CLEARFIELD CITY PLANNING COMMISSION MEETING AGENDA

Notice is hereby given that the Clearfield City Planning Commission will hold a regularly scheduled meeting at **7:00 P.M., Wednesday, January 3, 2024,** on the **3rd floor** in the City Council Chambers of the Clearfield City Municipal Building, located at 55 S. State Street, Clearfield, UT 84015.

WORK SESSION – 6:30 PM – Executive Conference Room
Review of agenda items to address questions.

REGULAR SESSION – 7:00 PM- Council Chambers

- CALL TO ORDER – PLEDGE OF ALLEGIANCE
- PLANNING COMMISSION CHAIR STATEMENT

DECISION ITEMS

Public Hearings:

1. Public Hearing, Discussion and Possible Action on **DA 2023-1201**, an amendment of the **Bravada 193 Development Agreement** for the development at the subject location. **Location:** 1902 East 700 South (TIN: 09-447-0201). **Project Area:** 8.079 Acres. **Zone:** D-R (Downtown Redevelopment). **Staff:** Brad McIlrath, Senior Planner. **(Legislative Action)**
2. Public Hearing, Discussion and Possible Action on the **Clearfield Connected 2023 Station Area Plan**. **Staff:** Brad McIlrath, Senior Planner. **(Legislative Action)**.

Scheduled Items:

3. Discussion and Possible Action on **SP 2023-1204**, a site plan request by The Richardson Design Partnership on behalf of Tanner Clinic to construct a medical office building at the subject location. **Location:** 1240 East 1450 South (TIN: 09-022-0183). **Parcel Area:** 5.26 Acres. **Zone:** C-1 (Commercial). **Staff:** Tyson Stoddard, Planner. **(Administrative Action)**.

DISCUSSION ITEMS

1. Staff Discussion
2. Staff Communications
3. Commissioner's Minute

*****PLANNING COMMISSION MEETING ADJOURNED*****

Dated this 29th day of December 2023.
/s/Tyson Stoddard, Planner

Meetings of the Planning Commission of Clearfield City may be conducted via electronic means pursuant to Utah Code Ann. § 52-4-207 as amended. In such circumstances, contact will be established and maintained via electronic means and the meetings will be conducted pursuant to the Electronic Meetings Policy established in City Code § 1-6-4H for electronic meetings.

Clearfield City, in accordance with the 'Americans with Disabilities Act', provides accommodations and auxiliary communicative aids and services for all those citizens needing assistance. Persons requesting accommodations for City sponsored public meetings, service programs, or events, should call the Customer Service Center at 801-525-2701, giving the City a 48 hour notice.

The Work Session meeting is a public meeting; however, public comments are only received in the formal Planning Commission meeting. The Planning Commission Public Meeting is a public forum where the Planning Commission may receive comment from applicants, the public, applicable agencies and city staff regarding land use applications and other items on the Commission's agenda. In addition, it is where the Planning Commission takes action on these items. Action may be taken which may include: approval, approval with conditions, denial, continuance or recommendation to other bodies as applicable.

The complete public notice is posted on the Utah Public Notice Website - www.utah.gov/pmn/, the Clearfield City Website - clearfield.city, and at Clearfield City Hall, 55 South State Street, Clearfield, UT 84015. To request a copy of the public notice or for additional inquiries please contact Tyson Stoddard at Clearfield City, tyson.stoddard@clearfieldcity.org & 801-525-2718.

Planning Commission
STAFF REPORT

AGENDA ITEM
#1

TO: Clearfield City Planning Commission

FROM: Brad McIlrath, Senior Planner
brad.mcilrath@clearfieldcity.org
(801) 525-2784

MEETING DATE: Wednesday, January 3rd, 2024

SUBJECT: Public Hearing, Discussion and Possible Action on **DA 2023-1201** an amendment of the **Bravada 193 Development Agreement** for the development at the subject location. **Location:** 1902 East 700 South (TIN: 09-447-0201). **Project Area:** 8.079 Acres. **Zone:** D-R (Downtown Redevelopment). **(Legislative Action)**

STAFF RECOMMENDATION

Staff recommends that the Planning Commission **forward a recommendation of approval** to the Clearfield City Council, for **DA 2023-1201,** an amendment of the Bravada 193 Development Agreement for the development located at 1902 East 700 South (TIN: 09-447-0201). This recommendation is based upon the discussion and findings outlined in this report.

This recommendation is based upon the findings and discussion of the staff report; however, as the advisory body to the Clearfield City Council, the Planning Commission may make a different recommendation on its own based upon careful consideration and analysis of the request.

PLANNING COMMISSION RECOMMENDATION OPTIONS:

After careful consideration and analysis of the information presented, the Clearfield City Planning Commission moves to:

1. **Move to recommend approval of DA 2023-1201**, to the Clearfield City Council, for the amendment of the Bravada 193 Development Agreement for the development located at 1902 East 700 South (TIN: 09-447-0201).
2. **Move to recommend denial of DA 2023-1201**, to the Clearfield City Council, for the amendment of the Bravada 193 Development Agreement for the development located at 1902 East 700 South (TIN: 09-447-0201).
3. **Move to table DA 2023-1201,** to request additional time to consider the request.

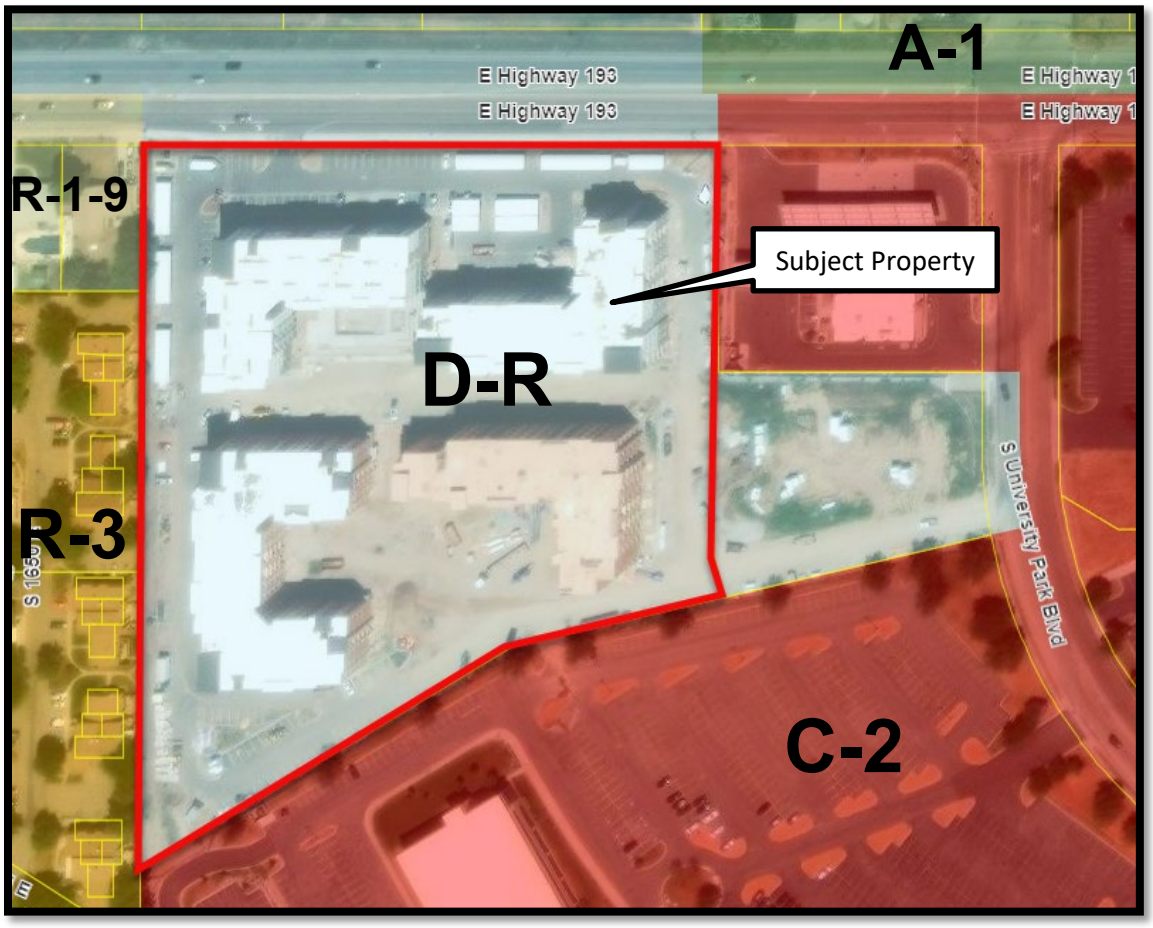
PROJECT SUMMARY

Project Information	
Project Name	Bravada 193 Development Agreement Amendment
Site Location	1902 East 700 South
Tax ID Number	09-447-0201
Applicant	Byrce Thurgood, Castle Creek Homes
Owner	Bravada 193 LLC

Project Information	
Proposed Actions	Development Agreement Amendment Approval
Current Zoning	D-R (Development Agreement)
General Plan Land Use Classification	Mixed Use
Gross Site	8.079 Acres

Surrounding Properties and Uses:		Current Zoning District	General Plan Land Use Classification
North	Hill AFB	HAFB	Hill AFB
East	Commercial Retail & Office	C-2 (Commercial) and D-R (Downtown Redevelopment)	Mixed Use
South	Commercial Office	C-2 (Commercial)	Commercial
West	Residential Multi-Family & Single-Family	R-3 (Residential) & R-1-9 (Residential)	Residential

Aerial Image & Zoning



BACKGROUND & ANALYSIS

The Bravada 193 Development Agreement includes four (4) residential apartment buildings and an office building at the subject location. The agreement was executed and recorded in August 2020. Since the execution of the development agreement, development of the property has been in accordance with the terms of the agreement, with the only exception being carports installed where garages were originally required. The applicant is requesting an amendment of the development agreement to allow for carports, as have been constructed, to remain in place of the previously planned detached garages. There are two (2) reasons for the change in plans and the requested amendment outlined below and provided for in a narrative from the applicant attached to this report.

Underground Storm Water System and Utility Changes

As outlined in the attached narrative, due to the location and some changes of the underground storm tech system, the garages at the southwest portion of the site could not be constructed without the redesign of the storm tech system. Additionally, dry utilities (Rocky Mountain Power, Dominion Energy, and Communications) were located on the site by those providers along the south property line that further impacted the location of the garages. The area needed to access and maintain those utilities would be obstructed with the construction of the detached garages. Staff agrees with the applicant that the underground storm water system and the dry utility locations sufficiently demonstrate the need to remove the three (3) garages along the south property line and in the southwest area of the property. However, the one (1) detached garage along the east property line near building B and adjacent to the Sinclair property does not appear to have any of these conflicts and could have been constructed without any issue.

Increased Parking with Carports vs. Garages

As also outlined in the applicant narrative, the replacement of the detached garages with carports eliminated thirty-two (32) garage spaces but added forty (40) parking spaces for an increase of eight (8) spaces. A common use of detached garages in apartment complexes is for storage and not parking. By providing carport spaces instead of garage spaces, this better ensures that the parking spaces will be utilized for parking and not storage. The garages located in the buildings are being closely monitored by the on-site management company and are successfully being used for parking and limited storage space is available. Garages in the buildings that have been used exclusively for storage and not parking have been remedied by the management company. As those issues arise, they are addressed by the management company to ensure that the tuck-under garages are used for parking and not storage.

STAFF RECOMMENDATION

Based upon review of the development agreement, the revised overall site plan, and the reasonings for the changes, Staff recommends that the Planning Commission **forward a recommendation of approval** to the Clearfield City Council, for **DA 2023-1201,** an amendment of the Bravada 193 Development Agreement for the development located at 1902 East 700 South (TIN: 09-447-0201). This recommendation is based upon the discussion and findings outlined in this report.

ATTACHEMENTS

1. Original Overall Site Plan
2. Proposed Overall Site Plan
3. Applicant Written Narrative

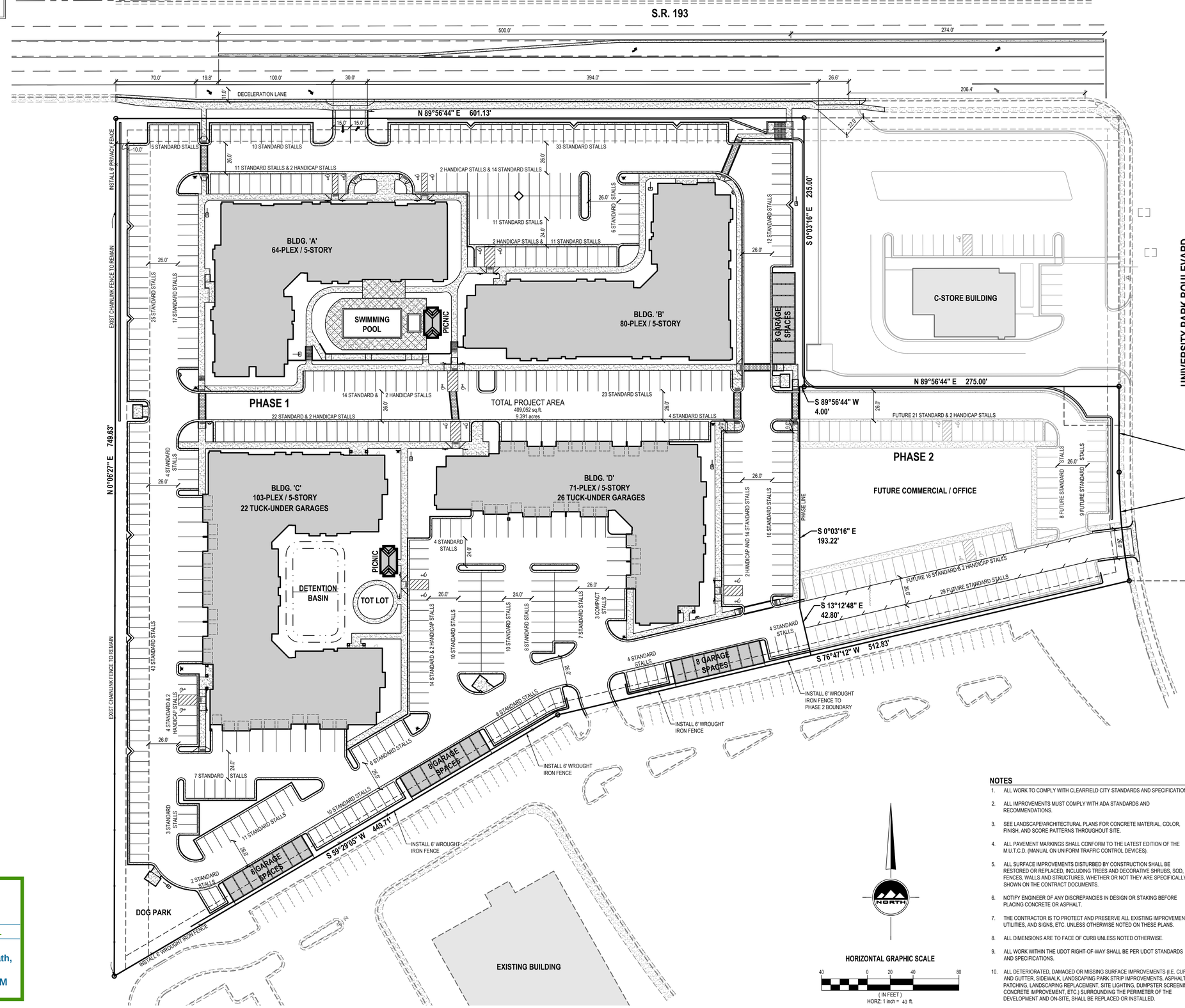
CALL BLUESTAKES @ 811 AT LEAST 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.

Know what's below. Call before you dig.

BENCHMARK

NORTHEAST CORNER OF SECTION 7
TOWNSHIP 4 NORTH, RANGE 1 WEST
SALT LAKE BASE & MERIDIAN
(FOUND BRASS CAP)

ELEVATION = 4668.19



HORIZONTAL GRAPHIC SCALE

40 0 20 40 80

(IN FEET)
HORZ: 1 inch = 40 ft.

APARTMENT PARKING TABLE	
HANDICAP STALLS	16
COMPACT STALLS	3
STANDARD STALLS	407
GARAGE STALLS	32
TUCK-UNDER GARAGE STALLS	48
TANDEM STALLS	48
TOTAL STALLS	554

COMMERCIAL / OFFICE PARKING TABLE	
HANDICAP STALLS	4
STANDARD STALLS	85
TOTAL BUILDING AREA	11,693 sq.ft.
TOTAL REQUIRED	47
TOTAL PROVIDED	89

DENSITY TABLE	
RESIDENTIAL AREA	9.391 ACRES
NUMBER OF UNITS	318 UNITS
DENSITY	33.86 UNITS/ACRE

PHASE 1 LAND USE TABLE		
BUILDING	93,420 sq.ft.	26.5 %
HARDSCAPE	201,861 sq.ft.	57.4%
LANDSCAPE	56,627 sq.ft.	16.1%
TOTAL	351,908 sq.ft.	100%

NOTES

1. ALL WORK TO COMPLY WITH CLEARFIELD CITY STANDARDS AND SPECIFICATIONS.
2. ALL IMPROVEMENTS MUST COMPLY WITH ADA STANDARDS AND RECOMMENDATIONS.
3. SEE LANDSCAPE/ARCHITECTURAL PLANS FOR CONCRETE MATERIAL, COLOR, FINISH, AND SCORE PATTERNS THROUGHOUT SITE.
4. ALL PAVEMENT MARKINGS SHALL CONFORM TO THE LATEST EDITION OF THE M.U.T.C.D. (MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES).
5. ALL SURFACE IMPROVEMENTS DISTURBED BY CONSTRUCTION SHALL BE RESTORED OR REPLACED, INCLUDING TREES AND DECORATIVE SHRUBS, SOD, FENCES, WALLS AND STRUCTURES, WHETHER OR NOT THEY ARE SPECIFICALLY SHOWN ON THE CONTRACT DOCUMENTS.
6. NOTIFY ENGINEER OF ANY DISCREPANCIES IN DESIGN OR STAKING BEFORE PLACING CONCRETE OR ASPHALT.
7. THE CONTRACTOR IS TO PROTECT AND PRESERVE ALL EXISTING IMPROVEMENTS, UTILITIES, AND SIGNS, ETC. UNLESS OTHERWISE NOTED ON THESE PLANS.
8. ALL DIMENSIONS ARE TO FACE OF CURB UNLESS NOTED OTHERWISE.
9. ALL WORK WITHIN THE UDOT RIGHT-OF-WAY SHALL BE PER UDOT STANDARDS AND SPECIFICATIONS.
10. ALL DETERIORATED, DAMAGED OR MISSING SURFACE IMPROVEMENTS (I.E. CURB AND GUTTER, SIDEWALK, LANDSCAPING PARK STRIP IMPROVEMENTS, ASPHALT PATCHING, LANDSCAPING REPLACEMENT, SITE LIGHTING, DUMPSTER SCREENING, CONCRETE IMPROVEMENT, ETC.) SURROUNDING THE PERIMETER OF THE DEVELOPMENT AND ON-SITE, SHALL BE REPLACED OR INSTALLED.

Clearfield City
LAND USE APPROVAL
Approved By: Brad McIlrath, Senior Planner
07/20/2020 10:45:15 AM

ENSIGN
THE STANDARD IN ENGINEERING

LAYTON
1485 W. Hill Field Rd., Ste. 204
Layton, UT 84041
Phone: 801.547.1100

SALT LAKE CITY
Phone: 801.255.0529

TOOELE
Phone: 435.843.3590

CEDAR CITY
Phone: 435.865.1453

RICHFIELD
Phone: 435.896.2983

WWW.ENSIGNENG.COM

FOR:
BRAVADA 193
1798 W 5150 S SUITE 103
ROY CITY, UTAH 84067
CONTACT:
BRYCE THURGOOD
PHONE: 801-528-0229

BRAVADA 193 APARTMENTS

SR193 AND UNIVERSITY PARKWAY
CLEARFIELD, UTAH

PROFESSIONAL ENGINEER
No. 5049039
11-13-19
CAMERON HESS PRESTON

NO.	DATE	REVISION	BY
1	12-3-18	FOR REVIEW	CHP
2	3/14-19	UDOT REVIEW	TJS
3	5-24-19	UDOT COMMENTS	MCE
4	9-14-19	FOR APPROVAL	MCE
5	11-13-19	REVISED FOR APPROVAL	MCE
6			
7			
8			

OVERALL SITE PLAN

PROJECT NUMBER L2405A
PRINT DATE 11/13/19
DRAWN BY M.ELMER
CHECKED BY C.PRESTON
PROJECT MANAGER C.PRESTON

C-100

CALL BLUESTAKES @ 811 AT LEAST 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.

Know what's below. Call before you dig.

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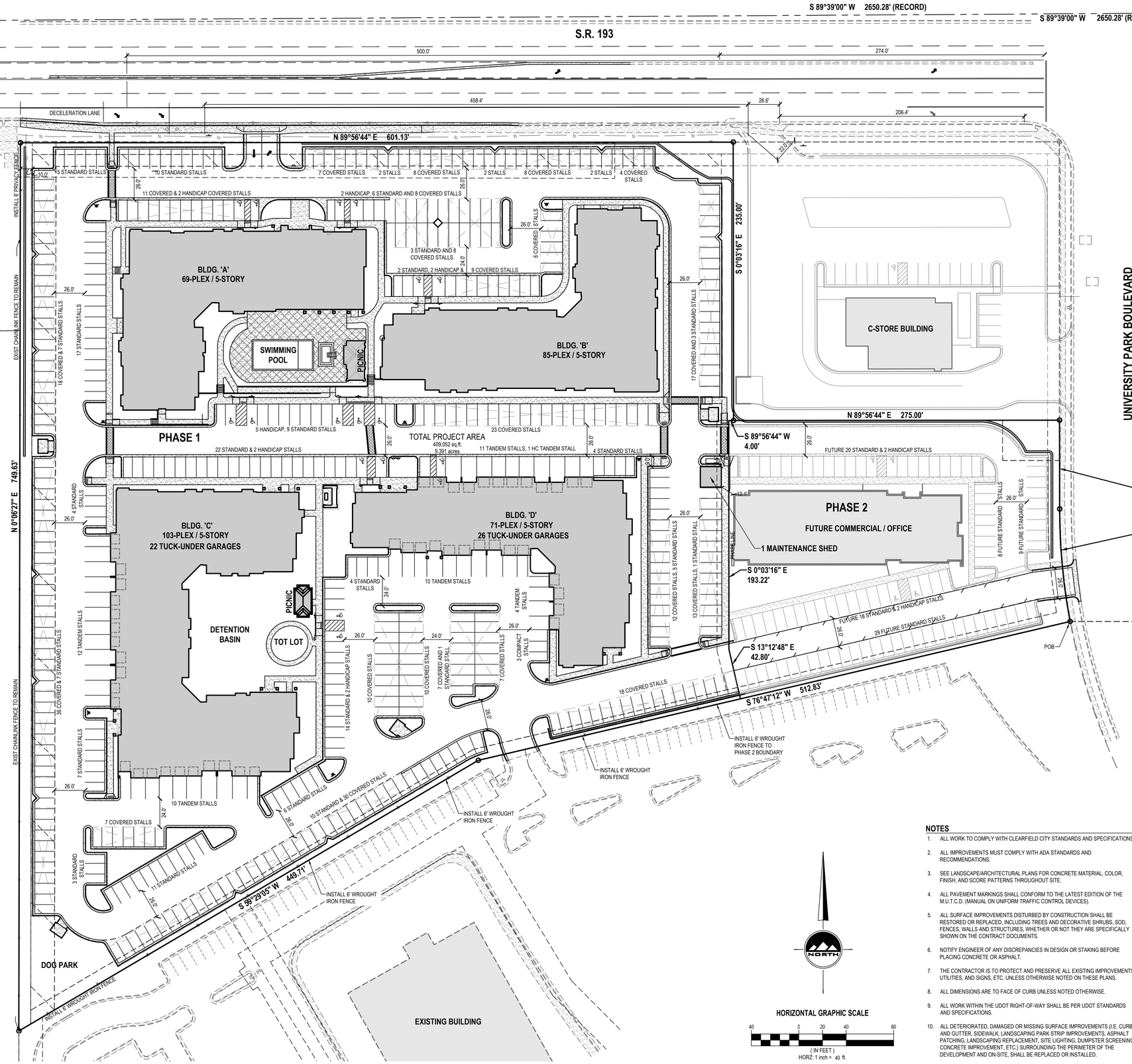
NORTHEAST CORNER OF SECTION 7
TOWNSHIP 4 NORTH, RANGE 1 WEST
SALT LAKE BASE & MERIDIAN
(FOUND BRASS CAP)

ELEVATION = 4668.19

R2W
M
FOUND)



HORIZONTAL GRAPHIC SCALE

40 0 20 40 80

(IN FEET)
HORZ: 1 inch = 40 ft.

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APARTMENT PARKING TABLE	
HANDICAP STALLS	17
COMPACT STALLS	3
STANDARD STALLS	167
GARAGE STALLS	0
TUCK-UNDER GARAGE STALLS	48
TANDEM STALLS	48
CARPORTS	279
ADA SURFACE	12
ADA GARAGE	1
ADA CARPORT	2
ADA TANDEM	1
ADA TUCK	1
TOTAL STALLS	562

COMMERCIAL / OFFICE PARKING TABLE	
HANDICAP STALLS	4
STANDARD STALLS	84
TOTAL BUILDING AREA	11,693 sq.ft.
TOTAL REQUIRED	47
TOTAL PROVIDED	88

DENSITY TABLE	
RESIDENTIAL AREA	9.391 ACRES
NUMBER OF UNITS	202 UNITS
DENSITY	21.51 UNITS/ACRE

PHASE 1 LAND USE TABLE		
BUILDING	86,528 sq.ft.	24.6 %
HARDSCAPE	212,809 sq.ft.	60.5%
LANDSCAPE	52,571 sq.ft.	14.9%
TOTAL	351,908 sq.ft.	100%

ENSIGN
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FOR:
BRAVADA 193
1798 W 5150 S SUITE 103
ROY CITY, UTAH 84067
CONTACT:
BRYCE THURGOOD
PHONE: 801-528-0229

BRAVADA 193 APARTMENTS

SR193 AND UNIVERSITY PARKWAY
CLEARFIELD, UTAH

PROFESSIONAL ENGINEER
No. 5049039
8-31-22
STATE OF UTAH
CAMERON HESS PRESTON

NO.	DATE	REVISION	BY
1	10-22-2020	SOUTHEAST ENTRANCE REV	TJS
2	11-09-2020	NORTH ENTRANCE REVISION	TJS
3	01-26-2021	SD REVISION TO NW CORNER	TJS
4	2-10-2021	RD & SS LATERAL REVISION	TJS
5	05-05-2021	SIDEWALK GRADING REVISION	TJS
6	08-06-2021	GARAGE RELOCATION	TJS
7			
8			

OVERALL SITE PLAN

PROJECT NUMBER L2405A
PRINT DATE 11/30/23
DRAWN BY M.ELMER
CHECKED BY C.PRESTON
PROJECT MANAGER C.PRESTON

C-100

Explanation on the storm tech/utility challenges.

The south driveway/corridor was originally designed for the sewer, storm drain, underground detention (storm tech), and culinary waterline loop. Once the dry utilities were designed by the utility providers (RMP, Dominion, and communication providers) it was found the proposed garages along the south side of the property limited the area required to get the required mains to service the site. The elimination of the garages provided the additional horizontal space needed to provide the utility corridors for the providers.

Explanation on the increased parking with the carports vs. the garages.

The elimination of the garages also ensures that the added parking stalls/carports will always be used for parking and not storage garages. The elimination of the 32 garages added 40 parking stalls. In the long run it could be up to a 72-parking space swing if the garages weren't used for parking. The garages in the buildings are used more often for parking than the detached ones across the parking lot.

Planning Commission
STAFF REPORT

AGENDA ITEM
#2

TO: Clearfield City Planning Commission

FROM: Brad McIlrath, Senior Planner
brad.mcilrath@clearfieldcity.org
(801) 525-2784

MEETING DATE: Wednesday, January 3rd, 2024

SUBJECT: Public Hearing, Discussion and Possible Action on the **Clearfield Connected 2023 Station Area Plan**.

STAFF RECOMMENDATION

Staff recommends that the Planning Commission forward a recommendation of **APPROVAL** to the City Council for the proposed **Clearfield Connected 2023 Station Area Plan.** This recommendation is based upon the findings outlined in this report.

RECOMMENDATION OPTIONS:

After careful consideration of the information included in this report, the Planning Commission may forward one of the following recommendations to the City Council:

1. **Move to recommend approval** of the **Clearfield Connected 2023 Station Area Plan** to the Clearfield City Council.
2. **Move to recommend denial** of the **Clearfield Connected 2023 Station Area Plan** to the Clearfield City Council.
3. **Move to table recommendation** for the **Clearfield Connected 2023 Station Area Plan** and request additional time to further consider the plan and its contents.

DESCRIPTION / BACKGROUND

Clearfield Connected 2023 is the update to the original station area plan that was completed in 2019. This plan update is to align with State Code requirements for station area plans that were passed during the 2022 legislative session. The most significant change in the plan is the expansion of the plan area to a ½ mile radius as required by State Code. As part of the Mixed-Use Zoning district of the UTA owned property adjacent to the Frontrunner Station, a Master Development Agreement (MDA) and Plan (MDP) was executed in 2020 between Clearfield City, UTA, Hamilton Partners, and Stack Real Estate. The plan update incorporates the MDP into the overall design of the updated station area and does not alter any aspects of that agreement or plan.

With the help of Landmark Design and their subconsultants, staff has overseen and worked to create *Clearfield Connected 2023.* Open houses were held in June 2023 and November 2023 to solicit feedback from the community on how the station area could develop in the future. Additionally, a steering committee including Councilmember Tim Roper; Clearfield City, WFRC, and UTA planning and development staff; and members of the Stack Real Estate team have convened three times (May, June

and November 2023) to review progress, analyze public comment, and provide feedback on draft elements of the plan.

The Wasatch Front Regional Council was assigned by legislation to review and certify each station area plan in their metropolitan planning area. Following the adoption of the station area plan update by Clearfield City, the plan will be presented to WRFC for review and certification.

State Code Requirements

On page 8 of *Clearfield Connected 2023,* Utah State Code changes are reviewed and compliance with those standards is stated. As stated on that page of the plan, the updated Clearfield Connected Station Area Plan specifically encompasses the following additions and modifications to comply with State Code:

1. Assessment of prior studies and the existing conditions of the study area, focusing on the expanded Station Area "zone of influence," *(1/2 mile radius)* changing development patterns, and recent demographic and socio-economic changes.
2. Incorporation of statewide objectives for moderate-income housing, environmental conditions, transportation choices, and access to opportunities.
3. Updated design guidelines that better align with the MDP.
4. Assessment of the Station Area's market potential and the synergies of commercial and multi-family residential uses, as part of a mixed-use transit district.
5. Assessment of access to and from the Station Area for vehicles, transit, and active transportation modes, including pedestrians and bicyclists.

Project Goals

As shown on page 25 of the plan the twelve goals for the project are:

1. Increase the availability & affordability of housing.
2. Promote sustainable conditions & practices.
3. Enhance access to opportunities.
4. Increase transportation choices & connections.
5. Create an exciting destination.
6. Create a complete community.
7. Provide community assets.
8. Promote quality urban design.
9. Maintain convenient transit access.
10. Generate transit ridership.
11. Connect the station area to the City & region.
12. Promote the City's industrial heritage.

Future Land Use and Illustrative Master Plan

Chapter 3 of the plan includes an analysis of the districts, framework for future land-use and an illustrative master plan of how the station area could develop.

GENERAL PLAN UPDATE

This plan with the expanded station area will provide valuable direction for the General Plan update, especially for the properties in the expanded station area. Guidance and direction provided in this plan and the proposed future land uses will help shape the General Plan update that will be completed in 2024. Upon adoption of the Clearfield General Plan, the Clearfield Connected 2023 Station Area Plan will be incorporated into the General Plan as an appendix or by reference.

PUBLIC OUTREACH/PROJECT TIMELINE

The station area plan update commenced in February 2023 with Landmark Design and their subconsultants selected as the design team. As mentioned above, a steering committee was established and held its first two of three meetings in May and June prior to the first public open house at the end of June. The first public open house at the end of June and leading up to the 4th of July was to solicit initial feedback on what people would like to see within the expanded station area. Three different scenarios were provided for public feedback as well as places for general comment. Planning Staff organized a booth at the 4th of July Freedom Festival and provided the open house materials for additional feedback.

Following the first public open house, Planning Staff and the consultant team reviewed the public feedback and began crafting the plan update. After feedback from City Staff and revisions by the consultant team, a draft plan public open house was held in November. The final steering committee meeting was held in November following the public open house to review the draft plan and public comment. Due to little attendance at that open house, the city posted information about the public website and the draft plan to solicit additional feedback in December.

After the close of the public comment on the project website, City Staff proceeded with the adoption process with the Planning Commission and City Council in January 2024. Each meeting has had the appropriate public notice for the public hearings. The public hearing notices were posted the weekend of December 23rd and 24th.

STAFF RECOMMENDATION/CONCLUSION

Staff recommends that the Planning Commission forward a recommendation of **APPROVAL** to the City Council for the proposed **Clearfield Connected 2023 Station Area Plan**, based upon the following findings:

1. The proposed station area plan update complies with Utah State Code requirements recently passed by the Utah State Legislature.
2. The station area plan will be a catalyst for improved coordination with UDOT, UTA, Freeport Center, Hill AFB, the Davis School District and the neighborhoods adjacent the Clearfield Frontrunner Station area.
3. This plan provides additional direction for future land uses in the expanded station area and will be incorporated as part of the Clearfield City General Plan.

ATTACHMENTS

1. Clearfield Connected 2023: Station Area Plan & Design Guidelines - DRAFT

CLEARFIELD CONNECTED 2023

STATION AREA PLAN + DESIGN GUIDELINES **DRAFT**

ACKNOWLEDGEMENTS

MAYOR *MARK SHEPHERD*

CITY COUNCIL *KENT BUSH*
NIKE PETERSON
VERN PHIPPS
MEGAN RATCHFORD
TIM ROPER
KARECE THOMPSON
DAKOTA WURTH

PLANNING COMMISSION
CHRIS UCCARDI
JAYLEE BOUWHUIS
KATHRYN MURRAY
ROBERT BROWNING
DAVID BLOOMFIELD
BROGAN FULLMER
LAUREN DESPAIN
CHAD MORTENSEN

CITY STAFF *SPENCER W. BRIMLEY*
BRAD MCILRATH
TYSON STODDARD

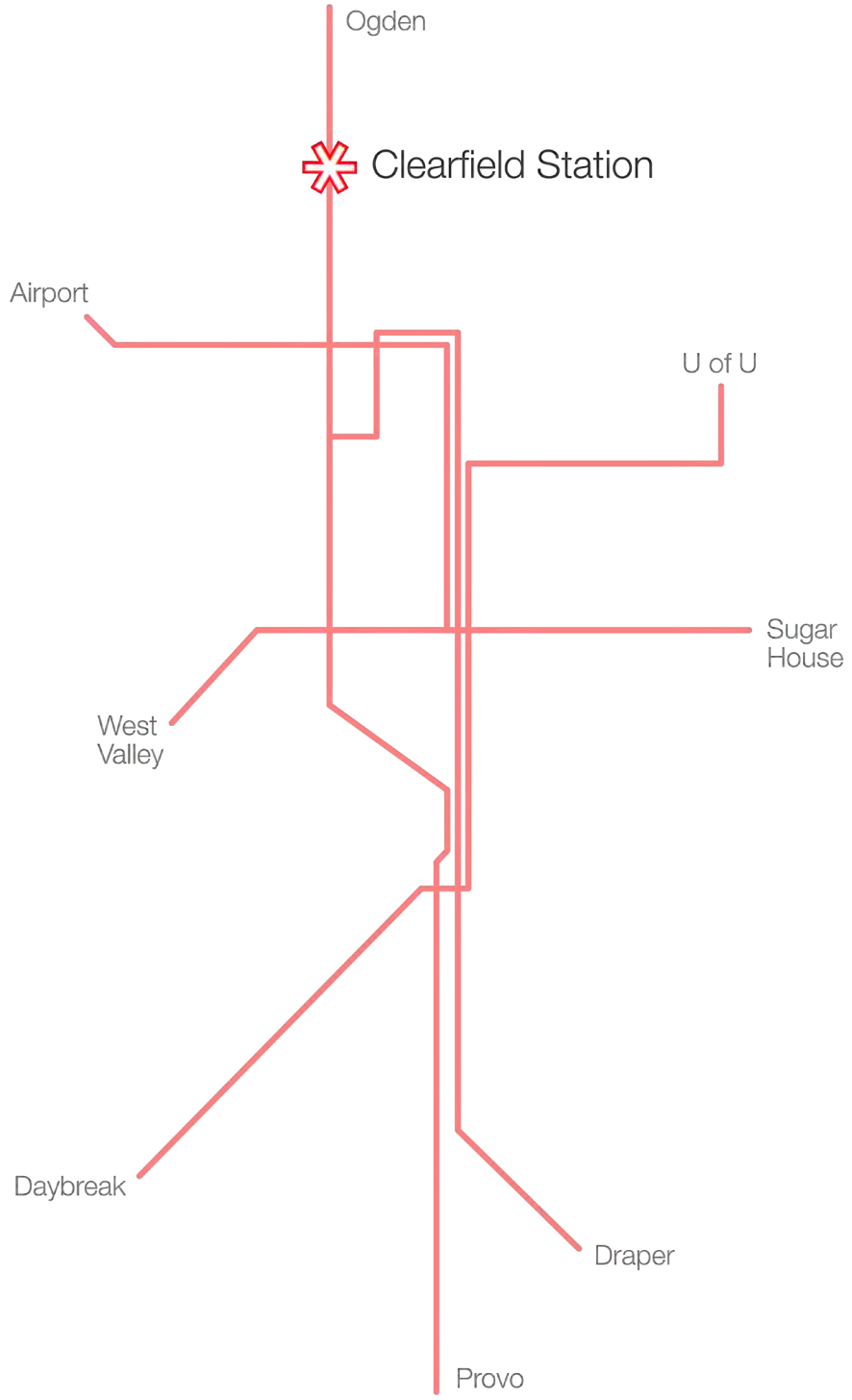
UTA STAFF *NICK DUERKSEN*
KAYLA KINKEAD

WFRC STAFF *BYRON HEAD*

2023 CONSULTANT TEAM *LANDMARK DESIGN*
ZIONS PUBLIC FINANCING, INC
PARAMETRIX

2019 CONSULTANT TEAM *IBI GROUP*
ZIONS PUBLIC FINANCING, INC
FEHR & PEERS

Funding provided by the Transportation and Land Use Connection



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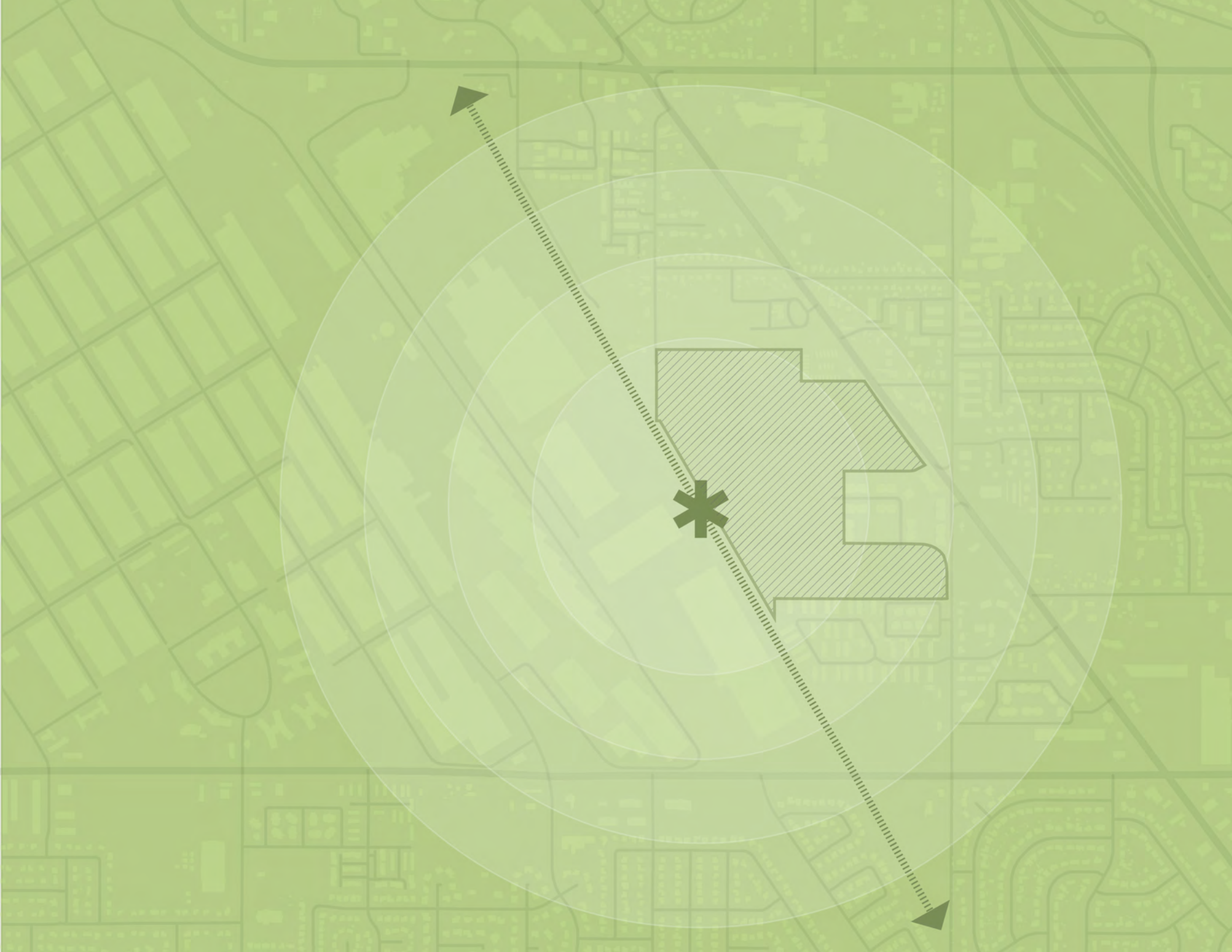


01 INTRODUCTION

Introduction

Clearfield Connected 2023 is an update of Clearfield Connected, which was adopted in 2019. The new plan updates the vision, details and design guidelines for the Clearfield Station Area, while addressing subsequent development changes and new Station Area planning requirements recently established by the State of Utah.

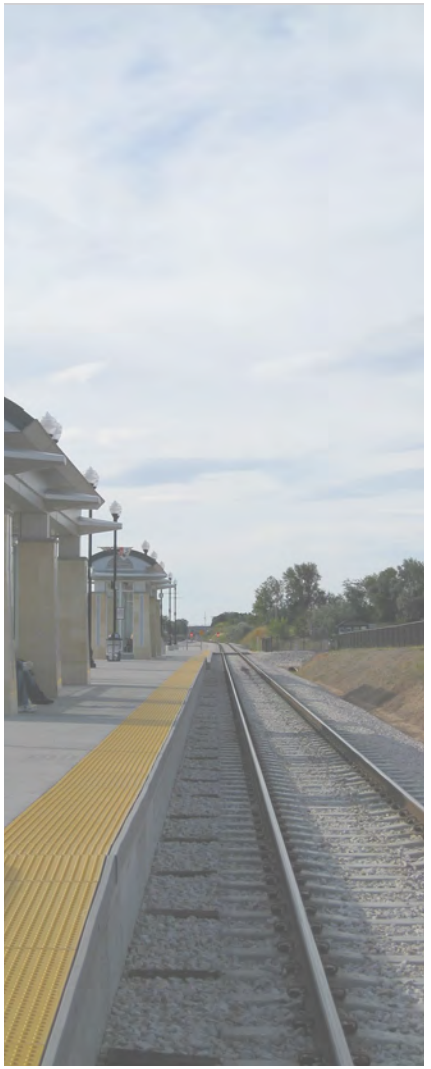
Clearfield Connected 2023 establishes the needs and vision for the FrontRunner rail system and the Clearfield Station Area, which encompasses approximately 56 acres of vacant land. In addition to meeting recent state code requirements, the Station Area plan also incorporates visioning and design elements from the Station Area Master Development Plan (MDP), which were completed in 2020 and executed between Clearfield City, UTA and the Hamilton Partners and Stack Real Estate master development team.

Clearfield Connected 2023 is a significant opportunity to meet the transit and place-making needs of Clearfield City and its residents, as well as those of UTA, the State of Utah and transit riders throughout the region. It builds upon the planning process established in the 2019 plan, expanding the vision and scope. It also establishes clear implementation principles and design guidelines to help regulate the form and quality of the area.

Clearfield Connected 2023 presents a more comprehensive vision for the area than the 2019 plan. It is fully-aligned with the comprehensive planning needs of Clearfield City, UTA and the State of Utah. Once implemented, the station and its surrounding area can leverage the benefits of current and future growth, and in the process be better connected with regional needs and changes.

DOCUMENT OVERVIEW

The purpose of **Clearfield Connected 2023** is to establish the vision, goals, urban design principles, and design guidelines that will govern future development of the Clearfield Station Area. This document lays out the structural and regulatory structure that will guide the development of the Clearfield Station Area. Graphic depictions and photos are included to help illustrate general ideas, principles, and visions for the building elements and spatial character of the station and surroundings.



COMMUNITY & STAKEHOLDER ENGAGEMENT

A comprehensive outreach strategy was utilized throughout the planning process to collect multiple levels of focused input from the public and specific individuals, groups, and stakeholders.

A Steering Committee, composed of representatives from City leadership, UTA, development partners, and other key stakeholders, met with the planning team three times at key points during the planning process.

A Plan Alternatives Public Open House was held at the Clearfield Aquatics and Fitness Center on June 28, 2023. City residents and stakeholders connected with city leaders, staff, and the planning team to learn more about the project and provide feedback on three alternative concepts. Posters were left on display for an additional week following the meeting so residents could continue to provide feedback. City staff also took the boards to Clearfield's Freedom Festival on the Fourth of July. Though the total number of participants is unknown, it is estimated that at least fifty people gave feedback during this period.

A Draft Plan Public Open House was held on November 13, 2023 at the Clearfield Aquatics and Fitness Center, providing an opportunity for residents and stakeholders to learn more about the Draft Plan and provide feedback prior to the adoption process.

A dedicated project website served as a clearinghouse for information and project updates and included comment forms for the community and stakeholders to provide feedback virtually.

Images from the Alternatives Open House on June 28, 2023

Meeting State Requirements

Recent changes in Utah State planning codes require the Clearfield Connected Station Area Plan (2019) be amended to address a wider service area and to incorporate options for affordable housing. The updated plan embraces previous efforts, translating the energy underpinning those plans into an updated and comprehensive plan that also addresses the new elements required by state code.

The updated Clearfield Connected Station Area Plan specifically encompasses the following additions and modifications:

- Assessment of prior studies and the existing conditions of the study area, focusing on the expanded Station Area "zone of influence," changing development patterns, and recent demographic and socio-economic changes.
- Incorporation of statewide objectives for moderate-income housing, environmental conditions, transportation choices, and access to opportunities.
- Updated design guidelines that better align with the MDP.
- Assessment of the Station Area's market potential and the synergies of commercial and multi-family residential uses, as part of a mixed-use transit district.
- Assessment of access to and from the Station Area for vehicles, transit, and active transportation modes, including pedestrians and bicyclists.

Context

HISTORIC CONTEXT

Clearfield was settled in 1877 as an agricultural community. The structure of the city began to change in the 1940's, when major defense facilities such as Hill Field and the Clearfield Naval Supply Depot were constructed within and adjacent to the city. Construction on Hill Air Force Base began in 1940, and the base soon became one of the most significant employers in the region. The air base remains one of the largest employers in the state, and continues to employ many local residents.

The Clearfield Naval Supply Depot was constructed in 1942 adjacent to the railways that line the west edge of Clearfield Station today. The depot also became a major employer, but was decommissioned in 1962. The remnant facilities of the depot eventually became the Freeport Center, which is now a major manufacturing, warehousing, and distribution center.

The city is a major employment center and home to many large companies, many of which are located in or around the Freeport Center.

The Clearfield Station site is east of the railroad tracks and has historically been used for light industrial uses.

Naval Supply Depot, 1942 (Source: Weber State University)

Hill Airforce Base, 1958 (Source: The Salt Lake Tribune)

REGIONAL CONTEXT

The City of Clearfield is located 28 miles north of Salt Lake City in northern Davis County. It is situated between the Great Salt Lake to the west and the Wasatch Mountains to the east, encompassing an area of about 7.7 square miles. The city is located in a key location southwest of Hill Air Force Base—the State's largest economic engine.

Interstate-15 runs along the eastern reaches of the city, providing interchanges at 650 North and 700 South / SR 193. 700 South and Antelope Drive are the largest corridors for east-west traffic movement in northern Davis County. Clearfield lies 30 miles north of the Salt Lake International Airport.

REGIONAL CONTEXT MAP

The Clearfield Station Area

The Clearfield FrontRunner Station is one of sixteen stops along the Frontrunner commuter rail line that runs approximately 90 miles along the Wasatch Front, connecting users between Ogden in the north and Provo to the south. The rail line has established Clearfield Station as a key regional connection.

The Clearfield Station Area (also known as the Station Zone of Influence) includes all parcels within a half mile radius of the Clearfield Station. As illustrated in the Local Context Map on the following page, it encompasses the UTA-owned MDP site and extends into the surrounding neighborhoods. It also includes a portion of the Freeport Center and commercial properties along State Street and Antelope Drive.

The MDP site encompasses approximately 56 acres of undeveloped land between the rail line/FrontRunner tracks and State Street. It contains the largest amount of vacant UTA-owned land adjacent to a FrontRunner or TRAX transit station in the entire UTA system. The site is currently used as a park-and-ride lot for transit riders, with new roads and a few structures currently under construction. As mentioned previously, this site has already been planned in the Clearfield Station Master Development Plan (MDP).

This plan incorporates the existing neighborhoods within the Zone of Influence into the overall design of the Station Area, while capitalizing on opportunities for positive transformation. At buildout, the Clearfield Station Area will be a cohesive neighborhood that seamlessly incorporates existing apartments and other established uses into the overall structure of the area.

VEHICULAR ACCESS

Access to Interstate-15 is available approximately one-mile northeast of the MDP site along 700 South, and to the southeast along Antelope Drive. State Street (SR 126) is a major north/south arterial that fronts the site to the east and provides access to Clearfield City Center in the north and the greater Wasatch Front region north and south. The Salt Lake International Airport is located approximately 30 miles south of the site and is easily accessible via I-15/Legacy Highway and by FrontRunner with a direct connection along the TRAX light rail system. Local traffic in proximity to the Station Area is controlled by a signal located at the intersection of 1000 East and State Street street and will be controlled with proposed intersections at Station Boulevard and 1450 South later on as the MDP site develops.

PEDESTRIAN & BICYCLE ACCESS

The Denver and Rio Grande Western Rail Trail is a dedicated active transportation facility within the Station Area. This paved facility is part of the Golden Spoke Route and US Bike Route 77, providing trail connections north to Ogden and south to Provo. There are several planned active transportation line and point projects in the area, according to the North Davis Active Transportation Plan and the 2023 WFRC RTP.

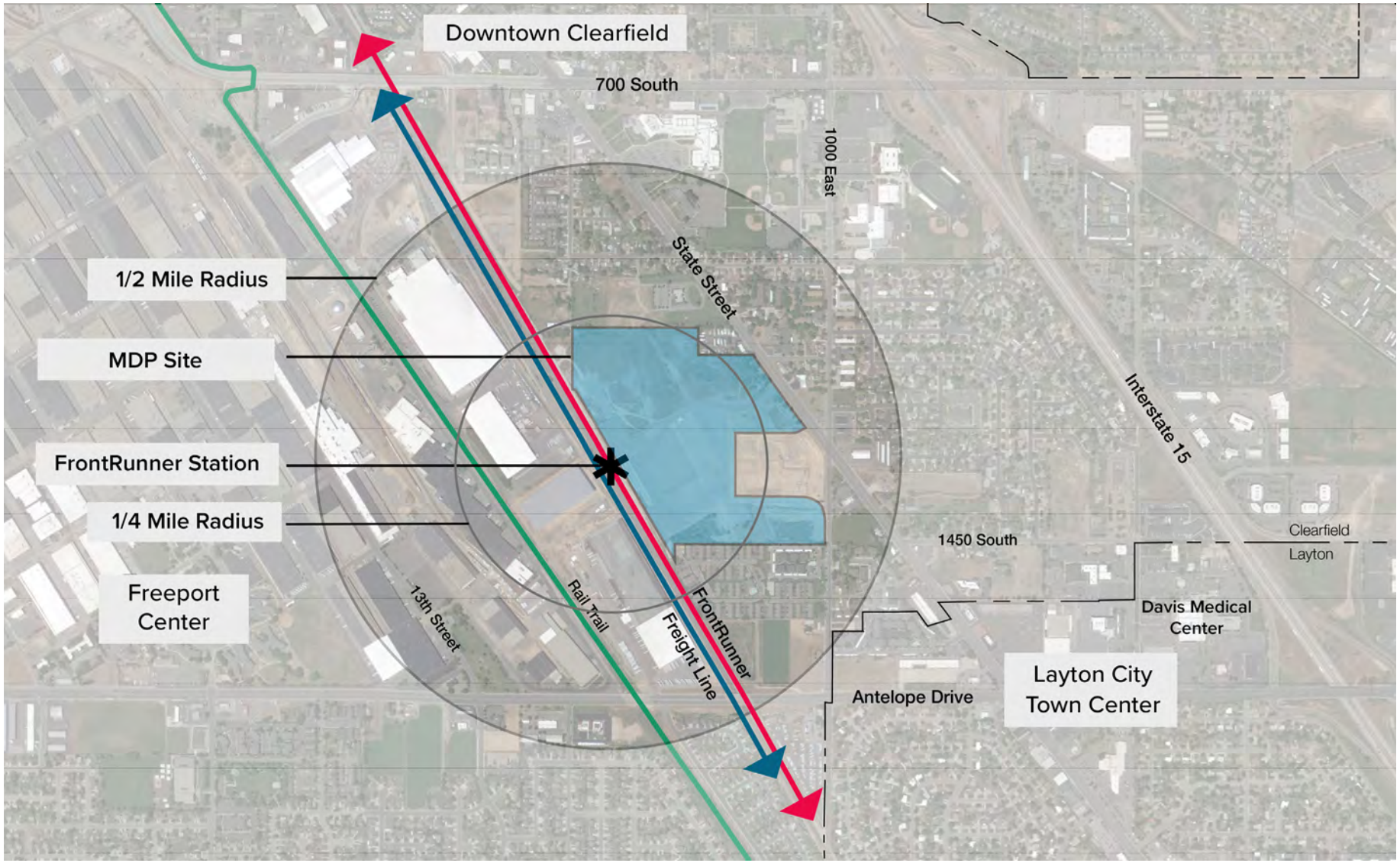
Bike lanes are planned for Depot Street, 1000 East, 1450 South, 700 South, on Antelope Drive west of 1000 East, and Station Boulevard. Additional planned projects include a protected bike lane on State Street, a trail connection from the FrontRunner Station south to Antelope Drive, a shared-use path on Antelope Drive west of 1000 East, and neighborhood byways on 1150/1100 South.

Other planned pedestrian and bicycle enhancements include at-grade pedestrian/bike crossings at 1150 South State Street and at 1000 East and Antelope Drive, and a planned at-grade trail connection between the Denver and Rio Grande Western Rail Trail and the planned shared-use path on Antelope Drive.

The site is connected to the rest of the City through streets and sidewalks on the east side of the property, although the connections are currently limited. The multi-family development on the south of the site is currently separated by a fence with no connections provided into the site. The north boundary of the site currently lacks any connections, although Depot Street is proposed to connect to the site, allowing vehicular, pedestrian, and bicycle connections to the north.

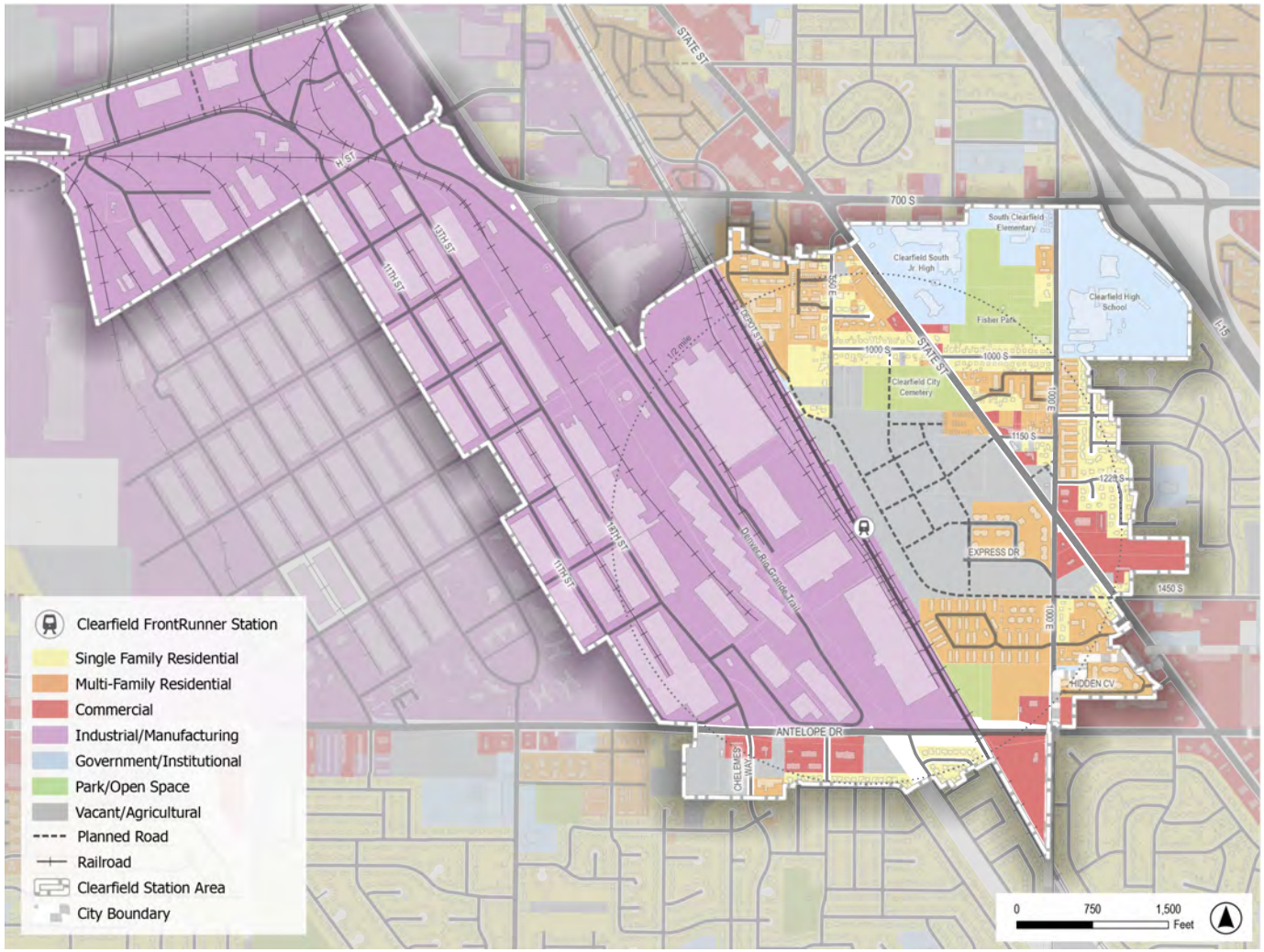
There is very limited access to the property from the Freeport Center to the west of the property. The rail lines adjacent to the site are significant barriers, preventing direct pedestrian and cycle linkages to the Station Area. Similar access and crossing challenges exist along State Street, Antelope Drive and 700 South, due to the heavy traffic and lack of bike / pedestrian infrastructure.

LOCAL CONTEXT MAP



Existing Land Use + Ownership

The accompanying map shows the general land-uses that encompass the Station Area. To summarize, the MDP site is currently owned by the Utah Transit Authority (UTA). Existing parking lots are legally non-conforming uses with maintenance rights. Current land uses surrounding the site are primarily single-family and medium-density residential housing. East of the site is the State Street commercial corridor. The Freeport Center is to the west, which hosts a variety of industrial uses including processing, assembling, manufacturing and warehouse storage. A handful of commercial uses are located on the south side of Antelope Drive.



Existing Conditions Analysis

LAND USE

With a limited amount of vacant land remaining in the Station Zone of Influence, most development is expected to occur within the MDP site. However, opportunity exists for transitional land uses along the edges of the site, which would support implementation of the MDP and help create a more complete station district. The map to the right highlights these sites as Potential Transformation Areas.

TRANSPORTATION

The Clearfield Station Area is currently auto oriented, with little to no access with adjacent land uses. Despite this, a large percentage of station users are pedestrians, even though there has been little infrastructure to support it. Recent infrastructure improvements to the MDP site will help better support pedestirans and cyclists.

Planned trails to the north and south of the station will help accommodate active transportation users, particularly the direct connection to the Denver and Rio Grande Rail Trail.

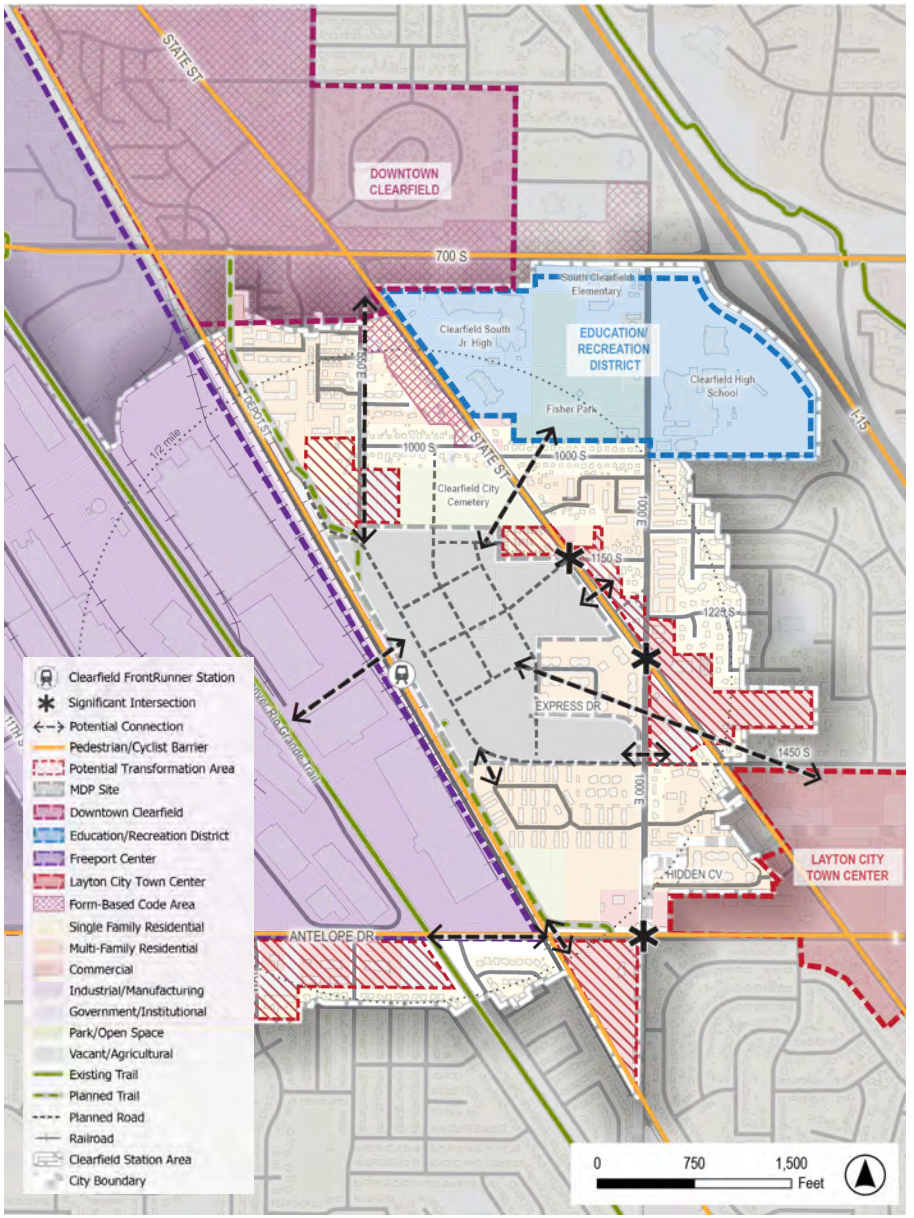
Overcoming active transportation barriers across State Street through well-planned crossings will be key to providing meaningful connections to areas east of the station.

MARKET CONDITIONS

Clearfield City is a regional employment center with employment expected to continue to grow over the coming decades. Northern Davis County is projected to add 20,000 more jobs by 2040.

The city is only capturing 41% of its expected taxable sales for its population. The office space market is experiencing a slow down, with vacancy rates on the rise and negative absorption rates in 2022. The greatest market demand is for residential, flex office, and flex industrial. Strong population and employment growth are also fueling demand for retail. Retail will be the highest revenue generator for the city.

For a more detailed assessment on existing conditions see Appendix A: Existing Conditions Report.



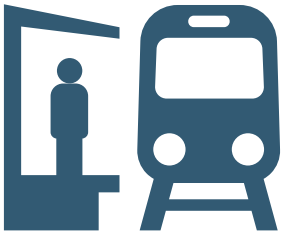
The Need for an Updated Plan. The Potential for this Area.

Why Here? Why Now?

The current development market is thriving and this area possesses a unique mix of factors that could come together to make it a highly sought after development opportunity. The following features and factors clearly illustrate the extraordinary opportunities offered in the Clearfield Station Area, and the favorable external factors that make conditions prime for quality development.

THE FRONTRUNNER STATION

The FrontRunner Station is an incredible asset for Clearfield, as it connects the City to much of the Wasatch Front. Together with the bus system and other transit choices, it provides residents with the option of commuting and getting around the region without a car.



POPULATION GROWTH

As one of the fastest growing states in the country, Utah is expected to grow another 50% by 2040. Unfortunately, rapid growth has led to a lack of housing, which has resulted in significantly increased housing costs in recent years. This has led to a strong demand for more housing, most particularly compact and efficient multi-family residences. There is also a specific need for multi-family housing, which is most effective in high-quality, mixed-use neighborhoods.

STRONG ECONOMIC CONDITIONS

Utah currently has one of the strongest economies in the nation and is one of the fastest growing states in the nation. There is strong pressure for growth in both housing and employment opportunities.

ECONOMIC INCENTIVES

The Station Area is eligible for significant economic incentives that will help make the high-quality development that this document envisions financially feasible. Some of the key programs include funding incentives such as the local RDA/CRA that is currently in place, as well as the federally designated Opportunity Zone incentives that this area is eligible for.

COMMUNITY ASSETS

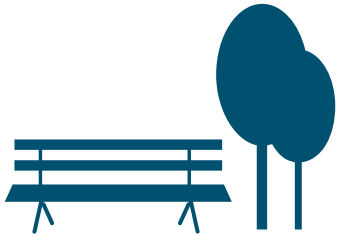
The development of offices and housing in this area will generate demand for amenities that will provide benefits not only for residents and employees of the Station Area, but for the City as a whole. Anticipated amenities include high-quality public open space, enhanced street amenities, retail shops and restaurants, and similar uses and features.

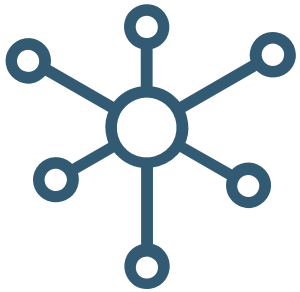
REGIONAL HUB

The station is located across the railroad tracks from the Freeport Center near the Clearfield-Layton border. It is also close to Hill Air Force Base (northeast), Holy Cross Hospital - Davis (southeast), Downtown Clearfield (north), the planned Layton City Town Center (south), and an education/ recreation district composed of three public schools and a park to the northeast.

OPPORTUNITY TO CREATE SOMETHING GREAT

The Station Area provides an opportunity to create something great in Clearfield and Northern Davis County. A thoughtful, collaborative Station Area plan that is based on market realities will encourage interest from the development community to create a great place that will help put Clearfield on the map.





Transit Oriented Development (TOD)

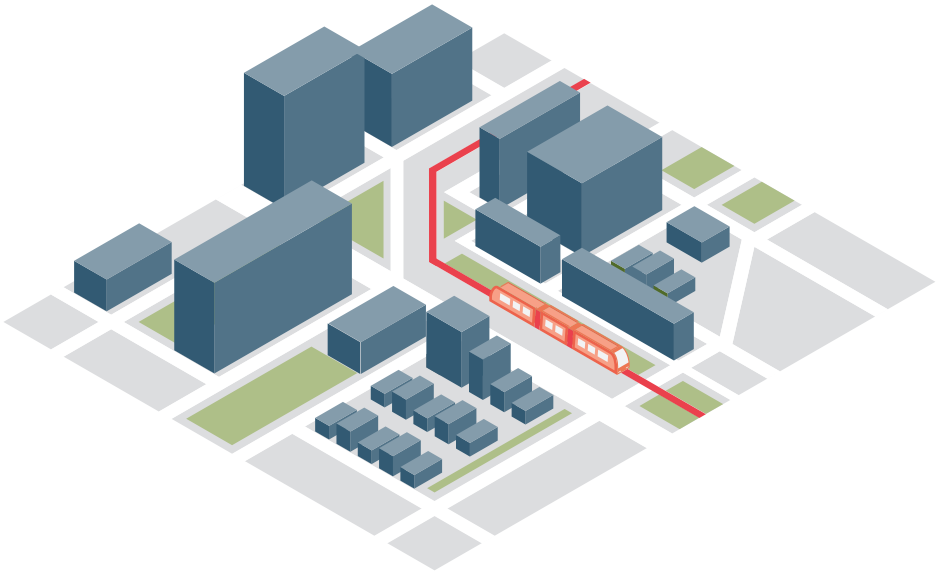
WHAT IS TOD?

With its direct connection to a major transit station, the Clearfield Station Area is ideally suited for Transit-Oriented Development, which is essentially a development strategy that aims to make the most of the development possibilities near a major transit station. It is defined by Reconnecting America, one of the leading TOD organizations, as “a type of community development that includes a mixture of housing, office, retail and/ or other amenities integrated into a walkable neighborhood located within a half-mile of high quality public transit.”

WHAT’S DIFFERENT ABOUT TOD?

For decades, cities have often segregated uses, with single family homes, multifamily homes, offices, retail, civic uses, and more all zoned into their own areas within the larger city. TOD takes a different approach by mixing compatible uses in each neighborhood or city district, which is more akin to the way cities formed before cars became prevalent, and allowing residents to travel long distances between home, work, and other destinations. TOD leverages access to public transportation to create districts where transit, walking, biking, and other modes of transportation come together to create neighborhoods that hearken back to traditional cities and villages. The results are not only great places to live and work, but great destinations that are walkable, unique and provide a close-knit community feel.

Elements of Transit Oriented Development (TOD)



ELEMENTS OF TOD

The major elements of a TOD can be broken down into three categories (which conveniently correspond with the TOD acronym).

- Transportation
- Open Space
- Development

TRANSPORTATION T

TOD brings a range of transportation modes together. Transit, walking, bicycling, driving, and similar modes are served by specially-designed infrastructure and amenities (lanes, parking, transit stops, stations, sidewalks, etc.) that allow residents and visitors to travel safely, conveniently, and comfortably, regardless of the selected mode they choose.

OPEN SPACE O

Public spaces (i.e. plazas, patios, parks, and sidewalks) form the places between transportation facilities and buildings of the Station Area. These are where the life of the station and city play out and where people come together. Open space can be public or private, but should always be designed to be accessible, user-friendly, attractive, and fun for all.

DEVELOPMENT D

These are the buildings and structures where a range of human activities take place. A well-designed mix of housing, employment, shopping, and other uses are the core of station development. This mix results in appropriately-scaled and well-designed buildings that relate to and activate the surrounding open spaces and streets and support transit ridership with essential density.

UTA Goals for TOD

UTA GOALS

UTA-owned land near transit stations must be developed in accordance with Transit-Oriented Development Design Guidelines adopted by the agency. These provide direction for joint-development partners on the design elements that UTA expects to be addressed in development plans, such as connectivity and development form.

Unlike other typical land owners, UTA has development expectations and goals that extend beyond making a profit. As a public transit provider with a clear objective to generate the best return from their investments possible, UTA is also charged with maintaining a strong relation between its property development and public service activities. All development on UTA-owned land near UTA stations is carefully reviewed by UTA staff to ensure compatibility with these goals. Local jurisdictional codes must also be followed when developing plans to ensure they are not in conflict with UTA guidelines.

Clearfield Connected 2023 and the design guidelines it contains have been created to be in accordance with the following goals and UTA's Transit-Oriented Development Design Guidelines. While meeting these goals can be challenging, staying the course will ensure that UTA continues to fulfill its responsibility to the public as a world-class transit operator, which in turn will make TOD not only feasible but a preferred model for future development.

GOAL 1: INCREASE RIDERSHIP

UTA understands that the real estate market drives development feasibility. In fact, appropriately designed residential and employment centers can generate significant increases in ridership. As a result, both vertical and horizontal mixed uses are strongly encouraged at in Station Areas.

Unfortunately, some land uses simply do not generate the level of ridership UTA expects for TOD. For example, an employment center that has low worker densities or hours of operation do not allow workers to utilize the transit system for commuting and are not considered transit supportive. The primary objective of UTA is to maximize the public transit investment at their Station Areas.

GOAL 2: OPTIMIZE DEVELOPABLE LAND AND SUPPORT THE REGIONAL GROWTH VISION

Helping to meet the challenges of rapid population growth along the Wasatch Front is a critical goal for UTA. Land uses that reduce the negative impact of this growth are at the heart of the UTA TOD program. This includes support for the 3% Strategy developed by Envision Utah, which calls for 33% of future development to occur on 3% of available land. It also supports the Wasatch Choice Vision, that calls for the development of higher density "centers" and "corridors" across the Wasatch Front that are served by high capacity transit.

Both strategies were developed with tremendous public input and regional coordination, and address issues like poor air quality, traffic congestion, auto dependency, and housing equity. They also support regional economic development and improved access to transit through first and last mile strategies.

GOAL 3: GENERATE REVENUE

Like any property owner and development partner, UTA expects to realize a suitable return when developing its property. While UTA receives most of its operating revenue from a local option sales tax, joint-development is seen as a new and innovative revenue approach to help fund future improvements and operations.

Design Guidelines Overview

INTENT

This document contains design guidelines that regulate development in Clearfield Station Area. The design guidelines correspond with the TOD elements outlined on page 18, and are found in the Transportation + Mobility (T), Open Space + Public Realm (O), and Buildings + Architecture (D), sections of this document.

The intent of the Design Guidelines is to establish strong urban design principles and quality development, while also establishing a clear and coherent design theme and a consistent look and feel throughout the Clearfield Station Area.

The guidelines provide a design vocabulary that is unique to Clearfield Station. They promote a sense of aesthetic continuity, ensure high quality development, and help establish a clear and distinct community identity.

DESIGN REVIEW COMMITTEE (DRC)

A Design Review Committee (DRC) should be established to review all development in the Clearfield Station Area to verify each project meets the vision for the greater Station Area. It is also the responsibility of the DRC to ensure all applicable design guidelines are followed.

INTENT STATEMENT

The intent statement establishes the over-arching design intent for each category or topic. This has been structured to help designers understand the rationale and aspirations that lie behind the design guidelines. In the event the guidelines and standards are not clear or appropriate, the intent statement shall be referenced as the primary source of direction for project designers and the Design Review Committee (DRC).

DESIGN GUIDELINES

The design guidelines provide specific direction that designers should reflect in their projects. The guidelines ensure that a level of consistency is achieved across the various projects that will occur at the station and surrounding areas, thereby helping all participants in the design and development process achieve a sustained and even level of quality.

The design guidelines typically use the term “should” or “may” to indicate ideas and directions that should be implemented when possible or practical. Conversely, when the word “shall” or “must” is applied, the designers and developers are required to meet the stated requirements to obtain approval from the DRC.

In the event that a guideline is not applicable or appropriate, a process is established to provide flexibility, whereby the DRC may grant exceptions if the applicant can clearly demonstrate that a more appropriate solution is consistent with the intent, vision and project goals as presented in this document.

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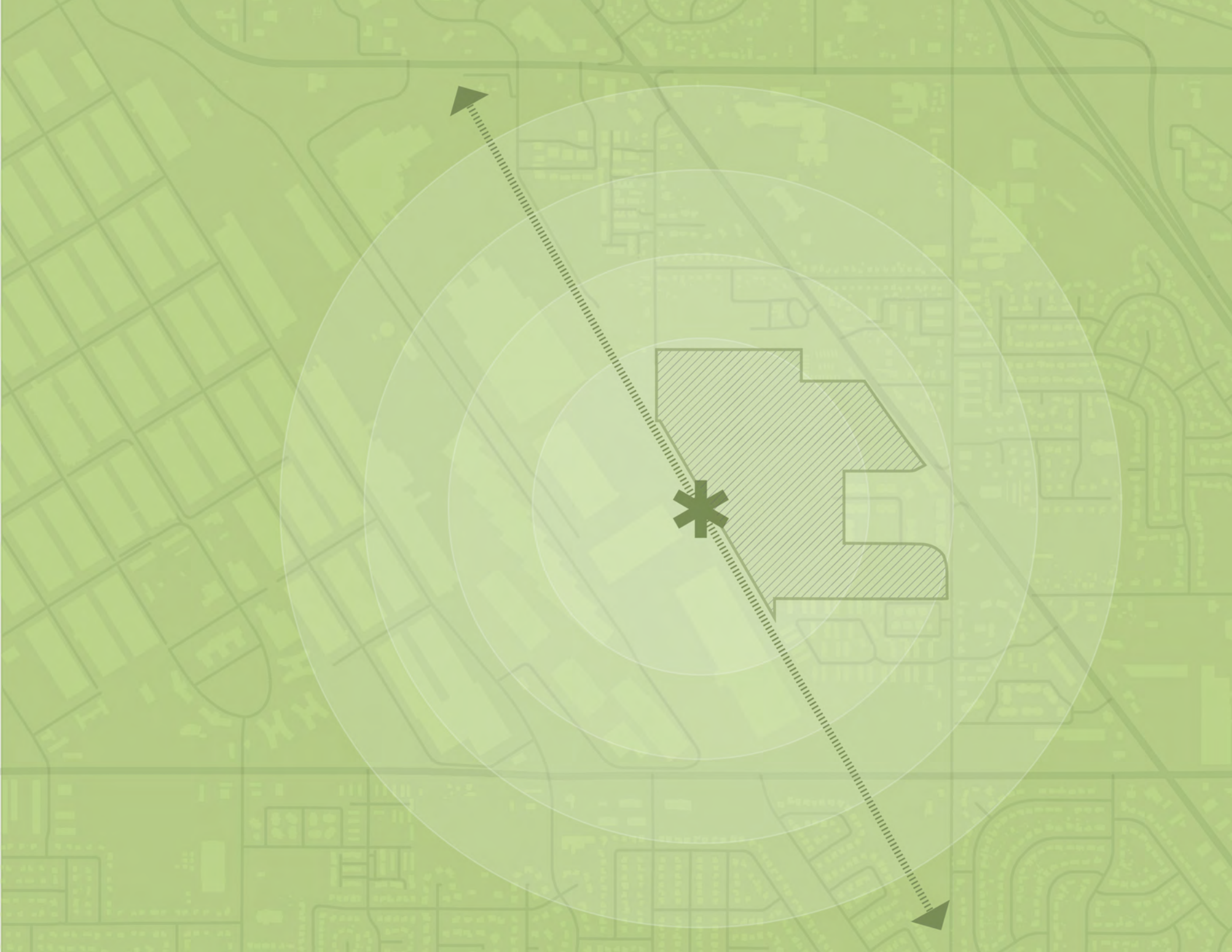
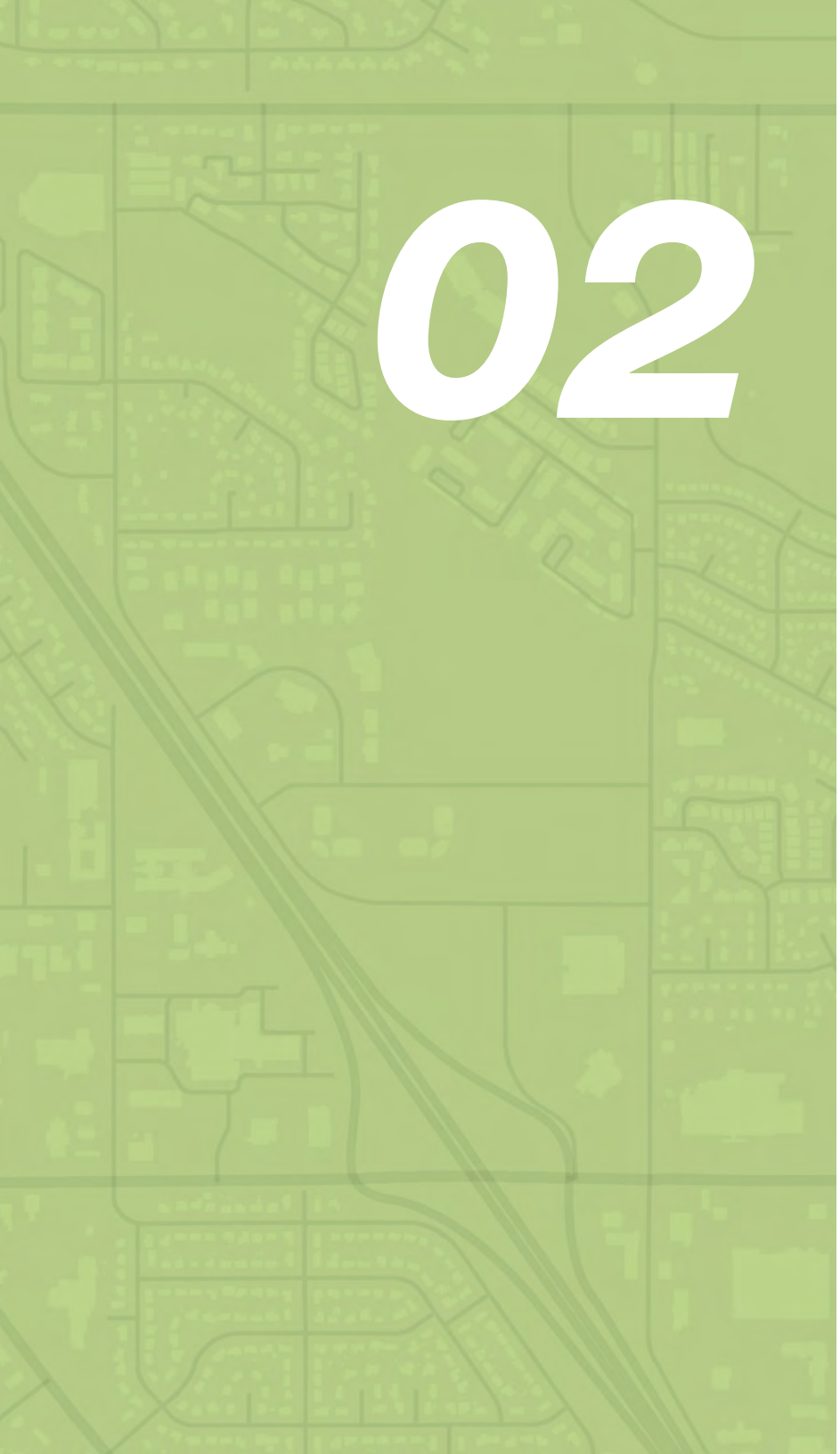




02 PROJECT VISION + GOALS

VISION

CLEARFIELD STATION

The Clearfield Station Area is a thriving, mixed-use, walkable neighborhood that leverages multiple transportation options to create a complete community connected to the Wasatch Front. It will become a regional destination that provides abundant opportunities for employment, living, shopping, recreation, and more, which will all merge together to create a great place.

The 12 Goals for this Project Are...

01 INCREASE THE AVAILABILITY & AFFORDABILITY OF HOUSING

02 PROMOTE SUSTAINABLE CONDITIONS & PRACTICES

03 ENHANCE ACCESS TO OPPORTUNITIES

04 INCREASE TRANSPORTATION CHOICES & CONNECTIONS

05 CREATE AN EXCITING DESTINATION

06 CREATE A COMPLETE COMMUNITY

07 PROVIDE COMMUNITY ASSETS

08 PROMOTE QUALITY URBAN DESIGN

09 MAINTAIN CONVENIENT TRANSIT ACCESS

10 GENERATE TRANSIT RIDERSHIP

11 CONNECT THE STATION AREA TO THE CITY + REGION

12 PROMOTE THE CITY'S INDUSTRIAL HERITAGE

Project Goals for Clearfield Station

INCREASE THE AVAILABILITY AND AFFORDABILITY OF HOUSING

As a primary TOD area in the region, Clearfield Station Area is critical for merging the affordable housing goals described in the Clearfield General Plan. It is therefore essential that the Station Area includes residential densities necessary to facilitate affordable housing options within ½ mile of the station, and in the process provide affordable living opportunities that are aligned with citywide housing and transportation goals.

PROMOTE SUSTAINABLE CONDITIONS AND PRACTICES

The Station Area and the areas that lead to it should exemplify sustainable design and development practices necessary for maintaining the environmental integrity of the city and region. Chief among these practices is the conservation of water resources through efficient land use and application of state-of-the-art practices, the improvement of air quality by reducing fuel consumption and motor vehicle trips, and establishing parks, open space, and recreational opportunities within the plan area.

ENHANCE ACCESS TO OPPORTUNITIES

The Station Area should leverage a mixed-use, TOD design approach to maintain and improve the physical and logical connections between housing, employment, education, recreation, and commerce. Enabling opportunities in proximity to the transit station should be supported through ancillary actions that provide enhanced broadband connectivity throughout the area.

INCREASE TRANSPORTATION CHOICES AND CONNECTIONS

As a regional mixed-use TOD destination, the Station Area should include the necessary infrastructure to support all modes of transportation. This will not only make better public transit investments, but also help ensure the station is a safe environment for pedestrians, cyclists, and other non-motorized modes of transportation. Such actions should be further supported through the creation of manageable and reliable traffic conditions and be aligned with regional transportation plans.

CREATE AN EXCITING DESTINATION

Clearfield Station Area provides an unique amenities that help create an exciting user experience. It will be a significant employment center and destination for people from surrounding communities and the larger Wasatch Front.

The public realm (streets and open spaces) is designed in a way that makes the neighborhood walkable and friendly, providing unique and exciting experiences for users.

CREATE A COMPLETE COMMUNITY

The Clearfield Station Area provides a mix of land-uses that work together to create a complete community. The primary land uses are office, commercial, and residential supported by retail, restaurants, food markets, public gathering spaces and other neighborhood services, all within walking distance of each other and the station.

PROVIDE COMMUNITY ASSETS

Clearfield Station Area is an asset to the larger community, providing a number of community assets such as parks, plazas, recreation facilities, and vibrant, walkable streetscapes. All development in the neighborhood should promote livability for residents and visitors.

PROMOTE QUALITY URBAN DESIGN

Clearfield Station Area is designed and planned according to sound urban design principles that promote walkable, safe, and livable streets. All development exhibits quality architecture, landscape architecture, and urban design, which is unified to create a great “place.”

MAINTAIN CONVENIENT TRANSIT ACCESS

The Clearfield FrontRunner Station continues to be a convenient and functional park-and-ride destination for nearby residents. Parking is provided in close proximity to the station platform to accommodate commuters, and the existing bus access loading/unloading zone will remain to encourage further transit ridership. Convenient automobile and bus access will be provided without jeopardizing safe pedestrian circulation. Improvements to the Station Area will enhance the user experience for park-and-ride users by providing a transit plaza with convenient retail options.

GENERATE TRANSIT RIDERSHIP

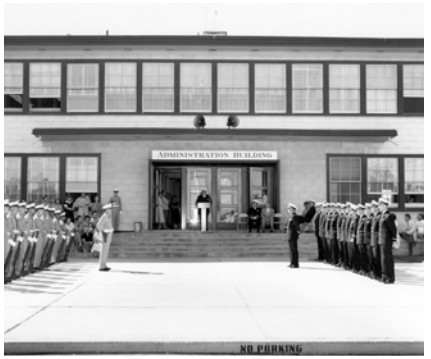
The land uses and location of new development are arranged to maximize transit ridership by locating the densest uses closest to the platform, with the least dense uses on the periphery. This also includes developing uses that act as origins and destinations for transit riders.

CONNECT THE STATION AREA TO THE CITY + REGION

Clearfield Station Area incorporates multiple transit modes that provide residents, commuters, and visitors with a variety of transportation choices that connect the Station Area to the city and region. These include commuter rail, bus, and personal vehicles, as well as safe and friendly pedestrian and cycling facilities. Additional streets are created that connect Clearfield Station to the rest of the city.

PROMOTE THE CITY'S INDUSTRIAL HERITAGE

Clearfield Station Area promotes the city's long history as an industrial job center by integrating a contemporary industrial look and feel to the architecture and design of the neighborhood. This industrial character is displayed through the spirit of the place, providing the amenities and experiences needed to support a modern-day workforce and help it perform as one of the leading employment centers in the region and state.



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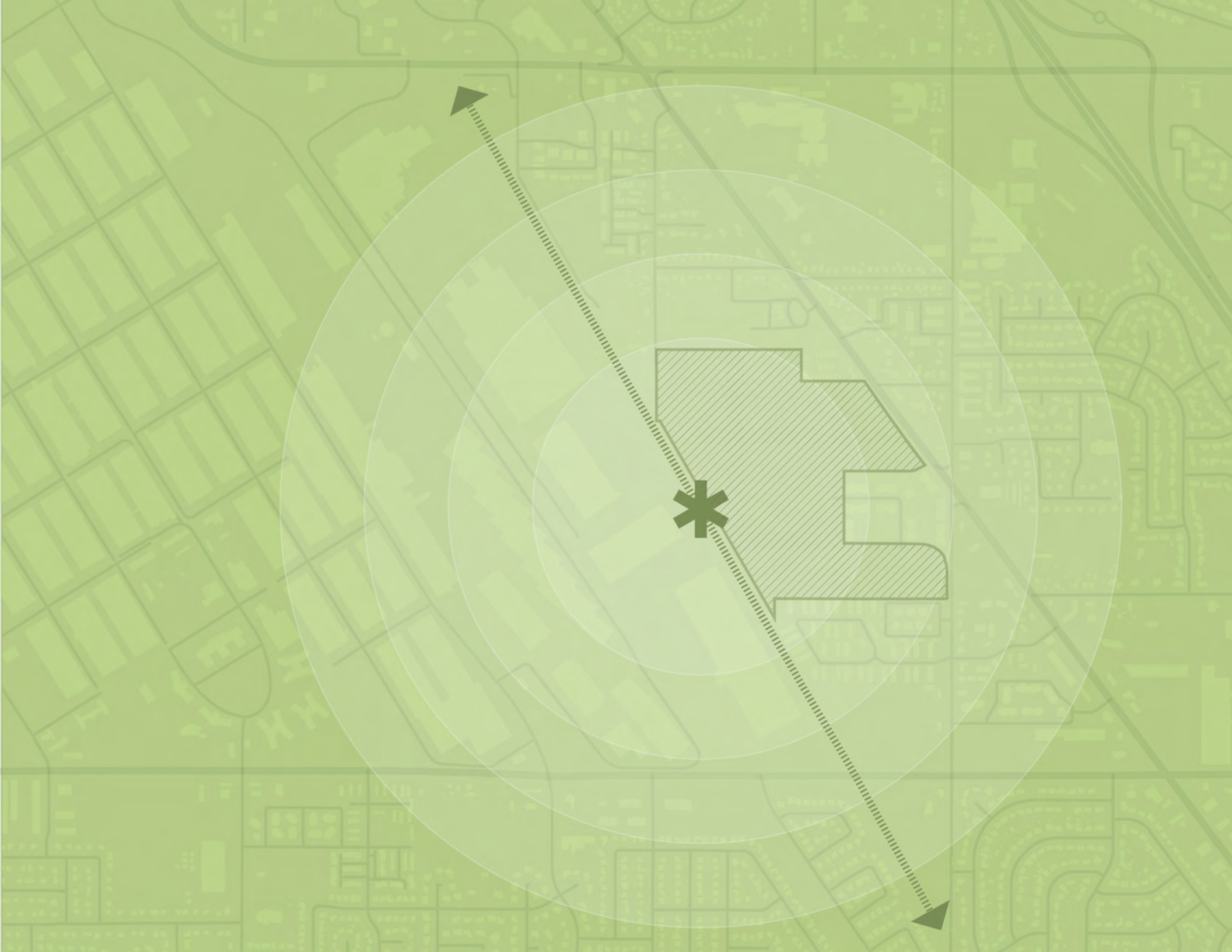


03

FRAMEWORK +CONCEPT PLAN

Framework +Concept Plan

OVERVIEW

This framework and concept plan builds upon the established vision and goals (*Chapter 2: Project Vision + Goals)* and the *Existing Conditions Analysis* (see *Appendix A)*. It provides a foundation for future development within the Station Area, with a focus on currently vacant and underutilized land. This concept plan includes four layers of varying detail: Districts, Framework, Future Land Use, and Illustrative Master Plan. Together these layers provide a basis for the development of a thriving walkable station district.

INTENT

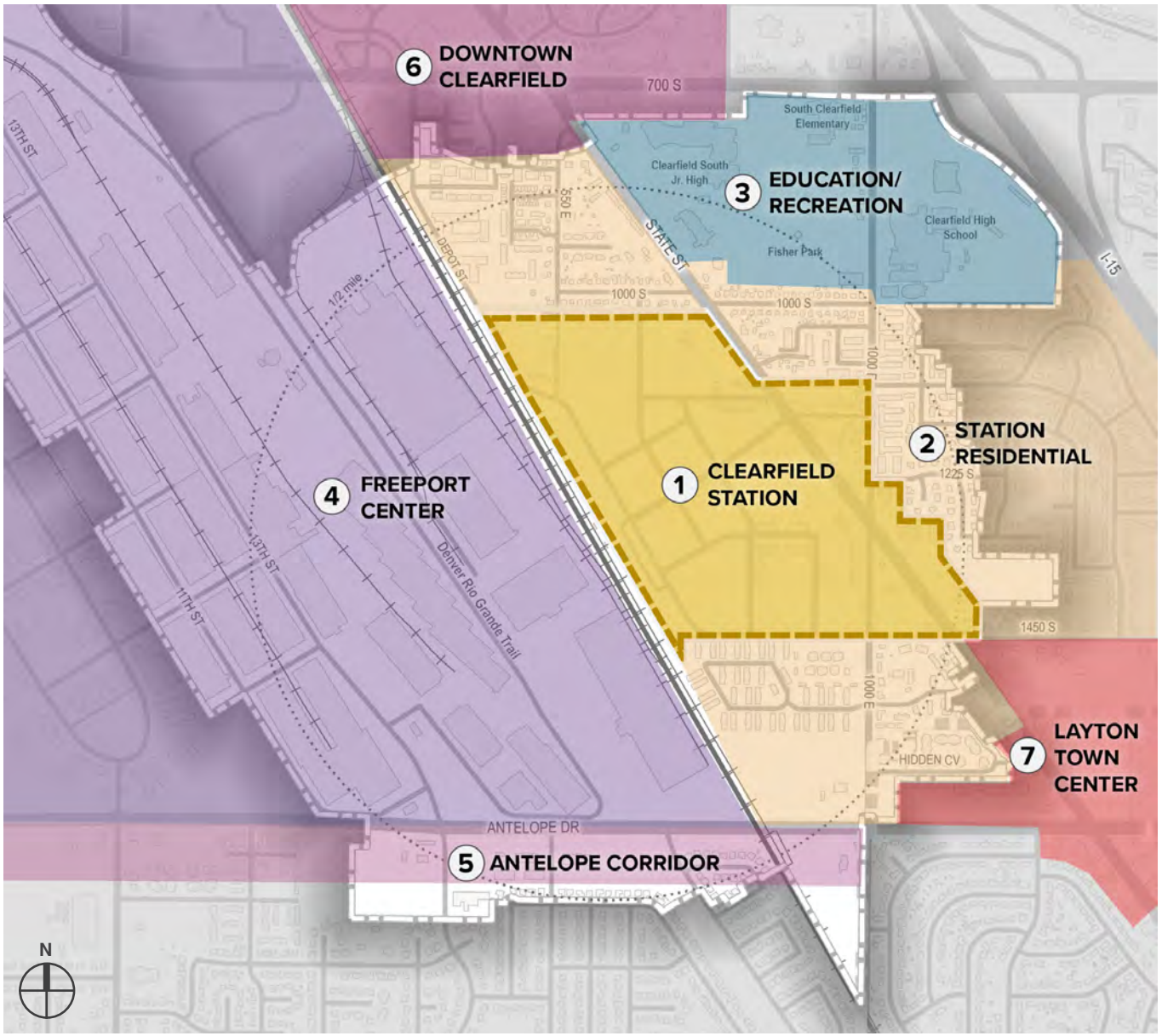
Provide a clear plan for future development of Clearfield Station Area that reflects existing conditions and the vision and goals established for the area.

ILLUSTRATIVE RENDERING: PERSPECTIVE VIEW: VILLAGE SQUARE

Rendering Credit: IBI Group

Districts

The station Zone of Influence is divided into five districts within the 1/2 mile Zone of Influence (Clearfield Station, Station Residential, Education/ Recreation, Freeport Center, and Antelope Corridor), each with a unique character based on their land uses. The zone of influence also has relationships with two additional districts, namely Downtown Clearfield and Layton Town Center. Each district contains a unique personality established by the specific setting, character and uses.



DISTRICT CHARACTER

1 CLEARFIELD STATION

Clearfield Station is the heart of the neighborhood and the focus of this plan. It is the most dense and active district, where people come to work, live and connect. As a mixed-use district, it provides connections between the station and office, residential, retail, and public open spaces.

2 STATION RESIDENTIAL

This district encircles the Clearfield Station District on the north, east, and south. The area provides a range of residential and ancillary uses that help to create a transition between the densely developed MDP Site and lower-density areas beyond.

3 EDUCATION/RECREATION

This district offers access to a full range of K-12 public schools, including Clearfield High School, North Davis Junior High, and South Clearfield Elementary. The district also includes high-level park and recreation opportunities at the Clearfield Aquatic and Fitness Center and Fisher Park.

4 FREEPORT CENTER

This is an important and well-established industry and job generating district. Separated from the station by a north-south running regional rail line, the district is physically close but difficult to connect due to the barriers created by the rails. As a result, Freeport Center has limited effect and influence on the Clearfield Station Area.











5 ANTELOPE CORRIDOR

This district straddles the south edge of Antelope Drive, bringing a mix of roadway-oriented commercial and medium-density residential uses to the area. The district helps buffer the lower density residential uses directly to the south, while offering additional commercial and housing options within the greater Station Area.

6 DOWNTOWN CLEARFIELD

Downtown Clearfield lies just outside the Clearfield Station Area. Together, the two centers help to establish Clearfield as one of the most diverse, dynamic, and mixed-use communities in the region.

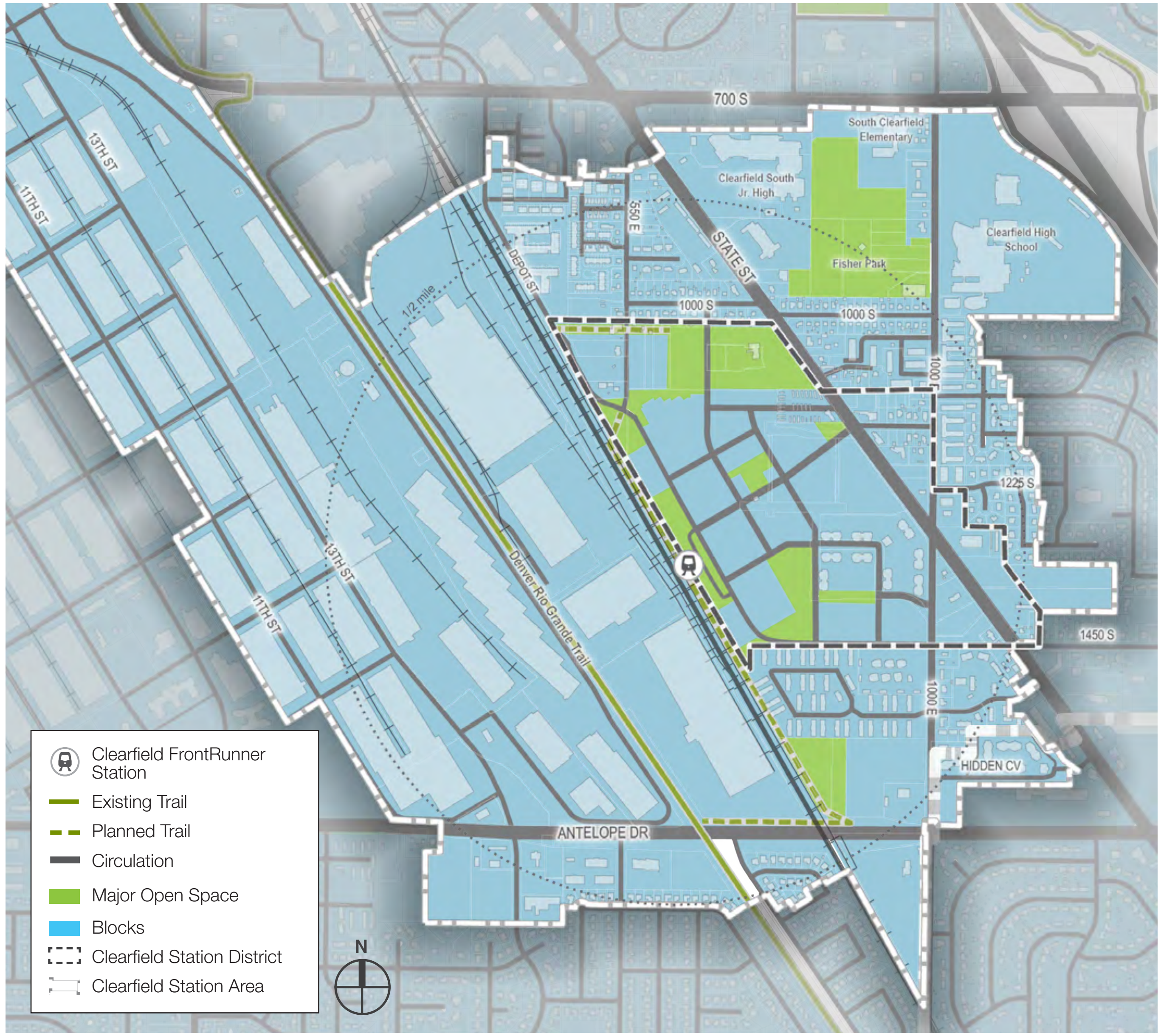
7 LAYTON TOWN CENTER

The Layton Town Center lies just beyond the half-mile zone of influence of the station, with Holy Cross Hospital -Davis and well-established residential neighborhoods just beyond. A strong connection between the Station Area and the town center will increase transportation, office, retail, commercial and residential opportunities.

Framework Plan: Streets, Blocks & Open Spaces

The Framework Plan for the Clearfield Station Area shows the defining features of the planning area, including the circulation system, block patterns, and open spaces. The physical arrangement of the streets and blocks establishes the form of the area, the framework for the Station Area, and its surroundings.

The Framework Plan highlights the key elements of the Station Area and how they are aligned and coordinated. Merging a connected street network with appropriately sized blocks and an integrated open space system is critical for ensuring the vision for the Station Area is realized.



Future Land-Use

The Clearfield Station Area is a diverse neighborhood that contains a variety of land-uses within the Station Area and its zone of influence. When complete, the area will merge existing neighborhoods and uses with new ones, resulting in a complex mix of complementary uses. These can be developed as horizontal mixed use projects (a variety of single use buildings) or vertical mixed use projects (multiple uses within individual buildings).

The accompanying land-use diagram details and refines the envisioned land uses for the area. The Clearfield Station District is where the bulk of new development and change is envisioned and is the focus of many of the subsequent sections of this document.

Future land-uses are arranged with the highest intensity uses concentrated near the center of the MDP site adjacent to the platform and are assumed to generate high transit ridership.

Table 1 indicates the anticipated areas and percentages of land allocated to each use.

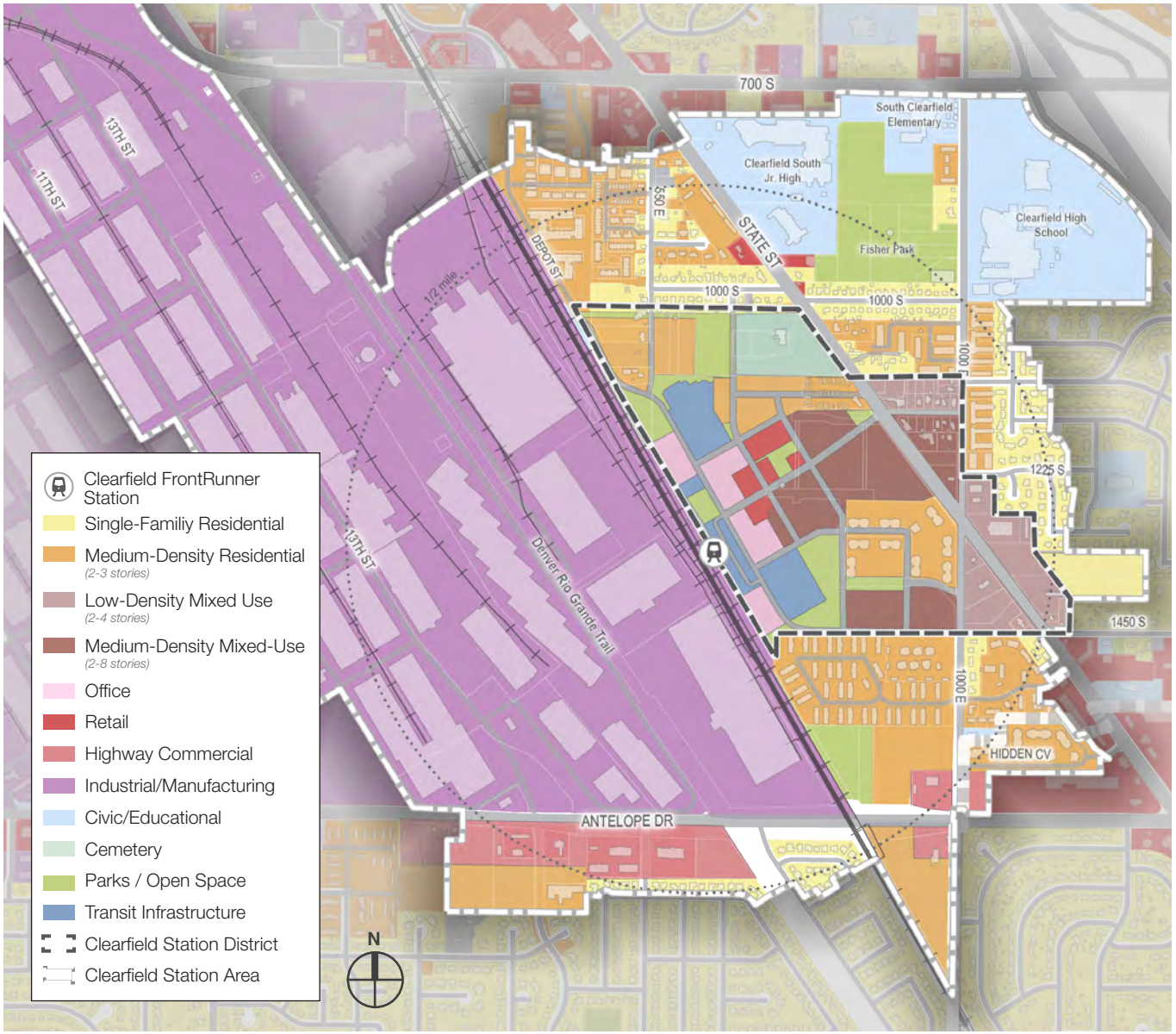


TABLE 1: FUTURE LAND USE ACREAGES

	Station District		Station Area Outside Station District		Total Station Area	
Name	Acres	Percent	Acres	Percent	Acres	Percent
Single-Family Residential	0.0	0%	42.7	6%	42.7	5%
Medium-Density Residential	21.9	23%	87.6	12%	109.5	13%
Low-Density Mixed-Use	14.3	15%	0.0	0%	14.3	2%
Medium-Density Mixed-Use	14.8	16%	0.0	0%	14.8	2%
Office	5.5	6%	0.0	0%	5.5	1%
Retail	5.6	6%	0.0	0%	5.6	1%
Highway Commercial	0.0	0%	19.0	3%	19.0	2%
Industrial/Manufacturing	0.0	0%	533.7	71%	533.7	63%
Government/Institutional	0.0	0%	48.7	6%	48.7	6%
Cemetery	6.5	7%	0.0	0%	6.5	1%
Park/Open Space	17.1	18%	21.1	3%	38.2	5%
Transit Infrastructure	9.6	10%	0.0	0%	9.6	1%
Total	**95.3**	**100%**	**752.8**	**100%**	**848.1**	**100%**

SINGLE-FAMILY RESIDENTIAL

Existing single-family residential neighborhoods should be maintained and incorporated into the structure of the Clearfield Station Area. A limited amount of new single-family residences may be warranted to help improve transitions with other uses in the area.

MEDIUM-DENSITY RESIDENTIAL

These areas include a mix of townhome, duplex, and/or multi-plex units that provide “Missing Middle” housing opportunities within convenient walking distance to the commuter rail station. Heights should generally be limited to three stories.

LOW-DENSITY MIXED-USE

These areas provide a mix of lower-density housing options including multi-plexes and small apartment buildings, from two to four stories in height. Ground floor uses are envisioned to include a mix of residential, office, and retail uses.

MEDIUM-DENSITY MIXED USE

Primarily concentrated around the intersection of Station Boulevard and State Street, these areas provide medium-density mixed-use buildings between two and eight stories in height. Ground floor uses are envisioned to include a mix of retail, office, entertainment, restaurant, general commercial and residential amenity spaces. The highly visible location will provide retail services for both the Clearfield Station Area and traffic on State Street. Housing and/or office uses are encouraged over the retail ground floor.

OFFICE

The office zone accommodates office buildings in the heart of the neighborhood, directly adjacent to the commuter rail platform. The central location of this use will help establish the identity of the neighborhood as not just a residential community, but a complete community centered around an employment hub. The central location of this zone requires some active ground floor commercial uses in prominent areas.

RETAIL

The retail zone provides a retail element near the station. This highly visible location will provide retail services for both the Clearfield Station Area as well as vehicular traffic from State Street. Housing and/or office uses are also possible, with retail limited to the ground floor.

HIGHWAY COMMERCIAL

These areas provide highway-oriented retail opportunities along Antelope Drive and the intersection with 1000 East. These are high visibility locations that will provide retail services for motorists operating in the vicinity of the area, including vehicular traffic from State Street. Carefully-incorporated residential and office uses are encouraged on the upper floors.

INDUSTRIAL/ MANUFACTURING

Freeport Center uses are anticipated to grow and evolve over time, bringing greater numbers of employees to the area. To help ensure the center takes advantage of the transit, retail, office, and entertainment opportunities with the Station Area, vehicular, microtransit, pedestrian, and cycling linkages should be considered as part of any future redevelopment in the Freeport Center.

CIVIC/EDUCATIONAL

The area is well served by three K-12 public schools and a public park north of the Station Area. These facilities should be preserved and enhanced to meet the needs of the Station Area and the Clearfield community as a whole.

PARK / OPEN SPACE

A range of new parks, plazas, greenways, and streetscapes are proposed to establish the Station Area as a robust and engaging city center. These uses should be mixed with retail shops and other public amenities to help facilitate the creation of a gateway experience into this new and dynamic district. These efforts should be combined with upgrading efforts for Fisher Park and other existing parks on the periphery of the planning area, to help ensure a high level of park and open space opportunities are available to serve the expanded population in the area. The public space zone contains the neighborhood's significant public open spaces, including recreational and functional open spaces. The plan shows the existing drainage basin, as well as a central location for a village square.

CEMETERY

The existing cemetery will be retained, with pedestrian access integrated into the park and open space network.

TRANSIT INFRASTRUCTURE

The transit infrastructure within the Station Area provides transit users with central, comfortable, safe, and convenient infrastructure that accommodates all modes of transit. A transit plaza will provide civic space, as well as amenities that enhance the overall transit user experience. This includes small buildings and kiosks for food and beverage, bike rentals and micromobility, ticket stations, and other amenities geared toward transit riders. Transit uses are served by parking locations within 1,000 feet of the commuter rail platform to ensure an appropriate amount of parking is available for park-and-ride transit users. Parking in this area can also act as shared parking for employees and visitors in the neighborhood.

Station District Illustrative Master Plan

This section focuses on the **Station District**, as it contains the majority of proposed redevelopment (see Future Land Use on page 37).

The Illustrative Master Plan presents an example layout of how the Clearfield Station District could develop to meet the vision and principles established for the project. As previously described, this district area represents the most development-ready zone within the Station Area. The other districts are well-established and expected to generally remain within their current form.

The building sizes, shapes, and uses shown here are flexible and are intended to demonstrate the vision for the development. The layout and arrangement of the buildings is also flexible.

ILLUSTRATIVE RENDERINGS

Concept renderings demonstrate the general character and feeling of the Clearfield Station Area. They are meant to illustrate the general vision, not specific design solutions.

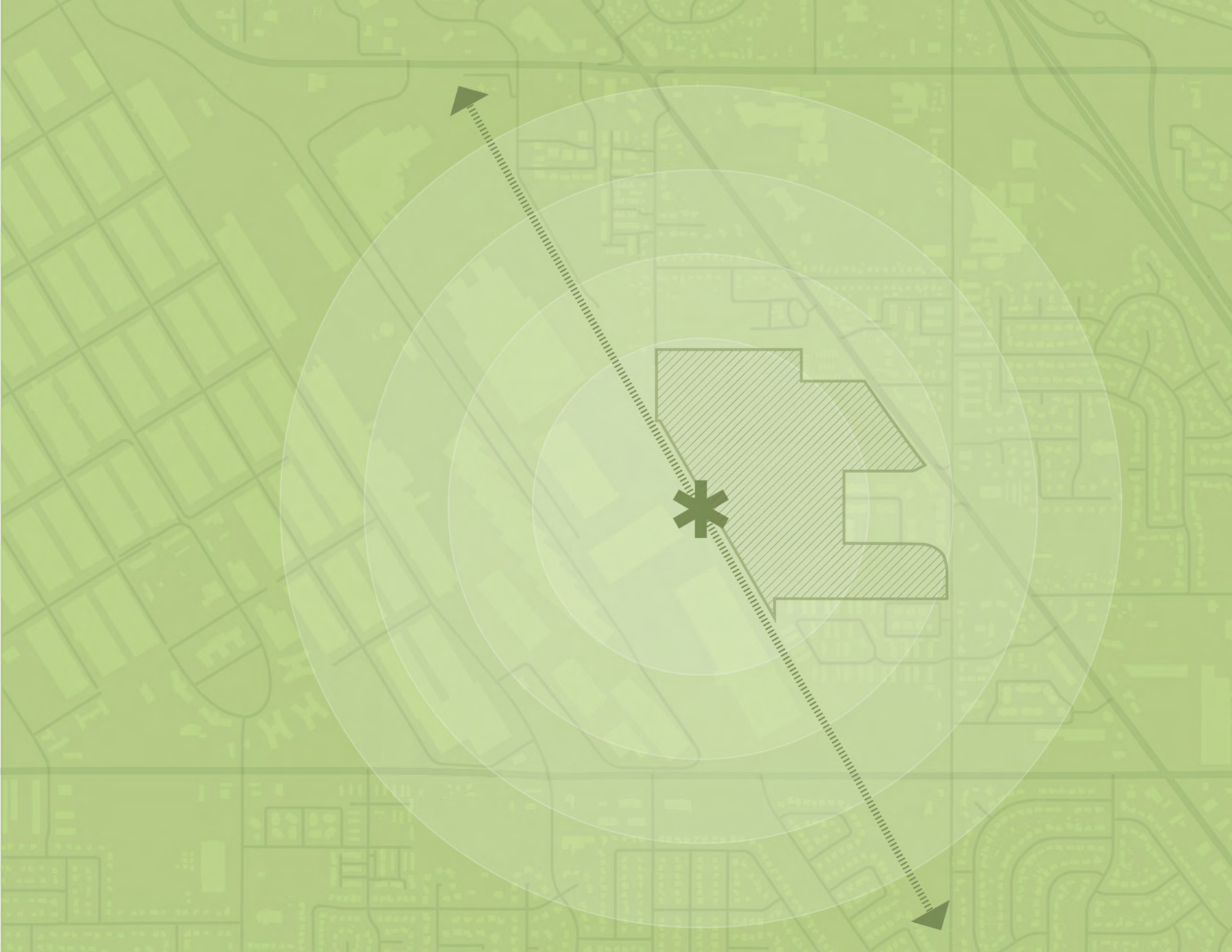
The images on this page provide two views along Station Boulevard looking toward the FrontRunner Station – one viewed from above the street, and the other from a street level perspective.

ILLUSTRATIVE RENDERING: STATION BOULEVARD LOOKING WEST

Rendering Credit: IBI Group

ILLUSTRATIVE RENDERING: STATION BOULEVARD LOOKING WEST

Rendering Credit: IBI Group



04

MARKET STUDY + ECONOMICS

DRAFT

Markety Study + Economics

INTRODUCTION

With the proposed development within the Clearfield Station Area Plan, there is tremendous potential for Clearfield City (City) to generate increased revenues. This analysis calculates the possible revenue generation for the land use types, factoring in the City's main General Fund revenue sources: Property Tax, Sales Tax, Municipal Energy Tax, and Class B/C Road Funds.

ASSESSED VALUES IN DAVIS COUNTY

For the most accurate revenue projections, average assessed values were calculated for different development types that are found within the Station Area plan. These are based on similar properties throughout Davis County, according to 2023 values provided by the County.

TABLE 2: AVERAGE DAVIS COUNTY ASSESSED VALUES

Land Use Category	Average Assessed Value
Office	$186.84/SF
Mixed-Use	$198.67/SF
Retail	$135.82/SF
Multi-Family	$237.72/SF
Single Family	$186.87/SF

Source: Davis County Assessor's Office

POTENTIAL REVENUE GENERATION

Table 3 demonstrates the approximate acreage and total revenue generation of each major land use type within the Station District. This analysis does not include the entire Station Area, focusing in on just the Station District where the majority of land use change is proposed (see Districts Map on page 33 and Future Land Use Map on page 37).

The mixed-use development is planned to contain both residential and commercial uses, in a primarily vertically stacked configuration. There are additional uses proposed within the Station District, but they are primarily non-revenue generating properties such as open spaces, parking garages/areas, and transit zones.

These calculations represent additional revenues the City may collect as the project is developed. The City will continue to receive revenue from other areas within the Station Area boundaries, however they are not reflected in these calculations.

Total revenues shown demonstrate an aggregated total of major General Fund revenue sources for the City: Property Tax, Sales Tax, Municipal Energy Tax, and Class B/C Road Funds. The revenue projections may vary from what is actually collected, depending on what is developed. For example, the mixed-use development may include office, retail, or some combination of the two, along with multi-family residential. As Table 3 demonstrates, the total revenue collected varies depending on what use is found within the mixed-use area.

TABLE 3: STATION DISTRICT DEVELOPMENT REVENUE GENERATION

Land Use Category	Approximate Acres	Total Revenue (Mixed-Use with Office)	Total Revenue (Mixed-Use with Retail)
Stand-Alone Retail	15.9	$398,857	$398,857
Retail	5.6	$189,055	$189,055
Mixed-Use	28.0	$991,638	$1,373,441
Office	5.5	$190,135	$190,135
Multi-Family Residential	22.9	$585,004	$585,004
Low-Medium Density Residential	3.5	$52,017	$52,017
Total	**81.4**	**$2,406,706**	**$2,788,509**

The development type with the greatest revenue generating potential is mixed-use with a focus on retail as the commercial development. This is in large part thanks to the impact of sales tax. The increased taxable sales projected for these businesses results in more potential revenue generation. It is interesting to note that multi-family residential development has the second greatest revenue. With the rise in online shopping, homes have become miniature retail stores, with cities able to collect point of sale revenue from these sales. With more dense residential developments, this increases the revenue collection.

Funding Sources

The City has a number of avenues at its disposal to help incentivize development in this area, or to help offset development costs. The following table summarizes a number of these different funding opportunities.

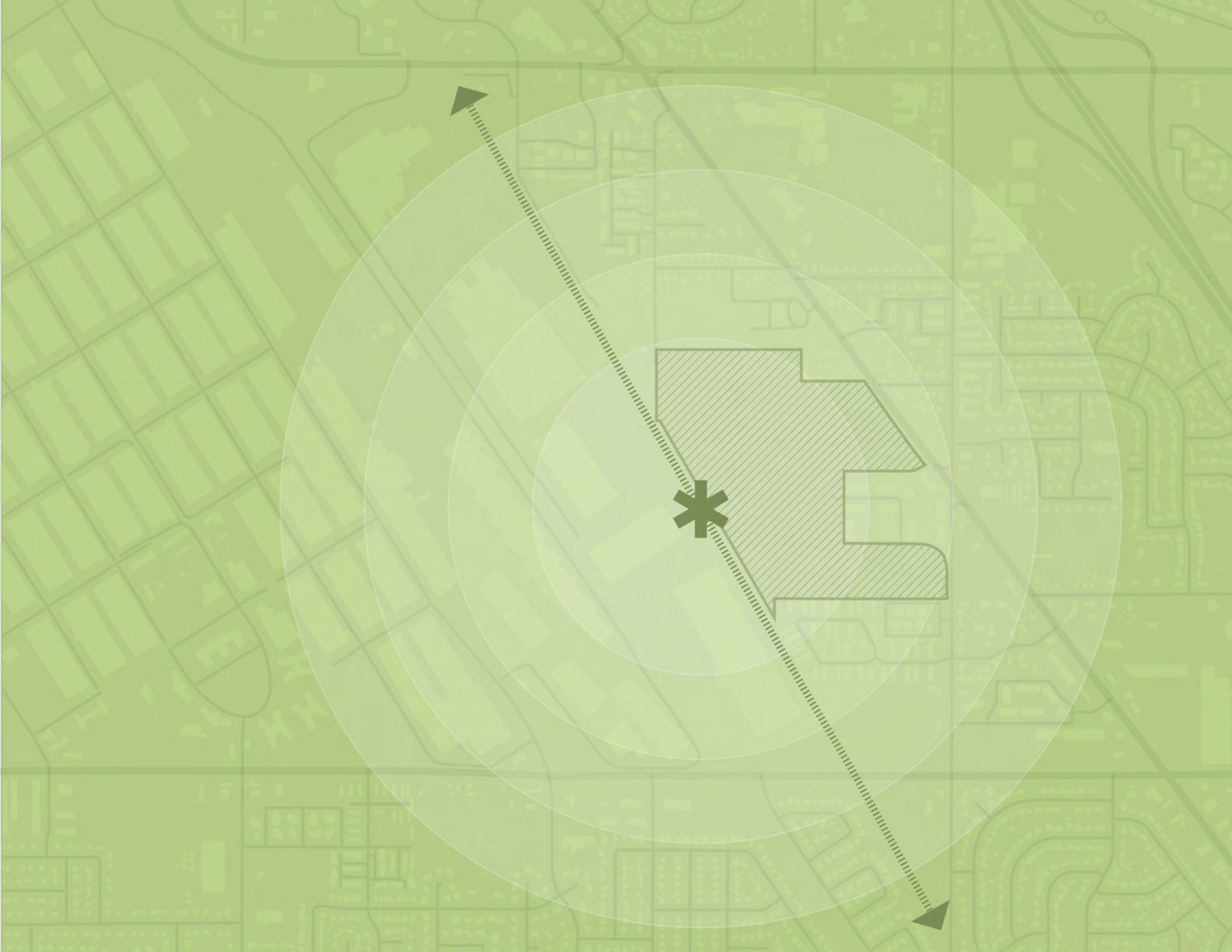
TABLE 4: AVAILABLE FUNDING MECHANISMS

Funding Source	Advantages	Disadvantages
Tax Increment Financing (Community Reinvestment Area – CRA)	Taxes generated in an area are spent in same project area; Potential participation by other taxing entities; Can include specialized TIF areas such as HTRZs and TRZs	Must get approval of other taxing entities – subject to political will
Bonding (General Obligation GO, Sales Tax)	GO bonds have the lowest rates; Sales tax bonds do not require public approval/ vote; Funds are available immediately	GO bonds require public vote
Utility Bond	Immediate funding; No public vote required	Rates may need to be raised to cover utility costs; Used only for utilities
Impact Fees	New development pays its own way – proportionate share of capital costs; Could create separate service area for separate impact fees if extraordinary costs apply; Could be a long-term repayment source for other funding mechanisms	Receipt of impact fees takes place over many years and is not guaranteed; Not every project is impact fee eligible
Public Infrastructure District	Off the City's books; Those who benefit pay; Cost is much lower than other development financing; Used instead of impact fees and is a steady stream of revenue	Willingness of all property owners to establish a PID; Ongoing PID governance; Competitiveness of site with additional taxes
Special Assessment Area	Those who benefit pay; Could be used in conjunction with tax increment, thereby encouraging development and use of increment to pay assessments	Willingness of property owners to establish a SAA – requires 60 percent or more to agree (based on assessment method); Need to come up with equitable assessment method
Public-Private Partnerships	New revenue stream that pays for infrastructure	Relatively untried; Would lose control of rates to private investor
Grants	Additional money that does not come from the City; Ability to enhance funds already committed to projects	Funds are subject to availability from the granting institution; often times requires matches or other restrictions

Economic Incentives

HOW COULD POTENTIAL USES BECOME MORE FEASIBLE AT CLEARFIELD STATION?

- **Opportunity Zone** – This area falls in a designated Opportunity Zone. This is a major investment incentive that creates a superior advantage to most other Frontrunner Stations.
  - Significantly increases investment appeal and makes office and retail more financially feasible (investors will accept lower capitalization rates (creating higher values) due to the tax advantages).
- **Funding Incentives** – The area is part of an existing CDA. Available funding incentives should be readily marketed to attract uses the city desires.
  - Additionally, the city and UTA should consider the formation of a Transportation Reinvestment Zone (TRZ), a newly adopted economic development tool that focuses on tax increment financing for transportation specific improvements. This funding option, while very similar to an RDA/CRA, does not require a ten percent allotment to affordable housing. It also allows for the land owner and city to have greater control regarding what can be built.
- **Increase Daytime Population** – an increase in daytime population will benefit retailers. This can be accomplished by the following:
  - Entertainment draw/attraction
  - Strong office population
  - Strong residential population (to capture remote workers)



05

BUILDINGS + ARCHITECTURE

DESIGN GUIDELINES

Buildings + Architecture

OVERVIEW

The layout and arrangement of buildings and parking typically have the most significant impact in creating a walkable destination. The arrangement of buildings and parking reinforces the quality and functionality of the building facades, streets, and open spaces and how all of these elements work together to create a more livable environment.

The following guidelines are meant to apply to the Station District (see District Map on page 33) and other mixed-use development areas within the Station Zone of Influence.

INTENT

To establish strong urban design guidelines for the Station District and other mixed-use development areas within the station Zone of Influence that will serve as the foundation to thoughtfully choreographing buildings, open space and streets.

PRIMARY FACADES

Primary facades establish a consistent streetwall with active ground floor uses. As illustrated on the map on the following page, they often line primary streets – the most important and walkable streets in the neighborhood. Primary facades should address the street with windows/transparency, high quality building materials, and a main building entrance.

Retail, residential, and/or other active uses are encouraged where a building faces a primary street.

SECONDARY FACADES

Secondary facades should be used when a building fronts multiple streets. The secondary facades should include windows/transparency and high quality building materials. However, such treatments are not as essential as they are on primary streets. Retail, residential and/or other active uses are encouraged. Blank walls should be limited.

PARKING

Parking areas should be located in the rear and to the sides of buildings, and should not face the Primary streets.

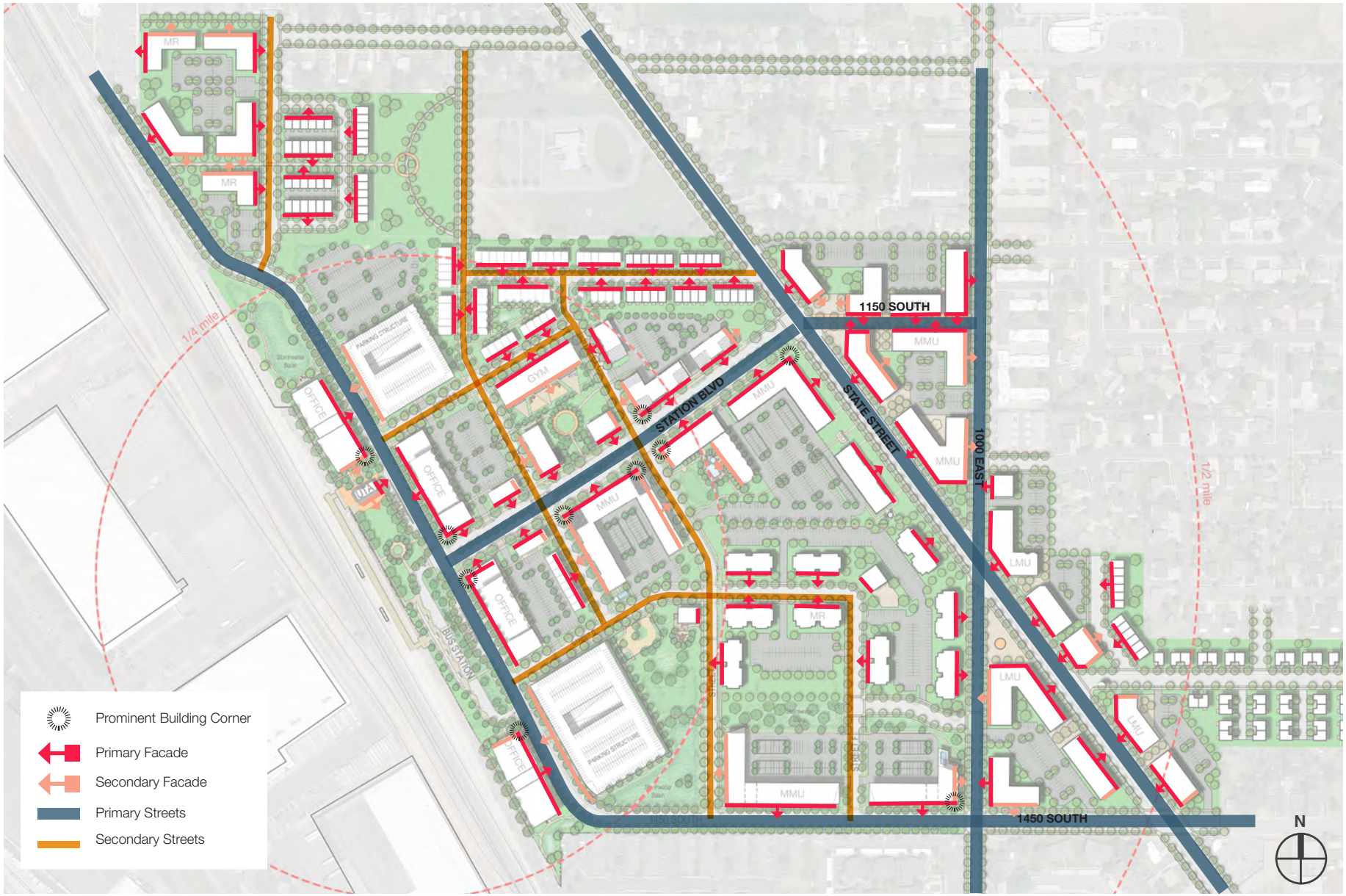
Buildings should wrap and screen parking areas from the street where possible and/or applicable.

OPEN SPACE

Open spaces should be located throughout the Station Area in prominent locations and include various sizes and user experiences.

Open space design and programming should respond to the surrounding uses and buildings.

See *Chapter 6: Open Space + Public Realm* for details.


Prominent Building Corner
Primary Facade
Secondary Facade
Primary Streets
Secondary Streets
1150 SOUTH
1450 SOUTH
STATION BLVD
STATE STREET
1000 EAST
1/4 mile
1/2 mile
MR
MMU
LMU
OFFICE
GYM
PARKING STRUCTURE
BUS STATION
UTA
N

Architectural Style

INTENT

To establish a specific “look and feel” throughout the study area to unify the area and create a design theme that is appropriate for the Clearfield Station Area.

DESIGN THEME - “CONTEMPORARY INDUSTRIAL”

The design theme for the Station Area is contemporary industrial style that is modern, yet is rooted in the industrial character of its surroundings. This industrial character helps to create a brand for the area and provides a common theme that ties the neighborhood together.

There are no historic buildings on or directly adjacent to the MDP site. Therefore, this presents an opportunity to create a new and unique, industrial inspired architectural style.

The design guidelines section will provide detailed design guidelines that should be followed to achieve a consistent and coherent architectural style as outlined above.

HISTORICAL PRECEDENTS

There are no historic buildings currently existing in the area, and therefore, historic precedents should be considered from around Northern Utah. Precedents should be based on traditional industrial architecture from the early to mid 20th Century that are/ were found in Northern Utah.

The images to the right display buildings found in Clearfield, as well as nearby cities such as Ogden, Layton, and Kaysville. These are just a few examples of existing and former buildings from the area that should provide inspiration for architects and designers.

PRECEDENT IMAGES

1. Administration building at the Clearfield Naval Supply Depot (now Freeport Center)
2. Layton Sugar Company
3. American Can Company (Ogden)
4. DaVinci Academy (Ogden)
5. Pillsbury Company (Ogden)
6. Warehouse (Ogden)
7. Kaysville Flour Mill
8. American Can Company (Ogden)


3
AMERICAN CAN COMPANY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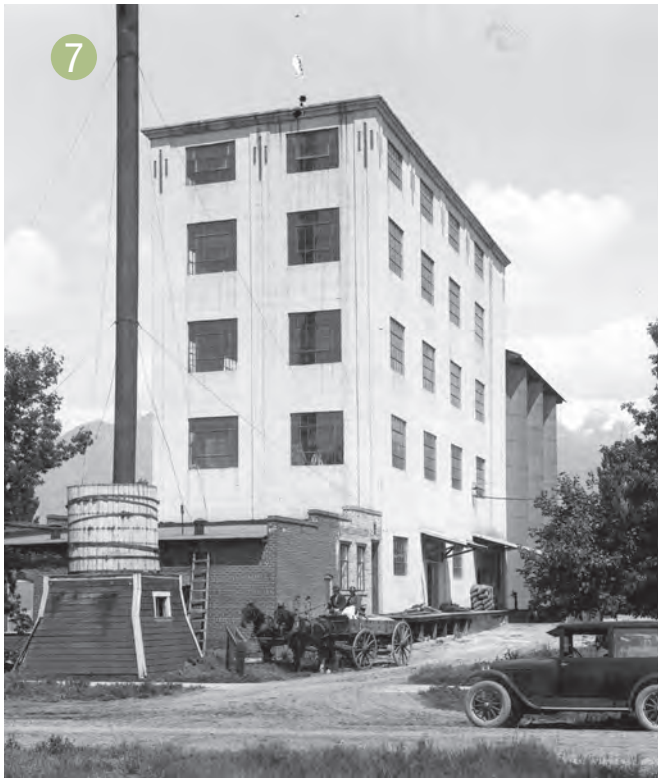
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8

Architectural Style

CONTEMPORARY PRECEDENTS

The buildings on the following pages demonstrate images found throughout the country that achieve the goal of creating a contemporary, modern building that is also rooted in historic industrial architecture. They reflect the character and level of detailing envisioned for the Clearfield Station Area.

The images illustrate a range of precedents, from more abstract interpretations, to more traditional recreations. These images should be used for reference and inspiration for new development on the Clearfield Station Area.

Elements often associated with industrial architecture include, but are not limited to:

- Large volumes that house large-scale industrial activities such as a mill, factory, foundry, refinery or power plant.
- Predominantly brick and steel buildings.
- Specialized building elements and apparatus such as tall chimney stacks, exposed materials circulation apparatus, hoists and chutes.
- Exposed structural elements.
- High interior spaces with exposed brick, steel and timber.
- Divided light windows.















CHARLES SMITH WINES

Materials + Colors

INTENT

To ensure a consistent application of complementary and high quality materials throughout the neighborhood that will reinforce the unique identity and a sense of place.

DESIGN GUIDELINES

- Building materials should reinforce the industrial theme by using brick, steel, timber, and concrete.
- Building materials should be durable, high quality, and authentic materials that have a long life, age well, and reflect a high level of craftsmanship.
- Building materials should add texture, depth, and visual interest to the building's facade.
- Materials should turn corners and incorporate thoughtful transitions between facades, spaces, uses, and structures.
- Materials should generally be limited to one or two predominant materials and one or two accent materials in order to keep buildings visually coherent and uncluttered.
- EIFS stucco and corrugated steel should be limited to no greater than 30% of the building's facade.

COLOR

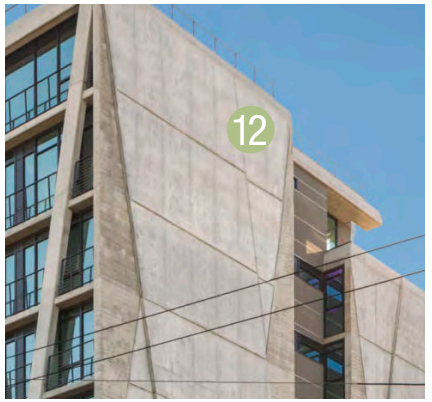
Industrial buildings typically are defined by dark, heavy colors, such as red brick, black steel and dark concrete.

While those colors and materials are appropriate, lighter colors are highly encouraged in order to give the district a more fresh, contemporary look. Pops of color are also encouraged to accent and bring a feeling of excitement and uniqueness to the neighborhood.

1. Pop of Color as an Accent

ACCEPTABLE MATERIALS

2. Brick
3. Tumbled Brick
4. Black Steel
5. Colored Pre-Finished Metal Panels
6. Corrugated or Corten Steel
7. Stone
8. Wood / Timber
9. Curtain Walls Glazing System
10. Industrial Sash / Divided Light Windows
11. EIFS Stucco
12. Concrete

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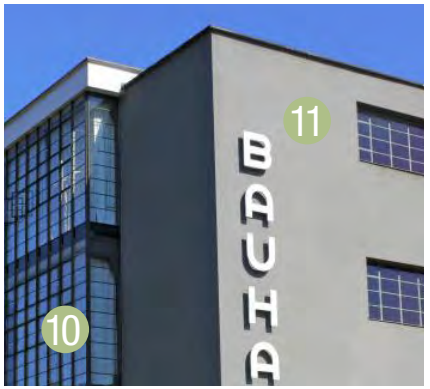
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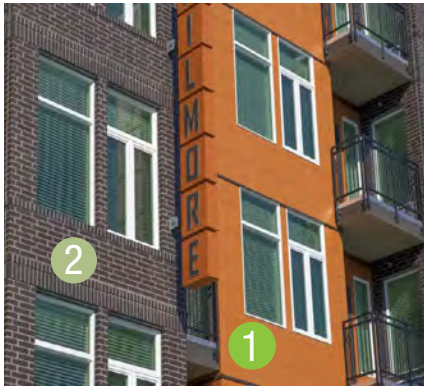
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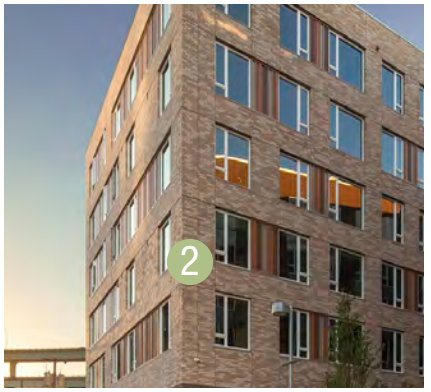
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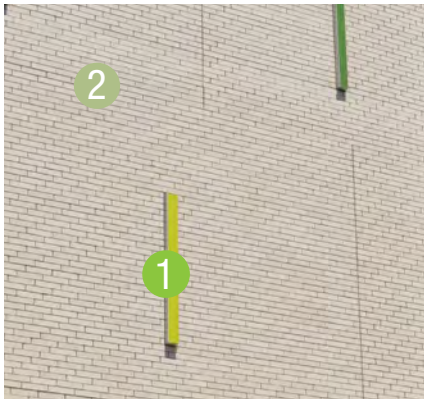
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Architectural Massing

INTENT

To facilitate building shapes that fit comfortably within their surroundings, are friendly and unobtrusive to pedestrians, achieve an attractive urban form, and are visually interesting.

DESIGN GUIDELINES

- The most dense uses and tallest building heights should be located in Medium-Density Mixed-Use areas (see Future Land Use Map on page 35).
- Buildings should be designed to a human scale, with particular attention on the ground floor
- Floorplates should generally be less than 30,000 sf per building, with no minimum floor plate size.
- Buildings should create a consistent streetwall on both sides of the street to create “enclosure.”
- Gaps in the streetwall should be limited as much as possible.

PRECEDENTS

1. Building has clearly defined top, middle, and base.
2. Multiple buildings combine to create a good, pedestrian-scaled streetwall. The buildings also demonstrate a clearly defined top, middle, and base.

ARCHITECTURAL MASSING

Architectural massing is key in creating an inviting pedestrian environment. Care should be taken to understand the form of buildings and their impact on the public realm.

This graphic demonstrates how careful architectural massing creates an interesting and pedestrian friendly urban environment.

1. A consistent streetwall on both sides of street, as well as vertical elements such as trees, create a sense of enclosure.
2. A variety in building height, scale and bulk creates a dynamic and visually interesting experience.
3. Buildings include stepbacks on upper stories in the building facade to ensure pedestrian scale and increase sunlight and air on the street.
4. The ground floor of buildings addresses the street and has a high level of transparency.
5. Windows, podium decks and balconies overlook the street.

Facade Articulation

INTENT

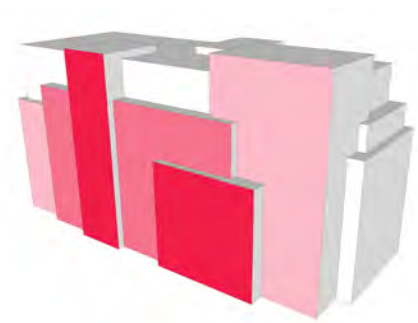
To purposefully articulate building facades in order to make the various building functions legible through the massing of the buildings, as well as to reduce the building's apparent mass.

HORIZONTAL ARTICULATION

The first 20 feet of height of building faces should have a rhythm of modules that serve to break down the scale of the building face. A module is defined as a portion of the facade that is differentiated from the adjacent facade by a change in the line of the face of the building, and/or a substantial change in material color or fenestration. Characteristics between modules should relate to one another to achieve a unified composition.

DESIGN GUIDELINES

- Modules should generally be no longer than 40 feet.
- Building facades should avoid being long, monotonous, and repetitive.
- Articulation should be used to create interest and help establish a strong sense of design and identity.
- Massing, building details, and entries should be proportionately scaled.



Vertical planes are articulated through massing and add interest to the building

VERTICAL ARTICULATION

The three segments of the building - the base, middle and top - should be articulated by such elements as cornices, string courses, stepbacks, recesses and projections, changes in floor height, and changes in color and material.

DESIGN GUIDELINES

Top Section

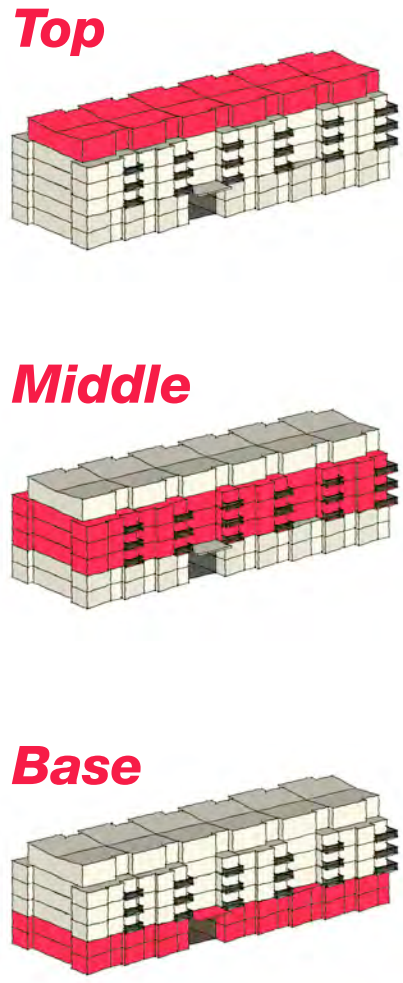
- Should define the roof line.
- Stepbacks are encouraged for penthouse units or to otherwise break up the mass and define the building top.
- Incorporate green roofs and other usable roof space where possible.

Middle Section

- Should define the principle building facade.
- Should differentiate from the base and top sections through the use of massing, materials, and/or color.

Base Section

- Should relate directly with the street.
- Should “ground” the building.



Setbacks

INTENT

To ensure all buildings consider their relationship with the public right-of-way with the appropriate setback distance for each unique use, and to create a human-scaled, defined streetwall.

DEFINITION

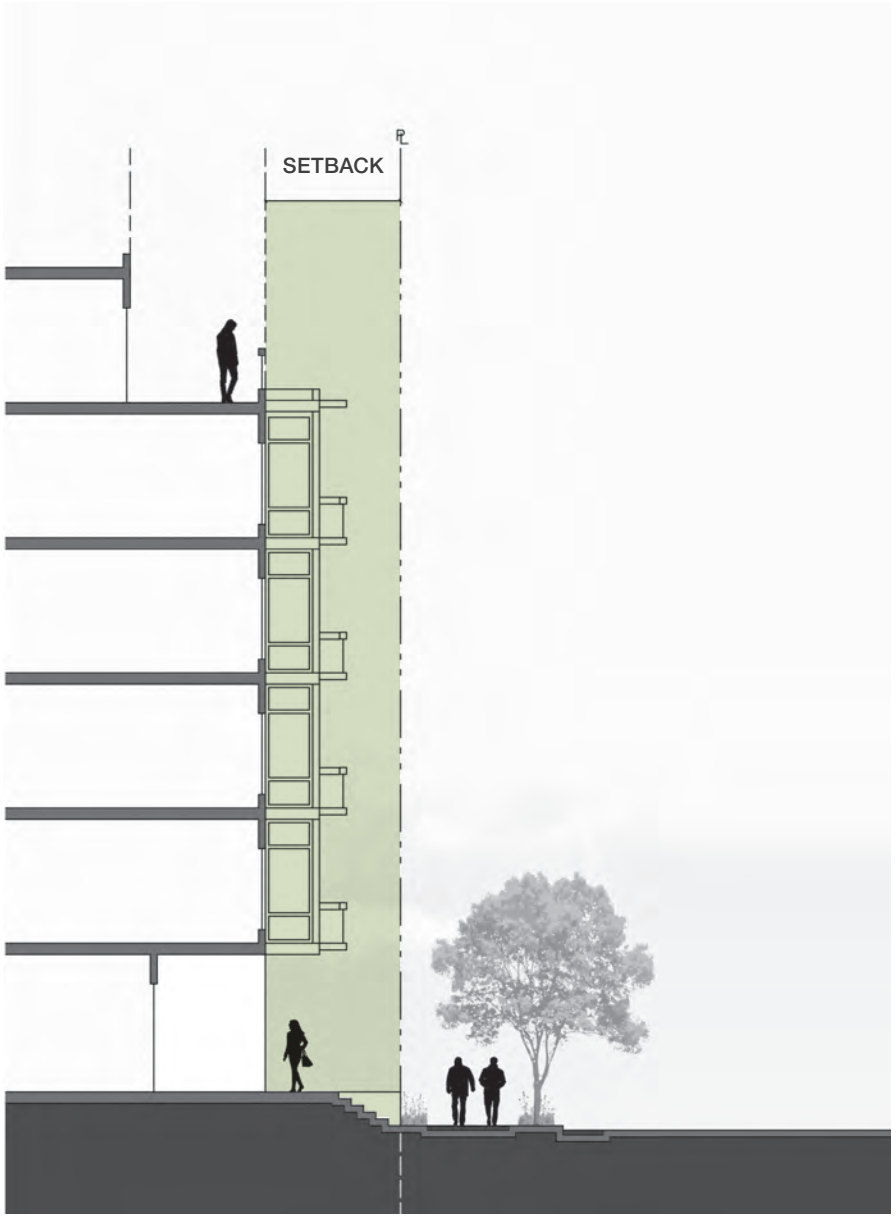
The setback refers to the space between the building facade and the public right-of-way line.

DESIGN GUIDELINES

- Maximum setback distance is 15 feet unless a building fronts a plaza or open space.
- There is no minimum setback distance.
- Generally, setbacks should be no more than 5 feet.
- Setbacks, when used, should enhance the ground level environment and pedestrian experience. Examples include:
  - To create a space for outdoor dining in front of retail/restaurant spaces.
  - To provide landscape and/or a patio/stoop in front of ground level residential entrances.
  - To enhance the architectural character of the building facade at street level.
  - Entrance courts for office or residential building lobbies.
  - To add interest and bring nature into the streetscape through planters and landscape. In-ground planters are only alllowed in front of ground-floor residential units.
  - Setback may be raised above sidewalk level to create feeling of semi-private space.
- See pages 68 - 61 for ground floor - base activation design guidelines.

PRECEDENTS

1. Setback is used for outdoor dining.
2. Setback along ground floor residential units contains stoops and landscape.
3. Setback is raised to create sense of semi-private space.
4. A strongly defined streetwall is created, despite having some setbacks in the building face and at the ground floor.

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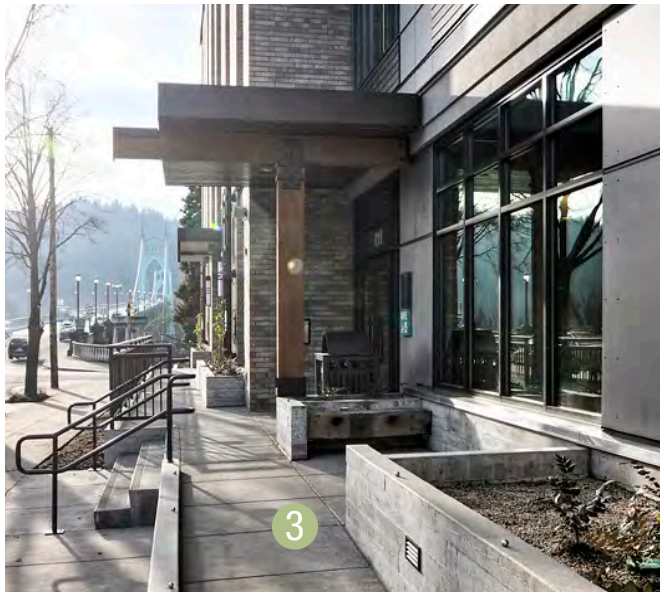
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VERN
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Sally's
Dog & Cat Shop
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Projections

INTENT

To encourage facade articulation through habitable and non-habitable projections.

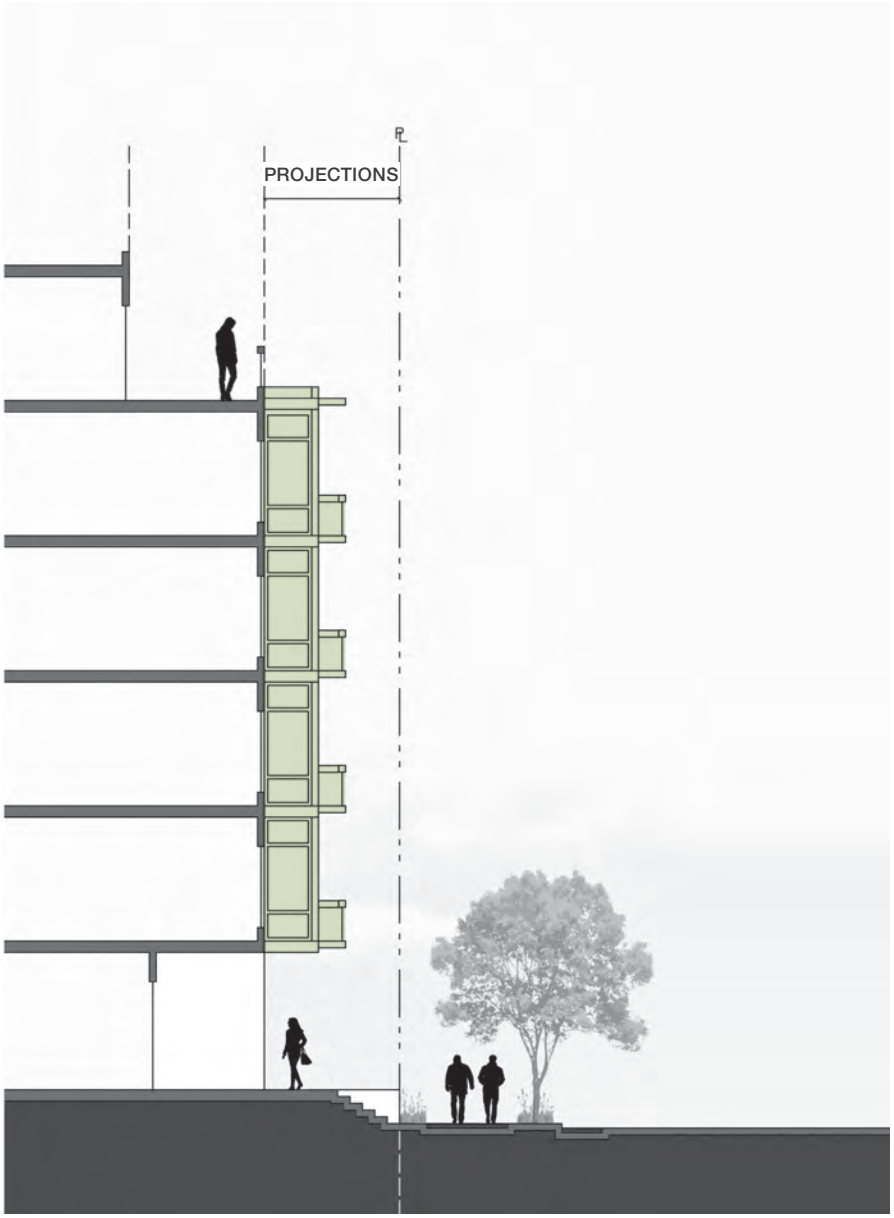
DEFINITION

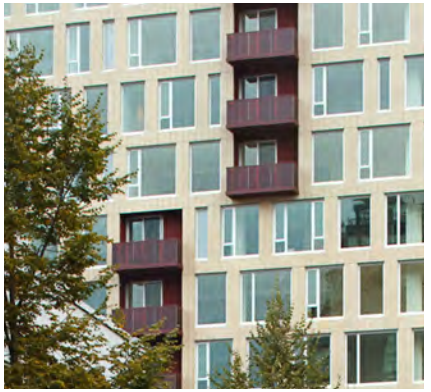
Habitable projection - a portion of the building enclosed by walls and a roof, such as a bay window, corner element, or other extended bay.

Non-Habitable projection - spaces utilized by residents but not enclosed by walls and a roof, such as balconies.

DESIGN GUIDELINES

- Projections are encouraged to add visual interest to the facade, as well as to add usable balconies as residential amenities.
- Balconies should be at least 3 feet deep.
- Projections should not extend more than 6 feet into setback or common space.
- Projections should not extend more than 3 feet into public right-of-way.
- Decorative elements such as belt courses, cornices, sills and eaves are also encouraged.





Stepback

INTENT

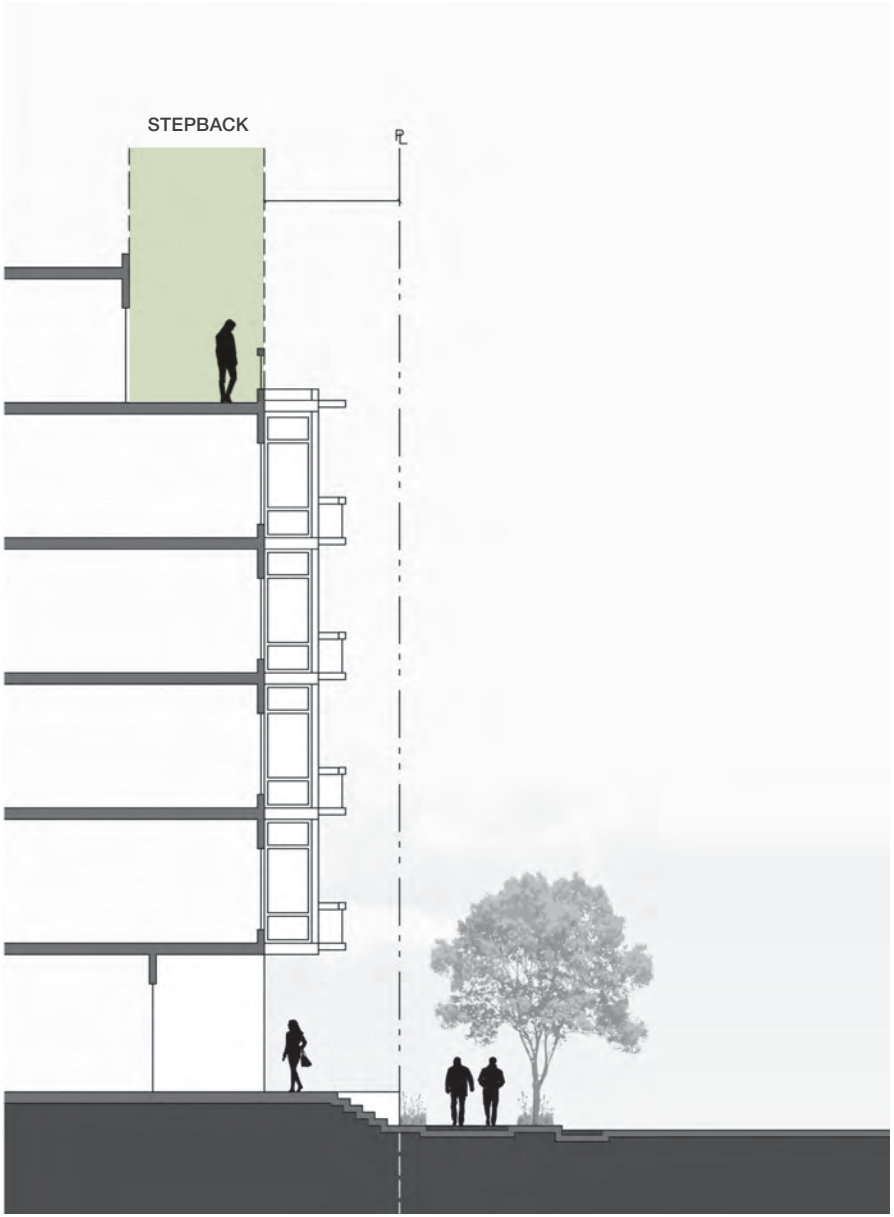
To encourage facade articulation and the creation of usable outdoor space by offsetting the upper floor(s) from the lower floor(s) of a building.

DEFINITION

Stepback is the portion of the building on upper levels that is stepped back from the building facade.

DESIGN GUIDELINES

- Stepbacks are encouraged to help break down the mass of the building by creating a defined “top,” as well as to add usable space for residential amenities.
- Roof space created by stepbacks should be designed as usable outdoor space.



Ground Floor - Base Activation

INTENT

To ensure the important interaction between the ground floor of a building and the sidewalk is carefully designed to enhance the pedestrian experience and the overall vitality of the neighborhood.

OVERVIEW

One of the most important aspects of a walkable urban neighborhood is the street level interaction between the building and the street. For a streetscape to facilitate active public life, it is essential that buildings address the street on the ground floor.

This page contains general ground floor design guidelines, while the following pages contain specific guidelines for residential and commercial uses.

DESIGN GUIDELINES

- The base of the building should be designed to foster positive activity by orienting and integrating courts, lobbies, entries, and large windows to face streets, public parks, and open spaces to provide more opportunity for interaction and safety.
- Avoid or minimize expansive blank walls at the ground floor.
- Include operable windows, roll up doors, and other features to activate and animate a building.
- Maximize transparency of ground floor commercial facades with windows and doors with visibility into active uses, such as retail spaces, lobbies, etc.
- Highlight entrances to commercial buildings through integrated signage, changes in materials and colors, and/or through changes to the buildings massing.
- Ground Floor heights should be at least 14 feet tall.
- Active uses should have a depth of at least 25 feet from the street frontage.

PRIMARY STREETS

The primary streets, as defined in the Street Hierarchy Section on page 97, are the most important streets where active ground floor uses should address the street. “Primary Street A” (the boulevard) is designed to be the primary retail and walking street in the neighborhood.

“Primary Street B” should also have active uses fronting the street. Retail is encouraged, if it is supported by the market. However, it is anticipated that this street will more likely be lined with active uses such as residential units, lobby spaces, meeting spaces, etc.

Active uses are encouraged on all other streets in the neighborhood to the extent feasible.

ACTIVE USES

Active uses are defined as any use that provides some level of interaction with the public realm. This could include uses such as residential, retail goods establishments, retail service establishments, public service portions of businesses, restaurants, taverns/ brewpubs, bar establishments, art galleries, theaters, performing art facilities and more. Uses must also be allowed by City Ordinance.

PARKING STRUCTURES

No parking structures are allowed to face “Primary Street A” and any parking structure facing “Primary Street B” should have an active ground floor use.

SCREENING METHODS FOR BLANK WALLS

Where blank walls occur, creative methods should be used to create interest on the streetscape. This could include solutions such as murals, green walls (plants growing on walls), faux windows, and more.

PRECEDENTS

1. Entrances at street level combined with high quality landscape buffer activates the street.
2. Storefront with high transparency on ground floor, along with outdoor dining, activates the street.
3. Roll up doors on ground level blend the indoor/outdoor space and activate the street.
4. Faux windows and landscape add visual interest to create feeling of activity on a facade without an active use.
5. Planters along blank street wall add interest to an otherwise blank wall.
6. Colorful glass adds interest and life to an otherwise blank wall.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CHARLES SMITH WINES
CHARLES SMITH WINES
OFFICE
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AIA
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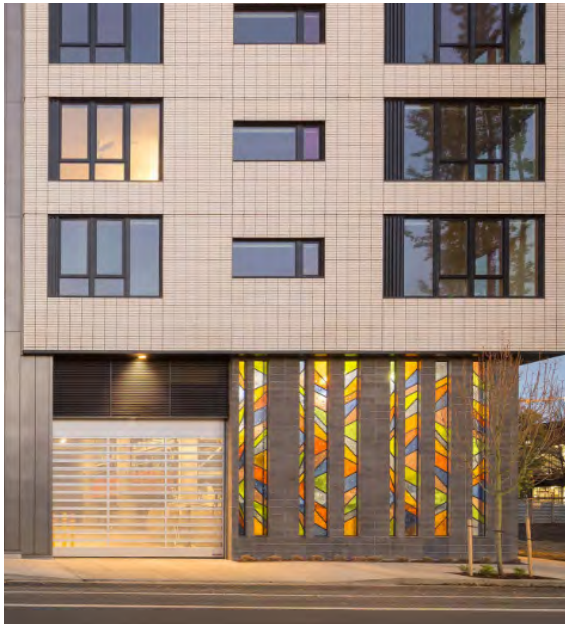


Ground Floor Residential

INTENT

Residential buildings without retail or other active uses on the ground floor should activate the ground floor by putting residential units with individual entries that address the street on the ground floor.

GROUND FLOOR DESIGN ELEMENTS

1 LANDSCAPED SETBACK

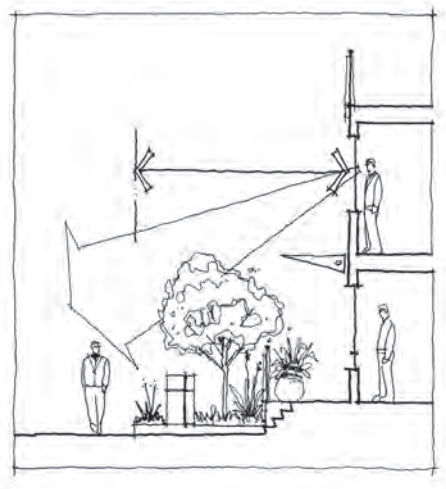
Buildings with residential units on the ground floor should provide a setback, typically 10' or less, to provide space for entry steps/stoops and landscape in order to provide adequate space for the public/ private transition. The landscape/ plants should also be used to screen views from the street into residences (also see diagram on bottom right of this page).

2 RESIDENTIAL ENTRY

Residential units on the ground level should generally be located at least three feet above grade, so that the unit's habitable space is above the eye level of pedestrians for increased privacy.

3 FACADE MODULATION

Buildings are vertically modulated at regular intervals of no greater than 30 feet to express individual ground floor residential units



Ground Floor Commercial

INTENT

Commercial buildings should activate the ground floor through using retail or other active uses on the ground floor.

GROUND FLOOR DESIGN ELEMENTS

1 SETBACKS + LANDSCAPE

Commercial buildings should not have a consistent setback, but should have articulation zones as specified. Where setbacks do occur, landscaping is encouraged to soften the streetscape, add visual interest, and increase the opportunities for experiences with nature in an urban environment. Outdoor Dining or other functional uses that enhance the ground floor use are also encouraged

2 TRANSPARENCY

The ground floor of commercial buildings should be primarily composed of transparent materials in order to reveal activity of the building, as well as to add interest and security to the pedestrians.

3 FACADE MODULATION

Buildings are vertically modulated at intervals that align with the specific ground floor use, generally no greater than 80 feet. For retail uses, intervals should generally be no greater than 50 feet.

Roofs

INTENT

To emphasize the architectural style and to minimize visual impacts.

DESIGN GUIDELINES

- Roofs should be flat or appear flat from street level.
- Building heights and roof lines should modulate to create a visually appealing skyline and add interest to the skyline.
- Mechanical equipment on roofs should be screened from the street view.
- Green roofs are encouraged
- Usable roof terraces are encouraged
- Roofs should use high albedo, non-reflective materials to minimize heat island effect

Corners

INTENT

To emphasize important intersections and corners by including special architectural features on buildings in these key locations.

DESIGN GUIDELINES

- Incorporate special design details and architectural treatments that reinforce the corner's importance as a public realm element
- Corners in key locations should be emphasized by utilizing a combination of these measures:
  - A change in the building's massing and/or height
  - A contrasting facade finish
  - Transparency
- Designers/Architects are encouraged to find creative and artful solutions.

Entrances

INTENT

To emphasize the relationship between buildings and their adjacent streets by prominently featuring major entrances.

DESIGN GUIDELINES

- The main entrance to the building should provide the most important interaction between the pedestrian and building and should be emphasized through design.
- Buildings that front primary streets (as defined on page 97) should have a main entrance facing that street. A building may have an additional main entrance that faces the main parking area or drop-off zone, if applicable.
- Use lighting to highlight entrances.
- Provide canopies, awnings, or other overhead elements to protect users from weather conditions.
- The use of continuous “docks” within the build-to line is permitted to provide a semi-private space for outdoor dining or other uses that activate the streetscape. This mimics the re-purposing of loading docks that is often done on historic industrial buildings.

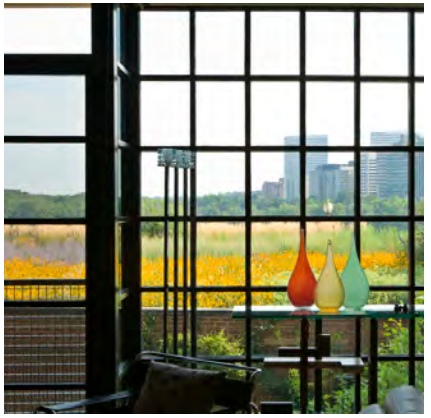
Fenestration

INTENT

To create a pedestrian friendly and engaging relationship between buildings and streets.

DESIGN GUIDELINES

- The ground floor of commercial buildings should have a high percentage of transparent materials where buildings front streets.
- Buildings maximize windows on upper floors that overlook streets or open spaces to increase “eyes on the street,” which discourages undesirable public behavior.
- Windows should be strategically used next to entrances and open spaces to create prominent indoor/outdoor relationships.
- Industrial windows are strongly encouraged to promote the industrial character.
- Mullions and frames are encouraged to project beyond the plane of the glass in windows to create strong shadow lines.



Building Signage

INTENT

To identify the commercial or non-commercial uses within the building with signage that promotes wayfinding, adds interest that fits with the architectural character of the building, and enhances the pedestrian experience.

DESIGN GUIDELINES

- All signs should be scaled appropriately to the size of the building.
- Signs shall be constructed of high quality and durable materials that are consistent with and complement the building materials.
- Building identification signage should be placed on facades that face the primary street(s).
- Signs should be artful and creative and work with a building's architecture to add interest.

RESTRICTIONS

Internally illuminated box signs with more than 30% of the internal area illuminated are not permitted.

Animated, blinking, or flashing signs are not permitted.

ACCEPTABLE SIGN TYPES

The following sign types are acceptable for attached building signs:

1. **Wall signs** - Wall signs include signs that are attached to the face of a building wall. They should be mounted on the wall facing the public realm.
2. **Window Signs** - Window signs are painted, placed, or affixed in or on the interior of a window, and intended to be viewed from the outside. Window signs should not obscure views into store or business.
3. **Projecting Signs + Hanging Signs** - Projecting signs are attached to the building face and project out perpendicular to the building. Hanging signs are similar to projecting signs, except that they are suspended from a marquee or other overhead canopy.
4. **Awning Signs** - Awning signs are signs that are mounted, printed on, painted on, or otherwise attached to an awning or canopy above a business door or window.
5. **Mural** - Sign that is painted onto a wall that is visible to the public realm.

Building Lighting

INTENT

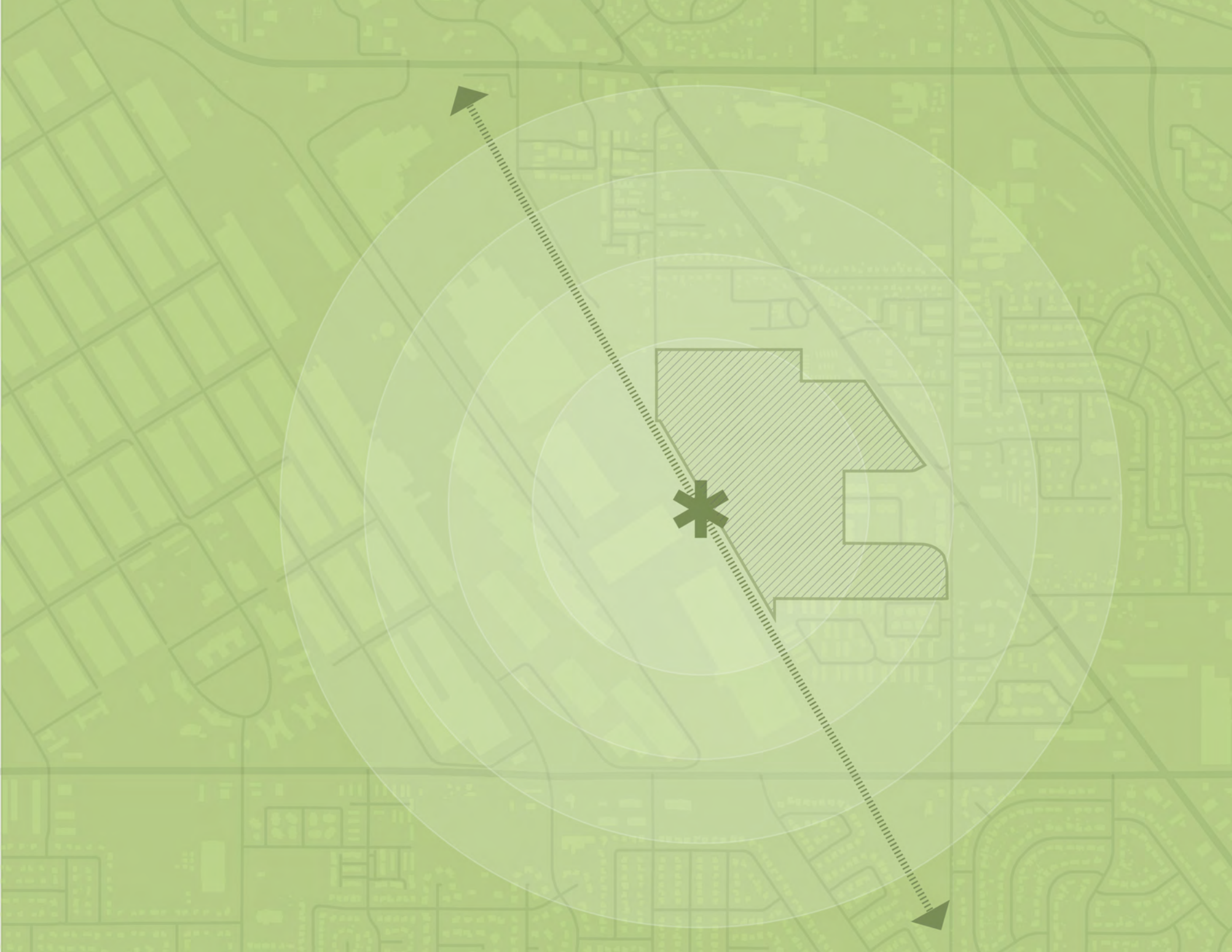
To integrate lighting on buildings into the architectural design to creatively illuminate pedestrian areas and highlight building elements.

DESIGN GUIDELINES

- Pedestrian areas should have adequate illumination for safety.
- Lighting should be sensitive to residential development limiting glare, minimizing spill light, and minimizing light on upper stories of residential buildings.
- Retail buildings should integrate lighting with retail signage, storefront windows, and other building elements to enhance visibility and visual interest.
- Use creative lighting solutions to illuminate outdoor areas and add interest and life to outdoor spaces.
- All lighting should be dark-sky compliant.

PRECEDENTS

1. Ground floor transparency allows internal lighting to illuminate the street and creates a “glow.”
2. Lights on building exterior highlight the ground floor retail space and illuminate the street.
3. Light illuminates steps to promote pedestrian safety.
4. Lights used on canopy and sign add visual interest, as well as highlight the building entrance.
5. Overhead lights used to help create an interesting and exciting “place.”



06

OPEN SPACE + PUBLIC REALM

DESIGN GUIDELINES

Open Space Network

OVERVIEW

As part of establishing the Clearfield Station Area as a livable urban neighborhood, a high-quality, comprehensive open space network is essential. The Station Area will provide a variety of open space types to meet the needs of the various residents and visitors of the neighborhood. Open spaces will be provided in a variety of sizes and scales and will serve a range of specific functions. Most of this network will be part of the public realm and the remaining will be private, although all will contribute to the establishment of a unique and specific experience that complements one another.

INTENT

To create a comprehensive open space network that provides a unique yet unified system of parks and open spaces throughout the neighborhood.

OPEN SPACE TYPES

The open spaces shown in the Illustrative Master Plan on the following page are conceptual. The specific intent for each is defined and illustrated in the pages that follow.

The district currently contains a large drainage basin in the southwest corner which will remain. The following open space types are outlined in this document:

- Park
- Pocket Park/Plaza
- Village Square
- Transit Plaza
- Woonerf
- Greenway
- Private Plaza + Open Space
- Cemetery
- Stormwater Basin
- Yards + Landscape Buffers

DESIGN GUIDELINES

- The open space network should provide a variety of open space types that complement one another.
- The open spaces should be integrated into the urban form of the neighborhood.
- Buildings should frame open spaces in a deliberate manner, rather than open spaces just being developed in the “leftover” spaces.
- The design and programming of each open space should reflect the latest trends in open space design to provide an experience and aesthetic that fits the wants and needs of the current day.
- Streets should be considered part of the open space network and should be designed in a pedestrian-friendly manner that promotes comfort, safety, and provides places to stop and linger.
- Green infrastructure systems and ideas should be incorporated into the open space system.
- Buildings and respective land uses should work together with adjacent open space to provide uses that complement each other.


Park
Pocket Park/Plaza
Village Square
Transit Plaza
Woonerf
Greenway
Private Plaza/Open Space
Yards/Landscape Buffers
Clearfield Cemetery
Stormwater Basin
1/4 mile
1/2 mile
1150 SOUTH
STATION BLVD
STATE STREET
1000 EAST
1450 SOUTH
1450 SOUTH
DEPOT ST
BUS STATION
MR
MMU
LMU
OFFICE
GYM
PARKING STRUCTURE
N

Park

INTENT

To provide a public park space that is geared specifically toward residents in the neighborhood and functions like the backyard of the neighborhood where residents can relax and play in an informal environment.

FEATURES + ELEMENTS

The ***Park*** open space type should include:

- Children's playground and other play elements
- All ages play elements such as ping pong, pickleball, bocce, etc.
- Flexible lawn areas for informal active and passive recreation
- Pathway loops for exercise

Pocket Park / Plaza

INTENT

To provide a series of smaller parks and plazas that are typically located on small, irregular parcels, and are dispersed throughout the neighborhood. These spaces can serve as extensions of both the streetscape and the building.

FEATURES + ELEMENTS

The ***Pocket Park/Plaza*** open space type should include:

- Seating
- Interesting landscape design elements such as paving, planting, or other features
- Landscape features that reinforce the industrial theme for the neighborhood
- Outdoor dining seating (if applicable)
- Green space/planting to soften the urban environment

Village Square

INTENT

To provide a central open space of approximately 1 acre that is located in a highly visible area in the heart of the neighborhood. It should also become the primary gathering place for civic and social purposes, and should function as the living room for the neighborhood. This should become an iconic regional destination.

DESIGN GUIDELINES

The ***Village Square*** open space type should include:

- A strong image and identity that helps define the image of Clearfield Station.
- Framed by buildings with active ground floor uses that promote activity on the square.
- Iconic landscape features
- Flexible open gathering space for events
- Public art

Transit Plaza

INTENT

To provide an open space adjacent to the commuter rail platform and bus loading zone that is specifically designed to enhance the experience of using public transportation by providing amenities that are geared toward transit users.

DESIGN GUIDELINES

The *Transit Plaza* open space type should include:

- Cafe, restaurant, or other convenient food options
- Public Restrooms
- Public art
- Seating
- Shade
- Landscape features that reinforce the industrial theme for the neighborhood.

Woonerf

INTENT

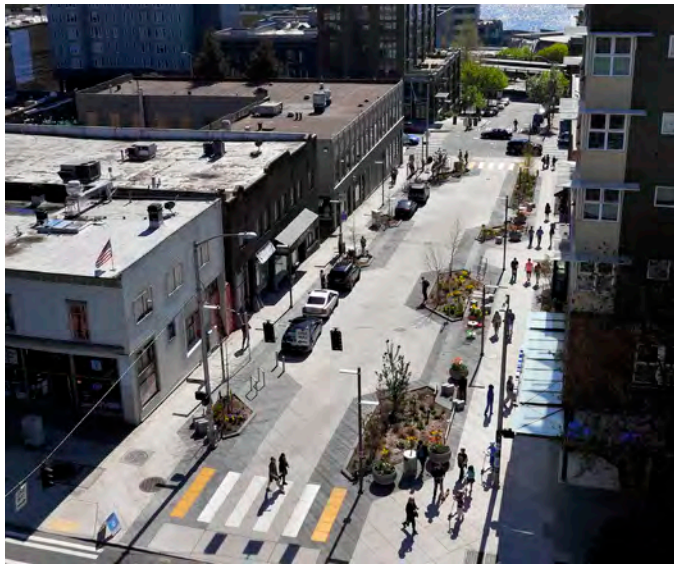
To provide a vibrant pedestrian-focused street, while still providing necessary vehicular access for businesses and residents.

FEATURES + ELEMENTS

The ***Woonerf*** open space type should include:

- Traffic calming
- Pedestrian-oritented design
- Enhanced streetscape
- Patio dining
- Street furnishings/amenities
- Removable bollards to close street to traffic during community events

Woonerfs provide important pedestrian connections, and are therefore also considered part of the transportation network. See Woonerf street type guidelines on page 116 for more detail.



Greenway

INTENT

To increase pedestrian connectivity between neighborhoods and to public open space, while also providing open space amenities for both vistors and adjacent residents.

FEATURES + ELEMENTS

The ***Greenway*** open space type should include:

- Pathways and trails
- Green space and trees
- Seating
- Small recreation activities
- Dedicated space for dogs and/or other pets

Private Plazas + Open Space

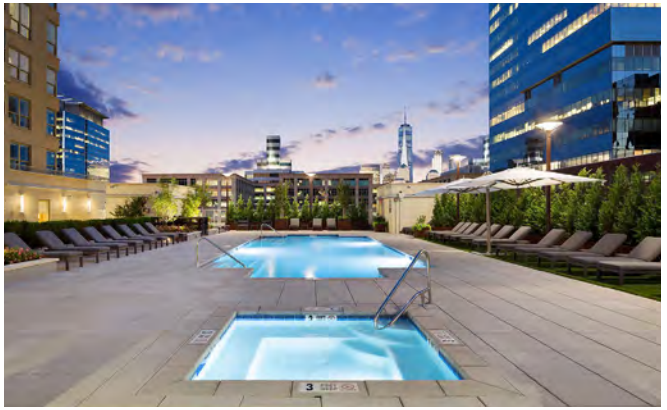
INTENT

To provide private open spaces for residents and/or employees of a building.

FEATURES + ELEMENTS

The ***Private Courtyard / Rooftop Deck*** open space type should include:

- Lounge and relaxation spaces
- Pools and hot tubs
- Outdoor cooking facilities
- Fire places
- Green space and trees
- Seating
- Small recreational activities
- Small private event gathering spaces



Yards + Landscape Buffers

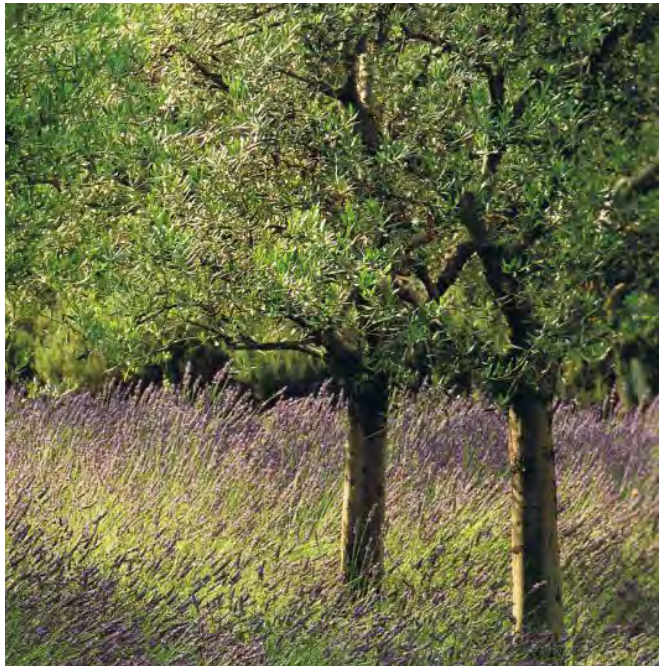
INTENT

To provide private yards and landscape buffers between buildings that are visually restorative while also being waterwise and environmentally appropriate.

FEATURES + ELEMENTS

The ***Yards + Landscape Buffers*** open space type should include:

- Waterwise Landscaping



Enhanced Streetscape

INTENT

To provide streets that are first and foremost designed to create a friendly pedestrian experience, in part by providing the appropriate pedestrian amenities.

FEATURES + ELEMENTS

The ***Enhanced Streetscape*** open space type should include:

- Seating
- Outdoor dining seating (where applicable)
- Landscape plantings
- Unique/Interesting paving
- Pedestrian lighting
- Public art integrated into functional streetscapes
- Street furniture such as trash/ recycling receptacles, bollards, and more

See streetscape guidelines on pages 108-117 for more detail.

Landscape Design Theme

INTENT

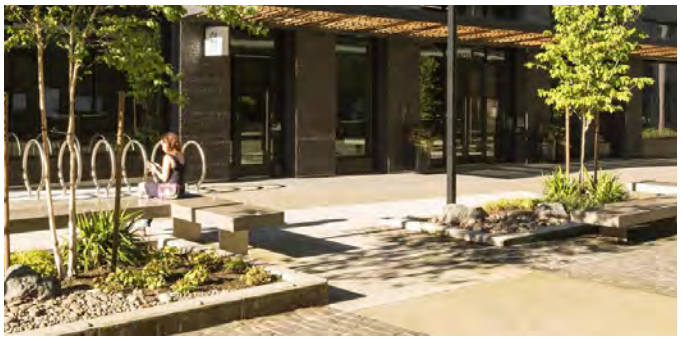
To establish a specific “look and feel” to unify the area by developing a landscape “language” that will help brand the neighborhood with a unique aesthetic that also works with the architectural design.

DESIGN THEME - “CONTEMPORARY INDUSTRIAL”

The landscape design theme for the Station Area will mirror the architectural design theme with a contemporary industrial style that is modern, yet rooted in the industrial character that surrounds the area. This industrial character helps to create a brand for the area and provides a common theme that ties the neighborhood together.

LAWN AREAS

Lawn areas should be used strategically in areas that will become functional gathering places. Lawn areas should be minimized in other areas, and replaced with more water efficient landscape planting.



Materials + Colors

INTENT

To ensure a consistent application of complementary and high quality materials throughout the neighborhood that will reinforce the unique identity and a sense of place.

DESIGN GUIDELINES

- Landscape materials should reinforce the industrial theme by using concrete, steel, timber, brick and stone. See materials images for specific application of these materials.
- Utilize historic industrial remnants from the adjacent railroad, industrial area, and/or the historic navy depot, by integrating them into the landscape, if available.
- Materials are encouraged to have a weathered, industrial feeling. This could be done in various ways, such as using rough cut stone or concrete, or by using tumbled stone or brick. The weathered look should help create a feeling of “authenticity.”

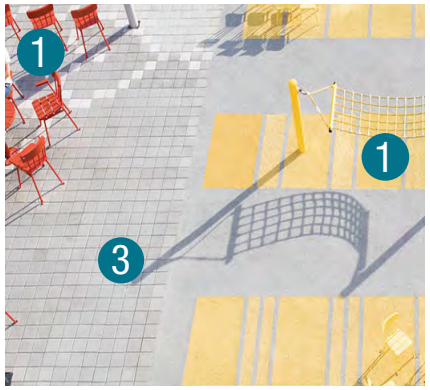
COLOR

The most prominent color associated with industrial areas is gray, with reds and blacks also playing a large role. These colors should remain as a base for landscape material colors, but should also be supplemented with more modern and interesting colors. Specifically, brighter colors should be strategically added in minimal, but visually prominent ways, to contrast the muted gray tones.

1. Pop of Color as an Accent

ACCEPTABLE MATERIALS

2. Stone Pavers
3. Concrete Pavers
4. Broken Industrial Concrete
5. Abstract Industrial Broken Concrete
6. Decomposed Granite / Crusher Fines
7. Rough Cut Stone
8. Wood / Timber
9. Industrial Remnants (New + Old)
10. Steel / Railroad Track
11. Asphalt Pavers
12. Concrete / Board Form Concrete

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Planting

INTENT

To reinforce the unique look and feel of the Station Area by utilizing planting in a way that is complementary to the contemporary industrial theme.

DESIGN GUIDELINES

- Planting areas should generally have an organic feel.
- Planting in groups to create attractive massings is encouraged.
- Lawn areas should be used strategically in areas that will become functional gathering places. Lawn areas should be minimized in other areas, and replaced with more water efficient landscape planting.
- Use perennials, bulbs, and wildflowers to add color to the landscape.
- Choose plants that minimize long-term maintenance costs.

PRECEDENT

1. Organic Planting
2. Groups of Plants create organized massing
3. Naturalized meadows, native grasses, and perennials add color to the landscape.
4. Lawn area appropriately sized for gathering space.
5. Trees provide shade


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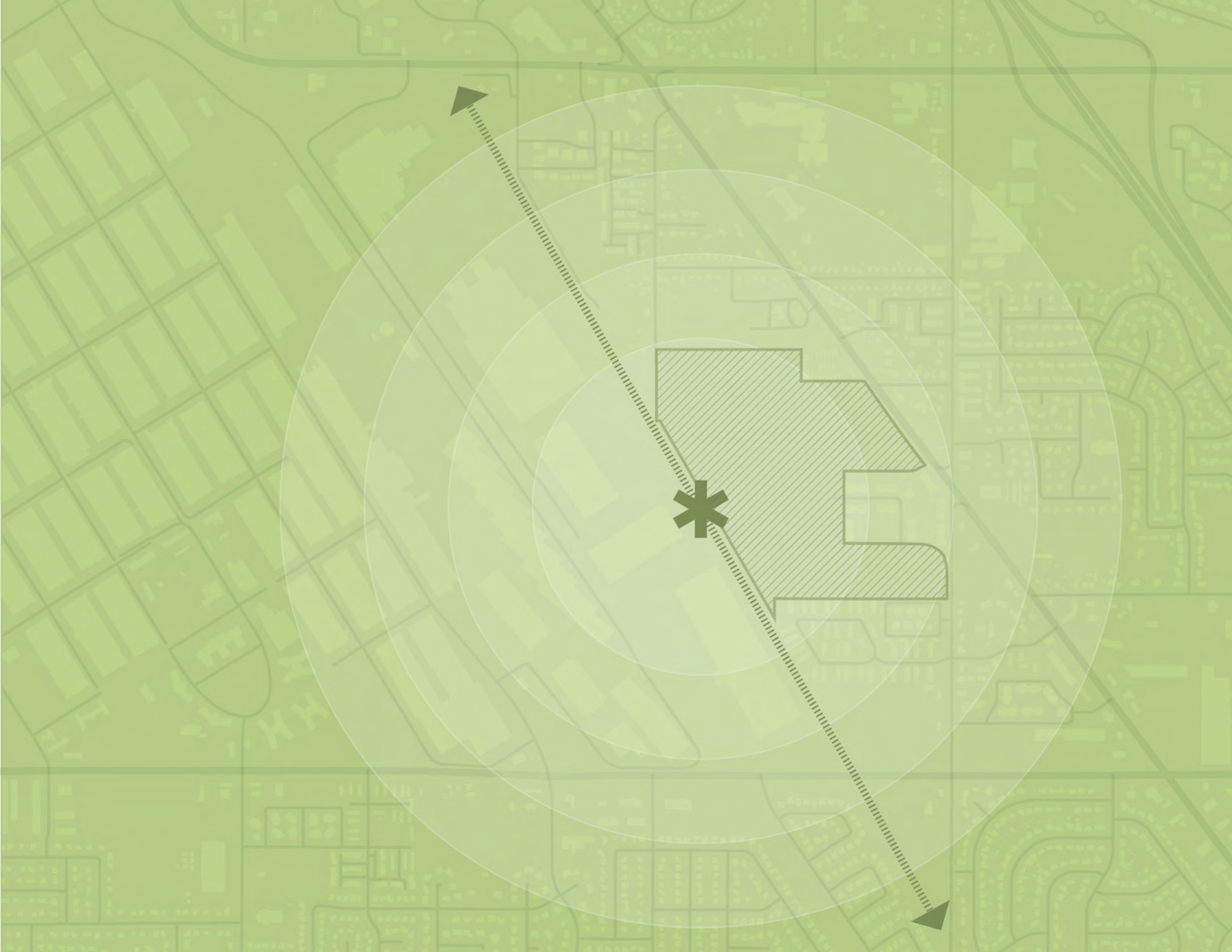


07

TRANSPORTATION + MOBILITY

DESIGN GUIDELINES

DRAFT

Streets + Blocks

The street layout of the Clearfield Station District will provide the foundation for the urban form of the area, which will help define the character and performance of the neighborhood. Once established, the street pattern will remain in place as the long-term structure and framework for the area, even as buildings and land-uses may change and evolve over time.

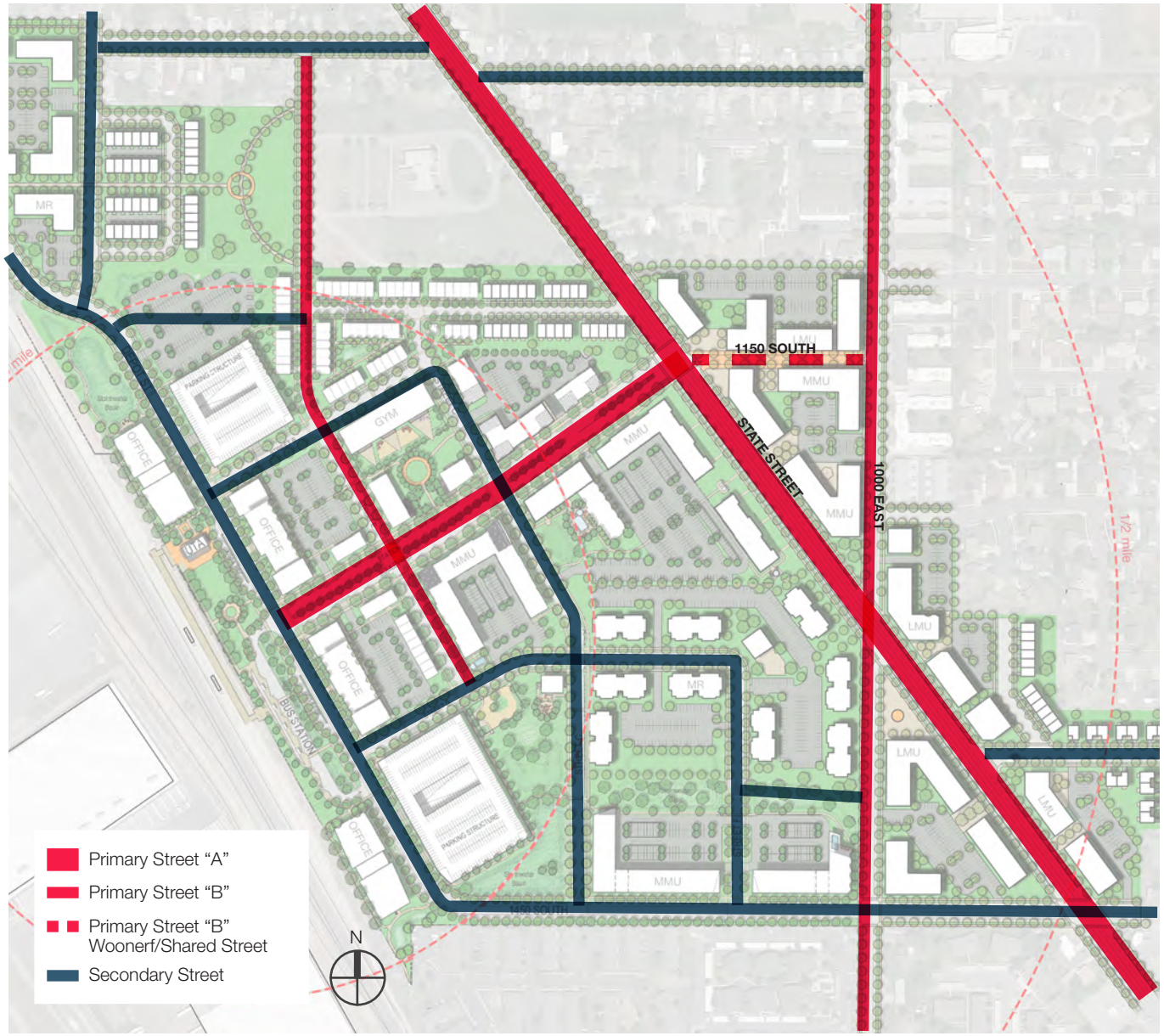
This layout incorporates the following:

- New streets connect into the existing street pattern to increase connectivity into the MDP site.
- Blocks are between 300' and 350' which is consistent with block sizes in successful, walkable downtowns throughout the country.
- The block size provides a good balance of ensuring good connectivity throughout the area, as well as providing a large enough block to allow for a variety of development options.
- Mid-block connections are encouraged to be designed into each block, if feasible, to further increase connectivity.

Street Hierarchy

A hierarchy of streets has been established in order to define the most prominent and important streets in the neighborhood. It defines the various roles each street will play in regards to traffic volumes, modal choices, and pedestrian experience.

The street hierarchy specifically relates to the ground floor treatment of buildings, which is covered in Section 05 Buildings + Architecture of this document.



Active Transportation

Active transportation is defined as modes of travel that require physical effort. In Clearfield Station Area, this is specifically manifested as pedestrian and bicycle transportation.

Active transportation is an essential component of a transit-oriented development, as strong pedestrian and bicycle facilities allow transit users to connect from the train/bus to their destination with relative comfort and safety.

Quality active transportation facilities are also important for encouraging healthy lifestyles and reducing vehicle travel and congestion. The map on the right illustrates the proposed active transportation facilities for the station area.

PEDESTRIAN FACILITIES

The station area will specifically focus on providing pedestrian-friendly streets throughout the neighborhood. See street type guidelines on 107-117.

Special attention should be paid to ensuring highly visible and safe street crossings. Crosswalks should be located at all intersections within the area to enhance pedestrian connectivity.

Bulb-outs (or curb extensions) should also be used throughout the neighborhood to calm vehicular traffic and shorten pedestrian crossings. Street trees should be used to increase pedestrian comfort and calm traffic.

CYCLING FACILITIES

Cycling facilities will be provided on primary streets within the Station Area. A protected cycle track will be provided on Station Boulevard. An on-street bike lane will run along Depot Street, through the MDP site, connecting to 1000 East. All other streets in the neighborhood will be designed to allow for a safe mix of cyclists and vehicles in vehicular travel lanes.

PRECEDENTS

1. Sidewalk with many elements that add to a comfortable, safe, and interesting pedestrian experience, including street trees, planters, brick pavers, ground floor transparency, pedestrian lighting, bike parking, seating, and outdoor dining.
2. Bulb-out helps to calm vehicular traffic and shortens pedestrian crossing lengths.
3. Highly visible crosswalk with median refuge and signage.
4. On-street bike lane with a painted buffer to increase safety.
5. Raised Cycle track separates bikes (and other users, such as scooters, skateboarders, etc.) from vehicular traffic lanes. It also separates these users from the pedestrian sidewalk space.

Transit

The commuter rail is the central feature of the Clearfield Station District, and planned development is arranged to maximize its use as a method for transporting people to and from the station, reducing the need for vehicular trips.

The commuter rail platform and entrances will remain. The bus loading zone will shift slightly to the South of Station Boulevard as seen in the map.

Bus traffic will largely be routed along the boulevard, with an option to exit on 1450 South. Bus routes with connection to Holy Cross Hospital - Davis will likely travel via 1450 South to and from the station platform.

A kiss-and-ride area will be established, as shown, to provide transit users from outside the neighborhood with convenient access to the commuter rail platform.

Transit facilities shall conform to UTA's design standards.

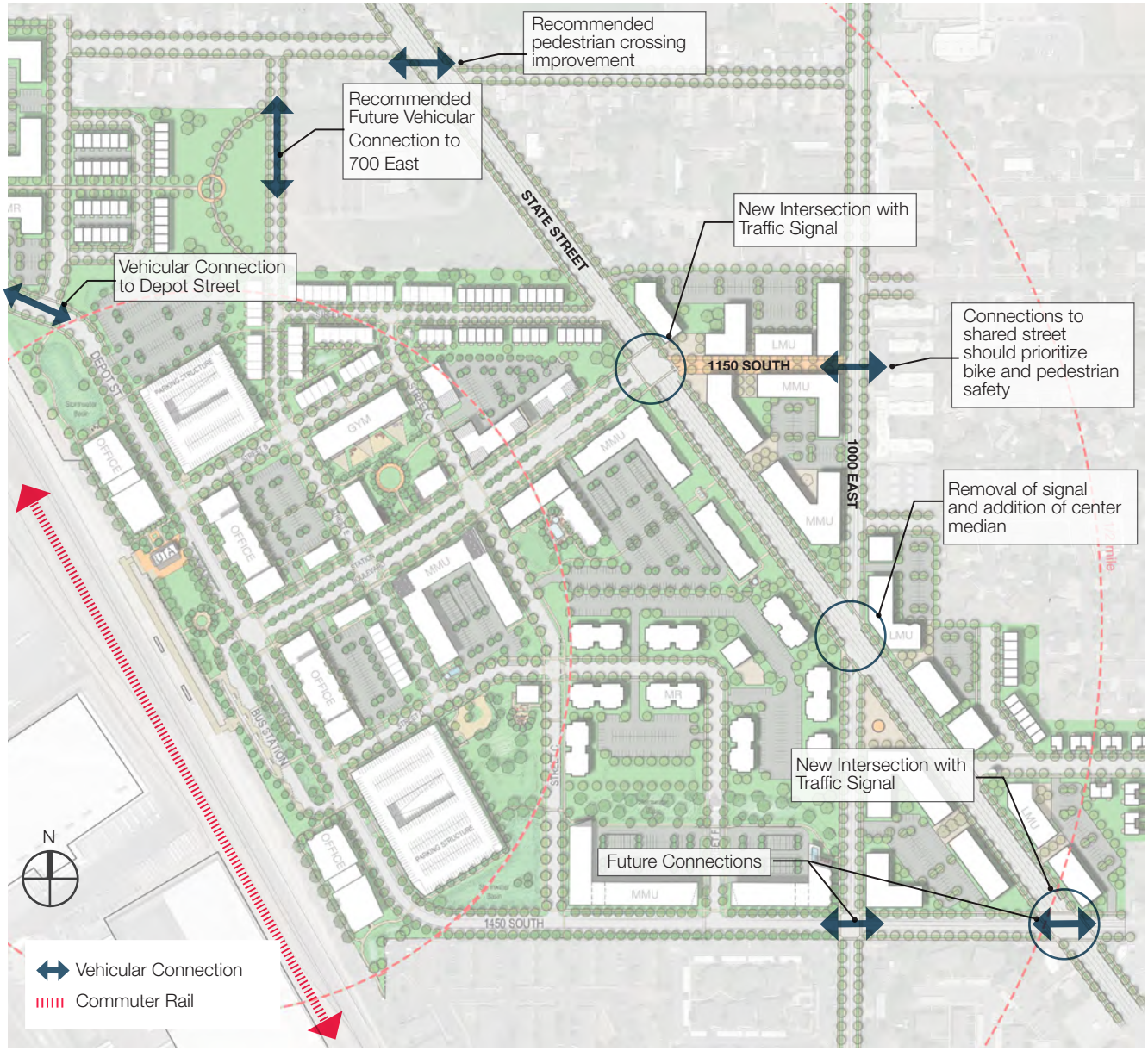
Vehicular Transportation

The Clearfield Station District is intended to be a multi-modal destination, with priority given to pedestrians and cyclists. However, vehicular transportation will still be a fundamental element that must be carefully planned to minimize traffic issues. The increase in development, as outlined in this plan, will have significant impacts on traffic, and traffic mitigation efforts must be carefully considered.

New streets should connect into existing streets to increase connections and to disperse traffic flows in and out of the area as much as possible. A connection to Depot Street should be prioritized. A connection to 700 East is also encouraged.

Improved pedestrian crossings on State Street at 1000 South, 1150 South, 1000 East, and 1450 South are recommended, in addition to a crossing at 1000 East and 1150 South. These connections are intended to overcome active transportation barriers and should prioritize bike and pedestrian safety.

The addition of traffic signals on State Street at Station Boulevard and 1450 South and the removal of the signal at 1000 East and State Street will likely have traffic impacts. The full impact of signal changes and/or removals will require further study and coordination with UDOT.



Traffic Analysis

A traffic impact analysis for the *Clearfield Station Area Plan* identifies the traffic impacts that the proposed land use scenario for the station will have in the surrounding intersections.

This traffic analysis is a 2023 update to the traffic analysis completed in 2019 by Fehr & Peers for the *Clearfield Station Area Plan*. It includes updated land use and trip generation assumptions for the Clearfield Station Area, including all parcels within ½ mile of the station that were not included in the 2019 analysis. All traffic volume growth assumptions and vehicle trip reduction percentages remain consistent with the 2019 analysis.

Trip generation for the project was computed using rates published in the Institute of Transportation Engineers (ITE) Trip Generation, 11th Edition, 2023.

The net external vehicle trips expected to be generated by the Clearfield Station Area, the percent reductions due to trips that start and end within the development, and trips that are done by transit, biking, or waking are shown in Table 5.

The Clearfield Station Area will generate significant traffic at the surrounding intersections, and mitigations will be needed to accommodate the new traffic. This analysis focused on the analysis of four intersections close to the Clearfield Station Area:

- State Street/2000 North
- State Street/1000 East
- State Street/Station Boulevard
- State Street/700 South

The operating performance of these intersections is described by the Level of Service (LOS). LOS is measured quantitatively and reported on a scale from A to F, with A representing the best performance and F the worst. See *Appendix B: Traffic Analysis* for descriptions of each LOS designation.

Using the traffic modeling software Synchro and the HCM 6 delay thresholds introduced above, the existing and existing plus project AM and PM peak hour LOS were computed for each study intersection. The preliminary results of this analysis are reported in Table 6.

TABLE 5: MXD TRIP GENERATION AND REDUCTION ESTIMATES

Time Period	Project Gross Trips	Net External Vehicle Trips	Vehicle Trip Reduction
Daily	30,319	26,226	13.5%
AM Peak Hour	2,002	1,616	19.3%
PM Peak Hour	2,888	2,221	23.1%

TABLE 6: LEVEL OF SERVICE SUMMARY

Intersection			Existing	Existing Plus Project	Existing Plus Project Mitigated
ID	Location	Period	LOS & Sec/Veh[1]	LOS & Sec/Veh[1]	LOS & Sec/Veh[1]
1	State Street / 2000 North	AM	D / 37	D / 37	D / 37
		PM	D / 41	D / 50	D / 50
2	State Street / 1000 East	AM	C / 26	C / 32	C / 26
		PM	D / 52	F / 96	E / 74
3	State Street / Station Boulevard	AM	B / 12	E / 47	E / 47
		PM	C / 19	F / >300	F / >300
4	State Street / 700 South	AM	C / 25	C / 27	D / 27
		PM	E / 63	F / 87	E / 58

1. Overall intersection LOS and average delay (seconds/vehicle) for the signalized intersections and worst movement LOS and average delay for the unsignalized intersections.

ANALYSIS RESULTS

All intersections in the existing conditions operate at acceptable levels during the AM peak hour (LOS D or better); however**, the State Street/700 South intersection operates at LOS E during the PM peak hour.**

With the addition of the proposed land use scenario for the Clearfield Station Area, the development access onto **State Street is LOS E** during the AM peak hour, and **all intersections except Main Street/2000 North operate at LOS E or F during the PM peak hour**.

The existing plus project scenario was also mitigated, i.e., the signals were optimized to provide better results. **This scenario shows significant improvements for the State Street/1000 East and State Street/700 South intersection during the PM peak hour.**

Therefore, it is recommended that the signals are optimized as the station area develops.

MITIGATION STRATEGIES

Other potential mitigations to alleviate the impact of the development on the surrounding area are:

- **Distribute internal traffic to all development accesses.** The main access to the development will be through State Street. However, three other accesses are proposed for this development: a south access onto 1000 East, and two north accesses, one onto 700 South (via Depot Street) and one onto 1000 South (via the recommended connection of 700 E). Encouraging the use of all development access points could alleviate the high traffic impact on State Street. However, a signalized access onto State Street might still be needed.
- **Signalize a secondary major access onto 1000 East.** 1000 East is a local road owned by Clearfield City. Adding a secondary major access onto this road will alleviate the traffic using access onto State Street.
- **Follow TOD best practices on parking supply.** Research conducted by the Utah Transit Authority and the University of Utah's Metropolitan Research Center indicates that mixed-use developments at transit stations generally require significantly less parking than similar developments that lack good transit access. The Utah Transit Authority also released Transit Oriented Development guidelines that provide standards for parking, although these guidelines provide a greater level of parking than the University of Utah research suggests to be necessary.
- **Establish a Transportation Demand Management (TDM) coordinator.** Having a TDM coordinator for the area would help employees and residents find other means of transportation to/from the TOD beyond driving alone. Examples for TDM measures are incentivizing the use of transit, biking, and walking; having various office hours within the development; etc.
- **Optimize signals to improve PM peak hour LOS along State Street through the Clearfield Station Area.** The traffic analysis results showed significant improvement at signals along State Street when signal optimization was implemented. This strategy should be used at all signals in the station area to improve traffic conditions during peak hours.

Streetscape

INTENT

To create a cohesive, functional, and safe network of streets and walkways that supports a variety of travel modes and connects, attracts, and activates the neighborhood.

DEFINITION

The streetscape is defined in this document as the part of the street between the curb and the building.

DESIGN GUIDELINES

- The streetscape should be considered an important part of the neighborhood open space system, and should provide safe, comfortable travel, as well as interesting places that are desirable to spend time.
- Streets should be designed as outdoor rooms with attractive places to sit, stop, gather, and play.
- Streets should provide opportunities for neighbors and visitors to meet one another and create a vibrant community-oriented neighborhood experience.
- Paving materials and patterns should provide interest and excitement, while also being durable, functional, and easy to maintain.
- Changes in paving should be used to differentiate between streetscape zones.
- Curb radii should be minimized on street corners to slow vehicles making turning movements and maximize pedestrian safety.
- Bulb outs should be used at all intersections and mid-block street crossings to calm traffic and minimize the length of pedestrian crossings.
- Green infrastructure may be incorporated into the streetscape in the street zone with stormwater retention systems or other innovative green systems.

BUILDING ZONE

The building zone is the space between the travel zone and the building facade. This zone can be used to display merchandise, enhance entryways, or provide outdoor seating and dining. It should generally be thought of as an extension of the building into the public realm. This space will typically require some space from a building setback to provide enough usable space.

TRAVEL ZONE

The travel zone is reserved for unobstructed pedestrian travel. It is located between the building zone and the street zone. The National Association of City Transportation Officials (NACTO) recommends 5-7 foot wide sidewalks in residential areas, and 8-12 foot wide sidewalks in downtown areas.

STREET ZONE

The street zone is the space between the travel zone and the street. This area can be landscape or hardscape, and is where trees and street furniture should be located.

STREET TREES

Street trees are required in regular intervals on all streets in the neighborhood. They should be located at least 30 feet apart.

STREET FURNITURE

Street furniture should be provided as part of the general streetscape design for all streets in the neighborhood. The following list includes street furniture that should be included within the Clearfield Station Area. However, not all streets will require all street furniture elements.

- Street Lighting
- Pedestrian Lighting
- Seating / Benches
- Trash / Recycling Receptacles
- Bike Racks
- Wayfinding Signage
- Raised Planters
- Bollards

GENERAL STREETSCAPE ELEMENTS

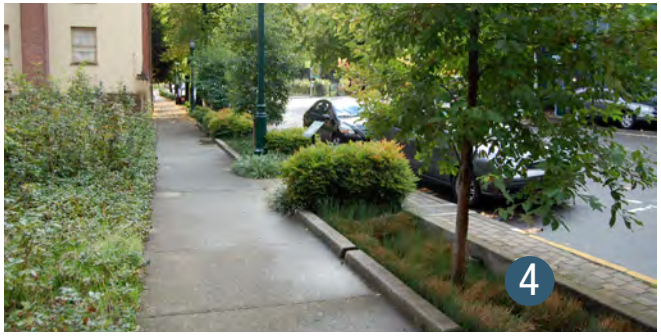
Streetscape design is key in creating an inviting pedestrian environment and a walkable neighborhood.

This graphic demonstrates how the three streetscape zones are broken down, and the simple fundamentals behind effective street design.

1. A consistent streetwall on both sides of street, as well as vertical elements such as trees, create a sense of enclosure.
2. A consistent row of trees provides a sense of enclosure, protects pedestrians from vehicles, provides shade, and brings nature into the urban environment.
3. Street furniture such as lighting, seating, trash receptacles, and bike racks are included in the street zone as pedestrian amenities.
4. Seating and outdoor dining is provided in the building zone as an extension of the indoor dining area.

STREETSCAPE PRECEDENTS

1. Street zone contains trees, plantings and street furniture.
2. Building zone contains pedestrian amenities such as outdoor dining.
3. Interesting paving pattern brings excitement and refinement to the street
4. Bioretention strip is built in to the street zone of the streetscape to filter stormwater.
5. Seating is designed into interesting streetscape planters.



Street Types

Five street types have been established for the Clearfield Station District.

The ***Local Street*** is a low-speed and low-volume street for connecting neighborhoods to connector streets

The ***Neighborhood Street*** is the default street design, and the most common street in the neighborhood.

The ***Neighborhood Street - Mixed-Use*** street type is identical to the "Neighborhood Street," but has dedicated on-street bike lanes.

The ***Woonerf*** type is a shared street that prioritizes pedestrians and bicycles over motor vehicles and provides flexible space for outdoor dining, street festivals, and food trucks.

The ***Boulevard*** street type is established as the primary street in the neighborhood, which connects State Street to the transit station.

Local Street Type

The ***Local Street*** type is primarily used on residential-only streets within and beyond the Station District. Similar to Neighborhood Streets, Local Streets are intended to provide access for neighborhoods and function as a livable outdoor space but on lower volume, quieter streets.

The local street type includes street trees, plantings, and sidewalks.

This street section is designed for a slow speed, which allows bicycles to safely and comfortably share the vehicular lanes.

Neighborhood Street Type

The ***Neighborhood Street*** type is the default street type that will be used in the station area and will make up the majority of streets in the neighborhood. It is intended to provide access for neighborhoods and function as a livable outdoor space. The design and layout of the street is a simple, time-tested solution that creates safe, walkable, and livable streets.

The neighborhood street type includes on-street parallel parking, street trees, plantings, lighting, benches, and sidewalks.

This street section is designed for a slow speed, which allows bicycles to safely and comfortably share the vehicular lanes.

Neighborhood Mixed-Use Street Type

The ***Neighborhood Mixed-Use*** street type is identical to the ***Neighborhood Street*** type, with the exception of adding on-street dedicated bike lanes.

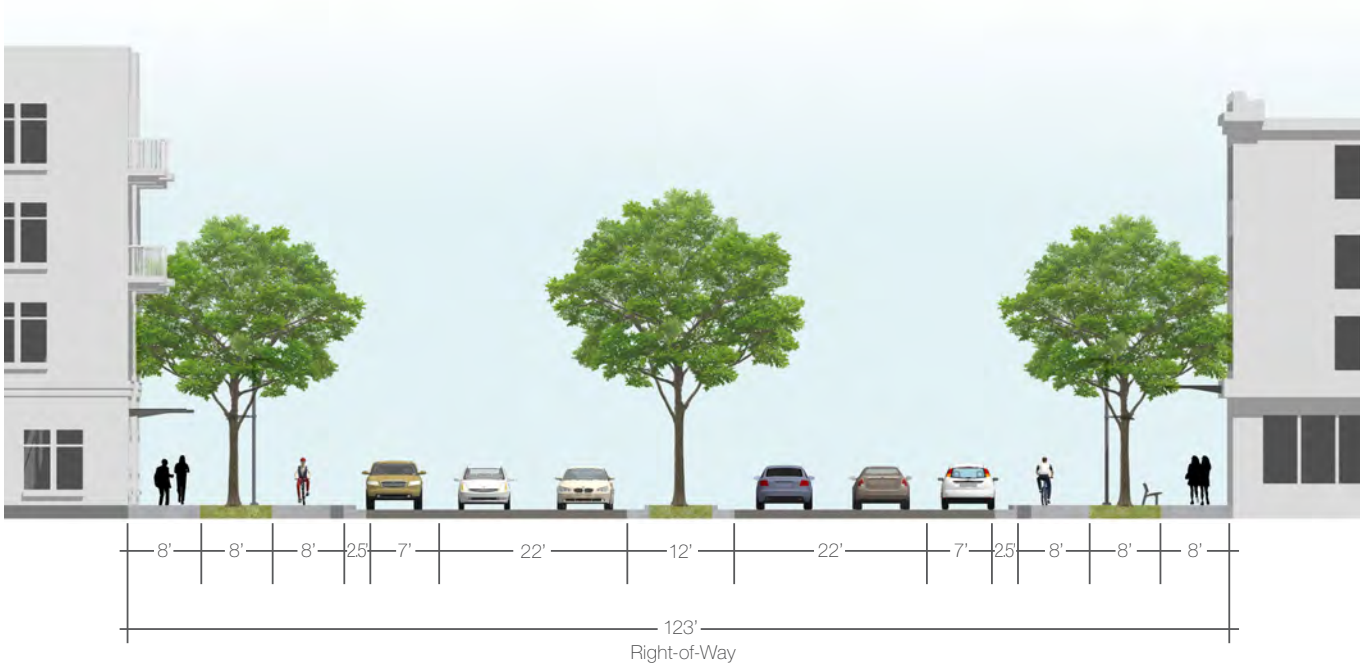
The buffered bike lanes on these streets will provide safe and convenient access for bicycles on the streets that connect the station area to the rest of the City.

Boulevard Street Type

The ***Boulevard*** street type is intended to be the "Main Street" for the Clearfield Station District, connecting State Street to the Transit Station.

Station Boulevard should be designed to have a grand, iconic appearance, as it is the main entrance to the neighborhood and the heart of the station area. It should be designed to be functional, safe, and convenient for multiple modes of travel, including vehicles, bus, bicycles, and pedestrians.

The Boulevard street type includes on-street parallel parking, street trees, plantings, a planted median, sidewalks, lighting, benches, and other street furniture.



Woonerf Street Type

A woonerf or shared street is a Dutch concept that reimagines the street as a shared space for pedestrians, bicyclists, and motor vehicles, with pedestrians and cyclists having priority over cars.

The current right-of-way on 1150 East is 45'. The propsed woonerf will utilize elements such as trees, planters, benches and other furnishings, and drainage grates to break up sight lines, provide shade and protection.

Because the woonerf is not a priority route for motor vehicles, this street could be easily closed for special events such as street festivals, food truck rallies, block parties, or other neighborhood events.

Parking

OVERVIEW

A comprehensive strategy to deal with parking is one of the most important aspects of creating a successful, walkable, TOD environment. The majority of parking in the Station District will be provided on surface lots and structures with some on-street parking.

Park and ride, visitor, and ADA parking shall be prioritized and located within the shortest distance possible. Landscaping should be used to screen parking from the street where possible.

The parking plan provides about 3,400 parking stalls, which give parking flexibility for future businesses.

INTENT

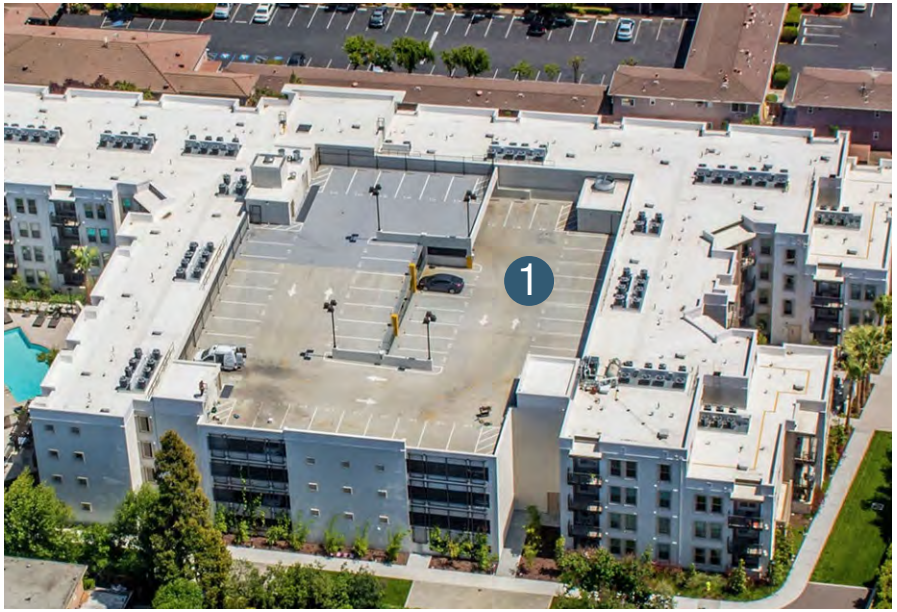
To arrange parking in a way that promotes walkability, while still providing convenient and accessible parking.

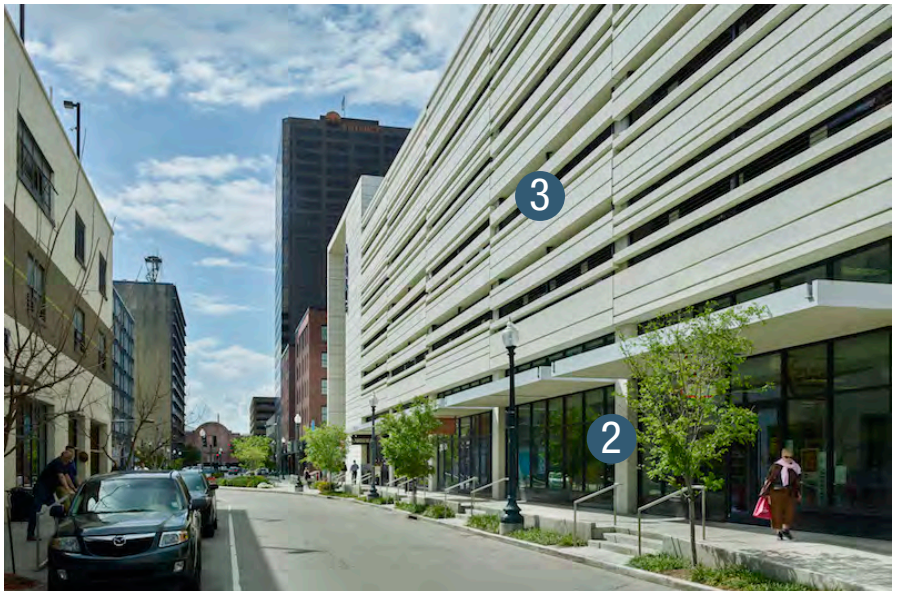
DESIGN GUIDELINES

- Dedicated parking structures will provide parking for park and ride purposes.
- Adequate bike parking should be provided for each building in the neighborhood.
- Parking structures facing Depot Street and 1450 South may have active uses on the ground floor.
- All streets are to include on-street parking where possible.
- Shared parking strategies are encouraged.
- Office parking shall have a minimum of 5% of parking stalls to be Electric Vehicle (EV) hook up ready and at least four stalls per 150,000 SF built.
- EV charging stations to be 220/240 volt minimum (Level 2).

PARKING STRUCTURE PRECEDENTS

1. Parking Structure is wrapped by buildings to hide the parking structure from the street and public open spaces.
2. Retail uses on the ground level of parking structure activates the street.
3. Decorative facade treatment of parking structure adds visual interest to the street.





CONCEPT PLAN PARKING

The plan to the right illustrates a number of parking configurations and strategies that could be used to provide parking in the Station District. Some of these include, but are not limited to:

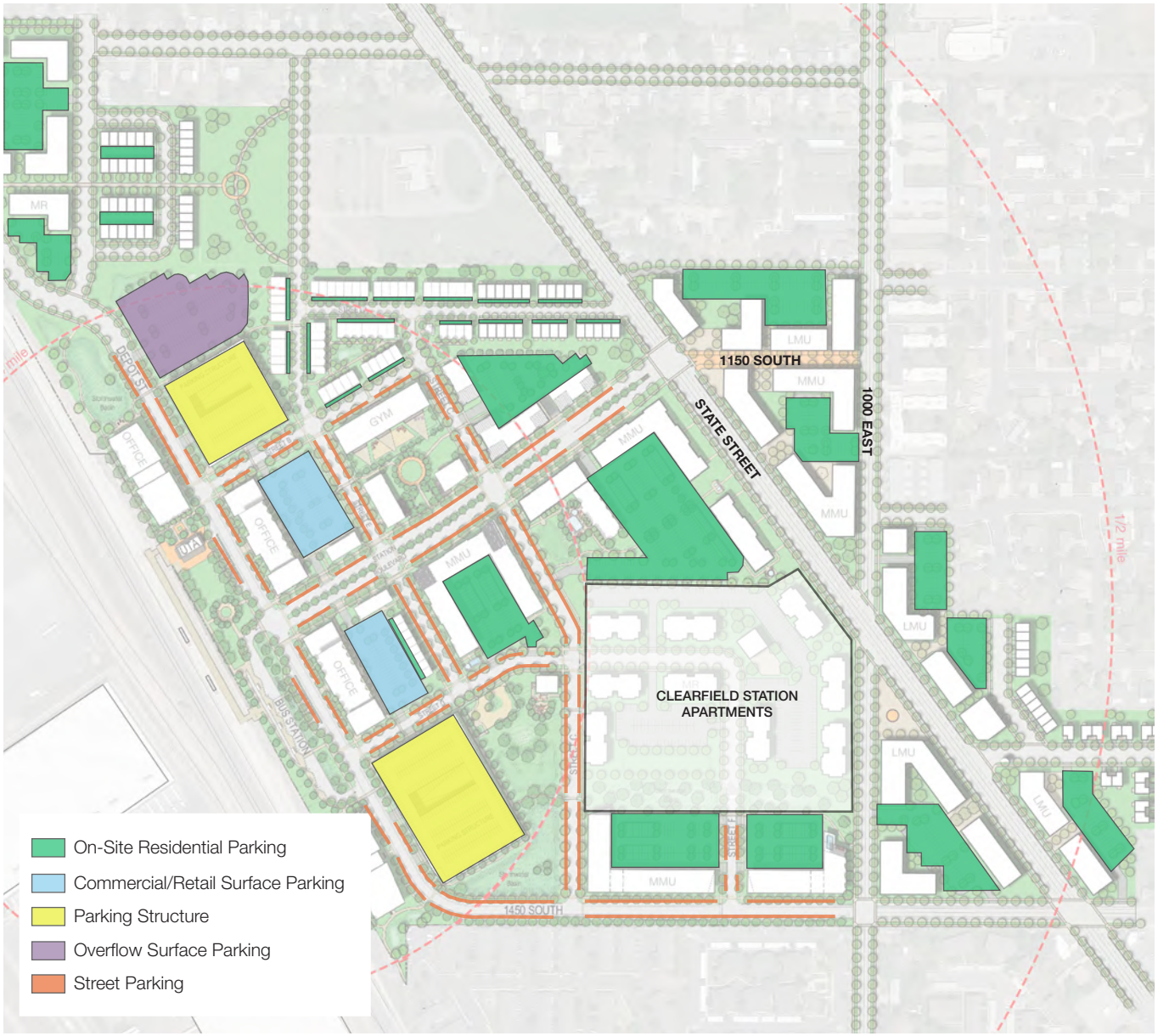
On-Site Residential Parking: Surface-level parking located directly adjacent to planned residential uses.

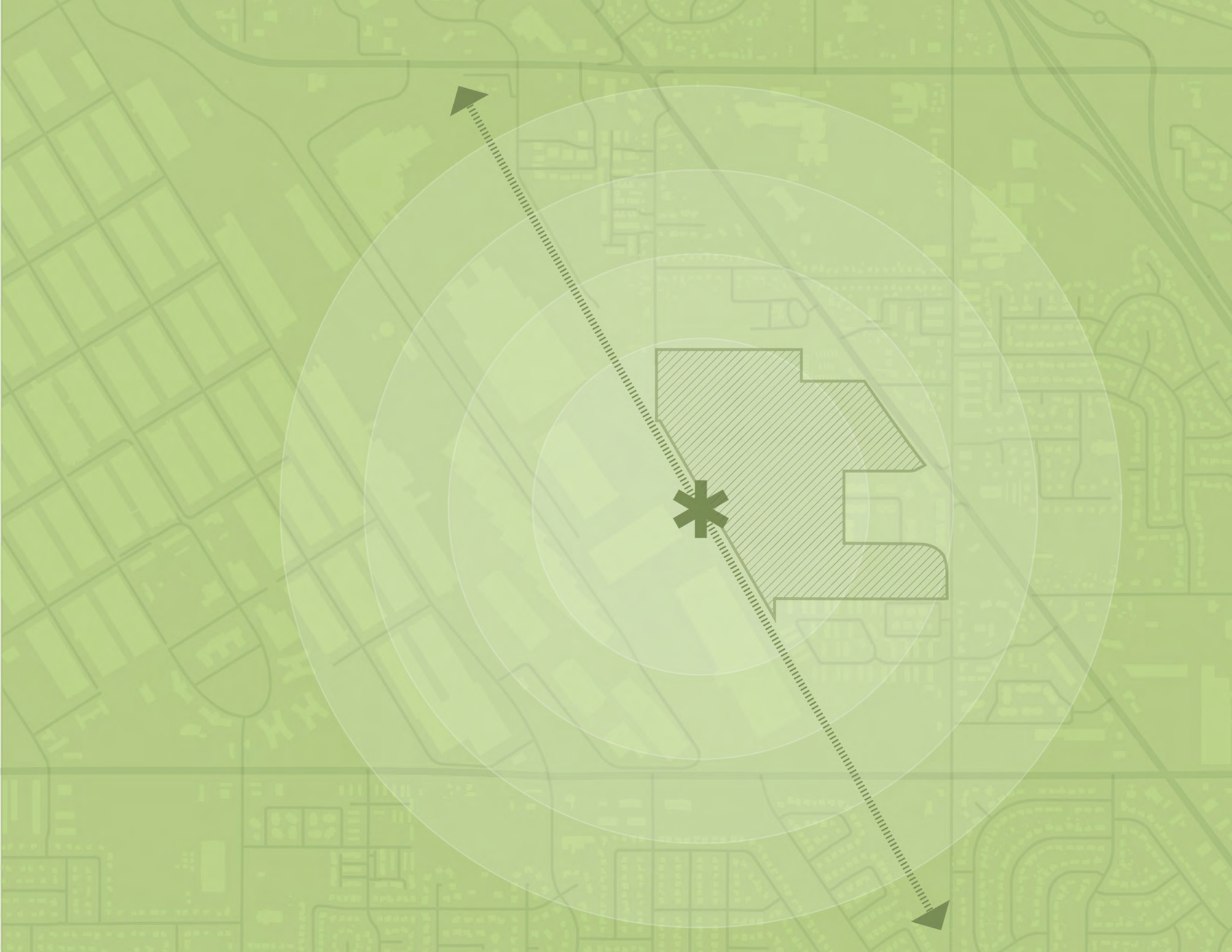
Commercial/Retail Surface Parking: Surface-level parking located directly adjacent to planned commercial uses.

Parking Structure: Located either above ground with active uses on the ground floor or underground.

Overflow Surface Parking: Surface-level parking utilized when the existing parking supply does not meet demand.

Street Parking: All streets are to include on-street parking where possible.





08

STRATEGIC RECOMMENDATIONS

Implementing the Plan

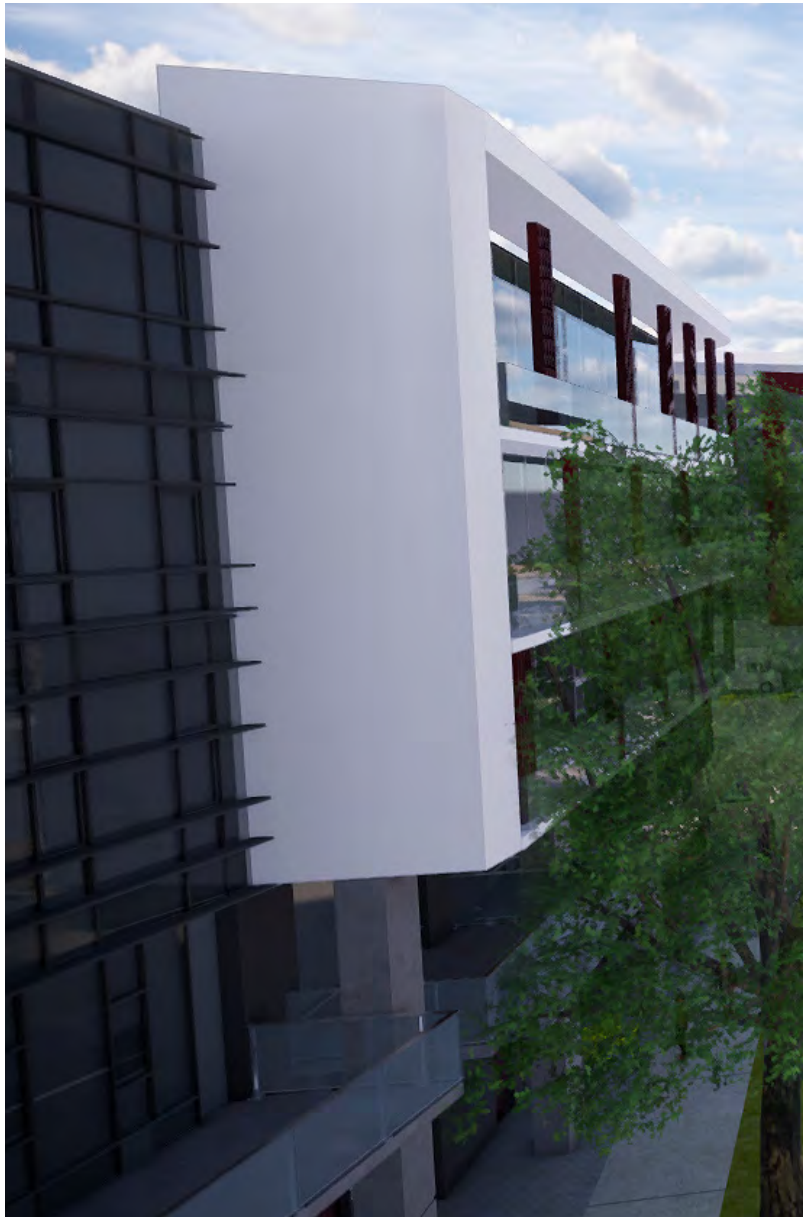
For the vision and objectives laid out in this plan to be realized, it will likely be the result of a long-term process, where residents, City Staff, UTA Staff, and elected officials have championed the vision and ensured the development of the area that they want to see. This plan presents the vision and illustrative plan for the Clearfield Station Area, but for the type of development this plan envisions to be built, more steps will need to be completed.

The strategic recommendations outline the next steps for the Station Area. They are intended to provide the action items that the City, UTA, or other stakeholders must complete to be ready for implementation. Not all steps must be completed before development on the area can begin, but each step will need to eventually be completed to ensure the area reaches its potential as outlined in this plan.

The strategic recommendations are broken down into four categories:

- Policy Updates + Plan Amendments
- Economic Development
- Transportation
- Physical Improvements

The image on the following page illustrates how the project area might look at buildout.



Policy Updates + Plan Amendments

- ☐ Ensure consistency between the Clearfield Station Area Plan and other planning and regulating documents
  - The Clearfield General Plan should be evaluated and revised as necessary to ensure consistency with this plan.
  - The City's streets and trails plans should be updated to be consistent with this plan.
- ☐ Update the City's Future Land Use Map and Zoning Ordinances to reflect the proposed land uses indicated within this plan (See map on page 37).
- ☐ Create a form-based code for the Clearfield Station District (see Districts Map on page 33), basing the requirements on the architectural design guidelines established in this plan.
- ☐ Update city transportation policies to include street and transportation related design guidelines as outlined in this plan.
- ☐ Investigate and implement strategies to incentivize or require affordable housing within the Station Area, cordinating closely with the City's Moderate Income Housing Plan.
- ☐ Develop a brand for the area
  - Establish a unique brand for the Station Area that will increase visibility and help the area become more attractive to developers, future residents, and employers/employees.
- ☐ Develop refined site plans for undeveloped properties outside of the existing MDP.
  - Develop site plans describing the physical location of buildings, accesses, and parking within the proposed developments. This plan should reflect the finalized design of the development for approval by Clearfield City, UTA, and/or UDOT once a developer is ready to develop the land.

Economic Development

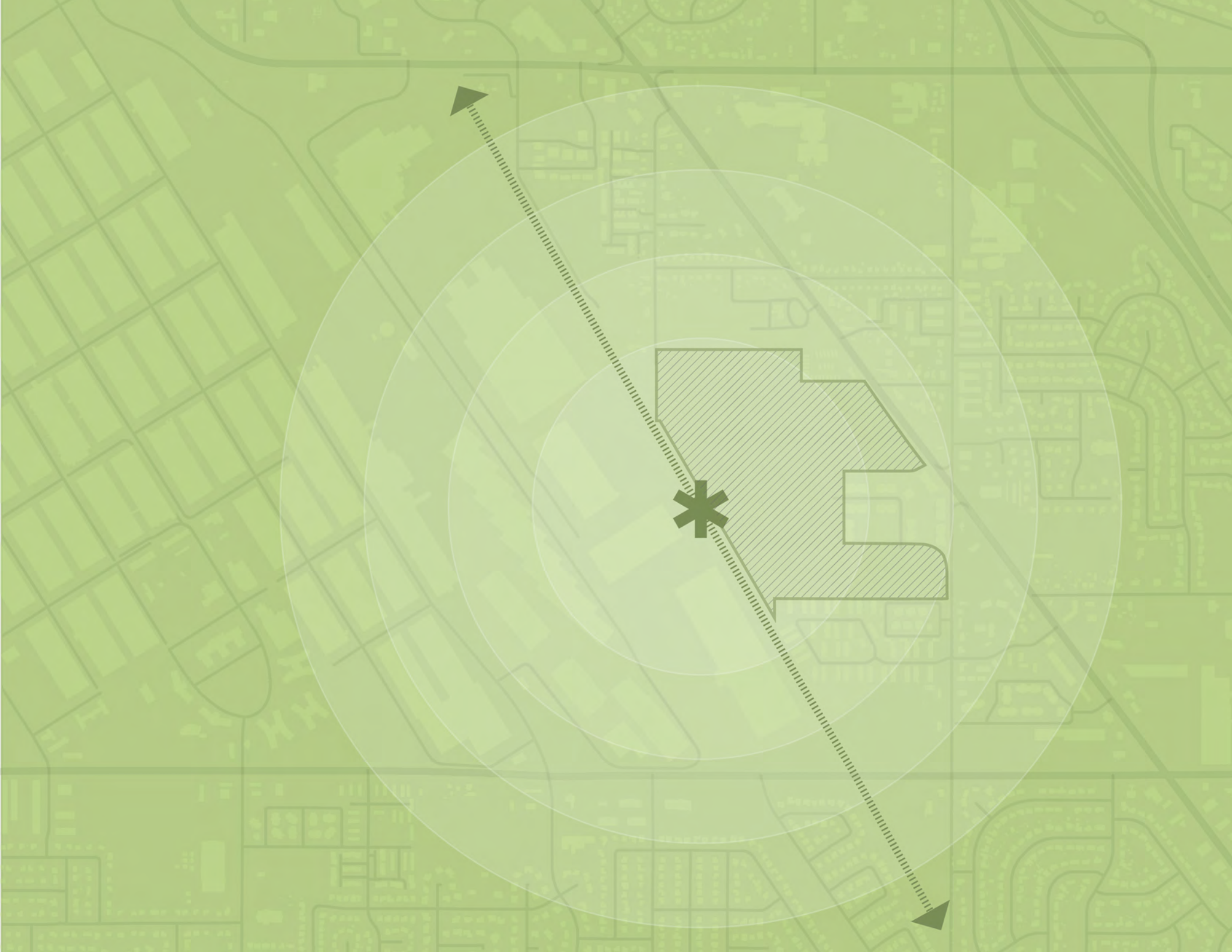
- ☐ Consider formation of a Transportation Reinvestment Zone (TRZ)
  - A TRZ is similar to the existing CDA, in that it is a program that utilizes tax increment financing. However, the advantage to the TRZ is that the majority of the funds can be used for transportation improvements. It also removes the requirement of setting aside ten percent of the increment for affordable housing.
- ☐ Reevaluate retail buying power
  - As new residential product is introduced into the area, the City should consistently reevaluate the retail buying power potential. That actual, or even planned growth, can be translated into specific buying power in terms of real dollars. That information needs to be used in attracting new retailers to the overall area.
- ☐ Reevaluate the fiscal impacts of use types
  - The City should regularly reevaluate the fiscal impacts of use types to reconsider their municipal cost models and make changes as market conditions affect different real estate Sectors.
- ☐ Solicit development partners and commercial tenants
  - UTA and the City should actively solicit development partners and commercial tenants who share the vision for the Clearfield Station Area.

Transportation

- ☐ Further Study impacts of the addition of Station Boulevard signal and changes to 1000 East signal
  - The proposed and potential signal changes will impact traffic patterns and delays, but further study is needed to know the full impacts of these intersection changes.
- ☐ Improve pedestrian crossing at 1000 South and State Street
  - If possible, relocate the existing HAWK signal from its current position north of 1000 South on State street to the crossing between 1000 South and Campbell Heights across State Street.
- ☐ Prioritize bike and pedestrian connections to shared street
  - The proposed shared street (1150 South) will be designed to prioritize bicycle and pedestrian traffic, therefore bicycle and pedestrian connections to this street should be prioritized.
- ☐ Complete an Operational Analysis and Circulation Plan
  - Due to the high-density development of the Clearfield Station Area, an internal operational analysis should be completed to determine the type of traffic control needed within the development (two-way stop control, four-way stop control, free, roundabouts, traffic circles, etc.).
- ☐ Develop parking strategy
  - Develop a strategy for parking that takes into account opportunities for shared parking, phasing, and other innovative strategies to provide parking for employees, residents, and visitors.
- ☐ Continue to work with UDOT to improve safety and connectivity across State Street.

Physical Improvements

- ☐ Work with UTA, project stakeholders, and potential developers to implement the Clearfield Station Master Development Plan (MDP).
- ☐ Implement the active transportation and trail infrastructure proposed in this plan.
  - Safely and efficiently connect the D&RGW Trail to the Clearfield Station.
  - Extend trails and make pedestrian connections to other areas of the city.
- ☐ Transform 1150 South into an extension of Station Boulevard.
  - Conduct a design & feasibility study for converting the street into a woonerf, including a realignment of the intersection with State Street and Station Boulevard. Design and construct the proposed woonerf based on the results.
- ☐ Design and construct the proposed public parks indicated in this plan (see page 79).
- ☐ Enhance streetscapes within the Station Area through consistent street trees, improved landscaping, street furnishings, and lighting.
- ☐ Allocate tax increment to construct parking structures near station platform to provide park & ride parking for transit users.



09

Appendix A

Existing Conditions Report:
Land Use & Transportation

DRAFT

CLEARFIELD CONNECTED

EXISTING CONDITIONS ANALYSIS

BACKGROUND

The Clearfield FrontRunner Station is a place of connections and linkages, where people arrive and depart on their way to destinations near and far. Located in the economic heart of Davis County, the station provides access to many workplace and residential destinations, while facilitating access to countless destinations along the Wasatch Front.

The Clearfield Station is a vital component of the FrontRunner system and Clearfield City's overall infrastructure. Encompassing approximately sixty acres of vacant land, the Clearfield FrontRunner Station TOD site represents a significant opportunity to meet the transit and placemaking needs of Clearfield City and its residents, as well as those of UTA and transit riders throughout the region.

The purpose of the updated Clearfield FrontRunner Station Area Plan (2023) is to establish a clear vision, goals, and urban design principles that will govern development of the Clearfield Station site over the next 10 years and beyond.

CONTEXT

Planning Context

The *Clearfield Connected Station Area Plan (2023)* is an update to the recently adopted *Clearfield Connected Station Area Plan (2019)*, which established a clear vision for the station area. This vision was further refined in 2021 in the *Clearfield Station Master Development Plan (MDP),* which builds upon the area plan, providing further detail for development. Additionally, in 2021, Clearfield City adopted the *North Davis Active Transportation Plan*, which identifies important pedestrian and cyclist infrastructure improvements around the station area.

Figure 1: Clearfield Station Illustrative Master Plan from the MDP

Recent changes in Utah State planning codes require the *Clearfield Connected Station Area Plan (2019)* be amended to address a wider service area and to incorporate options for affordable housing. This updated plan will embrace previous efforts, translating the energy underpinning those plans into an updated and comprehensive version that also addresses the new elements required by state code.

The updated *Clearfield Connected Station Area Plan* will incorporate the following additions and modifications:

- Assessment of prior studies and the existing conditions of the study area, focusing on the expanded station area "zone of influence," changing development patterns, and recent demographic and socio-economic changes.
- Incorporation of statewide objectives for moderate-income housing, environmental conditions, and transportation choices and access.
- Updated design guidelines that better align with the MDP.
- Assessment of the market potential of the station area and the synergies of commercial and multi-family residential uses, as part of a mixed-use transit district.
- Assessment of the access to and from the station area for vehicles, transit, and active transportation modes, including pedestrians and bicyclists.

Historical Context

Clearfield was settled in 1877 as an agricultural community. The city's structure began to change in the 1940's, when major defense facilities such as Hill Air Force Base and the Clearfield Naval Supply Depot were built within and adjacent to the city. The air force base quickly became a significant employer in the region and has grown to become one of the largest employers in the state.

The Clearfield Naval Supply Depot was constructed adjacent to the railways that line the west edge of the FrontRunner station today. This depot was also a major employer until it was decommissioned in 1962. The depot's remnant facilities eventually became the Freeport Center, which is now a major manufacturing, warehousing, and distribution destination.

The Clearfield Station TOD site has historically been used for light industrial uses. More recently a portion of the site developed into a park-and-ride lot for transit riders.

Demographic Context

Utah is one of the fastest growing states in the country and is expected to grow another 50% by 2040. This growth has led to a lack of housing, which has resulted in skyrocketing housing costs and unprecedented demand for affordable housing in recent years. These conditions have created demand for a wider range of housing options throughout the region, with a particular focus on more compact and efficient multi-family development models. Areas in proximity to transit such as the Clearfield Station site are particularly well-suited for multi-family housing as part of a high-quality, mixed-use development.

Physical Context

Clearfield is located in Davis County, approximately 28 miles north of Salt Lake City, situated between the Great Salt Lake to the west and the Wasatch Mountains to the east. The Clearfield FrontRunner Station is located across the railroad tracks from the Freeport Center near the Clearfield-Layton border. As shown in Figures 2 and 3, the station area is close to Hill Air Force Base (northeast), Davis Medical Center (southeast), Downtown Clearfield (north), the planned Layton City Town Center (south), and a education/recreation district composed of three public schools and a park (northeast).

Figure 2: Regional Context Map

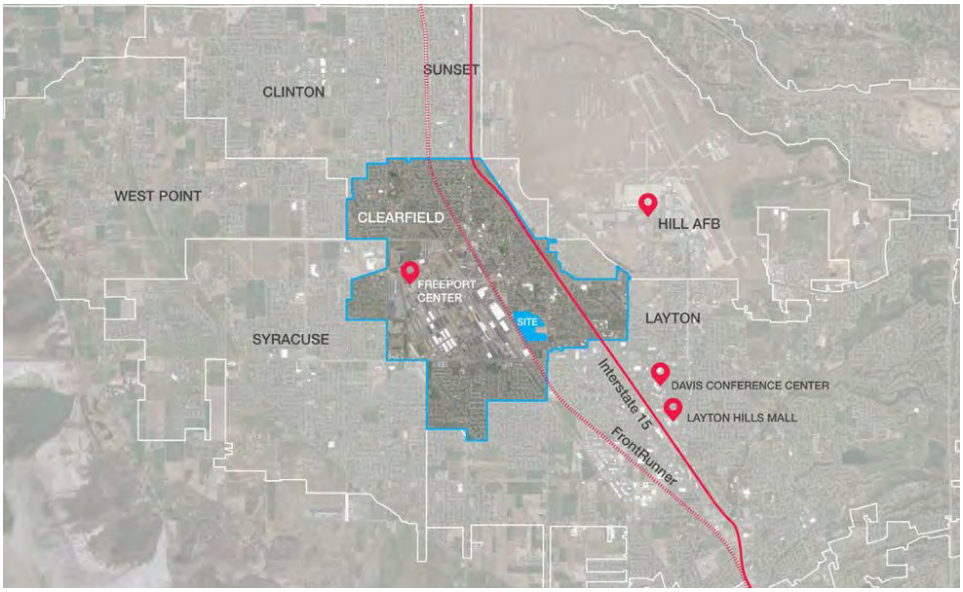
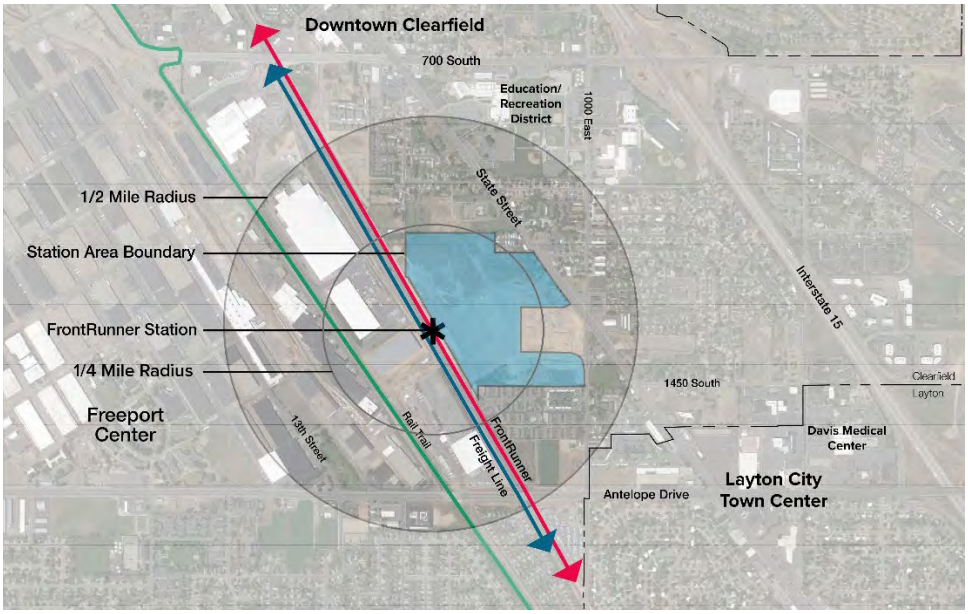


Figure 3: Local Context & Zone of Influence Map



Station Zone of Influence

The State of Utah requires the Station Area Plan to include a half-mile radius “zone of influence" when assessing opportunities and constraints emanating from the station. As shown in Figure 3, this area includes the master-planned Frontrunner TOD property; a large portion of the Freeport Center to the west; commercial properties along State Street to the east; and existing residential neighborhoods to the north, south, and east.

Clearfield Station Site

The boundary for the Clearfield Station Area Plan is shown in Figure 3. The TOD site encompasses 60 acres of land, most of which is undeveloped, and represents the largest area of UTA-owned-vacant-land adjacent to a FrontRunner or TRAX transit station in the entire UTA system. The station is situated between the railroad/FrontRunner tracks to the west and State Street to the east. Currently, the site is used as a park-and-ride lot for transit riders but is otherwise vacant. Since the last station plan was adopted in 2019, significant development activity has taken place in the station area, primarily the road and parking lot design and construction within the site.

Nine apartment buildings consisting of 216 units were built on ten acres on the southwest corner of State Street and 1000 East. This project was incorporated into the station design of the 2019 Station Area Plan, which identified connections between the station site and internal roadway networks. At buildout, the Clearfield Station TOD is envisioned to be a cohesive neighborhood that includes the existing 10-acre apartment site.

LAND USE

A thorough site documentation and analysis process was conducted to ensure the planning and design concepts that emerge are aligned with the opportunities and constraints that currently exist. As described and illustrated below, key land use conditions were reviewed and investigated as part of understanding the structure and relationships between land uses in the study area.

Figure 4 shows the general land-uses of parcels within ½ miles of the station. Current land uses surrounding the site are primarily single family and medium density multifamily residential housing. East of the site is the State Street commercial corridor. West of the site is the Freeport Center that consists of industrial uses, including processing, assembling, manufacturing and warehouse storage. As indicated in Table 1, the total area included within the half-mile zone of influence encompasses 899 acres.

Figure 4: Existing Land Use Map

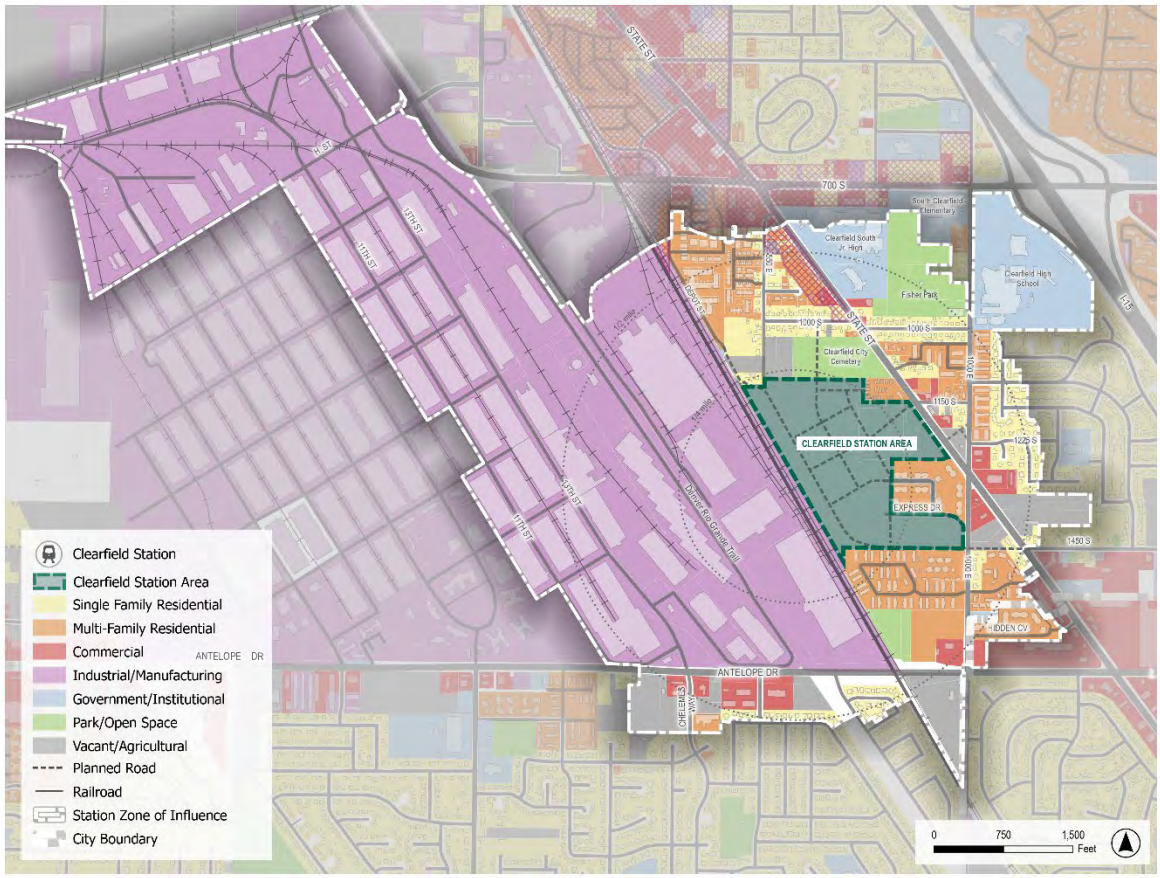


Table 1: Existing Land Use

Name	Acres	Percent
Clearfield Station Area Site	56	6%
Single-Family Residential	41	5%
Multi-Family Residential	88	10%
Commercial	19	2%
Industrial/Manufacturing	534	59%
Government/Institutional	49	5%
Park/Open Space	30	3%
Vacant/Agriculture	44	5%
Roads & Utilities	38	4%
Total	**899**	

Environmental Conditions

As illustrated in Figure 5, there are no negative environmental conditions known on the site, which provides optimal conditions for development and good access to existing utilities. The primary environmental conditions that impact the site are noise generated by jets taking off from Hill Air Force Base, in addition to noise, vibrations, and emissions resulting from rail lines and major arterial roads adjacent to the site.

The typical slope across the site is approximately 2% which is generally flat and provides adequate surface drainage. An existing detention basin is located on the south end of the site and at present provides adequate storage for surface drainage of the site. Figure 6 indicates that the site is significantly impacted by traffic. High traffic volumes can be beneficial for regional connection and visibility for the station, but can also hinder local access, particularly for pedestrians and cyclists.

Figure 5: Station Site Environmental Conditions

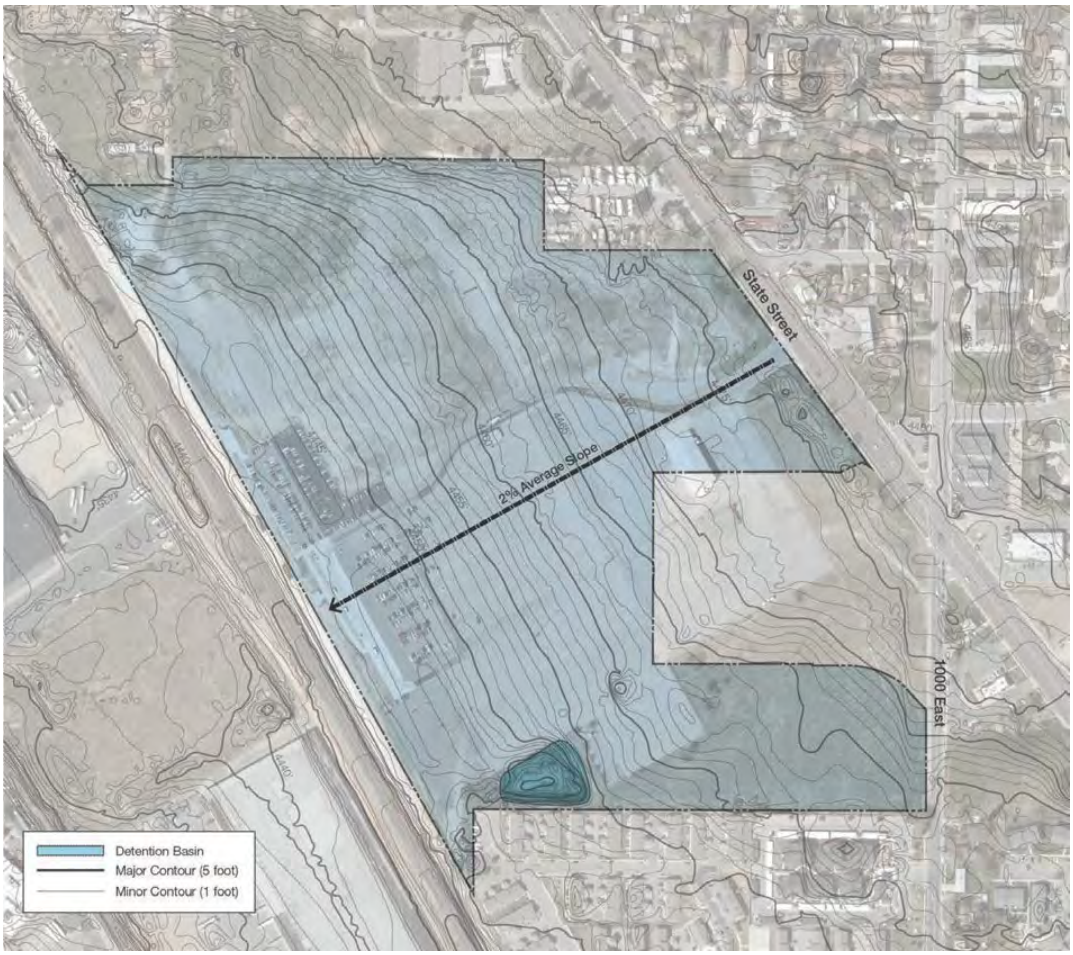
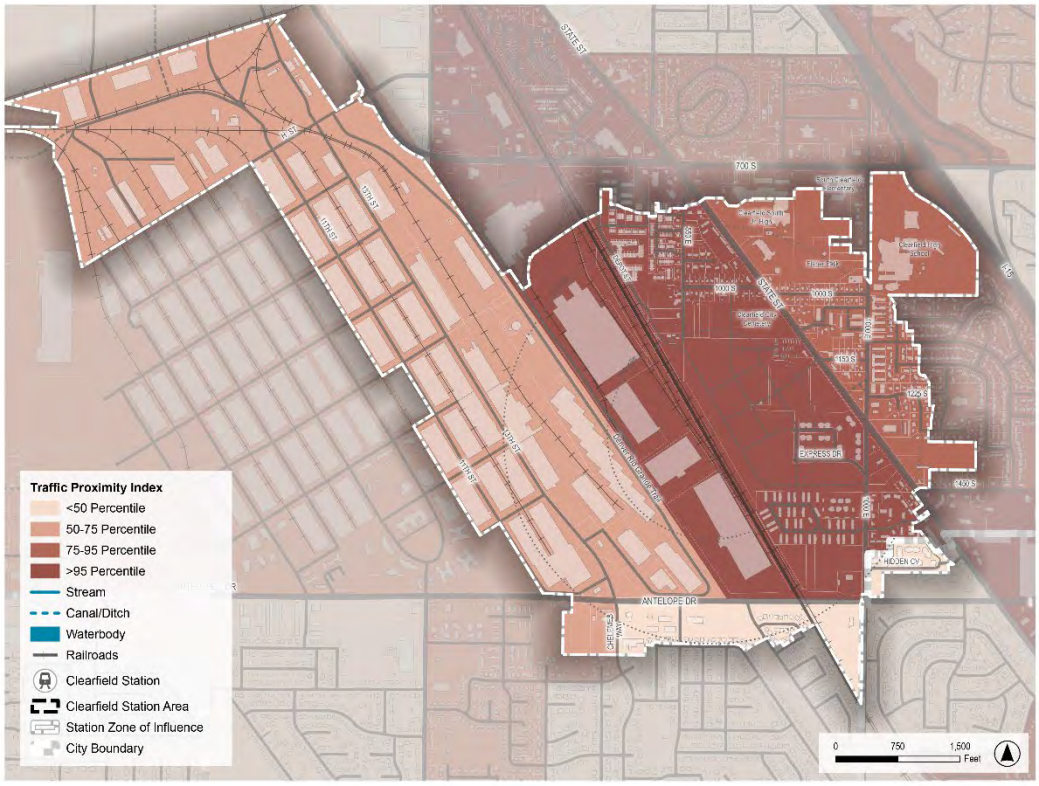


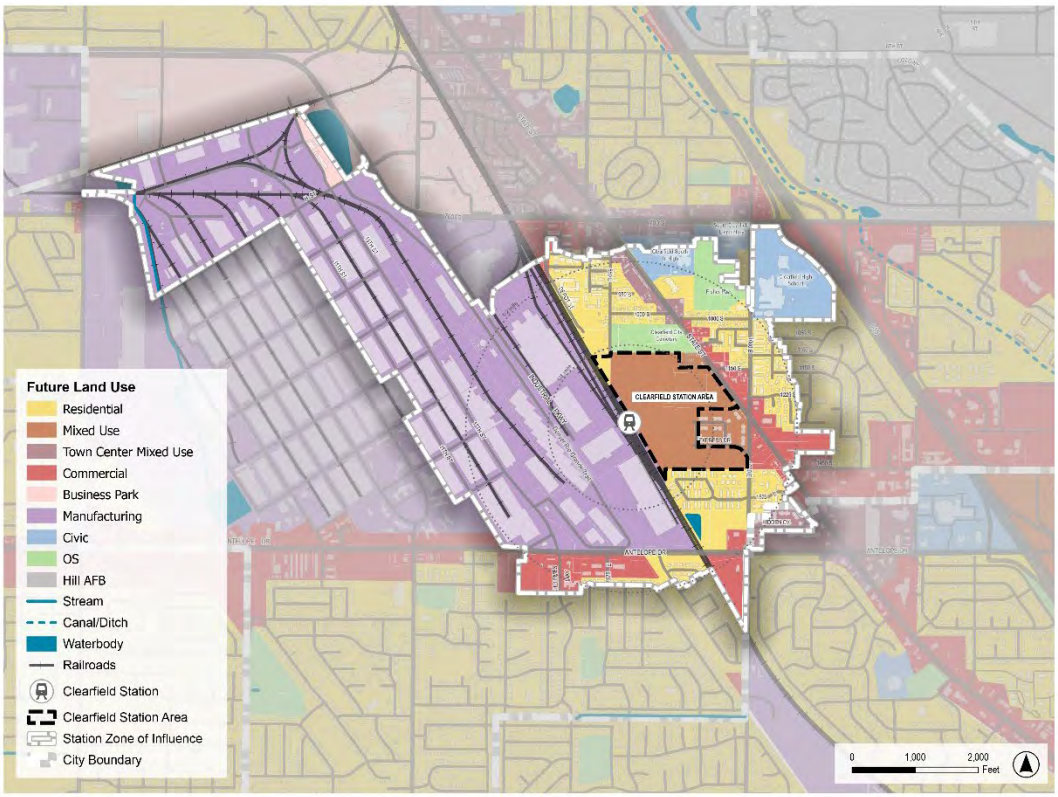
Figure 6: Utah Traffic Proximity Index



Future Land Use

The *Clearfield City General Plan (2017)* identifies future land uses for the station area in a simple and straightforward manner (see Figure 7). The Frontrunner station site is designated as a mixed-use site, with residential uses to the north and south, industrial use to the west, and commercial use dispersed along State Street to the east. The plan also indicates a connection between the station area and downtown Clearfield, as part of an extension of mixed-use development along State Street ending at 1000 South. Since most existing uses on State Street between 700 South and 1000 South are unlikely to change from their civic and residential uses in the short-term, the station area is likely to remain somewhat detached from downtown Clearfield for the next ten years and beyond.

Figure 7: Future Land Use Map



The *Clearfield Station Master Development Plan (2021)* proposes a mix of land uses and new street connections within the Frontrunner Station TOD site (see Figure 8). Proposed land uses include mixed-use residential and retail along Station Boulevard, office development concentrated along Depot Street, additional mixed-use residential along 1450 South, and townhouses along the northern property line – all with accompanying parking areas and a network of connected open spaces.

Figure 8: Clearfield Station Site Future Land Use

TRANSPORTATION

Transit

Clearfield Station is located just west of State Street and north of Antelope Drive. The most recent ridership data from UTA (March 2023) show 434 average daily boardings and 375 average daily alightings. This is similar ridership to that of nearby Layton, Farmington, and Woods Cross stations, and about half that of Ogden Station. Figure 9 shows the transit network within the station area and stop-level ridership.

Clearfield Station is served by four local bus routes:

- **470 | Ogden-Salt Lake Intercity | 30-minute peak service**: Connects downtown Salt Lake City to Ogden Station with a transfer stop at Clearfield Station. The Clearfield Station stop for this route has 86 daily boardings and 86 daily alightings.
- **626 | West Roy – Clearfield Station | 30-minute peak service**: Connects West Roy to Clearfield Station through Syracuse. The Clearfield Station stop for this route has 38 daily boardings and 39 daily alightings.

- **627 | WSU Davis – DTC | 30-minute peak service:** Connects Davis Technical College to Clearfield Station with a transfer stop at Weber State University Davis Campus. The Clearfield Station stop for this route has 48 daily boardings and 39 daily alightings.
- **640 | Layton Hills Mall – WSU Ogden Campus | 30-minute peak service:** Connects Layton Hills Mall to Weber State University with a transfer stop at Clearfield Station. The Clearfield Station stop for this route has 58 daily boardings and 48 daily alightings.

According to UTA's 2019 On-board Survey the primary mode of access/egress to Clearfield Station is walking, following by driving alone and being picked up or dropped off. Combined, the vehicle-oriented modes comprise a majority share of access/egress modes at 61% and 57% respectively. Table 2 shows all modes of access and egress to the station.

Figure 9: Clearfield Station Transit

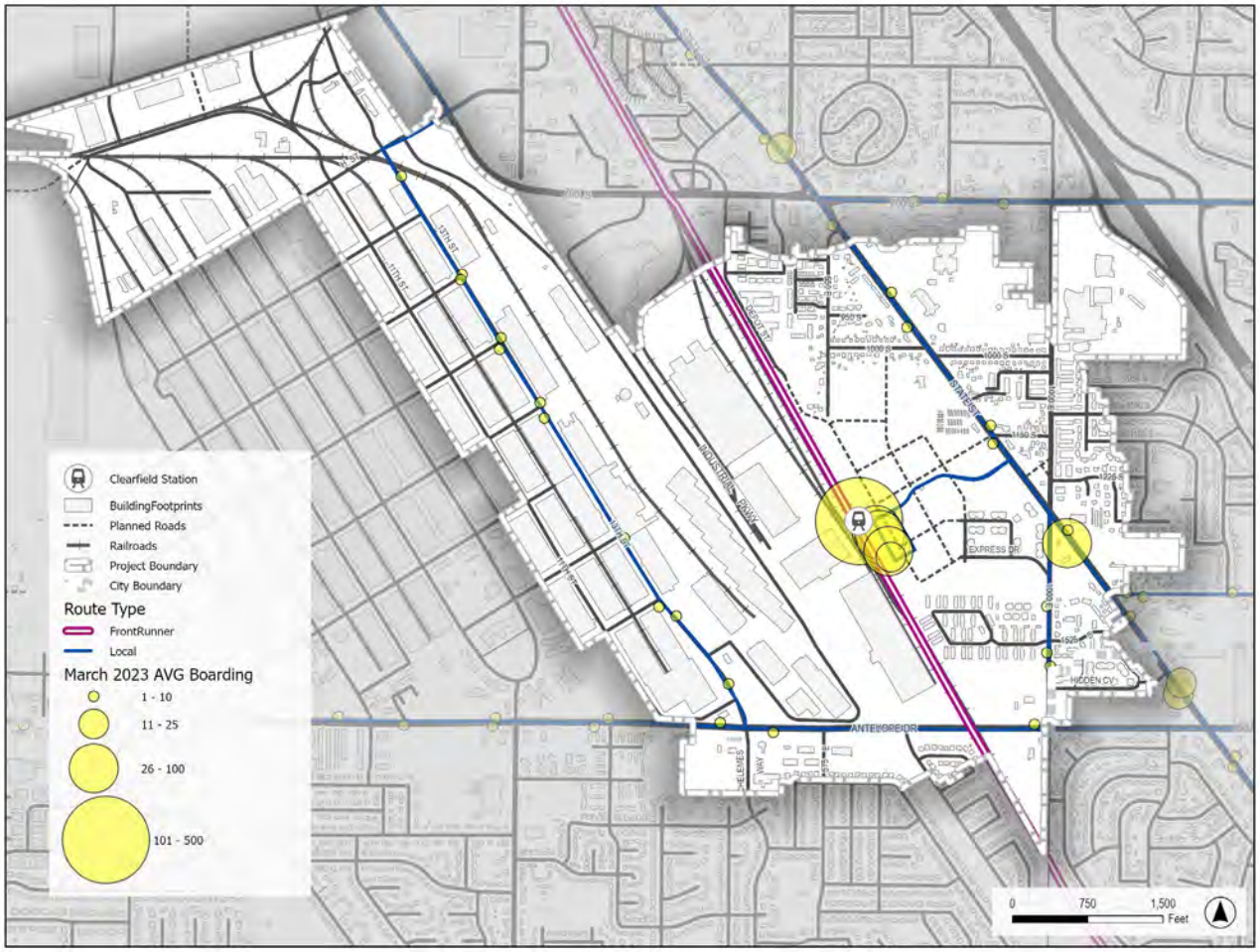


Table 2: Clearfield Station Mode of Access/Egress

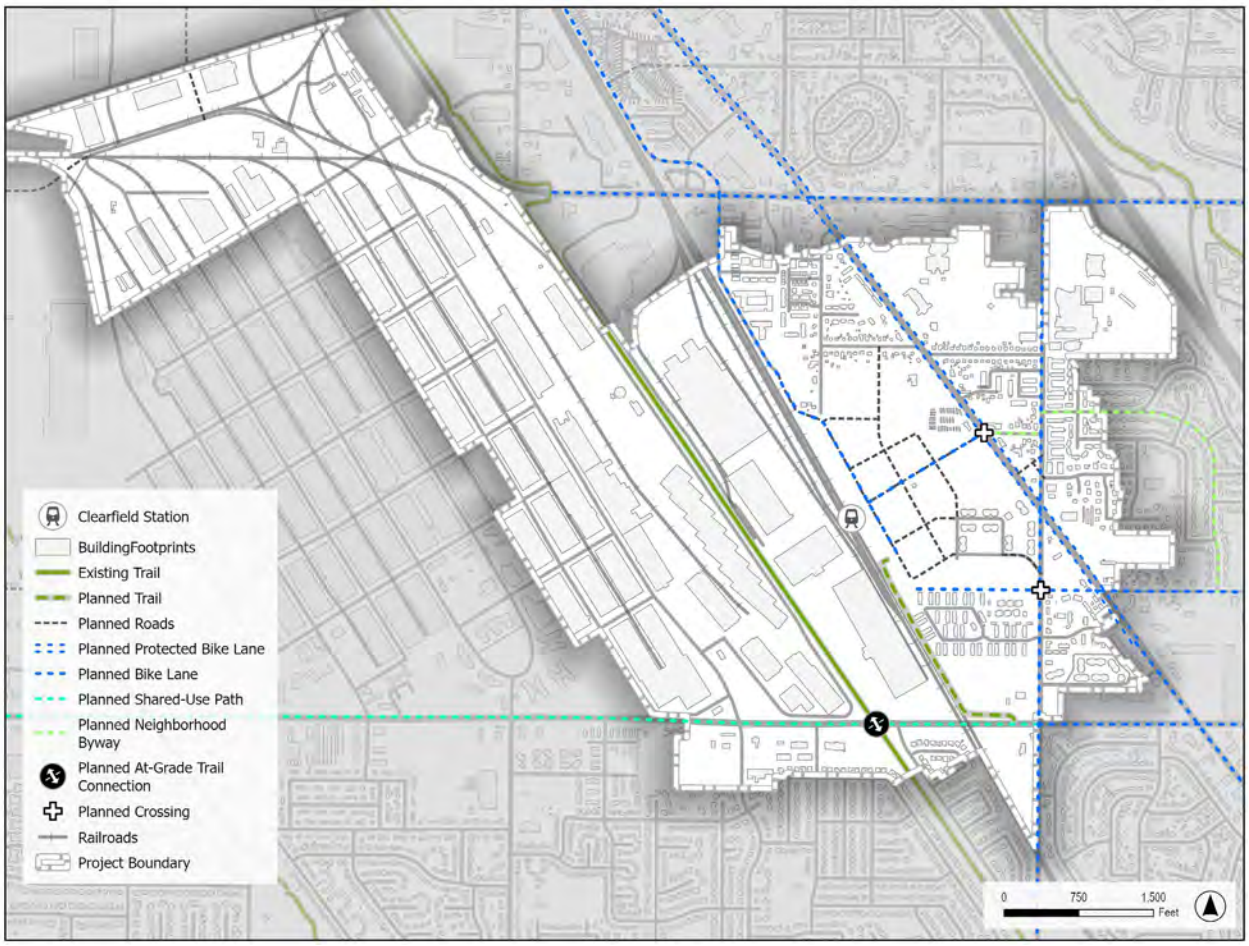
MODE	ACCESS	EGRESS
WALK	35%	41%
DROVE ALONE	34%	31%
PICKED UP/DROPPED OFF BY SOMEONE	22%	21%
DROVE / RIDE WITH OTHERS	5%	3%
PERSONAL BIKE	3%	2%
SKATEBOARD / LONGBOARD	1%	0%
BIKE SHARING (E.G. GREEN BIKE)	1%	0%
SHUTTLE	0%	1%
UBER, LYFT, ETC.	0%	1%

Active Transportation

Existing Facilities

There is only one dedicated active transportation facility within the station area, the Denver and Rio Grande Western Rail Trail. This paved facility is part of the Golden Spoke Route and US Bike Route 77, with connectivity north to Ogden and south all the way to Provo. There are several planned active transportation line and point projects in the area, identified from the North Davis Active Transportation Plan and the 2023 WRFC RTP. Bike lanes are planned for Depot Street, 1000 East, 1450 South, 700 South, on Antelope Drive west of 1000 East, and the future road to the Clearfield FrontRunner Station. Additional planned line projects include a protected bike lane on State Street, a trail connection from the FrontRunner Station south to Antelope Drive, a shared-use path on Antelope Drive west of 1000 East, and neighborhood byways on 1150/1100 South. Planned point projects include at-grade pedestrian/bike crossings at 1150 South State Street and at 1000 East and Antelope Drive, and a planned at-grade trail connection between the Denver and Rio Grande Western Rail Trail and the planned shared-use path on Antelope Drive.

Figure 10: Active Transportation Facilities



Activity

Activity data is derived from self-report trips recorded on the fitness platform Strava. This app is popular with recreational and competitive bicyclists, hikers and runners to track their training progress. Although this group of users tends to be comfortable riding on busier roadways than more casual users, their presence can indicate the frequency of use of certain routes.

Figure 11 shows the recorded run, walk, and hike trips in 2022. The most popular place to log these activities within the study area it the Denver and Rio Grande Western Rail Trail, with close to 3,000 recorded activities. Antelope Drive is also a relatively popular corridor. Few people record these types of Trips while accessing the FrontRunner station.

Figure 11: Pedestrian Activity 2022

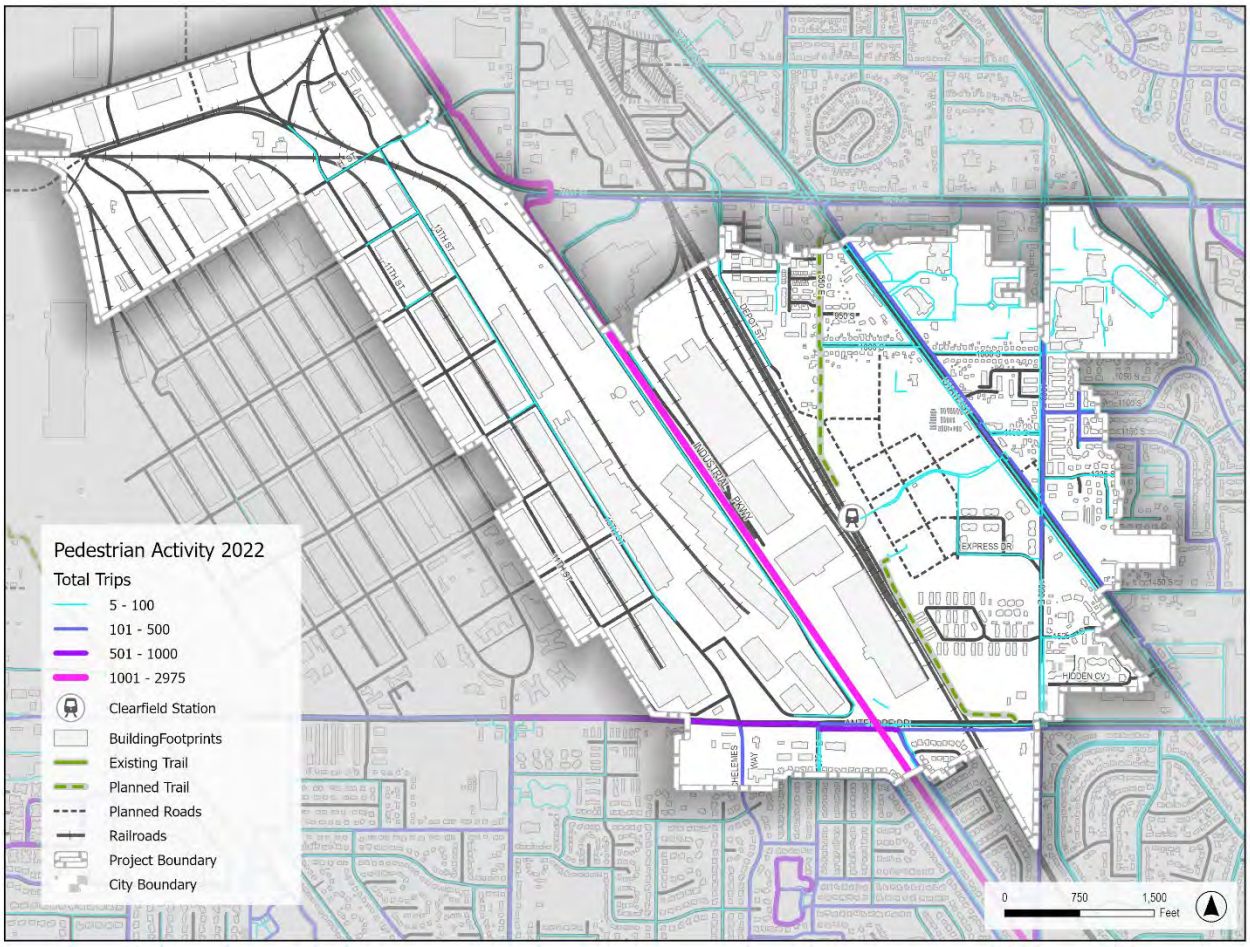
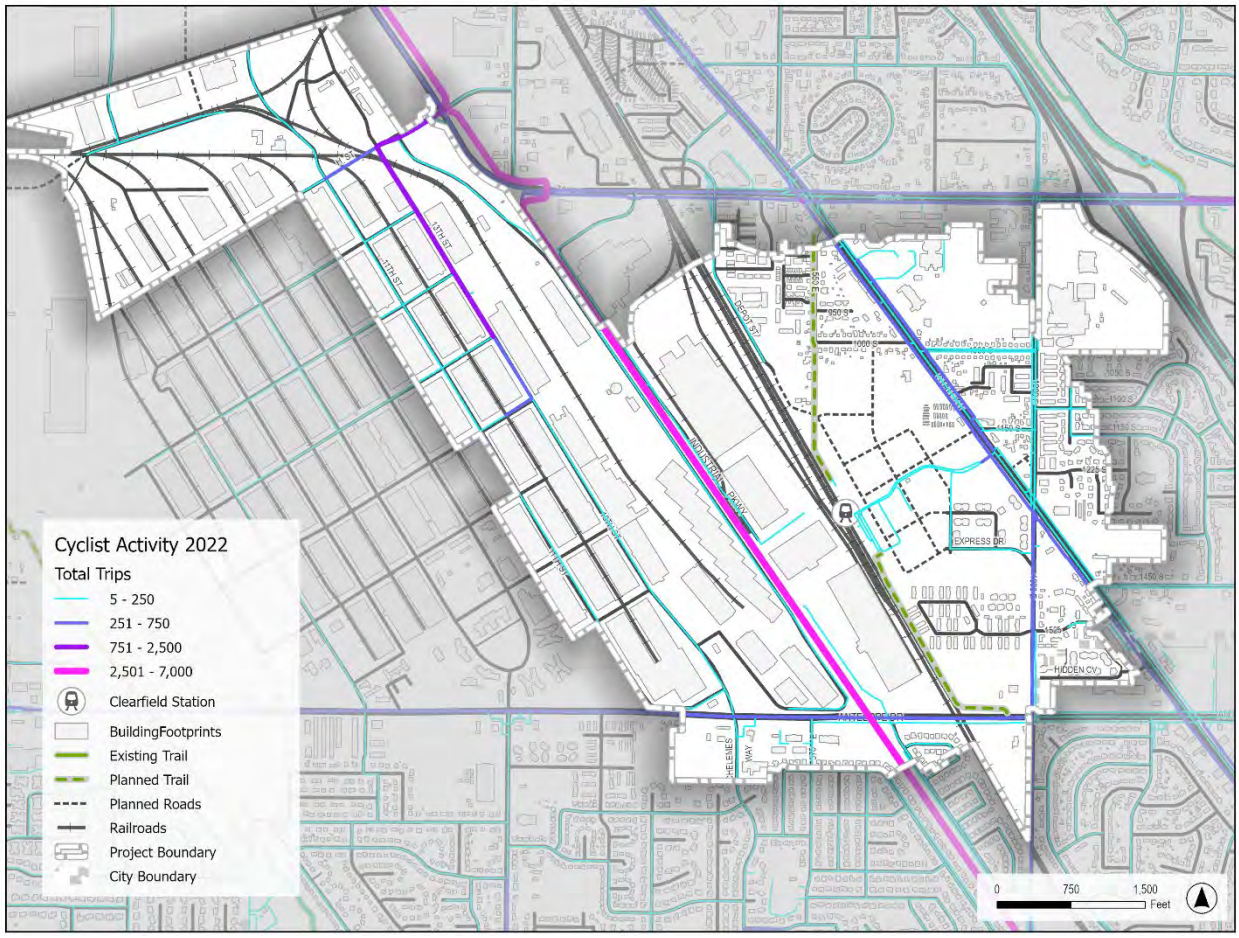


Figure 12 shows the bicycle trips recorded within the city during 2022. These trips largely follow the same pattern found with the pedestrian activity, but with greater magnitude. Here the Denver and Rio Grande Rail Trail has close to 7,000 recorded activities. 13th Street also shows relatively high activity with access from the north on H Street. Few people record these types of Trips while accessing the FrontRunner station.

Figure 12: Cyclist Activity 2022



Planned Improvements

The *North Davis Active Transportation Plan* identifies planned improvements for major corridors, including State Street, Antelope Drive, and 700 S. These improvements include a multi-use path and buffered bike lanes along Antelope Drive (Figure 13 & Figure 14), protected bike lanes on State Street (Figure 15), and enhanced street crossings, including at State Street and 1150 South (Figure 16).

Figure 13: Proposed Street Cross Section for Antelope Drive (1000 W to 1000 E)

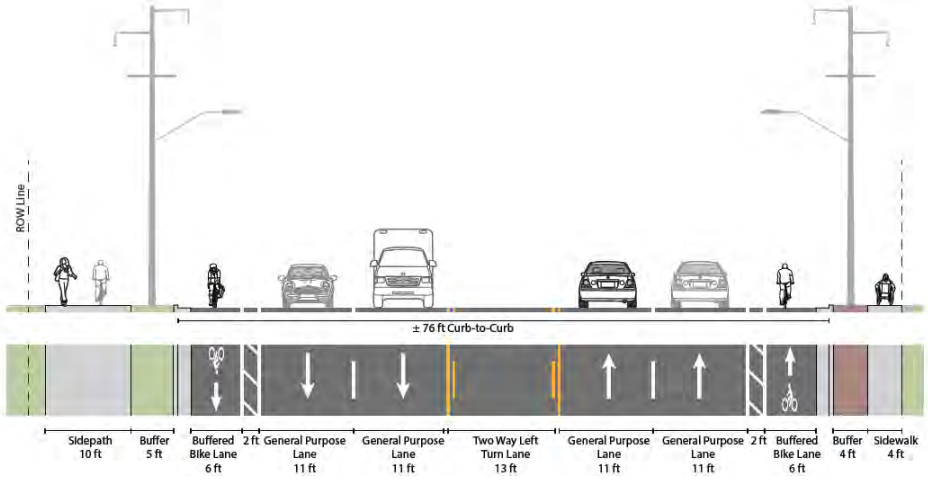


Figure 14: Proposed Antelope Drive & DRGW Trail Connection

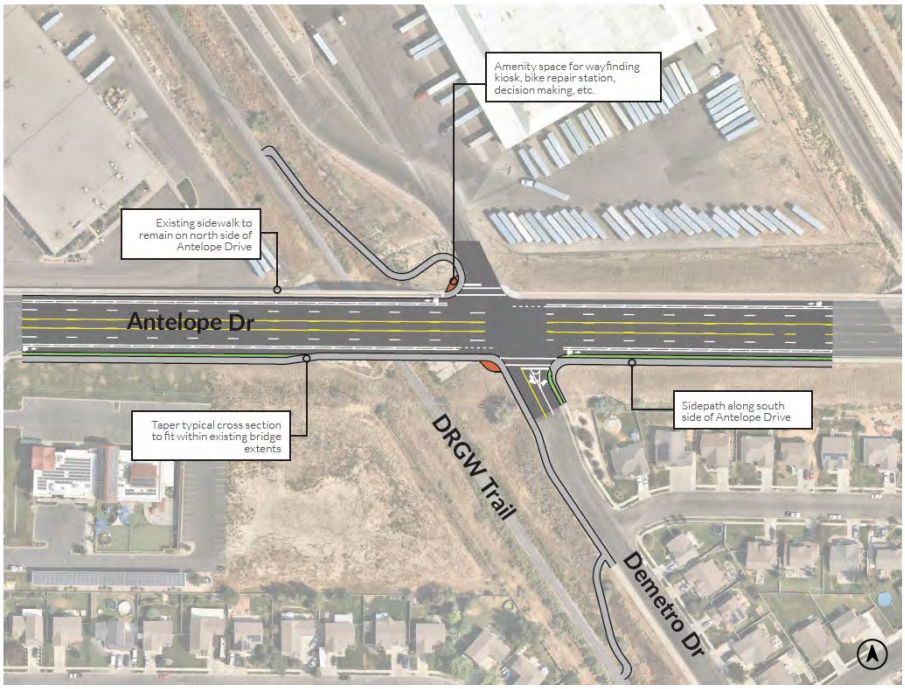


Figure 15: Proposed Street Cross Section for State Street (800 North to 1525 S)

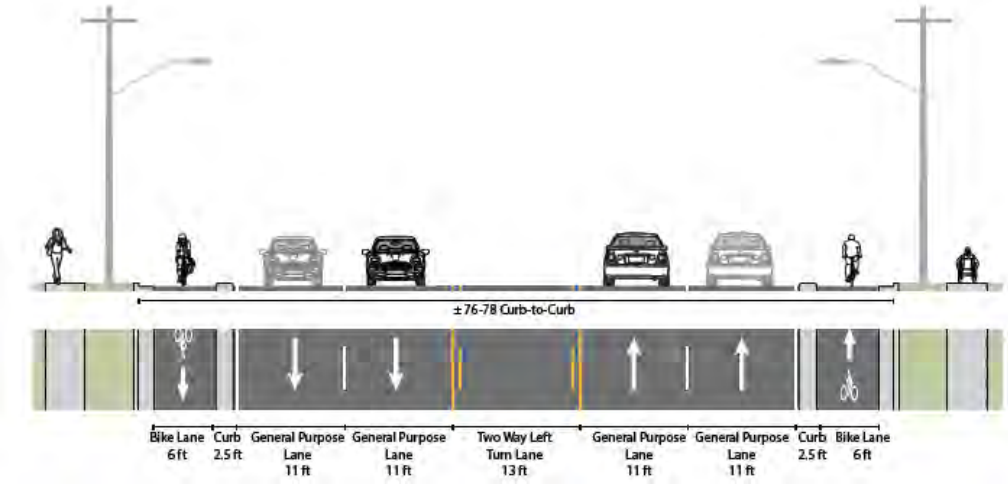
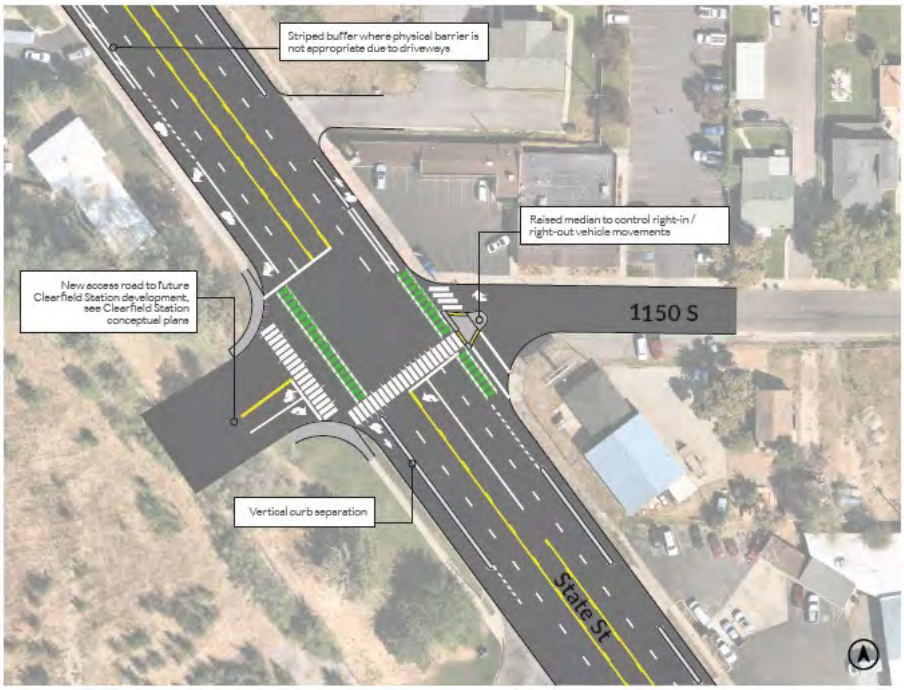


Figure 16: Proposed Intersection Design at State Street and 1150 South



Vehicle Conditions

Figure 17 shows the vehicle classification of roadway in the vicinity of the station area. Additionally, it depicts the 2020 average annual daily traffic volumes (AADT) from UDOT and the intersection level of service (LOS) from the 2018 Clearfield Station Master Plan. State Street is a principal arterial and provides the primary access to the FrontRunner Station. As of 2018, the LOS of the intersection at State Street and the station access was a B in the AM and C in the PM peak periods, indicating a well-functioning intersection. Other intersections along State Street show worse LOS, with the intersection of 700 South having the worst in the area with a PM Peak of F.

Figure 17: Vehicle Conditions

Safety

Figure 18 shows a heat map of all crashes between 2018 and 2022 with fatal and suspected serious injury crashes indicated separately. The largest concentration of all crashes within the station area is at 13th Street and Antelope Drive. Other hot spots occur at 1000 East and Antelope Drive, and 1000 East and State Street. While there are no fatal crashes within the station area, there are a number of suspected serious injury crashes, with four along the State Street corridor. One of these occurs at Station Boulevard, the primary access to the station.

Figure 18: Severe Crashes 2018-2022

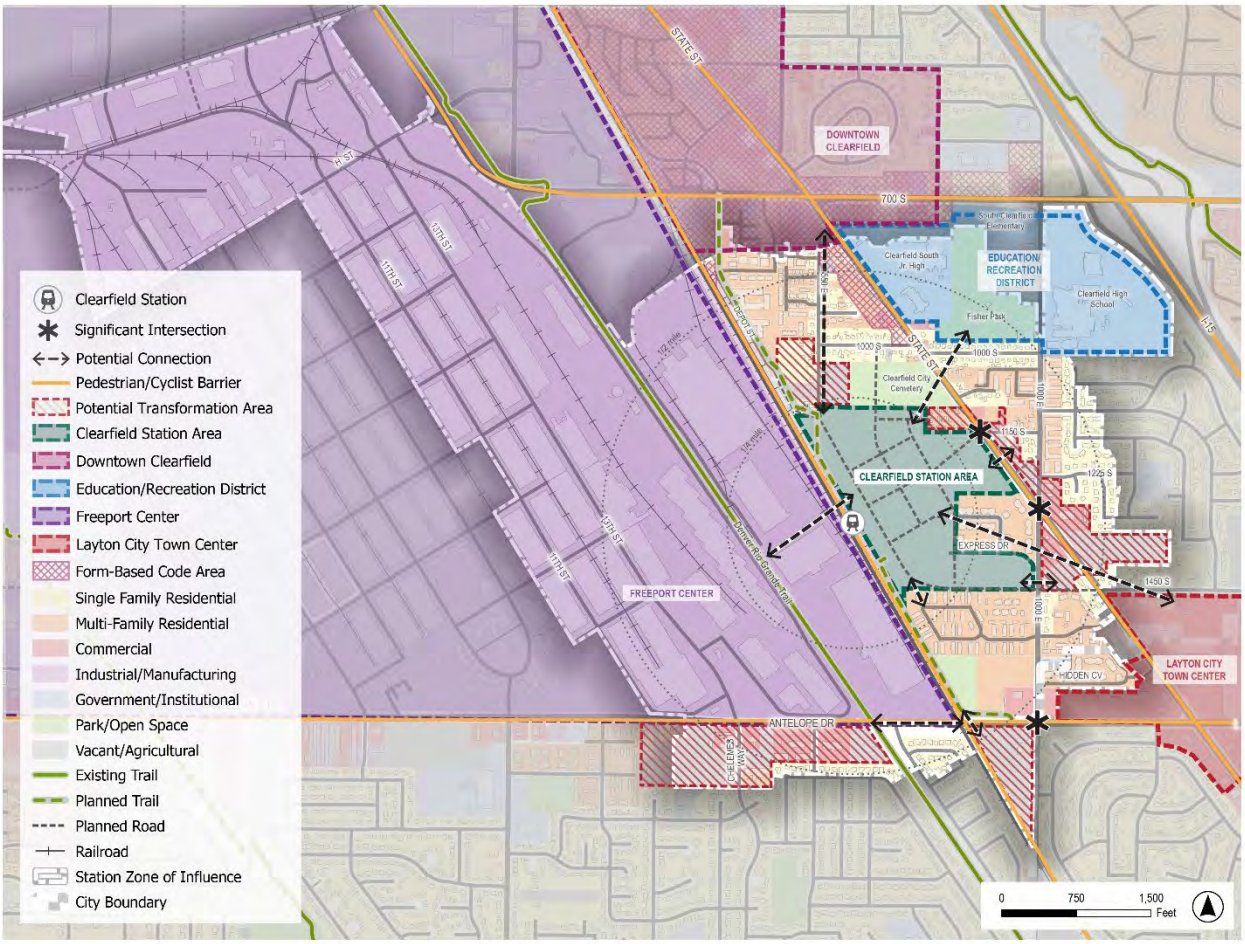
Figure 19 shows both pedestrian and cyclist involved crashes between 2018 and 2022. In total there were 22 crashes, 13 pedestrian involved and 9 cyclist involved. The highest concentration of these crashes occurs at 13th Street and Antelope Drive with 3 bicycle involved and 2 pedestrian involved. The Antelope Drive corridor in general has the most of these crashes, with 13 in total. There were no fatal crashes, but three suspected serious injury crashes, all along the 1000 East corridor.

Figure 19: Active Transportation Crashes 2018-2022

SITE ANALYSIS AND IMPLICATIONS

In response to the land use and transportation findings, a site analysis for the station's area of influence (Figure 20) examines the opportunities and constraints for creating a well-connected, integrated, mixed-use station area. Key elements identified include potential connections, significant intersections, pedestrian/cyclist barriers, and potential transformation areas.

Figure 20: Site Analysis Map



Potential Connections

The potential connections identified in Figure 21 indicate destinations in need of a stronger connection to the station. These destinations include:

Adjacent Neighborhoods: The multi-family development to the South is separated by a fence with no connections into the site. The neighborhood north of the site currently does not have any connections to the station, though the planned future Depot Street and trail will allow for vehicular, pedestrian, and bicycle connections to the north.

Freeport Center and Other Areas West of the Tracks: This area has very limited non-motorized access

to the station, as crossing the tracks is only possible along the City's major arterials, which currently include little to no pedestrian or bicycle facilities. However, a multi-use path and buffered bike lanes planned across the Antelope Drive bridge could significantly improve access for these areas.

The Denver & Rio Grande Western Rail Trail (D&RGW) is a multi-use, paved trail that runs 22 miles from West Bountiful through Roy. The trail runs north-south at the west of the station, but is separated by train tracks and warehousing facilities. Currently there is no access from the station to the trail, though the proposed improvements on Antelope Drive would improve access.

The UTA 640 bus route does provide a service connection between Freeport Center and Clearfield Station, but ridership demand is low and the service limited. If a transit connection is desired for Freeport Center, this might be better achieved through flex shuttles or other microtransit options.

Davis Hospital and Neighborhoods to the East: Residential neighborhoods and the Davis Hospital to the east of the corridor represent a significant population of potential ridership. The UTA 640 bus route does provide a transit connection to these areas. However, State Street itself is a significant barrier for any active transportation and will require improved crossings in order to encourage use of the station by these neighborhoods.

Downtown Clearfield and Layton City Town Center: Downtown Clearfield and one of Layton's Town Centers lie just outside of Clearfield Station's zone of influence. Adequately connecting the centers will be important to create a thriving and well-connected mixed-use district.

Clearfield Education and Recreation District: Clearfield High School, North Davis Jr. High, South Clearfield Elementary, the Clearfield Aquatic and Fitness Center, and Fisher Park are clustered together near the northeastern limits of the station's zone of influence. These important community nodes should also have a strong connection to the station area.

Significant Intersections

Figure 21 also identifies significant intersections where key corridors meet within the zone of influence. These intersections should receive special design consideration to ensure they are safe and efficient for all modes of transportation.

Pedestrian/Cyclist Barriers

The rail lines adjacent to the site are significant barriers to users west of the tracks, as they prevent easy linkages to the transit options and placemaking enhancements associated with the station. Similar access and crossing challenges exist along State Street, Antelope Drive, and 700 S due to heavy traffic and minimal bike and pedestrian infrastructure and street crossings. Roadway barriers can be more easily overcome through proactive design and planning than rail barriers can, which would require additional grade separated crossings.

Potential Transformation Areas

The condition and age of existing uses within the station's half-mile zone of influence are variable at best. The Frontrunner station site is largely undeveloped, although a clear vision has been established that supports a significant transformation of the site into a new and important destination for the city and region.

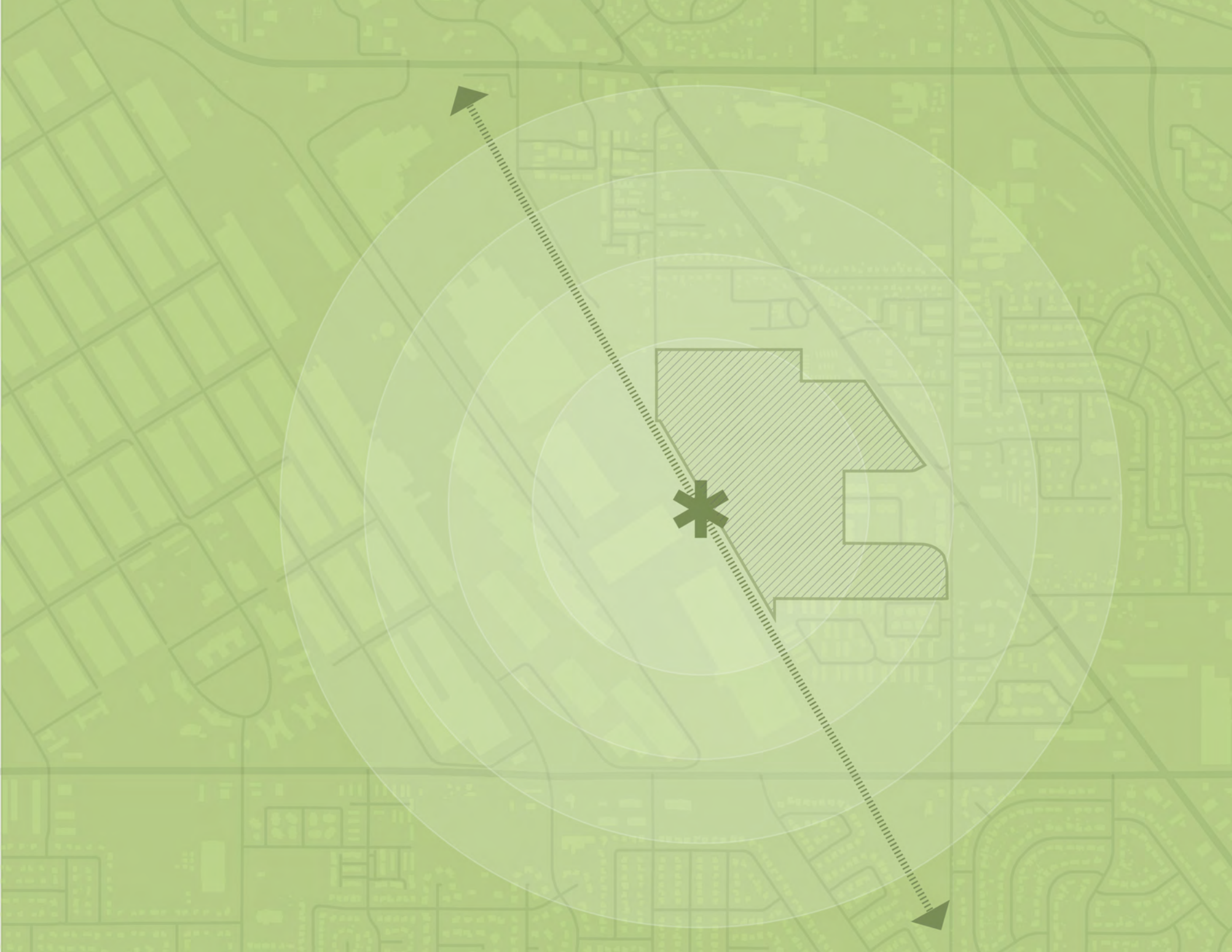
The residential neighborhoods to the north and south include a significant amount of multi-family and townhome residential development, which are aligned with emerging housing demands and TOD profile of the station and its surroundings. Several commercial properties, particularly along State Street, are vacant/abandoned, in disrepair, or include low-land-value uses that typically relocate as an area urbanizes. Figure 21 identifies these areas as “potential areas of transformation”, indicating them as potentially ripe for development or redevelopment in the near future. These properties present an opportunity for additional transit-oriented development that would further support the station area.

CONCLUSION

The Clearfield Station area has a number of opportunities and challenges in creating a well-connected, integrated, mixed-use station area. With a limited amount of vacant land remaining in the station’s area of influence, most development is expected to occur internally to the TOD site. However, a reasonable amount of opportunity exists for meaningful transition land uses at the station’s edges, which may help support the planned station development and/or buffer the station from existing residential neighborhoods.

The Clearfield Station site is currently very auto oriented, with little to no access to the adjacent land uses. Despite this, a high walk access/egress persists, even though there is little infrastructure to support it. Other modes, including bicycles, are not well represented. Of particular concern should be the intersection of 13th Street and Antelope Drive, which holds the highest concentration of both all crashes and bicycle/pedestrian involved crashes.

Planned trails connecting to the north and south of the station should help accommodate first and last mile journeys for active transportation users, while the greatest opportunity in this regard would be a direct connection to the Denver and Rio Grande Rail Trail, which sees the highest active transportation usage in the area and would provide excellent connectivity to surrounding land uses. In addition, overcoming active transportation barriers across State Street through well-planned crossings will be key to providing meaningful connections to areas to the east of the station.



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Appendix B

Existing Conditions Report:
Market & Housing

DRAFT

Clearfield Station Area Plan

Market & Housing Existing Conditions

May 2023

Clearfield City
we've got it made

ZIONS PUBLIC FINANCE, INC.

Table of Contents

Background

During the 2022 General Session, the Utah Legislature approved House Bill 462, which required "certain municipalities to develop and adopt station area plans for specified areas surrounding public transit stations."[1] As Clearfield ("City") contains a FrontRunner station, the City, to meet the statutory requirements, has begun the process to create a station area plan. In 2019, the City adopted the Clearfield Station Master Development Plan ("MDP") for this area, and therefore is amending that plan to comply with the new State Code requirements.

As adopted, Utah Code 10-9a-403.1, requires the City to create a plan that promotes the following objectives:

- Increasing the availability and affordability of housing, including moderate income housing;
- Promoting sustainable environmental conditions;
- Enhancing access to opportunities; and
- Increasing transportation choices and connections.

The plan is required to promote these objectives within a 0.5-mile radius around the station area, including any parcel that is partially or completely contained within the radius.

Executive Summary

In total, there are approximately 844 acres of land contained within the proscribed boundary of the station area plan, and the majority of that land is currently developed.

The map and table on the following page show the proposed Clearfield Station Area and a breakdown of the land within the boundary.

[1] https://le.utah.gov/~2022/bills/hbillenr/HB0462.pdf

FIGURE 1: PROPOSED STATION AREA BOUNDARY

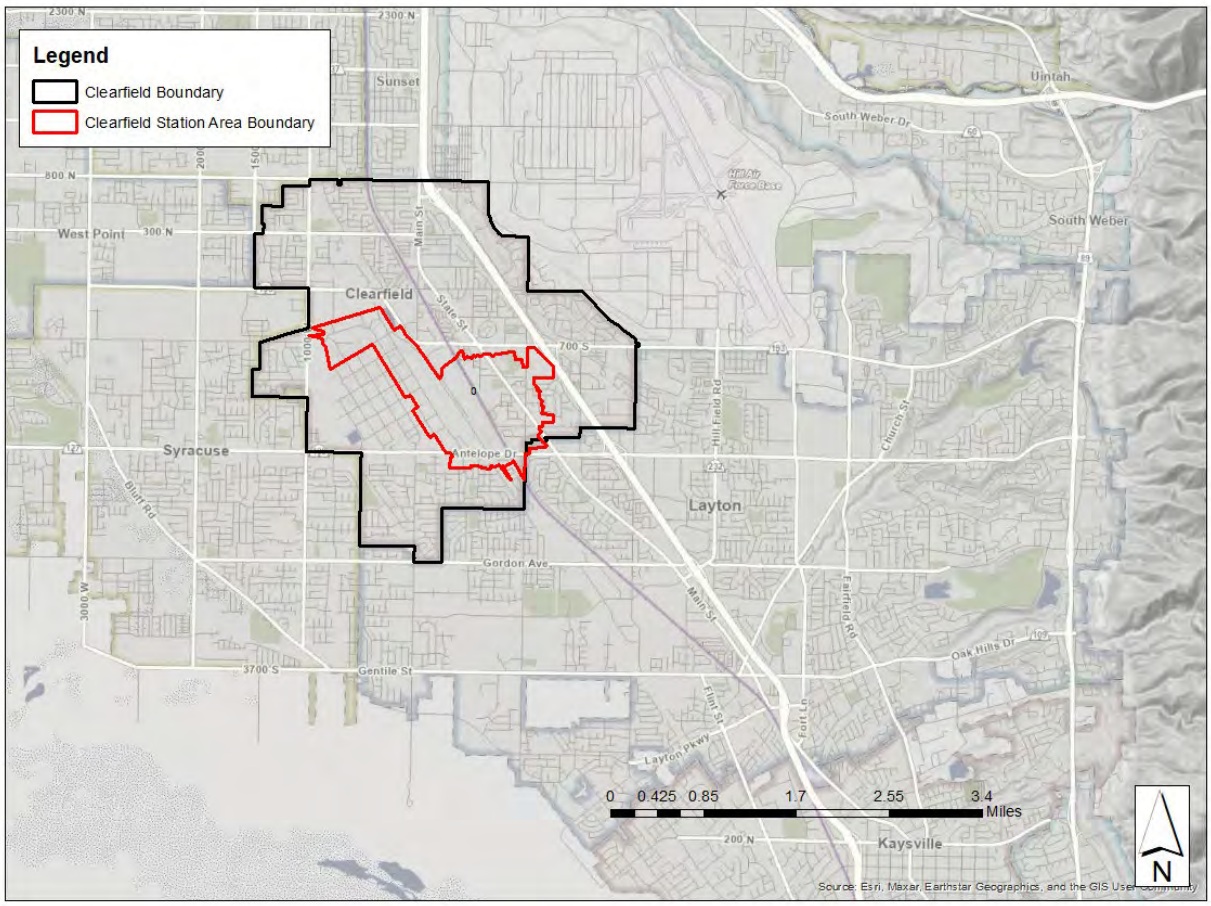


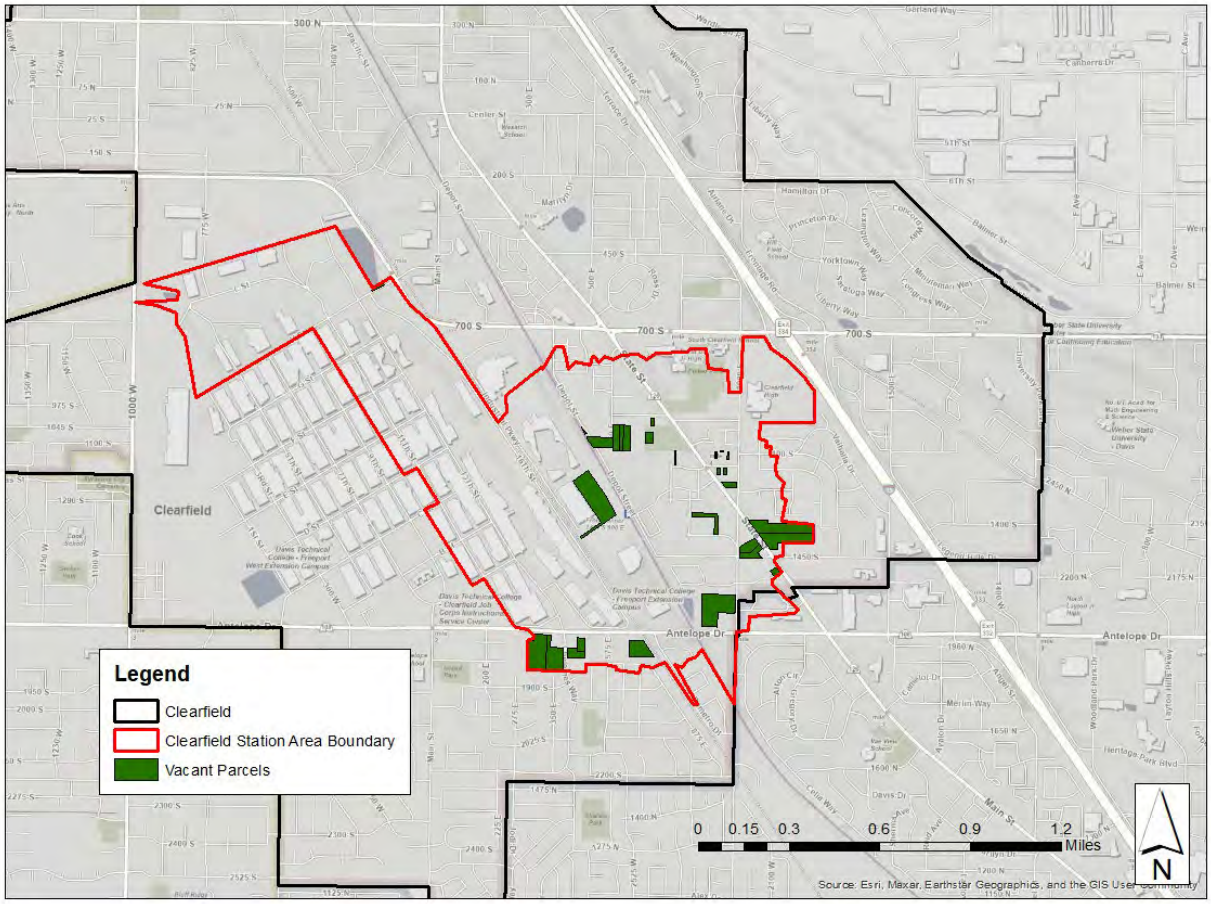
TABLE 1: SUMMARY OF LAND USE

Land Use	Acres
Developed	801.63
Vacant	42.35
Total	**843.98**

Source: Davis County Assessor's Office

The vacant land in the station area boundary is primarily located on the east or south of the station area boundary, along State Street and Antelope Drive. There is also some available vacant land in the Freeport Center. Some of the parcels that are identified as vacant are not viable for development as they are a part of City's cemetery or are private streets in residential development.

FIGURE 2: VACANT LAND



Strengths of the site include:

- Regional employment center
- Adopted MDP guiding development of east side of study area, providing for increased opportunities in the area across multiple development types
- Proximity to Freeport Center and Falcon Hill National Aerospace Research Park
- Redevelopment opportunities due to age and value of some commercial developments
- Active redevelopment project areas that can be utilized, or expanded, to encourage high-quality development in the area
- Utah Transit Authority ("UTA") owns major parcels immediately adjacent to FrontRunner Station, thereby aiding a master planning process rather than piecemeal development
- Continued population growth in north Davis County, with anticipated growth of over 56,000 people by 2050. Clearfield is expected to grow by an anticipated 8,000 people.

Obstacles to site development include:

- Lack of vacant land within the station area boundaries
- Redevelopment costs may make redevelopment of older or lower value areas difficult
- Current office market is uncertain with high vacancy rates and negative absorption rates in recent quarters, although some speculative office developments are currently being developed in the City

- Connectivity of west side of site (Freeport Center) to station area and visibility from I-15 potentially limits some development opportunities

Potential Development Scenarios

- Additional commercial growth could occur along State Street and Antelope Drive with filling of vacant land and redevelopment of lower value parcels on the west side of the study area. The current MDP shows 67,500 square feet of retail space located in the interior of the eastern portion of the study area. Retail development would potentially receive greater visibility and access along on State Street rather than inside the MDP, although planned retail inside the development would provide support retail to the planned office development. The City currently has significant retail leakage and would benefit greatly from additional retail development.
- Neighborhood support retail is the most likely retail development type for the eastern portion of the site, especially retail that would complement the housing in the area such as eateries and other convenience shopping. Regional retail does not benefit from transit as large purchases of goods are not easily carried on public transit.
- Adopted MPD anticipates build-out by 2030, with development occurring at approximately 7-10 acres per year. However, this plan identifies 550,000 square feet of office space which may not be feasible in the current market. During the past year, absorption rates in the Davis-Weber office market have been fairly low. In fact, the third and fourth quarters of 2022 saw negative absorption of 186,000 square feet. While the office space planned for and shown in the MDP serves as a good buffer and is a desirable use between the station itself and the planned residential development, it may be difficult to achieve in the near term.
- The western portion of the study area is currently defined primarily by industrial space, which is likely to continue in the future. There is also some office space in that western area. There are not good connections between the west and east sides of the study area and therefore the west side of the study area may not realize all the benefits it otherwise would from the transit stop (i.e., easy access to transit and retail options).

This remainder of this report will explore the following:

I. Demographics
II. Economic Opportunities
III. Housing Opportunities

I. Demographics

The following are key demographics for the City, Davis County, and the State at large.

TABLE 2: DEMOGRAPHICS

Demographic Category	Clearfield	Davis County	State of Utah
Median Age	29.3	32.3	30.7
Average Household Size	3.05	3.24	3.08
Median Household Income	$64,689	$92,765	$79,133
Median Home Value	$241,300	$351,400	$339,700
Median Monthly Housing Costs	$1,321	$1,709	$1,682
Median Gross Rent	$1,196	$1,238	$1,171

Demographic Category	Clearfield	Davis County	State of Utah
Persons in Poverty[2]	11.6%	6.4%	8.6%

Source: 2021 ACS 5-Year Estimates

Between 2020 and 2050, this region is expected to grow by over 56,000 people, with Clearfield growing by an anticipated 8,000 people.

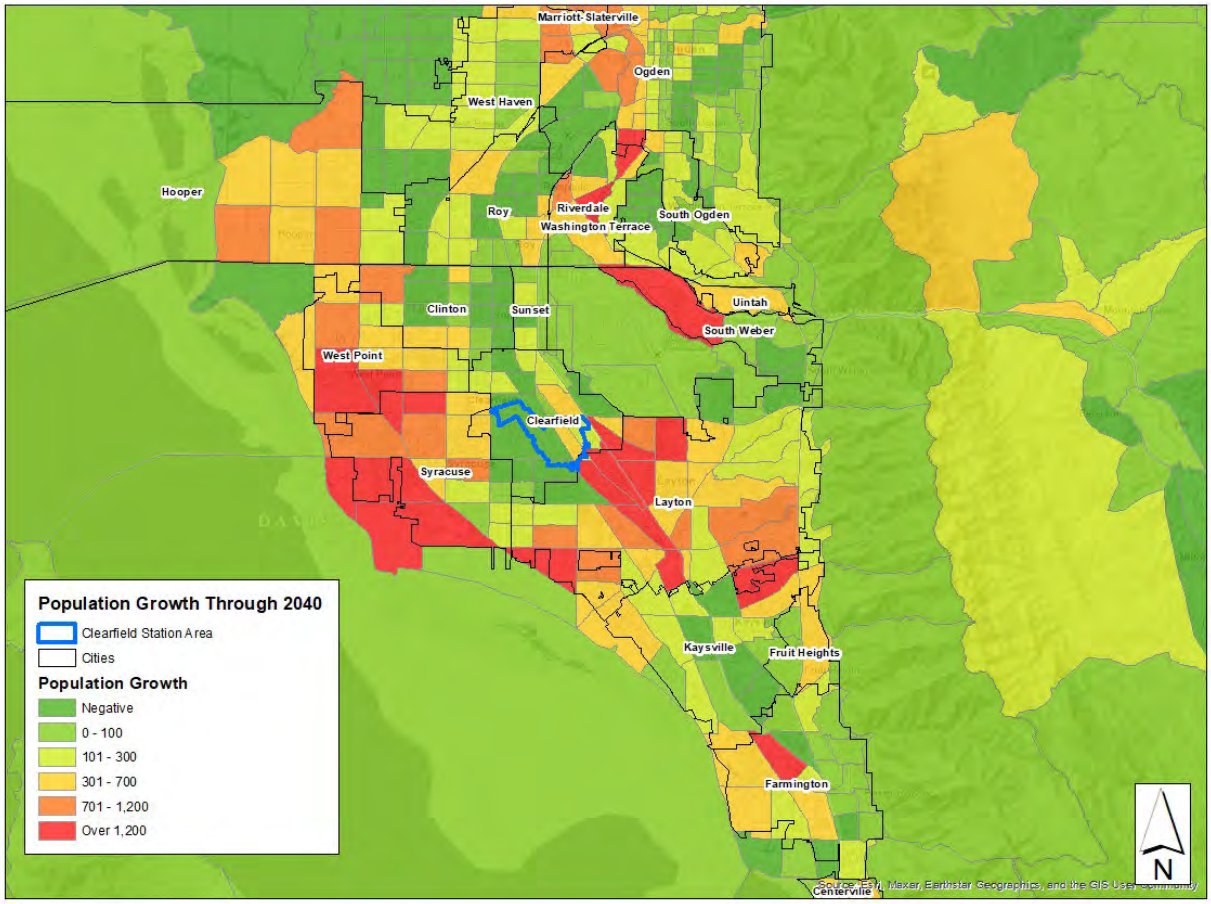
TABLE 3: REGIONAL POPULATION GROWTH PROJECTIONS

City	2020	2030	2040	2050
Clearfield	31,909	33,432	35,999	39,774
Clinton	23,386	23,499	24,824	25,914
Hooper	9,087	12,528	15,470	17,386
Roy	39,306	39,431	40,529	41,826
Syracuse	32,141	39,018	46,682	51,203
West Haven	16,739	22,060	24,598	26,331
West Point	10,963	11,953	14,895	17,341
Total	**163,531**	**181,921**	**202,997**	**219,775**
Growth from Prior Period		**18,390**	**21,076**	**16,778**
Cumulative Growth		**18,390**	**39,466**	**56,244**

Source: Wasatch Front Regional Council

[2] The Census Bureau determines persons in poverty by measuring family income against income thresholds based on family size.

FIGURE 3: POPULATION GROWTH PROJECTIONS



II. Economic Opportunities

Utah Code 10-9a-403.1 (7) (a) (iii)

Current Conditions

Workforce

Both the City and Davis County have similar labor force participation rates, although the City does experience slightly higher levels of unemployment. Several of the top industries are shared among the two, but the City, with Freeport Center and Falcon Hill National Aerospace Research Park, sees higher labor force participation in manufacturing than the County as a whole.

TABLE 4: WORKFORCE CHARACTERISTICS

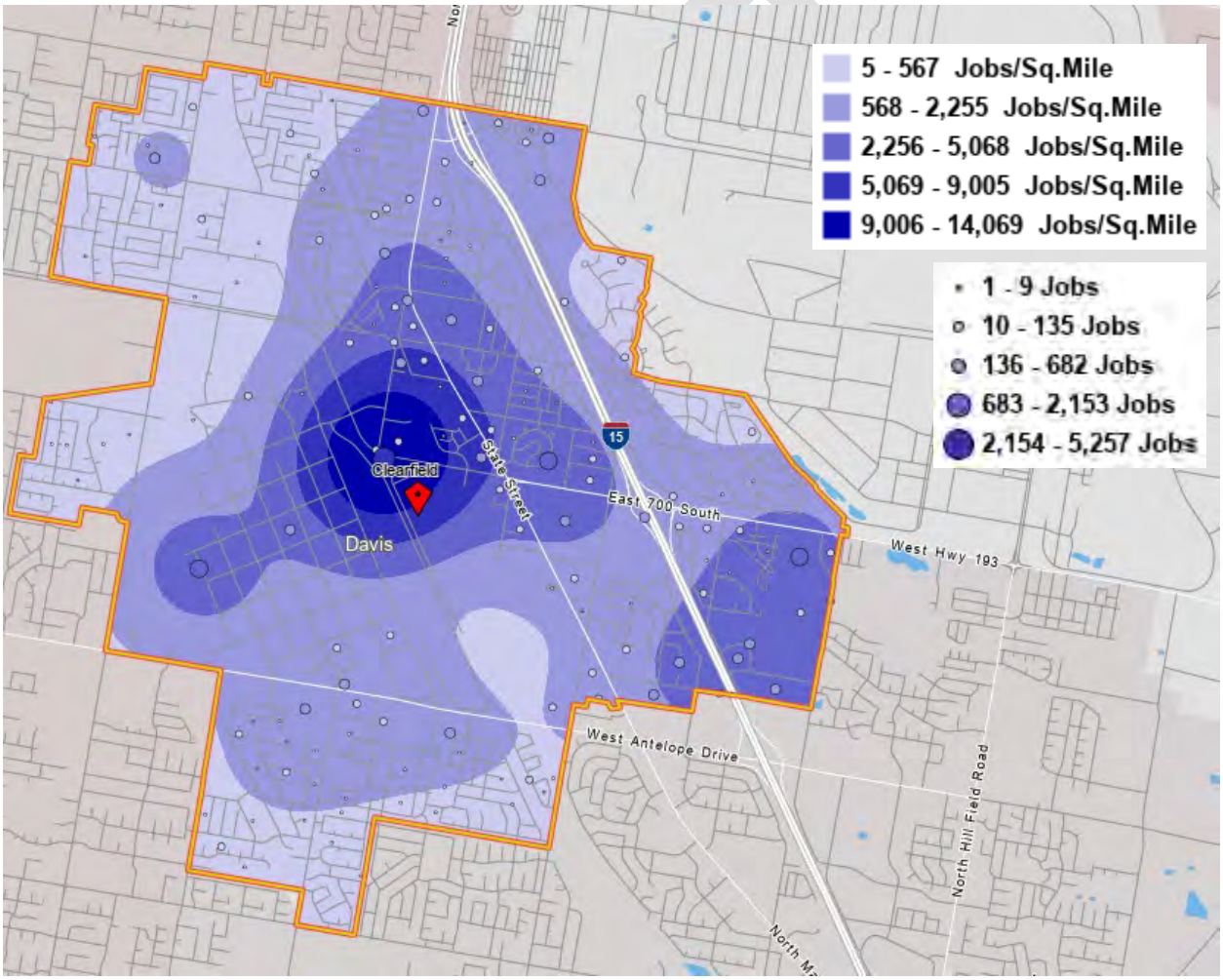
	Clearfield	Davis County
Total Labor Force	15,875	181,737
Labor Force Participation Rate	70.1%	70.6%
Unemployment Rate	2.7%	2.4%
Average Wage	$3,941	$4,332
Top Industries	Education & Health Care – 21.0%	Education & Health Care – 21.3%
	Manufacturing – 12.7%	Professional, Scientific, and Management – 12.2%

	Clearfield	Davis County
	Professional Services – 11.1%	Retail Trade – 11.5%
Average Commute	22.1 minutes	22.2 minutes

Source: 2021 ACS 5-Year Estimates

The City has several major areas of job concentration, most notably at the center of the City in proximity to the Freeport Center, and the eastern edge of the City around 1400 South and I-15. The employment center around the Freeport Center is the location of the proposed station area boundary and creates opportunities for additional employment capture in that area. Additionally, as a regional employment center, the City should be able to attract new businesses to the area due to the relatively strong labor market.

FIGURE 4: JOB CONCENTRATION & EMPLOYMENT CENTERS



Currently, the City is a regional employment center, with 16,656 total jobs reported in the City as of 2020. Manufacturing represents over 43 percent of the total jobs held within the City.

TABLE 5: JOB COUNTS BY NAICS INDUSTRY SECTOR IN 2020

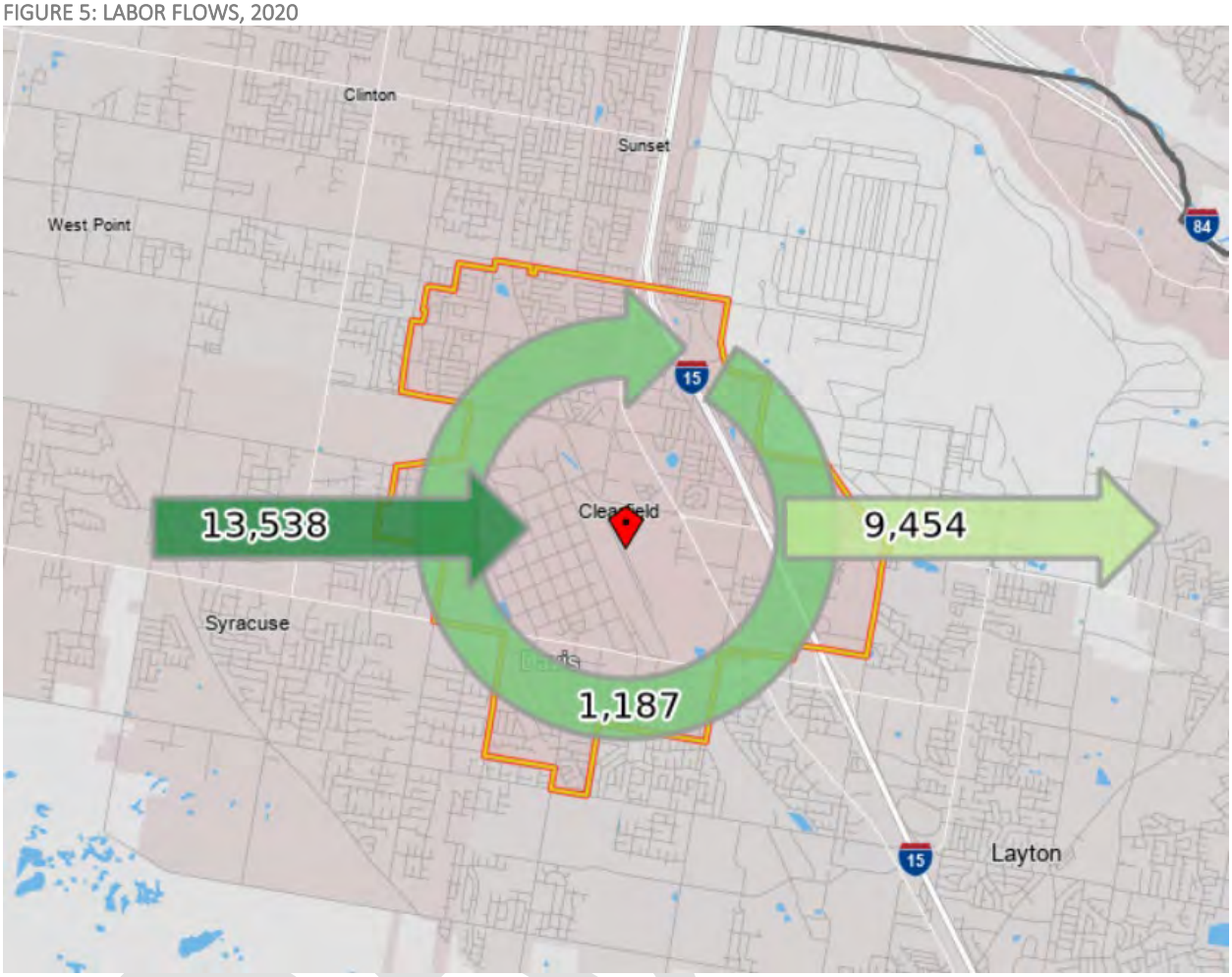
Industry	Count of Jobs	Percent of Total Jobs
Manufacturing	7,218	43.30%
Professional, Scientific, and Technical Services	1,590	9.50%
Administration & Support, Waste Management and Remediation	1,381	8.30%
Health Care and Social Assistance	1,242	7.50%
Educational Services	1,125	6.80%
Retail Trade	727	4.40%
Accommodation and Food Services	687	4.10%
Public Administration	509	3.10%
Finance and Insurance	496	3.00%
Transportation and Warehousing	438	2.60%
Construction	421	2.50%
Real Estate and Rental and Leasing	229	1.40%
Arts, Entertainment, and Recreation	204	1.20%
Wholesale Trade	162	1.00%
Other Services (excluding Public Administration)	147	0.90%
Information	66	0.40%
Management of Companies and Enterprises	13	0.10%
Mining, Quarrying, and Oil and Gas Extraction	1	0.00%
Total Jobs	**14,725**	**100.00%**

Source: US Census Bureau

The City is also considered a regional employment center due to the number of people commuting into the City for work, while living elsewhere. One benefit of this inflow of labor is the additional taxable sales that are generated by these individuals. These workers, while not making the majority of their purchases in their work community, will usually generate some taxable sales in close proximity to where they work, generally gasoline and convenience store or other food purchases. This allows the City to experience additional fiscal benefits to companies locating within the City.

In total, approximately 13,500 individuals commute to Clearfield from other communities. This presents opportunities for the City to capture additional sales tax revenue from individuals coming to the area and shopping in the City, and by locating retail along major traffic corridors, the City will be better able to realize the benefits of this inflow of labor.

FIGURE 5: LABOR FLOWS, 2020



There are a variety of employment types within the City's top employers. Due to the proximity of the City to Hill Air Force Base ("Hill"), there are many businesses that are associated with the defense industry. Additionally, various manufacturers have found success by locating in the City.

TABLE 6: CLEARFIELD TOP EMPLOYERS

Employer	Number of Employees	Industry
Air Force Materiel Command (Hill AFB)[3]	10,000-14,999	National Security
Lifetime Products Inc.	2,000-2,999	Sporting & Athletic Goods Manufacturing
Northrop Grumman Corp	1,250-2,498	Guided Missile & Space Vehicle Propulsion Manufacturing
AAA	500-999	Telemarketing Bureaus
Utility Trailer Manufacturing Company	500-999	Truck Trailer Manufacturing
Bonnell Aluminum	250-499	Aluminum Rolling, Drawing & Extruding

[3] Although outside of the City's boundaries, Hill Air Force Base is attached to Clearfield by the Utah Department of Workforce Service's FirmFind data. The US Census Bureau does not count these numbers in Clearfield's labor pool.

Employer	Number of Employees	Industry
Clearfield Job Corps Center	250-499	Technical & Trade Schools
A Step Forward Home Health	100-249	Home Health Care Services
Americold Logistics, LLC	100-249	Refrigerated Warehousing & Storage
Malnove Incorporates of Utah	100-249	Folding Paperboard Box Manufacturing
North Davis Cabinet, Inc.	100-249	Wood Kitchen Cabinet & Countertop Manufacturing
Parc Community Partnership Foundation	100-249	Vocational Rehabilitation Services
Recommended Building Maintenance LLC	100-249	Janitorial Services
RMC – Clearfield Operating, LLC	100-249	Nursing Care Facilities
Smith Manufacturing	100-249	Sporting & Athletic Goods Manufacturing
Wyle Laboratories, Inc.	100-249	Engineering Services

Source: Utah Department of Workforce Services

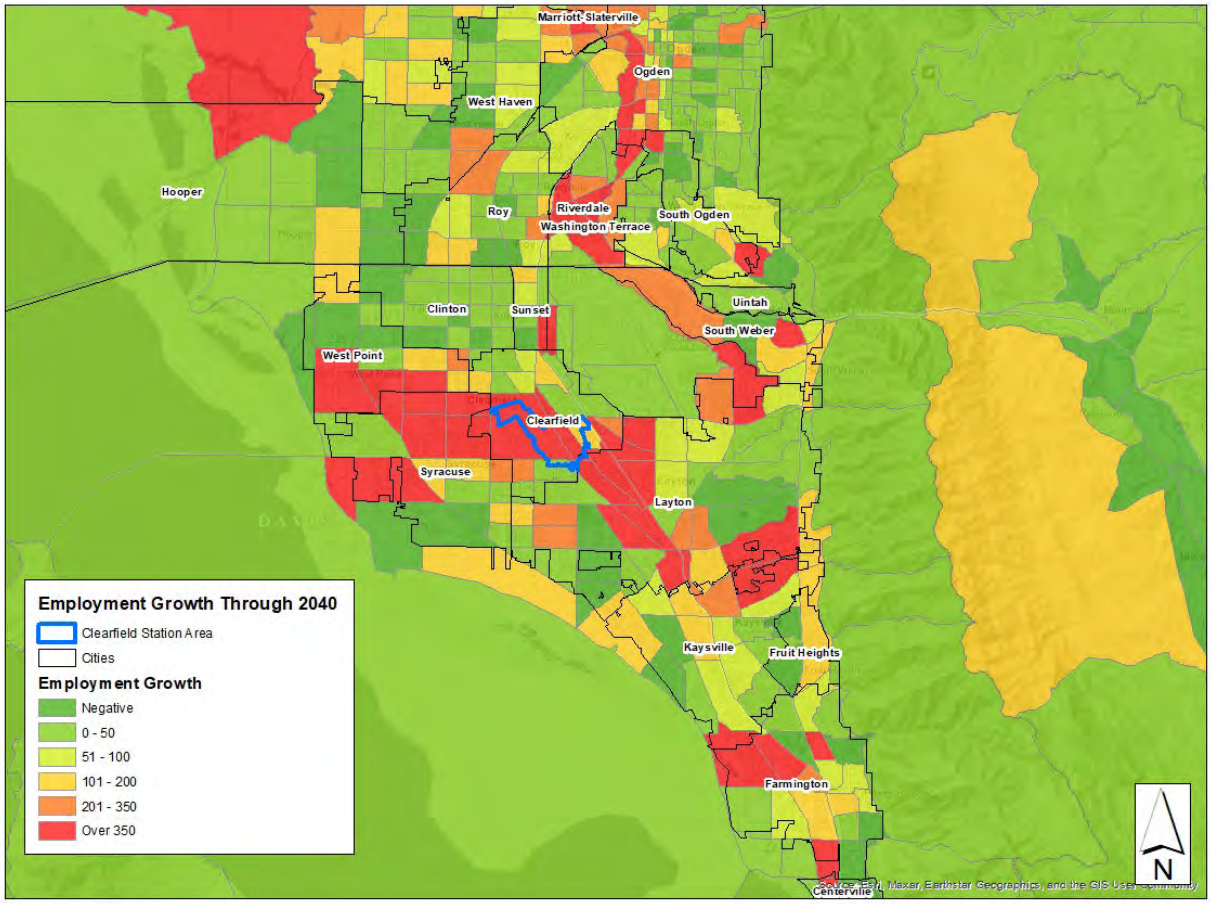
Significant employment growth is also projected for the region, with an increase of over 20,000 jobs by 2040.

TABLE 7: REGIONAL EMPLOYMENT GROWTH PROJECTIONS

City	2020	2030	2040	2050
Clearfield	14,951	17,349	19,754	22,075
Clinton	1,823	1,966	2,135	2,275
Hooper	287	318	310	308
Roy	5,787	6,850	7,404	7,828
Syracuse	2,749	7,243	11,376	14,187
West Haven	2,978	5,595	7,139	8,267
West Point	533	841	1,147	1,590
Total	**29,108**	**40,162**	**49,265**	**56,530**
Growth from Prior Period		**11,054**	**9,103**	**7,265**
Cumulative Growth		**11,054**	**20,157**	**27,422**

Source: Wasatch Front Regional Council

FIGURE 6: REGIONAL EMPLOYMENT GROWTH PROJECTIONS



Redevelopment Agency

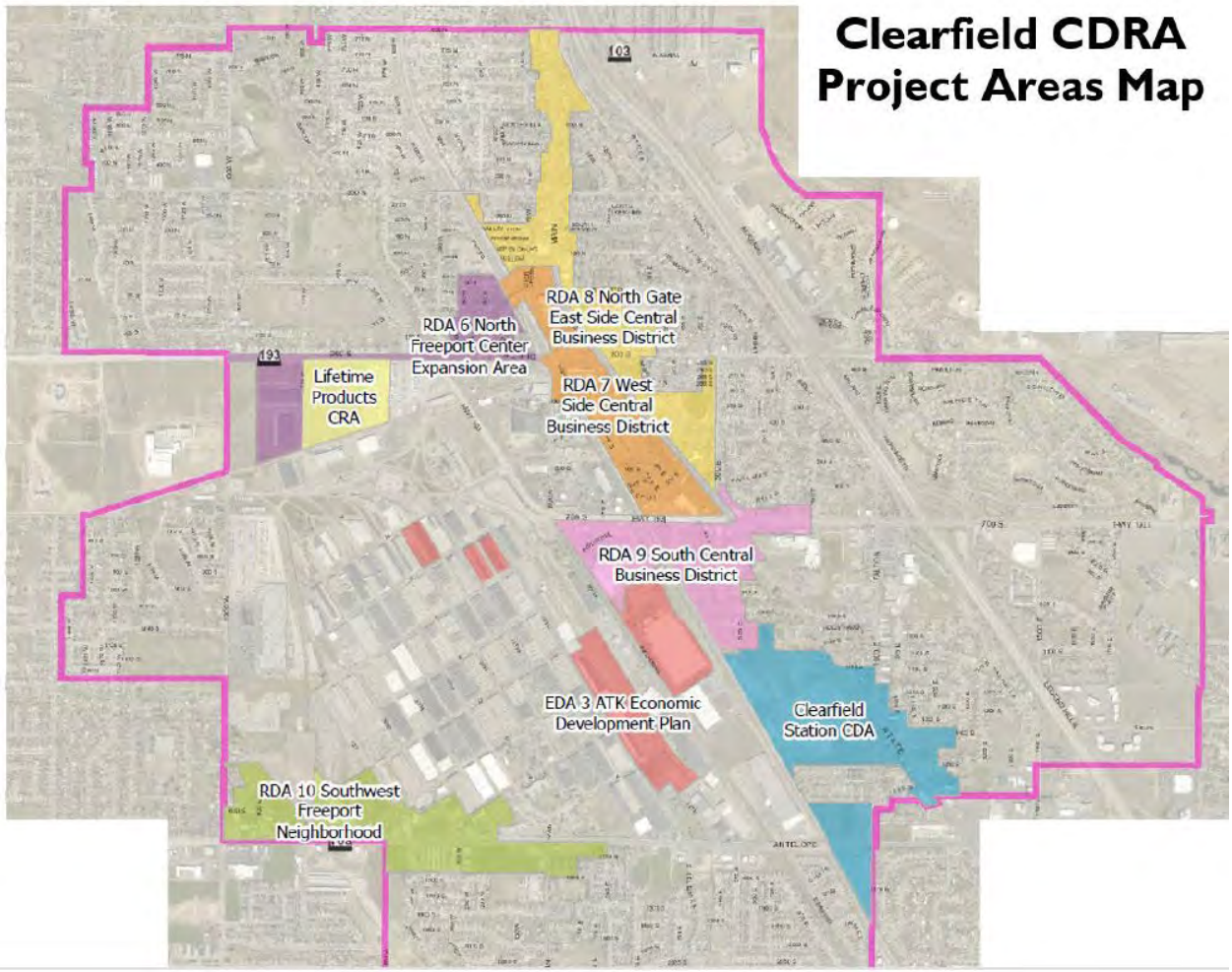
The City currently operates a community development and renewal agency ("CDRA") that has active project areas within the boundaries of the station area. Of the City's eight active project areas, three fall within the boundaries of the station area. A summary of these three project areas is provided below:

TABLE 8: ACTIVE RDA PROJECT AREAS

Category	RDA 9 South Central Business District	EDA 3 ATK Economic Development Plan	Clearfield Station CDA
Base Year	1992	2011	2013
Project End Date	2027	2032	2052
Percentage of Tax Increment	60%	82%	75%
Base Year Value	$11,786,915	$78,168,767	$0
Current Assessed Value	$71,628,571	$168,192,702	$19,470,764
Developed Acreage	75.00	96.00	48.10
Undeveloped Acreage	11.00	96.00	77.90
Total Funds Received	$5,196,143	$8,788,671	$554,533
Total Funds Remaining	$2,174,848	$8,284,499	$24,246,035

Source: Utah Governor's Office of Economic Opportunity RDA Database, 2022 Annual Report

FIGURE 7: CLEARFIELD REDEVELOPMENT AGENCY PROJECT AREAS



Each of these areas may be impacted by development within the station area boundaries. Each area has both time and funds remaining, which, depending on current agreements and obligations, can be utilized to support the development of projects within the station area boundaries.

There are approximate 500 acres of the station area boundaries that are not currently included within a project area. This allows for potential expansion of current project area boundaries, or potential new project areas, to support development in the area. Depending on current agreements with project area participants, there may be available funding within the current areas to help support high-quality development within the station area.

Sales Tax Leakage

Sales tax is one of the City's most important revenue sources. A sales tax leakage model looks at the taxable sales within a community and compares it to expected taxable sales based on average per capita spending statewide and the population of a given community. Capture rates exceeding 100% indicate that consumers are coming to a city from the larger regional area (i.e., outside of the City boundaries) to make retail purchases. A capture rate under 100% indicates that a city has a gap between what it could collect and what it currently is collecting. This is referred to as "leakage" and identifies opportunities for future retail development.

Overall, the City is capturing a total of 41% of the expected taxable sales for its population, indicating that residents are making sales tax purchases in other communities in some retail categories. In total, the City is leaking over $297 million annually in taxable sales.

The following table shows the sales tax leakage and capture rates for the various sales tax categories. Positive leakage amounts indicate that the City is capturing sales from the larger regional area, based on average per capita spending. Negative leakage amounts, with capture rates less than 100 percent, indicate that the City is leaking taxable sales in a given category.

TABLE 9: SALES TAX LEAKAGE

Sales Tax Category	Leakage Amount	Percent Captured
Gasoline Stations	$7,335,691	150%
Miscellaneous Store Retailers	($1,866,296)	90%
Other Services	($4,199,041)	76%
Health and Personal Care Stores	($4,498,143)	28%
Arts, Entertainment, and Recreation	($4,614,936)	37%
Nonstore Retailers	($8,366,645)	85%
Electronics and Appliance Stores	($9,276,065)	26%
Sporting Goods, Hobby, Book, and Music Stores	($10,228,303)	25%
Furniture and Home Furnishings Stores	($11,634,187)	4%
Clothing and Clothing Accessories Stores	($13,409,216)	25%
Accommodation	($15,212,772)	6%
Food Services and Drinking Places	($20,308,730)	59%
Food and Beverage Stores	($37,888,344)	35%
Building Material and Garden Equipment and Supplies Dealers	($41,222,938)	16%
Motor Vehicle and Parts Dealers	($57,060,697)	32%
General Merchandise Stores	($64,921,222)	7%
Total	**($297,371,845)**	**41%**

Source: Utah State Tax Commission, ZPFI

The City currently has only one category (Gasoline Stations) where it is capturing at least its fair share of taxable sales. The other categories, especially those with the highest leakage dollar amount, represent possible areas for the City to specifically focus on to generate the greatest return in the form of increased sales tax revenues.

Opportunities Under Current Conditions

Utah Code 10-9a-403.1 (8) (a) (ii) (A)

Currently, there is little vacant land within the boundaries of the station area plan. Existing development consists of some residential neighborhoods, the Freeport Center on the west side of the FrontRunner tracks, and the currently developing Clearfield Station.

It is likely that, under current conditions, the site will see some measure of residential development mixed with support retail, and business park/industrial development. Because of the City's role as an employment center, there are strong opportunities for increased job growth in the area, and within the boundaries of the station area. It is likely that this will mainly occur within the Freeport Center and the office components of the Clearfield Station, but with commercially viable land on the southern borders of the station area, and along State Street, there may be additional job growth in those areas.

Clearfield Station

In 2019, the City approved a master development plan for land owned by UTA at the Clearfield FrontRunner Station. The area currently consists of parking lots and vacant land. This project, covering 56 acres, is planned to bring a variety of uses to the area. The approved plan calls for approximately 67,500 square feet of commercial space and 550,000 square feet of office space. In addition, there are around 1,000 residential units (townhomes and apartments) planned for Clearfield Station. This is a critical site of development for the City. It allows for better connection to the regional economy and prepares the City to capture benefits of regional growth. In 2022, construction began on required infrastructure such as roads and utilities. It is anticipated that vertical construction will commence in 2023 or 2024.

FIGURE 8: CLEARFIELD STATION MASTER DEVELOPMENT PLAN

This development will provide a significant increase in value to the City as well as bring new residents and businesses to the area.

With current market conditions, there are opportunities to explore possible adjustments to the current plan. This could include relocating or adding additional retail space along State Street to potentially capture additional business traffic and take advantage of the higher visibility roadway. There currently are compatible commercial uses currently along State Street.

Freeport Center

To the west of the FrontRunner Station lies the Freeport Center. This is a key industrial center for northern Utah. This area has four major entities managing the area: Freeport Center Associates, Freeport West, Clearfield Job Corps Center, and Davis School District. The total area encompasses over 1,000 acres of land. The Freeport Center Associates are the majority owner in the area and manage 680 acres and have 7 million square feet of industrial space spread across 78 total buildings.[4] This rail-served site, is home to seven of Clearfield's top 17 employers. With a mix of manufacturing, distribution, and warehouse users this area is a strength to the area. While it is mostly developed, there may be opportunities to redevelop areas of this property.

Some of the users of the Freeport Center have both manufacturing and office needs and with the planned office space at the Clearfield Station development, there may be opportunities for those users to find office space nearby. Depending on the development of retail uses, there could also be opportunities for additional sales tax capture from employees at the center.

FIGURE 9: FREEPORT CENTER

[4] https://www.freeportcenter.com/about-us/

Falcon Hill National Aerospace Research Park

Hill AFB is a major economic driver for northern Utah, and especially Davis County. One aspect of this is a public-private partnership between the United States Air Force, the State of Utah's Military Installation Development Authority (MIDA), and private developers. The Falcon Hill National Aerospace Research Park is a 550-acre development containing 3.5 miles of I-15 frontage. The first phase alone will contain over 2 million square feet of office space.[5] The development is planned to contain a mix of Class A commercial office space, research and development space, as well as some small support retail.

Although this park is outside of the station area boundaries, it presents an opportunity for the City to capture some of the overflow or related uses in the station area development.

FIGURE 10: FALCON HILL AEROSPACE RESEARCH PARK

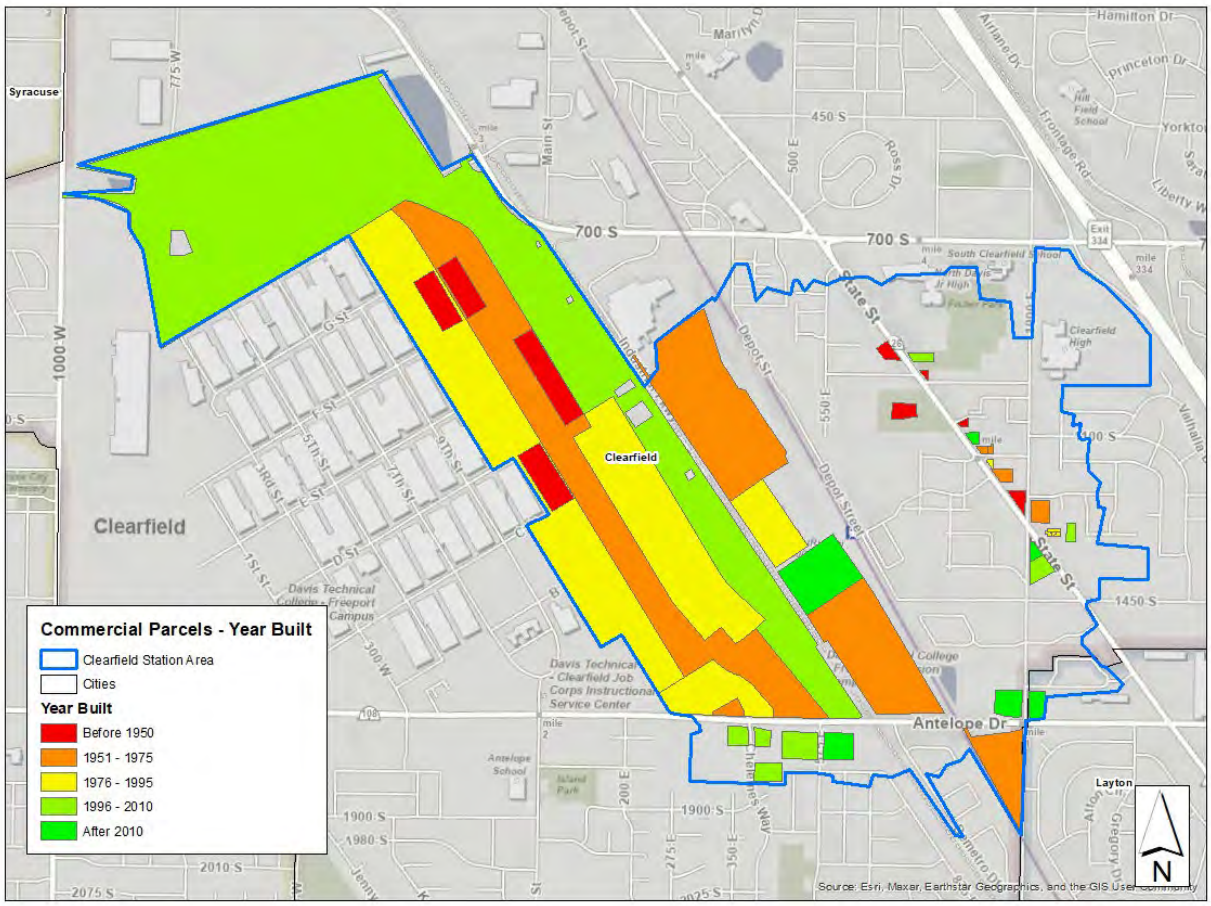
Redevelopment

Although there is little vacant land remaining in the station area boundary, there may be opportunities for the City to explore redevelopment of key areas. This is due to the age of buildings, or low value per square foot of development. This would allow for higher value development to take place.

Within the Freeport Center, there are a number of older buildings that may present opportunities for redevelopment as business needs arise. Additionally, there are a number of commercial buildings along State Street that were built before 1975 that may be candidates for future redevelopment.

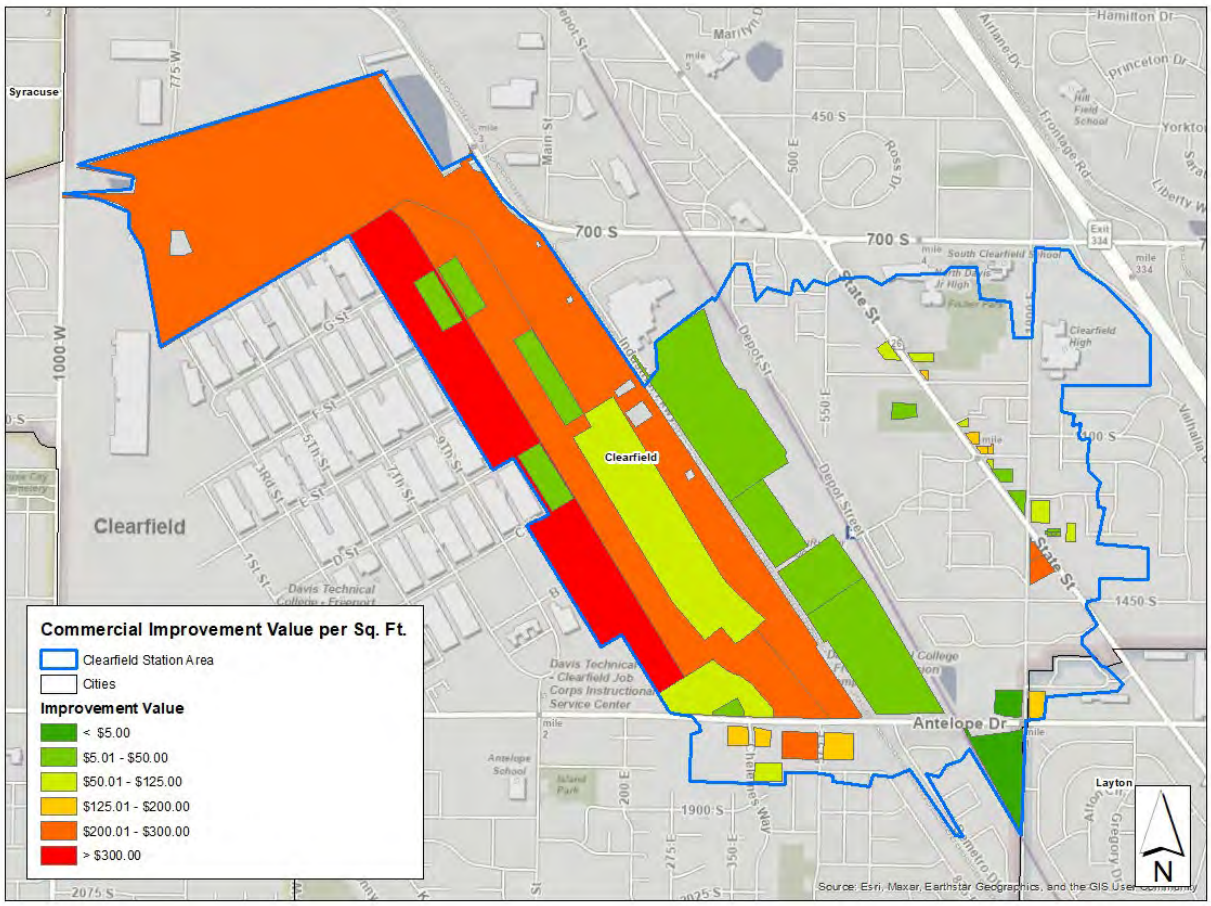
[5] https://business.utah.gov/articles/falcon-hill-aerospace-research-park-invests-over-250-million-into-utahs-economy/

FIGURE 11: COMMERCIAL PARCELS - YEAR BUILT



Some of those same areas have lower improvement values per square foot of development and would bring a higher return to the City if they were redeveloped. Areas on Figure 12 that are designated in green shades indicate that those property currently have low improvement values compared to others in the area. Through redevelopment of those properties, the City could experience higher improvement values, and therefore greater property tax revenues.

FIGURE 12: COMMERCIAL IMPROVEMENT VALUES



Constraints Under Current Conditions

Utah Code 10-9a-403.1 (8) (a) (ii) (B)

There are a number of constraints on development in the area that could impact the possibilities in the station area.

Vacant Land

Approximately 95% of the land contained within the station area boundary is currently developed, thus constraining the available options for development.

Office Market

Within Davis and Weber Counties, the office market is currently experiencing a slowdown, similar to other areas. Vacancy rates have been rising since the end of 2021. At that time, vacancy rates were approximately 5% and they have risen to over 8%. Throughout the Davis-Weber office market, absorption rates have been fairly low. The third and fourth quarters of 2022 saw negative absorption rates, with -186,000 square feet being absorbed.[6] With negative absorption rates in the area, it may be difficult to attract office development to the area at the levels anticipated in the Clearfield Station Plan.

[6] Newmark Davis and Weber Counties Office Report, Q4 2022.

The location of the Clearfield station area may also constrain office development in the area, due to the distance and lack of visibility from I-15. Within the County, there are locations directly adjacent to the Interstate that will likely be more attractive to office users.

Redevelopment

While there is potential for redevelopment in areas throughout the station area boundaries, this is often cost prohibitive.

Access

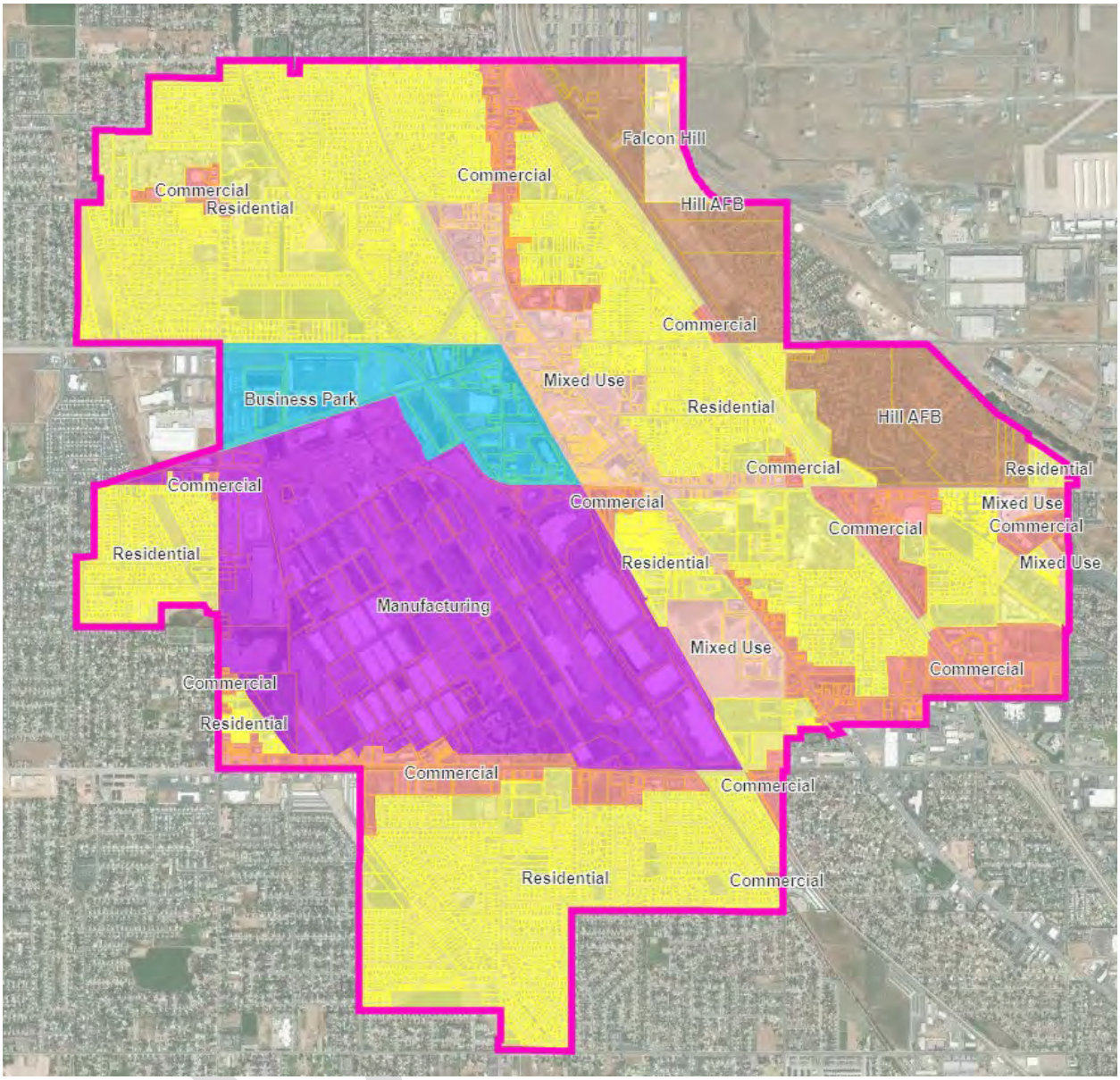
While the Freeport Center is a major employment center in the area, and could serve as an economic driver, access to the center from the FrontRunner Station is limited. FrontRunner riders would need to walk one and a half miles to reach the entrance to the Freeport Center. This could limit the desire for businesses located in the center to acquire office space at the Clearfield Station. It is possible that some form of crossing over the train tracks would help alleviate this concern.

Municipality's Objectives

Utah Code 10-9a-403.1 (8) (a) (ii) (D)

The City's adopted 2017 General Plan contemplates a variety of uses in and surrounding the station area. These include manufacturing, residential, and mixed-use development.

FIGURE 13: CLEARFIELD GENERAL PLAN



The Clearfield Station Plan (discussed previously) is the approved development plan for much of the vacant land in the station area boundaries. The other vacant areas in the boundaries will likely be developed according to the City's General Plan.

Economic Opportunities

Utah Code 10-9a-403.1 (7) (a) (iii)

Highest and Best Use

The purpose of this section is to evaluate the highest-and-best use of the property from the perspective of a developer and the fiscal impacts and benefits to the City from various types of development. It is important to understand how highest and best use works, and, more importantly, how desired development can be achieved. Historically, highest and best use has only been considered as what creates

the greatest return on the land. This is a developer-centric model for highest and best use and relies on an understanding of developer figures and intentions. A wider implementation of highest and best use should consider the following:

- Highest and best use to the developer. This scenario considers the greatest return to the land and has historically been all that has been considered by most municipalities; and
- Highest and best use to the City (fiscal). This consideration addresses the proposed fiscal impacts of development and what revenue and expenses are generated for the City. The impacts may include, but are not limited to, property taxes, sales taxes, municipal energy fees, Class B/C road funds, retail buying power, and costs of services to be provided; and
- Highest and best use to the citizens. This scenario is often less quantitative and relies upon feedback from citizens of what amenities are lacking in the area. This process also requires notable education, as residents will oft resort to desires that are not market feasible. Data is necessary to show, for example, that a certain retailer will not occupy a site until surrounding demographics hit specific metrics. Or residents may be unaware that their transportation costs are higher than those of other communities due to a lack of employment centers, and that adding jobs at a site (instead of an alternative, publicly desired use) may result in notable community benefits.

CAP rates, which are a measure of net operating income (NOI) divided by valuation vary considerably based on location, presumed risk of a project (i.e., vacancy rates, etc.). Lower CAP rates are generally indicative of a more optimistic market with CAP rates rising as market outlooks decline. Generally speaking, developers could see the greatest profit margins with apartments, flex office, and some retail development. It is important to note that profit margins are a general estimate only and are dependent on many factors for the developer such as land costs, interest rates and financing costs, varying construction costs, achievable rents, etc.

TABLE 10: DEVELOPMENT CAP RATES

	Cap Rates	Profit Margins
Apartments		
	4.00%	29%
	4.25%	22%
	4.50%	15%
	5.00%	3%
Office		
	6.00%	1%
	6.50%	-6%
Retail		
	5.00%	15%
	5.50%	5%
Flex Office		
	4.50%	28%
	5.00%	20%
	5.50%	12%

Source: ZPFI

From the perspective of the City, property tax revenues, sales tax revenues and other revenue sources are the best measure of highest-and-best use. Because of the point-of-sale distribution formula in Utah, retail

is the highest revenue generator, on a per acre basis, for cities. However, retail only thrives in certain locations and the supportable amount of retail is dependent on the population and employment in a given area.

TABLE 11: HIGHEST AND BEST USE ANALYSIS– CITY PERSPECTIVE

Summary Comparison	Office	Retail	Multi-Family - 20 units per acre	Multi-Family - 8 units per acre	Flex Office
Property Taxes	$5,409	$3,131	$2,875	$1,265	$3,921
Sales Taxes		$21,780	$6,690	$2,676	
Municipal Energy	$2,086	$1,372	$1,177	$471	$2,086
Class B/C Road Funds			$1,803	$721	
Total Annual Revenue per Acre	**$7,494**	**$26,283**	**$12,546**	**$5,133**	**$6,007**

Source: ZPFI

Ultimately, these studies show what the market can build, what impacts the City should expect, and what property types are currently not feasible. If the non-feasible (in the market) uses are still desired by the City, various economic development tools may need to be implemented to see that use to fruition.

Market Overview and Opportunities

Industrial Development

There is currently remarkably high demand for industrial space within Davis and Weber Counties, with approximately 2.2 million square feet absorbed in 2022. The industrial vacancy rate also is extremely low at 1.3%, compared with the national average of 4.1%. As of the fourth quarter of 2022, direct vacancy has remained below 2.0% for fourteen straight quarters. Due to the current lack of projects in the construction pipeline, those rates are expected to remain low. Brokers anticipate that Hill AFB will continue to be a major driver of additional industrial space needs in the area.[7]

Because of the Freeport Center, this type of development would likely be able to be developed within the station area boundaries. Industrial flex space is also an area of interest for this area that is popular currently and may be able to fit into the station area, although it may require reworking some of the Clearfield Station Plan.

Office Development

Similar to other areas along the Wasatch Front, the office market in Davis and Weber Counties is struggling. In 2022, there was a negative absorption rate, with approximately -186,000 square feet being absorbed. This means that more commercial space was vacated in the area than what was absorbed by users. Office vacancy rates hit 8.1% throughout the area at the end of 2022.[8]

There is a sizable amount of this development planned for the Clearfield Station Area. Because of the uncertainty of the office market, there is a possibility that this type of development would struggle in the

[7] Newmark Davis and Weber Counties Industrial Report, Q4 2022.

[8] Newmark Davis and Weber Counties Office Report, Q4 2022.

near term in the station area. However, there are smaller speculative developments being developed in the City that may show an indication of a need in this area.[9]

Retail Development

Although this area is not planned to be a major commercial center, there are still opportunities to capture some of this growth. Strong population and employment growth are fueling the need for additional retail throughout the County. Slightly offsetting, however, are trends for more online shopping, fueled partially by the COVID pandemic, which has had a significant effect on retail brick-and-mortar space needs per capita. Average retail space needs averaged between 20 and 25 square feet per capita over 10 years ago. Today, Price Waterhouse Coopers suggests that this number has decreased to about 16 square feet.[10]
Based on regional growth projections, there could be demand for between 900 thousand – 1.1 million additional square feet of retail space by 2050. There is potential for the station area to capture at portion of this retail growth, both within the Clearfield Station MDP area as well as other areas throughout the boundaries of the station area.

TABLE 12: GROWTH IN RETAIL DEMAND

	2020	2030	2040	2050
Regional Population	163,531	181,921	202,997	219,775
Population Growth from Prior Period		18,390	21,076	16,778
Cumulative Growth		18,390	39,466	56,244
16 sf per capita		294,240	631,456	899,904
20 sf per capita		367,800	789,320	1,124,880

Source: ZPFI

Based on sales tax leakage data, the City has additional capacity to capture a variety of sales tax generating businesses. Although transit is not a major driver for retail, the City's position as a regional employment center creates opportunities to provide retail that supports these use types.

In Utah, the following trends are seen in retail establishments:

- Doing well – Grocery stores, automobile services, eateries, "concept" stores
- Faring poorly – Clothing stores, toy stores, jewelry stores, department stores, anything struggling with competing with online shopping

III. Housing Opportunities

Utah Code 10-9a-403.1 (7) (a) (i)

Current Conditions

Currently, the City has a varied mix of housing types, with increased construction of multi-family housing over the past several years. The following table summarizes residential units built since 2006.

[9] Newmark Davis and Weber Counties Office Report, Q4 2022.

[10] Byron Carlock, head of U.S. real estate development, Price Waterhouse Coopers

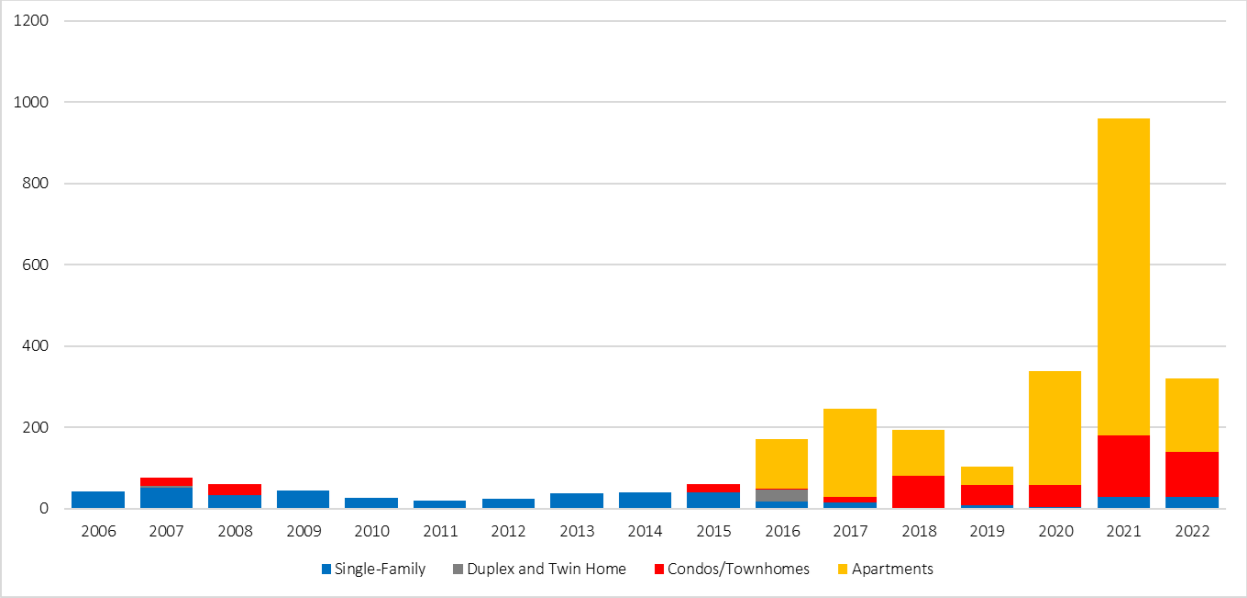
TABLE 13: RESIDENTIAL UNITS PERMITTED SINCE 2006

Building Category	Units Built
Single Family Units	461
Duplex & Twin Home Units	32
Condo & Townhome Units	532
Apartment Units	1,738
Total	**2,763**

Source: Ivory-Boyer Construction Database

Since 2018, the City has seen large increases in the number of units that are built in the City, with an average of around 383 units per year built in the last five years.

FIGURE 14: RESIDENTIAL UNITS BY YEAR (2006 - 2022)



Affordable Housing

Utah Code 10-9a-403.1 (7) (a) and (b)

One aspect of the station area plans is to assist in efforts to provide for or support affordable housing in the area. To determine how the station area plan may assist in these efforts, it is necessary to understand what affordability levels exist in the City. The following table provides a breakdown of the affordable monthly rent and home value for the "Low-Income" parameters set by HUD.

TABLE 14: AFFORDABLE HOUSING COSTS

	Clearfield	Davis County
Median Household Income	$64,689	$93,182
80% Affordability	$51,751	$74,546
Rent Affordable after Utilities	$1,050	$1,600
Affordable Home Value	$217,000	$335,000

Source: 2021 ACS 5-Year Estimates, ZPFI

Based on the City's median household income, a monthly rent of $1,050 is considered affordable for "Low-Income" households. Homes that are at a price point of $217,000 are likewise considered affordable for this group. As shown in Tables 2 and 13 above, Clearfield is more affordable than most areas in Davis County and the State.

The City has a number of rental apartment and townhome developments available within the City. According to the U.S. Census Bureau, the City has a total of 11,866 renter occupied units in the City, or approximately 38 percent of the total units in the City.[11]

Throughout the City, there is variability in the rental rates for these units. On average, throughout the City, the median gross rent is $1,196. On average, only the 2 bedroom and no bedroom units are considered affordable for "Low-Income" households.

TABLE 15: AVERAGE RENTAL RATES

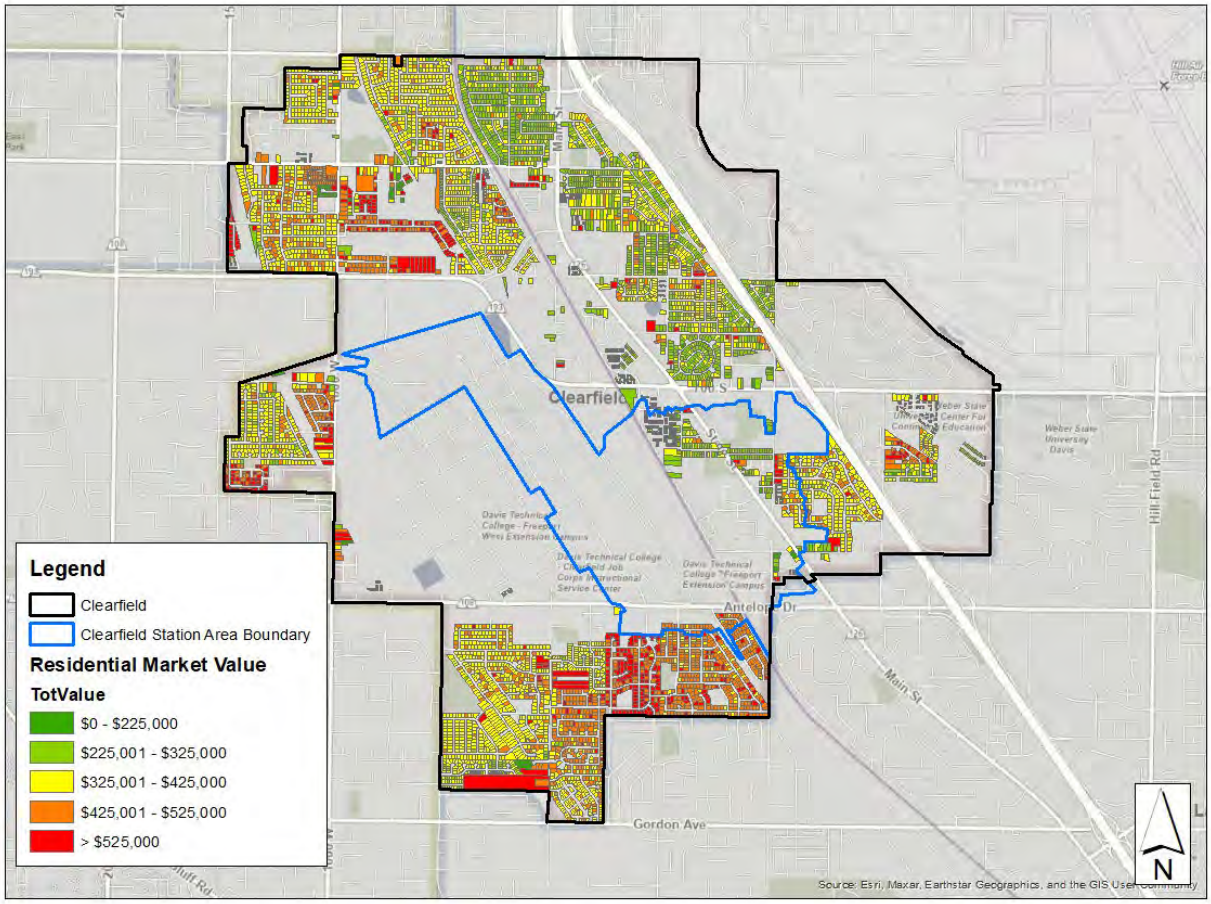
Number of Bedrooms	Median Gross Rent
No bedroom	$866
1 bedroom	$1,060
2 bedrooms	$982
3 bedrooms	$1,361
4 bedrooms	$1,477
5 or more bedrooms	$1,715
Median Gross Rent	$1,196

Source: 2021 ACS 5-Year Estimates

The City has a varied mix of homes across the affordability spectrum. According to data from the Davis County Assessor's Office, areas in the northeast of the City have lower market value than homes in the south or west areas of the City.

[11] 2021 ACS 5-Year Estimates

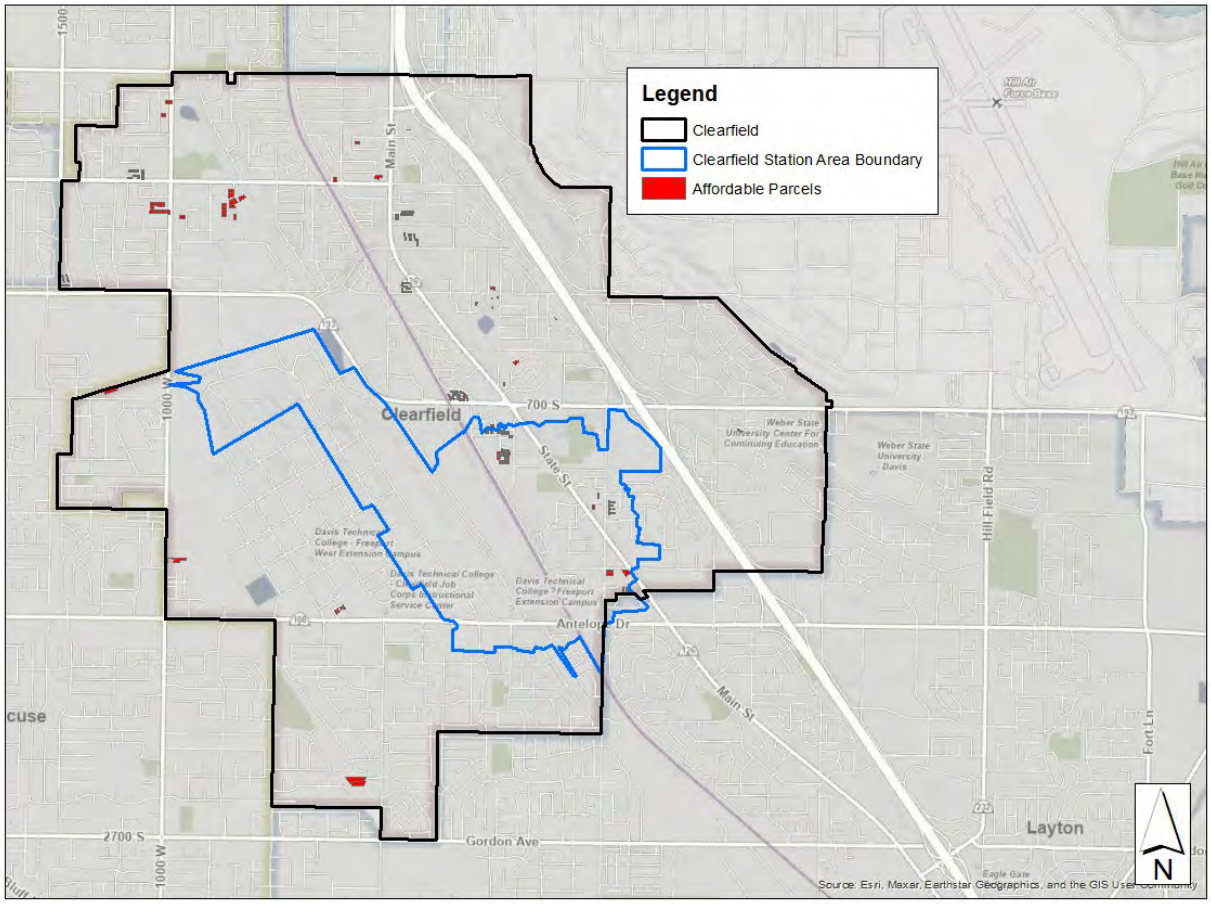
FIGURE 15: RESIDENTIAL MARKET VALUE



Based on HUD thresholds, a total of 433 parcels within the City would likewise be considered affordable. These units are primarily condominiums and townhomes, but there are a total of ten single family homes in the City that are considered affordable.[12]

[12] Based on Davis County Assessor's data

FIGURE 16: AFFORDABLE PARCELS



Currently under development, the Clearfield Station development will bring in additional residential units to the City, and potentially provide for affordable options for "Low Income" households.

Moderate Income Housing Plan

Utah Code 10-9a-403.1 (7) (b) (i) (A)

Each station area plan is required to demonstrate how it aligns with the municipality's moderate-income housing element of the general plan.

In 2022, the City adopted an update to its Moderate-Income Housing Plan. Three of the City's strategies relate to efforts within the station area:

- *Action Item #2: Clearfield City will ensure zoning designations allow for higher density and/or moderate-income housing development in the mixed-use Downtown, near Clearfield Station, and adjacent to commercial and employment centers.*
- *Action Item #4: Clearfield City will implement goals and objectives from creating Clearfield Downtown Small Area plan to implement centers and create areas of focus along major transit corridors which include the Downtown Form Based Code area and the Clearfield Station site.*
- *Action Item #11: Clearfield City will update the Station Area Plan for Clearfield Station*

Additionally, the City has a demonstrated commitment to a variety of housing types. Since 2016, the City has approved 464 condo/townhome units and 1,738 apartment units, far outpacing the number of single-family units built.

Planning Commission
STAFF REPORT

AGENDA ITEM
#3

TO: Clearfield City Planning Commission

FROM: Tyson Stoddard, Planner I
tyson.stoddard@clearfieldcity.org
(801) 525-2718

MEETING DATE: Wednesday, January 3rd, 2024

SUBJECT: Discussion and Possible Action on **SP 2023-1204**, a site plan request by The Richardson Design Partnership on behalf of Tanner Clinic to construct a medical office building at the subject location. **Location:** 1240 East 1450 South (TIN: 09-022-0183). **Parcel Area:** 5.26 Acres **Zone:** C-1 (Commercial). **(Administrative Action).**

RECOMMENDATIONS

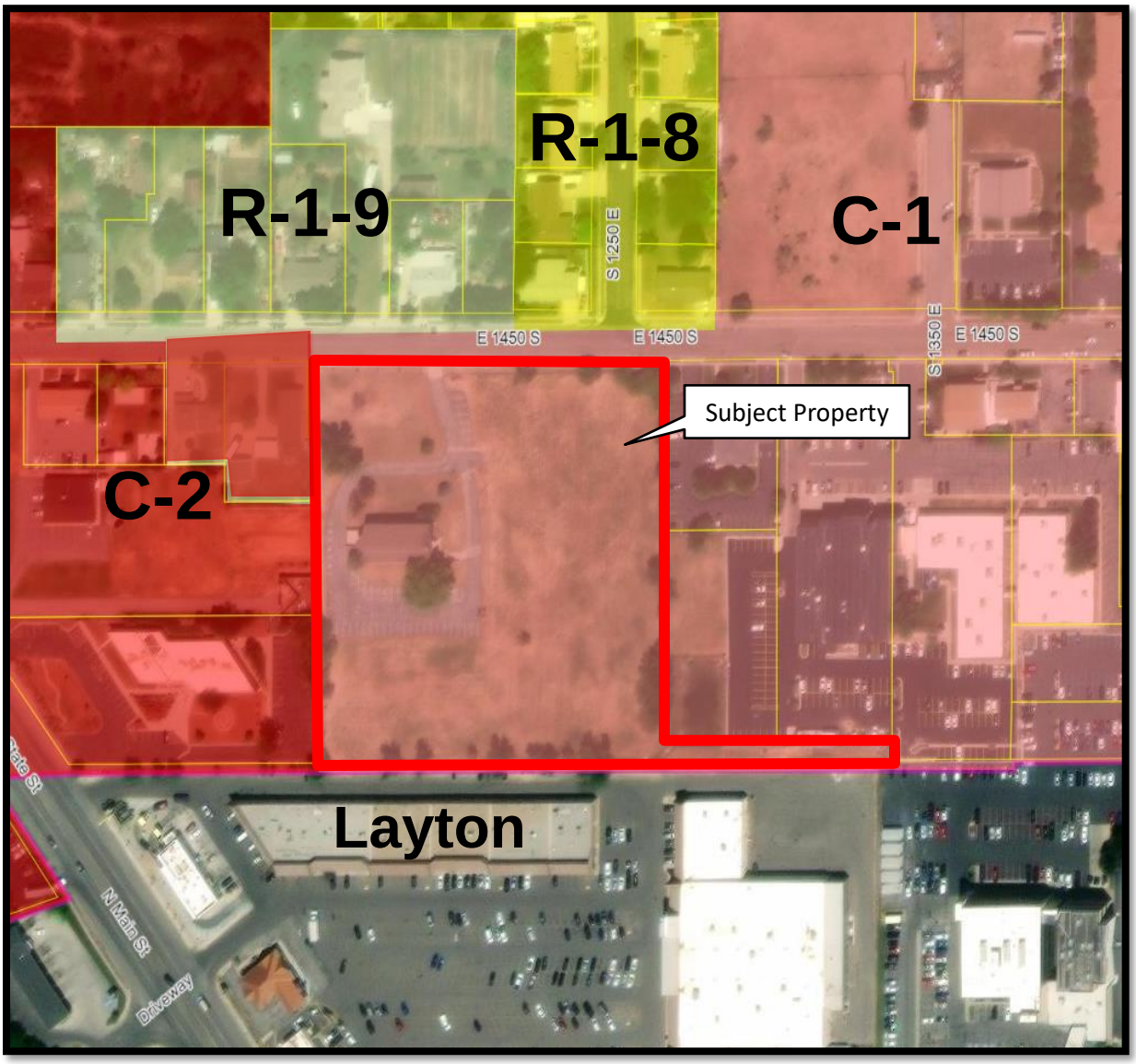
Staff recommends that the Planning Commission move to **approve as conditioned, SP 2023-1204**, a site plan request by The Richardson Design Partnership on behalf of Tanner Clinic to construct a medical office building at 1240 East 1450 South (TIN: 09-022-0183). This recommendation is based on the discussion and findings in the Staff Report.

PROJECT SUMMARY

Project Information	
Project Name	Tanner Clinic
Site Location	1240 East 1450 South
Tax ID Number	09-022-0183
Applicant	The Richardson Design Partnership/Tanner Clinic
Owners	Medical Building LLC
Proposed Actions	Site Plan Approval
Current Zoning	C-1 (Commercial)
General Plan Land Use Classification	Commercial
Gross Site	5.26 Acres

Surrounding Properties and Uses:		Current Zoning District	General Plan Land Use Classification
North	Single-Family	R-1-8 & R-1-9 (Residential)	Commercial
East	Credit Union	C-1 (Commercial)	Commercial
South	Layton City	C-H (Planned Highway Commercial)	Town Center
West	Single-Family & Commercial	C-2 (Commercial)	Commercial

Aerial Image & Zoning



BACKGROUND & OVERVIEW

Tanner Clinic offers a variety of specialties and is Davis County's largest medical clinic. They are requesting site plan approval for a two-story medical office building at the subject property. The site is conveniently located near two other Tanner Clinic locations and the Holy Cross Hospital-Davis. The proposed building includes a basement and a combined gross floor area of approximately 86,000 square feet. The applicant has indicated that the second level would be dedicated to Behavioral Health and finished in accordance with the Tenant Improvement (TI) Plan that was provided with the application. The first floor and basement will subsequently be finished and may include other medical specialties and services. The zoning for the property is C-1 (Commercial), which identifies offices and medical clinics as permitted uses.

SITE PLAN REVIEW

Setbacks, Height, and Yard Coverage
The C-1 Zone requires that buildings comply with the following setback, height, and yard coverage standards:

- *Front Setback:* 10 feet
- *Rear Setback:* None, except where the rear of the lot is immediately adjacent to a residential zone, a rear yard of equal width to that required for the adjacent zone is required.
- *Side Setback:* None, except where side parcel line is immediately adjacent to a residential zone, a side yard of equal width to that required for the adjacent zone is required. The single-family residential properties to the west are now zoned C-2 (Commercial). Because the current use of the single-family homes is still residential, the required side yard setback on the west property line is eight feet (8'). This is the same required side setback of the previous zone's (R-1-9) standards.
- *Corner Side Setback:* 10 feet
- *Maximum Height:* 35 feet
- *Maximum Yard Coverage:* No requirement, except as dictated by landscaping and parking provisions.

The proposed development complies with all the above standards as required by the C-1 Zone.

Landscaping, Dumper Enclosures, and Fencing
Landscaping
Each development in the C-1 Zone is required to provide a minimum of 10% landscaped open space of the total project area. The landscape plan shows that the project would meet this requirement by providing 15.33% of the site as landscaped area.

Chapter 11-21, "Landscape Standards and Requirements", of the Clearfield City Code provides requirements for new landscaping for commercial projects. Under these standards, this development is required to have one (1) tree for every four hundred (400) square feet of landscaped area, one (1) shrub for every two hundred (200) square feet of landscaped area, and vegetative cover for at least fifty percent (50%) of the ground plane of planter beds. The proposed landscape plan complies with the plant quantity standards except for the minimum tree quantity requirement. The landscape plan will need to be revised to meet the tree quantity requirement.

The landscaping standards specify that park strips and other areas less than eight feet (8') wide shall not be landscaped with turf, and that the turf area shall not exceed 15% of the total landscaped area, outside of recreation areas. The landscape plan has been designed without any turf and is providing drought tolerant trees, shrubs, and plants.

The irrigation plan submitted with the landscape plan includes a smart controller as required by code, but still needs to provide important information such as locations for the backflow device and the water meter.

Dumpster Enclosures
The proposed site plan shows a screened area with two dumpsters, equipment storage, and a back-up generator located on the west side of the parking lot. The landscape plan shows planter beds on three sides of the screening area including shrubs and trees, which meets the landscaping requirement for dumpster enclosures. The plans will need to be updated to include a detail showing that the proposed enclosure will use the same materials as the building or an approved masonry fencing.

Fencing

As outlined in the C-1 Zone, "walls or fences may be required along all property lines which are adjacent to a residential zone or public right of way." The subject property has an adjacent residential property to the west, which has an existing four foot (4') white vinyl fence in good condition that will be able to remain in place. Additional existing fencing includes a chain link fence along the front property line, a chain link fence along the shared property line with St. Peter's Episcopal Church, and a chain link fence along the south side of the strip of land that is proposed as a pedestrian connection to Tanner Clinic- Layton. The plans need additional details specifying which fences will remain and details for any proposed fencing that will be part of this project.

With the proposed building's unique design feature of a basement with large window wells, a three to four foot (3-4') non-opaque fence could be used to surround the window well areas as an added buffer and safeguard to the abrupt grade change to the bottom of the stairwell. Staff recommend that the applicant research best practices and applicable safety guidelines to determine if fencing is appropriate in this situation. It should be noted that the applicant has softened the grade change by proposing two retaining walls that step down to the bottom of the window well. The finished grade would drop down three and a half feet (3.5') to a five foot (5') wide planter bed, and then drop down an additional seven feet (7') to the bottom of the window well.

Site Access and Parking
Chapters 11-14 "Off Street Parking and Loading" and 11-18 "Design Standards" outline the development standards for site access and parking.

Access
There are two proposed vehicular and pedestrian access points to the site from 1450 South. The vehicular access points are both twenty-six-foot (26') drives. There is an additional pedestrian access proposed for the southeast corner of the property which would connect the site to Tanner Clinic-Layton via a sidewalk pathway.

Parking
For medical office developments, three and a half (3.5) spaces per 1,000 square feet of floor space are required. The applicant has provided 462 parking spaces on the site plan, which meets the required number of 302 stalls based upon the above ratios relative to the proposed building floor space. The site plan also shows nine (9) accessible parking spaces, which complies with ADA (Americans with Disabilities Act) standards. The site plan provides landscaped islands for single and double rows of parking in accordance with code requirements. The two islands on the west side of the building that lead to the outdoor seating area will need landscaping. Staff recommend that these two islands are widened in order to accommodate a sidewalk with landscaping on both sides.

A six foot (6') wide landscaped area is required around the perimeter of parking areas. The landscaping proposed on the south and east sides of the parking lot will need to be increased to meet the six foot (6') standard.

Parking lot designs are required to plan for snow stacking areas. The site plan will need to indicate where the snow will be stacked onsite.

Building & Site Design Standards
Chapters 11-11A "C-1 Zone" and 11-18 "Design Standards" of the city code outline all the building and site design standards required for new commercial development within the city. As a new commercial project, these design standards are applied to this project.

Building Design

The applicant has provided a material sheet showing that the building materials will include brick, stone, glass windows with anodized aluminum flashing, and stucco. Staff has reviewed the colors and materials and has determined that they are consistent with the code design standards. The exterior material for the basement portion of the façades will need to be included in the Finish Legend so staff can verify full compliance. The building entrances are articulated with architectural features and an increased use of glass. Both vertical and horizontal façade articulation are provided and consistent with the commercial building design standards. The height of the building is thirty-five feet (35') as allowed in the C-1 Zone, and the roofline provides variations to add visual interest and avoid long undisturbed rooflines. The proposed building has high quality design and materials and will be a great addition to the city.

Site Design

The applicant has done a great job in locating the building toward the front property line, orienting the façade to the public street, and treating the street facing façade like a main façade. Outdoor amenities are required for commercial buildings that are greater than 20,000 square feet, and the applicant is proposing an outdoor seating area as an amenity. Landscaping has been integrated into the design and placement of the pedestrian walkways by placing plantings adjacent to pedestrian areas and walkways. The pedestrian network allows for connectivity through the site and from public sidewalks from the adjacent public streets.

Lighting

Any exterior lighting will need to be reduced to the minimum levels necessary for safety and security purposes and done in an aesthetic manner. The applicant should consider the following guidelines from the site design standards from Chapter 11-18 of the Clearfield City Code.

1. Lighting schemes should include coordinating parking, wall, and pedestrian fixtures which complement building architecture and site features.
2. Sensitively placed low light landscape lighting that highlights a site's desirable features is encouraged.
3. All off street parking area lighting shall be designed and installed to meet the following minimum requirements:

   a. All lighting fixtures and poles shall be a decorative nature and painted a color as approved with site plan application.

   b. The height of all lighting poles shall not exceed twenty feet (20'), measured to the top of the pole or luminary.

Pedestrian Considerations & CPTED

Commercial standards require that the site layout and design consider with equal weight the needs of pedestrians and automobiles. The proposed pedestrian walkway at the southeast corner of the site capitalizes on the opportunity to connect two facilities and can meet the site design standards of the code by continuing the pedestrian pathway to the building. Measures shall be taken to ensure adequate access and safety for pedestrians. This includes but is not limited to:

1. Pedestrian walkways are required to be a minimum of five feet (5') wide.
2. Pedestrian crossings shall be constructed of different materials than the roadway or parking area and provide for clearly defined crossings where there are conflict points with automobiles.
3. Benches, pedestrian scaled lighting, bike racks, and other pedestrian amenities are required to be placed appropriately throughout the site.

The project provides five to six foot (5-6') wide pedestrian walkways throughout the development. Pedestrian scaled lighting, benches, and bike racks will need to be provided throughout the development site. Additionally, the development should consider the Crime Prevention through Environmental Design (CPTED) principles outlined in the Design Guidelines chapter of the Land Use Ordinance.

DEPARTMENT REVIEW & PUBLIC COMMENT

The plans were distributed for review amongst Clearfield City Planning, Engineering, and Building staff, as well as with the North Davis Fire District and the North Davis Sewer District. Engineering Staff provided review comments in a review letter dated December 22, 2023. The North Davis Fire District provided comments regarding the required number of fire hydrants and fire hydrant locations for the project. The plans will need to be revised to meet Engineering and Fire District requirements.

Public Comment
A public notice sign was placed on the property on December 21, 2023. No public comment has been received to date.

SITE PLAN – CONDITIONS OF APPROVAL

Based upon review of Clearfield City ordinances and the proposed site plan, Staff recommends that the Planning Commission **approve** the site plan request, subject to the following conditions.

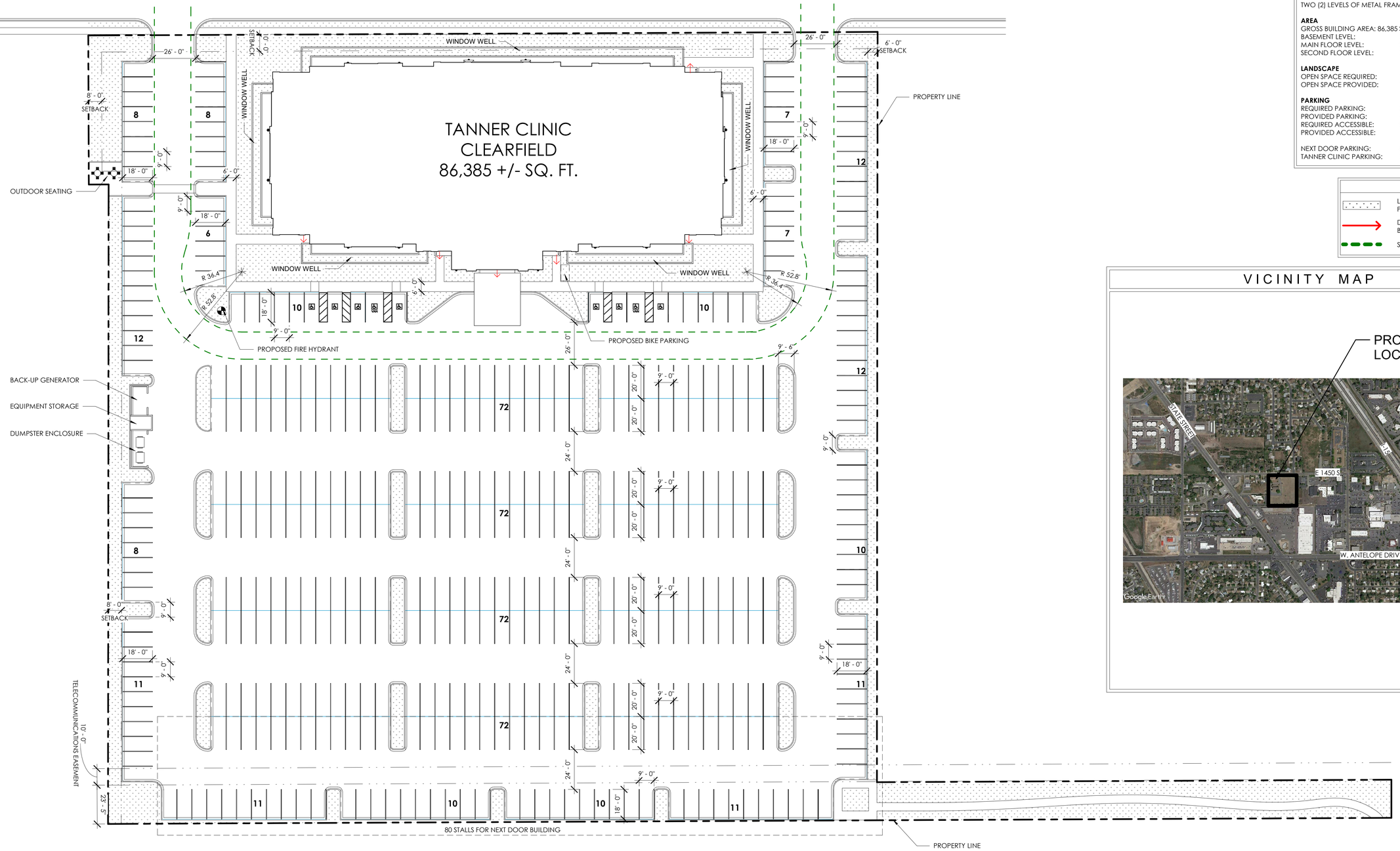
1) The plans shall be revised to meet parking lot standards and include six feet (6') of landscaping around the perimeter of the parking lot.
2) The parking lot islands that lead to the outdoor seating area shall be revised to include landscaping. Staff recommends wider islands that can accommodate a sidewalk with landscaping on both sides.
3) The plans shall be revised to continue the pedestrian pathway at the southeast corner of the site to the proposed building.
4) The landscape plan will need to be revised to meet the minimum tree quantity standards required by Chapter 21, "Landscaping Standards and Requirements".
5) The irrigation plan will need to be revised to include the location of the water meters and the backflow device.
6) The plans will need to be updated to include a detail showing that the screening of the dumpsters, equipment, and back up generator will be constructed using the same materials as the building or approved masonry fencing.
7) The Building Elevations and Materials sheet shall be revised to include the exterior material for the basement portion of the façades.
8) The plans shall be revised to indicate the materials that will be used to finish the bottom of the stairwells.
9) The site plan will need to be updated to indicate the location of snow stacking areas.
10) The site plan will need to be updated to address comments from the City Engineering letter dated December 22,2023, and North Davis Fire District comments and requirements.

ATTACHMENTS

1. Architectural Site Plan
2. Floor Plans
3. 2nd Floor TI Plan
4. Building Elevations
5. Perspectives
6. Materials Sheet

7. Landscape Plan
8. Irrigation Plan
9. Civil Cover Sheet
10. Notes and Legend
11. Topographic Survey
12. Demolition Plan
13. Site Plan
14. Grading Plan
15. Utility Plan
16. Site Details
17. Utility Details
18. Stormtech Details
19. Erosion Control Plan

1450 SOUTH



SITE INFO

GROSS SITE AREA:	5.26 ACRES (229,073 SF)
ZONING:	C-1 (COMMERCIAL USE)

TANNER CLINIC CLEARFIELD:
TWO (2) LEVELS OF METAL FRAMING OVER BASEMENT.

AREA

GROSS BUILDING AREA:	86,385 SF
BASEMENT LEVEL:	28,795 SF
MAIN FLOOR LEVEL:	28,795 SF
SECOND FLOOR LEVEL:	28,795 SF

LANDSCAPE

OPEN SPACE REQUIRED:	10% (22,900 SF)
OPEN SPACE PROVIDED:	16% (36,801+/- SF)

PARKING

REQUIRED PARKING:	2 STALLS/ 1,000 SF (173 TOTAL)
PROVIDED PARKING:	462 STALLS
REQUIRED ACCESSIBLE:	9 STALLS
PROVIDED ACCESSIBLE:	9 STALLS (2 VAN)
NEXT DOOR PARKING:	80 STALLS
TANNER CLINIC PARKING:	392 STALLS

LEGEND

- LANDSCAPING, SEE LANDSCAPE PLANS
- DIRECTION OF EGRESS OUT OF BUILDING
- SU-40 TURNING RADIUS

VICINITY MAP

1/01 **SITE PLAN**
SCALE: 1" = 30'-0"

01 TANNER CLINIC CLEARFIELD, 1204 E 1450 S CLEARFIELD UT, 84015

SITE PLAN

12.06.23

THE RICHARDSON DESIGN PARTNERSHIP
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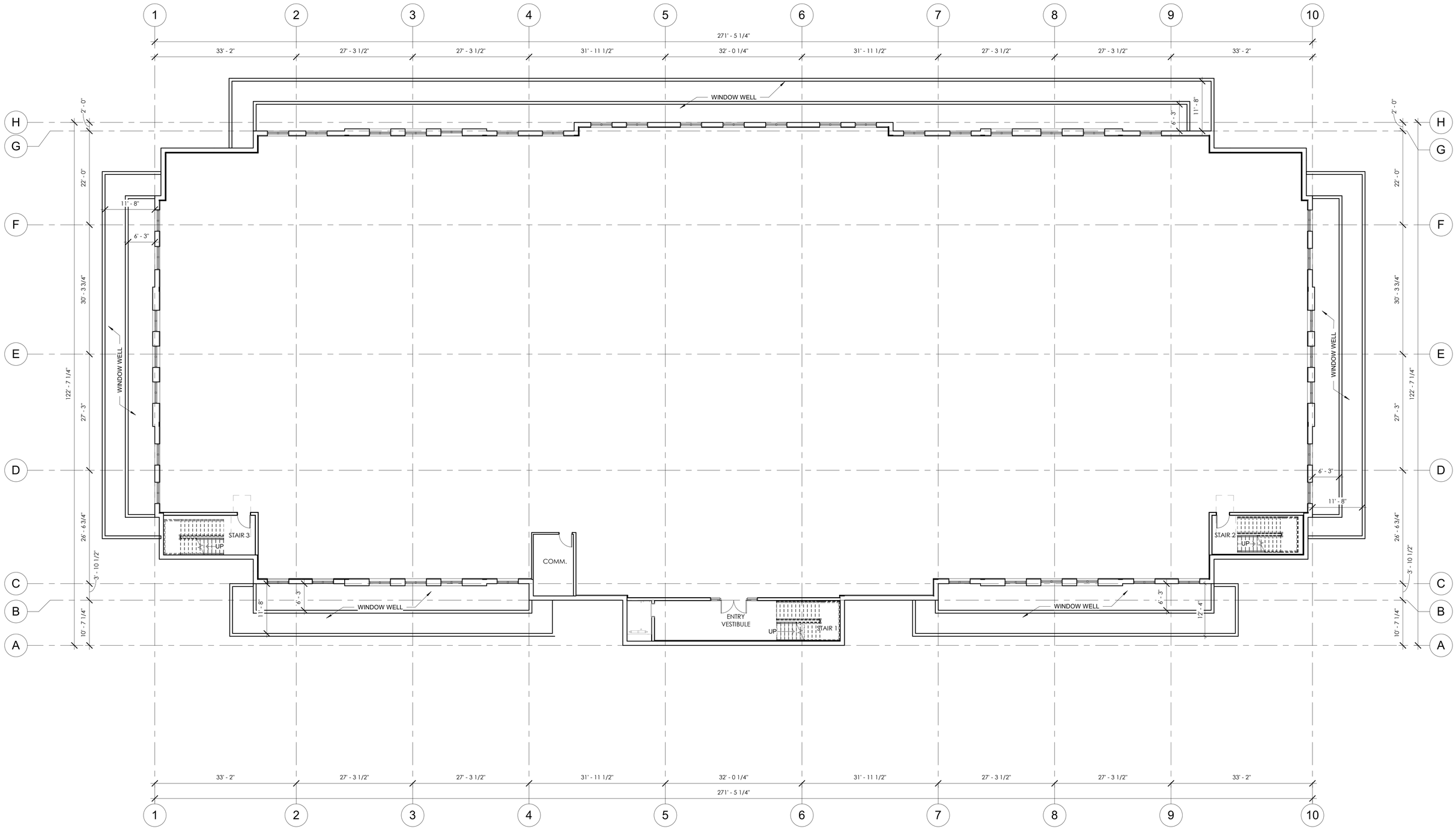

1 BASEMENT LEVEL

02

SCALE: 3/32" = 1'-0"

02 TANNER CLINIC CLEARFIELD, 1204 E 1450 S CLEARFIELD UT, 84015

BASEMENT LEVEL

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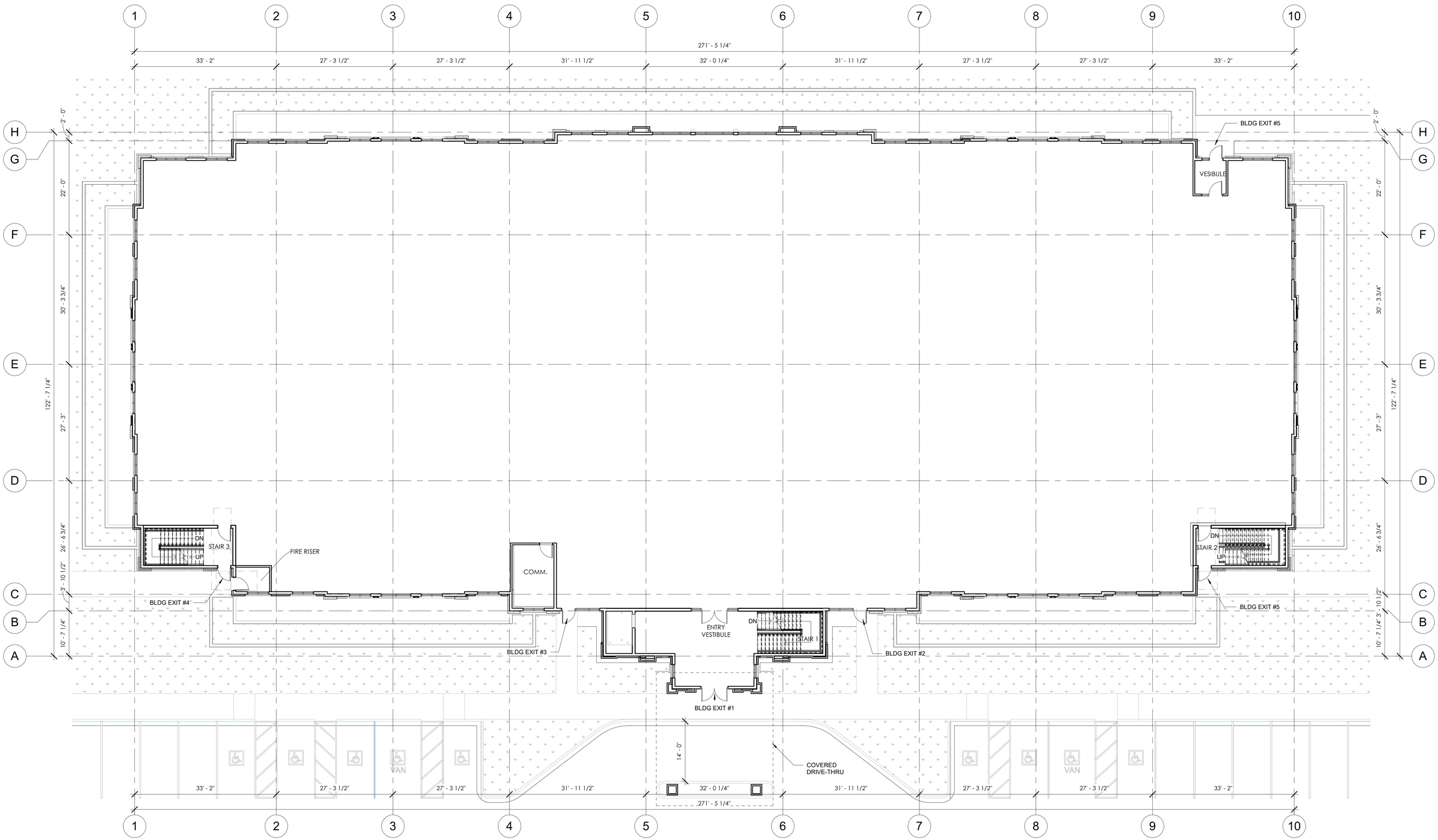

1 / 03 **MAIN LEVEL FLOOR PLAN**

SCALE: 3/32" = 1'-0"

03 TANNER CLINIC CLEARFIELD, 1204 E 1450 S CLEARFIELD UT, 84015

MAIN LEVEL

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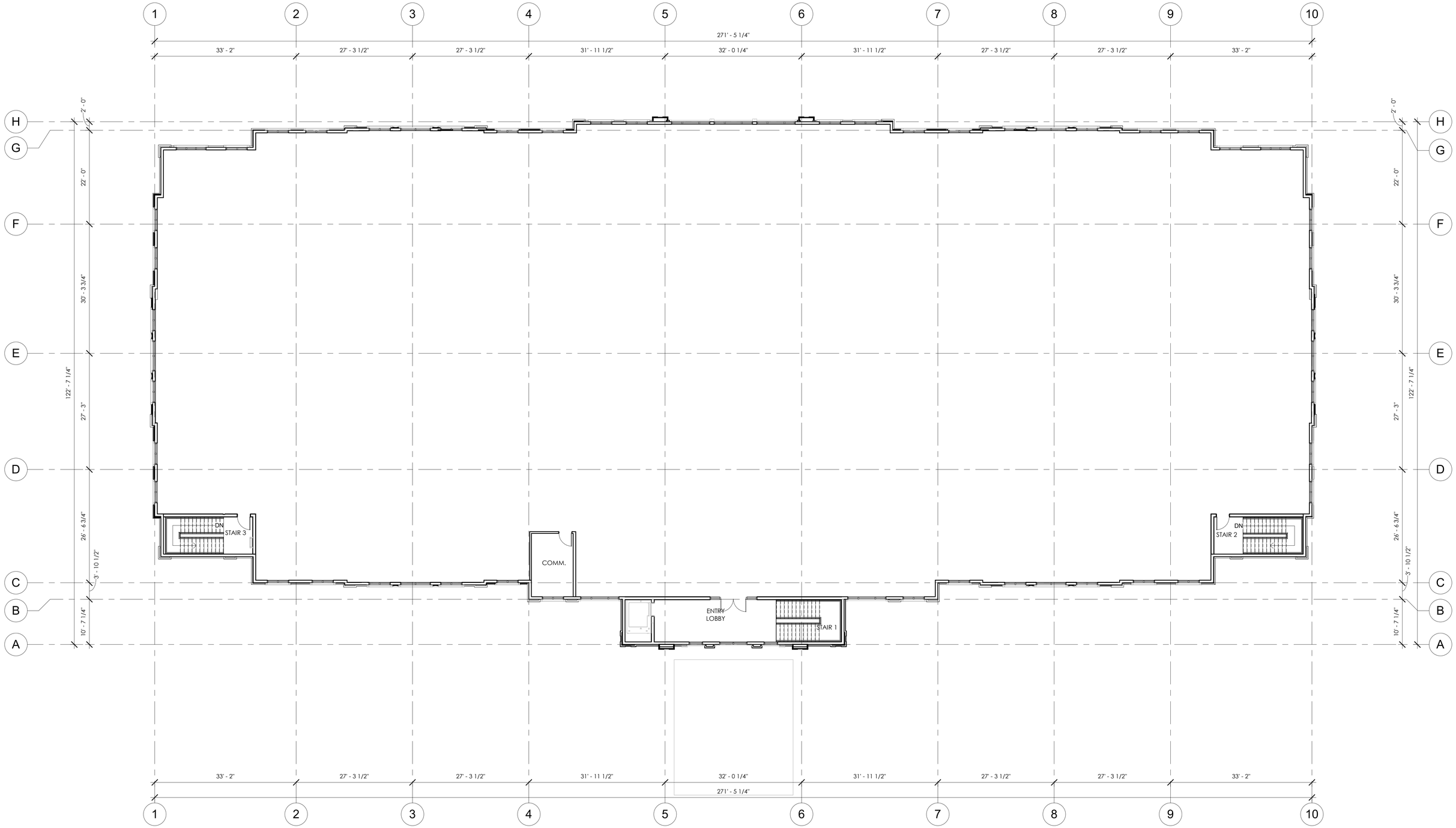

1/04 SECOND LEVEL FLOOR PLAN

SCALE: 3/32" = 1'-0"

04 TANNER CLINIC CLEARFIELD, 1204 E 1450 S CLEARFIELD UT, 84015

SECOND LEVEL

12.06.23

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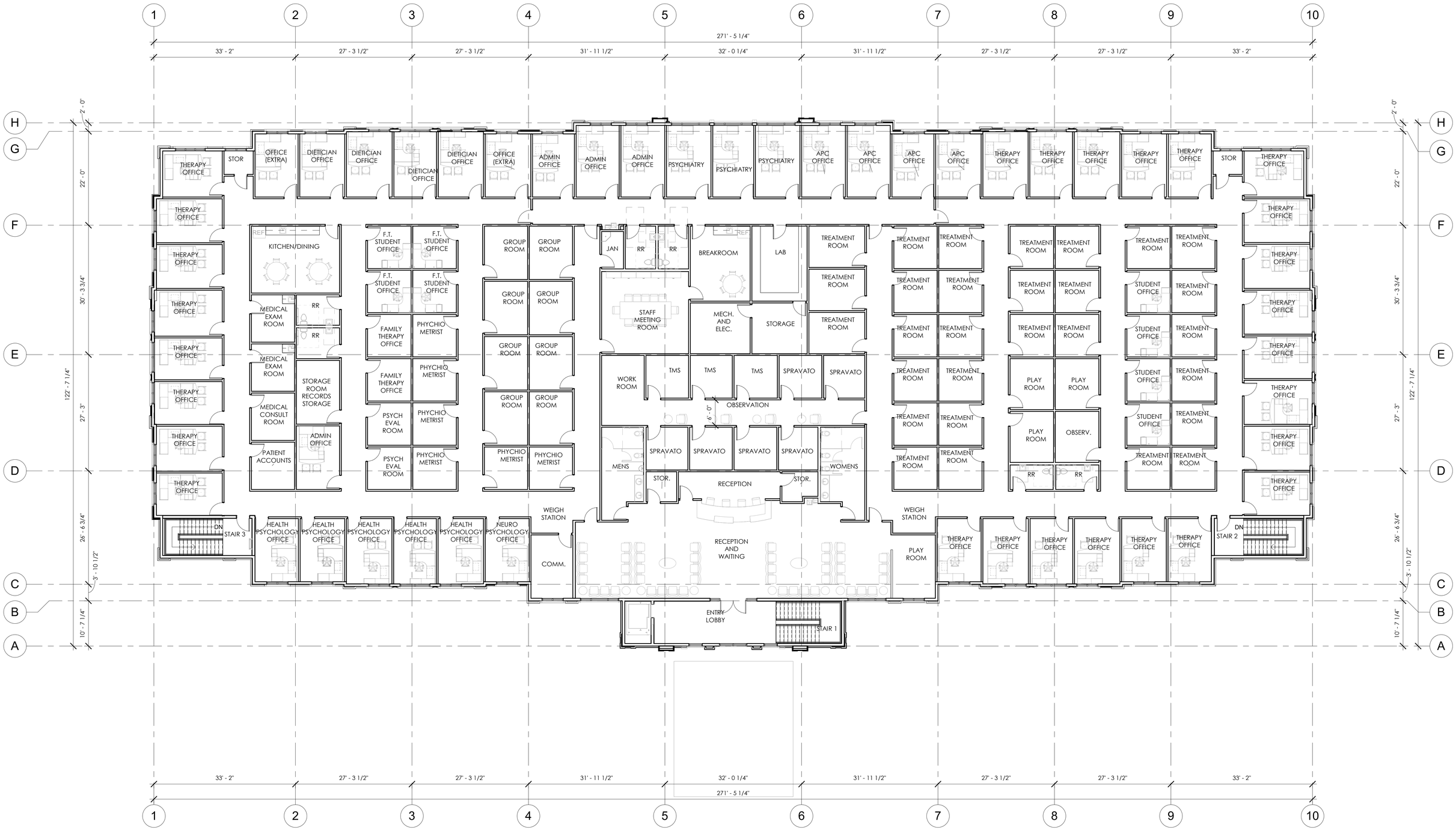

1 SECOND LEVEL TI FLOOR PLAN
3/32" = 1'-0"

05

TANNER CLINIC CLEARFIELD, 1204 E 1450 S CLEARFIELD UT, 84015

SECOND LEVEL TI

12.06.23

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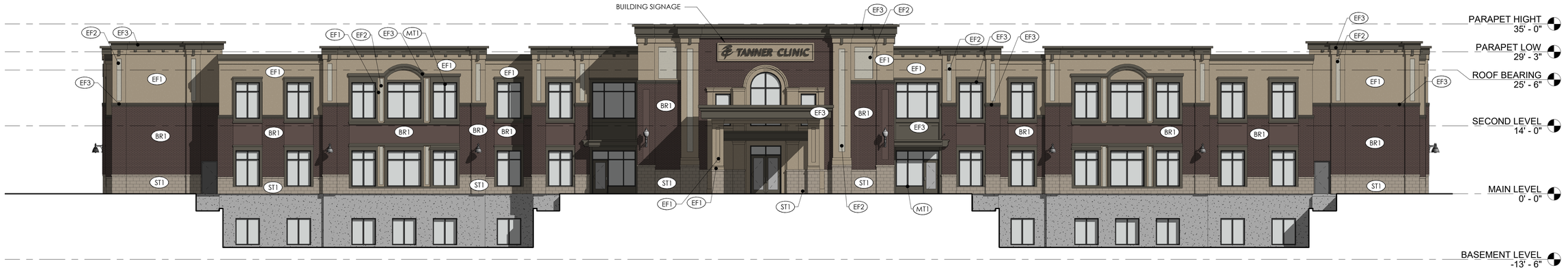
WWW.TRDP.COM

FINISH LEGEND

BR1	BRICK: SUMMIT BRICK "STEEEL CITY BLEND"
ST1	STONE: PRECAST - TUSCAN STONEWORX "TUMBLEWEED"
EF1	EIFS: "UNIVERSAL KHAKI" - COLOR SW6150
EF2	EIFS: "SEDATE GRAY" - COLOR SW6169
EF3	EIFS: "PORPOISE" - COLOR SW7047
MT1	STOREFRONT & FLASHING: ANODIZED ALUMINUM - "DARK BRONZE"

2/06 EAST ELEVATION

SCALE: 3/32" = 1'-0"



1/06 SOUTH ELEVATION

SCALE: 3/32" = 1'-0"

THE RICHARDSON DESIGN PARTNERSHIP
TEL: 801.355.6868
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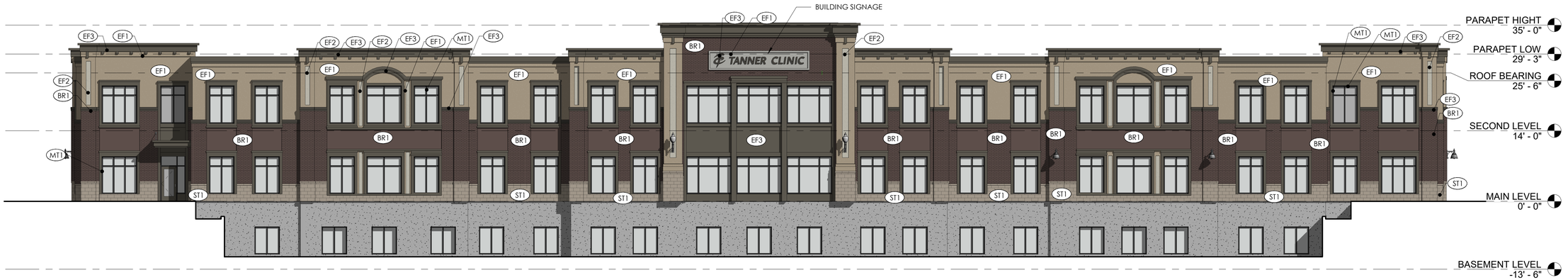
FINISH LEGEND

BR1	BRICK: SUMMIT BRICK "STEEEL CITY BLEND"
ST1	STONE: PRECAST - TUSCAN STONEWORX "TUMBLEWEED"
EF1	EIFS: "UNIVERSAL KHAKI" - COLOR SW6150
EF2	EIFS: "SEDATE GRAY" - COLOR SW6169
EF3	EIFS: "PORPOISE" - COLOR SW7047
MT1	STOREFRONT & FLASHING: ANODIZED ALUMINUM - "DARK BRONZE"

2 WEST ELEVATION
3/32" = 1'-0"



1 NORTH ELEVATION
3/32" = 1'-0"

07

TANNER CLINIC CLEARFIELD, 1204 E 1450 S CLEARFIELD UT, 84015

ELEVATIONS

12.06.23

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08

TANNER CLINIC CLEARFIELD, 1204 E 1450 S CLEARFIELD UT, 84015

PERSPECTIVES

12.06.23

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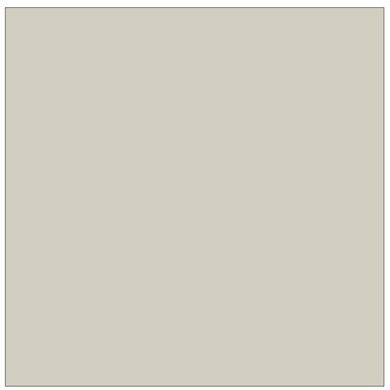
ST1: PRCAST STONE
MFG: TUSCAN STONEWORX
SPEC: THIN CLAD RENAISSANCE SMOOTH
COLOR: TUMBLEWEED

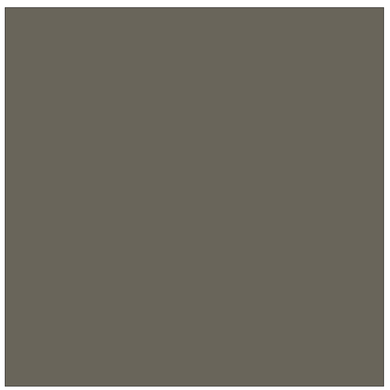
BR1 - BRICK VENEER:
MFG: SUMMIT
SPEC: TAN MORTAR
COLOR: STEEL CITY BLEND

MT1 - STOREFRONT & FLASHING:
COLOR: DARK BRONZE ANODIZED ALUMINUM

EF1 - EIFS:
FINISH: SMOOTH
COLOR: SHERMAN WILLIAMS SW SW6150 "UNIVERSAL KHAKI"



EF2 - EIFS:
FINISH: SMOOTH
COLOR: SHERMAN WILLIAMS SW6169 "SEDATE GRAY"



EF3 - EIFS:
FINISH: SMOOTH
COLOR: SHERMAN WILLIAMS SW7047 " PORPOISE"

09

TANNER CLINIC CLEARFIELD, 1204 E 1450 S CLEARFIELD UT, 84015

MATERIAL BOARD

12.06.23

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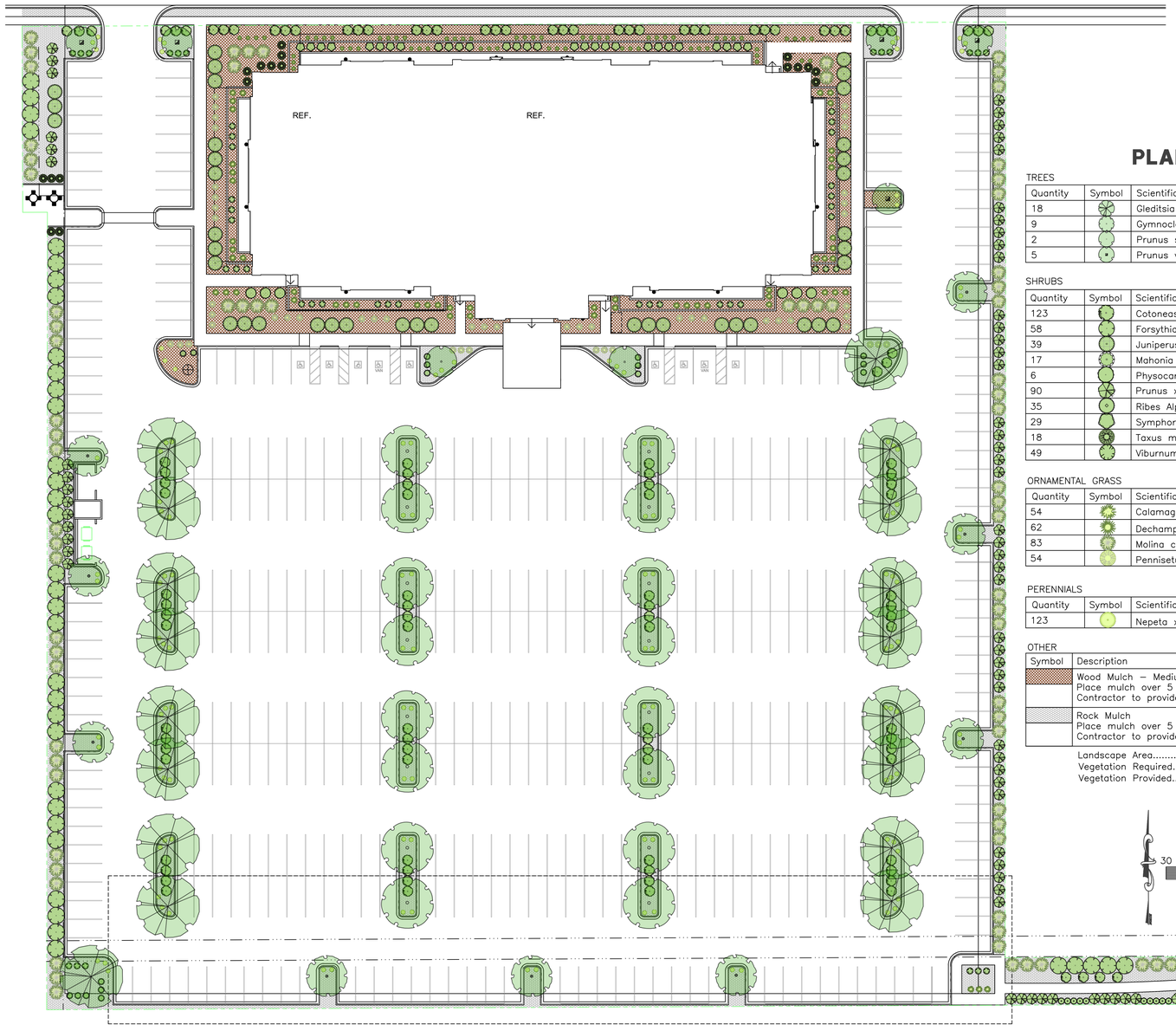


PLANT TABLE

TREES

Quantity	Symbol	Scientific Name	Common Name	Size
18		Gleditsia triacanthos 'Imperial'	Imperial Honey Locust	2" cal.
9		Gymnocladus dioicus	Kentucky Coffeetree	2" cal.
2		Prunus sargentii 'Columnaris'	Columnar Sargent Cherry	2" cal.
5		Prunus virginiana 'Canada Red'	Canada Red Chokecherry	2" cal.

SHRUBS

Quantity	Symbol	Scientific Name	Common Name	Size	Diameter	Area	Total
123		Cotoneaster dammeri 'Lowfast'	Lowfast Cotoneaster	5 gal.	7'	38.5	4736
58		Forsythia x intermedia 'Lynwood Gold'	Lynwood Gold Forsythia	5 gal.	8'	50.3	2917
39		Juniperus 'Buffalo'	Buffalo Juniper	5 gal.	8'	50.3	1962
17		Mahonia aquifolium 'Compactum'	Compact Oregon Grape	1 gal.	3'	7.1	121
6		Physocarpus opulifolius 'Dart's Gold'	Darts Gold Ninebark	5 gal.	5'	19.6	118
90		Prunus x cistena 'UCONNPC001'	Darkstar Purple Sand Cherry	5 gal.	5'	19.6	1746
35		Ribes Alpinum 'Green Mound'	Green Mound Alpine Currant	1 gal.	3'	7.1	249
29		Symphoricarpos alba	Common Snowberry	5 gal.	4'	12.6	365
18		Taxus media 'Hicksii'	Hicks Yew	5 gal.	4'	12.6	227
49		Viburnum trilobum 'Bailey Compact'	Bailey Compact Cranberry	1 gal.	3'	7.1	348

ORNAMENTAL GRASS

Quantity	Symbol	Scientific Name	Common Name	Size	Diameter	Area	Total
54		Calamagrostis 'Karl Foerster'	Karl Foerster Grass	1 gal.	3'	7.1	383
62		Dechampsia caespitosa	Tufted Hair Grass	1 gal.	2'	3.1	192
83		Molina caerulea arundinacea 'Skyracer'	Sky Racer Purple Moor Grass	1 gal.	7'	38.5	3196
54		Pennisetum alopecuroides 'Hameln'	Hameln Fountian Grass	1 gal.	3'	7.1	603

PERENNIALS

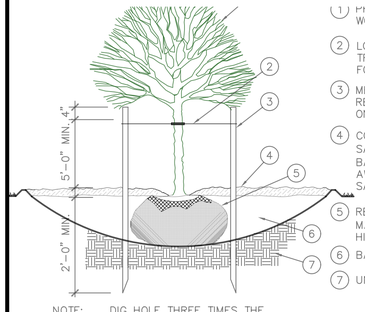
Quantity	Symbol	Scientific Name	Common Name	Size	Diameter	Area	Total
123		Nepeta x faassenii 'Walker's Low'	Walker's Low Catmint	1 gal.	2.5	4.9	38.5

OTHER

Symbol	Description	Type
	Wood Mulch – Medium Chunk Place mulch over 5 ounce Professional weed barrier cloth in all planting beds. Contractor to provide samples to owner for approval prior to delivery.	1" Diameter 3" Depth
	Rock Mulch Place mulch over 5 ounce Professional weed barrier cloth in all planting beds. Contractor to provide samples to owner for approval prior to delivery.	1" Diameter 3" Depth

Landscape Area.....35,125 sf
Vegetation Required.....(50% Coverage).....17,562 sf
Vegetation Provided.....(50% Coverage).....17,563 sf

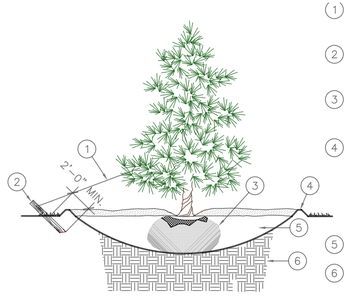
30 0 30 60 90
Scale: 1" = 30'



1. PRUNE ALL DEAD AND INJURED WOOD. DO NOT CUT LEADER.
2. LOOSELY TIE TO ALLOW FOR TREE MOVEMENT, BUT SECURED FOR HIGH WIND CONDITIONS.
3. METAL T-POSTS, 2 PER TREE. REMOVE POSTS & TIES AFTER ONE YEAR.
4. CONSTRUCT 4" EARTH BERM SAUCER. FILL WITH 3" BARK/ROCK MULCH. BRUSH AWAY FROM TRUNK. REMOVE SAUCER AFTER ONE YEAR.
5. REMOVE BURLAP/PACKAGING MAT. PLANT TREES 2"–3" HIGHER THAN GRADE.
6. BACKFILL WITH NATIVE SOIL
7. UNDISTURBED SOIL

NOTE: DIG HOLE THREE TIMES THE WIDTH AND AS DEEP AS ROOTBALL, EXCEPT WHERE NOTED.

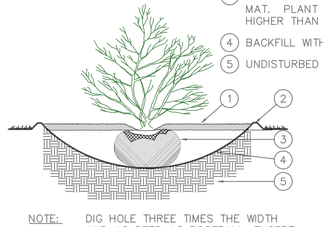
DECIDUOUS TREE PLANTING



1. LOOSELY TIE TO ALLOW FOR TREE MOVEMENT, BUT SECURED FOR HIGH WIND CONDITIONS
2. 4' x 2" x 2" STAKE AND GUY WIRE (ONE EA. TREE) REMOVE STAKES AFTER ONE YEAR
3. REMOVE BURLAP/PACKAGING MAT. PLANT TREES 2"–3" HIGHER THAN GRADE
4. CONSTRUCT 4" EARTH BERM SAUCER. FILL WITH 3" BARK/ROCK MULCH – BRUSH MULCH AWAY FROM TRUNK. REMOVE SAUCER AFTER ONE YEAR
5. BACKFILL WITH NATIVE SOIL
6. UNDISTURBED SOIL

NOTE: DIG HOLE THREE TIMES THE WIDTH AND AS DEEP AS ROOTBALL, EXCEPT WHERE NOTED.

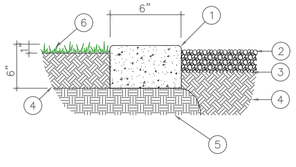
CONIFEROUS TREE PLANTING



1. 3" OF BARK/ROCK MULCH. BRUSH AWAY FROM STEM
2. 3" EARTH BERM SAUCER. REMOVE AFTER ONE YEAR
3. REMOVE BURLAP/PACKAGING MAT. PLANT SHRUBS 2"–3" HIGHER THAN GRADE.
4. BACKFILL WITH NATIVE SOIL
5. UNDISTURBED SOIL

NOTE: DIG HOLE THREE TIMES THE WIDTH AND AS DEEP AS ROOTBALL, EXCEPT WHERE NOTED.

SHRUB PLANTING



1. 6"X6" CONCRETE MOW STRIP WITH RADIUS EDGES
2. BARK/ROCK MULCH
3. FINISH GRADE/WEED FABRIC
4. TOPSOIL
5. COMPACTED SUBGRADE
6. LAWN

CONCRETE MOW STRIP

1. This planting plan is diagrammatic and plant locations are approximate. Contractor to verify all quantities and do their own takeoffs.
2. Field survey, stake, and string the layout and locations of site construction features for approval before actual construction. The layout shall conform to the exact locatio and grades of the intended work to be done.
3. Coordinate all aspects of the planting plans with the irrigation system and call the attention of the owners representative to any conflict in placement of plants in relation to sprinkler heads, lines and valves at the time the landscape installation phase takes place.
4. Finish grade of soil in lawn areas shall be 2" below pads, walks, paving, headers and curbs to accommodate sod. Grades in areas when seeded shall be 1" lower tha adjacent edge.
5. Native topsoil shall be stockpiled and stored on site whenever possible for use in landscape areas.
6. All sod areas shall receive a minimum 4" depth of native topsoil and shrub beds shall receive a minimum of 8" of native topsoil.
7. Imported topsoil, when required, shall come from a reputable source, have a loam consistency and be free of weeds and debris.
8. Face each shrub to give the most pleasing look as seen from a line perpendicular t the wall or walk to/from which it is viewed.
9. Edging or Curbing shall be installed as shown on the plan to separate grass from shrub beds.
10. Shrub beds shall drain properly to prevent standing water from occurring. Call improperly draining planters or planting beds to the attention of the owners representative before planting. Provide positive drainage away from all structures and walls. Slope landscape areas 2% minimum.
11. Place mulch in all shrub beds and perennial areas. See schedule for depth and type. Do not crowd out small perennial plants with excessive mulch.
12. Provide a 3" minimum diameter circle "tree ring" around trees that are placed within lawn areas. Place a 3" min. depth of mulch. Use shredded bark mulch or match mulch being used for shrub beds.
13. The contractor shall maintain all work until work is complete and accepted by the Owner. The contractor shall maintain and guarantee all work for a period of THIRTY (30) days from the date of final acceptance by the Owner. Maintenance shall include watering, weeding, cultivating and trimming.

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REVISIONS
DESCRIPTION
DATE

LICENSED LANDSCAPE ARCHITECT
6431661
NATHAN C. PETERSON
12/06/2023
STATE OF UTAH

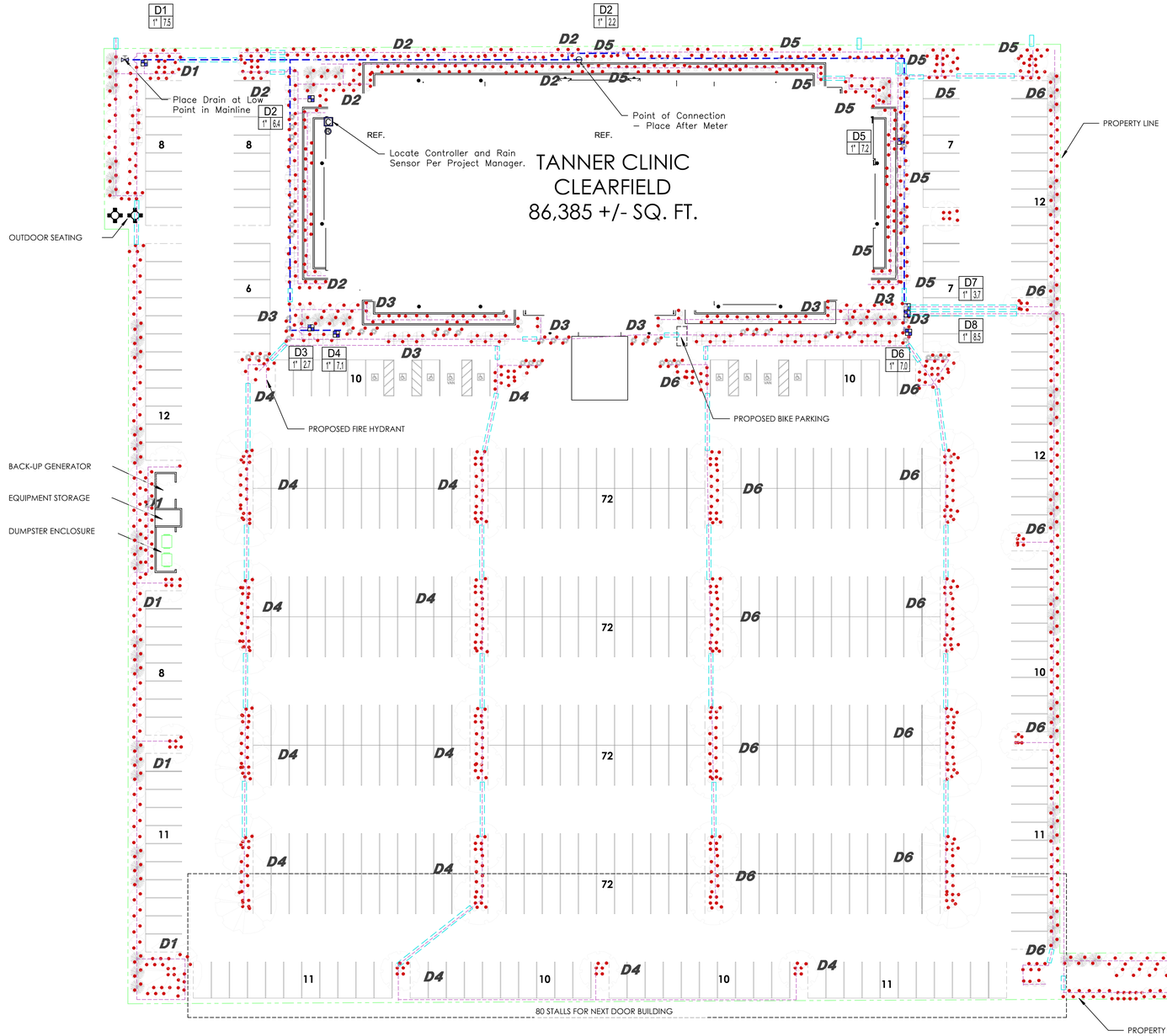
Project Info.
Engineer: NATHAN PETERSON
Drafter: N. PETERSON
Begin Date: DATE
Name: TANNER CLINIC CLEARFIELD
Number: 6552-04

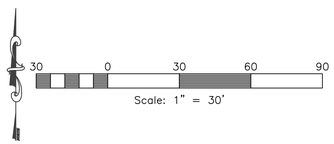
1
3 Total Sheets

TANNER CLINIC CLEARFIELD
CLEARFIELD, DAVIS COUNTY, UTAH

Landscape Plan

Reeve & Associates, Inc. - Solutions You Can Build On





IRRIGATION SCHEDULE

RADIUS	SYMBOL	PSI	MANUFACT.	CATALOG #	DESCRIPTION
SPRAY	QU. HALF FULL				HEAD; NOZZLE
8'		30	RAINBIRD	1804–SAM–PRS	SPRAY; 8' MPR
10		30	RAINBIRD	1804–SAM–PRS	SPRAY; 10' MPR
12'		30	RAINBIRD	1804–SAM–PRS	SPRAY; 12' MPR
15'		30	RAINBIRD	1804–SAM–PRS	SPRAY; 15' MPR

EQUIP.	SYMBOL	MANUFACT.	CATALOG #	DESCRIPTION
		FORD	BC11–444SWM–NL	STOP AND WASTE
		WILKINS STRONGBOX	975XL2 SBBC–30AL	BACKFLOW PREVENTION ASSEMBLY ALUMINUM BACKFLOW ENCLOSURE
		RAINBIRD	MODEL 44LRC	1" QUICK COUPLING VALVE
		FORD	B111–333–NL 3/4"	MANUAL DRAIN VALVE ASSEMBLY
	C	RAINBIRD	ESP LXME	120 VAC–INDOOR/OUTDOOR CONTROLLER
	R	RAINBIRD	WR2–RC	WIRELESS RAIN SENSOR
		RAINBIRD	XCZ–100–PRB–COM	DRIP REMOTE CONTROL VALVE

PIPE	SYMBOL	CATALOG #	DESCRIPTION
1"		SCH. 40	PVC MAIN LINE	PRESSURIZED IRRIGATION MAIN LINE
		SCH. 40	PVC LATERAL LINE	IRRIGATION LINE; SIZE AS FOLLOWS: 3/4" (0–8 gpm), 1" (8–12 gpm), 1 1/4" (12–22 gpm), 1 1/2" (22–30 gpm), 2" (30–50 gpm)
		SCH. 40	PVC SLEEVE	2 X DIA. – USE UNDER PAVEMENT

DRIP	SYMBOL	MANUFACT.	CATALOG #	DESCRIPTION
		RAINBIRD	XB–T–20–PC	XERIBUG DRIP EMITTERS, 2 GAL/HOUR 1 EMITTER PER 1 GALLON PLANT 2 EMITTERS PER 5 GALLON PLANT 4 EMITTERS PER TREE (OUTSIDE TURF AREAS)
		PVC/POLY	DRIP LATERAL LINE	1/2"–3/4" LATERAL SUPPLY LINE

LABELS

D1 1" 5
- D1 — DRIP VALVE NUMBER
- 5 — GALLONS PER MINUTE
- 1" — VALVE SIZE

D1 DRIP IRRIGATION ZONE NUMBER

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REVISIONS

DESCRIPTION	DATE

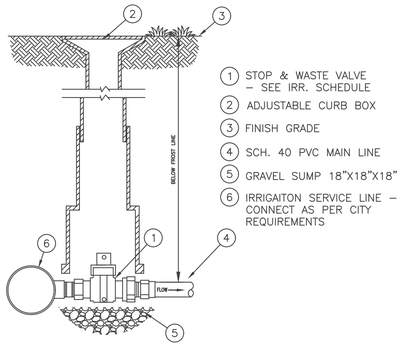
TANNER CLINIC
CLEARFIELD
CLEARFIELD, DAVIS COUNTY, UTAH

Irrigation Plan

LICENSED LANDSCAPE ARCHITECT
6431601
NATHAN C. PETERSON
12/05/2023
STATE OF UTAH

Project Info.
Engineer: NATHAN PETERSON
Drafter: N. PETERSON
Begin Date: DATE
Name: TANNER CLINIC CLEARFIELD
Number: 6552–04

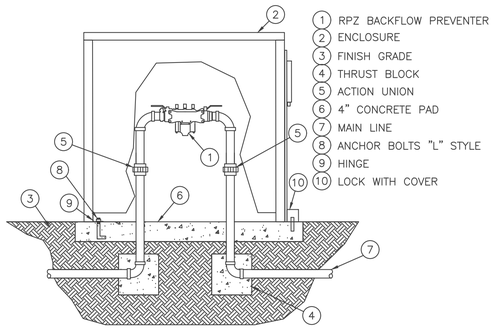
2
3 Total Sheets



1. STOP & WASTE VALVE – SEE IRR. SCHEDULE
2. ADJUSTABLE CURB BOX
3. FINISH GRADE
4. SCH. 40 PVC MAIN LINE
5. GRAVEL SUMP 18"X18"X18"
6. IRRIGAITON SERVICE LINE – CONNECT AS PER CITY REQUIREMENTS

STOP & WASTE ASSEMBLY

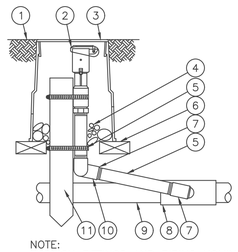
N.T.S.



1. RPZ BACKFLOW PREVENTER
2. ENCLOSURE
3. FINISH GRADE
4. THRUST BLOCK
5. ACTION UNION
6. 4" CONCRETE PAD
7. MAIN LINE
8. ANCHOR BOLTS "L" STYLE
9. HINGE
10. LOCK WITH COVER

BACKFLOW PREVENTER

N.T.S.

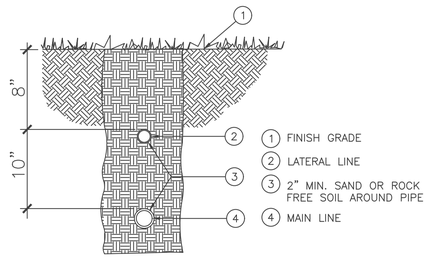


1. FINISH GRADE/TOP OF MULCH
2. QUICK–COUPLING VALVE
3. VALVE BOX WITH COVER
4. 3–INCH MINIMUM DEPTH OF 3/4–INCH WASHED GRAVEL
5. PVC SCH 80 NIPPLE
6. BRICK (1 OF 2)
7. PVC SCH 40 STREET ELL
8. PVC SCH 40 TEE OR ELL
9. PVC MAINLINE PIPE
10. PVC SCH 40 ELL
11. 2"x2" REDWOOD STAKE WITH STAINLESS STEEL GEAR CLAMPS OR EQUIVALENT SUPPORT SYSTEM

NOTE:
FURNISH FITTINGS AND PIPING NOMINALLY SIZED IDENTICAL TO NOMINAL QUICK COUPLING VALVE INLET SIZE.

QUICK COUPLING VALVE

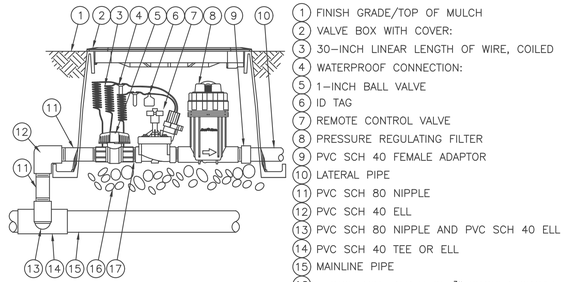
N.T.S.



1. FINISH GRADE
2. LATERAL LINE
3. 2" MIN. SAND OR ROCK FREE SOIL AROUND PIPE
4. MAIN LINE

TRENCH SECTION

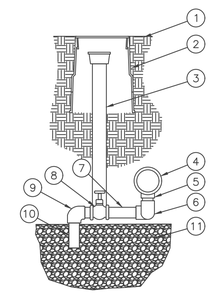
N.T.S.



1. FINISH GRADE/TOP OF MULCH
2. VALVE BOX WITH COVER:
3. 30–INCH LINEAR LENGTH OF WIRE, COILED
4. WATERPROOF CONNECTION:
5. 1–INCH BALL VALVE
6. ID TAG
7. REMOTE CONTROL VALVE
8. PRESSURE REGULATING FILTER
9. PVC SCH 40 FEMALE ADAPTOR
10. LATERAL PIPE
11. PVC SCH 80 NIPPLE
12. PVC SCH 40 ELL
13. PVC SCH 80 NIPPLE AND PVC SCH 40 ELL
14. PVC SCH 40 TEE OR ELL
15. MAINLINE PIPE
16. 3 INCH MIN. DEPTH OF ¾" WASHED GRAVEL
17. PVC SCH 80 NIPPLE, CLOSE

REMOTE CONTROL DRIP VALVE

N.T.S.

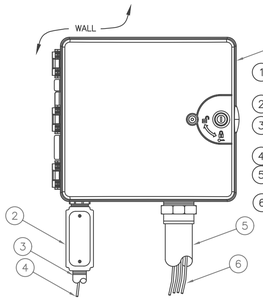


1. FINISH GRADE/TOP OF MULCH
2. IRRIGATION VALVE BOX WITH BOLT LID
3. HEIGHT AS REQUIRED
4. PVC MAINLINE
5. SERVICE TEE
6. (2) 3/4" 90 ELL (2) 3/4" CLOSE PVC NIPPLE
7. 3/4"X12" PVC SCH 80 NIPPLE
8. 3/4" DRAIN VALVE–SEE SCHEDULE
8. 3/4"X12" PVC SCH 80 NIPPLE
9. 3/4" PVC SCH 40 ELL
10. 3/4" X 6" PVC SCH 80 TOE NIIPPLE
11. 3/4–INCH WASHED GRAVEL SUMP 5 CUBIC FEET MIN.

Note: Place at low spot(s) in Mainline to allow for proper winterization

MANUAL DRAIN VALVE

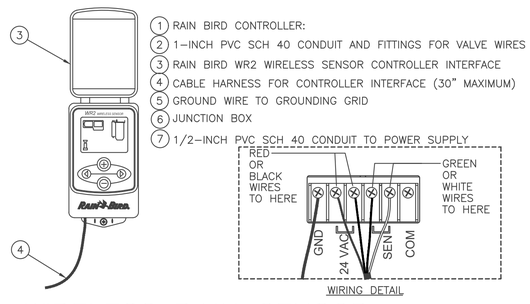
N.T.S.



1. IRRIGATION CONTROLLER IN CABINET WITH WALL MOUNT
2. JUNCTION BOX
3. 1–INCH CONDUIT AND FITTINGS TO POWER SUPPLY
4. POWER SUPPLY WIRE
5. 2–INCH CONDUIT AND FITTINGS FOR STATION WIRES
6. WIRES TO REMOTE CONTROL VALVES

IRRIGATION CONTROLLER

N.T.S.

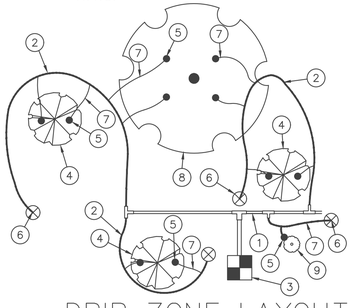


1. RAIN BIRD CONTROLLER:
2. 1–INCH PVC SCH 40 CONDUIT AND FITTINGS FOR VALVE WIRES
3. RAIN BIRD WR2 WIRELESS SENSOR CONTROLLER INTERFACE
4. CABLE HARNESS FOR CONTROLLER INTERFACE (30" MAXIMUM)
5. GROUND WIRE TO GROUNDING GRID
6. JUNCTION BOX
7. 1/2–INCH PVC SCH 40 CONDUIT TO POWER SUPPLY

WIRING DETAIL

WIRELESS RAIN SENSOR

N.T.S.

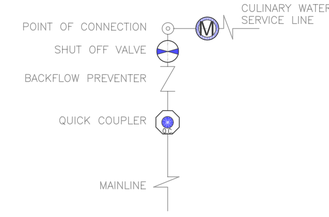


1. SCH. 40 PVC LATERAL
2. 1/2" SOLID DRIP TUBING OR EQUIV. LENGTH NOT TO EXCEED 250'
3. DRIP VALVE ASSEMBLY. SEE DETAIL
4. TYPICAL SHRUB
5. DRIP EMITTER ASSEMBLY (SEE DETAIL THIS SHEET)
6. AUTOMATIC FLUSH VALVE. SEE DETAIL THIS SHEET
7. 1/4" VINYL DISTRIBUTION TUBING (MAX. LENGTH IS 4')
8. TYPICAL TREE
9. TYPICAL PERENNIAL

NOTE:
*WHENEVER POSSIBLE PLACE EMITTER UPHILL FROM SHRUB.

DRIP ZONE LAYOUT

N.T.S.



POINT OF CONNECTION–CULINARY

N.T.S.

IRRIGATION NOTES

1. This irrigation plan is diagrammatic and equipment locations are approximate. Equipment and piping may be shown outside landscape areas for graphic purposes only.
2. Place sleeves where piping crosses under paved areas prior to being paved. Sleeves shall be twice the diameter of the largest irrigation line to be sleeved.
3. The intention of the Contracting Officer's rep and consultant is to have constructed, under the construction contract, a complete project ready for use. The general contractor and his sub–contractors should view these documents accordingly. Any apparent question, incomplete area, areas of discrepancy or contradiction in these documents should be brought to the attention of the Contracting Officer's rep prior to bidding. By submitting a bid on this project, the bidder certifies that he has fully informed himself of the requirements of the construction drawings, as they relate to his work, and has read and understands the notes and specifications. Also, that any questions, incomplete areas, discrepancies or contradictions have been brought to the attention of the Contracting Officer's rep and that they have been resolved.
4. Willful installation of this work when it is obvious there exists job/site conditions or discrepancies on the plans that are detrimental to the project and that should be brought to the attention of the Contracting Officer's rep will be back–charged to the installer. The installer assumes full responsibility to correct the work at his own expense if he fails to give the required notification for resolution.
5. Existing landscape outside the limits of disturbance shall be protected and repaired, if damaged, at no additional cost to the owner.
6. Refer to irrigation schedule and details for more information.
7. Hand trenching only shall occur within the drip line of existing trees. Machine trenching is strictly prohibited.
8. Consult with General Contractor, in conjunction with the design team, before cutting through tree roots 2" or larger.
9. Spray, rotor and rotary heads are intended to provide head to head coverage with minimal over–spray onto non–irrigated areas.
10. Quantities provided are for convenience only. The contractor is required to verify quantities and adjust bid and construction accordingly. If major discrepancies exist, notify Contracting Officer's rep immediately.
11. Water pressure shall be verified on site by landscape contractor.
12. See Irrigation schedule for lateral line sizing, typical for all irrigated areas.

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REVISIONS
DESCRIPTION | DATE

TANNER CLINIC
CLEARFIELD
CLEARFIELD, DAVIS COUNTY, UTAH

Irrigation Details

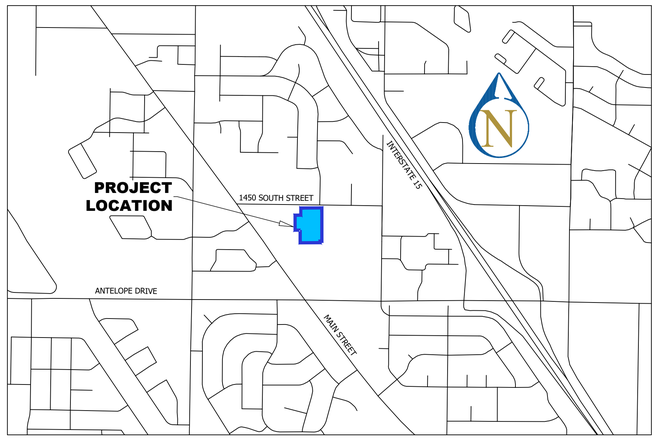
LICENSED LANDSCAPE ARCHITECT
6431601
NATHAN C. PETERSON
12/06/2023
STATE OF UTAH

Project Info.
Engineer: NATHAN PETERSON
Drafter: N. PETERSON
Begin Date: DATE
Name: TANNER CLINIC CLEARFIELD
Number: 6552–04

3
3 Total Sheets

TANNER CLINIC CLEARFIELD

1205 EAST 1450 SOUTH
LOCATED IN THE SW 1/4 OF SECTION 7, T. 4 N.., R. 1 W.., S.L.B.&M.
CLEARFIELD CITY, DAVIS COUNTY, UTAH



SCALE: 1"=1000'

SHEET INDEX	
NUMBER	TITLE
C100	COVER
C101	NOTES & LEGEND
C200	TOPOGRAPHIC SURVEY
C300	DEMOLITION PLAN
C400	SITE PLAN
C500	GRADING PLAN
C600	UTILITY PLAN
C900	SITE DETAILS
C901	UTILITY DETAILS
C902	STORMTECH DETAILS
EC100	EROSION CONTROL PLAN

Client	**THE RICHARDSON DESIGN PARTNERSHIP**
Contact	**TAGGART HARRIS**
Phone	**(801) 355-6868**
Address	**THARRIS@TRDP.COM**
	510 SOUTH 600 EAST SLC UT, 84102

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ELEVATION: 4483.63

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GENERAL NOTES

1. ALL WORK WITHIN A PUBLIC RIGHT-OF-WAY SHALL CONFORM TO THE RIGHT-OF-WAY OWNER'S STANDARDS & SPECIFICATIONS.
2. ALL UTILITY WORK SHALL CONFORM TO THE UTILITY OWNER'S STANDARDS & SPECIFICATIONS.
3. THESE PLANS DO NOT INCLUDE DESIGN OF DRY UTILITIES. THESE PLANS MAY CALL FOR RELOCATION, AND/OR REMOVAL AND/OR CONSTRUCTION OF DRY UTILITIES, BUT ARE NOT OFFICIAL DRAWINGS FOR SUCH. DESIGN AND COORDINATION OF DRY UTILITIES IS BY OTHERS.
4. THE CONTRACTOR SHALL COORDINATE AND OBTAIN ANY PERMITS REQUIRED FOR THE WORK SHOWN HEREON.
5. THE LOCATION AND ELEVATIONS OF UNDERGROUND UTILITIES SHOWN ON THESE PLANS IS A BEST ESTIMATE BASED ON UTILITY COMPANY RECORDS, BLUESTAKES, AND FIELD MEASUREMENTS OF READILY OBSERVABLE ABOVE-GROUND FEATURES. AS SUCH, THIS INFORMATION MAY NOT BE COMPLETE, UP-TO-DATE, OR ACCURATE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO STOP WORK AND NOTIFY THE ENGINEER IF CONFLICTING INFORMATION IS FOUND IN THE FIELD.
6. THE CONTRACTOR IS TO FIELD VERIFY THE LOCATION AND ELEVATIONS OF EXISTING MANHOLES AND OTHER UTILITIES PRIOR TO STAKING AND CONSTRUCTION.
7. CALL BLUESTAKES AT LEAST 48 HOURS PRIOR TO DIGGING. DO NOT PROCEED UNTIL BLUESTAKES ARE MARKED.
8. IT SHALL BE THE CONTRACTOR'S AND SUBCONTRACTOR'S RESPONSIBILITY TO MEET ALL APPLICABLE HEALTH AND SAFETY REGULATIONS, AND THEY SHALL ASSUME SOLE RESPONSIBILITY FOR JOB-SITE CONDITIONS DURING CONSTRUCTION OF THIS PROJECT, SO THAT ALL EMPLOYEES ARE PROVIDED A SAFE PLACE TO WORK, AND THE PUBLIC IS PROTECTED.

\\Entellus-DC-UTA\H\2169001\D_PRODUCTION\Civil\04_Plan Set\PLAN SET-2169001_23-12-06

TANNER CLINIC
2169001

CIVIL CSA 9/28/2023
SURVEY
ENGINEER TJB 6/14/2022

REV #	BY	DATE

REGISTERED PROFESSIONAL ENGINEER
12-06-2023
No.189586
SCOTT T. ARVIETO
STATE OF UTAH

1470 South 600 West
Woods Cross, UT 84010
Phone 801.298.2236
www.Entellus.com
Entellus

C100
COVER

GENERAL NOTES

1. ALL IMPROVEMENTS SHALL COMPLY WITH THE STANDARDS AND REGULATIONS OF THE LOCAL GOVERNING MUNICIPALITY. CONTACT THE PUBLIC WORKS OFFICE BEFORE BEGINNING.
2. CONTRACTOR TO FIELD VERIFY LOCATION, SIZE, AND AVAILABILITY OF EXISTING UTILITIES. UTILITIES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR AT HIS/HER EXPENSE. SEE UTILITY NOTE 3.
3. ALL DIMENSIONS ARE IN FOOT UNITS AND ARE TO THE TOP BACK OF CURB UNLESS SHOWN OR NOTED OTHERWISE.
4. PROVIDE HANDICAP RAMPS AT ENDS OF WALKWAYS. END 0.1' ABOVE FLOWLINE OF CURB.
5. CURB AND GUTTER SHALL BE AS PER APWA STD DWG NO 205 TYPE A.
6. UTILITY INFORMATION INDICATED ON DRAWING IS BASED UPON VISUAL OBSERVATION OR INFORMATION FURNISHED BY MUNICIPAL AUTHORITIES WHICH MAY NOT BE VALID. LATERAL LOCATIONS AND ELEVATIONS ARE ASSUMED. SEE UTILITY NOTE 3.
7. ALL GRADING SHALL BE DONE UNDER THE SUPERVISION OF A QUALIFIED SOILS ENGINEER WHO SHALL VERIFY THAT ALL FILL HAS BEEN PLACED IN ACCORDANCE WITH PROVISIONS IN CURRENT INTERNATIONAL BUILDING CODE.
8. COMPACTION TEST REPORTS SHALL BE MADE AVAILABLE TO THE ENGINEER WITHIN 24 HOURS OF A REQUEST. FINAL REPORTS AS SPECIFIED IN CURRENT INTERNATIONAL BUILDING CODE SHALL BE SUBMITTED TO THE ENGINEER WITHIN TEN DAYS AFTER COMPLETION OF GRADING.
9. ALL STORM DRAIN PIPE SHALL BE INSTALLED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS AND THE LOCAL GOVERNING MUNICIPALITY'S STANDARDS AND SPECIFICATIONS.
10. STORM DRAIN PIPE WITHIN THE PUBLIC RIGHT-OF-WAY SHALL CONFORM TO THE RIGHT-OF-WAY OWNER'S SPECIFICATIONS.
    PRIVATE STORM DRAIN PIPE OPTIONS SHALL CONSIST OF THE FOLLOWING MATERIALS.
    1. PVC PIPE, ASTM D3034, SDR 35, BELL & SPIGOT TYPE.
    2. RCP PIPE, CLASS 3, BELL & SPIGOT TYPE.
    3. HIGH DENSITY CORRUGATED POLYETHYLENE SMOOTH INTERIOR PIPE, ASTM D3350 WITH WATERTIGHT JOINTS.
11. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CHECK CONDITIONS AT THE SITE BEFORE STARTING WORK AND SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
12. TYPICAL DETAILS SHALL APPLY IN GENERAL CONSTRUCTION UNLESS SPECIFICALLY DETAILED. WHERE NO DETAILS ARE GIVEN, CONSTRUCTION WILL BE AS FOR SIMILAR WORK. DO NOT SCALE DRAWINGS.
13. ANY OMISSIONS OR CONFLICTS BETWEEN THE VARIOUS ELEMENTS OF THE WORKING DRAWINGS AND/OR SPECIFICATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH ANY WORK INVOLVED.
14. PIPE BEDDING SHALL BE 3/8" MAXIMUM AGGREGATE. USE 3/4" MAXIMUM SIZE ROAD BASE FOR BACKFILL MATERIAL. COMPACT TO 95% STANDARD PROCTOR DENSITY. MAXIMUM LIFT 8 INCHES.
15. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PUBLIC AND OSHA STANDARDS.
16. ALL WORK SHALL COMPLY WITH THE AMERICAN PUBLIC WORKS ASSOCIATION UTAH CHAPTER (APWA) MANUAL OF STANDARD SPECIFICATIONS 2007 EDITION WITH ALL PERTINENT SUPPLEMENTS AND AMENDMENTS AND THE MANUAL OF STANDARD PLANS 2007 EDITION. SAID STANDARD SPECIFICATIONS AND PLANS SHALL BE THE REQUIREMENTS.
17. IT IS INTENDED THAT THESE PLANS AND SPECIFICATIONS REQUIRE ALL LABOR AND MATERIALS NECESSARY AND PROPER FOR THE WORK CONTEMPLATED AND THE WORK TO BE COMPLETED IN ACCORDANCE WITH THEIR TRUE INTENT AND PURPOSE. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY REGARDING ANY DISCREPANCIES OR AMBIGUITIES WHICH EXIST IN THE PLANS OR SPECIFICATIONS. THE ENGINEER'S INTERPRETATION THEREOF SHALL BE CONCLUSIVE. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY FIELD CHANGES MADE WITHOUT PRIOR WRITTEN AUTHORITY FROM THE OWNER AND/OR ENGINEER.
18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADEQUATELY SCHEDULING INSPECTION AND TESTING OF ALL FACILITIES CONSTRUCTED UNDER THIS CONTRACT. ALL TESTING SHALL CONFORM TO THE REGULATORY AGENCY'S STANDARD SPECIFICATIONS. ALL TESTING AND INSPECTION SHALL BE PAID FOR BY THE OWNER; ALL RE-TESTING AND/OR REINSPECTION SHALL BE PAID FOR BY THE CONTRACTOR.
19. THE CONTRACTOR SHALL MAINTAIN A NEATLY MARKED SET OF FULL-SIZE AS-BUILT RECORD DRAWINGS SHOWING THE FINAL LOCATION AND LAYOUT OF ALL MECHANICAL; ELECTRICAL AND INSTRUMENTATION EQUIPMENT; PIPING AND CONDUITS; STRUCTURES AND OTHER FACILITIES. THE AS-BUILTS OF THE ELECTRICAL SYSTEM SHALL INCLUDE THE STREET LIGHT LAYOUT PLAN SHOWING LOCATION OF LIGHTS, CONDUITS, CONDUCTORS, POINTS OF CONNECTIONS TO SERVICES, PULLBOXES, AND WIRE SIZES. AS-BUILT RECORD DRAWINGS SHALL REFLECT CHANGE ORDERS, ACCOMMODATIONS, AND ADJUSTMENTS TO ALL IMPROVEMENTS CONSTRUCTED. WHERE NECESSARY, SUPPLEMENTAL DRAWINGS SHALL BE PREPARED AND SUBMITTED BY THE CONTRACTOR.
20. PRIOR TO ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL DELIVER TO ENGINEER, ONE SET OF NEATLY MARKED AS-BUILT RECORD DRAWINGS SHOWING THE INFORMATION REQUIRED ABOVE. AS-BUILT RECORD DRAWINGS SHALL BE REVIEWED AND THE COMPLETE AS-BUILT RECORD DRAWING SET SHALL BE CURRENT WITH ALL CHANGES AND DEVIATIONS REDLINED AS A PRECONDITION TO THE FINAL PROGRESS PAYMENT APPROVAL AND/OR FINAL ACCEPTANCE.

SEQUENCE OF CONSTRUCTION

1. CONSTRUCTION EXIT IS TO BE CONSTRUCTED AT TIME OF ENTRY TO SITE.
2. CLEAR AND GRUB AREAS FOR SEDIMENT MEASURES.
3. INSTALL SILT FENCES.
4. COMPLETE CLEARING OF SITE AND BEGIN ROUGH GRADING.
5. FILL AREAS SHALL BE FILLED IN 12 INCH MAXIMUM LIFTS AND COMPACTED TO AT LEAST 95% MAXIMUM DENSITY.
6. DRAINAGE WILL BE CONTROLLED AND GROUND SLOPED SO AS TO DIRECT RUNOFF TO SEDIMENT CONTROLLED INLETS.
7. INSTALL REMAINDER OF STORM DRAIN.
8. INSTALL UTILITY LINES, WATER, ETC.
9. INSTALL CURBS, WALKS, ETC., AND STABILIZE ALL DISTURBED AREAS.
10. INSTALL BASE COURSE.
11. REMOVE SEDIMENT CONTROL MEASURES, CLEAN OUT TEMPORARY SEDIMENTATION BASINS AND REGRADE, CLEAN OUT SEDIMENT TRAPS AND CONVERT THEM TO STORM WATER MANAGEMENT STRUCTURES.
12. PAVE SITE.
13. OWNER TO BE RESPONSIBLE TO CHECK CLEAN OUT INLET BOXES FOR SEDIMENT AND OIL AND CLEAN AS NECESSARY

UTILITY NOTES

1. ALL SERVICE LATERALS SHALL BE EXTENDED 2 FEET PAST THE 10 FOOT P.U.E.
2. ALL CONSTRUCTION SHALL COMPLY WITH LOCAL GOVERNING MUNICIPALITY DESIGN STANDARDS AND CONSTRUCTION SPECIFICATIONS
3. LOCATIONS OF ALL UNDERGROUND UTILITIES SHOWN ARE APPROXIMATE LOCATIONS. CONTRACTOR IS TO FIELD VERIFY CONNECTION POINTS WITH EXISTING UTILITIES, INCLUDING LOCATIONS AND INVERT ELEVATIONS OF ALL EXISTING STRUCTURES OR PIPES, BEFORE STAKING OR CONSTRUCTING ANY NEW UTILITIES. CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE CAUSED TO EXISTING UTILITIES AND UTILITY STRUCTURE THAT ARE TO REMAIN.
4. CONTRACTOR IS RESPONSIBLE TO EXPOSE ALL UTILITY SERVICES STUBBED INTO PROJECT PROPERTY AND GIVE ENTELLUS. 48 HOURS PRIOR NOTICE SO ENTELLUS CAN VERIFY DEPTHS AND INVERT ELEVATIONS TO DETERMINE IF CONFLICTS EXIST. ALSO ANY EXISTING UTILITIES THAT RUN ACROSS PROJECT PROPERTY WHICH MAY CAUSE POTENTIAL CONFLICT NEED TO BE EXPOSED AND LOCATED BOTH HORIZONTALLY AND VERTICALLY. CONTRACTOR PROCEEDS AT OWN RISK IF ENTELLUS IS NOT NOTIFIED TO FIELD VERIFY THE ABOVE MENTIONED CONDITIONS.
5. CONTRACTOR IS TO COORDINATE ALL UTILITIES WITH MECHANICAL DRAWINGS WHERE APPLICABLE.
6. NO GROUNDWATER OR DEBRIS TO BE ALLOWED TO ENTER THE NEW PIPE DURING CONSTRUCTION. THE OPEN END OF ALL PIPES IS TO BE COVERED AND EFFECTIVELY SEALED AT THE END OF EACH DAYS WORK.
7. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO INSTALL PIPE OF ADEQUATE CLASSIFICATION WITH SUFFICIENT BEDDING TO MEET ALL REQUIREMENTS AND RECOMMENDATIONS FOR H-20 LOAD REQUIREMENTS.
8. ALL NEW SANITARY SEWER CONSTRUCTION TO BE DONE IN ACCORDANCE WITH LOCAL GOVERNING MUNICIPALITY STANDARDS & SPECIFICATIONS.
9. ALL SEWER LINES AND LATERALS ARE TO BE SDR 35 PVC PIPE.
10. SEWER LATERALS WILL BE INSTALLED AT A UNIFORM SLOPE OF NOT LESS THAN 2% GRADE AND THEY SHALL HAVE A MINIMUM OF 4 FEET OF COVER, UNLESS OTHERWISE NOTED.
11. ALL NEW CULINARY AND IRRIGATION WATER CONSTRUCTION TO BE DONE IN ACCORDANCE WITH LOCAL GOVERNING MUNICIPALITY STANDARDS & SPECIFICATIONS.
12. WATER LINES TO BE PVC C-900. WATER LINES SHALL BE A MINIMUM OF 10' HORIZONTALLY FROM SEWER MAINS. CROSSINGS SHALL MEET STATE HEALTH STANDARDS. (MECHANICAL JOINTS REQUIRED WHEN LESS THAN 18" VERTICAL OR 10' HORIZONTAL SEPARATION FROM SEWER LINES.)
13. ALL WATER LINES SHALL BE 8" MINIMUM SIZE AND SERVICE LATERALS SHALL BE 1-1/2" MINIMUM UNLESS OTHERWISE NOTED.
14. WATER SERVICE LATERALS TO INCLUDE ALL BRASS SADDLE; CORP. STOP LATERAL, DOUBLE CHECK VALVE AND BACKFLOW PREVENTION DEVICE, AND SHUTOFF VALVE IN BOX NEAR BUILDING EDGE.
15. ALL WATER LINES SHALL BE A MINIMUM 48" BELOW FINISH GROUND TO TOP OF PIPE. ALL VALVE BOXES AND MANHOLES SHALL BE RAISED OR LOWERED TO FINISH GRADE AND SHALL INCLUDE A CONCRETE COLLAR IN PAVED AREAS.
16. CONTRACTOR TO NOTIFY PUBLIC UTILITIES FOR CHLORINE TEST PRIOR TO FLUSHING LINES, CHLORINE LEFT IN PIPE 24 HOURS MINIMUM WITH 25 PPM RESIDUAL. ALL TURNING OF MAINLINE VALVES, CHLORINATION, FLUSHING, PRESSURE TESTING, BACTERIA TESTING, ETC. TO BE COORDINATED WITH LOCAL GOVERNING MUNICIPALITY. ALL TESTS TO BE IN ACCORDANCE WITH AWWA STANDARDS.
17. BOTTOM FLANGE OF FIRE HYDRANTS TO BE SET TO APPROXIMATELY 4" INCHES ABOVE BACK OF CURB ELEVATION. HYDRANTS TO INCLUDE TEE, 6" LINE VALVE, AND HYDRANT COMPLETE TO MEET CITY STANDARDS.
18. ALL NEW STORM DRAIN/LAND DRAIN CONSTRUCTION TO BE DONE IN ACCORDANCE WITH LOCAL GOVERNING MUNICIPALITY STANDARDS & SPECIFICATIONS.
19. ALL STORM WATER CONVEYANCE PIPING TO BE RCP - CLASS 3 OR EQUAL, UNLESS OTHERWISE NOTED.
20. CONTRACTOR IS TO SUBMIT SITE PLAN/SUBDIVISION PLAT TO DOMINION ENERGY GAS FOR DESIGN OF GAS SERVICE TO BUILDINGS/LOTS. CONTRACTOR TO COORDINATE WITH DOMINION ENERGY GAS FOR CONTRACTOR LIMITS OF WORK VERSUS DOMINION ENERGY GAS LIMITS.
21. ALL GAS LINE TAPS TO BE HDPE WITH COPPER TRACER WIRE AND DETECTA TAPE. TERMINATE TRACER WIRE AT APPROVED LOCATIONS.
22. ALL GAS LINE TAPS, VALVES AND CAPS TO BE FUSED USING ELECTRO-FUSION TECHNOLOGY.
23. ALL ELECTRICAL CONDUITS/LINES TO BE PVC SCH 40 OR BETTER.
24. ALL PHONE AND TV CONDUITS TO BE PVC SCH 40 OR BETTER.
25. CONTRACTOR IS TO SUBMIT SITE PLAN/SUBDIVISION PLAT TO COMCAST FOR DESIGN OF CABLE TV SERVICE TO BUILDINGS/LOTS. CONTRACTOR TO COORDINATE WITH COMCAST FOR CONTRACTOR LIMITS OF WORK VERSES COMCAST LIMITS.
26. CONTRACTOR IS TO COORDINATE LOCATIONS OF NEW TELEPHONE SERVICE TO NEW BUILDINGS OR LOTS WITH CENTURYLINK. A PVC CONDUIT, PLYWOOD BACKBOARD, AND GROUND WIRE IS REQUIRED FOR SERVICE THROUGH PROPERTY. COORDINATE SIZES AND LOCATION WITH CENTURYLINK.
27. ALL UTILITIES ARE TO BE INSTALLED IN ACCORDANCE WITH THE CORRESPONDING AGENCY/DISTRICT STANDARDS AND SPECIFICATIONS:
    WATER - CLEARFIELD CITY
    SEWER - NORTH DAVIS SEWER DISTRICT
    STORM DRAIN - CLEARFIELD CITY
    IRRIGATION - CLEARFIELD CITY
    ELECTRICAL - ROCKY MOUNTAIN POWER
    TELEPHONE - CENTURYLINK
    NATURAL GAS - DOMINION ENERGY

GRADING NOTES

1. SITE GRADING SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE SOILS REPORT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND REPLACING ALL SOFT, YIELDING OR UNSUITABLE MATERIALS AND REPLACING IT WITH SUITABLE MATERIALS AS SPECIFIED IN THE SOILS REPORT. ALL EXCAVATED OR FILLED AREAS SHALL BE COMPACTED TO 95% OF MODIFIED PROCTOR MAXIMUM DENSITY PER ASTM TEST D-1557 EXCEPT UNDER BUILDING FOUNDATION WHERE IT SHALL BE 95% MIN. OF MAXIMUM DENSITY. MOISTURE CONTENT AT TIME OF PLACEMENT SHALL NOT EXCEED 2% ABOVE NOR 3% BELOW OPTIMUM. CONTRACTOR SHALL SUBMIT A COMPACTION REPORT PREPARED BY A QUALIFIED REGISTERED SOILS ENGINEER, VERIFYING THAT ALL FILLED AREAS AND SUBGRADE AREAS WITHIN THE BUILDING PAD AREA AND AREAS TO BE PAVED, HAVE BEEN COMPACTED IN ACCORDANCE WITH THESE PLANS AND SPECS AND THE RECOMMENDATIONS SET FORTH IN THE SOILS. REPORT.
2. THE CONTRACTOR IS TO USE BEST MANAGEMENT PRACTICES FOR PROVIDING EROSION CONTROL FOR CONSTRUCTION OF THE PROJECT. SPECIFIC DETAILS SHOWN SHALL BE USED IN COMBINATION WITH OTHER ACCEPTED LOCAL PRACTICES.
3. EXISTING UNDERGROUND UTILITIES AND IMPROVEMENTS ARE SHOWN IN THEIR APPROXIMATE LOCATIONS BASED UPON RECORD INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF PLANS. LOCATIONS MAY NOT HAVE BEEN VERIFIED IN THE FIELD AND NO GUARANTEE IS MADE AS TO ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN ON THESE PLANS OR INDICATED IN THE FIELD BY LOCATING SERVICES. ANY ADDITIONAL COSTS INCURRED AS A RESULT OF CONTRACTOR'S FAILURE TO VERIFY LOCATIONS OF EXISTING UTILITIES PRIOR TO BEGINNING OF CONSTRUCTION IN THEIR VICINITY SHALL BE BORNE BY THE CONTRACTOR AND ASSUMED INCLUDED IN THE CONTRACT.
4. IF AT ANY TIME DURING CONSTRUCTION ANY UNFAVORABLE GEOLOGICAL CONDITIONS ARE ENCOUNTERED, WORK IN THAT AREA WILL STOP UNTIL APPROVED CORRECTIVE MEASURES ARE OBTAINED FROM THE ENGINEER.
5. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING HIS/HER OWN ESTIMATE OF EARTHWORK QUANTITIES.
6. WHERE NEW CURB AND GUTTER IS BEING CONSTRUCTED ADJACENT TO EXISTING ASPHALT OF CONCRETE PAVEMENT, THE FOLLOWING SHALL APPLY:
   - PRIOR TO PLACEMENT OF ANY CONCRETE THE CONTRACTOR SHALL HAVE A LICENSED SURVEYOR VERIFY THE GRADE AND CROSS SLOPE OF THE CURB AND GUTTER FORMS.
   - THE CONTRACTOR SHALL SUBMIT THE SLOPE AND GRADES TO THE ENGINEER FOR APPROVAL PRIOR TO THE PLACEMENT OF CONCRETE.
   - THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY SECTION WHICH DOES NOT CONFORM TO THE DESIGN OR TYPICAL CROSS SECTION.
   - THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CURB AND GUTTER POURS WITHOUT THE APPROVAL OF THE ENGINEER.

EROSION CONTROL

1. ALL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE STANDARDS AND REGULATIONS OF THE LOCAL GOVERNING MUNICIPALITY.
2. ALL SEDIMENT CONTROL MEASURES TO BE ADJUSTED TO MEET FIELD CONDITIONS AT THE TIME OF CONSTRUCTION AND CONSTRUCTED PRIOR TO ANY GRADING OR DISTURBANCE OF EXISTING SURFACE MATERIAL ON BALANCE OF SITE.
3. DAILY INSPECTION AND MAINTENANCE OF ALL SEDIMENT CONTROL STRUCTURES MUST BE PROVIDED TO INSURE INTENDED PURPOSE IS ACCOMPLISHED. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SEDIMENT LEAVING THE PROPERTY. SEDIMENT CONTROL MEASURES SHALL BE IN WORKING CONDITION AT THE END OF EACH WORKING DAY.
4. ALL POINTS OF CONSTRUCTION INGRESS AND EGRESS WILL BE PROTECTED TO PREVENT TRACKING OF MUD ONTO PUBLIC WAYS.
5. ALL SEDIMENT WILL BE PREVENTED FROM ENTERING ANY STORM DRAINAGE SYSTEM THROUGH THE USE OF SANDBAGS, STRAW BALES, SILT FENCES, GRAVEL, BOARDS, AND OTHER APPLICABLE METHODS.
6. ALL DISTURBED AREAS OUTSIDE OF ROADWAYS, PARKING LOTS, SIDEWALKS AND OR BUILDING FOOTPRINTS SHALL BE SEEDED, SODDED AND/OR MULCHED.
7. IF SITE IS READY TO RECEIVE FINAL COVER DURING THE NON-PLANTING SEASON, THEN IT SHALL BE PROTECTED BY MULCHING. THE MULCH WILL REMAIN UNTIL THE NEXT PLANTING SEASON AS DEFINED BY THE LOCAL GOVERNING MUNICIPALITY.
8. RE-VEGETATE ALL DENUDED AREAS AS PER THE STANDARDS AND REGULATIONS OF THE LOCAL GOVERNING MUNICIPALITY.
9. THE CONTRACTOR AGREES THAT:

A. THEY SHALL BE RESPONSIBLE TO CLEAN THE JOB SITE AT THE END OF EACH PHASE OF WORK.

B. THEY SHALL BE RESPONSIBLE TO REMOVE AND DISPOSE OF ALL TRASH, SCRAP AND UNUSED MATERIAL AT THEIR OWN EXPENSE IN A TIMELY MANNER.

C. THEY SHALL BE RESPONSIBLE TO MAINTAIN THE SITE IN A NEAT, SAFE AND ORDERLY MANNER AT ALL TIMES.

D. THEY SHALL BE RESPONSIBLE TO KEEP MATERIALS, EQUIPMENT, AND TRASH OUT OF THE WAY OF OTHER CONTRACTORS SO AS NOT TO DELAY THE JOB. FAILURE TO DO SO WILL RESULT IN A DEDUCTION FOR THE COST OF CLEAN UP FROM FINAL PAYMENT.

E. THEY SHALL BE RESPONSIBLE FOR THEIR OWN SAFETY, TRAFFIC CONTROL. PERMITS, RETESTING AND REINSPECTION AT THEIR OWN EXPENSE.

F. UNLESS OTHERWISE NOTED ALL EXCESS SOILS AND MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE LAWFULLY DISPOSED OF OFF SITE AT THE CONTRACTOR'S EXPENSE.

G. THE CONTRACTOR SHALL PROVIDE ALL LIGHTS, BARRICADES, SIGNS, FLAG-MEN OR OTHER DEVICES NECESSARY FOR PUBLIC SAFETY.

LEGEND

SECTION CORNER
MONUMENT
EXISTING SPOT ELEVATION (30.82)
PROPOSED SPOT ELEVATION (30.82)
DOWNWARD GRADE (GRADE)
EXISTING INDEX CONTOUR (4258)
EXISTING MINOR CONTOUR
PROPOSED CONTOUR (4258)
PROPOSED MINOR CONTOUR
LOT OR BOUNDARY LINE
PUBLIC UTILITY EASEMENT
BUILDABLE AREA SETBACK
CENTER LINE OF ROAD
EXISTING FENCE
PROPOSED FENCE
EXISTING BUILDING
PROPOSED BUILDING
EXISTING ASPHALT
PROPOSED ASPHALT
EXISTING CONCRETE
PROPOSED CONCRETE
EXISTING CURB & GUTTER
PROPOSED CURB & GUTTER
ADA PARKING
STREET LIGHT
LIGHT POLE
POWER POLE
TELEPHONE POLE
UTILITY POLE
STREET SIGN
EXISTING RETAINING WALL
PROPOSED RETAINING WALL
EXISTING ROCK WALL
PROPOSED ROCK WALL
EXISTING FIBER OPTIC (FO)
PROPOSED FIBER OPTIC
EXISTING NATURAL GAS (GAS)
PROPOSED NATURAL GAS
EXISTING POWER (PWR)
PROPOSED POWER
EXISTING OVERHEAD POWER (OHP)
PROPOSED OVERHEAD POWER
EXISTING UNDERGROUND POWER (UGP)
PROPOSED UNDERGROUND POWER
EXISTING TELEPHONE (TEL)
PROPOSED TELEPHONE
EXISTING IRRIGATION LINE (IRR)
PROPOSED IRRIGATION LINE
IRRIGATION MANHOLE
IRRIGATION METER
BLOWOFF
VALVE
TEE
ELBOW
REDUCER
THRUST BLOCK

LEGEND

EXISTING WATER LINE (W)
PROPOSED WATER LINE
EXISTING FIRE PROTECTION
PROPOSED FIRE PROTECTION
WATER MANHOLE
WATER METER
FIRE HYDRANT
BLOWOFF
VALVE
TEE
ELBOW
REDUCER
THRUST BLOCK
EXISTING SEWER LINE (SS)
PROPOSED SEWER LINE
SEWER MANHOLE
EXISTING LAND DRAIN (LD)
PROPOSED LAND DRAIN
LAND DRAIN MANHOLE
EXISTING STORM DRAIN (SD)
PROPOSED STORM DRAIN
STORM DRAIN MANHOLE
CATCH BASIN / CLEANOUT
CURB INLET

ABBREVIATIONS

⌀	DIAMETER
Δ	DELTA
°	DEGREES
'	MINUTES, FEET
"	SECONDS, INCHES
ADA	AMERICAN DISABILITIES ACT
ADS	CORRUGATED BLACK PLASTIC PIPE
APWA	AMERICAN PUBLIC WORKS ASSOCIATION
ARCH	ARCHITECT, ARCHITECTURAL
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AWWA	AMERICAN WATER WORKS ASSOCIATION
B&C	BAR & CAP
BLA	BOUNDARY LINE AGREEMENT
BLDG	BUILDING
BM	BENCHMARK
BND	BOUNDARY
BOW	BACK OF WALK
BRG	BEARING
BV	BUTTERFLY VALVE
C&G	CURB AND GUTTER
CB	CATCH BASIN
CH	CHORD
CHB	CHORD BEARING
CI	CAST IRON
CIP	CAST IN PLACE
CL	CENTERLINE
CMP	CORRUGATED METAL PIPE
CO	CLEANOUT
COMM	COMMUNICATIONS
CONC	CONCRETE
CONST	CONSTRUCTION
CUL	CULINARY
CW	CULINARY WATER
CWL	CULINARY WATERLINE
DEMO	DEMOLITION
DI	DUCTILE IRON
DIAM	DIAMETER
DIST	DISTANCE
DWG	DRAWING
E	EAST, ELECTRICITY, ELECTRICAL
EASE	EASEMENT
EG	EXISTING GRADE
EL	ELBOW
ELEC	ELECTRICAL
ELEV	ELEVATION
EOA	EDGE OF ASPHALT
EVC	END VERTICAL CURVE
EVCE	END VERTICAL CURVE ELEVATION
EVCS	END VERTICAL CURVE STATION
EX	EXISTING
FFE	FINISH FLOOR ELEVATION
FG	FINISH GRADE
FH	FIRE HYDRANT
FL	FLOWLINE FND FOUNDATION
FP	FIRE PROTECTION
FTG	FOOTING
G	GAS, NATURAL GAS
GB	GRADE BREAK
GV	GATE VALVE
HDPE	HIGH-DENSITY POLYETHYLENE PIPE
HP	HIGH POINT
HPE	HIGH POINT ELEVATION

ABBREVIATIONS

HPS	HIGH POINT STATION
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
INV	INVERT
IRR	IRRIGATION
IRRMH	IRRIGATION MANHOLE
K	RADIUS OF CURVATURE
L	LENGTH
LAT	LATERAL SERVICE
LD	LAND DRAIN
LDMH	LAND DRAIN MANHOLE
LF	LINEAL FEET
LG	LIP OF GUTTER
LP	LOW POINT
LPE	LOW POINT ELEVATION
MECH	MECHANICAL
MH	MANHOLE
MON	MONUMENT
NE	NORTHEAST
NW	NORTHWEST
OD	OUTSIDE DIAMETER
OHP	OVERHEAD POWER
OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
PC	POINT OF CURVATURE
PCC	PORTLAND CONCRETE CEMENT
PI	POINT OF INFLECTION
PL	PROPERTY LINE
PPM	PARTS PER MILLION
PROP	PROPERTY
PT	POINT OF TANGENCY
PUE	PUBLIC UTILTIY EASEMENT
PUE&DE	PUBLIC UTILITY EASEMENT & DRAINAGE EASEMENT
PVC	POLYVINYL CHLORIDE
PVI	POINT OF VERTICAL INFLECTION
R	RADIUS
RC	REBAR & CAP
RCL	ROADWAY CENTERLINE
RCP	REINFORCED CONCRETE PIPE
ROW	RIGHT OF WAY
SD	STORM DRAIN
SDCB	STORM DRAIN CATCH BASIN
SDCO	STORM DRAIN CLEANOUT
SDMH	STORM DRAIN MANHOLE
SDR	STANDARD DIMENSION RATIO
SE	SOUTHEAST
SEC	SECONDARY, SECTION
SLB&M	SALT LAKE BASE & MERIDIAN
SPEC	SPECIFICATION
SPP	STEEL PIPE
SS	SANITARY SEWER
SSCO	SANITARY SEWER CLEANOUT
SSMH	SANITARY SEWER MANHOLE
STD	STANDARD
SW	SECONDARY WATER
SW	SOUTHWEST
SWL	SECONDARY WATERLINE
SWPPP	STORMWATER POLLUTION PREVENTION PLAN
TAN	TANGENT
TB	THRUST BLOCK
TBC	TOP BACK OF CURB
TBW	TOP BACK OF WALK
TEL	TELEPHONE
TCW	TOP OF CURBWALL
TOA	TOP OF ASPHALT
TOC	TOP OF CONCRETE
TOE	TOE OF SLOPE OR WALL
TOG	TOP OF GRATE
TOW	TOP OF WALL
UTIL	UTILITY
UD	UNDERDRAIN
UGP	UNDERGROUND POWER
VC	VERTICAL CURVE
W	WEST, WATER
W2	SECONDARY WATER
WL	WATERLINE
WM	WATER METER
WP	WORK POINT

POWER
TELEPHONE & TV
GAS
SEWER
WATER
IRRIGATION

TWO WORKING DAYS BEFORE YOU DIG CALL

1-800-662-4111

UTAH TOLL FREE, OR

801-208-2100

SALT LAKE

IT'S THE LAW TO CALL

TANNER CLINIC CLEARFIELD

2169001

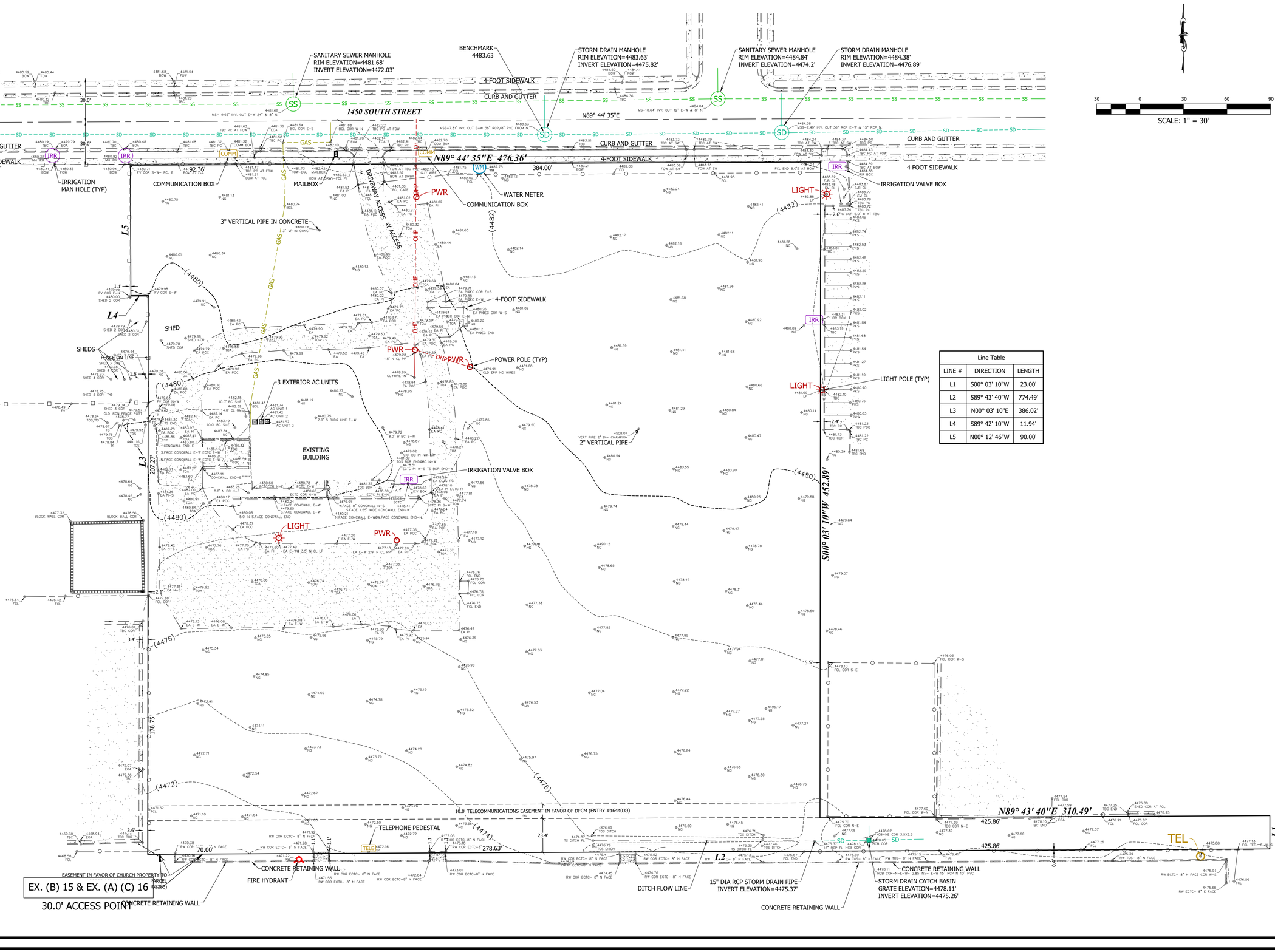
\\Entellus-DC-UTA\H\2169001\D_PRODUCTION\Civil\04_Plan Set\PLAN SET-2169001_23-12-06

CIVIL	SURVEY	ENGINEER
CSA 9/20/2023		TJB 6/14/2022

REV #	BY	DATE

1470 South 600 West
Woods Cross, UT 84010
Phone 801.298.2236
www.Entellus.com
Entellus

C101
NOTES & LEGEND



Line Table		
LINE #	DIRECTION	LENGTH
L1	S00° 03' 10"W	23.00'
L2	S89° 43' 40"W	774.49'
L3	N00° 03' 10"E	386.02'
L4	S89° 42' 10"W	11.94'
L5	N00° 12' 46"W	90.00'

TANNER CLINIC CLEARFIELD

2169001

\\Entellus-DC-UTA\H\2169001\D_PRODUCTION\Civil\04_Plan Set\PLAN SET-2169001_23-12-06

CIVIL
CSA 9/29/2023

SURVEY

ENGINEER
TJB 6/14/2022

REV #	BY	DATE

1470 South 600 West
Woods Cross, UT 84010
Phone 801.298.2236
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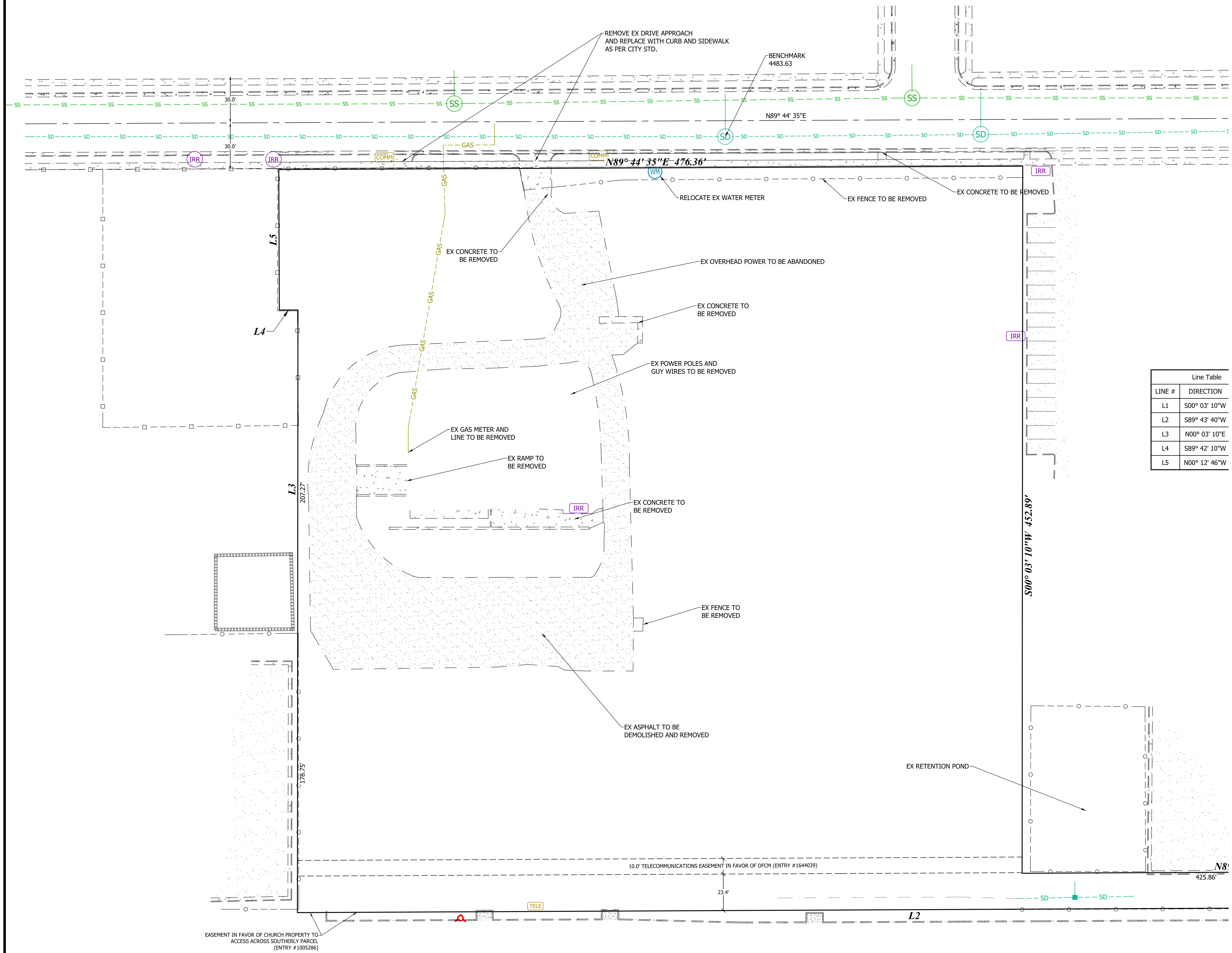
C200

TOPOGRAPHIC SURVEY


REMOVE EX DRIVE APPROACH
AND REPLACE WITH CURB AND SIDEWALK
AS PER CITY STD.
BENCHMARK
4483.63
N89° 44' 35"E
N89° 44' 35"E 476.36'
30.0'
30.0'
SS
SD
GAS
COMM
IRR
WM
RELOCATE EX WATER METER
EX FENCE TO BE REMOVED
EX CONCRETE TO BE REMOVED
EX CONCRETE TO
BE REMOVED
EX OVERHEAD POWER TO BE ABANDONED
EX CONCRETE TO
BE REMOVED
EX POWER POLES AND
GUY WIRES TO BE REMOVED
EX GAS METER AND
LINE TO BE REMOVED
EX RAMP TO
BE REMOVED
EX CONCRETE TO
BE REMOVED
EX FENCE TO
BE REMOVED
EX ASPHALT TO BE
DEMOLISHED AND REMOVED
EX RETENTION POND
L5
L4
L3
207.27'
178.75'
S00° 03' 10"W 452.89'
10.0' TELECOMMUNICATIONS EASEMENT IN FAVOR OF DFCM (ENTRY #1644039)
23.4'
425.86'
TELE
L2
EASEMENT IN FAVOR OF CHURCH PROPERTY TO
ACCESS ACROSS SOUTHERLY PARCEL
(ENTRY #1005286)
30
0
30
60
90
SCALE: 1" = 30'

Line Table

LINE #	DIRECTION
L1	S00° 03' 10"W
L2	S89° 43' 40"W
L3	N00° 03' 10"E
L4	S89° 42' 10"W
L5	N00° 12' 46"W

DEMOLITION LEGEND

- ASPHALT TO BE REMOVED
- CONCRETE TO BE REMOVED
- STRUCTURE TO BE REMOVED
- CLEAR AND GRUB
- TREES TO BE REMOVED

\\Entellus-DC-UTAH\21690001\D_PRODUCTION\Civil\04_Plan Set\PLAN SET-2169001_23-12-06

TANNER CLINIC
CLEARFIELD

2169001

CIVIL CSA 9/28/2023
SURVEY
ENGINEER TJB 6/14/2022

REV #	BY	DATE

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Woods Cross, UT 84010
Phone 801.298.2236
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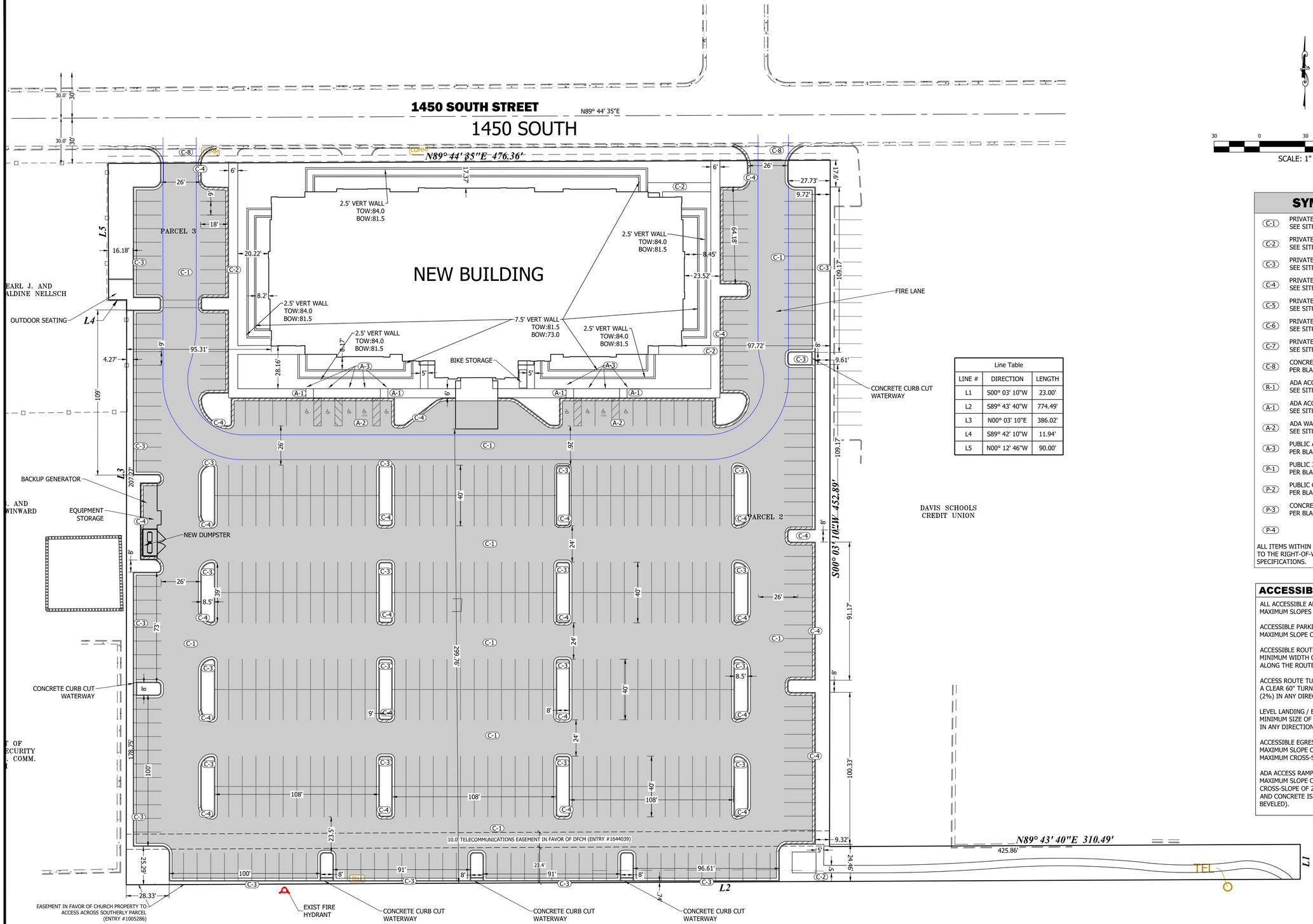
C300
DEMOLITION PLAN



SCALE: 1" = 30'

Line Table		
LINE #	DIRECTION	LENGTH
L1	S00° 03' 10"W	23.00'
L2	S89° 43' 40"W	774.49'
L3	N00° 03' 10"E	386.02'
L4	S89° 42' 10"W	11.94'
L5	N00° 12' 46"W	90.00'

SYMBOL LEGEND

- C-1 PRIVATE ASPHALT SECTION — SEE SITE DETAILS, SHEET C900
- C-2 PRIVATE CONCRETE SECTION — SEE SITE DETAILS, SHEET C900
- C-3 PRIVATE 24" CATCH CURB & GUTTER — SEE SITE DETAILS, SHEET C900
- C-4 PRIVATE 24" RELEASE CURB & GUTTER — SEE SITE DETAILS, SHEET C900
- C-5 PRIVATE 6"x12" CONCRETE CURB WALL — SEE SITE DETAILS, SHEET C900
- C-6 PRIVATE 36" CONCRETE WATERWAY — SEE SITE DETAILS, SHEET C900
- C-7 PRIVATE 6"x12" CONCRETE CURB WALL — SEE SITE DETAILS, SHEET C900
- C-8 CONCRETE DRIVE APPROACH — PER BLACKFOOT CITY STANDARDS
- R-1 ADA ACCESSIBLE RAMP — SEE SITE DETAILS, SHEET C900
- A-1 ADA ACCESSBILE PARKING STALLS & RAMPS — SEE SITE DETAIL, SHEET C900
- A-2 ADA WALL-MOUNTED VAN-ACCESSIBLE SIGN — SEE SITE DETAILS, SHEET C900
- A-3 PUBLIC ASPHALT SECTION — PER BLACKFOOT CITY STANDARDS
- P-1 PUBLIC 30" CATCH CURB & GUTTER — PER BLACKFOOT CITY STANDARDS
- P-2 PUBLIC CONCRETE SIDEWALK — PER BLACKFOOT CITY STANDARDS
- P-3 CONCRETE DRIVE APPROACH — PER BLACKFOOT CITY STANDARDS
- P-4

ALL ITEMS WITHIN THE PUBLIC RIGHT-OF WAY TO CONFORM TO THE RIGHT-OF-WAY OWNER'S STANDARDS & SPECIFICATIONS.

ACCESSIBLE AREA CONSTRAINTS

ALL ACCESSIBLE AREAS ARE TO MAINTAIN THE FOLLOWING MAXIMUM SLOPES AND TOLERANCES:

ACCESSIBLE PARKING:
MAXIMUM SLOPE OF 1:48 (2%) THROUGHOUT.

ACCESSIBLE ROUTE:
MINIMUM WIDTH OF 48". MAXIMUM SLOPE OF 1:20 (5%) ALONG THE ROUTE, MAXIMUM CROSS-SLOPE OF 1:48 (2%).

ACCESS ROUTE TURNAROUNDS:
A CLEAR 60" TURNING DIAMETER. MAXIMUM SLOPE OF 1:48 (2%) IN ANY DIRECTION.

LEVEL LANDING / EXTERIOR DOOR LANDING:
MINIMUM SIZE OF 60"X60". MAXIMUM SLOPE OF 1:48 (2%) IN ANY DIRECTION.

ACCESSIBLE EGRESS TO PUBLIC WAY:
MAXIMUM SLOPE OF 1:20 (5%) ALONG THE ROUTE, MAXIMUM CROSS-SLOPE OF 1:48 (2%).

ADA ACCESS RAMPS:
MAXIMUM SLOPE OF 1:12 (8.33%), WITH A MAXIMUM CROSS-SLOPE OF 2%. THE TRANSITION BETWEEN ASPHALT AND CONCRETE IS NOT TO EXCEED 1/2" VERTICAL (1/4" IF BEVELED).

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TANNER CLINIC CLEARFIELD

2169001

CIVIL	SURVEY	ENGINEER
CSA 9/26/2023		TJB 6/14/2022

REV #	BY	DATE

1470 South 600 West
Woods Cross, UT 84010
Phone 801.298.2236
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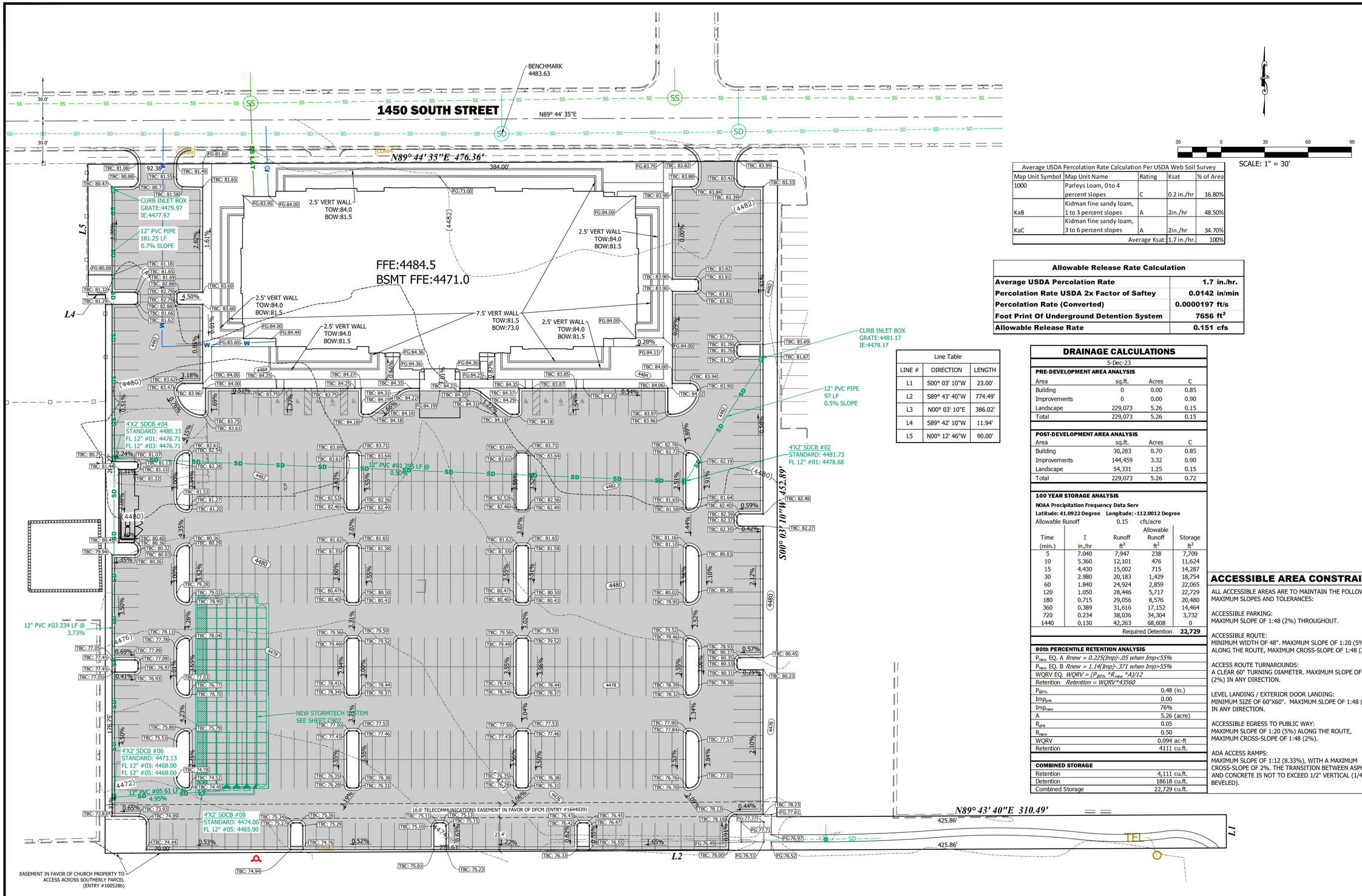
C400
SITE PLAN



30 0 30 60 90

SCALE: 1" = 30'

Average USDA Percolation Rate Calculation Per USDA Web Soil Survey				
Map Unit Symbol	Map Unit Name	Rating	Ksat	% of Area
1000	Parleys Loam, 0 to 4 percent slopes	C	0.2 in./hr	16.80%
KaB	Kidman fine sandy loam, 1 to 3 percent slopes	A	2in./hr	48.50%
KaC	Kidman fine sandy loam, 3 to 6 percent slopes	A	2in./hr	34.70%
			Average Ksat:	1.7 in./hr. 100%

Allowable Release Rate Calculation	
Average USDA Percolation Rate	**1.7 in./hr.**
Percolation Rate USDA 2x Factor of Saftey	**0.0142 in/min**
Percolation Rate (Converted)	**0.0000197 ft/s**
Foot Print Of Underground Detention System	**7656 ft²**
Allowable Release Rate	**0.151 cfs**

Line Table		
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L3	N00° 03' 10"E	386.02'
L4	S89° 42' 10"W	11.94'
L5	N00° 12' 46"W	90.00'

DRAINAGE CALCULATIONS

5-Dec-23

PRE-DEVELOPMENT AREA ANALYSIS

Area	sq.ft.	Acres	C
Building	0	0.00	0.85
Improvements	0	0.00	0.90
Landscape	229,073	5.26	0.15
Total	229,073	5.26	0.15

POST-DEVELOPMENT AREA ANALYSIS

Area	sq.ft.	Acres	C
Building	30,283	0.70	0.85
Improvements	144,459	3.32	0.90
Landscape	54,331	1.25	0.15
Total	229,073	5.26	0.72

100 YEAR STORAGE ANALYSIS

NOAA Precipitation Frequency Data Serv

Latitude: 41.0922 Degree Longitude: -112.0012 Degree

Allowable Runoff 0.15 cfs/acre

Time (min.)	I in./hr	Runoff ft³	Allowable Runoff ft³	Storage ft³
5	7.040	7,947	238	7,709
10	5.360	12,101	476	11,624
15	4.430	15,002	715	14,287
30	2.980	20,183	1,429	18,754
60	1.840	24,924	2,859	22,065
120	1.050	28,446	5,717	22,729
180	0.715	29,056	8,576	20,480
360	0.389	31,616	17,152	14,464
720	0.234	38,036	34,304	3,732
1440	0.130	42,263	68,608	0
			Required Detention	**22,729**

80th PERCENTILE RETENTION ANALYSIS

P_{new} EQ. A	*Rnew = 0.225(Imp)-.05 when Imp<55%*
P_{new} EQ. B	*Rnew = 1.14(Imp)-.371 when Imp>55%*
WQRV EQ.	*WQRV = ($P_{80\%}$ *R $_{new}$ *A)/12*
Retention	*Retention = WQRV*43560*
$P_{80\%}$	0.48 (in.)
Imp_{Pre}	0.00
Imp_{Pnew}	76%
A	5.26 (acre)
R_{pre}	0.05
R_{new}	0.50
WQRV	0.094 ac-ft
Retention	4111 cu.ft.

COMBINED STORAGE

Retention	4,111 cu.ft.
Detention	18618 cu.ft.
Combined Storage	22,729 cu.ft.

ACCESSIBLE AREA CONSTRAINTS

ALL ACCESSIBLE AREAS ARE TO MAINTAIN THE FOLLOWING MAXIMUM SLOPES AND TOLERANCES:

ACCESSIBLE PARKING:
MAXIMUM SLOPE OF 1:48 (2%) THROUGHOUT.

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ACCESS ROUTE TURNAROUNDS:
A CLEAR 60" TURNING DIAMETER. MAXIMUM SLOPE OF 1:48 (2%) IN ANY DIRECTION.

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MINIMUM SIZE OF 60"X60". MAXIMUM SLOPE OF 1:48 (2%) IN ANY DIRECTION.

ACCESSIBLE EGRESS TO PUBLIC WAY:
MAXIMUM SLOPE OF 1:20 (5%) ALONG THE ROUTE, MAXIMUM CROSS-SLOPE OF 1:48 (2%).

ADA ACCESS RAMPS:
MAXIMUM SLOPE OF 1:12 (8.33%), WITH A MAXIMUM CROSS-SLOPE OF 2%. THE TRANSITION BETWEEN ASPHALT AND CONCRETE IS NOT TO EXCEED 1/2" VERTICAL (1/4" IF BEVELED).

SITE BENCHMARK = [ELEVATION] AT [POINT LOCATION]

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TANNER CLINIC
CLEARFIELD

2169001

CIVIL	SURVEY	ENGINEER
CSA 9/20/2023		TJB 6/14/2022

REV #	BY	DATE

1470 South 600 West
Woods Cross, UT 84010
Phone 801.298.2236
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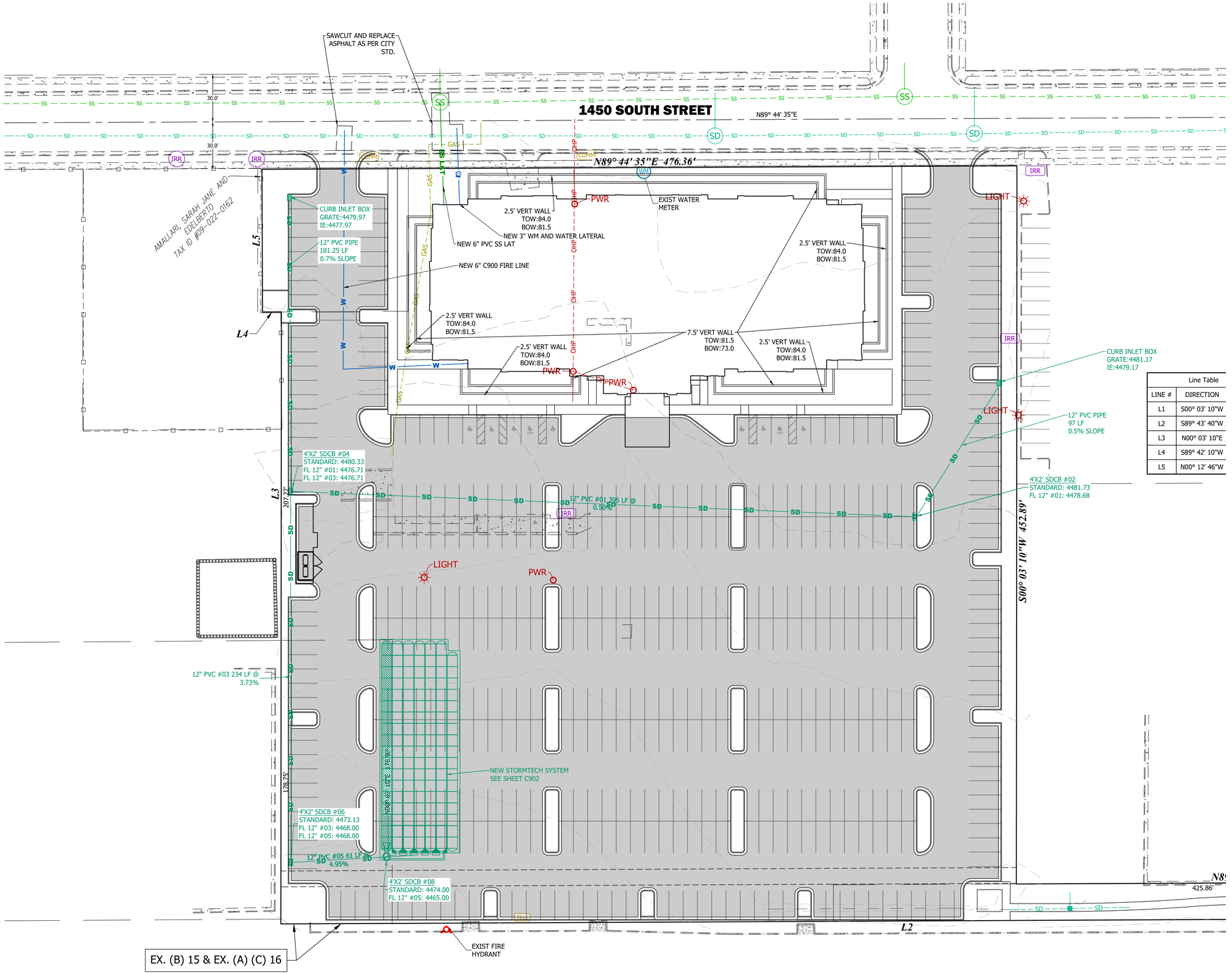
Entellus

C500
GRADING PLAN



Line Table	
LINE #	DIRECTION
L1	S00° 03' 10"W
L2	S89° 43' 40"W
L3	N00° 03' 10"E
L4	S89° 42' 10"W
L5	N00° 12' 46"W

30 0 30 60 90

SCALE: 1" = 30'

NOTE: BASEMENT FLOOR TO HAVE SEWER EJECTOR PUMP

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TANNER CLINIC CLEARFIELD

2169001

CIVIL CSA 9/28/2023

SURVEY

ENGINEER TJB 6/14/2022

REV #	BY	DATE

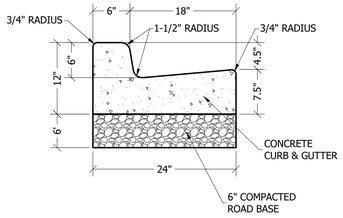
1470 South 600 West
Woods Cross, UT 84010
Phone 801.298.2236
www.Entellus.com

Entellus

C600

UTILITY PLAN

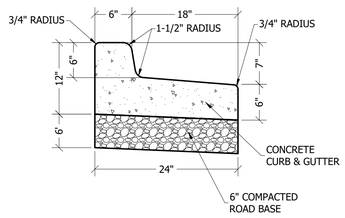
NOTES
1. ROAD BASE IS TO BE COMPACTED PER THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS. IF NO SUCH RECOMMENDATIONS PERTAIN, COMPACT TO 95% AASHTO T-180 METHOD D.
2. CONCRETE IS TO BE 4,000 PSI TEST.
3. CONTROL JOINTS AT 10' INTERVALS.
4. BITUMINOUS MATERIAL EXPANSION JOINTS ARE REQUIRED AT 50' INTERVALS.



PRIVATE 24" CATCH CURB & GUTTER

C-2 / C400 TYPICAL N.T.S.

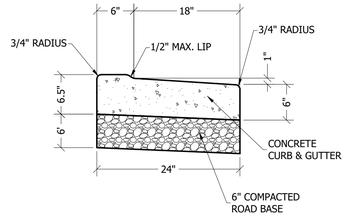
NOTES
1. ROAD BASE IS TO BE COMPACTED PER THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS. IF NO SUCH RECOMMENDATIONS PERTAIN, COMPACT TO 95% AASHTO T-180 METHOD D.
2. CONCRETE IS TO BE 4,000 PSI TEST.
3. CONTROL JOINTS AT 10' INTERVALS.
4. BITUMINOUS MATERIAL EXPANSION JOINTS ARE REQUIRED AT 50' INTERVALS.



PRIVATE 24" RELEASE CURB & GUTTER

C-3 / C400 TYPICAL N.T.S.

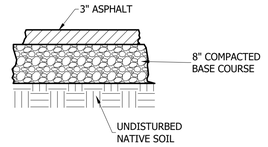
NOTES
1. ROAD BASE IS TO BE COMPACTED PER THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS. IF NO SUCH RECOMMENDATIONS PERTAIN, COMPACT TO 95% AASHTO T-180 METHOD D.
2. CONCRETE IS TO BE 4,000 PSI TEST.
3. CONTROL JOINTS AT 10' INTERVALS.
4. BITUMINOUS MATERIAL EXPANSION JOINTS ARE REQUIRED AT 50' INTERVALS.



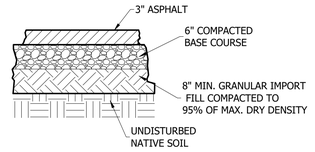
ADA ACCESSIBLE CURB CUT 24" RELEASE CURB & GUTTER

C-5 / C400 TYPICAL N.T.S.

NOTES
1. ROAD BASE IS TO BE COMPACTED PER THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS. IF NO SUCH RECOMMENDATIONS PERTAIN, COMPACT TO 95% AASHTO T-180 METHOD D.
2. PLACE MATERIAL PER APWA SECTION 32 05 10.



WITHOUT GRANULAR IMPORT FILL

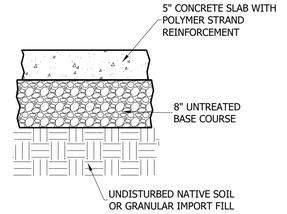


WITH IMPORT FILL

PRIVATE ASPHALT SECTIONS

C-1 / C400 TYPICAL N.T.S.

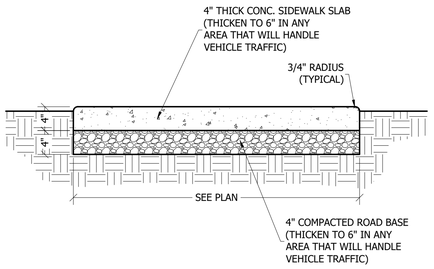
NOTES
1. ROAD BASE IS TO BE COMPACTED PER THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS. IF NO SUCH RECOMMENDATIONS PERTAIN, COMPACT TO 95% AASHTO T-180 METHOD D.
2. CONCRETE IS TO BE 4,000 PSI TEST.
3. CONTROL JOINTS AT NO MORE THAN 10' INTERVALS BOTH WAYS.
4. BITUMINOUS MATERIAL EXPANSION JOINTS ARE REQUIRED AT 50' INTERVALS.



PRIVATE CONCRETE PAVING SLAB SECTION

C-2 / C400 TYPICAL N.T.S.

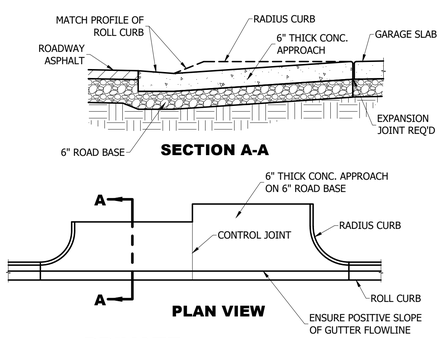
NOTES
1. ROAD BASE IS TO BE COMPACTED PER THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS. IF NO SUCH RECOMMENDATIONS PERTAIN, COMPACT TO 95% AASHTO T-180 METHOD D.
2. CONCRETE IS TO BE 4,000 PSI TEST.
3. CONTROL JOINTS AT 5' INTERVALS.
4. BITUMINOUS MATERIAL EXPANSION JOINTS ARE REQUIRED AT 50' INTERVALS.



PRIVATE CONCRETE SIDEWALK

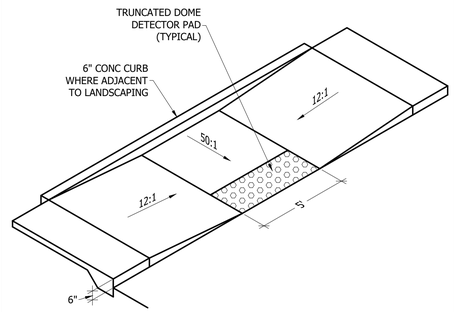
C-6 / C400 TYPICAL N.T.S.

NOTES
1. ROAD BASE IS TO BE COMPACTED PER THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS. IF NO SUCH RECOMMENDATIONS PERTAIN, COMPACT TO 95% AASHTO T-180 METHOD D.
2. CONCRETE IS TO BE 4,000 PSI TEST.
3. CONTROL JOINTS AT 10' INTERVALS.
4. BITUMINOUS MATERIAL EXPANSION JOINTS ARE REQUIRED AT 50' INTERVALS.



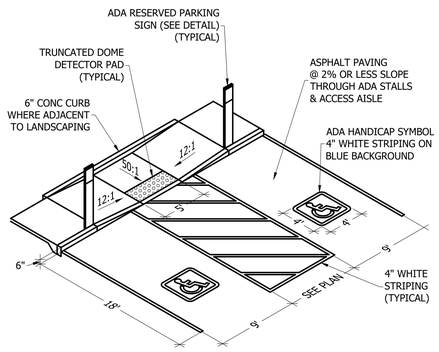
PRIVATE CONCRETE DRIVE APPROACH

C-5 / C400 TYPICAL N.T.S.



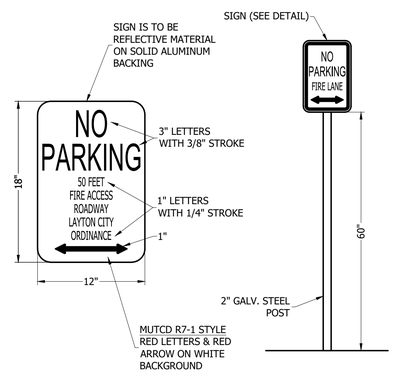
ADA ACCESSIBLE RAMP

C-2 / C400 TYPICAL N.T.S.



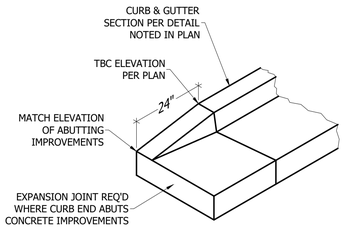
ADA ACCESSIBLE PARKING & RAMPS

A-1 / C400 TYPICAL N.T.S.



NO PARKING SIGN

S-1 / C400 TYPICAL



PRIVATE TAPERED END HI-BACK CURB & GUTTER

C-7 / C400 TYPICAL N.T.S.

TANNER CLINIC CLEARFIELD
2169001
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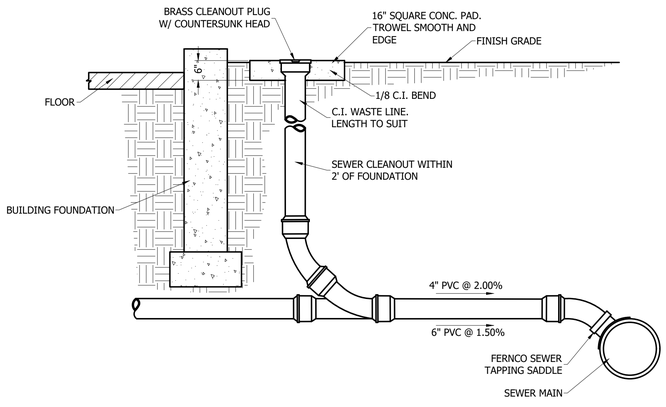
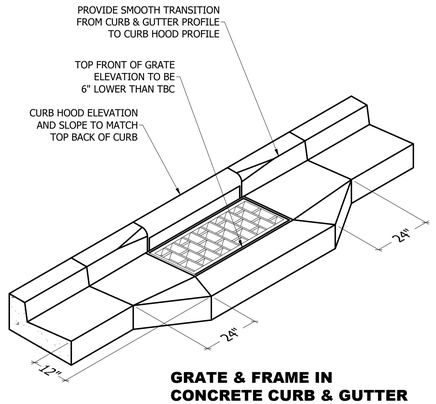
CIVIL CSA 9/20/2022
SURVEY
ENGINEER TJB 6/14/2022
DATE
BY
REV #
1470 South 600 West
Woods Cross, UT 84010
Phone 801.298.2236
www.Entellus.com
Entellus

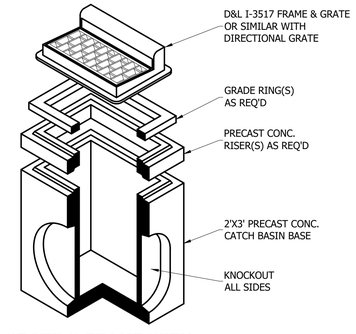
C900
SITE DETAILS



SS-1 / C600 **SEWER LATERAL SERVICE**
TYPICAL
N.T.S.



GRATE & FRAME IN CONCRETE CURB & GUTTER



GRATE & FRAME WITH PRECAST CONCRETE BOX

SD-2 / C600 **PRIVATE STORM DRAIN CURB INLET BOX**
TYPICAL
N.T.S.

\\Entellus-DC-UTA\H\2169001\D_PRODUCTION\Civil\04_Plan Set\PLAN SET-2169001_23-12-06

CIVIL CSA 5/26/2023
SURVEY
ENGINEER TJB 6/14/2022

TANNER CLINIC
CLEARFIELD

2169001

REV #	BY	DATE

1470 South 600 West
Woods Cross, UT 84010
Phone 801.298.2236
www.Entellus.com
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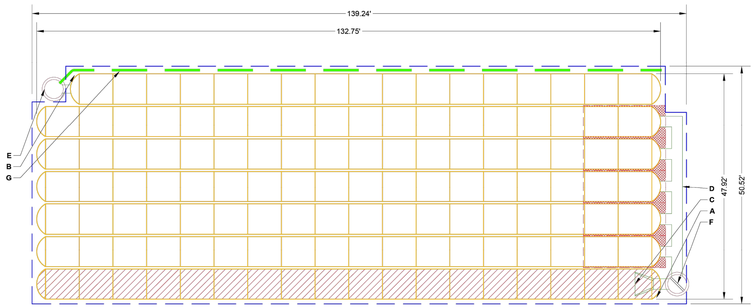
C901
UTILITY DETAILS

PROPOSED LAYOUT		CONCEPTUAL ELEVATIONS:	
125	STORMTECH MC-3500 CHAMBERS	MAXIMUM ALLOWABLE GRADE (TOP OF PAVEMENT/UNPAVED):	12.75
14	STORMTECH MC-3500 END CAPS	MINIMUM ALLOWABLE GRADE (UNPAVED WITH TRAFFIC):	6.75
12	STONE ABOVE (in)	MINIMUM ALLOWABLE GRADE (UNPAVED NO TRAFFIC):	6.25
12	STONE BELOW (in)	MINIMUM ALLOWABLE GRADE (TOP OF RIGID CONCRETE PAVEMENT):	6.25
40	STONE VOID	MINIMUM ALLOWABLE GRADE (BASE OF FLEXIBLE PAVEMENT):	6.25
24325	INSTALLED SYSTEM VOLUME (CF) (PERIMETER STONE INCLUDED) (COVER STONE INCLUDED) (BASE STONE INCLUDED)	TOP OF STONE:	5.72
		TOP OF MC-3500 CHAMBER:	4.75
		24" x 24" BOTTOM MANIFOLD INVERT:	1.17
		24" ISOLATOR ROW PLUS INVERT:	1.17
6936	SYSTEM AREA (SF)	18" BOTTOM CONNECTION INVERT:	1.15
379.5	SYSTEM PERIMETER (ft)	BOTTOM OF MC-3500 CHAMBER:	1.00
		UNDERDRAIN INVERT:	0.00
		BOTTOM OF STONE:	0.00

*INVERT ABOVE BASE OF CHAMBER

PART TYPE	ITEM ON LAYOUT	DESCRIPTION	INVERT*	MAX FLOW
PREFABRICATED END CAP	A	24" BOTTOM CORED END CAP, PART#: MC3500IEPP24BC / TYP OF ALL 24" BOTTOM CONNECTIONS AND ISOLATOR PLUS ROWS	2.06"	
PREFABRICATED END CAP	B	18" BOTTOM CORED END CAP, PART#: MC3500IEPP18BC / TYP OF ALL 18" BOTTOM CONNECTIONS	1.77"	
FLAMP	C	INSTALL FLAMP ON 24" ACCESS PIPE / PART#: MCFLAMP		
MANIFOLD	D	24" x 24" BOTTOM MANIFOLD, ADS N-12	2.06"	
CONCRETE STRUCTURE	E	OCS (DESIGN BY ENGINEER / PROVIDED BY OTHERS)		4.0 CFS OUT
CONCRETE STRUCTURE	F	(DESIGN BY ENGINEER / PROVIDED BY OTHERS)		35.8 CFS IN
WEIR	G	6" ADS N-12 DUAL WALL PERFORATED HDPE UNDERDRAIN		



ISOLATOR ROW PLUS (SEE DETAIL)

PLACE MINIMUM 17.50' OF ADSPLUS175 WOVEN GEOTEXTILE OVER BEDDING STONE AND UNDERNEATH CHAMBER FEET FOR SCOUR PROTECTION AT ALL CHAMBER INLET ROWS

BED LIMITS

NOTES

- MANIFOLD SIZE TO BE DETERMINED BY SITE DESIGN ENGINEER. SEE TECH 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.
- **NOT FOR CONSTRUCTION:** THIS LAYOUT IS FOR DIMENSIONAL PURPOSES ONLY TO PROVE CONCEPT & THE REQUIRED STORAGE VOLUME CAN BE ACHIEVED ON SITE.

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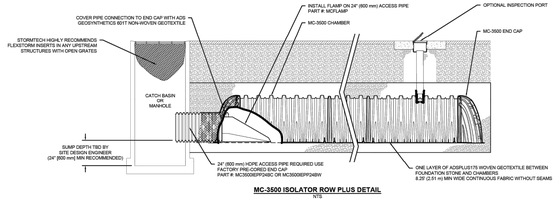
3 MC-3500 ISOLATOR ROW PLUS DETAIL



MC-3500 ISOLATOR ROW PLUS DETAIL
N.T.S

INSPECTION & MAINTENANCE

STEP 1) INSPECT ISOLATOR ROW PLUS 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 PLUS 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 PLUS ROWS
  - B.1. REMOVE COVER FROM STRUCTURE AT UPSTREAM END OF ISOLATOR ROW PLUS
  - B.2. USING A FLASHLIGHT, INSPECT DOWN THE ISOLATOR ROW PLUS 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 PLUS 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.

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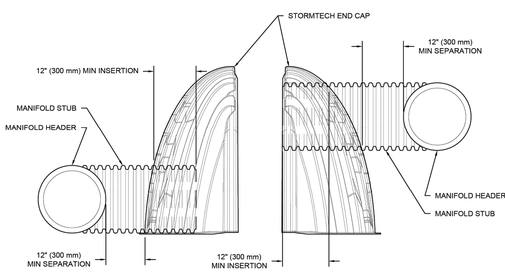
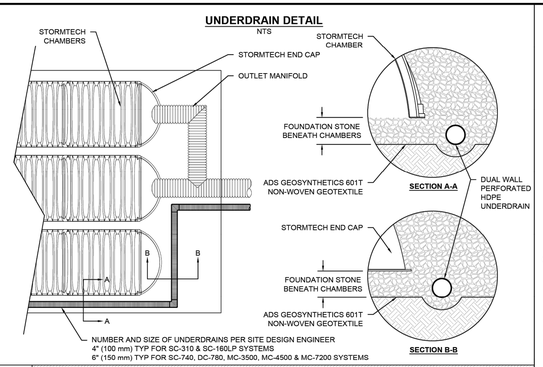
MC-SERIES END CAP INSERTION DETAIL
NTS



NOTE: MANIFOLD STUB MUST BE LAID HORIZONTAL FOR A PROPER FIT IN END CAP OPENING.

5 MC-SERIES END CAP INSERTION DETAIL

UNDERDRAIN DETAIL
NTS



4 UNDERDRAIN DETAIL

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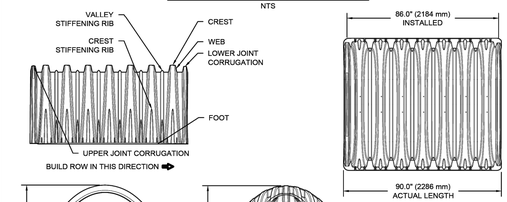
MC-3500 TECHNICAL SPECIFICATION
NTS



NOMINAL CHAMBER SPECIFICATIONS

SIZE (W X H X INSTALLED LENGTH)	77.0" X 45.0" X 86.0"	(1956 mm X 1143 mm X 2184 mm)
CHAMBER STORAGE	109.9 CUBIC FEET	(3.11 m³)
MINIMUM INSTALLED STORAGE*	175.0 CUBIC FEET	(4.96 m³)
WEIGHT	134 lbs.	(60.8 kg)

NOMINAL END CAP SPECIFICATIONS

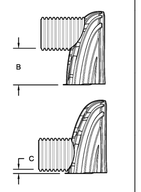
SIZE (W X H X INSTALLED LENGTH)	75.0" X 45.0" X 22.2"	(1905 mm X 1143 mm X 564 mm)
END CAP STORAGE	14.9 CUBIC FEET	(0.42 m³)
MINIMUM INSTALLED STORAGE*	45.1 CUBIC FEET	(1.28 m³)
WEIGHT	49 lbs.	(22.2 kg)

*ASSUMES 12" (305 mm) STONE ABOVE, 9" (229 mm) STONE FOUNDATION, 6" SPACING BETWEEN CHAMBERS, 6" (152 mm) STONE PERIMETER IN FRONT OF END CAPS AND 40% STONE POROSITY

STUBS AT BOTTOM OF END CAP FOR PART NUMBERS ENDING WITH "B"
STUBS AT TOP OF END CAP FOR PART NUMBERS ENDING WITH "T"
END CAPS WITH A WELDED CROWN PLATE END WITH "C"
END CAPS WITH A PREFABRICATED WELDED STUB END WITH "W"

PART #	STUB	B	C
MC3500IEPP06T	6" (150 mm)	33.21" (844 mm)	---
MC3500IEPP06B		---	0.66" (17 mm)
MC3500IEPP08T	8" (200 mm)	31.16" (791 mm)	---
MC3500IEPP08B		---	0.81" (21 mm)
MC3500IEPP10T	10" (250 mm)	29.04" (738 mm)	---
MC3500IEPP10B		---	0.93" (24 mm)
MC3500IEPP12T	12" (300 mm)	26.36" (670 mm)	---
MC3500IEPP12B		---	1.35" (34 mm)
MC3500IEPP15T	15" (375 mm)	23.39" (594 mm)	---
MC3500IEPP15B		---	1.50" (38 mm)
MC3500IEPP18TC	18" (450 mm)	20.03" (509 mm)	---
MC3500IEPP18TW			
MC3500IEPP18BC		---	1.77" (45 mm)
MC3500IEPP18BW			
MC3500IEPP24TC	24" (600 mm)	14.48" (368 mm)	---
MC3500IEPP24TW			
MC3500IEPP24BC		---	2.06" (52 mm)
MC3500IEPP24BW			
MC3500IEPP30BC	30" (750 mm)	---	2.75" (70 mm)

NOTE: ALL DIMENSIONS ARE NOMINAL



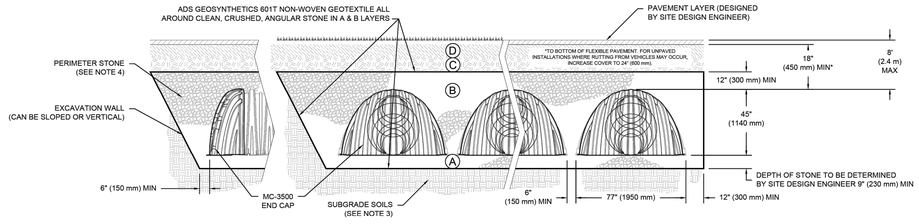
CUSTOM PRECORED INVERTS ARE AVAILABLE UPON REQUEST. INVENTORIED MANIFOLDS INCLUDE 12-24" (300-600 mm) SIZE ON SIZE AND 15-48" (375-1200 mm) ECCENTRIC MANIFOLDS. CUSTOM INVERT LOCATIONS ON THE MC-3500 END CAP CUT IN THE FIELD ARE NOT RECOMMENDED FOR PIPE SIZES GREATER THAN 10" (250 mm). THE INVERT LOCATION IN COLUMN 'B' ARE THE HIGHEST POSSIBLE FOR THE PIPE SIZE.

2 MC-3500 TECHNICAL SPECIFICATION

ACCEPTABLE FILL MATERIALS: STORMTECH MC-3500 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 24" (600 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[4] A-1, A-2-4, A-3 OR AASHTO M43[4] 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 24" (600 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 12" (300 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS.
B	**EMBEDMENT STONE:** FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	CLEAN, CRUSHED, ANGULAR STONE	AASHTO M43[4] 3, 4	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[4] 3, 4	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 9" (230 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.



NOTES:

1. CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F2418, "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS" CHAMBER CLASSIFICATION 45x76 DESIGNATION SS.
2. MC-3500 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 3".
   - TO ENSURE THE INTEGRITY OF THE ARCH SHAPE DURING INSTALLATION, a) THE ARCH STIFFNESS CONSTANT SHALL BE GREATER THAN OR EQUAL TO 450 LBS/FT/%. THE ASC IS DEFINED IN SECTION 6.2.8 OF ASTM F2418. 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.

1 MC-3500 CROSS SECTION DETAIL

DRAWN: CC | DATE:
CHECKED: N/A | PROJECT #:
REV: | NOT TO SCALE

TANNER CLINIC
CLEARFIELD, UT, USA

StormTech® Chamber System

ADS
4640 TRUEMAN BLVD
HILLIARD, OH 43026
1-800-733-7473

888-892-2694 | WWW.STORMTECH.COM

THIS DRAWING HAS BEEN PREPARED BASED ON INFORMATION PROVIDED TO ADS UNDER THE DIRECTION OF THE SITE DESIGN ENGINEER OR OTHER PROJECT REPRESENTATIVE. THE SITE DESIGN ENGINEER SHALL REVIEW THIS DRAWING PRIOR TO CONSTRUCTION. IT IS THE ULTIMATE RESPONSIBILITY OF THE SITE DESIGN ENGINEER TO ENSURE THAT THE PRODUCT(S) DEPICTED AND ALL ASSOCIATED DETAILS MEET ALL APPLICABLE LAWS, REGULATIONS, AND PROJECT REQUIREMENTS.

SHEET 1 OF 1

\\Entellus-DC-UT\H\21690001\D_PRODUCTION\Civil\04_Plan Set\PLAN SET-21690001_23-12-06

TANNER CLINIC
CLEARFIELD

21690001

CIVIL: CSA 5/20/2022
SURVEY:
ENGINEER: TJB 6/14/2022

REV #	BY	DATE

1470 South 600 West
Woods Cross, UT 84010
Phone 801.298.2236
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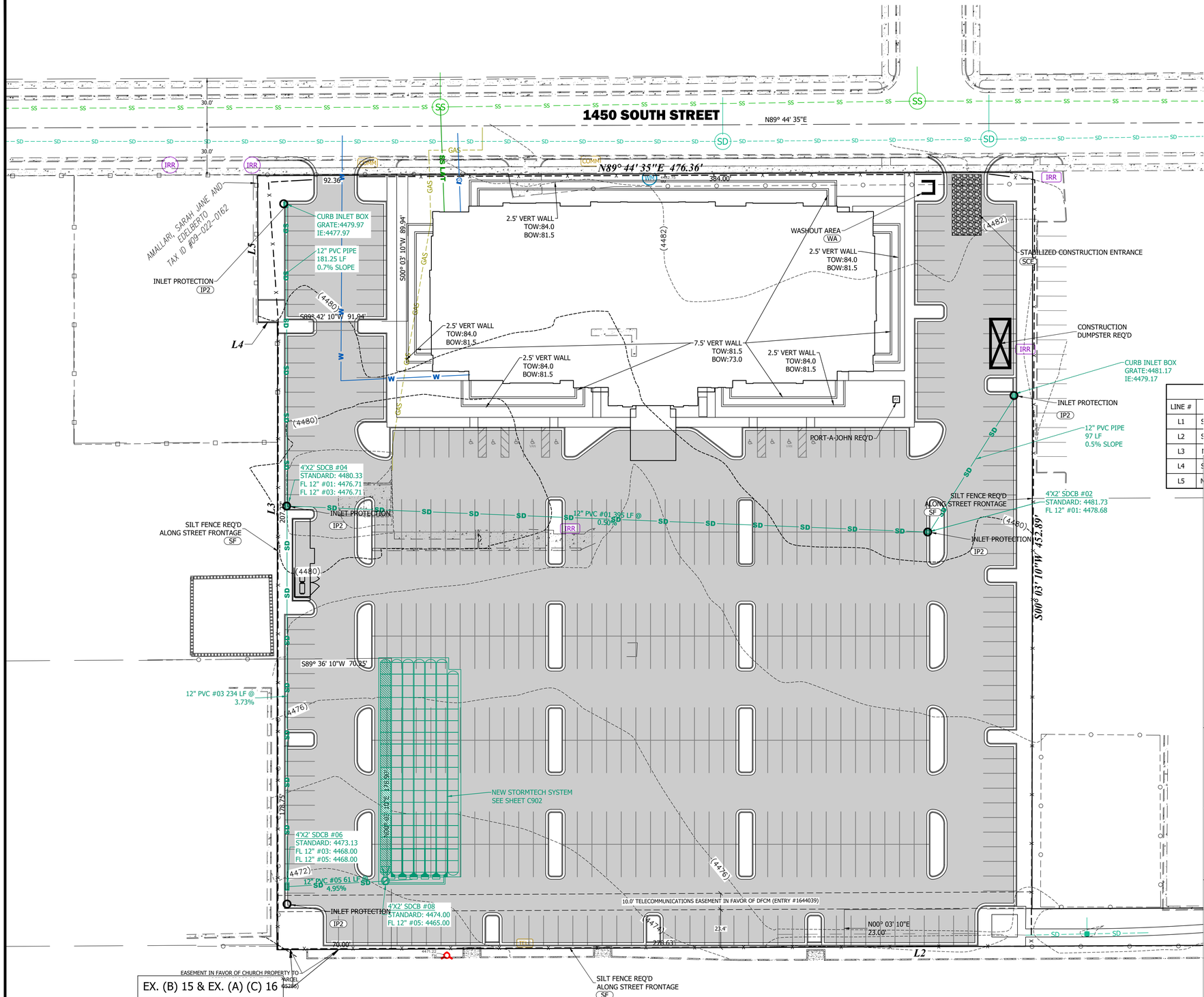
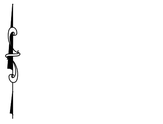
C902
STORMTECH DETAILS



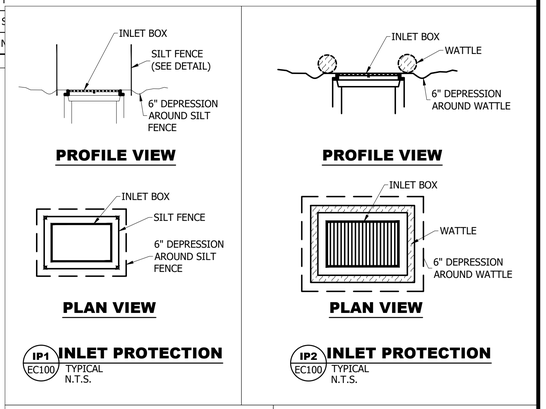
LINE #	
L1	S
L2	S
L3	N
L4	S
L5	N



SCALE: 1" = 30'

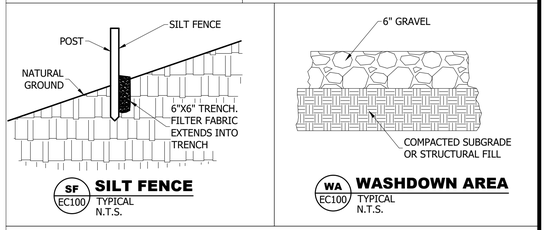
CONSTRUCTION NOTES

1. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY LOCAL, STATE, AND FEDERAL PERMITS PRIOR TO COMMENCING CONSTRUCTION.
2. CONTRACTOR TO MAINTAIN A COPY OF THE SWPPP ON SITE.
3. CONTRACTOR TO INSPECT SITE TO ENSURE THE SWPPP IMPROVEMENTS ARE IN PLACE AND FUNCTIONAL.
4. CONTRACTOR TO MAINTAIN TEMPORARY EROSION AND SEDIMENT CONTROLS AND HOUSEKEEPING MEASURES.
5. ALL SOLID WASTE SHALL BE STORED IN A SECURELY LIDDED METAL DUMPSTER. THE DUMPSTER SHALL MEET ALL STATE AND LOCAL WASTE MANAGEMENT REGULATIONS.
6. ALL HAZARDOUS WASTE SHALL BE DISPOSED OF IN THE MANNER AS SPECIFIED BY THE MANUFACTURER AND STATE AND LOCAL REGULATIONS.
7. A WASHOUT AREA SHALL BE CONSTRUCTED FOR THE TEMPORARY COLLECTION OF EXCESS CONCRETE AND NON-STORM WATER DISCHARGES FROM VEHICLE WASHING. THE CONCRETE WILL BE TAKEN TO THE CITY LANDFILL WITHIN 1 WEEK OF PLACING IN THE WASHOUT AREA.
8. A STABILIZED CONSTRUCTION ENTRANCE WILL BE CONSTRUCTED TO REDUCE VEHICLE TRACKING OF SEDIMENTS ONTO PUBLIC RIGHT OF WAYS. THE PAVED STREET ADJACENT TO THE SITE ENTRANCE WILL BE SWEPT DAILY TO REMOVE EXCESS DIRT.
9. INSPECTION SHALL BE MADE MONTHLY AND WITHIN 24 HOURS AFTER A RAINFALL EVENT OF 0.5 INCHES OR GREATER. ALL NON-STORM WATER FLOWS SHALL BE DIRECTED TOWARD THE WASHOUT AREA OR SEDIMENT BASIN. THE SWPPP WILL BE REVISED AS SITE CONDITIONS AND PROJECT WARRANTS.
10. CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING AND SWEEPING PUBLIC STREETS ON A DAILY BASIS, OR MORE IF NECESSARY.
11. CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE ADEQUATE DUST CONTROL THROUGHOUT THE COURSE OF THE PROJECT.



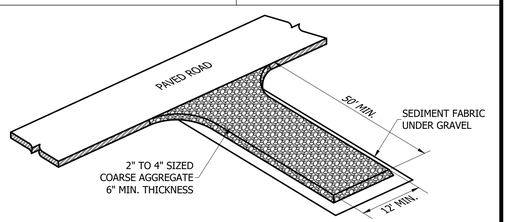
IP1 EC100 **INLET PROTECTION** TYPICAL N.T.S.

IP2 EC100 **INLET PROTECTION** TYPICAL N.T.S.



SF EC100 **SILT FENCE** TYPICAL N.T.S.

WA EC100 **WASHDOWN AREA** TYPICAL N.T.S.



SCE EC100 **STABILIZED CONSTRUCTION ENTRANCE** TYPICAL N.T.S.

TANNER CLINIC CLEARFIELD

2169001

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