Request for Comments

Case Name: McCarty and Heinz Acres
Project Number: PRC2019-00013

October 30, 2019

The Adams County Planning Commission is requesting comments on the following applications: 1) a rezone request from Agricultural-2 (A-2) to Agricultural-1 (A-1), 2) Minor Subdivision Plat to split one 9.72 acre property into two parcels. Lot one would be 2.5 acres and lot two would be 7.22 acres, and 3) Subdivision Improvement Agreement. This request is located at 12730 Brighton Rd Brighton, Colorado. The Assessor's Parcel Number is 0157135000035.

Applicant Information: Travis and Shantel McCarty

12730 BRIGHTON RD
BRIGHTON, CO 80601

Please forward any written comments on this application to the Community and Economic Development Department at 4430 South Adams County Parkway, Suite W2000A Brighton, CO 80601-8216 or call (720) 523-6800 by 11/19/2019 in order that your comments may be taken into consideration in the review of this case. If you would like your comments included verbatim please send your response by way of e-mail to LBajelan@adcogov.org.

Once comments have been received and the staff report written, the staff report and notice of public hearing dates may be forwarded to you upon request. The full text of the proposed request and additional colored maps can be obtained by contacting this office or by accessing the Adams County web site at www.adcogov.org/planning/currentcases.

Thank you for your review of this case.

Layla Bajelan, Long Range Planner I
Case Manager
### Application Type:

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<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Conceptual Review</td>
<td>Preliminary PUD</td>
<td>Temporary Use</td>
<td></td>
</tr>
<tr>
<td>Subdivision, Preliminary</td>
<td>Final PUD</td>
<td>Variance</td>
<td></td>
</tr>
<tr>
<td>Subdivision, Final</td>
<td>Rezone</td>
<td>Conditional Use</td>
<td></td>
</tr>
<tr>
<td>Plat Correction/ Vacation</td>
<td>Special Use</td>
<td>Other:</td>
<td></td>
</tr>
</tbody>
</table>

### PROJECT NAME:

McCARTY & HEINZ ACRES

### APPLICANT

**Name(s):** TRAVIS K. & SHANTEIL M. McCARTY  
**Phone #:** 720-298-5470

**Address:**  
12730 Brighton Rd.

**City, State, Zip:**  
Brighton, CO, 80601

**2nd Phone #:** 720-233-9098  
**Email:** travis.mccarty@cityofthornton.net

### OWNER

**Name(s):** TRAVIS K. & SHANTEIL M. McCARTY  
**Phone #:** 720-298-5470

**Address:**  
12370 Brighton Rd.

**City, State, Zip:**  
Brighton, CO, 80601

**2nd Phone #:** 720-233-998  
**Email:** travis.mccarty@cityofthornton.net

### TECHNICAL REPRESENTATIVE (Consultant, Engineer, Surveyor, Architect, etc.)

**Name:** Chadwin F. Cox  
**Phone #:** 720-685-9951

**Address:**  
127 South Denver Avenue

**City, State, Zip:**  
Fort Lupton, CO, 80621

**2nd Phone #:** 303-913-7341  
**Email:** chadwin.cox@westerneci.com
DESCRIPTION OF SITE

Address: 12370 Brighton Road

City, State, Zip: Brighton CO, 80601

Area (acres or square feet): 9.724

Tax Assessor Parcel Number: 01571350000035

Existing Zoning: A-2

Existing Land Use: Residential

Proposed Land Use: A-1

Have you attended a Conceptual Review? YES x NO 

If Yes, please list PRE#: PRE2019-00085

I hereby certify that I am making this application as owner of the above described property or acting under the authority of the owner (attached authorization, if not owner). I am familiar with all pertinent requirements, procedures, and fees of the County. I understand that the Application Review Fee is non-refundable. All statements made on this form and additional application materials are true to the best of my knowledge and belief.

Name: Chané McCarthy  

Date: 10/14/2019

Owner's Printed Name

Name:  

Owner's Signature
October 21, 2019

Adams County Community and Economic Development
4430 South Adams County Parkway
1st Floor, Suite W2000
Brighton, CO 80601-8216

RE: McCarty & Heinz Acres AG Property to Rural Residence – 12730 Brighton Road

Adams County Community and Economic Development:

Western Engineering Consultants Inc. LLC (WEC) has prepared this narrative letter to briefly summarize “McCarty & Heinz Acres” proposed Rezoning and Minor Subdivision, located at 12730 Brighton Road, Brighton CO, Adams County.

The subject property is located in the North West ¼, of Section 35, Township 1 South, Range 67 West of the 6th, P.M., County of Adams, State of Colorado, as stated in the Commitment for Title Insurance dated July 12, 2019.

PURPOSE / BACKGROUND
The property has historically and is currently farmland, zoned Agricultural (A-2) in Adams County County.

The existing 9.72 acre property will be rezoned from A-2 to A-1 in order to subdivide the property so the current property Owner may dedicate a 2.5 acre lot to his brother (Lot 1). A new residence and potential future outbuildings may be constructed on the remaining property (Lot 2) in accordance with Ag zoning (A1) requirements, and a future shop may be added to Lot 1.

The development is and will be compatible with the rural character of the surrounding area.

Fig. 1 Adams County Zoning Map
ADJACENT USES
To the north is a residential property zoned A-1, to the south is a rural residence zoned A-2, to the east a water storage facility (Bromley District Water Providers LLC) zoned A-3, and to the west is a water storage facility (Henderson Aggregate LTD) zoned A-3.

RELATIONSHIP TO & IMPACT UPON ADJACENT USES
The proposed residential development will be rural character compatible with the surrounding areas. The Adams County Zoning Map shows this area as Agricultural (A-2), and the proposed development is consistent with 2012 Adams County Comprehensive Plan.

Fig 2. Adams County 2012 Comprehensive Plan, Future Land use

<table>
<thead>
<tr>
<th>Land Use Category</th>
<th>Characteristics and Uses</th>
<th>Purpose</th>
<th>Criteria for Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential</td>
<td>Primary: Large lot or clustered housing. Secondary: Compatible uses such as neighborhood schools, parks, open space, and agriculture.</td>
<td>• Provide opportunity for ex-urban lifestyles or low-intensity neighborhoods outside of municipalities. • Separate and define urban areas.</td>
<td>• Housing at a gross density of no greater than 1 unit per 2 acres. • May cluster residential units to conserve open areas. • Minimizes impact of environmentally sensitive areas. • Adequate water and other services are available. • Does not require central water and sewer services. • Minimal impact on plans for adjacent areas.</td>
</tr>
</tbody>
</table>
ACCESS LAYOUT
An existing access will continue to serve the existing home from Brighton Road. A proposed new access is proposed to serve the future Lot 2 residence. A 250 feet minimum distance between the existing and proposed access has been achieved.

STATEMENT ON COMMUNITY NEED FOR PROPOSED SUBDIVISION & ZONING
The proposed Subdivision aligns to the 2012 Adams County Comprehensive and Zoning Plan. The proposed use will complement the surrounding land uses currently adjacent to the property, consisting of rural residences.

The proposed uses will not be detrimental to the public health, safety, or general welfare as similar uses exist throughout other entities in the nearby area. The proposed uses will be required to conform in all other respects to all applicable Adams County zoning regulations and standards.

GEOLOGICAL HAZARDS
No geologic hazards or environmental conditions/concerns are known to exist on the property. The NRCS Study is enclosed.

ZONING, USE, PHASING, and UTILITY DISTRICTS
The following summarizes the proposed specifics:

- Zoning: Currently zoned Agriculture (A-2) in Adams County
- Proposed Use: Rural residence
- Type of structures to be built: 2 Single family ranch style residential units
- Phasing: Lot 2 primary residence is expected to be built early 2020
  Only the Lot 2 garage and shop are proposed in the future
- Water source: City of Brighton
- Sanitary Sewer source: Individual septic systems
- Storm sewer: On Site Retention ponds
- Gas & Electricity: Excel Energy and United Power
- Fire Protection: Brighton Greater Fire Protection District

EXISTING INFRASTRUCTURE / FIRE ACCESS & AVAILABLE HYDRANT(s)
Brighton Road (paved 2 lane road) exists to the west.

The existing residence (Lot 1) is within 170 feet from Brighton Road right of way.

The proposed home and garage on Lot 2 are shown to be within 220 feet of Brighton Road right of way.

City of Brighton Water lies within Brighton Road right of way and serves the existing residence. Existing hydrants lie near both Lot 1 and Lot 2. The closest is approximately 100 feet north of the Lot 1/Lot 2 dividing line – nearly due west of the existing residence on Lot 1 and the second hydrant lies approximately 50 feet south of proposed Lot 2.

Access roads to both lots will be required to meet Greater Brighton Fire District load requirements and are designed to be a minimum of 20 feet in width.

Electric service exists and serves the existing residence.

Sewage treatment will be provided by septic systems (see attached Will Serve Letter from Tri County Health).
POTENTIAL IMPACT IN ADJACENT PROPERTIES

No negative impact is anticipated from this development to adjacent properties after construction has been completed.

Traffic impacts from this proposal are expected to be minimal, please see the attached Trip Generation Estimate.

REZONING SUBMITTAL CHECKLIST

1. Development Application Form (Rezoning)  Enclosed
2. Application Fees  Enclosed
3. Written explanation of the project  This document
4. Site Plan Showing Proposed Development  Enclosed
5. Trip Generation Letter  Enclosed
6. Preliminary Drainage Analysis  Enclosed
7. Neighborhood Meeting Summary  Enclosed
8. Proof of Ownership  Enclosed
9. Proof of Water and Sewer Services  Enclosed
10. Legal Description  Enclosed
11. Certificate of Taxes Paid  Enclosed
12. Certificate of Notice of Mineral Estate Owners/ ad Lessees  Enclosed
13. Certificate of Surface Development  Enclosed

CLOSING

The Applicant is excited to bring this project to the Adams County.

The desired schedule is to achieve approvals and begin Construction or early 2020 if the residential market allows, and service infrastructure is available.

Please contact me with any questions or comments you may have on this Project Narrative.

Sincerely,

Western Engineering Consultants inc., LLC
Chadwin F. Cox, P.E.
Senior Project Manager

Encl.  Rezoning review application
Check list support documents
October 7, 2019

Mr. Chadwin F. Cox, PE
Western Engineering Consultants
127 South Denver Avenue
Fort Lupton, CO 80735

RE: Trip Generation Estimate for 12730 Brighton Road in Adams County

Dear Chad,

This letter contains a trip generation estimate for the parcel at 12730 Brighton Road in Adams County. There is an existing single-family dwelling unit on the parcel and a second one is planned. Figure 1 contains a vicinity map that shows the location of the parcel on the east side of Brighton Road and north of 126th Avenue. A site plan is contained in Figure 2 that shows the site accesses on Brighton Road.

The trip generation for the parcel was estimated using rates that are contained in the Institute of Transportation Engineers (ITE) Trip Generation\(^1\) manual. The parcel is currently generating an estimated nine trips during the day with one single family dwelling unit. The second single family dwelling unit is also expected to generate nine trips for a total of 18 trips over the course of the day once the second home is complete. The trip generation estimate is contained in Table 1.

Feel free to contact me to discuss the contents of this report.

Sincerely,

Joseph L. Henderson, PE, PTOE
Project Manager / Principal

12730 Brighton Road Trip Generation Letter

---

LEGEND
- Freeway / Expressway
- Principal Arterial
- Minor Arterial
- Collector
- Local

12730 Brighton Road Trip Generation Letter
VICINITY MAP

Scale: 1" = 1,000'
Date: October 7, 2019
Drawn by: JLH
Job #: WECI
Figure: 1
12730 Brighton Road Trip Generation Letter
VICINITY MAP

Scale NTS Date October 7, 2019 Drawn by JLH Job # WECI Figure 2

LOT 1
12840 BRIGHTON RD.
EINSPAHR NORMAN J. AND EINSPAHR CHARLENE R. (REC. NO. 200400520790)

LOT 2
12770 BRIGHTON RD.
SHURTLEFF, JOSEPH W AND SHURTLEFF MINDY (REC. NO. 2015000054367)

12730 BRIGHTON ROAD
CONTAINS 9.724 ACRES MORE OR LESS

CARTER ACRES
12700 BRIGHTON ROAD
ARNOLD LARRY L. AND ARNOLD SHARON E

SET 5/8" REBAR WITH 2" ALUM CAP STAMPED GSS PL 27936
SUBMITTED SHOP DRAW

SET 3/8" REBAR WITH 2" ALUM CAP STAMPED GSS PL 27936
SUBMITTED SHOP DRAW
### Table 1. Trip Generation Estimate

<table>
<thead>
<tr>
<th>Land Use</th>
<th>ITE Code</th>
<th>Size</th>
<th>Unit</th>
<th>Average Daily Trips</th>
<th>Morning Peak Hour Trips</th>
<th>Evening Peak Hour Trips</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Rate Total In Out</td>
<td>Rate Total In Out</td>
<td>Rate Total In Out</td>
</tr>
<tr>
<td>Single Family Detached Housing - Existing</td>
<td>210</td>
<td>1</td>
<td>DU</td>
<td>9.44 9 5 5</td>
<td>0.74 1 0 1</td>
<td>0.99 1 1 0</td>
</tr>
<tr>
<td>Single Family Detached Housing - Proposal</td>
<td>210</td>
<td>1</td>
<td>DU</td>
<td>9.44 9 5 5</td>
<td>0.74 1 0 1</td>
<td>0.99 1 1 0</td>
</tr>
<tr>
<td>Total</td>
<td>---</td>
<td>2</td>
<td>---</td>
<td>18 9 9</td>
<td>2 0 2</td>
<td>2 2 0</td>
</tr>
</tbody>
</table>

Notes:

1. Trip generation estimates are based on rates contained in *Trip Generation, 10th Edition* (Institute of Transportation Engineers, September 2017).

2. The land use was provided by Western Engineering Consultants.
October 21, 2019

Adams County Engineering
4430 South Adams County Parkway
Brighton, CO 80601

RE: 12730 Brighton Road HEINZ-McCARTY SUBDIVISION – LEVEL 1 DRAINAGE LETTER

To Adams County Engineering:

Western Engineering Consultants inc LLC (WEC) has been asked to provide a letter summarizing the drainage impact from the proposed 2 lot Minor Subdivision.

Attached to this letter are the following:

- Google Exhibit
- Vicinity Map
- Proposed Site Plan
- Proposed Level 1 Drainage Plan
- NRCS Soils Report
- Rational Method Runoff Calculations
- Retention / Infiltration Storage Sizing

EXISTING CONDITIONS
The overall 9.72 acre site will be subdivided to create a 2.501 acre Lot 1 and a 7.21 acre Lot 2.

Currently a 1,067 sft primary residence and four accessory structures exist on proposed Lot 1 totaling 1,917 sft and no structures exist on Lot 2.

The overall property runoff currently infiltrates on site under most events, and when significant runoff migrates north by northeast overland and not in any formable channel. No existing drainage facilities exist on or adjacent to the property. An open pond water storage facility does exist east of this property but runoff is not tributary to it.

PROPOSED CONDITIONS
On Lot 1 the 605 sft barn will be demolished prior to Final Plat approval (it is located on the proposed Lot line between Lot 1 and 2) and the 22’ by 21’ shed will be replaced by a 4,800 sft shop in the future, thus the total accessory sft expected in the future is 5,650 sft in addition to the existing 1,067 sft residence for an effective imperviousness of 9.0%.

No structures exist on proposed Lot 2 – but a 4,800 sft home, 1,600 sft garage, and future 4,800 sft shop are proposed, for an effective imperviousness of 6.65%.

There is no available drainage way adjacent or immediately near this property. All historic and existing runoff currently infiltrates on site.

No immediate improvements are expected for Lot 1. For Lot 2 only an approximate 2,000 sft home and 1,000 sft gravel access road are proposed in Phase 1. Thus it is WEC’s opinion that an infiltration/retention pond is necessary for Phase 1 improvements. However for future planning, a location and volume design for each lot has been completed in accordance with Section 9-01-03-11 based on the buildout conditions noted above and on the attached Site plan.
For Lot 1 the location will be in the northeast corner of the property - east of the proposed future shop (that will replace the 22’ by 21’ shed). Currently the pond is shown to be 4.0 feet deep (including 1 foot of freeboard). Said footprint can be reduced by deepening the pond if desired in the future.

For Lot 2 the location will be the eastern extent of the property – utilizing the current depression adjacent to the offsite water storage facility access road. Currently the pond is shown to be 4.0 feet deep (including 1 foot of freeboard). Said footprint can be reduced by deepening the pond if desired in the future.

Since both lots are proposed as A1 Zoning and are a minimum of 2.5 acres, no Stormwater Quality permit SWQ is necessary for residential construction.

The proposed Phase 1 improvements and subsequent runoff does not adversely affect the adjacent properties.

Should the applicant desire to construct the remainder of accessory structures in the future and the County requires a Level 2 Study – WEC can provide said documents at that time. WEC believes the guidelines identified herein satisfy the steps necessary for this project to avoid adverse effect on adjacent properties.

Feel free to contact Steel Structures or ourselves with any questions.

Sincerely,

Western Engineering Consultants inc., LLC
Chadwin F. Cox, P.E.
Senior Project Manager

End. Google Site Plan Exhibit, USGS Vicinity Map, NRCS Soils Report, and WEC Historic, Existing, & Developed Rational Drainage Calcs
APPENDIX A

Google Site Plan Exhibit, USGS Vicinity Map/ FEMA Flood Insurance Rate Map (FIRM), FEMA (FIRMedette), Legal Description, Site Plat, Soil Survey Map and Soil Legend
McCarty & Heinz Acres
The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.
LEGAL DESCRIPTION PARCEL # 0157135000035

According to Title Commitment No. 201948, dated July 12, 2019

THAT PART OF THE NORTHWEST QUARTER OF SECTION 35, TOWNSHIP 1 SOUTH, RANGE 67 WEST OF THE 6TH PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS:
BEGINNING AT A POINT ON THE NORTH AND SOUTH CENTERLINE OF SECTION 35, WHICH IS 400 FEET SOUTH OF THE NORTH QUARTER CORNER OF SAID SECTION; THENCE WESTERLY AND PARALLEL WITH THE NORTH LINE OF SAID SECTION, 1204.7 FEET, MORE OR LESS, TO THE CENTERLINE OF COUNTY ROAD NO. 131 (BRIGHTON ROAD); THENCE SOUTHWESTERLY ALONG THE CENTERLINE OF SAID COUNTY ROAD, 387.7 FEET; THENCE EASTERLY AND PARALLEL WITH THE NORTH LINE OF SAID SECTION, 1400.9 FEET, MORE OR LESS, TO THE NORTH AND SOUTH CENTERLINE OF SAID SECTION; THENCE NORTHERLY ALONG THE NORTH AND SOUTH CENTERLINE OF SAID SECTION, 334.4 FEET TO THE TRUE POINT OF BEGINNING, EXCEPT THE PORTION OF SUBJECT PROPERTY LYING WITHIN BRIGHTON ROAD, COUNTY OF ADAMS, STATE OF COLORADO.
LAND SURVEY PLAT
LOCATED IN NW 1/4, SEC. 35, T13S, R67W, 6TH P.M.
BRANNAN SAND AND GRAVEL
(Rec. No. 01126747)

LOT 1
12840 BRIGHTON RD.
EINSFAHR NORMAN L. AND EINSFAHR CHARLIE R.
(Rec. No. 200400532790)

LOT 2
12770 BRIGHTON RD.
SHURTLEFF JOSEPH W. AND SHURTLEFF WENDY
(Rec. No. 2015500005367)

LOT 1
2.30 AC.

LOT 2
7.26 AC.

12730 BRIGHTON ROAD
CONTAINS 9.574 ACRES MORE OR LESS

CARTER ACRES
12700 BRIGHTON ROAD
ARNOLD LARRY L. AND ARNOLD SHARON E

LEGAL DESCRIPTION
THAT PART OF THE NORTHWEST QUARTER OF SECTION 35, TOWNSHIP 1 SOUTHERLY RANGE 67 WEST OF THE 6TH PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWING:
BEGINNINg AT POINT ON THE NORTH SOUTH CENTERLINE OF SECTION 35, WHICH IS 420 FEET SOUTH OF THE NORTH SOUTHERLY LINE OF SAID SECTION;
THENCE WESTERLY AND PARALLELLY WITH THE NORTH LINE OF SAID SECTION, 1294.7 FEET;
MORE OR LESS TO THE CENTERLINE OF COUNTY ROAD 131; BRIGHTON ROAD; THENCE SOUTHWESTERLY ALONG CENTERLINE OF SAID COUNTY ROAD, 287.7 FEET; THENCE EASTERLY AND PARALLELLY WITH THE NORTH LINE OF SAID SECTION, 420 FEET, MORE OR LESS TO THE NORTH AND SOUTH CENTERLINE OF SAID SECTION, 334.4 FEET THE EXCEPT THE EMINENTER OF THE SUBJECT PROPERTY LAYING WITHIN BRIGHTON ROAD, COUNTY OF ADAMS, STATE OF COLORADO.

NOTES:
1. Bearings are based on the east line of the of the northwest 1/4, of section 35, t13s, r67w as bearing 360.00' W.
2. This survey does not constitute a title search by or survey to determine ownership or easements of record and was prepared without the benefit of a current chain of evidence and rights-of-way and TITLE OF TRUSTEE WERE NOT RESEARCHED AS PART OF THIS LAND SURVEY PLAT.

SURVEYOR'S STATEMENT
I, SCOTT A. PULLUM, A PROFESSIONAL LAND SURVEYOR IN THE STATE OF COLORADO, ON THE BASIS OF MY KNOWLEDGE, INFORMATION AND BELIEF, DUE TO PROVIDE AN ACCURATE AND DEPENDABLE LAND SURVEY, THIS SURVEY WAS PERFORMED DURING JULY 2015.

SCOTT A. PULLUM, PROFESSIONAL LAND SURVEYOR
2708
GORTON SCOTT SURVEYING
Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require
alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.
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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil
scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and
identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.
Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.
MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Adams County Area, Parts of Adams and Denver Counties, Colorado
Survey Area Data: Version 16, Sep 12, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 20, 2015—Oct 26, 2018

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background.
MAP LEGEND

MAP INFORMATION

imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.
Map Unit Legend

<table>
<thead>
<tr>
<th>Map Unit Symbol</th>
<th>Map Unit Name</th>
<th>Acres in AOI</th>
<th>Percent of AOI</th>
</tr>
</thead>
<tbody>
<tr>
<td>DaA</td>
<td>Dacono loam, 0 to 1 percent slopes</td>
<td>15.3</td>
<td>99.3%</td>
</tr>
<tr>
<td>NIA</td>
<td>Nunn loam, 0 to 1 percent slopes</td>
<td>0.1</td>
<td>0.7%</td>
</tr>
<tr>
<td><strong>Totals for Area of Interest</strong></td>
<td></td>
<td><strong>15.4</strong></td>
<td><strong>100.0%</strong></td>
</tr>
</tbody>
</table>

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however,
onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a soil series. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into soil phases. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A complex consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An association is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An undifferentiated group is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include miscellaneous areas. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.
Adams County Area, Parts of Adams and Denver Counties, Colorado

DaA—Dacono loam, 0 to 1 percent slopes

Map Unit Setting

- National map unit symbol: 34vw
- Elevation: 3,500 to 5,500 feet
- Mean annual precipitation: 13 to 15 inches
- Mean annual air temperature: 48 to 52 degrees F
- Frost-free period: 135 to 160 days
- Farmland classification: Prime farmland if irrigated

Map Unit Composition

- Dacono and similar soils: 85 percent
- Minor components: 15 percent
- Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Dacono

Setting

- Landform: Terraces
- Landform position (three-dimensional): Tread
- Down-slope shape: Linear
- Across-slope shape: Linear
- Parent material: Alluvium derived from mixed

Typical profile

- H1 - 0 to 9 inches: loam
- H2 - 9 to 17 inches: clay
- H3 - 17 to 26 inches: sandy clay loam
- H4 - 26 to 35 inches: loamy coarse sand
- H5 - 35 to 60 inches: gravelly sand

Properties and qualities

- Slope: 0 to 1 percent
- Depth to restrictive feature: More than 80 inches
- Natural drainage class: Well drained
- Runoff class: Low
- Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
- Depth to water table: More than 80 inches
- Frequency of flooding: None
- Frequency of ponding: None
- Calcium carbonate, maximum in profile: 15 percent
- Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
- Available water storage in profile: Low (about 5.9 inches)

Interpretive groups

- Land capability classification (irrigated): 3s
- Land capability classification (nonirrigated): 4c
- Hydrologic Soil Group: C
- Ecological site: Clayey Plains (R067BY042CO)
- Hydric soil rating: No
Minor Components

Satanta
Percent of map unit: 10 percent
Landform: Paleoterraces
Hydric soil rating: No

Altvan
Percent of map unit: 5 percent
Hydric soil rating: No

NIAlNunn loam, 0 to 1 percent slopes

Map Unit Setting
National map unit symbol: 2tln3
Elevation: 3,900 to 6,250 feet
Mean annual precipitation: 13 to 16 inches
Mean annual air temperature: 46 to 54 degrees F
Frost-free period: 135 to 160 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition
Nunn and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the map unit.

Description of Nunn

Setting
Landform: Terraces
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Pleistocene aged alluvium and/or eolian deposits

Typical profile
Ap - 0 to 6 inches: loam
Bt1 - 6 to 10 inches: clay loam
Bt2 - 10 to 26 inches: clay loam
Btk - 26 to 31 inches: clay loam
Bk1 - 31 to 47 inches: loam
Bk2 - 47 to 80 inches: loam

Properties and qualities
Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
**Depth to water table:** More than 80 inches  
**Frequency of flooding:** None  
**Frequency of ponding:** None  
**Calcium carbonate, maximum in profile:** 7 percent  
**Salinity, maximum in profile:** Nonsaline (0.1 to 1.0 mmhos/cm)  
**Sodium adsorption ratio, maximum in profile:** 0.5  
**Available water storage in profile:** High (about 9.2 inches)

**Interpretive groups**  
- **Land capability classification (irrigated):** 3e  
- **Land capability classification (nonirrigated):** 4c  
- **Hydrologic Soil Group:** C  
- **Ecological site:** Loamy Plains (R067BY002CO)  
- **Hydric soil rating:** No

**Minor Components**

**Haverson, rarely flooded**  
- **Percent of map unit:** 10 percent  
- **Landform:** Drainageways  
- **Down-slope shape:** Linear  
- **Across-slope shape:** Concave  
- **Ecological site:** Overflow (R067BY036CO)  
- **Hydric soil rating:** No

**Heldt**  
- **Percent of map unit:** 5 percent  
- **Landform:** Terraces  
- **Landform position (three-dimensional):** Tread  
- **Down-slope shape:** Linear  
- **Across-slope shape:** Linear  
- **Ecological site:** Clayey Plains (R067BY042CO)  
- **Hydric soil rating:** No
References


APPENDIX B

Rational Method Runoff Calculations
### HISTORIC RUNOFF TABLE (McCarty & Heinz Acres)

<table>
<thead>
<tr>
<th>BASIN</th>
<th>Impervious</th>
<th>C-YR</th>
<th>I</th>
<th>A</th>
<th>CIA(YR-historic)</th>
<th>Flow</th>
<th>DESIGN POINT</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>C5 (UDFCD 2017)</td>
<td>2.00</td>
<td>0.05</td>
<td>1.12</td>
<td>2.50</td>
<td>0.14 cfs</td>
<td>H1</td>
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<tr>
<td></td>
<td>C100</td>
<td>2.00</td>
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<td>2.50</td>
<td>3.11 cfs</td>
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<tr>
<td>H2</td>
<td>C5 (UDFCD 2017)</td>
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<td>7.23</td>
<td>0.33 cfs</td>
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<td>2.07</td>
<td>7.23</td>
<td>7.32 cfs</td>
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</tr>
</tbody>
</table>

### EXISTING RUNOFF TABLE (McCarty & Heinz Acres)

<table>
<thead>
<tr>
<th>BASIN</th>
<th>Impervious</th>
<th>C-YR</th>
<th>I</th>
<th>A</th>
<th>CIA(YR-existing)</th>
<th>Flow</th>
<th>DESIGN POINT</th>
</tr>
</thead>
<tbody>
<tr>
<td>E1</td>
<td>C5 (UDFCD 2017)</td>
<td>5.52</td>
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<td>1.46</td>
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<td>11.05 cfs</td>
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</tbody>
</table>
McCARTY & HEINZ ACRES - HISTORIC RUNOFF CALCS

for C soils - C5 C10 C100 = from Table 6-5

\[ Ti = \frac{0.395 \times (1.1 - Cyr) \times (L^{0.5})}{S^{0.333}} \]

From UDFCD 2018, Equation 6-3

**for Ti calculations - only C5 is used

### 1-Hour Point Rainfall

<table>
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<tr>
<th></th>
<th>H1 Existing - 5, 10, 100 yr</th>
<th>H2 Existing - 5, 10, 100 yr</th>
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<tbody>
<tr>
<td></td>
<td>2.501 acres</td>
<td>7.226 acres</td>
</tr>
<tr>
<td>Use NCS Type C</td>
<td></td>
<td></td>
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<tr>
<td>Length</td>
<td>500</td>
<td>700</td>
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<tr>
<td>Slope</td>
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<td>0.004</td>
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<td>Initial</td>
<td>500</td>
<td>700</td>
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<td>Travel</td>
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<td>0.56</td>
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<td>0.33 cfs</td>
</tr>
<tr>
<td></td>
<td>CIA existing</td>
<td>CIA existing</td>
</tr>
<tr>
<td>Overland flow</td>
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</tr>
<tr>
<td>300 ft max for urban, 500 ft max for rural</td>
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<td></td>
</tr>
<tr>
<td>Remainder carried as travel</td>
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<td></td>
</tr>
<tr>
<td>Cv=</td>
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<td>12</td>
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<td>300 ft max for urban, 500 ft max for rural</td>
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<td>Remainder carried as travel</td>
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<tr>
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</table>

### Type of Land Surface

<table>
<thead>
<tr>
<th></th>
<th>Heavy Meadow</th>
<th>Tillage/field</th>
<th>Short pasture/Lawns</th>
<th>Nearly Bare Ground</th>
<th>Graded Waterway</th>
<th>Paved areas and shallow paved swales</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imperviousness %</td>
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### EFFECTIVE

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<th>Use NCS Type C</th>
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<tbody>
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<td>0.00</td>
<td>0.00</td>
<td>7.23</td>
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</tr>
<tr>
<td>C5</td>
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<td>0.77</td>
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<tr>
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<td>0.85</td>
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</tbody>
</table>

### TABLE RO-2 (taken from UDFCD Manual - Vol. I)

<table>
<thead>
<tr>
<th>Type of Land Surface</th>
<th>Conveyance coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heavy Meadow</td>
<td>2.5</td>
</tr>
<tr>
<td>Tillage/field</td>
<td>5</td>
</tr>
<tr>
<td>Short pasture/Lawns</td>
<td>7</td>
</tr>
<tr>
<td>Nearly Bare Ground</td>
<td>10.00</td>
</tr>
<tr>
<td>Graded Waterway</td>
<td>15.00</td>
</tr>
<tr>
<td>Paved areas and shallow paved swales</td>
<td>20.00</td>
</tr>
</tbody>
</table>

---

**Note:**
- For Ti calculations, only C5 is used.
- Overland flow limits:
  - 300 ft max for urban, 500 ft max for rural

---
McCARTY & HEINZ ACRES - EXISTING RUNOFF CALCS

for C soils - Cc, C10, C100 - from Table 6-5

**for Ti calculations - only C5 is used

\[ Ti = \frac{(0.395 \times (1.1 - Cyr) \times L^{0.5})}{S^{0.333}} \]

From UDFCD 2018, Equation 6-3

2018 UDFCD >>> Tc Check = (26-17i) + \left[ \frac{L_{travel}}{(60 \times (14i + 9) \times X_s^{0.5})} \right]

### Table 1: Existing Runoff Calculations

<table>
<thead>
<tr>
<th>Soil Type</th>
<th>5-Year</th>
<th>10-Year</th>
<th>100-Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>C5</td>
<td>0.05</td>
<td>0.15</td>
<td>0.49</td>
</tr>
<tr>
<td>C10</td>
<td>0.05</td>
<td>0.15</td>
<td>0.49</td>
</tr>
<tr>
<td>C100</td>
<td>0.05</td>
<td>0.15</td>
<td>0.49</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Type of Land Surface</th>
<th>Conveyance Coefficient, Cv</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heavy Meadow</td>
<td>2.5</td>
</tr>
<tr>
<td>Tillage/field</td>
<td>5</td>
</tr>
<tr>
<td>Short pasture/Lawns</td>
<td>7</td>
</tr>
<tr>
<td>Nearly Bare Ground</td>
<td>10.00</td>
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<tr>
<td>Grassed Waterway</td>
<td>15.00</td>
</tr>
<tr>
<td>Paved areas and shallow paved swales</td>
<td>20.00</td>
</tr>
</tbody>
</table>

### Table 2: Effective Imperviousness Percentages

<table>
<thead>
<tr>
<th>Type of Land Surface</th>
<th>Effective Imperviousness %</th>
</tr>
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<tbody>
<tr>
<td>Heavy Meadow</td>
<td>2.5</td>
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<tr>
<td>Tillage/field</td>
<td>5</td>
</tr>
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<td>Short pasture/Lawns</td>
<td>7</td>
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<tr>
<td>Nearly Bare Ground</td>
<td>10.00</td>
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<td>Grassed Waterway</td>
<td>15.00</td>
</tr>
<tr>
<td>Paved areas and shallow paved swales</td>
<td>20.00</td>
</tr>
</tbody>
</table>
# DEVELOPED RUNOFF TABLE (McCarty & Heinz Acres)

<table>
<thead>
<tr>
<th>BASIN</th>
<th>Impervious</th>
<th>C-YR</th>
<th>I</th>
<th>A</th>
<th>CIA(YR-DEVELOPED)</th>
<th>cfs</th>
<th>DESIGN POINT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LOT 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C5 (UDFCD 2017)</td>
<td>9.03</td>
<td>0.11</td>
<td>3.09</td>
<td>2.50</td>
<td>0.83</td>
<td>cfs</td>
<td>1</td>
</tr>
<tr>
<td>C100</td>
<td>9.03</td>
<td>0.52</td>
<td>7.01</td>
<td>2.50</td>
<td>9.10</td>
<td>cfs</td>
<td>1</td>
</tr>
<tr>
<td><strong>LOT 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C5</td>
<td>6.65</td>
<td>0.09</td>
<td>1.80</td>
<td>7.23</td>
<td>1.14</td>
<td>cfs</td>
<td>2</td>
</tr>
<tr>
<td>C100</td>
<td>6.65</td>
<td>0.51</td>
<td>4.08</td>
<td>7.23</td>
<td>15.01</td>
<td>cfs</td>
<td>2</td>
</tr>
</tbody>
</table>
McCARTY & HEINZ ACRES - DEVELOPED RUNOFF CALCS (% Max Bldg-Pavement)

See below for effective C values as calculated from Table RO-5

**for Ti calculations - only C5 is used

*From UDFCD 2018, Equation 6-3

2018 UDFCD >> Tc Check = (26-17i) + [Ltravel / (60*(14i + 9)(So)^.5)]

<table>
<thead>
<tr>
<th>LOT 1</th>
<th>Developed -5, 10, 100 yr</th>
<th>2.50 acres</th>
<th>Use NCS Type C</th>
<th>C5</th>
<th>Ti</th>
<th>Velocity</th>
<th>Tt</th>
<th>Tc</th>
<th>check</th>
<th>Use Tc</th>
<th>Cv, see column</th>
<th>J</th>
<th>A</th>
<th>C5 (developed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5yr</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td>14</td>
<td>0.083</td>
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<td>9.10 cfs</td>
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<table>
<thead>
<tr>
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<th>Developed -5, 10, 100 yr</th>
<th>7.23 acres</th>
<th>Use NCS Type C</th>
<th>C5</th>
<th>Ti</th>
<th>Velocity</th>
<th>Tt</th>
<th>Tc</th>
<th>check</th>
<th>Use Tc</th>
<th>Cv, see column</th>
<th>J</th>
<th>A</th>
<th>C5 (developed)</th>
</tr>
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<tbody>
<tr>
<td>5yr</td>
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<td>15.01 cfs</td>
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</table>

<table>
<thead>
<tr>
<th>TOTAL AREA</th>
<th>2.501 acres</th>
<th>Landscaping</th>
<th>Gravel</th>
<th>Building</th>
<th>Concrete</th>
<th>Asphalt</th>
<th>EFFECTIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOT 1</td>
<td>Use NCS Type C</td>
<td>2</td>
<td>40.00</td>
<td>90.00</td>
<td>90.00</td>
<td>100.00</td>
<td>9.03</td>
</tr>
<tr>
<td></td>
<td>C5</td>
<td>0.05</td>
<td>0.38</td>
<td>0.77</td>
<td>0.77</td>
<td>0.85</td>
<td>0.11</td>
</tr>
<tr>
<td></td>
<td>C10</td>
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<td>0.43</td>
<td>0.79</td>
<td>0.79</td>
<td>0.87</td>
<td>0.20</td>
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<td>0.49</td>
<td>0.65</td>
<td>0.85</td>
<td>0.85</td>
<td>0.89</td>
<td>0.52</td>
</tr>
<tr>
<td>AREA</td>
<td>2.25</td>
<td>0.10</td>
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<td>0.01</td>
<td>0.00</td>
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<table>
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<th>7.226 acres</th>
<th>Landscaping</th>
<th>Gravel</th>
<th>Building</th>
<th>Concrete</th>
<th>Asphalt</th>
<th>Water / Asphalt</th>
<th>EFFECTIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOT 2</td>
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<td>40.00</td>
<td>90.00</td>
<td>90.00</td>
<td>100.00</td>
<td>6.65</td>
<td></td>
</tr>
<tr>
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<td>C5</td>
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<td>0.85</td>
<td>0.09</td>
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<td>C10</td>
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<td>0.43</td>
<td>0.79</td>
<td>0.79</td>
<td>0.87</td>
<td>0.16</td>
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<tr>
<td></td>
<td>C100</td>
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<td>0.65</td>
<td>0.85</td>
<td>0.85</td>
<td>0.89</td>
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<td>0.27</td>
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<td>0.00</td>
<td>7.226</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>TABLE RO-2 (taken from UDFCD Manual - Vol. I)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of Land Surface</td>
</tr>
<tr>
<td>Heavy Meadow</td>
</tr>
<tr>
<td>Tillage/field</td>
</tr>
<tr>
<td>Short pasture/Lawns</td>
</tr>
<tr>
<td>Nearly Bare Ground</td>
</tr>
<tr>
<td>Grased Waterway</td>
</tr>
<tr>
<td>Paved areas and shallow paved swales</td>
</tr>
</tbody>
</table>
APPENDIX C

Empirical Detention Calculations, Empirical Infiltration/Retention Calculations, Pond A & B Stage Storage, etc.
**REQUIRED DETENTION (EMPIRICAL for COMPARISON)**

\[
K_{10} = \frac{0.85 I - 1.9}{1000 \text{ UDFCD}}
\]

\[
K_{100} = \frac{(1.78I - 0.002I^2 - 3.56)}{900 \text{ UDFCD}}
\]

<table>
<thead>
<tr>
<th>BASIN</th>
<th>Actual</th>
<th>Used Herein</th>
<th>K10</th>
<th>K100</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I</td>
<td>I</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>LOT 1</td>
<td>9.03</td>
<td>40.00</td>
<td>2.50</td>
<td>0.04</td>
</tr>
<tr>
<td>LOT 2</td>
<td>6.65</td>
<td>30.00</td>
<td>7.23</td>
<td>0.03</td>
</tr>
</tbody>
</table>

**10 YEAR**

| VOLUME = KA |
|            |
| acre-ft    |
| acre-ft    |
| cubic feet |
| cubic feet |

| LOT 1 | 3,934 | 7,802 |
| LOT 2 | 8,372 | 16,801 |

**100 YEAR**

| VOLUME = KA |
|            |
| acre-ft    |
| cubic feet |

| LOT 1 | 3,934 | 7,802 |
| LOT 2 | 8,372 | 16,801 |

**WATER QUALITY CALCULATIONS**

from Figure EDB-2, 40 hr drain @ I, WQCV= noted below

<table>
<thead>
<tr>
<th>BASIN</th>
<th>I</th>
<th>A</th>
<th>WQ</th>
<th>WQCV</th>
<th>TOTAL w/ 10 yr</th>
<th>TOTAL w/ 100 yr</th>
<th>EURV Storage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>acres</td>
<td>(in/watershed)</td>
<td>ac-ft</td>
<td>cubic feet</td>
<td>acre ft</td>
<td>cubic feet</td>
</tr>
<tr>
<td>LOT 1</td>
<td>40.00</td>
<td>2.50</td>
<td>0.18</td>
<td>0.04</td>
<td>1,959.6</td>
<td>0.14</td>
<td>5,693</td>
</tr>
<tr>
<td>LOT 2</td>
<td>30.00</td>
<td>7.23</td>
<td>0.15</td>
<td>0.11</td>
<td>4,767.5</td>
<td>0.30</td>
<td>13,140</td>
</tr>
</tbody>
</table>

**only includes 50% of WQCV**
REQUIRED INFILTRATION (EMPIRICAL) per CFSCM & UDFCD

Per NOAA Atlas - 24 hr 100 yr rate of 4.67 inches
Per Adams County Chapter 9 Storm Drainage Design & Stormwater Quality - Retention / Infiltration is Tributary area X rainfall depth
Per Colorado Floodplain & Stormwater Criteria Manual (CFSCM) - Retention / Infiltration is Tributary area X rainfall depth
Per UDFCD Volume II - Storage - 3.3.4 Retention / Infiltration Facilities - factor by 2.0

<table>
<thead>
<tr>
<th>BASIN</th>
<th>Tributary Area (ac)</th>
<th>Tributary Area (sft)</th>
<th>NOAA Rainfall (in)</th>
<th>Adams County &amp; CFSCM Retention Volume (cft)</th>
<th>1.5 Factor of Safety Retention Volume (cft)</th>
<th>UDFCD Factored 2.0 Retention Volume (cft)</th>
<th>UDFCD Retention Vol (ac-ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>POND A LOT 1</td>
<td>2.50</td>
<td>108,961</td>
<td>4.67</td>
<td>42,404</td>
<td>63,606.2</td>
<td>84,808.2</td>
<td>1.95</td>
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<tr>
<td>POND B LOT 2</td>
<td>7.23</td>
<td>314,748</td>
<td>4.67</td>
<td>122,490</td>
<td>183,734.4</td>
<td>244,979.1</td>
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<td>TOTAL</td>
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<td>247,341</td>
<td>329,787</td>
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McCARTY & HEINZ ACRES
INfiltration Pond A
Estimated Pond (Typical) Volume vs Elevation

Infiltration Storage (4:1 Side Slopes)

Required 100yr Ret. Volume: 42,404.1 ft^3

<table>
<thead>
<tr>
<th>ELEV</th>
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*per Adams County
Chapter 9 Storm Drainage Design
and Stormwater Quality Regulations
McCARTY & HEINZ ACRES
INFLTRATION POND B
ESTIMATED POND (TYPICAL) VOLUME vs ELEVATION

INFILTARION STORAGE (4:1 SIDE SLOPES)

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*per ADAMS COUNTY
Chapter 9 Storm Drainage Design
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<td>Travis McCarty</td>
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<td>72985470</td>
<td><a href="mailto:Travis.mccarty@cityofthornton.co">Travis.mccarty@cityofthornton.co</a></td>
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<td>Shantel McCarty</td>
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<td>Eric Heinz</td>
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<td>72967710</td>
<td><a href="mailto:Eric.Heinz1979@gmail.com">Eric.Heinz1979@gmail.com</a></td>
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<td>C. J. Henry</td>
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<td>7205503180</td>
<td><a href="mailto:lehr.waldman@wld.com">lehr.waldman@wld.com</a></td>
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<td>Fred Cox</td>
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<td>7204659951</td>
<td><a href="mailto:chuck.cox@wld.com">chuck.cox@wld.com</a></td>
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October 1st, 2019

Neighbor Property Owner
To 12730 Brighton Road
Brighton, CO 80601

RE: McCarty & Heinz Acres AG Property to Rural Residence – 12730 Brighton Road

Dear Neighbor:

Western Engineering Consultants (WEC) is providing this letter on behalf of Shantel M. & Travis K. McCarty who are inviting you to attend a neighborhood meeting regarding their proposed Rezoning and Minor Subdivision Rural Residential Development, located at 12730 Brighton Road, Brighton CO, Adams County.

In summary the existing 9.72 acre property with an existing residence will be rezoned from A-2 to A-1 in order to subdivide the property so the current property Owner may dedicate a 2.5 acre lot to his brother (Lot 1). A new residence and potential future outbuildings may be constructed on the remaining property (Lot 2) in accordance with Ag zoning (A1) requirements.

The meeting is to be held in the Holiday Inn Express and Suites located at 2212 South Medical Center Drive, Brighton, CO 80601 on Monday October 14th, 2019 at 6:30 P.M. in the Flex Room.

Adams County recommends the Development Applicant host a neighborhood meeting to inform the community and present the proposed development.

Attached to this letter is the Overall Site Plan for the project.

Shantel M. & Travis K. McCarty are the Owners of this property/project.

We are eager to meet with any of you that are interested and discuss this project!

Please contact me at 303-913-7341 with any questions or comments you may have.

Sincerely,

Western Engineering Consultants Inc.
Chadwin F. Cox, P.E.
Senior Project Manager

Encl. 12730 Brighton Road - Land Survey Plat (Concept Site Plan 1 drawing)
McCarty & Heinz Neighborhood Meeting Notes

Date: October 14th, 2019
Location: Holiday Inn Express, Brighton CO.
Time: 6:30 P.M.
Purpose of Meeting: McCarty & Heinz Project Review

Attendees:
- Einspahr Norman J
- Einspahr Charlene R
- Eric Heinz
- Shantel McCarty
- Travis McCarty
- Karen McCarty
- Chadwin Cox - WEC
- Leticia Maldonado - WEC

Western Engineering Consultants (WEC) is providing this Meeting Summary on behalf of Shantel M. & Travis K. McCarty. The purpose of the meeting is for the adjacent neighbors to have the opportunity to express concerns or ask questions of their proposed Rezoning and Minor Subdivision Rural Residential Development, located at 12730 Brighton Road, Brighton CO, Adams County.

Notes:
- Chadwin Cox (WEC) explained the project on detail
- Shantel & Travis McCarty explained their desired and how exited they are with their projects.
- Cherlene Einspahr asked if the Zone will be Change. Chad Cox responded that the zone will be changed from A-2 to A-1
- A general discussion was held about the general status of the Neighborhood and surrounding current and future uses
- Norman Einspahr offered support for the project and mentioned that his family is very happy to maintain them as neighbors since they have known their family for long time.
- Charlene Einspahr asked when they are expecting to start the construction. Travis McCarty responded that approximately six (6) months depending of the approval of the project and building permits are granted.
- Chadwin Cox explained in detail the process of the Subdivision according to his experience in the Adams County.
- Current services in the area were mentioned and future challenges.
- In summary, the project was agreeable by the attendees.

The meeting was adjourned at 8:15 PM; Shantel & Travis McCarty offered to their neighbors to keep them posted on the County hearings.

Respectfully submitted,

[Signature]

Western Engineering Consultants Inc.
C. Leticia Maldonado
Project Manager
DEVELOPMENT APPLICATION FORM

Application Type:

- [x] Subdivision, Final
- [ ] Plat Correction/ Vacation
- [ ] Conceptual Review
- [ ] Preliminary PUD
- [ ] Temporary Use
- [ ] Subdivision, Preliminary
- [ ] Final PUD
- [ ] Rezone
- [ ] Conditional Use
- [ ] Variance
- [ ] Special Use
- [ ] Other: 

PROJECT NAME: MCCARTY & HEINZ ACRES

APPLICANT

Name(s): TRAVIS K. & SHANTEL MCCARTY
Phone #: 720-298-5470
Address: 12730 Brighton Road
City, State, Zip: Brighton, CO, 80601
2nd Phone #: 720-233-9098
Email: Travis.Mccarty@cityofthornton.net

OWNER

Name(s): TRAVIS K. & SHANTEL M. MCCARTY
Phone #: 720-298-5470
Address: 12730 Brighton Road
City, State, Zip: Brighton, CO, 80601
2nd Phone #: 720-233-9098
Email: Travis.Mccarty@cityofthornton.net

TECHNICAL REPRESENTATIVE (Consultant, Engineer, Surveyor, Architect, etc.)

Name: CHADWIN F. COX
Phone #: 720-685-9951
Address: 127 South Denver Ave.
City, State, Zip: Fort Lupton, CO, 80621
2nd Phone #: 303-913-7341
Email: chadwin.cox@westerned.com
DESCRIPTION OF SITE

Address: 12730 Brighton Road
City, State, Zip: Brighton, CO, 80601
Area (acres or square feet): 9.724
Tax Assessor Parcel Number: 0157135000035
Existing Zoning: A-2
Existing Land Use: Residential
Proposed Land Use: A-1

Have you attended a Conceptual Review? YES [X] NO
If Yes, please list PRE#: PRE2019-00085

I hereby certify that I am making this application as owner of the above described property or acting under the authority of the owner (attached authorization, if not owner). I am familiar with all pertinent requirements, procedures, and fees of the County. I understand that the Application Review Fee is non-refundable. All statements made on this form and additional application materials are true to the best of my knowledge and belief.

Name: [Signature]
Date: 10/14/19
Owner's Printed Name

Name: [Signature]
Owner's Signature
October 21, 2019

Adams County Community and Economic Development
4430 South Adams County Parkway
1st Floor, Suite W2000
Brighton, CO 80601-8216

RE: McCARTY & HEINZ ACRES SUBDIVISION MINOR / FINAL REVIEW WRITTEN NARRATIVE

Adams County Community and Economic Development:

Western Engineering Consultants Inc. LLC (WEC) has prepared this narrative letter to briefly summarize “McCarty & Heinz Acres” proposed Rezoning and Minor Subdivision, located at 12730 Brighton Road, Brighton CO, Adams County.

The subject property is located in the North West 1/4, of Section 35, Township 1 South, Range 67 West of the 6th, P.M., County of Adams, State of Colorado, according to the Commitment for Title dated July 12, 2019.

PURPOSE / BACKGROUND
The property has historically and is currently farmland, zoned Agricultural (A-2) in Adams County County.

The existing 9.72 acre property will be rezoned from A-2 to A-1 in order to subdivide the property so the current property Owner may dedicate a 2.5 acre lot to his brother (Lot 1). A new residence and potential future outbuildings may be constructed on the remaining property (Lot 2) in accordance with Ag zoning (A1) requirements, and a future shop may be added to Lot 1.

The development is and will be compatible with the rural character of the surrounding area.

ADJACENT USES
To the north is a residential property zoned A-1, to the south is a rural residence zoned A-2, to the east a water storage facility (Bromley District Water Providers LLC) zoned A-3, and to the west is a water storage facility (Henderson Aggregate LTD) zoned A-3.

RELATIONSHIP TO & IMPACT UPON ADJACENT USES
The proposed Residential Development will retain a rural character compatible with the surrounding areas. The Adams County Zoning Map shows this area as A-2 Agricultural; City of Brighton Comprehensive Plan shows this property in the Estate Residential zone.

ACCESS LAYOUT
An existing access will continue to serve the existing home from Brighton Road. A proposed new access is proposed to serve the future Lot 2 residence. A 250 feet minimum distance between the existing and proposed access has been achieved.
GEOLOGICAL HAZARDS
No geologic hazards or environmental conditions/ concerns are known to exist on the property. The NRCS Study is enclosed.

ZONING, USE, PHASING, and UTILITY DISTRICTS
The following summarizes the proposed specifics:

- **Zoning**
  - Currently zoned Agriculture (A-2) in Adams County
- **Proposed Use**
  - Rural residence
- **Type of structures to be built**
  - 2 Single family ranch style residential units
- **Phasing**
  - Lot 2 primary residence is expected to be built early 2020
  - Only the Lot 2 garage and shop are proposed in the future
- **Water source**
  - City of Brighton
- **Sanitary Sewer source**
  - Individual septic systems
- **Storm sewer**
  - On Site Retention ponds
- **Gas & Electricity**
  - Excel Energy and United Power
- **Fire Protection**
  - Brighton Greater Fire Protection District

EXISTING INFRASTRUCTURE / FIRE ACCESS & AVAILABLE HYDRANT(s)
Brighton Road (paved 2 lane road) exists to the west.

The existing residence (Lot 1) is within 170 feet from Brighton Road right of way.

The proposed home and garage on Lot 2 are shown to be within 220 feet of Brighton Road right of way.

City of Brighton Water lies within Brighton Road right of way and serves the existing residence. Existing hydrants lie near both Lot 1 and Lot 2. The closest is approximately 100 feet north of the Lot 1/Lot 2 dividing line — nearly due west of the existing residence on Lot 1 and the second hydrant lies approximately 50 feet south of proposed Lot 2.

Access roads to both lots will be required to meet Greater Brighton Fire District load requirements and are designed to be a minimum of 20 feet in width.

Electric service exists and serves the existing residence.

Sewage treatment will be provided by septic systems (see attached Will Serve Letter from Tri County Health).

POTENTIAL IMPACT IN ADJACENT PROPERTIES
There are no negative impacts anticipated from this development on adjacent properties after construction has been completed.

Traffic impacts from this proposal are expected to be minimal, please see the attached Trip Generation Estimate.

NEIGHBORHOOD MEETING
A neighborhood meeting was held on October 14, 2019 at the Holiday Inn Express in Brighton. One adjacent neighbor (property to the south) attended and had no objections. Meeting sign in and minutes are attached.
MINOR SUBDIVISION REVIEW CHECKLIST

1. Minor Final Subdivision application form
2. Application Fees
3. Written Explanation of the project
4. Site Plan showing Proposed Development
5. Copy of Plat prepared by Registered Land Surveyor
6. Subdivision Improvement Agreement
7. School Impact Analysis
8. Fire Protection Report
9. Proof of Ownership
10. Proof of Water and Sewer Services
11. Proof of Utilities
12. Legal Description
13. Certificate of Taxes Paid
15. Certificate of Surface Development
16. Subdivision Engineering Review application (2 hard copies)

Enclosed

Enclosed

This document

Enclosed

TBD

Enclosed

In process

Enclosed

Enclosed

Enclosed

Enclosed

Enclosed

Enclosed

Enclosed

Enclosed

CLOSING
The Applicant is excited to build his family residence next to his brother’s residence within Adams County.

The desired schedule is to begin Construction in early 2020 after receiving the appropriate County approvals.

Please contact me with any questions or comments you may have on this Project Narrative.

Sincerely,

Western Engineering Consultants inc., LLC
Chadwin F. Cox, P.E.
Senior Project Manager

End. Subdivision Minor/Final Review Application submittal documents
LAND SURVEY PLAT
LOCATED IN NW 1/4, SEC. 35, T15S, R67W, 6TH P.M.
BRANNAN SAND AND GRAVEL
(REC. NO. 01126747)

LOT 1
12840 BRIGHTON RD.
EINSPIER, NORMAN J. AND EINSPIER, CHAROLLE R.
(REC. NO. 200400532790)

LOT 2
12730 BRIGHTON RD.
SHURLEFF, JOSEPH W. AND SHURLEFF, WENDY
(REC. NO. 2015/201500535367)

12730 BRIGHTON ROAD
CONTAINS 9.724 ACRES MORE OR LESS

CARTER ACRES
12700 BRIGHTON ROAD
ARNOLD, LARRY L. AND ARNOLD, SHARON E

LEGAL DESCRIPTION

THAT PARCEL OF THE NORTHWEST QUARTER OF SECTION 35, TOWNSHIP 1 SOUTHS, RANGE 67 WEST OF THE 6TH PRINCIPAL MERIDIAN, DESCRIBED AS COLONGO.

Begins at point on the north south centerline of section 35, which is 400 feet south of the north quarter of said section.

Thence westwardly and parallel with the north line of said section, 1004.7 feet.

More or less to the centerline of county road no. 171 (brighton road), thence southwestward along centerline of said county road, 207.7 feet.

Thence eastwardly and parallel with the north line of said section, 409.9 feet.

More or less to the north and south centerline of said section, 534.1 feet west.

Excludes the portion of the subject property lying within brighton road, county of adams, state of colorado.

SURVEYOR'S STATEMENT


THE LAND SURVEY PLAT DOES NOT CONSTITUTE A TITLE SEARCH OR TITLE EXAMINATION OF RECORD AND IS NOT INTENDED TO CONSTITUTE A TITLE SEARCH OR TITLE EXAMINATION OF RECORD. THE SURVEYOR DISCLAIMS ANY RESPONSIBILITY FOR THE ACCURACY OF THE INFORMATION CONTAINED IN OR DRAWN THEREON.

SCOTT A. PULLEN, PROFESSIONAL LAND SURVEYOR
COLORADO REG. No. 19983
SCOTT PULLEN SURVEYING
Application Type:

- [ ] Conceptual Review
- [ ] Preliminary PUD
- [ ] Temporary Use
- [ ] Subdivision, Preliminary
- [ ] Final PUD
- [ ] Variance
- [ ] Subdivision, Final
- [ ] Rezone
- [ ] Conditional Use
- [ ] Plat Correction/ Vacation
- [ ] Special Use
- [ ] Other: SIA

PROJECT NAME: McCarty & Heinz Acres

APPLICANT

Name(s): Shantel M. & Travis K. McCarty
Phone #: 720-298-5470
Address: 12730 Brighton Road
City, State, Zip: Brighton, Colorado, 80601
2nd Phone #: 720-233-9098
Email: Travis.McCarty@cityofthornton.net

OWNER

Name(s): Shantel M. & Travis K. McCarty
Phone #: 720-298-5470
Address: 12730 Brighton Road
City, State, Zip: Brighton, Colorado, 80601
2nd Phone #: 720-233-9098
Email: Travis.McCarty@cityofthornton.net

TECHNICAL REPRESENTATIVE (Consultant, Engineer, Surveyor, Architect, etc.)

Name: Chadwin F. Cox
Phone #: 720-685-9951
Address: 127 South Denver Ave
City, State, Zip: Fort Lupton, CO 80621
2nd Phone #: 303913-7341
Email: chadwin.cox@westernei.com
DESCRIPTION OF SITE

Address: 12730 Brighton Road
City, State, Zip: Brighton, Colorado, 80601
Area (acres or square feet): 9.724
Tax Assessor Parcel Number: 0157135000035
Existing Zoning: A-2
Existing Land Use: Residential
Proposed Land Use: A-1

Have you attended a Conceptual Review? YES x NO □
If Yes, please list PRE#: PRE2019-00085

I hereby certify that I am making this application as owner of the above described property or acting under the authority of the owner (attached authorization, if not owner). I am familiar with all pertinent requirements, procedures, and fees of the County. I understand that the Application Review Fee is non-refundable. All statements made on this form and additional application materials are true to the best of my knowledge and belief.

Name: F. H. Moore/ F. H. Moore/ Date: 10/23/19
Owner's Printed Name

Name: F. H. Moore/ F. H. Moore/ Owner's Signature
SUBDIVISION IMPROVEMENTS AGREEMENT

THIS AGREEMENT is made and entered into by and between the County of Adams, State of Colorado, hereinafter called "County," and Shantel M. & Travis K. McCarty, 12730 Brighton Road, Brighton CO, hereinafter called "Developer."

WITNESSETH:

WHEREAS, Developer is the owner of real property in the County of Adams, State of Colorado, as described in Exhibit "A" attached hereto, and by this reference made a part hereof.

WHEREAS, it is provided by resolution of the Board of County Commissioners, County of Adams, that where designated the Developer shall have entered into a written agreement with the County to install public and/or private improvements, and to deed land for public purposes or right-of-way.

NOW, THEREFORE, in consideration of the foregoing, the parties hereto promise, covenant, and agree as follows:

1. **Engineering Services.** Developer shall furnish, at its own expense, all engineering and other services in connection with the design and construction of the improvements described and detailed on Exhibit "B" attached hereto, and by this reference made a part hereof.

2. **Drawings and Estimates.** The Developer shall furnish drawings and cost estimates for all improvements described and detailed on Exhibit "B" for approval by the County. Upon request, the Developer shall furnish one set of reproducible "as built" drawings and a final statement of construction costs to the County.

3. **Construction.** Developer shall furnish and construct, at its own expense and in accordance with drawings and materials approved by the County, the improvements described and detailed on Exhibit "B."

4. **Time for Completion.** Improvements shall be completed according to the terms of this agreement within "construction completion date" appearing in Exhibi: "B". The Director of Community and Economic Development Department may for good cause grant extension of time for completion of any part or all of improvements appearing on said Exhibit "B". Any extension greater than 180 days is within the sole discretion of the Board of County Commissioners. All extensions of time must be in writing.

5. **Guarantee of Compliance.** Developer shall furnish to the County a cash escrow deposit or other acceptable collateral, releaseable only by the County, to guarantee compliance with this agreement. Said collateral shall be in the amount of $<XXXXXX>, including twenty percent (20%) to cover administration and five percent (5%) per year for the term of the Agreement to cover inflation. Upon approval of the final plat, completion of said improvements constructed according to the terms of this agreement, and preliminary acceptance by the Director of Public Works in accordance with section 5-02-05-01 of the County’s Development Standards and Regulations, the collateral shall be released. Completion of said improvements shall be determined solely by the County, and a reasonable part of said collateral, up to 20%, may be retained to guarantee maintenance of public improvements for a period of one year from the date of completion.

No building permits shall be issued until said collateral is furnished in the amount required and in a form acceptable to the Board of County Commissioners, and until the final plat has been approved and the improvements described in Exhibit "B" have been preliminarily accepted by the Department of Public Works.

6. **Acceptance and Maintenance of Public Improvements.** All improvements designated "public" on Exhibit "B" shall be public facilities and become the property of the County or other public agencies upon acceptance. During the period of one year from and after the acceptance of public improvements, the Developer shall, at its own expense, make all needed repairs or replacement due to defective materials or workmanship which, in the opinion of the County, becomes necessary. If, within ten days of written notice to the Developer from the
County requesting such repairs or replacements, the Developer has not undertaken with due
diligence to make the same, the County may make such repairs or replacements at the
Developer’s expense. In the case of an emergency such written notice may be waived.

7. Successors and Assigns. This agreement shall be binding upon the heirs, executors, personal
representatives, successors, and assigns of the Developer, and shall be deemed a covenant
running with the real property as described in Exhibit “A” attached hereto.

8. Improvements and Dedication. The undersigned Developer hereby agrees to provide the
following improvements, and to dedicate described property.

A. Improvements. Designate separately each public and private improvement.

Public Improvements:

(General description of construction.) See Exhibit “B” for description, estimated quantities
and estimated construction costs.

The improvements shall be constructed in accordance with all County requirements and
specifications in accordance with the approved plans and time schedule as indicated in
Exhibit “B”.

B. Public dedication of land for right-of-way purposes or other public purpose. Upon
approval of this agreement by the Board of County Commissioners, the Developer hereby
agrees to convey by warranty deed to the County of Adams the following described land
for right-of-way or other public purposes:

(General description of right-of-way).

Shantel M and Travis K. McCarty
Developer

By: ________________________________ By: ________________________________
Shantel M. McCarty Travis K. McCarty

The foregoing instrument was acknowledged before me this ____ day of ________________,
2019, by ____________________________________________________________.

My commission expires: ____________________________________________

Address: __________________________________________________________

_________________________________ Notary Public

APPROVED BY resolution at the meeting of ____________________________,
2017.

Collateral to guarantee compliance with this agreement and construction of public improvements
shall be required in the amount of __________________. No building permits shall be issued until
said collateral is furnished in the amount required and in a form acceptable to the Board of County
Commissioners.

ATTEST: ________________________________
BOARD OF COUNTY COMMISSIONERS
ADAMS COUNTY, COLORADO
Development Agreement
Mccarthy & Hetz Acres
Case No. PRE2019-00085 as of 10/1/2019

EXHIBIT A

Legal Description: BLANK SUBDIVISION

EXHIBIT B

Public Improvements: Street Name/s

<table>
<thead>
<tr>
<th>Description</th>
<th>Est. Quantity</th>
<th>Est. Unit Cost</th>
<th>Est. Construct. Cost</th>
</tr>
</thead>
</table>

Construction Completion Date:

Initials or signature of Developer: ____________________________

____________________________
October 23, 2019

Western Engineering Consultants
127 S Denver Ave
Fort Lupton, Colorado 80621

Subject: Will Serve Letter

Project: 12730 Brighton Road, Brighton Colorado 80601

To Whom It May Concern:

The above named project is within the boundaries of the Brighton Fire Rescue District and will be served by the District. Fire protection and prevention services provided by the District will be according to applicable laws and District rules, regulations, and policies.

Please contact this office if you need further information or have any questions.

Sincerely,

[Signature]

Carla Gutierrez
Fire Inspector
Cgutierrez@brightonfire.org
SUBDIVISION NAME: Maldonado
LOCATION: 12730 Brighton Road, Brighton
STATUS: Subdivision (one lot to two lots)

A. STUDENT GENERATION (see attached Table 1 for methodology)

<table>
<thead>
<tr>
<th>Dwelling Units</th>
<th>Total Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 SFD</td>
<td>1</td>
</tr>
</tbody>
</table>

B. LAND DEDICATION/CASH-IN-LIEU REQUIREMENTS
(See attached Table 1 for methodology)

The District requests cash in lieu of land dedication in the amount of $275.29 (Adams County calculation).

C. SCHOOL ATTENDANCE AREA

Students from this proposed development will currently attend:

Henderson ES – 12301 E. 124th Avenue, Henderson
Prairie View MS – 12915 E. 120th Avenue, Henderson
Riverdale Ridge HS – 13380 Yosemite Street, Thornton

D. CAPITAL FACILITY FEE FOUNDATION (see attached Table 2 for methodology)

The Capital Facility Fee Foundation is a unique public/private nonprofit organization founded in January 2001 to help fund school expansion or new school construction. This program has been developed in partnership with each of the municipalities in the District, developer and builder representatives, and School District 27J. Funding is provided by builders and developers who have agreed to contribute per residential dwelling unit based on the current fee structure. The current fees negotiated for this program are as follows: $843 per single family residential unit and $481 per multi-family unit.
SCHOOL DISTRICT PLANNING COMMENTS AND RECOMMENDATIONS:

1. The District requests cash in lieu of land dedication in the amount of $275.29 (paid to Adams County at time of permit).

2. Given the projection of one additional single family detached residential unit, the tax-deductible capital facility fee is will be $843. The fee may be paid to 27J Schools at the time of permit.

We appreciate your continuing cooperation and the opportunity to comment upon issues of interest to both the City and the School District. We look forward to receiving updated referrals on this subdivision. Please let me know if you have questions about these comments.

Sincerely,

Kerrie Monti
Kerrie Monti
Planning Manager

Attachments
Adams County Subdivision (Rural Residential)

Table 1 - Adams County Student Generation and Facilities Requirements

<table>
<thead>
<tr>
<th>Dwelling Unit Type</th>
<th>Number of DUs</th>
<th>Population Rate</th>
<th>Population Generated</th>
<th>Student Generation Rate</th>
<th>Number of Students</th>
<th>Land Area Required per Student</th>
<th>Number of Acres</th>
<th>Land Value per Acre</th>
<th>School District Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>SFD</td>
<td>1</td>
<td>3.278</td>
<td>3.278</td>
<td>0.775</td>
<td>0.775</td>
<td>0.026</td>
<td>0.02015</td>
<td>$13,662</td>
<td>$275.29</td>
</tr>
<tr>
<td>SFA</td>
<td>2.533</td>
<td>0</td>
<td>0</td>
<td>0.364</td>
<td>0</td>
<td>0.026</td>
<td>0</td>
<td>$13,662</td>
<td>$0.00</td>
</tr>
<tr>
<td>TH/C</td>
<td>2.216</td>
<td>0</td>
<td>0</td>
<td>0.303</td>
<td>0</td>
<td>0.026</td>
<td>0</td>
<td>$13,662</td>
<td>$0.00</td>
</tr>
<tr>
<td>Apartment</td>
<td>2.007</td>
<td>0</td>
<td>0</td>
<td>0.195</td>
<td>0</td>
<td>0.026</td>
<td>0</td>
<td>$13,662</td>
<td>$0.00</td>
</tr>
<tr>
<td>Mobile Home</td>
<td>2.803</td>
<td>0</td>
<td>0</td>
<td>0.512</td>
<td>0</td>
<td>0.026</td>
<td>0</td>
<td>$13,662</td>
<td>$0.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1</strong></td>
<td><strong>3.278</strong></td>
<td><strong>0.775</strong></td>
<td><strong>0.02015</strong></td>
<td><strong>$275.29</strong></td>
<td><strong>$13,662</strong></td>
<td><strong>$13,662</strong></td>
<td><strong>0.00</strong></td>
<td></td>
</tr>
</tbody>
</table>

Land Dedication Provided

0

Table 2 - SD27J Capital Facility Fee Foundation Contributions

<table>
<thead>
<tr>
<th>Dwelling Unit Type</th>
<th>Number of DUs</th>
<th>Rate per Unit</th>
<th>Total Contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>SFD</td>
<td>1</td>
<td>$843.00</td>
<td>$843.00</td>
</tr>
<tr>
<td>SFA</td>
<td>0</td>
<td>$843.00</td>
<td>$0.00</td>
</tr>
<tr>
<td>TH/C</td>
<td>0</td>
<td>$481.00</td>
<td>$0.00</td>
</tr>
<tr>
<td>Apartment</td>
<td>0</td>
<td>$481.00</td>
<td>$0.00</td>
</tr>
<tr>
<td>Mobile Home</td>
<td>0</td>
<td>$843.00</td>
<td>$0.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1</strong></td>
<td><strong>$843.00</strong></td>
<td></td>
</tr>
</tbody>
</table>
Exhibit A

THAT PART OF THE NORTHWEST QUARTER OF SECTION 35, TOWNSHIP 1 SOUTH, RANGE 67 WEST OF THE 6TH PRINCIPAL MERIDIAN, DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE NORTH AND SOUTH CENTERLINE OF SECTION 35, WHICH IS 400 FEET SOUTH OF THE NORTH QUARTER CORNER OF SAID SECTION; THENCE WESTERLY AND PARALLEL WITH THE NORTH LINE OF SAID SECTION, 1204.7 FEET, MORE OR LESS, TO THE CENTERLINE OF COUNTY ROAD NO. 131 (BRIGHTON ROAD); THENCE SOUTHWESTERLY ALONG THE CENTERLINE OF SAID COUNTY ROAD, 387.7 FEET; THENCE EASTERLY AND PARALLEL WITH THE NORTH LINE OF SAID SECTION, 1400.9 FEET, MORE OR LESS, TO THE NORTH AND SOUTH CENTERLINE OF SAID SECTION; THENCE NORTHERLY ALONG THE NORTH AND SOUTH CENTERLINE OF SAID SECTION, 334.4 FEET TO THE TRUE POINT OF BEGINNING, EXCEPT THE PORTION OF SUBJECT PROPERTY LYING WITHIN BRIGHTON ROAD, COUNTY OF ADAMS, STATE OF COLORADO.
Billing Summary

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Payment Due Last Billing Period</td>
<td>28.56</td>
</tr>
<tr>
<td>Payments Received Since Last Billing</td>
<td>-28.56</td>
</tr>
<tr>
<td>Past Due Balance</td>
<td>0.00</td>
</tr>
<tr>
<td>Current Charges</td>
<td>29.46</td>
</tr>
</tbody>
</table>

Total Balance Due: $29.46

Billing Detail

<table>
<thead>
<tr>
<th>Charge</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water 1200 usage @ 0.0028000</td>
<td>3.36</td>
</tr>
<tr>
<td>Water Service Charge</td>
<td>16.00</td>
</tr>
<tr>
<td>Contract Water Surcharge</td>
<td>4.60</td>
</tr>
<tr>
<td>Storm Drainage Charge</td>
<td>5.50</td>
</tr>
</tbody>
</table>

Current Charges: $29.46

Usage Information

<table>
<thead>
<tr>
<th>Information</th>
<th>Details</th>
</tr>
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<tbody>
<tr>
<td>Cycle/Route</td>
<td>4/4</td>
</tr>
<tr>
<td>Service Period</td>
<td>08/16/2019 to 09/11/2019</td>
</tr>
<tr>
<td>Number of Days</td>
<td>26</td>
</tr>
<tr>
<td>Current Reading</td>
<td>27,470</td>
</tr>
<tr>
<td>Previous Reading</td>
<td>27,350</td>
</tr>
<tr>
<td>Current Usage</td>
<td>1,200 Gallons</td>
</tr>
</tbody>
</table>

Usage History

2-YEAR CONSUMPTION COMPARISON (IN GALLONS)

Message Center

DETACH HERE AND RETURN BOTTOM PORTION WITH YOUR PAYMENT

MAKE CHECK PAYABLE TO: City of Brighton
**Payment Options**
- **Direct Pay:** Automatic deduction from checking or savings account on bill due date. Call or go online to fill out sign-up form and return to the Utility Billing Division office.
- **Pay in Person:** Stop by the Utility Billing Division office M-F from 8am - 5pm to pay via check, cash, or credit/debit card.
- **Xpress Bill Pay:** 3rd party vendor payment platform. Sign up at: https://www.xpressbillpay.com/#/
  
For more payment options, visit http://www.brightonco.gov/349/Payment-Options

**How to Read Your Bill**
Visit www.brightonco.gov/WaterRates for a detailed explanation about rate changes and usage guidelines.

**General Billing Information**
- Charges are based on services already provided.
- Payment is due by the date specified on the bill. Water service will be terminated if the amount due is not paid.
- Payment arrangements are available for qualified customers.
- For questions about your account, bill, or restoration, please call 303-655-2009.

**Termination of Service**
- Payment not received by due date, subject to a $10 late fee.
- Delinquency notice: Courtesy Letter 10 days after due date.
- Termination: If payment has not been received within 8 days of Courtesy Letter, water service will be terminated and $45 fee will be applied.

**Water Conservation**
Interested in learning more about your water use and how you can use water more efficiently? Check out our website for details about your WaterSmart Portal, programs and ways to save water!
http://www.brightonco.gov/308/Water-Conservation

---

<table>
<thead>
<tr>
<th>Utility</th>
<th>2018 Fixed Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>$16.00/Month</td>
</tr>
<tr>
<td>Sewer</td>
<td>$13.00/Month</td>
</tr>
<tr>
<td>Storm Drainage</td>
<td>$5.50/Month</td>
</tr>
<tr>
<td>Contract Water SC</td>
<td>$4.60/Month</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Utility</th>
<th>2018 User Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water 0-3000 gals</td>
<td>$2.80/1,000 Gal</td>
</tr>
<tr>
<td>3001-20,000 gals</td>
<td>$5.14/1,000 Gal</td>
</tr>
<tr>
<td>20,001-30,000 gals</td>
<td>$5.54/1,000 Gal</td>
</tr>
<tr>
<td>30,001-40,000 gals</td>
<td>$6.00/1,000 Gal</td>
</tr>
<tr>
<td>40,001+ gals</td>
<td>$7.00/1,000 Gal</td>
</tr>
<tr>
<td>Sewer per kgals (3 kgal minimum)</td>
<td>$4.95/1,000 Gal</td>
</tr>
</tbody>
</table>
September 5, 2019

Travis McCarty
12730 Brighton Road
Brighton CO 80601

Mr. McCarty

This letter is in response to your request for the City of Brighton to provide you with a “will serve” letter for the proposed construction on Brighton Road, of a parcel of land described as follows:

The property under the address of: 12730 Brighton Road, Brighton CO 80601

The City currently has water treatment facility capacity to serve this household. Please note that it will be the your responsibility to construct any lines necessary to provide the necessary service to the proposed structures. The city’s guarantee of water quality is to the meter pit, services over 100 feet may require additional treatment.

If you have further questions you can contact Bradley Dallam at 303-655-2022.

Sincerely,

Bradley S. Dallam, P.E.
Assistant Utility Director
City of Brighton
<table>
<thead>
<tr>
<th>Account</th>
<th>Services</th>
<th>Credit Rating</th>
<th>Location</th>
<th>Service Order</th>
<th>Service Date</th>
<th>Service Details</th>
<th>Status</th>
<th>City</th>
<th>Add Notes</th>
<th>Billing</th>
<th>Payment History</th>
<th>Payment History Details</th>
<th>Payment History Notes</th>
<th>Payment History Comments</th>
<th>Payment History Notes</th>
<th>Payment History Notes</th>
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</thead>
<tbody>
<tr>
<td>1234567</td>
<td>Cycle 4</td>
<td>B</td>
<td>1234567</td>
<td>Brighton Road</td>
<td>08/01/2019</td>
<td>Brighton</td>
<td>Paid</td>
<td>Brighton</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8901234</td>
<td>Cycle 5</td>
<td>B</td>
<td>8901234</td>
<td>Brighton Road</td>
<td>08/01/2019</td>
<td>Brighton</td>
<td>Paid</td>
<td>Brighton</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5678901</td>
<td>Cycle 6</td>
<td>B</td>
<td>5678901</td>
<td>Brighton Road</td>
<td>08/01/2019</td>
<td>Brighton</td>
<td>Paid</td>
<td>Brighton</td>
<td>Yes</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Subject: FW: 12730 Brighton Rd.

To Adams County Building Department:

This email is in regards to Travis McCarty's request for a "will-serve" letter from TCHD regarding providing a septic system permit for a parcel that he intends to subdivide from his current property.

TCHD will allow the construction of an Onsite Wastewater Treatment System (OWTS) for a new home on the subdivided parcel as long as the following stipulations are met:

1. A new OWTS installation application and application fee is received for the septic system for the new home.
2. The OWTS must have its own, distinct OWTS design document with soil investigation work.
3. The applicant may choose any recognized engineer to do soil investigation work and/or to design the OWTS system.
4. The applicant or general contractor may choose any installer to do the installation of the OWTS, provided the installer is currently licensed by TCHD.
5. The site will be visited by TCHD for a site evaluation prior to approval and issuance of the OWTS permit. TCHD will verify the proposed design on site, as part of the design evaluation.
6. The OWTS will be inspected by TCHD after construction, and prior to backfill. The OWTS will be given final approval after all deficiencies are corrected and all documentation are received.

If you have any further questions, please contact me and I will be happy to help clarify any issues I can.

Jeffrey K. McCarron
Water Quality Specialist, REHS, EHS IV
Tri-County Health Department
4201 E. 72nd Avenue, Suite D
Commerce City, CO 80022
303-439-5913

Follow @TCHDHealth
Follow @TCHDEmergency
July 26, 2019

Travis McCarty Senior Equipment Operator
City Of Thornton
12450 Washington Ave
Thornton, CO 80241
Travis.McCarty@cityofthornton.net

Dear Mr. McCarty:

United Power is the provider of electric service in the area to the proposed Residential lots, located at 12730 Brighton Rd Brighton, CO 80601. There is electrical distribution in the area that may or may not need to be upgraded, depending on the requirements of the site, in order to provide capacity and safe reliable power to the area.

Service will be provided according to the rules, regulations, and policies in effect by United Power at the time service is requested.

We look forward to this opportunity to provide electric service. If you have any questions, please give me a call at 303-637-1272.

Sincerely,

Micheal Hess
Micheal Hess
Senior Project Manager
MH:mz
Member Services 303-637-1300
Payments 866-999-4485
Report an Outage 303-637-1350

2563  1 AV  0.383
SHANTEL M MCCARTY
TRAVIS K MCCARTY
12730 BRIGHTON RD
BRIGHTON CO 80601-7346

<table>
<thead>
<tr>
<th>Rate</th>
<th>Meter</th>
<th>Prev Rdg</th>
<th>Pres Rdg</th>
<th>Mult</th>
<th>kWh</th>
<th>Dmd</th>
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</thead>
<tbody>
<tr>
<td>R1</td>
<td>1575166</td>
<td>73487</td>
<td>73757</td>
<td>1</td>
<td>270</td>
<td>4.936</td>
</tr>
</tbody>
</table>

Small Change - Big Difference
When you round-up your monthly bill, that small change makes a big difference right here in your community. Check the box on this bill, or visit unitedpower.com to sign up.

<table>
<thead>
<tr>
<th>Account #</th>
<th>District</th>
<th>Cycle</th>
</tr>
</thead>
<tbody>
<tr>
<td>2146116</td>
<td>SOUTH</td>
<td>3</td>
</tr>
</tbody>
</table>

Activity Since Last Bill
Previous Balance 60.13
Payment Received - Thank You -60.13
Balance Forward 0.00

Current Billing Detail
Energy Charge 270 KWH @ 0.1015 27.41
Demand Charge 4.936 KW @ 1.00 4.94
Lighting 100W 1 LIGHT 10.25
Fixed Charge 19.00
Current Month 61.60

Total Due 61.60

Payment Due By 10/10/2019
Total Due $61.60
Amount Enclosed $
**Electric Usage Comparison**

<table>
<thead>
<tr>
<th></th>
<th>Electric kWh</th>
<th>Days</th>
<th>Total kWh</th>
<th>Avg kWh/Day</th>
<th>kWh Cost/Day</th>
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</thead>
<tbody>
<tr>
<td>Current Month</td>
<td>29</td>
<td>270</td>
<td>9</td>
<td>$1.77</td>
<td></td>
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<tr>
<td>Last Month</td>
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<td>298</td>
<td>11</td>
<td>$1.97</td>
<td></td>
</tr>
<tr>
<td>One Year Ago</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>$0.00</td>
<td></td>
</tr>
</tbody>
</table>

**Temperature Comparison**

<table>
<thead>
<tr>
<th></th>
<th>Avg Temp</th>
<th>Avg Temp Last Yr.</th>
<th>High Temp</th>
<th>High Temp Date</th>
<th>Low Temp</th>
<th>Low Temp Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>73° F</td>
<td>72° F</td>
<td>100° F</td>
<td>09/02/2019</td>
<td>45° F</td>
<td>09/13/2019</td>
</tr>
</tbody>
</table>

**Electric Usage History**

- Account #: 2146116
- From Date: 08/19/2019
- To Date: 09/17/2019

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**Collection Process**

Member bills are due and payable within twenty (20) days from the date billed. If a member fails to pay the current month’s bill before the next billing period, that bill shall be considered delinquent, a late fee will be assessed and a Notice of Service Disconnection shall be mailed to the address of record. If payment is not received by the specified date on the notice, disconnection will proceed and a reconnection fee and deposit will be charged.

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**Payment & Billing Options**

- **Online Payments**
  - Pay bills and manage your account through SmartHub. Available online and via mobile app.

- **Auto Pay**
  - Have your bill automatically paid on your due date from the payment method of your choice.

- **Check Payment**
  - Check payments are presented to your financial institution through ACH electronic processing.

- **Credit Card Payment**
  - United Power accepts MasterCard and Visa for payment online, over the phone, and in our offices.

- **MoneyGram**
  - Make cash payments that post immediately to your account at over 40,000 MoneyGram locations.

- **Paperless Billing**
  - Go paper-free. Receive an email notification, not a statement in the mail. View and pay bills online.

- **Budget Billing**
  - Take the ups and downs out of your monthly budget and pay the same amount each month.

- **Custom Billing Period**
  - Choose a billing timeframe that is most convenient for you, and your budget.

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**View detailed energy consumption and usage history through the Power Portal.**

[www.unitedpower.com/PowerPortal](http://www.unitedpower.com/PowerPortal)
Customer Name: SHANTEL M MCCARTY
Account Number: 53-3246215-2
Address: 12730 BRIGHTON RD - BLDG RTE - BRIGHTON CO 80601-7346
Mail to Premises
Report Create Date: 09/25/19

09/24/19 Bill 654936593
Natural Gas Service: $20.16
Other Charges: $24.90
Late Charges: $0.00
Total New Charges: $45.06
09/04/19 Online Payment
Payment Amount: -$43.75

08/23/19 Bill 651049002
Natural Gas Service: $13.85
Other Charges: $24.90
Late Charges: $0.00
Total New Charges: $43.75
07/29/19 Online Payment
Payment Amount: -$51.67

07/26/19 Bill 647342198
Natural Gas Service: $13.77
Other Charges: $32.90
Late Charges: $0.00
Total New Charges: $51.67
07/16/19 Online Payment
Payment Amount: -$49.52

06/26/19 Bill 643456875
Natural Gas Service: $24.62
Other Charges: $24.90
Late Charges: $0.00
Total New Charges: $49.52
Travis McCarty
12730 Brighton Rd
Brighton, CO 80601

Re: Property South of 12730 Brighton Rd Brighton, CO 80601

Dear Travis,

This letter is to confirm that Xcel Energy is your utility provider for natural gas. In accordance with our tariffs, on file with and approved by the Colorado Public Utilities Commission, gas facilities can be made available to serve the project at the South side of 12730 Brighton Rd Brighton, CO 80601.

Your utility service(s) will be provided after the following steps are completed:

- **Application submitted to Public Service's “Builders Call Line (BCL)”** – once your application is accepted you will be assigned a design department representative who will be your primary point of contact
- **Utility design is completed** – you must provide your design representative with the site plan, the one line diagrams, and panel schedules for electric and gas loads if applicable
- **All documents provided by design representative are signed and returned**
- **Payment is received**
- **Required easements are granted** - you must sign and return applicable easement documents to your Right-of-Way agent
- **Site is ready for utility construction**

A scheduled in-service date will be provided once these requirements have been met.

It is important to keep in mind that the terms and conditions of utility service, per our tariffs, require that you provide adequate space and an easement on your property for all gas and electric facilities required to serve your project, including but not limited to gas and electrical lines and meters, transformers, and pedestals. General guidelines for these requirements can be found at Site Requirements. Easement requirements can be found at Utility Design and Layout.

Xcel Energy looks forward to working with you on your project and if I can be of further assistance, please contact me at the phone number or email listed below.

Sincerely,

Alex McMullin
Reliable Power Consultants

Mailing address: Reliable Power Consultants Inc
10190 Bannock Street Suite 125
Northglenn, CO 80260