FALCON FIELD

PRELIMINARY PLAN

PROJECT STATEMENT

JANUARY 2021

PROPERTY OWNER:
Falcon Field LLC
3230 Electra Drive
Colorado Springs, CO 80906

CONSULTANT:
N.E.S. Inc.
619 North Cascade Avenue,
Colorado Springs, CO 80903

LOCATION & DESCRIPTION

The property is located directly east of the Woodmen Road and Highway 24 Intersection. The sites are currently vacant and zoned RR-5. The proposal addresses the two parcels (4307000001 & 4307200015) directly south of Rio Lane. Parcel 4307000001 is a 33.14-acre parcel & 4307200015 is a 24.53-acre parcel. Access to the site currently is off of Rio Lane and access changes and improvements will be addressed further with future land use applications. The existing topography slopes generally to the south with a smaller portion in the middle near the intersection of Woodmen and Highway 24, sloping to the southwest. The northern most 33.14-acre parcel contains a Zone A Floodplain designation going southeast through the site. Future efforts will address a floodplain map revision and formal CLOMR/LOMR to address channel improvements.

REQUEST

Falcon Field LLC is requesting approval of the following applications:

1. A Preliminary Plan for Falcon Field, consisting of 20 mixed use commercials lots and open space, approximately 58 acres.
2. A Pre-development Grading Approval
3. The following Deviations for the Falcon Field Preliminary Plan

	ECM Section	Category	Standard	Modification	Justification
1	ECM Section 2.2.5D &2.3.2	Collector Access Standards	On major collector roadways, the closest local roadway intersection to an arterial roadway shall be 660 feet (right-of-way line of arterial to centerline of local roadway)	Intersection spacing of approximately 585 feet between the US Highway 24/Woodmen Road intersection and the new intersection with Rio Lane. Please refer to the attached Deviation Exhibit B.	Adequate pedestrian accessibility is provided on both sides of the ROW with proper access ramps at the southern intersection. There are no Federal ADA maximum distances allowed between pedestrian crossing along street that would necessitate midblock pedestrian ramps. The development has a focus on the trail system that meanders in an out of open space and local park space, the desire is to encourage the use of the trails instead of the interior
2	ECM Section 2.3.8.A	**Access to Collector Streets**	This criterion indicates that single-family residence access to major collector roadways is not permitted.	Commercial access is requested to an Urban Non-Residential Collector.	The deviation is requested primarily as no direct access will be allowed to US Highway 24. The Pinto Pony Road right-of way will not be used due to impacts to residents. Non-Residential Collector streets are proposed to provide access to this development and the adjacent parcel to the west and provide for a replacement Rio Lane connection to US Highway 24 to the Woodmen/US Highway 24 intersection per the US 24 Access Management Plan. This deviation is needed to provide access to the parcels from the proposed Non-Residential Collectors. This deviation would allow for the parcel access.
3	ECM Section 2.3.7.D.1	**Turn Lane Lengths**	Turn Lane taper lengths.	The deviation request is to allow an abbreviated bay taper length at the access west of the roundabout.	The request is based on the results of the TIS queuing analysis, the proposed site-specific conditions with the roundabout (eliminating the need for back-to-back left-turn lanes between the access points and the roundabout).

4	ECM Section 2.2.4.B.4	**Design Standards by Functional Classification**	Urban Roadway Cross Section Standards	The deviation request is for a narrower right of way and modified/narrower street width with sidewalk only on the west side of the street	This request is related to the location of the proposed roundabout and the roundabout geometry on the south leg of the roundabout. the full-width Non-residential Collector would be unnecessary with commercial development only on the west side of this street. The ECM does not include a "commercial local" type street classification and standard

Section 5.8 of the ECM establishes an additional mechanism whereby an engineering design standard can be modified provided the limits of consideration in ECM Section 5.8.6 are met and the modifications meets the criteria for approval in ECM Section 5.8.7.

PROJECT JUSTIFICATION

a. County Policy Plan, Water Master Plan and Small Area Plan Compliance

Falcon Field is identified as part of the Approved Development Pattern within the Falcon/Peyton Small Area Plan. As such it accords with the goals of the plans to meet corridor improvement plans for growth and access to goods and services in this area.

The proposed mixed-use commercial subdivision satisfies the following policies of the County Policy Plan:

County Master Plan Policy 5.1.9
Encourage appropriate economic development in rural areas of the County as a means of providing local employment opportunities, increasing community tax base, and reducing long commutes.

The proposed development implements access to additional commercial mixed-used employment opportunities on this side of Highway 24. This use provides improved access to goods and services to the area and addresses the needed infrastructure for such.

County Master Plan Policy 6.1.4
Encourage the logical timing and phasing of development to allow for the efficient and economical provision of facilities and services.

The proposed preliminary is adjacent to existing development, utilities and major arterial roadways providing needed access and provisions for facilities and services.

County Master Plan Policy 6.3.4
Commercial, office, industrial and, residential development should be compatible with surrounding land uses in terms of scale, intensity and potential impacts.

The proposed development follows the goals of the small area plan and intends to provide proper transitional uses and buffers addressing all potential impacts for the adjacent uses. Additional access and drainage improvements lessen and ultimately improve the impacts of the area not yet seen for this area.

County Master Plan Policy 6.4.6
Allow for the accommodation of necessary supporting commercial uses within or in proximity to rural residential areas in a manner that preserves the rural character of these areas.

The proposed use addresses a proposed development intent envisioned to be a strong growth node for good and services east of Highway 24. Proper buffering and transitional uses aim to preserve, protect and enhance the adjacent rural character in the area.

Falcon/Peyton Small Area Plan Policy 3.5.1
Recommend land use patterns that make efficient use of existing transportation infrastructure and limit the cost of future extensions and upgrades.

The proposed plan brings improvements to the corridor that meet the standards of the County ECM but more important to the area implement CDOT US Highway 24 Linkage Study Improvements. In particular, this project eliminates an unsignalized intersection at Rio Lan and Highway 24 as envisioned by CDOT's long range plans.

Falcon/Peyton Small Area Plan Policy 3.5.6
Balance long term transportation infrastructure needs with current requirements.

The proposed development and provided traffic study address needs of the development infrastructure requirements timing for the proposed uses and addresses projected 20-year background volumes and impacts.

Falcon/Peyton Small Area Plan Policy 3.5.7
Ensure the coordination of land use and transportation planning.

A proper Traffic Impact Study has been provided addressing the uses and impacts for such.

Falcon/Peyton Small Area Plan Policy 4.4.5.1
Allow for potential commercial development south of Highway 24 near its intersection with Woodmen Road, provided that adequate transportation improvements are made, utility extensions can be made, and adjoining existing land uses are adequately buffered.

The proposed development meets the intent for commercial development south of highway 24 and provided adequate improvements in the way of utilities and transportation needs. Buffering is provided for the adjacent properties to the east and south of the subject property.

The proposed residential subdivision satisfies the following policies of the County Water Master Plan:

Policy 5.2.4 – Encourage the locating of new development where it can take advantage of existing or proposed water supply projects that would *allow shared infrastructure costs.*

The proposed subdivision is located within the Woodmen Hills Metropolitan District (WHMD) and a supportive Will Serve Letter noting the Districts ability to serve the proposed development in an efficient manner with the current infrastructure has been provided.

Policy 5.5.1 – Discourage individual wells for new subdivisions with 2.5 acre or smaller average lot sizes, especially in the near-surface aquifers, when there is a reasonable opportunity to connect to an existing central system, alternatively, or construct a new central water supply system when the economies of scale to do so can be achieved.

The proposed development is located within the WHMD and is proposed to connect to the existing central water and wastewater. Will Serve Letters have been provided for the proposed development.

Policy 6.0.1 – Continue to require documentation of the adequacy or sufficiency of water, as appropriate, for proposed development.

An appropriate Will Serve Letter has been provided noting the WHMD ability to serve the noted subdivision adequately and noting their current capacities to serve.

The project is located within Region 3, Falcon Area, containing 4 growth areas projected to be completed by 2040, three areas to be completed by 2060, and two other growth areas located on the north and south sides of Falcon Highway directly east of Falcon. Specifically, the Water Master Plan states:

"Region 3 contains four growth areas west of Falcon projected to be completed by 2040. Other areas of 2040 growth are projected for the north-central part of the region west of Highway 24 extending from Falcon to 4-Way Ranch. North of Falcon along Highway 24, growth is projected by 2060 on both sides of the highway. Just west of Falcon, another small development is projected by 2060 on the north and south sides of Woodmen Road. On the east side of Highway 24, three separate areas of growth are projected for development by 2060, with the largest of the three spanning from south of Judge Orr Road to east of Peyton Highway into Region 4c. This development will likely consist of 35-acre lots that will require individual wells to use Denver Basin groundwater. The other two growth areas will be located on the north and south sides of Falcon Highway directly east of Falcon. See Figure 5.5 for Region 3 growth map projections."

Full build out of the Woodmen Hills Metropolitan District (District) is anticipated within the 2040 timeframe. The Water Resources Report indicates that the District has sufficient supply to meet the expected need at full build out by 2040 and 2060. Region 3 has a current water supply of 7,164-acre feet per year and a current demand of 4,494-acre feet per year. The 2040 water supply is projected to be 7,921-acre feet per year and the project demand is 6,403-acre feet. As stated in the Water Resources Report, this development is projected to need 55.35 acre feet of water per year. Current district supply is 1,459-acre feet on a 300 year basis.

The District currently incorporates a 20% reserve into their future planning. Based on the needs, current supply, and reserve the District has sufficient water to meet the needs expected now and into the future with no shortages anticipated.

A Will Serve Letter for water and wastewater commitments has been provided by the District. Falcon Field is situated in the Upper Black Squirrel Creek Designated Groundwater Basin which is managed by the Upper Black Squirrel Creek Management District.

The District's current water rights include renewable and non-renewable supplies in the Denver Basin. Woodmen Hills and the surrounding area are within a designated groundwater basin known as the Upper Black Squirrel (UBS) Groundwater Management District. The District has renewable resources in two categories. One is a direct alluvial pumping right in the UBS basin at Guthrie, and the other is a perpetual, contractual right through Cherokee Metropolitan District (Cherokee, CMD). The direct alluvial right is for 89 annual acre-feet and, as a renewable right, it does not need to be counted on a 300-year basis. It is currently fully and physically available, and is used at about an average of 90% of its full capacity. The second renewable source is a 350 annual acre-feet contractual and perpetual right through Cherokee. It is typically used near its face value capacity since it is perpetual at about 98%. This water is delivered to the District through a three-mile long, off-site system to the south of the District.

Woodmen Hills has multiple sources of supply as discussed below.

Local Wells

The District has 11 wells in the Falcon area, mainly in the Arapahoe and LaramieFox Hills formations. These wells are all within the District's service area boundary.

Off-Site Wells

The District operates four (4) Denver Basin wells at the Guthrie field, which is about 12 miles east of the Falcon area. The Denver Basin wells are in the Arapahoe and Laramie-Fox Hills formations.

Off-Site Alluvial Wells

Additionally, the District owns and operates two (2) alluvial wells in the Guthrie Ranch area which pump renewable water from the Upper Black Squirrel Basin.

Cherokee Water

This water is alluvial from the Upper Black Squirrel Basin and is renewable. The annual quantity obtained from Cherokee is 350 acre-feet and is a perpetual right.

The District owns and operates three water treatment plants and provides water treatment to its entire supply. The water system that serves Falcon Field is classified as a "public water system", and meets all the applicable requirements of the CDPHE.

The District's current use is based on an average of 20% renewable water sources and is actively seeking renewable sources and replacement sources with Cherokee Metro Water District to date.

b. Drainage

A Preliminary/Final Drainage Report for the Falcon Field is submitted with this application package.

c. Traffic

A Traffic Report prepared by LSC is submitted in support of this application. Based on the projected 2040 total traffic volumes shown in Figure 9a and the criteria contained in the ECM and the State of Colorado Highway Access code, deceleration and acceleration lanes are to be provided on Highway 24 and Woodmen Road along with other noted development improvements for proper access.

d. Geotechnical Report

A Geotechnical Report prepared by Entech Engineering Inc. is submitted in support of this application. In areas that shallow ground water is identified foundations perimeter drains are recommended when foundations are not able to be located above the identified groundwater levels.

e. Utilities

Woodmen Metropolitan District will provide central water and sanitary sewer service to the project. Mountain View Electric Association, Inc. will supply electricity service and Colorado Springs Utilities will supply natural gas.

f. Wildlife

Falcon Field is in a developing area and there is no significant impact to wildlife. The supplied Natural Features Report outlines all the impacts in further detail.

The Project area provides moderate quality habitat for grassland and wetland wildlife, including birds, mammals, reptiles, and possibly amphibians. Wildlife cover on the site is low, but there is moderate quality foraging and nesting habitat from some grassland species. Many grassland species prefer large areas of contiguous habitat with few trees or structures. Thus, overall quality is reduced by the small size of the site and surrounding development. Wildlife that could be affected were identified first by referencing CPW's Species Activity Mapping (SAM) spatial data to assess the likelihood of occurrence for state TES, state species of concern (SC), and other general wildlife, including big game species. The Colorado Natural Heritage Program (2020) also provides species status data from tracked natural animal and plant communities in the state. The review indicated that there is potential for the occurrence of 11 mammals, 15 birds, and 14 reptiles, and one amphibian, including one SC mammal, one federal- and state- threatened mammal, one state-threatened bird, and one SC amphibian (Table 2. SAM Wildlife Potential for Occurrence).

Few wildlife species, and none of the species listed in the SAM data, were observed during the site visit. While some of the species listed in the SAM data may occur on the site, the majority are not expected based on the limited habitat availability and surrounding development. Many of the listed species are grassland specialists that require larger tracts of contiguous habitat.

Criteria for Approval:

Preliminary Plan

- ***The proposed subdivision is in general conformance with the goals, objectives, and policies of the Master Plan;***

The proposed Preliminary Plan focuses on a use that is consistent with past land use actions for this area. The goals and policies of both the larger County Master Plan and more specific Falcon/Peyton Area Plan, look at the development of this corridor as a strong central node and corridor for activity. The proposed amendment for the CR zone district enhances the policies seen vital to growth in the corridor by continuing the intent of clustered urban development in areas that can be supportive of such growth. Locating commercial districts as this near supportive infrastructure strengthens the goals of the Master Planned direction and only improves upon the infrastructure in place to lessen potential burden on these systems seen in less centralized corridors. In addition, the proposed land use provides access to goods and services in an area seen vital to the growth of the corridor and more specific Small Area plans goal of growth nodes and Town Centers. The proposed land use integrates proper policy context in regards to adjacent uses and needs for transitions between such uses for effective growth in the area.

- ***The subdivision is consistent with the purposes of this Code;***

The Preliminary Plan meets the intent of CR zone district and related County Subdivision design standards for CR land use areas.

- ***The subdivision is in conformance with the subdivision design standards and any approved sketch plan;***

No Sketch Plans exist for the proposed site. The Preliminary Plan meets the intent of CR zone district and related County Subdivision design standards for CR land use areas.

- ***A sufficient water supply has been acquired in terms of quantity, quality, and dependability for the type of subdivision proposed, as determined in accordance with the standards set forth in the water supply standards [C.R.S. § 30-28-133(6)(a)] and the requirements of Chapter 8 of this Code;***

Water Resource reports addressing the Woodmen Hills Metro Districts ability to adequately serve the development have been provided along with appropriate commitment letters.

- ***A public sewage disposal system has been established and, if other methods of sewage disposal are proposed, the system complies with state and local laws and regulations, [C.R.S. § 30-28-133(6)(b)] and the requirements of Chapter 8 of this Code;***

Wastewater Disposal reports addressing the Woodmen Hills Metro Districts ability to adequately serve the development have been provided along with appropriate commitment letters.

- ***All areas of the proposed subdivision, which may involve soil or topographical conditions presenting hazards or requiring special precautions, have been identified and the proposed subdivision is compatible with such conditions. [C.R.S. § 30-28-133(6)(c)];***

A Geotechnical Report has been provided by Entech Engineering addressing all potential hazards and proper mitigation techniques as needed.

- ***Adequate drainage improvements complying with State law [C.R.S. § 30-28-133(3)(c)(VIII)] and the requirements of this Code and the ECM are provided by the design;***

A preliminary Drainage Report has been provided complying with current state regulations and as required by code.

- ***Legal and physical access is or will be provided to all parcels by public rights-of-way or recorded easement, acceptable to the County in compliance with this Code and the ECM;***

Access to all parcels is provided in the attached Preliminary Plan and includes necessary improvements per the CDOT Highway 24 Linkage Studies including the re-routing of Rio Lane.

- ***The proposed subdivision has established an adequate level of compatibility by (1) incorporating natural physical features into the design and providing sufficient open spaces considering the type and intensity of the subdivision;***

Sufficient open spaces are provided for the proposed use.

(2) incorporating site planning techniques to foster the implementation of the County's plans, and encourage a land use pattern to support a balanced transportation system, including auto, bike and pedestrian traffic, public or mass transit if appropriate, and the cost effective delivery of other services consistent with adopted plans, policies and regulations of the County;

The proposed preliminary plan addresses a use consistent with the larger County Master Plan and more specific Falcon/Peyton Small Area plan that identifies this area as vital growth corridor and in addition provides supportive and needed infrastructure improvements for this area.

(3) incorporating physical design features in the subdivision to provide a transition between the subdivision and adjacent land uses;

Appropriate buffers and transitions are provided between the proposed use and residential uses to the south and east. Increased landscape areas are being provided for proper buffers and landscape improvements.

(4) incorporating identified environmentally sensitive areas, including but not limited to, wetlands and wildlife corridors, into the design; and (5) incorporating public facilities or infrastructure, or provisions therefore, reasonably related to the proposed subdivision so the proposed subdivision will not negatively impact the levels of service of County services and facilities;

A natural features and wetlands study provided by Bristlecone Ecology is provided identifying and mitigating as needed any potential environmental constraints.

- ***Necessary services, including police and protection, recreation, utilities, open space and transportation system, are or will be available to serve the proposed subdivision;***

Proper commitment letters have been provided showing the ability to serve the proposed development and necessary resources for proper levels of service.

- ***The subdivision provides evidence to show that the proposed methods for fire protection comply with Chapter 6 of this Code; and***

A Fire Protection report along with the necessary Fire Commitment letter is provided addressing the district's ability to adequately serve the development.

APPENDIX A:
FALCON FIELD : JUSTIFICATION FOR PROPOSED DEVIATIONS

Section 5.8 of the ECM establishes an additional mechanism whereby an engineering design standard can be modified provided the limits of consideration in ECM Section 5.8.6 are met and the modifications meets the criteria for approval in ECM Section 5.8.7.

The following deviations to the ECM are requested for the Falcon Field (numbers correspond to Deviation table in the Letter of Intent).

#1- Intersection Spacing

Nature of Request:
Section of ECM from which Deviation Is Sought: 2.2.5d and 2.3.2

Specific Criteria from which a Deviation Is Sought: 2.2.5.D Collector Access Standards
On major collector roadways, the closest local roadway intersection to an arterial roadway shall be 660 feet (right-of-way line of arterial to centerline of local roadway)

2.3.2 Design Standards by Functional Classification: Table 2-7: Roadway Design Standards for Urban Collectors and Locals Criteria for an Urban Non-Residential Collector Roadway: 660 feet intersection spacing

Standard 2.3.2 requires 660 foot spacing between intersections for Urban Non-Residential Collector roadways. This standard is reflected in ECM Table 2-7 (Roadway Design Standards for Urban Collectors and Locals).

Proposed Nature and Extent of Deviation: The roundabout location is limited due to the shape of the properties and the locations of the property lines. The main entry drive connecting this roundabout to the US Highway 24/Woodmen Road intersection needs to be a Non-Residential collector, rather than just an access to the development, for several reasons explained in the justification section below:

The standard indicates a minimum of 660 feet intersection spacing in Urban Non-Residential Collectors.

The request would be for an intersection spacing of approximately 585 feet between the US Highway 24/Woodmen Road intersection and the new intersection with Rio Lane. Please refer to the attached Deviation Exhibit B.

ECM Section 5.8.6: Limits of Consideration:
The ECM Administrator may only consider a project-specific deviation to an existing standard when **one** of the following conditions is met:

- The ECM standard is inapplicable to a particular situation.
  N/A

- Topography, right-of-way, or other geographical conditions or impediments impose an undue economic 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.

The deviation is needed as the roundabout location is limited due to the shape of the properties and the locations of the property lines. The main entry drive connecting this roundabout to the US Highway 24/Woodmen Road intersection needs to be a nonresidential collector, rather than just an access to the development. The reason is that this project is providing for a replacement Rio Lane connection to US Highway 24 to the Woodmen/US Highway 24 intersection per the US 24 Access Management Plan. Although Rio Lane is a local roadway, given the development traffic within the site, A Non-Residential Collector street is necessary and proposed for the replacement Rio Lane connection and the main entry to this development. This street connection will likely also provide access to the adjacent parcel to the west, which will also benefit US Highway 24 access management.

- 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.
  N/A

ECM Section 5.8.7: 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 spacing of 585 feet allows for necessary turn lanes and storage at the US Highway 24/Woodmen Road intersection. These lanes are shown in Deviation Exhibit C and the lane lengths are a separate deviation request (Deviation Request No. 3). The roundabout at the main internal intersection ensures that there will not be excessive queuing to impact the US Highway 24/Woodmen Road intersection. The cross section includes additional lanes to reduce the potential overall queue lengths within this 585-foot distance. Please refer to Deviation Exhibit F, which presents the results of the queuing analysis, and the TIS report for the complete queuing analysis.

- The deviation will not adversely affect safety or operations;
  The request would be for intersection spacing of 585 feet. The roadway has been designed to allow for sufficient turn lanes that accommodate projected 95th percentile queues. Please refer to Deviation Exhibit F, which presents the results of the queuing analysis, and the TIS report for detailed queuing analysis.

- The deviation will not adversely affect maintenance and its associated cost; and
  The deviation will not affect maintenance or maintenance costs as multiple approach lanes to a major intersection are typical. The southbound lanes approaching the roundabout will be analyzed at the design stage to ensure County snow plows and other maintenance vehicles can be accommodated.

- The deviation will not adversely affect aesthetic appearance.

The shorter access spacing will not affect the aesthetics as multiple approach lanes and wider cross sections on the approach to a major intersection are typical.

- The deviation meets the design intent and purpose of the ECM standards.
  The proposed lane design will accommodate the projected queues between Woodmen and the roundabout intersection, which meets the intent and purpose of the ECM intersection spacing standard back from an arterial (in roadway).

- 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.

#2- Access to Collector Streets

Nature of Request:
Section of ECM from which Deviation Is Sought: 2.2.5D and 2.3.2 Table 2-7

Specific Criteria from which a Deviation Is Sought: 2.3.2 Design Standards by Functional Classification Table 2-7: Roadway Design Standards for Urban Collectors and Locals
Criteria for an Urban Non-Residential Collector Roadway: No access permitted

2.2.5.D Roadway Access Criteria – Collector Access Standards:
This criterion indicates that single-family residence access to major collector roadways is not permitted. However, commercial access is requested to an Urban Non-Residential Collector.

Proposed Nature and Extent of Deviation: The deviation is requested primarily as no direct access will be allowed to US Highway 24. The Pinto Pony Road right-of way will not be used due to impacts to residents. Non-Residential Collector streets are proposed to provide access to this development and the adjacent parcel to the west and provide for a replacement Rio Lane connection to US Highway 24 to the Woodmen/US Highway 24 intersection per the US 24 Access Management Plan. This deviation is needed to provide access to the parcels from the proposed Non-Residential Collectors. This deviation would allow for the parcel access.

ECM Section 5.8.6: Limits of Consideration:
The ECM Administrator may only consider a project-specific deviation to an existing standard when ***one*** *of the following conditions is met:*

- *The ECM standard is inapplicable to a particular situation.*
  N/A
- *Topography, right-of-way, or other geographical conditions or impediments impose an undue economic 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.*
  Access is needed for proposed development.

The deviation is necessary as no direct access will be allowed to US Highway 24 (except for the connection aligning with Woodmen Road on the north side). The only other available public ROW is Pinto Pony Road and Rio Lane. The Pinto Pony Road right-of way will not be used due

to impacts to residents. This project is providing for a replacement Rio Lane connection to US Highway 24 to the Woodmen/US Highway 24 intersection per the US 24 Access Management Plan. Although Rio Lane is a local roadway, given the development traffic within the site, Non-Residential Collector streets are proposed to provide access to this development and potentially for the adjacent parcel to the west. The development will not access the existing north/south section of Rio Lane and the street network is being designed to discourage cut-through traffic and encourage commercial traffic to utilize the new street connection to the Woodmen Road/US Highway 24 intersection. Due to the planning of these streets, they are shown as Non Residential Collectors. Therefore, this deviation is needed to provide access to the parcels from the proposed Non-Residential Collectors. This deviation would allow for the parcel access. For the primary access to each portion of the site east and west of the roundabout, a restricted turn access will not work because at least one full-movement access with left-turn capabilities is needed. Entering and exiting vehicles need access to/from US Highway 24/Woodmen Road intersection as most site-generated traffic will come to/from this intersection. The right-in-only access points are proposed to supplement the full-access points because no access to US Highway 24 will be allowed, and the full-movement access points will not work between US Highway 24 and the roundabout due to spacing. The roundabout location is limited due to the shape of the properties and the locations of the property lines. The proposed right-in-only access points would provide low-impact, low conflict secondary entry points to the commercial lot areas. The site plan should be designed with careful consideration for the right-in access drives such that traffic can freely enter the site and not queue back onto the main entry street. Any internal lot/parking bay access will need to be carefully evaluated with site design, especially if close to the entry radius of these right-in access points.

- *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.*
  N/A

ECM Section 5.8.7: 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 access points will allow for access to the property, while maintaining movement to/from the primary direction of travel for vehicles generated by the site.

  Criteria for driveways in ECM Section 2.4.1 access criteria would be met (refer to the section below "The deviation will not adversely affect safety or operations" for additional details.

- *The deviation will not adversely affect safety or operations;*

The request would be for access located 385 feet east of the roundabout and 475 feet west of the roundabout.

ECM Section 2.4.1 access criteria states the following five access design guidelines:

Adequate Spacing
The ECM indicates that accesses shall be separated by a distance equal to the entering sight-distance values in Table 2-35.

Based on a posted speed limit of 30 mph, the prescribed spacing would be 300 feet for passenger cars, 390 feet for single-unit trucks, and 510 feet for multi-unit trucks. The proposed distance between the site access points and the roundabout is greater than the stopping sight distance required for passenger vehicles. Please refer to the sight distance subsection below.

The criteria also indicates that when turn lanes are present or will be needed in the future, the accesses shall be separated by a sufficient distance so that exclusive turn lanes including tapers will not overlap. Access shall not be permitted within a turn lane. Warrant criteria, design, and construction of turn lanes shall be governed by the requirements contained in Section 2.3.7D. The proposed lengths of the turn lanes between the roundabout and the site access points are addressed in Deviation No. 3 (and are shown in Deviation Exhibits C and E).

Proper Alignments
All proposed site access points should be aligned at 90 degrees to the adjacent roadway centerline. The adjacent roadway grades are essentially level. Vertical alignment criteria in ECM Section 2.4.1.C.2 shall be met for the driveway.

Clear Sight Distances
Site improvements, such as signs, on-street parking, and landscaping, should not impede the required sight-distance lines of sight. Based on a posted speed limit of 30 mph, the minimum sight distance for passenger cars would be met at all access points. Deviation Exhibits D1 through D4 present the access sight distance analysis. Regarding the sight distance for vehicles exiting using the north side access west of the roundabout, the line of sight required for sight distance cuts across the inside of the proposed horizontal curve in the proposed street segment between the roundabout and the access point. This line of sight for passenger vehicles shown on Exhibits D-1 and D-2 (the line on D-2 governs), should be used for site design. Any landscaping or objects over 18 inches high, parking, monument signs, other site improvements, structures, etc. should be kept north of this line-of-sight. The lines of sight needed for the ECM prescribed sight distance for single- and multi-unit trucks shown in Exhibits D-3 and D-4 cut across the planned development parcel significantly. In the case of the line of sight shown on Exhibit D-4 especially, it would be difficult to limit site improvements to maintain this line of sight to the northeast . However, given this site-specific situation, and the likely low volume of multi-unit trucks using this access and the nature and function of this street, stopping sight distance for vehicles approaching this access is reasonable and sufficient. Vehicles exiting the upstream roundabout onto the street segment approaching this access would be able to see a truck entering the street with sufficient time to slow/stop to allow the truck to complete the turn from the access onto the roadway (sufficient stopping sight distance). LSC recommends

placement of an intersection ahead sign (MUTCD W2-1) upstream of the access with a supplemental distance plate displaying the distance to the access.

<u>Coordinated Widths with Its Intended Use</u>
The ECM requires a minimum 25-foot width for a commercial access point on a Non-Residential Collector roadway. The site access drives (30 feet wide minimum) would meet this criterion. The driveway radii will be designed for the design vehicle based on AutoTurn truck-turning templates of the design vehicle (WB-62 multi-unit trucks).

<u>Clearances from Intersection</u>
Access to commercial or industrial parcels fronting Non-Residential Collector roadways shall be located within the range of 115-480feet from the point of curvature or point of tangency of the curb line of adjacent intersections. The ECM indicates that the clearance will depend on the sight distance, driveway location with respect to the intersection, intersection control, and posted speed limit. In all cases, a minimum corner clearance of 50 feet shall be provided. Please refer to the sight-distance evaluation above, which considers these elements. Also considered are the necessary turn-bay lengths for the access points. These turn-bay lengths are addressed in Deviation No. 3 (and are shown in Deviation Exhibits C and E).

- *The deviation will not adversely affect maintenance and its associated cost; and*
  The deviation will not affect maintenance or maintenance costs as these access points would be maintained by the commercial center owner/manager.

- *The deviation will not adversely affect aesthetic appearance.*
  The access points will not affect the aesthetics as unnecessary access or "curb cuts" are not proposed. IE the street would not look "cluttered" with curb cuts.

- *The deviation meets the design intent and purpose of the ECM standards.*
  The streets within the development will carry too much traffic to be classified as local. However, the property still needs access points to serve the development. With the realignment of Rio Lane, it is not feasible for any local roads to provide access.

- *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.

<u>#3- Turn Lane Lengths</u>
Nature of Request:
Section of ECM from which Deviation Is Sought: 2.3.7.D.1

Specific Criteria from which a Deviation Is Sought: Turn Lane Designs

Proposed Nature and Extent of Deviation: The deviation is needed as the proposed intersection and access spacing limits the ability to provide full deceleration length plus vehicle storage distance plus transition taper for the left-turn lanes approaching US Highway 24/Woodmen and

the two full-movement site access points east and west of the roundabout. The site-specific conditions would not necessitate the full deceleration length plus vehicle storage distance plus transition taper for these left-turn lanes.

The ECM requires left-turn lanes on the northbound approach to Woodmen Road and approaching the proposed commercial site access points on the Non-Residential Collector street extending east and west from the roundabout for the proposed access. The deviation request is to allow an abbreviated bay taper length at the access west of the roundabout. At the access east of the roundabout, the request is also to allow an abbreviated bay taper length. Additionally, the request is to 1) allow the ECM standard 155' deceleration distance within the combination of the proposed 120' lane and the second half of the 75' reverse curve bay taper and 2) to allow use the deceleration distance for vehicle storage, when a queue forms, rather than having storage in addition to the deceleration distance. The request is based on the results of the TIS queuing analysis, the proposed site-specific conditions with the roundabout (eliminating the need for back-to-back left-turn lanes between the access points and the roundabout). Please refer to the attached Deviation Exhibits C and E, which are figures from the TIS. The request requires a deviation as the ECM prescribes deceleration length plus vehicle storage distance plus transition taper for left-turn lanes on Collector roadways where turn lanes are required per section 2.3.7.D.1.

ECM Section 5.8.6: Limits of Consideration:
The ECM Administrator may only consider a project-specific deviation to an existing standard when ***one*** *of the following conditions is met:*

- *The ECM standard is inapplicable to a particular situation.*
  N/A

- *Topography, right-of-way, or other geographical conditions or impediments impose an undue economic 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.*
  The deviation is needed as the proposed intersection and access spacing limits the ability to provide full deceleration length plus vehicle storage distance plus transition taper for the left-turn lanes approaching US Highway 24/Woodmen and the two full-movement site access points east and west of the roundabout. The site-specific conditions would not necessitate the full deceleration length plus vehicle storage distance plus transition taper for these left-turn lanes.

  As the upstream intersection adjacent to the two full-movement access points and Woodmen/US Highway 24 for which the subject turn lanes are requested and the approach to US Highway 24/Woodmen Road is planned as a modern one-lane roundabout; back-to-back left-turn lanes along these Non-Residential Collector streets will not be required. Please refer to Deviation Exhibit E.

  The turn bay lengths on the approach to Woodmen/US Highway 24 are a function of the spacing between Woodmen and the proposed roundabout, and the spacing between the intersections is constrained. Please refer to Deviation Exhibit C for the proposed turn-bay lengths and Deviation Exhibit F for the estimated queue lengths. The distance is constrained by

the roundabout location which is limited due to the shape of the properties and the locations of the property lines. Please refer to the separate Deviation No. 1 for intersection spacing.

The spacing between the roundabout and the two proposed access points is limited by the dimensions of the site and the need to provide a shared full-movement access for the planned commercial lots on each side of the main entry drive. Also, with no access permitted to US Highway 24 and no full-movement access to the main entry drive, the full-movement access points are forced onto the internal cross street. Given these constraints, it is necessary to allow the access as close as feasible to the entry roundabout as possible and not pushed to the far rear corners of the development.

- *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.*
  N/A

ECM Section 5.8.7: 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 deviation is needed as the proposed intersection and access spacing limits the ability to provide full deceleration length plus vehicle storage distance plus transition taper for the on-site left-turn lanes. The site-specific conditions would not necessitate the full deceleration length plus vehicle storage distance plus transition taper for these left-turn lanes. As the upstream intersection adjacent to the two full-movement access points and Woodmen Road/US Highway 24 for which the subject turn lanes are requested and the approach to US Highway 24/Woodmen Road is planned as a modern one-lane roundabout, back-to-back left-turn lanes along these Non-Residential Collector streets will not be required. The projected queues could be accommodated by the proposed turn lanes. The proposed bay taper length is close to the length allowable by the ECM and vehicle speeds exiting the roundabout will be reduced from the standard Non-Residential Collector design speed.

- *The deviation will not adversely affect safety or operations;*
  The 2040 queueing analysis contained in the TIS indicates that the proposed left-turn lane lengths for the access points will be able to accommodate the projected queues. The turn-lane geometry for the left-turn lanes would be about 120 feet with about a 75-foot reverse curve taper for the access east of the roundabout and about 190 feet with about a 75-foot reverse curve taper for the access west of the roundabout. These are as shown in the attached Deviation Exhibit E. The projected 95th percentile queue length from the TIS is 25 feet for both. The proposed turn lane dimensions as explained above as elements of this deviation would work acceptably and would not adversely affect safety or operations. The tapers would be designed with the roundabout, its splitter islands, and exit lanes. However, the preliminary concept indicates bay-taper lengths of about 75 feet. These lengths would be appropriate for the situation and will not adversely affect safety or operations.

The 2040 queueing analysis contained in the TIS indicates that the proposed left-turn lane lengths for the northbound approach to the Woodmen Road/US Highway 24 intersection will be able to accommodate the projected queues.

- *The deviation will not adversely affect maintenance and its associated cost; and*
  The deviation will not affect maintenance or maintenance costs as the placement and alignment will be typical. These turn bays are accommodated within the standard Non-Residential Collector cross section.

- *The deviation will not adversely affect aesthetic appearance.*
  The abbreviated turn bays will not affect the aesthetics as they will have typical geometrics and alignment..

- *The deviation meets the design intent and purpose of the ECM standards.*
  The proposed lane design will accommodate the projected queues between Woodmen and the roundabout intersection, which meets the intent and purpose of the ECM intersection spacing standard back from an arterial (in roadway).

- *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.

#4- Modified Non Residential Collector Segment

Nature of Request:

Section of ECM from which Deviation Is Sought: *2.2.4.B.4 Figure 2-14*

Specific Criteria from which a Deviation Is Sought: *2.2.4.B,4 Roadway Functional Classifications and Urban/Rural Designations – Urban Roadways - Non-Residential Collector and Figure 2-14.*
The deviation is requested for the following cross section elements:
• 48' of pavement
• 80' Right of way
• Sidewalk on both sides of the street
• 12' center striped turn lane.

Proposed Nature and Extent of Deviation: The deviation request is for a narrower right of way and modified/narrower street width with sidewalk only on the west side of the street. The primary reason for this request is related to the location of the proposed roundabout and the roundabout geometry on the south leg of the roundabout.

The secondary reason is that the full-width Non-residential Collector would be unnecessary with commercial development only on the west side of this street. The ECM does not include a "commercial local" type street classification and standard, so past experience with commercial developments within the County has been that streets providing access to commercial development are classified as Non-Residential Collectors. The street is positioned along the east property line such that the right-of-way and street cross section could be expanded to the full-

standard Non-Residential Collector if the properties to the west happen to redevelop with commercial land uses.

ECM Section 5.8.6: Limits of Consideration:
The ECM Administrator may only consider a project-specific deviation to an existing standard when ***one*** *of the following conditions is met:*

- *The ECM standard is inapplicable to a particular situation.*
  N/A

- *Topography, right-of-way, or other geographical conditions or impediments impose an undue economic 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.*
  The primary reason for this request is related to the location of the proposed roundabout and the roundabout geometry on the south leg of the roundabout. If a full-width Non-Residential Collector street were required along the east property line, the centerline of this street would shift west. As a result, the geometrics of the connection to the south leg of the proposed roundabout would not meet fastest path criteria. With the roadway centerline on the alignment shown on the plans, the connection to the roundabout, the south leg approach and departure legs can meet standards of operational performance.

- *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.*
  N/A

ECM Section 5.8.7: 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;*
  With the roadway centerline on the alignment shown on the plans and resulting cross section west of the property line, the connection to the roundabout, the south leg approach and departure legs can meet standards of operational performance. As a result, the proposed spacing of roundabout from US Highway 24 can be maximized and the main entry street can remain on a straight alignment as it extends southeast from the Woodmen Road/US Highway 24 intersection.

  The full-width Non-residential Collector would be unnecessary with commercial development only on the west side of this street. The ECM does not include a "commercial local" type street

classification and standard, so past experience with commercial developments within the County has been that streets providing access to commercial development are classified as Non-Residential Collectors.

The street is positioned along the east property line such that the right-of-way and street cross section could be expanded to the full-standard Non-Residential Collector if the properties to the west happen to redevelop with commercial land uses.

The sidewalk would not be needed on the east side of the street. Pedestrians crossing at the roundabout would be directed to cross the south leg of the roundabout to the sidewalk on the west side of the street.

The center turn lane would not be necessary as 1) there would be no access on the east side of the street requiring a southbound left-turn capability and 2) very little traffic, if any, would arrive from the south (assuming the future street is connected at the southwest corner), requiring a northbound left-turn capability in a center turn lane. The vast majority, if not all the arriving traffic, would enter the commercial lot development by making a southbound right turn off this street into the development.

The street would match the County standard Urban (residential) Collector cross section (36') and right-of way (60').

- *The deviation will not adversely affect safety or operations;*
  This is a relatively short section of street that would function more like a local street.

  Pedestrian safety would not be affected as sidewalk would not be needed on the east side of the street. Pedestrians crossing at the roundabout would be directed to cross the south leg of the roundabout to the sidewalk on the west side of the street.

  The center turn lane would not be necessary as 1) there would be no access on the east side of the street requiring a southbound left turn capability and 2) very little traffic, if any, would arrive from the south (assuming the future street is connected at the southwest corner), requiring a northbound left-turn capability in a center turn lane. The vast majority, if not all the arriving traffic, would enter the commercial lot development by making a southbound right turn off this street into the development. Also, through traffic would be minimal and only present with a connection to the southwest.

- *The deviation will not adversely affect maintenance and its associated cost; and*
  The deviation would result in lower maintenance cost with a narrower cross section.

- *The deviation will not adversely affect aesthetic appearance.*
  The aesthetics would be improved with less asphalt width.

- *The deviation meets the design intent and purpose of the ECM standards.*
  The deviation meets the intent by providing a street cross section consistent with the anticipated function and traffic volumes. The street is expandable to the full cross section if commercial development were to occur on the property 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.