Boulder County

Community Planning & Permitting

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BOULDER COUNTY PLANNING COMMISSION
PUBLIC HEARING

October 21, 2020 at 1:30PM
Hearing to be Held Virtually due to COVID-19

STAFF RECOMMENDATION

STAFF PLANNER: Jean (Raini) Ott, AICP, CFM, Planner II

Docket SU-20-0003: Jubilee Acres Reception Hall

Proposal:	Special Use and Site Specific Development Plan request for a reception hall to host weddings and other events approximately 150 times per year on a 36-acre parcel.
Location:	15293 N. 107th Street, located on the west side of Hwy 287/N. 107th Street approximately 2,000 feet north of its intersection with Yellowstone Road, in Section 3, Township 3N, Range 69W.
Zoning:	Agricultural (A) Zoning District
Property Owner:	S&C Walter Properties I, LLC
Applicants:	Shane & Courtney Walter
Agent:	Rob Molloy, Planscapes

PACKET CONTENTS

SUMMARY

This application requests Special Review and Site Specific Development Plan approval for a Reception Hall to host weddings and other events approximately 150 times per year, including the construction of a 5,175-square-foot reception hall, 2,760-square-foot chapel, and four 900-square-foot cabins in the Agricultural (A) Zoning District. With the exception of the proposed cabins for overnight lodging of event clients, staff recommends the Planning Commission approve and recommend approval to the Board of County Commissioners since staff finds the request can meet the Special Review Criteria in Article 4-601 of the Boulder County Land Use Code, with the recommended conditions.

DISCUSSION

The subject property is an approximately 36-acre legal building lot located north of the City of Longmont on the west side of US Highway 287 north of its intersection with Yellowstone Road. As seen in Figure 1 below, the property is bisected by two ditches, the Upper Highland Ditch and the Supply Ditch, the latter of which the owner holds to shares in. Approximately 1.6 acres are currently under agricultural production and the footprint of the proposed Reception Hall use, including infrastructure and other site disturbance, would remove approximately 5.3 acres or roughly 15% of the property from use in future production in a concentrated area between the two ditches.

Figure 1: Aerial of the Subject Property

The applicant requests a Reception Hall use to host weddings and other events approximately 150 times per year, including the construction of a 5,175-square-foot reception hall, 2,760-square-foot chapel, and four 900-square-foot cabins, resulting in a total floor area of 11,535 square feet. The average event size proposed is 125 guests, with 300 individuals being the maximum for any single event, including vendors and staff. The hours of operation proposed from setup to takedown are noon to midnight, with events aside from church services occurring between 4:00 PM and 10:00 PM. As proposed, only one event would be held each day, except on Sundays when the space would be donated to a local religious organization for services between 9:00 AM and noon and a separate event may take place in the afternoon. During peak season, May through October, the number of anticipated events per week is three to four. One to two events per week are expected the other six months of the year, resulting in approximately 130 events during a calendar year.

As detailed in the criteria review below, staff finds that the proposed Reception Hall use can meet the Special Review criteria in Article 4-601 of the Land Use Code, with the recommended conditions of approval.

REFERRALS
This application was referred to the typical agencies, departments, and adjacent property owners. All responses received are attached and summarized below:

County Development Review Team – Engineering: This team reviewed the proposal and found that legal access to the subject property is demonstrated and agreed with the findings of the Transportation System Impact Study dated May 8, 2020 that the traffic generated by the project can be safely accommodated. The access and parking lots must be designed to comply with the Boulder County Multimodal Transportation Standards (MMTS), including for bicycle parking, and the proposed on-site detention ponds must comply with the Boulder County Storm Drainage Criteria Manual (SDCM). Revised plans, a breakdown of all proposed non-foundational earthwork, permissions from the Highland Ditch Company and the Supply Ditch Company that confirm their approvals of the final design, copies of the 60-foot ditch easements, and a copy of the Colorado Department of Transportation (CDOT) access permit must be submitted at building permit application. In addition, overflow parking is not permitted for this development proposal, no more than 111 vehicles may be parked on-site at any time, and a Stormwater Quality Permit is required.

Colorado Department of Transportation: This agency reviewed the proposal and responded that the applicant has worked with them to address concerns.

County Parks & Open Space Department: This department reviewed the proposal and initially responded with significant concerns. In an updated referral response, a condition of approval was requested to tie the property owner's water shares in the Supply Ditch to the land to ensure the applicants' commitment of record to utilize that water for agricultural production only.

County Public Health Department: This department reviewed the proposal and noted that a commercial on-site wastewater treatment system (OWTS) permit must be obtained prior to issuance of any building permits and that the system must be installed, inspected and approved prior to issuance of a Certificate of Occupancy. Further, the response noted that the applicant does not propose a kitchen for food service. If a kitchen is used for food service, then a Plan Review will be required.

County Building Safety & Inspection Services Team: This division reviewed the proposal and stated that building permits and plan review are required for the proposed structures. A more detailed plan review will be performed at the time of permit application when full details are available for review to ensure that all applicable minimum requirements are met.

Berthoud Fire Protection District: This agency reviewed the proposal and responded that a fire sprinkler system and alarm system are required for all structures and the access road must meet the requirements of the Fire Code.

Highland Ditch Company: This agency reviewed the proposal and responded that they have a sixty-foot historical prescriptive easement on either side of the ditch and included an extensive list of requirements for the applicant to complete.

Colorado Department of Natural Resources – Division of Water Resources: This agency reviewed the proposal and noted that the two proposed detention ponds are subject to review unless they meet requirements as a "storm water detention and infiltration facility".

Little Thompson Water District: This agency reviewed the proposal and responded that the applicant must submit a commitment request in order for the District to evaluate the water needs for the proposed development, including tap size, projected flows, projected annual water usage, and required fire flows along with supporting documentation.

Boulder Valley and Longmont Conservation Districts: This agency reviewed the proposal and noted that the applicant addressed many initial concerns in the revised application. Additional context about water rights and ditch maintenance was also included in the referral response.

Adjacent Property Owners: Notices were sent to 24 adjacent property owners and staff received ten comments, one noting no concerns and the rest voicing concerns regarding traffic, noise, light, drainage, privacy, safety and security, decreased property values, environmental impact, incompatibility, use of overnight cabins, agricultural impact, and visual impact. Traffic and noise were the two main categories of concerns.

Agencies that did not respond or responded with no conflict include: Xcel Energy, Urban Drainage and Flood Control District, Larimer County, City of Longmont, Supply Irrigating Ditch Company, St. Vrain & Left Hand Water Conservancy District, CenturyLink Communications, Northern Colorado Water Conservancy District, and Meadow Green Homeowners Association.

SPECIAL REVIEW CRITERIA REVIEW

The Community Planning & Permitting staff has reviewed the standards for approval of a Special Review for a Reception Hall in the Agricultural Zoning District, per Article 4-601 of the Boulder County Land Use Code, and finds the following:

(1) Complies with the minimum zoning requirements of the zoning district in which the use is to be established, and will also comply with all other applicable requirements;

The subject property is in the Agricultural Zoning District and is an approximately 36-acre legal building lot. Reception Halls are permitted in the Agricultural Zoning District if approved through the Special Review process, per Article 4-504.G.

Staff found that the four 900-square-foot cabins proposed cannot be permitted because they constitute a Resort Lodge, Conference Center, or Guest Ranch use. Therefore, staff recommends a condition of approval to remove the cabins from the proposal to avoid having two principal uses that increase density. However, the proposed Church use is allowed by-right and can be permitted.

The applicant must obtain all required permits from the county, state, and other agencies, including the ditch companies. With the recommended conditions of approval, staff finds the proposal meets the minimum zoning requirements of the Agricultural Zoning District. Therefore, staff finds this criterion can be met.

(2) Will be compatible with the surrounding area. In determining compatibility, the Board should consider the location of structures and other improvements on the site; the size, height and massing of the structures; the number and arrangement of structures; the design of structures and other site features; the proposed removal or addition of vegetation; the extent of site disturbance, including, but not limited to, any grading and changes to natural topography; and the nature and intensity of the activities that will take place on the site. In determining the surrounding area, the Board should consider the unique location and environment of the proposed use; assess the relevant area that the use is expected to impact; and take note of important features in the area including, but not limited to, scenic vistas, historic townsites and rural communities, mountainous terrain, agricultural lands and activities, sensitive environmental areas, and the characteristics of nearby development and neighborhoods;

The subject property is located approximately 3.5 miles north of the City of Longmont and the surrounding area is comprised mostly of agricultural and residential uses. A garden center is located immediately north of the subject property. As shown in Figure 2 below, the proposed arrangement of facilities on the subject property clusters structures and centralizes the area of site disturbance between the two ditches, preserving 20 acres of agricultural land to the north and south. The total area of disturbance, including infrastructure and parking, is approximately 5.3 acres, or 15% of the property.

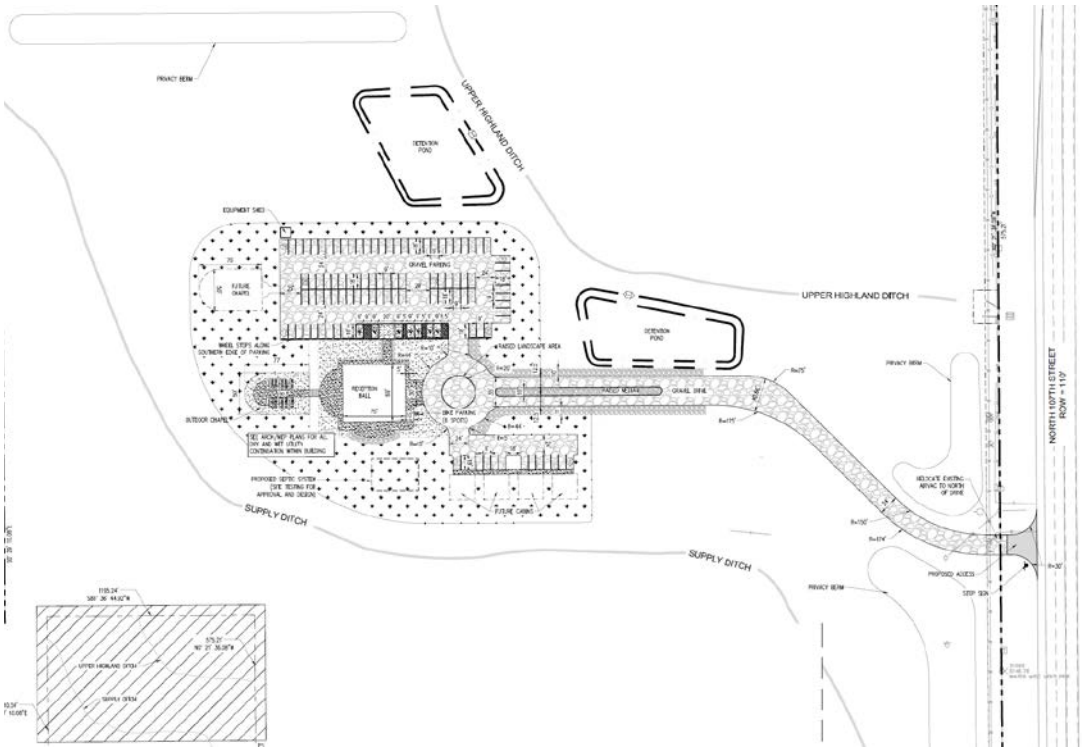

Figure 2: Proposed Overall Site Plan

Staff finds the proposed use to be compatible with the surrounding area since it is easily accessible, the necessary infrastructure and services exist in the immediate area, and it is in close proximity to a major population center. Further, staff finds the proposed site layout is compatible with the land since the area of disturbance is concentrated in a small area and the arrangement innovatively marries agricultural uses with the Reception Hall use in a way that is in harmony with the surrounding area. With the recommended conditions of approval under other criteria addressing impacts on agricultural land, views from the highway, and site disturbance, staff finds this criterion can be met.

(3) Will be in accordance with the Boulder County Comprehensive Plan;

Portions of the subject property are designated as Agricultural Lands of Local, Statewide, and National Importance, as shown in Figure 3 below. The proposal preserves approximately 85% of the parcel and effectively clusters improvements in a central location. The applicant proposes to lease out the 20 acres of preserved land north and south of the ditches on the subject property for pasture or crop production. Another approximately 3.5 acres is proposed to be used for growing farm-to-table produce for use by caterers and other vendors at events. Further, the application materials indicate that the two Supply Ditch water shares will not be used to support the Reception Hall use but will instead be used only for agricultural production. To ensure the applicants' commitment of record to utilize their water shares for

agricultural purposes only, staff recommends a condition of approval requiring the shares to remain attached to the property and available for agricultural production.

Although immediately located within a rural setting, the subject property is also in close proximity to the City of Longmont and has access to existing facilities and services to support the proposed use. Given that many of the guests are anticipated to find accommodations within the City of Longmont, just a three-minute drive to the south, staff finds the proposed use in this location to strike an appropriate balance between the two distinct areas.

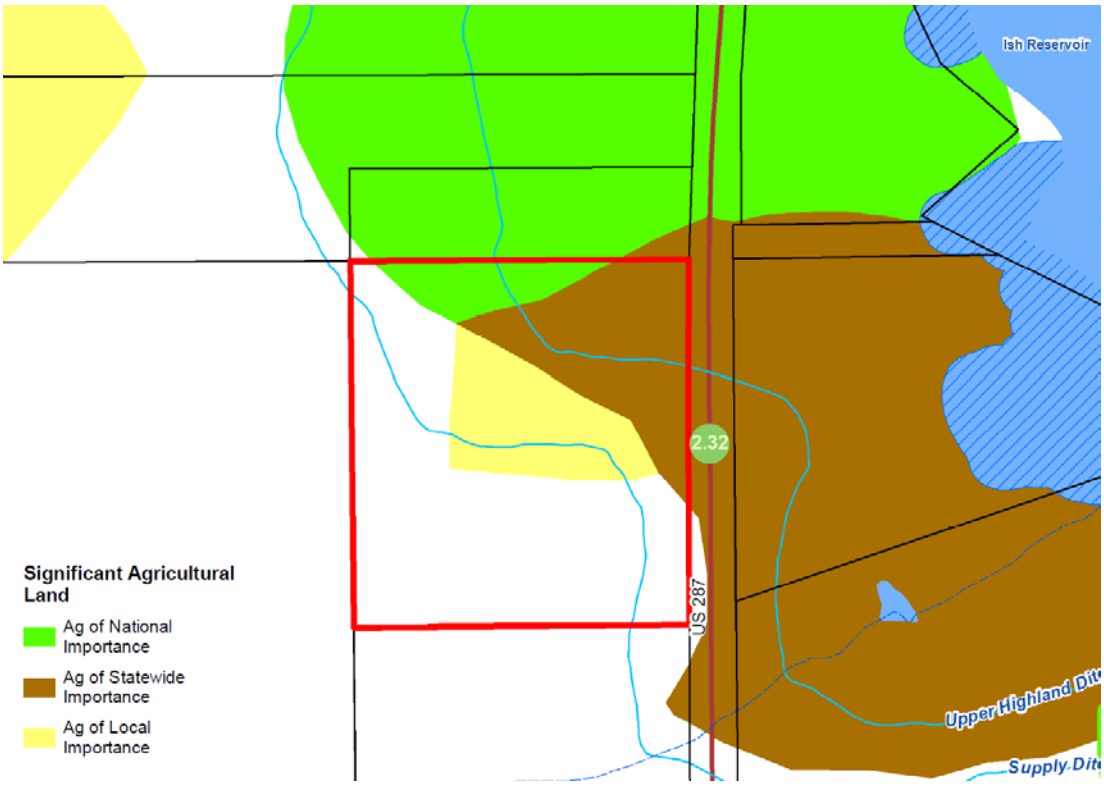

Figure 3: Boulder County Comprehensive Plan Map

Relevant Boulder County Comprehensive Plan goals and policies include:

> Guiding Principle 5: *"Maintain the rural character and function of the unincorporated area of Boulder County by protecting environmental resources, agricultural uses, open spaces, vistas, and the distinction between urban and rural areas of the county."*
>
> Plains Planning Area Policy PPA 1.01: *"Land uses within the Plains Planning Area should continue to be related to agricultural activities, environmental resource protection, low-density residential development and other activities consistent with the rural character of the county."*
>
> Agricultural Element Goal AG 1.02: *"The county shall foster and encourage varied activities and strategies which encourage a diverse and sustainable agricultural economy and utilization of agricultural resources."*
>
> Agricultural Element Goal AG 1.03: *"It is the policy of Boulder County to encourage the preservation and utilization of those lands identified in the Agricultural Element*

as Agricultural Lands of National, Statewide, or Local Importance and other agricultural lands for agricultural or rural uses."

With the recommended conditions of approval discussed throughout to mitigate impacts on surrounding properties and agricultural land, staff finds the proposed Reception Hall use to be in accordance with the Comprehensive Plan. Therefore, staff finds this criterion can be met.

(4) Will not result in an over-intensive use of land or excessive depletion of natural resources. In evaluating the intensity of the use, the Board should consider the extent of the proposed development in relation to parcel size and the natural landscape/topography; the area of impermeable surface; the amount of blasting, grading or other alteration of the natural topography; the elimination or disruption of agricultural lands; the effect on significant natural areas and environmental resources; the disturbance of plant and animal habitat, and wildlife migration corridors; the relationship of the proposed development to natural hazards; and available mitigation measures such as the preservation of open lands, the addition or restoration of natural features and screening, the reduction or arrangement of structures and land disturbance, and the use of sustainable construction techniques, resource use, and transportation management.

A significant amount of grading and alteration to the natural landscape is proposed, but in a concentrated area that reserves approximately 85% of the parcel for agricultural production. The applicant proposes three berms along the northern and eastern property boundaries to reduce the encroachment of noise both from Highway 287 and to neighboring properties. However, staff finds the berms to be an unnecessary alteration of the natural topography that should not be approved and instead recommends additional tree screening in the same locations to mitigation noise, as discussed further under criteria #8 and #9 below.

Staff also recommends requiring a Revegetation Plan, which may be incorporated into a Landscaping Plan, as a condition of approval to ensure the restoration of disturbed areas created through this project. This Revegetation Plan should include native species to be used and details about site disturbance, treatment of excavated soils, and required erosion control measures. To mitigate potential erosion and stormwater runoff issues that may occur during construction, staff recommends requiring a Stormwater Quality Permit and other erosion and sediment control measures as conditions of approval since the area of disturbance on the subject property is within 100 feet of the Upper Highland and Supply Ditches.

As conditioned, staff does not find the proposal will result in an over-intensive use of land or an excessive depletion of natural resources. Proposed structures will be clustered, minimizing the physical impacts of the new development and preserving the majority of the parcel for open agricultural use. Therefore, as conditioned, staff finds this criterion can be met.

(5) Will not have a material adverse effect on community capital improvement programs;

There is no indication the proposal will have an adverse effect on community capital improvement programs, and no referral agency has responded with such a concern. Consequently, staff finds this criterion is met.

(6) *Will not require a level of community facilities and services greater than that which is available;*

Staff does not anticipate the proposal will have an adverse effect on community facilities and services given its proximity to the City of Longmont and ability to be accessed from a major roadway. Per the referral response from Public Health, installation of a commercial on-site

wastewater treatment system is required, and an adequate water supply exists for the proposed use. The property owner holds two shares of Supply Ditch water and the subject property is served by Little Thompson Water District. The ditch water is proposed to be used only for agricultural production while Little Thompson water will be used for all other non-agricultural uses.

Staff has not otherwise identified any impacts on community facilities and services and no referral agency has responded with such a concern. Therefore, as conditioned to obtain all required permits, staff finds this criterion can be met.

(7) ***Will support a multimodal transportation system and not result in significant negative impacts to the transportation system or traffic hazards;***

The subject property is accessed via North 107th Street/US Highway 287 and legal access to the property is demonstrated by adjacency to this public road. Further, engineering staff concurs with the findings of the Transportation System Impact Study (TSIS) dated May 8, 2020, that the traffic generated by the proposed use can be safely accommodated by the existing public street network and improvements on Highway 287. Staff also agrees with the proposed restriping along the shoulder of Highway 287 for use as a deceleration lane to and an acceleration lane from the site entrance.

In addition, per the application materials, the applicant will require shuttle service for events with over 200 guests and will encourage shuttle service for all other events and staff recommends a condition of approval to that effect. Based on the traffic study, approximately 2.5 occupants are anticipated per vehicle for this use and 111 vehicle parking spaces are adequate to accommodate the necessary parking in combination with the proposed use of shuttle services. The applicant's commitment of record to require shuttle service has the added benefit of reducing the number of vehicles coming and going from the property during an event, further reducing traffic risks. To enforce this agreement, staff recommends a condition of approval that no overflow parking be permitted for this development proposal and that no more than 111 vehicles be parked on-site at any time.

As detailed in the referral response from Engineering, revised plans demonstrating compliance with the Boulder County Multimodal Transportation Standards (MMTS) and the Boulder County Storm Drainage Criteria Manual (SDCM) are required, along with a breakdown of all proposed non-foundational earthwork, at the time of building permit application. This includes incorporating the required ADA-compliant and bicycle parking.

The applicant must also submit permissions from the Highland Ditch Company and the Supply Ditch Company that confirm their approvals of the final design, copies of the 60-foot ditch easements, and a copy of the Colorado Department of Transportation (CDOT) access permit at building permit application.

As a condition of approval, staff recommends requiring updated plans and documents demonstrating compliance with these requirements be submitted at building permit application. Therefore, as conditioned, staff finds this criterion can be met.

(8) ***Will not cause significant air, odor, water, or noise pollution;***

The proposed operational standards for the Reception Hall include a strict 10:00 PM cut-off time for all events, with enforcement measures, and the only outdoor amplified sound to be used would be for outdoor ceremonies at the beginning of an event. All other phases of events are proposed to be held within the reception hall, which includes sound-proofing measures. Staff recommends a condition of approval noting that all persons on the subject property must

comply with Boulder County Ordinance No. 92-28: An Ordinance Pertaining to the Regulation of Noise on Public and Private Property.

Berms are proposed to further reduce noise trespass. However, as stated under criterion #4 above, the berms are found to be an over-intensive use of the land. To mitigate noise produced by the proposed use, staff recommends a condition of approval for additional tree screening in the same locations as the proposed berms along the northern and eastern property boundaries.

With the recommended conditions of approval to mitigate noise and for erosion control measures during construction, as discussed under criterion #4 above, staff does not anticipate that the proposal will cause significant air, odor, water, or noise pollution and no referral agency has responded with such a concern. Therefore, as conditioned, staff finds this criterion can be met.

(9) Will be adequately buffered or screened to mitigate any undue visual impacts of the use;

The proposed structures are clustered between the two existing ditches, approximately 790 feet from US Highway 287. In addition, the existing topography and vegetative screening along the two ditches provides some amount of visual buffering from the north and south. The reception hall is large and proposed at a maximum height of 30 feet from existing grade, but far from the road and similar in size to other existing structures in the surrounding area. The applicant proposes using 35% reduced light transmittance glazing for both the reception hall and chapel on the west elevations, which are almost entirely made up of windows.

To ensure proposed structures blend in with the surrounding landscape to the greatest extent possible, staff recommends requiring color samples and exterior lighting plans at building permit application as a condition of approval. Colors should be carefully selected from the grey, green, or brown color range and exterior lighting should be limited to only what is necessary for the safety of staff and guests during events. In addition, staff recommends requiring a plan for any proposed access drive, parking lot, or landscape lighting on the site to ensure nighttime visual impacts are minimized. The proposed string lights on the reception hall should not be approved.

Given the distance of proposed structures from the highway, existing vegetative and topographic buffering, and the recommended condition for additional tree screening, staff finds the use can be adequately screened and staff does not anticipate any undue visual impacts. Therefore, as conditioned, staff finds this criterion can be met.

(10) Will not otherwise be detrimental to the health, safety, or welfare of the present or future inhabitants of Boulder County;

Neither staff nor any referral agency has identified any issues that would result in the project being detrimental to the health, safety, or welfare of the present or future inhabitants of Boulder County. Therefore, staff finds this criterion is met.

(11) Will establish an appropriate balance between current and future economic, environmental, and societal needs by minimizing the consumption and inefficient use of energy, materials, minerals, water, land, and other finite resources;

The applicant proposed to use geothermal energy for all structures and will require recycling and compostable or reusable materials to be used for all events and by all vendors. In addition, the proposed use will help support the local economy, especially within the City of

Longmont, by using local vendors and by a majority of guests finding lodging accommodations nearby.

Staff finds the proposed Reception Hall use and associated development strike an appropriate balance between the current needs of the applicant and Boulder County wedding market and the conservation and efficient use of resources for the future. With the preservation of 85% of the subject property for agricultural production and efficient utilization of the land alongside the proposed Reception Hall use, staff finds this criterion is met.

(12) Will not result in unreasonable risk of harm to people or property – both onsite and in the surrounding area – from natural hazards. Development or activity associated with the use must avoid natural hazards, including those on the subject property and those originating off-site with a reasonable likelihood of affecting the subject property. Natural hazards include, without limitation, expansive soils or claystone, subsiding soils, soil creep areas, or questionable soils where the safe-sustaining power of the soils is in doubt; landslides, mudslides, mudfalls, debris fans, unstable slopes, and rockfalls; flash flooding corridors, alluvial fans, floodways, floodplains, and flood-prone areas; and avalanche corridors; all as identified in the Comprehensive Plan Geologic Hazard and Constraint Areas Map or through the Special Review or Limited Impact Special Review process using the best available information. Best available information includes, without limitation, updated topographic or geologic data, Colorado Geologic Survey landslide or earth/debris flow data, interim floodplain mapping data, and creek planning studies.

The subject property is not located within any hazard areas identified in the Boulder County Comprehensive Plan, and no referral agency has responded with such a concern. Therefore, staff finds this criterion is met.

(13) The proposed use shall not alter historic drainage patterns and/or flow rates unless the associated development includes acceptable mitigation measures to compensate for anticipated drainage impacts. The best available information should be used to evaluate these impacts, including without limitation the Boulder County Storm Drainage Criteria Manual, hydrologic evaluations to determine peak flows, floodplain mapping studies, updated topographic data, Colorado Geologic Survey landslide, earth/debris flow data, and creek planning studies, all as applicable given the context of the subject property and the application.

The project area is not located within any major drainage features. With the recommended conditions of approval for updated plans, erosion and sediment control, and revegetation after construction, staff does not anticipate any negative impacts on historic drainage patterns or flow rates and no referral agency has responded with such a concern. In addition, the removal of the proposed berms as recommended by staff further reduces the potential for impacts to existing drainage patterns. Therefore, as conditioned, staff finds this criterion can be met.

RECOMMENDATION

Staff has determined that the proposal can meet all the applicable criteria of the Boulder County Land Use Code for Special Review. Therefore, staff recommends the Planning Commission recommend that the Board of County Commissioners **conditionally approve docket SU-20-0003 Jubilee Acres Reception Hall** with the following conditions:

1. The applicant shall provide a Development Agreement, for review and approval by County staff, prior to the issuance of any permits by the Boulder County Community Planning & Permitting Department and prior to the recordation of said agreement.

2. ***Prior to recordation of the Resolution or Development Agreement,*** the property owner shall enter into a restrictive covenant with the County confirming that the two shares of the Supply Ditch will remain attached to, appurtenant to, and available for continued use on the Property, in order to ensure the applicants' commitment of record to utilize that water for agricultural purposes only.

3. All applicable local, state, and federal permits must be obtained and maintained.

4. The four 900-square-foot cabins for overnight client lodging are not approved.

5. The proposed berms on the site plan dated September 2, 2020 are not approved.

6. All persons must comply at all times with Boulder County Ordinance No. 92-28: An Ordinance Pertaining to the Regulation of Noise on Public and Private Property.

7. Shuttle service must be provided for all events where 200 people or more, including staff and vendors, will be on-site. The use of shuttle service for all other events must be encouraged.

8. ***At building permit application,*** the applicant must submit updated access and parking lot designs that comply with the Boulder County Multimodal Transportation Standards, including bicycle and ADA-compliant parking as detailed in the referral response from the Development Review Team – Engineering. No overflow parking is permitted and a maximum of 111 vehicles may be on-site at any time.

    a. ***Prior to final inspection***, the Community Planning & Permitting Department must verify that the access and parking comply with the Boulder County Multimodal Transportation Standards.

9. ***At building permit application,*** revised plans for the on-site detention ponds must be submitted that comply with the Boulder County Storm Drainage Criteria Manual. Permissions from the Highland Ditch Company and the Supply Ditch Company that confirm their approvals of the final design and copies of the ditch easements must also be submitted.

    a. ***Prior to final inspection***, the Community Planning & Permitting Department must verify that detention ponds comply with the Boulder County Storm Drainage Criteria Manual.

10. ***At building permit application,*** a breakdown of all proposed non-foundational earthwork must be submitted. Site disturbance and non-foundational earthwork must be minimized to the extent possible.

11. ***At building permit application,*** the applicant must submit a Revegetation Plan for review and approval by the Community Planning & Permitting Department.

12. ***At building permit application,*** details regarding the placement and construction of the silt fence must be submitted to and approved by the Community Planning & Permitting Department. The placement and profile of the silt fence must be shown on the Revegetation Plan. The silt fence must be installed before construction commences and remain in place until vegetation is sufficiently established on the disturbed soil.

    a. ***Prior to any grading or site disturbance,*** the silt barrier location and materials must be installed as required per the approved plans.

13. ***At building permit application,*** the applicant must submit to the Community Planning & Permitting Department for review and approval exterior color samples (color chips, brochure, or catalog page) to be used including roof, siding, and trim.

    a. ***Prior to issuance of a Certificate of Occupancy,*** the Community Planning & Permitting Department must inspect and verify that the approved colors and materials are used on the structures.

14. ***At building permit application,*** one copy of a proposed lighting plan must be submitted to the Community Planning & Permitting Department for review and approval. Down lighting is required, and all bulbs must be fully shielded to prevent light emissions above a horizontal plane drawn from the bottom of the fixture. The lighting plan must indicate the locations of all exterior fixtures on the structures and the site, including in and around parking, Cut sheets (manufacturer's specifications with picture or diagram) of all proposed fixtures must be submitted and no permanent string lighting is permitted.

    a. ***Prior to issuance of a Certificate of Occupancy,*** the full installation of the approved lighting plan must be inspected and approved by the Community Planning & Permitting Department.

15. ***At building permit application,*** the applicant must submit a Landscape and Screening Plan for review and approval by Parks & Open Space and Community Planning & Permitting staff. The Landscape and Screening Plan must include the following minimum requirements:

    a. The maximum preservation of existing mature trees is required.
    b. Additional trees shall be planted within the locations identified as berms on the site plan dated September 2, 2020, and the tree locations must be noted on the plan.
    c. The locations of the thirteen trees identified on the site plan along the northern boundary are approved as proposed.
    d. Three trees shall be planted in the area of the berm proposed immediately north of the access drive. The locations of the three trees identified on the site plan in the same area are approved as proposed.
    e. Twelve trees shall be planted within the area of the berm proposed immediately south of the access drive.
    f. Trees shall be placed and spaced in a manner that maximizes screening with the goal of “breaking up” the view rather than completely obscuring it.
    g. At the time of planting, deciduous trees shall have at least a two-and-a-half inch caliper, and coniferous trees shall be at least six feet in height.
    h. Trees should be carefully selected from native species, and the proposed species must be listed on the plan.

16. ***Prior to issuance of any building or grading permits,*** the applicant must obtain a Stormwater Quality Permit from the Community Planning & Permitting Department.

17. ***Prior to issuance of any building or grading permits,*** the applicant must provide a copy of the Colorado Department of Transportation access permit.

18. The applicants shall be subject to the terms, conditions, and commitments of record and in the file for docket SU-20-0003 Jubilee Acres Reception Hall.

Community Planning & Permitting

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Mailing Address: P.O. Box 471 • Boulder, Colorado 80306 • **www.bouldercounty.org**

MEMO TO: Referral Agencies
FROM: Jean (Raini) Ott, CFM, AICP, Planner II
DATE: September 4, 2020
RE: Re-Referral for Docket SU-20-0003

THIS IS A RE-REFERRAL FOR THE DOCKET LISTED BELOW

This docket is being re-noticed because revised and additional materials have been submitted by the applicant.

IF YOU HAVE REPLIED TO THE ORIGINAL REFERRAL LETTER AND HAVE NO FURTHER COMMENTS, NO ACTION IS REQUIRED.

Docket SU-20-0003: Jubilee Acres Reception Hall

Request:	Special Use and Site Specific Development Plan request for a reception hall to host weddings and other events approximately 150 times per year on a 36-acre parcel.
Location:	15293 N. 107th Street, located on the west side of Hwy 287/N. 107th Street approximately 2,000 feet north of its intersection with Yellowstone Road, in Section 3, Township 3N, Range 69W.
Zoning:	Agricultural (A)
Property Owner:	S&C Walter Properties I, LLC
Applicants:	Shane & Courtney Walter
Agent:	Rob Molloy, Planscapes

Special Use Review / Site Specific Development Plan is required of uses which may have greater impacts on services, neighborhoods, or environment than those allowed with only Building Permit Review. This process will review compatibility, services, environmental impacts, and proposed site plan.

This process includes public hearings before the Boulder County Planning Commission and the Board of County Commissioners. Adjacent property owners and holders of liens, mortgages, easements or other rights in the subject property are notified of these hearings.

The Community Planning & Permitting staff, Planning Commission, and County Commissioners value comments from individuals and referral agencies. Please check the appropriate response below or send a letter to the Community Planning & Permitting Department at P.O. Box 471, Boulder, Colorado 80306 or via email to planner@bouldercounty.org. All comments will be made part of the public record and given to the applicant. Only a portion of the submitted documents may have been enclosed; you are welcome to call the Community Planning & Permitting Department at 303-441-3930 or email planner@bouldercounty.org to request more information. If you have any questions regarding this application, please contact me at 720-564-2271 or jott@bouldercounty.org.

Please return responses by **October 9, 2020.**
(Please note that due to circumstances surrounding COVID-19, application timelines and deadlines may need to be modified as explained in the CPP Notice of Emergency Actions issued March 23, 2020 (see https://boco.org/covid-19-cpp-notice-20200323).

_____ We have reviewed the proposal and have no conflicts.

_____ Letter is enclosed.

Signed _____ PRINTED
Name_____
Agency or Address _____

Please note that all Community Planning & Permitting Department property owner's mailing lists and parcel maps are generated from the records maintained by the County Assessor and Treasurer Office. We are required to use this list to send notices to the "property owner" of land in Boulder County. If you feel that you should not be considered a "property owner," or if the mailing address used is incorrect, please contact the County Assessor's Office at (303) 441-3530.

Boulder County Land Use Department
Courthouse Annex Building
2045 13th Street • PO Box 471 • Boulder, Colorado 80302
Phone: 303-441-3930
Email: planner@bouldercounty.org
Web: www.bouldercounty.org/lu
Office Hours: Mon., Wed., Thurs., Fri. 8 a.m. to 4:30 p.m.
Tuesday 10 a.m. to 4:30 p.m.

Shaded Areas for Staff Use Only
Intake Stamp

Planning Application Form

The Land Use Department maintains a submittal schedule for accepting applications. *Planning applications are accepted on Mondays, by appointment only. Please call 303-441-3930 to schedule a submittal appointment.*

Project Number		Project Name	
☐ Appeal ☐ Correction Plat ☐ Exemption Plat ☐ Final Plat ☐ Limited Impact Special Use ☐ Limited Impact Special Use Waiver ☐ Location and Extent	☐ Modification of Site Plan Review ☐ Modification of Special Use ☐ Preliminary Plan ☐ Resubdivision (Replat) ☐ Rezoning	☐ Road Name Change ☐ Road/Easement Vacation ☐ Site Plan Review ☐ Site Plan Review Waiver ☐ Sketch Plan ☒ Special Use/SSDP	☐ Special Use (Oil & Gas development) ☐ State Interest Review (1041) ☐ Subdivision Exemption ☐ Variance ☐ Other:

Location(s)/Street Address(es)	15293 N 107th Street Longmont, CO 80504			
Subdivision Name	NORTHERN PLAINS			
Lot(s)	Block(s)	Section(s) 3	Township(s) 3N	Range(s) 69
Area in Acres 36.16	Existing Zoning A-AGRICULTURE	Existing Use of Property ALFALFA CROP		Number of Proposed Lots 1
Proposed Water Supply Little Thompson / Supply Irr. Ditch Co		Proposed Sewage Disposal Method Septic		

Applicants:

Applicant/Property Owner S&C Walter Properties I, LLC			Email Cbrisulli@gmail.com
Mailing Address 107 Dawson Lane			
City Enterprise	State AL	Zip Code 36330	Phone (303)931-7998
Applicant/Property Owner/Agent/Consultant Courtney Walter			Email cbrisulli@gmail.com
Mailing Address 107 Dawson Lane			
City Enterprise	State AL	Zip Code 36330	Phone (303)931-7998
Agent/Consultant Rob Molloy / Planscapes			Email rmmolloy@msn.com
Mailing Address 980 Norway Maple Drive			
City Loveland	State CO	Zip Code 80538	Phone (970)988-5301

Certification (Please refer to the Regulations and Application Submittal Package for complete application requirements.)

I certify that I am signing this Application Form as an owner of record of the property included in the Application. I certify that the information and exhibits I have submitted are true and correct to the best of my knowledge. I understand that all materials required by Boulder County must be submitted prior to having this matter processed. I understand that public hearings or meetings may be required. I understand that I must sign an Agreement of Payment for Application processing fees, and that additional fees or materials may be required as a result of considerations which may arise in the processing of this docket. I understand that the road, school, and park dedications may be required as a condition of approval.

I understand that I am consenting to allow the County Staff involved in this application or their designees to enter onto and inspect the subject property at any reasonable time, without obtaining any prior consent.

All landowners are required to sign application. If additional space is needed, attach additional sheet signed and dated.

X Signature of Property Owner	Courtney Walter	Printed Name Courtney Walter		Date 04/22/20
X Signature of Property Owner		Printed Name Shane Walter		Date 04/22/20

The Land Use Director may waive the landowner signature requirement for good cause, under the applicable provisions of the Land Use Code.

Boulder County Land Use Department

2045 13th Street, Boulder, CO 80302 303-441-3930 www.bouldercounty.org\lu

Vicinity

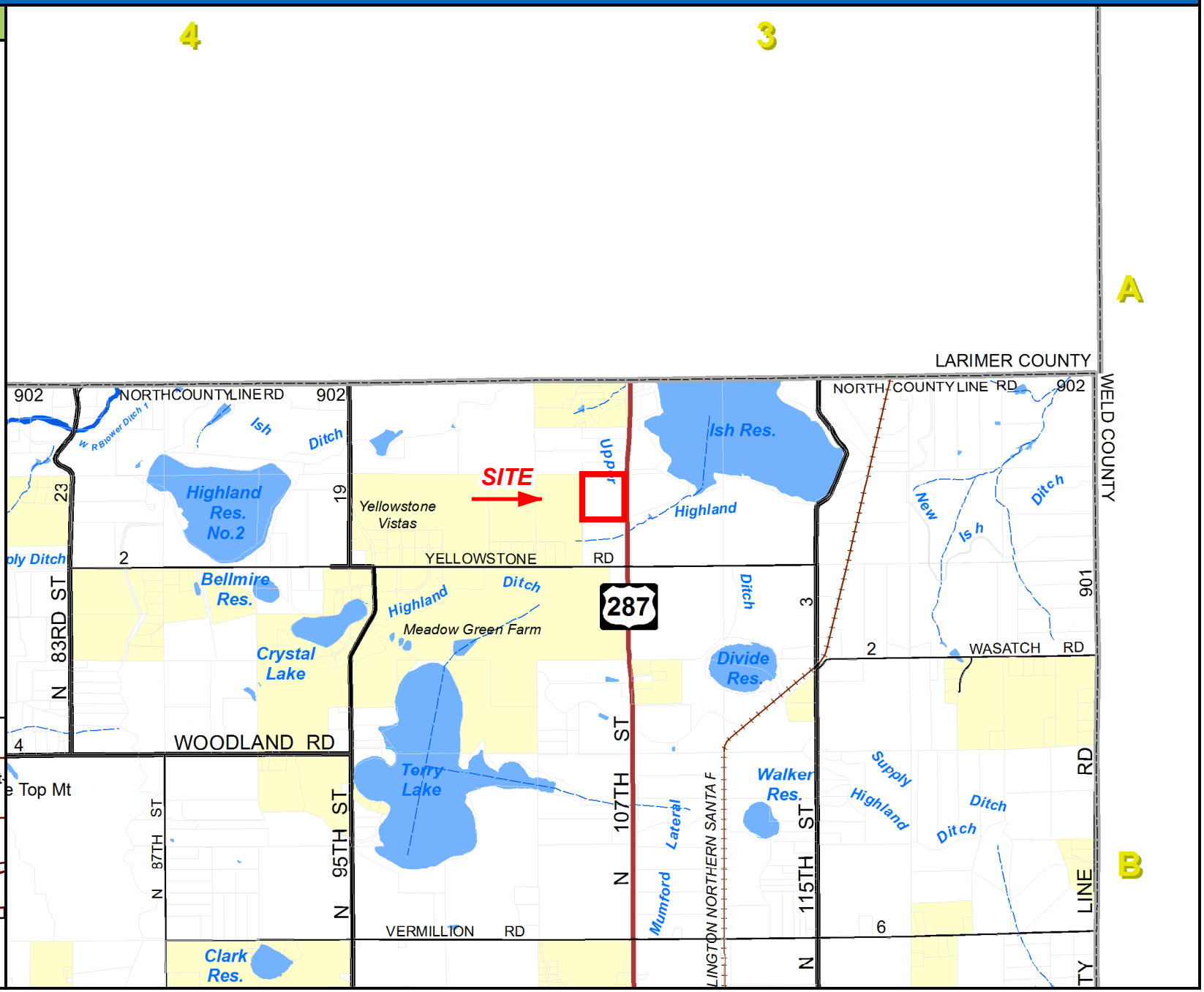
15293 N 107TH ST

Legend

- Subject Parcel
- County Boundary

Subdivisions

- Subdivisions



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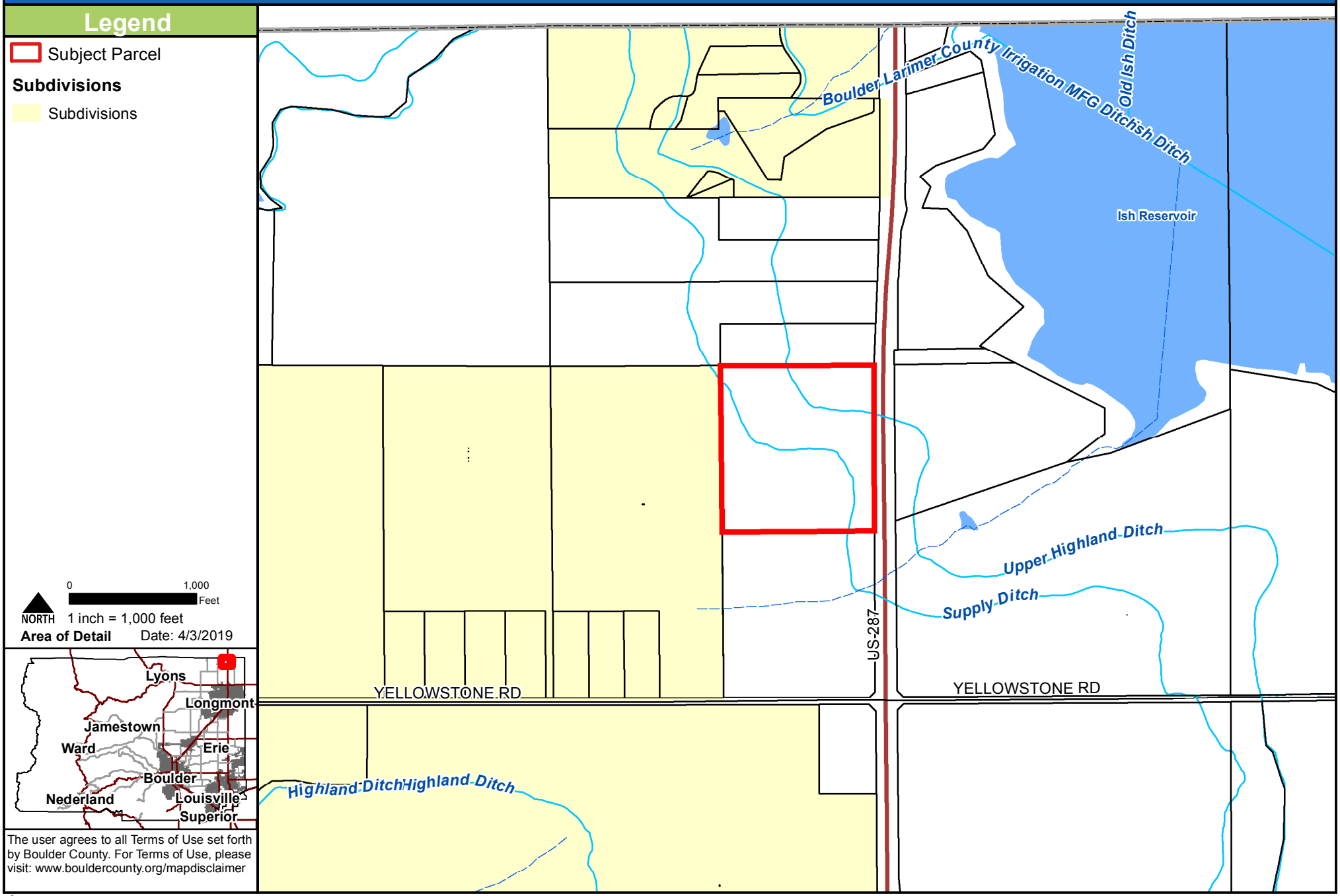
Location

15293 N 107TH ST



Legend

Subject Parcel

Subdivisions

Subdivisions

0 1,000 Feet

NORTH 1 inch = 1,000 feet

Area of Detail Date: 4/3/2019

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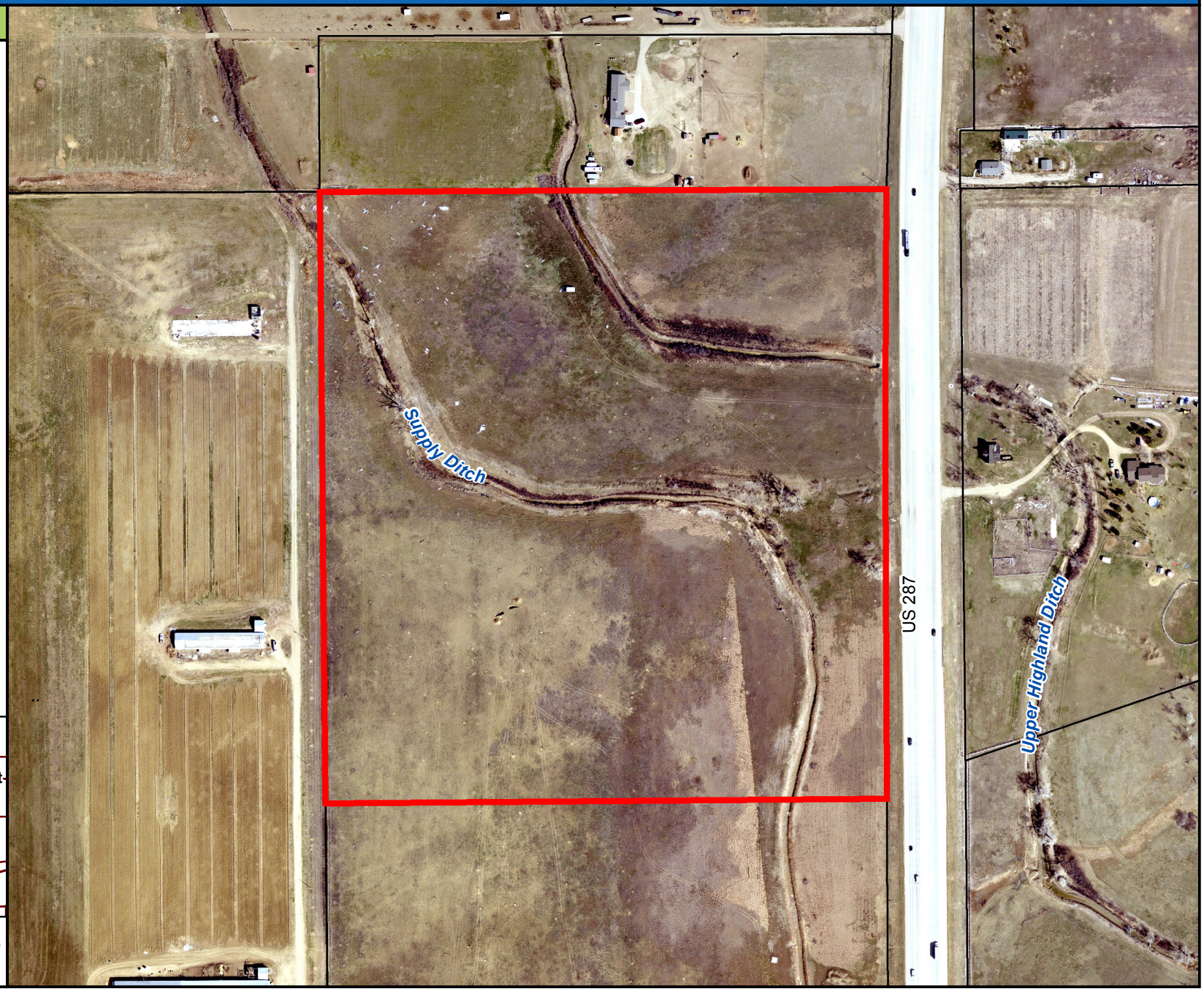
Aerial

15293 N 107TH ST

Legend

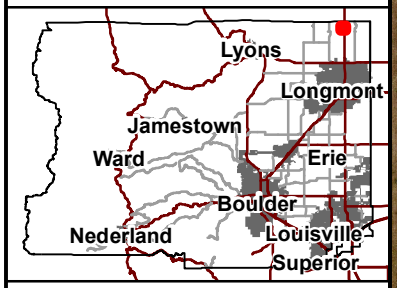
Subject Parcel



0 300 Feet

NORTH 1 inch = 300 feet

Area of Detail Date: 4/3/2019



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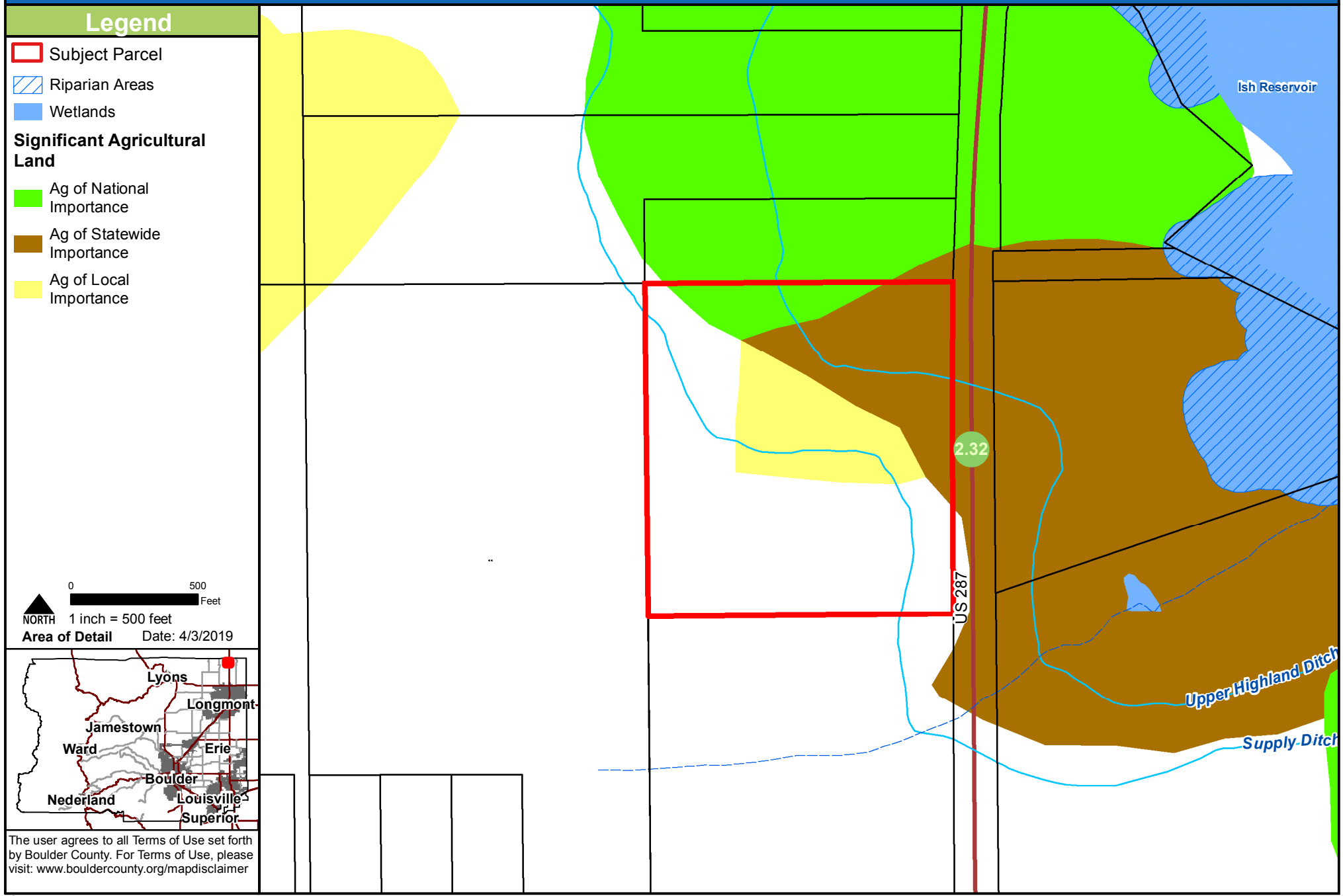
Comprehensive Plan

15293 N 107TH ST



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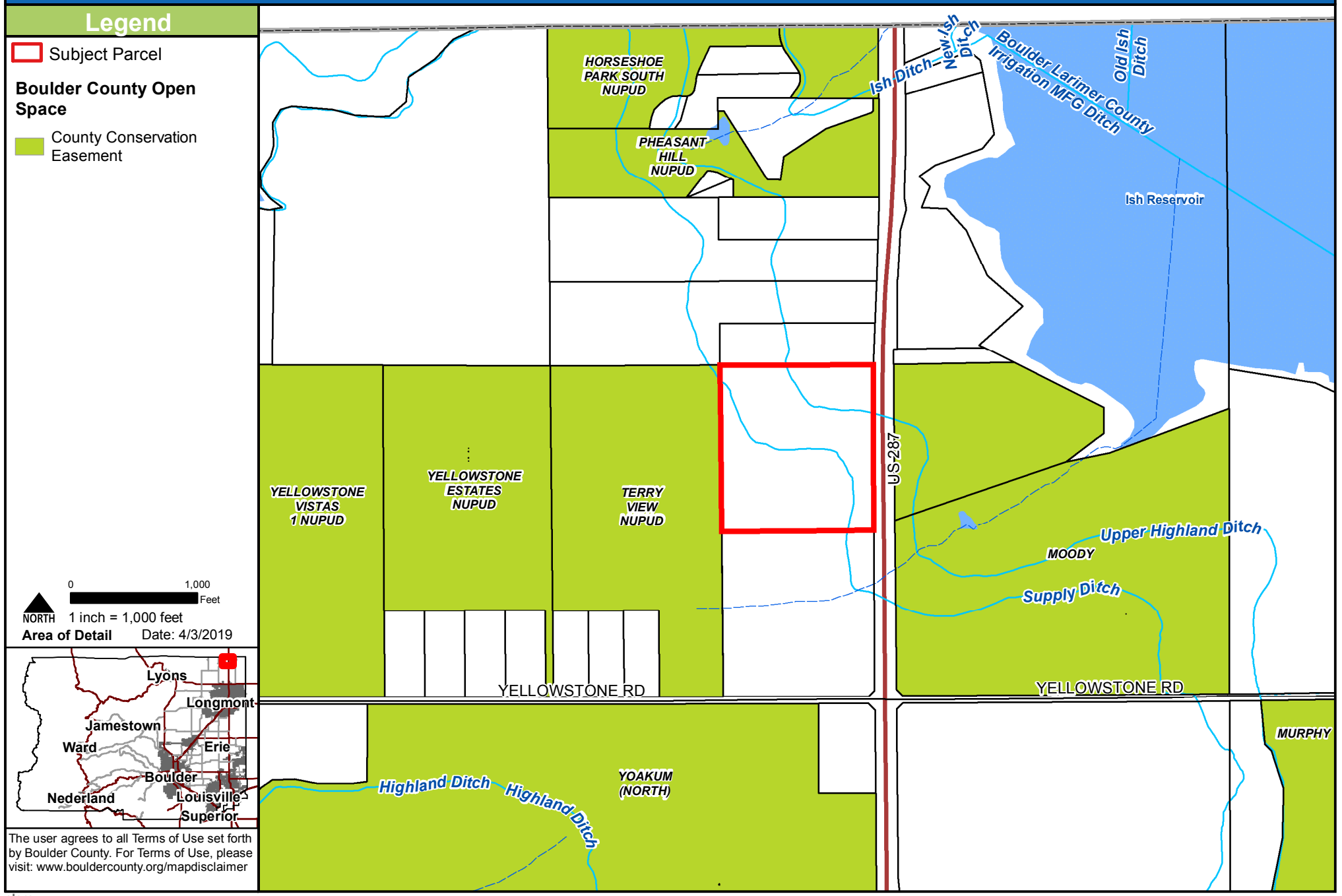
Public Lands & CE's

15293 N 107TH ST



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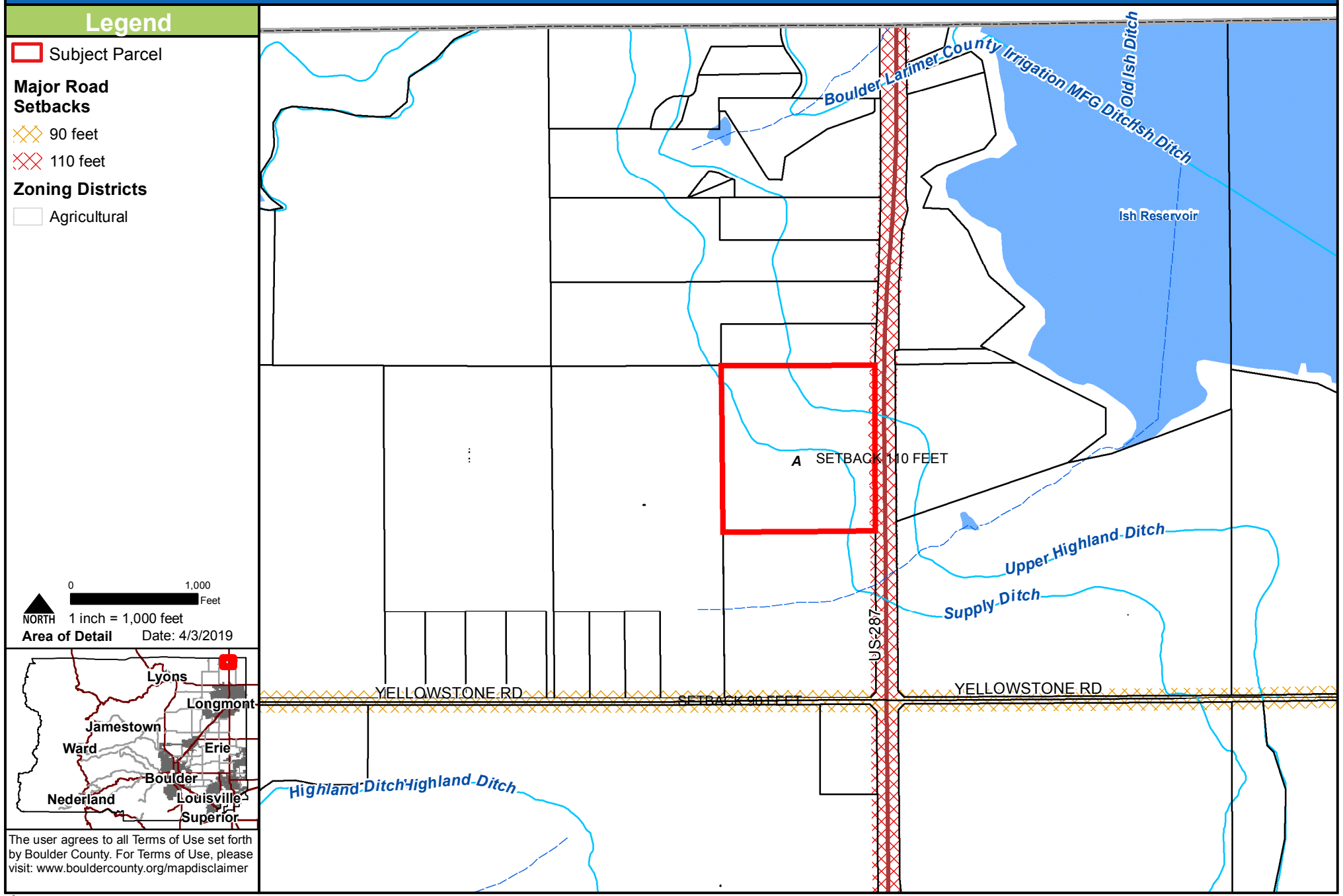
Zoning

15293 N 107TH ST



Legend

- Subject Parcel

Major Road Setbacks

- 90 feet
- 110 feet

Zoning Districts

- Agricultural

0 1,000 Feet

NORTH 1 inch = 1,000 feet

Area of Detail Date: 4/3/2019

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JUBILEE ACRES NARRATIVE

This USR Application for 15293 North 107th Street, Longmont, CO 80504 is being submitted by the property owners:

S&C Walter Properties I, LLC
C/O Courtney Walter & Shane Walter
107 Dawson Lane
Enterprise, AL 36330
cbrisulli@gmail.com
(303) 931-7998

The applicant representative for this proposal is Robert Molloy of Planscapes, LLC and can be reached at rmmolloy@msn.com or (970) 988-5301.

The wedding industry consultant for this project is Darcy Sheahen and can be reached at darcysheahen@gmail.com or (970) 581-6463.

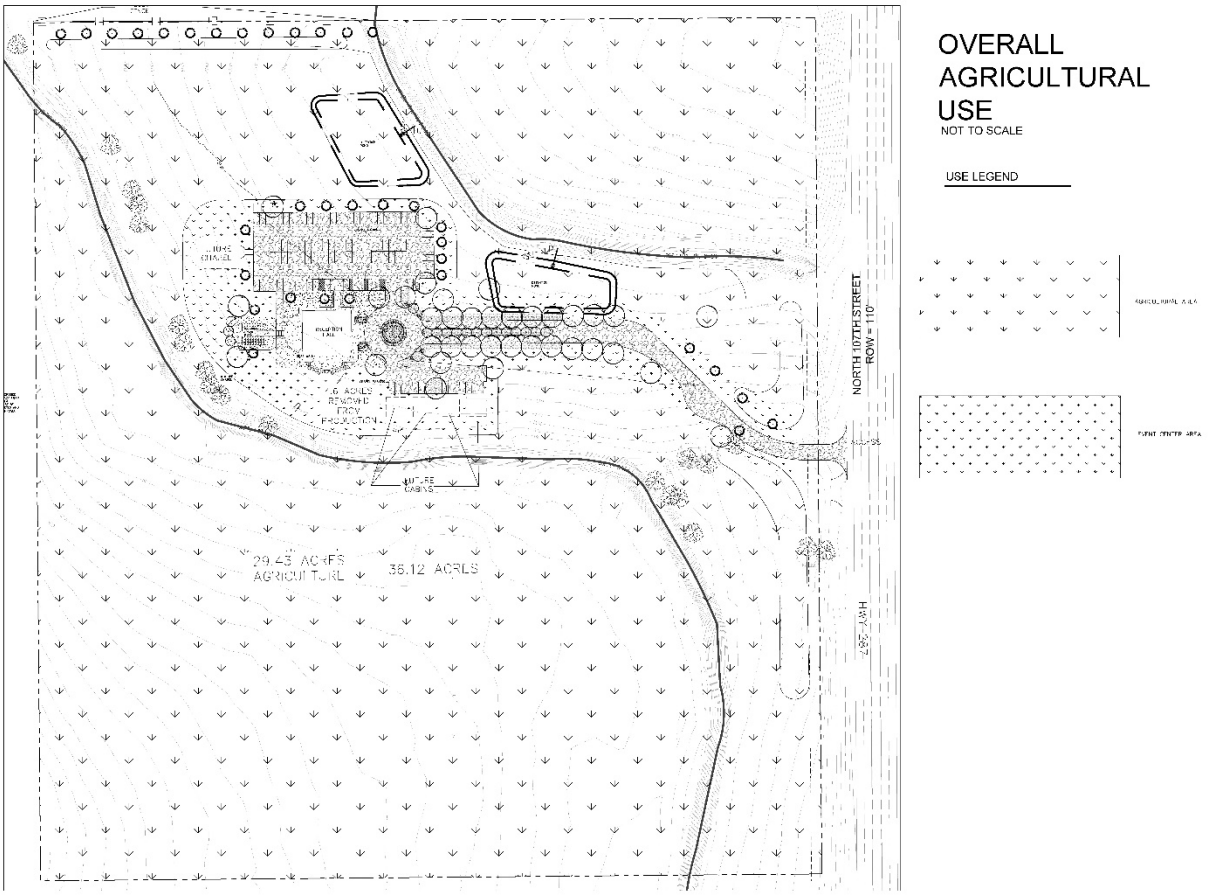
The proposed use of the property, which is zoned Agriculture, is the construction of an indoor reception hall. The reception hall is intended to be used for indoor wedding receptions and indoor church services. The proposed chapel and cabins on the premises will be added upon the success of Jubilee Acres.

The project is expected to occur in two separate phases. Phase one of the project will include construction of a reception hall, establishing a parking lot, and landscaping for the outdoor ceremony space, surrounding the reception hall, and down the driveway corridor. This phase is expected to conclude within one year of USR approval. Phase two of the project will include construction of an indoor ceremony chapel, construction of four (4) cabins for event day and overnight client use, and to finalize the landscaping around the additional buildings. Since this phase is based on the success of the reception hall, we have not yet identified a timeline for construction.

SUMMARY OF AGRICULTURE USE

The map below details the areas in use or planned for the property independently and in conjunction with this project. Currently, there is approximately 1.6 unirrigated acres on the west side of the property that is already in production. There are approximately 20 combined acres north of the Highland Ditch and south of the Supply Ditch will be leased out for highest potential; either pasture or production. Lastly, there are approximately 3.54 acres available between the two irrigation ditches for an organic farm-to-table operations in conjunction with the proposed reception hall use. Of the entire 36.12 acres, only 5.31 acres or 15 percent of the property will be utilized for the proposed USR project. There are 2 proposed detention ponds equaling approximately .7 acres or 2 percent. These detention ponds are included in our 15 percent but are shallow enough and may be utilized as part of our agricultural use depending on the crop or used as part of a grazing area.

The property owner holds two shares of water from the Supply Ditch and plans to use these to support agriculture production on the property. It is the intent of the owner to place the remaining available 87 percent of the property into a more productive agricultural use than how it has historically been utilized.



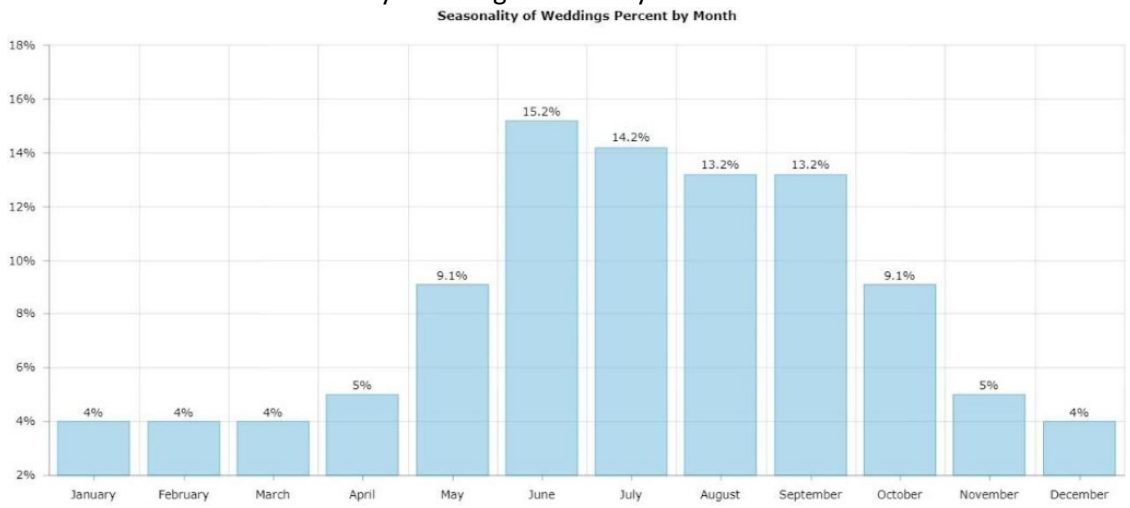
SUMMARY OF PROPOSED USE – RECEPTION HALL

The proposed reception hall at 15293 N 107th Street will primarily appeal to weddings and will be able to accommodate up to 300 people (including vendors and staff) per event for an indoor or outdoor ceremony and indoor reception. The reception hall will only host one event per day, except for Sundays, when use of the indoor space will be donated to a church in the morning and available for a single event in the afternoon.

In peak wedding season, which is defined by wedding market research specific to Boulder County as May through October (please reference the graph below), the reception hall will host between three and four weddings per week. In off-peak season, the reception hall will host between one and two weddings per week. The most common days of the week for these events will be Friday, Saturday, and Sunday. Non-wedding events will vary in seasonality but are anticipated to occur infrequently. These events are likely to include, but are not limited to, fundraising events, high school dances, and holiday parties, and will be hosted by local businesses, non-profit organizations, religious organizations, and schools.

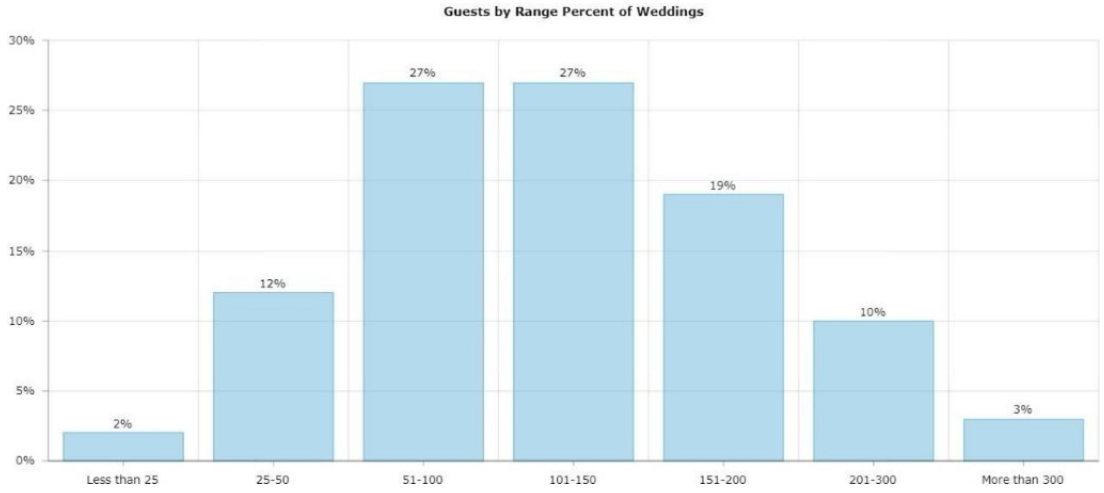
*** All graphs in this narrative are visual depictions of data collected by The Wedding Report, a market research firm that specializes in wedding specific data that can be narrowed down by location. All maps included in this document display data unique to the Boulder County wedding market.*

2019 Boulder County Wedding Seasonality Data



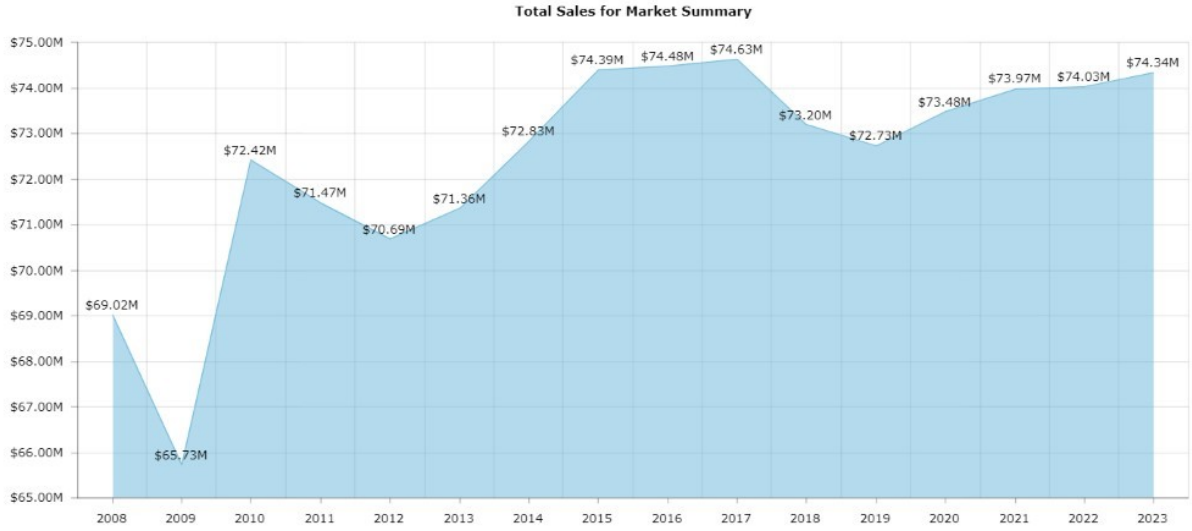
The average event size will be around 125 people, although the proposed reception hall will be able to accommodate events with up to 300 people including vendors and staff. Based on historical industry data, only 10 percent of the total weddings will be over 200 people. Total capacity is intended to be able to accommodate the occasional events that are more than 200 people. This assumption can be made based on Boulder County specific data depicted by the graph below.

2019 Boulder County Wedding Event Size Data



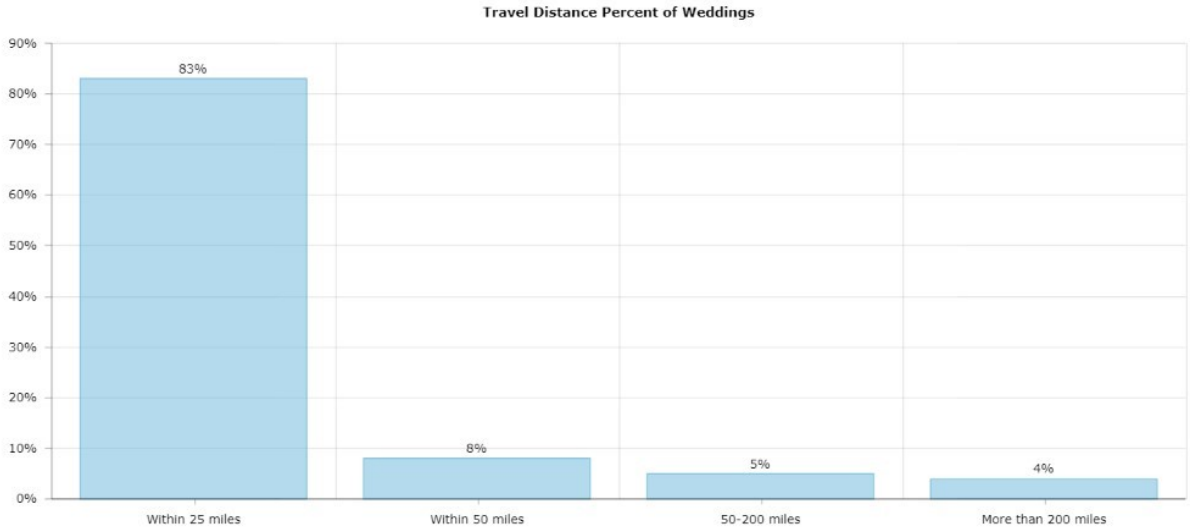
The local wedding market is consistent and strong. In 2019, the industry contributed $73.3 million dollars to the Boulder County economy.

2019 Boulder County Wedding Industry Market Summary



Given the location of the reception hall and the nature of the wedding industry in Boulder County, most customers and guests will live within a 25-mile radius. Indicated by the graph below, 83 percent of weddings in Boulder County are hosted and attended by local clientele. The reception hall customers will also have a list of local vendors to choose from for other aspects of their event, including, catering, florals, rentals, photographers, etc. Although this is not something we can specifically enforce, using this data we can assume that most of the reception hall's economic activities within short distances will help keep greenhouse gas emissions from vehicular travel low and stimulate local economic activities.

2019 Boulder County Wedding Travel Distance Data



Construction of the chapel will only enhance the offering of the reception hall to include specific indoor ceremony space, as well as office space for staff. It will also increase the efficiency of event logistics and cleanup. There will still not be more than one event per day after this space has been added.

SUMMARY OF PROPOSED USE – CHURCH SERVICES

The type of church that we will solicit for use of these facilities would be a start-up church or a satellite location for an existing church. These two types of churches would fit more easily into a space not primarily intended to church use, as opposed to a more established church, which will need areas more specifically tailored to their needs. According to the traffic engineer for Rez Church in Loveland, which has two successful satellite locations and many church plants across the state, a successful church start-up or satellite location is around 100 attendees. Therefore, attendees for these indoor church services will be limited to 200 people (including volunteers and staff) to occur in a single service on Sunday mornings. The church will be required to adhere to the same traffic requirements as a typical event at the reception hall, which is detailed in the traffic study and summarized in the Logistics of Operation section of this Narrative.

SUMMARY OF PROPOSED USE – CABINS

Studio cabins will be used as preparation spaces and single-overnight stays for clients and/or bridal parties the night before and night of their scheduled event. Guests will sign a contract with various requirements, including no gatherings after 10:00 PM. This will be enforced via a third-party security company that will check in every hour on evenings where the cabins are in use. The layouts will include a bathroom, sleeping area, and living room space. Kitchens will not be included.

LOGISTICS OF OPERATION

How many vehicles will be coming and going to the site?

A detailed traffic study is included in the submitted USR packet for this project. To summarize the study findings, the professional traffic engineer for this project recommended restriping for a right turn lane on HWY 287, and manual traffic control police officers wearing proper PPE for events over 125 people to mitigate traffic impact.

According to the study, attendees travel at average 2.5 individuals per vehicle, which would require at a minimum 120 parking spaces. According to Section 4-504 Community Uses subsection (G) Reception Halls and Community Meeting Facilities, Boulder County requires one space per 30 square feet of floor space. The proposed floor space for the event building is 5,175 square feet, which would equate to 173 spaces.

However, in an effort to further decrease the traffic impact of the use, we are proposing 107 total parking spaces along with a shuttle requirement for all events over 200 people (including staff and vendors). Shuttles will be encouraged and included on the vendor lists for all events, but not required under 200 people.

How many people will be on site at any given time?

The proposed reception hall is designed to accommodate up to 300 people (including staff and vendors) for each event and necessary reception hall staff and vendor staff. However, as stated previously, the occurrence of 300-guest events in the Boulder County wedding market is rare and will more reasonably average around 125 guests and necessary reception hall staff and vendor staff. There will never be more

than one reception hall event per day. Church services will only operate in the mornings on Sundays and will never occur at the same time as a reception hall event.

What are the hours of operation?

The wedding events will be offered on any day of the week and will operate from 12:00 PM for setup thru 11:59 PM for teardown with the actual event operating between the hours of 4:00 PM with a strict cutoff at 10:00PM. Church services will be held only on Sundays at 9:00 AM and are expected to conclude before 12:00 PM.

Will the use generate noise, light, or odors?

The events are expected generate noise from guests and music during the outdoor ceremony, which will occur only at the beginning of the event. Noise generated during the event reception will occur until 10:00 PM, which will be held inside of the constructed reception hall. The building will be 400 feet from any neighboring buildings and buffered by wetlands and additional landscaping improvements. At the direction of our professional sound engineer, we will be installing automatic closing doors with no door propping hardware, and the layout of the building has been designed to act as an additional buffer to the north and south neighbors; that is, with rooms and a vestibule between the reception area and the walls of the building. Administratively, we will require clients contractually not to prop the doors open, which will be monitored and enforced by reception hall staff.

Upon the construction of the indoor chapel space, the reception hall expects to further mitigate noise generation by offering a space for indoor ceremonies. The chapel will also help to act as a buffer for clients that choose an outdoor ceremony.

The reception hall will be outfitted with downlighting features and outdoor decorative string lighting on the south side of the building. Windows on the west side of the proposed reception hall and eventual chapel will be outfitted with glass tinted at 35 percent to control glare and increase energy efficiency.

There are no unpleasant odors expected to be generated.

What size of buildings will be necessary for use?

The proposal is for a 5,175-square-foot reception hall, which will be constructed in Phase One, as well as a 2,760-square-foot chapel and four (4) 900-square-foot cabins, which will be constructed in Phase Two.

SERVICES

Will the use be served by a well and septic system or public water and sewer?

The buildings will be serviced with potable water by an existing water tap and sewer will be provided with an engineered septic system. The surrounding landscape will be irrigated by drip irrigation using Little Thompson Water.

What level of emergency service will the use require?

This facility will be served by Boulder County Sheriff and Berthoud Fire Department.

Can emergency personnel get to the site?

The site is designed to meet the access requirements for emergency vehicles including radiuses the accommodate for a WB 40 Firetruck.

MITIGATION OF IMPACT

What measures would be taken to reduce the impact of the use?

VIEW

The proposed site for this reception hall is in rural Boulder County, surrounded by farm operations, residential properties, and various commercial businesses along the HWY 287 corridor. Protecting the high-value view corridor was an important consideration in the design of the proposed buildings.

This reception hall is planned to be the same size and style of a typical historical barn used in agriculture, with visually appealing architectural features (5,175 square feet and around 30 feet tall). In the planned location, it is set back from the roadside around 790 feet, which is a significant distance (our assumption is that a building constructed right next to the road is far more likely to impede views).

Furthermore, the nature of the landscape acts as a natural buffer, given that the land is elevated around both irrigation ditches and is typically full of vegetation, along with the cottonwood trees that are to remain to the west and southeast of the building. These characteristics of the property helps to block much of the area where the project will be located, especially the parking lot. The proposed landscaping plan includes a treed entry drive that will also act as a buffer. The trees proposed are of a low water use variety.

The property directly across from this site is very heavily treed. So much so that the residential building which is over 1200 feet away from the proposed reception hall is almost 100 percent block from view.

NOISE

Noise typically generated by an event are expected to be mitigated by limiting hours of operation, requiring all gatherings to occur indoors except for ceremony operations, which only occur at the very beginning of events. The building will be 400 feet from any neighboring buildings and buffered by wetlands and additional landscaping improvements. At the direction of our professional sound engineer, we will be installing automatic closing doors with no door propping hardware, and the layout of the building has been designed to act as an additional buffer to the north and south neighbors; that is, with rooms and a vestibule between the reception area and the walls of the building. Administratively, we will require clients contractually not to prop the doors open, which will be monitored and enforced by reception hall staff.

We are also proposing to construct 5’ berms along the north and east edges of the property for added noise and site buffering.

Upon the construction of the indoor chapel space, the reception hall expects to further mitigate noise generation by offering a space for indoor ceremonies. The chapel will also help to act as a buffer for clients that choose an outdoor ceremony.

ENVIRONMENTAL

The reception hall will take various measures to ensure that the environmental impact of this development is minimal, including:

- Existing trees that are in good health on the property will remain
- All disturbed areas will be revegetated with native grasses or converted to agriculture use
- We are proposing geothermal energy, with the capability to provide green energy to all buildings related to this project
- Tinted windows will be installed on the west side of the proposed reception hall and eventual chapel to reduce glare and increase energy efficiency
- Construction under the advisement of LEAD guidelines and USGBC standards
- High efficiency appliances and toilets installed in catering prep kitchen and bathrooms
- Encouraging hotel, airport shuttle services, and group ride services to cut down on total trips and travel-related emissions
- Requiring shuttle services for all events over 200 people (including vendors and staff) to cut down on total area removed from agriculture production for parking
- Recycling and compostable material requirement for all event vendors

LIGHT

The reception hall will be outfitted with downlighting features and outdoor decorative string lighting on the south side. Windows on the west side of the proposed reception hall and eventual chapel will be outfitted with 35 percent tinted glass to control glare and increase energy efficiency.

LAND

This use will establish and appropriate balance between current and future economic and societal needs by minimizing the consumption of and inefficient use of energy, materials, minerals, water, land, and other finite resources.

Installation of geothermal energy will significantly decrease the need for non-renewable energy sources.

Construction of all the buildings are anticipated to be slab on grade (pending design by professional structural engineers). Minimal grading will occur on the property to meet the needs of the facility. The topsoil will be removed from all disturbed areas, for use, in all revegetated areas. The gravel material used on the drive and parking areas is a non-permanent. Both the reception hall and the chapel can be repurposed as a barn or residence. These characteristics of the proposed project make it easier to reestablish these areas of land back into agriculture use at any point in the future.

The farming operations, particularly in the land intended to be used for farm-to-table, will be adding areas back into production that are not currently being used and will help to reestablish nutrients in the topsoil from crop rotation.

Is there a landscape plan that has been included with this submittal?

A landscape plan has been provided by a licensed landscape architect and is included with the USR documents. The landscape plan is made up of drought tolerant plant material and will be irrigated with Little Thompson water.

If new buildings are included in the design compatible with surrounding areas?

The design for this reception hall falls in line with surrounding agricultural uses. The main building will fit barn-style architecture. The intent of the design of the future chapel and cabins will be rural design to fit the same theme.

DEVELOPMENT REPORT

The land for this project is 36.12 acres, zoned Agriculture. Characteristics include native grasses, two irrigation ditches, large existing trees, flat terrain, and no signs of problem drainage areas. Bordering the property is vacant land to the South, small farming operation with pigs and hemp to the West, farm and residential to the North, and HWY 287 to the east. There is one existing access point off HWY 287.

An ecological assessment is included in the USR documents and cover remaining items relevant to this project in 3-203.

ADJACENT NEIGHBORS

NORTH
Owner: ROY, DAVID E & JESSICA A
Mailing Address: 15429 N 107TH ST
City: LONGMONT, CO
Zip: 80504

NORTHEAST CORNER
Owner: ROBLE JOHN J & CAROLINE L
Mailing Address: 6307 SAPPHIRE
City: ALTA LOMA CA
Zip: 91701
EAST
Owner: CARLSON OSCAR T FAMILY TRUST U/A ET AL
Mailing Address: 15312 N 107TH ST
City: LONGMONT CO
Zip: 80504

SOUTHEAST CORNER
Owner: JASMA ACRES
Mailing Address: 11021 YELLOWSTONE RD
City: LONGMONT CO
Zip: 80504

SOUTH
Owner: SUNNY VIEW LLC

Mailing Address: 33250 WELD COUNTY RD 53
City: GILL CO
Zip: 80624

WEST
Owner: FISHER FAMILY TRUST
Mailing Address: 5901 MELISSA WAY
City: BAKERSFIELD CA
Zip: 93308

NORTHWEST CORNER
Owner: BELL NICOLE J
Mailing Address: 15493 N 107TH ST
City: LONGMONT CO
Zip: 80504

ATTN: Jean (Raini) Ott
RE: Jubilee Acres Initial Response to County Questions

Traffic Impact –

The anticipated number of guests is given, but there are no specifics on staff or vendors for events. Please provide more detailed information regarding the number of staff/vendors on-site during events.

From a capacity standpoint 300 is to represent the total number of people, which includes staff and vendors. Clients will have to account for this in their desired guest count.

How would shuttles or group rides be encouraged, documented, and/or enforced?

We will be partnering with local shuttle services and including these businesses on our vendor list for all sized weddings and encouraging clients to utilize these services. If the county can approve a reduction in the parking requirements, we are proposing a shuttle requirement for weddings over 200 people, a number that includes both staff and vendors.

Water Impact –

Why are two detention ponds necessary?

Due to the natural grade of the site and the limiting the amount of disturbed area two detention ponds are necessary for collecting from two different areas of the property.

How senior are your water rights?

The ditch water will be used to support agriculture production on the property and is no longer a part of the USR proposal following the removal of the irrigation pond.

Is ditch water or water from the Little Thompson tap to be used for irrigation of horticultural plantings?

We will be using drip irrigation on drought tolerant shrubs, flowers, and trees and the turf area from Little Thompson water.

Do you have the right to use ditch water for non-agricultural irrigation and/or recreational uses?

Ditch water will only be used for agricultural irrigation.

Do you have storage rights to hold water in the recreational pond?

We do have storage rights for up to 72 hours but will not be storing ditch water in an irrigation or recreational pond in the revised proposal.

How long would Supply Ditch water be retained in the recreation pond?

See above response.

Do you have an Augmentation Plan to compensate for evaporation?

See above response.

Do you have approval from the water court for recreational use?

See above response.

Depth of this pond or its capacity and in/out flow rates are necessary.

See above response.

Please see referral from Highland Ditch for additional requirements.

We will work with the Highland Ditch company and follow their guidelines for anything relevant to the detention pond.

Visual Impact –

Hwy 287 is a high-value view corridor, as designated in the Comprehensive Plan. Although more landscaping/screening along the highway may buffer the development from view, more vegetation requires more irrigation.

This reception hall is planned to be the same size and style of a typical historical barn used in agriculture, with visually appealing architectural features (5,175 square feet and around 30 feet tall). In the planned location, it is set back from the roadside around 780 feet, which is a significant distance (our assumption is that a building right next to the road is far more likely to impede views). Furthermore, the nature of the landscape acts as a natural buffer, given that the land is elevated around both irrigation ditches and is typically full of vegetation, along with the cottonwood trees that are to remain to the west and southeast of the building. This characteristic of the property helps to block much of the area where the project will be located, especially the parking lot. We are adding berms up to 5' in height along the east and north property lines for additional screening as shown on the updated site plan.

The property directly across from this site is very heavily treed. So much so that the residential building which is over 1200 feet away is almost 100% block from view. In the sense of what is typical for the area, a barn built for this property would be placed much closer to the highway and create a higher impact to the high-value view corridor.

The proposed landscaping plan includes a treed entry drive that will also act as a buffer. The trees proposed are low water use species that are indigenous to this area.

What mitigation measures might you be able to propose to buffer the view from Hwy 287, especially of the large parking lots?

See above response.

Per the code, interior landscaping must cover at least 5% of the area of the parking lot.

We have added required interior drought tolerant landscaping in our revised site plan.

Also, some application materials reference gravel parking and some reference paved. Please clarify.

There will be a concrete pan off HWY 287 (approximately 40 feet) and concrete sidewalks around the reception hall, and the rest will be gravel. See legend in landscaping and site plan for reference.

We also have concerns about the view from the west. What type of glass is proposed for the west elevations of the reception hall and chapel? We are concerned about nighttime visibility due to the lantern effect and also energy efficiency due to the large amount of west-facing glass.

The glass on the windows is planned to be energy efficient and tinted at 35 percent, which will help significantly with this effect.

Neighborhood Character Impact –

Noise is a big concern. What limitations are there on outdoor amplified sound and how do you plan to mitigate the impact of noise for outdoor events?

The only amplified sound permitted outdoors will be during the wedding ceremony, which is for a limited period at the beginning of the event. All reception activities will be required to occur indoors. We have hired a sound engineer to do a study of the site and help us to mitigate any noise that leaves the property. We have also added 5' berms along the north and east property lines to buffer any noise.

Overnight use of the cabins is also a concern. Will these cabins be used exclusively by wedding parties (bride, groom, bridesmaids, etc.) on the day or weekend of the event? Who all would potentially use the cabins overnight?

These cabins will be available exclusively for clients and immediate members of the wedding event the night before or the night of the event.

How will you mitigate impacts of overnight occupancy on the site (including noise and impromptu parties, etc.)?

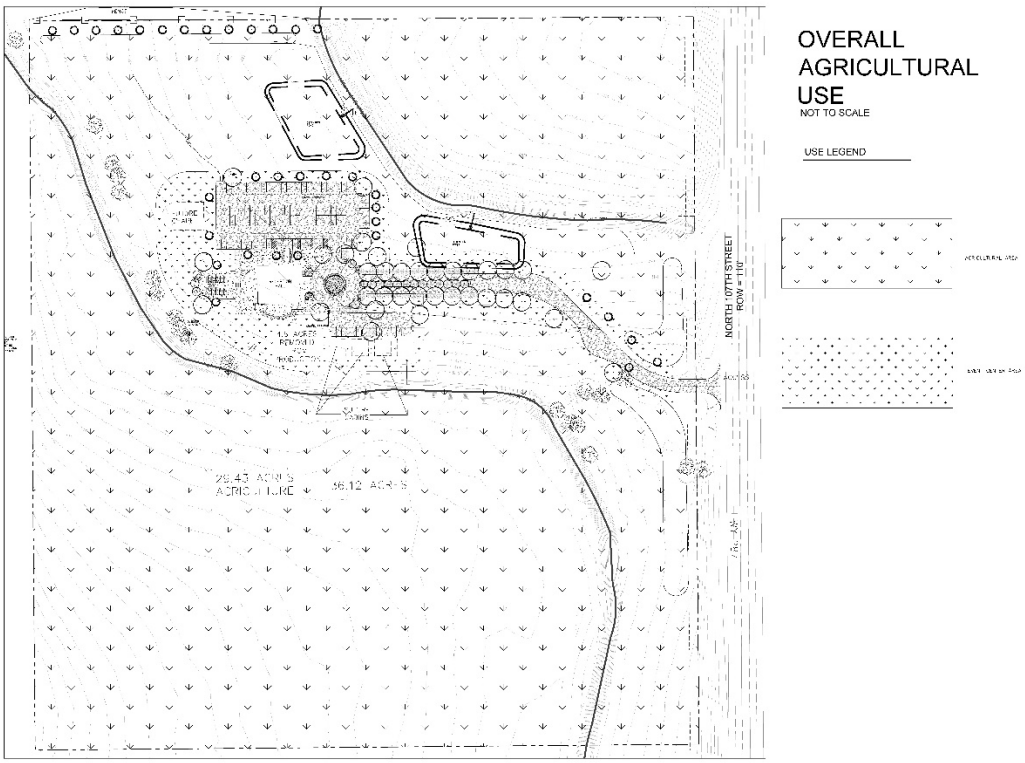
As a part of the contract clients sign, we will include rules and regulations – no parties permitted or gathering after 10pm. Security team will be hired to check in every hour on the hour for every night that these cabins are in use.

Agricultural Impact –

This proposal removes a significant amount of prime agricultural land from production. What is the plan for the remaining area of the parcel, not proposed to be used for the wedding venue (about 27 acres)? Will it be kept in agricultural production?

The map below details the areas in use or planned for the property independently and in conjunction with this project. Currently, there is approximately 1.6 unirrigated acres on the west side of the property that is already in production. There are approximately 20 combined acres north of the Highland Ditch and south of the Supply Ditch will be leased out for highest potential; either pasture or production. Lastly, there are approximately 3.54 acres available between the two irrigation ditches for an organic farm-to-table operations in conjunction with the proposed reception hall use. Of the entire 36.12 acres, only 4.61 acres or 13 percent of the property will be utilized for the proposed USR project. The intent is to utilize the detention ponds for pasture or production. The combined area for detention ponds is .7 acres. If the detention ponds are counted as part of the USR then total will be 5.31 acres or 15% of the property

The property owner holds two shares of water from the Supply Ditch and plans to use these to support agriculture production on the property. It is the intent of the owner to place the remaining available 87 percent of the property into a more productive agricultural use than how it has historically been utilized.



Will the water shares be used to support existing or future agricultural production?

There is no existing use of these shares for agricultural production and the water will be used to support future use between the two irrigation ditches. The ditch weir is located in the north west corner of the property. See the above answer for further explanation.

What is the total disturbance acreage, including future chapel, cabins, all parking, and grading for septic, landscaping, stormwater infrastructure, roads and circulation (from drawing ER-1.1 it appears to be about 9 acres)?

4.61 acres.

How do you plan to address conflicts between a wedding venue and unpleasant/unsightly agricultural activities on neighboring parcels, such as raising of animals (e.g., smelly chickens), tilling and blowing dust/debris, application of pesticides and fertilizers, or growing of various by-right crops (e.g., smelly hemp)?

All these agricultural productions were in operation when we purchased the property and we have accounted for it in our decision to move forward with this project. Given that this is in an agricultural location, we anticipate that our guests will expect some lingering effects of surrounding agricultural production.

What mitigation measures could be put in place to ensure continued agricultural production on the remainder of the parcel?

See above.

Environmental Impact –

The proposed parking areas, even if gravel, will significantly increase the impervious surface coverage on-site. Though the drainage report indicates historic drainage patterns can be maintained, are there ways to decrease the total amount of impervious surface (e.g., reduced parking with shuttles or use of alternative surfacing materials for seldom used overflow parking).

The original proposal met the parking requirements per the code (1 per 30 sq ft). According to the study, attendees travel at average 2.5 individuals per vehicle, which would require at a minimum 120 parking spaces. The total number of one-way trips for a 300 person event according to the traffic study would require 123 parking spaces. According to Section 4-504 Community Uses subsection (G) Reception Halls and Community Meeting Facilities, Boulder County requires one space per 30 square feet of floor space. The proposed floor space for the event building is 5,175 square feet, which would equate to 173 spaces.

However, in an effort to further decrease the traffic impact of the use, we are proposing 107 total parking spaces along with a shuttle requirement for all events over 200 people (including staff and vendors). Shuttles will be encouraged and included on the vendor lists for all events, but not required under 200 people.

Please provide more details on the recycling and composting efforts. What do you plan to require from vendors to demonstrate this?

We will require that all materials brought in by our vendors (plates, napkins, etc.) are either reusable or compostable. This is a practice that has been commonly used for today's wedding events.

The septic size indicated on the site plan seems a little small to accommodate all the uses on-site. Will the chapel and cabins also use the leach field shown next to the reception hall? Please provide more detail about waste disposal for the site as a whole, if/when completely built-out.

Septic size and location will be clarified during the building permitting process and will follow all requirements outlined in that phase. We have added a conceptual location on the site plan per request from planning.

ADDITIONAL QUESTIONS IN REFERRAL PACKET

(Parks & Open Space)

How will the 10pm cutoff be enforced?

It is to be included contractually and two reception hall staff members will be present to enforce the cutoff and instruct guests to leave the premises.

What type of events are anticipated by these organizations (local businesses, non-profit organizations, religious organizations, and schools)?

Christmas parties, fundraisers, and school dances are among the possibilities. These events with also have a 10pm cutoff and will not be permitted to use amplified sound outdoors.

Other than the graph in the narrative, how is this to be encouraged or required, and how (referring to the graph about most clients/guests living within a 25-50-mile-radius of where they host their wedding)? What is the source of this graph's data?

It would be difficult to require that clients and guests live within a certain radius of the reception hall, we can only look to historical wedding data to extract where our customer base is located. This data is sourced from The Wedding Report, which gathers wedding industry related data specific to cities, counties, states, and the entire country. We used this same data to conduct our market analysis specific to Boulder County for our business plan.

If the reception hall can accommodate 300 people, isn't it possible that the church attendance could grow to 300?

The type of church that we will solicit for use of these facilities would be a start-up church or a satellite location for an existing church. These two types of churches would fit more easily into a space not primarily intended to church use, as opposed to a more established church, which will need areas more specifically tailored to their needs. According to the traffic engineer for Rez Church in Loveland, which has two successful satellite locations and many church plants across the state, a successful church start-up or satellite location is around 100 attendees. Therefore, attendees for these indoor church services will be limited to 200 people (including volunteers and staff) to occur in a single service on Sunday mornings. The church will be required to adhere to the same traffic requirements as a typical event at the reception hall, which is detailed in the traffic study and summarized in the Logistics of Operation section of the revised Narrative.

This drawing shows that the surfaces of the two detention ponds are to receive native grass seed. How would this vegetation in the ponds be managed, to keep them from becoming simply dusty basins?

We are as committed to keeping these detention ponds as visually appealing as the county is, given that

aesthetics is an essential part of the event business. We have budgeted for a maintenance manager and a landscape company for property upkeep, which includes the ponds.

(Building Safety & Inspection Services Team)

The proposed sliding doors may not be used as a part of the means of egress.

We will address egress when we move to a formal architectural design of the buildings and will do whatever is necessary to make sure our buildings are safe for occupancy.

(Longmont Conservation District)

People move out into places like this to get away from noisy, urban activities.

There are many commercial activities along the HWY 287 corridor within a one to two mile stretch of where the reception hall will be located. The highway is also a four-lane highway with significant road noise. These are all very much within the definition of "noisy, urban activities." We are just as committed to reducing the impact of this use as the county and our neighbors, but we don't think that the proposed use will add to the existing "noisy, urban activities" to the extent that this comment suggests.

The proposed event capacity and frequency poses concerns for ditch security, event attendee safety and increased trash and debris entering the ditches.

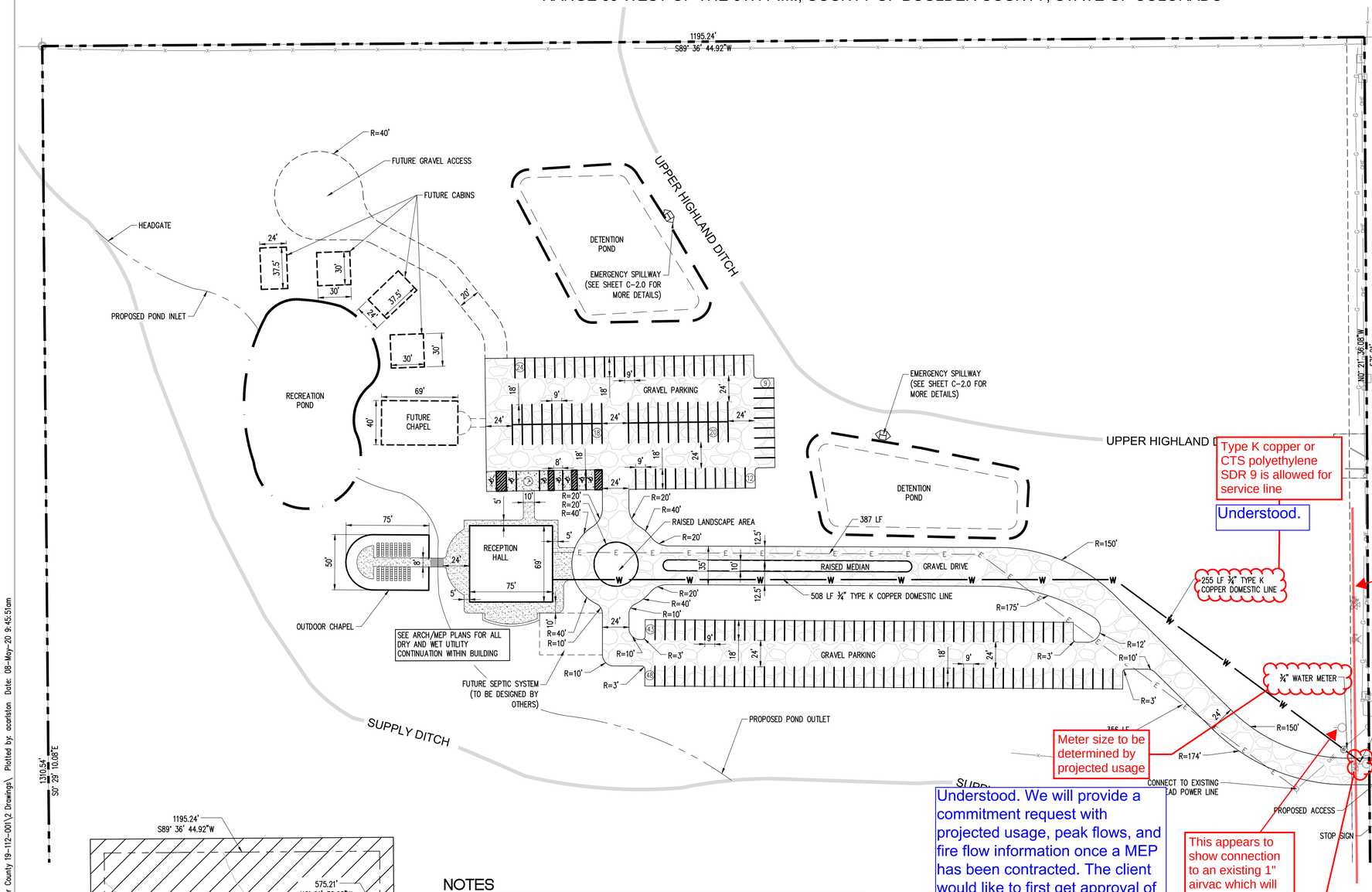
Vendors and caterers will be held to the standard of the reception hall and will be responsible to pick up all trash for each event. Additionally, all materials used for the events will be required to be compostable.

Portions of the property are farmland of statewide importance, and most of the property is prime farmland, if irrigated.

None of the property is currently irrigated, but there is a portion of it that is currently in production. In the revised proposal, we have indicated that we intend to increase the agriculture production on the property, including a farm to table operation that will be operated in conjunction with the proposed use*, there are approximately 3.54 acres available between the two irrigation ditches for an organic farm-to-table operations in conjunction with the proposed reception hall use. Of the entire 36.12 acres, only 4.61 acres or 13 percent of the property will be utilized for the proposed USR project. The intent is to utilize the detention ponds for pasture or production. The combined area for detention ponds is .7 acres. If the detention ponds are counted as part of the USR then total will be 5.31 acres or 15% of the property*

BOUNDER COUNTY RECEPTION HALL

SITUATED WITHIN SECTION 3, TOWNSHIP 3 NORTH,
RANGE 69 WEST OF THE 6TH P.M., COUNTY OF BOULDER COUNTY, STATE OF COLORADO



Type K copper or CTS polyethylene SDR 9 is allowed for service line

Understood.

Approximate location of 6" waterline. Should be surveyed and added to the plans.

this will be added to the plan and surveyed later.

Meter size to be determined by projected usage

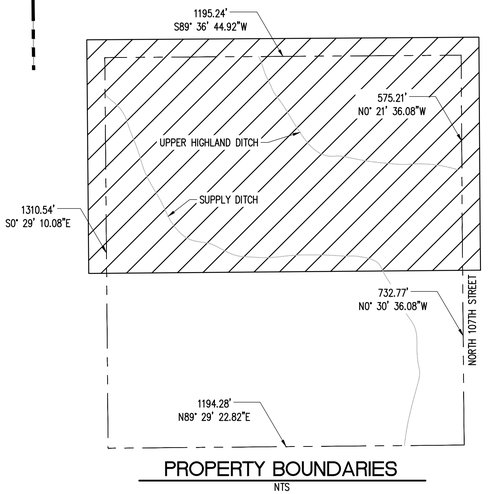
Understood. We will provide a commitment request with projected usage, peak flows, and fire flow information once a MEP has been contracted. The client would like to first get approval of the project before choosing their MEP.

Existing 1" airvac will need to be relocated outside of the proposed driveway

callout has been added to relocate airvac outside of drive.

This appears to show connection to an existing 1" airvac which will not be allowed. The existing meter pit is just north of the airvac as shown here.

The connection location has been revised.



PROPERTY BOUNDARIES
NTS

NOTES

1. ALL WORK AND MATERIALS SHALL COMPLY WITH ALL COUNTY REGULATIONS AND CODES AND O.S.H.A. STANDARDS.
2. THE DESIGN SHOWN IS BASED UPON THE ENGINEER'S UNDERSTANDING OF THE EXISTING CONDITIONS. THIS PLAN DOES NOT REPRESENT A DETAILED EXISTING CONDITIONS SHOWN ON THIS PLAN SHEET ARE BASED UPON SURVEY PREPARED BY RIDGETOP ENGINEERING AND SURVEYING, DATED 12/10/2019. DI EXISTING TOPOGRAPHY AND SITE FEATURES MAY HAVE CHANGED. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING FIELD CONDITIONS PRIOR TO BIDDING THE PROPOSED SITEWORK IMPROVEMENTS. IF CONFLICTS ARE DISCOVERED, THE CONTRACTOR SHALL NOTIFY THE OWNER PRIOR TO INSTALLATION OF ANY PORTION OF THE SITEWORK WHICH WOULD BE AFFECTED. IF CONTRACTOR DOES NOT ACCEPT EXISTING SURVEY, INCLUDING TOPOGRAPHY AS SHOWN ON THE PLANS, WITHOUT EXCEPTION, HE SHALL HAVE MADE, AT HIS OWN EXPENSE, A TOPOGRAPHIC SURVEY BY A REGISTERED LAND SURVEYOR AND SUBMIT IT TO THE OWNER FOR REVIEW.
3. CAUTION – NOTICE TO CONTRACTOR
   THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES AND EXISTING IMPROVEMENTS WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS ON THE PLANS.
4. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION AND DIMENSIONS OF VESTIBULE, SLOPED PAVING, EXIT PORCHES, SIDEWALKS, RAMPS & TRUCK DOCKS, PRECISE BUILDING DIMENSIONS AND EXACT BUILDING UTILITY ENTRANCE LOCATIONS.
5. DIMENSIONS SHOWN REFER TO FACE OF CURB, FACE OF BUILDING OR TO THE CENTERLINE OF PAVEMENT STRIPING, UNLESS OTHERWISE NOTED.
6. ALL PAVED PARKING LOT AREAS WITHIN THE LIMITS OF IMPROVEMENTS SHALL BE STANDARD DUTY PAVEMENT UNLESS OTHERWISE NOTED.
7. CONTRACTOR SHALL PROVIDE A TEMPORARY TRAFFIC CONTROL PLAN FOR THE TOWN ENGINEER'S APPROVAL PRIOR TO ANY WORK WITHIN THE TOWN RIGHT-OF-WAY.
8. REFER TO BOUNDARY SURVEY FOR LEGAL DESCRIPTION, DIMENSIONS OF PROPERTY LINES, BASIS OF BEARINGS & BENCHMARK INFORMATION. (SEE SHEET CS-1)
9. ALL ON-SITE PAINTED STRIPING SHALL BE DOUBLE COATED. SEPARATE COATS SHALL BE APPLIED NO SOONER THAN 4 HOURS APART. (CONTRACTOR TO REFER TO PROJECT SPECIFICATIONS FOR ADDITIONAL PAVING MARKING REQUIREMENTS.)
10. PARKING LOT STRIPING SHALL BE YELLOW, 4" WIDTH, & DOUBLE COATED, UNLESS OTHERWISE NOTED. LIGHT POLE BASES TO BE PAINTED TRAFFIC YELLOW (DOUBLE COAT)
11. ALL DISTURBED AREAS ARE TO RECEIVE FOUR INCHES OF TOPSOIL, SEED, MULCH AND WATER UNTIL A HEALTHY STAND OF GRASS IS ESTABLISHED.
12. ALL ISLANDS WITH CURB AND GUTTER SHALL BE LANDSCAPED. THOSE ISLANDS ARE TO HAVE 18" CURB AND GUTTER. ALL REMAINING ISLANDS ARE TO BE STRIPED AS SHOWN.
13. EXISTING STRUCTURES WITHIN CONSTRUCTION LIMITS ARE TO BE ABANDONED, REMOVED OR RELOCATED AS NECESSARY. ALL COST SHALL BE INCLUDED IN BASE BID.
14. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RELOCATIONS, INCLUDING BUT NOT LIMITED TO, ALL UTILITIES, STORM DRAINAGE, SIGNS, TRAFFIC SIGNALS & POLES, ETC. AS REQUIRED. ALL WORK SHALL BE IN ACCORDANCE WITH GOVERNING AUTHORITIES SPECIFICATIONS AND SHALL BE APPROVED BY SUCH. ALL COST SHALL BE INCLUDED IN BASE BID.
15. THE SITEWORK CONTRACTOR SHALL CONNECT ALL LIGHTS WITHIN THE RETAIL STORE'S DEMISED AREA TO THE SECURITY CIRCUIT AS SHOWN ON THE ELECTRICAL PLAN.
16. CURB RADII ADJACENT TO PARKING STALLS SHALL BE 2'. ALL OTHER CURB RADII SHALL BE 10', UNLESS OTHERWISE NOTED.

Add LTWD waterline notes

LTWD Notes have been added.

LEGEND

PROPERTY LINE	
EASEMENTS	
PROPOSED CREEK	
POND	
SIDEWALK	
GRAVEL	

PARKING

PROVIDED:	
STANDARD	= 174 STALLS
ADA	= 7 STALLS
PARKING PROVIDED	= 181 STALLS
STALL DIMENSIONS:	= 18' X 9'

SITE DATA

BUILDING AREA:	0.12 ACRES (0.3%)
GRAVEL:	1.86 ACRES (5.2%)
LANDSCAPE AREA:	33.77 ACRES (94.1%)
CONCRETE:	0.15 ACRES (0.4%)
TOTAL AREA:	35.90 ACRES (100.0%)

NOTE:
SANITARY SYSTEM TO BE DESIGNED AND ACCEPTED PRIOR TO CONSTRUCTION START

NORTH
0 25 50 100
1 inch = 50 ft.

LOGO

RIDGETOP ENGINEERING & SURVEYING
541 E. Garden Drive, Unit N
Windsor, CO 80550
T (970) 663-4552
W ridgetopeng.com

SEAL

PROJECT TITLE

BOULDER COUNTY RECEPTION HALL

15293 N 107TH STREET
LONGMONT, CO

PREPARED FOR

JUBILEE ACRES

15293 N 107TH STREET
LONGMONT, CO

SUBMITTAL

SPECIAL USE REVIEW

DRAWN BY:	NGA
CHECKED BY:	MRB
PROJECT NO.:	19-112-001

REVISIONS

DATE

05/11/2020

SHEET TITLE

SITE PLAN

SHEET INFORMATION

C-1.0

File: BCJA1105.dwg Path: P:\Colorado\Boulder County\Jubilee Acres LLC\Event Venue Boulder County 19-112-001\2 Drawings\ Plotted by: ocarlston Date: 08-May-20 9:45:51am

BOULDER COUNTY RECEPTION HALL

SITUATED WITHIN SECTION 3, TOWNSHIP 3 NORTH,
RANGE 69 WEST OF THE 6TH P.M., COUNTY OF BOULDER COUNTY, STATE OF COLORADO

LEGAL DESCRIPTION

N1/2 E1/2 SW1/4 3-3N-69 SPLIT PER DEEDS 3674552-3 LESS UP RES & LESS .029 AC STATE HWY & LESS 6.65 ACS TO ROW DEED 1733891-2 9/25/97 36 ACS M/L

SITE DATA

ZONING:	A (AGRICULTURAL)
PARCEL #:	120503000015
TOTAL ACREAGE:	36.16 ACRES
PROPOSED USE:	EVENT VENUE
SOIL TYPES:	~80% C, ~20% D

BENCHMARK DATA

THE VERTICAL CONTROL IS BASED UPON THE PUBLISHED ELEVATION FOR NGS POINT Q 410 = 5179.64 (NAVD88)
DESCRIPTION – STAINLESS ROD IN A MONUMENT BOX AT THE NORTHEAST CORNER OF HIGHWAY 287 AND YELLOWSTONE ROAD

BASIS OF BEARING

THIS HORIZONTAL CONTROL IS A MODIFIED COLORADO STATE PLANE NORTH ZONE UTILIZING THE PUBLISHED VALUES FOR NGS POINT Q 410.

THE PUBLISHED GROUND SCALE FACTOR IS 1.000288243 AND IS APPLIED AT NGS POINT Q 410
(US SURVEY FEET) 1,333,076.05 NORTH, 3,110,969,00 EAST

NOTES

1. ALL WORK AND MATERIALS SHALL COMPLY WITH ALL CITY/COUNTY REGULATIONS AND CODES AND O.S.H.A. STANDARDS.
2. THE DESIGN SHOWN IS BASED UPON THE ENGINEER'S UNDERSTANDING OF THE EXISTING CONDITIONS. THIS PLAN DOES NOT REPRESENT A DETAILED FIELD SURVEY. THE EXISTING CONDITIONS SHOWN ON THIS PLAN SHEET ARE BASED UPON SURVEY PREPARED BY RIDGETOP ENGINEERING AND SURVEYING, DATED 12/10/2019. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING FIELD CONDITIONS PRIOR TO BIDDING THE PROPOSED SITEWORK IMPROVEMENTS. IF CONFLICTS ARE DISCOVERED, THE CONTRACTOR SHALL NOTIFY THE OWNER PRIOR TO INSTALLATION OF ANY PORTION OF THE SITEWORK WHICH WOULD BE AFFECTED. IF CONTRACTOR DOES NOT ACCEPT EXISTING SURVEY, INCLUDING TOPOGRAPHY AS SHOWN ON THE PLANS, WITHOUT EXCEPTION, HE SHALL HAVE MADE, AT HIS OWN EXPENSE, A TOPOGRAPHIC SURVEY BY A REGISTERED LAND SURVEYOR AND SUBMIT IT TO THE OWNER FOR REVIEW.
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4. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION AND DIMENSIONS OF SLOPED PAVING, SIDEWALKS, & RAMPS, PRECISE BUILDING DIMENSIONS AND EXACT BUILDING UTILITY ENTRANCE LOCATIONS.
5. DIMENSIONS SHOWN REFER TO FACE OF CURB, FACE OF BUILDING OR TO THE CENTERLINE OF PAVEMENT STRIPING, UNLESS OTHERWISE NOTED.
6. CONTRACTOR SHALL PROVIDE A TEMPORARY TRAFFIC CONTROL PLAN FOR THE CITY ENGINEER'S APPROVAL PRIOR TO ANY WORK WITHIN THE CITY RIGHT-OF-WAY.
7. FIRE LANE STRIPING AROUND BUILDING PERIMETER AND ALONG FIRE TRUCK ACCESS WAYS SHALL BE INSTALLED AS PART OF THIS CONTRACT, IN ACCORDANCE WITH THE LOCAL CODE AND FIRE MARSHALL REQUIREMENTS.
8. REFER TO BOUNDARY SURVEY FOR LEGAL DESCRIPTION, DIMENSIONS OF PROPERTY LINES, BASIS OF BEARINGS & BENCHMARK INFORMATION. (SEE SHEET CV-1)
9. SEE SHEET C-1.0 & C-1.1 FOR SITE DIMENSIONS.
10. ALL ISLANDS WITH CURB AND GUTTER SHALL BE LANDSCAPED. THOSE ISLANDS ARE TO HAVE 18" CURB AND GUTTER. ALL REMAINING ISLANDS ARE TO BE STRIPED AS SHOWN.
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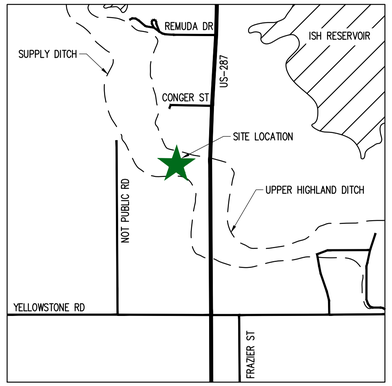
12. CURB RADII ADJACENT TO PARKING STALLS SHALL BE 2'. ALL OTHER CURB RADII SHALL BE 10', UNLESS OTHERWISE NOTED.



VICINITY MAP NORTH

SCALE: 1:2000

DRAWING INDEX

PROJECT CONTACTS:

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OWNER
JUBILEE ACRES LLC
15275 N. 107TH STREET
LONGMONT, CO
CONTACT: COURTNEY WALTERS

LANDSCAPER
PLANSCAPES
LOVELAND, CO
(970) 988-5301
CONTACT: ROBERT MOLLOY

STORM DRAINAGE NOTES

1. STORM DRAINAGE PIPE WITH LESS THAN 2'-0" COVER SHALL BE CLASS IV REINFORCED CONCRETE PIPE, OR APPROVED EQUAL TO SUSTAIN H-20 LOADING.
2. ALL ON-SITE STORM DRAINAGE PIPE SHALL BE SMOOTH WALLED INTERIOR, MANUFACTURER'S VERIFICATION OF MANNING'S ROUGHNESS COEFFICIENT N=0.012 OR LESS.
3. PRECAST STRUCTURES MAY BE USED AT CONTRACTOR'S OPTION.
4. ALL CATCH BASINS AND AREA DRAINS ARE TO BE SITUATED SUCH THAT THE OUTSIDE EDGE OF GRATE FRAME IS AT TOE OF CURB OR FLOWLINE OF GUTTER (WHERE APPLICABLE).
5. CATCH BASIN INLET PROTECTION / EROSION CONTROL TO BE USED FOR ALL NEW INLETS.
6. ALL STORM PIPE ENTERING STRUCTURES SHALL BE GROUTED TO ASSURE CONNECTION AT STRUCTURE IS WATERTIGHT.
7. ALL STORM STRUCTURES SHALL HAVE A SMOOTH UNIFORM POURED MORTAR INVERT FROM INVERT IN TO INVERT OUT, UNLESS OTHERWISE SHOWN IN THE CATCH BASIN DETAIL.

GRADING NOTES

1. THE DESIGN SHOWN IS BASED UPON THE ENGINEER'S UNDERSTANDING OF THE EXISTING CONDITIONS. THE PLAN DOES NOT REPRESENT A DETAILED FIELD SURVEY. THE EXISTING CONDITIONS SHOWN ON THIS PLAN SHEET ARE BASED UPON THE SURVEY PREPARED BY RIDGETOP ENGINEERING AND SURVEYING, DATED 12/10/2019. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING FIELD CONDITIONS PRIOR TO BIDDING THE PROPOSED SITEWORK IMPROVEMENTS. IF CONFLICTS ARE DISCOVERED, THE CONTRACTOR SHALL NOTIFY THE OWNER PRIOR TO INSTALLATION OF ANY PORTION OF THE SITEWORK WHICH WOULD BE AFFECTED. IF CONTRACTOR DOES NOT ACCEPT EXISTING SURVEY, INCLUDING TOPOGRAPHY AS SHOWN ON THE PLANS, WITHOUT EXCEPTION, HE SHALL HAVE MADE, AT HIS OWN EXPENSE, A TOPOGRAPHIC SURVEY BY A REGISTERED LAND SURVEYOR AND SUBMIT IT TO THE OWNER FOR REVIEW.
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3. THE SPOT ELEVATIONS INDICATED ON THIS PLAN REPRESENT THE DESIGN TOP OF PAVEMENT, UNLESS OTHERWISE NOTED.
4. ALL CUT AND FILL SLOPES SHALL BE CONSTRUCTED PER THE IBC CODE AND APPLICABLE LOCAL REGULATION. ALL CUT AND FILL SLOPES SHALL BE 3:1 OR FLATTER UNLESS OTHERWISE NOTED.
5. CONTRACTOR SHALL ASSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS FOR ALL NATURAL AND PAVED AREAS AND SHALL GRADE ALL AREAS TO PRECLUDE PONDING OF WATER.
6. ALL POLLUTANTS INCLUDING SEDIMENT ON-SITE DURING CONSTRUCTION SHALL BE HANDLED AND DISPOSED OF IN A MANNER THAT DOES NOT CAUSE CONTAMINATION OF STORMWATER. THE CONTRACTOR SHALL ADHERE TO ALL TERMS AND CONDITIONS AS OUTLINED IN THE GENERAL N.P.D.E.S. PERMIT FOR STORMWATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITIES.
7. PROPERTIES AND WATERWAYS DOWNSTREAM OF THE SITE SHALL BE PROTECTED FROM EROSION DUE TO INCREASES IN THE VOLUME, VELOCITY AND PEAK FLOW RATE OF STORMWATER RUNOFF FROM PROJECT SITE.
8. CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE GOVERNING CODES AND BE CONSTRUCTED TO SAME.
9. CONTRACTOR TO REMOVE UNSUITABLE SOILS LOCATED WITHIN THE BUILDINGS SPLAY LINE OF THE FOOTINGS.
10. FOR BOUNDARY AND TOPOGRAPHIC INFORMATION REFER TO PROJECT SURVEY.
11. FOR LAYOUT INFORMATION REFER TO THE SITE PLAN.

LOGO
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SEAL

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PREPARED FOR
JUBILEE ACRES
15293 N 107TH STREET
LONGMONT, CO

SUBMITTAL
SPECIAL USE REVIEW

DRAWN BY:	NGA
CHECKED BY:	MRB
PROJECT NO.:	19-112-001

REVISIONS

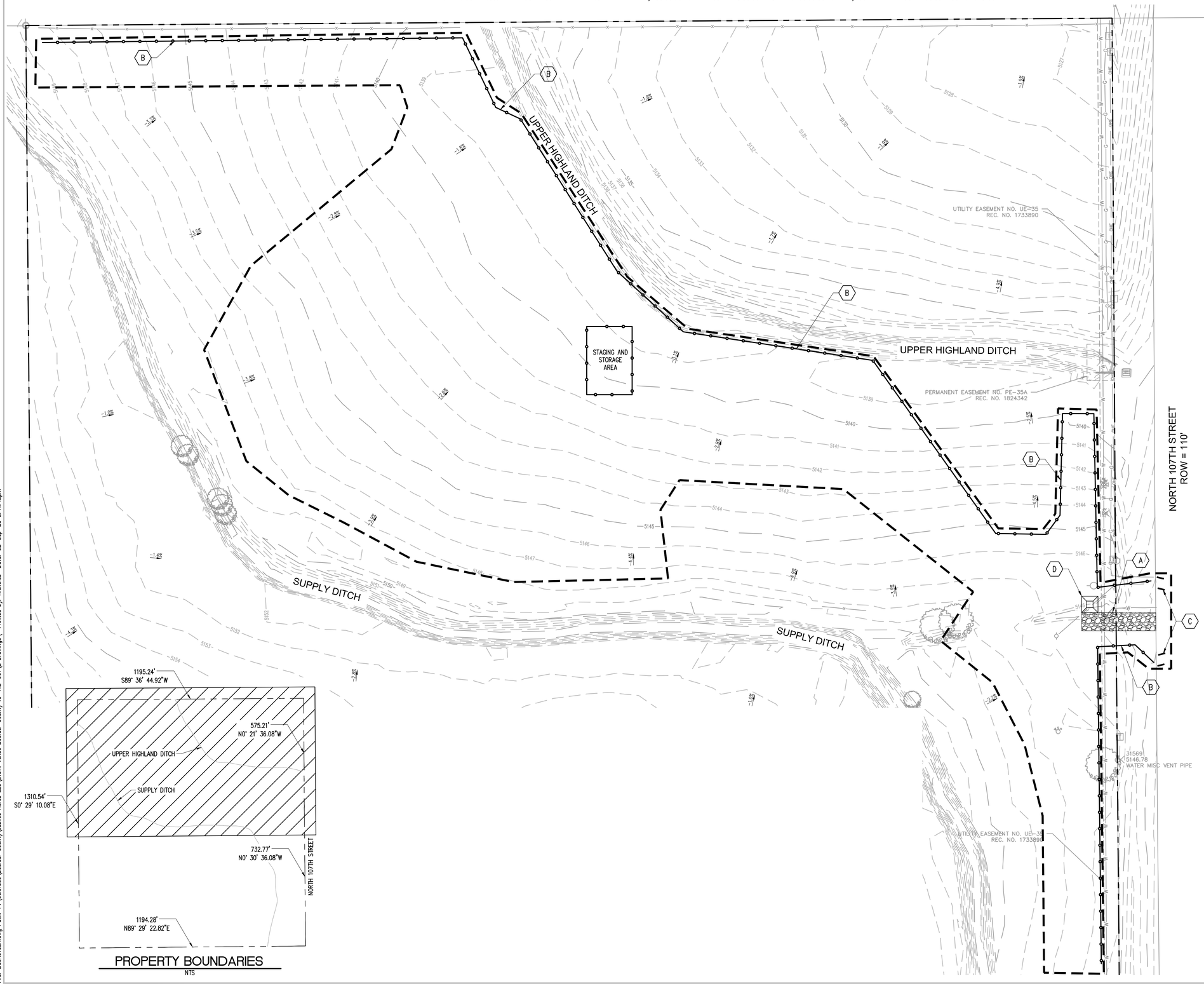
DATE
09/02/2020

SHEET TITLE
COVER SHEET

SHEET INFORMATION
CV-1.0

BOUNDER COUNTY RECEPTION HALL

SITUATED WITHIN SECTION 3, TOWNSHIP 3 NORTH,
RANGE 69 WEST OF THE 6TH P.M., COUNTY OF BOULDER COUNTY, STATE OF COLORADO



PROPERTY BOUNDARIES
NTS

LEGEND

- PROPERTY LINE
- EASEMENTS
- LIMITS OF DISTURBANCE
- EX. CONTOUR — 4734 —

EROSION DETAILS

- (A) CONSTRUCTION EXIT
- (B) SILT FENCE
- (C) INLET PROTECTION
- (D) CONCRETE WASHOUT

ACREAGE SUMMARY (IN ACRES)

SITE AREA	35.898 AC±
ON-SITE DISTURBED AREA	7.540 AC±
OFF-SITE DISTURBED AREA	0.059 AC±
TOTAL DISTURBED AREA	7.599 AC±

NOTE TO CONTRACTOR:
THE CONTRACTOR SHALL LIMIT DISTURBANCE OF NATURAL VEGETATION AS MINIMALLY AS NECESSARY TO COMPLETE THE PROPOSED WORK. TEMPORARY/PERMANENT SEEDING SHALL ONLY APPLY TO THOSE AREAS DISTURBED. ALSO, THE CONTRACTOR WILL BE REQUIRED TO SWEEP OR VACUUM ANY VISIBLE SEDIMENT THAT IS TRACKED ONTO COUNTY ROADS.

NORTH

0 25 50 100
1 inch = 50 ft.

LOGO

RIDGETOP
ENGINEERING & SURVEYING
541 E. Garden Drive,
Unit N
Windsor, CO 80550
T (970) 663-4552
W ridgetopeng.com

SEAL

PROJECT TITLE

BOULDER COUNTY RECEPTION HALL

15293 N 107TH STREET
LONGMONT, CO

PREPARED FOR

JUBILEE ACRES

15293 N 107TH STREET
LONGMONT, CO

SUBMITTAL

SPECIAL USE REVIEW

DRAWN BY:	NGA
CHECKED BY:	MRB
PROJECT NO.:	19-112-001

REVISIONS

DATE

09/02/2020

SHEET TITLE

INITIAL EROSION CONTROL

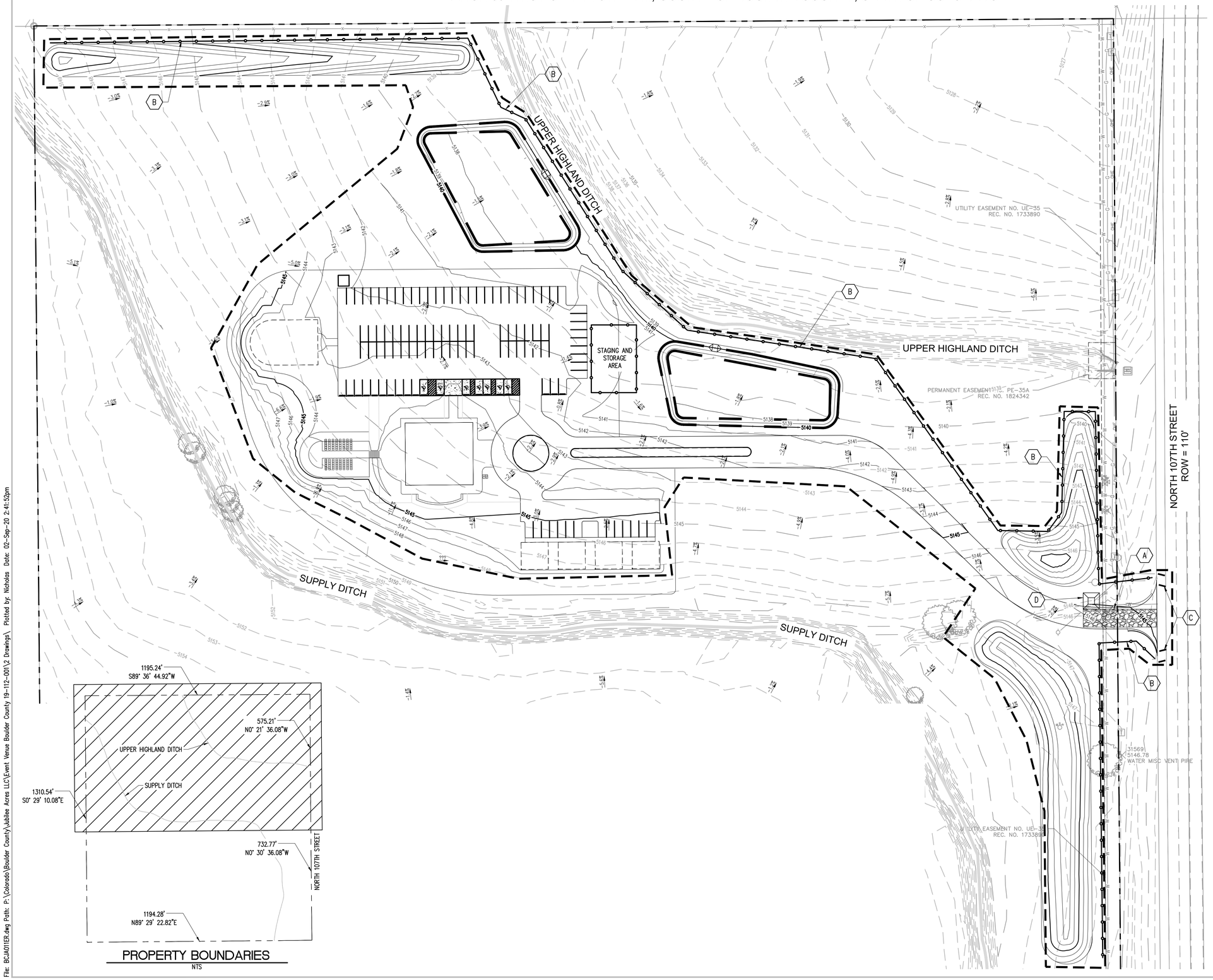
SHEET INFORMATION

ER-1.0

File: BCJA01DER.dwg Path: P:\Colorado\Boulder County\Jubilee Acres LLC\Event Venue Boulder County 19-112-001\2 Drawings\ Plotted by: Nicholas Date: 02-Sep-20 2:41:42pm

BOULDER COUNTY RECEPTION HALL

SITUATED WITHIN SECTION 3, TOWNSHIP 3 NORTH,
RANGE 69 WEST OF THE 6TH P.M., COUNTY OF BOULDER COUNTY, STATE OF COLORADO



PROPERTY BOUNDARIES
NTS

LEGEND

- PROPERTY LINE
- EASEMENTS
- LIMITS OF DISTURBANCE
- SWALE
- POND
- EX. CONTOUR 4734
- PROPOSED CONTOUR 4734

EROSION DETAILS

- (A) CONSTRUCTION EXIT
- (B) SILT FENCE
- (C) INLET PROTECTION
- (D) CONCRETE WASHOUT

ACREAGE SUMMARY (IN ACRES)

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TOTAL DISTURBED AREA	7.599 AC±

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NORTH

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SEAL

PROJECT TITLE

BOULDER COUNTY RECEPTION HALL

15293 N 107TH STREET
LONGMONT, CO

PREPARED FOR

JUBILEE ACRES

15293 N 107TH STREET
LONGMONT, CO

SUBMITTAL

SPECIAL USE REVIEW

DRAWN BY:	NGA
CHECKED BY:	MRB
PROJECT NO.:	19-112-001

REVISIONS

DATE

09/02/2020

SHEET TITLE

INTERIM EROSION CONTROL

SHEET INFORMATION

ER-1.1

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BOUDLER COUNTY RECEPTION HALL

SITUATED WITHIN SECTION 3, TOWNSHIP 3 NORTH,
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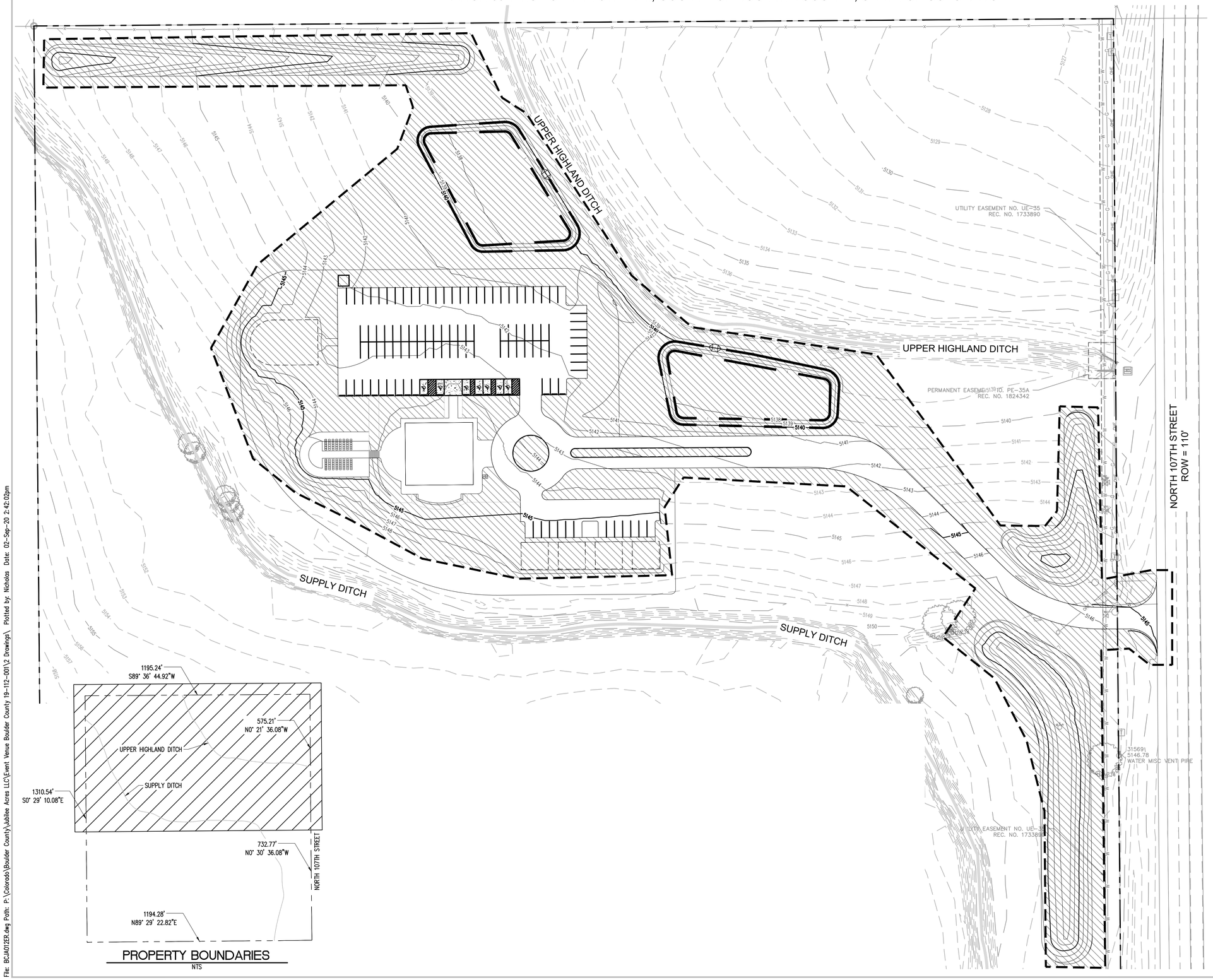

PROPERTY BOUNDARIES
NTS

LEGEND

- PROPERTY LINE
- EASEMENTS
- LIMITS OF DISTURBANCE
- SWALE
- POND
- EX. CONTOUR 4734
- PROPOSED CONTOUR 4734

EROSION DETAILS

- PERMANENT SEEDING

ACREAGE SUMMARY (IN ACRES)

SITE AREA	35.898 AC±
ON-SITE DISTURBED AREA	7.540 AC±
OFF-SITE DISTURBED AREA	0.059 AC±
TOTAL DISTURBED AREA	7.599 AC±

NOTE TO CONTRACTOR:
THE CONTRACTOR SHALL LIMIT DISTURBANCE OF NATURAL VEGETATION AS MINIMALLY AS NECESSARY TO COMPLETE THE PROPOSED WORK. TEMPORARY/PERMANENT SEEDING SHALL ONLY APPLY TO THOSE AREAS DISTURBED. ALSO, THE CONTRACTOR WILL BE REQUIRED TO SWEEP OR VACUUM ANY VISIBLE SEDIMENT THAT IS TRACKED ONTO COUNTY ROADS.

NORTH

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SEAL

PROJECT TITLE
BOULDER COUNTY RECEPTION HALL

15293 N 107TH STREET
LONGMONT, CO

PREPARED FOR
JUBILEE ACRES

15293 N 107TH STREET
LONGMONT, CO

SUBMITTAL
SPECIAL USE REVIEW

DRAWN BY:	NGA
CHECKED BY:	MRB
PROJECT NO.:	19-112-001

REVISIONS

DATE
09/02/2020

SHEET TITLE
FINAL EROSION CONTROL

SHEET INFORMATION
ER-1.2

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BOULDER COUNTY RECEPTION HALL

SITUATED WITHIN SECTION 3, TOWNSHIP 3 NORTH,
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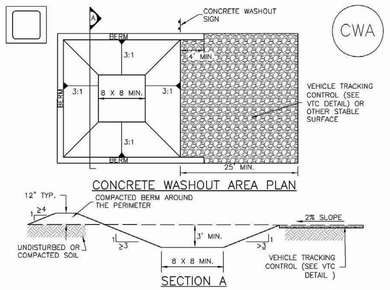
Concrete Washout Area (CWA) MM-1



CWA–1. CONCRETE WASHOUT AREA

CWA INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   –CWA INSTALLATION LOCATION.

2. DO NOT LOCATE AN UNLINED CWA WITHIN 400' OF ANY NATURAL DRAINAGE PATHWAY OR WATERBODY. DO NOT LOCATE WITHIN 1,000' OF ANY WELLS OR DRINKING WATER SOURCES. IF SITE CONSTRAINTS MAKE THIS INFEASIBLE, OR IF HIGHLY PERMEABLE SOILS EXIST ON SITE, THE CWA MUST BE INSTALLED WITH AN IMPERMEABLE LINER (16 MIL MIN. THICKNESS) OR SURFACE STORAGE ALTERNATIVES USING PREFABRICATED CONCRETE WASHOUT DEVICES OR A LINED ABOVE GROUND STORAGE ARE SHOULD BE USED.

3. THE CWA SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE.

4. CWA SHALL INCLUDE A FLAT SUBSURFACE PIT THAT IS AT LEAST 8' BY 8' SLOPES LEADING OUT OF THE SUBSURFACE PIT SHALL BE 3:1 OR FLATTER. THE PIT SHALL BE AT LEAST 3' DEEP.

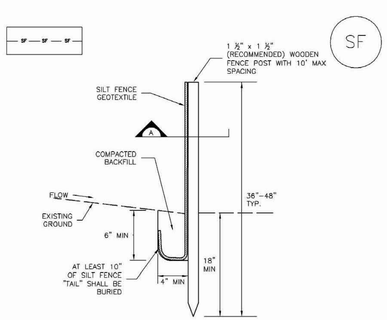
5. BERM SURROUNDING SIDES AND BACK OF THE CWA SHALL HAVE MINIMUM HEIGHT OF 1'.

6. VEHICLE TRACKING PAD SHALL BE SLOPED 2% TOWARDS THE CWA.

7. SIGNS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE CWA, AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CWA TO OPERATORS OF CONCRETE TRUCKS AND PUMP RIGS.

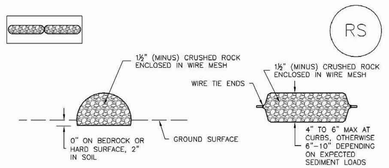
8. USE EXCAVATED MATERIAL FOR PERIMETER BERM CONSTRUCTION.

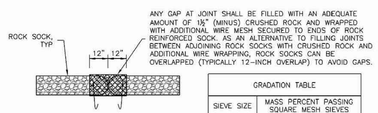
Silt Fence (SF) SC-1



SF–1. SILT FENCE

SC-5 Rock Sock (RS)





GRADATION TABLE	
SIEVE SIZE	MASS PERCENT PASSING SQUARE MESH SIEVES
	NO. 4
2"	100
1½"	90 – 100
1"	20 – 55
¾"	0 – 15
⅜"	0 – 5
	MATCHES SPECIFICATIONS FOR NO. 4 COARSE AGGREGATE FOR CONCRETE PER AASHTO M43. ALL ROCK SHALL BE FRACTURED FACE, ALL SIDES.

ROCK SOCK INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   –LOCATION(S) OF ROCK SOCKS.

2. CRUSHED ROCK SHALL BE 1½" (MINUS) IN SIZE WITH A FRACTURED FACE (ALL SIDES) AND SHALL COMPLY WITH GRADATION SHOWN ON THIS SHEET (1½" MINUS).

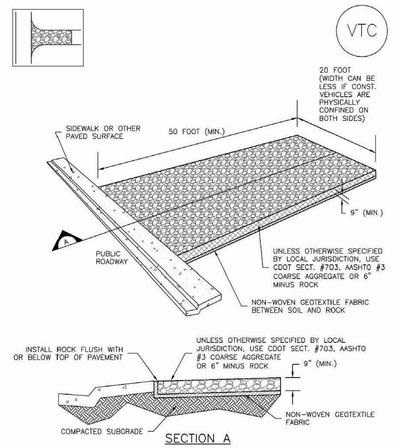
3. WIRE MESH SHALL BE FABRICATED OF 10 GAGE POULTRY MESH, OR EQUIVALENT, WITH A MAXIMUM OPENING OF ½", RECOMMENDED MINIMUM ROLL WIDTH OF 48"

4. WIRE MESH SHALL BE SECURED USING "HOG RINGS" OR WIRE TIES AT 6" CENTERS ALONG ALL JOINTS AND AT 2" CENTERS ON ENDS OF SOCKS.

5. SOME MUNICIPALITIES MAY ALLOW THE USE OF FILTER FABRIC AS AN ALTERNATIVE TO WIRE MESH FOR THE ROCK ENCLOSURE.

RS–1. ROCK SOCK PERIMETER CONTROL

Vehicle Tracking Control (VTC) SM-4



VTC–1. AGGREGATE VEHICLE TRACKING CONTROL

MM-1 Concrete Washout Area (CWA)

CWA MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. THE CWA SHALL BE REPAIRED, CLEANED, OR ENLARGED AS NECESSARY TO MAINTAIN CAPACITY FOR CONCRETE WASTE. CONCRETE MATERIALS, ACCUMULATED IN PIT, SHALL BE REMOVED ONCE THE MATERIALS HAVE REACHED A DEPTH OF 2'.

5. CONCRETE WASHOUT WATER, WASTED PIECES OF CONCRETE AND ALL OTHER DEBRIS IN THE SUBSURFACE PIT SHALL BE TRANSPORTED FROM THE JOB SITE IN A WATER–TIGHT CONTAINER AND DISPOSED OF PROPERLY.

6. THE CWA SHALL REMAIN IN PLACE UNTIL ALL CONCRETE FOR THE PROJECT IS PLACED.

7. WHEN THE CWA IS REMOVED, COVER THE DISTURBED AREA WITH TOP SOIL, SEED AND MULCH OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

(DETAIL ADAPTED FROM DOUGLAS COUNTY, COLORADO AND THE CITY OF PARKER, COLORADO, NOT AVAILABLE IN AUTOCAD).

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

SC-1 Silt Fence (SF)

SILT FENCE INSTALLATION NOTES

1. SILT FENCE MUST BE PLACED AWAY FROM THE TOE OF THE SLOPE TO ALLOW FOR WATER PONDING. SILT FENCE AT THE TOE OF A SLOPE SHOULD BE INSTALLED IN A FLAT LOCATION AT LEAST SEVERAL FEET (2–5 FT) FROM THE TOE OF THE SLOPE TO ALLOW ROOM FOR PONDING AND DEPOSITION.

2. A UNIFORM 6" X 4" ANCHOR TRENCH SHALL BE EXCAVATED USING TRENCHER OR SILT FENCE INSTALLATION DEVICE. NO ROAD GRADERS, BACKHOES, OR SIMILAR EQUIPMENT SHALL BE USED.

3. COMPACT ANCHOR TRENCH BY HAND WITH A "JUMPING JACK" OR BY WHEEL ROLLING. COMPACTION SHALL BE SUCH THAT SILT FENCE RESISTS BEING PULLED OUT OF ANCHOR TRENCH BY HAND.

4. SILT FENCE SHALL BE PULLED TIGHT AS IT IS ANCHORED TO THE STAKES. THERE SHOULD BE NO NOTICEABLE SAG BETWEEN STAKES AFTER IT HAS BEEN ANCHORED TO THE STAKES.

5. SILT FENCE FABRIC SHALL BE ANCHORED TO THE STAKES USING 1" HEAVY DUTY STAPLES OR NAILS WITH 1" HEADS. STAPLES AND NAILS SHOULD BE PLACED 3" ALONG THE FABRIC DOWN THE STAKE.

6. AT THE END OF A RUN OF SILT FENCE ALONG A CONTOUR, THE SILT FENCE SHOULD BE TURNED PERPENDICULAR TO THE CONTOUR TO CREATE A "J–HOOK." THE "J–HOOK" EXTENDING PERPENDICULAR TO THE CONTOUR SHOULD BE OF SUFFICIENT LENGTH TO KEEP RUNOFF FROM FLOWING AROUND THE END OF THE SILT FENCE (TYPICALLY 10' – 20').

7. SILT FENCE SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.

SILT FENCE MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. SEDIMENT ACCUMULATED UPSTREAM OF THE SILT FENCE SHALL BE REMOVED AS NEEDED TO MAINTAIN THE FUNCTIONALITY OF THE BMP, TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY 6".

5. REPAIR OR REPLACE SILT FENCE WHEN THERE ARE SIGNS OF WEAR, SUCH AS SAGGING, TEARING, OR COLLAPSE.

6. SILT FENCE IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION, OR IS REPLACED BY AN EQUIVALENT PERIMETER SEDIMENT CONTROL BMP.

7. WHEN SILT FENCE IS REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

(DETAIL ADAPTED FROM TOWN OF PARKER, COLORADO AND CITY OF AURORA, NOT AVAILABLE IN AUTOCAD).

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

SC-5 Rock Sock (RS)

ROCK SOCK MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. ROCK SOCKS SHALL BE REPLACED IF THEY BECOME HEAVILY SOILED, OR DAMAGED BEYOND REPAIR.

5. SEDIMENT ACCUMULATED UPSTREAM OF ROCK SOCKS SHALL BE REMOVED AS NEEDED TO MAINTAIN FUNCTIONALITY OF THE BMP, TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY ½ OF THE HEIGHT OF THE ROCK SOCK.

6. ROCK SOCKS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.

7. WHEN ROCK SOCKS ARE REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

(DETAIL ADAPTED FROM TOWN OF PARKER, COLORADO AND CITY OF AURORA, COLORADO, NOT AVAILABLE IN AUTOCAD)

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

NOTE: THE DETAILS INCLUDED WITH THIS FACT SHEET SHOW COMMONLY USED, CONVENTIONAL METHODS OF ROCK SOCK INSTALLATION IN THE DENVER METROPOLITAN AREA. THERE ARE MANY OTHER SIMILAR PROPRIETARY PRODUCTS ON THE MARKET. UDFCD NEITHER ENDORSES NOR DISCOURAGES USE OF PROPRIETARY PROTECTION PRODUCTS; HOWEVER, IN THE EVENT PROPRIETARY METHODS ARE USED, THE APPROPRIATE DETAIL FROM THE MANUFACTURER MUST BE INCLUDED IN THE SWMP AND THE BMP MUST BE INSTALLED AND MAINTAINED AS SHOWN IN THE MANUFACTURER'S DETAILS.

SM-4 Vehicle Tracking Control (VTC)

STABILIZED CONSTRUCTION ENTRANCE/EXIT INSTALLATION NOTES

1. SEE PLAN VIEW FOR
   –LOCATION OF CONSTRUCTION ENTRANCE(S)/EXIT(S).
   –TYPE OF CONSTRUCTION ENTRANCE(S)/EXITS(S) (WITH/WITHOUT WHEEL WASH, CONSTRUCTION MAT OR TRM).

2. CONSTRUCTION MAT OR TRM STABILIZED CONSTRUCTION ENTRANCES ARE ONLY TO BE USED ON SHORT DURATION PROJECTS (TYPICALLY RANGING FROM A WEEK TO A MONTH) WHERE THERE WILL BE LIMITED VEHICULAR ACCESS.

3. A STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE LOCATED AT ALL ACCESS POINTS WHERE VEHICLES ACCESS THE CONSTRUCTION SITE FROM PAVED RIGHT–OF–WAYS.

4. STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.

5. A NON–WOVEN GEOTEXTILE FABRIC SHALL BE PLACED UNDER THE STABILIZED CONSTRUCTION ENTRANCE/EXIT PRIOR TO THE PLACEMENT OF ROCK.

6. UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF DOT SECT. #703, AASHTO #3 COARSE AGGREGATE OR 6" (MINUS) ROCK.

STABILIZED CONSTRUCTION ENTRANCE/EXIT MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. ROCK SHALL BE REAPPLIED OR REGRADED AS NECESSARY TO THE STABILIZED ENTRANCE/EXIT TO MAINTAIN A CONSISTENT DEPTH.

5. SEDIMENT TRACKED ONTO PAVED ROADS IS TO BE REMOVED THROUGHOUT THE DAY AND AT THE END OF THE DAY BY SHOVELING OR SWEEPING. SEDIMENT MAY NOT BE WASHED DOWN STORM SEWER DRAINS.

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

(DETAILS ADAPTED FROM CITY OF BROOMFIELD, COLORADO, NOT AVAILABLE IN AUTOCAD)

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SEAL

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BOULDER COUNTY RECEPTION HALL

15293 N 107TH STREET
LONGMONT, CO

PREPARED FOR
JUBILEE ACRES

15293 N 107TH STREET
LONGMONT, CO

SUBMITTAL
SPECIAL USE REVIEW

DRAWN BY: NGA
CHECKED BY: MRB
PROJECT NO.: 19-112-001

REVISIONS

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09/02/2020

SHEET TITLE
EROSION CONTROL DETAILS

SHEET INFORMATION
ER-2.0

BOULDER COUNTY RECEPTION HALL

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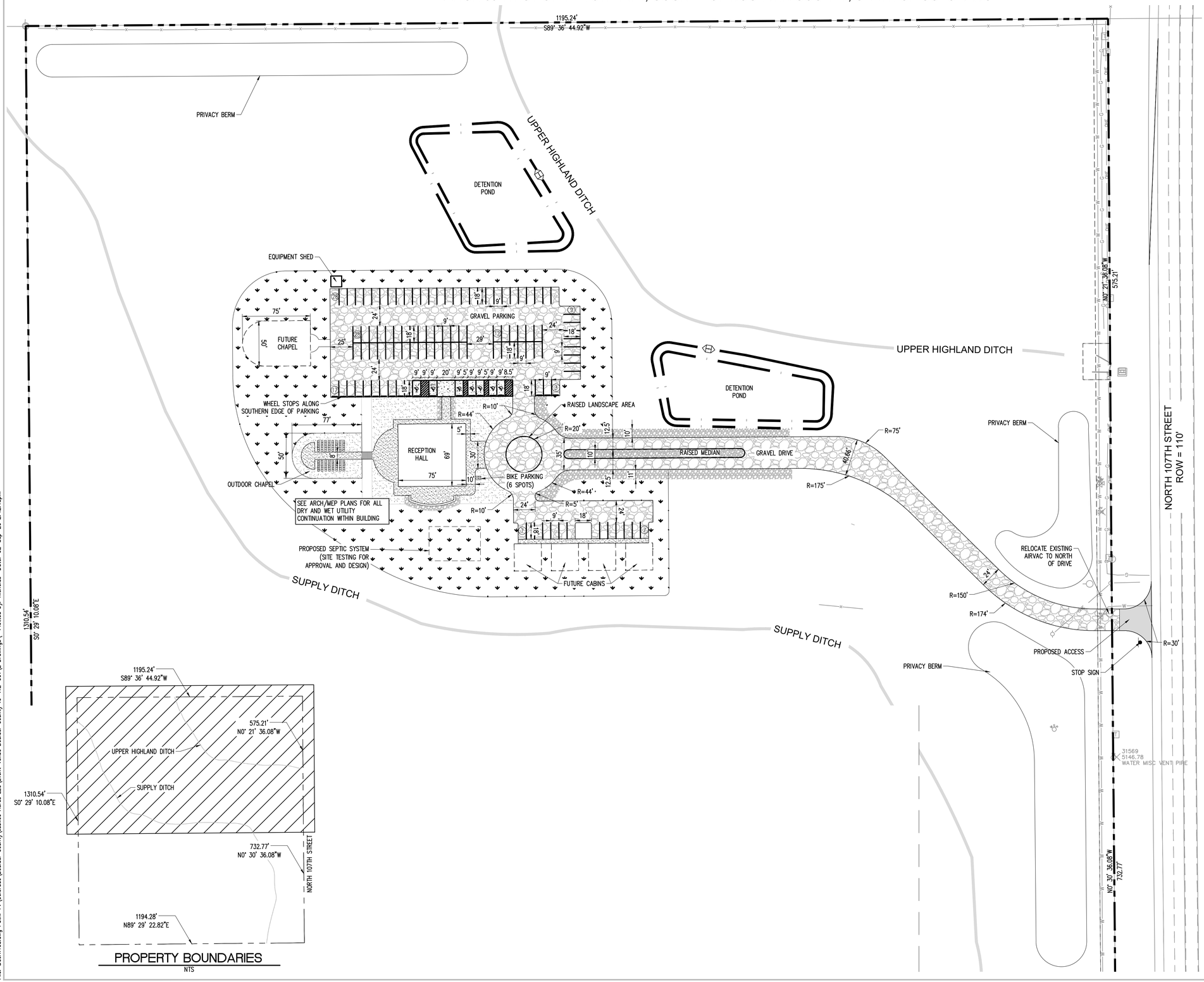

PROPERTY BOUNDARIES
NTS

LEGEND

- PROPERTY LINE
- EASEMENTS
- PROPOSED CREEK
- POND
- SIDEWALK
- GRAVEL
- ASPHALT

PARKING

PROVIDED:	
STANDARD	= 104 STALLS
ADA	= 7 STALLS
PARKING PROVIDED	= 111 STALLS
STALL DIMENSIONS:	= 18' X 9'

SITE DATA

BUILDING AREA:	0.28 ACRES (0.8%)
GRAVEL:	1.66 ACRES (4.6%)
LANDSCAPE AREA:	33.78 ACRES (94.1%)
CONCRETE:	0.18 ACRES (0.5%)
TOTAL AREA:	35.90 ACRES (100.0%)

NOTE:
SANITARY SYSTEM TO BE DESIGNED AND ACCEPTED PRIOR TO CONSTRUCTION START

NORTH
0 25 50 100
1 inch = 50 ft.

LOGO

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15293 N 107TH STREET
LONGMONT, CO

PREPARED FOR

JUBILEE ACRES

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LONGMONT, CO

SUBMITTAL

SPECIAL USE REVIEW

DRAWN BY:	NGA
CHECKED BY:	MRB
PROJECT NO.:	19-112-001

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09/02/2020

SHEET TITLE

SITE PLAN

SHEET INFORMATION

C-1.0

File: BCJA1105.dwg Path: P:\Colorado\Boulder County\Jubilee Acres LLC\Event Venue Boulder County 19-112-001\2 Drawings\ Plotted by: Nicholas Date: 02-Sep-20 2:42:18pm

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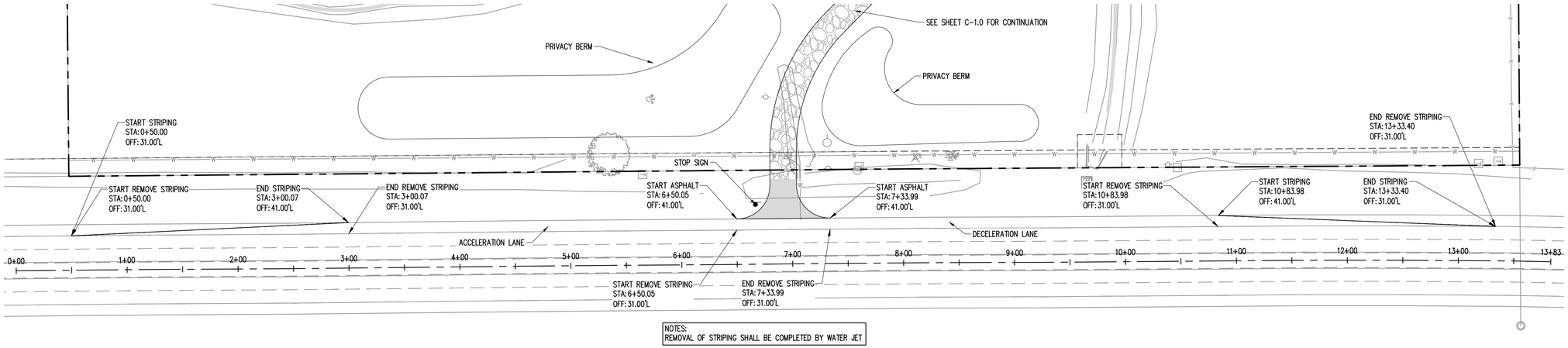
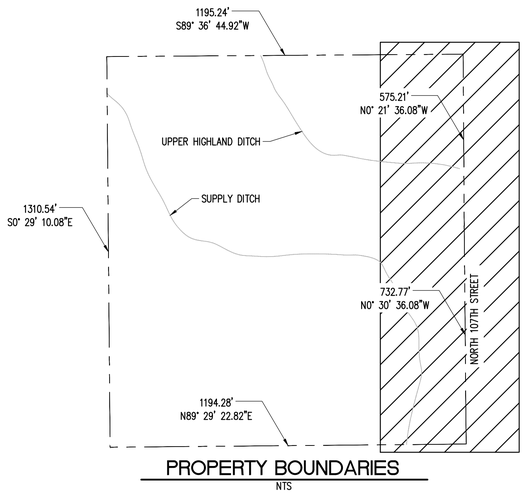
SITUATED WITHIN SECTION 3, TOWNSHIP 3 NORTH,
RANGE 69 WEST OF THE 6TH P.M., COUNTY OF BOULDER COUNTY, STATE OF COLORADO



NOTES:
REMOVAL OF STRIPING SHALL BE COMPLETED BY WATER JET

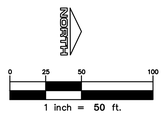


PROPERTY BOUNDARIES
NTS

PAINTED STRIPING LEGEND

4" SOLID WHITE LINE

R1-1
(36" X 36")
MUTCD



LOGO
RIDGETOP
ENGINEERING & SURVEYING
541 E. Garden Drive,
Unit N
Windsor, CO 80550
T (970) 663-4552
W ridgetopeng.com

SEAL

PROJECT TITLE

BOULDER COUNTY RECEPTION HALL

15293 N 107TH STREET
LONGMONT, CO

PREPARED FOR

JUBILEE ACRES

15293 N 107TH STREET
LONGMONT, CO

SUBMITTAL

SPECIAL USE REVIEW

DRAWN BY:	NGA
CHECKED BY:	MRB
PROJECT NO.:	19-112-001

REVISIONS

DATE

09/02/2020

SHEET TITLE

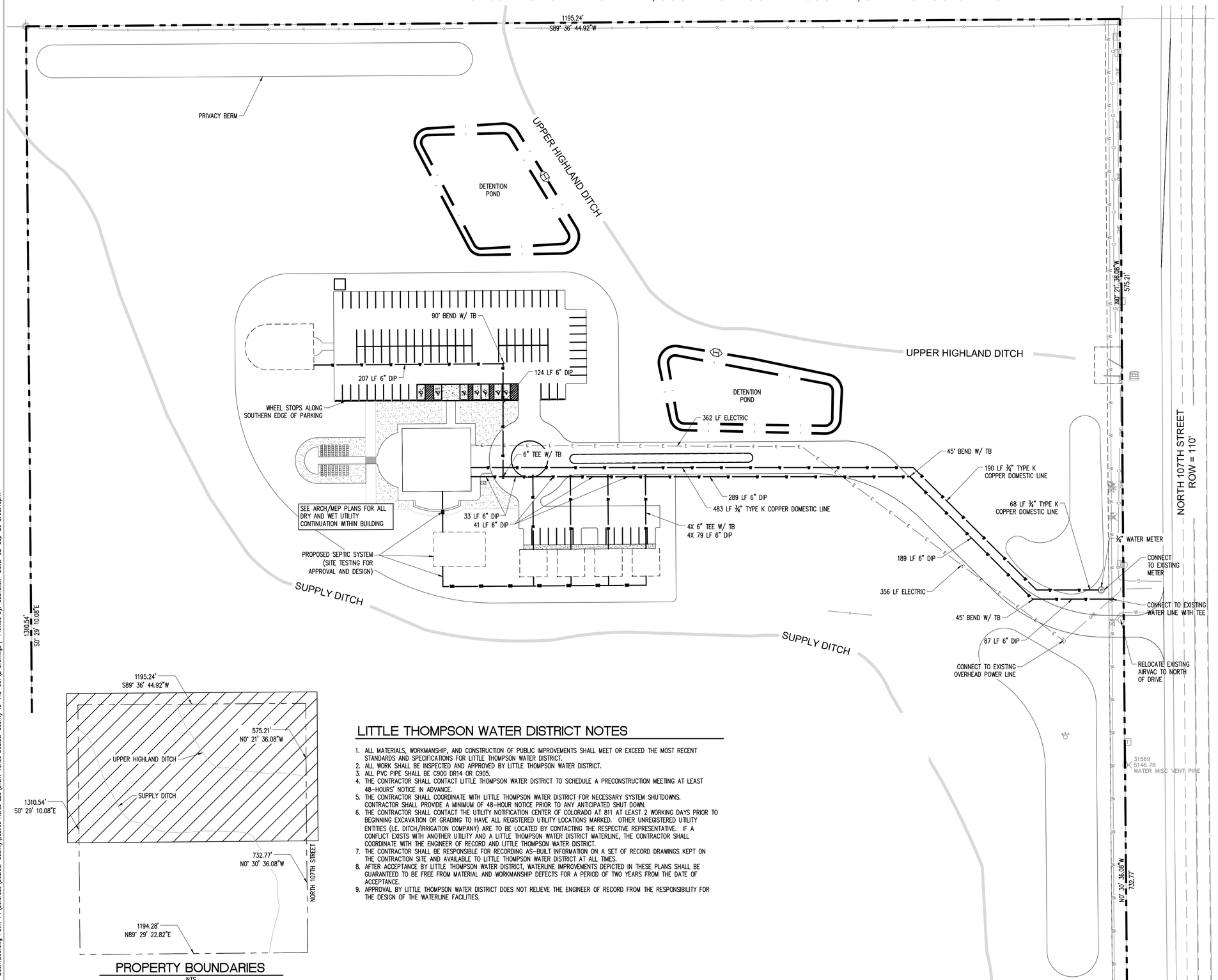
ACCESS STRIPING PLAN

SHEET INFORMATION

C-1.1

BOUDLER COUNTY RECEPTION HALL

SITUATED WITHIN SECTION 3, TOWNSHIP 3 NORTH,
RANGE 69 WEST OF THE 6TH P.M., COUNTY OF BOULDER COUNTY, STATE OF COLORADO



PROPERTY BOUNDARIES
NTS

LITTLE THOMPSON WATER DISTRICT NOTES

1. ALL MATERIALS, WORKMANSHIP, AND CONSTRUCTION OF PUBLIC IMPROVEMENTS SHALL MEET OR EXCEED THE MOST RECENT STANDARDS AND SPECIFICATIONS FOR LITTLE THOMPSON WATER DISTRICT.
2. ALL WORK SHALL BE INSPECTED AND APPROVED BY LITTLE THOMPSON WATER DISTRICT.
3. ALL PVC PIPE SHALL BE C900 DR14 OR C905.
4. THE CONTRACTOR SHALL CONTACT LITTLE THOMPSON WATER DISTRICT TO SCHEDULE A PRECONSTRUCTION MEETING AT LEAST 48-HOURS' NOTICE IN ADVANCE.
5. THE CONTRACTOR SHALL COORDINATE WITH LITTLE THOMPSON WATER DISTRICT FOR NECESSARY SYSTEM SHUTDOWNS. CONTRACTOR SHALL PROVIDE A MINIMUM OF 48-HOUR NOTICE PRIOR TO ANY ANTICIPATED SHUT DOWN.
6. THE CONTRACTOR SHALL CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO AT 811 AT LEAST 2 WORKING DAYS PRIOR TO BEGINNING EXCAVATION OR GRADING TO HAVE ALL REGISTERED UTILITY LOCATIONS MARKED. OTHER UNREGISTERED UTILITY ENTITIES (I.E. DITCH/IRRIGATION COMPANY) ARE TO BE LOCATED BY CONTACTING THE RESPECTIVE REPRESENTATIVE. IF A CONFLICT EXISTS WITH ANOTHER UTILITY AND A LITTLE THOMPSON WATER DISTRICT WATERLINE, THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER OF RECORD AND LITTLE THOMPSON WATER DISTRICT.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RECORDING AS-BUILT INFORMATION ON A SET OF RECORD DRAWINGS KEPT ON THE CONTRACTION SITE AND AVAILABLE TO LITTLE THOMPSON WATER DISTRICT AT ALL TIMES.
8. AFTER ACCEPTANCE BY LITTLE THOMPSON WATER DISTRICT, WATERLINE IMPROVEMENTS DEPICTED IN THESE PLANS SHALL BE GUARANTEED TO BE FREE FROM MATERIAL AND WORKMANSHIP DEFECTS FOR A PERIOD OF TWO YEARS FROM THE DATE OF ACCEPTANCE.
9. APPROVAL BY LITTLE THOMPSON WATER DISTRICT DOES NOT RELIEVE THE ENGINEER OF RECORD FROM THE RESPONSIBILITY FOR THE DESIGN OF THE WATERLINE FACILITIES.

LEGEND

- PROPERTY LINE
- EASEMENTS
- PROPOSED CREEK
- POND
- SIDEWALK
- GRAVEL
- ASPHALT

PARKING

PROVIDED:	
STANDARD	= 104 STALLS
ADA	= 7 STALLS
PARKING PROVIDED	= 111 STALLS
STALL DIMENSIONS:	= 18' X 9'

SITE DATA

BUILDING AREA:	0.28 ACRES (0.8%)
GRAVEL:	1.66 ACRES (4.6%)
LANDSCAPE AREA:	33.78 ACRES (94.1%)
CONCRETE:	0.18 ACRES (0.5%)
TOTAL AREA:	35.90 ACRES (100.0%)

NOTE:
SANITARY SYSTEM TO BE DESIGNED AND ACCEPTED PRIOR TO CONSTRUCTION START

NORTH
0 25 50 100
1 inch = 50 ft.

LOGO
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SEAL

PROJECT TITLE
BOULDER COUNTY RECEPTION HALL
15293 N 107TH STREET
LONGMONT, CO

PREPARED FOR
JUBILEE ACRES
15293 N 107TH STREET
LONGMONT, CO

SUBMITTAL
SPECIAL USE REVIEW

DRAWN BY:	NGA
CHECKED BY:	MRB
PROJECT NO.:	19-112-001

REVISIONS

DATE
09/02/2020

SHEET TITLE
UTILITY PLAN

SHEET INFORMATION
C-2.0

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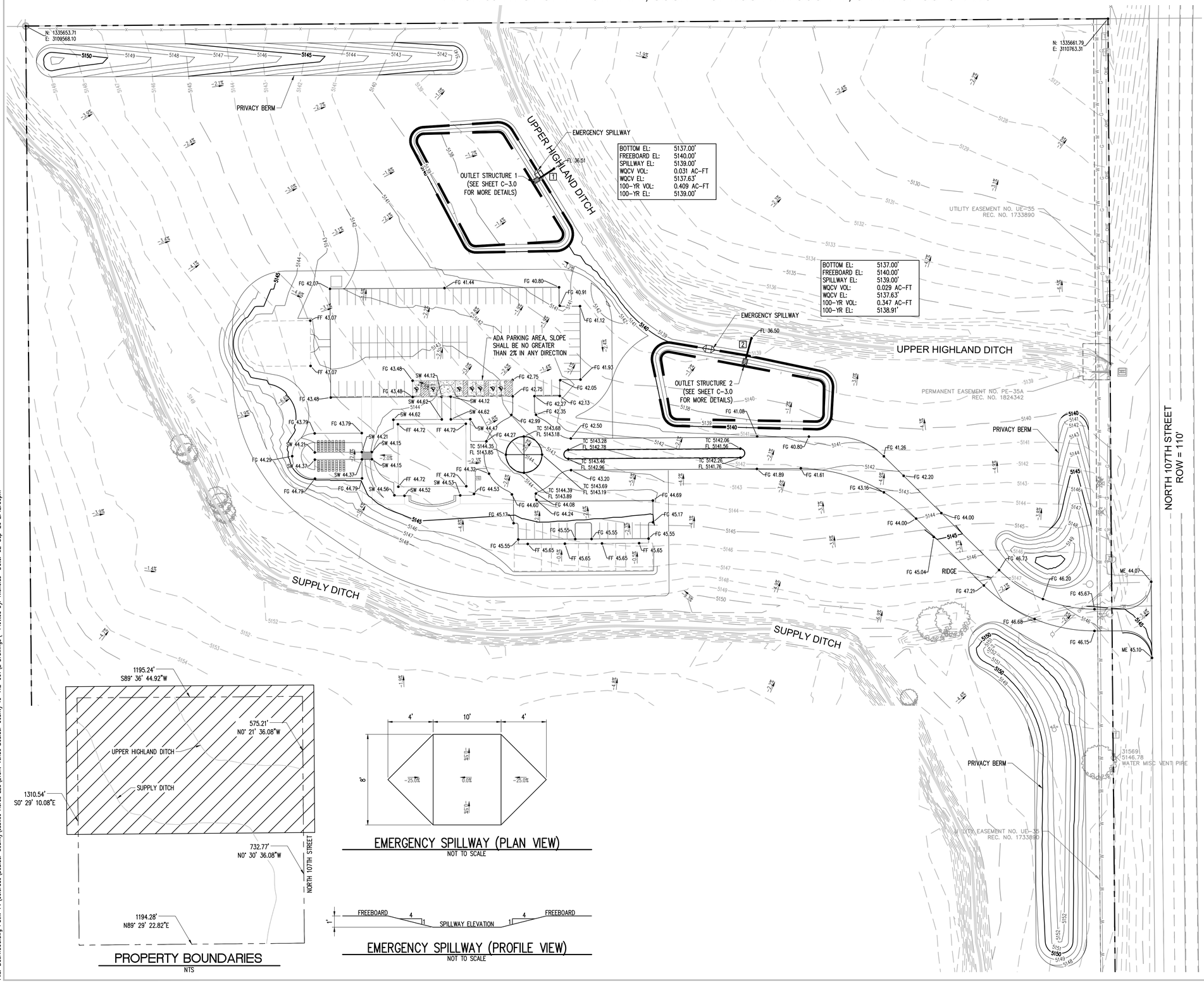
BOULDER COUNTY RECEPTION HALL

SITUATED WITHIN SECTION 3, TOWNSHIP 3 NORTH,
RANGE 69 WEST OF THE 6TH P.M., COUNTY OF BOULDER COUNTY, STATE OF COLORADO



PROPERTY BOUNDARIES
NTS

EMERGENCY SPILLWAY (PLAN VIEW)
NOT TO SCALE

EMERGENCY SPILLWAY (PROFILE VIEW)
NOT TO SCALE

LEGEND

PROPERTY LINE	
EASEMENTS	
POND	
EXISTING CONTOURS	XXXX
PROPOSED CONTOURS	XXXX
TOP OF CURB	TC
FLOW LINE	FL
FINISHED GRADE	FG
SWALE	

CUT	FILL	NET
6875.7 CY	6399.2 CY	476.5 CY

PIPE TABLE

#	SIZE	LENGTH	MATERIAL	SLOPE
1	18"	28'	HDPE Pipe	1.77%
2	18"	32'	HDPE Pipe	1.58%

NORTH
0 25 50 100
1 inch = 50 ft.

LOGO

RIDGETOP ENGINEERING & SURVEYING
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SEAL

PROJECT TITLE

BOULDER COUNTY RECEPTION HALL

15293 N 107TH STREET
LONGMONT, CO

PREPARED FOR

JUBILEE ACRES

15293 N 107TH STREET
LONGMONT, CO

SUBMITTAL

SPECIAL USE REVIEW

DRAWN BY:	NGA
CHECKED BY:	MRB
PROJECT NO.:	19-112-001

REVISIONS

DATE

09/02/2020

SHEET TITLE

GRADING AND DRAINAGE PLAN

SHEET INFORMATION

C-3.0

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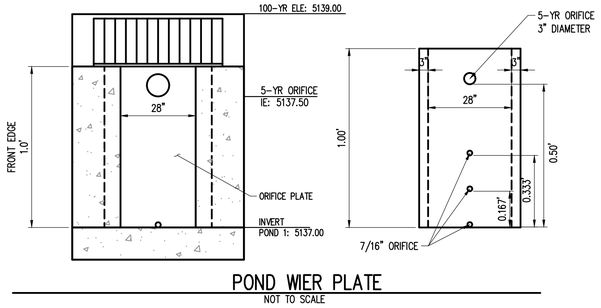
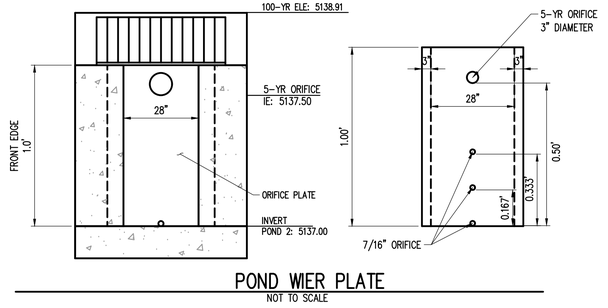
BOULDER COUNTY RECEPTION HALL

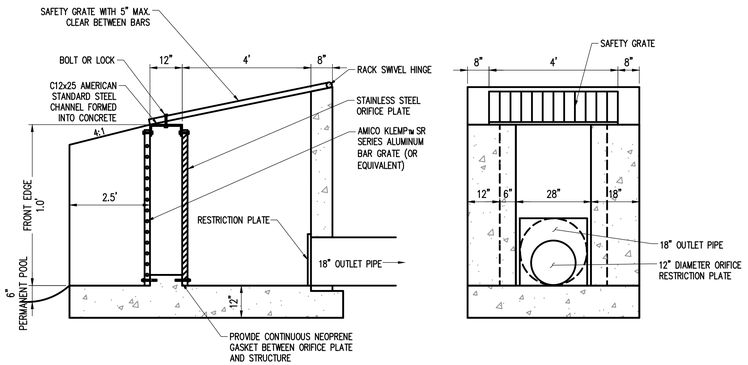
SITUATED WITHIN SECTION 3, TOWNSHIP 3 NORTH,
RANGE 69 WEST OF THE 6TH P.M., COUNTY OF BOULDER COUNTY, STATE OF COLORADO

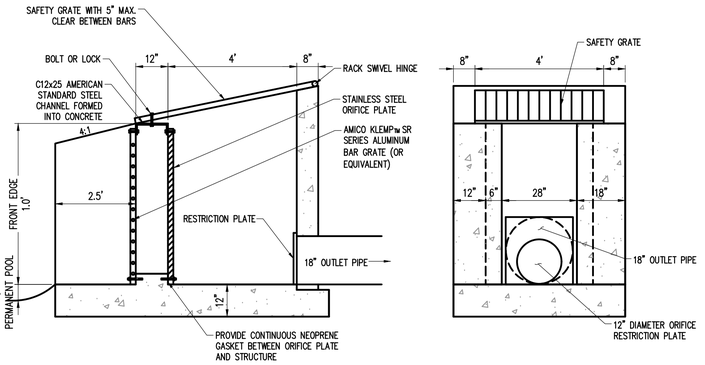


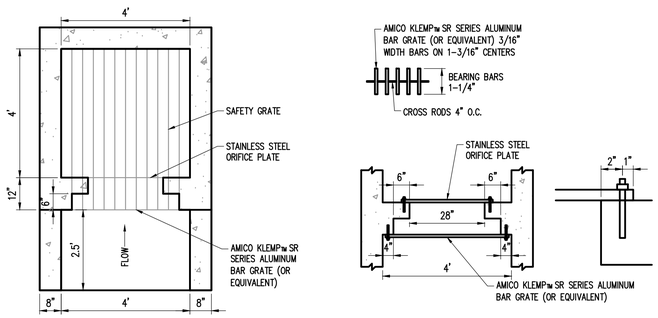
POND WIER PLATE
NOT TO SCALE



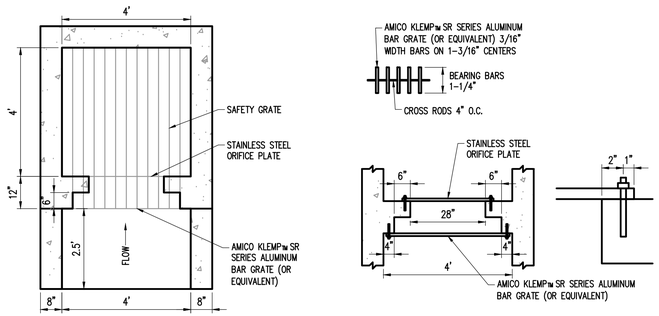
POND WIER PLATE
NOT TO SCALE



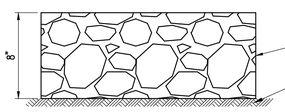




OUTLET STRUCTURE
NOT TO SCALE

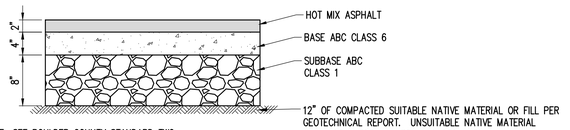


OUTLET STRUCTURE
NOT TO SCALE



NOTE: DEPTH OF GRAVEL INDICATED SHALL BE TO THE COMPACTED DEPTH.

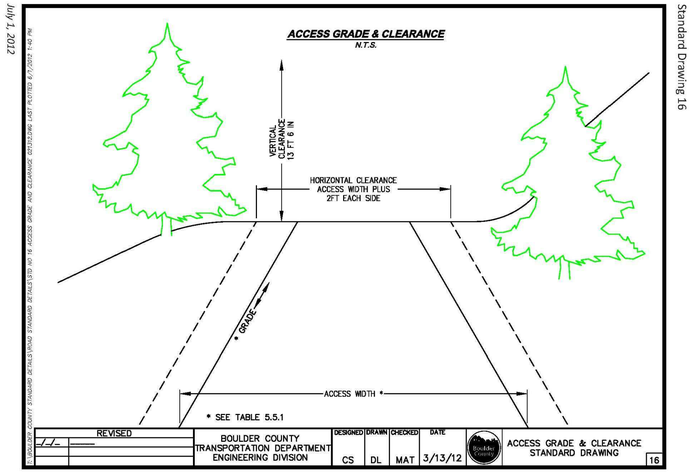
GRAVEL
NTS
3



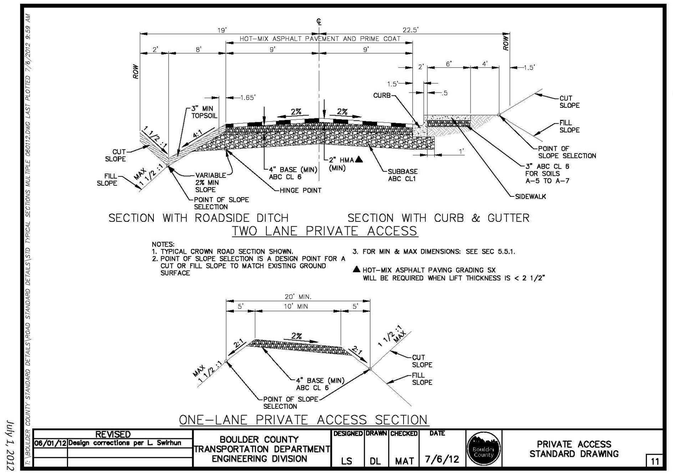
NOTE: SEE BOULDER COUNTY STANDARD TWO LANE PRIVATE ACCESS (THIS SHEET) FOR MORE DETAILS

ACCESS DRIVE ASPHALT
NTS
4

July 1, 2012



Boulder County Multimodal Transportation Standards
Standard Drawing 16



July 1, 2012

Boulder County Multimodal Transportation Standards
Standard Drawing 11

LOGO

RIDGETOP ENGINEERING & SURVEYING
541 E. Garden Drive, Unit N
Windsor, CO 80550
T (970) 663-4552
W ridgetopeng.com

SEAL

PROJECT TITLE

BOULDER COUNTY RECEPTION HALL

15293 N 107TH STREET
LONGMONT, CO

PREPARED FOR

JUBILEE ACRES

15293 N 107TH STREET
LONGMONT, CO

SUBMITTAL

SPECIAL USE REVIEW

DRAWN BY:	NGA
CHECKED BY:	MRB
PROJECT NO.:	19-112-001

REVISIONS

DATE

09/02/2020

SHEET TITLE

DETAILS

SHEET INFORMATION

C-4.0

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BOULDER COUNTY EVENT VENUE

SITUATED WITHIN SECTION 3, TOWNSHIP 3 NORTH,
RANGE 69 WEST OF THE 6TH P.M., COUNTY OF BOULDER COUNTY, STATE OF COLORADO

SOLID FENCE

DETENTION POND

DETENTION POND

GRAVEL PARKING

FUTURE CHAPEL

RECEPTION HALL

SEAT WALL

OUTDOOR CHAPEL

FOG7 BRIDGE

GRAVEL PARKING

FUTURE CABINS

HOPER HIGHLAND DITCH

EXISTING TREES

EXISTING TREES

EXISTING TREES

13-PN
9-PN
3-GO

2-TCG
12-HHR
4-RvM
2-AT
8-MS
1-QR
4-PG

2-PPG
3-PF

18-KA
4-MS
15-CT
5-SSB
32 -LPG
16-HHR
6-HHR
4-SSB
2-AT
10-CT
2-AGL

2-PG
2-PPF
3-CC
2-GB
3-MS
14-KA

2-CS
1-CS
10-GTK
5-GTS
5-PN
8-MSS
1-CS
5-GTS
5-MM
3-CO
2-CS

PLANT LEGEND

- DECIDUOUS CANOPY TREES
- ORNAMENTAL TREES
- EVERGREEN TREES
- EVERGREEN SHRUBS
- DECIDUOUS SHRUBS
- PERENNIALS

- AGRICULTURAL AREA
- 3/4" - 2" RIVER ROCK MULCH
- LOW WATER FESCUE TURF
- NATIVE GRASS
- STEEL EDGER
- 2' - 3' BOULDER

0 30 60 120
1 inch = 60 ft.

LOGO

541 E. Garden Drive,
Unit N
Windsor, CO 80550

T (970) 663-4552
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SEAL

Planscapes
Planning/Landscape Architecture
Robert Molloy

1060 Norway Maple Drive
Loveland, Colorado 80538

Mobile (970)988-5301
Email: rmmolloy@frii.com

PROJECT TITLE

BOULDER COUNTY EVENT VENUE

15293 N 107TH STREET
LONGMONT, CO

PREPARED FOR

JUBILEE ACRES

15293 N 107TH STREET
LONGMONT, CO

SUBMITTAL

SPECIAL USE REVIEW

DRAWN BY:	NGA
CHECKED BY:	MRB
PROJECT NO.:	19-112-001

REVISIONS

DATE

04/30/2020

SHEET TITLE

LANDSCAPE PLAN

SHEET INFORMATION

LS-1.0

BOULDER COUNTY EVENT VENUE

SITUATED WITHIN SECTION 3, TOWNSHIP 3 NORTH,
RANGE 69 WEST OF THE 6TH P.M., COUNTY OF BOULDER COUNTY, STATE OF COLORADO

PROPOSED PLANT LIST

KEY	BOTANICAL NAME	COMMON NAME	SIZE	NOTES	ADBL	GROWTH HEIGHT	QTY.
	DECIDUOUS TREES 54%						
GD	Gymnocladus dioicus	Kentucky Coffeetree	2" cal	B+B	M	40'-60'	3
GTK	Gleditsia triacanthos inermis 'Skyline'	Skyline Honeylocust	2" cal	B+B	H	40'-50'	10
CO	Celtis occidentalis	Western Hackberry	2" cal	B+B	H	40'-60'	5
TCG	Tilia cordata 'Greenspire'	Greenspire Linden	2" cal	B+B	H	20'-50'	2
AGL	Aesculus glabra	Ohio Buckeye	2" cal	B+B	H	20'-50'	2
QR	Quercus Robur	English Oak	2" cal	B+B	H	40'-60'	1
QM	Quercus macrocarpa	Burr Oak	2" cal	B+B	M	40'-60'	4
GB	Ginko biloba	Ginko Maidenhair	2" cal	B+B	M	40'-60'	2
CS	Catalpa speciosa	Western Catalpa	2" cal	B+B	M	40'-60'	3
GTS	Gleditsia triancanthos enermis 'Shademaster'	Shademaster Honeylocust	2" cal	B+B	M	40'-60'	10
	EVERGREEN TREES						
PN	Pinus niagra	Austrian Pine	6' ht.	B+B	L	40'-60'	27
PPG	Picea pungens glauca	Colorado Blue Spruce	6' ht.	B+B	L	40'-60'	2
PF	Pinus flexiliis 'Vanderwolf Pyramid'	Vanderwolf Pine	6' ht.	B+B	L	40'-60'	3
PPF	Picea pungens 'Fat Albert'	Colorado Blue Spruce	6' ht.	B+B	L	30'-40'	2
	ORNAMENTAL TREES						
MSS	Malus 'Spring Snow'	Spring Snow Crab	1.5" cal.	B+B	L	S	8
AT	Acer tataricum	Tartarian Maple	1.5" cal.	B+B	L	S	4
CC	Cersis canadensis	Eastern Redbud	1.5" cal.	B+B	L	S	3
MIM	Malus 'Indian Magic'	Indian Magic Crabapple	1.5" cal.	B+B	L	S	5
	EVERGREEN SHRUBS						
PG	Picea pungens 'Globosa'	Globe Spruce	5 gal.	6' o.c.		2'	6
	DECIDUOUS SHRUBS						
RxM	Rosa x 'Knockout'	Knockout Rose	5 gal.	5' o.c.		4'	4
	PERENNIALS AND ORNAMENTAL GRASSES						
KA	Calamagrostis x acutiflora 'Karl Forester'	Karl Forester Grass	1 gal.	18" o.c.		5'	32
CT	Ceratstium tomentosum	Snow-in-Summer	1 gal.	18" o.c.		3'	25
SSB	Salvia superba 'Blue Queen'	Blue Salvia	1 gal.	18" o.c.		2'	9
LPG	Lupinus x poyphylius 'Governor'	Blue Lupine	1 gal.	18" o.c.		2'	32
MS	Myiscanthus sinensis 'Gracilimus'	Maiden Grass	2 gal.	4' o.c.		4'	11
HHR	Hermerocallis "Happy Returns'	Dwarf Yellow Day Liliy	1 gal.	12" o.c.		2'	34

NATIVE GRASS:

PBSI Foothills Native Mix

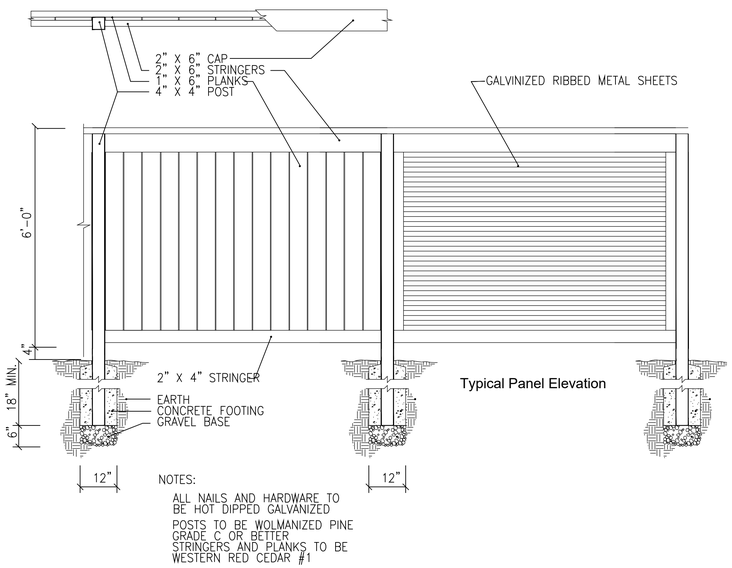
Ingredients: Switchgrass, Rocky Mountain Fescue, Big Bluestem, Sandberg Bluegrass,Slender Wheatgrass, Thickspike/Streambank/Western Wheatgrass, Yellow Indiangrass , Blue Grama, Beardless Wheatgrass, Indian Ricegrass, Little Bluestem, Sand Dropseed, Sideoats Grama

Seeding Rate: 25 lbs/Acre to be used between October 15th and March 30th

Pawnee Buttes Seed, Inc.
605 25th St.
Greeley, Colorado
(970) 356-7002

PLANT NOTES

1. ALL PLANT MATERIAL SHALL MEET SPECIFICATIONS OF THE AMERICAN ASSOCIATION OF NURSERYMEN (AAN) FOR NUMBER ONE GRADE. ALL TREES SHALL BE BALLED AND BURLAPPED OR EQUIVALENT.
2. All LOW PERENNIAL AND GROUNDCOVER PLANTING AREA SHALL BE MULCHED WITH WESTERN RED CEDAR WOOD MULCH AT A DEPTH OF 2". WEED FABRIC BARRIER IS NOT REQUIRED.
3. NO SHRUBS SHALL BE PLANTED WITHIN FIVE (5) FEET OR TREES WITHIN (10) FEET OF POTABLE AND NONPOTABLE WATER METERS, FIRE HYDRANTS, SANITARY SEWER MANHOLES, OR POTABLE WATER, SANITARY SEWER, AND NON POTABLE IRRIGATION MAINS AND SERVICES.
4. DEVELOPER SHALL ENSURE THAT THE LANDSCAPE PLAN IS COORDINATED WITH THE PLANS DONE BY OTHER CONSULTANTS SO THAT THE PROPOSED GRADING, STORM DRAINAGE, OR OTHER CONSTRUCTION DOES NOT CONFLICT NOR PRECLUDE INSTALLATION AND MAINTENANCE OF LANDSCAPE ELEMENTS ON THIS PLAN.
5. ALL LANDSCAPE AREAS WITHIN THE SITE SHALL BE IRRIGATED WITH AN AUTOMATIC UNDERGROUND IRRIGATION SYSTEM.
6. ALL TURF AREAS TO BE SODDED AND IRRIGATED WITH AN AUTOMATIC POP-UP IRRIGATION SYSTEM. ALL SHRUB BEDS AND TREES ARE TO BE IRRIGATED WITH AN AUTOMATIC IRRIGATION (TRICKLE) IRRIGATION SYSTEM, OR ACCEPTABLE ALTERNATIVE. THE IRRIGATION SYSTEM IS TO BE ADJUSTED TO MEET THE WATER REQUIREMENTS OF THE INDIVIDUAL PLANT MATERIAL.
7. ALL SHRUB BEDS TO BE MULCHED 3" DEEP WITH 3/4" - 2" RIVER ROCK PLACED ON WEED BARRIER FABRIC .
8. EDGING BETWEEN GRASS AND SHRUB BEDS SHALL BE ⅛" X 4" STEEL SET LEVEL WITH TOP OF GRADE.
9. TOPSOIL. TO THE MAXIMUM EXTENT FEASIBLE, TOPSOIL THAT IS REMOVED DURING CONSTRUCTION ACTIVITY SHALL BE CONSERVED FOR LATER USE.
10. SOIL AMENDMENTS. PRIOR TO INSTALLATION OF PLANT MATERIALS, AREAS THAT HAVE BEEN COMPACTED OR DISTURBED BY CONSTRUCTION ACTIVITY SHALL BE THOROUGHLY LOOSENED. 4 CU.YRDS./1000 SQ.FT. OF ORGANIC AMENDMENTS SUCH AS COMPOST, PEAT, OR AGED MANURE SHALL BE THOROUGHLY INCORPORATED INTO THE SOIL.



Typical Panel Elevation

NOTES:
ALL NAILS AND HARDWARE TO BE HOT DIPPED GALVANIZED
POSTS TO BE WOLMANIZED PINE GRADE C OR BETTER
STRINGERS AND PLANKS TO BE WESTERN RED CEDAR #1

FENCING

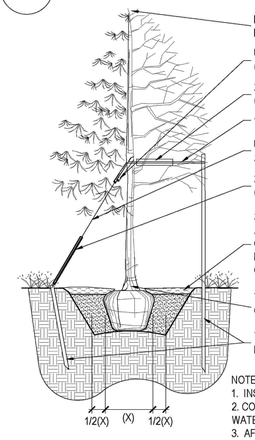
WOOD - 6" PLANKS

NOTES:
1. THIS DRAWING IS THE PROPERTY OF CADDETAILS.COM, LTD. AND HAS BEEN MADE AVAILABLE TO DESIGN PROFESSIONALS FOR INFORMATION PURPOSES ONLY.
2. DUPLICATION AND DISTRIBUTION OF THIS DRAWING IS STRICTLY PROHIBITED.
3. DO NOT SCALE DRAWINGS.
4. DO NOT USE FOR CONSTRUCTION.
5. FOR UPDATES AND ADDITIONAL INFORMATION VISIT www.CADdetails.com.

000-407W

A PLANTING DETAIL FOR ALL TREES & B&B SHRUBS

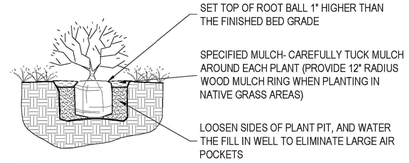
N.T.S.



NOTES:
1. INSTALL WATERING SAUCER IN NATIVE AREAS.
2. CONSTRUCT 6" HEIGHT WATERING RING FOR INITIAL WATERING. REMOVE IN SOD AREAS PRIOR TO MULCHING.
3. AFTER SEPTEMBER 1ST, INSTALL 4" TREE TAPE ON DECIDUOUS TREES FROM 6" OFF THE GROUND TO THE FIRST BRANCH. REMOVE PROMPTLY IN SPRING.
4. COMPLETELY REMOVE WIRE BASKET, ALL TWINE & PLASTIC. REMOVE BURLAP OFF TOP 2/3 OF BALL.
5. FILL PLANT PIT WITH 1/2 SPECIFIED SOIL MIX AND 1/2 PIT SOIL.

B PLANTING DETAIL FOR SHRUBS, AND ALL CONTAINER PLANTS LARGER THAN 1 GALLON

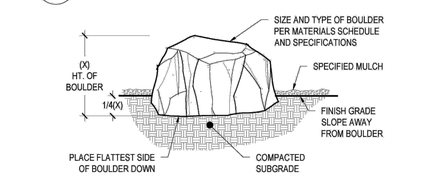
N.T.S.



NOTES:
1. PRUNE ALL DEAD OR DAMAGED BRANCHES PRIOR TO, AND AFTER PLANTING.
2. CRUMBLING OR BROKEN ROOT BALLS WILL BE REJECTED.
3. DIG PLANT PIT TWICE AS WIDE AND HIGH AS CONTAINER.
4. TAKE CARE NOT TO DAMAGE ROOT BALL WHEN REMOVING THE PLANT FROM IT'S CONTAINER.
5. FOR ALL PLANTS IDENTIFIED WITH WATER USE OF "LOW" OR "VERY LOW" ON THE PLANT LIST, KEEP WOOD MULCH 2" BACK FROM TRUNK OR STEM.
6. FILL PLANT PIT WITH 1/2 SPECIFIED SOIL MIX AND 1/2 PIT SOIL.
7. SCORE ROOT BOUND ROOT BALLS TO FREE UP ROOTS.

C LANDSCAPE BOULDER

N.T.S.



NOTES:
1. CONTACT LANDSCAPE ARCHITECT OR OWNERS REPRESENTATIVE PRIOR TO PLACEMENT OF BOULDERS.
2. BURY 1/4 OF THE TOTAL HEIGHT OF EACH BOULDER INTO THE GROUND.
3. PROVIDE POSITIVE DRAINAGE AWAY FROM EACH BOULDER.
4. THOROUGHLY COMPACT, PUDDLE AND STABILIZE BACKFILL, AND SURROUNDING GRADES PRIOR TO COMPLETION.
5. DO NOT PLACE BOULDERS IN FLOWLINE OF SWALES OR ANY LOCATION WHERE DRAINAGE COULD BE INHIBITED BY BOULDERS.

LOGO
541 E. Garden Drive, Unit N
Windsor, CO 80550
T (970) 663-4552
W ridgetopeng.com

SEAL

PROJECT TITLE

BOULDER COUNTY EVENT VENUE

15293 N 107TH STREET
LONGMONT, CO

PREPARED FOR

JUBILEE ACRES

15293 N 107TH STREET
LONGMONT, CO

Planscapes
Planning/Landscape Architecture
Robert Molloy
980 Norway Maple Drive
Loveland, Colorado 80538
Mobile: (970)988-5301
Email: rmmolloy@msn.com

SUBMITTAL

SPECIAL USE REVIEW

DRAWN BY:	NGA
CHECKED BY:	MRB
PROJECT NO.:	19-112-001

REVISIONS

DATE

04/30/2020

SHEET TITLE

LANDSCAPE DETAILS

SHEET INFORMATION

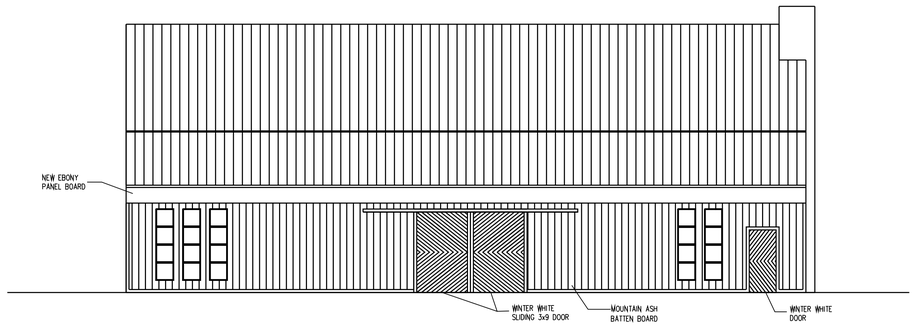
LS-1.1

11 Of 13

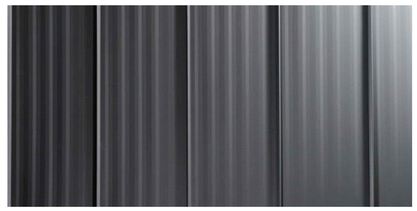
RECEPTION HALL

BOULDER COUNTY RECEPTION HALL

SITUATED WITHIN SECTION 3, TOWNSHIP 3 NORTH,
RANGE 69 WEST OF THE 6TH P.M., COUNTY OF BOULDER COUNTY, STATE OF COLORADO



NORTH ELEVATION

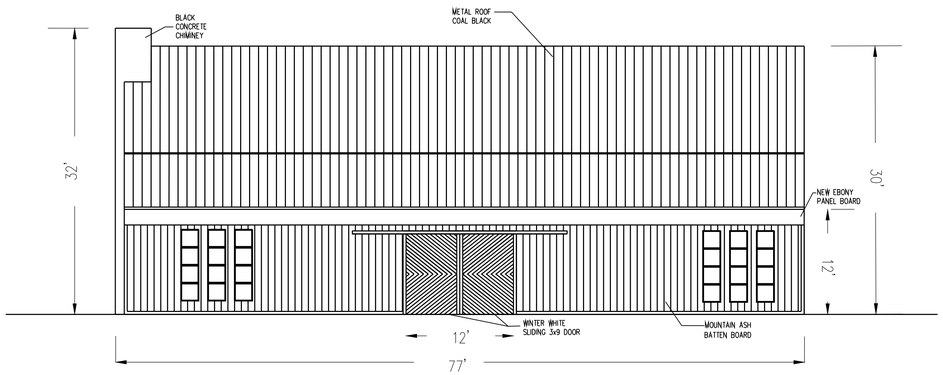


STANDING SEAM
BLACK METAL ROOF

SW 3540
WINTER WHITE

SW 3540
NEW EBONY

SW 3131
MOUNTAIN ASH



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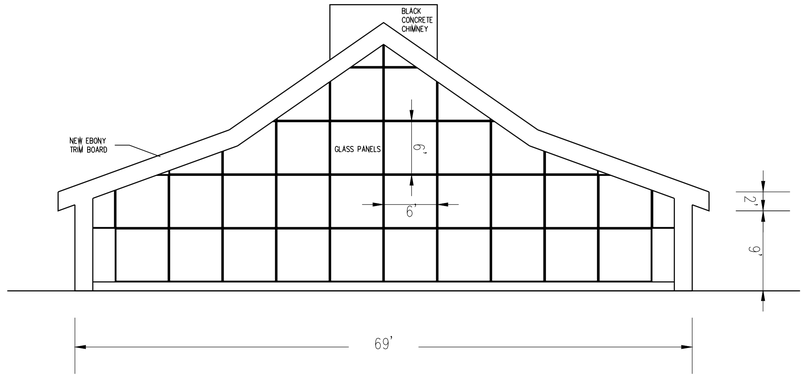

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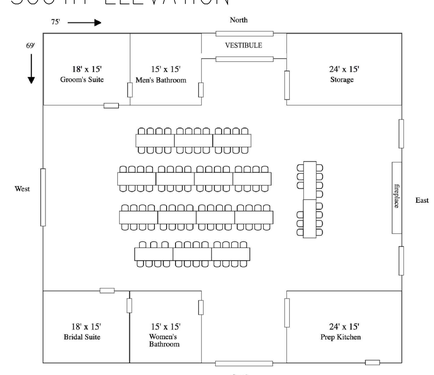
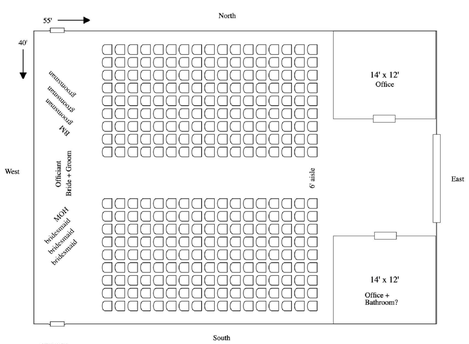


JUBILEE ACRES

Indoor Reception space - Floor Plan for 125

125 chairs
16 tables

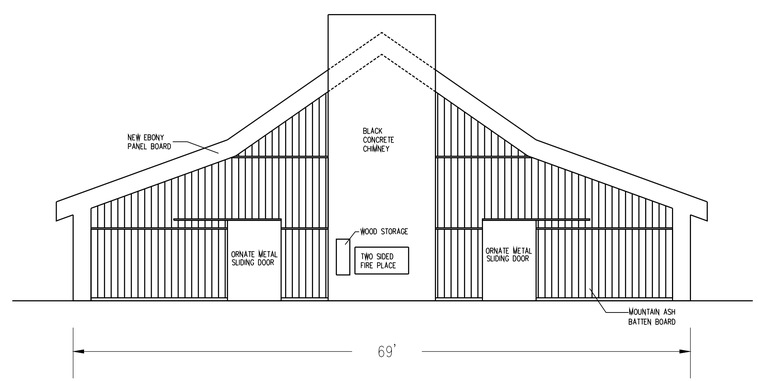
RECEPTION HALL FLOOR PLAN



CHAPEL

Indoor Ceremony - Floor Plan for up to 300

CHAPEL FLOOR PLAN



EAST ELEVATION

LOGO

541 E. Garden Drive,
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SEAL

Planscapes
Planning/Landscape Architecture
Robert Molloy
980 Norway Maple Drive
Loveland, Colorado 80538
Mobile (970)988-5301
Email rmmolloy@msn.com

PROJECT TITLE

BOULDER
COUNTY
RECEPTION
HALL

15293 N 107TH STREET
LONGMONT, CO

PREPARED FOR

JUBILEE ACRES

15293 N 107TH STREET
LONGMONT, CO

SUBMITTAL

SPECIAL USE REVIEW

DRAWN BY: NGA
CHECKED BY: MRB
PROJECT NO.: 19-112-001

REVISIONS

DATE

05/11/2020

SHEET TITLE

ELEVATIONS
RECEPTION
HALL

SHEET INFORMATION

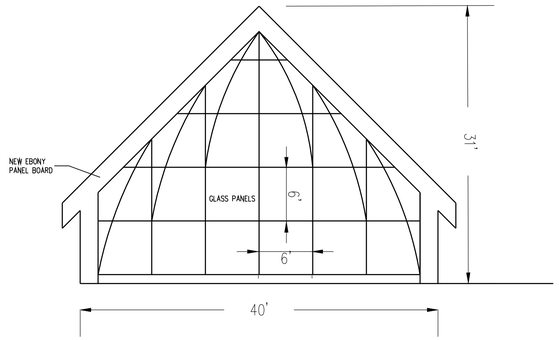
A-1

12 Of 13

BOUNDER COUNTY RECEPTION HALL

SITUATED WITHIN SECTION 3, TOWNSHIP 3 NORTH,
RANGE 69 WEST OF THE 6TH P.M., COUNTY OF BOULDER COUNTY, STATE OF COLORADO

PROPOSED CHAPEL



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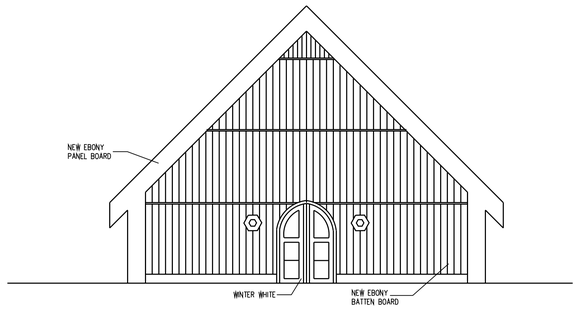

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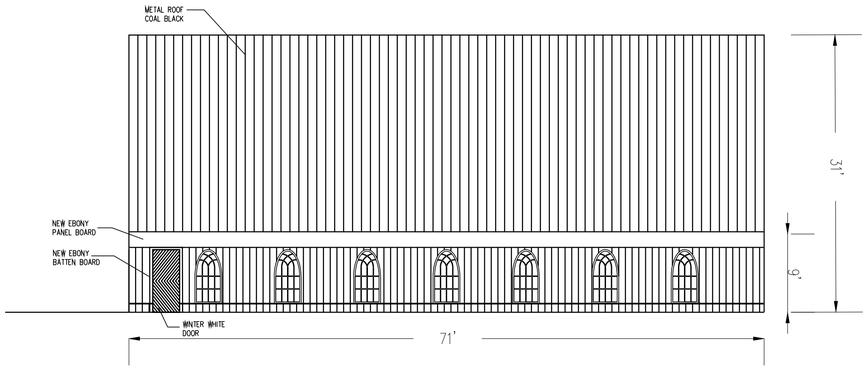
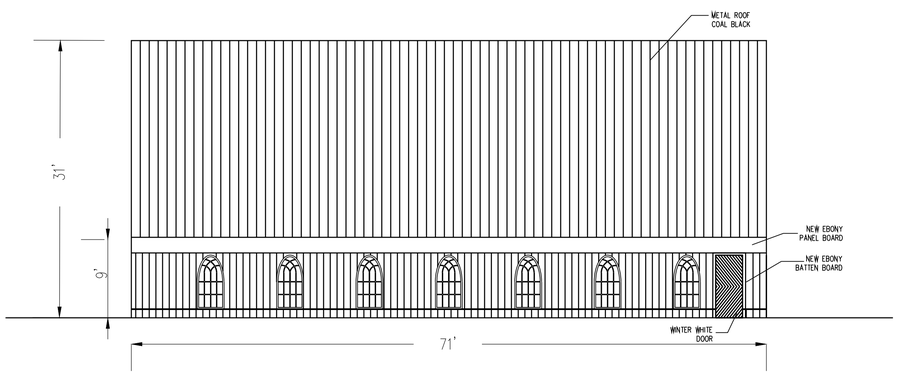
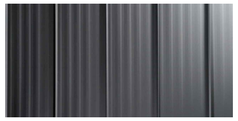


SOUTH ELEVATION



NORTH ELEVATION



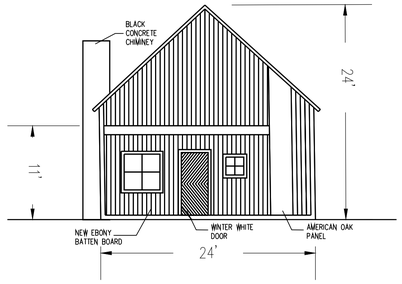
STANDING SEAM
BLACK METAL ROOF

SW 3540
WINTER WHITE

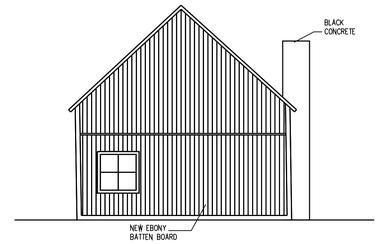
SW 3131
MOUNTAIN ASH

SW 3540
NEW EBONY

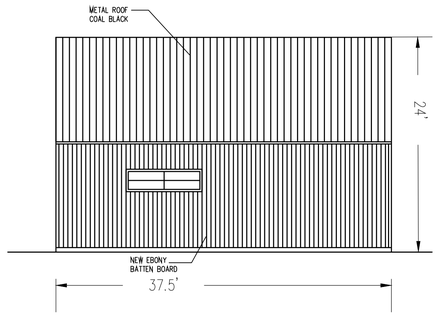
PROPOSED CABINS



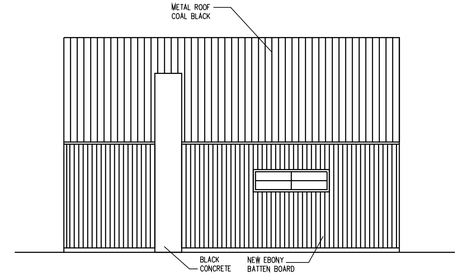
FRONT ELEVATION



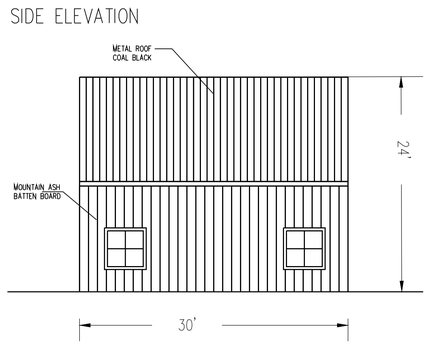
REAR ELEVATION



SIDE ELEVATION



SIDE ELEVATION



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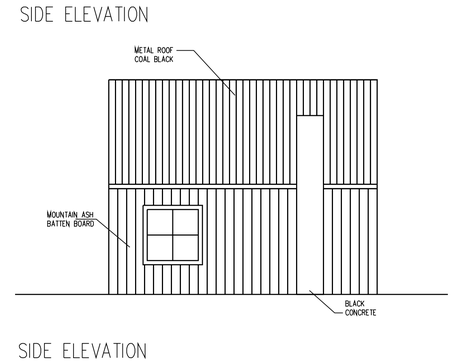

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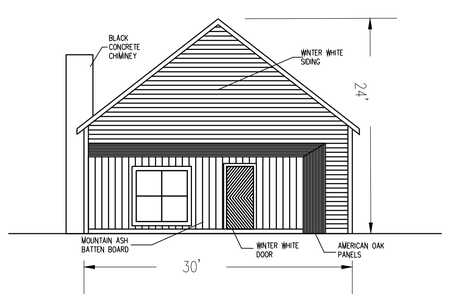
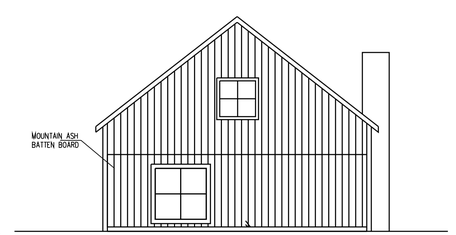


FRONT ELEVATION



REAR ELEVATION

LOGO

541 E. Garden Drive,
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W ridgetopeng.com

SEAL

PROJECT TITLE

BOULDER COUNTY RECEPTION HALL

15293 N 107TH STREET
LONGMONT, CO

PREPARED FOR

JUBILEE ACRES

15293 N 107TH STREET
LONGMONT, CO

Planscapes
Planning/Landscape Architecture
Robert Molloy
9860 Norway Maple Drive
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Mobile (970)988-3301
Email: rmmolloy@msn.com

SUBMITTAL

SPECIAL USE REVIEW

DRAWN BY:	NGA
CHECKED BY:	MRB
PROJECT NO.:	19-112-001

REVISIONS

DATE

05/11/2020

SHEET TITLE

ELEVATIONS
CHAPEL
AND CABINS

SHEET INFORMATION

A-2

13 of 13

Drainage Report

for

15293 N 107th Street

Boulder County, CO

Prepared by: Nicholas Andersen

Prepared under the direct supervision of
Mike R. Beach, P.E.
Colorado Registration No. 45088

Date: August 12th, 2020

RIDGETOP
ENGINEERING & CONSULTING

541 E Garden Drive, Unit N Windsor, CO 80550
(970) 663-4552 EMAIL: nandersen@ridgetopeng.com

I hereby certify that this plan and report for the preliminary drainage design of Boulder County Reception Hall was prepared by me, or under my direct supervision, in accordance with the provisions of the Boulder County Storm Drainage Criteria Manual.

_____

Mike R. Beach, P.E.
State of Colorado No. 45088

Table of Contents

Project Location

Project Name: Jubilee Acres Reception Hall

Location: 15293 N 107th Street

Section/Township/Range: Section 3, Township 3 North, Range 69 West, 6th P.M.

Legal Description: N1/2 E1/2 SW1/4 3-3N-69 SPLIT PER DEEDS 3674552-3 LESS UP RES & LESS .029 AC STATE HWY & LESS 6.65 ACS TO ROW DEED 1733891-2 9/25/97 36 ACS M/L

Parcels/ Tax Lots: # 120503000015

Site Area: Total = ±35.90 Acres

City, County, State: (Not within City), Boulder County, Colorado

Governing Agency: Boulder County, Colorado

Design Criteria: Boulder County Storm Drainage Criteria

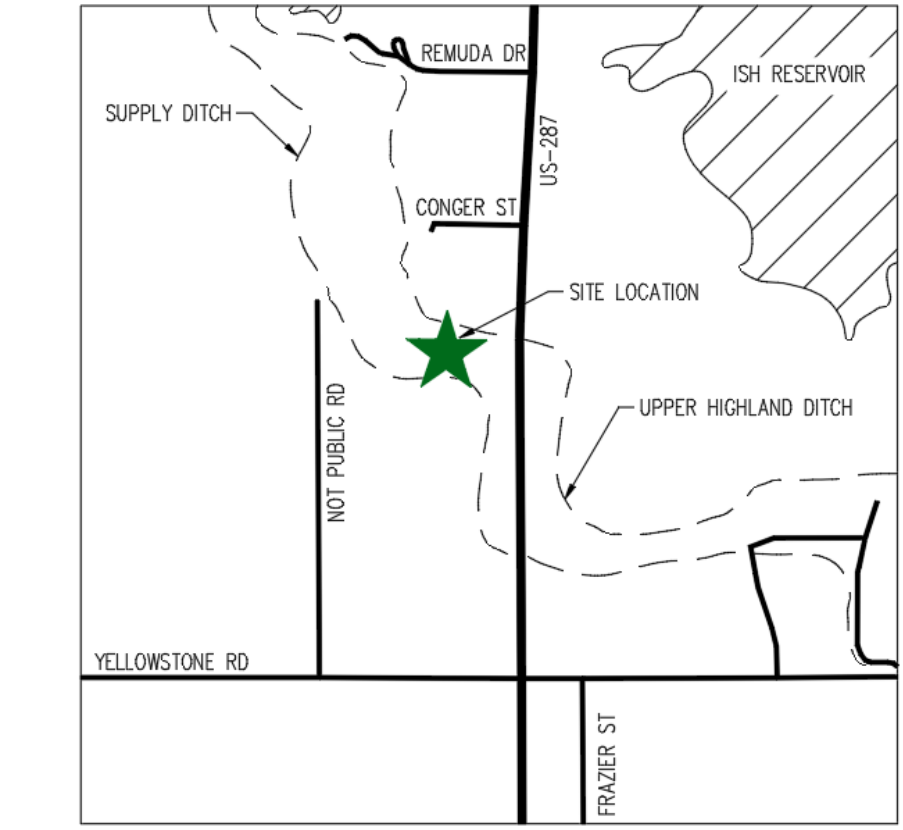
Section 1: Project Overview

This Report accompanies the final grading plan to construct a new reception hall located at 15293 North 107th Street.

The site is currently a vacant +\-35.90 acre parcel north of Longmont surrounded by agricultural lands. The site is also currently zoned agricultural.

The proposed onsite improvements will consist of constructing a ±5,175 sf reception hall with walkways and gravel parking. The site will also have an additional ±7,350 sf of proposed buildings that will be constructed in the future. These building will be comprised of four cabins and a chapel.

No offsite improvements are proposed except for regrading of the existing access.



Section 2: Pre-developed Conditions

The project is located agricultural zoning with two ditches flowing through the site.

The site is located on FEMA Map 08013C0150J and does not contain any mapped floodplain areas. (see Appendix A – FIRM Flood Plain Panel). The flood map for this location is not printed, so attached is the FIRMette. The 100-year flood plain of the Little Thompson River is located approximately 2 miles to the northwest of the site.

The site is within the watershed of the South Platte River in general, which is located to the east of the subject property. General drainage of the area is defined by local roads and various irrigation ditches. The property has the Supply Ditch and Upper Highland Ditch flowing through it from the northwest to the southeast.

The site is currently vacant and slopes from the southwest to the northeast at approximately 3-5% slope. The onsite basin is pervious grassland with the ground cover consisting mainly of weeds.
The NRCS classifies soils on 80% of the site as hydrologic group “C” and 20% “D” for runoff purposes.
The site is subject to offsite run-on from the west and south but will flow into the Supply Ditch before encountering the proposed development.

Pre-developed calculations for the proposed site show an overall percent imperviousness of 2%.

Section 3: Post Developed Conditions

The proposed onsite improvements will consist of constructing one 5,175 sf reception hall, one future 3,750 sf chapel, and four future 900 sf cabins. Site improvements will include but are not limited to parking, utilities, and temporary & permanent erosion control facilities.

The post-developed drainage area for the site includes a total of 35.9 acres. The site can be split up into 7 basins as described below.

Basin 1 is the 4.79 acres to the northeast of the Upper Highland Ditch that will flow offsite to the northeast at 2-5% slopes. This basin will have C-values of 0.05 and 0.40 for the 5-yr and 100-yr storms respectively.

Basin 2 is the 1.48 acres in the northwest corner of the site that will flow into the Upper Highland Ditch at 2-3% slopes. This basin will have C-values of 0.05 and 0.40 for the 5-yr and 100-yr storms respectively. Flows from this basin will be sheet flowed directly into the Upper Highland Ditch.

Basin 3 is the 4.54 acres that includes the northern half of the improvements and has one of the detention ponds (North Pond). This basin flows at 2-4% slopes and will have C-values of 0.14 and 0.45 for the 5-yr and 100-yr storms respectively. All flows in this basin will sheet flow to the north detention pond.

Basin 4 is the 3.81 acres that includes the southern half of the improvements and the second detention pond (South Pond). This basin flows at 2-3% slopes and will have C-values of 0.15 and 0.45 for the 5-yr and 100-yr storms respectively. All flows in this basin will sheet flow to the south detention pond.

Basin 5 is the 1.77 acres to the southeast of basin 4 and borders the east property line. This basin contains minor improvements that are limited to the access road. This basin flows at 2-3% slopes and will have C-values of 0.08 and 0.42 for the 5-yr and 100-yr storms respectively.

Basin 6 is the 16.74 acres to the southwest of the Supply Ditch and flows into said ditch. This basin flows at 2-4% slopes and will have C-values of 0.05 and 0.40 for the 5-yr and 100-yr storms respectively.

Basin 7 is the 2.76 acres to the east of the Supply Ditch and south of the access road. This basin will flow east offsite into the ditch alongside N 107th Street and into the Supply Ditch. This basin flows at 2-3% slopes and will have C-values of 0.05 and 0.40 for the 5-yr and 100-yr storms respectively.

Basins 1, 2, 6, and 7 will not or will be minorly affected by construction activities. Basins 3 - 5 will be affected by construction activities.

Peak discharge flow rates from this property are included for reference and are summarized in Table 1 below. Calculations are included in the appendix of this report.

Table 1: Site Flow Rates		
Basin	5-Yr Flow Rate (CFS)	100-Yr Flow Rate (CFS)
Existing 1	0.7	13.6
Existing 2	0.2	4.2
Existing 3	0.6	13.2
Existing 4	0.5	11.1
Existing 5	0.3	5.2
Existing 6	1.8	37.9
Existing 7	0.4	8.5
1	0.7	13.6
2	0.2	4.2
3	1.7	14.7
4	1.6	12.4
5	0.4	5.4
6	1.8	37.9
7	0.4	8.5

All conveyance for the project is provided through sheet flow to the northeast as the site has historically flowed.

Detention for the site will be provided by two detention ponds; one to the north and one to the south, that will detain the WQCV and 100-yr storm. Detention pond details are shown in Table 2.1 and Table 2.2.

Table 2.1: North Detention Pond	
Bottom Elevation	5137.00’
Top Elevation	5140.00’
Spillway Elevation	5139.00’
WQCV Elevation	5137.63’
100-yr Elevation	5138.71’
WQCV Volume	0.031 ac-ft
100-yr Volume	0.307 ac-ft

Table 2.2: South Detention Pond	
Bottom Elevation	5137.00’
Top Elevation	5140.00’
Spillway Elevation	5139.00’
WQCV Elevation	5137.63’
100-yr Elevation	5138.65’
WQCV Volume	0.029 ac-ft
100-yr Volume	0.272 ac-ft

Section 4: Hydrologic Calculations

The drainage design and calculations were performed in accordance with the "Boulder County Storm Drainage Criteria Manual" and the "Urban Storm Drainage Criteria Manual." Values used are located in the appendix. The flow rates for the site were determined through the rational method. Rainfall values were pulled from the NOAA Atlas and modified per UDFCD.

Section 5: Design and Placement of Construction BMPs

Temporary Erosion and Sediment Control:
All erosion and sediment control measures shall be governed by the requirements of Boulder County. A combination of temporary conveyance swales, slope protection, and temporary sediment pond within the detention basin will be implemented to prevent offsite discharge of sediment. An engineered temporary erosion and sedimentation control plan was prepared to direct the contractor in complying with these requirements.

Temporary swales will be installed along the property lines at certain locations to prevent sediment laden storm water from discharging offsite. These swales will have check dams installed at 1' changes in elevation. Temporary slope protection will be installed along permanent slopes equal to or steeper than 3:1 horizontal to vertical. Slope protection may include surface roughening, temporary erosion control blankets or another approved equivalent.

Temporary sediment storage will be provided by temporarily utilizing the proposed detention facilities to be installed onsite. The site generally flows to this location and the temporary swales will be graded to drain to the proposed detention pond. The detention pond will have an outfall designed to release non-sediment laden stormwater. The temporary outfall will be designed so the elevation is a minimum of 2' above the bottom of the detention pond.

A construction entrance will be installed at the existing northern driveway from N 107th Street. This construction entrance will be relocated as necessary to accommodate the proposed site improvements.

Permanent Erosion and Sediment Control:
Permanent erosion and sediment control will be provided onsite to minimize long term erosion impacts and minimize the amount of sediment that discharges offsite. All areas of the natural ground surface which are not covered in impervious surfaces will be resurfaced with landscaping or native vegetation. The owner will maintain the grounds to ensure there are no areas of erosion.

Section 6: Maintenance

All maintenance for the detention pond will be the responsibility of the owner. This includes cleaning the sediment and debris from drainage facilities. If repairs are needed, then the owner will be responsible to fix the repairs in a timely manner. Vegetation maintenance is also the responsibility of the owner. Onsite inspections should occur annually or on an as-needed basis to ensure proper drainage.

Conclusion

The historical flow patterns and run-off amounts for this site will be maintained in such a manner that it will adequately protect public health, safety, and general welfare and have no adverse impacts on public rights-or-way or offsite properties.

As described in the report, run-off will continue to flow in roughly the same direction as it did historically but will have additional runoff due to the slight increase in imperviousness from gravel parking areas and buildings.

Impacts from the proposed site renovations will be mitigated using temporary and permanent erosion and sediment control and safe construction site practices. A more detailed description is shown in Section 5.

References

- Boulder County Drainage Criteria Manual
- Urban Drainage & Flood Control District Drainage Criteria Manual and Software
- FEMA Flood Insurance Rate Map
- USDA Natural Resources Conservation Service Web Soil Survey (WSS) aka NRCS Soils Map

Appendix

Appendix A – FIRM Floodplain Panel

Appendix B – NRCS Soils Data

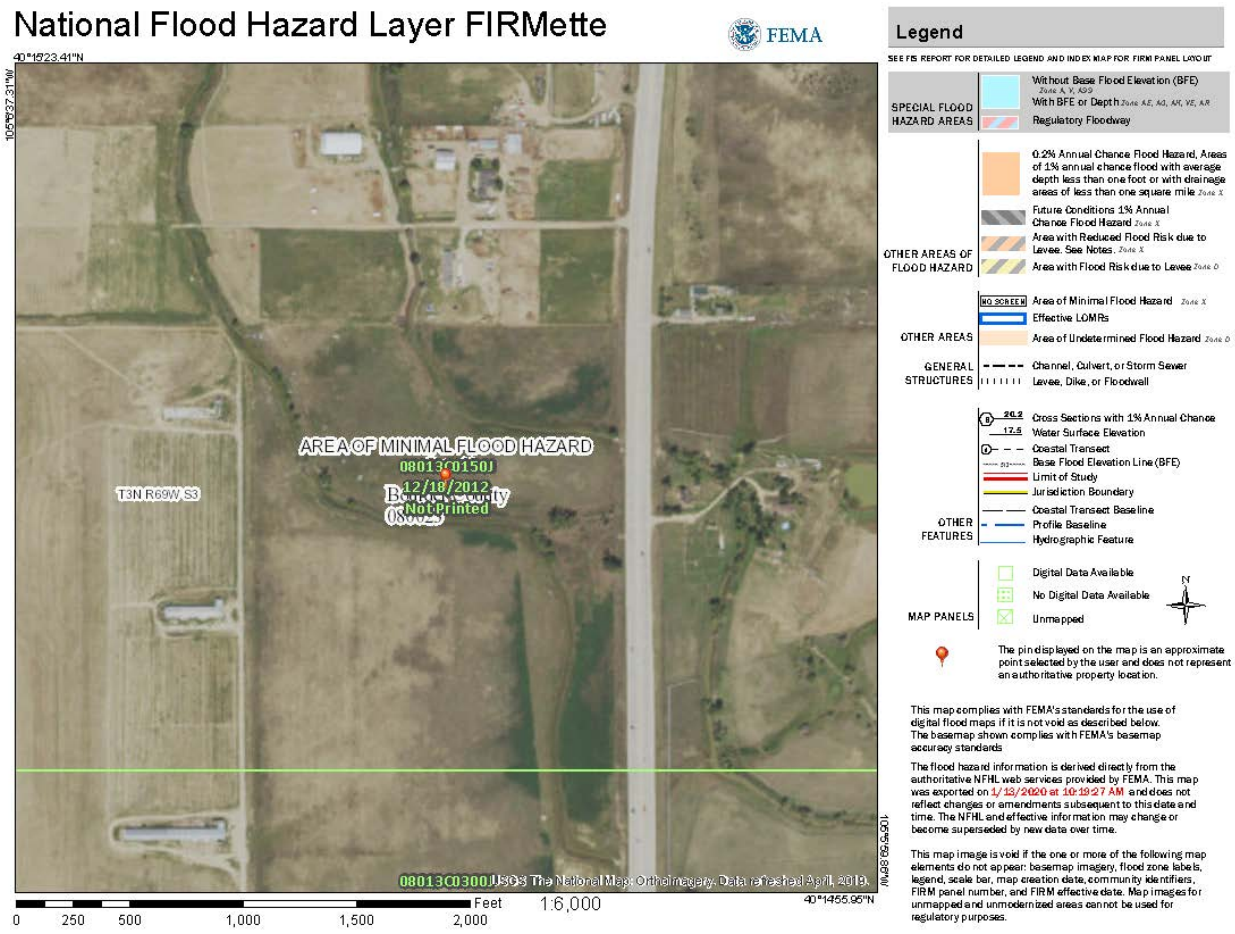
Appendix C – NOAA Precipitation Frequency Data

Appendix D – Table R6-3

Appendix E – Calculations

Appendix F – Basin Map/Grading and Drainage Plan

Appendix A – Firm Floodplain Panel



Appendix B – NRCS Soils Data

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Boulder County Area, Colorado

July 14, 2020

Preface

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

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

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

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

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

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

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Contents

How Soil Surveys Are Made

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

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

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

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

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

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

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

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

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

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

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

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

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

Custom Soil Resource Report
Soil Map

Map Scale: 1:3,050 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 45 90 180 270

Feet: 0 100 200 400 600

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 13N WGS84

MAP LEGEND

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

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

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

Water Features
- Streams and Canals

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

Background
- Aerial Photography

MAP INFORMATION

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

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

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

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

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

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

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

Soil Survey Area: Boulder County Area, Colorado
Survey Area Data: Version 17, Jun 5, 2020

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

Date(s) aerial images were photographed: Sep 20, 2015—Oct 21, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
HeB	Heldt clay, 0 to 3 percent slopes	28.0	78.4%
RnD	Renohill silty clay loam, 3 to 9 percent slopes	7.7	21.6%
Totals for Area of Interest		**35.8**	**100.0%**

Map Unit Descriptions

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

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

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

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

onsite investigation is needed to define and locate the soils and miscellaneous areas.

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

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

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

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

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

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

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

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Boulder County Area, Colorado

HeB—Heldt clay, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: jprt
Elevation: 4,900 to 5,500 feet
Mean annual precipitation: 12 to 18 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 140 to 155 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Heldt and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Heldt

Setting

Landform: Terraces
Landform position (three-dimensional): Side slope, tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loamy alluvium derived from sedimentary rock

Typical profile

H1 - 0 to 8 inches: clay
H2 - 8 to 20 inches: clay
H3 - 20 to 60 inches: clay loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 10 percent
Salinity, maximum in profile: Nonsaline to slightly saline (0.0 to 4.0 mmhos/cm)
Available water storage in profile: High (about 10.6 inches)

Interpretive groups

Land capability classification (irrigated): 3e
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: C
Ecological site: Clayey (R067XB042CO)
Hydric soil rating: No

Minor Components

Nunn

Percent of map unit: 5 percent

Hydric soil rating: No

Colby

Percent of map unit: 3 percent
Hydric soil rating: No

Renohill

Percent of map unit: 2 percent
Hydric soil rating: No

RnD—Renohill silty clay loam, 3 to 9 percent slopes

Map Unit Setting

National map unit symbol: jpsn
Elevation: 4,900 to 5,500 feet
Mean annual precipitation: 12 to 18 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 140 to 155 days
Farmland classification: Farmland of statewide importance

Map Unit Composition

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

Description of Renohill

Setting

Landform: Hills, ridges
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loamy slope alluvium derived from sandstone and shale

Typical profile

H1 - 0 to 7 inches: silty clay loam
H2 - 7 to 12 inches: silty clay
H3 - 12 to 30 inches: silty clay loam
H4 - 30 to 34 inches: weathered bedrock

Properties and qualities

Slope: 3 to 9 percent
Depth to restrictive feature: 20 to 40 inches to paralithic bedrock
Natural drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 15 percent

Available water storage in profile: Low (about 5.5 inches)

Interpretive groups

Land capability classification (irrigated): 4e
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: D
Ecological site: Clayey (R067XB042CO)
Hydric soil rating: No

Minor Components

Samsil

Percent of map unit: 9 percent
Hydric soil rating: No

Gaynor

Percent of map unit: 6 percent
Hydric soil rating: No

Soil Information for All Uses

Soil Properties and Qualities

The Soil Properties and Qualities section includes various soil properties and qualities displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each property or quality.

Soil Qualities and Features

Soil qualities are behavior and performance attributes that are not directly measured, but are inferred from observations of dynamic conditions and from soil properties. Example soil qualities include natural drainage, and frost action. Soil features are attributes that are not directly part of the soil. Example soil features include slope and depth to restrictive layer. These features can greatly impact the use and management of the soil.

Hydrologic Soil Group

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

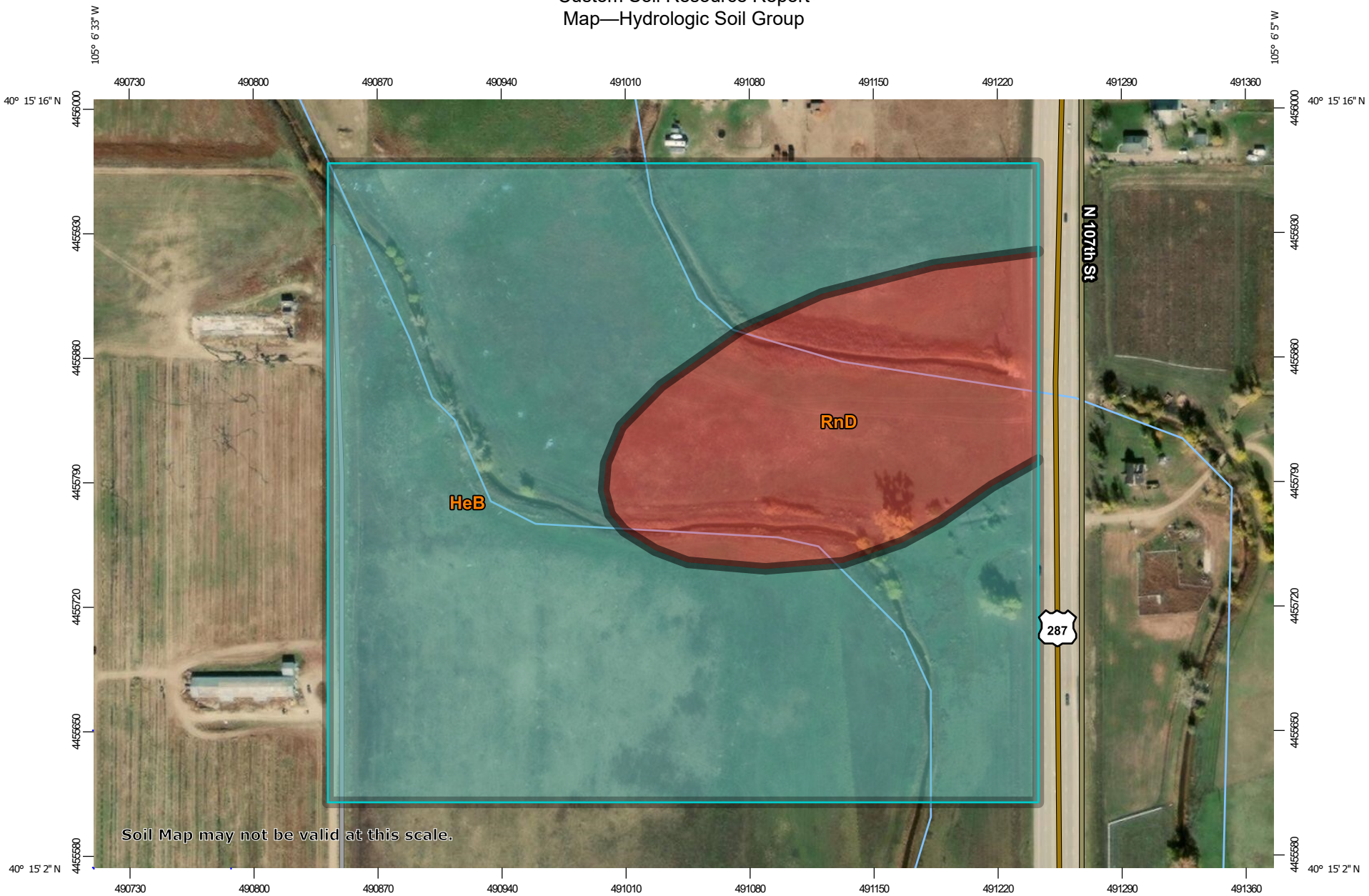
Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Map—Hydrologic Soil Group



Map Scale: 1:3,050 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 45 90 180 270

Feet: 0 100 200 400 600

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 13N WGS84

MAP LEGEND

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

Soils

Soil Rating Polygons
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features
- Streams and Canals

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

Background
- Aerial Photography

MAP INFORMATION

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

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

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

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

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

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

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Soil Survey Area: Boulder County Area, Colorado
Survey Area Data: Version 17, Jun 5, 2020

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

Date(s) aerial images were photographed: Sep 20, 2015—Oct 21, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
HeB	Heldt clay, 0 to 3 percent slopes	C	28.0	78.4%
RnD	Renohill silty clay loam, 3 to 9 percent slopes	D	7.7	21.6%
Totals for Area of Interest			**35.8**	**100.0%**

Rating Options—Hydrologic Soil Group

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

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Appendix C – NOAA Precipitation Frequency Data

NOAA Atlas 14, Volume 8, Version 2
Location name: Longmont, Colorado, USA*
Latitude: 40.2529°, Longitude: -105.1046°
Elevation: 5140.46 ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Deborah Martin, Sandra Pavlovic, Ishani Roy, Michael St. Laurent, Carl Trypaluk, Dale Unruh, Michael Yekta, Geoffery Bonnin

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	**0.230** (0.182-0.295)	**0.273** (0.216-0.351)	**0.368** (0.289-0.473)	**0.468** (0.366-0.605)	**0.638** (0.497-0.901)	**0.795** (0.596-1.13)	**0.975** (0.702-1.41)	**1.18** (0.812-1.76)	**1.49** (0.979-2.27)	**1.75** (1.11-2.66)
10-min	**0.337** (0.267-0.432)	**0.400** (0.316-0.513)	**0.538** (0.424-0.692)	**0.685** (0.536-0.885)	**0.935** (0.728-1.32)	**1.17** (0.873-1.65)	**1.43** (1.03-2.07)	**1.73** (1.19-2.57)	**2.18** (1.43-3.33)	**2.56** (1.62-3.90)
15-min	**0.411** (0.325-0.526)	**0.488** (0.386-0.626)	**0.657** (0.517-0.844)	**0.835** (0.653-1.08)	**1.14** (0.888-1.61)	**1.42** (1.07-2.01)	**1.74** (1.25-2.52)	**2.11** (1.45-3.14)	**2.66** (1.75-4.06)	**3.12** (1.97-4.75)
30-min	**0.549** (0.434-0.703)	**0.652** (0.515-0.836)	**0.877** (0.690-1.13)	**1.12** (0.873-1.44)	**1.52** (1.19-2.15)	**1.90** (1.42-2.68)	**2.33** (1.68-3.37)	**2.81** (1.94-4.19)	**3.55** (2.33-5.41)	**4.16** (2.63-6.34)
60-min	**0.677** (0.535-0.867)	**0.805** (0.636-1.03)	**1.09** (0.854-1.40)	**1.39** (1.08-1.79)	**1.90** (1.48-2.68)	**2.37** (1.78-3.35)	**2.91** (2.09-4.21)	**3.52** (2.42-5.24)	**4.45** (2.93-6.79)	**5.23** (3.31-7.96)
2-hr	**0.805** (0.641-1.02)	**0.958** (0.762-1.22)	**1.29** (1.03-1.65)	**1.65** (1.30-2.12)	**2.27** (1.78-3.18)	**2.84** (2.15-3.98)	**3.49** (2.54-5.01)	**4.23** (2.94-6.24)	**5.35** (3.56-8.09)	**6.29** (4.02-9.49)
3-hr	**0.883** (0.706-1.12)	**1.05** (0.840-1.33)	**1.42** (1.13-1.80)	**1.81** (1.43-2.31)	**2.48** (1.96-3.46)	**3.10** (2.36-4.32)	**3.81** (2.78-5.44)	**4.62** (3.23-6.77)	**5.83** (3.90-8.77)	**6.85** (4.41-10.3)
6-hr	**1.05** (0.848-1.32)	**1.25** (1.01-1.57)	**1.67** (1.34-2.10)	**2.11** (1.68-2.67)	**2.85** (2.26-3.92)	**3.53** (2.70-4.86)	**4.30** (3.17-6.07)	**5.18** (3.65-7.50)	**6.48** (4.37-9.64)	**7.58** (4.92-11.3)
12-hr	**1.26** (1.02-1.56)	**1.52** (1.23-1.88)	**2.01** (1.63-2.51)	**2.50** (2.01-3.13)	**3.27** (2.59-4.39)	**3.96** (3.04-5.34)	**4.71** (3.49-6.53)	**5.56** (3.94-7.92)	**6.79** (4.62-9.95)	**7.81** (5.13-11.5)
24-hr	**1.54** (1.26-1.89)	**1.82** (1.48-2.23)	**2.34** (1.91-2.89)	**2.85** (2.31-3.53)	**3.65** (2.90-4.82)	**4.35** (3.36-5.79)	**5.12** (3.81-7.00)	**5.97** (4.26-8.40)	**7.20** (4.94-10.4)	**8.22** (5.46-12.0)
2-day	**1.79** (1.48-2.18)	**2.10** (1.73-2.56)	**2.68** (2.20-3.27)	**3.22** (2.62-3.95)	**4.05** (3.24-5.26)	**4.76** (3.70-6.25)	**5.53** (4.15-7.46)	**6.38** (4.59-8.86)	**7.59** (5.26-10.9)	**8.59** (5.76-12.4)
3-day	**1.94** (1.60-2.35)	**2.26** (1.86-2.73)	**2.84** (2.34-3.45)	**3.39** (2.77-4.13)	**4.23** (3.40-5.46)	**4.95** (3.87-6.46)	**5.73** (4.33-7.69)	**6.59** (4.78-9.10)	**7.83** (5.45-11.1)	**8.83** (5.97-12.7)
4-day	**2.05** (1.70-2.47)	**2.38** (1.97-2.87)	**2.98** (2.46-3.60)	**3.54** (2.90-4.30)	**4.39** (3.53-5.64)	**5.12** (4.01-6.65)	**5.91** (4.47-7.89)	**6.77** (4.92-9.31)	**8.01** (5.60-11.3)	**9.01** (6.11-12.9)
7-day	**2.29** (1.91-2.74)	**2.69** (2.24-3.22)	**3.38** (2.81-4.06)	**4.00** (3.30-4.82)	**4.91** (3.95-6.20)	**5.65** (4.44-7.24)	**6.44** (4.89-8.47)	**7.28** (5.32-9.87)	**8.45** (5.95-11.8)	**9.38** (6.42-13.3)
10-day	**2.51** (2.10-2.98)	**2.95** (2.47-3.52)	**3.71** (3.10-4.43)	**4.36** (3.62-5.24)	**5.30** (4.28-6.64)	**6.06** (4.77-7.69)	**6.84** (5.22-8.93)	**7.66** (5.62-10.3)	**8.79** (6.21-12.2)	**9.67** (6.66-13.6)
20-day	**3.18** (2.69-3.75)	**3.68** (3.10-4.34)	**4.50** (3.78-5.33)	**5.20** (4.35-6.19)	**6.19** (5.03-7.64)	**6.97** (5.54-8.74)	**7.77** (5.98-10.0)	**8.59** (6.36-11.4)	**9.71** (6.93-13.3)	**10.6** (7.36-14.7)
30-day	**3.74** (3.17-4.38)	**4.29** (3.63-5.03)	**5.19** (4.39-6.11)	**5.95** (5.00-7.03)	**7.01** (5.71-8.58)	**7.84** (6.25-9.74)	**8.67** (6.70-11.1)	**9.53** (7.09-12.6)	**10.7** (7.66-14.5)	**11.6** (8.09-16.0)
45-day	**4.44** (3.78-5.17)	**5.10** (4.34-5.94)	**6.17** (5.23-7.21)	**7.05** (5.95-8.28)	**8.25** (6.74-10.0)	**9.16** (7.34-11.3)	**10.1** (7.82-12.8)	**11.0** (8.21-14.4)	**12.2** (8.78-16.4)	**13.1** (9.22-18.0)
60-day	**5.01** (4.29-5.82)	**5.81** (4.96-6.75)	**7.08** (6.03-8.25)	**8.11** (6.87-9.49)	**9.47** (7.75-11.4)	**10.5** (8.41-12.8)	**11.5** (8.92-14.4)	**12.4** (9.32-16.1)	**13.7** (9.88-18.3)	**14.6** (10.3-19.9)

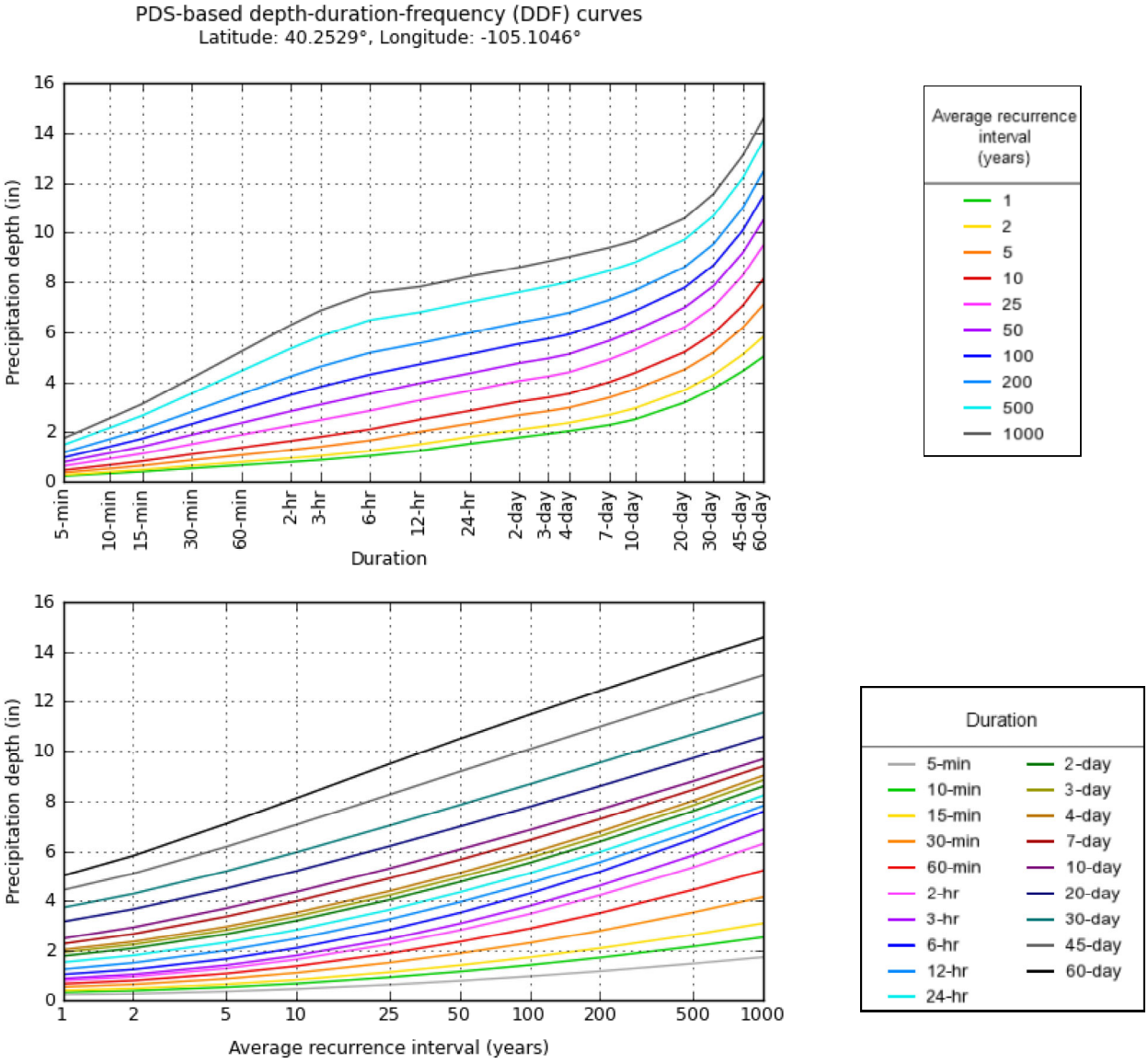
[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

Back to Top

PF graphical



NOAA Atlas 14, Volume 8, Version 2

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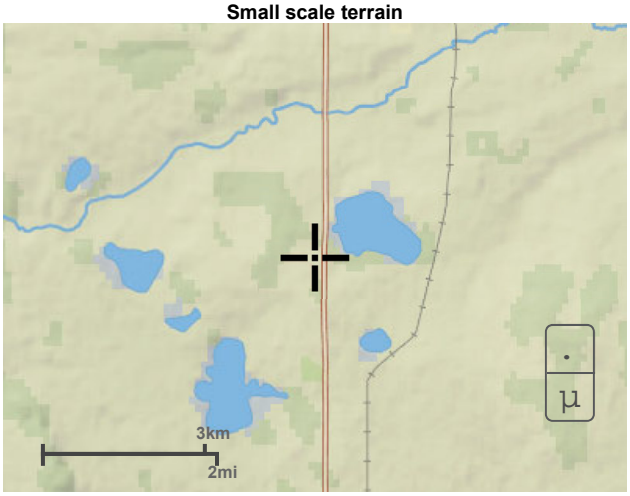
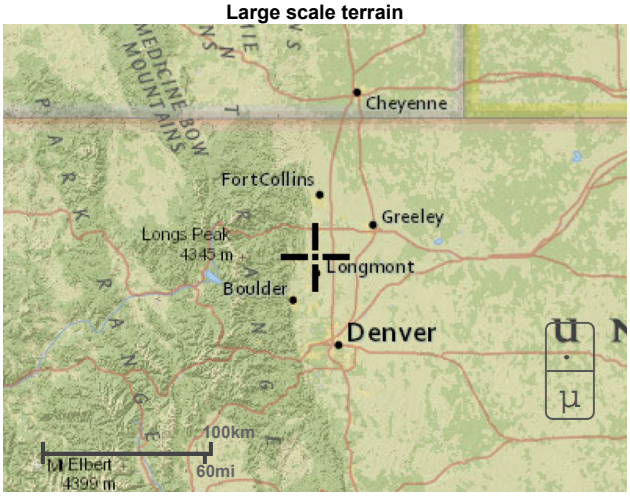
Back to Top

Maps & aerials

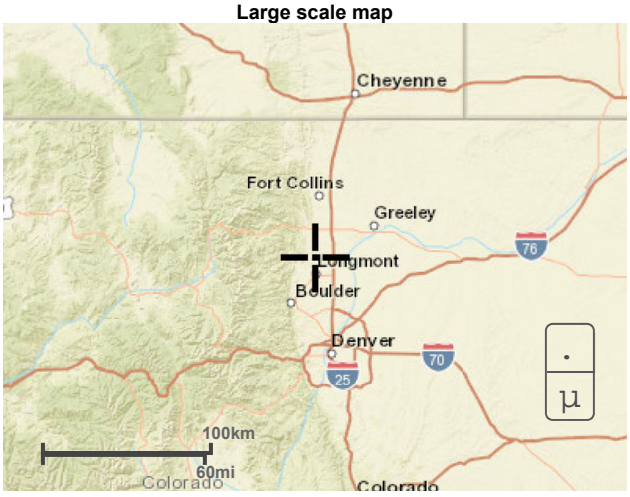
Small scale terrain



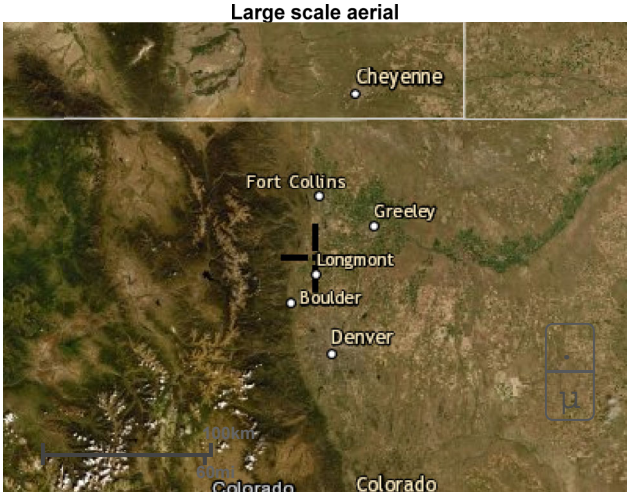
Large scale terrain



Large scale map



Large scale aerial



Back to Top

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National Oceanic and Atmospheric Administration
National Weather Service
National Water Center
1325 East West Highway
Silver Spring, MD 20910
Questions?: HDSC.Questions@noaa.gov

Appendix D – Table R6-3

Table 6-3. Recommended percentage imperviousness values

Land Use or Surface Characteristics	Percentage Imperviousness (%)
Business:	
Downtown Areas	95
Suburban Areas	75
Residential lots (lot area only)**:**	
Single-family	
2.5 acres or larger	12
0.75 – 2.5 acres	20
0.25 – 0.75 acres	30
0.25 acres or less	45
Apartments	75
Industrial:	
Light areas	80
Heavy areas	90
Parks, cemeteries	10
Playgrounds	25
Schools	55
Railroad yard areas	50
Undeveloped Areas:	
Historic flow analysis	2
Greenbelts, agricultural	2
Off-site flow analysis (when land use not defined)	45
Streets:	
Paved	100
Gravel (packed)	40
Drive and walks	90
Roofs	90
Lawns, sandy soil	2
Lawns, clayey soil	2

Table 6-4. Runoff coefficient equations based on NRCS soil group and storm return period

NRCS Soil Group		Storm Return Period					
	2-Year	5-Year	10-Year	25-Year	50-Year	100-Year	500-Year
A	$C_A = 0.84i^{1.302}$	$C_A = 0.86i^{1.276}$	$C_A = 0.87i^{1.232}$	$C_A = 0.88i^{1.124}$	$C_A = 0.85i + 0.025$	$C_A = 0.78i + 0.110$	$C_A = 0.65i + 0.254$
B	$C_B = 0.84i^{1.169}$	$C_B = 0.86i^{1.088}$	$C_B = 0.81i + 0.057$	$C_B = 0.63i + 0.249$	$C_B = 0.56i + 0.328$	$C_B = 0.47i + 0.426$	$C_B = 0.37i + 0.536$
C/D	$C_{C/D} = 0.83i^{1.122}$	$C_{C/D} = 0.82i + 0.035$	$C_{C/D} = 0.74i + 0.132$	$C_{C/D} = 0.56i + 0.319$	$C_{C/D} = 0.49i + 0.393$	$C_{C/D} = 0.41i + 0.484$	$C_{C/D} = 0.32i + 0.588$

Where:

i = % imperviousness (expressed as a decimal)

C_A = Runoff coefficient for Natural Resources Conservation Service (NRCS) HSG A soils

C_B = Runoff coefficient for NRCS HSG B soils

$C_{C/D}$ = Runoff coefficient for NRCS HSG C and D soils.

The values for various catchment imperviousness and storm return periods are presented graphically in Figures 6-1 through 6-3, and are tabulated in Table 6-5. These coefficients were developed for the Denver region to work in conjunction with the time of concentration recommendations in Section 2.4. Use of these coefficients and this procedure outside of the semi-arid climate found in the Denver region may not be valid. The UD-Rational Excel workbook performs all the needed calculations to find the runoff coefficient given the soil type and imperviousness and the reader may want to take advantage of this macro-enabled Excel workbook that is available for download from the UDFCD's website www.udfcd.org.

See Examples 7.1 and 7.2 that illustrate the Rational Method.

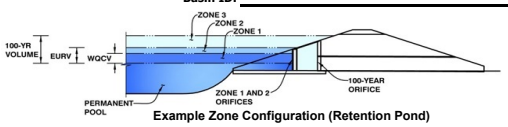
Appendix E – Calculations

DETENTION BASIN STAGE-STORAGE TABLE BUILDER

MHFD-Detention, Version 4.03 (May 2020)

Project: _____

Basin ID: _____



Example Zone Configuration (Retention Pond)

Watershed Information

Selected BMP Type =	**EDB**		**Note: L / W Ratio < 1**
Watershed Area =	4.54	acres	**L / W Ratio = 0.81**
Watershed Length =	400	ft	
Watershed Length to Centroid =	200	ft	
Watershed Slope =	0.020	ft/ft	
Watershed Imperviousness =	12.80%	percent	
Percentage Hydrologic Soil Group A =	0.0%	percent	
Percentage Hydrologic Soil Group B =	0.0%	percent	
Percentage Hydrologic Soil Groups C/D =	100.0%	percent	
Target WQCV Drain Time =	40.0	hours	
Location for 1-hr Rainfall Depths =	Denver - Capitol Building		

After providing required inputs above including 1-hour rainfall depths, click 'Run CUHP' to generate runoff hydrographs using the embedded Colorado Urban Hydrograph Procedure.

			Optional User Overrides	
Water Quality Capture Volume (WQCV) =	0.031	acre-feet		acre-feet
Excess Urban Runoff Volume (EURV) =	0.049	acre-feet		acre-feet
2-yr Runoff Volume (P1 = 0.81 in.) =	0.025	acre-feet	0.81	inches
5-yr Runoff Volume (P1 = 1.09 in.) =	0.064	acre-feet	1.09	inches
10-yr Runoff Volume (P1 = 1.39 in.) =	0.148	acre-feet	1.39	inches
25-yr Runoff Volume (P1 = 1.9 in.) =	0.353	acre-feet	1.90	inches
50-yr Runoff Volume (P1 = 2.37 in.) =	0.525	acre-feet	2.37	inches
100-yr Runoff Volume (P1 = 2.91 in.) =	0.751	acre-feet	2.91	inches
500-yr Runoff Volume (P1 = 4.45 in.) =	1.361	acre-feet	4.45	inches
Approximate 2-yr Detention Volume =	0.027	acre-feet		
Approximate 5-yr Detention Volume =	0.063	acre-feet		
Approximate 10-yr Detention Volume =	0.089	acre-feet		
Approximate 25-yr Detention Volume =	0.126	acre-feet		
Approximate 50-yr Detention Volume =	0.146	acre-feet		
Approximate 100-yr Detention Volume =	0.217	acre-feet		

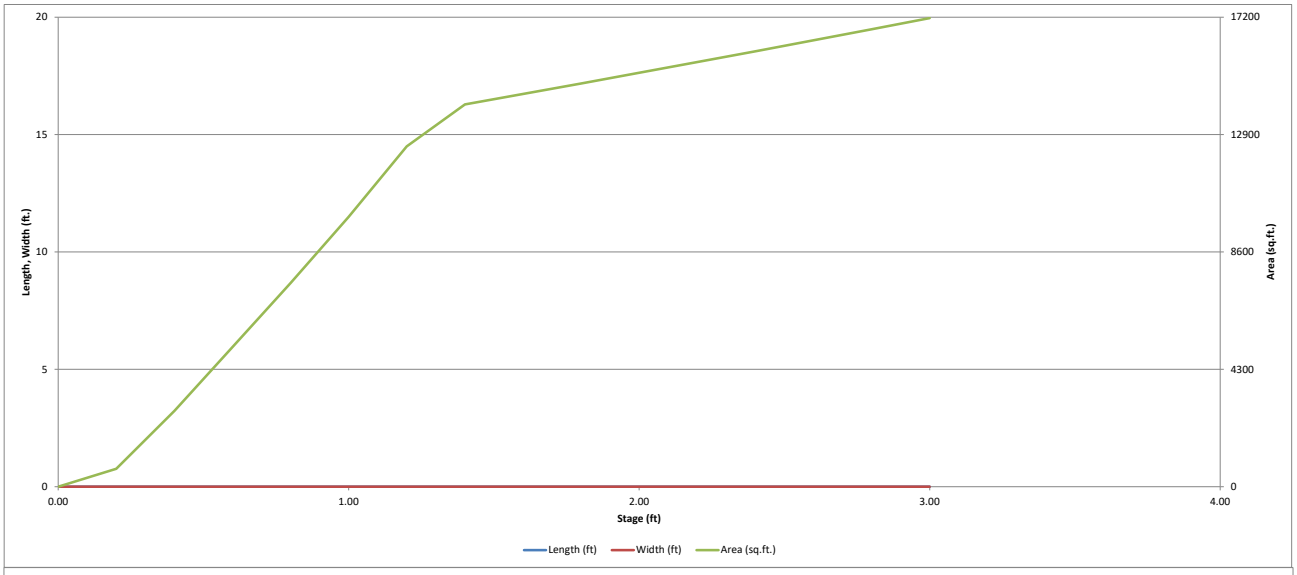
Define Zones and Basin Geometry

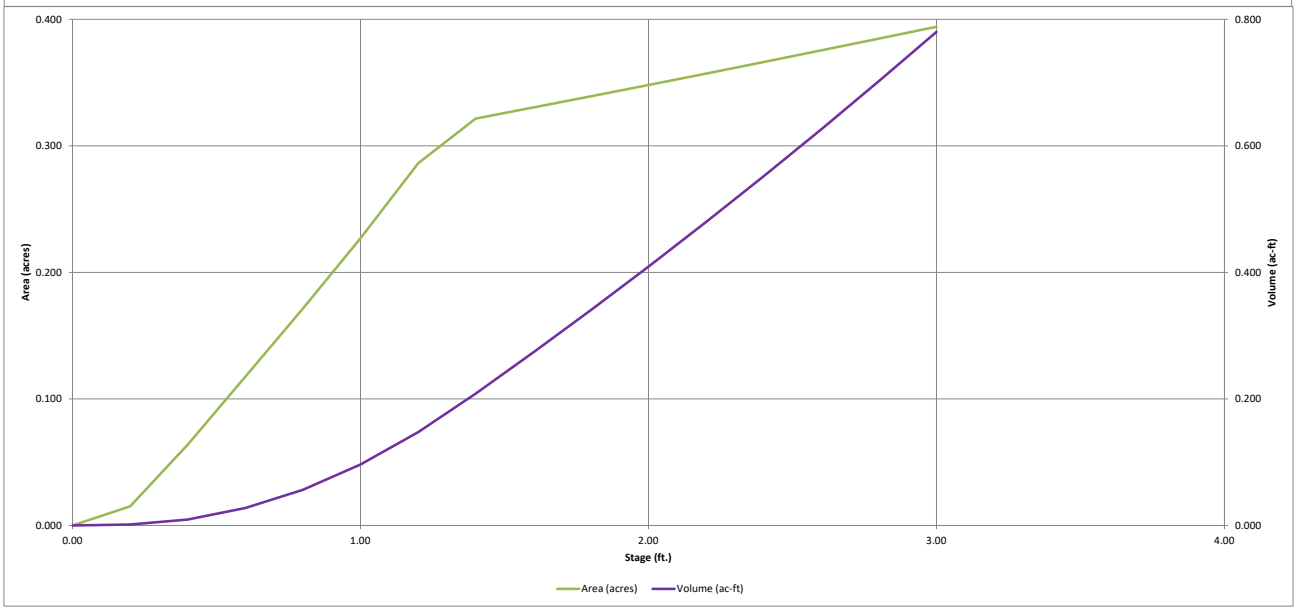
Zone 1 Volume (WQCV) =	0.031	acre-feet
Zone 2 Volume (5-year - Zone 1) =	0.032	acre-feet
Zone 3 Volume (100-year - Zones 1 & 2) =	0.154	acre-feet
Total Detention Basin Volume =	0.217	acre-feet
Initial Surcharge Volume (ISV) =	user	ft^3
Initial Surcharge Depth (ISD) =	user	ft
Total Available Detention Depth (H_{total}) =	user	ft
Depth of Trickle Channel (H_{TC}) =	user	ft
Slope of Trickle Channel (S_{TC}) =	user	ft/ft
Slopes of Main Basin Sides (S_{main}) =	user	H:V
Basin Length-to-Width Ratio ($R_{L/W}$) =	user	

Initial Surcharge Area (A_{ISV}) =	user	ft^2
Surcharge Volume Length (L_{ISV}) =	user	ft
Surcharge Volume Width (W_{ISV}) =	user	ft
Depth of Basin Floor (H_{FLOOR}) =	user	ft
Length of Basin Floor (L_{FLOOR}) =	user	ft
Width of Basin Floor (W_{FLOOR}) =	user	ft
Area of Basin Floor (A_{FLOOR}) =	user	ft^2
Volume of Basin Floor (V_{FLOOR}) =	user	ft^3
Depth of Main Basin (H_{MAIN}) =	user	ft
Length of Main Basin (L_{MAIN}) =	user	ft
Width of Main Basin (W_{MAIN}) =	user	ft
Area of Main Basin (A_{MAIN}) =	user	ft^2
Volume of Main Basin (V_{MAIN}) =	user	ft^3
Calculated Total Basin Volume (V_{total}) =	**user**	acre-feet

Depth Increment = 0.20 ft

Stage - Storage Description	Stage (ft)	Optional Override Stage (ft)	Length (ft)	Width (ft)	Area (ft^2)	Optional Override Area (ft^2)	Area (acre)	Volume (ft^3)	Volume (ac-ft)
Top of Micropool	--	0.00	--	--	--	0	0.000		
	--	0.20	--	--	--	658	0.015	66	0.002
	--	0.40	--	--	--	2,780	0.064	409	0.009
	--	0.60	--	--	--	5,120	0.118	1,199	0.028
	--	0.80	--	--	--	7,464	0.171	2,458	0.056
	--	1.00	--	--	--	9,885	0.227	4,193	0.096
	--	1.20	--	--	--	12,466	0.286	6,428	0.148
	--	1.40	--	--	--	14,006	0.322	9,075	0.208
	--	1.60	--	--	--	14,388	0.330	11,914	0.274
	--	1.80	--	--	--	14,773	0.339	14,830	0.340
	--	2.00	--	--	--	15,163	0.348	17,824	0.409
	--	2.20	--	--	--	15,556	0.357	20,896	0.480
	--	2.40	--	--	--	15,953	0.366	24,047	0.552
	--	2.60	--	--	--	16,354	0.375	27,278	0.626
	--	2.80	--	--	--	16,759	0.385	30,589	0.702
	--	3.00	--	--	--	17,168	0.394	33,982	0.780


Length, Width (ft.)
Area (sq.ft.)
Stage (ft)
Length (ft)
Width (ft)
Area (sq.ft.)

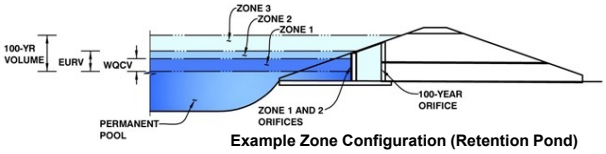

Area (acres)
Volume (ac-ft)
Stage (ft.)
Area (acres)
Volume (ac-ft)

DETENTION BASIN OUTLET STRUCTURE DESIGN

MHFD-Detention, Version 4.03 (May 2020)

Project:

Basin ID:



Example Zone Configuration (Retention Pond)

	Estimated Stage (ft)	Estimated Volume (ac-ft)	Outlet Type
Zone 1 (WQCV)	0.63	0.031	Orifice Plate
Zone 2 (5-year)	0.84	0.032	Circular Orifice
Zone 3 (100-year)	1.43	0.154	Weir&Pipe (Circular)
Total (all zones)		0.217	

User Input: Orifice at Underdrain Outlet (typically used to drain WQCV in a Filtration BMP)

Underdrain Orifice Invert Depth =	N/A	ft (distance below the filtration media surface)	Underdrain Orifice Area =	N/A	ft^2
Underdrain Orifice Diameter =	N/A	inches	Underdrain Orifice Centroid =	N/A	feet

Calculated Parameters for Underdrain

User Input: Orifice Plate with one or more orifices or Elliptical Slot Weir (typically used to drain WQCV and/or EURV in a sedimentation BMP)

Invert of Lowest Orifice =	0.00	ft (relative to basin bottom at Stage = 0 ft)	WQ Orifice Area per Row =	1.215E-03	ft^2
Depth at top of Zone using Orifice Plate =	0.50	ft (relative to basin bottom at Stage = 0 ft)	Elliptical Half-Width =	N/A	feet
Orifice Plate: Orifice Vertical Spacing =	N/A	inches	Elliptical Slot Centroid =	N/A	feet
Orifice Plate: Orifice Area per Row =	0.18	sq. inches (diameter = 7/16 inch)	Elliptical Slot Area =	N/A	ft^2

Calculated Parameters for Plate

User Input: Stage and Total Area of Each Orifice Row (numbered from lowest to highest)

	Row 1 (required)	Row 2 (optional)	Row 3 (optional)	Row 4 (optional)	Row 5 (optional)	Row 6 (optional)	Row 7 (optional)	Row 8 (optional)
Stage of Orifice Centroid (ft)	0.00	0.17	0.33					
Orifice Area (sq. inches)	0.18	0.18	0.18					

	Row 9 (optional)	Row 10 (optional)	Row 11 (optional)	Row 12 (optional)	Row 13 (optional)	Row 14 (optional)	Row 15 (optional)	Row 16 (optional)
Stage of Orifice Centroid (ft)								
Orifice Area (sq. inches)								

User Input: Vertical Orifice (Circular or Rectangular)

	Zone 2 Circular	Not Selected			Zone 2 Circular	Not Selected	
Invert of Vertical Orifice =	0.50	N/A	ft (relative to basin bottom at Stage = 0 ft)	Vertical Orifice Area =	0.05	N/A	ft^2
Depth at top of Zone using Vertical Orifice =	1.00	N/A	ft (relative to basin bottom at Stage = 0 ft)	Vertical Orifice Centroid =	0.13	N/A	feet
Vertical Orifice Diameter =	3.00	N/A	inches				

Calculated Parameters for Vertical Orifice

User Input: Overflow Weir (Dropbox with Flat or Sloped Grate and Outlet Pipe OR Rectangular/Trapezoidal Weir (and No Outlet Pipe))

	Zone 3 Weir	Not Selected			Zone 3 Weir	Not Selected	
Overflow Weir Front Edge Height, Ho =	1.00	N/A	ft (relative to basin bottom at Stage = 0 ft)	Height of Grate Upper Edge, H_t =	2.00	N/A	feet
Overflow Weir Front Edge Length =	4.00	N/A	feet	Overflow Weir Slope Length =	4.12	N/A	feet
Overflow Weir Grate Slope =	4.00	N/A	H:V	Grate Open Area / 100-yr Orifice Area =	14.70	N/A	
Horiz. Length of Weir Sides =	4.00	N/A	feet	Overflow Grate Open Area w/o Debris =	11.54	N/A	ft^2
Overflow Grate Open Area % =	70%	N/A	%, grate open area/total area	Overflow Grate Open Area w/ Debris =	3.46	N/A	ft^2
Debris Clogging % =	70%	N/A	%				

Calculated Parameters for Overflow Weir

User Input: Outlet Pipe w/ Flow Restriction Plate (Circular Orifice, Restrictor Plate, or Rectangular Orifice)

	Zone 3 Circular	Not Selected			Zone 3 Circular	Not Selected	
Depth to Invert of Outlet Pipe =	0.00	N/A	ft (distance below basin bottom at Stage = 0 ft)	Outlet Orifice Area =	0.79	N/A	ft^2
Circular Orifice Diameter =	12.00	N/A	inches	Outlet Orifice Centroid =	0.50	N/A	feet
				Half-Central Angle of Restrictor Plate on Pipe =	N/A	N/A	radians

Calculated Parameters for Outlet Pipe w/ Flow Restriction Plate

User Input: Emergency Spillway (Rectangular or Trapezoidal)

Spillway Invert Stage=	2.00	ft (relative to basin bottom at Stage = 0 ft)	Spillway Design Flow Depth=	0.47	feet
Spillway Crest Length =	10.00	feet	Stage at Top of Freeboard =	2.97	feet
Spillway End Slopes =	4.00	H:V	Basin Area at Top of Freeboard =	0.39	acres
Freeboard above Max Water Surface =	0.50	feet	Basin Volume at Top of Freeboard =	0.76	acre-ft

Calculated Parameters for Spillway

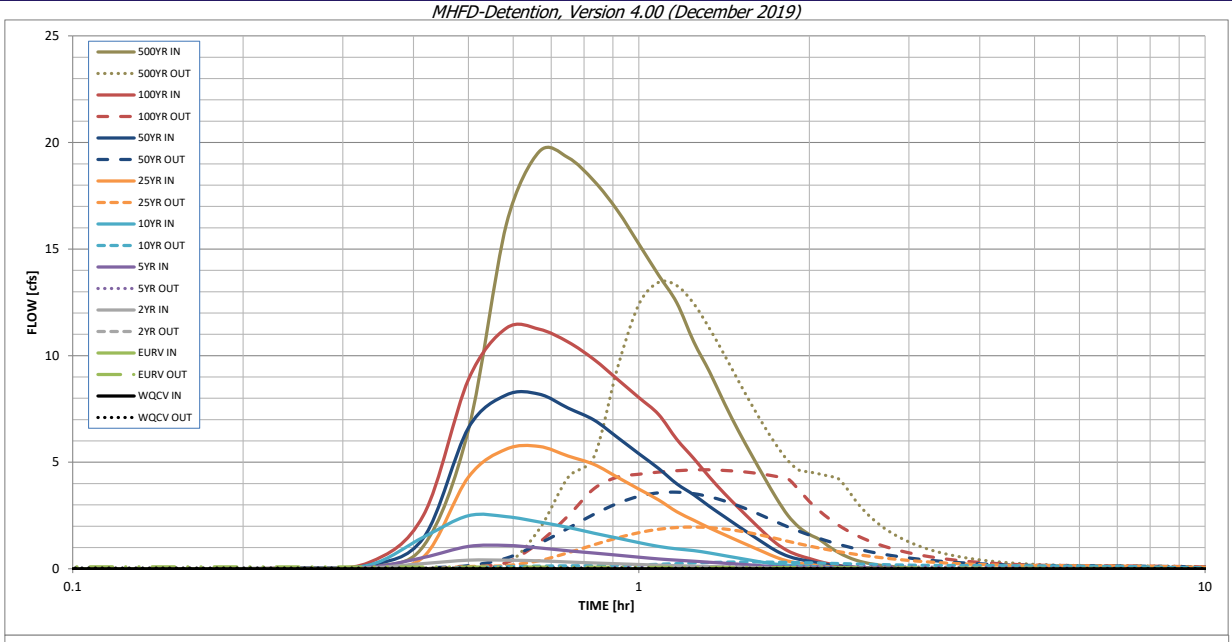
Routed Hydrograph Results

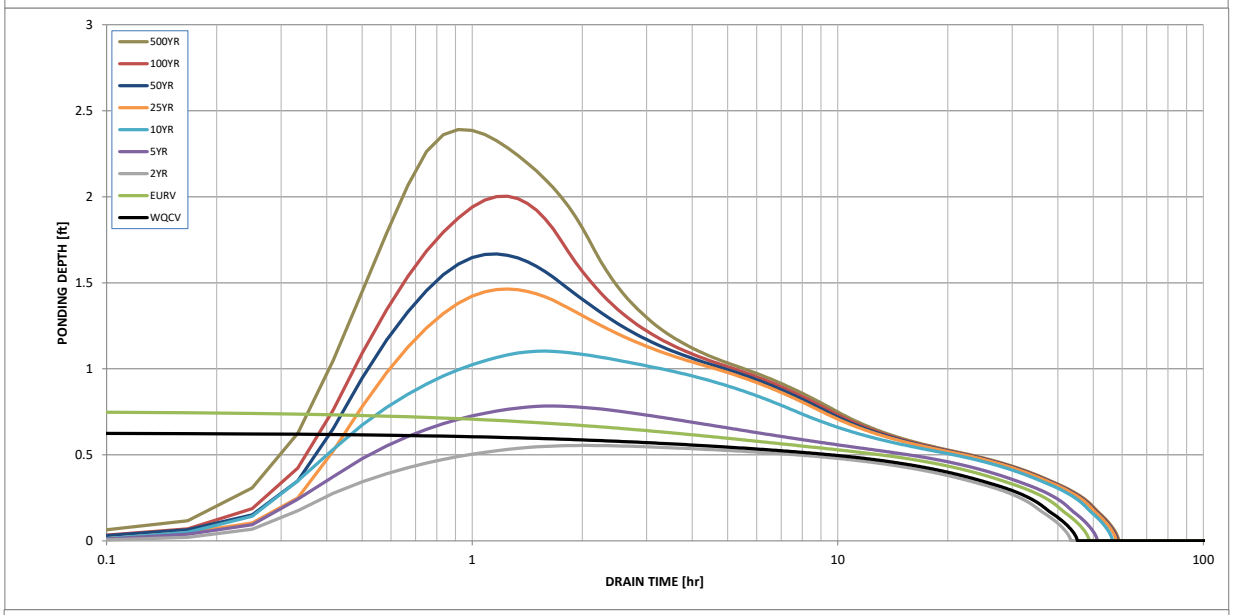
The user can override the default CUHP hydrographs and runoff volumes by entering new values in the Inflow Hydrographs table (Columns W through AF).

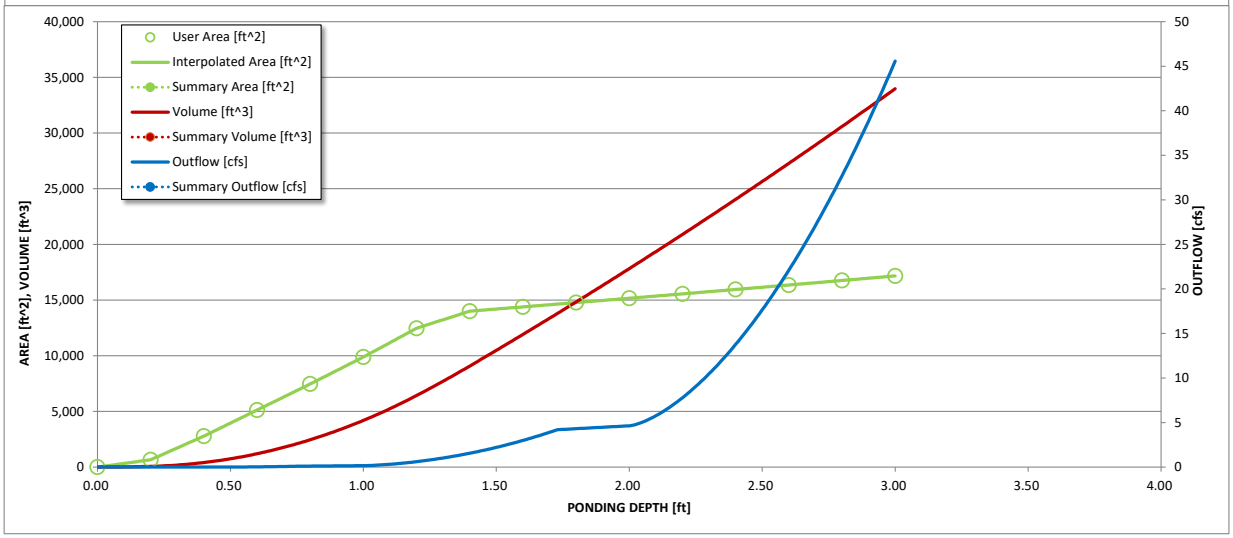
Design Storm Return Period =	WQCV	EURV	2 Year	5 Year	10 Year	25 Year	50 Year	100 Year	500 Year
One-Hour Rainfall Depth (in) =	N/A	N/A	0.81	1.09	1.39	1.90	2.37	2.91	4.45
CUHP Runoff Volume (acre-ft) =	0.031	0.049	0.025	0.064	0.148	0.353	0.525	0.751	1.361
Inflow Hydrograph Volume (acre-ft) =	N/A	N/A	0.025	0.064	0.148	0.353	0.525	0.751	1.361
CUHP Predevelopment Peak Q (cfs) =	N/A	N/A	0.1	0.6	2.0	5.2	7.7	10.7	18.8
OPTIONAL Override Predevelopment Peak Q (cfs) =	N/A	N/A							
Predevelopment Unit Peak Flow, q (cfs/acre) =	N/A	N/A	0.01	0.13	0.43	1.15	1.69	2.35	4.13
Peak Inflow Q (cfs) =	N/A	N/A	0.4	1.1	2.5	5.7	8.2	11.3	19.6
Peak Outflow Q (cfs) =	0.0	0.1	0.0	0.1	0.3	2.0	3.6	4.6	13.4
Ratio Peak Outflow to Predevelopment Q =	N/A	N/A	N/A	0.2	0.2	0.4	0.5	0.4	0.7
Structure Controlling Flow =	Vertical Orifice 1	Vertical Orifice 1	Vertical Orifice 1	Vertical Orifice 1	Overflow Weir 1	Overflow Weir 1	Overflow Weir 1	Spillway	Spillway
Max Velocity through Grate 1 (fps) =	N/A	N/A	N/A	N/A	0.0	0.1	0.3	0.4	0.4
Max Velocity through Grate 2 (fps) =	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Time to Drain 97% of Inflow Volume (hours) =	39	40	38	41	40	31	24	17	11
Time to Drain 99% of Inflow Volume (hours) =	**42**	45	41	47	48	44	40	36	28
Maximum Ponding Depth (ft) =	0.63	0.76	0.55	0.78	1.10	1.46	1.67	2.00	2.39
Area at Maximum Ponding Depth (acres) =	0.13	0.16	0.10	0.17	0.26	0.32	0.33	0.35	0.37
Maximum Volume Stored (acre-ft) =	0.031	0.050	0.022	0.053	0.120	0.228	0.293	0.409	0.548

DETENTION BASIN OUTLET STRUCTURE DESIGN

MHFD-Detention, Version 4.00 (December 2019)







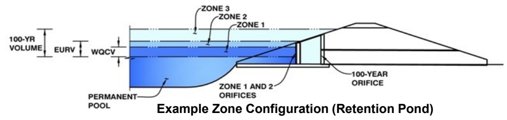
S-A-V-D Chart Axis Override	X-axis	Left Y-Axis	Right Y-Axis
minimum bound			
maximum bound			

DETENTION BASIN STAGE-STORAGE TABLE BUILDER

MHFD-Detention, Version 4.03 (May 2020)

Project:

Basin ID:



Example Zone Configuration (Retention Pond)

Depth Increment = 0.20 ft

Watershed Information

Selected BMP Type =	**EDB**		**Note: L / W Ratio < 1**		
Watershed Area =	3.81	acres	**L / W Ratio = 0.54**		
Watershed Length =	300	ft			
Watershed Length to Centroid =	150	ft			
Watershed Slope =	0.020	ft/ft			
Watershed Imperviousness =	14.10%	percent			
Percentage Hydrologic Soil Group A =	0.0%	percent			
Percentage Hydrologic Soil Group B =	0.0%	percent			
Percentage Hydrologic Soil Groups C/D =	100.0%	percent			
Target WQCV Drain Time =	40.0	hours			
Location for 1-hr Rainfall Depths =	Denver - Capitol Building				

After providing required inputs above including 1-hour rainfall depths, click 'Run CUHP' to generate runoff hydrographs using the embedded Colorado Urban Hydrograph Procedure.

			Optional User Overrides	
Water Quality Capture Volume (WQCV) =	0.028	acre-feet		acre-feet
Excess Urban Runoff Volume (EURV) =	0.046	acre-feet		acre-feet
2-yr Runoff Volume (P1 = 0.81 in.) =	0.023	acre-feet	0.81	inches
5-yr Runoff Volume (P1 = 1.09 in.) =	0.057	acre-feet	1.09	inches
10-yr Runoff Volume (P1 = 1.39 in.) =	0.127	acre-feet	1.39	inches
25-yr Runoff Volume (P1 = 1.9 in.) =	0.296	acre-feet	1.90	inches
50-yr Runoff Volume (P1 = 2.37 in.) =	0.438	acre-feet	2.37	inches
100-yr Runoff Volume (P1 = 2.91 in.) =	0.625	acre-feet	2.91	inches
500-yr Runoff Volume (P1 = 4.45 in.) =	1.129	acre-feet	4.45	inches
Approximate 2-yr Detention Volume =	0.026	acre-feet		
Approximate 5-yr Detention Volume =	0.057	acre-feet		
Approximate 10-yr Detention Volume =	0.079	acre-feet		
Approximate 25-yr Detention Volume =	0.112	acre-feet		
Approximate 50-yr Detention Volume =	0.130	acre-feet		
Approximate 100-yr Detention Volume =	0.191	acre-feet		

Define Zones and Basin Geometry

Zone 1 Volume (WQCV) =	0.028	acre-feet
Zone 2 Volume (5-year - Zone 1) =	0.029	acre-feet
Zone 3 Volume (100-year - Zones 1 & 2) =	0.134	acre-feet
Total Detention Basin Volume =	0.191	acre-feet
Initial Surcharge Volume (ISV) =	user	ft^3
Initial Surcharge Depth (ISD) =	user	ft
Total Available Detention Depth (H_{total}) =	user	ft
Depth of Trickle Channel (H_{TC}) =	user	ft
Slope of Trickle Channel (S_{TC}) =	user	ft/ft
Slopes of Main Basin Sides (S_{main}) =	user	H:V
Basin Length-to-Width Ratio ($R_{L/W}$) =	user	
Initial Surcharge Area (A_{ISV}) =	user	ft^2
Surcharge Volume Length (L_{ISV}) =	user	ft
Surcharge Volume Width (W_{ISV}) =	user	ft
Depth of Basin Floor (H_{FLOOR}) =	user	ft
Length of Basin Floor (L_{FLOOR}) =	user	ft
Width of Basin Floor (W_{FLOOR}) =	user	ft
Area of Basin Floor (A_{FLOOR}) =	user	ft^2
Volume of Basin Floor (V_{FLOOR}) =	user	ft^3
Depth of Main Basin (H_{MAIN}) =	user	ft
Length of Main Basin (L_{MAIN}) =	user	ft
Width of Main Basin (W_{MAIN}) =	user	ft
Area of Main Basin (A_{MAIN}) =	user	ft^2
Volume of Main Basin (V_{MAIN}) =	user	ft^3
Calculated Total Basin Volume (V_{total}) =	**user**	acre-feet

Stage - Storage Description	Stage (ft)	Optional Override Stage (ft)	Length (ft)	Width (ft)	Area (ft^2)	Optional Override Area (ft^2)	Area (acre)	Volume (ft^3)	Volume (ac-ft)
Top of Micropool	--	0.00	--	--	--	0	0.000		
	--	0.20	--	--	--	530	0.012	53	0.001
	--	0.40	--	--	--	2,319	0.053	338	0.008
	--	0.60	--	--	--	5,233	0.120	1,093	0.025
	--	0.80	--	--	--	8,071	0.185	2,423	0.056
	--	1.00	--	--	--	10,471	0.240	4,277	0.098
	--	1.20	--	--	--	11,482	0.264	6,473	0.149
	--	1.40	--	--	--	11,863	0.272	8,807	0.202
	--	1.60	--	--	--	12,247	0.281	11,218	0.258
	--	1.80	--	--	--	12,635	0.290	13,706	0.315
	--	2.00	--	--	--	13,028	0.299	16,273	0.374
	--	2.20	--	--	--	13,424	0.308	18,918	0.434
	--	2.40	--	--	--	13,824	0.317	21,643	0.497
	--	2.60	--	--	--	14,229	0.327	24,448	0.561
	--	2.80	--	--	--	14,637	0.336	27,335	0.628
	--	3.00	--	--	--	15,049	0.345	30,303	0.696
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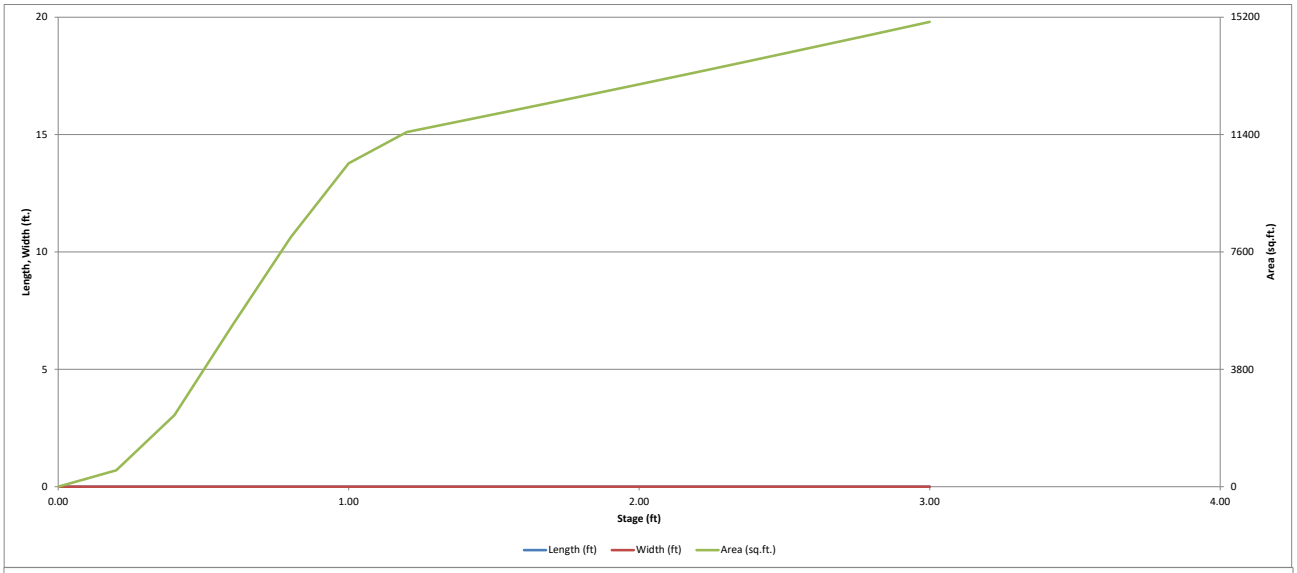
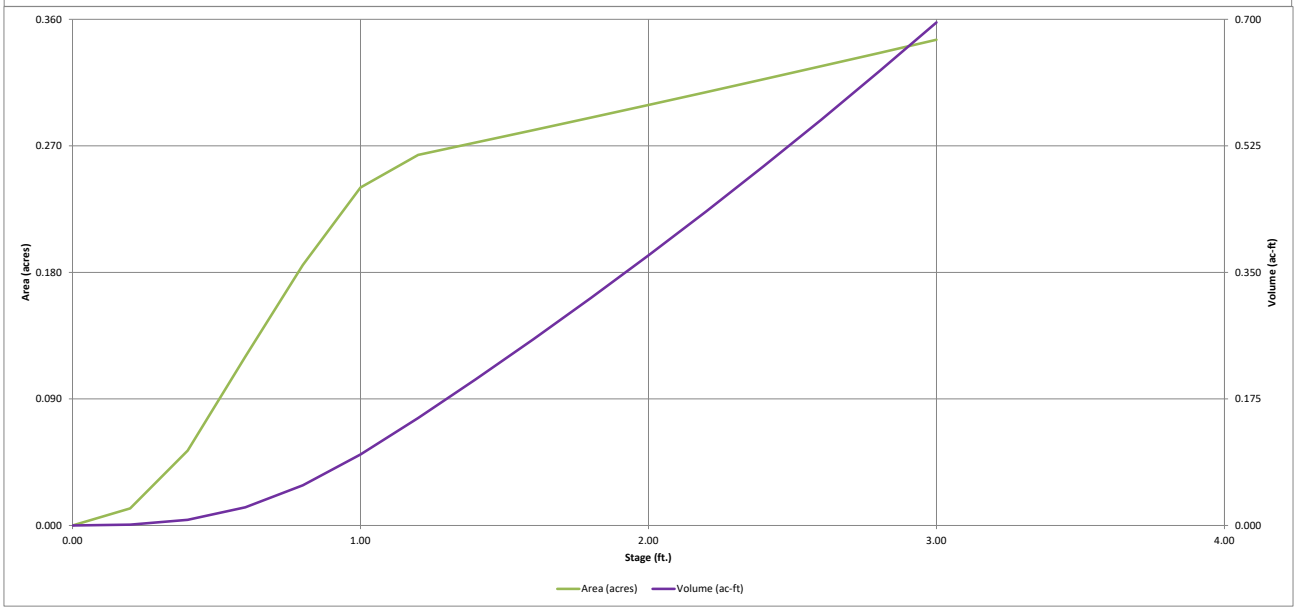

20
15
10
5
0
Length, Width (ft.)
15200
11400
7600
3800
0
Area (sq.ft.)
0.00
1.00
2.00
3.00
4.00
Stage (ft)
Length (ft)
Width (ft)
Area (sq.ft.)

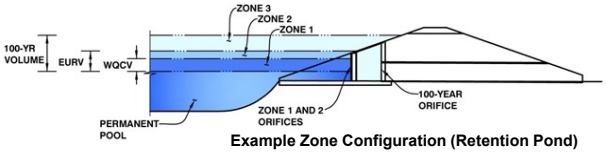

0.360
0.270
0.180
0.090
0.000
Area (acres)
0.700
0.525
0.350
0.175
0.000
Volume (ac-ft)
0.00
1.00
2.00
3.00
4.00
Stage (ft.)
Area (acres)
Volume (ac-ft)

DETENTION BASIN OUTLET STRUCTURE DESIGN

MHFD-Detention, Version 4.03 (May 2020)

Project:

Basin ID:



Example Zone Configuration (Retention Pond)

	Estimated Stage (ft)	Estimated Volume (ac-ft)	Outlet Type
Zone 1 (WQCV)	0.63	0.028	Orifice Plate
Zone 2 (5-year)	0.81	0.029	Circular Orifice
Zone 3 (100-year)	1.36	0.134	Weir&Pipe (Circular)
Total (all zones)		0.191	

User Input: Orifice at Underdrain Outlet (typically used to drain WQCV in a Filtration BMP)

Underdrain Orifice Invert Depth =	N/A	ft (distance below the filtration media surface)	Underdrain Orifice Area =	N/A	ft^2
Underdrain Orifice Diameter =	N/A	inches	Underdrain Orifice Centroid =	N/A	feet

Calculated Parameters for Underdrain

User Input: Orifice Plate with one or more orifices or Elliptical Slot Weir (typically used to drain WQCV and/or EURV in a sedimentation BMP)

Invert of Lowest Orifice =	0.00	ft (relative to basin bottom at Stage = 0 ft)	WQ Orifice Area per Row =	1.042E-03	ft^2
Depth at top of Zone using Orifice Plate =	0.50	ft (relative to basin bottom at Stage = 0 ft)	Elliptical Half-Width =	N/A	feet
Orifice Plate: Orifice Vertical Spacing =	2.50	inches	Elliptical Slot Centroid =	N/A	feet
Orifice Plate: Orifice Area per Row =	0.15	sq. inches (diameter = 7/16 inch)	Elliptical Slot Area =	N/A	ft^2

Calculated Parameters for Plate

User Input: Stage and Total Area of Each Orifice Row (numbered from lowest to highest)

	Row 1 (required)	Row 2 (optional)	Row 3 (optional)	Row 4 (optional)	Row 5 (optional)	Row 6 (optional)	Row 7 (optional)	Row 8 (optional)
Stage of Orifice Centroid (ft)	0.00	0.17	0.33					
Orifice Area (sq. inches)	0.15	0.15	0.15					

	Row 9 (optional)	Row 10 (optional)	Row 11 (optional)	Row 12 (optional)	Row 13 (optional)	Row 14 (optional)	Row 15 (optional)	Row 16 (optional)
Stage of Orifice Centroid (ft)								
Orifice Area (sq. inches)								

User Input: Vertical Orifice (Circular or Rectangular)

	Zone 2 Circular	Not Selected			Zone 2 Circular	Not Selected	
Invert of Vertical Orifice =	0.50	N/A	ft (relative to basin bottom at Stage = 0 ft)	Vertical Orifice Area =	0.05	N/A	ft^2
Depth at top of Zone using Vertical Orifice =	1.00	N/A	ft (relative to basin bottom at Stage = 0 ft)	Vertical Orifice Centroid =	0.13	N/A	feet
Vertical Orifice Diameter =	3.00	N/A	inches				

Calculated Parameters for Vertical Orifice

User Input: Overflow Weir (Dropbox with Flat or Sloped Grate and Outlet Pipe OR Rectangular/Trapezoidal Weir (and No Outlet Pipe))

	Zone 3 Weir	Not Selected			Zone 3 Weir	Not Selected	
Overflow Weir Front Edge Height, Ho =	1.00	N/A	ft (relative to basin bottom at Stage = 0 ft)	Height of Grate Upper Edge, H_t =	2.00	N/A	feet
Overflow Weir Front Edge Length =	4.00	N/A	feet	Overflow Weir Slope Length =	4.12	N/A	feet
Overflow Weir Grate Slope =	4.00	N/A	H:V	Grate Open Area / 100-yr Orifice Area =	14.70	N/A	
Horiz. Length of Weir Sides =	4.00	N/A	feet	Overflow Grate Open Area w/o Debris =	11.54	N/A	ft^2
Overflow Grate Open Area % =	70%	N/A	%, grate open area/total area	Overflow Grate Open Area w/ Debris =	3.46	N/A	ft^2
Debris Clogging % =	70%	N/A	%				

Calculated Parameters for Overflow Weir

User Input: Outlet Pipe w/ Flow Restriction Plate (Circular Orifice, Restrictor Plate, or Rectangular Orifice)

	Zone 3 Circular	Not Selected			Zone 3 Circular	Not Selected	
Depth to Invert of Outlet Pipe =	0.00	N/A	ft (distance below basin bottom at Stage = 0 ft)	Outlet Orifice Area =	0.79	N/A	ft^2
Circular Orifice Diameter =	12.00	N/A	inches	Outlet Orifice Centroid =	0.50	N/A	feet
				Half-Central Angle of Restrictor Plate on Pipe =	N/A	N/A	radians

Calculated Parameters for Outlet Pipe w/ Flow Restriction Plate

User Input: Emergency Spillway (Rectangular or Trapezoidal)

Spillway Invert Stage=	2.00	ft (relative to basin bottom at Stage = 0 ft)	Spillway Design Flow Depth=	0.46	feet
Spillway Crest Length =	10.00	feet	Stage at Top of Freeboard =	2.96	feet
Spillway End Slopes =	4.00	H:V	Basin Area at Top of Freeboard =	0.34	acres
Freeboard above Max Water Surface =	0.50	feet	Basin Volume at Top of Freeboard =	0.68	acre-ft

Calculated Parameters for Spillway

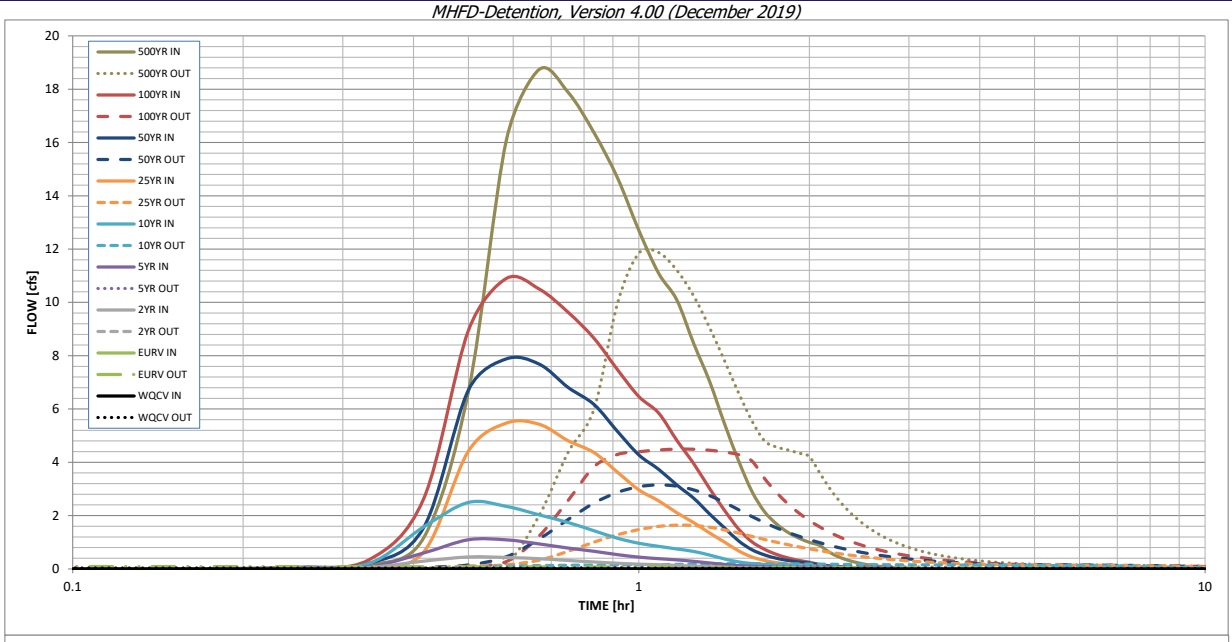
Routed Hydrograph Results

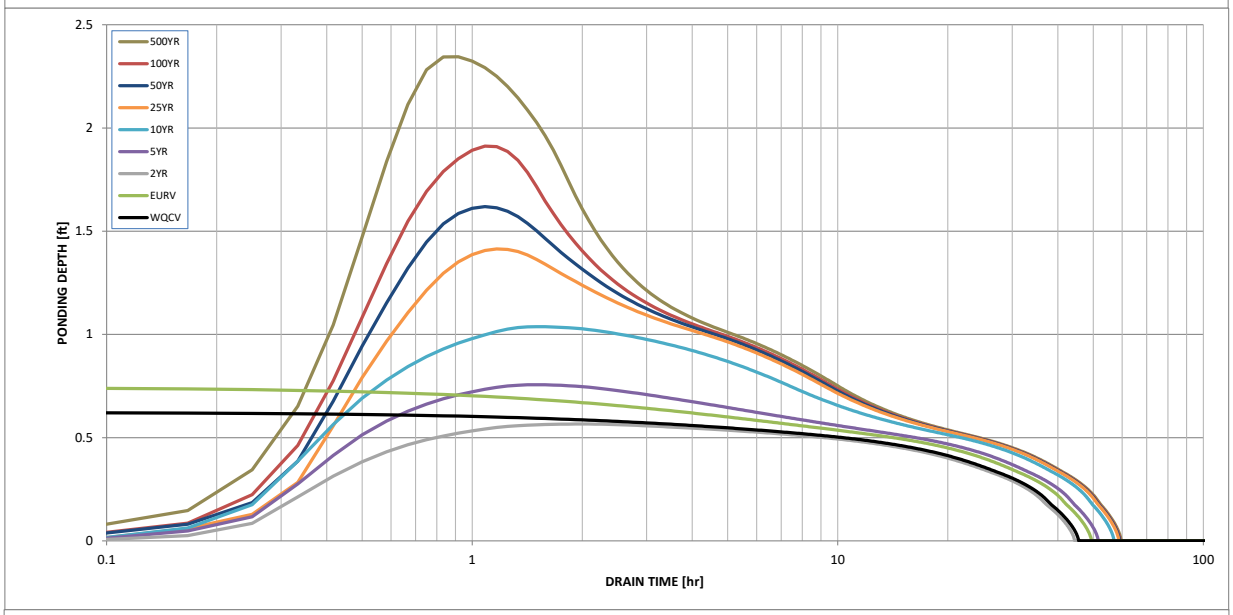
The user can override the default CUHP hydrographs and runoff volumes by entering new values in the Inflow Hydrographs table (Columns W through AF).

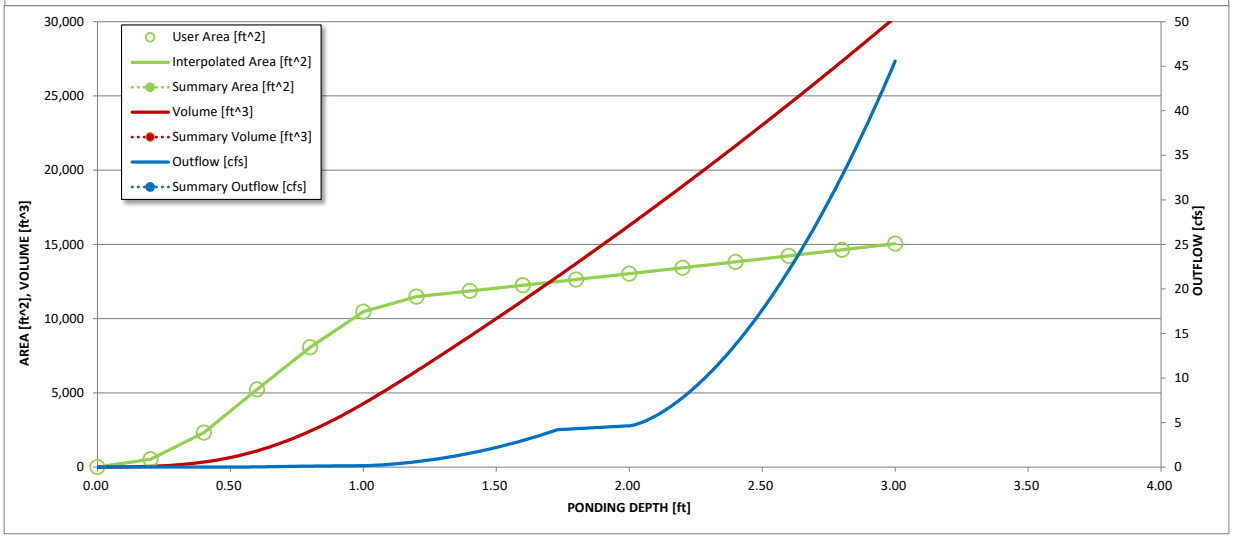
Design Storm Return Period =	WQCV	EURV	2 Year	5 Year	10 Year	25 Year	50 Year	100 Year	500 Year
One-Hour Rainfall Depth (in) =	N/A	N/A	0.81	1.09	1.39	1.90	2.37	2.91	4.45
CUHP Runoff Volume (acre-ft) =	0.028	0.046	0.023	0.057	0.127	0.296	0.438	0.625	1.129
Inflow Hydrograph Volume (acre-ft) =	N/A	N/A	0.023	0.057	0.127	0.296	0.438	0.625	1.129
CUHP Predevelopment Peak Q (cfs) =	N/A	N/A	0.1	0.6	1.9	4.9	7.3	10.3	18.0
OPTIONAL Override Predevelopment Peak Q (cfs) =	N/A	N/A							
Predevelopment Unit Peak Flow, q (cfs/acre) =	N/A	N/A	0.02	0.15	0.50	1.29	1.91	2.69	4.72
Peak Inflow Q (cfs) =	N/A	N/A	0.4	1.1	2.5	5.5	7.9	10.9	18.7
Peak Outflow Q (cfs) =	0.0	0.1	0.0	0.1	0.2	1.6	3.2	4.5	11.9
Ratio Peak Outflow to Predevelopment Q =	N/A	N/A	N/A	0.2	0.1	0.3	0.4	0.4	0.7
Structure Controlling Flow =	Vertical Orifice 1	Vertical Orifice 1	Vertical Orifice 1	Vertical Orifice 1	Overflow Weir 1	Overflow Weir 1	Overflow Weir 1	Outlet Plate 1	Spillway
Max Velocity through Grate 1 (fps) =	N/A	N/A	N/A	N/A	0.0	0.1	0.3	0.4	0.4
Max Velocity through Grate 2 (fps) =	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Time to Drain 97% of Inflow Volume (hours) =	39	41	39	42	41	33	26	19	12
Time to Drain 99% of Inflow Volume (hours) =	**43**	45	42	47	48	45	42	38	30
Maximum Ponding Depth (ft) =	0.63	0.75	0.57	0.76	1.04	1.41	1.62	1.91	2.34
Area at Maximum Ponding Depth (acres) =	0.13	0.17	0.11	0.17	0.24	0.27	0.28	0.30	0.31
Maximum Volume Stored (acre-ft) =	0.029	0.047	0.021	0.047	0.105	0.205	0.260	0.347	0.478

DETENTION BASIN OUTLET STRUCTURE DESIGN

MHFD-Detention, Version 4.00 (December 2019)







S-A-V-D Chart Axis Override	X-axis	Left Y-Axis	Right Y-Axis
minimum bound			
maximum bound			

Weighted Runoff Coefficients
Project - Boulder County Event Venue

Calculated By: NGA
Checked By: MRB
Date: 8/12/2020

Proposed/ Existing		IMP%
	Roof	90
	Concrete Drive/Walk	96
	Landscaping	2
	Gravel	40
	Multi-family (attached)	75
	Commercial	95
	Undeveloped Historical	45

Soil Types: Held Clay, 0-3%
Renohill Silty Clay Loam, 3-9%

Hydrologic Grouping: Type C/D

Runoff Coefficients: C = Kc + (.858i^3-.786I^2+.774i+.04)
Kc(2year) = 0.83i^1.122
Kc(5year) = 0.82i+0.035
Kc(10year) = 0.74i+0.132
Kc(100year) = 0.41i+0.393

Existing Basins (current conditions) — **Land Use (Acres)** — **Weighted Runoff Coefficient**

Basin	Total Area	Roof	Concrete Drive/Walk	Landscape	Gravel	Multi-family	Commercial	C2	C5	C10	C100	%Imp
Total	35.90	0.00	0.00	35.90	0.00	0.00	0.00	0.01	0.05	0.15	0.40	2.0
1.00	4.79	0.00	0.00	4.79	0.00	0.00	0.00	0.01	0.05	0.15	0.40	2.0
2.00	1.48	0.00	0.00	1.48	0.00	0.00	0.00	0.01	0.05	0.15	0.40	2.0
3.00	4.54	0.00	0.00	4.54	0.00	0.00	0.00	0.01	0.05	0.15	0.40	2.0
4.00	3.81	0.00	0.00	3.81	0.00	0.00	0.00	0.01	0.05	0.15	0.40	2.0
5.00	1.77	0.00	0.00	1.77	0.00	0.00	0.00	0.01	0.05	0.15	0.40	2.0
6.00	16.74	0.00	0.00	16.74	0.00	0.00	0.00	0.01	0.05	0.15	0.40	2.0
7.00	2.76	0.00	0.00	2.76	0.00	0.00	0.00	0.01	0.05	0.15	0.40	2.0

Proposed Basins (proposed conditions) — **Land Use (Acres)** — **Weighted Runoff Coefficient**

Basin	Total Area	Roof	Concrete Drive/Walk	Landscape Native Grass	Gravel	Multi-family	Commercial	C2	C5	C10	C100	%Imp
1.00	4.79	0.00	0.00	4.79	0.00	0.00	0.00	0.01	0.05	0.15	0.40	2.0
2.00	1.48	0.00	0.00	1.48	0.00	0.00	0.00	0.01	0.05	0.15	0.40	2.0
3.00	4.54	0.14	0.18	3.70	0.52	0.00	0.00	0.08	0.14	0.23	0.45	12.8
4.00	3.81	0.14	0.08	2.90	0.70	0.00	0.00	0.09	0.15	0.24	0.45	14.1
5.00	1.77	0.00	0.00	1.59	0.18	0.00	0.00	0.03	0.08	0.18	0.42	5.9
6.00	16.74	0.00	0.00	16.74	0.00	0.00	0.00	0.01	0.05	0.15	0.40	2.0
7.00	2.76	0.00	0.00	2.76	0.00	0.00	0.00	0.01	0.05	0.15	0.40	2.0

TOTAL AREA: 35.90 ACRES
TOTAL IMPERVIOUS: 4.84 %

STANDARD FORM SF-2
TIME OF CONCENTRATION
SUBDIVISION: Boulder County
CALCULATED BY: NGA DATE: 8/12/2020

SUB-BASIN DATA			INITIAL/OVERLAND TIME (t_i)			TRAVEL TIME (t_t)				t_c CHECK (URBANIZED BASINS)			FINAL t_c	REMARKS
DESIG:	C5	AREA	LENGTH	SLOPE	t_i	LENGTH	SLOPE	VEL.	t_t	COMP.	TOT. LENGTH	tc=(L/180)+10		
		Ac	Ft	%	Min	Ft	%	FPS	Min	t_c	Ft	Min	Min	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	
1.00	0.05	4.79	50	3.0	9.3	450	2.0	1.0	7.5	16.8	500	12.8	12.8	
2.00	0.05	1.48	50	2.2	10.2	450	2.0	1.0	7.5	17.7	500	12.8	12.8	
3.00	0.14	4.54	50	3.0	8.5	350	3.0	1.0	5.8	14.3	400	12.2	12.2	
4.00	0.15	3.81	100	3.0	11.8	320	2.0	1.0	5.3	17.2	420	12.3	12.3	
5.00	0.08	1.77	50	4.7	7.7	300	3.0	1.0	5.0	12.7	350	11.9	11.9	
6.00	0.05	16.74	450	2.0	31.8	1450	0.1	1.0	24.2	55.9	1900	20.6	20.6	
7.00	0.05	2.76	50	3.0	9.3	100	0.1	1.0	1.7	10.9	150	10.8	10.8	

CALCULATED BY : NGA
DATE: 8/12/2020 **REV:**
CHECKED BY: MRB

STANDARD FORM SF-3
STORM DRAINAGE SYSTEM DESIGN
(RATIONAL METHOD PROCEDURE)

JOB NO: 19-112-001
PROJECT: Boulder County
DESIGN STORM: 5-Year

SUBBASIN	DESIGN POINT	DIRECT RUNOFF							TOTAL RUNOFF				STREET		PIPE			TRAVEL TIME			REMARKS
		AREA DESIGN	AREA (AC)	RUNOFF COEFF	t_c (MIN)	C * A (AC)	I IN/HR	Q (CFS)	t_c (MIN)	Σ (C * A) (AC)	I (IN/HR)	Q (CFS)	SLOPE (%)	STREET FLOW (CFS)	DESIGN FLOW (CFS)	SLOPE (%)	PIPE SIZE	LENGTH (FT)	VELOCITY (FPS)	t_t (MIN)	
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
Existing																					
1.00			4.79	0.05	12.8	0.25	2.66	0.7													
2.00			1.48	0.05	12.8	0.08	2.66	0.2													
3.00			4.54	0.05	12.2	0.23	2.72	0.6													
4.00			3.81	0.05	12.3	0.2	2.71	0.5													
5.00			1.77	0.05	11.9	0.09	2.75	0.3													
6.00			16.74	0.05	20.6	0.86	2.11	1.8													
7.00			2.76	0.05	10.8	0.14	2.86	0.4													
Proposed																					
1.00			4.79	0.05	12.8	0.25	2.66	0.7													
2.00			1.48	0.05	12.8	0.08	2.66	0.2													
3.00			4.54	0.14	12.2	0.64	2.72	1.7													
4.00			3.81	0.15	12.3	0.57	2.71	1.6													
5.00			1.77	0.08	11.9	0.15	2.75	0.4													
6.00			16.74	0.05	20.6	0.86	2.11	1.8													
7.00			2.76	0.05	10.8	0.14	2.86	0.4													

CALCULATED BY : NGA
DATE: 8/12/2020 **REV:**
CHECKED BY: MRB

STANDARD FORM SF-3
STORM DRAINAGE SYSTEM DESIGN
(RATIONAL METHOD PROCEDURE)

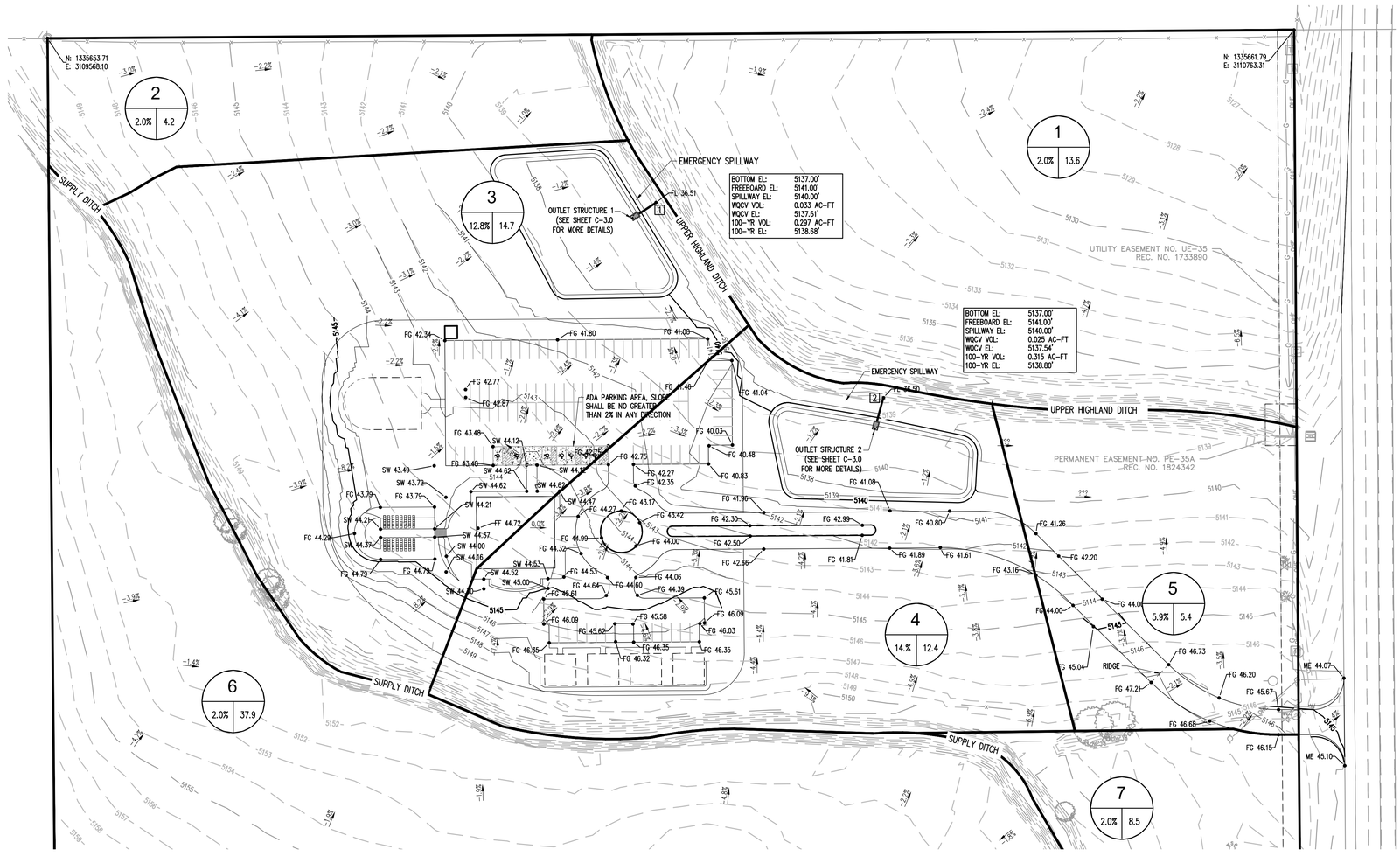
JOB NO: 19-112-001
PROJECT: Boulder County
DESIGN STORM: 100-YEAR

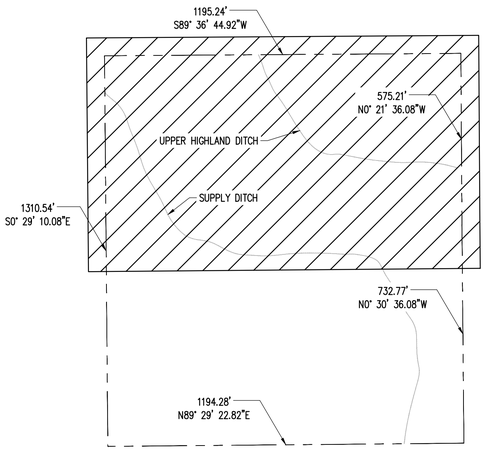
SUBBASIN	DESIGN POINT	DIRECT RUNOFF							TOTAL RUNOFF				STREET		PIPE			TRAVEL TIME			REMARKS
		AREA DESIGN	AREA (AC)	RUNOFF COEFF	t_c (MIN)	C * A (AC)	I IN/HR	Q (CFS)	t_c (MIN)	Σ (C * A) (AC)	I (IN/HR)	Q (CFS)	SLOPE (%)	STREET FLOW (CFS)	DESIGN FLOW (CFS)	SLOPE (%)	PIPE SIZE	LENGTH (FT)	VELOCITY (FPS)	t_t (MIN)	
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
Existing																					
1.00			4.79	0.40	12.8	1.92	7.1	13.6													
2.00			1.48	0.40	12.8	0.59	7.1	4.2													
3.00			4.54	0.40	12.2	1.82	7.25	13.2													
4.00			3.81	0.40	12.3	1.53	7.23	11.1													
5.00			1.77	0.40	11.9	0.71	7.33	5.2													
6.00			16.74	0.40	20.6	6.72	5.64	37.9													
7.00			2.76	0.40	10.8	1.11	7.63	8.5													
Proposed																					
1.00			4.79	0.40	12.8	1.92	7.1	13.6													
2.00			1.48	0.40	12.8	0.59	7.1	4.2													
3.00			4.54	0.45	12.2	2.02	7.25	14.7													
4.00			3.81	0.45	12.3	1.72	7.23	12.4													
5.00			1.77	0.42	11.9	0.74	7.33	5.4													
6.00			16.74	0.40	20.6	6.72	5.64	37.9													
7.00			2.76	0.40	10.8	1.11	7.63	8.5													

Appendix F – Basin Map/Grading and Drainage Plan

BOULDER COUNTY RECEPTION HALL

SITUATED WITHIN SECTION 3, TOWNSHIP 3 NORTH,
RANGE 69 WEST OF THE 6TH P.M., COUNTY OF BOULDER COUNTY, STATE OF COLORADO





PROPERTY BOUNDARIES

NTS

LEGEND

- PROPERTY LINE
- EASEMENTS
- POND
- SIDEWALK
- GRAVEL
- EXISTING CONTOURS — XXXX —
- PROPOSED CONTOURS — XXXX —
- TOP OF CURB TC
- FLOW LINE FL
- FINISHED GRADE FG
- SWALE
- BASIN LIMITS

BASIN
IMPERVIOUSNESS X.XX | X.XX 100-YR CFS

1 DESIGN POINT

GRADING NOTES

1. THE DESIGN SHOWN IS BASED UPON THE ENGINEER'S UNDERSTANDING OF THE EXISTING CONDITIONS. THE EXISTING CONDITIONS SHOWN ON THIS PLAN SHEET ARE BASED UPON THE SURVEY PREPARED BY RIDGETOP ENGINEERING AND SURVEY, DATED 12/10/2019. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING FIELD CONDITIONS PRIOR TO BIDDING THE PROPOSED SITEWORK IMPROVEMENTS. IF CONFLICTS ARE DISCOVERED, THE CONTRACTOR SHALL NOTIFY THE OWNER PRIOR TO INSTALLATION OF ANY PORTION OF THE SITEWORK WHICH WOULD BE AFFECTED. IF CONTRACTOR DOES NOT ACCEPT EXISTING SURVEY, INCLUDING TOPOGRAPHY AS SHOWN ON THE PLANS, WITHOUT EXCEPTION, HE SHALL HAVE MADE, AT HIS OWN EXPENSE, A TOPOGRAPHIC SURVEY BY A REGISTERED LAND SURVEYOR AND SUBMIT IT TO THE OWNER FOR REVIEW.
2. CAUTION – NOTICE TO CONTRACTOR
   THE CONTRACTOR IS SPECIFICALLY CAUTIONED AT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THESE PLANS.
3. THE SPOT ELEVATIONS INDICATED ON THIS PLAN REPRESENT THE DESIGN TOP OF PAVEMENT, UNLESS OTHERWISE NOTED.
4. CONTRACTOR IS RESPONSIBLE FOR DEMOLITION OF EXISTING STRUCTURES INCLUDING REMOVAL OF ANY EXISTING UTILITIES SERVING THE STRUCTURE. UTILITIES ARE TO BE REMOVED TO THE RIGHT-OF-WAY.
5. ALL UNSURFACED AREAS DISTURBED BY GRADING OPERATION SHALL RECEIVE 4 INCHES OF TOPSOIL. CONTRACTOR SHALL APPLY STABILIZATION FABRIC TO ALL SLOPES 4H:1V OR STEEPER. CONTRACTOR SHALL STABILIZE DISTURBED AREAS WITH GRASS IN ACCORDANCE WITH LOCAL SPECIFICATION UNTIL A HEALTHY STAND OF GRASS IS OBTAINED.
6. ALL CUT AND FILL SLOPES SHALL BE CONSTRUCTED PER THE IBC CODE AND APPLICABLE LOCAL REGULATION. ALL CUT AND FILL SLOPES SHALL BE 4:1 OR FLATTER UNLESS OTHERWISE NOTED.
7. CONTRACTOR SHALL ASSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS FOR ALL NATURAL AND PAVED AREAS AND SHALL GRADE ALL AREAS TO PRECLUDE PONDING OF WATER.
8. ALL POLLUTANTS OTHER THAN SEDIMENT ON-SITE DURING CONSTRUCTION SHALL BE HANDLED AND DISPOSED OF IN A MANNER THAT DOES NOT CAUSE CONTAMINATION OF STORMWATER. THE CONTRACTOR SHALL ADHERE TO ALL TERMS AND CONDITIONS AS OUTLINED IN THE GENERAL N.P.D.E.S. PERMIT FOR STORMWATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITIES.
9. PROPERTIES AND WATERWAYS DOWNSTREAM OF THE SITE SHALL BE PROTECTED FROM EROSION DUE TO INCREASES IN THE VOLUME, VELOCITY AND PEAK FLOW RATE OF STORMWATER RUNOFF FROM PROJECT SITE.
10. CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE GOVERNING CODES AND BE CONSTRUCTED TO SAME.
11. CONTRACTOR TO REMOVE UNSUITABLE SOILS LOCATED WITHIN THE BUILDINGS SPLAY LINE OF THE FOOTINGS.
12. FOR BOUNDARY AND TOPOGRAPHIC INFORMATION REFER TO PROJECT SURVEY.
13. FOR LAYOUT INFORMATION REFER TO THE SITE PLAN.

NORTH

0 30 60 120
1 inch = 60 ft.

LOGO
RIDGETOP ENGINEERING & SURVEYING
541 E. Garden Drive, Unit N
Windsor, CO 80550
T (970) 663-4552
W ridgetopeng.com

SEAL

PROJECT TITLE
BOULDER COUNTY RECEPTION HALL
15293 N 107TH STREET
LONGMONT, CO

PREPARED FOR
JUBILEE ACRES
15293 N 107TH STREET
LONGMONT, CO

SUBMITTAL
SPECIAL USE REVIEW

DRAWN BY: NGA
CHECKED BY: MRB
PROJECT NO.: 19-112-001

REVISIONS

DATE
08-12-2020

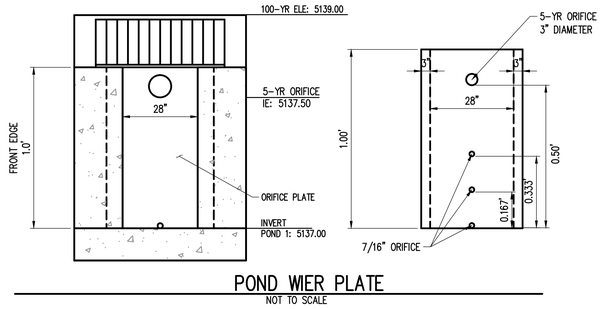
SHEET TITLE
BASIN MAP

SHEET INFORMATION
C-1.0

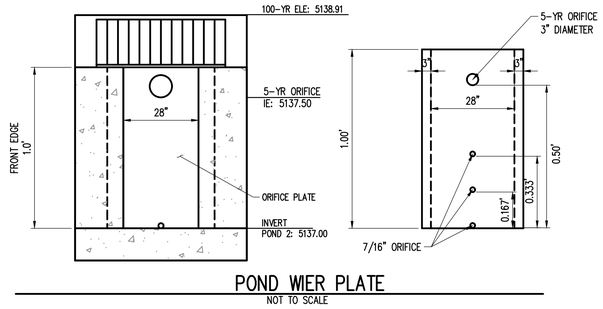
File: Drainage Map.dwg Path: P:\Colorado\Boulder County\Jubilee Acres LLC\Event Venue Boulder County 19-112-001\4 Reports\Storm\ Plotted by: Nicholas Date: 12-Aug-20 2:37:39pm

BOULDER COUNTY RECEPTION HALL

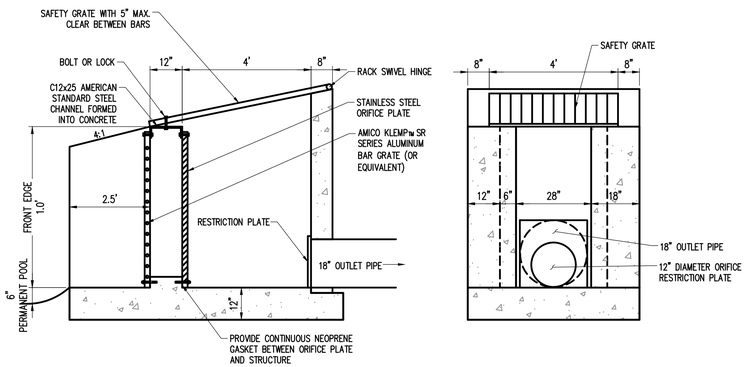
SITUATED WITHIN SECTION 3, TOWNSHIP 3 NORTH,
RANGE 69 WEST OF THE 6TH P.M., COUNTY OF BOULDER COUNTY, STATE OF COLORADO

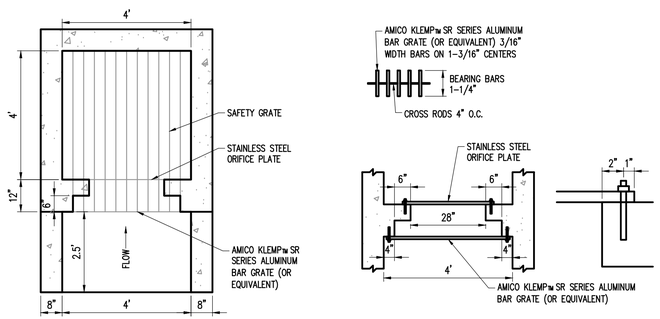


POND WIER PLATE
NOT TO SCALE

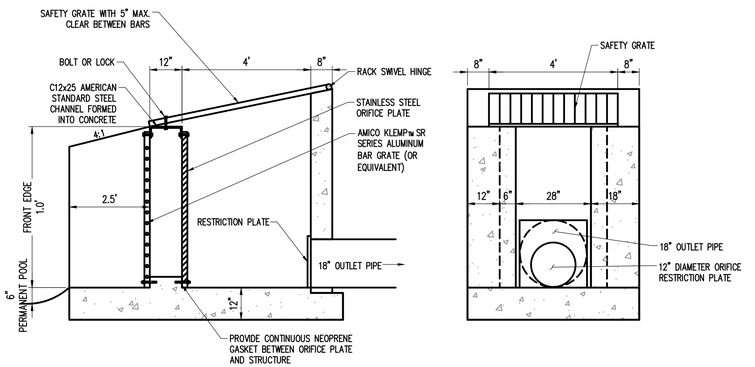


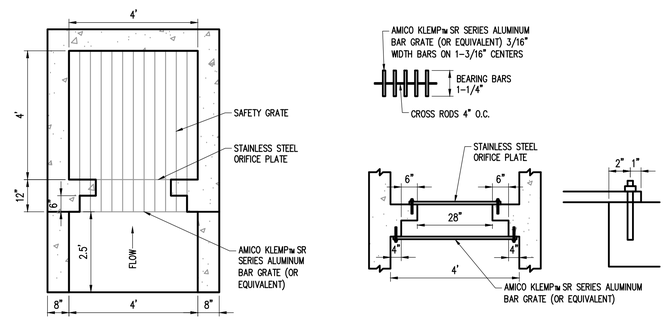
POND WIER PLATE
NOT TO SCALE





OUTLET STRUCTURE
NOT TO SCALE





OUTLET STRUCTURE
NOT TO SCALE

LOGO
RIDGETOP
ENGINEERING & SURVEYING
541 E. Garden Drive,
Unit N
Windsor, CO 80550
T (970) 663-4552
W ridgetopeng.com

SEAL

PROJECT TITLE

BOULDER COUNTY RECEPTION HALL

15293 N 107TH STREET
LONGMONT, CO

PREPARED FOR

JUBILEE ACRES

15293 N 107TH STREET
LONGMONT, CO

SUBMITTAL

SPECIAL USE REVIEW

DRAWN BY:	NGA
CHECKED BY:	MRB
PROJECT NO.:	19-112-001

REVISIONS

DATE

05/11/2020

SHEET TITLE

DETAILS

SHEET INFORMATION

C-3.0

Boulder County Event Venue Pre-Application Methodology Statement (PAMS)

KE Job #2019-035

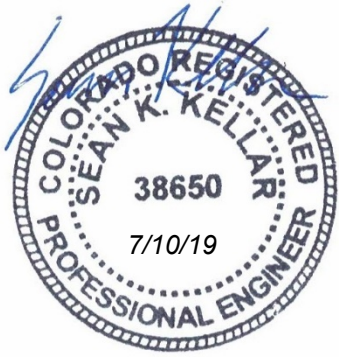
Prepared for:

Shane & Courtney Walter
15293 North 107th Street
Longmont, CO 80504

Prepared by:

KELLAR ENGINEERING

www.kellarengineering.com
970.219.1602 phone



July 10, 2019

Sean K. Kellar, PE, PTOE

1.0 Impact Area

The public street directly impacted by the project site is US 287. See Figure 1: Vicinity Map.

2.0 Area Roadways

The project is located 15293 North 107th Street, Longmont, CO. The site is adjacent to the west side of US 287. US 287 is currently striped with: two southbound thru lanes, two northbound thru lanes, a two-way left-turn lane (TWLTL), and approximately 10' wide paved shoulders. The roadway surface of US 287 is concrete pavement and is currently in good condition. This portion of US 287 carries 26,000 vehicles per day (vpd) and has a posted speed of 65 mph.

3.0 Nearby Driveways and Sight Distance from Existing Driveways

There are two existing private driveways on the east side of US 287 and one existing local street (Conger Street) on the west side of US 287 north of the project site. The site distance in each direction of US 287 from these existing driveways is acceptable.

4.0 Existing Bicycle Facilities

There are no existing bicycle facilities immediately adjacent to the project site. However, US 287 currently has paved shoulders adjacent to the site that can accommodate bikes.

5.0 Existing Transit Service

Currently the closest transit facility is located at the northeast corner of US 287 and Hwy 66 (Westside Crosstown 326). The Park-n-Ride is also located at US 287 and 21st Avenue on the west side of US 287.

6.0 Accident History

Accident history was not evaluated as part of this analysis.

7.0 Proposed Land Use and Access

The proposed land use is a ~5,900 SF event venue. The property address is: 15293 North 107th Street, Longmont, CO 80504. Full-movement access to the site is proposed from US 287 north of the supply ditch and south of the Upper Highland Ditch on the west side of US 287. See Figure 1: Vicinity Map and Figure 2: Site Plan.

8.0 Phasing and Timing

The proposed event venue project is anticipated being completed in one phase following all necessary approvals. Future project phases could include a 900 SF cottage and potentially a 2,500 SF church/chapel.

9.0 Trip Generation

Site generated traffic estimates are determined through a process known as trip generation. Rates and equations are applied to the proposed land use to estimate traffic generated by the development during a specific time interval. The acknowledged source for trip generation rates is the *Trip Generation Report* published by the Institute of Transportation Engineers (ITE). The Institute of Transportation Engineers' (ITE) Trip Generation Manual, 10th Edition does not provide detailed data on the event venue use associated with the project. As such, KE was able to estimate the peak hour trip generation for this use based upon correspondence with the client.

Events Information:

Guest Count:
Average Event: 125 guests (common)
Minimum Event: 50 (rare)
Maximum Event: 300 guests (rare)

Event Count:
Per Week: Three events per week; Friday, Saturday, Sunday
Per Year: 81 events

Event Time:
Ceremony: 4pm
Reception: 6pm

Based upon information provided by the client, the proposed event venue will typically have 125 people on-site for private gatherings. Arrivals and departures will be staggered throughout the duration of each event and car-pooling of approximately 2.5 attendees to vehicle is anticipated. Traffic volumes will vary on the type of event and number of attendees. Anticipated traffic volumes for a typical event are below:

Passenger vehicles: 50 round-trips/day for personal vehicles (100 daily trips)
Vendor vehicles: 3 vehicles, one round-trip per day each (6 daily trips)

A portion of the vehicles are anticipated to arrive before 4:00 PM, before the weekday PM peak hour. Additionally, most vehicles are anticipated to leave after 6:00 PM, after the weekday PM peak hour. Since events are anticipated on Friday, Saturday, and Sunday evenings, only the Friday evening event would occur during the weekday PM peak hour. Weekend evening events would occur when the traffic volumes on US 287 are lower. Therefore, a typical event is projected to generate approximately 106 average weekday daily trips, and 46 total weekday PM peak hour trips.

Additionally, it is anticipated that the venue space will be used to accommodate church service gatherings on Sunday mornings at 9:00 AM until the separate church/chapel building is constructed at a later phase. Anticipated numbers for the church service gatherings are anticipated to be between 75 to 100 people. At a carpool rate of 2.5 attendees to vehicle, this would result in between 30 and 40 round-trips/day for personal vehicles on a Sunday morning. The Sunday morning church service gathering is when traffic volumes on US 287 are lower. Therefore, the ITE 10th Edition was used to calculate the weekday peak hour trip generation rates for a typical 5,900 SF church building. The proposed church use is not anticipated to have daycare or weekday school classes. Therefore, the ITE rates for the weekday trip generation for the church use are appropriate. Therefore, the proposed church use is projected to generate approximately 41 average weekday daily trips, 2 total weekday AM peak hour trips, and 3 total weekday PM peak hour trips. See Table 1: Trip Generation.

10.0 Mode Share

Based upon the project uses and location, mode share is anticipated to be primarily private passenger vehicles.

11.0 Trip Distribution

Distribution of site traffic on the street system was based on the area street system characteristics, existing traffic patterns and volumes, anticipated surrounding development areas, and the proposed access system for the project. The directional distribution of traffic is a means to quantify the percentage of site generated traffic that approaches the site from a given direction and departs the site back to the original source. Trip Distribution for the trips generated is anticipated to be approximately 50% to/from the north and 50% to/from the south on US 287.

12.0 Summary

Full-movement access to US 287 can be safely provided from the existing roadway improvements on US 287. The northbound left-turn can be made using the existing center left-turn lane (TWLTL). Additionally, the southbound right-turn movement can be accommodated by either using the ~10' wide paved shoulder or by striping a portion of this existing paved shoulder as a southbound right-turn lane. Events larger than 125 guests can be accommodated appropriately with manual traffic control by police officers (wearing proper PPE) or by certified traffic control technicians directing traffic. Since the proposed project is anticipated to generate an appropriate level of traffic based upon the location and access to the project site, no additional traffic impact analysis is anticipated to be necessary.

Figure 1: Vicinity Map

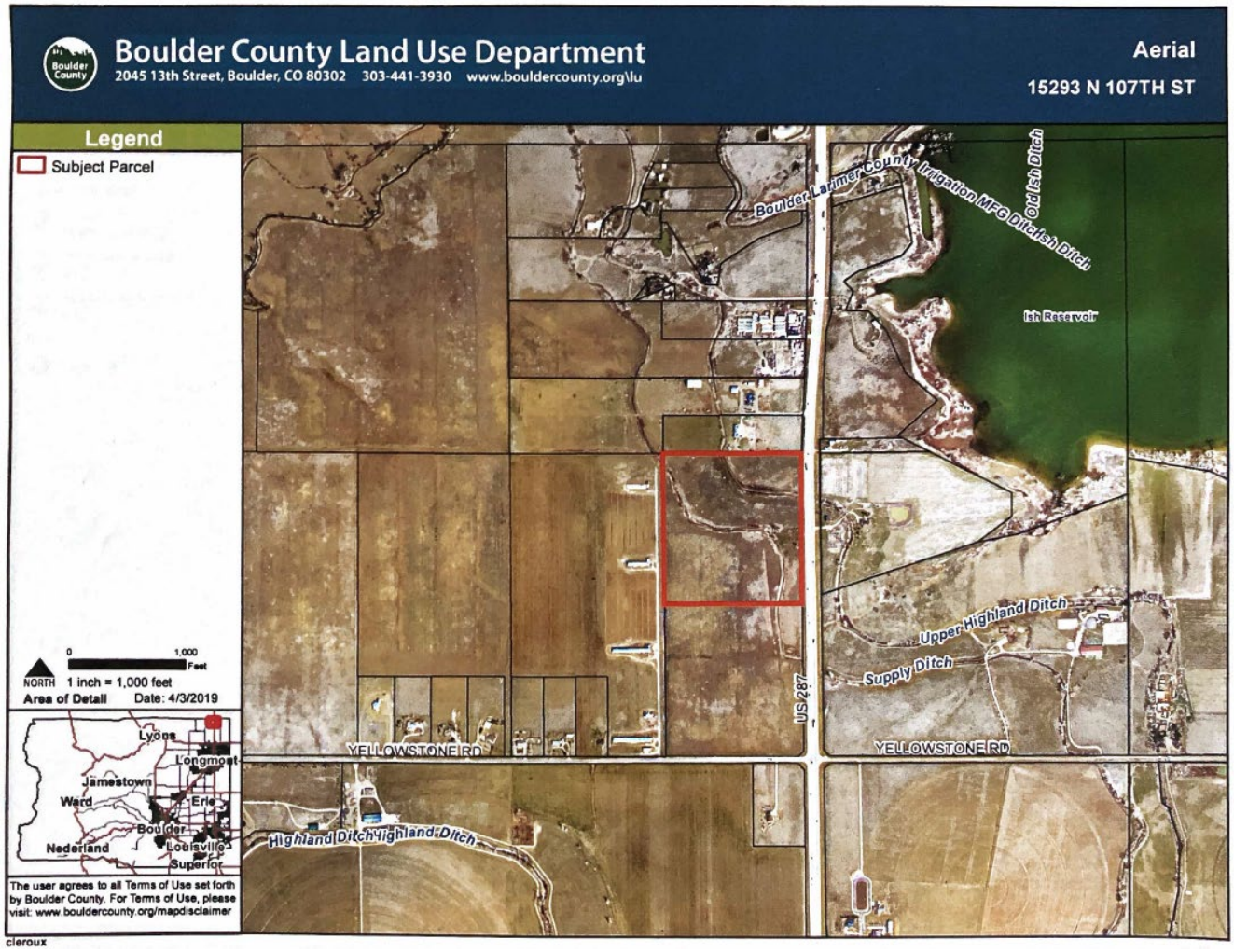


Figure 2: Site Plan

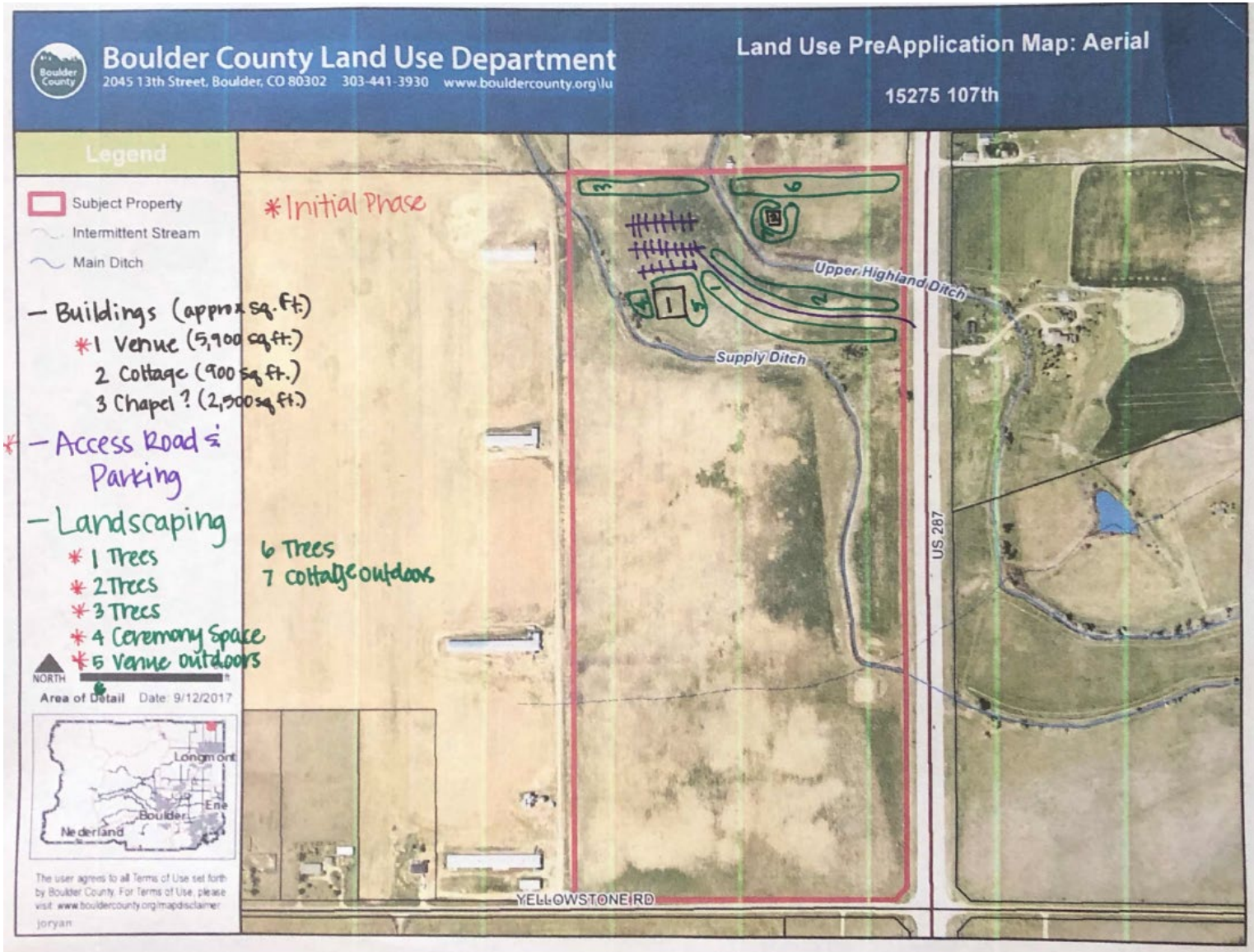


Table 1: Trip Generation

ITE Code	Land Use	Size	Average Weekday Daily Trips		AM Weekday Peak Hour Trips						PM Weekday Peak Hour Trips					
			Rate	Total	Rate	% In	In	% Out	Out	Total	Rate	% In	In	% Out	Out	Total
*	Event Venue	5.9 KSF	*	106	*	*	0	*	0	0	*	*	40	*	6	46
560	Church	5.9 KSF	6.95	41	0.33	60%	1	40%	1	2	0.49	48%	1	52%	2	3
Total				**147**			**1**		**1**	**2**			**41**		**8**	**49**

KSF = Thousand Square Feet

*

The Institute of Transportation Engineers' (ITE) Trip Generation Manual, 10th Edition does not provide detailed data for the event venue use associated with the project. As such, KE was able to estimate the peak hour trip generation based upon correspondence with the client. See Section 9.0 Trip Generation.

Figure 3: Street View (Looking North)

Boulder County Event Venue

Transportation System Impact Study(TSIS)

KE Job #2019-035

Prepared for:

Shane & Courtney Walter
15293 North 107th Street
Longmont, CO 80504

Prepared by:

KELLAR ENGINEERING

www.kellarengineering.com
970.219.1602 phone

May 8, 2020

Sean K. Kellar, PE, PTOE

TABLE OF CONTENTS

List of Figures:

TABLE OF CONTENTS (continued)

List of Tables:

Appendices:

1.0 Introduction

The purpose of this Transportation System Impact Study (TSIS) is to identify project traffic generation characteristics, to identify potential traffic related impacts on the adjacent street system, and to develop mitigation measures required for identified traffic impacts. This TSIS is for a proposed event venue at 15293 North 107th Street, Longmont, CO 80534 in Boulder County, Colorado. See Figure 1: Vicinity Map.

Kellar Engineering LLC (KE) has prepared the TSIS to document the results of the project's anticipated traffic conditions in accordance with Boulder County's requirements and to identify projected impacts to the local and regional traffic system.

2.0 Existing Conditions and Roadway Network

The project is located 15293 North 107th Street, Longmont, CO. The public street directly impacted by the project site is US 287. The site is adjacent to the west side of US 287. See Figure 1: Vicinity Map. US 287 is currently striped with: two southbound thru lanes, two northbound thru lanes, a two-way left-turn lane (TWLTL), and approximately 10' wide paved shoulders. The roadway surface of US 287 is concrete pavement and is currently in good condition. This portion of US 287 carries approximately 26,000 vehicles per day (vpd) and has a posted speed of 65 mph.

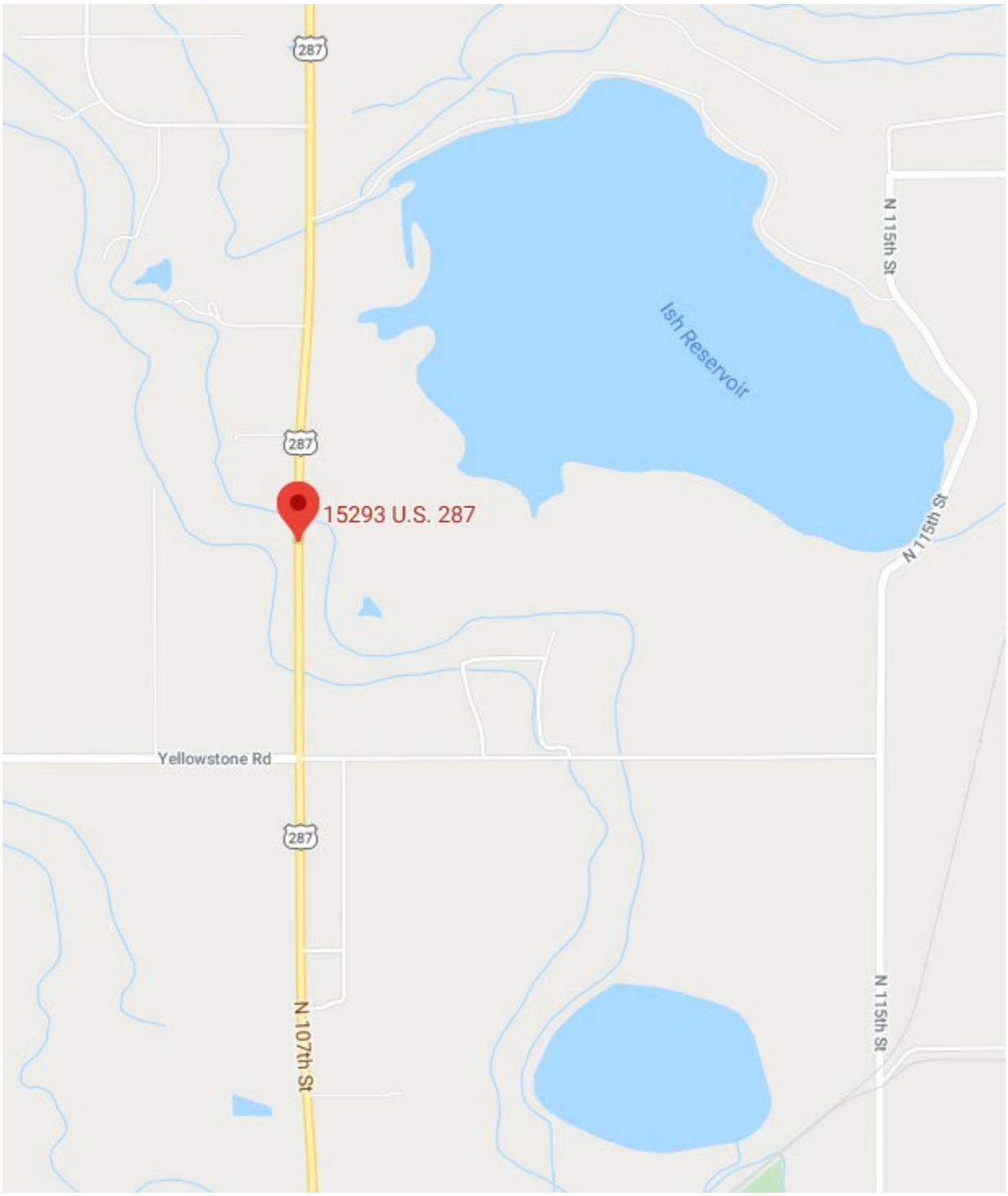
2.1 Nearby Driveways and Sight Distance from Existing Driveways

There are two existing private driveways on the east side of US 287 and one existing local street (Conger Street) on the west side of US 287 north of the project site. The site distance in each direction of US 287 from these existing driveways is acceptable.

2.2 Recent Traffic Volumes

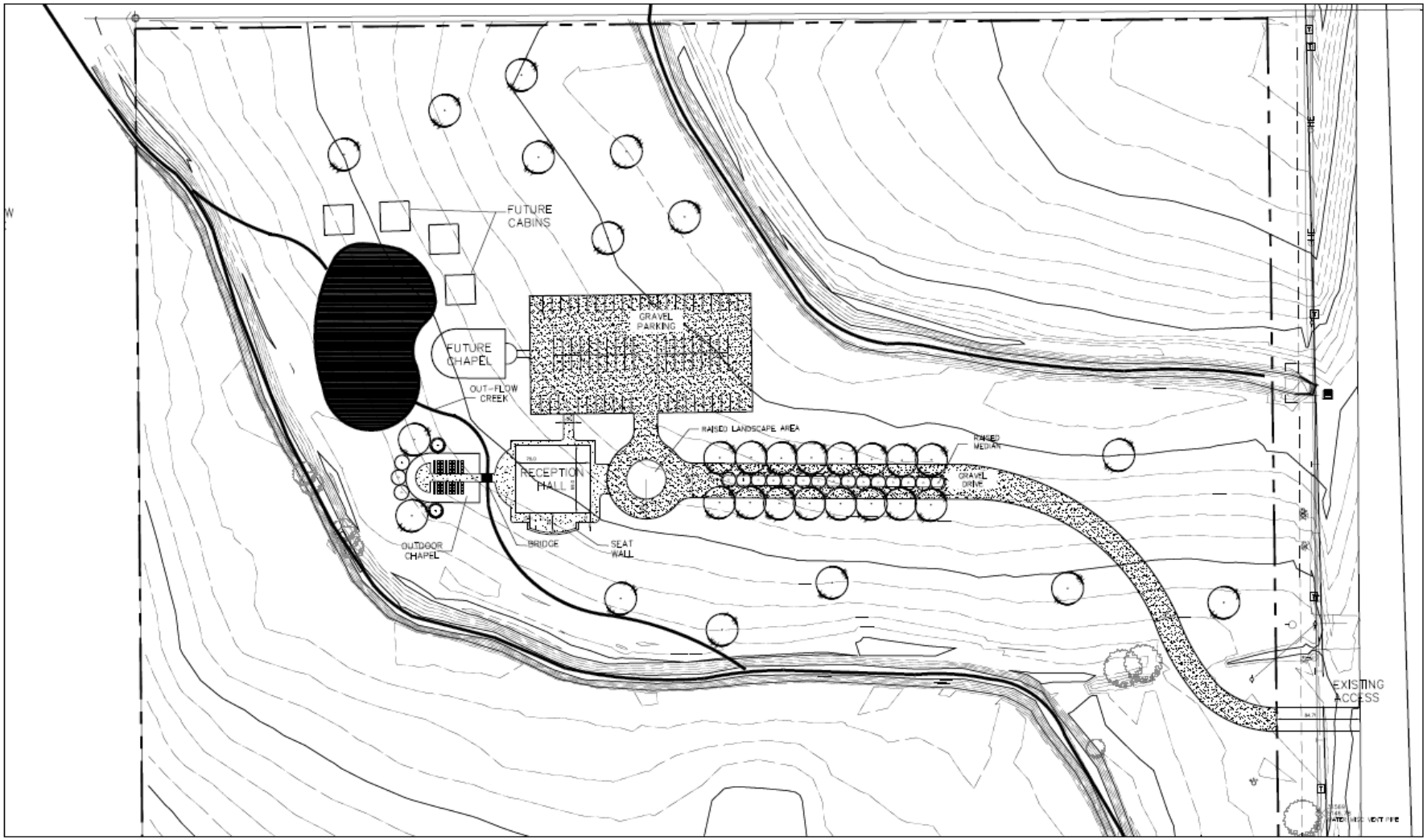
Recent peak hour traffic volume counts were conducted using data collection video cameras. The traffic counts were conducted in 15-minute intervals on Tuesday, 1/28/20 from 7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM. The traffic counts are shown in Figure 3 with the count sheets provided in Appendix A.

Figure 1: Vicinity Map



Google Maps

Figure 2: Site Plan



3.0 Existing Bicycle Facilities

There are no existing bicycle facilities immediately adjacent to the project site. However, US 287 currently has 10' paved shoulders adjacent to the site that can appropriately accommodate bikes.

3.1 Existing Transit Facilities

Currently the closest transit facility is located at the northeast corner of US 287 and Hwy 66 (Westside Crosstown 326). The Park-n-Ride is also located at US 287 and 21st Avenue on the west side of US 287.

3.2 Mode Share

Based upon the project uses and location, mode share is anticipated to be primarily private passenger vehicles.

4.0 Proposed Land Use and Access

The proposed land use is a ~5,900 SF event venue. The property address is: 15293 North 107th Street, Longmont, CO 80504. Full-movement access to the site is proposed from US 287 north of the supply ditch and south of the Upper Highland Ditch on the west side of US 287. See Figure 1: Vicinity Map and Figure 2: Site Plan. The proposed event venue project is anticipated being completed in one phase following all necessary approvals. Future project phases could include a future church/chapel and potentially some future cabins.

4.1 Trip Generation

Site generated traffic estimates are determined through a process known as trip generation. Rates and equations are applied to the proposed land use to estimate traffic generated by the development during a specific time interval. The acknowledged source for trip generation rates is the *Trip Generation Report* published by the Institute of Transportation Engineers (ITE). The Institute of Transportation Engineers' (ITE) Trip Generation Manual, 10th Edition does not provide detailed data on the event venue use associated with the project. As such, KE was able to estimate the peak hour trip generation for this use based upon correspondence with the client.

Events Information:

Guest Count:
Average Event: 125 guests (common)
Minimum Event: 50 (rare)
Maximum Event: 300 guests (rare). To be conservative, the event size of 300 guests was used for this study.

Event Count:
Per Week: Three events per week; Friday, Saturday, Sunday
Per Year: 81 events

Event Time:
Ceremony: 4pm
Reception: 6pm

Based upon information provided by the client, the proposed event venue will typically have 300 people on-site for private gatherings (i.e. weddings). Arrivals and departures will be staggered throughout the duration of each event and car-pooling of approximately 2.5 attendees to vehicle is anticipated. Traffic volumes will vary on the type of event and number of attendees. Anticipated traffic volumes for a typical event are below:

Passenger vehicles: 120 round-trips/day for passenger cars (240 daily trips)
Vendor vehicles: 3 vehicles, one round-trip per day each (6 daily trips)

The vendor vehicles and a portion (~10%) of other passenger cars will arrive before the event's peak entering hour. Additionally, the vendor vehicles and a portion (~10%) of other passenger cars will leave after the event's peak exiting hour. Since events are anticipated on Friday, Saturday, and Sunday evenings, only the Friday evening event would occur during the weekday PM peak hour. Weekend evening events would occur when the traffic volumes on US 287 are lower. Therefore, a typical event is projected to generate approximately 246 average daily trips, and 216 total PM peak hour trips.

Additionally, it is anticipated that the venue space will be used to accommodate church service gatherings on Sunday mornings at 9:00 AM until the separate church/chapel building is constructed at a later phase. Anticipated numbers for the church service gatherings are anticipated to be between 75 to 100 people. To be conservative, 100 guests was used for the church service in this study. At a carpool rate of 2.5 attendees to vehicle, this would result in 40 round-trips/day (80 daily trips) for passenger cars on a Sunday morning. Therefore, the

proposed church use is projected to generate approximately 80 average daily trips, 40 AM peak hour trips entering trips, and 40 AM peak hour exiting trips on a Sunday morning. Please note that events will not occur at the same time as the church services. The church services will be on Sunday mornings and the events (typically weddings, as mentioned above) will be in the afternoons/evenings. See Table 1: Trip Generation.

4.2 Trip Distribution

Distribution of site traffic on the street system was based on the area street system characteristics, existing traffic patterns and volumes, anticipated surrounding development areas, and the proposed access system for the project. The directional distribution of traffic is a means to quantify the percentage of site generated traffic that approaches the site from a given direction and departs the site back to the original source. Figure 6 illustrates the trip distribution used for the project's analysis.

4.3 Traffic Assignment

Traffic assignment was obtained by applying the trip distributions to the estimated trip generation of the development. Figure 7 shows the site generated peak hour traffic assignment.

4.4 Short Range and Long Range Total Peak Hour Traffic

Site generated peak hour traffic volumes were added to the background traffic volumes to represent the estimated traffic conditions for the short range 2022 horizon and the 2040 long range 2040 horizon. These traffic volumes are shown in Figures 8 and Figure 9 respectively. The analysis includes the proposed development for the project plus an increase in background traffic per the growth rates from CDOT OTIS (Online Transportation Information Systems) and the NFRMPO (North Front Range Metropolitan Planning Organization).

5.0 Traffic Operation Analysis

KE's analysis of traffic operations in the site vicinity was conducted to determine the capacity at the identified intersection. The acknowledged source for determining overall capacity is the 2010 Edition of the Highway Capacity Manual.

5.1 Analysis Methodology

Capacity analysis results are listed in terms of level of service (LOS). LOS is a qualitative term describing operating conditions a driver will experience while traveling on a particular street or highway during a specific time interval. LOS ranges from an A (very little delay) to an F (long delays). Since traffic counts were conducted on a weekday, 80% of the AM peak hour thru volumes on US 287 were modeled in Synchro to account for the Sunday AM peak hour traffic for the church service scenario. A description of the level of service (LOS) for signalized and unsignalized intersections from the 2010 Highway Capacity Manual are provided in Appendix B.

5.2 Intersection Operational Analysis

Operational analysis was performed for the short range 2022 horizon. The calculations for this analysis are provided in Appendix E. Using the short range total traffic volumes shown in Figure 8, the US 287 and site access intersection is projected to operate acceptably. See Table 5 for the 2022 Short Range Total Peak Hour Operation.

5.3 Queue Lengths

Vehicle queue lengths were also reviewed to make sure that vehicle queues during large events will not create a negative traffic impact upon the adjacent public street (US 287). Using the highest peak hour numbers (2040 Long Range Total PM peak hour) for projected vehicles in the Synchro model, the vehicle queues (95th percentile queues) at the site access/US 287 intersection are not projected to exceed one vehicle length for the northbound left-turn turn entering the site and are also not projected to exceed 2.5 vehicle lengths for the eastbound left-turn exiting the site. The existing center left-turn lane (TWLTL) in US 287 has sufficient storage length to accommodate this northbound left-turn lane queueing. Additionally, it is recommended that the site access to US 287 be constructed with sufficient pavement width (36' min.) to accommodate separate left-turn and right-turn exits onto US 287. These separate left-turn and right-turn exit lanes should be striped with 12' minimum lane widths. It is also recommended that the separate eastbound left-turn lane at the site access/US 287 intersection be constructed with a minimum storage length of 250' to provide ample on-site vehicle queueing for larger events. This eastbound left-turn lane will have sufficient storage to accommodate left-turning vehicles exiting the site. Auxiliary lane calculations use passenger car equivalents.

Table 1: Trip Generation (ITE Trip Generation, 10th Edition)

ITE Code	Land Use	Size	Average Daily Trips		AM Peak Hour Trips						PM Peak Hour Trips					
			Rate	Total	Rate	% In	In	% Out	Out	Total	Rate	% In	In	% Out	Out	Total
*	Event Venue	300 people	*	246	*	*	0	*	0	0	*	*	108	*	108	216
*	Church	100 people	*	80	*	*	40	*	40	80	*	*	0	*	0	0
Total				**326**			**40**		**40**	**80**			**108**		**108**	**216**

* See Section 9.0 Trip Generation.

Figure 3: Recent Peak Hour Traffic

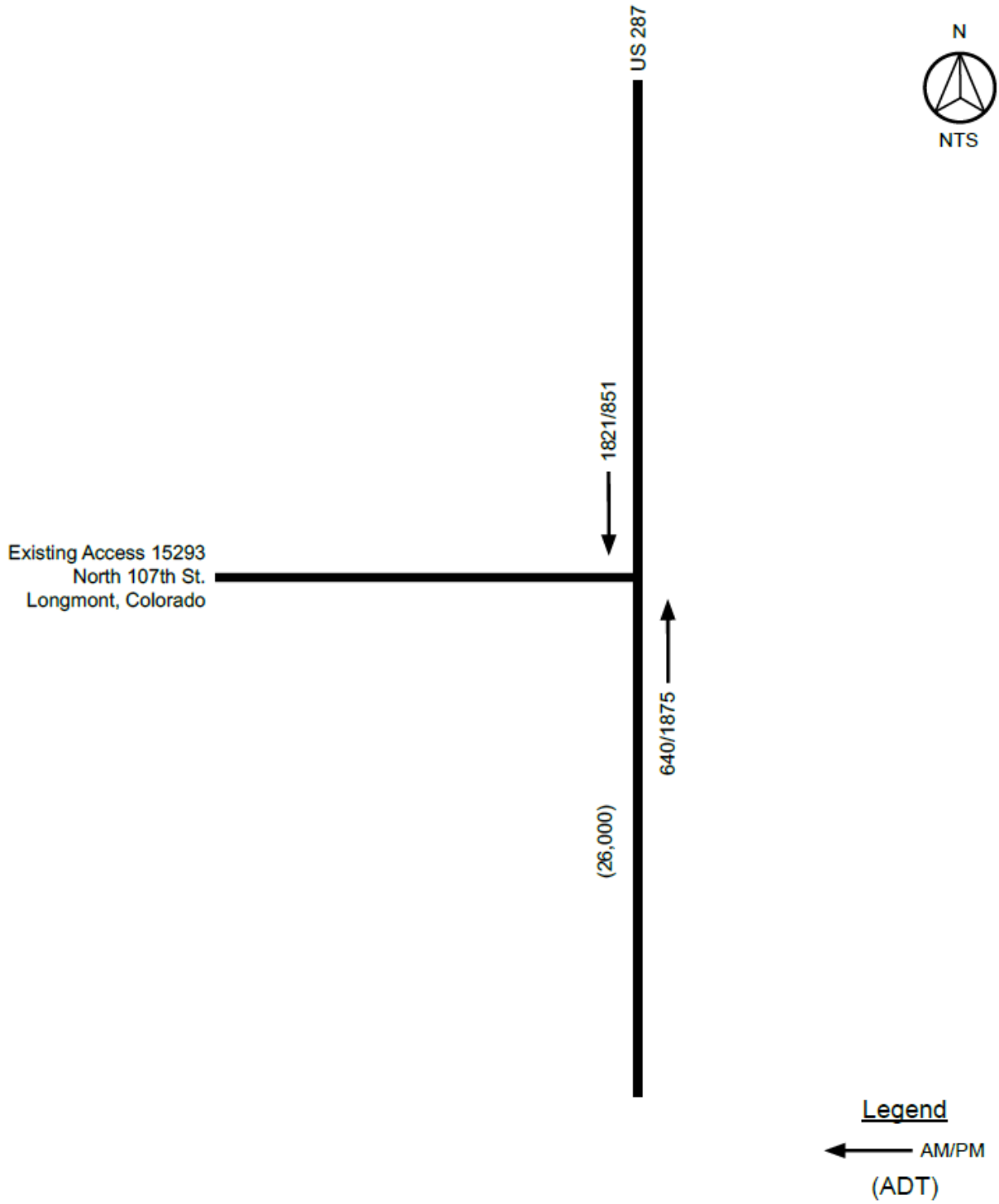


Figure 4: 2022 Background Traffic

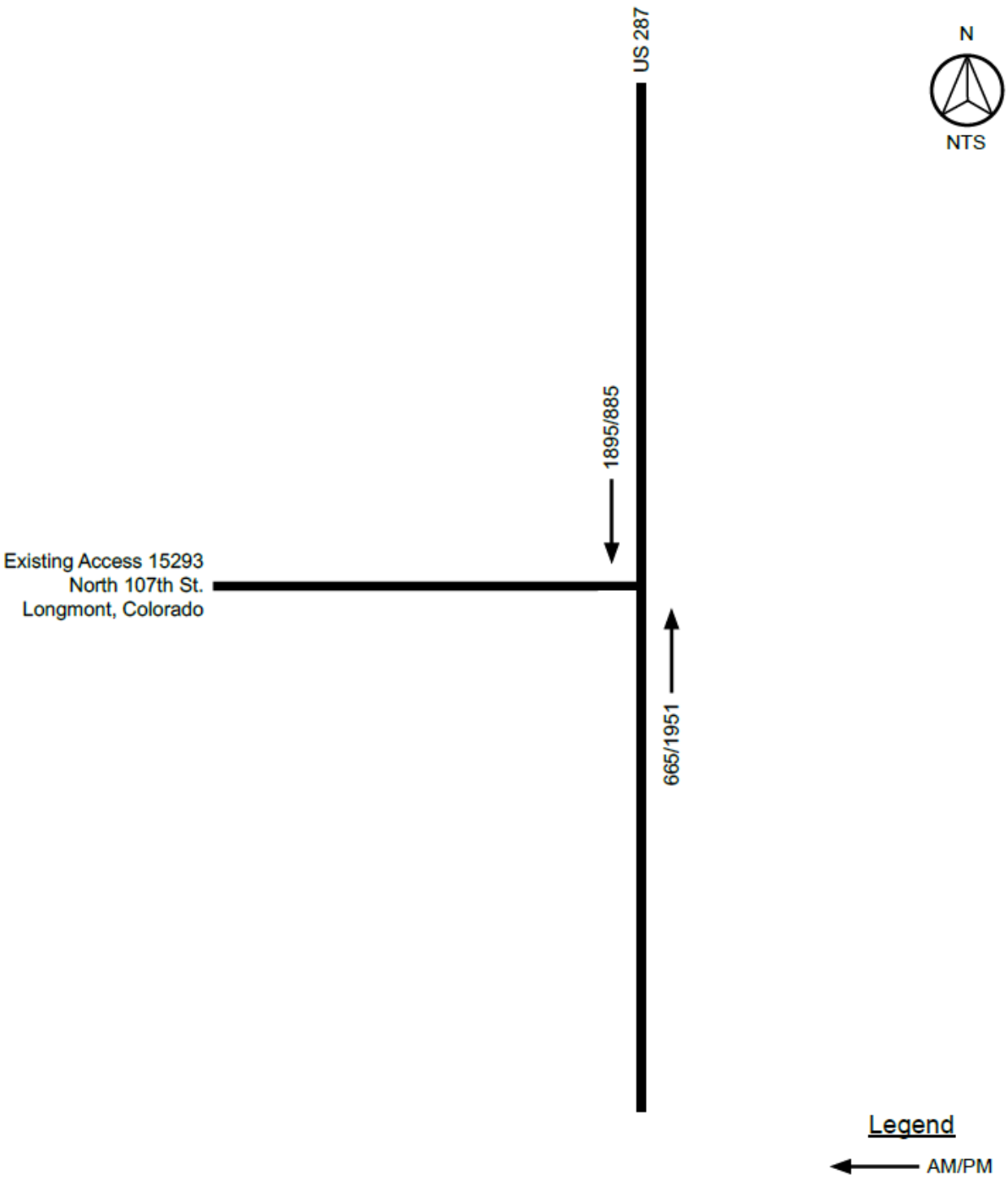


Figure 5: 2040 Background Traffic

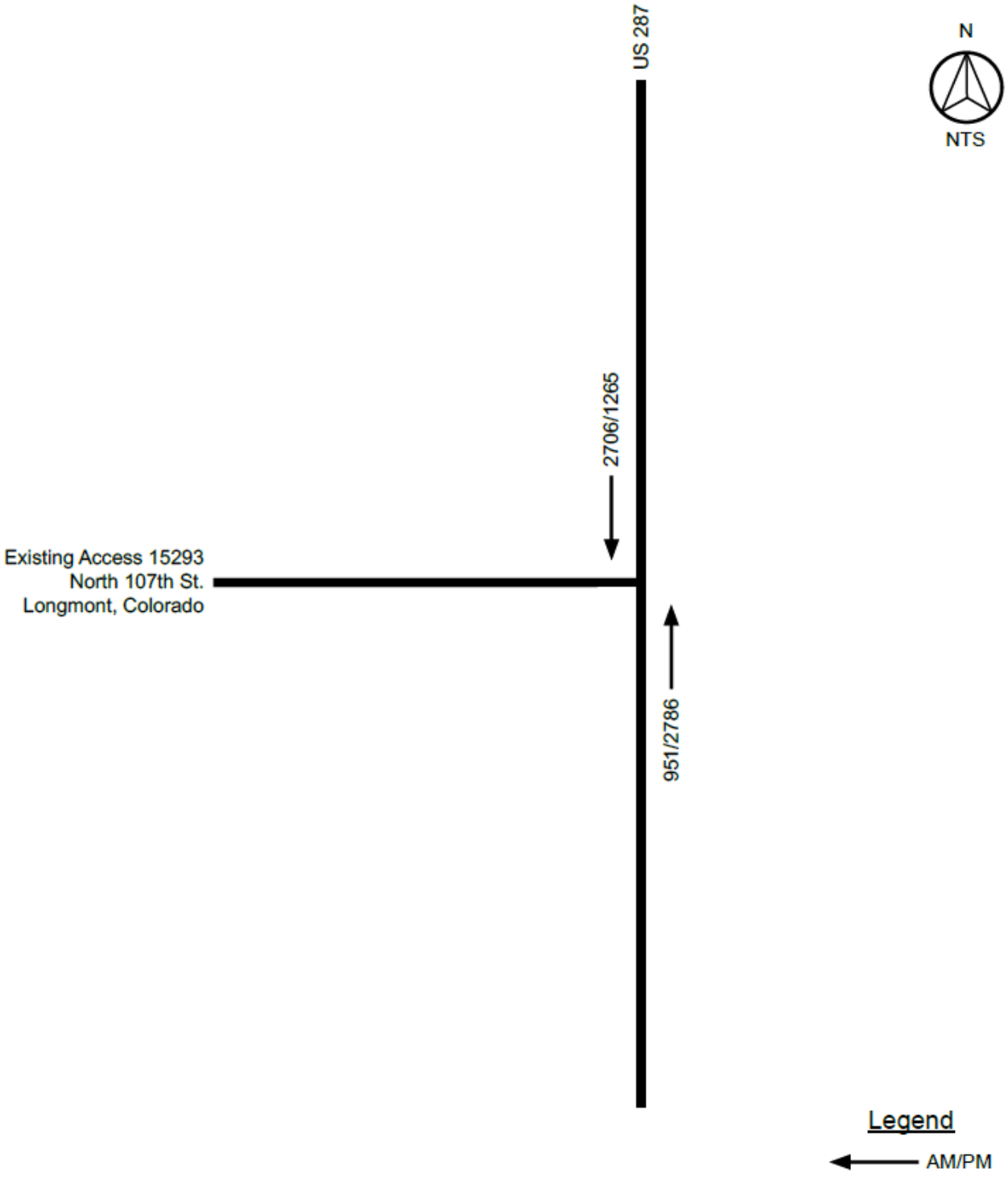


Figure 6: Trip Distribution

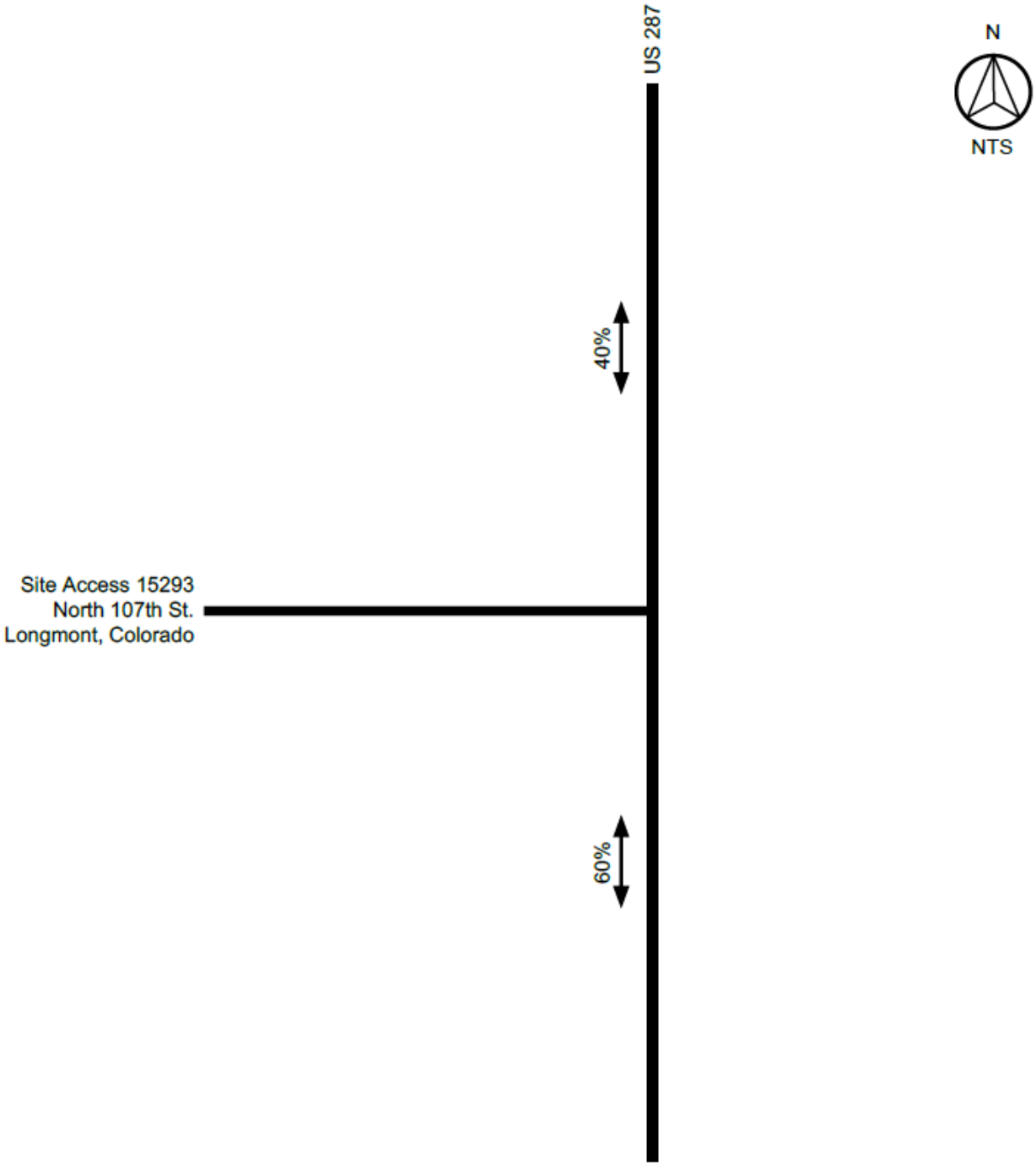


Figure 7: Site Generated Traffic

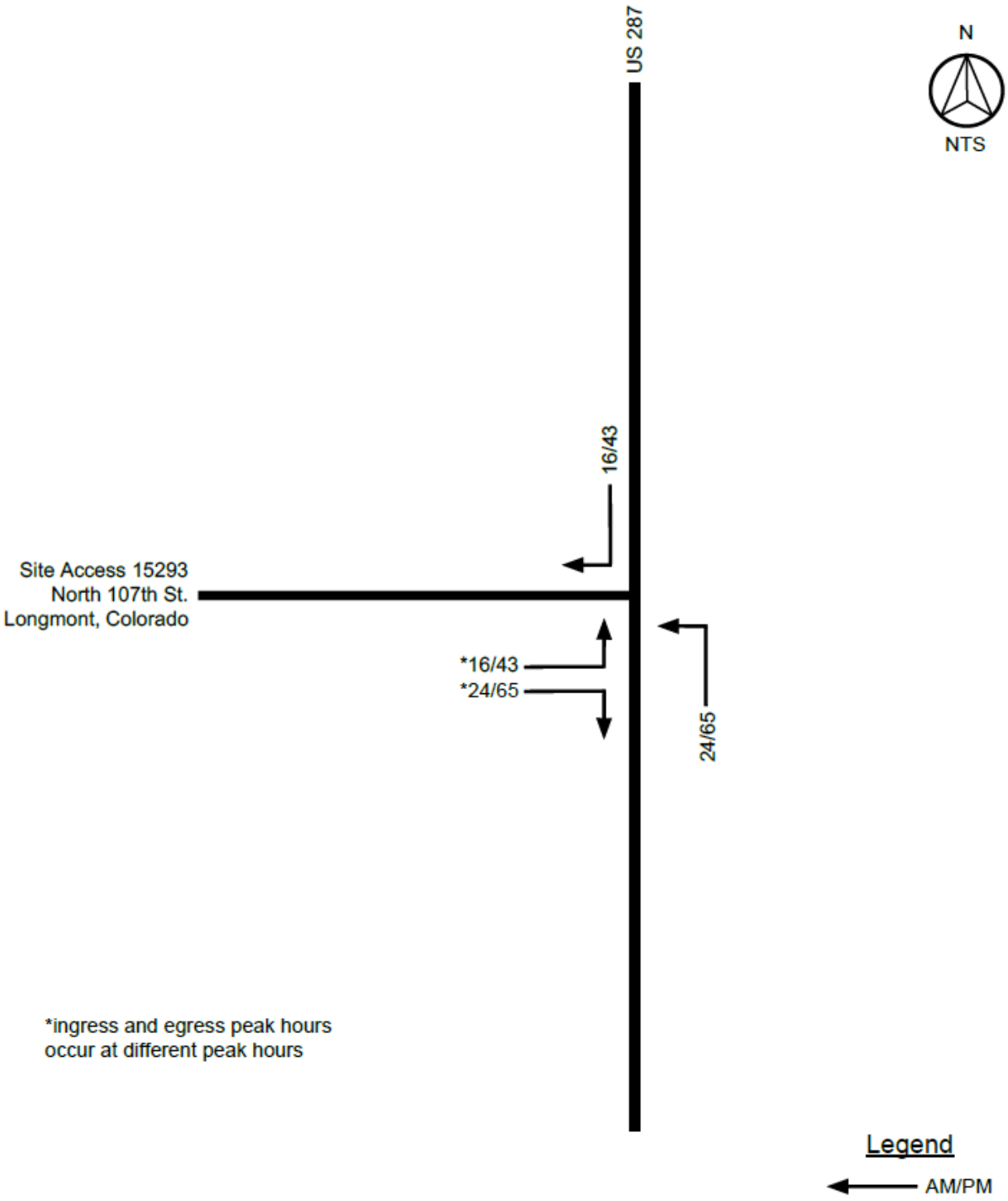


Figure 8: 2022 Short Range Total Traffic

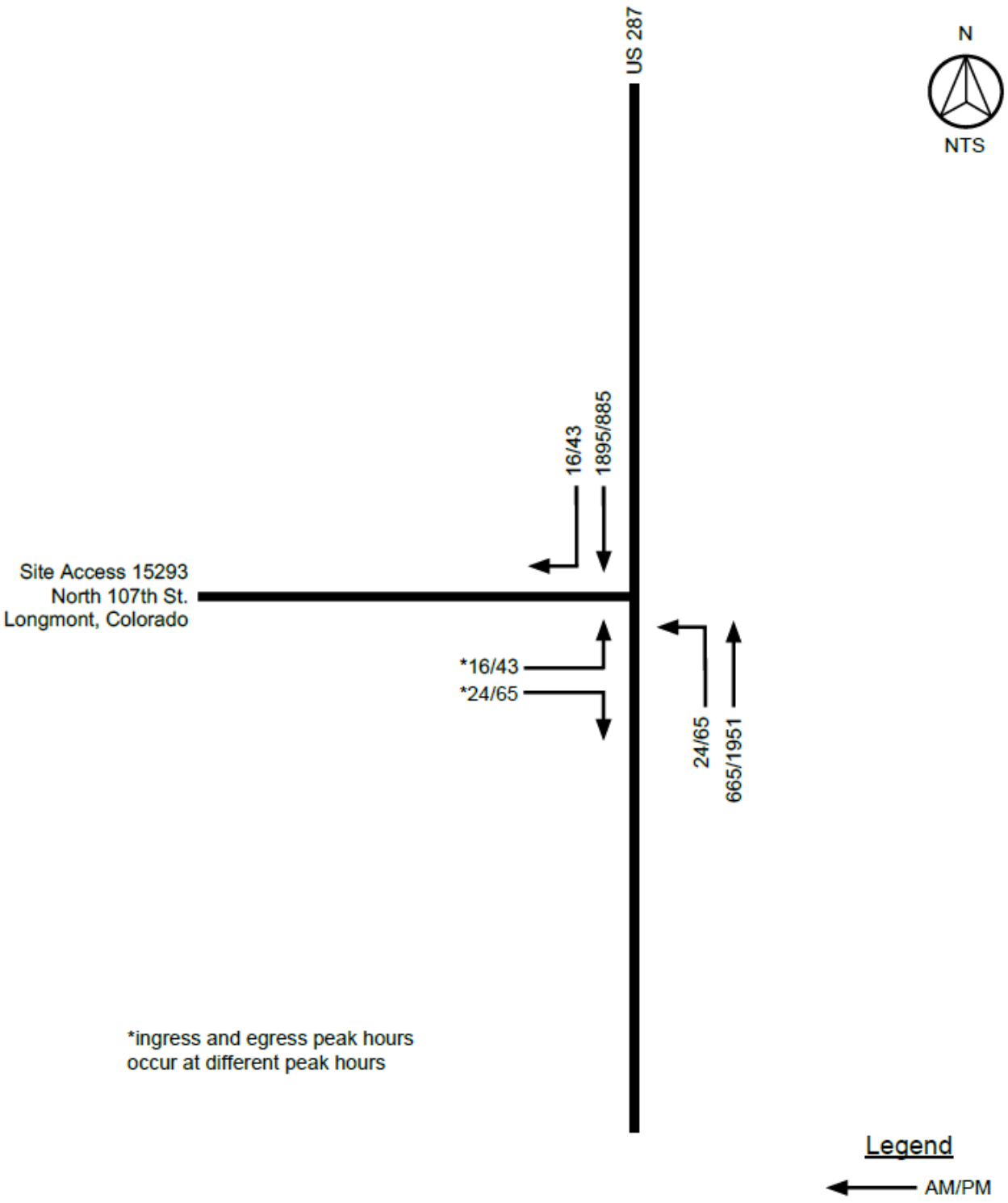


Figure 9: 2040 Long Range Total Traffic

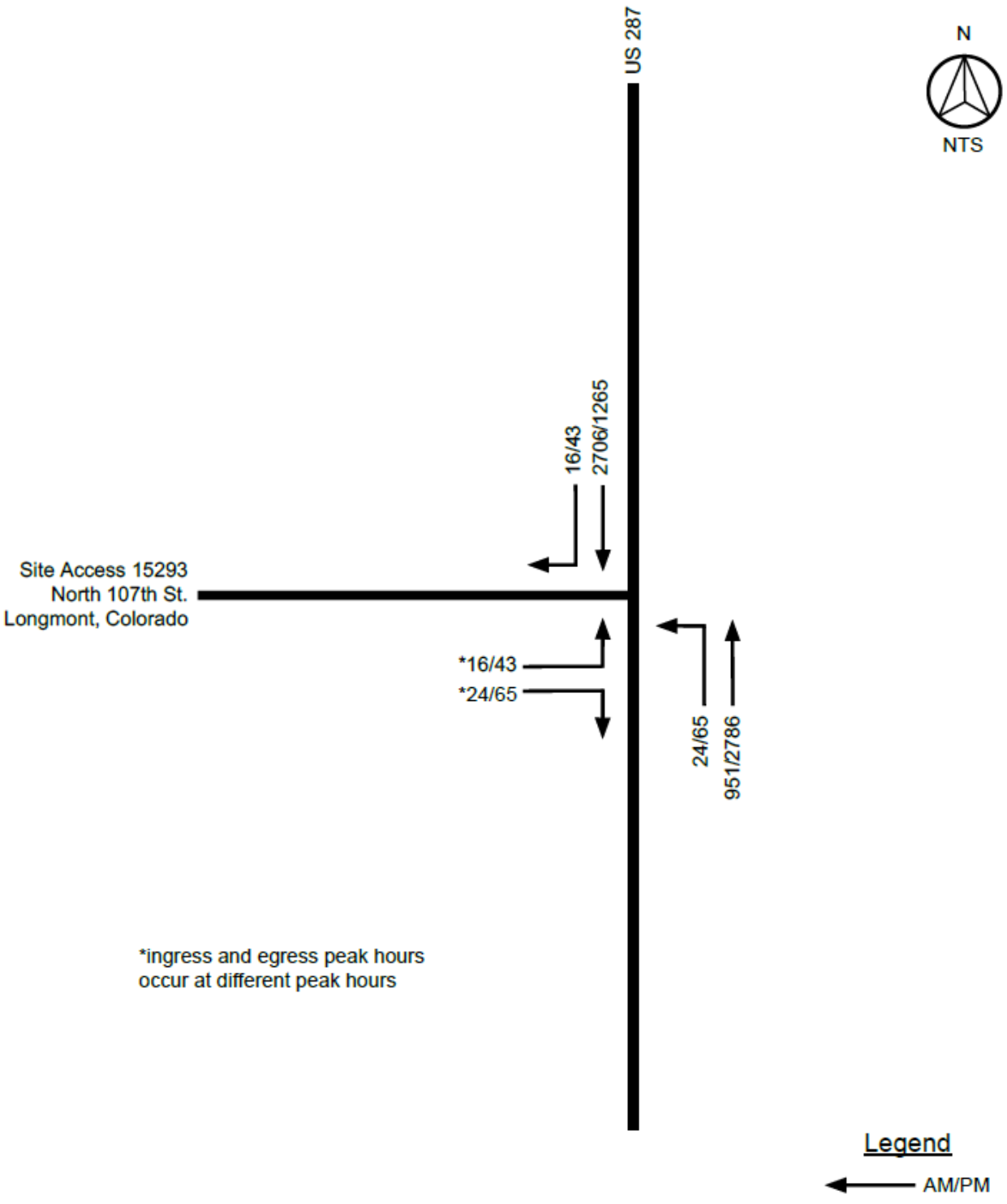


Table 2: Recent Peak Hour Operations

Intersection	Movement	Level of Service (LOS)	
		AM	PM
		LOS	LOS
US 287/Site Access	EB Left/Right	A	A
	EB Approach	A	A
	NB Left	A	A
	NB Thru	A	A
	NB Approach	A	A
	SB Thru	A	A
	SB Right	A	A
	SB Approach	A	A

Table 3: 2022 Background Peak Hour Operations

Intersection	Movement	Level of Service (LOS)	
		AM	PM
		LOS	LOS
US 287/Site Access	EB Left/Right	A	A
	EB Approach	A	A
	NB Left	A	A
	NB Thru	A	A
	NB Approach	A	A
	SB Thru	A	A
	SB Right	A	A
	SB Approach	A	A

Table 4: 2040 Background Peak Hour Operations

Intersection	Movement	Level of Service (LOS)	
		AM	PM
		LOS	LOS
US 287/Site Access	EB Left/Right	A	A
	EB Approach	A	A
	NB Left	A	A
	NB Thru	A	A
	NB Approach	A	A
	SB Thru	A	A
	SB Right	A	A
	SB Approach	A	A

Table 5: 2022 Short Range Total Peak Hour Operations

Intersection	Movement	Level of Service (LOS)	
		AM	PM
		LOS	LOS
US 287/Site Access	EB Left	E	E
	EB Right	C	B
	EB Approach	D	D
	NB Left	B	B
	NB Thru	A	A
	NB Approach	A	A
	SB Thru	A	A
	SB Right	A	A
	SB Approach	A	A

Table 6: 2040 Long Range Total Peak Hour Operations

Intersection	Movement	Level of Service (LOS)	
		AM	PM
		LOS	LOS
US 287/Site Access	EB Left	F (112.9 sec)	F (97.2 sec)
	EB Right	D	C
	EB Approach	F (60.9 sec)	E
	NB Left	C	B
	NB Thru	A	A
	NB Approach	A	A
	SB Thru	A	A
	SB Right	A	A
	SB Approach	A	A

6.0 Findings

Based upon the analysis in this study, full-movement access to US 287 can be safely provided for the project from the existing roadway improvements on US 287. The northbound left-turn can be made using the existing center left-turn lane (TWLTL). Additionally, the southbound right-turn movement can be accommodated by either using the ~10' wide paved shoulder or by striping this existing paved shoulder as a southbound right-turn lane. Additionally, the southbound acceleration lane at the site access can also be accommodated by striping the existing paved shoulder as a southbound acceleration lane. Events larger than 125 guests can be accommodated appropriately with manual traffic control by police officers (wearing proper PPE) or by certified traffic control technicians directing traffic. The findings of the TIS are summarized below:

- The proposed project is anticipated to generate a maximum of approximately 326 daily trips, 80 AM total peak hour trips, and 216 PM total peak hour trips.
- The project complies with Boulder County and CDOT's levels of service (LOS) requirements for traffic. The site access to US 287 will operate acceptably and comply with the intersection LOS requirements with the development of the project and background traffic in the long range future.
- The traffic generated by the project can be accommodated by the existing public street improvements adjacent to the project site.
- It is recommended that the site access to US 287 be constructed with sufficient pavement width (36' min.) to accommodate separate left-turn and right-turn exits onto US 287. These separate left-turn and right-turn exit lanes should be striped with 12' minimum lane widths. It is also recommended that the separate eastbound left-turn lane at the site access/US 287 intersection be constructed with a minimum storage length of 250' to provide sufficient on-site vehicle queueing for larger events.
- It is also recommended that the site access to US 287 be lined up with the access across US 287 to eliminate an offset access scenario.
- It is recommended that events larger than 125 guests have on-site manual traffic control by police officers (wearing proper PPE) or by certified traffic control technicians directing traffic to assist with traffic circulation.

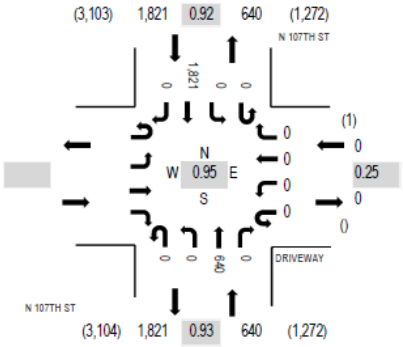
APPENDICES:

Appendix A: Traffic Counts

All Traffic Data Services Inc.
(303) 216-2439
www.alltrafficdata.net

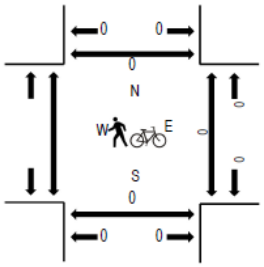
Location: 1 N 107TH ST & DRIVEWAY AM
Date: Tuesday, January 28, 2020
Peak Hour: 07:00 AM - 08:00 AM
Peak 15-Minutes: 07:30 AM - 07:45 AM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



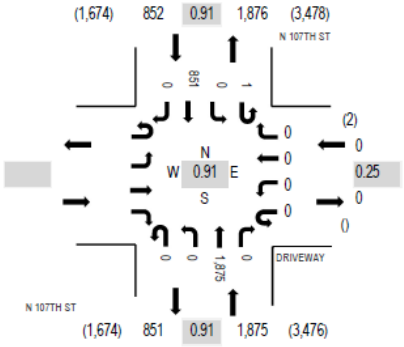
Traffic Counts

Interval Start Time	DRIVEWAY Eastbound				DRIVEWAY Westbound				N 107TH ST Northbound				N 107TH ST Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM					0	0	0	0	0	0	155	0	0	0	414	0	569	2,461	0	0	0	
7:15 AM					0	0	0	0	0	0	154	0	0	0	485	0	639	2,402	0	0	0	
7:30 AM					0	0	0	0	0	0	156	0	0	0	494	0	650	2,240	0	0	0	
7:45 AM					0	0	0	0	0	0	175	0	0	0	428	0	603	2,068	0	0	0	
8:00 AM					0	0	0	0	0	0	156	0	0	0	354	0	510	1,915	0	0	0	
8:15 AM					0	0	0	0	0	0	158	0	0	0	319	0	477		0	0	0	
8:30 AM					0	1	0	0	0	0	162	0	0	0	315	0	478		0	0	0	
8:45 AM					0	0	0	0	0	0	156	0	0	0	294	0	450		0	0	0	
Count Total					0	1	0	0	0	0	1,272	0	0	0	3,103	0	4,376		0	0	0	
Peak Hour					0	0	0	0	0	0	640	0	0	0	1,821	0	2,461		0	0	0	

All Traffic Data
Services Inc.
(303) 216-2439
www.alltrafficdata.net

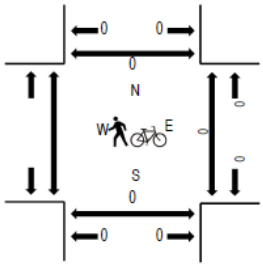
Location: 1 N 107TH ST & DRIVEWAY PM
Date: Tuesday, January 28, 2020
Peak Hour: 04:45 PM - 05:45 PM
Peak 15-Minutes: 05:15 PM - 05:30 PM

Peak Hour - All Vehicles



Note: Total study counts contained in parentheses.

Peak Hour - Pedestrians/Bicycles on Crosswalk



Traffic Counts

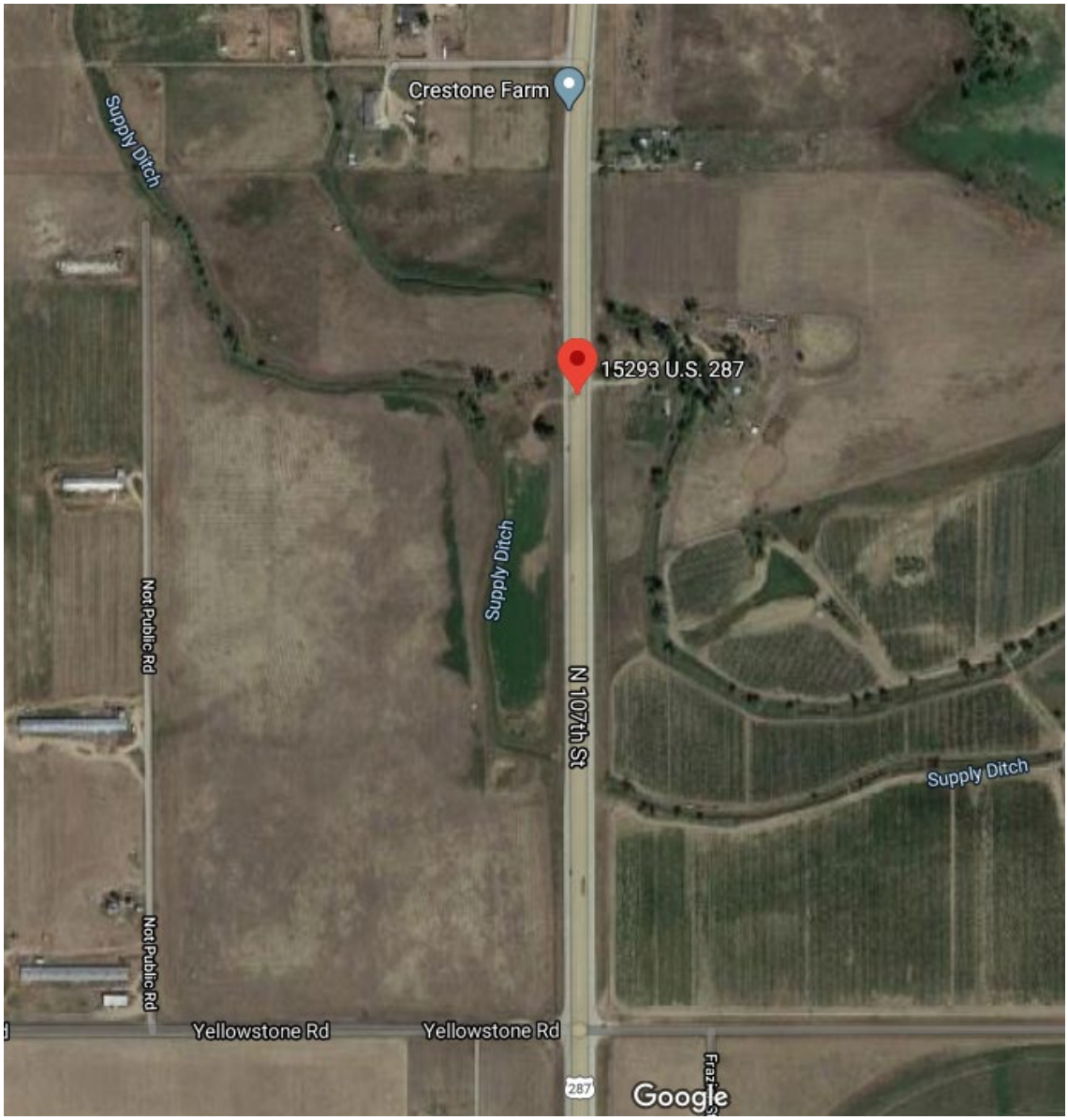
Interval Start Time	Eastbound				DRIVEWAY Westbound				N 107TH ST Northbound				N 107TH ST Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM					0	0	0	1	0	0	376	0	0	0	188	0	565	2,486	0	0	0	0
4:15 PM					0	0	0	0	0	0	414	0	0	0	236	0	650	2,569	0	0	0	0
4:30 PM					0	0	0	0	0	0	417	0	0	0	201	0	618	2,670	0	0	0	0
4:45 PM					0	0	0	0	0	0	460	0	0	0	193	0	653	2,727	0	0	0	0
5:00 PM					0	0	0	0	0	0	443	0	0	0	205	0	648	2,666	0	0	0	0
5:15 PM					0	0	0	0	0	0	516	0	1	0	234	0	751		0	0	0	0
5:30 PM					0	0	0	0	0	0	456	0	0	0	219	0	675		0	0	0	0
5:45 PM					0	1	0	0	0	0	394	0	0	0	197	0	592		0	0	0	0
Count Total					0	1	0	1	0	0	3,476	0	1	0	1,673	0	5,152		0	0	0	0
Peak Hour					0	0	0	0	0	0	1,875	0	1	0	851	0	2,727		0	0	0	0

Appendix B: Level of Service (LOS) Table

Level of Service Definitions

Level of Service (LOS)	Signalized Intersection Average Total Delay (sec/veh)	Unsignalized Intersection Average Total Delay (sec/veh)
A	≤ 10	≤ 10
B	> 10 and ≤ 20	> 10 and ≤ 15
C	> 20 and ≤ 35	> 15 and ≤ 25
D	> 35 and ≤ 55	> 25 and ≤ 35
E	> 55 and ≤ 80	> 35 and ≤ 50
F	> 80	> 50

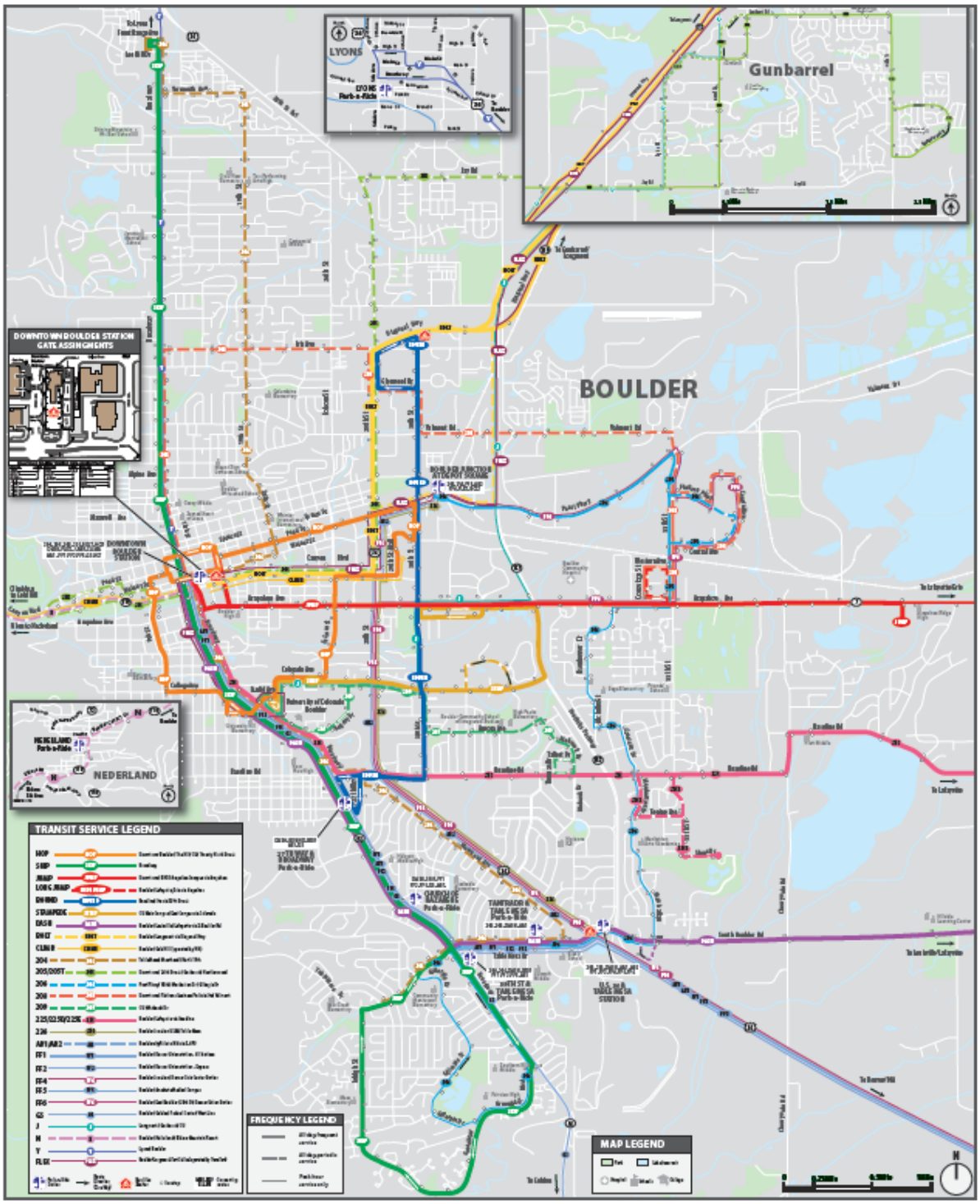
Appendix C: Aerial Image (Google)



Street View (Looking North)

Google Maps

Appendix D: Transit Map



Appendix E: HCM 2010 Calculations (Synchro)

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	640	1821	0
Future Vol, veh/h	0	0	0	640	1821	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	800	-	-	800
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	674	1917	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2254	959	1917	0	-	0
Stage 1	1917	-	-	-	-	-
Stage 2	337	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	35	257	305	-	-	-
Stage 1	101	-	-	-	-	-
Stage 2	695	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	35	257	305	-	-	-
Mov Cap-2 Maneuver	87	-	-	-	-	-
Stage 1	101	-	-	-	-	-
Stage 2	695	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	305	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	1875	851	0
Future Vol, veh/h	0	0	0	1875	851	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	800	-	-	800
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	2060	935	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1965	468	935	0	-	0
Stage 1	935	-	-	-	-	-
Stage 2	1030	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	55	542	728	-	-	-
Stage 1	342	-	-	-	-	-
Stage 2	305	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	55	542	728	-	-	-
Mov Cap-2 Maneuver	172	-	-	-	-	-
Stage 1	342	-	-	-	-	-
Stage 2	305	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	728	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	665	1895	0
Future Vol, veh/h	0	0	0	665	1895	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	800	-	-	800
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	700	1995	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2345	998	1995	0	-	0
Stage 1	1995	-	-	-	-	-
Stage 2	350	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	30	242	284	-	-	-
Stage 1	91	-	-	-	-	-
Stage 2	684	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	30	242	284	-	-	-
Mov Cap-2 Maneuver	78	-	-	-	-	-
Stage 1	91	-	-	-	-	-
Stage 2	684	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	284	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	1951	885	0
Future Vol, veh/h	0	0	0	1951	885	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	800	-	-	800
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	0	2144	973	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2045	487	973	0	-	0
Stage 1	973	-	-	-	-	-
Stage 2	1072	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	49	526	704	-	-	-
Stage 1	327	-	-	-	-	-
Stage 2	290	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	49	526	704	-	-	-
Mov Cap-2 Maneuver	163	-	-	-	-	-
Stage 1	327	-	-	-	-	-
Stage 2	290	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	0	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	704	-	-	-	-
HCM Lane V/C Ratio	-	-	-	-	-
HCM Control Delay (s)	0	-	0	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	-	-	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	16	24	24	532	1516	16
Future Vol, veh/h	16	24	24	532	1516	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	200	0	800	-	-	800
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	25	25	560	1596	17

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1926	798	1613	0	-	0
Stage 1	1596	-	-	-	-	-
Stage 2	330	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	58	329	400	-	-	-
Stage 1	152	-	-	-	-	-
Stage 2	701	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	54	329	400	-	-	-
Mov Cap-2 Maneuver	121	-	-	-	-	-
Stage 1	143	-	-	-	-	-
Stage 2	701	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	25.9	0.6	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	400	-	121	329	-	-
HCM Lane V/C Ratio	0.063	-	0.139	0.077	-	-
HCM Control Delay (s)	14.6	-	39.5	16.9	-	-
HCM Lane LOS	B	-	E	C	-	-
HCM 95th %tile Q(veh)	0.2	-	0.5	0.2	-	-

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	43	65	65	1951	885	43
Future Vol, veh/h	43	65	65	1951	885	43
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	250	0	800	-	-	800
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	47	71	71	2144	973	47

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2187	487	1020	0	-	0
Stage 1	973	-	-	-	-	-
Stage 2	1214	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	~ 39	526	676	-	-	-
Stage 1	327	-	-	-	-	-
Stage 2	244	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 35	526	676	-	-	-
Mov Cap-2 Maneuver	137	-	-	-	-	-
Stage 1	293	-	-	-	-	-
Stage 2	244	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	25.5	0.4	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	676	-	137	526	-	-
HCM Lane V/C Ratio	0.106	-	0.345	0.136	-	-
HCM Control Delay (s)	11	-	44.5	12.9	-	-
HCM Lane LOS	B	-	E	B	-	-
HCM 95th %tile Q(veh)	0.4	-	1.4	0.5	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	16	24	24	761	2167	16
Future Vol, veh/h	16	24	24	761	2167	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	200	0	800	-	-	800
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	25	25	801	2281	17

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2732	1141	2298	0	-	0
Stage 1	2281	-	-	-	-	-
Stage 2	451	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	~ 16	194	216	-	-	-
Stage 1	63	-	-	-	-	-
Stage 2	609	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 14	194	216	-	-	-
Mov Cap-2 Maneuver	49	-	-	-	-	-
Stage 1	56	-	-	-	-	-
Stage 2	609	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	60.9	0.7	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	216	-	49	194	-	-
HCM Lane V/C Ratio	0.117	-	0.344	0.13	-	-
HCM Control Delay (s)	23.9	-	112.9	26.3	-	-
HCM Lane LOS	C	-	F	D	-	-
HCM 95th %tile Q(veh)	0.4	-	1.2	0.4	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	43	65	65	2786	1265	43
Future Vol, veh/h	43	65	65	2786	1265	43
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	200	0	800	-	-	800
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	45	68	68	2933	1332	45

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2935	666	1377	0	-	0
Stage 1	1332	-	-	-	-	-
Stage 2	1603	-	-	-	-	-
Critical Hdwy	6.84	6.94	4.14	-	-	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	2.22	-	-	-
Pot Cap-1 Maneuver	~ 12	402	494	-	-	-
Stage 1	211	-	-	-	-	-
Stage 2	150	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 10	402	494	-	-	-
Mov Cap-2 Maneuver	80	-	-	-	-	-
Stage 1	182	-	-	-	-	-
Stage 2	150	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	48.2	0.3	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	494	-	80	402	-	-
HCM Lane V/C Ratio	0.139	-	0.566	0.17	-	-
HCM Control Delay (s)	13.5	-	97.2	15.8	-	-
HCM Lane LOS	B	-	F	C	-	-
HCM 95th %tile Q(veh)	0.5	-	2.5	0.6	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

KELLAR ENGINEERING

May 8, 2020

CDOT
Tim Bilobran, Region 4
timothy.bilobran@state.co.us
970-302-4022

RE: Boulder County Event Venue Response to Traffic Study Comments

Kellar Engineering (KE) comment responses in **blue** font.

- Comment. Page 8 on events size- How many events in a year are the 300 "large/rare" events? For event centers and other seasonal venues, CDOT uses the traffic count of the 30th busiest day. Just averaging the number of events with the guest list isn't necessarily sufficient. The study will need to be updated with best guesses as to the number of each event. Secondly, the TIS implies that it is only calculating trips in the rush hour peak of Hwy 287 for the peak hour. That is incorrect per the CDOT TIS guidelines. We need to look at the peak hour of the event center, regardless of what day/time that is. Churches for instance get a peak hour applied on Sunday morning, not Friday rush hour. Thirdly, the church services planned here play into the "What is the 30th busiest peak hour of the entire year?" I referenced above.

Response: The traffic study has been revised to account for the 30th busiest day. The traffic study now analyzes the event size of 300 guests and an indoor church service of 100 guests.

- Comment. Page 15 on directional skew- Region 4 refers to apply more of a gravity model for directional skew. Longmont/Boulder/I-25 to the south is more populous than Berthoud/Loveland/I-25 to the north. Please change the directional skew to a 60/40% split with 60% arriving from the south. CDOT feels that is a more representative split.

Response: The traffic study has been updated with 60%/40% split with 60% arriving from the south.

- Comment. Page 17- this graphic is confusing, which is moreso a factor of the methodology of TIS in general. I understand Mr. Kellar is showing me the hour when people arrive for the event. However, that is the peak hour for only some of the turning movements. There is no graphic showing the peak hour for the egress movements. The numbers need to be reported to evaluate the need for a southbound acceleration lane. The northbound left

turns out of the facility already have the TWLTL. Please have a separate graphic included showing the egress hour after the event OR just include them in the same graphic with a note indicating that the ingress and egress peak hours are actually different hours.

Response: The graphic has been updated accordingly in the traffic study showing the ingress and egress peak hours occur at different hours.

- Comment. Region 4 now double-checks with all traffic engineers that the numbers they're reporting with regards to auxiliary lane requirements are in passenger car equivalents. Neither of these land uses generate many large vehicles so I don't think this will be too much of a heartburn for your client but please have Mr. Kellar adjust the figures (if needed) and add a sentence indicating the aux. lane calculations use passenger car equivalents.

Response: This has been reviewed and the auxiliary lane requirements are in passenger car equivalents.

- Comment. With redevelopment all factors are on the table including access location. The site plan indicates your client intends to keep the access in the same location. However, there is a pounced access across Hwy 287 slightly to the north which creates an offset access scenario. This scenario is less safe than a perfect 4-way access point. As such, CDOT requires the access to the event center shift ever so slightly to the north to match the location of the existing access. A brief photo appears beneath my signature.

Response: The access to Hwy 287 has been shifted to eliminate the offset access scenario.

If you have any questions, please do not hesitate to contact me at (970) 219-1602 or skellar@kellarengineering.com.

Respectfully,

Kellar Engineering LLC

Sean K. Kellar, PE, PTOE
Colorado PE #38650

CAPITAL STOCK $20,000. | Incorporated Under the Laws of the State of Colorado | SHARES $50 EACH

THE SUPPLY IRRIGATING DITCH COMPANY

LONGMONT, COLORADO

This Certifies That - Shane Walter and Courtney B. Walter and Scott Walter as Tenants in Common -

is the owner of - One - Share in the Capital Stock of The Supply Irrigating Ditch Co., transferable upon surrender of this certificate.

It is hereby stated that, by virtue of its by-laws (and / or its articles of incorporation), the right to a lien upon the share or shares of stock, represented by this certificate issued by said corporation, for any assessments levied by or any other indebtedness that may at any time be due the corporation on account of such stock, is expressly reserved in its favor; and that there shall be no transfer and the transfer is restricted of the share or shares of stock hereby represented until all such assessments and indebtedness due at the time of said transfer are p

IN TESTIMONY WHEREOF, The President and Secretary have hereunto set their hands this 2nd day of October, 2017 20__

No. 2514

Secretary. Michael Lythgoe President.

CAPITAL STOCK $20,000. | Incorporated Under the Laws of the State of Colorado | SHARES $50 EACH

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IN TESTIMONY WHEREOF, The President and Secretary have hereunto set their hands this 2nd day of October, 2017 20__

No. 2515

Secretary. Michael Lythgoe President.

Jubilee Acres
Ecological Assessment-
Vegetation, Wildlife, Wetlands, Special Status Species

Prepared For:

Planscapes
980 Norway Maple Drive
Loveland, Colorado 80538

Prepared By:

Wildland Consultants, Inc.
1001 Jefferson Drive
Berthoud, CO 80513

May 2020

Table of Contents

Jubilee Acres**: Ecological Assessment- Vegetation, Wildlife, Wetlands, Special Status Species**

1.0 Introduction

The Jubilee Acres site is located in rural Boulder County, just south of the Larimer County line. The site is along the east side of Highway 287, north of Yellowstone Road. The Biologic Assessment area includes approximately 36+- acres (Figure 1). Open space, agricultural lands, and rural residential uses occur around the site. The site was recently used for agriculture (alfalfa and grass hay). The Upper Highland Ditch and Supply Ditch run through the site.

Wildland Consultants, Inc. (WCI) completed an Ecological Assessment of the site to determine if the project area supports important plant communities, wetlands, important wildlife habitat, potential habitat for special status species. The Ecological Assessment was written to provide planners information as part of the Boulder County review process for the site via Sections 4-804 and 7-1700 of the Boulder County Land Use Code. Eric Berg of WCI completed a field review and literature/GIS review to complete this assessment. Mr. Berg is a Certified Wildlife Biologist and Certified Professional Wetland Scientist with over 25 years of experience working in Colorado and the Rocky Mountain west.

Attachment A includes photos that show project details.

Figure 1. Study Area, Jubilee Acres.

2.0 Site Description, Vegetation, Wildlife

WCI completed a field review of the site in early May 2020. A formal wetland delineation was not completed. No surveys for special status species were completed. The field review was designed to identify potential ecological and biological issues that may need to be addressed as the project is developed.

2.1 General Site Description and Plant Communities

The dominant existing land-use on the project site includes agricultural land (used for alfalfa and grass hay). There are no native plant communities present on the site. Dominant site vegetation includes seeded hayfields (alfalfa, smooth brome, orchard grass, musk thistle, Canada thistle, curly dock), weedy areas that are not farmed (smooth brome, cheatgrass, whitetop, Canada thistle), and narrow riparian/wetland areas along the 2 ditches. Figure 2 shows the approximate boundaries of vegetation types on the site. The northern section of the site includes areas mapped as agricultural lands of national, statewide and local importance by Boulder County (Boulder County 2020)(Figure 3). Based on Boulder County GIS mapping the site does not support: Natural Landmark or Natural Areas; Significant Natural Communities; Rare Plant Areas;

Mapped Wetland or Riparian Areas (note: the field review did locate these on the site); or High Biodiversity Areas (Boulder County 2020). Attachment A includes site photos that show current site conditions.

Figure 2. Site Inventory Map, Jubilee Acres Project

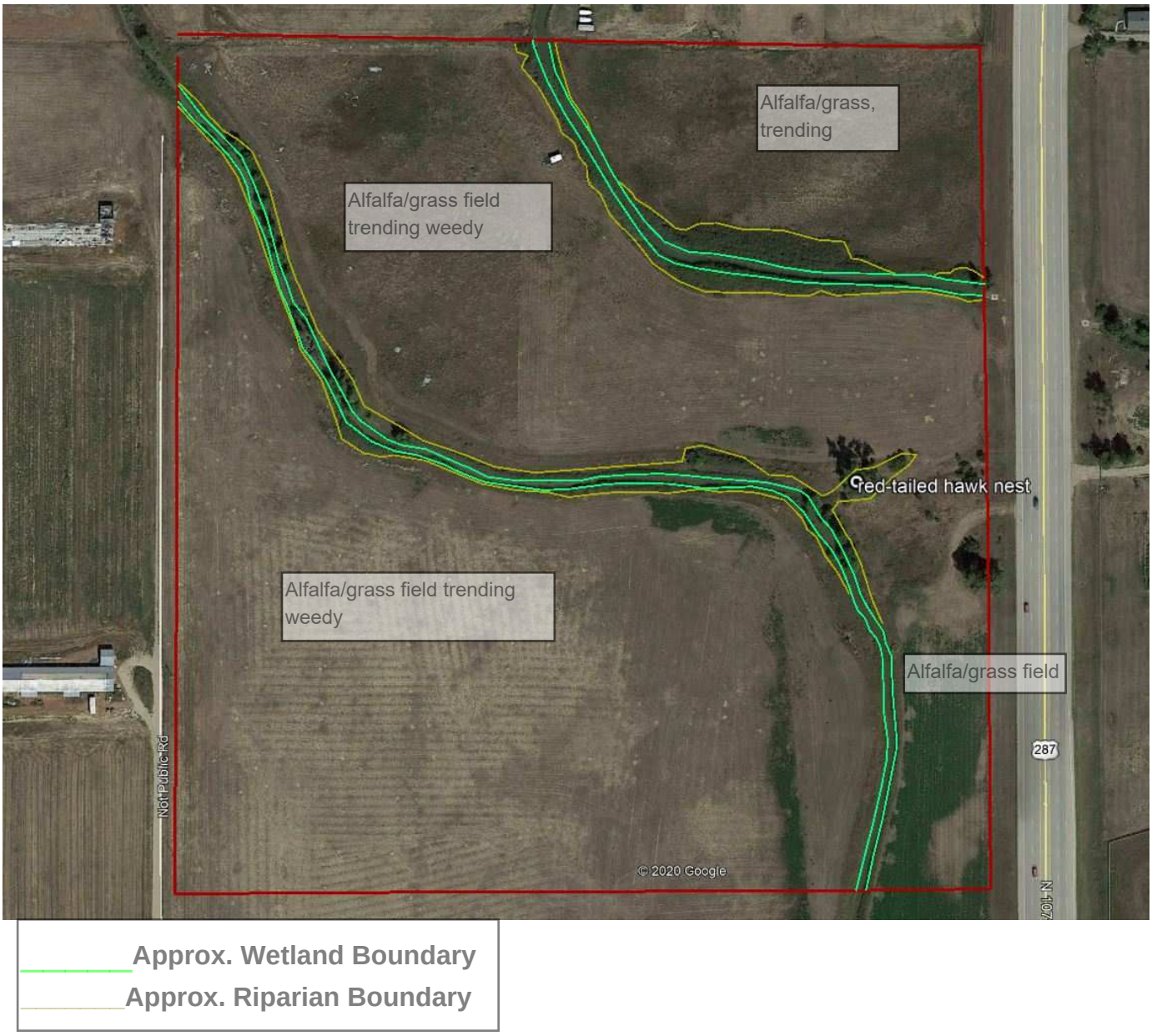


Figure 3. Agricultural lands of Statewide and National Importance.

2.2 Wetlands and Waters of the United States

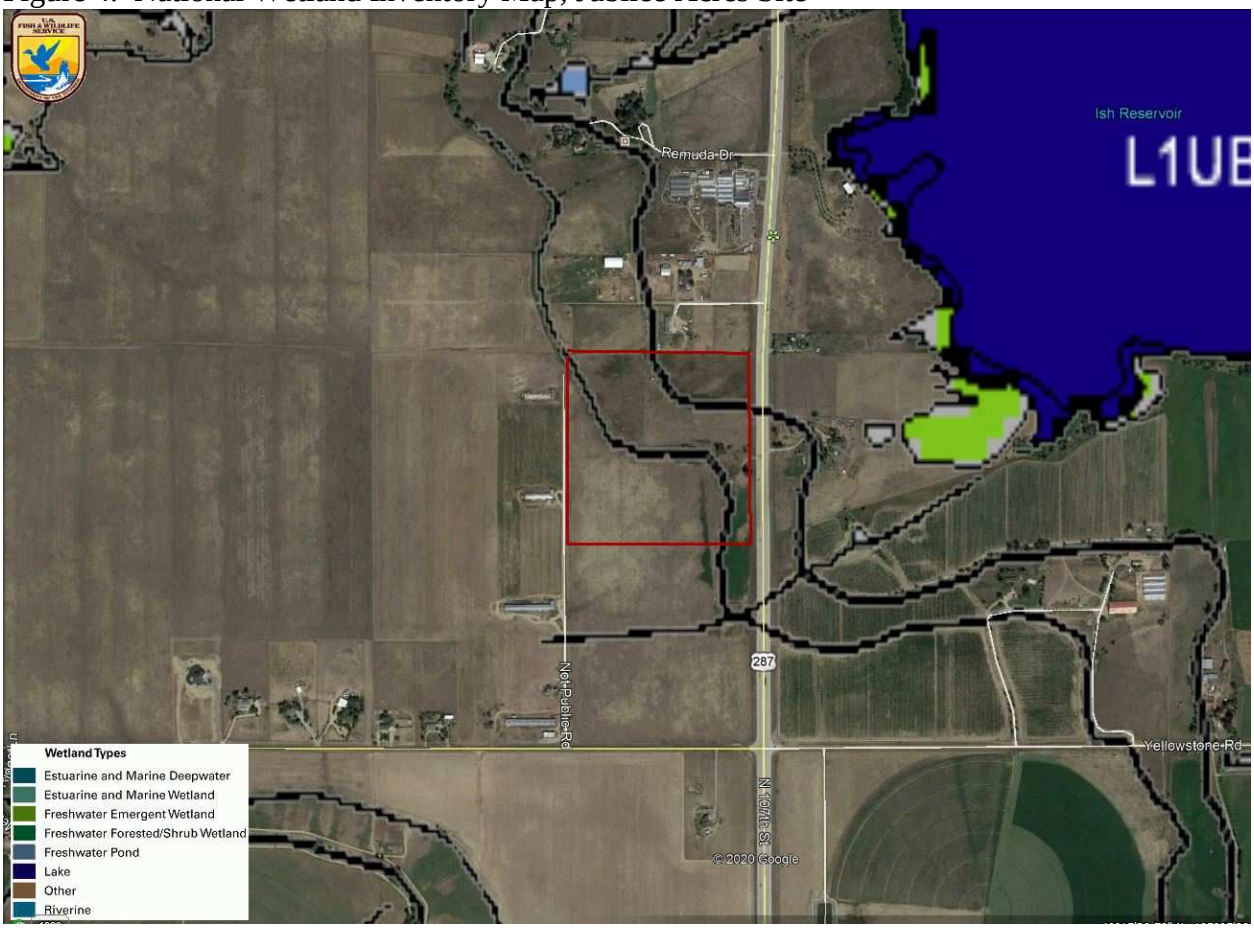
Regulatory Background-

Wetlands and waters of the United States are protected under the Section 404 of the Clean Water Act (CWA). Discharge of fill or dredged materials to wetlands is regulated by the CWA. A permit from the Army Corps of Engineers (ACOE) may be needed for any discharge of any fill materials into wetlands. To be considered jurisdictional by the ACOE a wetland needs to have a nexus or connection to other wetlands and waters. Only jurisdictional wetlands require permits for fill.

Site Conditions-

There are National Wetland Inventory (NWI) mapped wetlands (mapped as riverine) on the site (NWI 2020) associated with the Upper Highland and Supply Ditches. Figure 4 shows NWI mapped wetlands occurring on the site.

Figure 4. National Wetland Inventory Map, Jubilee Acres Site



WCI completed a reconnaissance level review of the site for wetlands. There is a narrow fringe of wetland vegetation (2-5 feet wide along each bank) present along both the Upper Highland and Supply Ditches (Figure 2). Dominant plants in the wetland fringe include: reed canarygrass, prairie cordgrass, cattail, Batlic rush, coyote willow, plains cottonwood and a few other species. Riparian vegetation extends beyond the narrow wetland fringe along most of the ditch corridors on the site. Dominant plants in the riparian zone include: coyote willow, plains cottonwood and chokecherry.

2.3 Threatened, Endangered and Special Status Species

WCI reviewed habitat conditions on the site to determine if the area provides potential habitat to any federally listed species that are protected under the Endangered Species Act (ESA). Species that are federally listed (formerly listed as Endangered or Threatened) are protected by the ESA. The U.S. Fish and Wildlife Service (USFWS) is the federal agency responsible for administering the ESA. The ACOE is required to consider impacts to federally listed species prior to issuing any 404 Permits. Based on a search of the USFWS database there are several listed species that

have the potential to occur in the project area (USFWS 2020). WCI reviewed this list prior to completing the field review. Table 1 summarizes species that have been identified as potentially occurring in the vicinity of the proposed development (USFWS 2020). Table 1 also summarizes the likelihood for the species to occur on the site.

Table 1

Table 1. Federally-Listed and Proposed Threatened and Endangered Species Potentially Occurring on the Site (USFWS 2020)

Common Name Scientific Name	Status[1] Federal/State	Habitat	Potential to Occur on the Site
Plants			
Colorado Butterfly Plant Gaura neomexicana var. coloradensis	FT	Grows on sub-irrigated alluvial soils at elevations between 5000 and 6400 feet. Populations are commonly found in floodplains and drainage bottoms and in depressions along slow-moving streams	Marginal Potential habitat present along both ditches. No known locations anywhere near the site. Ditch vegetation has been controlled by burning, herbicides in the past. This species is unlikely to be present.
Ute Ladies'-tresses Spiranthes diluvialis	FT	Areas with seasonally wet soils and wet meadows nears springs, lakes, or perennial streams and their associated flood plains below 6,500 feet above sea level in the South Platte River Drainage	Marginal Potential habitat present along both ditches. No known locations anywhere near the site. Ditch vegetation has been controlled by burning and herbicides in the past. This species is unlikely to be present.
Western Prairie Fringed Orchid Platanthera praeclara	FT	The species occurs in Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and Oklahoma. Upstream depletions to the Platte River system in Colorado and Wyoming may affect the species in Nebraska.	Occurs in native mid and tall grass prairie habitat. No occurrence in Colorado. Any new depletion of water that flows to the Platte River system that results from project development could impact this species. Most developments use established sources of municipal water and do not add to water depletions in the Platte River system
Fish			
Pallid Sturgeon Scaphirhynchus albus	FE	Riverine Zones, Platte River	No potential to occur on site. Any new depletion of water that flows to the Platte River system that results from project development could impact this species. Most developments use established sources of municipal water and do not add to water depletions in the Platte River system
Birds			
Least Tern Sterna antillarum	FE	Sandy beaches, shorelines, islands	No potential habitat on site. Any new depletion of water that flows to the Platte River system that results from project development could impact this species. Most developments use established sources of municipal water and do not add to water depletions in the Platte River system.
Bald eagle Haliaeetus leucocephalus	Delisted	Many wetland and forest habitats; typically associated with reservoirs, deep-water lakes, large rivers, and some coastal wetlands. Generally nest in large trees, typically conifers, near water bodies.	Could be present on the site foraging, especially in winter. Nearest nest is 0.6 miles SE of the site. Ish Reservoir is BE winter concentration area.
Mexican Spotted Owl Strix occidentalis lucida	FT	Residents of old-growth or mature forests that possess complex structural components (uneven aged stands, high canopy closure, multi-storied levels, high tree density). Canyons with riparian or conifer communities are also important components.	The project area lacks old growth or mature conifer forests and thick riparian and conifer forests needed for good nesting habitat. Unlikely to occur in project area. Project construction should not impact this species.
Piping Plover Charadrius melodus	FT	Sandy beaches, shorelines, islands.	No potential habitat on the site. Any new depletion of water that flows to the Platte River system that results from project development could impact this species. Most developments use established sources of municipal water and do not add

Common Name Scientific Name	Status[1] Federal/State	Habitat	Potential to Occur on the Site
			to water depletions in the Platte River system
Whooping Crane Grus americana	FE	Wetlands, lakes, agricultural fields, pastures	A very rare migrant in the region. No potential habitat for the species on site. Any new depletion of water that flows to the Platte River system that results from project development could impact this species. Most developments use established sources of municipal water and do not add to water depletions in the Platte River system
Mammals			
Preble's Meadow Jumping Mouse Zapus hudsonius preblei	FT	Thick shrubby and tree dominated riparian zones.	Marginal Potential habitat present in the narrow riparian zones along the ditches. No known locations near the site. This species is unlikely to occur on the site.

Note:
1. Regulatory Status:
FT = Federally-listed as threatened
FE = Federally-listed as endangered

Sources: USFWS 2020. IPac Trust Report for the Jubilee Acres site.

Listed Plants-

Two federally listed (Threatened) plant species, the Ute ladies' tresses orchid (*Spiranthes diluvialis*) and the Colorado butterfly plant (*Guara neomexicana*) have potential to occur in the area.

The Ute ladies'-tresses orchid has been documented in areas with seasonally wet soils and wet meadows nears springs, lakes, or perennial streams and their associated flood plains below 6,500 feet above sea level in the South Platte River Drainage (USFWS 1992a). Known populations of this species occur in Nevada, Utah, and eastern and western Colorado (USFWS 1992b). Several historically documented populations are known to occur along the Front Range in Colorado including Boulder County.

The Colorado butterfly plant is a perennial plant endemic to moist and mesic areas in southeastern Wyoming, north-central Colorado, and western Nebraska (USFWS 2000). It typically grows on sub-irrigated alluvial soils at elevations between 5000 and 6400 feet. Populations are commonly found in floodplains and drainage bottoms and in depressions along slow-moving streams (Fertig 2000, O'Kane 1988a). Populations are known to occur in Weld and Larimer Counties, Colorado (Floyd 1995, USFWS 2010).

Marginal Potential habitat is present along both ditches. No known locations are present anywhere near the site. Ditch vegetation has been controlled by burning, herbicides in the past. Thus these species are unlikely to be present. The site does not support any Boulder County mapped rare plant areas (Boulder County 2020).

Listed Wildlife-

The only Federally listed wildlife species that have the potential to occur on the site are the Preble's meadow jumping mouse (*Zapus hudsonius preblei*) and the Mexican spotted owl (*Strix occidentalis lucida*).

Preferred habitat for the Preble's meadow jumping mouse includes thick shrubby riparian habitat along regional streams and rivers (Armstrong et al. 1997). Critical habitat has been established for this species in Boulder County. Marginal Potential habitat is present in the narrow riparian zones along the ditches. There are no known locations near the site, based on trapping good potential habitat areas along the Little Thompson River (1.7 miles north of the site) do not support this species. This species is unlikely to occur on the site. There are no Preble's meadow jumping mouse Habitat Conservation Areas near the site (Boulder County 2020).

The Mexican spotted owl nests in old-growth or mature forests that possess complex structural components (uneven aged stands, high canopy closure, multi-storied levels, high tree density). Canyons with riparian or conifer communities are also important components. The site does not support any old growth or mature forest habitat. It is very unlikely that the species is present on the site.

2.4 Other Wildlife Species

The sites pasture/hay lands provides low/moderate quality wildlife habitat. The narrow riparian and wetland corridors along the 2 ditches provide good quality wildlife habitat. There are no key or important wildlife habitats mapped on the site. The site is does not include any mapped Critical Wildlife Habitat Areas, Migration Corridors, Natural Landmark, Natural Areas, or High Biodiversity Areas (Boulder County 2020). The site is mapped as yearlong white-tailed deer range, yearlong mule deer range and black-bear overall range. Nearby Ish Reservoir (0.3 miles NE of the site across Highway 287) does provide important wildlife habitat areas (bald eagle Winter Concentration, great blue heron foraging and nesting area, white pelican foraging area, and waterfowl winter concentration area (Colorado Division of Parks and Wildlife 2020).

There are no black-tailed prairie dogs colonies on the site. Wildlife species or sign of species observed on the site during the field review included: cottontail, deer mouse, house mouse, meadow vole, raccoon, striped skunk, coyote, red fox, starling, house finch, American goldfinch, mourning dove, Eurasian collared dove, American robin, northern kingbird, black-capped chickadee, flicker, American kestrel, red-tailed hawk, Canada goose, western terrestrial garter snake, and bullsnake.

2.5 Migratory Bird Species

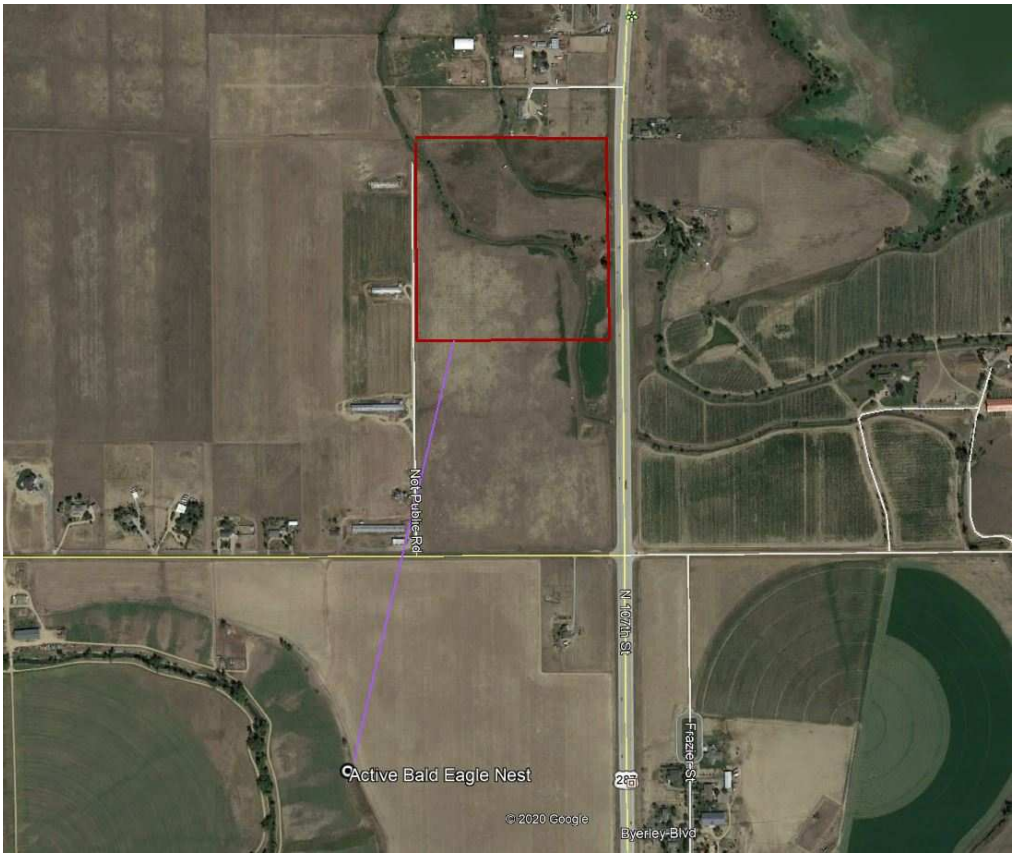
The Migratory Bird Treaty Act protects migratory birds, and active nests. Inactive nests (nests not being used or nests outside the nesting season) are not protected. The Act is enforced by the USFWS. Many migratory bird species have a high interest from a conservation and species

diversity perspective (neotropical migrants, raptors, birds of conservation concern (USFWS ranking)).

The pasture/haylands on the site provide poor nesting habitat to migratory bird species. A few grassland/farmland adapted species could be present as nesting birds (meadowlark, mourning dove and a few other species) in these areas. The narrow riparian zone provides good nesting habitat to a variety of neo-tropical migrants. Likely nesting species observed on the site in early May 2020 included: black-capped chickadee, Bullocks oriole (several old nests observed in cottonwood trees), mourning dove, American robin, common goldfinch, flicker, American kestrel, house finch, northern kingbird, unknown flycatcher (old nest), and red-tailed hawk (see raptor discussion).

Raptors-
There is an active red-tailed hawk nest on the site in a large cottonwood tree just west of Highway 287 (Figure 2). The nearest bald eagle nest to the site is approximately 0.52 miles to the south in a large cottonwood tree just east of the Terry Lateral (note: this is likely a new nest, it does not show up on the CDPW database) (Figure 5). This nest is greater than 0.5 miles from the project area, thus no impacts to this bald-eagle nest are anticipated from project development. There are no black-tailed prairie dog colonies on the site, thus no good nesting habitat for burrowing owls is present. The site does provide raptor foraging areas.

Figure 5. Active Bald Eagle Nest (0.53 miles SE of site).



3.0 Conclusions and Recommendations

Wetlands-

Wetlands are present on the site associated with the Upper Highland and Supply Ditches. The ACOE jurisdictional status of these ditches is not known. If the project development does not result in fill or disturbance within these ditches an ACOE permit should not be required. If site development will impact these ditches consultation with the ACOE will occur to determine jurisdictional status of the wetlands. Site development activities are buffered from the edge of the riparian/wetland boundary along these ditches from approximately 40 to over 100 feet.

Threatened and Endangered Species-

There is marginal/poor potential habitat to Federally listed or candidate species on the site. Project construction is not expected to impact these species.

Unless the project construction results in new water depletions to the Platte River system (depletions would impact Platte River listed species located downstream in Nebraska) the project should not impact Threatened and Endangered species.

Other Wildlife-

The proposed project features (parking, roads, reception hall, chapel, cabins, pond) are located in the alfalfa/grass hayfield between the two ditches. This area provides poor/moderate quality wildlife habitat for species adapted to agricultural lands. The adjacent wetland/riparian corridors along the Upper Highland and Supply Ditches provide narrow wildlife movement corridors, and good quality migratory bird nesting habitat in the agricultural area. Project development is buffered from the edge of the riparian/wetland boundary of these ditches from approximately 40 to over 100 feet.

Project construction and operation may reduce use of the riparian/wetland habitat along the ditches by wildlife species sensitive to human presence (raptors, large mammals, predators). The active red-tailed hawk nest is likely to be abandoned due to the increased presence of humans in close proximity to the nest.

4.0 Proposed Mitigation Measures

- Proposed project features have been located at least 40-100 feet away from the edge of the wetland/riparian habitats along the Upper Highland and Supply Ditches.
- A Boulder County approved native grass seed mix will be used to restore disturbed areas adjacent to the project features.
- Native trees and shrubs will be used in landscape buffer areas to the two ditches.
- Weed control (over the entire 36 acres) will follow a Boulder County approved Weed Control Plan.

- If any disturbance of wetlands along the ditches is required consultation with the ACOE will occur to determine if a 404 Permit is required. At this time is it anticipated that wetlands can be avoided.
- The developer will consult with the Colorado Parks and Wildlife and Boulder County regarding the active red-tailed hawk nest. The nest tree will be preserved. However, it is anticipated that the nest could be abandoned with project development.
- Adjacent land within the 36 acre parcel (agricultural lands to the north of Upper Highland Ditch and south and east of the Supply Ditch will remain as permanent open space. These areas will be continued to be used as agricultural land.

5.0 Literature Cited

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USFWS 2020. Digital National Wetland Inventory Mapping.

USFWS. 1992a. Interim Survey Requirements for Spiranthes diluvialis. 8 pp.

___. 1992b. Final Rule to List the Plant *Spiranthes diluvialis* (Ute ladies'-tresses orchid) as a Threatened Species. CFR 50 Part 17. 7 pp.

Attachment A- Site Photos

Photo 1. View to north along Supply Ditch from south site boundary, narrow wetland fringe.

Photo 2. View of alfalfa field east of Supply Ditch from south site boundary, Hwy 287 right side of photo.

Photo 3. View to west from near Hwy 287 and proposed access road entrance. Agricultural field where proposed development would occur, red-tailed hawk nest in large cottonwood.

Photo 4. View to west along Upper Highland Ditch from east boundary.

Photo 5. View along the north side of the Upper Highland Ditch, agricultural field outside development area.

Photo 6. Riparian vegetation (coyote willow thicket) along south side of Upper Highland Ditch.

Photo 7. View to west along north site boundary, between the 2 ditches, agricultural land.

Photo 8. View to south along the Supply Ditch from the NW site corner. Narrow wetland and riparian fringe.

Photo 9. View to SE along the Supply Ditch, adjacent to the proposed development area, narrow riparian fringe.

Photo 10. View to west across proposed development area, ag land, cottonwood trees are along the Supply Ditch

Photo 11. Red-tailed hawk nest, large cottonwood tree, just north of Supply Ditch and west of Hwy 287.

Photo 12. View to south along Hwy 287, proposed entrance into Jubilee Acres.

Boulder County

Parks & Open Space

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TO: Raini Ott, Community Planning & Permitting Department
FROM: Ron West, Natural Resource Planner
DATE: October 13, 2020
SUBJECT: Docket SU-20-0003, Jubilee Acres, re-referral

Staff submitted an extensive original referral memo, dated June 28, 2020 (appended below), and has one recommendation at this time. The information in the new application materials on continuing agricultural uses on the property is still somewhat ambiguous.

It is the applicant's intention to have an "organic farm-to-table" operation on the none-developed lands between the two ditches, and the use of the parcel's attendant ditch rights would be limited to this operation. Such small-scale operations have a checkered success rate in the county, and this use may be difficult to maintain. Additionally, the leasing of the remaining lands on either side of the ditches would have to be for a dry-land agricultural use only.

The approval of the project would result in the permanent loss of between 4.6 and 5.3 acres of Significant Agricultural Lands. This is a comparatively large loss of agricultural lands for one development docket.

Staff therefore recommends that the surface water rights associated with the parcel – two shares from the Supply Ditch – be permanently tied to the land via deed. This would ensure that the irrigation water could not be sold off separately at some time in the future, and thus "dry out" the parcel. This could happen particularly if the proposed, wedding venue use is discontinued at some point.

TO: Raini Ott, Land Use Department

FROM: Ron West, Natural Resource Planner

DATE: June 28, 2020

SUBJECT: Docket SU-20-0003, Jubilee Acres, 15293 107th St.

Site Conditions

Staff has reviewed the submitted materials, and is very familiar with the locale. The 36-acre parcel is almost completely in agricultural production, in hay fields at this time. Two major agricultural ditches traverse the parcel. There are occasional mature trees near the Supply Ditch, and scattered coyote willow and other wetland plant species along the edges of both ditches.

County Comprehensive Plan Designations

The site has the following designations in the Boulder County Comprehensive Plan, and from other resource inventories.

- Significant Agricultural Lands of National, State, and Local Importance
- Major Agricultural Ditches – Upper Highlands, and Supply
- View Protection Corridor – associated with US 287

Discussion

Staff has many concerns with the proposal.

Water

The application states that irrigation water is available from the Supply Ditch. How senior are these water rights, and what happens if there is not enough water during a drought year?

From the application's Narrative, the "retention pond" is to be used "for irrigation." Staff assumes this is the "Recreation Pond," as shown on the Site Plan (Drawing C-1.0). (Drawing C-2.0 refers to this as a "Decorative Pond.") How long would Supply Ditch water be retained in this recreation pond, and thus would storage rights be necessary, and an Augmentation Plan be required, to compensate for evaporation? Depth of this pond, or its capacity, and in/out flow rates are necessary.

Can Supply Ditch water be used for "recreational" uses in the pond, or for horticultural irrigation, as opposed to agricultural irrigation. Drawing LS-1.1 states that, "All landscape areas within the site shall be irrigated with an automatic underground irrigation system." Is the use of ditch water compatible with this, or would potable water from Little Thompson Water be necessary for underground horticultural irrigation? The latter is not a sustainable used of treated water.

It is unclear if the two shares of the Supply Ditch would be used entirely for this new activity, or if the remaining lands in the parcel – about 27 acres – are to continue as irrigated agriculture. In other words, would approval of the proposal "de-water" the remaining 27 acres in agricultural production, thus resulting in the loss of the entire 36-acre parcel for irrigated agriculture? (Staff recognizes that dryland crops could possibly continue on the 27 acres, but there is no information in the application, and no commitment of record, on what is to become of these 27 acres.)

Why are two retention ponds necessary when very little impermeable surfaces are called for in the Site Plan?

Agricultural Impacts

What is the total disturbance acreage, including future chapel, cabins, all parking, and grading for septic, landscaping, roads and circulation? Drawing ER-1.1 shows this to be 9.1 acres. If correct, this translates to 25 percent of the entire 36-acre parcel that would be, at least, disturbed for construction. From a parcel perspective, this would be a significant negative impact.

Of these 9.1 acres, how many acres would be permanently removed from agricultural production? Based on the various submitted drawings, it appears that it would be nearly all of the 9.1 acres. Most of this loss would be within areas designated in the Comprehensive Plan as Significant Agricultural Lands of National, Statewide, or Local Importance.

So even at a county-wide perspective, the loss of about 9 acres of agricultural lands is a significant negative impact. In the last 15 years, staff has seldom seen a project that would result in such a large loss of agricultural lands. Given the discussion above on water, it is possible that the entire 36 acres of agricultural lands could be lost.

The protection of a viable agricultural system in the county is one of the primary pillars of the Comprehensive Plan. The Plan states that, "Agricultural land is a nonrenewable resource. Once…decisions are made that result in the conversion of agricultural land and/or water to nonagricultural uses, this vital resource is almost always irretrievably lost."

Agricultural Goal #1 states that, "Future urban development should be located within or adjacent to existing urban areas in order to…preserve agriculture…." Although staff recognizes that wedding venues "can" be allowed on the site, staff questions whether the size of the facility amounts to "urban development," particularly with the loss of 9 to 36 acres of agricultural production. Policy AG 1.01 states that, "It is the policy of Boulder County to promote and support the preservation of agricultural lands and activities within the unincorporated areas of the county…."

Other Impacts and Questions

The numerical "ranking" of the View Protection Corridor associated with US 287 is 2.3. For Boulder County areas on the plains, this is a very high ranking. Impacts to the view corridor would primarily be caused by up to 187 parked vehicles being visible from the road for up to 150 days per year, or about 42 percent of the time for any given afternoon/evening over a year. Although proposed screening could help to mitigate this, the long-term success of

adequately irrigating these plantings would be paramount. What commitments of record are provided to replace planted nursery stock that fails to survive or thrive? Over how many years would this be necessary? These 187 vehicles, in two parking lots, would be about 250 to 850 feet from the edge of the parcel, which is the edge of the highway right-of-way.

With 300 guests as a maximum, what is the maximum total number of people on-site at a given time, including staff and vendors? Of the 187 parking spaces, how many are for vendors and staff?

"Cocktail hour" activities are to be allowed outdoors, yet there would be no outdoor music involved – either recorded or live?

The Site Plan shows that the surfaces of the parking areas and all circulation is to be gravel, yet Note 6 (Drawing C-1.0) refers to paved parking lot areas, and Note 10 refers to parking lot striping.

How would shuttles and group rides to the site be "encouraged," and how would this be documented or enforced?

The Narrative states that there would be "recycling and composting efforts?" What are the details of these? In other words, what is the level of "effort" in such a commitment of record? Similarly, how are "compostable" products to be used? A wedding reception using "paper" products does not seem reasonable. How would it be required that all of the differing vendors for various weddings use compostable products? Also, what is the specific commitment of record for "Use of locally sourced and reclaimed wood and stone in building improvements?" How would the "strict cutoff" at 10:00 PM be enforced?

What type and how many *non-wedding* events would occur; how many participants would be expected/allowed for each? The application states these would be "hosted by local businesses, non-profit organizations, religious organizations and schools." What type of events are anticipated by these organizations? How would these occur while, "Keeping most of the reception hall's economic activities within short distances…." Other than the graph in the Narrative, how is this to be encouraged or required, and how? What is the source of this graph's data?

For the reception hall, the Narrative states it would be "donated to a church in the morning…." Is there already an existing association with a local church? It also states that church attendance is expected to be from 75 to 100 people. If the reception hall can accommodate 300 people, isn't it possible that church attendance could grow to 300?

After construction of the future chapel, wouldn't it be possible to use both the reception hall and the chapel for two different church services? Would either of these structures be available for church services at other times if there are no weddings taking place, say, on a Wednesday evening? (Note that the PAMS calls only for a future 2500 square foot chapel and one 900 square foot cabin, not a 2760 sf chapel and four 900 sf cabins.)

The Ecological Assessment (EA) states that, "Site development activities are buffered from the edge of the riparian/wetland boundary along these ditches from approximately 40 to over 100 feet." This seems incorrect. The Site Plan shows outlets from the two retention ponds

into the Upper Highlands Ditch, so some construction at the ditch has to occur for these outlets, while the edges of the ponds themselves appear to be closer than 40 feet from the ditch. There are wetland community types along the edge of the ditch. If impacted, consultation with the Corps of Engineers would be required.

The EA also states that, "The active red-tailed hawk nest is likely to be abandoned due to the increased presence of humans in close proximity to the nest." This nest is located near the proposed entrance to the facility, and this impact appears to be unavoidable.

The application states that, "Weed control (over the entire 36 acres) will follow a Boulder County approved Weed Control Plan." This Plan needs to be reviewed.

Staff suggests that the applicants consider the possible future uses of the property "up-wind" to the west. Intensive agricultural uses for chickens, turkeys, or marijuana are possible, livestock pasturing, fertilizer or pesticide application, harvesting, and other equipment operations can be expected to occur at any time of day or night. Odors, crop residues, and soil may blow onto the subject property during winds.

Drawings

CV-1.0, Grading Note #4 – "All unsurfaced areas disturbed by grading operation shall receive 4 inches of topsoil." All existing topsoils should be stripped and temporarily stockpiled, then replaced on disturbed areas. (Staff notes that Drawing LS-1.1 states that, "…topsoil that is removed during construction activity shall be conserved for later use."

If it is necessary to import any topsoil, the source of this material must be approved, considering how the importation of non-native seeds would be minimized. "Contractor shall apply stabilization fabric to all slopes 4H:1V or steeper." Stabilization fabric must be used on all slopes steeper than 2H:1V. Other requirements for other slopes/conditions apply, such as soil preparation and mulch; see Boulder County Revegetation requirements.

LS-1.0 – This drawing shows that the surfaces of the two retention ponds are to receive native grass seed. How would this vegetation in the ponds be managed, to keep them from becoming simply dusty basins?

LS-1.1 – All of the plant species shown – plantings and grass seed – are acceptable. Staff questions whether Gingko would survive this exposed location.

<u>Recommendations</u>

- The above discussion items should be addressed.

Boulder County

Community Planning & Permitting

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October 8, 2020

TO: Jean (Raini) Ott, AICP, Planner II; Community Planning & Permitting, Zoning Development Review

FROM: Jennifer Severson, Principal Planner; Community Planning & Permitting, Development Review - Engineering

SUBJECT: Docket # SU-20-0003 Jubilee Acres Reception Hall - ADDENDUM

15293 N. 107th Street

The Development Review - Engineering Team has reviewed the revised application materials dated September 4, 2020 for the above referenced docket and has the following additional comments:

1. The site plan dated 9/2/20 shows only 6 spaces for bicycle parking; however, 111 vehicular parking stalls are proposed. Per Section 5.6.5.3 of the Boulder County Multimodal Transportation Standards (the "Standards") for Parking Lot Design, the number of bicycle parking spaces shall be ten percent of the number of automobile parking spaces provided. A minimum of 11 bike parking spaces are required for this development. A revised parking plan must be submitted to the Development Review Team- Engineering staff prior to submittal of the building permit application, which clearly demonstrates the required number of bike parking spaces are planned.

2. The revised application materials show conflicting designs related to the diversion of the Supply Ditch onto the subject property. Regardless of whether or not a ditch diversion is proposed or approved, permissions from the Highland Ditch Company and the Supply Ditch Company that confirms their approval of the final design must be submitted with the final plans submitted for permitting. Copies of the 60-foot ditch easements must also be provided.

3. Revised plans submitted for permitting must include a breakdown of the proposed non-foundational earthwork related to the following (as applicable, based on the approved design): privacy berm(s), structures, parking areas, detention ponds, and anywhere else on the site non-foundational earthwork is proposed. The earthwork details can be included on the updated plans as a note or can be submitted as a separate document.

4. If the berms remain as a part of the development, plans submitted for permitting must show how drainage is handled on the western side of the southern berm to prevent erosion of the berm.

5. The revised design includes adequate space for informal emergency pullouts along the drive; therefore, no formal pullouts are required. However, no cars may park along the entrance drive; this area must be kept clear to allow access by emergency vehicles.

6. Overflow parking is not permitted for this development proposal. Events must coordinate guest parking, employee and vendor parking, and use of shuttles to ensure that no more than 111 vehicles are parked on-site at any one time.

7. The proposed access drive must comply with the Standards. Each lane of the split access section located north of the southern parking lot must be widened to be between 16 and 26 feet (commercial access without curb & gutter). The site plan shows a 20' radius in center of the turning circle. If the turning circle is intended to be used as the emergency turnaround, the radius must be a minimum of 30 feet. An emergency access turnaround is required for the future chapel. If the parking lot is intended to serve as an emergency access turnaround, it must comply with Standard Drawings 18 & 19. Details for the access at its intersection with US 287 must be shown, including the location of the opposing access(es) across US 287 and lane delineations that include turn lanes to/ from the property and acceleration/ deceleration lane markings on US 287. The plans submitted for permitting must demonstrate the access to and within the site complies with the Standards for commercial development, including without limitation:

    a. Table 5.5.1 – Parcel Access Design Standards (2-Lane Plains Access)

    b. Standard Drawings 11 and 13 – Private Access

    c. Standard Drawing 14 – Access with Roadside Ditch

    d. Standard Drawing 15 – Access Profiles Detail

    e. Standard Drawing 16 – Access Grade & Clearance

    f. Standard Drawing 17 – Access Pullouts

    g. Standard Drawing 18 – Access Turnaround

    h. Standard Drawing 19 – Typical Turnaround & Pullout Locations

    A minimum 30-foot centerline radius is required for the emergency access turnaround

    The emergency access turnaround must be located a minimum of 50 feet from the front of and no greater than 150 feet from the rear of the structure(s) it serves. An emergency turnaround may serve multiple structures.

COMMENTS 1 -7 FROM THE REFERRAL LETTER DATED JULY 10, 2020 (ATTACHED) STILL APPLY.

This concludes our comments at this time. Additional comments may be provided for the revised plans during permit review.

Community Planning & Permitting

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July 10, 2020

TO: Jean (Raini) Ott, AICP, Planner II; Community Planning & Permitting, Zoning Development Review

FROM: Jennifer Severson, Principal Planner; Community Planning & Permitting, Engineering Development Review

SUBJECT: Docket # SU-20-0003 Jubilee Acres Reception Hall

15293 N. 107th Street

The Engineering Development Review Team has reviewed the application materials for the above referenced docket and has the following preliminary comments:

1. The subject property is accessed via US Highway 287 (US 287), a Colorado Department of Transportation (CDOT) owned and maintained right-of-way (ROW). Legal access has been demonstrated via adjacency to this public ROW.

2. The parking lot must be designed to comply with Section 5.6.2 of the Boulder County Multimodal Transportation Standards ("MMTS") for Parking Lot Design.

    a. The parking lot will be gravel-surfaced, which complies with MMTS Section 5.6.2.1.b.

    b. The layout of the parking area shall be conducive to safe and logical internal circulation (MMTS Section 5.6.2.3.b). The parking plan must be revised to show how pedestrian traffic will be safely directed within and from parking areas to the reception hall and other amenities.

    c. Wheel or bumper guards or curbing shall be located so that no part of any vehicle shall extend beyond the boundary lines of the parking area, intrude on pedestrian ways, or come in contact with walls, fences, or plantings.

    d. The space width for the ADA van-accessible spaces and the width of the ADA parking access aisles must be labeled.

    e. Bicycle parking is required. The number of bicycle parking spaces required shall be ten percent of the number of automobile parking spaces in the lot. Bicycle parking locations and dimensions must be shown. Due to the proposed use as a wedding venue, and because the mode share is anticipated to be primarily private passenger vehicles, the County Engineer may approve a reduced number of bicycle parking spaces.

    f. The revised parking plan must be submitted to the Development Review Team-Engineering staff prior to submittal of the building permit application.

3. The proposed on-site retention includes 2 detention ponds and complies with the requirements in the Boulder County Storm Drainage Criteria Manual (SDCM) Sec. 1202. The majority of

runoff from the parking areas and the access drive located south of the eastern detention pond travels as sheet flow into the detention ponds. Combined, it appears the ponds accommodate runoff from more than 20% of the impervious surfaces on the site. Each detention pond has the capacity to hold the volume of a 100 year storm from each contributing basin, with the emergency spillway placed above the 100 year elevation. Based on the drainage report provided, the spillways appear to be appropriately sized and located for the detention ponds. NOTE: the decorative pond is not proposed to serve as a detention facility for runoff.

4. Staff concurs with the findings of the Transportation System Impact Study dated May 8, 2020 that the traffic generated by the project can be safely accommodated with the existing public street improvements on US 287. Additionally, the applicant has proposed to restripe portions of the shoulder of US 287 for use as a deceleration lane to / an acceleration lane from the site entrance.

5. During construction, all materials, machinery, dumpsters, and other items shall be staged on the subject property and all worker vehicles must be parked on the subject property; no staging or parking is allowed within the US 287 ROW.

6. As a part of Boulder County's water quality protection and municipal separate storm sewer system construction program, a stormwater quality permit (SWQP) is required because the area of disturbance on the subject property exceeds one acre in size. The SWQP application will need to be submitted with any building or grading permit applications and obtained prior to any work beginning on this project.

7. A copy of the CDOT access permit must be submitted to the Development Review Team - Engineering staff prior to issuance of any building or grading permits. Traffic Control and/or Traffic Management Plans approved by CDOT and details for the approved design of the proposed center and right turn lanes on US 287 must be included with the CDOT access permit.

8. Permissions from the Highland Ditch Company and the Supply Ditch Company that confirms their approval of the final design must be submitted with the final plans submitted for permitting. Copies of the 60-foot ditch easements must also be provided.

The Engineering Development Review Team ***requests the docket be placed ON HOLD for the following reasons:***

1. The grading and drainage plan do not include earthwork related to the future chapel and cabin. The applicant must revise the plan to show proposed contours for non-foundational earthwork related to those structures. A grading fact sheet was not submitted with the application materials. Grading calculations, signed and stamped by a Colorado registered Professional Engineer, Landscape Architect, or Architect, must be submitted with the revised grading plan. All non-foundational earthwork related to the proposal must be included in the revised plan and grading calculations.

2. The following details related to the diversion of the Supply Ditch must be provided:

    a. A letter from the Supply Ditch company that confirms the company has reviewed the proposed design to divert water from the ditch through a channel on the subject

property, detain it in the decorative pond, and then return it to the ditch downstream from the diversion point.

b. Details for the designs of the headgate and outlet structures for the diversion channel at the Supply Ditch.

c. Details for the design of the channel that will carry diverted Supply Ditch water through the property.

d. Confirmation that the decorative pond has adequate capacity to detain the diverted water from the Supply Ditch.

3. The proposed access drive must comply with the Boulder County Multimodal Transportation Standards ("the Standards"). Emergency Access pullouts are required along the main access drive and Emergency Access Turnarounds are required to serve the future cabins and chapel. The turnaround area in front of the reception hall is appropriately dimensioned to serve as an emergency access turnaround for that structure. Details for the access at its intersection with US 287 must be shown, including the location of the opposing access(es) across US 287 and lane delineations that include turn lanes to/ from the property and acceleration/ deceleration lane markings on US 287. The plans must be revised to demonstrate the access is designed to comply with the Standards for commercial development, including without limitation:

   a. Table 5.5.1 – Parcel Access Design Standards (2-Lane Plains Access)

   b. Standard Drawings 11 and 13 – Private Access

   c. Standard Drawing 14 – Access with Roadside Ditch

   d. Standard Drawing 15 – Access Profiles Detail

   e. Standard Drawing 16 – Access Grade & Clearance

   f. Standard Drawing 17 – Access Pullouts

   g. Standard Drawing 18 – Access Turnaround

   h. Standard Drawing 19 – Typical Turnaround & Pullout Locations

   Each lane of the split access section located north of the southern parking lot must be widened to be between 16 and 26 feet (commercial access without curb & gutter)

   Emergency access pullouts are required at 400-foot intervals along the access drive

   A minimum 30-foot centerline radius is required for the emergency access turnaround

   The emergency access turnaround must be located a minimum of 50 feet from the front and no greater than 150 feet from the rear of the structure(s) it serves. An emergency turnaround may serve multiple structures.

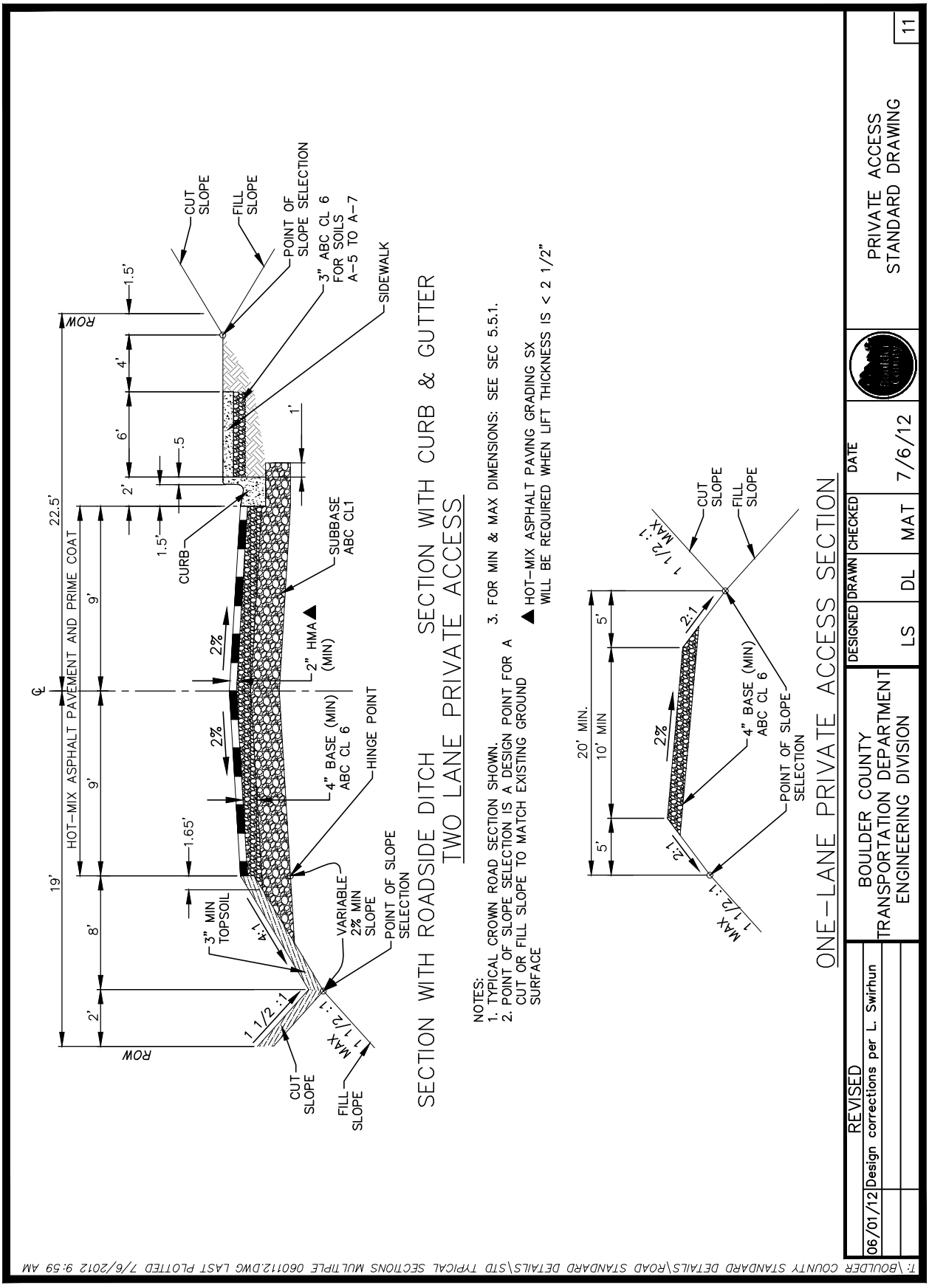
Additional comments will be provided after a more detailed review is conducted on the additional information requested above.

Table 5.5.1 Parcel Access Design Standards

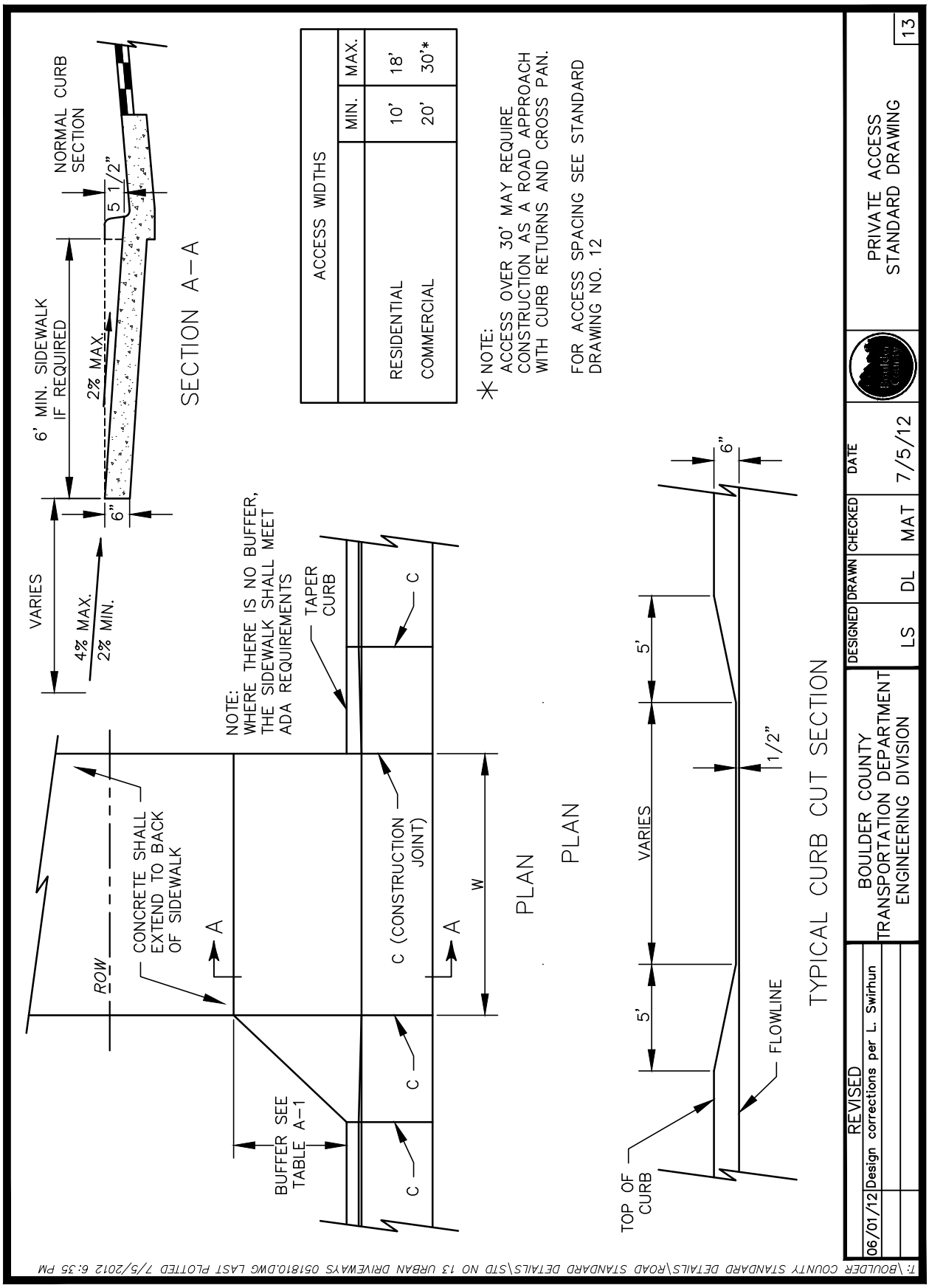
	One-Lane Access		Two-Lane Access	
	Plains	**Mountains**	**Plains**	**Mountains**
# of units	1 - 5		6 - 15	
Travelway Width (8' turnouts 8'x 55' incl. tapers - required every 400')	10'	12'	18'	18'
Surface Course	Per geotechnical report[1]		Per geotechnical report	
ROW/Easement Width (min.)	20' 28' w/turnouts		30'	
Centerline Radius (min.)	40'		40'	
Max. Grade (%)	12	12 or up to 14 for 200' max.[2]	12	12 or up to 14 for 200' max.
Max. Grade through curve	6% [3]		6%	
Clearance Vertical/ Horizontal	13'-6" / 14'	13'-6" / 16'	13'-6" / 22'	
Roadside Ditches	Designed and constructed to Standard Drawings. See BCSDCM and USDCM for permanent erosion control practices.		Designed and constructed to Standard Drawings. See BCSDCM and USDCM for permanent erosion control practices.	
Slope Stability	Per geothechnical recommendations to design stability and facilitate revegetation [4]		Per geothechnical recommendations to design stability and facilitate revegetation [4]	
Signs and Traffic Control Devices	Required signs and traffic control devices must conform with the MUTCD, latest edition		Required signs and traffic control devices must conform with the MUTCD, latest edition	
Culverts	Min. 18" or equiv. capacity RCP or CMP in public ROW per Standard Drawing Cross-culverts outside of ROW sized to maintain historic flow		Min. 18" or equiv. capacity RCP or CMP in public ROW per Standard Drawing Cross-culverts outside of ROW sized to maintain historic flow	
Sight Distances	per AASHTO recommendations		per AASHTO recommendations	
Approach to Highway	90° to centerline of highway with max. 30° variation		90° to centerline of highway with max. 30° variation	
Standard Drawings	11, 12, 13, 14, 15, 16, 17, 18, 19		11, 12, 13, 14, 15, 16, 17, 18, 19	
Overall Design Principles	See Section 5.1		See Section 5.1	

[1] Accesses serving one dwelling unit shall use 4" ABC (Class 6) or other suitable material as approved by the Transportation Department.
[2] Accesses serving one dwelling unit may use 16% for 200' max.
[3] Accesses serving one dwelling unit may use up to 8% w/ 2' additional width.
[4] Accesses serving one dwelling unit may use 1 ½ : 1 max. cut and fill slopes or per geothechnical recommendations to design stability and facilitate revegetation.

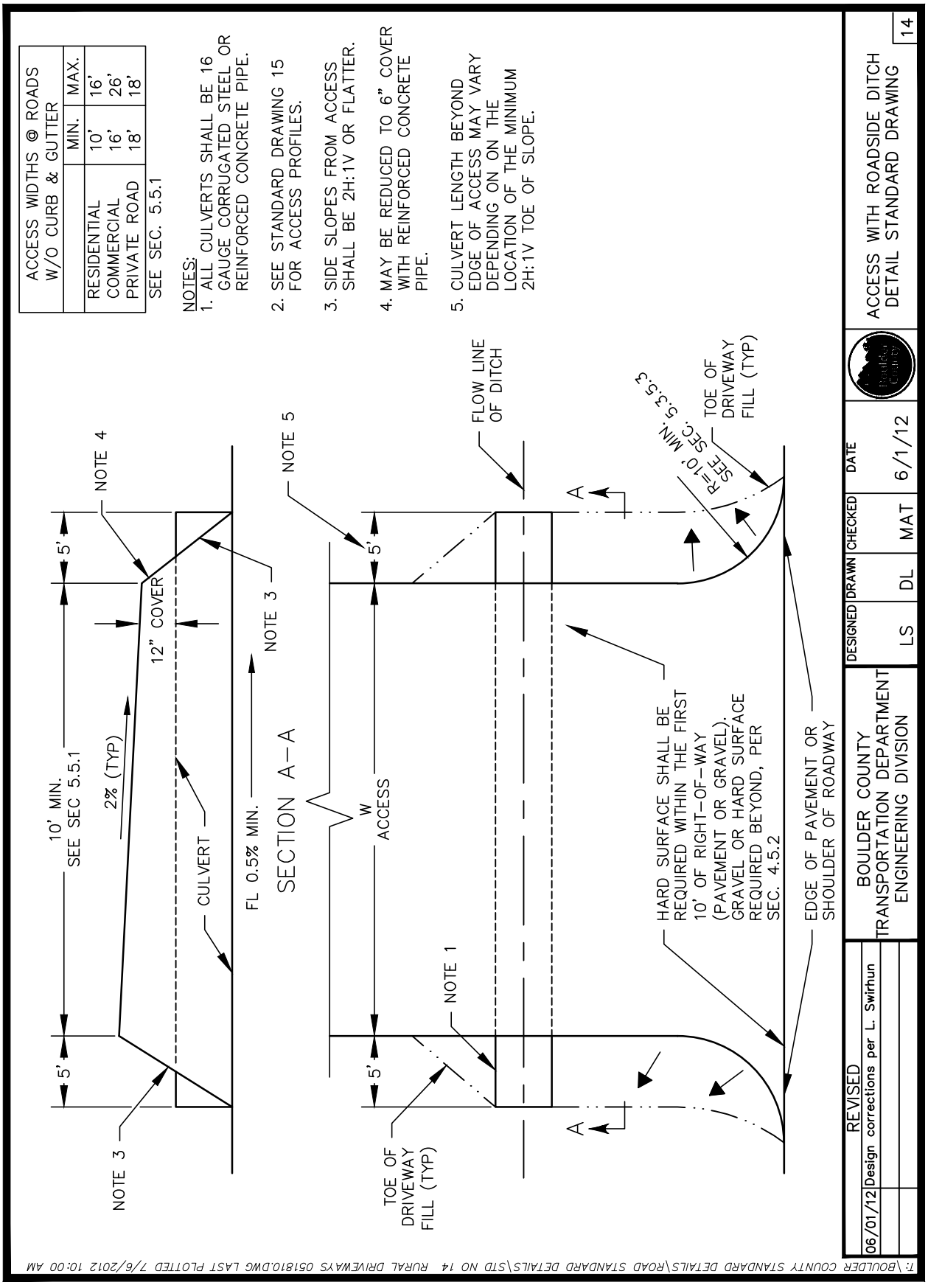
Standard Drawing 11



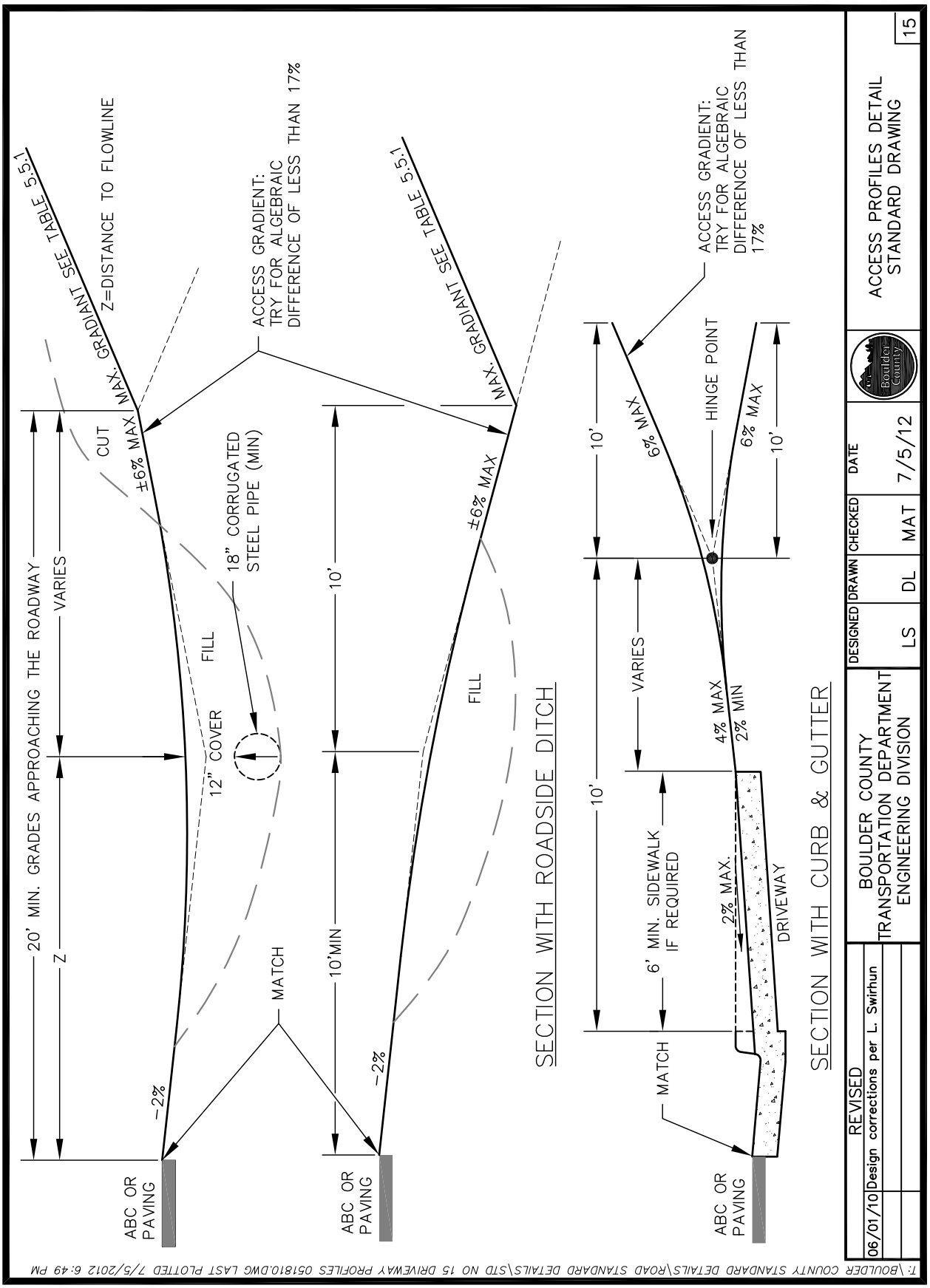
Standard Drawing 13



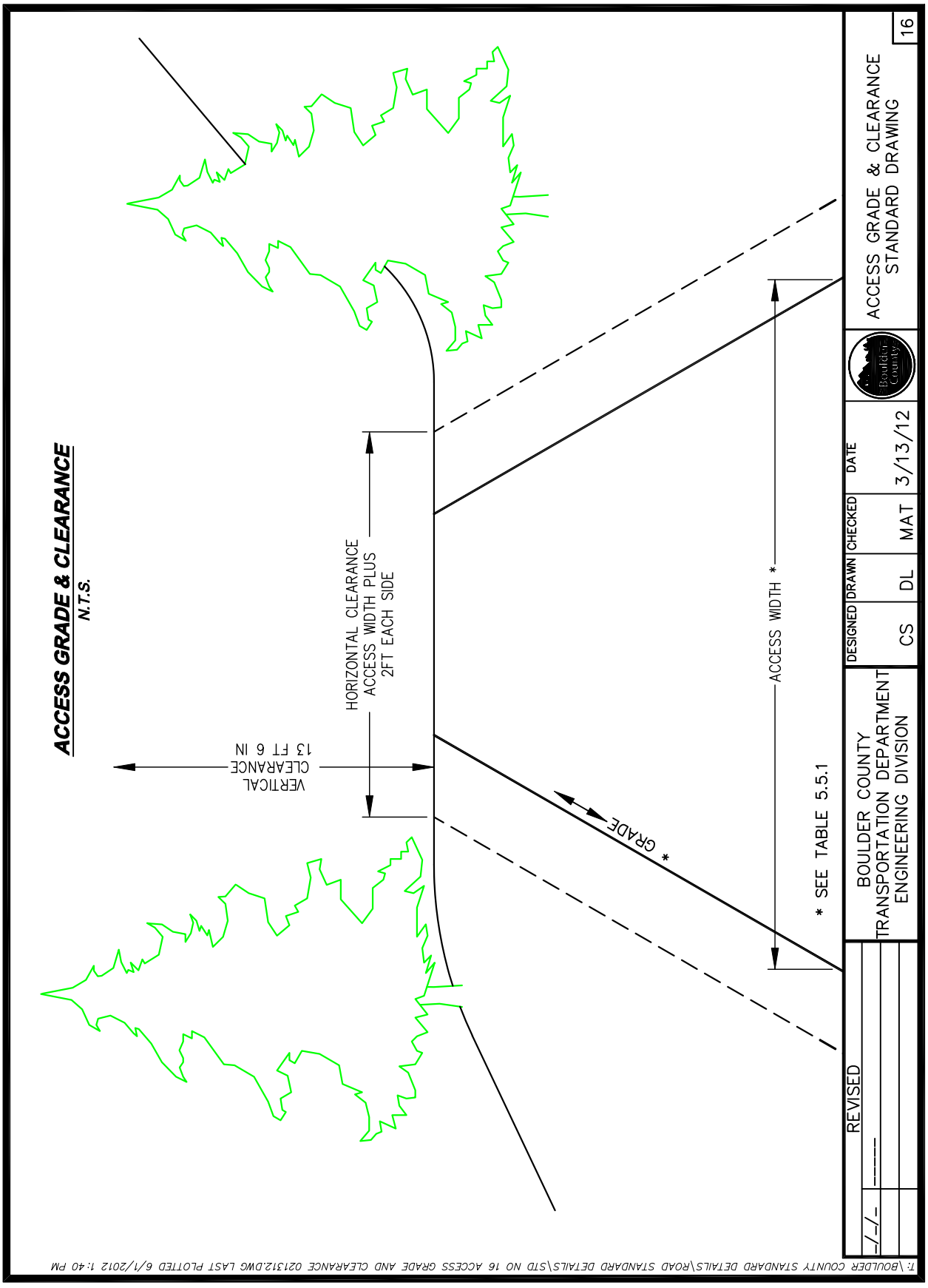
Standard Drawing 14



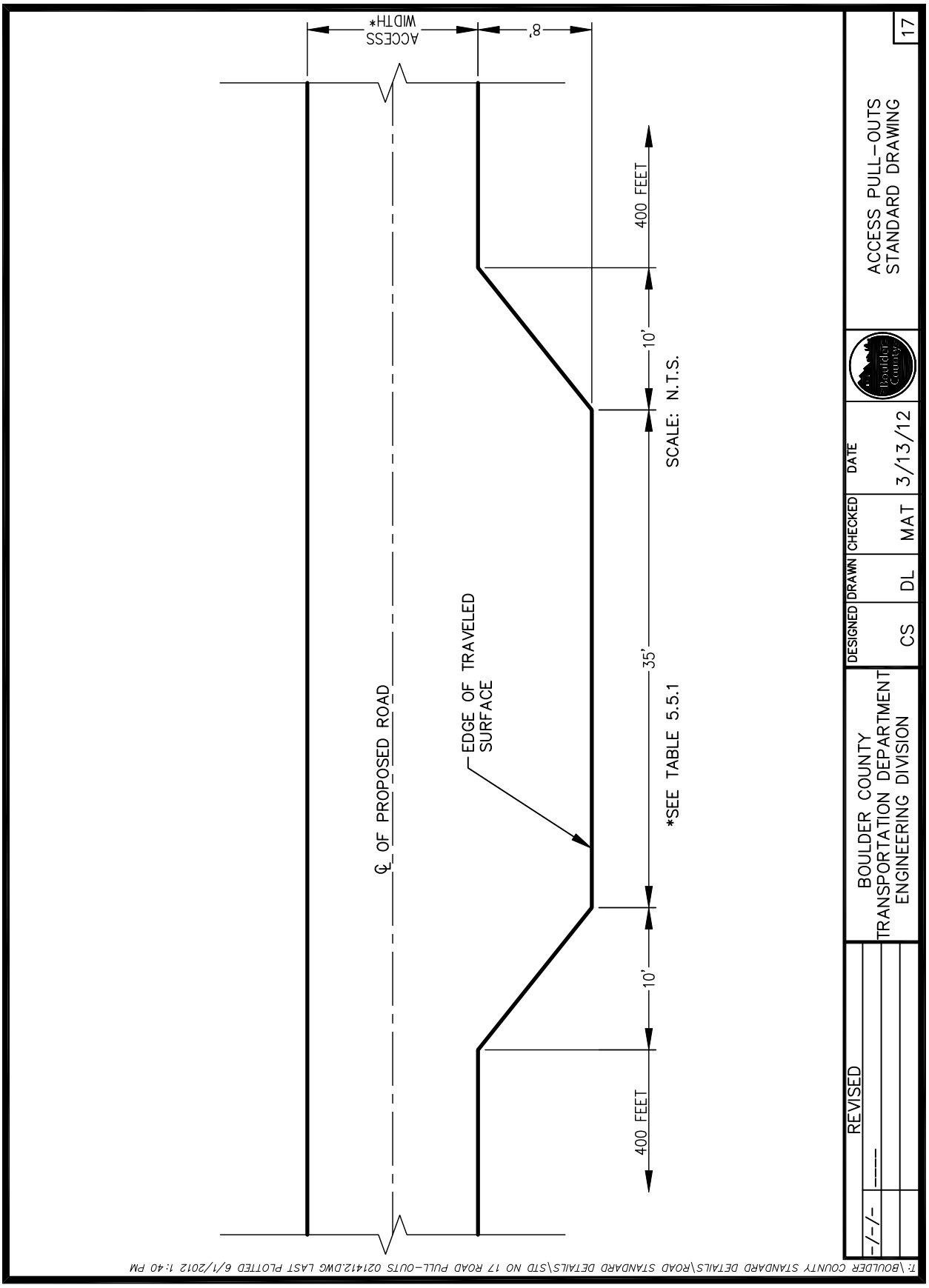
Standard Drawing 15



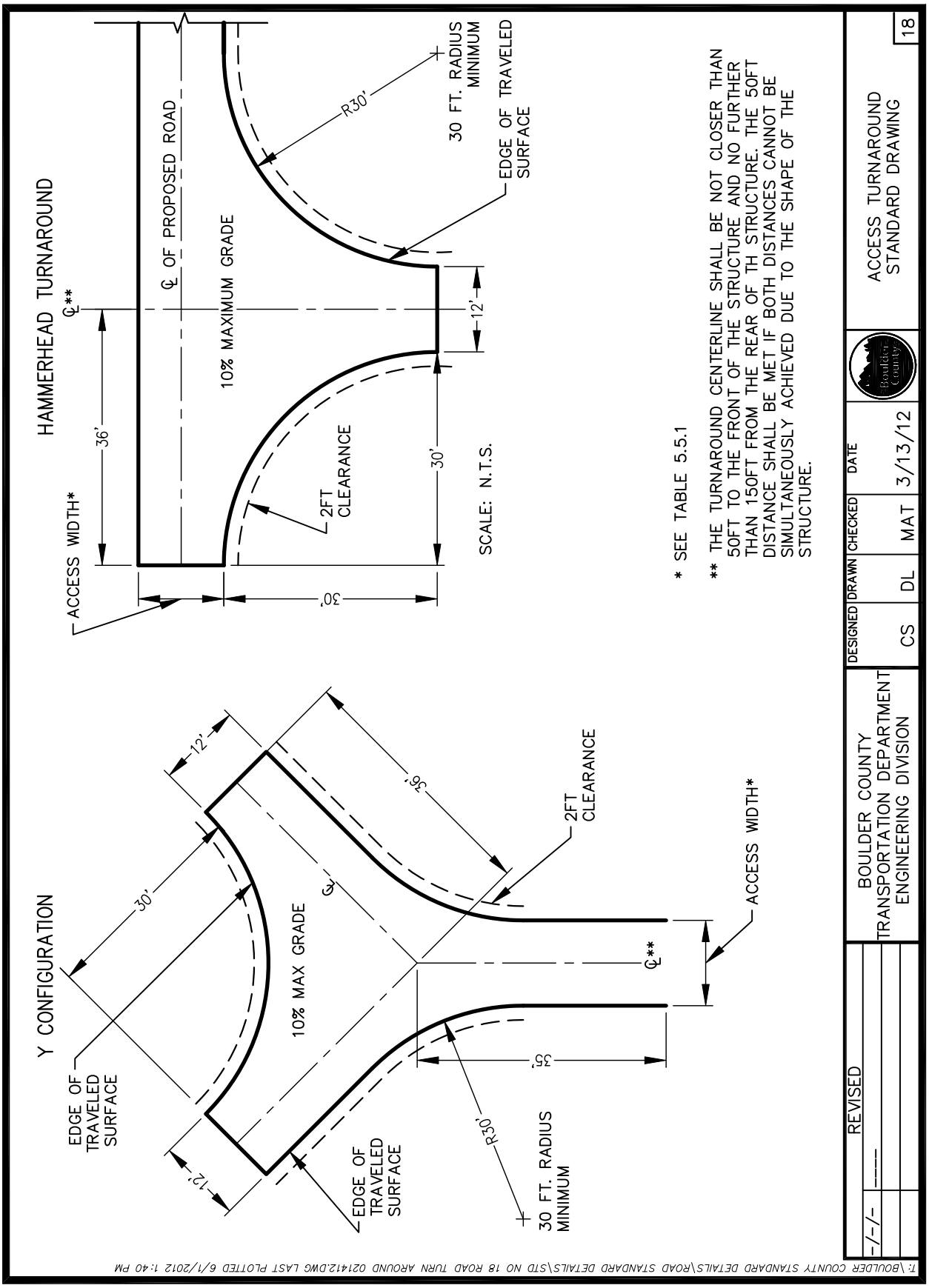
Standard Drawing 16



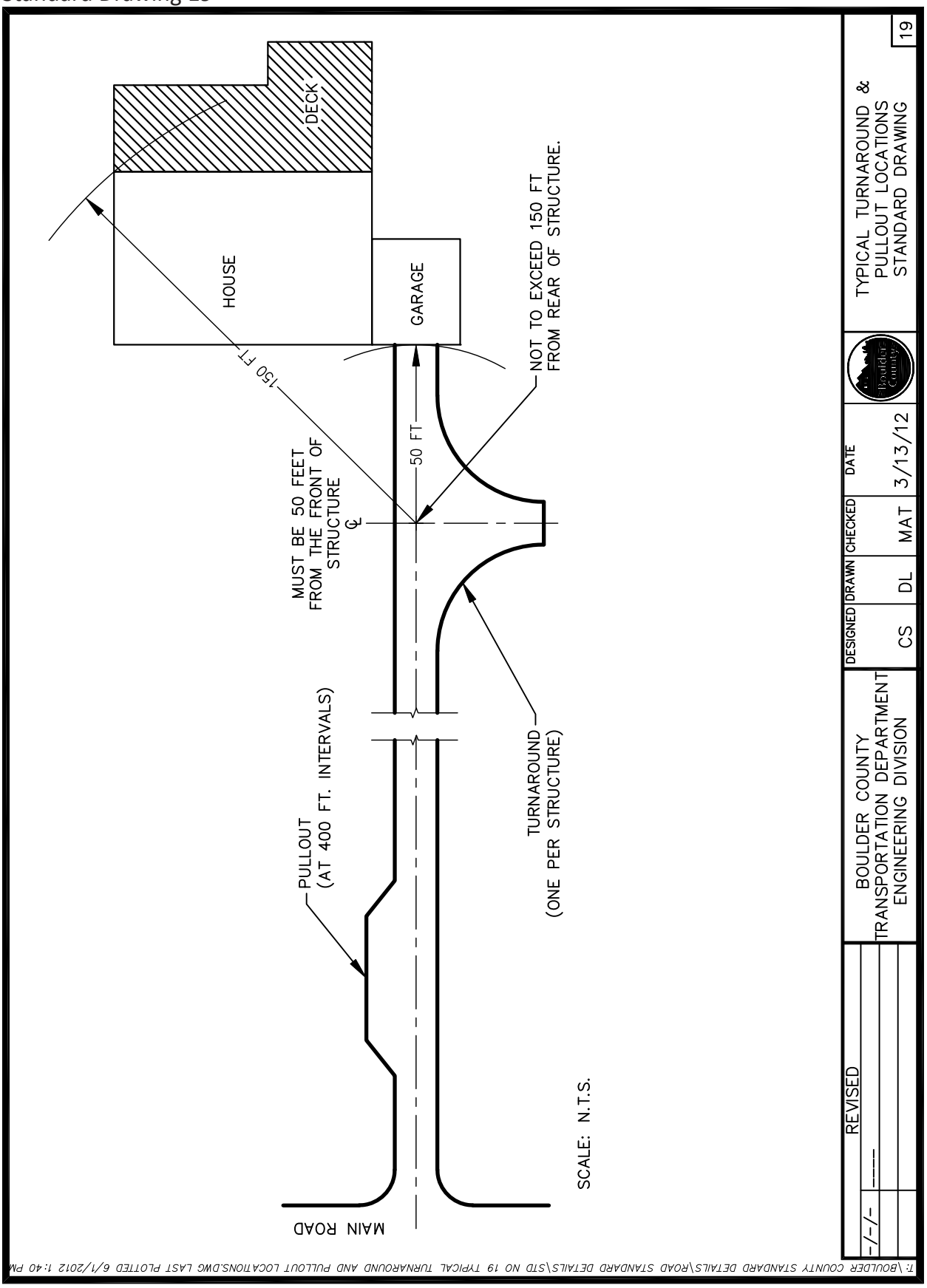
Standard Drawing 17



Standard Drawing 18



Standard Drawing 19



Community Planning & Permitting

Courthouse Annex • 2045 13th Street • Boulder, Colorado 80302 • Tel: 303.441.3930 • Fax: 303.441.4856
Mailing Address: P.O. Box 471 • Boulder, Colorado 80306 • **www.bouldercounty.org**

Building Safety & Inspection Services Team

M E M O

TO: Jean (Raini) Ott, AICP, CFM, Planner II
FROM: Michelle Huebner, Plans Examiner Supervisor
DATE: June 9, 2020

RE: Referral Response, SU-20-0003: Jubilee Acres Reception Hall. Special Use and Site-Specific Development Plan request for a reception hall to host weddings and other events approximately 150 times per year on a 36-acre parcel.

Location: 15293 N. 107th Street, located on the west side of Hwy 287/N. 107th Street approximately 2,000 feet north of its intersection with Yellowstone Road, in Section 3, Township 3N, Range 69W.

Thank you for the referral. We have the following comments for the applicants:

1. **Building Permits.** Building permits, plan review and inspection approvals and a Certificate of Occupancy ("C.O.") are required for any new buildings. Separate building permits are required for each structure.

   For a complete list of when building permits are required, please refer to the county's adopted 2015 editions of the International Codes and code amendments, which can be found via the internet under the link:

   2015 Building Code Adoption & Amendments, at the following URL: https://assets.bouldercounty.org/wp-content/uploads/2017/03/building-code-2015.pdf

   The Commercial Plan Submittal Checklist: https://assets.bouldercounty.org/wp-content/uploads/2017/03/b70-commercial-plan-submittal-checklist.pdf

   The proposed sliding doors may not be used as part of the means of egress.

2. **Minimum Plumbing Fixtures.** The plumbing fixtures count needs to meet or exceed the requirements of IBC Chapter 29, including the need for accessible restrooms and fixtures.

3. **Accessibility**. Chapter 11 of the IBC and referenced standard ICC A117.1-09 provide for accessibility for persons with disabilities. Any building permit submittals are to include any applicable accessibility requirements, including accessible parking, signage, accessible routes and accessible fixtures and features.

4. **Design Wind and Snow Loads.** The design wind and ground snow loads for the property are 140 mph (Vult) and 40 psf, respectively.

5. **Fire Department.** It appears that the site is served by Berthoud Fire Protection District. A separate referral response from the fire department should also be forthcoming. The fire department may have additional requirements in accordance with their International Fire Code ("IFC") adoption. Also, the Fire Protection District must provide written documentation to Boulder County Building Safety and Inspection Services approving the building permit plans and specifications of projects before the building permit can be issued.

6. **Plan Review.** The items listed above are a general summary of some of the county's building code requirements. A much more detailed plan review will be performed at the time of building permit(s) application, when full details are available for review, to assure that all applicable minimum building codes requirements are to be met.

7. **Meeting**. When you are ready to review construction drawings with the plan review team. Please make an appointment with our Plans Examiner Supervisor Michelle Huebner. mhuebner@bouldercounty.org 720-564-2616.

If the applicants should have questions or need additional information, we'd be happy to work with them toward solutions that meet minimum building code requirements. Please call (720) 564-2640 or contact us via e-mail at building@bouldercounty.org

July 13, 2020

TO: Staff Planner, Land Use Department

FROM: Jessica Epstein, Environmental Health Specialist

SUBJECT: SU-20-0003: Jubilee Acres Reception Hall project

OWNER: S&C WALTER PROPERTIES I LLC

PROPERTY ADDRESS: 15293 N 107TH STREET

SEC-TOWN-RANGE: 3 -3N -69

The Boulder County Public Health Department – Environmental Health division has reviewed the submittals for the above referenced docket and has the following comments.

OWTS Application Needed:

1. An onsite wastewater treatment system (OWTS) permit has not been issued by Boulder County Public Health for this property. The owner or their agent (e.g., contractor) must apply for a Commercial OWTS permit, and the OWTS permit must be issued prior to installation and before a building permit can be obtained. The OWTS components must be installed, inspected and approved before a Certificate of Occupancy or Final Building Inspection approval will be issued by Land Use.
2. Boulder County Public Health must conduct an onsite investigation and review percolation rates, soil conditions and any design plans and specifications prior to OWTS permit issuance. The OWTS absorption field must be located a minimum distance of 100' from all wells, 25' from waterlines, 50' from waterways and 10' from property lines.
3. Setbacks between all buildings and the OWTS serving this property and OWTS serving neighboring properties, must be in accordance with the Boulder County OWTS Regulations, Table 7-1.

Consumer Protection:

4. Events that utilize a catering company that drops off prepared food that involves no food handling, do not require a commercial kitchen. According to the applicant, this is the plan for these events.
5. If a kitchen is used for food service, a Plan Review will be required by BCPH. For more information, go to: https://assets.bouldercounty.org/wp-content/uploads/2017/02/retail-food-facility-plan-review-packet.pdf

This concludes comments from the Boulder County Public Health – Environmental Health division at this time. For additional information on the OWTS application process and regulations, refer to the following website: **www.SepticSmart.org**. If you have additional questions about OWTS, please do not hesitate to contact Jessica Epstein at (303) 441-1138.

Cc: OWTS file, owner, Land Use Department

From:	Hice-Idler - CDOT, Gloria
To:	Ott, Jean
Subject:	Re: SU-20-0003/Jubilee Acres/Boulder County/US 287
Date:	Wednesday, June 17, 2020 7:13:41 PM
Attachments:	image001.png

Jean,
Tim sent this to me to review and apparently forgot that CDOT staff had already commented. I'll touch base with Tim, but I'm sure that everything has already been addressed. i know Sean Kellar pretty well and I've always found him to be an exceptional traffic engineer and addresses CDOT's concerns as well as CDOT can. Please assume that all has been handled unless I get back to you by Friday.

Have a great day!

Gloria Hice-Idler
Rocksol Consulting

(970) 381-8629

10601 W. 10th Street, Greeley, CO 80634
gloria.hice-idler@state.co.us | www.codot.gov | www.cotrip.org

On Wed, Jun 17, 2020 at 4:31 PM Ott, Jean <jott@bouldercounty.org> wrote:

> Hi Gloria,
>
> Thank you for your response. Attached is the traffic impact study and CDOT feedback that were provided by the applicant. Your comments below indicate that more traffic study or the construction of additional entrance features may be required. Can you clarify if CDOT is requesting that this application be put on hold until further study is done and/or until the applicant submits a preliminary entrance design with any additional features required by CDOT?
>
> Please let me know if you need additional information for your review, thus putting the application on hold, or if your comments below are meant to be incorporated into conditions of approval that would be implemented at permitting and construction.
>
> Thanks!
>
> Raini

Jean Lorraine Ott, AICP, CFM

Planner II | Development Review Team

720.564.2271 | jott@bouldercounty.org | she/her/hers

Boulder County Community Planning & Permitting

2045 13th Street | Boulder, CO | www.BoulderCounty.org

303.441.3930 | P.O. Box 471 | Boulder, CO 80306

Formerly Land Use and Transportation – We've become a new department!

PLEASE NOTE: In an effort to mitigate the spread of COVID-19, the Boulder County Community Planning & Permitting physical office at 2045 13th St. in Boulder is CLOSED to the public until further notice. We will continue to operate remotely, including the online acceptance of building permits and planning applications. Please visit our webpage at www.boco.org/cpp for more detailed information and contact emails for groups in our department. You may also leave a message on our main line at 303-441-3930 and the appropriate team member will return your call. ***Thank you for your adaptability and understanding in this extraordinary time!***

From: Hice-Idler - CDOT, Gloria <gloria.hice-idler@state.co.us>
Sent: Tuesday, June 16, 2020 11:18 AM
To: Ott, Jean <jott@bouldercounty.org>
Cc: Timothy Bilobran - CDOT <timothy.bilobran@state.co.us>; Allyson Mattson - CDOT <allyson.mattson@state.co.us>
Subject: SU-20-0003/Jubilee Acres/Boulder County/US 287

We've reviewed the above proposal and offer the following comments:

1. Projected ROW need is 100' either side of the highway centerline. This area should be protected by either reservation or dedication.

2. The State Highway Access Code states that no direct access to US 287 should be allowed if other access to the site is available. If no access is available, one access, a right-in/right-out access may be allowed.

3. CDOT will need to see a traffic impact study to determine if the applicant will

be required to build auxiliary lanes to mitigate traffic impacts to US 287.

4. CDOT will also need to see a drainage study to determine if historical impacts are changing.

5. A new access permit must be obtained from CDOT. The applicant should contact Ally Mattson at (970) 350-2148 to discuss the process.

Gloria Hice-Idler
Rocksol Consulting

(970) 381-8629

10601 W. 10th Street, Greeley, CO 80634

gloria.hice-idler@state.co.us | www.codot.gov | www.cotrip.org

From:	Jacob Hebert
To:	Ott, Jean; cbrisulli@gmail.com; rmmolloy@msn.com; darcysheahen@gmail.com
Cc:	Brad Eaton
Subject:	Re-referral packet for SU-20-0003, Jubilee Acres Reception Hall project at 15293 N 107TH STREET
Date:	Thursday, September 10, 2020 1:26:01 PM
Attachments:	Commitment-Letter-Non-Residential.pdf

Hi Jean,

We currently serve the subject property via a 5/8-inch standard residential tap (tap #668). On the last submittal, we asked that the applicant submit a commitment request in order for the District to evaluate the water needs for the proposed development. We have not received that request.

It is required that the applicant submit a commitment request (see attached) to us for this proposed development. In that request, the applicant should include tap size, projected flows, projected annual water usage, and required fire flows. The applicant should also submit supporting documentation (i.e. utility memo) that shows how they came up with the tap size, projected usage, and projected flows. The District will evaluate the request and confirm the tap size. We will determine any required infrastructure upgrades necessary to support the fire flow. We will also determine the required raw water dedication. We will then issue a commitment letter outlining all provisions of the requested water service.

In regards to the civil drawings for the proposed waterline infrastructure, please have the engineer work directly with me to get the plans to an approval status. This should be worked on after the commitment letter is issued.

Please let me know of any questions.

Thanks.

Jake Hebert
Civil Engineer I

Little Thompson Water District
835 E. State Highway 56, Berthoud, CO 80513
Direct: 970-344-6374
jhebert@ltwd.org | www.ltwd.org

Little Thompson Water District

COMMITMENT LETTER REQUEST (NON-RESIDENTIAL)

Commitment Fees (**fees must be included with request letter**):
0 – 4 Taps = $100 per tap
5 – 80 Taps = $500
Over 80 Taps = $500 plus Engineering Fees

Date: _____

Mail Commitment Letter Requests to:
Jake Hebert
Civil Engineer I
Little Thompson Water District
835 E. Hwy 56
Berthoud, CO 80513
Questions: 970-344-6374

PHYSICAL ADDRESS OF REQUESTED TAP(s) _____

APPROXIMATE DISTANCE FROM NEAREST INTERSECTION (IDENTIFY COUNTY AND INCLUDE ROAD NUMBERS)

_____
(*Attach sketch of project and any description*.)

SECTION_____ TOWNSHIP_____ RANGE_____ PARCEL NUMBER: _____

Number of Taps Requested: _____ Tap Size: _____

Water Needs: GPM _____, Gallons/Day _____ Annual Usage (Gallons) _____

Special Use: _____ Fire Flow Requirements:_____

Contact information of person requesting tap(s),:

_____ Name (please print)

_____ Phone

_____ Mailing Address

_____ Fax

_____ City, State, Zip

_____ E-Mail

Mark below how you want the Commitment Letter returned to you:

Call me – I will pick up at LTWD office: _____

By Fax (listed above): _____

By E-Mail (listed above): _____

For Office Use Only:
Fee Received:_____
Amount:_____
Check #:_____

HIGHLAND DITCH COMPANY **Referral – Application(s)**

P. O. Box 649, Mead CO 80542-0649
970.535.4531-*e-mail* Highlandditch@aol.com

RE: Application(s) and or Referral(s)

Highland Ditch Company reserves its rights as a mutual ditch company organized under C.R.S. §§ 7-42-101 *et seq.* to maintain its ditches, reservoirs, and appurtenant structures for all reasonable and necessary purposes related to the ditch. *See* C.R.S. § 37-86-103 (2019).

Listed below are some of Highland Ditch Company's requirements:

1) **Reimbursement Letter agreeing to cover expenses of review including engineering, legal, and administrative although there are no assurances that project will ultimately be approved**
2) **Easement protection**
3) **Drainage plans**
4) **Engineering Plans and Specifications, no agreements will be executed until final plans are submitted and approved**
5) **License Agreement**
6) **Review of all referrals submitted**
7) **Access specification including location, extent, timing, and purpose**
8) **Access without interference on both sides of the ditch**
9) **Protection from increased storm flow(s)**
10) **Private, local, state and federal permits and requirements**
11) **Agreement(s) with other pertinent parties**
12) **Debris removal, erosion protection, prevention of increased ditch loss**
13) **Vegetation, trees and extra**
14) **Safety, security, liability, indemnification**
15) **Utility locations**
16) **Locates**
17) **811**
18) **Maintenance**
19) **Identify adjacent landowners, ditch companies, and lateral owners/companies that may be affected (additional agreements with affected entities may be required before Highland approves projects)**
20) **Specific requirements per area do apply!**

Highland Ditch Company has a sixty-foot historical prescriptive easement on either side of the ditch and from the edge of the ditch bank; *however*, more than sixty-foot maybe needed to maintain, operate, repair, and replace the ditch for any reason.

Thank you,
Jill A. Baty
Office Manager and Secretary of the Board

Berthoud Fire Protection District
275 Mountain Ave.
Berthoud, Colorado 80513
(970) 532-2264

The Berthoud Fire Rescue District's Fire Prevention Division has completed a review of above project. Currently, the Fire District has the following comments and requirements:

1. A fire sprinkler system and a fire alarm system is required for all buildings.

2. Access roads meeting the requirements of the Fire Code are also required.

Should there be any questions regarding this review please do not hesitate to contact us.

Community Planning & Permitting

Courthouse Annex • 2045 13th Street • Boulder, Colorado 80302 • Tel: 303.441.3930
Mailing Address: P.O. Box 471 • Boulder, Colorado 80306 • **www.bouldercounty.org**

MEMO TO: Referral Agencies
FROM: Jean (Raini) Ott, CFM, AICP, Planner II
DATE: May 19, 2020
RE: Docket SU-20-0003

Docket SU-20-0003: Jubilee Acres Reception Hall

Request: Special Use and Site Specific Development Plan request for a reception hall to host weddings and other events approximately 150 times per year on a 36-acre parcel.
Location: 15293 N. 107th Street, located on the west side of Hwy 287/N. 107th Street approximately 2,000 feet north of its intersection with Yellowstone Road, in Section 3, Township 3N, Range 69W.
Zoning: Agricultural (A)
Property Owner: S&C Walter Properties I, LLC
Applicants: Shane & Courtney Walter
Agent: Rob Molloy, Planscapes

Special Use Review / Site Specific Development Plan is required of uses which may have greater impacts on services, neighborhoods, or environment than those allowed with only Building Permit Review. This process will review compatibility, services, environmental impacts, and proposed site plan.

This process includes public hearings before the Boulder County Planning Commission and the Board of County Commissioners. Adjacent property owners and holders of liens, mortgages, easements or other rights in the subject property are notified of these hearings.

The Community Planning & Permitting staff, Planning Commission, and County Commissioners value comments from individuals and referral agencies. Please check the appropriate response below or send a letter to the Community Planning & Permitting Department at P.O. Box 471, Boulder, Colorado 80306 or via email to planner@bouldercounty.org. All comments will be made part of the public record and given to the applicant. Only a portion of the submitted documents may have been enclosed; you are welcome to call the Community Planning & Permitting Department at 303-441-3930 or email planner@bouldercounty.org to request more information. If you have any questions regarding this application, please contact me at 720-564-2271 or jott@bouldercounty.org.

Please return responses by **June 23, 2020.**
(Please note that due to circumstances surrounding COVID-19, application timelines and deadlines may need to be modified as explained in the CPP Notice of Emergency Actions issued March 23, 2020 (see https://boco.org/covid-19-cpp-notice-20200323).

_____ We have reviewed the proposal and have no conflicts.
__✓__ Letter is enclosed.

Signed Vanessa McCracken PRINTED
Name Vanessa McCracken
Agency or Address Longmont Conservation District

Please note that all Community Planning & Permitting Department property owner's mailing lists and parcel maps are generated from the records maintained by the County Assessor and Treasurer Office. We are required to use this

Longmont Conservation District
9595 Nelson Road, Box D – Longmont, Colorado 80501 – Phone (720) 378-5521

Site Review Memo 2

Sept 29, 2020

To: Jean (Raini) Ott, Boulder County Community Planning & Permitting
From: Vanessa McCracken, District Manager

Applicant: Shane & Courtney Walter
Purpose: Reception Hall
Location: 15293 N. 107th Street
Docket/Case Number: SU-20-0003

The Longmont Conservation District appreciates the applicant's re-referral packet as many of the initial concerns were addressed.

The Longmont Conservation District would like to add more context about water rights and ditch maintenance.

The applicants appear to have two shares of Supply Ditch but unsure how they will get that water on the land for ag use. The one diversion gate noticed was built into the north bank of the ditch in the ag parcel immediately south of the one that is subject to this application and close to the ditch undercrossing of SH287. There also appeared to be a small detention pond along the south bank in that same location that may have been part of an irrigation system set up by previous owners. No other infrastructure exists there today. The Supply Ditch has an 1878 decree and there are 400 shares in the company. The ditch runs an average of 61 days per year and delivers an average of just under 12 acre-feet of water per share. The Highland Ditch, the northern of the two parallel irrigation ditches crossing the parcel in question, runs four times as much water per year on an average 80-day run. It is the largest in the system and extends way out east into the Johnstown area of Weld County. But it also has 40 prior appropriations ahead of it so dry times will affect the amount of diversions. Both ditches divert from St. Vrain Creek in Lyons within a few hundred yards of one another.

Since the applicants list their address as from Enterprise, AL, they may not be familiar with western water rights and the prior appropriation doctrine. East of the Mississippi River riparian rights are in play. In that system, if a stream flows through your property you have a right to use that water. That would never have worked out here where scarce rain and snow have always been worth fighting over.

Ditches with early decrees legally operate within a prescriptive easement across the lands. Most often that easement does not show up as an exception on a property deed. It does mean that the ditch company can claim an easement over whatever width along the ditch that the company deems necessary to maintain their ditch. 25 feet on one or both sides of the banks is common depending on the width and depth of the ditch. Annual maintenance of the ditch by contractor or company employees could include burning the ditch banks in the spring, mechanically cleaning the ditch with a backhoe, or spraying herbicides to control weeds. Any silt or debris cleaned out is often left on the ditch banks. Adjacent landowners are not allowed to disturb, build structures over/under, or move any part of a private irrigation ditch unless expressly permitted by the ditch

company. Seeking that permission also extends to drainage to ditches, including spillways from detention ponds into ditches.

Most irrigation ditches through ag lands are of earthen construction. Thus, some seepage in the realm of 10-20% when the water is running is common. In some areas of the county with very little grade to the ditch, as much as 40% seepage loss of the water can be experienced. That can be problematic for home basements or septic systems constructed too close to irrigation ditches. Land Use and the County Health Department can help mitigate any issues.

The irrigation water year runs from October 1 through September 30 of the following year. Most stream diversions by irrigation ditch companies run from May to September when crop irrigation is in full swing. The priority of a decree determines when and how much you can divert with the State Water Commissioner having control of the numerous headgates along the river. Historically the irrigation ditches were dry during the winter. However, in recent times, the State has allowed ditch companies to divert water to fill their reservoirs during the winter months when water is available from the streams and not in conflict with irrigation season.

COLORADO
Division of Water Resources
Department of Natural Resources

September 16, 2020

Jean (Raini) Ott
Boulder County Community Planning & Permitting
Transmission via email: jott@bouldercounty.org

Re: Jubilee Acres Reception Hall Special Use and Site Specific Development Plan Re-Referral
Docket SU-20-0003
Pt. NE ¼ of the SW ¼ of Section 3, T3N, R69W, 6th P.M.
Water Division 1, Water District 5

Dear Ms. Ott:

We have reviewed the above referenced re-referral for a proposal for a special use and site specific development plan. The submitted material does not qualify as a "subdivision" as defined in section 30-28-101(10)(a), C.R.S. Therefore, pursuant to the State Engineer's March 4, 2005 and March 11, 2011 memorandums to county planning directors, this office will only perform a cursory review of the referral information and provide comments. The comments will not address the adequacy of the water supply plan for this property or the ability of the water supply plan to satisfy any County regulations or requirements.

The subject application seeks to construct four studio cabins, a chapel, and an indoor reception hall on a parcel of 36.16 acres. The site will be used to hold approximately 150 weddings and other events each year.

The proposed potable water supply is an existing water tap from the Little Thompson Water District. The application materials did not include verification of the existing tap, but records available to this office indicate that the property is within the boundaries of the Little Thompson Water District. The existing water tap will also be used to irrigate the landscape vegetation.

The Upper Highland Ditch and the Supply Ditch both flow through the property. The application included copies of certificates for a total of two shares in the Capital Stock of the Supply Irrigating Ditch Co. owned by the property owner. These two shares will be used for irrigation for agricultural purposes on the 31.51 acres of the property that will not be utilized for the wedding venue. The decorative pond that was previously proposed to be constructed and filled with ditch water has been removed from the proposal.

The Drainage Report, prepared by RidgeTop Engineering & Consulting, states that two detention ponds will be constructed on the property. The applicant should be aware that, unless the structures can meet the requirements of a "storm water detention and infiltration facility" as defined in section 37-92-602(8), C.R.S., the structures may be subject to administration by this office. The applicant should review the Division of Water Resources's *Administrative Statement Regarding the Management of Storm Water Detention Facilities and Post-Wildland Fire Facilities in Colorado*, attached, to ensure that the notification, construction, and operation of the proposed

structures meet statutory and administrative requirements. The applicant is encouraged to use the *Colorado Stormwater Detention and Infiltration Facility Notification Portal*, located at https://maperture.digitaldataservices.com/gvh/?viewer=cswdif, to meet the notification requirements. The application states that the intent of the applicants is to utilize the detention ponds for pasture or production. Vegetation that requires irrigation beyond natural precipitation should not be planted within the detention pond basin. Please note that to meet the requirements of the a "storm water detention and infiltration facility", the detention ponds must be operated solely for storm water management and infiltrate at least 97% of all the water from a rainfall event that is equal to or less than a five-year strom within 72 hours. Otherwise, the detention ponds will be subject to administration by this office and require approval from the Water Court.

Should you or the applicant have any questions regarding this matter, please contact Javier Vargas-Johnson at this office for assistance.

Sincerely,

Sarah Brucker, P.E.
Water Resources Engineer

Attachment: *Administrative Statement Regarding the Management of Storm Water Detention Facilities and Post-Wildland Fire Facilities in Colorado*

Cc: Owner (S & C Walter Properties, LLC, cbrisulli@gmail.com)
Agent (Planscapes, rmmolloy@msn.com)
Referral file no. 27145

COLORADO
Division of Water Resources
Department of Natural Resources

1313 Sherman Street, Room 821
Denver, CO 80203

Administrative Statement Regarding the Management of Storm Water Detention Facilities and Post-Wildland Fire Facilities in Colorado

February 11, 2016

The Division of Water Resources (DWR) has previously administered storm water detention facilities based on DWR's "Administrative Approach for Storm Water Management" dated May 21, 2011. Since the passage of Colorado Senate Bill 15-212, that administrative approach has been superseded. This document describes SB 15-212, codified in section 37-92-602(8), Colorado Revised Statutes (C.R.S.), and how the law directs administrative requirements for storm water management. The document is for informational purposes only; please refer to section 37-92-602(8) for comprehensive language of the law.

Pursuant to section 37-92-602(8), storm water detention facilities and post-wildland fire facilities shall be exempt from administration under Colorado's water rights system only if they meet specific criteria. The provisions of SB15-212 apply to surface water throughout the state. SB15-212 *only* clarifies when facilities may be subject to administration by the State Engineer; all facilities may be subject to the jurisdiction of other government agencies and must continue to obtain any permits required by those agencies.

Storm Water Detention Facilities

Pursuant to section 37-92-602(8), a storm water detention and infiltration facility ("Detention Facility") is a facility that:

- Is owned or operated by a government entity or is subject to oversight by a government entity, including those facilities that are privately owned but are required by a government entity for flood control or pollution reduction.
- Operates passively and does not subject storm water to any active treatment process.
- Has the ability to continuously release or infiltrate at least 97 percent of all of the water from a rainfall event that is equal to or less than a five-year storm within 72 hours of the end the rainfall event.
- Has the ability to continuously release or infiltrate at least 99 percent of all of the water from a rainfall event that is greater than a five-year storm within 120 hours of the end the rainfall event.
- Is operated solely for storm water management.

In addition, to qualify for the allowances provided in SB-212, the facility:

- Must not be located in the Fountain Creek watershed, unless the facility is required by or operated pursuant to a Colorado Discharge Permit System Municipal Separate Storm Sewer System Permit issued by the Department of Public Health and Environment pursuant to Article 8 of Title 25, C.R.S.
- Must not use water detained in the facility for any other purpose nor release it for subsequent diversion by the person who owns, operates, or has oversight over the facility. The facility cannot be operated as the basis for a water right, credit, or other water use right.
- Must not expose ground water.
- May include a structure or series of structures of any size.

If the Detention Facility was constructed *on or before* August 5, 2015 and meets all the requirements listed above, it does not cause material injury to vested water rights and will not be subject to administration by the State Engineer.

If the Detention Facility is constructed after August 5, 2015, meets the requirements listed above, and the operation of the detention facility does not cause a reduction to the natural hydrograph as it existed prior to the upstream development, it has a rebuttable presumption of non-injury pursuant to paragraph 37-92-602(8)(c)(II). A holder of a vested water right may bring an action in a court of competent jurisdiction to determine whether the operation of the detention facility is in accordance with paragraph 37-92-602(8)(c)(II)(A) and (B) has caused material injury. If the court determines that the vested water rights holder has been injured, the detention facility will be subject to administration.

In addition, for Detention Facilities constructed after August 5, 2015, the entity that owns, operates, or has oversight for the Detention Facility must, prior to the operation of the facility, provide notice of the proposed facility to the Substitute Water Supply Plan (SWSP) Notification List for the water division in which the facility is located. Notice must include: the location of proposed facility, the approximate surface area at design volume of the facility, and data that demonstrates that the facility has been designed to comply with section 37-92-602(8)(b) paragraphs (B) and (C). The State Engineer has not been given the statutory responsibility to review notices, however, DWR staff may choose to review notices in the course of their normal water administration duties. Not reviewing notices does not preclude the Division Engineer from

taking enforcement action in the event that the above criteria are not met in design and/or operation.

To satisfy the notification requirement, operators are encouraged to use the Colorado Stormwater Detention and Infiltration Facility Notification Portal developed by Urban Drainage and Flood Control District ("UDFCD"), located at: https://maperture.digitaldataservices.com/gvh/?viewer=cswdif.

Types of detention Facilities contemplated under this statute include underground detention vaults, permanent flood detention basins,[1] extended detention basins,[2] and full spectrum detention basins.[3] Storm Water Best Management Practices[4] (BMPs) not contemplated above, including all Construction BMPs and non-retention BMPs, do not require notice pursuant to SB-212 and are allowed at the discretion of the Division Engineer. Green roofs are allowable as long as they intercept only precipitation that falls within the perimeter of the vegetated area. Green roofs should not intercept or consume concentrated flow, and should not store water below the root zone. BMPs that rely on retention, such as retention ponds and constructed wetlands, will be subject to administration by the State Engineer.

Any detention facility that does not meet all of the statutory criteria described above, in design or operation, is subject to administration by the State Engineer.

[1] Flood detention basin: An engineered detention basin designed to capture and slowly release peak flow volumes to mitigate flooding (Urban Drainage and Flood Control, 2010).
[2] Extended detention basin: An engineered detention basin with an outlet structure designed to slowly release urban runoff over an extended time period (Urban Drainage and Flood Control, 2010).
[3] Full spectrum detention basin: An extended detention basin designed to mimic pre-development peak flows by capturing the Excess Urban Runoff Volume and release it over a 72 hour period (Urban Drainage and Flood Control, 2010).
[4] Best management practice: A technique, process, activity, or structure used to reduce pollutant discharges in stormwater (Urban Drainage and Flood Control, 2010).

Post-Wildland Fire Facilities

Pursuant to section 37-92-602(8), a post-wildland fire facility is a facility that:

- Includes a structure or series of structures that are not permanent.
- Is located on, in or adjacent to a nonperennial stream[5].
- Is designed and operated to detain the least amount of water necessary, for the shortest duration of time necessary, to achieve the public safety and welfare objectives for which it is designed.
- Is designed and operated solely to mitigate the impacts of wildland fire events that have previously occurred.

In addition, to qualify for the allowances provided in SB-212, the facility:

- Must be removed or rendered inoperable after the emergency conditions created by the fire no longer exist, such that the location is returned to its natural conditions with no detention of surface water or exposure of ground water.
- Must not use water detained in the facility for any other purpose nor release it for subsequent diversion by the person who owns, operates, or has oversight over the facility. The facility will not be operated as the basis for a water right, credit, or other water use right.

If the post-wildland fire facility meets the requirements listed above, it does not cause material injury to vested water rights. While DWR recognizes that post-wildland fire facilities are essential to the protection of public safety and welfare, property, and the environment, DWR may, from time to time, request that the person who owns, operates, or has oversight of the post-wildland fire facility supply information to DWR to demonstrate they meet the criteria set forth above.

If a post-wildland fire facility does not meet all the criteria set forth above, it will be subject to administration by the State Engineer.

[5] DWR may use the National Hydrography Dataset or other reasonable measure to determine the classification of a stream

Resources and References

Colorado Stormwater Detention and Infiltration Facility Notification Portal: https://maperture.digitaldataservices.com/gvh/?viewer=cswdif

Colorado Senate Bill15-212: http://www.leg.state.co.us/CLICS/CLICS2015A/csl.nsf/fsbillcont3/13B28CF09699E67087257DE8006690D8?Open&file=212_enr.pdf

United States Geological Survey National Hydrography Dataset: http://nhd.usgs.gov/

Urban Drainage and Flood Control District 37-92-602(8) explanation memo and FAQ's: http://udfcd.org/crs-37-93-6028-explanation-memo-and-faqs/

Urban Drainage and Flood Control District. (2010). *Urban Storm Drainage Criteria Manual: Volume 3, Best Management Practices*, updated November 2015. Located at: http://udfcd.org/volume-three

Right of Way & Permits
1123 West 3rd Avenue
Denver, Colorado 80223
Telephone: **303.571.3306**
Facsimile: 303.571.3284
donna.l.george@xcelenergy.com

October 9, 2020

Boulder County Land Use
PO Box 471
Boulder, CO 80306

Attn: Raini Ott

Re: Jubilee Acres Reception Hall Re-referral, Case # SU-20-0003

Public Service Company of Colorado's Right of Way & Permits Referral Desk has again reviewed the documentation for **Jubilee Acres Reception Hall** and has **no apparent conflict**.

Should the project require any new natural gas service, the property owner/ developer/contractor must complete the application process via xcelenergy.com/InstallAndConnect.

Donna George
Right of Way and Permits
Public Service Company of Colorado dba Xcel Energy
Office: 303-571-3306 – Email: donna.l.george@xcelenergy.com

Boulder County

Comm... Planning & Permitting

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25 MAR 2020 PM 2 L

Community Planning & Permitting
2045 13th St
Boulder, Colo 80302

80302-520145

Attn: Jean Ott

Harvey & Carol Yoakum
14707 N 95th St.
Longmont, CO 80504-8006

Community Planning & Permitting

Courthouse Annex • 2045 13th Street • Boulder, Colorado 80302 • Tel: 303.441.3930
Mailing Address: P.O. Box 471 • Boulder, Colorado 80306 • **www.bouldercounty.org**

MEMO TO: Referral Agencies
FROM: Jean (Raini) Ott, CFM, AICP, Planner II
DATE: May 19, 2020
RE: Docket SU-20-0003

Docket SU-20-0003: Jubilee Acres Reception Hall

Request: Special Use and Site Specific Development Plan request for a reception hall to host weddings and other events approximately 150 times per year on a 36-acre parcel.

Location: 15293 N. 107th Street, located on the west side of Hwy 287/N. 107th Street approximately 2,000 feet north of its intersection with Yellowstone Road, in Section 3, Township 3N, Range 69W.

Zoning: Agricultural (A)
Property Owner: S&C Walter Properties I, LLC
Applicants: Shane & Courtney Walter
Agent: Rob Molloy, Planscapes

Special Use Review / Site Specific Development Plan is required of uses which may have greater impacts on services, neighborhoods, or environment than those allowed with only Building Permit Review. This process will review compatibility, services, environmental impacts, and proposed site plan.

This process includes public hearings before the Boulder County Planning Commission and the Board of County Commissioners. Adjacent property owners and holders of liens, mortgages, easements or other rights in the subject property are notified of these hearings.

The Community Planning & Permitting staff, Planning Commission, and County Commissioners value comments from individuals and referral agencies. Please check the appropriate response below or send a letter to the Community Planning & Permitting Department at P.O. Box 471, Boulder, Colorado 80306 or via email to planner@bouldercounty.org. All comments will be made part of the public record and given to the applicant. Only a portion of the submitted documents may have been enclosed; you are welcome to call the Community Planning & Permitting Department at 303-441-3930 or email planner@bouldercounty.org to request more information. If you have any questions regarding this application, please contact me at 720-564-2271 or jott@bouldercounty.org.

Please return responses by **June 23, 2020.**
(Please note that due to circumstances surrounding COVID-19, application timelines and deadlines may need to be modified as explained in the CPP Notice of Emergency Actions issued March 23, 2020 (see https://boco.org/covid-19-cpp-notice-20200323).

__X__ We have reviewed the proposal and have no conflicts.
_____ Letter is enclosed.

Signed Carol L Yoakum PRINTED
Name _____
Agency or Address Meadow Green Farm

Please note that all Community Planning & Permitting Department property owner's mailing lists and parcel maps are generated from the records maintained by the County Assessor and Treasurer Office. We are required to use this

From: Wufoo
To: #LandUsePlanner
Subject: Ask a Planner - Susan Strawbridge - SU-20-0003 -
Date: Thursday, October 8, 2020 7:32:14 PM

If your comments are regarding a specific Docket, please enter the Docket number: SU-20-0003
Name: Susan Strawbridge
Email Address: strawbridge_susanh@yahoo.com
Phone Number: (303) 960-3742
Please enter your question or comment: Where can I find the complete traffic study? I am beyond concerned what this means for an already very busy and dangerous highway.
Public record acknowledgement:
I acknowledge that this submission is considered a public record and will be made available by request under the Colorado Open Records Act.

From: Wufoo
To: #LandUsePlanner
Subject: Ask a Planner - Web inquiry from Terrin Johnson - SU-20-0003
Date: Tuesday, June 23, 2020 12:11:48 PM

Boulder County Property Address : 15406 N 107th St
If your comments are regarding a specific docket, please enter the docket number: SU-20-0003
Name: Terrin Johnson
Email Address: Terrynorthstar@Gmail.com
Phone Number: (720) 202-7000
Please enter your question or comment: Hello,

My name is Terrin Johnson, 720-202-7000. I own the home and property at 15406 N 107th St. I am writing in regards to the planned Jubilee Acres Reception Hall at 15293 N 107th St. The planned location is nearly across the street from me and does present some concerns with the rural lifestyle we and surrounding neighbors all enjoy leading out here. My main concerns are that of traffic, noise, and my view. Despite being right off the highway, we enjoy many times of the day (including late evening hours) where there is not a lot of noise. I am concerned with their being a large event held every other night across the street that there will be regular audible music or speaking noise, etc, during these peaceful times. Secondly, I have witnessed countless issues/accidents near the intersection of Yellowstone Rd and N 107th over the last 5 years. I am concerned that any substantial increase in traffic using the center lane and shoulders to turn in and out of the proposed property will affect the number of issues, as well as make an already white knuckle experience of turning into your house or onto the highway even more "exciting." Lastly, I have little doubt that if the view of the mountains is blocked in any way that my property value will be affected. This was and is one of the main appeals/ selling points to my property and I would be pretty devastated to not have the same views I currently have. Please feel free to contact me at any time. I would love to hear if others have had similar concerns and what is being done to address them, and I would also love to know what the planned building will be like in size, height, etc.

Thanks for your time,
Terrin Johnson
Public record acknowledgement:
I acknowledge that this submission is considered a public record and will be made available by request under the Colorado Open Records Act.

From: henke@prodigy.net
To: Ott, Jean
Subject: Comments SU-20-0003
Date: Tuesday, September 29, 2020 2:35:02 PM

Hello Jean,

Here are some comments on SU-20-0003.

Noise. In the updated document, noise control is now proposed as follows: We are also proposing to construct 5' berms along the north and east edges of the property for added noise and site buffering.

My question is if noise is a concern, what about noise traveling south or west? Should berms not be constructed along the southern and western boundaries of the property as well? Keeping noise away from 287 does not keep noise asway from the people on Yellowstone Road. There is one house immediately south of the property and three houses immediately to the west. Instead of berms to the west or south, it seems that noise reduction walls would provide more noise dampening. As they pointed out, 287 is noisy so this use of the land will add to that noise level. The proposed noise mitigation seems like a 50 percent solution and I am not sure a very effective solution.

LIGHT The reception hall will be outfitted with downlighting features and outdoor decorative string lighting on the south side. Windows on the west side of the proposed reception hall and eventual chapel will be outfitted with 35 percent tinted glass to control glare and increase energy efficiency.

I know the county has rules on light emission but do you all have a metric on total light emission? For example, will there be lights on the cabins, parking lot, pathways, and so on. Would the lights be on all night? Everyday or only when there are activities? All of these lights add up and generate light pollution. Its one thing to try to limit the amount of light emitted from the reception hall but what is the total light emitted for the entire property. In addition to berms for noise control, perhaps pine trees or cedars could be planted along the perimeters to possibly reduce light pollution.

Another overall comment, much of what is said in the application to enforce noise and parking is voluntary. If for example, there is a party going on till the late hours of the evening, do we, the neighbors complain to the Land Use department or the sheriff? I am hoping people will follow the rules but then again, I am one those who wears his mask while in public, not everyone does.

Finally, the adjoining parcel located at 15275 N 107st is owned by what I think folk call a related party (I believe the father of one of the applicants). My concern would be that the parcel might be used in the ongoing activities for overflow parking or whatever. Is this something that can be addressed by the Land Use department?

Thanks

Harold Henke, PH.D.

From:	Peggy Clark
To:	#LandUsePlanner
Subject:	Docket #SU-20-0003 Jubilee Acres
Date:	Friday, October 2, 2020 11:04:59 AM

I am responding for Peggy and Michael Clark. We have resided at 15655 N. 107th St. Longmont for 27 years. We are OPPOSED to this proposed zoning change for the following reasons:

1. Allowing this to change from agricultural to special use will have a ripple effect. The proposed site is situated in the middle of crop farming and animal ranching. We ourselves have raised a small amount of beef for ourselves and others. I believe the disruption of the major construction and ongoing activities will be a disturbance to those families trying to earn their living from these 2 occupations . I also believe losing more ground that was once used for agricultural purposes to a more urban use will continue a negative trend that could soon lend itself to there being no family farms between Longmont and Berthoud along Highway 287.

2. Adding more traffic to an already ridiculously busy road such as 287 will negatively impact the people who live along this road as well as the many commuters, commercial vehicles and companies that depend on this road. God forbid that any animals get loose from their enclosures and get near the road, I have seen firsthand how impatient and disrespectful of life this "traffic" can be. Moving any equipment needed for our chosen occupation is also hazardous because the speed of farming equipment is no where close to the speeds seen on the highway. Allowing this venue will continually add more traffic and congestion if their overly optimistic projections are to be believed.

3. While I can see that the possibility of adding jobs And adding revenue to the County's coffers could be enticing, I believe this would be a very short term approach to a long range problem. If this endeavor goes forward and adds a religious community to the mix, there goes the County's revenue and adds even more traffic, noise and congestion to the area. What happens to the property if the endeavor fails? Do we see the transient population move in and take over the parking lots? It's possible.

4. And finally, noise and security. Only the people who actually live in the area know there is no "quiet country life" along this road. Noise travels and celebrations extending until 10:00 p.m. do not help the people who need to wake up and go to work between 5 and 6 a.m. 24 hour security should be a requirement, not only for the proposed endeavor but also to protect the property the possessions of the nearby addresses. As a taxpayer I don't believe we should pay for this but it should be the responsibility of the landowner.

We are seriously against this proposed change and I hope our feelings and thoughts will be taken into consideration when the County is making their decision. We would appreciate notification of the resolution of this subject. Thank

you

Peggy Clark

From:	Mary Pearson
To:	#LandUsePlanner
Subject:	Fwd: SU/SSDP Re: Docket SU-20-0003
Date:	Thursday, June 11, 2020 8:08:46 AM

---------- Forwarded message ---------
From: **Mary Pearson** <pearson7plus@gmail.com>
Date: Wed, Jun 10, 2020 at 5:21 PM
Subject: SU/SSDP Re: Docket SU-20-0003
To: Gary Pearson <gscott64@gmail.com>

Hello,
We are responding to the plan submitted for the proposed Jubilee Acres Reception Hall (Docket SU-20-0003) just south of our property at 10496 Ramuda Dr., Longmont 80504 owned by Gary & Mary Pearson and the Pearson Family Trust.
We purchased this simple residence and nearly 30 acre conservation easement over 4 years ago as a quiet place to live as we transition into retirement years ahead. The surrounding property is a peaceful retreat from the busyness of our jobs and former urban/suburban residences. Although we understand what happens beyond the boundaries of our property is largely beyond our control, the main intruder we foresee with this proposal is SOUND.Secondary concern is TRAFFIC.

Our property is on an elevation (the HOA of the 3 properties on our drive is called Pheasant Hill) and the traffic noise from 287 during the day is remarkably noticeable - really - so much more than we would ever have imagined for living in the country.
When neighbors living in the area north of us in Horseshoe Park have gatherings, (located at 2548, 2560, 2592 Horseshoe and structure behind? which are of further distance north of us as the proposed reception hall is south of us), they run 4 wheelers (probably not applicable but very loud), play music for the duration of the event which is very audible and distinct to us (I can sing along with lyrics), and there are bursts of laughter, children squealing and screaming etc.
We're not against people enjoying a good time, and we have parties and gatherings in the warmer months where we make some noise outside at our place too - occasionally. Retirement is not yet upon us, so getting to bed early and rising early is still a necessity for most days (weekends included). We communicate, accommodate and reciprocate with neighbors if planned events either way might go a bit late, clog the driveway or last a few days.
But to be asked to contend with increased noise pollution on a regular basis, most probably with amplification, would not just interrupt but drastically change the peaceful lifestyle and long awaited respite we have here on Ramuda Dr. This is a proposal we are unwilling to accept.

A secondary concern is the traffic that will cause intermittent backups on a stretch of highway that is already dangerous and difficult to navigate. (Just north of us southbound 287 goes from 3 lanes to 2 lanes at a slight downhill and we often have to wait several minutes to safely pull out of the drive.) There are accidents all the time, often fatal, between 56 and Yellowstone, so we are not in favor of adding a potential for more backup or confusion during

evening/weekend high traffic times (and given the nature of a reception hall there is the potential for alcohol use/influence for drivers entering/exiting events).

We have not yet requested a referral packet for the development plan of Jubillee Acres, but given just the name on the Docket as a Reception Hall with events 150 times a year we believe our concerns as residents in the near vicinity should be taken into consideration to prohibit the acceptance of this proposal.
Sincerely,
Gary & Mary Pearson

To Whom it May Concern
Re: Docket SU-20-0003: Jubilee Acres Reception Hall

We appreciate the opportunity to share our observations and opposition to the above proposal for Special Use and Site Development Plan for Jubilee Acres, as proposed by S&C Walter Properties I, LLC. Several months ago we attended the informative meeting in site to learn more about the proposal, review the plans and to voice our concerns in person. We were at that time somewhat taken aback by the lack of distancing and masks, which were requested of attendees yet disregarded by the owner having just flown in from out of state, yet they did eagerly describe their vision and listen to disapproval. Since that meeting we have had ample time to review and pour over the application. It is evident in the revisions that efforts were made to address potential problem areas, but from our perspective the proposition for land use remains more idealistic than realistic, and is incompatible with both zoning and desires of existing landowners. We have three main areas of concern that will impact us as rural neighbors.

Possibly the most important factor will be how traffic flow will be affected and its impact on the safety of those attending these events. Having to access Hwy 287 for our personal entrance and exit from our home it has become obvious that the amount of traffic has certainly increased over the past 4-5 years. Turning either north or south off of 287 is hazardous at times and we have seen many accidents (several fatal) along this stretch of the highway. Because of the hills and lack of vision it can take up to 2 to 5 minutes to pull out in traffic, especially when turning north and having to access the center lane. It is not unusual for cars to travel 75 to 80 miles an hour as they are proceeding on Highway 287. No accident study was included in the traffic analysis which may have been an oversight. As an emergency room physician (Gary) safety is of upmost concern and merging into traffic especially after alcohol consumption late at night could be a recipe for high-speed trauma and possibly even mortality.

The second area of concern regards noise. Although there is a noise mitigation plan within the proposal application, reality and past experience tell us that people in Colorado tend to prop open doors and go outside during wedding and celebration events irrespective of weather and contractual agreement. The likelihood that the music and boisterous conversations will take place inside is theoretical and oversimplified. The proposed 150 events a year going even until after 10:00PM would greatly impact our serene and pastoral lifestyle. I personally arise between 5:30 and 5:45AM daily for my work at the hospital and staying up late due to irregular unnatural noise is not something I'm willing to tolerate as a current local landowner. We are well within the range of noise pollution that would be generated by this venue. The likelihood that an 'up to 5' berm would alleviate the effects of projected electronically amplified voices and music is highly unlikely.

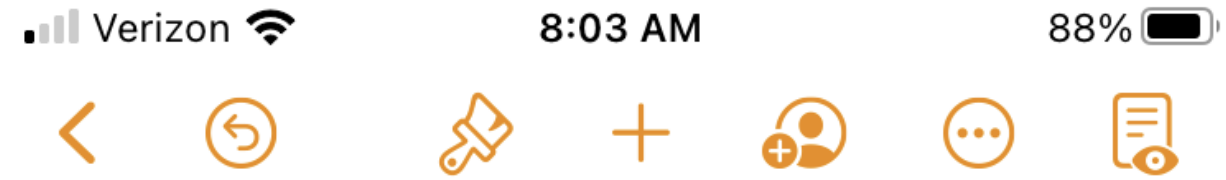
The final area of concern regards the "overnight cabins". These cabins encroach much closer on existing neighbors' homes and open areas. In one portion of the proposal it says they will only be used for one night and then elsewhere it says they will be offered for the night before and the night of an event. The likelihood that these cabins will be patrolled and monitored hourly for excessive noise is questionable since there will be no permanent presence on the premises, and the owners live in Enterprise, Alabama. We strongly oppose overnight accommodations that will allow noise and activity to continue most likely past the proposed event cessation. This lack of residential supervision and the potential for alcohol use in these cabins could lead to infractions, excessive noise, disputes with existing neighbors, providing an opportunity for ongoing conflict.

In summary, we feel that the location of this reception hall, the number of activities anticipated and the direct impacts of increased traffic and noise would be deleterious to our rural community. Although the proposal says that 87% of this property would be dedicated to agricultural use it is clearly understood that this property is primarily for commercial use and would negatively impact the local residents and our rural lifestyle. We ask that you take these things into consideration when declining to grant this project approval.

Sincerely,
Dr. Gary S and Mary H Pearson
10496 Ramuda Dr
Longmont, CO 80504

From: Carina Fisher
To: Ott, Jean
Subject: Re: Ask a Planner - Carina Fisher - SU-20-0003 - 15293 N 107th st
Date: Tuesday, October 13, 2020 8:08:14 AM
Attachments: image0.png
image1.png
image2.png

Thank you for getting back to me! Let me know if this works

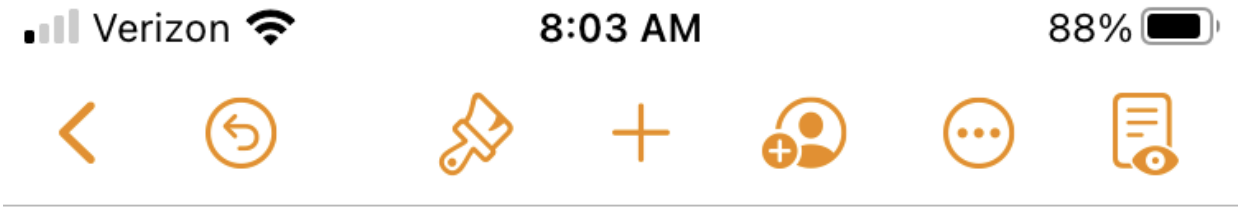


1. To the Boulder County Community Permitting Department and Jean (Raini) Ott:
2. PO Box 471 Boulder, CO 80301
3. Docket no.: SU-20-0003 jubilee acres
4.
5.
6. My name is Carina Fisher and I own and reside at 10429 and 10437 Yellowstone Rd, sharing 1/2 mile of property line with the Walters. I do not approve of or appreciate an event venue in our area. These are my reasons, thank you for your time.
7.
8.
9. 1. Noise. The topography of the area creates an amphitheater effect from the lowest spot, which is the location of the proposed event center. Through the summer a neighbor over a mile away (directly to my north on Horseshoe Rd), and on the other side of 2 treed ditches full of water with no sight line, played loud music a few times and it was clear as a bell at my house. This was during the day with full traffic and the air density that comes with daytime. As opposed to night time, when noise travels farther and there is less road-noise pollution, when people would be leaving the venue. There is no amount of "sound-breaking" foliage that can keep that cacophony from traveling. No one leaves a wedding quietly. There is no amount of signage or enforcement that can keep people leaving a wedding from being loud. Intoxicated or not. Multiply that by up to 300 people. Not to mention music. I don't care for auditory outcome. I like to sleep with my windows open at night, and as a brutally busy farmer, I don't relish being awoken at 10pm every time there's a wedding. That's not why I purchased property here.

2. Traffic safety. The stretch of 287 that extends from the cemetery south of Yellowstone Rd to the Dog Ranch to the north is a truly deadly stretch of road. There is a blind hill and traffic traveling at speeds in excess of 65 mph. There have been at least 9 fatal traffic accidents along there in the 5 years I've lived here. I've thought of as many ideas as I can around the rectification around this issue, and every "solution" is worse than the one before. I can't imagine justifying disrupting the essential travel of over a hundred thousand people on HWY 287 for the benefit of a wedding venue. A light anywhere would not be safer, nor would diverting the venue traffic onto Yellowstone Rd.

3. Benefit to the county. This venue is not going to generate enough money for the county to justify its existence. The property owners do not live in the state of Colorado. Courtney Walters herself told the group of us at their meeting that they live in Alabama. She told another neighbor that they prefer it to Colorado, so that does not give me confidence that they will be moving back.
I see no evidence that they've spent any money in the county at all other than their permit fees. Their landscape architect does not live in Boulder County, nor does their wedding consultant. They don't shop here or pay taxes here. The property owners have never lived in Boulder County and don't seem to be interested in establishing connections to the business in our area. There is a trailer parked on the property and I've wondered if they're trying to use it to establish

There is a trailer parked on the property and I've wondered if they're trying to use it to establish some sort of residential history. In the 3 years it's been there I've never once seen anyone even near it, nor any sign that anyone has ever been there. This is not a family that would live in a camper trailer, let alone spend a single night.
Given that the owners live out of state, that is where they will be spending the proceeds of this venture. Even if they move back to the state, these are not "Boulder County People", I'm sure they would move back towards their parents in Windsor. When I say "Boulder County People" I mean the people of Boulder County who have voted time and again to prevent fracking and additional drilling in our provincial landscape. The Walters primary business is oil and gas. As oil and gas prices fluctuate, especially in the coming economic turmoil, will this venue be income that supports their oil and gas business? There is not a single neighbor in the area who



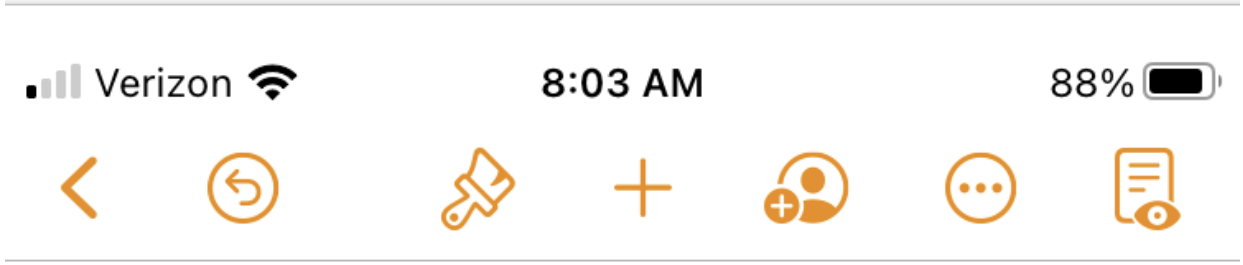
believes this to be a benefit to our community. Between meetings, phone calls, and door knocks, I am confident of this.

4. An issue of honesty. The more time I've spent around the Walters, the more confused I am. They first told me that they purchased the property to live on, then they began to plan for this project. At the meeting, Courtney said that they purchased this property with the intention of building an event venue. I was surprised to hear this, as people starting those sorts of projects usually know EXACTLY what the parameters of the land are before purchasing. Boulder County is a highly-regulated landscape and not scrupulous realtor would sell this property and say, "of course you can have a 300 person 150 night a year wedding venue in rural Boulder County". One point of confusion like this didn't raise my hair until the next lie. Courtney told me that she has no idea who owns the other 35 acres of the original 70 acre property they purchased. I asked her several times to make sure I understood that she was saying she is truly clueless to the ownership. The southern 35 acres never went onto the open real estate market, which means that it would have had to be a pocket listing. It took years for Robert Graves to sell the 70 irrigated acres, why would someone by the worst 35 unirrigated acres? With the sellers having no knowledge of their identity. It made no sense, so I had our "nosy" neighbor do a couple of minutes of legwork to identify that Shane Walters parents own that section. This was always the public assumption. The Walters even told me that they purchased the property to share with their parents. I really don't understand the need for the lie. All it did was raise my suspicions that the property owners have issues with simple un incriminating facts. I've found that when people aren't truthful about simple low-risk things, their truth-telling skills don't improve as the stakes get higher. I'm no Sherlock, so I can't disseminate what that means, only that it doesn't sit well with me to have that personality type as a neighbor, especially with such high stakes.
As for the meeting, they sent the notice out in a way that made the neighborhood believe that it was THE official meeting, held by the county. Neighbors who couldn't make it were so upset that they weren't heard. I've told everyone to look up the address and speak their mind to the county, but as I never received any notice myself, I was ignorant to the deadline and unable to

share that information. There are dozens of neighbors to the north that were never notified at all and still don't know that this is happening without an opportunity for their input.

Real estate value: this project would significantly affect the value of my property. We share a property line and no one wants to spend over a million dollars to have that kind of activity with such adjacency. At some point, I will need to sell this property, and I will need to make a profit. I am not interested in forfeiting that to an absurd idea like a wedding venue on HWY 287.
The neighbor directly to the north, David Roy spoke to me about it very emotionally 1 week before emergency heart surgery and 3 weeks before his death last week. He was upset that he had to miss the meeting because he had so many concerns about what it meant for his future. He was recently divorced and knew that he couldn't keep the property financially and was devastated that he would have such a harder time selling it with a wedding venue 200 feet away. I know it is a bold statement, but when you see someone deeply stressed out by something real and tangible and they pass from a stress-related ailment 3 weeks later, my heart breaks. Obviously there were underlying conditions and a myriad of additional stressors, but a primary one for this man was his real estate situation. His adolescent children will need the proceeds of that property to support them into their lives where their father cannot. I know that he desperately wanted a voice in this matter and I'm so sad that he isn't here to write his own letter. I hope he had the time to reach out with his feelings before his health failed him.

5. Ecology. In our pristine pastoral landscape here, we have an incredible array of wildlife, particularly birds. There are bald eagles nesting both to the east and the west of the proposed site. I was unaware of this until this morning, when unsolicited by me, a BOCO wildlife biologist showed up on my doorstep to ask for access to my property to look for nests, I said of course



and she indeed found one. Another Sr. Wildlife biologist will be here on Tuesday to look for one she believes to be on the east side of the ditch.

Thank you for your consideration,

Carina Fisher
661-805-9444
Carinaann_fisher@yahoo.com

Sent from my iPhone

> On Oct 12, 2020, at 5:03 PM, Ott, Jean <jott@bouldercounty.org> wrote:
>
> Good afternoon Carina,
> Thank you for taking the time to review SU-20-0003. Unfortunately, I was not able to open the file attached below. Could you resend it as a PDF or Word document, please? We greatly value your comments.
>
> Thanks!
> Raini
>
> Jean Lorraine (Raini) Ott, AICP, CFM
> Planner II | Development Review Team

> 720.564.2271 | jott@bouldercounty.org | she/her/hers
>
> Boulder County Community Planning & Permitting
> 2045 13th Street | Boulder, CO | www.BoulderCounty.org
> 303.441.3930 | P.O. Box 471 | Boulder, CO 80306
> Formerly Land Use and Transportation – We've become a new department!
>
> PLEASE NOTE: In an effort to mitigate the spread of COVID-19, the Boulder County Community Planning & Permitting physical office at 2045 13th St. in Boulder is CLOSED to the public until further notice. We will continue to operate remotely, including the online acceptance of building permits and planning applications. Please visit our webpage at www.boco.org/cpp for more detailed information and contact emails for groups in our department. You may also leave a message on our main line at 303-441-3930 and the appropriate team member will return your call. Thank you for your adaptability and understanding in this extraordinary time!
>
> -----Original Message-----
> From: Wufoo <no-reply@wufoo.com>
> Sent: Friday, October 9, 2020 2:59 PM
> To: #LandUsePlanner <Planner@bouldercounty.org>
> Subject: Ask a Planner - Carina Fisher - SU-20-0003 - 15293 N 107th st
>
> Boulder County Property Address : 15293 N 107th st If your comments are regarding a specific Docket, please enter the Docket number: SU-20-0003
> Name: Carina Fisher
> Email Address: Carinaann_fisher@yahoo.com Phone Number: (661) 805-9444 Please enter your question or comment: Please see attachment Thanks
> Attach a photo or document (optional): https://bouldercounty.wufoo.com/cabinet/84a28574-69da-4e66-ad60-6f7b525f41ba - 415.64 KB
> Public record acknowledgement:
> I acknowledge that this submission is considered a public record and will be made available by request under the Colorado Open Records Act.
>
>

From:	Nicole Henderson
To:	#LandUsePlanner
Subject:	SU/SSDP RE: Docket SU-20-0003
Date:	Friday, October 9, 2020 8:45:34 AM

Hello,
We are responding to the plan submitted for the proposed Jubilee Acres Reception Hall (Docket SU-20-0003) Just south of our property 15493 North 107th street, Longmont 80504 owned by Nicole Bell Henderson. We have numerous concerns regarding the property in question: Sound, Light, Traffic, Sewage, Drainage, Environmental Impact, Privacy, and Safety/Security of our family and livestock, and decrease in home value.

We purchased our simple farm and home, with 29.34 acres over 19 years ago as a quiet, rural place to live and raise livestock, and a family. The Surrounding properties are a peaceful retreat from cramped businesses of the city. The quiet country life has been what has drawn us, and all the neighbors, to this area where we reside.
Many residents in this area have properties with conservation easements which has been an attractive draw to the small community, so that it may maintain its rural atmosphere. During the entire 19 years of living here, not a single person has lived on the property in question. We have noticed a camper parked on the property for the last several years, but no one has ever stayed there, in fact there are weeds with no path to the camper, showing it is unused. The property owners state they don't own a home in Colorado, live out of state, and have not lived in a place longer than two years. We have all worked very hard to purchase our properties, upkeep them, and live in peace in our small rural community. Many of us have been here 10-20 years PLUS. Although we understand what happens beyond our properties beyond our control, we never would have purchased a place next to a giant event center having 150 events per year. It is very disturbing that someone who has never spent a night on the property is willing to exploit the people of the neighborhood and subject them to the disturbances of 150 events per year. It would be at the expense of our rural land and homes that they seek to capitalize on by building a massive event center, and in return have no intention of even living amongst the neighborhood they wish to impose on. The proposed plan states the main building plan is the same height and square foot as a historic agricultural barn....which is ridiculous in thought considering old historic barns do not have giant parking lots, massive lighting, traffic, noise, and 150 events per year. Jubilee Acres will be the first land owners from Berthoud to Longmont on Highway 287 to simply view the land along the Highway as a source to profit from rather than actual build a life and live on. This is a living breathing community NOT a business strip mall to set up shop in!

They held a "information" meeting at the site, of which all attended where vehemently opposed to the event center. not once before purchasing this property for this purpose did they ask anyone in the community how they felt about the event center. They also were not honest and forthcoming on their plans at the meeting, and not concerned at all about the community or the impact of their proposal.

How does this property have agricultural status? There has been no farming activity over there. How are they able to build a church/chaple and hold church services? We are vehemently opposed to having church services every Sunday invading our privacy and quiet weekend hours.

For anyone that lives on 287, it is clear that the highway corridor has changed dramatically

over the years, as Berthoud continues to grow, turning farmland into vast seas of houses, further adding to the traffic and congestion and increasing accidents. Both the Children Home , the property across, Durans, Ourselves, and the Hoshikos (former owners of property across 287 from proposed Jubilee Acres) have had people drive off 287 at high speed and come through our fences. The Hoshikos' lost a horse, and the driver was killed on impact.

It was noted by Jubilee Acres plan that that there are already businesses along 287 only a mile from the proposed reception hall. This statement is very misleading. From berthed to north longmont along hwy 287 there is two businesses in operation. 1) Durans Hobby Acres was Established in 1986. They are seasonally open from April - September, Open in December, and are 90% wholesale, with 10 % retail and do not generate near the traffic load that Jubilee acres would. On there busiest day Mothers Day they figure 50 or so cars visit with a parking lot that holds 20-30 cars MAX spread out through a whole day of normal business hours. They mainly deliver to wholesale buyers and again have a VERY small retail portion of there actual business. 2) the ONLY other business located on hwy 287 from berthoud to north longmont is The Dog Ranch. Once again a far far cry from the proposed Jubilee Acres. The Dog Ranch has a parking lot that holds approximately 20 cars which I have only ever seen 4-5 cars MAX in the parking lot at a given time. The Dog Ranch states they have approximately 40 visitors a day. So to sum up the statement given to the county from Jubilee Acres that there is already a number of businesses along hwy 287 again is miss leading. It should also be noted that these 2 businesses are not nearly businesses but infact is the same land which the actual business owners live and take part in the community. This can not be said of the proposed Jubilee Acres as there is no intentions of the owners to dwell among the neighborhood and community they wish to expliot but is to solely capitalize on the beauty of the neighborhood. We do not want our community to turn into the disaster we see on Sundays at Lifebridge Church on 66, or Rock Creak Farm in October.

The traffic noise from 287 is remarkably noticeable during the day, and sometimes at night. It has become noticeably more so in the recent years. During the time we have lived here we have witnessed many fatal accidents at the corner of Yellowstone and 287. There is a hill and with the speeds that people maintain on 287, it is a highly dangerous intersection. I can't imagine what negative impacts having 150 events would add to traffic to that intersection, as well as hindering my own access to my property. It is very difficult already to sit in traffic in the middle lane to make a left turn off 287 into our property. I cant imagine how difficult and unsafe it will be when battling with the traffic from an event center.

We are not against neighbors having gatherings and parties, but we all understand that sound and light travel, and we are respectful of ones right to gather. Occasionally we have visitors over in the summer months. We are a farming family, so going to bed early and getting up early is important to us. We communicate, accommodate, and reciprocate with neighbors if planned events (or tractors when farming) might be noisy, or disrupt the daily peaceful existence we have all come to love and respect in our little community. The lighting from such an event center would have a negative impact on the entire culture of this rural community, 180 CAR PARKING LOT, OVER NIGHT CABINS, AND EVENT CENTER LIGHTING as well as the noise from so many large gatherings. Seeing as it is a venue for weddings, there could be alcohol served increasing the risk of drunk driving.

We have a camel dairy and have had numerous issues with people trying to gain access to our camels over the years. We have gone through great lengths and expense to prevent this happening, as we realize camels are and "attractive nuisance". Directly connecting the

property in question is where our Bull Camel resides. Camels in general can be dangerous when not handled properly. Bulls in general can be quite deadly when they are in their rut season. It would be impossible to keep wedding goers away from them in such a close proximity. Its hard to even imagine the negative impact this could have on our lives. With cabins intended for overnight rentals, there is no way Jubilee acres can ensure that each and every person will stay in their cabins and not go wandering around at night, petting animals that they should not be. We had no intention of raising our family next to a hotel, with people coming and going and having no idea who these people are. There is no way for Jubilee Acres to ensure that all guests are fully vetted, and even if they put out 'rules' on not petting adjacent livestock, we have been shown to the full extent of how great many Americans can follow simple rules and regulations in recent months with COVID-19.

Those who actually live in this community are aware that David Roy just suddenly passed away. He lived at 15429 North 107th Street. David and Jessie Roy's property value will be impacted the most considering the plan for a giant parking lot next to their property. This is an area that has been the home of wildlife for decades - prairie dogs, bald eagles, coyotes, and many other species. We are also retaining representation for any property value decline Jubilee Acres will cause.

Being asked to contend with increased noise pollution, traffic, lighting, is not something we are willing to do and we strongly appose the development plan of Jubilee Acres with events of 150 times per year. We believe our concerns as residents in the near vicinity should be taken into consideration and prohibit the acceptance of this proposal.

Nicole and Joseph Bell Henderson 720-232-7030
15493 North 107th street
Longmont, 80504

From: Strawbridge, Steven
To: #LandUsePlanner
Subject: SU/SSSDP Re: Docket SU-20-0003
Date: Friday, October 9, 2020 1:43:55 PM

Dear Sir/Madam,

We are responding to the plan submitted for the proposed Jubilee Acres Reception Hall (Docket SU-20-2003) just south of our property at 10504 Ramuda Dr, Longmont 80504 owned by Steven Strawbridge.

We have resided at this location since 2005, and seen much change in our 15 years of habitation at this address. However, none of this change compares to what is being proposed in this docket.

When we moved to this location, we owned fuel-efficient vehicles with small engines, so to be eco-conscious Boulder residents. However, it quickly became clear, 15 years ago, that traffic at a high rate of speed on Hwy 287 would require us to invest in V6 and V8-engine vehicles in order to safely merge into traffic at all times of the day. Fast-forward to 2020, and fast acceleration is now only partially helpful. Significant patience is now required to identify windows of opportunity related to merging on to this very busy highway. It has taken many years of experience, under a wide array of weather conditions, to properly gauge the risk/opportunity of attempting a merging maneuver. Accidents occur frequently on this highway, as passenger vehicles, motorcycles and heavy trucks co-mingle on this road at widely varying speeds. Motorcycles in particular seem to see this highway as an opportunity to "rocket" on the section where Jubilee Acres attendees would be attempting their own tentative attempts at gauging the risk. Also, we enjoy the luxury of typically having no impatient drivers behind us as we wait for a large traffic gap. Given the expected number of attendees at Jubilee Acres events, I expect that their guests will feel significant pressure from the long queue behind them to race into traffic.

One advantage that our property has is its location on the topography of the land. We are on a relatively flat stretch, which gives us acceleration opportunity in both directions, so we don't have to factor in additional mental calculations. The Jubilee Acres property does not have similar advantages. In fact, the main flow of traffic to the south will have to navigate a sustained incline for a considerable distance. Combine that topography with the lack of driver experience at merging on to a highway where traffic regularly exceeds 75 mph, where trash, debris, and miscellaneous car parts often obstruct the road, and you have a scenario where serious accident and death is very likely to be a regular occurrence. While we would hope that Jubilee Acre celebrants would not get behind the wheel after drinking, we are not naïve. This is an additional factor, along with other night-time driving challenges, that make this proposal very hard to support. I would think that officials in the county, along with the owners of this facility, would not want these consequential results on their conscience.

For this singular reason, we request that you seriously consider a rejection of this proposal.

Much obliged,
Steve and Susan Strawbridge

720.552.1924

From:	henke@prodigy.net
To:	Ott, Jean
Subject:	SU-20-0003 Special Use and Site Specific Development Plan
Date:	Thursday, May 21, 2020 6:44:08 PM

Hello,

My name is Harold Henke and I live at 10371 Yellowstone Road. (My wife, Rebecca Walker, is listed as the owner of 10371 Yellowstone Road).

My question is can you all send us a printed copy of the application? I think the application is 150 pages long. Plenty of reading.

My first comment is on Boulder County Event Venue Pre-Application Methodology Statement (PAMS), page 2 states:

6.0 Accident History
Accident history was not evaluated as part of this analysis.

Unfortunately, traffic on 287 has grown exponentially since my wife purchased this property in 1999.

Turning north from Yellowstone onto 287 is problematic except during the beginning of the COVID crisis when Highway 287 was fairly empty. Turning south from Yellowstone Road onto Highway 287 is okay as there is a very long merge lane, I want to say a quarter mile?

With that said, I believe that there have been multiple fatal crashes on Highway 287 between Highway 66 and just north of Yellowstone.

Here are some recent fatal crashes:

Fatal crash occurred March 18, 2020 near the intersection of Yellowstone Road and Highway 287.
Fatal crash occurred November 27, 2019 I believe between Vermillion and Yellowstone Road.
Fatal crash occurred September 3, 2018 between Berthoud and Longmont (closer to Longmont than Berthoud).
Fatal crash occurred June 21, 2017 somewhere between Vermillion and Yellowstone Road. (I am not quite sure this is accurate).

Boulder County Event Venue Pre-Application Methodology Statement (PAMS), page 5 states:

12.0 Summary
Full-movement access to US 287 can be safely provided from the existing roadway improvements on US 287. The northbound left-turn can be made using the existing center left turn lane (TWLTL). Additionally, the southbound right-turn movement can be accommodated by either using the ~10' wide paved shoulder or by striping a portion of this existing paved shoulder as a southbound right-turn lane. Events larger than 125 guests can be accommodated appropriately with manual traffic

control by police officers (wearing proper PPE) or by certified traffic control technicians directing traffic. Since the proposed project is anticipated to generate an appropriate level of traffic based upon the location and access to the project site, no additional traffic impact analysis is anticipated to be necessary.

As best as I can tell, there is no discussion of accidents on Highway 287 in the entire application.

Based on my experience, regardless of how you want to plan for that much traffic turning on and off Highway 287, I do not know how you can manage that much traffic on a very busy highway without producing a fatal accident given the history of Highway 287.

Thanks,

Harold Henke, Ph.D.

From:	mim@widehorizonfarms.com
To:	#LandUsePlanner
Subject:	SU-20-0003: Jubilee Acres Reception Hall
Date:	Tuesday, June 23, 2020 10:06:33 AM

Jean Ott, Staff Planner
Boulder County Community Planning & Permitting Department:

We are responding to the review notification regarding the Jubilee Acres Reception Hall proposal. We live on the property directly east of the proposed reception hall owned by the Oscar T Carlson Family Trust U/A Et Al.

Our two major concerns are traffic and noise.

1. Traffic

Our driveway is on the east side of Hwy 287, directly across from the proposed entrance on the west side. Traffic is often heavy on Hwy 287 in both directions, and often traveling more than 65 mph. A majority of the time we turn south from our driveway, and often the only way to do it safely is to wait for a gap in northbound traffic and turn into the center lane to accelerate and merge into southbound traffic. This is possible now because there is never any northbound traffic in the center lane.

We are concerned that with Jubilee guests, employees and vendors turning west across from our driveway, we will no longer be able to safely use the center lane as an acceleration lane when turning south. We will need to wait for simultaneous gaps in north and southbound traffic before we turn south onto the highway, which could mean waiting 10 minutes or more. In addition, if there are northbound cars in the center lane waiting to turn into the new reception hall, they would have the right of way when there is a southbound gap and further delay our turn south.

2. Noise

The proposal mentions outdoor receptions with music until 10:00pm, 3-4 times per week. We appreciate the planning of the reception building to include noise-mitigating building improvements, but the outdoor ceremonies won't have those measures. This is a quiet rural area and we don't relish music interrupting our evenings half the time or more during the spring/summer/fall months. When we say quiet, we don't mean silent. There is almost non-stop traffic noise, but it is a steady drone that your brain ignores after a while which isn't possible with music playing in the background, even if faint.

Sincerely,
Tim & Miriam Carlson
15312 N. 107th Street