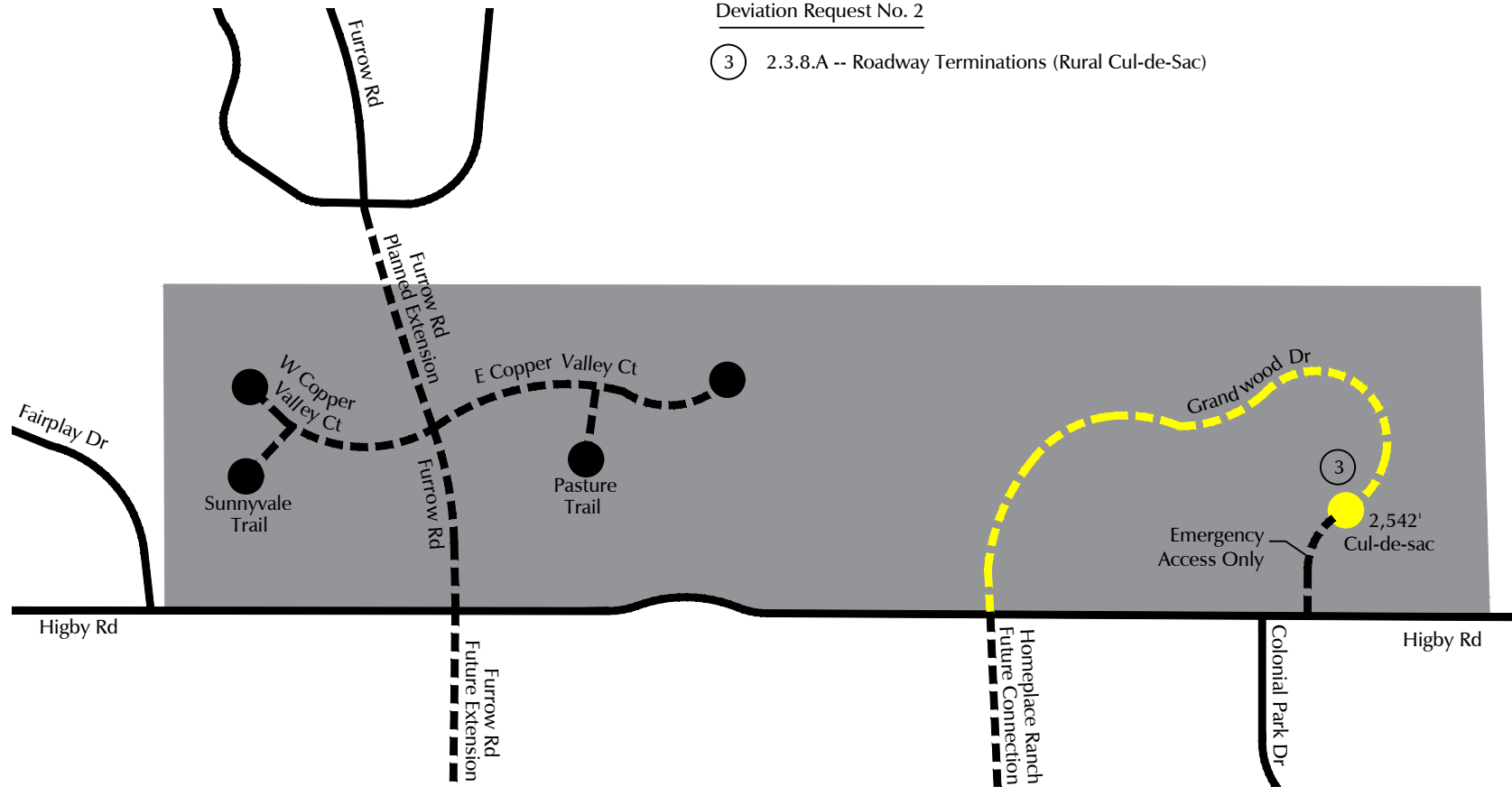
A Deviation Review Fee shall be paid in full at the time of submission of a request for deviation. The fee for Deviation Review shall be as determined by resolution of the BoCC.






Deviation Request No. 2

③ 2.3.8.A -- Roadway Terminations (Rural Cul-de-Sac)



Not to scale

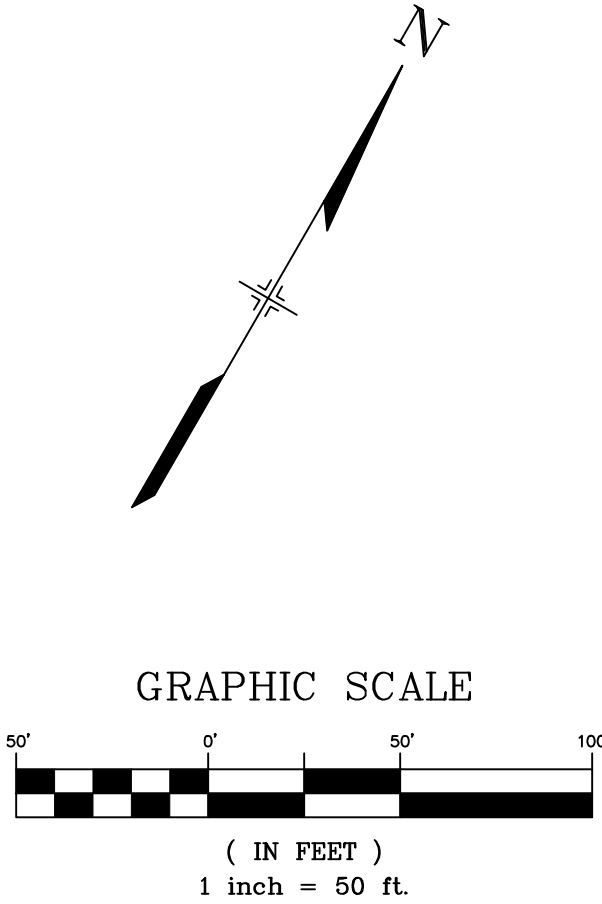
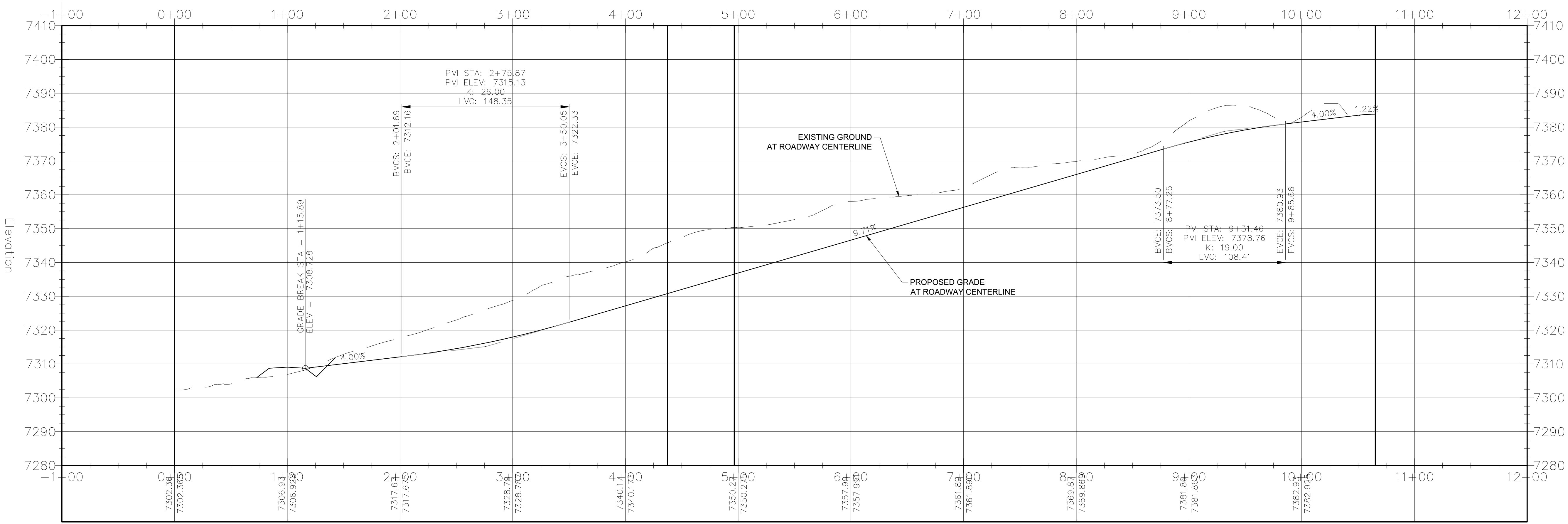
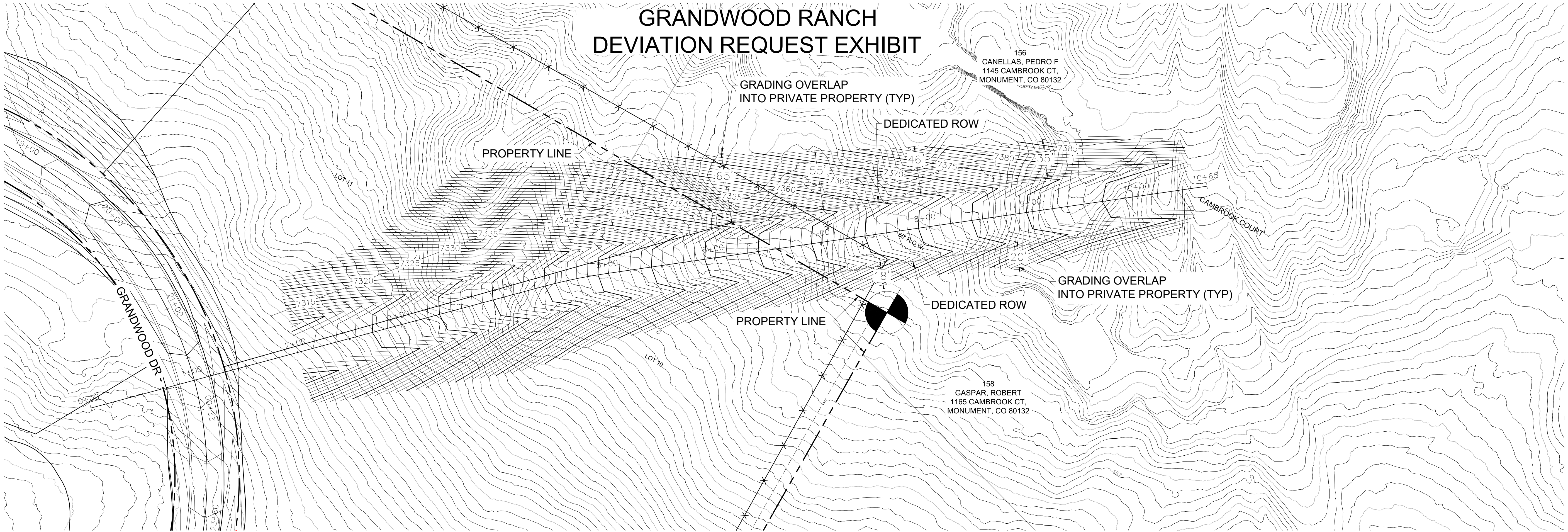


-  Existing roadway
 -  Proposed roadway
 -  Portion of roadway for which deviation is requested
 -  Site property boundary
 -  Proposed length of non-through street
- xxx'



Deviation Exhibit 2
Length of Cul-de-Sac
 Grandwood Ranch (LSC# 185020)

GRANDWOOD RANCH DEVIATION REQUEST EXHIBIT



TRI-LAKES MONUMENT FIRE PROTECTION DISTRICT

16055 Old Forest Point, Suite 103

Monument, CO 80132

Bus: (719) 484-0911 Fax (719) 481-3456



Jamey Bumgarner, Fire Marshal

March 9, 2020

Grandwood Ranch Secondary Access

The letter is to confirm our support for the secondary emergency access into the proposed Grandwood Ranch Subdivision from Higby Road. This proposed location between lots 5 and 6 will provide access to emergency responders during a response to an emergency. The new site will also assist responders during evacuation by giving more direct access if needed.

Should you have additional questions, please feel free to contact me.

Respectfully,

Jamey Bumgarner

Fire Marshal



Planning and Community
Development Department
2880 International Circle
Colorado Springs, Colorado 80910

Phone: 719.520.6300
Fax: 719.520.6695
Website www.elpasoco.com

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Updated: 6/26/2019

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Project Name : Grandwood Ranch
Schedule No.(s) : 6119000003
Legal Description : S2N2, EX PT TO HIGBY RD CONV BY REC# 205092691 W/MR SEC 19-11-66

APPLICANT INFORMATION

Company : Grandwood Enterprises
Name : Bill Herebic
☒ Owner ☐ Consultant ☐ Contractor
Mailing Address : 270 Lodgepole Way
Monument, CO 80232

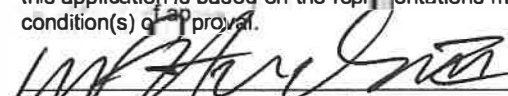
Phone Number : 719-651-9152
FAX Number : N/A
Email Address : Herebic5@msn.com

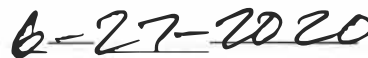
ENGINEER INFORMATION

Company : LSC Transportation Consultants, Inc.
Name : Jeffrey C. Hodsdon
Colorado P.E. Number : 31684
Mailing Address : 2504 E. Pikes Peak Ave
Suite 304
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Phone Number : 719-633-2868
FAX Number : 719-633-5430
Email Address : Jeff@LSCTrans.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

Engineer's Seal, Signature
And Date of Signature



DEV #4

PCD File No. SP-195

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

A deviation from the standards of or in Section **2.3.2** of the Engineering Criteria Manual (ECM) is requested.

Identify the specific ECM standard which a deviation is requested:

2.3.2 Design Standards by Functional Classification

Table 2-5: Roadway Design Standards for Rural Collectors and Locals

Criteria for a Rural Major Collector Roadway

- Design speed/posted speed
- Minimum centerline horizontal curve radius
- Vertical curve K-values
- Design ADT

State the reason for the requested deviation:

Furrow Road is proposed to extend through the Grandwood Ranch development to connect to an existing Major Arterial, Higby Road (consistent with the *2016 Major Transportation Corridors Plan (MTCP) Update*). Due to existing steep and varying terrain, northern and southern connection points that impose restricting geometry, and designated wetlands and Preble mouse habitat a reduced horizontal curve radius and reduced speed limit for a major rural collector is being requested. Additional reasons for the requested deviation include:

- Challenging topography on the site.
- The significant elevation difference south to north across the site, with over 100-feet of fall in elevation from Minglewood Trail to Higby Road, combined with the relatively short, fixed horizontal distance between Furrow/Minglewood and Higby Road and the fixed intersection location of Furrow/Minglewood.
- The goal of preserving as much as possible, the natural land features within the site.

A potential ADT of 5,500 vehicles/day (long-term) instead of 3,000 vehicles/day

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

The following alternatives to Rural Major Collector standards are requested, per criteria in Table 2-5 of the ECM. Please refer to the LSC Exhibit No. 4 and the attached plan & profile exhibit by Matrix Design Group:

- Design speed on Furrow Road of 40 mph instead of 50 mph
- Posted speed limit on Furrow Road of 35 mph instead of 45 mph
- Minimum centerline curve radius of 600 feet instead of the prescribed 930 feet
- Minimum K-value for a collector with a design speed of 40 mph is 44 for crest curves and 64 for sag curves. The proposed K-values for both crest and sag curves along Furrow Road is 42 with stop conditions at the intersection of Higby Road/Furrow Road and Furrow Road/Minglewood Trail.
- Design elements/features often included along higher volume roadways can be incorporated into this design. Horizontal curve warning signs (where necessary), roadside markers for nighttime visibility, shoulder and centerline pavement markings in combination with the proposed standard shoulder and ROW width (which allows for additional sight distance across horizontal curves) will allow this roadway to accommodate a potential ADT of 5,500 vehicles/day (long-term)

The following proposed intersection spacings are covered in Deviation #3 – Intersection Spacing

- Intersection spacing on Furrow Road of 707 feet between Copper Valley Court and Higby Road instead of 1/4-mile
- Intersection spacing on Furrow Road of 879 feet between Copper Valley Court and Minglewood instead of 1/4-mile

Note: This deviation is for the section from the Grandwood property line south to Higby Road. Please refer to the separate deviation prepared by Matrix Design Group for the section of Furrow just north of the Grandwood property line. **For reference only**, the following applies to the section north of the Grandwood property line in order to allow room for the construction of retaining walls and grading operations, a modified Rural Major Collector segment is proposed for the extents of improvements within the existing Timberview Subdivision, Filing 2. The proposed segment replaces the typical roadside swale with curb and gutter to properly convey stormwater runoff and to allow feasible space for retaining wall construction without disturbing adjacent property owners. Curb and gutter will also serve as protection against erosion at the base of the retaining walls. Once the Furrow Road extension reaches the Grandwood Ranch development site, the standard EPC Rural Major Collector cross-section will be assumed for the remainder of the roadway extension.

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 existing speed limit of Furrow Road within Timberview Subdivision (to the north) is 25 mph. Transitioning from the EPC standard of a 40-mph posted speed limit to a 25-mph posted speed limit may be challenging given vertical curve constraints. In addition, as a minor arterial, Higby Road is currently posted at a 35 mph speed limit adjacent to the site. With existing adjacent roadway speed limits, posting the proposed Furrow Road at 35 mph would be consistent with adjacent roadway speed postings and vehicular travel.
- If a horizontal curve radius of 930 feet were to be used (as required for a Major Collector), Furrow Road would have to shift west to incorporate the geometry. Shifting the roadway to create a larger radius would reduce lots west of Furrow Road below the 2.5-acre minimum lot size. This shift would also result in improvements encroaching into designated Preble mouse habitat on the west side of Furrow Road.
- The section of Furrow just north of the Grandwood property line contains several existing horizontal curves, each with horizontal radii between approximately 400' – 500'. Given these radii and 80' ROW, this section to the north through Timberview would not be able to meet the criteria for a Rural Major Collector either. The roadway is currently posted at 25 mph, but following the connection, the County may find it reasonable to repost for a speed limit between 30-35 mph. This would be comparable to or slightly lower than what is proposed for the section through Grandwood.
- Geometry previously shown with a 93-foot horizontal curve radius and 90-foot ROW resulted in public ROW encroaching into existing private lots within Timberview Subdivision. Please reference attached exhibit for further explanation on geometric constraints.
- Existing conditions along the Furrow Road alignment show approximately 113-feet of vertical fall resulting in an average 7% slope. With El Paso County criteria of 4% approach grade for 100-feet and, at a design speed of 40 mph, a K-value of 44 for crest curves and 64 for sag curves, there is not enough horizontal room to allow the vertical design of Furrow Road to meet Criteria completely. The attached exhibits provide a visual of the proposed vertical design with the approved deviation and with attempts at meeting Criteria. Using K-values with the proposed Furrow Road results in short and steep tangent sections between curves that exceed maximum limits and does not allow for proper approach grades at intersections for the required distance.

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 roadway will meet the County's geometric criteria for cross section and ROW width for a Rural Major Collector and design speed and horizontal curvature for a Rural Minor Collector. This roadway will be able to accommodate the projected traffic volumes and will add a significant benefit to the citizens and traveling public in this area – especially long term once the connection from Gleneagle to the south is established.
- The proposed horizontal curve radius (600 feet) exceeds the County's Minor Collector criteria of 565 feet.
- For comparison and perspective of roadway design/criteria for Collector roads, the City of Colorado Springs Engineering Criteria Manual states for a collector, at a design ADT of 1,500 – 5,000, the minimum required horizontal alignment radius is 335-feet with a posted speed limit of 30 mph. The proposed Furrow Road minimum horizontal radius of 600-feet far exceeds City criteria proving to satisfy design and quality improvements. Also, for comparison, the City of Colorado Springs' criteria for a Minor Arterial at a posted speed limit of 40 mph and an ADT of 5,000 – 25,000 requires a minimum radius of 765 feet.
- Posting Furrow Road at 35 mph will be more conducive to surrounding development, existing roadway and vehicular travel.
- The proposed horizontal curve radius and posted speed limit will not obstruct or impede on short- and long-term travel.
- A stop condition at the north and south end of the proposed Furrow Road will reduce travel speeds along Furrow Road and reduce impact of the reduced horizontal curve radius and the slightly reduced K-value on vertical curves. With reduced speed limits and stop conditions at both ends of Furrow Road, design will meet the intent of the Criteria. Reduced vertical curves along Furrow Road will allow the approach criteria to be met and ultimately allow the connection of Furrow Road and Higby Road as planned in the County's MTCP.

The deviation will not adversely affect safety or operations.

- A projected long total ADT of 5,500 vehicles/day (vpd) is projected for this roadway segment. Almost all the traffic would be background traffic and **the resulting background traffic will depend on many factors**. One intersection with light turning volumes is proposed for this section.
- The proposed cross street intersection being constructed with this site will be a minor intersection, and although the spacing is less than ¼ mile, this intersection will not need to be signalized and will have minimal impact on through traffic. Access has been minimized to the extent possible. As such, there will be minimal interference to the background traffic traveling through this subdivision.
- Horizontal curve warning signs (where necessary), roadside markers for nighttime visibility, shoulder and centerline pavement markings in combination with the standard shoulder and ROW width (which allows for additional sight distance across horizontal curves) will allow this roadway to accommodate a potential ADT of 5,500 vehicles/day (long-term) despite the lower design speed.
- The “design ADT” for the rural major collector is a guideline and does not indicate that higher ADT cannot be accommodated with respect to roadway volume carrying capacity
- The horizontal alignment proposed will be consistent with the proposed design speed. The proposed lower design speed is appropriate given the proposed horizontal geometry achievable given the topography, the intersection spacing and horizontal alignment of Furrow Road to the north through Timberview. It is also appropriate considering the given the grades. El Paso County has varying terrain. While the standard design speed of a Rural Major Collector in Ellicott, for example, may be easy to achieve in different parts of the County, this topography and character of this area is significantly different from the eastern plains and is surrounded by neighborhoods.
- A “sharp curve ahead” sign could be installed in advance of the horizontal curve in question on Furrow Road.
- Both ends of the proposed Furrow Road are stop conditions. Stop conditions at Higby Road and Minglewood Trail and steep grads along Furrow Road will create a condition that inhibits excessive speeds and promote safer vehicular travel north and south. Stop conditions and reduced speeds do not result in adverse affects due to a reduced horizontal curve radius and K-value for vertical curves.
- Reduced K-values for vertical curves for Furrow Road will allow the approach grade criteria to be met which will provide safe travel while approaching intersections along Furrow Road.
- The reduction in crest curve k-value is extremely minor and will not affect safety or operations of passengers traveling over crest curves. The reduction in sag curve K-vale will not adversely affect safety and operations with reduced speeds and stop conditions surrounding the proposed road. Speeds will further be reduced with “sharp curve ahead” signage and further reduce any impacts that might result in reduced K-value for sag curves. A two-way stop condition will be provided along Copper Valley Court as well.

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

The deviation requests will not adversely affect maintenance cost for the following criteria for a Rural Major Collector roadway (per ECM Table 2-5: Roadway Design Standards for Rural Collectors and Locals):

Design speed/posted speed

- The design speed/posted speed is not anticipated to affect maintenance costs. The lower speeds would not affect the ability of County maintenance vehicles and snowplows to complete their work.

Horizontal and Vertical Geometry

- The horizontal and vertical geometry design would not affect the ability of County maintenance vehicles and snowplows to complete their work. Vertical and horizontal curves are near design criteria and does not create extreme conditions for maintenance.

Design ADT

- A higher projected ADT has the potential to increase the ESAL value and affect pavement design. An ADT of 5,500 is in the range of a rural Minor Arterial. This should be considered when completing the pavement design.

Intersection spacing criteria

Deviating from the ECM's intersection spacing criteria will not affect maintenance costs on the subject roadways

The deviation will not adversely affect aesthetic appearance.

- The aesthetic appearance will not be adversely affected, as the roadway will be paved, with County and MUTCD standard pavement markings that would be consistent with County roads.
- The deviation would result in significantly better aesthetic appearance than a resulting road built to all Major Collector standards as the amount of grading and disturbance of the topography would result in significantly higher impact. See attached plan & profile exhibit by Matrix Design Group.

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

- Proposed modifications to the above-referenced design elements of the Rural Major Collector classification would be appropriate for this particular section of Furrow Road.
- Horizontal curve warning signs (where necessary), roadside markers for nighttime visibility, shoulder and centerline pavement markings in combination with the standard shoulder and ROW width (which allows for additional sight distance across horizontal curves) will allow this roadway to accommodate a potential ADT of 5,500 vehicles/day (long-term) despite the lower design speed. The "design ADT" for the rural major collector is a guideline and does not indicate that higher ADT cannot be accommodated with respect to roadway volume carrying capacity.
- The projected future potential ADT will be accommodated by the proposed Furrow Road design. The proposed horizontal curve and speed limit will not limit conveyance through the site.
- The horizontal and vertical alignment proposed will be consistent with the proposed design speed and stop conditions. The proposed lower design speed is appropriate given the proposed horizontal and vertical geometry achievable given the topography, the intersection spacing and horizontal alignment of Furrow Road to the north through Timberview. It is also appropriate considering the given the existing grades. El Paso County has varying terrain. While the standard design speed of a Rural Major Collector in Ellicott, for example, may be easy to achieve in different parts of the County, this topography and character of this area is significantly different from the eastern plains and is surrounded by neighborhoods.

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.

The requested deviation meets control measure requirements of the MS4 Permit. Grading and Erosion Control Plans and SWMP Report will provide protection of existing conditions and erosion control measures per standards.

REVIEW AND RECOMMENDATION:

Approved by the ECM Administrator

This request has been determined to have met the criteria for approval. A deviation from Section 2.3.2 of the ECM is hereby granted based on the justification provided.

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DEV #4

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APPROVED
Engineering Department

09/10/2020 5:13:43 PM

dsdnijkamp

**EPC Planning & Community
Development Department**

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:

Construction documents shall include the signs and markings as recommended to mitigate the impacts of this deviation.

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

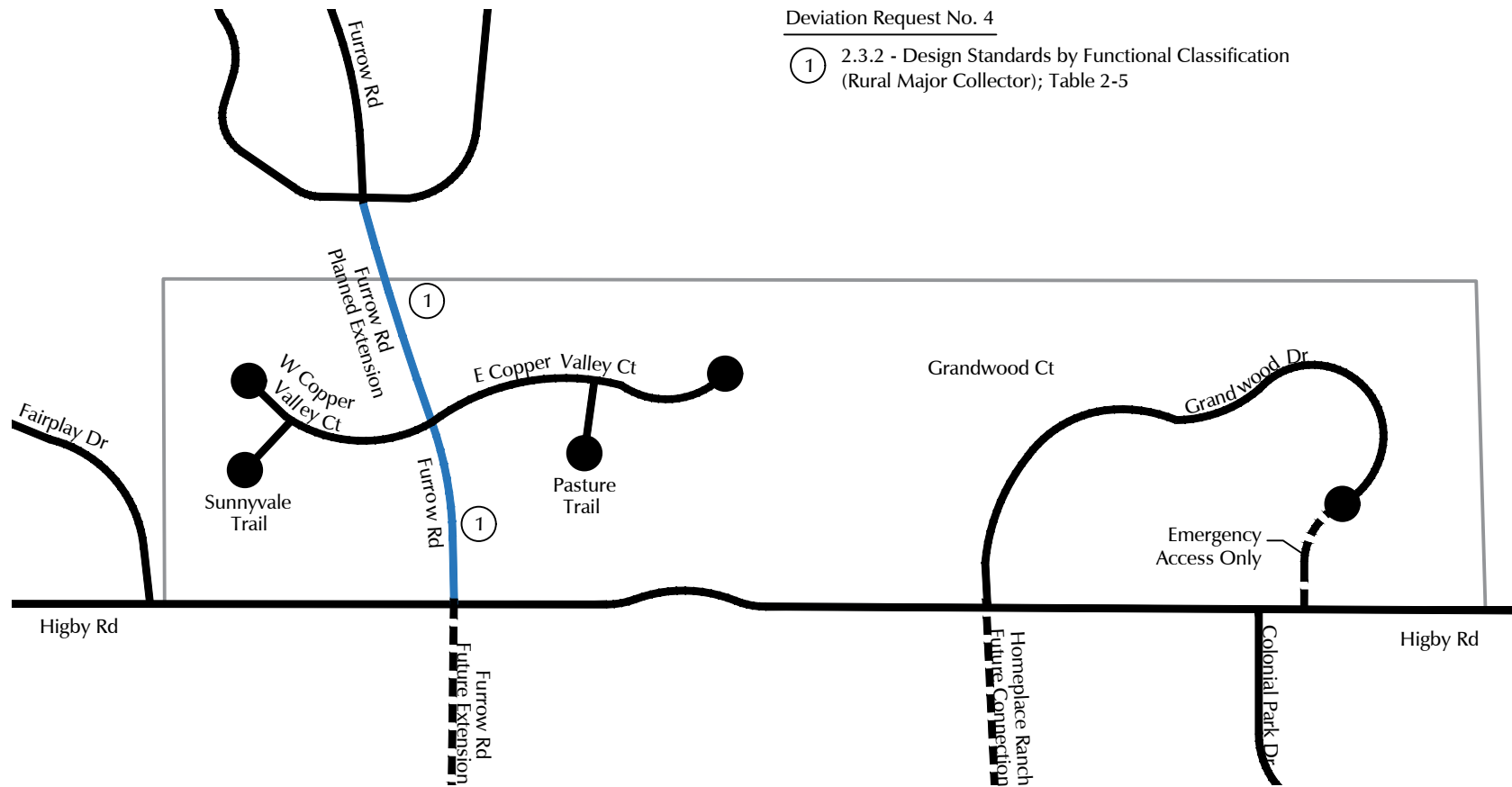
A Deviation Review Fee shall be paid in full at the time of submission of a request for deviation. The fee for Deviation Review shall be as determined by resolution of the BoCC.

Deviation Request No. 4

① 2.3.2 - Design Standards by Functional Classification
(Rural Major Collector); Table 2-5



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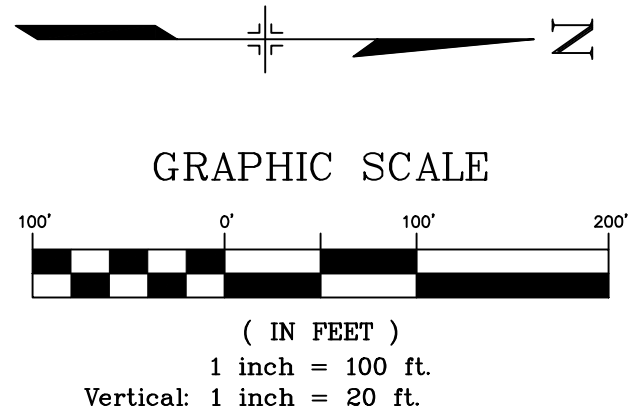
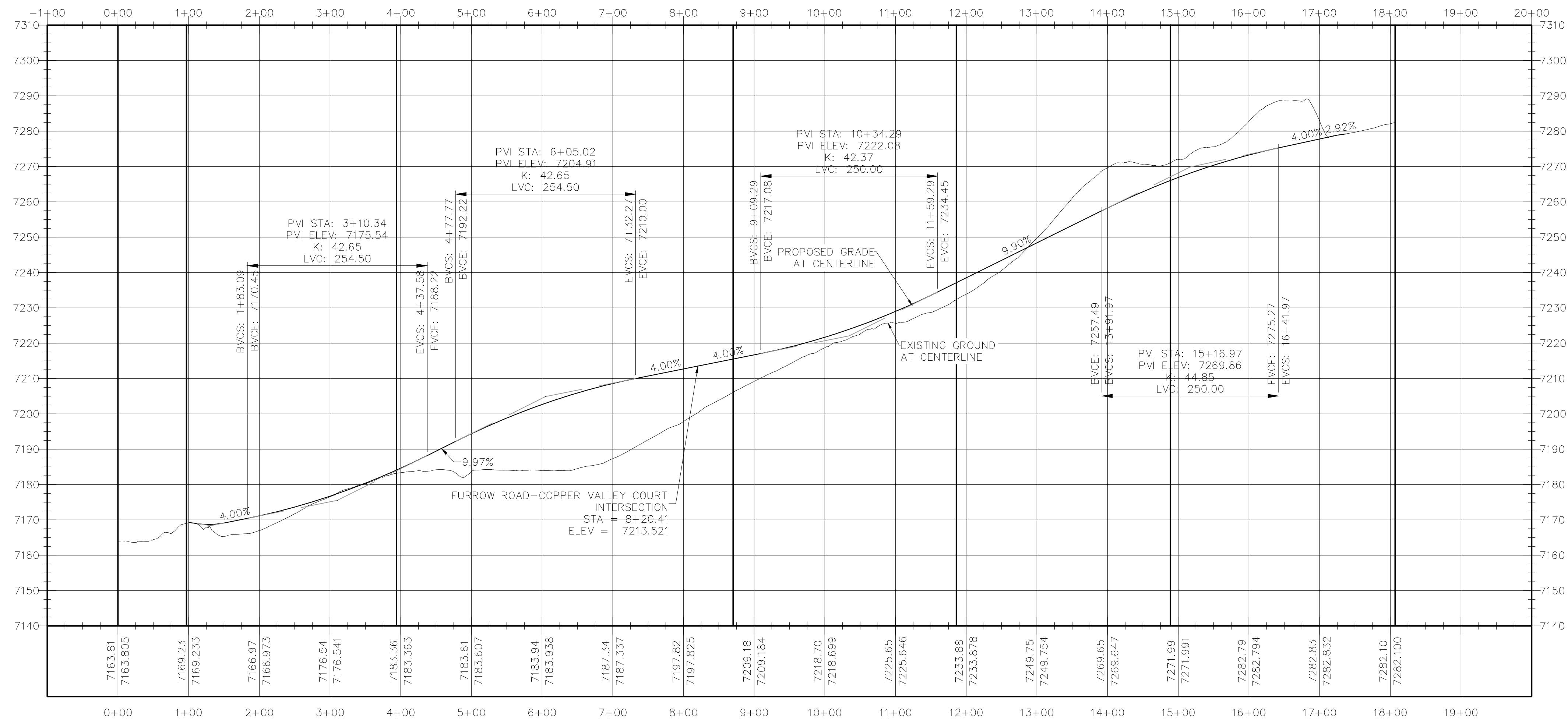
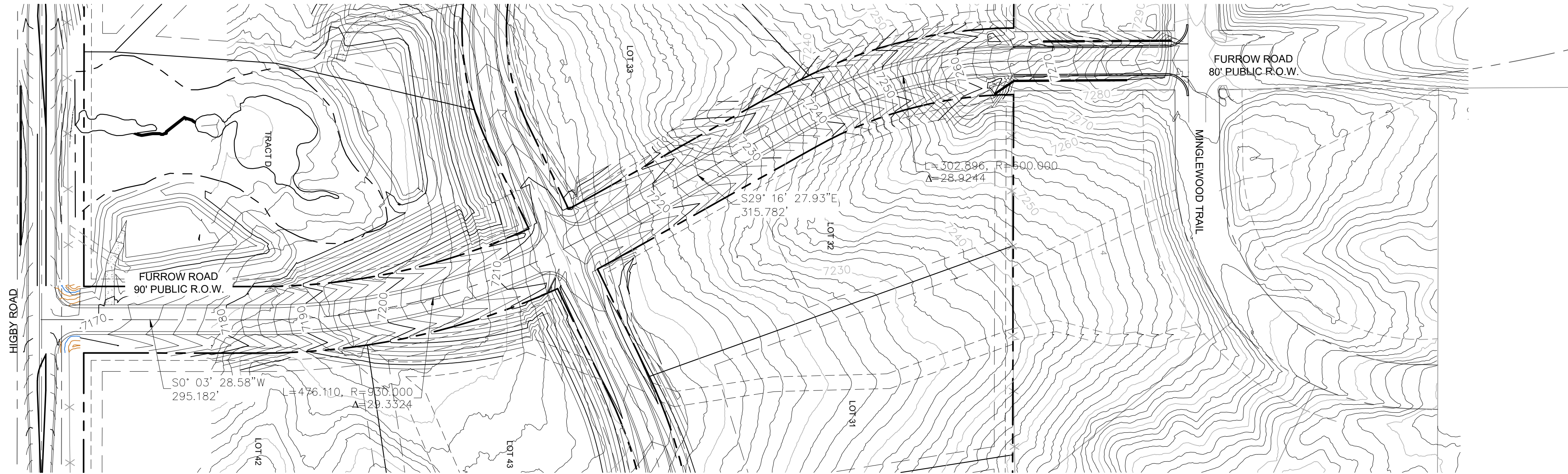


- Existing roadway
- - - Proposed roadway (including future roadways by others)
- Portion of roadway for which deviation is requested
- - - Site property boundary

Rural Major Collector Design Standards

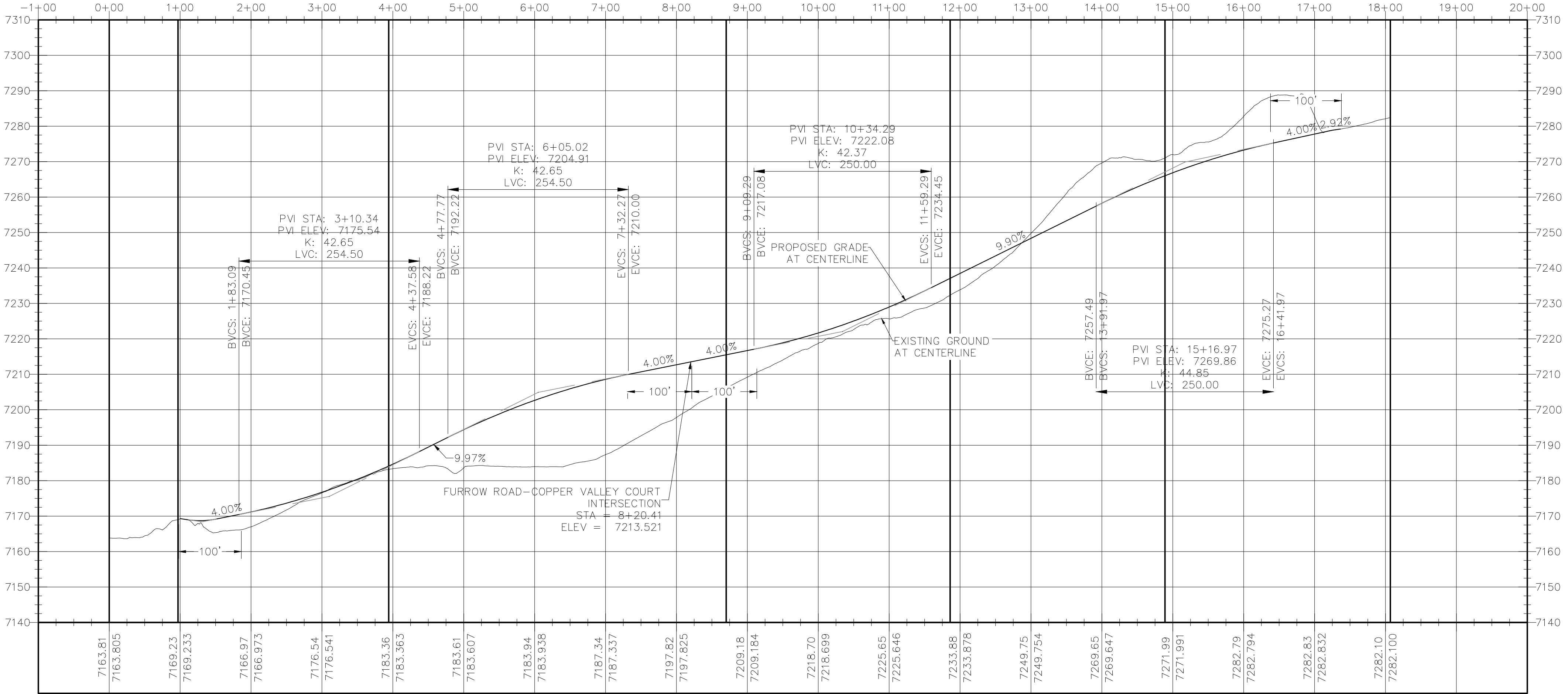
Deviation Exhibit 4
Grandwood Ranch (LSC# 185020)

GRANDWOOD RANCH - FURROW ROAD
DEVIATION REQUEST EXHIBIT

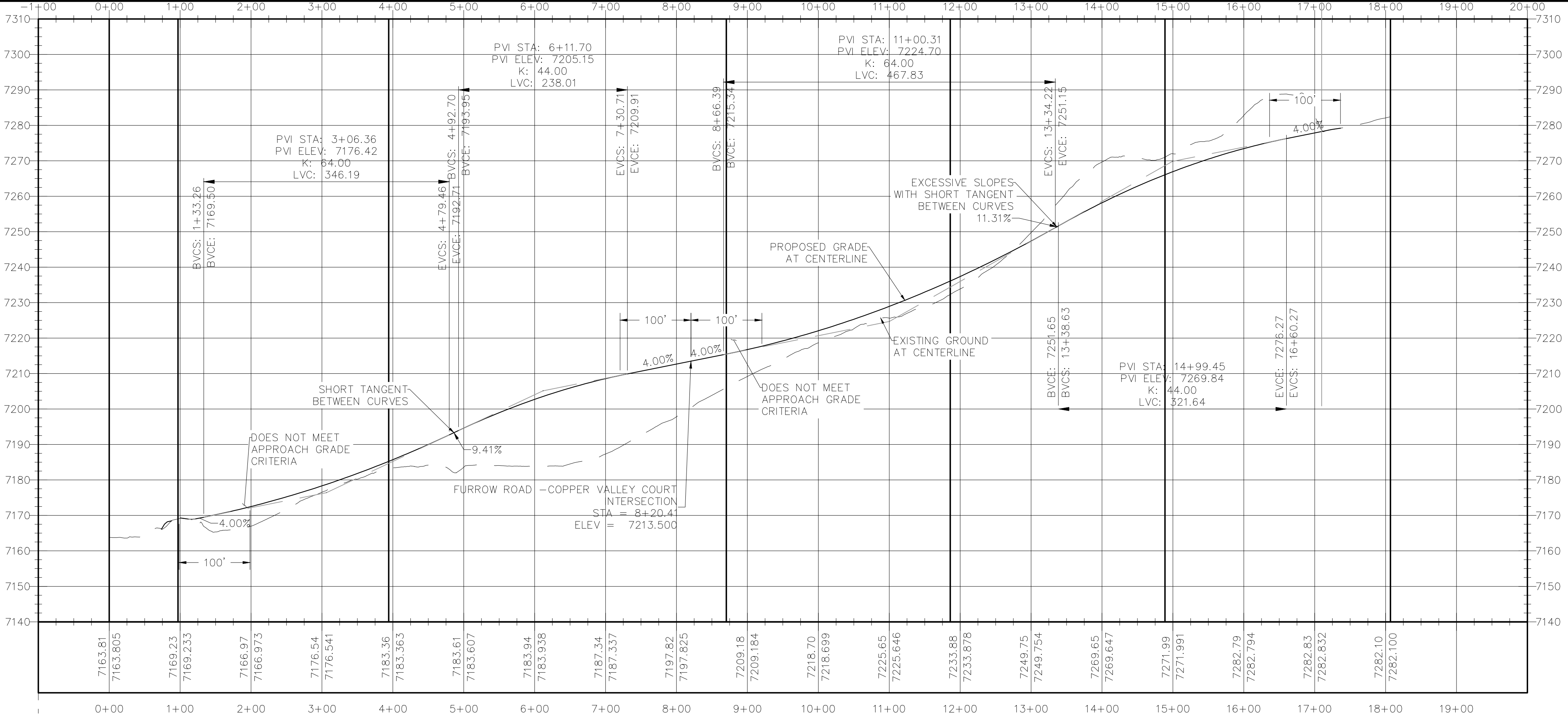


GRANDWOOD RANCH - FURROW ROAD
VERTICAL CURVE DEVIATION REQUEST EXHIBIT

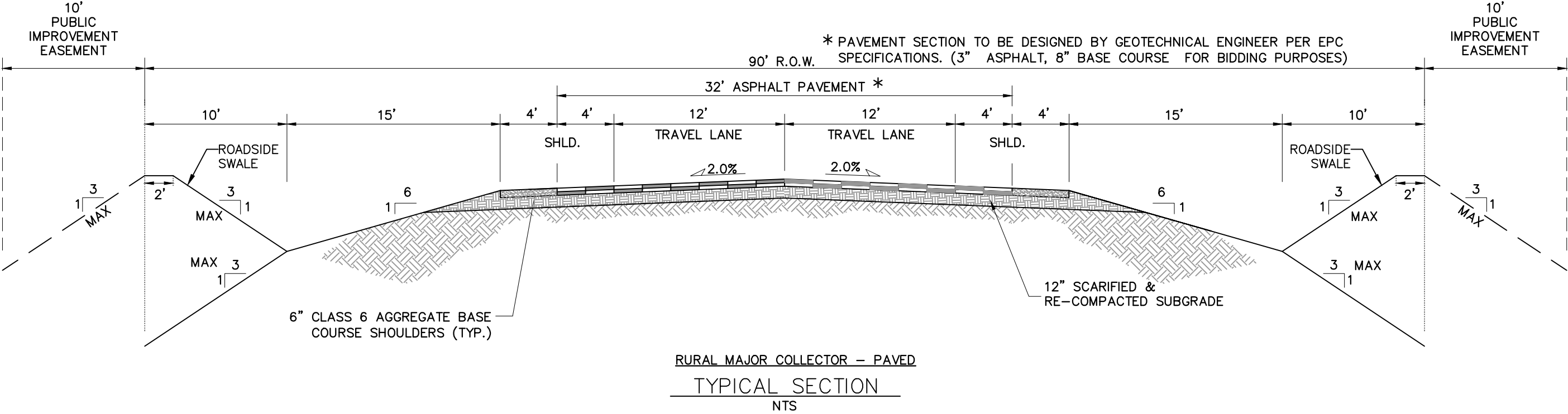
FURROW ROAD PROFILE
PROPOSED K-VALUES

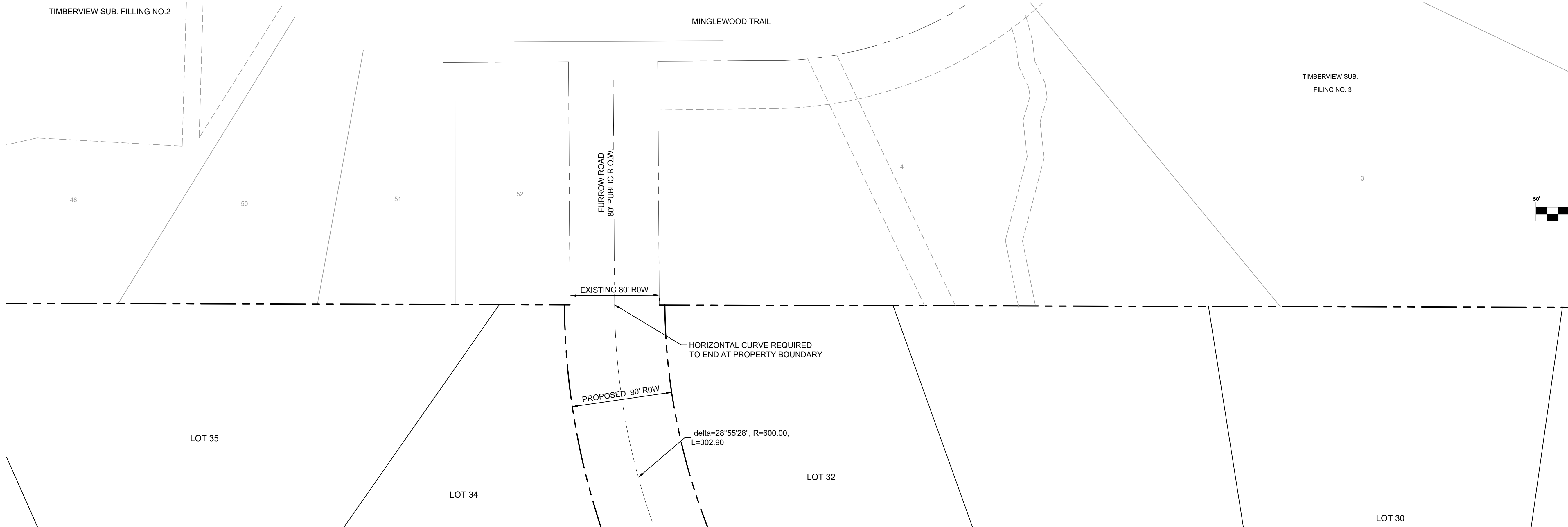


FURROW ROAD PROFILE
K-VALUES PER CRITERIA

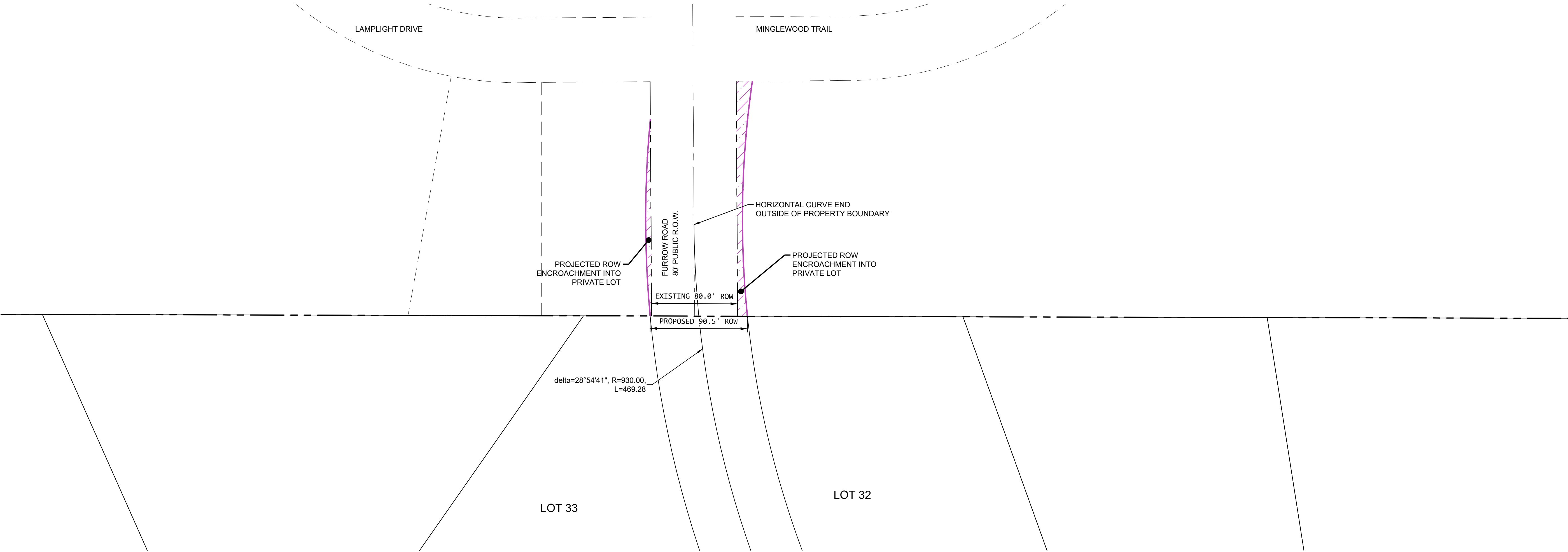


GRANDWOOD RANCH - FURROW ROAD SECTION
DEVIATION REQUEST EXHIBIT

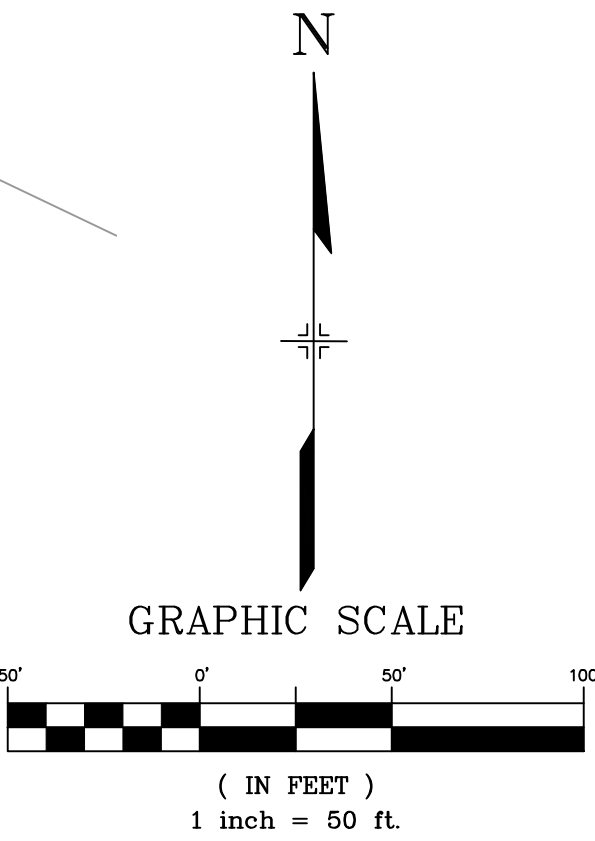




FURROW ROAD - CURRENT PROPOSED IMPROVEMENTS GEOMETRY



FURROW ROAD - PREVIOUSLY PROPOSED IMPROVEMENTS GEOMETRY





Planning and Community
Development Department
2880 International Circle
Colorado Springs, Colorado 80910

Phone: 719.520.6300
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DEVIATION REQUEST AND DECISION FORM

Updated: 6/26/2019

PROJECT INFORMATION

Project Name : Grandwood Ranch
Schedule No.(s) : 6119000003
Legal Description : S2N2, EX PT TO HIGBY RD CONV BY REC# 205092691 W/MR SEC 19-11-66

APPLICANT INFORMATION

Company : Grandwood Enterprises
Name : Bill Herebic
☒ Owner ☐ Consultant ☐ Contractor
Mailing Address : 270 Lodgepole Way
Monument, CO 80232

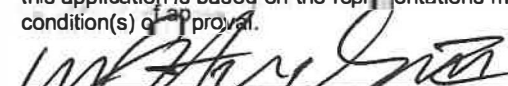
Phone Number : 719-651-9152
FAX Number : N/A
Email Address : Herebic5@msn.com


ENGINEER INFORMATION

Company : LSC Transportation Consultants, Inc.
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Suite 304
Colorado Springs, CO 80909
Phone Number : 719-633-2868
FAX Number : 719-633-5430
Email Address : Jeff@LSCTrans.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

Engineer's Seal, Signature
And Date of Signature



DEV #3

PCD File No. SP-195

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

A deviation from the standards of or in Sections **2.2.5.B and 2.2.5.D** of the Engineering Criteria Manual (ECM) is requested.

Identify the specific ECM standard which a deviation is requested:

2.2.5.B and 2.2.5.D (Roadway Access Criteria – Rural Minor Arterial and Collector Access Standards),
2.3.2 (Design Standards by Function Classification)

Standard 2.2.5.B and 2.2.5.D (Roadway Access Criteria – Rural Minor Arterial and Rural Major Collector Access Standards, respectively) requires intersection spacing of 1/4-mile (1,320 feet). This standard is also reflected in the ECM Tables 2-4 and 2-5 (Roadway Design Standards for Rural Expressways and Arterials and Rural Collectors and Locals, respectively).

State the reason for the requested deviation:

Higby Road

This deviation would allow for the future Furrow Road connection to be located a reasonable distance east of Fairplay Drive and west of the proposed Grandwood Drive access while taking into account challenging topographical constraints along Higby Road. It is our understanding that the intersection location of Higby/Furrow is the result of working with the property owner on the south side of Higby Road.

Furrow Road

Access is needed for the development and Furrow Road is a lower classification than Higby Road.

The spacing is a function of the relatively short fixed distance between the Furrow/Minglewood intersection and Higby Road.

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

The standard requires intersection spacing of 1/4-mile (1,320 feet) back from the ROW line of an arterial street.

- The centerline of Grandwood Drive/Higby Road would be 980 feet west of the Higby Road/Colonial Park Drive intersection
- The centerline of the Furrow Road/Higby Road intersection would be 1,180 feet east of the intersection of Higby Road/Fairplay Drive
- The centerline of the Furrow Road/Copper Valley Court intersection would be 707 feet north of the intersection of Furrow Road/Higby Road
- The centerline of the Furrow Road/Copper Valley Court intersection would be 879 feet south of the intersection of Furrow Road/Minglewood Trail/Lamplight Drive

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:

Grandwood Drive

This location is appropriate as, although short of the ECM 1,320-foot spacing criteria from Colonial Park Drive, this proposed eastern access location (Grandwood Drive) would maximize the distance possible from Colonial Park Drive and the vertical/horizontal curve constraints to the west (with associated short sight distances, as shown in the plan and profile drawings). Also, this access would align with the planned connection from Home Place Ranch. A copy of the Home Place Ranch layout is unavailable at this time.

Copper Valley Court

Due to the existing linear distance between Higby and Minglewood Trail, it is not possible to place an intersection both ¼ mile from Higby Road and ¼ mile from Minglewood Trail. The intersection has been placed approximately halfway between the two. This selected location allows for a sufficient separation distance from Higby Road while creating the best possible scenario with respect to centerline roadway grades and intersection approach grades, given the change in elevation between the current south end of Furrow Road and Higby Road. The roadway grade shown is less than 10 percent and the intersection approach grades are not shown to exceed four percent. No auxiliary turn lanes are required at this intersection and the sight distance can be met.

Furrow Road

A future Furrow Road intersection location at the standard ¼ mile spacing from Fairplay Drive is NOT recommended due to topography and roadway grades. The field-measured existing grade on Higby Road at the proposed Furrow Road extension is about 6.5 percent at the access centerline. West of Furrow Road, the grade is moderate to about 3.5 percent on the eastbound intersection approach (grade moderates as the distance west from the intersection increases). East of Furrow Road (on the westbound approach to the intersection), the grade is about 10.5 percent (shown in Deviation Exhibit 3). Directly west of the proposed Furrow Road intersection is designated wetlands and Preble mouse habitat. The proposed Furrow Road intersection has been coordinated and agreed upon with the development south of Higby Road (Home Place Ranch).

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.

Grandwood Drive

Although short of the ECM 1,320-foot spacing criteria, the proposed eastern access location (Grandwood Drive) would maximize the distance possible from Colonial Park Drive and the vertical/horizontal curve constraints to the west.

Copper Valley Ct.

Due to the existing linear distance between Higby and Minglewood Trail, it is not possible to place an intersection both 1/4 mile from Higby Road and 1/4 mile from Minglewood Trail. The intersection has been placed approximately halfway between the two.

Furrow Road

Although short of the ECM 1,320-foot spacing criteria, the proposed Furrow/Higby intersection location would maximize the distance possible from Fairplay Drive while also taking into consideration vertical and horizontal curve sight distance constraints to the east. With wetlands and wildlife habitat, steep grades to the east, and the adjacent development to the south the proposed intersection of Furrow Road and Higby Road is the most ideal to preserve natural designated space, create a safe and operation intersection with sight distance and grades, and cooperate with adjacent development.

The deviation will not adversely affect safety or operations.

Grandwood Drive

With a 35-mph posted speed limit on Higby Road (design speed of 40 mph), the field-measured sight distances for both approaches from the proposed east site access location (Grandwood Drive) exceeds the required 445-foot requirement for passenger vehicles per ECM Table 2-21. The field-measured sight distance looking to the west from Grandwood Drive is 645 feet, while the field-measured sight distance looking to the east from Grandwood Drive is 1,990 feet. Both measurements meet ECM standards for sight distance. If the Grandwood Drive intersection were located to meet County Criteria, existing terrain and grades of Higby Road would not allow sight distance requirements to be met. The proposed intersection location will provide safer vehicular travel due to existing conditions of Higby Road.

Copper Valley Ct.

This selected location allows for a sufficient separation distance from Higby Road while creating the best possible scenario with respect to centerline roadway grades and intersection approach grades, given the change in elevation between the current south end of Furrow Road and Higby Road. The roadway grade shown is less than 10 percent and the intersection approach grades are not shown to exceed four percent. No auxiliary turn lanes are required at this intersection and the sight distance can be met.

Furrow Road

Based on the spot-grades along Higby Road east of the proposed west site access point (Furrow Road), the prescribed stopping sight distance is 333 feet (downgrade of approximately six percent). With a 35-mph posted speed limit on Higby Road (design speed of 40 mph), the field-measured sight distances for both approaches from the proposed Furrow Road extension exceeds the required 445-foot requirement for passenger vehicles per ECM Table 2-21. The field-measured sight distances from the proposed Furrow Road/Higby Road intersection are 1,302 feet and 650 feet while looking to the west and to the east, respectively. Both measurements meet ECM standards for sight distance.

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

The spacing will not affect the maintenance cost as the spacing will not negatively affect the ability for snowplow and maintenance vehicles to enter and exit these side streets with adequate sight distances provided at the proposed intersection locations.

The deviation will not adversely affect aesthetic appearance.

The spacing will not affect the aesthetics. The spacing is not short to the extent that affects the general appearance of the road corridor. The spacing will be consistent with other intersections in the area, avoid hidden intersections, and avoid disturbing wetlands and wildlife habitat.

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

Grandwood Drive

The proposed eastern access location (Grandwood Drive), although short of the ECM 1,320-foot spacing criteria, would maximize the distance possible from Colonial Park Drive and the vertical/horizontal curve constraints to the west.

Copper Valley Ct.

This selected location allows for a sufficient separation distance from Higby Road while creating the best possible scenario with respect to centerline roadway grades and intersection approach grades, given the change in elevation between the current south end of Furrow Road and Higby Road. The roadway grade shown is less than 10 percent and the intersection approach grades are not shown to exceed four percent. No auxiliary turn lanes are required at this intersection and the sight distance can be met.

Furrow Road

The proposed Furrow Road/Higby intersection, although short of the ECM 1,320-foot spacing criteria, would maximize the distance possible from Fairplay Drive and the vertical/horizontal curve sight distance constraints to the east.

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.

The requested deviation meets control measure requirements of Part I.E.3 and Part I.E.4 of the MS4 Permit. Grading and Erosion Control Plans and SWMP Report will provide protection of existing conditions and erosion control measures per standards.

REVIEW AND RECOMMENDATION:

Approved by the ECM Administrator

This request has been determined to have met the criteria for approval. A deviation from Section 2.2.5B, D of the ECM is hereby granted based on the justification provided.

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DEV #3

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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:

The developer shall be responsible for any mitigation that may be needed on Higby Road in the form of sight visibility issues that may arise from adding a public street connection.

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

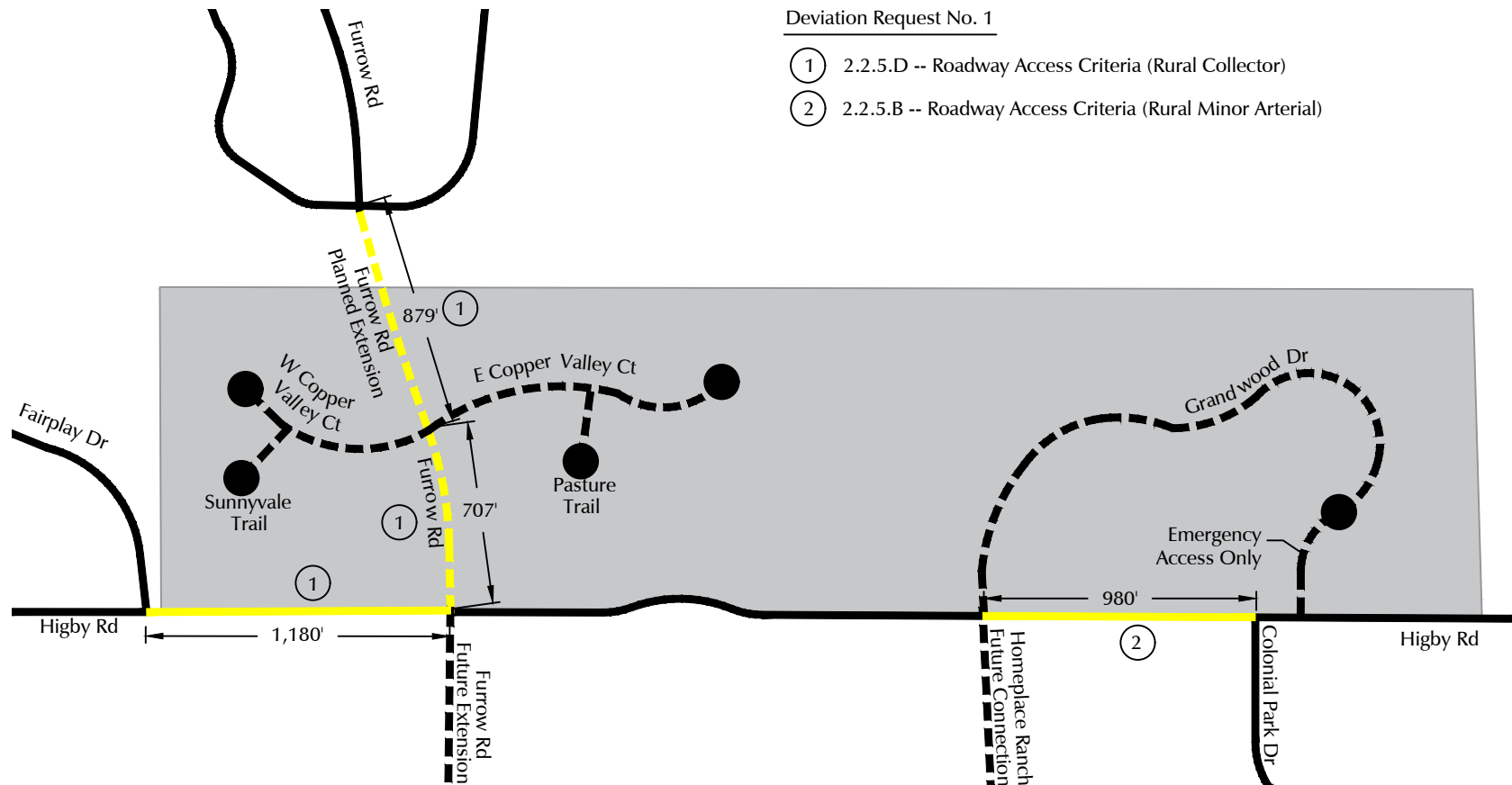
Whether a request for deviation is approved as proposed or with conditions, the approval is for project-specific use and shall not constitute a precedent or general deviation from these Standards.

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.

Deviation Request No. 1

- ① 2.2.5.D -- Roadway Access Criteria (Rural Collector)
- ② 2.2.5.B -- Roadway Access Criteria (Rural Minor Arterial)



- Existing roadway
- - - Proposed roadway (including future roadways by others)
- Portion of roadway for which deviation is requested
- Site property boundary
- ← xxx' → Intersection centerline spacing

Deviation Exhibit 1
Proposed Intersection Spacing
 Grandwood Ranch (LSC# 185020)

GRANDWOOD RANCH
DEVIATION REQUEST EXHIBIT

