

ATTACHMENT 40:

W-Trans. 2019. *Focused Traffic Study for the Isackson's Arcata Housing Project*. May.



May 24, 2019

Mr. Chris Dart
Danco Communities
5251 Ericson Way
Arcata, CA 95521

Focused Traffic Study for the Isaacsons Arcata Housing Project

Dear Mr. Dart;

As requested, W-Trans has prepared a focused traffic impact analysis for the proposed Isaacsons Affordable Housing Project in the City of Arcata. The purpose of this letter is to address the impacts on the adjacent transportation network because of the project, which would include the development 44 affordable housing units in addition to 2,122 square feet of retail space. Further, this letter provides transportation demand management measures which are intended to reduce the number of project-related trips during peak hours as well as the expected parking demand. The purpose of this letter is to address the potential impacts associated with this development and identify any improvements needed to mitigate such impacts.

Based on guidance from City staff, no operational analysis was conducted, as it would be unlikely that any traffic impacts associated with the projects could be mitigated using typical means such as traffic control devices. This study instead focuses on the application of transportation demand management strategies to reduce the number of vehicle trips that would be expected to be generated by the proposed project.

Existing Conditions

The project site is located within the downtown commercial district of the City of Arcata and is currently occupied by a surface parking lot. The study area consists of the sections of 6th Street, 7th Street, I Street, and J Street, all of which front the project site except 6th Street. Adjacent land uses include single family residences, light industrial uses, and various retail establishments. The surrounding roadway network includes two-lane roadways accompanied by intersections governed by all-way and two-way stop control. The downtown commercial district is considered both walkable and bicycle-friendly as there are generally continuous sidewalks and bicycle facilities along the project frontages which lead to complimentary land uses. An aerial showing the existing facilities on the site is enclosed.

Project Description

The proposed project consists of a four-story mixed-use building along the south side of 7th Street between I Street and J Street. The proposed development would include 44 affordable apartment units and 2,122 square feet of retail space. The project would replace an existing parking lot and would also include amenities such as a community center, computer lounge, tot lot, community garden, and a skate park to be used by residents. Access to the project would be provided by a driveway on I Street and pedestrian access points on 7th Street, I Street, and J Street. The site plan for the proposed project is enclosed.

Trip Generation

The anticipated trip generation for the proposed project was estimated using standard rates published by the Institute of Transportation Engineers (ITE) in *Trip Generation Manual*, 10th Edition, 2017 for "Multifamily Housing (Mid-Rise)" (ITE LU #221) and "Shopping Center" (ITE LU #820). Because the site is currently occupied by a surface parking lot, the trip generation of the lot was not considered. It should be noted that parking lots do not generate trips; rather, such trips are included the trip generation of adjacent land uses.

Internal Capture Trips

The *Trip Generation Manual* also includes data and methodologies that can be applied to determine the proportion of internal trips that may occur within a development area that includes a variety of land uses. Internal trips occur at mixed-use developments, and in the case of the Isaacsons Affordable Housing Project would consist of residents walking to the adjoining retail use, which would not affect the adjacent street network. Given the nominal size of the retail space and limited trip generation, there is no meaningful potential for internal capture, so this deduction was not taken.

Pass-by Trips

Some portion of traffic associated with retail use is drawn from existing traffic on nearby streets. These vehicle trips are not considered "new," but are instead comprised of drivers who are already driving on the adjacent street system and choose to make an interim stop and are referred to as "pass-by". The percentage of these pass-by trips was developed based on information provided in the *Trip Generation Manual*. This reference includes pass-by data collected at numerous locations for many land uses, such as the retail uses applied in this traffic analysis. Rates for only p.m. peak hour rates are available for the retail land use included in this analysis. These rates were applied as a deduction to the overall trips generated by the project after deducting internally captured trips. At the proposed project, pass-by trips would in essence be "captured" from traffic on 7th Street and I Street.

Total Project Trip Generation

The expected trip generation potential for the proposed project is indicated in Table 1, including no deductions taken for trips made to and from the existing surface parking lot at the site, which will cease with the construction of the project, as well as for pass-by and internal capture. The proposed project is expected to generate an average of 319 trips per day, including 18 trips during the a.m. peak hour and 27 during the p.m. peak hour. After deductions are accounted for, the project would be expected to generate 292 new trips daily, including 18 during the morning peak hour and 24 during the evening peak hour; these new trips represent the increase in traffic associated with the project compared to existing volumes.

Table 1 – Trip Generation Summary

Land Use	Units	Daily		AM Peak Hour				PM Peak Hour			
		Rate	Trips	Rate	Trips	In	Out	Rate	Trips	In	Out
Multi-unit housing	44 du	5.44	239	0.36	16	4	12	0.44	19	11	8
Retail	2.12 ksf	37.75	80	0.94	2	1	1	3.81	8	4	4
Pass-by		-34%	-27	n/a	-	-	-	-34%	-3	-2	-1
Net New Trips			292		18	5	13		24	13	11

Note: du = dwelling unit; ksf = 1,000 square feet

Safe Crossings and Sight Distance

Sight distance along I Street north and south of the project driveway was evaluated based on sight distance criteria contained in the *Highway Design Manual* published by Caltrans. The recommended sight distances for driveways are based on stopping sight distance, with the approach travel speed used as the basis for determining the recommended sight distance. Additionally, the stopping sight distance needed for a following driver to stop if there is a vehicle waiting to turn into a side street or driveway is evaluated based on stopping sight distance criterion and the approach speed on the major street.

Based on a design speed of 25 mph, the minimum stopping sight distance needed is 150 feet. Sight distance north of the project driveways was found to be at least 150 feet, which is adequate for the vehicles traveling along I Street at the associated posted speed limit of 25 mph. It is noted that given the proximity to an all-way stop-controlled intersection most drivers are traveling at speeds lower than this. South of the project driveway, the associated stopping sight distance was not found to be adequate. To enhance safety, the curb south of the project driveway on the west side of I Street should be striped red for a distance of 35 feet. Restricting parking along this segment will prevent parked vehicles from obstructing clear sight lines of vehicles traveling northbound along I Street when approaching the project driveway. To maintain adequate visibility at the intersection of 7th Street/J Street, vegetation should be removed or trimmed. A warrant analysis should be conducted to determine if all-way stops are appropriate at this location.

Collision History

The collision history for the study area was reviewed to identify any trends or patterns that may indicate a safety issue. The collisions analysis was based on records made available via the California Highway Patrol as published in their Statewide Integrated Traffic Records System (SWITRS) reports. The analysis included the most current five-year period beginning January 1, 2014 continuing through December 31, 2018.

During the five-year study period, one injury collision was reported within the vicinity of the project site at the intersection of 7th Street/H Street. The collision occurred at approximately dawn and was characterized by a sideswipe collision. A motorist was injured as result of the collision and complained of pain. Due to the relatively low number of injury collisions including vehicles in conjunction with the relatively high number of stop-controlled intersections adjacent to the project site, no vehicle related safety countermeasures are recommended.

Alternative Modes

The project site is in central Arcata, so the project is close to a wide range of land uses. As a result, many destinations are within a distance that can be traveled using alternatives to vehicle travel.

Bicycle

Class II bike lanes exist on 7th Street-Bayside Road between K Street Avenue and Buttermilk Lane, as well as H Street between Sunset Avenue and Samoa Boulevard. A Class III bike boulevard exists on I Street between 17th Street and Samoa Boulevard, and along J Street between 10th Street and 8th Street. Bicyclists ride in the roadway along other streets within the project study area. For trips outside the project area, bicycling can be combined with transit as local transit buses have bike racks.

Bike parking to accommodate sixteen bicycles will be provided as part of the project. For bicycles to be a frequently-used mode of transportation for residents, secure bicycle parking should be provided to protect bicycles from inclement weather and to deter against theft. This could take the form of bicycle lockers or locked storage areas associated with the residential units.

Pedestrian

Pedestrian facilities include sidewalks, crosswalks, curb ramps, curb extensions, and various streetscape amenities such as lighting, benches, etc. While there are some pedestrian facilities in the vicinity of the project sites, sidewalk gaps, obstacles, and barriers can be found along some or all of the connecting roadways. Existing gaps and obstacles along the connecting roadways impact convenient and continuous access for pedestrians and present safety concerns in those locations where appropriate pedestrian infrastructure would address potential conflict points.

The downtown location, mixed-use nature of the project, and the proposed site plan encourages residents to walk instead of drive for their daily commute trips and errands. The on-site pedestrian network is designed to conveniently link the residential units and office space to the common open space and proposed on-site retail. The design does not include physical barriers such as walls, landscaping, or slopes that could impede pedestrian circulation. The on-site pedestrian network seamlessly connects to the public sidewalks on 7th Street, J Street, I Street, and 6th Street.

- **7th Street** – Continuous sidewalks exist on both sides of 7th Street accompanied by marked crosswalks at both intersections adjacent to the project site. The utility poles located along the existing sidewalk will be undergrounded, eliminating obstacles and providing additional space for pedestrians.
- **J Street** – Continuous sidewalks exist on both sides of J Street except for a gap along west side of the street extending south of the intersection at 7th Street for approximately 140 feet.
- **I Street** – Sidewalks exist continuously along both sides of on I Street with several marked crosswalks along the roadways near the project site.
- **6th Street** – Continuous sidewalks exist on both sides of 6th Street near the project site.

An analysis of the existing intersections adjacent to the project site revealed that curb ramps, truncated domes, and marked crosswalks are not present at all locations. It is expected that an increase in pedestrian volumes accessing the adjacent intersections would occur as a result of the proposed project, thus appropriate pedestrian safety enhancements should be considered. Compliance of the sidewalks along the perimeter of the project site should be evaluated for conformity to Americans with Disabilities Act guidelines, and enhancements made as appropriate.

Transit

The Humboldt Transit Authority (HTA) provides fixed route bus service in the City of Arcata through the Arcata Mad River Transit System (AMRTS) and the Redwood Transit System (RTS).

The AMRTS Gold, Orange, and Red routes all provide local service in Arcata with one-hour headways and all stop at the intersection of H Street/6th Street, just over a block from the project site. The Gold Route operates from Monday through Friday between 7:00 a.m. and 7:00 p.m. The Orange Route provides service between 6:00 a.m. to 9:00 p.m. Mondays through Fridays and from 7:00 a.m. to 6:00 p.m. on Saturdays. The Red Route operates between the hours of 7:00 a.m. and 5:00 p.m. Mondays through Fridays.

Redwood Transit System (RTS) provides regional service between the City of Arcata and surrounding communities in Humboldt County including Scotia, Fortuna, Loleta, Fields Landing, Eureka, McKinleyville, Westhaven, and Trinidad. The RTS route includes a northbound stop at the intersection of G Street/5th Street and a southbound stop at the intersection of H Street/6th Street. The service operates Monday through Friday with approximately one- to three-hour headways between 6:00 a.m. and 10:00 p.m. Saturday and Sunday service operates with approximately one to three-hour headways between the hours of 8:30 a.m. to 9:00 p.m. on Saturdays and 8:30 a.m. to 7:00 p.m. on Sundays.

Two bicycles can be carried on most HTA buses. Bike rack space is on a first come, first served basis. Additional bicycles are allowed on HTA buses at the discretion of the driver.

Dial-a-ride, also known as paratransit, or door-to-door service, is available for those who are unable to independently use the transit system due to a physical or mental disability. Arcata Dial-A-Ride service is designed to serve the needs of individuals with disabilities within the City of Arcata and the greater area.

Transportation Demand Management (TDM) Strategies

The project's TDM Program will provide information, encouragement, and promote the use of non-motorized travel options to reduce the number of vehicle trips by shifting these trips to alternative modes. Residents should be provided with readily available information about the local alternative transportation options to encourage reduction of vehicle trips. This includes transit maps and schedules and bike share program information.

In addition to providing information about the available alternatives to vehicle travel, use of these modes could be increased by providing benefits to residents and potentially discouraging vehicle ownership and use. This in turn would reduce the number of vehicle trips associated with the project and the number of parking spaces needed. These benefits could include free or subsidized transit passes and/or annual membership fees for the bike share program.

Parking

Jurisdiction parking requirements are based on standards presented in the City of Arcata Land Use Code, Chapter 9.36 Number of Parking Spaces Required and Chapter 9.36.080 Adjustment of Parking Requirements. The required parking supply is based on the land-use classification Commercial – Central. Residential developments including seven or more units are required to provide parking spaces for one-third of the residential units. It is also noted that non-residential land uses identified as Commercial – Central are not required to provide off-street parking or loading spaces. The project proposes to provide 15 parking spaces on-site, which meets the City's requirement of one space per three units.

The Land Use Code provides for additional potential reductions in the on-site parking requirements for the project. Under Chapter 9.36.080(B) Alternative Transportation Parking Reduction, the applicant can apply for a Minor Use Permit based on proximity to a transit center or other factors. The project is located approximately 1,400 feet from the transit center, which is under the provision's one-half mile (2,640 feet) threshold. Chapter 9.36.080(E) Off-Site Parking Allowed describes a process for further reducing on-site parking requirements if spaces are made available in a common or shared parking facility located away from the project site. City approval is required for this reduction.

Conclusions and Recommendations

- The mixed-use project would be expected to generate an average of 292 daily trips; of which 18 trips would be during the a.m. peak hour and 24 would be during the p.m. peak hour.
- Pedestrian and bicycle access to the project site is generally adequate. The existing and proposed pedestrian facilities along the project frontage should be assessed for compliance with the Americans with Disabilities Act guidelines. The applicant should enhance pedestrian access and safety at intersections adjacent to the project site by installing curb ramps and truncated domes where necessary.
- To promote use of bicycling as an alternative to vehicle travel, space should be reserved on the site for future secure bicycle storage facilities.
- Sight distance and access at the project driveways on I Street will be adequate provided the curb immediately south of the project driveway is painted red to prohibit parking.
- To ensure adequate sight distance at the intersection of 7th Street/J Street, vegetation should be removed or trimmed. The intersection should also be evaluated to determine if it meets all-way stop warrants.

- The applicant should promote vehicle trip reduction by distributing transit maps, transit schedules and bike maps to residents, as well as providing incentives for residents to use alternatives to vehicle travel by providing free or subsidized transit passes and/or bike share program memberships.
- Based on the availability of alternative transportation modes and provision of TDM incentives, trip reduction should be reduced to a level approaching the maximum feasible amount for this land use context.
- All site improvements associated with the project should be constructed to meet the requirements of the Americans with Disabilities Act.

Thank you for giving W-Trans the opportunity to provide these services. Please call if you have any questions.

Sincerely,

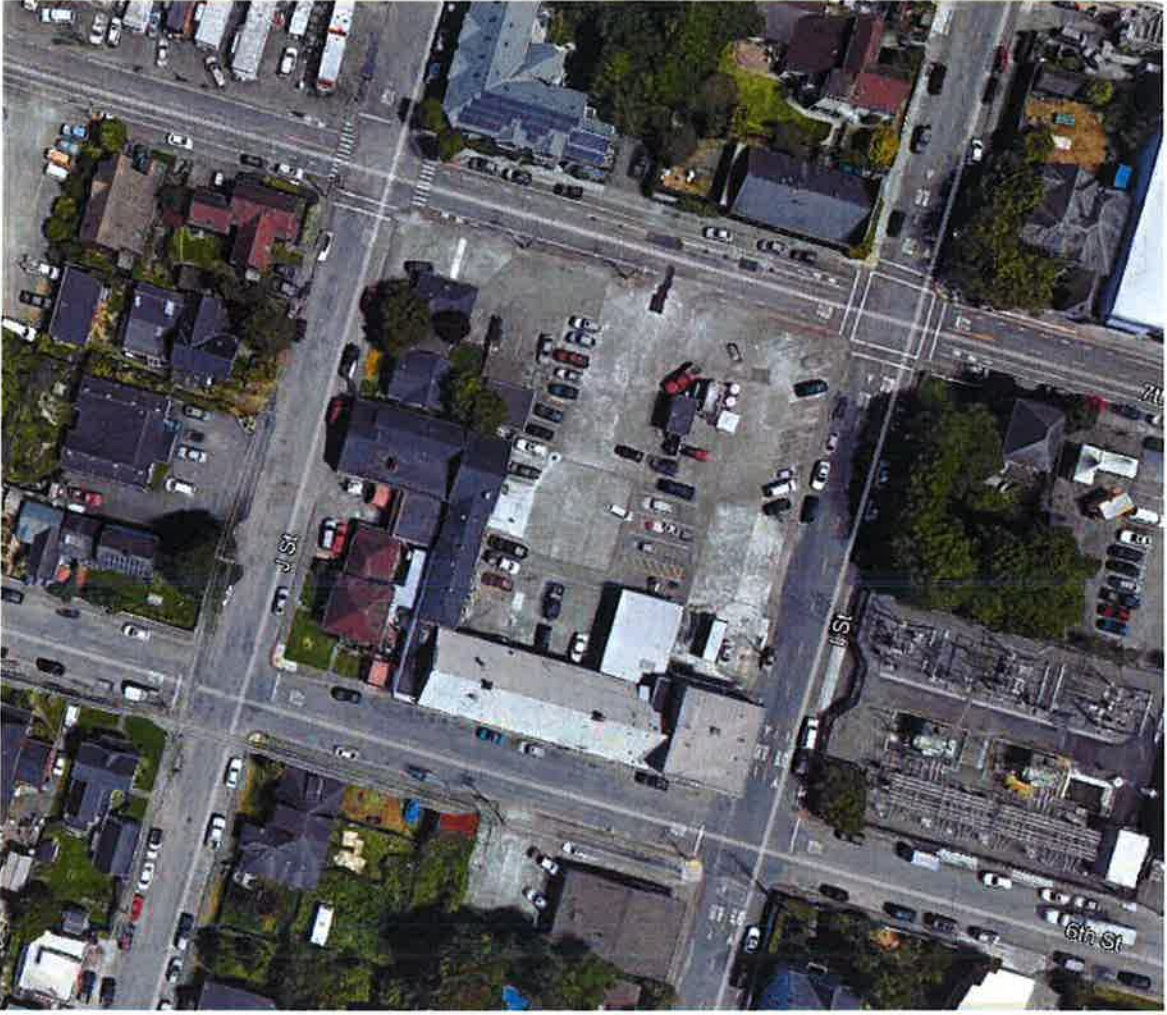

Barry Bergman
Senior Planner


for
Dalene J. Whitlock, PE, PTOE
Principal



DJW/bdb/ARC018.L1

Enclosures: Aerial of Project Area, Project Site Plan, Traffic Memo from City Staff



REVISIONS	BY

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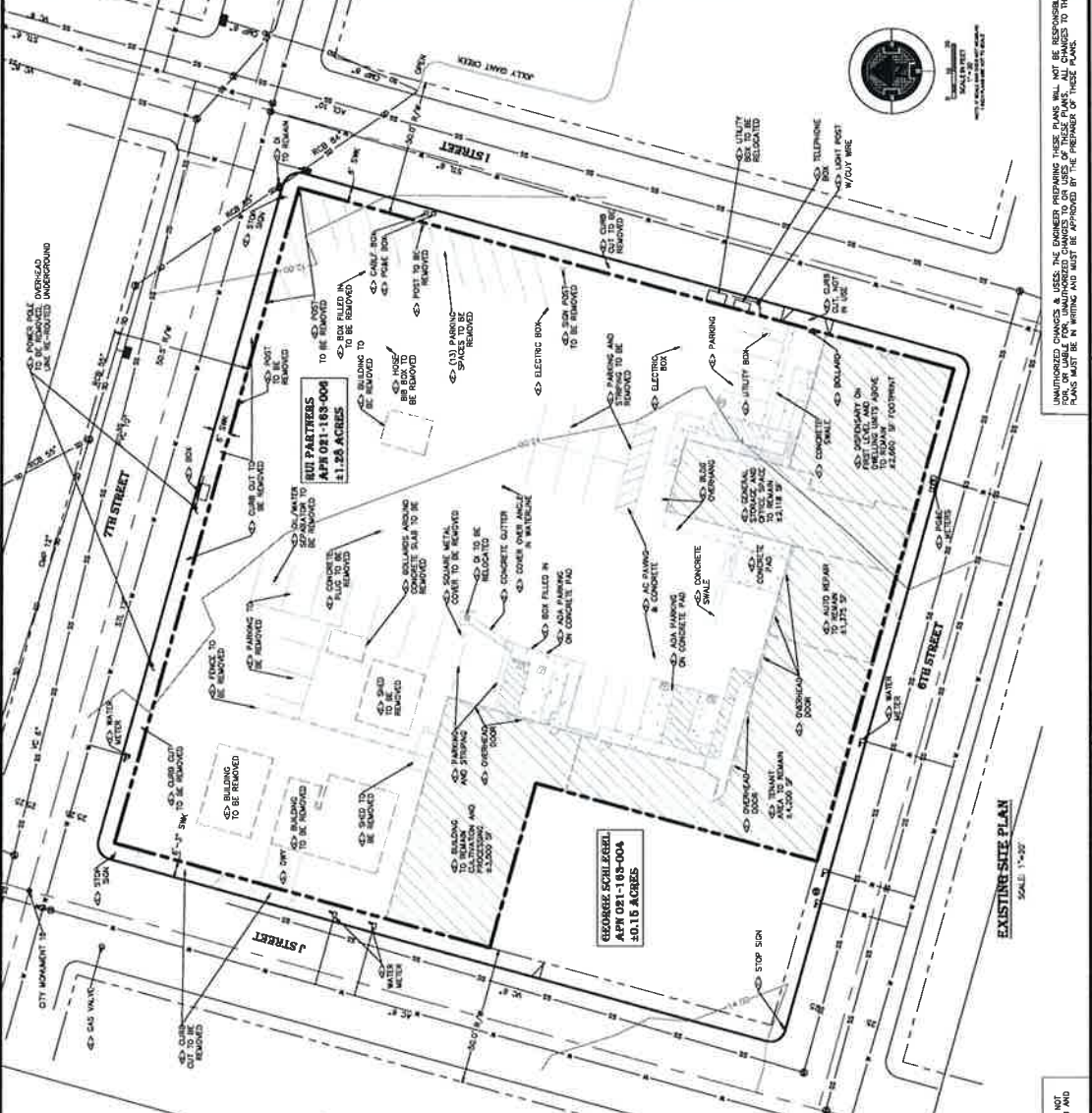


TENTATIVE MAP
 EXISTING CONDITIONS
 980 6TH STREET
 ARCATY, CO 81521
 APR 021-163-006

ARCATA ISACKSONS
 APR 021-163-006

DATE: MAY 8, 2019
 DRAWN BY: [Name]
 CHECKED BY: [Name]
 SHEET NUMBER: C-1
 JOB NUMBER: 18-2560

PLANS CERTIFIED FOR CONSTRUCTION BY ENGINEER OF RECORD AND
 FOR PLAN REVIEW ONLY - NOT FOR CONSTRUCTION

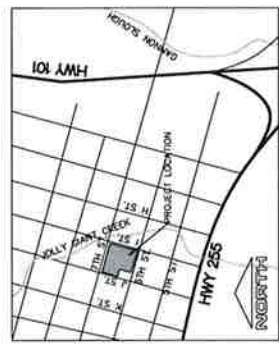


PROJECT INFORMATION
 OWNER: [Name]
 OWNER ADDRESS: 1231 E. [Street]
 OWNER PHONE: [Number]
 OWNER FAX: [Number]
 PROJECT ADDRESS: [Address]
 PROJECT PHONE: [Number]
 PROJECT FAX: [Number]
 ZONING: COMMERCIAL CENTRAL

PROJECT DESCRIPTION
 4-STORY AFFORDABLE HOUSING PROJECT WITH 140 UNITS, 2 AND 3-BEDROOM UNITS WITH AN OPEN CONCEPT LAYOUT, HARDWOOD FLOORING, WELL AS AN 8,000 SF GARAGE SPACE AT GROUND LEVEL. THE PROJECT IS SITUATED IN A COMMERCIAL CENTRAL (CC) ZONE. ON-SITE PARKING FOR 100 CARS IS PROPOSED. EACH GARAGE UNIT WILL BE COMING WITH A CARPORT AS AMENITIES FOR RESIDENTS. EACH SPACE IN THE FORM OF A PATIO OR BALCONY. UNITS WILL BE AVAILABLE AS WELL AS A PUBLIC PLAZA AT STREETS B PROPOSED.

ABBREVIATIONS
 PROPOSED: [Symbol]
 EXISTING: [Symbol]
 CONTROL POINT: [Symbol]
 FINISHED FLOOR: [Symbol]
 RIGHT OF WAY: [Symbol]
 SIDEWALK: [Symbol]
 WATER METER: [Symbol]

LEGEND
 PROPOSED DRIVEWAY DIRECTION
 CONTROL POINT
 FINISHED FLOOR
 RIGHT OF WAY
 SIDEWALK
 WATER METER
 PROPOSED PARKING
 VISIBILITY TRIANGLE TO BE REMOVED
 EXISTING BLDG TO BE REMOVED
 EXISTING CONCRETE
 PROPOSED AC PAVING
 EXISTING CONTAINERS
 PROPERTY LINES TO BE ADDED
 PROPERTY UNCLERED LINES
 JOLLY GANT CREEK
 EXISTING STORM DRAIN
 EXISTING WATER LINE
 EXISTING BUILDING
 ROAD CENTERLINE
 PROPOSED FENCE

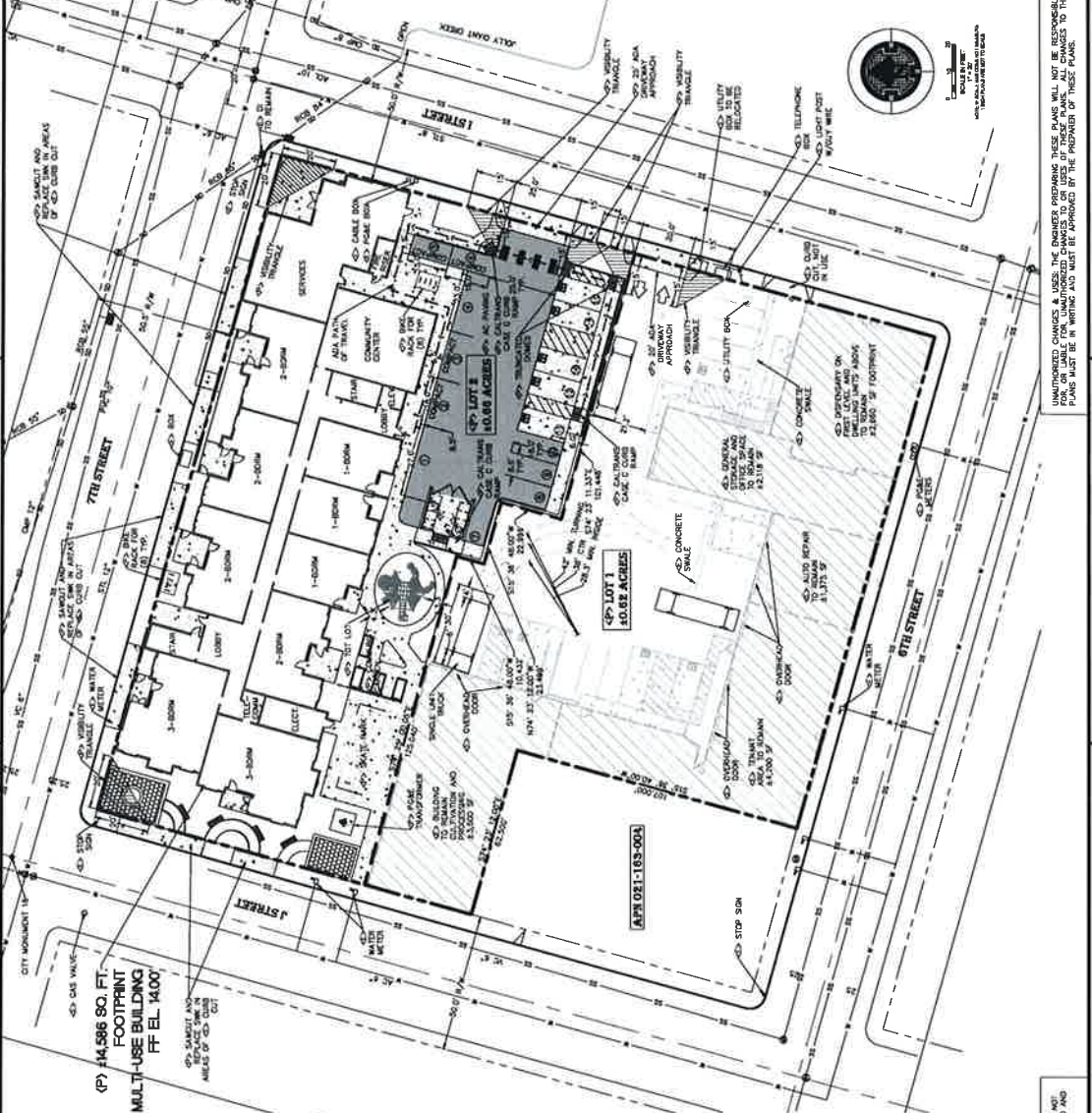


VICINITY MAP
 SCALE: N 1:5

LOCATIONS AND ELEVATIONS SHOWN ARE PROVIDED FOR INFORMATION ONLY. SUCH INFORMATION MAY NOT BE COMPLETE OR ACCURATE. CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL ADVICES INVOLVED AND VERIFYING LOCATIONS OF ALL UTILITIES THAT MAY BE IMPACTED BY HIS/HER WORK.

UNAUTHORIZED CHANGES & USES. THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR OR LIABLE FOR UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARED OF THESE PLANS.

FOR PLAN REVIEW ONLY - NOT FOR CONSTRUCTION



PROJECT INFORMATION

OWNER: ERICSON WAY
OWNER ADDRESS: 2351 ERICSON WAY, DENVER, CO 80202
OWNER'S EMAIL: DAN@ERSON-GROUP.COM
OWNER'S PHONE: (303) 733-7400
OWNER'S WEBSITE: WWW.ERSON-GROUP.COM
OWNER'S PROJECT: 14500 ERICSON WAY
PROJECT ADDRESS: 14500 ERICSON WAY
PROJECT CITY: DENVER, CO 80202
PROJECT STATE: COLORADO
PROJECT ZONING: COMMERCIAL CENTRAL

PROJECT DESCRIPTION

EXISTING AVAILABLE BUILDING FOOTPRINT WITH (14) LOT 1 AND 2 UNITS WITH AN AREA OF 14,586 SQ. FT. AS WELL AS AN AREA OF 20,000 SQ. FT. OF UNDEVELOPED SPACE AT THE CORNER OF 14500 ERICSON WAY AND 8TH STREET. THE PROPOSED DEVELOPMENT IS A 14,586 SQ. FT. MULTI-USE BUILDING WITH 145,000 SQ. FT. OF GROSS FLOOR AREA. THE BUILDING WILL BE A 14-UNIT MULTI-FAMILY RESIDENTIAL BUILDING WITH 14 UNITS, 1400 SQ. FT. PER UNIT. THE BUILDING WILL BE A 14-UNIT MULTI-FAMILY RESIDENTIAL BUILDING WITH 14 UNITS, 1400 SQ. FT. PER UNIT. THE BUILDING WILL BE A 14-UNIT MULTI-FAMILY RESIDENTIAL BUILDING WITH 14 UNITS, 1400 SQ. FT. PER UNIT.

ABBREVIATIONS

- PROPOSED DRAINAGE DIRECTION
- PROPOSED GRADE
- CONTROL POINT
- PROPOSED
- ASSESSOR'S PARCEL NUMBER
- BIG
- EL. FINISHED FLOOR
- FF
- FINISHED FLOOR
- FR
- FRONT YARD SETBACK
- SMW
- SEWER MAIN
- WM
- WATER METER

LEGEND

- PROPOSED DRAINAGE DIRECTION
- PROPOSED GRADE
- CONTROL POINT
- PROPOSED
- ASSESSOR'S PARCEL NUMBER
- BIG
- EL. FINISHED FLOOR
- FF
- FINISHED FLOOR
- FR
- FRONT YARD SETBACK
- SMW
- SEWER MAIN
- WM
- WATER METER

VICINITY MAP

SCALE: N.T.S.

LOCATIONS AND DIMENSIONS SHOWN ARE PROVIDED FOR INFORMATION ONLY. SUCH INFORMATION MAY NOT BE COMPLETE OR ACCURATE. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL ADJACENT INVOLVED AND PROPERTY RECORDS OF ALL UTILITIES THAT MAY BE AFFECTED BY PROPOSED WORK.



736 F Street
Arcata, CA 95521

City Manager (707) 822-5953	Police 822-2428	Recreation 822-7091
Community Development 822-5955	Finance 822-5951	Transportation 822-3775
Environmental Services Streets/Utilities 822-5957	Environmental Services Community Services 822-8184	Engineering & Building 825-2128

To: David Loya, Community Development Director

From: Doby Class, City Engineer

CC: Netra Khatri, Deputy City Engineer

Date: 03/28/19

Re: Isaacson draft multimodal traffic study

We have reviewed the draft report and forwarded to Caltrans for their comments as well.

Safe crossings and Sight distance. A 35' red curb is recommended. We will likely reduce to 15' based on other typical driveways in the city and parking demands.

The intersection at 7th and J St presently needs vegetation removed for a safer sight distance at this two way stop adjacent to the proposed site. An evaluation should be performed for the need for an all way stop similar to 7th and I St. Site distances must be maintained per city standards at this and other adjacent corners.

Alternative Modes

The eight proposed bike parking spots covered and secure bike parking should have an area set aside to increase spaces in case residents are storing personal bicycles.

The project should include a communal/shared vehicle (zip car etc) that residents can use to allow for those without cars to be mobile.

Transit

The HTA is the countywide bus system with RTS providing travel from Trinidad to Scotia almost hourly and beyond to Willow Creek and Garberville as well. The most direct/close stop is at the 6th and H St stop for SB travel and 5th and G for NB stops.

Parking

Onsite parking will need to be in conformance with City Standards and for adjoining businesses effected by the proposed division/lot line adjustment.

Conclusions and Recs

All site improvements and adjacent work abutting adjoining ROW shall be shall in conformance this the ADA.

Illuminated and accessible paths of travel will be required adjacent to the new building(s) and for safer access to transit stops for RTS and AMRTS at a minimum.