# Staff Report (with attachments)

Presented to the Type 1 Administrative Hearing on July 24, 2024

#### Administrative Hearing: July 24, 2023

#### College and Trilby Multifamily #PDP220009

#### **Summary of Request**

This is a Project Development Plan for a residential development comprising 265 townhomes on a 38-acre site in south Fort Collins.

#### **Zoning Map**



#### **Next Steps**

If approved, the applicant will be eligible to submit a Final Development Plan to finalize engineering and other details and record all plan documents; the applicant could then apply for construction and building permits.

#### Location

The site is on the west side of South College Avenue between Skyway Drive and Trilby Road. Parcel #9611400003.

#### Zoning

General Commercial (C-G) zoning. The zone district permits the residential use.

#### **Property Owner**

Steve Shoflick, College and Trilby LLC 6900 E. Belleview Ave. Ste. 300 Greenwood Village, CO 801111647

#### **Prospective Developer**

Zocalo Community Development 455 Sherman St. Ste. 250 Denver, CO 80020

#### Applicant/Representative

Ken Merritt JR Engineers and Planners 2900 S. College Ave. Fort Collins, CO 80525

#### Staff

Clark Mapes, City Planner

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#### **Staff Recommendation**

Approval of two Modifications of Standards and the Project Development Plan.



## **1. Project Introduction**

#### A. PROJECT DESCRIPTION

The 38-acre property spans a half-mile between Skyway Drive and Trilby Road in south Fort Collins.

The plan comprises 265 homes in 85 2, 3, and 4-unit buildings, and a community building with a pool. The 'housing types' are classified as duplex, single-family attached (townhomes), and multi-family (apartments).

The development is based around extending Mars Drive from its current terminus just south of Skyway Drive to Trilby Road. Also, the current access drive on South College Avenue to Ziggi's Coffee, just north of Trilby Road, is extended as a local street called Stellar Drive providing access to the development. (The access is right-in-right-out only.)



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The property is a sloping hillside with the west edge about 50 feet higher than the east edge along South College Ave. The west side is the top of the plan image above, with north to the right. The plan accounts for much of the grade with sloping side yards between the buildings.

Existing drainage and a wetland at the bottom of the hillside are re-shaped into a formalized stormwater system with a large detention pond that includes a designed wetland to mitigate the loss of the existing wetland due to complete re-grading of the property.

The plan includes wide multi-use sidewalks along the South College and Trilby frontages.

The two Modifications of Standards involve specific aspects of building design.



## **B. DEVELOPMENT BACKGROUND & CONTEXT**

The property has had multiple attempts at development since it was first annexed and zoned Commercial as the Timan Annexation in 1988. That annexation was immediately followed by approval of the Timan Planned Unit Development (PUD) in 1988, which was a general master plan diagram for a mix of uses. That PUD never progressed further in any development plans. In 1996, the Hugh M. Woods PUD was approved for a large home improvement store. That single-use plan with its very large building and parking footprint proved infeasible on the sloping hillside property. In 2001, the owners got the property rezoned from Commercial to Neighborhood Commercial, with the specific intent to enable development of a major supermarket shopping center. The prospective supermarket developer did not proceed. In 2006 the property was again rezoned to revert to General Commercial zoning which remains in place today.

The current proposal for a unified tract of apartments and townhomes is the fifth in a series of similar conceptual plan proposals submitted by different developers and land planners, starting in 2019 and again in 2020 and 2021, with the current proposal submitted for conceptual review in 2022.

After years of planning and budgeting, the City is currently constructing a capital project to enlarge the nearby College/Trilby intersection, which involves a stormwater detention pond on the subject property.

#### Surrounding Zoning and Land Uses

	North	South	East	West
Zoning	CG and UE	CL and LMN	CG	LMN & UE
Land Use	Storage units and vacant property; Skyview subdivision houses across Skyway	Unplatted acreage properties across Trilby with houses and outbuildings, uses unclear	South College Avenue/US Hwy. 287, a church, and drive- through coffee shop	Foothills Gateway social services, a church, and Skyview subdivision houses



View of site looking west, with north to the right

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#### C. OVERVIEW OF MAIN CONSIDERATIONS IN STAFF'S REVIEW

Salient issues that were resolved through four rounds of design and review include:

• Extensive grading is necessary for development on this sloping hillside property, which involves fundamental overlapping issues for drainage and stormwater detention, and mitigation of the loss of the existing wetland at the bottom of the hillside, including a natural habitat buffer zone (NHBZ) around a new wetland to be created in a detention pond.

Although the existing wetland is removed in the overall earthwork grading, it is low habitat quality and the plan provides significant enhancements with detailed restoration design and tailored plantings. Groundwater hydrology was investigated as part of the newly designed wetland.

- A US 287/South College Avenue Access Control Plan, jointly adopted by the State and the City, indicates a second street connection to South College in the northern part of the property, about ¼ mile south of Skyway Drive. Early iterations of the plan attempted to find a way to grade the hillside to enable that, but it proved to be physically infeasible due to steepness.
- Numerous other miscellaneous issues required multiple iterations but no others stand out.

#### 2. Land Use Code Article 1

#### A. PURPOSE (SECTION 1.2.2)

Land Use Code Section 1.2.2 lists a wide range of over-arching, high-level objectives (e.g., "reducing energy consumption and demand") that are further developed and implemented in other Articles of the Land Use Code to ensure that proposed development meets the overall purpose to "improve and protect the public health, safety, and welfare" of the community.

As they may apply to the subject property and proposed project, the following sections of this report describe design elements of the proposed development plan that provide evidence of and the degree to which compliance would be achieved relative to the specific and enumerated standards within the Land Use Code.

The requirements, standards, and definitions contained in Articles 1 through 7 of the Land Use Code have been crafted to fulfill and implement the stated purpose of this Code in § 1.2.2. By satisfying the purposes statements, and meeting the applicable specific requirements, standards, and definitions set forth in Articles 1 through 7, this project demonstrates consistency with Land Use Code § 1.2.2 (B) through (O) to the extent (B) through (O) are applicable to this project.

# 3. Land Use Code Article 2 – Applicable Standards

#### A. PROJECT DEVELOPMENT PLAN PROCEDURAL OVERVIEW

- 1. Conceptual Review CDR210059 meeting held on January 7, 2022.
- **2.** First PDP Submittal submitted on June 24, 2022.
- 3. Neighborhood Meeting

A neighborhood meeting was not required, but one was held voluntarily by the applicants virtually on June 6, 2022. Q&A topics mainly involved traffic, with repeated comments about existing traffic conditions.

#### 4. Notice (Posted, Written and Published)

Posted Notice: May 23, 2022, Sign #682.

Written Hearing Notice: July 9, 2024, 605 addresses mailed.

Published Coloradoan Hearing Notice: July 15, 2024.



#### **B. DIVISION 2.8 – MODIFICATION OF STANDARDS**

The Land Use Code is adopted with the recognition that there will be instances where a project would be consistent with City Plan, but would not meet a specific standard of the Land Use Code as stated. Accordingly, code standards include provisions for modifications.

The applicant requests two Modifications of Standards: The first is to allow buildings with the same footprint size and shape to be placed next to each other, with variation in other aspects of building design. The second is for one four-unit building which is placed with one end facing the local street without a doorway.

The modification process and criteria in Land Use Code Division 2.8.2(H) provide for evaluation of these instances on a case-by-case basis, as follows:

#### Land Use Code Modification Criteria:

"The decision maker may grant a modification of standards only if it finds that the granting of the modification would not be detrimental to the public good, and that:

(1) the plan as submitted will promote the general purpose of the standard for which the modification is requested equally well or better than would a plan which complies with the standard for which a modification is requested; or

(2) the granting of a modification from the strict application of any standard would, without impairing the intent and purpose of this Land Use Code, substantially alleviate an existing, defined and described problem of city-wide concern or would result in a substantial benefit to the city by reason of the fact that the proposed project would substantially address an important community need specifically and expressly defined and described in the city's Comprehensive Plan or in an adopted policy, ordinance or resolution of the City Council, and the strict application of such a standard would render the project practically infeasible; or

(3) by reason of exceptional physical conditions or other extraordinary and exceptional situations, unique to such property, including, but not limited to, physical conditions such as exceptional narrowness, shallowness or topography, or physical conditions which hinder the owner's ability to install a solar energy system, the strict application of the standard sought to be modified would result in unusual and exceptional practical difficulties, or exceptional or undue hardship upon the owner of such property, provided that such difficulties or hardship are not caused by the act or omission of the applicant; or

(4) the plan as submitted will not diverge from the standards of the Land Use Code that are authorized by this Division to be modified except in a nominal, inconsequential way when considered from the perspective of the entire development plan and will continue to advance the purposes of the Land Use Code as contained in Section 1.2.2.

Any finding made under subparagraph (1), (2), (3) or (4) above shall be supported by specific findings showing how the plan, as submitted, meets the requirements and criteria of said subparagraph (1), (2), (3) or (4).



#### 1. Modification of a Standard for Building Variation -- 3.5.2(C)

#### Overview

This standard for single-family attached dwellings (townhomes) requires variation among repeated buildings that have more than two units. At least 3 distinctly different building designs are required for the 3- and 4-unit buildings in this plan. This includes a requirement that the different designs must "vary significantly in footprint size and shape"; and no similar buildings may be placed next to each other.

This modification request is needed because 3- and 4-unit buildings with the same footprints are placed next to each other in numerous instances throughout the plan.

#### **Applicant Justification**

The applicant's request provides justification for not being detrimental to the public good, and being consistent with numbered criteria 2.8.2H(1) and (4) – "equal or better", and "nominal and inconsequential". The points are:

- The whole plan with 85 buildings has wide variation throughout. There are (3) townhome types (Series A, B, and C), and B and C have (3) sizes (2, 3 & 4-plex), which provide a total of (7) <u>types</u>. Then (2) elevation styles are applied to each of those, which equals 14 different building designs. Furthermore, there are 4 color schemes that can add more variation on top of these 14 designs.
- Where the same footprints are placed next to each other, different building designs include entrances and porches, varied roof forms, projecting and recessed features, and residential siding in lap and board-and-batten patterns.
- This extensive variation will be presented in detail at the hearing.

Below is an example of two buildings with the same footprint but with different styles applied:





#### **Staff Findings**

Staff finds that the modification of this standard would not be detrimental to the public good and that the request satisfies criteria (1) and (4) in subsection 2.8.2(H) – "equal or better" and "nominal and inconsequential when considered from the perspective of the whole plan."

Detriment to the public good. Staff's finding is based on the following considerations:

- The buildings placed next to each other are completely different in their exterior design as viewed on the ground, to a degree that accomplishes the purpose of the standard to avoid monotonous repetition of large apartment or townhome buildings and rather to provide visual interest, particularly at pedestrian scale.
- The overall plan has wide variation with 3 townhome types A, B, and C; two of which have 3 sizes (2-, 3-, and 4-unit buildings), for a total of 7 building types, and then 2 design styles are applied across the 7 building types for a total of 14 different designs. In addition, some of the type B and C facades are 2 stories and some are 3; and there are 4 color schemes that will add more variation on top of the 14 designs.
- The whole plan is for housing at the 'missing middle' scale, which is a city planning term for housing alternatives between detached houses and apartment complexes with large buildings and parking lots. The 3- and 4- unit buildings have a similar scale, with lengths of 60 feet and 78 feet, so that the effect of two of the same together is not very different from having one of each next to each other.

When the overall missing middle scale is combined with the variation in placement that <u>does</u> exist throughout the plan, staff finds that it is most apparent when looking closely in a plan view drawing. On the ground, which is what matters, the instances of 3-plexes or 4-plexes next to each other have a negligible effect and would not be improved by, for example, putting buildings together to make 5-, 6-, or 7-unit buildings just to meet the standard.

In other words, staff thinks that switching any given 4-plex to a 3-plex would not be apparent in any meaningful way, and potential solutions would not be as good as the proposed plan for visual interest purposes.

Criteria (1), "equal or better." Staff's finding is based on the following considerations:

- The distinguishing elements demonstrated in the different "design styles" in the plan create a degree of variation such that the similarity of footprints is highly mitigated and not readily apparent due to the design aspects that make the buildings look different. In this case, staff finds that the design variations counterbalance the need to change the footprints.
- One way to get different footprints into the plan to meet the standard would have been to join buildings together to make a few larger buildings, e.g., 5- 6-, or 7- plex buildings. Staff finds that the plan is better than a plan which could join buildings together to make larger buildings just to meet the standard as stated.

**Criteria (4), "nominal and inconsequential from the perspective of the whole plan."**. From the perspective of the entire development plan, the instances of 3-and 4-unit buildings next to each other are nominal and inconsequential for the reasons stated above and do not affect the purposes of the Land Use Code.





#### 2. Modification of a Standard for Street-Facing Facades – 3.5.2(D)(2)

This standard requires that buildings with 4 or more dwelling units must have a doorway facing adjacent neighborhood streets (could be secondary patio doors.) The intent is to avoid impersonal blank ends of multiunit buildings, often with only utility meters as the most prominent feature, along neighborhood streets. A doorway indicates the presence of people as an animating architectural feature.

One such building has one end facing Rover Drive without a doorway.

#### Summary of applicant justification:

The applicants' modification request is attached. It explains why the request is not detrimental to the public good; and meets criterion (4) "nominal and inconsequential from the perspective of the whole plan":

This is one such occurrence out of 85 buildings. The interior of the building is a garage partly below grade, with the grade in the outside yard sloping down along the building wall such that a doorway would be non-functional. The visual impact is mitigated by being located on a curve, and by two trees in the foreground closer to the sidewalk.

#### Staff Findings:

Staff finds that the granting of the modification would not be detrimental to the public good and that the plan satisfies criteria in subparagraph (4), "nominal and inconsequential" under Section 2.8.2(H) governing modification requests.

#### Detriment to the public good

This one occurrence out of 85 buildings has virtually no effect on the look and feel of this 38-acre plan when considered from the perspective of the entire plan.

The impact of the end wall upon the street is mitigated by its location on a curve where the view is shifting, and a street tree and an ornamental tree with the wall as backdrop.



**Criterion (4), "nominal and inconsequential".** From the perspective of the entire development plan, the one end of one building facing Rover Drive without a doorway is nominal and inconsequential for reasons stated above and does not affect the purposes of the Land Use Code.

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# 4. Land Use Code Article 3 – General Development Standards

Pertinent standards in various Divisions of Article 3 are evaluated below.

#### A. DIVISION 3.2 - SITE PLANNING AND DESIGN STANDARDS

Applicable Code Standard	Summary of Code Requirement and Analysis	Staff Findings
3.2.1 Landscaping and Tree	The standards of this section require development plans to demonstrate a comprehensive approach to landscaping that enhances the appearance and function of the neighborhood, buildings, and pedestrian environment.	Complies
Protection 3.2.1(D) Tree	<ul> <li>The plan includes two different types of landscaping, both thoroughly developed:</li> </ul>	
Planting Standards	- More formal manicured landscaping along streets and around buildings with trees, turfgrass, and mulched planting beds with shrubs and ornamental	
3.2.1(D)(1)(c) Full Tree	grasses; and	
Stocking 3.2.1(F) Tree Preservation and Mitigation	- Restoration of the remaining peripheral areas around the site including detailed Natural Habitat Buffer Zone (NHBZ) mitigation. There are two existing natural habitat features on the property with buffer zone restoration the wetland and the piped North Louden ditch corridor along the west edge.	
	This restoration and buffer zone mitigation includes tailored seed mixes for upland, lowland, and wetland areas related to gradation of the hillside topography; and also includes woody container plantings and cuttings of native plants associated with certain portions of the gradation in the wetland buffer zone.	
	This restoration represents improvement over the existing habitat values of the existing features.	
	Specific components include:	
	<ul> <li>An inventory of the 15 existing trees on the property. 5 trees are dead or in poor condition and are to be removed. Mitigation for trees to be removed is accounted for, with agreement from Forestry staff.</li> </ul>	
	<ul> <li>Street trees in irrigated turfgrass parkways along the streets.</li> </ul>	
	<ul> <li>Tree plantings around the buildings, walkways, and the two small parking lots.</li> </ul>	
	Mulched planting beds around buildings.	
	<ul> <li>Irrigated turfgrass in front yards and a few other locations where people may walk across landscape areas.</li> </ul>	
	<ul> <li>Detention pond seeding and NHBZ landscape restoration.</li> </ul>	

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3.2.2 Access, Circulation and Parking – General Standard	<ul> <li>This standard requires that development projects accommodate the movement of vehicles, bicycles, pedestrians, and transit throughout the project and to and from surrounding areas safely and conveniently and contribute to the attractiveness of the neighborhood. In compliance, the PDP includes the following:</li> <li>The plan provides a complete framework of streets and walkways linking all parts of the development.</li> <li>In addition, private alleys serve a majority of the garages that accompany all dwelling units.</li> <li>Visitor parking is provided near the community center and the small park at the north end of Rover Drive.</li> </ul>	Complies
3.2.2(C)(4) Bicycle Parking Space Requirements	<ul> <li>Residential: A standard requires one bicycle space per bedroom for multi-family dwellings. 6 of the dwellings along the "infinity walk" north of the community center are classified as multi-family.</li> <li>Far exceeding standard requirements, bicycle parking is provided with hooks in the garages, plus there are additional fixed racks located throughout the development including at each end of the "infinity walk".</li> </ul>	Complies
Section 3.2.2(K)(1)(a) & (b) Residential Parking Required	<ul> <li>These standards require a minimum amount of parking for residential development of various housing types. For attached and multi-family dwellings the requirement is based on bedrooms.</li> <li>A chart on the site plan cover sheet shows the required parking as two spaces per unit for the three building types. This actually overstates the requirement which is 1.75 spaces for 2-bedroom units which comprise a majority of units in the plan.</li> <li>The plan provides 320 spaces in 2 car garages for each unit, exceeding the actual requirement.</li> <li>The plan provides 17 additional guest parking spaces in a few locations, and 14 additional spaces at the community building including 2 handicap spaces.</li> <li>The streets include street parking.</li> </ul>	Complies
3.2.4 Exterior Site Lighting	The plan does not include any lighting other than City street lights. Lighting on the buildings will be reviewed at the building permit stage.	N.A.
Section 3.2.5 Trash and Recycling Enclosures	<ul> <li>The purpose of this standard is to ensure the provision of facilities compatible with surrounding land uses, for the collection, separation, storage, loading and pickup of trash, waste cooking oil, compostable and recyclable materials.</li> <li>Trash and recycling are to be accommodated in garages.</li> </ul>	Complies



#### **B. DIVISION 3.3 - ENGINEERING STANDARDS**

Applicable Code Standard	Summary of Code Requirement and Analysis	Staff Findings
3.3.1(C) – Public Sites, Reservations and Dedications	<ul> <li>This standard requires the applicant to dedicate rights-of-way for public streets, drainage easements and utility easements as needed to serve the area being developed.</li> <li>The project includes a subdivision plat that provides all needed r.o.w. and easements.</li> </ul>	Complies

# C. DIVISION 3.4 - ENVIRONMENTAL, NATURAL AREA, RECREATIONAL AND CULTURAL RESOURCE PROTECTION STANDARDS

Applicable Code Standard	Summary of Code Requirement and Analysis	Staff Findings
3.4.1 – Natural Habitats and Features	The purpose of this Section is to ensure that when property is developed, the way in which the components of the development plan are designed and arranged on the site will protect the natural habitats and features both on and in the vicinity of the site.	Complies
	It applies when development is proposed within 500 feet of an identified natural habitat or feature. In this case, the natural features present include a wetland complex (1.23 acres) on the eastern edge of the site, the Louden Ditch corridor (the ditch is now piped) that runs along the western edge and serves as a wildlife corridor, a red-tailed hawk nest in the southwest corner, an offsite great horned owl nest to the northeast, and an active black-tailed prairie dog colony across the majority of the site. The site is currently dominated by non-native and noxious plant species.	
	This Section requires 'Natural Habitat Buffer Zones' (NHBZs) around natural features in a development plan.	
	An Ecological Characterization Study (ECS) was completed along with several updates as required to evaluate habitat values and make recommendations regarding mitigation of lost habitat value, protection, and enhancement. The ECS is attached. In total, 9.95 acres of NHBZ are proposed in the plan.	
	<i>Wetland</i> : The wetland was identified as a complex of a palustrine scrub shrub and palustrine emergent wetland covering 1.23 acres of the site. Wetlands provide value in the form wildlife benefits, groundwater discharge and recharge, and infiltration areas. The existing condition of the wetland is low quality with noxious species and surface land disturbance. The wetlands were found to be non-jurisdictional by the Army Corps of Engineers.	
	As this wetland does not provide significant use by waterfowl or shorebirds according to the ECS, the buffer standards are applied by the size of wetland. According to the Land Use Code Section 3.4.1(E), for wetlands greater than 1/3 acre in size, a 100' buffer zone standard is applied. Application of a 100' buffer to the wetland results in a required NHBZ of 3.5 acres. Stormwater detention facilities will be co-located with the wetland, and improvement of the vegetation and thus habitat value will be increased, bringing the proposed wetland and associated NHBZ to 4.0 acres. Stormwater generated by the proposed development is filtered by low impact development features prior to entering the wetland.	



Louden Ditch: This formerly meandering ditch was piped in a straight alignment by the ditch company in 2018. At that time, the City and private parties agreed that the loss of the feature would by mitigated by applying the standard habitat buffer area for ditch corridors to the alignment of the new pipeline. The owners attempted restoration but that effort did not succeed for multiple reasons.
So, although the ditch is now piped underground, the wildlife movement corridor will be maintained through the establishment of a NHBZ with upland seeding. Irrigation ditches serving as wildlife movement corridors receive a 50' buffer on either side, measured from the top of bank. On this project that equates to a 5.94 acres; the project is proposing 5.94 acre of Louden Ditch (riparian) NHBZ. This area is to be restored as an improvement over the current condition which is dominated by weeds.
<i>Red-tailed hawk nest:</i> LUC 3.4.1requires a 450-foot buffer around an active nest if construction occurs during the nesting season (February 15 to July 15). This will be applied at the time of any proposed construction.
<i>Black-tailed prairie dogs:</i> LUC 3.4.1 requires mitigation of prairie dog colonies by relocation, trapping and donating to black-footed ferret recovery or raptor recovery programs, or by a payment-in-lieu fee with euthanization, along with a mitigation plan detailing how re-colonization will be avoided. The ECS proposes trapping and donating to the wildlife recovery programs.
More specific aspects of the plan that provide environmental benefits include:
<ul> <li>A detailed landscape restoration and enhancement plan for the wetland NHBZ that was carefully developed through multiple rounds of hydrologic investigation, design, and review with collaboration between applicants and staff.</li> </ul>
<ul> <li>The plan includes grading and tailored seed mixes for habitat types that will maximize habitat value, water conservation, and aesthetics.</li> </ul>

#### D. DIVISION 3.5 - BUILDING STANDARDS

Applicable Code Standard	Summary of Code Requirement and Analysis	Staff Findings
3.5.1(A) and (B) – Building Project and Compatibility, Purpose, and General Standard	The purpose of this Section is to ensure compatibility of new buildings and uses with the surrounding context. Absent any established character, the standard requires that new buildings set an enhanced standard of quality for future projects or redevelopment in the area. The standards in this section complement the more specific requirements in Section 3.8.30 which pertain to apartment and townhome development. The context includes both existing development adjacent to the site, and also the future vision and zoning. In this case, the context is mainly the Commercial zone district along the highway. Staff finds no defining character in the existing context that would be pertinent to any question of compatibility, and the future vision and zoning would allow for almost any kind of commercial development. Therefore staff finds no compatibility issue with this neighborhood development.	Complies



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3.5.2 Residential Building Standards (B) General Standard	Standards in this Section are intended to promote variety, visual interest, and pedestrian-oriented streets in residential development. Development projects containing residential buildings must place a high priority on building entryways and their relationship to the street. Pedestrian usability is prioritized over vehicular usability. Buildings must include human-scaled elements, architectural articulation, and design variation.	Complies via other more specific standards below and in Section 3.8.30
3.5.2(C) Variation Among Townhomes	<ul> <li>This standard requires at least 3 different building designs, and requires that no two of the same buildings are placed next to each other. Buildings must vary distinctly and significantly including footprint size and shape.</li> <li>The 3 housing types in the plan are completely different from each other, and then within each type, multiple design styles to the buildings of each type.</li> <li>Buildings with the same footprint size and shape are placed next to each other in numerous locations throughout the plan, as explained in a Modification request to allow for that.</li> </ul>	Complies, with a Modification for building footprint size and shape.
3.5.2(D)(1) Orientation to a Connecting Walkway	<ul> <li>The Connecting Walkway standard requires that dwellings must directly face onto a street sidewalk or a walkway that leads straight to a street sidewalk with no primary entrance more than two hundred (200) feet from the sidewalk. The latter situation occurs when buildings are placed perpendicularly to the street.</li> <li>All buildings comply.</li> </ul>	Complies
3.5.2.(D)(2) Street-Facing Facades	<ul> <li>When buildings are placed perpendicularly to a local street; a standard requires a multifamily building with four or more units to have an entry or doorway facing the adjacent local street.</li> <li>One building with four units does not have a doorway facing the local street. This building is at the south end of Rover Drive where the street curves to meet Mars Drive.</li> <li>As discussed previously in the staff report, a modification to 3.5.2(D)(2) is included previously in this report.</li> </ul>	Modification Requested
3.5.2(F) Garage doors	<ul> <li>This standard requires the garage doors to comprise no more than 50% of the front facade of any building; and requires them to be recessed at least 4 feet behind the face of the building or a porch that measures at least 6 by 8 feet.</li> <li>The plan provides these minimum dimensions.</li> </ul>	Complies



## E. DIVISION 3.6 – TRANSPORTATION AND CIRCULATION

This Section is intended to ensure that the transportation network of streets, alleys, roadways, and trails is in conformance with adopted transportation plans and policies established by the City.

Applicable Code Standard	Summary of Code Requirement and Analysis	Staff Findings
3.6.2 – Streets, Streetscapes, Alleys, and Easements	<ul> <li>This Section requires transportation network improvements for public health, safety, and welfare, with requirements in accordance with the Larimer County Urban Area Street Standards and requires necessary easements for utilities and access.</li> <li>The plan extends Mars Drive which currently terminates near the north property boundary, in conformance with standards.</li> <li>The plan includes a subdivision plat that dedicates needed ROW and easements.</li> </ul>	Complies
3.6.3(F) Street Pattern and Connectivity Standards	This Section requires development plans to connect and extend streets that are stubbed to the boundary of the plan by previous development. The plan extends the Mars Drive stub on the north, and also extends the drive access on South College currently serving the drive-through coffee shop in the south part of the site, as a local street into the development. There is currently a gap between the end of the existing Mars Drive and the north property line of the proposed plan (shown below with the unpaved turnaround area at the end of the stub). An approved apartment project called Mars Landing exists along the Mars Drive stub. If the proposed College/Trilby Multifamily plan develops before Mars Landing, then the applicants will need to construct it to make the connection to Skyway Drive. South College Storage built this segment of Mars Drive, and provided funding to reimburse the cost when they elected not to build Mars Drive all the way to the property line. <b>Winst Landing Up and Example and E</b>	Complies



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Applicable Code Standard	Summary of Code Requirement and Analysis	Staff Findings
3.6.4 – Transportation Level of Service Requirements	This Section contains requirements for the transportation needs of proposed development to be safely accommodated by the existing transportation system, or that appropriate mitigation of impacts will be provided by the development to meet adopted Level of Service (LOS) standards.	Complies
	• A Traffic Impact Study was reviewed and accepted by staff. The explanation and conclusions comprise the first 29 pages of the 233-page report with the remainder consisting of appendices with technical measurements and calculations. The first 29 pages are attached.	
	<ul> <li>The key findings are that only minor impacts to the Levels of Service are generated from the proposed plan. The main traffic issues are a function of the existing conditions at the College/Trilby intersection; and those issues are to be improved with a City capital project which is being constructed in 2024.</li> </ul>	
	<ul> <li>Pedestrian facilities are mostly adequate in the area surrounding the Project site, which is primarily residential. The proposed plan adds sidewalks adjacent to the site on College and Trilby.</li> </ul>	
	<ul> <li>The only specific recommendation is for a turn lane at the Trilby/College intersection, which is being done with the City project.</li> </ul>	
3.6.6	This Section requires access for emergency vehicles and services.	Complies
Emergency Access	<ul> <li>The project has been reviewed by Poudre Fire Authority (PFA) and meets the needs and requirements for emergency access with its framework of streets, private alleys, and walkways.</li> </ul>	

#### F. DIVISION 3.7 - COMPACT URBAN GROWTH

Applicable Code Standard	Summary of Code Requirement and Analysis	Staff Findings
3.7.3 Adequate Public Facilities	The proposed project provides adequate service design for water, wastewater, storm drainage, fire and emergency services, and electric facilities. There are no special needs or requirements necessary to serve the development.	Complies

# G. SECTION 3.8.30 MULTI-FAMILY AND SINGLE-FAMILY ATTACHED DWELLING DEVELOPMENT STANDARDS

Applicants and staff have agreed that this Section applies, under the wording in the code:

"The standards in this Section apply to all multi-family developments that contain at least four (4) dwelling units and single-family attached developments that contain at least four (4) dwelling units where there is no reasonably sufficient area for outdoor activities and useable outdoor space on an individual per lot basis. This Section is intended to promote variety in building form and product, visual interest, access to parks, pedestrian-oriented public or private streets and compatibility with surrounding neighborhoods."

The wording about 'reasonably sufficient outdoor space' on each lot was not part of the discussion; rather, the plan was designed to meet the standards.



Applicable Code Standard	Summary of Code Requirement and Analysis	Staff Findings
3.8.30(B)(1)(2) (3)(4) Mix of Housing	This subsection lists 8 housing types and encourages a range of the types in any individual development plan, to the extent reasonably feasible. A minimum of three housing types is required on any development parcel 30 acres or larger.	Complies
Types	• Three housing types are provided which correspond to types recognized in the standard – duplex, single-family attached, and multifamily. In code language, some of the distinctions are a function of whether or not units in the buildings are on their own lots. This is the distinction between what are commonly thought of as townhomes versus apartments, with no visible distinction – just lines on plans.	
	<ul> <li>To aid in the semantics of discussion, note that there are varied <u>building</u> <u>types</u> within the housing types.</li> </ul>	
3.8.30(C) Access to a Park, Central Feature or	This subsection requires that at least 90% of the homes be within 1,320 feet (¼ mile) of small park or central feature or gathering place that is located either within the project or within adjacent development. A minimum size of 10,000 square feet is stated for these features.	Complies
Gathering Place	<ul> <li>The plan provides a community building for the development with pool and clubhouse, with about 37,000 square feet of space, well within ¼ mile of at least 90% of the homes.</li> </ul>	
	<ul> <li>The plan also includes a 9,500 square-foot mini-park space in the northern portion of the site at the corner of Rover and Mars Drive.</li> </ul>	
	<ul> <li>The plan also provides 6.7 acres of open space along the entire ½-mile long western edge, with an 8-foot walkway/trail and a dog park at the south end of Rover Drive.</li> </ul>	
3.8.30(D) Blocks	This subsection requires a basic layout of limited size blocks bounded by streets. The plan provides blocks of development as feasible with the sloping property and the ½ mile long western edge bounded by a piped ditch and existing abutting development. A pedestrian spine near the center of the plan contributes to the block pattern.	Complies
3.8.30(F) Building Design Variation Among Multi- Family	This subsection requires a basic level of building variation, with at least 3 different building designs; clear prominent entrances; roof forms; façade articulation; and use of color and materials for variety and individuality. The standard requires different building footprint size and shape as part of the different designs; and that no two buildings with the same design can be placed next to each other in the plan.	Complies
Dwellings	<ul> <li>The 9 multi-family dwellings in the plan are centered around Tract H, across Lunar Court from the community center. As discussed under the mix of housing types subsection, the plan provides the required variation.</li> </ul>	
	<ul> <li>Note that there is an equivalent standard for townhome dwellings with more than two units is in subsection 3.5.2(C), which needs a Modification request explained above in this report.</li> </ul>	
	<ul> <li>The multi-family building designs include 2 different building types 'B' and 'C', each with 3 different sizes (2-, 3- and 4-plexes); and 2 different styles are applied across these buildings. In addition, color variation in the different styles adds additional variation. Styles include clearly identifiable entrances</li> </ul>	



and porches, varied roof forms, massing proportions, projecting and recessed features, and residential siding in lap and board-and-batten patterns. Not all variations are evident in the attached plans but will be presented in full at the



# 5. Land Use Code Article 4 – Applicable Standards:

#### A. DIVISION 4.21 – GENERAL COMMERCIAL DISTRICT (C-G)

This zone district is intended to be a setting for a wide range of community and regional retail uses, offices and personal and business services. Secondarily it can also accommodate a wide range of other uses including creative forms of housing. A tract of housing was never envisioned in the formation of the zone district, but is not precluded. The only pertinent standard is the permitted use list.

Applicable Code Standard	Summary of Code Requirement and Analysis	Staff Findings
4.4(B) – Permitted Uses	The CG zoning permits the duplex, single-family attached and multi-family residential uses.	Complies



#### 6. Comprehensive Plan Background

The Land Use Code's purpose statement, per Section 1.2.2(a), is to ensure that all growth and development that occurs is consistent with City Plan, and its adopted components – which for this project includes the South College Corridor Plan. The following analysis summarizes the main ideas in City Plan and the corridor plan that are pertinent in terms of general alignment with the guiding vision and policies presented in such plans.

#### A. CITY PLAN (2019)

The City's comprehensive plan, *City Plan*, was developed with the participation of thousands of community members and "articulates the community's vision and core values; and establishes the overall policy foundation" to provide "high-level policy direction" towards achieving a shared community vision of growth and transportation throughout the City.

Housing is a pervasive topic in the plan with a strong emphasis on a diverse range of housing options and a mix of housing types for various incomes and households, including 'affordable' and 'attainable' housing.

These ideas are parts of the Vision and Values on p. 28 and 29, and in Principles and Policies on p. 42 of the plan.

#### **B. SOUTH COLLEGE CORRIDOR PLAN (2006)**

The main topics in this plan involve the highway itself and its commercial corridor. It recognizes the commercial zoning on the subject property, and envisions commercial uses designed for neighborhood compatibility and transformation of the area over time with a more attractive pedestrian environment. Development of the property as a tract of solely residential development was simply never foreseen in comprehensive plan processes.

The plan highlights the need for street and trail connections throughout the area, and specifically shows Mars Drive and a private trail connecting across the half-mile between Skyway and Trilby; and shows a local street connection to S. College. The proposed development plan includes these specific components.



#### 7. Findings of Fact/Conclusion

In evaluating the request for the College and Trilby Project Development Plan #PDP220009, Staff makes the following findings of fact and conclusions:

- 1. The Project Development Plan complies with the applicable procedural and administrative requirements of Article 2 of the Land Use Code.
- 2. The Project Development Plan complies with applicable criteria for approval of Modification of Standards located in Division 2.8 of the Land Use Code.

Staff supports the request for Modification of Standards to subsection 3.5.2(D)(2) for one building that does not have a doorway on an end of the building that faces a local street.

The modification would not be detrimental to the public good and the request satisfies criterion (4) in subsection 2.8.2(H) as explained in this report.

Staff supports the request for Modification of Standards to subsection 3.5.2(D)(2) for street-facing facades on the ends of two buildings without doorways.

The modification would not be detrimental to the public good and the request satisfies criterion (4) in subsection 2.8.2(H) because the two building ends are a negligible proportion of the building frontage along the streets, and he building design does not consist of impersonal blank utilitarian walls but rather consists of windows, quality materials, and articulation consistent with the quality design character of the building fronts. Therefore, the two buildings contribute to visual interest along the street.

- 3. The Project Development Plan complies with relevant standards located in Article 3 General Development Standards, subject to approval of the three Modifications of Standards.
- 4. The Project Development Plan uses are permitted in Division 4.21 General Commercial (CG) zone district in Article 4, with no other applicable zone district standards.

#### 8. Recommendation

- Staff recommends that the Hearing Officer approve two Modifications of Standards to Land Use Code subsection 3.5.2(C) for building footprint variation; and 3.5.2(D)(2) for a street-facing facade without a doorway.
- Staff recommends that the Hearing Officer approve the College and Trilby Multi-Family Development Plan, #PDP220009 based on the Findings of Fact and supporting explanations found in the staff report and hearing materials.



#### 9. Attachments

- 1. Site Plan
- 2. Landscape Plan
- 3. Architecture
- 4. Modification Request for Building Variation
- 5. Modification Request for a Street-Facing Facade
- 6. Utility Plans
- 7. Plat
- 8. Environmental Characterization Study
- 9. Traffic Study
- 10. Neighborhood Meeting Notes

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#### PROJECT DEVELOPMENT PLAN COLLEGE & TRILBY | MULTI-FAMILY COMMUNITY LOCATED IN THE SOUTHEAST QUARTER OF SECTION 11.

TOWNSHIP 6 NORTH, RANGE 69 WEST OF THE 6TH P.M.

LAND USE CHART EXISTING ZONING: CG (GENERAL COMMERCIAL) EXISTING USE: VACANT PROPOSED USE: ATTACHED SINGLE-FAMILY DUPLEXES AND TOWNHOMES TOTAL SITE AREA: ±38.06 ACRES DENSITY UNITS AREA (SF) AREA (AC) DENSITY (DU/AC) SUBJECT PROPERTY ±1,657,777,95 SF ±38.06 AC 265 ±6.96 ± DU/AC AREA COVERAGE PROPERTY HOME OWNER TOTAL AREA (SF) TOTAL AREA (ACRES) % OF GROS 27.4% BUILDING COVERAGE (GROUND FLOOR AREA) 1 100% 0% 251,030,88 SF 5.76 AC 15.1% 19 3% 7.35 Ad PUBLIC STREET RIGHT-OF-WAY 320,055,18 58 0% 1.0% PRIVATE DRIVES, ALLEYS, & PARKING 100% 114,371.76 SF 2.63 A COMMON OPEN SPACE AREA 100% 0% 51067117 SE 11.72 Ad 30.8% ACTIVE RECREATION AREA 3 100% 0% 36.842.32 SF 0.85 AC 2.2%

I. BUILDING COVERAGE IS INCLUDED AS PART OF THE TOTAL LOT AREA. 2. ALL ALLEYS WITHIN THE DEVELOPERT WILL BE FRIVATE AND SHALL BE OWNED AND MAINTAINED BY THE PROPERTY OWNER/ DEVELOPER. 3. ACTIVE RECREATION AND COMMINITY AMENITY AREA IS INCLUDED WITHIN THE TOTAL COMMON OPEN SPACE.

-	BUILDING TYPE & PARKING SUMMARY						
KEY	BUILDING TYPE	DWELLING UNITS	PK SP/UNIT REQ.	REQ. PARKING	PROV. PARKING		
Α	PAIRED TOWNHOMES 4	16	2	32	32		
в	PUPLEX, TOWNHOMES & MULTI-FAMILY <sup>4</sup>	89	2	178	178		
с	DUPLEX, TOWNHOMES & MULTI-FAMILY <sup>4</sup>	160	2	320	320		
D	COMMUNITY BUILDING <sup>4</sup> (3500 SF)	-	07	0	14		
	ADDITIONAL OFF-STREET GUEST PARKING	-	-	-	17		
	TOTALS	265		530	56		

4. ALL BUILDING UNITS HILL BE BUILT ON A CRAAL SPACE NO BASEMENTS HILL BE BUILT). 5. REGURED PARKING PROVIDED BY GARAGES FOR ALL UNITS, ALLEY-LOADED UNITS HILL ONLY PERMIT TEMPORARY PARKING ON DRIVENAY APPROVE. 6. INCLUES 4 INDOOR BUE PARKING UNDES PARCING SPACES INSIDE COMMUNITY BUILDING. 1. NO REGURED PARKING IN LUS 232K

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	PK SP/UNIT REQ.	BIKE PARKING REQ.
ENCLOSED BIKE PARKING (HOOKS PROVIDED IN GARAGES)	2 SP/UNIT - 265 UNITS	530 ENCLOSED SP 84 FIXED EXT. BIKE S
FIXED SURFACE MOUNTED EXTERIOR SPACES	N/A	14 FIXED BIKE RACKS W/ 6 SP PER RACK
	BUILDING HEIGHT MAXIMUM	HEIGHT <sup>®</sup>
SINGLE-FAMILY ATTACHED 2-STORY DUPLEX	30-0	>
SINGLE-FAMILY ATTACHED 2-STORY TOWNHOMES	32'-	2"
SINGLE-FAMILY ATTACHED 3-STORY DUPLEX	40'-	0"
COMMUNITY BUILDING	30-(	>

Ø. BUILDING HEIGHT AS PERMITTED IN THE CG ZONE DISTRICT, MAXIMUM HEIGHT OF 4 STORIES AT 12-8" PER STORY 50.66" MAX HEIGHT.



#### GENERAL SITE PLAN NOTES

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<u>CONSULTANT</u> ALOTERRA RESTORATION ATTN: JOHN HHITEMAN 320 E. VINE DRIVE, SUITE 213 FORT COLLINS, CO 80524 P-4004.692.4714 JIHITEMANGALOTERRASERVICES.COM

DATE

EXISTING OWNER

ATTN: STEVE SHOFLICK COLLEGE AND TRILBY LLC 6400 E BELLEVIEW AVE STE 300 GREENWOOD VILLAGE, CO 8011164T P=303.744.6300 SSHOFLICK@MILLER-UNITED.COM

ZOCALO COMMUNITY DEVELOPMENT ATTN: KOLBY O'HERRON Px120.450.8649

DEVELOPER

#### OWNERS CERTIFICATION

THE UNDERSIGNED DOES/DO HEREBY CERTIFY THAT I/WE ARE LAWFUL OWNERS OF REAL PROPERTY DESCRIBED ON THIS SITE PLAN AND DO HEREBY CERTIFY THAT I/WE ACCEPT THE CONDITIONS AND RESTRICTIONS SET FORTH ON SAID SITE PLAN

OWNER (SIGNED

(PRINT NAME)

THE FOREGOING INSTRUMENT WAS ACKNOWLEDGED BEFORE ME

DAY OF , 20 BY

MY COMMISSION EXPIRES:

(PRINT NAME)

WITNESS MY HAND AND OFFICIAL SEAL

NOTARY PUBLIC

#### PLANNING CERTIFICATION

APPROVED BY THE DIRECTOR COMMUNITY DEVELOPMENT AND NEIGHBORHOOD SERVICES OF THE CITY OF FORT COLLINS, COLORADO

ON THIS DAY OF A.D., 20

COMMUNITY DEVELOPMENT AND NEIGHBORHOOD SERVICES DIRECTOR

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#### PROJECT DEVELOPMENT PLAN COLLEGE & TRILBY | MULTI-FAMILY COMMUNITY LOCATED IN THE SOUTHEAST QUARTER OF SECTION 11.

TOWNSHIP 6 NORTH, RANGE 69 WEST OF THE 6TH P.M.

CITY OF FORT COLLINS, COUNTY OF LARIMER, STATE OF COLORADO

	LANDU	SE CHAI			
EXISTING ZONING: CG (GENERAL COMMER	CIAL)				
EXISTING USE: VACANT					
PROPOSED USE: ATTACHED SINGLE-FAMI	LY DUPLEXES AN	ID TOWNHOMES			
TOTAL SITE AREA: ±38.06 ACRES					
	D	ENSITY			
	AREA (SF)	AREA (A	C) UN	ITS DE	SITY (DU/AC)
SUBJECT PROPERTY	±1,657,777,95 SF	±38.06 /	AC 2	65 ±ê	.96 ± DU/AC
	AREA	COVERAGE			
	PROPERTY OWNER/ DEVELOPER	HOME OWNER	TOTAL AREA (SF)	TOTAL AREA (ACRES)	% OF GROSS PDP AREA
TOTAL LOT AREA '	100%	0%	461,648.96 SF	10.60 AC	27.9%
BUILDING COVERAGE (GROUND FLOOR AF	REA)   100%	0%	251,030.88 SF	5.76 AC	15.1%
PUBLIC STREET RIGHT-OF-WAY	N/A	N/A	320,055.18 SF	7.35 AC	19.3%
PRIVATE DRIVES, ALLEYS, & PARKING	100%	0%	114,371.76 SF	2.63 AC	7.0%
COMMON OPEN SPACE AREA	100%	0%	510,671.17 SF	11.72 AC	30.8%
ACTIVE RECREATION AREA 3	100%	0%	36,842.32 SF	0.85 AC	2.2%

BUILDING COVERAGE IS INCLUDED AS PART OF THE TOTAL LOT AREA. ALL ALLEYS WITHIN THE DEVELOPMENT WILL BE PRIVATE AND SHALL BE OWNED AND MAINTAINED BY THE

ROPERTY OWNER/ DEVELOPER. 3. ACTIVE RECREATION AND COMMUNITY AMENITY AREA IS INCLUDED WITHIN THE TOTAL COMMON OPEN SPACE.

u er		BUILDING TYPE & F	ARKING SUMMARY		
ΕY	BUILDING TYPE	DWELLING UNITS	PK SP/UNIT REQ.	REQ. PARKING	PROV. PARKING <sup>5</sup>
4	TWO FAMILY ATTACHED DUPLEX 4	16	2	32	32
3	SINGLE-FAMILY ATTACHED 2-STORY TOWNHOMES <sup>4</sup>	89	2	178	178
٩	SINGLE-FAMILY ATTACHED 3-STORY TOWNHOMES <sup>4</sup>	160	2	320	320
2	COMMUNITY BUILDING <sup>4</sup> (3,500 SF)		07	0	14
	ADDITIONAL OFF-STREET GUEST PARKING	-	-	-	17
	TOTALS	265		530	561

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#### NO REQUIRED PARKING IN LUC 3.2.2K

DECUDENTIAL	BICYCLE	DADRING	DE

RESIDENTIAL B	ICYCLE PARKING REQUIRED	
	PK SP/UNIT REQ.	BIKE PARKING REQ.
ENCLOSED BIKE PARKING (HOOKS PROVIDED IN GARAGES)	2 SP/UNIT - 265 UNITS	530 ENCLOSED SP 84 FIXED EXT. BIKE SF
FIXED SURFACE MOUNTED EXTERIOR SPACES	N/A	14 FIXED BIKE RACKS W 6 SP PER RACK
ĐU	ILDING HEIGHT MAXIMUM	HEIGHT
SINGLE-FAMILY ATTACHED 2-STORY DUPLEX	30-	0
SINGLE-FAMILY ATTACHED 2-STORY TOWNHOME	32'-	0"
SINGLE-FAMILY ATTACHED 3-STORY DUPLEX	40'-	-0"
COMMUNITY BUILDING	30-	0

9. BUILDING HEIGHT AS PERMITTED IN THE CG ZONE DISTRICT; MAXIMUM HEIGHT OF 4 STORIES AT 12-8" PER STORY 50.66' MAX HEIGHT.



#### GENERAL SITE PLAN NOTES

- I. REFER TO FINAL UTILITY PLANG FOR EXACT LOCATIONS AND CONSTRUCTION INFORMATION FOR STORM DRAINAGE STRUCTURES, UTILITY MAINS AND BERVICES, PROPOSED TOPOGRAPHY, STREET INFORVEMENTS. 2. REFER TO THE SUBDIVISION PLAT AND UTILITY PLANS FOR EXACT LOCATIONS, AREAS AND DIMENSIONS OF ALL EASEMENTS, LOTS, TRACTS, STREETS, WALKS AND OTHER SURVEY INFORMATION. 3. THE PROJECT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE FINAL PLANS. AMENDMENTS TO THE PLANS

  - MIST BE REVIEWED AND APPROVED BY THE CITY PRIOR TO THE IMPLEMENTATION OF ANY CHANGES TO THE
- Most be reviewed and APPROVED BY THE CITY PRIOR TO THE IMPLEMENTATION OF ANY CHANGES TO THE PLANS. 4. ALL ROOFTOP AND GROUND MONITED MECHANICAL EQUIPMENT MUST BE SCREENED FROM VIEW FROM ADJACENT ROOFERTY AND PREUE STREETS. IN CASES WHERE BULDING PARAFETS DO NOT ACCOMPLIENT SPRICENT SCREENING, THEN PREUESTANDING SCREEN WALLS MATCHING THE PREDOMINANT COLOR OF THE BULDING SHALL SCREENING, THEN PREUESTANDING SCREEN WALLS MATCHING THE PREDOMINANT COLOR OF THE BULDING SHALL SCREENING, THEN PREUESTANDING SCREEN WALLS MATCHING THE PREDOMINANT COLOR OF THE BULDING SHALL SCREENING, THEN PREUESTANDING SCREEN WALLS MATCHING THE PREDOMINANT COLOR OF THE BULDING SHALL SCREENING, THEN PREUESTANDING SCREEN WALLS MATCHING THE PREDOMINANT COLOR OF THE BULDING SHALL SCREENING, THEN PREUESTANDING SCREEN WALLS MATCHING THE PREDOMINANT COLOR OF THE BULDING SHALL SCREENING, THEN PREUESTANDING SCREEN WALLS MATCHING THE PREDOMINANT COLOR OF THE BULDING SHALL BE SCREENING TO PRAINT BUCK TO COMPLY WITH THE FOOT-CANDLE REQUIREMENTS IN SECTION 32.4 OF THE LAND USE CODE AND SHALL USE A CONCEALED, FULLY SHELDED LIGHT SCREENING IN SECTION 32.4 OF THE LAND USE CODE AND SHALL USE A CONCEALED, FULLY SHELDED LIGHT SCREENING IN SECTION 32.4 OF THE LAND USE CODE AND SHALL USE A CONCEALED, FULLY SHELDED LIGHT SCREENING THE SHARE ON DIAGED SHALL SHOWN WITH THESE FULLER FOR THE CONSTRUCTION. SHOW FOR AND UNKERSENT DIFFUSION. 1. SHOWN AND TERMINING FROUNDED SHALL CONSTRUCTION. SHOW FOR AND UNKERSENT DIFFUSION. 1. SHOWN DESCOOL AND TORMINING FROM THE LIGHT (SHERE AND UNKERSENT DIFFUSION. 3. SHOWN THE FUELT TO CONSTRUCTION. SHOW TO COMPLY WITH THE SHOW TO SHALL USE OF THE THE SHOWN TO THE SHOW

- SIGNAGE AND ADDRESSING ARE NOT FERMITTED WITH THIS PLANNING DOCUMENT AND MIST BE APPROVED BY SEPARATE CITY FERMIT RAIOR TO CONSTRUCTION. SIGNAM DIST COMPLEXIT WITH CITY SIGN CODE UNLESS A SPECIFIC VARIANCE IS GRANTED BY THE CITY. FIRE HTDRANTS MUST MEET OR EXCEED POUDRE FIRE AUTHORITY STANDARDS. ALL BUILDINGS MUST PROVIDE AN APPROVED FIRE EXTINGUISHING SYSTEM. ALL BIKE RACKS PROVIDED MUST BE FERMAMENTLY ANCHORED.

- 4. ALL BIKE RÄCKS PRÖVIDED MIST DE PERMANENTLY AKCHORED.
  10. ALL SIDEMALKS AND RAMPS MIST CONFORM TO CITY STANDARDS. ACCESSABLE RAMPS MIST BE PROVIDED AT ALL STREET AND DRIVE INTERSECTIONS AND AT ALL DESIGNATED ACCESSABLE PARKING SPACES. ACCESSABLE PARKING SPACES MIST SLOPE NO MORE THAN I.46 N ANT DIRECTION. ALL ACCESSIBLE ROUTES ACCESSABLE PARKING SPACES MIST SLOPE NO MORE THAN I.46 N ANT DIRECTION. ALL ACCESSABLE ROUTES (ACCESSABLE PARKING SPACE) MIST SLOPE NO MORE THAN I.46 N AND MEITH NO KORE THAN I.46 OCSIS SUCHER IN INST SLOPE NO MORE THAN I.30 N DIRECTION OF TRAINER MID MITH NO KORE THAN I.46 OCSIS SUCHER (INST SLOPE NO MORE THAN I.30 N DIRECTION OF TRAINER AND AND MEITH NO KORE THAN I.46 OCSIS SUCHER (INST SLOPE NO MORE THAN I.30 N DIRECTION OF TRAINER AND AND MITH NO KORE THAN I.46 OCSIS SUCHER (INST SLOPE NO MORE THAN I.30 N DIRECTION OF TRAINER AND AND MEITH NO KORE THAN I.46 OCSIS SUCHER (INST SLOPE NO MORE THAN I.30 N DIRECTION OF TRAINER AND MED TO BE MAINTAINED BY THE PROFERTY OWNER OF THE COMMON AREA. THE PROPERTY OWNER IS RESPONSIBLE FOR SHOM REMOVAL ON ALL ADJACENT STREET SIDEMALKS AND SIDEMALKS IN COMMON OFIS IS RESPONSIBLE FOR SHOM REMOVAL ON ALL ADJACENT STREET SIDEMALKS AND SIDEMALKS IN COMMON OFIS IS RESPONSIBLE FOR SHOM REMOVAL ON ALL ADJACENT I.1 LOBODING NUTLY STANDARDS, UNESS OTHER MERSIOE ADBEED TO BY THE REGISTOR-HALL AND AND IL LOBODING INTO THE TANDARDE. UNESS OTHER RESPONSIBLE FOR SHOM REMOVAL ON ALL ADJACENT IN ACCORDANCE WITH CITY STANDARDS, UNESS OTHER RESPONSIBLE TO THE CITY WITH THE FINAL PLANE, IL LOBODING IN STREED FOR SHOM REMOVAL ON ALL ADJACENT TO LOT 14 ITAND TA INTERNACE OF SICH AREAS IS THE RESPONSIBILITY OF THE OWNER OFFER.
- TRACT A. 14. PRIVATE CONDITIONS, COVENANTS, AND RESTRICTIONS (CC4RS), OR ANY OTHER PRIVATE RESTRICTIVE
- PRIVATE CONDITIONS, COVENANTS, AND RESTRICTIONS (CCRRS), OR ANY OTHER PRIVATE REISTRICTIVE COVENANT IMPOSED ON LANDOWERS WITHIN THE DEVELOPMENT, MAY TO THE CREATED OR ENFORCED HAVING THE EFFECT OF PROHIBITING OR LIMITING THE INSTALLATION OF XERISCAPE LANDSCAPING, SOLARPHOTO-VOLTAIC COLLECTORS (IF MONITED FLUED HOVING ANY STABLISHED ROOF LIND; CLOTHES LINES (IF

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# ATTN: STEVE SHOFLICK COLLEGE AND TRILBY LLC 6400 E BELLEVIEW AVE STE 300 GREENWOOD VILLAGE, CO 8011164T P=303.744.6300 SSHOFLICK@MILLER-UNITED.COM DEVELOPER ZOCALO COMMUNITY DEVELOPMENT ATTN: KOLBY O'HERRON Px120.450.8649

EXISTING OWNER

P~720.450.8649 KOLBY.OHERRON@ZOCALODEVELOPMENT.COM

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE APPROPATE TEVENIMIC APPROVES, THERNEWING APPROVES THER USE ONLY FOR THE PURPOSE ONLY FOR THE PURPOSE ONLY FOR THE PURPOSE AUTHORIZATION.

COMMUNITY ELOPMENT CO'HERRON .450.8649 ERRON@ZOCALI

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Centernial : Fort Collins

# ARCHITECT GODDEN SUDIK ARCHITECTS 5475 9. QUEBEC STREET, SUITE 250 CENTENNIAL, CO 8011 ATTN: DANA ASHOORI P~303.455.4437 DASHOORI@GODDENSUDIK.COM

PLANNER/ LANDSCAPE ARCHITECT JR ENGINEERING, LLC ATTN: KEN MERRITT, APA PLA 2900 SOUTH COLLEGE AVE, SUITE 3D FORT COLLINS, CO 80525 P~970.305.6754 KMERRITTØJRENGINEERING.COM

ENGINEER

JR ENGINEERING, LLC ATTNI JOEY FRANK, PE 2900 SOUTH COLLEGE AVE, SUITE 3D FORT COLLING, CO 80525 P~970.817.1010 TYPE A UNITS - DUPLEX HOMES FLOOR PLANS TYPE A UNITS - DUPLEX HOMES FLOOR PLANS TYPE A UNITS - DUPLEX HOMES FLOOR PLANS TYPE D UNITS - 2-STORY TOWNHOMES FLOOR PLANS TYPE C UNITS - 3-STORY TOWNHOMES FLOOR PLANS

JR ENGINEERING, LLC ATTN: JARROD ADAMS, P T200 5 ALTON WAY, SUIT CENTENNIAL, CO BOII2 P~303.140,4343 JADAMSøJRENGINEERING

ENVIRONMEN CONSULTANT

DATE

ALOTERRA RESTORATION ATTN: JOHN WHITEMAN 320 E. VINE DRIVE, SUITE FORT COLLINS, CO 80524 P~404.624.2114 JWHITEMAN@ALOTERRASE

#### OWNERS CERTIFICATION

THE UNDERSIGNED DOES/DO HEREBY CERTIEY THAT I/ OWNERS OF REAL PROPERTY DESCRIBED ON THIS SITE P HEREBY CERTIFY THAT I/WE ACCEPT THE CONDITIONS AND RESTRICTIONS SET FORTH ON SAID SITE PLAN

OWNER (SIGNED

(PRINT NAME)

DESCRIPTION COVER SHEET OVERALL SITE PLAN SITE PLAN ENLARGEMENTS EXISTING TREE ANALYSIS & MITIGATION PLAN

EXISTING TREE ANALYSIS & MITIGATION PLAN OVERALL LEADSCAPE PLAN LANDSCAPE PLAN BELARGEMENTS LANDSCAPE AREA BELAREMENTS SEED MIXES & CONTAINER PLANTS AND CUTTINGS LANDSCAPE DETAILS

EXISTING NATIRAL FEATURES AND MITIGATION

COMMUNITY CENTER - FLOOR PLANS COMMUNITY CENTER - ELEVATIONS MATERIALS BOARD - COLOR SCHEME I MATERIALS BOARD - COLOR SCHEME 1

MATERIALS BOARD - COLOR SCHEME 3 MATERIALS BOARD - COLOR SCHEME 4

MATERIALS BOARD - COLOR SCHEME 5

REVEGETATION NOTE

VEGETATION HYDROSERES PLANTING PLAN EROSION CONTROL

DRAFT SEED MIXES DRAFT PLANT PALETTES

TYPICAL

THE FOREGOING INSTRUMENT WAS ACKNOWLEDGED BEFORE ME

DAY OF

MY COMMISSION EXPIRES:

(PRINT NAME)

WITNESS MY HAND AND OFFICIAL SEAL

NOTARY PUBLIC

#### PLANNING CERTIFICATION

APPROVED BY THE DIRECTOR COMMUNITY DEVELOPMENT AND NEIGHBORHOOD SERVICES OF THE CITY OF FORT COLLINS, COLORADO

ON THIS DAY OF A.D., 20

COMMUNITY DEVELOPMENT AND NEIGHBORHOOD SERVICES DIRECTOR

SHEET 01 OF 48 JOB NO. 39823.00

COLLEGE & MULTI-FAMILY COVER DRA

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		Acres (mealc meadow):	1.63		(includes 1
		Seeds Per Sq. Ft. (Broadcast):	80	6	10.010 - 10.01
Mesic Meadow Seed	Mix				
Scientific Name (USDA)	Common Name (USDA)	Cultiver or Ecotype	Life History	% Mix	Pounids PLS Needed
Glyceria striata	fowl mannagrass	CO Ecotype preferred	NPG-L	15	5.01
Helianthus nuttallii	Nuttall's sunflower	CO Ecotype (ar VNS)	NPF	1	0.38
Leersia oryzoldes	rice cutgrass		NPG-L	10	0.01
Mentha arvensis	wild mint.		NPF	1	0.01
Muhlenbergia asperifolia	scratchgrass	CO Ecotype (or VNS)	NPG-L	10	0.38
Denothera villosa	hairy evening primrose	CO Ecotype (or VNS)	NBF	1	0.03
Panicum virgatum	switchgrass	Blackwell	NPG-L	15	3.70
Puccinellia nuttalliana	Nuttal alkalaigrass		NPG-L	15	0.31
Solidago missouriensis	Missouri goldenrod	CO Ecotype (or VNS)	NPF	1	0.03
Spartina gracilis	alkali cordgrass		NPG-L	15	9.09
Spartino pectinata	prairie cordgrass	Red River	NPG-L	14	6.73
Symphyatrichum navae-angliae	New England aster		NPF	1	0.01
Verbena hastata	swamp verbena	CO Ecotype (or VNS)	NPF	1	0.01
				100	25.7

Acres (Facultative):	2.88	(includes 10% overage)
Seeds Per 5q. Ft. (Broadcast):	80	

Scientific Name (USDA)	Common Name (USDA)	Cultivar or Ecotype	Life History	% Mix	Pounds PLS Needed
Andropopon gerardii	big bluestem	Bonilla	NPG-L	10	0.70
Bromus ciliatus	fringed brome	Central CO	NPG-L	10	4.26
Distichlis spicata	saltgrass		NPG-L	8	1.55
Elymus canodensis	Canada wildrye	Mandan	NPG-L	10	8.81
Elymus lanceolatus ssp. Janceolatus	thickspike wheatgrass	Critana	NPG-L	10	7.44
Elymus trachycaulus	slender wheatgrass	Pryor	NPG-L	10	6.93
Oenothera villosa	hairy evening primrose	CO Ecotype (or VNS)	NBF	2	0.10
Panicum virgatum	switchgrass	Blackwell	NPG-L	10	4.37
Pascopyrum smithii	western wheatgrass	Arriba	NPG-L	3	2.65
Schlzachyrlum scoparium var. scoparium	little bluestern	Camper	NPG-L	10	7.73
Solidago canadensis	Canada goldenrod	CO Ecotype (or VNS)	NPF	1	0.02
Sorghastrum nutans	indiangrass	Oto	NPG-L	10	0.28
Sporobolus cryptandrus	sand dropseed	CO Ecotype preferred	NPG-L	5	0.10
Verbena bracteata	bigbract verbena		NPF	1	0.01
				100	56.91

Facultative Seed Mix

		Acres (upland): Seeds Per 5q. Ft. (Broadcast):	6.89		(includes 10% overag
Upland Seed Mix					
Scientific Name (USDA)	Common Name (USDA)	Cultivar or Ecotype	Life History	% Mix	Pounds PLS Needed
Achillea lanulosa var. occidentalis	Western yarrow	Eagle or Yakima	NPF	1.	0.12
Achnatherum hymenoides	Indian ricegrass	Paloma	NHG-L	1	2.34
Adenolinum lewisii (CO native only)	Lewis flax	Maple Grove	NPF	1	1.12
Antennaria porvifolia	small-leaf pussytoes	CO Ecotype (or VNS)	NPF	1	0.29
Aristida purpurea	purple threeawn	CO Ecotype preferred	NPG-L	3	3.81
Astragalus bisulcatus	twogrooved milkvetch	CO Ecotype (or VN5)	NPF	1	0.82
Bouteloua curtipendula	sideoats grama	Niner	NPG-L	15	26.05
Bouteloua gracilis	blue grama	Fremont CO ecotype	NPG-L	20	8.92
Buchloe dactyloides	buffalograss	Cody	NPG-L	15	88.38
Cleome serrulata	<b>Rocky Mountain beeplant</b>	CO Ecotype (or VNS)	NAF	1	2.91
Coreopsis tinctoria	plains coreopsis	CO Ecotype (or VN5)	NEF	1	0.24
Dalea purpurea	purple prairie clover	Kaneb or Stephanie	NPF	1	1.13
Elymus elymoides	squirreltail	Pueblo or Wapiti	NHG-L	15	25.78
Gaillardia aristata	blanketflower	CO Ecotype (or VNS)	NPF	1	1.77
Grindelia squarrosa	curly cup gumweed	CO Ecotype (or VNS)	NBF	1	0.82
Hedysarum boreale	Utah sweetvetch	Timp	NPF	1	7.12
Helianthus petiolaris	prairie sunflower	CO Ecotype (or VNS)	NAF	1	1.54
Heterotheca villosa	hairy goldenaster	CO Ecotype (or VNS)	NPF	1	0.98
Koeleria macrantha	prairie Junegrass	Sims Mesa	NPG-L	15	2.14
Monarda pectinata	bergemot	CO Ecotype preferred	NAF	1	0.25
Penstemon virgatus	Front Range beardtongue	CO Ecotype or Bluebuckle	NPF	1	0.63
Ratibida columnifera	upright prairie coneflower	CO Ecotype (or VN5)	NPF	1	0.42
Rudbeckia hirta	blackeyed Susan	CO Ecotype (or VNS)	NBF	1	0.21
				100	177.7B

						Mesic W	/etiand	Facult	ative
						Area (ac)	1.48	Area (ac)	1.19
Herbac	ceous Containers					Feet on Center	2.5	Feet on Center	3.0
						Plants/ac	8D47	Plants/ac	558
Түре	Scientific Name	Common Name	Life History	Hydrosere	Qty All Heaches	% in palette	Qty	% in palette	Qty
1 gal or similar	Andropogon gerordii	big bluestem	NPG-L	facultative	465	0	0	7	465
4" or similar	Asclepias incarnata	swamp milkweed	NPF	mesic meadow	595	5	595	0	0
4" or similar	Asclepias speciasa	showy milkweed	NPF	mesic meadow	595	5	595	0	0
10ci or similar	Bolboschoenus maritimus	cosmopolitan bulrush	NPG-L	mesic meadow	834	7	B34	0	0
10ci or similar	Carex nebrascensis	Nebraska sedge	NPG-L	mesic meadow	1786	15	1786	0	0
10ci or similar	Carex pellita	woolly sedge	NPG-L	mesic-Facultative	1191	10	1191	0	0
10ci or similar	Cares proegraells	clustered field sedge	NPS-L	facultative	557	8	ð	15	557
10ci or similar	Carex proegracilis	clustered field sedge	NPG-L	facultative	665	0	0	10	665
10ci or similar	Distichlia spicata	saltgrass	NPG-L	facultative	465	0	0	7	465
10ci or similar	Eleocharis polustris	common spikerush	NPG-L	mesic meadow	1191	10	1191	0	0
10 ci or similar	Helianthus maximiliani	Maximilian sunflower	NPF	facultative	332	0	0	5	332
10ci or similar	Juncus arcticus ssp. littoralis	arctic rush	NPG-L	facultative	997	0	0	15	997
10ci or similar	Juncus confusus	Colorado rush	NPG-L	mesic meadow	1786	15	1786	D	0
10ei ar similar	Juneus interior	intend rush	NPG L	<b>Facultative</b>	665	0	0	10	665
10ci or similar	Juncus nodasus	knotted rush	NPG-L	mesic meadow	953	8	953	0	0
10ci or similar	Juncus torreyi	Torrey's rush	NPG-L	mesic meadow	1191	10	1191	0	0
4" or similar	Oenothera cespitasa	tufted evening primros	NPF	facultative	332	0	0	5	332
10ci or similar	Panicum capillare	witchgrass	NAG-L	facultative	465	0	0	7	465
1 gal or similar	Schizachyrium scoparium var. scoparium	little bluestem	NPG-L	facultative	465	0	0	7	465
10ci or similar	Scirpus pollidus	cloaked buirush	NPG-L	mesic meadow	1191	10	1191	0	0
1 gal or similar	Sorghoutrum nutami	Indiangrass	NPG-L	facultative	465	0	0	7	465
10ci or similar	Triglochin maritima	seaside arrowgrass	NPF	mesic meadow	595	5	595	0	0
4" or similar	Vicia americana	American vetch	NPF	facultative	332	0	0	5	332
					18559	100	11910	100	665

						Mesori	parian	Xerori	parian
645 S. 1994						Area (ac)	0.58	Area (ac)	0.71
Woody	Noody Containers						7	Feet on Center	1
						Plants/ac	1026	Plants/ac	1026
Түре	Scientific Name	Common Name	Life History	Hydrosere	Qty All Reaches	% in palette	Qty	%in palette	Qty
1 gal or similar	Acer negundo	boxelder	NT	xeroriparian	146	0	0	20	146
D60 or similar	Amorpha fruticasa	false initigo trush	NS	mesoripatian	149	25	149	0	0
D60 or similar	Cornus sericea	redosier dogwood	N5	mesoriparian	149	25	149	0	0
D60 or similar	Prunus americana	American plum	NS	xeroriparian	146	0	0	20	146
D60 or similar	Pranus virginiana var. melanocarpa	black chokecherry	NS	mesoriparian	149	25	149	0	0
D60 or similar	Ribes pureum	golden currant	NS	mesoriparian	149	25	149	0	D
1 gal or similar	Ribes cereum	wax currant	N5	xetoriparian	146	0	0	20	146
1 gal or similar	Rosa waadsii	Wood's rose	N5	xeroripatian	146	0	0	20	146
1 gal or similar	Symphoricarpos occidentalis	western snowberry	NSubS	xeroriparian	146	0	0	20	146
					1224	100	200	100	7.7.10

						Hydrori	parian
Willo	w and Cottonw	ood Cuttings				Feet on Center	5
						Plants/ac	2011
Түре	Scientific Name	Common Name	Life History	Hydrosere	Qty All Reaches	% in palette	Qty
48" whip	Sallx exigua	narrowleaf willow	NS NS	hydro-mesoriparian	113	33	113
48" whip	Salix amygdaloides	peachleaf willow	NS NS	mesoriparian	116	34	116
8-10' pole	Populus deltoides	eastern cottonwood	NT	mesoripatian	113	33	113
		CENTRO ENCLOYME			113	100	113



#### COLLEGE & TRLBY | COLLEGE & TRLBY | MULTI-FAMILY COMMUNITY MULTI-FAMILY COMMUNITY MULTI-FAMILY COMMUNITY MALTI-FAMILY COMUNITY MALTI-FAMILY COMUNITY

SHEET 19 OF 48 JOB NO. 39823.00

STREET TREE NOTE

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ZOCALO COMMUNITY DEVELOPMENT KOLBY O'HERRON 720,450,8649 KOLBY OHERRON®ZOCALO DEVELOPMENT.COM

J-R ENGINERRING

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Centernial 300-740-9933 & Colorado Springs 79-593-2663 Fort Collins 970-495-9888 & www.jergineering.com

PREPARED FOR

# CITY OF FORT COLLING LANDSCAPE NOTES

- PLANT QUALITY; ALL PLANT MATERIAL SHALL BE A-GRADE OR NO. 1 GRADE TREE OF ANY DEFECTS, OF NORMAL HEALTH, HEIGHT, LEAF DENSITY AND SPREAD APPROPRIATE TO THE SPECIES AS DEFINED BY THE AFERICAN ASSOCIATION OF NIRGERYTEN (AAN) STANDARDS, ALL TREES SHALL BE BALL AND BURLAP OR EQUIVALENT.
- ESCALICAL ALLACCOURT AREAS UTILINIES OTE INCLUDING THEY SHRUD EEN AND THEY AREAD SHALL BE INFORMATED UTIL ALLATE VILLES COURT FOR THE INFORMATION OF THE AREAD SHALL BE INFORMATION AND THEY AREAD SHALL BE INFORMATED UTILINIA ALLATE VILLES DEPARTMENT FOR THE INFORMATION OF BEDRA ALLATER ALLATER AREAD SHALL BE INFORMATED ALLATER VILLES DEPARTMENTS ALLA SHRUD BEDRA ALLA THEY AREAD SHALL BE INFORMATION UTIL AN ALLOCALIC DEPIRITION OF STORY ALLA BERGA ADD THEY ALLA LIFERATION ALL BE INFORMATION UTIL AN ALLOCALIC DEPIRITION OF STORY AND ALLA BE ADADIEDT OFFICET ALL LIFERATIVE AFFORMATION OF THE FOLLING BE ALLOCALIC DEPIRITION OF STORY AND ALLA BE ADADIEDT OFFICET ALL LIFERATIVE AFFORMATION OF THE FOLLING BERGANETING TO THE ROUTING INFORMATION OFFICIAL DE PROSATION OF STORY AND DE ADADIEDT OFFICET THE ALLER REQUIREMENTS OF THE CUTIL OFFICET ALLOCALIC DEPIRITION OF STORY AND LE ADADIEDT OFFICET ALL LIFERATIVE AFFORMATION OFFICIAL DE REQUIREMENTS OFFICE ALLOCALIC DEPIRITION OFFICIAL DE ADADIEDT OFFICET ALL LIFERATIVE AFFORMATION OFFICIAL DE ADADIEDT OFFICET THE UTIL THE REQUIREMENTS OFFICIAL DE REQUIREMENTS OFFICE ALLOCALIC DEPIRITION OFFICIAL DE ADADIEDT OFFICET THE UTIL DE REQUIREMENTS OFFICE ALLOCALICALING ANTIPICATION OFFICIAL DE ADADIEDT OFFICET THE UTIL DE ADADIEDT OFFICET ALLOCALING ANTIPICATION OFFICIAL DE ADADIEDT OFFICET THE ALLES REQUIREMENTS OFFICE ALLOCALING ANTIPICATION OFFICIAL DE ADADIEDT OFFICET THE ALLES REQUIREMENTS OFFICE ADADIEDT OFFICIAL DE ADADIEDT OFFICET THE ALLES REQUIREMENTS OFFICE ADADIEDT OFFICIAL DE ADADIEDT OFFICET THE ALLES REQUIREMENTS OFFICE ADADIEDT OFFICE ALLES ADADIEDT OFFICET ADADIEDT OFFICET ALLES ADADIEDT OFFICET ALLES ADADIEDT OFFICET ADADIEDT OFFICET ALLES ADADIEDT OFFICET ADADIEDT WITH AN AUTOMAT THE IRRIGATION F
- IQPBOLL TO THE MAXIMUM EXTENT READIBLE, TOPSOIL THAT IS REMOVED DURING CONSTRUCTION ACTIVITY SHALL BE CONSERVED FOR LATER USE ON AREAS REQUIRING REVEGETATION AND LANDSCAPING.
- 5. INSTALLATION AND GUARANTEE: ALL LANDRCAPNS SHALL BE INSTALLED ACCORDING TO SOMD HORIGILTURAL PRACTICES N A HANNER DESKRED TO BLOCKRACE GUICS ESTABLISH-ENT AND HEALTHY GROUTH, ALL LANDRCAPNS FOR EACH PHARE MIST DE EITHER INSTALLED OR THE MAILLATION HOBE BECKRED LITH AN INSTREMCASELE LETTER OF REDITING THE SHALLED ON THE MALLATION HOBE INTERNATE BACO. OR ESCREDI ACCOUNT FOR 13% OF THE VALLATION OF THE MATERIALS AND LABOR FROM TO BRUAKE OF A CERTIFICATE OF OCCUPANCY FOR ANY BUILDON IN SUCCIFICATE.
- A MATERANCE INEED AND INSERTATION, INVALUE OF STOTES FRAZE MALLA AND OTHER LANGGATE ELEMENTS WITH THESE FINAL TOTES BYTE DETAILS THE APPL CART, LANGGARE OF RUCCISSORS IN INTERED FAUL DE JOINTY AND A VILLA TOTES BYTE DETAILS THE APPL CART, LANGGARE OF RUCCISSORS IN INTERED FAUL DE JOINTY AND A VILLA REPORTSELE OF THE REGULAR HANDINGLY OF ALL LANDGCAPES DELEMENTS IN GOOD CONDITION ALL LANGGLAPHS SHALL DE MAINARD FREE REGOLARDE. DE DEROUGHER OF AUCTIONS AND ALL INDEXCAPES BUCH AS FRACES AND MALL DE MAINARD FREE REGOLARDE. DE REGOLARDI TO TANINA AL INACCAPES BUCH AS FRACES AND MALLS SHALL DE REPARED AND RETLACED FREGOLARDI TO TANINA AL INACCAPES TRACEMES AND AS FRACES AND MALLS

REPLACEMENT: ANY LAND&CAPE ELEMENT THAT DIES, OR IS OTHERWISE REMOVED, SHALL BE PROMPTLY REPLACED IN ACCORDANCE WITH THE REQUIREMENTS OF THESE PLANS.

8. THE FOLLOWING SEPARATIONS SHALL BE PROVIDED BETWEEN TREES/SHRUBS AND UTILITIES

40 FIET BETWEEN CANOPY THEES AND STREET LIGHTS 50 FIET DETWEEN ORM/ENTAL THEES AND STREET LIGHTS FOR THE STREEM ORM/ENTAL THEES AND STREET LIGHTS FIET BETWEEN THEE AND FULL UNITER ANTARY AND STORY SELER FAINLINES 4 FIET BETWEEN MARES AND PUBLIC LIMITER ANTARY AND STORY SELER LINES 4 FIET BETWEEN MARES AND PUBLIC LIMITER ANTARY AND STORY SELER LINES 4 FIET BETWEEN MARES AND PUBLIC LIMITER ANTARY AND STORY SELER LINES 4 FIET BETWEEN MARES AND PUBLIC LIMITER ANTARY AND STORY SELER LINES 4 FIET BETWEEN MARES AND PUBLIC LIMITER ANTARY AND STORY SELER LINES 4 FIET BETWEEN MARES AND PUBLIC LIMITER ANT AND STORY SELER LINES 4 FIET BETWEEN MARES AND PUBLIC LIMITER ANTARY AND STORY SELER LINES 4 FIET BETWEEN MARES AND PUBLIC LIMITER ANTARY AND STORY SELER LINES 4 FIET BETWEEN MARES AND PUBLIC LIMITER ANTARY AND STORY SELER LINES 4 FIET BETWEEN MARES AND PUBLIC LIMITER ANTARY AND STORY SELER LINES 4 FIET BETWEEN MARES AND PUBLIC LIMITER ANTARY AND STORY SELER LINES 4 FIET BETWEEN MARES AND PUBLIC LIMITER ANTARY AND STORY SELER LINES 4 FIET BETWEEN MARES AND PUBLIC LIMITER ANTARY AND STORY SELER LINES 4 FIET BETWEEN MARES AND PUBLIC LIMITER ANTARY AND STORY SELER LINES 4 FIET BETWEEN MARES AND PUBLIC LIMITER ANTARY AND STORY SELER LINES 4 FIET BETWEEN MARES AND PUBLIC LIMITER ANTARY AND STORY SELER LINES 4 FIET BETWEEN MARES AND PUBLIC LIMITER ANTARY AND STORY SELER LINES 4 FIET BETWEEN MARES AND PUBLIC LIMITER ANTARY AND STORY SELER LINES 4 FIET BETWEEN MARES AND PUBLIC LIMITER ANTARY AND STORY SELER LINES 4 FIET BETWEEN MARES AND FIELD FIELD ANTARY AND STORY SELER LINES 4 FIEL BETWEEN PUBLIC FIELD FIEL

- IN PLACEMENT OF ALL LANDSCAPING SHALL BE IN ACCORDANCE UTH THE SIGHT DISTANCE CRITERIA AS SPECIFIED BY THE CITY OF KORT COLLINS. NO STRUCTURES OR LANDSCAPE ELEMENTS AGRATER THAN X4" SHALL BE ALLOUED UTHIN THE SHAT DISTANCE TRANKLE OR EASEMENTS UTH THE EXCEPTION OF DECIDIOUS TREES PROVIDED THAT THE CASET DISTANCE TRANSLE OR EASEMENTS HAT THE SCAPT OF DISTANCE GROUE, ANY TRACES UTHIN THE SIGHT DISTANCE TRANSLE OR EASEMENT THAS THE NOT TRACE THAT 44" IN HEIGHT AND OF AN OFEN DESIGN.
- IL THE FINAL LANDSCAPE FLAN SHALL BE COORDINATED WITH ALL OTHER FINAL PLAN ELEMENTS SO THAT THE PROPOSED GRADING, STORT DRAINAGE, AND OTHER DEVELOPMENT THREAMENTS DO NOT CONFLICT WITH NOR PRECLIDE INSTALLATION AND MANTENANCE OF LANDSCAPE ELEMENTS OF INFO PLAN.
- 2. Now cluxes n erectes and plant location hat be hade direct construction --- as required by the controls or plant construction --- as required by the approach plant, and descended the construction the approach plants. In the proof of control of the approach plants is the plant of control of the controls of the controls of the controls of the controls of the control of the cont

IS. ALL PLANTING BEDS SHALL BE MULCHED TO A MINIMUM DEPTH OF THREE INCHES.

CITY OF FORT COLLING STREET TREE NOTES

- CONTACT THE CITY TO INSPECT ALL STREET TREE PLANTINGS AT THE COMPLETION OF EACH PHASE OF THE DEVELOPMENT. ALL MAST DE INSTALLED AS SHOUN ON THE LANDSCAPE PLAN. APPROVAL OF STREET TREE PLANTING IS REQUIRED DEFORE FINAL APPROVAL OF EACH PHASE.
- STREET LANDSCAPING, INCLIDING STREET TREES, SHALL BE SELECTED IN ACCORDANCE WITH ALL CITY CODES AND POLICIES, All treet fraining and removal works shall be fremoned by a licensed arbors where required by code. Street trees shall be supplied and planted by the developer wisks a guilyted landscape contractor.
- 4. THE DEVELOPER SHALL REPLACE DEAD OR DYING STREET TREES AFTER PLANTING UNTIL FINAL MAINTENANCE INSPECTION AND ACCEPTANCE BY THE CITY.
- 5. SUBJECT TO APPROVAL BY THE CITY. STREET THEE LOCATIONS MAY BE ADJUSTED TO ACCOMPADATE DRIVINATIVA COLATIONS, UTLITY CERNATIONS BETLEBEN THEES STREET SING AN AD STREET THE CITY TO THEEST OF BE CONTERED IN THE MODULE OF THE LITY OT THE EXTERT FEADRLE. QUANTIES SHOW ON PLAN MUST BE INSTALLED UNLESS A REDUCTION IS APPROVED BY THE CITY TO THE EXTERT SARDARE.

# GENERAL LANDSCAPE NOTES

- I, IF TREES OR SHRUES ARE LOCATED ON TOP OF FIELD VERTIED UTLITIES, CONTRACTOR SHALL NOTIFY OWNERS REPRESENTATIVE BEFORE ANY DIGING COMPACES VERTY WITH OWNER REPRESENTATIVE WHICH SHRUES/ TREES NEED TO BE RELOCATED OR REPORTS FOR FOR OUR OWNER.
- 2. ALL LANDCAFF AREAS SHALL BE MANARED, RALENA POINS, LINTER AND FERTURAS ET CONTRACTOR INTL. INTL. ACCEPT AREAS ET CARRES REPRESENTATION A DIGHT TO CARL OF EACH CONTAIL DE REPROVINGE FOR ALL MANTENACE, LANDCAFF AND REPORTING ULL DE LANDCAFTED FOR ORE (I) FULL TERA AFRE NULL SCEPTIANEE. THE SUCCESSION INTEREST SHALL DE RESPONDER FOR THE CARL MANACE OF ALL DIGHT DIAL DE REPORTING SUCCESSION INTEREST SHALL DE RESPONDER FOR THE CARL MANACE OF ALL DIGHT DIAL DE REPORTING LANDCAFF, REGARDA AFO DIER SITE AFENTISE LOCATED ON EACH HOUSTALL OF ALL LINDCASE, DRIVES AFUNCALL. DE UNLLS SHALL DE MANARES TO REPARED FERSIONE COLLET ON RACH HOUSTALL OF ALL LINDCASE DORTON.
- EXCAVATED MATERIAL TO BE USED AS FILL WILL HAVE ALL ROCKS, DEBRIS, WATERIAL, FROZEN MATERIAL, VEGETATION LARGER THAN 3" IN ANY DIMENSION REMOVED BEFORE PLACEMENT AND COMPACTION OF SOIL.
- PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDING AND WALL FOUNDATIONS AND A SMOOTH TRANSITION BETWEEN ALL ADJACENT EXISTING GRADES AND PROPOSED GRADES.
- 5. UNFORMLY COMPACT AND FINE GRADE ALL AREAS TO BE PLANTED TO A SMOOTH SURFACE, FREE FROM IRREGULAR SURFACE GRADES, RE-COMPACT SOFT SPOTS, FILL IN LOW AREAS AND TRM HURI SPOTS TO COMPLANT HEROWIRED GRADE TO LERANCES, REFER TO CIVIL, PLANS FOR REGULED FINISH SPOT GRADES AND CONTORES.
- 6. ONCE SOD IS LAID IT SHALL BE PROPERLY ROLLED, COMPACTED, AND SOD JOINTS SHALL BE RUSHED TOGETHER TO ELIMINATE ANY GAPS BETWEEN ROLL EDGES, APPLY FERTILIZER IN THESE AREAS PER SOD FARTIS RECOMMENDATIONS.
- ALL MINIMM PLANT MATERIAL 6/265 ARE SHOUN IN THE PLANT LIST, ALL PLANTS SHALL BE PLANTED IN AMENDED SOIL AND TREES SHALL BE STAKED AS SHOUN IN DETAILS.
- ALL PLANT MATERIAL SHALL HAVE WIRE TUNE, BASKETS, BURLAPAND ALL OTHER NON-BIODEGRADABLE CONTAINMENT MATERIAL REMOVED FROM THE TRUNK AND/OR ROOT BALL OF THE PLANT PRIOR TO PLANTING.

10. STEELHEADER BETWEEN GRASS AND SHRUB BEDS/ROCK COBBLE AREAS ETC. SHALL BE HEAVY DUTY STEEL EDGER MN 14 GA X 4<sup>1</sup> Uith ROLLED TOP 4 DRAINAGE HOLES 1<sup>1</sup> MINIMIM ON CENTER: STEEL HEADERS SHALL BE SET LEVEL UITH THE TOP OF THE ROLACENT SOD.

II. REFER TO ALCTERRA PLANS AND SPECIFICATIONS FOR SOIL PREPARATION, SOIL AMENDMENTS, SEEDING, AND PLANTING REGUREDENTS, SHEETS EI-ET

# PLANT LIST

MITIGATION TREES Quantity

Quant	ity Sumbol	Common Name	Botanical Name	Mitidation Size
18	- B9	Colorado Blue Spruce	Pices Pungens 'Colorado Blue'	6' Higt, Min,
	Facial Miniara	1 T		

# DECIDUOUS TREES

antity	Symbol	Common Name	Botanical Name	Size	Cond.	Kc Value	Species Diversity
	BÖ	Burr Oak	Quercus Macrocarpa	2" Cal	B4B	L I	0.1%
	CAP	Capital Pear	Purus Culleruara 'Capital'	2 1/2" Cal	B4B	м	0.9%
	~	Chinkapin Oak	Quercus Muenterberall	2" Cal	B4B	м	4,0%
	FYL	Front Tard Linden	Tilia Americana 'Bailyard'	2" Cal	B4B	м	1,4%
	GOL	Greenspire Linden	Tilia Cordata 'Greenspire'	2" Cal	B4B	M	5.9%
	HB	Hackberry	Celtis Occidentalis	2" Cal	B4B	E E	3.5%
	JTL	Japanese Tree Lilac	Surincia Reticulata	2" Cal Mr	B4B	L L	2.6%
	KCT	Kentucky Coffee Tree	Gunnocladus Diolcus 'Espresso'	2" Cal	B4B	L L	82%
	NLC	Narrouleaf Cottorwood	Populus Angustifolia	2" Cal	B4B	L	3.1%
	OB	Ohio Buckeye	Amoulus Glabra	2" Cal	B4B	M	0.7%
	SHL	Skuline Honeylocust	Gleditela Triacanthos inernis 'Skuline'	2" Cal	B4B	L	2.1%
	TRO	Texas Red Oak	Quercus Buckleyi	2 1/2" Cal	B4B	E E	4,4%
	wic:	liestern Cataloa	Cataloa Apeciosa	2" Cal	BIB	Ē	47%

335 Total Deciduous Tree

## ORNAMENTAL TREES

uantitu	Sumbol	Connon Name	Botanical Name	Size	Cond. Ka	Value	Species Divers
	ABO	Autum Brillance Serviceberry	Amelanchier x Grandiflora 'Autum Brillance'	K Cal	B4B, multi trun	k L	2.2%
1	CPP	Capital Pear	Purus Calleruana 'Capital'	S' Cal	848	1	5.9%
>	CP .	Chanticleer Pear	Purus Calleryana 'Chanticleer'	2" Cal	B4B	м	12%
	ERB	Eastern Recibud	Carcle Canadanele	2" Cal	B4B, multi trun	ĸМ	15%
4	HUM	Hot Winds Maple	Acer Tataricum 'Hot Winds'	16" Cal	B4B, multi trun	k L	5.5%
	ISC	Ivory Spine Crabapple	Malus 'lvory Spine'	K Cal	B4B,	M	0.3%
Þ	REC	Red Barron Crabapple	Malus 'Red Barron'	H" Cal	Cont.	L	1.9%
4	RC	Radiant Crabappie	Malus 'Radiant'	2" Cal	B4B	м	3.0%
5	RJC	Red Jeuel Crabappie	Malus 'Reci Jewel'	K' Cal	B4B	L.	6.9%
2	RRD	Roual Raindrope Crabappie	Malus 'Roual Raindrops'	16' Cal	BIB	L	12%
2	66C	Spring Snow Crabappie	Malue 'Spring Snow'	2" Cal	B4B	М	2.1%
	TCH	Thomless Cockepur Hauthom	Crataedus Crus-Gal	16" Cal	B4B.	L.	2.6%

# CONIFEROUS/EVERGREEN TREES

uantitu	Sumbol	Connon Name	Botanical Name	8ize.	Cond.	Kc Value	Species Diversity
	AP	Austrian Pine	Pinus Nigra	é' Hat Min	B48	M	2.0%
	889	Bornu Blue Spruce	Fices Funders 'Borry Blue'	e' Hat.	848	7	17%
	BH6	Black Hills Spruce	Pinus Glauca 'Black Hills'	8' Hat, Min,	B4B	L .	0.9%
	CN6 EAP	Columnar Norway Spruce	Picea Ables 'Cupressina'	6' Hğt. Min.	B4B	L	0.1% 4.4%
,	FAS	Fat Albert Spruce	Pirus Pungens Fat Albert'	8' Hgt. Min.	B4B	L	12%
3 Tot	al Conifer	ous/Evergreen Trees					

801 Total Tree

# SHRUB BED & PRIVATE LOT PLANT LIST

THE BOLLOWING IS A GENERAL FLANT LIST OF DECIDIOUS CONFERENCE, GRAVENTAL GRASS AND FERENLIST REAM HAICH FLANT THE TRUE ARE THE REPORTSOL SHARE BEEGS AND GENERATING. UNIT LANDSCAPE UILL BE GELECTED. EACH RESIDENTIAL UNIT SHALL HAVE AS A MINIMUM FRONT THE ROLLOWING FLANTS. SHALL HAVE AS A MINIMUM FRONT THE ROLLOWING FLANTS. SHALE HAVE AS A MINIMUM FRONT THE ROLLOWING FLANTS. SHALE HAVE AS A MINIMUM FRONT THE ROLLOWING FLANTS. SHALE HAVE AS A MINIMUM FRONT THE ROLLOWING FLANTS. CONTERIOUS SHIELDS AND (4) GALL DECIDIOUS BRIESS (3) SALE. CONTERIOUS BRIESS AND (5) I GAL. CONVARIENT, GRASSES INTERIOR FOR SEC. (5) GAL DECIDIOUS BRIESS (5) SALE. CONTERIOUS BRIESS AND (5) I GAL. CONVARIENT, GRASSES

AND 4-1 GAL. PERENNIALS.

SHRUBS	

Sumbol	Common Name	Botánical Nane	Size
AUS	Anthony Waterer Spires	Spires × Bunsids 'Anthony Waterer'	5 Gal
BCJ	Blue Chip Juniper	Juniperus Horizontalis 'Blue Chip'	5 Gal
BDJ	Blueberry Delight Juniper	Juniperus Communis 'Blueberry Delight'	5 Gal,
BJ	Blue Creeper Juniper	Juniperus Scopulorum 'Blue Creeper'	5 Gal
BMH	Berri Madic Holly	Liex X Meserveáe 'Berri Mácic'	5 Gal
CPB	Crimeon Pyony Barberry	Berberis Trunbergii 'Autropurpurea Nana'	5 Gal
DG	Dakota Goldcharm Spirea	Spirea Japonica Mertyann' TM	5 Gal
DGS	Duarf Globe Blue spruce	Picea Pungens 'Glauca Giobosa'	5 Gal
DKD	Duarf Kelsey Dogwood	Comus Stolonifera 'Kelsey'	5 Gal
DKS	Dark Knight Spires	Caruopteris Clandonensis	5 Gal,
DMM	Duarf Minnesota Mockorance	Philádelphus x Virginális 'Duárf Snoufláke'	5 Gal
DNB	Duarf Ninebark	Physocarpus Opulifolius Nano'	5 Gal
GLS	Gro-Lou Sumac	Rhus Aronatica 'Gro-low'	5 Gal
GMS	Goldnound Spires	Spires × 'Goldmound'	5 Gal
LP8	Little Princess Spires	Spiraes Japonica 'Little Princess'	5 Gal
MBS	Montgomery Blue Spruce	Pices Puncers Montgomery'	5 Gal
MKC	Miss Rim Lilac	Syringia Patula 'Mise Kim'	5 Gal
MMP	Mope Mugo Pine	Pinue Mugo 'Mope'	5 Gal
RB	Redieal Japanese Barberry	Berberis Trunberdii 'Atropurpures'	5 Gal
ROB	Recent Serviceberry	Anelancher Alnifolia 'Recient'	5 Gal
TMP	Tannanioaun Mucio Pina	Pinus Muqo 'Tannanioaum'	5 Gal
ump	Unite Bud Mugo Pine	Pinus Mugo "Uhite Bud"	5 Gal

#### AL GRASSES ORNAMEN

		Dovernoan Name	0120
AUS	Autumn Jay Bedum	Sedun x 'Autumn Joy'	Gal
BAG	Blue Avena Grass	Helictotrichon Senpervirens	I Gal
BES	Black-Eyed Susan	Rudbeckta Fulgida 'Goldstum'	I GaL
BG	Bionde Amoition Blue Grama	Boutelous Gracilis 'Blonde Amottion'	Gal
CRH	Coronado Hussop	Adastache x 'Coronado Red'	Gal
DDC	Duarf Double Coreopsis	Coreopsis Grandiflora 'Sun Rau'	l Gal
DFG	Duarf Fountain Grass	Pennisetun Alopecuroides 'Hamein'	I Gal
KFG	Karl Forester Grass	Calanagrostis Acutifiora 'Karl Forester'	I Gal
LBS	Little Bluesten	Schizachurium Scoparium 'The Blues'	i Gal
MSY	Moonshine Yarrou	Achilies Millefolium Moonshine'	i Gal
NP6	Night Purple Salvia	Balvia Nenoroea 'May Night'	I Gal
POF	Purple Constiouer	Echinacea Purpurea	I Gal
RMP	Rocky Mountain Penstemon	Penetemon Strictus	I GaL

## NATIVE SEED MIX NOTES:

cies Diversity 225

- APPROVEKITE NATIVE SEEDING EQUIPTENT ULL SE USED (31 ANDARD TURP SEEDING EQUIPTENT OR ARRECUTRAL EQUIPTENT HALL FOR SEPTION TO BE USED).
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# STREET TREE NOTE

PERMIT MUST BE OBTAINED FROM THE CITY FORESTER BEFORE ANY TREES OR HRUBS AS NOTED ON THIS PLAN ARE PLANTED, PRUNED OR REMOVED IN THE PUBLIC				
KIGHT-OF-WAY. THIS INCLUDES ZONES BETWEEN THE SIDEWALK AND CURB, MEDIANS ND OTHER CITY PROPERTY. THIS PERMIT SHALL APPROVE THE LOCATION AND SPECIES TO BE PLANTED. FAILURE TO OBTIAN THIS PERMIT IS A VIOLATION OF THE CITY OF FORT	SHEET	20	OF	48
COLLINS CODE SUBJECT TO CITATION (SECTION 27-31) AND MAY ALSO RESULT IN REPLACING OR RELOCATING TREES AND A HOLD ON CERTIFICATE OF OCCUPANCY	JOB NO.	3	9823	5.00

# ZOCALO COMMUNITY DEVELOPMENT KOLBY O'HERRON 720.450.8649 OLBY OHERRON®ZOCALO DEVELOPMENT.COM KOLBY.

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ALOTERRA Restoration Services

EPSG: 2231 NAD83 Colorado North



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# **David Howell**

To: Subject: Clark Mapes FW: Request for Modification of Standard for Building Footprint Variation

# From: Dana Ashoori <<u>DAshoori@goddensudik.com</u>> Sent: Wednesday, July 17, 2024 5:11 PM To: Clark Mapes <<u>CMAPES@fcgov.com</u>>; Kenneth Merritt <<u>kmerritt@jrengineering.com</u>> Cc: Kolby O'Herron <<u>kolby.oherron@zocalodevelopment.com</u>>; Chris Walla <<u>CWalla@goddensudik.com</u>> Subject: [EXTERNAL] Re: Request for Modification of Standard Building Footprint Variation – Section 3.5.2(C)

This Land Use Code subsection 3.5.2(C) requires variation among townhome buildings with more than 2 units, with at least 3 distinctly different building designs including significant variation in footprint size and shape. The standard requires that no two buildings with the same design can be placed next to each other in the plan.

A modification is requested for 3-plex and 4-plex buildings with the same footprint size and shape to be placed next to each other in a number of locations in the plan. These buildings present different designs in all other respects.

# Justification:

- The whole plan with 85 buildings has wide variation throughout. There are (3) townhome types (Series A, B, and C), and B and C have (3) sizes (2, 3 & 4-plex), which provide a total of (7) types. Then (2) elevation styles are applied to each of those, which equals 14 different building designs. Furthermore, there are 4 color schemes that can add more variation on top of these 14 designs.
- Where the same footprints are placed next to each other, different building designs include entrances and porches, varied roof forms, projecting and recessed features, and residential siding in lap and board-and-batten patterns.
- This extensive variation will be presented in detail at the hearing.

Best,

# Dana Ashoori

**Project Manager** 

Godden | Sudik

SEE WHAT COULD BE

Single Family | Multi-Family | Custom Remodel ph. 303.455.4437 goddensudik.com

# **David Howell**

From:	Kenneth Merritt <kmerritt@jrengineering.com></kmerritt@jrengineering.com>
Sent:	Wednesday, July 17, 2024 2:48 PM
То:	Clark Mapes
Cc:	Kolby O'Herron; Dana Ashoori; Chris Walla
Subject:	[EXTERNAL] Request for Modification of Standard for Street-Facing Facade

Hi Clark.

Below is JR Planners & Engineers request for a Modification of Standard for Street-Facing Façade. Please review and let me know if there is any further information you may need.

Thank you for your assistance in this matter!

Ken

# Modification of a Standard for Street-Facing Facades – 3.5.2(D)(2)

This standard requires that buildings with 4 or more dwelling units must have a doorway facing adjacent neighborhood streets (could be secondary patio doors.) The intent is to avoid impersonal blank ends of multiunit buildings, often with only utility meters as the most prominent feature, along neighborhood streets. A doorway indicates the presence of people as an animating architectural feature.

One such building has one end facing Rover Drive without a doorway.

# Summary of applicant justification:

The applicants' modification request is attached. It explains why the request is not detrimental to the public good; and meets criterion (4) "nominal and inconsequential from the perspective of the whole plan":

This is one such occurrence out of 85 buildings. The interior of the building is a garage partly below grade, with the grade in the side yard sloping down along the building wall such that a doorway would be non-functional. The visual impact is mitigated by being located on a curve, and by two trees in the foreground closer to the sidewalk.

Thank you for your consideration of this Request of Modification for Street-Facing Facades and we look forward to you review and possible approval.

Sincerely, Ken Merritt

Ken Merritt, APA, RLA Director of Planning

# **JR Engineering, LLC**

2900 South College Avenue, Suite 3D Fort Collins, Colorado 80525 Cell: 970-305-6754 Kmerritt@jrengineering.com



#### UTILITY PLANS FOR ZOCALO | COLLEGE & TRILBY LOCATED IN THE SOUTHEAST QUARTER OF SECTION 11, TOWNSHIP 6 NORTH, RANGE 69 WEST OF THE 6TH P.M. CITY OF FORT COLLINS, COUNTY OF LARIMER, STATE OF COLORADO **NOVEMBER 2023** PROPERTY OWNER ENGINEER SHEET INDEX ZOCALO COMMUNITY DEVELOPMENT ATIN: KOLBY O'HERRON 455 SHEBNAN STREET, SUITE 250 DENVER, COLORADO 80020 P~303.820.8611 KOLBY.OHERRONWIZCOLODEVELOPMENT.COM TR ENGINEERING, LLC ATTN: JOSEPH FRANK, PE 2900 SOUTH COLLEGE AVENUE, SUITE 3D FORT COLLINS, CO 80525 P~303.267.6322 JFRANK®JRENGINEERING.COM El TIMBLEA COVER SHET OVER SHET OF FORT COLINS GENERAL NOTES GENERAL NOTES GENERAL NOTES OF FORT COLINS EXISTING CONDITIONS EXISTING CONDITIONS EXISTING CONDITIONS EXISTING CONDITIONS EXISTING CONTROL PLAN PRANAGE PLAN I STREET PLAN AND PROFILE 5 6-7 8-9 10-11 12-13 16-17 18-20 21-25 PLANNER/LANDSCAPE ARCHITECT SURVEYOR JR ENGINEERING, LLC ATIN: JARROD ADAMS, PLS 7200 S ALTON WAY, SUITE C400 CENTENNIAL, CO 80112 P~303,740,9393 JADAMS@URENGINEERING.COM JR ENGINEERING, LLC ATTN: KEN MERRITT, APA RLA 2900 SOUTH COLLEGE AVENUE, SUITE 3D FORT COLLINS, CO 80525 P~970.305.8754 KMERRITT@JRENGINEERING.COM North Louden Ditch Company REVIEWED BY: Date BENCHMARK SOUTH FORT COLLINS 1 THE BENCHMARK USED FOR THIS SITE IS: NGS MONUMENT 38-94, BEING A 3-1/4" ALUMINUM CAP AT THE SOUTHWEST CORNER OF 508 TRILBY ROAD, ELEVATION=5093.76 (NAVD88). SANITATION DISTRICT Ň District Engineering E TRILLBY F All changes, addendums, additions, deletions and modifications to these drawings must be approved in writing, by the South Fort Collins Sanitation Distr BASIS OF BEARINGS THE BASS OF BRANKOS IS THE KONTH LIKE OF THE SOUTHERST OWNERS OF SECTION 11, TOMMER' 9 MONTH, RUME 09 THE BASS OF BRANKOS IS THE KONTH LIKE OF THE SOUTHERST OWNERS OF SECTION 11, TOMMER' 9 MONTH, RUME 09 2007A 2017 AND THE WEST END BY A 2-1/4" ALUMINIUM CAP STAMPED "C] COR STIL IS 23513", BEARING SBE271'9W AS REFERENCE BY COLORADO STATE FLAN MONTH ZOKE. FORT COLLINS-LOVELAND VICINITY MAP WATER DISTRICT UTILITY CONTACTS ELECTRIC FORT COLLINS UTILITIES 700 WOOD STREET, FORT COLLINS, CO 80521 CODY SNOWDON District Engineering All changes, addendums, additions, deletions and modifications to these drawings must be approved, in writing, by the Fort Collins-Loveland Water Distri (970) 416-2306 GAS XCEL ENERGY 4200 S COUNTY ROAD 15H, LOVELAND, CO 80537 STEPHANIE RICH (970) 225-7828 City of Fort Collins, Colorado PHONE CENTURY LINK DEB THOMAS UTILITY PLAN APPROVAL (970) 377-6406 400000 CABLE COMCAST 1201 UNIVERSITY AVENUE FORT COLLINS, CO 80521 (970) 361-3128 Date STORMWATER FORT COLLINS UTILITIES 700 WOOD STREET, FORT COLLINS, CO 80521 MATT SIMPSON (970) 416-2754 SANITARY DISTRICT SOUTH FORT COLLINS SANITATION DISTRICT 5150 SNEAD DRIVE FORT COLLINS, CO 80525 RANDY KENYON Approved Sheets Date ADDDOVED (970) 226-2484 APPROVED WATER\_DISTRICT FORT COLLINS LOVELAND WATER DISTRICT 5150 SNEAD DRIVE FORT COLLINS, CO 80525 SAM LOWE Approved Sheets Date (970) 226-3104 THE BLANG MAR BEN REVEALD BY THE OT OF TOT OF TOT THE REVEALS OF THE REVEAL OF THE OT OF TOT OF TOT DEVELOPMENT OF ADDRESS OF THE OT OF TOT OLIVERS. OF THE OT OF TOT OLLVE TOR ACCERACY MAN OF OPERCIDESS OF THE OF THE REVEAL OF THE ADDRESS OF THE CANITIES OF THE TIME OF THE PLANS ARE THE FINAL OLIVITIES CONTROL TO PERCENT SHILL NOT BE CONSTRUCT ON ANY CER REVIEW SHILL NOT BE CONSTRUCT ON ANY CER REVIEW DEVELOPMENT OF THE SHOW THAT MAY CER REVIEW DEVELOPMENT OF THE SHOW THAT MAY CER ENGINEER'S STATEMENT I HEREBY AFFIRM THAT THESE FINAL CONSTRUCTION PLANS WERE PREPARED UNDER MY DIRECT SUPERVISION, IN ACCORDANCE WIT ALL APPLICABLE CITY OF FORT COLLINS AND STATE OF COLORADD STANDARDS AND STATUTES, RESPECTIVELY, MD THAT I ANY FULLY RESPONSIBLE FOR THE ACCURACY OF ALL THE DESIGN, REVISIONS, AND RECORD CONDITIONS THAT I HAVE NOTED ON THESE PLANS. COVER SHEET ZOCALO | COLLEGE & TRILBY JOB NO. 39823.00 5/1/2024 SHEET 1 OF 25 ENGINEER'S STATEMENT BELL CLOSE & J·R ENGINEERING FOR Know what's below. PE68399 3 A Westrian Company INFORMATION Call before you dig. ONLY Centennial 303-740-9998 + Colorado Springs 719-598-2598 Fort Collins 970-491-9888 • www.jrengineering.com IG, LLC



CITY OF FORT COLLINS GENERAL NOTES

- OF FOR TOLLING GENERAL NOTES ALL MATERIALS, WORKANSHEP, AND CONSTRUCTION OF PUBLIC IMPROVEMENTS SHALL MEET OR EXCEED THE STANDARDS AND SPECIFICATIONS SET FORTH IN THE LARBER COUNTY URBAN AREA STREET STANDARDS. AND APPLICABLE STATE AND FEDERAL REQUALITIONS, MORE THROW, TO CONTINUE TO THE TABLE STREET STANDARDS. THE MOST SCHOOL TO AND AND THE THROUGH THE STANDARDS FUNCTION CONTINUES OF AND APPLICABLE STATE AND PERSON AND APPLICABLE STATE AND APPLICABLE STANDARDS SHALL REFER TO THE LATEST REVISION OF SAD STANDARD, UNLESS SPECIFICALLY STATED OTHERWISE.

- STATE DORENES: THESE FUELD IMPROVENT CONSTRUCTION PLANS SHALL BE VALD FOR A PERCO OF THEEE YEARS FROM THE DATA OF APPROVAL THE CONFORMENT COLLEPTION FLANS SHALL BE VALD FOR A PERCO OF THEEE YEARS FROM THE DATA OF THE CONFORMENT AND THE PARTICIPATION FLANS AND THE DOREATION DATA WILL RECORD, A NEW REVEW AND APPROVAL THE CONFORMENT AND APPROVADE THE SERVICE OF COLLEGATION AND/OR SEAL HEREOF, DOGS THE CONSTRUCTION AND FROM THE DOREATION AND THE DOTE THE SERVICE AND THE DOTE THE APPROVAL OF THE LOCAL DITTY AS BENEFICIARY OF SAD ENDERFYS WORK, FOR ANY ERRORS AND CANSISSONS CONTAINED IN THESE FLANS, AND APPROVAL OF THE EVANE THE OF OF OF COLLINGS BUILDER SHALL HEREOF, DOGS THE BOUREER WIN AND APPRADED THESE AND INCOMINY THE LOCAL ENTITY, AND ITS OFFICIES AND EMPLOYES, FORM AND ARAINST ALL LIABULES, CLAMS, AND DELANDES WHO'L MAY ARESE FOR ANY EPROVADE THE ON CONSISSONS CONTAINED IN THESE FLANS, AND MICH AND ARESE FUNCES TO THE OT OF OFFICIATIONS BUILDER SHALL THE SHALL THE BUILTERS, CLAMS, AND DELANDES WHO'L MAY ARESE FUNCES TO THE AND AND OMESSIONS CONTAINED IN THESE FLANS. AND MICH AND ARESE FUNCES TO THE OFFICIAL AND EMPLOYED AND THE DOVER THE AND AND ADDRESS AND ADDRESS AND AND ADDRESS A
- WHO'N MAY ARISE FROM ANY ERRORS AND OMESSIONS CONTAINED IN THESE PLANS. ALL SAMIARY SEMER, STORM SERVER, AND WATER LIKE CONSTRUCTION, AS WELL AS POWER AND OTHER "DRY" UTULTY INSTALLATIONS, SIVIL CONFONT TO THE CITY OF TORT COLLINS STANDARDS AND SPECIFICATIONS CORRENT AT THE DATE OF APPROVAL OF THE PLANS THE THE STARL SAMIATION OF THE CITY OF TORT COLLINS STANDARDS AND SPECIFICATIONS CORRENT AT THE DATE OF APPROVAL OF THE PLANS THE THE STARL SECTION AND AND AND FOR ALL KINGER PLANS THE SAME APPROVATE WHICH SIMON AND THE DRAMINGS. THE SHALL BE THE RESPONSIBILITY OF THE DEVLOPER TO VERY THE DISTINCE AND LOCATION OF ALL UNDERROMAND UTULES ALONG THE STALL BE THE RESPONSIBILITY OF THE DEVLOPER TO VERY THE DISTINCE AND LOCATION OF ALL UNDERROMAND UTULES ALONG THE
- UTULES. THE CONTRACTOR SHALL CONTACT THE UTULITY ADDITIONATION CONTRACT COORDON (ANCE) AT 1-800-922-987, AT LESS 7 werened DEC CONTRACTOR SHALL CONTRACT OF CONTRACTOR OF AN EL LESS CONTRACTING FOR ANALYSIS THE MERCENSER UTULITY ENTITIES (LE DITOT / IRREATION COMPANY) ARE TO BE LOCATED BY CONTACTING THE RESPECTIVE REPRESENTATIVE UTULITY ESTIVICE LIFERED SHALL CONTRACTOR OF CONTRACTING OF CARACINE, UTULITY ESTIVICE LIFERED SHALL DE LOCATED PROTO TO RECENSIVE DE LOCATED BY CONTACTING THE RESPECTIVE REPRESENTATIVE UTULITY ESTIVICE LIFERED SHALL BE RESPONDENT OF PROTOCHING AND THE CONTRACTION OF CONTRACTING THE RESPECTIVE REPRESENTATION OF CONTRACTING THE RESPECTIVE REPRESENTATION OF CONTRACT OF THE DESTING ADDRESS OF CONTRACTING THE RESPECTIVE REPRESENTATION OF CONTRACTING THE RESPECTIVE REPRESENTATION OF CONTRACTING THE RESPECTIVE REPRESENTATION OF CONTRACT OF CONTRACTING OF CONTRACTING THE RESPECTIVE REPRESENTATION OF CONTRACT OF CONTR
- APPROVEMENT BUILT COMPANY FOR ANY DIGIT CONSIDER REQUIRED. IF A CONFLICT SISTS BETWEEN EXISTING AND PROPOSED UTILIES AND/OR A DESIGN MODIFICATION IS REQUIRED, THE DEVELOPER SHALL COORDINATE WITH THE ENGINEER TO MODIFY THE DESIGN. DESIGN MODIFICATION(S) MUST BE APPROVED BY THE GITY OF FORT COLLINS PRIOR TO BEGINNING CONSTRUCTION.
- PHOLE IN BELIEVEN DESTRUCTION. ID THE DEVELOPER SHALL COORDINATE AND COOPERATE WITH THE LOCAL ENTITY, AND ALL UTULTY COMPANIES INVOLVED, TO ASSURE THAT ID THE DEVELOPER SHALL COORDINATE AND COOPERATE WITH THE MINING PARTY OF REPORT THE DEVELOPER SHALL REPORT RESPONSELE FOR CONTINUEND, IN ADVANCE, ALL PARTIES AFFECTED BY ANY DISRUPTION OF WAT UTITY COMPANIES INVOLVED, TO ASSURE UTITY COMPARES.
- UNLIT COMMPANES. NO WORK MAY COMMENCE WITHIN ANY PUBLIC STORM WATER, SANITARY SEWER OR POTABLE WATER SYSTEM UNTIL THE DEVELOPER NOTHES THE UNLITY PROVIDER. NOTHICATION SHALL BE A MUNIMUM OF 2 WORKING DAYS PRIOR TO COMMENSEMENT OF ANY WORK. AT THE DISCRETION OF THE WATER UNLITY PROVIDER, A PRE-CONSTRUCTION MEETING MAY BE REQUIRED PRIOR TO COMMENSEMENT OF ANY
- WUNK. 12. THE DEVELOPER SHALL SEQUENCE INSTALLATION OF UTILITIES IN SUCH A MANNER AS TO MINIMIZE POTENTIAL UTILITY CONFLICTS. IN GENERAL, STORM SEWER AND SANITARY SEWER SHOULD BE CONSTRUCTED PRIOR TO INSTALLATION OF THE WATER LINES AND DRY THE MINIMUM COVER OVER WATER LINES IS 4.5 FEET AND THE MAXIMUM COVER IS 5.5 FEET UNLESS OTHERWISE NOTED IN THE PLANS AND APPROVED BY THE WATER UTILITY.
- AND APPROVED BY THE WALER UTILITY. A STATE CONSTRUCTION DEWATERING WASTEWATER DISCHARGE PERMIT IS REQUIRED IF DEWATERING IS REQUIRED IN ORDER TO INSTALL UTILITIES OR WATER IS DISCHARGED INTO A STORM SEWER, CHANNEL, IRRIGATION DITCH OR ANY WATERS OF THE UNITED STATES. 14 4

- UTUIES OR WATER IS DSCHARED NTO A STORN SERVER, CHANNEL, RRGATON DTOL OR ANY WATERS OF THE UNITED STATE. S. HE DESLOPER SHALL CORPLY THE ALL TERMS AND CONTONIOS OF THE COLORADO FERMITER STORM WATER DSCHARED (CONTO COLORADO DEVARIANTO OF HEALTH, WATER DAULTY CONTROL DWISON, (SO3) 692–5960), THE STORM WATER DSCHARED (CONTO COLORADO DEVARIDATION HEALTH, WATER DAULTY CONTROL DWISON, (SO3) 692–5960), THE STORM WATER MANAGEMENT PLAN, AND DE DELOCAL DURITOR TO HEALTH, WATER DAULTY CONTROL DWISON, (SO3) 692–5960), THE STORM FAILED ON FRIVILE POPERTY. MANTENANCE OF ONSTIT DAWANGE FACILITES SHALL BE THE RESPONSELLY OF THE ROPERTY OWNERS). TO ROR TO TIN LING LINGE CONTAIN ACCEPTANCE BY THE STORMWATER UTUITY DEPARTMENT. CONTROL ON FRIVILE POPERTY. DEVALUEL, MISSECTION AND ACCEPTANCE BY THE STORMWATER UTUITY DEPARTMENT. CONTROL ON FRIVILE POPERTY. DEVALUEL, MISSECTION AND CARPORTES, CENTRALICADO SHALL BE SAMILES TO THE DAWANGE FACILITES, DE A REGISTERED DOMENTE, MIST E SUBMITTO TO AND APPROVED BY THE STORMWATE UTUITY DEPARTMENT. CONTROL ON SHALL BE SAMILTED TO DEVALUELY, MIST E SUBMITTO TO AND APPROVED BY THE STORMWATE UTUITY DEVALUEST. CONTROLOUR DEPARTMENT A LLAST TO WERK FINGE TO THE RELEASE OF ANY BUILDON FEMALES IN EXCESS OF THOSE ALLORED FROM TO DEPARTMENT A LLAST TO WERK FINGE TO THE RELEASE OF ANY BUILDON FEMALES IN EXCESS OF THOSE ALLORED FINGE TO DEPARTMENT A LLAST TO DEVALUE AND THE RESPONSEL FOR THE RESPONSE HEAT IN EXCESS OF THOSE ALLORED FINGE TA LLAST TO DEVALUE AND THE RESPONSEL FOR THE RESPONSE HEAT IN EXCESS OF THOSE ALLORED FINGE TO A SAMILE BE SAMILES IN EXCESS OF THOSE ALLORED FINE ALLAST TO DEVALUE AND THE RESPONSEL FOR THE RESPONSE HEAT IN EXCESS OF THOSE ALLORED FINE ALLAST AND THE THE POPERTY A A POLYT A A POLYT AND A POLYT AND A POLYT A A POLYT A A POLYT AND A POLYT A A POLYT AND A POLYT A A POLYT AND A POLYT A A POLYT A A POLYT A A POLYT AND A POLYT AND A POLYT A A P
- DEVECTMENT AGREEMENT. THE LOCAL DEVICES SHALL HER ESSONCHEE FOR ANY DAMAGES ON INJERES SUSTAINED IN THE CONCENTION AS A RESULT OF THE LOCAL DEVICES SHALL HER ESSONCHEERE AND RESULT AND ANY DAMAGES ON THE MARKET ON THE MANAGE INCESS SOC DAMAGE ON INJERES ARE SUSTAINED AS A RESULT OF THE LOCAL DITY FALLINE TO PROPERLY MANTAIN ITS WATER, WASTERWATER AND/OR STORM DEMARKET FACILIES IN THE DEVELOPMENT.
- 19. ALL RECOMMENDATIONS OF THE "UTILITY PLANS FOR CORE SPACES", DATED NOVEMBER 2022, BY JR ENGINEERING BE FOLLOWED AND
- INFUENCE. 20 TEMPORARY EROSION CONTROL DURING CONSTRUCTION SHALL BE PROVIDED AS SHOWN ON THE EROSION CONTROL PLAN. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED IN GOOD REPAIR BY THE DEVELOPER, UNTIL SUCH TIME AS THE ENTIRE DISTURBED AREAS IS STABILIZED WITH HARD SUFFACE OR LANDSCAPHIO.

- 24. Itom/conf. scolest cuting: Lukers. Jobs incluing settle is: Provided AS shown on the Existence Conflict Local Residue and States and Stat
- ITE UIT UF TWAT UQUINS BEFURE INSTALLATION OF BASE COURSE OF ASPHALT WILL BE ALLONGE ON THE STREETS. ALL UITLIN TRATALIANONS MITHIN OF ARCOSS THE ROLONDE OF BAYE RESOLUTIA, ROUGH SUNF ES COMPLETED PROFT TO THE FRA EXAMPLE TRATALIANONS MITHIN OF ARCOSS THE ROLONDE OF BAYE RESOLUTIA, ROUGH SUNF ES COMPLETED PROFT TO THE FRA CONSIDERED FRAL STACE WORK. ALL SERVICE LINES MUST BE STUBBED TO THE PROPERTY LINES AND MARKED SO AS TO REDUCE THE EXAMPLE TRATALINES AFT FOR BUILDING CONNECTORS.
- TO FOR ADDITIONAL CRITERIA FOR ROADS WITHIN OVERLAY DISTRICTS. THE LARIMER COUNTY FLOODPLAIN RESOLUTION SHOULD BE REFERRED TO FOR ADDITIONAL CRITERIA FOR ROADS WITHIN THESE DISTRICTS. 32 CHARLENDER CONSTRUCTION CHITCHING MILITIMI TESSE UISTIMUTS.
  28. ALL ROAD CONSTRUCTION IN AREAD SEGNATED AS WILD FIRE HAZARD AREAS SHALL BE DONE IN ACCORDANCE WITH THE OLIVER SUBSTRUCTION CRITERIA AS ESTABLISHED IN THE WILD FIRE HAZARD AREA MITIGATION REGULATIONS IN FORCE AT THE TIME OF FINAL DLAT ADDRESS.
- PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION, THE CONTRACTOR SHALL CONTACT THE CITY OF FORT COLLINS FORESTER TO SCHEDULE A SITE INSPECTION FOR ANY THEE REMOVAL REQUIRING A PERMIT.
- SCHEDULE A STILE INSPECTION FOR ANY THEE REMOVAL REQUIRING A PERMIT. 30. THE DEVELOPER SHALL BE RESPONSIBLE FOR ALL ASPECTS OF SAFETY INCLUDING, BUT NOT LIMITED TO, EXCAVATION, TRENCHING, SHORING, TRAFFIC CONTROL, AND SECURITY. REFER TO GSHA PUBLICATION 2226, EXCAVATING AND TRENCHING.
- amonny, monto curritor, and becaris increte 10 cost Publication 2226, EEXAMING AND TERDONIC. In the DRELOWER SHALL SUBJECT A CONSTRUCTION WRATE CONTROL TANK IN ACCOUNT WITH MUTCH TO THE APPORTUNE In the DRELOWER SHALL SUBJECT A CONSTRUCTION WRATE CONTROL TANK IN A CONSTRUCTION OF THE APPORTUNE APPECTING, THE RIGHT-OF-WAY, THE DEVLOCER SHALL BE RESPONSIBLE FOR PROVIDING ANY AND ALL TRAFFIC CONTROL DEVICES AS MAY BE REQUEST BY THE CONSTRUCTION ACTIVITIES.
- MAY BE REQUIRED BY THE CONSTRUCTION ACTIVITES. 2 proof to the Connectedent of any construction that mult affect transfer source of any three, the contractore summaries that the contractore summaries that the contractore however, if the contractore works the transfer son then the contractore works and the son at the contractore however, if the contractore works the son at the contractore works the son at the son at the son at the contractore will be contractore works the son at the contractore will be contractore will be
- THE LAUGH, MALENALS NO EQUIPMENT TO REINSTALL THE SON AS HEEDED. 3. THE DEVELOPER IS RESPONDED FOR ALL COSTS FOR THE INTIL INSTALLION OF TRAFFIC SOUNDE AND STREME FOR ALL COSTS FOR MERCINE SUBMINISTING FOR THE DEVELOPMENT SOCIAL STREET OPERATIONS. IN ADDITION, THE DEVELOPER IS RESPONDED FOR ADDITION COSTS FOR MERCINE SOURCE AND STREMENT SLOCAL STREET OPERATIONS. IN ADDITION, THE DEVELOPER IS RESPONDED TO DEVELOPER TO THE DEVELOPMENT'S LOCAL STREET OPERATIONS. IN ADDITION, THE DEVELOPER IS RESPONDED LOCAL STREET, AND NO STREE CONSTRUCTION ACTIVITIES ON SUBARYS OR HOLDAYS, UNLESS THERE IS PRIOR WRITTEN APPROVAL BY THE LOCAL STREET.
- LUCAL LITTLE AND A LITTLE AND A
- RUIDU DIFERNISE. 36. DIMENSIONS FOR LAYOUT AND CONSTRUCTION ARE NOT TO BE SCALED FROM ANY DRAWING, IF PERTINENT DIMENSIONS ARE NOT SHOWN, CONTACT THE DESIGNER FOR CLARIFICATION, AND ANNOTATE THE DIMENSION ON THE AS-BUILT RECORD DRAWINGS.
- LUMINAL I THE DESIDENT OF CLARPICATION, AND ANNOTATE THE DIMENSION ON THE KS-BUILT RECORD DRAWINGS. 37. THE DEVELOPER SHALL HACK, ONSTE AT ALL THISS, ONE (1) SOUND COPY OF THE APPROVED PLANS, ONE (1) COPY OF THE DEVELOPER THE DIMENSION OF PEOSES. 38. FOUNDER CONTROL OF A DEVELOPER SHALL DIMENSION ON THE DIMENSION OF THE DIMENSION OF THE DIMENSION OF THE BE FOUNDER CONTROL OF A DEVELOPER SHALL DIMENSION OF THE DIMENSION OF THE DIMENSION OF THE DIMENSION OF THE DIMENSION THE PLANS OF SECTIONARY DEVELOPER SHALL DIMENSION OF THE DIMENSION OF T

- CONTROL REPORT. AT ALL INES DURING CONSTITUTION, THE DESCLOPER SMLL BE RECOMMENT FOR PERMITTION AND CONTROLLING ON-STE ERODOW AT ALL INES DURING CONSTITUTION TO A DESCLOPER SMLL AS O EC RESPONSEL FOR INSTALLING AND MANTANING ALL EROSON CONTROL FAOLITES SHOWN HEREIN. PER-DISTURBANCY VECTITION SMLL BE FORCTOOL DAN RETAINED WEREINFERDING FOR DATABANCE OF EXISTING VECETITION SMALL BE LIMITED. TO THE AREA(S) REQUIRED FOR IMMEDIATE CONSTRUCTION OPERATIONS, AND FOR THE SHORTEST PRACINCL/ REPORT OF THE. PRACTICAL PERIOD OF TIME. La LOSIE SPROED DURING LAND DISTURBING ACTIVITY (STREPPING, GRADING, UTILITY INSTALLATIONS, STOCKPILING, PLLING, ETC.) SHALL BE KEPT IN A ROUGHEND CONDITION BY REPPING OR DISING ALONG LAND CONTOURS UNTIL WILCH, YGCITATION, OR OTHER PERMINERT EGOSION CONTING. UBYS ARE INSTALLED. DO SOLIS IN AREAS USIDE (PRACET-RISTERT IORIST-OF-MAY SHALL REMAN EXPOSED BY LAND DISTURBING ACTIVITY FOR UNGE THAN THRIFY (30) DAYS BEFORE REQUIRED TEMPORARY OR PERMIANTE REGISIO CONTING (LEG. SERVILUE), ALABOSAMO, ETC) IN THE ALABOLATIC, UNLSS OFTINGER APPROVED BY THE LOCAL ENTITY.

CONTRACTOR(S) SHALL SUBMIT RECORD DRAWINGS TO THE CITY OF FORT COLLINS ENGINEER.

41. ALL STATIONING IS BASED ON CENTERLINE OF ROADWAYS UNLESS OTHERWISE NOTED

STANDARD GRADING, EROSION AND SEDIMENT CONTROL CONSTRUCTION PLAN NOTES

40. THE DESIGNER SHALL PROVIDE, IN THIS LOCATION ON THE PLAN, THE LOCATION AND DESCRIPTION OF THE NEAREST SURVEY BENCHMARKS FOR THE PROJECT AS WELL AS THE BASIS OF BEARINGS. THE INFORMATION SHALL BE AS FOLLOWS: BASIS OF BEARINGS: THE NORTH LINE OF THE SOUTHEAST QUARTER OF SECTION 11, TOWNSHIP 6 NORTH, RANGE 69 WEST OF THE 6H

P.M., BEING MONUMENTED AT THE EAST BY A 2-1/2" ALLMINUM CAP IN RANGE BOX STAMPED "EL COR SI1 20676 2014" AND THE WEST END BY A 2-1/4" ALLMINUM CAP STAMPED "CL COR SI1 LS 23513", BEARING S88'27'19"W AS REFERENCED BY COLORADO STATE PLAN NORTH ZONE

Aumando cher oltte mo sociale cuite production de la constructiona, si fiella de distributiones de la constructiona de la cons

UPON COMPLETION OF CONSTRUCTION, THE SITE SHALL BE CLEANED AND RESTORED TO A CONDITION EQUAL TO, OR BETTER THAN, THAT WHICH EXISTED BEFORE CONSTRUCTION, OR TO THE GRADES AND CONDITION AS REQUIRED BY THESE PLANS.

AFTER ACCEPTANCE BY THE LOCAL ENTITY, PUBLIC IMPROVEMENTS DEPICTED IN THESE PLANS SHALL BE GUARANTEED TO BE FREE FROM MATERIAL AND WORKMANSHIP DEFECTS FOR A MINIMUM PERIOD OF TWO YEARS FROM THE DATE OF ACCEPTANCE.

APPROVED VARIANCES ARE LISTED AS FOLLOWS: ACCESS SPACING VARIANCE FOR HORIZONTAL DISTANCE BETWEEN TRILBY ROAD (ARTERIAL) AND STARDUST/NOVA LANE (ALLEYS).

THE EROSION CONTROL INSPECTOR MUST BE NOTIFIED AT LEAST TWENTY-FOUR (24) HOURS PRIOR TO ANY CONSTRUCTION ON THIS SITE.

47. THE CITY OF FORT COLLINS SHALL NOT BE RESPONSIBLE FOR THE MAINTENANCE OF ROADWAY AND APPURTENANT IMPROVEMENTS, INCLUDING STORM DRAINAGE STRUCTURES AND PIPES, FOR THE FOLLOWING PRIVATE STREETS: NOVA LANE, STARDUST LANE, GALACTIC LANE. MOONERAM WAY, AND GALACTIC COURT.

45. STANDARD HANDICAP RAMPS ARE TO BE CONSTRUCTED AT ALL CURB RETURNS AND AT ALL "T" INTERSECTIONS.

- CONTROL(EG. SEED/AULCH, LANDSCAPAR, ETC.) SI INSTALLED, UNLESS OTHERMISE APPROVED BY THE LOCAL ENTITY. IN ORDER TO INNUEZ EROSION POETINI, ALL TEMPORARY (SINCUTARU, BESON CONTON, UNSUES SHALL a. BE INSPECTED AT A MIMIAM OF ONCE EVERY THO (2) WEEKS AND AFTER EACH SIGNIFICANT STORM EVENT AND REPARED OR RECONSTRUCTES ANCESSARY IN ORDER TO ENJOYE THE CONTINUE DEPROMANCE OF THEIN INTENDED FUNCTION. b. REMAN IN PLACE UNIT, SUCH TIME AS ALL THE SURROUNDING DISTURBED AREAS ARE SUFFICIENTLY STABUZED AS DETERMINED BY THE REGOSIO CONTROL INSPECTOR. BE REMOVED AFTER THE SITE HAS BEEN SUFFICIENTLY STABILIZED AS DETERMINED BY THE EROSION CONTROL INSPECTOR
- WHEN TEMPORARY EROSION CONTROL MEASURES ARE REMOVED. THE DEVELOPER SHALL BE RESPONSIBLE FOR THE CLEAN UP AND REMOVAL OF ALL SEDIMENT AND DEBRIS FROM ALL DRAINAGE INFRASTRUCTURE AND OTHER PUBLIC FACILITIES.
- THE CONTRACTOR SHALL CLEAN UP ANY INADVERTENT DEPOSITED MATERIAL IMMEDIATELY AND MAKE SURE STREETS ARE FREE OF ALL MATERIALS BY THE END OF EACH WORKING DAY.
- ALL BEAME STREETS AND THE AND MEDINING DAY. ALL BEAME STREETS, ANTIFACTURE, TRACE ON PARED ROUMLY SUFFICES, SHALL BE REMOVED AND DEPOSED OF IN A MANNER AND LOSATION SO AS NOT TO CAUSE THEIR BELASE INTO ANY MATTER OF THE UNITED STATES. NO SQL, STOCHUE SHALL EXCEED THEIR BELASE INTO ANY MATTER OF THE UNITED STATES. NO SQL, STOCHUE SHALL EXCEED THO (10) FETT IN HEIPT ALL LOSA. STOCHUES SHALL BE FORTED FROM EXDENT THANAPORT BY SUFFACE ROUMENING, MATERING, AND PERMETER SILT FENCING. ANY SOL STOCHUE REMAINING AFTER THERTY (30) DAYS SHALL BE SEEDED AND MULCHED.
- SEEDED AND MULCHED. THE STORMWATER VOLUME CAPACITY OF DETENTION PONDS WILL BE RESTORED AND STORM SEWER LINES WILL BE CLEANED UPON COMPLETION OF THE PROJECT AND BEFORE TURNING THE MAINTENANCE OVER TO THE CITY OF FORT COLLINS OR HOMEOWNERS 12
- COMPLETION OF THE PROJECT AND BEFORE TURNING THE MAINTENANCE OVER TO THE CITY OF PLATI ULULING. VER HAMENUMMEN-ASSOCIATION (IGA). 13. CITY ORDINANCE AND CULORADO DESCHARED FROM STEEM (CITY-5) RECOMPRISITION OF THE RELLUTION TURLING ENSIGNED OF ALLWY THE DESCARGED BUILDING MATERNIA, SOCRETE TURLING MARGINT, ORBANISSI, OL AND GAS PROJUCTS, UTTER, AND SANTARY WASTE. THE DESCARGED BUILDING MATERNIA, SOCRETE TURLING MARGINT, ORBANISSI, OL AND GAS PROJUCTS, UTTER, AND SANTARY WASTE. DESCARGED BUILDING MATERNIA, SOCRETE TURLING MARGINT, ORBANISSI, OL AND GAS PROJUCTS, UTTER, AND SANTARY WASTE. DESCARGED BUILDING MATERNIA, SOCRETE TURLING MARGINT, ORBANISSI, OL AND GAS PROJUCTS, UTTER, AND SANTARY WASTE. DESCARGED BUILDING MATERNIA, SOCRETE TURLING MARGINT, ORBANISE AND ADVILORY WASTE. DESCARGED BUILTON ON THE STARE MACHTER MESSARES DAR RECESSARY TO ASSURE THE PROFERE CONTAINANCH AND DESCARD. POLILITATIS ON HE STER MACGEDIAGE MATI ANY MO ALL APPLICABLE LOCAL, STATE, AND TURDE TURLING MATERNIA, SOCRETA
- T-ALLIVENTS UN THE SILE IN ACCOMMENS. WITH MAY AND ALL APPLICABLE LOCAL, STATE, AND FEDERAL REGULATIONS. A DESGNARTE DARKE SHALL ER PONDED ON SITE FOR CONCRETE TRUCK OFUEN INSAULT THE AREA. SHALL BE CONTRUCTED SO AS TO CONTAIN WASHOT MATERIAL AND LOCATED AT LEAST FIFTY (SO) FEET AWAY FROM ANY WATERWAY DURING CONSTRUCTION. UPON COME AREA BEING RESTORED.
- Internal NUMP REJURING TO DESURE THAT SEMANT DOES NOT MOVE OFF OF INDIVIDUAL LOTS ONE OF MORE OF THE FOLLOWING SEMANT/RESOUNCTIONING BMORE SHALL BE INSTALLED AND MAINTAINED UNTIL THE LOTS ARE SUFFICIENTLY STABILIZED, AS DETERMINED BY THE EROSION CONTROL INSPECTOR.
- a BELOW ALL GUTTER DOWNSPOLITS DUT TO DRAINAGE SWALES

CITY OF FORT COLLINS CONSTRUCTION NOTES

- b. OUT TO DRAINAGE SWALES. 4. ADNO LOT PERMETER. 4. OTHER LOCATIONS, IF NEEDED. DOWNTOWN THE FELD MAY WARRANT EROSON CONTROL MEASURES IN ADDITION TO WHAT IS SHOWN ON THESE PLANS. THE DEVELOPER'S MALL WARLAND IN MATCHER MEASURES ARE DETENDED IN DECESSARY, AS DIRECTED BY THE OITYOCANTY. DEVELOPER'S ANALL DEVELOPER'S AND A DEVELOPER'S
- ADD NOTES TO REFLECT THE STORMWATER RUNOFF CONTROL PLAN OF THE INDIVIDUAL DEVELOPMENT.

#### STREET IMPROVEMENTS NOTES

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- ALL STREET CONSTRUCTION USED SUBJECT TO THE GENERAL NOTES ON THE COVER SHEET OF THESE PLANS AS WELL AS THE STREET ALL STREET CONSTRUCTION USED SUBJECT TO THE GENERAL NOTES ON THE COVER SHEET OF THESE PLANS AS WELL AS THE STREET A PANNE SECTION DESIGN, SORED AND STANDED BY A COLORADO LICINED DIANEER, MUST BE SUBMITED TO THE CITY OF FORT OCULINE ENDINEER FOR APPROVAL. PHORE TO ANY STREET CONSTRUCTION ACTIVITY, FULL DEPTH ASTRALTS ZECTIONS ARE ROLD PERMITED AT A DEPTH ORGATER THAN B MORES OF ASPHALT). THE JOB MIX SHALL BE SUBMITED FOR APPROVAL PROR TO PLACEMENT OF ANY SERVICE.
- PLACEMENT OF ANY ASHALL. WHEE PROCESS PARKE ADDRESSIONE SUBJECT SAMUELT DE DESTING ASHALL SAMLE SAM OLT, A HEARIN DESTING OF TO ROSES WHEE PROCESS TO ANY ASHALL DESTING ASHALL THE DESTING ASHALL SAMLE SAMLE AND ASHALL DE SAMUEL SAMLE PLACEMENT TO A DESTINGE WHERE A CLEAN CONSTRUCTION JOINT CAN BE MADE. WHEEL OLTS SHALL NOT BE ALLOWED UNLESS APPROVED BY THE OTY OF FOR CLOSUES DIGMETS.
- STREET SUBGRADES SHALL BE SCARFED FOR THE TOP 12 INCHES AND RE-COMPACTED PRIOR TO SUBBASE INSTALLATION. NO BASE MAREARA SHALL BE LAD UNTI, THE SUBGRADE HAS BEEN INSPECTED AND APPROVED BY THE CIT'OF FORT COLLISS SUBGRADE VALVE BOXES AND MANHOLES ARE TO BE BROUGHT UP TO GRADE AT THE TIME OF PAREMENT PLACEMENT OR OVERLY, VALVE BOX ADJUSTING RINKS KEN DIA LINDER.
- ADJETING ENROS ARE NOT ALLOWED. WHEN AN EDSTING SAMPALT STREET MUST BE CUT, THE STREET MUST BE RESTORED TO A CONDITION EQUAL TO GR BETTER THAN TO GRIGALE COMPILIES APPALT STREET CONSTRUCT SHELL BE DOLUMENED BY THE REPECTOR BETORE ANY DITS ARE MADE DOLUMENTED BY THE RESTORED STREET CONSTRUCT SHELL BE DOLUMENED BY THE REPECTOR BETORE ANY DITS ARE MADE DOLUMENT AND ADDITION THE DESTING SHEARCH END CONSTRUCT AND RED FOR A COMMITTED OREAL YSALL BE MADE BY SHALL BEED DOMUTELY NOT HE DESTING SHEARCH END CONSTRUCT AND RED FOR A COMMITTED OREAL YSALL BE MADE BY DOMUTELY DOLUMES AND ADDITION SHEARCH END CONSTRUCT AND ROMORES SUCH THAT FUTURE COMPAND SHEARCH ALL OVERLY, WORK, SHALL BE COORDINATED WITH ADJACENT LANDOWERS SUCH THAT FUTURE CLUBRADO COMPAND SHEARCH ALL OVERLY, WORK, SHALL BE COORDINATED WITH ADJACENT LANDOWERS SUCH THAT FUTURE CLUBRADO COMPAND SHEARCH ALL OVERLY, WORK, SHALL BE COORDINATED WITH ADJACENT LANDOWERS SUCH THAT FUTURE CLUBRADO COMPAND SHEARCH ALL OVERLY, WORK, SHALL BE COORDINATED WITH ADJACENT LANDOWERS SHEARCH DIN CLUBRADO COMPAND SHEARCH ALL OVERLY, WORK, SHALL BE COORDINATED WITH ADJACENT LANDOWERS SHEARCH DIN CLUBRADO COMPAND SHEARCH ALL DE NO ON GRIGANCE WITH HEER PLANGE OR AS OTHERWISE SPECIFIED IN MULT.CO. (INCLUDING CLUBRADO SHEARCH DIN SHEARCH BE IN CONTROMORE WITH HEER PLANGE OR AS OTHERWISE SPECIFIED IN MULT.CO. (INCLUDING CLUBRADO SHEARCH DIN SHEARCH AND THE WHER FLOW TEST IN THE PRESENCE OF THE CITY OF FORT COLLING INSPECTOR AND PROOF TO INSTALLATION OF ASPHALT. OUTTINS THAT HOLD MORE THAN & HOLD ERE OF IS FEET LONGTUDANLY, OF WATER, SHALL BE COMPELIER REWORD ON CONTROL SHEARCH DIN THAT ON THAT, CONTROL DEF OR IS FEET LONGTUDANLY, OF WATER, SHALL BE COMPELIER REWORD ON CONTROL SHEARCH DIN THAT OCHNING AND THE MEET MANT OCHNING AND THAT OCHNING AND THAT ON THAT OCHNING AND THAT OCHNING AND THAT DO THAT OCHNING AND THAT OCHNING AND THAT OCHNING AND THE ORD HOMETHAT.

- PRIOR TO PLACEMENT OF H.B.P. OR CONCRETE WITHIN THE STREET AND AFTER MOISTURE/DENSITY TESTS HAVE BEEN TAKEN ON THE SUBGRADE MATERIAL (WHEN A FULL DEPTH SECTION IS PROPOSED) OR ON THE SUBGRADE AND BASE MATERIAL (WHEN A COMPOSITE

- SECTION IS PROPOSED). A MICHANICAL "PROOF ROL" "MIL BE REQUERD. THE DIRECT SUBRANCE AND/OR BACE WATERAL SHALL BE REALDS WITH HARAY LOADED HORICE HANNER A TOTAL GAVE OF YOT LESS THAN 50,000 EXE MAR 5,500 ELES WATERAL SHALL NOT THAKEL AT LEAST 10,000 LES. WITH PREUMAINC TRES INFLICID TO NOT LESS THAT 500 P.SLG. "PROOF ROLL" CHIEGES SHALL NOT THAKEL AT SEEDIS GREATER THAN 3 MEAN LANY PORTION OF THE SUBRANCE OR SAKE MATERIAL MINI CHIERES STALLENST THAKEL AT SEEDIS GREATER THAN 3 MEAN LANY PORTION OF THE SUBRANCE OR SAKE MATERIAL MINI CHIERES TO SALESS FRAMEWOOD FORM A SMOOTIN, NON-MEEDING SUBFACE. THE CITY OF PORT COLLINS ENDIRED SALE EN NOTIFIED AT LEAST 24 HOURS PRIOR TO THE "FROOF ROL" ALL'HAPON FOLLS'S BALLE E PERFORMED IN THE PRESIDE OF AN INSPECTOR.
- TRAFFIC SIGNING AND PAVEMENT MARKING CONSTRUCTION NOTES

ALL SIGNAGE AND MARKING IS SUBJECT TO THE GENERAL NOTES ON THE COVER SHEET OF THESE PLANS, AS WELL AS THE TRAFFIC SIGNING AND MARKING CONSTRUCTION NOTES LISTED HERE.

- ALL SYMBOLS, INCLUDING ARROWS, ONLYS, CROSSWALKS, STOP BARS, ETC. SHALL BE PRE-FORMED THERMO-PLASTIC. ALL SIGNAGE SHALL BE PER CITY OF FORT COLLINS STANDARDS AND THESE PLANS OR AS OTHERWISE SPECIFIED IN MUTCH.
- ALL LANE LINES FOR ASPHALT PAVEMENT SHALL RECEIVE TWO COATS OF LATEX PAINT WITH GLASS BEADS
- ALL LANE LINES FOR CONCRETE PAVEMENT SHOULD BE EPOXY PAINT.
- OCCUPANCY. WEAR AL DESING ASPHALT STREET MUST BE CUT, THE STREET MUST BE DESTORED TO A CONDITION COULT OF BETTER THAT IN WEAR AL DESING ASPHALT STREET MUST BE CUT, THE STREET MUST BE DESTORED Y THE CONTON COULT OF BETTER THAT IN STREETCRE BETTER ANY CUTS ARE MADE. PATOMIC STALL BE DOKE IN ACCORDANCE WIT THE OTY OF FORT COLLINS STREET REPAR MUST AND A DESTORED PARTS BALL BELDIN IN MONOTONY INTO THE DESTOR SUPPORT ALL LARGE PARTS BALL BE PART WITH ALL DATA THAT ANY ADDATES AND A DESTORED AS A DESTORED AS A DESTORED AS A DESTORED AS A DESTORED ANY CUTS AND A DESTORED AS A DESTORED ANY CUTS AND A DESTORED AS A DESTORED ANY CUTS AND A DESTORED AS A DES
- ALLON TO DEPAILABLE TO THE TRADE STREAM OF TRADES STREAM OF TRADES THE DESLOPER SHALL PLACE TUPOPARY THES OF TAPE DEPICTION ALLONGENT MOR PLACEMENT OF THE SAME THERE PLACEMENT SHALL BE APPROVED BY THE OTY OF FOR COLLINS TRAFFIC ENGINEEP PROFILE TO FERMINISTIN INSTALLATION OF STREAM OF STREAM ON DESLOPENT ALL BE APPROVED BY THE OTY OF FOR COLLINS TRAFFIC ENGINEEP PROFILE TO FERMINISTIN INSTALLATION OF STREAM OF STREAM ON DESLOPENT ALL BE APPROVED BY THE OTY OF FOR COLLINS TRAFFIC ENGINEEP PROFILE TO FERMINISTIN INSTALLATION OF STREAM OF STREAM OF STREAM OF THESE PLANS AND/ON THESE STANDARDS
  - EPOXY APPLICATIONS SHALL BE APPLIED AS SPECIFIED IN COOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
  - ALL SURFACES SHALL BE THOROUGHLY CLEANED PRIOR TO INSTALLATION OF STRIPING OR MARKINGS. ALL SIGN POSTS SHALL UTILIZE BREAK-AWAY ASSEMBLIES AND FASTENERS PER THE STANDARDS.
  - TELD INSPECTION OF LOCATION AND INSTALLATION OF ALL SIGNS SHALL BE PERFORMED BY THE CITY OF FORT COLLINS TRAFFIC INSPECTION OF LOCATION AND INSTALLATION OF ALL SIGNS SHALL BE CORRECTED BEFORE THE 2-YEAR WARRANTY PERIOD
  - THE DEVELOPER INSTALLING SIGNS SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL UNDERGROUND UTILITIES.

  - 12 THE DEVELOPEY INSIALIDAS SIDES SHALL BE RESPONSEDE FOR LOCATING AND PHOLEDING ALL ORDERADORD UTUILES. IS SERVAL, CARE SHALL BE TARKIN ISSOL LOCATION TO BUSINE AL INDERICETO IE VER OF CARE SOL IS SERVAL, CARE SHALL BE TARKIN ISSOL LOCATION TO BUSINE AL INDERICETO IE VER OF CARE SOL IS SERVAL CARE SHALL BE TARKIN ISSOL LOCATION TO BUSINE AL INDERICETO IE VER OF CARE SOL STREPRICE FILE CATURE OF COLLINE TRAFFIC ENGERE DETERMINET INT A IN LORDERSED CONDITION, SOLARE AD OR AL CARE STREPRICE FILE COLLINE TRAFFIC ENGERER DETERMINET INT A IN LORDERSED CONDITION, MARANTS SUCH SOLARE ACCORDING TO THE WITCH OR THE COLLINE TRAFFIC ENGERE DETERMINET INT AN IN LORDERSED CONDITION, MARANTS SUCH SOLARE ACCORDING TO THE WITCH OR THE COLLINE TRAFFIC ENGERE DETERMINET INT AN IN LORDERSED CONDITION, MARANTS SUCH SOLARE ACCORDING TO THE WITCH OR THE COLLINE TRAFFIC ENGERE DETERMINET INT AN IN LORDERSED CONDITION, MARANTS SUCH SOLARE ACCORDING TO THE WITCH OR THE COLLINE TRAFFIC ENGERE DETERMINET INT AN IN LORDERSED CONDITION, MARANTS SUCH SOLARE ACCORDING TO THE WITCH OR THE COLLINE TRAFFIC ENGERE DETERMINET INT AN IN LORDERSED CONDITION MARANTS SUCH SOLARE ACCORDING TO THE WITCH OR THE COLLINE TRAFFIC AND REAL MARKINGS. ALL SOLARESTICK SOLARESTICK SOLARESTICK TO THE ALL MARKENSES DE ADDITION AND AND S STANDARDS. ALL SIGNAE MARKINGS SHALL FALL MARKENSES ADDITION AND ADDITION AND A STANDARDS ALL SIGNAE AND REAL MARKINGS. ADDITION AND ADDITION ADDITION ADDITION ADDITION AND ADDITION AND ADDITION AND ADDITION AND ADDITION AND ADDITION ADDITI 15. SLEEVES FOR SIGN POSTS SHALL BE REQUIRED FOR USE IN ISLANDS/MEDIANS. REFER TO CHAPTER 14, TRAFFIC CONTROL DEVICES, FOR

  - AUUTIONAL DE NAC. IE CONTRACTOR E RESPONSIBLE FOR REMOVINO ALL ANCHORS, POSTS, SIGNS, AND/OR DELINEATORS IN CONSTRUCTION AREA. CONTRACTOR MAY RESP THE SIGNS, OR CALL THE CITY TRAFFIC DIVISION TO HAVE THEM REMOVED. T. NO TRESET MANOREM, POSTS, SIGNS, MAYOR DELINEATORS MILL BE ACCEPTED.
  - 18. ALL ANCHORS, POSTS, SIGNS, AND/OR DELINEATORS SHALL BE NEW AND BE CONSISTENT WITH THE LCUASS CRITERIA.

# The should variable interview model by the nonineum at least them?-FOUR (24) HOURS PROR TO ANY CONSTRUCTION ON THIS STE. There shall be to brath-disturbance activity of the lumits described to the accepter plans. All required premeters suf and construction frames plant be installed pror to any land disturbance activity (STOCRIMUN, STEPPIN, GRAINE, E.J. ALL OTHER REQUIRED ERSON CONTINUE MEASURES PLANE ENSTALLED FROM TO ANY THE APPROPRIATE The IN THE CONSTRUCTION SEQUENCE AS INDICATED IN THE APPROVED PROJECT SCHEDULE, CONSTRUCTION PLANS, AND ERSON D. STORM DRAINAGE NOTES

- THE CITY OF FORT COLLINS SHALL NOT BE RESPONSIBLE FOR THE MAINTENANCE OF STORM DRAINAGE FACILITIES LOCATED ON PRIVATE PROPERTY. MAINTENANCE OF ONSITE DRAINAGE FACILITIES SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER(S). ALL RECOMMENDATIONS REFERENCE PRELIMINARY DRAINAGE REPORT, DATED MAY 2022, BY JR ENGINEERING BE FOLLOWED AND IMPLEMENTED.
- IMPLEMENTED. CERTIFICATION OF GRADING AND DRAINAGE FACILITES MUST BE COMPLETED BY A REGISTERED ENGINEER AND SUBMITTED TO THE STORMWATER UTILITY DEPARTMENT AT LEAST TWO WEEKS PRIOR TO STORMWATER UTILITY DEPARTMENT ACCEPTANCE, OR OTHERWISE IN ACCORDANCE WITH THE DEVELOPMENT ACREEMENT.
- SEE CITY OF FORT COLLINS STORWWATER CRITERIA MANUAL APPENDIX F CONSTRUCTION CONTROL MEASURES STANDARD NOTES AND STANDARD EROSION CONTROL NOTES.

#### E. WATERLINE NOTE

- THE MINIMUM COVER OVER WATER LINES IS 4.5 FEET AND THE MAXIMUM COVER IS 5.5 FEET UNLESS OTHERWISE NOTED IN THE PLANS AND APPROVED BY THE WATER UTILITY.
  - JM B -SCAL DATE GNED ín TRIL SN ~ NOTE! COLLEGE CITY OF FORT GENERAL 1 \_ ZOCALO SHEET 3 OF 25

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JR ENGINEERING GENERAL NOTES:

- ALL MATERIES AND WORMANSHIP SHALL BE IN CONFORMANCE WITH THE LITEST FEMDRATES AND SECRETIZINGS OF LOBBLE CONTY TRANSPERTATION, ARREVERSE AND THE TRANSPECTATION WORK DETECT CONCOME OF SEARCH CONTROL OF SEARCH CONTY TRANSPERTATION, ARREVERSE AND THE PROTECTION REQUERIESTS, AND APPLICABLE STATE AND LOCAL STANDARDS AND SPECIFICATIONS. THE CONTRACTOR SHALL HAVE IN POSSESSION AT THE OBJECT AND STANDARD SHALL PROCEED FLANS, STANDARDS AND SPECIFICATIONS. CONTRACTOR SHALL CONSTRUCT AND MARKAN EXERCENCY ACCESS ROUTES TO THE STE AND STRUCTURE AT ALL APPROVAL FOR MY VARIANCE ON THE ADDR DOL THE ADDR DATES TO THE STE AND STRUCTURE AT ALL APPROVAL FOR MY VARIANCE ON THE ADDR DATES. NOTIFY DIRACTOR FOR ADDR DATES ADD STRUCTURE AT THE EVENT OF ANY VORTICETOR STANDARD OR SPECIFICATION, THE MORE STRUCTURES TO MARGON OR SPECIFICATIONS.
- SPLUTIATION SHALL APPLY. THE CONTRACTOR SHALL BAPLY. HE CONTRACTOR SHALL BAPLY.

- CONTACT ENGNEER VERN DISCORTY OF A UTULY DISCREPANCY OF CONFLICT. "E VILLET UTULLY, INC. CONTINUES SHALE WEIGHT. THE CONTRACTS SHALL BE SOLEN. AND COMPETENT UNERSPONSE FOR CONTINUES. THE CONTRACTOR SHALL PREPARE TRATTIC SHETY OF ALL PERSONS AND PROPERTY DURING THE PERFORMANCE OF THE WORK. THE CONTRACTOR SHALL PREPARE THE THE RECONTRACTOR SHALL BE SOLEN. AND CONCENTENT RESPONSE FOR ENTRY. RECONTRACTOR SHALL PREPARE SHALE SHALE SHALE AND THE LATEST EDURING THE REPORT HOWSE FOR FRUE CALL CONTRACTOR SHALE AND THE LATEST EDURING THE REPORTS HOWSE FOR FRUE CALL COLLENT. THIS RECONSENS OF THE TRAFTIC CONTROL FLAX AND THE LATEST EDURING THE RECONSTANT OF MORE FOR FRUE CALL COLLENT ON ALL MANLA ON UNFORMATION OF THE REPORTS SHALE DISCREPTION OF CONTRACTOR SHALE COLLENT OF THE TRAFTIC CONTROL FLAX AND THE LATEST EDURING THE REPORTS SHALE DISCREPTION OF THE REPORTS SHALE AND THE LATEST EDURING OF THE REPORTS SHALE DISCREPTION OF THE REPORTS SHALE AND THE LATEST EDURING THE TRAFTIC CONTROL FLAX AND THE LATEST EDURING OF THE REPORTS SHALE DISCREPTION OF THE REPORTS SHALE AND THE LATEST EDURING OF THE REPORTS SHALE DISCREPTION OF THE REPORTS SHALE AND THE LATEST EDURING OF THE REPORTS SHALE DISCREPTION OF THE REPORTS SHALE AND THE LATEST EDURING OF THE REPORTS SHALE REPORTS SHALE SHALE CONTRACTOR SHALE SHALE OF THE TRAFTIC CONTROL FLAX AND THE LATEST EDURING OF THE REPORTS SHALE REPORTS SHALE SHALE CONTRACTOR SHALE SHALE OF THE TRAFTIC CONTROL FLAX AND THE LATEST EDURING OF THE REPORTS SHALE REPORTS SHALE REPORTS SHALE SHALE OF THE TRAFTIC CONTROL FLAX AND THE LATEST EDURING OF THE REPORTS SHALE REPORTS SHALE SHALE SHALE OF THE TRAFTIC CONTROL FLAX AND THE LATEST EDURING OF THE REPORTS SHALE REPORTS SHALE REPORTS SHALE SHALE SHALE THE TO THE TRAFTIC CONTROL FLAX AND THE LATEST EDURING OF THE REPORTS SHALE S
- MULD SON NUMERS. THE CONTRACTOR SHALL BE RESPONSELF OR REMOVING ANY GROUNDWITE NOUNTEED DWIDE NE CONTRACTOR OF ANY P OF THIS PROJECT. GROUNDWITE SHALL BE HUMPED, PPED, REMOVED AND DESTOD OF IN A MARKER WHO'D DES NOT NERVE THE STREET WHE THEORY OF THE STREET AND THE STREET AND
- . RIM AND GRATE ELEVATIONS SHOWN ON PLANS ARE APPROXIMATE ONLY AND ARE NOT TO BE TAKEN AS FINAL ELEVATIONS. THE CONTRACTOR SHALL ADJUST RIMS AND OTHER IMPROVEMENTS TO MATCH FINAL PAVEMENT AND FINISHED GRADE ELEVATIONS.
- CONTRACTOR SHALL ADJUST RWS AND OTHER IMPOVENENTS TO MATCH FINAL PARADENT AND FINISHED GRADE LEVATIONS. THE DISTING AND PROFOSED LEVATIONS OF LATIONES, BOLTMANS, CLERKS, PANNE, CLE, S. SIGNIN HERDEN ANE BASED ON PORTWORK INSPECTED AND APPROVED BY OWNER, OWNERS' REPRESENTATIVE, OF EXOREEP PROFIN TO FLACING CONCERTE. MINOR FORMORK INSPECTED AND APPROVED BY OWNER, OWNERS' REPRESENTATIVE, OF EXOREEP PROFIN TO FLACING CONCERTE. MINOR FORMORK INSPECTED AND APPROVED BY OWNER, OWNERS' REPRESENTATIVE, OF EXOREEP PROFIN TO FLACING CONCERTE. MINOR FORMORK INSPECTED AND APPROVED BY OWNER, OWNERS' REPRESENTATIVE, OF EXOREEP PROFIN TO FLACING CONCERTE. MINOR FORMORK INSPECTED AND APPROVED BY OWNER, OWNERS' REPRESENTATIVE, OF EXOREEP PROFINE TO FLACING CONCERTE. MINOR FORMORY INSPECTED AND APPROVED BY OWNER, OWNERS' REPRESENTATIVE, OF EXOREEP PROFILE PROFINE OF AND APPROVED BY FORMORY INSPECTED AND APPROVED BY OWNER, OWNERS' REPRESENTATIVE, OF EXOREEP PROFILE PROFILE PROFILE FORMORY INSPECTED AND APPROVED BY OWNER, OWNERS' REPRESENTATIVE, OF EXOREEP PROFILE PROFILE PROFILE MINOR AND APPROVED BY OWNER, OWNERS' REPRESENTATIVE, OF EXORE AND APPROVE AVAILABLE AND APPROVED BY AND APPROVED BY OWNER AND
- DRAINAGE FEATURES AND CONVEYNICS. PHAL LUIES OF ROURDED ASHALL SANUTING AND PATCHING MAY VARY FROM LUIES SHOWN ON PLANS. CONTRACTOR TO REPORT TO THE DRAINED ASHALL SANUTING AND PATCHING MAY VARY FROM LUITS SHOWN ON PLANS. CONTRACTOR TO REPORT TO THE DRAINER AND WITHIN MUNICIPAL STANDARDS. CONTRACTOR SHALL PROVIDE ADDITIONAL SANUTING AND PATCHING AT UTILITY WORK, CONNECTION POINTS TO ESTIMATING PACKENIX AND FAILURES.
- MORY, VUMEL-UMP FUNDID LEADING FANDERIAL AND FEATURES ETC. THAT MAY NOT EE DELINEATED ON FUNDS. ANY DOSTING MONTRAIG WELLS, CLAMONTS, MULE MORSS, ETC. SHALL BE FRONTETED AND FRANAN IS AFRANCE. LANGSAMPED AREAS PROVIDE A CONCRETE COLLAR (15\*18\*M6" THICK) AT ALL EXISTING AND PROPOSED MONITORING WELLS, OLEANOTIS, MULE BOOKS, ETC.
- 10. OWNER TO APPROVE ALL CONCRETE FINISHING, JOINT PATTERNS AND COLORING REQUIREMENTS PRIOR TO CONSTRUCTION. CONTRACTOR SUBMIT JOINT LAYOUT PLAN TO OWNER FOR APPROVAL PRIOR TO CONSTRUCTION.

- UNINELT DUPPROVE ALL CONCEPTE INISING, JOINT PATTERIS AND COLORING REQUIREMENTS PROR TO CONSTRUCTION. CONTRACTORS SUBMIL CONTEL AND TAKEN TO OWNER FOR APPROVAL PROVE TO CONTRACTORS REQUIREMENTS PROR TO CONSTRUCTION. CONTRACTOR SUBJECT CONTRACTORS AND ADDRESS TO ADDRESS TO ADDRESS. NO 67 ADJESTING ACTUAL PREVENTS ETC. SEE STRUCTURE DETAILS FOR EXACT MORECRAFT, CONTROL LOCATION. CONTRACTOR IS RESPONSIBLE FOR ADJESTING ACTUAL PREVENTS ACCOUNT FOR EXACT MORECRAFT, CONTROL LOCATION. CONTRACTORS IS RESPONSIBLE FOR ADJESTING ACTUAL PREVENTS ACCOUNT FOR EXACT MORECRAFT, CONTROL LOCATION. CONTRACTOR IS RESPONSIBLE FOR REQUIRED FROM THE REPORT ACCOUNT FOR EXACT MORECRAFT, CONTROL LOCATION. CONTROL TORS IS RESPONSIBLE FOR REQUIRED FROM THE REPORT ACCOUNT FOR EXACT MORECRAFT, CONTROL LOCATION. CONTROL TORS IS RESPONSIBLE FOR REQUIRED FROM THE REPORT ACCOUNT FOR ADJESTING TORS AND PROBENCE LINES BY THE CONTRACTOR SHALL BE REPORTED TO ADDIE TO MORECRAFT, CALL RESPIRE AND PROBENCE LINES BY THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ADVISION ACTUAL PROFECTION. ALL RESPIRED DURING CONSTRUCTION ACTIVITES SHALL BE RESPIRED TO TS GRADUAL CONTRACTOR SHALL BE RESPONSIBLE CONTECTION, MESS DIFFERED DURING CONSTRUCTION ACTIVITES SHALL BE RESPONSIBLE FOR THE ADVISION FOR ADVISOR ADDIE TO THE ADDIESTING TO COLORADO, URBAN DE NOT FUNCTION AND THE APPROVE DEGODOR CONTROL FRAME ADDIE ADDIE ADDIE LOCATION, DE ADDIE FOR PROVERTING SLIT AND DEBRE LANDE RESOLUTION FORMED AND ACCOPTIONE OF SHALL BELOCENTRACTORS IN RESPONSIBLE FOR PROVERTING SLIT AND DEBRE LANDE RESOLUTION OF TINCTION AND THE ADDIE ADDIE ADDIE ADDIE CONTRACTORS IN RESPONSIBLE FOR PROVERTING SLIT AND DEBRE LANDE RESOLUTION OF TINCTION AND THE ADDIE ADDIE ADDIE ADDIE ADDIE ADDIE ADDIE ALL AREAS AND ERAR AREAS AS REQURED ATTER VEELTATION IS STABLISED AND ACCOPTIONE TO ADDIE ADDIE ADDIE ADDIE ADDIE ADDIE THAND AND RESOLUTION AT THAN ADDIE A

- STANDARDS, HANDICAP RAMPS SHALL CONFORM TO COT M -STANDARDS (SEE DETAIL M-G69-1, ETC.) I PROTOTAL THESE AND LOCATION, PLACE CONSTITUCTION FERDING AT POPULAE OF THESE AND PLANTS NEAR THE WORK ZONE-DEP WATER TREES MERINY, HAND EXCAVITION REQUIRED AT ROOT ZONES WARE PROPOSED PAVING OR UTLITY WORK ZONE DEPLANT TREES MERINY, HAND EXCAVITION REQUIRED AT ROOT ZONES WARE PROPOSED PAVING OR UTLITY WORK ZONE DEPLANT THESE MERINES AND ADDRESS DEVELOPMENT AND THE SECOND AND AUXION FERSION FOR MUNICY AND THE AND THE CONSTRUCTOR WERPORTANTS. THE PLANS SHALL SHOW SUFFICIENT TEMPSION THESE TO PERMANENT SURFACE FAILURES FOR ALL BURED FACULTES TO ALLOY FOR TUTUEE LOCATION. THE PLANS SHALL SHOW SUFFICIENT TIMENSION THESE TO PERMANENT SURFACE FAILURES FOR ALL BURED FACULTES TO ALLOY FOR TUTUEE LOCATION. THE PLANS SHALL SHOW SUFFICIENT TIMENSION THESE TO PERMANENT SURFACE FAILURES. CONTORING THE PLANT SHALL SHOW SUFFICIENT AND CONTRIBUTED AT A COCERADO P.L.S.), MANGLE PRE, MON INET LOCATIONS, MUNICIPAL FAILURES, CARTE ELEMANTICS, SEES OF ALL UTLIES, AND ANY VARIATIONS FROM THE APPROVED PLAN. EXONECTING THAN TRACTORE THAT REGULE FILMAL SHOW SUFFICIENT LEVENDES (CONTORING THE ADDRESS TO ALL DEVELOPMENT, AND ADDRESS THE ADDRESS ADDRESS OF ALL DEVELOPMENT, ADDRESS ADDRESS
- DRAWINGS. IE LOCATIONS OF CLEANOUTS, LIGHTS, SIGNAGE, JUNCTION BOXES, AND OTHER SIGNFICANT SITE FEATURES TO BE STAKED FOR ENGINEER AND OR OWNER APPROVAL PROR TO WORK. OLEANOUTS, JUNCTION BOXES, AND DALACENT GRADES TO BE RAISED ONE-HALF INCH AT ASPHALT/CONCINENCE (OR 1'A LUNGSCANNO) TO PAROVE POSITIVE DRAWING RAVAT FROM ENTLINES. 19. REFERENCE SIGLS REPORT FOR TRILEY & COLLECE 20. ALL SATISACTORY SIGLS SHALL BE COMPACTED TO 95% OF THE MAXIMUM STANDARD PROCTOR DENSITY. 21. EXISTING AND PROPOSED IMPORTED MATERIALS SHALL BE REVENED BY THE GEOTECHNICAL ENGINEER TO VERIFY SATISFACTORY SOL CHARACTERSITICS.
- 22. LIMIT DISTURBANCE TO AREAS WITHIN SILT FENCE. ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED PER CITY OF FORT COLLINS STANDARDS.
- 23. SETSUARD TE STON WITTE NUMBERENT FAN (SMP) YOR PLOCENT AND DEFUS OF EROSON CONTROL NEASINGS WHOL SWALL BE PREFARE AND SUBMITTE DE THE CONTROLTER PROME TO CONSTRUCTION COMMINGENENT. EROSON CONTROL MEASURES SHALL BE PLACED PROME TO CONSTRUCTION. A. THE CIVITY OF GREGON CONTROL PROTECTION MAY NEED TO BE ADJUSTED DIREND THE PROCESS OF CONSTRUCTION, BASED ON STE DOWNSTREAM WITTERWAY POLLUTION, EROSON CONTROL PROTECTION MUST BE INSPECTED AND REPARED/REPLACED IN INTERVALS DICITATE IN THE SIMPLY

#### EROSION CONTROL NOTES:

- 1. LOCATE/RELOCATE, AND MAINTAIN STABILIZED STAGING AREAS, VEHICLE TRAFFIC CONTROL AREAS, AND CONCRETE WASHOUT AREAS AS REQUIRED DURING CONSTRUCTION.
- 2. LIMIT OF CONSTRUCTION TO BE CONTAINED WITHIN APPROVED UTILITY/GRADING AREAS AND PROPERTY LINES.

- LIMIT OF CONSTRUCTION TO BE CONTAINED WITHIN APPROVED UTILITY/GRADING AREAS AND PROPERTY UNES.
   PROVDE EROSION CONTROL MEASURES ACROSS ALL PURASS OF FUTURE TWW AREAS PER TATEMOND DETAILS.
   PROVDE EROSION CONTROL MEASURES ACROSS SITE AS REQUIRED DURING CONSTRUCTION.
   S.ALL LOTS SHALL BE RESPONSIBLE FOR THE STORMWATER MANAGEMENT PLAN, WHICH SHALL CONTAIN AN UP-TO-DATE MAPPING OF EROSION CONTROL MEASURES.
- ENGION CONTROL MESARIES AT ALL INAES. REFERENCE SOL BETWART FOR TRADE & COLLECE 8. ALL STRAFACTORY SOLS SHALL BE COMPACTED TO \$25 OF THE MAXIMUM STANDARD PROCTOR DENSITY. 0. CHARACTERENCES: SOED MARCHINES MATERIALS SHALL BE REVENED BY THE GEOTECHNICAL ENGNEER TO VERIFY SATISFACTORY SOLL OCHARACTERENCES: SOED MARCHINES AT ALL INVESTIGATION OF THE MAXIMUM STANDARD PROCTOR DENSITY.
- 10 CONTRACTOR TO PROTECT AND MAINTAIN ALL EVISTING EROSION CONTROL MEASURES IN PLACE FROM THE FILING & CONSTRUCTION

#### SOUTH FORT COLLINS SANITATION DISTRICT NOTES:

- ALL SANITARY SEWER CONSTRUCTION SHALL BE PERFORMED ACCORDING TO THE SOUTH FORT COLLINS SANITATION DISTRICT STANDARDS AND SPECIFICATIONS.
- constituction of sense radiuses requere a precon method with district insection starf prior to construction.
   construction shall knotty stores insections provide to starting work.
   contractor shall contract the sanitation district insection pro severe insection as hours prior to connecting to existing severe stude. I F GROUNDWATER IS ENCOUNTERED WITHIN DEPTH OF SEWER CONSTRUCTION, MANHOLES MUST BE WATER-PROOFED.

- LETTER TO THE USTROLT. SHALL BE SUBMITTED IN POF AND DWG TO THE DISTRCT FOR FINAL APPROVAL. 9. AS-BUILTS SHALL BE SUBMITTED IN POF AND DWG TO THE DISTRCT FOR FINAL APPROVAL. 10. ONE ALL PRUCH LIST ITENS ARE COMPLETE, EASEMNTS ARE RECORDED, AND AS-BUILT FILES ARE APPROVED. THE CONTRACTOR SHALL REQUEST FINAL COMPLETION WITH A LETTER TO THE DISTRCT THAT WOLLDES THE DOLLAR VALUE OF THE SEMER MARYOWEDNESS STERED SERVERS.

#### FORT COLLINS-LOVELAND WATER DISTRICT NOTES

- ALL CONSTRUCTION OF WATER INFRASTRUCTURE SHALL BE PERFORMED ACCORDING TO THE FORT COLLINS-LOVELAND WATER DISTRICT STANDARDS AND SPECIFICATIONS.
- CONSTRUCTION OF WATER INFRASTRUCTURE REQUIRES A PRECON MEETING WITH DISTRICT INSPECTION STAFF PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY DISTRICT INSPECTORS PRIOR TO STARTING ADDITIONALLY, CONTRACTOR SHALL NOTIFY DISTRICT INSPECTORS 48 HOURS PRIOR TO CONNECTING TO ANY EXISTING DISTRICT INFRASTRUCTURE.
  ALL WATER HURS SHALL BE A MINIMUM OF (5) FIVE FEET AND A MAXIMUM OF (6) SX FEET BELOW FINAL GRADE.
- ALL COMMERCIAL, IRRIGATION, MULTI-FAMILY AND FIRE SPRINKLER LINES SHALL HAVE A BACKFLOW PREVENTION DEVICE AS APPROVED BY THE DISTRICT. THE RUNNING HYDROSTATIC PRESSURE TEST SHALL BE WITNESSED BY DISTRICT INSPECTORS. WATERLINE BACTERIA TESTS SHALL ALSO BE TAKEN BY DISTRICT INSPECTORS
- BE TAKEN BY DISTRICT INSPECTORS. ALL DISTRICT MARSESTALE OPERATED BY DISTRICT OPERATIONS STAFF ONLY. 8. ONCE THE SYSTEM IS OPERATIONAL, ALL TESTS HAVE PASSED, AND ASSULT DRAMINGS (POF AND DWG) HAVE BEEN APPROVED BY THE DISTRICT, THE ORTHRATOR SHALL RECURST SUBSTAIL. COMPLETION WITH A LITTER TO THE DISTRICT. 9. ONCE ALL PUNCH LIST TITEMS ARE COMPLETE AND EASENETS ARE RECORDED, THE CONTRACTOR SHALL REQUEST TINAL ACCEPTANCE" WITH A LITTER TO THE DISTRICT THAT INCLUDES THE DOLLAR VALUE OF THE WATER MARGNENTIS.

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BOLLARD FLAGPOLE

BIKE RACK








































LUNAR COURT





## **ZOCALO AT TRILBY ROAD & COLLEGE AVENUE**

LOCATED IN THE SOUTHEAST OUARTER OF SECTION 11, TOWNSHIP 6 NORTH, RANGE 69 WEST OF THE 6TH P.M.

CITY OF FORT COLLINS, COUNTY OF LARIMER, STATE OF COLORADO

KNOWN ALL PERSONS BY THESE PRESENTS, THAT THE UNDERSIGNED, BEING OWNER(S) OF THE FOLLOWING DESCRIBED LAND: A PARCEL OF LAND LOCATED IN THE SOUTHEAST QUARTER OF SECTION 11, TOWNSHIP 6 NORTH, RANGE 69 WEST OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF LARIMER, STATE OF COLORADO, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BASS OF BEARINGS: THE NORTH LINE OF THE SOUTHEAST QUARTER OF SECTION 11, TOWNSHP & NORTH, RANCE 69 WEST OF THE SXTH PRINCIPAL MERIDIAA BEING MONAMENTED AT THE EAST QUARTER CORRER BY A 3-1/4" ALUMINIM CAP STAMPED "20076" IN A FANCE BOX, AND AT THE CENTER QUARTER CORRER BY A 2-1/2" ALUMINIMU AND STAMPED "25 2531" BEING ASSIMED TO BEAR SERVITIO" IN A FANCE BOX, AND AT THE CENTER QUARTER

COMMENCING AT THE EAST QUARTER CORNER OF SECTION 11, TOWNSHIP 6 NORTH, RANGE 69 WEST OF THE 6TH PRINCIPAL MERIDIAN

THENCE ON THE NORTH LINE OF THE SOUTHEAST QUARTER OF SAID SECTION 11. S88'27'19"W A DISTANCE OF 949.67 FEET:

THENCE S01'32'41"E A DISTANCE OF 4.84 FEET; TO THE NORTHWESTERLY CORNER OF OUTLOT A, SOUTH COLLEGE STORAGE RECORDED UNDER RECEPTION NO. 20170067828 IN THE RECORDS OF THE LARIMER COUNTY CLERK AND RECORDER, AND THE POINT OF BEGINNING; THENCE ON THE WESTERLY LINE OF SAID OUTLOT A, S02'06'10"E A DISTANCE OF 631.28 FEET, TO THE SOUTHWESTERLY CORNER OF SAID OUTLOT A;

THENCE ON THE SOUTHERLY LINE OF SOUTH COLLEGE STORAGE, S89'24'08'E A DISTANCE OF 889.28 FEET, TO THE WESTERLY RIGHT-OF-WAY LINE OF SOUTH COLLEGE AVENUE AS DESCRIBED IN THE DOCUMENT RECORDED IN BOOK 1082 AT PAGE 539;

THENCE ON SAID WESTERLY RIGHT-OF-WAY LINE, SOO'30'49'E A DISTANCE OF 715.69 FEET, TO THE NORTHERNMOST POINT OF THAT PARCEL KNOWN AS "RW-DIA" OF CODT PROJECT SHO MASS-12A, AND CONVEYED BY DEED AT RECEPTION NO. \_\_\_\_\_\_\_;

THENCE ALONG THE WESTERLY RIGHT-OF-WAY LINE OF SOUTH COLLEGE AVENUE, BEING THE WESTERLY LINE SAID PARCEL RW-01A, THE FOLLOWING THREE

# IN SIGS442"W A DISTANCE OF 82.51 FEET. 2. SUBJUCT A DISTANCE OF 82.51 FEET. 3. SUBJUCT B. ADDISTANCE OF 83.50 FEET. 3. SUBJUCT B. SUBJUCT OF 83.50 FEET. 3. SUBJUCT B. SUBJUCT OF 83.50 FEET. MISS-124, AND CONNETED BY DEED AT RECEPTION NO.

STATEMENT OF OWNERSHIP AND SURDIVISION.

THENCE ON THE NORTHERLY, WESTERLY, AND SOUTHERLY LINES OF SAID PARCEL, THE FOLLOWING FIVE (5) COURSES:

#### S65'27'34\*W A DISTANCE OF 196.21 FEET; S09'28'57\*W A DISTANCE OF 98.78 FEET;

StoryTHOTE A DISTANCE OF 24.53 FEET;
 StoryTSYSTE A DISTANCE OF 20.03 FEET;
 NB2YTSYSTE A DISTANCE OF 177.72 FEET, TO A POINT ON SAID WESTERLY RIGHT-OF-WAY LINE OF SOUTH COLLEGE AVENUE, BEING THE WESTERLY LINE OF SAID PARCET RWHOLD.

THENCE ON SAID WESTERLY RIGHT-OF-WAY LINE, S00740'19"E A DISTANCE OF 33.14 FEET, TO A POINT ON THE NORTHERLY LINE OF LOT 2, C.O.L. COLLEGE AND TRILBY SUBDIVISION RECORDED UNDER RECEPTION NO. 20050025365; THENCE ON THE NORTHERLY LINE OF SAID LOT 2, S88"27"38"W A DISTANCE OF 337.49 FEET, TO THE NORTHWESTERLY CORNER OF SAID SUBDIVISION

THENCE ON THE WESTERLY LINE OF SAID C.O.L. COLLEGE AND TRIBY SUBDIVISION, SOOYO'19"E A DISTANCE OF 447.49 FEET, TO THE NORTHERLY RIGHT-OF-WAY LUNE OF TRIBLY ROAD, BEING THE NORTHERLY LINE OF PARCEL RW-O1 OF COOT PROJECT NO. SHO M455-124, AND CONVEYED BY DEED AT RECEPTION NO.

THENCE ON SAID NORTHERLY RIGHT-OF-WAY LINE, THE FOLLOWING TWO (2) COURSES:

S88'27'38'W A DISTANCE OF 57.48 FEET;
 S84'11'55'W A DISTANCE OF 316.09 FEET;

THENCE CONTINUING ON THE NORTHERLY RIGHT-OF-WAY LINE OF TRILBY ROAD AS DESCRIBED IN ROAD BOOK 4 AT PAGE 85, S88'27'38"W A DISTANCE OF 167.80 FEET:

THENCE DEPARTING SAID NORTHERLY RIGHT-OF-WAY LINE, N02'06'21"W A DISTANCE OF 1400.00 FEET; THENCE N02'06'21" A DISTANCE OF 1214.40 FEET; TO THE SOUTHERLY RIGHT-OF-WAY LINE OF SKYWAY DRIVE;

THENCE ON SAID SOUTHERLY RIGHT-OF-WAY LINE, S89"12"17"E A DISTANCE OF 75.97 FEET, TO THE POINT OF BEGINNING

CONTAINING A CALCULATED AREA OF 1,653,817 SQUARE FEET OR 37.9664 ACRES.

FOR THUSENESS AND THER SUCCESSORS IN INTERST (COLLECTINGLY, YONLRY) HAVE CAUSED THE ADARY EDSEMBED LIND TO BE SUMPORE DNO LOND THE STATUST OF ADAR SUMPORE DNO LOND TRATCHS, NO STRETTS AS SYNCHIN THE FLAX TO BE KNOWN AS **SOCIAL OF THERF NON** BOOLLINE ANTHREE (THE "DEVELOPMENT"), SUBJECT TO ALL LASEMENTS AND RIGHTS-OF-WAY NOW OF RECORD OR EXISTING OR INDICATED ON THIS PLAT. THE RIGHTS AND GUILDATION OF THE FLAT SHALL RAW IN THE LIND.

#### CERTIFICATE OF DEDICATION.

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#### GENERAL NOTES

- THE BASIS OF BEARINGS IS THE NORTH LINE OF THE SOUTHEAST DUARTER OF SECTION 12, RANCE 6 NORTH, RANCE 69 WEST OF THE EAST BY A 3-14" ALUMINUM CAP IN A RANCE BOX STAMPED "LS20676 2014" AND AT THE WEST BY A 2.5" ALUMINUM CAP STAMPED "LS20576 2014" AND AT THE WEST BY A 2.5" ALUMINUM CAP STAMPED "LS20576 2014" AND AT THE WEST BY A 2.5" ALUMINUM CAP STAMPED "LS20576 2014" AND AT THE WEST BY A 2.5" ALUMINUM CAP STAMPED "LS20576 2014" AND AT THE WEST BY A 2.5" ALUMINUM CAP STAMPED "LS20576 2014" AND AT THE WEST BY A 2.5" ALUMINUM CAP STAMPED "LS20576 2014" AND AT THE WEST BY A 2.5" ALUMINUM CAP STAMPED "LS20576 2014" AND AT THE WEST BY A 2.5" ALUMINUM CAP STAMPED "LS20576 2014" AND AT THE WEST BY A 2.5" ALUMINUM CAP STAMPED "LS20576 2014" AND AT THE WEST BY A 2.5" ALUMINUM CAP STAMPED "LS20576 2014" AND AT THE WEST BY A 2.5" ALUMINUM CAP STAMPED "LS20576 2014" AND AT THE WEST BY A 2.5" ALUMINUM CAP STAMPED "LS20576 2014" AND AT THE WEST BY A 2.5" ALUMINUM CAP STAMPED "LS20576 2014" AND AT THE WEST BY A 2.5" ALUMINUM CAP STAMPED "LS20576 2014" AND AT THE WEST BY A 2.5" ALUMINUM CAP STAMPED "LS20576 2014" AND AT THE WEST BY A 2.5" ALUMINUM CAP STAMPED "LS20576 2014" AND AT THE WEST BY A 2.5" ALUMINUM CAP STAMPED "LS20576 2014" AND AT THE WEST BY A 2.5" ALUMINUM CAP STAMPED "LS20576 2014" AND AT THE WEST BY A 2.5" ALUMINUM CAP STAMPED "LS20576 2014" AND AT THE WEST BY A 2.5" AND AT THE AT
- MANTENANCE AND UPKEEP OF STORMWATER DETENTION PONDS, STORM SEWER SYSTEMS, SWALES, AND PERMANENT STORMWATER QUALITY MERKORMANTS MAR REQUIRED BY THE CITY OF FORT COLLIDS, AND REVIEW PROPERTY OWNER. THE CHIEF OF RESPONSED FUNCTION OF A DATA OF A DAT 2
- PER C.R.S. 38-51-106, "ALL LINEAL UNITS DEPICTED ON THIS LAND SURVEY PLAT ARE U.S. SURVEY FEET. ONE METER EQUALS 39.37/12 U.S. SURVEY FEET, EXACTLY ACCORDING TO THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY." 3.
- THERE SHALL BE NO PRIVATE CONDITIONS, COVENANTS OR RESTRICTIONS THAT PROHIBIT OR LIMIT THE INSTALLATION OF RESOURCE CONSERVING EQUIPMENT OR LANDSCAPING THAT ARE ALLOWED BY SECITON 12-120 12-122 OF CITY CODE.

NOTICE-

316,372 7.2629 TOTAL LOT AREA(265 LOTS) 483,110 11.0907

TOTAL SITE AREA 1,653,817 37.9664

FER CAS, 13-50-105, VOL MUST COMMONEC ANY LEGAL ACTION BASED URON ANY DEFECT IN THE SURVEY WITHIN THERE VERSE AFER YOU (IN FEST DESCONDER SUCH DEFECT. IN NO EVENT MAY ANY ACTION BASED UPON ANY DEFECT IN THIS SURVEY BE COMMENCED MORE THAN TEN YEARS FROM THE DATE OF THE CERTIFICATION SHOWN HEREON.

#### **OWNERSHIP & MAINTENANCE TABLE**

(NET AREA)

(GROSS AREA)

#### I HEREBY CRETEY THAT THIS SUBJOYSON PLAT HAS BEEN DULY EXECUTED AS REQUEED PURSUANT TO SCITION2.2.X(C)(3)(A) THROUGH (D) INCURSIVE THE LAND USE SUCCE OF DUE OF THE OTHER STORAGE AND THAT ALL RESONSTANCE THE SUBJOYSON ALL OF DEFINITION OF THE DULY OF SUBJOYSON AND THE SUBJOYSON ALL OF DEFINITION OF THE DULY OF SUBJOYSON AND THE SUBJOYSON ALL OF DEFINITION OF THE DULY OF SUBJOYSON AND THE SUBJOYSON ALL OF DEFINITION AND THE SUBJOYSON AND THE USE DRAINAGE EASEMENT, LANDSCAPE, PEDESTRIAN ACCESS EAS AREA (SF) AREA (AC) OWNER MAINTENANC THE RIGHTS GRANTED TO THE CITY BY THIS PLAT INURE TO THE BENEFIT OF THE CITY'S AGENTS, LICENSEES, PERMITTEES AND ASSIGNS. 289,055 6.6358 300,088 6.9074 DRAINAGE EASEMENT, LANDSCAPE, PEDESTRIAN ACCESS EASEMENT, UTILITY EASEMENT HOA HOA OWNER: COLLEGE & TRILBY LLC A COLORADO LIMITED LIABILITY COMPANY DRAINAGE EASEMENT, ACCESS, EMERGENCY ACCESS, UTILITY EASEMENT 46.873 1.0761 HOA HOA DRAINAGE EASEMENT, LANDSCAPE DRAINAGE EASEMENT, LANDSCAPE, PEDESTRIAN ACCESS EASEMEN HOA 984 UMD9 DRAINAGE EASEMENT 1,550 0.0448 DRAINAGE EASEMENT, LANDCAPE, PEDISTRIAN ACCESS EASEMENT, UTILITY EASEMENT 1,860 0.6468 DRAINAGE EASEMENT, LANDCAPE, PEDISTRIAN ACCESS EASEMENT, UTILITY EASEMENT 1,860 0.6468 DRAINAGE EASEMENT, LANDCAPE, PEDISTRIAN ACCESS EASEMENT, UTILITY EASEMENT 1,860 0.6468 DRAINAGE EASEMENT, LANDCAPE, PEDISTRIAN ACCESS FASIMANET 1,336 0.0307 HOA HOA ATTORNEY AT LAW HOA HOA ENGINEER HOA HOA JR ENGINEERING, LLC ATTN: JOEY FRANK, PE 2900 SOUTH COLLEGE AVE, SUITE 3D FORT COLLINS, CO 80525 Pv=970.817.1010 JFRANKØJRENGINEERING.COM EXISTING OWNER HOA ATTN: STEVE SHOFLICK COLLEGE AND TRILBY LLC 6900 E BELLEVIEW AVE STE 300 GREENWOOD VILLAGE, CO 801111647 P~303.799.6300 SSHOFLICK@MILLER-UNITED.COM DRAINAGE EASEMENT, LANDSCAPE 837 0.0192 HOA 790 0.0181 DRAINAGE FASEMENT, LANDSCAPE HOA HOA DRAINAGE EASEMENT, ACCESS, EMERGENCY ACCESS, UTILITY EASEMENT HOA SURVEYOR THE FOREGOING INSTRUMENT WAS ACKNOWLEDGED BEFORE ME DRAINAGE EASEMENT, LANSDCAPE, PEDESTRIAN ACCESSS EASEMENT 43,138 0.9903 HOA HOA JR ENGINEERING, LLC ATTN: DEREK LEE VAGIAS, PLS 7200 S ALTON WAY, SUITE C400 CENTENNAL, C0 80112 P~303.740.9393 DVAGIAS@RENGINEERING.COM DEVELOPER THIS DAY OF 2022 BY 874 0.0201 DRAINAGE EASEMENT, LANDSCAPE HOA HOA ZOCALO COMMUNITY DEVELOPMENT ATTN: KOLBY O'HERRON P~720.450.8649 KOLBY.OHERRON@ZOCALODEVELOPMENT.COM 374 0.0201 1,178 0.0270 8,450 0.1940 527 0.0121 DRAINAGE EASEMENT, LANDSCAPE HOA HOA HOA HOA AS OWNER OF COLLEGE & TRUBY LLC. DRAINAGE EASEMENT, ACCESS, EMERGENCY ACCESS, UTILITY EASEMENT DRAINAGE EASEMENT, LANDSCAPE DRAINAGE EASEMENT, LANDSCAPE, PEDESTRIAN ACCESS EASEMENT A COLORADO LIMITED LIABILITY COMPANY 863 0.0198 HOA HOA ARCHITECT ZOCALO/TRILBY & COLLEGE 841 0.0193 DRAINAGE EASEMENT, LANDSCAPE DRAINAGE EASEMENT, ACCESS, EMERGENCY ACCESS, UTILITY EASEMENT DRAINAGE EASEMENT, LANDSCAPE, PEDESTRIAN ACCESS EASEMENT HOA HOA CODDEN SUDIK ARCHITECTS 5975 S. QUEBEC STREET, SUITE 250 CENTENNIAL, CO 80111 ATTN: CHRS WALLA P~303.455.4437 CWALLA@GODDENSUDIK.COM WITNESS MY HAND AND OFFICIAL SEAL. HOA JOB NO. 39793.03 APRIL 26, 2024 2,859 0.0656 HOA HOA 32,034 0.7354 DRAINAGE EASEMENT, ACCESS, EMERGENCY ACCESS, UTLITY EASEMENT HOA HOA SHEET 1 OF 9 0.0395 DRAINAGE EASEMENT, LANDSCAPE, PEDESTRIAN ACCESS EASEMENT, UTILITY EASEMENT 0.7484 DRAINAGE EASEMENT. LANDSCAPE PEPERTINIAN ACCESS EASEMENT 1,721 32,599 HOA HOA HOA HOA HOA DRAINAGE EASEMENT, LANDSCAPE PEDESTRIAN ACCESS EASEMEN E EASEMENT, LANDSCAPE, PEDESTRIAN ACCESS EASEMENT, UTILITY PLANNER/ 9,534 0.2189 DRAINAGE EASEN NOTARY PUBLIC 1ENT, UTILITY EASEMEN LANDSCAPE ARCHITECT 38,222 0.8774 DRAINAGE EASEMENT, LANDSCAPE, PEDESTRIAN ACCESS EASEMENT, UTLITY EASEMENT HOA TOTAL TRACT AREA 854,335 19,8349

OWNER: COLLEGE & TRILBY LLC, A COLORADO LIMITED LIABILITY COMPANY

, OWNER

BY:

STATE OF COLORADO

COUNTY OF LARIMER

MY COMMISSION EXPIRES

J.R. ENGINEERING

Centennial 303-740-9393 
Colorado Springs 7/9-593-2593 Fort Collins 970-491-9888 • www.jrengineering.com

TITLE COMMITMENT NOTES.

THIS LAND SURVEY DOES NOT CONSTITUTE A THE SEARCH BY JE BUDGREEING, LLC TO ECTEMINE OWNERSHIP OF THIS TRACT, IN VERY THE DESOMPTING SURVEY THE CONSTITUTION THAT SEARCH BY JE BUDGREEING, LLC TO ECTEMINE OWNERSHIP OF THIS TRACT, TO VERY THE SEARCH STO AND THE SEARCH STATE SEARCH STORE AND THE SEARCH STORE SEARCH STATE SEARCH STORE SEARCH STORE

#### MAINTENANCE GUARANTEE

#### REPAIR GUARANTEE

REPARE QUARANTEE: IN CONSIDERING OF THE APPROVAL OF THIS FINAL FLAT AND OTHER VALUABLE CONSIDERATION. THE UNDERSIGNED DOES HEREBY AGREE TO HOLD THE CITY OF FORT COLLINS, COLORADO, HAMILESS TRA ATIVE (0) YEAR FERMIC, COMMENSU LIPON THE CATE OF COMPLICITION AND DAMAGES, OF ENANDESS ADDRESS OF A COLLINS, COLORADO, HAMILESS TRA ATIVE (0) YEAR FERMIC, COMMENSU LIPON THE CATE OF COMPLICITION AND DAMAGES, OF ENANDESS ADDRESS OF A COLORATO OF THE DESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS ADDRESS HEREIN, NO. THE OWNER TRATHERIMONE COMMITS TO MARE RECESSARY REPARES TO SADA FILLED, MARPONENTS, TO INCLUE, MARPONE HEREIN, NO. THE OWNER TRATHERIMONE COMMITS TO MARE RECESSARY REPARES TO SADA FILLED, MARPONENTS, TO INCLUE, MARPONENTS, TO INCLUE ADARED SECONDARY, AND ALL AS DECENTS ON ANTE MARPONENTS, MARPONENT, MARPONENTS, MARPONENTS, MARPONENTS, MARPONENT, MARPON

#### NOTICE.

ALL RESPONSIBILITES AND COSTS OF OPERATION, MAINTENANCE AND RECONSTRUCTION OF THE PRIVITE STRETTS AND/OR DIVERSI COATED ON THE PRIVITE PROPERTY THAT IS RESIDED OF THIS RULTI SHALL BE GENRE BY THE OWNERS OF SUD PROPERTY, DIVERSI REVENUELLY, OR COLLECTIVELY, THROUGH A PROPERTY OWNERS ASSOLUTION, IF APPLICABLE, THE OTH FORT COLLING SHALL HAVE TO DEULATION TO ACCELEDINGLY, THROUGH A PROPERTY OWNERS ASSOLUTION, IF APPLICABLE, THE OTH FORT COLLING SHALL HAVE TO DEULATION TO ACCELEDINGLY, THROUGH A PROPERTY OWNERS ASSOLUTION, IF APPLICABLE, THE OTH FORT COLLING SHALL HAVE TO DEULATION TO ACCELEDINGLY, THROUGH A PROPERTY OWNERS ASSOLUTION, IF APPLICABLE, THE OTH FORT COLLING SHALL HAVE TO DEULATION TO ACCELEDINGLY, THROUGH A PROPERTY OWNERS ASSOLUTION, IF APPLICABLE, THE OTH FORT COLLING SHALL HAVE TO THE AVERAGE ADDRESS ASSOLUTION OF THE OTHER ADDRESS ASSOLUTION, IF APPLICABLE, THE OTH FORT COLLING SHALL HAVE TO THE AVERAGE ADDRESS AND ADDRESS ASSOLUTION OF THE ADDRESS ASSOLUTION.

#### SURVEYOR'S CERTIFICATE.

L DERU LE MARAS A COGNAND RECEITED PROFESSIONAL AND SUPERVICE DO REED STATE THAT THE SUBMINION AS AN REPARAD RMA ACTUAL SUPERVICE UNDER TV FRENCHLUSER SUPERVISION. THAT THE MOMENTATION AS INDUCTION HEREON BREF TOUR OR SET AS SHOWN, AND THAT THE FORDING PLAT IS AN ACCURATE REPRESENTATION THEREOF, ALL THES TO THE BEST OF MY KNOWLEDGE, INFORMATION AND ELLET.

DATED THIS \_\_\_\_\_ DAY OF \_\_\_\_\_ 20\_\_\_\_

DEREK LEE VAGIAS SEAL

PLS NO. 38578

APPROVED AS TO FORM, CITY ENGINEER:

BY THE CITY ENGINEER OF THE CITY OF FORT COLLINS. COLORADO THIS DAY OF A D.

CITY ENGINEER

ATTORNEY'S CERTIFICATE

JR ENGINEERING, LLC ATTN: KEN MERRITT, APA PLA 2900 SOUTH COLLEGE AVE, SUITE 3D FORT COLLINS, CO 80525 P~970.305.6754 KMERRITTØJRENGINEERING.COM





















#### **ZOCALO AT TRILBY ROAD & COLLEGE AVENUE** LOCATED IN THE SOUTHEAST QUARTER OF SECTION 11, TOWNSHIP 6 NORTH, RANGE 69 WEST OF THE 6TH P.M.

CITY OF FORT COLLINS, COUNTY OF LARIMER, STATE OF COLORADO

CURVE TABLE	CURVE TABLE	CURVE TABLE	CURVE TABLE	CURVE TABLE	CURVE TABLE
CURVE DELTA RADIUS LENGTH CHORD	CURVE DELTA RADIUS LENGTH CHORD	CURVE DELTA RADIUS LENGTH CHORD	CURVE DELTA RADIUS LENGTH CHORD	CURVE DELTA RADIUS LENGTH CHORD	CURVE DELTA RADIUS LENGTH CHORD
C1 0'46'56" 640.50' 8.74' S00'13'21"W 8.74'	C21 1'48'03" 559.50' 17.50' \$18'39'24"E 17.50'	C41 150'26" 186.50' 5.90' N75'05'18"W 5.90'	C61 2"25"35" 640.50' 27.12' \$10"53"49"W 27.12'	CR1 9070'11" 26.00' 40.84' N32'12'00"W 36.77'	C101 1515'54" 62.00' 16.52' N05'39'24"E 16.47'
02 222'56" 640.50' 26.63' 501'21'34"E 26.63'	C22 2'40'08" 559.50' 26.06' S20'46'30"E 26.06'	C42 15"27"10" 62.00' 16.72' S06"11"16"W 16.67'	067 22000 040.00 21.12 0100040 W 21.12 062 1148'15" 640.50' 20.17' \$1300'44'W 20.17'	C82 2270'48" 50.00' 19.34' N01'43'12"E 19.22'	C102 8959'58" 3.00' 4.71' S46'58'33"E 4.24'
C3 1'33'46" 640.50' 17.47' S03'19'55"E 17.47'	C23 2'26'03" 494 50' 21.01' S20'53'32"F 21.01'	C43 2"52'30" 62.00' 3.11' S12'28'37"W 3.11'	C63 88'43'30" 10.00' 15.49' N44'05'53"E 13.98'	C83 34%7'55" 50.00' 30.51' N26%0'40"W 30.04'	C103 89'47'23" 3.00' 4.70' \$4255'08"W 4.23'
C4 212'20" 640 50' 24 66' S0512'50"E 24 66'	C24 2'02'16" 494.50' 17.50' S18'39'22"F 17.59'	C44 12'34'40" 62'00' 13 61' S04'45'02''W 13 58'	C64 9176'30" 10.00' 15.93' S45'54'07"F 14.30'	C84 27'01'19" 50.00' 23.58' N57'50'17"W 23.36'	C104 108'25'34" 26 00' 49 20' 556711'20"F 42 18'
C5 8671'23" 10.00' 15.04' N36'46'33"E 13.66'	C25 2'02'16" 494 50' 17 59' S16'37'07"F 17 59'	C45 15'27'10" 38.00' 10.25' S06'11'16''W 10.22'	C65 2'02'17" 559 50' 19 90' 512'53'43"W 19 90'	C85 5%1'09" 50.00' 5.11' N74"16'31"W 5.10'	C105 6359'35" 26.00' 29.04' S37'36'05"W 27.55'
C6 13'49'43" 186 50' 45 01' N86'47'06"E 44 90'	C26 3'06'30" 494 50' 26 83' S14'02'44"F 26 82'	C46 22'33'28" 50.00' 19.69' \$12'49'03"F 19.56'	C66 1'47'23" 559.50' 17.48' \$10'58'53"W 17.48'	C86 0'34'41" 10.00' 0.10' N13'37'31"E 0.10'	C106 7'34'51" 26.00' 3.44' S01'48'52"W 3.44'
C7 5"8'09" 89.50' 8.28' N88'57'07"W 8.28'	C27 1'37'10" 494 50' 13 98' S11'40'54"F 13 98'	C47 6'34'25" 50.00' 5.74' S27'22'59"F 5.73'	C67 2'44'55" 559 50' 26 84' S08'42'44"W 26 84'	C87 87'30'15" 10.00' 15.27' N30'24'58"W 13.83'	C107 71'34'26" 26.00' 32.48' S33'48'40"W 30.41'
C8 55'56'44" 89.50' 87.39' \$60'25'27"W 83.96'	C28 21'41'43" 50.00' 18.83' \$13'20'12'W 18.82'	C48 23'37'40" 50.00' 20.62' \$42'29'01"F 20.47'	C68 2'50'19" 559.50' 27.72' S05'55'06"W 27.72'	C88 88'D4'57" 10.00' 15.37' N30'D7'37"W 13.90'	C108 0'39'44" 559 50' 6.47' N21'46'41"W 6.47'
C9 32'38'42" 89.50' 50.98' S16'07'43"W 50.31'	C29 2118'32" 50.00' 18.60' \$34'50'19"W 18.49'	C49 27'44'02" 50.00' 24.20' S68'09'53'F 23.97'	C69 75'39'36" 26.00' 34.33' N50'37'54"F 31.89'	C89 91'55'03" 10.00' 16.04' 559'52'23"W 14.38'	C109 0'53'22" 640.50' 9.94' N13'28'10TF 9.94'
C10 11'34'16" 89.50' 18.07' S05'58'46"F 18.04'	C30 78'38'50" 26.00' 35.69' S35'00'18''W 32.95'	C50 9'30'25" 50.00' 8.30' S86'47'06"F 8.29'	C70 57'05'34" 26.00' 25.91' N59'54'54"F 24.85'	C90 6"19'04" 306.50' 33.80' S77'19'37"F 33.78'	C110 2'23'46" 640.50' 26.79' N11'49'36"F 26.79'
C11 4'02'23" 89.50' 6.31' S13'47'05"E 6.31'	C31 17'47'27" 26.00' 8.07' S13'12'50"E 8.04'	C51 90'00'00" 26.00' 40.84' S46'32'19"E 36.77'	C71 18'34'01" 26.00' 8.43' N22'05'06"F 8.39'	C91 88'04'57" 10.00' 15.37' S30'07'37"E 13.90'	C111 1'33'45" 640.50' 17.47' N09'50'50'E 17.47'
C12 13'49'44" 186.50' 45.01' N08'53'25"W 44.90'	C32 96'26'17" 26.00' 43.76' S26'06'35"W 38.78'	C52 47'37'38* 26.00' 21.61' S67'43'30"E 21.00'	C72 27'04'39" 50.00' 23.63' N68'46'22"E 23.41'	C92 91'55'03" 10.00' 16.04' N59'52'23"E 14.38'	C112 2'23'47" 640.50' 26.79' N07'52'04"E 26.79'
C13 81'50'48" 18 50' 26 43' S38'56'51'W 24 24'	C33 114'06" 186 50' 4.02' N01'21'31"W 4.02'	C53 42'22'22" 26 00' 19 23' S22'43'30"F 18 79'	C73 6'00' 50.00' 5.37' N85'23'12"E 5.36'	C93 90'00'00" 3.00' 4.71' N31'05'08'W 4.24'	C113 2"1'40" 640 50' 24 53' N05'34'20"F 24 53'
C14 86'29'40" 10.00' 15.10' N56'52'55"W 13.70'	C34 12'35'38" 186 50' 40 99' N05'33'21"F 40 91'	C54 1'39'12" 292.81' 8.45' S77'07'49"W 8.45'	C74 75'39'36" 50.00' 66.03' N50'37'54"E 61.33'	C94 90'00'00" 3.00' 4.71' N58'54'52"E 4.24'	C114 1'33'48" 640.50' 17.47' N03'41'37"E 17.47'
C15 5'35'44" 559 50' 54 84' S02'11'02'E 54 82'	C35 13'49'43" 186 50' 45 01' N04'56'18"E 44 90'	C55 1150'42" 640 50' 20 62' S00'39'29"w 20 62'	C75 37'40'08" 50.00' 32.87' N36'24'00"E 32.28'	C95 7"33'41" 38.00' 5.01' N01'48'17"E 5.01'	C115 2"3"45" 640 50' 26 78' N01"42"52"E 26 78'
C16 2"38'21" 559.50' 25.77' S06"8'05"E 25.77'	C36 0"56'55" 89.50' 1.48' \$11'22'42"W 1.48'	C56 209'10" 640.50' 24.07' 502'39'25"W 24.06'	C76 4'45'51" 50.00' 4.16' N15"11'01"E 4.16'	C96 819'44" 38.00' 5.52' N09'45'00"E 5.52'	C116 0"3'22" 640.50 4.35' N00"9'18"F 4.35'
C17 1'47'20" 559.50' 17.47' S08'30'55"E 17.47'	C37 2708'33" 89.50' 42.40' 502'40'02'F 42.00'	C57 0'45'43" 640.50' 8.52' S04'06'51'W 8.52'	C77 2'28'00" 559 50' 24 09' S03'15'57"W 24 08'	C97 15'53'25" 38.00' 10.54' N05'58'09"F 10.51'	C117 89'12'10" 6.50' 10.12' \$44'43'42"W 9.13'
C18 3'40'59" 559 50' 35 97' S11'5'04"E 35 98'	C38 13'49'43" 186 50' 45 01' N81'04'57"W 44 90'	C58 2'53'28" 640.50' 32.32' \$05'56'27'W 32.32'	C78 217'49" 559 50' 22 43' 500'53'03"W 22 43'	C98 7211'32" 18 50' 23 31' S38'04'19"F 21 80'	C118 174'26" 705 50' 15 28' N00709'12"E 15 28'
C19 2'44'45" 559.50' 26.81' S14'27'56"F 26.81'	C39 4'35'43" 186 50' 14 96' N85'41'57'W 14 95'	C59 1'50'55" 640.50' 20.67' S08'8'39"W 20.67'	C79 23'28'13" 26.00' 10.65' N01'D3'59"F 10.58'	C99 15'53'25" 62.00' 17.19' N05'58'09"F 17.14'	C119 2"10'30" 705 50' 26 78' N01"51'39"F 26 78'
C20 1'48'03" 559 50' 17 59' S16'44'21"F 17 59'	C40 7'23'35" 186 50' 24 06' N79'42'19"W 24 05'	C60 0'26'55" 640.50' 5.02' S09'27'34"W 5.02'	C80 66'31'58" 26 00' 30 19' N43'56'06"W 28 52'	C100 0'37'30" 62.00' 0.68' N13'36'06"E 0.68'	C120 1'25'07" 705 50' 17 47' N03'39'28"F 17 47'
	CURVE TABLE	CURVE TABLE		a E	
			LINE TABLE LINE TAB	BLE	
CURVE TABLE	CURVE         TABLE           CURVE         DELTA         RADIUS         LENGTH           C141         273/117         640 501         26 751         M00/13/20*W, 26 741	CURVE TABLE	LINE TABLE LINE TAB	BLE DISTANCE	
CURVE         TABLE           CURVE         DELTA         RADIUS         LENGTH           C121         273612         705.50'         32.06'         N054006FE         32.06'           C122         273612'         705.50'         32.06'         N054006FE         32.06'	CURVE         TABLE           CURVE         DELTA         RADIUS         LENGTH         CHORD           C141         223'33"         640.50"         26.75"         N09'35'26"W 26.74"           C142         2'23'33"         640.50"         128.75"         N07'35'26"W 26.74"	CURVE         TABLE           CURVE         DELTA         RADIUS         LENGTH           C161         21'4'352'         28.00'         8.86'         S10'11'44'W         9.80'           C169         20'10'0'         50'0'1'44'W         9.80'         MASSM01'ATW         70'1'	LINE TABLE LINE TAB LINE BEARING DISTANCE L1 N00'36'49'E 11.42' L2 S76'05'06'E L2 S76'05'06'E	SLE DISTANCE 15.00'	
CURVE TABLE           CURVE         DELTA         RADIUS         LENGTH         CHORD           C121         2'36'12"         705.50'         32.06'         N0540'08'E         32.05'           C122         2'10'31"         705.50'         32.06'         N0653'30'E         28.76'           C123         2'10'31"         705.50'         24.74'         N0653'50'E         28.76'	CURVE TABLE           CURVE         DELTA         RADIUS         LENGTH         CHORD           C141         2'23'33"         640.50'         26.75'         N09'35'28'W         26.74'           C142         1'34'36"         640.50'         17.63'         N07'36'22'W'         7.62'           C142         1'34'36"         640.50'         17.63'         N07'36'22'W'         7.62'	CURVE CABLE           CURVE         DELTA         RADIUS         LENGTH         CHORD           C161         2143'52'         26.00'         9.80'         S1011'44'W         9.00'           C162         9000'00         50.00'         76.54'         Net540'13'W         70.7'           C163         2143'92'25         50.00'         76.54'         Net540'13'W         70.7'	LINE TABLE LINE TAB LINE BEARING DISTANCE LINE BEARING L1 N00736'49"E 11.42' L21 S76/05/08"E L2 S00756'49"W 11.44' L22 N76/05/08"E L3 N00736'49"E 11.44' L22 N76/05/08"E	SLE DISTANCE 15.00' 15.00'	
CURVE TABLE           CURVE         DELTA         RADIUS         LENGTH         CHORD           C121         2'36'12         705.50'         32.06'         10.06'40'6'E         32.05'           C122         2'10'31'         705.50'         28.79'         N0650'30'E         28.78'           C133         12'20'17'         705.50'         17.47'         N06951'9'E         17.47''           C134         2'10'17''         705.60''         7.97''         79'''         17.47'''         N0951'9'E         17.47''''	CURVE TABLE           CURVE         DELTA         RADUS         LENGTH         CHORD           C141         223/33         640,50'         26,75'         N09735/26'W         28,74'           C142         174/36'         640,50'         17,68'         N0735/32'W         17,62'           C143         21950'         640,50'         25,87'         N0539'32'W         17,62'           C143         21950'         2410         N0739'1W'         36,10'	CURVE TABLE           CURVE         DELTA         RADUIS         LENGTH         CHORD           C161         21'4352"         26.00"         9.86"         S10'1'44"W         9.80"           C162         90'000"         50.00"         78.54"         N45'40'13"W         70.71"           C163         83'05'29"         50.00"         78.54"         N45'40'13"W         70.71"           C164         84'94'14"         50.00"         76.54"         N490'728"W         60.2"	LINE TABLE         LINE TABLE           LINE         BEARING         LINE         BEARING           LI         N0036'49F         11.42'         L21         S76050'8F           L2         S076'49F         11.42'         L23         N7952'14F         L23         N1954'2050'8F           L3         N7952'14F         7.92'         L23         N1954'2050'8F         L24         L24         L254'2050'8F	BLE DISTANCE 15.007 15.007 23.777 9.321	
CURVE TABLE           CURVE         DELTA         RADIUS         LENGTH         CHORD           C12         23'61'27         705.50'         32.06'         N0540'06'E         32.06'           C122         23'01'37         705.50'         36.79'         N0950'10'E         28.78'           C123         12'5'07'         705.50'         17.47'         N0951'19'E         17.47'           C124         21'03'T         705.50'         26.78'         N11'19'06'E         28.78'           C125         11'07'27'         705.44''         11'03'7'         14.44''         11'03'7'         14.44''	CURVE         TABLE           CURVE         DELTA         RADUS         LENGTH         CHORD           C141         27333"         640.50'         26.75'         N09352'20''         26.74'           C142         17434"         640.50'         25.87'         N09352'20''         7.62''           C143         218'50''         640.50'         25.87''         N0539'38''W         25.87''           C144         220'05''         640.50'         25.10''         N0539'38'W         25.87''           C144         220'05''         640.50'         25.10''         N0530'138''W         25.87''           C144         230'05''         640.50'         15.7''         N0530'10''W         26.10''	CURVE TABLE           CURVE         DELTA         RADIUS         LENGTH         CHORD           C161         2143522         28.000         9.861         N51911/41*W         9.80'           C162         209000         5.000         7.8.51         N459173W         7.0.71           C163         8305/29         50.00'         7.2.51         N490728*W         66.32'           C164         654'31         50.00'         6.00'         N0490728*W         6.03'           C165         2501242         26.01'         13.24'         N1547W         13.24'	LINE         TABLE         LINE         TABLE           LINE         BEARING         DISTANCE         LINE         BEARING           LI         N0036497E         11.42         L21         57005087E           L3         N07952497E         11.44         L22         N7005087E           L4         N5732557E         L33         N1554527E         L24         S13754527E           L4         N5732757E         14.48         L24         S13754527E         L24         S13754527E	SLE DISTANCE 15.007 28.777 9.744 9.200	
CURVE TABLE           CURVE         DELTA         RADIUS         LENGTH         CHORD           C121         2730*12         705.00*         20.00*         0054005E         32.00*           C122         210*31*         705.00*         26.79*         N080*03*07E         26.78*           C132         270*7         705.50*         26.79*         N080*03*07E         26.78*           C134         120*07         705.60*         2.67*         N199*07E         26.78*           C134         120*07         705.60*         2.67*         N199*07E         26.78*           C134         210*07         705.60*         2.67*         N199*07E         26.78*           C134         210*07         705.60*         2.67*         N199*07E         26.78*           C134         210*07         705.60*         2.67*         N199*07E         26.78*           C139         700*070**         2.60*4         2.64*4         26.78*         56.77*	CURVE TABLE           CURVE         DELTA         RADUS         LENGTH         CHORD           C141         22337         46.05         28.77         N097367287*         86.74           C142         134'387         640.50         17.637         N07367287*         76.76           C143         218'507         640.507         28.78         N095393**         28.67           C144         22005         640.50         28.67         N095393**         28.67           C144         22005         640.50         16.75         N0725107*         8.76'           C146         129195*         69.05.01         16.75         N072510*         8.75'           C146         129195*         16.79         N072510*         16.75'	CURVE TABLE           CURVE         DELTA         RADIUS         LENOTH         CHORD           C161         21'45'25         26.00         9.86'         S10'1'47'W         9.80'           C162         80'00'00         50.00'         78.54'         N45'40'13'W         70.71'           C163         85'05'29'         50.00'         72.51'         N49'07'28'W         6.32'           C164         65'31'         50.00'         13.24'         N15'15'3'W         6.32'           C165         23'10'44'         28.00'         13.24'         N15'15'3'W         5.30'           C166         970'070'         28.00'         13.24'         N15'15'3'W         5.30'	LINE TABLE         LINE TABLE           LIN BEARING         DISTANCE         LINE         BEARING           L1         N0036497E         11.42'         L21         57605087E           L3         S0036497W         11.44'         L21         N760508'W           L4         N5732'55'W         11.44'         L24         N154562'E           L6         N5732'55'W         14.45'         L24         S1354'52'F           L6         N5973'4'E         2.500'         126         S6897'25'W	BLE DISTANCE 15.00' 23.77' 9.74' 0.70' 15.00'	
CURVE TABLE           CURVE         DELTA         RADIUS         LENGTH         CHORD           C121         2'36'12         705.50'         32.06'         32.06'           C122         2'10'31'         705.50'         28.09'         N064'05'E         32.05'           C122         2'10'31'         705.50'         17.47'         N065'13'E         17.47'           C124         2'10'31'         705.50'         17.47'         N065'13'E         12.67'           C125         1'10'28'         705.50'         14.46'         N13'9'3'F         14.46'           C126         90'00'00'         26.00'         16.46'         N13'9'3'F         14.46'	CURVE TABLE           CURVE         DELTA         RADUS         LENGTH         CHORD           C141         223/33         640.50'         26.75'         N09735/26'W         26.74'           C142         1744/36'         640.50'         26.75'         N09735/26'W         26.74'           C143         21950''         640.50'         25.87'         N09739/26'W         25.87'           C144         22050''         640.50'         26.10'         N037201'W         26.10'           C144         12935''         640.50'         16.75'         N012201'W         16.75'           C144         1213'8''         705.50'         16.75'         N0122102'W         16.75'           C144         1213'8'''         705.50'         16.75'         N0122102'W         16.75'	CURVE TABLE           CURVE         DELTA         RADUIS         LENGTH         CHORD           C161         214,3527         26.007         9.867         S1011/447W         9.807           C162         2007000         50.007         76.541         N45Y413W         9.807           C163         8376526         50.007         76.541         N45Y413W         6.037           C164         294731*         50.007         6.037         N040728W         6.037           C165         2970244         28.007         16.247         N157547W         15.107           C165         29702402         28.007         16.247         N457417W         15.107           C166         9070207         28.007         16.247         N457417W         9.877	LINE TABLE         LINE TABLE           LINE         BEARING         DISTANCE         LINE         BEARING           LI         N0036'49'E         11.42'         L21         S760506'E           L3         N7952'14'E         7.92'         L23         N15470506'E           L4         N57725'5'E         7.92'         L24         S1354'52'E           L5         S8620'46'E         14.45'         L24         S1354'52'E           L6         N220'5'5'E         5.00'         L26         S860'16'E'           L6         N220'0'5'E'         5.00'         L26         S880'12'E'	BLE DISTANCE 15.007 15.007 2.3.777 9.7.41 0.707 15.017 15.017	
CURVE TABLE           CURVE         DELTA         RADIUS         LENGTH         CHORD           C121         236'12         705.50'         32.06'         N0540'06'E         32.05'           C122         210'13         705.50'         32.06'         N0540'06'E         32.05'           C123         1725'07''         705.50'         74.7''         N0951'19'E         17.47''           C124         21'03''         705.50'         26.78''         N11'39'06'E         26.78''           C125         11'02''         705.50''         26.78''         N11'39'07E''         16.46''           C125         90'00'00''         26.00''         40.84''         S45'40'13'E''         16.77''           C128         90'00'00''         26.10''         786''         S45'40'13'E''         16.77''           C128         264''00''         550''         27.81''         17.86''''         15.87''''	CURVE         TABLE           CURVE         DELTA         RADUS         LENGTH         CHORD           C141         273373         640.507         86.75         N09353/26*W         86.76           C142         174348         640.507         86.75         N09353/26*W         7.86.7           C143         218'50*         640.507         25.87*         N0539'38*W         25.87*           C144         220'05*         640.507         25.87*         N0539'38*W         25.87*           C144         229'05*         640.50         25.87*         N0539'38*W         26.87*           C144         129'05*         640.50         16.75*         N012'102*W         16.75*           C146         121'38*         705.60         16.75*         N012'102*W         16.75*           C147         278'22*         705.50         30.48*         N03'16*02*W         30.45*           C148         229'44*         705.50         20.40*         N03'16*02*W         30.45*	CURVE TABLE           CURVE         DELTA         RADIUS         LENGTH         CHORD           C161         2143527         28.000         9.860         5101144 <sup>1</sup> W         9.80'           C162         200000         50.00         72.51'         14490728 <sup>1</sup> W         68.02'           C164         654315         50.00'         72.51'         14490728 <sup>1</sup> W         68.32'           C165         201744         28.00'         13.24'         151374'W         13.01'           C166         6000'00C         28.00'         40.84'         1443*40'13 <sup>1</sup> W         36.77'           C167         607416'         28.00'         27.60'         M60173 <sup>1</sup> 3'W'         75.4''''           C168         2711275         50.00'         63.00''         50.00'''         50.00''''''''''''''''''''''''''''''''''	LINE TABLE         LINE TABLE           LINE         BEARING         DISTANCE           LI         N0036'497"         11.42"           L3         S0036'497"         11.44"           L3         N17952'14"E         7.82"           L4         N5732'55"         14.44"           L5         S645'049"         14.44"           L5         S645'049"         14.44"           L5         S645'049"         23.33"           L5         S645'049"         23.33"           L6         N22'06'49"         8.00"           L7         S770'242"N         8.00"           L7         S770'242"N         8.20"	SLE DISTANCE 15.007 15.007 9.74* 0.707 15.01* 15.00* 23.47*	
CURVE TABLE           CURVE         DELTA         RADIUS         LENOTH         CHORD           C121         2720'1         705.60'         2.80'N         N06400%E         32.00'           C122         270'31'         705.60'         2.8.78'         N069'15''         32.05''           C123         122'07'         705.60'         2.8.78'         N069'51'9E'         2.6.78'           C124         270'31''         705.60'         2.8.78''         N095'1'9E'         2.6.77''           C124         270'31''         705.60''         4.4.6''         N13''93'7E''         4.4.6''           C125         110'228'''         705.60''         4.4.6''         N13''93'7E''         14.4.6''           C126         690'00'0''         28.00''         48.60''         36.71''         5.78''         543''05''E''         15.78'''           C128         244'5'0'''         3.6.50''         15.78'''         543''05'''''''''''''''''''''''''''''''''	CURVE TABLE           CURVE         DELTA         RADIUS         LENGTH         CHORD           C141         2/3/31         640.50'         2.6.75'         N0379/26''H         26.74'           C142         1/3/33'         640.50'         2.6.75'         N0379/26''H         26.74'           C142         1/3/33'         640.50'         2.6.75'         N0379/26''H         26.74'           C143         218'00'         640.50'         2.6.75'         N0379'26''H         26.74'           C144         219'05'         640.50'         16.75'         N0125'10''H         6.75'           C144         121'28''         765.50'         36.45'         N012'10''H         6.75'           C145         123'95''         655.05'         36.45'         N012'10''H         76.75'           C146         121'38'''         765.50''         28.40''         N04'H'50''H         36.45'''           C146         223'14'''         765.50'''         28.40'''         N054'H'50''H'''''''''''''''''''''''''''''	CURVE TABLE           CURVE DELTA RADIUS LENGTH CHORD           C161         2143752         26.00'         9.86'         S101144'W         9.86'           C162         900000         50.00'         78.54'         N454013'W         9.87'           C163         8300228'         50.00'         72.51'         N490728'W         6.32'           C164         645431'         50.00'         13.24'         N1515'34'W         13.10'           C165         297044'         28.00'         13.24'         N1515'34'W         13.10'           C166         600000'         28.00'         13.24'         N1515'34'W         18.30'           C167         6349'H2         28.00'         13.24'         N1515'34'W         8.32'           C168         721'13'Z         50.00'         63.00'         33804'19'E         58.01'           C168         721'13'Z         50.00'         63.00'         33804'19'E         58.01'	LINE TABLE         LINE TABLE           UNE         BEARING         USTANCE           L1         N0736*1497         11.42'           L3         S76°05/087E         L21           L3         N7952*147         11.42'           L3         N7952*147         7.62'           L4         S66*30*46         2.3.3'           L5         S66*30*46*         2.3.3'           L6         N2270*55*         14.4'           L7         S7772*42*         8.60'           L8         S770*24*7*         12.7'           L8         S770*24*7*         12.7'           L9         S770*24*7*         12.7'           L9         S770*24*7*         12.7'	BLE DISTANCE 15.001 15.007 23.777 9.74 0.707 15.017 15.017 15.007 27.477 3.32	
CURVE TABLE           CURVE         DELTA         RADIUS         LENGTH         CHORD           C121         2'36'12         '06.50'         32.06'         32.06'           C122         2'10'31         '05.50'         32.06'         N0695'19'E         12.07'           C123         '210'37         '05.50'         17.47'         N095'19'E         17.47'           C124         '210'37'         '05.50'         14.46'         N13'9'0'E'         26.78'           C125         '110'28'         '705.50'         14.46'         N13'9'3'E'         14.46'           C128         90'00'00'         26.00'         40.44'         \$454'0'3'E'         27.43''           C128         244'50'0         36.50'         15.78''         S43'0'06'E'         15.65''           C128         655'36''         36.50''         15.78''         S43'0'06'E'         15.65''           C128         655'36''         36.50''         15.78''         S43'0'06'E'         15.65''           C130         670'00''         5.50''         10.21''         566''17''' '9''''''''''''''''''''''''''''''	CURVE TABLE           CRWE         DELTA         RADUS         LENGTH         CHORD           C141         22333         640.50'         26.75'         N0793528''         26.74'           C142         1744'26'         640.50'         26.75'         N0793528''         26.75'           C143         218'20'         640.50'         26.75'         N0593'28'''         25.87'           C144         220'05'         640.50'         26.10'         N032'01'''         26.10'           C144         128'95'         640.50'         56.10'         N032'01'''         16.75'           C144         128'95'         640.50'         56.75'         N012'102'''         16.75'           C144         128'95'         605.50'         16.75'         N012'102'''         16.75'           C147         228'22''         705.50'         20.45''         N0.45'''         20.34'''''           C148         123'53''         705.50''         20.45''         N0.78''24''''''''''''''''''''''''''''''''''	CURVE TABLE           CURVE         DELTA         RADUIS         LENGTH         CHORD           C161         2143527         26.007         9.867         SIO11'44'%         9.807           C162         2007000         50.007         7.8.51         M490728'%         6.927           C164         67431*         50.007         6.037         M400728'%         6.927           C164         67431*         50.007         6.037         M400728'%         6.927           C165         2970542         26.007         13.247         M157534'%         13.107           C166         9000500         26.007         27.607         M6051'3'%         26.37           C166         9000500         26.007         27.607         M6051'3'%         26.37           C166         7211'32         50.00         6.005         S804'9'30'%         86.31           C169         1470'44*         60.007         148.487         3504'9'9'%         86.37           C168         7271'32         50.00         5354'9'9'%         86.37         7007'9'4'         7107'7'7'7'7'7'7'7'7'7'7'7'7'7'7'7'7'7'7	LINE         TABLE         LINE         TABLE           LINE         BEARING         DISTANCE         LINE         BEARING           LI         N0056'497E         11.42'         L21         S7605067E           L3         N7952'147E         7.92'         L23         M154'705067E           L4         N5732'55'W         14.45'         L24         S1354'52'E           L5         N520'64'E*         5.00'         L26         S860'128'E           L6         N220'6'44'E*         5.00'         L26         S860'128'E           L6         N220'6'44'E*         5.00'         L26         S860'128'E           L9         S7702'42'W         8.80'         L27         N56'533'E           L9         S7702'42'W         12.71'         L28         S05'65'33'E           L9         S7702'42'W         12.9'         L29         S05'65'35'E           L9         S7702'42'W         2.15'         L28         S05'65'35'E           L9         S7702'42'W         2.5'         L29         S05'65'35'E	BLE DISTANCE 15.007 15.007 9.747 9.747 15.001 15.001 15.001 15.001 15.001	
CURVE TABLE           CURVE         DELTA         RADIUS         LENGTH         CHORD           0121         273/47         705.60'         2.00'         MORVORE         32.00'           0122         270/31'         705.60'         2.67.97'         MORSTJ37C         26.78'           0122         270/31'         705.60'         2.67.9'         MORSTJ37C         26.78'           0124         270/31'         705.60'         2.67.8''         MORSTJ37C         26.78''           0124         270/31'         705.60''         2.67.8''         MORSTJ37C         26.78''           0128         970/00''         2.60'''         0.40'''         54.01''''''''''''''''''''''''''''''''''''	CURVE         TABLE           CURVE         DELTA         RADUS         LENGTH         CHORD           C141         22337         46.05.0         28.75         N09736727"         88.74           C142         1341.96"         640.50"         28.75         N09736727"         88.74           C143         21850"         640.50"         28.67         N09736727"         87.76           C144         22050"         640.50"         28.67         N09736727"         87.87           C144         12950"         640.50"         16.78         N072510"         16.75           C144         12952"         705.50"         30.45"         N0731672"         16.75           C147         22822"         705.50"         28.40"         N054150"         30.45"           C148         22314"         705.50"         28.40"         N054150"         30.45"           C148         22314"         705.50"         28.40"         N054150"         28.40"         17.62"           C149         2253"         705.50"         17.64"         17.64"         17.64"         17.64"         17.64"         17.64"         17.64"         17.64"         17.64"         17.64"         17.64"	CURVE TABLE           CURVE         DELTA         RADIUS         LENOTH         CHORD           C161         21'45'25         28.00         9.86'         S10'1'44'W         9.80'           C162         20'00'00         50.00'         78.54'         H45'40'13'W         70.71'           C163         85'05'24'         50.00'         78.54'         H45'40'13'W         70.71'           C164         65'43'15         50.00'         78.54'         H45'40'13'W         70.71'           C165         271'04'E         8.00'         13.24'         H51'3' W         50.02'           C166         60'49'16'         28.00'         27.60'         H60'15' W         58.32'           C166         60'49'16'         50.00'         28.00'         28.00'         14.84''         96.32''           C167         60'49'16'         28.00'         27.60'         H80'15''4'''         8.32''           C168         72'1'32''         50.00''         63.00'''         53.35''4''''''''''''''''''''''''''''''''	LINE         TABLE         LINE         TABLE           LINE         BEARING         DISTANCE         LINE         BEARING           LI         N0036497k         11.42'         L21         S7605067k           L3         N7952147E         7.92'         L23         N1354752'E           L4         N5732550'K         14.42'         L24         S135452'E           L6         N2206'34'K         5.00'         L26         S86128'A''           L7         S7702'42''K         8.80'         L21         R59533'E           L9         S7702'42''K         8.80'         L24         R59533'E           L9         S7702'42''K         8.20'         L28         S820'583'F           L9         S7702'42''K         22.51'         L29         S2056'35''K           L10         N4732'21'E         29.27'         L30         S0059'49''K''	SLE DISTANCE 15.007 23.777 9.74* 9.7	
CURVE TABLE           CURVE         DELTA         RADIUS         LENGTH         CHORD           C121         2791'12         705.60'         28.79'         N0690'5E'         32.09'           C122         270'31'         705.50'         28.79'         N0691'35'T         24.78'           C132         122'07'         705.50'         28.79'         N0691'35'T         24.78'           C132         12'07'         705.50'         3.67'         N0991'9'E'         14.47'           C134         270'31'         705.50'         3.67'         13.99'37'E'         14.46'           C135         10'028''         705.50'         14.46''         N13'19'37'E'         14.46''           C136         90'0000'         28.00'         46.84''         \$454'013'E''         27.43''           C128         244'550''         36.50''         15.78''         340'90'S'E''         15.80'''           C130         90'000'0'         8.50''         15.78''         540'03'TS'''''''''''''''''''''''''''''''''	CURVE         TABLE           CHWE         DELTA         RADUIS         LENGTH         CHORD           C141         22333         640.50'         26.75'         N09736*26"N         26.74'           C142         1744'36'         640.50'         26.75'         N09736*26"N         26.74'           C143         218'00'         640.50'         26.75'         N09736*26"N         26.74'           C143         218'00'         640.50'         26.75'         N09736*26"N'         26.74'           C144         229'00'         640.50'         16.75'         N012'10'N'         26.10'           C145         129'30'         640.50'         16.75'         N012'10'N'         16.75'           C146         121'36'         705.50'         16.75'         N012'10'N'         16.75'           C146         231'44'         705.50'         26.40'         N05'4'50'N'         30.45'           C148         231'4'         705.50'         26.74'         N05'4'50'N'         30.45'           C148         231'4'         705.50'         76.50'         17.63'N         N073'4'2'A''         30.45'           C149         125'53'         705.50'         17.63'N         N05'4'50'N''	UURVE TABLE           CURVE         DELTA         RADUIS         LENGTH         CHORD           C161         214352         26.00'         9.86'         S107144'W         9.80'           C162         9000'00         50.00'         78.54'         N45401'3'W         70.71'           C163         8370'22'         50.00'         72.51'         N4907'28'W         6.32'           C1645         29'10'44'         26.00'         13.24'         N1519'34'W         13.0'           C165         29'10'44'         26.00'         13.24'         N1519'34'W         13.0'           C166         90'00'00'         26.00'         6.00'         N4540'13'W         6.02'           C166         90'00'00'         26.00'         13.24'         N1519'34'W         13.0'           C167         271'32'         50.00'         6.30'         S3874'19'E         8.01'           C168         271'32'         50.00'         6.30'         S3874'19'E         8.30'           C168         271'32'         50.00'         6.30'         S3874'19'E         8.30'           C171         392'24'4'         50.00'         3.44'         N2714'4'W         3.37'           C172 <td>LINE TABLE         LINE TABLE           LINE         BEARING         DISTANCE           LI         N0354 497         11.42           L3         N7952147         7.02           L3         N7952147         7.02           L4         N0352557         11.42           L5         S6630447E         2.23           L6         N2705257W         12.45           L5         S6630447E         2.23           L6         N220637W         5.00*           L6         N2207637W         12.05           L9         S7072427W         8.09*           L9         S7702427W         12.97*           L9         S7702427W         2.597*           L10         N3734527E         2.597*           L11         N1334527E         2.507*           L11         N1334527E         12.77*           L10         N1334527E         12.77*           L11         N1334527E         12.77*           L11         N1334527E         12.77*           L11         N1345452*         12.75*           L11         N1345452*         12.75*</td> <td>BLE DISTANCE 15:00 15:00 22:77 9:74 9:74 15:01 15:00 27:47 3.23 11:49 11:49</td> <td></td>	LINE TABLE         LINE TABLE           LINE         BEARING         DISTANCE           LI         N0354 497         11.42           L3         N7952147         7.02           L3         N7952147         7.02           L4         N0352557         11.42           L5         S6630447E         2.23           L6         N2705257W         12.45           L5         S6630447E         2.23           L6         N220637W         5.00*           L6         N2207637W         12.05           L9         S7072427W         8.09*           L9         S7702427W         12.97*           L9         S7702427W         2.597*           L10         N3734527E         2.597*           L11         N1334527E         2.507*           L11         N1334527E         12.77*           L10         N1334527E         12.77*           L11         N1334527E         12.77*           L11         N1334527E         12.77*           L11         N1345452*         12.75*           L11         N1345452*         12.75*	BLE DISTANCE 15:00 15:00 22:77 9:74 9:74 15:01 15:00 27:47 3.23 11:49 11:49	
CURVE TABLE           CURVE         DELTA         RADIUS         LENGTH         OHORD           C121         2'36'12         '206.50'         32.06'         N054'0'06'E         32.05'           C122         2'10'31'         '706.50'         32.06'         N054'0'06'E         32.05'           C123         '210'31'         '706.50'         26.79'         N055'1'0'E         17.47'           C124         '210'31'         '706.50'         26.78'         N113'0'6'E         26.78'           C125         '10'228'         706.50'         26.78'         N113'0'6'E         26.78'           C125         '10'228'         706.50'         26.78'         N113'0'6'E         26.78'           C126         90'0'00'E         26.00'         0.64'         \$454'0'13'E         27.7'           C128         244'550'         36.50'         12.81'         568'3'13'E         41.30'           C138         655'56'         36.50'         63.69'         585'3'13'E         41.30'           C131         194'500'         26.00'         6.50'         12.1'         \$454'45'18''         8.46'           C132         725'91'7'         26.00'         3.31''         133''''''''''''''''''''''''	CURVE         TABLE           CRWE         DELTA         RADUS         LENGTH         CH0935/26*W         28.75*           C141         223336         640.50         28.75*         N07935/26*W         28.75*           C142         1744/36*         640.50*         28.75*         N05935/26*W         28.75*           C143         21950*         640.50*         28.75*         N05935/26*W         28.75*           C144         223056*         640.50*         28.10*         N053201*W         28.10*           C144         21950*         640.50*         28.10*         N053201*W         28.10*           C144         21950*         640.50*         28.10*         N053201*W         28.10*           C144         12139*         705.50*         16.75*         N072102*W         16.75*           C147         22827*         705.50*         28.40*         N054*05*W         30.45*           C148         12353*         705.50*         28.44*         N0736*24*W         70.42*           C149         12553*         705.50*         17.83*         N11707*W         17.82*           C150         21070*V         705.50*         17.83*         N11707*W         17.83*	CURVE TABLE           CURVE         DELTA         RADUIS         LENGTH         CHORD           C161         214352         26.00         9.86'         S1011'44'W         9.80'           C162         200000         50.00'         7.63'         N4907'28'W         6.03'           C163         8305'28'         50.00'         7.25'         N4907'28'W         6.03'           C164         654'31'         50.00'         6.03'         N4007'28'W         6.03'           C165         200704'2         26.00'         13.24'         N157'34'W         15.10'           C166         9000'00'         26.00'         14.84'         N50'3'4'''         86.31'           C166         7211'32'         50.00'         6.00'         S829'1'16''''         86.30''           C168         721'132'         50.00''         6.00'''         S829'1'16''''''''         83.00'''''''''''''''''''''''''''''''''''	LINE TABLE         LINE TABLE           LINE         BEARING         DISTANCE           LI         N0736'467"         11.42"           L3         N7952'147"         7.92"           L4         N5732'55"         14.42"           L5         S690'467"         11.42"           L5         S690'467"         12.3"           L6         N5720'55"         14.45"           L7         S7050'427"         12.3"           L6         N220'5'47"         5.00"           L7         S7702'427"         8.80"           L9         S7702'427"         12.21"           L9         S7702'427"         12.3"           L10         N4732'51"         12.95 5035"           L10         N4732'51"         12.35 5036'47"           L11         N0732'10"         34.09"         133	BLE DISTANCE 15.007 15.007 0.747 0.747 15.017 15.017 15.017 15.017 15.017 15.017 15.017 15.017 15.017 15.017 15.017 15.007	
CURVE TABLE           CURVE         DELTA         RADIUS         LENGTH         CHORD           C121         2730'1"         705.40'         20.40'         70640'9E'         32.00'           C122         210'31"         705.50'         26.79'         N68'03'30'E         26.78'           C132         270'7         705.50'         26.79'         N69'51'9E'         17.47'           C142         210'31"         705.50'         26.78'         N199'05'E'         26.78'           C132         170'28'         705.50'         14.44''         N19'93'FE         14.46''           C136         90'00'00'         26.00'         40.44''         454'40'13'E         16.77''           C132         244'50''         36.50''         15.78''         544'90'13'E         16.39''           C130         955'39''         5.60''         43.49''         543''31'S         4.39''           C131         144'30'0'         2.00''         6.50''         10.21''         545'40'13'E         3.99''           C131         184'30''         2.00''         6.50''         10.21''         545'40'13'E         3.99'''           C132         725'17''         2.00'''         3.12'''''''''''''''''''	CURVE TABLE           CURVE         DELTA         RADUS         LENGTH         CHORD           C141         22337         640.507         26.77         N09736*23**         86.74           C142         124326*         640.507         27.78         N09736*22**         17.62           C143         21850*         640.507         28.67         N09736*22**         17.62           C143         21850*         640.507         28.67         N09736*22**         17.62           C144         22050*         640.507         28.10         N09730*0**         67.57           C146         122134*         705.507         16.75         N01210***         16.75           C144         22872*         705.507         28.40*         N054*50***         28.47*           C147         22872*         705.507         28.40*         N054*50***         28.42*           C148         2231*4*         705.507         28.40*         N054*50***         28.42*           C148         2231*4*         705.507         28.47*         N052*50***         28.47*           C150         21019**         705.507         28.47*         N054**50****         78.47*           C151<	CURVE TABLE           CURVE         DELTA.         RADIUS         LENGTH         CHORD           CHI         214392         26.00         9.86         S1011447W         9.80'           CHI         214392         26.00         78.54         N4540137W         70.71'           CHI         254392         26.00'         72.51         N4997/28'W         6.02'           CHI         654315         50.00'         72.51         N4997/28'W         6.02'           CHI         654315         50.00'         13.24'         N1515/34'W         36.77'           CHI         654315         50.00'         13.24'         N1515/34'W         36.37'           CHI         654716         28.00'         13.24'         N1515/34'W         36.37'           CHI         654916         28.00'         13.24'         N1515/34'W         36.37'           CHI         674916'         28.00'         13.64''         N367''         36.37''           CHI         674916'         28.00''         13.63'''         86.37''         36.37''           CHI         71732''''         50.00'''         63.37''         58291'12'''''''''''''''''''''''''''''''''	LINE TABLE         LINE TABLE           UNE         BEARING         USTANCE           L1         N0736'497E         11.42'           L2         S50756'497E         11.42'           L3         N7952'147E         7.02'           L4         S50756'497E         11.42'           L5         S66730'487E         7.02'           L6         N577355'M         14.44'           L2         S15755'M         14.44'           L5         S66730'487E         2.3.3'           L6         N2270'55'M         14.44'           L4         S15755'M         14.44'           L5         S66730'487E         2.3.3'           L6         N2270'447W         5.00'           L6         S7072'427W         12.0'           L8         S7072'427W         12.0'           L9         S7072'427W         12.0'           L9         S90736'15''         L28           L10         N4732'21'E         25.97'           L10         N4732'21'E         2.5.97'           L10         N4732'21'E         2.4.06'           L11         N135'452'E         3.6.06'           L3         S90734'TW	BLE DISTANCE 15.001 15.007 23.777 9.74 0.701 15.017 15.017 15.017 15.007 27.477 3.227 11.457 11.457 11.457 10.007	
CURVE TABLE           CURVE         DELTA         RADIUS         LENGTH         OHORD           C121         2736'12         705.50'         32.06'         MO640'6'E         32.06'           C122         270'31         705.50'         27.0'         N0553'37'E         26.76'           C132         270'37         705.50'         17.4''         N0951'9'E         17.4''           C134         1270'7         705.50'         17.4''         N0951'9'E         26.76'           C132         170'28'         705.50'         16.46'         N13'9'37'E         14.46'           C126         90'00'00'         26.00'         6.84''         454'01'3F'E         567''E           C127         440'50'         36.50'         15.76''         354''9''E         2.4''           C128         244'5'0'         36.50''         15.76''         354''9''E         1.9''           C130         90'00'00'         6.50''         1.21''         549''9''E         1.9'''           C131         194'30''         2.600''         6.49'''         102'''A'''''''''''''''''''''''''''''''''	CURVE         TABLE           CHWE         DELTA         RADUS         LENGTH         CHORD           C141         22333         640.501         26.751         N0735/28"N         26.747           C142         1744'36         640.501         26.751         N0735/28"N         26.77           C143         218'307         640.501         26.751         N0735/28"N         26.747           C144         221'3050         640.501         26.751         N0735/28"N         26.751           C144         128'950         640.501         16.751         N07125'10"N         16.751           C145         128'952         640.501         16.751         N07125'10"N         16.751           C146         128'952         650.50         16.751         N07125'10"N         16.751           C148         223'14"         705.501         17.63         N0736'24"N         70.452           C148         223'14"         705.501         17.63         N0736'24"N         70.452           C149         128'54"         705.501         7.652         26.740         N0736'24"N         76.742           C151         128'54"         705.501         7.6551         17.585         N11130'0'4"N<	CURVE TABLE           CURVE         DELTA         RADUIS         LENGTH         CHORD           C161         214352         26.00         9.86'         S101144*W         9.80'           C162         900200         50.00         76.54'         N454013*W         70.71'           C163         8302525         50.00'         72.51'         N490728*W         6.32'           C164         65431'         50.00'         13.24'         N1515'34*W         13.10'           C165         2910'44         26.00'         13.24'         N1515'34*W         13.10'           C166         9000'00         63.00'         63.00'         S3804'19'W         66.32'           C166         7211'32         50.00'         63.00'         S3804'19'E'         63.01'           C168         721'132''         50.00'         63.00'         S3804'19'E'         63.01''           C171         3927'44'         50.00'         34.44''         N274'44'''W         33.7'''           C172         243'23''         50.00'         218.32''         S104'50''''         16.60''           C171         3927'44''         50.00''         34.44''''''''''''''''''''''''''''''''''	LINE TABLE         LINE TABLE           LINE         BEARING         DISTANCE           L1         N0705'478'         11.42'           L3         N7975'147'         7.02'           L4         N5775'250''N         11.44'           L3         N7975'147''         12.8'           L5         S68'03'467'E         12.3'           L6         N2270'55'N'         12.4'           L3         S7702'42'N'         8.00'           L7         S7702'42'N'         8.00'           L9         S7702'42'N'         12.9'           L9         S7702'42'N'         2.597'           L1         N17372'17E''         2.507''           L1         N17372'17E''         4.06''           L1         N17372'17E''         4.06''           L1         N17372'17E''         4.06''           L11         N17372'17E''         4.06'''           L12         N173719'F'''         4.06'''           L3         S0173719'F''         6.30'''           L4         S0173719'F''         6.30''''           L14         S173753'F'E         6.30'''	BLE DISTANCE 15.007 15.007 0.707 0.707 15.017 15.017 15.017 15.007 27.477 3.227 11.487 10.007 10.211	
CURVE TABLE           CURVE         DELTA         RADUS         LENGTH         CHORD           C121         273/12         705.60'         26.79'         H0607350'E         26.78'           C122         270/31'         705.60'         26.79'         H0607350'E         26.78'           C122         270/31'         705.60'         26.79'         H0607350'E         26.78'           C123         1220'7'         705.60'         26.78'         H17906T         26.78'           C124         270'00'         26.00'         4.04'         5440715'E         36.77'           C126         970'00'         26.01'         4.04'         5450'15'E         36.77'           C128         2445'00'         36.50'         28.12'         58836'05'E         27.43''           C128         2445'00'         36.60'         15.78''         54409'05'E         14.59'''           C130         9705'00''         26.00'         4.64'''         14.99'''''''''''''''''''''''''''''''''''	CURVE TABLE           CURVE         DELTA         RADUS         LENGTH         CHORD           C141         22337         46.05.0         28.77         N09736727"         88.74           C142         1341.92"         640.50"         17.63"         N07367227"         17.62"           C143         21850"         640.50"         25.67"         N09736727"         87.74"           C144         21950"         640.50"         25.67"         N0739727"         87.67"           C144         12950"         640.50"         15.78         N072970"         16.75"           C144         12955"         65.60         16.78         N072970"         16.75"           C144         12955"         765.50         28.40"         N054150"         30.45"           C144         12951"         705.50"         28.40"         N054150"         30.45"           C146         12951"         705.50"         28.40"         N054150"         30.45"           C148         12951"         705.50"         28.40"         N054150"         70.49"           C149         12954"         705.50"         17.58"         N11320"         78.73"           C150         20	CURVE TABLE           CURVE         DELTA         RADIUS         LENOTH         CHORD           C161         21'45'25         28.00         9.86'         S10'1'44'W         9.80'           C162         20'00'00         50.00'         78.54'         H45'40'13'W         70.71'           C163         85'05'25         50.00'         78.54'         H45'40'13'W         70.71'           C164         85'05'25'         60.00'         78.54'         H45'40'13'W         70.71'           C164         65'43'15         50.00'         78.54'         H45'40'13'W         70.71'           C165         20'10'42'         80.00'         13.24'         H51'3'4'W         8.03'           C166         60'49'16'         28.00'         21.64''         8.00'''         8.03''           C167         60'49'16'         28.00'         21.64'''         8.00''''''''         8.01'''''''''           C168         72.1'12'''         50.00'''         8.30'''         8.23''1''''''''''''''''''''''''''''''''''	LINE TABLE         LINE TABLE           LINE BEARING         DISTANCE         LINE BEARING           L1 N0036497         11.42'         L21 57605067W           L3 N7952147E         7.92'         L23 N1354527E           L4 N573255W         14.42'         L23 N1354527E           L5 Seg0447E         2.33'         L24 S1324527E           L6 N22063247E         2.3.3'         L26 S598337E           L6 N22063247W         8.80'         L27 N88013297E           L9 S7702427W         8.80'         L27 N88013297E           L0 N372525W         2.5.97'         L28 S597237E           L1 N4732427E         21.51'         L28 S0758337E           L3 N732197E         34.08'         L33 N7801587E           L3 N3734527E         L30         S0732477E           L3 N374527E         5.00'         L3 N8919477E           L15 N13734597E         5.00'         L3 N8919477E           L15 N1374527E         5.00'         L3 N8919477E           L15 N1374527E         5.00'         L3 N8919477E           L15 N1374527E         5.00'         L3 N891947E           L16 N1574527E         5.00'         L3 N891947E	BLE DISTANCE 15.007 23.777 9.747 0.747 15.017 15.017 15.017 15.017 15.017 15.017 15.017 15.017 15.017 15.017 15.007	
CURVE TABLE           CURVE         DELTA         RADIUS         LENGTH         CHORD           C121         272017         705.60'         2.80'         M064005E'         32.00'           C122         270'31"         705.60'         2.8.78'         M0650'30"E'         2.8.78'           C132         270'31"         705.60'         2.8.78'         M0650'30"E'         2.8.78'           C132         270'37         705.60'         2.8.78'         M0650'30"E'         2.8.78'           C134         270'37         705.60'         2.8.78'         M0650'30"E'         2.8.78'           C132         170228'         705.60'         4.4.4''         M13'93'7E'         1.4.4''           C138         2449500'         3.6.50'         15.78''         54490'13"E         1.6.77''           C138         2449500'         3.6.50'         15.78''         54490'13"E         1.91''''''           C130         90700'0'         6.50''         10.21''         54540'13"E         3.91''''''''''''''''''''''''''''''''''''	CURVE TABLE           CURVE         DELTA         RADUS         LENGTH         CHORD           C141         22333         640.50'         26.75'         N09735'28''N         26.74'           C142         124'36'         640.50'         26.75'         N09735'28''N         26.74'           C143         218'20'         640.50'         26.75'         N09735'28''N         26.74'           C144         220'00'         640.50'         26.76'         N0573'28''N         26.74'           C145         129'50'         640.50'         16.75'         N012'510''N         66.75'           C146         121'58''         705.50'         16.75'         N012'510''N         16.75'           C146         121'58''         705.50'         28.40'         N054'50''N         30.45'           C147         223'14''         705.50'         28.44''         N054'50''N         30.45'           C148         231'4''         705.50'         28.74''         N054''50''N         30.45''           C150         210'19''         705.50''         28.74''         N054''50''N         30.45''           C151         128'44''         705.50''''''''''''''''''''''''''''''''''	UURVE TABLE           CURVE         DELTA         RADUIS         LENGTH         CHORD           C161         2143752         26.00'         9.86'         S107144'W         9.80'           C162         900000         50.00'         72.51'         N459013'W         70.71'           C163         850529'S         50.00'         72.51'         N490728'W         6.32'           C164         900000'         28.00'         13.24'         N1515'34'W         13.0''           C165         297044'         28.00'         13.24'         N1515'34'W         8.32''           C166         900000'         28.00'         14.84''         3.44'''         8.30''           C166         900000'         28.00'         14.84''         3.44'''''''''''''''''''''''''''''''''''	LINE TABLE         LINE BEARING           LINE BEARING         0157ANCE           L1         N0736'497           L2         50796'497           L3         N7952'147           L3         707952'147           L4         50796'497           L5         586'30'487           L5         586'30'487           L6         1727'555'%           L6         1727'555'%           L6         1727'755'%           L6         1727'755'%           L6         1727'755'%           L6         1727'755'%           L6         1727'754'47'           L6         57702'42'%           L0         144'732'21'E           L10         144'732'21'E           L11         1735'452'F           L11         1735'452'E           L13         501'32'19'K           L14         121'13'19'K           L13         501'32'19'K           L14         1891'94'7'L           L15         10.92'	BLE DISTANCE 15:00 15:00 23:77 9:74 9:74 9:74 15:00 15:00 27:47 3.23 11:45 11:45 10:00 10:21	
CURVE TABLE           CURVE         DELTA         RADIUS         LENGTH         OHORD           C121         2736'12         705.50'         32.06'         MO6406'E         32.05'           C122         270'31         705.50'         27.0''         N0550'30'E         28.78'           C132         270'37         705.50'         17.4''         N0951'9'E         28.78'           C133         122'07'         705.50'         17.4''         N0951'9'E         28.78'           C134         170'28''         705.50'         14.46''         N13'9'37'E         14.46''           C132         10'28''         705.50''         16.46''         N3'9'37'E         15.65''           C132         420'00''         36.50''         36.50''         15.78''         34'00'06'E'         15.65''           C130         90'00'00''         26.00''         36.4''         N3'05'14'E'         10.0'''''''''''''''''''''''''''''''''''	CURVE         TABLE           CRWE         DELTA         RADUS         LENGTH         CHORD           C141         223/33         640.50'         26.75'         N079/35/24''         26.74''           C142         174/36'         640.50'         26.75'         N079/35/24''         17.62''           C143         174/36''         640.50'         26.75'         N079/35/24''         17.62''           C144         129/35''         640.50'         26.10''         N0379/14'''         26.10''           C144         129/35''         640.50'         16.75'         N0727/14'''         26.10''           C144         129/35''         640.50'         29.40''         N0.32''''         16.75''           C144         129/35''         705.50'         29.40''         N0.73'''         16.75''           C148         223/4''         705.50'         29.40''         N0.73'''         29.39''           C148         129/34''         705.50''         29.40''         N0.73''''         17.83'''           C149         129/34'''         705.50'''         26.74'''         17.84'''''         17.83''''''''''''''''''''''''''''''''''''	CURVE TABLE           CURVE         DELTA         RADUIS         LENGTH         CHORD           C161         21'4352'         26.00'         9.86'         S10'1'44''         9.80'           C162         20'00'0         50.00'         76.54'         N454'0'13''         9.01''           C163         83'05'25'         50.00''         76.54''         N459'13''         6.03'''           C164         54'31''         50.00''         6.03'''         N40'7'28'''         6.03'''           C165         29'00'00''         28.00''         48.64'''         N459'13'''''''''''''''''''''''''''''''''''	LINE TABLE         LINE TABLE           LINE         BEARING         DISTANCE           LI         N07056'497         11.42'           L3         N7952'147         7.02'           L4         N07705'255'W         14.42'           L3         N7952'147'         12.3'           L5         Seg20'647'E         12.3'           L6         N220'55'W         14.45'           L7         S7702'42'W         8.80'           L9         S7702'42'W         8.80'           L9         S7702'42'W         2.2'           L9         S7702'42'W         2.2'           L1         N1354'52'E         12.0'           L1         N1354'52'E         12.0'''           L1         N1354'52'E         6.20''           L3         N1354'52'E         6.20''           L3         N1354'52'E         10.9'''           L11         N1354'52'E         10.9'''           L3         N1354'52'E         10.9'''           L3         N1354'52'E         10.9'''           L3         N1354'52'E         10.9'''           L3         N1354'52'E         10.9'''''           L3         N1354'52'E	BLE DISTANCE 15.007 23.777 9.741 0.707 15.017 15.007 27.477 3.22 27.477 3.247 10.007	
CURVE TABLE           CURVE         DELTA         RADUS         LENGTH         CHORD           0121         2730*17         705.60*         2.00*         M04095E*         32.00*           0122         27053*         705.60*         74.47*         M0670376*         26.78*           0123         1220*7         705.60*         74.47*         M0670376*         26.78*           0124         27077         705.60*         74.47*         M0670376*         26.78*           0124         270077         705.60*         76.47*         M0670376*         26.78*           0128         270070*         705.60*         76.44*         M07137*         14.4*           0128         270070*         26.0*         76.44*         56.75*         27.43*           0128         27455*         36.50*         28.12*         5663605*         27.43*           0128         244550*         36.50*         15.78*         54409705*         43.09*           0130         90700*0*         5.60*         0.21*         945405*         43.09*           0131         184370*         28.00*         8.48*         1132*         43.09*           0133         914224* </td <td>CURVE TABLE           CURVE         DELTA         RADUS         LENGTH         CHORD           C141         22337         46.05         8.7         N09736728"         8.6.47           C142         13438"         640.50         17.63         N0736722"         17.62'           C143         21850"         640.50         25.67         N05736"28"         25.67'           C144         22005"         640.50         25.67'         N0736"22"         17.62'           C144         22005"         640.50         16.75'         N0125'0"         16.75'           C144         128'52"         705.50'         30.45'         16.75'         N0125'0"         16.75'           C144         128'32"         705.50'         24.40'         N054'50"         20.42'           C145         128'32"         705.50'         24.40'         N054'50"         20.42'           C145         128'54"         705.50'         28.40'         N054'50"         17.85'           C150         126'54"         705.50'         17.83'         N113'0''''         17.85'           C151         126'40"         705.50'         17.58'         N1573'14"*'''' 2.57'         15.55'      <tr< td=""><td>UURVE TABLE           CURVE DELTA. RADIUS LENGTH CHORD           CHE 214'952         28.00         9.88'         5011'14'W         9.80'           CHE 214'952         28.00'         9.88'         5011'14'W         9.80'           CHE 2050'25         28.00'         78.54'         N45'40'13'W         9.80'           CHE 2575'25         50.00'         78.54'         N45'40'13'W         9.80'           CHE 2575'25         50.00'         78.54'         N45'40'13'W         70.71'           CHE 2570'25'2         50.00'         13.24'         N15'15'3'W         50.7'           CHE 2370'46'         28.00'         13.24'         N15'15'3'W         8.37'           CHE 271'132         50.00'         6.30'         N45'40'1'W         8.37'           CHE 721'132         50.00'         8.33'         S2251'12'E         3.30'           CHT 327'14'         50.00'         8.33'         S10'4'14'W         3.37'           CHT 327'14'25'25'50.0'         8.33'         S10'4'1'W         3.36'           CHT 327'14'25'25'50.0'         8.33'         S10'4'1'W         3.56'           CHT 30'24'28'         640.50'         4.50'         S00'50'40'E         4.56'  </td><td>LINE TABLE LINE TABLE LINE BEARING DISTANCE L1 N00736/497E 11.42' L2 S70576/497E 11.42' L3 N7952'145 7.92' L6 N3752'55' 1.44' L3 S9452'497E 11.44' L3 S9452'47E 23.33' L6 N2705'43'W 5.00' L7 S7702'42'W 8.00' L7 S7702'42'W 8.00' L6 S9702'42'W 2.51' L8 S7702'42'W 12.71' L8 S7702'42'W 12.71' L9 S95702'42'W 2.51' L9 S95702'42'W 2.51' L9 S95702'42'W 2.51' L9 S97572'42'W 2.51' L9 S97572'42'W 2.51' L9 S97572'42'W 2.51' L1 N1354'52'E 25.97' L1 N1354'52'E 3.00' L1 N1354'52'E 3.00' L1 N1354'52'E 3.00' L1 N1354'52'E 10.92' L1 N1354'52'E 10.92' L1 N1354'52'E 10.92' L1 N1354'52'E 10.92' L1 N1354'52'E 5.00' L1 N1354'52'E 5.00' L1 N1354'52'E 5.00' L1 N1354'52'E 5.00' L1 N1354'52'E 10.92' L1 N1354'52'E 10.92' L1 N1354'52'E 10.92'</td><td>BLE DISTANCE 15.001 15.001 23.777 9.744 0.707 15.011 15.011 15.001 15.011 15.001 15.001 15.001 10.207 10.201</td><td></td></tr<></td>	CURVE TABLE           CURVE         DELTA         RADUS         LENGTH         CHORD           C141         22337         46.05         8.7         N09736728"         8.6.47           C142         13438"         640.50         17.63         N0736722"         17.62'           C143         21850"         640.50         25.67         N05736"28"         25.67'           C144         22005"         640.50         25.67'         N0736"22"         17.62'           C144         22005"         640.50         16.75'         N0125'0"         16.75'           C144         128'52"         705.50'         30.45'         16.75'         N0125'0"         16.75'           C144         128'32"         705.50'         24.40'         N054'50"         20.42'           C145         128'32"         705.50'         24.40'         N054'50"         20.42'           C145         128'54"         705.50'         28.40'         N054'50"         17.85'           C150         126'54"         705.50'         17.83'         N113'0''''         17.85'           C151         126'40"         705.50'         17.58'         N1573'14"*'''' 2.57'         15.55' <tr< td=""><td>UURVE TABLE           CURVE DELTA. RADIUS LENGTH CHORD           CHE 214'952         28.00         9.88'         5011'14'W         9.80'           CHE 214'952         28.00'         9.88'         5011'14'W         9.80'           CHE 2050'25         28.00'         78.54'         N45'40'13'W         9.80'           CHE 2575'25         50.00'         78.54'         N45'40'13'W         9.80'           CHE 2575'25         50.00'         78.54'         N45'40'13'W         70.71'           CHE 2570'25'2         50.00'         13.24'         N15'15'3'W         50.7'           CHE 2370'46'         28.00'         13.24'         N15'15'3'W         8.37'           CHE 271'132         50.00'         6.30'         N45'40'1'W         8.37'           CHE 721'132         50.00'         8.33'         S2251'12'E         3.30'           CHT 327'14'         50.00'         8.33'         S10'4'14'W         3.37'           CHT 327'14'25'25'50.0'         8.33'         S10'4'1'W         3.36'           CHT 327'14'25'25'50.0'         8.33'         S10'4'1'W         3.56'           CHT 30'24'28'         640.50'         4.50'         S00'50'40'E         4.56'  </td><td>LINE TABLE LINE TABLE LINE BEARING DISTANCE L1 N00736/497E 11.42' L2 S70576/497E 11.42' L3 N7952'145 7.92' L6 N3752'55' 1.44' L3 S9452'497E 11.44' L3 S9452'47E 23.33' L6 N2705'43'W 5.00' L7 S7702'42'W 8.00' L7 S7702'42'W 8.00' L6 S9702'42'W 2.51' L8 S7702'42'W 12.71' L8 S7702'42'W 12.71' L9 S95702'42'W 2.51' L9 S95702'42'W 2.51' L9 S95702'42'W 2.51' L9 S97572'42'W 2.51' L9 S97572'42'W 2.51' L9 S97572'42'W 2.51' L1 N1354'52'E 25.97' L1 N1354'52'E 3.00' L1 N1354'52'E 3.00' L1 N1354'52'E 3.00' L1 N1354'52'E 10.92' L1 N1354'52'E 10.92' L1 N1354'52'E 10.92' L1 N1354'52'E 10.92' L1 N1354'52'E 5.00' L1 N1354'52'E 5.00' L1 N1354'52'E 5.00' L1 N1354'52'E 5.00' L1 N1354'52'E 10.92' L1 N1354'52'E 10.92' L1 N1354'52'E 10.92'</td><td>BLE DISTANCE 15.001 15.001 23.777 9.744 0.707 15.011 15.011 15.001 15.011 15.001 15.001 15.001 10.207 10.201</td><td></td></tr<>	UURVE TABLE           CURVE DELTA. RADIUS LENGTH CHORD           CHE 214'952         28.00         9.88'         5011'14'W         9.80'           CHE 214'952         28.00'         9.88'         5011'14'W         9.80'           CHE 2050'25         28.00'         78.54'         N45'40'13'W         9.80'           CHE 2575'25         50.00'         78.54'         N45'40'13'W         9.80'           CHE 2575'25         50.00'         78.54'         N45'40'13'W         70.71'           CHE 2570'25'2         50.00'         13.24'         N15'15'3'W         50.7'           CHE 2370'46'         28.00'         13.24'         N15'15'3'W         8.37'           CHE 271'132         50.00'         6.30'         N45'40'1'W         8.37'           CHE 721'132         50.00'         8.33'         S2251'12'E         3.30'           CHT 327'14'         50.00'         8.33'         S10'4'14'W         3.37'           CHT 327'14'25'25'50.0'         8.33'         S10'4'1'W         3.36'           CHT 327'14'25'25'50.0'         8.33'         S10'4'1'W         3.56'           CHT 30'24'28'         640.50'         4.50'         S00'50'40'E         4.56'	LINE TABLE LINE TABLE LINE BEARING DISTANCE L1 N00736/497E 11.42' L2 S70576/497E 11.42' L3 N7952'145 7.92' L6 N3752'55' 1.44' L3 S9452'497E 11.44' L3 S9452'47E 23.33' L6 N2705'43'W 5.00' L7 S7702'42'W 8.00' L7 S7702'42'W 8.00' L6 S9702'42'W 2.51' L8 S7702'42'W 12.71' L8 S7702'42'W 12.71' L9 S95702'42'W 2.51' L9 S95702'42'W 2.51' L9 S95702'42'W 2.51' L9 S97572'42'W 2.51' L9 S97572'42'W 2.51' L9 S97572'42'W 2.51' L1 N1354'52'E 25.97' L1 N1354'52'E 3.00' L1 N1354'52'E 3.00' L1 N1354'52'E 3.00' L1 N1354'52'E 10.92' L1 N1354'52'E 10.92' L1 N1354'52'E 10.92' L1 N1354'52'E 10.92' L1 N1354'52'E 5.00' L1 N1354'52'E 5.00' L1 N1354'52'E 5.00' L1 N1354'52'E 5.00' L1 N1354'52'E 10.92' L1 N1354'52'E 10.92' L1 N1354'52'E 10.92'	BLE DISTANCE 15.001 15.001 23.777 9.744 0.707 15.011 15.011 15.001 15.011 15.001 15.001 15.001 10.207 10.201	
CURVE TABLE           CURVE         DELTA         RADIUS         LENGTH         CHORD           C121         279/12         705.60         28.79         N0690'9E         33.05'           C122         270'31*         705.60         28.79'         N0690'35'0E         26.78'           C132         270'37         705.60'         7.47'         N0995'19'E         17.47'           C134         270'37         705.60'         7.47'         N0995'19'E         26.78'           C132         270'37         705.60'         7.47'         N0995'19'E         16.47'           C134         270'37         705.60'         7.48'         17.97'         16.77'           C134         270'00'0'         2.60'         4.64'         944'01'5'E         36.77'           C137         264'95'0'         36.50'         15.78'         534'09'05'E         15.68'           C138         244'95'0'         36.50'         15.78'         534'09'05'E         15.68'           C138         264'95'P         36.50'         15.78'         534'09'05'E         15.68'           C130         90'00'0'         8.50'         15.78'         544'01'S'E         3.97'           C131<	CURVE         TABLE           CHWE         DELTA         RADUIS         LENGTH         CHORD           C141         22333         640.50'         26.75'         N09735/28'W         26.74'           C142         124326         640.50'         26.75'         N09735/28'W         26.74'           C143         218'00'         640.50'         26.75'         N09735/28'W         26.74'           C143         218'00'         640.50'         26.75'         N09735/28'W         26.74'           C144         229'00'         640.50'         16.75'         N012'05'W'         8.75'           C144         129'30'         640.50'         16.75'         N012'10'W'         16.75'           C144         129'30'         65.60'         16.74'         N073'8'2'W'         30.45'           C144         129'30'         705.50'         28.40'         N05'15'W'         30.45'           C148         230'14''         705.50'         17.83''         N113'0'W'         70.52'           C153         125'40''         705.50'         17.88''         N114'49'4'W'         70.55'           C154         125'40''         705.50''         17.88''         N114'49'4'W'         70.55' <td>UURVE TABLE           CURVE         DELTA         RADUIS         LENGTH         CHORD           C161         214352         26.00'         9.86'         S107144'W         9.80'           C162         9000'00         50.00         72.51         M45941'3'W         70.71'           C163         8305'29'         50.00'         72.51         M4907'28'W         6.32'           C164         945'31'5         50.00'         13.24'         M1519'34'W         13.0'           C165         29'10'44'         28.00'         13.24'         M1519'34'W         13.0'           C166         90'00'00         28.00'         6.00'         N4594'3'W         8.02'           C166         90'00'00         28.00'         6.30'         S3894'19'E         8.01'           C167         721'32'         50.00'         6.30'         S3894'19'E         8.01'           C170         1722'13'         27.60'         8.33'         S8291'12'E         8.05'           C171         392'74'A         50.00'         3.44'         N2714'4'W         3.37'           C172         274'29'         640.50'         4.56'         500'50'40'E         4.56'</td> <td>LINE TABLE         LINE TABLE           LINE         BEARING         LINE         BEARING           L1         N036497         11.42         L21         S76'05'06'E           L2         S005'497W         11.42'         L23         S76'05'06'E           L3         N795'147E         7.02'         L24         S135'452'W           L4         N57'525'W         14.48'         L24         S135'452'W           L5         S68'03'46'E         2.33'         L25         S01'83'JE           L6         N22'05'4'W         8.09'         L26         S880'128'E           L9         S7702'42'W         8.09'         L20         S01'95'35'E         L30         S01'95'45'E           L10         N47'32'21'E         2.89'7'         L33         S89'19'4''         L30         S01'35'15'E         L33         N780'15'E         L34         N891'9'4''E         L34         N891'9'4'TE         L34         N891'9'4''E         L34         N891'9'4''E</td> <td>BLE DISTANCE 15:00 15:00 22:77 9:74 9:74 15:01 15:00 27:47 3.23 11:48 10:00</td> <td></td>	UURVE TABLE           CURVE         DELTA         RADUIS         LENGTH         CHORD           C161         214352         26.00'         9.86'         S107144'W         9.80'           C162         9000'00         50.00         72.51         M45941'3'W         70.71'           C163         8305'29'         50.00'         72.51         M4907'28'W         6.32'           C164         945'31'5         50.00'         13.24'         M1519'34'W         13.0'           C165         29'10'44'         28.00'         13.24'         M1519'34'W         13.0'           C166         90'00'00         28.00'         6.00'         N4594'3'W         8.02'           C166         90'00'00         28.00'         6.30'         S3894'19'E         8.01'           C167         721'32'         50.00'         6.30'         S3894'19'E         8.01'           C170         1722'13'         27.60'         8.33'         S8291'12'E         8.05'           C171         392'74'A         50.00'         3.44'         N2714'4'W         3.37'           C172         274'29'         640.50'         4.56'         500'50'40'E         4.56'	LINE TABLE         LINE TABLE           LINE         BEARING         LINE         BEARING           L1         N036497         11.42         L21         S76'05'06'E           L2         S005'497W         11.42'         L23         S76'05'06'E           L3         N795'147E         7.02'         L24         S135'452'W           L4         N57'525'W         14.48'         L24         S135'452'W           L5      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## **Ecological Characterization Study**

College and Trilby Multi-Family Community (JR Engineering, LLC)

> City of Fort Collins Larimer County, CO

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04/30/2024

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## Introduction

This report constitutes the Ecological Characterization Study (ECS) required for the proposed development of College and Trilby Multi-Family Community within the General Commercial (CG) zone district in the City of Fort Collins. This ECS report is provided in association with a conceptual design (**Appendix D**) for the 50' Natural Habitat Buffer Zone (NHBZ) and wetland mitigation required for this development. This ECS was completed by AloTerra Restoration Services to address requirements set forth in Article 3, section 3.4.1 of the City of Fort Collins Land Use Code.

## **Project Description**

The College and Trilby Multi-Family Community (the Project) includes the development of 252 dwelling units, with 38 duplex units, 202 two to three-story single-family townhomes, a dog park, and a community center (**Figure 1**). Most recently, this site was used to graze horses and cattle. Several species of mature trees exist on site, including both native and introduced species, that provide corridor habitat for a variety of wildlife, which will need to be included in mitigation efforts.



Figure 1. Property map showing conceptual site plan developed by JR Engineering.

## **Property Location**

The approximately 39.18-acre property is located within the City of Fort Collins, Larimer County, Colorado. The northern border of the property is bordered by Skyway Drive and the Storage Star Facility, Highway 287 borders the eastern part of the property, to the south West Trilby Road, and to the west Foothills Gateway Inc. and the Skyview South subdivision (**Figure 2**). The southeastern corner of the property is also bordered by Ziggis Coffee and Waypoint Church.

The center of the property lies approximately at 40.498552 N and -105.079374 W.



Figure 2. Project location.

## **Study Methods**

In fulfillment of the ECS requirements set forth in Article 3, section 3.4.1 of the City of Fort Collins Land Use Code, AloTerra staff acquired desktop data and conducted field surveys in support of our characterization of existing ecological and wildlife conditions, as well as other natural features occurring on the site.

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Ecological Field Assessment: Week of April 18<sup>th</sup>, 2022; April 2, 2024
Wildlife Field Review: April 20<sup>th</sup>, 2022
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Desktop analysis included reviews and interpretations of aerial imagery, assessment of regional drainage patterns, IPAC database review (USFWS), groundwater conditions, and location of nearby natural areas. Field assessments included qualitative rapid assessments of native plant communities, weed populations, wetland and riparian areas, wildlife habitat conditions, and indicators of current wildlife occupation. In addition, a formal wetland delineation was performed (**Appendices A and B**). The rapid assessment of vegetation was performed to compile a list of dominant and co-dominant species, and species present in each community at a lower cover. For the purposes of this study, a plant was considered dominant or co-dominant if it's relative cover is greater than approximately 20%. Due to the timing of the vegetation survey, there may be several species present on site that, due to their phenological stage, were not readily observable at the time of this survey. However, based on general disturbed site conditions, and the presence of

above ground features of the dominant species that are present, we are confident that this survey captured the species that together represent at least 90% of the above ground biomass of the site.

## Results

The results of the field and desktop assessments are described below, with the associated natural features represented in **Figure 3**. Approximately 99% of the project site is characterized as disturbed upland, with less than 1% of the site comprised of wetland and riparian communities in a degraded state or dominated by understories of exotic plants.





### Site Description

From a historical perspective, prior to modern development, we believe the project site to have been dominated by short-grass prairie within the Northwestern Great Plains ecoregion (level III ecoregion). The Project site previously had forested/shrub riparian, palustrine emergent wetlands, and riverine wetland features (**Figure 4**); however, the previous landowner eliminated these areas from unknown land use practices. The City of Fort Collins is not requiring mitigation for the lost forested/shrub riparian and freshwater emergent wetland areas.



Figure 4. Historic wetlands from the National Wetlands Inventory within the Project boundary.

Currently, the upland areas are dominated by non-native weeds and soils that have been continually disturbed (**Figure 5**, **Table 1**). The wetland and associated riparian areas are of low native species diversity, low community complexity, and low structural diversity. Several mature cottonwood trees exist on site, along with Russian olive and Siberian elm. While structural and biological diversity is low, this area is still an important corridor habitat for a variety of wildlife (**Appendix C**).

Soils are generally loam, clay loam, and clay (**Table 1**). The greatest habitat features include the wetland community and mature trees that exist on site.



Figure 5. Existing soil types within the Project boundary.

Soil Type	Map Symbol	Slope	Profile	Parent Material	Drainage Class	Depth to Water Table	Hydric Soil
Fort Collins	35	0-3%	0-4": Loam	Pleistocene or older	Well	>80"	No
Loam			4-9": Clay loam	alluvium/eolian deposits	drained		
(1.3 ac)			9-16": Clay loam				
			16-29": Loam				
			29-80": Loam				
Fort Collins	36	3-5%	0-5": Loam	Pleistocene or older	Well	>80"	No
Loam			5-8": Clay loam	alluvium/eolian deposits	drained		
(0.6 ac)			8-18": Clay loam				
			18-24": Loam				
			24-84": Loam				
Kim Loam	54	3-5%	0-7": Loam	Mixed alluvium	Well	>80"	No
(11.2 ac)			7-60": Clay loam		drained		
Kim-Thedalund	56	3-	0-7": Loam	Mixed alluvium	Well	>80"	No
Loams		15%	7-60": Clay loam		drained		

Soil Type	Map Symbol	Slope	Profile	Parent Material	Drainage Class	Depth to Water Table	Hydric Soil
(19.6 ac)							
Longmont Clay (4.5 ac)	63	0-3%	0-60": Clay	Clayey alluvium derived from shale	Poorly drained	>80"	No
Midway Clay Loam (0.53 ac)	65	5- 25%	0-4": Clay loam 4-19": Clay 19-23": Weathered bedrock	Material weathered from shale	Well drained	>80"	No
Wiley Silt Loam (0.03 ac)	119	3-5%	0-6": Silt loam 6-15": Silt loam 15-60": Silt loam	Uniform eolian deposits	Well drained	>80"	No

### Existing Infrastructure

Existing infrastructure predominately includes culverts, fencing, and retention ponds outside of the property boundaries. Other existing infrastructure can be found in the JR Engineering plan set.

### Topography

The Project site is generally flat, with a maximum slope of approximately 6%. Proposed topography would range from 4% to 10%, draining west to east.

### Natural Habitats and Features with Significant Ecological Value

In this section we provide a checklist of required features as outlined in the ECS. No significant native plant communities were documented on the site apart from wetland vegetation and mature cottonwood trees. The plant cover in the remainder of the site is dominated by non-native species with low structural and biological diversity.

#### Natural Communities or Habitats

Aquatic: no; Wetland and wet meadow: yes; Native grassland: no; Riparian forest: no; Urban plains forest: no; Riparian shrubland: no; Foothills forest: no; Foothills shrubland: no

Special Features (enter yes/no, indicate on map, and describe details below):

Significant remnants of native plant communities: no. Based on field conditions and analysis of aerial imagery, it is apparent no significant remnant native plant communities exist on site.

#### Areas of significant geological or paleontological interest: not likely.

A cultural and historical resources survey was not conducted as part of this assessment. However, based on the history of the site, it is unlikely the site harbors significant cultural or historical resources.

Any prominent views from or across the site? no. No significant views can be seen, as much of the site is surrounded by urban developments.

The pattern, species and location of any significant native trees and other native site vegetation. The only significant native vegetation occurring on the Project site includes small patches of coyote willow (*Salix exigua*) and baltic rush (*Juncus balticus*), and several mature cottonwood trees.

Pattern, species, and location of any significant non-native trees.

Russian olive (*Eleaganus angustifolia*) and Siberian elm (*Ulmus pumila*) trees can be found throughout the property.

#### Special habitat features

The special habitat features on the project site include the wetlands; however, the quality of these wetlands are of moderate to poor condition and function.

Ecological Characterization Study, College and Trilby

### Natural Habitats and Plant Communities

The subsections below outline the conditions of native habitats existing on site: wetlands, disturbed uplands, and ditch communities. Refer to **Figure 3** for locations of these features.

#### Wetland Communities

AloTerra performed a formal wetland delineation on site (Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region, Version 2.0, U.S. Army Corps of Engineers March 2010) and a review of other aquatic features such as ponds and streams. Two wetland types were identified: palustrine scrub shrub and palustrine emergent. There were no Original High-Water Mark (OHWM) indicators within the ditch communities onsite, therefore an OHWM survey was not performed.

#### Palustrine Scrub Shrub

#### Dominant & Co-Dominant Species

Coyote willow (*Salix exigua*), canary reedgrass (*Phalaris arundinaceae*), common mint (*Mentha arvensis*), teasel (*Dipsacus laciniatus*), milkweed (*Asclepias speciosa*), unknown *Poa* spp were dominant across this community at time of sampling.

#### Palustrine Emergent

#### Dominant & Co-Dominant Species

Canary reedgrass (*Phalaris arundinaceae*) and Baltic rush (*Juncus balticus*) were dominant across this community at time of sampling.

#### **Disturbed Upland Plant Communities**

#### Description

Upland areas within the project area are highly disturbed and predominately vegetated by non-native flora. While many species overlapped, topography of these two areas is mainly what differentiated them, as the upper disturbed community was perched above the rest of the property.

#### Lower

#### Dominant & Co-Dominant Species

Smooth brome (*Bromus inermis*), cheatgrass (*Bromus tectorum*), thistle (*Cirsium arvense*), teasel (Dipsacus laciniatus), prickly lettuce (*Lactuca serriola*), crested wheatgrass (*Agropyron cristatum*), musk thistle (*Carduus nutans*), kochia (Kochia spp.), and bindweed (*Convovulus arvensis*) were dominant across this community at time of sampling.

#### Upper

#### Dominant & Co-Dominant Species

Musk thistle (*Carduus nutans*), Russian thistle (*Salsola collina*), Russian olive (*Eleaganus angustifolia*), mullein (*Verbascum thapsus*), Siberian elm (*Ulmus pumila*), kochia (*Kochia* spp.), bindweed (*Convovulus arvensis*), nightshade (*Solanum* spp.), burdock (*Arctium lappa*), horsetail (*Conyza canadensis*), rabbitbrush (*Ericameria nauseosa*), hoary tansy aster (*Machaeranthera canescens*), smooth brome (*Bromus inermis*), cheatgrass (*Bromus tectorum*), curly dock (*Rumex crispus*), alfalfa (*Medicago sativa*), knapweed (*Centaurea* spp.), and baltic rush (*Juncus balticus*) were dominant across this community at time of sampling.

### **Ditch Communities**

#### Description

There are three ditch communities on site: ash, cottonwood, and the remnant upland ditch. All three ditch communities were once connected by the irrigation ditch that ran north to south on the property (**Figure 4**). However, likely from the previous owner's land use practices, the irrigation ditch has been dissected into three communities that are distinct based on canopy cover.

#### Ash Dominant & Co-Dominant Species

Ash (*Fraxinus* spp.), curly dock (*Rumex crispus*), smooth brome (*Bromus inermis*), teasel (*Dipsacus laciniatus*), unknown forbsand cheatgrass (*Bromus tectorum*) were dominant across this community at time of sampling.

### Cottonwood

#### Dominant & Co-Dominant Species

Cottonwood (*Populus deltoides*), curly dock (*Rumex crispus*), smooth brome (*Bromus inermis*), unknown forbs, and cheatgrass (*Bromus tectorum*) were dominant across this community at time of sampling.

#### Remnant Upland

#### Dominant & Co-Dominant Species

Curly dock (*Rumex crispus*), smooth brome (*Bromus inermis*), unknown forbs, and cheatgrass (*Bromus tectorum*) were dominant across this community at time of sampling.



Figure 6. Mitigation areas.

Mitigation Type	Buffer Requirement (feet)	Habitat Area (acres)	Buffer Area (acres)	Total Mitigation Area (acres) (columns 3 + 4)
PEM Wetland	100'	0.92	דר ר	7 5
PSS Wetland	100'	0.31	2.27	5.5
NW Corner Wetland	50'	0.001	0.12	0.121
Ditch Habitat (Upland)	50'	0.68	5.15	5.83
			Total Mitigation Required:	9.45 acres

### Proximity to Designated Natural Areas

The Project property is 0.41 miles east of Hazaleus Natural Area, 0.2 miles west of Prairie Dog Meadow Natural Area, and 0.28 miles south of Redtail Grove Natural Area.

## Wildlife (see Appendix C for full report)

## Federally Threatened, Endangered, and Proposed Species

On April 25, 2022 an official species list was documented by U.S Fish and Wildlife

Service's Information for Planning and Consultation IPAC: http://ecos.fws.gov/ipac/ was obtained by using known ranges of federally listed species in The Project area. A list was also unofficially obtained from the 2016 Colorado Natural Heritage Program database by looking at known sightings of sensitive species near Kingfisher Wetland project area. On April 30, 2022 an AloTerra Restoration Services field technician conducted a site visit in order to assess suitable habitat for known listed and sensitive animal species.

**Table 3** lists provides a record of the Federally listed species that could occur within the area of the proposed project (39.1 acres). The table includes (a) the common name of the species (b) the scientific name of the species (c) the status of the species in question (d) whether the species should be excluded and (e) the reasoning why the species should be excluded.

The reasoning of excluding species from the list of concerned species is given based off a variety of reasons including:

- 1) No suitable habitat was found during site visit, The range of the species in is such that the species is highly unlikely to not known near occur within the Project site;
  - 2) No suitable habitat was found during the site review; and/or
  - 3) No records for the species exist within the Project site.

**Table 3.** Federally listed terrestrial and aquatic species that may occur or be affected by actions within the Project.

Common Name	Species	Status	Species Excluded	Reason for Exclusion		
Mammals						
Preble's meadow jumping	Zanus hudsonius problei	Throatopod	No	No detection during survey		
mouse	zupus nuusonius prebier	Inteateneu	NO			
Canada lynx	Lynx canadensis	Threatened	Yes	Species and habitat are not present.		
Birds						
Maxisan spatted and	Striv accidentalis lucida	Threatened	Voc	Critical habitat does not overlap		
Mexical spotted own	Strix occidentalis lacida	Inreateneu	res	with project site		
Whooping craps	Grus amaricana	Endongorod	Yes	Range does not overlap with project		
whooping crane	Grus umericana	Endangered		site		
Common Name	Species	Status	Species Excluded	Reason for Exclusion		
-----------------------------------	--	------------	---------------------	--		
Least tern	Sterna antillarum	Endangered	Yes	Range does not overlap with project site		
Piping plover	Charadrius melodus	Threatened	Yes	Range does not overlap with project site		
Fish						
Pallid sturgeon	Scaphirhynchus albus	Endangered	Yes	Species and habitat are not present.		
Greenback cutthroat	Oncorhynchus clarkii stomias	Threatened	Yes	Species and habitat are not present.		
trout						
Plants						
Colorado butterfly plant	Gaura neomexicana var. coloradensis	Threatened	Yes	Species and habitat are not present.		
Ute ladies-tresses	Spiranthes diluvialis	Threatened	Yes	Species and habitat are not present.		
Western prairie fringed orchid	Plantanthera praeclara	Threatened	Yes	Species and habitat are not present.		
North Park phacelia	Phacelia formosula	Endangered	Yes	Found in higher elevation range (8,000-8,300 ft)		

Sourced from IPAC :<u>http://ecos.fws.gov/ipac/</u>website. Note- Some species may be affected downstream from water source. \*There are no federally designated critical habitats within the Project area.

## Rare Plants

The rare plant survey resulted in no evidence of Ute ladies'-tresses (*Spiranthes diluvialis*) or Colorado butterfly plant (*Gaura neomexicana var. coloradenesis*) in the project area.

## Sensitive Species

The sensitive species list is derived from the U.S. Forest Service (https://www.fs.usda.gov) and Colorado Parks and Wildlife data on present sensitive species ranges and distributions (USFS, 2005). The Regional Forester's sensitive list is evaluated by examining viable risk of species; these species are categorized as R2 sensitive, not R2 sensitive, or, not a concern. Suitable habitat was also determined by a site visit conducted by AloTerra Restoration Services on November 01, 2021. Under the Migratory Bird Treaty Act of 1918 and the Bald and Golden Eagle Protection Act no activity that "takes, transports, barters, or exports the listed migratory birds or eagles is permissible unless it is sanctioned by the U.S. Fish and Wildlife Service. The sensitive species list includes migratory birds that could use The Project area as a breeding, over-wintering, or stopover site.

The species found in **Table 4** below are compiled from lists of at-risk species that have potential habitat or occurrence in the Project area, specifically in the vicinity of the documented wetland. The table is organized as followed: (a) The common name of the species, (b) The scientific name of the species, (c) The status of the species in question, (d) Whether or not the species should be excluded, and (e) The reasons why the species should be excluded.

Common name	Species	Status	Species Excluded	Reasons for exclusion
Mammals				
Fringed myotis	Myotis thysanodes	Forest Service Sensitive	Yes	Found in coniferous forest and mixed pine
Townsend's big- eared bat	Corynorhinus townsendii	Forest Service Sensitive	Yes	Habitat requirements are not in range
Black-tailed prairie dog	Cynomys ludovicianus	Forest Service Sensitive	Yes	No colonies were found in the Project site
White-tailed prairie dog	(Ocynomys leucurus)	Forest Service Sensitive	Yes	No colonies were found in the Project site

Table 4. Federally listed terrestrial and aquatic species that may occur or be affected by the actions within the Project.

Common name	Species	Status	Species Excluded	Reasons for exclusion
Kit fox	Vulpes macrotis	Forest Service Sensitive	Yes	Range does not overlap with project site
Swift fox	Vulpes velox	Forest Service Sensitive	No	No detection during survey
Birds	•	•	·	
Bald eagle	Haliaeetus leucocephalus	Forest Service Sensitive	No	No detection during survey
Cassin's sparrow	Aimophila cassinii	Bird of Conservation Concern	Yes	Range does not overlap with project site
Lesser yellowlegs	Tringa flavipes	Bird of Conservation Concern	Yes	Range does not overlap with project site
Burrowing owl	Athene cunicularia	State threatened	No	No detection during survey
Black Swift	Cypseloides niger	Forest Service Sensitive	Yes	Habitat requires cliffs limited in Colorado
Chestnut-collared longspur	Calcarius ornatus	Forest Service Sensitive	Yes	Site location does not overlap with species range
Sandhill Crane	Antigone canadensis	Forest Service Sensitive	Yes	Suitable habitat is not evident in project site
Northern harrier	Circus cyaneus	Forest Service Sensitive	No	No detection during survey
Swainson's Hawk	Buteo swainsoni	Federal Species of Concern	No	No detection during survey
Grasshopper sparrow	Ammodramus savannarum	Forest Service Sensitive	Yes	Native species range does not meet area requirements
Fish				
Plains Minnow	Hybognathus plactius	State Endangered	Yes	Suitable habitat is not evident in project site
Plains topminnow	Fundulus sciadicus	Forest Service Sensitive	Yes	Suitable habitat is not evident in project site
Flannelmouth Sucker	Catostomus latipinnis	Forest Service Sensitive	Yes	Suitable habitat is not evident in project site
Amphibians		•	•	•
Northern leopard frog	Lithobates pipiens	Forest Service Sensitive	No	No detection during survey
Plains leopard frog	Lithobates blairi	Forest Service Sensitive	Yes	Range does not overlap with project site
Species list was source <u>the Mountain-Prairie R</u> Migratory bird list was	d from U.S. Forest Service Region updated 2017. sourced from USFWS Bird	https://www.fs.usda.gov	v Rocky Mountain	n Region and USFWS Migratory birds for

https://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php.

## Other Wildlife

As previously discussed in the sections on Threatened, Endangered, and Proposed Species and Sensitive Species of Concern, the proposed project should minimally impact populations of species that have ranges that do or may potentially overlap with the Project area.

During the site visit two active raptor nests were found (**Figure 7**). A great-horned owl (*Bubo virginianus*) nest was located in an old-growth cottonwood tree on the northeast corner of the property. One adult and one fledgling were seen on the nest. In the southwest corner, also in an old-growth cottonwood, an adult red-tailed hawk (*Buteo jamaicensis*) was seen brooding in the nest and a second adult was perched nearby. The nest was heavily guarded by the

adults from raiding crows. The property also has a large, active black-tailed prairie dog colony that occupies well over three quarters of the property, with 2,016 active burrows documented (**Figure 7**). The extent of the prairie dog colony extends to the west in the areas seen in Figure 7. There were no signs of swift fox dens nor were there any burrowing owls observed. Two killdeers (*Charadrius vociferus*) were seen foraging and may be nesting as well. Other common birds such as American robin (*Turdus migratorius*), northern flicker (*Colaptes auratus*), Eurasian collared-dove (*Streptopelia decaocto*), and Say's phoebe (*Sayornis saya*) were observed flying through the area.



Figure 7. Locations of red-tailed hawk and great horned owl nests, as well as extents of black-tailed prairie dog colony.

## Natural Habitat Buffer Zone (NHBZ) Design and Recommendations

AloTerra's concept design for wetland mitigation and NHBZ (**Appendix D**) would result in significant ecological uplift of wetland, riparian, and upland areas, providing potential habitat for a great variety of wildlife, including those species listed in **Tables 3** and **4** of this report.

## **Forestry Mitigation**

A formal forestry survey was conducted on April 13, 2022 by Christine Holtz with the City of Fort Collins. Tree mitigation will include 27.5 trees (**Table 5**).

#	Species	Stems	DBH (inches)	Condition	<b>Forestry Mitigation</b>
1	Crabapple		9	fair minus	1.5
2	Russian olive		9 and 8	fair minus	1.5
3	Russian olive	3	7 - 8	fair	1.5
4	Siberian elm		26	fair minus	2
5	Siberian elm		6 and 9	fair minus	1.5
6	Siberian elm			dead	0
7	Siberian elm			dead	0
8	Siberian elm		7	dead	0
9	Cottonwood		11 and 8	poor	2
10	Ash (cloud)	50		fair	2
11	Cottonwood		29 and 19	poor	3
12	Cottonwood		18	poor	2
13	Cottonwood		36	fair minus	2.5
14	Cottonwood		30	fair minus	3
15	Cottonwood	8	14 - 26	poor	5
				Total:	27.5

**Table 5.** Tree mitigation list documented by City of Fort Collins Forestry Department.

## **Noxious Weeds**

A preliminary weed (non-native plants) list is provided in the above site plant community sections above. Of the weeds present, those species of greatest management concern include smooth brome (*Bromus inermis*), Canada thistle (*Cirsium arvense*), teasel (*Dipsacus laciniatus*), (and reed canary grass (*Phalaris arundinaceae*). These species are difficult to eradicate without intensive chemical treatment methods due to their perennial growth habits.

## Wetland, Riparian, and Upland Enhancement

Wetland mitigation and NHBZ designs will include native seed mixes with wetland, riparian, and upland mixes (see **Appendix D** for preliminary plant lists). All seed mixes will combine grass, grass-like species, and flowering forbs to attract pollinators. Species lists are designed to fill all ecological niches so that there is minimal chance of noxious weed intrusion. This also allows for restoration of soil through different rooting patterns and zones.

Native container plants throughout the wetland mitigation and NHBZ areas are also recommended to increase the amount of diversity within the Project area. Examples include bulrushes and sedges for the wetland and riparian areas, and fruiting shrubs and small trees for the upland areas.

To build upon the sustainability goals of AloTerra, the City of Fort Collins, and College and Trilby, we encourage using as many on-site materials as possible, to minimize the fuel consumption, carbon emissions, and other impacts associated with materials import. This includes, but not limited to, using existing downed trees as features throughout the NHBZ, which can provide diverse habitat for wildlife throughout the corridor, and act as natural benches for visitors. Excavated soil in the wetland mitigation and NHBZ areas can be used as on-site fill for development purposes, to reduce the need to import fill to the site.

Formal wetland delineation forms (**Appendix A**) and an Approved Jurisdictional Determination have been submitted to USACE, with the understanding that because of the isolated nature of the two wetlands onsite, they will not be

considered Water's of the US (WOTUS) and will not require any further permitting or mitigation under USACE. However, wetland mitigation will be required by the City of Fort Collins.

AloTerra proposes a wetland design that increases diversity and ecological function. This would be achieved by excavating and grading the wetland to attain a greater variety of hydrologic conditions. Topography should be designed to support emergent, mesic meadow, and facultative wetland species, which will transition to riparian habitats where willows and mesoriparian/xeroriparian shrubs can be planted (**Figure 8**).



Figure 8. Example wetland cross section.

## **Development Activities**

The project is currently in the Preliminary Development Plan phase. Construction should avoid impacting important suitable habitat for sensitive or endangered species. In order to minimally impact sensitive or migratory bird populations, it is important to avoid impacting any potential nesting sites (cottonwood trees or thick vegetation on the surface). During construction, Colorado Park and Wildlife Regulations pertaining to red-tailed hawks should be followed.

## Prairie Dog Mitigation

As directed by the City of Fort Collins, the black-tailed prairie dog population will need to be mitigated before construction begins. Follow up surveys must take place to ensure proper mitigation. A plan must be created and implemented adhering to one of the following options included in the Land Use Code Requirements (Land Use Code Section 3.4.1). Since this site is greater than one acre, and development activities require the removal of prairie dogs, mitigation must occur due to lost ecological value. Options can be viewed on the <u>Flow Chart</u> following Land Use Code Requirements. Mitigation might consist of several methods.

Geographic location and "Areas of Concern" (Off-site continuation of prairie dog colony) can be viewed on Figure 7. Due to development activities and the establishment of the NHBZ on the western border, all areas of concern must be mitigated to ensure the NHBZ is not impacted by future prairie dog "re-intrusion".

A payment in lieu can be made to the City of Fort Collins to mitigate for prairie dogs by 1) Trap, Euthanize, and Donate; 2) Live Relocation; or 3) Fumigation-Carbon Monoxide. Pricing will be negotiated with the City of Fort Collins Natural Areas, depending on contractor and site-specific conditions. Recommended by the City of Fort Collins is Active

Ecological Characterization Study, College and Trilby

Relocation, followed by Trap, Euthanize, and Donate; so that other species recovery programs can benefit. Ethically euthanized black-tailed prairie dogs may be donated to the Rocky Mountain Raptor Center or The National Black-Footed Ferret Conservation Center (NBFFCC), but strict guidelines must be followed. Detailed information on the Raptor Center can be obtained by contacting the Rocky Mountain Raptor Center at 970-484-7756 or <u>info@rmrp.org</u>. Information on the NBFFCC can be found by contacting one of the following personnel:

Tyler Tretten	970-897-2730 x62221	NBFFCC Fish & Wildlife
	tyler_tretten@fws.gov	Biologist
Dr. Della Garelle,	970-897-2730 x62223	NBFFCC Veterinarian
DVM	della_garelle@fws.gov	
Justin Chuven	970-897-2730 x62230	NBFFCC Deputy Recovery
	justin_chuven@fws.gov	Coordinator
Robyn Bortner	970-897-2730 x62226	NBFFCC Fish & Wildlife
	robyn_bortner@fws.gov	Biologist

<u>Issues regarding the timing of development-related activities stemming from the ecological character of the area.</u> Because there are active raptor nests within the Project boundary, CPW regulations for red-tailed hawks must be followed during construction. A 450' buffer around the nesting site must be shown on design plans with a note that no construction within the buffer may occur within the first year of development.

<u>Measures needed to mitigate projected adverse impacts of development on natural habitats and features.</u> During construction there should be setbacks, silt fence, and erosion control to help mitigate any adverse impacts to existing wetland and riparian features that will remain on site.

## Summary

In summary, while the overall quality and diversity of this site is low, it still provides important corridor habitat to wildlife, which should be maintained. However, we believe that the proposed development would have minimal impact to sensitive or rare wildlife or plants, natural features, and other important ecological functions and conservation elements in the region. Additionally, the proposed wetland mitigation and NHBZ would create overall ecological uplift of the site and enhance the quality of plant communities and connectivity of habitat for wildlife by establishing multiple plant community types with varying structural and functional diversity.

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(May 2010 Regional Supplement to 1987 Wetlands Delineation Manual: Western Mountains, Valleys, and Coastal Regions, Version 2.0)

Project/Site: Core Spaces Applicant/Owner: AloTerra/Private Land Owner Investigator (s): Sarah Smith Landform (Hillslope, Terrace, etc.): Subregion (LRR): Soil Map Unit Name: City/County: Fort Collins/Larimer State: CO Section/Township/Range: Local Relief: Concave Lat: Lon: Sampling Date: 04/15/2022 Sampling Point: SP3

Slope (%): 1% Datum: NWI Classification: PEM

Is the sampled area within a wetland: Y

Are climatic / hydrologic conditions on the site typical for this time of year? Yes

Are Vegetation Yes ; Soil, No; or Hydrology No; significantly disturbed? Are "Normal Circumstances" present? Yes Are Vegetation No; Soil, No; or Hydrology No: naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Include a map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present: Y Hydric Soil Present: Y Wetland Hydrology Present: Y

**Remarks:** Area is dominated by canary reedgrass. Landscape is a bowl like shape where uplands to the north, south, and west drain to. Culvert at the eastern side of wetland that drains under HWY 287.

## VEGETATION (USE SCIENTIFIC NAMES)

Tree Stratum (Plot Size: 25 sq. m.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Works Number of dominant sp	heet ecies
1.				LIIDL DEL, FACW, OF	$FAC.  \mathbf{I} \left( A \right)$
2.				Total no. of dominant	
3.					1 (D)
4.				species across all strata:	т (В)
5.		= Total Cov	ver	Percent of Dominant sp That are OBL, FACW, or	o. FAC: 100% (A/B)
Shrub Stratum (Plot Size: 9 sg. m.)	Absolute	Dominant	Indicator		
· · · · ·	% Cover	Species?	Status		
1. Salix exigua	7	No	OBL	Prevalence Index Works	sheet
2.				Total % Cover of:	Multiply by:
3.				OBL spp: xx	x1 =
4.				FACW spp: 100	x2 =200
5.				FAC spp: xx	x3 =
	7 = %	Total Shrub	Cover	FACU spp: xx	x4 =
				UPL spp: xx	x5 =
				Column totals: (A)100	(B)200

Herb Stratum (Plot Size: 1.0 sq. m.)	) Absolute	Dominant	Indicator	Hydrophytic Vegetation Indicators:
	% Cover	Species?	Status	1. Rapid test for hydrophytic vegetation
1. Phalari	100	Yes	FACW	X 2. Dominance test is > 50%
2.				X 3. Prevalence index is $\leq 3.0^{1}$
3.				4. Morphological adaptations <sup>1</sup> (provide
4.				Supporting data in remarks or attach)
5.				5. Wetland non-vascular plants <sup>1</sup>
6.				Problematic Hydrophytic Vegetation <sup>1</sup>
7.				(explain)
8.				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
9.				be present, unless disturbed or problematic
10.				
11.				Hydrophytic Vegetation Present: Yes
		100= % Tota	al Herb Cover	
Woody Vine Strat. (Plot Size: 9 sq.ı	m.)	Absolute	Dominant	Indicator
		% Cover	Species?	Status
1.				
2.				
			= % Total Abs	solute Woody Vine Cover
% Bare Ground in Herb Stratum: 0	I	% Litter C	Cover in Herb	Stratum: 95
REMARKS:				

## SOILS

Profile Description (describe to the depth needed to document the indicator or confirm the absence of indicators.) Depth Matrix **Redox Features** Color (moist) Color (moist) Type<sup>1</sup> Loc<sup>2</sup> (inches) %\_\_ % Texture Remarks 99 7YR4/6 1 0-6.5 10YR2/1 С Silty Clay Μ 6.5-16 10YR4/2 25 10YR5/6 5 С Μ Silty clay 10YR3/1 70

<sup>1</sup>Type: C = Concentration, D = Depletion, RM = Reduced Matric, CS = Covered or Coated Sand Grains. <sup>2</sup>Location: PL = Pore Lining, M = Matrix.

Hydric Soil Indicators	(Applicable to all Land Resource Regions unless otherwise indicated)	Indicators for Problematic Hydric S
------------------------	--	-------------------------------------

Hydric Soil Indicators (Applicable to all Lan	d Resource Regions unless otherwise indicated)	Indicators for Problematic Hydric Soils				
Histosol (A1)	Sandy redox (S5)	2cm muck (A10)				
Histic epipedon (A2)	Stripped matrix (S6)	Red parent material (TF2)				
Black Histic (A3) Lo	amy mucky mineral (F1, except MLRA 1)	Very shallow dark surface (TF12)				
Hydrogen Sulfide (A4)	Loamy gleyed matrix (F2)	Other (explain)				
Depleted below dark surface (A11)	Depleted matrix (F3)					
Thick dark surface (A12)	Redox dark surface (F6)	<sup>3</sup> Indicators of hydrophytic vegetation and				
Sandy mucky mineral (S1) N/A	Depleted dark surface (F7)	wetland hydrology must be present, unless				
Sandy gleyed matrix (S4)	<u>X</u> Redox depressions (F8)	disturbed or problematic				
Restrictive Layer (if present)	Hydric Soil Pres	sent? Yes				
Туре:						
Depth (inches):						
Remarks:						
Salt deposits throughout soil stratum.						

## Hydrology

#### Wetland Hydrology Indicators

#### **Primary Indicators** (Minimum of one required. Check all that apply)

\_\_\_\_ Surface water (A1) Water stained leaves (B9) Water stained leaves (B9) \_\_\_ High water table (A2) (except MLRA 1, 2, 4A, and 4B) (except MLRA 1, 2, 4A, and 4B) \_\_\_\_ Saturation (A3) Salt crust (B11) X Drainage patterns (B10) \_\_\_ Dry season water table (C2) Water marks (B1) Aquatic invertebrates (B13) \_\_\_\_ Hydrogen sulfide odor (C1) Sediment deposits (B2) Saturation visible on aerial imagery (C9) Oxidized rhizospheres along roots (C3) Drift deposits (B3) \_X\_ Geomorphic position (D2) \_\_\_ Shallow aquitard (D3) Presence of reduced iron (C4) \_ Algal mat or crust (B4) Recent iron reduction in tilled soils (C6) Iron deposits (B5) FAC-neutral test (D5) \_\_\_\_ Stunted or stressed plants (D1) (LRRA) \_\_\_ Raised ant mounds (D6) (except LRRA) Surface soil cracks (B6) \_\_\_ Other (explain in remarks) X Inundation visible on aerial imagery (B7) Frost-heave hummocks (D7) \_\_\_\_ Sparsely vegetated concave surface (B8)

Field Observations:

Surface water present: N Water table present: N Saturation present: N (includes capillary fringe) Depth (inches): Depth (inches): Depth (inches): Wetland Hydrology Present? Yes

Secondary Indicators (2 or more required)

# Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:** 

## FORM NOTES

<u>Stratum</u>: 1. Tree stratum – Consists of woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. 2. Sapling/shrub stratum – Consists of woody plants less than 3 in. DBH, regardless of height. 3. Herb stratum – Consists of all herbaceous (non-woody) plants, including herbaceous vines, regardless of size. 4. Woody vines – Consists of all woody vines, regardless of height.

<u>FAC-neutral Test for determining Wetland Hydrology (Regional Supplement to the Corps of Engineers Wetland</u> Delineation Manual: Great Plains Region (Version 2.0). U.S. Army Corps of Engineers March 2010)

The FAC-neutral test is performed by compiling a list of dominant plant species across all strata in the community, and dropping from the list any species with a Facultative indicator status (i.e., FAC, FAC–, and FAC+). The FAC-neutral test is met if more than 50 percent of the remaining dominant species are rated FACW and/or OBL. This indicator may be used in communities that contain no FAC dominants. If there are an equal number of dominants that are OBL and FACW versus FACU and UPL, non-dominant species should be considered. This indicator is only applicable to wetland hydrology determinations.

(May 2010 Regional Supplement to 1987 Wetlands Delineation Manual: Western Mountains, Valleys, and Coastal Regions, Version 2.0)

Project/Site: Core Spaces Applicant/Owner: AloTerra/Private Land Owner Investigator (s): Sarah Smith Landform (Hillslope, Terrace, etc.): Subregion (LRR): Soil Map Unit Name: City/County: Fort Collins/Larimer State: CO Section/Township/Range: Local Relief: Concave Lat: Lon: Sampling Date: 04/15/2022 Sampling Point: SP4

Slope (%): 1% Datum: NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes

Are Vegetation Yes ; Soil, No; or Hydrology No; significantly disturbed? Are "Normal Circumstances" present? Yes Are Vegetation No; Soil, No; or Hydrology No: naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Include a map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present: N Hydric Soil Present: Y Wetland Hydrology Present: Y

**Remarks:** Area is dominated by canary reedgrass. Landscape is a bowl like shape where uplands to the north, south, and west drain to. Culvert at the eastern side of wetland that drains under HWY 287.

## VEGETATION (USE SCIENTIFIC NAMES)

Tree Stratum (Plot Size: 25 sq. m.)	Absolute	Dominant	Indicator	Dominance Test Worksheet	
1122 Stratum (Flot Size: 25 Sq. 11.)	Absolute	Contract	Challen	Dominance Test Worksheet	
	% Cover	Species?	Status	Number of dominant species	
1.				that are OBL, FACW, or FAC:	(A)
2.					
3.				Total no. of dominant	
4.				species across all strata:	(B)
5.					
		= Total Cov	er	Percent of Dominant spp.	
				That are OBL, FACW, or FAC:	(A/B)
Shrub Stratum (Plot Size: 9 sg. m.)	Absolute	Dominant	Indicator		
( , ,	% Cover	Snecies?	Status		
1		Species.	Status	Broyalanca Inday Warkshoot	
1.					
2.				Total % Cover of: Multiply	y by:
3.				OBL spp: xx x1 =	
4.				FACW spp: 100 x2 =	200
5.				FAC spp: xx x3 =	
	= % 1	Fotal Shrub (	Cover	FACU spp: xx x4 =	
				UPL spp: xx x5 =	
				Column totals: (A) (B)	
				Prevalence Index (B/A) =	

Is the sampled area within a wetland: N

Herb Stratum (Plot Size: 1.0 sq. m.	) Absolute	Dominant	Indicator	Hydrophytic Vegetation Indicators:
	% Cover	Species?	Status	1. Rapid test for hydrophytic vegetation
1. Bromus inermis	75	Yes	UPL	2. Dominance test is > 50%
2. Pascopyrum smithii	25	Yes	UPL	3. Prevalence index is $\leq 3.0^1$
3.				4. Morphological adaptations <sup>1</sup> (provide
4.				Supporting data in remarks or attach)
5.				5. Wetland non-vascular plants <sup>1</sup>
6.				Problematic Hydrophytic Vegetation <sup>1</sup>
7.				(explain)
8.				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
9.				be present, unless disturbed or problematic
10.				
11.				Hydrophytic Vegetation Present: No
		100= % Tot	al Herb Cove	
Woody Vine Strat. (Plot Size: 9 sq.	m.)	Absolute	Dominant	Indicator
		% Cover	Species?	Status
1.				
2.				
			= % Total Ab	solute Woody Vine Cover
% Bare Ground in Herb Stratum: 0	)	% Litter (	Cover in Herb	Stratum: 95
REMARKS:				
L				

## SOILS

Profile Description (describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	<u>Color (moist)</u>	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	<u>Remarks</u>
0-4	10Y3/1	100					Silty Clay	
4-6.5	10YR3/1	75	7.5YR4/6	1	С	М	Silty clay	
	10YR4/2	29						
6.5-19	10YR3/1	15	7.5YR4/6	6	С	М	Clay	
	10YR4/3	80						

<sup>1</sup>Type: C = Concentration, D = Depletion, RM = Reduced Matric, CS = Covered or Coated Sand Grains. <sup>2</sup>Location: PL = Pore Lining, M = Matrix.

Hydric Soil Indicators (Applicable to all Land Resource Regions unless otherwise indicated)	Indicators for Problematic Hydric Soi	S

Histosol (A1)	Sandy redox (S5)	2cm muck (A10)
Histic epipedon (A2)	Stripped matrix (S6)	Red parent material (TF2)
Black Histic (A3) Lu	oamy mucky mineral (F1, except MLRA 1)	) Very shallow dark surface (TF12)
Depleted below dark surface (A11)	Depleted matrix (F3)	
Thick dark surface (A12)	Redox dark surface (F6)	<sup>3</sup> Indicators of hydrophytic vegetation and
Sandy mucky mineral (S1) N/A	Depleted dark surface (F7)	wetland hydrology must be present, unless
Sandy gleyed matrix (S4)	<u>X</u> Redox depressions (F8)	disturbed or problematic
Restrictive Layer (if present)	Hydric Soil Pro	esent? Yes
Туре:		
Depth (inches):		
<b>Remarks:</b> Salt deposits throughout soil stratum	1.	

## HYDROLOGY

#### Wetland Hydrology Indicators

#### **Primary Indicators** (Minimum of one required. Check all that apply)

Secondary Indicators (2 or more required) \_\_\_\_ Surface water (A1) Water stained leaves (B9) Water stained leaves (B9) \_\_\_ High water table (A2) (except MLRA 1, 2, 4A, and 4B) (except MLRA 1, 2, 4A, and 4B) Saturation (A3) Salt crust (B11) X Drainage patterns (B10) \_\_\_ Dry season water table (C2) Water marks (B1) Aquatic invertebrates (B13) Sediment deposits (B2) Hydrogen sulfide odor (C1) Saturation visible on aerial imagery (C9) \_X\_Oxidized rhizospheres along roots (C3) \_X\_Geomorphic position (D2) Drift deposits (B3) \_\_\_ Shallow aquitard (D3) Presence of reduced iron (C4) \_ Algal mat or crust (B4) Recent iron reduction in tilled soils (C6) Iron deposits (B5) FAC-neutral test (D5) \_\_\_\_ Stunted or stressed plants (D1) (LRRA) \_\_\_ Raised ant mounds (D6) (except LRRA) Surface soil cracks (B6) \_\_\_ Other (explain in remarks) Inundation visible on aerial imagery (B7) Frost-heave hummocks (D7) \_\_\_\_ Sparsely vegetated concave surface (B8)

Field Observations:	
Surface water present: N	De
Water table present: N	D
Saturation present: N	D
(includes capillary fringe)	

epth (inches): epth (inches): epth (inches): Wetland Hydrology Present? Yes

## Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:** 

#### FORM NOTES

Stratum: 1. Tree stratum – Consists of woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. 2. Sapling/shrub stratum – Consists of woody plants less than 3 in. DBH, regardless of height. 3. Herb stratum – Consists of all herbaceous (non-woody) plants, including herbaceous vines, regardless of size. 4. Woody vines – Consists of all woody vines, regardless of height.

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(May 2010 Regional Supplement to 1987 Wetlands Delineation Manual: Western Mountains, Valleys, and Coastal Regions, Version 2.0)

Project/Site: Core Spaces Applicant/Owner: AloTerra/Private Land Owner Investigator (s): Sarah Smith Landform (Hillslope, Terrace, etc.): Subregion (LRR): Soil Map Unit Name: City/County: Fort Collins/Larimer State: CO Section/Township/Range: Local Relief: Concave Lat: Lon: Sampling Date: 04/15/2022 Sampling Point: SP5

Slope (%): 1% Datum: NWI Classification: PEM

Is the sampled area within a wetland: Y

Are climatic / hydrologic conditions on the site typical for this time of year? Yes

Are Vegetation Yes ; Soil, No; or Hydrology No; significantly disturbed? Are "Normal Circumstances" present? Yes Are Vegetation No; Soil, No; or Hydrology No: naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Include a map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present: Y Hydric Soil Present: Y Wetland Hydrology Present: Y

**Remarks:** Area is dominated by canary reedgrass. Landscape is a bowl like shape where uplands to the north, south, and west drain to. Culvert at the eastern side of wetland that drains under HWY 287.

## VEGETATION (USE SCIENTIFIC NAMES)

Tree Stratum (Plot Size: 25 cg. m)	Abcoluto	Dominant	Indicator	Dominance Test Worksho	ot
11ee Stratum (Flot Size: 25 Sq. 11.)	Absolute	Consider	Chatura	Number of descinent and	
	% Cover	Species?	Status	Number of dominant spec	cies
1.				that are OBL, FACW, or FA	AC: 1(A)
2.					
3.				Total no. of dominant	
4.				species across all strata:	1 (B)
5.					
		= Total Cov	er	Percent of Dominant spp.	
				That are OBL, FACW, or FA	AC: 100 (A/B)
Shrub Stratum (Plot Size: 9 sg. m.)	Absolute	Dominant	Indicator		( ) )
	% Cover	Species?	Status		
1		opeciesi		Provalence Index Worksh	oot
1. 2				Total % Cover of:	inly by:
2.				Total % Cover of: Iviuit	
3.				OBL spp: xx >	(1 =
4.				FACW spp: 99	(2 =198
5.				FAC spp: xx >	(3 =
	= % 1	Fotal Shrub (	Cover	FACU spp: xx >>	(4 =
				UPL spp: xx >>	(5 =
				Column totals: (A) 99 (	B) 198
				Prevalence Index (B/A) = 2	L

Herb Stratum (Plot Size: 1.0 sq. m.	.) Absolute	Dominant	Indicator	Hydrophytic Vegetation Indicators:
	% Cover	Species?	Status	1. Rapid test for hydrophytic vegetation
1. Phalaris arundinacea	99	Yes	FACW	<b>_X</b> 2. Dominance test is > 50%
2. Rumex crispus	5	No	UPL	_X 3. Prevalence index is $\leq 3.0^1$
3. Taraxacum officinale	<1	No	UPL	4. Morphological adaptations <sup>1</sup> (provide
4.				Supporting data in remarks or attach)
5.				5. Wetland non-vascular plants <sup>1</sup>
6.				Problematic Hydrophytic Vegetation <sup>1</sup>
7.				(explain)
8.				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
9.				be present, unless disturbed or problematic
10.				
11.				Hydrophytic Vegetation Present: Yes
		100= % Tota	al Herb Cover	
Woody Vine Strat. (Plot Size: 9 sq.	. <b>m.)</b>	Absolute	Dominant	Indicator
		% Cover	Species?	Status
1.				
2.				
			= % Total Abs	solute Woody Vine Cover
% Bare Ground in Herb Stratum: <	<1%	% Litte	er Cover in He	erb Stratum: 95
REMARKS:				

## Soils

Profile Description (describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redo	x Features				
<u>(inches)</u>	<u>Color (moist)</u>	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	<u>Texture</u>	<u>Remarks</u>
0-5	10YR2/1	100					Silty clay loa	am
5-16	10YR3/2	25	7.5YR5/8	1	С	Μ	Silty clay	
	10YR4/2	75	2.5YR4/8	1	С	PL		

<sup>1</sup>Type: C = Concentration, D = Depletion, RM = Reduced Matric, CS = Covered or Coated Sand Grains. <sup>2</sup>Location: PL = Pore Lining, M = Matrix.

Hydric Soil Indicators (Applicable to all	Land Resource Regions unless otherwise indicated)	Indicators for Problematic Hydric Soils
Histosol (A1)	Sandy redox (S5)	2cm muck (A10)
Histic epipedon (A2)	Stripped matrix (S6)	Red parent material (TF2)
Black Histic (A3)	Loamy mucky mineral (F1, except MLRA 1)	Very shallow dark surface (TF12)
Hydrogen Sulfide (A4)	Loamy gleyed matrix (F2)	Other (explain)
Depleted below dark surface (A1	1) Depleted matrix (F3)	
Thick dark surface (A12)	Redox dark surface (F6)	<sup>3</sup> Indicators of hydrophytic vegetation and
Sandy mucky mineral (S1) N/A	A Depleted dark surface (F7)	wetland hydrology must be present, unless
Sandy gleyed matrix (S4)	<u>X</u> Redox depressions (F8)	disturbed or problematic
Restrictive Layer (if present)	Hydric Soil Prese	ent? Yes

Type:

Depth (inches):

#### Remarks:

Salt deposits throughout soil stratum.

## HYDROLOGY

#### Wetland Hydrology Indicators

#### **Primary Indicators** (Minimum of one required. Check all that apply)

Secondary Indicators (2 or more required) \_\_\_\_ Surface water (A1) Water stained leaves (B9) Water stained leaves (B9) \_\_\_ High water table (A2) (except MLRA 1, 2, 4A, and 4B) (except MLRA 1, 2, 4A, and 4B) Saturation (A3) Salt crust (B11) X Drainage patterns (B10) \_\_\_ Dry season water table (C2) Water marks (B1) Aquatic invertebrates (B13) Sediment deposits (B2) Hydrogen sulfide odor (C1) Saturation visible on aerial imagery (C9) \_X\_Oxidized rhizospheres along roots (C3) \_X\_Geomorphic position (D2) Drift deposits (B3) \_\_\_ Shallow aquitard (D3) Presence of reduced iron (C4) \_ Algal mat or crust (B4) Recent iron reduction in tilled soils (C6) Iron deposits (B5) FAC-neutral test (D5) \_\_\_\_ Stunted or stressed plants (D1) (LRRA) \_\_\_ Raised ant mounds (D6) (except LRRA) Surface soil cracks (B6) \_\_\_ Other (explain in remarks) Inundation visible on aerial imagery (B7) Frost-heave hummocks (D7) \_\_\_\_ Sparsely vegetated concave surface (B8)

Field Observations:	
Surface water present: N	De
Water table present: N	D
Saturation present: N	D
(includes capillary fringe)	

epth (inches): epth (inches): epth (inches): Wetland Hydrology Present? Yes

## Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:** 

#### FORM NOTES

Stratum: 1. Tree stratum – Consists of woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. 2. Sapling/shrub stratum – Consists of woody plants less than 3 in. DBH, regardless of height. 3. Herb stratum – Consists of all herbaceous (non-woody) plants, including herbaceous vines, regardless of size. 4. Woody vines – Consists of all woody vines, regardless of height.

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(May 2010 Regional Supplement to 1987 Wetlands Delineation Manual: Western Mountains, Valleys, and Coastal Regions, Version 2.0)

Project/Site: Core Spaces Applicant/Owner: AloTerra/Private Land Owner Investigator (s): Sarah Smith Landform (Hillslope, Terrace, etc.): Subregion (LRR): Soil Map Unit Name: City/County: Fort Collins/Larimer State: CO Section/Township/Range: Local Relief: Concave Lat: Lon: Sampling Date: 04/15/2022 Sampling Point: SP6

Slope (%): 1% Datum: NWI Classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes

Are Vegetation Yes ; Soil, No; or Hydrology No; significantly disturbed? Are "Normal Circumstances" present? Yes Are Vegetation No; Soil, No; or Hydrology No: naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Include a map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present: N Hydric Soil Present: Y Wetland Hydrology Present: N

**Remarks:** Area is dominated by canary reedgrass. Landscape is a bowl like shape where uplands to the north, south, and west drain to. Culvert at the eastern side of wetland that drains under HWY 287.

## VEGETATION (USE SCIENTIFIC NAMES)

Tree Stratum (Plot Size: 25 sq. m.)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet</b> Number of dominant species	(Δ)
2					(7)
3.				Total no. of dominant	
4.				species across all strata:	(B)
5.					( )
		= Total Cov	er	Percent of Dominant spp.	
				That are OBL, FACW, or FAC:	(A/B)
Shrub Stratum (Plot Size: 9 sq. m.)	Absolute	Dominant	Indicator		
	% Cover	Species?	Status		
1.				Prevalence Index Worksheet	
2.				Total % Cover of: Multiply	by:
3.				OBL spp: xx x1 =	
4.				FACW spp: x2 =	
5.				FAC spp: xx x3 =	
	= % -	Fotal Shrub (	Cover	FACU spp: xx x4 =	
				UPL spp: xx x5 =	
				Column totals: (A) (B)	
				Prevalence Index (B/A) = 1	

Is the sampled area within a wetland: N

Herb Stratum (Plot Size: 1.0 sq. m	1.) Absolute	Dominant	Indicator	Hydrophytic Vegetation Indicators:
	% Cover	Species?	Status	1. Rapid test for hydrophytic vegetation
1. Bromus inermis	99	Yes	UPL	2. Dominance test is > 50%
2. Dipsacus laciniatus	1	No	UPL	3. Prevalence index is $\leq 3.0^1$
3.				4. Morphological adaptations <sup>1</sup> (provide
4.				Supporting data in remarks or attach)
5.				5. Wetland non-vascular plants <sup>1</sup>
6.				Problematic Hydrophytic Vegetation <sup>1</sup>
7.				(explain)
8.				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
9.				be present, unless disturbed or problematic
10.				
11.				Hydrophytic Vegetation Present: No
		100= % Tota	al Herb Cover	
Woody Vine Strat. (Plot Size: 9 sc	ι.m.)	Absolute	Dominant	Indicator
		% Cover	Species?	Status
1.				
2.				
			= % Total Ab	solute Woody Vine Cover
% Bare Ground in Herb Stratum:	<1%	% Litte	er Cover in He	erb Stratum: 95
REMARKS:				

## Soils

Profile Description (describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix		Redox Features					
(inches)	<u>Color (moist)</u>	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	<u>Remarks</u>
0-7	10YR3/2	100					Silty clay l	oam
7-16	10YR4/4	95	7.5YR4/6	1	С	Μ	Silty clay	
	10YR3/1	5						

<sup>1</sup>Type: C = Concentration, D = Depletion, RM = Reduced Matric, CS = Covered or Coated Sand Grains. <sup>2</sup>Location: PL = Pore Lining, M = Matrix.

Hydric Soil Indicators (Applicable to all Land	Indicators for Problematic Hydric Soils	
Histosol (A1)	Sandy redox (S5)	2cm muck (A10)
Histic epipedon (A2)	Stripped matrix (S6)	Red parent material (TF2)
Black Histic (A3) Loa	my mucky mineral (F1, except MLRA 1)	Very shallow dark surface (TF12)
Hydrogen Sulfide (A4)	Loamy gleyed matrix (F2)	Other (explain)
Depleted below dark surface (A11)	Depleted matrix (F3)	
Thick dark surface (A12)	Redox dark surface (F6)	<sup>3</sup> Indicators of hydrophytic vegetation and
Sandy mucky mineral (S1) N/A	Depleted dark surface (F7)	wetland hydrology must be present, unless
Sandy gleyed matrix (S4)	<u>_X</u> Redox depressions (F8)	disturbed or problematic
Restrictive Layer (if present)	Hydric Soil Pres	ent? Yes

estrictive Layer (if present) Type:

Depth (inches):

#### Remarks:

Salt deposits throughout soil stratum.

## HYDROLOGY

#### Wetland Hydrology Indicators

#### **Primary Indicators** (Minimum of one required. Check all that apply)

\_\_\_\_ Surface water (A1) Water stained leaves (B9) Water stained leaves (B9) \_\_\_ High water table (A2) (except MLRA 1, 2, 4A, and 4B) (except MLRA 1, 2, 4A, and 4B) \_\_\_\_ Saturation (A3) Salt crust (B11) Water marks (B1) Aquatic invertebrates (B13) \_\_\_\_ Hydrogen sulfide odor (C1) Sediment deposits (B2) Oxidized rhizospheres along roots (C3) Drift deposits (B3) \_\_\_ Shallow aquitard (D3) Presence of reduced iron (C4) \_ Algal mat or crust (B4) Recent iron reduction in tilled soils (C6) Iron deposits (B5) FAC-neutral test (D5) \_\_\_\_ Stunted or stressed plants (D1) (LRRA) Surface soil cracks (B6) \_\_\_ Other (explain in remarks) Inundation visible on aerial imagery (B7) \_\_\_\_ Sparsely vegetated concave surface (B8)

#### Secondary Indicators (2 or more required)

- \_\_\_ Drainage patterns (B10)
- \_\_\_ Dry season water table (C2)
- Saturation visible on aerial imagery (C9)
- X Geomorphic position (D2)
- \_\_\_ Raised ant mounds (D6) (except LRRA)
- Frost-heave hummocks (D7)

#### **Field Observations:**

Surface water present: N Water table present: N Saturation present: N (includes capillary fringe)

Depth (inches): Depth (inches): Depth (inches): Wetland Hydrology Present? No

#### Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:** 

#### FORM NOTES

Stratum: 1. Tree stratum – Consists of woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. 2. Sapling/shrub stratum – Consists of woody plants less than 3 in. DBH, regardless of height. 3. Herb stratum – Consists of all herbaceous (non-woody) plants, including herbaceous vines, regardless of size. 4. Woody vines – Consists of all woody vines, regardless of height.

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(May 2010 Regional Supplement to 1987 Wetlands Delineation Manual: Western Mountains, Valleys, and Coastal Regions, Version 2.0)

Project/Site: Core Spaces Applicant/Owner: AloTerra/Private Land Owner Investigator (s): Sarah Smith Landform (Hillslope, Terrace, etc.): Subregion (LRR): Soil Map Unit Name: City/County: Fort Collins/Larimer State: CO Section/Township/Range: Local Relief: Concave Lat: Lon: Sampling Date: 04/15/2022 Sampling Point: SP7

Slope (%): 1% Datum: NWI Classification: PSS

Is the sampled area within a wetland: Y

Are climatic / hydrologic conditions on the site typical for this time of year? Yes

Are Vegetation Yes ; Soil, No; or Hydrology No; significantly disturbed? Are "Normal Circumstances" present? Yes Are Vegetation No; Soil, No; or Hydrology No: naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Include a map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present: Y Hydric Soil Present: Y Wetland Hydrology Present: Y

**Remarks:** Area is dominated by canary reedgrass. Landscape is a bowl like shape where uplands to the north, south, and west drain to. Culvert at the eastern side of wetland that drains under HWY 287.

## VEGETATION (USE SCIENTIFIC NAMES)

Tree Stratum (Plot Size: 25 sq. m.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksh Number of dominant spe	ieet ecies
1.		-		that are OBL, FACW, or F	AC: (A) 1
2.					
3.				Total no. of dominant	
4.				species across all strata:	(B)1
5.					
		= Total Cov	er	Percent of Dominant spp	).
				That are OBL, FACW, or F	FAC: (A/B) 100
Shrub Stratum (Plot Size: 9 sq. m.)	Absolute	Dominant	Indicator		
	% Cover	Species?	Status		
1. Salix exigua	30	Yes	OBL	Prevalence Index Works	heet
2.				Total % Cover of: Mu	ltiply by:
3.				OBL spp: 30	x1 = 30
4.				FACW spp:	x2 =
5.				FAC spp: xx	x3 =
	30 = %	Total Shrub	Cover	FACU spp: xx	x4 =
				UPL spp: xx	x5 =
				Column totals: (A) 30	(B) 30
				Prevalence Index (B/A) =	1

Herb Stratum (Plot Size: 1.0 sq. m	.) Absolute	Dominant	Indicator	Hydrophytic Vegetation Indicators:
	% Cover	Species?	Status	1. Rapid test for hydrophytic vegetation
1. Mentha arvensis	1	No	FACW	<b>_X</b> 2. Dominance test is > 50%
2. Poa spp.	1	No	N/A	X_ 3. Prevalence index is < 3.0 <sup>1</sup>
3. Asclepias speciosa	1	No	FAC	4. Morphological adaptations <sup>1</sup> (provide
4. Dipsacus laciniatus	1	No	UPL	Supporting data in remarks or attach)
5.				5. Wetland non-vascular plants <sup>1</sup>
6.				Problematic Hydrophytic Vegetation <sup>1</sup>
7.				(explain)
8.				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
9.				be present, unless disturbed or problematic
10.				
11.				Hydrophytic Vegetation Present: Yes
		4= % Total I	Herb Cover	
Woody Vine Strat. (Plot Size: 9 sq.	.m.)	Absolute	Dominant	Indicator
		% Cover	Species?	Status
1.				
2.				
			= % Total Abs	solute Woody Vine Cover
% Bare Ground in Herb Stratum:	<1%	% Litte	er Cover in He	erb Stratum: 90
<b>REMARKS:</b> Houndstongue in willow carr.				

## SOILS

Profile Description (describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth	Matrix	(	Redox Features					
(inches)	<u>Color (moist)</u>	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	<u>Remarks</u>
0-7	10YR2/2	100					silty clay l	oam
7-18	10YR4/3	90	7.5YR4/6	1	С	Μ	silty clay	
	10YR3/1	10						

<sup>1</sup>Type: C = Concentration, D = Depletion, RM = Reduced Matric, CS = Covered or Coated Sand Grains. <sup>2</sup>Location: PL = Pore Lining, M = Matrix.

Hydric Soil Indicators (Applicable to all Land	Resource Regions unless otherwise indicated)	Indicators for Problematic Hydric Soils
Histosol (A1)	Sandy redox (S5)	2cm muck (A10)
Histic epipedon (A2)	Stripped matrix (S6)	Red parent material (TF2)
Black Histic (A3) Loa	my mucky mineral (F1, except MLRA 1)	Very shallow dark surface (TF12)
Hydrogen Sulfide (A4)	Loamy gleyed matrix (F2)	Other (explain)
Depleted below dark surface (A11)	Depleted matrix (F3)	
Thick dark surface (A12)	Redox dark surface (F6)	<sup>3</sup> Indicators of hydrophytic vegetation and
Sandy mucky mineral (S1) N/A	Depleted dark surface (F7)	wetland hydrology must be present, unless
Sandy gleyed matrix (S4)	<u>X</u> Redox depressions (F8)	disturbed or problematic
Postrictivo Lovor (if procent)	Hudrie Soil Dros	ant? Voc
Restrictive Layer (ii present)	Hydric Soli Pres	entr 165

**Restrictive Layer (if present)** 

Type: Depth (inches):

#### Remarks:

Salt deposits throughout soil stratum.

## Hydrology

#### Wetland Hydrology Indicators

#### **Primary Indicators** (Minimum of one required. Check all that apply)

\_\_\_\_ Surface water (A1) Water stained leaves (B9) Water stained leaves (B9) \_\_\_ High water table (A2) (except MLRA 1, 2, 4A, and 4B) (except MLRA 1, 2, 4A, and 4B) \_\_\_\_ Saturation (A3) Salt crust (B11) X Drainage patterns (B10) \_\_\_ Dry season water table (C2) Water marks (B1) Aquatic invertebrates (B13) \_\_\_ Hydrogen sulfide odor (C1) Sediment deposits (B2) Saturation visible on aerial imagery (C9) Oxidized rhizospheres along roots (C3) Drift deposits (B3) \_X\_ Geomorphic position (D2) \_\_\_ Shallow aquitard (D3) Presence of reduced iron (C4) \_ Algal mat or crust (B4) Recent iron reduction in tilled soils (C6) Iron deposits (B5) FAC-neutral test (D5) \_\_\_\_ Stunted or stressed plants (D1) (LRRA) \_\_\_ Raised ant mounds (D6) (except LRRA) Surface soil cracks (B6) \_\_\_ Other (explain in remarks) Inundation visible on aerial imagery (B7) Frost-heave hummocks (D7) \_\_\_\_ Sparsely vegetated concave surface (B8)

Field Observations:Surface water present: NWater table present: NDeSaturation present: N(includes capillary fringe)

Depth (inches): Depth (inches): Depth (inches): Wetland Hydrology Present? Yes

Secondary Indicators (2 or more required)

# Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:** 

#### FORM NOTES

<u>Stratum</u>: 1. Tree stratum – Consists of woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. 2. Sapling/shrub stratum – Consists of woody plants less than 3 in. DBH, regardless of height. 3. Herb stratum – Consists of all herbaceous (non-woody) plants, including herbaceous vines, regardless of size. 4. Woody vines – Consists of all woody vines, regardless of height.

<u>FAC-neutral Test for determining Wetland Hydrology (Regional Supplement to the Corps of Engineers Wetland</u> Delineation Manual: Great Plains Region (Version 2.0). U.S. Army Corps of Engineers March 2010)

The FAC-neutral test is performed by compiling a list of dominant plant species across all strata in the community, and dropping from the list any species with a Facultative indicator status (i.e., FAC, FAC–, and FAC+). The FAC-neutral test is met if more than 50 percent of the remaining dominant species are rated FACW and/or OBL. This indicator may be used in communities that contain no FAC dominants. If there are an equal number of dominants that are OBL and FACW versus FACU and UPL, non-dominant species should be considered. This indicator is only applicable to wetland hydrology determinations.

(May 2010 Regional Supplement to 1987 Wetlands Delineation Manual: Western Mountains, Valleys, and Coastal Regions, Version 2.0)

Project/Site: Core Spaces Applicant/Owner: AloTerra/Private Land Owner Investigator (s): Sarah Smith Landform (Hillslope, Terrace, etc.): Subregion (LRR): Soil Map Unit Name:

City/County: Fort Collins/Larimer State: CO Section/Township/Range: Local Relief: Lat: Lon: Sampling Date: 04/15/2022 Sampling Point: SP8

Slope (%): 1% Datum: NWI Classification: None

Is the sampled area within a wetland: N

Are climatic / hydrologic conditions on the site typical for this time of year? Yes

Are Vegetation Yes ; Soil, No; or Hydrology No; significantly disturbed? Are "Normal Circumstances" present? Yes Are Vegetation No; Soil, No; or Hydrology No: naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Include a map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present: N Hydric Soil Present: Y Wetland Hydrology Present: N

**Remarks:** Area is dominated by canary reedgrass. Landscape is a bowl like shape where uplands to the north, south, and west drain to. Culvert at the eastern side of wetland that drains under HWY 287.

## VEGETATION (USE SCIENTIFIC NAMES)

Tree Stratum (Plot Size: 25 sq. m.)	Absolute % Cover	Dominant Species?	Indicator Status	<b>Dominance Test Worksheet</b> Number of dominant species	(0)	
2					(~)	
3				Total no. of dominant		
۵. ۵				species across all strata:	(B)	
5				species del oss di strata.	(0)	
		= Total Cov	er	Percent of Dominant spp.	(A/B)	
Shruh Stratum (Plot Size: 9 sq. m.)	∆hsolute	Dominant	Indicator	mat are obly racw, or rac.	(~, 0)	
511105 5111111 (1 101 512C. 5 5q. 111)	% Cover	Species?	Status	<b></b>		
1.	30	Yes	OBL	Prevalence Index Worksheet		
2.				Total % Cover of: Multiply	by:	
3.				OBL spp: x1 =		
4.				FACW spp: x2 =		
5.				FAC spp: xx x3 =		
	30 = %	Total Shrub	Cover	FACU spp: xx x4 =		
				UPL spp: xx x5 =		
				Column totals: (A) (B)		
				Prevalence Index (B/A) =		

	1 (PIOL SIZE: 1.0 :	sq. m.) Absolute	Dominant	Indicator	Hydrophytic Vegetation Indicators:
		% Cover	Species?	Status	1. Rapid test for hydrophytic vegetation
1. Bromus ine	ermis	95	Yes	UPL	2. Dominance test is > 50
2. Juncus balt	ticus	5	No	FAC	3. Prevalence index is $\leq 3.0^1$
3.					4. Morphological adaptations <sup>1</sup> (provide
4.					Supporting data in remarks or attach)
5.					5. Wetland non-vascular plants <sup>1</sup>
6.					Problematic Hydrophytic Vegetation <sup>1</sup>
7.					(explain)
8.					<sup>1</sup> Indicators of hydric soil and wetland hydrology must
9.					be present, unless disturbed or problematic
10.					
11.					Hydrophytic Vegetation Present: Yes
			100= % Tota	al Herb Cover	
Woody Vine	Strat. (Plot Size:	: 9 sq.m.)	Absolute	Dominant li	ndicator
			% Cover	Species? S	tatus
1.					
2.					
2.				= % Total Absol	ute Woody Vine Cover
2.				= % Total Absol	ute Woody Vine Cover
2. % Bare Groui	nd in Herb Strat	um: <1%	% Litte	= % Total Absol er Cover in Herb	ute Woody Vine Cover 9 Stratum: 90
2. % Bare Grou	nd in Herb Strat	um: <1%	% Litte	= % Total Absol er Cover in Hert	ute Woody Vine Cover 9 Stratum: 90
2. % Bare Groun REMARKS:	nd in Herb Strat	<b>um:</b> <1%	% Litte	= % Total Absol er Cover in Herk	ute Woody Vine Cover 9 Stratum: 90
2. % Bare Groun REMARKS:	nd in Herb Strat	um: <1%	% Litte	= % Total Absol er Cover in Hert	ute Woody Vine Cover 9 Stratum: 90
2. % Bare Groun REMARKS:	nd in Herb Strat	um: <1%	% Litte	= % Total Absol er Cover in Herk	ute Woody Vine Cover 9 Stratum: 90
2. % Bare Groun REMARKS: SOILS	nd in Herb Strat	um: <1%	% Litte	= % Total Absol er Cover in Herk	ute Woody Vine Cover
2. % Bare Groun REMARKS: SOILS Profile Descri	nd in Herb Strat	um: <1% to the depth nee	% Litte	= % Total Absol er Cover in Herk ment the indic	ute Woody Vine Cover
2. % Bare Groun REMARKS: SOILS Profile Descri Depth	nd in Herb Strat iption (describe Matrix	um: <1% to the depth nee	% Litte eded to docu Redoy	= % Total Absol er Cover in Herb ument the indic c Features	ute Woody Vine Cover 9 Stratum: 90 ator or confirm the absence of indicators.)
2. % Bare Groun REMARKS: SOILS Profile Descripte Depth (inches)	nd in Herb Strat iption (describe <u>Matrix</u> <u>Color (moist)</u>	um: <1% to the depth nee	% Litte	= % Total Absol er Cover in Herb ument the indic <u>Features</u> % <u>Type</u>	ute Woody Vine Cover 9 Stratum: 90 ator or confirm the absence of indicators.) ator = 100000000000000000000000000000000000

<sup>1</sup>Type: C = Concentration, D = Depletion, RM = Reduced Matric, CS = Covered or Coated Sand Grains. <sup>2</sup>Location: PL = Pore Lining, M = Matrix.

Hydric Soil Indicators (Applicable to all Lan	d Resource Regions unless otherwise indicated)	Indicators for Problematic Hydric Soils
Histosol (A1)	Sandy redox (S5)	2cm muck (A10)
Histic epipedon (A2)	Stripped matrix (S6)	Red parent material (TF2)
Black Histic (A3) Lo	amy mucky mineral (F1, except MLRA 1)	Very shallow dark surface (TF12)
Hydrogen Sulfide (A4)	Loamy gleyed matrix (F2)	Other (explain)
Depleted below dark surface (A11)	Depleted matrix (F3)	
Thick dark surface (A12)	Redox dark surface (F6)	<sup>3</sup> Indicators of hydrophytic vegetation and
Sandy mucky mineral (S1) N/A	Depleted dark surface (F7)	wetland hydrology must be present, unless
Sandy gleyed matrix (S4)	<u>X</u> Redox depressions (F8)	disturbed or problematic
Restrictive Layer (if present)	Hydric Soil Pres	ent? Yes
Туре:		
Depth (inches):		
Remarks:		
San acposits throughout son stratum	•	

## Hydrology

#### Wetland Hydrology Indicators

#### Primary Indicators (Minimum of one required. Check all that apply)

\_\_\_\_ Surface water (A1) Water stained leaves (B9) \_\_\_ High water table (A2) (except MLRA 1, 2, 4A, and 4B) \_\_\_\_ Saturation (A3) Salt crust (B11) Water marks (B1) Aquatic invertebrates (B13) \_\_\_ Hydrogen sulfide odor (C1) Sediment deposits (B2) Oxidized rhizospheres along roots (C3) Drift deposits (B3) Presence of reduced iron (C4) \_ Algal mat or crust (B4) Recent iron reduction in tilled soils (C6) Iron deposits (B5) \_\_\_\_ Stunted or stressed plants (D1) (LRRA) Surface soil cracks (B6) \_\_\_ Other (explain in remarks) Inundation visible on aerial imagery (B7) \_\_\_\_ Sparsely vegetated concave surface (B8)

## Secondary Indicators (2 or more required)

- \_\_\_ Water stained leaves (B9)
- (except MLRA 1, 2, 4A, and 4B)
- \_\_\_ Drainage patterns (B10)
- \_\_\_ Dry season water table (C2)
- \_\_\_ Saturation visible on aerial imagery (C9)
- \_\_\_ Geomorphic position (D2)
- \_ Shallow aquitard (D3)
- \_\_\_ FAC-neutral test (D5)
- \_\_\_\_ Raised ant mounds (D6) (except LRRA)
- \_\_\_ Frost-heave hummocks (D7)

#### **Field Observations:**

Surface water present: N Water table present: N Saturation present: N (includes capillary fringe) Depth (inches): Depth (inches): Depth (inches): Wetland Hydrology Present? No

# Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

**Remarks:** 

#### FORM NOTES

<u>Stratum</u>: 1. Tree stratum – Consists of woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. 2. Sapling/shrub stratum – Consists of woody plants less than 3 in. DBH, regardless of height. 3. Herb stratum – Consists of all herbaceous (non-woody) plants, including herbaceous vines, regardless of size. 4. Woody vines – Consists of all woody vines, regardless of height.

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## Appendix B: Wetland Delineation Photos



Figure 1. PEM wetland delineation vegetation (left) and soils (right) sampling.



Figure 2. PEM wetland delineation vegetation (left) and soils (right) sampling.



Figure 3. PEM wetland delineation vegetation (left) and soils (right) sampling.



Figure 4. PEM wetland delineation vegetation (left) and soils (right) sampling.



Figure 5. PSS wetland delineation vegetation (left) and soils (right) sampling.



Figure 6. PSS wetland delineation vegetation (left) and soils (right) sampling.

Appendix C: Wildlife Review

# Core Spaces Wildlife Review

Prepared by: AloTerra Restoration Services, LLC 320 E. Vine Drive Suit 314 Fort Collins, CO 80524

Prepared on: May 6, 2022

## Background

Core Spaces (hereafter referred to as the Project) site is located in Fort Collins, Colorado in Larimer County (**Figure 1**). The property is bordered by Highway 287 on the east, Skyway Dr to the north, Trilby Rd to the south and Constellation Dr residential housing to the west. Although not connected, The Prairie Dog Meadow Natural Area lies less than half a mile to the east of the Project. Currently The Project is used for agricultural purposes and is proposed to undergo housing development. The project area is dominated by uplands. Within the Project contains several old growth cottonwood trees (*Populus deltoides*) on the north and south borders. Herbaceous plants across the site were dominated by non-native species, such as smooth brome (*Bromus inermis*). Riparian areas were dominated by canary reedgrass (*Phalaris arundinaceae*) and coyote willow (*Salix exigua*).



Figure 1. Location of Core Spaces in Fort Collins, Colorado.

## Purpose

The purpose of this wildlife review is to assess the probable effects on federally listed species and sensitive species in the proposed Project site, per Section 7 of the 1973 Endangered Species Act. Under the actions, consultations, and recommendations of the USFWS, in cooperation with Colorado Parks and Wildlife. The authorized organization must ensure, with the best scientific data available, that there will be no negative change or destruction to critical habitats in the Project area (USFWS, 2013).

## Threatened, Endangered, and Proposed Species

On April 25, 2022 an official species list was documented by U.S Fish and Wildlife

Service's Information for Planning and Consultation IPAC: http://ecos.fws.gov/ipac/ was obtained by using known ranges of federally listed species in The Project area. A list was also unofficially obtained from the 2016 Colorado Natural Heritage Program database by looking at known sightings of sensitive species near Kingfisher Wetland project area. On April 30, 2022 an AloTerra Restoration Services field technician conducted a site visit in order to assess suitable habitat for known listed and sensitive animal species.

**Table 1** lists provides a record of the federally listed Federally listed species that could occur within the area of the proposed project (38 acres). The table includes (a) the common name of the species (b) the scientific name of the species (c) the status of the species in question (d) whether or not the species should be excluded and (e) the reasoning why the species should be excluded.

The reasoning of excluding species from the list of concerned species is given based off a variety of reasons including:

1) No suitable habitat was found during site visit, The range of the species in is such that the species is highly unlikely to not known near occur within the Project site;

- 2) No suitable habitat was found during the site review; and/or
- 3) No records for the species exist within the Project site.

**Table 1.** Federally listed terrestrial and aquatic species that may occur or be affected by actions within theProject.

Common Name	Species	Status	Species Excluded	Reason for Exclusion			
Mammals							
Preble's meadow jumping mouse	Zapus hudsonius preblei	Threatened	No	No detection during survey			
Canada lynx	Lynx canadensis	Threatened	Yes	Species and habitat are not present.			
Birds							
Mexican spotted owl	Strix occidentalis lucida	Threatened	Yes	Critical habitat does not overlap with project site			
Whooping crane	Grus americana	Endangered	Yes	Range does not overlap with project site			
Least tern	Sterna antillarum	Endangered	Yes	Range does not overlap with project site			
Piping plover	Charadrius melodus	Threatened	Yes	Range does not overlap with project site			
Fish							
Pallid sturgeon	Scaphirhynchus albus	Endangered	Yes	Species and habitat are not present.			
Greenback cutthroat trout	Oncorhynchus clarkii stomias	Threatened	Yes	Species and habitat are not present.			

Common Name	Species	Status	Species Excluded	Reason for Exclusion			
Plants							
Colorado butterfly plant	Gaura neomexicana var.	Threatened	Yes	Species and habitat are not			
	coloradensis			present.			
Ute ladies-tresses	Spiranthes diluvialis	Threatened	Yes	Species and habitat are not			
				present.			
Western prairie fringed	Plantanthera praeclara	Threatened	Yes	Species and habitat are not			
orchid				present.			
North Park phacelia	Phacelia formosula	Endangered	Yes	Found in higher elevation range			
				(8,000-8,300 ft)			
Sourced from IPAC : <u>http://</u>	<u>ecos.fws.gov/ipac/</u> website. Note	- Some species r	nay be affec	ted downstream from water			
source.							

\*There are no federally designated critical habitats within the Project area.

## Preble's Meadow Jumping Mouse (PMJM)

Since 1998, the Preble's Meadow Jumping Mouse (*Zapus hudsonius preblei*) has been federally listed as threatened by the U.S Fish and Wildlife Service. In Colorado, they are also listed as Species of Greatest Conservation Needs, considered sensitive by the US Forest Service, and critically imperiled according to the Colorado Natural Heritage Program. Declining PMJM populations are due to predation, habitat degradation, and fragmentation. In Colorado, the PMJM can be found up to elevations around 7,000 feet east of the Front Range, and west to the shortgrass prairie. (USFWS, 2013)

Preble's meadow jumping mice are found in areas with natural hydrological processes that create a dense riparian area with biologically diverse herbaceous plants. PMJM have been found in environments with a variety of plant species, frequently in areas with a thick layer of grasses and forbs that create cover. Studies show that the specific species composition of herbaceous plants is not as important to supporting populations, but that suitable habitat needs to have a higher percentage of ground cover in the vicinity to open water. Most PMJM were found within areas with a higher density of the shrub layer consisting mostly of willows. The mice use adjacent grassy uplands as far as approximately 300 feet from the 100-year floodplain to "hibernate" during the colder months. These nests are called hibernacula and can be found under the cover of snowberry, chokecherry, cottonwoods, gooseberry, and other willow species.

Section 4 of the Endangered Species Act (1973) prevents any funded or authorized agency to take action that would negatively affect lands labeled as PMJM Critical habitat. Critical Habitat is defined by areas currently occupied by the species or potential areas in which the species could establish. In 2013, The Fish and Wildlife Service revised the critical habitat designation for the Preble's meadow jumping mouse (shapefiles found at: https://www.fws.gov/mountain-

prairie/es/species/mammals/preble/CRITICAL%20HABITAT/CRITICALHABITATindex.htm.). The approximate 50,000 acres designated for critical habitat occur adjacent to streams and rivers in the Colorado foothill and mountain regions. PMJM critical habitat is located in Boulder, Broomfield, Douglas, El Paso, Jefferson, Larimer and Teller Counties (USFWS, 2014). Currently there is no critical habitat designated in the Project area (USFWS, 2010). Although the Project area does not have optimal habitat due to lack of desired upland vegetation, presence of PMJM cannot be confirmed without a thorough survey of the area.

## **Rare Plants**

The rare plant survey resulted in no evidence of *Spiranthes diluvialis* (Ute ladies'-tresses) or *Gaura neomexicana var. coloradenesis* (Colorado Butterfly Plant) in the Project area.
## Sensitive Species

The sensitive species list is derived from the U.S. Forest Service (https://www.fs.usda.gov) and Colorado Parks and Wildlife data on present sensitive species ranges and distributions (USFS, 2005). The Regional Forester's sensitive list is evaluated by examining viable risk of species; these species are categorized as R2 sensitive, not R2 sensitive, or, not a concern. Suitable habitat was also determined by a site visit conducted by AloTerra Restoration Services on November 01, 2021. Under the Migratory Bird Treaty Act of 1918 and the Bald and Golden Eagle Protection Act no activity that "takes, transports, barters, or exports the listed migratory birds or eagles is permissible unless it is sanctioned by the U.S. Fish and Wildlife Service. The sensitive species list includes migratory birds that could use The Project area as a breeding, over-wintering, or stopover site.

The species found in **Table 2** below are compiled from lists of at-risk species that have potential habitat or occurrence in the Project area, specifically in the vicinity of the documented wetland. The table is organized as followed: (a) The common name of the species, (b) The scientific name of the species, (c) The status of the species in question, (d) Whether or not the species should be excluded, and (e) The reasons why the species should be excluded.

Common name	Species	Status	Species Excluded	Reasons for exclusion
Mammals				
Fringed myotis	Myotis thysanodes	Forest Service Sensitive	Yes	Found in coniferous forest and mixed pine
Townsend's big- eared bat	Corynorhinus townsendii	Forest Service Sensitive	Yes	Habitat requirements are not in range
Black-tailed prairie dog	Cynomys ludovicianus	Forest Service Sensitive	Yes	No colonies were found in the Project site
White-tailed prairie dog	(Ocynomys leucurus)	Forest Service Sensitive	Yes	No colonies were found in the Project site
Kit fox	Vulpes macrotis	Forest Service Sensitive	Yes	Range does not overlap with project site
Swift fox	Vulpes velox	Forest Service Sensitive	No	No detection during survey
Birds				
Bald eagle	Haliaeetus leucocephalus	Forest Service Sensitive	No	No detection during survey
Cassin's sparrow	Aimophila cassinii	Bird of Conservation Concern	Yes	Range does not overlap with project site
Lesser yellowlegs	Tringa flavipes	Bird of Conservation Concern	Yes	Range does not overlap with project site
Burrowing owl	Athene cunicularia	State threatened	No	
Black Swift	Cypseloides niger	Forest Service Sensitive	Yes	Habitat requires cliffs limited in Colorado
Chestnut-collared longspur	Calcarius ornatus	Forest Service Sensitive	Yes	Site location does not overlap with species range
Sandhill Crane	Antigone canadensis	Forest Service Sensitive	Yes	Suitable habitat is not evident in project site

**Table 2.** Federally listed terrestrial and aquatic species that may occur or be affected by the actions within the Project.

Common name	Species	Status	Species Excluded	Reasons for exclusion				
Northern harrier	Circus cyaneus	Forest Service	No	No detection during survey				
		Sensitive						
Swainson's Hawk	Buteo swainsoni	Federal Species of	No	No detection during survey				
		Concern						
Grasshopper	Ammodramus	Forest Service	Yes	Native species range does not				
sparrow	savannarum	Sensitive		meet area requirements				
Fish								
Plains Minnow	Hybognathus plactius	State Endangered	Yes	Suitable habitat is not evident in				
				project site				
Plains topminnow	Fundulus sciadicus	Forest Service	Yes	Suitable habitat is not evident in				
		Sensitive		project site				
Flannelmouth	Catostomus latipinnis	Forest Service	Yes	Suitable habitat is not evident in				
Sucker		Sensitive		project site				
Amphibians			•	·				
Northern leopard	Lithobates pipiens	Forest Service	No	No detection during survey				
frog		Sensitive						
Plains loopard frog	Lithobates blairi	Forest Service	Yes	Range does not overlap with				
		Sensitive		project site				
Species list was source	Species list was sourced from U.S. Forest Service https://www.fs.usda.gov Rocky Mountain Region and USFWS Migratory							

birds for the Mountain-Prairie Region updated 2017.

Migratory bird list was sourced from USFWS Birds of Conservation Concern

https://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php.

## Mammals

#### Swift Fox

Historically Swift fox (*Vulpes velox*) populations declined due to habitat fragmentation and loss, competition, trapping, and collateral damage when trying to kill wolves. In Colorado they are listed as Special Concern and classified as a sensitive species by USFS Region 2. They range throughout western United States but are found in higher abundances in Colorado than Montana, Nebraska, and South Dakota, where they still have not reached historical population levels. The fox appears to not be affected by heavily grazed ecosystems and can be found in a variety of habitat types that include short-grass and mid-grass prairies, including a variety of agricultural land types. In these areas, vegetation is typically dominated by blue grama, buffalograss, western wheatgrass, and sagebrush. Fox dens have been found in areas with low vegetation on slight slopes in well-drained sites, with soil types that include silty loam or loam. The species are not directly reliant on riparian areas and can be found up to 3 miles away from any source of water. (Marks et al., 2005). No dens were sighted in the Project area. Due to the size of the proposed Project area, there should be minimal impacts to swift fox populations.

## Birds

#### **Bald Eagle**

The bald eagle (*Haliaeetus leucocephalus*) is found only in North America (CPW, n.d.). Populations declined in the early-mid 20<sup>th</sup> century due to impacts from pesticides (mainly DDT), disturbance and loss of trees for nesting habitat. The eagle was consequently placed on the Endangered Species List. However, with the ban on the pesticide DDT and protection of nesting habitat, the eagles have substantially recovered, with Endangered status reduced to Threatened in 1995 and with further recovery was de-listed nationally. The bald eagle was removed from the Colorado list of threatened and endangered species in 2009. Bald eagles can be found

throughout much of Colorado during both summer and winter and can be observed near reservoirs and major rivers such as the South Platte. Eagles will roost and nest in large cottonwood trees, roosting communally in the winter for warmth. Bald eagles have a varied diet, with nests often found near water in tall trees, building nests that can be 7 to 8 feet across. No nests or signs of bald eagles were seen during site visit on November 01, 2021. Any bald eagles that may be using the area should not be negatively affected by the Project, especially if large trees can be protected from construction activities.

#### Burrowing Owl

The Burrowing owl (*Athene cunicularia*) is considered locally uncommon to fairly common on the Colorado eastern plains and rare to uncommon in mountain parks and on the western slope (Andrews and Righter 1992). These small raptors are distinguished by their long legs, round head and have no ear tufts. They feed on insects, small mammals and reptiles, foraging in grasslands and pastures and other agricultural lands. Although they can excavate nesting holes in sandy soil they prefer to use empty burrows made by other animals, primarily rodents. These ground nesters are often seen in and closely tied to prairie dog towns. Burrowing owl populations have drastically declined due to habitat lost to agriculture and development. During the site visit a large active prairie dog colony was found, but no burrowing owls were observed.

#### Northern Harrier

The Northern harrier (*Circus cyaneus*) is a Tier 2 Species of Greatest Conservation Need in Colorado and a Forest Service Sensitive Species in Region 2. These raptors reside in a variety of habitats year-around, including grasslands and marshes. They reside throughout Colorado, with higher densities on the eastern plains, short-grass prairies and western valleys. In the eastern plains these birds breed in a variety of ecosystems, preferring large wetlands (>250 acres) with dense vegetation (7-10 inches in height). Nests are found either on the ground or on a platform usually near open water. More specifically, nests are commonly found hidden in wetland vegetation, where cover is taller than 60 cm. (Slater, 2005) During the site visit on November 01, 2021 no northern harrier was sighted, and no nests were found. The Project development is unlikely to negatively impact the species due to the species range and scope of the Project.

#### Swainson's Hawk

The Swainson's Hawk (*Buteo swainsoni*) is found throughout Colorado in open areas, usually native short and tall grass prairies, and agricultural lands. Since the 1980s, Swainson Hawk populations declined in many parts of its range due to removal of riparian habitat, and lack of nest site availability (Bechard, 2010). The raptors' home range varies between about 170 to 21,550 acres depending on the amount of forage and water available. Nests will frequently be found in a lone tree or post in these grasslands, but they can also be found along riparian areas among a cluster of trees within their home range. The nests are found in a variety tree species including cottonwood (*Populus sp.*), willows (*Salix sp.*), sycamores (*Platanus sp.*), and walnut (*Juglans sp.*) These hawks are a migratory bird species, listed on the Migratory Bird Treaty Act, traveling from North America to breed in the summer to South America for wintering. (Woodbridge, 1998) This raptor has a high tolerance for human disturbance and can be found in areas with high human activity, although there can be nest abandonment if there is high-intensity disturbance or construction near a nesting tree. When nests occur, they are usually found 15-30 feet above ground. AloTerra Restoration Service's wildlife technician conducted a field assessment on November 01, 2021 and found no nests in the proposed construction area. The Swainson's Hawk should not be negatively affected by the Project due to the extensive size of their home range and minimal effect to potential nesting sites from construction activities.

### Amphibians

#### Northern Leopard Frog

Northern leopard frogs (*Lithobates blairi*) are found statewide in Colorado and are currently listed as a Tier 1 Species of Greatest Conservation Need. Population declines are due to climate change, invasive diseases, habitat loss, pollution, and predation. The frogs can be found in the western United States in elevations up to 11,000 feet. This species can inhabit a variety of riparian areas including stream channels, sloughs, reservoirs, gravel pits, and oxbows. For breeding and foraging purposes, the frogs prefer dense vegetation with heights around 6 to 12 inches and more than 30 percent cover. Northern leopard frog breeding sites commonly occur in semi-permanent ponds or wetlands with water depths to 25 to 40 inches. Water quality is an important factor for most amphibians, needing unpolluted sites with water that is well oxygenated and pH balanced (6.1-7) (CPW, 2005). Through the winter, leopard frogs hibernate on the bottom of ponds located beneath 1-1.5 feet of rock where water depths were at least 2 feet. Construction associated with The Project may impact individuals that were not identified during the general survey, but due to the size and location of the construction project it is not likely to result in a decline in population toward federal listing.

## Other Wildlife

As previously discussed in the sections on Threatened, Endangered, and Proposed Species and Sensitive Species of Concern, the proposed project should minimally impact populations of species that have ranges that do or may potentially overlap with the Project area.

During the site visit two active raptor nests were found (**Figure 6**). A great-horned owl (*Bubo virginianus*) nest was located in an old-growth cottonwood tree on the northeast corner of the property. One adult and one fledgling were seen on the nest. In the southwest corner, also in an old-growth cottonwood, an adult red-tailed hawk (*Buteo jamaicensis*) was seen brooding in the nest and a second adult was perched nearby. The nest was heavily guarded by the adults from raiding crows. The property also has a large, active black-tailed prairie dog colony that occupies well over three quarters of the property, with 2,016 active burrows documented (**Figure 6**). There were no signs of swift fox dens nor were there any burrowing owls observed. Two killdeer (*Charadrius vociferus*) were seen foraging and may be nesting as well. Other common birds such as American robin (*Turdus migratorius*), northern flicker (*Colaptes auratus*), Eurasian collared-dove (*Streptopelia decaocto*), and Say's phoebe (*Sayornis saya*) were observed flying through the area.



**Figure 2.** Locations of red-tailed hawk and great horned owl nests, as well as extents of black-tailed prairie dog colony.

## **Mitigation Measures**

Construction should avoid impacting important suitable habitat for sensitive or endangered species. In order to minimally impact sensitive or migratory bird populations, it is important to avoid impacting any potential nesting sites (cottonwood trees or thick vegetation on the surface). During construction, Colorado Park and Wildlife Regulations pertaining to red-tailed hawks should be followed. As directed by the City of Fort Collins, the black-tailed prairie dog population will need to be euthanized before construction begins, and a pre-construction survey will need to be conducted to determine if the population has been eradicated. Ethically euthanized black-tailed prairie dogs may be donated to the Rocky Mountain Raptor Center, but strict guidelines must be followed. Detailed information can be obtained by contacting the Rocky Mountain Raptor Center at 970-484-7756 or info@rmrp.org.

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## REVEGETATION, SOILS, AND BIOENGINEERING NOTES

Cont ai ner s (shrubs and trees) shall be protected from beaver and other wildlife using the "plant protection" detail in plan set, where located above the bankfull shall be protected from potential foot traffic with two wood stakes such that the above ground portion of the stake is at least as high as the canopy of the shrub containers (herbaceous) shall not be fenced or staked. All soil applied to the site must be free of Colorado state noxious and Colorado A and B listed weed propagules, and shall not contain more than 0.01% by dry weight of cheatgrass (Bromus inermis), or Canada thistle (Cirsium arvensis). Project engineer or their representative shall approve all imported soil and fill for weed content before material is purchased. 2. A soil test shall be required for any import soils that may be required. The following soil chemistry characteristics must not be exceeded in soils that both receive seed or plant materials and have either been amended or installed between or over riprap: 3.

Soil pH shall be between 5.8 and 7.8. a.

- Soil electrical conductivity (using ECe method) shall be less than 2.0 dS/m (less than 2.0 mS/cm, less than 2,000 uS/cm, less than 2.0 mmho/cm). Imported compost shall not exceed 4.0 dS/m, regardless of the ratio at which it is incorporated into the topsoil or subsoil. Sodium absorption ratio of soils or imported compost shall be less than 3.
- Soil organic matter shall be between 10% and 20% by dry weight. The desired portion of recalcitrant organic matter, as a percentage of total organic matter, is between 10% and 40% by dry weight.

In general, nitrogen supplementing is not recommended for native plant restoration, except in very small quantities when a deficiency in native or imported topsoil is noted. Based on the soil test, nitrogen additions may be required by the project engineer. In seeded areas, if imported topsoil is deficient in nitrogen and low in organic matter, soil amendments used shall include biosol (300-400 lbs/acre) or similar. Compost may also be mixed with native soil to meet organic content requirements, only if the resultant topsoil meets the above soil chemistry criteria.

4. (Bromus inermis), or Canada thistle (Cirsium arvensis). Project engineer or their representative shall approve all seed mixes for weed content and substitutions before seed is purchased. Seed identification and certification tags shall be provided to the project manager for review and approval prior to use. A restoration ecologist should be consulted when reviewing weed-free seed, soil, mulch, and soil amendment products, including the list of potential weeds present in the product in guestion.

Seeding shall be broadcast at rates listed in seed mix, raked into the soil surface to a depth of between 0.25 and 0.5 inches deep, and covered with mulch at a rate that attains 70% soil coverage and is no deeper than 1". 6. THE SEED MIXES SHALL BE APPLIED TO AREAS AS SHOWN ON THE PLAN SET. 7

Mulch shall be aesthetically pleasing, and be able to withstand windspeeds up to 60 mph and remain in place. 8.

Wood straw or wood shred shall be used for surface mulch on seeded and planted areas. If wood shred is used, it shall contain a diversity of wood fiber lengths, with less than 10% fines (i.e., less than 2" in length). If approved by the project manager, alternative weed-free and wind resistant mulch may be used. 9 The placement of surface mulch over seeded areas shall occur a maximum of 96 hours after seeding. Each shrub or tree planting shall be treated with mulch according to typical details. Mulch shall be treated with mulch according to typical details. 10. 11. botanist should be consulted when reviewing the weed-free mulch product. A list of potential weeds present in the mulch and the project manager and project designer for review and approval prior to use. Hay, regardless of the source, shall not be used as a mulch. Containers (herbaceous and woody) shall be planted as specified in the "plant palette" and "planting schedule" tables, and "revegetation construction details" of this plan set. 12.

- Each plant container must contain a label identifying the species in the container. Labels shall be left with the plant and be available for inspection by the project designer prior to installation, and must be kept in the ground following transplanting, for follow-up identification. 13. 14.
- origin meets the following criteria. Genetically unmodified native plant material that is sourced not more than 1,000 feet higher or lower (and preferentially not more than 500 feet higher or lower) in elevation than the work site, and not more than 100 miles north or south of the work site.

Shrubs and trees planted as container stock or bare-root stock shall be surrounded by a planting depression, including an irrigation berm, of 2" deep at the center of the depression, and 18" in diameter from berm to berm. 15 Due to the poor condition of substrate in which container stock will be installed, amended backfill (approved loarn soil mix with between 20-40% organic matter by volume) shall be tamped moderately to remove air pockets and watered thoroughly while backfilling around the root ball. Shall cover the root ball when roots are 16. exposed on the upper surface of root ball. 

- 17. cuttings" (www.synergy3.org). Cuttings shall be ecotypes harvested from native populations.
- Soil lifts, joint planting, and other bioengineering treatments shall follow typical details of the plan set. 18.











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## Mesic Meadow Seed Mix

## Scientific Name (USDA)

Glyceria striata
Helianthus nuttallii
eersia oryzoides
Mentha arvensis
Muhlenbergia asperifolia
Denothera villosa
Panicum virgatum
Puccinellia nuttalliana
Solidago missouriensis
Spartina gracilis
Spartina pectinata
Symphyotrichum novae-angliae
/erbena hastata

## Common M

fowl mann Nuttall's su rice cutgra wild mint scratchgra hairy even switchgras Nuttal alka Missouri g alkali cord prairie cor New Engla swamp verbena

#### - -

Scientific Name (USDA)	Common Name (USDA)	Cultivar or Ecotype	Life History	% Mix	Pounds PLS
Andronogon gerardii	highluostom	Popilla	NPG-I	10	Needed
Promus ciliatus	fringed brome	Control CO		10	4.26
Distichlis spisata	saltgrass	Central CO	NPG-L	20	4.20
Elemente canadonesia	Saligiass	Mandan		0 10	0.01
Elymus lance elatus con lance elatus	thickspike wheetgrees	Critana	NPG-L	10	0.01
Elymus lanceolatus ssp. lanceolatus		Druge	NPG-L	10	7.44
Elymus trachycaulus	siender wheatgrass		NPG-L	10	0.93
Denothera Villosa	nairy evening primrose	CO Ecotype (or VNS)	NBE	2	0.10
Panicum virgatum	switchgrass	Blackwell	NPG-L	10	4.37
Pascopyrum smithii	western wheatgrass	Arriba	NPG-L	3	2.65
Schizachyrium scoparium var. scoparium	little bluestem	Camper	NPG-L	10	7.73
Solidago canadensis	Canada goldenrod	CO Ecotype (or VNS)	NPF	1	0.02
Sorghastrum nutans	indiangrass	Oto	NPG-L	10	6.28
Sporobolus cryptandrus	sand dropseed	CO Ecotype preferred	NPG-L	5	0.10
Verbena bracteata	bigbract verbena		NPF	1	0.01
				100	56.91

# Lisland Cood Mix

Scientific Name (USDA)	Common Name (USDA)	Cultivar or Ecotype	Life History	% Mix	Pounds PLS Needed	
Achillea lanulosa var. occidentalis	Western yarrow	Eagle or Yakima	NPF	1	0.12	
Achnatherum hymenoides	Indian ricegrass	Paloma	NPG-L	1	2.34	
Adenolinum lewisii (CO native only)	Lewis flax	Maple Grove	NPF	1	1.12	
Antennaria parvifolia	small-leaf pussytoes	CO Ecotype (or VNS)	NPF	1	0.29	
Aristida purpurea	purple threeawn	CO Ecotype preferred	NPG-L	3	3.81	
Astragalus bisulcatus	twogrooved milkvetch	CO Ecotype (or VNS)	NPF	1	0.82	
Bouteloua curtipendula	sideoats grama	Niner	NPG-L	15	26.05	
Bouteloua gracilis	blue grama	Fremont CO ecotype	NPG-L	20	8.92	
Buchloe dactyloides	buffalograss	Cody	NPG-L	15	88.38	
Cleome serrulata	Rocky Mountain beeplant	CO Ecotype (or VNS)	NAF	1	2.91	
Coreopsis tinctoria	plains coreopsis	CO Ecotype (or VNS)	NBF	1	0.24	
Dalea purpurea	purple prairie clover	Kaneb or Stephanie	NPF	1	1.13	
Elymus elymoides	squirreltail	Pueblo or Wapiti	NPG-L	15	25.78	
Gaillardia aristata	blanketflower	CO Ecotype (or VNS)	NPF	1	1.77	
Grindelia squarrosa	curly cup gumweed	CO Ecotype (or VNS)	NBF	1	0.82	
Hedysarum boreale	Utah sweetvetch	Timp	NPF	1	7.12	
Helianthus petiolaris	prairie sunflower	CO Ecotype (or VNS)	NAF	1	1.54	
Heterotheca villosa	hairy goldenaster	CO Ecotype (or VNS)	NPF	1	0.98	
Koeleria macrantha	prairie Junegrass	Sims Mesa	NPG-L	15	2.14	
Monarda pectinata	bergamot	CO Ecotype preferred	NAF	1	0.25	
Penstemon virgatus	Front Range beardtongue	CO Ecotype or Bluebuckle	NPF	1	0.63	
Ratibida columnifera	upright prairie coneflower	CO Ecotype (or VNS)	NPF	1	0.42	
Rudbeckia hirta	blackeyed Susan	CO Ecotype (or VNS)	NBF	1	0.21	

	Acres (mesic meadow):	1.63	1.63		(includes 10% overage		
	Seeds Per Sq. Ft. (Broadcast):	80					
		Life	%	Pounds			
Name (USDA)	Cultivar or Ecotype	Lietory	70 Miv	PLS			
		пізсогу	IVIIX	Needed			
nagrass	CO Ecotype preferred	NPG-L	15	5.01			
unflower	CO Ecotype (or VNS)	NPF	1	0.38			
ass		NPG-L	10	0.01			
		NPF	1	0.01			
ass	CO Ecotype (or VNS)	NPG-L	10	0.38			
ning primrose	CO Ecotype (or VNS)	NBF	1	0.03			
SS	Blackwell	NPG-L	15	3.70			
alaigrass		NPG-L	15	0.31			
goldenrod	CO Ecotype (or VNS)	NPF	1	0.03			
dgrass		NPG-L	15	9.09			
rdgrass	Red River	NPG-L	14	6.73			
and aster		NPF	1	0.01			

Acres (Facultative):	2.88
Seeds Per Sq. Ft. (Broadcast):	80

CO Ecotype (or VNS)

(includes 10% overage)

NPF 1 0.01

**100** 25.7

	Life History Codes					
N	native					
1	introducted					
Α	annual					
В	biennial					
Р	perennial					
F	forb					
G-L	grass-like (includes grasses, sedges, and rushes)					
S	shrub					
Т	tree					
V	vine					

Acres ( <b>upland</b> ):	6.89
Seeds Per Sq. Ft. (Broadcast):	110

6.89 (includes 10% overage)

**100** 1//./8

DRA 30% De	FT sign
<sup>:</sup> 04/29	/2024
Uraft Seed Mixes	College and Trilby, Fort Collins, CO
I-R ENGINEERING	
ALOTERRA	Restoration Services
	ALOTERRA ALOTERRA IR ENGINEERING

						Mesic W	Vetland	Facult	tative
	<b>•</b> • •					Area (ac)	1.48	Area (ac)	1.19
Herbac	ceous Containers					Feet on Center	2.5	Feet on Center	3.0
						Plants/ac	8047	Plants/ac	5588
Туре	Scientific Name	Common Name	Life History	Hydrosere	Qty All Reaches	% in palette	Qty	% in palette	Qty
1 gal or similar	Andropogon gerardii	big bluestem	NPG-L	facultative	465	0	0	7	465
4" or similar	Asclepias incarnata	swamp milkweed	NPF	mesic meadow	595	5	595	0	0
4" or similar	Asclepias speciosa	showy milkweed	NPF	mesic meadow	595	5	595	0	0
10ci or similar	Bolboschoenus maritimus	cosmopolitan bulrush	NPG-L	mesic meadow	834	7	834	0	0
10ci or similar	Carex nebrascensis	Nebraska sedge	NPG-L	mesic meadow	1786	15	1786	0	0
10ci or similar	Carex pellita	woolly sedge	NPG-L	mesic-Facultative	1191	10	1191	0	0
10ci or similar	Carex praegracilis	clustered field sedge	NPG-L	facultative	997	0	0	15	997
10ci or similar	Carex praegracilis	clustered field sedge	NPG-L	facultative	665	0	0	10	665
10ci or similar	Distichlis spicata	saltgrass	NPG-L	facultative	465	0	0	7	465
10ci or similar	Eleocharis palustris	common spikerush	NPG-L	mesic meadow	1191	10	1191	0	0
10 ci or similar	Helianthus maximiliani	Maximilian sunflower	NPF	facultative	332	0	0	5	332
10ci or similar	Juncus arcticus ssp. littoralis	arctic rush	NPG-L	facultative	997	0	0	15	997
10ci or similar	Juncus confusus	Colorado rush	NPG-L	mesic meadow	1786	15	1786	0	0
10ci or similar	Juncus interior	inland rush	NPG-L	facultative	665	0	0	10	665
10ci or similar	Juncus nodosus	knotted rush	NPG-L	mesic meadow	953	8	953	0	0
10ci or similar	Juncus torreyi	Torrey's rush	NPG-L	mesic meadow	1191	10	1191	0	0
4" or similar	Oenothera cespitosa	tufted evening primros	€ NPF	facultative	332	0	0	5	332
10ci or similar	Panicum capillare	witchgrass	NAG-L	facultative	465	0	0	7	465
1 gal or similar	Schizachyrium scoparium var. scoparium	little bluestem	NPG-L	facultative	465	0	0	7	465
10ci or similar	Scirpus pallidus	cloaked bulrush	NPG-L	mesic meadow	1191	10	1191	0	0
1 gal or similar	Sorghastrum nutans	Indiangrass	NPG-L	facultative	465	0	0	7	465
10ci or similar	Triglochin maritima	seaside arrowgrass	NPF	mesic meadow	595	5	595	0	0
4" or similar	Vicia americana	American vetch	NPF	facultative	332	0	0	5	332
					18559	100	11910	100	6650

						Mesori	parian	Xerori	parian
	<b>•</b> • •					Area (ac)	0.58	Area (ac)	0.71
Woody	/ Containers					Feet on	7	Feet on	7
						Center		Center	
						Plants/ac	1026	Plants/ac	1026
Type	Scientific Name	Common Name	Life	Hydrosere	Qty All	% in	Qty	% in	Qty
туре		Common Name	History	nyurosere	Reaches	palette		palette	
1 gal or similar	Acer negundo	boxelder	NT	xeroriparian	146	0	0	20	146
D60 or similar	Amorpha fruticosa	false indigo bush	NS	mesoriparian	149	25	149	0	0
D60 or similar	Cornus sericea	redosier dogwood	NS	mesoriparian	149	25	149	0	0
D60 or similar	Prunus americana	American plum	NS	xeroriparian	146	0	0	20	146
D60 or similar	Prunus virginiana var. melanocarpa	black chokecherry	NS	mesoriparian	149	25	149	0	0
D60 or similar	Ribes aureum	golden currant	NS	mesoriparian	149	25	149	0	0
1 gal or similar	Ribes cereum	wax currant	NS	xeroriparian	146	0	0	20	146
1 gal or similar	Rosa woodsii	Wood's rose	NS	xeroriparian	146	0	0	20	146
1 gal or similar	Symphoricarpos occidentalis	western snowberry	NSubS	xeroriparian	146	0	0	20	146
					1324	100	595	100	728

						Hydroriparian	
Willow and Cottonwood Cuttings							
						Plants/ac	2011
Туре	Scientific Name Comn	Common Name	Life	Hydrosere	Qty All	% in	Qty
		common Name	History	nyurosere	Reaches	palette	
48" whip	Salix exigua	narrowleaf willow	NS	hydro-mesoriparian	113	33	113
48" whip	Salix amygdaloides	peachleaf willow	NS	mesoriparian	116	34	116
8-10' pole	Populus deltoides	eastern cottonwood	NT	mesoriparian	113	33	113
					113	100	113

/29/2024
College and Trilby, Fort Collins, CO
J-R ENGINEERING
Restoration Services

Life History Codes					
Ν	native				
I.	introducted				
А	annual				
В	biennial				
Р	perennial				
F	forb				
G-L	grass-like (includes grasses, sedges, and rushes)				
S	shrub				
Т	tree				
V	vine				



## NOTES:

- 1. Broken or crumbling rootballs will be rejected.
- 2. Care should be taken not to damage the shrub or rootball when removing it from its container.
- 3. Backf II around rootball with soil that does not exceed specif cations in restoration notes.
- 4. Excavate planting pit 2x the diameter fo the rootball and 25-50% deeper than height of rootball.
- 5. Add backf II around rootball in 2" layers, watering each layer before applying the next of soil.
- 6. Add 2" of mulch to cover 18" of the ground/dripline, leaving 1" open around trunk of shrub.
- 7. Use part of the excavated soil to build an irrigation berm at the edge of dripline, about 1-2" high and 3-4" wide. Import soil as needed from nearby harvest sites.

## NOTES:

1. Remove all rocks and logs greater than 4" diameter (fist size) and seed area before applying erosion matting. 2. Before installing erosion matting, decompact and prepare seedbed as indicated in project-specific restoration notes.

3. Seed and harrow area. 4. Use 100% biodegradable matting.

5. Lay blankets loosely and install according to project specifications with staples or wood stakes to secure matting. 6. Stakes will have a maximum spacing of 24" on all sides in a checkerboard

pattern. 7. Upwind portions of erosion control shall overlap 12" over the top of downwind portion. When applicable, upgradient portions of blanket shall overlap 12" of downgradient portions of blanket. Stakes shall be installed in a zig-zag pattern every 12".

8. Erions control blankets shall be keyed into soil at the top of slope and upstream ends of project to a depth of 6". These trenches shall be secured using staples or wood stakes, 18" on center, then backfilled with soil and tamped well. 9. Density of stakes is depending on slope; clarified in project-specific restoration notes.



EROSION CONTROL MATTING - STAKE LAYOUT DETAIL PLAN VIEW NOT TO SCALE NOT TO SCALE



CROSS SECTION NOT TO SCALE



EROSION CONTROL MATTING CROSS SECTION NOT TO SCALE





\_\_\_\_\_ Max 5' above ground Soil (dry) Capillary fringe Low-season water table

NOTES: 1. All willow cuttings shall be sound, healthy specimens. Plant materials that have serious injuries, insect pests, diseases or are overly dry, will be rejected.

NOT TO SCALE

- 2. If harvested, cuttings shall be obtained from approved sources using a sharp tool. Cuttings shall be long enough to reach depth of 6" into the groundwater during the driest times of the year.
- 3. Cutting shall have a basal end of 0.50-1.5" in diameter. The top ends shall be blunt and butt ends shall be cut at 45 degrees. They shall be stripped of all but two or three healthy terminal stems
- 4. The contractor shall provide for the proper care, storage, and handing of the cuttings. During all stages of construction, the cuttings shall be protected from exposure to wind and direct sunlight.
- 5. Prior to installation, the contractor shall flag all planting locations for approval by owner's rep. Adjustments to these locations may be required to meet field conditions.
- 6. If cuttings cannot be installed directly into the required depth due to soil conditions, a dibble bar, auger or other tool shall be used to create a pilot hole. Space around hole must be eliminated to ensure good soil-stem contact.
- 7. Additional industry standards should be followed to ensure high survival rates.



# Leave 3-4 later branches and terminal branch (do <u>not</u> cut terminal buds) Min. 3' of cutting 12″min below ground 6″ min.

NOT TO SCALE

### NOTES:

- 1. All harvested cottonwood cuttings shall be lively and straight, harvested within 50 miles of the project site, and no more than 500' lower or higher in elevation than the project site.
- 2. If harvested, cuttings shall be obtained from approved
- sources using a sharp tool. 3. The pole should be approximately 8' in length.
- 4. Cutting shall have a basal end of 1.0-2.0" in diameter. The top ends shall have the terminal bud with three lateral branches beneath the terminal bud intact.
- 5. The contractor shall provide for the proper care, storage, and handing of the cuttings. During all stages of construction, the cuttings shall be protected from exposure to wind and direct sunlight.
- 6. Cuttings shall soak for 10-20 days prior to installation, maintaining well oxygenated water while soaking. 7. The bottom 2" should be re-cut at an angle immediately
- prior to installation. 8. An auger or hammer drill must be used to create a pilot hole prior to installation of cottonwood poles. Backfill with very
- wet sand or loam, and tamp to ensure no voids develop around stem. 9. Other suggested willow and cottonwood harvest guidelines are found at www.aloterraservices.com



## **Traffic Impact Study**

To: Shannon Robbins, CORE PBSFR Acquisition Vehicle, LLC

From: Eli Farney, PE, PTOE

Date: November 2, 2022

## **Trilby & College Paired-Residential Community**

Fort Collins, Colorado

**Prepared By:** 





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JR Engineering 7200 South Alton Way, Suite C400 Centennial, CO 80112



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## **Executive Summary**

JR Engineering (JR) has completed a review of the traffic impacts resulting from the proposed development of the Trilby & College Paired-Residential Community (Project) in Fort Collins, Colorado (City).

The objectives of this Traffic Impact Study (TIS) are:

- Estimate site-generated traffic and route trips onto adjacent streets.
- Perform traffic operations analysis for 2024 Opening Day and 2045 Future scenarios.
- Make recommendations for roadway improvements to accommodate new traffic.

The methodology, content, and findings of this TIS are consistent with the following documents:

• Larimer County Urban Area Street Standards (LCUASS) – Chapter 4 – Transportation Impact Study

The base assumptions form according to LCUASS is included in Appendix A.

## **Key Findings of this TIS**

- Levels of Service
  - Most movements operate at LOS D or better in 2022, with the exception of some movements at the signalized intersections, which operate at LOS E or F.
  - Most movements are expected to operate at LOS D or better in 2024. Planned improvements at the intersection of Trilby & College are expected to improve operations.
  - Some movements are expected to operate at LOS E or F in 2045.
- Queue Lengths
  - o Most queue lengths at the study intersections are acceptable.
  - Some queues may interfere with driveways, turn lanes, and minor streets.
- Pedestrian Facilities
  - Existing pedestrian facilities are mostly satisfactory.
  - Improvements will be made to sidewalks and signalized intersection crossings.
- Recommendations
  - JR recommends an eastbound right turn lane at Trilby & College by 2024. This would be an interim mitigation jointly funded between the City and the Project.



## Introduction

JR has completed a review of the existing and forecasted traffic operations in the vicinity of the planned Trilby & College Paired-Residential Community. A vicinity map is included in Figure 1.



Figure 1: Vicinity Map



## Land Uses

The Project is anticipated to contain the following land uses:

- Residential (268 dwelling units)
  - Duplex (38 dwelling units)
  - Townhome (230 dwelling units)
- 6,500 S.F. Recreation Center
- 11.6 Acres of Open Space

## **Study Intersections**

Six intersections were analyzed as part of this TIS. Five of them are external to the site, and one is internal. The study intersections, along with a site plan, are shown in Figure 2.

## **Trilby & College Intersection Improvements**

Improvements are planned for the intersection of Trilby Road & College Avenue, including the following:

- Widening Trilby Road to accommodate two through lanes in each direction
- Adding NB and SB dual left turn lanes
- Adding EB and WB right turn lanes

These improvements are being designed by the City of Fort Collins. Discussions will be held with the City to determine to what extent the Project will need to contribute to these improvements. For the purposes of this TIS, it is assumed that these improvements will be completed by 2024, the anticipated opening day of the Project. However, JR also analyzed a "no-build" scenario in which these improvements are not completed by 2024. In this case, JR recommends that an eastbound right turn lane be added to the intersection as an interim mitigation. This turn lane is warranted with existing traffic volumes and should be jointly funded between the City and the Project.

## **Trilby & Mars Intersection South Leg**

The intersection of Trilby & Mars will be a T-intersection in 2024. By 2045, there is expected to be a south leg to this intersection. A nominal amount of background traffic was added to this south leg in the 2045 condition.





Figure 2: Site Plan and Study Intersections



## Traffic Volumes and Distribution

## **Existing Traffic Volumes**

Existing traffic volumes were obtained on Wednesday, April 27, 2022 by All Traffic Data Services for each of the external intersections. Traffic counts are included in Appendix C. Existing volumes are shown in Figure 5.

## **Background Traffic**

### **Growth Rate**

JR applied a 1% growth rate to the existing traffic volumes to account for future regional development. This growth rate is consistent with the reference traffic impact studies, described below.

### **Reference Traffic Impact Studies**

In addition to the 1% growth rate, JR considered the traffic impacts from nearby developments. A map showing these developments in relation to the Project site is shown in **Figure 3**. The following developments (each analyzed by Delich Associates) were considered for this TIS:

- **Mars Landing** This development was analyzed in August 2019. Site-generated traffic volumes from this future development were added to the background traffic for this TIS.
- **Sun Communities** This development was analyzed in March 2021. Site-generated traffic volumes from this future development were added to the background traffic for this TIS.
- **South College Storage** This development was analyzed in March 2017. Since the development is already built and operational, no site-generated traffic was added for this TIS.
- Lakeview on the Rise This development was analyzed in February 2016. Since the development is already built and operational, no site-generated traffic was added for this TIS.

Background traffic volumes are shown in Figure 7 (2024) and Figure 9 (2045).



## **Site-Generated Traffic Volumes**

Site-generated traffic volumes were estimated using ITE Trip Generation Manual, 10<sup>th</sup> Edition. The Trilby & College development is expected to generate the following trips:

- Average Daily Trips: 2,239
- AM Peak Entering Site: 38
- AM Peak Exiting Site: 107
- PM Peak Entering Site: 113
- PM Peak Exiting Site: 70

A trip generation report is included in Appendix D. Site-generated traffic volumes are shown in Figure 6.

## **Distribution of Site-Generated Traffic**

Site-generated traffic was routed onto adjacent streets according to the distribution in Figure 4.

## **Total Traffic**

Total traffic is the sum of background and site-generated traffic. JR forecasted total traffic volumes at the study intersections in the years 2024 (Opening Day) and 2045 (Future). Total traffic volumes are shown in **Figure 8** (2024) and **Figure 10** (2045).





Figure 3: Reference Traffic Impact Studies





Figure 4: Site-Generated Traffic Distribution

## **Existing (2022) Traffic Volumes**

Existing traffic volumes at the external study intersections are included in Figure 5. Existing lane geometry is shown.



Figure 5: Existing (2022) Traffic Volumes



## **Site-Generated Traffic Volumes**

Site-generated traffic volumes at the study intersections are included in Figure 6.



Figure 6: Site-Generated Traffic Volumes



## **Opening Day (2024) Background Traffic Volumes**



2024 background traffic volumes at the study intersections are included in Figure 7. Proposed lane geometry is shown.





Figure 7: Opening Day (2024) Background Traffic Volumes

## **Opening Day (2024) Total Traffic Volumes**

Legend AM (PM) Stop Control STOP 27 (29) 948 (1722) 51 (99) 973 (1707) 16 (19) **STOP** 13 (5) 5 (5) 5 (5) 5 (7) 38 (49) 46 (57) 5 (20) 25 (80) 29 (37) ₩ ₩ **Skyway Dr** Skyway Dr E3 E1 E2 Site Access 11 136 (97) 5 (5) 31 (14) 1515 (1367) 18 (45) 87 (62) 5 (5) 5 (5) 1616 (1429) 96(75) 5 (5) 18 (15) 46 (42) 18 (16) 92 (196) 845 (1351) 101 (209) STOP ISTOF 5 (5) 14 (10) 5 (5) 31 (19) 176 (132) 13 (40) 5 (5) VIDIA 5 (5) 5 (5) 5 (9) 238 (293) 455 (649) 133 (151) Trilby Rd Trilby Rd Site Access E4 E5 11 243 (154) 5 (7) 5 (5) 83 (140) 1187 (1156) 153 (237) 5 (5) 14 (20) 7 (20) 5 (5) 292 (253) 672 (571) — 14 (10) 220 (187) 7 Г

2024 total traffic volumes at the study intersections are included in Figure 8. Proposed lane geometry is shown.





Figure 8: Opening Day (2024) Total Traffic Volumes

## **Future (2045) Background Traffic Volumes**



2045 background traffic volumes at the study intersections are included in Figure 9. Proposed lane geometry is shown.



Figure 9: Future (2045) Background Traffic Volumes

## Future (2045) Total Traffic Volumes





Figure 10: Future (2045) Total Traffic Volumes





## **Traffic Operations Analysis**

Traffic operations were analyzed using HCM 6<sup>th</sup> Edition methodology. Synchro reports are included in Appendix E.

## Levels of Service

JR analyzed each of the study intersections for peak hour level of service (LOS). **Table 1** includes the LOS for each movement in the existing condition (2022). **Table 2** includes the forecasted LOS for background traffic and total traffic in the year 2024. **Table 3** includes the forecasted LOS for background traffic and total traffic in the year 2045. In each of these tables, seconds of delay are shown in parentheses for movements operating at LOS F.

	Intersection	Movement AM Peak LOS		PM Peak LOS
стор	F1 Skinway & Marc	NB Approach	А	А
STUP	EI – Skyway & Mars	SB Approach	А	А
		EB Approach	D	E
		WB Approach	D	E
		NB Left	А	А
		NB Through	А	А
	E2 – Skyway & College*	NB Right	А	А
		SB Left	А	А
		SB Through	А	А
		SB Right	А	А
_		OVERALL	А	А
STOP	E3 – Access & College	EB Right	В	С
_		EB Left	F (163s)	F (123s)
		EB Through/Right	F (109s)	F (135s)
		WB Left	D	E
		WB Through/Right	D	F (89s)
		NB Left	В	E
	E4 – Trilby & College*	NB Through	С	С
		NB Right	В	В
		SB Left	С	С
		SB Through	А	С
		SB Right	А	В
		OVERALL	D	D

### Table 1: 2022 Existing Levels of Service

\*Existing signal timing collected from reference traffic impact studies



## Table 2: 2024 Opening Day Levels of Service

			AM Peak LOS		PM Peak LOS		
	Intersection	Movement	Background	Total	Background	Total	
			Traffic	Traffic	Traffic	Traffic	
STOP	E1 – Skyway &	NB Approach	А	А	А	А	
STUP	Mars	SB Approach	А	В	А	В	
		EB Approach	D	D	D	D	
		WB Approach	D	С	D	D	
		NB Left	А	А	В	В	
	E2 Clauray 9	NB Through	А	С	А	А	
	EZ – SKyway &	NB Right	А	В	А	А	
	College	SB Left	А	В	А	А	
		SB Through	А	А	В	В	
		SB Right	А	А	А	А	
		OVERALL	А	В	А	В	
STOP	E3 – Local & College	EB Right	В	В	С	С	
	E4 – Trilby &	EB Left	D	E	D	D	
		EB Through	D	D	D	D	
		EB Right	А	А	А	А	
		WB Left	С	D	D	D	
		WB Through	D	D	D	D	
		WB Right	А	А	А	А	
		NB Left	D	D	D	E	
	College	NB Through	С	В	В	В	
		NB Right	А	А	А	А	
		SB Left	D	D	D	E	
		SB Through	В	А	С	С	
		SB Right	А	А	А	А	
		OVERALL	С	С	С	С	
STOP	E5 – Trilby &	EB Left	N/A	А	N/A	А	
	Mars	SB Approach	N/A	D	N/A	D	
STOP	11 – Local & Mars	EB Approach	N/A	А	N/A	А	
		WB Approach	N/A	А	N/A	А	

\*Levels of service assume full build-out of improvements to the Trilby & College intersection



#### Table 3: 2045 Future Levels of Service

			AM Peak LOS		PM Peak LOS		
	Intersection	Movement	Background	Total	Background	Total	
			Traffic	Traffic	Traffic	Traffic	
STOP	E1 – Skyway &	NB Approach	А	А	А	А	
STUP	Mars	SB Approach	В	В	В	В	
		EB Approach	D	D	E	E	
		WB Approach	D	D	D	D	
		NB Left	А	А	С	D	
	E2 Slaway 9	NB Through	А	А	А	А	
	EZ – SKYWAY &	NB Right	А	А	А	А	
	College	SB Left	А	А	А	А	
		SB Through	А	В	С	С	
		SB Right	А	А	А	А	
		OVERALL	А	В	В	В	
STOP	E3 – Local &	EB Right	В	В	С	D	
	E4 – Trilby & College*	ED Left		F (120-)		F (0Ca)	
		EB Leit	E	F (1385)	E	F (965)	
		EB Inrougn	D	D	D	E	
		EB Right	A	A	A	A	
		VVB Lett	D	D	E	E	
		WB Inrough	D	D	E	E	
		WB Right	A	A	A	A	
		NB Left	E	Ł	F (93s)	F (92s)	
		NB Through	C	C	C	C	
		NB Right	A	A	A	A	
		SB LETT	E	E	E	E	
		SB Through	C	C	В	В	
		SB Right	A	A	A	A	
		OVERALL	D	D	D	D	
		EB Left	A	A	A	A	
STOP	E5 – Trilby &	WB Left	A	A	A	A	
	Mars	NB Approach	U	E (cc.)	É	E (70.)	
		SB Approach	D	F (66s)	E	F (70s)	
STOP	I1 – Local & Mars	EB Approach	N/A	A	N/A	A	
		WB Approach	N/A	A	N/A	A	

\*Levels of service assume full build-out of improvements to the Trilby & College intersection


#### No-Build Scenario at Trilby & College Intersection

JR analyzed a no-build scenario at the intersection of Trilby & College. In this scenario, it was assumed that the proposed improvements to the Trilby & College intersection do not get built by 2024.

Levels of service for this scenario are included in **Table 4**. JR considered three conditions: (1) background traffic with no intersection improvements, (2) total traffic with no intersection improvements, and (3) total traffic with an eastbound right turn lane installed as a mitigation. Seconds of delay are shown in parentheses for movements operating at LOS F.

			AM Peak LOS			PM Peak LOS		
	Intersection	Movement	Back- ground Traffic	Total Traffic	Total Traffic with EBR	Back- ground Traffic	Total Traffic	Total Traffic with EBR
	E4 – Trilby & College	EB Left	F (81s)	F (81s)	F (81s)	F (102s)	F (102s)	F (99s)
		EB T/R	F (92s)	F (116s)	N/A	F (140s)	F (167s)	N/A
		EB Through	N/A	N/A	D	N/A	N/A	D
		EB Right	N/A	N/A	D	N/A	N/A	D
		WB Left	Е	E	С	F (108s)	F (96s)	D
		WB T/R	F (114s)	F (123s)	F (116s)	F (127s)	F (142s)	F (134s)
		NB Left	Е	E	E	F (121s)	F (160s)	F (120s)
		NB Through	D	D	D	D	D	D
		NB Right	С	С	С	С	С	С
		SB Left	F (103s)	F (123s)	F (97s)	F (93s)	F (100s)	F (94s)
		SB Through	D	D	D	E	E	E
		SB Right	С	С	С	С	С	С
		OVERALL	E	E	D	E	F (82s)	E

#### Table 4: 2024 Opening Day Levels of Service – No-Build at Trilby & College

### **Discussion on Levels of Service**

In the existing condition (2022), most movements operate satisfactorily (LOS D or better). However, some movements at the signalized intersections operate poorly at LOS E or F. As discussed previously in this TIS, improvements are planned for the intersection of Trilby & College to address operational concerns.

In the year 2024, levels of service for background traffic are mostly expected to be satisfactory (LOS D or better). Total traffic operations are expected to be similar, with only minor impacts from site-generated traffic. Some movements may operate at LOS E.



In the year 2045, some movements may reach LOS E or F under background traffic conditions. However, most movements are anticipated to operate at LOS D or better. Under total traffic conditions, levels of service are similar, with only minor impacts from site-generated traffic. The southbound approach of the intersection of Trilby & Mars is expected to operate at LOS F with total traffic. Also, the eastbound left movement at Trilby & College is expected to fail with total traffic.

In the no-build scenario at Trilby & College, multiple movements are expected to fail in 2024 with both background and total traffic. The recommended eastbound right turn lane improves traffic operations to similar conditions as the background traffic scenario.

## **Queue Lengths**

JR analyzed each of the study intersections for 95<sup>th</sup> percentile queue lengths using HCM 6<sup>th</sup> Edition methodology. **Table 5** includes the queue lengths for the year 2022 with existing traffic. **Table 6** includes the queue lengths for the year 2024 with total traffic. **Table 7** includes the queue lengths for the year 2045 with total traffic.

	Intersection	Movement	AM Peak	PM Peak
	intersection	wovement	Queue (ft)	Queue (ft)
STOP	E1 – Skyway & Mars	NB Approach	<25	<25
STUP		SB Approach	<25	<25
		EB Approach	125	116
	E2 – Skyway & College	WB Approach	60	100
		NB Left	<25	<25
		NB Through	294	141
		NB Right	<25	<25
		SB Left	<25	<25
		SB Through	226	536
		SB Right	<25	<25
STOP	E3 – Local & College	EB Right	<25	<25
	E4 – Trilby & College	EB Left	310	224
		EB Through/Right	578	561
		WB Left	112	167
		WB Through/Right	397	503
		NB Left	89	313
		NB Through	490	488
		NB Right	<25	41
		SB Left	92	197
		SB Through	262	485
		SB Right	30	105

#### Table 5: 2022 Existing 95<sup>th</sup> Percentile Queue Lengths



	Intersection	Movement	AM Peak	PM Peak
	Intersection	wovement	Queue (ft)	Queue (ft)
STOP	E1 Clanuar & Marc	NB Approach	<25	<25
STOP	EI – Skyway & Mais	SB Approach	<25	<25
	E2 – Skyway & College	EB Approach	212	144
		WB Approach	55	84
		NB Left	<25	<25
2		NB Through	540	358
$\overline{\mathbf{i}}$		NB Right	<25	<25
		SB Left	<25	<25
		SB Through	233	690
_		SB Right	<25	<25
STOP	E3 – Local & College	EB Right	<25	<25
	E4 – Trilby & College*	EB Left	212	126
		EB Through	124	110
		EB Right	79	66
		WB Left	104	122
		WB Through	103	126
2		WB Right	70	37
		NB Left	86	144
		NB Through	454	415
		NB Right	<25	30
		SB Left	58	80
		SB Through	254	580
		SB Right	<25	76
STOP	F5 – Trilby & Mars	EB Left	<25	<25
		SB Approach	<25	<25
STOP	11 – Local & Mars	EB Approach	<25	<25
		WB Approach	<25	<25

## **Table 6:** 2024 Opening Day 95<sup>th</sup> Percentile Queue Lengths

\*Queue lengths assume full build-out of improvements to the Trilby & College intersection



## **Table 7:** 2045 Future 95<sup>th</sup> Percentile Queue Lengths

	Intercection	Movement	AM Peak	PM Peak
	Intersection	wovement	Queue (ft)	Queue (ft)
STOP	E1 - Skyway & Mars	NB Approach	<25	<25
		SB Approach	<25	<25
		EB Approach	303	305
	E2 – Skyway & College	WB Approach	72	157
		NB Left	<25	27
		NB Through	289	289
		NB Right	<25	<25
		SB Left	<25	<25
		SB Through	307	1145
_		SB Right	<25	29
STOP	E3 – Local & College	EB Right	<25	<25
	E4 – Trilby & College*	EB Left	293	282
		EB Through	163	193
		EB Right	165	149
		WB Left	134	217
		WB Through	140	237
2		WB Right	120	66
$\mathbf{i}$		NB Left	112	229
		NB Through	694	679
		NB Right	<25	68
		SB Left	80	122
		SB Through	442	923
		SB Right	73	89
_	E5 – Trilby & Mars	EB Left	<25	<25
STOP		WB Left	<25	<25
		NB Approach	<25	<25
		SB Approach	48	38
STOP	11 – Local & Mars	EB Approach	<25	<25
		WB Approach	<25	<25

\*Queue lengths assume full build-out of improvements to the Trilby & College intersection



#### No-Build Scenario at Trilby & College Intersection

JR analyzed a no-build condition at the intersection of Trilby & College. In this condition, JR assumed total 2024 traffic volumes with existing lane geometry (no improvements) at Trilby & College. 95<sup>th</sup> percentile queue lengths for this scenario are included in Table 8.

	Intersection	Movement	AM Peak	PM Peak
			LUS	LUS
	E4 – Trilby & College	EB Left	305	263
		EB Through/Right	617	696
		WB Left	164	257
		WB Through/Right	520	672
		NB Left	225	432
		NB Through	613	644
		NB Right	<25	73
		SB Left	174	354
		SB Through	388	895
		SB Right	<25	114

#### Table 8: 2024 Opening Day Queue Lengths – No-Build at Trilby & College

#### **Discussion on Queue Lengths**

In 2022, a few concerns with queuing exist:

- SBT queuing at Skyway & College may block access to the southbound turn lanes.
- Eastbound queuing at Trilby & College may block access to the church driveway.
- Westbound queuing at Trilby & College may block multiple driveways and Debra Drive.
- NBT queuing at Trilby & College may block access to the northbound turn lanes.
- SBT queuing at Trilby & College may block access to the southbound turn lanes.

In 2024, queuing is expected to improve substantially at the intersection of Trilby & College, as a result of planned improvements. Still, the following concerns with queuing exist:

- NBT queuing at Skyway & College may block access to the northbound turn lanes.
- SBT queuing at Skyway & College may block access to the southbound turn lanes.
- NBT queuing at Trilby & College may block access to the northbound turn lanes.
- SBT queuing at Trilby & College may block access to the southbound turn lanes.



In 2045, queue lengths are expected to be greater than those in 2024 as a result of larger traffic volumes. Still, the concerns with queuing are generally the same as in 2024, with one additional concern:

• SBT queuing at Skyway & College may block the intersection of Saturn & College, in addition to blocking access to the southbound turn lanes at Skyway Drive.

In the no-build scenario at Trilby & College, queuing issues are anticipated in 2024 with total traffic. Turn lanes are not sufficiently long to handle the expected queues. Additionally, some queue lengths would likely affect upstream intersections and driveways.

#### **Comparison of Queuing with Background Traffic vs. Total Traffic**

Queuing for the NBT/SBT movements along College Avenue is mostly a result of background traffic. Sitegenerated traffic has only a minor impact on these queue lengths.

Site-generated traffic has a more significant impact on NB/SB turning movements along College Avenue, as well as EB/WB movements along Skyway Drive and Trilby Road.



# Pedestrian and Bicycle Analysis

## **Existing Pedestrian Facilities**

Existing sidewalks are located in the following places near the Project site:

- South side of Skyway Drive, between Gateway Center Drive and College Avenue
- East side of Mars Drive, between Skyway Drive and northern limit of Project site
- West side of College Avenue, between RIRO intersection and Trilby Road
- North side of Trilby Road, between church access and College Avenue

In the existing condition, sidewalks are absent at the following places:

- West side of College Avenue, between Skyway Drive and RIRO intersection
- North side of Trilby Road, between western limit of Project site and church access

## **Existing Bicycle Facilities**

Skyway Drive: A bicycle lane exists on the south side. No bicycle lane is present on the north side.

**College Avenue:** No bicycle lanes are present on either side. Intermittent shoulders may be used by cyclists.

Trilby Road: Shoulders exist on both sides and may be used by cyclists.

## Links to Neighboring Land Uses

JR analyzed pedestrian links to other land uses within 1,320 feet of the Project site. Figure 11 shows the approximate area analyzed. Additionally, schools within 1.5 miles of the site were considered. The pedestrian analysis worksheet according to LCUASS is included in Appendix B.

Improvements will be made to local pedestrian facilities including sidewalks and signalized intersection crossings. Specifically, sidewalks will be added along Trilby Road and College Avenue as part of the Project. The planned improvements to the Trilby & College intersection are expected to enhance pedestrian crossings.





Figure 11: Pedestrian Analysis Area



## Conclusion

Below is a summary of conclusions and findings of this TIS.

## **Levels of Service**

**2022:** In the existing condition, most intersection movements operate satisfactorily (LOS D or better). However, some movements at the signalized intersections face operational issues, including some movements at LOS E or F.

**2024:** Most movements at the study intersections are expected to operate at LOS D or better in 2024 with total traffic. Levels of service at the intersection of Trilby & College are expected to improve as a result of the planned intersection improvements.

**2045:** Most movements at the study intersections are expected to operate at LOS D or better in 2045 with total traffic. However, multiple study intersections may experience movements that operate at LOS E or F.

## **Queue Lengths**

Estimated 95<sup>th</sup> percentile queues are mostly acceptable. However, a few operational concerns exist, including:

- NBT/SBT movements along College Avenue may block access to NB/SB turn lanes at both Skyway Drive and Trilby Road.
- SBT movement at Skyway & College has an estimated queue of 1,145 feet in 2045, which may interfere with access to Saturn Drive to the north.

### **Pedestrian Facilities**

Pedestrian facilities are mostly satisfactory in the vicinity of the Project site due to the area's primarily residential character. Improvements are expected to be made to sidewalks adjacent to the site, as well as signalized intersection crossings at Trilby & College.

### **Recommendations**

At the intersection of Trilby & College, JR recommends adding an eastbound right turn lane if the full improvements are not completed by 2024. This turn lane would be jointly funded between the City and the Project.



Community Development and Neighborhood Services

Planning Services 281 North College Ave. P.O. Box 580 Fort Collins, CO 80522 970.221.6750 970.224.6134 - fax fcgov.com/developmentreview

## College and Trilby Multifamily (Core Spaces) Neighborhood Meeting Meeting Summary June 6, 2022

#### City Staff – Attendees: Clark Mapes, Planning; Steve Gilchrist, Traffic Operations

#### Applicant Contact: Ken Merritt, JR Engineering

#### **Project Information Presented:**

- The proposed plan is for about 268 dwelling units in a mix of duplexes and townhomes, mix of 2 and 3 story buildings.
- The plan extends Mars Drive across the property from north to south, with additional internal streets and a n-s trail connection across the western edge of the property.
- A community building with pool is included in the plan.
- The developer is coordinating with a City capital project to expand the Trilby intersection with S. College Ave.
- Wetland, stormwater detention, and a natural area buffer around the wetland are major aspects of the plan.

# Questions/Comments and Answers (answers provided by the applicant group unless otherwise noted).

C: The Trilby intersection already #1 crash location in City; wait until that intersection is improved. Dangerous. Overpopulated. Throw more bodes into it is foolhardy.

A: would do a Traffic Study, identify improvements needed, and do them with the project as warranted. The City has a capital project that will probably start construction in 2023. Will be looking at that along with the project.

A: We are working with City to do a bike lane along Trilby. Then going west, there's quite a bit of bike use on a wide shoulder. Probably construct on the coattails of City Capital Project.

Q: I live in Ridgewood Hills [to the south of Trilby] – there's a whole lot of development going on the south end of that neighborhood, with a light at Triangle Dr. that people use to get to Avondale, and cut through the neighborhood to get over to Shields because there's no safe access from College to Shields for people to keep out of our neighborhood. Why can't you build a road through the natural area to the south, over to Shields. When something happens at Trilby, Avondale gets used for that.

A: (City) We're keeping an eye on Avondale/Trilby for a light. The last time we looked at that with a proposed plan, it did not warrant a signal. Connectivity is limited – we understand. College to Shields is a challenge. Ridgewood Hills has a 5<sup>th</sup> filing to signalize Triangle Drive.

Q: Doubling the population seems like it needs to include services like restaurants etc. What are Constellation and Skyway – Collectors? I live in the Aurora subdivision. College/Trilby is critical. Messy. Any consideration to overflow of traffic on Skyway? To College? I have had a difficult time for almost 25 yrs. Getting through the light. The soil is bentonite, hard to build on it.

A: Commercial restaurant etc. uses generate more traffic, I think you'll find this more compatible. About the soils – we appreciate that, are aware of that. Developer and builder will give attention to designing foundations for that.

A: (City) Constellation is a local street. Skyway is not a Collector. Mars is a Collector.

Q: [Street] had to get speed bumps put in.

#### Q: Sale or rent?

A: Rent. It's a unified ownership and operation.

A: Will do a traffic study to confirm whether capacity can be accommodated on those existing streets. It will include Mars Landing.

A: There will be increased traffic but Mars also adds additional connectivity. Any time there are concerns with speeding, Traffic Ops wants to hear about that and has a program that can make changes if warranted.

Q: There was a meeting at Fossil Creek Park showing street improvements – what was going to happen. A: Street improvements happen mostly with development; and once in a while with special public capital projects. The South College Corridor Plan meeting was about a long term vision for future change. It identifies major needs for funding, and change would come over decades.

Q: Why not go through open space – with a new roadway to Shields.

Q: Flooding overflows into our subdivision [Skyview?] Pond outlets blocked, snakes, branches, carpets. A: The detention ponds in this plan will be maintained by both this HOA and the City.

Q: I found a traffic study for Skyway and Constellation. Mars Landing takes it over 1000, and a Local ios limited to 1000. Can we isolate Mars from Skyway?

A: (City)The overall approach to connectivity is to not overwhelm any one street. The traffic study will look at that, and that's a purpose of this meeting, to i.d. things to look for in the study. We will look at that in the TIS.

C: All those people will need water, fire, police, etc.

A: Developers are required to pay capital expansion fees to keep up with the growth of the city.