1. Call to Order

2. Roll Call
   Jan Dowker, Chairwoman
   Karen Anderson, Vice Chair
   Chris Kurtz, Secretary
   Melissa Feldbush
   Abigail Smith
   Jon Van Benthem
   Brett Wing

   All matters listed under Item 3, Consent Agenda, are considered to be routine by the Planning Commission and will be enacted with a single vote. If discussion is deemed necessary on an item, that item should be removed from the consent Agenda and considered separately.

3. Approval of Minutes of the December 8, 2022 Planning Commission Meeting.

4. Public Hearing: Gateway BD PUD and FDP Amendment

5. Public Hearing: Farmstead Acres Neighborhood Masterplan and Rezoning

6. Reports.

7. Adjourn.

The Planning Commission hearing will be held on Zoom, and in person, and can be joined at the following link: https://us02web.zoom.us/j/82983295809 or by calling 1 (669) 900-6833 and inputting the following Meeting ID number: 829-8329-5809.

If you require a special accommodation, please contact the Town Clerk 24 hours in advance at (970) 532-2643.
Planning Commission Minutes – December 08, 2022

1. Call to Order – The Planning Commission convened a regular meeting on December 08, 2022. Chairwoman Dowker called the meeting to order at 5:58 p.m.

2. Roll Call – Members present: Jan Dowker (Chairwoman)
   Karen Anderson (Vice Chairwoman)
   Jon Van Benthem (Commissioner)
   Melissa Feldbush (Commissioner)
   Brett Wing (Commissioner)

   Staff present: Curt Freese (Director)
   Adam Olinger (Planner)
   Jonathan Mitchell (Permit Technician)

   MOTION made by Commissioner Van Benthem to APPROVE the Minutes for November 10, 2022.
   SECONDED by Commissioner Wing.
   With all in favor, THE MOTION CARRIED.

4. Public Hearing: Heron Lakes 20th Filing Final Plat Request (Jim Birdsall, agent)

   Planner Olinger introduced the request for a Final Plat to create a buildable lot out of the golf course tract for a grill restaurant.

   Public Comment was opened at 6:21 p.m.

   Paul Hummel shared a story expressing a need for emergency access, a place to hang out, and gave his support.

   Jose Cabrera shared his support for this project and excitement for this social gathering place.

   Cory Braesch showed positive support for this project.

   Christoph Uhlig shared his support for this project.

   Mckenzie Oconnell shared her support for a need for this project as an emergency location.

   Public Comment was closed at 6:30 p.m.

   MOTION made by Commissioner Anderson to APPROVE the Heron Lakes 20th Filing Final Plat, finding that it satisfies Section 30-6-107 C.

   SECONDED by Commissioner Feldbush.

   With all in favor, THE MOTION CARRIED.
5. Public Hearing: Brown M.L.D. 97-EX 1074, Replat No. 1 Final Plat request (Amy Cook, agent)

    Director Freese introduced the request for a Final Plat to dedicate easements and Right-of-Way at the Northern Water property.

    *Public Comment was opened at 6:54 p.m.*

    *Public Comment was closed at 6:54 p.m.*

    MOTION made by Commissioner Wing to APPROVE the Brown M.L.D. 97-EX 1974, Replat No. 1 Final Plat, finding it is consistent with Section 30-6-108 C.

    SECONDED by Commissioner Anderson.

    With all in favor, THE MOTION CARRIED.

6. Reports –

   December 11 – Habitat for Humanity House Blessing at 1776 4th Street.
   December 22 – No Planning Commission meeting.

   Director Freese announced his resignation from the Town of Berthoud. He will be with the Town until the end of the year.

7. Adjourn –

   The meeting was adjourned at 7:16 p.m.
**STAFF REPORT: GATEWAY BD PUD AND FDP AMENDMENT**

**DATE: February 9, 2022**

### GENERAL INFORMATION

<table>
<thead>
<tr>
<th>Applicant:</th>
<th>Placer Development Inc.</th>
<th>Size: 3.156 acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site Location:</td>
<td>Parcel numbers: 9415427001 &amp; 9415441003</td>
<td></td>
</tr>
<tr>
<td>Applicant’s Request:</td>
<td>Final Development Plan and a PUD (Planned Unit Development) amendment request to create four commercial lots from a large pad site.</td>
<td></td>
</tr>
<tr>
<td>Current Zoning:</td>
<td>PUD</td>
<td></td>
</tr>
</tbody>
</table>

### ZONING DISTRICT INFORMATION

<table>
<thead>
<tr>
<th></th>
<th>PUD (default to C-2)</th>
<th>C-2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max Density</td>
<td>20 dwelling units</td>
<td>20 dwelling units</td>
</tr>
<tr>
<td>Min. Lot Size</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Min. Lot Width</td>
<td>50’</td>
<td>50’</td>
</tr>
<tr>
<td>Front Setback</td>
<td>25’</td>
<td>25’</td>
</tr>
<tr>
<td>Side Setback</td>
<td>0/25’</td>
<td>0/25’</td>
</tr>
<tr>
<td>Rear Setback</td>
<td>35’</td>
<td>35’</td>
</tr>
<tr>
<td>Building Height:</td>
<td>50’</td>
<td>50’</td>
</tr>
</tbody>
</table>

### SURROUNDING ZONING, LAND USE AND REQUIRED BUFFERS

<table>
<thead>
<tr>
<th>Adjacent Zoning</th>
<th>Adjacent Land Use</th>
<th>Setbacks for Adjacent Zoning/ Buffer required if rezoned</th>
</tr>
</thead>
<tbody>
<tr>
<td>North: PUD &amp; R-4</td>
<td>Single-Family Residential &amp; Vacant</td>
<td>Buffer Areas from Residential: C-2 districts require no less than a 35-foot setback from the property line of a residential zoning district.</td>
</tr>
<tr>
<td>South: PUD</td>
<td>Vacant</td>
<td>None</td>
</tr>
<tr>
<td>East: PUD</td>
<td>Commercial (Bank &amp; Skin-Care Clinic)</td>
<td>None</td>
</tr>
<tr>
<td>West: PUD</td>
<td>Single-Family Residential</td>
<td>Buffer Areas from Residential: C-2 districts require no less than a 35-foot setback from the property line of a residential zoning district.</td>
</tr>
</tbody>
</table>
BACKGROUND
This 3.156-acre site was part of the Gateway Park PUD, which was originally approved by the Town in 2002 and consisted of more than 77 acres. The Final Development Plan for Gateway Park – First Filing, Phase 2 identifies Block 2, Lot 1 as commercial land use. Originally, the project designated four building envelopes on one lot.

The proposed replat consists of parcel numbers 9415427001 and 9415441003, located at the southwest corner of Birdie Drive and Lake Avenue. The property current contains a parking lot with no buildings.

PROPOSAL
The Applicant is requesting approval of a PUD/FDP Amendment that would reconfigure Lot 1, plus a portion of Tract B (part of parcel number 9415441003), into four separate lots. The goal of the reconfiguration is to allow each lot to be sold and developed individually. There is no proposed change in zoning. All lots shall default to the C-2 Zoning standards for items not specified in the amended FDP. This amendment proposes a maximum of 142 parking spaces, which takes into consideration the existing parking and considers the addition of buildings on each lot. The applicant was advised on a recommendation from staff to include the minimum and maximum number of parking spaces to ensure flexibility for potential owners. As each lot develops, parking will be reviewed and assessed to ensure conformance with the Code.

Review criteria for Planned Unit Developments or PUD Amendments no longer appear in the current Town of Berthoud Development Code. The required submittal items, however, are similar to those of the Final Plat process. As a Final Plat is a required item for a Final Development Plan, the Final Plat review criteria found in
Section 30-6-108.C of the Development Code were used to review this PUD/FDP Amendment.

CRITERIA/FINDINGS
The Town shall use the following criteria in addition to other applicable provisions of the Code to evaluate the applicant's application. Staff findings and analysis is presented in the table below.

<table>
<thead>
<tr>
<th>30-6-108.C Review Criteria</th>
<th>Finding</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The Final Plat is in substantial conformance with the approved Preliminary Plat. For the purposes of this Code, “Substantial conformance.” Includes design adjustments made to meet any conditions of preliminary plat approval, and is determined as follows: a. Does not change any land use of the proposed plat. b. Does not change the number of lots or residential density by more than 5%. c. Does not contain changes which would render the final plat in nonconformance with requirements of this Code. d. Does not contain significant changes in street alignment and/or access points, or other public elements such as drainage improvements, utility lines or facilities. e. Does not change any measurable standard (other than above) by more than 15 percent.</td>
<td>Yes</td>
<td>The project meets this criterion. This project does not propose any change in land use. The original FDP establishes commercial land use for the property. The site was first platted by the Gateway Park First Filing Phase 2 Final Plat approved in 2006, creating three large lots from Tracts A and J. The proposed plat separating Lot 1 into four separate lots does not contain changes that are in nonconformance with the requirements in the Code, nor does it contain significant changes to previously approved street alignments or access points. The proposed development conforms to the Final Drainage Report and Erosion Control Study for Gateway Park First Filing Phase 2 prepared in 2006. Parking standards proposed for this location include minimum and maximum parking amounts for this location in order to provide flexibility for commercial uses. At the time of development for each new lot, the parking requirements will be reviewed and assessed to ensure conformance with the Code.</td>
</tr>
<tr>
<td>2. The development complies with this Code, the Comprehensive Plan and the PORT Plan.</td>
<td>Yes</td>
<td>The project meets this criterion. The Comprehensive Plan identifies this site as a General Urban Area, allowing commercial land uses. This application proposes no changes that would contradict the PORT Plan. Staff finds the project in conformance with the Code.</td>
</tr>
<tr>
<td>3. All applicable technical standards including the provision of water in sufficient amount and quality have been met.</td>
<td>Yes</td>
<td>The project meets this criterion. The Town of Berthoud Public Works Department and Town Engineers reviewed the application and no conflicts were found.</td>
</tr>
</tbody>
</table>

PUBLIC NOTICE
Notice of the Planning Commission public hearing has been mailed to property owners within 300 feet of the subject property, a legal notice published, and the property was posted as required by the Development Code. In addition, the
application was sent to all property owners within 500 feet, with an invitation to comment on the request within three weeks of receipt.

**FINDINGS AND RECOMMENDATION**

**PUD and FDP Amendment**

Staff recommends Planning Commission make a motion to recommend approval of the PUD and FDP Amendment to the Town Board with the following condition:

1. Prior to the Town Board meeting, the applicant shall address all outstanding staff comments.

**Attachments:**

- Application
- Project Narrative
- Vicinity Map
- Approved Final Development Plan (FDP)
- Proposed Final Development Plan (FDP) Amendment
- Amended Final Plat
- Final Drainage Letter/Report
- Public Comment
# DEVELOPMENT REVIEW APPLICATION

All required information must be provided before submittal will be accepted and deemed complete. To be complete, the application must include all items identified on the submittal checklist. Please complete both sides of application form.

<table>
<thead>
<tr>
<th>Parcel Number(s):</th>
<th>9415427001 - L1, Blk 2 Gateway Park First Flg, and Tract B and C, Amended Gateway Park First Flg – Phase 2 – Rpl B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site Address:</td>
<td>N/A</td>
</tr>
<tr>
<td>Project Name:</td>
<td>Gateway BD PUD Amendment and FDP Amendment</td>
</tr>
<tr>
<td>Brief description of project:</td>
<td>Reconfiguring 3 existing lots into four parcels.</td>
</tr>
</tbody>
</table>

**APPLICATION TYPE (Check as appropriate):**

- [ ] Annexation  
- [ ] Preliminary Subdivision Plat  
- [ ] Final Site Plan  
- [ ] Rezoning  
- [ ] Final Subdivision Plat  
- [x] PUD Amendment  
- [ ] Concept Plan  
- [ ] Plat Amendment  
- [ ] PUD Preliminary Development Plan  
- [ ] Minor Subdivision  
- [ ] Oil and Gas  
- [x] PUD Final Development Plan  
- [ ] Special Use Review  
- [ ] ROW Vacation  
- [ ] Other ______________________

**APPLICANT**

- Name: Placer Development Inc.  
- E-mail: jason@blackfoxx3.com  
- Phone: 303-902-5302  
- Mailing Address: PO Box 770  
- City/State/Zip: Ogallia, NE 69153

**CONTACT PERSON (will receive correspondence from Town Staff/Referral Agencies)**

- Name: Joe Naccarato  
- E-mail: jnaccarato@tait.com  
- Phone: 970-612-5442  
- Mailing Address: 6163 E County Road 16  
- City/State/Zip: Loveland, CO 80537

**OWNER(S) (If different than applicant)**

- Name: Same as Applicant  
- Mailing Address:  
- City/State/Zip:  
- Phone:  
- E-mail:  

**CONSULTANT (Engineer, Surveyor, or Planner)**

- Name: Joe Naccarato  
- E-mail: jnaccarato@tait.com  
- Phone: 970-612-5442  
- Mailing Address: 6163 E County Road 16  
- City/State/Zip: Loveland, CO 80537
## LAND USE INFORMATION

**Existing Use:** Vacant Lot  
**Proposed Use:** Commercial  
**Existing Zoning:** PUD  
**Proposed Zoning:** (if applicable) N/A - No Change  
**Number of acres:** 3.16  
**Proposed Access:** Lake Avenue

### Adjacent zoning / land use:

<table>
<thead>
<tr>
<th>East Side</th>
<th>North Side</th>
</tr>
</thead>
<tbody>
<tr>
<td>PUD/ Bank &amp; Skin-care clinic</td>
<td>PUD &amp; R4/ Single Family Residential &amp; Vacant</td>
</tr>
<tr>
<td>West Side</td>
<td>South Side</td>
</tr>
<tr>
<td>PUD/ Single Family Residential</td>
<td>PUD/ Vacant</td>
</tr>
</tbody>
</table>

## UTILITY SERVICE INFORMATION

**Water:** Town of Berthoud  
**Sewer:** Town of Berthoud

## PROJECT INFORMATION

**Number of proposed units:** N/A  
**Number of phases:** N/A  
**Number of Units per phase:** N/A  
**Number of lots proposed:** 4  
**Lot size minimum:** 0.69 acres  
**Lot size maximum:** 0.97 acres  
**Lot size average:** 0.79 acres  
**Gross density (units/acre):** N/A  
**Net density (units/acre):** N/A  
**Area and percent open space:** 0%

**Non-Residential Building Area (Sq. Ft.) Proposed:** 35,593 (Building Envelopes per FDP)  
**Non-Residential Construction Floor Area Ratio Proposed:** N/A  
**Total Number of Parking Spaces:** 142 (Existing)  
**Acreage of Site:**  
- a. Gross: 3.16  
- b. Right-of-Way: N/A  

### Type of Housing Proposed (please check):

- [ ] Future Single Family  
- [x] Townhouse  
- [ ] Duplex  
- [ ] Condominium  
- [ ] Multi-family  
  - (# of units: )

---

**Signatures are required for ALL Property Owners and the Applicant**

I hereby certify that I am the lawful owner of the parcel(s) of land that this application concerns and consent to the action. I hereby permit Town of Berthoud staff to enter upon the property for the purposes of inspection relating to the application. Building Permits will not be accepted while this application is in process.

**Property Owner(s):**  
**Date:** 9/7/2022

**Property Owner(s):**  
**Date:**

In submitting the application materials and signing this application agreement, I acknowledge and agree that the application is subject to the applicable processing and public hearing requirements set forth in the Development Code.

**Applicant:**  
**Date:** 9/7/2022

---

**FOR OFFICE USE ONLY**  
**Received By:**  
**Date:**
PROJECT NARRATIVE
Gateway BD PUD Amendment and FDP Amendment
Berthoud, Colorado

The purpose of this narrative is to describe the PUD and FDP amendments proposed. The site currently doesn't have an address. The parcel is located between Lake Avenue (North), Mountain Avenue (South), Berthoud Parkway (East), and 13th Street (West). The Site is surrounded by PUD zoning to the South, West, East, and North. There is also R-4 zoning to the North. The adjacent land uses include residential housing to the west and north, commercial units to the east, and an undeveloped lot to the south.

The development would reconfigure Lot 1, Block 2 Gateway Park First Filing – Phase 2 and Tracts B and C, Amended Gateway Park First Filing – Phase 2 – Replat B into four separate lots. The site has been partially built out and includes drive aisles, parking lots, and utilities for future development. The purpose of this subdivision is to create four separate, legal parcels that can be sold and developed individually. The PUD and FDP amendments will conform to the Town of Berthoud Development Code, existing PUD, and FDP for Gateway Park Development including the approved drainage report. The project also conforms to the Town of Berthoud Comprehensive Plan and PORT Plan.

With this application, your help, and its eventual approval, a great family-owned company will have the opportunity to make one of the newly created parcels a forever home for their business. This company provides primary employment, sales tax revenue, and an essential service to the community. The remaining newly created lots will be made available to other synergistic uses helping the Gateway Business Park to become a productive commercial development for the community.

We anticipate the necessary reviews to take place during fall of 2022.
AMENDED GATEWAY PARK FIRST FILING-PHASE 2-REplat D

TRACTS B AND C, AMENDED GATEWAY PARK FIRST FILING-PHASE 2, LOT 1, BLOCK 2, GATEWAY PARK FIRST FILING-PHASE 2, LOCATED IN THE SOUTHEAST QUARTER OF SECTION 15, TOWNSHIP 4 NORTH, RANGE 69 WEST OF THE 6TH PRINCIPAL MERIDIAN, TOWN OF BERTHOUD, COUNTY OF LARIMER, STATE OF COLORADO

ORIGINAL NOTE:
1. The State of Colorado owns all right, title, and interest in and to the land herein described and to the surface thereof.

REAL PROPERTY INFORMATION:
TOWNSHIP: 4
RANGE: 69
SECTION: 15
SOUTHEAST QUARTER (SE1/4)

LEGAL DESCRIPTION:
AMENDED GATEWAY PARK - PHASE 2 - REPLAT D
TOWNSHIP 4 NORTH, RANGE 69 WEST OF THE 6TH PRINCIPAL MERIDIAN, TOWN OF BERTHOUD, COUNTY OF LARIMER, STATE OF COLORADO

LEGAL ADDRESS:
AMENDED GATEWAY PARK - PHASE 2 - REPLAT D
TOWNSHIP 4 NORTH, RANGE 69 WEST OF THE 6TH PRINCIPAL MERIDIAN, TOWN OF BERTHOUD, COUNTY OF LARIMER, STATE OF COLORADO

LEGAL ABBREVIATION:
AMENDED GATEWAY PARK - PHASE 2 - REPLAT D
TOWNSHIP 4 NORTH, RANGE 69 WEST OF THE 6TH PRINCIPAL MERIDIAN, TOWN OF BERTHOUD, COUNTY OF LARIMER, STATE OF COLORADO
October 19, 2022  
Revised December 8, 2022

Mr. Noah Nemmers, PE  
Public Works Director  
Town of Berthoud  
807 Mountain Avenue  
Berthoud, CO 80513

Re: Drainage Letter of Conformance for the Proposed Gateway B.D. PUD Amendment  
Located southwest of Lake Street and Berthoud Parkway.

Mr. Nemmers,

The purpose of this letter is to confirm the proposed development conforms to the “Final Drainage Report and Erosion Control Study for Gateway Park 1st Filing Phase 2” prepared by North Star Design dated January 24, 2006.

The proposed commercial development is located on Lot 1, Block 2 of Gateway Park First Filing – Phase 2 and Tracts B and C, Amended Gateway Park First Filing – Phase 2 – Replat B, in the Southeast Quarter of Section 15, Township 4 North, Range 69 West of the Sixth Principal Meridian, Town of Berthoud, County of Larimer, State of Colorado. Lot 1 will be subdivided into smaller parcels each containing one (1) of the four (4) building envelopes originally proposed with the Phase 2 FDP. In addition, a portion of Tract B will be consolidated into Lot 1.

The existing site has been partially developed and consists of utilities, parking spaces, drive aisles, sidewalks and some landscaping. The remaining undeveloped areas mainly consist of the proposed building envelopes which is currently covered by native grasses and weeds. The soils on-site consist mainly of Fort Collins loam and categorized as NRCS Type C. Slopes generally range between 1-3% where runoff is directed to several catch basins within the site. Runoff discharges to the existing East Detention Pond located at the northwest corner of Berthoud Parkway and Mountain Avenue where detention and water quality is provided prior to releasing into an existing channel along Berthoud Parkway. The system ultimately discharges to the Little Thompson River.

The proposed development occurs within Building Envelope 1 (BE1) of Lot 1, Block 2, Gateway Park First Filing – Phase 2 and consists of one (1) building with associated drive-thru, sidewalks, and landscaping. All other infrastructure is already installed and will mostly remain in place. BE1 is 10,732 SF and the assumed building footprint is 10,600 SF. The proposed building is 5,493 SF approximately 52% of what was originally assumed. According to the Public Improvement Construction Plans for Gateway Park 1st Filing, Phase 2 (Original plans), 80% of each building envelope is permitted to be impervious area.
Therefore, the permitted impervious area for BE1 is 8,586 SF. The proposed development consists of approximately 3,112 SF of landscaping and 7,620 SF of hardscape within BE1 equating to 71% imperviousness which is within the allowable range.

\begin{table}[h]
\centering
\begin{tabular}{|c|c|c|c|}
\hline
\textbf{} & \textbf{Assumed} & \textbf{Proposed} \\
\hline
\textbf{SF} & \textbf{SF} & \textbf{SF} \\
\textbf{% of BE} & \textbf{% of BE} & \textbf{% of BE} \\
\hline
Building Footprint & 10,600 & 99\% & 5,493 & 51\% \\
Building Envelope Imperviousness & 8,586 & 80\% & 7,620 & 71\% \\
\hline
\end{tabular}
\end{table}

This development will utilize the existing infrastructure and drainage basins delineated on Sheet 14 of the original plans. Existing Drainage Basin 10, containing most of the proposed development, will be slightly altered from the original design that assumed all flows within the basin would release to Design Point 10 (DP10), a single Type 13 combination inlet, southeast of the proposed building. This development will redirect a portion of the existing basin and route them to DP8, a 5' Type R inlet, and includes the building and areas west of the building. The remaining and majority of storm runoff north, east, and south of the building will maintain existing flow patterns. The flows captured by these inlets are ultimately conveyed to the East Pond, southeast of the development at the northwest corner of Berthoud Parkway and Main Street where the stormwater quality pond is located. An analysis of the Type R inlet, DP 8, has been performed and has confirmed there is sufficient capacity to take on the additional flows and has been included with this letter. The Original plans directed 2.8 cfs to DP8 for the 100-yr storm event. Basin 10A, the portion redirecting flows to DP8 is anticipated to direct an additional 1.40 cfs for the same storm event; totaling 4.2 cfs. The existing inlet has a capacity of 5.4 cfs which is greater than the anticipated flows. The storm drain pipe capacity has also been confirmed adequate for the altered flows.

This development ultimately reduces the imperviousness and runoff generated from BE1 and therefore is not anticipated to adversely affect existing structures and improvements adjacent to the project. The existing storm drainage facilities were sized to convey the anticipated flows.

Sincerely,

TAIT & Associates, Inc.

Alex Hoime, PE
Vice President

Enc.
Responsible Party Certification
Gateway Park 1st Filing Phase 2 Drainage Report
Sheet 14 of the Phase 2 Construction Drawings
Post Development Drainage Exhibit
Existing Inlet Capacity Calculations
Responsible Party Certification

"________________________________________ (Name of Responsible Party) hereby certifies that the drainage facilities for Gateway B.D. PUD Amendment will be constructed according to the design presented in the Gateway B.D. PUD Amendment Construction Documents. I understand that the Town of Berthoud does not and shall not assume liability for the drainage facilities designed and/or certified by my engineer. I understand that the Town of Berthoud reviews drainage plans but cannot, on behalf of Gateway B.D. PUD Amendment, guarantee that final drainage design review will absolve __________________________________________ (Name of Responsible Party) and/or their successors and/or assigns of future liability for improper design. I further understand that approval of the Plat and/or Development Permit does not imply approval of my engineer's drainage design."

Attest:

________________________________________
(Name of Responsible Party)

________________________________________
Authorized Signature
FINAL DRAINAGE AND EROSION CONTROL STUDY

GATEWAY PARK 1st Filing
PHASE 2

Prepared for:

Orca Development
1630 South Lemay Ave. Suite 5
Fort Collins CO, 80525

Prepared by:

North Star Design
709 Automation Drive, Unit 1
Windsor, Colorado 80550
(970) 686-6939

January 24, 2006
Job Number 178-02
January 24, 2006

Town of Berthoud
Amber Kaufman
328 Massachusetts Avenue
Berthoud, CO 80513

RE: Final Drainage and Erosion Control Study for Gateway Park 1st Filing, Phase 2

Dear Amber:

I am pleased to submit for your review and approval this Final Drainage and Erosion Control Report for Gateway Park 1st Filing, Phase 2. I certify that this report for the drainage design was prepared in accordance with the criteria set by the Town of Berthoud.

I appreciate your time and consideration in reviewing this submittal. Please call if you have any questions.

Sincerely,
North Star Design, Inc.

Prepared by:

Troy Spraker P.E.

Reviewed by:

Tricia Kroetch P.E.
# TABLE OF CONTENTS

TABLE OF CONTENTS ........................................................................................................ iii

1. GENERAL LOCATION AND DESCRIPTION
   1.1 Location ................................................................................................................... 1
   1.2 Description of Property ........................................................................................... 1

2. DRAINAGE BASINS AND SUB-BASINS
   2.1 Major Basin Description .......................................................................................... 2
   2.2 Sub-Basin Description ............................................................................................ 3

3. DRAINAGE DESIGN CRITERIA
   3.1 Regulations ............................................................................................................. 3
   3.2 Development Criteria Reference and Constraints ................................................... 4
   3.3 Hydrologic Criteria .................................................................................................. 4
   3.4 Hydraulic Criteria ................................................................................................... 4

4. DRAINAGE FACILITY DESIGN
   4.1 General Concept ..................................................................................................... 6
   4.2 Specific Flow Routing .............................................................................................. 6
   4.3 Overall Drainage Model and Design Procedure ...................................................... 10
   4.4 Drainage Summary ................................................................................................ 22

5. EROSION CONTROL
   5.1 General Concept ..................................................................................................... 22
   5.2 Specific Details ....................................................................................................... 23

6. CONCLUSIONS
   6.1 Compliance with Standards .................................................................................... 24
   6.2 Drainage Concept .................................................................................................. 24

7. REFERENCES .............................................................................................................. 25

APPENDICES
   A Vicinity & Overall Basin Boundary Maps
   B Hydrologic Computations (on-site rational method calculations)
   C Hydraulic Calculations (on-site storm, inlet, riprap calculations)
   D North Pond Water Quality and Detention Pond Calculations
   E East Pond Water Quality Calculations
   F Re-created Existing CUHP Hydrographs & Hydrafow Drainage Model
   G Proposed CUHP Hydrographs & Hydrafow Drainage Model
   H Excerpts from Previous Reports (Bein & Gateway Park)
   I Hydrafow Drainage Model Estimating Runoff to SH 56 & CR 17w/287 Bypass
   J Figures and Tables
2. DRAINAGE BASINS AND SUB-BASINS

2.1 Major Basin Description

*Gateway Park 1st Filing, Phase 2* is located within the Loveland Reservoir Watershed as defined in the Bein Special Improvement District Final Drainage Report, prepared by Resource Consultants, Inc. dated January 1985, hereafter called Bein SID. The Bein SID drainage report has been updated by Drexel Barrell for the Gateway Park development. This final drainage report for Gateway Park has been the basis for drainage design for the *Gateway Park 1st Filing, Phase 2* development. See Appendix H for relevant portions of these reports.

*Gateway Park 1st Filing, Phase 2* is located within Basin 4 as described in the Bein SID drainage report. This Basin 4 has been modified by Drexel Barrell and was divided into sub-basins SB-41, SB-42 and SB-43. Hydraflow, by InteliSolve was the software utilized by Drexel Barrell to calculate peak runoff and required detention volumes for the East and West ponds located within the Gateway Park development. See Appendix A for basin delineation between the two reports.

SB-41 is a triangular basin located to the north of Gateway Park which contributes runoff to the existing drainage channel located along the west side of County Road 17. Sub-basin SB-42 encompasses the western portion of Gateway Park, which includes residential area that contributes runoff to the West Pond. Sub-basin SB-43 encompasses the eastern portion of Gateway Park, which includes the health care facility, commercial and residential areas that contributes runoff to the East Pond. *Gateway Park 1st Filing,* is located within sub-basin SB-43.

Per Gateway Park Drainage Report, sub-basin SB-42 has been further divided into sub-basins WP-1 and UN-1. Runoff from sub-basin UN-1 has been determined to flow through the East Pond and runoff will be conveyed over the overflow spillway, no detention was provided for this basin. Similarly sub-basin SB-43 has been further divided into EP-1, EP-2 & UN-2. Runoff from sub-basin UN-2 has been determined to flow through the East Pond and runoff will be conveyed over the overflow spillway, no
detention was provided for this basin. Sub-basins WP-1, EP-1 & EP-2 consists of developed areas. Sub-basins UN-1 & UN-2 consist of undeveloped areas. Gateway Park 1st Filing is located within sub-basin UN-2.

A major drainage channel is located along the east property boundary of this site (west side of County Road 17) and flows from north to south. As described in the Gateway Park drainage report, runoff from basins SB-3, SB-15, SB-16 and SB-41 contributes runoff to this major drainage channel at the northeast corner of the Gateway Park development. As stated in the Gateway Park Drainage Report the 100yr peak flow at this point is 375.76 cfs.

2.2 Sub-basin Description

As described in the Gateway Park drainage report, sub-basin EP-1 and UN-2 has been further divided into sub-basins in order to utilize the rational method for calculating the peak flows to size inlets and storm pipe. Gateway Park 1st Filing, Phase 2 is sub-basins GG & JJ. See Appendix A for sub-basin delineation.

For this development CUHP and Hydraflow was utilized to re-create and modify the overall watershed drainage model. This method was originally used with the Gateway Park Drainage study to size the East and West detention ponds, and to design the detention ponds outlet structures. The rational method has also been utilized to calculate peak flows to on-site inlets and to size storm pipe.

3. DRAINAGE DESIGN CRITERIA

3.1 Regulations

This report was prepared to meet or exceed the “City of Fort Collins Storm Drainage Design Criteria Manual” specifications as required by the Town of Berthoud. Where applicable, the criteria established in the “Urban Storm Drainage Criteria Manual” (UDFCD), developed by the Denver Regional Council of Governments, has been used.
3.2 Development Criteria Reference and Constraints

On-site runoff south of Lake Avenue and including basin 1 is routed to the East Pond. On-site runoff north of Lake Avenue and excluding basin 1 is routed to the existing North Pond. Detention pond release rates are limited to the 100yr historic runoff rate into the existing drainage channel. Runoff criteria used by the Town of Berthoud includes the Larimer County Area II, Loveland area IDF curves along with the City of Fort Collins Stormwater Criteria Manual. Water quality is required for the development.

3.3 Hydrologic Criteria

The area north of Lake Avenue is approximately 3.1 acres and the area south of Lake Avenue is approximately 17.7 acres. The rational method is utilized for calculating peak flow to the inlets and sizing onsite storm pipe since the contributing basins are less than 20.0 acres. The CUHP method must be used to size the East Detention Pond since the contributing watershed is greater than 20.0 acres. Runoff computations were prepared for the 2-year and 100-year storm events.

All on-site hydrologic calculations associated with the rational method are included in Appendix B of this report. Standard Form 8 (SF-8) provides time of concentration calculations for all sub-basins. Standard Form 9 (SF-9) provides a summary of the design flows for all sub-basins and design points associated with this development.

The overall hydrologic calculations associated with the CUHP method are included in Appendix F (Existing conditions model) and Appendix G (Proposed conditions model) of this report. See section 4.3 of this report for a details on the specific model and the modeling approach.

3.4 Hydraulic Criteria

All hydraulic calculations within this report have been prepared in accordance with the “City of Fort Collins Drainage Criteria Manual” as specified by the Town of Berthoud. Hydraulic calculations are included in Appendix C of this report.
It has been calculated that the total area contributing runoff that requires water quality and detention is 3.1 acres for the North Pond and 23.36 acres for the East Pond. Off-site runoff that flows to the East Pond is undetained and is conveyed over the overflow spillway to the existing drainage channel. On-site imperviousness for the area being detained in the North Pond is 69% and it has been calculated that 0.061 acre-feet of water quality volume is required. On-site imperviousness for the area being detained in the East Pond is 60% and it has been calculated that 0.552 acre-feet of water quality volume is required. Water quality has been calculated by the method recommended in the “Urban Storm Drainage Criteria Manual” based on a 40hr brim full release rate. See Appendix D for the North Pond water quality and detention volume calculations and Appendix E for the East Pond water quality calculation, see Appendix F & G for the East Pond detention pond sizing.

From Gateway Park Drainage report it was determined that detention was not provided in the East Pond for the developed runoff from the area that is encompassed by Gateway Park 1st Filing, Phase 2, therefore additional detention volume is required with the development of this site. The site has been divided into two regions, north of Lake Avenue and south of Lake Avenue. The majority of the area north of Lake Avenue will be detained in the existing North Pond as constructed with Gateway Park 1st Filing, Phase 1 and the area south of Lake Avenue will be detained in the existing East Pond. The East Pond size will be modified by Gateway Park 1st Filing, Phase 2. See basin plan located in Appendix B for region delineations.

The North Pond was designed and constructed with Gateway Park 1st Filing, Phase 1 and assumed full development. The North Pond has been checked to operate as intended with Gateway Park 1st Filing, Phase 2, No modifications to the North Pond is necessary. To size the East Pond it was necessary to re-create the overall CUHP drainage model, then modify the existing drainage model to incorporate Gateway Park 1st Filing, Phases 1 & 2. With this development the East Detention Pond has been increased to provide additional detention volume. It is necessary to modify the existing East Pond outlet structure by covering all but 6 columns of the water quality plate (cover 33 of the 39 columns). The this modification the East Pond outlet structure will operate within acceptable limits.

The North Pond WQ WSEL is 5059.10 and the 100yr WSEL is 5061.00. The East Pond WQ WSEL is 5052.24 and the 100yr WSEL is 5054.70. With the additional volume
provided in the East Pond a decrease is observed from the Gateway Drainage Report in the 2yr WSEL (5052.94 to 5052.71), the 100yr WSEL (5055.09 to 5054.70), and the overall release rate (10.05 cfs to 8.34 cfs.)

4. **DRAINAGE FACILITY DESIGN**

4.1 **General Concept**

Runoff from the area north of Lake Avenue will sheet flow to the proposed North Pond, any undetained runoff has been deducted from the allowable detention pond release rate. Runoff south of Lake Avenue will be routed by sheet and gutter flow to the proposed storm sewer system and conveyed to the existing East Pond. Runoff from the North and East detention ponds are released into the existing drainage swale at the 100yr historic runoff rate.

Water quality is provided for both the North and East detention ponds and controlled by releasing runoff through a perforated flow control plate into the existing drainage channel. The 40hr brim full release rate is used to calculate the required water quality volume. All runoff is conveyed to the existing drainage channel located along the east property boundary (west of County Road 17). The existing drainage channel eventually discharges runoff into Dry Creek.

4.2 **Specific Flow Routing**

A summary of the drainage patterns within each basin is provided in the following paragraphs. For more details see Appendix B for flow calculations, Appendix C for hydraulic calculations and Appendix D, E, F & G for water quality and detention calculations.

**Basin 1** includes a portion of the proposed multi-family buildings along with associated sidewalks and landscape areas. Runoff from this basin sheet flows southwest to an inlet located at the low point in Lake Avenue. Runoff is intercepted by the existing storm system and conveyed to the East Pond.
**Basin 2** includes a portion of the proposed multi-family and commercial buildings along with associated paving, sidewalks and landscape areas. Runoff from this basin sheet flows to the low point where it is conveyed through the curb cut into the North Pond. No ponding occurs during the 100yr major storm event.

**Basin 3** includes a portion of the proposed commercial buildings along with associated paving, sidewalks and landscape areas. Runoff from this basin sheet flows to the low point where it is conveyed through a curb cut into the North Pond. No ponding will occur during the 100yr major storm event.

**Basin 4** includes a portion of the proposed commercial buildings along with associated paving, sidewalks and landscape areas. Runoff from this basin sheet flows to the low point where it is conveyed through a curb cut into the North Pond. No ponding will occur during the 100yr major storm event.

**Basin 5** includes the North Pond and a portion of the proposed commercial buildings along with associated landscape areas. Runoff from this basin is conveyed by sheet flow to the North Pond. Runoff is released at the 100yr historic release rate minus any undetained flow.

**Basin 6** includes a portion of the proposed commercial building along with associated landscape area. Runoff from this basin is conveyed by sheet flow to the existing drainage channel along the east property line. Water quality for this basin is provided by the conveyance of runoff through the grassed landscaping prior to being released into the existing drainage channel. Runoff from this basin has been deducted from the allowable release rate in the sizing of the North Pond.

**Basin 7** includes a portion of the proposed multi-family building along with associated landscape area. Runoff from this basin sheet flows west to 12th Street where it is conveyed south to the low point. Runoff is intercepted by the existing storm system and conveyed to the East Pond.

**Basin 8** includes a portion of the proposed multi-family building along with associated landscape area. Runoff from this basin sheet flows an inlet located at the low point. Runoff from this basin is conveyed to the East Pond.
Basin 9 includes a portion of the proposed multi-family building along with associated landscape area. Runoff from this basin sheet flows an inlet located at the low point. Runoff from this basin is conveyed to the East Pond.

Basin 10 includes a portion of the proposed commercial buildings along with associated paving, sidewalks and landscape areas. Runoff from this basin sheet flows to a combination inlet located at the low point. Runoff enters the proposed storm sewer and is conveyed to the East Pond.

Basin 11 includes a portion of the proposed commercial buildings along with associated paving, sidewalks and landscape areas. Runoff from this basin sheet flows to a combination inlet located at the low point. Runoff enters the proposed storm sewer and is conveyed to the East Pond.

Basin 12 includes a portion of the proposed commercial buildings along with associated paving, sidewalks and landscape areas. Runoff from this basin sheet flows to a combination inlet located at the low point. Runoff enters the proposed storm sewer and is conveyed to the East Pond. No ponding will occur during the 2yr and 10yr minor storm events. Pipe capacity will be exceeded during a 100yr major storm event due to the tailwater effects in the East Pond, causing runoff to pond over this inlet. During the 100yr storm event the maximum depth of ponding will be approximately 12” above the flowline at the inlet prior to runoff overtopping the high point in the drive to the south. Overtopping runoff will flow south to Basin 19. Runoff entering Basin 19 will overtop the curb & gutter at the inlet and continue to flow south to the East Pond. Overtopping runoff will be detained in the East Pond and released into the existing drainage ditch.

Basin 13 includes a portion of the proposed commercial building and parking lot along with associated sidewalks and landscape areas. Runoff from this basin sheet flows to a combination inlet located at the low point. Runoff enters the proposed storm sewer and is conveyed to the East Pond.
combination inlet located at the low point. Runoff enters the proposed storm sewer and is conveyed to the East Pond.

**Basin 15** includes a portion of the proposed commercial building along with associated paving, sidewalks and landscape areas. Runoff from this basin sheet flows to a combination inlet located at the low point. Runoff enters the existing storm sewer as constructed with Phase 1 and runoff is conveyed to the East Pond.

**Basin 16** includes a portion of the proposed commercial building along with associated landscape area. Runoff from this basin sheet flows to the existing drainage channel east of the site. Water quality for this basin is provided by the conveyance of runoff through the grassed landscaping prior to being conveyed into the existing drainage channel.

**Basin 17** includes a portion of the proposed commercial building along with associated paving, sidewalks and landscape areas. Runoff from this basin sheet flows to a combination inlet located at the low point. Runoff enters the proposed storm sewer and is conveyed to the East Pond. No ponding will occur during the 2yr and 10yr storm events. During the 100yr storm event the proposed storm sewer will exceed capacity causing runoff to overtop the curb & gutter. Runoff from this basin along with runoff from Basin 13 will flow south to the East Pond.

**Basin 18** includes a portion of the proposed commercial building along with associated paving, sidewalks and landscape areas. Runoff from this basin sheet flows to a combination inlet located at the low point. Runoff enters the proposed storm sewer and is conveyed to the East Pond.

**Basin 19** includes a portion of the parking lot along with associated sidewalks and landscape areas. Runoff from this basin sheet flows to a combination inlet located at the low point. Runoff enters the proposed storm sewer and is conveyed to the East Pond.

**Basin 20** includes a portion of the parking lot along with associated sidewalks and landscape areas. Runoff from this basin sheet flows to a combination inlet located at the low point. Runoff enters the proposed storm sewer and is conveyed to the East Pond.
Basin 21 includes a portion of the parking lot along with associated sidewalks and landscape areas. Runoff from this basin sheet flows to a combination inlet located at the low point. Runoff enters the proposed storm sewer and is conveyed to the East Pond.

Basin 22 includes a portion of the proposed future Health Care building along with associated landscape area. Runoff is conveyed to a low point and intercepted by a combination inlet located at the low point. Runoff enters the proposed storm sewer and is conveyed to the East Pond.

Basin 23 includes a portion of the proposed future Health Care building along with associated landscape area. Runoff is conveyed to a low point and intercepted by a combination inlet located at the low point. Runoff enters the proposed storm sewer and is conveyed to the East Pond.

Basin 24 includes a portion of the proposed future Health Care building along with associated landscape area. Runoff is conveyed to a south to the East Pond.

Basin 25 includes the East Pond and a portion of both the Assisted Living buildings along with associated pavement, sidewalks and landscape areas. Runoff from this basin sheet flows to the East Pond. Runoff is discharged into the existing drainage swale located along the east property boundary of the site.

4.3 Overall Drainage Model and Design Procedure

The original Hydraflow model was obtained from Drexel Barrell & Co. HydraFlow 2004 was purchased to open and update the original model. The original HydraFlow v5.1 model was unable to be opened and edited using HydraFlow 2004. The original model was sent to Terry Stringer (customer support for HydraFlow) to be modified to work with HydraFlow 2004. Per correspondence with Terry, Hydraflow 2004 required channel reach lengths and slopes that weren’t required when the original model was completed. Terry edited the original model by adding random reach lengths and slopes and he stated that the edited model needed to be checked. Upon receiving the edited models and opening in HydraFlow 2004, it was found that the models obtained were incomplete, data was lost in the conversion or data in models were different than what was used in the Gateway Park Drainage Report. All original and edited models could not be used.
Excel based CUHP 2005 (Colorado Urban Hydrograph Procedure), versions 1.0 was downloaded from Urban Drainage and Flood control district to re-create hydrographs using the given basin parameters. Hydrafnow 2004 was used to re-create the original watershed model. Within the Gateway Park Drainage Report there exists a summary table of the off-site basins used and a printout of the corresponding basin hydrograph. This basin information was input into CUHP 2005 and, for these off-site basins, a similar hydrograph was created. These basins include SB-1, SB-2, SB-3, SB-15, SB-16. Only minor differences between the given hydrographs and the calculated hydrographs are observed. These re-calculated basins and hydrographs for the above stated basins are considered a good check, and therefore the given hydrographs in the Gateway Park Drainage Report has been used for the re-created drainage model.

Gateway Park development is located within Basin 4 as described in the Bein SID. Per Gateway Park Drainage Report, Basin 4 has been divided into Basins SB-41, SB-42 & SB-43; where SB-41 is a triangular basin located on the north boundary of the site, SB-42 has been further divided in WP-1 & UN-1, and SB-43 has been further divided into EP-1, EP-2 & UN-2.

**Summary of sub-basins**

- **Basin WP-1** is the developed area that contributes runoff to the “West Pond”.
- **Basin UN-1** is the undeveloped area that contributes runoff the “East Pond”, however the East pond is not providing detention or water quality.
- **Basin EP-1** is the developed area that contributes runoff to the “East Pond”.
- **Basin EP-2** is the area encompassed by the “East Pond”
- **Basin UN-2** is the commercial area to be developed and developed runoff to be detained in the “East Pond”.

For the above-mentioned basins, the parameters given in the report appear to reasonably describe the basins.

Per Gateway Park Drainage Report the hydrographs for the off-site basins were calculated using CUHP and it appears that the on-site basins were calculated using a different method. In an attempt to re-create matching hydrograph to the Gateway Park Drainage
Report for these sub-basins, the Rational Method and the SCS method were tried, but with limited success. With the rational method, a triangular hydrograph is created, the peak flow and time of concentration can be matched, but the total volume of runoff is much less than what was given in the report. With the SCS method the peak runoff and time of concentration is not consistent with the overall modeling parameters.

Per the Larimer County Storm Water Management Manual the CUHP method should be used for watersheds in this region and from the CUHP 2005 user manual it states that CUHP 2005 can be used for basins as small as 5-10 acres. CUHP has been used to calculate the hydrographs for ALL basins even though they may be smaller than 5 acres.

**Modeling Assumptions**

- If the given basin storm hydrographs are similar to the calculated basin and storm hydrographs, use the given basin parameters and hydrograph data.
- If the minor storm hydrograph was not given and the major storm hydrograph is similar to the calculated hydrograph, use the given basin parameters with the calculated hydrograph for the minor storm and the given hydrograph for the major storm.
- If the given basin parameters are similar to the calculated basin parameters, use the given basin parameters.
- If the given basin parameters and the calculated basin parameters are similar but the hydrographs do not match, use the given basin parameters with the calculated hydrograph.
- If hydrograph is not present in report, used the calculated CUHP hydrograph.
- For Lake Loveland use the given stage storage and stage release rates.
- For the West and East Ponds use the designed outlet structure to calculate the stage storage and stage release rates. *(these are very close to the given stage release rates by Gateway Park Drainage Report)*

The North Pond outlet structure was designed to provide water quality and detention. The water quality has been sized to have a 40 hr brim full release rate. The detention has been sized using the FAA method using the calculated 100yr historic release rate minus any undetained flows. North Pond Outlet structure was designed and constructed with *Gateway Park 1st Filing, Phase 1*. See Appendix D for verifying calculations.
The East Pond outlet structure is designed to provide water quality and detention. The water quality has been sized to have a 40 hr brim full release rate, See Appendix D. The detention has been sized using CUHP and the created proposed hydraul flow drainage model. See Appendix E for water quality calculations, Appendix F for the entire Existing Conditions Drainage Model and Appendix G for the entire Proposed Drainage Model.

The modifications to the existing outlet structure for the East Pond are as follows:

**Water Quality Plate**
Modification to the water quality plate includes covering of 33 of the 39 columns (6 columns to remain). Water quality is released at the 40 hr brim full rate. See Appendix G.

No other modifications are necessary for acceptable performance of the East Pond outlet structure.

---

**Drainage Model Summary Tables**

**CUHP HYDROGRAPH COMPARISON –
GATEWAY PARK DRAINAGE REPORT HYDROGRAPHS (DB-EX) vs. RE-CREATED HYDROGRAPHS (NSD-EX)**

Basins that have the highlighted border is the Hydrograph that was used to re-creating the overall drainage model.

<table>
<thead>
<tr>
<th>2yr STORM EVENT</th>
<th>100yr STORM EVENT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>DB-EX</strong></td>
</tr>
<tr>
<td><strong>SB-1</strong></td>
<td></td>
</tr>
<tr>
<td><strong>PEAK FLOW</strong></td>
<td>0.0 cfs.</td>
</tr>
<tr>
<td><strong>PEAK Tc</strong></td>
<td>-</td>
</tr>
<tr>
<td><strong>TOTAL VOLUME</strong></td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>2yr STORM EVENT</td>
</tr>
<tr>
<td>----------------</td>
<td>-----------------</td>
</tr>
<tr>
<td></td>
<td>DB-EX</td>
</tr>
<tr>
<td><strong>SB-2</strong></td>
<td></td>
</tr>
<tr>
<td>PEAK FLOW</td>
<td>0.0 cfs.</td>
</tr>
<tr>
<td>PEAK Tc</td>
<td>-</td>
</tr>
<tr>
<td>TOTAL VOLUME</td>
<td>-</td>
</tr>
<tr>
<td><strong>SB-3</strong></td>
<td></td>
</tr>
<tr>
<td>PEAK FLOW</td>
<td>0.0 cfs.</td>
</tr>
<tr>
<td>PEAK Tc</td>
<td>-</td>
</tr>
<tr>
<td>TOTAL VOLUME</td>
<td>-</td>
</tr>
<tr>
<td><strong>SB-5</strong></td>
<td></td>
</tr>
<tr>
<td>PEAK FLOW</td>
<td>0.0 cfs.</td>
</tr>
<tr>
<td>PEAK Tc</td>
<td>-</td>
</tr>
<tr>
<td>TOTAL VOLUME</td>
<td>-</td>
</tr>
<tr>
<td><strong>SB-15</strong></td>
<td></td>
</tr>
<tr>
<td>PEAK FLOW</td>
<td>87.33 cfs.</td>
</tr>
<tr>
<td>PEAK Tc</td>
<td>50 min.</td>
</tr>
<tr>
<td>TOTAL VOLUME</td>
<td>437,871 cu.ft</td>
</tr>
<tr>
<td>2yr STORM EVENT</td>
<td></td>
</tr>
<tr>
<td>----------------</td>
<td>------------------</td>
</tr>
<tr>
<td></td>
<td>DB-EX</td>
</tr>
<tr>
<td>SB-16</td>
<td></td>
</tr>
<tr>
<td>PEAK FLOW</td>
<td>0.0 cfs.</td>
</tr>
<tr>
<td>PEAK Tc</td>
<td>-</td>
</tr>
<tr>
<td>TOTAL VOLUME</td>
<td>-</td>
</tr>
<tr>
<td>SB-41</td>
<td></td>
</tr>
<tr>
<td>PEAK FLOW</td>
<td>0.0 cfs.</td>
</tr>
<tr>
<td>PEAK Tc</td>
<td>-</td>
</tr>
<tr>
<td>TOTAL VOLUME</td>
<td>-</td>
</tr>
<tr>
<td>UN-1</td>
<td></td>
</tr>
<tr>
<td>PEAK FLOW</td>
<td>n/a</td>
</tr>
<tr>
<td>PEAK Tc</td>
<td>n/a</td>
</tr>
<tr>
<td>TOTAL VOLUME</td>
<td>n/a</td>
</tr>
<tr>
<td>WP-1</td>
<td></td>
</tr>
<tr>
<td>PEAK FLOW</td>
<td>n/a</td>
</tr>
<tr>
<td>PEAK Tc</td>
<td>n/a</td>
</tr>
<tr>
<td>TOTAL VOLUME</td>
<td>n/a</td>
</tr>
<tr>
<td></td>
<td>2yr STORM EVENT</td>
</tr>
<tr>
<td>----------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td></td>
<td>DB-EX</td>
</tr>
<tr>
<td>EP-1</td>
<td></td>
</tr>
<tr>
<td>PEAK FLOW</td>
<td>n/a</td>
</tr>
<tr>
<td>PEAK Tc</td>
<td>n/a</td>
</tr>
<tr>
<td>TOTAL VOLUME</td>
<td>n/a</td>
</tr>
<tr>
<td>EP-2</td>
<td></td>
</tr>
<tr>
<td>PEAK FLOW</td>
<td>n/a</td>
</tr>
<tr>
<td>PEAK Tc</td>
<td>n/a</td>
</tr>
<tr>
<td>TOTAL VOLUME</td>
<td>n/a</td>
</tr>
<tr>
<td>UN-2</td>
<td></td>
</tr>
<tr>
<td>PEAK FLOW</td>
<td>n/a</td>
</tr>
<tr>
<td>PEAK Tc</td>
<td>n/a</td>
</tr>
<tr>
<td>TOTAL VOLUME</td>
<td>n/a</td>
</tr>
</tbody>
</table>
# CUHP Hydrographs Used in the Hydraflow Model - Existing Hydrographs (EX) vs. Developed Hydrographs (PRO)

<table>
<thead>
<tr>
<th>2yr Storm Event</th>
<th>EX</th>
<th>PRO</th>
<th>Notes:</th>
<th>100yr Storm Event</th>
<th>EX</th>
<th>PRO</th>
<th>Notes:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SB-1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Peak Flow</strong></td>
<td>0.73</td>
<td>0.73</td>
<td></td>
<td>163.90</td>
<td>163.90</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Peak Tc</strong></td>
<td>45 min.</td>
<td>45 min.</td>
<td></td>
<td>50 min.</td>
<td>50 min.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Volume</strong></td>
<td>2,733</td>
<td>2,733</td>
<td></td>
<td>781,797</td>
<td>781,797</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SB-2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Peak Flow</strong></td>
<td>0.56</td>
<td>0.56</td>
<td></td>
<td>188.59</td>
<td>188.59</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Peak Tc</strong></td>
<td>40 min.</td>
<td>40 min.</td>
<td></td>
<td>50 min.</td>
<td>50 min.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Volume</strong></td>
<td>1,734</td>
<td>1,734</td>
<td></td>
<td>748,575</td>
<td>748,575</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SB-3</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Peak Flow</strong></td>
<td>0.90</td>
<td>0.90</td>
<td></td>
<td>104.09</td>
<td>104.09</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Peak Tc</strong></td>
<td>35 min.</td>
<td>35 min.</td>
<td></td>
<td>45 min.</td>
<td>45 min.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Volume</strong></td>
<td>2,634</td>
<td>2,634</td>
<td></td>
<td>358,767</td>
<td>358,767</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SB-5</strong> (Not used in model)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Peak Flow</strong></td>
<td>0.57 cfs</td>
<td>0.57 cfs</td>
<td></td>
<td>153.33 cfs</td>
<td>153.33 cfs</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Peak Tc</strong></td>
<td>40 min.</td>
<td>40 min.</td>
<td></td>
<td>45 min.</td>
<td>45 min.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Volume</strong></td>
<td>n/a</td>
<td>n/a</td>
<td></td>
<td>n/a</td>
<td>n/a</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EX</td>
<td>PRO</td>
<td>Notes:</td>
<td></td>
<td>EX</td>
<td>PRO</td>
<td>Notes:</td>
</tr>
<tr>
<td>----------------</td>
<td>-----</td>
<td>------</td>
<td>--------</td>
<td>----------------</td>
<td>-----</td>
<td>------</td>
<td>--------</td>
</tr>
<tr>
<td><strong>2yr STORM EVENT</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>100yr STORM EVENT</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SB-15</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PEAK FLOW</td>
<td>87.33</td>
<td>87.33</td>
<td></td>
<td>1232.86 cfs.</td>
<td></td>
<td>1232.86 cfs.</td>
<td></td>
</tr>
<tr>
<td>PEAK Tc</td>
<td>50 min.</td>
<td>50 min.</td>
<td></td>
<td>55 min.</td>
<td>55 min.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL VOLUME</td>
<td>437,871 cu.ft</td>
<td>437,871 cu.ft</td>
<td></td>
<td>6,071,490 cu.ft</td>
<td>6,071,490 cu.ft</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SB-16</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PEAK FLOW</td>
<td>0.87</td>
<td>0.87</td>
<td></td>
<td>77.66 cfs.</td>
<td></td>
<td>77.66 cfs.</td>
<td></td>
</tr>
<tr>
<td>PEAK Tc</td>
<td>35 min.</td>
<td>35 min.</td>
<td></td>
<td>45 min.</td>
<td>45 min.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL VOLUME</td>
<td>2,541 cu.ft</td>
<td>2,541 cu.ft</td>
<td></td>
<td>250,716 cu.ft</td>
<td>250,716 cu.ft</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SB-41</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PEAK FLOW</td>
<td>0.23 cfs.</td>
<td>0.23 cfs.</td>
<td></td>
<td>29.03 cfs.</td>
<td></td>
<td>29.03 cfs.</td>
<td></td>
</tr>
<tr>
<td>PEAK Tc</td>
<td>35 min.</td>
<td>35 min.</td>
<td></td>
<td>35 min.</td>
<td>35 min.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL VOLUME</td>
<td>537 cu.ft</td>
<td>537 cu.ft</td>
<td></td>
<td>93,525 cu.ft</td>
<td>93,525 cu.ft</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>UN-1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PEAK FLOW</td>
<td>3.64</td>
<td>3.64</td>
<td></td>
<td>24.78 cfs.</td>
<td></td>
<td>24.78 cfs.</td>
<td></td>
</tr>
<tr>
<td>PEAK Tc</td>
<td>35 min.</td>
<td>35 min.</td>
<td></td>
<td>40 min.</td>
<td>40 min.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL VOLUME</td>
<td>14,427 cu.ft</td>
<td>14,427 cu.ft</td>
<td></td>
<td>93,459 cu.ft</td>
<td>93,459 cu.ft</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2yr STORM EVENT</td>
<td></td>
<td>100yr STORM EVENT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------------------</td>
<td>----------------</td>
<td>---------------------</td>
<td>--------------------</td>
<td>---------------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EX</td>
<td>PRO</td>
<td>Notes:</td>
<td>EX</td>
<td>PRO</td>
<td>Notes:</td>
<td></td>
</tr>
<tr>
<td><strong>WP-1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PEAK FLOW</td>
<td>23.39</td>
<td>23.39</td>
<td></td>
<td>87.45</td>
<td>87.45</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PEAK Tc</td>
<td>35 min.</td>
<td>35 min.</td>
<td></td>
<td>40 min.</td>
<td>40 min.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL VOLUME</td>
<td>74,610</td>
<td>74,610</td>
<td>cu.ft</td>
<td>271,329</td>
<td>271,329</td>
<td>cu.ft</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>EP-1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PEAK FLOW</td>
<td>5.95</td>
<td>5.95</td>
<td></td>
<td>23.58</td>
<td>23.58</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PEAK Tc</td>
<td>30 min.</td>
<td>30 min.</td>
<td></td>
<td>35 min.</td>
<td>35 min.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL VOLUME</td>
<td>19,485</td>
<td>19,485</td>
<td>cu.ft</td>
<td>74,682</td>
<td>74,682</td>
<td>cu.ft</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>EP-2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PEAK FLOW</td>
<td>0.32</td>
<td>0.32</td>
<td></td>
<td>4.37</td>
<td>4.37</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PEAK Tc</td>
<td>35 min.</td>
<td>35 min.</td>
<td></td>
<td>40 min.</td>
<td>40 min.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL VOLUME</td>
<td>921</td>
<td>921</td>
<td>cu.ft</td>
<td>16,770</td>
<td>16,770</td>
<td>cu.ft</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>UN-2 (Existing Model ONLY)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PEAK FLOW</td>
<td>0.01</td>
<td>n/a</td>
<td></td>
<td>26.13</td>
<td>n/a</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PEAK Tc</td>
<td>10 min.</td>
<td>n/a</td>
<td></td>
<td>45 min.</td>
<td>n/a</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL VOLUME</td>
<td>6</td>
<td>n/a</td>
<td>cu.ft</td>
<td>107,565</td>
<td>n/a</td>
<td>cu.ft</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EX</td>
<td>PRO</td>
<td>Notes:</td>
<td>EX</td>
<td>PRO</td>
<td>Notes:</td>
<td></td>
</tr>
<tr>
<td>----------------------</td>
<td>----</td>
<td>------</td>
<td>------------</td>
<td>-----</td>
<td>------</td>
<td>------------</td>
<td></td>
</tr>
<tr>
<td><strong>2yr STORM EVENT</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PEAK FLOW</td>
<td>n/a</td>
<td>3.44 cfs.</td>
<td>n/a</td>
<td>n/a</td>
<td>26.13 cfs.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PEAK Tc</td>
<td>n/a</td>
<td>25 min.</td>
<td>n/a</td>
<td>n/a</td>
<td>45 min.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL VOLUME</td>
<td>n/a</td>
<td>8,724 cu.ft</td>
<td>n/a</td>
<td>n/a</td>
<td>107,565 cu.ft</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>100yr STORM EVENT</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>UN-2a</strong> (North Pond – Proposed Model ONLY)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>UN-2b</strong> (East Pond – Proposed Model ONLY)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2yr DRAINAGE MODEL</td>
<td></td>
<td></td>
<td>100yr DRAINAGE MODEL</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------------</td>
<td>--------------------</td>
<td>----------</td>
<td>----------</td>
<td>----------------------</td>
<td>----------</td>
<td>----------</td>
<td></td>
</tr>
<tr>
<td></td>
<td>GW-DM</td>
<td>EX-DM</td>
<td>PRO-DM</td>
<td>GW-DM</td>
<td>EX-DM</td>
<td>PRO-DM</td>
<td></td>
</tr>
<tr>
<td>Loveland Reservoir</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WSEL</td>
<td>100.05</td>
<td>100.05</td>
<td>100.05</td>
<td>100.65</td>
<td>100.65</td>
<td>100.65</td>
<td></td>
</tr>
<tr>
<td>Release Rate</td>
<td>25.05 cfs.</td>
<td>25.05 cfs.</td>
<td>25.05 cfs.</td>
<td>352.73 cfs.</td>
<td>352.73 cfs.</td>
<td>352.73 cfs.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>West Pond</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max. Volume</td>
<td>103,665 cu.ft</td>
<td>69,275 cu.ft</td>
<td>66,481 cu.ft</td>
<td>298,790 cu.ft</td>
<td>214,874 cu.ft</td>
<td>213,539 cu.ft</td>
<td></td>
</tr>
<tr>
<td>WSEL</td>
<td>58.47</td>
<td>58.30</td>
<td>58.30</td>
<td>60.63</td>
<td>59.96</td>
<td>59.94</td>
<td></td>
</tr>
<tr>
<td>Release Rate</td>
<td>1.47 cfs.</td>
<td>1.09 cfs.</td>
<td>1.31 cfs.</td>
<td>24.79 cfs.</td>
<td>15.00 cfs.</td>
<td>15.30 cfs.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>North Pond</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max. Volume</td>
<td>n/a</td>
<td>n/a</td>
<td>6,525 cu.ft</td>
<td>n/a</td>
<td>n/a</td>
<td>26,321 cu.ft</td>
<td></td>
</tr>
<tr>
<td>WSEL</td>
<td>n/a</td>
<td>n/a</td>
<td>59.84</td>
<td>n/a</td>
<td>n/a</td>
<td>61.53</td>
<td></td>
</tr>
<tr>
<td>Release Rate</td>
<td>n/a</td>
<td>n/a</td>
<td>0.64 cfs.</td>
<td>n/a</td>
<td>n/a</td>
<td>1.65 cfs.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>East Pond</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max. Volume</td>
<td>40,378 cu.ft</td>
<td>15,499 cu.ft</td>
<td>19,666 cu.ft</td>
<td>108,243 cu.ft</td>
<td>67,552 cu.ft</td>
<td>142,006 cu.ft</td>
<td></td>
</tr>
<tr>
<td>WSEL</td>
<td>52.94</td>
<td>53.17</td>
<td>52.71</td>
<td>55.09</td>
<td>54.34</td>
<td>54.70</td>
<td></td>
</tr>
<tr>
<td>Release Rate</td>
<td>0.39 cfs.</td>
<td>1.07 cfs.</td>
<td>0.07 cfs.</td>
<td>10.05 cfs.</td>
<td>5.97 cfs.</td>
<td>8.34 cfs.</td>
<td></td>
</tr>
<tr>
<td>2yr DRAINAGE MODEL</td>
<td>100yr DRAINAGE MODEL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------</td>
<td>----------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>GW-DM</strong></td>
<td><strong>EX-DM</strong></td>
<td><strong>PRO-DM</strong></td>
<td><strong>GW-DM</strong></td>
<td><strong>EX-DM</strong></td>
<td><strong>PRO-DM</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Flow to EX. 9x4 CBC at SH56 &amp; CR 17</strong></td>
<td><strong>Flow to EX. 9x4 CBC at SH56 &amp; CR 17</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total Volume</strong></td>
<td>577,362 cu.ft</td>
<td>553,569 cu.ft</td>
<td>551,853 cu.ft</td>
<td>8,904,671 cu.ft</td>
<td>8,865,476 cu.ft</td>
<td>8,887,876 cu.ft</td>
<td></td>
</tr>
<tr>
<td><strong>Peak Flow Rate</strong></td>
<td>28.10 cfs</td>
<td>27.73 cfs</td>
<td>27.36 cfs</td>
<td>676.07 cfs</td>
<td>693.40 cfs</td>
<td>678.57 cfs</td>
<td></td>
</tr>
</tbody>
</table>

4.4 Drainage Summary

Runoff generated by Gateway Park 1st Filing, Phase 2 will be safely conveyed to the respective detention ponds by sheet flow, curb & gutter flow and storm pipes. Spillways have been provided in the event a greater than 100yr storm occurs to convey runoff to the major drainage pathway.

Drainage facilities located outside of the right-of-way will be maintained by the Gateway Park Association. Drainage facilities located within the right-of-way shall be maintained by the Town of Berthoud.

5. EROSION CONTROL

5.1 General Concept

The potential exists for silt movement from the site to the existing drainage swales. Potential also exists for tracking of mud onto existing streets which could then wash into existing storm systems. During construction silt movement will be controlled by the use of construction entrances, inlet protection, silt fence and straw bales. See Drainage and Erosion Control Plan located in the back packet of this report.

All temporary and permanent erosion and sediment control practices must be maintained and repaired as needed to assure continued performance of their intended function. Straw bale dikes or silt fences will require periodic replacement. Maintenance is the responsibility of the developer.
5.2 Specific Details

To limit the amount of silt leaving the site several erosion control measures shall be implemented during construction. Straw bales will be used where appropriate and silt fence shall be installed along the south, east and west boundaries of the site. Construction entrances shall be installed at the proposed connection to Lake Avenue and County Road 17 to control the mud being tracked onto the existing pavement. During overlot grading, disturbed areas are to be kept in a roughened condition and watered to reduce wind erosion. See Drainage and Erosion Control Plan located in the back packet of this report.

Wherever construction vehicles access routes or intersect paved public roads, provisions must be made to minimize the transport of sediment (mud) by runoff or vehicles tracking mud onto the paved surface. A stabilized construction entrance is required per the detail shown on the detail sheet with base material consisting of 6" coarse aggregate. The contractor will be responsible for clearing tracked mud on a daily basis. Construction entrances shall be installed at the proposed connections to Lake Avenue and County Road 17 to control the mud being tracked onto the existing pavement.

During overlot grading, disturbed areas are to be kept in a roughened condition and watered to reduce wind erosion. See Drainage and Erosion Control Plan located in the back packet of this report.

During the performance of the work required by these plans, the Contractor shall carry out proper efficient measures wherever and as necessary to reduce dust nuisance, and to prevent dust nuisance, which has originated from his operations from damaging crops, orchards, cultivated fields, and dwellings, or causing nuisance to persons. The Contractor will be held liable for any damage resulting from dust originating from his operations under these plans, on right-of-way or elsewhere.
6. **CONCLUSIONS**

6.1 **Compliance with Standards**

All computations that have been completed with this report are in compliance with the City of Fort Collins Storm Drainage Design Criteria Manual using City Larimer County Area II IDF curves as specified by the Town of Berthoud.

No variances are required for the project.

6.2 **Drainage Concept**

The proposed drainage concepts presented in this report and on the construction plans adequately provide for stormwater quality treatment of proposed impervious areas. Conveyance elements have been designed to pass required flows and to minimize future maintenance.

If, at the time of construction, groundwater is encountered, a Colorado Department of Health Construction Dewatering Permit will be required.
7. REFERENCES


STORMWATER NOTE:

DETENTION AND WATER QUALITY FOR THE PROPOSED LOT HAVE BEEN ACCOUNTED FOR BY THE MASTER DRAINAGE PLAN AND REPORT. THE SITE RELEASES TO DESIGN POINTS 8 & 10 AND ULTIMATELY CONVEYED TO THE EAST POND AT THE SOUTHEAST CORNER OF THE OVERALL SUBDIVISION.

<table>
<thead>
<tr>
<th>SUMMARY RUNOFF TABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bpst ID</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>10A</td>
</tr>
<tr>
<td>10B</td>
</tr>
</tbody>
</table>
**DESIGN PEAK FLOW FOR SWALE OR ONE-HALF OF STREET BY THE RATIONAL METHOD**

**Project:** Gateway B.D. PUD Amendment

**Design Flow:**
- Only if already determined through other methods
- (local peak flow for 1/2 of street OR grass-lined channel): *Q*\_\text{Known} = \text{cfs}

*If you enter flows in Row 14, select "Street Inlet" or "Area Inlet" button, skip the rest of this sheet, and click "Add New Inlet" at bottom.*

**Geographic Information:** Enter data in the blue cells

<table>
<thead>
<tr>
<th>Site Type</th>
<th>Overland Flow</th>
<th>Gutter Flow</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site is Urban</td>
<td>0.059</td>
<td>0.016</td>
</tr>
<tr>
<td>Site is Rural</td>
<td>0.16</td>
<td>198</td>
</tr>
</tbody>
</table>

**Flows Developed For:**
- Street Inlet
- Area Inlet in a Swale

**Rainfall Information:**
- Intensity, I (inch/hr) = C\_I \* P\_I / ( C\_2 + T\_c ) ^ C\_3
- Design Storm Return Period
- 1-Hour Rainfall Depth
- User-Defined Storm Runoff Coefficient (leave blank to accept calculated value)
- User-Defined 5-yr. Runoff Coefficient (leave blank to accept calculated value)
- Bypass (Carry-Over) Flow from upstream Subcatchments

**Overland Flow =**
- Minor Storm = 10 years
- Major Storm = 100 years
- Minor Storm = 1.37
- Major Storm = 2.86
- Minor Storm = 28.5
- Major Storm = 28.5
- Minor Storm = 19.0
- Major Storm = 10.0
- Minor Storm = 0.786
- Major Storm = 0.786
- Minor Storm = C
- Major Storm = C
- Minor Storm = 1.7
- Major Storm = 2.8
- Minor Storm = Q\_b
- Major Storm = Q\_b

**Q =**
- Minor Storm = 2.3
- Major Storm = 4.2
- cfs

---

MHFD-Inlet_v5.02.xlsm, Q-Peak

12/7/2022, 5:46 PM
Project: Gateway B.D. PUD Amendment
Inlet ID: Ex. Type R Inlet (DP 8)
### Design Information (Input)

**Type of Inlet**
- CDOT Type R Curb Opening

**Local Depression (additional to continuous gutter depression ‘a’ from above)**
- Local Depression = 3.00 inches

**Number of Unit Inlets (Grate or Curb Opening)**
- No. = 1

**Water Depth at Flowline (outside of local depression)**
- Ponding Depth = 6.0 inches

**Grate Information**

<table>
<thead>
<tr>
<th></th>
<th>MINOR</th>
<th>MAJOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length of a Unit Grate</td>
<td>Lo(G) = N/A</td>
<td>N/A feet</td>
</tr>
<tr>
<td>Width of a Unit Grate</td>
<td>Wo = N/A</td>
<td>N/A feet</td>
</tr>
<tr>
<td>Open Area Ratio for a Grate</td>
<td>Aratio = N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Clogging Factor for a Single Grate</td>
<td>Cf(G) = N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Grate Orifice Coefficient (typical value 0.60 - 0.80)</td>
<td>Co(G) = N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**Curb Opening Information**

<table>
<thead>
<tr>
<th></th>
<th>MINOR</th>
<th>MAJOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length of a Unit Curb Opening</td>
<td>Lo(C) = 5.00</td>
<td>5.00 feet</td>
</tr>
<tr>
<td>Height of Vertical Curb Opening in Inches</td>
<td>Hvert = 6.00</td>
<td>6.00 inches</td>
</tr>
<tr>
<td>Height of Curb Orifice Throat in Inches</td>
<td>Hthroat = 6.00</td>
<td>6.00 inches</td>
</tr>
<tr>
<td>Angle of Throat (see USDCM Figure ST-5)</td>
<td>Theta = 63.40</td>
<td>63.40 degrees</td>
</tr>
<tr>
<td>Side Width for Depression Pan (typically the gutter width of 2 feet)</td>
<td>Wp = 2.00</td>
<td>2.00 feet</td>
</tr>
<tr>
<td>Clogging Factor for a Single Curb Opening (typical value 0.10)</td>
<td>Cf(C) = 0.10</td>
<td>0.10</td>
</tr>
<tr>
<td>Curb Opening Weir Coefficient (typical value 0.60 - 0.70)</td>
<td>Cw(C) = 3.00</td>
<td>3.00</td>
</tr>
<tr>
<td>Curb Opening Orifice Coefficient (typical value 0.60 - 0.70)</td>
<td>Co(C) = 0.67</td>
<td>0.67</td>
</tr>
</tbody>
</table>

**Low Head Performance Reduction (Calculated)**

<table>
<thead>
<tr>
<th></th>
<th>MINOR</th>
<th>MAJOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depth for Grate Midwidth</td>
<td>dGrate = N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Depth for Curb Opening Weir Equation</td>
<td>dCurb = 0.33</td>
<td>0.33</td>
</tr>
<tr>
<td>Grated Inlet Performance Reduction Factor for Long Inlets</td>
<td>RFGrate = N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Curb Opening Performance Reduction Factor for Long Inlets</td>
<td>RFCurb = 1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Combination Inlet Performance Reduction Factor for Long Inlets</td>
<td>RFCombination = N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**Total Inlet Interception Capacity (assumes clogged condition)**

<table>
<thead>
<tr>
<th></th>
<th>MINOR</th>
<th>MAJOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Qa = 5.4 cfs</td>
<td>Qpeak required = 2.3 cfs</td>
<td>4.2 cfs</td>
</tr>
</tbody>
</table>

**Inlet Capacity IS GOOD for Minor and Major Storms (>Q Peak)**
Existing 18-inch Storm Drain Capacity

Circular
Diameter (ft) = 1.50

Invert Elev (ft) = 5054.22
Slope (%) = 0.50
N-Value = 0.013

Calculations
Compute by: Known Q
Known Q (cfs) = 4.20

Highlighted
Depth (ft) = 0.81
Q (cfs) = 4.200
Area (sqft) = 0.98
Velocity (ft/s) = 4.29
Wetted Perim (ft) = 2.48
Crit Depth, Yc (ft) = 0.79
Top Width (ft) = 1.49
EGL (ft) = 1.10
November 2, 2022

Community Development Department
PO Box 1229
Berthoud, CO 80513

RE: Gateway BD

As the current property owner, and owner of property surrounding the ground in question, we pledge our full support of the proposed development. Building a pharmacy with retail space will be a great addition to Berthoud. By approving this plan, additional building sites are being made available for commercial development. This project will add jobs, economic activity and improve Berthoud’s business environment. We would ask for your approval of the plans as submitted. Please feel free to call me should you have any questions.

Sincerely,

Chad S. Adams
President
Placer Development, Inc.
1201 Lake Avenue
Berthoud, CO 80513
(970) 532-1802, ext 6514
November 2, 2022

Community Development Department
PO Box 1229
Berthoud, CO 80513

RE: Project Name Gateway BD

We have reviewed the materials and replat of four commercial lots to construct a pharmacy/retail building west of 1201 Lake Avenue. The project would be a wonderful addition to the town of Berthoud, and we fully support the development plan as submitted. The pharmacy would serve a great need within the community, provide jobs and enhance the business environment.

Should you have any questions about our support, please feel free to contact me.

Sincerely,

[Signature]

Steven D. Krause
President
Adams Bank & Trust
STAFF REPORT: FARMSTEAD ACRES NEIGHBORHOOD MASTER PLAN AND REZONING

DATE: February 9, 2023

GENERAL INFORMATION

Applicant: Terra Forma Solutions, Todd Johnson agent

Size: 9.015 acres

Site Location: This property is located north and west of the Farmstead subdivision, south of Hwy 56, and east of Fickel Farm and a rural Larimer County property.

Applicant's Request: The Applicant is requesting a rezoning to Urban Residential of 4.82 acres, Suburban Residential of 1.10 acres, M-1 Industrial of 2.77 acres, and C-1 Commercial for 0.32 acres from the formerly approved Sommers PUD; and Neighborhood Master Plan approval for attached and detached residential lots

Current Zoning: Sommers PUD: Light Industrial uses to the north, undefined mixed use to be determined at FDP to the south.

ZONING DISTRICT INFORMATION

<table>
<thead>
<tr>
<th></th>
<th>PUD</th>
<th>UR</th>
<th>SR</th>
<th>M-1</th>
<th>C-1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max Density</td>
<td>Set at FDP</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>24 units per acre</td>
</tr>
<tr>
<td>Min. Lot Size</td>
<td>Set at FDP</td>
<td>2,000 sq.ft. for Duplex 2,500 sq.ft. for SFR</td>
<td>3,000 sq.ft.</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Min. Lot Width</td>
<td>Set at FDP</td>
<td>N/A</td>
<td>20’</td>
<td>50’</td>
<td>25’</td>
</tr>
<tr>
<td>Front Setback</td>
<td>Set at FDP</td>
<td>8’-12’ build-to line</td>
<td>10’ rear loaded</td>
<td>25’</td>
<td>0’</td>
</tr>
<tr>
<td>Side Setback</td>
<td>Set at FDP</td>
<td>0’ attached side, 5’ unattached side, 10’ corner side</td>
<td>5’</td>
<td>20’</td>
<td>20’</td>
</tr>
<tr>
<td>Rear Setback</td>
<td>Set at FDP</td>
<td>5’</td>
<td>5’</td>
<td>20’</td>
<td>20’</td>
</tr>
<tr>
<td>Building Height</td>
<td>Set at FDP</td>
<td>30’</td>
<td>30’</td>
<td>40’</td>
<td>50’</td>
</tr>
</tbody>
</table>

SURROUNDING ZONING, LAND USE AND REQUIRED BUFFERS

<table>
<thead>
<tr>
<th>Adjacent Zoning</th>
<th>Adjacent Land Uses</th>
<th>Setbacks for Adjacent Zoning/Buffer required if rezoned</th>
</tr>
</thead>
<tbody>
<tr>
<td>North:</td>
<td>C-2, RR-2</td>
<td>General Commercial, Agricultural</td>
</tr>
<tr>
<td>South:</td>
<td>R-2</td>
<td>Single-Family Residential</td>
</tr>
<tr>
<td>East:</td>
<td>C-1, R-1</td>
<td>Event Center, Single-Family Residential</td>
</tr>
<tr>
<td>West:</td>
<td>RR-2 (Larimer County)</td>
<td>Agricultural</td>
</tr>
</tbody>
</table>
Proposal

This is a two-part request for a Neighborhood Master Plan and a rezoning to UR Urban Residential, SR Suburban Residential, C-1 Neighborhood Commercial and M-1 Light Industrial for the Farmstead Acres development. The Neighborhood Master Plan covers the area proposed for Urban Residential and Suburban Residential while the rezoning would result in 0.32 acres of C-1, 2.7 acres of M-1, 4.8 acres of UR Urban Residential, and 1.1 acres of SR. Neighborhood Master Plans are only required for rezonings or subdivisions of residential or mixed-use areas.

Background

This project is currently zoned as the Sommers PUD. The PUD was approved in 2008, in conjunction with an annexation of a nonconforming industrial building. The PUD approved the nonconforming industrial building with light industrial uses on 3 acres, and then set future mixed use residential on the southern 6 acres. The prior PUD process set development standards at the FDP stage, and no submittal was made on the southern mixed use portion. The project has had six rounds of review, with five of the reviews sent to the public notice area for public comment.

Neighborhood Master Plan

The Neighborhood Master Plan is a conceptual design of the development, submitted with a rezoning or major subdivision application, that depicts the applicant’s vision for the overall development, including zoning, transportation, pedestrian network, parks, open space, subdivision identity standards and other amenities. The Neighborhood Master Plan is binding on a development, and all platting/zoning actions must follow the approved plan or apply for an amendment of said plan. Section 30-6-106 of the municipal code states that a Neighborhood Master Plan must consist of the following required elements:

<table>
<thead>
<tr>
<th>30-6-106(C) Required Elements</th>
<th>Finding</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Traffic Plan: The applicant shall provide a preliminary traffic plan that addresses the following elements:</td>
<td>Yes</td>
<td>i. The proposed development would connect to the existing road network by extending Remuda Road and Tenderfoot Drive to the West through the development.</td>
</tr>
<tr>
<td>Required Elements</td>
<td>Finding</td>
<td>Rationale</td>
</tr>
<tr>
<td>----------------------------------------------------------------------------------</td>
<td>---------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>2. Open Space Plan:</strong> The applicant shall provide a preliminary open space plan that addresses the following elements:</td>
<td>Yes</td>
<td>i. An open space plan was provided as part of the Neighborhood Master Plan. The plan includes more than 10% open space.</td>
</tr>
<tr>
<td>i. Proposed open space distribution and location, including percentage of open space.</td>
<td></td>
<td>ii. By code the applicant would need to provide two open space elements. The applicant has chosen to meet these requirements through a pocket park on the northern side of the property, as well as an 8’ greenway trail.</td>
</tr>
<tr>
<td>ii. Compliance with 30-2-109(D)(4) open space elements.</td>
<td></td>
<td>iii. The proposed development does not border any environmental resources or natural areas.</td>
</tr>
<tr>
<td>iii. Required buffer areas as per 30-2-109(C)(2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>3. Park(s) Plan:</strong> Proposed park locations and types of parks as per Section 30-2-109(B)(2) and (3)</td>
<td>N/A</td>
<td>Developed parks are required only when the subdivision totals more than 6 acres or has more than 50 dwelling units. The proposed development falls below both of these thresholds and would not require a park.</td>
</tr>
<tr>
<td>i. Proposed park locations and types of parks as per Section 30-2-109(B)(2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ii. Proposed park acreage as per Section 30-2-109(B)(2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>4. Pedestrian Network:</strong> Location of all trails within development, and connection to existing trail network.</td>
<td>Yes</td>
<td>i. Sidewalks throughout the development will connect residents to an 8’ concrete trail along the south eastern edge of the development. This trail section will then connect to the existing Farmstead/Fickel Farm trail.</td>
</tr>
<tr>
<td>i. Location of all trails within development, and connection to existing trail network.</td>
<td></td>
<td>ii. Sidewalks will be constructed along the frontages of all properties, and will then connect to the sidewalks located along Remuda Road and Tenderfoot Drive.</td>
</tr>
<tr>
<td>ii. Connectivity of sidewalks to the existing pedestrian system, including any off-site sidewalk improvements.</td>
<td></td>
<td>iii. No bike lanes are proposed. However, the roads are local streets, and will also provide access to the nearby trail systems.</td>
</tr>
<tr>
<td>iii. Depiction of any bike lanes or any other multi-modal features.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>5. Zoning:</strong> The location of zoning boundaries shall be provided with the application and depicted on the Neighborhood Master Plan.</td>
<td>Yes</td>
<td>i. In addition to the Neighborhood Master Plan, this project also includes a rezoning request. The Master Plan identifies the project showing the proposed zoning changes.</td>
</tr>
<tr>
<td>i. The location of zoning boundaries shall be provided with the application and depicted on the Neighborhood Master Plan.</td>
<td></td>
<td>ii. The proposed zoning districts will be consistent with the neighboring residential districts to the south and east. By utilizing the new Urban Residential (UR) and Suburban Residential (SR) zoning districts, the applicant is proposing a slightly denser development than the existing neighborhoods. This area provides a good transition between the existing residences and the industrial/commercial to the north.</td>
</tr>
<tr>
<td>ii. The plan should show how lot diversity standards of Section 30-2-116(D)(1)(c), are met and create a mix of zoning which is harmonious with the surrounding area, and within the property itself.</td>
<td></td>
<td>iii. Density and diversity are distributed throughout the residential portions of the project.</td>
</tr>
<tr>
<td>iii. Density and lot diversity shall be distributed throughout the project and shall not be located in only one area.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### 30-6-106(C) Required Elements

<table>
<thead>
<tr>
<th>Finding</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>(i. – iv.) A preliminary utility plan has been provided showing the water line and sewer line connections capacity and demand, and where the lines would be located to verify the project can served by utilities. The project will utilize potable water and will not be on the Farmstead/Fickel Farm non-potable water system.</td>
</tr>
</tbody>
</table>

#### 6. Overall Utility Plan:
- i. A preliminary utility plan depicting the existing capacity of the utility system for both the proposal and any potential future development.
- ii. Proposed connections to the existing utility system.
- iii. The location of any proposed or required lift stations.
- iv. Utility plans for the interior of the development (such as water and sewer service lines) are not required as part of this process.

#### 7. Subdivision Identity Standards:
- i. The applicant shall provide compliance with subdivision identity standards found in Section 30-2-131.

### Neighborhood Master Plan Review Criteria

Section 30-6-106(G) states that the town shall use the following criteria in addition to other applicable provisions of the code to evaluate the application.

<table>
<thead>
<tr>
<th>Finding</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>The Preferred Land Use plan envisions this area as urban residential, consistent with this rezoning. Additionally, the Comprehensive Plan was developed to encourage form based transect zoning from open space/rural areas to alley-loaded urban residential lots which allow for a variety of dense, affordable residential uses such as those included in this project.</td>
</tr>
</tbody>
</table>

1. The land use mix within the project conforms to Berthoud’s Zoning District Map and Comprehensive Plan Preferred Land Use Map and furthers the goals and policies of the Comprehensive Plan.

2. The Neighborhood Master plan represents a functional system of land use and is consistent with the rationale and criteria set forth in this Chapter, the Town Comprehensive Plan, and the Parks, Open Space and Recreation (PORT) Plan as amended.

<table>
<thead>
<tr>
<th>Finding</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>The proposed plan is consistent with this criterion. The project will extend existing roadways to service the property allowing for a more connected neighborhood design. Additionally, the trail system connection at the southeastern edge will allow for easy pedestrian access to the trail systems for this development as well as for the existing residences to the east.</td>
</tr>
</tbody>
</table>
Rezoning
The site is currently zoned PUD as part of the Sommers Planned Unit Development. This PUD was approved at that time of annexation, and allows for Industrial Uses on the northern portions of the lot, and multi-use residential to the south. The applicant has requested to rezone the property from PUD to C-1, M-1, UR, and SR in order to develop residential to the south. If approved the rezoning would create a 0.32-acre area zoned C-1, a 2.76-acre M-1 area, a 4.82-acre UR area, and a 1.10-acre SR area. The commercial and industrial areas would be largely unchanged from the rezoning except for revised access points that would utilize Mountain Avenue instead of Remuda Road. Rezoning the southern properties in conjunction with approval of the proposed Neighborhood Master Plan would allow for 37 primary residential units to be developed.

In addition to the 37 primary units, the applicant would also be able to apply for an accessory dwelling unit (ADU) on each property through a conditional use permit. The conditional use permit would be a separate submittal requiring Planning Commission approval. Since ADUs are considered 0.33 units for density purposes, approval of ADUs for all units would put the maximum density of the project at 49.33 units.

Rezoning is addressed through an official zoning map amendment. Section 30-3-110(D) states for the purpose of establishing and maintaining sound stable and desirable development within the Town, the Zoning Map shall not be amended except when it addresses one or more of the criteria in the following table.
### 30-3-110(D) Zoning Map Amendment Criteria

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Finding</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. To correct a manifest error in an ordinance establishing the zoning for a specific property; or</td>
<td>Yes</td>
<td>Staff finds that the proposed rezoning meets criteria 2, and 4. The rezoning is consistent with the Comprehensive Plan. Additionally, the Town is encouraging denser, more walkable developments that are more urban in nature. This property is currently zoned as a PUD with little detail for the southern portions of the lot. Rezoning will help encourage development of this area by better defining what can be built on the property.</td>
</tr>
<tr>
<td>2. To rezone an area or extend the boundary of an existing district because of changed or changing conditions in a particular area or in the Town generally; or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. The land to be rezoned was zoned in error and as presently zoned is inconsistent with the policies and goals of the Town Comprehensive Plan; or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. The proposed rezoning is necessary to provide land for a community-related use that was not anticipated at the time of the adoption of the Town Comprehensive Plan, and the rezoning will be consistent with the policies and goals of the Comprehensive Plan; or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. The area requested for rezoning has changed or is changing to such a degree that it is in the public interest to encourage development or redevelopment of the area</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### PUBLIC NOTICE AND COMMENT
Notice of the Planning Commission Public Hearing has been mailed to property owners within 1,000 feet of the subject property, a legal ad published, and the property was posted as required by the Development Code. In addition, the application was sent out to all property owners within 1,000 feet, with an invitation to comment on the request within three weeks of receipt. All comments received after the October 13, 2022 Planning Commission Meeting can be found in this packet.

### FINDINGS AND RECOMMENDATIONS

**Neighborhood Master Plan**

Staff recommends Planning Commission make a motion to recommend approval of the Neighborhood Master Plan to the Town Board.

**Rezoning**

Staff recommends Planning Commission make a motion to recommend approval to the Town Board of the Rezoning with the following condition:

1. The rezoning will be approved only upon approval of the Neighborhood Master Plan.
1. Application form
2. Neighborhood master plan
3. Rezoning map
4. Preliminary traffic impact study/analysis
5. October 13, 2022 Planning Commission meeting minutes
6. Public comments received on post Planning Commission resubmittals.
DEVELOPMENT REVIEW APPLICATION

All required information must be provided before submittal will be accepted and deemed complete. To be complete, the application must include all items identified on the submittal checklist. Please complete both sides of application form.

<table>
<thead>
<tr>
<th>Parcel Number(s):</th>
<th>9424000008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site Address:</td>
<td>533 East County Road 8, Berthoud, CO 80513</td>
</tr>
<tr>
<td>Project Name:</td>
<td>TBD using property address for initial applications</td>
</tr>
</tbody>
</table>

**APPLICATION TYPE (Check as appropriate):**

- [ ] Annexation
- [ ] Preliminary Subdivision Plat
- [ ] Final Site Plan
- [✓] Rezoning
- [ ] Final Subdivision Plat
- [ ] PUD Amendment
- [ ] Concept Plan
- [ ] Plat Amendment
- [ ] PUD Preliminary Development Plan
- [✓] Minor Subdivision
- [ ] Oil and Gas
- [ ] PUD Final Development Plan
- [ ] Special Use Review
- [ ] ROW Vacation
- [✓] Other Neighborhood Plan

**APPLICANT**

Name: Todd Johnson - Terra Forma Solutions, Inc.

| E-mail: | todd@terraformas.com |
| Phone: | 303-257-7653 |

| Mailing Address: | 3465 South Gaylord Court, A304 Englewood, CO 80113 |

**CONTACT PERSON (will receive correspondence from Town Staff/Referral Agencies)**

Name: Same as applicant

| E-mail: | |
| Phone: | |

**OWNER(S) (if different than applicant)**

Name: 533 Highway 56 LLC, c/o Ryan Bond, Manager

| E-mail: | ryan.bond@firehook.co |
| Phone: | 970-222-9923 |

| Mailing Address: | 1540 Main St. STE 218-165, Windsor, CO 80550 |

| City/State/Zip: | 1540 Main St. STE 218-165, Windsor, CO 80550 |

**CONSULTANT (Engineer, Surveyor, or Planner)**

Name: Same as applicant

| E-mail: | |
| Phone: | |

| Mailing Address: | |

| City/State/Zip: | |
LAND USE INFORMATION

Existing Use: House, Industrial Building and Farming/Ranching

Proposed Use: Ind./Comc./Office/Resd.

Existing Zoning: PUD

Proposed Zoning: (if applicable): C1/M1/Urban Residential

Number of acres: 9.015

Proposed Access: CR8, Remuda & Tender

Adjacent zoning / land use:

<table>
<thead>
<tr>
<th>East Side</th>
<th>North Side</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1 &amp; R1</td>
<td>C2 &amp; County RR1</td>
</tr>
<tr>
<td>West Side</td>
<td>South Side</td>
</tr>
<tr>
<td>County RR1</td>
<td>R2</td>
</tr>
</tbody>
</table>

UTILITY SERVICE INFORMATION

Water: Berthoud

Sewer: Septic

PROJECT INFORMATION

Number of proposed units: TBD 80+/- (Varies with final type)
Number of phases: 1 to 2
Number of Units per phase: 40-60%
Number of lots proposed: Same as above
Lot size minimum: 1200 SF
Lot size maximum: 2500 SF
Lot size average: TBD

Non-Residential Building Area (Sq. Ft.) Proposed: Multiple +/- 22,000 SF
Non-Residential Construction Floor Area Ratio Proposed: 0.20-0.25
Total Number of Parking Spaces: 30+/-

Acreage of Site:
- Gross: 9.015 Acres
- Right-of-Way: TBD
- Net (a-b) TBD

Type of Housing Proposed (please check):

- Future Single Family
- Duplex
- Townhouse
- Multi-family
- Condominium

Area and percent open space:
- 15-20% Depends on overall areas

Signatures are required for ALL Property Owners and the Applicant

I hereby certify that I am the lawful owner of the parcel(s) of land that this application concerns and consent to the action. I hereby permit Town of Berthoud staff to enter upon the property for the purposes of inspection relating to the application. Building Permits will not be accepted while this application is in process.

Property Owner(s): 533 Highway 56 LLC by                     Date: 01 / 16 / 2022
Manager

Property Owner(s):                                           Date:

In submitting the application materials and signing this application agreement, I acknowledge and agree that the application is subject to the applicable processing and public hearing requirements set forth in the Development Code.

Applicant:                                                 Date:

FOR OFFICE USE ONLY

Received By:                                             Date:
NEIGHBORHOOD PLAN
FARMSTEAD ACRES
LOCATED IN THE NORTHWEST QUARTER OF SECTION 24
TOWNSHIP 9 NORTH, RANGE 69 WEST OF THE SIXTH PRINCIPAL MERIDIAN,
COUNTY OF LARIMER, STATE OF COLORADO

OVERALL
The overall project is made up of existing residential and industrial uses on the northern parts of the site with proposed residential uses on the south. The existing northern residential use will remain until its future conversion to commercial, office, industrial uses are located in the north central area and will remain as is and continue to provide a basis for jobs and tax revenue for the property and the town. The southern portion of the site is being zoned as the newly established suburban and urban residential. We feel this classification provides a transition from the industrial to the other existing residential uses that surrounds the area. The urban residential will allow residential types like apartments, cottages, paired, townhome houses. We have selected paired for a majority of the site. The southern most lots will be suburban residential and have single family detached homes. Additionally, we are requesting the allowance for accessory dwelling units on all lots.

IMPACT OF ACCESS AND TRAFFIC
A master neighborhood plan with a traffic impact analysis is also provided with this application. Outlined within that application you will see the traffic patterns and impacts have been identified. In our opinion traffic patterns will be enhanced and formalized within this rezoning. Any additional traffic can be handled on the existing and proposed infrastructure.

AVAILABILITY OF UTILITIES
Water, sanitary sewer and storm drainage are all at the border of this project and extension and/or connection with the existing systems is not projected to adversely impact these facilities.

PRESENT AND FUTURE IMPACTS TO PUBLIC FACILITIES/RESOURCES
The project is currently within the town of Berthoud and the proposed uses are in general conformity with the comprehensive plan and new zoning criteria. All facilities will be designed per the town's standards and any fees regarding impacts or system fees are contemplated to match those other standards to account for this project. Impacts additionally, any onsite public improvement required for development will be built for this project to contribute towards its impact.

COMPREHENSIVE PLAN
The comprehensive plan projects this area to be commercial/office/residential and the existing and proposed uses are generally compatible with these projections and new zoning classifications.

PUBLIC BENEFITS
The project provides an extremely valuable element to the limited residential housing needs in the region. Provides a population base to further patronize Berthoud business and will pay impact fees for its inclusion into the town. Existing industrial uses provides a needed location for Berthoud businesses and of course contribute to the tax base of the town. Additionally, as stated above this project will further extend public infrastructure to get the town closer to closing connections within this area.

THE PLAN / ZONING

COVER SHEET
FARMSTEAD ACRES
DATE: DECEMBER 19, 2022
SHEET 1 OF 4
NOTES:
1. SUBJECT PROPERTY ADDRESS: 533 EAST COUNTY ROAD 8, BERTHOUD, CO 80513
2. EXISTING USES AND STRUCTURE SETBACKS SHALL BE ALLOWED EXC FOR PA-A AND PA-B
3. THE PROPOSED PLAN CONFORMS WITH THE TOWNS CODE EXCEPT AS MODIFIED HEREIN. THE PROPOSED USES ARE CONSISTENT WITH THE TOWNS COMPREHENSIVE PLAN AND PROVIDE TRACTIONS AS SHOWN ON THE COMPREHENSIVE PLAN.

NEIGHBORHOOD PLAN
FARMSTEAD ACRES
LOCATED IN THE NORTHWEST QUARTER OF SECTION 24
TOWNSHIP 9 NORTH, RANGE 69 WEST OF THE SIXTH PRINCIPAL MERIDIAN,
COUNTY OF LARIMER, STATE OF COLORADO

STREET & LAND USE PLAN
FARMSTEAD ACRES
NEIGHBORHOOD PLAN
FARMSTEAD ACRES
LOCATED IN THE NORTHWEST QUARTER OF SECTION 24
TOWNSHIP 9 NORTH, RANGE 69 WEST OF THE SIXTH PRINCIPAL MERIDIAN,
COUNTY OF LARIMER, STATE OF COLORADO

NOTE: NO NEW PUBLIC INFRASTRUCTURE

2. THERE ARE NO KNOWN GEOLOGIC HAZARDS WITHIN THE PROPERTY BOUNDARY.
3. THERE ARE NO KNOWN COMMERCIAL MINERAL DEPOSITS LOCATED WITHIN THE PROPERTY BOUNDARY.
4. CONTOURS DISPLAYED ARE 1 FOOT CONTOURS REPRESENTING A COMBINATION OF U.S.G.S. TOPOGRAPHY AND SURVEYED TOPOGRAPHY.
5. NO LIFT STATIONS ARE REQUIRED.

HYDROLOGY AND UTILITY PLAN
FARMSTEAD ACRES

DATE: DECEMBER 19, 2022

SHEET 3 OF 4
November 13, 2022

RE: 533 E. County Road 8 – Preliminary Traffic Impact Study/Analysis

To Town of Berthoud,

Terra Forma Solutions, Inc, (TFS) is providing the following Preliminary Traffic Impact Study/analysis for the subject project as part of the Neighborhood Master Plan and Zoning Amendment. The study is a high-level analysis of the potential impacts based upon general transportation criteria and standards. A more detailed analysis will be performed in the future detailed processes as the project progresses.

SITE/USES
The subject property is located just south of Mountain Avenue (County Road 8) approximately 600’ west of Dorothy Drive and is approximately 9.1 acres. The site is currently zoned PUD with existing residential and industrial uses. Currently an existing house is located just south of Mountain Avenue with a primary Industrial building of 20,000 square feet with numerous outbuildings. The southern area is currently being used for outdoor storage and existing farming/ranching activities. The proposed plan is anticipated to maintain the northern industrial use and residential home with the home eventually being converted to commercial/office. The southern area will be formalized from residential to urban residential of 37 paired and single family detached homes.

ACCESS
The existing project utilizes existing accesses from multiple locations:

- Mountain Avenue (4 Lane Arterial) full movement.
- Remuda Road (Local Residential) full access from Dorothy Drive.
- Tenderfoot Drive (Local Residential) full access from Dorothy Drive.
- All access points interconnect throughout the site.

Proposed access points are projected to formalize into the following:

- Mountain Avenue (4 Lane Arterial) right in/out, will also interconnect with the residential to south.
- Remuda Road (Local Residential) continuation of roadway into site for individual access and overall project circulation. Additionally, this roadway is projected to extend to the west and provide additional connections and alternatives.
• Tenderfoot Drive (Local Residential) continuation of roadway into site for individual access and overall project circulation. Additionally, this roadway is projected to extend to the west and provide additional connections and alternatives.
• Alley access to join local roadways and private individual accesses.

TRIP GENERATION
The project is projected to generate 471 average daily trips and 45 AM peak hour trips and 53 PM peak hour trips per the table below. Note the “Delta” is existing occupied uses to the projected plan and this does not project an increase from existing zoning since the site was already zoned.

533 East County Road 8/Mountain Avenue - Trip Generation/Comparison

<table>
<thead>
<tr>
<th>Use</th>
<th>ITE Code</th>
<th>Acres</th>
<th>Density/FAR</th>
<th>Units/SF(1000)</th>
<th>Rate</th>
<th>ADT</th>
<th>AM In Rate</th>
<th>AM ADT</th>
<th>AM Out Rate</th>
<th>AM ADT</th>
<th>PM In Rate</th>
<th>PM ADT</th>
<th>PM Out Rate</th>
<th>PM ADT</th>
</tr>
</thead>
<tbody>
<tr>
<td>House</td>
<td>210</td>
<td>0.321</td>
<td>1</td>
<td>1</td>
<td>9.44</td>
<td>9</td>
<td>0.19</td>
<td>0.56</td>
<td>1.02</td>
<td>0.62</td>
<td>0.37</td>
<td>0.55</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Industrial</td>
<td>110</td>
<td>2.766</td>
<td>0.20</td>
<td>24</td>
<td>4.96</td>
<td>119</td>
<td>0.62</td>
<td>0.08</td>
<td>0.08</td>
<td>0.55</td>
<td>0.55</td>
<td>13</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Residential</td>
<td>221</td>
<td>5.928</td>
<td>0</td>
<td>0</td>
<td>5.44</td>
<td>0</td>
<td>0.09</td>
<td>0.27</td>
<td>0.27</td>
<td>0.17</td>
<td>0</td>
<td></td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>9.015</td>
<td>0</td>
<td>0</td>
<td>5.44</td>
<td>0</td>
<td>0.09</td>
<td>0.27</td>
<td>0.27</td>
<td>0.17</td>
<td>0</td>
<td></td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Use</th>
<th>ITE Code</th>
<th>Acres</th>
<th>Density/FAR</th>
<th>Units/SF(1000)</th>
<th>Rate</th>
<th>ADT</th>
<th>AM In Rate</th>
<th>AM ADT</th>
<th>AM Out Rate</th>
<th>AM ADT</th>
<th>PM In Rate</th>
<th>PM ADT</th>
<th>PM Out Rate</th>
<th>PM ADT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office(House)</td>
<td>710</td>
<td>0.321</td>
<td>0.2</td>
<td>9.74</td>
<td>2</td>
<td></td>
<td>1.00</td>
<td>0.16</td>
<td>0.18</td>
<td>0.97</td>
<td>0</td>
<td></td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Industrial</td>
<td>110</td>
<td>2.766</td>
<td>0.20</td>
<td>24</td>
<td>4.96</td>
<td>119</td>
<td>0.62</td>
<td>0.08</td>
<td>0.08</td>
<td>0.55</td>
<td>0.55</td>
<td>13</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Residential</td>
<td>210</td>
<td>37</td>
<td>9.44</td>
<td>349</td>
<td>0.19</td>
<td>7</td>
<td>0.56</td>
<td>21</td>
<td>0.62</td>
<td>0.37</td>
<td>14</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residential</td>
<td>221</td>
<td>5.928</td>
<td>0</td>
<td>0</td>
<td>5.44</td>
<td>0</td>
<td>0.09</td>
<td>0.27</td>
<td>0.27</td>
<td>0.17</td>
<td>0</td>
<td></td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>9.015</td>
<td>471</td>
<td>23</td>
<td>23</td>
<td></td>
<td>342</td>
<td>7</td>
<td>21</td>
<td>23</td>
<td>14</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Delta

<table>
<thead>
<tr>
<th>Use</th>
<th>ADT</th>
<th>AM ADT</th>
<th>PM ADT</th>
<th>PM ADT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office(House)</td>
<td>-7</td>
<td>0</td>
<td>-1</td>
<td>-1</td>
</tr>
<tr>
<td>Industrial</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Residential</td>
<td>349</td>
<td>7</td>
<td>21</td>
<td>23</td>
</tr>
<tr>
<td>Total</td>
<td>342</td>
<td>7</td>
<td>21</td>
<td>23</td>
</tr>
</tbody>
</table>

PEDESTRIAN/BICYCLES
Pedestrians and bicyclists will be able to access internal trail/walk systems within the site and to the local and major transportation networks adjacent to and linked to the site as outlined above.
Based on the findings contained herein, it is my professional opinion that the development of project can function within the existing and proposed transportation network and not have significant impacts to the transportation systems. Please feel free to contact me at 303-257-7653 or todd@terraformas.com with any questions or comments related to this document.

odd A. Johnson, P.E, President
For and on behalf of:
Terra Forma Solutions, Inc.
Planning Commission Minutes – October 13, 2022

1. Call to Order – The Planning Commission convened a regular meeting on October 13, 2022. Chairwoman Dowker called the meeting to order at 6:00 p.m.

2. Roll Call – Members present: Jan Dowker (Chairwoman), Karen Anderson (Vice Chair), Chris Kurtz (Secretary), Jon Van Benthem (Commissioner), Melissa Feldbush (Commissioner), Abigail Smith (Commissioner), Brett Wing (Commissioner). Staff present: Curt Freese (Director), Adam Olinger (Planner), Jonathan Mitchell (Permit Technician).

3. Consent Agenda – Minutes from the September 8, 2022 Planning Commission Meeting. MOTION made by Commissioner Anderson to APPROVE the Minutes for September 8, 2022. SECONDED by Commissioner Kurtz. Commissioner Smith abstained due to absence from previous meeting. With those all in favor, THE MOTION CARRIED.


Director Freese introduced this two-part request for a Neighborhood Master Plan and a rezoning to Urban Residential and M-1 Light Industrial for the Farmstead Acres development. The Neighborhood Master Plan only covers the area proposed for urban residential while the rezoning would be done to create one area to be officially zoned Light Industrial, one area to be zoned neighborhood commercial, and one area to be Urban Residential.

Public Comment was opened at 6:40 p.m.

Angela Drumright shared her concerns about the public parking availability, the traffic, and security.

Mike Coen was concerned about the smaller roadways and general safety.

Kimberly Shively was concerned about potential obstructed views, dense surrounding populations, the security of residents and pets, and the overflow traffic.

Kathryn Browning was concerned about the increased traffic, wants a reduction of homes, and was concerned about no direct access to Highway 56 (Mountain Avenue) for the townhomes.

Craig Hovick (letter shared via Kathryn Browning) was concerned about the safety of children playing outside and access to Highway 56.

Public Comment was closed at 6:52 p.m.
MOTION made by Commissioner Anderson to RECONSIDER the Farmstead Acres Neighborhood Master Plan to one that better matches the existing layout an infrastructure for the adjoining Farmstead Filing 1.
SECONDED by Commissioner Wing.
With all in favor, THE MOTION CARRIED.

MOTION made by Commissioner Anderson to TABLE the Farmstead Acres Rezoning Request.
SECONDED by Commissioner Wing.
With all in favor, THE MOTION CARRIED.

Project Guidance
The Planning Commissioners voiced support of a reduction of the size of the park to allow for the reconfiguration of the layout of the homes, to maintain the proposed trail connection to the Farmstead Trail, and to provide a landscape screen between the existing Farmstead fences and the trail connection.

The Planning Commissioners expressed approval of keeping the Urban Residential Request if the project was laid out more like the Farmstead.

5. Public Hearing: Trails at Creekview Filings 1-4 Final Plat Request (Kristin Turner, agent)
Planner Olinger introduced this Final Plat—the creation of 481 new single family detached and attached lots, three parks, and open space on 141.19 acres of land. This request is being broken up into four filings to allow for the project to be completed in phases.

Public Comment was opened at 8:18 p.m.
Alex Hoime (Harvest Ridge developer) shared concerns regarding street alignment with Swan Peter Drive.
Larry Lempka had concerns about the generated increase of citizens.

Public Comment was closed at 8:34 p.m.

MOTION made by Commissioner Wing to APPROVE the Trails at Creekview Filings 1-4 Final Plat, finding that it satisfies Section 30-6-108 C. with the following conditions:

01. All lots abutting an alley must be rear loaded from the alley.
02. An activated pedestrian crossing be constructed across Berthoud Parkway to connect this development to the Harvest Ridge development.
03. The stoplight at County Road 4E and Highway 287 shall be installed before the 4th Filing’s lots are released for building permits subject to CDOT approval of a stoplight or any improvement CDOT determines as warranted.

SECONDED by Commissioner Anderson.
With all in favor, THE MOTION CARRIED.

6. Reports –
September 29 – The Town of Berthoud won an award from the Colorado Chapter of the American Planning Association for its 2021 Comprehensive Plan.
October 27 – No scheduled Planning Commission meeting.
TBD – Soon there shall be a joint meeting between the Planning Commission and the Board of Trustees for the 1st Street Corridor.

7. Adjourn –
The meeting was adjourned at 9:27 p.m.
To whom it may concern;

I am writing in regards to the proposal of Farmstead Acres located at 533 E County Rd 8.

I have a few issues with the proposal regarding safety, green space, and a clarification on actual residences.

I am concerned with the alleyway between Farmstead Acres and property owners within The Farmstead. I worry about damage, litter, vandalism, and theft to neighboring properties. There is no buffer between the alley and fence line of current property owners. If the garages are placed against this alleyway, there leaves little space for cars to pass each other or possibly back out of said garage. I worry about vehicles running into fences or on others property. Due to the nature and traffic of these alleyways, I would also be concerned about litter, vandalism and theft. This type of access makes these yards easy targets.

I noticed that there was a small green space located at one end of the property. Will there be a requirement for front yard space or a play structure planned for the area? The previous proposition had lots of communal space which was a plus. This new plan shows very little area that would then put pressure for access to communal spaces or playgrounds on surrounding neighborhoods. This would then roll into HOA issues as well as who would take care of these spaces? Since the planning meeting, Fickle Farm will be added into The Farmsteads HOA. This would then surround this small development who would most likely lean on The Farmstead and Fickle Farm for amenities without contributing HOA dues. This is not monetarily fair to the surrounding community.

I am confused as to the wording of duplexes. If you are able to clarify, is it a total of 32 duplexes meaning residences (1 per lot)? Or is it 32 duplexes meaning 64 residences (2 per lot)? If it is the latter, this goes against what was discussed at the last development meeting regarding this property. A total of 64 residences brings in the issue of a high density area with limited traffic flow. Just because the roads can handle the traffic, does not mean that they should.

A side question, why is urban residential zoning something that this developer continues to focus on? It had been previously stated at the last planning meeting that rezoning to match surrounding neighborhoods was tentatively tabled. I am curious as to why they do not attempt to pursue a proposal and plan that better fits the adjoining neighborhoods?

Thank you for your time and whatever information you are able to clarify,

Marvin and Kathryn Browning  
219 Ole Bessie Drive  
Berthoud, CO
Good morning Gentlemen,

I hope you had a great weekend!

Please accept this email as my feedback as a regionally impacted neighbor with regards to the developmental proposal for the Farmstead Acres (north of East Michigan and south of 56 between existing farmstead and Fickel Farms).

I will present them in a bulleted format for ease of review. Please let me know if you have any questions or want me to elaborate.
- The town should deny rezoning and mandate detached single family dwellings in accordance with the Berthoud Master Vision Plan and in the same spirit of the countless hours of effort dedicated to making a holistic and well managed growth plan at the farmstead proper.
- The proposal is for Duplexes instead of townhomes, this shouldn’t really affect parking but yet the mandated parking locations have been removed.
- The pocket park and trail system in addition to communal parking seems to be missing again.
- I think there should be a proposal on how to tie into infrastructure. As planned, it will have only negative impacts on traffic and they should not be allowed to tie-in with existing non-pot without agreeing to join Farmstead HoA.
- They should be mandated to match the aesthetics of the existing farmstead neighborhood

Thank you gentlemen!

Very Respectfully,
Colton Schwader
524 E. Michigan Ave.
To whom it may concern;

In regards to the proposal of Farmstead Acres located at 533 E County Rd 8, I have continued and unaddressed concerns with the updated proposal that was submitted. More specifically, continued concerns surrounding safety.

To echo one of my neighbors:

“I am concerned with the alleyway between Farmstead Acres and property owners within The Farmstead. I worry about damage, litter, vandalism, and theft to neighboring properties. There is no buffer between the alley and fence line of current property owners. If the garages are placed against this alleyway, there leaves little space for cars to pass each other or possibly back out of said garage. I worry about vehicles running into fences or on others property. Due to the nature and traffic of these alleyways, I would also be concerned about litter, vandalism and theft. This type of access makes these yards easy targets.”

Thank you for the great efforts you all pour into aligning your and Berthoud’s values, “spirit”, and best interests for all, especially the safety of our children.

Chelsea Stickney & Kayla Wilcken
207 Ole Bessie Drive
Berthoud, CO
To whom it may concern;

I am writing in regards to the proposal of Farmstead Acres (formerly 533 E County Rd 8).

I have a few questions and concerns with the proposal; clarification on actual number of residences, green space between the alley and existing residences on Ole Bessie Drive, and pathways to green space and playgrounds in the immediate area.

Concerning the alleyway between Farmstead Acres and property owners within The Farmstead: there does not appear to be a buffer (green space) between the alley and fence line of current The Farmstead property owners. If the garages of the proposed duplexes are placed against this alleyway, there leaves little space for cars to pass each other or back out of said garage, which makes it concerning that vehicles may run into fences along the property.

Concerning the small green space located at one end of the property: will there be a requirement for front yard space with these properties? How will the residents of Farmstead Acres community upkeep the small space? Will there be a HOA? The neighborhoods (Fickle Farms & phase 1 of The Farmstead) surrounding it are now going to be a combined HOA; will these be included?

Lastly, concerning the wording of duplexes. Is it a total of 32 duplexes meaning residences (1 per lot)? Or is it 32 duplexes meaning 64 residences (2 per lot)? If it is the latter, how does this fit into reducing the number of homes per the previous proposal discussed with the town and residents of The Farmstead back in October 2022? A total of 64 residences brings in the issue of a high density area with limited traffic flow. Just because the roads can handle the traffic, does not mean that they should.

I thought the reason to re-evaluate the proposal for this property was to make it more inclusive with the surrounding communities it connects to so why are we not seeing reduced quantity of homes and more single dwellings in this new proposal?

Thank you all for your time, effort, and support taking the surrounding community’s concerns into account.

Regards,
Kim Shively
213 Ole Bessie Drive