REGULAR MEETING OF THE
ARAPAHOE COUNTY PLANNING COMMISSION
TUESDAY, JULY 16, 2019 @ 6:30 P.M.

1. CALL TO ORDER

2. GENERAL BUSINESS ITEMS

2.I. June 18, 2019 Planning Commission Minutes

Documents:

PLANNING COMMISSION MINUTES 06-18-2019.PDF

3. PUBLIC HEARINGS

3.I. Case No SDP18-003, Rapid Wire Office & Warehouse / Specific Development Plan (SDP)
LOCATION: 7103 S Dillon Ct; 2073-30-3-08-005
ACREATE: 1.42 acres
EXISTING ZONING: Mixed Use
PROPOSED USE: Applicant is proposing a warehouse with office space and outdoor storage for a cable installation business
APPLICANT: Bill Stashak, Applicant, on behalf of Steve Faria, Property Owner
CASE MANAGERS: Molly Orkild-Larson, Planner; Sarah L White, Engineer
REQUEST: Approval of the Specific Development Plan

Documents:

1 - SDP18-003 RAPID WIRE.PDF

3.II. Case No SDP19-001, Paula Dora / B13 / Highline East / Specific Development Plan (SDP)
LOCATION: 9437 E Colorado Ave; 1973-22-3-03-006
ACREATE: 2.27 acres
EXISTING ZONING: Residential PUD - Moderate Density
PROPOSED USE: Applicant is proposing to subdivide 2.27 acres into 16 lots and 1 tract to build 16 residential duplex units
APPLICANT: Brodie Smith, Thrive Home Builders
CASE MANAGERS: Bill Skinner, Planner; Sue Liu, Engineer
REQUEST: Positive recommendation of approval to the Board of County Commissioners

Documents:

2 - SDP19-001 HIGHLINE EAST.PDF
4. STUDY SESSION ITEMS

4.I. Study Session Regarding Oil & Gas Regulations
   PRESENTER: Diane Kocis, Energy Specialist
   REQUEST: Informational Only - Discussions regarding Oil & Gas

   Documents:
   STUDY SESSION OUTLINE AND GLOSSARY FOR OIL AND GAS DISCUSSIONS.PDF

   ANNOUNCEMENTS:

   • The next Planning Commission meeting is scheduled for August 6, 2019.
   • Planning Commission agendas, Board of County Commission agendas, and other important Arapahoe County information may be viewed online at www.arapahoegov.com or you may contact the Planning Division at 720-874-6650.

   PLANNING COMMISSION MEMBERS:
   Jamie Wollman               Randall Miller               Diane Chaffin
   Jane Rieck, Chair           Richard Sall                 Kathryn Latsis
   Vacant

   Arapahoe County is committed to making its public meetings accessible to persons with disabilities.
   Please contact the Planning Division at 720-874-6650 or TTY 711, at least three (3) days prior to a meeting, should you require special accommodations.
# MINUTES OF THE REGULAR MEETING OF THE
# ARAPAHOE COUNTY PLANNING COMMISSION
# TUESDAY, JUNE 18, 2019

## ATTENDANCE

A regular meeting of the Arapahoe County Planning Commission was called and held in accordance with the statutes of the State of Colorado and the Arapahoe County LDC. The following Planning Commission members were in attendance:

Jane Rieck, Chair; Richard Sall, Kathryn Latsis, Chair Pro-Tem, Jamie Wollman, and Randall Miller.

Also present were: Robert Hill, Senior Asst. County Attorney; Chuck Haskins, Engineering Services Division Manager; Sarah White, Engineer; Bill Skinner, Senior Planner; Kathleen Hammer, Planner II; Jason Reynolds, Current Planning Program Manager; Alan White, Planner/Project Specialist; Jan Yeckes, Planning Division Manager; Don Elliott, Clarion Associates – LDC consultant to Arapahoe County; and members of the public.

## CALL TO ORDER

Chair Rieck called the meeting to order at 6:30 p.m. and noted a quorum of the Board was present.

## DISCLOSURE MATTERS

There were no Planning Commission member conflicts with the matters before the.

## GENERAL BUSINESS ITEMS:

### APPROVAL OF THE MINUTES

The motion was made by Ms. Latsis and duly seconded by Ms. Wollman to accept the minutes from the June 4, 2019 Planning Commission meeting, as presented.

The motion passed unanimously.

## REGULAR ITEMS:

Ms. Rieck noted the agenda items would be heard out of order.

### ITEM 1

CASE NO LDC18-004, LDC (LDC) REORGANIZATION, RESIDENTIAL ZONE DISTRICTS, AND DEVELOPMENT APPLICATION MANUAL – Jason Reynolds, Current Planning Program Manager, Public Works and Development (PWD)

Mr. Reynolds introduced the County’s proposal to adopt an amendment to the LDC (LDC). He established jurisdiction for the
public hearing, noting that an additional notice for this item of countywide impact was provided in the I-70 Scout in addition to The Villager newspapers. Mr. Reynolds gave some history for the reason for updating the organization of the LDC and changes. He explained there were three components under consideration. Mr. Reynolds thanked Alan White, who had spent a great deal of time coordinating much of the effort for County staff. He reported, in large part, the request today was for a change to the form of the code rather than the content of the code. He explained staff was reorganizing what was there before. Mr. Reynolds introduced Don Elliott of Clarion Associates, who was the County’s consultant on the LDC update.

Mr. Elliott thanked the Planning Commission (PC) for rearranging the agenda to accommodate his schedule due to weather delays on his incoming flight. He explained the work undertaken and his experience in working with builders, but noted his clients were typically local governments improving their processes for working with land developers and builders. Mr. Elliott noted the “fire” to be addressed for Arapahoe County was the Planned Unit Development (PUD) process, which had already been adopted and put into place. He reported Clarion counseled the County that the next priority should be to get a good and modern format into place; otherwise, other changes were being written to fit into a format that no longer worked and required additional work in the long run. He said a logical order would help to avoid the “add on” system of putting new sections into the code rather than having a place that works for these.

Mr. Elliott said an advantage of taking many of the procedural application requirements into a development manual was the time-to-time changes, identified with checklists and requirements, could be addressed without requiring amendments to the overall regulations critical to the content of the LDC. Mr. Elliott explained the major content included in three chapters: Chapter 3 – Permitted Uses, Chapter 4 – Development Standards and Guidelines, and Chapter 5 – Procedures. He reported the “obsolete zone districts” were being removed from the code to avoid confusion over the provision that no new land can be rezoned to those districts. He stated there was also a new section for “common procedures.” He explained those included procedures that applied to all applications, such as presubmittal meetings, application intakes, determination of completeness, etc., rather than repeating these throughout the code. Mr. Elliott reported there were seven new chapters; which were outlined and explained as providing the logic behind the code organization. He stated the changes would make the County’s code more consistent with 90% of today’s land use codes in use throughout the country.
Mr. Reynolds explained the public outreach process that had been used to discuss the proposed changes with various stakeholders. He reported the new residential zone districts would help provide an option that did not exist in today’s codes for single-family homes. He said some of the desires of the Home Builders Association (HBA) were not specifically accommodated. He explained staff felt those specific requests were better addressed through the use of the PUD process, rather than standard zone districts, due to greater potential for impacts to surrounding land uses. Mr. Reynolds reported no specific comments were received on the final draft; however, he did see the HBA had noted this in some minutes to a recent meeting, which indicated their awareness that the County would be proceeding with the changes sent to them.

Mr. Elliott explained the use of a new, comprehensive Permitted Uses table within Chapter 3. He said the table consolidated information from seven chapters. He reported the table addressed permitted uses, uses by special review, special exception uses, temporary uses, and accessory uses. He said use-specific standards were noted in the table – for example, if a use was limited to less than 24 hours/day or retail that was limited to a percentage of an industrial/warehousing/manufacturing use. Mr. Elliott reported Chapter 4 included a development standards and guidelines table that also consolidated information from seven chapters. He stated the table addressed dimensional standards and the chapter included development standards such as lighting, parking, and landscaping.

Mr. Elliott reported Chapter 5 included a procedures table that also indicated the point of decision for each process, whether the decision body was staff, Planning Commission, Board of County Commissioners, Board of Adjustment, etc. He said it also indicated whether a public hearing is required. Mr. Elliott reported the tables reorganized and consolidated information into an easily usable format without changing the standards and material already in the LDC. He stated the PC might feel that some of these standards or procedures should change and that would be addressed in future amendments. He said the PC was encouraged to go ahead and adopt the new format, which would help to facilitate the future changes in a way that could be easily explained to the public and to the land development industry professionals.

Mr. Reynolds noted how complex the code was as it discussed public hearings. He reported noticing was also very complex due to the many areas where this was addressed within the code. He stated Alan White spent many hours researching the code for areas of conflict or duplication. He reported the County Attorney’s Office also reviewed whether material was appropriate for the development manual rather
than the code. Mr. Reynolds explained the material moved to the development application, such as the Standard Notes text required for various plan types. He also showed an example of a procedures flow chart graphic that was provided to help applicants navigate the code and process. Mr. Reynolds noted the only option in today’s code, for a residential lot smaller than one acre for a single-family home, was to use the PUD process, which was cumbersome for standard single-family subdivisions. Mr. Reynolds explained the new districts and how those broke down into lot sizes, ranging from lots as small as 3,600 square feet per lot up to lots up to 39,999 square feet, as well as, an option for lots of 40,000 square feet (just under one acre in size) up to 70,000 square feet. Mr. Reynolds noted some lots allowed setbacks of less than five feet from the property line; however, those lots would require builders to comply with a stricter building code requirement for fire suppression. Mr. Reynolds also explained the relationship between the new, proposed zone districts and existing neighborhoods. He clarified processes that would or would not apply within the new zone districts. He said other changes were to correct inconsistencies in the Subdivision Regulations, eliminate the obsolete residential zone districts, and clarify some definitions and permitted uses and procedures, where those were not clear under the current LDC. Mr. Reynolds explained these included distinctions in processing of agricultural commodities (where those were allowed as part of an agricultural zoning and use vs. where those might require an additional level of approval such a USR) and the procedures for approval for a commercial salt water disposal/injection well, which mirrored the procedure currently being followed. He stated that the PC would be making a recommendation to the Board of County Commissioners on this matter.

There were discussions concerning the changes and the development manual. The PC applauded the changes as a current user of AC’s LDC. It was noted integrating requirements for neighborhood meetings into the LDC, for certain types of cases, was being considered by the BOCC currently. Staff and the PC agreed there was value in working through differences prior to going to public hearing.

Ms. Rieck opened the hearing for public comment. There were no public comments. The public hearing was closed.

It was moved by Ms. Wollman and duly seconded by Ms. Latsis, in the case of LDC18-004, Reorganized Land Development Code, New Residential Zone Districts and Development Application Manual, that the Planning Commission reviewed the staff
The audio recording is the official County record of this meeting. Written minutes are a summary of the meeting and provided as a courtesy only.

Planning Commission

June 18, 2019

Page 5 of 9

The audio recording is the official County record of this meeting. Written minutes are a summary of the meeting and provided as a courtesy only.

ITEM 2

CASE NO LE18-009, COPPERLEAF DOGPARK / LOCATION AND EXTENT (LE) – Kat Hammer, Planner II, Public Works and Development (PWD)

Ms. Hammer established jurisdiction for the public hearing. She introduced the application and presented the recommendation for the project.

Ryan McBreen, Norris Design, representing the parks and recreation district, reported that a dog park had long been a requested use by the community. He presented a PowerPoint, a copy of which was retained for the record. He stated the proposed dog park would provide separate areas for larger dogs and smaller dogs. He showed the site plan and context with location to the Copperleaf development and noted the dog park would be maintained by Copperleaf Metro District #2.

Daniel Frank, clarified the park would be owned by the Metro District, but maintained by the HOA. He explained an agreement was already in place.

There were discussions regarding HOA dues, clean-up of dog waste, parking/walkability of the neighborhood, and timing of the request,

Ms. Rieck opened the hearing for public comment. There were no public comments. The public hearing was closed.

It was moved by Ms. Latsis and duly seconded by Mr. Sall, in the case of LE18-009, Copperleaf Dog Park / Location and Extent, that the Planning Commission reviewed the staff report, including all exhibits and attachments, and listened to the applicant’s presentation, and any public comments as presented.
at the hearing, and moved to approve this application based on the findings in the staff report, subject to the following conditions:

1. Prior to signature of the final copy of these plans, the applicant will address all Public Works and Development Staff comments.

2. The dog park will contain appropriate sized signs that clearly identify the owner of the dog park, maintenance responsibility for the dog park and a point of contact for the dog park.

The vote was:

Ms. Rieck, Yes; Mr. Miller, Yes; Mr. Sall, Yes; Ms. Latsis; Yes; Ms. Wollman, Yes.

<table>
<thead>
<tr>
<th>CASE NO FDP19-001, COPPERLEAF #22 / FINAL DEVELOPMENT PLAN (FDP) – Bill Skinner, Senior Planner, Public Works and Development (PWD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mr. Skinner established jurisdiction for the hearing. He introduced the application and noted that the site was north and west of the area proposed for a dog park, which the PC just heard. Mr. Skinner reported the site allowed up to 267 homes under the approved Preliminary Development Plan (PDP). He said the application was for 146 homes; and although lower density than what was permitted under the PDP, the development would meet the trend for providing compact development to meet housing demands in the metropolitan area. Mr. Skinner reported one neighboring property owner expressed opposition to the proposed three-story height. He stated the development was below the maximum height established in the PDP. He said the PC would be making a recommendation to the Board of County Commissioners because the project was being processed under the Final Development Plan regulations, which were an option available to the applicant under the Copperleaf Development Agreement.</td>
</tr>
<tr>
<td>Ryan McBreen, Norris Design, showed a map to provide context for the location of the development on 18.2 acres. He presented a PowerPoint, a copy of which was retained for the record. Mr. McBreen noted two types of housing within this section of Copperleaf including the smaller, more compact lots proposed, located closer to Quincy, surrounded on three sides by larger, more traditional lots. He reported there would be two access points to the</td>
</tr>
</tbody>
</table>
neighborhood. Mr. McBreen showed architectural renderings of the CityScape homes, which were three-story detached units on compact lots. He explained the product had been popular in the metro area. Mr. McBreen addressed compliance of the proposed plan with the LDC.

There were discussions concerning open space, lot configuration and placement in comparison to the traditional homes, building height, alley-loaded homes, orientation, density, square footage in comparison to competitors, and cohesiveness of design.

Mr. Skinner commented some of the appeal of the CityScape homes had been that they were similar to townhomes, but without a shared wall.

Ms. Rieck opened the hearing for public comment. There were no public comments. The public hearing was closed.

It was moved by Ms. Latsis and duly seconded by Mr. Sall, in the case of FDP19-001, Copperleaf No. 22 / Final Development Plan, that the Planning Commission reviewed the staff report, including all exhibits and attachments, and have listened to the applicant’s presentation and any public comment, as presented at the hearing, and move to recommend approval of the application based on the findings in the staff report, subject to the following conditions:

1. Prior to signature of the final copy of these plans the applicant must address Public Works Staff comments and concerns.

2. Approval of FDP19-001, Copperleaf No. 22 / Final Development Plan is contingent upon the approval of the PF19-002, Copperleaf No. 22 / Final Plat.

3. The developer will install, or cause to be installed, a sidewalk on the south side of E Quincy Avenue that closes the sidewalk gap between Parcel J and the intersection of E Quincy Avenue and South Himalaya Street. Said sidewalks shall be constructed prior to the issuance of a Certificate of Occupancy for improvements shown in the FDP19-001, Copperleaf 22 / Final Development Plan application.

4. The developer will install, or cause to be installed a sidewalk on the north side of E Radcliff Parkway crossing
the Unnamed Creek and closing the sidewalk gap between the western edge of Parcel J and existing sidewalk installed on the north side of E Radcliff Parkway. Said sidewalks shall be constructed prior to the issuance of a Certificate of Occupancy for improvements shown in the FDP19-001, Copperleaf 22 / Final Development Plan application.

The vote was:

Ms. Rieck, No; Mr. Miller, Yes; Mr. Sall, Yes; Ms. Latsis; Yes; Ms. Wollman, Yes.

**ITEM 4**

**CASE NO EE19-044, MS4 PERMIT UPDATES** – Sarah White, Engineer, Public Works and Development (PWD)

Ms. White presented the County application to amend changes to engineering requirements related to the “MS4” (Municipal Separate Storm Sewer System) Permit. She presented a PowerPoint, a copy of which was retained for the record. Ms. White explained every five years, the Colorado Department of Public Health and Environment (CDPHE) reissued the MS4 permit and number of County processes related to the permit. She outlined the five elements affected and the various changes that would be implemented with the proposed changes. Ms. White reported the County had been working with the South East Metro Stormwater Authority (SEMSWA) to effect these changes. She stated the Planning Commission would be making a recommendation to the Board of County Commissioners on the matter.

Ms. Latsis commented that she is glad to see there were now more options than detention facilities.

It was moved by Ms. Wollman and duly seconded by Mr. Sall, in the case of EE19-044, Stormwater Management Manual (SMM), that the Planning Commission found themselves in agreement with staff findings one (1) through three (3), including all attachments as set forth in the staff report dated June 12, 2019 and recommended approval to the Board of County Commissioners, subject to the following conditions:

1. All minor modifications to the text are required prior to final adoption.

2. The updated Stormwater Management Manual will be effective on July 1, 2019.
The vote was:
Ms. Rieck, Yes; Mr. Miller, Yes; Mr. Sall, Yes; Ms. Latsis; Yes; Ms. Wollman, Yes.

<table>
<thead>
<tr>
<th>ANNOUNCEMENTS</th>
<th>Mr. Reynolds noted the information he planned to address on the proposed public meeting process, for land use cases, had been addressed during the LDC public hearing.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADJOURNMENT</td>
<td>There being no further business to come before the Planning Commission, the meeting was adjourned.</td>
</tr>
</tbody>
</table>
LOCATION:
The application is located at 7103 S. Dillon Court, Englewood, Colorado and within Commissioner District No. 2. This lot is zoned MU-PUD.
ADJACENT SUBDIVISIONS, ZONING, AND LAND USES:
North: Centennial East Corporate Center Subdivision, MU-PUD, governmental
South: Centennial East Corporate Center Subdivision, MU-PUD, commercial
West: City of Centennial, Windmill Creek Drainage; and City of Centennial, industrial.
East: Centennial East Corporate Center Subdivision, MU-PUD, light industrial

PROPOSAL:
The applicant is seeking approval of Case No. SDP18-003, Rapid Wire LLC New Office/Warehouse Specific Development Plan. The applicant proposes to construct a building that contains an office/warehouse space and outside storage on Lot 5 of the Centennial East Corporate Center development.

RECOMMENDATION:
Staff: Staff recommends the application be approved based on the findings and subject to the conditions of approval outlined herein.

I. BACKGROUND
The property was originally zoned A-1 in 1961. The current Preliminary Development Plan for this property was approved on September 7, 1999 (Centennial East Corporate First Amendment Preliminary Development Plan, Case No. Z99-003).

II. DISCUSSION
Staff review of this application included a comparison of the proposal to: 1) applicable policies and goals outlined in the Comprehensive Plan; 2) review of pertinent zoning regulations; and 3) analysis of referral comments.

1. The Comprehensive Plan
The Comprehensive Plan designation for this area is Employment. The proposed use complies with the Employment Land Use category by providing employment to staff at this facility.

This application complies with the following Goals and Policies of the Comprehensive Plan:

- Policy GM 1.1 – Direct Growth to the Urban Area
  The proposed development is to be located in the Urban Area.
• Policy GM 1.2 – Encourage Infill Development and Redevelopment
The proposed application is located in the Urban Area and has access to existing public facilities.

• Goal PFS 1 – Ensure an Adequate Water Supply in Terms of Quantity and Quality for Existing and Future Development.
Water for the proposed facility is available.

• Policy PFS 4.3 – Require Adequate Wastewater Treatment
The facility will be connecting to an existing public sewer.

• Goal PFS 6 – Ensure the Adequacy of Electric, Natural Gas, Telephone, Cable and Internet Utilities in Existing and new Development.
The proposed development is in an Urban Area and has access to all the utilities and water and sewer services mentioned above.

• Goal PFS 7 – Ensure Existing and New Development have Adequate Police and Fire Protection
The proposed development will have adequate fire and police service.

2. Land Development Code (LDC) Review
Chapter 13-106.01, Planned Unit Development (PUD) of the LDC, provides approval criteria for all PUD applications. In addition to those criteria, an SDP in a three-step process must meet any applicable criteria in Sections 13-106.02 and 13-106.03.

13-106.01
A. It generally conforms to the Arapahoe County Comprehensive Plan.
As noted in the previous section, the proposed development conforms to the Arapahoe County Comprehensive Plan by proposing development in the designated Urban Area of the County that contains existing roads and utilities.

B. It complies with the standards for conventional rezoning pursuant to Section 13-201 (each subsection is discussed in more detail below):

13-201.01
Recognize the limitations of existing and planned infrastructure, by thoroughly examining the availability and capability of water, sewer, drainage, and transportation systems to serve present and future land uses.
The proposed infrastructure is adequate to support the proposed use.
13-201.02
Assure compatibility between the proposed development, surrounding land uses, and the natural environment.
The proposed one-story development is anticipated to blend with the development in the area through building style and materials. The proposal will meet Centennial Airport Environs Planning Area regulations, which require enhanced architectural designs and landscaping.

13-201.03
Allow for the efficient and adequate provision of public services. Applicable public services include, but are not limited to, police, fire, school, park, and libraries.
The proposal can be served by existing public services.

13-201.04
Enhance convenience for the present and future residents of Arapahoe County by ensuring that appropriate supporting activities, such as employment, housing, leisure-time, and retail centers are in close proximity to one another.
The proposed development will provide employment opportunities.

13-201.05
Ensure that public health and safety is adequately protected against natural and man-made hazards which include, but are not limited to, traffic noise, water pollution, airport hazards, and flooding.
There are no known natural and man-made hazards on the property.

13-201.06
Provide for accessibility within the proposed development, and between the development and existing adjacent uses. Adequate on-site interior traffic circulation, public transit, pedestrian avenues, parking and thoroughfare connections are all factors to be examined when determining the accessibility of a site.
Public accessibility will be provided for by the existing road and pedestrian system.

13-201.07
Minimize disruption to existing physiographic features, including vegetation, streams, lakes, soil types, and other relevant topographical elements.
No significant physiographic features exist on this site.
13-201.08
Ensure that the amenities provided adequately enhance the quality of life in the area, by creating a comfortable and aesthetically enjoyable environment through conventions such as, the preservation of mountain views, the creation of landscaped open areas, and the establishment of recreational activities. The proposal does not impact mountain views any more than what is typical of development in the Denver Metro Area.

13-201.09
Enhance the useable open spaces in Arapahoe County, and provide sufficient unobstructed open space and recreational area to accommodate a project’s residents and employees. The applicant is proposing 31.8 percent open space which exceeds the PDP minimum of 25%.

13-201.10
Ensure the application complies with the requirements of this Resolution and the Arapahoe County Comprehensive Plan. As discussed in the Comprehensive Plan section, the proposed development complies with the Comprehensive Plan by proposing a development within the designated Urban Area of the County that has existing roads and utilities.

C. It represents an improvement in quality over the strict application of the otherwise applicable zone district or development standards in this LDC, including but not limited to open space and access; environmental protection; vegetative preservation; efficiency in transportation systems and connectivity; alternative transportation options; improvements in utilities and services; or innovative housing or employment centers. The application proposes a development that upholds the PDP standards. The applicant proposes to exceed the minimum open space approved by the PDP.

D. It is consistent with the purpose of the Planned Unit Development District as stated in Section 13-101 of this LDC. This application promotes a design concept that blends with surrounding development in the area. The development also proposes one-story which assists in preserving views of the mountains.

E. Any modifications to the standards and requirements of this LDC are warranted by the layout and design of the site, amenities incorporated into the development plan, or by the need to protect or avoid unique site features. Drainage easements on-site are accommodated in the site’s design and no modifications to the code have been requested.
F. The proposed plan meets the applicable standards of this LDC, unless varied by the PUD.

*The proposed plan meets applicable standards.*

In addition to meeting the approval criteria for all PUD applications (13-106.01), an SDP in the three-step process must also comply with the development standards and requirements of the approved GDP for the site (13-106.03). The Centennial East Corporate Center First Amendment Preliminary Development Plan functions as the GDP for this site. The SDP provides more detail on the project by proposing the site layout of the development, general landscaping and other site details as appropriate.

The proposed Specific Development Plan meets PUD development standards by exceeding the minimum open space requirement set in the PDP and by including uses that are authorized by the PDP and meeting the PDP height and setback standards.

This proposed development is located within the Centennial Airport Environ Planning Area (CAEPA) which has more stringent development standards (LDC Section 10-200). The proposed development appears to generally meet all other CAEPA requirements. Some examples of this application complying with these requirements include: architectural detailing on all four sides of the building, horizontal articulation and a visually prominent entrance. Also, outside storage and the trash enclosure are screened by a solid eight-foot tall fence.

3. **Referral Comments**

Comments received during the referral process are as follows:

<table>
<thead>
<tr>
<th>Referral Agency</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arapahoe County Engineering Services Division</td>
<td>Staff is working with the applicant to address all engineering and SEMSWA comments.</td>
</tr>
<tr>
<td>Arapahoe County Building</td>
<td>Building permits to comply with 2015 IBC code and include a code study with submittal.</td>
</tr>
<tr>
<td>Arapahoe County Mapping</td>
<td>Working with applicant to address comments.</td>
</tr>
<tr>
<td>Arapahoe County Zoning</td>
<td>No comments.</td>
</tr>
<tr>
<td>Arapahoe County Open Spaces</td>
<td>No comments received.</td>
</tr>
<tr>
<td>Arapahoe County Sheriff</td>
<td>No comments.</td>
</tr>
<tr>
<td>Arapahoe County Library District</td>
<td>No comments received.</td>
</tr>
<tr>
<td>Arapahoe County Post Office</td>
<td>No comments received.</td>
</tr>
<tr>
<td>City of Centennial</td>
<td>The City suggests adding trees along the northern and southern property lines to screen the site from adjacent properties, consider not using shadow paneling as the primary siding material and consider horizontal panel fencing. <em>The applicant is proposing planting along the north elevation and a portion of the south property line of the parcel. Drainage easements along the south property line prevents the planting of trees and shrubs. However, the lot adjacent and south of the subject property has landscaping along its north property line which assists in providing some buffer between the two parcels. Primary siding is vertical with accents provided by shadow panels. Vertical panel fencing is proposed and is found in the surrounding area.</em></td>
</tr>
<tr>
<td>South Metro Fire Rescue</td>
<td>The district has reviewed and approved the proposed plan.</td>
</tr>
<tr>
<td>Dove Valley Metro District</td>
<td>No comments received.</td>
</tr>
<tr>
<td>Cherry Creek School District</td>
<td>No comments received.</td>
</tr>
<tr>
<td>Tri-County Health Department</td>
<td>This agency suggests having vector control on-site. <em>Staff recommends that as a condition of approval.</em></td>
</tr>
<tr>
<td>West Arapahoe Conservation District</td>
<td>No comments received.</td>
</tr>
<tr>
<td>RTD</td>
<td>No comments.</td>
</tr>
<tr>
<td>Centennial Airport</td>
<td>This agency indicates that any objects on the site that penetrate a 100:1 slope form the nearest point of the nearest runway, penetrate FAA Part 77 airspace surface, impede signals associated with navigational equipment or any other reason the FAA deems necessary will be required to file and receive approval of FAA Form 7460-1. <em>The application needs to comply with FAA regulations which will be made a condition of approval.</em></td>
</tr>
<tr>
<td>CenturyLink</td>
<td>This agency has no objections to this application.</td>
</tr>
<tr>
<td>Xcel Energy</td>
<td>This agency has electric distribution facilities within the subject property and must go through an application process if any new lines are added or existing modified. <em>Staff has set this as a condition of approval.</em></td>
</tr>
<tr>
<td>Cherry Creek Basin Authority</td>
<td>No exceptions taken as submitted.</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>-----------------------------------</td>
</tr>
<tr>
<td>Southeast Metro Stormwater Authority (SEMSWA)</td>
<td>See engineering comments.</td>
</tr>
<tr>
<td>Urban Drainage</td>
<td>No comments.</td>
</tr>
<tr>
<td>Arapahoe Water and Wastewater Authority</td>
<td>This agency requires the applicant to submit plans for review and comment and approval, independent from the County review. <em>Staff set this as a condition of approval.</em></td>
</tr>
</tbody>
</table>

**STAFF FINDINGS:**
Staff has visited the site and reviewed the plans, supporting documentation, referral comments, and citizen input in response to this application. Based on the review of applicable policies and goals, as set forth in the Comprehensive Plan, review of the development regulations, and analysis of referral comments, our findings include:

**Specific Development Plan**
1. The proposed Specific Development Plan conforms to the overall goals and intent of the Arapahoe County Comprehensive Plan in regards to the policies set forth in those plans.

2. The proposed Specific Development Plan is consistent with development standards enumerated in the Arapahoe County Land Development Code.

3. The proposed Specific Development Plan complies with the process and requirements outlined in Section 13-100 Planned Unit Development (PUD) of the Arapahoe County Land Development Code.

**RECOMMENDATION:**
Considering the findings and other information provided herein, staff recommends approval of Case No. SDP18-003 Rapid Wire LLC New Office/Warehouse - Specific Development Plan, with conditions recommended in this report.
**DRAFT MOTIONS:**
In the case of SDP18-003 Rapid Wire LLC New Office/Warehouse - Specific Development Plan, the Planning Commissioners have reviewed the staff report, including all exhibits and attachments, and have listened to the applicant’s presentation and any public comment as presented at the public hearing. I hereby move to APPROVE this application based on the findings in the staff report, subject to the following conditions:

1. Prior to signature of the final copy of these plans, the applicant must address Public Works Staff comments and concerns.
2. The applicant shall comply with all Arapahoe County Water and Wastewater Authority requirements.
3. The applicant shall comply with all FAA regulations.
4. The applicant shall comply with Xcel Energy requirements.
5. The applicant shall implement vector control on-site.

**Alternate Motions:**
The following motions are provided as alternatives to the recommended motion for Conditional Approval:

**DENY:** In the case of SDP18-003 Rapid Wire LLC New Office/Warehouse - Specific Development Plan, the Planning Commissioners have reviewed the staff report, including all exhibits and attachments, and have listened to the applicant’s presentation and any public comment as presented at the public hearing. I hereby move to DENY this application based on the findings:

- State new or amended findings in support of denial as part of the motion.
- ...

**CONTINUE TO DATE CERTAIN:**
In the case of SDP18-003 Rapid Wire LLC New Office/Warehouse - Specific Development Plan, I move to continue the public hearing to (DATE), date certain, 6:30 p.m., in the Arapahoe Room at 6954 S. Lima Street, Centennial, Colorado 80112, to receive additional information and to further consider information presented.

**Attachments:**
- Application & Exhibits
- Engineering Staff Report
- Referral Comments
- Supporting Material
# Land Development Application

**Form must be complete**

Land Development Application materials received after 2pm shall be date stamped received the following working day.

## Applicant/Representative

<table>
<thead>
<tr>
<th>Name</th>
<th>Address</th>
<th>Phone</th>
<th>Fax</th>
<th>Email</th>
<th>Signature</th>
<th>Name</th>
<th>Title</th>
<th>Signature</th>
<th>Name</th>
<th>Title</th>
<th>Contact Person</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bill Stashak</td>
<td>1123 Forest Hills Lane, Fort Collins, CO 80524</td>
<td>(970) 219-5076</td>
<td></td>
<td><a href="mailto:betashak@gmail.com">betashak@gmail.com</a></td>
<td></td>
<td>Steve Faria</td>
<td>Architect</td>
<td></td>
<td>Jared Martinez</td>
<td>Owner</td>
<td></td>
</tr>
</tbody>
</table>

## Owner(s) of Record

<table>
<thead>
<tr>
<th>Name</th>
<th>Address</th>
<th>Phone</th>
<th>Fax</th>
<th>Email</th>
<th>Signature</th>
<th>Name</th>
<th>Title</th>
<th>Signature</th>
<th>Contact Person</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steve Faria</td>
<td>PO box 2958, Parker CO 80134</td>
<td>(303) 324-0660</td>
<td></td>
<td><a href="mailto:steve.faria@rapidwinellic.com">steve.faria@rapidwinellic.com</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Engineering Firm

<table>
<thead>
<tr>
<th>Name</th>
<th>Address</th>
<th>Phone</th>
<th>Fax</th>
<th>Email</th>
<th>Signature</th>
<th>Name</th>
<th>Contact Person</th>
</tr>
</thead>
<tbody>
<tr>
<td>Womrade Civil Engineers INC</td>
<td>11582 Colony Row, Broomfield, CO 80021</td>
<td>(720) 259-0965</td>
<td></td>
<td><a href="mailto:Jared@wcacivil.com">Jared@wcacivil.com</a></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Pre-Submittal Case Number: 18-091

## Pre-Submittal Planner: Molly Orklid-Larsen

## Pre-Submittal Engineer: Sarah White

## Parcel ALN No.: 2073-30-3-08-005

## Parcel Address or Cross Streets: 7103 Dillon Court, Englewood, CO 80112

## Subdivision Name & Filing No.: Centennial East Corporate Center

## Related Case Numbers:

- Preliminary Final Development Plan, Rezoning, and/or Plat
- P99-090 Z93-003

## Existing

### Zoning:
- MUPUD

### Case/Project/Subdivision Name:
- 18-091 Rapid Wire, Centennial East Corporate

### Site Area (Acres):
- 1.4186

### Floor Area Ratio (FAR):
- 20%

### Density (Dwelling Units/Acre):
- NA

### Building Square Footage:
- Footprint = 12,600 S.F. + 700 S.F. Mezzanine

## Proposed

### Disturbed Area (Acres):
-

## Case Type (Administrative Case types are shaded in Gray)

- General Development Plan or Major Amendment
- Master Development Plan or Major Amendment
- Specific Development Plan or Major Amendment
- Planned Sign Program or Major Amendment
- Vacation of Right of Way/Easement/Plat
- 041 - Areas & Activities of State Interest - Use by Special Review or Major Amendment
- Comprehensive Plan

## This Section for Office Use Only

<table>
<thead>
<tr>
<th>Case No:</th>
<th>Planning Manager:</th>
<th>Engineering Manager:</th>
</tr>
</thead>
</table>

| Planning Fee: Y N $ | Engineering Fee: Y N $ | TCHD Fee: Y N $ |

This application shall be submitted with all applicable application fees. Submittal of this application does not establish a vested right in accordance with C.R.S. 24-55-105(1). Processing and review of this application may require the submittal of additional information, subsequent reviews, and/or meetings, as outlined in the Arapahoe County Land Development Code.
September 6, 2017

Arapahoe County Public Works & Development
Planning Division
6924 S Lima St
Centennial, CO 80112

RE: 7103 S. Dillon Ct. Building

Dear Public Works & Development:

As the owner of 7103 S Dillon Ct LLC we are proposing a project within unincorporated Arapahoe County. The project is located at 7103 S. Dillon Ct. near East Fremont Avenue and South Dillon Court in the Centennial East Corporate Center, lot 5, blk 1, 3rd flg. The project includes 1.4186 acres and is currently zoned MUPUD.

We would like to take the current vacant lot and build a contemporary industrial building. The building will provide warehouse and office space as well as outside storage giving us the opportunity to move my construction business to this area and provide more jobs in the area.

Owner: 7103 S Dillon Ct LLC
Steven and Amanda Faria
303-324-0660 303-888-0116

General Contractor: Justin Gartner
303-470-8231 office

Sincerely,

[Signature]

Steve Faria
Planning Commission
Engineering Summary Report

Date:       June 24, 2019

To:         Arapahoe County Planning Commissioners

Via:        Molly Orkild-Larson
            Planning Division

From:       Sarah White
            Engineering Services Division

Cc:         Chuck Haskins, Engineering Services Division, Division Manager

Re:         Rapid Wire
            Specific Development Plan (SDP)
            SDP18-003

Purpose and Recommendation
The purpose of this report is to provide the Engineering Services Division Staff findings, comments, and recommendations regarding the above-referenced land use application(s).

Scope/Location:
Property owner, 7103 S Dillon Ct LLC, is requesting approval of the Rapid Wire Specific Development Plan (SDP). The project is located at Lot 5, Block 1, Centennial East Corporate Center, Filing No. 3 situs address 7103 S Dillon Ct near the intersection of Blackhawk and Fremont. The site lies within the Windmill Creek drainage basin.

The project proposes construction of a 10,500 square foot warehouse/office building on 1.42 ac lot.

Items included with this referral:
Specific Development Plan
Traffic Impact Study
Phase II Drainage Study
**Engineering Services Division Staff (Staff) has reviewed the above-referenced land use application(s) and has the following findings and comments:**

List applicable comments and findings

1. This parcel is in the **Windmill Creek** drainage basin. Drainage basin fees have been established by the Southeast Metro Stormwater Authority (SEMSWA) for development in this watershed.

2. Site discharges into existing swale and regional detention/ water quality facility (Pond W6/W7). Onsite 20/10 water quality treatment with proposed grass buffer.

3. This development lies within the Cherry Creek Watershed and within the boundaries of the Cherry Creek Basin Water Quality Authority (CCBWQA). This application was referred to the CCBWQA for review, they have no comments with the project as proposed.

4. This development lies within the boundaries of the Southeast Metro Stormwater Authority (SEMSWA). SEMSWA has no further comments at this time.

5. This development lies within the boundaries of the Urban Drainage and Flood Control District (UDFCD). No changes to the outlet structure or work within Windmill Creek, therefore no MEP required.

6. This development lies within the boundaries of the Arapahoe Water and Wastewater Authority District (ACWWA).

7. Roadside improvements, curb, gutter and sidewalk, proposed with site development plans.

8. No additional ROW is required. Access alignment agrees with previously approved Centennial East Corp Plat.

9. This development lies within the airport influence area.

10. Engineering review and approval fees have been paid.

11. The following variances have been requested and granted:
   
   a) Use of NOAA Atlas 14 for point rainfall source
   b) Waiver of Traffic Impact Study (TIS). TIS waiver request meets requirements and approved by the Technical Review Committee (TRC).

**Engineering Services Division Staff is recommending this land use application favorably and has no further comments or conditions associate with the SDP pending PC approval.**
TO: Kelsea Dombrovski  
kdombrovski@arapahoegov.com

DATE: September 4, 2018

SUBJECT: Rapid Wire SDP – ACWWA Referral Review Comments

Dear Ms. Dombrovski,

We appreciate the opportunity to review the above-mentioned project on behalf of Arapahoe-County Water & Wastewater Authority (ACWWA) and have the following comments for the applicant:

1. **Please submit ACWWA utility plans directly to ACWWA for review, comment and approval (independent from City/County approval process).** Please refer to the “For Developer” link on ACWWA’s website at [www.acwwa.com](http://www.acwwa.com) for additional design requirements and submittal procedures. An imprest account will need to be established at the time of the initial submittal. Information regarding the imprest account can also be found at the aforementioned link.

2. Please provide plumbing plans, proposed fixtures and meter sizing calculations per AWWA M22. An M22 spreadsheet for meter sizing can be found and used at the above web address. Please provide all landscape and irrigation demand calculations as well. Separate service lines and meter pits are required for domestic, mechanical equipment, and irrigation services. ACWWA has a maximum 10 fps velocity requirement through the water service lines and meters. Tap fees for the respective meter sizes can be found in Appendix A of ACWWA’s Rules & Regulations which can be found at the website listed above. Tap Fees are based on tap equivalents, annual demands and maximum velocity requirements.

3. All existing and proposed ACWWA utilities, including meter pits are to be within a minimum 30’ wide easement dedicated to ACWWA by separate document. Please refer to “ACWWA Easement Checklist” at the web address for easement requirements and instructions for preparing easement exhibits. Parking, landscaping and permanent structures are not permitted within an ACWWA easement. ACWWA utilities are to be accessible by vehicle with unrestricted access through any security gates or fences. Please provide the reception number for existing ACWWA easements.

4. A sampling manhole is required on all commercial families and required to be straight through manholes with no bends up to a minimum of 5’ on either side of the manhole. In addition, a 0% slope is required through the sampling manholes. All proposed sanitary sewer service lines must have a minimum 2% slope.

5. Separate and independent domestic service, irrigation service, fire line service, and fire hydrant laterals are required. Water services are to be installed perpendicular to main from tap through meter pit at least 5 feet. Fire hydrant laterals are required to be straight from the main connection to the fire hydrant.
6. All ACWWA required documents are to be completed and approved prior to construction release, including tap fee payment, Letter of Credit established, easements recorded, Development Agreement completed, ACWWA utility plan approval, and wastewater discharge survey completed.

7. Please contact Wade Wheatlake to schedule an ACWWA pre-submittal meeting. The pre-submittal meeting will cover ACWWA design and submittal requirements.

Merrick performs reviews on behalf of ACWWA, if you have any questions please contact me.

Sincerely,

Wade B. Wheatlake, P.E.
Merrick & Company
5970 Greenwood Plaza Blvd.
Greenwood Village, CO. 80111
303.353.3683 / wade.wheatlake@merrick.com
SPECIFIC DEVELOPMENT PLAN
RAPID WIRE LLC NEW OFFICE/WAREHOUSE
BEING A PART OF WEST HALF OF SECTION 30, TOWNSHIP 5 SOUTH, RANGE 66
WEST OF THE SIXTH PRINCIPAL MERIDIAN, CITY OF ENGLEWOOD, COUNTY OF
ARAPAHOE, STATE OF COLORADO

- ALL CONSTRUCTION SHALL CONFORM AND ALL OTHER APPLICABLE CODES.
- DO NOT SCALE DRAWINGS FOR DIMENSIONS.
CONSTRUCTION MANAGERS, SUB-SUPPLIERS TO THIS PROJECT, HAVE THE COMPLETE RESPONSIBILITY TO NOTIFY ENGINEERS, ARCHITECTS AND ALL OTHER DESIGN PROFESSIONALS OF ANY DISCREPANCIES, CONFLICTS, BUILDING OR OTHER CODE REQUIREMENTS AS REPRESENTED BY THESE CONSTRUCTION LIABILITY CLAIMS SHALL BE LIMITED TO THE EXTENT OF SAID DESIGNER'S FEE, ONLY AND IS HEREBY RECOGNIZED AS SUCH BY ANY CLAIMANTS, OWNERS, CONTRACTORS AND ALL OTHER DOCUMENTS. ANY PROFESSIONAL LIEN HOLDERS OR OTHERS
SPECIFIC DEVELOPMENT PLAN
RAPID WIRE LLC NEW OFFICE/WAREHOUSE
BEING A PART OF WEST HALF OF SECTION 30, TOWNSHIP 5 SOUTH, RANGE 66
WEST OF THE SIXTH PRINCIPAL MERIDIAN, CITY OF ENGLEWOOD, COUNTY OF
ARAPAHOE, STATE OF COLORADO

NOTE:
PROPOSED ELEVATIONS
SUBJECT TO REFINEMENT

NOTE:
SUBJECT TO REFINEMENT
SPECIFIC DEVELOPMENT PLAN
Rapid Wire LLC New Office/Warehouse

Being a part of West Half of Section 30, Township 5 South, Range 66
West of the Sixth Principal Meridian, City of Englewood, County of
Arapahoe, State of Colorado

Specific Development Plan

- Rapid Wire LLC New Office/Warehouse
- Being a part of West Half of Section 30, Township 5 South, Range 66
- West of the Sixth Principal Meridian, City of Englewood, County of Arapahoe, State of Colorado

Engineers, architects, and all other design professionals of any discrepancy, conflict, building or other code requirements as represented by these construction documents. Any professional lien holders or others involved in construction are hereby recognized as such by any claimants, owners, contractors, and all other parties involved in construction.

General Utility Notes:

- All construction shall conform to the current uniform building code and all other applicable codes.
- Do not scale drawings, as dimensions are accurate.
- Construction managers, subcontractors, and all others involved in construction shall have the complete responsibility to notify engineers, architects, and all other design professionals of any discrepancies, conflicts, building or other code requirements as represented by these construction documents.

Liability claims shall be limited to the extent of said designer's fee, only, and is hereby recognized as such by any claimants, owners, contractors, and all other parties involved in construction.
Trees planted upon park land, public property, or within the Public Right of Way (PRW) are subject to the following restrictions:

- Prior to digging, the Utility Notification Center of Colorado shall be contacted at 811 to locate underground utilities.
- If overhead utility wires exist in the PRW, only ornamental or trees maturing at 20 (twenty) feet maximum height shall be planted.
- Large shade trees shall be spaced 35 (thirty-five) feet o.c. and ornamental trees 25 (twenty-five) feet o.c. or as designated by
- Planting within five feet of water meters or pits is not permitted.
- Planting within 25 (twenty-five) feet of street lights is not permitted.
- Planting within 20 (twenty) feet of stop signs is not permitted.
- Planting within 10 (ten) feet of alleys, driveways, or fire hydrants is not permitted.
- Planting in corner triangle formed by the first 30 (thirty) feet along the PRW in each direction from the corner is not permitted.
- Only tree species approved by or listed on the OCF's approved street tree list shall be planted in the PRW.
- Trees shall be pruned to maintain a clearance of 13'-6" over streets and alleys and 6'-6" over remaining portions of PRW, including sidewalks.
- Trees shall be centered in tree lawns and/or planting areas.
- Where sidewalks are not present, trees shall be located as designated by Office of the City Forester.
- Administrative citations up to $999 shall be issued for trees planted without an OCF issued permit.
- An approved planting permit from the Office of the City Forester (OCF), regardless of approved plans, is required prior to planting.

**PLANT SCHEDULE PLANTING PLAN**

**REFERENCE NOTES SCHEDULE PLANTING PLAN**

**DRAWN BY:**

**CHECKED BY:**

**PLANTING PLAN**

**NEW OFFICE WAREHOUSE**

710 SOUTH DILLON CT.

ENGLEWOOD, CO.

WWW.CONNECTONEDESIGN.COM | 970.379.1030
Case Number / Case Name: SDP 18-003 Rapid Wire
Planner:   Molly Orkild-Larson
Engineer:  Sarah White
Date sent: August 6, 2018
Date to be returned: September 4, 2018

Referral Agencies

The enclosed case has been submitted to the Arapahoe County Planning Office for consideration. Because of the possible effect of the proposed development upon your area, the case is being referred for your comment. Please examine this request and, after review, check the appropriate line and return to the Arapahoe County Planning Office on or before the date indicated above.

COMMENTS:     SIGNATURE

☐ Have NO Comments to make on the case as submitted
☒ Have the following comments to make related to the case:  Joe Richards Building Division Manager

Building Permits to comply with 2015 IBC code and include a Code Study with submittal
### Case Number / Case Name: SDP 18-003 Rapid Wire
### Planner: Molly Orkild-Larson
### Engineer: Sarah White
### Date sent: August 6, 2018
### Date to be returned: September 4, 2018

#### Arapahoe County Agencies
- [ ] Assessor / Arapahoe County (Residential) Beverly Reynolds
- [ ] Attorney / Arapahoe County Robert Hill
- [ ] Building / Arapahoe County Joe Richards
- [ ] Engineering / Arapahoe County Sarah White
- [ ] Mapping / Arapahoe County Karen Kendall
- [ ] Oil & Gas / Arapahoe County Diane Kools
- [ ] Open Space / Arapahoe County Raymond Winn
- [ ] Planning / Arapahoe County Molly Orkild-Larson
- [ ] Sheriff / Arapahoe County 1 to Jason Presley 1 to Glenn Thompson
- [ ] Weed Control / Arapahoe County Russell Johnson
- [ ] Zoning / Arapahoe County Caitlyn Cahill

#### Referree Agencies
- [ ] Architectural Review Committee Linda Speas
- [ ] Arapahoe Library District
- [ ] CGS Colorado Geological Survey-Soils Jill Carlson
- [ ] City / Town – City of Centennial
- [ ] Colorado Parks and Wildlife
- [ ] Centennial Airport
- [ ] County
- [ ] DRCOG
- [ ] Fire Rescue District – South Metro Fire Rescue District Lisa Jacoby
- [ ] Metro District – Dove Valley Metro District
- [ ] Post Office – Arapahoe County Krissy Summerfield
- [ ] Reap I-70 Regional Economic Advancement Partnership Matt Reay and Jack Keever
- [ ] Arapahoe County Recreation District
- [ ] School District – Cherry Creek Dave Stroclus
- [ ] Special District
- [ ] Tri-County Health Department Sheila Lynch
- [ ] HOMEOWNER’S ASSOCIATIONS

#### Citizen’s Organizations
- [ ] Four Square Mile Neighborhood
- [ ] South Metro Chamber of Commerce
- [ ] West Arapahoe Conservation District Tasha Chevarria

#### Referral Agencies
- [ ] CDOT / State Highway Dept
- [ ] E-470 Authority
- [ ] RTD
- [ ] Transportation
- [ ] RTD
- [ ] Centennial Airport Dylan Haberlein

#### Utilities: Gas, Electric & Phone
- [ ] CenturyLink/Phone Dustin Pulciani
- [ ] Conoco Phillips / Gas Pipeline
- [ ] XCEL Donna George
- [ ] IREA Brooks Kaufman

#### Water / Sanitation / Stormwater / Wetlands
- [ ] Improvement Metro District
- [ ] U.S. Army Corp. of Engineer
- [ ] Cherry Creek Basin Authority
- [ ] Colorado Division of Water Resources
- [ ] SEMSWA
- [ ] ECCW&S
- [ ] Urban Drainage & Flood
- [ ] Arapahoe Water and Wastewater Authority
- [ ] Other / 5 Sets East End Adv. Committee

The enclosed case has been submitted to the Arapahoe County Planning Office for consideration. Because of the possible effect of the proposed development upon your area, the case is being referred for your comment. Please examine this request and, after review, check the appropriate line and return to the Arapahoe County Planning Office on or before the date indicated above.

#### COMMENTS:
- [ ] Have NO Comments to make on the case as submitted
- [ ] Have the following comments to make related to the case:
  - [ ] Attached

#### SIGNATURE
August 31, 2018

Ms. Kelsea Dombrovski  
Arapahoe County Public Works and Development  
6924 South Lima Street  
Centennial, CO 80112

Re: SDP 18-003: Rapid Wire

Dear Ms. Dombrovski,

Thank you for the opportunity to review the development plan. We have the following comment to make on the project:

- The proposed development lies inside the Buffer Zone (BZ) of the Airport Influence Area (AIA), and will be subjected to numerous aircraft overflights and their associated effects. These effects include, but are not limited to: noise, smoke, dust, fumes and vibrations.

- Any objects on the site (including cranes used during construction) that penetrate a 100:1 slope from the nearest point of the nearest runway, penetrates the FAA Part 77 airspace surface, impede signals associated with navigational equipment or any other reason the FAA deems necessary will require the filing and approval of FAA Form 7460-1. This form may take 90 days or more for approval. Please visit https://oeaaa.faa.gov to utilize the notice criteria tool to confirm filing requirements and to file the FAA Form 7460-1. Please note that this is a State and Federal regulatory requirement. Any objects permanent or temporary on site may require the filing and approval of a FAA Form 7460-1. Runway endpoint data is available from the Airport for engineering calculations. In addition, please have crane operators advise Airport Operations at 303-877-7307 prior to erecting any cranes.

Please feel free to call me if you have any questions.

Sincerely,

Dylan Heberlein  
Noise and Environmental Specialist
8/14/2018

Kelsea Dombrovski  
Planner  
Planning Division | Arapaho County Public Works and Development  
6924 South Lima St. Centennial, CO 80112  
Kdombrovski@arapahoegov.com  
720-874-6854

SUBJECT: Rapid Wire LLC New Office/Warehouse Site Plan Review for 7103 S Dillon CT in Englewood, Co.

Kelsea:

Qwest CORPORATION, d/b/a CENTURYLINK QC, has reviewed the Rapid Wire LLC New Office/Warehouse Development plan and has determined that it has no facilities lying within the area identified in Exhibit A.

It is the intent and understanding of CenturyLink that the Rapid Wire LLC New Office/Warehouse Development plan shall not reduce our rights to any other existing easement or rights we have on this site or in the area.

This Site Development Plan is submitted with the status of No Objection.

If CenturyLink facilities are found within the vacated area as described, the Applicant will relocate the facilities at Applicant's expense, and within guidelines set by CenturyLink and all regulating entities. All relocations will be done under the supervision of a CenturyLink Inspector.

If you have any questions or concerns regarding our comments, please contact Don Twiggs, ROW Agent at Don.Twiggs@CenturyLink.com.

Sincerely yours,

Karen Caime

Karen Caime,  
Right of Way Agent  
Qwest Corporation d/b/a CENTURYLINK QC

P802546
Case Number / Case Name: SDP 18-003 Rapid Wire  
Planner: Molly Orkild-Larson  
Engineer: Sarah White  
Date sent: August 6, 2018  
Date to be returned: September 4, 2018

<table>
<thead>
<tr>
<th>Arapahoe County Agencies</th>
<th>Citizen's Organizations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessor / Arapahoe County (Residential)</td>
<td>Beverly Reynolds</td>
</tr>
<tr>
<td>Attorney / Arapahoe County</td>
<td>Robert Hill</td>
</tr>
<tr>
<td>Building / Arapahoe County</td>
<td>Joe Richards</td>
</tr>
<tr>
<td>Engineering / Arapahoe County</td>
<td>Sarah White</td>
</tr>
<tr>
<td>Mapping / Arapahoe County</td>
<td>Karen Kenddey</td>
</tr>
<tr>
<td>Oil &amp; Gas / Arapahoe County</td>
<td>Diane Kocis</td>
</tr>
<tr>
<td>Open Space / Arapahoe County</td>
<td>Raymond Winn</td>
</tr>
<tr>
<td>Planning / Arapahoe County</td>
<td>Molly Orkild-Larson</td>
</tr>
</tbody>
</table>
| Sheriff / Arapahoe County | 1 to Jason Presley  
1 to Glenn Thompson |
| Weed Control / Arapahoe County | Russell Johnson |
| Zoning / Arapahoe County | Caitlyn Cahill |

<table>
<thead>
<tr>
<th>Referral Agencies</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Arapahoe Library District</td>
<td>Linda Speas</td>
</tr>
<tr>
<td>CGS Colorado Geological Survey-Soils</td>
<td>Jill Carlson</td>
</tr>
<tr>
<td>City / Town – City of Centennial</td>
<td></td>
</tr>
<tr>
<td>Colorado Parks and Wildlife</td>
<td></td>
</tr>
<tr>
<td>County</td>
<td></td>
</tr>
<tr>
<td>DRCOG</td>
<td></td>
</tr>
<tr>
<td>Fire Rescue District – South Metro Fire Rescue District</td>
<td></td>
</tr>
</tbody>
</table>
| Metro District – Dove Valley Metro District | Lisa Jacoby  
Kris W. Summerfield |
| Post Office – Arapahoe County | Matt Reay and Jack Keever |
| Reap I-70 Regional Economic Advancement Partnership | SEMSWA  
Shelia Lynch |
| Arapahoe County Recreation District | |
| School District – Cherry Creek | Dave Strohfus  
ECCVW&S  
Urban Drainage & Flood |
| Special District |  
Tri-County Health Department | Sheila Lynch  
Arapahoe Water and Wastewater Authority |
| HOMEOWNER’S ASSOCIATIONS | |

The enclosed case has been submitted to the Arapahoe County Planning Office for consideration. Because of the possible effect of the proposed development upon your area, the case is being referred for your comment. Please examine this request and, after review, check the appropriate line and return to the Arapahoe County Planning Office on or before the date indicated above.

COMMENTS:  
☐ Have NO Comments to make on the case as submitted  
☐ Have the following comments to make related to the case:

No exceptions taken to this Site Plan as Submitted
Dear Kelsea,

Thank you for including the City of Centennial in the referral for Arapahoe County Case No. SDP 18-003 (Centennial Referral Case No. RF-18-00173). The City offers the following comments:

1. Add trees along the northern and southern property lines to screen the site from adjacent properties.
2. Consider selecting another primary siding material other than shadow panel metal siding.
3. Consider horizontal panel fencing.

Sincerely,

Michael Gradis, AICP | Senior Planner
City of Centennial | Community Development
13133 E. Arapahoe Rd. Centennial, CO 80112
Direct (303) 754-3356
mgradis@centennialco.gov
CentennialCO.gov | Facebook | Twitter
Tell us how we’re doing!

Note: I will be out of the office beginning Friday, August 24th and will return Tuesday, September 4th.

New Online Permitting and Planning E-Services Launch on August 20th!

On August 20th, Centennial Community Development (Building, Code, Planning & Engineering) will launch the new EnerGov Self-Service portal, ushering in a new era of technology and customer service improvements that will allow customers to use the City’s website to handle everything related to permitting, planning, inspections and code complaints. The existing legacy system will be officially taken off-line beginning at 5:00 PM on Wednesday, August 15th and Building and Planning Staff will have limited operations on Thursday, August 16th and Friday, August 17th. During this two-day period of limited operations, all Building and Planning Staff will be in the office as normal, but will be delaying the receipt of any new permit or plan applications until the EnerGov system goes live. The new EnerGov Self-Service portal will Go Live at 8:00 AM on Monday, August 20th and all permits will begin being received online. After go-live, a series of new customer-facing computers will be ready and waiting at the Planning and Building counters for any customers that still need in-person assistance with applying for permits and plans.
Please find at the attached link: referral documents for your review and comment on or before September 4th.

https://arapahoecounty365-my.sharepoint.com/:f:/g/personal/morkild-larson_arapahoegov_com/EkyEy4jtsWZKvligyPfQKMBx4zMMd-X5045p_m4OMHV9Q?e=UgtB7y

Best,

Kelsea Dombrovski | Planner I
Planning Division | Arapahoe County Public Works and Development
6924 South Lima St. Centennial, CO 80112
kdombrovski@arapahoegov.com | Fax: 720-874-6611
www.arapahoegov.com
Kelsea Dombrovski

From: Jeff Sceili <jeff.sceili@southmetro.org>
Sent: Wednesday, August 08, 2018 11:24 AM
To: Kelsea Dombrovski
Subject: FDP18-003
Attachments: Vehicle Specifications.pdf

Kelsey,

In regard to our conversation regarding FDP18-003.

1- The proposed access gate shall have emergency means for access; 1- For an automatic gate a Knox key switch must be provided. 2- For a manual gate a knox padlock must be provided.
2- Please provide an Autoturn exhibit (spec are attached.)

Thank you for your communication.

Respectfully,

Jeff Sceili
Plan Reviewer

SOUTH METRO FIRE RESCUE
Fire Marshal’s Office T 720.589.2244
9195 East Mineral Avenue, Centennial, Colorado 80112

C 303.548.0233
E jeff.sceili@southmetro.org
Vehicle Specifications
Length: 47' 9.5"
Width: 8' 5" - (10' 1" mirror to mirror)
Height: 10' 9"
Wheelbase: 273 in.
Design load: 80,000 pounds
Inside Cramp Angle: 40°
Axle Track: 83"
Wheel Offset: 5.3"
Tread Width: 13.5"

Turning Radii:
Inside Turn: 26 ft. 1 in.
Curb to curb: 41 ft. 11 in.
Wall to wall: 46 ft. 8 in.
Case Number / Case Name: SDP 18-003 Rapid Wire
Planner: Molly Orkild-Larson
Engineer: Sarah White
Date sent: August 6, 2018
Date to be returned: September 4, 2018

<table>
<thead>
<tr>
<th>Arapahoe County Agencies</th>
<th>Citizen’s Organizations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessor / Arapahoe County (Residential)</td>
<td>Beverly Reynolds</td>
</tr>
<tr>
<td>Attorney / Arapahoe County</td>
<td>Robert Hill</td>
</tr>
<tr>
<td>Building / Arapahoe County</td>
<td>Joe Richards</td>
</tr>
<tr>
<td>Engineering / Arapahoe County</td>
<td>Sarah White</td>
</tr>
<tr>
<td>Mapping / Arapahoe County</td>
<td>Karen Kemdley</td>
</tr>
<tr>
<td>Oil &amp; Gas / Arapahoe County</td>
<td>Diane Koos</td>
</tr>
<tr>
<td>Open Space / Arapahoe County</td>
<td>Raymond Winn</td>
</tr>
<tr>
<td>Planning / Arapahoe County</td>
<td>Molly Orkild-Larson</td>
</tr>
<tr>
<td>Sheriff / Arapahoe County</td>
<td>1 to Jason Presley 1 to Glenn Thompson</td>
</tr>
<tr>
<td>Weed Control / Arapahoe County</td>
<td>Russell Johnson</td>
</tr>
<tr>
<td>Zoning / Arapahoe County</td>
<td>Caitlyn Cahill</td>
</tr>
<tr>
<td>Reap I-70 Regional Economic Advancement Partnership</td>
<td>Matt Reay and Jack Keever</td>
</tr>
<tr>
<td>Arapahoe County Recreation District</td>
<td></td>
</tr>
<tr>
<td>School District – Cherry Creek</td>
<td>Dave Strohbus</td>
</tr>
<tr>
<td>Special District</td>
<td></td>
</tr>
<tr>
<td>Tri-County Health Department</td>
<td>Sheila Lynch</td>
</tr>
<tr>
<td>HOMEOWNER’S ASSOCIATIONS</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Referred Agencies</th>
<th>Utilities: Gas, Electric &amp; Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Architectural Review Committee</td>
<td>Centennial Airport</td>
</tr>
<tr>
<td>Arapahoe Library District</td>
<td>Linda Speas</td>
</tr>
<tr>
<td>CGS Colorado Geological Survey-Soils</td>
<td>Jill Carlson</td>
</tr>
<tr>
<td>City / Town – City of Centennial</td>
<td>Conoco Phillips / Gas Pipeline</td>
</tr>
<tr>
<td>Colorado Parks and Wildlife</td>
<td>XCEL</td>
</tr>
<tr>
<td>County</td>
<td>IREA</td>
</tr>
<tr>
<td>DRCOG</td>
<td>RTD</td>
</tr>
<tr>
<td>DRCOG Fire Rescue District – South Metro Fire Rescue District</td>
<td></td>
</tr>
<tr>
<td>Metro District – Dove Valley Metro District</td>
<td>Lisa Jacoby</td>
</tr>
<tr>
<td>Post Office – Arapahoe County</td>
<td>Krisy Summerfield</td>
</tr>
<tr>
<td>Reap I-70 Regional Economic Advancement Partnership</td>
<td>Matt Reay and Jack Keever</td>
</tr>
<tr>
<td>Arapahoe County Recreation District</td>
<td></td>
</tr>
<tr>
<td>School District – Cherry Creek</td>
<td>Dave Strohbus</td>
</tr>
<tr>
<td>Special District</td>
<td></td>
</tr>
<tr>
<td>Tri-County Health Department</td>
<td>Sheila Lynch</td>
</tr>
<tr>
<td>HOMEOWNER’S ASSOCIATIONS</td>
<td></td>
</tr>
</tbody>
</table>

The enclosed case has been submitted to the Arapahoe County Planning Office for consideration. Because of the possible effect of the proposed development upon your area, the case is being referred for your comment. Please examine this request and, after review, check the appropriate line and return to the Arapahoe County Planning Office on or before the date indicated above.

<table>
<thead>
<tr>
<th>COMMENTS:</th>
<th>SIGNATURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Have NO Comments to make on the case as submitted</td>
<td>Jeff Sceili – Plan Reviewer</td>
</tr>
<tr>
<td>Have the following comments to make related to the case:</td>
<td>Jeffrey Sceili</td>
</tr>
</tbody>
</table>
Kelsey Dombrovski  
Planner I  
Arapahoe County Planning Division  
6924 South Lima Street. Centennial, Co 80112  
Direct 720-874-6854  
Planning Office 720-874-6650  

Record # SDP18-003 Rapid Wire Office/Warehouse 7103 Dillon Court  
Project Type; Specific Development Plan  
Referral Received: August 6, 2018  
Comments Due: September 4, 2018  

South Metro Record #  REFOTH18-00136  
Plan Reviewer: Jeff Sceili  Jeff.sceili@southmetro.org  
Review Date: August 7, 2018  

**Narrative:**  


South Metro Fire Rescue Fire Marshal’s Office has reviewed the above referenced project and has approved the SDP with no unresolved issues.
The enclosed case has been submitted to the Arapahoe County Planning Office for consideration. Because of the possible effect of the proposed development upon your area, the case is being referred for your comment. Please examine this request and, after review, check the appropriate line and return to the Arapahoe County Planning Office on or before the date indicated above.

**COMMENTS:**

☐ have no comments to make on the case as submitted

☐ have the following comments to make related to the case:

**SIGNATURE**

C. Scott Woodruff, RTD Engineer III
### Case Number / Case Name: SDP 18-003 Rapid Wire

#### Planner: Molly Orkild-Larson  
#### Engineer: Sarah White  
#### Date sent: August 6, 2018  
#### Date to be returned: September 4, 2018

**Arapahoe County Agencies**

<table>
<thead>
<tr>
<th>Service</th>
<th>Contact Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessor / Arapahoe County (Residential)</td>
<td>Beverly Reynolds</td>
</tr>
<tr>
<td>Attorney / Arapahoe County</td>
<td>Robert Hill</td>
</tr>
<tr>
<td>Building / Arapahoe County</td>
<td>Joe Richards</td>
</tr>
<tr>
<td>Engineering / Arapahoe County</td>
<td>Sarah White</td>
</tr>
<tr>
<td>Mapping / Arapahoe County</td>
<td>Karen Kenddeey</td>
</tr>
<tr>
<td>Oil &amp; Gas / Arapahoe County</td>
<td>Diane Kocis</td>
</tr>
<tr>
<td>Open Space / Arapahoe County</td>
<td>Raymond Winn</td>
</tr>
<tr>
<td>Planning / Arapahoe County</td>
<td>Molly Orkild-Larson</td>
</tr>
<tr>
<td>Sheriff / Arapahoe County</td>
<td>1 to Jason Presley</td>
</tr>
<tr>
<td></td>
<td>1 to Glenn Thompson</td>
</tr>
<tr>
<td>Weed Control / Arapahoe County</td>
<td>Russell Johnson</td>
</tr>
<tr>
<td>Zoning / Arapahoe County</td>
<td>Caitlyn Cahill</td>
</tr>
<tr>
<td>Referred Agencies</td>
<td></td>
</tr>
<tr>
<td>Architectural Review Committee</td>
<td>Linda Speas</td>
</tr>
<tr>
<td>Arapahoe Library District</td>
<td></td>
</tr>
<tr>
<td>City / Town – City of Centennial</td>
<td></td>
</tr>
<tr>
<td>Colorado Parks and Wildlife</td>
<td></td>
</tr>
<tr>
<td>County</td>
<td></td>
</tr>
<tr>
<td>DRCOG</td>
<td></td>
</tr>
<tr>
<td>Fire Rescue District – South Metro Fire</td>
<td></td>
</tr>
<tr>
<td>Rescue District</td>
<td></td>
</tr>
<tr>
<td>Metro District – Dove Valley Metro</td>
<td></td>
</tr>
<tr>
<td>District</td>
<td></td>
</tr>
<tr>
<td>Post Office – Arapahoe County</td>
<td></td>
</tr>
<tr>
<td>Reap I-70 Regional Economic Advancement</td>
<td></td>
</tr>
<tr>
<td>Partnership</td>
<td></td>
</tr>
<tr>
<td>Arapahoe County Recreation District</td>
<td></td>
</tr>
<tr>
<td>School District – Cherry Creek</td>
<td></td>
</tr>
<tr>
<td>Special District</td>
<td></td>
</tr>
<tr>
<td>Tri-County Health Department</td>
<td></td>
</tr>
<tr>
<td>HOMEOWNER’S ASSOCIATIONS</td>
<td></td>
</tr>
</tbody>
</table>

**Citizen’s Organizations**

<table>
<thead>
<tr>
<th>Service</th>
<th>Contact Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conservation District</td>
<td></td>
</tr>
<tr>
<td>Deer Trail Conservation District</td>
<td></td>
</tr>
<tr>
<td>West Arapahoe Conservation District</td>
<td>Tasha Chevarria</td>
</tr>
<tr>
<td>Transportation</td>
<td></td>
</tr>
<tr>
<td>CDOT / State Highway Dept</td>
<td>Peggy Davenport</td>
</tr>
<tr>
<td>E-470 Authority</td>
<td></td>
</tr>
<tr>
<td>Centennial Airport</td>
<td>Dylan Haberlein</td>
</tr>
<tr>
<td>RTD</td>
<td></td>
</tr>
<tr>
<td>XCEL</td>
<td></td>
</tr>
<tr>
<td>IREA</td>
<td></td>
</tr>
<tr>
<td>U.S. Army Corp. of Engineer</td>
<td></td>
</tr>
<tr>
<td>Cherry Creek Basin Authority</td>
<td></td>
</tr>
<tr>
<td>Colorado Division of Water Resources</td>
<td></td>
</tr>
<tr>
<td>SEMSWA</td>
<td></td>
</tr>
<tr>
<td>ECCV&amp;W&amp;S</td>
<td></td>
</tr>
<tr>
<td>Urban Drainage &amp; Flood</td>
<td></td>
</tr>
<tr>
<td>Other / 5 Sets East End Adv. Committee</td>
<td></td>
</tr>
</tbody>
</table>

**Utilities: Gas, Electric & Phone**

<table>
<thead>
<tr>
<th>Service</th>
<th>Contact Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Centurylink/Phone</td>
<td>Dustin Pulciani</td>
</tr>
<tr>
<td>Conoco Phillips / Gas Pipeline</td>
<td></td>
</tr>
<tr>
<td>XCEL</td>
<td>Donna George</td>
</tr>
<tr>
<td>IREA</td>
<td>Brooks Kaufman</td>
</tr>
</tbody>
</table>

**Water / Sanitation / Stormwater / Wetlands**

<table>
<thead>
<tr>
<th>Service</th>
<th>Contact Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improvement Metro District</td>
<td></td>
</tr>
<tr>
<td>U.S. Army Corp. of Engineer</td>
<td>Kiel Downing</td>
</tr>
<tr>
<td>Cherry Creek Basin Authority</td>
<td>Chuck Reid</td>
</tr>
<tr>
<td>Colorado Division of Water Resources</td>
<td>Joanne Williams</td>
</tr>
<tr>
<td>SEMSWA</td>
<td>Tiffany Clark</td>
</tr>
<tr>
<td>ECCV&amp;W&amp;S</td>
<td>Chris Douglass</td>
</tr>
<tr>
<td>Urban Drainage &amp; Flood</td>
<td></td>
</tr>
<tr>
<td>Arapahoe Water and Wastewater Authority</td>
<td>Wade Wheatlake</td>
</tr>
</tbody>
</table>

**Additional Notes**

The enclosed case has been submitted to the Arapahoe County Planning Office for consideration. Because of the possible effect of the proposed development upon your area, the case is being referred for your comment. Please examine this request and, after review, check the appropriate line and return to the Arapahoe County Planning Office on or before the date indicated above.

#### COMMENTS:

| Have NO Comments to make on the case as submitted | Glenn Thompson, Bureau Chief – 8/6/18 |
| Have the following comments to make related to the case: | |
August 9, 2018

Molly Orkild-Larson
Arapahoe County Public Works and Development
6924 S. Lima Street
Centennial, CO 80112

RE: Rapid Wire Preliminary Development Plan/ SDP-18-003
   TCHD Case No. 5099

Dear Ms. Orkild-Larson,

Thank you for the opportunity to review and comment the Preliminary Development Plan for the development of an industrial building with warehouse, office space, and outside storage on 1.4 acres located at 7103 S Dillon Ct. Tri-County Health Department (TCHD) staff has reviewed the application for compliance with applicable environmental and public health regulations and principles of healthy community design. After reviewing the application, TCHD has the following comments.

Vector Control - Storage
Rodents such as mice and rats carry diseases which can be spread to humans through contact with rodents, rodent feces, urine, or saliva, or through rodent bites. Items stored on the floor, tightly packed, and rarely moved provide potential harborage for rodents. Due to the variety of items to be potentially stored at this site, TCHD recommends that the applicant create a plan for regular pest control. Information on rodent control can be found at http://www.tchd.org/400/Rodent-Control

Please feel free to contact me at (720)200-1537 or mbettag@tchd.org if you have any questions on TCHD's comments.

Sincerely,

Mallory R. Bettag, MPH/MURP
Land Use and Built Environment Specialist III

cc: Sheila Lynch, Laura DeGolier, TCHD
September 4, 2018

Arapahoe County Public Works and Development
6924 South Lima Street
Centennial, CO 80112

Attn: Kelsea Dombrovski

Re: Centennial East Corporate Center F3 L5 B1, Case # SDP18-003

Public Service Company of Colorado’s (PSCo) Right of Way & Permits Referral Desk has reviewed the development plans for Centennial East Corporate Center F3 L5 B1. Please be aware PSCo owns and operates existing electric distribution facilities within the subject property. The property owner/developer/contractor must complete the application process for any new natural gas or electric service, or modification to existing facilities via FastApp-Fax-Email-USPS (go to: https://www.xcelenergy.com/start,_stop,_transfer/new_construction_service_activation_for_builders). It is then the responsibility of the developer to contact the Designer assigned to the project for approval of design details. Additional easements may need to be acquired by separate document for new facilities.

As a safety precaution, PSCo would like to remind the developer to call the Utility Notification Center at 1-800-922-1987 to have all utilities located prior to any construction.

If you have any questions about this referral response, please contact me at (303) 571-3306.

Donna George
Right of Way and Permits
Public Service Company of Colorado
1. Please submit ACWWA utility plans directly to ACWWA for review, comment and approval (independent from City/County approval process). Please refer to the “For Developer” link on ACWWA’s website at www.acwwa.com for additional design requirements and submittal procedures. An imprest account will need to be established at the time of the initial submittal. Information regarding the imprest account can also be found at the aforementioned link.

WCE: Noted. We are currently coordinating a submittal to Merrick for review once an imprest account is established.

2. Please provide plumbing plans, proposed fixtures and meter sizing calculations per AWWA M22. An M22 spreadsheet for meter sizing can be found and used at the above web address. Please provide all landscape and irrigation demand calculations as well. Separate service lines and meter pits are required for domestic, mechanical equipment, and irrigation services. ACWWA has a maximum 10 fps velocity requirement through the water service lines and meters. Tap fees for the respective meter sizes can be found in Appendix A of ACWWA’s Rules & Regulations which can be found at the website listed above. Tap Fees are based on tap equivalents, annual demands and maximum velocity requirements.

WCE: Noted.

3. All existing and proposed ACWWA utilities, including meter pits are to be within a minimum 30’ wide easement dedicated to ACWWA by separate document. Please refer to “ACWWA Easement Checklist” at the web address for easement requirements and instructions for preparing easement exhibits. Parking, landscaping and permanent structures are not permitted within an ACWWA easement. ACWWA utilities are to be accessible by vehicle with unrestricted access through any security gates or fences. Please provide the reception number for existing ACWWA easements.

WCE: Noted. Easement widths will be adjusted.

4. A sampling manhole is required on all commercial families and required to be straight through manholes with no bends up to a minimum of 5’ on either side of the manhole. In addition, a 0% slope is required through the sampling manholes. All proposed sanitary sewer service lines must have a minimum 2% slope.

WCE: Noted.

5. Separate and independent domestic service, irrigation service, fire line service, and fire hydrant laterals are required. Water services are to be installed perpendicular to main from tap through meter pit at least 5 feet. Fire hydrant laterals are required to be straight from the main connection to the fire hydrant.
WCE: Noted.

6. All ACWWA required documents are to be completed and approved prior to construction release, including tap fee payment, Letter of Credit established, easements recorded, Development Agreement completed, ACWWA utility plan approval, and wastewater discharge survey completed.

WCE: Noted.

7. Please contact Wade Wheatlake to schedule an ACWWA pre-submittal meeting. The presubmittal meeting will cover ACWWA design and submittal requirements.

WCE: Noted. Pre-submittal meeting has already occurred.

Utility Plan, Sheet 3, Comment Responses

1. Provide min. 0.3’ drop between proposed invert in to existing invert out.
   WCE: Noted. Drop between proposed and existing has been changed to 0.3’

2. Can sampling manhole be located in this vicinity.
   WCE: This is currently a drainage area. Sampling Manhole has been relocated on the site.

3. Service line and meter pit to be the same size from the main to 5’ downstream of the meter pit. Permitted to increase one size 5’ past the meter pit.
   WCE: Noted. Service line has been revised.

4. Separate ACWWA easement to be granted to cover meter pits and sampling manhole.
   WCE: Noted.

5. Bends not permitted in service line between tap and 5’ downstream of meter.
   WCE: Bends have been removed.

6. ACWWA Easement will need to be connected to ROW or to an existing/proposed ACWWA easement.
   WCE: Noted.

Centennial Airport Arapahoe County Public Airport Authority Comment Responses

1. The proposed development lies inside the Buffer Zone (BZ) of the Airport Influence Area (AIA), and will be subjected to numerous aircraft overflights and their associated effects. These effects include, but are not limited to: noise, smoke, dust, fumes, and vibrations.
   WCE: Noted.

2. Any objects on the site (including cranes used during construction) that penetrate a 100:1 slope from the nearest point of the nearest runway, penetrates the FAA Part 77 airspace surface, impede signals associated with navigational equipment or any other reason the FAA deems necessary will require the filing and approval of FAA Form 7460-1. Please note that this is a State and Federal regulatory requirement. Any objects permanent or temporary on site may require the filing and approval of FAA form
7460-1. Runway endpoint data is available from the Airport for engineering calculations. In addition, please have crane operators advise Airport Operations at 303-877-7307 prior to erecting any cranes.

WCE: Noted.

Centurylink Comment Responses.

1. NO OBJECTION.

City of Centennial, Community Development Comment Responses

1. Add trees along the northern and southern property lines to screen site from adjacent property.
   WCE: Trees are not permitted in the existing drainage easements along the north and south property lines.

2. Consider selecting another primary siding material other than shadow metal siding.
   WCE: Noted. Material samples currently under review.

3. Consider horizontal panel fencing.
   WCE: Noted. Material samples currently under review.

Cherry Creek Basin Water Authority Comment Responses

1. No exceptions taken to this specific site plan as submitted.

South Metro Fire Rescue Comment Responses

1. The proposed access gate shall have emergency means for access; 1-For an automatic gate a Knox Key switch must be provided. 2-For a manual gate a knox padlock must be provide.
   WCE: Callout for a Knox Key Switch added to plans.

2. Please provide an Autoturn exhibit (spec are attached.)
   WCE: Noted. Turn radii currently shown on site plan. Next submittal will include an autoturn exhibit.

Tri-County Health Department Comment Responses

1. Vector Control - Storage
   Rodents such as mice and rats carry diseases which can be spread to humans through contact with rodents, rodent feces, urine, or saliva, or through rodent bites. Items stored on the floor, tightly packed, and rarely moved provide potential harborage for rodents. Due to the variety of items to be potentially stored at this site, TCHD recommends that the applicant create a plan for regular pest control. Information on rodent control can be found at http://www.tchd.org/400/Rodent-Control
WCE: Noted.

XCEL Energy Comment Responses

1. The property owner/developer/contractor must complete the application process for any new natural gas or electric service, or modification to existing facilities via FastApp-Fax-Email-USPS (go to: https://www.xcelenergy.com/start,_stop,_transfer/new_construction_service_activation_for_builders). It is then the responsibility of the developer to contact the Designer assigned to the project for approval of design details. Additional easements may need to be acquired by separate document for new facilities. WCE: Noted.

2. As a safety precaution, PSCo would like to remind the developer to call the Utility Notification Center at 1-800-922-1987 to have all utilities located prior to any construction. WCE: Noted.

Urban Drainage and Flood

1. I have not comments to make on the case no submitted.
EASEMENTS, DRAINAGE EASEMENTS, ETC.

PROPERLY MAINTAINED, THE COUNTY MAY PROVIDE NECESSARY HOMEOWNER'S ASSOCIATION OR OTHER ENTITY OTHER THAN ARAPAHOE DEVICES AND FACILITIES NEEDED TO CONVEY FLOW TO SAID BASINS.

DRAINAGE MAINTENANCE:

DEVELOPMENT PLAN KNOWN AS RAPID WIRE LLC NEW MAINTAINING THE SPECIFIED STORM WATER DETENTION/ RETENTION DEVICES AND FACILITIES PURSUANT TO THE SPECIFIC DEVELOPMENT PLAN AS APPRENTICED IN THIS DOCUMENT.

THE OWNER OF THIS PLAN OR PLAT, TOGETHER WITH RATES, RULES, AND REGULATIONS THEREIN ENCLOSED, IS A DRAINAGE DESIGN ENGINEER. IMPOSSIBLE TO COMPLETE THE "WHISPERING" AT A GREATER DEGREE THAN LANDS SITUATED OUTSIDE OF THE INFLUENCE AREA.

ALL DRAINAGE FACILITIES INSTALLED PURSUANT TO THE SUBDIVISION PLAN ARE RESPONSIBLE FOR MAINTENANCE OF PERIMETER DRAINAGEWAY SYSTEM THAT SERVES THE DEVELOPMENT AS DEFINED BY ADOPTED MASTER PLANNING COMMISSION APPROVAL:

UNDER THE POLICY OF ARAPAHOE COUNTY THAT APPROVAL OF THE FINAL PLAT AND/OR FINAL PLAN DOES NOT IMPLY OR CONSTITUTE COMMITMENT NO. N0018754-010-TO2-PD WITH AN EFFECTIVE DATE OF JULY 20, 2018 FOR THE SITE BENCHMARK: TOP OF NO. 5 REBAR WITH GREEN CAP STAMPED PLS 38284 AT THE SOUTHEAST CORNER OF THE PROPERTY.

THE LANDS CONTAINED WITHIN THIS SPECIFIC DEVELOPMENT PLAN ARE LIKENESS OF THE GARDEN OR THE LANDS SITUATED WITHIN ZONE X (AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE OF FLOODING). THE LANDS CONTAINED WITHIN THIS SPECIFIC DEVELOPMENT PLAN SHALL COMPLY WITH A.R.A. PART 77, "WIDTH AND OBLIGATIONS Criterions."
EAST ELEVATION

SCALE: 1/8" = 1'-0"

WEST ELEVATION

NORTH ELEVATION

25'-0"

6"Ø BOLLARDS

12" 1/4"

STEEL SHADE CANOPY

GRADE LINE

9'-0"

9'-0"

10" BAND

BAND

12" 1/4"

4'0" X 4'0" FIXED WINDOWS - TYP.

DOWN CAST CUT OFF LIGHT FIXTURE - TYP.

LIGHT FIXTURE - TYP.

STONE

STONE

STONE

DOWNSPOUTS & GUTTER

SECTION

SECTION

SECTION

SECTION

HORIZONTAL FLUTED PANEL

CORNICE & CORNERS

STONE FLAT PANEL

METAL SIDING FLAT PANEL

METAL SIDING

STEEL SHADE CANOPY

27'-0"±

27'-0"±

FLAT PANEL

METAL SIDING

ELEV.

FIN. FLR.

100'-0"

ELEV.

UPPER LEVEL

111'-0"

ELEV.

FIN. FLR.

100'-0"

ELEV.

UPPER LEVEL

111'-0"

A

B

HORIZONTAL FLUTED PANEL

CORNICE & CORNERS

FUTURE SIGN LOCATION

8' HIGH MAX., STEEL PANEL SCREEN FENCING

8' HIGH MAX., STEEL PANEL SCREEN FENCING

8' HIGH MAX., STEEL PANEL SCREEN FENCING

8' HIGH MAX., STEEL PANEL SCREEN FENCING

NEW OFFICE/WAREHOUSE FOR
RAPID WIRE LLC
7103 DILLON COURT
ENGLEWOOD, CO. 80112

W. STASHAK, ARCHITECT
1123 FOREST HILLS LANE
FORT COLLINS, CO. 80524
(970) 219-5076

NOTES:

LIGHTING AND ELEVATIONS SUBJECT TO
REFINEMENT AT ADMINISTRATIVE SITE PLAN.

1. PROPOSED SIGNAGE, FENCING AND
LIGHTS SEEN IN ELEVATIONS SUBJECT TO
REFINEMENT AT ADMINISTRATIVE SITE PLAN
IF ALL LIGHTING SHALL BE CONCEALED
AND ALL OTHER APPLICABLE CODE.

2. ALL LIGHTING SHALL BE CONCEALED
OR SHIELDED WITH FULL CUT-OFF
LIGHT FIXTURES.

3. CONSTRUCTION MANAGERS, SUB-
SUPPLIERS TO THIS PROJECT, HAVE THE
COMPLETE RESPONSIBILITY TO NOTIFY
ENGINEERS, ARCHITECTS AND ALL OTHER
DESIGN PROFESSIONALS OF ANY DIS-
CREPANCIES, CONFLICTS, BUILDING OR
OTHER CODE REQUIREMENTS AS REP-
RESENTED BY THESE CONSTRUCTION
LIABILITY CLAIMS SHALL BE LIMITED
TO THE EXTENT OF SAID DESIGNERS FEE,
ONLY AND IS HEREBY RECOGNIZED AS
SUCH BY ANY CLAIMANTS, OWNERS,
TO CURRENT UNIFORM BUILDING CODE
CONTRACTORS AND ALL OTHER
DOCUMENTS. ANY PROFESSIONAL
LIEN HOLDERS OR OTHERS.
 SPECIFIC DEVELOPMENT PLAN

RAPID WIRE LLC NEW OFFICE/WAREHOUSE

LOT 5, BLOCK 1, CENTENNIAL EAST CORPORATE CENTER, FILING NO. 3
BEING A PART OF WEST HALF OF SECTION 30, TOWNSHIP 5 SOUTH, RANGE 66
WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF ARAPAHOE,
STATE OF COLORADO

NOTE:
SEE SHEET 2 FOR EASEMENT RECORDATION INFORMATION

NATIVE TURF GRASS TO BE IRRIGATED
IRRIGATION TO BE PART OF THE LANDSCAPING REQUIREMENTS

PER ARAPAHOE COUNTY DRAINAGE MANUAL

PROPOSED VALLEY PAN

SYMBOL
DESCRIPTION
RIVER ROCKS
NATIVE GRASS - REFER TO DRAINAGE PLAN NOTES
GRASS BUFFER - WATER QUALITY FACILITY AREA

REFERENCE NOTES SCHEDULE PLANTING PLAN

LOT 5, BLOCK 1, CENTENNIAL EAST CORPORATE CENTER, FILING NO. 3
BEING A PART OF WEST HALF OF SECTION 30, TOWNSHIP 5 SOUTH, RANGE 66
WEST OF THE SIXTH PRINCIPAL MERIDIAN, COUNTY OF ARAPAHOE,
STATE OF COLORADO

RAPID WIRE LLC NEW OFFICE/WAREHOUSE
7103 SOUTH DILLON CT.
ENGLEWOOD, CO 80112

LANDSCAPE ARCHITECTURE
· LAND PLANNING

123 EMMA ROAD | SUITE 200 | BASALT | CO | 81621
WWW.CONNECTONEDESIGN.COM | 970.379.1030

SCALE: 1/16" = 1'-0"
LOCATION:
The application is located at 9437 S. Colorado Avenue and within Commissioner District No. 4. This lot is zoned R-PM with a Preliminary Development Plan allowing up to sixteen duplex dwelling units.

Vicinity Map (site is shown in orange)
ADJACENT SUBDIVISIONS, ZONING, AND LAND USES: (see picture above)
North: Residential properties Zoned R-3, and R-PM at a density 8.2 du/ac.

South: Residential property Zoned R-2 (approximately 2 du/ac)

West: Residential Zoned R5-PUD and R-PSF at a density of 2 du/ac.

East: Residential property Zoned R-2 (approximately 2 du/ac)

PROPOSAL:
THB MF LLC is proposing a paired home residential development consisting of 16 homes located on a 2.27-acre lot in the 4 Square Mile Area neighborhood.
RECOMMENDATION:
Staff: Staff recommends the application be approved based on the findings and subject to the conditions of approval outlined herein.

I. BACKGROUND
The property was originally zoned R-3 in 1961.

In 2002 the owner at that time requested and received approval of the Z02-005 LeTerrassa Preliminary Development Plan (PDP). This PDP set the following standards: No more than eight duplex buildings (sixteen dwelling units), 29-foot maximum building height, 30% minimum open space, and a number of specific standards relating to parking, building separations, and pavement dimensions. Conceptual site layout and architectural designs are provided but are labeled conceptual. This allows some latitude for updating and reconfiguration to meet current trends on subsequent proposals. Under the Land Development Code at the time, a follow-up Final Development Plan (FDP) was required before implementation of a PDP could occur. No FDP application was submitted.

In 2005 the Planning Commission adopted the Four Square Mile Area Sub Area Plan (referred to as the Sub Area Plan) as an amendment to the Comprehensive Plan. The Sub Area Plan provides additional direction that is specific to the Four Square Mile Area. The Sub Area Plan recommends a density range of one to two dwelling units per acre (du/ac) for the area surrounding and including the site. Though the Sub Area Plan provides guidance when rezoning a property, it does not supersede previous zoning and land use approvals.

On April 1st, 2018, the County discontinued the PDP/FDP Planned Unit Development (PUD) process, and implemented a new PUD process. One form of the new process consists of three steps, those being a “big picture” General Development Plan (GDP), a more narrowly focused Specific Development Plan (SDP), and a very detailed Administrative Site Plan (ASP). In situations where an approved PDP exists and includes the information required in a GDP, the applicant may proceed directly to the SDP and ultimately to an ASP.

The County’s planning, engineering, and legal teams have considered the LeTerrassa PDP, at length, and find that it provides the information required in a GDP and can be considered as such, thereby allowing the applicant to proceed with the SDP19-001 application. In the case of 9437 E. Colorado Ave, this means the standards set in the Z02-005 PDP remain in effect and are available as a development option, provided any new development proposal does not exceed those standards. A subsequent ASP application will be required before development may proceed.

II. DISCUSSION
Staff review of this application included a comparison of the proposal to: 1) applicable policies and goals outlined in the Comprehensive Plan; 2) Applicable section of the Four Square Mile Area Sub Area Plan; 3) review of pertinent zoning regulations; and 4) analysis of referral comments.
1. **The Comprehensive Plan**  
The Comprehensive Plan designation for this area is Urban Residential. The proposed use complies with the Urban Residential Land Use category by.

This application complies with the following Goals and Policies of the Comprehensive Plan:

- **Policy GM 1.1 – Direct Growth to the Urban Area**  
  *The proposed development is to be located in the Urban Area.*

- **Policy GM 1.2 – Encourage Infill Development and Redevelopment**  
  *The proposed application is located in the Urban Area and has access to existing public facilities.*

- **Goal PFS 1 – Ensure an Adequate Water Supply in Terms of Quantity and Quality for Existing and Future Development.**  
  *Water for the proposed facility is available.*

- **Policy PFS 4.3 – Require Adequate Wastewater Treatment**  
  *The facility will be connecting to an existing public sewer.*

- **Goal PFS 6 – Ensure the Adequacy of Electric, Natural Gas, Telephone, Cable and Internet Utilities in Existing and new Development.**  
  *The proposed development is in an Urban Area and has access to all the utilities and water and sewer services mentioned above.*

- **Goal PFS 7 – Ensure Existing and New Development have Adequate Police and Fire Protection**  
  *The proposed development will have adequate fire and police service.*

2. **Four Square Mile Sub Area Plan**  
The New Residential Development section of the Sub Area Plan states the following recommendations:

- **Goal:** Limit higher density residential development to arterial (4 lane roads) and major collector streets with greater access to public transit.  
  *The Highline East SDP proposes 8 du/ac. This aligns with the Single Family Detached and Attached Residential Designation in the Sub Are Plan. This is the middle density category out of three residential density categories discussed in the Sub Area Plan.*

  **Policy:** Recognize the traffic capacity limits of the street classification system in the density of development of the adjacent lands.
Where they abut, E Mexico Ave and E Colorado Ave are classified as local streets. The proposal complies with limits set for the local street classification. The proposed development complies with limitations specified for the abutting streets.

- **Goal:** Limit new residential development on local streets to 1 du/acre, 1-2 du/acre, 1-3 du/acre, with a maximum of 1-6 dwelling units per gross acre according to the attached land use map.

  *The Highline East SDP proposes 8 du/ac. This exceeds the stated recommendation, but is allowed under the approved Z02-005 PDP, which predates the Sub Area Plan.*

- **Policy:** Recognize the existing and stable residential neighborhoods and advocate for the preservation of these areas within the urbanized portion of the area. Recognize that Urban Residential densities up to 12 du/acre are appropriate in some locations. *The proposed density 29’ max building height, and architectural style is similar to and considered compatible with the range of styles and density exhibited by the existing surrounding properties.*

- **Strategy:** Consider new residential zoning districts for the Four Square Mile Area crafted to address such issues as density of development, building mass (size and bulk), scale, and building height to encourage compatibility with adjacent developed properties. Utilize similar architectural design and materials between similar uses. *The proposed density, 29-foot maximum building height, and architectural style are similar to and considered compatible with the range of styles and densities exhibited by existing development on surrounding properties.*

3. **Land Development Code (LDC) Review**

   Chapter 13-106.01, Planned Unit Development (PUD) of the LDC, provides approval criteria for all PUD applications. In addition to those criteria, an SDP in a three-step process must meet any applicable criteria in Sections 13-106.02 and 13-106.03.

   **13-106.01**

   A. It generally conforms to the Arapahoe County Comprehensive Plan.

      *As noted in the previous section, the proposed development conforms to the Arapahoe County Comprehensive Plan by proposing development in the designated Urban Area of the County that contains existing roads and utilities.*

   B. It complies with the standards for conventional rezoning pursuant to Section 13-201 (each subsection is discussed in more detail below):

      **13-201.01**

      Recognize the limitations of existing and planned infrastructure, by thoroughly examining the availability and capability of water, sewer, drainage, and transportation systems to serve present and future land uses. *The proposed infrastructure is adequate to support the proposed use.*
13-201.02
Assure compatibility between the proposed development, surrounding land uses, and the natural environment.
*The proposed residential development is anticipated to blend with the development in the area through building style and materials as depicted on sheet five of the SDP. The property is surrounded by residentially zoned lots, one of which has been developed as an 18 unit paired home community with a similar density.*

13-201.03
Allow for the efficient and adequate provision of public services. Applicable public services include, but are not limited to, police, fire, school, park, and libraries.
*The proposal can be served by existing public services. Cash in lieu will be required to provide for park, school, and other public service for the residents of this development.*

13-201.04
Enhance convenience for the present and future residents of Arapahoe County by ensuring that appropriate supporting activities, such as employment, housing, leisure-time, and retail centers are in close proximity to one another.
*Many commercial services and employment opportunities exist within a mile radius of the site. The north edge of the site is less than a quarter mile walk to Cheyenne/Arapaho Park to the north.*

13-201.05
Ensure that public health and safety is adequately protected against natural and man-made hazards which include, but are not limited to, traffic noise, water pollution, airport hazards, and flooding.
*There are no known natural and man-made hazards on the property.*

13-201.06
Provide for accessibility within the proposed development, and between the development and existing adjacent uses. Adequate on-site interior traffic circulation, public transit, pedestrian avenues, parking and thoroughfare connections are all factors to be examined when determining the accessibility of a site.
*Public accessibility will be provided for by the existing streets and a pedestrian connection between E Mexico Avenue and E Colorado Avenue.*

13-201.07
Minimize disruption to existing physiographic features, including vegetation, streams, lakes, soil types, and other relevant topographical elements.
*No significant physiographic features exist on this site.*
13-201.08
Ensure that the amenities provided adequately enhance the quality of life in the area, by creating a comfortable and aesthetically enjoyable environment through conventions such as, the preservation of mountain views, the creation of landscaped open areas, and the establishment of recreational activities.

The proposal does not impact mountain views any more than what is typical of development in the Denver Metro Area.

13-201.09
Enhance the useable open spaces in Arapahoe County, and provide sufficient unobstructed open space and recreational area to accommodate a project’s residents and employees.

The applicant is proposing 30 percent open space which meets the requirement set by the approved Z02-005 PDP.

13-201.10
Ensure the application complies with the requirements of this Resolution and the Arapahoe County Comprehensive Plan.

As discussed in the Comprehensive Plan section, the proposed development complies with the Comprehensive Plan by proposing a development within the designated Urban Area of the County that has existing roads and utilities.

C. It represents an improvement in quality over the strict application of the otherwise applicable zone district or development standards in this LDC, including but not limited to open space and access; environmental protection; vegetative preservation; efficiency in transportation systems and connectivity; alternative transportation options; improvements in utilities and services; or innovative housing or employment centers.

The application proposes a development that upholds the PDP standards. The applicant proposes to exceed the minimum open space approved by the PDP.

D. It is consistent with the purpose of the Planned Unit Development District as stated in Section 13-101 of this LDC.

This application promotes a design concept that is similar to and compatible with surrounding development in the area.

E. Any modifications to the standards and requirements of this LDC are warranted by the layout and design of the site, amenities incorporated into the development plan, or by the need to protect or avoid unique site features.

A traffic Study waiver has been requested by the applicant. Based on the proposed project land use and trip generation estimates, the project meets the TIS waiver conditions. Therefore, the TRC granted the waiver request to the TIS.
F. The proposed plan meets the applicable standards of this LDC, unless varied by the PUD.

_The proposed plan meets applicable standards._

In addition to meeting the approval criteria for all PUD applications (13-106.01), an SDP in the three-step process must also comply with the development standards and requirements of the approved GDP for the site (13-106.03). The Z02-005 LeTerrassa Preliminary Development Plan functions as the GDP for this site. The proposed Highline East Specific Development Plan provides more detail on the project by proposing the site layout of the development, general landscaping and other site details as appropriate.

The proposed Specific Development Plan meets PUD development standards by: meeting the open space requirement set in the PDP (serving as the GDP for this application), proposing a use that is approved by the PDP, and meeting the PDP height and setback standards set in the PDP.

4. Referral Comments

Comments received during the referral process are as follows:

<table>
<thead>
<tr>
<th>Organization</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arapahoe County Planning</td>
<td>Comments have been addressed</td>
</tr>
<tr>
<td>Arapahoe County Engineering Services Division</td>
<td>Comments have been addressed</td>
</tr>
<tr>
<td>Arapahoe County Zoning Administrator</td>
<td>Comments have been addressed</td>
</tr>
<tr>
<td>Arapahoe County Assessor</td>
<td>No response</td>
</tr>
<tr>
<td>Arapahoe County Open Space</td>
<td>Cash in lieu to be provided</td>
</tr>
<tr>
<td>Arapahoe County PWD Weed Control</td>
<td>No response</td>
</tr>
<tr>
<td>Four Square Mile Area Neighborhood Association</td>
<td>Association takes no position on the applications, either in support of, or in opposition to, the applications.</td>
</tr>
<tr>
<td>South Metro Fire-Referrals</td>
<td>&quot;approved&quot;</td>
</tr>
<tr>
<td>Urban Drainage- Referrals</td>
<td>No response</td>
</tr>
<tr>
<td>Tri County Health Department-Referrals</td>
<td>Recommends a minimum of 5-foot-wide sidewalks. Staff is supporting this with a <strong>condition of approval for walks serving more than a single unit.</strong></td>
</tr>
<tr>
<td>Post Office - Arapahoe County</td>
<td>No response</td>
</tr>
<tr>
<td>Cherry Creek School District 5-Referrals</td>
<td>Staff will ensure that cash in lieu is provided as part of the concurrent final plat application</td>
</tr>
<tr>
<td>Arapahoe County Sheriff</td>
<td>No comment</td>
</tr>
<tr>
<td>Colorado Geological Survey - State Of Colorado</td>
<td>No objection</td>
</tr>
<tr>
<td>West Arapahoe Conservation District</td>
<td>No response</td>
</tr>
<tr>
<td>CenturyLink Network Real Estate Department</td>
<td>No objection</td>
</tr>
<tr>
<td>Xcel Energy - PSCo</td>
<td>Comments have been addressed</td>
</tr>
<tr>
<td>Cherry Creek Valley W&amp;S District</td>
<td>A will serve letter has been provided</td>
</tr>
<tr>
<td>Division Of Water Resources-State Engineer/Groundwater</td>
<td>The proposal is within a district that is considered &quot;a reliable water source&quot;, and has received a letter indicating that water and sewer service is available.</td>
</tr>
</tbody>
</table>
STAFF FINDINGS:
Staff has visited the site and reviewed the plans, supporting documentation, referral comments, and citizen input in response to this application. Based on the review of applicable policies and goals, as set forth in the Comprehensive Plan, review of the development regulations, and analysis of referral comments, our findings include:

Specific Development Plan
1. The proposed Specific Development Plan conforms to the overall goals and intent of the Arapahoe County Comprehensive Plan in regards to the policies set forth in those plans.

2. The proposed Specific Development Plan generally conforms to the overall goals and intent of the Four Square Mile Sub Area Plan in regards to the policies set forth in those plans with the exception of density for the subject property, which was approved in prior zoning documents.

3. The proposed Specific Development Plan is consistent with development standards enumerated in the Arapahoe County Land Development Code.

4. The proposed Specific Development Plan is consistent with the approved Preliminary Development Plan, which functions as a General Development Plan for purposes of this analysis.

5. The proposed Specific Development Plan complies with the process and requirements outlined in Section 13-100 Planned Unit Development (PUD) of the Arapahoe County Land Development Code.

RECOMMENDATION:
Considering the findings and other information provided herein, staff recommends approval of Case No. SDP19-001 Highline East - Specific Development Plan, with conditions recommended in this report.

DRAFT MOTIONS:
In the case of SDP19-001 Highline East - Specific Development Plan, the Planning Commissioners have reviewed the staff report, including all exhibits and attachments, and have listened to the applicant’s presentation and any public comment as presented at the public hearing. I hereby move to APPROVE this application based on the findings in the staff report, subject to the following conditions:
1. Prior to signature of the final copy of these plans, the applicant must address Public Works Staff comments and concerns.

2. The applicant will revise sidewalks serving more than a single unit to include a minimum width of no less than 5 feet.

Alternate Motions:
The following motions are provided as alternatives to the recommended motion for Conditional Approval:

**DENY:** In the case of SDP19-001 Highline East - Specific Development Plan, the Planning Commissioners have reviewed the staff report, including all exhibits and attachments, and have listened to the applicant’s presentation and any public comment as presented at the public hearing. I hereby move to DENY this application based on the findings:

   a. *State new or amended findings in support of denial as part of the motion.*

   b. ...

**CONTINUE TO DATE CERTAIN:**
In the case of SDP19-001 Highline East - Specific Development Plan, I move to continue the public hearing to (DATE), date certain, 6:30 p.m., in the Arapahoe Room at 6954 S. Lima Street, Centennial, Colorado 80112, to receive additional information and to further consider information presented.

**Attachments:**
Application & Exhibits
Engineering Staff Report
Referral Comments
Supporting Material
Planning Commission’s Summary Report

Date: July 8, 2019

To: Arapahoe County Planning Commission

Through: Bill Skinner, Planning Division
Planning Division

Through: Chuck Haskins, PE
Engineering Services Division, Manager

From: Sue Liu, PE
Engineering Services Division

RE: SDP19-001 Paula Dora Subdivision Fline No. 14 – Highline East

Purpose and Recommendation
The purpose of this report is to communicate the Engineering Services Staff findings, comments, and recommendations regarding the land use application(s) identified above.

Scope/Location:
The applicant, THB MF LLC is requesting approval of Specific Development Plan for Paula Dora Subdivision Fline No. 14 – Highline East project. The project is located at 9437 East Colorado Avenue. The project includes 2.27 acres and is currently zoned R-PM. The applicant is proposing to build 8 duplex (16 units) residential units.

Two access points are proposed to the development. One is onto East Mexico Avenue, and the other one is off of East Colorado Avenue.

Engineering Services Staff has reviewed the land use application(s) and has the following findings and comments:

1. This site lies within Basin 5 (Cherry Creek) of the Four Square Mile area and is subject to a storm sewer system recovery cost fee in the amount of $23,611.00 per impervious acre. These fees will be processed with the Administrative Site Plan application.

2. This development requires a Subdivision Improvement Agreement (SIA) to guarantee the on-site public improvements related to this development. The SIA will be processed with the Administrative Site Plan application. The on-site public
improvements generally include the access improvements, storm drainage improvement and related facilities.

3. The water quality facilities must be placed with a Tract of common ownership and maintenance, and also placed within drainage easements. These easements should be provided to the limits of the water quality capture volumes plus one-foot of freeboard. The drainage easement allows the County the right to enter the property. The maintenance access to the proposed facilities should also be provided and be placed in the easement.

4. The private roadway must be placed with a Tract of common ownership and maintenance. A pavement design will be required for the internal private roadway, and a pavement management program should also be created to ensure that adequate funding for the perpetual maintenance of the private roadway would be provided, additional, a life cycle cost analysis for the private roadway should also be provided.

5. This site lies within the Southeast Metro Stormwater Authority (SEMSWA) service area. This land use application will be referred to SEMSWA for review and comment. SEMSWA jointly reviews and approves the Drainage Study, Operation & Maintenance Manual, and Construction Plans for all stormwater facilities. Their comments and concerns must be addressed prior to final County approvals.

6. SEMSWA, through a Memorandum of Understanding (MOU) and associated Standard Operating Procedures (SOPs), administers the GESC Program on behalf of the County. SEMSWA, with concurrence from the County, will approve the GESC plans, issue the GESC permit and provide GESC inspections.

7. Construction activities that disturb 1 acre or more are required by EPA to obtain a construction stormwater permit. The applicant should contact the Colorado Department of Health, Water Quality Control Division for information regarding said permit.

8. The Arapahoe County Technical Review Committee (TRC) met on October 24, 2018 and January 23, 2019 for a regularly scheduled meeting to discuss the applicant's variance request and made the following recommendation:

   A – Request shifting the north access east to the site eastern edge.
   The TRC supports the request provided that the traffic generated by the site will not cause any issues to the traffic operation in the area.

   B - Variance request for private roadway standards - the County requires private roadway to be placed in a 36’ Tract with 2-10’ travel lanes crown in the middle, curb & gutter both side, one-side parking & one-side attached sidewalk. The Developer proposes to reduce the width of the private tract from 36’ to 30’ by relocating the attached sidewalk to the front of the units, with two options: 1) the inverted crown section with 30’ paved drive, or 2) the crowned section with 30’ paved drive.
   The TRC supports both options based on the following conditions: 1) parking spaces are adequately planned and meeting the County Land Development Code requirements, 2) check with the South Metro Fire Protection District on the roadway turnaround and obtain the support from the District, 3) may restrict parking along the site frontage, and 4) abide by the County Fire lane program.

   C – Request to waive the Traffic Impact Study (TIS). The applicant proposes to develop 8 duplex (16 units) residential units.
   Pursuant to the County Guidelines for Traffic Impact Studies, the need for the TIS can be waiver if all of the following conditions are met:
The average trip generation of the proposed project is less than 250 trips per day and 25 trips in the peak hour.

The combination of the proposed development traffic plus existing traffic does not exceed an average 150 vehicles per day on any unpaved road.

Access is not being requested to either a state highway or County arterial roadway.

Based on the proposed project land use and trip generation estimates, the project meets the TIS waiver conditions. Therefore, the TRC granted the waiver request to the TIS.

Engineering Services Staff is recommending the land use application(s) favorably subject to the following conditions:

1. The Applicant provides modifications to the plan and support documentation as identified in the Engineering Staff Report.
2. The Applicant provides modification to the plan and support documentation as identified in the SEMSWA Staff Report.
3. The Applicant agrees to enter into a Subdivision Improvement Agreement with the Administrative Site Plan application.
4. The Applicant agrees to pay the storm sewer system recovery cost fee with the Administrative Site Plan application.
Arapahoe County
Public Works & Development Planning Division
6924 S Lima St Centennial, CO 80112

RE: Highline East – Specific Development Plan

Dear Public Works & Development:

THB MF LLC is proposing a project within unincorporated Arapahoe County. The project is located at 9437 E. Colorado Avenue (Parcel ID# 1973-22-3-03-006). The project includes 2.27 acres (99,206) square feet and is currently zoned R-PM. We are proposing 16 duplex units, ranging in size from 1,500-2000 square feet.

We request a waiver for the traffic impact study requirement. Since we are only proposing 16 units which is below the 25 dwelling unit threshold as specified in the land development code 13-105.03 B.IV: “Traffic impact study (for projects including more than 25 dwelling units or 15,000 square feet of non-residential floor area.”

For additional information, please see the attached project narrative. If you have any questions, please contact Brodie Smith at bsmith@thrivehomebuilders.com or 303.707.4434

Sincerely,

Kevin Puccio, Manager
THB MF LLC, a Colorado limited liability company

BY: NT Builders LLC, a Colorado limited liability company
Highline East
Specific Development Plan – Narrative

Introduction
The applicant, Thrive Home Builders, is a local company committed to smart growth, green building, and energy efficiency. Thrive has been building homes in the Denver Metro region for the past twenty-five years. In 2017 Thrive was named “Builder of the Year” by Professional Builder magazine, and for the past six years in a row, Thrive has been awarded the Department of Energy’s (DOE) Grand Award for Housing Innovation. All Thrive homes are built to the DOE’s Zero Energy Ready standard as well as the EPA’s Indoor airPLUS program, making Thrive’s homes some of the most efficient and healthy in Colorado.

Thrive remains true to our four core principles: mixed use, mixed income, age diversity, and environmental responsibility. We are confident that the proposed development will enhance and compliment the Four-Square Mile neighborhood. Thrive will be a committed partner with Arapahoe County, and we look forward to building a healthy, sustainable, and timeless community together.

Overview
We propose to build sixteen duplex units, which conforms with the pre-development plan previously approved by the county. This project will help support Arapahoe County’s goal of building healthy, inclusive, and livable communities by incorporating “healthy community principles in [the] development, including actions that increase access to recreation areas or community gathering places, a mix of uses, [and] active public spaces.” (Arapahoe County Comprehensive Plan)

Because Thrive homes are on the leading edge of energy efficiency and health, these sixteen homes also “represent an improvement in quality” from the existing home on the lot. The sixteen proposed homes will create a pocket neighborhood within the Four-Square Mile area. Pocket neighborhoods create a setting where neighbors are encouraged to gather and get to know one another. It is a neighborhood within a neighborhood that has both private space and a shared community space. The community space is intended as a place where neighbors can get together and build the bonds of community through shared experience. Through smart urban design, neighbors within this community will be encouraged to gather along the green courts in front of their homes as well as the central area of the site that can serve as the gathering place for a community barbecue or a space where kids gather for games.

Although the development will be somewhat insular, it will also compliment the surrounding area through the use of traditional architectural forms found throughout the existing homes in the Four-Square Mile neighborhood.

Underlying Uses and Zoning
The parcel of land is zoned R-PM. The intent of this district is “to provide for areas in unincorporated Arapahoe County which are suitable for moderate density residential development” through a number of uses, including: “single-family attached dwelling unit(s) including: townhome, cluster development,
patio home, duplex, triplex, quad development, etc.” Additionally, the county has approved a pre-development plan that allows for 16 duplex units to be built on the site.

**Parking**

Zoning calls for 2.25 spaces per unit of off-street parking. With 16 units on site, the development needs to accommodate for 36 parking spaces. Each unit will have a 2-car garage, providing 32 of the 36 parking spaces. The remaining 4 required spaces will be distributed evenly throughout the site between buildings with 2 spaces on the north and two spaces on the south. These four spots will serve as visitor spaces.

<table>
<thead>
<tr>
<th>Parking Requirements – 2.25/Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Units Proposed</td>
</tr>
<tr>
<td>16</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Parking Provided</th>
</tr>
</thead>
<tbody>
<tr>
<td>Garage Parking</td>
</tr>
<tr>
<td>32</td>
</tr>
</tbody>
</table>

**Utilities**

The site will be served by the following utility companies:

- Gas: Xcel Energy
- Electric: Xcel Energy
- Telecom: Comcast and CenturyLink
- Water: Cherry Creek Valley Water District
- Sewer: Cherry Creek Valley Water District

The water district requires a 30’ easement for the wet utilities. This easement will be located within the private drive to the north and south of the site and snake through the emergency access area in middle of the site. The water district requires all 30’ of the easement to be paved.

**Walks and Open Space**

Zoning requires 30% open space. This will be met using private side and front yards. Additionally, the southeast and the northeast corners of the site will provide additional open space through green courts that will act as a place to gather and as a buffer to the neighboring properties. Walks in front of the homes will run north/south, connecting to the existing sidewalks along Colorado and Mexico Avenues. Benches will be placed strategically along the walks in front of homes to encourage neighbors to interact with one another and help draw them to the center of the site, where the emergency access area will double as a hardscaped pedestrian court.

**Emergency Vehicle Access**

Emergency vehicles will be able to access the site from both Colorado and Mexico Avenues. An emergency access area is also designated in the middle of the site to meet the fire department’s
turnaround requirements; however, this area is intended to serve a dual-purpose. First, it will act as an emergency access lane for the fire department when needed, which we believe will be rare. This area will be cut off from through-traffic by placing collapsible bollards at the end of the northern and southern private drives. The bollards will prevent all non-emergency vehicles from accessing the area.

Second, this area is envisioned as a community gathering area. Plans call for it to be raised slightly, treated with grass pavers along the edges, and brick pavers or concrete cut into a special pattern to help differentiate the area from the private drives. Cluster mailbox units will be placed near this area to encourage community gathering.

**Drainage and Detention**

The Site is located on the West ¼ of Block 13, in the Paula-Dora Sub-Division in the southwest quarter of Section 22, Township 4 South, Range 67 West of the Sixth Principal Meridian, County of Arapahoe, State of Colorado.

The Site consists of 2.277 acres and is currently a single-family residence with a few small out buildings. The proposed work on the Site will be to demolish the existing home and out buildings to develop 8 duplex residences (16 units) and the infrastructure required to serve the new residences. The total disturbed area will be 2.27 acres. The proposed improvements will result in a net decrease in impervious area than was assumed in “The Beeler Street, Colorado Avenue, Mexico Avenue, and Iowa Avenue Drainage Improvements” prepared by Burns & McDonnell on July 2005.

The Site currently has a high point located in the center, from there roughly half the site slopes to the north towards E. Mexico Ave. and the other half generally slopes to the south towards E. Colorado Ave. Slopes range in grade from 1% - 10% with the average slope around 2%. The proposed site will maintain the historical runoff that currently exists.

There will be a total of 4 rain gardens and 2 water quality swales per Arapahoe County standards the will be used to treat the runoff from the proposed site. Since the site will have a lower imperviousness than what was assumed in the approved report by Burns & McDonnell, the existing retention pond located west of the project in the Whisper Rock Development will have capacity to detain the runoff from the proposed site.

Earthwork on the site will result in a net cut of approximately 214 CY, therefore no import will be needed.

**Landscape Plan and Materials**

The north and south halves of the open space are exact duplicates due to the similarities in layout between the two ends of the development. Water-wise plant material with multi-seasonal interest is used to create an inviting and maintainable open space for the residents. The two primary lawn areas provide both an area for active play and facilities for water quality. Fencing will be used to create private side yards for homeowners as well as along strategic locations on the site’s edges to create a screen for adjacent homes. A combination of trees and upright junipers will also be used to further enhance screening for adjacent properties.
Architecture

Thrive Home Builders’ Duplex designs are rooted in architectural styles that are familiar to Colorado neighborhoods, a traditional gable form and the prairie elevation. These familiar elevations allow the pocket neighborhood to blend into the larger Four-Square Mile neighborhood. The two elevation styles also create a streetscape with comfortable rhythm for the homeowners, as they enjoy the green spaces and the central gathering court.

A large gable roof with lap siding is a timeless combination. However, instead of treating this elevation with a traditional brush, we have decided to give it a slight contemporary spin by using ornamental trim at specific locations such as the rear elevation. This allows us to apply colors differently around the building and still provide relief where the building needs it.

A shallow hipped roof with broad overhang eaves, a horizontal band under the upper level windows, and the use of different siding exposure evokes images of the classic prairie style that we have all grown to appreciate. Using a color palette that is consistent with the gable form, but applied differently, allows Thrive to create a consistency through the neighborhood without sacrificing diversity.

Large porches allow the homeowners to live to the front of their homes and provides opportunities for neighbors to connect on the porch, along the walk path, or in the various gathering spots that we are proposing. Finally, rear-loaded garages separate the car from the front of the homes, allowing neighbors and their children to enjoy the neighborhood without the threat of vehicles, giving them enhanced outdoor living experiences.
Bill Skinner, AICP
Arapahoe County Public Works – Planning Division
6924 S. Lima Street
Centennial, CO 80112

File #/Name: SDP19-001
Project Type: Specific Development Plan
Referral Received: February 14, 2019
Comments Due: February 21, 2019

S Metro Review #: REFOTH19-00044
Plan reviewer: Jeff Sceili  jeff.sceili@southmetro.org
Review date: June 7, 2019

Narrative:


South Metro Fire Rescue’s Life Safety Division has reviewed the above project and has Approved the plans.

SITE SPECIFIC COMMENTS:

The civil engineer is required to submit water distribution plans for approval.

ASP19-002 and PF19-001 are still under review as issues have been addressed. Awaiting final drawing set for approval. Last discussion with Evan Rumney it was agreed upon that the bollards would be removed from the project. The proposed rolled curb, fire lane signage, and autoturn analysis were all provided and found satisfactory.
February 26, 2019

Bill Skinner
Arapahoe County Public Works and Development
6924 S. Lima Street
Centennial, CO 80112

RE: Paula Dora Highline East; SDO19-001, ASP19-002, & PF19-001
TCHD Case No. 5446, 5447, & 5448

Dear Mr. Skinner,

Thank you for the opportunity to review and comment on Specific Development Plan, Administrative Site Plan, and Final Plat for the proposed 16 units of paired homes located at 9437 E. Colorado Avenue. Tri-County Health Department (TCHD) staff has reviewed the application for compliance with applicable environmental and public health regulations and principles of healthy community design. After reviewing the application, TCHD has the following comments.

**Community design to support walking and bicycling**
Because chronic diseases related to physical inactivity and obesity now rank among the country’s greatest public health risks, TCHD encourages community designs that make it easy for people to include regular physical activity, such as walking and bicycling, in their daily routines. Because research shows that the way we design our communities can encourage regular physical activity, TCHD strongly supports community plans that incorporate pedestrian and bicycle amenities that support the use of a broader pedestrian and bicycle network.

**Sidewalks:**
Designers of active living communities typically recommend that sidewalks be a minimum of clear width of five (5) feet, the space needed for two people to walk comfortably side by side, with a buffer area like a tree lawn between the sidewalk and the street. TCHD encourages the use of detached sidewalks of at least 5 feet in width throughout the development.

**Safe and attractive pedestrian amenities:**
Research shows that people are more likely to use pedestrian amenities when they are attractive and feel safe. One way to improve the feeling of safety is by providing pedestrian scale lighting.

**Fugitive Dust – Building Demolition**
Exposure to air pollution is associated with a number of health problems including asthma, lung cancer, and heart disease. The Colorado Department of Public Health and
Environment Air Pollution Control Division (APCD) regulates air emissions. The application indicates that the existing building on the site will be demolished. State air quality regulations require that precautions be taken prior to demolition of buildings to evaluate the presence of asbestos fibers that may present a health risk. If asbestos is present, actions must be taken to prevent their release into the environment. State regulations also address control of ozone depleting compounds (chlorofluorocarbons) that may be contained in air conditioning or refrigerating equipment. The applicant shall contact the APCD at (303) 692-3100 for more information. Additional information is available at http://www.cdphe.state.co.us/ap/asbestos.

Vector Control – Building Demolition
Rodents such as mice and rats carry diseases which can be spread to humans through contact with rodents, rodent feces, urine, saliva, or through rodent bites. For example, Hantavirus Pulmonary Syndrome (HPS), a rare but potentially lethal viral infection, can be found in the droppings and urine of rodents commonly found in southwestern United States. When buildings are demolished, rodents can spread to surrounding properties and increase the risk of vector exposure to humans. The applicant should plan for vectors and eliminate any known infestations prior to demolition. Information on rodent control can be found at http://www.tchd.org/400/Rodent-Control.

On-Site Wastewater Treatment System (OWTS) – Abandonment
Proper wastewater management promotes effective and responsible water use, protects potable water from contaminants, and provides appropriate collection, treatment, and disposal of waste, which protects public health and the environment. Given site characteristics, an On-Site Wastewater Treatment System (OWTS) may be present on the subject property. Should an OWTS be present on site, it shall be abandoned in accordance with Regulation No. O-17, Section 6.8. TCHD must be notified in writing once the system has been properly abandoned. For more information, or to submit the notification, the applicant may contact our Greenwood Village office at 720-200-1670. More information is available at http://www.tchd.org/269/Septic-Systems.

Please feel free to contact me at 720-200-1585 or aheinrich@tchd.org if you have any questions on TCHD’s comments.

Sincerely,

[Signature]

Annemarie Heinrich, MPH/MURP
Land Use and Built Environment Specialist

cc: Sheila Lynch, Laura DeGolier, TCHD
March 4, 2019

Arapahoe County Public Works and Development
6924 South Lima Street
Centennial, CO 80112

Attn: Bill Skinner

Re: Highline East – Highline Estates, Case #s SDP19-001 and ASP19-002

Public Service Company of Colorado’s (PSCo) Right of Way & Permits Referral Desk has reviewed the specific development and administrative site plans and final plat for Highline East – Highline Estates. Please be aware PSCo owns and operates existing overhead and underground electric distribution facilities along the western property line, and requests that they are shown on the plans. Will the electric service be coming off of this line?

It is assumed that the natural gas distribution main will be located within the 6-foot wide utility easement as shown on the plat.

If the project will utilize pad mounted transformers, space consideration must be given to locate one or more pad mount transformers on this property with ground to sky clearance. The minimum space requirement per transformer is 12.5-feet by 12.5-feet, including a minimum clearance of 30-inches from non-combustible structures. Additional considerations are necessary if window, doors, or air vents are in close proximity to the proposed transformer location. Depending on the electric system that will serve this project, there may also be a requirement to provide a location with ground to sky clearance for an electric switch cabinet. (minimum dimensions: 11-feet by 16-feet) including a minimum of 5-10 feet from any obstructions. For details, please consult Xcel Energy’s Electric Standards “blue book” located at:


The property owner/developer/contractor must complete the application process for any new natural gas or electric service, or modification to existing facilities via FastApp-Fax-Email-USPS (go to: https://www.xcelenergy.com/start_stop_transfer/installing_and_connecting_service/). The Builder’s Call Line is 1-800-628-2121. It is then the responsibility of the developer to contact the Designer assigned to the project for approval of design details. Additional easements may need to be acquired by separate document for new facilities.

As a safety precaution, PSCo would like to remind the developer to call the Utility Notification Center at 1-800-922-1987 to have all utilities located prior to any construction.

Donna George
Right of Way and Permits
Public Service Company of Colorado / Xcel Energy
Office: 303-571-3306 – Email: donna.l.george@xcelenergy.com
CenturyLink
5025 N. Black Canyon Hwy
Phoenix, AZ 85015

February 22, 2019

Arapahoe County
Public Works and Development
6924 S Lima St.
Centennial, CO 80112

CenturyLink File No. P812920

Re: Case No.’s SDP19-001, ASP19-002, PF19-001 Plan & Plat Review
9437 E Colorado Ave, Denver, CO

This is in response to the request from the County of Arapahoe, Colorado for the review of subject Site Development Plan (SDP19-001), Site plan (ASP19-002) and Plat (PF19-001). CenturyLink has reviewed the subject Development Plans and Plat and has determined that CenturyLink has no objections or comments to the plans as submitted.

Respectfully,

Karen Caime

Karen Caime
Network Real Estate
Karen.Caime@centurylink.com
P812920
February 28, 2019

Bill Skinner  
Arapahoe County Public Works  
Planning Division  
6924 S. Lima St.  
Centennial, CO 80112

Location:  
NW¼ SE¼ SW¼ Section 22,  
T4S, R67W of the 6th P.M.  
39.6849, -104.8785

Subject: Paula Dora 13 Highline Estates  
Specific Development Plan SDP19-001, Administrative Site Plan ASP19-002, Final Plat PF19-001  
Arapahoe County, CO; CGS Unique No. AR-19-0017

Dear Mr. Skinner:

Colorado Geological Survey has reviewed the Paula Dora 13 Highline Estates specific development plan, administrative site plan, and final plat referral. I understand the applicant proposes 16 duplex units on 2.27 acres located at 9437 E. Colorado Avenue.

The site is not located within an identified flood hazard zone, does not contain steep slopes, is not undermined, and is not exposed to any geologic hazards or geotechnical constraints that would preclude the proposed residential use and density. **CGS therefore has no objection to approval of the plat as proposed.**

According to available geologic mapping (Shroba, R.R., 1980, Geologic map and physical properties of the surficial and bedrock units of the Englewood quadrangle, Denver, Arapahoe, and Adams Counties, Colorado: U.S.G.S., Geologic Quadrangle Map GQ-1524, scale 1:24,000), the site is underlain by eolian (wind-deposited) silty sand, described as exhibiting low to high consolidation, very low shear strength, and low swell potential. Potential development constraints that will need to be addressed in a site specific soils and foundation or geotechnical report prior to building permit application include, but are not necessarily limited to: 1) loose, low-strength sands and silts, and 2) hydrocompaction, or collapse under loading and wetting.

Thank you for the opportunity to review and comment on this project. If you have questions or require additional review, please call me at (303) 384-2643, or e-mail carlson@mines.edu.

Sincerely,

Jill Carlson, C.E.G.  
Engineering Geologist
No comments from me.

-N

Nathan Fogg, CO-CEM
Office of Emergency Management
Arapahoe County Sheriff’s Office

Please review the attached documents and click reply to return comments to me at this email address (bskinner@arapahoegov.com).

The applications propose 16 units of paired home to be located at 9437 E. Colorado Ave. The allowance for 16 units at this location was established with the approval of the Z02-005 La Terrasse Preliminary Development Plan. The attached plans largely follow requirements and direction put in place by approval of the Z02-005 PDP.

IF your organization requires documentation of specific requirements, i.e. fire lanes, a land value other than the assumed value for cash in lieu, etc., please include that information with your response.

Martials can be found at the following three locations: (yes, despite appearances the links do take you to three different locations)

https://citizenaccess.arapahoegov.com/citizenaccess/urlrouting.ashx?type=1000&Module=Planning&capID1=19CAP&capID2=00000&capID3=000GI&agencycode=Arapahoe


https://citizenaccess.arapahoegov.com/citizenaccess/urlrouting.ashx?type=1000&Module=Planning&capID1=19CAP&capID2=00000&capID3=000GE&agencycode=Arapahoe

If possible, please respond by 3/5/2019.

Thank you for your participation.
December 12, 2018

Arapahoe County
Darla Brooks
6924 S Lima St
Centennial, CO 80112

Re: La Terrassa
    9437 E Colorado Ave.
    Denver, Co 80247

The above referenced property is within the service area of the District. Water and sewer service is available subject to extension of water and sewer lines, payment of all fees, and the District’s Rules and Regulations.

If you have any questions regarding this matter, please feel free to contact this office.

Sincerely,

John Warford
District Manager
CHERRY CREEK VALLEY WATER AND SANITATION DISTRICT
Dear Mr. Skinner,

The Four Square Mile Neighborhood Association (the “Association”) is submitting this letter to comment on the Applications (the “Applications”) captioned above. The Association takes no position on the Applications, either in support of, or in opposition to, the Applications. This letter is provided to inform Arapahoe County of the communications that have taken place with regard to the Applications.

1. Applicant met with the Association

Prior to submitting the Applications to the County, Applicant sought a meeting with the Association. The Association’s development committee first met with Applicant and provided feedback about Applicant’s proposal. Applicant subsequently presented its proposal at a regular meeting of the full Association. Several people who attended the meeting expressed concern about the density of the proposal, being inconsistent with the surrounding neighborhood. While the Association recognizes that certain neighbors object to the project based primarily on density, the density has already been approved so in the interests of relevance, the Association is not incorporating comments about density. The Association notes that the Applicant made good faith efforts to meet with the Association and understand the concerns of its members.

2. Applicant incorporated much of the Association’s feedback into its proposal

The Association’s development committee provided feedback to the Applicant about Applicant’s proposal. That feedback included comments about the façade of the buildings (to make them more consistent with current development in the Four Square Mile Area), landscaping, traffic flow, and other issues. Applicant incorporated much of that feedback into revisions to the proposal, and presented the revised proposal to the full Association.

3. Conclusion

As stated above, the Association takes no position on the Applications, either in support of, or in opposition to, the Applications.
HIGHLINE EAST
SPECIFIC DEVELOPMENT PLAN
WEST HALF OF BLOCK 13, PAULA DORA
LOCATED IN THE SOUTHWEST QUARTER OF SECTION 22, TOWNSHIP 4 SOUTH, RANGE 67 WEST OF THE SIXTH PRINCIPAL MERIDIAN, CITY OF AURORA, COUNTY OF ARAPAHOE, STATE OF COLORADO.

PROJECT TEAM
OWNER / DEVELOPER
THIRD STREET CORPORATION
1530 GRAND AVE
AURORA, CO 80010
THIRDSTREET @THIRDSTREETCORP.COM

CIVIL ENGINEER
REDLAND, INC.
18032 COUDERAC ST
DENVER, CO 80239
REDLANDENG @REDLANDINC.COM

SURVEYOR
OFFICE CONCEPTS
300 FITZGERALD PARKWAY, STE 106
AURORA, CO 80014
OFFICECONCEPTS .COM

CERTIFICATE OF OWNERSHIP
Estate of Blinknowise Ownership Interest in the Property, described herein, located herein is not subject to any interests or liens, and is free and clear of any encumbrances.

CASE NO. SDP19-001

PROJECT DESCRIPTION
· The project is intended to be a single family attached residential development with the associated uses.

PERMITTED USES
· Single family attached, single family detached, townhomes, cluster, or townhome, and others.

CONSTRUCTION/phYSICAL DEVELOPMENT
· In general, buildings and associated sites development such as parking, streets, sidewalks, and other facilities.

DESIGN GUIDELINES
· A common theme should be established throughout the use of permanent and sustainable features, including green roofs and white roofs.

DEVELOPMENT
· Based upon the identification of key development elements, and the application of these elements through the use of permanent and sustainable features.

LANDSCAPE:
· A landscape plan shall be developed and submitted to the Board of County Commissioners, and the landscape plan shall be provided to the County and the Public Utilities Commission.

PARKING:
· Design guidelines for the proposed parking area shall be provided to the Board of County Commissioners.

SIGNAGE:
· A sign plan shall be submitted to the Board of County Commissioners.

CIRCULATION ROUTES:
· A circulation plan shall be submitted to the Board of County Commissioners.

SUSTAINABLE FEATURES:
· The project shall incorporate sustainable features such as green roofs, water conservation, and energy efficiency.

WATER SYSTEM:
· The proposed water system shall be designed and installed in accordance with the requirements of the Arapahoe County Land Development Code.

UTILITY EASEMENTS:
· All utility easements shall be dedicated and recorded in accordance with the requirements of the Arapahoe County Land Development Code.

LAW
· All laws, ordinances, and regulations applicable to the project shall be complied with.

STANDARDS:
· All standards and guidelines shall be met.

VIEWSHED:
· The project shall preserve and enhance the viewsheds of the surrounding area.

BASE OF ELEVATIONS
· The base of elevations for the project shall be established in accordance with the Arapahoe County Land Development Code.

PLANNING COMMISSION RECOMMENDATION
· The recommendation of the Arapahoe County Planning Commission shall be obtained.

CIVIL ENGINEER
· The civil engineer shall render the design and construction drawings for the project.

SURVEYOR
· The surveyor shall provide the boundary surveys for the project.

LANDSCAPE ARCHITECT
· The landscape architect shall provide the landscape design for the project.

CIVIL ENGINEER
· The civil engineer shall be responsible for the design and construction of all civil engineering work.

SURVEYOR
· The surveyor shall be responsible for the survey work.

LANDSCAPE ARCHITECT
· The landscape architect shall be responsible for the landscape design.

CIVIL ENGINEER
· The civil engineer shall be responsible for the design and construction of all civil engineering work.

SURVEYOR
· The surveyor shall be responsible for the survey work.

LANDSCAPE ARCHITECT
· The landscape architect shall be responsible for the landscape design.

CIVIL ENGINEER
· The civil engineer shall be responsible for the design and construction of all civil engineering work.

SURVEYOR
· The surveyor shall be responsible for the survey work.

LANDSCAPE ARCHITECT
· The landscape architect shall be responsible for the landscape design.

CIVIL ENGINEER
· The civil engineer shall be responsible for the design and construction of all civil engineering work.

SURVEYOR
· The surveyor shall be responsible for the survey work.

LANDSCAPE ARCHITECT
· The landscape architect shall be responsible for the landscape design.

CIVIL ENGINEER
· The civil engineer shall be responsible for the design and construction of all civil engineering work.

SURVEYOR
· The surveyor shall be responsible for the survey work.

LANDSCAPE ARCHITECT
· The landscape architect shall be responsible for the landscape design.

CIVIL ENGINEER
· The civil engineer shall be responsible for the design and construction of all civil engineering work.

SURVEYOR
· The surveyor shall be responsible for the survey work.

LANDSCAPE ARCHITECT
· The landscape architect shall be responsible for the landscape design.

CIVIL ENGINEER
· The civil engineer shall be responsible for the design and construction of all civil engineering work.

SURVEYOR
· The surveyor shall be responsible for the survey work.

LANDSCAPE ARCHITECT
· The landscape architect shall be responsible for the landscape design.

CIVIL ENGINEER
· The civil engineer shall be responsible for the design and construction of all civil engineering work.

SURVEYOR
· The surveyor shall be responsible for the survey work.

LANDSCAPE ARCHITECT
· The landscape architect shall be responsible for the landscape design.

CIVIL ENGINEER
· The civil engineer shall be responsible for the design and construction of all civil engineering work.

SURVEYOR
· The surveyor shall be responsible for the survey work.

LANDSCAPE ARCHITECT
· The landscape architect shall be responsible for the landscape design.

CIVIL ENGINEER
· The civil engineer shall be responsible for the design and construction of all civil engineering work.

SURVEYOR
· The surveyor shall be responsible for the survey work.

LANDSCAPE ARCHITECT
· The landscape architect shall be responsible for the landscape design.

CIVIL ENGINEER
· The civil engineer shall be responsible for the design and construction of all civil engineering work.

SURVEYOR
· The surveyor shall be responsible for the survey work.

LANDSCAPE ARCHITECT
· The landscape architect shall be responsible for the landscape design.

CIVIL ENGINEER
· The civil engineer shall be responsible for the design and construction of all civil engineering work.

SURVEYOR
· The surveyor shall be responsible for the survey work.

LANDSCAPE ARCHITECT
· The landscape architect shall be responsible for the landscape design.

CIVIL ENGINEER
· The civil engineer shall be responsible for the design and construction of all civil engineering work.

SURVEYOR
· The surveyor shall be responsible for the survey work.

LANDSCAPE ARCHITECT
· The landscape architect shall be responsible for the landscape design.

CIVIL ENGINEER
· The civil engineer shall be responsible for the design and construction of all civil engineering work.

SURVEYOR
· The surveyor shall be responsible for the survey work.

LANDSCAPE ARCHITECT
· The landscape architect shall be responsible for the landscape design.

CIVIL ENGINEER
· The civil engineer shall be responsible for the design and construction of all civil engineering work.

SURVEYOR
· The surveyor shall be responsible for the survey work.

LANDSCAPE ARCHITECT
· The landscape architect shall be responsible for the landscape design.

CIVIL ENGINEER
· The civil engineer shall be responsible for the design and construction of all civil engineering work.

SURVEYOR
· The surveyor shall be responsible for the survey work.

LANDSCAPE ARCHITECT
· The landscape architect shall be responsible for the landscape design.

CIVIL ENGINEER
· The civil engineer shall be responsible for the design and construction of all civil engineering work.

SURVEYOR
· The surveyor shall be responsible for the survey work.

LANDSCAPE ARCHITECT
· The landscape architect shall be responsible for the landscape design.

CIVIL ENGINEER
· The civil engineer shall be responsible for the design and construction of all civil engineering work.

SURVEYOR
· The surveyor shall be responsible for the survey work.

LANDSCAPE ARCHITECT
· The landscape architect shall be responsible for the landscape design.

CIVIL ENGINEER
· The civil engineer shall be responsible for the design and construction of all civil engineering work.

SURVEYOR
· The surveyor shall be responsible for the survey work.

LANDSCAPE ARCHITECT
· The landscape architect shall be responsible for the landscape design.

CIVIL ENGINEER
· The civil engineer shall be responsible for the design and construction of all civil engineering work.

SURVEYOR
· The surveyor shall be responsible for the survey work.

LANDSCAPE ARCHITECT
· The landscape architect shall be responsible for the landscape design.

CIVIL ENGINEER
· The civil engineer shall be responsible for the design and construction of all civil engineering work.

SURVEYOR
· The surveyor shall be responsible for the survey work.

LANDSCAPE ARCHITECT
· The landscape architect shall be responsible for the landscape design.

CIVIL ENGINEER
· The civil engineer shall be responsible for the design and construction of all civil engineering work.

SURVEYOR
· The surveyor shall be responsible for the survey work.

LANDSCAPE ARCHITECT
· The landscape architect shall be responsible for the landscape design.

CIVIL ENGINEER
· The civil engineer shall be responsible for the design and construction of all civil engineering work.

SURVEYOR
· The surveyor shall be responsible for the survey work.

LANDSCAPE ARCHITECT
· The landscape architect shall be responsible for the landscape design.
PLANTING NOTES

1. PLANT LOCATION: PLANT LOCATIONS ARE ILLUSTRATIVE AND MAY BE AMENDED IN THE EVENT THAT THE DEVELOPER, HOME OWNERS ASSOCIATION, OR OWNERS/OCCUPANTS DECIDED TO RELOCATE OR REVISE THE PLANTING PLAN.

2. IRRIGATION: A BELOW GROUND FULLY AUTOMATED IRRIGATION SYSTEM WILL BE INSTALLED IN ALL LANDSCAPED AREAS UTILIZING WATER-CONSERVING SYSTEMS SUCH AS TRICKLE (DRIP) IRRIGATION TO WATER ALL SHRUBS AND TREE PLANTINGS. RAIN SENSORS WILL BE USED TO AUTOMATICALLY SHUT DOWN THE IRRIGATION SYSTEM DURING PERIODS OF HIGH MOISTURE. TO MAXIMIZE WATER USE EFFICIENCY, THE IRRIGATION SYSTEM WILL BE DESIGNED WITH A HIGH APPLICATION EFFICIENCY AND WITH ZONES THAT CORRESPOND TO THE DIFFERING WATER REQUIREMENTS OF PLANTING AREAS. BACKFLOW CONTROL DEVICES SHALL BE LOCATED OR SCREENED SO THAT THEY ARE NOT VISIBLE FROM PUBLIC STREETS OR PARKING LOTS. SPRAY OVER WALKWAYS AND ROADWAYS WILL BE MINIMIZED FOR PEDESTRIAN COMFORT, SAFETY AND WATER CONSERVATION. REFER TO IRRIGATION PLANS FOR ADDITIONAL INFORMATION.

3. SHREDDED WOOD MULCH SHALL BE INSTALLED IN ALL PLANTING AREAS NOT SPECIFIED WITH ROCK MULCH.
HIGHLINE EAST
SPECIFIC DEVELOPMENT PLAN
WEST HALF OF BLOCK 13, PAULA DORA
LOCATED IN THE SOUTHWEST QUARTER OF SECTION 22, TOWNSHIP 4 SOUTH, RANGE 67 WEST OF THE SIXTH PRINCIPAL MERIDIAN,
CITY OF AURORA, COUNTY OF ARAPAHOE, STATE OF COLORADO.

CASE NO. SDP19-001
HIGHLINE EAST
SPECIFIC DEVELOPMENT PLAN
WEST HALF OF BLOCK 13, PAULA DORA
LOCATED IN THE SOUTHWEST QUARTER OF SECTION 22, TOWNSHIP 4 SOUTH, RANGE 67 WEST OF THE SIXTH PRINCIPAL MERIDIAN,
CITY OF AURORA, COUNTY OF ARAPAHOE, STATE OF COLORADO.
HIGHLINE EAST
SPECIFIC DEVELOPMENT PLAN
WEST HALF OF BLOCK 13, PAULA DORA
LOCATED IN THE SOUTHWEST QUARTER OF SECTION 22, TOWNSHIP 4 SOUTH, RANGE 67 WEST OF THE SIXTH PRINCIPAL MERIDIAN,
CITY OF AURORA, COUNTY OF ARAHPOE, STATE OF COLORADO.
OUTLINE FOR JULY 16th, 2019, PLANNING COMMISSION OIL & GAS STUDY SESSION

1. Summary of Senate Bill 181.
   - The mission of the Colorado Oil and Gas Conservation Commission (COGCC) changed from “Fostering responsible development” to “Regulating” oil and gas development “in a manner that protects public health, safety, and welfare, including protection of the environment and wildlife resources.”
   - Amends preemption of local regulations by specifying that both state agencies and local governments have authority to regulate oil and gas operations and establishes that where there is a conflict, the more protective standards as to health, safety, and welfare, the environment, and wildlife resources would apply.
   - Enables local governments to have increased oversight of land use related oil and gas activities in their communities, if they choose to do so.
   - Gives local governments the right to inspect oil and gas facilities, impose fines for leaks, spills and emissions, impose fees on operators to cover the reasonably foreseeable direct and indirect costs of permitting and regulation, and the costs of monitoring and inspection programs.
   - Allows local governments to require financial assurance, indemnification and/or insurance, as appropriate, to ensure compliance with the regulations of the local government.
   - Alters forced pooling, making it more difficult to force non-consenting individuals into force pooling agreements and provides non-consenting owners with more rights and a greater royalty.
   - Provides a technical review group to assist with siting disputes between local governments and operators.
   - Requires the commission to adopt rules that require alternative location analyses for oil and gas facilities that are proposed near populated areas and requires the commission to address cumulative impacts of oil and gas development.
   - Directs the commission to promulgate rules to ensure proper wellhead integrity, allow public disclosure of flowline information, evaluate when inactive and shut-in wells must be inspected before being put into production or used for injection.
   - Changes the composition of the commission:
     - The COGCC Commissioners can be thought of as the group that conducts quasi-judicial, quasi-legislative, and executive branch capacities, with input and sometimes, recommendations from COGCC Staff.
     - Commissioners vote on matters before them such as spacing unit applications, requests for pooling orders, enforcement matters, and proposed rule changes.
     - Per SB19-181, the Commission is now comprised of seven unpaid volunteers, and two ex-officio members (Colorado Department of Natural Resources Executive Director and the Colorado Department of Public Health and Environment (CDPHE) Executive Directors, or 9 total members, of varying specialties. Under SB-181, only one commissioner must be an individual with substantial experience in the oil and gas industry. (The previous makeup
included three individuals with substantial oil and gas industry experience). One member must have training or substantial expertise in Planning or Land Use. One member must have training or substantial experience in environmental protection, wildlife protection or reclamation. One member must have professional experience demonstrating an ability to contribute to the commission’s body of expertise that will aid the commission in making sound, balanced decisions. One member must have substantial experience in public health.

- In these capacities, the Commission engages in rulemaking, adjudicates disputes and enforces violation.
- Hearings Process: Ten to twelve Commission Hearings are held per year; Some outside of Denver. Hearings are live-streamed on the internet.

- The Colorado Air Quality Control Commission, part of the Colorado Department of Public Health & Environment (CDPHE), is tasked with adopting additional air quality rule(s) to minimize emissions from oil and gas operations.

2. What’s happening at the COGCC with their new mission.
   - New priorities include: new flowline rules, wellbore integrity, guidelines for Alternative Site Analysis, and Cumulative Impact rulemaking. As of two weeks ago, they were working on assembling their technical review group to assist local governments.

   - New COGCC Director: Jeff Robbins, formerly worked as an attorney for local governments on oil and gas matters.

   - Two new Deputy Directors will be appointed.

   - COGCC will add 24 new full time employees. With these additional resources, the COGCC will be able to balance the permit approval process with robust rulemaking.

   - When filing for an application to drill (Form 2), operators must include proof that they sought a local government siting permit and the disposition of that permit, unless that jurisdiction has stated that they do not plan to regulate siting.

   - Director published sixteen Objective Criteria, used to generate a second look at applications that meet the criteria. The second look will involve consultation with the local government.

   - As of two weeks ago, COGCC had 6,500 permit applications in their queue and they are now making progress at decreasing that number.

3. What’s happening at Arapahoe County Public Works and Development, in the wake of SB-181:

   - Staff presented to BoCC twice (May and June) seeking approval of a process to develop and recommend new rules for oil and gas development. Staff does not intend to hinder industry, but intends to provide some mitigations for the impacts of oil and gas development. Using a tiered approach, some of the rules would not take effect unless the proposed drilling locations are near existing homes. BoCC directed staff to prepare new regulations; public outreach will begin this fall
and we anticipate presenting regulations for Planning Commission recommendation around March of 2020.

- In May, staff developed a list of nine topics for consideration of new rules, under the categories of Quality of Life, Health/Safety and Process Improvement.
  - Under Quality of Life, staff identified Noise, Light, and Visual Impacts for consideration of new rules.
  - Under Health/Safety, staff identified Lightning and Emergency Response Planning for consideration.
  - Under Process Improvement, staff identified Notifications and Postings, Project Schedules for all phases, and Incentivizing Pipelines.


4. What’s happening with other jurisdictions:
- Seven local governments put oil and gas moratoriums in place
- Aurora, Adams County and Weld County have moved ahead with new rules. Aurora approved an operator agreement with ConocoPhillips in June. Adams County is currently preparing new regulations. Weld County adopted new regulations and recently created an Oil and Gas department.
- Other Front Range jurisdictions are planning to draft new rules.
- Most local governments have explicitly stated they do not intend to regulate oil & gas wells downhole. Instead, they would concentrate on land use matters.
- Several local government representatives have stated that they feel increased regulation will result in less drilling in their jurisdictions and they have historically depended on oil and gas income.
- Aurora’s City Council adopted (6:4 vote) a new operator agreement with Conoco to drill up to 300 potential new wells on 45 pads within the city’s boundaries. The Conoco agreement lays out measures more stringent than state law, to lessen the surface impact of the wells, such as the use of electric drilling rigs that are quieter and have lower emissions, having pipelines in place of oil storage tanks, continuous air quality monitoring, as well as requiring neighborhood meetings about the well sitings.
- Adams County is more than halfway through a stakeholder outreach process for adoption of new rules. They will present their new rules to their BoCC in September and expect full approval.
- Weld County is writing a new permitting process into its land use code for oil and gas development occurring outside the boundaries of cities and towns in Weld County. Their new code is designed to keep the state from preempting the county in well-siting decisions.
Abandon
The proper plugging and abandoning of a well in compliance with all applicable regulations, and the cleaning up of the wellsite to the satisfaction of any governmental body having jurisdiction with respect thereto and to the reasonable satisfaction of the operator.

Abandonment Costs
The costs associated with abandoning a well or production facility. Such costs are specified in the authority for expenditure (AFE), and typically cover the plugging of wells; removal of well equipment, production tanks and associated installations; and surface remediation. (See Plugging and Abandonment).

Acid Stimulation (type of completion procedure or workover procedure)
The treatment of a reservoir formation with a stimulation fluid containing a reactive acid. In sandstone formations the acid reacts with soluble substances in the formation matrix to enlarge the pore spaces. In carbonate formations (limestones, limey sandstones, dolomites) the acidizing treatment dissolves the entire formation matrix. In each case, the acid treatment improves formation permeability to enhance production of oil and gas.

Act
Means the Oil and Gas Conservation Act of the State of Colorado.

Alluvial Aquifer
The water-bearing sand and gravel adjacent to a stream that can yield large amounts of groundwater.

Ambient Air Quality
Refers to the quality of outdoor air in the surrounding environment. It is typically measured near ground level, away from direct sources of pollution.

Annulus
The void between piping (casing) and the wall of the borehole. The annulus is continuously cemented between the casing and the borehole over the aquifers, to a depth of 50 feet below the deepest aquifer. The wellbore is also cemented over the producing formation to isolate the wellbore and prevent migration of formation fluids into the casing. After casing and cementing through the interval to be produced, the casing is perforated. The perforations extend through the cement and fluids flow from the formation, through the perforations, and into the production casing or production tubing.

Application for Permit to Drill (APD)
Prior to building the oil and gas location or pad, an Application for Permit to Drill (APD) is required by the Colorado Oil and Gas Conservation Commission (COGCC Form 2), as well as a location permit (COGCC Form 2A).

Aquifer
A geologic formation or group of formations that can both store and transmit water. Subsurface aquifers (as opposed to alluvial aquifers in sediments at the surface) are separated by impermeable layers, also call aquitards.

Barrel (bbl)
42 U.S. gallons at 60°F and atmospheric pressure. Most oil and gas operations list fluid volumes in barrels.
**Baseline Water Sampling** (See Colorado Oil and Gas Conservation Commission Rule 609).
Initial (predrilling) baseline water samples collected from available water sources, up to a maximum of four (4), within a one-half (1/2) mile radius of a proposed Oil and Gas well, multi-well site, or dedicated injection well. The initial baseline testing includes pH, specific conductance, total dissolved solids (TDS), dissolved gases (methane, ethane, propane), alkalinity (total bicarbonate and carbonate as CaCO3), major anions (bromide, chloride, fluoride, sulfate, nitrate and nitrite as N, phosphorus), major cations (calcium, iron, magnesium, manganese, potassium, sodium), other elements (barium, boron, selenium and strontium), presence of bacteria (iron related, sulfate reducing, slime forming), total petroleum hydrocarbons (TPH) and BTEX compounds (benzene, toluene, ethylbenzene and xylene). Field observations such as odor, water color, sediment, bubbles, and effervescence are also documented.

**Basin**
A large bowl-shaped depression in the subsurface under the land surface that has the potential to contain oil and gas. The Denver Basin, sometimes called the Denver-Julesburg Basin or the D-J Basin is centered in eastern Colorado and extends into southeast Wyoming, western Nebraska, and western Kansas. It underlies the Denver-Aurora Metropolitan Area on the eastern side of the Rocky Mountains. Most of the oil and gas production on the eastern side of Colorado comes from sedimentary layers that were deposited in the Denver Basin.

**Biogenic Gas**
Biogenic methane gas is formed at shallow depths and low temperatures by anaerobic bacterial decomposition of sedimentary organic matter. (Also see thermogenic gas).

**Blowout Preventer (BOP)**
A large valve at the top of a well that may be closed if the drilling crew loses control of formation fluids. By closing this valve (usually operated remotely), the drilling crew usually regains control of the reservoir and procedures can then be initiated to increase the density of the drilling fluid (also known as drilling mud). BOPs come in a variety of styles, sizes, and pressure ratings. Some can effectively close over an open wellbore, some are designed to seal around tubular components in the well (drillpipe, casing, or tubing) and others are fitted with hardened steel shearing surfaces that can cut through the drillpipe. Since BOPs are critical to the safety of the crew, the rig, and the wellbore itself, BOPs are inspected, tested, and refurbished at regular intervals.

**BMP or Best Management Practice**
Methods or techniques found to be most effective and practical in achieving an objective (such as preventing or minimizing pollution) while making the optimum use of resources.

BMP is a term used in the United States and Canada to describe a type of water pollution control and includes silt fences, straw wattles, sediment traps, check dams, water bars, and temporary and permanent seeding.

**Bonus**
Cash consideration paid to a landowner or mineral owner on the execution of an oil, gas or mineral lease that is in addition to any rental or royalty obligations specified in the lease.

**Bridge plug**
A downhole tool that is located and set to isolate the lower part of the wellbore. Bridge plugs may be permanent or retrievable, enabling the lower wellbore to be permanently sealed from production or temporarily isolated from a treatment conducted on an upper zone.
Brine Water
Formation waters are salty, due to the fact that the geologic formations originated in inland seas. The formation water (or Produced Water) is representative of the water in the inland seas and is sometimes called “connate water”. Operators often define brine water as having Total Dissolved Solids (known as TDS, see definition of TDS) of greater than 20,000 mg/l and TDS of 30,000 mg/l is not uncommon. Modern day sea water has a TDS content in the range of 30,000 to 35,000 mg/l. Arapahoe County defines “brine water” as water produced from an oil and gas well with a TDS content of more than 5,000 mg/l and containing no exploration and production waste.

BTEX
An acronym that stands for benzene, toluene, ethylbenzene, and xylenes. These compounds are some of the volatile organic compounds (VOCs) found in petroleum derivatives such as gasoline. Toluene, ethylbenzene, and xylenes have harmful effects on the central nervous system. Benzene is found in the air from emissions from burning coal and oil, gasoline service stations, and motor vehicle exhaust. Acute (short-term) inhalation exposure of humans to benzene may cause drowsiness, dizziness, headaches, as well as eye, skin, and respiratory tract irritation, and, at high levels, unconsciousness. Chronic (long-term) inhalation exposure has caused various disorders in the blood, including reduced numbers of red blood cells and aplastic anemia, in occupational settings. Reproductive effects have been reported for women exposed by inhalation to high levels, and adverse effects on the developing fetus have been observed in animal tests. Increased incidence of leukemia (cancer of the tissues that form white blood cells) have been observed in humans occupationally exposed to benzene. EPA has classified benzene as a known human carcinogen for all routes of exposure.

Building Unit
A Residential Building Unit; and every five thousand (5,000) square feet of building floor area in commercial facilities or every fifteen thousand (15,000) square feet of building floor area in warehouses that are operating and normally occupied during working hours. Residential Building Units are designed for use as a place of residency by a person, family, or families. The definition includes manufactured, mobile, and modular homes unless they are intended for temporary occupancy or for business. Oil and gas wells must be located no closer than 500 feet from a building unit, unless an exception is granted by COGCC.

Casing
The large diameter pipe that is assembled and inserted into a recently drilled section of a borehole and is typically held in place with cement.

Cement Bond Log
Performed by lowering an acoustic survey tool into the well after the surface casing is set and cemented in place to a depth of 50 feet below the lowest aquifers. The cement bond log records the quality or hardness of the cement used in the annulus to bond the casing and the formation. Operators are required to re-cement any places between the casing and the borehole where the cement is not sufficient.

Cement casing
To fill the annulus between the casing and wall of the hole with cement to support the casing and prevent fluid migration between permeable zones.

Christmas Tree
An assembly of valves mounted on the casinghead through which a well is produced. The Christmas tree also contains valves for testing the well and shutting it in if necessary.
Circulation System
The complete, circuitous path that the drilling fluid travels. Starting at the main rig pumps, major components include surface piping, the standpipe, the kelly hose (rotary), the kelly, the drillpipe, drill collars, bit nozzles, the various annular geometries of the openhole and casing strings, the bell nipple, the flowline, the mud-cleaning equipment, the mud tanks, the centrifugal precharge pumps and, finally, the positive displacement main rig pumps.

Clean Air Act (CAA)
A Federal law designed to control air pollution on a national level. It requires the Environmental Protection Agency (EPA) to develop and enforce regulations to protect the public from airborne contaminants known to be hazardous to human health.

The first federal legislation to actually pertain to "controlling" air pollution was the Clean Air Act of 1963. In 1967, the Air Quality Act enabled the federal government to increase its activities to investigate enforcing interstate air pollution transport, and to perform far-reaching ambient monitoring studies and stationary source inspections. The 1967 act also authorized expanded studies of air pollutant emission inventories, ambient monitoring techniques, and control techniques.

Major amendments to the law, requiring regulatory controls for air pollution, passed in 1970, 1977 and 1990. The 1970 amendments greatly expanded the federal mandate, requiring comprehensive federal and state regulations for both stationary (industrial) pollution sources and mobile sources. It also significantly expanded federal enforcement. The 1990 amendments addressed acid rain, ozone depletion, and toxic air pollution, established a national permits program for stationary sources, and increased enforcement authority. The amendments also established new auto gasoline reformulation requirements.

Clean Water Act (CWA)
The primary federal law in the United States governing water pollution, passed in 1972. The objective of the Federal Water Pollution Control Act, commonly referred to as the Clean Water Act (CWA), is to restore and maintain the chemical, physical, and biological integrity of the nation's waters by preventing point and nonpoint pollution sources, providing assistance to publicly owned treatment works for the improvement of wastewater treatment, and maintaining the integrity of wetlands.

Closed-loop drilling system
Closed-loop systems use above-ground portable tanks instead of pits. A typical closed-loop system includes a series of linear-motion shakers, mud cleaners and centrifuges followed by a dewatering system. Waste water is pumped directly into steel storage containers and held for processing. The equipment typically results in a “dry” location where a reserve pit is not required, used fluids are recycled, and solid wastes can be landfarmed, hauled off, or injected downhole. Up to 50 percent of the frac water can potentially be recovered and reused.

COGA (Colorado Oil and Gas Association)
COGA is an oil and gas industry organization. They list their mission as representing and advocating industry views while promoting the beneficial, efficient, responsible, and environmentally sound development, production and usage of Colorado oil and natural gas.

COGCC (Colorado Oil and Gas Conservation Commission)
The COGCC is the state regulatory agency governing oil and gas exploration, financial assurance, safety, permitting, setbacks, baseline water sampling, completions, production, reporting, remediation, waste water injection, enhanced recovery, and well abandonment. The COGCC is to foster the responsible development of Colorado's oil and gas natural resources. Responsible development results in the following:
• The efficient exploration and production of oil and gas resources in a manner consistent with the protection of public health, safety and welfare
• The prevention of waste
• The protection of mineral owners' correlative rights
• The prevention and mitigation of adverse environmental impacts

Completion
The process of making a well ready for production or injection. This principally involves preparing the bottom of the hole to the required specifications, running in the production tubing and its associated down hole tools as well as perforating and stimulating as required. Sometimes, the process of running in and cementing the casing is also included. Hydraulic fracturing, also known as fracking, is one of the completion activities.

Compressor Station
Any combination of facilities that supply the energy to move gas in transmission or distribution lines or into storage by increasing the pressure.

Condensate
Natural gas condensate is a low-density mixture of hydrocarbon liquids that are present as gaseous components in the raw natural gas produced from wells. It condenses out of the raw gas if the temperature or pressure is reduced. Condensate is very similar in composition to refined gasoline.

Condensate Liquids
Hydrocarbons that are in the gaseous phase at reservoir conditions but condense into liquid as they travel up the wellbore and reach separator conditions.

Conductor Casing
Generally, the first string of casing in a well. It may be lowered into a hole drilled into the formations near the surface and cemented in place; it may be driven into the ground by a special pile driver. Its purpose is to prevent the soft formations near the surface from caving in and to conduct drilling mud from the bottom of the hole to the surface when drilling starts. Also called conductor pipe or drive pipe.

Correlative Rights Doctrine
A legal doctrine that limits the rights of landowners to a share of a resource such as oil, gas, or groundwater, to a reasonable share. The reasonable share for oil and gas operations is based on mineral rights ownership. This rule comes into play for oil and gas production because it may be proved that part of the oil and gas produced from a well migrated from adjoining lands.

Crude Oil
A mixture of hydrocarbons that exists in liquid phase in natural underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities. Depending upon the characteristics of the crude stream, it may also include 1. Small amounts of hydrocarbons that exist in gaseous phase in natural underground reservoirs but are liquid at atmospheric pressure after being recovered from oil well gas in lease separators and are subsequently commingled with the crude stream without being separately measured. Lease condensate recovered as a liquid from natural gas wells in lease or field separation facilities and later mixed into the crude stream is also included; 2. Small amounts of nonhydrocarbons produced with the oil, such as sulfur and various metals; 3. Drip gases, and liquid hydrocarbons produced from tar sands, oil sands, gilsonite, and oil shale.

Crude oil forms over millions of years from the remains of tiny aquatic plants and animals that are exposed to the combined effects of time, burial, and temperature. As these organisms died, they settled
to the ocean floor and were covered with mud. If the mud did not contain enough oxygen for the soft parts of the organisms to decay, they were converted into kerogen, which is later converted into oil.

Crude oil is refined to produce a wide array of petroleum products, including heating oils; gasoline, diesel and jet fuels; lubricants; asphalt; ethane, propane, and butane; and many other products used for their energy or chemical content.

**Cuttings**
Small pieces of rock that break away from the drilled hole from the action of the drill bit teeth. Cuttings are screened out of the liquid mud system at the shale shakers at the surface and are monitored for composition, size, shape, color, texture, hydrocarbon content and other properties by the mud engineer or the mud logger. The mud logger collects samples of cuttings for subsequent analysis and archiving.

**Decibel**
The unit of measurement to compare the relative intensity of acoustic or electrical signal, equal to one-tenth of a bel, named for American inventor Alexander Graham Bell (1847 to 1922). The logarithm of the ratio of the sound or signal to a standard provides the decibel measurement. The symbol for the unit is dB. Humans typically hear sounds in the range of 20 to 50 dB in conversation, and upwards of 90 dB when exposed to heavy machinery or aircraft.

**Dehydrator**
A device used to remove water and water vapors from gas. Gas dehydration can be accomplished through a glycol dehydrator or a dry-bed dehydrator, which use a liquid desiccant and a solid desiccant, respectively. Gas dehydrators are designed to handle only water and gas vapors. If liquid water or oil enters the dehydrator, the device cannot work properly.

**Directional well**
A well purposely deviated from the vertical, using controlled angles to reach an objective location other than directly below the surface location. A directional well may be the original hole or a directional "sidetrack" hole that deviates from the original bore at some point below the surface. Each of the deviations from the common bore is reported as a separate well.

**Disposal Well**
A well, often a depleted oil or gas well, into which waste fluids can be injected for safe disposal. Disposal wells are subject to regulatory requirements to avoid contamination of fresh water aquifers or producing horizons. (Also see Injection Well).

**Dog House**
The steel-sided room adjacent to the rig floor, usually having an access door close to the driller's controls. This general-purpose shelter is a combination tool shed, office, communications center, coffee room, lunchroom and general meeting place for the driller and his crew. It is at the same elevation as the rig floor, usually cantilevered out from the main substructure supporting the rig.

**Domestic Gas Well**
A gas well that produces solely for the use of the surface owner. The produced gas cannot be sold, traded, or bartered.

**Downstream**
The oil and gas operations that take place after the production phase, through to the point of sale. Downstream operations can include refining crude oil and distributing the by-products down to the retail level.
Drilling Mud
A heavy, viscous fluid mixture that is used in oil and gas drilling operations to carry rock cuttings to the surface and also to lubricate and cool the drill bit. Drilling mud is pumped down the hollow drill pipe to the drill bit, where it exits the pipe and then is flushed back up the borehole to the surface. The drilling mud, by hydrostatic pressure, also helps prevent the collapse of unstable strata into the borehole and the intrusion of water from water-bearing strata that may be encountered.

Drilling muds are traditionally based on water, either fresh water, seawater, naturally occurring brines, or prepared brines. A typical water-based drilling mud contains a clay, usually bentonite, to give it enough viscosity to carry cutting chips to the surface, as well as a mineral such as barite, to increase the weight of the column enough to stabilize the borehole. Many muds are oil-based, using direct products of petroleum refining such as diesel oil or mineral oil as the fluid matrix. For economic and environmental reasons, oil- and synthetic-based muds are usually cleaned and recirculated.

Drill Pipe
Tubular steel conduit fitted with special threaded ends called tool joints. The drillpipe connects the rig surface equipment with the bottomhole assembly and the bit, both to pump drilling fluid to the bit and to be able to raise, lower and rotate the bottomhole assembly and bit.

Drilling
The act of boring a hole (1) to determine whether minerals are present in commercially recoverable quantities and (2) to accomplish production of the minerals (including drilling to inject fluids).

Exploratory: Drilling to locate probable mineral deposits or to establish the nature of geological structures; such wells may not be capable of production if minerals are discovered.

Developmental: Drilling to delineate the boundaries of a known mineral deposit to enhance the productive capacity of the producing mineral property.

Directional: Drilling that is deliberately made to depart significantly from the vertical.

Drilled and Abandoned
A well that was abandoned by plugging after drilling because it was not sufficiently capable of producing at economic rates.

Drilling Fluid
Any of a number of liquid and gaseous fluids and mixtures of fluids and solids (as solid suspensions, mixtures and emulsions of liquids, gases and solids) used in operations to drill boreholes into the earth. Synonymous with "drilling mud" in general usage, although some prefer to reserve the term "drilling fluid" for more sophisticated and well-defined "muds."

Drilling Pits
Pits used during drilling or initial completion operations at a well. The four types are: ancillary, completion, flowback, and reserve pits.

Ancillary Pits: Used to contain fluids during drilling operations and initial completion procedures.

Completion Pits: Used to contain fluids and solids from initial completion operations and not constructed for drilling operations.
Flowback Pits: Used to contain fluids and solids produced from initial completion operations (e.g. fluids that come out of the formation immediately after fracking). Flowback pits must be lined, per COGCC standards.

Multi-Well Pits: Often the size of two football fields or larger, these pits generally start out with fresh water or groundwater provided from water wells, or purchased from a municipality or water-provider. As the water is recycled, for use over and over, with subsequent drilling and completions, the water becomes more saline (higher TDS; see TDS definition) because the pit water is in contact with formation water (saline due to the origin of the sediments in inland seas or deep ocean water). The trace amounts of hydrocarbons in the pit water also increase with each completion due to contact between the water and the oil- and gas-bearing formations.

Reserve Pits: Used to store drilling fluids or to contain wastes generated during drilling operations and initial completion.

E & P Waste (Exploration and Production Waste)
Defined as drilling wastes, salt water and other wastes associated with the exploration, development, and production of crude oil or natural gas. E & P wastes are exempt from the Federal Resource Conservation and Recovery Act (RCRA), as amended, but are regulated by COGCC.

Enhanced Recovery
The implementation of various techniques for increasing the amount of crude oil that can be extracted from an oil field. Enhanced oil recovery is also called improved oil recovery or tertiary recovery (as opposed to primary and secondary recovery). According to the US Department of Energy, there are three primary techniques for EOR: thermal recovery, gas injection, and chemical injection.

Environmental Impact Statement
A report that documents the information required to evaluate the environmental impact of a project. It informs decision makers and the public of the reasonable alternatives that would avoid or minimize adverse impacts or enhance the quality of the environment.

EPA (Environmental Protection Agency)
The Environmental Protection Agency (EPA) was established in December 1970. The EPA is an agency of the federal government whose mission is to protect human and environmental health. The EPA is responsible for conducting environmental assessment, monitoring, standard-setting, research and education to create and enforce standards and laws that will promote the health of individuals and the environment. In addition, the EPA is charged with determining safe tolerance levels for chemicals and other pollutants in food, animal feed and water. The EPA is able to enforce its findings through fines, sanctions and other procedures.

EPCRA (Emergency Planning and Community Right-To-Know Act)
The objective of EPCRA is to: (1) allow state and local planning for chemical emergencies, (2) provide for notification of emergency releases of chemicals, and (3) address communities’ right-to-know about toxic and hazardous chemicals.

Exception Zone
The concentric area around a proposed well location that is 500 feet or less from a building unit. For COGCC approval to drill in an exception zone, delivery notification must be documented and increased mitigation measures are required.
Facility
Defined by Arapahoe County as related to oil and gas exploration, completion, production, storage, and processing. Facilities include oil and gas wells, tank batteries, lease roads, pipelines, compressor stations, gas plants, and storage facilities. Pipelines (Gathering Systems), Salt Water Disposal wells and Injection wells are not included in the County’s use of the term.

Fee Interest
The absolute, legal possession and ownership of land, property, or rights, including mineral rights. A fee interest can be sold (in its entirety or in part) or passed on to heirs or successors.

Fee Simple
An interest in land. Land owned in fee simple is owned completely, without any limitations or conditions. This type of unlimited estate is called absolute. A fee simple is generally created when a deed gives the land with no conditions, usually using the words like "to John Doe" or "to John Doe and his heirs".

Financial Assurance
A surety bond, cash collateral, certificate of deposit, letter of credit, escrow account, lien on property, security interest, guarantee, or other instrument or method acceptable to the COGCC for liability concerns related to public health, safety, and welfare. The term encompasses general liability insurance.

Flare/Flaring
Noun: The flame from a flare; the pipe or stack itself.
Verb: To burn unwanted gas through a pipeline or stack. Flaring is usually used as a safety measure to burn off flammable gas released by pressure release valves but can be used when wells are not hooked into a pipeline. To keep the flare system functional, a small amount of gas is continuously burned, like a pilot light, so that the system is always ready for its primary purpose as an over-pressure safety system. (See venting).

Flowback
After a well is drilled, a mixture of water, sand, and chemical additives is injected under pressure to fracture the shale reservoir, which enhances the flow of oil and gas for collection. Most of the water used in fracturing remains thousands of feet underground, however, about 20 percent returns to the surface through a steel-cased well bore and is temporarily stored in steel tanks or lined pits. The wastewater which returns to the surface after hydraulic fracturing is called flowback. Flowback pits contain a mixture of fresh water purchased from water suppliers, brine water (produced water), and fracturing fluids (water, often recycled, plus sand and chemicals).

Natural gas also comes to the surface during flowback. The natural gas can’t be routed to a pipeline because the initial gas from the well is not pipeline quality. “Green” flowback techniques include routing that natural gas and the flowback liquids to closed tanks, in order to reduce emissions.

Flowlines
A surface pipeline carrying oil, gas or water that connects the wellhead to a manifold or to production facilities, such as heater-treaters and separators.

Formation
A body of rock that is sufficiently distinctive and continuous that it can be mapped. In stratigraphy, a formation is a body of strata (layers) of predominantly one type or combination of types. Subdivisions of formations are called members.
**FracFocus Chemical Disclosure Registry**
This website provides a central location for public and industry to communicate and relay information on the chemicals used during the process of hydraulic fracturing of oil or gas wells. The FracFocus website provides impartial and balanced education tools to the public on the topic of hydraulic fracturing.

**Fractionation**
The process by which saturated hydrocarbons are removed from natural gas and separated into distinct products, or "fractions," such as propane, butane, and ethane.

**Fracturing** ("fracing", pronounced fracking, aka hydraulic fracturing). Fracking is a technique used to stimulate production in oil and gas wells. Fluid is pumped into the well at pressures high enough to fracture the oil/gas bearing formation. This allows injection of propant (sand) into the formation which props open the fracture and enhances flow of oil and gas back into the well bore. (Also see Hydraulic Fracturing).

**Freeboard**
Storage volume required in a pit for containment of fluids above the normal fluid storage line, measured from the lowest elevation of the top of the pit. Generally, pits are constructed with 2 feet of freeboard and must be able to contain precipitation in addition to drilling or completion fluids. COGCC requires continuous mechanical monitoring of freeboard for both lined and unlined pits.

**Fresh Water**
Fresh water is defined by Arapahoe County as having Total Dissolved Solids (TDS) concentration of less than 5,000 mg/l and containing no E & P Waste. Operators often define “fresh water” as having TDS of up to 10,000 mg/l and brackish water as having TDS in the range of 5,000 – 20,000. (See “Brine Water” definition).

**Fugitive Emissions**
Unintended leaks of gas from the processing, transmission, and/or transportation of fossil fuels.

**Gas STAR Program**
A flexible, voluntary partnership that encourages oil and natural gas companies to adopt proven, cost-effective technologies and practices that improve operational efficiency and reduce methane emissions.

**Gathering System**
The flowline network and process facilities that transport and control the flow of oil or gas from the wells to a main storage facility, processing plant or shipping point. A gathering system includes pumps, separators, emulsion treaters, tanks, regulators, compressors, dehydrators, valves and associated equipment.

**Gilsonite**
A very pure, shiny black, brittle form of natural asphalt. It is used in making inks, paints, and varnishes.

**Green Completions**
Practices intended to reduce emissions of salable gas and condensate vapors during cleanout and flowback operations prior to the well being placed on production. Green completion essentially requires natural gas companies to capture the gas at the well head immediately after well completion instead of releasing it into the atmosphere or flaring it.
Groundwater
Water that collects or flows beneath the earth’s surface, filling the pore spaces in soil, sediment, and rocks. Groundwater originates from rain and melting snow and is the source water for aquifers, springs, and wells. The upper surface of groundwater is the water table.

Hazardous Waste
A waste that is dangerous or potentially harmful to health or the environment. Hazardous wastes can be liquids, solids, gases, or sludges. They can be discarded commercial products, like cleaning fluids or pesticides, or the by-products of manufacturing processes.

High Occupancy Building Unit
Defined by COGCC as any public school, non-public school, nursing facility, hospital, correctional facility or child care center. The COGCC requires a setback of 1,000 feet from wells to high occupancy buildings. Exceptions can be granted by COGCC but have not been so far.

H₂S (Hydrogen Sulfide) Gas
Hydrogen Sulfide gas is highly poisonous, and even fatal, in very low concentrations. It is associated with the production of oil and gas, particularly in West Texas and Southeast New Mexico. In the early days of oil and gas, drillers kept canaries in cages at the drilling platform. If the canary dropped off its perch, all hands would leave the area immediately.

Hydraulic Fracturing (aka Fracking)
A controlled operation that pumps a fluid and a propping agent through the wellbore to the target geological formation at high pressure in multiple stages, in order to create fractures in the formation to facilitate the flow of hydrocarbons into the well. The fractures which are created in the rock act as flow channels for the oil and gas to the well. The process has been used throughout the oil and gas industry for about 60 years; however, recent technological advances in hydraulic fracturing and horizontal drilling have made it possible to produce from formations that were previously unproductive.

Hydrocarbon
A substance (such as coal, oil or natural gas) that contains only hydrogen and carbon.

Initial well completion
For an oil or gas well facility producing oil, the date when the first oil is produced through wellhead equipment into lease tanks from the ultimate producing interval after casing has been run; and for an oil or gas well facility producing gas, the date when the oil or gas well facility is capable of producing gas through wellhead equipment from the ultimate producing interval after casing has been run.

Injection Well
Any hole drilled into the earth into which oil and gas liquids or gasses are injected for the purpose of secondary recovery, storage, pressure maintenance, or disposal, pursuant to authorization granted by the COGCC. Produced water disposal is safely injected beneath any fresh water zones.

Intermediate Casing
The string of casing set in a well after the surface casing but before production casing is set to keep the hole from caving and to seal off formations. In deep wells, one or more intermediate strings may be required.

Kelly and Kelly Bushing (KB)
A long square or hexagonal steel bar with a hole drilled through the middle for a fluid path. The Kelly is used to transmit rotary motion from the rotary table or Kelly Bushing to the drillstring, while allowing the drillstring to the lowered or raised during rotation. The Kelly goes through the Kelly
Bushing, which is driven by the rotary table. The Kelly Bushing has slightly larger dimensions so that the Kelly can move freely up and down inside. The Kelly Bushing elevation relative to sea level is used for reporting well elevations.

Kick
A kick is a well control problem in which the pressure found within the drilled rock is higher than the mud hydrostatic pressure acting on the borehole or rock face. When this occurs, the greater formation pressure has a tendency to force formation fluids into the wellbore. This forced fluid flow is called a kick. If the flow is successfully controlled, the kick is considered to have been killed. An uncontrolled kick that increases in severity may result in what is known as a “blowout.”

Landman
A landman or "petroleum landman" is an individual who performs various services for oil and gas exploration and production companies. These services include: negotiating for the acquisition or divestiture of mineral rights; negotiating business agreements that provide for the exploration and/or development of minerals; determining ownership in minerals through the research of public and private records; reviewing the status of title, curing title defects and otherwise reducing title risk associated with ownership in minerals; managing rights and/or obligations derived from ownership of interests in minerals; and unitizing or pooling of interests in minerals.

In simple terms, a landman is a person who negotiates with mineral owners regarding the leasing of their mineral rights on behalf of an oil company or as an independent contractor.

Landowner
Any owner of record of federal, tribal, state, county, municipal, or private land. Ownership is commonly divided into “surface owner” and “mineral owner”. In Colorado, most mineral rights have been severed from the surface rights.

Lithology
The lithology of a rock unit is a description of its physical characteristics visible at outcrop, in hand or core samples or with low magnification microscopy, such as color, texture, grain size, or composition.

LGD (Local Government Designee)
The Local Government Designee receives all notifications of oil and gas operations under the rules and regulations of the Colorado Oil and Gas Conservation Commission (COGCC). The Designee is responsible for distributing notifications to affected departments within the local government and provides a coordinated response to oil and gas operators and the COGCC.

Local Emergency Planning Committees (LEPCs)
Community-based organizations that assist in preparing for emergencies, particularly those concerning hazardous materials. Under the Emergency Planning and Community Right-to-Know Act (EPCRA), Local Emergency Planning Committees (LEPCs) must develop an emergency response plan, review the plan at least annually, and provide information about chemicals in the community to citizens. Plans are developed by LEPCs with stakeholder participation. There is one LEPC for each of the more than 3,000 designated local emergency planning districts. The LEPC membership must include (at a minimum):

- Elected state and local officials; Police, fire, civil defense, and public health professionals;
- Environment, transportation, and hospital officials; Facility representatives; Representatives from community groups and the media.

Some required elements of the community emergency response plan, developed by the LEPC, include:
- Identification of facilities and transportation routes of extremely hazardous substances;
• Description of emergency response procedures, on and off site;
• Designation of a community coordinator and facility emergency coordinator(s) to implement the plan;
• Outline of emergency notification procedures;
• Description of how to determine the probable affected area and population by releases;
• Description of local emergency equipment and facilities and the persons responsible for them;
• Outline of evacuation plans;
• A training program for emergency responders (including schedules);
• Methods and schedules for exercising emergency response plans.

Though LEPCs were created with the Federal law EPCRA, through EPA, they are often funded partially by the U.S. Department of Transportation's Hazardous Materials Emergency Preparedness grant program. Other sources of funding may include local jurisdictions, industry, businesses, NGOs, and other public or private grants.

**Location**
A definable area where an operator has disturbed or intends to disturb the land surface in order to locate an oil and gas facility.

**Log or Well Log or Well Bore Log**
A detailed record of geological formations penetrated during drilling. The term refers to all of the following: the record of borehole cuttings, drill stem tests, and electric, acoustic, and radioactivity logs.

**Mechanical Integrity Test**
The act of setting a packer or retrievable bridge plug above the perforations in a wellbore and applying pressure to the annulus in order to ensure soundness of the casing.

**Methane or CH₄**
The lightest and most abundant of the hydrocarbon gases and the principal component of natural gas. Methane is a colorless, odorless gas that is stable under a wide range of pressure and temperature conditions.

**Midstream**
The midstream sector involves the transportation (by pipeline, rail, barge, oil tanker or truck), storage, and wholesale marketing of crude or refined petroleum products.

**Mineral**
An element or chemical compound that has been formed as a result of geological processes. For the purpose of this glossary, the word “minerals” refers to crude oil and natural gas products.

**Mineral Owner**
A person who owns the minerals under a tract of land but may not own the surface.

**Mineral Rights**
Property rights that confer to the holder the right to exploit an area for the minerals it contains. Minerals include oil and gas. Mineral rights are usually severed from surface property rights; however, in Arapahoe County some surface owners are also mineral rights owners.

**MIRU**
Abbreviation for move in and rig up.
Modified Closed Loop drilling system (Arapahoe County definition, based on Anadarko’s definition)
A combination of open pit and closed looped systems. Air or fresh water is used to drill the first part of the hole (just below all fresh water aquifers) when a closed loop system of closed tanks is used for the remainder of the drilling and/or completion or recompletion procedures. See the definition of closed-loop drilling systems.

Monitoring Wells
A groundwater monitoring well consists of a pipe installed in the ground, after boring into a groundwater source, which collects water for testing purposes.

An oil and gas stratigraphic test well (or monitor well) is drilled to obtain information on the thickness, lithology, porosity, and permeability of the rock layers. Monitor wells are drilled vertically rather than horizontally.

MSDS (Material Safety Data Sheet)
Required by OSHA, it summarizes information about a chemical or chemical product, including other names for the chemical, chemical composition, safety precautions for use, such as personal protective equipment, and a medical response synopsis, in case of exposure. Recently the term has been changed to Safety Data Sheet (SDS).

Mud (Drilling Mud)
A mixture of clays, water, and chemicals pumped down the drill string while an oil well is being drilled to lubricate and cool the drill bit, carry away rock cuttings, and maintain pressure so that oil or gas does not escape from the formations encountered prior to setting casing and cementing.

Mud Logger
An engineer, geologist, or technician in the oil and gas industry who works on a drilling location and collects samples of cuttings for subsequent analysis and archiving. A mud logger looks for traces of oil and gas and records their respective depths as the drill bit progresses through hydrocarbon-bearing formations.

National Environmental Policy Act (NEPA)
The National Environmental Policy Act was signed into law on January 1, 1970. The Act establishes national environmental policy and goals for the protection, maintenance, and enhancement of the environment and provides a process for implementing these goals within the federal agencies. The Act also establishes the Council on Environmental Quality (CEQ).

The NEPA process consists of an evaluation of the environmental effects of a federal undertaking including its alternatives. There are three levels of analysis: categorical exclusion determination; preparation of an environmental assessment/finding of no significant impact (EA/FONSI); and preparation of an environmental impact statement (EIS).

Categorical Exclusion: At the first level, an undertaking may be categorically excluded from a detailed environmental analysis if it meets certain criteria which a federal agency has previously determined as having no significant environmental impact. A number of agencies have developed lists of actions which are normally categorically excluded from environmental evaluation under their NEPA regulations.

EA/FONSI: At the second level of analysis, a federal agency prepares a written environmental assessment (EA) to determine whether or not a federal undertaking would significantly affect the environment. If the answer is no, the agency issues a finding of no significant impact (FONSI).

FONSI may address measures which an agency will take to mitigate potentially significant impacts.
EIS: If the EA determines that the environmental consequences of a proposed federal undertaking may be significant, an EIS is prepared. An EIS is a more detailed evaluation of the proposed action and alternatives. The public, other federal agencies and outside parties may provide input into the preparation of an EIS and then comment on the draft EIS when it is completed.

If a federal agency anticipates that an undertaking may significantly impact the environment, or if a project is environmentally controversial, a federal agency may choose to prepare an EIS without having to first prepare an EA. After a final EIS is prepared and at the time of its decision, a federal agency will prepare a public record of its decision addressing how the findings of the EIS, including consideration of alternatives, were incorporated into the agency's decision-making process.

**New Source Performance Standard**
Pollution control standards issued by the United States Environmental Protection Agency (EPA). The term is used in the Clean Air Act Extension of 1970 (CAA) to refer to air pollution emission standards, and in the Clean Water Act (CWA) referring to standards for discharges of industrial wastewater to surface waters.

**Niobrara Formation**
The Niobrara formation is roughly 82-87 Million years old (Upper Cretaceous Geologic time period) and is still in the early stages of development. The formation is part chalk and part shale. While the Niobrara formation extends from Canada to New Mexico, only certain parts of the formation are capable of producing oil and natural gas. Currently, the most productive zones are in the Denver-Julesberg basin of northeast Colorado and southeastern Wyoming. The average depth for Niobrara petroleum producing zones are approximately 7,000 feet deep. Recent innovation in horizontal drilling and multi-stage hydraulic fracturing have made this formation an economically viable resource.

**NOV (Notice of Violation)**
Issued by a regulatory agency for an item or items of non-compliance, generally identified during an inspection by the agency.

**Oil Base Mud**
An invert-emulsion mud, or an emulsion whose continuous phase is oil (see Drilling Mud).

**Oil Lease or Oil and Gas Lease**
An oil lease is essentially an agreement between parties to allow a Lessee (the oil and gas company and their production crew) to have access to the property and minerals (oil and gas) on the property of the Lessor. The lease agreement is a legal contract of terms. It contains certain elements, which confirm all the terms of the agreement.

The lease must be dated and the lease also sets the time that the lease is effective. It establishes the primary term of the lease. The date clause is an essential. The parties section of the lease lists the names of all parties who are bound to the lease.

In the consideration section of the lease it gives the legal terms and ensures that the lease is legally enforceable by all parties.

The use of the property and the purpose for the leasing are in the granting clause. This clause states what rights the lessee has and what is the property subject to the lease.

An important part of the lease is the Lessee rights and how long these rights are in force. There may be other provisions including drilling, delay rental, pooling, shut-in royalty, and continuous drilling clauses among others.
Of great importance to the landowner, the Lessor, is the royalty clause. This clause states the percentage or share of production proceeds that the Lessor receives and how the royalty is received.

**Occupational Safety and Health Administration (OSHA)**
A federal agency created in 1970 that oversees the federal laws requiring employers to provide employees with a workplace free from hazardous conditions. OSHA laws protect safety and health of workers and give workers the right to know what materials they are handling.

**Oil and Gas Location**
The definable area where an operator has disturbed or intends to disturb the land surface in order to locate an oil and gas facility. Facilities include oil and gas wells, tank batteries, lease roads, pipelines, compressor stations, gas plants, and storage facilities.

**Oil and Gas Location Assessment (OGLA or Form 2A)**
The COGCC Form 2A that is required to be submitted for approval prior to any ground disturbance activity associated with oil and gas operations. Approval of the OGLA will allow for construction of the location; however, it does not supersede any land use rules applied by the local land use authority.

**Operations**
Oil and gas operations means exploration for oil and gas, including the conduct of seismic operations and the drilling of test bores; the siting, drilling, deepening, recompletion, reworking, or abandonment of an oil and gas well, underground injection well, or gas storage well; production operations related to any such well, including the installation of flowlines and gathering systems; the generation, transportation, storage, treatment, or disposal of exploration and production wastes; and any construction, site preparation, or reclamation activities associated with such operations.

**Operator**
In the Oil and Gas industry, Operator means the individual, company, trust, or foundation that conducts or manages exploration, development, and production of an oil or gas well or lease. Generally, it is the oil company by whom the drilling contractor is engaged.

**Ozone**
Ozone is a gas composed of three atoms of oxygen. Ozone occurs both in the Earth's upper atmosphere and at ground level. Ozone can be good or bad, depending on where it is found. Good Ozone. Ozone occurs naturally in the Earth's upper atmosphere 6 to 30 miles above the Earth's surface, where it forms a protective layer that shields us from the sun's harmful ultraviolet rays. Manmade chemicals are known to destroy this beneficial ozone. An area where the protective "ozone layer" has been significantly depleted-for example, over the North or South Pole, is sometimes called "the ozone hole." The United States, along with over 180 other countries, recognized the threats posed by ozone depletion and in 1987 adopted a treaty called the Montreal Protocol to phase out the production and use of ozone-depleting substances. EPA has established regulations to phase out ozone-depleting chemicals in the United States. Bad Ozone: In the Earth's lower atmosphere, near ground level, ozone is formed when pollutants emitted by cars, power plants, industrial boilers, refineries, chemical plants, and other sources react chemically in the presence of sunlight. Ozone at ground level is a harmful air pollutant.

**Packer**
An expanding plug used in a well to seal off certain sections of the tubing or casing when cementing and acidizing or when a production formation is to be isolated.
**Paraffin**
A hydrocarbon compound that often precipitates on production components as a result of the changing temperatures and pressures within the production system. Heavy paraffins occur as wax-like substances that may build up on the completion components and may, if severe, restrict production. Paraffin is normally found in the tubing close to surface; however, it can form at the perforations, or even inside the formation.

**Payout**
When the costs of drilling, producing, and operating have been recouped from the sale of products from a well.

**Perforation**
Holes punched in the well casing by perforating “guns” to connect the well to the reservoir. After perforation most oil and gas wells are fracked by injecting pressurized water, sand, and trace levels of chemicals through the perforation holes. See perforating gun definition below.

**Perforating gun**
A special tool used downhole for shooting holes in the well’s casing opposite the producing formation. The gun, a steel tube of various lengths, has steel projectiles placed at intervals over its outer circumference, perpendicular to the gun’s long axis. When lowered into the well’s casing on a wireline opposite the formation to be produced, the gun is electronically fired, shooting holes in the casing that permit the flow of oil or gas into the casing.

**Permeability**
The ability of a rock to transmit fluids. Formations that transmit fluids readily, such as sandstones, are described as permeable and tend to have many large, well-connected pores. Impermeable formations, such as shales and siltstones, tend to be finer grained or of a mixed grain size, with smaller, fewer, or less interconnected pores.

**Pig**
A device inserted into a pipeline to clean the pipes or detect leaks. A cleaning pig removes loose sediment or scale buildup. A “smart pig” is used to inspect pipelines for the purpose of preventing leaks that can be explosive and dangerous to the environment.

**Pits**
Pits used during drilling or initial completion operations at a well are listed here. The four types are: ancillary, completion, flowback, and reserve pits.

- **Ancillary Pits**: Used to contain fluids during drilling operations and initial completion procedures.
- **Completion Pits**: Used to contain fluids and solids from initial completion operations and not constructed for drilling operations.
- **Flowback Pits**: Used to contain fluids and solids produced from initial completion operations (e.g. fluids that come out of the formation immediately after fracking).
- **Multi-Well Pits**: Often the size of two football fields or larger, these pits generally start out with drinking water or groundwater provided from water wells, or purchased from a municipality or water-provider. As the water is recycled, for use over and over, with subsequent drilling and completions, the water becomes more saline (higher TDS – see TDS definition) because the pit water is in contact with formation water (saline due to the origin of the sediments in inland seas or deep ocean water). The trace amounts of hydrocarbons in the pit water
also increase with each completion due to contact between the water and the oil- and gas-bearing formations.

Reserve Pits: Used to store drilling fluids or to contain wastes generated during drilling operations and initial completion.

Play
The activities associated with petroleum development in an area. Drilling and production activity in the Niobrara in formation in the Denver Basin is referred to as the Niobrara play.

Plug
To fill a well’s borehole with cement to prevent the flow of water, gas, or oil from one strata to another when a well is abandoned; to screw a metal plug into a pipeline to shut off drainage or to divert the stream of oil to a connecting line to stop the flow of oil or gas.

Plugging and Abandonment (P&A)
The cementing of a well, the removal of its associated production facilities, the removal or abandonment in-place of its flowline, and the reclamation of the wellsite.

Pooling
The combination of all or portions of multiple oil and gas leases to form a unit for the drilling of a single oil and/or gas well. The unit is generally one or a combination of government survey quarter-quarter sections. Generally the interest owners in the pooled unit share the revenue from the well on the basis of surface acreage or mineral acreage owned by each interest owner in the pooled unit. For example, let’s say that in your area the oil and gas regulations require that 80 acres be under lease to obtain an oil/gas drilling permit. You own 40 acres and your neighbor owns 40 adjacent acres. The oil and gas company can lease these under separate leases and separate terms and then “pool” these parcels to drill the well. Each landowner will receive income based on the terms of their particular lease.

Porosity
The percentage of pore volume or void space, or that volume within rock that can contain fluids. Porosity can be a relic of deposition (primary porosity, such as space between grains that were not compacted together completely) or can develop through alteration of the rock (secondary porosity, such as when feldspar grains or fossils are preferentially dissolved from sandstones). Porosity can be generated by the development of fractures, in which case it is called fracture porosity. Shale gas reservoirs tend to have relatively high porosity, but the alignment of platy grains such as clays makes their permeability very low.

Produced Water
Naturally-occurring (“connate”) water that exists in the formation and is “produced” along with hydrocarbons. This water is generally saline (due to formation deposition in marine environments), containing minerals such as barium, calcium, iron, and magnesium, in addition to sodium chloride (NaCl). Produced water is generally disposed in disposal wells. If the water is not very saline, it can be released at the surface with a permit and may require treatment before land application. No produced water in Arapahoe County is released at the surface because it is too saline. When drilling and hydraulic fracturing occur, produced water flows are high due to “flowback” of water injected during the completion operations. Approximately 50% of all produced water that is released from drilling and stimulation comes out of the well in the first few days to a week, and is stored in holding and treatment tanks. After the well is serviced, water can keep flowing from the well for long periods of time depending on the quantity of water in the target formation. The remainder of this water is stored in holding tanks, for eventual disposal.
**Production Casing**
The innermost casing string that straddles and isolates the producing interval.

**Production tubing**
A kind of casing tube used in a wellbore through which production fluids are produced. Production tubing is run into the drilled well after the casing is run and cemented in place. Production tubing protects wellbore casing from wear, tear, corrosion, and deposition of by-products, such as sand/silt, paraffins, and asphaltenes. Along with other components that constitute the production string, it provides a continuous bore from the production zone to the wellhead through which oil and gas can be produced. It is usually between five and ten centimeters in diameter and is held inside the casing through the use of expandable packing devices. The purpose and design of production tubing is to enable quick, efficient, and safe installation, removal and re-installation. If there is more than one zone of production in the well, up to four lines of production tubing can be inserted into the well casing.

**PPE (Personal Protective Equipment)**
Personal Protective Equipment, required by OSHA, as protection from exposure at locations, facilities and plants. PPE includes safety goggles, hearing protection, hard hats, steel-toed shoes and fire retardant clothing. For oil and gas facilities, it can also include respiratory equipment (masks) and personal monitors that emit a warning sound if H2S gas is known to occur in the area (Hydrogen Sulfide gas is highly poisonous and even fatal, in very low concentrations).

**Pull out of the hole**
To remove the drillstring from the wellbore. Synonyms: come out of the hole, trip out

**Pump Jack**
A pump connected to a source of power to produce fluids from a well that resembles a bobbing horse when operating.

**Roughneck**
A member of the drilling crew who works under the direction of the driller to make or break connections as drill pipe is tripped in or out of the hole. On most drilling rigs, roughnecks are also responsible for maintaining and repairing much of the equipment found on the drill floor and derrick.

**Resource Conservation and Recovery Act (RCRA)**
Passed in 1976 and expanded in 1980 as CERCLA, the act regulates land-based disposal of waste. The objectives of RCRA are to protect human health and the environment from the potential hazards of waste disposal, to conserve energy and natural resources, to reduce the amount of waste generated, to encourage recycling, and to ensure that wastes are managed in an environmentally sound manner. RCRA regulates the management of solid waste (e.g., garbage), hazardous waste, and underground storage tanks holding petroleum products or certain chemicals and focuses on hazardous waste. Rather than being a ban on land-based disposal, it focuses on the use of "manifests" and the "cradle-to-grave" tracking system. All hazardous waste must obtain an identification number, and be accompanied by a "manifest" which tracks the waste. Each time the waste changes hands, a copy is sent back, ensuring that everyone along the chain is informed, and preventing unidentified wastes from arriving at disposal facilities. Both RCRA and CERCLA are related to the transportation, storage, treatment or disposal of hazardous substances.

**Reclamation**
The process of returning or restoring the surface of disturbed land as nearly as practicable to its condition prior to the commencement of oil and gas operations or to landowner specifications with an approved variance.
Recompletion
The modification of an existing well for the purpose of producing oil or gas from a different producing formation.

Release
Any unauthorized discharge of E&P waste to the environment over time. Includes spills, leaks, and discharges.

Remediation
The action of remedying something, in particular of reversing or stopping environmental damage.

Reserve Pit
Pit used to store fluids from drilling operations or to contain wastes generated during drilling operations and initial completion.

Reservoir
A porous, permeable sedimentary rock formation or a portion of a formation containing oil and/or gas enclosed or surrounded by layers of less permeable or impervious rock.

Reworking
Conducted to restore economically viable production from a formation already producing, where the production rate has decreased over time.

Rig
The machine used to drill a wellbore. In onshore operations, the rig includes virtually everything except living quarters. Major components of the rig include the mud tanks, the mud pumps, the derrick or mast, the drawworks, the rotary table or topdrive, the drillstring, the power generation equipment and auxiliary equipment. Offshore, the rig includes the same components as onshore, but not those of the vessel or drilling platform itself. Synonym: drilling rig.

Royalty
Funds received from the production of oil or gas, free of costs, except taxes.

Safe Drinking Water Act (SDWA)
The Safe Drinking Water Act (SDWA) is the main federal law that ensures the quality of Americans' drinking water. Under SDWA, EPA sets standards for drinking water quality and oversees the states, localities, and water suppliers who implement those standards. The Safe Drinking Water Act, originally enacted into law in 1974, focuses on ensuring that public drinking water meets appropriate safety standards; in contrast, the Clean Water Act regulates pollution in our nation's lakes, rivers, and other bodies of water.

Salt Water Disposal Well
A well, often a depleted oil or gas well, into which produced water can be injected for safe disposal. Disposal wells are subject to regulatory requirements to avoid contamination of fresh water aquifers or producing horizons. (Also see Injection Well).

Sand
A detrital grain between 0.0625 mm and 2 mm in diameter. Sand is larger than silt but smaller than a granule according to the Udden-Wentworth scale. Sand is also a term used for quartz grains or for sandstone.
**Scale Inhibitor**
A chemical treatment used to control or prevent scale deposition in the production conduit or completion system. Scale-inhibitor chemicals may be continuously injected through a downhole injection point in the completion, or periodic squeeze treatments may be undertaken to place the inhibitor in the reservoir matrix for subsequent commingling with produced fluids.

**Scrubber**
A device to remove dirt, water, foreign matter, or undesired liquids that are part of the gas flowstream. A scrubber is used to protect downstream rotating equipment or to recover valuable liquids from gas.

**Secondary Recovery**
The second stage of hydrocarbon production during which an external fluid, such as water or gas, is injected into the reservoir through injection wells into rock that has fluid communication with production wells. The purpose of secondary recovery is to maintain reservoir pressure and to displace hydrocarbons toward the producing wellbore. The most common secondary recovery techniques are gas injection and waterflooding.

**Seismic Survey**
A seismic survey is a technique similar to an ultrasound that is used to develop images of the rock layers below ground. Combined with information from a test well (or monitor well), seismic surveys help in determining the location and size of oil and gas reservoirs. Sound waves are bounced off underground rock formations and the waves that reflect back to the surface are captured by recording sensors. Analyzing the time the waves take to return provides valuable information about rock types and possible gases or fluids in rock formations.

**Separator**
A cylindrical vessel used to separate oil, gas, and water from the total fluid stream produced by the well. Separators can either be vertical or horizontal units. Gravity segregation is the main force that accomplishes the separation which means the heaviest fluid settles to the bottom and the lightest fluid rises to the top.

**Setback**
Regulated distance from an oil and gas well location to residences, schools, nursing homes or community buildings. Measured from the center of the well to the nearest wall of the residence or other building. Setbacks do not take the size of the drilling or production pad into account so the actual distance between a building and the well pad equipment can be approximately 200 feet less than the measured setback.

COGCC requires a 500-foot setback from most buildings, and 1,000 feet from schools and high-occupancy buildings.

**Severed Mineral Interest**
An interest in the minerals in, on and under a given tract of land owned by a person other than the surface owner.

**Shale**
A sedimentary rock that forms from the compaction of silt and clay-size mineral particles that we commonly call "mud". Shales are deposited by water in low velocity environments such as deep ocean basins, lakes, and swamps. Black shales contain organic material that sometimes breaks down to form natural gas or oil.
Shoe
A short assembly typically manufactured from a heavy steel collar and profiled cement interior, that is screwed to the bottom of a casing string. The rounded profile helps guide the casing string past any ledges or obstructions that would prevent the string from being correctly located in the wellbore. Synonyms: casing shoe.

Shut in
To close the valves at the wellhead so the well stops flowing or producing. Wells can be shut in on a temporary basis. Under COGCC rules, a shut in well is capable of producing or injection by opening valves and must have a mechanical integrity test within 2 years of shut in status.

Slickwater Frac
Slickwater or slick water fracturing is a method or system of hydro-fracturing which involves adding chemicals to water to reduce the viscosity and increase the fluid flow. It is typically used in highly-pressurized, deeper shales, while fracturing fluids containing nitrogen foam are more common in shallower shales and those that have lower reservoir pressure.

Slugs
Under certain operating conditions, gas and liquid in a pipeline are not evenly distributed throughout the pipeline, but travel as large plugs with most liquid or mostly gas. These plugs are called slugs.

Slug Catcher
Pipelines can produce large quantities of condensed liquids which can damage pipeline equipment. The slug catcher is a vessel that crudely separates the fluids so that they can be slowly drained off.

Stratigraphic Test Well
A well drilled to obtain information pertaining to a specific geological condition that might lead toward the discovery of an accumulation of hydrocarbons. Such wells are customarily drilled without the intention of being completed for hydrocarbon production.

Stratigraphic Trap
A variety of geologic features capable of retaining hydrocarbons, formed by changes in rock type or pinch-outs, unconformities, or sedimentary features such as reefs. Structural traps, in contrast, consist of geologic structures in deformed strata such as faults and folds whose geometries permit retention of hydrocarbons.

Stimulation
A treatment performed to restore or enhance the productivity of a well. Stimulation falls into 2 groups: Hydraulic Fracturing treatments or Matrix treatments (acidizing).

Surface Casing
The first string of casing (after the conductor casing) that is set in a well. It varies in length from a few hundred to several thousand feet and extends below all known drinking water sources. It is cemented in place before the remaining portion of the well is drilled, in order to cement and protect the aquifers. After the surface casing cement has dried, the remaining portion of the well is drilled.

Surface Use Agreements
Contracts that dictate how an operator will interact with the surface owner when developing the land and extracting resources from the mineral estate. The surface owner commonly receives compensation for signing the surface use agreement.

TD
Total Depth of a well measured along the wellbore.
TDS
Total Dissolved Solids, measured in a liquid sample, in parts per million (ppm). Generally used to quantify “saltiness” of produced water (water that is produced from a well along with oil and gas). The most common chemical constituents are calcium, phosphates, nitrates, sodium, potassium, and chloride.

Temporarily Abandoned (T&A)
A well may be temporarily abandoned under COGCC rules for a period not to exceed 6 months. After the 6 months has expired, the operator is required to plug and abandon the well with removal of borehole equipment and placement of cement into the well bore.

Thermogenic Gas
Formed at deeper depths (see biogenic gas) by thermal cracking of sedimentary organic matter into hydrocarbon liquids and gas or by thermal cracking of oil at high temperatures into gas.

Toxic Substances Control Act (TSCA)
A United States law, passed by Congress in 1976 and administered by the Environmental Protection Agency. It regulates the introduction of new or already existing chemicals. When the TSCA was put into place, all existing chemicals were considered to be safe for use and subsequently grandfathered in. Its three main objectives are to assess and regulate new commercial chemicals before their entrance into the market, to regulate chemicals (which were already existing in 1976) that posed an "unreasonable risk to health or to the environment", and to regulate these chemicals’ distribution and use.

Upstream
The oil sector commonly known as the exploration and production (E&P) sector.

Urban Mitigation Area
An area where: (A) At least twenty-two (22) Building Units or one High Occupancy Building Unit, existing or under construction, are located within a 1,000' radius of the proposed Oil and Gas Location; or (B) At least eleven (11) Building Units or one High Occupancy Building Unit, existing or under construction, are located within any semi-circle of the 1,000 radius mentioned in section (A) above. The Urban Mitigation Area basically describes the setbacks in a subdivision.

Vapor Recovery
A means of recovering natural gas vapor, reducing emissions, and making the gas a useable and profitable product. Both Vapor Recovery Units (VRUs) and Vapor Recovery Towers (VRTs) are used in Colorado.

Venting
Venting is the direct release of methane gas to the atmosphere. Venting occurs at a number of points in the oil and gas development process (well completion; well maintenance; pipeline maintenance; tank maintenance; etc.). During oil and gas development, huge quantities of gas may vent to the atmosphere. For example, during well completion, after a well is fracked, the wellbore and surrounding formation must be cleaned out. The solids and fluids from the well go into pits, while the gases are allowed to escape into the atmosphere, or they are burned off (flared). It has been estimated that a single well in Wyoming’s Jonah field will emit 115 tons of VOCs, and 4 tons of hazardous air pollutants such as benzene, toluene, ethylbenzene, xylene and hexanes. If the gas is flared, rather than vented, the emissions of VOCs and HAPs are reduced to 29 and 1 ton, respectively; but flaring of completion gases also results in the release of more than a ton of nitrogen oxides, and almost half a ton of carbon monoxide per well.
VOC (Volatile Organic Compound)
Organic compounds that have a high vapor pressure at ordinary room temperature. Their high vapor pressure results from a low boiling point, which causes large numbers of molecules to evaporate or sublimate from the liquid or solid form of the compound and enter the surrounding air. Most scents or odors are of VOCs.

Underground Natural Gas Storage
Most existing gas storage in the United States is in depleted natural gas or oil fields that are close to consumption centers. Conversion of a field from production to storage duty takes advantage of existing wells, gathering systems, and pipeline connections. Depleted oil and gas reservoirs are the most commonly used underground storage sites because of their wide availability.

Wastewater Cleanup
A process in which dirty water is stripped of its solids and made suitable for recycling into a mud system or disposal into sewer systems or other places. In closed mud systems, water containing colloidal matter can be cleaned and recycled.

Water Base Mud
A drilling fluid (mud) in which water or saltwater is the major liquid phase as well as the wetting (external) phase. General categories of water-base muds are fresh water, seawater, salt water, lime, potassium and silicate.

Waterflood
A method of secondary oil recovery whereby water is pumped into reservoir rock to force out oil that has ceased to flow under its own pressure.

Well
A well with the principal production of which at the mouth of the well is oil or gas, as defined by the Colorado Oil and Gas Conservation Act.

Well Log
A continuous measurement of formation properties with electrically powered instruments to infer formation properties and make decisions about drilling and production operations. The record of measurement is a long strip of paper. Measurements include electrical properties (resistivity and conductivity at various frequencies), sonic properties, active and passive nuclear measurements, dimensional measurements of the wellbore, and wireline-conveyed sidewall coring tools. The logging tool is lowered into the open wellbore on a wireline. Once lowered to the bottom of the interval of interest, the measurements are taken on the way out of the wellbore. This is done in an attempt to maintain tension on the cable (which stretches) as constant as possible for depth correlation purposes.

Wildcat Well
An exploration well. Often far from known productive wells. The significance of this type of well is that by definition, little if anything about the subsurface geology is known with certainty. This higher degree of uncertainty necessitates that the drilling crews be appropriately skilled, experienced and aware of what various well parameters are telling them about the formations they drill. The crews must operate top-quality equipment, especially the blowout preventers, since a kick could occur at virtually any time. A “kick” without a functioning blowout preventer was one of the reasons for the 2010 Deepwater Horizon oil spill in the Gulf of Mexico.

Working Interest
The right granted to the lessee of a property to explore, produce and own oil, gas or other minerals. The working interest owners bear the exploration, development, and operating costs on either a cash, penalty or carried basis.
**Workover**
Remedial work to the equipment within a well, pipework, or relating to attempts to increase the rate of flow.

**Zone**
An interval or unit of rock differentiated from surrounding rocks on the basis of its fossil content or other features, such as faults or fractures. For example, a fracture zone contains numerous fractures. A biostratigraphic zone contains a particular fossil or fossils.

~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Partial List of Sources:
https://cogcc.state.co.us/COGIS_Help/glossary.htm
https://cogcc.state.co.us/rr_docs_new/rules/100.htm
http://www.eia.gov/tools/glossary/index.cfm?id=G
http://www.earthworksaction.org/issues/detail/flaring_and_venting#.VYm08_lVhBc
http://repository.law.ttu.edu/bitstream/handle/10601/582/Kramer%20Envtl.pdf?sequence=5