Development Review Staff Report

Agenda Item 3

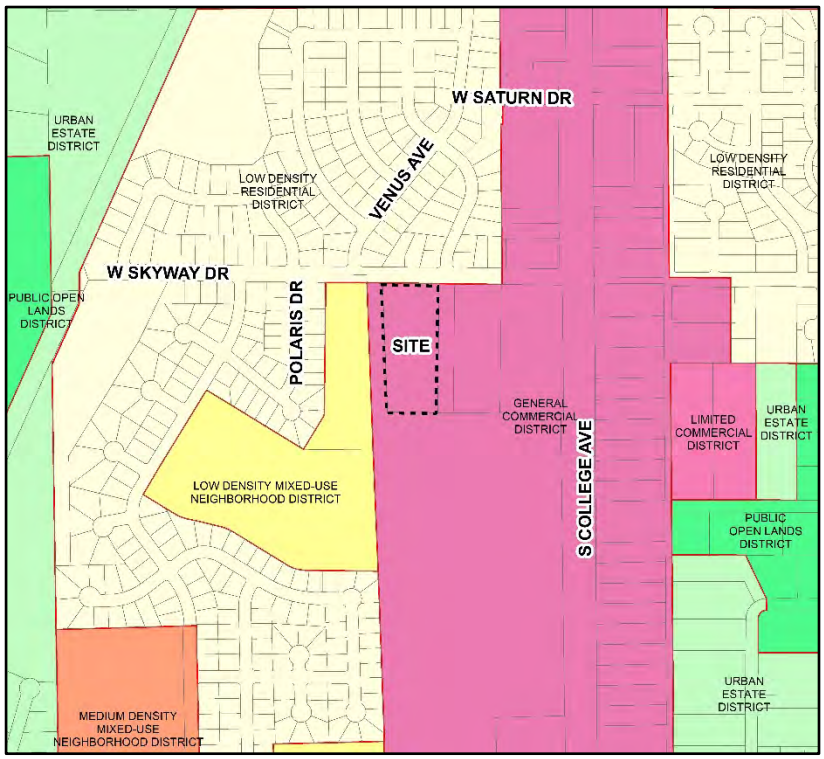
Planning & Zoning Commission Hearing: September 16, 2021

Mars Landing, Project Development Plan – PDP190013

Summary of Request

This is a request for a Project Development Plan (PDP) for the development of two, three-story multi-family buildings with 90 total dwelling units, with a total of 151 on-site parking spaces on 3.79 acres. Access will be taken from two points along Mars Drive. The property is within the General Commercial (CG) zone district and is subject to Planning and Zoning Commission (Type 2) Review.

Zoning Map (ctrl + click map to follow link)



Next Steps

If approved by the decision maker, the applicant will be eligible to submit a Final Development Plan. Subsequent rounds of review will be required to finalize site engineering and corrections to the plan before the applicant can apply for site and building permits.

Site Location

The site is located at the northwest corner of S College Avenue and Skyway Drive and adjacent to the Storage Star enclosed mini-Storage facility (parcel # 9611421001.

Zoning

General Commercial (C-G)

Property Owner

Goodwin Knight LLC
c/o Mark Johnson
8605 Explorer Drive, Ste 250
Colorado Springs, CO 80920-1013

Applicant/Representative

Galloway and Company
James Prelog, PE
5265 Ronald Reagan Blvd., Ste 210
Johnstown, CO 80534

Staff

Pete Wray, Senior City Planner

Contents

Staff Recommendation

Approval of Project Development Plan with conditions.

1. Project Introduction

A. PROJECT DESCRIPTION

- This is a request to construct two, market rate, multi-family buildings containing 90 units. The unit breakdown consists of 58 1-bedroom, 24 2-bedroom, and 6 3-bedroom apartments.
- The property is rectangular in shape and is generally slopes to the south and east, with stormwater runoff draining into the southeast corner of the site.
- This site contains 8 significant trees which includes:
    - A major belt of Cottonwood trees (in fair to poor condition) that run diagonally north to south along the existing irrigation ditch
    - A few other trees including Willow and Russian Olive (in fair condition) are also located along the irrigation ditch on either side of property line
- The existing irrigation ditch is proposed to be relocated and piped underground. As a result, the existing trees will be removed based on condition and location. Of the 8 existing trees to be removed, the project is required to provide 9 upsized trees to be planted on site and within the buffer zone.
- Primary access to the site will be taken from two curb cuts on Mars Drive, connecting to a private drive, which bisects the site and runs north to south. This project proposes to demolish the temporary roundabout and extend Mars Drive south to the south property boundary to allow for the installation of the second drive-cut.
- The South College Corridor Plan includes a trail connection from Skyway Drive on the north to Trilby Road on the south, which runs parallel to S College Avenue. This future pedestrian/bike trail is located on the abutting vacant property to the west, with the PDP providing a path stub-out connection to this future trail alignment.
- On-site amenities include three separate central feature and gathering spaces with shade structure, seating, grill, and tables. A soft path is located adjacent to the northwest gathering space within the landscaped buffer and drainage area.
- Off-site improvements include streetscape landscaping along the south side of Skyway Drive and frontage of S. College Avenue.

B. SITE CHARACTERISTICS

1. Development Status/Background

The site is currently vacant land.

This site was annexed as part of the Timan First Annexation in 1988.

The overall property is divided into three lots including Lot 1 (Five-Star Storage site), and out lot B (fronting S. College Avenue), and out lot A (this proposed PDP site west of storage site).

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2. Surrounding Zoning and Land Use

	North	South	East	West
Zoning	General Commercial (CG) and Low Density Residential (RL)	General Commercial	General Commercial	General Commercial
Land Use	Commercial and Residential	Vacant land	Five-Star Storage	Vacant land

C. OVERVIEW OF MAIN CONSIDERATIONS

The plan has gone through five rounds of review with extensive exploration of issues between rounds of review. Major issues that required clarification and refinement through the review process have included:

- Natural habitat buffer and enhanced landscaping at northwest portion of site.
- Realignment and underground piping of the existing irrigation ditch.
- Building model variety and architecture.
- Location and design of central feature and gathering spaces.
- Off-site streetscape landscaping on Skyway Drive and S College Avenue.
- Ensuring that the highly visible detention pond at the corner of Skyway Drive and Mars Drive provides adequate undulation and landscaping, and viable transition between PDP and existing neighborhood.

D. CITY PLAN (2019)

City Plan is the City's comprehensive plan for land use, transportation, and transit. Several principles and policies are relevant to the evaluation of the current proposal. While the *South College Corridor Plan* is the primary guiding document for this area of the community, the proposal for development of this site also aligns well with the guidance contained in City Plan:

- *Policy LIV 4.1 - NEW NEIGHBORHOODS Encourage creativity in the design and construction of new neighborhoods that: Provides a unifying and interconnected framework of streets, sidewalks, walkway spines and other public spaces; and expands housing options, including higher density and mixed-use buildings.*
- *Policy LIV 4.2 - COMPATIBILITY OF ADJACENT DEVELOPMENT Ensure that development that occurs in adjacent districts complements and enhances the positive qualities of existing neighborhoods. Developments that share a property line and/or street frontage with an existing neighborhood should promote compatibility by: Continuing established block patterns and streets to improve access to services and amenities from the adjacent neighborhood; Incorporating context-sensitive buildings and site features (e.g., similar size, scale and materials); and Locating parking and service areas where impacts on existing neighborhoods—such as noise and traffic—will be minimized.*
- *Policy LIV 5.3 - LAND FOR RESIDENTIAL DEVELOPMENT Use density requirements to maximize the use of land for residential development to positively influence housing supply and expand housing choice.*

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- *Principle ENV 8 – Create and maintain a safe, healthy, and resilient urban forest. The tree preservation and mitigation plan for this PDP align with guidance to protect existing trees and enhance the urban tree canopy with new tree plantings as development takes place.*

City Plan designates the site of the current PDP as a "Suburban Mixed-Use" place type on the Structure Plan Map. Mixed-use district provides opportunities for a range of retail and commercial services, office and employment, multifamily residential, civic, and other complementary uses in a compact, pedestrian and transit-supportive setting.

E. SOUTH COLLEGE CORRIDOR PLAN

In 2008, City Council adopted the South College Corridor Plan, which offers the following relevant policy guidance:

"Policy LU 2.3 - Residential Development. Encourage the development of additional residential uses to increase market support for neighborhood-serving retail uses." (p 40)

"Policy LU 3.2 - Transit-Oriented Uses. Uses that enhance the transit station - including high-density housing, offices, employment centers, and neighborhood commercial uses - are preferred over other uses. Such transit supportive uses will be the focus of City incentives." (p 41)

"Policy LU 3.3 - Convenient Access. Convenient multi-modal access will be provided from the PDP to South College and connecting transit. (p 41)

"Policy LU 3.4 - Building Character and Orientation. The character, massing, and orientation of multi-story buildings will play a critical role in defining this area. In general, fronting the edges of buildings at the sidewalk is encouraged to create a comfortable pedestrian environment. Providing interesting building details at a human scale also creates visual interest." (p 41)

"Policy T 1.1 - Implementation of the Access Control Plan. Development projects and public highway improvement projects will implement the adopted ACP. Short-term and long-range improvements will balance the needs of pedestrians, cyclists, motorists, and businesses. Any ACP elements proposed for implementation will have meaningful involvement of the adjacent businesses and property owners." (P. 42

"Policy T 3.1 - South College Multi-Use Path. In addition to on street bicycle lanes, pedestrian and bicycle circulation will be enhanced by the project connecting to the future pedestrian trail between Skyway and Trilby. The PDP: will provide a n eight-foot detached, multi-use path paralleling South College (as identified in the US 287 Environmental Overview Study and the US 287/South College Avenue Bicycle Lane Project). This is a slight modification to the City's standard Six-Lane Arterial Cross Section." (p. 43)

The proposed development provides several elements that support the *South College Corridor Plan*, including higher density residential, an 8' multi-use path along S College, stub out path connection to the future north/south multi-use trail, and compliance with the South College Access Control Plan.

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2. Public Outreach

A. NEIGHBORHOOD MEETING

A neighborhood meeting was held on August 26, 2019. Approximately 25 members of the public were in attendance. A summary of the public comments received during the neighborhood meeting are attached.

B. PUBLIC COMMENTS:

Staff has not received any comments for this proposal. Any comments received between the public notice period and hearing will be forwarded to the P&Z Commission to be considered when making a decision on the project.

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3. Article 2 – Applicable Standards

A. PROJECT DEVELOPMENT PLAN PROCEDURAL OVERVIEW

1. Preliminary Design Review – PDR190007

A preliminary design review meeting was held on July 31, 2019.

2. Neighborhood Meeting

Pursuant to *LUC Section 2.2.2 – Step 2: Neighborhood Meetings*, a neighborhood meeting is required for Planning and Zoning Commission (Type 2) projects. A neighborhood meeting was held for this project on August 26, 2019.

3. First Submittal – PDP190013

The first submittal of this project was completed on September 13, 2019. The PDP required 5 rounds of staff review.

4. Notice (Posted, Written and Published)

Posted Notice: September 12, 2019, Sign #510

Written Hearing Notice: September 2, 2021; 253 addresses mailed.

Published Hearing Notice: September 5, 2021

4. Article 3 - Applicable Standards

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 Protection	The standards of this section require that a development plan demonstrate a comprehensive approach to landscaping that enhances the appearance and function of the neighborhood, buildings, and pedestrian environment. The proposed plan provides the following:
	• The plan provides a comprehensive landscape plan that includes landscaping around the entire perimeter of each building. Special attention has been given to landscaping around ground mounted air condensers.
	• The plan offers a diverse palette of shrubs, grasses, and perennials in the following quantities:
	  ◦ 145 evergreen shrubs
	  ◦ 617 grasses
	  ◦ 65 perennials
	  ◦ 651 deciduous shrubs
	• Full tree stocking is provided within 50 feet of all high-use or high-visibility sides of the building. This includes 17 deciduous, 5 evergreen, and 24 ornamental trees for a total of 46 trees.
	• All proposed trees will be upsized to provide on-site mitigation for the 7 trees that are proposed to be removed. Mitigation proposes 2” canopy shade trees, 8-foot height (6’ min) for evergreen trees, and 2-inch caliper (2” min) for ornamental trees. In total, 9 mitigation trees are required and 9 are provided meeting the standard.
	• Trees meet maximum spacing requirements of 30-40 foot spacing for canopy shade trees and 20-40 foot spacing for evergreen or ornamental trees.
	• Species diversity limits do not exceed the 15% max of any one species.
		Complies

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	• The Plan provides a total of 122 trees on and off-stie. Of that total, 61 are canopy shade trees, meeting the required minimum 50%. • Planting beds that contain shrub and ground cover in appropriate quantities and in all areas of the site not covered by impervious asphalt, concrete, buildings, or structures. Further refinement of quantities and species will be finalized at Final Development Plan.	
3.2.1(E)(3) – Water Conservation	Landscape plans are required to be designed in a way that employs water efficient techniques, such as using low water use plants, limiting high water-use turf to areas of high traffic, efficient irrigation design and use of mulch to conserve moisture. Landscape plans may not exceed an average of fifteen gallons per square foot of landscape. • The landscape plan demonstrates moderate (10 gallons/square feet/season) and low (3 gallons/square feet/season), and very low water zones. Combined, all landscape areas within the site are calculated to average 6 gallons per square foot, in compliance with the Maximum allowance of 15 gallons/square foot.	Complies
3.2.1(F) – Tree Preservation and Mitigation	This standard requires that developments provide on-site mitigation in the form of a defined number of replacement trees if existing significant trees are removed. The number of mitigation trees is determined by City Forestry staff based off existing tree species, breast diameter, and health/condition. Mitigation values can range between 1 and 6 for a tree that is removed. Dead, dying, and certain invasive species are exempt from this standard. There is a total of 7 existing trees on site proposed to be removed. A total of 9 upsized mitigation trees are provided in compliance with this standard.	Complies
3.2.2 – Access, Circulation and Parking	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: • Detached street sidewalk system along both Mars Drive, Skyway Drive, and S College Ave. • A central pedestrian spine provides a connection between Mars Drive and west edge of property, which then connects to the planned future multi-use trail that will provide pedestrian connectivity between Skyway and Trilby. • A series of 5,6 and 8 foot walkways internal to the site. • Curb cuts and ramps in safe and convenient locations throughout the site.	Complies
3.2.2(C)(4) – Bicycle Parking Space Requirements	Bicycle parking requirements for multifamily residential use are 1 space per bedroom. To meet the standards of this Section, the plan is required to provide 128 bicycle parking spaces (77 enclosed 60% and 51 fixed racks (40%). • The Plan proposes 90 units that combined, contain 128 bedrooms. • The project proposes 128 spaces, including 32 on hanging racks under building eaves, or spaces inside detached garage spaces, and 96 fixed spaces on bike racks distributed throughout the site. **Staff is including a Condition of Approval No. 1 to be addressed at FDP to provide 60% covered bicycle spaces (77 spaces), and 40% fixed rack spaces (51 spaces).**	**Complies with Condition**
3.2.2(C)(5) (a, b) – Walkways and Street Crossing	This standard requires that walkways within the site be located and aligned to connect areas or points of pedestrian origin or destination and where walkways cross a street or internal roadway, crossings must emphasize and place priority on the pedestrian through several mitigating elements such as pavement treatments, striping, signals, lighting, refuge areas and landscaping. The Plan provides walkways consistent with the standard of this section using decorative concrete, landscape bulb-outs and lighting.	Complies

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<table>
<tr><td>3.2.2(C) (6,7) – Direct On/Off-Site Access to Pedestrian and Bicycle Destinations</td><td>These standards require that the on-site/off-site pedestrian and bicycle circulation system be designed to provide for direct connections to major pedestrian and bicycle destinations, including, trails, parks, schools, Neighborhood Centers, Neighborhood Commercial Districts, and transit stops that are located either within the development or adjacent to the development.

The most notable pedestrian and bicycle destinations within the vicinity are along S College to the east. The Plan provides direct connections into the S College and existing Transit stop, with routes that connect to the South Transit Station. Further, the Plan provides several direct connections into the street sidewalk system that provide greater connectivity to the areas along Skyway and ultimately to Trilby by a future trail connection.</td><td>Complies</td></tr>
<tr><td>3.2.2(C)(8) – Transportation Impact Study</td><td>The Transportation Impact Study finds that all level of service requirements for the City of Fort Collins are met.

Traffic Engineering Staff has reviewed the report and in general the conclusions have been accepted.</td><td>Complies</td></tr>
<tr><td>3.2.2(K)(1)(a)(1) – Parking</td><td>The following are parking requirements for multi-family projects.
<table><tr><td>Number of Bedrooms/Dwelling Unit</td><td>Parking Spaces Per Dwelling Unit*</td></tr><tr><td>One or less</td><td>1.5</td></tr><tr><td>Two</td><td>1.75</td></tr><tr><td>Three</td><td>2.0</td></tr></table>Based on the bedroom and unit count, the project is required to provide 145 parking spaces. The plan provides the following total of 151 spaces exceeding compliance with the standards of this Section:
130 standard surface parking spaces
8 accessible spaces
13 garage spaces</td><td>Complies</td></tr>
<tr><td>3.2.2(K)(5) – Handicap Parking</td><td>Handicap-accessible spaces must have a stall width of 13 feet and be placed as close as possible to the nearest building entrance. Parking standards require a minimum amount of 8 handicap spaces based on the total spaces in the lot.

The PDP complies with this standard by providing 6 accessible surface spaces located in convenient areas adjacent to entryways around the site, and 2 accessible parking garage spaces.</td><td>Complies</td></tr>
<tr><td>3.2.2(L) – Parking Stall Dimensions</td><td>Land Use Code Section 3.2.2(L) details parking stall and drive-aisle requirements for parking lots. The parking provided in this PDP is designed primarily for residents and qualifies as a “long term” parking use as outlined in Section 3.2.2(L)(3).

The proposed project meets the parking stall and drive-aisle dimensions required in the Land Use Code for all parking stalls and provides the following:
90°: 130, 9’x17’ spaces (8’x15’ min req)
The internal private street is 26 feet in width. (24 feet min req)</td><td>Complies</td></tr>
<tr><td>3.2.2(M) – Landscaping</td><td>This section requires that ten (10) percent of the interior space of any parking lot with more than one hundred (100) spaces be devoted to landscaping.
The PDP proposes interior parking lot landscaping more than the minimum standard of this section.</td><td>Complies</td></tr>
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3.2.4 – Site Lighting	This standard requires that exterior lighting not adversely affect the properties, neighborhood, or natural features adjacent to the development. Further, the standard requires exterior lighting to be examined in a way that considers the light source, level of illumination, hours of illumination and need. The PDP provides 24 light fixtures that provide lighting around building entryways, garages, sidewalks, parking, streets, and internal drives. Pole mounted luminaires are limited to 17'-6" feet in height. Lighting is used in all needed areas of the site and complies with the requirements of this section using fully shielded, down-directional, 3,000 Kelvin or less fixtures and do not exceed the lumen limit of 0.1 when measured 20 feet beyond the property boundary. The site is located within the LC Lighting Context Area. The proposed fixtures comply with backlight, up light and glare requirements based on the context area.	Complies
3.2.5 – Trash and Recycling Enclosures	The purpose of this standard is to ensure the provision of areas, compatible with surrounding land uses, for the collection, separation, storage, loading and pickup of trash, waste cooking oil, compostable and recyclable materials. The PDP proposes two trash enclosures distributed adjacent to the two buildings on site. Each enclosure contains an equal distribution of trash and recycling capacity. Enclosures are constructed of cedar fence and posts, separate pedestrian entrance, and main steel gates and posts. Colors are neutral and match the overall theme of the development. **Staff is including a Condition of Approval No. 2 - *to ensure the enclosures are screened with a more durable material in place of cedar fencing such as textured concrete block, CMU blocks, or all metal fencing. This will include interior curbing or metal strips to buffer dumpster bins from hitting walls.***	**Complies with Condition**

B. 3.3 ENGINEERING STANDARDS

Applicable Code Standard	Summary of Code Requirement and Analysis	Staff Findings
3.3.1(C) – Public Sites, Reservations and Dedications	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. In cases where any part of an existing street is abutting or within the property being developed, the applicant must dedicate such additional rights-of-way to meet the minimum width required by Larimer County Urban Area Street Standards and the City of Fort Collins Land Use Code. The PDP complies with this standard by: • The College Ave., Skyway and Mars Drive ROW and utility easements were all dedicated with the South College Storage plat. • The onsite easements being dedicated include emergency access, pedestrian access, and utility. There are also temporary slope easements to be dedicated by the adjacent property owner on the south side for grading to tie into existing.	Complies

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

The purpose of this Section is to ensure that when property is developed consistent with its zoning designation, the way in which the proposed physical elements of the development plan are designed and arranged on the site will protect the natural habitats and features and historic resources both on the site and in the vicinity of the site.

Applicable Code Standard	Summary of Code Requirement and Analysis	Staff Findings
3.4.1 – Natural Habitats	The General Standard requires, to the maximum extent feasible, the development plan be designed and arranged to be compatible with and to protect natural habitats and features and the plants and animals that inhabit them and integrate them within the developed landscape of the community by: (1) directing development away from sensitive resources; (2) minimizing impacts and disturbance through the use of buffer zones; (3) enhancing existing conditions; or (4) restoring or replacing the resource value lost to the community when a development will result in the disturbance of natural habitats or features. b. Section 3.4.1(E)(1) (a-i) Buffer Zone Performance Standards allow the decision maker [Planning and Zoning Board] to determine buffer zones that may be multiple and noncontiguous. The general buffer zone distance for each natural habitat or feature is established in the quantitative buffer zone table, but the Planning and Zoning Board may reduce or enlarge any portion of the general buffer zone distance to ensure qualitative performance standards are achieved. **Background:** The Ecological Characterization Study (ECS) was completed by Wildlife Specialties, LLC in December 2019, and was later updated in October 2020. The report highlights several resources on and near the property that warrant protection or mitigation, including: the Louden Ditch, a 3.5 acre prairie dog colony, and an active Red-tailed hawk nest located 450-feet east of the project site. Other than these features, the site is dominated by non-native grasses (smooth brome and crested wheatgrass), non-native trees (Russian olive, Chinese elm) and invasive weeds (cheatgrass, bindweed, and leafy spurge). **Development Proposal:** In 2018 the property owner piped the ditch and City staff required the trench to remain as a wildlife movement corridor. The resulting buffer zone for the ditch amounts to 1.5 acres of low-quality uplands, and .014 ac of low-quality fringe wetlands along the ditch embankments. The Mars Landing development proposes to fill the ditch trench and prairie dog colony. Proposed onsite mitigation will create .85 ac of restored uplands and .043 ac of wetlands. The condition of the buffer will be higher in quality than what exists today through enhanced native plantings and weed mitigation. The buffer zone is located on the western and northern sides of the site and connects to the buffer zone on the adjacent property to the west. This will allow for the continuance and enhancement of the existing wildlife movement corridor. Because the onsite uplands mitigation will not amount to a 1:1 mitigation value, the development will make a payment to the City Natural Areas Department for one acre of uplands restoration. The prairie dog colony will be mitigated by trapping and donating the animals to the raptor center. To do this, the applicant will have to obtain a permit from Colorado Parks & Wildlife and provide detailed day-by-day timeline of trapping activities to the City Environmental Planner for review and approval. A final report will be submitted to the City Environmental Planner after trap and donate activities have been completed. The Red-tailed Hawk nest is located approximately 450-feet away from the development site. LUC 3.4.1 requires that Red-tailed Hawk nests be protected by a 450-foot buffer during nesting season on the first year of a multi-year construction project. Because the buffer overlaps the property boundary, work performed within this buffer must occur outside the nesting season on the first year of construction.	Complies

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Performance Standards: The applicant proposes meeting LUC 3.4.1 (E) natural habitat buffer zone performance standards, which are as follows:

(a) *The project shall be designed to preserve or enhance the ecological character or function and wildlife use of the natural habitat or feature and to minimize or adequately mitigate the foreseeable impacts of development.*

The existing site contains a total of .014 ac of low-quality wetlands and 1.5 ac of low-quality uplands. The development proposes the creation of .043 ac wetlands and .85 ac of uplands. The resultant buffer zone on site will be of higher quality than what exists today through weed mitigation, species, and structural diversity. Enhanced plantings have been located near the parking area to mitigate noise and light from cars. Lighting has been designed so that no light spills into the buffer zone.

(b) *The project, including, by way of example and not by way of limitation, its fencing, pedestrian/bicycle paths and roadways, shall be designed to preserve or enhance the existence of wildlife movement corridors between natural habitats and features, both within and adjacent to the site.*

The wildlife movement corridor will be retained along the western side of the site and connects to a buffer immediately west of the property.

(c) *The project shall be designed to preserve existing trees and vegetation that contribute to the site's ecological, shade, canopy, aesthetic, habitat, and cooling value. Notwithstanding the requirements of Section 3.2.1(F), all trees and vegetation within the Limits of Development must be preserved or, if necessary, mitigated based on the values established by the Ecological Characterization Study or the City Environmental Planner. Such mitigation, if necessary, shall include trees, shrubs, grasses, or any combination thereof, and must be planted within the buffer zone.*

Existing vegetation is predominantly weedy and invasive therefore wetlands and uplands will be restored. Restoration will include a combination of shrubs and trees for improved structural and species diversity and the understory will be replaced with native seed.

(d) *The project shall be designed to protect from adverse impact to species utilizing special habitat features such as key raptor habitat features, including nest sites, night roosts and key feeding areas as identified by the Colorado Parks and Wildlife Division ("CPW") or the Fort Collins Natural Areas Department ("NAD"); key production areas, wintering areas and migratory feeding areas for waterfowl; heron rookeries; key use areas for wading birds and shorebirds; key use areas for migrant songbirds; key nesting areas for grassland birds; fox and coyote dens; mule deer winter concentration areas as identified by the CPW or NAD; prairie dog colonies one (1) acre or greater in size; key areas for rare, migrant or resident butterflies as identified by the NAD; areas of high terrestrial or aquatic insect diversity as identified by the NAD; remnant native prairie habitat; mixed foothill shrubland; foothill ponderosa pine forest; plains cottonwood riparian woodlands; and wetlands of any size.*

The Red-tailed Hawk nest will be protected per LUC 3.4.1 standards. Prairie dogs will be trapped and donated to the raptor center, which provides a higher conservation approach than euthanizing the animals.

(e) *The project shall be designed so that the character of the proposed development in terms of use, density, traffic generation, quality of runoff water, noise, lighting, and similar potential development impacts shall minimize the degradation of the ecological character or wildlife use of the affected natural habitats or features.*

The project went through several design iterations to mitigate impacts. For example, detached garage buildings were relocated to the south and the gathering area was relocated to the east to expand the buffer zone and reduce noise and lighting impacts. Additional plantings have been placed around the parking lot for screening from traffic, lighting, and noise.

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	(f) The project shall be designed to integrate with and otherwise preserve existing site topography, including, but not limited to, such characteristics as steepness of slopes, existing drainage features, rock outcroppings, river and stream terraces, valley walls, ridgelines and scenic topographic features. The Louden Ditch trench will be filled which will impact the character of the site. However, the site would be rendered undevelopable if the trench remains as the ditch diagonally bisects the site. *(g) The project shall be designed to enhance the natural ecological characteristics of the site. If existing landscaping within the buffer zone is determined by the decision maker to be incompatible with the purposes of the buffer zone, then the applicant shall undertake restoration and mitigation measures such as regrading and/or the replanting of native vegetation.* All buffers will be restored to native vegetation. Additionally, weed mitigation and enhancement plantings will be incorporated to improve the natural ecological characteristics of the site. *(h) The project may be designed to provide appropriate human access to natural habitats and features and their associated buffer zones to serve recreation purposes, provided that such access is compatible with the ecological character or wildlife use of the natural habitat or feature.* A pedestrian connection is proposed through the western side of the site that connects to a future regional trail. This connection will not compromise the buffer zone serving as a wildlife corridor and provides appropriate human access to nature. *(i) Fencing associated with the project shall be designed to be compatible with the ecological character and wildlife use of the natural habitat or feature.* No fencing is being proposed in the buffer zone. **Summary:** The onsite mitigation results in the creation of .85 ac uplands and .043 ac of wetlands. Because the onsite mitigation will not amount to a 1:1 mitigation value, the development will make a payment to the City Natural Areas Department for one acre of uplands restoration. In addition, the applicant is trapping and donating existing prairie dogs on site. A native seed mix, weed mitigation, and additional native plantings throughout other areas of the site will further enhance the ecological character and habitat value of the site.	
3.4.3 – Water Quality	The Project is required to mitigate precipitation runoff flowing from the site is treated in accordance with the criteria set forth in the *Stormwater Criteria Manual*. • The Mars Landing development is meeting all City of Fort Collins Stormwater requirements. They are proposing quantity detention per City Criteria, extended detention, and underground storage (StormTech chambers) for water quality and LID respectively. The site outfalls to the east through a swale that was planned for with the “South College storage” development. All offsite easements were obtained previously, and no additional offsite easements are required with this development.	Complies
3.4.7 – Historic and Cultural Resources	This standard is intended to ensure that development is compatible with and protects historic resources and that the design of new structures is compatible with and protects the integrity of historic resources located within the area of adjacency. According to the requirements in 3.4.7(B), there are no historic resources within 200 feet of the subject site, therefore, Section 3.4.7 is not applicable to this project.	N/A
3.4.8 – Parks and Trails	This standard requires compliance of development plans with the Parks and Recreation Policy Plan to ensure that the community will have a fair and equitable system of parks, trail and recreation facilities as the community grows. The plan proposes a direct connection to the future multi-use trail rail that will connect between Skyway and Trilby.	Complies

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D. 3.5 BUILDING STANDARDS

The purpose of this Section is to ensure that the physical and operational characteristics of proposed buildings and uses are compatible when considered within the context of the surrounding area.

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	This section is designed to ensure compatibility of new buildings 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. *Compatibility shall mean the characteristics of different uses or activities or design which allow them to be located near or adjacent to each other in harmony. Some elements affecting compatibility include height, scale, mass, and bulk of structures. Other characteristics include pedestrian or vehicular traffic, circulation, access, and parking impacts. Other important characteristics that affect compatibility are landscaping, lighting, noise, odor, and architecture. Compatibility does not mean "the same as." Rather, compatibility refers to the sensitivity of development proposals in maintaining the character of existing development.* The character of the surrounding architectural context can be described as follows: The area adjacent to the south is future vacant commercial land. To the north, the existing established Skyview neighborhood includes single-family detached homes. The existing homes are a combination of single-story and two-story building heights. To the west is the future vacant land and existing residential homes. To the east is the existing three-story Five-Star enclosed mini-storage commercial building. This building features masonry, metal siding, and stucco wall materials, and pitched metal roof treatments. In conformance with the General Standard of this section, the architectural character of the area is established with the existing residential neighborhood and newly constructed enclosed storage building across Mars Drive to the east. Therefore, in terms of the General Standard, the project is required to reflect and be compatible with the established character of the area. • The proposed building architecture reflects similar residential design elements and compatible with the adjacent commercial building design. • A generous landscape area is located behind the Skyway ROW, providing sufficient landscape buffer and transition between the north multi-family building and existing neighborhood across Skyway Drive.	Complies
3.5.1 (C)– Building Size, Height, Bulk, Mass, Scale	Buildings shall either be similar in size and height, or, if larger, be articulated and subdivided into massing that is proportional to the mass and scale of other structures, if any, on the same block face, abutting or adjacent to the subject property, opposing block face or cater-corner block face at the nearest intersection. • Articulation of accent details, recesses and projections are used consistently throughout all faces of the two respective building designs. These elements help subdivide the massing and create appropriate proportions compatible with the design in the surrounding area. The north building that fronts Skyway includes a two-story height reduction and step back, consistent with the one and two story homes in the adjacent Skyview neighborhood. • The proposed 42 unit building is 38’-4” in height, and the 48 unit building is 39’-6” in height, less than the 40 foot height requirement for additional analysis.	Complies

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3.5.1 (E)– Building Materials	This section addresses building materials, glare, and windows. Building materials shall either be similar to the materials already being used in the neighborhood or, if dissimilar materials are being proposed, other characteristics such as scale and proportions, form, architectural detailing, color, and texture, shall be utilized to ensure that enough similarity exists for the building to be compatible, despite the differences in materials. • Exterior materials consist of, hardboard lap siding, stone veneer, architectural grade metal panels, stucco, vinyl windows and standing seam metal roofing. These elements combined are similar to the adjacent storage building and reflect similar materials and design features with the existing homes to the north.	Complies
3.5.1 (F)– Building Color	Color shades shall be used to facilitate blending into the neighborhood and unifying the development. The color shades of building materials shall draw from the range of color shades that already exist on the block or in the adjacent neighborhood. • The adjacent commercial building and existing residential homes consist of a range of light and dark earth tone colors. The proposed two buildings include a range of tan, brown, blue, and grey colors, consistent with the established pattern in the area.	Complies
3.5.2(D) – Relationship of Dwellings to Streets and Parking	This section requires that every front facade with a primary entrance to a dwelling unit face a connecting walkway with no primary entrance more than two hundred (200) feet from a street sidewalk. A primary entrance may be up to three hundred fifty (350) feet from a street sidewalk if the primary entrance faces and opens directly onto a connecting walkway that qualifies as a major walkway spine. • The two multi-family buildings face Mars Drive to the east and include primary entrances and side entrances that connect directly to the public sidewalk. • The west façade of the buildings includes two primary entrances that connect to the private street and parking areas.	Complies
3.5.2(G)(1)(a, b) – Perimeter Garages	To add visual interest and avoid the effect of a long blank wall with no relation to human size, accessibility needs or internal divisions within the building, this section sets standards for minimum wall articulation along rear walls of multifamily garages. This standard applies to the garages located along the west property line. The area contains three 5-space garages. The plan provides the following in compliance with the standard: • No garage exceeds the maximum length of 60 feet. • Garages are separated by generous landscaping and pedestrian path, that break up an otherwise continuous row of garage walls and that meets the intent of the standard. • Each garage design provides articulation though changes in siding materials, colors, and roof planes.	Complies
3.5.2(G)(2)(a) – All Garages	Rear doorways shall be provided as determined by the decision maker to be reasonably necessary to allow direct access to living units without requiring people to walk around the garage to access their living units. • No buildings are located behind the proposed three detached garages. Each garage includes an automatic door opening for vehicle access.	NA

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E. 3.6 TRANSPORTATION AND CIRCULATION

Applicable Code Standard	Summary of Code Requirement and Analysis	Staff Findings
3.6.1(D) – Compliance with Access Control Plans	The transportation network of any proposed development shall be in conformance with the City of Fort Collins Master Street Plan, as well as City adopted access control plans and the Larimer County Urban Area Street This plan provides compliance with the City's Master Street Plan and dedicates the necessary ROW for the future 6-lane arterial cross section of S College Avenue. The plan also complies South College Avenue (US 287) Access Control Plan by proposing access from Skyway Drive and future extension of Mars Drive to the south to Trilby as development occurs.	Complies
3.6.2(M) – Private Streets	Private streets shall be allowed in a development, provided that their function will be primarily to provide access to property within the development. Private streets shall not be permitted if (by plan or circumstance) such streets would, in the judgment of the City Engineer, attract "through traffic" in such volumes as to render public streets necessary as connections between developments, neighborhoods or other origins and destinations outside of the development plan. All drives within the development are private and will only serve the multi-family development. Maintenance of the internal circulation system will be the responsibility of the owner and are designed in a way that promotes the health safety and welfare of the city. The private drives include 13 ft travel lanes; perpendicular parking, attached sidewalks and tree islands.	Complies
3.6.3 – Street Pattern and Connectivity	This standard states: "*The local street system of any proposed development shall be designed to be safe, efficient, convenient and attractive, considering use by all modes of transportation that will use the system, (including, without limitation, cars, trucks, buses, bicycles, pedestrians and emergency vehicles). The local street system shall provide multiple direct connections to and between local destinations such as parks, schools, and shopping. Local streets must provide for both intra- and inter-neighborhood connections to knit developments together, rather than forming barriers between them. The street configuration within each parcel must contribute to the street system of the neighborhood.*" The project fronts the extension of Mars Drive that will extend to the south based on future development. The site also fronts Skyway Drive as it connects east/west to S College. This configuration allows for future neighborhood connectivity for vehicles and bicycles and sidewalks for pedestrians.	Complies

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3.6.4 – Transportation Level of Service Requirements	A Traffic Memo was required with the submittal of this project and is attached. The memo has been reviewed by the city. The study evaluates the potential impacts to the transportation system in the surrounding areas of the proposed development. The information provided in the Traffic Memo demonstrated that all the project access point and adjacent intersections will continue to operate at an acceptable level of service for in the AM and PM peak hours. The anticipated traffic/trips that will be generated by this site are not expected to have significant impacts on the level of service, or delay that would cause these intersections to no longer meet the requirements outline in the Larimer County Urban Area Street Standards. The Traffic Memo also included an extensive evaluation of the College and Skyway intersection for the eastbound movement. This was based on concerns with the operation of this signal from neighborhood input. With certain limitations in the ability to expand this intersection, this evaluation concluded that the geometric modifications to the striping will help improve the operation and reduce the delay for the eastbound traffic. These changes will be implemented according to the plans. The general conclusions of the Traffic Memo have been accepted by the city along with the proposed striping changes that will be implemented as improvements to the College and Skyway intersection.	Complies
3.6.6 – Emergency Access	This standard states," all developments shall provide adequate access for emergency vehicles and for those persons rendering fire protection and emergency services by complying with Article 9, Fire Department Access and Water Supply, of the Uniform Fire Code as adopted and amended pursuant to Chapter 9 of the City Code. All emergency access ways, easements, rights-of-way or other rights required to be granted pursuant to the Uniform Fire Code must include not only access rights for fire protection purposes, but also for all other emergency services." The project has been reviewed by Poudre Fire Authority (PFA) and is found to meet aerial access, water supply, and general access requirements.	Complies

F. 3.7 COMPACT URBAN GROWTH

Applicable Code Standard	Summary of Code Requirement and Analysis	Staff Findings
3.7.3 – Adequate Public Facilities	This section requires that any approval of a development is conditioned on the provision of all services necessary to serve the new development. This includes transportation, water, wastewater, storm drainage, fire and emergency services, electrical power and any other public facilities and services as required. • The project is served by the Fort Collins Loveland Water District and South Fort Collins Sanitation District, Fort Collins Light and Power, and the Poudre Fire Authority. Each party has commented on the project and have demonstrated existing infrastructure capable of serving the proposed project at the developer's expense. • The project meets several goals of this section by improving air quality by reducing vehicle miles traveled and by encouraging mass transit and alternatives to the private automobile, making possible the efficient use of existing infrastructure and cost-effective extensions of new services: and encouraging infill development and reinvestment in built-up areas of the city.	Complies

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

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 streets, and compatibility with surrounding neighborhoods.

Applicable Code Standard	Summary of Code Requirement and Analysis	Staff Findings
3.8.30(B) – Multi-Family Mix of Housing Types	A complete range of the permitted housing types is encouraged in a neighborhood and within any individual development plan, to the extent reasonably feasible, depending on the size of the parcel. This standard does not apply because the PDP is contained within a 3-acre parcel.	N/A
3.8.30(C) – Access to a Park, Central Feature or Gather Place	For multi-family projects containing 2 or more acres, the buildings must be located within 1,320 feet (¼ mile) of either a neighborhood park, a privately owned park or a central feature or gathering place that is located either within the project or within adjacent development. The distance must be measured along street frontage without crossing an arterial street. • The PDP provides three separate central feature and gathering spaces on site. • Two of the gathering spaces are located along the frontage of Mars Drive adjacent to the buildings and includes tables, seating, and shelter amenities • The larger west gathering space is located on edge of the buffer area and detention pond. This space includes a covered shelter, tables and seating and soft path that connects to Skyway sidewalk.	Complies
3.8.30(D) – Block Requirements	This standard requires multi-family projects to establish a block structure that creates no greater than a 7-acre block bound by streets on all four sides. This standard allows for exceptions to this rule and allows for irrigation ditches, high-voltage power lines, and other substantial physical features to form up to two sides of a block. • The plan area is 3.79 acres in size, so this block requirement is not applicable.	NA
3.8.30(E) – Buildings	This standard requires that for all applicable buildings, the minimum required setbacks are: • Arterial Street (S College) 15 feet • Non-Arterial Street (Fairway Lane and Fossil Blvd) 9 feet. The project complies with all required setbacks by providing a 15 foot setback for the two buildings fronting Mars Drive.	Complies

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3.8.30(F)(2) – Variation Among Buildings	The standard states, "For any such development containing more than five (5) buildings (excluding clubhouses/leasing offices), there shall be at least three (3) distinctly different building designs. For all developments, there shall be no similar buildings placed next to each other along a street, street-like private drive or major walkway spine. Building designs shall be considered similar unless they vary significantly in footprint size and shape. Building designs shall be further distinguished by including unique architectural elevations and unique entrance features within a coordinated overall theme of roof forms, massing proportions and other characteristics. Such variation among buildings shall not consist solely of different combinations of the same building features. The plan provides the following: • Two distinctly different designs. • No similar building placed next to one another along a street. • Variation among building types includes size of footprint and shape, wall articulation, building materials, finishes and colors, window treatments and roof form. **South Building – 42 Unit**  2 NORTH ELEVATION  3 NORTH - EAST BUILDING PERSPECTIVE  1 EAST ELEVATION  1 WEST ELEVATION	Complies

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	North Building – 48 Unit    	
3.8.30(F)(3) – Variation of Color	The standard states, “each multi-family building shall feature a palette of muted colors, earth tone colors, natural colors found in surrounding landscape or colors consistent with the adjacent neighborhood. For all developments, there shall be no more than two (2) similarly colored structures placed next to each other along a street or major walkway spine.” • The PDP complies with the standard by placing no two similarly colored structures next to one another and by providing the following two color schemes: **Color Scheme 1 – South 42 Unit Building** Color shades of tan, grey, brown and forest green (see above elevations for colors). **Color Scheme 2 – North 48 Unit Building** Color shades of tan, brown, dark teal blue and grey (see above elevations for colors).	Complies
3.8.30(F)(4) – Entrances	The standard states, “entrances shall be made clearly visible from the streets and public areas through the use of architectural elements and landscaping.” • The plan provides three main entrance points for each building. Main entrances are clearly visible from the street using architectural brackets, canopy overhangs, wall projections, large planters, and landscaping around each respective entrance.	Complies

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3.8.30(F)(5) – Roofs	The standard states, "Roof lines may be either sloped, flat or curved, but must include at least two (2) of the following elements: a) The primary roof line shall be articulated through a variation or terracing in height, detailing and/or change in massing. b) Secondary roofs shall transition over entrances, porches, garages, dormers, towers, or other architectural projections. c) Offsets in roof planes shall be a minimum of two (2) feet in the vertical plane. d) Termination at the top of flat roof parapets shall be articulated by design details and/or changes in materials and color. e) Rooftop equipment shall be hidden from view by incorporating equipment screens of compatible design and materials." • The PDP complies with this standard by providing articulation of roof forms through a variation in height, variation in detailing using brackets, and changes in massing that match the projecting and recessing footprint of the building.	Complies
3.8.30(F)(6) – Facades and Walls	The standard states, "Each multi-family dwelling shall be articulated with projections, recesses, covered doorways, balconies, covered box or bay windows and/or other similar features, dividing large facades and walls into human-scaled proportions similar to the adjacent single- or two-family dwellings, and shall not have repetitive, undifferentiated wall planes. Building facades shall be articulated with horizontal and/or vertical elements that break up blank walls of forty (40) feet or longer. Facade articulation may be accomplished by offsetting the floor plan, recessing or projection of design elements, change in materials and/or change in contrasting colors. Projections shall fall within setback requirements." • The PDP complies with this standard by providing projections and recesses along the façade every 12-22 foot intervals that are often paired with changes in the application of both material (manufactured stone, vertical lap siding, horizontal lap siding, board, and batten), and colors.	Complies
3.8.30 – Colors and Materials	Colors of non-masonry materials shall be varied from structure to structure to differentiate between buildings and provide variety and individuality. Colors and materials shall be integrated to visually reduce the scale of the buildings by contrasting trim, by contrasting shades or by distinguishing one (1) section or architectural element from another. Bright colors, if used, shall be reserved for accent and trim. • An alternating color and material scheme is applied to vertical modules of the two buildings. Vertical and horizontal color schemes are divided by individual wall panels or design features. Use of color and material combine to create a reduced sense of scale and visual interest for the project.	Complies

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5. Article 4 – Applicable Standards:

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

The General Commercial District is intended to be a setting for development, redevelopment, and infill of a wide range of community and regional retail uses, offices, and personal and business services. Secondarily, it can accommodate a wide range of other uses including creative forms of housing.

While some General Commercial District areas may continue to meet the need for auto-related and other auto-oriented uses, it is the City's intent that the General Commercial District emphasize safe and convenient personal mobility in many forms, with planning and design that accommodates pedestrians.

Applicable Code Standard	Summary of Code Requirement and Analysis	Staff Findings
4.21(B) – Permitted Uses	Any residential use consisting in whole or in part of multi-family dwellings that contain more than fifty (50) dwelling units, or more than seventy-five (75) bedrooms is a permitted use subject to Type 2 (Planning and Zoning Commission) review. • The PDP includes 90 dwelling units and 128 bedrooms.	Complies
4.21(D) – Land Use Standards	This standard limit the maximum building height to four stories. • The PDP proposes two, three-story multi-family buildings.	Complies
4.21(E)(2) (a, b) – Site Design	This standard requires pedestrian-oriented outdoor spaces shall be placed next to activity areas that generate the users (such as street corners, shops, stores, offices, day care and dwellings). Because liveliness created by the presence of people is the main key to the attractiveness of such spaces, to the maximum extent feasible, the development shall link outdoor spaces to and make them visible from streets and sidewalks. Sculpture, kiosks, or shelters are encouraged to be prominently placed in outdoor spaces. • The project provides compliance with this standard using a central walkway corridor that connects Mars Drive to the future multi-use trail west of property. The two multi-family buildings include a central outdoor gathering space between the buildings and public sidewalk on Mars Drive. These spaces include landscaping, tables, and seating amenities. At the northwestern boundary of the site the plan includes a larger gathering space and connection to the landscape detention area and Skyway Drive by a soft path. This outdoor space combines a covered shelter, tables, seating, and BBQ amenities.	Complies

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6. Findings of Fact/Conclusion

In evaluating the request for the Mars Landing Project Development Plan, PDP190013, Staff makes the following findings of fact:

1. The Project Development Plan complies with the policy direction of *City Plan* and the *S College Corridor Plan*.

2. The Project Development Plan complies with the applicable procedural and administrative requirements of Article 2 of the Land Use Code.

3. The Project Development Plan complies with relevant standards located in Article 3 – General Development Standards, with conditions of approval.

4. Staff recommends a Condition of Approval (1) regarding compliance with 3.2.2 (C) (4) – Bicycle Facilities, addressed at FDP**, to provide 60% covered bicycle spaces (77 spaces), and 40% fixed rack spaces (51 spaces).**

5. Staff recommends a Condition of Approval (2) regarding compliance with 3.2.5 – Trash and Recycling Enclosure Wall Materials, addressed at FDP, ***to ensure the enclosures are screened with a more durable material in place of cedar fencing such as textured concrete block, CMU blocks, or all metal fencing. This will include interior curbing or metal strips to buffer dumpster bins from hitting walls.***

6. The Project Development Plan complies with relevant standards located in Division 4.21 General Commercial of Article 4 – Districts.

7. Recommendation

Staff recommends approval of the Mars Landing Project Development Plan, PDP190013, based on the aforementioned Findings of Fact.

8. Attachments

1. Vicinity Map
2. Project Narrative
3. Planning Set: Project Site, Landscape, Lighting, and Building Elevations
4. Utility Plan
5. Plat
6. Neighborhood Meeting Summary
7. Updated Traffic Memo (10-30-20)
8. Updated Ecological Characterization Study (10-23-20)
9. Staff Presentation

9. Links

The documents available at the following links provide additional information regarding the development proposal under review and are incorporated by reference into the hearing record for this item:

1. Drainage Report
2. TIS Report
3. ECS Report
4. Loudon Ditch Response
5. Staff Comments R1
6. Staff Comments R2
7. Staff Comments R3
8. Staff Comments R4
9. Staff Comments R5

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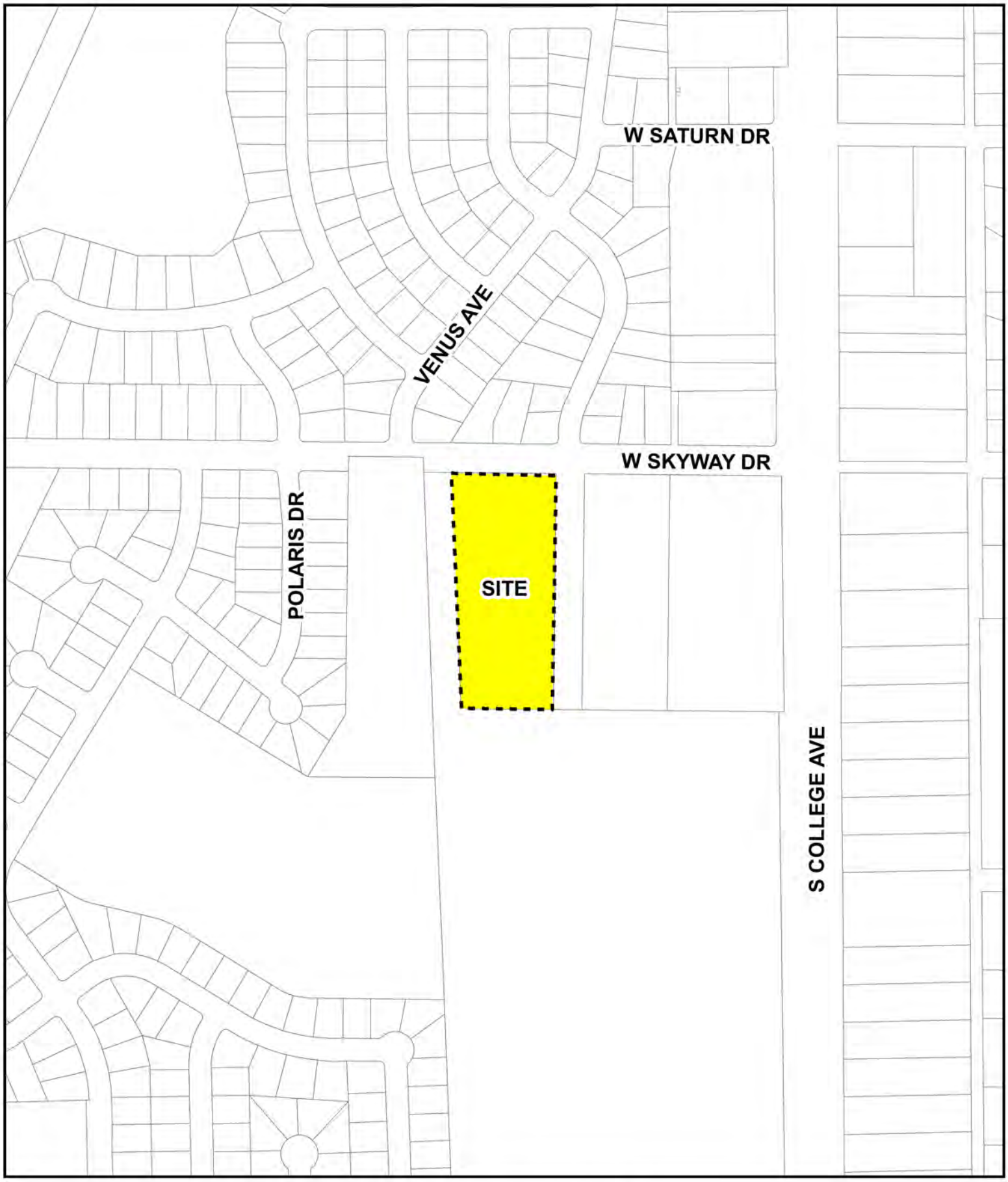


MARS LANDING

N

Galloway
5265 Ronald Reagan Blvd., Suite 210
Johnstown, CO 80534
970.800.3300 • GallowayUS.com

Memorandum

To: Tenae Beane
Development Review Coordinator
City of Fort Collins
281 N College
Fort Collins, CO 80524

From: Galloway & Company, Inc.
5265 Ronald Reagan Blvd, Suite 210
Johnstown, CO 80525

Date: September 11, 2019

Re: Mars Landing Preliminary Development Plan–PROJECT NARRATIVE

The Mars Landing project includes the proposed development of a 3.79 acre parcel located at the southwest corner of Mars Drive and W Skyway Drive in Fort Collins. The property is currently undeveloped. The proposed use is classified as Multi-family Dwellings with more than 50 dwelling units, which is an approved use for the General Commercial zoning. The high-density development is adjacent to an existing commercial use and is approximately 0.1 miles from the S College Avenue/US HWY 287 corridor. Development will consist of two high-density, three-story apartment buildings with a total of 90 dwelling units; separated garage buildings; a single-story clubhouse building; and associated drives, off-street parking, and utilities. An application for Preliminary Design Review (PDR190007) was submitted to Staff on July 3, 2019. The applicant and owner met with Staff on July 31, 2019 to review comments for the PDR application. A neighborhood meeting for the Mars Landing project was held on August 26, 2019. A previous Preliminary Design Review was submitted for the project site titled Skyway Townhomes (PDR180003), April 2018. Comments were issued for this review, however, this application was not pursued any further.

Vehicular access to the project site will be made via two drive-cuts from Mars Drive, which is a public road. Per the comment letter issued for PDR180003, the northernmost drive-cut may align with the existing access on the east side of Mars Drive that serves the South College Storage Units. Connectivity to the surrounding neighborhood and developments will be provided via access to Skyway Drive from Mars Drive. Mars Drive currently features a temporary roundabout near the south property boundary of the project site. This project proposes to demolish the temporary roundabout and extend Mars Drive south to the south property boundary to allow for the installation of the second drive-cut. The future extension of Mars Drive beyond the limits of the south property boundary will be done by others and is not part of this project. There is an existing public sidewalk along Skyway Drive along the north property boundary. The project proposes to connect to the existing sidewalk in Skyway and install new public sidewalk along the west right-of-way of Mars Drive. Connections to the proposed public sidewalk in Mars Drive will provide pedestrian access to the project site. As part of the development agreement for the South College Storage Units on the east side of Mars Drive, development of the Mars Landing parcel requires construction of certain South College Avenue improvements adjacent to the project site. Per conversations with the City engineering department, these improvements are limited to a 7’ detached sidewalk and incidental construction relating to grading and existing utilities. Off-street parking will be

provided in a surface lot on the project site. There will also be parking available to tenants in rentable garage spaces. The project proposes 140 surface parking spaces and 28 garage parking spaces, for a total of 168 off-street parking spaces. Landscape provided for this development will be consistent with City of Fort Collins xeric design standards. An evergreen buffer will be provided along the western boundary of the property to screen the garages. While ornamental plantings will be provided along the street frontages and at the clubhouse / amenity area. Mitigation has been provided for existing trees that must be removed from the site.

Under existing conditions, the project site generally drains overland from west to east. Runoff generated by the project site is currently captured in an inlet at the northeast property corner where it is conveyed via underground storm sewer and open channel flow to a culvert that runs under South College Avenue. The Mars Landing development proposes to capture and detain on-site generated flows in a pond at the northeast corner of the site prior to releasing into the existing storm drain system as it does in the existing condition. Water quality treatment of captured runoff will be achieved by implementation of an approved Low-Impact Development strategy. Detention and water quality features will be designed to comply with the City of Fort Collins Stormwater Criteria Manual and Fossil Creek Drainage Basin Master Plan.

There are no designated natural features or wetlands on the project site. The proposed occupiable buildings will be equipped with automatic fire sprinklers. An existing ditch bisects the project site but has been recently been abandoned. Per correspondence with the North Loudon Ditch Company, the ditch has been relocated and piped underground. A development agreement exists for the property and is recorded under Larimer County Public Records Doc. No. 20170069535.

PROJECT TEAM:

DEVELOPER / APPLICANT

Goodwin Knight
Mark Johnson, RLA
8605 Explorer Dr., Suite 250
Colorado Springs, Colorado 80920
719.598.5192

SITE ENGINEER / SURVEYOR

Galloway & Company
James E. Prelog
5265 Ronald Reagan Blvd., Suite 210
Johnstown, Colorado 80534
970.800.3300

LANDSCAPE ARCHITECT

Galloway & Company
Sarah Adamson, RLA
6162 S. Willow Drive, Suite 320
Greenwood Village, Colorado 80111
303.770.8884

GEOTECHNICAL ENGINEER

Earth Engineering Consultants, LLC
4396 Greenfiled Drive
Windsor, Colorado 80550
970.545.3908

PRELIMINARY DEVELOPMENT PLANS FOR:
MARS LANDING
OUT LOT A, SOUTH COLLEGE STORAGE SUBDIVISION
LOCATED IN THE SOUTHEAST QUARTER OF SECTION 11, T. 6 N., R. 69 W. OF THE 6TH P.M.
CITY OF FORT COLLINS, COUNTY OF LARIMER, STATE OF COLORADO
JULY 2021

UTILITY CONTACT LIST: *

UTILITY	COMPANY	CONTACT	PHONE NUMBER
GAS	Xcel Energy	Stephanie Rich	(970) 225-7828
ELECTRIC	City of Fort Collins Light and Power	Janet Mctague	(970) 224-6152
CABLE	Xfinity	Don Kapperman	(970) 484-7166
TELECOM.	Centurylink	William Johnson	(970) 377-6401
WATER	FCLWD	Chris Pletcher	(970) 226-3104
WASTEWATER	SFCSD	Chris Pletcher	(970) 226-3104
STORMWATER	City of Fort Collins Utilities	Wes Lamarque	(970) 416-2418

* ALL UTILITY LOCATIONS SHOWN ARE BASED ON MAPS PROVIDED BY THE APPROPRIATE UTILITY COMPANY AND FIELD SURFACE EVIDENCE AT THE TIME OF SURVEY AND IS TO BE CONSIDERED AN APPROXIMATE LOCATION ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF ALL UTILITIES, PUBLIC OR PRIVATE, WHETHER SHOWN ON THE PLANS OR NOT, PRIOR TO CONSTRUCTION. REPORT ANY DISCREPANCIES TO THE ENGINEEER PRIOR TO CONSTRUCTION.

PROJECT BENCHMARKS:

BENCHMARKS

ELEVATIONS ARE BASED ON CITY OF FORT COLLINS VERTICAL CONTROL NETWORK

PROJECT DATUM: NAVD88

BENCHMARK '2-12' IS LOCATED & DESCRIBED AS FOLLOWS:
SOUTHWEST CORNER OF SOUTH COLLEGE AVE. AND SKYWAY DR. ON A CONCRETE TRAFFIC SIGNAL BASE.
ELEVATION: 5005.56' (NAVD 88)

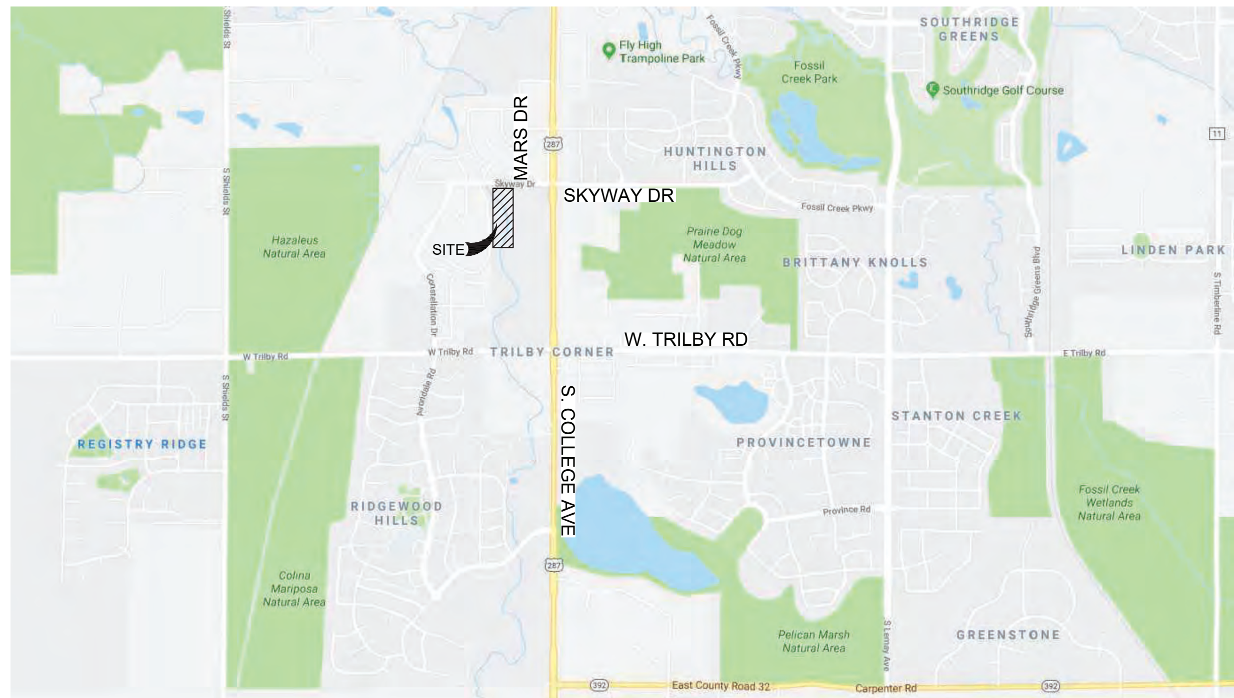
PLEASE NOTE: THIS PLAN SET IS USING NAVD88 FOR A VERTICAL DATUM.
SURROUNDING DEVELOPMENTS HAVE USED NGVD29 UNADJUSTED DATUM (PRIOR CITY OF FORT COLLINS DATUM) FOR THEIR VERTICAL DATUMS.

IF NGVD29 UNADJUSTED DATUM (PRIOR CITY OF FORT COLLINS DATUM) IS REQUIRED FOR ANY PURPOSE, THE FOLLOWING EQUATION SHOULD BE USED: NGVD29 UNADJUSTED DATUM (PRIOR CITY OF FORT COLLINS DATUM) = NAVD88 DATUM - 3.19'.

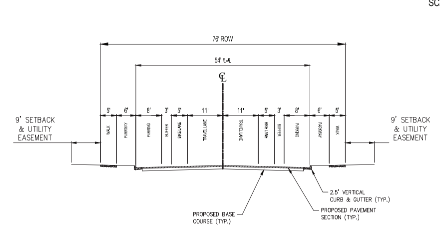
BENCHMARK '38-94' IS LOCATED & DESCRIBED AS FOLLOWS:
AZIMUTH MARK (3 1/4" ALUMINUM CAP) ON THE NORTH SIDE OF TRILBY RD. 1/2 MILE WEST OF COLLEGE AVE. AT THE SOUTHWEST CORNER OF 508 WEST TRILBY RD. (GOOD SAMARITAN RETIREMENT CENTER). ALSO 5.5 FT WEST OF A POWERPOLE AND 24.5 FT SOUTH OF A WOOD FENCE.
ELEVATION: 5093.76' (NAVD 88)

PLEASE NOTE: THIS PLAN SET IS USING NAVD88 FOR A VERTICAL DATUM.
SURROUNDING DEVELOPMENTS HAVE USED NGVD29 UNADJUSTED DATUM (PRIOR CITY OF FORT COLLINS DATUM) FOR THEIR VERTICAL DATUMS.

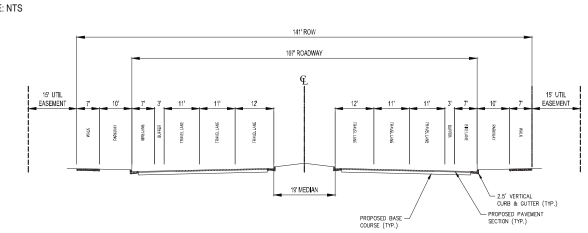
IF NGVD29 UNADJUSTED DATUM (PRIOR CITY OF FORT COLLINS DATUM) IS REQUIRED FOR ANY PURPOSE, THE FOLLOWING EQUATION SHOULD BE USED: NGVD29 UNADJUSTED DATUM (PRIOR CITY OF FORT COLLINS DATUM) = NAVD88 DATUM - 3.18'.



VICINITY MAP
SCALE: NTS



MINOR COLLECTOR STREET
MARS DRIVE



6-LANE ARTERIAL
COLLEGE AVENUE

SHEET INDEX

CAUTION - NOTICE TO CONTRACTOR

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2. WHERE A PROPOSED UTILITY CROSSES AN EXISTING UTILITY, IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF SUCH EXISTING UTILITY, EITHER THROUGH POTHOLING OR ALTERNATIVE METHOD. REPORT INFORMATION TO THE ENGINEER PRIOR TO CONSTRUCTION.
3. CONTRACTOR RESPONSIBLE FOR AS-BUILT DRAWINGS, TESTS, REPORTS AND/OR ANY OTHER CERTIFICATES OR INFORMATION AS REQUIRED FOR ACCEPTANCE OF WORK FROM CITY, UTILITY DISTRICTS OR ANY OTHER GOVERNING AGENCY.
4. CONTRACTOR SHALL PROTECT ALL EXISTING SURVEY MONUMENTATION. CONTRACTOR SHALL HAVE LICENSED SURVEYOR REPLACE ANY DAMAGED OR DISTURBED MONUMENTATION AT THEIR COST.

811 Know what's **below.** **Call** before you dig.

OWNER'S CERTIFICATE

THE UNDERSIGNED DOES/DO HEREBY CERTIFY THAT I/WE ARE THE LAWFUL OWNERS OF THE 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) ____________ Date ____________

THE FOREGOING INSTRUMENT WAS ACKNOWLEDGED BEFORE ME

THIS ________ DAY OF ________ A.D., 20____. BY

(PRINT NAME)

AS ____________

MY COMMISSION EXPIRES: ____________

WITNESS MY HAND AND OFFICIAL SEAL.

NOTARY PUBLIC ____________ ADDRESS ____________

PLANNING CERTIFICATE

APPROVED BY THE DIRECTOR OF COMMUNITY DEVELOPMENT AND NEIGHBORHOOD SERVICES OF THE CITY OF FORT COLLINS, COLORADO ON THIS ______ DAY OF ______, 20__.

Director Signature

LAND USE INFORMATION:

EXISTING ZONING: GENERAL COMMERCIAL

PROPOSED USE: MULTI-FAMILY

GROSS LAND AREA CALCULATIONS:

	AREA (SF)	% TOTAL
DRIVES AND PARKING	58,976	32.68
BUILDING COVERAGE	31,916	17.69
LANDSCAPE	64,279	35.63
HARDSCAPE	10,117	5.6
RIGHT-OF-WAY	15,137	8.4
DRIVES AND PARKING	9,257	5.1
LANDSCAPE	3,022	1.9
HARDSCAPE	2,858	1.7
RIGHT-OF-WAY TO BE DEDICATED	0	0
TOTAL GROSS LAND AREA	180,425	100

NET LAND AREA CALCULATIONS:

	AREA (SF)	% TOTAL
DRIVES AND PARKING	58,976	32.68
BUILDING COVERAGE	31,916	17.69
LANDSCAPE	64,279	35.63
HARDSCAPE	10,117	5.6
NET LAND AREA (SAME AS LOT AREA)	165,288	100

BUILDING DENSITY CALCULATIONS:

	TOTAL
RESIDENTIAL BUILDING AREA (SF)	83,004
RESIDENTIAL DWELLING UNITS	90
RESIDENTIAL ACREAGE (AC)	3.79
RESIDENTIAL DENSITY (UNITS/AC)	23.75
TOTAL BUILDING AREA (SF)	83,004
LOT AREA (SF)	165,288
BUILDING FLOOR TO LOT AREA RATIO	0.50:1

REQUIRED VEHICLE PARKING BREAKDOWN:

	#	VEHICLE PARKING RATIO	REQUIRED VEHICLE SPACES
MULTI-FAMILY			
1 BEDROOM	58 UNITS	1.5 SPACE/ UNIT	87
2 BEDROOM	26 UNITS	1.75 SPACE/ UNIT	46
3 BEDROOM	6 UNITS	2.0 SPACE/ UNIT	12
TOTAL	--	--	145

REQUIRED BIKE PARKING BREAKDOWN:

	# OF UNIT	VEHICLE PARKING RATIO	REQUIRED VEHICLE SPACES
BIKE PAKRING MULTI-FAMILY	128 BEDROOMS	1 SPACE/ BEDROOM	128
TOTAL REQUIRED BIKE PARKING	--	--	128
- SHELTERED BIKE PARKING	128 BEDROOMS	1 SPACE/ 4 BEDROOM	32

PARKING INFORMATION:

	REQUIRED SPACES	PROVIDED SPACES
TOTAL PARKING SPACES	145	151
STANDARD PARKING SPACES	-	130
HANDICAP PARKING SPACES	6	6
STANDARD GARAGE PARKING SPACES	-	13
HANDICAP GARAGE PARKING SPACES	-	2
BICYCLE PARKING SPACES	132	132
- COVERED BIKE PARKING	32	32

BUILDING INFORMATION:

	TOTAL
RESIDENTIAL BUILDING A-42	
MAXIMUM BUILDING HEIGHT (FT-IN)	38'-4.5"
GROSS AREA - 1ST FLOOR (SF)	13,914
GROSS AREA - 2ND FLOOR (SF)	13,914
GROSS AREA - 3RD FLOOR (SF)	13,914
GROSS AREA - TOTAL (SF)	41,742
DWELLING UNITS	42
% OF TOTAL DWELLING UNITS	46.67%
RESIDENTIAL BUILDING A-48	
MAXIMUM BUILDING HEIGHT (FT-IN)	39'-6.5"
GROSS AREA - 1ST FLOOR (SF)	13,754
GROSS AREA - 2ND FLOOR (SF)	13,754
GROSS AREA - 3RD FLOOR (SF)	13,754
GROSS AREA - TOTAL (SF)	41,262
DWELLING UNITS	48
% OF TOTAL DWELLING UNITS	53.33%

DWELLING UNIT BREAKDOWN

	A-42	A-48
STUDIO	2	0
END STUDIO	6	0
LARGE STUDIO	2	0
SMALL 1 BED	0	6
MEDIUM 1 BED	2	6
LARGE 1 BED	6	28
SMALL 2 BED	3	3
MEDIUM 2 BED	0	0
LARGE 2 BED	18	2
3 BED	3	3

CERTIFICATION STATEMENT:

I hereby affirm that these final construction plans were prepared under my direct supervision, in accordance with all applicable City of Fort Collins and State of Colorado standards and statutes, respectively; and that I am fully responsible for the accuracy of all design. revisions, and record conditions that I have noted on these plans.

DISCLAIMER STATEMENT:

These plans have been reviewed by the City of Fort Collins for concept only. The review does not imply responsibility by the reviewing department, the City of Fort Collins Engineer, or the City of Fort Collins for accuracy and correctness of the calculations. Furthermore, the review does not imply that quantities of items on the plans are the final quantities required. The review shall not be construed for any reason as acceptance of financial responsibility by the City of Fort Collins for additional quantities of items shown that may be required during the construction phase.

Galloway
5265 Ronald Reagan Blvd., Suite 210
Johnstown, CO 80534
970.800.3300
GallowayUS.com

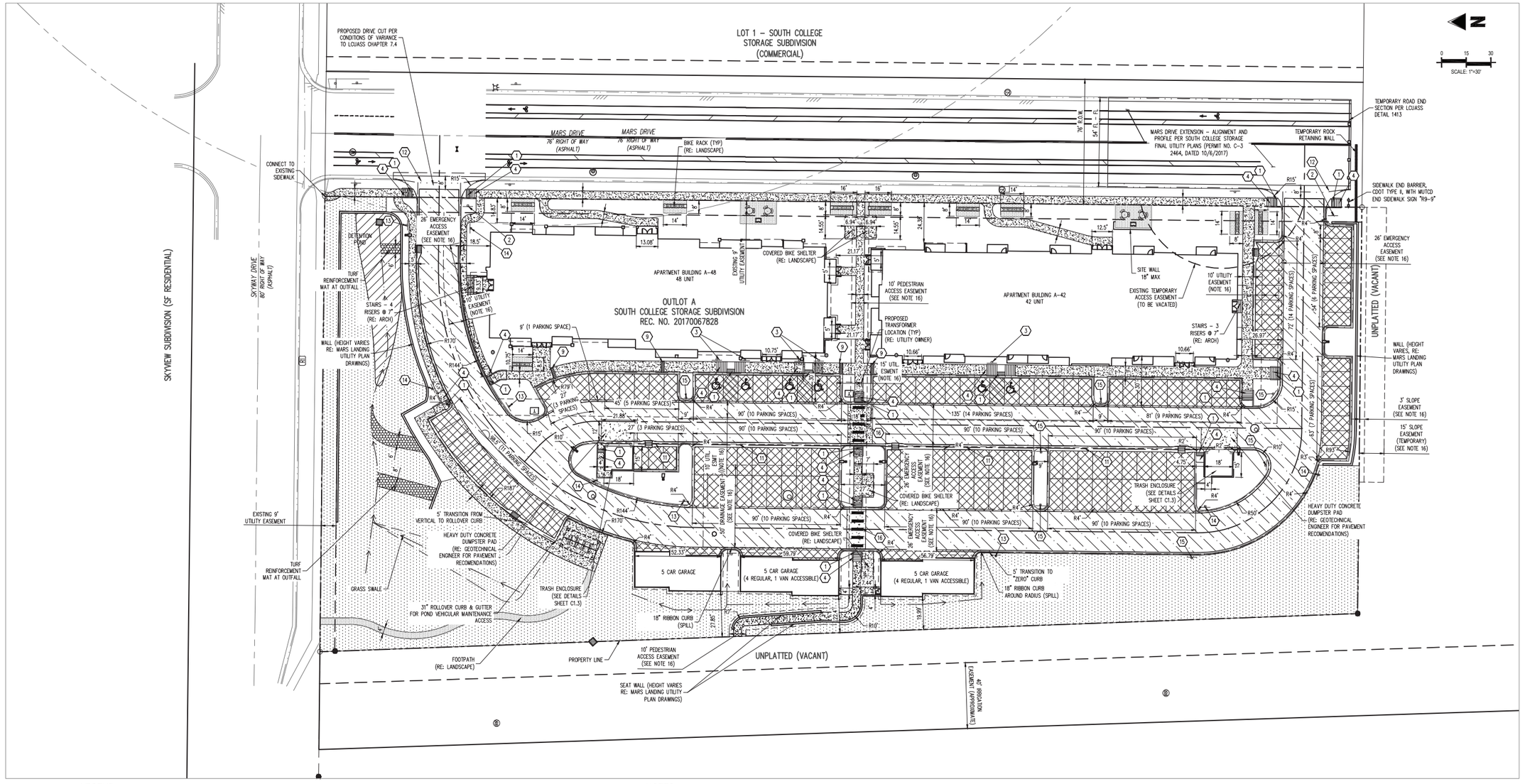
PRELIMINARY
NOT FOR BIDDING
NOT FOR CONSTRUCTION

MARS LANDING
PROJECT DEVELOPMENT PLAN
FORT COLLINS, CO

#	Date	Issue / Description	Init.

Project No:	GNK000008
Drawn By:	DBC
Checked By:	JEP
Date:	07.28.2021

COVER SHEET



LEGEND:

- PROPOSED CURB AND GUTTER
- PROPOSED CURB AND GUTTER - SPILL (TRANSITION)
- EXISTING CURB AND GUTTER
- PROPOSED FENCE
- EXISTING RIGHT-OF-WAY
- EXISTING EASEMENT LINE
- PROPOSED EASEMENT LINE
- PROPOSED SIDEWALK
- PROPOSED CONCRETE CROSSPAN
- SITE LIGHT
- HEAVY DUTY TRAFFIC DRIVE LANES PAVEMENT; PAVEMENT SECTION PER GEOTECH REPORT
- LIGHT DUTY TRAFFIC PARKING STALLS: PAVEMENT SECTION PER GEOTECH REPORT
- PROPOSED NATURAL HABITAT BUFFER ZONE (NHBZ)
- PROPOSED WETLAND MITIGATION AREA

1. TRUNCATED DOME
2. STOP SIGN
3. HANDICAP PARKING SIGN
4. HANDICAP RAMP
5. OUT-FALL CURB
6. IN-FALL CURB
7. HAND RAILS PER ARCHITECTURAL DETAIL
8. PROPOSED BIKE RACKS (SEE LANDSCAPE DETAILS)
9. PROPOSED 1' CURB CHASE (SEE SHEET – FOR DETAIL)
10. 3' WIDE NON- REINFORCED CONCRETE DRAINAGE PAN (LANDSCAPE AREA)
11. 3' REINFORCED CONCRETE DRAINAGE PAN
12. 8' STREET INTERSECTION CROSS PAN
13. FIRE ACCESS ROAD SIGN "NO PARKING" (ARROW POINTED LEFT)
14. FIRE ACCESS ROAD SIGN "NO PARKING" (ARROW POINTED RIGHT)
15. FIRE ACCESS ROAD SIGN "NO PARKING" (ARROW BOTH WAYS)
16. CROSSWALK STRIPING - 7' LONG x 18" WIDE, 5' ON-CENTER

NOTES:

1. THE SIZE, TYPE AND LOCATION OF ALL KNOWN UNDERGROUND UTILITIES ARE APPROXIMATE WHEN SHOWN ON THESE DRAWINGS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE OF ALL UNDERGROUND UTILITIES IN THE AREA OF THE WORK BEFORE COMMENCING NEW CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES AND SHALL BE RESPONSIBLE FOR ALL UNKNOWN UNDERGROUND UTILITIES.
2. REFER TO LANDSCAPE PLANS FOR STREET TREE INFORMATION, AND SURVEY DOCUMENTS FOR ADDITIONAL RIGHT-OF-WAY, EASEMENT AND ROADWAY CENTERLINE INFORMATION.
3. BUILDING POINTS ARE AT CORNERS OF NOMINAL BUILDING FOOTPRINTS. CONTRACTOR SHALL CONFIRM ALL BUILDING CORNERS AND DIMENSIONS WITH ARCHITECT PRIOR TO CALLING FOR STAKES.
4. ALL DIMENSIONS REFERENCE FLOWLINE, BUILDING OR PROPERTY LINE UNLESS SPECIFIED OTHERWISE.
5. CONTRACTOR TO COORDINATE WITH CIVIL ENGINEER AND ARCHITECT PRIOR TO STAKING BUILDING COORDINATES.
6. FOR ALL CATCH AND SPILL CURB INFORMATION AND TRANSITIONS, SEE GRADING PLANS C2.1-C2.2.
7. ALL STRIPING AND PAVEMENT MARKINGS SHALL COMPLY WITH THE MUTCD AND SECTION 627 OF THE CDOT SPECIFICATIONS FOR SKYWAY DRIVE AND SOUTH COLLEGE AVENUE INTERSECTION IMPROVEMENTS.
8. ALL STRIPING AND PAVEMENT MARKING FOR SKYWAY DRIVE AND MARS DRIVE SHALL COMPLY WITH THE CITY OF FORT COLLINS STREET DESIGN AND CONSTRUCTION STANDARDS.
9. ALL TRAFFIC CONTROL SIGNS SHALL CONFORM TO THE REQUIREMENTS OF THE MUTCD WITH REGARD TO SIGN TYPE, SIZE, LOCATION AND MOUNTING SPECIFICATIONS.
10. ALL ON-SITE CURB AND GUTTER SHALL BE 18" CATCH OR SPILL CURB AND GUTTER UNLESS NOTED
11. ALL H/C RAMPS SHALL HAVE TRUNCATED DOMES PER SITE PLAN DETAILS SHEET.
12. REFER TO DETAIL SHEET – FOR H/C PARKING STALL DETAILS AND SIGN REQUIREMENTS - ALL SPACES ARE VAN ACCESSIBLE AND SHOULD BE POSTED AS SUCH. PROVIDE 2.5' CLEAR FROM FLOWLINE TO POST.
13. THERE SHALL BE A 3' MINIMUM TRANSITION FROM SPILL TO CATCH CURB AND GUTTER.
14. ALL SIGNS TO BE HIGH INTENSITY PRISMATIC GRADE SHEETING..
15. FOR PAVEMENT DESIGN, PAVEMENT SECTIONS, AND SUBGRADE PREPARATION, REFER TO PRELIMINARY SUBSURFACE EXPLORATION REPORT DATED JULY 17, 2019 BY EARTH ENGINEERING CONSULTANTS. CONTRACTOR TO VERIFY FINAL PAVEMENT AND SUBGRADE DESIGN WITH GEOTECHNICAL ENGINEER PRIOR TO CONSTRUCTION.
16. ALL PROPOSED EASEMENTS ARE TO BE RECORDED BY SEPARATE DOCUMENT.

NATURAL AREAS CALCULATIONS:

	AREA (AC)
EXISTING UPLANDS	1.50
EXISTING WETLANDS	0.014
EXISTING PRAIRIE DOG COLONY	3.50
EXISTING UPLANDS TO BE VACATED	1.50
EXISTING WETLANDS TO BE VACATED	0.014
EXISTING PRAIRIE DOG COLONY TO BE VACATED	3.50
EXISTING UPLANDS TO REMAIN	0.00
EXISTING WETLANDS TO BE VACATED	0.00
EXISTING PRAIRIE DOG COLONY TO REMAIN	0.00
PROPOSED UPLANDS MITIGATON	0.87
PROPOSED WETLANDS MITIGATION	0.043
PRAIRIE DOG COLONY MITIGATION	**

**SEE NOTE BELOW

BLACK TAILED PRAIRIE DOG COLONY MITIGATION NOTE

BLACK-TAILED PRAIRIE DOGS LOCATED WITHIN THE PARCEL WILL BE TRAPPED AND DONATED TO EITHER A RAPTOR REHABILITATION PROGRAM OR A BLACK-FOOTED FERRET RECOVERY PROGRAM. ALL CONTROL ETC. WILL BE DONE PER CITY OF FORT COLLINS, CPW AND COLORADO DEPARTMENT OF AGRICULTURE REQUIREMENTS. CONTROL WILL BE CONDUCTED VIA THE INTRODUCTION OF CARBON MONOXIDE INTO THE BURROWS. POST-CONTROL OF THE PRAIRIE DOGS A REPORT WILL BE PREPARED WHICH WILL IDENTIFY THE CONTROL METHOD USED AND THE NUMBER OF PRAIRIE DOGS TRAPPED/DONATED

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FORT COLLINS, CO

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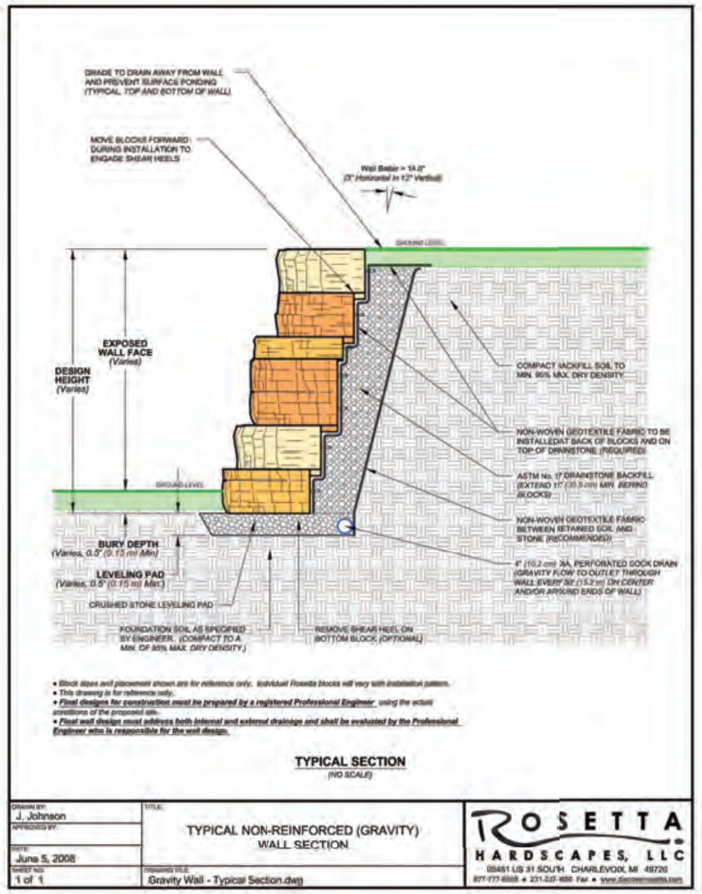
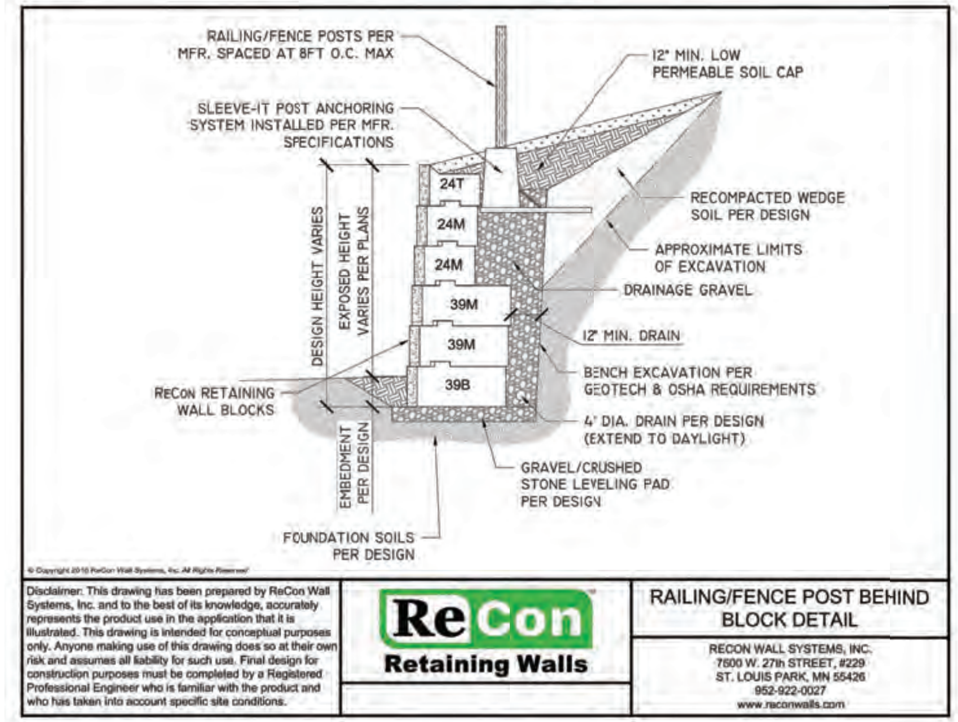
SITE PLAN

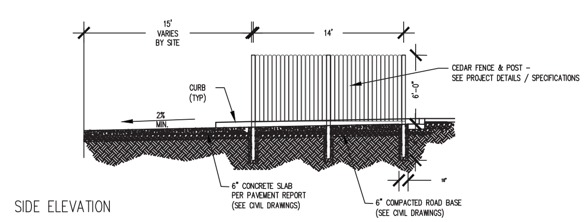
C1.0



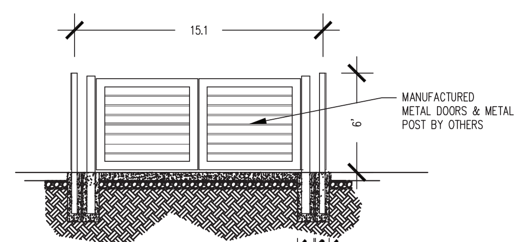
2 | C2.0 — DETENTION POND WALL



3 | C2.0 — SOUTH RETAINING WALL WITH SCREEN FENCE

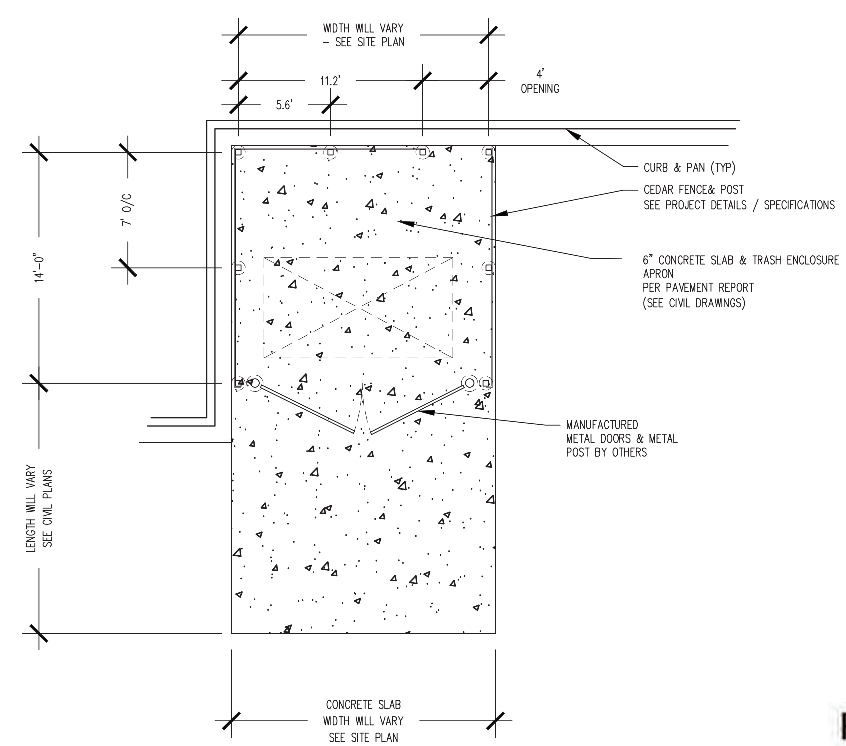


SIDE ELEVATION



FRONT ELEVATION

1 | C2.0 — TRASH AND RECYCLING ENCLOSURE



PLAN VIEW

PLANNING CERTIFICATE

APPROVED BY THE DIRECTOR OF COMMUNITY DEVELOPMENT AND NEIGHBORHOOD SERVICES OF THE CITY OF FORT COLLINS, COLORADO ON THIS_______ DAY OF_______, 20__.

Director Signature

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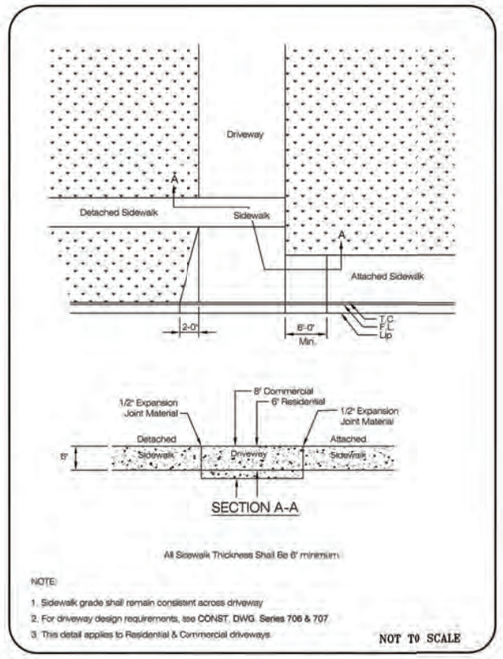
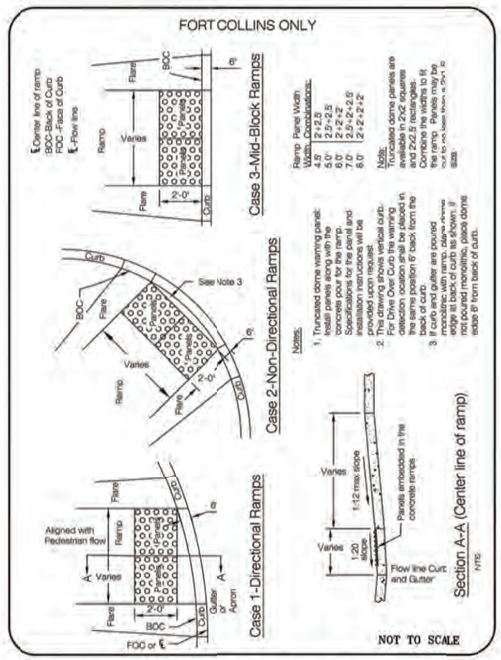
SITE DETAILS

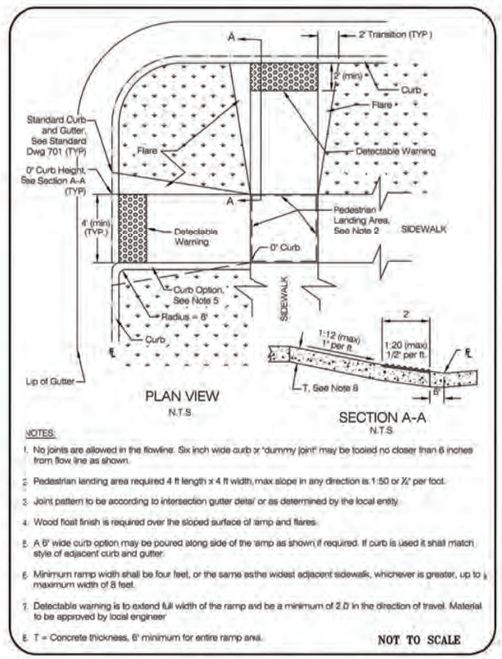
C1.1



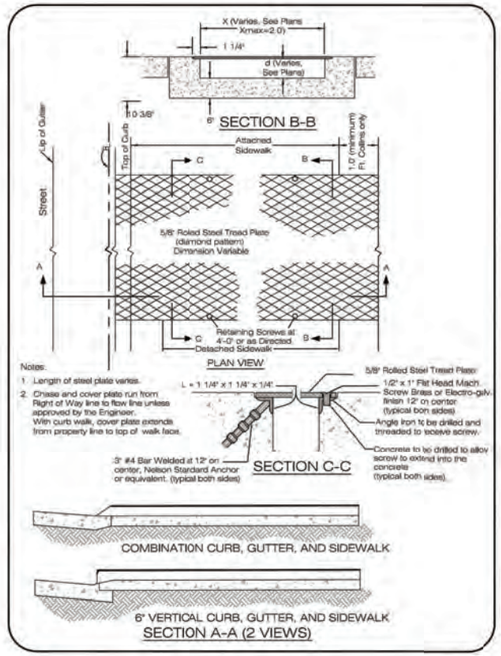
STANDARD SIDEWALK			
LARIMER COUNTY URBAN AREA STREET STANDARDS	CONSTRUCTION DRAWINGS	REVISION NO: 4 DATE: 02/17/15	DRAWING 1601



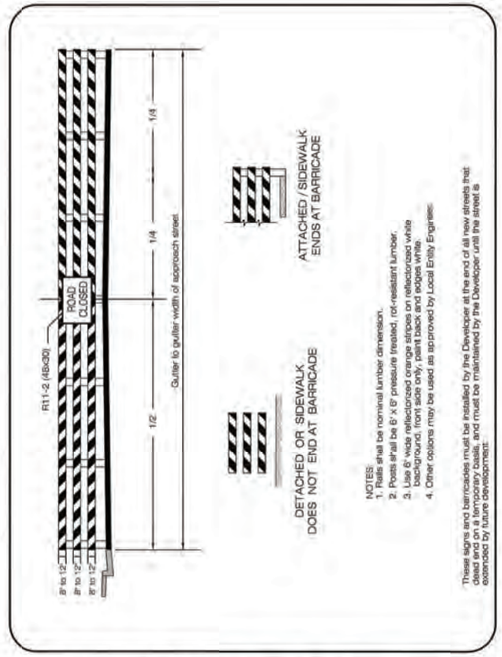
TRUNCATED DOME WARNING FOR ACCESS RAMPS			
LARIMER COUNTY URBAN AREA STREET STANDARDS	CONSTRUCTION DRAWINGS	REVISION NO: 3 DATE: 02/17/15	DRAWING 1607



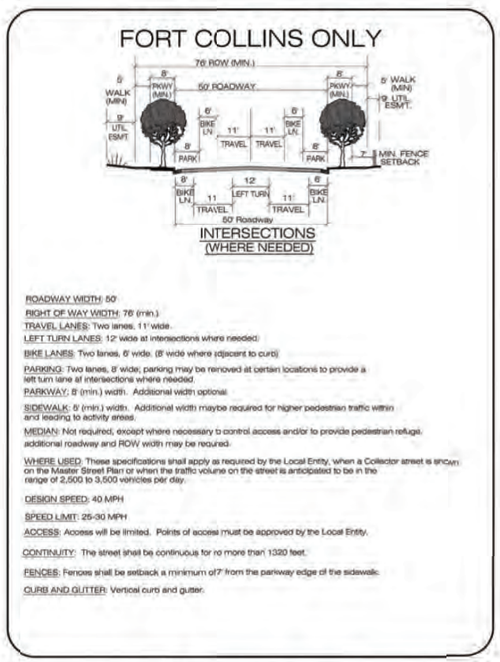
DIRECTIONAL ACCESS RAMP DETAIL & DETACHED SIDEWALK			
LARIMER COUNTY URBAN AREA STREET STANDARDS	CONSTRUCTION DRAWINGS	REVISION NO: 2 DATE: 02/17/15	DRAWING 1606



STANDARD DETAILS FOR DRAINAGE UNDER SIDEWALK			
LARIMER COUNTY URBAN AREA STREET STANDARDS	CONSTRUCTION DRAWINGS	REVISION NO: 1 DATE: 04/01/07	DRAWING 709



STANDARD TEMPORARY DEAD END BARRICADES			
LARIMER COUNTY URBAN AREA STREET STANDARDS	CONSTRUCTION DRAWINGS	REVISION NO: 2 DATE: 04/01/07	DRAWING 1413



MINOR COLLECTOR STREET			
LARIMER COUNTY URBAN AREA STREET STANDARDS	DESIGN FIGURE	REVISION NO: DATE: 09/11/00	FIGURE 7-5F

PLANNING CERTIFICATE

APPROVED BY THE DIRECTOR OF COMMUNITY DEVELOPMENT AND NEIGHBORHOOD SERVICES OF THE CITY OF FORT COLLINS, COLORADO
ON THIS _____ DAY OF _____, 20__.

Director Signature

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MARS LANDING
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FORT COLLINS, CO

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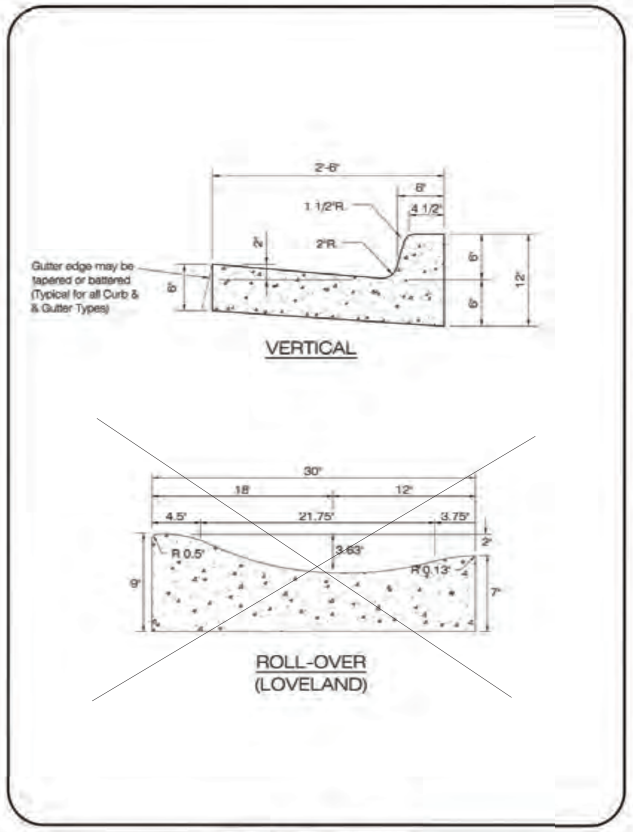
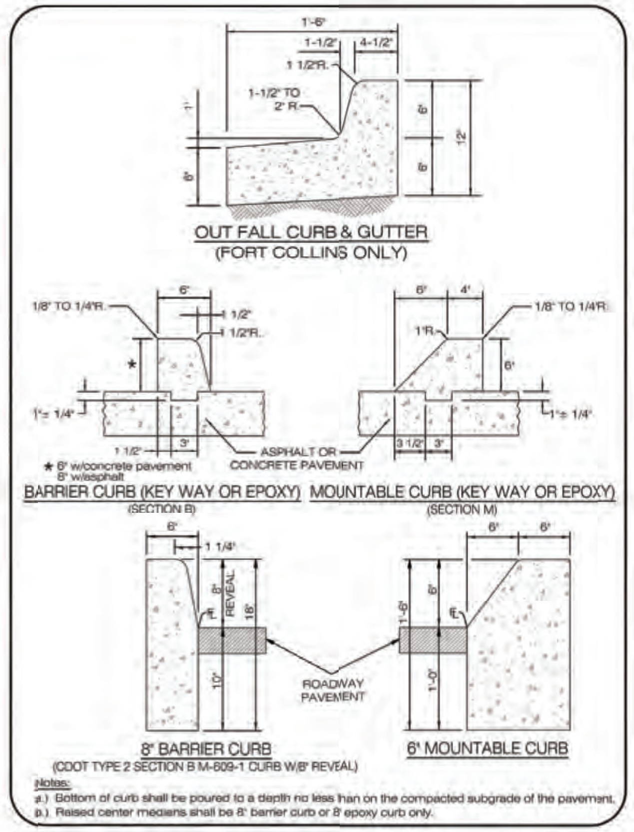
SITE DETAILS

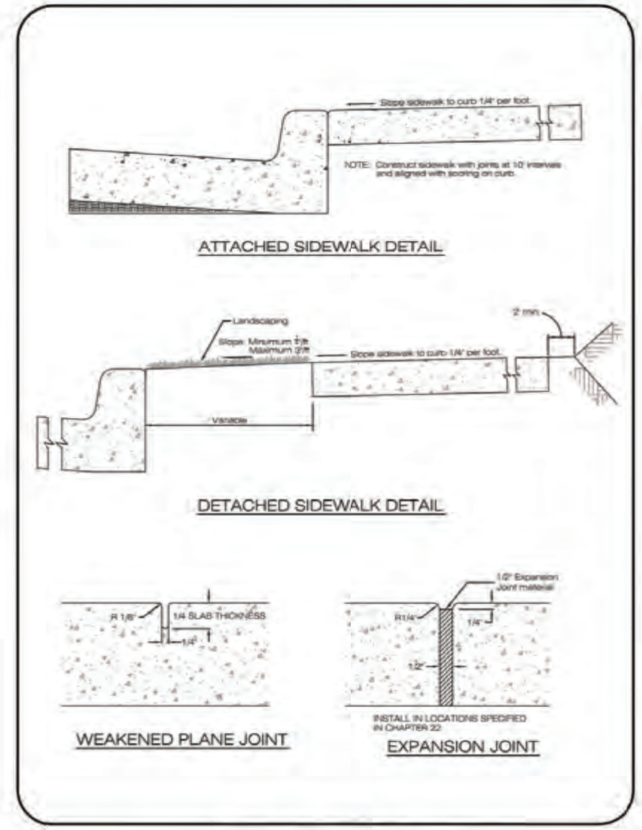
C1.2



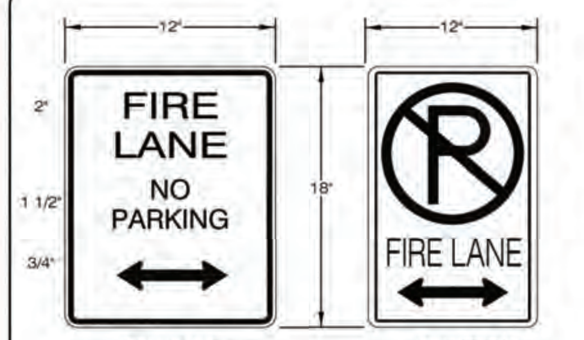
CURB AND GUTTER			
LARIMER COUNTY URBAN AREA STREET STANDARDS	CONSTRUCTION DRAWINGS	REVISION NO: 1 / DATE: 03/01/02	DRAWING 701



MEDIAN (ISLAND CURBS)			
LARIMER COUNTY URBAN AREA STREET STANDARDS	CONSTRUCTION DRAWINGS	REVISION NO: 2 / DATE: 04/01/07	DRAWING 703



SIDEWALK DETAIL			
LARIMER COUNTY URBAN AREA STREET STANDARDS	CONSTRUCTION DRAWINGS	REVISION NO: 2 / DATE: 04/01/07	DRAWING 1602



STANDARD FIRE LANE SIGN DETAIL (FORT COLLINS ONLY)

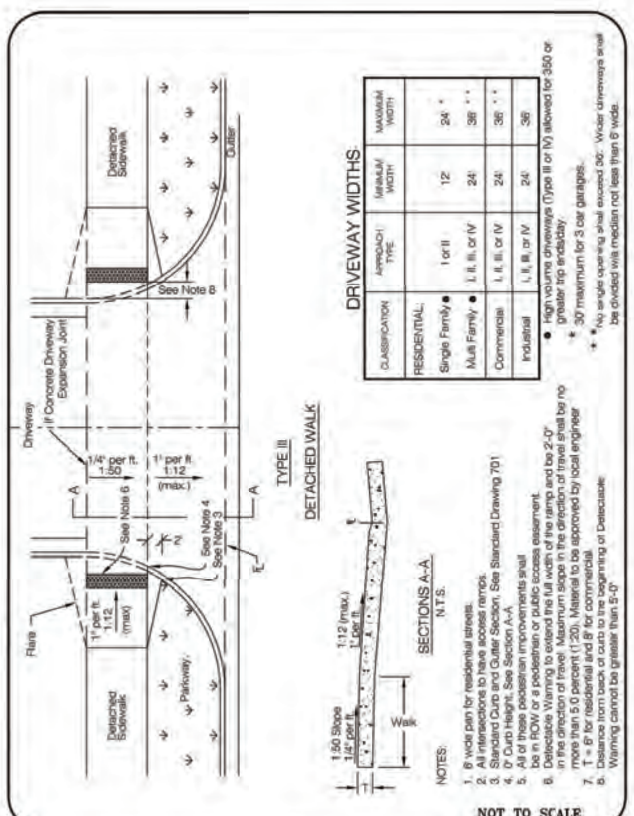
UNIVERSAL FIRE LANE SIGN DETAIL

COLOR SCHEDULE	
LEGEND, CIRCLE DIAGONAL, BORDER, 'ARROW', 'FIRE LANE'	RED
BACKGROUND	WHITE
'P'	BLACK

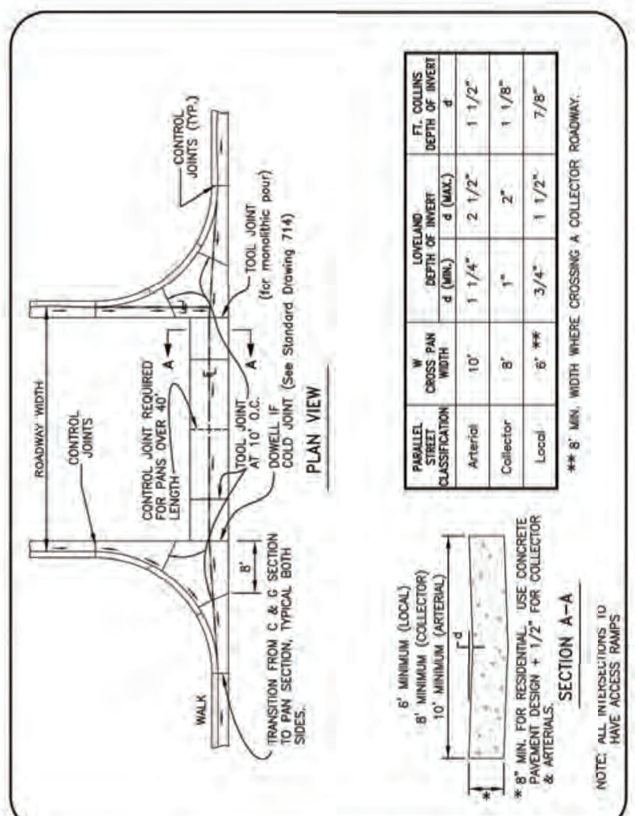
NOTES:

1. THE SIGN PLATE SHALL BE A MINIMUM OF 12"X18" WITH A THICKNESS OF .080 ALUMINUM CONSTRUCTION.
2. THE SIGN FACE SHALL HAVE A WHITE REFLECTIVE BACKGROUND WITH A RED LEGEND. USE THE STANDARD 3M SCOTCHLITE SIGN FACE NUMBER R7-32 OR EQUIVALENT, WITH RED LETTERING AS SHOWN ABOVE.
3. ARROWS MAY BE NEEDED (LEFT, RIGHT OR DOUBLE), TO DESIGNATE BEGIN AND END OF NO PARKING AREA.

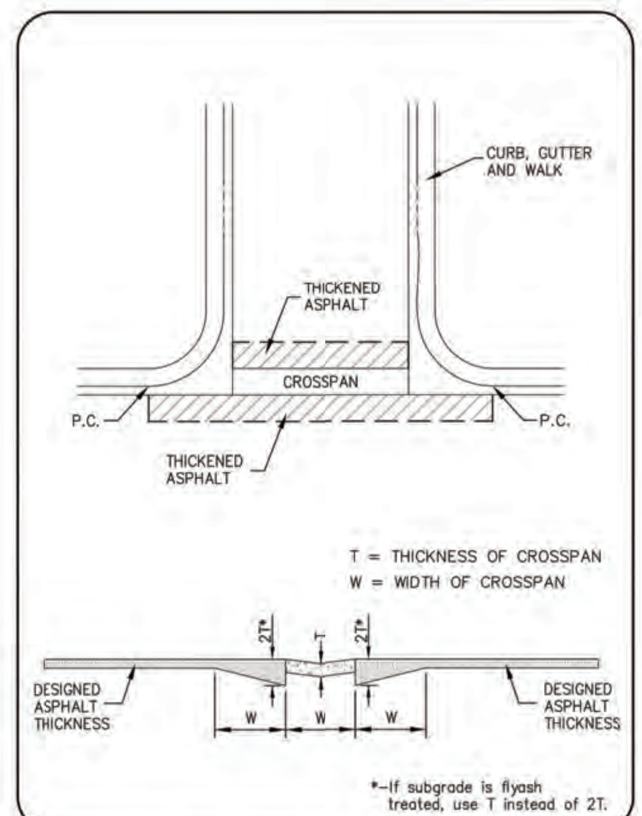
FIRE ACCESS ROAD SIGNS			
LARIMER COUNTY URBAN AREA STREET STANDARDS	CONSTRUCTION DRAWINGS	REVISION NO: 2 / DATE: 04/01/07	DRAWING 1418



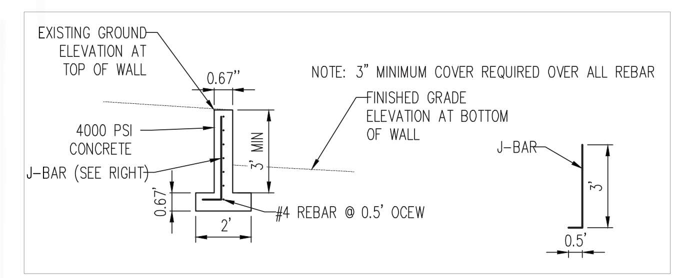
STANDARD DRIVEWAY APPROACH (HIGH VOLUME DRIVE TYPE III)			
LARIMER COUNTY URBAN AREA STREET STANDARDS	CONSTRUCTION DRAWINGS	REVISION NO: 1 / DATE: 02/17/15	DRAWING 707.1



STREET INTERSECTION CROSSPAN			
LARIMER COUNTY URBAN AREA STREET STANDARDS	CONSTRUCTION DRAWINGS	REVISION NO: 2 / DATE: 04/01/07	DRAWING 708



ASPHALT PAVING DETAIL (CROSSPAN)			
LARIMER COUNTY URBAN AREA STREET STANDARDS	CONSTRUCTION DRAWINGS	REVISION NO: 1 / DATE: 04/01/07	DRAWING 710



CONCRETE SITE WALL
SCALE: N.T.S.

PLANNING CERTIFICATE

APPROVED BY THE DIRECTOR OF COMMUNITY DEVELOPMENT AND NEIGHBORHOOD SERVICES OF THE CITY OF FORT COLLINS, COLORADO ON THIS_______ DAY OF _______, 20__.

Director Signature

Galloway
5265 Ronald Reagan Blvd., Suite 210
Johnstown, CO 80534
970.800.3300
GallowayUS.com

PRELIMINARY
NOT FOR BIDDING
NOT FOR CONSTRUCTION

MARS LANDING
PROJECT DEVELOPMENT PLAN
FORT COLLINS, CO

#	Date	Issue / Description	Init.

Project No:	GNK000008
Drawn By:	DBC
Checked By:	JEP
Date:	07.28.2021

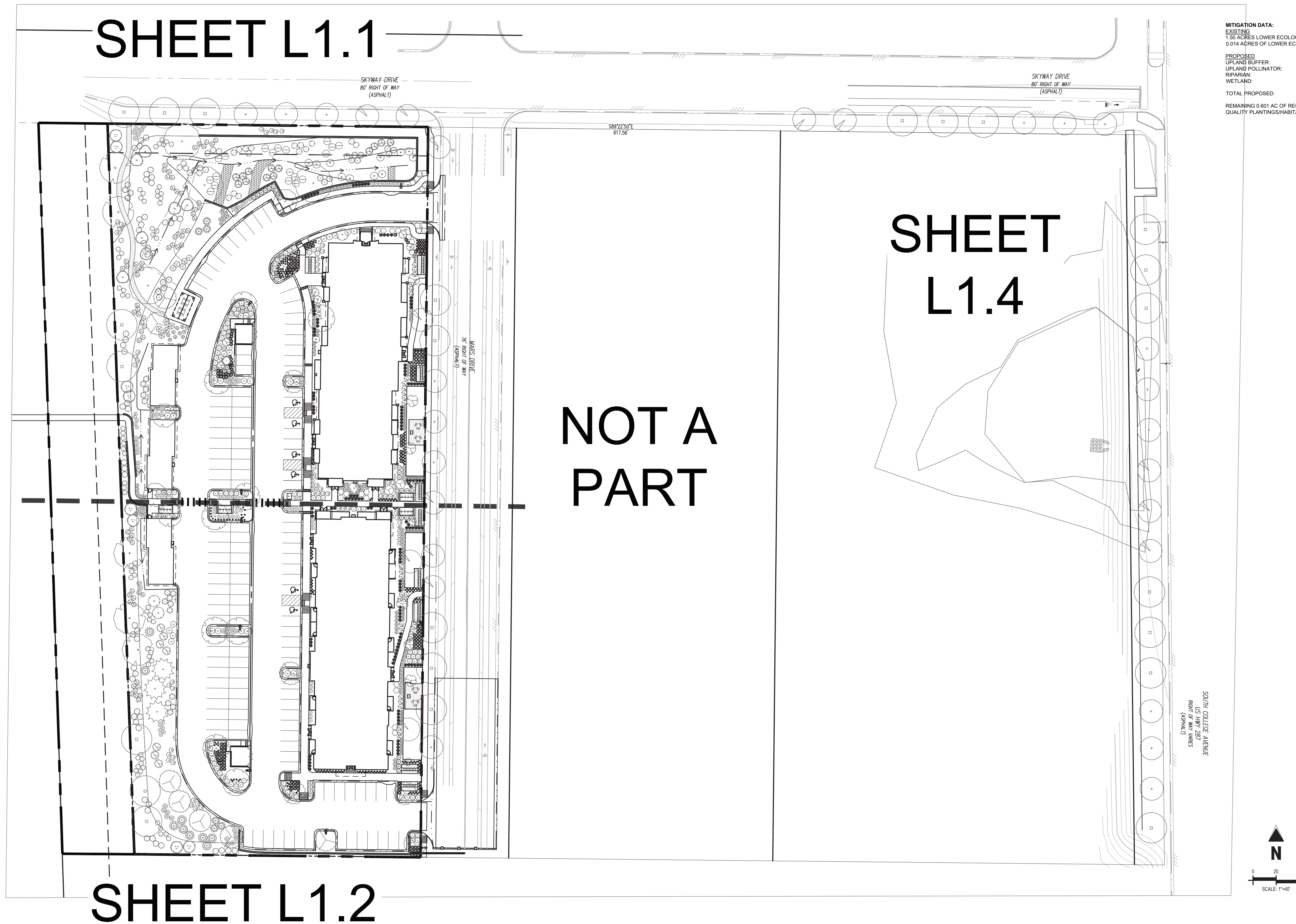
SITE DETAILS

C1.3

CITY OF FORT COLLINS STREET TREE NOTE

STREET TREE NOTES:

1. A PERMIT MUST BE OBTAINED FROM THE CITY FORESTER BEFORE ANY TREES OR SHRUBS AS NOTED ON THIS PLAN ARE PLANTED, PRUNED OR REMOVED IN THE PUBLIC RIGHT-OF-WAY. THIS INCLUDES ZONES BETWEEN THE SIDEWALK AND CURB, MEDIANS AND OTHER CITY PROPERTY. THIS PERMIT SHALL APPROVE THE LOCATION AND SPECIES TO BE PLANTED. FAILURE TO OBTAIN THIS PERMIT IS A VIOLATION OF THE CITY OF FORT COLLINS CODE SUBJECT TO CITATION (SECTION 27-31) AND MAY ALSO RESULT IN REPLACING OR RELOCATING TREES AND A HOLD ON CERTIFICATE OF OCCUPANCY.



MITIGATION DATA:

EXISTING
1.50 ACRES LOWER ECOLOGICAL VALUE UPLANDS
0.014 ACRES OF LOWER ECOLOGICAL VALUE WETLANDS HABITAT

PROPOSED

UPLAND BUFFER:	0.41 AC
UPLAND POLLINATOR:	0.34 AC
RIPARIAN:	0.14 AC
WETLAND:	0.043 AC
TOTAL PROPOSED:	0.913 AC

REMAINING 0.601 AC OF REQUIRED MITIGATION IS MADE UP WITH HIGHER QUALITY PLANTINGS/HABITAT

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PRELIMINARY
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MARS LANDING
PROJECT DEVELOPMENT PLAN

FORT COLLINS, CO

#	Date	Issue / Description	Init.
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Project No:	GNK000008
Drawn By:	AS
Checked By:	SRA
Date:	07.28.2021

OVERALL LANDSCAPE PLAN

L1.0

CITY OF FORT COLLINS STREET TREE NOTE

STREET TREE NOTES:

1. A PERMIT MUST BE OBTAINED FROM THE CITY FORESTER BEFORE ANY TREES OR SHRUBS AS NOTED ON THIS PLAN ARE PLANTED, PRUNED OR REMOVED IN THE PUBLIC RIGHT-OF-WAY. THIS INCLUDES ZONES BETWEEN THE SIDEWALK AND CURB, MEDIANS AND OTHER CITY PROPERTY. THIS PERMIT SHALL APPROVE THE LOCATION AND SPECIES TO BE PLANTED. FAILURE TO OBTAIN THIS PERMIT IS A VIOLATION OF THE CITY OF FORT COLLINS CODE SUBJECT TO CITATION (SECTION 27-31) AND MAY ALSO RESULT IN REPLACING OR RELOCATING TREES AND A HOLD ON CERTIFICATE OF OCCUPANCY.

CAUTION
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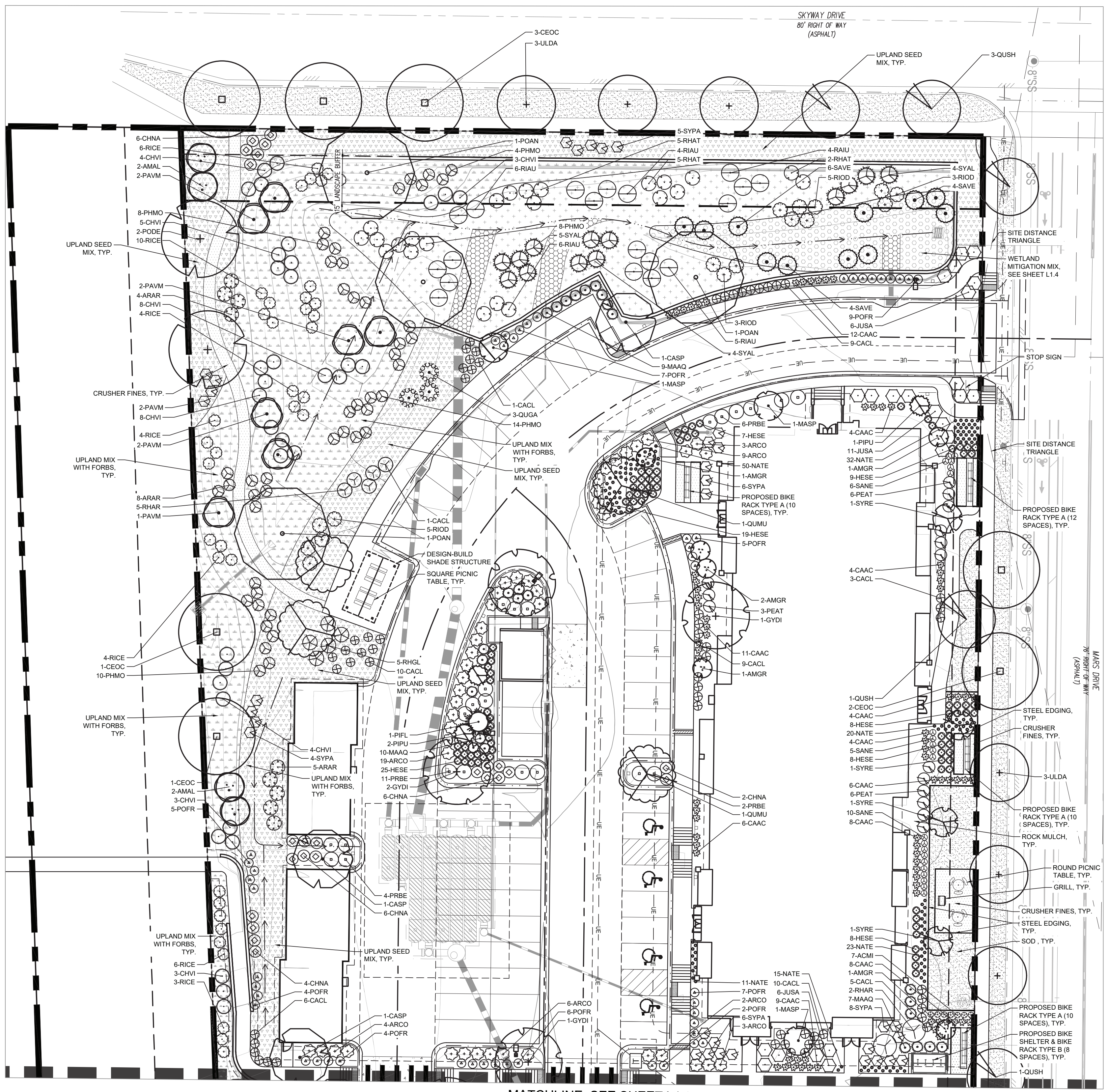

MATCHLINE: SEE SHEET L1.2

PLANTING LEGEND

QTY	LEGEND ABBREV	BOTANIC NAME	COMMON NAME	PLANTING SIZE (MINIMUM)	MATURE SIZE	%	WATER USE
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

N
0 10 20
SCALE: 1"=20'

MITIGATION DATA:
EXISTING
1.50 ACRES LOWER ECOLOGICAL VALUE UPLANDS
0.014 ACRES OF LOWER ECOLOGICAL VALUE WETLANDS HABITAT

PROPOSED

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MARS LANDING
PROJECT DEVELOPMENT PLAN
FORT COLLINS, CO

#	Date	Issue / Description	Init.

Project No:	GNK000008
Drawn By:	AS
Checked By:	SRA
Date:	07.28.2021

LANDSCAPE PLAN

L1.1

CITY OF FORT COLLINS STREET TREE NOTE

STREET TREE NOTES:

1. A PERMIT MUST BE OBTAINED FROM THE CITY FORESTER BEFORE ANY TREES OR SHRUBS AS NOTED ON THIS PLAN ARE PLANTED, PRUNED OR REMOVED IN THE PUBLIC RIGHT-OF-WAY. THIS INCLUDES ZONES BETWEEN THE SIDEWALK AND CURB, MEDIANS AND OTHER CITY PROPERTY. THIS PERMIT SHALL APPROVE THE LOCATION AND SPECIES TO BE PLANTED. FAILURE TO OBTAIN THIS PERMIT IS A VIOLATION OF THE CITY OF FORT COLLINS CODE SUBJECT TO CITATION (SECTION 27-31) AND MAY ALSO RESULT IN REPLACING OR RELOCATING TREES AND A HOLD ON CERTIFICATE OF OCCUPANCY.

MITIGATION DATA:

EXISTING
1.50 ACRES LOWER ECOLOGICAL VALUE UPLANDS
0.014 ACRES OF LOWER ECOLOGICAL VALUE WETLANDS HABITAT

PROPOSED

UPLAND BUFFER:	0.41 AC
UPLAND POLLINATOR:	0.34 AC
RIPARIAN:	0.14 AC
WETLAND:	0.043 AC
TOTAL PROPOSED:	0.913 AC

REMAINING 0.601 AC OF REQUIRED MITIGATION IS MADE UP WITH HIGHER QUALITY PLANTINGS/HABITAT

DERO: SWERVE BIKE RACK

QTY: 50
MOUNTING: SURFACE MOUNT
COLOR: POWDER COAT IRON GRAY
LOCATION: SEE PLANS

1 BIKE RACK: TYPE A

NOT TO SCALE

DERO: VIZOR BIKE SHELTER

QTY: 4
MOUNTING: SURFACE MOUNT
COLOR: POWDER COAT LIGHT GRAY
LOCATION: SEE PLANS

2 BIKE SHELTER

NOT TO SCALE

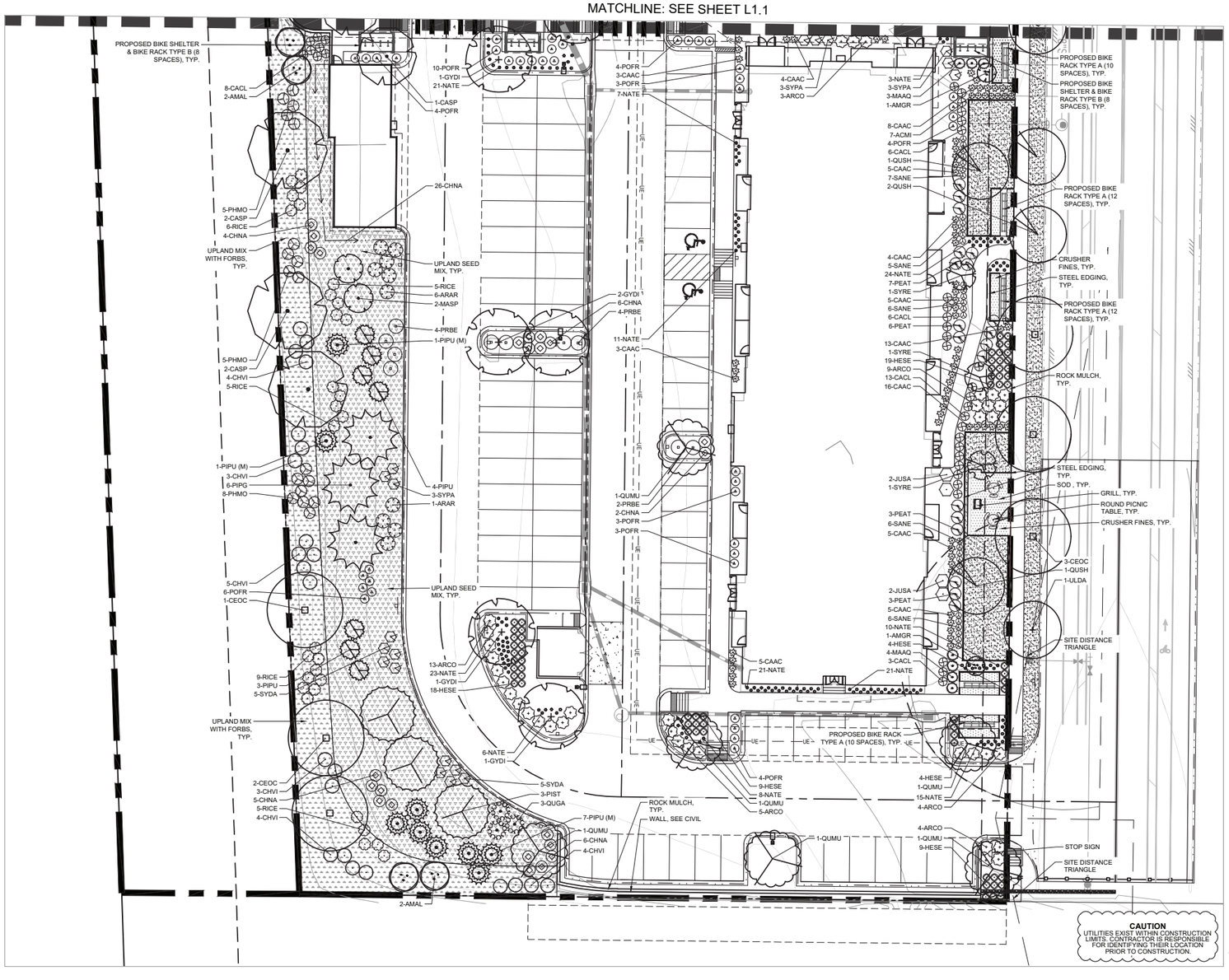
DERO: HOOP BIKE RACK

QTY: 16
MOUNTING: SURFACE MOUNT
COLOR: POWDER COAT DEEP RED
LOCATION: SEE PLANS

3 BIKE RACK: TYPE B - WITH SHELTER

NOT TO SCALE

MATCHLINE: SEE SHEET L1.1



WABASH VALLEY: SPYDER SERIES ROUND PICNIC TABLE
QTY: 4
MOUNTING: SURFACE MOUNT
COLOR: BLACK
LOCATION: SEE PLANS

4 ROUND PICNIC TABLE

NOT TO SCALE

WABASH VALLEY: COVERED GRILL
QTY: 2
MOUNTING: IN-GROUND
COLOR BLACK
LOCATION: SEE PLANS

5 GRILL

NOT TO SCALE

WABASH VALLEY: COVERED GRILL
QTY: 2
MOUNTING: IN-GROUND
COLOR BLACK
LOCATION: SEE PLANS

6 SQUARE PICNIC TABLE

NOT TO SCALE

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MARS LANDING
PROJECT DEVELOPMENT PLAN

FORT COLLINS, CO

#	Date	Issue / Description	Init.

Project No:	GNK000008
Drawn By:	AS
Checked By:	SRA
Date:	07.28.2021

LANDSCAPE PLAN

L1.2

CITY OF FORT COLLINS STANDARD NOTES

STREET TREE NOTES:

1. A PERMIT MUST BE OBTAINED FROM THE CITY FORESTER BEFORE ANY TREES OR SHRUBS AS NOTED ON THIS PLAN ARE PLANTED, PRUNED OR REMOVED IN THE PUBLIC RIGHT-OF-WAY. THIS INCLUDES ZONES BETWEEN THE SIDEWALK AND CURB, MEDIANS AND OTHER CITY PROPERTY. THIS PERMIT SHALL APPROVE THE LOCATION AND SPECIES TO BE PLANTED. FAILURE TO OBTAIN THIS PERMIT IS A VIOLATION OF THE CITY OF FORT COLLINS CODE SUBJECT TO CITATION (SECTION 27-31) AND MAY ALSO RESULT IN REPLACING OR RELOCATING TREES AND A HOLD ON CERTIFICATE OF OCCUPANCY.
2. CONTACT THE CITY FORESTER TO INSPECT ALL STREET TREE PLANTINGS AT THE COMPLETION OF EACH PHASE OF THE DEVELOPMENT. ALL MUST BE INSTALLED AS SHOWN ON THE LANDSCAPE PLAN. APPROVAL OF STREET TREE PLANTING IS REQUIRED BEFORE FINAL APPROVAL OF EACH PHASE.
3. STREET LANDSCAPING, INCLUDING STREET TREES, SHALL BE SELECTED IN ACCORDANCE WITH ALL CITY CODES AND POLICIES. ALL TREE PRUNING AND REMOVAL WORKS SHALL BE PERFORMED BY A CITY OF FORT COLLINS LICENSED ARBORS WHERE REQUIRED BY CODE.STREET TREES SHALL BE SUPPLIED AND PLANTED BY THE DEVELOPER USING A QUALIFIED LANDSCAPE CONTRACTOR.
4. THE DEVELOPER SHALL REPLACE DEAD OR DYING STREET TREES AFTER PLANTING UNTIL FINAL MAINTENANCE INSPECTION AND ACCEPTANCE BY THE CITY OF FORT COLLINS FORESTRY DIVISION. ALL STREET TREES IN THE PROJECT MUST BE ESTABLISHED, WITH AN APPROVED SPECIES AND OF ACCEPTABLE CONDITION PRIOR TO ACCEPTANCE.
5. SUBJECT TO APPROVAL BY THE CITY FORESTER -- STREET TREE LOCATIONS MAY BE ADJUSTED TO ACCOMMODATE DRIVEWAY LOCATIONS, UTILITY SEPARATIONS BETWEEN TREES, STREET SIGNS AND STREET LIGHTS. STREET TREES TO BE CENTERED IN THE MIDDLE OF THE LOT TO THE EXTENT FEASIBLE. QUANTITIES SHOWN ON PLAN MUST BE INSTALLED UNLESS A REDUCTION IS APPROVED BY THE CITY TO MEET SEPARATION STANDARDS.

TREE PROTECTION NOTES:

1. ALL EXISTING TREES WITHIN THE LIMITS OF THE DEVELOPMENT AND WITHIN ANY NATURAL AREA BUFFER ZONES SHALL REMAIN AND BE PROTECTED UNLESS NOTED ON THESE PLANS FOR REMOVAL.
2. WITHIN THE DRIP LINE OF ANY PROTECTED EXISTING TREE, THERE SHALL BE NO CUT OR FILL OVER A FOUR-INCH DEPTH UNLESS A QUALIFIED ARBORIST OR FORESTER HAS EVALUATED AND APPROVED THE DISTURBANCE.
3. ALL PROTECTED EXISTING TREES SHALL BE PRUNED TO THE CITY OF FORT COLLINS FORESTRY STANDARDS. TREE PRUNING AND REMOVAL SHALL BE PERFORMED BY A BUSINESS THAT HOLDS A CURRENT CITY OF FORT COLLINS ARBORIST LICENSE WHERE REQUIRED BY CODE.
4. PRIOR TO AND DURING CONSTRUCTION, BARRIERS SHALL BE ERECTED AROUND ALL PROTECTED EXISTING TREES WITH SUCH BARRIERS TO BE OF ORANGE FENCING A MINIMUM OF FOUR (4) FEET IN HEIGHT, SECURED WITH METAL T- POSTS, NO CLOSER THAN SIX (6) FEET FROM THE TRUNK OR ONE-HALF (½) OF THE DRIP LINE, WHICHEVER IS GREATER. THERE SHALL BE NO STORAGE OR MOVEMENT OF EQUIPMENT, MATERIAL, DEBRIS OR FILL WITHIN THE FENCED TREE PROTECTION ZONE.
5. DURING THE CONSTRUCTION STAGE OF DEVELOPMENT, THE APPLICANT SHALL PREVENT THE CLEANING OF EQUIPMENT OR MATERIAL OR THE STORAGE AND DISPOSAL OF WASTE MATERIAL SUCH AS PAINTS, OILS, SOLVENTS, ASPHALT, CONCRETE, MOTOR OIL OR ANY OTHER MATERIAL HARMFUL TO THE LIFE OF A TREE WITHIN THE DRIP LINE OF ANY PROTECTED TREE OR GROUP OF TREES.
6. NO DAMAGING ATTACHMENT, WIRES, SIGNS OR PERMITS MAY BE FASTENED TO ANY PROTECTED TREE.

LARGE PROPERTY AREAS CONTAINING PROTECTED TREES AND SEPARATED FROM CONSTRUCTION OR LAND CLEARING AREAS, ROAD RIGHTS-OF-WAY AND UTILITY EASEMENTS MAY BE "RIBBONED OFF," RATHER THAN ERECTING PROTECTIVE FENCING AROUND EACH TREE AS REQUIRED IN SUBSECTION (G)(3)THIS MAY BE ACCOMPLISHED BY PLACING METAL T-POST STAKES A MAXIMUM OF FIFTY (50) FEET APART AND TYING RIBBON OR ROPE FROM STAKE- TO-STAKE ALONG THE OUTSIDE PERIMETERS OF SUCH AREAS BEING CLEARED.

8. THE INSTALLATION OF UTILITIES, IRRIGATION LINES OR ANY UNDERGROUND FIXTURE REQUIRING EXCAVATION DEEPER THAN SIX (6) INCHES SHALL BE ACCOMPLISHED BY BORING UNDER THE ROOT SYSTEM OF PROTECTED EXISTING TREES AT A MINIMUM DEPTH OF TWENTY-FOUR (24) INCHES. THE AUGER DISTANCE IS ESTABLISHED FROM THE FACE OF THE TREE (OUTER BARK) AND IS SCALED FROM TREE DIAMETER AT BREAST HEIGHT AS DESCRIBED IN THE CHART BELOW:

Tree Diameter at Breast Height (inches)	Auger Distance From Face of Tree (feet)
0-2	1
3-4	2
5-9	5
10-14	10
15-19	12
Over 19	15

9. TREE REMOVAL SHOWN SHALL BE COMPLETED OUTSIDE OF THE SONGBIRD NESTING SEASON (FEB 1 - JULY 31) OR CONDUCT A SURVEY OF TREES ENSURING NO ACTIVE NESTS IN THE AREA.

GENERAL LANDSCAPE NOTES:

1. PLANT QUALITY: ALL PLANT MATERIAL SHALL BE A-GRADE OR NO. 1 GRADE - FREE OF ANY DEFECTS, OF NORMAL HEALTH, HEIGHT, LEAF DENSITY AND SPREAD APPROPRIATE TO THE SPECIES AS DEFINED BY THE AMERICAN ASSOCIATION OF NURSERYMEN (AAN) STANDARDS. ALL TREES SHALL BE BALL AND BURLAP OR EQUIVALENT.
2. IRRIGATION: ALL LANDSCAPE AREAS WITHIN THE SITE INCLUDING TURF, SHRUB BEDS AND TREE AREAS SHALL BE IRRIGATED WITH AN AUTOMATIC IRRIGATION SYSTEM. THE IRRIGATION PLAN MUST BE REVIEWED AND APPROVED BY THE CITY OF FORT COLLINS WATER UTILITIES DEPARTMENT PRIOR TO THE ISSUANCE OF A BUILDING PERMIT. ALL TURF AREAS SHALL BE IRRIGATED WITH AN AUTOMATIC POP-UP IRRIGATION SYSTEM. ALL SHRUB BEDS AND TREES, INCLUDING IN NATIVE SEED AREAS, SHALL BE IRRIGATED WITH AN AUTOMATIC DRIP (TRICKLE) IRRIGATION SYSTEM, OR WITH AN ACCEPTABLE ALTERNATIVE APPROVED BY THE CITY WITH THE IRRIGATION PLANS. THE IRRIGATION SYSTEM SHALL BE ADJUSTED TO MEET THE WATER REQUIREMENTS OF THE INDIVIDUAL PLANT MATERIAL. IRRIGATION SYSTEMS TO BE TURNED OVER TO THE CITY PARKS DEPARTMENT FOR MAINTENANCE MUST BE APPROVED BY THE PARKS MANAGER AND MEET PARKS IRRIGATION STANDARDS. DESIGN REVIEW SHALL OCCUR DURING UTILITIES DEPARTMENT IRRIGATION REVIEW PRIOR TO THE ISSUANCE OF A BUILDING PERMIT AND CONSTRUCTION OBSERVATION AND INSPECTION BY PARKS SHALL BE INCORPORATED INTO THE CONSTRUCTION PROCESS.
3. TOPSOIL: TO THE MAXIMUM EXTENT FEASIBLE, TOPSOIL THAT IS REMOVED DURING CONSTRUCTION ACTIVITY SHALL BE CONSERVED FOR LATER USE ON AREAS REQUIRING REVEGETATION AND LANDSCAPING.
4. SOIL AMENDMENTS: SOIL AMENDMENTS SHALL BE PROVIDED AND DOCUMENTED IN ACCORDANCE WITH CITY CODE SECTION 12-132. THE SOIL IN ALL LANDSCAPE AREAS, INCLUDING PARKWAYS AND MEDIANS, SHALL BE THOUGHLY LOOSENED TO A DEPTH OF NOT LESS THAN EIGHT(8) INCHES AND SOIL AMENDMENT SHALL BE THOROUGHLY INCORPORATED INTO THE SOIL OF ALL LANDSCAPE AREAS TO A DEPTH OF AT LEAST SIX(6) INCHES BY TILLING, DISCING OR OTHER SUITABLE METHOD, AT A RATE OF AT LEAST THREE (3) CUBIC YARDS OF SOIL AMENDMENT PER ONE THOUSAND (1,000) SQUARE FEET OF LANDSCAPE AREA. PRIOR TO THE ISSUANCE OF ANY CERTIFICATE OF OCCUPANCY, A WRITTEN CERTIFICATION MUST BE SUBMITTED TO THE CITY THAT ALL PLANTED AREAS, OR AREAS TO BE PLANTED, HAVE BEEN THOROUGHLY LOOSENED AND THE SOIL AMENDED, CONSISTENT WITH THE REQUIREMENTS SET FORTH IN SECTION 12-132.
5. INSTALLATION AND GUARANTEE: ALL LANDSCAPING SHALL BE INSTALLED ACCORDING TO SOUND HORTICULTURAL PRACTICES IN A MANNER DESIGNED TO ENCOURAGE QUICK ESTABLISHMENT AND HEALTHY GROWTH. ALL LANDSCAPING FOR EACH PHASE MUST BE EITHER INSTALLED OR THE INSTALLATION MUST BE SECURED WITH AN IRREVOCABLE LETTER OF CREDIT, PERFORMANCE BOND, OR ESCROW ACCOUNT FOR 125% OF THE VALUATION OF THE MATERIALS AND LABOR PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY FOR ANY BUILDING IN SUCH PHASE.
6. MAINTENANCE: TREES AND VEGETATION, IRRIGATION SYSTEMS, FENCES, WALLS AND OTHER LANDSCAPE ELEMENTS WITH THESE FINAL PLANS SHALL BE CONSIDERED AS ELEMENTS OF THE PROJECT IN THE SAME MANNER AS PARKING, BUILDING MATERIALS AND OTHER SITE DETAILS. THE APPLICANT, LANDOWNER OR SUCCESSORS IN INTEREST SHALL BE JOINTLY AND SEVERALLY RESPONSIBLE FOR THE REGULAR MAINTENANCE OF ALL LANDSCAPING ELEMENTS IN GOOD CONDITION. ALL LANDSCAPING SHALL BE MAINTAINED FREE FROM DISEASE, PESTS, WEEDS AND LITTER, AND ALL LANDSCAPE STRUCTURES SUCH AS FENCES AND WALLS SHALL BE REPAIRED AND REPLACED PERIODICALLY TO MAINTAIN A STRUCTURALLY SOUND CONDITION.
7. REPLACEMENT: ANY LANDSCAPE 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 FEET BETWEEN CANOPY TREES AND STREET LIGHTS
15 FEET BETWEEN ORNAMENTAL TREES AND STREETLIGHTS
10 FEET BETWEEN TREES AND PUBLIC WATER, SANITARY AND STORM SEWER MAIN LINES
6 FEET BETWEEN TREES AND PUBLIC WATER, SANITARY AND STORM SEWER SERVICE LINES.
4 FEET BETWEEN SHRUBS AND PUBLIC WATER AND SANITARY AND STORM SEWER LINES
4 FEET BETWEEN TREES AND GAS LINES

9. ALL STREET TREES SHALL BE PLACED A MINIMUM EIGHT (8) FEET AWAY FROM THE EDGES OF DRIVEWAYS AND ALLEYS PER LUC 3.2.1(D)(2)(a).
10. PLACEMENT OF ALL LANDSCAPING SHALL BE IN ACCORDANCE WITH THE SIGHT DISTANCE CRITERIA AS SPECIFIED BY THE CITY OF FORT COLLINS. NO STRUCTURES OR LANDSCAPE ELEMENTS GREATER THAN 24" SHALL BE ALLOWED WITHIN THE SIGHT DISTANCE TRIANGLE OR EASEMENTS WITH THE EXCEPTION OF DECIDUOUS TREES PROVIDED THAT THE LOWEST BRANCH IS AT LEAST 6' FROM GRADE. ANY FENCES WITHIN THE SIGHT DISTANCE TRIANGLE OR EASEMENT MUST BE NOT MORE THAN 42" IN HEIGHT AND OF AN OPEN DESIGN.
11. THE FINAL LANDSCAPE PLAN SHALL BE COORDINATED WITH ALL OTHER FINAL PLAN ELEMENTS SO THAT THE PROPOSED GRADING, STORM DRAINAGE, AND OTHER DEVELOPMENT IMPROVEMENTS DO NOT CONFLICT WITH NOR PRECLUDE INSTALLATION AND MAINTENANCE OF LANDSCAPE ELEMENTS ON THIS PLAN.
12. MINOR CHANGES IN SPECIES AND PLANT LOCATIONS MAY BE MADE DURING CONSTRUCTION -- AS REQUIRED BY SITE CONDITIONS OR PLANT AVAILABILITY. OVERALL QUANTITY, QUALITY, AND DESIGN CONCEPT MUST BE CONSISTENT WITH THE APPROVED PLANS. IN THE EVENT OF CONFLICT WITH THE QUANTITIES INCLUDED IN THE PLANT LIST, SPECIES AND QUANTITIES ILLUSTRATED SHALL BE PROVIDED. ALL CHANGES OF PLANT SPECIES AND LOCATION MUST HAVE WRITTEN APPROVAL BY THE CITY PRIOR TO INSTALLATION.
13. ALL PLANTING BEDS SHALL BE MULCHED TO A MINIMUM DEPTH OF THREE INCHES.

Knight\CO, Fort Collins - GNK000008.10 - Mars Landing ISP\CADD\3 CD\GNK08_L1.0_Landscape Plan_.dwg - Sarah Adamson - 8/31/2021

LANDSCAPE CALCULATIONS

PARKING LOT PERIMETER	1 TREE / 25 LF ALONG ROW 1 TREE / 40 LF ALONG SIDE / REAR PROP MIN. 30" HEIGHT SCREEN ALONG 70%	N/A N/A - WALL AT REAR, SEE CIVIL N/A
PARKING LOT INTERIOR	6% OF PARKING LOT SHALL BE LANDSCAPE NO LANDSCAPE OVER 24" WITHIN 15' OF CURB CUT 1 CANOPY SHADE TREE / 150 SF OF INTERNAL LANDSCAPE AREA	6% OF 63,873 = 3,834 SF NO LANDSCAPE OVER 24" IS LOCATED WITHIN 15' OF CURB CUT 25 TREES
TREE BIODIVERSITY	MAX. 33% OF ONE TREE SPECIES	MAX. 33% OF ONE TREE SPECIES
TREE STOCKING	1 CANOPY SHADE TREE / 40 LF OF INTERNAL LANDSCAPE AREA	MAX. 33% OF ONE TREE SPECIES

SEED NOTES

NOTE: FOR ALL SEEDED AREAS USE CITY OF FORT COLLINS DETENTION BASIN MIX OR AS NOTED ON PLANS.

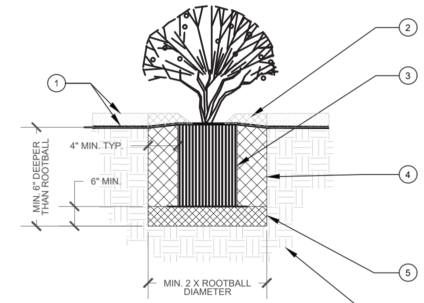
CITY OF FORT COLLINS
NATIVE SEED MIX NOTES

1. PREPARE SOIL AS NECESSARY AND APPROPRIATE FOR NATIVE SEED MIX SPECIES THROUGH AERATION AND ADDITION OF AMENDMENTS, THEN SEED IN TWO DIRECTIONS TO DISTRIBUTE SEED EVENLY OVER ENTIRE AREA. DRILL SEED ALL INDICATED AREAS AS SOON AS POSSIBLE AFTER COMPLETION OF GRADING OPERATIONS.
2. IF CHANGES ARE TO BE MADE TO SEED MIX BASED ON SITE CONDITIONS THEN APPROVAL MUST BE PROVIDED BY CITY ENVIRONMENTAL PLANNER.
3. APPROPRIATE NATIVE SEEDING EQUIPMENT WILL BE USED (STANDARD TURF SEEDING EQUIPMENT OR AGRICULTURE EQUIPMENT SHALL NOT BE USED).
4. DRILL SEED APPLICATION RECOMMENDED PER SPECIFIED APPLICATION RATE TO NO MORE THAN ½ INCH DEPTH (OR APPROPRIATE DEPTH FOR SELECTED SPECIES). FOR BROADCAST SEEDING INSTEAD OF DRILL SEEDING METHOD DOUBLE SPECIFIED APPLICATION RATE. REFER TO NATIVE SEED MIX TABLE FOR SPECIES, PERCENTAGES AND APPLICATION RATES.
5. PREPARE A WEED MANAGEMENT PLAN TO ENSURE THAT WEEDS ARE PROPERLY MANAGED BEFORE, DURING AND AFTER SEEDING ACTIVITIES.
6. AFTER SEEDING THE AREA SHALL BE COVERED WITH CRIMPED STRAW, JUTE MESH, OR OTHER APPROPRIATE METHODS.
7. WHERE NEEDED, TEMPORARY IRRIGATION SHOULD BE PROVIDED UNTIL SEED IS ESTABLISHED. IF IRRIGATION IS USED, THE IRRIGATION SYSTEM FOR SEEDED AREAS SHALL BE FULLY OPERATIONAL AT THE TIME OF SEEDING AND SHALL ENSURE 100% HEAD-TO-HEAD COVERAGE OVER ALL SEEDED AREAS. ALL METHODS AND REQUIREMENTS IN THE APPROVED IRRIGATION PLAN SHALL BE FOLLOWED.
8. CONTRACTOR SHALL MONITOR SEEDED AREA FOR PROPER IRRIGATION, EROSION CONTROL, GERMINATION AND RESEEDING AS NEEDED TO ESTABLISH COVER.
9. THE APPROVED SEED MIX AREA IS INTENDED TO BE MAINTAINED IN A NATURAL LIKE LANDSCAPE AESTHETIC. IF AND WHEN MOWING OCCURS IN NATIVE GRASS SEED MIX AREAS DO NOT MOW LOWER THAN 6 TO 8 INCHES IN HEIGHT TO AVOID INHIBITING NATIVE PLANT GROWTH.
10. NATIVE SEED AREA WILL BE CONSIDERED ESTABLISHED WHEN SEVENTY PERCENT VEGETATIVE COVER IS REACHED WITH NO LARGER THAN ONE FOOT SQUARE BARE SPOTS AND/OR UNTIL DEEMED ESTABLISHED BY CITY PLANNING SERVICES AND EROSION CONTROL.
11. THE DEVELOPER AND/OR LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR ADEQUATE SEEDLING COVERAGE AND GROWTH AT THE TIME OF FINAL STABILIZATION, AS DEFINED BY STATE AND LOCAL AGENCIES. IF FINAL STABILIZATION IS NOT ACHIEVED TO THE SATISFACTION OF THE AGENCY, THE DEVELOPER AND/OR LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR ADDITIONAL CORRECTIVE MEASURES TO SATISFY FINAL VEGETATIVE REQUIREMENTS FOR CLOSEOUT.

UTILITY NOTES

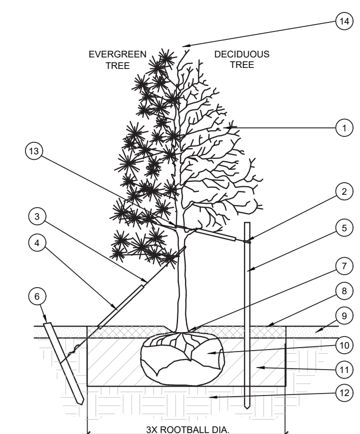
1. THE LANDSCAPE CONTRACTOR IS REQUIRED TO CONTACT THE COUNTY PUBLIC WORKS DEPARTMENT, AND ANY OTHER PUBLIC OR PRIVATE AGENCY NECESSARY FOR UTILITY LOCATION PRIOR TO ANY CONSTRUCTION.
2. THIS DRAWING IS A PART OF A COMPLETE SET OF BID DOCUMENTS, SPECIFICATIONS, ADDITIONAL DRAWINGS, AND EXHIBITS. UNDER NO CIRCUMSTANCES SHOULD THESE PLANS BE USED FOR CONSTRUCTION PURPOSES WITHOUT EXAMINING ACTUAL LOCATIONS OF UTILITIES ON SITE, AND REVIEWING ALL RELATED DOCUMENTS.
3. THE LOCATION OF THE ALL UNDERGROUND UTILITIES ARE LOCATED ON THE ENGINEERING DRAWINGS FOR THIS PROJECT. THE MOST CURRENT REVISION IS HERE IN MADE PART OF THIS DOCUMENT. UNDERGROUND UTILITIES EXIST THROUGHOUT THIS SITE AND MUST BE LOCATED PRIOR TO ANY CONSTRUCTION ACTIVITY. WHERE UNDERGROUND UTILITIES EXIST, FIELD ADJUSTMENT MAY BE NECESSARY AND MUST BE APPROVED BY A REPRESENTATIVE OF THE OWNER. NEITHER THE OWNER NOR THE LANDSCAPE ARCHITECT ASSUMES ANY RESPONSIBILITY WHATSOEVER, IN RESPECT TO THE CONTRACTORS ACCURACY IN LOCATING THE INDICATED PLANT MATERIAL, AND UNDER NO CIRCUMSTANCES SHOULD THESE PLANS BE USED WITHOUT REFERENCING THE ABOVE MENTIONED DOCUMENTS.

CAUTION
UTILITIES EXIST WITHIN CONSTRUCTION LIMITS. CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING THEIR LOCATION PRIOR TO CONSTRUCTION.



1. FINISH GRADE. SEE PLANTING PLAN FOR GROUND COVER TREATMENT
2. SHREDDED BARK MULCH, 3" MIN. DEPTH, ROUGHLY THE EXTENTS OF ROOTBALL
3. PLANT ROOT BALL. SET TOP ROOTBALL 2" ABOVE ADJECENT GRADE. IN BERMED AREAS SET ROOTBALL 2" ABOVE LOWER ADJECENT GRADE - INSTALL WATER RING (2 - 3" HT.)
4. BACKFILL MIX (PER PLANTING SPECIFICATIONS). AMEND AND FERTILIZE ONLY AS RECOMMENDED IN SOIL FERTILITY ANALYSIS. JET BACKFILL WITH WATER TO ELIMINATE VOIDS.
5. COMPACTED BACKFILL MIX (75%).
6. UNDISTURBED NATIVE SOIL.

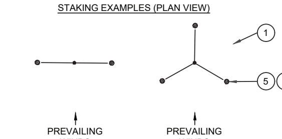
1 SHRUB AND PERENNIAL DETAIL
SCALE: NOT TO SCALE



1. TREE CANOPY.
2. NYLON TREE STRAPS AT ENDS OF WIRES - SECURE TO STAKE OR DEADMEN WITH NAILS.
3. 12 GAUGE GALVANIZED WIRE. SECURE TO TRUNK JUST ABOVE LOWEST MAJOR BRANCHES.
4. 24" X 3/4" P.V.C. MARKERS OVER WIRES.
5. PRESSURE-TREATED WOOD STAKE, 2" DIA. EXTEND STAKES 12" MIN. INTO UNDISTURBED SOIL.
6. PRESSURE-TREATED WOOD DEADMEN, TWO PER TREE (MIN.). BURY OUTSIDE OF PLANTING PIT AND 18" MIN. INTO UNDISTURBED SOIL.
7. TRUNK FLARE.
8. WOOD MULCH TREE RING 3' DIA MIN. TYPE AND DEPTH PER PLANS. DO NOT PLACE MULCH WITHIN 3" OF TRUNK.
9. FINISH GRADE. SEE PLANTING PLAN FOR GROUND COVER TREATMENT
10. ROOT BALL-SEE NOTE 3, THIS DETAIL
11. BACKFILL. AMEND AND FERTILIZE ONLY AS RECOMMENDED IN SOIL FERTILITY ANALYSIS.
12. UNDISTURBED NATIVE SOIL
13. SOFT VELCRO, OR OTHER FABRIC WRAP
14. CENTRAL LEADER, SEE PLANTING NOTES

NOTES:
1. SCARIFY SIDES OF PLANTING PIT PRIOR TO SETTING TREE.
2. REMOVE EXCESS SOIL APPLIED ON TOP OF THE ROOTBALL THAT COVERS THE ROOT FLARE. THE PLANTING HOLE DEPTH SHALL BE SUCH THAT THE ROOTBALL RESTS ON UNDISTURBED SOIL, AND THE ROOT FLARE IS 3"-5" ABOVE FINISH GRADE.
3. CUT OFF BOTTOM 1/3 OF WIRE BASKET BEFORE PLACING TREE IN HOLE, CUT OFF AND REMOVE REMAINDER OF BASKET AFTER TREE IS SET IN HOLE, REMOVE ALL NYLON TIES, TWINE, ROPE, AND OTHER PACKING MATERIAL. REMOVE ALL BURLAP FROM AROUND ROOTBALL.
4. TREE WRAP IS NOT TO BE USED ON ANY NEW PLANTINGS, EXCEPT IN LATE FALL PLANTING SITUATIONS, AND ONLY THEN AFTER CONSULTATION WITH THE LANDSCAPE ARCHITECT. WHEN WRAPPING TREE, WRAP FROM TRUNK FLARE TO LOWEST MAJOR BRANCH.
5. REMOVE ALL NURSERY STAKES AFTER PLANTING.
6. FOR TREES OVER 3" CALIPER, USE THREE STAKES OR DEADMEN (AS APPROPRIATE), SPACED EVENLY AROUND TREE.
7. DO NOT ALLOW AIR POCKETS TO FORM WHEN BACKFILLING.

STAKING EXAMPLES (PLAN VIEW)



2 TREE PLANTING DETAIL
SCALE: NOT TO SCALE

UPLAND POLLINATOR & HABITAT PLANTINGS AND UPLAND POLLINATOR AND HABITAT BUFFER PLANTINGS

IF TO BE INSTALLED SEPTEMBER THROUGH APRIL, SEED DESIGNATED AREAS IN ACCORDANCE WITH FORT COLLINS SEED NOTES. IF TO BE INSTALLED MAY THROUGH AUGUST, PLANT AS PLUGS SPACED 6"-11" O.C.

ORNAMENTAL GRASS SEED

ANDROPOGON GERARDII	BIG BLUESTEM
BOUTELOUA CURTIPENDULA	SIDEOATS GRAMA
CHONDROSIUM GRACILE	BLUE GRAMA
SCHIZACHYRIUM SCOPARIUM	LITTLE BLUESTEM
SPOROBOLUS CRYPTANDRUS	SAND DROPSEED

PERENNIALS

ADENOLINUM LEWISII	BLUE FLAX
ALLIUM CERNUUM	NODDING ONION
ARTEMISIA LUDOVICIANA	PRAIRIE SAGE
RATIBIDA COLUMNIFERA	UPRIGHT PRAIRIE CONEFLOWER
VIRGULUS ERICOIDES	MANY-FLOWERED ASTER

RIPARIAN POLLINATOR AND HABITAT PLANTINGS

IF TO BE INSTALLED SEPTEMBER THROUGH APRIL, SEED DESIGNATED AREAS IN ACCORDANCE WITH FORT COLLINS SEED NOTES. IF TO BE INSTALLED MAY THROUGH AUGUST, PLANT AS PLUGS SPACED 6"-11" O.C.

ORNAMENTAL GRASS SEED

CAREX BEBBII	BEBB'S SEDGE
CAREX EMORYI	EMORY'S SEDGE
CAREX HYSTRICINA	BOTTLEBRUSH SEDGE
JUNCUS ARCTICUS ATER	BLATIC RUSH
PANICUM VIRGATUM	SWITCHGRASS

PERRENNIALS

ASCLEPIAS SPECIOSA	SHOWY MILKWEED
MONARDA FISTULOSA VAR MENTHAEFOLIA	MINTLEAF BEEBALM
RUDBECKIA HIRTA	BLACK EYED SUSAN
RUDBECKIA LACINAIATA VAR AMPLA	CUTLEAF CONEFLOWER

WETLAND POLLINATOR & HABITAT PLANTINGS

IF TO BE INSTALLED SEPTEMBER THROUGH APRIL, SEED DESIGNATED AREAS IN ACCORDANCE WITH FORT COLLINS SEED NOTES. IF TO BE INSTALLED MAY THROUGH AUGUST, PLANT AS PLUGS SPACED 6"-11" O.C.

GRASS SEED

CAREX NEBRASCENSIS	NEBRASKA SEDGE
CAREX PRAEGRACILIS	SILVER SEDGE
ELEOCHARIS PALUSTRIS	COMMON SPIKERUSH
JUNCUS TORREYI	TORREY RUSH
SCHOENOPLECTUS LACUSTRIS ACUTUS	HARDSTEM BULRUSH
SPOROBOLUS AIROIDES	ALKALI SACATON

PERRENNIALS

ASCELPIAS INCARNATA	SWAMP MILKWEED
GLYCYRRHIZA LEPIDOTA	AMERICAN LICORICE
HELIANTHUS NUTTALLI	NUTTAL SUNFLOWER
LOBELIA SIPHILITICA VAR LUDOVICIANA	BIGBLUE LOBELIA
VERBENA HASTATA	BLUE VERVAIN

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MARS LANDING
PROJECT DEVELOPMENT PLAN
FORT COLLINS, CO

#	Date	Issue / Description	Init.

Project No:	GNK000008
Drawn By:	AS
Checked By:	SRA
Date:	07.28.2021

LANDSCAPE NOTES AND DETAILS

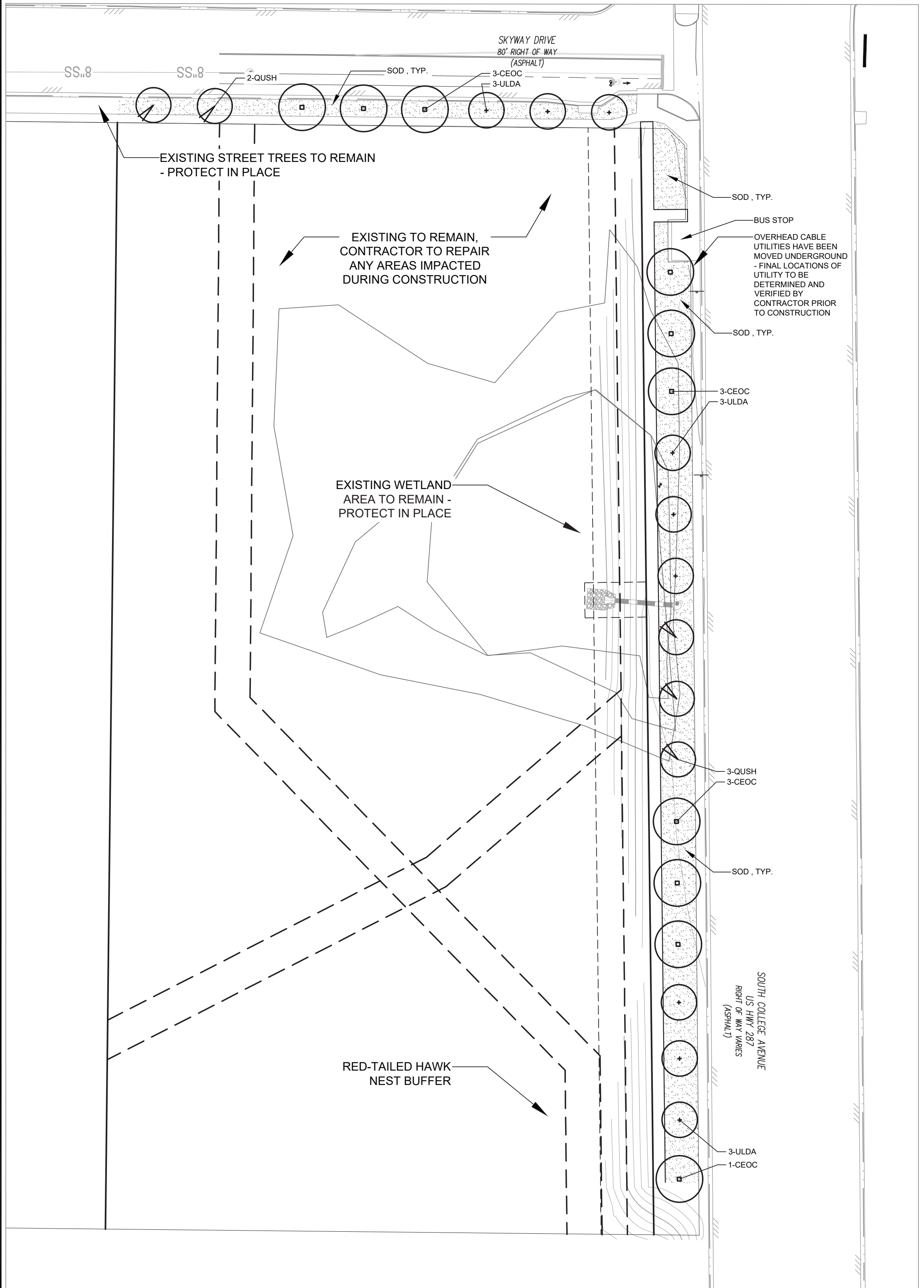
L1.3

CITY OF FORT COLLINS STREET TREE NOTE

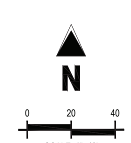
STREET TREE NOTES:

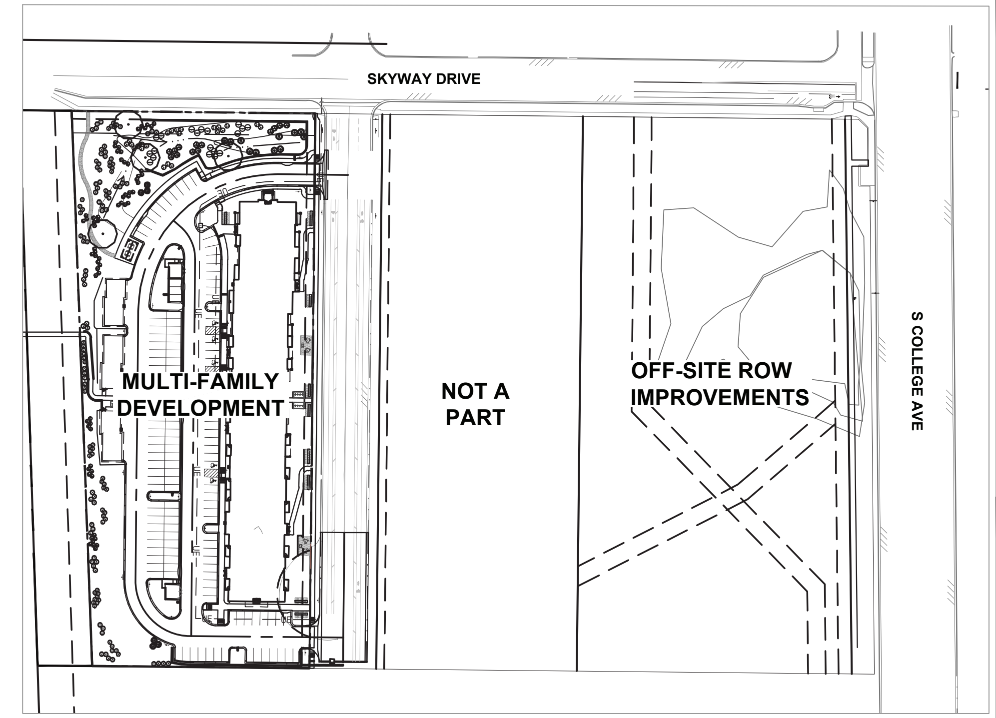
1. A PERMIT MUST BE OBTAINED FROM THE CITY FORESTER BEFORE ANY TREES OR SHRUBS AS NOTED ON THIS PLAN ARE PLANTED, PRUNED OR REMOVED IN THE PUBLIC RIGHT-OF-WAY. THIS INCLUDES ZONES BETWEEN THE SIDEWALK AND CURB, MEDIANS AND OTHER CITY PROPERTY. THIS PERMIT SHALL APPROVE THE LOCATION AND SPECIES TO BE PLANTED. FAILURE TO OBTAIN THIS PERMIT IS A VIOLATION OF THE CITY OF FORT COLLINS CODE SUBJECT TO CITATION (SECTION 27-31) AND MAY ALSO RESULT IN REPLACING OR RELOCATING TREES AND A HOLD ON CERTIFICATE OF OCCUPANCY.

CAUTION
UTILITIES EXIST WITHIN CONSTRUCTION LIMITS. CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING THEIR LOCATION PRIOR TO CONSTRUCTION.



OFF-SITE RIGHT-OF-WAY IMPROVEMENTS





KEY MAP
SCALE: 1" = 100'

PLANTING LEGEND

QTY	LEGEND ABBREV	BOTANIC NAME	COMMON NAME	PLANTING SIZE MINIMUM	MATURE SIZE	WATER USE (H, M, L, VL)
DECIDUOUS TREES						
10	CEOC	CELTIS OCCIDENTALIS	WESTERN HACKBERRY	2" CAL. B&B	60'X40'	L
9	ULDA	ULMUS DAVIDIANA 'CHOICE CITY'	CHOICE CITY ELM	2" CAL. B&B	40'X30'	L
5	QUSH	QUERCUS SHUMARDII	SHUMARD OAK	2" CAL. B&B	40'X30'	L
MISCELLANEOUS						
[illegible] SF		RTF SOD	RHIZOMATOUS TALL FESCUE	SOD		M

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MARS LANDING
PROJECT DEVELOPMENT PLAN

FORT COLLINS, CO

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-			

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Drawn By:	AS
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Date:	07.28.2021

LANDSCAPE PLAN

L1.4

CITY OF FORT COLLINS STREET TREE NOTE

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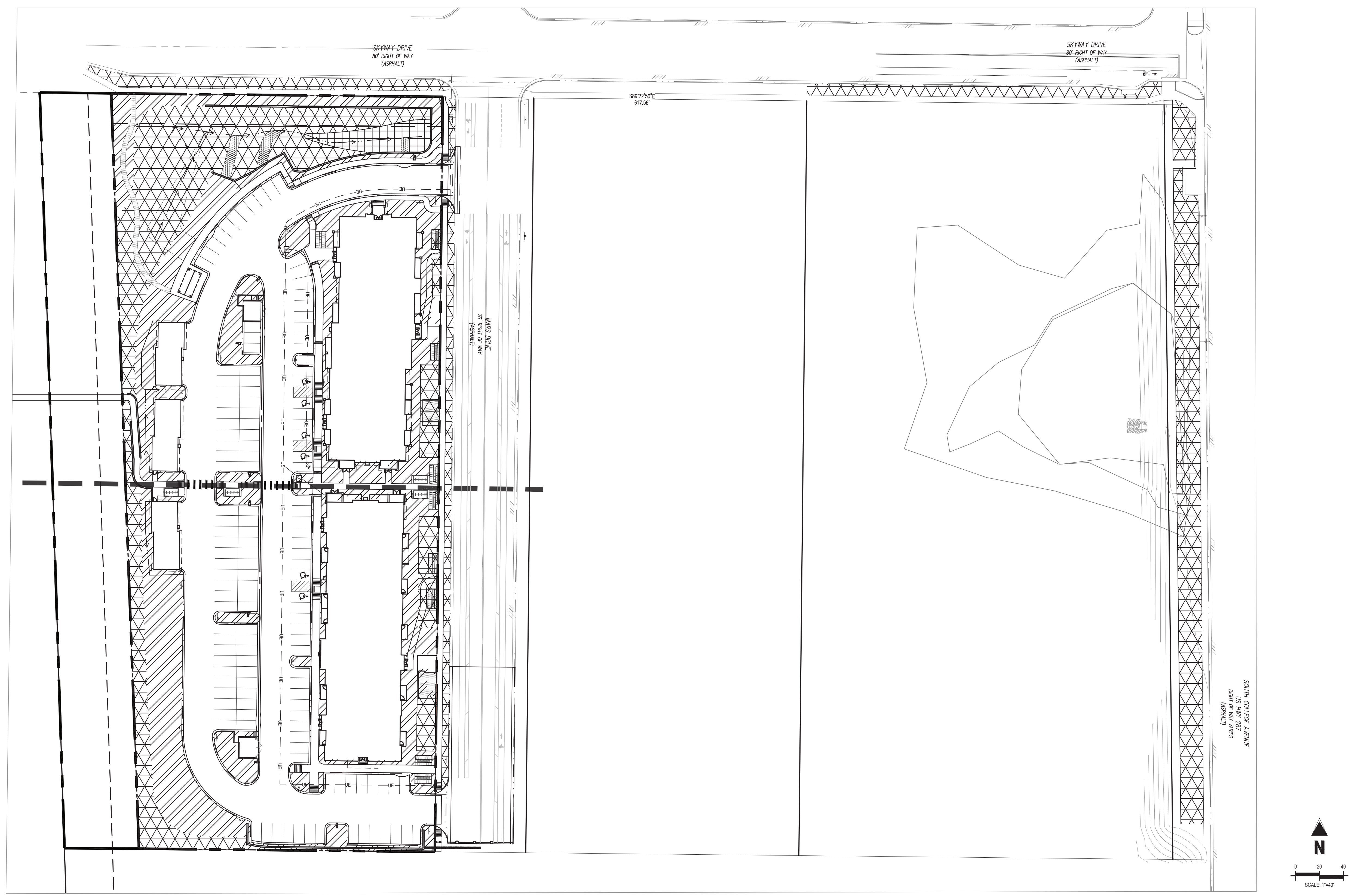
HYDROZONE CHART

HYDROZONE	AREA	WATER NEEDS	ANNUAL WATER USE
HIGH HYDROZONE	0 SQUARE FEET	18 GALLONS / SQUARE FEET / SEASON	0 GALLONS
MODERATE HYDROZONE	23,811 SQUARE FEET	10 GALLONS / SQUARE FEET / SEASON	238,110 GALLONS
LOW HYDROZONE	65,583 SQUARE FEET	3 GALLONS / SQUARE FEET / SEASON	590,247 GALLONS
VERY LOW HYDROZONE	26,239 SQUARE FEET	0 GALLONS / SQUARE FEET / SEASON	0 GALLONS
TOTAL:	**115,633 SQUARE FEET**	**7 GALLONS / SQUARE FEET / SEASON**	**828,357 GALLONS**

NOTE: ALL PLANTING BEDS NOT LABELED "MODERATE HYDROZONE" ARE CONSIDERED LOW HYDROZONE.



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HYDROZONE PLAN

L1.5

CITY OF FORT COLLINS STREET TREE NOTE

STREET TREE NOTES:

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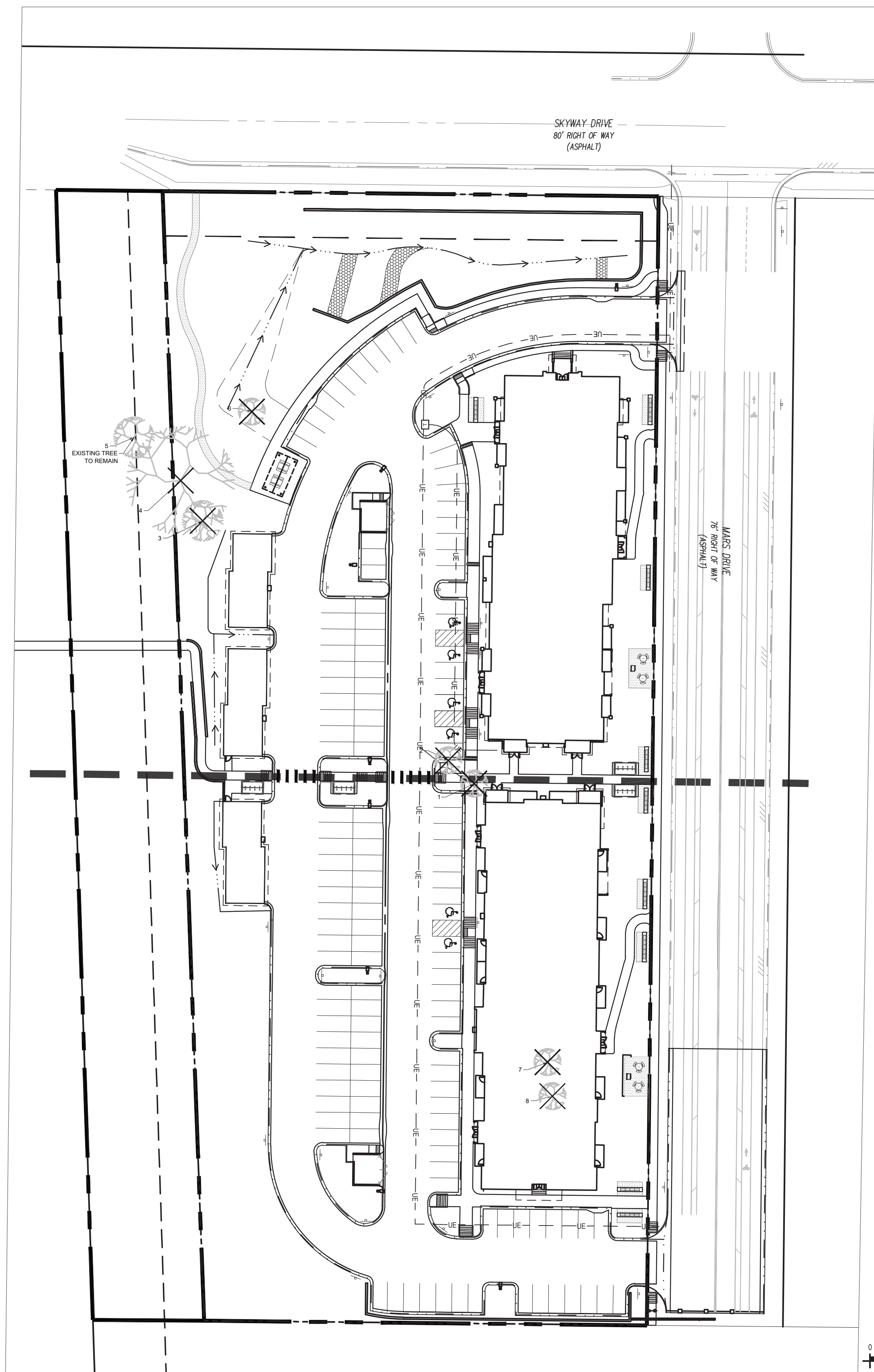

N

0 20 40

SCALE: 1"=40'

Tree Inventory and Mitigation Information: Mars Landing [illegible] Sarah Adamson - Galloway

#	Species	DBH	Condition	Forestry Mitigation	Environmental Mitigation	Notes
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

FORESTRY MITIGATION REQUIRED- 7 UPSIZED TREES
ENVIRONMENTAL MITIGATION REQUIRED- 2 UPSIZED TREES PLANTED IN BUFFER (NHBZ)

MITIGATION REQUIREMENTS:
CANOPY SHADE TREE: 2.0" CALIPER BALLED AND BURLAPPED
EVERGREEN TREE: 8.0' HEIGHT BALLED AND BURLAPPED
ORNAMENTAL TREE: 2.0" CALIPER BALLED AND BURLAPPED

CITY OF FORT COLLINS TREE PROTECTION NOTES:

1. ALL EXISTING TREES WITHIN THE LIMITS OF THE DEVELOPMENT AND WITHIN ANY NATURAL AREA BUFFER ZONES SHALL REMAIN AND BE PROTECTED UNLESS NOTED ON THESE PLANS FOR REMOVAL.
2. WITHIN THE DRIP LINE OF ANY PROTECTED EXISTING TREE, THERE SHALL BE NO CUT OR FILL OVER A FOUR-INCH DEPTH UNLESS A QUALIFIED ARBORIST OR FORESTER HAS EVALUATED AND APPROVED THE DISTURBANCE.
3. ALL PROTECTED EXISTING TREES SHALL BE PRUNED TO THE CITY OF FORT COLLINS FORESTRY STANDARDS. TREE PRUNING AND REMOVAL SHALL BE PERFORMED BY A BUSINESS THAT HOLDS A CURRENT CITY OF FORT COLLINS ARBORIST LICENSE WHERE REQUIRED BY CODE.
4. PRIOR TO AND DURING CONSTRUCTION, BARRIERS SHALL BE ERECTED AROUND ALL PROTECTED EXISTING TREES WITH SUCH BARRIERS TO BE OF ORANGE FENCING A MINIMUM OF FOUR (4) FEET IN HEIGHT, SECURED WITH METAL T-POSTS, NO CLOSER THAN SIX (6) FEET FROM THE TRUNK OR ONE-HALF (½) OF THE DRIP LINE, WHICHEVER IS GREATER. THERE SHALL BE NO STORAGE OR MOVEMENT OF EQUIPMENT, MATERIAL, DEBRIS OR FILL WITHIN THE FENCED TREE PROTECTION ZONE.
5. DURING THE CONSTRUCTION STAGE OF DEVELOPMENT, THE APPLICANT SHALL PREVENT THE CLEANING OF EQUIPMENT OR MATERIAL OR THE STORAGE AND DISPOSAL OF WASTE MATERIAL SUCH AS PAINTS, OILS, SOLVENTS, ASPHALT, CONCRETE, MOTOR OIL OR ANY OTHER MATERIAL HARMFUL TO THE LIFE OF A TREE WITHIN THE DRIP LINE OF ANY PROTECTED TREE OR GROUP OF TREES.
6. NO DAMAGING ATTACHMENT, WIRES, SIGNS OR PERMITS MAY BE FASTENED TO ANY PROTECTED TREE.
7. LARGE PROPERTY AREAS CONTAINING PROTECTED TREES AND SEPARATED FROM CONSTRUCTION OR LAND CLEARING AREAS, ROAD RIGHTS-OF-WAY AND UTILITY EASEMENTS MAY BE "RIBBONED OFF," RATHER THAN ERECTING PROTECTIVE FENCING AROUND EACH TREE AS REQUIRED IN SUBSECTION (G)(3) ABOVE. THIS MAY BE ACCOMPLISHED BY PLACING METAL T-POST STAKES A MAXIMUM OF FIFTY (50) FEET APART AND TYING RIBBON OR ROPE FROM STAKE-TO-STAKE ALONG THE OUTSIDE PERIMETERS OF SUCH AREAS BEING CLEARED.
8. THE INSTALLATION OF UTILITIES, IRRIGATION LINES OR ANY UNDERGROUND FIXTURE REQUIRING EXCAVATION DEEPER THAN SIX (6) INCHES SHALL BE ACCOMPLISHED BY BORING UNDER THE ROOT SYSTEM OF PROTECTED EXISTING TREES AT A MINIMUM DEPTH OF TWENTY-FOUR (24) INCHES. THE AUGER DISTANCE IS ESTABLISHED FROM THE FACE OF THE TREE (OUTER BARK) AND IS SCALED FROM TREE DIAMETER AT BREAST HEIGHT AS DESCRIBED IN THE CHART BELOW:

TREE DIAMETER AT BREAST HEIGHT (INCHES)	AUGER DISTANCE FROM FACE OF TREE (FEET)
0-2	1
3-4	2
5-9	5
10-14	10
15-19	12
OVER 19	15

9. ALL TREE REMOVAL SHOWN SHALL BE COMPLETED OUTSIDE OF THE SONGBIRD NESTING SEASON (FEB 1 - JULY 31) OR CONDUCT A SURVEY OF TREES ENSURING NO ACTIVE NESTS IN THE AREA.

MITIGATION DATA:

EXISTING
1.50 ACRES LOWER ECOLOGICAL VALUE UPLANDS
0.014 ACRES OF LOWER ECOLOGICAL VALUE WETLANDS HABITAT

PROPOSED

UPLAND BUFFER:	0.41 AC
UPLAND POLLINATOR:	0.34 AC
RIPARIAN:	0.14 AC
WETLAND:	0.043 AC
TOTAL PROPOSED:	0.913 AC

REMAINING 0.601 AC OF REQUIRED MITIGATION IS MADE UP WITH HIGHER QUALITY PLANTINGS/HABITAT

TREE REMOVAL:

NO TREES SHALL BE REMOVED DURING THE SONGBIRD NESTING SEASON (FEBRUARY 1 TO JULY 31) WITHOUT FIRST HAVING A PROFESSIONAL ECOLOGIST OR WILDLIFE BIOLOGIST COMPLETE A NESTING SURVEY TO IDENTIFY ANY ACTIVE NESTS EXISTING ON THE PROJECT SITE. THE SURVEY SHALL BE SENT TO THE CITY ENVIRONMENTAL PLANNER. IF ACTIVE NESTS ARE FOUND, THE CITY WILL COORDINATE WITH RELEVANT STATE AND FEDERAL REPRESENTATIVES TO DETERMINE WHETHER ADDITIONAL RESTRICTIONS ON TREE REMOVAL AND CONSTRUCTION APPLY

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MARS LANDING
PROJECT DEVELOPMENT PLAN

FORT COLLINS, CO

#	Date	Issue / Description	Init.

Project No:	GNK000008
Drawn By:	AS
Checked By:	SRA
Date:	07.28.2021

TREE PRESERVATION PLAN

L1.6

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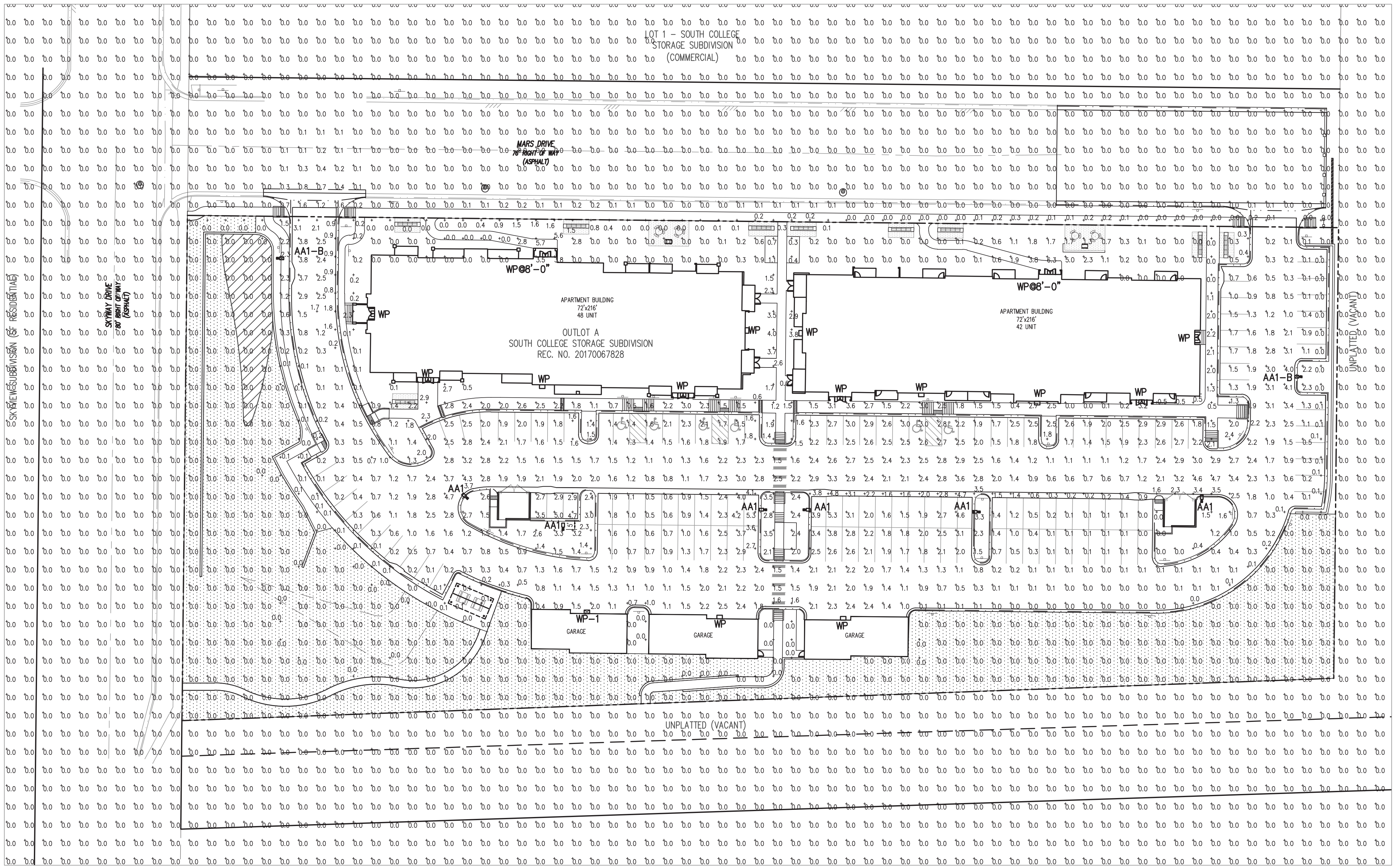
MARS LANDING PROJECT DEVELOPMENT PLAN

FORT COLLINS, CO



1 PHOTOMETRIC SITE PLAN
SCALE: 1=30'-0"

CALCULATION SUMMARY

LABEL	UNITS	AVG	AVG MIN.*	MAX	MIN
PARKING LOT AREA	FC	1.50	1.0	5.3	0.0
RESIDENTIAL AREAS	FC	1.56	0.2	5.0	0.0
WITHIN PROPERTY LINE	FC	0.92	N.A.	6.3	0.0

* PER FORT COLLINS LAND USE, 3.24 SITE LIGHTING, (C) LIGHTING LEVELS

LUMINAIRE SCHEDULE

MARK	SYMBOL	QTY	LAMP	HEIGHT	LLF	LUMENS	MODEL #	DESCRIPTION	COLOR TEMPERATURE
AA1-BLC		2	LED	17'-6" POLE	1.0	5,974	DSX1 LED 40C 700 30K BLC MVOLT DDBXD	SINGLE HEAD LED FULL CUT-OFF LUMINAIRE, TYPE BACK LIGHT CONTROL, BRONZE COLOR, MOUNTED ON POLE #SSS15-5-4C-DM19AS-FBC-DDBXD	3000K
AA1		6	LED	17'-6" POLE	1.0	10.120	DSX1 LED 40C 700 30K TFTM MVOLT DDBXD	SINGLE HEAD LED FULL CUT-OFF LUMINAIRE, TYPE TFTM, BRONZE COLOR, MOUNTED ON POLE #SSS15-5-4C-DM19AS-FBC-DDBXD	3000K
WP		15	LED	14'-0" WALL	1.0	5,078	DSXW1 LED 20C 700 30K T3M MVOLT DDBXD	LED WALL LUMINAIRE, FULL CUT-OFF, 20 LEDs, TYPE 3M, DARK BRONZE COLOR, MOUNTED AT 14'-0" ABOVE GRADE UNLESS OTHERWISE NOTED	3000K
WP-1		1	LED	14'-0" WALL	1.0	2,614	DSXW1 LED 10C 700 30K TFTM MVOLT DDBXD	LED WALL LUMINAIRE, FULL CUT-OFF, 10 LEDs, TYPE TFTM, DARK BRONZE COLOR, MOUNTED AT 14'-0" ABOVE GRADE UNLESS OTHERWISE NOTED	3000K

CAUTION - NOTICE TO CONTRACTOR

1. ALL UTILITY LOCATIONS SHOWN ARE BASED ON MAPS PROVIDED BY THE APPROPRIATE UTILITY COMPANY AND FIELD SURFACE EVIDENCE AT THE TIME OF SURVEY AND IS TO BE CONSIDERED AN APPROXIMATE LOCATION ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE FIELD LOCATION OF ALL UTILITIES, PUBLIC OR PRIVATE, WHETHER SHOWN ON THE PLANS OR NOT, PRIOR TO CONSTRUCTION. REPORT ANY DISCREPANCIES TO THE ENGINEERED PRIOR TO CONSTRUCTION.
2. WHERE A PROPOSED UTILITY CROSSES AN EXISTING UTILITY, IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF SUCH EXISTING UTILITY, EITHER THROUGH POTHOLING OR ALTERNATIVE METHOD. REPORT INFORMATION TO THE ENGINEER PRIOR TO CONSTRUCTION.
3. CONTRACTOR RESPONSIBLE FOR AS-BUILT DRAWINGS, TESTS, REPORTS AND/OR ANY OTHER CERTIFICATES OR INFORMATION AS REQUIRED FOR ACCEPTANCE OF WORK FROM CITY, UTILITY DISTRICTS OR ANY OTHER GOVERNING AGENCY.
4. CONTRACTOR SHALL PROTECT ALL EXISTING SURVEY MONUMENTATION. CONTRACTOR SHALL HAVE LICENSED SURVEYOR REPLACE ANY DAMAGED OR DISTURBED MONUMENTATION AT THEIR COST.

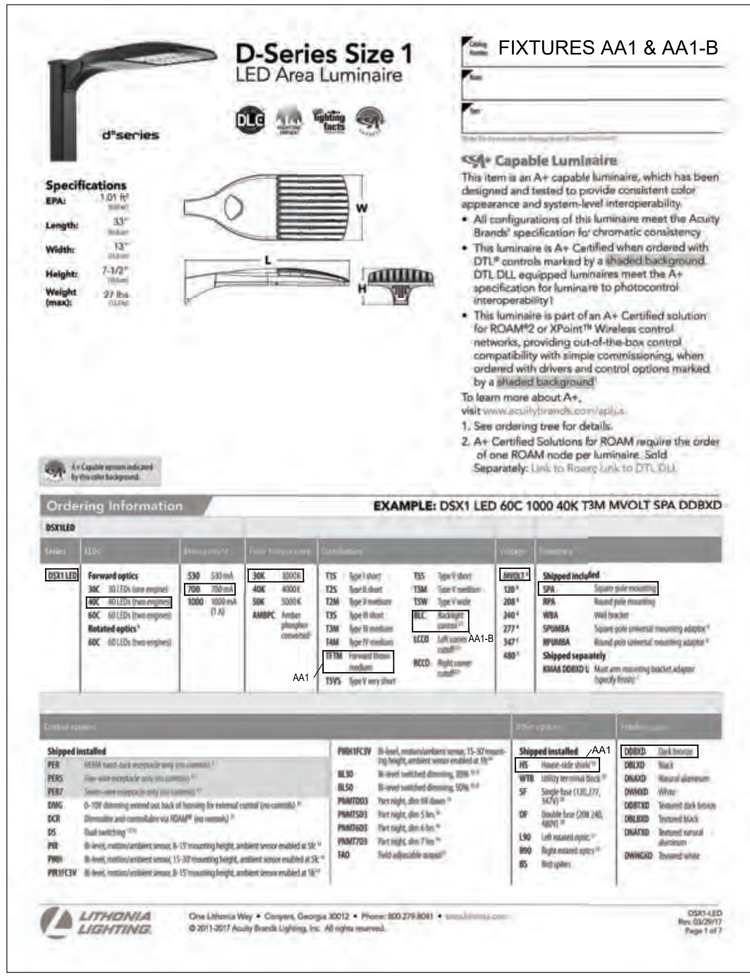
811. Know what's below. Call before you dig.

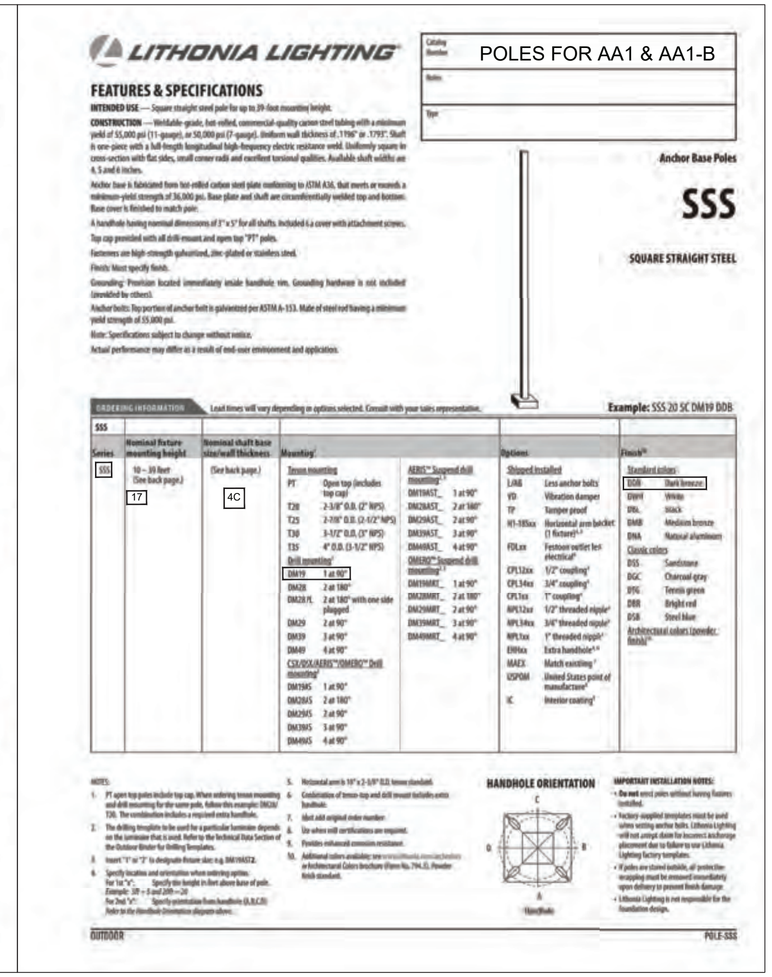
#	Date	Issue / Description	Init.

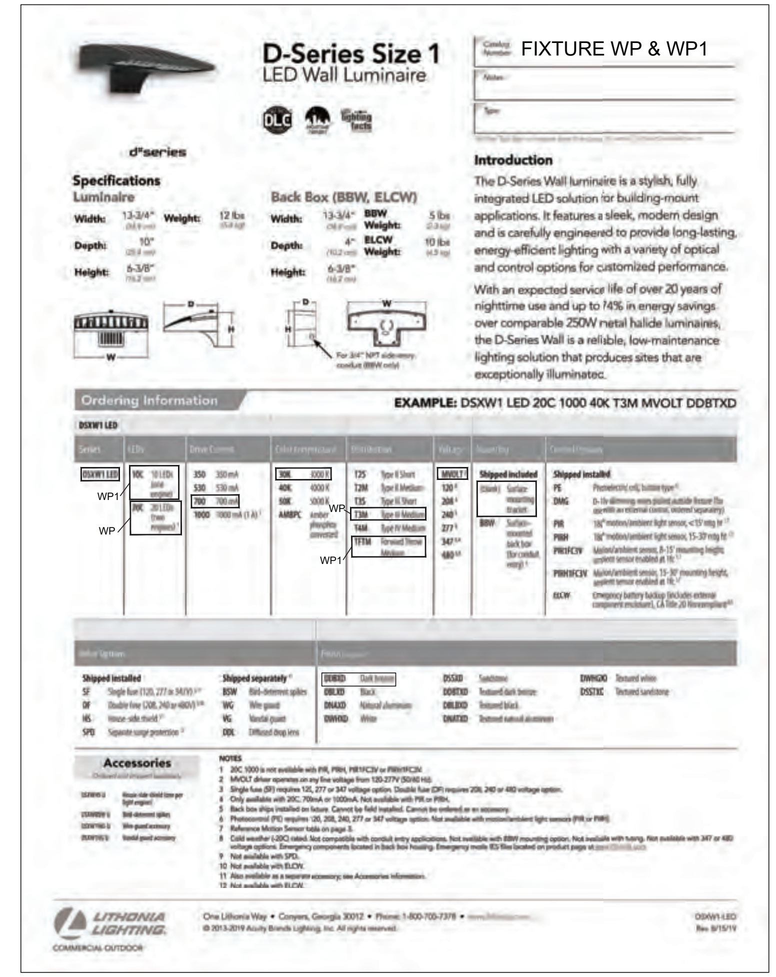
Project No:	GNK000008
Drawn By:	DBC
Checked By:	JEP
Date:	07.21.2021

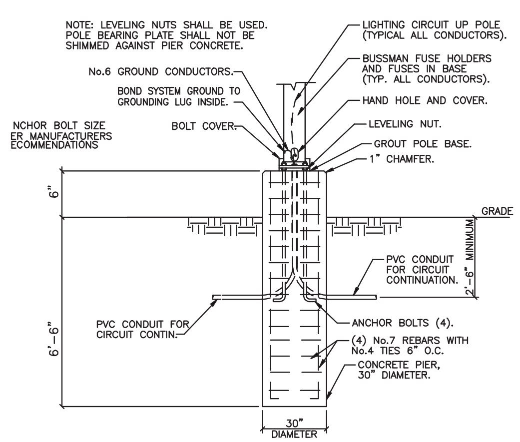
PHOTOMETRIC PLAN

PP1.0

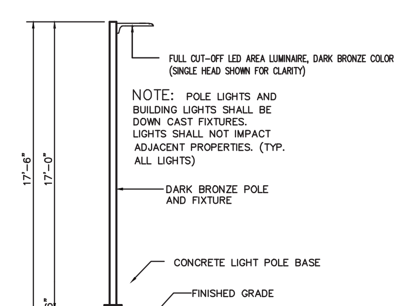








1 POLE BASE DETAIL
SCALE: NOT TO SCALE



2 AREA LIGHT DETAIL
SCALE: NOT TO SCALE

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PRELIMINARY
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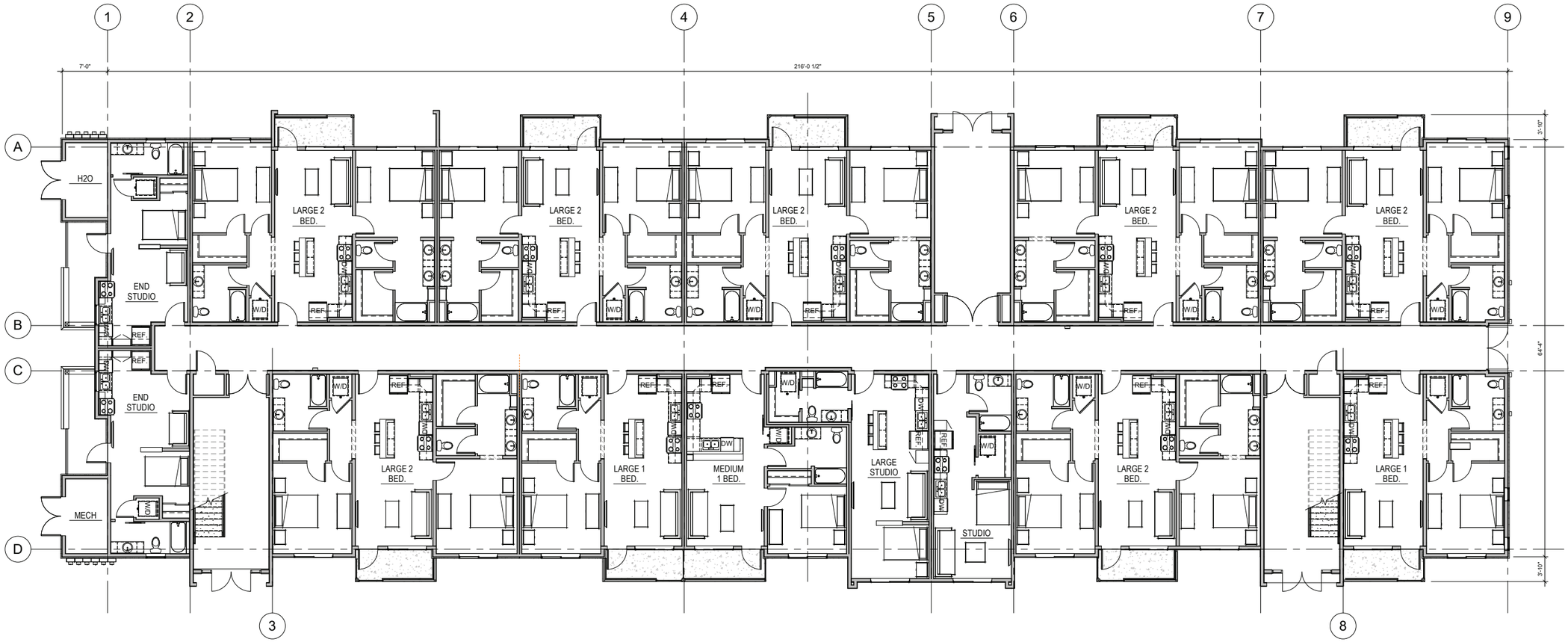
MARS LANDING
PROJECT DEVELOPMENT PLAN
FORT COLLINS, CO

#	Date	Issue / Description	Init.

Project No:	GNK000008
Drawn By:	DBC
Checked By:	JEP
Date:	07.21.2021

PHOTOMETRIC DETAILS

PP1.1



1 FIRST FLOOR
1/8" = 1'-0"

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PRELIMINARY
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MARS LANDING - PROJECT DEVELOPMENT PLAN

FORT COLLINS, CO

#	Date	Issue / Description	Init.

Project No:	GNK000008
Drawn By:	DA
Checked By:	CW
Date:	06.09.2021

BUILDING A-42 - FIRST LEVEL

A1.10

1 SECOND FLOOR
1/8" = 1'-0"

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MARS LANDING - PROJECT DEVELOPMENT PLAN

FORT COLLINS, CO

#	Date	Issue / Description	Init.

Project No:	GNK000008
Drawn By:	DA
Checked By:	CW
Date:	06.09.2021

BUILDING A-42 - SECOND LEVEL

A1.11

1 THIRD FLOOR
1/8" = 1'-0"

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MARS LANDING - PROJECT DEVELOPMENT PLAN

FORT COLLINS, CO

#	Date	Issue / Description	Init.

Project No:	GNK000008
Drawn By:	DA
Checked By:	CW
Date:	06.09.2021

BUILDING A-42 - THIRD LEVEL

A1.12

1 FIRST FLOOR
1/8" = 1'-0"

N

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MARS LANDING - PROJECT DEVELOPMENT PLAN
FORT COLLINS, CO

#	Date	Issue / Description	Init.

Project No:	GNK000008
Drawn By:	DA
Checked By:	CW
Date:	06.09.2021

BUILDING A-48 - FIRST LEVEL

A1.20

1 SECOND FLOOR
1/8" = 1'-0"

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MARS LANDING - PROJECT DEVELOPMENT PLAN

FORT COLLINS, CO

#	Date	Issue / Description	Init.

Project No:	GNK000008
Drawn By:	DA
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Date:	06.09.2021

BUILDING A-48 - SECOND LEVEL

A1.21

1 THIRD FLOOR
1/8" = 1'-0"

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MARS LANDING - PROJECT DEVELOPMENT PLAN

FORT COLLINS, CO

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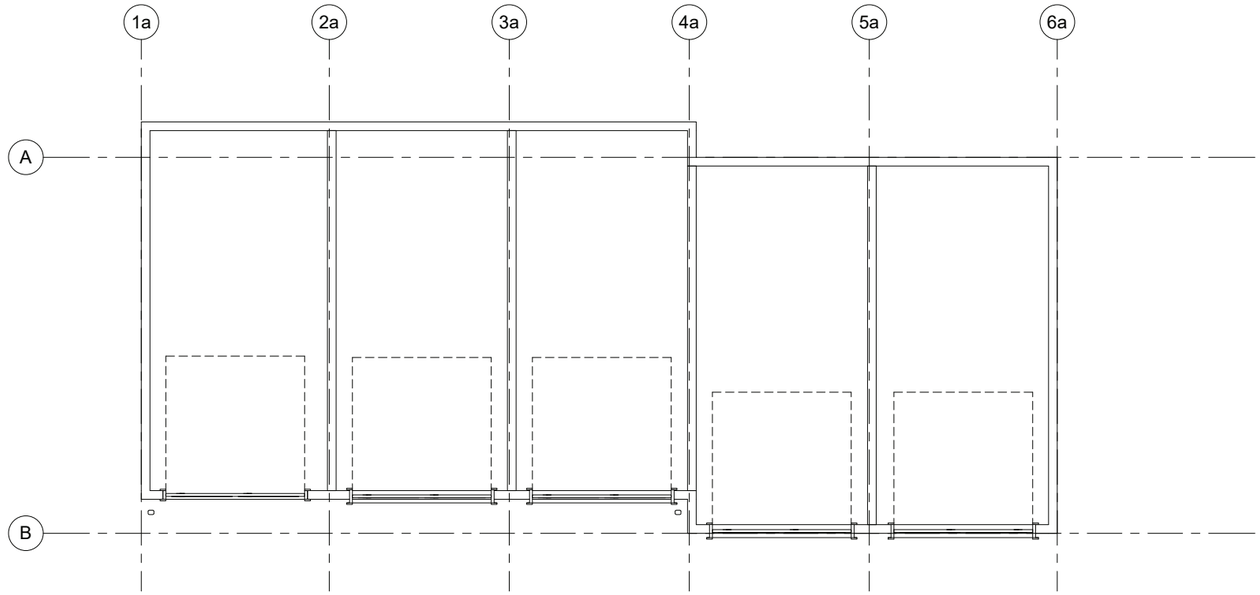
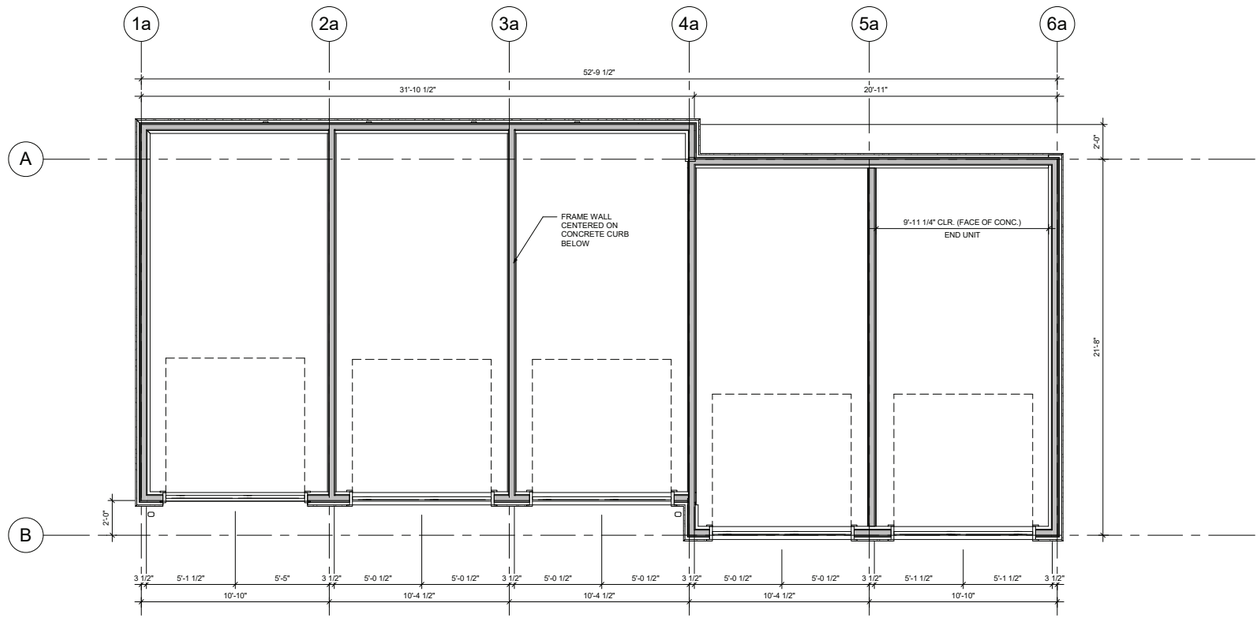
Project No:	GNK000008
Drawn By:	DA
Checked By:	CW
Date:	06.09.2021

BUILDING A-48 - THIRD LEVEL

A1.22



2 GARAGE A - SLAB PLAN
1/4" = 1'-0"



1 GARAGE A - 1ST LEVEL
1/4" = 1'-0"

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MARS LANDING - PROJECT DEVELOPMENT PLAN

FORT COLLINS, CO

#	Date	Issue / Description	Init.

Project No:	GNK000008
Drawn By:	DA
Checked By:	CW
Date:	06.09.2021

GARAGE A PLANS

A1.30

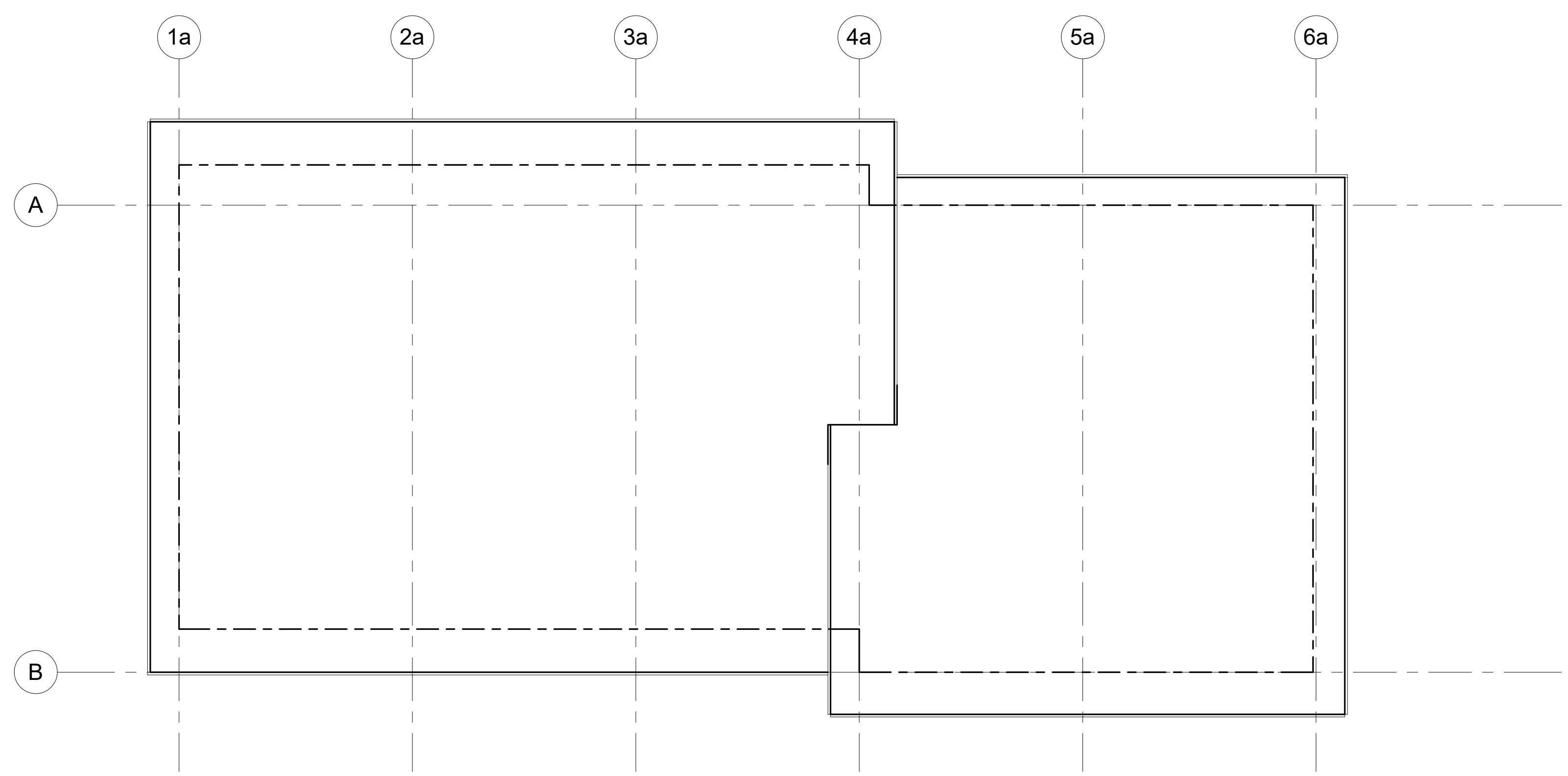
ROOF PLAN NOTES

2015 INTERNATIONAL BUILDING CODE

- REFER TO GENERAL NOTES FOR ADDITIONAL INFORMATION NOT SHOWN OR NOTED ON PLANS.
- ALL OVERHANGS ARE MEASURED HORIZONTALLY FROM FACE OF FRAME TO END OF TRUSS/RAFTER, RE: DETAILS. ALL SOFFITS ARE TO BE FLAT, U.N.O.
- ALL TRUSSES TO BE FABRICATED AND DESIGNED UNDER THE SUPERVISION OF A COLORADO LICENSED STRUCTURAL ENGINEER.
- ALL OVERFRAMING TO BEAR DIRECTLY ON TRUSSES OR OVER SOLID, IMMEDIATE BLOCKING BETWEEN TRUSSES. PROVIDE CUTOUTS IN AREAS OF OVERFRAMING TO CONNECT ROOF AREAS.
- PROVIDE ROOF VENTS AND / OR SOFFIT VENTS TO PROVIDE ATTIC VENTILATION AS REQUIRED PER 2015 IBC SECTION 1203. RE: ROOF VENTING NOTES AND CALCULATIONS.
- WATERPROOFING OF OPENINGS AT THE ROOF, AROUND VENT PIPES, AND AT EXTERIOR WALLS SHALL BE MADE WATER TIGHT PER 2015 IPC SECTION 305.5.
- THE ANNULAR SPACE BETWEEN PENETRATIONS OF PIPES AND SIMILAR AND ALL OPENINGS IN A BUILDING ENVELOPE WALL, FLOOR, OR CEILING ASSEMBLY SHALL BE SEALED PER 2015 IPC SECTION 315. WHERE APPLICABLE, PENETRATIONS IN FIRE-RATED ASSEMBLIES SHALL BE SEALED IN ACCORDANCE WITH 2015 IBC SECTION 714.
- PIPES AND VENTS SHALL BE PAINTED TO MATCH ADJACENT MATERIALS.

- ROOF ASSEMBLIES PER 2015 IBC CHAPTER 1501:
  ROOF ASSEMBLIES SHALL PROVIDE A WEATHER RESISTANT ROOF SYSTEM AND SHALL INCLUDE WEATHER PROTECTION PER 2015 IBC SECTION 1503 AND ROOF COVERINGS PER SECTION 1507.
  RE: FLASHING DETAILS FOR ADDITIONAL INFORMATION.
- CRICKETS AND SADDLES SHALL BE INSTALLED AT THE REQUIRED LOCATIONS PER 2015 IBC SECTION 1503.6. CRICKET OR SADDLE COVERINGS SHALL BE SHEET METAL OR OF THE SAME MATERIAL AS THE ROOF COVERING. PROVIDE APPROPRIATE UNDERLAYMENT AS APPLICABLE TO THE CRICKET OR SADDLE SLOPE.
- LOW SLOPE ROOFS - ASPHALT SHINGLES:
  ASPHALT SHINGLES SHALL ONLY BE USED ON ROOF SLOPES OF 2:12 OR GREATER.
  DOUBLE UNDERLAYMENT SHALL BE PROVIDED AT ROOF SLOPES FROM 2:12 TO LESS THAN 4:12, PER 2015 IBC SECTION 1507.2.8.
- AN ICE BARRIER SHALL BE INSTALLED AT EAVES, EXTENDING FROM THE LOWEST EDGE TO A POINT AT LEAST 24 INCHES INSIDE THE EXTERIOR WALL PER 2015 IBC SECTION 1507.2.8.2 OR AS REQUIRED BY LOCAL AMENDMENTS.
- METAL ROOF PANELS:
  THE INSTALLATION, ATTACHMENT, AND UNDERLAYMENT REQUIREMENTS OF METAL ROOF PANELS SHALL COMPLY WITH 2015 IBC SECTION 1507.4.

- ROOF DRAINAGE PER 2015 IPC SECTION 1106:
  SIZE OF GUTTERS, DOWNSPOUTS, AND SCUPPERS PER BUILDER'S SPECIFICATION, SHALL BE IN COMPLIANCE WITH SECTION 1106 BASED ON THE RAINFALL RATE AND CALCULATED AREA BEING DRAINED.
  WHERE APPLICABLE, SECONDARY DRAINS OR SCUPPERS SHALL BE PROVIDED PER SECTION 1108.
- SCUPPERS & DOWNSPOUTS ARE TO BE FIELD VERIFIED FOR LOCATION BY BUILDER. DOWNSPOUTS TO HAVE ADJUSTABLE EXTENDERS TO CARRY WATER MIN. 5'-0" AWAY FROM BUILDING OR AS RECOMMENDED BY SOILS REPORT, OR, WHERE APPLICABLE, CONNECT DIRECTLY TO THE STORM DRAIN SYSTEM. REFER TO CIVIL DRAWINGS FOR DETAILS AND LOCATIONS.
- DRAFTSTOPPING SHALL BE PROVIDED IN ATTICS AND CONCEALED ROOF SPACES PER 2015 IBC SECTION 718.4.2. INSTALL IN LOCATIONS AS SHOWN IN PLAN; IN LINE WITH DWELLING UNIT SEPARATION WALLS, CORRIDORS, AND SUBDIVIDING THE ATTIC SPACE INTO AREAS NOT EXCEEDING 3,000 SQUARE FEET OR ABOVE EVERY TWO DWELLING UNITS, WHICHEVER IS SMALLER. OPENINGS IN DRAFTSTOPS SHALL BE PROTECTED BY SELF-CLOSING DOORS PER CODE.



2 GARAGE A - ROOF PLAN
1/4" = 1'-0"

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Johnstown, CO 80534
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MARS LANDING - PROJECT DEVELOPMENT PLAN

FORT COLLINS, CO

#	Date	Issue / Description	Init.
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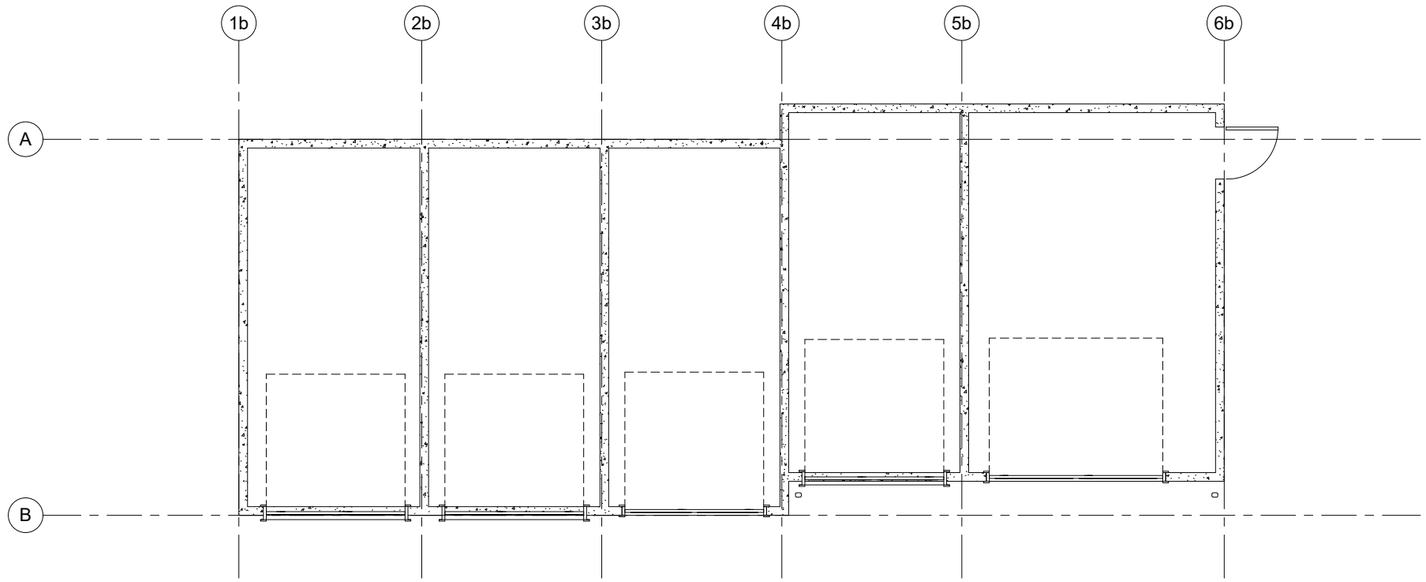
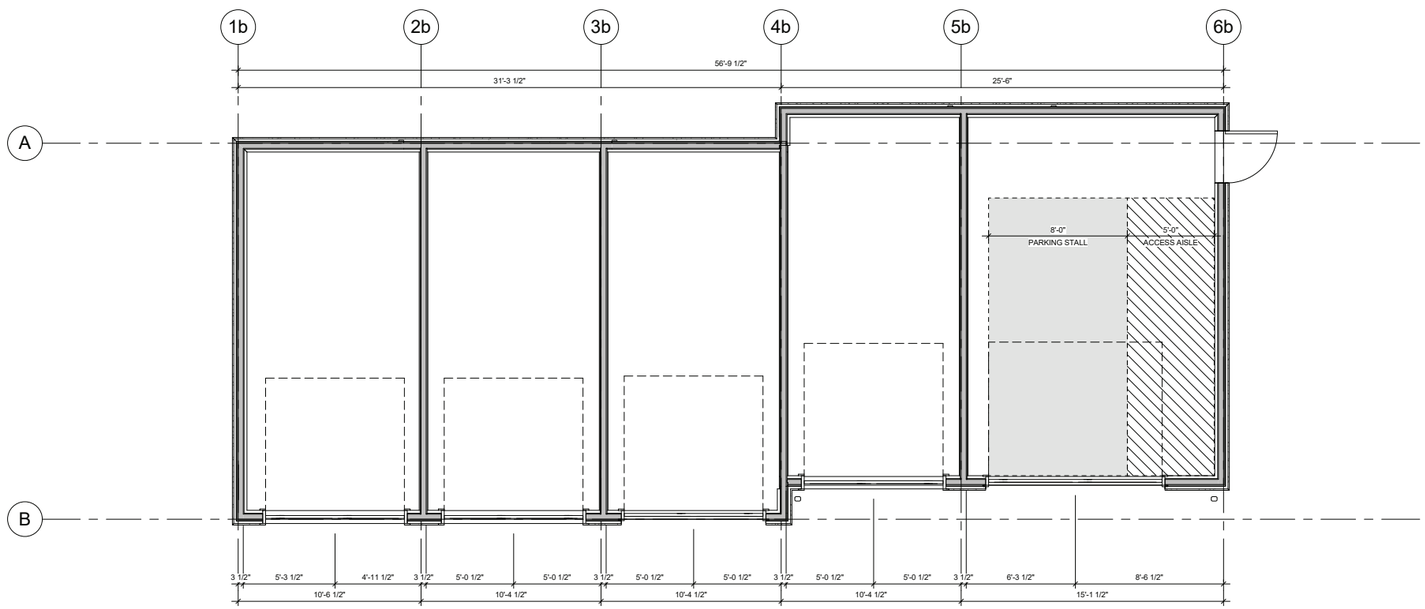
Project No:	GNK000008
Drawn By:	DA
Checked By:	CW
Date:	06.09.2021

GARAGE A ROOF PLAN

A1.31



2 GARAGE B - SLAB PLAN
1/4" = 1'-0"



1 GARAGE B - 1ST LEVEL
1/4" = 1'-0"

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FORT COLLINS, CO

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Project No:	GNK000008
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Date:	06.09.2021

GARAGE B PLANS

A1.32

ROOF PLAN NOTES

2015 INTERNATIONAL BUILDING CODE

- REFER TO GENERAL NOTES FOR ADDITIONAL INFORMATION NOT SHOWN OR NOTED ON PLANS.
- ALL OVERHANGS ARE MEASURED HORIZONTALLY FROM FACE OF FRAME TO END OF TRUSS/RAFTER, RE: DETAILS. ALL SOFFITS ARE TO BE FLAT, U.N.O.
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- PROVIDE ROOF VENTS AND / OR SOFFIT VENTS TO PROVIDE ATTIC VENTILATION AS REQUIRED PER 2015 IBC SECTION 1203. RE: ROOF VENTING NOTES AND CALCULATIONS.
- WATERPROOFING OF OPENINGS AT THE ROOF, AROUND VENT PIPES, AND AT EXTERIOR WALLS SHALL BE MADE WATER TIGHT PER 2015 IPC SECTION 305.5.
- THE ANNULAR SPACE BETWEEN PENETRATIONS OF PIPES AND SIMILAR AND ALL OPENINGS IN A BUILDING ENVELOPE WALL, FLOOR, OR CEILING ASSEMBLY SHALL BE SEALED PER 2015 IPC SECTION 315. WHERE APPLICABLE, PENETRATIONS IN FIRE-RATED ASSEMBLIES SHALL BE SEALED IN ACCORDANCE WITH 2015 IBC SECTION 714.
- PIPES AND VENTS SHALL BE PAINTED TO MATCH ADJACENT MATERIALS.

- ROOF ASSEMBLIES PER 2015 IBC CHAPTER 1501:
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- LOW SLOPE ROOFS - ASPHALT SHINGLES:
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- METAL ROOF PANELS:
  THE INSTALLATION, ATTACHMENT, AND UNDERLAYMENT REQUIREMENTS OF METAL ROOF PANELS SHALL COMPLY WITH 2015 IBC SECTION 1507.4.

- ROOF DRAINAGE PER 2015 IPC SECTION 1106:
  SIZE OF GUTTERS, DOWNSPOUTS, AND SCUPPERS PER BUILDER'S SPECIFICATION, SHALL BE IN COMPLIANCE WITH SECTION 1106 BASED ON THE RAINFALL RATE AND CALCULATED AREA BEING DRAINED.
  WHERE APPLICABLE, SECONDARY DRAINS OR SCUPPERS SHALL BE PROVIDED PER SECTION 1108.
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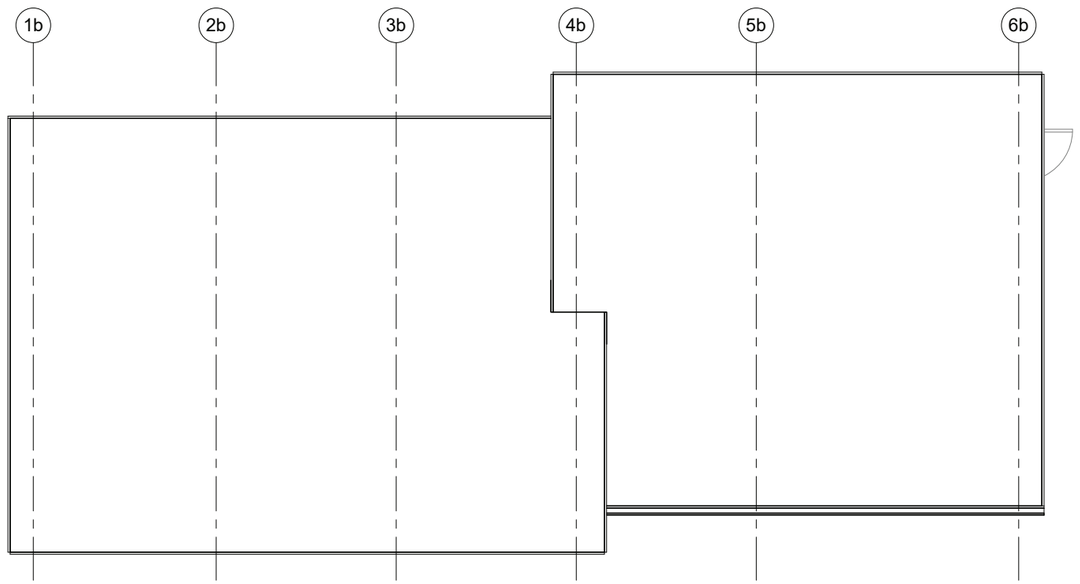

1 GARAGE B - ROOF PLAN
1/4" = 1'-0"

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PRELIMINARY
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NOT FOR CONSTRUCTION

MARS LANDING - PROJECT DEVELOPMENT PLAN
FORT COLLINS, CO

#	Date	Issue / Description	Init.
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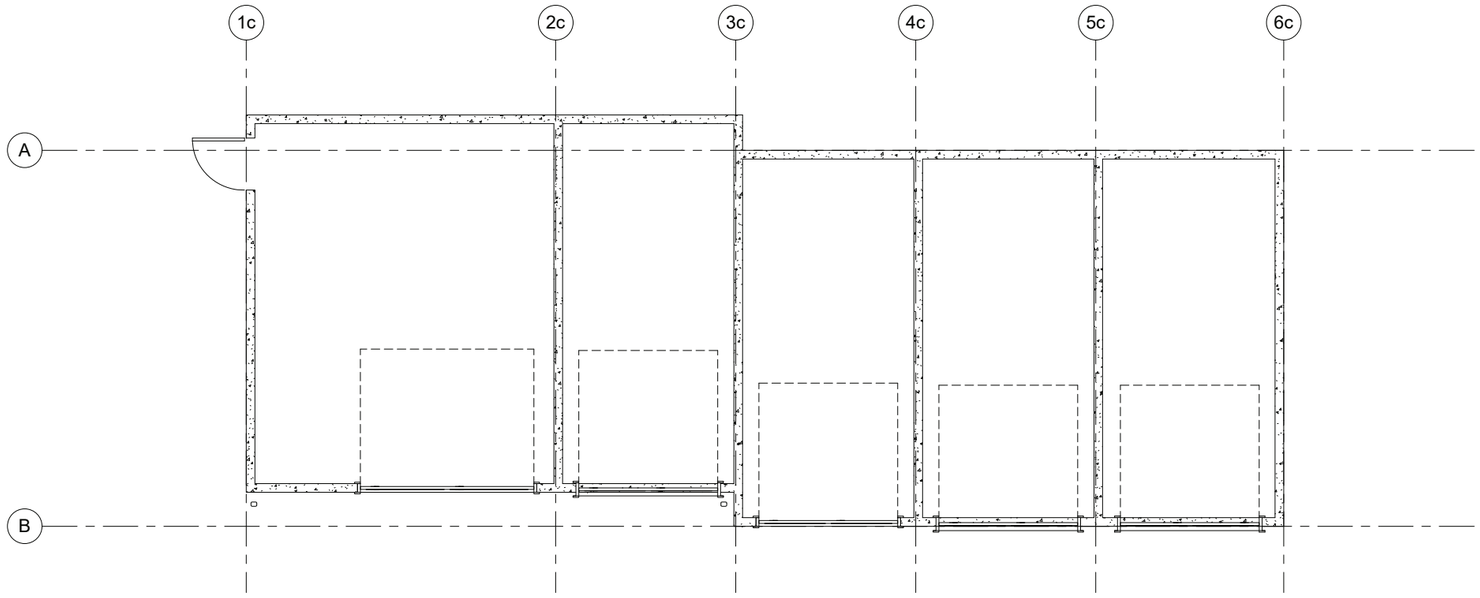
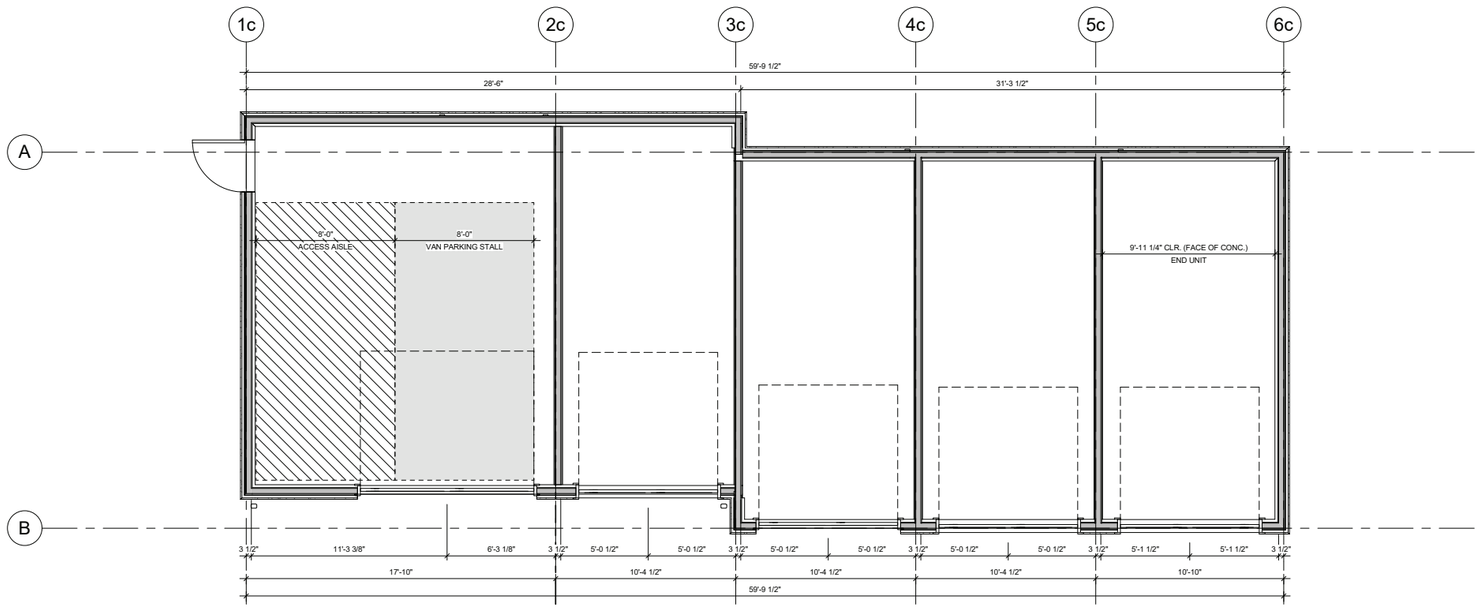
Project No:	GNK000008
Drawn By:	DA
Checked By:	CW
Date:	06.09.2021

GARAGE B ROOF PLAN

A1.33



2 SLAB PLAN
1/4" = 1'-0"



1 FIRST FLOOR
1/4" = 1'-0"

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MARS LANDING - PROJECT DEVELOPMENT PLAN
FORT COLLINS, CO

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Project No:	GNK000008
Drawn By:	DA
Checked By:	CW
Date:	06.09.2021

GARAGE C PLANS

A1.34

ROOF PLAN NOTES

2015 INTERNATIONAL BUILDING CODE

- REFER TO GENERAL NOTES FOR ADDITIONAL INFORMATION NOT SHOWN OR NOTED ON PLANS.
- ALL OVERHANGS ARE MEASURED HORIZONTALLY FROM FACE OF FRAME TO END OF TRUSS/RAFTER, RE: DETAILS. ALL SOFFITS ARE TO BE FLAT, U.N.O.
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- SCUPPERS & DOWNSPOUTS ARE TO BE FIELD VERIFIED FOR LOCATION BY BUILDER. DOWNSPOUTS TO HAVE ADJUSTABLE EXTENDERS TO CARRY WATER MIN. 5'-0" AWAY FROM BUILDING OR AS RECOMMENDED BY SOILS REPORT, OR, WHERE APPLICABLE, CONNECT DIRECTLY TO THE STORM DRAIN SYSTEM. REFER TO CIVIL DRAWINGS FOR DETAILS AND LOCATIONS.
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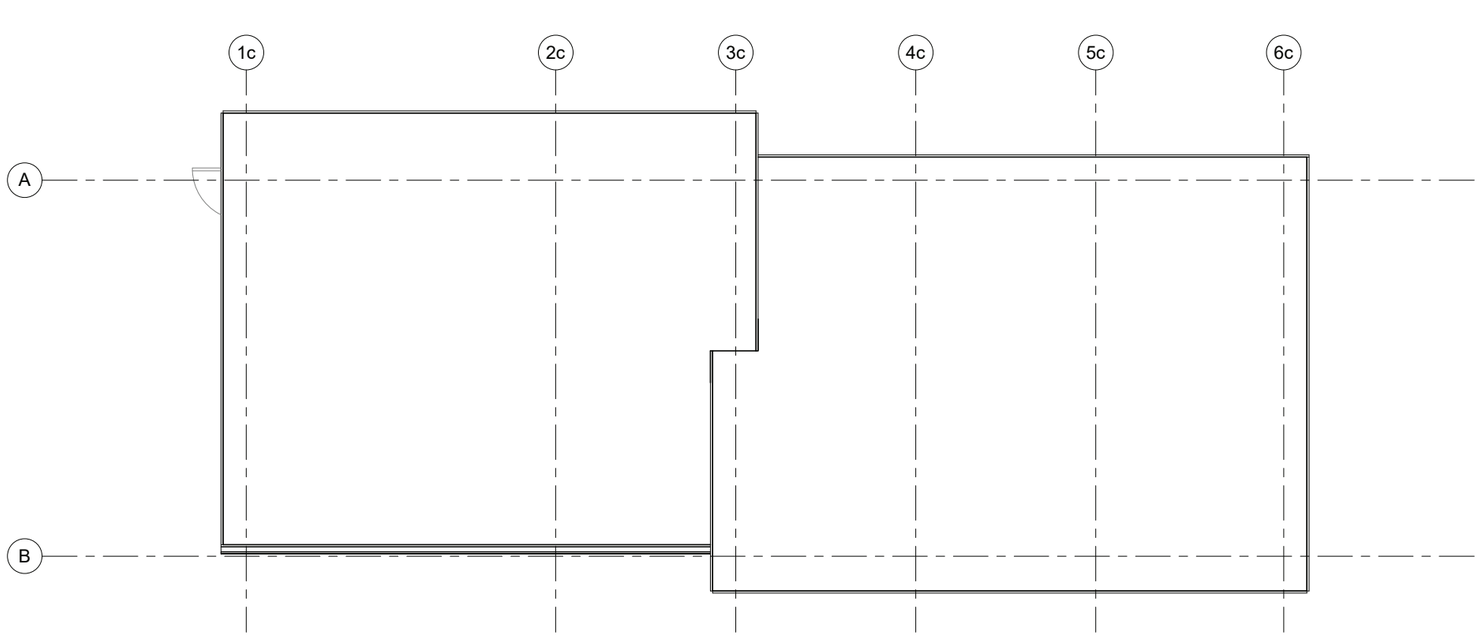

1 ROOF PLAN
1/4" = 1'-0"

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PRELIMINARY
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FORT COLLINS, CO

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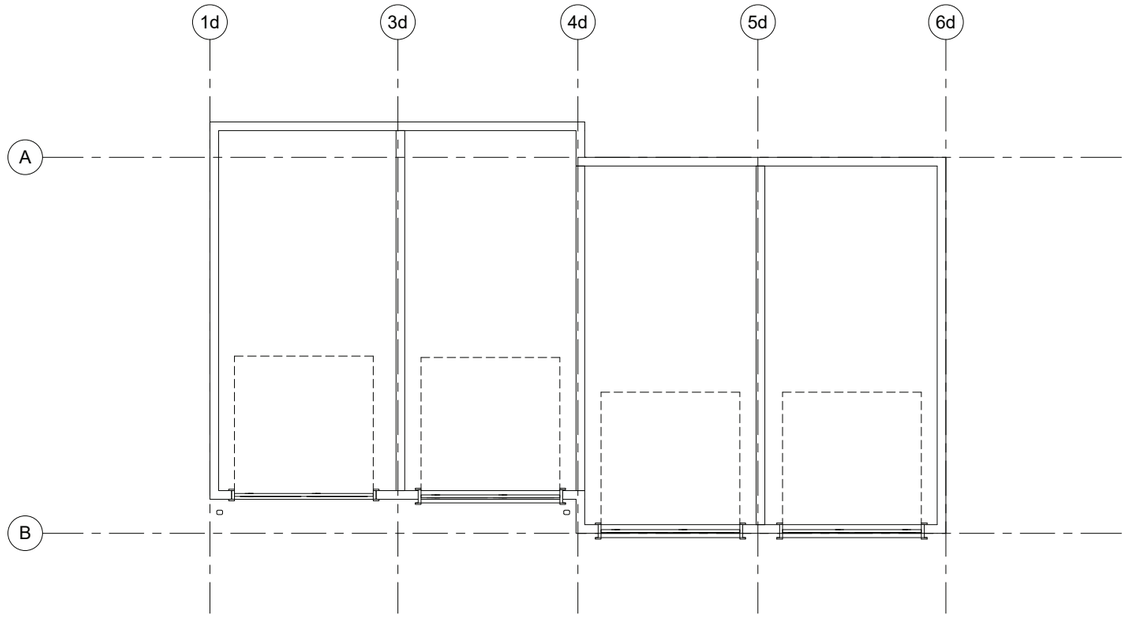
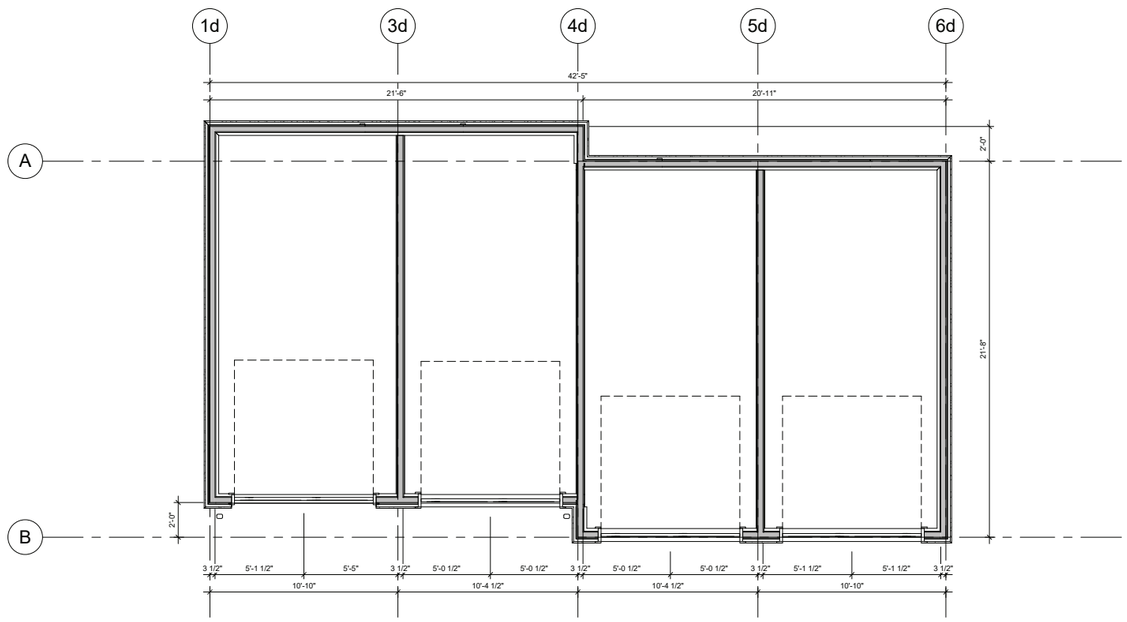
Project No:	GNK000008
Drawn By:	DA
Checked By:	CW
Date:	06.09.2021

GARAGE C ROOF PLAN

A1.35



2 SLAB PLAN
1/4" = 1'-0"



1 FIRST FLOOR
1/4" = 1'-0"

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Project No:	GNK000008
Drawn By:	Author
Checked By:	Checker
Date:	06.09.2021

GARAGE D PLANS

A1.36

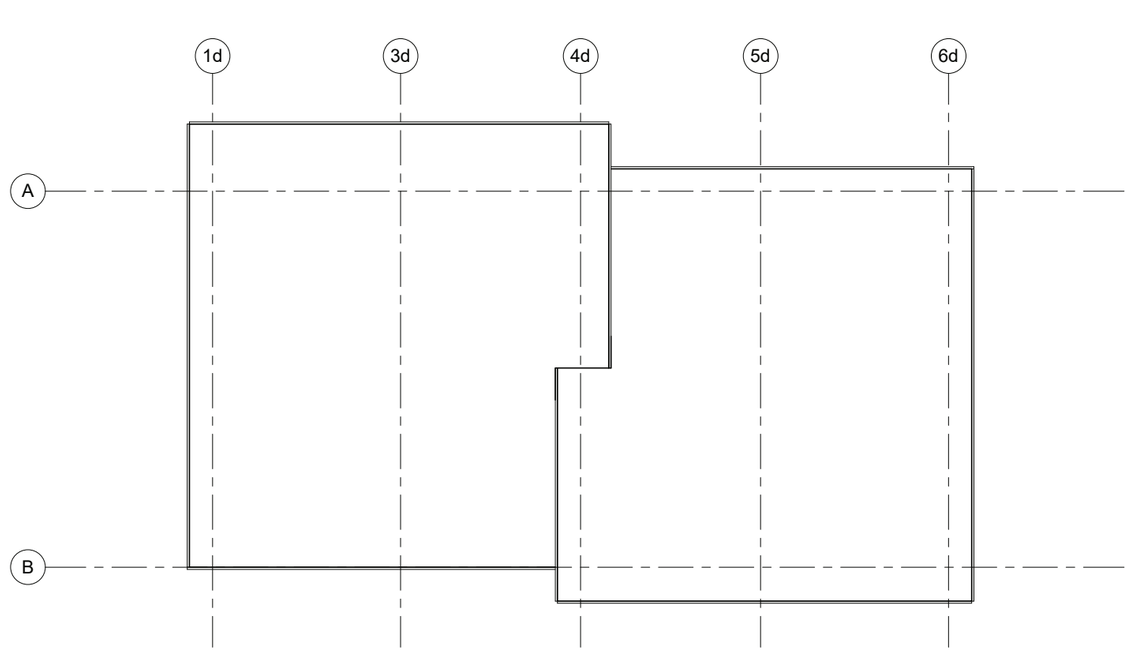
ROOF PLAN NOTES

2015 INTERNATIONAL BUILDING CODE

- REFER TO GENERAL NOTES FOR ADDITIONAL INFORMATION NOT SHOWN OR NOTED ON PLANS.
- ALL OVERHANGS ARE MEASURED HORIZONTALLY FROM FACE OF FRAME TO END OF TRUSS/RAFTER, RE: DETAILS. ALL SOFFITS ARE TO BE FLAT, U.N.O.
- ALL TRUSSES TO BE FABRICATED AND DESIGNED UNDER THE SUPERVISION OF A COLORADO LICENSED STRUCTURAL ENGINEER.
- ALL OVERFRAMING TO BEAR DIRECTLY ON TRUSSES OR OVER SOLID, IMMEDIATE BLOCKING BETWEEN TRUSSES. PROVIDE CUTOUTS IN AREAS OF OVERFRAMING TO CONNECT ROOF AREAS.
- PROVIDE ROOF VENTS AND / OR SOFFIT VENTS TO PROVIDE ATTIC VENTILATION AS REQUIRED PER 2015 IBC SECTION 1203. RE: ROOF VENTING NOTES AND CALCULATIONS.
- WATERPROOFING OF OPENINGS AT THE ROOF, AROUND VENT PIPES, AND AT EXTERIOR WALLS SHALL BE MADE WATER TIGHT PER 2015 IPC SECTION 305.5.
- THE ANNULAR SPACE BETWEEN PENETRATIONS OF PIPES AND SIMILAR AND ALL OPENINGS IN A BUILDING ENVELOPE WALL, FLOOR, OR CEILING ASSEMBLY SHALL BE SEALED PER 2015 IPC SECTION 315. WHERE APPLICABLE, PENETRATIONS IN FIRE-RATED ASSEMBLIES SHALL BE SEALED IN ACCORDANCE WITH 2015 IBC SECTION 714.
- PIPES AND VENTS SHALL BE PAINTED TO MATCH ADJACENT MATERIALS.

- ROOF ASSEMBLIES PER 2015 IBC CHAPTER 1501:
  ROOF ASSEMBLIES SHALL PROVIDE A WEATHER RESISTANT ROOF SYSTEM AND SHALL INCLUDE WEATHER PROTECTION PER 2015 IBC SECTION 1503 AND ROOF COVERINGS PER SECTION 1507.
  RE: FLASHING DETAILS FOR ADDITIONAL INFORMATION.
- CRICKETS AND SADDLES SHALL BE INSTALLED AT THE REQUIRED LOCATIONS PER 2015 IBC SECTION 1503.6. CRICKET OR SADDLE COVERINGS SHALL BE SHEET METAL OR OF THE SAME MATERIAL AS THE ROOF COVERING. PROVIDE APPROPRIATE UNDERLAYMENT AS APPLICABLE TO THE CRICKET OR SADDLE SLOPE.
- LOW SLOPE ROOFS - ASPHALT SHINGLES:
  ASPHALT SHINGLES SHALL ONLY BE USED ON ROOF SLOPES OF 2:12 OR GREATER.
  DOUBLE UNDERLAYMENT SHALL BE PROVIDED AT ROOF SLOPES FROM 2:12 TO LESS THAN 4:12, PER 2015 IBC SECTION 1507.2.8.
- AN ICE BARRIER SHALL BE INSTALLED AT EAVES, EXTENDING FROM THE LOWEST EDGE TO A POINT AT LEAST 24 INCHES INSIDE THE EXTERIOR WALL PER 2015 IBC SECTION 1507.2.8.2 OR AS REQUIRED BY LOCAL AMENDMENTS.
- METAL ROOF PANELS:
  THE INSTALLATION, ATTACHMENT, AND UNDERLAYMENT REQUIREMENTS OF METAL ROOF PANELS SHALL COMPLY WITH 2015 IBC SECTION 1507.4.

- ROOF DRAINAGE PER 2015 IPC SECTION 1106:
  SIZE OF GUTTERS, DOWNSPOUTS, AND SCUPPERS PER BUILDER'S SPECIFICATION, SHALL BE IN COMPLIANCE WITH SECTION 1106 BASED ON THE RAINFALL RATE AND CALCULATED AREA BEING DRAINED.
  WHERE APPLICABLE, SECONDARY DRAINS OR SCUPPERS SHALL BE PROVIDED PER SECTION 1 108.
- SCUPPERS & DOWNSPOUTS ARE TO BE FIELD VERIFIED FOR LOCATION BY BUILDER. DOWNSPOUTS TO HAVE ADJUSTABLE EXTENDERS TO CARRY WATER MIN. 5'-0" AWAY FROM BUILDING OR AS RECOMMENDED BY SOILS REPORT, OR, WHERE APPLICABLE, CONNECT DIRECTLY TO THE STORM DRAIN SYSTEM. REFER TO CIVIL DRAWINGS FOR DETAILS AND LOCATIONS.
- DRAFTSTOPPING SHALL BE PROVIDED IN ATTICS AND CONCEALED ROOF SPACES PER 2015 IBC SECTION 718.4.2. INSTALL IN LOCATIONS AS SHOWN IN PLAN; IN LINE WITH DWELLING UNIT SEPARATION WALLS, CORRIDORS, AND SUBDIVIDING THE ATTIC SPACE INTO AREAS NOT EXCEEDING 3,000 SQUARE FEET OR ABOVE EVERY TWO DWELLING UNITS, WHICHEVER IS SMALLER. OPENINGS IN DRAFTSTOPS SHALL BE PROTECTED BY SELF-CLOSING DOORS PER CODE.



1 GARAGE A - ROOF PLAN
1/4" = 1'-0"

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970.800.3300
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PRELIMINARY
NOT FOR BIDDING
NOT FOR CONSTRUCTION

MARS LANDING - PROJECT DEVELOPMENT PLAN
FORT COLLINS, CO

#	Date	Issue / Description	Init.

Project No:	GNK000008
Drawn By:	Author
Checked By:	Checker
Date:	06.09.2021

GARAGE D ROOF PLAN

A1.37

EXTERIOR BUILDING LIGHTS:
LIGHTS, ONCE SPECIFIED, WILL COMPLY WITH ALL REQUIREMENTS. ALL BUILDING MOUNTED LIGHTING SHALL BE FULLY SHIELDED, DOWN DIRECTIONAL, AND DARK SKY COMPLIANT.

EXTERIOR FINISH MATERIAL SCHEDULE

	COLOR (MANUF.)	COMMENTS
BODY 01	NORTH HAMPTON BEIGE (BM AC-38)	LAP SIDING
BODY 02	SWEATSHIRT GRAY (BM 2126-40)	LAP SIDING
BODY 03	COACHMAN'S CAPE (BM CSP-90)	VERTICAL SIDING
ACCENT 01	AGED COPPER (CMG METALS)	ARCHITECTURAL GRADE METAL PANEL
ACCENT 02	CASCADE WHITE (BM 2127-70)	STUCCO
TRIM 01	NIGHT HORIZON (BM 2134-10)	
STONE	CORONADO PROLEDGE - HURON	
COMPOSITE WOOD	TREX - SPICED RUM	

* ALL MATERIALS AND COLORS SHOWN ARE PROPOSED BASIS OF DESIGN, OR EQUIVALENT, SUBJECT TO CITY APPROVAL.

2 NORTH ELEVATION
1/8" = 1'-0"

3 NORTH - EAST BUILDING PERSPECTIVE

1 EAST ELEVATION
1/8" = 1'-0"

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MARS LANDING - PROJECT DEVELOPMENT PLAN
FORT COLLINS, CO

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Project No:	GNK000008
Drawn By:	DA
Checked By:	CW
Date:	06.09.2021

BUILDING A-42
ELEVATIONS

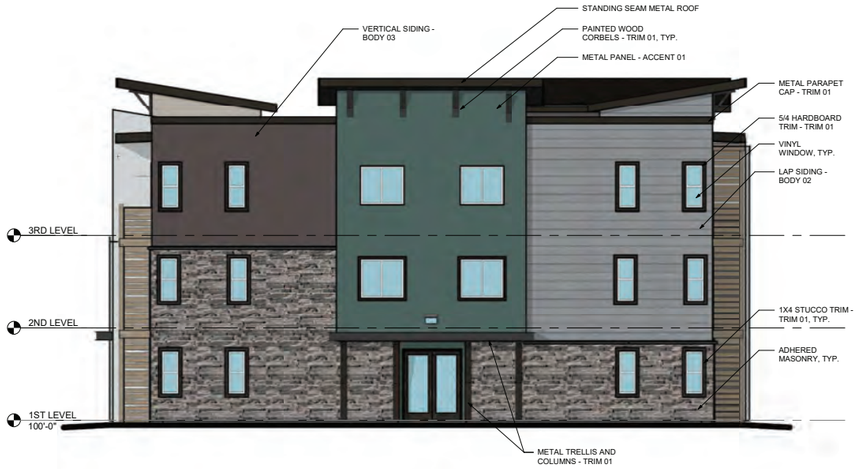
A2.10

EXTERIOR BUILDING LIGHTS:
LIGHTS, ONCE SPECIFIED, WILL COMPLY WITH ALL REQUIREMENTS. ALL BUILDING MOUNTED LIGHTING SHALL BE FULLY SHIELDED, DOWN DIRECTIONAL, AND DARK SKY COMPLIANT.

EXTERIOR FINISH MATERIAL SCHEDULE

	COLOR (MANUF.)	COMMENTS
BODY 01	NORTH HAMPTON BEIGE (BM AC-38)	LAP SIDING
BODY 02	SWEATSHIRT GRAY (BM 2126-40)	LAP SIDING
BODY 03	COACHMAN'S CAPE (BM CSP-90)	VERTICAL SIDING
ACCENT 01	AGED COPPER (CMG METALS)	ARCHITECTURAL GRADE METAL PANEL
ACCENT 02	CASCADE WHITE (BM 2127-70)	STUCCO
TRIM 01	NIGHT HORIZON (BM 2134-10)	
STONE	CORONADO PROLEDGE - HURON	
COMPOSITE WOOD	TREX - SPICED RUM	

* ALL MATERIALS AND COLORS SHOWN ARE PROPOSED BASIS OF DESIGN, OR EQUIVALENT, SUBJECT TO CITY APPROVAL.



4 SOUTH ELEVATION
1/8" = 1'-0"

3 SOUTH - WEST BUILDING PERSPECTIVE

1 WEST ELEVATION
1/8" = 1'-0"

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MARS LANDING - PROJECT DEVELOPMENT PLAN
FORT COLLINS, CO

#	Date	Issue / Description	Init.
-			

Project No:	GNK000008
Drawn By:	DA
Checked By:	CW
Date:	06.09.2021

BUILDING A-42 ELEVATIONS

A2.11

EXTERIOR BUILDING LIGHTS:
LIGHTS, ONCE SPECIFIED, WILL COMPLY WITH ALL REQUIREMENTS. ALL BUILDING MOUNTED LIGHTING SHALL BE FULLY SHIELDED, DOWN DIRECTIONAL, AND DARK SKY COMPLIANT.

EXTERIOR FINISH MATERIAL SCHEDULE

	COLOR (MANUF.)	COMMENTS
BODY 01	KANGAROO (BM AF-145)	LAP SIDING
BODY 02	SWEATSHIRT GRAY (BM 2126-40)	STUCCO
BODY 03	COACHMAN'S CAPE (BM CSP-90)	VERTICAL SIDING
ACCENT 01	ROYAL BLUE (CMG METALS)	ARCHITECTURAL GRADE METAL PANEL
TRIM 01	NIGHT HORIZON (BM 2134-10)	
STONE	CORONADO: SIERRA LEDGE - CATHEDRAL GREY	

* ALL MATERIALS AND COLORS SHOWN ARE PROPOSED BASIS OF DESIGN, OR EQUIVALENT, SUBJECT TO CITY APPROVAL.

1 NORTH ELEVATION
1/8" = 1'-0"

2 NORTH - EAST BUILDING PERSPECTIVE

4 EAST ELEVATION
1/8" = 1'-0"

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MARS LANDING - PROJECT DEVELOPMENT PLAN
FORT COLLINS, CO

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Project No:	GNK000008
Drawn By:	DA
Checked By:	CW
Date:	06.09.2021

BUILDING A-48 ELEVATIONS

A2.20

EXTERIOR BUILDING LIGHTS:
LIGHTS, ONCE SPECIFIED, WILL COMPLY WITH ALL REQUIREMENTS. ALL BUILDING MOUNTED LIGHTING SHALL BE FULLY SHIELDED, DOWN DIRECTIONAL, AND DARK SKY COMPLIANT.

EXTERIOR FINISH MATERIAL SCHEDULE

	COLOR (MANUF.)	COMMENTS
BODY 01	KANGAROO (BM AF-145)	LAP SIDING
BODY 02	SWEATSHIRT GRAY (BM 2126-40)	STUCCO
BODY 03	COACHMAN'S CAPE (BM CSP-90)	VERTICAL SIDING
ACCENT 01	ROYAL BLUE (CMG METALS)	ARCHITECTURAL GRADE METAL PANEL
TRIM 01	NIGHT HORIZON (BM 2134-10)	
STONE	CORONADO: SIERRA LEDGE - CATHEDRAL GREY	

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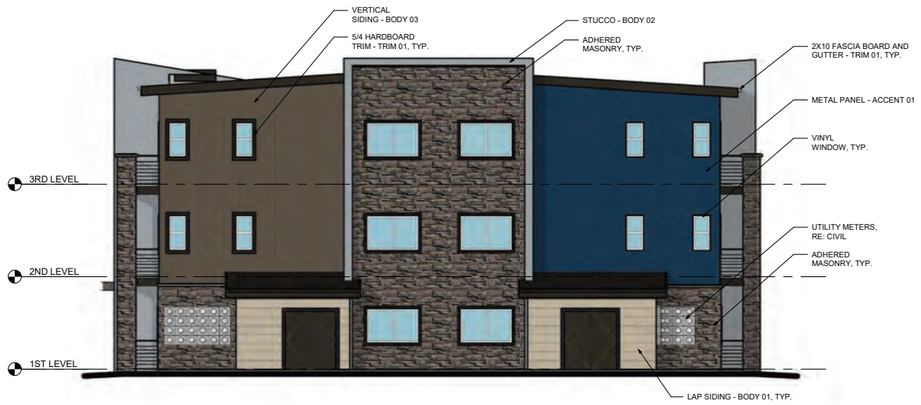

1 SOUTH ELEVATION
1/8" = 1'-0"

2 SOUTH - WEST - BUILDING PERSPECTIVE

3 WEST ELEVATION
1/8" = 1'-0"

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FORT COLLINS, CO

#	Date	Issue / Description	Init.
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Project No:	GNK000008
Drawn By:	DA
Checked By:	CW
Date:	06.09.2021

BUILDING A-48
ELEVATIONS

A2.21

EXTERIOR FINISH MATERIAL SCHEDULE		
	COLOR (MANUF.)	COMMENTS
BODY 01	VERSATILE GRAY (SW 6072)	LAP SIDING
BODY 02	LET IT RAIN (SW 9152)	LAP SIDING
BODY 03	FOLKSTONE (SW 6005)	VERTICAL SIDING
ACCENT 01	ROYAL BLUE (CMG METALS)	METAL WALL PANEL
ACCENT 02	ICICLE (SW 6238)	STUCCO
TRIM 01	URBANE BRONZE (SW 7048)	
STONE	CORONADO PROLEDGE - OAKBROOK	
COMPOSITE WOOD	TREX - COASTAL BLUFF	

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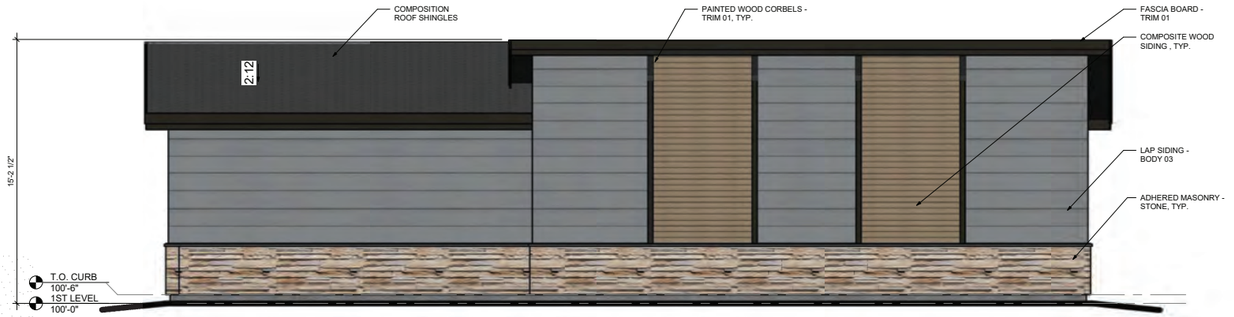
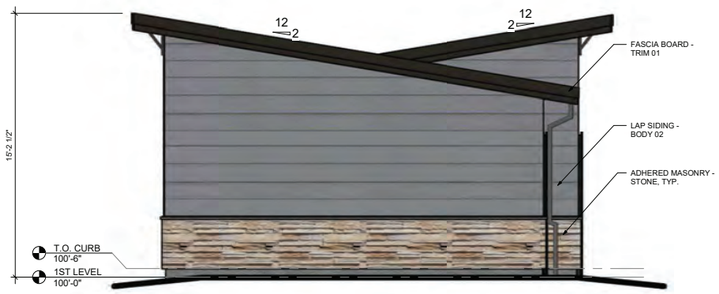
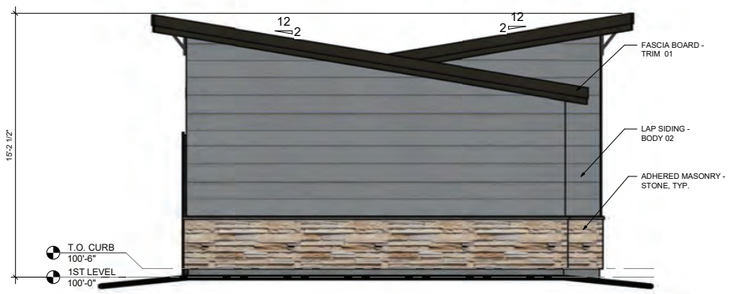


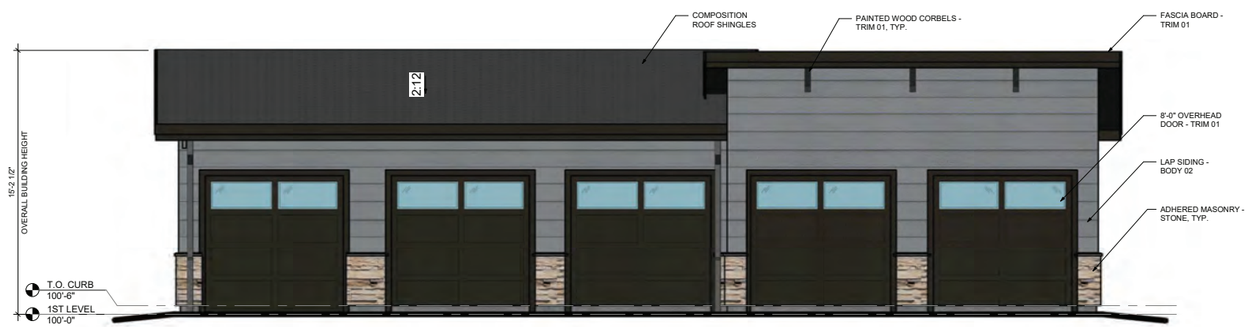
1 GARAGE A - REAR ELEVATION
1/4" = 1'-0"



2 GARAGE A - LEFT SIDE ELEVATION
1/4" = 1'-0"



3 GARAGE A - RIGHT SIDE ELEVATION
1/4" = 1'-0"



4 GARAGE A - FRONT ELEVATION
1/4" = 1'-0"

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MARS LANDING - PROJECT DEVELOPMENT PLAN
FORT COLLINS, CO

#	Date	Issue / Description	Init.

Project No:	GNK000008
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Checked By:	CW
Date:	06.09.2021

GARAGE A ELEVATIONS

A2.30

EXTERIOR FINISH MATERIAL SCHEDULE		
	COLOR (MANUF.)	COMMENTS
BODY 01	VERSATILE GRAY (SW 6072)	LAP SIDING
BODY 02	LET IT RAIN (SW 9152)	LAP SIDING
BODY 03	FOLKSTONE (SW 6005)	VERTICAL SIDING
ACCENT 01	ROYAL BLUE (CMG METALS)	METAL WALL PANEL
ACCENT 02	ICICLE (SW 6238)	STUCCO
TRIM 01	URBANE BRONZE (SW 7048)	
STONE	CORONADO PROLEDGE - OAKBROOK	
COMPOSITE WOOD	TREX - COASTAL BLUFF	

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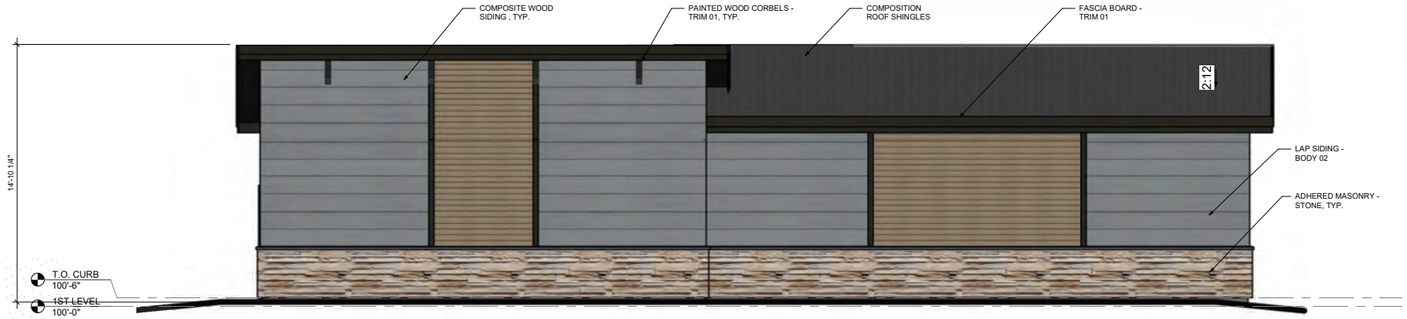
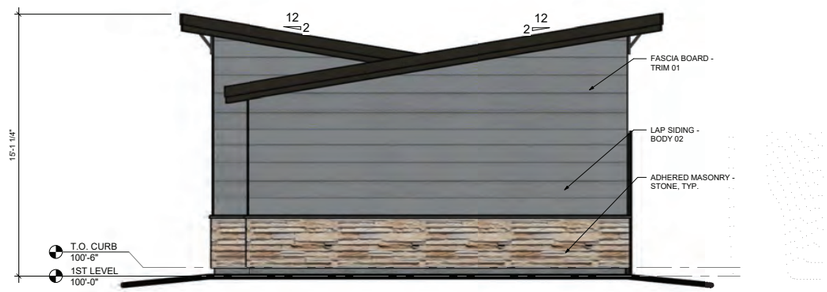
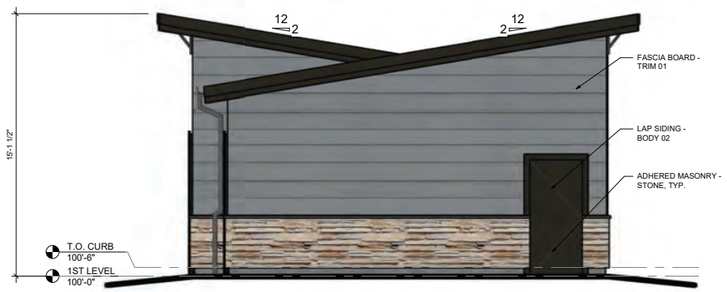


1 GARAGE B REAR ELEVATION
1/4" = 1'-0"



2 GARAGE B LEFT SIDE ELEVATION
1/4" = 1'-0"



3 GARAGE B RIGHT SIDE ELEVATION
1/4" = 1'-0"

4 GARAGE B - FRONT ELEVATION
1/4" = 1'-0"

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MARS LANDING - PROJECT DEVELOPMENT PLAN
FORT COLLINS, CO

#	Date	Issue / Description	Init.

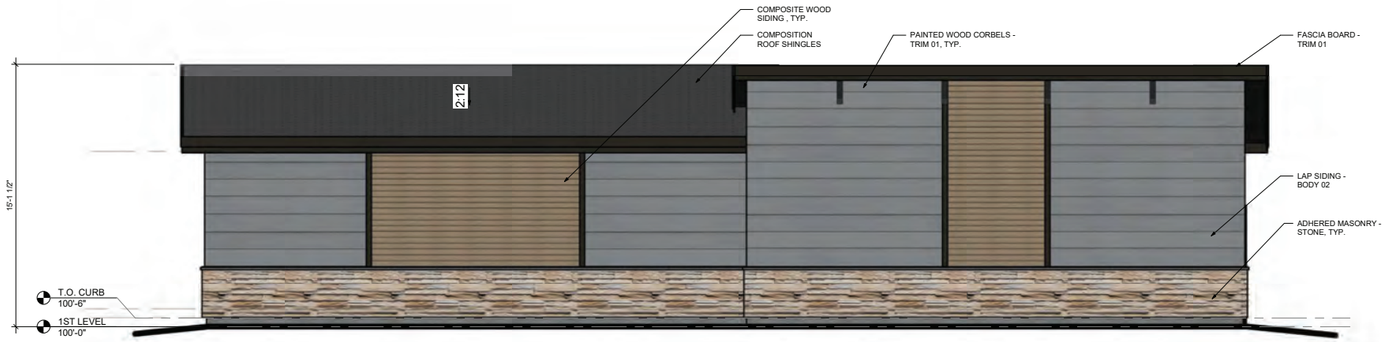
Project No:	GNK000008
Drawn By:	DA
Checked By:	CW
Date:	06.09.2021

GARAGE B ELEVATIONS

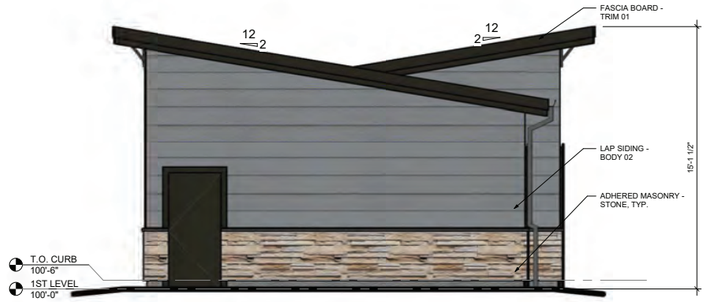
A2.31

EXTERIOR FINISH MATERIAL SCHEDULE		
	COLOR (MANUF.)	COMMENTS
BODY 01	VERSATILE GRAY (SW 6072)	LAP SIDING
BODY 02	LET IT RAIN (SW 9152)	LAP SIDING
BODY 03	FOLKSTONE (SW 6005)	VERTICAL SIDING
ACCENT 01	ROYAL BLUE (CMG METALS)	METAL WALL PANEL
ACCENT 02	ICICLE (SW 6238)	STUCCO
TRIM 01	URBANE BRONZE (SW 7048)	
STONE	CORONADO PROLEDGE - OAKBROOK	
COMPOSITE WOOD	TREX - COASTAL BLUFF	

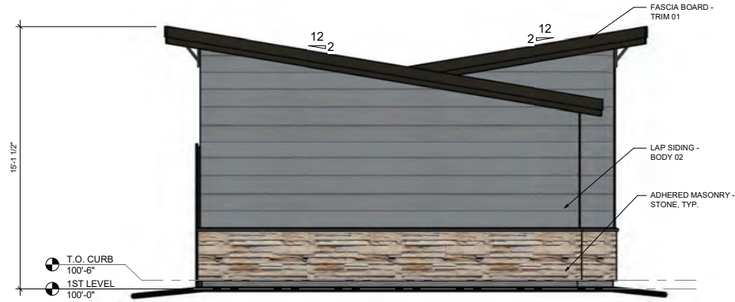
* ALL MATERIALS AND COLORS SHOWN ARE PROPOSED BASIS OF DESIGN, OR EQUIVALENT, SUBJECT TO CITY APPROVAL.



1 GARAGE C - REAR ELEVATION
1/4" = 1'-0"



2 GARAGE C - LEFT SIDE ELEVATION
1/4" = 1'-0"



3 GARAGE C - RIGHT SIDE ELEVATION
1/4" = 1'-0"

4 GARAGE C - FRONT ELEVATION
1/4" = 1'-0"

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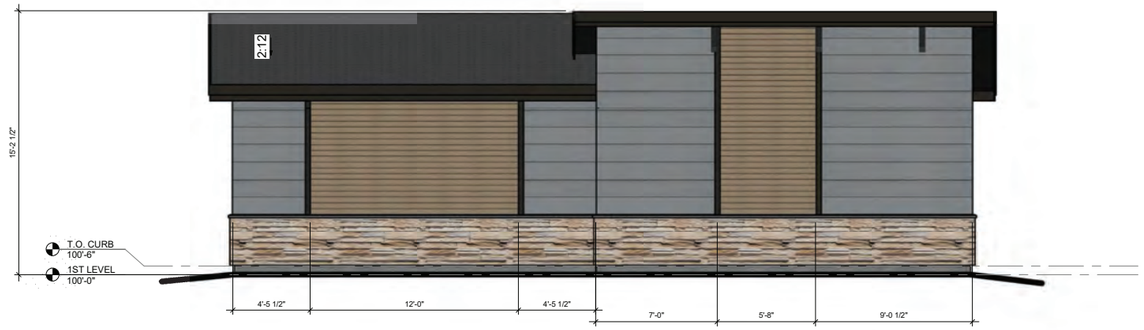
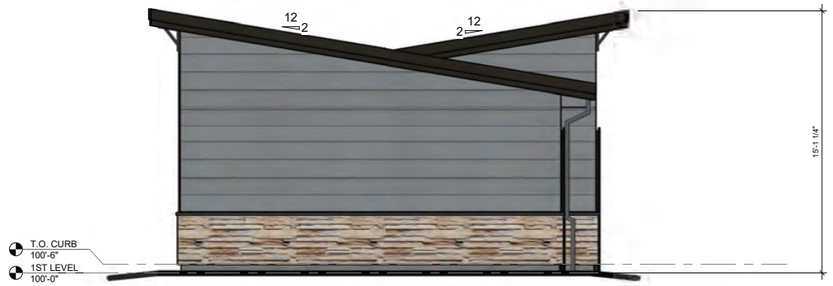
GARAGE C ELEVATIONS

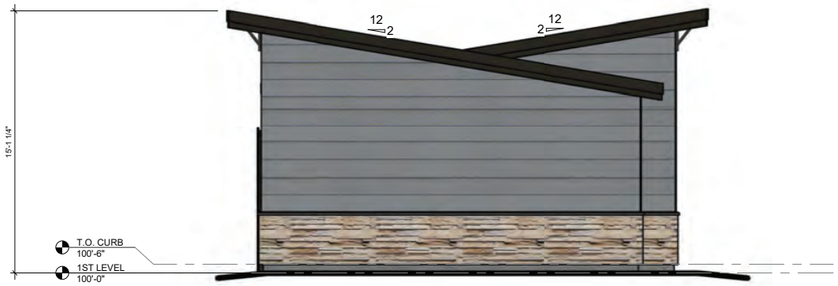
A2.32



1 GARAGE D - REAR ELEVATION
1/4" = 1'-0"



2 GARAGE D - LEFT SIDE ELEVATION
1/4" = 1'-0"



3 GARAGE D - RIGHT SIDE ELEVATION
1/4" = 1'-0"

4 GARAGE D - FRONT ELEVATION
1/4" = 1'-0"

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Date:	06.09.2021

GARAGE D
ELEVATIONS

A2.33

UTILITY PLANS FOR:

MARS LANDING

OUT LOT A, SOUTH COLLEGE STORAGE SUBDIVISION
LOCATED IN THE SOUTHEAST QUARTER OF SECTION 11, T. 6 N., R. 69 W. OF THE 6TH P.M.
CITY OF FORT COLLINS, COUNTY OF LARIMER, STATE OF COLORADO

JULY 2021

PROJECT TEAM:

DEVELOPER / APPLICANT
Goodwin Knight
Mark Johnson, RLA
8605 Explorer Dr., Suite 250
Colorado Springs, Colorado 80920
719.598.5192

SITE ENGINEER / SURVEYOR
Galloway & Company
James E. Prelog
5265 Ronald Reagan Blvd., Suite 210
Johnstown, Colorado 80534
970.800.3300

LANDSCAPE ARCHITECT
Galloway & Company
Sarah Adamson, RLA
6162 S. Willow Drive, Suite 320
Greenwood Village, Colorado 80111
303.770.8884

GEOTECHNICAL ENGINEER
Earth Engineering Consultants, LLC
4396 Greenfield Drive
Windsor, Colorado 80550
970.545.3908

UTILITY CONTACT LIST: *

UTILITY	COMPANY	CONTACT	PHONE NUMBER
GAS	Xcel Energy	Stephanie Rich	(970) 225-7828
ELECTRIC	City of Fort Collins Light and Power	Luke Unruh	(970) 416-2724
CABLE	Xfinity	Don Kapperman	(970) 484-7166
TELECOM.	Centurylink	William Johnson	(970) 377-6401
WATER	FCLWD	Sam Lowe	(970) 226-3104
WASTEWATER	SFCSD	Sam Lowe	(970) 226-3104
STORMWATER	City of Fort Collins Utilities	Wes Lamarque	(970) 416-2418

* ALL UTILITY LOCATIONS SHOWN ARE BASED ON MAPS PROVIDED BY THE APPROPRIATE UTILITY COMPANY AND FIELD SURFACE EVIDENCE AT THE TIME OF SURVEY AND IS TO BE CONSIDERED AN APPROXIMATE LOCATION ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF ALL UTILITIES, PUBLIC OR PRIVATE, WHETHER SHOWN ON THE PLANS OR NOT, PRIOR TO CONSTRUCTION. REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO CONSTRUCTION.

PROJECT BENCHMARKS:

BENCHMARKS

ELEVATIONS ARE BASED ON CITY OF FORT COLLINS VERTICAL CONTROL NETWORK

PROJECT DATUM: NAVD88

BENCHMARK '2-12' IS LOCATED & DESCRIBED AS FOLLOWS:
SOUTHWEST CORNER OF SOUTH COLLEGE AVE. AND SKYWAY DR. ON A CONCRETE TRAFFIC SIGNAL BASE.
ELEVATION: 5005.56' (NAVD 88)

PLEASE NOTE: THIS PLAN SET IS USING NAVD88 FOR A VERTICAL DATUM.
SURROUNDING DEVELOPMENTS HAVE USED NGVD29 UNADJUSTED DATUM (PRIOR CITY OF FORT COLLINS DATUM) FOR THEIR VERTICAL DATUMS.

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BENCHMARK '38-94' IS LOCATED & DESCRIBED AS FOLLOWS:
AZIMUTH MARK (3 1/4" ALUMINUM CAP) ON THE NORTH SIDE OF TRILBY RD. 1/2 MILE WEST OF COLLEGE AVE. AT THE SOUTHWEST CORNER OF 508 WEST TRILBY RD. (GOOD SAMARITAN RETIREMENT CENTER). ALSO 5.5 FT WEST OF A POWERPOLE AND 24.5 FT SOUTH OF A WOOD FENCE.
ELEVATION: 5093.76' (NAVD 88)

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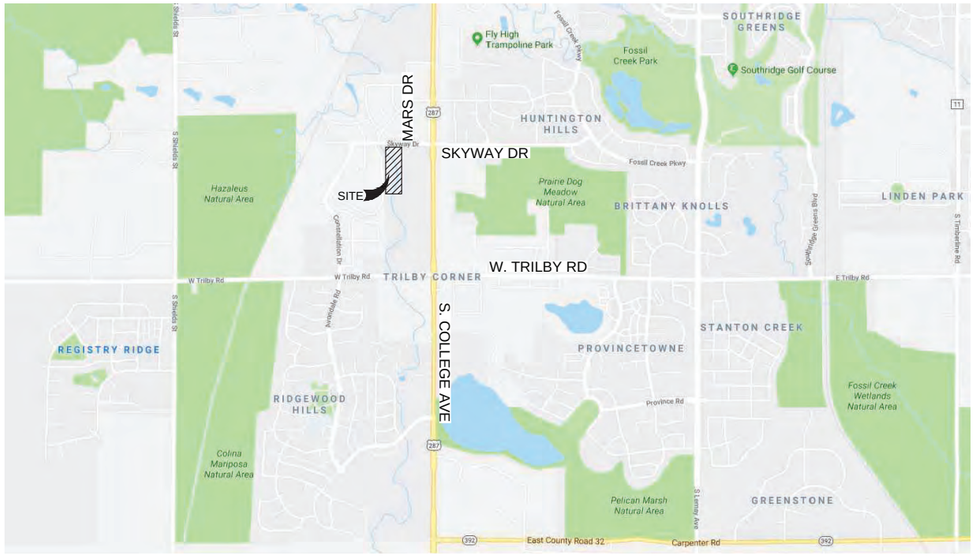


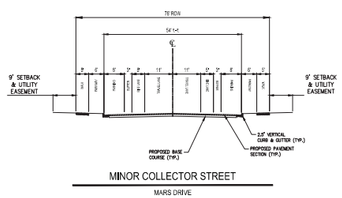
VICINITY MAP
SCALE: NTS

CERTIFICATION STATEMENT:

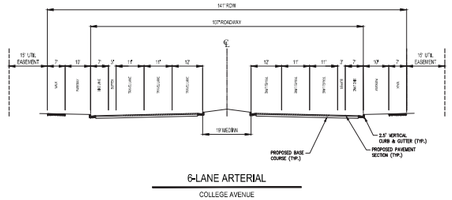
I hereby affirm that these final construction plans were prepared under my direct supervision, in accordance with all applicable City of Fort Collins and State of Colorado standards and statutes, respectively; and that I am fully responsible for the accuracy of all design. revisions, and record conditions that I have noted on these plans.

DISCLAIMER STATEMENT:

These plans have been reviewed by the City of Fort Collins for concept only. The review does not imply responsibility by the reviewing department, the City of Fort Collins Engineer, or the City of Fort Collins for accuracy and correctness of the calculations. Furthermore, the review does not imply that quantities of items on the plans are the final quantities required. The review shall not be construed for any reason as acceptance of financial responsibility by the City of Fort Collins for additional quantities of items shown that may be required during the construction phase.



MINOR COLLECTOR STREET
MARS DRIVE



6-LANE ARTERIAL
COLLEGE AVENUE

SHEET INDEX

CAUTION - NOTICE TO CONTRACTOR

1. ALL UTILITY LOCATIONS SHOWN ARE BASED ON MAPS PROVIDED BY THE APPROPRIATE UTILITY COMPANY AND FIELD SURFACE EVIDENCE AT THE TIME OF SURVEY AND IS TO BE CONSIDERED AN APPROXIMATE LOCATION ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE FIELD LOCATION OF ALL UTILITIES, PUBLIC OR PRIVATE, WHETHER SHOWN ON THE PLANS OR NOT, PRIOR TO CONSTRUCTION. REPORT ANY DISCREPANCIES TO THE ENGINEERED PRIOR TO CONSTRUCTION.
2. WHERE A PROPOSED UTILITY CROSSES AN EXISTING UTILITY, IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF SUCH EXISTING UTILITY, EITHER THROUGH POTHOLING OR ALTERNATIVE METHOD. REPORT INFORMATION TO THE ENGINEER PRIOR TO CONSTRUCTION.
3. CONTRACTOR RESPONSIBLE FOR AS-BUILT DRAWINGS, TESTS, REPORTS AND/OR ANY OTHER CERTIFICATES OR INFORMATION AS REQUIRED FOR ACCEPTANCE OF WORK FROM CITY, UTILITY DISTRICTS OR ANY OTHER GOVERNING AGENCY.
4. CONTRACTOR SHALL PROTECT ALL EXISTING SURVEY MONUMENTATION. CONTRACTOR SHALL HAVE LICENSED SURVEYOR REPLACE ANY DAMAGED OR DISTURBED MONUMENTATION AT THEIR COST.

811 Know what's below. Call before you dig.

FORT COLLINS - LOVELAND WATER DISTRICT

SOUTH FORT COLLINS SANITATION DISTRICT

District Engineer Date

All changes, addendums, additions, deletions and modifications to these drawings must be approved, in writing, by the Fort Collins-Loveland Water District and the South Fort Collins Sanitation District.

City of Fort Collins, Colorado
UTILITY PLAN APPROVAL

APPROVED: City Engineer		Approved Sheets	Date
APPROVED: Water & Wastewater Utility		Approved Sheets	Date
APPROVED: Stormwater Utility		Approved Sheets	Date
APPROVED: Park Planning and Development		Approved Sheets	Date
APPROVED: Traffic Operations		Approved Sheets	Date
APPROVED: Environmental Planner		Approved Sheets	Date

Galloway
5265 Ronald Reagan Blvd., Suite 210
Johnstown, CO 80534
970.800.3300
GallowayUS.com

PRELIMINARY
NOT FOR BIDDING
NOT FOR CONSTRUCTION

MARS LANDING
PROJECT DEVELOPMENT PLAN
FORT COLLINS, CO

#	Date	Issue / Description	Init.

Project No:	GNK000008
Drawn By:	DBC
Checked By:	JEP
Date:	07.28.2021

COVER SHEET

C0.0

H:\Goodwin Knight\CO_Fort Collins - GNK000008.0 - Mars Landing\1SP\CAD\1.COVER\GNK_C0.0_Cover.dwg - Donald Cook - 7/27/2021

A. GENERAL NOTES

1. All materials, workmanship, and construction of public improvements shall meet or exceed the standards and specifications set forth in the Larimer County Urban Area Street Standards and applicable state and federal regulations. Where there is conflict between these plans and the specifications, or any applicable standards, the most restrictive standard shall apply. All work shall be inspected and approved by the City of Fort Collins.
2. All references to any published standards shall refer to the latest revision of said standard, unless specifically stated otherwise.
3. These public improvement construction plans shall be valid for a period of three years from the date of approval by the City of Fort Collins Engineer. Use of these plans after the expiration date will require a new review and approval process by the City of Fort Collins prior to commencement of any work shown in these plans.
4. The engineer who has prepared these plans, by execution and/or seal hereof, does hereby affirm responsibility to the City of Fort Collins, as beneficiary of said engineer's work, for any errors and omissions contained in these plans, and approval of these plans by the City of Fort Collins Engineer shall not relieve the engineer who has prepared these plans of all such responsibility. Further, to the extent permitted by law, the engineer hereby agrees to hold harmless and indemnify the City of Fort Collins, and its officers and employees, from and against all liabilities, claims, and demands which may arise from any errors and omissions contained in these plans.
5. All storm sewer construction, as well as power and other "dry" utility installations, shall conform to the City of Fort Collins standards and specifications current at the date of approval of the plans by the City of Fort Collins Engineer.
6. The type, size, location and number of all known underground utilities are approximate when shown on the drawings. It shall be the responsibility of the Developer to verify the existence and location of all underground utilities along the route of the work before commencing new construction. The Developer shall be responsible for unknown underground utilities.
7. The Developer shall contact the Utility Notification Center of Colorado (UNCC) at 1-800-922-1987, at least 2 working days prior to beginning excavation or grading, to have all registered utility locations marked. Other unregistered utility entities (i.e. ditch / irrigation company) are to be located by contacting the respective representative. Utility service laterals are also to be located prior to beginning excavation or grading. It shall be the responsibility of the Developer to relocate all existing utilities that conflict with the proposed improvements shown on these plans.
8. The Developer shall be responsible for protecting all utilities during construction and for coordinating with the appropriate utility company for any utility crossings required.
9. If a conflict exists between existing and proposed utilities 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 City of Fort Collins prior to beginning construction.
10. The Developer shall coordinate and cooperate with the City of Fort Collins, and all utility companies involved, to assure that the work is accomplished in a timely fashion and with a minimum disruption of service. The Developer shall be responsible for contacting, in advance, all parties affected by any disruption of any utility service as well as the utility companies.
11. No work may commence within any public storm water, sanitary sewer or potable water system until the Developer notifies the utility provider. Notification shall be a minimum of 2 working days prior to commencement of any work. At the discretion of the water utility provider, a pre-construction meeting may be required prior to commencement of any work.
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 utilities.
13. The minimum cover over water lines is 5.0 feet and the maximum cover is 6.0 feet unless otherwise noted in the plans and approved by the Water Utility.
14. A State Construction Dewatering Wastewater Discharge Permit is required if dewatering is required in order to install utilities or if water is discharged into a storm sewer, channel, irrigation ditch or any waters of the United States.
15. The Developer shall comply with all terms and conditions of the Colorado Permit for Storm Water Discharge (Contact Colorado Department of Health, Water Quality Control Division, (303) 692-3590, the Storm Water Management Plan, and the Erosion Control Plan.
16. 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).
17. Prior to final inspection and acceptance by the City of Fort Collins, certification of the drainage facilities, by a registered engineer, must be submitted to and approved by the Stormwater Utility Department. Certification shall be submitted to the Stormwater Utility Department at least two weeks prior to the release of a certificate of occupancy for single family units. For commercial properties, certification shall be submitted to the Stormwater Utility Department at least two weeks prior to the release of any building permits in excess of those allowed prior to certification per the Development Agreement.
18. The City of Fort Collins shall not be responsible for any damages or injuries sustained in this Development as a result of groundwater seepage, whether resulting from groundwater flooding, structural damage or other damage unless such damage or injuries are sustained as a result of the City of Fort Collins failure to properly maintain its water, wastewater, and/or storm drainage facilities in the development.
19. All recommendations of the Final Drainage and Erosion Control Reports for Mars Landing - Utility Plan dated MONTH, DAY 20__ by Galloway and Company, Inc., shall be followed and implemented.
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 surface or landscaping.
21. The Developer shall be responsible for insuring that no mud or debris shall be tracked onto the existing public street system. Mud and debris must be removed within 24 hours by an appropriate mechanical method (i.e. machine broom sweep, light duty front-end loader, etc.) or as approved by the the City of Fort Collins street inspector.
22. No work may commence within any improved or unimproved public Right-of-Way until a Right-of-Way Permit or Development Construction Permit is obtained, if applicable.
23. The Developer shall be responsible for obtaining all necessary permits for all applicable agencies prior to commencement of construction. The Developer shall notify the the City of Fort Collins Inspector (Fort Collins - 221-6605) and the City of Fort Collins Erosion Control Inspector (Fort Collins - 221-6700) at least 2 working days prior to the start of any earth disturbing activity, or construction on any and all public improvements. If the City of Fort Collins Engineer is not available after proper notice of construction activity has been provided, the Developer may commence work in the Engineer absence. However, the City of Fort Collins reserves the right not to accept the improvement if subsequent testing reveals an improper installation.
24. The Developer shall be responsible for obtaining soils tests within the Public Right-of-Way after right of way grading and all utility trench work is complete and prior to the placement of curb, gutter, sidewalk and pavement. If the final soils/pavement design report does not correspond with the results of the original geotechnical report, the Developer shall be responsible for a re-design of the subject pavement section or, the Developer may use the City of Fort Collins' default pavement thickness section(s). Regardless of the option used, all final soils/pavement design reports shall be prepared by a licensed Professional Engineer. The final report shall be submitted to the Inspector a minimum of 10 working days prior to placement of base and asphalt. Placement of curb, gutter, sidewalk, base and asphalt shall not occur until the City of Fort Collins Engineer approves the final report.
25. The contractor shall hire a licensed engineer or land surveyor to survey the constructed elevations of the street subgrade and the gutter flowline at all intersections, inlets, and other locations requested by the the City of Fort Collins inspector. The engineer or surveyor must certify in a letter to the City of Fort Collins that these elevations conform to the approved plans and specifications. Any deviations shall be noted in the letter and then resolved with the City of Fort Collins before installation of base course or asphalt will be allowed on the streets.
26. All utility installations within or across the roadbed of new residential roads must be completed prior to the final stages of road construction. For the purposes of these standards, any work except c/g above the subgrade is considered final stage work. All service lines must be stubbed to the property lines and marked so as to reduce the excavation necessary for building connections.
27. Portions of Larimer County are within overlay districts. The Larimer County Flood Plain Resolution should be referred to for additional criteria for roads within these districts.
28. All road construction in areas designated as Wild Fire Hazard Areas shall be done in accordance with the construction criteria as established in the Wild Fire Hazard Area Mitigation Regulations in force at the time of final plat approval.
29. Prior to the commencement of any construction, the contractor shall contact the City of Fort Collins Forester to schedule a site inspection for any tree 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 OSHA Publication 2226, Excavating and Trenching.
31. The Developer shall submit a Construction Traffic Control Plan, in accordance with MUTCD, to the appropriate Right-of-Way authority. (The the City of Fort Collins, Larimer County, Colorado), for approval, prior to any construction activities within, or affecting, the Right-of-Way. The Developer shall be responsible for providing any and all traffic control devices as may be required by the construction activities.
32. Prior to the commencement of any construction that will affect traffic signs of any type, the contractor shall contact the City of Fort Collins Traffic Operations Department, who will temporarily remove or relocate the sign at no cost to the contractor, however, if the contractor moves the traffic sign then the contractor will be charged for the labor, materials and equipment to reinstall the sign as needed.
33. The Developer is responsible for all costs for the initial installation of traffic signing and striping for the Development related to the Development's local street operations. In addition, the Developer is responsible for all costs for traffic signing and striping related to directing traffic access to and from the Development.
34. There shall be no site construction activities on Saturdays, unless specifically approved by the City of Fort Collins Engineer, and no site construction activities on Sundays or holidays, unless there is prior written approval by the City of Fort Collins.
35. The Developer is responsible for providing all labor and materials necessary for the completion of the intended improvements, shown on these drawings, or designated to be provided, installed, or constructed, unless specifically noted otherwise.
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.
37. The Developer shall have, onsite at all times, one (1) signed copy of the approved plans, one (1) copy of the appropriate standards and specifications, and a copy of any permits and extension agreements needed for the job.
38. If, during the construction process, conditions are encountered which could indicate a situation that is not identified in the plans or specifications, the Developer shall contact the Designer and the City of Fort Collins Engineer immediately.
39. The Developer shall be responsible for recording as-built information on a set of record drawings kept on the construction site, and available to the City of Fort Collins County's Inspector at all times. Upon completion of the work, the contractor(s) shall submit record drawings to the City of Fort Collins Engineer.
40. The Designer shall provide, in this location on the plan, the location and description of the nearest survey benchmarks (2) for the project as well as the basis of bearings. The information shall be as follows:

    ELEVATIONS ARE BASED ON CITY OF FORT COLLINS VERTICAL CONTROL NETWORK

    PROJECT DATUM: NAVD88

    BENCHMARK '2-12' IS LOCATED & DESCRIBED AS FOLLOWS:
    SOUTHWEST CORNER OF SOUTH COLLEGE AVE. AND SKYWAY DR. ON A CONCRETE TRAFFIC SIGNAL BASE.
    ELEVATION: 5005.56' (NAVD 88)

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41. All stationing is based on centerline of roadways unless otherwise noted.
42. Damaged curb, gutter and sidewalk existing prior to construction, as well as existing fences, trees, streets, sidewalks, curbs and gutters, landscaping, structures, and improvements destroyed, damaged or removed due to construction of this project, shall be replaced or restored in like kind at the Developer's expense, unless otherwise indicated on these plans, prior to the acceptance of completed improvements and/or prior to the issuance of the first Certificate of Occupancy.
43. When an existing asphalt street must be cut, the street must be restored to a condition equal to or better than its original condition. The existing street condition shall be documented by the City of Fort Collins Construction Inspector before any cuts are made. Patching shall be done in accordance with the City of Fort Collins Street Repair Standards. The finished patch shall blend in smoothly into the existing surface. All large patches shall be paved with an asphalt lay-down machine. In streets where more than one cut is made, an overlay of the entire street width, including the patched area, may be required. The determination of need for a complete overlay shall be made by the City of Fort Collins Engineer and/or the City of Fort Collins Inspector at the time the cuts are made.
44. 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.
45. Standard Handicap ramps are to be constructed at all curb returns and at all "T" intersections.
46. After acceptance by the City of Fort Collins, 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.
47. Approved Variances are listed as follows:

    -LCUASS Chapter 7.4 as it relates to minimum allowable distances between driveways and intersections based on street classification.

    A variance has been requested, in association with approval of this Utility Plan, to LCUASS Chapter 8.2 as it relates to lane alignment through intersections. The proposed configuration results in a centerline shift of approximately 7.8', which exceeds the allowable 2' shift.

CONSTRUCTION NOTES

A. GRADING AND EROSION CONTROL NOTES

1. The City Stormwater Department erosion control inspector must be notified at least twenty-four (24) hours prior to any construction on this site.
2. There shall be no earth-disturbing activity outside the limits designated on the accepted plans.
3. All required BMPs (e.g., perimeter silt and construction fencing) shall be installed **prior** to any land disturbing activity (e.g., stockpiling, stripping, grading, etc). All other required erosion control measures shall be installed at the appropriate time in the construction sequence as indicated in the approved project schedule, construction plans, and erosion control report.
4. At all times during construction, the Developer shall be responsible for preventing and controlling on-site erosion including keeping the property sufficiently watered so as to minimize wind blown sediment. The Developer shall also be responsible for installing and maintaining all erosion control facilities shown herein.
5. The property must be actively preventing the emission of fugitive dust at all times during construction and vegetation activities. All land disturbing activities that result in fugitive dust shall be in accordance with Municipal Code §12-150 to reduce the impacts to adjacent properties and community health. All required practices shall be implemented and additional ones shall be followed. These practices include watering the sites and discontinuing construction activities until the wind subsides as determined by any City Inspectors.
6. Pre-disturbance vegetation shall be protected and retained wherever possible. Removal or disturbance of existing vegetation shall be limited to the area(s) required for immediate construction operations, and for the shortest practical period of time.
7. All soils exposed during land disturbing activity (stripping, grading, utility installations, stockpiling, filling, etc.) shall be kept in a roughened condition by ripping or disking along land contours until mulch, vegetation, or other permanent erosion control BMPs are installed. No soils in areas outside project street rights-of-way shall remain exposed by land disturbing activity for more than thirty (30) days before required temporary or permanent erosion control (e.g., seed/mulch, landscaping, etc.) is installed, unless otherwise approved by the City Stormwater Department.
8. In order to minimize erosion potential, all temporary (structural) erosion control measures shall:
    a. Be inspected at a minimum of once every fourteen (14) days and after each runoff event and repaired or reconstructed as necessary in order to ensure the continued performance of their intended function.
    b. Remain in place until such time as all the surrounding disturbed areas are sufficiently stabilized as determined by the erosion control inspector.
    c. Be removed after the site has been sufficiently stabilized as determined by the erosion control inspector.
8. 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.
9. City Ordinance prohibits the tracking, dropping, or depositing of soils or any other material onto city streets by or from any vehicle. Any inadvertent deposited material shall be cleaned immediately by the contractor.
10. All retained sediments, particularly those on paved roadway surfaces, shall be removed and disposed of in a manner and location so as not to cause their release into any drainageway.
11. No soil stockpile shall exceed ten (10) feet in height. All soil stockpiles shall be protected from sediment transport by surface roughening, watering, and perimeter silt fencing. Any soil stockpile remaining after thirty (30) days shall be seeded and mulched.
12. 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/County or Homeowners Association (HOA).
13. City Ordinance and Colorado Discharge Permit System (CDPS) requirements make it unlawful to discharge or allow the discharge of any pollutant or contaminated water from construction sites. Pollutants include, but are not limited to discarded building materials, concrete truck washout, chemicals, oil and gas products, litter, and sanitary waste. The developer shall at all times take whatever measures are necessary to assure the proper containment and disposal of pollutants on the site in accordance with any and all applicable local, state, and federal regulations.
14. A designated area shall be provided on site for concrete truck chute washout. The area shall be constructed so as to contain washout material and located at least fifty (50) feet away from any waterway during construction. Upon completion of construction activities the concrete washout material will be removed and properly disposed of prior to the area being restored.
15. Conditions in the field may warrant erosion control measures in addition to what is shown on these plans. The Developer shall implement whatever measures are determined necessary, as directed by the City.

B. STREET IMPROVEMENT NOTES

1. All street construction is subject to the General Notes on the cover sheet of these plans as well as the Street Improvements Notes listed here.
2. A paving section design, signed and stamped by a Colorado licensed Engineer, must be submitted to the City of Fort Collins Engineer for approval, prior to any street construction activity, (full depth asphalt sections are not permitted at a depth greater than 8 inches of asphalt). The job mix shall be submitted for approval prior to placement of any asphalt.
3. Where proposed paving adjoins existing asphalt, the existing asphalt shall be saw cut, a minimum distance of 12 inches from the existing edge, to create a clean construction joint. The Developer shall be required to remove existing pavement to a distance where a clean construction joint can be made. Wheel cuts shall not be allowed unless approved by the City of Fort Collins Engineer in Fort Collins.
4. Street subgrades shall be scarified the top 12 inches and re-compacted prior to subbase installation. No base material shall be laid until the subgrade has been inspected and approved by the City of Fort Collins Engineer.
5. Ft. Collins only. Valve boxes and manholes are to be brought up to grade at the time of pavement placement or overlay. Valve box adjusting rings are not allowed.
6. When an existing asphalt street must be cut, the street must be restored to a condition equal to or better than its original condition. The existing street condition shall be documented by the Inspector before any cuts are made. Cutting and patching shall be done in conformance with Chapter 25, Reconstruction and Repair. The finished patch shall blend smoothly into the existing surface. The determination of need for a complete overlay shall be made by the City of Fort Collins Engineer. All overlay work shall be coordinated with adjacent landowners such that future projects do not cut the new asphalt overlay work.
7. All traffic control devices shall be in conformance with these plans or as otherwise specified in M.U.T.C.D. (including Colorado supplement) and as per the Right-of-Way Work Permit traffic control plan.
8. The Developer is required to perform a gutter water flow test in the presence of the City of Fort Collins Inspector and prior to installation of asphalt. Gutters that hold more than 1/4 inch deep or 5 feet longitudinally, of water, shall be completely removed and reconstructed to drain properly.
9. 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 mechanical "proof roll" will be required. The entire subgrade and/or base material shall be rolled with a heavily loaded vehicle having a total GVW of not less than 50,000 lbs. and a single axle weight of at least 18,000 lbs. with pneumatic tires inflated to not less that 90 p.s.i.g. "Proof roll" vehicles shall not travel at speeds greater than 3 m.p.h. Any portion of the subgrade or base material which exhibits excessive pumping or deformation, as determined by the City of Fort Collins Engineer, shall be reworked, replaced or otherwise modified to form a smooth, non-yielding surface. The City of Fort Collins Engineer shall be notified at least 24 hours prior to the "proof roll." All "proof rolls" shall be preformed in the presence of an Inspector.

C. TRAFFIC SIGNING AND PAVEMENT MARKING CONSTRUCTION NOTES

1. 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.
2. All symbols, including arrows, ONLYS, crosswalks, stop bars, etc. shall be pre-formed thermo-plastic.
3. All signage shall be per the City of Fort Collins Standards and these plans or as otherwise specified in MUTCD.
4. All lane lines for asphalt pavement shall receive two coats of latex paint with glass beads.
5. All lane lines for concrete pavement should be epoxy paint.
6. Prior to permanent installation of traffic striping and symbols, the Developer shall place temporary tabs or tape depicting alignment and placement of the same. Their placement shall be approved by the City of Fort Collins Traffic Engineer prior to permanent installation of striping and symbols.
7. Pre-formed thermo-plastic applications shall be as specified in these Plans and/or these Standards.
8. Epoxy applications shall be applied as specified in CDOT Standard Specifications for Road and Bridge Construction.
9. All surfaces shall be thoroughly cleaned prior to installation of striping or markings.
10. All sign posts shall utilize break-away assemblies and fasteners per the Standards.
11. A field inspection of location and installation of all signs shall be performed by the City of Fort Collins Traffic Engineer. All discrepancies identified during the field inspection must be corrected before the 2-year warranty period will begin.
12. The Developer installing signs shall be responsible for locating and protecting all underground utilities.
13. Special care shall be taken in sign location to ensure an unobstructed view of each sign.
14. Signage and striping has been determined by information available at the time of review. Prior to initiation of the warranty period,the City of Fort Collins Traffic Engineer reserves the right to require additional signage and/or striping if the City of Fort Collins Traffic Engineer determines that an unforeseen condition warrants such signage according to the MUTCD or the CDOT M and S Standards. All signage and striping shall fall under the requirements of the 2-year warranty period for new construction (except fair wear on traffic markings).
15. Sleeves for sign posts shall be required for use in islands/medians. Refer to Chapter 14, Traffic Control Devices, for additional detail.

D. STORM DRAINAGE NOTE

1. The City of Fort Collins shall not be responsible for the maintenance of storm drainage facilities located on private property. The Developer shall be responsible for maintenance of all storm drainage facilities that are constructed outside of the public right-of-way that are cited herein: The stormlines as noted on the plan and profiles of this plan set.
2. All other storm drainage facilities designed with these utility plans are public and shall be maintained by the City of Fort Collins.
3. All recommendations of the Final Drainage and Erosion Control Reports for Mars Landing - Utility Plan dated September 11, 2019 by Galloway and Company, shall be followed and implemented.
4. Prior to final inspection and acceptance by the City of Fort Collins, certification of the drainage facilities, by a registered engineer, must be submitted to and approved by the Stormwater Utility Department. Certification shall be submitted to the Stormwater Utility Department at least two weeks prior to the release of a certificate of occupancy for single family units. For commercial properties, certification shall by submitted to the Stormwater Utility Department at least two weeks prior to the release of any building permits in excess of those allowed prior to certification per the Development Agreement.
5. 18" minimum vertical separation from other utilities is required including storm pipes and irrigation mains. Less than 18" will require a steel or concrete encasement of the lower sewer or water.

E. WATER AND SEWER NOTES

1. ALL WATER AND SANITARY SEWER CONSTRUCTION SHALL BE PERFORMED ACCORDING TO THE FORT COLLINS-LOVELAND WATER DISTRICT AND THE SOUTH FORT COLLINS SANITATION DISTRICT STANDARDS AND SPECIFICATIONS.
2. CONSTRUCTION OF WATER AND SEWER FACILITIES REQUIRE A PRECON MEETING WITH DISTRICT OPERATIONS STAFF PRIOR TO CONSTRUCTION.
3. CONTRACTOR SHALL NOTIFY DISTRICT INSPECTORS PRIOR TO STARTING WORK.
4. CONTRACTOR SHALL CONTACT THE SANITATION DISTRICT FOR SEWER INSPECTION 48 HOURS PRIOR TO CONNECTING TO EXISTING SEWER STUBS.
5. IF GROUNDWATER IS ENCOUNTERED WITHIN DEPTH OF SEWER CONSTRUCTION, MANHOLES MUST BE WATER PROOFED.
6. CONTRACTOR SHALL CONTACT THE WATER DISTRICT FOR WATER INSPECTION 48 HOURS PRIOR TO CONNECTING TO EXISTING INFRASTRUCTURE.
7. ALL COMMERCIAL DOMESTIC SERVICES REQUIRE A REDUCED PRESSURE BACKFLOW PREVENTION DEVICE.
8. ALL WATER LINES SHALL BE A MINIMUM OF (5) FIVE FEET AND A MAXIMUM OF (6) SIX FEET BELOW FINAL GRADE.
9. ALL DISTRICT VALVES SHALL ONLY BE OPERATED BY DISTRICT OPERATIONS STAFF.
10. PIPE PRESSURE AND VACUUM TESTING SHALL BE WITNESSED BY DISTRICT INSPECTORS. WATERLINE BACTERIA TESTS SHALL ALSO BE TAKEN BY DISTRICT INSPECTORS.
11. ONCE THE SYSTEM IS OPERATIONAL AND ALL TESTS HAVE PASSED, CONTRACTOR SHALL REQUEST SUBSTANTIAL COMPLETION WITH A LETTER TO THE DISTRICT.
12. AS-BUILTS SHALL BE SUBMITTED IN PDF AND DWG TO THE DISTRICT FOR FINAL APPROVAL.
13. ONCE ALL PUNCH LIST ITEMS ARE COMPLETE, EASEMENTS ARE RECORDED, AND AS BUILT FILES ARE APPROVED, THE CONTRACTOR SHALL REQUEST FINAL COMPLETION WITH A LETTER TO THE DISTRICT THAT INCLUDES THE DOLLAR VALUE OF THE WATER AND SEWER IMPROVEMENTS LISTED SEPARATELY.

F. GENERAL SITE PLAN NOTES

1. Refer to final utility plans for exact locations and construction information for storm drainage structures, utility mains and services, proposed topography, street improvements.
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 must be reviewed and approved by the City prior to the implementation of any changes to the plans.
4. All rooftop and ground mounted mechanical equipment must be screened from view from adjacent property and public streets. In cases where building parapets do not accomplish sufficient screening, then free-standing screen walls matching the predominant color of the building shall be constructed. Other minor equipment such as conduit, meters and plumbing vents shall be screened or painted to match surrounding building surfaces.
5. All construction with this development plan must be completed in one phase unless a phasing plan is shown with these plans.
6. All exterior lighting provided shall comply with the foot-candle requirements in section 3.2.4 of the land use code and shall use a concealed, fully shielded light source with sharp cut-off capability so as to minimize up-light, spill light, glare and unnecessary diffusion.
7. Signage and addressing are not permitted with this planning document and must be approved by separate City permit prior to construction. Signs must comply with City sign code unless a specific variance is granted by the City.
8. Fire hydrants must meet or exceed Poudre Fire Authority standards. All buildings must provide an approved fire extinguishing system.
9. All bike racks provided must be permanently anchored.
10. All sidewalks and ramps must conform to City standards. Accessable ramps must be provided at all street and drive intersections and at all designated accessable parking spaces. Accessible parking spaces must slope no more than 1:48 in any direction. All accessible routes must slope no more than 1:20 in direction of travel and with no more than 1:48 cross slope.
11. Common open space areas and landscaping within right of ways, street medians, and traffic circles adjacent to common open space areas are required to be maintained by the property owner of the common area. The property owner is responsible for snow removal on all adjacent street sidewalks and sidewalks in common open space areas.
12. Design and installation of all parkway/tree lawn and median areas in the right-of-way shall be in accordance with City standards. Unless otherwise agreed to by the City with the final plans, all ongoing maintenance of such areas is the responsibility of the owner/developer.
13. The property owner for each residential lot is responsible for snow removal on all street sidewalks adjacent to each residential lot.
14. Private conditions, covenants, and restrictions (cc&r's), or any other private restrictive covenant imposed on landowners within the development, may not be created or enforced having the effect of prohibiting or limiting the installation of xeriscape landscaping, solar/photo-voltaic collectors (if mounted flush upon any established roof line), clothes lines (if located in back yards), odor-controlled compost bins, or which have the effect of requiring that a portion of any individual lot be planted in turf grass.
15. Any damaged curb, gutter and sidewalk existing prior to construction, as well as streets, sidewalks, curbs and gutters, destroyed, damaged or removed due to construction of this project, shall be replaced or restored to City of Fort Collins standards at the developer's expense prior to the acceptance of completed improvements and/or prior to the issuance of the first certificate of occupancy.
16. FIRE LANE MARKING: a fire lane marking plan must be reviewed and approved by the fire official prior to the issuance of any certificate of occupancy. Where required by the fire code official, approved signs or other approved notices that include the words no parking fire lane shall be provided for fire apparatus access roads to identify such roads or prohibit the obstruction thereof. The means by which fire lanes are designated shall be maintained in a clean and legible condition at all times ad be replaced or repaired when necessary to provide adequate visibility.
17. PREMISE IDENTIFICATION: an addressing plan is required to be reviewed and approved by the City and Poudre Fire Authority prior to the issuance of any certificate of occupancy. Unless the private drive is named, monument signage may be required to allow way_finding. All buildings shall have address numbers, building numbers or approved building identification placed in a position that is plainly legible, visible from the street or road fronting the property, and posted with a minimum of six_inch numerals on a contrasting background. Where access is by means of a private road and the building cannot be viewed from the public way, a monument, pole or other sign or means shall be used to identify the structure.

G. BLACK-TAILED PRAIRIE DOG MITIGATION NOTES

1. Black-tailed prairie dogs located within the parcel will be trapped and donated to either a raptor rehabilitation program or a black-footed ferret recovery program. All control etc. will be done per City of Fort Collins, CPW and Colorado Department of Agriculture requirements. Control will be conducted via the introduction of carbon monoxide into the burrows. Post-control of the prairie dogs a report will be prepared which will identify the control method used and the number of prairie dogs trapped/donated

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MARS LANDING
PROJECT DEVELOPMENT PLAN

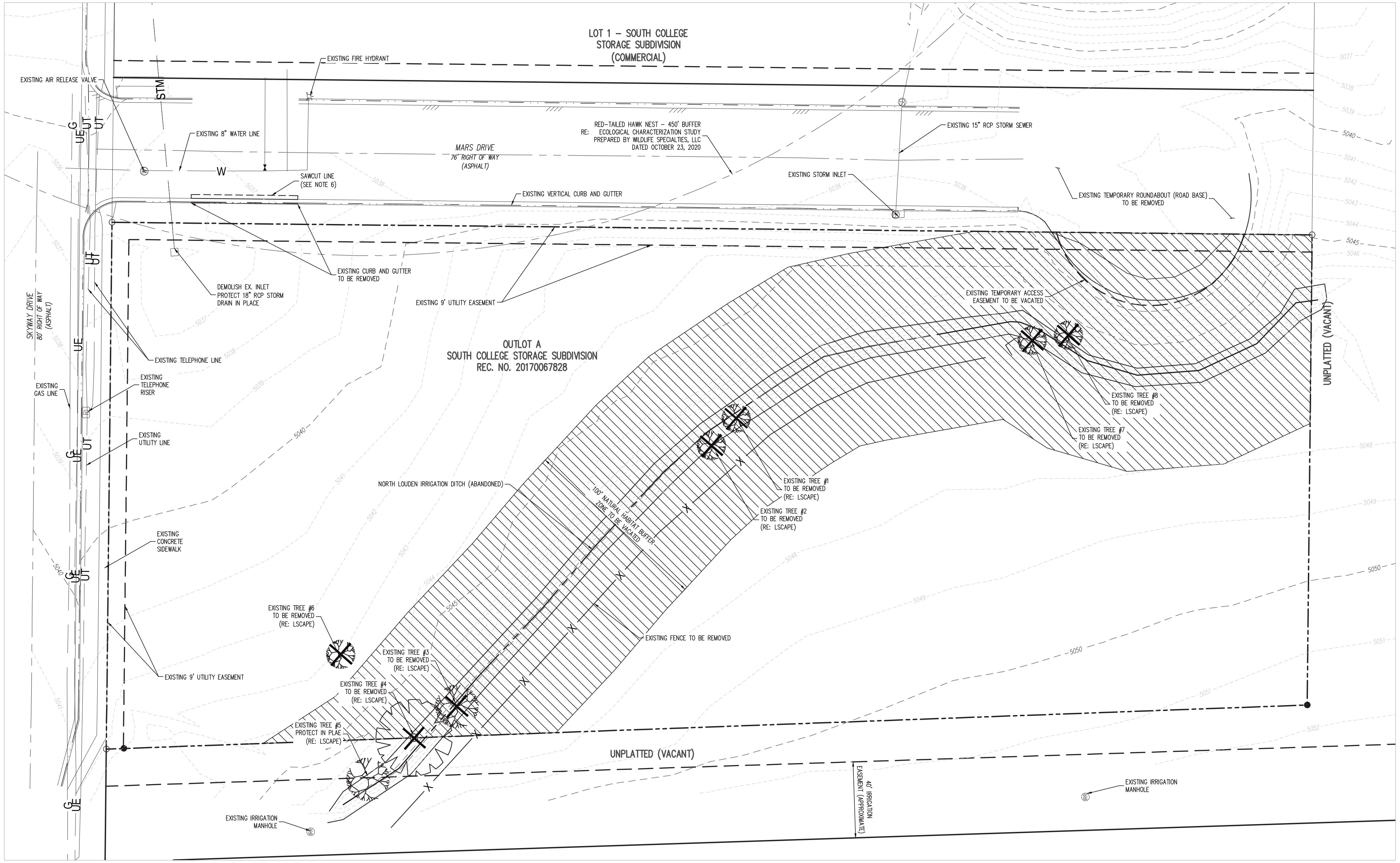
FORT COLLINS, CO

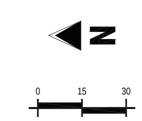
#	Date	Issue / Description	Init.

Project No:	GNK000008
Drawn By:	DBC
Checked By:	JEP
Date:	07.28.2021

GENERAL NOTES

C0.1





LEGEND:

EXISTING WATER MAIN	W
EXISTING SANITARY SEWER	SS
EXISTING FIRE HYDRANT	
EXISTING WATER VALVE	WV
EXISTING STORM SEWER	STM
EXISTING MANHOLE	SD
EXISTING FES	
EXISTING GAS	G
EXISTING ELECTRIC	UE
EXISTING TELEPHONE	UT
EXISTING ELECTRIC METER	EM
EXISTING ELECTRIC RISER	ER
EXISTING ELECTRIC TRANSFORMER	TR
EXISTING EDGE OF ASPHALT	
EXISTING CURB AND GUTTER	
EXISTING MAJOR CONTOUR	4945
EXISTING MINOR CONTOUR	
EXISTING RIGHT-OF-WAY	
EXISTING LOTLINE	
EASEMENT LINE	
EXISTING NATURAL HABITAT BUFFER ZONE (TO BE VACATED)	
EXISTING TREE TO BE REMOVED	

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0–2	1
3–4	2
5–9	5
10–14	10
15–19	12
OVER 19	15

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FORT COLLINS, CO

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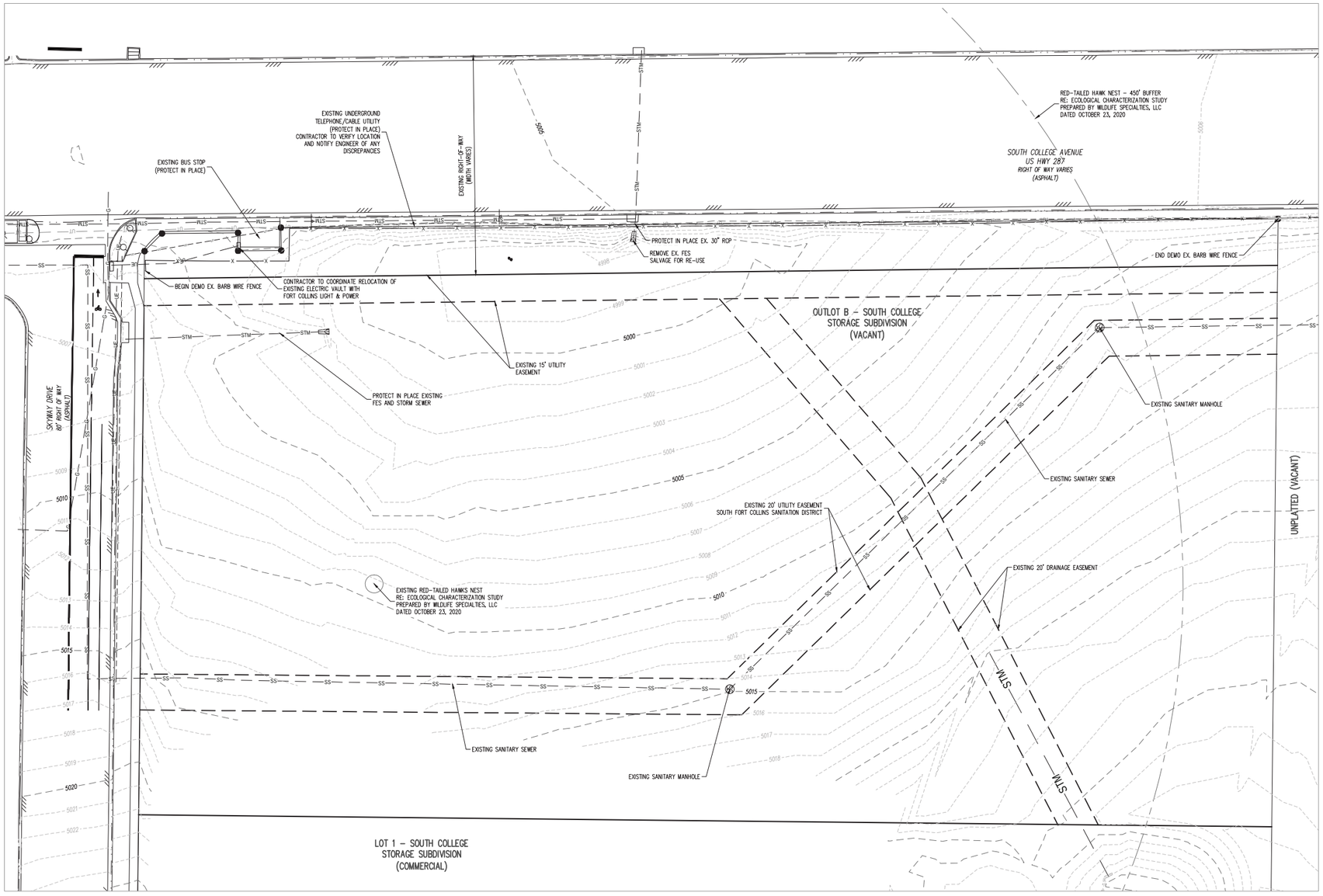
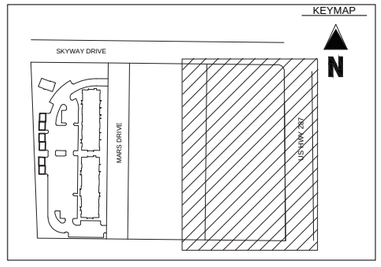
EXISTING CONDITIONS & DEMO PLAN

C1.0





0 15 30
SCALE: 1"=30'

LEGEND:

- EXISTING WATER MAIN — W
- EXISTING SANITARY SEWER — SS
- EXISTING FIRE HYDRANT
- EXISTING WATER VALVE
- EXISTING STORM SEWER — STM
- EXISTING MANHOLE
- EXISTING FES
- EXISTING GAS — G
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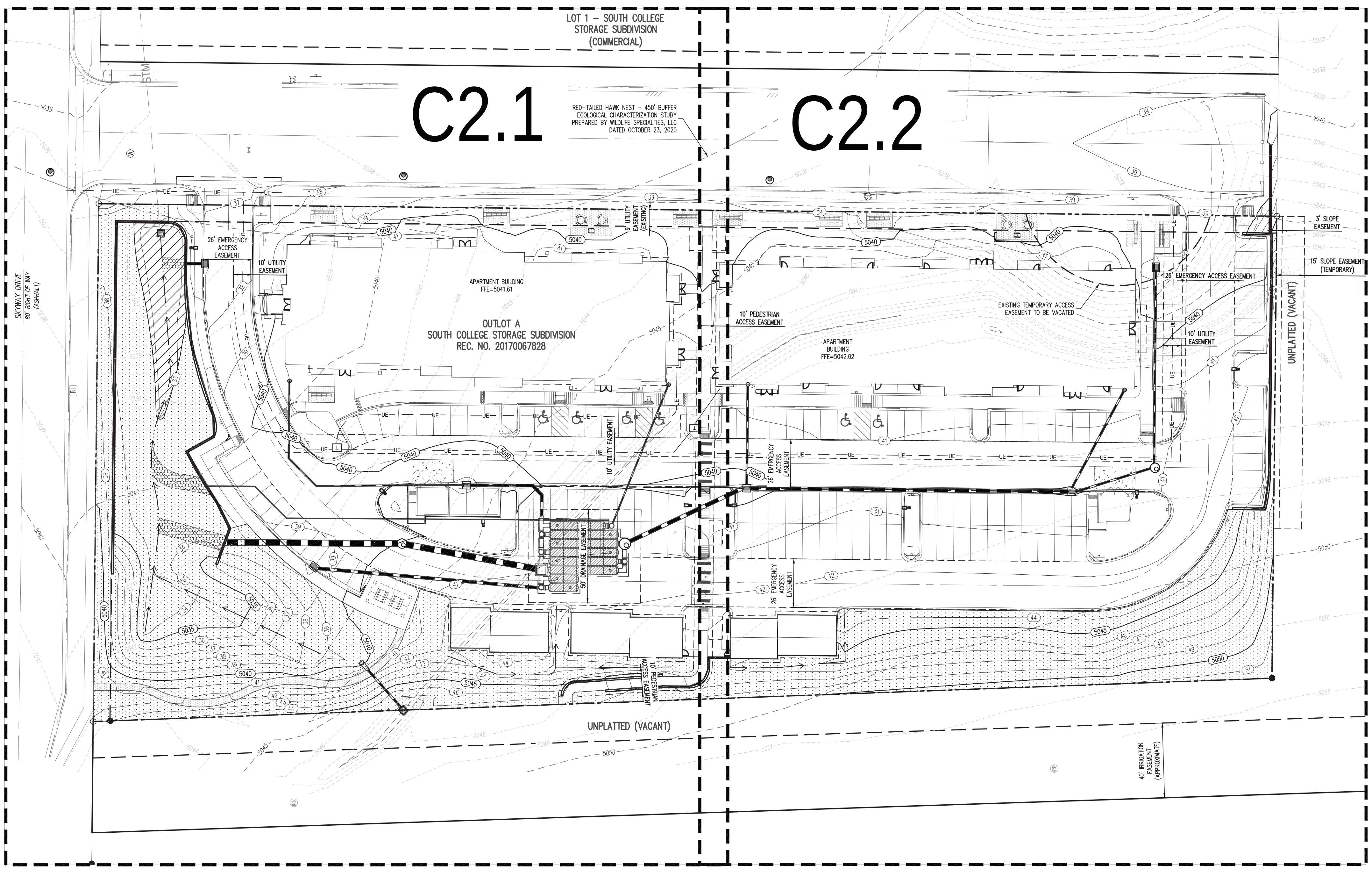

LEGEND:

- PROPOSED CURB AND GUTTER
- PROPOSED CURB AND GUTTER - OUTFALL (TRANSITION)
- EXISTING CURB AND GUTTER
- PROPOSED STORM SEWER
- EXISTING STORM SEWER
- PROPOSED MANHOLE
- EXISTING MANHOLE
- PROPOSED STORM INLET
- EXISTING STORM INLET
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING RIGHT-OF-WAY
- EXISTING LOT LINE
- EXISTING EASEMENT LINE
- PROPOSED EASEMENT LINE
- PROPOSED SLOPES (2.0%)
- PROPOSED SPOT ELEVATION
- EXISTING SPOT ELEVATION
- FINISHED GRADE AT TOP OF WALL
- FINISHED GRADE AT BOTTOM OF WALL
- TOP OF GRATE ELEVATION
- FLOW LINE ELEVATION
- HIGH POINT ELEVATION
- LOW POINT ELEVATION
- EDGE OF CONCRETE (38.12 EC)
- PROPOSED NATURAL HABITAT BUFFER ZONE (NHBZ)
- PROPOSED WETLAND MITIGATION AREA

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2. ELEVATIONS SHOWN HAVE BEEN ABBREVIATED. THE ENTIRE ELEVATION IS THE ELEVATION SHOWN PLUS 5000 FEET (39.81 = 5039.81).
3. ALL CURB SPOTS SHOWN ARE FLOWLINE ELEVATIONS. ALL OTHER SPOTS ARE LOT CORNERS, OVERLOT OR FINISHED GRADE FOR LANDSCAPE AREAS.
4. ADA PARKING STALLS HAVE A 2% MAXIMUM SLOPE IN ANY DIRECTION.

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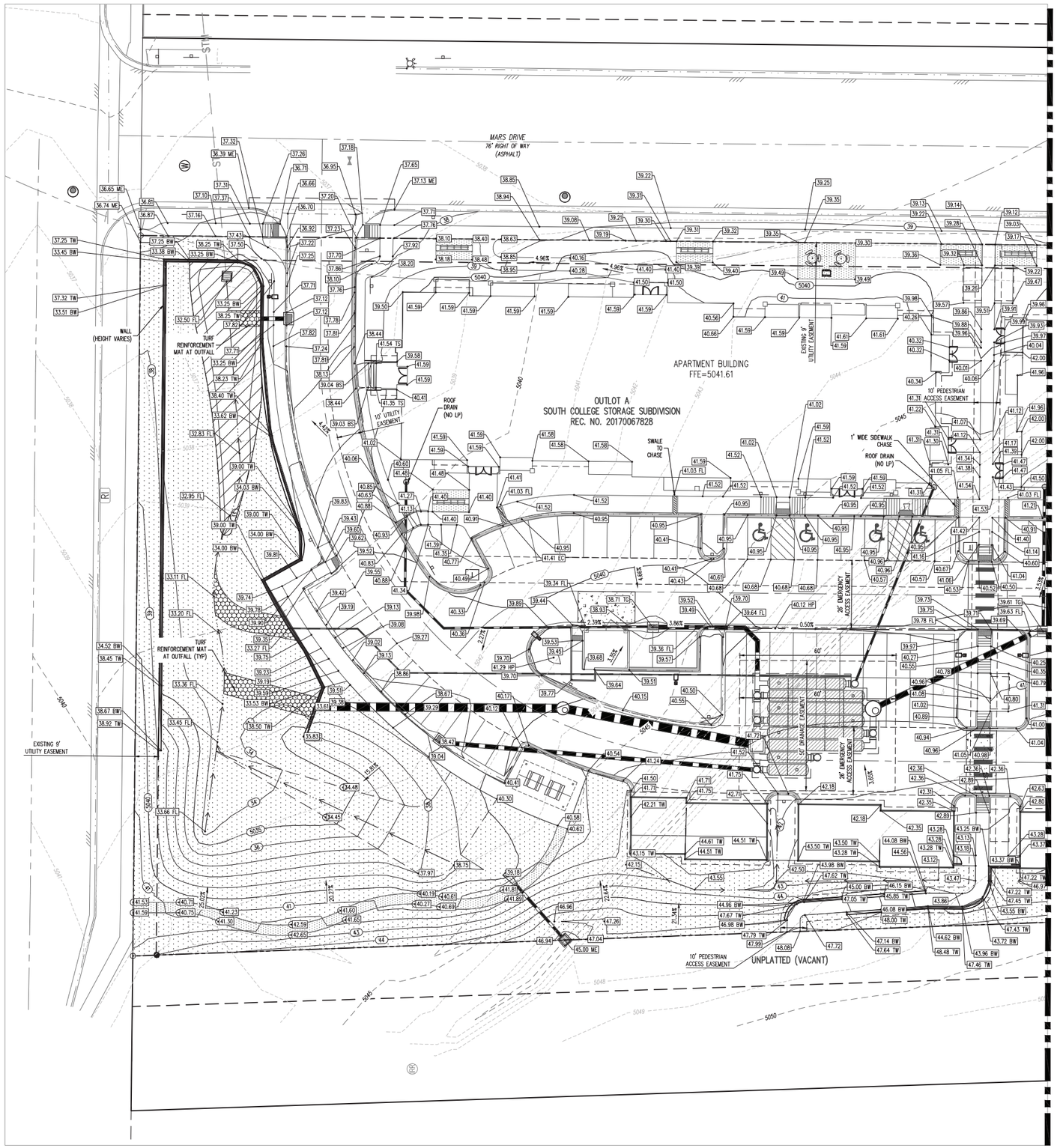
MARS LANDING
PROJECT DEVELOPMENT PLAN
FORT COLLINS, CO

#	Date	Issue / Description	Init.

Project No:	GNK000008
Drawn By:	DBC
Checked By:	JEP
Date:	07.28.2021

OVERALL GRADING PLAN

C2.0



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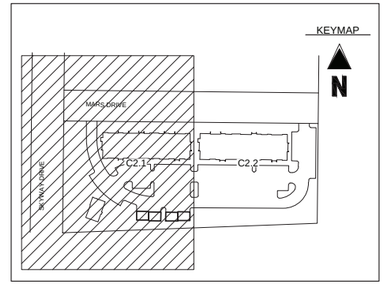

LEGEND:

- PROPOSED CURB AND GUTTER
- PROPOSED CURB AND GUTTER - OUTFALL (TRANSITION)
- EXISTING CURB AND GUTTER
- PROPOSED STORM SEWER
- EXISTING STORM SEWER
- PROPOSED MANHOLE
- EXISTING MANHOLE
- PROPOSED STORM INLET
- EXISTING STORM INLET
- PROPOSED MAJOR CONTOUR (5035)
- PROPOSED MINOR CONTOUR (35)
- EXISTING MAJOR CONTOUR (5035)
- EXISTING MINOR CONTOUR (35)
- EXISTING RIGHT-OF-WAY
- EXISTING LOT LINE
- EXISTING EASEMENT LINE
- PROPOSED EASEMENT LINE
- PROPOSED SLOPES (2.0%)
- PROPOSED SPOT ELEVATION (5037.0)
- EXISTING SPOT ELEVATION (5037.00)
- FINISHED GRADE AT TOP OF WALL (TW 5037.00)
- FINISHED GRADE AT BOTTOM OF WALL (BW 5036.00)
- TOP OF GRATE ELEVATION (TG 5037.00)
- FLOW LINE ELEVATION (FL 5037.00)
- HIGH POINT ELEVATION (HP 5037.00)
- LOW POINT ELEVATION (LP 5037.00)
- EDGE OF CONCRETE (EC 5037.00)
- PROPOSED NATURAL HABITAT BUFFER ZONE (NHBZ)
- PROPOSED WETLAND MITIGATION AREA

NOTES:

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3. ALL CURB SPOTS SHOWN ARE FLOWLINE ELEVATIONS. ALL OTHER SPOTS ARE LOT CORNERS, OVERLOT OR FINISHED GRADE FOR LANDSCAPE AREAS.
4. ADA PARKING STALLS HAVE A 2% MAXIMUM SLOPE IN ANY DIRECTION.

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MARS LANDING
PROJECT DEVELOPMENT PLAN

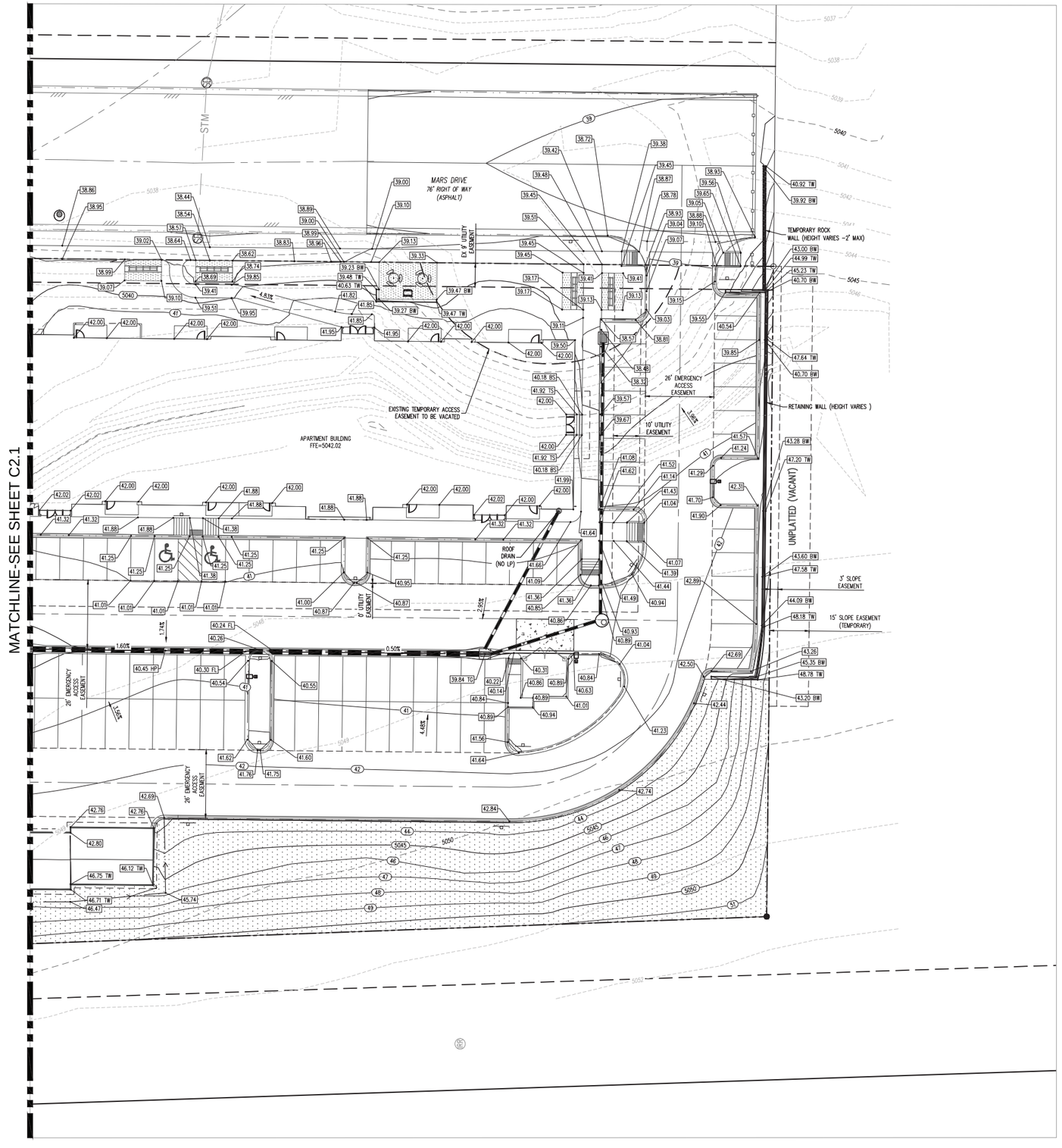
FORT COLLINS, CO

#	Date	Issue / Description	Init.

Project No:	GNK000008
Drawn By:	DBC
Checked By:	JEP
Date:	07.28.2021

DETAILED GRADING PLAN

C2.1



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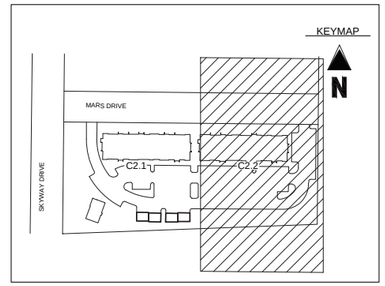
SCALE: 1"=20'

KEYMAP



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MARS LANDING
PROJECT DEVELOPMENT PLAN

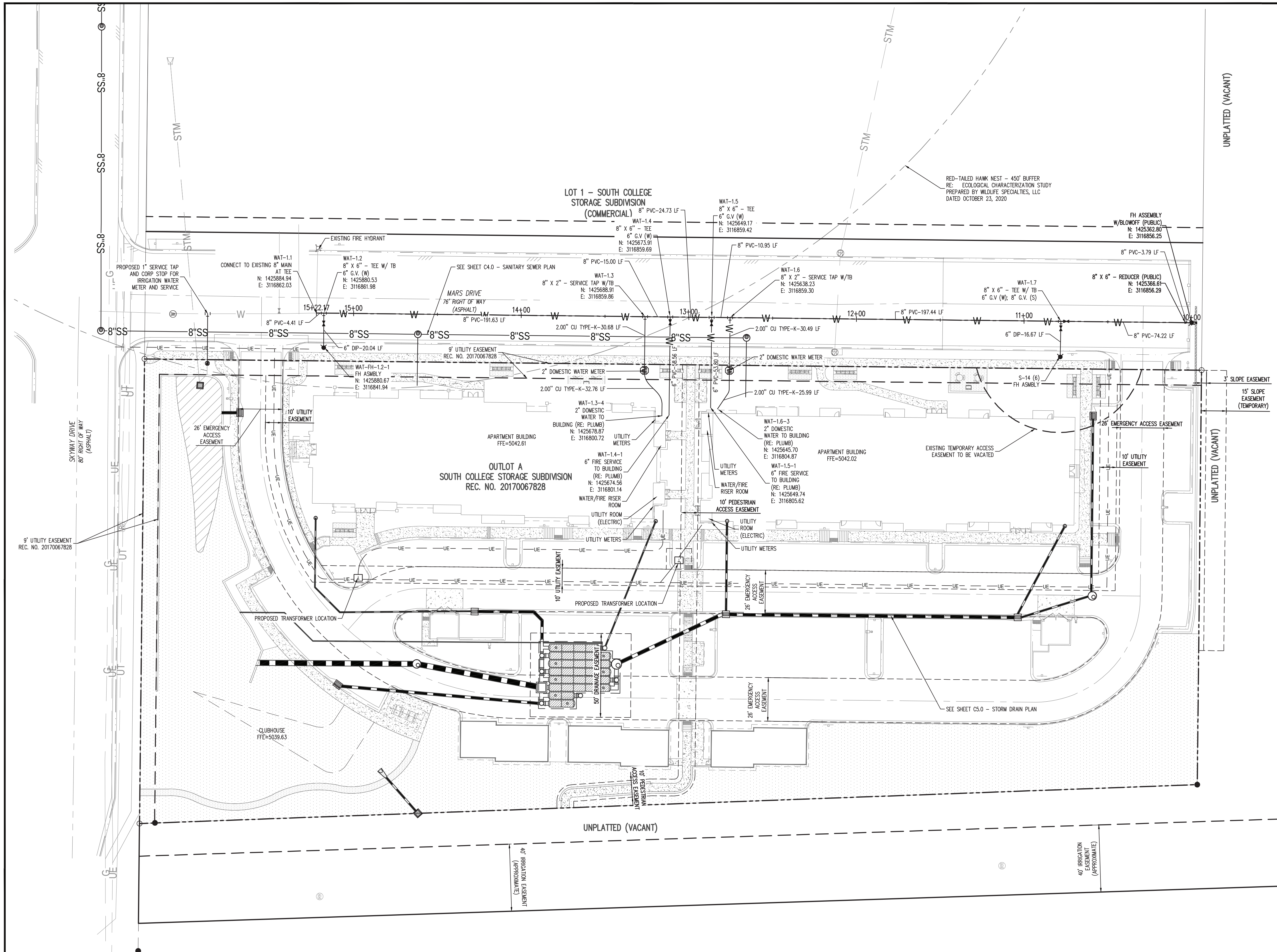
FORT COLLINS, CO

#	Date	Issue / Description	Init.

Project No:	GNK000008
Drawn By:	DBC
Checked By:	JEP
Date:	07.28.2021

DETAILED GRADING PLAN

C2.2



SCALE: 1"=30'

LEGEND:

- PROPOSED WATER MAIN
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- PROPOSED SANITARY SEWER
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6. MINIMUM SEWER SLOPE IS 1.04% ($\frac{1}{8}$" / 1') FOR 6" DIAMETER AND 2.08% ($\frac{1}{4}$" / 1') FOR 4" DIAMETER
7. CONTRACTOR TO COORDINATE GAS, ELECTRIC, TELEPHONE AND CABLE SERVICES.
8. FOR WATER DETAILS SEE SHEETS C3.1–C3.2. FOR STORM DRAIN DETAILS SEE SHEET C5.1–C5.2. FOR SANITARY SEWER DETAILS SEE SHEET C4.1.
9. ALL JOINTS TO BE MECHANICALLY RESTRAINED.
10. APPROVED BACKFLOW PREVENTION DEVICES SHALL BE PROVIDED ON ALL DOMESTIC, IRRIGATION AND FIRE SERVICES
11. ALL WATER AND SEWER MAINS AND SERVICE LATERALS SHALL BE 10' FROM TREE TRUNKS AND 5' FROM LIGHT POLES.

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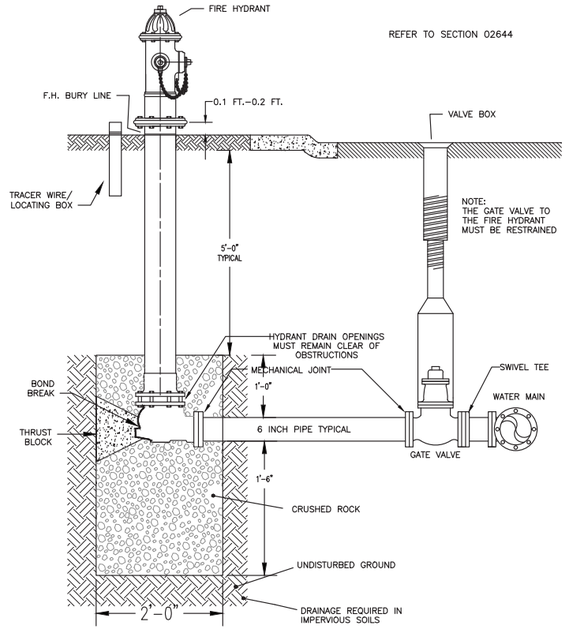
MARS LANDING
PROJECT DEVELOPMENT PLAN

FORT COLLINS, CO

#	Date	Issue / Description	Init.

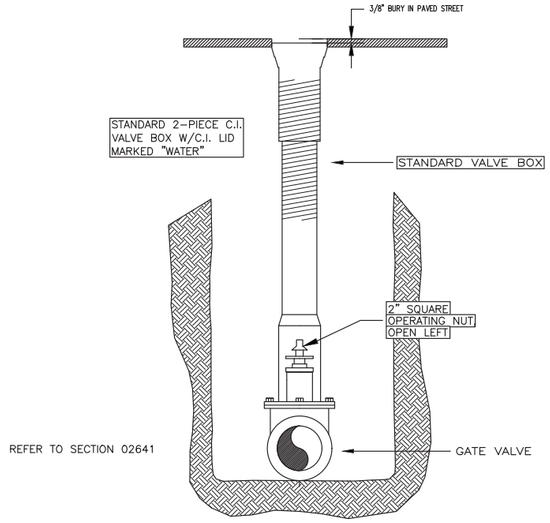
Project No:	GNK000008
Drawn By:	DBC
Checked By:	JEP
Date:	07.28.2021

UTILITY PLAN



TYPICAL FIRE HYDRANT INSTALLATION

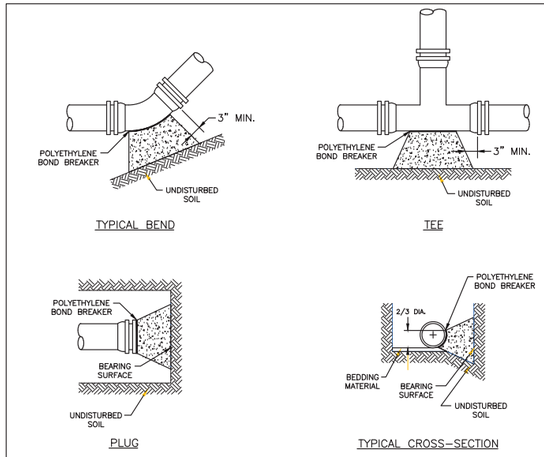
FORT COLLINS – LOVELAND WATER DISTRICT Office (970) 226-3104 Fax (970) 226-0186	APPROVED: DATE: 6-18-2010	SCALE: NTS



NOTE:
VALVE BOX SHALL BE CENTERED AND PLUMB OVER THE OPERATING NUT.

TYPICAL GATE VALVE INSTALLATION

FORT COLLINS – LOVELAND WATER DISTRICT Office (970) 226-3104 Fax (970) 226-0186	APPROVED: DATE: 6-18-2010	SCALE: NTS

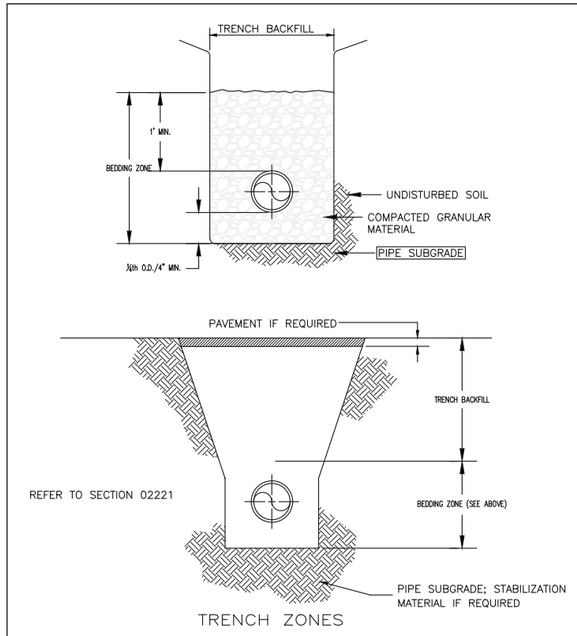


MINIMUM BEARING SURFACE AREA (SQ. FT.)					
PIPE SIZE	BENDS				TEE OR PLUG
	11 1/4°	22 1/4°	45°	90°	
6"	0.7	1.4	2.9	5.3	3.8
8"	1.2	2.5	5.0	9.3	6.5
12"	2.6	5.2	10.2	18.8	13.3

GENERAL NOTES:
1. Bearing surface areas shown in chart are minimum.
2. All fittings to be wrapped with polyethylene.
3. Data in table is based on a pipeline test pressure of 150 psi (min.) and a soil bearing capacity of 1,000 lb/sq. ft. Adjust the dimensions as required to suit the field conditions encountered by Engineer.
4. Thrust blocks on pipe larger than 12 inches diameter shall be designed for conditions existing at the installation site.
5. Refer to Section 03300 and 02713.

TYPICAL CONCRETE THRUST BLOCKS

FORT COLLINS – LOVELAND WATER DISTRICT Office (970) 226-3104 Fax (970) 226-0186	APPROVED: DATE: 6-18-2010	SCALE: NTS



TRENCH AND BEDDING TYPICAL

FORT COLLINS – LOVELAND WATER DISTRICT Office (970) 226-3104 Fax (970) 226-0186	APPROVED: DATE: 6-18-2010	SCALE: NTS

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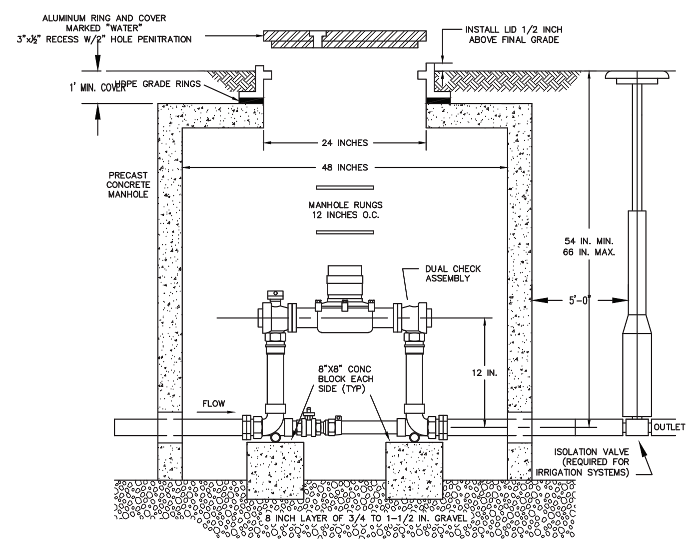
UTILITY DETAILS

C3.1



REFER TO SECTION 02646

GENERAL NOTES:

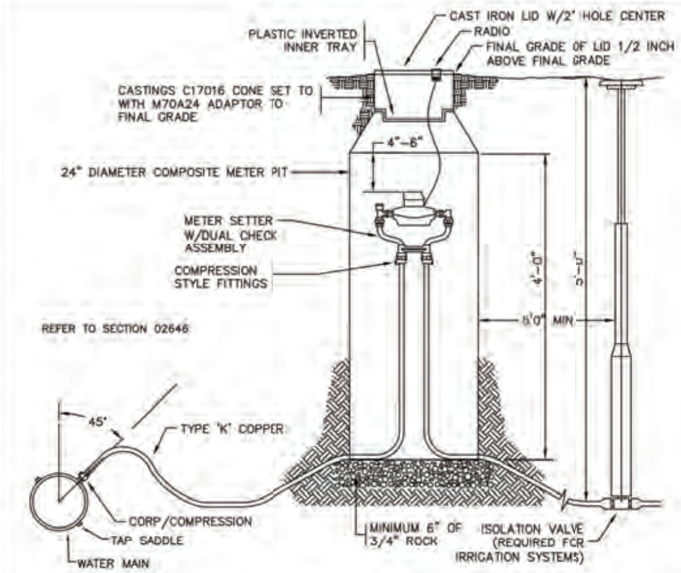
1. Meter setting devices to be "custom setters" with by-pass and flanged ball valves. Meter setters to be supported by 2 – 18" lengths of 1" iron pipe inserted through eyelets and set atop 8" x 8" concrete blocks.
2. This meter is not to be installed in any street, alley, parking area or driveway.
3. No landscaping (trees, shrubs, boulders, etc.) is to be within 5 feet of meter pit.
4. Ground surrounding meter pit shall slope away from lid.
5. No plumbing connections are to be made in meter pit.
6. Lawn sprinkler connections are to be at least 5 feet from meter pit on the outlet side.
7. Irrigation systems require an isolation valve downstream of vault, minimum of 5 feet.
8. Valves to be operated by District personnel only, with exception to the irrigation isolation valve.

TYPICAL INSTALLATION FOR 1–1/2" & 2" METERS

FORT COLLINS – LOVELAND WATER DISTRICT
Office (970) 226-3104 Fax (970) 226-0186

APPROVED:
DATE: 10-30-2013

SCALE: NTS



GENERAL NOTES:

1. METER PITS ARE TO BE INSTALLED AT CENTER OF LOT UNLESS OTHERWISE APPROVED BY THE DISTRICT. METER PITS SHALL NOT BE LOCATED IN AREAS SUBJECT TO TRAFFIC OF PEDESTRIAN WALKWAYS.
2. NO LANDSCAPING (TREES, SHRUBS, BOULDERS, ETC.) IS TO BE WITHIN 5 FEET OF METER PIT.
3. GROUND SURROUNDING METER PIT SHALL SLOPE AWAY FROM LID.
4. NO PLUMBING CONNECTIONS ARE TO BE MADE IN METER PIT.
5. LAWN SPRINKLER CONNECTIONS ARE TO BE AT LEAST 5 FEET FROM METER PIT ON THE OUTLET SIDE.
6. IRRIGATION SYSTEMS REQUIRE AN ISOLATION VALVE DOWNSTREAM OF THE PIT, MINIMUM OF 5 FEET.
7. VALVES TO BE OPERATED BY DISTRICT PERSONNEL ONLY, WITH EXCEPTION TO THE IRRIGATION ISOLATION VALVES.

TYPICAL METER PIT INSTALLATION

FORT COLLINS – LOVELAND WATER DISTRICT
Office (970) 226-3104 Fax (970) 226-0186

APPROVED:
DATE: 9/25/2017

SCALE: NTS

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UTILITY DETAILS

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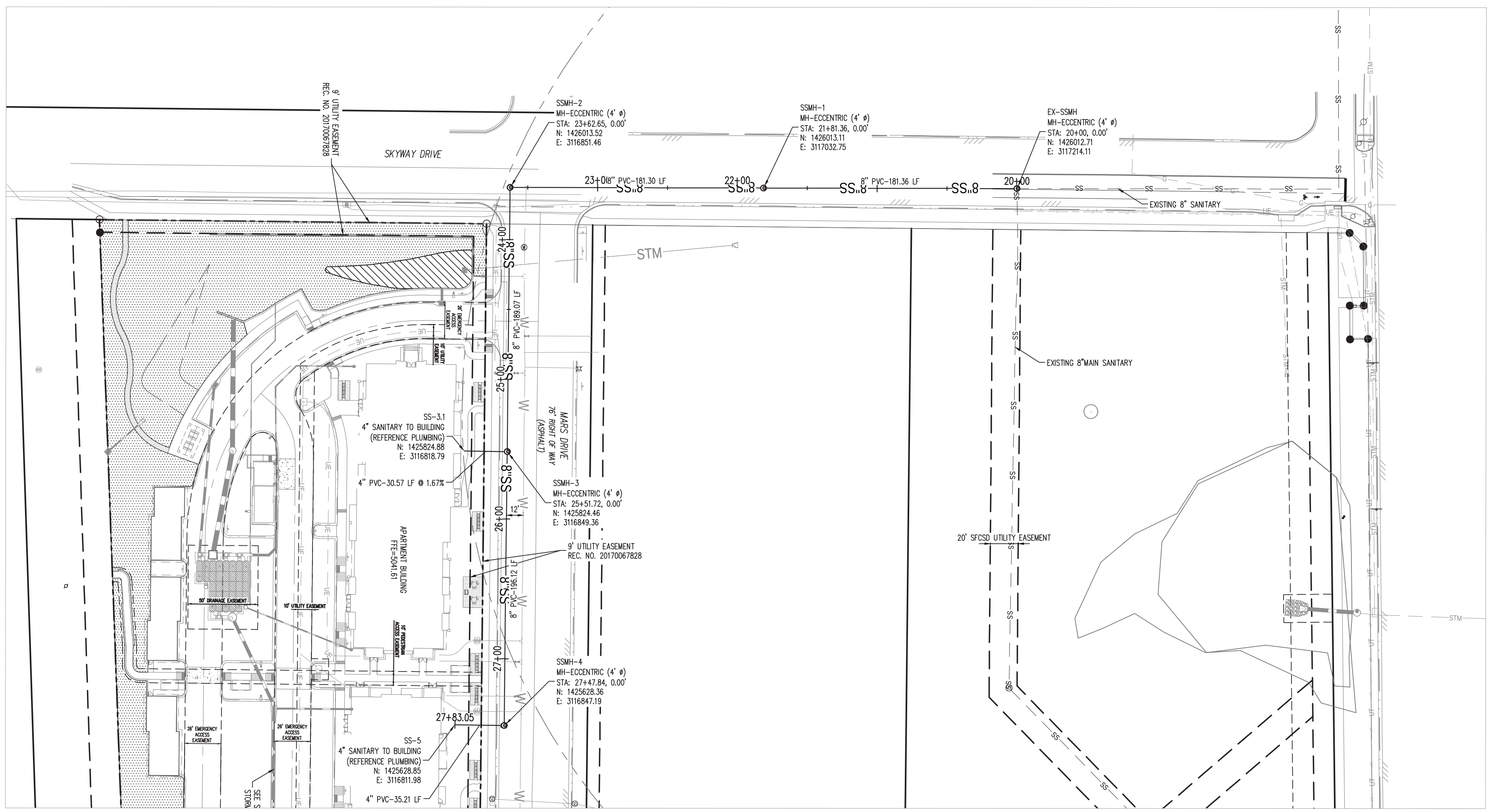

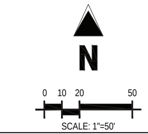

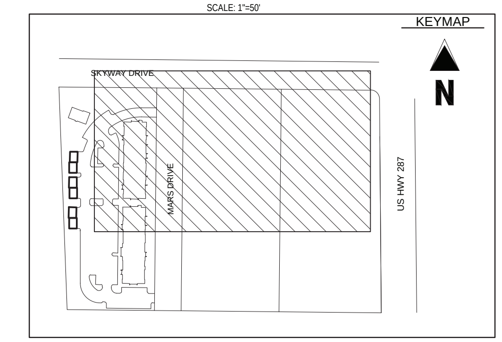

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6. MINIMUM SEWER SLOPE IS 1.04% ($\frac{1}{8}$" / 1') FOR 6" DIAMETER AND 2.08% ($\frac{1}{4}$" / 1') FOR 4" DIAMETER
7. CONTRACTOR TO COORDINATE GAS, ELECTRIC, TELEPHONE AND CABLE SERVICES.
8. FOR WATER DETAILS SEE SHEETS C3.1–C3.2. FOR STORM DRAIN DETAILS SEE SHEET C5.1–C5.2. FOR SANITARY SEWER DETAILS SEE SHEET C4.1.
9. ALL JOINTS TO BE MECHANICALLY RESTRAINED.
10. APPROVED BACKFLOW PREVENTION DEVICES SHALL BE PROVIDED ON ALL DOMESTIC, IRRIGATION AND FIRE SERVICES
11. ALL WATER AND SEWER MAINS AND SERVICE LATERALS SHALL BE 10' FROM TREE TRUNKS AND 5' FROM LIGHT POLES.

CAUTION - NOTICE TO CONTRACTOR

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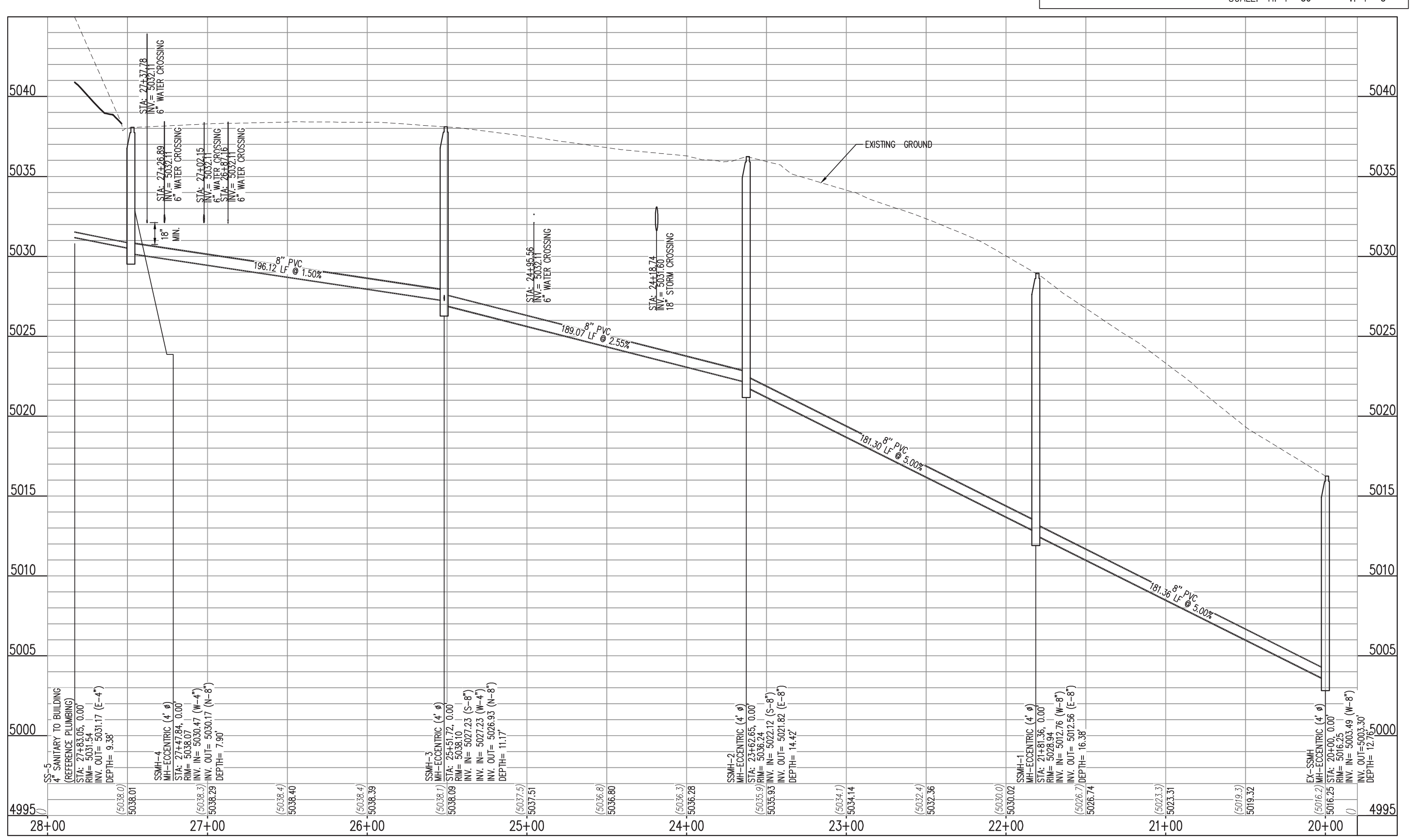
2. WHERE A PROPOSED UTILITY CROSSES AN EXISTING UTILITY, IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF SUCH EXISTING UTILITY, EITHER THROUGH POTHOLING OR ALTERNATIVE METHOD. REPORT INFORMATION TO THE ENGINEER PRIOR TO CONSTRUCTION.
3. CONTRACTOR RESPONSIBLE FOR AS-BUILT DRAWINGS, TESTS, REPORTS AND/OR ANY OTHER CERTIFICATES OR INFORMATION AS REQUIRED FOR ACCEPTANCE OF WORK FROM CITY, UTILITY DISTRICTS OR ANY OTHER GOVERNING AGENCY.
4. CONTRACTOR SHALL PROTECT ALL EXISTING SURVEY MONUMENTATION. CONTRACTOR SHALL HAVE LICENSED SURVEYOR REPLACE ANY DAMAGED OR DISTURBED MONUMENTATION AT THEIR COST.

811 Know what's **below.** **Call** before you dig.

SANITARY 1	STA: 20+00.00 to 27+83.05
	SCALE: H: 1"=50' V: 1"=5'



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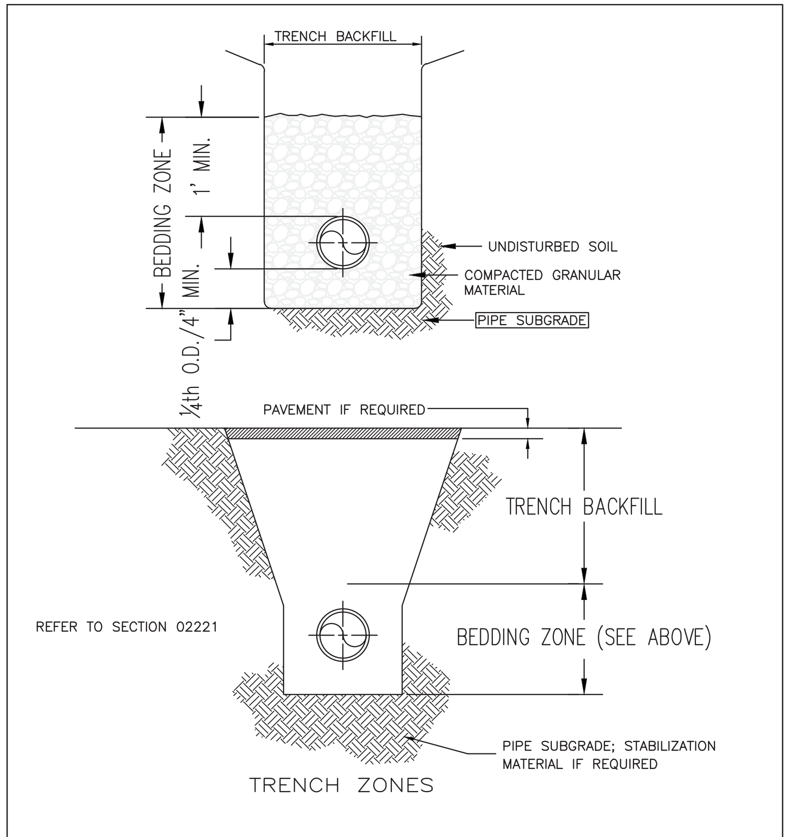
MARS LANDING
PROJECT DEVELOPMENT PLAN
FORT COLLINS, CO

#	Date	Issue / Description	Init.

Project No:	GNK000008
Drawn By:	DBC
Checked By:	JEP
Date:	07.28.2021

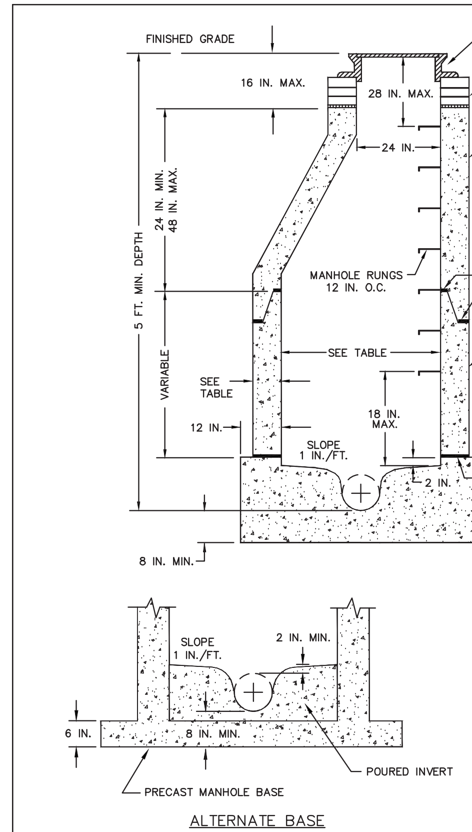
SANITARY SEWER PLAN

C4.0



TRENCH AND BEDDING TYPICAL

SOUTH FORT COLLINS SANITATION DISTRICT
Office (970) 226-3104 Fax (970) 226-0186
APPROVED:
DATE: 12-15-2010
SCALE: NTS



MINIMUM INSIDE DIAMETER OF MANHOLE SHALL BE AS FOLLOWS:

PIPE SIZE	MIN. MANHOLE DIAMETER
15 IN. OR LESS	48 IN.
18 IN. TO 30 IN.	60 IN.
OVER 30 INCHES	72 IN.

MANHOLE WALL THICKNESS			
I.D.	48ø	60ø	72ø
	5 IN.	6 IN.	7 IN.

TYPICAL MANHOLE

SOUTH FORT COLLINS SANITATION DISTRICT
OFFICE (970) 226-3104 FAX (970) 226-0186
APPROVED:
DATE: 1-29-2014
SCALE: NTS

CAUTION - NOTICE TO CONTRACTOR

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2. WHERE A PROPOSED UTILITY CROSSES AN EXISTING UTILITY, IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF SUCH EXISTING UTILITY, EITHER THROUGH POTHOLING OR ALTERNATIVE METHOD. REPORT INFORMATION TO THE ENGINEER PRIOR TO CONSTRUCTION.
3. CONTRACTOR RESPONSIBLE FOR AS-BUILT DRAWINGS, TESTS, REPORTS AND/OR ANY OTHER CERTIFICATES OR INFORMATION AS REQUIRED FOR ACCEPTANCE OF WORK FROM CITY, UTILITY DISTRICTS OR ANY OTHER GOVERNING AGENCY.
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MARS LANDING
PROJECT DEVELOPMENT PLAN
FORT COLLINS, CO

#	Date	Issue / Description	Init.
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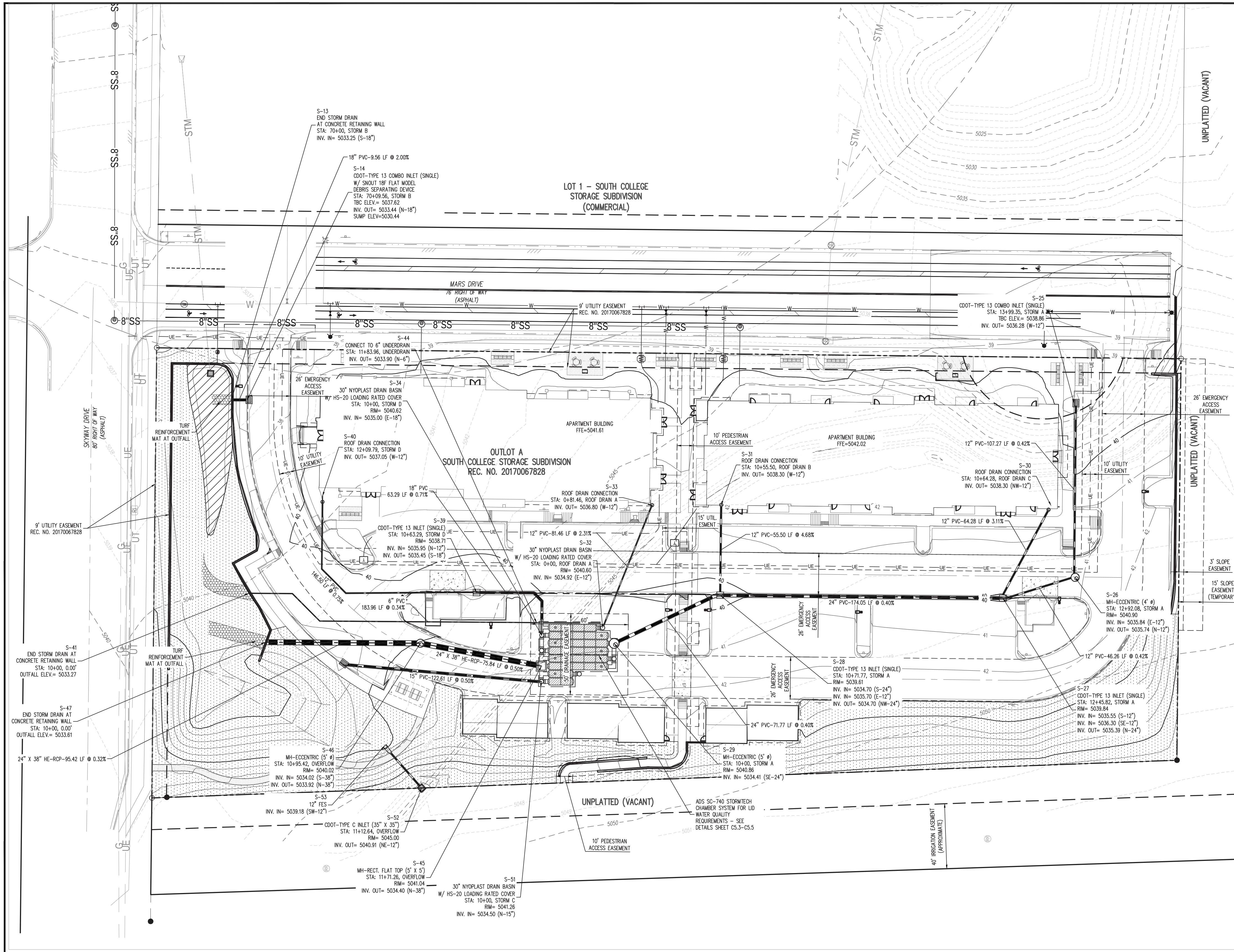
Project No:	GNK000008
Drawn By:	DBC
Checked By:	JEP
Date:	07.28.2021

SANITARY SEWER DETAILS

C4.1



SCALE: 1"=30'

LEGEND:

PROPOSED 8" WATER MAIN	8"W
EXISTING WATER MAIN	W
PROPOSED SANITARY SEWER	8"SS
EXISTING SANITARY SEWER	SS
EXISTING FIRE HYDRANT	
PROPOSED FIRE HYDRANT	
PROPOSED STORM SEWER	
EXISTING STORM SEWER	
EXISTING IRRIGATION	IRR
EXISTING UNDERGROUND TELEPHONE	UT
EXISTING UNDERGROUND ELECTRIC	UE
EXISTING FIBER OPTIC	FO
EXISTING GAS	G
PROPOSED CURB AND GUTTER	
EXISTING RIGHT-OF-WAY	
EXISTING LOTLINE	
PROPOSED EASEMENT LINE	
EXISTING EASEMENT LINE	
PROPOSED STORM INLET	
EXISTING STORM INLET	
PROPOSED MANHOLE	
EXISTING MANHOLE	SS SD
PROPOSED NATURAL HABITAT BUFFER ZONE (NHBZ)	
PROPOSED WETLAND MITIGATION AREA	

NOTES:

1. THE SIZE, TYPE AND LOCATION OF ALL KNOWN UNDERGROUND UTILITIES ARE APPROXIMATE WHEN SHOWN ON THESE DRAWINGS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE OF ALL UNDERGROUND UTILITIES IN THE AREA OF THE WORK. BEFORE COMMENCING NEW CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES AND SHALL BE RESPONSIBLE FOR ALL UNKNOWN UNDERGROUND UTILITIES.
2. ALL WATER AND SEWER CONSTRUCTION SHALL BE PER FORT COLLINS LOVELAND WATER DISTRICT AND SOUTH FORT COLLINS SANITATION DISTRICT STANDARD CONSTRUCTION SPECIFICATIONS LATEST EDITION.
3. ALL WATER FITTINGS AND VALVES ARE ONLY GRAPHICALLY REPRESENTED AND ARE NOT TO SCALE.
4. UTILITY SERVICES ARE SHOWN IN A SCHEMATIC FASHION ONLY. EXACT LOCATIONS SHALL BE PER THE REQUIREMENTS OF THE RESPECTIVE UTILITY PROVIDERS, AND ARE SUBJECT TO CHANGE IN THE FIELD.
5. MAINTAIN 10' HORIZONTAL AND 18" VERTICAL MINIMUM SEPARATION BETWEEN ALL SANITARY SEWER MAINS, STORM SEWER MAINS, WATER MAINS & SERVICES.
6. CONFIRM EXISTING SANITARY SEWER INVERT IN THE FIELD. IF IT DOESN'T MATCH THE ASSUMED INVERT, CONTACT THE DESIGN ENGINEER.
7. CONFIRM EXISTING STORM SEWER INVERT IN THE FIELD. IF IT DOESN'T MATCH THE ASSUMED INVERT, CONTACT THE DESIGN ENGINEER.
8. CONFIRM HORIZONTAL LOCATION OF WATER TO EXISTING LOCATIONS PRIOR TO CONSTRUCTION. CONTACT DESIGN ENGINEER WITH ANY DISCREPANCIES.
9. MINIMUM SEWER SLOPE IS 1.04% ($\frac{1}{8}$" / 1') FOR 6" DIAMETER AND 2.08% ($\frac{1}{4}$" / 1') FOR 4" DIAMETER.
10. CONTRACTOR TO COORDINATE GAS, ELECTRIC AND TELEPHONE CABLE SERVICES.
11. THE PLUMBING CONTRACTOR SHALL TERMINATE UTILITY LATERALS 5' OUTSIDE OF BUILDING UNLESS OTHERWISE NOTED. EXACT LOCATIONS (HORIZONTAL AND VERTICAL) OF ALL UTILITY CONNECTIONS INTO THE PROPOSED BUILDING SHALL BE COORDINATED WITH THE APPROVED ARCHITECTURAL DRAWINGS.
12. ROOF DRAIN CONNECTIONS TO BE COORDINATED WITH FINAL ARCHITECTURAL PLANS.

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MARS LANDING
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FORT COLLINS, CO

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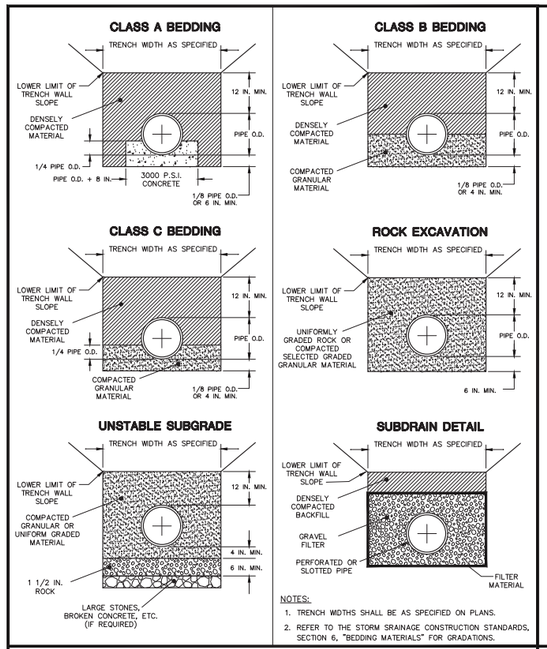
STORM DRAIN PLAN

C5.0

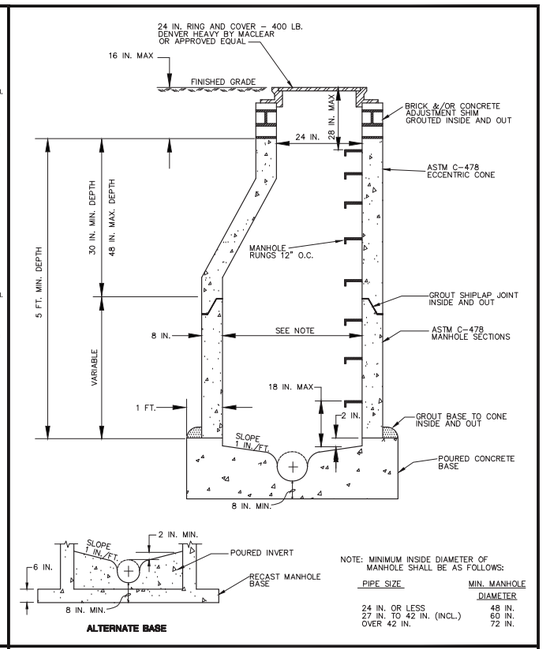


NOTES:

1. TRENCH WIDTHS SHALL BE AS SPECIFIED ON PLANS.
2. REFER TO THE STORM SRAINAGE CONSTRUCTION STANDARDS, SECTION 6, "BEDDING MATERIALS" FOR GRADATIONS.

STORMWATER BEDDING REQUIREMENTS

CITY OF FORT COLLINS UTILITIES, FORT COLLINS, CO. (970) 221-6700	STORMWATER CONSTRUCTION DETAILS	APPROVED:	DETAIL D-1
		DATE: 1/12/00	
		DRAWN BY: SKC	

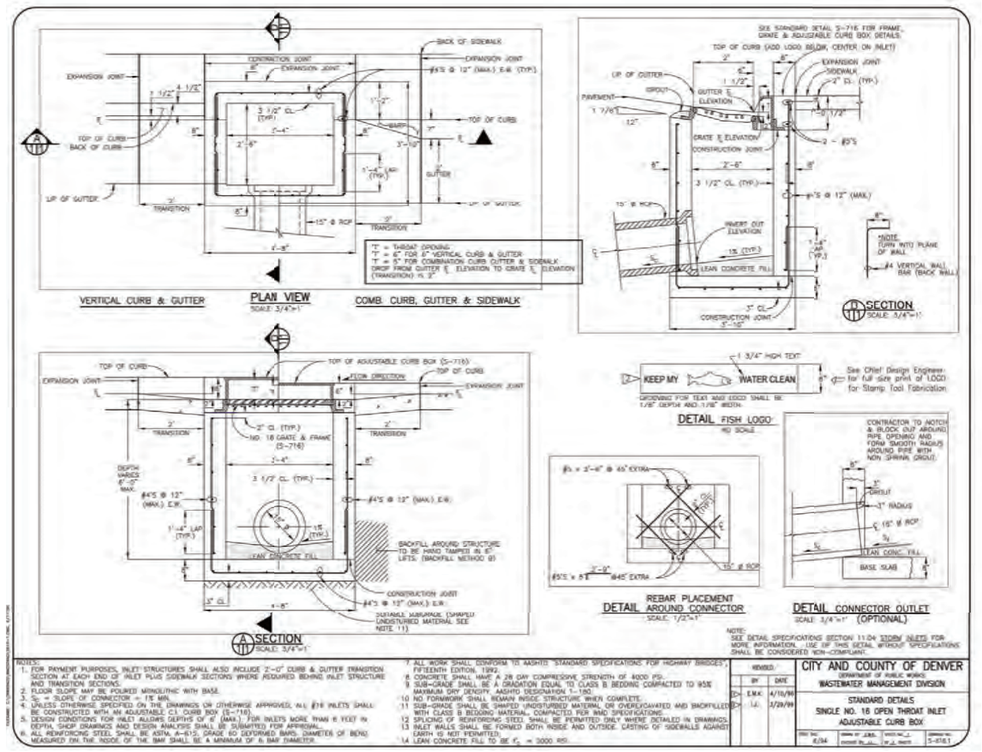


NOTE: MINIMUM INSIDE DIAMETER OF MANHOLE SHALL BE AS FOLLOWS:

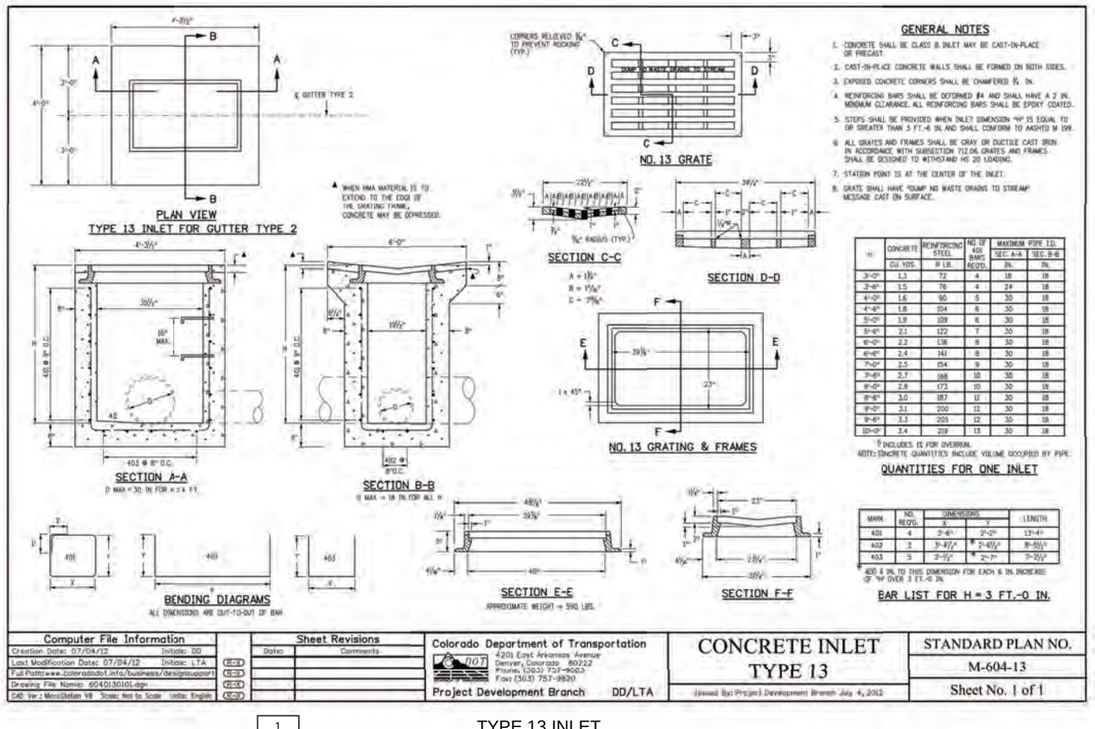
PIPE SIZE	MIN. MANHOLE DIAMETER
24 IN. OR LESS	48 IN.
27 IN. TO 42 IN. (INCL.)	60 IN.
OVER 42 IN.	72 IN.

STANDARD MANHOLE

CITY OF FORT COLLINS UTILITIES, FORT COLLINS, CO. (970) 221-6700	STORMWATER CONSTRUCTION DETAILS	APPROVED:	DETAIL D-3
		DATE: 11/7/00	
		DRAWN BY: NBJ	



2 C6.0 COMBINATION INLET



1 C6.0 TYPE 13 INLET

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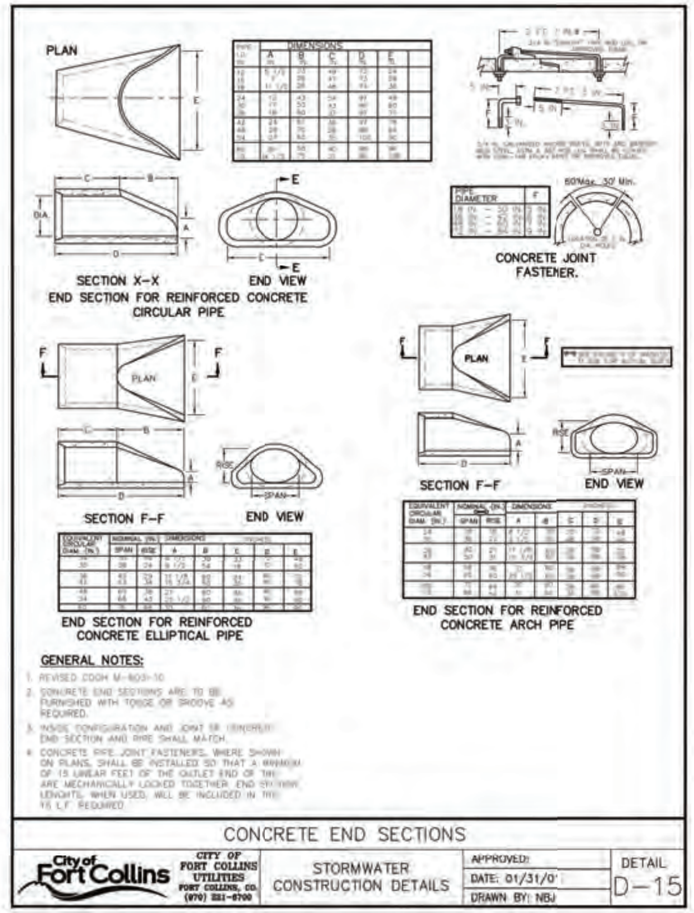
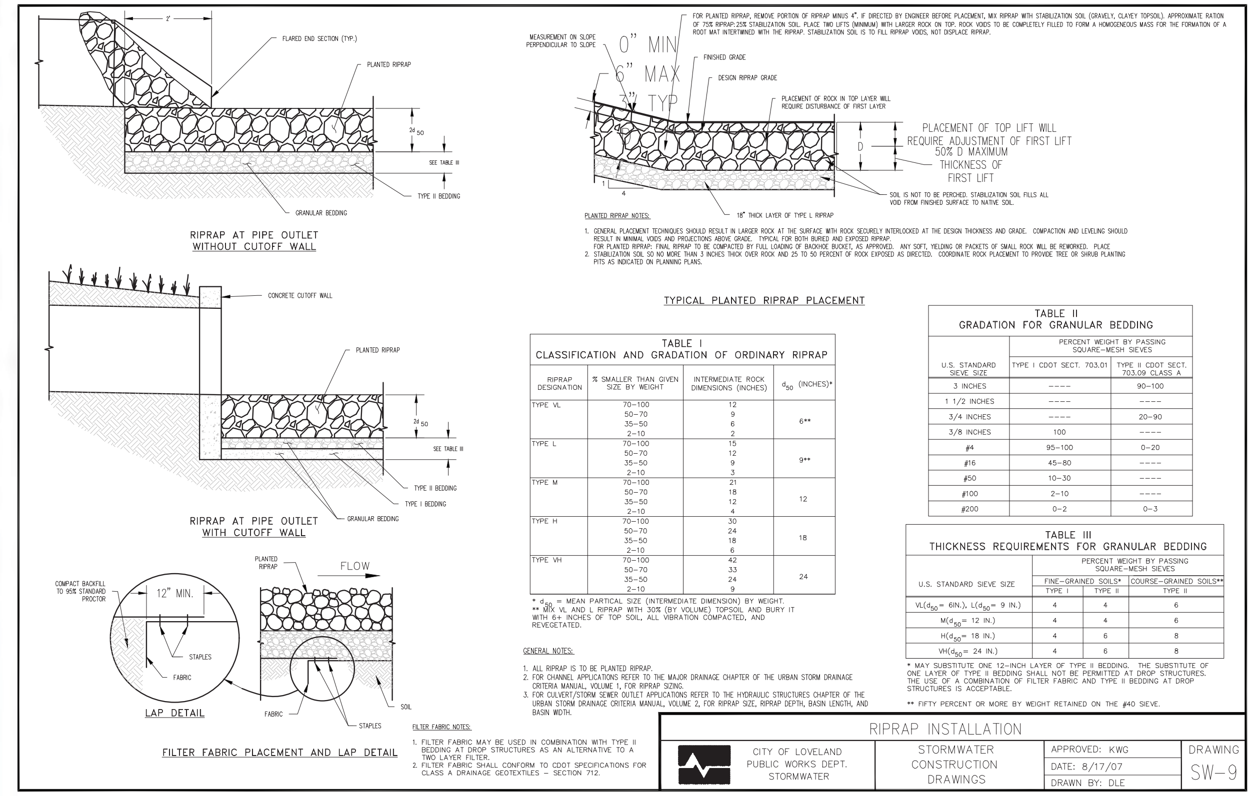
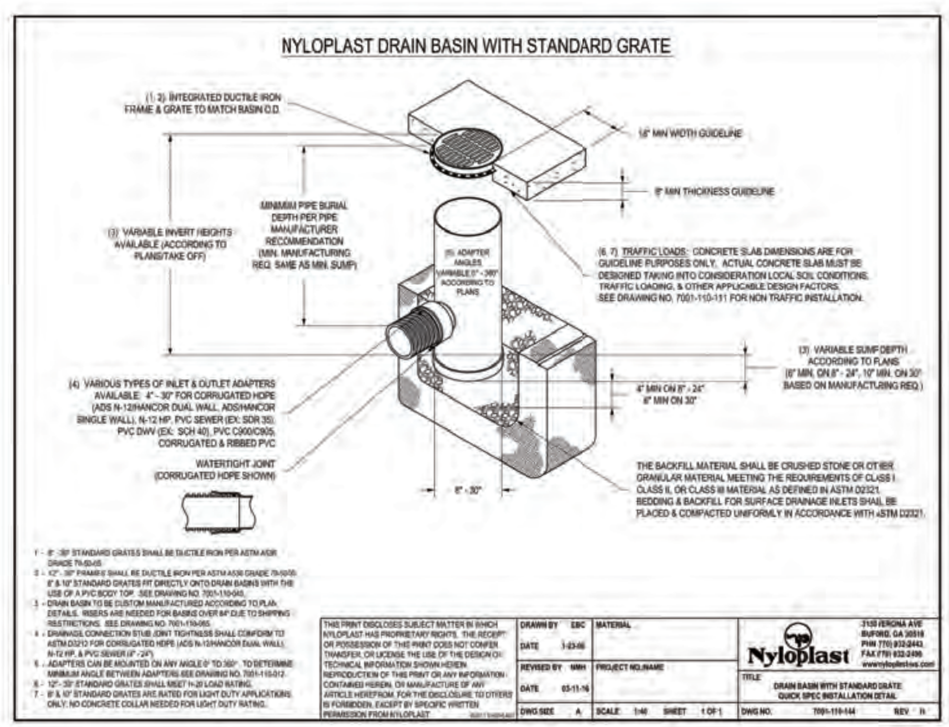
STORM DETAILS

C5.1


PLAN
SECTION X-X
END VIEW
END SECTION FOR REINFORCED CONCRETE CIRCULAR PIPE
CONCRETE JOINT FASTENER.
SECTION F-F
END VIEW
END SECTION FOR REINFORCED CONCRETE ELLIPTICAL PIPE
END SECTION FOR REINFORCED CONCRETE ARCH PIPE
GENERAL NOTES:
CONCRETE END SECTIONS
STORMWATER CONSTRUCTION DETAILS
DETAIL D-15


RIPRAP AT PIPE OUTLET WITHOUT CUTOFF WALL
RIPRAP AT PIPE OUTLET WITH CUTOFF WALL
TYPICAL PLANTED RIPRAP PLACEMENT
PLACEMENT OF TOP LIFT WILL REQUIRE ADJUSTMENT OF FIRST LIFT 50% D MAXIMUM THICKNESS OF FIRST LIFT
TABLE I CLASSIFICATION AND GRADATION OF ORDINARY RIPRAP
TABLE II GRADATION FOR GRANULAR BEDDING
TABLE III THICKNESS REQUIREMENTS FOR GRANULAR BEDDING
LAP DETAIL
FILTER FABRIC PLACEMENT AND LAP DETAIL
FLOW
RIPRAP INSTALLATION
CITY OF LOVELAND PUBLIC WORKS DEPT. STORMWATER
STORMWATER CONSTRUCTION DRAWINGS
DRAWING SW-9

4 | C7.1 — RIRRAP INSTALLATION AT FES


NYLOPLAST DRAIN BASIN WITH STANDARD GRATE
(1, 2) INTEGRATED DUCTILE IRON FRAME & GRATE TO MATCH BASIN O.D.
18" MIN WIDTH GUIDELINE
8" MIN THICKNESS GUIDELINE
MINIMUM PIPE BURIAL DEPTH PER PIPE MANUFACTURER RECOMMENDATION (MIN. MANUFACTURING REQ. SAME AS MIN. SUMP)
(3) VARIABLE INVERT HEIGHTS AVAILABLE (ACCORDING TO PLANS/TAKE OFF)
(6, 7) TRAFFIC LOADS: CONCRETE SLAB DIMENSIONS ARE FOR GUIDELINE PURPOSES ONLY. ACTUAL CONCRETE SLAB MUST BE DESIGNED TAKING INTO CONSIDERATION LOCAL SOIL CONDITIONS, TRAFFIC LOADING, & OTHER APPLICABLE DESIGN FACTORS. SEE DRAWING NO. 7001-110-111 FOR NON TRAFFIC INSTALLATION.
(3) VARIABLE SUMP DEPTH ACCORDING TO PLANS
(4) VARIOUS TYPES OF INLET & OUTLET ADAPTERS AVAILABLE
WATERTIGHT JOINT (CORRUGATED HDPE SHOWN)
THE BACKFILL MATERIAL SHALL BE CRUSHED STONE OR OTHER GRANULAR MATERIAL MEETING THE REQUIREMENTS OF CLASS I, CLASS II, OR CLASS III MATERIAL AS DEFINED IN ASTM D2321. BEDDING & BACKFILL FOR SURFACE DRAINAGE INLETS SHALL BE PLACED & COMPACTED UNIFORMLY IN ACCORDANCE WITH ASTM D2321.
Nyloplast
DRAIN BASIN WITH STANDARD GRATE QUICK SPEC INSTALLATION DETAIL

3 | C6.0 — ROUND AREA INLET W/ STANDARD GRATE

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MARS LANDING
PROJECT DEVELOPMENT PLAN
FORT COLLINS, CO

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Project No:	GNK000008
Drawn By:	DBC
Checked By:	JEP
Date:	07.28.2021

STORM DETAILS

C5.2

PROJECT INFORMATION	
ENGINEERED PRODUCT MANAGER:	EVAN FISCHGRUND 720-250-8047 EVAN.FISCHGRUND@ADS-PIPE.COM
ADS SALES REP:	MARK KAELBERER 720-256-8225 MARK.KAELBERER@ADS-PIPE.COM
PROJECT NO:	S149352

ADVANCED DRAINAGE SYSTEMS, INC

SiteASSIST® StormTech FOR STORMTECH INSTRUCTIONS, DOWNLOAD THE INSTALLATION APP

MARS LANDING

FORT COLLINS - CO

SC-740 STORMTECH CHAMBER SPECIFICATIONS

1. CHAMBERS SHALL BE STORMTECH SC-740.
2. CHAMBERS SHALL BE ARCH-SHAPED AND SHALL BE MANUFACTURED FROM VIRGIN, IMPACT-MODIFIED POLYPROPYLENE COPOLYMERS.
3. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418-16a, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
4. CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORTS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION.
5. THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL, AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
6. CHAMBERS SHALL BE DESIGNED, TESTED AND ALLOWABLE LOAD CONFIGURATIONS DETERMINED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". LOAD CONFIGURATIONS SHALL INCLUDE: 1) INSTANTANEOUS (<1 MIN) AASHTO DESIGN TRUCK LIVE LOAD ON MINIMUM COVER 2) MAXIMUM PERMANENT (75-YR) COVER LOAD AND 3) ALLOWABLE COVER WITH PARKED (1-WEEK) AASHTO DESIGN TRUCK.
7. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 2".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 550 LBS/IN/IN. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.
8. ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. UPON REQUEST BY THE SITE DESIGN ENGINEER OR OWNER, THE CHAMBER MANUFACTURER SHALL SUBMIT A STRUCTURAL EVALUATION FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE AS FOLLOWS:
   - THE STRUCTURAL EVALUATION SHALL BE SEALED BY A REGISTERED PROFESSIONAL ENGINEER.
   - THE STRUCTURAL EVALUATION SHALL DEMONSTRATE THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.95 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD, THE MINIMUM REQUIRED BY ASTM F2787 AND BY SECTIONS 3 AND 12.12 OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS FOR THERMOPLASTIC PIPE.
   - THE TEST DERIVED CREEP MODULUS AS SPECIFIED IN ASTM F2418 SHALL BE USED FOR PERMANENT DEAD LOAD DESIGN EXCEPT THAT IT SHALL BE THE 75-YEAR MODULUS USED FOR DESIGN.
9. CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.

IMPORTANT - NOTES FOR THE BIDDING AND INSTALLATION OF THE SC-740 SYSTEM

1. STORMTECH SC-740 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
2. STORMTECH SC-740 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
3. CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR AN EXCAVATOR SITUATED OVER THE CHAMBERS. STORMTECH RECOMMENDS 3 BACKFILL METHODS:
   - STONESHOOTER LOCATED OFF THE CHAMBER BED.
   - BACKFILL AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUBGRADE.
   - BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.
4. THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING CHAMBERS.
5. JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
6. MAINTAIN MINIMUM - 6" (150 mm) SPACING BETWEEN THE CHAMBER ROWS.
7. EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE 3/4-2" (20-50 mm)
8. THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE SITE DESIGN ENGINEER.
9. ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

NOTES FOR CONSTRUCTION EQUIPMENT

1. STORMTECH SC-740 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
2. THE USE OF CONSTRUCTION EQUIPMENT OVER SC-740 CHAMBERS IS LIMITED:
   - NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS.
   - NO RUBBER TIRED LOADERS, DUMP TRUCKS, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
   - WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
3. FULL 36" (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.

USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO THE CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH STANDARD WARRANTY.

CONTACT STORMTECH AT 1-888-892-2694 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.

PROPOSED LAYOUT

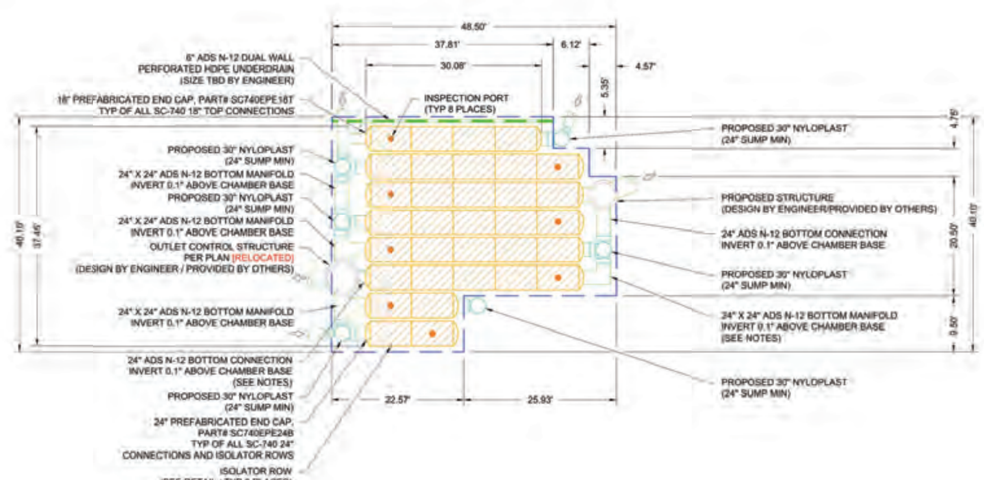
33	STORMTECH SC-740 CHAMBERS
16	STORMTECH SC-740 END CAPS
6	STONE ABOVE (in)
6	STONE BELOW (in)
40	% STONE VOID
3176	**INSTALLED SYSTEM VOLUME (CF) (PERIMETER STONE INCLUDED)**
1819	SYSTEM AREA (ft²)
177	SYSTEM PERIMETER (ft)

PROPOSED ELEVATIONS

5044.90	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED)
5038.90	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC)
5036.40	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC)
5038.40	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT)
5036.40	MINIMUM ALLOWABLE GRADE (TOP OF RIGID PAVEMENT)
5037.40	TOP OF STONE
5036.90	TOP OF SC-740 CHAMBER
5034.62	18" TOP MANIFOLD INVERT
5034.41	24" BOTTOM MANIFOLD/CONNECTION INVERT
5034.41	24" ISOLATOR ROW CONNECTION INVERT
5034.40	BOTTOM OF SC-740 CHAMBER
5033.90	UNDERDRAIN INVERT
5033.90	BOTTOM OF STONE

NOTES

- MANIFOLD SIZE TO BE DETERMINED BY SITE DESIGN ENGINEER. SEE TECHNICAL NOTE 6.32 FOR MANIFOLD SIZING GUIDANCE.
- DUE TO THE ADAPTATION OF THIS CHAMBER SYSTEM TO SPECIFIC SITE AND DESIGN CONSTRAINTS, IT MAY BE NECESSARY TO CUT AND COUPLE ADDITIONAL PIPE TO STANDARD MANIFOLD COMPONENTS IN THE FIELD.
- THE SITE DESIGN ENGINEER MUST REVIEW ELEVATIONS AND IF NECESSARY ADJUST GRADING TO ENSURE THE CHAMBER COVER REQUIREMENTS ARE MET.
- THIS CHAMBER SYSTEM WAS DESIGNED WITHOUT SITE-SPECIFIC INFORMATION ON SOIL CONDITIONS OR BEARING CAPACITY. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR DETERMINING THE SUITABILITY OF THE SOIL AND PROVIDING THE BEARING CAPACITY OF THE INSITU SOILS. THE BASE STONE DEPTH MAY BE INCREASED OR DECREASED ONCE THIS INFORMATION IS PROVIDED.



ADS 4640 TRUEMAN BLVD HILLIARD, OH 43026

0 15' 30'

StormTech®

MARS LANDING
FORT COLLINS - CO

DATE:	9/10/19	DRAWN:	MJK
PROJECT #:	S149352	CHECKED:	AGC

SHEET 2 OF 6

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MARS LANDING
PROJECT DEVELOPMENT PLAN
FORT COLLINS, CO

#	Date	Issue / Description	Init.

Project No:	GNK000008
Drawn By:	DBC
Checked By:	JEP
Date:	07.28.2021

ADS STORMTECH DETAILS

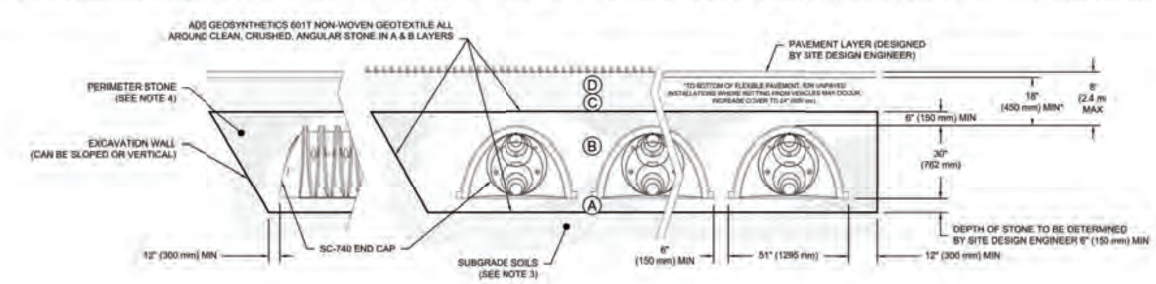
C5.3

ACCEPTABLE FILL MATERIALS: STORMTECH SC-740 CHAMBER SYSTEMS

MATERIAL LOCATION		DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	**FINAL FILL:** FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUBBASE MAY BE PART OF THE 'D' LAYER.	ANY SOIL/ROCK MATERIALS, NATIVE SOILS, OR PER ENGINEER'S PLANS. CHECK PLANS FOR PAVEMENT SUBGRADE REQUIREMENTS.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	**INITIAL FILL:** FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUBBASE MAY BE A PART OF THE 'C' LAYER.	GRANULAR WELL-GRADED SOIL/AGGREGATE MIXTURES, <35% FINES OR PROCESSED AGGREGATE. MOST PAVEMENT SUBBASE MATERIALS CAN BE USED IN LIEU OF THIS LAYER.	AASHTO M145[1] A-1, A-2-4, A-3 OR AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
B	**EMBEDMENT STONE:** FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	**FOUNDATION STONE:** FILL BELOW CHAMBERS FROM THE SUBGRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[1] 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE.[2,3]

PLEASE NOTE:

1. THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
2. STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 6" (150 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
3. WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.
4. ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.



ADS GEOSYNTHETICS 601T NON-WOVEN GEOTEXTILE ALL AROUND CLEAN, CRUSHED, ANGULAR STONE IN A & B LAYERS
PAVEMENT LAYER (DESIGNED BY SITE DESIGN ENGINEER)
PERIMETER STONE (SEE NOTE 4)
EXCAVATION WALL (CAN BE SLOPED OR VERTICAL)
D
C
B
A
18" (450 mm) MIN*
8' (2.4 m) MAX
6" (150 mm) MIN
30" (762 mm)
DEPTH OF STONE TO BE DETERMINED BY SITE DESIGN ENGINEER 6" (150 mm) MIN
12" (300 mm) MIN
SC-740 END CAP
SUBGRADE SOILS (SEE NOTE 3)
6" (150 mm) MIN
51" (1295 mm)
12" (300 mm) MIN

NOTES:

1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418-16a, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
2. SC-740 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
3. THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
4. PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
5. REQUIREMENTS FOR HANDLING AND INSTALLATION:
   - TO MAINTAIN THE WIDTH OF CHAMBERS DURING SHIPPING AND HANDLING, CHAMBERS SHALL HAVE INTEGRAL, INTERLOCKING STACKING LUGS.
   - TO ENSURE A SECURE JOINT DURING INSTALLATION AND BACKFILL, THE HEIGHT OF THE CHAMBER JOINT SHALL NOT BE LESS THAN 2".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT AS DEFINED IN SECTION 6.2.8 OF ASTM F2418 SHALL BE GREATER THAN OR EQUAL TO 550 LBS/IN/IN. AND b) TO RESIST CHAMBER DEFORMATION DURING INSTALLATION AT ELEVATED TEMPERATURES (ABOVE 73° F / 23° C), CHAMBERS SHALL BE PRODUCED FROM REFLECTIVE GOLD OR YELLOW COLORS.

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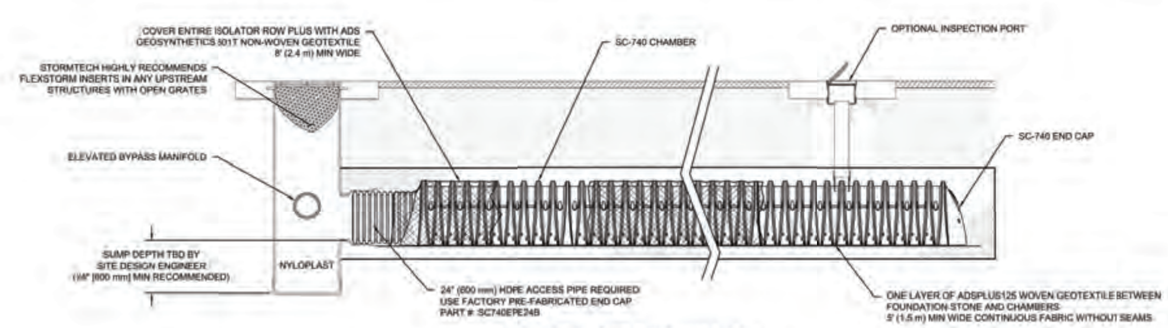
SHEET 3 OF 6



COVER ENTIRE ISOLATOR ROW PLUS WITH ADS GEOSYNTHETICS 601T NON-WOVEN GEOTEXTILE 8' (2.4 m) MIN WIDE
STORMTECH HIGHLY RECOMMENDS FLEXSTORM INSERTS IN ANY UPSTREAM STRUCTURES WITH OPEN GRATES
SC-740 CHAMBER
OPTIONAL INSPECTION PORT
SC-740 END CAP
ELEVATED BYPASS MANIFOLD
SUMP DEPTH TBD BY SITE DESIGN ENGINEER (24" [600 mm] MIN RECOMMENDED)
NYLOPLAST
24" (600 mm) HDPE ACCESS PIPE REQUIRED USE FACTORY PRE-FABRICATED END CAP PART #: SC740EPE24B
ONE LAYER OF ADSPLUS125 WOVEN GEOTEXTILE BETWEEN FOUNDATION STONE AND CHAMBERS 5' (1.5 m) MIN WIDE CONTINUOUS FABRIC WITHOUT SEAMS

SC-740 ISOLATOR ROW PLUS DETAIL
NTS

INSPECTION & MAINTENANCE

STEP 1) INSPECT ISOLATOR ROW FOR SEDIMENT
- A. INSPECTION PORTS (IF PRESENT)
  - A.1. REMOVE/OPEN LID ON NYLOPLAST INLINE DRAIN
  - A.2. REMOVE AND CLEAN FLEXSTORM FILTER IF INSTALLED
  - A.3. USING A FLASHLIGHT AND STADIA ROD, MEASURE DEPTH OF SEDIMENT AND RECORD ON MAINTENANCE LOG
  - A.4. LOWER A CAMERA INTO ISOLATOR ROW FOR VISUAL INSPECTION OF SEDIMENT LEVELS (OPTIONAL)
  - A.5. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.
- B. ALL ISOLATOR ROWS
  - B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW
  - B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW THROUGH OUTLET PIPE
    - i) MIRRORS ON POLES OR CAMERAS MAY BE USED TO AVOID A CONFINED SPACE ENTRY
    - ii) FOLLOW OSHA REGULATIONS FOR CONFINED SPACE ENTRY IF ENTERING MANHOLE
  - B.3. IF SEDIMENT IS AT, OR ABOVE, 3" (80 mm) PROCEED TO STEP 2. IF NOT, PROCEED TO STEP 3.

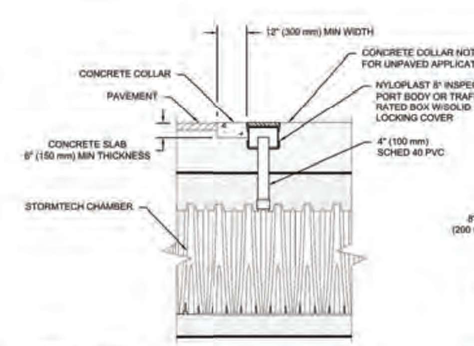
STEP 2) CLEAN OUT ISOLATOR ROW USING THE JETVAC PROCESS
- A. A FIXED CULVERT CLEANING NOZZLE WITH REAR FACING SPREAD OF 45" (1.1 m) OR MORE IS PREFERRED
- B. APPLY MULTIPLE PASSES OF JETVAC UNTIL BACKFLUSH WATER IS CLEAN
- C. VACUUM STRUCTURE SUMP AS REQUIRED

STEP 3) REPLACE ALL COVERS, GRATES, FILTERS, AND LIDS; RECORD OBSERVATIONS AND ACTIONS.

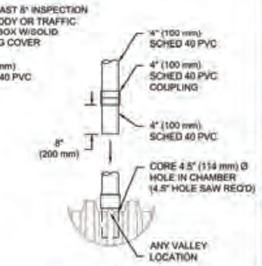
STEP 4) INSPECT AND CLEAN BASINS AND MANHOLES UPSTREAM OF THE STORMTECH SYSTEM.

NOTES

1. INSPECT EVERY 6 MONTHS DURING THE FIRST YEAR OF OPERATION. ADJUST THE INSPECTION INTERVAL BASED ON PREVIOUS OBSERVATIONS OF SEDIMENT ACCUMULATION AND HIGH WATER ELEVATIONS.
2. CONDUCT JETTING AND VACTORING ANNUALLY OR WHEN INSPECTION SHOWS THAT MAINTENANCE IS NECESSARY.



12" (300 mm) MIN WIDTH
CONCRETE COLLAR NOT REQUIRED FOR UNPAVED APPLICATIONS
CONCRETE COLLAR
PAVEMENT
NYLOPLAST 8" INSPECTION PORT BODY OR TRAFFIC RATED BOX W/SOLID LOCKING COVER
CONCRETE SLAB 6" (150 mm) MIN THICKNESS
4" (100 mm) SCHED 40 PVC
STORMTECH CHAMBER



CONNECTION DETAIL
NTS

NOTES:
1. INSPECTION PORTS MAY BE CONNECTED THROUGH ANY CHAMBER CORRUGATION VALLEY.
2. ALL SCHEDULE 40 FITTINGS TO BE SOLVENT CEMENTED (4" PVC NOT PROVIDED BY ADS).

4" PVC INSPECTION PORT DETAIL
NTS

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MARS LANDING
PROJECT DEVELOPMENT PLAN

FORT COLLINS, CO

#	Date	Issue / Description	Init.

Project No:	GNK000008
Drawn By:	DBC
Checked By:	JEP
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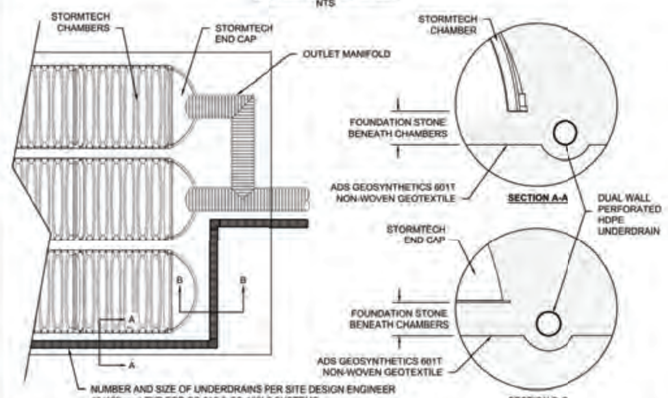
ADS STORMTECH DETAILS

C5.4

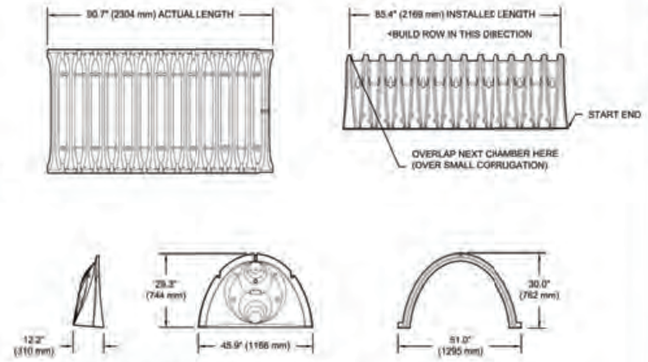
UNDERDRAIN DETAIL

NTS


STORMTECH CHAMBERS
STORMTECH END CAP
OUTLET MANIFOLD
STORMTECH CHAMBER
FOUNDATION STONE BENEATH CHAMBERS
ADS GEOSYNTHETICS 601T NON-WOVEN GEOTEXTILE
SECTION A-A
DUAL WALL PERFORATED HDPE UNDERDRAIN
STORMTECH END CAP
FOUNDATION STONE BENEATH CHAMBERS
ADS GEOSYNTHETICS 601T NON-WOVEN GEOTEXTILE
SECTION B-B
NUMBER AND SIZE OF UNDERDRAINS PER SITE DESIGN ENGINEER
4" (100 mm) TYP FOR SC-310 & SC-160LP SYSTEMS
6" (150 mm) TYP FOR SC-740, DC-780, MC-3500 & MC-4500 SYSTEMS

SC-740 TECHNICAL SPECIFICATION

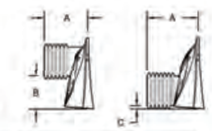
NTS



NOMINAL CHAMBER SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	51.0" X 30.0" X 85.4"	(1295 mm X 762 mm X 2169 mm)
CHAMBER STORAGE	45.9 CUBIC FEET	(1.30 m³)
MINIMUM INSTALLED STORAGE*	74.9 CUBIC FEET	(2.12 m³)
WEIGHT	75.0 lbs.	(33.6 kg)

*ASSUMES 6" (152 mm) STONE ABOVE, BELOW, AND BETWEEN CHAMBERS



PRE-FAB STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"
PRE-FAB STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"
PRE-CORED END CAPS END WITH "PC"

PART #	STUB	A	B	C
SC740EPE06T / SC740EPE06TPC	6" (150 mm)	10.9" (277 mm)	18.5" (470 mm)	---
SC740EPE06B / SC740EPE06BPC			---	0.5" (13 mm)
SC740EPE08T /SC740EPE08TPC	8" (200 mm)	12.2" (310 mm)	16.5" (419 mm)	---
SC740EPE08B / SC740EPE08BPC			---	0.6" (15 mm)
SC740EPE10T / SC740EPE10TPC	10" (250 mm)	13.4" (340 mm)	14.5" (368 mm)	---
SC740EPE10B / SC740EPE10BPC			---	0.7" (18 mm)
SC740EPE12T / SC740EPE12TPC	12" (300 mm)	14.7" (373 mm)	12.5" (318 mm)	---
SC740EPE12B / SC740EPE12BPC			---	1.2" (30 mm)
SC740EPE15T / SC740EPE15TPC	15" (375 mm)	18.4" (467 mm)	9.0" (229 mm)	---
SC740EPE15B / SC740EPE15BPC			---	1.3" (33 mm)
SC740EPE18T / SC740EPE18TPC	18" (450 mm)	19.7" (500 mm)	5.0" (127 mm)	---
SC740EPE18B / SC740EPE18BPC			---	1.6" (41 mm)
SC740EPE24B*	24" (600 mm)	18.5" (470 mm)	---	0.1" (3 mm)

ALL STUBS, EXCEPT FOR THE SC740EPE24B ARE PLACED AT BOTTOM OF END CAP SUCH THAT THE OUTSIDE DIAMETER OF THE STUB IS FLUSH WITH THE BOTTOM OF THE END CAP. FOR ADDITIONAL INFORMATION CONTACT STORMTECH AT 1-888-892-2694.

* FOR THE SC740EPE24B THE 24" (600 mm) STUB LIES BELOW THE BOTTOM OF THE END CAP APPROXIMATELY 1.75" (44 mm). BACKFILL MATERIAL SHOULD BE REMOVED FROM BELOW THE N-12 STUB SO THAT THE FITTING SITS LEVEL.

NOTE: ALL DIMENSIONS ARE NOMINAL.

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SHEET 5 OF 6

NYLOPLAST DRAIN BASIN

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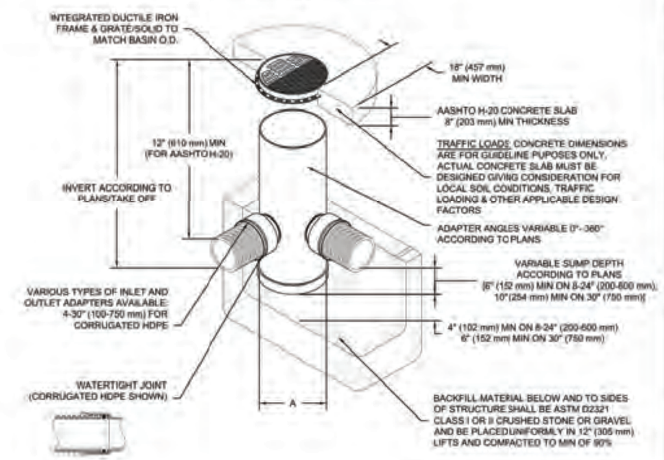
INTEGRATED DUCTILE IRON FRAME & GRATE/SOLID TO MATCH BASIN O.D.
18" (457 mm) MIN WIDTH
AASHTO H-20 CONCRETE SLAB 8" (203 mm) MIN THICKNESS
12" (610 mm) MIN (FOR AASHTO H-20)
TRAFFIC LOADS: CONCRETE DIMENSIONS ARE FOR GUIDELINE PUPOSES ONLY. ACTUAL CONCRETE SLAB MUST BE DESIGNED GIVING CONSIDERATION FOR LOCAL SOIL CONDITIONS, TRAFFIC LOADING & OTHER APPLICABLE DESIGN FACTORS
INVERT ACCORDING TO PLANS/TAKE OFF
ADAPTER ANGLES VARIABLE 0°- 360° ACCORDING TO PLANS
VARIABLE SUMP DEPTH ACCORDING TO PLANS (6" (152 mm) MIN ON 8-24" (200-600 mm), 10" (254 mm) MIN ON 30" (750 mm))
4" (102 mm) MIN ON 8-24" (200-600 mm) 6" (152 mm) MIN ON 30" (750 mm)
VARIOUS TYPES OF INLET AND OUTLET ADAPTERS AVAILABLE: 4-30" (100-750 mm) FOR CORRUGATED HDPE
WATERTIGHT JOINT (CORRUGATED HDPE SHOWN)
A
BACKFILL MATERIAL BELOW AND TO SIDES OF STRUCTURE SHALL BE ASTM D2321 CLASS I OR II CRUSHED STONE OR GRAVEL AND BE PLACED UNIFORMLY IN 12" (305 mm) LIFTS AND COMPACTED TO MIN OF 90%

NOTES

1. 8-30" (200-750 mm) GRATES/SOLID COVERS SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
2. 12-30" (300-750 mm) FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05
3. DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS
4. DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS & HANCOR DUAL WALL) & SDR 35 PVC
5. FOR COMPLETE DESIGN AND PRODUCT INFORMATION: **WWW.NYLOPLAST-US.COM**
6. TO ORDER CALL: **800-821-6710**

A	PART #	GRATE/SOLID COVER OPTIONS		
8" (200 mm)	2808AG	PEDESTRIAN LIGHT DUTY	STANDARD LIGHT DUTY	SOLID LIGHT DUTY
10" (250 mm)	2810AG	PEDESTRIAN LIGHT DUTY	STANDARD LIGHT DUTY	SOLID LIGHT DUTY
12" (300 mm)	2812AG	PEDESTRIAN AASHTO H-10	STANDARD AASHTO H-20	SOLID AASHTO H-20
15" (375 mm)	2815AG	PEDESTRIAN AASHTO H-10	STANDARD AASHTO H-20	SOLID AASHTO H-20
18" (450 mm)	2818AG	PEDESTRIAN AASHTO H-10	STANDARD AASHTO H-20	SOLID AASHTO H-20
24" (600 mm)	2824AG	PEDESTRIAN AASHTO H-10	STANDARD AASHTO H-20	SOLID AASHTO H-20
30" (750 mm)	2830AG	PEDESTRIAN AASHTO H-20	STANDARD AASHTO H-20	SOLID AASHTO H-20

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SHEET 6 OF 6

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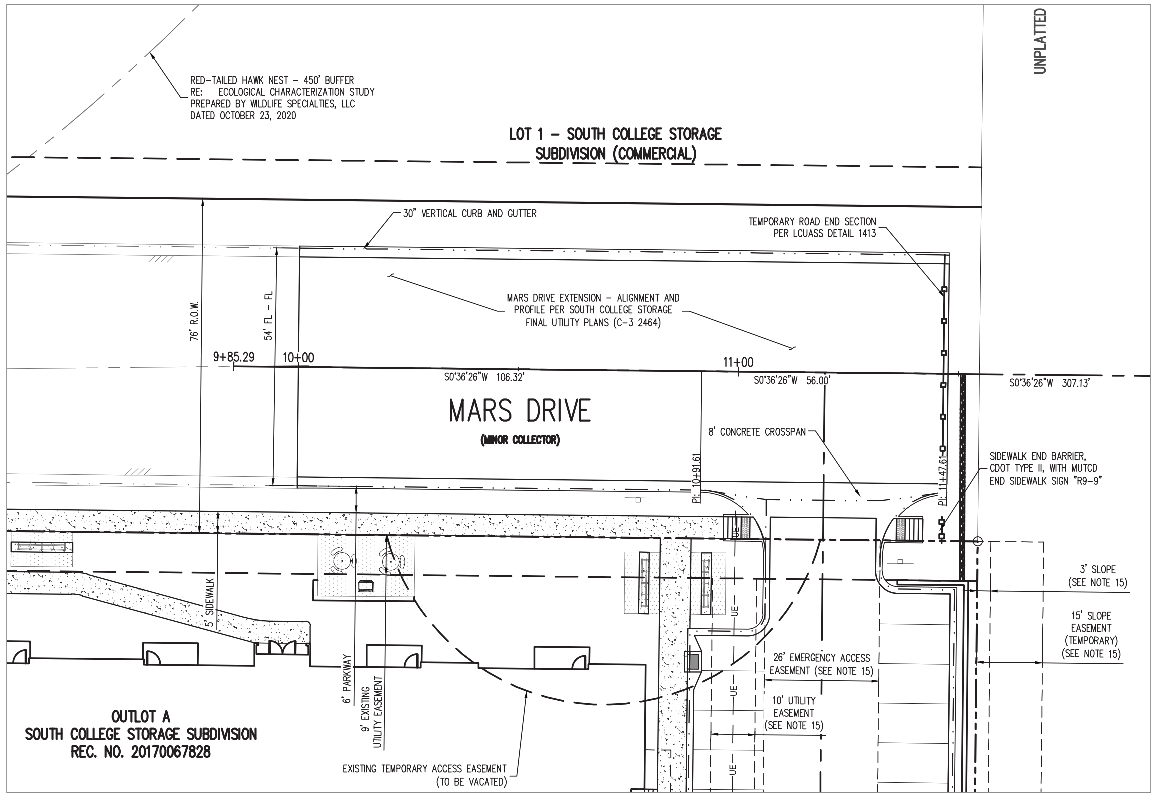
MARS LANDING
PROJECT DEVELOPMENT PLAN
FORT COLLINS, CO

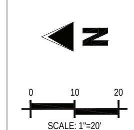
#	Date	Issue / Description	Init.

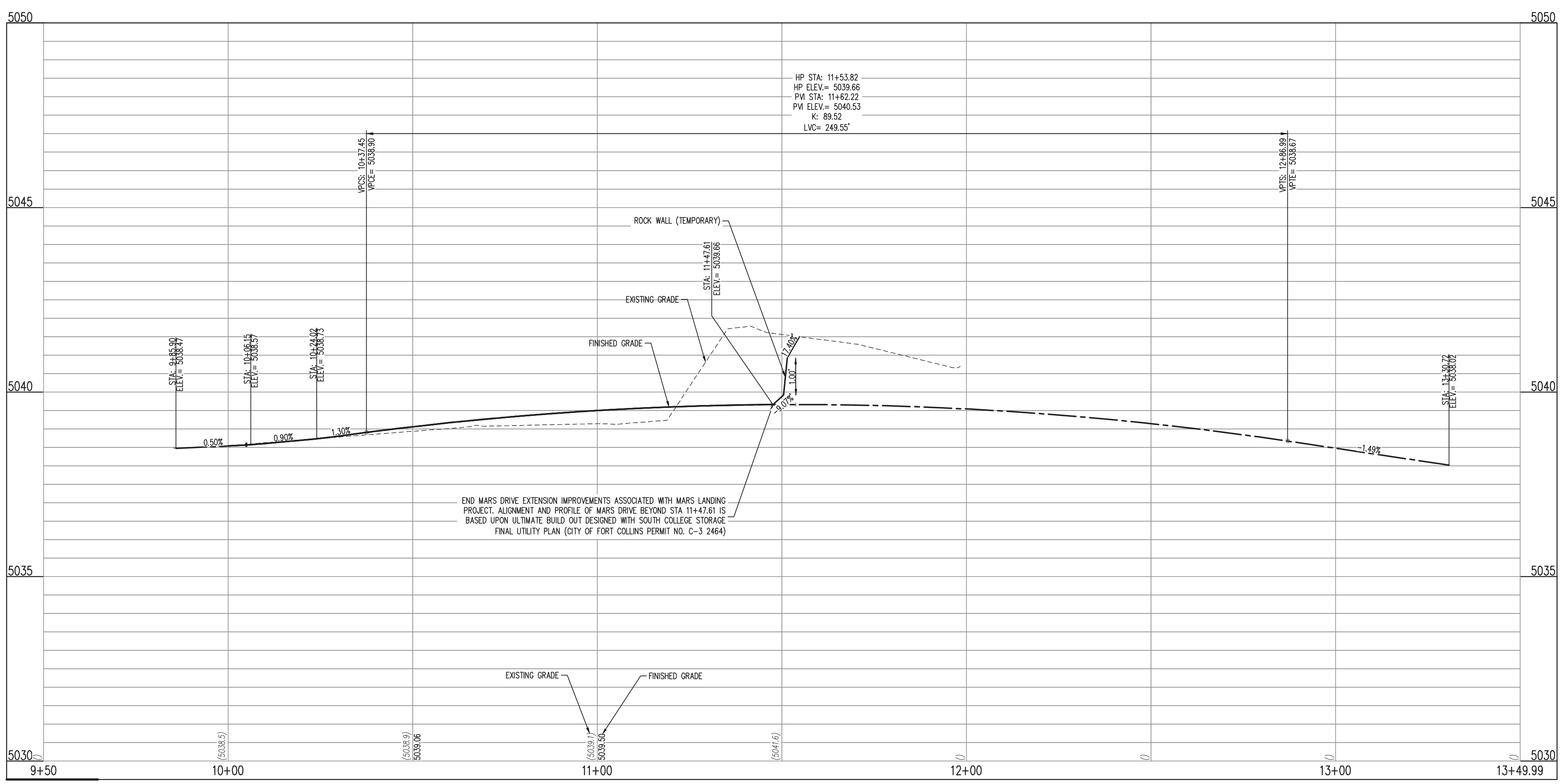
Project No:	GNK000008
Drawn By:	DBC
Checked By:	JEP
Date:	07.28.2021

ADS STORMTECH DETAILS

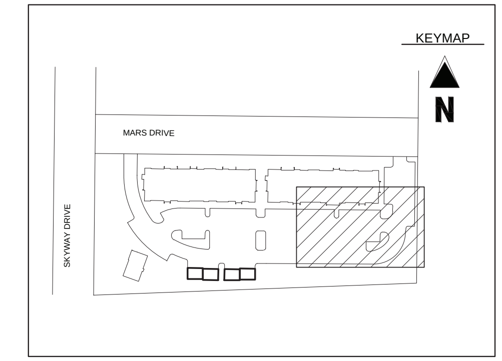
C5.5







MARS DR
STA: 9+50 - 13+49.99
SCALE: H: 1"=20' V: 1"=10'



LEGEND:

- PROPOSED CURB AND GUTTER
- PROPOSED CURB AND GUTTER - SPILL (TRANSITION)
- EXISTING CURB AND GUTTER
- PROPOSED FENCE
- EXISTING RIGHT-OF-WAY
- EXISTING LOTLINE
- EXISTING EASEMENT LINE
- PROPOSED EASEMENT LINE
- PROPOSED SIDEWALK
- PROPOSED CONCRETE CROSSPAN

NOTES:

1. THE SIZE, TYPE AND LOCATION OF ALL KNOWN UNDERGROUND UTILITIES ARE APPROXIMATE WHEN SHOWN ON THESE DRAWINGS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE OF ALL UNDERGROUND UTILITIES IN THE AREA OF THE WORK BEFORE COMMENCING NEW CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES AND SHALL BE RESPONSIBLE FOR ALL UNKNOWN UNDERGROUND UTILITIES.
2. REFER TO LANDSCAPE PLANS FOR STREET TREE INFORMATION, AND SURVEY DOCUMENTS FOR ADDITIONAL RIGHT-OF-WAY, EASEMENT AND ROADWAY CENTERLINE INFORMATION.
3. BUILDING POINTS ARE AT CORNERS OF NOMINAL BUILDING FOOTPRINTS. CONTRACTOR SHALL CONFIRM ALL BUILDING CORNERS AND DIMENSIONS WITH ARCHITECT PRIOR TO CALLING FOR STAKES.
4. ALL DIMENSIONS REFERENCE FLOWLINE, BUILDING OR PROPERTY LINE UNLESS SPECIFIED OTHERWISE.
5. CONTRACTOR TO COORDINATE WITH CIVIL ENGINEER AND ARCHITECT PRIOR TO STAKING BUILDING COORDINATES.
6. FOR ALL CATCH AND SPILL CURB INFORMATION AND TRANSITIONS, SEE GRADING PLANS C2.1-C2.2.
7. ALL STRIPING AND PAVEMENT MARKINGS SHALL COMPLY WITH THE MUTCD AND SECTION 627 OF THE CDOT SPECIFICATIONS FOR SKYWAY DRIVE AND SOUTH COLLEGE AVENUE INTERSECTION IMPROVEMENTS.
8. ALL STRIPING AND PAVEMENT MARKING FOR SKYWAY DRIVE AND MARS DRIVE SHALL COMPLY WITH THE CITY OF FORT COLLINS STREET DESIGN AND CONSTRUCTION STANDARDS.
8. ALL TRAFFIC CONTROL SIGNS SHALL CONFORM TO THE REQUIREMENTS OF THE MUTCD WITH REGARD TO SIGN TYPE, SIZE, LOCATION AND MOUNTING SPECIFICATIONS.
9. ALL ON-SITE CURB AND GUTTER SHALL BE 18" CATCH OR SPILL CURB AND GUTTER UNLESS NOTED
10. ALL H/C RAMPS SHALL HAVE TRUNCATED DOMES PER SITE PLAN DETAILS SHEET.
11. REFER TO DETAIL SHEET -- FOR H/C PARKING STALL DETAILS AND SIGN REQUIREMENTS - ALL SPACES ARE VAN ACCESSIBLE AND SHOULD BE POSTED AS SUCH. PROVIDE 2.5' CLEAR FROM FLOWLINE TO POST.
12. THERE SHALL BE A 3' MINIMUM TRANSITION FROM SPILL TO CATCH CURB AND GUTTER.
13. ALL SIGNS TO BE H.I.P.
14. FOR PAVEMENT DESIGN, PAVEMENT SECTIONS, AND SUBGRADE PREPARATION, REFER TO PRELIMINARY SUBSURFACE EXPLORATION REPORT DATED JULY 17, 2019 BY EARTH ENGINEERING CONSULTANTS. CONTRACTOR TO VERIFY FINAL PAVEMENT AND SUBGRADE DESIGN WITH GEOTECHNICAL ENGINEER PRIOR TO CONSTRUCTION.
15. ALL PROPOSED EASEMENTS ARE TO BE RECORDED BY SEPARATE DOCUMENT.

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4. CONTRACTOR SHALL PROTECT ALL EXISTING SURVEY MONUMENTATION. CONTRACTOR SHALL HAVE LICENSED SURVEYOR REPLACE ANY DAMAGED OR DISTURBED MONUMENTATION AT THEIR COST.

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NOT FOR CONSTRUCTION

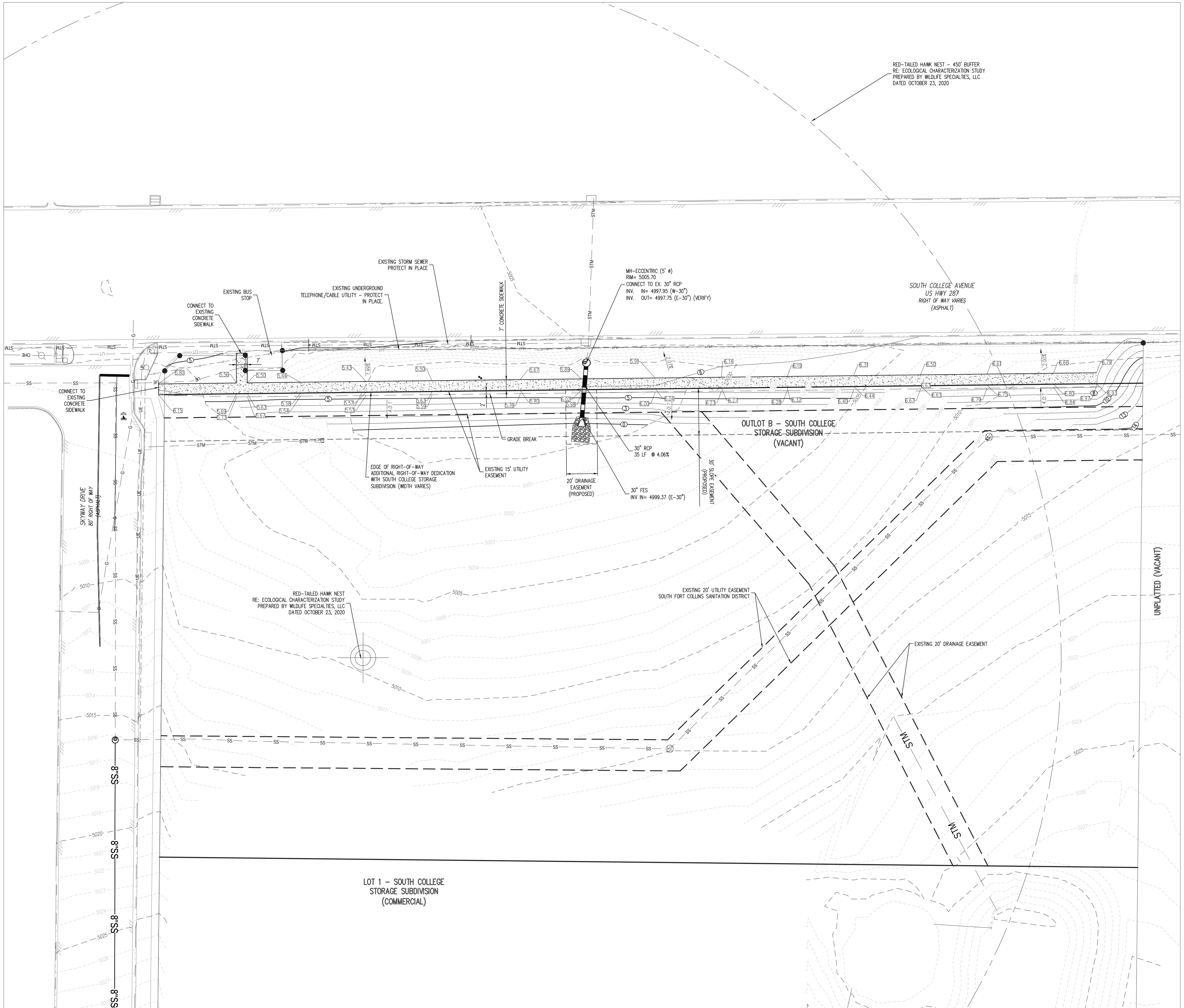
MARS LANDING
PROJECT DEVELOPMENT PLAN
FORT COLLINS, CO

#	Date	Issue / Description	Init.

Project No:	GNK000008
Drawn By:	JCC DBC
Checked By:	JEP
Date:	07.28.2021

MARS DRIVE PLAN AND PROFILE

C6.0



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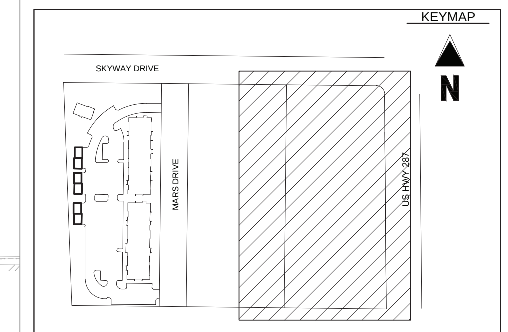
KEYMAP



LEGEND:

- PROPOSED CURB AND GUTTER
- PROPOSED CURB AND GUTTER - SPILL (TRANSITION)
- EXISTING CURB AND GUTTER
- PROPOSED FENCE
- EXISTING RIGHT-OF-WAY
- EXISTING LOTLINE
- EXISTING EASEMENT LINE
- PROPOSED EASEMENT LINE
- PROPOSED SIDEWALK
- PROPOSED CONCRETE CROSSPAN

NOTES:

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2. REFER TO LANDSCAPE PLANS FOR STREET TREE INFORMATION, AND SURVEY DOCUMENTS FOR ADDITIONAL RIGHT-OF-WAY, EASEMENT AND ROADWAY CENTERLINE INFORMATION.
3. BUILDING POINTS ARE AT CORNERS OF NOMINAL BUILDING FOOTPRINTS. CONTRACTOR SHALL CONFIRM ALL BUILDING CORNERS AND DIMENSIONS WITH ARCHITECT PRIOR TO CALLING FOR STAKES.
4. ALL DIMENSIONS REFERENCE FLOWLINE, BUILDING OR PROPERTY LINE UNLESS SPECIFIED OTHERWISE.
5. CONTRACTOR TO COORDINATE WITH CIVIL ENGINEER AND ARCHITECT PRIOR TO STAKING BUILDING COORDINATES.
6. FOR ALL CATCH AND SPILL CURB INFORMATION AND TRANSITIONS, SEE GRADING PLANS C2.1-C2.2.
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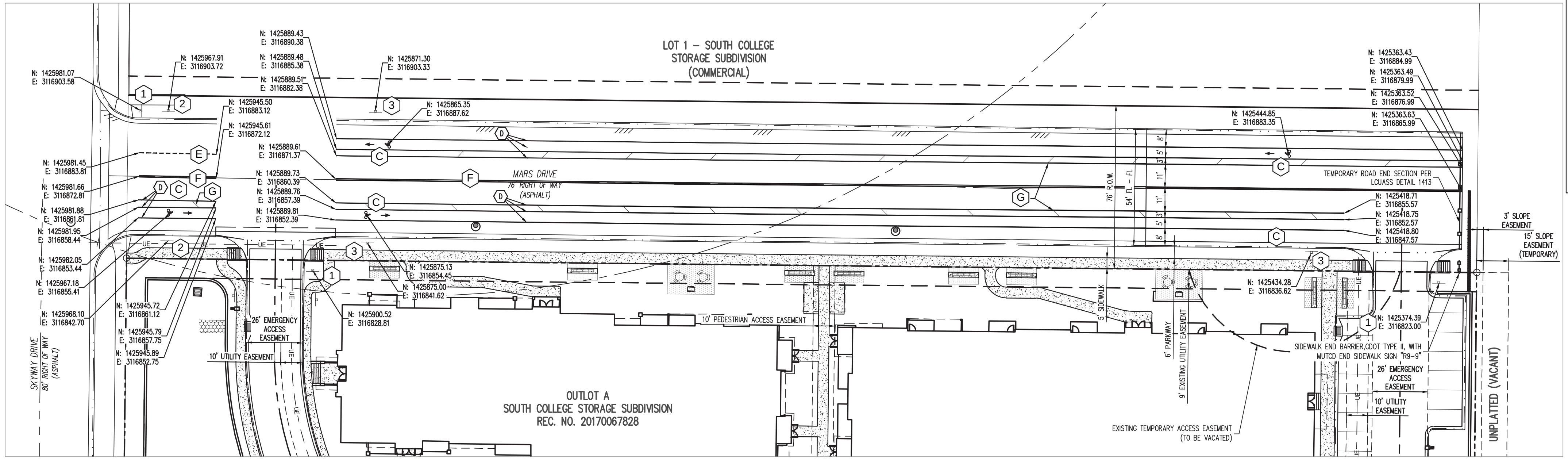
MARS LANDING
PROJECT DEVELOPMENT PLAN
FORT COLLINS, CO

#	Date	Issue / Description	Init.

Project No:	GNK000008
Drawn By:	[illegible]
Checked By:	[illegible]
Date:	07.28.2021

COLLEGE AVENUE
SIDEWALK PLAN

C6.1

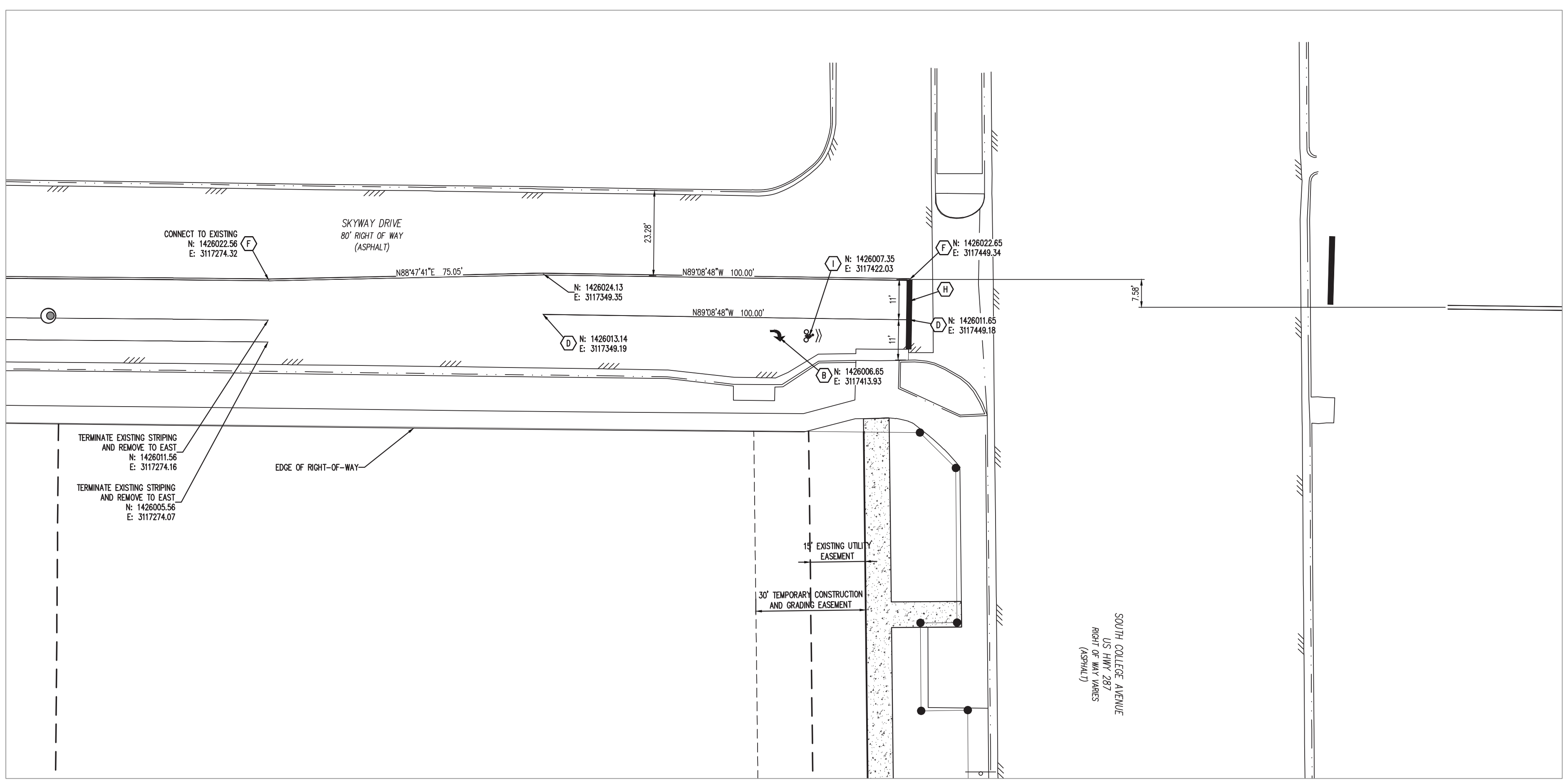


A

MARS DRIVE
SIGNAGE AND STRIPING

N

SCALE: 1"=30'



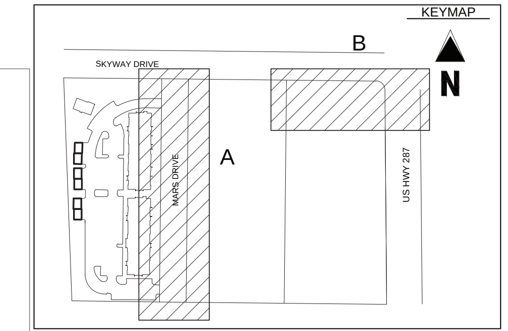
B

SKYWAY DRIVE AT S COLLEGE AVENUE
SIGNAGE AND STRIPING

N

SCALE: 1"=20'

KEYMAP



LEGEND:

PROPOSED CURB AND GUTTER
EXISTING CURB AND GUTTER
PROPOSED FENCE
EXISTING RIGHT-OF-WAY
EXISTING LOT LINE
EXISTING EASEMENT LINE
PROPOSED EASEMENT LINE
PROPOSED SIDEWALK
PROPOSED CONCRETE CROSSPAN
TYPE 3 BARRICADE

R1-1 STOP SIGN	1
R7-1 NO PARKING ANYTIME	2
R7-1 (SPECIAL) NO PARKING ANYTIME HERE TO CORNER	3
PREFORMED PLASTIC PAVEMENT MARKING STRAIGHT/LEFT TURN ARROW (15.5 S.F. EA.)	A
PREFORMED PLASTIC PAVEMENT MARKING RIGHT TURN ARROWS (15.5 S.F. EA.)	B
PREFORMED PLASTIC PAVEMENT MARKING BICYCLIST AND ARROW	C
6" WHITE SOLID LINE	D
6" WHITE BROKEN LINE	E
DOUBLE YELLOW LINE 4" SOLID, 8" O.C.	F
BUFFERED BIKE LANE - DIAGONAL HASH 4" WHITE SOLID LINE AT 45° TO LANE 40' O.C.	G
PREFORMED PLASTIC PAVEMENT MARKING 18" WIDE STOP BAR	H
PREFORMED PLASTIC PAVEMENT MARKING SHARED BIKE/VEHICLE LANE MARKING	I

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13. THERE SHALL BE A 3' MINIMUM TRANSITION FROM SPILL TO CATCH CURB AND GUTTER.
14. ALL SIGNS TO BE HIGH INTENSITY PRISMATIC GRADE SHEETING..
15. FOR PAVEMENT DESIGN, PAVEMENT SECTIONS, AND SUBGRADE PREPARATION, REFER TO PRELIMINARY SUBSURFACE EXPLORATION REPORT DATED JULY 17, 2019 BY EARTH ENGINEERING CONSULTANTS. CONTRACTOR TO VERIFY FINAL PAVEMENT AND SUBGRADE DESIGN WITH GEOTECHNICAL ENGINEER PRIOR TO CONSTRUCTION.
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MARS LANDING
PROJECT DEVELOPMENT PLAN

FORT COLLINS, CO

#	Date	Issue / Description	Init.
-			
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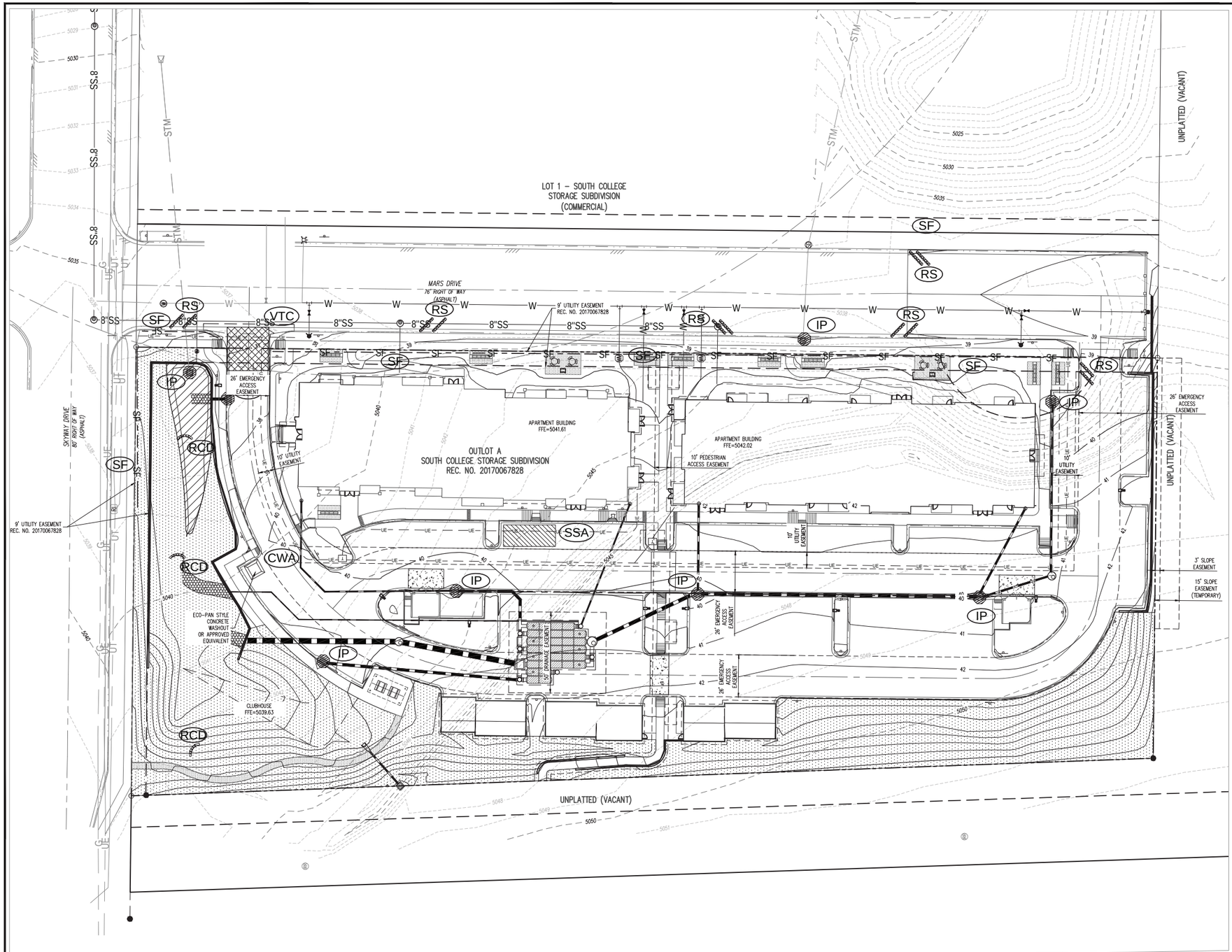
Project No:	GNK000008
Drawn By:	DBC
Checked By:	JEP
Date:	07.28.2021

SIGNAGE AND STRIPING PLAN

C6.2



0 15 30
SCALE: 1"=30'

LEGEND:

- PROPOSED CURB AND GUTTER
- EXISTING CURB AND GUTTER
- PROPOSED STORM SEWER
- EXISTING STORM SEWER
- PROPOSED MAJOR CONTOUR (4835)
- PROPOSED MINOR CONTOUR (36)
- EXISTING MAJOR CONTOUR 4835
- EXISTING MINOR CONTOUR 36
- PROPOSED MANHOLE
- EXISTING MANHOLE
- PROPOSED STORM INLET
- EXISTING STORM INLET
- PROPOSED NATURAL HABITAT BUFFER ZONE (NHBZ)
- PROPOSED WETLAND MITIGATION AREA

TEMPORARY BMPs

- ROCK SOCK — RS
- VEHICLE TRACKING CONTROL PAD — VTC
- SILT FENCE — SF
- INLET PROTECTION — IP
- CONCRETE WASHOUT AREA — CWA
- STABILIZED STAGING AREA — SSA
- ROCK CHECK DAM — RCD

NOTE:
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GENERAL NOTES:

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4. DURING CONSTRUCTION PHASING, INSTALL EROSION CONTROL MEASURES FOLLOWING BMPS WITH EACH PHASE, AS REQUIRED.
5. PERIMETER PROTECTION (I.E., STRAW WATTLES) IS SHOWN AROUND EACH BLOCK THAT IS A PART OF THE PROPOSED IMPROVEMENTS. REFER TO THE LEGEND (SEE RIGHT). THIS PERIMETER PROTECTION SHALL BE INSTALLED WHEN CURB, GUTTER AND SIDEWALK INSTALLATION IS COMPLETED IN THE ADJOINING RIGHT-OF-WAY. THE CONTRACTOR IS RESPONSIBLE FOR REPLACING PERIMETER PROTECTION (I.E., STRAW WATTLES) DAMAGED BY CONSTRUCTION TRAFFIC (e.g., TRUCKS DRIVING OVER STRAW WATTLES AND FLATTENING THEM).
6. FOLLOWING OVERLOT GRADING OR ANY OTHER LAND DISTURBING ACTIVITY, ALL OTHER AREAS OF THE SITE TO BE DEVELOPED DURING LATER PHASES OF CONSTRUCTION AND WHICH SHALL REMAIN EXPOSED FOR MORE THAN THIRTY (30) DAYS WILL REQUIRE TEMPORARY OR PERMANENT EROSION CONTROL (I.E., SEED/MULCH, LANDSCAPING, ETC.).
7. SEE LANDSCAPE PLANS FOR ADDITIONAL INFORMATION ON SEEDING/PLANTING, REVEGETATION, EROSION FABRIC/BLANKETS, IRRIGATION, HARDSCAPE AND OTHER TEMPORARY AND PERMANENT SITE STABILIZATION METHODS.
8. SEE EROSION CONTROL NOTES ON THIS SHEET AND GRADING & EROSION CONTROL NOTES ON SHEET CV02, AS WELL AS DETAILS ON SHEETS C7.2-C7.3.

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MARS LANDING
PROJECT DEVELOPMENT PLAN

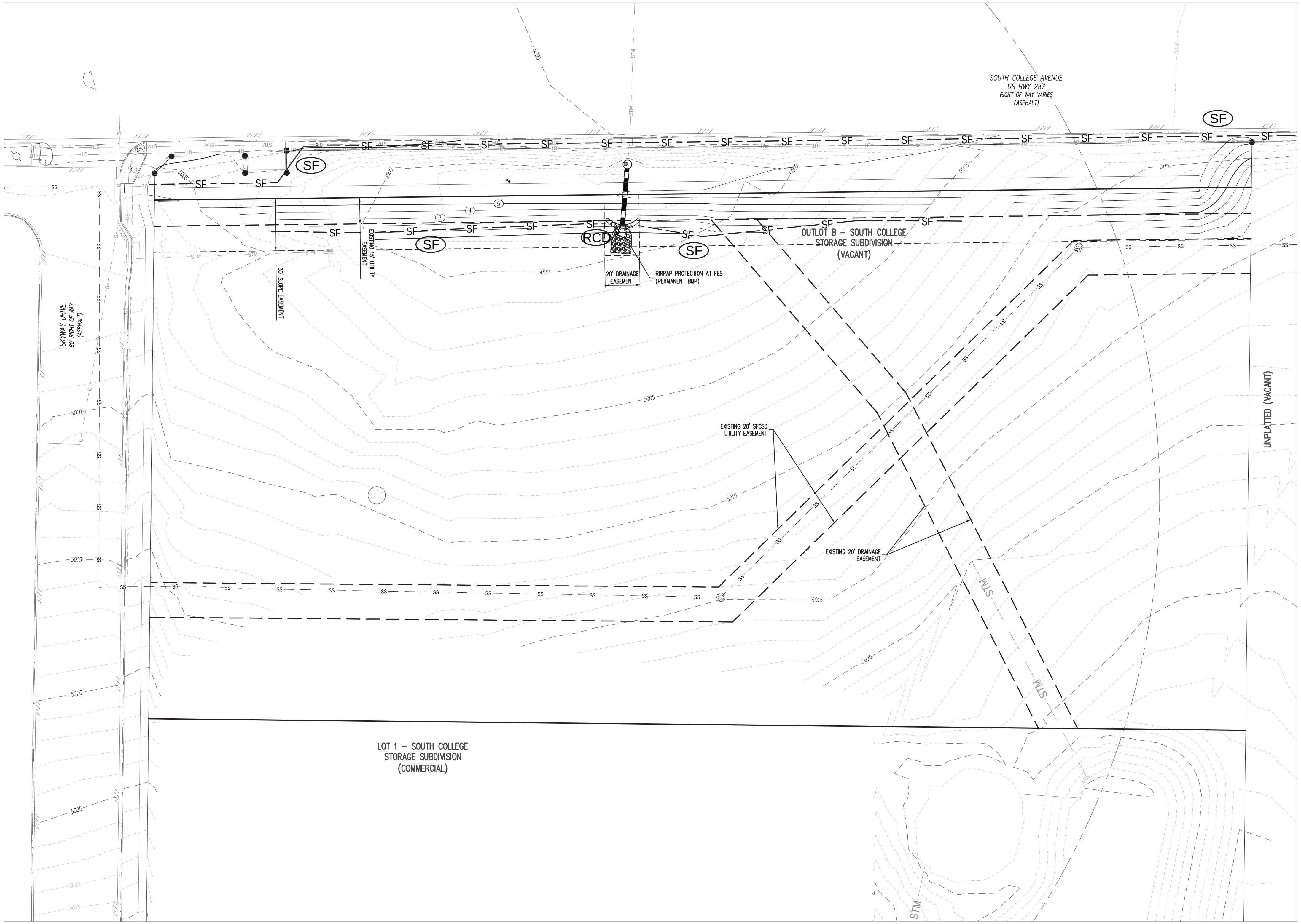
FORT COLLINS, CO

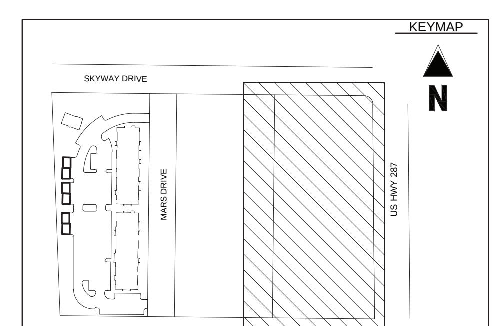
#	Date	Issue / Description	Init.

Project No:	GNK000008
Drawn By:	DBC
Checked By:	JEP
Date:	07.28.2021

EROSION CONTROL PLAN

C7.0





SCALE: 1"=30'

LEGEND:

PROPOSED CURB AND GUTTER	
EXISTING CURB AND GUTTER	
PROPOSED STORM SEWER	
EXISTING STORM SEWER	
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EXISTING MANHOLE	
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EXISTING STORM INLET	
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TEMPORARY BMPs

ROCK SOCK	RS
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CONCRETE WASHOUT AREA	CWA
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MARS LANDING
PROJECT DEVELOPMENT PLAN
FORT COLLINS, CO

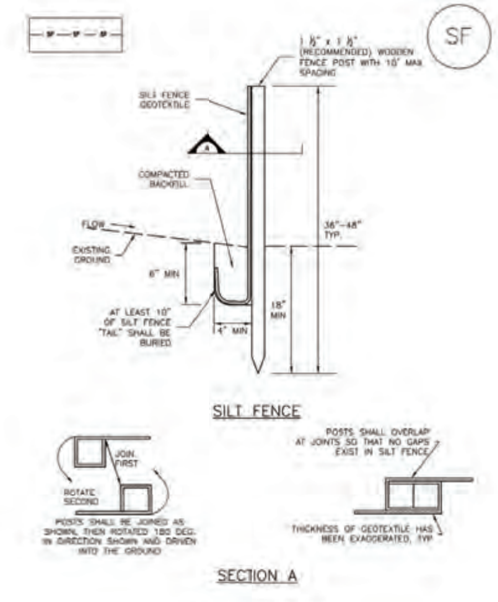
#	Date	Issue / Description	Init.

Project No:	GNK000008
Drawn By:	DBC
Checked By:	JEP
Date:	07.28.2021

OFFSITE EROSION CONTROL PLAN

C7.1

Silt Fence (SF) — SC-1



SF-1. SILT FENCE

SC-1 — Silt Fence (SF)

SILT FENCE INSTALLATION NOTES

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

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

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

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

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

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

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

SILT FENCE MAINTENANCE NOTES

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

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

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

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

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

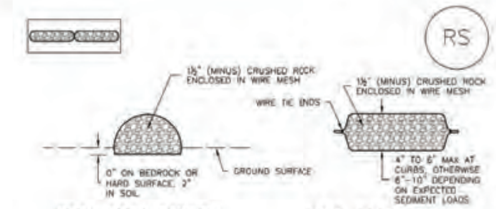
6. SILT FENCE IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION, OR IS REPLACED BY AN EQUIVALENT PERIMETER SEDIMENT CONTROL BMP.

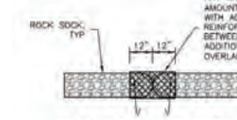
7. WHEN SILT FENCE IS REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

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

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

SC-5 — Rock Sock (RS)





ANY GAP AT JOINT SHALL BE FILLED WITH AN ADEQUATE AMOUNT OF 1½" (MINUS) CRUSHED ROCK AND WRAPPED WITH ADDITIONAL WIRE MESH SECURED TO ENDS OF ROCK REINFORCED SOCK. AS AN ALTERNATIVE TO FILLING JOINTS BETWEEN ADJOINING ROCK SOCKS WITH CRUSHED ROCK AND ADDITIONAL WIRE WRAPPING, ROCK SOCKS CAN BE OVERLAPPED (TYPICALLY 12-INCH OVERLAP) TO AVOID GAPS.

GRADATION TABLE

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

ROCK SOCK INSTALLATION NOTES

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

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

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

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

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

RS-1. ROCK SOCK PERIMETER CONTROL

Rock Sock (RS) — SC-5

ROCK SOCK MAINTENANCE NOTES

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

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

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

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

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

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

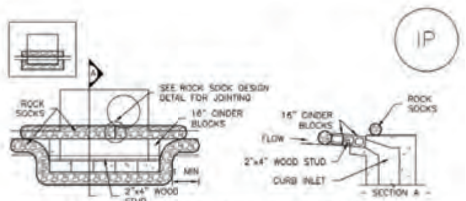
7. WHEN ROCK SOCKS ARE REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

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

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

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

SC-6 — Inlet Protection (IP)



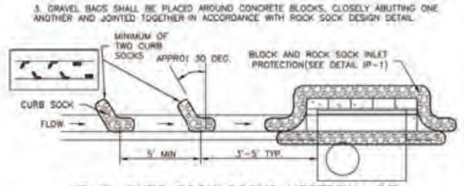
IP-1. BLOCK AND ROCK SOCK SUMP OR ON GRADE INLET PROTECTION

BLOCK AND CURB SOCK INLET PROTECTION INSTALLATION NOTES

1. SEE ROCK SOCK DESIGN DETAIL FOR INSTALLATION REQUIREMENTS.

2. CONCRETE "CINDER" BLOCKS SHALL BE LAID ON THEIR SIDES AROUND THE INLET IN A SINGLE ROW, ABUTTING ONE ANOTHER WITH THE OPEN END FACING AWAY FROM THE CURB.

3. GRAVEL BAGS SHALL BE PLACED AROUND CONCRETE BLOCKS, CLOSELY ABUTTING ONE ANOTHER AND JOINTED TOGETHER IN ACCORDANCE WITH ROCK SOCK DESIGN DETAIL.



IP-2. CURB ROCK SOCKS UPSTREAM OF INLET PROTECTION

CURB ROCK SOCK INLET PROTECTION INSTALLATION NOTES

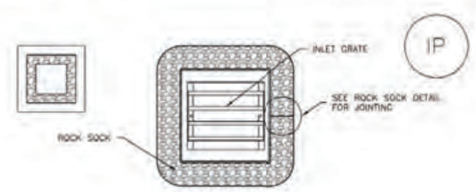
1. SEE ROCK SOCK DESIGN DETAIL INSTALLATION REQUIREMENTS.

2. PLACEMENT OF THE SOCK SHALL BE APPROXIMATELY 30 DEGREES FROM PERPENDICULAR IN THE OPPOSITE DIRECTION OF FLOW.

3. SOCKS ARE TO BE FLUSH WITH THE CURB AND SPACED A MINIMUM OF 5 FEET APART.

4. AT LEAST TWO CURB SOCKS IN SERIES ARE REQUIRED UPSTREAM OF ON-GRADE INLETS.

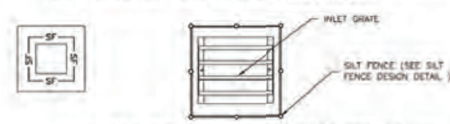
Inlet Protection (IP) — SC-6



IP-3. ROCK SOCK SUMP/AREA INLET PROTECTION

ROCK SOCK SUMP/AREA INLET PROTECTION INSTALLATION NOTES
1. SEE ROCK SOCK DESIGN DETAIL FOR INSTALLATION REQUIREMENTS.

2. STRAW WATTLES/SEDIMENT CONTROL LOGS MAY BE USED IN PLACE OF ROCK SOCKS FOR INLETS IN PERVIOUS AREAS. INSTALL PER SEDIMENT CONTROL LOG DETAIL.



IP-4. SILT FENCE FOR SUMP INLET PROTECTION

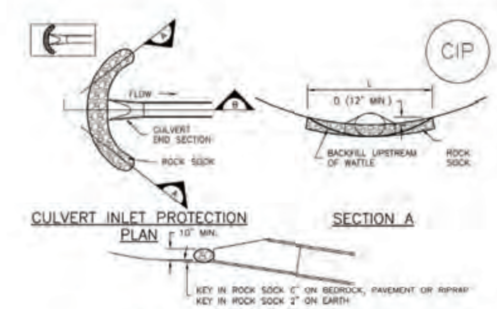
SILT FENCE INLET PROTECTION INSTALLATION NOTES

1. SEE SILT FENCE DESIGN DETAIL FOR INSTALLATION REQUIREMENTS.

2. POSTS SHALL BE PLACED AT EACH CORNER OF THE INLET AND AROUND THE EDGES AT A MAXIMUM SPACING OF 3 FEET.

3. STRAW WATTLES/SEDIMENT CONTROL LOGS MAY BE USED IN PLACE OF SILT FENCE FOR INLETS IN PERVIOUS AREAS. INSTALL PER SEDIMENT CONTROL LOG DETAIL.

Inlet Protection (IP) — SC-6



CIP-1. CULVERT INLET PROTECTION

CULVERT INLET PROTECTION INSTALLATION NOTES

1. SEE PLAN VIEW FOR
   -LOCATION OF CULVERT INLET PROTECTION.

2. SEE ROCK SOCK DESIGN DETAIL FOR ROCK GRADATION REQUIREMENTS AND JOINTING DETAIL.

CULVERT INLET PROTECTION MAINTENANCE NOTES

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

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

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

4. SEDIMENT ACCUMULATED UPSTREAM OF THE CULVERT SHALL BE REMOVED WHEN THE SEDIMENT DEPTH IS ½ THE HEIGHT OF THE ROCK SOCK.

5. CULVERT INLET PROTECTION SHALL REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS PERMANENTLY STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.

(DETAILS ADAPTED FROM AURORA, COLORADO, NOT AVAILABLE IN AUTOCAD)

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

SC-6 — Inlet Protection (IP)

GENERAL INLET PROTECTION INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   -LOCATION OF INLET PROTECTION.
   -TYPE OF INLET PROTECTION (IP.1, IP.2, IP.3, IP.4, IP.5, IP.6)

2. INLET PROTECTION SHALL BE INSTALLED PROMPTLY AFTER INLET CONSTRUCTION OR PAVING IS COMPLETE (TYPICALLY WITHIN 48 HOURS). IF A RAINFALL/RUNOFF EVENT IS FORECAST, INSTALL INLET PROTECTION PRIOR TO ONSET OF EVENT.

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

INLET PROTECTION MAINTENANCE NOTES

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

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

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

4. SEDIMENT ACCUMULATED UPSTREAM OF INLET PROTECTION SHALL BE REMOVED AS NECESSARY TO MAINTAIN BMP EFFECTIVENESS, TYPICALLY WHEN STORAGE VOLUME REACHES 50% OF CAPACITY, A DEPTH OF 6" WHEN SILT FENCE IS USED, OR ¼ OF THE HEIGHT FOR STRAW BALES.

5. INLET PROTECTION IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS PERMANENTLY STABILIZED, UNLESS THE LOCAL JURISDICTION APPROVES EARLIER REMOVAL OF INLET PROTECTION IN STREETS.

6. WHEN INLET PROTECTION AT AREA INLETS IS REMOVED, THE DISTURBED AREA SHALL BE COVERED WITH TOP SOIL, SEEDED AND MULCHED, OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

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

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

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

NOTE: SOME MUNICIPALITIES DISCOURAGE OR PROHIBIT THE USE OF STRAW BALES FOR INLET PROTECTION. CHECK WITH LOCAL JURISDICTION TO DETERMINE IF STRAW BALE INLET PROTECTION IS ACCEPTABLE.

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PRELIMINARY
NOT FOR BIDDING
NOT FOR CONSTRUCTION

MARS LANDING
PROJECT DEVELOPMENT PLAN
FORT COLLINS, CO

#	Date	Issue / Description	Init.

Project No:	GNK000008
Drawn By:	DBC
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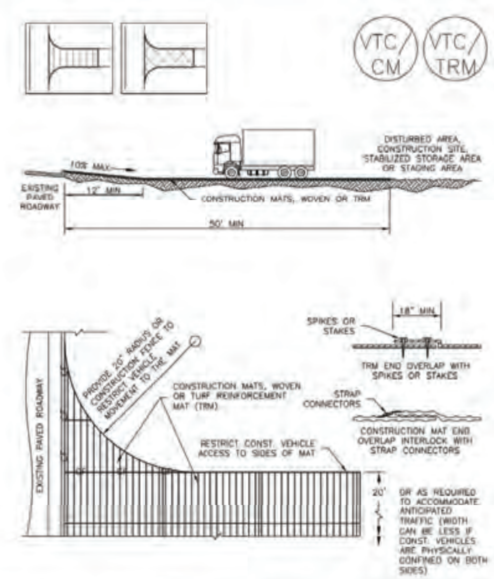
EROSION CONTROL DETAILS

C7.2



VTC-3. VEHICLE TRACKING CONTROL W/ CONSTRUCTION MAT OR TURF REINFORCEMENT MAT (TRM)

STABILIZED CONSTRUCTION ENTRANCE/EXIT INSTALLATION NOTES

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

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

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

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

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

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

STABILIZED CONSTRUCTION ENTRANCE/EXIT MAINTENANCE NOTES

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

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

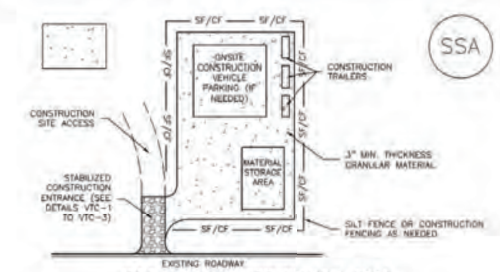
3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

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

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

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

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



SSA-1. STABILIZED STAGING AREA

STABILIZED STAGING AREA INSTALLATION NOTES

1. SEE PLAN VIEW FOR
   - LOCATION OF STAGING AREA(S).
   - CONTRACTOR MAY ADJUST LOCATION AND SIZE OF STAGING AREA WITH APPROVAL FROM THE LOCAL JURISDICTION.

2. STABILIZED STAGING AREA SHOULD BE APPROPRIATE FOR THE NEEDS OF THE SITE. OVERSIZING RESULTS IN A LARGER AREA TO STABILIZE FOLLOWING CONSTRUCTION.

3. STAGING AREA SHALL BE STABILIZED PRIOR TO OTHER OPERATIONS ON THE SITE.

4. THE STABILIZED STAGING AREA SHALL CONSIST OF A MINIMUM 3" THICK GRANULAR MATERIAL.

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

6. ADDITIONAL PERIMETER BMPs MAY BE REQUIRED INCLUDING BUT NOT LIMITED TO SILT FENCE AND CONSTRUCTION FENCING.

STABILIZED STAGING AREA MAINTENANCE NOTES

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

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

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

4. ROCK SHALL BE REAPPLIED OR REGRADED AS NECESSARY IF RUTTING OCCURS OR UNDERLYING SUBGRADE BECOMES EXPOSED.

STABILIZED STAGING AREA MAINTENANCE NOTES

5. STABILIZED STAGING AREA SHALL BE ENLARGED IF NECESSARY TO CONTAIN PARKING, STORAGE, AND UNLOADING/LOADING OPERATIONS.

6. THE STABILIZED STAGING AREA SHALL BE REMOVED AT THE END OF CONSTRUCTION. THE GRANULAR MATERIAL SHALL BE REMOVED OR, IF APPROVED BY THE LOCAL JURISDICTION, USED ON SITE, AND THE AREA COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY LOCAL JURISDICTION.

NOTE: MANY MUNICIPALITIES PROHIBIT THE USE OF RECYCLED CONCRETE AS GRANULAR MATERIAL FOR STABILIZED STAGING AREAS DUE TO DIFFICULTIES WITH RE-ESTABLISHMENT OF VEGETATION IN AREAS WHERE RECYCLED CONCRETE WAS PLACED.

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

(DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO, NOT AVAILABLE IN AUTOCAD)

REINFORCED CHECK DAM MAINTENANCE NOTES

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

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

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

4. SEDIMENT ACCUMULATED UPSTREAM OF REINFORCED CHECK DAMS SHALL BE REMOVED AS NEEDED TO MAINTAIN THE EFFECTIVENESS OF BMP, TYPICALLY WHEN THE UPSTREAM SEDIMENT DEPTH IS WITHIN ½ THE HEIGHT OF THE CREST.

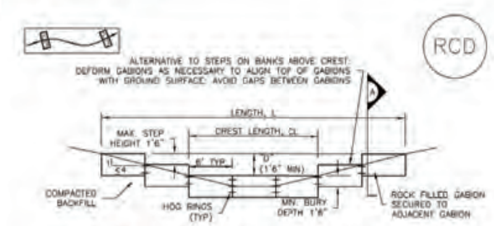
5. REPAIR OR REPLACE REINFORCED CHECK DAMS WHEN THERE ARE SIGNS OF DAMAGE SUCH AS HOLES IN THE GABION OR UNDERCUTTING.

6. REINFORCED CHECK DAMS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.

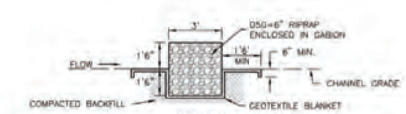
7. WHEN REINFORCED CHECK DAMS ARE REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED, AND COVERED WITH A GEOTEXTILE BLANKET, OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

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

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



REINFORCED CHECK DAM ELEVATION VIEW



SECTION A

REINFORCED CHECK DAM INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   - LOCATIONS OF CHECK DAMS.
   - CHECK DAM TYPE (CHECK DAM OR REINFORCED CHECK DAM).
   - LENGTH (L), CREST LENGTH (CL), AND DEPTH (D).

2. CHECK DAMS INDICATED ON THE SWMP SHALL BE INSTALLED PRIOR TO AN UPSTREAM LAND-DISTURBING ACTIVITIES.

3. REINFORCED CHECK DAMS, GABIONS SHALL HAVE GALVANIZED TWISTED WIRE NETTING WITH A MAXIMUM OPENING DIMENSION OF 4½" AND A MINIMUM WIRE THICKNESS OF 0.10". WIRE "HOG RINGS" AT 4" SPACING OR OTHER APPROVED MEANS SHALL BE USED AT ALL GABION SEAMS AND TO SECURE THE GABION TO THE ADJACENT SECTION.

4. THE CHECK DAM SHALL BE TRENCHED INTO THE GROUND A MINIMUM OF 1' 6".

5. GEOTEXTILE BLANKET SHALL BE PLACED IN THE REINFORCED CHECK DAM TRENCH EXTENDING A MINIMUM OF 1' 6" ON BOTH THE UPSTREAM AND DOWNSTREAM SIDES OF THE REINFORCED CHECK DAM.

CD-2. REINFORCED CHECK DAM

Galloway
5265 Ronald Reagan Blvd., Suite 210
Johnstown, CO 80534
970.800.3300
GallowayUS.com

PRELIMINARY
NOT FOR BIDDING
NOT FOR CONSTRUCTION

MARS LANDING
PROJECT DEVELOPMENT PLAN
FORT COLLINS, CO

#	Date	Issue / Description	Init.
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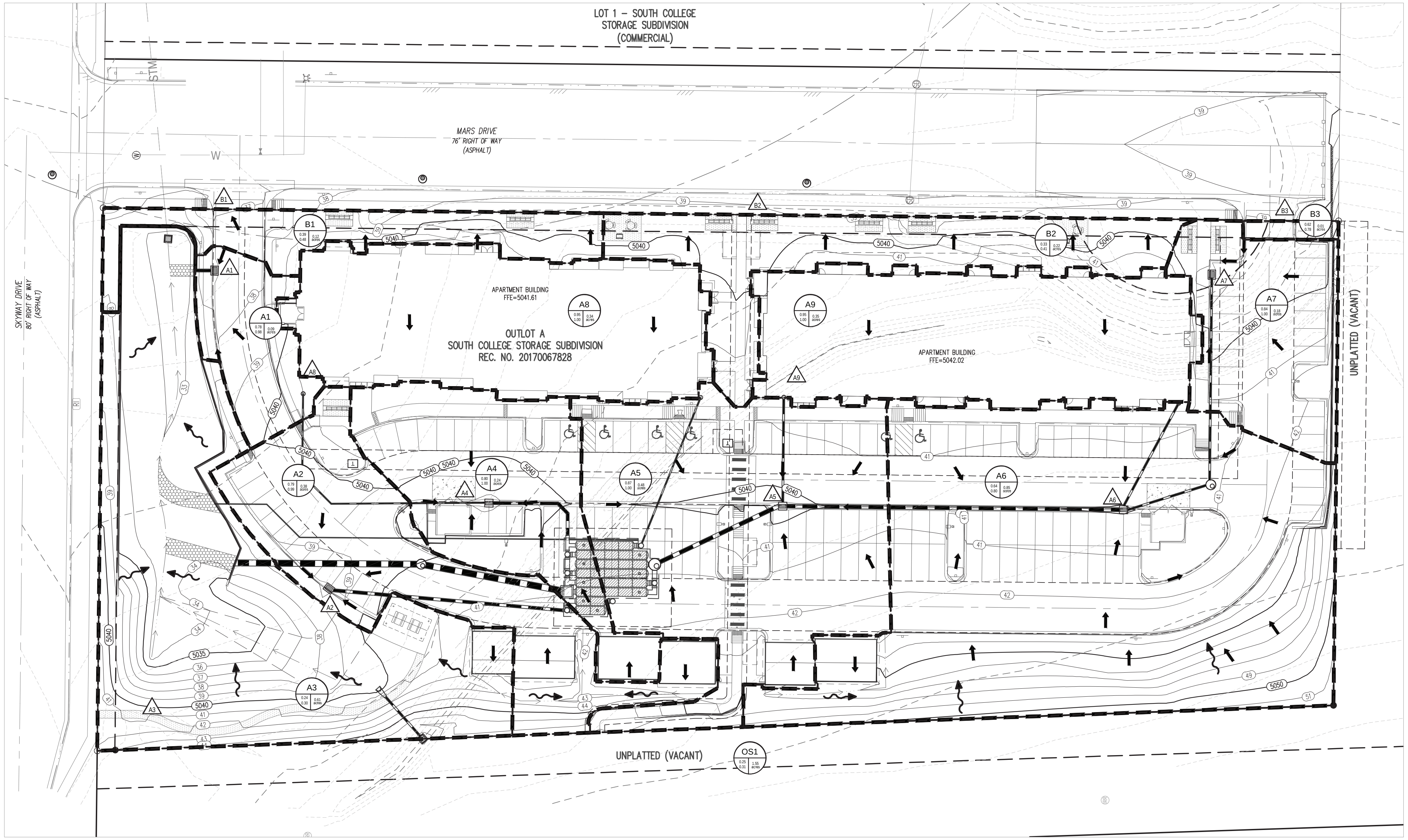
-			

Project No:	GNK000008
Drawn By:	DBC
Checked By:	JEP
Date:	07.28.2021

EROSION CONTROL DETAILS

C7.3



SCALE: 1"=30'

LEGEND:

- PROPOSED CURB AND GUTTER
- EXISTING CURB AND GUTTER
- PROPOSED STORM SEWER
- EXISTING STORM SEWER
- PROPOSED MANHOLE
- EXISTING MANHOLE
- PROPOSED STORM INLET
- EXISTING STORM INLET
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING RIGHT-OF-WAY
- EXISTING LOT LINE
- EXISTING EASEMENT LINE
- PROPOSED EASEMENT LINE

A1: BASIN ID; 0.23 MINOR (2_{YEAR}) RUNOFF COEFFICIENT; 0.45 MAJOR (100_{YEAR}) RUNOFF COEFFICIENT; 1.00 acres BASIN AREA (ACRES)

- DESIGN POINT
- MAJOR BASIN BOUNDARY (i.e., C-STORE)
- SUB-BASIN BOUNDARY (i.e., RATIONAL METHOD)
- OVERLAND FLOW DIRECTION (I.E., LANDSCAPING)
- DIRECT FLOW DIRECTION (I.E., PAVEMENT, CURB AND GUTTER)

BASIN SUMMARY TABLE

Tributary Sub-basin	Area (acres)	C_2	C_{100}	t_c (2-year) (min)	t_c (100-year) (min)	Q_2 (cfs)	Q_{100} (cfs)
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
A BASINS (TO DETENTION)	3.44	0.70	0.88	-	-	6.9	28.3
TO LID	2.74	0.80	1.00	-	-	3.6	25.4
B BASINS	0.35	0.36	0.45	-	-	0.00	1.55
TOTAL	3.79	0.67	0.84	-	-	0.00	29.82

CAUTION - NOTICE TO CONTRACTOR

1. ALL UTILITY LOCATIONS SHOWN ARE BASED ON MAPS PROVIDED BY THE APPROPRIATE UTILITY COMPANY AND FIELD SURFACE EVIDENCE AT THE TIME OF SURVEY AND IS TO BE CONSIDERED AN APPROXIMATE LOCATION ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE FIELD LOCATION OF ALL UTILITIES, PUBLIC OR PRIVATE, WHETHER SHOWN ON THE PLANS OR NOT, PRIOR TO CONSTRUCTION. REPORT ANY DISCREPANCIES TO THE ENGINEERED PRIOR TO CONSTRUCTION.
2. WHERE A PROPOSED UTILITY CROSSES AN EXISTING UTILITY, IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF SUCH EXISTING UTILITY, EITHER THROUGH POTHOLING OR ALTERNATIVE METHOD. REPORT INFORMATION TO THE ENGINEER PRIOR TO CONSTRUCTION.
3. CONTRACTOR RESPONSIBLE FOR AS-BUILT DRAWINGS, TESTS, REPORTS AND/OR ANY OTHER CERTIFICATES OR INFORMATION AS REQUIRED FOR ACCEPTANCE OF WORK FROM CITY, UTILITY DISTRICTS OR ANY OTHER GOVERNING AGENCY.
4. CONTRACTOR SHALL PROTECT ALL EXISTING SURVEY MONUMENTATION. CONTRACTOR SHALL HAVE LICENSED SURVEYOR REPLACE ANY DAMAGED OR DISTURBED MONUMENTATION AT THEIR COST.

811 Know what's **below.** **Call** before you dig.

Galloway
5265 Ronald Reagan Blvd., Suite 210
Johnstown, CO 80534
970.800.3300
GallowayUS.com

PRELIMINARY
NOT FOR BIDDING
NOT FOR CONSTRUCTION

MARS LANDING
PROJECT DEVELOPMENT PLAN
FORT COLLINS, CO

#	Date	Issue / Description	Init.

Project No:	GNK000008
Drawn By:	DBC
Checked By:	JEP
Date:	07.28.2021

DRAINAGE PLAN

C8.0

RECORDED 10/9/2017 AT RECEPTION # 20170067828

S-293 2839

SOUTH COLLEGE STORAGE

A TRACT OF LAND 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

STATEMENT OF OWNERSHIP AND SUBDIVISION:

Know all persons by these presents, that the undersigned owner(s) of the following described land:

A tract of land 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, more particularly described as follows:

Considering the East line of Southeast Quarter of Section 11 as bearing North 00° 23' 13" West, and with all bearings contained herein relative thereto,

COMMENCING at the East 1/4 corner of said Section 11; thence along the East line of the Southeast Quarter of Section 11, South 00° 23' 13" East, 48.93 feet; thence departing said East line, North 89° 36' 47" East, 45.43 feet to a point on that tract of land described in Reception No. 20120022884, said point being the **POINT OF BEGINNING**; thence, South 00° 07' 39" East, 42.21 feet; thence, South 89° 58' 19" West, 9.94 feet; thence, South 00° 01' 34" East, 24.02 feet; thence, North 80° 43' 50" East, 12.70 feet; thence, South 00° 13' 18" East, 554.75 feet; thence, North 89° 07' 02" West, 809.36 feet; thence, North 01° 49' 04" West, 631.28 feet; thence, South 89° 06' 11" East, 894.59 feet; thence, South 45° 11' 38" East, 13.79 feet to the POINT OF BEGINNING.

Contains 565,772 square feet or 12.988 acres, more or less.

For themselves and their successors in interest (collectively "Owner") have caused the above described land to be surveyed and subdivided into lots, tracts and streets as shown on this Plat to be known as SOUTH COLLEGE STORAGE (the "Development"), subject to all easements and rights-of-way now of record or existing or indicated on this Plat. The rights and obligations of this Plat shall run with the land.

CERTIFICATE OF DEDICATION:

The Owner does hereby dedicate and convey to the City of Fort Collins, Colorado (hereafter "City"), for public use, forever, a permanent right-of-way for street purposes and the "Easements" as laid out and designated on this Plat; provided, however, that (1) acceptance by the City of this dedication of Easements does not impose upon the City a duty to maintain the Easements so dedicated, and (2) acceptance by the City of this dedication of streets does not impose upon the City a duty to maintain streets so dedicated until such time as the provisions of the Maintenance Guarantee have been fully satisfied. The streets dedicated on this Plat are the fee property of the City as provided in Section 31-23-107 C.R.S. The City's rights under the Easements include the right to install, operate, access, maintain, repair, reconstruct, remove and replace within the Easements public improvements consistent with the intended purpose of the Easements; the right to install, maintain and use gates in any fences that cross the Easements; the right to mark the location of the Easements with suitable markers; and the right to permit other public utilities to exercise these same rights. Owner reserves the right to use the Easements for purposes that do not interfere with the full enjoyment of the rights hereby granted. The City is responsible for maintenance of its own improvements and for repairing any damage caused by its activities in the Easements, but by acceptance of this dedication, the City does not accept the duty of maintenance of the Easements, or of improvements in the Easements that are not owned by the City. Owner will maintain the surface of the Easements in a sanitary condition in compliance with any applicable weed, nuisance or other legal requirements.

Except as expressly permitted in an approved plan of development or other written agreement with the City, Owner will not install on the Easements, or permit the installation on the Easements, of any building, structure, improvement, fence, retaining wall, sidewalk, tree or other landscaping (other than usual and customary grasses and other ground cover). In the event such obstacles are installed in the Easements, the City has the right to require the Owner to remove such obstacles from the Easements. If Owner does not remove such obstacles, the City may remove such obstacles without any liability or obligation for repair and replacement thereof, and charge the Owner the City's costs for such removal. If the City chooses not to remove the obstacles, the City will not be liable for any damage to the obstacles or any other property to which they are attached.

The rights granted to the City by this Plat inure to the benefit of the City's agents, licensees, permittees and assigns.

OWNER: Lithia Real Estate, Inc.

BY: _____
Mark DeBoer, V.P. Corporate Development

STATE OF ~~COLORADO~~ OREGON)
COUNTY OF ~~LARIMER~~ JACKSON) ss.

The foregoing instrument was acknowledged before me this 27th day of SEPTEMBER, 2017, By Mark DeBoer as V.P. Corporate Development of Lithia Real Estate, Inc..

OFFICIAL STAMP
ROBERT OWEN SUMMERS, JR.
NOTARY PUBLIC-OREGON
COMMISSION NO. 947976
MY COMMISSION EXPIRES FEBRUARY 20, 2020

Witness my hand and official seal

My commission expires: 2/29/2020

Notary Public

MAINTENANCE GUARANTEE:

The Owner hereby warrants and guarantees to the City, for a period of two (2) years from the date of completion and first acceptance by the City of the improvements warranted hereunder, the full and complete maintenance and repair of the improvements to be constructed in connection with the Development which is the subject of this Plat. This warranty and guarantee is made in accordance with the City Land Use Code and/or the Transitional Land Use Regulations, as applicable. This guarantee applies to the streets and all other appurtenant structures and amenities lying within the rights-of-way, Easements and other public properties, including, without limitation, all curbing, sidewalks, bike paths, drainage pipes, culverts, catch basins, drainage ditches and landscaping. Any maintenance and/or repair required on utilities shall be coordinated with the owning utility company or department.

The Owner shall maintain said improvements in a manner that will assure compliance on a consistent basis with all construction standards, safety requirements and environmental protection requirements of the City. The Owner shall also correct and repair, or cause to be corrected and repaired, all damages to said improvements resulting from development-related or building-related activities. In the event the Owner fails to correct any damages within thirty (30) days after written notice thereof, then said damages may be corrected by the City and all costs and charges billed to and paid by the Owner. The City shall also have any other remedies available to it as authorized by law. Any damages which occurred prior to the end of said two (2) year period and which are unrepaired at the termination of said period shall remain the responsibility of the Owner.

REPAIR GUARANTEE:

In consideration of the approval of this final Plat and other valuable consideration, the Owner does hereby agree to hold the City harmless for a five (5) year period, commencing upon the date of completion and first acceptance by the City of the improvements to be constructed in connection with the development which is the subject of this Plat, from any and all claims, damages, or demands arising on account of the design and construction of public improvements of the property shown herein; and the Owner furthermore commits to make necessary repairs to said public improvements, to include, without limitation, the roads, streets, fills, embankments, ditches, cross pans, sub-drains, culverts, walls and bridges within the right-of-way, Easements and other public properties, resulting from failures caused by design and/or construction defects. This agreement to hold the City harmless includes defects in materials and workmanship, as well as defects caused by or consisting of settling trenches, fills or excavations.

Further, the Owner warrants that he/she owns fee simple title to the property shown hereon and agrees that the City shall not be liable to the Owner or his/her successors in interest during the warranty period, for any claim of damages resulting from negligence in exercising engineering techniques and due caution in the construction of cross drains, drives, structures or buildings, the changing of courses of streams and rivers, flooding from natural creeks and rivers, and any other matter whatsoever on private property. Any and all monetary liability occurring under this paragraph shall be the liability of the Owner. I further warrant that I have the right to convey said land according to this Plat.

NOTICE OF OTHER DOCUMENTS:

All persons take notice that the Owner has executed certain documents pertaining to this Development which create certain rights and obligations of the Development, the Owner and/or subsequent Owners of all or portions of the Development site, many of which obligations constitute promises and covenants that, along with the obligations under this Plat, run with the land. The said documents may also be amended from time to time and may include, without limitation, the Development Agreement, Site And Landscape Covenants, Final Site Plan, Final Landscape Plan, and Architectural Elevations, which documents are on file in the office of the Clerk of the City and should be closely examined by all persons interested in purchasing any portion of the Development site.

ATTORNEY'S CERTIFICATION

I hereby certify that this Subdivision Plat has been duly executed as required pursuant to Section 2.2.3(C)(3)(a) through (e) inclusive of the Land Use Code of the City of Fort Collins and that all persons signing this Subdivision Plat on behalf of a corporation or other entity are duly authorized signatories under the laws of the State of Colorado. This Certification is based upon the records of the Clerk and Recorder of Larimer County, Colorado as of the date of execution of the Plat and other information discovered by me through reasonable inquiry and is limited as authorized by Section 2.2.3(C)(3)(f) of the Land Use Code.

Attorney: ~~Jeremy R. Hahn~~ EDWARD IMPERT

Address: ~~Lane Powell~~ LITHIA MOTORS, INC.
~~601 S.W. 2nd Ave., Suite 2100~~ 150 N. BARTLETT ST.
~~Portland, OR 97204-3158~~ MEDFORD, OR 97501

Registration No.: 063769

APPROVED AS TO FORM, CITY ENGINEER

By the City Engineer of the City of Fort Collins, Colorado this 6th day of October A.D., 2017

City Engineer

SEAL

PLANNING APPROVAL

By the Director of Community Development and Neighborhood Services of the City of Fort Collins, Colorado this 6th day of OCTOBER A.D., 2017

Director of Community Development and Neighborhood Services

SEAL

NOTICE

ALL RESPONSIBILITIES AND COSTS OF OPERATION, MAINTENANCE AND RECONSTRUCTION OF THE PRIVATE STREETS AND/OR DRIVES LOCATED ON THE PRIVATE PROPERTY THAT IS THE SUBJECT OF THIS PLAT SHALL BE BORNE BY THE OWNERS OF SAID PROPERTY, EITHER INDIVIDUALLY, OR COLLECTIVELY, THROUGH A PROPERTY OWNERS' ASSOCIATION, IF APPLICABLE. THE CITY OF FORT COLLINS SHALL HAVE NO OBLIGATION OF OPERATION, MAINTENANCE OR RECONSTRUCTION OF SUCH PRIVATE STREETS AND/OR DRIVES NOR SHALL THE CITY HAVE ANY OBLIGATION TO ACCEPT SUCH STREETS AND/OR DRIVES AS PUBLIC STREETS OR DRIVES.

NORTH VICINITY MAP 1"=1500'

NOTES:

1) The Basis of Bearings is the East line of the Southeast Quarter of Section 11, as bearing North 00° 23' 13" West (assumed bearing) as monumented on drawing.

2) For all information regarding easements, right-of-way or title of record, Northern Engineering relied upon File Number 01330-81862-C2, dated August 1, 2017, prepared by Stewart Title Company.

3) The lineal unit of measurement for this plat is U.S. Survey Feet.

4) 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 Sections 12-120 - 12-122 of the City code.

5) NOTE THAT THE PLAT OF SKYVIEW SUBDIVISION CALLS THE SOUTHERLY RIGHT OF WAY OF SKYWAY DRIVE AS BEING PARALLEL TO THE SOUTH LINE OF THE NORTHEAST QUARTER OF SECTION 11. THE LOCATION OF SAID QUARTER SECTION LINE WAS NOT ACCEPTED AS CONTROLLING THE SOUTHERLY RIGHT OF WAY OF SKYWAY DRIVE AND WAS DETERMINED BY THE FOLLOWING:

LAND SURVEY PLAT RECORDED AT RECEPTION NUMBER 20120061810, ALTA/ASCM SURVEY RECORDED AT RECEPTION NUMBER 20060021570, ALTA/NSPS SURVEY PREPARED BY NORTHERN ENGINEERING (Project Number: 1269-002, NOT RECORDED), DEED AS RECORDED AT RECEPTION NUMBER 91062247, FOUND LOCAL MONUMENTATION, THE EXISTING LOCATION OF SKYWAY DRIVE, LOCAL IMPROVEMENTS AND EVIDENCE SHOWN HEREON.

6) The Temporary Access Easement shall be terminated upon completion of Mars Drive in the ultimate location and configuration to the southern property line.

7) Per email received by Mr. Jack Fetig, President North Louden Ditch Company, dated September 20, 2017; it is understood that there is and will remain a prescriptive easement for the ditch as it exists on the South College Storage property, as shown hereon.

SURVEYOR'S STATEMENT

I, Robert C. Tessely, a Colorado Registered Professional Land Surveyor do hereby state that this Subdivision Plat was prepared from an actual survey under my personal supervision, that the monumentation as indicated hereon were found or set as shown, and that the foregoing plat is an accurate representation thereof, all this to the best of my knowledge, information and belief.

STATE OF COLORADO LICENSED ROBERT C. TESSELY 38470 PROFESSIONAL LAND SURVEYOR

Date: 9-25-17

For and on Behalf of Northern Engineering
Robert C. Tessely
Colorado Registered Professional
Land Surveyor No. 38470

NOTICE:
According to Colorado law, you must commence any legal action based upon any defect in this survey within three years after you first discover such defect. In no event may any action based upon any defect in this survey be commenced more than ten years after the date of the certificate shown hereon.

SECTION: 11
TOWNSHIP: 6 N
RANGE: 69 W of the 6th PM

NORTHERN ENGINEERING
301 North Howes Street, Suite 100
Fort Collins, Colorado 80521
PHONE: 970.221.4158
www.northernengineering.com

DATE: 9/25/17
SCALE: N.A.
REVIEWED BY: R. Tessely
PROJECT: 1269-002
DESIGNED BY:
DRAWN BY: C. Smith

SOUTH COLLEGE STORAGE

CITY OF FORT COLLINS
STATE OF COLORADO

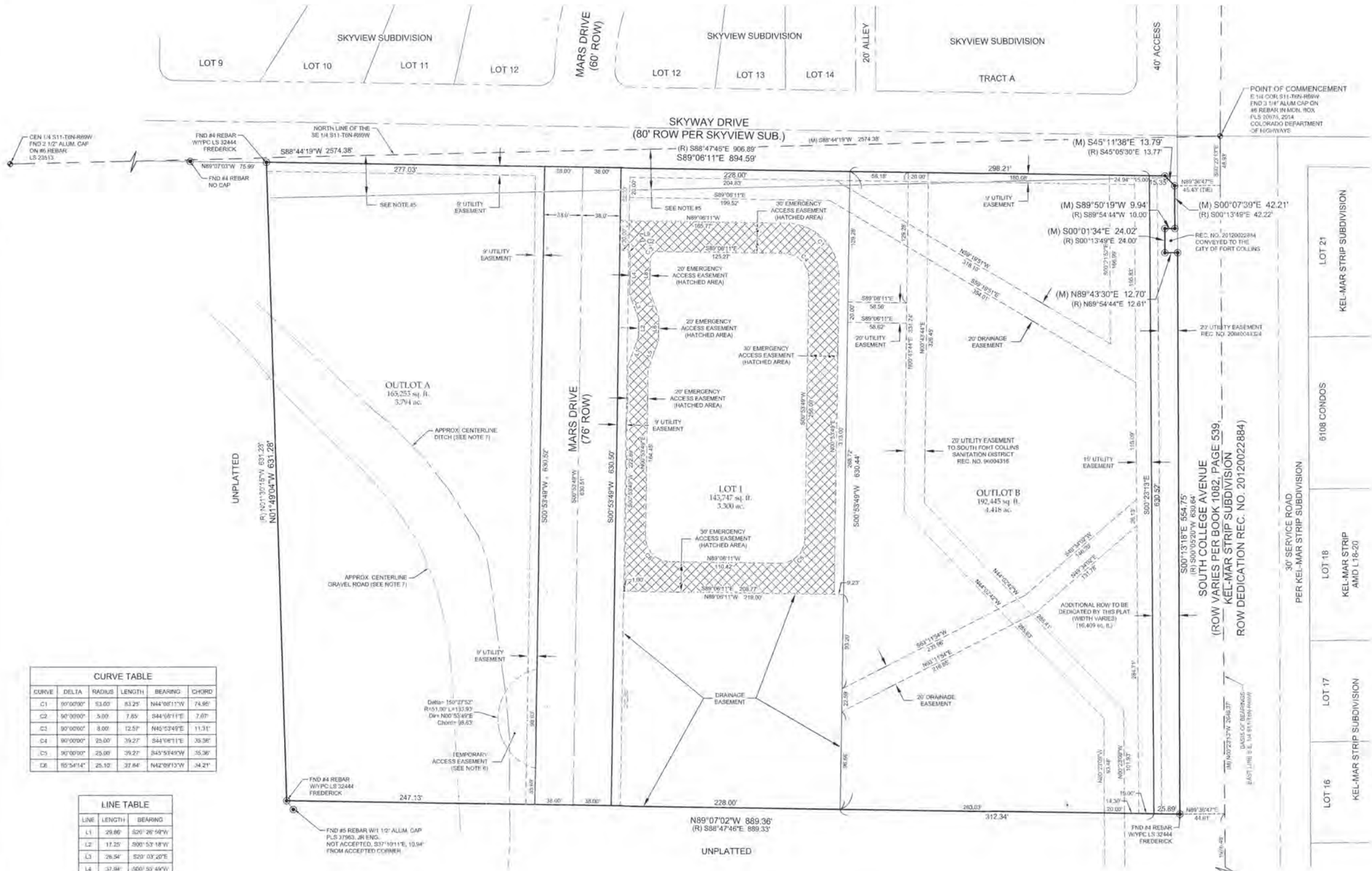
Sheet 1 Of 2 Sheets

S-293 2839

S-293 2839

SOUTH COLLEGE STORAGE

A TRACT OF LAND 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	DELTA	RADIUS	LENGTH	BEARING	CHORD
C1	90°00'00"	53.00'	83.25'	N44°08'11"W	74.95'
C2	90°00'00"	5.00'	7.85'	S44°51'49"E	7.07'
C3	90°00'00"	8.00'	12.57'	N45°53'49"E	11.31'
C4	90°00'00"	25.00'	39.27'	S44°08'11"E	35.36'
C5	90°00'00"	25.00'	39.27'	S45°53'49"W	35.36'
C6	85°54'14"	25.10'	37.64'	N42°09'13"W	34.21'

LINE TABLE		
LINE	LENGTH	BEARING
L1	29.86'	S26° 26' 58"W
L2	17.25'	S00° 53' 18"W
L3	26.54'	S29° 03' 20"E
L4	37.84'	S00° 53' 49"W
L5	29.86'	N26° 26' 58"E
L6	24.40'	N00° 53' 18"E
L7	26.54'	N29° 03' 20"W
L8	31.24'	N00° 53' 49"E
L9	5.50'	S89° 36' 11"E

LAND USE TABLE						
PARCEL	DESCRIPTION	DEDICATION	AREA		PERCENT	INTENDED OWNERSHIP/MAINTAINANCE BY
OUTLOT A	Open Space	Drainage & Utility Easement	165,253 S.F.	3.79 AC.	29.21%	Property Owner
OUTLOT B	Open Space	Drainage & Utility Easement	192,445 S.F.	4.42 AC.	34.01%	Property Owner
ROW	Public Use		64,327 S.F.	1.48 AC.	11.37%	City of Fort Collins
LOT 1	Commercial		143,747 S.F.	3.30 AC.	25.41%	Property Owner
TOTAL			565,772 S.F.	12.99 AC.	100.00%	

NOTICE: According to Colorado law you must commence any legal action based upon any defect in this survey within three years after you first discover such defect. In no event may any action based upon any defect in this survey be commenced more than ten years after the date of the certificate shown hereon.

SECTION: 11 TOWNSHIP: 6 N RANGE: 69 W of the 6th PM

NORTHERN ENGINEERING

DATE: 9/25/17 SCALE: 1"=50' REVIEWED BY: R. Teasley
PROJECT: 1269-002 DESIGNED BY: DRAWN BY: L. Smith

SOUTH COLLEGE STORAGE
CITY OF FORT COLLINS
STATE OF COLORADO

Sheet 2 Of 2 Sheets

Robert C. Teasley
Registered Professional Land Surveyor
Colorado Registration No. 38470
For and on behalf of Northern Engineering Services, Inc.

S-293 2839

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

Mars Landing
Neighborhood Meeting Summary (8-27-19)

Overview

City Staff:
Pete Wray, Senior City Planner and Project Planner
Sylvia Tatman-Burruss, Development Review Liaison
Shawna Van Zee, City Planning Specialist
Dave Betley, Civil Engineering Manager
Joe Olson, City Traffic Engineer
Steve Gilchrist, Traffic Engineering Sr. Technician
Martina Wilkinson, Assistant City Traffic Engineer (not at mtg. but provided written responses)
Stephanie Blochowiak, Environmental Planner (not at mtg. but provided written responses)

Applicant:
Mark Johnson, Goodwin Knight LLC
James Prelog, Galloway and Company

Neighborhood Meeting Date: Monday August 26, 2019

Proposed Project Review Process

- Purpose of meeting is to share conceptual plans at an early stage in process and gather feedback from neighbors for inclusion in record.
- A formal application of the project has not been submitted to the City
- A project development plan submittal will start a formal review by staff, with each round of review comprising three weeks
- Staff will determine when the project is ready for hearing
- Type 2 review and hearing, with the Planning and Zoning Board with Project Development Plan with Board acting decision maker.
- Residents who receive this meeting notice will also receive a letter for the Planning and Zoning Board Hearing

Applicant Presentation

- The project has completed the conceptual review stage and a PDP application has not been submitted to the city.
- The project includes a request to build two, three story multi-family buildings with 90 total dwelling units and clubhouse.
- 188 parking spaces will be provided on site for both the residential uses and pool/clubhouse.
- Site provides a landscape buffer to the existing ditch corridor west of project and full site landscape design
- Primary access to the site is from Mars Drive via Skyway Drive
- The property is in the General Commercial (C-G) Zone District.

Questions/Comments and Answers

Transportation Comments:

Question: Is there evidence of the traffic study that we can see?

Applicant: The traffic study will be submitted with the formal application and will be public record, so it will be available upon request. Information from the traffic study will determine level of service requirements and extent of public street improvements, based on project traffic impacts.

Question: Who owns the frontage road?

Applicant: CDOT, the state department of transportation, owns S. College Ave. and the Frontage Rd. is in the right-of-way. CDOT is responsible for maintenance of both roadways.

Question: Who completed the traffic study? Is this done by the applicant's team?

Applicant: Delich Associates, an independent contractor, is conducting the traffic study.

Question: Will there be visitor parking spots? It does not look like you have many extra visitor parking spots beyond what the residents will need.

Applicant: There is parking for visitors in addition to resident parking.

Question: When the problem with the traffic starts, who do we contact?

City Staff: You can contact Joe Olson with the City's Traffic Engineering at jolson@fcgov.com.

Question: All of the traffic from this development will be come off of Skyway Dr. Is that correct?

Applicant: Yes, until Mars Drive connects through future developments to Trilby Road, the traffic will all connect to Skyway Dr.

Question: Safety is our concern and even though the traffic study may show you do not need to make improvements, there are issues in this area that need to be addressed. Will there be a traffic light at Constellation? Who do we complain to about the Frontage Road?

Joe Olson: Developers can't be required to fix things that are already not working. We look at things that they are impacting directly. The Frontage Road that close to College Ave is a difficult design, which is why we don't design roadways like this anymore. For existing deficiencies, please direct your concerns to traffic operations with the city. Joe Olson is the point of contact if you want to have conversations about traffic issues in your neighborhood. His number is 970-224-6062.

Sylvia Tatman-Burruss: The City would be happy to set up a meeting with your HOA about existing conditions and what improvements need to be addressed.

Comment: Skyway Drive is dangerous in the winter. There is lots of ice and it is downhill to the light at College Avenue, so it is very easy to slide into the intersection.

Joe Olson: It would be best to notify traffic operations of that specific issue to ensure the road is properly maintained in the winter.

Comment: If we want to address the traffic, we need to take it to City Council to get change.

Question: Who is responsible to finish Mars Drive to Trilby?

Applicant: That will not be part of this development. We will extend Mars drive an additional 200 feet. The ultimate plan of the street network is for Mars Drive to extend to Trilby in the future. The remaining portions would be built by future development on the parcels to the south that connect to Trilby.

Pete: If and when the middle properties come forward for development, they will be responsible for building the remainder of Mars Drive. Each project builds their section of the road to the city standards.

Question: Is the traffic study already complete? Who sets the primary assumptions?

Applicant: A traffic study has been done, but it has not been submitted or reviewed by the city, so it is not complete.

Joe Olson: A traffic study includes a scoping meeting with the city and the group conducting the study to look at big picture to determine those assumptions.

Comment: Trilby is already an issue and will get worse if this connection is eventually made.

Pete Wray: This project is responsible for mitigating the traffic impacts from this development to determine local street frontage improvements and contributing to street oversizing based on those impacts. The future connection of Mars Drive between Skyway and Trilby will provide more street connectivity choices for accessing College. This project as stated will extend Mars Drive to south boundary of site. We do not know timing for when Mars Drive will be completed to Trilby, contingent on future development coming forward.

Question: This conversation has all been “If this, then that”. Why isn’t there a plan that states what will happen and what the quality of life will be like as a result? I’m concerned with the quality of life for the people who will be living here.

Pete Wray: As each development comes forward, we as City staff have to respond to that development and what can change as a result. Streets are built two ways, either by development or by a capital project that the city initiates. As stated previously, improvements

of existing deficiencies of streets, sidewalks and drainage in area are not part of this development but will be addressed over time as the city has available funding.

Comment: We have had multiple meetings in this area over the past several years and we always talk about traffic, and nothing ever gets better. Please recognize that there are people who have been here a long time and are very invested and we have already given a lot and we can't have development on the backs of those who have been here. We need to have our voices considered in this process.

Sylvia: Your comments are being captured and will be part of the record.

Environmental Comments:

Question: What about the prairie dogs? Will you kill them?

Applicant: The city has a mitigation process for prairie dogs.

Stephanie Blochowiak (written City Staff Response): An Ecological Characterization Study (ECS) is required to inventory all onsite natural habitats and features and those within 500-ft of project site per LUC 3.4.1. The ECS informs design of a "natural habitat buffer zone" or NHBZ. The ditch is proposed to be piped and City staff must mitigate for lost habitat value within the NHBZ design.

Question: The prairie dogs got pushed out of the self-storage development area. That plan was not adequate, and those dogs have moved to this site and to the right-of-way. This has been dangerous for the prairie dogs, and we have lost many of them.

Applicant: We will do our best to mitigate those effects and work with the city to handle the prairie dogs.

Stephanie Blochowiak (written City Staff Response): Land Use Code Section 3.4.1 now specifies that prairie dog colonies equal to or greater than one acre in size warrant protection or mitigation as part of the development review process. The following approaches may be acceptable forms of mitigation depending on specific circumstances:

- On-site habitat enhancements
- Off-site habitat enhancements
- Payment-in-lieu mitigation
- Trap and donate
- Passive relocation
- Active relocation

Any questions related to prairie dog mitigation can be directed to Stephanie Blochowiak, Environmental Planner with the City, at sblochowiak@fcgov.com.

Other Comments:

Question: Will the water on site be routed through the ditch on the north?

Applicant: No, the flows on this development will be connected to an underground storm system.

Question: What is the lighting plan for the parking lot? How will you do it safely and dimly?

Applicant: This is zoned commercial, so the light pollution of a residential development is likely less than you would see with a more commercial development. We work with lower mounted lights, and the city has strict standards in regard to lighting that we will adhere to. It won't be as dark as it is now, but the light should not be extending beyond our property.

Pete: They will submit a lighting plan that includes building lights, streets lights, and sidewalk lights. They will all be down directional and low light levels. The lighting can't extend beyond the site boundary.

Question: How is it safe in the case of a fire or emergency if there is only one exit?

Applicant: The fire department will review this project and they have high standards for safety. They deal with these situations a lot and will be thinking through these types of situations in their review of the plan. The PFA will have emergency access to the residential buildings and clubhouse on site. You will be able to see their comments throughout the process as well.

Question: You have a clubhouse – will that be able to be rented out?

Applicant: It would be available to the residence for use. The clubhouse will include an office, meeting room, and exercise room. It won't be a big building so it would not accommodate large groups or parties.

Question: How many units and bedrooms will be part of this development?

Applicant: 90 units and 128 bedrooms. These are market rate, and we do market rates to determine pricing but likely $1,000-$1,800.

Question: Who will manage the apartment complex?

Applicant: It will be managed by management company, and they will be onsite.

Question: What is the green area on the site plan?

Applicant: It is the detention pond. This area is part of the storm water drainage plan for the project.

Comment: People are going to have dogs and there is no place for pets. In Colorado many people have dogs. We are concerned their dogs will poop on our lawns. Please consider adding an area for dogs.

Applicant: That is something to consider. Without a formal dog park on site, residents have the option to walk their pets along the street sidewalks, open space on site, and eventually to the trail that will extend along to the west of this property.

Question: How are you going to keep the neighborhood kids off the playground?

Applicant: We will not be regulating children to stay out of the playground.

Comment: I have two primary concerns. First, when storm water drainage was addressed at the site with the storage, they took away the graded areas that had previously leveled off, it is a fast ride down in a wheelchair and could be a safety concern. Second, the drainage in this area has some major issues. The water backs up and there is a lake at the intersection of S. College Avenue when we get rain.

Pete: This project will provide streetscape improvements along frontage of Skyway Drive and Mars Drive, with new sidewalks in compliance with ADA standards. The project will also provide storm water improvements on site and connections to off-site drainage systems that meet City stormwater criteria requirements.

Sylvia: Thanks for attending tonight. The conversation will be summarized and available as public record. Residents that received notice of this meeting will also be notified of hearing. The next step in the development review process is for the applicant to consider refinements to the project design in preparation of a formal project submittal and review by City staff.

DELICH ASSOCIATES Traffic & Transportation Engineering
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MEMORANDUM

TO: Bryan Kniep/Nicole Renner, Goodwin Knight
Don Cecil/James Prelog, Galloway
Steve Gilchrist, Fort Collins Traffic Operations

FROM: Matt Delich

DATE: October 30, 2020

SUBJECT: Mars Landing Transportation Impact Study Addendum
(File: 1968ME02)

This memorandum is an addendum to the **Mars Landing Transportation Impact Study** (TIS), dated August 7, 2019. It provides an evaluation of the change in operation (delay) at the US287/Skyway intersection with the west leg (eastbound) striped with a left-turn/through lane and a right-turn lane. It also addresses the queue length of these lanes.

In the cited TIS, the west leg was analyzed with all movements in a single lane (current striping). The short range (2024) total peak hour traffic forecast (from the cited TIS) is provided in Appendix A. Table 4 from the TIS (also in Appendix A) shows the short range total peak hour intersection operation and the calculated delay for the eastbound approach at the intersection. The calculation forms can be found in Appendix E of the cited TIS. The 95th percentile queues for the west leg are 128 feet and 118 feet in the respective peak hours (5 vehicles).

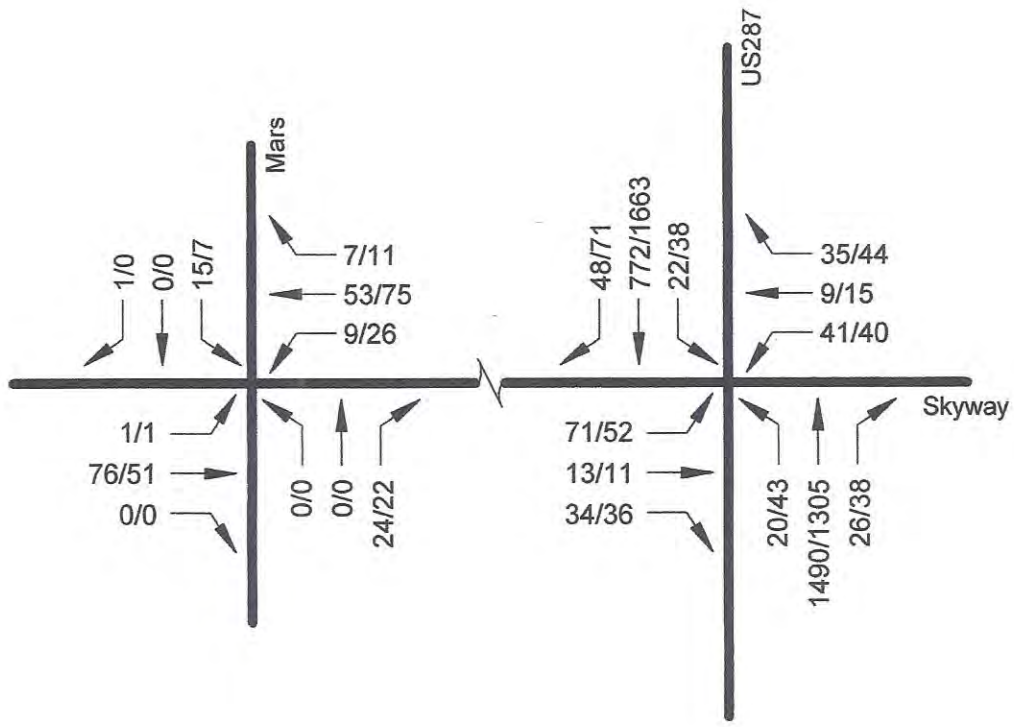
The subject intersection was analyzed with an eastbound left-turn/through lane (11 feet wide) and an eastbound right-turn lane (11 feet wide). Under this condition, the designated bike lane would end and bikes would share the travel lanes with motor vehicles. No other geometric changes were made at the intersection in this analysis. Table 1 shows the short range total peak hour intersection operation and the calculated delay for the eastbound approach at the intersection. The calculation forms are provided in Appendix B. This geometric modification will reduce the eastbound approach delay by 4.4 and 5.3 seconds in the respective peak hours. It also allows the eastbound to southbound right-turning vehicles to bypass the left-turning/through vehicles. Bottom line is that the geometric modification will improve the operation and reduce the delay for the eastbound approach at the intersection. The level of service on the other legs is not significantly different.

The 95th percentile queue for the left-turn/through lane is 105 feet and 93 feet in the respective peak hours (4 vehicles). This queue length determines the length of both approach lanes (100 feet). The transition area will occur to the west of the two approach lanes before returning to a single eastbound lane. Appendix C contains a rough signage and striping drawing, provided by City staff. This drawing should be modified by extending the two approach lanes to 100 feet with the transition area and signage moved appropriately to the west. The defined bike lane should end approximately 175 feet west of the stop bar.

It is concluded that the geometric modification will improve the operation and reduce the delay for the eastbound approach at the intersection. Do not hesitate to contact me if there are questions of if additional information is required.

TABLE 1 Short Range (2024) Total Peak Hour Operation			
Intersection	**Movement**	**Level of Service**	
		AM (Delay,sec)	**PM (Delay,sec)**
US287/Skyway (signal)	EB LT/T	D (46.9)	D (52.0)
	EB RT	D (43.4)	D (48.9)
	EB APPROACH	D (46.9)	D (51.9)
	WB LT/T/RT	D	E
	NB LT	A	A
	NB T	A	A
	NB RT	A	A
	NB APPROACH	A	A
	SB LT	A	A
	SB T	A	A
	SB RT	A	A
	SB APPROACH	A	A
	OVERALL	B	B
Skyway/Mars (stop sign)	NB LT/T/RT	A	A
	SB LT/T/RT	A	B
	EB LT/T/RT	A	A
	WB LT/T/RT	A	A
	OVERALL	A	A

APPENDIX A



SHORT RANGE (2024) TOTAL PEAK HOUR TRAFFIC

Figure 9

TABLE 4 Short Range (2024) Total Peak Hour Operation			
Intersection	**Movement**	**Level of Service**	
		AM (Delay,sec)	**PM (Delay,sec)**
US287/Skyway (signal)	EB LT/T/RT	D (51.3)	E (57.2)
	WB LT/T/RT	D	E
	NB LT	A	A
	NB T	A	A
	NB RT	A	A
	NB APPROACH	A	A
	SB LT	A	A
	SB T	A	A
	SB RT	A	A
	SB APPROACH	A	A
	OVERALL	A	A
Skyway/Mars (stop sign)	NB LT/T/RT	A	A
	SB LT/T/RT	A	B
	EB LT/T/RT	A	A
	WB LT/T/RT	A	A
	OVERALL	A	A

APPENDIX B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	71	13	34	41	9	35	20	1490	26	22	772	48
Future Volume (veh/h)	71	13	34	41	9	35	20	1490	26	22	772	48
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1796	1945	1796	1796	1870	1796	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	79	14	1	46	10	11	22	1656	3	24	858	30
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	207	32	170	113	26	16	505	2540	1133	255	2544	1134
Arrive On Green	0.11	0.12	0.11	0.11	0.12	0.11	0.03	0.71	0.71	0.03	0.72	0.72
Sat Flow, veh/h	1208	268	1522	477	216	136	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	93	0	1	67	0	0	22	1656	3	24	858	30
Grp Sat Flow(s),veh/h/ln	1476	0	1522	829	0	0	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	0.0	0.0	0.1	3.8	0.0	0.0	0.4	27.4	0.1	0.4	10.0	0.6
Cycle Q Clear(g_c), s	6.5	0.0	0.1	10.3	0.0	0.0	0.4	27.4	0.1	0.4	10.0	0.6
Prop In Lane	0.85		1.00	0.69		0.16	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	226	0	170	148	0	0	505	2540	1133	255	2544	1134
V/C Ratio(X)	0.41	0.00	0.01	0.45	0.00	0.00	0.04	0.65	0.00	0.09	0.34	0.03
Avail Cap(c_a), veh/h	372	0	318	292	0	0	570	2540	1133	319	2544	1134
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.7	0.0	43.4	48.9	0.0	0.0	4.2	8.4	4.5	7.4	5.9	4.5
Incr Delay (d2), s/veh	1.2	0.0	0.0	2.2	0.0	0.0	0.0	1.3	0.0	0.2	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	0.0	0.0	1.9	0.0	0.0	0.1	7.8	0.0	0.1	2.8	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	46.9	0.0	43.4	51.0	0.0	0.0	4.2	9.7	4.5	7.6	6.2	4.6
LnGrp LOS	D	A	D	D	A	A	A	A	A	A	A	A
Approach Vol, veh/h		94			67			1681			912	
Approach Delay, s/veh		46.9			51.0			9.6			6.2	
Approach LOS		D			D			A			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.0	84.7		18.3	7.1	84.6		18.3				
Change Period (Y+Rc), s	5.0	7.0		6.0	5.0	7.0		6.0				
Max Green Setting (Gmax), s	6.0	63.0		23.0	6.0	63.0		23.0				
Max Q Clear Time (g_c+I1), s	2.4	12.0		8.5	2.4	29.4		12.3				
Green Ext Time (p_c), s	0.0	3.5		0.2	0.0	8.8		0.1				

Intersection Summary	
HCM 6th Ctrl Delay	10.8
HCM 6th LOS	B

Phase Number	1	2	4	5	6	8
Movement	NBL	SBTL	EBTL	SBL	NBTL	WBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize						
Recall Mode	None	C-Max	None	None	C-Max	None
Maximum Split (s)	11	70	29	11	70	29
Maximum Split (%)	10.0%	63.6%	26.4%	10.0%	63.6%	26.4%
Minimum Split (s)	11	25	29	11	25	29
Yellow Time (s)	3	5.5	3	3	5.5	3
All-Red Time (s)	2	1.5	3	2	1.5	3
Minimum Initial (s)	4	15	4	4	15	4
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		7	7		7	7
Flash Dont Walk (s)		10	16		10	16
Dual Entry	No	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	80	91	51	80	91	51
End Time (s)	91	51	80	91	51	80
Yield/Force Off (s)	86	44	74	86	44	74
Yield/Force Off 170(s)	86	34	58	86	34	58
Local Start Time (s)	29	40	0	29	40	0
Local Yield (s)	35	103	23	35	103	23
Local Yield 170(s)	35	93	7	35	93	7

Intersection Summary

Cycle Length	110
Control Type	Actuated-Coordinated
Natural Cycle	90

Offset: 51 (46%), Referenced to phase 2:SBTL and 6:NBTL, Start of Red

Splits and Phases: 3: US287 & Skyway Drive

Lane Group	EBT	EBR	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	93	38	95	22	1656	29	24	858	53
v/c Ratio	0.51	0.16	0.47	0.04	0.66	0.03	0.10	0.33	0.05
Control Delay	52.5	1.4	37.1	4.0	12.5	0.0	4.6	7.3	1.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	52.5	1.4	37.1	4.0	12.5	0.0	4.6	7.3	1.1
Queue Length 50th (ft)	63	0	44	3	332	0	3	76	0
Queue Length 95th (ft)	105	0	87	11	557	0	12	210	9
Internal Link Dist (ft)	558		942		724			774	
Turn Bay Length (ft)		50		275		325	275		275
Base Capacity (vph)	304	357	315	521	2508	1070	239	2578	1136
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.31	0.11	0.30	0.04	0.66	0.03	0.10	0.33	0.05

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	52	11	36	40	15	44	43	1305	38	38	1663	71
Future Volume (veh/h)	52	11	36	40	15	44	43	1305	38	38	1663	71
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1796	1945	1796	1796	1870	1796	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	55	12	1	42	16	20	45	1374	19	40	1751	54
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	166	32	148	91	37	28	245	2617	1167	340	2612	1165
Arrive On Green	0.10	0.11	0.10	0.10	0.11	0.10	0.03	0.74	0.74	0.03	0.74	0.74
Sat Flow, veh/h	1056	303	1522	424	355	269	1781	3554	1585	1781	3554	1585
Grp Volume(v), veh/h	67	0	1	78	0	0	45	1374	19	40	1751	54
Grp Sat Flow(s),veh/h/ln	1359	0	1522	1047	0	0	1781	1777	1585	1781	1777	1585
Q Serve(g_s), s	0.0	0.0	0.1	4.0	0.0	0.0	0.7	19.9	0.4	0.6	30.9	1.1
Cycle Q Clear(g_c), s	5.6	0.0	0.1	9.7	0.0	0.0	0.7	19.9	0.4	0.6	30.9	1.1
Prop In Lane	0.82		1.00	0.54		0.26	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	187	0	148	148	0	0	245	2617	1167	340	2612	1165
V/C Ratio(X)	0.36	0.00	0.01	0.53	0.00	0.00	0.18	0.53	0.02	0.12	0.67	0.05
Avail Cap(c_a), veh/h	266	0	228	228	0	0	288	2617	1167	385	2612	1165
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	50.8	0.0	48.9	53.3	0.0	0.0	8.1	6.8	4.2	5.1	8.3	4.4
Incr Delay (d2), s/veh	1.2	0.0	0.0	2.9	0.0	0.0	0.4	0.8	0.0	0.2	1.4	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.0	0.0	2.5	0.0	0.0	0.3	5.6	0.1	0.2	8.8	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	52.0	0.0	48.9	56.2	0.0	0.0	8.4	7.6	4.2	5.3	9.7	4.4
LnGrp LOS	D	A	D	E	A	A	A	A	A	A	A	A
Approach Vol, veh/h		68			78			1438			1845	
Approach Delay, s/veh		51.9			56.2			7.5			9.4	
Approach LOS		D			E			A			A	
Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	8.1	94.2		17.7	7.9	94.4		17.7				
Change Period (Y+Rc), s	5.0	7.0		6.0	5.0	7.0		6.0				
Max Green Setting (Gmax), s	6.0	78.0		18.0	6.0	78.0		18.0				
Max Q Clear Time (g_c+I1), s	2.7	32.9		7.6	2.6	21.9		11.7				
Green Ext Time (p_c), s	0.0	10.5		0.1	0.0	6.8		0.1				

Intersection Summary	
HCM 6th Ctrl Delay	10.5
HCM 6th LOS	B

Phase Number	1	2	4	5	6	8
Movement	NBL	SBTL	EBTL	SBL	NBTL	WBTL
Lead/Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize						
Recall Mode	None	C-Max	None	None	C-Max	None
Maximum Split (s)	11	85	24	11	85	24
Maximum Split (%)	9.2%	70.8%	20.0%	9.2%	70.8%	20.0%
Minimum Split (s)	11	25	24	11	25	24
Yellow Time (s)	3	5.5	3	3	5.5	3
All-Red Time (s)	2	1.5	3	2	1.5	3
Minimum Initial (s)	4	15	4	4	15	4
Vehicle Extension (s)	3	3	3	3	3	3
Minimum Gap (s)	3	3	3	3	3	3
Time Before Reduce (s)	0	0	0	0	0	0
Time To Reduce (s)	0	0	0	0	0	0
Walk Time (s)		7			7	
Flash Dont Walk (s)		10			10	
Dual Entry	No	Yes	Yes	No	Yes	Yes
Inhibit Max	Yes	Yes	Yes	Yes	Yes	Yes
Start Time (s)	7	18	103	7	18	103
End Time (s)	18	103	7	18	103	7
Yield/Force Off (s)	13	96	1	13	96	1
Yield/Force Off 170(s)	13	86	1	13	86	1
Local Start Time (s)	24	35	0	24	35	0
Local Yield (s)	30	113	18	30	113	18
Local Yield 170(s)	30	103	18	30	103	18

Intersection Summary

Cycle Length	120
Control Type	Actuated-Coordinated
Natural Cycle	80

Offset: 103 (86%), Referenced to phase 2:SBTL and 6:NBTL, Start of Red

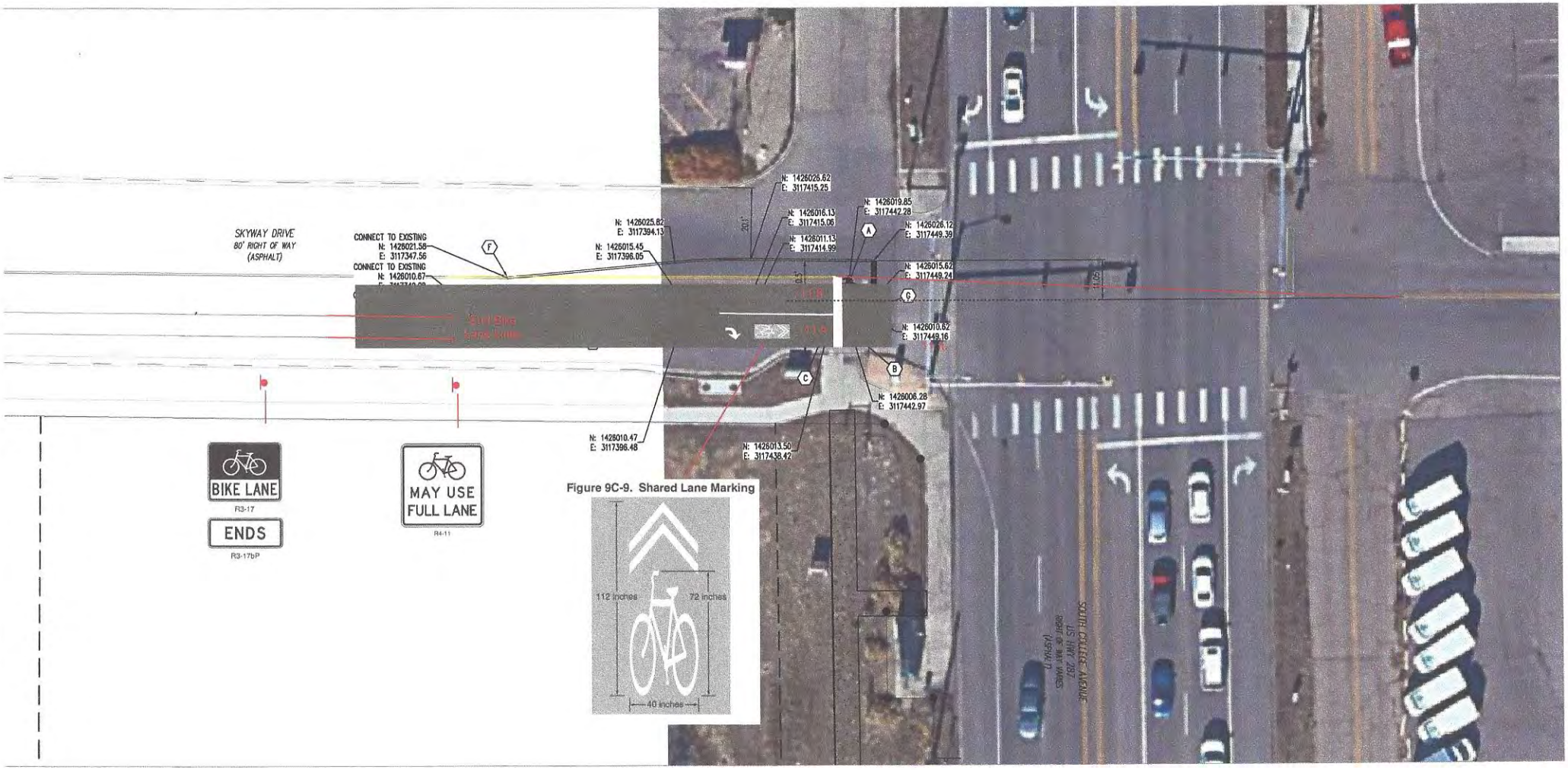
Splits and Phases: 3: US287 & Skyway Drive

Queues
3: US287 & Skyway Drive

Lane Group	EBT	EBR	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	67	38	104	45	1374	40	40	1751	75
v/c Ratio	0.49	0.18	0.59	0.20	0.53	0.04	0.13	0.68	0.07
Control Delay	61.1	1.9	49.6	4.8	9.3	0.4	3.6	11.9	1.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.1	1.9	49.6	4.8	9.3	0.4	3.6	11.9	1.7
Queue Length 50th (ft)	50	0	56	5	236	0	5	365	0
Queue Length 95th (ft)	93	2	110	15	347	3	14	534	16
Internal Link Dist (ft)	558		942		724			774	
Turn Bay Length (ft)		50		275		325	275		275
Base Capacity (vph)	202	275	248	225	2573	1094	321	2572	1133
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.14	0.42	0.20	0.53	0.04	0.12	0.68	0.07

Intersection Summary

APPENDIX C



B
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SKYWAY DRIVE AT S COLLEGE AVENUE
SIGNAGE AND STRIPING

N

0 10 20

SCALE: 1"=20'

Ecological Characterization Study
SE Corner of Skyway Drive and Gateway Center Drive

In Support of Article 3 General Development Standards, Division 3.4 Environmental, Natural Area, Recreational and Cultural Resource Protection Standards City of Fort Collins, Colorado

prepared for:

Mark Johnson, RLA
8605 Explorer Dr. Suite 250
Colorado Springs, CO 8092

prepared by:

Wildlife Specialties LLC
PO Box 1231,
Lyons, CO 80540

October 23, 2020

Table of Contents

List of Figures/Photos

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1.0 Introduction

This Ecological Characterization Study (ECS) was prepared to identify important City of Fort Collins Natural Habitats and Features at the SE corner of Skyway Drive and Gateway Center Drive in Fort Collins, Colorado (Figure 1). Specifically, this parcel is located in the NE ¼ of the SE ¼, Section 11 of Township 6 North Range 69 West of the sixth prime meridian.

Article 3 of the City of Fort Collins (City) General Development Standards section 3.4.1 Natural Habitats and Features states that if development is proposed within five hundred (500) feet of an area or feature identified as a natural habitat or feature on the city's Natural Habitats and Features Inventory Map (completed in 1999), or if any portion of the development site possesses characteristics (including, without limitation, wetlands, riparian areas or foothills forest) which would have supported their inclusion on the Natural Habitats and Features Inventory Map, and such areas are discovered during site evaluation and/or reconnaissance associated with the development review process then a comprehensive ecological characterization study of the entire property must be prepared by a qualified consultant and submitted to the City for review.

Article 3 of the City of Fort Collins (City) General Development Standards section 3.4.1 Natural Habitats and Features identifies the following Natural Communities or Habitats:

a) Aquatic (e.g., rivers, streams, lakes, ponds);
b) Wetland and wet meadow;
c) Native grassland;
d) Riparian forest;
e) Urban plains forest;
f) Riparian shrubland;
g) Foothills shrubland; and
h) Foothills forest.

Article 3 of the General Development Standards section 3.4.1 Natural Habitats and Features identifies the following Special Features:

a) Significant remnants of native plant communities;
b) Potential habitats and known locations of rare, threatened or endangered species of plants;
c) Potential habitats and known locations of rare, threatened or endangered species of wildlife;
d) Raptor habitat features, including nest sites, communal roost sites and key concentration areas;
e) Concentration areas for nesting and migratory shorebirds and waterfowl;
f) Migratory songbird concentration areas;
g) Key nesting areas for grassland birds;
h) Fox and coyote dens;
i) Mule deer winter concentration areas;
j) Prairie dog colonies one (1) acre or greater in size;
k) Concentration areas for rare, migrant or resident butterflies;
l) Areas of high terrestrial or aquatic insect diversity;
m) Areas of significant geological or paleontological interest; and
n) Irrigation ditches that serve as wildlife corridors.

The parcel includes a portion of the North Louden Ditch (a wildlife movement corridor previously identified by the City), a Black-tailed Prairie Dog (prairie dogs - *Cynomys ludovicianus*) colony greater than one (1) acre in size (Figure 2). Additionally, there is a Red-tailed Hawk (*Buteo jamaicensis*) nest approximately 450 feet east of the east side of the parcel (Figure 3). This ECS is in response to the presence of the prairie dogs, Red-tailed Hawk nest, and the North Louden Ditch.

2.0 Environmental Setting

The parcel is located in south Fort Collins within a strip of land between South College Avenue and Gateway Center Drive (east and west respectively), and Skyway Drive and West Trilby Road (north and south respectively). The property has historically been used for livestock grazing (primarily cattle and horses). A large self-storage facility is located east of the parcel and residential development is to the north and west with open lands located to the south. Specifically, Skyway Drive defines the northern boundary, Mars Drive to the east, non-native disturbed uplands to the south and Gateway Center Drive to the west. The parcel was converted from native shortgrass prairie into pasture. The parcel is fallow land that is currently not grazed by livestock with no native plant communities present though there are remnant individual native plant species present. Vegetation within the parcel is dominated by invasive non-native plant species including crested wheat grass (*Agropyron cristatum*), smooth brome (*Bromus inermis)*, field bindweed (*Convolvulus arvensis*), leafy spurge *(Euphorbia esula*), and cheatgrass (downy brome – *Bromus tectorum*). Leafy spurge is designated as a "List B" species on the Colorado Noxious Weed Act. It is required to be eradicated, contained, or suppressed depending on the local infestations.

No jurisdictional wetlands, wetland plants, or habitats associated with wetlands per the U.S. Army Corps of Engineers (Corps) are found within the parcel. At the time of the survey there was no flowing or standing water in the North Louden Ditch.

3.0 Proposed Development

Development of the parcel is planned; details of the development were not available at the time this ECS was prepared.

4.0 Survey Methods

The parcel was visited the afternoon of October 14, 2020 by Jerry Powell, Certified Ecologist, to document wildlife use and habitat, the current plant community, and identification of Natural Habitats or Features. A pedestrian survey via north-south running transects was completed to as closely as possible document any sensitive features or habitats and to count prairie dog burrows/holes. Digital photos of the parcel were taken for inclusion in this ECS. The boundaries of the active Black-tailed Prairie Dog colonies (north and south of the North Louden Ditch) were marked by walking the edge of the active colony (determined by the presence of burrows and areas where the vegetation was cropped short) and using a Global Positioning System (GPS) to record the boundaries. The resulting information was used in ArcGIS to map the location of the prairie dogs in the fall of 2020 to show the current location and size of the colony.

Sources of information on the habitat requirements for wildlife species presented in the above lists come from the 2nd Colorado Breeding Bird Atlas (Colorado Bird Atlas Partnership 2016), Mammals of Colorado 2nd Edition (Armstrong et al. 2011), Amphibians and Reptiles in Colorado (Hammerson, 1999), and Colorado's Little Fish (Woodling, 1985). Online resources consisted of the Colorado Parks and Wildlife website, NatureServe (2019), USDA Forest Service species technical assessments, and U.S. Fish and Wildlife Service listing documents. Likelihood of presence or absence was based on each species-specific habitat requirements and habitat types found within the parcel as well as proximity to human activity.

Wildlife species designated as federally listed threatened, endangered and candidate species (as well as Designated Critical Habitats) with potential habitat near the parcel was determined via the U.S. Fish and Wildlife Service's Information, Planning and Conservation (IPaC) website (USFWS 2020 – accessed

October 23, 2020, Appendix A) The IPaC tool also identified migratory birds of conservation concern potentially present within the parcel; and the Colorado Parks and Wildlife's (CPW 2020) list of state threatened, endangered, and species of special concern.

5.0 Ecological Characterization Report

The following subsections are presented in the order identified by the City in Article 3 of the City of Fort Collins General Development Standards section 3.4.1(D) (a-l).

5.1 Wildlife Use of the Area

Wildlife use of the area is limited because of the location of the parcel, surrounding land uses, and non-native low diversity plant community. Wildlife species capable of existing within or using the parcel are limited to those species that are either habitat generalists capable of existing in modified urban environments (e.g. prairie dogs), or species which use a wide variety of habitats for foraging over a large area (e.g. Red-tailed Hawk).

The dominant mammalian wildlife species within the parcel is the Black-tailed Prairie Dog. Numerous burrows are located within the parcel. In addition to the prairie dogs on site, prairie dogs are present south and east of the parcel. The Eastern Cottontail Rabbit (*Sylvilagus floridanus*) was observed on the parcel as well. These prairie dogs and rabbits support predators (e.g. hawks) and species that are dependent on prairie dogs (e.g. Burrowing Owls) for burrows. Red Foxes (*Vulpes vulpes*) were observed (via tracks) using piping associated with the storm water detention pond located on the west side of the parcel.

No other mammals or their sign (scat, tracks, etc.) was observed. It is probable however that several small mammalian carnivores/scavengers including Coyotes (*Canis latrans*), Raccoons (*Procyon lotor*), and Striped Skunks (*Mephitis mephitis*) use the parcel as part of their home ranges.

Non-native trees are scattered along the western border of the parcel are well established and dominant by the parcel. Species observed within this area include Russian Olive (*Elaeagnus ngustifolia*) and Chinese Elm (*Ulmus parvifolia*), both of which are invasive species. Staghorn Sumac (*Rhus typhina*), non-native to Colorado and invasive, also was noted as present. These non-native trees likely provide suitable avian nesting and foraging habitat. It is likely that the American Robin (*Turdus migratorius*), Eurasian Collared Dove (*Streptopelia decaocto* – a non-native invasive species), Lesser Goldfinch (*Spinus psaltria*), and Western Kingbird (*Tyrannus verticalis*) nest in these trees (please note that no nests were observed during the site visit). Though they have not been observed, it is possible that both Vesper Sparrows (*Pooecetes gramineus*) and Western Meadowlarks (*Sturnella neglecta*) could nest within the parcel.

No other evidence of wildlife use of the parcel was noted and no additional wildlife species were observed within the parcel.

Aside from the Natural Habitats and Special Features described herein, the parcel does not contain any unique (e.g. fens) or critical (e.g. mule deer winter range) wildlife habitat. There are no bodies of water for use as waterfowl concentration areas.

5.2 Wetlands

Potential wetlands may occur within the detention pond west of the parcel, though no water was present and no wetlands associated plant species were observed.

5.3 Prominent Views

Development of the parcel would occur per City of Fort Collins standards which would work to ensure that there are no impacts to any prominent views from other nearby properties.

5.4 Native Vegetation

No intact native vegetation communities are present within the parcel. Remnant native species are present, but the parcel is dominated by non-native upland species.

5.5 Significant Non-Native Tree Species

The City defines significant trees in the Land Use Code as trees with a diameter at breast height (DBH) of six inches and greater. No non-native trees of this size were observed on the parcel during the survey.

5.6 Bank, Shoreline or High-Water Mark

No perennial streams, bodies of water, or wetlands are present within the parcel. Therefore, there is not bank, shoreline, or high-water marks within the parcel.

5.7 Sensitive or Specially Valued Species

The U.S. Fish & Wildlife Information for Planning & Conservation (IPaC) website identified nine vertebrate species that have historically or presently have the potential to occur within or near the parcel. Table 1 lists these species and indicates their potential to occur within the parcel; the parcel does not provide habitat for any of these species. Water depletions (aside from historically allocated) are not proposed that would impact any of the Laramie River/Platte River system listed fish species. Additionally, there is no federally Designated Critical Habitat within or near the parcel.

The IPAC list of Trust Resources identified 11 Migratory Birds of Conservation Concern that could potentially breed within the parcel (Table 2). Based on available habitat types, only the Western Burrowing Owl (*Athene cunicularia*) could potentially be present.

Species identified by the CPW (CPW 2020) as state sensitive, their habitat requirements, and their potential for occurrence within the parcel is presented in Table 3. The Burrowing Owl has potential habitat (prairie dog burrows) within the parcel; suitable habitat is not present for any other species presented in Table 3.

Table 4 provides The City of Fort Collins' list of wildlife species of concern along with the likelihood of these species occurring within the parcel. Of these species listed, only the Black-tailed prairie dog currently is present within the parcel. The one large Plains Cottonwood tree does provide potential nesting habitat for the Swainson's Hawk (*Buteo swainsoni*), though it is unlikely they would nest near the Red-tailed Hawk nest. No other species or habitat for species listed in Table 4 is found within the parcel.

Red Fox tracks were observed within the storm water detention pond ditches and piping system. . It is not uncommon for Red Foxes and other small carnivores to use these types of structures. It is likely that the Red Foxes are using this underground pipe network as a den site. No additional key wildlife production areas, wintering areas and migratory feeding areas for waterfowl; key use areas for wading birds and shorebirds; key use areas for migrant songbirds; key nesting areas for grassland birds; fox and coyote dens; mule deer winter concentration areas; key areas for rare, migrant or resident butterflies; areas of high terrestrial or aquatic insect; remnant native prairie habitat; mixed foothill shrubland; foothill ponderosa pine forest; plains cottonwood riparian woodlands; or other sensitive features are found within the parcel.

5.8 Special Habitat Features

Special Habitat Features include the prairie dog colony (greater than one [1] acre in size), one mature Plains Cottonwood tree, and a portion of the North Louden Ditch (a wildlife movement corridor previously identified by the City). No additional Special Habitat Features are present.

5.9 Wildlife Movement Corridor

Often times irrigation ditches mimic natural drainage features by providing water for the establishment of riparian habitat. The diversity created by the presence of the water in the plant community is reflected in the animal community. Wildlife occupy different niches and niche overlap is reduced by diversity in structure (tall and short plants) and use (day versus night) within the riparian corridors. The North Louden Ditch within the west parcel has no riparian habitat. It provides extremely limited cover and forage for wildlife; however, it may act as a movement corridor within the general area. The parcel, because of its location in the City and the lack of natural movement corridors between areas of higher quality habitat, does not contain any seasonal (i.e. migration) wildlife movement corridors.

5.10 General Ecological Function

The general ecological function of the parcel is to provide habitat for species capable of existing in a very modified and urban environment that is void of an intact native plant community. The dominance of invasive non-native plant species diminishes the general ecological function and value of the parcelprojec, but it is important to those species currently using the parcel.

5.11 Issues with Timing of Development Activities

No clearing, grubbing, or general earth work should occur without a nest clearance survey if construction activities occur during the avian nesting season of March 1 through August 31.

The presence of the prairie dogs does create potential nesting habitat for the Western Burrowing Owl. Federal and state laws prohibit the harming or killing of Burrowing Owls and the destruction of active nests. Because Burrowing Owls often hide in burrows when alarmed, it is not practical to haze the birds away from prairie dog towns prior to construction activity. Because Burrowing Owls will retire into burrows when alarmed, it is possible to inadvertently kill burrowing owls during earth moving for construction. If earth moving activities or prairie dog management occurs between March 15 and October 31 a Burrowing Owl survey, per Colorado Parks and Wildlife protocol, is necessary. If earth moving activities (and if necessary prairie dog control) occur out of the March – November period surveys are not necessary. If Burrowing Owls are located greater than150 feet from the edge of disturbance associated with earth moving activities no limitations are placed on what type of and where work can be completed.

5.12 Natural Habitat or Feature Requiring Mitigation

Mitigation per City of Fort Collins standards will be necessary for both the North Louden Ditch and the prairie dogs.

6.0 Conclusions & Recommendations

The parcel contains two special habitats or features as defined by the City Land Use Code. Overall, the parcel is of low-quality wildlife habitat in an increasingly urban setting surrounded by residential and commercial development.

If earth disturbing activities or clearing/grubbing of vegetation occurs during the avian nesting season (March 1 – August 31) surveys for active nests are required. Additionally, if earth moving activities (requiring prairie dog control) occur between March 15 and October 31 a Burrowing Owl survey is required.

7.0 References

Armstrong, D.M., Fitzgerald, J.P., and C.A. Meaney. 2011. Mammals of Colorado. 2nd Ed., Denver Mus. Nat. Hist. and Univ. Press of Colorado. Niwot, CO. 620 pp.

Hammerson, G.A. 1999. Amphibians and reptiles in Colorado. Univ. Press of Colorado and Colo. Div. Wildl. Niwot, CO. 484 pp.

Colorado Bird Atlas Partnership. 2016. 2nd Colorado Breeding Bird Atlas. Colorado Breeding Bird Partnership and the Colorado Parks and Wildlife. 727 pp.

Woodling, J. 1985. Colorado's little fish: a guide to the minnows and other lesser known fishes in the state of Colorado. CDOW Denver, CO. 77 pp.

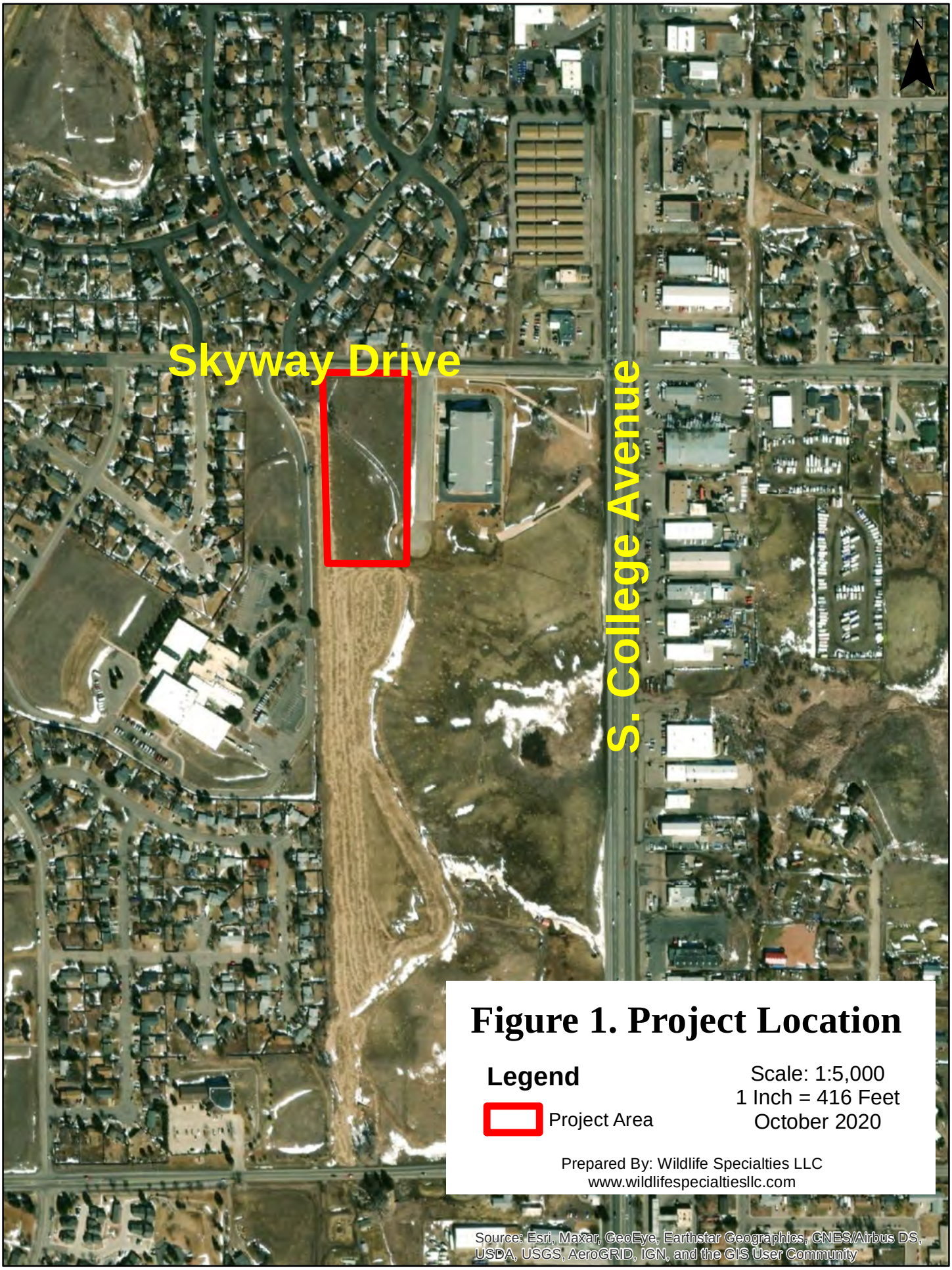

Figure 1. Project Location

Legend

Project Area

Scale: 1:5,000
1 Inch = 416 Feet
October 2020

Prepared By: Wildlife Specialties LLC
www.wildlifespecialtiesllc.com

Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Figure 2. Natural Habitats & Features

Legend

- October 2020 BTPD Colony
- RTHA 450 Ft. Nest Buffer
- RTHA Nest
- Project Area

Scale: 1:2,500
1 Inch = 208 Feet
October 2020

Prepared By: Wildlife Specialties LLC
www.wildlifespecialtiesllc.com

Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Photos

Photo 1: Looking south southeast from the northwest corner of the parcel.

Photo 2: Looking south southwest from the northeast corner of the parcel.

Photo 3: The North Louden Ditch. Note the lack of vegetation within the ditch. The area is used be homeless people and miscellaneous trash etc. was found throughout the area.

Photo 4: These tees and the detention pond are located on the northwestern side of the parcel on private property.

Table 1. Federal Threatened, Endangered and Candidate Plant and Wildlife Species Potentially Occurring near Skyway Drive and Mars Drive, Fort Collins, CO				
Scientific Name	**Common Name**	**Federal Status**	**Habitat Requirements**	**Potential for Occurrence**
Flowering Plants				
Spiranthes diluvialis	Ute ladies'-tresses Orchid	T	Commonly associated with alluvial banks, floodplains, or ox-bows associated with perennial streams	No potential for occurrence.
Platanthera praeclara	Western Prairie Fringed Orchid	T	Water-related activities/use in the N. Platte, S. Platte and Laramie River Basins may affect listed species in Nebraska.	No potential for occurrence.
Fishes				
Oncorhynchus clarki ssp. stomias	Greenback Cutthroat Trout	T	High altitude cold streams.	No potential for occurrence.
Scaphirhynchus albus	Pallid Sturgeon	E	Affected by water depletions in N. & S. Platte and Laramie River Basins.	No potential for occurrence.
Birds				
Sternula antillarum	Least Tern	E	In Colorado, breeds along sandy reservoir shores only along the Arkansas River valley.	No potential for occurrence.
Strix occidentalis lucida	Mexican Spotted Owl	T	Rocky canyons with deciduous trees.	No potential for occurrence.
Charadrius melodus	Piping Plover	E	In Colorado, breeds along sandy reservoir shores only along the Arkansas River valley.	No potential for occurrence.
Grus americana	Whooping Crane	E	Breed in shallow, grassy wetlands interspersed with grasslands or scattered evergreens, may use crop fields	No potential for occurrence.

Table 1. Federal Threatened, Endangered and Candidate Plant and Wildlife Species Potentially Occurring near Skyway Drive and Mars Drive, Fort Collins, CO				
Scientific Name	**Common Name**	**Federal Status**	**Habitat Requirements**	**Potential for Occurrence**
			for foraging.	
Mammals				
Zapus hudsonious preblei	Preble's Meadow Jumping Mouse	T	Riparian areas with lush vegetation.	No potential for occurrence.
Lynx canadensis	Canada Lynx	T	High altitude spruce-fir forests.	No potential for occurrence.
Insects				
Capnia arapahoe	Arapahoe Snowfly	C	Cold, clean, well-oxygenated streams and rivers	No potential for occurrence.
E = Endangered; T = Threatened; C = Candidate for Federal listing.				

Table 2. Migratory Birds of Conservation Concern Skyway Drive and Mars Drive, Fort Collins, CO		
Species	**Habitat Requirements**	**Potential for Occurrence**
Bald Eagle *Haliaeetus leucocephalus*	Areas along rivers or lakes with large trees for nesting and roosting.	None
Burrowing Owl *Athene cunicularia*	Open areas with suitable small mammal burrows.	Suitable habitat present.
Cassin's Sparrow *Aimophila cassinii*	Heavily grazed grasslands of eastern Colorado where cholla cactus, yucca, rabbitbrush, or sand sage provides shrubby overstory (Wickersham 2016).	None
Golden Eagle *Aquila chrysaetos*	Open and semi-open country featuring native vegetation. Avoid developed areas and uninterrupted stretches of forest. Found primarily in mountains up to 12,000 feet, canyonlands, rimrock terrain, and riverside cliffs and bluffs. Nest on cliffs and steep escarpments in grassland, chapparal, shrubland, forest, and other vegetated areas.	None
Lark Bunting *Calamospiza melanocorys*	Heavily grazed grasslands of eastern Colorado where cholla cactus, yucca, rabbitbrush, or sand sage provides shrubby overstory (Wickersham 2016).	None
Lesser Yellowlegs *Tringa flavipes*	Breeds only in Alaska through Quebec.	None
Long-billed Curlew *Numenius americanus*	Expansive blocks of native shortgrass prairie.	None
Semipalmated Sandpiper *Calidris pusilla*	Breeds in sub-arctic tundra and overwinters along the coasts of South America. Migrates east of parcel.	None
Whimbrel *Numenius phaeopus*	Holarctic breeding distribution; winters along Pacific Ocean into South America	None
Willet *Tringa semipalmata*	In Colorado breeding is restricted to Jackson County and the San Luis Valley.	None
Willow Flycatcher *Empidonax trailii*	Riparian thickets in the foothills and montane zones and willow-dominated open valleys and mountain parks – usually distant from trees.	None

Table 3. Colorado Parks and Wildlife Endangered, Threatened, and Species of Special Concern Skyway Drive and College Avenue, Fort Collins, CO			
Species	**Status***	**Habitat Requirements**	**Potential for Occurrence**
Fish			
Arkansas Darter *Etheostoma cragini*	ST	Found only in tributaries of the Arkansas River.	None
Brassy Minnow *Hybognathus hankinsoni*	ST	Found in S. Platte and Republican Rivers.	None
Colorado River Cutthroat Trout *Oncorhynchus clarki pleuriticus*	SC	Found in the Colorado River Basin.	None
Colorado Roundtail Chub *Gila robusta*	SC	A large river fish found in western Colorado.	None
Common Shiner *Luxilus cornutus*	ST	Found in tributary streams of the S. Platte River.	None
Flathead Chub *Platygobio gracilus*	SC	Found in mainstems of turbid streams and rivers.	None
Iowa Darter *Etheostoma exile*	SC	Found in some plains streams in northeastern Colorado.	None
Lake Chub *Couesius plumbeus*	SE	Extirpated in Colorado (Woodling 1985).	None
Mountain Sucker *Catostomus playtrhynchus*	SC	Found in smaller rivers and streams in northwestern Colorado.	None
Northern Redbelly Dace *Phoxinus eos*	SE	Upper reach tributaries of the S. Platte and Platte River.	None
Plains Minnow *Hybognathus placitus*	SE	Prefer main channel areas with some current and sandy bottoms. Found in eastern Colorado.	None
Plains Orangethroat Darter *Etheostoma spectabile*	SC	Found in small streams of the Republican Basin.	None
Rio Grande Chub *Gila pandora*	SC	Restricted to the Rio Grande Basin in Colorado.	None
Rio Grande Cutthroat Trout *Oncorhynchus clarki virginalis*	SC	Restricted to the Rio Grande Basin in Colorado.	None
Rio Grande Sucker *Catostomus plebeius*	SE	Restricted to the Rio Grande Basin in southern Colorado.	None
Southern Redbelly Dace *Phoxinus erythrogaster*	SE	One population known in Arkansas River tributary.	None
Stonecat *Noturus flavus*	SC	Found in fast water riffles and runs of streams.	None
Suckermouth Minnow *Phenacobius mirabilis*	SE	Found in riffle areas of warm prairie streams of all sizes.	None
Birds			
American Peregrine Falcon *Falco peregrinus anatum*	SC	Nests on ledges of high cliffs.	None

Table 3. Colorado Parks and Wildlife Endangered, Threatened, and Species of Special Concern Skyway Drive and College Avenue, Fort Collins, CO			
Species	**Status***	**Habitat Requirements**	**Potential for Occurrence**
Bald Eagle *Haliaeetus leucocephalus*	SC	Large, mature cottonwoods or pines near large water bodies.	None
Burrowing Owl *Athene cunicularia*	ST	Nest in rodent burrows in grasslands, shrublands, deserts, and grassy urban areas (golf courses).	Suitable habitat present.
Columbian Sharp-Tailed Grouse *Tympanuchus phasianellus columbianus*	SC	Sagebrush shrublands.	None
Ferruginous Hawk *Buteo regalis*	SC	Vast expanses of ungrazed or lightly grazed grassland and shrubland and shortgrass prairie.	None
Greater Sage-Grouse *Centrocercus urophasianus*	SC	Sagebrush shrublands in northwestern Colorado.	None
Greater Sandhill Crane *Grus canadensis tabida*	SC	Breed in wetland habitats, particularly flooded fields and beaver ponds.	None
Gunnison Sage-Grouse *Centrocercus minimus*	SC	Sage communities in the Gunnison Basin.	None
Lesser Prairie-Chicken *Tympanuchus pallidicinctus*	ST	Optimal habitat is midgrass to tallgrass prairie for nests and winter cover.	None
Long-Billed Curlew *Numenius americanus*	SC	Shortgrass prairie.	None
Mountain Plover *Charadrius montanus*	SC	Grazed shortgrass prairie and fallow fields.	None
Plains Sharp-Tailed Grouse *Tympanuchus phasianellus jamesii*	SE	Rolling hills with scrub oak thickets and grassy glades.	None
Western Snowy Plover *Charadrius alexandrinus*	SC	Sandy open beaches, dry salt flats, dredge spoils, and river bars.	None
Western Yellow-billed Cuckoo *Coccyzus americanus*	SC	Found along major river drainages.	None
Mammals			
Black-tailed Prairie Dog *Cynomys ludovicianus*	SC	Open prairie grasslands, disturbed areas, fallow and mowed agriculture fields.	Present
Botta's Pocket Gopher *Thomomy bottae rubidus*	SC	Occur in southern Colorado.	None
Kit Fox *Vulpes macrotis*	SE	Deserts of the Southwest.	None
Northern Pocket Gopher *Thomomys talpoides macrotis*	SC	Many habitat types including agricultural lands, pasture lands,	None

Table 3. Colorado Parks and Wildlife Endangered, Threatened, and Species of Special Concern Skyway Drive and College Avenue, Fort Collins, CO			
Species	**Status***	**Habitat Requirements**	**Potential for Occurrence**
		semidesert shrublands, and grasslands.	
River Otter *Lontra canadensis*	ST	Large waterways throughout Colorado.	None
Swift Fox *Vulpes velox*	SC	Short and mid-grass prairies of the Great Plains.	None
Townsend's Big-eared Bat *Corynorhinus townsendii*	SC	Occupies semidesert shrublands, pinon-juniper woodlands, and open montane forests.	None
Amphibians/Reptiles			
Boreal Toad *Bufo boreas boreas*	SE	High altitude wetlands, ponds, etc.	None
Couch's Spadefoot *Scaphiopus couchii*	SC	Eastern Colorado plains.	None
Great Plains Narrowmouth Toad *Gastrophryne olivacea*	SC	Extreme southeastern Colorado.	None
Northern Cricket Frog *Acris crepitans*	SC	Found in Yuma, Weld and Morgan Counties at elevations between 3,500–3,600 feet.	None
Northern Leopard Frog *Rana pipiens*	SC	Wet meadows and the banks of and shallows of marshes, ponds, lakes, streams, irrigation ditches.	None
Plains Leopard Frog *Rana blairi*	SC	Eastern Colorado and southeastern Colorado.	None
Triploid Checkered Whiptail *Cnemidophorus neotesselatus*	SC	Foothills of the Rocky Mountains in Fremont County eastward to Pueblo and Stone City in Pueblo County.	None
Midget Faded Rattlesnake *Crotalus viridis concolor*	SC	Desert lands in northwestern Colorado.	None
Longnose Leopard Lizard *Gambelia wislizenii*	SC	Occurs in west-central Colorado and extreme southwestern Colorado.	None
Yellow Mud Turtle *Kinosternon flavescens*	SC	Occurs in eastern Colorado.	None
Common King Snake *Lampropeltis getula*	SC	Occurs in southwestern and southeastern Colorado.	None
Texas Blind Snake *Leptotyphlops dulcis*	SC	Occurs in extreme southeastern Colorado.	None
Texas Horned Lizard *Phrynosoma cornutum*	SC	Occurs in southeastern Colorado.	None
Roundtail Horned Lizard *Phrynosoma modestum*	SC	Occurs in extreme northwestern Otero County.	None
Massasauga	SC	Occurs in shortgrass prairie	None

Table 3. Colorado Parks and Wildlife Endangered, Threatened, and Species of Special Concern Skyway Drive and College Avenue, Fort Collins, CO			
Species	**Status***	**Habitat Requirements**	**Potential for Occurrence**
Sistrurus catenatus		habitats in southeastern Colorado.	
Common Garter Snake *Thamnophis sirtalis*	SC	Restricted to aquatic, wetland and riparian habitats at elevations below 6,000 feet: seldom found at isolated ponds.	None
*SE = State Endangered. ST = State Threatened. SC = State Special Concern (not a statutory category)			

Table 4. City of Fort Collins List of Sensitive Wildlife Species Skyway Drive and Mars Drive, Fort Collins, CO		
Species	**Habitat Requirements**	**Potential for Occurrence**
Fish		
There is no aquatic habitat within the parcel, thus there are no fish present.		
Birds		
American Bittern *Botaurus lentiginosus*	Ponds, lake, etc. with tall emergent vegetation in which to nest.	None
American Peregrine Falcon *Falco peregrinus anatum*	Nests on ledges of high cliffs.	None
American White Pelican *Pelecanus erythrorhynchos*	Nest on islands.	None
Bald Eagle *Haliaeetus leucocephalus*	Large, mature cottonwoods or pines near large water bodies.	None
Barrow's Goldeneye *Bucephala islandica*	Nests in a suitable nest cavity near water.	None
Black Tern *Chlidonias niger*	Prefer marsh complexes of at least 50 acres with open water and fields for feeding.	None
Black-necked Stilt *Himantopus mexicanus*	Black-necked stilts are wetland obligates.	None
Bobolink *Dolichonyx oryzivorus*	Grassland obligates associated with native mixed-grass and tallgrass prairie.	None
Brewer's Sparrow *Spizella breweri*	Sagebrush shrublands.	None
Burrowing Owl *Athene cunicularia*	Nest in rodent burrows in grasslands, shrublands, deserts, and grassy urban areas (golf courses).	None
Cassin's Finch *Carpodacus cassinii*	Breeds in Colorado in high country areas but also in Pinyon Juniper woodlands.	None
Cassin's Sparrow *Aimophila cassinii*	Heavily grazed grasslands of eastern Colorado where cholla cactus, yucca, rabbitbrush, or sand sage provides shrubby overstory (Wickersham 2016).	None
Chestnut-collared Longspur *Calcarius ornatus*	Tallgrass prairies of the Great Plains; found only in northern Colorado.	None

Table 4. City of Fort Collins List of Sensitive Wildlife Species Skyway Drive and Mars Drive, Fort Collins, CO		
Species	**Habitat Requirements**	**Potential for Occurrence**
Ferruginous Hawk *Buteo regalis*	Vast expanses of ungrazed or lightly grazed grassland and shrubland and shortgrass prairie.	None
Flammulated Owl *Otus flammeolus*	Depend on cavities for nesting, open forests for catching insects, and brush or dense foliage for roosting at altitudes between 6,000 – 10,000 ft.	None
Forster's Tern *Sterna forsteri*	Most often associated with emergent marsh habitat.	None
Golden Eagle *Aquila chrysaetos*	Golden Eagles live in open and semi-open country featuring native vegetation across most of the Northern Hemisphere. They avoid developed areas and uninterrupted stretches of forest. They are found primarily in mountains up to 12,000 feet, canyonlands, rimrock terrain, and riverside cliffs and bluffs. Golden Eagles nest on cliffs and steep escarpments in grassland, chapparal, shrubland, forest, and other vegetated areas.	None
Grasshopper Sparrow *Ammodramus savannarum*	Open grasslands and prairies with patchy bare ground.	None
Greater Sandhill Crane *Grus canadensis tabida*	Breed in wetland habitats, particularly flooded fields and beaver ponds.	None
Lark Bunting *Calamospiza melanocorys*	Grasslands and agricultural areas, mostly associated with the eastern plains.	None
Lazuli Bunting *Passerina amoena*	Nest in shrubby habitats including hillsides, riparian areas, woodlands and forests.	None
Least Tern (interior population)	Rivers with broad exposed sand bars.	None

Table 4. City of Fort Collins List of Sensitive Wildlife Species Skyway Drive and Mars Drive, Fort Collins, CO		
Species	**Habitat Requirements**	**Potential for Occurrence**
Sterna antillarum		
Lewis's Woodpecker *Melanerpes lewis*	Open pine forests, burnt over area that provide snags and stumps, riparian areas and pinyon/juniper woodlands.	None
Loggerhead Shrike *Lanius ludovicianus*	Shortgrass prairie.	None
Long-Billed Curlew *Numenius americanus*	Shortgrass prairie.	None
Mccown's Longspur *Calcarius mccownii*	Endemic to the shortgrass prairie ecosystem; need heavily grazed cattle pastures with low density vegetation (Wickersham 2016).	None
Mountain Plover *Charadrius montanus*	Breeds on open plains at moderate elevations. Winters in short-grass plains and fields, plowed fields, and sandy deserts.	None
Northern Bobwhite *Colinus virginianus*	Often found in riparian habitats.	None
Northern Goshawk *Accipiter gentilis*	Predominantly uses ponderosa pine, but will also use Douglas fir, various pines and aspens.	None
Northern Harrier *Circus cyaneus*	Spring & fall migrant in western valleys mountain parks, and eastern plains in CO inhabiting grasslands, agricultural areas, marshes & tundra in fall; 3,500-13,000 ft.	None
Northern Pygmy Owl Glaucidium gnoma	Inhabit conifer forests and deciduous woodlands in mountain regions.	None
Olive-sided Flycatcher *Contopus cooperi*	Boreal forests between 7,000 – 11,000 ft.	None
Ovenbird *Seiurus aurocapilla*	In Colorado are found in foothills ponderosa pine communities.	None
Pinyon Jay	Pinyon woodlands.	None

Table 4. City of Fort Collins List of Sensitive Wildlife Species Skyway Drive and Mars Drive, Fort Collins, CO		
Species	**Habitat Requirements**	**Potential for Occurrence**
Gymnorhinus cyanocephalus		
Piping Plover *Charadrius melodus*	Only breeds in southeastern Colorado at large reservoirs.	None
Plains Sharp-Tailed Grouse *Tympanuchus phasianellus jamesii*	Rolling hills with scrub oak thickets and grassy glades.	None
Prairie Falcon *Falco mexicanus*	Grasslands, shrub-steppe, deserts, and other open areas of the West up to about 10,000 feet elevation.	None
Rufous Hummingbird *Selasphorus rufus*	Migrates south down the Rocky Mountains in late summer and early fall after leaving northern breeding grounds.	None
Short-eared Owl *Asio flammeus*	Open habitats including grasslands, marsh edges, shrub-steppes, and agricultural lands.	None
Snowy Egret *Egretta thula*	Nest in colonies in trees and shrubs, forage in aquatic habitats.	None
Swainson's Hawk *Buteo swainsoni*	Associated with croplands, shelterbelts, and other agricultural lands.	Potential nesting habitat present.
Upland Sandpiper *Bartramia longicauda*	Breed on native prairie, mountain meadows, and blueberry barrens.	None
Veery *Catharus fuscescens*	Moist deciduous forests with dense shrubby vegetation.	None
Virginia's Warbler *Vermivora virginiae*	Oak forests, pinyon juniper woodlands, and the brushy cover of foothills and montane streamsides.	None
Western Snowy Plover *Charadrius alexandrinus*	Sandy open beaches, dry salt flats, dredge spoils, and river bars.	None
White-faced Ibis *Plegadis chihi*	Wetlands.	None
Willet *Tringa semipalmata*	In Colorado breeding is restricted to Jackson County and the San Luis Valley.	None

Table 4. City of Fort Collins List of Sensitive Wildlife Species Skyway Drive and Mars Drive, Fort Collins, CO		
Species	**Habitat Requirements**	**Potential for Occurrence**
Willow Flycatcher *Empidonax trailii*	Riparian thickets in the foothills and montane zones and willow-dominated open valleys and mountain parks – usually distant from trees.	None
Wilson's Phalarope *Phalaropus tricolor*	Emergent Wetlands.	None
Mammals		
Abert's Squirrel *Sciurus aberti*	Ponderosa pine forests.	None
Bighorn Sheep *Ovis canadensis canadensis*	Rocky areas with cliffs.	None
Bison *Bison bison*	Vast expanses of unbroken prairie.	None
Black-footed Ferret *Mustela nigripes*	Prairie dog colonies at least 50 acres in size.	None
Black-tailed Prairie Dog *Cynomys ludovicianus*	Open prairie grasslands, disturbed areas, fallow and mowed agriculture fields.	Present.
Dwarf Shrew *Sorex nanus*	In Colorado found in the Southern Rocky Mountains at elevations above 5,500 ft.	None
Fringed Myotis *Myotis thysanodes*	Coniferous woodlands and shrublands below 7,500 ft. rocky outcroppings in mid-elevation ponderosa pine, pinyon/juniper, oak, & mixed conifer woodlands, grasslands, deserts, & shrublands.	None
Hoary Bat *Lasiurus cinereus*	Generally a solitary species. In Colorado, the species is frequently detected in ponderosa pine forests where large deciduous trees are lacking. Can occur in any appropriate treed habitat.	None
Northern Pocket Gopher *Thomomys talpoides macrotis*	Many habitat types including agricultural lands, pasture lands, semidesert shrublands, and grasslands.	None. No mounds seen within parcel.
Olive-backed Pocket Mouse *Perognathus fasciatus*	In Colorado restricted to grasslands along the western	None

Table 4. City of Fort Collins List of Sensitive Wildlife Species Skyway Drive and Mars Drive, Fort Collins, CO		
Species	**Habitat Requirements**	**Potential for Occurrence**
	margin of the plains and to shrub-grasslands of the northwestern part of the state.	
Preble's Meadow Jumping Mouse *Zapus hudsonius prebleii*	Riparian habitats with appropriate shrub component and available uplands for foraging.	None
River Otter *Lontra canadensis*	Large waterways throughout Colorado.	None
Sagebrush Vole *Lemmiscus curtatus*	Found in northwestern Colorado in sagebrush dominated habitats.	None
Swift Fox *Vulpes velox*	Short and mid-grass prairies of the Great Plains.	None
Townsend's Big-eared Bat *Corynorhinus townsendii*	Occupies semidesert shrublands, pinon-juniper woodlands, and open montane forests.	None
Amphibians/Reptiles		
Northern Leopard Frog *Rana pipiens*	Wet meadows and the banks of and shallows of marshes, ponds, lakes, streams, irrigation ditches.	None
Common Garter Snake *Thamnophis sirtalis*	Restricted to aquatic, wetland and riparian habitats at elevations below 6,000 feet: seldom found at isolated ponds.	None
Lined Snake *Tropicdoclonion lineatum*	Most abundant in southeastern Colorado in damp sites in flat plains grasslands, canyon bottom grasslands, riparian areas, and grassy vacant lots and gullies in cities.	None
Milksnake *Lampropeltis triangulum*	Found in a wide variety of habitats including shortgrass prairie, sandhills, shrubby hillsides, canyons and arid river valleys.	None
Ornate box turtle *Terrapene ornata*	Sandhills and shortgrass prairie in eastern Colorado.	None

Appendix A
USFWS IPaC Report for the SW Corner of Skyway Drive and Mars Drive, Fort Collins CO

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Colorado Ecological Services Field Office
Denver Federal Center
P.O. Box 25486
Denver, CO 80225-0486
Phone: (303) 236-4773 Fax: (303) 236-4005
http://www.fws.gov/coloradoES
http://www.fws.gov/platteriver

In Reply Refer To:
Consultation Code: 06E24000-2018-SLI-1320
Event Code: 06E24000-2021-E-00186
Project Name: Skyway Townhomes

October 23, 2020

Subject: Updated list of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered

species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Migratory Birds
- Wetlands

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Colorado Ecological Services Field Office
Denver Federal Center
P.O. Box 25486
Denver, CO 80225-0486
(303) 236-4773

Project Summary

Consultation Code: 06E24000-2018-SLI-1320

Event Code: 06E24000-2021-E-00186

Project Name: Skyway Townhomes

Project Type: DEVELOPMENT

Project Description: residential development

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/40.50115032914786N105.0804557109165W

Counties: Larimer, CO

Endangered Species Act Species

There is a total of 10 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 5 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Canada Lynx *Lynx canadensis* Population: Wherever Found in Contiguous U.S. There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3652	Threatened
Preble's Meadow Jumping Mouse *Zapus hudsonius preblei* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/4090	Threatened

Birds

NAME	STATUS
Least Tern *Sterna antillarum*	Endangered

Population: interior pop.
No critical habitat has been designated for this species.
This species only needs to be considered under the following conditions:
- Water-related activities/use in the N. Platte, S. Platte and Laramie River Basins may affect listed species in Nebraska.

Species profile: https://ecos.fws.gov/ecp/species/8505

Mexican Spotted Owl *Strix occidentalis lucida*	Threatened

There is **final** critical habitat for this species. Your location is outside the critical habitat.
Species profile: https://ecos.fws.gov/ecp/species/8196

Piping Plover *Charadrius melodus*	Threatened

Population: [Atlantic Coast and Northern Great Plains populations] - Wherever found, except those areas where listed as endangered.
There is **final** critical habitat for this species. Your location is outside the critical habitat.
This species only needs to be considered under the following conditions:
- Water-related activities/use in the N. Platte, S. Platte and Laramie River Basins may affect listed species in Nebraska.

Species profile: https://ecos.fws.gov/ecp/species/6039

Whooping Crane *Grus americana*	Endangered

Population: Wherever found, except where listed as an experimental population
There is **final** critical habitat for this species. Your location is outside the critical habitat.
This species only needs to be considered under the following conditions:
- Water-related activities/use in the N. Platte, S. Platte and Laramie River Basins may affect listed species in Nebraska.

Species profile: https://ecos.fws.gov/ecp/species/758

Fishes

NAME	STATUS
Greenback Cutthroat Trout *Oncorhynchus clarkii stomias*	Threatened

No critical habitat has been designated for this species.
Species profile: https://ecos.fws.gov/ecp/species/2775

Pallid Sturgeon *Scaphirhynchus albus*	Endangered

No critical habitat has been designated for this species.
This species only needs to be considered under the following conditions:
- Water-related activities/use in the N. Platte, S. Platte and Laramie River Basins may affect listed species in Nebraska.

Species profile: https://ecos.fws.gov/ecp/species/7162

Flowering Plants

NAME	STATUS
Ute Ladies'-tresses *Spiranthes diluvialis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2159	Threatened
Western Prairie Fringed Orchid *Platanthera praeclara* No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: ▪ Water-related activities/use in the N. Platte, S. Platte and Laramie River Basins may affect listed species in Nebraska. Species profile: https://ecos.fws.gov/ecp/species/1669	Threatened

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

USFWS National Wildlife Refuge Lands And Fish Hatcheries

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

Migratory Birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

---

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.
3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Oct 15 to Jul 31
Burrowing Owl *Athene cunicularia* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9737	Breeds Mar 15 to Aug 31

NAME	BREEDING SEASON
Cassin's Sparrow *Aimophila cassinii* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9512	Breeds Aug 1 to Oct 10
Golden Eagle *Aquila chrysaetos* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/1680	Breeds Jan 1 to Aug 31
Lark Bunting *Calamospiza melanocorys* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds May 10 to Aug 15
Lesser Yellowlegs *Tringa flavipes* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679	Breeds elsewhere
Long-billed Curlew *Numenius americanus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/5511	Breeds Apr 1 to Jul 31
Semipalmated Sandpiper *Calidris pusilla* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Whimbrel *Numenius phaeopus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9483	Breeds elsewhere
Willet *Tringa semipalmata* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 20 to Aug 5
Willow Flycatcher *Empidonax traillii* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/3482	Breeds May 20 to Aug 31

Probability Of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the

FAQ “Proper Interpretation and Use of Your Migratory Bird Report” before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

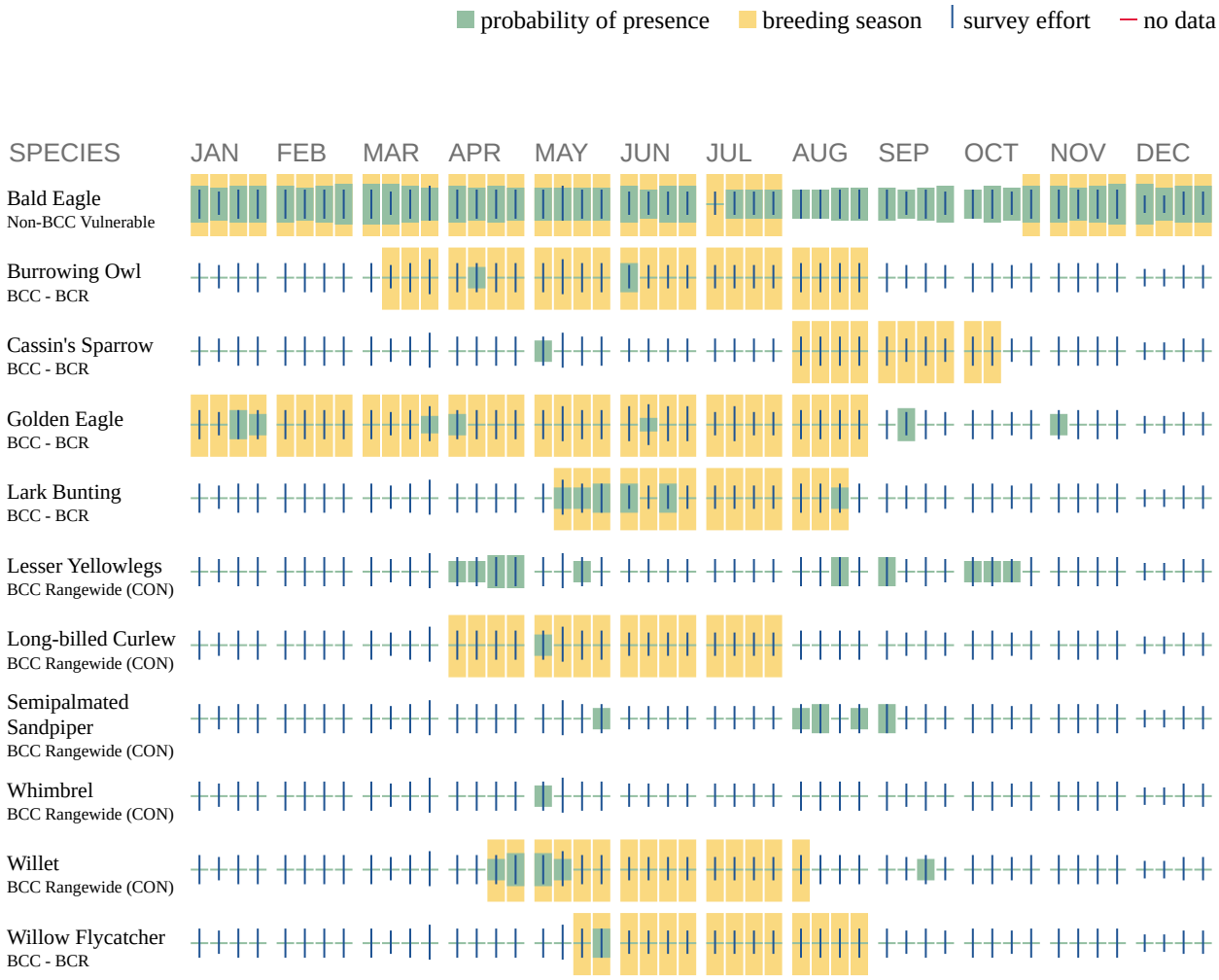
1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season (■)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Additional information can be found using the following links:

- Birds of Conservation Concern http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Measures for avoiding and minimizing impacts to birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php
- Nationwide conservation measures for birds http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf

Migratory Birds FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures and/or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?
The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the AKN Phenology Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?
The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets .

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?
To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your

project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?
Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects
For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?
If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report
The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ “What does IPaC use to generate the migratory birds potentially occurring in my specified location”. Please be aware this report provides the “probability of presence” of birds within the 10 km grid cell(s) that

overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the “no data” indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ “Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds” at the bottom of your migratory bird trust resources page.

Wetlands

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

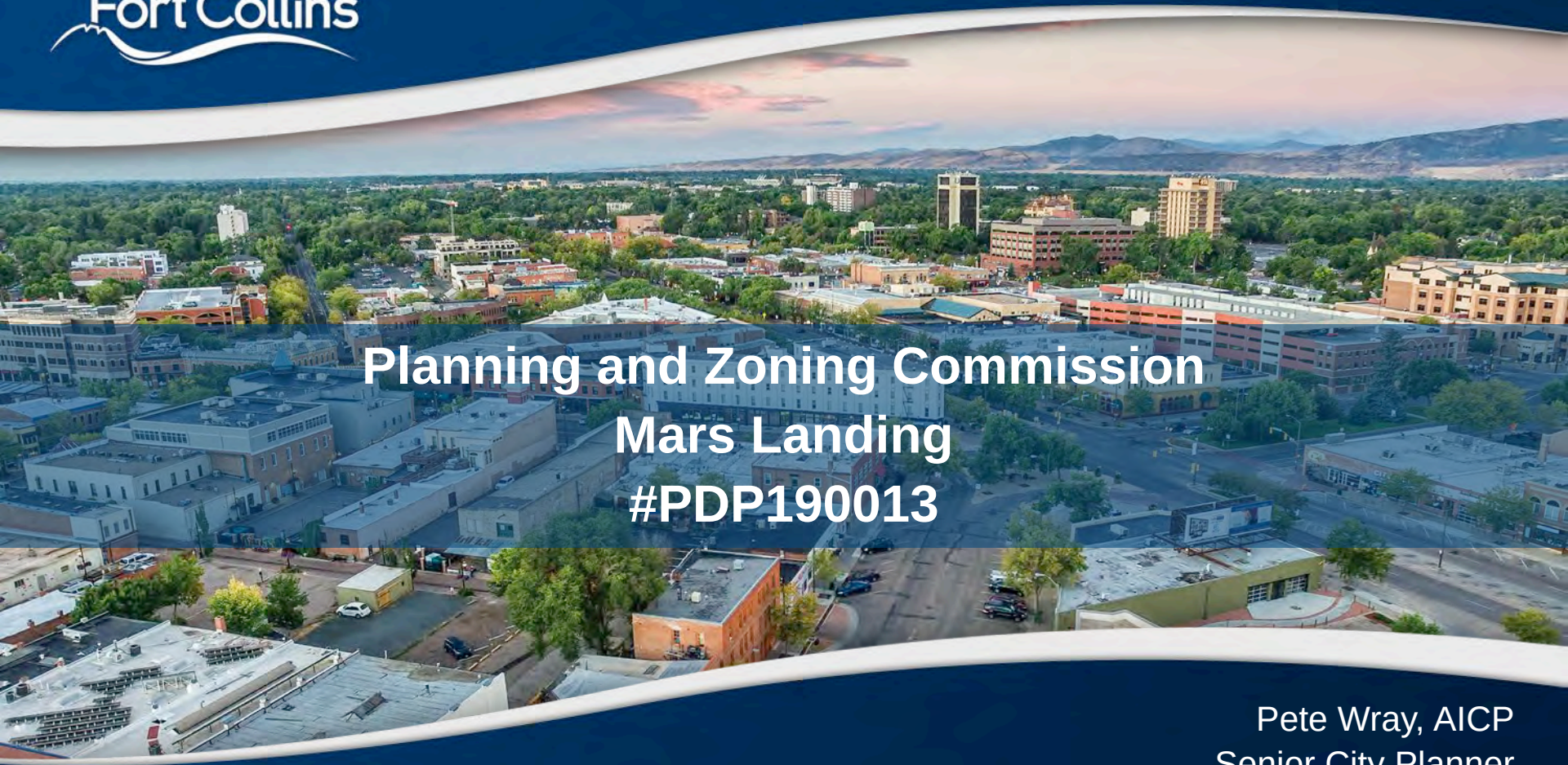
For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

RIVERINE

- R5UBFx

September 16, 2021



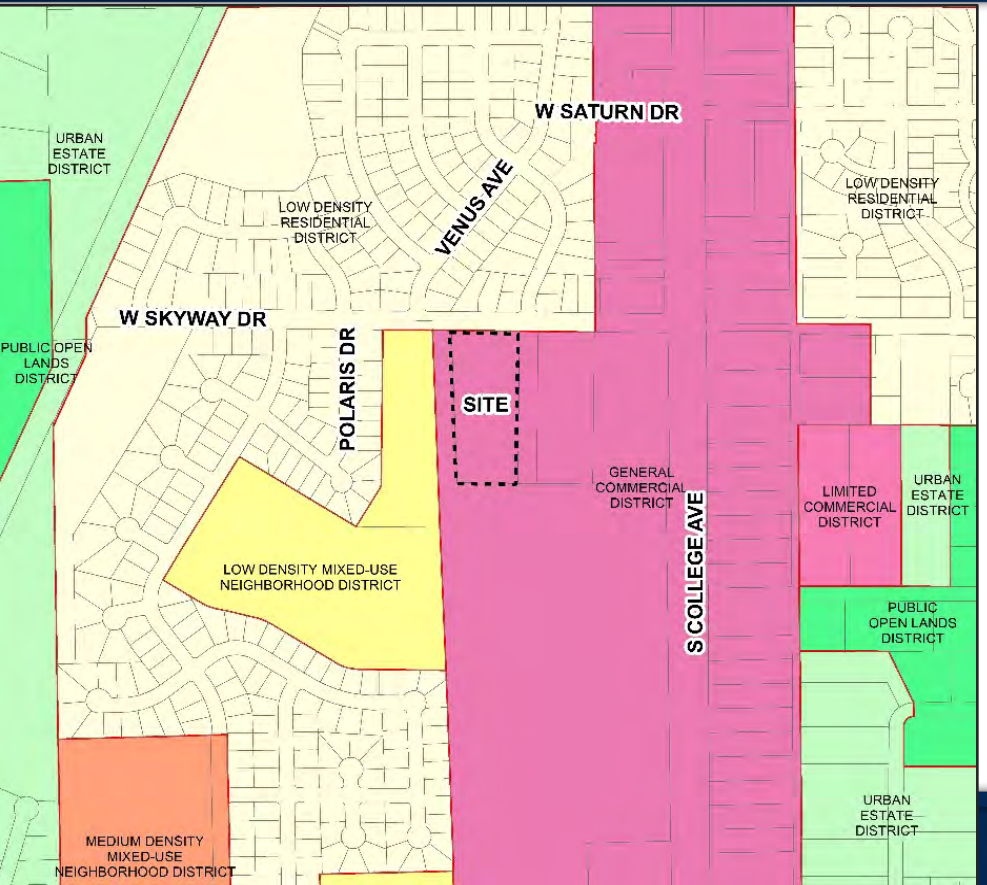
Planning and Zoning Commission
Mars Landing
#PDP190013

Pete Wray, AICP
Senior City Planner


Site
Skyway Dr
Skyway Dr
Skyway Dr
Skyway Dr
Skyway Dr
S College Ave
Starway St
Polaris Dr
Mars Dr
Venus Ave
Mars Dr
Aran St
Aran St
Constellation Dr
Polaris Dr
Gateway Center Dr
Aurora Way
Polaris Dr
Gateway Center Dr
Gateway Center Dr
Gateway Center Dr
287
287
Majestic Mountains Scenic Rides
Loren Anderson Family Part
Deli Works Takeout
Matt's Place Takeout
Marketsold
BMW Billiards Billiards supply store
A & J Antique Mall Antique store
Aqua Spas Delivery
U-Haul Trailer Hitch Super Center of... Trailer supply store
Storage Star South College
Front Range Antiques Collectibles store
L L Johnson Distributing
Ram Glass Service Glass & mirror shop
Fort Collins Flea Market
Poudre Pet & Feed Supply Delivery
Foundation Building Materials
Foothills Gateway

Looking South

Project Overview



South College Corridor Plan

- Commercial

Zoning

- General Commercial

Proposal

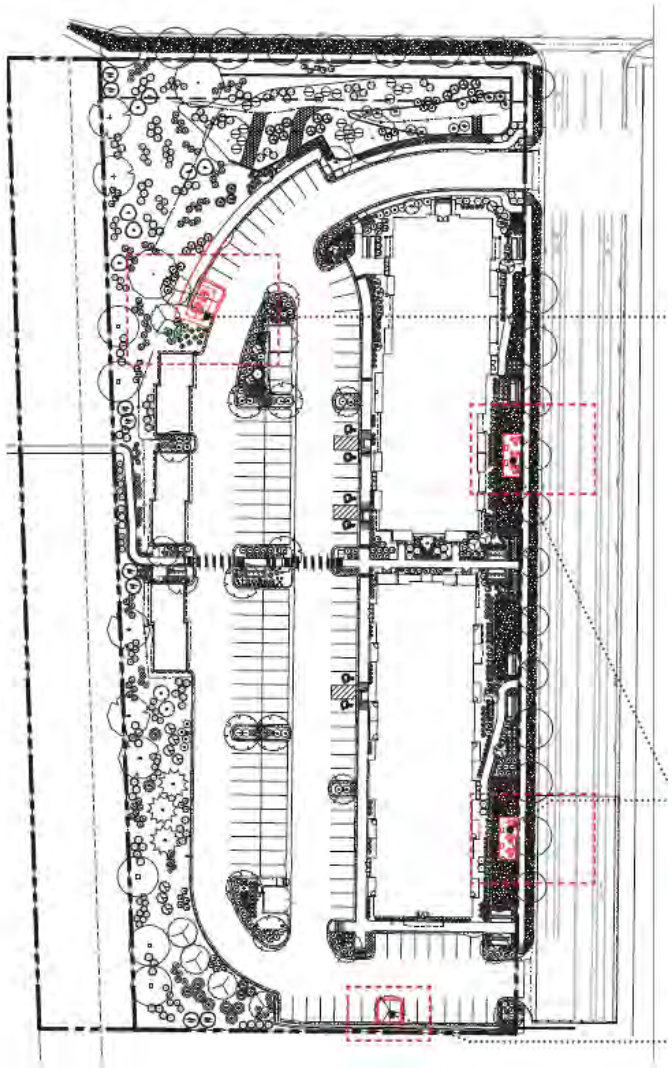
- 2 3-story Multi-family buildings
- 90 units/128 bedrooms

Parking

- 151 vehicle parking spaces
- 128 bike parking spaces

Lot

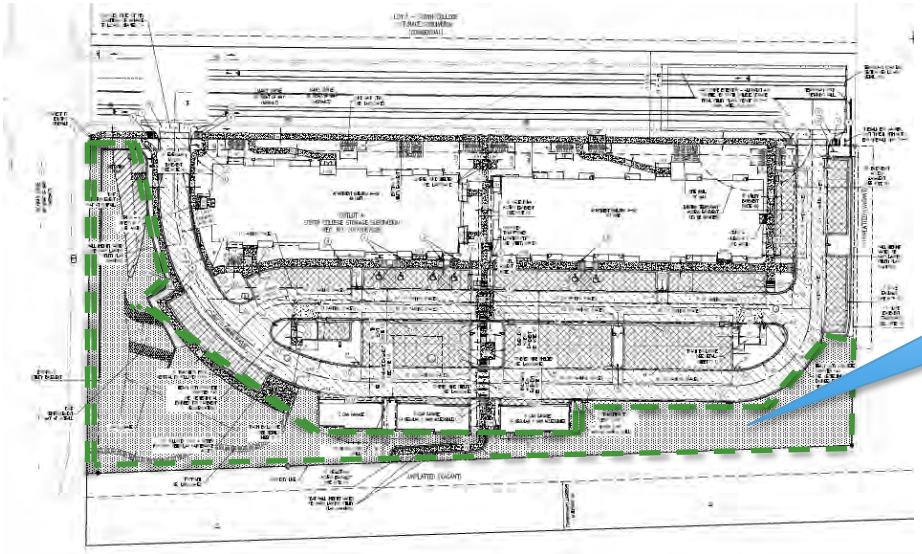
- 3.79-acres



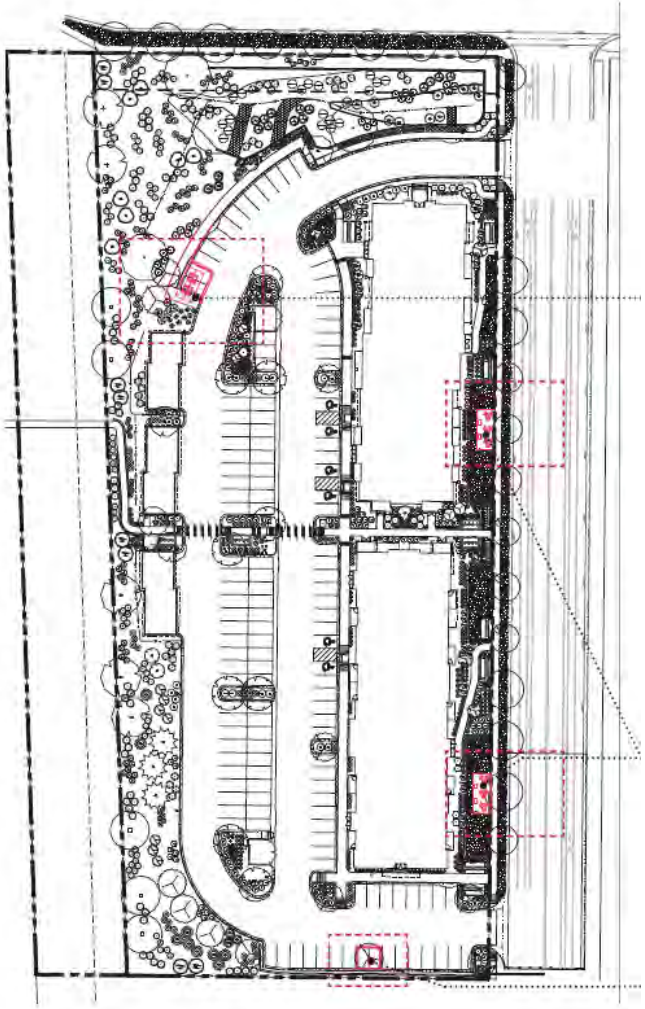
Main Project Considerations:

- Natural Habitat Buffer and Stormwater requirements
- Parking/Pedestrian circulation
- Outdoor gathering space amenities
- Off-site streetscape improvements
- Building and project compatibility

NHBZ Area



- Onsite mitigation results in the creation of .85 ac uplands and .043 ac of wetlands.
- Onsite mitigation will not amount to a 1:1 mitigation value, providing payment to City for one acre of uplands restoration.
- Applicant is trapping and donating existing prairie dogs on site.
- Native seed mix, weed mitigation, and additional native plantings throughout other areas of the site will further enhance the ecological character and habitat value of the site.



Parking

Vehicular Parking:

Number of Bedrooms/Dwelling Unit	Parking Spaces Per Dwelling Unit*
One or less	1.5
Two	1.75
Three	2.0

- Project is required to provide 145 parking spaces.
- Plan provides a total of 151 spaces exceeding compliance with the standards of this Section:

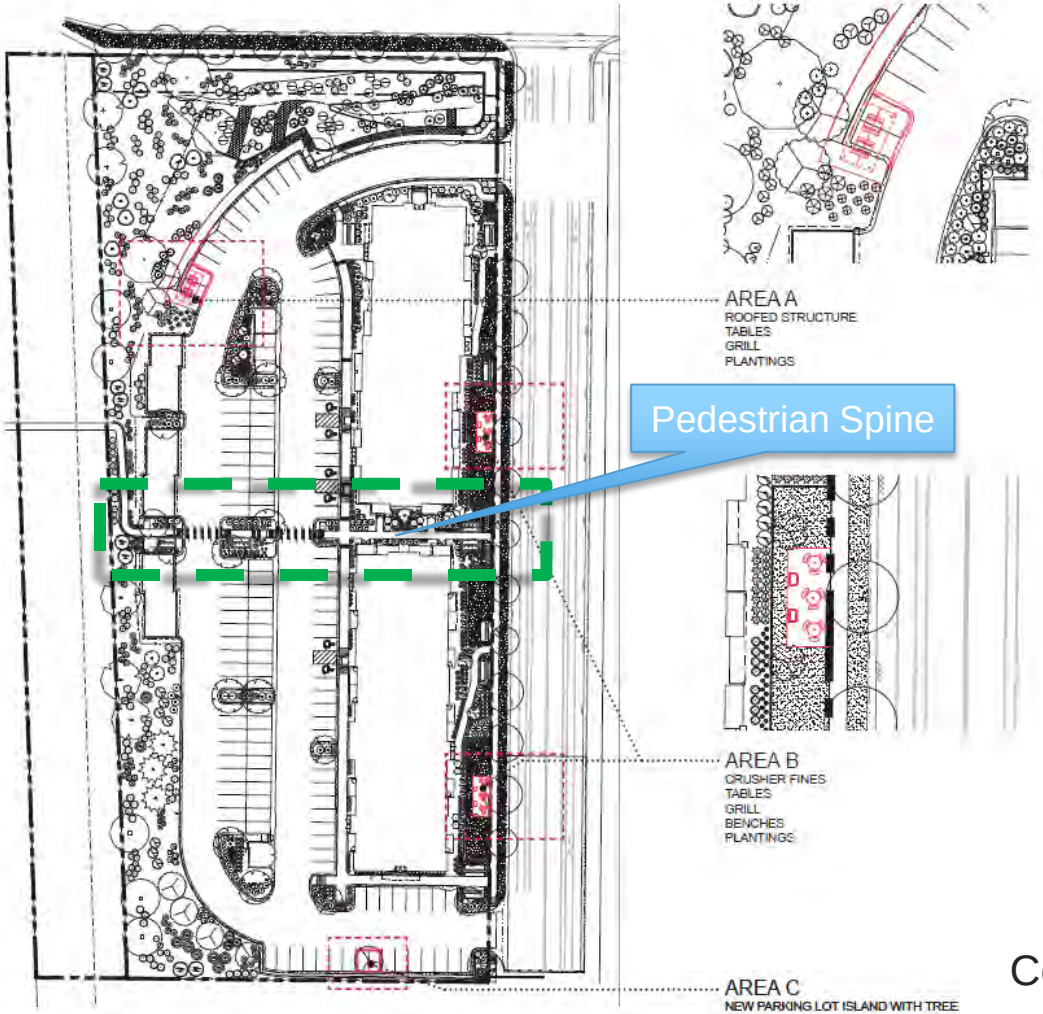
  - 130 standard surface parking spaces
  - 8 accessible spaces
  - 13 garage spaces

Bicycle Parking:

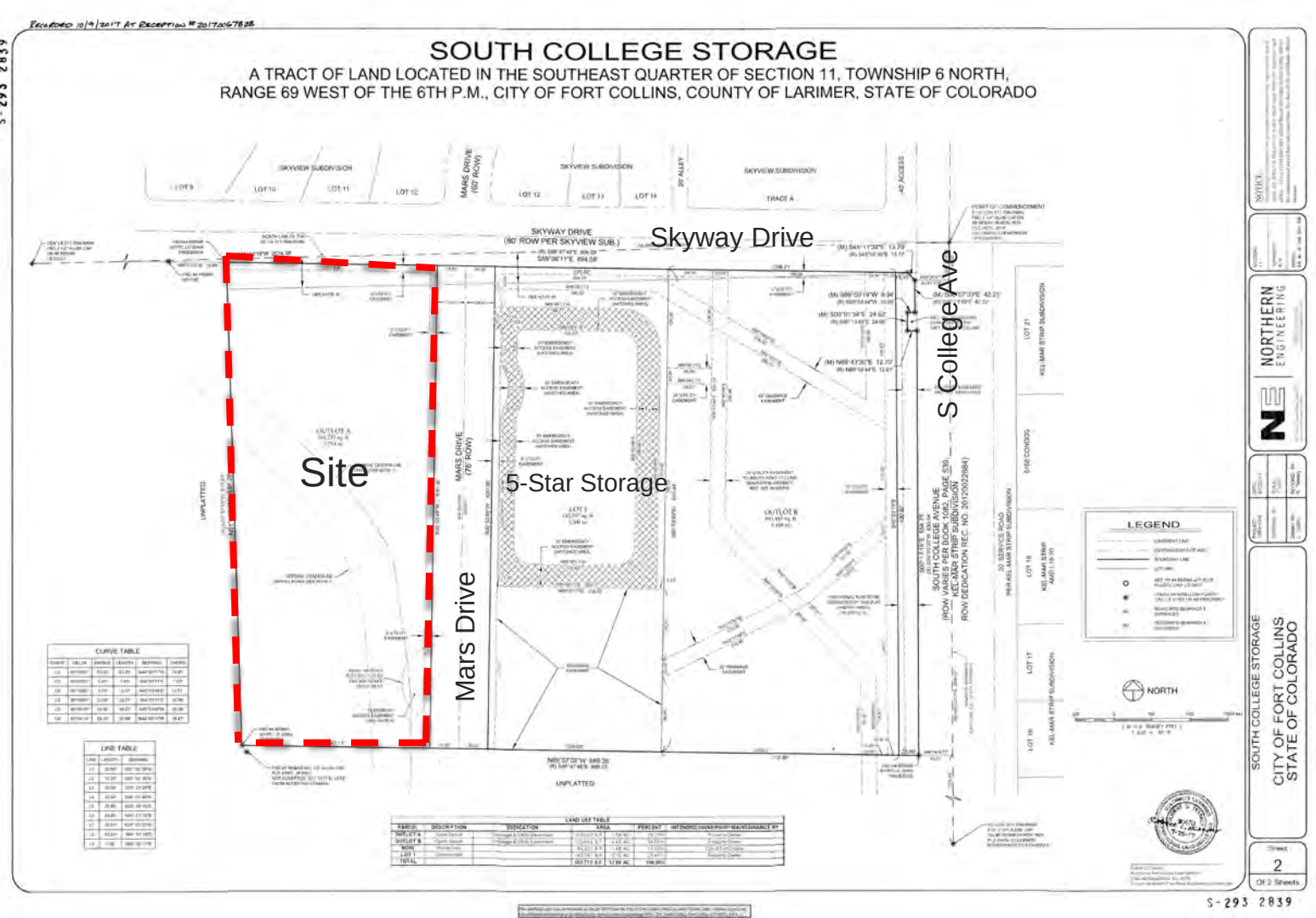
Bicycle parking requirements for multifamily residential use are 1 space per bedroom.

- Plan includes 90 DU/128 Bedrooms = 128 spaces required
- Plan provides 128 spaces (32 enclosed/96 fixed racks)

Staff recommends a Condition of Approval (1) regarding compliance with 3.2.2 (C) (4) – Bicycle Facilities, to provide 60% covered bicycle spaces (77 spaces), and 40% fixed rack spaces (51 spaces).

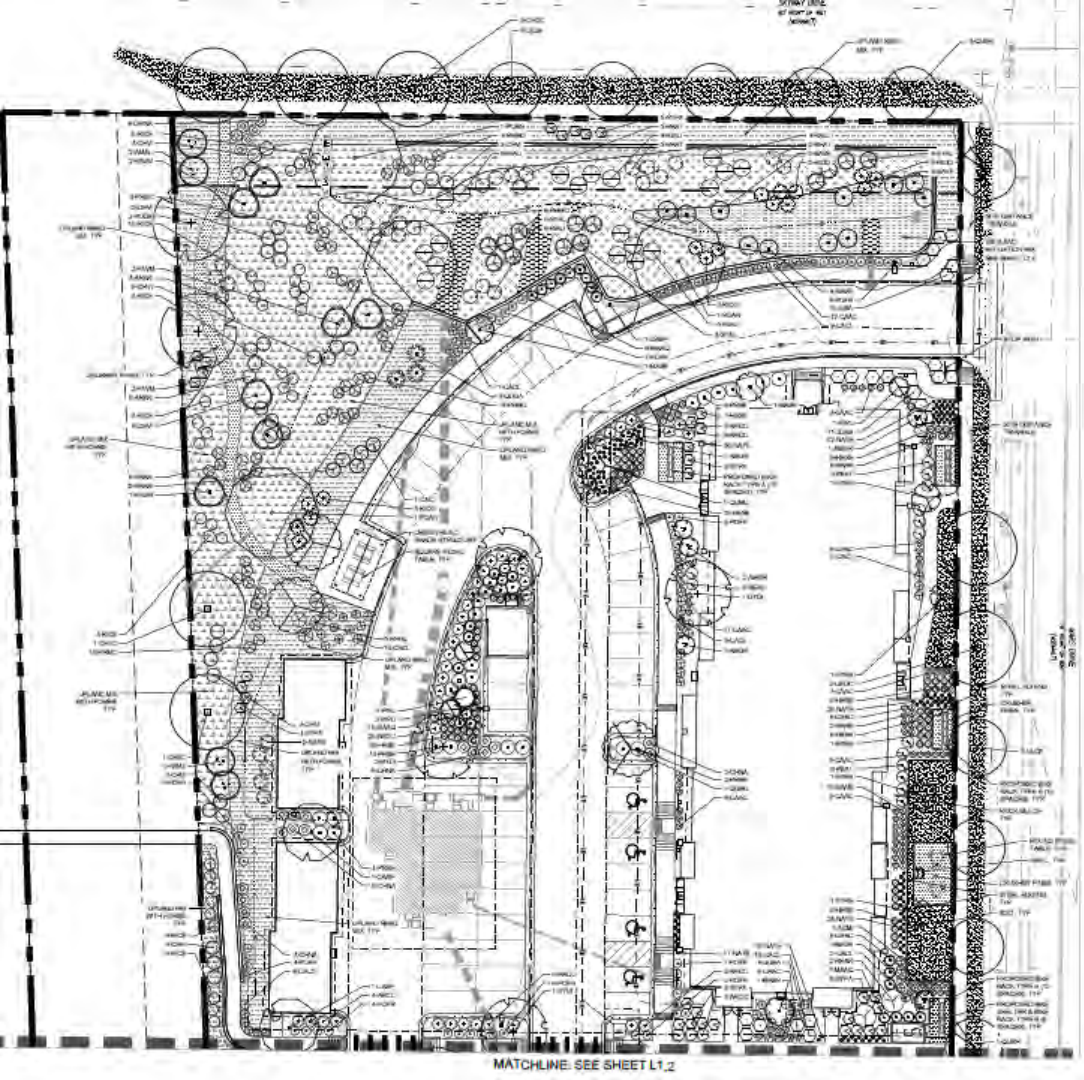


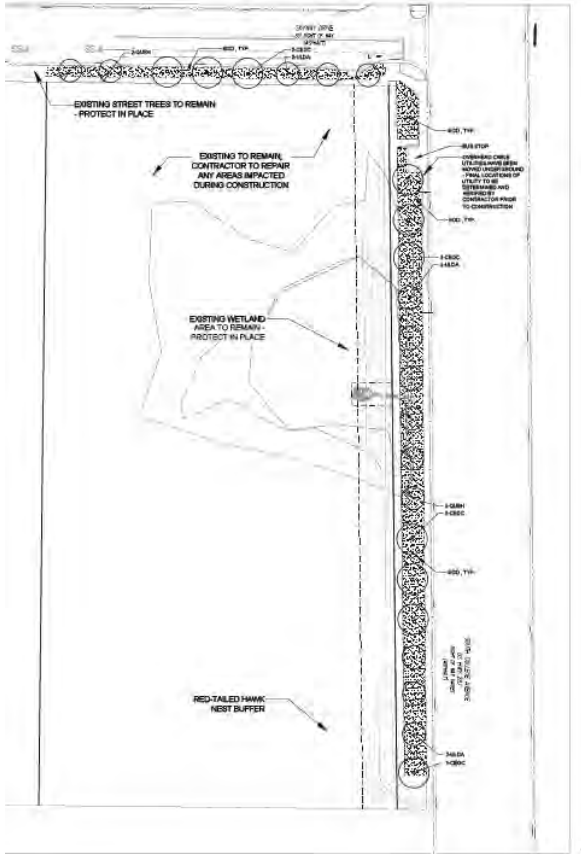
Central feature and gathering spaces


SOUTH COLLEGE STORAGE
A TRACT OF LAND 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
Skyway Drive
S College Ave
Site
5-Star Storage
Mars Drive
LEGEND
NORTH
CURVE TABLE
LINE TABLE
LAND USE TABLE
SOUTH COLLEGE STORAGE
CITY OF FORT COLLINS
STATE OF COLORADO
NORTHERN ENGINEERING
S-293 2839

Plat

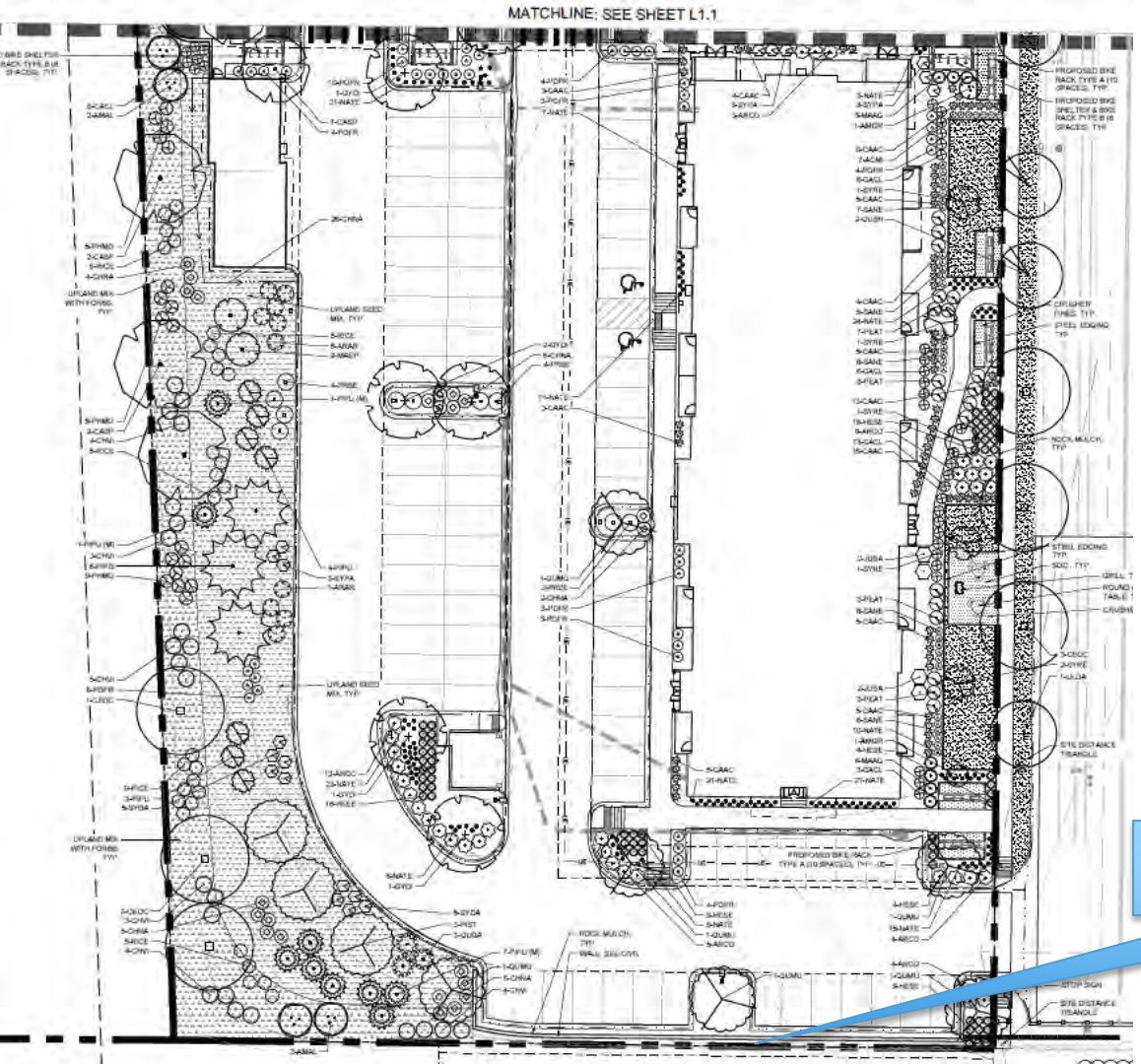
Landscaping

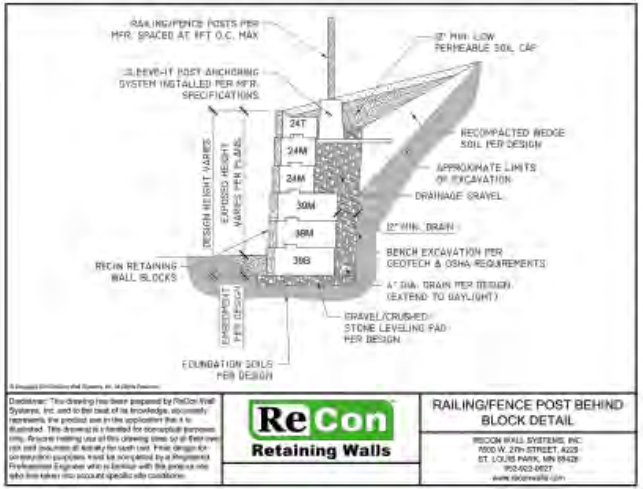




College/Skyway Frontage

Landscaping

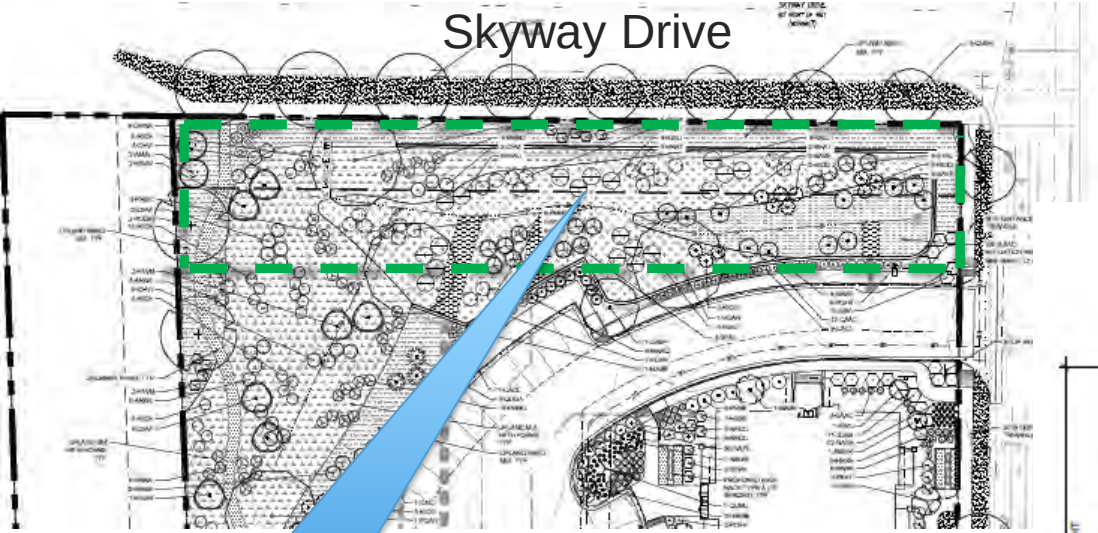




SOUTH RETAINING WALL WITH SCREEN FENCE

Screen Fence on Wall

Project Compatibility



Landscape Buffer and Transition

Building Stepdown- North Elevation

3 WEST ELEVATION
1/8" = 1'-0"

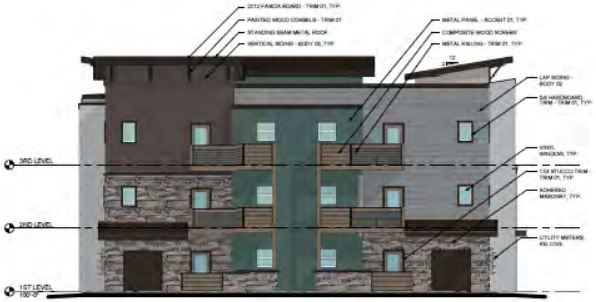
Building – 42 Unit

EXTERIOR BUILDING LIGHTS
LIGHTS, DECK SPECIFIED, WILL COMPLY WITH ALL REQUIREMENTS. ALL BUILDING MOUNTED LIGHTING SHALL BE FULLY SHIELDED, DOWN DIRECTIONAL, AND DARK SKY COMPLIANT

EXTERIOR FINISH MATERIAL SCHEDULE

	COLOR (MANUF.)	COMMENTS
BODY 01	NORTH HAMPTON BEIGE (BM AC-38)	LAP SIDING
BODY 02	SWEATSHIRT GRAY (BM 2126-40)	LAP SIDING
BODY 03	COACHMAN'S CAPE (BM CSP-40)	VERTICAL SIDING
ACCENT 01	AGED COPPER (CMG METALS)	ARCHITECTURAL GRADE METAL PANEL
ACCENT 02	CASCADE WHITE (BM 2127-70)	STUCCO
TRIM 01	MIGHT HEDGES (BM 2134-10)	
STONE	CORONADO PROLEDGE - HURON	
COMPOSITE WOOD	TREX - SPICED RUM	

* ALL MATERIALS AND COLORS SHOWN ARE PROPOSED BASED OF DESIGN, OR EQUIVALENT, SUBJECT TO CITY APPROVAL



2 NORTH ELEVATION
1/8" = 1'-0"

3 NORTH - EAST BUILDING PERSPECTIVE

1 EAST ELEVATION
1/8" = 1'-0"

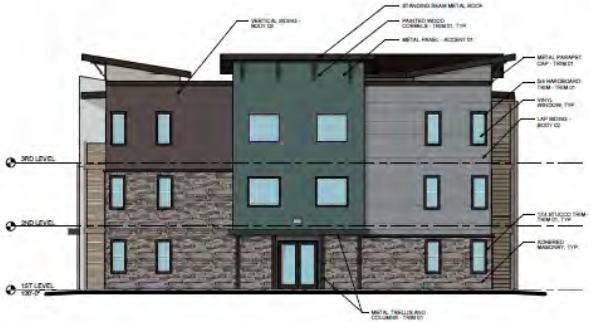
Building – 42 Unit

EXTERIOR BUILDING LIGHTS:
LIGHTS, ONCE SPECIFIED, WILL COMPLY WITH ALL REQUIREMENTS. ALL BUILDING MOUNTED LIGHTING SHALL BE FULLY SHIELDED, DOWN DIRECTIONAL, AND DARK SKY COMPLIANT.

EXTERIOR FINISH MATERIAL SCHEDULE

	COLOR (MANUF.)	COMMENTS
BODY 01	NORTH HAMPTON (SW 6836) OR AC-36	LAP SIDING
BODY 02	SHEATHART GRAY (SW 7128-42)	LAP SIDING
BODY 03	COACHMAN'S CAPE (SW 7587-82)	VERTICAL SIDING
ACCENT 01	ASAD COPPER (CMG METALS)	ARCHITECTURAL GRADE METAL PANEL
ACCENT 02	CASCADE WHITE (SW 2121-70)	STUCCO
TRIM 01	NIGHT HORIZON (SW 2154-10)	
STONE	CORONADO PROLEDGE - HUMON	
COMPOSITE WOOD	TREX - SPICED RUM	

* ALL MATERIALS AND COLORS SHOWN ARE PROPOSED MODE OF DESIGN, OR EQUIVALENT, SUBJECT TO CITY APPROVAL.



4 SOUTH ELEVATION
1/8" = 1'-0"

3 SOUTH - WEST BUILDING PERSPECTIVE

1 WEST ELEVATION
1/8" = 1'-0"

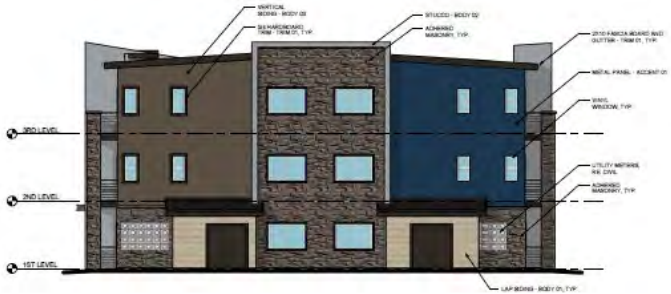
Building – 48 Unit

1 NORTH ELEVATION
1/8" = 1'-0"

2 NORTH - EAST BUILDING PERSPECTIVE

4 EAST ELEVATION
1/8" = 1'-0"

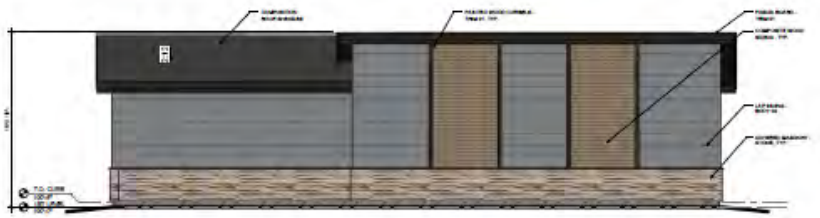
Building – 48 Unit



1 SOUTH ELEVATION
1/8" = 1'-0"

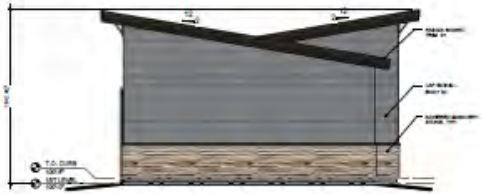
2 SOUTH - WEST - BUILDING PERSPECTIVE

3 WEST ELEVATION
1/8" = 1'-0"



1 GARAGE A - REAR ELEVATION

2 GARAGE A - LEFT SIDE ELEVATION



3 GARAGE A - RIGHT SIDE ELEVATION

4 GARAGE A - FRONT ELEVATION

Garage A

1 GARAGE B REAR ELEVATION

2 GARAGE B LEFT SIDE ELEVATION

3 GARAGE B RIGHT SIDE ELEVATION

4 GARAGE B - FRONT ELEVATION

Garage B

1 GARAGE C - REAR ELEVATION
1/4" = 1'-0"

2 GARAGE C - LEFT SIDE ELEVATION
1/4" = 1'-0"

3 GARAGE C - RIGHT SIDE ELEVATION
1/4" = 1'-0"

4 GARAGE C - FRONT ELEVATION
1/4" = 1'-0"

Garage C

Staff recommends a Condition of Approval (2) regarding compliance with 3.2.5 – Trash and Recycling Enclosure Wall Materials, addressed at FDP,

to ensure the enclosures are screened with a more durable material in place of cedar fencing such as textured concrete block, CMU blocks, or all metal fencing. This will include interior curbing or metal strips to buffer dumpster bins from hitting walls.

Recommendation

Staff recommends approval of the Mars Landing project, PDP190013 with two conditions of approval.