PLANNING AND ZONING COMMISSION AGENDA
Monday, June 27, 2016
City Hall, 480 East Avenue North, Ketchum, ID

1. **5:00 PM-SITE VISIT: 112 Irene Street, Ketchum, Idaho (Warm Springs Creekside Sub Lot 12)**

2. 5:30 PM - CALL TO ORDER: City Hall, 480 East Avenue North, Ketchum, Idaho

3. PUBLIC COMMENT - Communications from the public for items not on the agenda.

4. COMMUNICATIONS FROM STAFF
    a. *Continued from Monday, June 13, 2016*- Bracken Station Conditional Use Permit Public Hearing: 911 North Main Street, Ketchum, ID (Ketchum AM Lot 5A Block 30 18,590 SF) The applicant is proposing to construct a motor vehicle fueling station with accessory food service. The property is 0.435 acres in size and zoned Light Industrial-1 (LI-1).
    b. *Continued from Monday, June 13, 2016*- Bracken Station Pre-Application Design Review Public Hearing: 911 North Main Street, Ketchum, ID (Ketchum AM Lot 5A Block 30 18,590 SF) The applicant is proposing to construct a motor vehicle fueling station with accessory food service. The property is 0.435 acres in size and zoned Light Industrial-1 (LI-1).
    c. Armour Residence Waterways Design Review: 112 Irene Street (Warm Springs Creekside Sub, Lot 12) The Commission will consider and take action on an application for a Waterways Design Review and Flood Plain Development Permit for construction of a new single-family residence.
    d. Zoning Ordinance Phase II Update: Work Session

5. CONSENT CALENDAR
    a. APPROVAL OF MINUTES
        i. June 13, 2016: Minutes

6. FUTURE PROJECTS AND NOTICING REQUIREMENTS

7. STAFF REPORTS & CITY COUNCIL MEETING UPDATE

8. COMMISSION REPORTS AND EX PARTE DISCUSSION DISCLOSURE

9. ADJOURNMENT

Any person needing special accommodations to participate in the meeting should contact the City Clerk's Office as soon as reasonably possible at 726-3841. All times indicated are estimated times, and items may be heard earlier or later than indicated on the agenda.

City of Ketchum
Planning & Building

June 27, 2016

Planning and Zoning Commission
City of Ketchum
Ketchum, Idaho

Commissioners:

STAFF REPORT
KETCHUM PLANNING AND ZONING COMMISSION
REGULAR MEETING OF JUNE 27, 2016

PROJECT: Bracken Station Conditional Use Permit (CUP)

FILE NUMBERS: #16-034

OWNER: North Town Partners LLP

REPRESENTATIVE: Steve Cook, AIA

REQUEST: Conditional Use Permit (CUP) for a motor vehicle fueling station and food service establishment

LOCATION: 911 N. Main Street (Ketchum, AM Lot 5A, Block 30)

ZONING: Light Industrial District Number 1 (LI-1)

NOTICE: Property owners within 300 foot radius of subject property were mailed notice on May, 16, 2016. A public hearing notice was published in the Legal Notices of the Idaho Mountain Express on May 25, 2016. Notice was posted on the subject property and in three public City locations on May, 17, 2016. Continuation of the hearing to June 27, 2016 was announced during the June 13, 2016 hearing.

REVIEWER: Brittany Skelton, Associate Planner

INTRODUCTION

The applicant is requesting a Conditional Use Permit (CUP) to allow redevelopment of 911 N. Main for a motor vehicle fueling station and a food service establishment. Motor vehicle fueling stations and food service (subject to limitations on hours of operation and size) are only allowed in the LI-1 District if a Conditional Use Permit (CUP) is approved. The Planning and Zoning Commission (Commission) has complete discretionary authority to approve, deny, or conditionally approve either use (fueling station or restaurant) or approve,

deny, or conditionally approve both uses on the site, basing the decision upon findings of fact.

During the hearing on June 13, 2016 the Commission motioned to continue the hearing to June 27, 2016 and directed the applicant to submit additional studies and information. City departments have also requested additional information from the applicant. Additional information requested is summarized below:

Directives from the Commission

1. Produce a pedestrian study.
    a. Address the locations of all proposed crosswalks.
    b. Address the rapid flashing beacon.
    c. Address whether a different/additional location for a crosswalk may be better or feasible (across Main Street at Frenchman's, for example).
2. Obtain traffic counts at 10th Street/Main Street intersection in order to corroborate the 2008 data in the traffic study already conducted. If the traffic engineer wants to make the case that the need for new data is superfluous, and submits a narrative explaining why, that would be acceptable. However, the request for current data at the 10th Street/Main Street intersection is driven by public comment and providing this data also serves the purpose of addressing public concern, so obtaining the new counts is recommended.
3. Address the projected makeup of vehicles that will be using the gas station.
    a. What percentage will be oversized vehicles (RVs, construction trailers, et cetera)?
        i. Address how the proportion of oversized vehicles impacts the amount of vehicles that can queue in the turn lane.
    b. Address potential back-up of northbound traffic lining up to make a left turn into the gas station and the implications of exceeding the length of the turn lane (e.g. traffic backed up further south than the turn lane extends).
4. Obtain the Idaho Transportation Department (ITD)'s approval for the Frenchman's Place connector sidewalk.
5. Address the potential for northbound (left) and southbound (right) turn lanes on 10th Street to facilitate left and right turns onto Main Street.
    a. Look at whether the corner of 10th and Main could be softened to allow a less sharp angle when turning southbound (right).

Staff directives

1. Provide a conceptual drainage plan that indicates the site has the capacity to retain all stormwater.
2. Indicate Frenchman's connector sidewalk on site plan and landscape and civil plans to the same level of detail as the already proposed sidewalks have been shown on those plans.
3. Provide photometric data for proposed site lighting, including canopy.
4. Provide a copy of Idaho Department of Environmental Quality (DEQ) /and Environmental Protection Agency (EPA) regulations for gas stations.

The applicant has since submitted a Photometric Plan, based on proposed lighting, a copy of the Idaho Department of Environmental Quality's Rules Regulating Underground Storage Tank Systems, and the complete Traffic Impact Study (64 p.) that was prepared for the proposed development, dated May 2016; an abbreviated summary of the study (7 p.) was previously submitted and was included in the June 13, 2016 staff report. However, the applicant has requested additional time to prepare and submit the entirety of new information that was requested. As such, staff recommends continuing the public hearing to the July 11, 2016 Commission meeting.

The definition of motor vehicle fueling stations permits retail sales of items of convenience to the motoring public. For the conditional use permit requested by North Town Partners LLP and the hearing on June 13, 2016 city staff prepared the following report that addresses the implications of these uses on the proposed location and recommendations for how the Planning and Zoning Commission may mitigate impacts.

The report below does not contain any new analysis; new analysis will be conducted after receipt of new information submitted by the applicant and will be included in the staff report for the meeting that the hearing is continued to. However, new public comments received June 14, 2016 through June 22, 2016 as well as the complete Traffic Impact Study (64 p.), dated May 2016, the Photometric Plan, and the Idaho Department of Environmental Quality's Rules Regulating Underground Storage Tank Systems, are attached to this staff report.

Current Report

The location proposed for a motor vehicle fueling station and food service establishment is located on Lot 5A, Block 30, Ketchum Townsite, otherwise known as 911 N. Main Street. Three buildings currently exist on the site that are proposed to be substantially altered or removed for the project. Building "A" is the northernmost building, "B" is located in the center, and "C" is the southernmost building. The applicant proposes to partially demolish building "B" and to remodel and add an addition and a trellis patio to the remaining portion of the building. The applicant is also proposing to construct a canopy structure associated with the motor vehicle fueling station. The applicant is proposing to entirely demolish buildings "A" and "C" along with installing sidewalks, crosswalks, landscaping, lighting, parking, and drainage improvements to accommodate the development. The site does not meet city standards for the current or proposed development and would require significant upgrades for the proposed project if the Planning and Zoning Commission determines a conditional use permit can be approved.

All city departments completed their review of the applicant's request and the analysis below, based on the plans as submitted for the June 13, 2016 Planning and Zoning meeting, reflect their comments and concerns. No new analysis has been included in this staff report; new analysis will be completed after receipt of all additional information requested by the Commission and staff and will be included in the staff report prepared for the date the June 27, 2016 hearing is continued to. Attachment A. summarizes comments from all departments on the proposed development. Attachment B summarizes how the project complies with the Zoning Ordinance standards.

Currently there are three fueling stations in the LI District, two restaurants, and one food mart to service the area. The Commission must decide if the proposed uses are appropriate for the site and location and if the uses are necessary to serve the LI district.

Analysis

The Planning and Zoning Commission must determine if a Conditional Use Permit can be approved for the fueling station and restaurant proposed for the LI-1 district. According to the Zoning Ordinance, conditional uses by definition possess characteristics that require review and appraisal by the Commission to determine whether or not the use would cause any public health, safety or welfare concerns. Conditional uses may only be allowed if the Commission determines there would be no impact to the public health, safety and welfare of the community.

A conditional use permit may be granted by the commission only if the applicant demonstrates that:

- The characteristics of the conditional use will not be unreasonably incompatible with the types of uses permitted in the applicable zoning district;
- The conditional use will not materially endanger the health, safety and welfare of the community;

- The conditional use is such that pedestrian and vehicular traffic associated with the use will not be hazardous or conflict with existing and anticipated traffic in the neighborhood;
- The conditional use will be supported by adequate public facilities or services and will not adversely affect public services to the surrounding area, or conditions can be established to mitigate adverse impacts;
- The conditional use is not in conflict with the policies of the comprehensive plan or the basic purposes of the Zoning Ordinance.

Should the Commission agree a CUP can be approved, they may attach additional conditions to the application approval as it determines necessary in order to make the uses more compatible with the vicinity and adjoining uses, mitigate impacts, and allow for health, safety and welfare. Such conditions may include, but are not limited to:

A. Minimizing adverse impact on other development.
B. Controlling the sequence and timing of development.
C. Controlling the duration of development.
D. Assuring that development is maintained properly.
E. Designating the exact location and nature of development.
F. Requiring the provision for on site or off site public facilities or services.
G. Requiring more restrictive standards than those generally required in an ordinance.
H. Requiring mitigation of effects of the proposed development upon service delivery by any political subdivision, including school districts, providing services within the city. (Ord. 1135, 2015)

STAFF RECOMMENDATION

Staff recommends continuing the hearing for this application until July 11, 2016 so that the application can be considered in light of receipt and review of the additional information and studies that have been requested.

COMMISSION OPTIONS

1. **Continuation of the Application**: "Motion to continue the application from North Town Partners LLP to a date certain of [insert date of meeting]."

RECOMMENDED CONDITIONS

1. N/A at this time; conditions will be recommended with the staff report prepared for the next meeting which the hearing is continued to.

ATTACHMENTS:

A. Table 1: Requirements for All Applications
B. Table 2: Zoning Standards Analysis
C. Table 3: Conditional Use Permit Requirements
D. Table 4: Required Public Improvements
E. Table 5: Recommended Additional Public Improvements
F. Aerial Site Plan
G. Table 6: Summary of Public Comments Received, June 14, 2016 through June 22, 2016
H. Application
I. Plans as submitted for the June 13, 2016 meeting
J. Public Comments received June 14, 2016 through June 22, 2016
K. Traffic Impact Study, complete (64 p.), dated May 2016
L. Idaho Department of Environmental Quality's Rules Regulating Underground Storage Tank Systems
M. Photometric Plan – Proposed Lighting

Attachment A

Table 1: Requirements for All Applications

General Requirements for All Applications				
Compliant			**Standards and Staff Comments**	
Yes	**No**	**N/A**	**City Code**	**City Standards and *Staff Comments***
☒	☐	☐	**17.116.040(A)**	**Complete Application**
☐	☒	☐	**Department and Boards/ Commissions Comments**	**Public Works:** 1. The configuration of the sidewalk design creates a challenge for the City's snow removal operations. If the project is approved, a condition of approval should require the owner to remove the snow to the west of the valley gutter and the snow may not be placed back out in the roadway. **2.** The property owner will need to maintain the landscaping in the right-of-way, according to ITD standards.
				Fire Department: 1. The project shall meet all 2012 International Fire Code requirements in addition to specific City Building and Fire Ordinances. 2. An approved fire detection system shall be installed per City of Ketchum Ordinance #1125 ***(www.ketchumfire.org)*** and the requirements of NFPA 72. Two (2) sets of alarm system plans shall be submitted to the Ketchum Fire Department for approval and a permit is required prior to installation of alarm systems. Inspections of fire detection systems by the Fire Chief or an appointee are required and shall be scheduled at least 48 hours in advance. 3. An approved access roadway per 2012 International Fire Code Appendix D ***(www.ketchumfire.org)*** shall be installed prior to any combustible construction on the site. The road shall be a minimum of twenty (20) feet in width and capable of supporting an imposed load of at least 75,000 pounds. The road must be an all weather driving surface maintained free, clear, and unobstructed at all times. 4. Fire extinguishers shall be installed and maintained per 2012 IFC Section 906 both during construction and upon occupancy of the building. 5. An approved key box shall be installed, with the appropriate keys, for emergency fire department access in a location approved by the fire department. The key box shall be a Knox box brand and sized to accommodate keys to every door of the project. 6. The underground fuel tanks will be installed and tested following the 2012 International Fire Code, Sections 5704.2.11 through Section 5704.2.12.2. 7. Motor fuel dispensing stations will be installed following the 2012 International Fire Code, Section 2306.7 through Section 2306.7.7.2. 8. The Liquefied Petroleum Gas fuel dispensing will be installed following the 2012 International Fire Code, Section 2307.1 through Section 2307.7

				Building: • Building plans must meet 2012 International Building Code.
				Police Department: • No comment.
				Utilities: • No comment.
				Parks/Arborist: 1. The owner shall maintain the landscaping in the right-of-way, which is managed by ITD. 2. The southeastern-most Abies lasiocarpa is in close proximity to the overhead transmission line, substitute a more hardy bristlecone pine. 3. The other species are good and the diversity and placement are appreciated. 4. Staff recommends retaining the tree that is adjacent to the existing power pole in the right-of-way on Main Street if ITD will allow it.

Attachment B

Table 2: Zoning Standards Analysis

Compliance with Zoning Standards				
Compliant			**Standards and Staff Comments**	
Yes	**No**	**N/A**	**Guideline**	**City Standards and *Staff Comments***
☒	☐	☐	**17.12.030.C**	**Lot Area**
			Staff Comments	*8,000 square feet minimum is required. The lot is 0.4267 acres or 18,590 square feet.*
☒	☐	☐	**17.12.030.C & 17.128.020.C**	**Setbacks and Supplementary Yard Requirements**
			Staff Comments	*Buildings "A" and "C" currently have non-conforming setbacks on the front (eastern) property line. Building "B" currently conforms to setbacks. The applicant is proposing to demolish buildings "A" and "C" and to build an addition to building "B" which will result in a site with structures that meet setback requirements.* *Proposed Front (north – 10th Street) –20'* *Proposed Side (east – Main Street) – 13–'4"* *Proposed Rear – (west 0 alley) – 0'* *The proposed setbacks meet setback requirements.*
☒	☐	☐	**17.12.030.C**	**Building Coverage**
			Staff Comments	*Permitted - 75% Proposed – 13%*
☒	☐	☐	**17.12.030.C**	**Building Height**
			Staff Comments	*Maximum building height permitted is 35'; the existing buildings are 13'-8" above grade on Main Street and 24'-8" above grade on 10th Street; the proposed addition to building "B" is 13'-8" above grade on Main Street and 24-8" above grade on 10th Street. The proposed canopy is 18' above grade on Main Street and 20' above grade from 10th Street at the eastern edge of the structure and 24' above grade from 10th Street at the western edge of the structure.*
☒	☐	☐	**17.125.030.H**	**Curb Cut**
			Staff Comments	*A maximum of thirty five percent (35%) of the linear footage of any street frontage can be devoted to access off street parking.* *The curb cut design was recommended by ITD is 84' (40' entrance, 4' island, 4' exit) in width, which equates to 30.6% of the linear footage frontage of the lot. (The linear footage of lot frontage is 273.97'.)*
☒	☐	☐	**17.124.060.M**	**Parking Spaces**
			Staff Comments	*Required:* *The off street parking standards apply when an existing structure or use is expanded or enlarged. Additional off street parking spaces shall be required only to serve the enlarged or expanded area, not the entire building or use.* *2 spaces per fuel pump at fuel pump; 4 pumps require 8 spaces.* *1 space per 250 square feet retail;* *1 space per 250 square feet restaurant*

				There is a 508 square foot addition to the existing 2,084 square foot building proposed; 3 spaces are required. *Proposed:* *8 for temporary holding at the fuel pumps* *12 to serve retail/restaurant (4 spaces are lower level accessed from 10th Street)* *2 at vehicle charging station* *There are 4 additional lower level parking spaces accessed from 10th Street to serve the existing uses.*
☒	☐	☐	**17.125.050**	**Off Street Parking and Loading Areas**
				In the LI-1, LI-2 and LI-3 districts, off street loading areas (containing 180 square feet with no 1 dimension less than 10 feet) shall be required as an accessory use for new construction or major additions involving an increase in floor area, as follows: One off street loading space for floor area in excess of two thousand (2,000) square feet, provided no loading space occupies any part of a public street, alley, driveway or sidewalk; except, that where practicable to do so, an alley may be used in lieu of the requirement of this section if prior permission is granted by the commission. *The project consists of 2,592 square feet and 2 off-street loading spaces are required. The minimum size of an off-street loading space is 10' x 18'; the site plan indicates 1 off-street loading space 14' x 55' which exceeds the dimensions of 3 contiguous off-street loading spaces 10' x 18' in size.*
☒	☐	☐	***17.12.020 & 17.08.020***	**Zoning Matrix & Definitions**
				Definitions: Motor Vehicle Fueling Station - A facility providing the retail sale and direct delivery to motor vehicles of fuel, including electric charging stations, lubricants and minor accessories, and retail sales for the convenience of the motoring public. *Food Service - An establishment where food and drink are prepared, served and consumed on site with associated outdoor dining, or distributed to customers through take out, delivery or catering. Typical uses include, but are not limited to restaurants, cafes, delis, catering services and brewpubs that do not distribute beer produced for off-site consumption.* *Footnote #15. Catering and food preparation is permitted. Restaurants require a conditional use permit and shall not exceed 1,000 square feet and serve no later than 9:00 P.M. unless expressly permitted through approval of the conditional use permit.* *Motor Vehicle Fueling Stations are allowed in the LI-1 zone with a Conditional Use Permit. The applicant is proposing a motor vehicle fueling station with 4 fuel pumps, two electric vehicle charging stations, and retail sales for the convenience of the motoring public. Food Service is allowed in the LI-1 zone with a Conditional Use Permit when the conditions described in footnote #15 are adhered to.*

				The applicant is proposing to remodel the existing building, consisting of 2,084 square feet, and to add an addition of 508 square feet and an attached outdoor patio area with seating. The applicant is proposing to utilize the remodeled and expanded building for a retail store associated with the motor vehicle fueling station and for a deli service restaurant. The site plan indicates a food service area of 280 square feet. The Commission may approve operation of the restaurant past 9:00 p.m. through a conditional use permit.

Attachment C

Table 3: Conditional Use Permit Requirements

Conditional Use Requirements

1. EVALUATION STANDARDS: 17.116.030 and § 67-6512 of Idaho Code

A conditional use permit shall be granted by the commission only if the applicant demonstrates that:

Compliance and Analysis				
Yes	**No**	**N/A**	**Code**	**City Standards and *Staff Comments***
☒	☐	☐	**17.116.030(A) CONDITIONAL USE**	**The characteristics of the conditional use will not be unreasonably incompatible with the types of uses permitted in the applicable zoning district.**
			Staff Comments	*The LI-1 district allows for one of the widest varieties of uses in the zoning code use matrix; uses ranging from manufacturing to personal service to warehousing and wholesaling to automotive uses are permitted. The LI-1 and LI-2 districts are the only districts that permit motor vehicle fueling stations within the City of Ketchum.* *The proposed uses of a motor vehicle fueling station with associated food service are compatible with the types of uses already permitted in the LI-1 district.*
☒	☐	☐	**17.116.030(B)**	**The conditional use will not materially endanger the health, safety and welfare of the community.**
			Staff Comments	*As analyzed in the Proposed Public Improvements table, pedestrian and vehicular safety and welfare concerns could be addressed by the sidewalks, crosswalks, rapid flashing beacon, turning lane, and reduced curb cut width proposed by the applicant.* *As noted by the Fire Department, the underground fueling tanks and fueling stations must be constructed to meet applicable Fire Code. Additionally, federal environmental standards for the construction of fuel storage tanks and operation of fuel pumps will have to be met.*
☒	☐	☐	**17.116.030(C)**	**The conditional use is such that pedestrian and vehicular traffic associated with the use will not be hazardous or conflict with existing and anticipated traffic in the neighborhood.**
			Staff Comments	*The applicant has submitted a Traffic Study prepared by Hales Engineering and has proposed the pedestrian and vehicular improvements described in the Analysis of Proposed Public Improvements table. The Public Works department reviewed and commented on the proposed improvements. The pedestrian and vehicular improvements proposed by the applicant, along with the additional sidewalk extension proposed by staff, could mitigate potential conflicts to pedestrian and vehicular traffic associated with the proposed uses.*
☒	☐	☐	**17.116.030(D)**	**The conditional use will be supported by adequate public facilities or services and will not adversely affect public services to the surrounding area or conditions can be established to mitigate adverse impacts.**

			Staff Comments	*The two uses for consideration in this application may not adversely affect public services to the surrounding area due to the proposed pedestrian and vehicular public improvements.*
☐	☒	☐	**17.116.030(E)**	**The conditional use is not in conflict with the policies of the Comprehensive Plan or the basic purposes of this Section.**
			Staff Comments	*The Comprehensive Plan designates the property for mixed-industrial use. Primary uses specified include Light manufacturing, wholesale, services, automotive, workshops, studios, research, storage, construction supply, distribution and offices make up the bulk of development within this district. Secondary uses specified include A limited range of residential housing types, and supporting retail are provided for within this category. Uses should generate little traffic from tourists and the general public.* *As such, the proposed motor vehicle fueling station and food service are generally consistent with the Comprehensive Plan. However, the use proposed will generate additional traffic from both the public and visiting tourists. This is conflict between the Comprehensive Plan and the zoning code, which conditionally allows for this use in the LI-1 and LI-2 zones.* *Further, the introduction of a new fueling station and restaurant into the LI-1 District is a discretionary decision. There are currently three fueling stations in the LI District, two restaurants, and one food mart to service the area. The Commission must decide if the uses proposed are appropriate for the site and the location and are necessary to serve the LI district.*

Attachment D

All developments are required to install a minimum amount of public infrastructure, however conditional uses may be required to contribute more than the minimum due to the nature of the use and projected impacts. The following table represents the public improvements as proposed by the applicant.

Table 4: Required Public Improvements

Analysis of Proposed Public Improvements	
Public Improvement	**Description**
Main Street – Sidewalk and Landscaping	The existing buildings "A" and "C" currently have a 0' setback from Main Street/Hwy 75. There is no defined curb cut on Main Street and the entire frontage is utilized for vehicular egress to the site and parking. No sidewalk currently exists. The applicant is proposing to construct a new 8' sidewalk and landscaping in the right-of-way adjacent to Main Street spanning the entire property frontage. The applicant proposes to maintain the landscaping.
Main Street – Turn Lane	The applicant retained Hales Engineering to prepare a traffic study for the proposed use and redevelopment of the site. The traffic study recommended constructing a new turn lane on Main Street to facilitate vehicular access to the site. The applicant is proposing to construct the turn lane and staff has accepted the design. An existing valley gutter on the eastern side of Main Street/Hwy 75 across from the southern end of the site prevents the turn lane from extending further south. Circulation at the 10th Street intersection prevents the turn lane from extending further north.
10th Street - Sidewalk	There is not currently a sidewalk on the 10th Street frontage of the site. The applicant is proposing to construct a 5' paved sidewalk in the right-of-way adjacent to the property for the length of the property frontage on 10th Street.
10th Street - Staircase	The applicant is proposing to construct a new staircase at the western property corner that will provide access to the sidewalk that will be constructed on 10th Street.

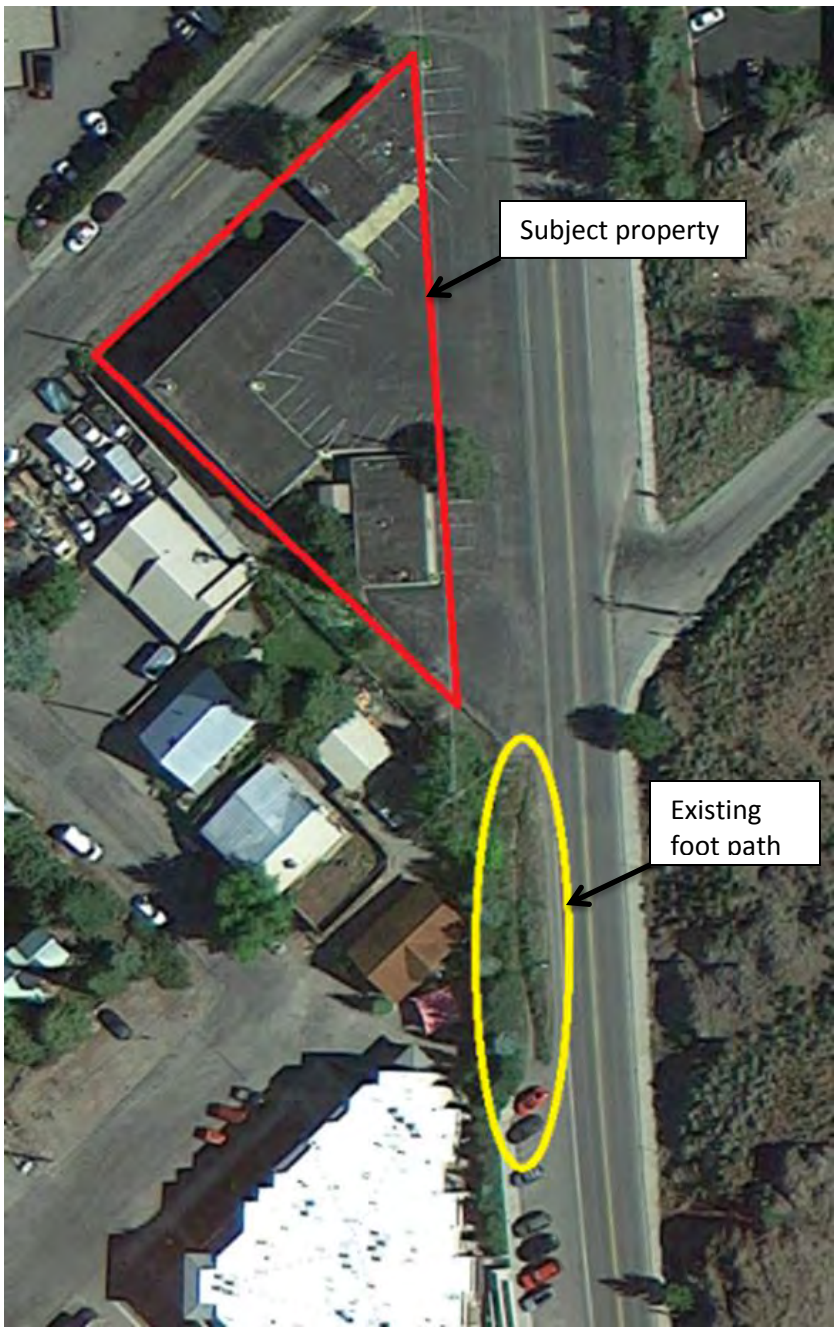
In addition to the public improvement the applicant is proposing in the table above, staff has identified several other necessary public improvements that are required to mitigate negative impacts of the proposed development. Staff recommends the following improvements as a minimum and other improvements or conditions may be appropriate or discovery through the public process.

Attachment E

Table 5: Recommended Additional Public Improvements

Recommended Public Improvements to Mitigate Impacts of Development	
Public Improvement	**Description**
Main Street – Pedestrian Crosswalk	Staff is recommending the applicant to construct a painted pedestrian crosswalk across Main Street/Hwy 75 at the southeast corner of the site. The crosswalk will include a new ADA compliant ramp to provide access to the sidewalk at the southeast corner of the site and will utilize an existing ramp on the opposite side of Main Street/Hwy 75.
Main Street – Rapid Flashing Beacon at Crosswalk	Staff is recommending the applicant to install a rapid flashing beacon at the Main Street/Hwy 75 crosswalk. The rapid flashing beacon will contain sensors that can be activated by pedestrians seeking to use cross.
10th Street – Pedestrian Crosswalk	Staff is recommending a painted pedestrian crosswalk across 10th Street at the intersection of 10th Street and Main Street/HWY 75.
Main Street Sidewalk Extension	Staff recommends extending the 6' sidewalk on Main Street an additional 175' in length (approximately) to connect to the existing public sidewalk located adjacent to the Frenchmen's Place condominium development. There is not currently a sidewalk connecting the two properties but there is an informally created and well-worn pedestrian foot path; the new uses proposed for the site will generate additional pedestrian trips and a 6', paved, and ADA compliant sidewalk is recommended for safety purposes. See Attachment F.

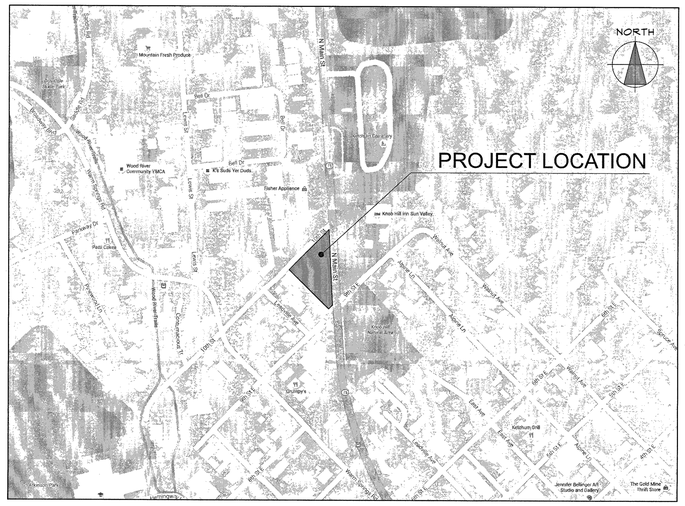
Attachment F.



Attachment G.

Table 6: Summary of Public Comments Received June 14, 2016 through June 22, 2016

Public Comments Analysis
Implications for community character – A concern was expressed about the visual impact the gas station will have on Main Street when juxtaposed against the mountains, about the visual impact of the rapid flashing beacon as well.



BRACKEN STATION

A CONDITIONAL USE PERMIT / DESIGN REVIEW APPLICATION
FOR:
A MOTOR VEHICLE FUELING STATION
LOT 5A / BLK 30 / ZONE LI-1

LOCATOR MAP

SITE PHOTO

DRAWING INDEX	
A.0	COVER PAGE.
A.1	EXISTING SITE PLAN. 1"= 10'
A.2	PROPOSED SITE PLAN. 1"= 10'
A.3	10TH STREET VIEW: EXISTING AND PROPOSED. 1/8"= 1'
A.4	ALLEY VIEW: EXISTING AND PROPOSED. 1/8"= 1'
A.5	STORE FRONT ELEVATION AND FLOOR PLANS WITH AREA SQ. FOOTAGE CALCULATIONS. 1/4"= 1'
A.6	ENLARGED VIEW - ALLEY RETAINING WALLS. 1/4"= 1'
C.1	SITE SURVEY.
C.2	CIVIL ACCESS PLAN TO HWY 75.
L.1.0	LANDSCAPE PLAN.
	COMPUTER GENERATED MODELS: • NORTH VIEW – BEFORE / AFTER • SOUTH VIEW – BEFORE / AFTER • NORTH ENLARGED VIEW • SOUTH ENLARGED VIEW

GENERAL CONTRACTOR AND ALL SUBCONTRACTORS TO ASSURE ALL WORK CONFORMS TO NATIONAL, STATE, AND LOCAL CODES THAT APPLY TO THIS PROJECT. WHEN INCONSISTENCIES EXIST BETWEEN DRAWINGS OR SPECS. AND APPLICABLE CODE REQUIREMENTS, CONFORMANCE TO ALL CODES SHALL HAVE PRECEDENCE OVER DRAWINGS AND SPECS.

STEVE R. COOK, ARCHITECT
323 SOUTH LEWIS ST. SUITE H, P.O. BOX 680, KETCHUM ID, 83340
PH#: (208) 725-5566
FX#: (208) 725-5568
■ ■ ■ MEMBER AMERICAN INSTITUTE OF ARCHITECTS ■ ■ ■

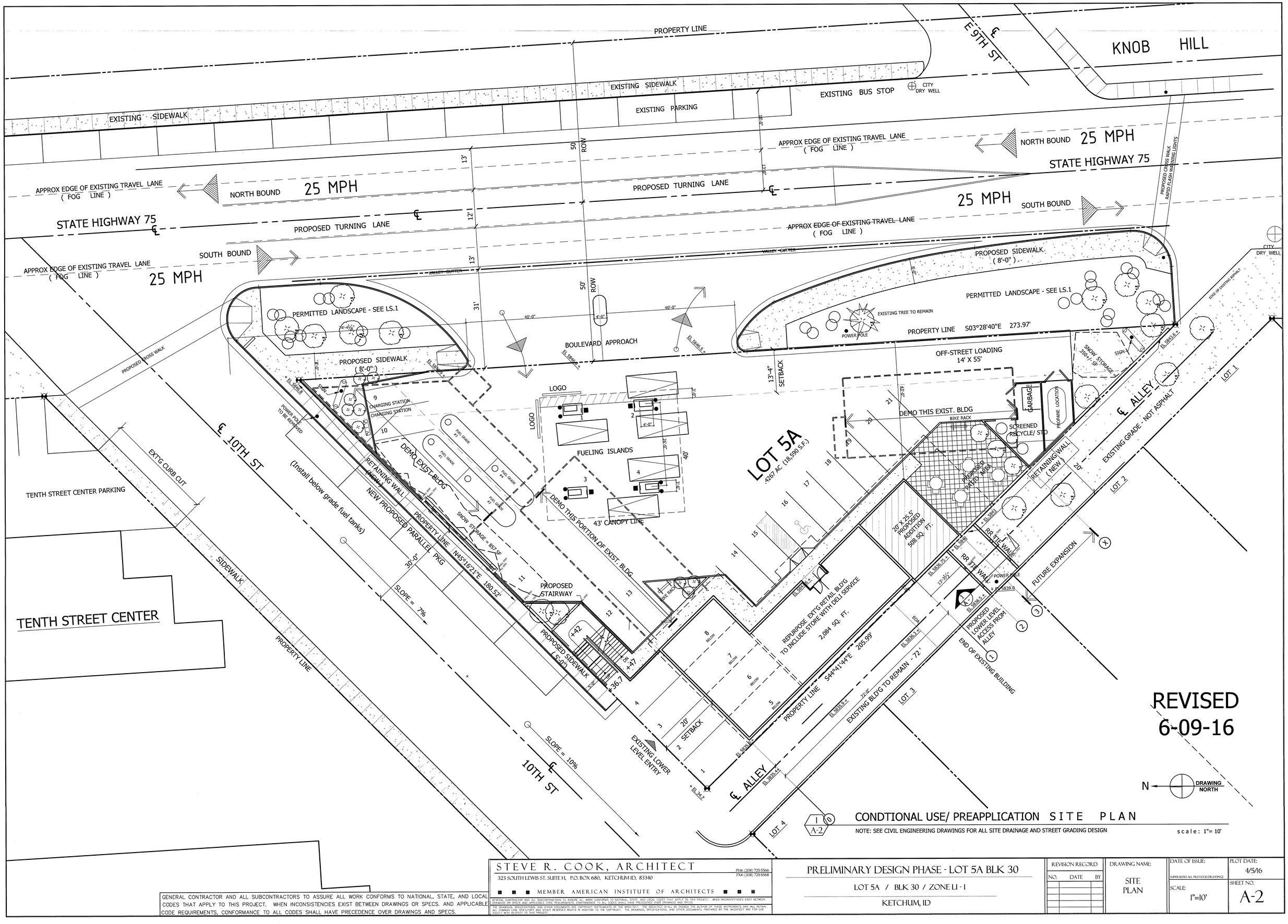
GENERAL CONTRACTOR AND ALL SUBCONTRACTORS TO ASSURE ALL WORK CONFORMS TO NATIONAL, STATE, AND LOCAL CODES THAT APPLY TO THIS PROJECT. WHEN INCONSISTENCIES EXIST BETWEEN DRAWINGS OR SPECS AND APPLICABLE CODE REQUIREMENTS CONFORMANCE TO ALL CODES SHALL HAVE PRECEDENCE OVER DRAWINGS AND SPECS.

[illegible] - LOT 5A BLK 30
LOT 5A / BLK 30 / ZONE LI - 1
KETCHUM, ID

REVISION RECORD		
NO.	DATE	BY

DRAWING NAME:	COVER PAGE
DATE OF ISSUE:	5,23,16
	SUPERSEDES ALL PREVIOUS DRAWINGS
PLOT DATE:	4/27/16
SCALE:	NONE
SHEET NO.	A.0


THE BRACKEN STATION
LOT 5A, BLOCK 30, ZONE LI-1
KETCHUM · IDAHO
STEVE R. COOK, ARCHITECT
323 SOUTH LEWIS ST, SUITE H, P.O. BOX 680, KETCHUM, ID, 83340
MEMBER AMERICAN INSTITUTE OF ARCHITECTS
REVISION RECORD
NO. DATE BY
DRAWING NAME: EXISTING SITE PLAN
SCALE: 1"=10'-0"
DATE OF ISSUE: 5.23.16
PLOT DATE:
SHEET NO. A·1
PROPERTY
EXISTING SIDEWALK
EXISTING PARALLEL PARKING
BUS STOP
9TH STREET
APPROX EDGE OF EXISTING TRAVEL LANE
50' ROW
STATE HIGHWAY 75
STATE HIGHWAY 75
APPROX EDGE OF EXISTING TRAVEL LANE
50' ROW
TRASH
PLANTER
S 3°9'9" E
273.97'
PARKING (ASPALT)
LOT 5A
BUILDING A (EXISTING FLAT ROOF)
BUILDING C (EXISTING FLAT ROOF)
PARKING AREA
I.T. SHED
ELEC METERS
GAS METER
WOOD DECK
BUILDING B (EXISTING FLAT ROOF)
SINGLE STORY
TWO (2) STORY
EXISTING PLANTINGS
RAILROAD TIE RETAINING WALL
ALLEY
LOT 1
LOT 2
LOT 3
LOT 4
SEWER
TOOL SHED
EXIST. BLDG
EXISTING BUILDINGS
EQUIPMENT STORAGE PARKING
20' SETBACK
PARKING (ASPHALT)
N 45°40'02" W
180.51'
PARKING
SLOPE
10TH STREET
UPPER ENTRANCE
LOWER ENTRANCE
CROSS DRAINAGE
TENTH STREET CENTER
GAS LINES



REVISED 6-09-16

CONDTIONAL USE/ PREAPPLICATION SITE PLAN

1 / A-2

NOTE: SEE CIVIL ENGINEERING DRAWINGS FOR ALL SITE DRAINAGE AND STREET GRADING DESIGN

scale: 1"= 10'

GENERAL CONTRACTOR AND ALL SUBCONTRACTORS TO ASSURE ALL WORK CONFORMS TO NATIONAL, STATE, AND LOCAL CODES THAT APPLY TO THIS PROJECT. WHEN INCONSISTENCIES EXIST BETWEEN DRAWINGS OR SPECS. AND APPLICABLE CODE REQUIREMENTS, CONFORMANCE TO ALL CODES SHALL HAVE PRECEDENCE OVER DRAWINGS AND SPECS.

STEVE R. COOK, ARCHITECT
323 SOUTH LEWIS ST. SUITE H, P.O. BOX 680, KETCHUM ID, 83340
PH#: (208) 725-5566
FX#: (208) 725-5568
MEMBER AMERICAN INSTITUTE OF ARCHITECTS

PRELIMINARY DESIGN PHASE - LOT 5A BLK 30

LOT 5A / BLK 30 / ZONE LI - 1

KETCHUM, ID

REVISION RECORD		
NO.	DATE	BY

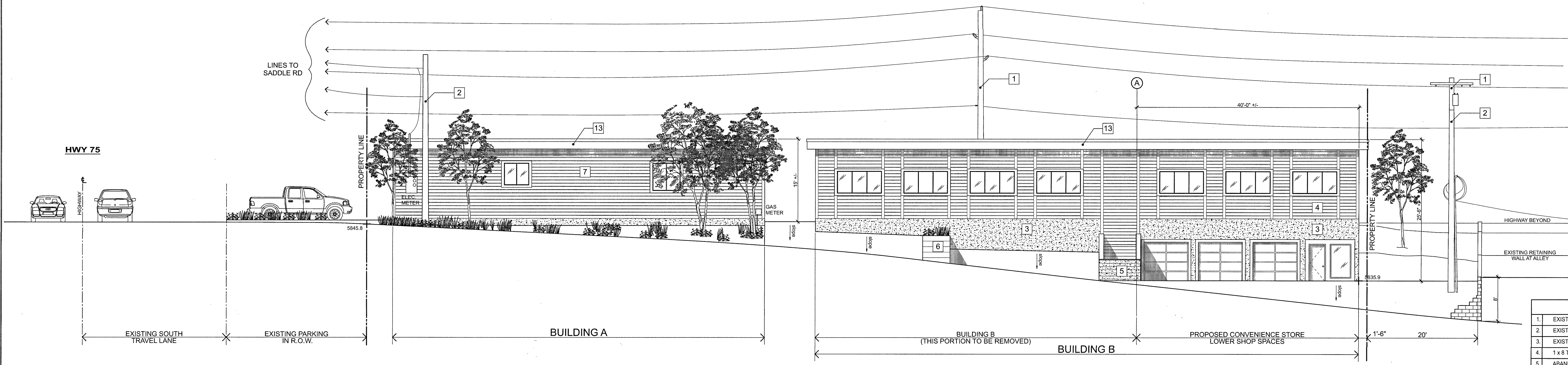
DRAWING NAME: SITE PLAN

DATE OF ISSUE: SUPERSEDES ALL PREVIOUS DRAWINGS

PLOT DATE: 4/5/16

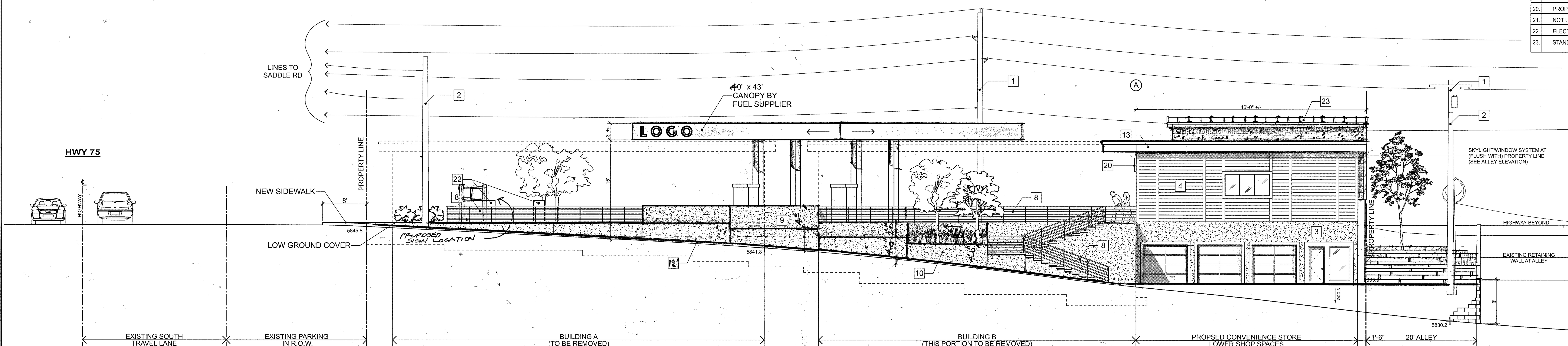
SCALE: 1"=10'

SHEET NO. A-2



1 EXISTING NORTH ELEVATION - 10th STREET VIEW
scale: 1/8"= 1'-0"

KEY INDEX	
1.	EXISTING POWER POLE- HWY 75.
2.	EXISTING POWER POLE- 10TH STREET/ALLEY.
3.	EXISTING CONC. WALL (MARINA GREY #1599).
4.	1 x 8 T&G WD SIDING (ROLLING HILLS #1497).
5.	ABANDONED STAIRWAY.
6.	ABANDONED RAILROAD PLANTER.
7.	EXISTING HORIZ. WOOD SIDING.
8.	NEW METAL GUARDRAIL/HANDRAIL- BLACK.
9.	NEW POURED-IN-PLACE RETAINING WALL- SANDBLAST (MARINA GREY STAIN).
10.	NEW STAIR - MID LANDING PLANTER.
11.	EXISTING RAILROAD RETAINING WALL AT ALLEY.
12.	PROPOSED SIDWALK.
13.	EXISTING FASCIA.
14.	MATCH EXISTING FASCIA.
15.	NEW SKYLIGHT.
16.	ELEC. METERS.
17.	RAIN GUTTER / DOWNSPOUT.
18.	ROOF DRAIN (INTERNAL).
19.	GAS METERS.
20.	PROPOSED SIGN.
21.	NOT USED.
22.	ELECTRIC CHARGING STATION(S).
23.	STANDING SEAM METAL ROOF SKYLIGHT.



2 PROPOSED NORTH ELEVATION - 10th STREET VIEW
scale: 1/8"= 1'-0"

GENERAL CONTRACTOR AND ALL SUBCONTRACTORS TO ASSURE ALL WORK CONFORMS TO NATIONAL, STATE, AND LOCAL CODES THAT APPLY TO THIS PROJECT. WHEN INCONSISTENCIES EXIST BETWEEN DRAWINGS OR SPECS. AND APPLICABLE CODE REQUIREMENTS, CONFORMANCE TO ALL CODES SHALL HAVE PRECEDENCE OVER DRAWINGS AND SPECS.

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PH#: (208) 725-5566
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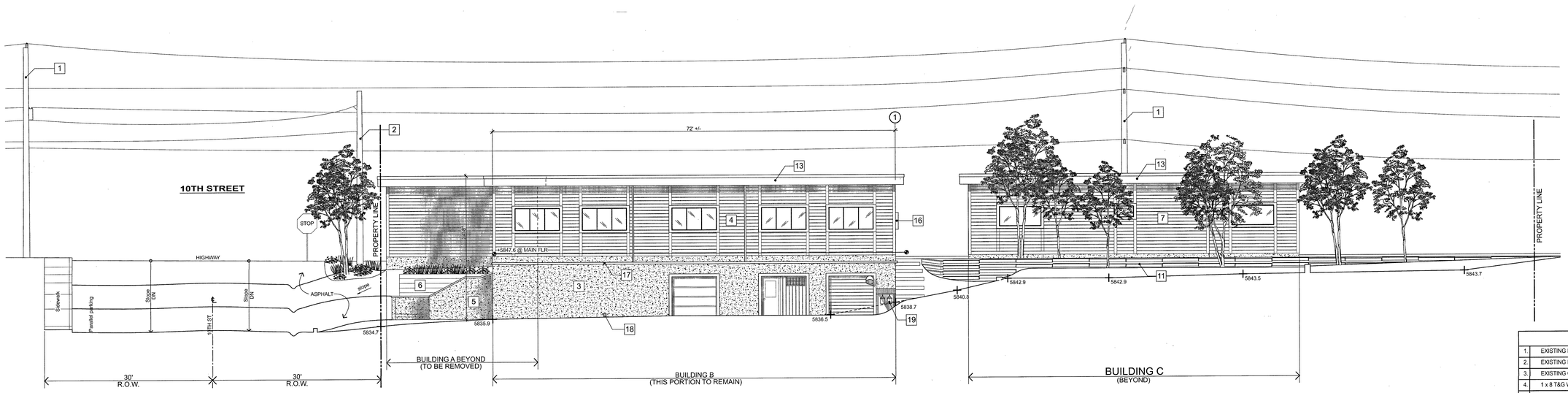
CUP APPLICATION AND DESIGN REVIEW – PRE-APP
LOT 5A / BLK 30 / ZONE LI - 1
KETCHUM, ID

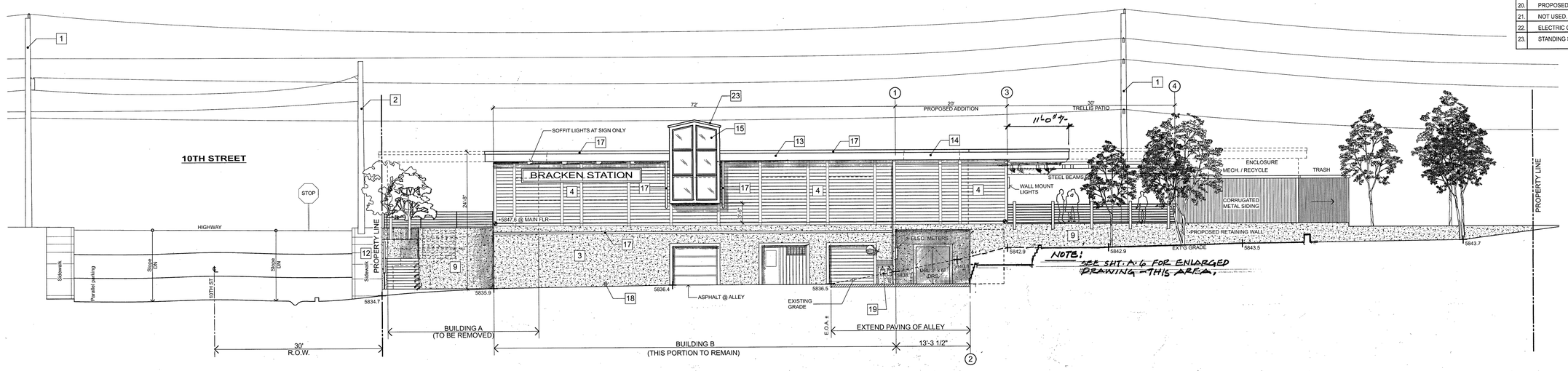
REVISION RECORD			DRAWING NAME:	DATE OF ISSUE:	PLOT DATE:
NO.	DATE	BY	EXTERIOR ELEVATIONS: NORTH	5.23.16 (SUPERSEDES ALL PREVIOUS DRAWINGS)	4/27/16
				SCALE: 1/8" = 1'-0"	SHEET NO. A.3

Shade / Shadow



1 EXISTING WEST ELEVATION - ALLEY VIEW

KEY INDEX	
1.	EXISTING POWER POLE- HWY 75.
2.	EXISTING POWER POLE- 10TH STREET/ALLEY.
3.	EXISTING CONC. WALL (MARINA GREY #1599).
4.	1 x 8 T&G WD SIDING (ROLLING HILLS #1497).
5.	ABANDONED STAIRWAY.
6.	ABANDONED RAILROAD PLANTER.
7.	EXISTING HORIZ. WOOD SIDING.
8.	NEW METAL GUARDRAIL/HANDRAIL- BLACK.
9.	NEW POURED-IN-PLACE RETAINING WALL- SANDBLAST (MARINA GREY STAIN).
10.	NEW STAIR - MID LANDING PLANTER.
11.	EXISTING RAILROAD RETAINING WALL AT ALLEY.
12.	PROPOSED SIDWALK.
13.	EXISTING FASCIA.
14.	MATCH EXISTING FASCIA.
15.	NEW SKYLIGHT.
16.	ELEC. METERS.
17.	RAIN GUTTER / DOWNSPOUT.
18.	ROOF DRAIN (INTERNAL).
19.	GAS METERS.
20.	PROPOSED SIGN.
21.	NOT USED.
22.	ELECTRIC CHARGING STATION(S).
23.	STANDING SEAM METAL ROOF SKYLIGHT.



2 PROPOSED WEST ELEVATION - ALLEY VIEW

scale: 1/8"= 1'-0"

GENERAL CONTRACTOR AND ALL SUBCONTRACTORS TO ASSURE ALL WORK CONFORMS TO NATIONAL, STATE, AND LOCAL CODES THAT APPLY TO THIS PROJECT. WHEN INCONSISTENCIES EXIST BETWEEN DRAWINGS OR SPECS. AND APPLICABLE CODE REQUIREMENTS, CONFORMANCE TO ALL CODES SHALL HAVE PRECEDENCE OVER DRAWINGS AND SPECS.

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PH#: (208) 725-5566
FX#: (208) 725-5568
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CUP APPLICATION - LOT 5A BLK 30
AND DESIGN REVIEW - PRE-APP
LOT 5A / BLK 30 / ZONE LI - 1
KETCHUM, ID

REVISION RECORD		
NO.	DATE	BY

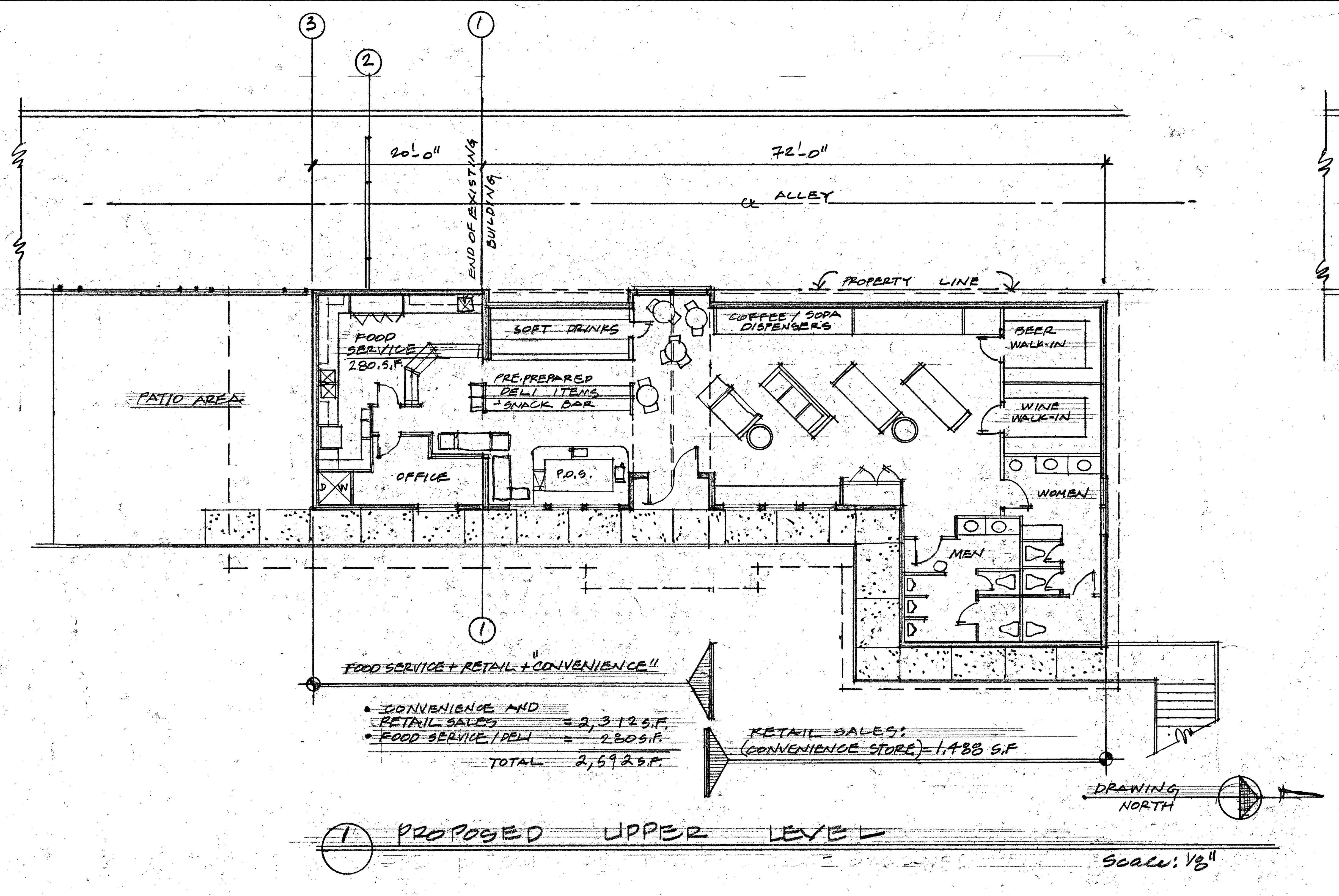
DRAWING NAME: EXTERIOR ELEVATIONS: WEST

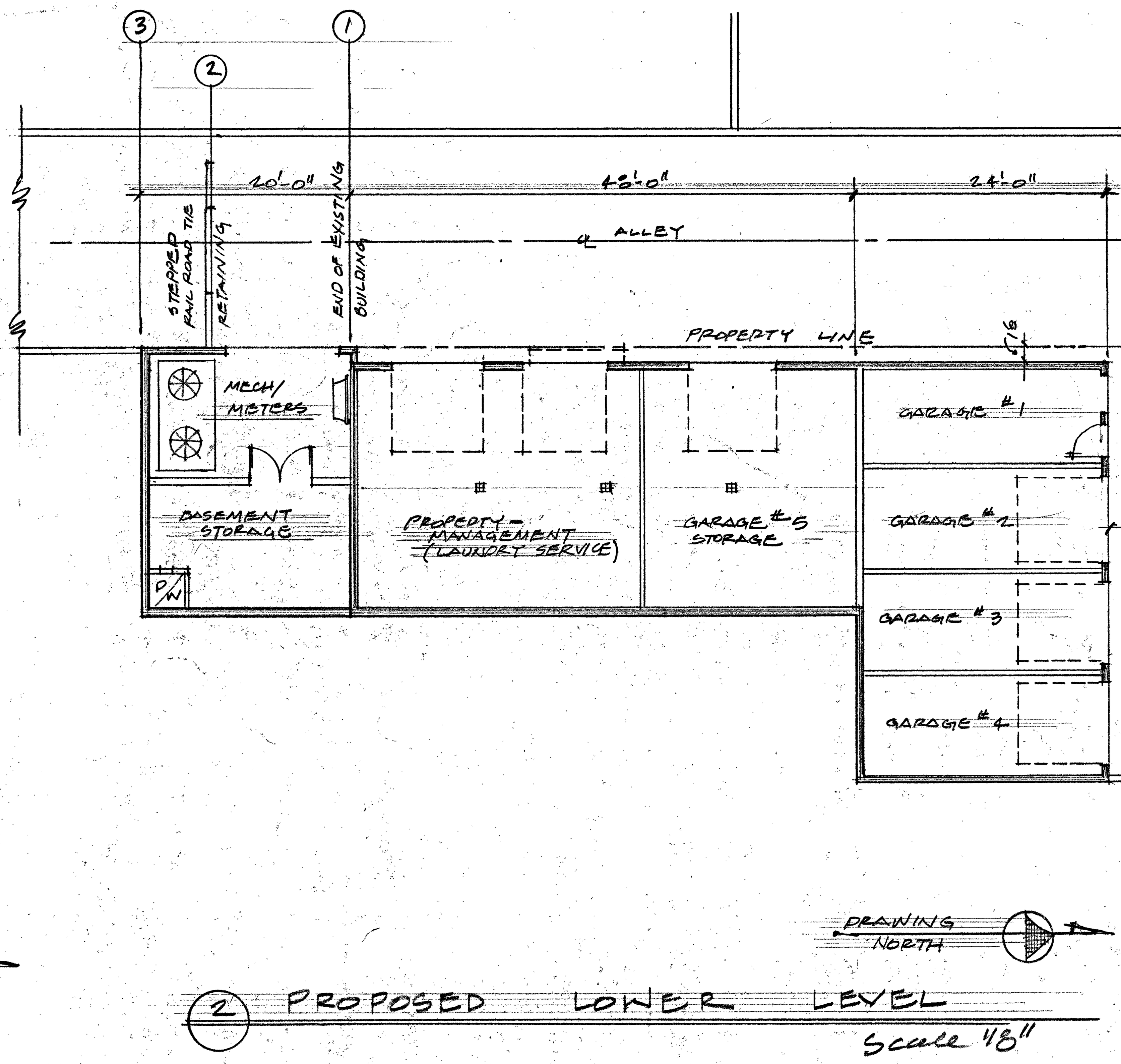
DATE OF ISSUE: 5.23.16
SUPERSEDES ALL PREVIOUS DRAWINGS

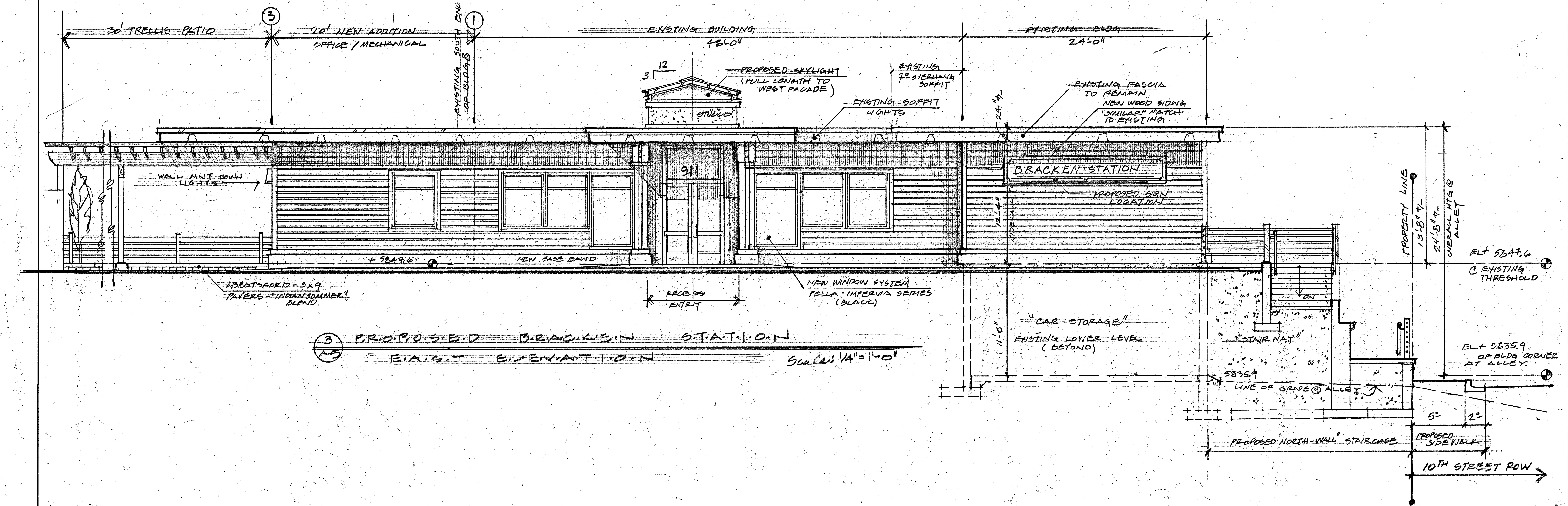
PLOT DATE: 4/27/16

SCALE: 1/8" = 1'-0"

SHEET NO. A.4







THE BRACKEN STATION
LOT 5A, BLK 30, L.I. 1
KETCHUM · IDAHO

STEVE R. COOK, ARCHITECT
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FAX (208) 725-5568
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REVISION RECORD

NO.	DATE	BY

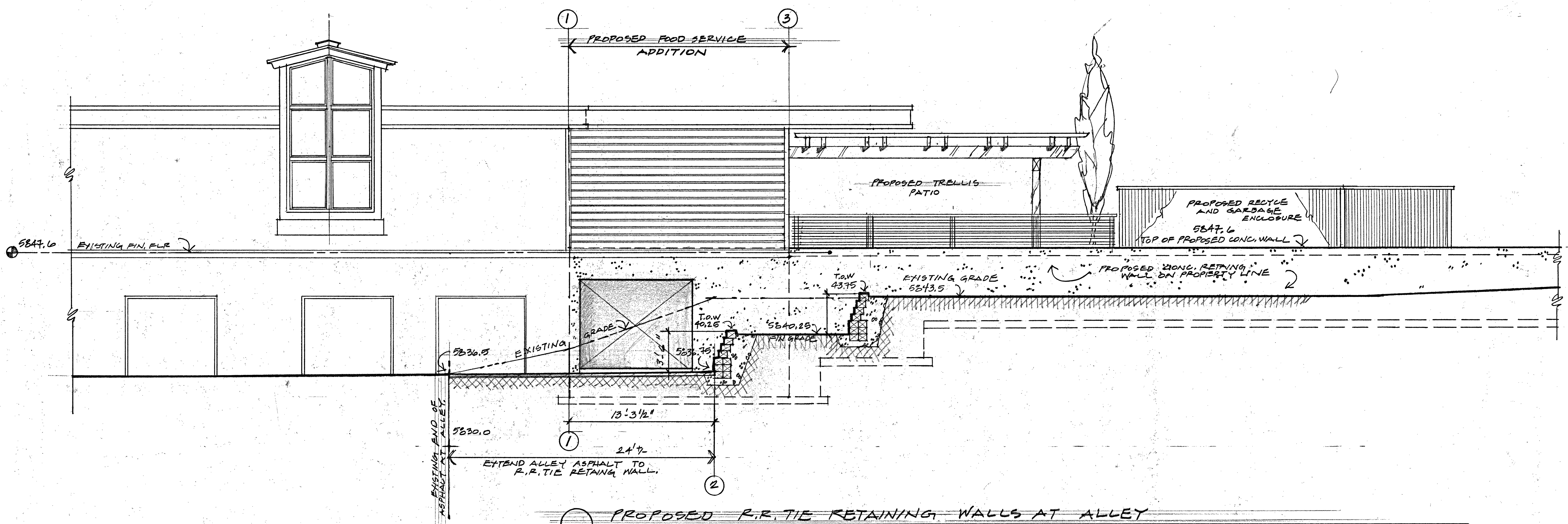
DRAWING NAME: PROPOSED FRONT ELEVATION

SCALE: 1/4" = 1'-0"

DATE OF ISSUE: 5.23.16

PLOT DATE:

SHEET NO. A·5



PROPOSED R.R. TIE RETAINING WALLS AT ALLEY

Scale: 1/4"=1'-0"

BRACKEN STATION
LOT 5A - BLK 30
KETCHUM, IDAHO
CUP APPLICATION AND
DESIGN REVIEW - PRE-APP

STEVE R. COOK, ARCHITECT
323 SOUTH LEWIS ST. SUITE H, P.O. BOX 680, KETCHUM ID, 83340
PH: (208) 725-5566
FAX: (208) 725-5568
MEMBER AMERICAN INSTITUTE OF ARCHITECTS

REVISION RECORD

NO.	DATE	BY

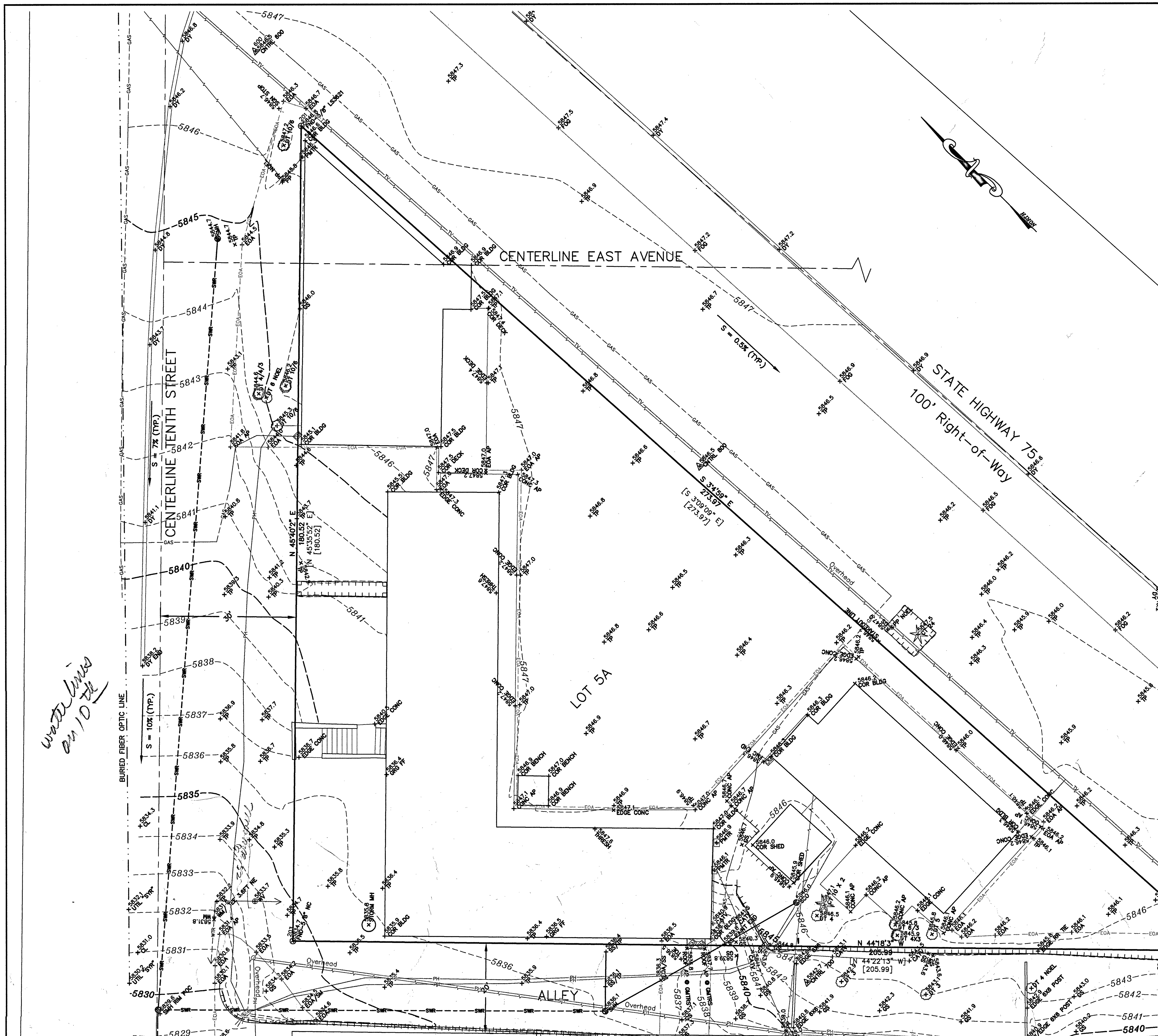
DRAWING NAME: ALLEY R.R. TIE RETAINING WALLS

SCALE: 1/4"=1'-0"

DATE OF ISSUE: 5. 23. 16

PLOT DATE:

SHEET NO. A-6



LEGEND

- Boundary Line
- Adjoiner's Lot Line
- Centerline Highway/Street
- DY = Double Yellow Line
- FOG = Fog Line
- Building/Structure Line
- Concrete Line
- Retaining Wall/Planter Line
- EOA = Edge of Asphalt Line
- Gasmain Line
- Cable Television Line (Buried & Overhead)
- Telephone Line (Buried & Overhead)
- Sewermain Line
- Sewer Service Line
- Watermain Line
- Water Service Line
- Overhead Power Line
- Buried Fiber Optic Line
- CNTRL = Survey Control
- FND-5/8" = Found 5/8" Rebar
- STORM MH = Stormdrain Manhole
- Power Pole
- Power Meter
- Gas Meter
- Sewer Cleanout
- Sewer Manhole
- Water Valve
- Telephone Box
- SGN = Sign
- DT = Deciduous Tree
- CT = Coniferous Tree

AP	Angle Point
BLDG	Building
COR	Corner
GS	Ground Shot
TP	Top of Pavement
TOP	Top of SLope
CONC	Concrete
PMTR	Power Meters
GMTRS	Gas Meters
SS	Sewer Service
UTIL	Utility
CL	Centerline
NE	Northeast
NOEL	No Elevation

NOTES

1. Basis of Bearings is Idaho State Plane Coordinate System, NAD83, Central Zone, at Grid in US Survey Feet. Vertical Datum is NAVD1988.

2. Boundary information is from the Plat of Lot 5A, Block 30, Ketchum Townsite, filed as Instrument Number 538822, Blaine County Records.

3. Utility locations by Digline and visual evidence. Digline should be contacted again to locate utilities prior to any excavation.

4. Log Columns on the Existing building are not shown.

5. The southerly corner of the property had a large snow pile. Some features may not have been visible.

6. A title report was not available at the time of this survey. Some easements may not be shown.

GRAPHIC SCALE
0 5 10 20 40
(IN FEET)
1 inch = 10 ft.

A SITE SURVEY SHOWING
LOT 5A, BLK 30, KETCHUM TOWNSITE
WITHIN S13, T.4N., R.17E., B.M., CITY OF KETCHUM, BLAINE COUNTY, IDAHO
PREPARED FOR ROY BLACKEN & STEVE COOK, ARCHITECT

Alpine Enterprises Inc.
Surveying, Mapping, and Natural Hazards Consulting
221 Northwood Way, Unit A-100
P.O. Box 2037, Ketchum, ID 83340 USA
(208) 727-1988 727-1987 fax
email: bsmith@alpineenterprisesinc.com

PROFESSIONAL LAND SURVEYOR 7040 23Mar16 STATE OF IDAHO BRUCE SMITH

REVISIONS	NO	DATE	BY

PROJECT PATH AND PRINT DATE U:\LandProjects2004\1488_BLK30_LT5A_K\dwg\1488_TOPO.dwg 3/23/2016 11:51:35 AM MDT

Sheet 1 of 1

Drawing Legend

Symbol	Definition
	Property Line
(80) (79)	Existing Contours
80 79	Proposed Contours

Drawing Legend

Symbol	Definition
	Concrete Walkeway
	River Rock Mulch
	Proposed Perennials: See Planting Schedule
	Proposed Shrubs: See Planting Schedule
	Proposed Evergreen Trees: See Planting Schedule

Trees

Abrv.	Qty.	Size	Botanical Name	Common Name	Spacing
PC	NA	Varies	Pinus contorta	Lodge Pole Pine	Per Plan
AL	NA	Varies	Abies lasiocarpa	Sub Alpine Fir	Per Plan

Shrubs

Abrv.	Qty.	Size	Botanical Name	Common Name	Spacing
SBF	NA	10 Gal.	Salix brachycarpa 'Blue Fox'	Blue Fox Willow	Per Plan
SA	NA	20 Gal.	Salix arctica	Arctic Willow	Per Plan

Perennials

Abrv.	Qty.	Size	Botanical Name	Common Name	Spacing
EP	NA	1 Gal.	Perovskia atriplicifolia	Russian Sage	Per Plan
HH	NA	1 Gal.	Heliopsis helianthoides	Sun Flower	Per Plan
NF	NA	1 Gal.	Nepeta x faassinni	Catmint	Per Plan
AT	NA	1 Gal.	Achillea millefolium 'Terracotta'	Yarrow	Per Plan
EP	NA	1 Gal.	Echinacea	Purple Cone Flower	Per Plan

Perennial Grasses

Abrv.	Qty.	Size	Botanical Name	Common Name	Spacing
HS	NA	2 Gal.	Helictotrichon sempervirens	Blue Oat Grass	Per Plan

Native Grass

Abrv.	Qty.	Size	Botanical Name	Common Name	Spacing
	NA	Hydro Seed		Native Grass Mix	Per Plan

N

0 10 20 30 40 FT

SCALE: 1"= 10'-0"

BYLA
BEN YOUNG LANDSCAPE ARCHITECTS
323 Lewis _ | Ketchum, ID
(208) 726 5997 - (208) 720 0215
www.byla.us

No. | Description | Signature | Date

BRACKEN STATION
BRACKEN BUILDING
LOT 5A | BLK 30 | SONE LI-1, KETCHUM, ID

LANDSCAPE OVERVIEW

Date: 05.23.2016
Drawn By: TB
Checked By: CG
File: Filename

Sheet No.
L1.0
1

LEGEND:
EXISTING PROPERTY LINE
EXISTING ADJOINER
EXISTING CENTERLINE
PROPOSED CONCRETE CURB & GUTTER
PROPOSED CONCRETE
PROPOSED ASPHALT
PROPOSED PAVERS

0 20 40 Feet

KETCHUM BLOCK 50 LOT 1AA
KETCHUM BLOCK 50 LOT 2A
KETCHUM BLOCK 29 LOT 1 & 2
E 9TH STREET ℄
RECTANGULAR RAPID FLASHING BEACON
EXISTING PARALLEL PARKING
EOA
50'± 13'
13'
62.5'
EXISTING STRIPING
PROPOSED STRIPING
71.2' (50' MIN.)
62.5'
100'± R.O.W.
STATE HWY 75 ℄
12'
6'
25'
35'
23'
19'
R480'
R10'
50'±
ITD SNOW STORAGE AND PERMITTED LANSCAPING; SEE LANSCAPE PLANS
PROPOSED 2' VALLEY GUTTER
R50'
40'
13.9'
R30'
R200'
4'
R3' TYP.
RETAIN AND PROTECT EXISTING TREE
8"
24'
12.9'
RETAIN AND PROTECT EXISTING POWER POLE
EXISTING STRIPING
KETCHUM BLOCK 30 LOT 5A
10' TYP.
15'
20' TYP.
PROPOSED ADDITION
EXISTING BUILDING
ALLEY
LOT 1
LOT 2
LOT 3
LOT 4
60'
E 10TH STREET ℄
N LEADVILLE AVENUE ℄
TENTH ST LIGHT INDUSTRIAL COMPLEX
TL 4808

1 EX VICINITY MAP
SCALE: N.T.S.

PRELIMINARY ONLY NOT FOR CONSTRUCTION

REVISIONS

No.	DESCRIPTION	DATE	BY
1	EXTEND TURN LANE SOUTH	6/3/16	SKS

PREPARED BY:
BENCHMARK ASSOCIATES, P.A.
P.O. BOX 733 100 BELL DRIVE
KETCHUM, IDAHO 83340
(208) 726-9512
FAX 726-9514
WEB: WWW.BMASB.COM
MAIL: WWW.BMASB.COM

PRELIMINARY IMPROVEMENTS PLAN

KETCHUM TOWNSITE BLOCK 30, LOT 5A
T4N, R17E, SEC 13, B.M., BLAINE COUNTY, IDAHO

PREPARED FOR: ROY BRACKEN

DRAWN BY: SKS
DESIGNED BY: JPG
CHECKED BY: SB
DATE: 05/03/16
PROJECT NO.: 16051

SHEET NUMBER
EX

helcia PO 955 Ketchum Id. 83340 208-726-5177

Dear Commissioner's & P&Z!
Are you out of your minds!
A Gas station at 10th Street No, no!
You already sewered south entrance come to the
Mountains — of course you can't
see them. Maybe that could be your
next $25,000 sign. Have you ever
counted the signs on Main Street?
The Best one is the Blinking Light
for people to cross the Street. No one
can drive & read or (text) most visitors
are trying to see the [illegible] you know
Mt Resort or what way to Sun Valley Resort.
Quite spending my property tax $. A think
tank — Think about it. helen

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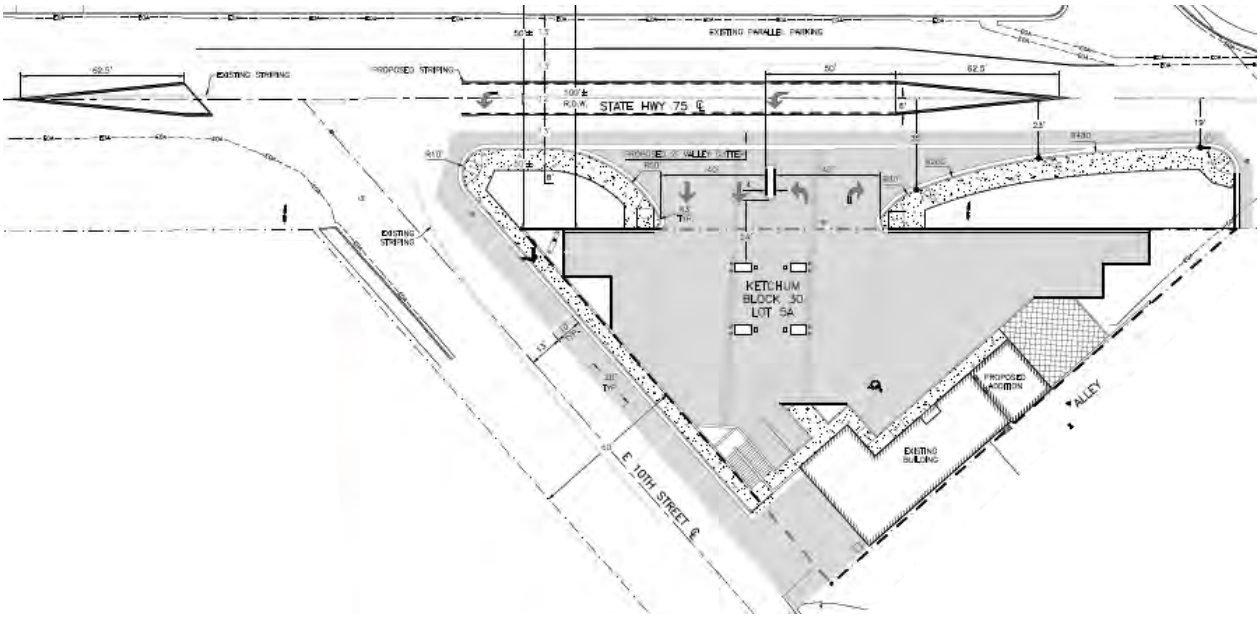
Ketchum Gas Station

Traffic Impact Study *UPDATED*



Ketchum, Idaho

May 2016

UT16-851

1220 North 500 West, Ste. 202 Lehi, UT 84043 p 801.766.4343
www.**hales**engineering.com

HALES ENGINEERING
innovative transportation solutions

EXECUTIVE SUMMARY

This study addresses the traffic impacts associated with the proposed gas station in Ketchum, Idaho. The proposed gas station will be located on the southwest corner of the Main Street (SH-75) / 10th Street intersection.

Included within the analyses for this study are the traffic operations and recommended mitigation measures for existing conditions and plus project conditions (conditions after development of the proposed project) at key intersections and roadways in the vicinity of the site. Future 2020 conditions are also analyzed.

TRAFFIC ANALYSIS

The following is an outline of the traffic analysis performed by Hales Engineering for the traffic conditions of this project.

Existing (2016) Background Conditions Analysis

Hales Engineering used previous data for weekday morning (7:00 to 9:00 a.m.) and afternoon (4:00 to 6:00 p.m.) peak period traffic counts at the following intersections:

- Main Street (SH-75) / 10th Street

These counts were performed for a previous project on Wednesday, February 13, 2008. Data from an automatic traffic recorder (ATR 68) was used to determine an annual growth rate of 1.1% and a seasonal adjustment of 30% for this segment of SH-75. Using these adjustments, peak period traffic volumes were calculated for the study intersection. The a.m. peak hour was determined to be between the hours of 8:00 and 9:00 a.m., and the p.m. peak hour was determined to be between the hours of 4:15 and 5:15 p.m. Detailed count data are included in Appendix A. The traffic volumes at this intersection was approximately 15% higher during the p.m. peak hour than during the a.m. peak hour. Therefore, the p.m. peak hour was chosen for detailed analysis as this represents the worst-case scenario.

As shown in Table ES-1, the Main Street (SH-75) / 10th Street intersection is currently operating at LOS A during the p.m. peak hour. The 95th percentile queues on the north- and eastbound approaches to the 10th Street / Main Street (SH-75) intersection was observed extend for approximately 80 feet. No other significant queuing was observed.

Project Conditions Analysis

The proposed land use for the development has been identified as follows:

- Gasoline/Service Station with Convenience Market 8 Vehicle Fueling Positions

Trip generation for the development was calculated using trip generation rates published in the Institute of Transportation Engineers (ITE) *Trip Generation (9th Edition, 2012)*. Trip generation for the proposed project is as follows:

- Weekday Daily Trips: 1,304
- a.m. Peak Hour Trips: 82
- p.m. Peak Hour Trips: 110

Existing (2016) Plus Project Conditions Analysis

As shown in Table ES-1, all study intersections are anticipated to operate at acceptable levels of service during the p.m. peak hour. During the p.m. peak hour, the 95th percentile queue length on the on the eastbound approach to the Main Street (SH-75) / 10th Street intersection is anticipated to extend for approximately 80 feet with project traffic added. Some queuing on northbound Main Street (SH-75) is also anticipated, which is likely attributed to left-turning vehicles blocking through traffic at the Main Street (SH-75) / 10th Street intersection as well as at the project access.

Future (2020) Background Conditions Analysis

As shown in Tables ES-1, the Main Street (SH-75) / 10th Street intersection is anticipated to operate at LOS C during the p.m. peak hour with future (2020) background traffic conditions. The 95th percentile queues on the north- and eastbound approaches to the Main Street (SH-75) / 10th Street intersection are anticipated to extend for approximately 110 feet. No other significant queuing is anticipated.

Future (2020) Plus Project Conditions Analysis

As shown in Tables ES-1, the Main Street (SH-75) / 10th Street intersection is anticipated to operate at LOS C with project traffic added, while the proposed access is anticipated to operate at LOS A during the p.m. peak hour. During the p.m. peak hour, the 95th percentile queue length on the northbound approach to the Main Street (SH-75) / 10th Street intersection is anticipated to extend for approximately 50 feet. All other queuing is anticipated to be nominal.

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TABLE ES-1 P.M. Peak Hour ID Ketchum Gas Station TIS				
Intersection	Projected 2016 Background	Projected 2016 Plus Project	Future 2020 Background	Future 2020 Plus Project
Description	LOS (Sec/Veh[1])	LOS (Sec/Veh[1])	LOS (Sec/Veh[1])	LOS (Sec/Veh[1])
Main Street (ID-75) / 10th Street	**A (9.7) / EB**	**B (10.9) / EB**	**C (15.9) / EB**	**C (17.8) / EB**
Main Street (ID-75) / Access 1	**-**	**A (6.5) / EB**	**-**	**A (9.2) / EB**

1. Intersection LOS and delay (seconds/vehicle) values represent the overall intersection average for signalized and all-way stop controlled intersections and the worst approach for all other unsignalized intersections.

2. This is a project intersection and is only analyzed in the plus project scenarios.

Source: Hales Engineering, May 2016

RECOMMENDATIONS

The following mitigation measures are recommended:

Existing (2016) Background Conditions Analysis

No mitigation measures are recommended.

Existing (2016) Plus Project Conditions Analysis

It is recommend that a two-way left-turn lane be constructed from a location north of 10th Street to a location south of the project. No other mitigation measures are recommended.

Future (2020) Background Conditions Analysis

No additional mitigation measures are recommended.

Future (2020) Plus Project Conditions Analysis

No additional mitigation measures are recommended.

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SUMMARY OF KEY FINDINGS/RECOMMENDATIONS

The following is a summary of key findings and recommendations:

- The Main Street (SH-75) / 10th Street intersection is currently operating at LOS A during the p.m. peak hour.
- With project traffic added, the Main Street (SH-75) / 10th Street intersection is anticipated to operate at LOS B, and the proposed project access is anticipated to operate at LOS A.
- It is recommended that a two-way left-turn lane be constructed on Main Street (SH-75) from a location north of 10th Street to a location south of the project.
- With future (2020) traffic conditions, the Main Street (SH-75) / 10th Street intersection is anticipated to operate at LOS C during the p.m. peak hour.
- With project traffic added, the Main Street (SH-75) / 10th Street intersection is anticipated to operate at an acceptable level of service, as well as the project access.

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TABLE OF CONTENTS

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I. INTRODUCTION

A. Purpose

This study addresses the traffic impacts associated with the proposed gas station in Ketchum, Idaho. The proposed gas station will be located on the southwest corner of the Main Street (SH-75) / 10th Street intersection. Figure 1 shows a vicinity map of the proposed development.

Included within the analyses for this study are the traffic operations and recommended mitigation measures for existing conditions and plus project conditions (conditions after development of the proposed project) at key intersections and roadways in the vicinity of the site. Future 2020 conditions are also analyzed.

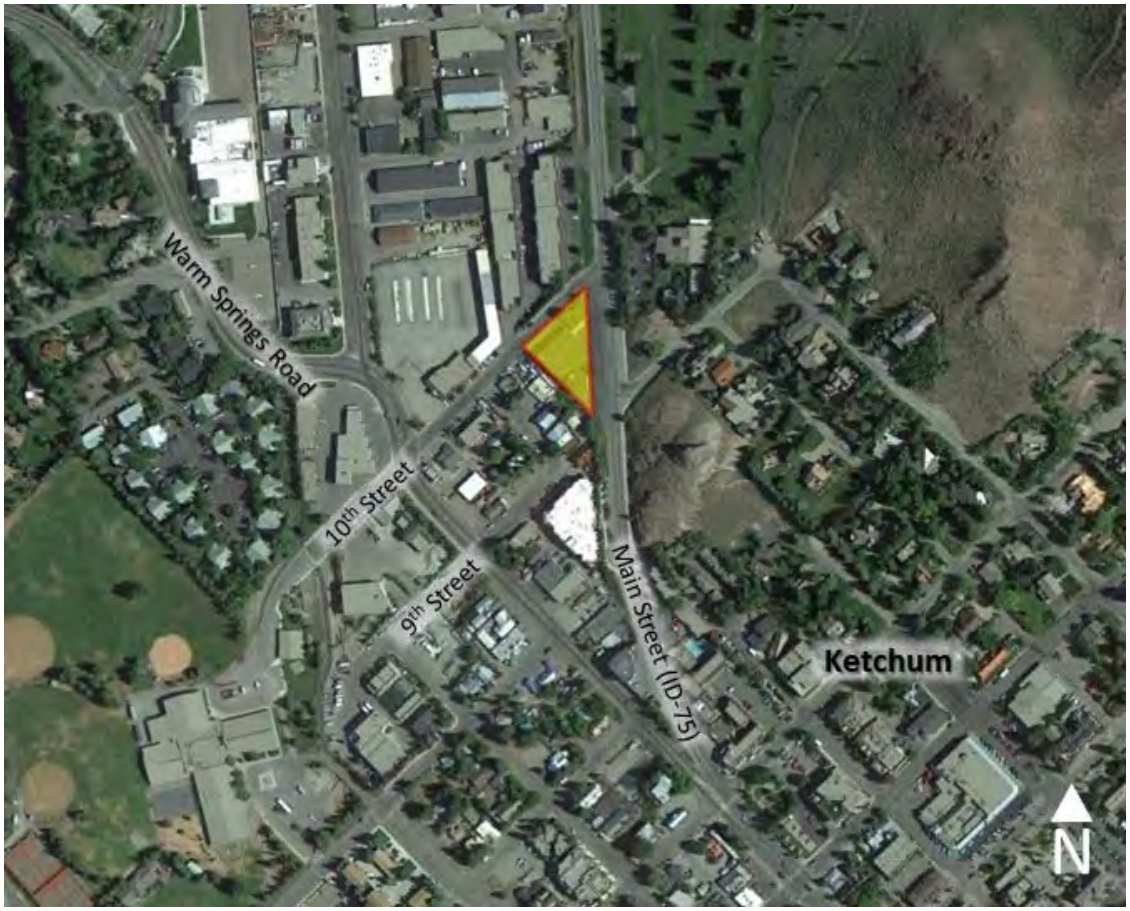

Figure 1 Vicinity map showing the project location in Ketchum, Idaho

B. Scope

The study area was defined based on conversations with the development team, following general guidelines for traffic impact studies. This study was scoped to evaluate the traffic operational performance impacts of the project on the following intersection:

- Main Street (SH-75) / 10th Street

C. Analysis Methodology

Level of service (LOS) is a term that describes the operating performance of an intersection or roadway. LOS is measured quantitatively and reported on a scale from A to F, with A representing the best performance and F the worst. Table 1 provides a brief description of each LOS letter designation and an accompanying average delay per vehicle for both signalized and unsignalized intersections.

The Highway Capacity Manual 2010 (HCM 2010) methodology was used in this study to remain consistent with "state-of-the-practice" professional standards. This methodology has different quantitative evaluations for signalized and unsignalized intersections. For signalized and all-way stop intersections, the LOS is provided for the overall intersection (weighted average of all approach delays). For all other unsignalized intersections LOS is reported based on the worst approach.

D. Level of Service Standards

For the purposes of this study, a minimum overall intersection performance for each of the study intersections was set at LOS D. However, if LOS E or F conditions exist, an explanation and/or mitigation measures will be presented. An LOS D threshold is consistent with "state-of-the-practice" traffic engineering principles for urbanized areas.

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Table 1 Level of Service Descriptions

Level of Service	Description of Traffic Conditions	Average Delay (seconds/vehicle)
	Signalized Intersections	**Overall Intersection**
A	Extremely favorable progression and a very low level of control delay. Individual users are virtually unaffected by others in the traffic stream.	0 ≤ 10.0
B	Good progression and a low level of control delay. The presence of other users in the traffic stream becomes noticeable.	> 10.0 and ≤ 20.0
C	Fair progression and a moderate level of control delay. The operation of individual users becomes somewhat affected by interactions with others in the traffic stream.	>20.0 and ≤ 35.0
D	Marginal progression with relatively high levels of control delay. Operating conditions are noticeably more constrained.	> 35.0 and ≤ 55.0
E	Poor progression with unacceptably high levels of control delay. Operating conditions are at or near capacity.	> 55.0 and ≤ 80.0
F	Unacceptable progression with forced or breakdown operating conditions.	> 80.0
	Unsignalized Intersections	**Worst Approach**
A	Free Flow / Insignificant Delay	0 ≤ 10.0
B	Stable Operations / Minimum Delays	>10.0 and ≤ 15.0
C	Stable Operations / Acceptable Delays	>15.0 and ≤ 25.0
D	Approaching Unstable Flows / Tolerable Delays	>25.0 and ≤ 35.0
E	Unstable Operations / Significant Delays	>35.0 and ≤ 50.0
F	Forced Flows / Unpredictable Flows / Excessive Delays	> 50.0

Source: Hales Engineering Descriptions, based on Highway Capacity Manual, 2010 Methodology (Transportation Research Board, 2010)

II. EXISTING (2016) BACKGROUND CONDITIONS

A. Purpose

The purpose of the existing (2016) background analysis is to study the intersections and roadways during the peak travel periods of the day with background traffic and geometric conditions. Through this analysis, background traffic operational deficiencies can be identified and potential mitigation measures recommended. This analysis will provide a baseline condition that may be compared to the build conditions to identify the impacts of the development.

B. Roadway System

The primary roadways that will provide access to the project site are described below:

Main Street (SH-75) – is a state-maintained roadway that is classified by ITD as a "regional" route in the vicinity of the project. SH-75 is a north/south route connecting Ketchum, as well as other communities such as Sun Valley and Hailey, to US-20 to the south. As a regional route in an urban area with a speed limit less than 35 mph, this roadway has minimum signal spacing of 2,640 feet, and a minimum street spacing of 660 feet. The minimum driveway distance from an upstream intersection is 250 feet, the minimum distance from a downstream intersection is 660 feet, and the minimum distance between accesses is 250 feet. Main Street (SH-75) has one travel lane in each direction and the posted speed limit in the vicinity of the proposed project is 25 mph.

C. Traffic Volumes

Hales Engineering performed weekday morning (7:00 to 9:00 a.m.) and afternoon (4:00 to 6:00 p.m.) peak period traffic counts at the following intersections:

- Main Street (SH-75) / 10th Street

These counts were performed for a previous project on Wednesday, February 13, 2008. Data from a nearby automatic traffic recorder (ATR 68) was used to determine an annual growth rate of 1.1% and a seasonal adjustment of 30% for this segment of SH-75. Using these adjustments, peak period traffic volumes were calculated for the study intersection. The a.m. peak hour was determined to be between the hours of 8:00 and 9:00 a.m., and the p.m. peak hour was determined to be between the hours of 4:15 and 5:15 p.m. Detailed count data are included in Appendix A. The traffic volumes at this intersection were approximately 15% higher during the p.m. peak hour than during the a.m. peak hour. Therefore, the p.m. peak hour was chosen for detailed analysis as this represents the worst-case scenario.

Figure 2 shows the existing p.m. peak hour volume as well as intersection geometry at the study intersection.

D. Level of Service Analysis

Using Synchro/SimTraffic, which follow the Highway Capacity Manual (HCM) 2010 methodology introduced in Chapter I, the p.m. peak hour LOS was computed for the study intersection. The results of this analysis are reported in Table 2 (see Appendix B for the detailed LOS reports). Multiple runs of SimTraffic were used to provide a statistical evaluation of the intersection. These results serve as a baseline condition for the impact analysis of the proposed development during existing (2016) conditions. As shown in Table 2, the Main Street (SH-75) / 10th Street intersection is currently operating at LOS A during the p.m. peak hour.

E. Queuing Analysis

Hales Engineering calculated the 95th percentile queue lengths for each of the study intersections. The queue reports can be found in Appendix D. The 95th percentile queues on the north- and eastbound approaches to the 10th Street / Main Street (SH-75) intersection was observed extend for approximately 80 feet. No other significant queuing was observed.

F. Mitigation Measures

No mitigation measures are recommended.

Table 2 Existing (2016) Background p.m. Peak Hour Level of Service

Intersection		Worst Approach			Overall Intersection	
Description	Control	Approach[1,3]	Aver. Delay (Sec/Veh)[1]	LOS[1]	Aver. Delay (Sec/Veh)[2]	LOS[2]
Main Street (SH-75) / 10th Street	EB Stop	EB	9.7	A	-	-

1. This represents the worst approach LOS and delay (seconds / vehicle) and is only reported for non-all-way stop unsignalized intersections.
2. This represents the overall intersection LOS and delay (seconds / vehicle) and is reported for all-way stop, roundabout, and signalized intersections.
3. Southbound = Southbound approach, etc.

Source: Hales Engineering, May 2016

ID Ketchum Gas Station TIS
Existing (2016) Background

p.m. Peak Hour
Figure 2

III. PROJECT CONDITIONS

A. Purpose

The project conditions analysis explains the type and intensity of development. This provides the basis for trip generation, distribution, and assignment of project trips to the surrounding study intersections defined in the Introduction.

B. Project Description

This study addresses the traffic impacts associated with the gas station in Ketchum, Idaho. The proposed gas station will be located on the southwest corner of the Main Street (SH-75) / 10th Street intersection. A site plan for the proposed development can be found in Appendix C.

The proposed land use for the development has been identified as follows:

- Gasoline/Service Station with Convenience Market 8 Vehicle Fueling Positions

C. Trip Generation

Trip generation for the development was calculated using trip generation rates published in the Institute of Transportation Engineers (ITE) *Trip Generation (9th Edition, 2012)*. Trip Generation for the proposed project is included in Table 3.

D. Trip Distribution and Assignment

Project traffic is assigned to the roadway network based on the type of trip and the proximity of project access points to major streets, high population densities, and regional trip attractions. Existing travel patterns observed during data collection also provide helpful guidance to establishing these distribution percentages, especially in close proximity to the site. The resulting distribution of projected generated trips is as follows:

<u>To/From Project:</u>

- 15% North
- 85% South

These trip distribution assumptions and the prevailing movements at each intersection were used to assign the evening peak hour generated traffic at the study intersections to create trip assignment for the proposed development. Trip assignment for the development is shown in Figure 3.

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Table 3
ID Ketchum Gas Station TIS
Trip Generation

Weekday Daily Land Use[1]	Number of Units	Unit Type	Trip Generation	% Entering	% Exiting	Trips Entering	Trips Exiting	Total Daily Trips
Gasoline/Service Station with Convenience Marke	8	Vehicle Fueling Positions	1,304	50%	50%	652	652	**1,304**
Project Total Daily Trips						**652**	**652**	**1,304**
A.M. Peak Hour Land Use[1]	Number of Units	Unit Type	Trip Generation	% Entering	% Exiting	Trips Entering	Trips Exiting	**Total a.m. Trips**
Gasoline/Service Station with Convenience Marke	8	Vehicle Fueling Positions	82	50%	50%	41	41	**82**
Project Total a.m. Peak Hour Trips						**41**	**41**	**82**
P.M. Peak Hour Land Use[1]	Number of Units	Unit Type	Trip Generation	% Entering	% Exiting	Trips Entering	Trips Exiting	**Total p.m. Trips**
Gasoline/Service Station with Convenience Marke	8	Vehicle Fueling Positions	110	50%	50%	55	55	**110**
Project Total p.m. Peak Hour Trips						**55**	**55**	**110**

1. Land Use Code from the Institute of Transportation Engineers Trip Generation Manual (9th Edition - 2012)

SOURCE: Hales Engineering, March 2016

E. Access

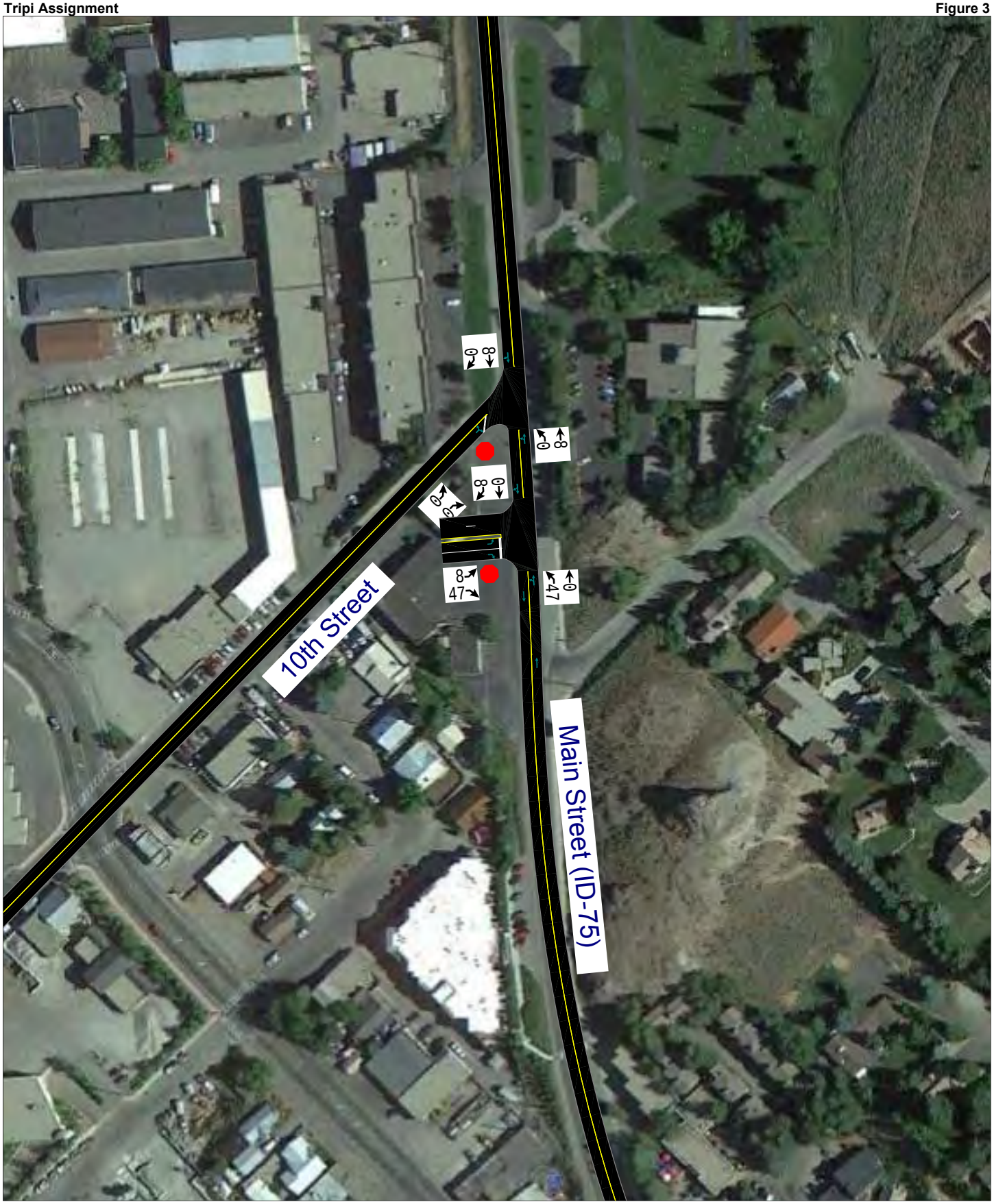
The proposed access for the site will be gained at the following locations (see also site plan in Appendix C):

Main Street (SH-75):

- One full-movement "boulevard approach" accesses is proposed on Main Street (SH-75), one approximately 60 feet south of 10th Street. A "boulevard approach" consists of two forty foot wide openings in the curb separated by a small island. One opening is for ingress movements, and the other for egress movements.

ID Ketchum Gas Station TIS
Tripi Assignment

p.m. Peak Hour
Figure 3



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IV. EXISTING (2016) PLUS PROJECT CONDITIONS

A. Purpose

This section of the report examines the traffic impacts of the proposed project at each of the study intersections. The net trips generated by the proposed development were combined with the existing background traffic volumes to create the existing plus project conditions. This scenario provides valuable insight into the potential impacts of the proposed project on background traffic conditions.

B. Traffic Volumes

Project trips were assigned to the study intersections based on the trip distribution percentages discussed in Chapter III and permitted intersection turning movements. The existing (2016) plus project p.m. peak hour volumes were generated for the study intersections and are shown in Figure 4.

C. Level of Service Analysis

Using Synchro/SimTraffic, which follow the Highway Capacity Manual (HCM) 2010 methodology introduced in Chapter I, the p.m. peak hour LOS was computed for each study intersection. The results of this analysis are reported in Table 4 (see Appendix B for the detailed LOS reports). Multiple runs of SimTraffic were used to provide a statistical evaluation of the interaction between the intersections. As shown in Table 4, all study intersections are anticipated to operate at acceptable levels of service during the p.m. peak hour.

D. Queuing Analysis

Hales Engineering calculated the 95th percentile queue lengths for each of the study intersections. The queue reports can be found in Appendix D. During the p.m. peak hour, the 95th percentile queue length on the on the eastbound approach to the Main Street (SH-75) / 10th Street intersection is anticipated to extend for approximately 80 feet with project traffic added. Some queuing on northbound Main Street (SH-75) is also anticipated, which is likely attributed to left-turning vehicles blocking through traffic at the Main Street (SH-75) / 10th Street intersection as well as at the project access.

E. Mitigation Measures

It is recommend that a two-way left-turn lane be constructed from a location north of 10th Street to a location south of the project. No other mitigation measures are recommended.

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Table 4 Existing (2016) Plus Project p.m. Peak Hour Level of Service

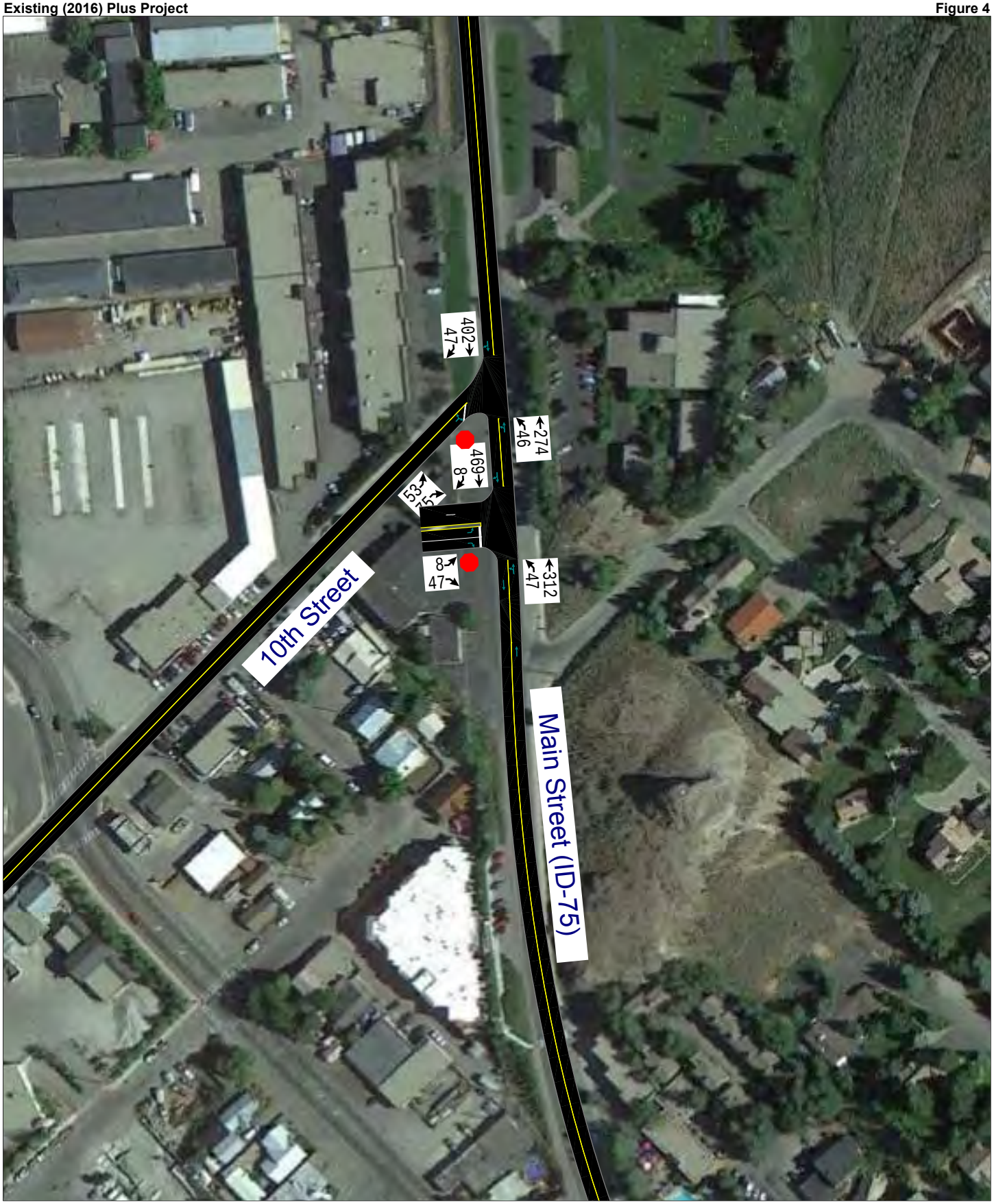
Intersection		Worst Approach			Overall Intersection	
Description	Control	Approach[1,3]	Aver. Delay (Sec/Veh)[1]	LOS[1]	Aver. Delay (Sec/Veh)[2]	LOS[2]
Main Street (SH-75) / 10th Street	EB Stop	EB	10.9	B	-	-
Main Street (SH-75) / Access 1	EB Stop	EB	6.5	A	-	-

1. This represents the worst approach LOS and delay (seconds / vehicle) and is only reported for non-all-way stop unsignalized intersections.
2. This represents the overall intersection LOS and delay (seconds / vehicle) and is reported for all-way stop, roundabout, and signalized intersections.
3. Southbound = Southbound approach, etc.

Source: Hales Engineering, May 2016

ID Ketchum Gas Station TIS
Existing (2016) Plus Project

p.m. Peak Hour
Figure 4



V. FUTURE (2020) BACKGROUND CONDITIONS

A. Purpose

The purpose of the future (2020) background analysis is to study the intersections and roadways during the peak travel periods of the day for future background traffic and geometric conditions. Through this analysis, future background traffic operational deficiencies can be identified and potential mitigation measures recommended.

B. Roadway Network

Based on information received, no improvements are planned for any of the roadways or intersections within the study area before 2020.

C. Traffic Volumes

Hales Engineering used the calculated annual growth rate discussed in Chapter II to project future (2020) traffic volumes for the study intersection. Future 2020 p.m. peak hour turning movement volumes are shown in Figure 5.

D. Level of Service Analysis

Using Synchro/SimTraffic, which follow the Highway Capacity Manual (HCM) 2010 methodology introduced in Chapter I, the p.m. peak hour LOS was computed for each study intersection. The results of this analysis are reported in Table 5 (see Appendix B for the detailed LOS reports). Multiple runs of SimTraffic were used to provide a statistical evaluation of the interaction between the intersections. These results serve as a baseline condition for the impact analysis of the proposed development for future (2020) conditions. As shown in Table 5, the Main Street (SH-75) / 10th Street intersection is anticipated to operate at LOS C during the p.m. peak hour with future (2020) background traffic conditions.

E. Queuing Analysis

Hales Engineering calculated the 95th percentile queue lengths for each of the study intersections. The queue reports can be found in Appendix D. The 95th percentile queues on the north- and eastbound approaches to the Main Street (SH-75) / 10th Street intersection are anticipated to extend for approximately 110 feet. No other significant queuing is anticipated.

F. Mitigation Measures

No additional mitigation measures are recommended.

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Table 5 Future (2020) Background p.m. Peak Hour Level of Service

Intersection		Worst Approach			Overall Intersection	
Description	Control	Approach[1,3]	Aver. Delay (Sec/Veh)[1]	LOS[1]	Aver. Delay (Sec/Veh)[2]	LOS[2]
Main Street (SH-75) / 10th Street	EB Stop	EB	15.9	C	-	-

1. This represents the worst approach LOS and delay (seconds / vehicle) and is only reported for non-all-way stop unsignalized intersections.
2. This represents the overall intersection LOS and delay (seconds / vehicle) and is reported for all-way stop, roundabout, and signalized intersections.
3. Southbound = Southbound approach, etc.

Source: Hales Engineering, May 2016

ID Ketchum Gas Station TIS
Future (2020) Background

p.m. Peak Hour
Figure 5

VI. FUTURE (2020) PLUS PROJECT CONDITIONS

A. Purpose

The purpose of the future (2020) plus project analysis is to study the intersections and roadways during the peak travel periods of the day for future background traffic and geometric conditions plus the net trips generated by the proposed development. This scenario provides valuable insight into the potential impacts of the proposed project on future background traffic conditions.

B. Traffic Volumes

Trips were assigned to the study intersections based on the trip distribution percentages discussed in Chapter III and permitted intersection turning movements. It was also assumed that the previously recommended center TWLTL had been constructed along the project frontage.

The future (2020) plus project p.m. peak hour volumes were generated for the study intersections and are shown in Figure 6.

C. Level of Service Analysis

Using Synchro/SimTraffic, which follow the Highway Capacity Manual (HCM) 2010 methodology introduced in Chapter I, the p.m. peak hour LOS was computed for each study intersection. The results of this analysis are reported in Table 6 (see Appendix B for the detailed LOS reports). Multiple runs of SimTraffic were used to provide a statistical evaluation of the interaction between the intersections. As shown in Table 6, the Main Street (SH-75) / 10th Street intersection is anticipated to operate at LOS C with project traffic added, while the proposed access is anticipated to operate at LOS A during the p.m. peak hour.

D. Queuing Analysis

Hales Engineering calculated the 95th percentile queue lengths for each of the study intersections. The queue reports can be found in Appendix D. During the p.m. peak hour, the 95th percentile queue length on the northbound approach to the Main Street (SH-75) / 10th Street intersection is anticipated to extend for approximately 50 feet. All other queuing is anticipated to be nominal.

E. Mitigation Measures

No additional mitigation measures are recommended.

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Table 6 Future (2020) Plus Project p.m. Peak Hour Level of Service

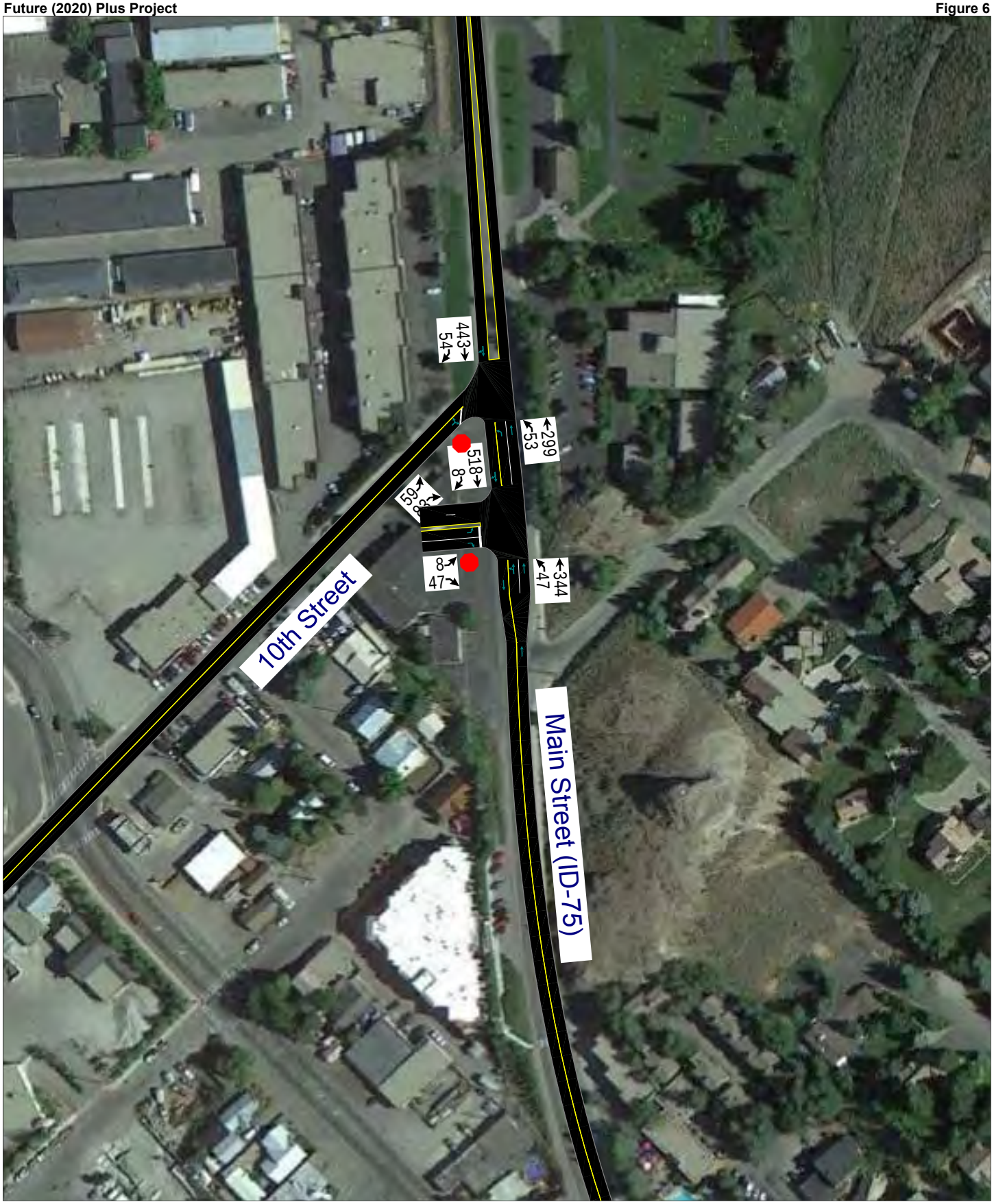
Intersection		Worst Approach			Overall Intersection	
Description	Control	Approach[1,3]	Aver. Delay (Sec/Veh)[1]	LOS[1]	Aver. Delay (Sec/Veh)[2]	LOS[2]
Main Street (SH-75) / 10th Street	EB Stop	EB	17.8	C	-	-
Main Street (SH-75) / Access 1	EB Stop	EB	9.2	A	-	-

1. This represents the worst approach LOS and delay (seconds / vehicle) and is only reported for non-all-way stop unsignalized intersections.
2. This represents the overall intersection LOS and delay (seconds / vehicle) and is reported for all-way stop, roundabout, and signalized intersections.
3. Southbound = Southbound approach, etc.

Source: Hales Engineering, May 2016

ID Ketchum Gas Station TIS
Future (2020) Plus Project

p.m. Peak Hour
Figure 6



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APPENDIX A

Turning Movement Counts

TrafficCounts

2364 North 1450 East
Lehi, UT 84043
801.636.0891

Intersection Turning Movement Summary

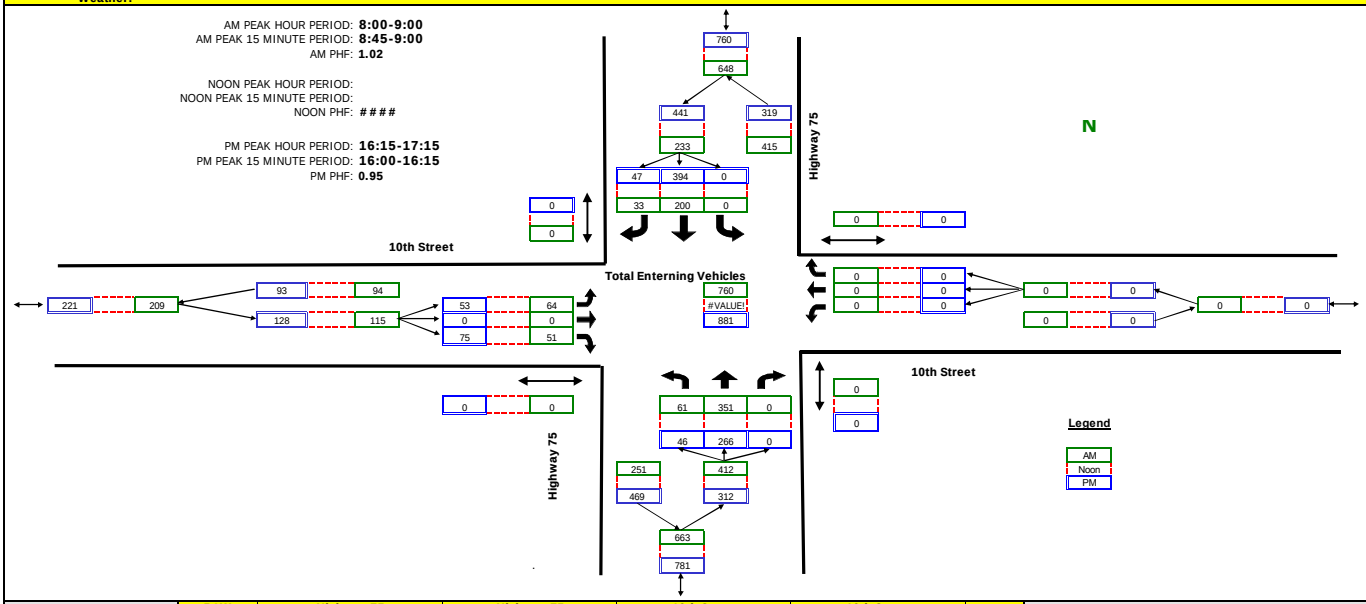
Intersection: Highway 75 / 10th Street
North/South: Highway 75
East/West: 10th Street
Jurisdiction: Ketchum, Idaho
Project Title: Ketchum - Warm Springs Road
Project No: P112
Weather:

Date: 2-13-08, Wed
Day of Week Adjustment: 100.0%
Month of Year Adjustment: 70.0%
Adjustment Station #: 68
Growth Rate: 1.1%
Number of Years: 8

AM PEAK HOUR PERIOD: **8:00-9:00**
AM PEAK 15 MINUTE PERIOD: **8:45-9:00**
AM PHF: **1.02**

NOON PEAK HOUR PERIOD:
NOON PEAK 15 MINUTE PERIOD:
NOON PHF: **####**

PM PEAK HOUR PERIOD: **16:15-17:15**
PM PEAK 15 MINUTE PERIOD: **16:00-16:15**
PM PHF: **0.95**



RAW COUNT SUMMARIES	Highway 75 Northbound				Highway 75 Southbound				10th Street Eastbound				10th Street Westbound				
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	
AM PERIOD COUNTS																	
Period	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**	**TOTAL**
7:00-7:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15-7:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30-7:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45-8:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00-8:15	18.5714	68.5714	0	0	0	38.571	7.1429	0	15.714	0	10	0	0	0	0	0	158.5714
8:15-8:30	17.1429	81.4286	0	0	0	45.714	7.1429	0	15.714	0	10	0	0	0	0	0	177.1429
8:30-8:45	10	82.8571	0	0	0	48.571	8.5714	0	14.286	0	10	0	0	0	0	0	174.2857
8:45-9:00	10	88.5714	0	0	0	50	7.1429	0	12.857	0	17.143	0	0	0	0	0	185.7143
NOON PERIOD COUNTS																	
Period	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**	**TOTAL**
11:00-11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15-11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30-11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45-12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00-12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15-12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30-12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45-13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PM PERIOD COUNTS																	
Period	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**	**TOTAL**
16:00-16:15	10	64	0	0	0	114	11	0	17	0	16	0	0	0	0	0	232
16:15-16:30	10	76	0	0	0	77	11	0	17	0	16	0	0	0	0	0	207
16:30-16:45	7	43	0	0	0	114	14	0	16	0	19	0	0	0	0	0	213
16:45-17:00	11	59	0	0	0	87	7	0	6	0	14	0	0	0	0	0	184
17:00-17:15	14	66	0	0	0	83	11	0	10	0	20	0	0	0	0	0	204
17:15-17:30	7	44	0	0	0	67	4	0	10	0	6	3	0	0	0	0	138
17:30-17:45	7	47	0	0	0	69	3	0	11	0	6	0	0	0	0	0	143
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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APPENDIX B

Level of Service Results

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SimTraffic LOS Report

Project: ID Ketchum Gas Station TIS
Analysis Period: *Existing (2016) Background*
Time Period: *p.m. Peak Hour* **Project #:** *UT-16-851*

Intersection: 10th Street & Main Street (ID-75)
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	46	45	98	5.2	*A*
	T	266	263	99	1.0	*A*
	Subtotal	312	308	99	1.6	*A*
SB	T	394	396	101	0.8	*A*
	R	47	44	94	0.4	*A*
	Subtotal	441	440	100	0.8	*A*
NE	L	53	49	92	14.2	*B*
	R	75	76	101	6.8	*A*
	Subtotal	***128***	***125***	***98***	***9.7***	***A***
Total		880	873	99	2.4	*A*

Intersection:
Type:

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
Total						

3: 10th Street & Main Street (ID-75) Performance by movement Interval #1 4:15

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.3	0.3	0.2	0.1	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	5.7	1.0	0.8	0.5	12.0	6.0	2.2
Vehicles Entered	10	66	98	12	12	18	216
Vehicles Exited	10	66	97	12	12	19	216
Hourly Exit Rate	40	264	388	48	48	76	864
Input Volume	45	261	387	46	52	74	865
% of Volume	89	101	100	104	92	103	100

3: 10th Street & Main Street (ID-75) Performance by movement Interval #2 4:30

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.3	0.4	0.2	0.2	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	4.7	0.9	0.8	0.3	12.7	6.6	2.2
Vehicles Entered	11	66	96	11	13	20	217
Vehicles Exited	11	66	96	11	12	19	215
Hourly Exit Rate	44	264	384	44	48	76	860
Input Volume	45	261	387	46	52	74	865
% of Volume	98	101	99	96	92	103	99

3: 10th Street & Main Street (ID-75) Performance by movement Interval #3 4:45

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.4	0.4	0.2	0.2	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.2
Total Del/Veh (s)	5.8	1.4	0.9	0.5	18.7	7.8	2.9
Vehicles Entered	13	66	107	11	12	20	229
Vehicles Exited	13	66	108	12	13	20	232
Hourly Exit Rate	52	264	432	48	52	80	928
Input Volume	48	280	415	49	56	79	927
% of Volume	108	94	104	98	93	101	100

3: 10th Street & Main Street (ID-75) Performance by movement Interval #4 5:00

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.3	0.2	0.2	0.2	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	4.5	0.7	0.7	0.3	12.4	5.7	2.0
Vehicles Entered	11	65	96	10	13	18	213
Vehicles Exited	10	65	95	10	12	18	210
Hourly Exit Rate	40	260	380	40	48	72	840
Input Volume	45	261	387	46	52	74	865
% of Volume	89	100	98	87	92	97	97

3: 10th Street & Main Street (ID-75) Performance by movement Entire Run

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.4	0.3	0.2	0.2	0.2
Total Delay (hr)	0.1	0.1	0.1	0.0	0.2	0.1	0.6
Total Del/Veh (s)	5.2	1.0	0.8	0.4	14.2	6.8	2.4
Vehicles Entered	45	263	396	44	49	76	873
Vehicles Exited	45	263	396	44	49	76	873
Hourly Exit Rate	45	263	396	44	49	76	873
Input Volume	46	266	394	47	53	75	880
% of Volume	98	99	101	94	92	101	99

Total Network Performance By Interval

Interval Start	4:15	4:30	4:45	5:00	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.3	0.3	0.3	0.3	0.3
Total Delay (hr)	0.2	0.2	0.3	0.2	0.9
Total Del/Veh (s)	3.4	3.4	4.3	3.3	3.8
Vehicles Entered	216	218	230	210	872
Vehicles Exited	216	217	231	209	872
Hourly Exit Rate	864	868	924	836	872
Input Volume	2497	2497	2676	2497	2542
% of Volume	35	35	35	33	34

Intersection: 3: 10th Street & Main Street (ID-75), Interval #1

Movement	NB	NE
Directions Served	LT	LR
Maximum Queue (ft)	82	73
Average Queue (ft)	27	40
95th Queue (ft)	80	72
Link Distance (ft)	274	1052
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: 10th Street & Main Street (ID-75), Interval #2

Movement	NB	NE
Directions Served	LT	LR
Maximum Queue (ft)	66	77
Average Queue (ft)	25	44
95th Queue (ft)	73	84
Link Distance (ft)	274	1052
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: 10th Street & Main Street (ID-75), Interval #3

Movement	NB	SB	NE
Directions Served	LT	TR	LR
Maximum Queue (ft)	85	2	88
Average Queue (ft)	35	0	46
95th Queue (ft)	93	5	91
Link Distance (ft)	274	610	1052
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 3: 10th Street & Main Street (ID-75), Interval #4

Movement	NB	NE
Directions Served	LT	LR
Maximum Queue (ft)	64	67
Average Queue (ft)	24	39
95th Queue (ft)	66	70
Link Distance (ft)	274	1052
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: 10th Street & Main Street (ID-75), All Intervals

Movement	NB	SB	NE
Directions Served	LT	TR	LR
Maximum Queue (ft)	105	2	99
Average Queue (ft)	28	0	42
95th Queue (ft)	79	2	80
Link Distance (ft)	274	610	1052
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty, Interval #1: 0
Network wide Queuing Penalty, Interval #2: 0
Network wide Queuing Penalty, Interval #3: 0
Network wide Queuing Penalty, Interval #4: 0
Network wide Queuing Penalty, All Intervals: 0

HALES ENGINEERING
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SimTraffic LOS Report

Project: ID Ketchum Gas Station TIS
Analysis Period: *Existing (2016) Plus Project*
Time Period: *p.m. Peak Hour* **Project #:** *UT-16-851*

Intersection: 10th Street & Main Street (ID-75)
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	46	45	98	5.1	*A*
	T	274	271	99	1.0	*A*
	Subtotal	320	316	99	1.6	*A*
SB	T	402	404	100	0.9	*A*
	R	47	52	111	0.6	*A*
	Subtotal	449	456	102	0.9	*A*
NE	L	53	52	98	15.2	*C*
	R	75	73	97	7.8	*A*
	Subtotal	***128***	***125***	***98***	***10.9***	***B***
Total		897	897	100	2.5	*A*

Intersection: Main Street (ID-75) & Access 1
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	47	44	94	3.5	*A*
	T	312	309	99	0.7	*A*
	Subtotal	359	353	98	1.0	*A*
SB	T	469	470	100	0.4	*A*
	R	8	8	100	0.2	*A*
	Subtotal	477	478	100	0.4	*A*
EB	L	8	7	88	11.8	*B*
	R	47	50	107	5.8	*A*
	Subtotal	***55***	***57***	***104***	***6.5***	***A***
Total		891	888	100	1.1	*A*

1: 10th Street & Main Street (ID-75) Performance by movement Interval #1 4:15

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.4	0.4	0.2	0.2	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.2
Total Del/Veh (s)	4.8	0.9	0.8	0.5	16.1	7.5	2.4
Vehicles Entered	10	69	101	13	12	18	223
Vehicles Exited	10	70	100	13	13	18	224
Hourly Exit Rate	40	280	400	52	52	72	896
Input Volume	45	270	395	46	52	74	882
% of Volume	89	104	101	113	100	97	102

1: 10th Street & Main Street (ID-75) Performance by movement Interval #2 4:30

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.3	0.3	0.2	0.2	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	4.5	0.9	0.8	0.6	12.7	6.6	2.2
Vehicles Entered	12	64	96	13	12	17	214
Vehicles Exited	12	64	97	13	12	17	215
Hourly Exit Rate	48	256	388	52	48	68	860
Input Volume	45	270	395	46	52	74	882
% of Volume	107	95	98	113	92	92	98

1: 10th Street & Main Street (ID-75) Performance by movement Interval #3 4:45

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.4	0.4	0.1	0.2	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.2
Total Del/Veh (s)	6.4	1.2	1.0	0.5	14.5	8.3	2.8
Vehicles Entered	12	69	106	16	15	18	236
Vehicles Exited	12	69	104	16	14	18	233
Hourly Exit Rate	48	276	416	64	56	72	932
Input Volume	48	288	423	49	56	79	943
% of Volume	100	96	98	131	100	91	99

1: 10th Street & Main Street (ID-75) Performance by movement Interval #4 5:00

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.4	0.5	0.3	0.2	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.2
Total Del/Veh (s)	5.0	0.9	0.8	0.8	14.0	8.0	2.4
Vehicles Entered	10	68	101	11	12	20	222
Vehicles Exited	10	68	102	11	12	20	223
Hourly Exit Rate	40	272	408	44	48	80	892
Input Volume	45	270	395	46	52	74	882
% of Volume	89	101	103	96	92	108	101

1: 10th Street & Main Street (ID-75) Performance by movement Entire Run

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.0	0.0	0.4	0.4	0.2	0.2	0.2
Total Delay (hr)	0.1	0.1	0.1	0.0	0.2	0.2	0.6
Total Del/Veh (s)	5.1	1.0	0.9	0.6	15.2	7.8	2.5
Vehicles Entered	45	271	404	52	51	74	897
Vehicles Exited	45	271	404	52	52	73	897
Hourly Exit Rate	45	271	404	52	52	73	897
Input Volume	46	274	402	47	53	75	897
% of Volume	98	99	100	111	98	97	100

2: Main Street (ID-75) & Access 1 Performance by movement Interval #1 4:15

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	8.7	6.3	3.4	0.7	0.4	0.3	1.0
Vehicles Entered	2	11	11	78	118	1	221
Vehicles Exited	2	11	11	78	117	1	220
Hourly Exit Rate	8	44	44	312	468	4	880
Input Volume	8	46	46	307	461	8	876
% of Volume	100	96	96	102	102	50	100

2: Main Street (ID-75) & Access 1 Performance by movement Interval #2 4:30

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	6.8	5.6	3.5	0.6	0.4	0.1	1.0
Vehicles Entered	2	13	12	75	113	2	217
Vehicles Exited	2	13	12	74	113	2	216
Hourly Exit Rate	8	52	48	296	452	8	864
Input Volume	8	46	46	307	461	8	876
% of Volume	100	113	104	96	98	100	99

2: Main Street (ID-75) & Access 1 Performance by movement Interval #3 4:45

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	14.6	5.9	3.7	0.9	0.5	0.2	1.2
Vehicles Entered	2	14	10	79	121	2	228
Vehicles Exited	2	14	10	80	120	2	228
Hourly Exit Rate	8	56	40	320	480	8	912
Input Volume	8	49	49	328	494	8	936
% of Volume	100	114	82	98	97	100	97

2: Main Street (ID-75) & Access 1 Performance by movement Interval #4 5:00

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	11.3	5.6	3.4	0.6	0.4	0.1	1.0
Vehicles Entered	2	11	11	77	118	3	222
Vehicles Exited	2	12	11	77	119	3	224
Hourly Exit Rate	8	48	44	308	476	12	896
Input Volume	8	46	46	307	461	8	876
% of Volume	100	104	96	100	103	150	102

2: Main Street (ID-75) & Access 1 Performance by movement Entire Run

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.1	0.0	0.1	0.1	0.0	0.3
Total Del/Veh (s)	11.8	5.8	3.5	0.7	0.4	0.2	1.1
Vehicles Entered	7	50	44	309	470	8	888
Vehicles Exited	7	50	44	309	470	8	888
Hourly Exit Rate	7	50	44	309	470	8	888
Input Volume	8	47	47	312	469	8	891
% of Volume	88	107	94	99	100	100	100

Total Network Performance By Interval

Interval Start	4:15	4:30	4:45	5:00	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.3	0.3	0.3	0.3	0.3
Total Delay (hr)	0.3	0.3	0.4	0.3	1.3
Total Del/Veh (s)	4.4	4.2	4.8	4.4	4.7
Vehicles Entered	245	239	261	244	989
Vehicles Exited	245	241	257	248	989
Hourly Exit Rate	980	964	1028	992	989
Input Volume	3591	3591	3840	3591	3653
% of Volume	27	27	27	28	27

Intersection: 1: 10th Street & Main Street (ID-75), Interval #1

Movement	NB	SB	NE
Directions Served	LT	TR	LR
Maximum Queue (ft)	73	3	74
Average Queue (ft)	28	0	41
95th Queue (ft)	79	6	85
Link Distance (ft)	76	610	1051
Upstream Blk Time (%)	1		
Queuing Penalty (veh)	2		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 1: 10th Street & Main Street (ID-75), Interval #2

Movement	NB	SB	NE
Directions Served	LT	TR	LR
Maximum Queue (ft)	63	2	78
Average Queue (ft)	28	0	39
95th Queue (ft)	72	5	75
Link Distance (ft)	76	610	1051
Upstream Blk Time (%)	0		
Queuing Penalty (veh)	1		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 1: 10th Street & Main Street (ID-75), Interval #3

Movement	NB	SB	NE
Directions Served	LT	TR	LR
Maximum Queue (ft)	74	2	86
Average Queue (ft)	29	0	50
95th Queue (ft)	79	4	88
Link Distance (ft)	76	610	1051
Upstream Blk Time (%)	2		
Queuing Penalty (veh)	7		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 1: 10th Street & Main Street (ID-75), Interval #4

Movement	NB	SB	NE
Directions Served	LT	TR	LR
Maximum Queue (ft)	61	12	77
Average Queue (ft)	26	2	44
95th Queue (ft)	71	22	80
Link Distance (ft)	76	610	1051
Upstream Blk Time (%)	1		
Queuing Penalty (veh)	2		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 1: 10th Street & Main Street (ID-75), All Intervals

Movement	NB	SB	NE
Directions Served	LT	TR	LR
Maximum Queue (ft)	81	19	102
Average Queue (ft)	28	1	43
95th Queue (ft)	75	12	83
Link Distance (ft)	76	610	1051
Upstream Blk Time (%)	1		
Queuing Penalty (veh)	3		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: Main Street (ID-75) & Access 1, Interval #1

Movement	EB	EB	NB	B3	SB
Directions Served	L	R	LT	T	TR
Maximum Queue (ft)	23	51	81	8	19
Average Queue (ft)	5	29	26	1	3
95th Queue (ft)	23	57	78	10	17
Link Distance (ft)	68	68	38	1119	76
Upstream Blk Time (%)		0	2		
Queuing Penalty (veh)		0	0		
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 2: Main Street (ID-75) & Access 1, Interval #2

Movement	EB	EB	NB	B3	SB
Directions Served	L	R	LT	T	TR
Maximum Queue (ft)	25	49	71	2	25
Average Queue (ft)	6	28	28	0	4
95th Queue (ft)	26	52	74	5	21
Link Distance (ft)	68	68	38	1119	76
Upstream Blk Time (%)		0	3		
Queuing Penalty (veh)		0	0		
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 2: Main Street (ID-75) & Access 1, Interval #3

Movement	EB	EB	NB	B3	SB
Directions Served	L	R	LT	T	TR
Maximum Queue (ft)	29	46	78	7	28
Average Queue (ft)	8	29	30	1	5
95th Queue (ft)	28	52	84	11	27
Link Distance (ft)	68	68	38	1119	76
Upstream Blk Time (%)		0	3		0
Queuing Penalty (veh)		0	0		0
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 2: Main Street (ID-75) & Access 1, Interval #4

Movement	EB	EB	NB	SB
Directions Served	L	R	LT	TR
Maximum Queue (ft)	23	46	72	25
Average Queue (ft)	7	26	27	5
95th Queue (ft)	27	53	73	27
Link Distance (ft)	68	68	38	76
Upstream Blk Time (%)		0	2	
Queuing Penalty (veh)		0	0	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: Main Street (ID-75) & Access 1, All Intervals

Movement	EB	EB	NB	B3	SB
Directions Served	L	R	LT	T	TR
Maximum Queue (ft)	31	61	103	17	41
Average Queue (ft)	6	28	28	1	4
95th Queue (ft)	26	54	78	8	24
Link Distance (ft)	68	68	38	1119	76
Upstream Blk Time (%)		0	3		0
Queuing Penalty (veh)		0	0		0
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Network Summary

Network wide Queuing Penalty, Interval #1: 2
Network wide Queuing Penalty, Interval #2: 1
Network wide Queuing Penalty, Interval #3: 7
Network wide Queuing Penalty, Interval #4: 2
Network wide Queuing Penalty, All Intervals: 3

HALES ENGINEERING
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SimTraffic LOS Report

Project: ID Ketchum Gas Station TIS
Analysis Period: *Future (2020) Background*
Time Period: *p.m. Peak Hour* **Project #:** *UT-16-851*

Intersection: 10th Street & Main Street (ID-75)
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	56	56	100	6.2	*A*
	T	323	331	103	1.6	*A*
	Subtotal	379	387	102	2.3	*A*
SB	T	479	474	99	1.0	*A*
	R	57	52	91	0.6	*A*
	Subtotal	536	526	98	1.0	*A*
NE	L	64	61	95	22.3	*C*
	R	91	90	99	11.5	*B*
	Subtotal	***155***	***151***	***97***	***15.9***	***C***
Total		1,070	1,064	99	3.6	*A*

Intersection:
Type:

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
Total						

3: 10th Street & Main Street (ID-75) Performance by movement Interval #1 4:15

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.4	0.5	0.2	0.2	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.1	0.2
Total Del/Veh (s)	5.1	1.0	1.0	0.7	20.3	11.5	3.4
Vehicles Entered	13	80	114	14	16	23	260
Vehicles Exited	13	80	114	14	16	23	260
Hourly Exit Rate	52	320	456	56	64	92	1040
Input Volume	55	317	471	56	63	89	1051
% of Volume	95	101	97	100	102	103	99

3: 10th Street & Main Street (ID-75) Performance by movement Interval #2 4:30

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.4	0.4	0.2	0.2	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.1	0.3
Total Del/Veh (s)	5.3	1.5	1.0	0.5	23.6	13.4	3.7
Vehicles Entered	14	86	118	14	15	21	268
Vehicles Exited	14	87	119	13	16	21	270
Hourly Exit Rate	56	348	476	52	64	84	1080
Input Volume	55	317	471	56	63	89	1051
% of Volume	102	110	101	93	102	94	103

3: 10th Street & Main Street (ID-75) Performance by movement Interval #3 4:45

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.5	0.5	0.2	0.2	0.3
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.1	0.3
Total Del/Veh (s)	8.0	2.1	1.1	0.7	24.5	10.4	3.9
Vehicles Entered	16	83	125	14	15	24	277
Vehicles Exited	15	83	124	14	15	24	275
Hourly Exit Rate	60	332	496	56	60	96	1100
Input Volume	59	340	504	60	67	96	1126
% of Volume	102	98	98	93	90	100	98

3: 10th Street & Main Street (ID-75) Performance by movement Interval #4 5:00

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.4	0.4	0.1	0.2	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.1	0.2
Total Del/Veh (s)	5.5	1.6	1.0	0.4	18.2	9.0	3.2
Vehicles Entered	14	81	118	11	15	22	261
Vehicles Exited	14	82	116	11	15	21	259
Hourly Exit Rate	56	328	464	44	60	84	1036
Input Volume	55	317	471	56	63	89	1051
% of Volume	102	103	99	79	95	94	99

3: 10th Street & Main Street (ID-75) Performance by movement Entire Run

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.0	0.0	0.4	0.4	0.2	0.2	0.2
Total Delay (hr)	0.1	0.1	0.1	0.0	0.4	0.3	1.1
Total Del/Veh (s)	6.2	1.6	1.0	0.6	22.3	11.5	3.6
Vehicles Entered	56	331	474	52	61	91	1065
Vehicles Exited	56	331	474	52	61	90	1064
Hourly Exit Rate	56	331	474	52	61	90	1064
Input Volume	56	323	479	57	64	91	1070
% of Volume	100	103	99	91	95	99	99

Total Network Performance By Interval

Interval Start	4:15	4:30	4:45	5:00	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.3	0.4	0.4	0.3	0.3
Total Delay (hr)	0.4	0.4	0.5	0.4	1.6
Total Del/Veh (s)	4.8	5.1	5.5	4.7	5.3
Vehicles Entered	259	269	278	258	1064
Vehicles Exited	260	272	275	260	1065
Hourly Exit Rate	1040	1088	1100	1040	1065
Input Volume	3034	3034	3251	3034	3088
% of Volume	34	36	34	34	34

Intersection: 3: 10th Street & Main Street (ID-75), Interval #1

Movement	NB	NE
Directions Served	LT	LR
Maximum Queue (ft)	70	103
Average Queue (ft)	25	60
95th Queue (ft)	73	112
Link Distance (ft)	274	1052
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: 10th Street & Main Street (ID-75), Interval #2

Movement	NB	SB	NE
Directions Served	LT	TR	LR
Maximum Queue (ft)	97	5	112
Average Queue (ft)	40	1	63
95th Queue (ft)	102	11	124
Link Distance (ft)	274	610	1052
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 3: 10th Street & Main Street (ID-75), Interval #3

Movement	NB	SB	NE
Directions Served	LT	TR	LR
Maximum Queue (ft)	113	2	102
Average Queue (ft)	53	0	60
95th Queue (ft)	130	5	107
Link Distance (ft)	274	610	1052
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 3: 10th Street & Main Street (ID-75), Interval #4

Movement	NB	NE
Directions Served	LT	LR
Maximum Queue (ft)	97	105
Average Queue (ft)	37	53
95th Queue (ft)	102	98
Link Distance (ft)	274	1052
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: 10th Street & Main Street (ID-75), All Intervals

Movement	NB	SB	NE
Directions Served	LT	TR	LR
Maximum Queue (ft)	148	7	138
Average Queue (ft)	39	0	59
95th Queue (ft)	105	6	111
Link Distance (ft)	274	610	1052
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty, Interval #1: 0
Network wide Queuing Penalty, Interval #2: 0
Network wide Queuing Penalty, Interval #3: 0
Network wide Queuing Penalty, Interval #4: 0
Network wide Queuing Penalty, All Intervals: 0

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SimTraffic LOS Report

Project: ID Ketchum Gas Station TIS
Analysis Period: *Future (2020) Plus Project*
Time Period: *p.m. Peak Hour* **Project #:** *UT-16-851*

Intersection: 10th Street & Main Street (ID-75)
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	56	55	98	6.0	*A*
	T	332	342	103	0.2	*A*
	Subtotal	388	397	102	1.0	*A*
SB	T	487	478	98	1.1	*A*
	R	57	58	102	0.7	*A*
	Subtotal	544	536	99	1.1	*A*
NE	L	64	64	100	24.2	*C*
	R	91	92	101	13.3	*B*
	Subtotal	***155***	***156***	***101***	***17.8***	***C***
Total		1,086	1,089	100	3.4	*A*

Intersection: Main Street (ID-75) & Access 1
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	47	44	94	3.8	*A*
	T	379	386	102	0.2	*A*
	Subtotal	426	430	101	0.6	*A*
SB	T	570	564	99	0.5	*A*
	R	8	7	88	0.2	*A*
	Subtotal	578	571	99	0.5	*A*
EB	L	8	10	125	15.9	*C*
	R	47	48	103	7.8	*A*
	Subtotal	***55***	***58***	***105***	***9.2***	***A***
Total		1,058	1,059	100	1.0	*A*

1: 10th Street & Main Street (ID-75) Performance by movement Interval #1 4:15

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.4	0.4	0.2	0.2	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.1	0.3
Total Del/Veh (s)	5.2	0.2	1.1	0.6	24.1	14.9	3.8
Vehicles Entered	15	81	113	14	17	23	263
Vehicles Exited	15	81	113	14	15	24	262
Hourly Exit Rate	60	324	452	56	60	96	1048
Input Volume	55	326	478	56	63	89	1067
% of Volume	109	99	95	100	95	108	98

1: 10th Street & Main Street (ID-75) Performance by movement Interval #2 4:30

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.4	0.5	0.2	0.2	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.1	0.2
Total Del/Veh (s)	5.4	0.2	1.0	0.9	20.0	11.4	3.0
Vehicles Entered	14	87	120	15	15	22	273
Vehicles Exited	14	87	120	15	16	23	275
Hourly Exit Rate	56	348	480	60	64	92	1100
Input Volume	55	326	478	56	63	89	1067
% of Volume	102	107	100	107	102	103	103

1: 10th Street & Main Street (ID-75) Performance by movement Interval #3 4:45

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.5	0.4	0.1	0.2	0.3
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.1	0.3
Total Del/Veh (s)	7.2	0.2	1.2	0.6	24.4	14.1	3.8
Vehicles Entered	13	86	125	15	18	24	281
Vehicles Exited	13	86	126	15	17	23	280
Hourly Exit Rate	52	344	504	60	68	92	1120
Input Volume	59	348	513	60	67	96	1143
% of Volume	88	99	98	100	101	96	98

1: 10th Street & Main Street (ID-75) Performance by movement Interval #4 5:00

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.5	0.6	0.2	0.2	0.3
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.1	0.2
Total Del/Veh (s)	5.8	0.2	1.1	0.8	20.9	11.1	3.1
Vehicles Entered	12	87	119	14	14	22	268
Vehicles Exited	12	87	120	13	15	22	269
Hourly Exit Rate	48	348	480	52	60	88	1076
Input Volume	55	326	478	56	63	89	1067
% of Volume	87	107	100	93	95	99	101

1: 10th Street & Main Street (ID-75) Performance by movement Entire Run

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.0	0.0	0.5	0.5	0.2	0.2	0.3
Total Delay (hr)	0.1	0.0	0.1	0.0	0.4	0.3	1.0
Total Del/Veh (s)	6.0	0.2	1.1	0.7	24.2	13.3	3.4
Vehicles Entered	55	342	477	58	64	92	1088
Vehicles Exited	55	342	478	58	64	92	1089
Hourly Exit Rate	55	342	478	58	64	92	1089
Input Volume	56	332	487	57	64	91	1086
% of Volume	98	103	98	102	100	101	100

2: Main Street (ID-75) & Access 1 Performance by movement Interval #1 4:15

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.2	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	17.6	7.2	3.4	0.2	0.5	0.1	1.0
Vehicles Entered	2	12	11	93	135	2	255
Vehicles Exited	2	11	12	93	135	2	255
Hourly Exit Rate	8	44	48	372	540	8	1020
Input Volume	8	46	46	372	560	8	1040
% of Volume	100	96	104	100	96	100	98

2: Main Street (ID-75) & Access 1 Performance by movement Interval #2 4:30

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.2	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	16.1	8.5	3.3	0.2	0.4	0.4	1.0
Vehicles Entered	3	12	11	98	142	1	267
Vehicles Exited	3	12	11	98	142	1	267
Hourly Exit Rate	12	48	44	392	568	4	1068
Input Volume	8	46	46	372	560	8	1040
% of Volume	150	104	96	105	101	50	103

2: Main Street (ID-75) & Access 1 Performance by movement Interval #3 4:45

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	20.6	6.9	4.3	0.2	0.5	0.2	1.0
Vehicles Entered	2	12	12	97	147	2	272
Vehicles Exited	2	12	12	97	147	2	272
Hourly Exit Rate	8	48	48	388	588	8	1088
Input Volume	8	49	49	399	601	8	1114
% of Volume	100	98	98	97	98	100	98

2: Main Street (ID-75) & Access 1 Performance by movement Interval #4 5:00

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.2	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	17.4	8.5	3.7	0.2	0.5	0.3	1.0
Vehicles Entered	2	12	10	97	140	2	263
Vehicles Exited	2	12	10	97	140	2	263
Hourly Exit Rate	8	48	40	388	560	8	1052
Input Volume	8	46	46	372	560	8	1040
% of Volume	100	104	87	104	100	100	101

2: Main Street (ID-75) & Access 1 Performance by movement Entire Run

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.2	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.1	0.0	0.0	0.1	0.0	0.3
Total Del/Veh (s)	15.9	7.8	3.8	0.2	0.5	0.2	1.0
Vehicles Entered	10	48	44	385	564	7	1058
Vehicles Exited	10	48	44	386	564	7	1059
Hourly Exit Rate	10	48	44	386	564	7	1059
Input Volume	8	47	47	379	570	8	1058
% of Volume	125	103	94	102	99	88	100

Total Network Performance By Interval

Interval Start	4:15	4:30	4:45	5:00	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.4	0.4	0.4	0.4	0.4
Total Delay (hr)	0.5	0.4	0.5	0.4	1.9
Total Del/Veh (s)	5.7	5.1	5.7	5.1	5.7
Vehicles Entered	285	295	305	291	1180
Vehicles Exited	285	297	305	294	1181
Hourly Exit Rate	1140	1188	1220	1176	1181
Input Volume	4290	4290	4594	4290	4366
% of Volume	27	28	27	27	27

Intersection: 1: 10th Street & Main Street (ID-75), Interval #1

Movement	NB	SB	NE
Directions Served	L	TR	LR
Maximum Queue (ft)	47	16	129
Average Queue (ft)	26	2	64
95th Queue (ft)	53	16	130
Link Distance (ft)	71	616	1045
Upstream Blk Time (%)	0		
Queuing Penalty (veh)	0		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 1: 10th Street & Main Street (ID-75), Interval #2

Movement	NB	SB	NE
Directions Served	L	TR	LR
Maximum Queue (ft)	49	6	114
Average Queue (ft)	24	1	61
95th Queue (ft)	54	9	121
Link Distance (ft)	71	616	1045
Upstream Blk Time (%)	0		
Queuing Penalty (veh)	1		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 1: 10th Street & Main Street (ID-75), Interval #3

Movement	NB	SB	NE
Directions Served	L	TR	LR
Maximum Queue (ft)	51	8	122
Average Queue (ft)	25	1	66
95th Queue (ft)	57	11	127
Link Distance (ft)	71	616	1045
Upstream Blk Time (%)	1		
Queuing Penalty (veh)	1		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 1: 10th Street & Main Street (ID-75), Interval #4

Movement	NB	SB	NE
Directions Served	L	TR	LR
Maximum Queue (ft)	41	14	94
Average Queue (ft)	18	2	56
95th Queue (ft)	50	17	103
Link Distance (ft)	71	616	1045
Upstream Blk Time (%)	1		
Queuing Penalty (veh)	1		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 1: 10th Street & Main Street (ID-75), All Intervals

Movement	NB	SB	NE
Directions Served	L	TR	LR
Maximum Queue (ft)	64	27	158
Average Queue (ft)	23	2	62
95th Queue (ft)	54	14	121
Link Distance (ft)	71	616	1045
Upstream Blk Time (%)	0		
Queuing Penalty (veh)	1		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: Main Street (ID-75) & Access 1, Interval #1

Movement	EB	EB	NB	SB
Directions Served	L	R	LT	TR
Maximum Queue (ft)	29	54	47	32
Average Queue (ft)	10	28	18	6
95th Queue (ft)	33	55	51	26
Link Distance (ft)	68	68	38	71
Upstream Blk Time (%)		0	2	
Queuing Penalty (veh)		0	0	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: Main Street (ID-75) & Access 1, Interval #2

Movement	EB	EB	NB	SB
Directions Served	L	R	LT	TR
Maximum Queue (ft)	32	56	40	30
Average Queue (ft)	10	31	18	7
95th Queue (ft)	33	63	46	31
Link Distance (ft)	68	68	38	71
Upstream Blk Time (%)	0	1	1	0
Queuing Penalty (veh)	0	0	0	0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: Main Street (ID-75) & Access 1, Interval #3

Movement	EB	EB	NB	SB
Directions Served	L	R	LT	TR
Maximum Queue (ft)	29	47	51	32
Average Queue (ft)	10	27	22	5
95th Queue (ft)	32	49	60	29
Link Distance (ft)	68	68	38	71
Upstream Blk Time (%)		0	2	0
Queuing Penalty (veh)		0	0	0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: Main Street (ID-75) & Access 1, Interval #4

Movement	EB	EB	NB	SB
Directions Served	L	R	LT	TR
Maximum Queue (ft)	29	61	48	30
Average Queue (ft)	8	30	16	6
95th Queue (ft)	31	61	50	26
Link Distance (ft)	68	68	38	71
Upstream Blk Time (%)	0	1	2	
Queuing Penalty (veh)	0	0	0	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: Main Street (ID-75) & Access 1, All Intervals

Movement	EB	EB	NB	SB
Directions Served	L	R	LT	TR
Maximum Queue (ft)	36	72	63	46
Average Queue (ft)	9	29	19	6
95th Queue (ft)	32	58	52	28
Link Distance (ft)	68	68	38	71
Upstream Blk Time (%)	0	0	2	0
Queuing Penalty (veh)	0	0	0	0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty, Interval #1: 0
Network wide Queuing Penalty, Interval #2: 1
Network wide Queuing Penalty, Interval #3: 1
Network wide Queuing Penalty, Interval #4: 1
Network wide Queuing Penalty, All Intervals: 1

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APPENDIX C

Site Plan

LEGEND:
EXISTING PROPERTY LINE
EXISTING ADJOINER
EXISTING CENTERLINE
PROPOSED CONCRETE CURB & GUTTER
PROPOSED CONCRETE
PROPOSED ASPHALT
PROPOSED PAVERS

0 20 40 Feet

KETCHUM BLOCK 50 LOT 1AA
KETCHUM BLOCK 50 LOT 2A
KETCHUM BLOCK 29 LOT 1 & 2
E 9TH STREET ℄
EXISTING PARALLEL PARKING
EXISTING STRIPING
PROPOSED STRIPING
62.5'
50'±
13'
12'
100'± R.O.W.
STATE HWY 75 ℄
50'
6'
23'
19'
35'
R480'
R200'
R10'
R50'
40'
4'
R30'
PROPOSED 2' VALLEY GUTTER
8'
R3' TYP.
24'
KETCHUM BLOCK 30 LOT 5A
10' TYP.
15'
20' TYP.
PROPOSED ADDITION
EXISTING BUILDING
ALLEY
60'
E 10TH STREET ℄
LOT 1
LOT 2
LOT 3
LOT 4
N LEADVILLE AVENUE ℄
TENTH ST LIGHT INDUSTRIAL COMPLEX
TL 4808

1 EX VICINITY MAP
SCALE: N.T.S.

PRELIMINARY ONLY NOT FOR CONSTRUCTION

REVISIONS

No.	DESCRIPTION	DATE	BY

PREPARED BY:
BENCHMARK ASSOCIATES, P.A.
P.O. BOX 733 100 BELL DRIVE
KETCHUM, IDAHO 83340
(208) 726-9512
FAX 726-9514
WEB: WWW.BMASB.COM
MAIL: WWW.BMASB.COM

PRELIMINARY IMPROVEMENTS PLAN

KETCHUM TOWNSITE BLOCK 30, LOT 5A
T4N, R17E, SEC 13, B.M., BLAINE COUNTY, IDAHO

PREPARED FOR: ROY BRACKEN

DRAWN BY: SKS
DESIGNED BY: JPG
CHECKED BY: SB
DATE: 05/03/16
PROJECT NO.: 16051

SHEET NUMBER
EX

HALES ENGINEERING
innovative transportation solutions

APPENDIX D

95th Percentile Queue Length Reports

SimTraffic Queueing Report
Project: ID Ketchum Gas Station TIS
Time Period: p.m. Peak Hour
95th Percentile Queue Length (feet)

HALES ENGINEERING
Innovative transportation solutions

Project #: UT-16-851

Intersection	Time Period	NB	NE	SB
		LT	LR	TR
10th Street & Main Street (ID-75)	Existing (2016) Background	79	80	2

SimTraffic Queueing Report
Project: ID Ketchum Gas Station TIS
Time Period: p.m. Peak Hour
95th Percentile Queue Length (feet)

HALES ENGINEERING
Innovative transportation solutions

Project #: UT-16-851

Intersection	Time Period	B3	EB		NB	NE	SB
		T	L	R	LT	LR	TR
10th Street & Main Street (ID-75)	Existing (2016) Plus Project	--	--	--	75	83	12
Main Street (ID-75) & Access 1	Existing (2016) Plus Project	8	26	54	78	--	24

SimTraffic Queueing Report
Project: ID Ketchum Gas Station TIS
Time Period: p.m. Peak Hour
95th Percentile Queue Length (feet)

HALES ENGINEERING
Innovative transportation solutions

Project #: UT-16-851

Intersection	Time Period	NB	NE	SB
		LT	LR	TR
10th Street & Main Street (ID-75)	Future (2020) Background	105	111	6

SimTraffic Queueing Report
Project: ID Ketchum Gas Station TIS
Time Period: p.m. Peak Hour
95th Percentile Queue Length (feet)

HALES ENGINEERING
Innovative transportation solutions

Project #: UT-16-851

Intersection	Time Period	EB		NB		NE	SB
		L	R	L	LT	LR	TR
10th Street & Main Street (ID-75)	Future (2020) Plus Project	--	--	54	--	121	14
Main Street (ID-75) & Access 1	Future (2020) Plus Project	32	58	--	52	--	28

Table of Contents

58.01.07 - Rules Regulating Underground Storage Tank Systems

IDAPA 58
TITLE 01
CHAPTER 07

58.01.07 - RULES REGULATING UNDERGROUND STORAGE TANK SYSTEMS

000. LEGAL AUTHORITY.
Chapters 1 and 88, Title 39, Idaho Code, grant authority to the Board of Environmental Quality to promulgate rules for the regulation of underground storage tank systems within the state of Idaho. (4-2-08)

001. TITLE AND SCOPE.

01. Title. These rules shall be cited as IDAPA 58.01.07, "Rules Regulating Underground Storage Tank Systems." (4-2-08)

02. Scope. These rules establish standards and procedures necessary for the regulation of underground storage tank systems. Compliance with these rules shall not relieve persons from the obligation to comply with other applicable state or federal laws. (4-2-08)

002. WRITTEN INTERPRETATIONS.
As described in Section 67-5201(19)(b)(iv), Idaho Code, the Department of Environmental Quality may have written statements which pertain to the interpretation of these rules. If available, such written statements can be inspected and copied at cost at the Department of Environmental Quality, 1410 N. Hilton, Boise, Idaho 83706-1255. (4-2-08)

003. ADMINISTRATIVE PROVISIONS.
Persons may be entitled to appeal agency actions authorized under these rules pursuant to IDAPA 58.01.23, "Rules of Administrative Procedure Before the Board of Environmental Quality." (4-2-08)

004. INCORPORATION BY REFERENCE.
Any reference to any document identified in Subsection 004.01 shall constitute the full adoption by reference into IDAPA 58.01.07. (4-2-08)

01. Documents Incorporated by Reference. Technical Standards and Corrective Action Requirements for Owners and Operators of Underground Storage Tanks, 40 CFR Part 280, revised as of July 1, 2007. (4-2-08)

02. Hazardous Substance Underground Storage Tank Systems. (4-2-08)

a. The following items only apply to hazardous substance underground storage tank systems and do not apply to petroleum underground storage tank systems: (4-2-08)

i. The definition of "Hazardous substance UST system" in 40 CFR 280.12 and use of this term or regulations regarding hazardous substance in 40 CFR Part 280; and (4-2-08)

ii. 40 CFR 280.42 and any reference to 40 CFR 280.42 in 40 CFR Part 280. (4-2-08)

b. All other provisions of 40 CFR Part 280 and all provisions of IDAPA 58.01.07 shall apply to hazardous substance underground storage tank systems. (4-2-08)

03. Consistency. In the event of conflict or inconsistency between the language in IDAPA 58.01.07 and that found in 40 CFR Part 280, IDAPA 58.01.07 shall prevail. (4-2-08)

04. Stringency. IDAPA 58.01.07 shall be no more stringent than federal law or regulations governing underground storage tank systems. (4-2-08)

05. Availability of Referenced Material. The federal regulations adopted by reference can be obtained at the following locations: (4-2-08)

a. U.S. Government Printing Office, www.ecfr.gov; and (4-2-08)

b. Department of Environmental Quality, Hearing Coordinator, 1410 N. Hilton, Boise, ID 83706-1255, (208)373-0502. (4-2-08)

005. OFFICE HOURS -- MAILING ADDRESS AND STREET ADDRESS.
The state office of the Department of Environmental Quality and the office of the Board of Environmental Quality are located at 1410 N. Hilton, Boise, Idaho 83706-1255, (208) 373-0502, www.deq.idaho.gov. The office hours are 8 a.m. to 5 p.m. Monday through Friday. (4-2-08)

006. CONFIDENTIALITY OF RECORDS.
Information obtained by the Department under these rules is subject to public disclosure pursuant to the provisions of Title 74, Chapter 1, Idaho Code, and IDAPA 58.01.21, "Rules Governing the Protection and Disclosure of Records in the Possession of the Idaho Department of Environmental Quality." (4-2-08)

007. -- 009. (RESERVED)

010. DEFINITIONS.
For the purpose of the rules contained in IDAPA 58.01.07, "Rules Regulating Underground Storage Tank Systems," the following definitions apply: (4-2-08)

01. **Board**. The Idaho Board of Environmental Quality. (4-2-08)

02. **Community Water System**. A public water system that serves at least fifteen (15) service connections used by year-round residents of the area served by the system or regularly serves at least twenty-five (25) year-round residents. (4-2-08)

03. **Department**. The Idaho Department of Environmental Quality. (4-2-08)

04. **Director**.The Director of the Idaho Department of Environmental Quality or his authorized agent. (4-2-08)

05. **Existing**. Solely for purposes of determining when secondary containment is required, existing is when a petroleum underground storage tank, piping, motor fuel dispensing system, facility, public water system or potable drinking water well is in place when a new installation or replacement of a tank, piping, or motor fuel dispensing system begins. (4-2-08)

06. **EPA**. The United States Environmental Protection Agency. (4-2-08)

07. **Installation of a New Motor Fuel Dispenser System**. The installation of a new motor fuel dispenser and the equipment necessary to connect the dispenser to the petroleum underground storage tank system. This equipment may include flexible connectors, risers, or other transitional components that are beneath the dispenser, below the shear valve, and connect the dispenser to the piping. It does not mean the installation of a motor fuel dispenser installed separately from the equipment needed to connect the dispenser to the petroleum underground storage tank system. (4-2-08)

08. **Installer**. Any person who installs a new or replacement petroleum underground storage tank system. (4-2-08)

09. **Motor Fuel**. Petroleum or a petroleum-based substance that is motor gasoline, aviation gasoline, No. 1 or No. 2 diesel fuel, or any grade of petroleum-blended gasohol, and is typically used in the operation of a motor engine. This includes blended petroleum motor fuels such as biodiesel and ethanol petroleum blends. (4-2-08)

10. **New Underground Storage Tank**. Has the same meaning as "underground storage tank or UST" in 40 CFR 280.12, except that such term includes tanks that have been previously used and meet the requirements of 40 CFR 280.20(a). (4-2-08)

11. **Non-Community Water System**. A public water system that is not a community water system. A

non-community water system is either a transient non-community water system or a non-transient non-community water system. (4-2-08)

12. **Person**. An individual, trust, firm, joint stock company, federal agency, corporation, state, municipality, commission, political subdivision of a state, or any interstate body. "Person" also includes a consortium, a joint venture, a commercial entity, and the United States government. (4-2-08)

13. **Piping**. A hollow cylinder or a tubular conduit constructed of non-earthen materials that routinely contains and conveys regulated petroleum substances from the petroleum underground storage tank(s) to the dispenser(s) or other end-use equipment. It does not mean vent, vapor recovery, or fill lines that do not routinely contain regulated petroleum substances. (4-2-08)

14. **Potable Drinking Water Well**. Any hole (dug, driven, drilled, or bored) that extends into the earth until it meets ground water which supplies water for a non-community public water system or otherwise supplies water for household use (consisting of drinking, bathing, and cooking, or other similar uses). Such wells may provide water to entities such as a single-family residence, group of residences, businesses, schools, parks, campgrounds, and other permanent or seasonal communities. (4-2-08)

15. **Product Deliverer**. Any person who delivers or deposits product into a petroleum underground storage tank. This term may include major oil companies, jobbers, petroleum transportation companies, or other product delivery entities. (4-2-08)

16. **Public Water System**. A system for the provision to the public of water for human consumption through pipes or, after August 5, 1998, other constructed conveyances, if such system has at least fifteen (15) service connections or regularly serves an average of at least twenty-five (25) individuals daily at least sixty (60) days out of the year. Such term includes: any collection, treatment, storage, and distribution facilities under control of the operator of such system and used primarily in connection with such system; and, any collection or pretreatment storage facilities not under such control which are used primarily in connection with such system. Such term does not include any "special irrigation district." A public water system is either a "community water system" or a "non-community water system." (4-2-08)

17. **Red Tag**. A tamper-resistant tag, device, or mechanism attached to the tank's fill pipes that clearly identifies a petroleum underground storage tank as ineligible for product delivery. The tag or device shall be visible to the product deliverer and shall clearly state that it is unlawful to deliver to, deposit into, or accept product into the ineligible petroleum underground storage tank. (4-2-08)

18. **Repair**. Solely for purposes of determining when secondary containment is required, as it applies to petroleum underground storage tanks, piping, and motor fuel dispensers systems, repair means any activity that does not meet the definition of replace. (4-2-08)

19. **Replace**. As it applies to petroleum underground storage tanks and piping, replace is defined as follows: (4-2-08)

a. Petroleum Underground Storage Tank. Replace means to remove an existing tank and install a new tank. (4-2-08)

b. Piping. Replace means to remove and put back in one hundred (100) percent of the piping, excluding connectors, connected to a single petroleum underground storage tank system. This definition does not alter the requirement in 40 CFR 280.33(c) to replace metal pipe sections and fittings that have released product as a result of corrosion or other damage. A replacement of metal pipe section and fittings pursuant to 40 CFR 280.33(c) shall be considered a replacement under this definition only if one hundred (100) percent of the metal piping, excluding connectors, is replaced. (4-2-08)

20. **Secondary Containment**. A release detection and prevention system that meets the requirements of 40 CFR 280.43(g). The piping shall have an inner and outer barrier and a method of monitoring the space between the inner and outer barriers for a leak or release. (4-2-08)

21. Under-Dispenser Spill Containment. Containment underneath a dispenser that will prevent leaks from the dispenser from reaching soil or ground water. Such containment must: (4-2-08)

a. At installation or modification, be liquid-tight on its sides, bottom, and at any penetrations; and (4-2-08)

b. Be compatible with the substance conveyed by the piping; and either (4-2-08)

c. Allow for visual inspection and access to the components in the containment system; or (4-2-08)

d. Be monitored for releases using a release detection method that meets the requirements of 40 CFR 280.43(g). (4-2-08)

011. – 099. (RESERVED)

100. ADDITIONAL MEASURES TO PROTECT GROUND WATER FROM CONTAMINATION.

01. Notification. An owner, operator or designee must: (4-2-08)

a. Provide written notice to the Department thirty (30) days prior to the installation of a new piping system or a new or replacement petroleum underground storage tank. (4-2-08)

b. Provide notice to the Department twenty-four (24) hours prior to the installation of a replacement piping system. (4-2-08)

02. Notification Forms. The written notice required in Subsection 100.01.a. shall be made upon forms provided by the Department. (4-2-08)

03. Requirements for Petroleum UST Systems. Owners, operators, and installers of a new or replacement petroleum underground storage tank or piping system shall comply with the following requirements. (4-2-08)

a. Each new petroleum underground storage tank, or piping connected to any such new tank, installed after February 23, 2007, or any existing petroleum underground storage tank, or existing piping connected to such existing tank, that is replaced after February 23, 2007, shall have secondary containment and be monitored for leaks if the new or replaced petroleum underground storage tank or piping is within one thousand (1,000) feet of any existing public water system or any existing potable drinking water well. At a minimum, secondary containment systems must be designed, constructed, and installed to contain regulated substances released from the tank system until they are detected and removed, prevent the release of regulated substances to the environment at any time during the operational life of the petroleum underground storage tank system, and be checked for evidence of a release at least every thirty (30) days. The following conditions are excluded: (4-2-08)

i. Suction piping that meets the requirements of 40 CFR 280.41(b)(2)(i) through (v); (4-2-08)

ii. Piping that manifolds two (2) or more petroleum underground storage tanks together; (4-2-08)

iii. Existing piping to which new piping is connected to install a dispenser; and (4-2-08)

iv. Tanks identified in 40 CFR 280.10(b). (4-2-08)

b. If the owner installs, within one (1) year, a potable drinking water well at the new facility that is within one thousand (1,000) feet of the petroleum underground tanks, piping, or motor fuel dispenser system as part of the new underground storage tank facility installation, secondary containment and under-dispenser containment are required, regardless of whether the well is installed before or after the petroleum underground tanks, piping, and motor fuel dispenser system are installed. (4-2-08)

c. The notice required in Subsection 100.01 shall indicate whether the new or replacement installation

is within one thousand (1,000) feet of an existing public water system or any existing potable drinking water well. If the owner and installer certify that the installation is not within one thousand (1,000) feet of an existing public water system or any existing potable drinking water well, the owner, operator or designee shall provide and maintain documentation showing that a reasonable investigation of water systems and drinking water wells was undertaken. A reasonable investigation includes, but is not limited to, a search of the records of: (4-2-08)

i. The public or private water service provider in the area which the new or replacement installation is located (if any); (4-2-08)

ii. The city or county in which the new or replacement installation is located; (4-2-08)

iii. The Idaho Department of Water Resources; and (4-2-08)

iv. The Idaho Department of Environmental Quality. (4-2-08)

d. In the case of a replacement of an existing petroleum underground storage tank or existing piping connected to the petroleum underground storage tank, Section 100 shall apply only to the specific petroleum underground storage tank or piping being replaced, not to other petroleum underground storage tanks and connected pipes comprising such system. (4-2-08)

e. Each installation of a new motor fuel dispenser system shall include under-dispenser spill containment if the new dispenser is within one thousand (1,000) feet of any existing public water system or any existing potable drinking water well. (4-2-08)

04. Requirements for Hazardous Substance UST Systems. Owners, operators, and installers of a new or replacement hazardous substance underground storage tank or piping system shall have secondary containment as required in 40 CFR 280.42. (4-2-08)

05. Certification. Owners and operators shall also comply with the certification requirements of 40 CFR 280.22(f) as incorporated by reference into these rules. (4-2-08)

101. -- 199. (RESERVED)

200. RELEASE REPORTING REQUIREMENTS.

01. Information to be Reported. (4-2-08)

a. In addition to the requirements in IDAPA 58.01.02, "Water Quality Standards," Subsection 851.01, owners or operators shall report the following information regarding confirmed petroleum underground storage tank releases to the Department on forms provided by the Department: (4-2-08)

i. The release source; and (4-2-08)

ii. The release cause. (4-2-08)

b. Releases less than twenty-five (25) gallons that are cleaned up within twenty-four (24) hours, and which do not cause a sheen on nearby surface water, do not need to be reported. (4-2-08)

02. Release Sources. Release sources may include, but are not limited to the following: (4-2-08)

a. Petroleum Underground Storage Tanks; (4-2-08)

b. Piping; (4-2-08)

c. Dispensers, which include the dispenser and equipment used to connect the dispenser to the piping. A release from a suction pump or components located above the shear valve would be an example of a release from the dispenser; (4-2-08)

d. Submersible turbine pump area, which includes the submersible turbine pump head (typically located in the tank sump), the line leak detector, and the piping that connects the submersible turbine pump to the petroleum underground storage tank; and (4-2-08)

e. Delivery problem, which identifies releases that occurred during product delivery to the petroleum underground storage tank. Typical causes associated with this source are spills and overfills. (4-2-08)

03. Release Causes. Release causes may include, but are not limited to the following: (4-2-08)

a. Spills which may occur when the delivery hose is disconnected from the fill pipe of the petroleum underground storage tank or when the nozzle is removed from the vehicle at the dispenser; (4-2-08)

b. Overfills which may occur from the fill pipe at the petroleum underground storage tank or when the nozzle fails to shut off at the dispenser; (4-2-08)

c. Physical or mechanical damage of all types except corrosion. Examples include a puncture of the petroleum underground storage tank or piping, loose fittings, broken components, and components that have changed dimension like elongation or swelling; (4-2-08)

d. Corrosion of a metal tank, piping, flex connector, or other component; and (4-2-08)

e. Installation problem that occurs specifically because the underground storage tank system was not installed properly. (4-2-08)

04. Requirements. The reporting required in Section 200 shall be reported to the Department within ninety (90) days of a confirmed release. The reporting requirement in Section 200 shall not relieve owners or operators from the obligation to comply with IDAPA 58.01.02, "Water Quality Standards," Section 851, "Petroleum Release Reporting, Investigation, and Confirmation," and IDAPA 58.01.02, "Water Quality Standards," Section 852, "Petroleum Release Response and Corrective Action." (4-2-08)

201. -- 299. (RESERVED)

300. TRAINING REQUIREMENTS.

01. Requirements. The Department shall adopt a training program to help owners and operators comply with the requirements of these rules. The training program requirements shall: (4-2-08)

a. Be consistent with 42 U.S.C. 6991i(a), as amended by the Underground Storage Tank Compliance Act, (Pub.L. 109-58, title XV, sec. 1524(a), Aug. 8, 2005); (4-2-08)

b. Be developed in cooperation with petroleum underground storage tank owners and tank operators; (4-2-08)

c. Take into consideration training programs implemented by petroleum underground storage tank owners and operators as of August 8, 2005; (4-2-08)

d. Provide for training to be conducted on site or at another mutually convenient location; and (4-2-08)

e. Be appropriately communicated to petroleum underground storage tank owners and operators. (4-2-08)

02. Operator Designation. For each petroleum underground storage tank system regulated under these rules, the owner or operator shall: (4-2-08)

a. Designate: (4-2-08)

i. The class A operator, who is the individual(s) having primary responsibility for on-site operation

and maintenance of the petroleum underground storage tank system. This does not require that the class A operator be on site; (4-2-08)

ii. The class B operator, who is the individual(s) having daily on-site responsibility for the operation and maintenance of the petroleum underground storage tank system. This does not require that the class B operator be on site at all times; and (4-2-08)

iii. The class C operator, who is the daily, on-site individual(s) having primary responsibility for addressing emergencies presented by a spill or release from the petroleum underground storage tank system. The class C operator can be designated by the class A or B operator. (4-2-08)

b. Maintain a record at the facility where the petroleum underground storage tank is located listing each person designated in Subsections 300.02.a.i., 300.02.a.ii., and 300.02.a.iii. (4-2-08)

c. Notify the Department in writing of the individual(s) designated in Subsections 300.02.a.i. and 300.02.a.ii. within thirty (30) days of the designation. (4-2-08)

03. Training. The owner or operator of each petroleum underground storage tank system regulated under these rules shall ensure that the individual(s) identified in Subsections 300.02.a.i. and 300.02.a.ii. participate in the training conducted by the Department or a state of Idaho approved third party. (4-2-08)

a. The individual(s) identified in Subsections 300.02.a.i. or 300.02.a.ii. shall provide training to the persons identified in Subsection 300.02.a.iii. (4-2-08)

b. The individual(s) identified in Subsection 300.02.a.iii. must be trained before assuming responsibility for responding to emergencies. (4-2-08)

c. The individual(s) identified in Subsections 300.02.a.i. and 300.02.a.ii. shall repeat the training within thirty (30) days if the petroleum underground storage tank system for which they have responsibility is determined to be out of compliance with these rules. (4-2-08)

04. Unattended Sites. In the case of unattended sites, a sign must be posted in a location visible from the dispensers indicating emergency shut-off procedures and emergency contact phone numbers. (4-2-08)

301. -- 399. (RESERVED)

400. INSPECTIONS.

01. Department Authority. In order to fulfill the statutory requirements of Chapter 88, Title 39, Idaho Code, officers, employees or representatives of the Department, or third-party inspectors as described in Subsection 400.02, are authorized to inspect petroleum underground storage tanks, contents of the tanks, and associated equipment and records relating to such tanks, contents, and associated equipment. (4-2-08)

02. Third-Party Inspections. (4-2-08)

a. Third-party inspectors must be certified, licensed, or registered by an approved state program to perform on-site inspections. At a minimum, third-party inspectors must meet the requirements listed in Subsections 400.02.a.i. through 400.02.a.v.: (4-2-08)

i. Be trained in the state-specific inspection protocols and procedures, and perform inspections pursuant to such protocols and procedures; (4-2-08)

ii. Successfully complete the state's required training program. The training program for third-party inspectors must be comparable to the training program for Department inspectors; (4-2-08)

iii. Not be the owner or operator of the petroleum underground storage tank, an employee of the owner or operator of the petroleum underground storage tank, or a person having daily on-site responsibility for the operation and maintenance of the petroleum underground storage tank; (4-2-08)

iv. Use an inspection report form developed by the Department. Review of applicable records and other activities that can be accomplished off-site may be combined with activities conducted at the site to fulfill the on-site inspection requirement; and (4-2-08)

v. Complete and submit the inspection report to the Department in the manner and time frame established by the Department. All third-party inspection reports must be submitted electronically to the Department for review and for the Department to make a compliance determination for each site. If requested by the Department, third-party inspectors shall provide all supporting documentation for its inspection reports. (4-2-08)

b. Third-party inspection procedures must contain an audit program, developed by the Department, to monitor third-party inspectors on a routine basis. The audit program must include a sufficient number of on-site inspections to effectively assess inspector performance. (4-2-08)

c. If a third-party inspector fails to demonstrate to the approved state program adequate competence and proficiency to perform petroleum underground storage tank inspections, or the approved state program otherwise determines it is not appropriate for the third-party inspector to conduct on-site inspections as part of a third-party inspection program, the approved state program must take appropriate action against the third-party inspector as provided by law. (4-2-08)

03. Inspections. All inspections shall be done in accordance with the provisions of Section 39-108, Idaho Code. At a minimum, an on-site inspection must assess compliance with the following: (4-2-08)

a. Notification; (4-2-08)

b. Corrosion protection; (4-2-08)

c. Overfill prevention in place and operational; (4-2-08)

d. Spill prevention in place and operational; (4-2-08)

e. Tank and piping release detection; (4-2-08)

f. Reporting suspected releases; (4-2-08)

g. Records of tank and piping repairs; (4-2-08)

h. Secondary containment where required; (4-2-08)

i. Financial responsibility; and (4-2-08)

j. Temporary closure. (4-2-08)

401. -- 499. (RESERVED)

500. DELIVERY PROHIBITION.

01. Prohibition. Effective August 8, 2007, it shall be unlawful for any person to deliver to, deposit into, or accept a regulated petroleum substance into a petroleum underground storage tank at a facility which has been identified by the Department to be ineligible for such delivery, deposit, or acceptance. (4-2-08)

02. Classification as Ineligible. The Department shall classify a petroleum underground storage tank as ineligible for delivery, deposit, or acceptance of a regulated petroleum substance as soon as practicable after the Department determines one or more of the following conditions exists: (4-2-08)

a. Required spill prevention equipment is not installed; (4-2-08)

b. Required overfill protection equipment is not installed; (4-2-08)

c. Required leak detection equipment is not installed; or (4-2-08)

d. Required corrosion protection equipment is not installed. (4-2-08)

03. Warning of Violations. The Department may classify a petroleum underground storage tank as ineligible for delivery, deposit, or acceptance of a regulated petroleum substance if the owner or operator of the tank has been issued a written warning for any of the following violations, and the owner or operator fails to initiate corrective action within thirty (30) days of the issuance of the written warning, unless the deadline is extended by the Department: (4-2-08)

a. Failure to properly operate or maintain leak detection equipment; (4-2-08)

b. Failure to properly operate or maintain spill, overfill, or corrosion protection equipment; or (4-2-08)

c. Failure to maintain financial responsibility. (4-2-08)

04. Service of Notice. If the Department classifies a petroleum underground storage tank as ineligible for delivery, deposit, or acceptance of a regulated petroleum substance pursuant to Subsections 500.02 or 500.03, the Department shall provide a written notice of the determination to the owner or operator prior to prohibiting the delivery, deposit, or acceptance of a regulated petroleum substance. Notice is considered properly served by the Department in any of the following ways: (4-2-08)

a. The notice is personally delivered to the owner or operator; or (4-2-08)

b. The notice is clearly posted at a public entrance to the facility where the petroleum underground storage tank is located and a copy of the notice is also sent by certified mail to the last known address of the owner or operator. (4-2-08)

05. Red-Tagging. Once service of the written notice of the ineligible determination is complete, the Department shall then attach a red tag to each fill pipe of the ineligible petroleum underground storage tank clearly identifying the tank as ineligible. The Department shall also maintain a list of all petroleum underground storage tanks that are classified as ineligible for delivery, deposit, or acceptance of a regulated petroleum substance. The Department shall make the list available to the public by posting the list on the Department's website at www.deq.idaho.gov. (4-2-08)

06. Written Notice. The written notice required by Subsection 500.04 must include: (4-2-08)

a. The specific reasons or violations that led to the ineligible classification; (4-2-08)

b. A statement notifying the owner and operator that the petroleum underground storage tank is ineligible for delivery and it is unlawful for any person to deliver to, deposit into, or accept a regulated petroleum substance into the petroleum underground storage tank; (4-2-08)

c. The effective date the petroleum underground storage tank is deemed ineligible for delivery; (4-2-08)

d. The name and address of the department representative to whom a written request for re-inspection can be made, if a re-inspection is necessary; (4-2-08)

e. A statement regarding the right to appeal the Department's action regarding ineligible classification pursuant to IDAPA 58.01.23, "Rules of Administrative Procedure Before the Board of Environmental Quality"; and (4-2-08)

f. The option to request a compliance conference pursuant to Subsection 500.07. (4-2-08)

07. Compliance Conference. The owner or operator may request a compliance conference with the Department within fifteen (15) days of receipt of the notice. A compliance conference shall be scheduled within twenty (20) days and conducted in an informal manner by the Department. At the compliance conference, the owner or operator may explain why he believes the petroleum underground storage tank should not be classified as ineligible. During the compliance conference, the owner or operator and the Department will identify and establish appropriate acts and a time schedule for compliance as necessary. (4-2-08)

08. Duration of Ineligible Classification. The classification of a petroleum underground storage tank as ineligible shall remain in effect until the conditions cited in the notice no longer exist. If the Department determines that an ineligible storage tank has returned to compliance and is now eligible for delivery, deposit, or acceptance of a regulated petroleum substance, the Department or an authorized designee shall, as soon as practicable, remove the red tag from the petroleum underground storage tank and also remove the petroleum underground storage tank from the ineligible list posted on its website. The Department will also send a written notice to the owner and operator that an ineligible storage tank has returned to compliance and is now eligible for delivery, deposit, or acceptance of a regulated petroleum substance. (4-2-08)

09. Declining Classification. The Director may decline to classify a petroleum underground storage tank as ineligible if the Director decides that classifying the petroleum underground storage tank as ineligible for delivery, deposit, or acceptance is not in the best interest of the public. (4-2-08)

a. The Director may only defer application of delivery prohibition for up to one hundred eighty (180) days after determining a petroleum underground storage tank is ineligible for delivery, deposit, or acceptance of a regulated petroleum substance. (4-2-08)

b. The Director may authorize the delivery, deposit, or acceptance of product into an ineligible petroleum underground storage tank if such activity is necessary to test or calibrate the underground storage tank or dispenser system. (4-2-08)

10. Department Authority. Nothing in Section 500 shall affect or preempt the authority of the Department to prohibit the delivery, deposit, or acceptance of a regulated petroleum substance to a petroleum underground storage tank under other existing authorities. (4-2-08)

11. Proper Notice. A person shall not be in violation of Subsection 500.01 if the Department fails to provide the notice required by Subsections 500.04 and 500.05. (4-2-08)

12. Unlawful to Tamper with Red Tag. It shall be unlawful for any person to tamper with and/or remove the red tag without the Department's approval. (4-2-08)

501. -- 599. (RESERVED)

600. PETROLEUM UNDERGROUND STORAGE TANK DATABASE.

01. Maintenance. The Department shall maintain a database which provides details on the status of all petroleum underground storage tanks in the state of Idaho which are subject to regulation. The database shall be updated no less than the end of each calendar quarter. (4-2-08)

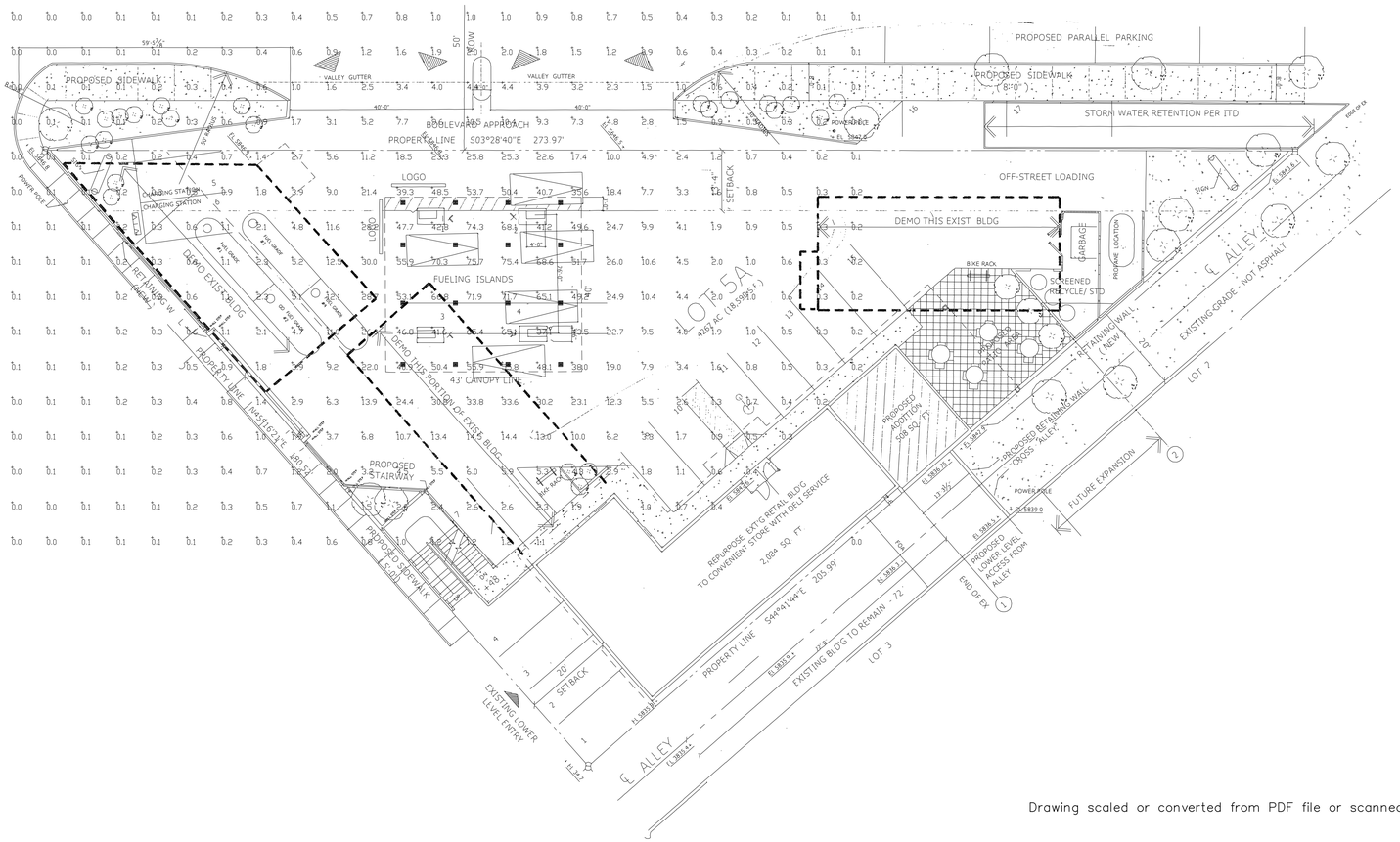
02. Identification. The database shall identify any tanks subject to delivery prohibition. (4-2-08)

03. Petition. Petroleum underground storage tank owners or operators may petition the Department to correct any inaccurate information for their tanks and the Department shall correct any such inaccurate information within thirty (30) days after verification. (4-2-08)

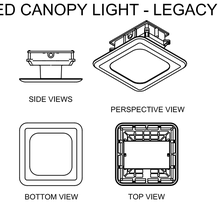
04. Availability. The database shall be available to the public on the Department's website at www.deq.idaho.gov. (4-2-08)

601. -- 999. (RESERVED)

Subject Index



CRUS-SC-LED
LED CANOPY LIGHT - LEGACY



Drawing scaled or converted from PDF file or scanned / submitted image. Dimensions are approximate.

Luminaire Schedule								
Symbol	Qty	Label	Arrangement	Description	LLF	Lumens/Lamp	Arr. Lum. Lumens	Arr. Watts
▪	16	A	SINGLE	CRUS-SC-LED-SS-CW-UE MTD @ 15'	1.000	N.A.	13554	114

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
ALL CALC POINTS	Illuminance	Fc	8.38	75.7	0.0	N.A.	N.A.
CANOPY	Illuminance	Fc	56.26	75.7	37.1	1.52	2.04

Based on the information provided, all dimensions and luminaire locations shown represent recommended positions. The engineer and/or architect must determine the applicability of the layout to existing or future field conditions.

This lighting plan represents illumination levels calculated from laboratory data taken under controlled conditions in accordance with The Illuminating Engineering Society (IES) approved methods. Actual performance of any manufacturer's luminaires may vary due to changes in electrical voltage, tolerance in lamps/LED's and other variable field conditions. Calculations do not include obstructions such as buildings, curbs, landscaping, or any other architectural elements unless noted.

Total Project Watts
Total Watts = 1824

10000 ALLIANCE RD. CINCINNATI, OHIO 45242 USA
(513) 793-3200 ▪ FAX (513) 793-4003

LIGHTING PROPOSAL LD-133509

43 X 40 CANOPY
STATE HWY 75
KETCHUM,ID

BY:MVE	DATE:6-20-16	REV:	SHEET 1 OF 1

SCALE: 1"=16' 0 16

City of Ketchum
Planning & Building

STAFF REPORT
KETCHUM PLANNING AND ZONING COMMISSION
REGULAR MEETING OF JUNE 27, 2016

PROJECT:	Bracken Station Pre-Application Design
FILE NUMBER:	#16-035
OWNERS:	North Town Partners LLP
REPRESENTATIVE:	Steve Cook, AIA
REQUEST:	Pre-Application Design Review approval of a commercial remodel and addition
LOCATION:	911 N. Main Street (Ketchum, AM Lot 5A, Block 30)
ZONING:	Light Industrial District Number 1 (LI-1)
OVERLAY:	None
NOTICE:	Notice was mailed to adjacent property owners on May 16, 2016. Notice was posted on the subject property and in three public City locations on May 17, 2016. Continuation of this item to the June 27, 2016 meeting was announced during the June 13, 2016 Commission meeting.
REVIEWER:	Brittany Skelton, Associate Planner

INTRODUCTION

This project must first obtain approval of a Conditional Use Permit to proceed with considering of Design Review. The Pre-application Design Review is an open discussion between the applicant, the Planning and Zoning Commission, and the public.

During the June 13, 2016 hearing for the Conditional Use Permit the Commission continued the hearing to the June 27, 2016 meeting and gave directive to the applicant to provide additional information. City department staff has requested additional information from the applicant as well.

In a subsequent conversation with the applicant the applicant has requested additional time to prepare and submit the new information required by the Commission and staff. As such, staff has recommended continuing the Conditional Use Permit hearing to the July 11, 2016 Commission meeting, which will necessitate continuing the Pre-application Design Review discussion until the date certain as well.

For the June 13, 2016 Pre-application Design Review city staff prepared the following report that analysis the proposed development's compliance and alignment with city code chapter 17.96 Design Review. The report

below does not contain any new analysis; new analysis will be conducted after receipt of new information submitted by the applicant and will be included in the staff report prepared for the meeting date the hearing is continued to. However, the digital renderings prepared for the June 13, 2016 hearing, a Photometric Plan based on proposed lighting, and the complete Traffic Impact Study (64 p.), dated May 2016, are included as new attachments in addition to the plans prepared for the June 13, 2016 hearing.

ANALYSIS

The site contains three existing buildings: buildings "A", "B", and "C". The applicant is proposing to entirely demolish buildings "A" and "C" and to partially demolish building "B". The applicant is proposing to build an addition to the remaining portion of building "B", to remodel building B, and to construct a detached canopy associated with the proposed uses (motor vehicle fueling station and food service establishment).

The purpose of Pre-Application Design Review is to allow the Commission to exchange ideas and give direction to the applicant on the "design concept", keeping in mind the purpose of this chapter and the application of the evaluation standards. Design Review approval may be granted by the Commission only if the applicant demonstrates that:

- The project does not jeopardize the health, safety or welfare of the public.
- The project conforms to all applicable standards and criteria as set forth in this chapter, Title 17, and any other standards as adopted or amended by the City of Ketchum from time to time.

As demonstrated in Attachment C, staff believes the applicant has addressed many of the Design Review standards. Should the Commission agree the Commission may allow the applicant to move forward with Design Review and may attach additional conditions to approval as it determines necessary to ensure the health, safety, or welfare of the public. All conditions must cite the appropriate standard for imposing such condition. Such conditions include, but are not limited to:

- Ensuring compliance with applicable standards.
- Requiring conformity to approved plans and specifications.
- Requiring security for compliance with the terms of the approval.
- Minimizing adverse impact on other development.
- Controlling the sequence, timing and duration of development and ongoing maintenance.
- Requiring more restrictive standards than those generally found in the Ketchum Municipal Code.

STAFF RECOMMENDATION

This project must first obtain approval of a Conditional Use Permit to proceed with considering of Design Review. The Conditional Use Permit hearing is being continued until the July 11, 2016

The Commission must consider Pre-Design Review of the Bracken Station application as it relates to the criteria used for evaluating such applications and in the context of exchanging ideas and giving direction to the applicant on the "design concept." The Commission has to option of moving the application forward to Design Review or continuing the Pre-Application Design Review discussion to a subsequent meeting.

COMMISSION OPTIONS

1. **Continuation of the Application.** "Motion to continue the application from North Town Partners LLP for Pre-Application Design Review to a date certain of [insert date of meeting]."

RECOMMENDED CONDITIONS

1. N/A at this time; recommended conditions will be included in the staff report prepared for the meeting for which review of this application is continued to.

ATACHMENTS:

A. Table 1. Requirements for All Applications
B. Table 2. Zoning Standards Analysis
C. Table 3. Design Review Standards
D. Application
E. Plans as submitted for the June 13, 2016 meeting
F. Digital Renderings as submitted for the June 13, 2016 meeting
G. Traffic Impact Study, complete (64 p.), dated May 2016
H. Photometric Plan – Proposed Lighting

Attachment A.

Table 1: Requirements for All Applications

City Department Comments				
Compliant			**Standards and Staff Comments**	
Yes	**No**	**N/A**	**City Code**	**City Standards and *Staff Comments***
☒	☐	☐	**16.04.030.I**	**Complete Application**
☒	☐	☐	**City Department Comments**	**Police Department:** • *No comments provided.*
☒	☐	☐		**Fire Department:** 1. The above project shall meet all 2012 International Fire Code requirements in addition to specific City Building and Fire Ordinances. 2. An approved fire detection system shall be installed per City of Ketchum Ordinance #1125 ***(www.ketchumfire.org)*** and the requirements of NFPA 72. Two (2) sets of alarm system plans shall be submitted to the Ketchum Fire Department for approval and a permit is required prior to installation of alarm systems. Inspections of fire detection systems by the Fire Chief or an appointee are required and shall be scheduled at least 48 hours in advance. 3. An approved access roadway per 2012 International Fire Code Appendix D ***(www.ketchumfire.org)*** shall be installed prior to any combustible construction on the site. The road shall be a minimum of twenty (20) feet in width and capable of supporting an imposed load of at least 75,000 pounds. The road must be an all weather driving surface maintained free, clear, and unobstructed at all times. 4. Fire extinguishers shall be installed and maintained per 2012 IFC Section 906 both during construction and upon occupancy of the building. 5. An approved key box shall be installed, with the appropriate keys, for emergency fire department access in a location approved by the fire department. The key box shall be a Knox box brand and sized to accommodate keys to every door of the project. 6. The underground fuel tanks will be installed and tested following the 2012 International Fire Code, Sections 5704.2.11 through Section 5704.2.12.2. 7. Motor fuel dispensing stations will be installed following the 2012 International Fire Code, Section 2306.7 through Section 2306.7.7.2. *8.* The Liquefied Petroleum Gas fuel dispensing will be installed following the 2012 International Fire Code, Section 2307.1 through Section 2307.7

☒	☐	☐	**Public Works:** 1. The configuration of the sidewalk design creates a challenge for the City's snow removal operations. As a condition of approval, the owner will need to remove the snow to the west of the valley gutter and the snow may not be placed back out in the roadway. *2.* The property owner will need to maintain the landscaping in the right-of-way according to ITD standards.
☒	☐	☐	**Utilities:** • No comments.
☒	☐	☐	**Parks/Arborist:** 1. The owner will need to maintain the landscaping in the right-of-way, which is managed by ITD. 2. The southeastern-most Abies lasiocarpa is in close proximity to the overhead transmission line, substitute a more hardy bristlecone pine. 3. The other species are good and the diversity and placement are appreciated. 4. Staff recommends retaining the tree that is adjacent to the existing power pole in the right-of-way on Main Street if ITD will allow it.
☒	☐	☐	**Building:** • Building must meet 2012 International Building Codes.
☒	☐	☐	**Planning and Zoning:** • Comments are denoted throughout the staff report.

Attachment B.

Table 2: Zoning Standards Analysis

Compliance with Zoning District					
Compliant			**Standards and Staff Comments**		
Yes	**No**	**N/A**	**Regulation**	**City Standards and *Staff Comments***	
☒	☐	☐	**17.12.030**	**Lot Area**	
			Staff Comments	**Building Lot Coverage:** *Permitted: 75% Proposed: 13%*	
☒	☐	☐	**17.12.030**	**Building Height**	
			Staff Comments	***Required:*** *A maximum building height of 35 feet is permitted.*	***Proposed:*** *Maximum building height permitted is 35'; the existing buildings are 13'-8" above grade on Main Street and 24'-8" above grade on 10th Street; the proposed addition to building "B" is 13'-8" above grade on Main Street and 24-8" above grade on 10th Street. The proposed canopy is 18' above grade on Main Street and 20' above grade from 10th Street at the eastern edge of the structure and 24' above grade from 10th Street at the western edge of the structure.*
☒	☐	☐	**17.12.030**	***Building Setbacks***	
			Staff Comments	***Required:*** *Front (10th St.): 20'* *Side (Main St.): 13'-4"* *Rear: 0'*	***Proposed:*** *Front (10th St.): 20'* *Side (Main St.): 13'-4"* *Rear: 0'*
☒	☐	☐	**17.124.060.M**	**Curb Cut**	
			Staff Comments	***Required:*** *A total of 35% of the linear footage of any street frontage can be devoted to access to off street parking.*	***Proposed:*** *The curb cut design was recommended by ITD is an 84' boulevard approach (40' entrance, 4' island, 4' exit), which equates to 30.6% of the linear footage frontage of the lot. (The linear footage of lot frontage is 273.97'.)*
☒	☐	☐	**12.125.020.A.2 & 17.125.050**	**Parking Spaces**	
			Staff Comments	***Required:*** *The off street parking standards apply when an existing structure or use is expanded or enlarged. Additional off street parking spaces shall be required only to serve the enlarged or expanded area, not the entire building or use.*	***Proposed:*** *8 for temporary holding at the fuel pumps.* *12 to serve retail/restaurant (4 spaces are lower level accessed from 10th Street).* *2 at vehicle charging station.* *Additionally there are 4 covered lower level accessed from 10th Street that will serve the existing uses.*

				2 spaces per fuel pump at fuel pump; 4 pumps require 8 spaces. *1 space per 250 square feet retail;* *1 space per 250 square feet restaurant* *There is a 508 square foot addition to the existing 2,084 square foot building proposed; 3 spaces are required.*	

Attachment C.

Table 3: Design Review Standards

IMPROVEMENTS AND STANDARDS: 17.96.060				
Yes	**No**	**N/A**	**City Code**	**City Standards and *Staff Comments***
☒	☐	☐	**17.96.060(A)(1) Streets**	The applicant shall be responsible for all costs associated with providing a connection from an existing city street to their development.
			Staff Comments	*The property is already served by a public road.*
☒	☐	☐	**17.96.060(A)(2) Streets**	All street designs shall be approved by the City Engineer.
			Staff Comments	*Any work within the right-of-way will require appropriate approvals.*
☒	☐	☐	**17.96.060(B)(1)**	All projects under 17.96.010(A) that qualify as a "Substantial Improvement" shall install sidewalks as required by the Public Works Department.
			Staff Comments	*The applicant is proposing to construct sidewalks and related improvements as follows:* *1. Main Street frontage – New sidewalk spanning entire length of frontage, crosswalk with rapid flashing beacon at the southeast corner of the site to cross Main Street* *2. 10th Street frontage – New sidewalk spanning entire length of frontage, staircase near southwest corner of site, crosswalk at north corner of site to cross 10th Street* *Additionally, staff recommends extending the Main Street frontage sidewalk south an additional (approximately) 175' in length to connect to the existing public sidewalk at the Frenchmen's Place condominium development. There is not currently a sidewalk connecting the two properties but there is an informally created and well-worn pedestrian foot path; the new uses proposed for the site will generate additional pedestrian trips and a 6', paved, and ADA compliant sidewalk is recommended for safety purposes. Currently, the property is not connected to the city's sidewalk system.*
☒	☐	☐	**17.96.060 (B)(2)c**	Sidewalk width shall conform to the City's right-of-way standards, however the City Engineer may reduce or increase the sidewalk width and design standard requirements at their discretion.
			Staff Comments	*Sidewalks will be constructed to conform to City's right-of-way standards*
☒	☐	☐	**17.96.060 (B)(3)**	Sidewalks may be waived if one of the following criteria is met: a. The project comprises an addition of less than 250 square feet of conditioned space. **b.** The City Engineer finds that sidewalks are not necessary because of existing geographic limitations, pedestrian traffic on the street does not warrant a sidewalk, or if a sidewalk would not be beneficial to the general welfare and safety of the public.
			Staff Comments	*Neither criteria a. nor b. are applicable due to the size and scale of the proposed development.*
☒	☐	☐	**17.96.060 (B)(4)**	The length of sidewalk improvements constructed shall be equal to the length of the subject property line(s) adjacent to any public street or private street.
			Staff Comments	*The sidewalks proposed on the Main Street and 10th Street frontages*

				meet this requirement.
☒	☐	☐	**17.96.060 (B)(5)**	New sidewalks shall be planned to provide pedestrian connections to any existing or future sidewalks adjacent to the site. In addition, sidewalks shall be constructed to provide safe pedestrian access to and around a building.
			Staff Comments	*Staff recommends extending the sidewalk south to connect with the existing public sidewalk at the Frenchmen's Place condominiums.* *The staircase on 10th Street proposed by the applicant will provide direct pedestrian access to the new development from 10th Street.*
☐	☐	☒	**17.96.060 (B)(6)**	The City may approve and accept voluntary cash contributions in-lieu of the above described improvements, which contributions must be segregated by the City and not used for any purpose other than the provision of these improvements. The contribution amount shall be one hundred ten percent (110%) of the estimated costs of concrete sidewalk and drainage improvements provided by a qualified contractor, plus associated engineering costs, as approved by the City Engineer. Any approved in-lieu contribution shall be paid before the City issues a certificate of occupancy.
			Staff Comments	*Staff does not recommend a contribution in-lieu for this project.*
☐	☒	☐	**17.96.060(C)(1)**	All storm water shall be retained on site.
			Staff Comments	*The applicant has not provided drainage plans. Engineered plans will be submitted with the Design Review application.*
☐	☒	☐	**17.96.060(C)(2)**	Drainage improvements constructed shall be equal to the length of the subject property lines adjacent to any public street or private street.
			Staff Comments	*The applicant has not provided drainage plans. Engineered plans will be submitted with the Design Review application.*
☐	☒	☐	**17.96.060(C)(3)**	The City Engineer may require additional drainage improvements as necessary, depending on the unique characteristics of a site.
			Staff Comments	*The applicant has not provided drainage plans. Engineered plans will be submitted with the Design Review application.*
☐	☒	☐	**17.96.060(C)(4)**	Drainage facilities shall be constructed per City standards.
			Staff Comments	*Any drainage facilities within the public right-of-way shall meet the requirements of the Public Works Department. No civil plans have been submitted to verify this requirement.*
☒	☐	☐	**17.96.060(D)(1)**	All utilities necessary for the development shall be improved and installed at the sole expense of the applicant.
			Staff Comments	*The applicant is aware of this requirement and the plans show electric and gas utility locations.*
☒	☐	☐	**17.96.060(D)(2)**	Utilities shall be located underground and utility, power, and communication lines within the development site shall be concealed from public view.
			Staff Comments	*Idaho Power distribution lines run parallel to property line along Main Street and will not be placed underground. However, one power pole on 10th Street that currently feeds building "A" will be removed, as indicated on the site plan, upon demolition of building "A".* *Cox Cable, CenturyLink, and gas utilities will be underground.*
☒	☐	☐	**17.96.060(D)(3)**	When extension of utilities is necessary all developers will be required to pay for and install two (2") inch SDR11 fiber optical conduit. The

				placement and construction of the fiber optical conduit shall be done in accordance with city of Ketchum standards and at the discretion of the City Engineer.
			Staff Comments	*No utility extensions are proposed.*
☒	☐	☐	**17.96.060(E)(1)**	The project's materials, colors and signing shall be complementary with the townscape, surrounding neighborhoods and adjoining structures.
			Staff Comments	*As indicated in the renderings, materials appear to be in keeping with the architecture and overall design of the surrounding properties.*
☐	☐	☒	**17.96.060(E)(2)**	Preservation of significant landmarks shall be encouraged and protected, where applicable. A significant landmark is one which gives historical and/or cultural importance to the neighborhood and/or community.
			Staff Comments	*There are no identified landmarks on the property.*
☐	☐	☒	**17.96.060(E)(3)**	Additions to existing buildings, built prior to 1940, shall be complementary in design and use similar material and finishes of the building being added to.
			Staff Comments	*The structure was built in 1968.*
☒	☐	☐	**17.96.060(F)(1)**	Building(s) shall provide unobstructed pedestrian access to the nearest sidewalk and the entryway shall be clearly defined.
			Staff Comments	*The proposed 10th Street staircase provides a direct sidewalk path to the entrance of the building. The proposed Main Street sidewalk contains clearly defined ramps from the north and south segments of sidewalk to the parking lot.*
☒	☐	☐	**17.96.060(F)(2)**	The building character shall be clearly defined by use of architectural features.
			Staff Comments	*The east elevation (Main Street) of building B is 92' in length and 13'-8" in height with a flat roof and is defined by its linear character with a wide baseband and fascia and horizontally oriented wood siding. The elevation is bisected vertically by a recessed entry way that is flanked by columns. A new skylight will be installed above the entry way that will further define the center of the building as a focal point due to the elevation of the skylight above the flat roof and the 3:12 pitch of the roof of the skylight. The east elevation is also defined by large windows providing high transparency to the façade and a new 30' trellis patio that will be added to the southern end of the building.* *The northern elevation (10th Street) is defined by its linear character as well, which is bisected horizontally. The retaining wall on 10th Street will match the lower level of the 10th Street façade of the building in color, which will be marina gray. The upper level of the building façade will have the same vertically oriented wood siding.* *The western elevation (alley) will be remodeled to remove the windows from the façade but the new skylight will become a linear feature breaking up the linearity of the west elevation. The lower level façade will be the same color and material (marina grey, concrete) as the 10th Street façade and the upper level will match the upper level of the 10th Street façade.*
☒	☐	☐	**17.96.060(F)(3)**	There shall be continuity of materials, colors and signing within the project.

			Staff Comments	*The renderings and elevations both indicate that the addition to the building will use new wood siding, similar to the existing, and that the siding will be painted to match the existing.* *The proposed canopy over the fuel pumps, as proposed in the rendering, uses a similar color scheme as the existing building.* *The elevations indicate similar wall signs on the Main Street and 10th Street façades and the renderings indicate signs with black backgrounds. The color of the signs will tie into the black accents on the new windows and the proposed black metal railings on 10th Street that are shown in the rendering.* *The elevations indicate the new trellis patio and the corrugated metal garbage/mechanical screening will be of a similar burnt sienna color.*
☒	☐	☐	**17.96.060(F)(4)**	Accessory structures, fences, walls and landscape features within the project shall match or complement the principal building.
			Staff Comments	*The screening of the garbage and mechanical area appears to match the color scheme of the trellis patio and to complement the sage green color of the building and gas station canopy. The stone grey retaining walls on 10th Street complement the sage green building. The landscape features are sited to complement the retaining walls, the building, canopy and trellis.*
☒	☐	☐	**17.96.060(F)(5)**	Building walls shall provide undulation/relief, thus reducing the appearance of bulk and flatness.
			Staff Comments	*The elevation views provided suggest that the building walls provide variation, including a recessed entry. In addition a 30' new trellis patio will be constructed adjacent to the addition at the southern end of building "B".*
☒	☐	☐	**17.96.060(F)(6)**	Building(s) shall orient towards their primary street frontage.
			Staff Comments	*The front entrance of the building orients towards Main Street; however, there was a finding that 10th Street is being considered the front due to the re-use of existing foundations and the fact that the site was originally developed to front 10th Street.*
☒	☐	☐	**17.96.060(F)(7)**	Garbage storage areas and satellite receivers shall be screened from public view and located off alleys.
			Staff Comments	*Plans indicate garbage, recycling and mechanical areas are indicated to be screened and enclose.*
☒	☐	☐	**17.96.060(F)(8)**	Building design shall include weather protection which prevents water to drip or snow to slide on areas where pedestrians gather and circulate or onto adjacent properties.
			Staff Comments	*The building contains rain gutters and downspouts.*
☒	☐	☐	**17.96.060(G)(1)**	Pedestrian, equestrian and bicycle access shall be located to connect with existing and anticipated easements and pathways.
			Staff Comments	*The sidewalk on the Main Street frontage and crosswalk across 10h Street will connect the property to the existing sidewalk on the north side of 10th Street. The crosswalk across Main Street will connect the property to the existing sidewalk on the east side of Main Street that connects to the community core.* *While there is not currently sidewalk on the south side of 10th Street*

				connecting Main Street to Warm Springs Road the city would like to implement this connection. The sidewalk adjacent to the property on the property's 10th Street frontage will be the initial portion of that connection. *Two bicycle racks are proposed, one on the north side of the building and one on the south side of the building. Both bicycle racks are located on paved surfaces in close proximity to on-site pedestrian circulation.*
☐	☐	☒	**17.96.060(G)(2)**	Awnings extending over public sidewalks shall extend five (5') feet or more across the public sidewalk but shall not extend within two (2') feet of parking or travel lanes within the right of way.
			Staff Comments	*N/A*
☒	☐	☐	**17.96.060(G)(3)**	Traffic shall flow safely within the project and onto adjacent streets. Traffic includes vehicle, bicycle, pedestrian and equestrian use. Consideration shall be given to adequate sight distances and proper signage.
			Staff Comments	*The project will contain an 84' wide "boulevard approach" curb cut, with a 4' island separating two 40' accesses, as recommended by ITD. A new turning lane will be constructed on Main Street to accommodate the increase in vehicular traffic the proposed use will generate. Two new crosswalks and one rapid flashing beacon as well as a public stair case will be constructed to provide access to the site from adjacent streets.*
☒	☐	☐	**17.96.060(G)(4)**	Curb cuts and driveway entrances shall be no closer than twenty (20') feet to the nearest intersection of two or more streets, as measured along the property line adjacent to the right of way. Due to site conditions or current/projected traffic levels or speed, the City Engineer may increase the minimum distance requirements.
			Staff Comments	*The location of the curb cut meets this standard.*
☒	☐	☐	**17.96.060(G)(5)**	Unobstructed access shall be provided for emergency vehicles, snowplows, garbage trucks and similar service vehicles to all necessary locations within the proposed project.
			Staff Comments	*The site plan, which includes an off-street parking/loading area, is adequate to accommodate garbage, emergency vehicles, and other similar service areas.* *The applicant will be required to plow the snow west of the existing valley gutter.*
☒	☐	☐	**17.96.060(H)(1)**	Snow storage areas shall not be less than thirty percent (30%) of the improved parking and pedestrian circulation areas.
			Staff Comments	*The parking and pedestrian circulation areas are 3,849 square feet; 30% of that is 1,154 square feet. The applicant proposes to haul snow from the site, but to store snow on a temporary basis in two designated areas totaling 1,207 square feet. One designated area is located at the southeast corner of the site and is 350 square feet in size and the other is adjacent to the northern property line and is 857 square feet in size.*
☒	☐	☐	**17.96.060(H)(2)**	Snow storage areas shall be provided on-site.
			Staff Comments	*The applicant proposes to temporarily store snow in the 14' x 55' off-street loading area that is 900 square feet and to haul snow from the*

				site.
☒	☐	☐	**17.96.060(H)(3)**	A designated snow storage area shall not have any dimension less than five (5') feet and shall be a minimum of twenty five (25) square feet.
			Staff Comments	*Both snow storage areas proposed are greater than 25 square feet in size and appear to have no dimension less than 5'.*
☒	☐	☐	**17.96.060(H)(4)**	In lieu of providing snow storage areas, snow melt and hauling of snow may be allowed.
			Staff Comments	*The applicant proposes to store snow on site temporarily but to ultimately haul snow from the site.*
☒	☐	☐	**17.96.060(I)(1)**	Landscaping is required for all projects.
			Staff Comments	*Landscaping is provided and denoted in the landscaping plans.*
☒	☐	☐	**17.96.060(I)(2)**	Landscape materials and vegetation types specified shall be readily adaptable to a site's microclimate, soil conditions, orientation and aspect, and shall serve to enhance and complement the neighborhood and townscape.
			Staff Comments	*The landscaping plans have been reviewed and found acceptable by the City Arborist, with the exception of the southeastern-most Abies lasiocarpa, which is in close proximity to the overhead transmission line. The City Arborist recommends substituting a more hardy bristlecone pine.* *In addition, staff recommends preserving the existing tree in the parking lot if feasible.*
☒	☐	☐	**17.96.060(I)(3)**	All trees, shrubs, grasses and perennials shall be drought tolerant. Native species are recommended but not required.
			Staff Comments	*Plans appear to utilize drought tolerant species, including native grasses, Lodge Pole Pine, Sub Alpine Fir, Blue Fox Willow, Arctic Willow, Russian Sage, Oxeye Sun Flower, Catmint, Yarrow, Purple Cone Flower, and Blue Oat Grass.*
☒	☐	☐	**17.96.060(I)(4)**	Landscaping shall provide a substantial buffer between land uses, including, but not limited to, structures, streets and parking lots. The development of landscaped public courtyards, including trees and shrubs where appropriate, shall be encouraged.
			Staff Comments	*Substantial landscaping is proposed on the Main Street frontage and surrounding the enclosed garbage/mechanical area. Landscaping is also interspersed throughout the sit and on the 10th Street frontage.*
☒	☐	☐	**17.96.060(J)(1)**	Where sidewalks are required, pedestrian amenities shall be installed. Amenities may include, but are not limited to, benches and other seating, kiosks, bus shelters, trash receptacles, restrooms, fountains, art, etc. All public amenities shall receive approval from the Public Works Department prior to design review approval from the Commission.
			Staff Comments	*Crosswalks are proposed at 10th Street and at the southeast corner of the site to cross Main Street.* *No additional amenities are proposed.*

City of Ketchum
Planning & Building

OFFICIAL USE ONLY	
File Number:	16-035
Date Received:	4/12/16
By:	Keshia Owens
Pre Application Fee Paid:	
Design Review Fee Paid:	$1,100
Approved Date:	
Denied Date:	
By:	
ADRE: Yes ☐	

Design Review Application

Reference CUP 16-034

APPLICANT INFORMATION			
Project Name:	BRACKEN STATION	Phone:	208.720.0080
Owner:	RRJ.LLC	Mailing Address:	P.O. BOX 5277 KETCHUM, ID. 83340
Email:	ROY_BRACKEN@YAHOO.COM		
Architect/Representative:	STEVE R. COOK	Phone:	208.725.5566
Email:	STEVE@STEVECOOKARCHITECT.COM	Mailing Address:	P.O.BOX 680 KETCHUM, ID. 83340
Architect License Number:	A.946		
Engineer of Record:	K&S STRUCTURAL ENG LLC	Phone:	208.928.7810
Email:	KSE@KSENGR.NET	Mailing Address:	P.O.BOX 4464 KETCHUM, ID. 83340
Engineer License Number:	ID. 8618		

All design review plans and drawings for public commercial projects, residential buildings containing more than four (4) dwelling units and development projects containing more than four (4) dwelling units shall be prepared by an Idaho licensed architect or an Idaho licensed engineer.

PROJECT INFORMATION				
Legal Land Description:	KETCHUM AM LOT 5A BLK 30 RPK00000300 05A			
Street Address:	911 N. MAIN			
Lot Area (Square Feet):	18,590.s.f.			
Zoning District:	LI.1			
Overlay District:	☐Floodplain	☐ Avalanche	☐Mountain	
Type of Construction:	☐New	☒Addition	☒Remodel	☐Other
Anticipated Use:	RETAIL/FUELING	Number of Residential Units:	0	

TOTAL FLOOR AREA	Proposed		Existing	
Basements		Sq. Ft.		Sq. Ft.
1st Floor	290	Sq. Ft.	2,084	Sq. Ft.
2nd Floor	490	Sq. Ft.	2,084	Sq. Ft.
3rd Floor		Sq. Ft.		Sq. Ft.
Mezzanine		Sq. Ft.		Sq. Ft.
Total	740	Sq. Ft.	4,168	Sq. Ft.

FLOOR AREA RATIO		
Community Core:	Tourist:	General Residential-High:

BUILDING COVERAGE/OPEN SPACE
Percent of Building Coverage:

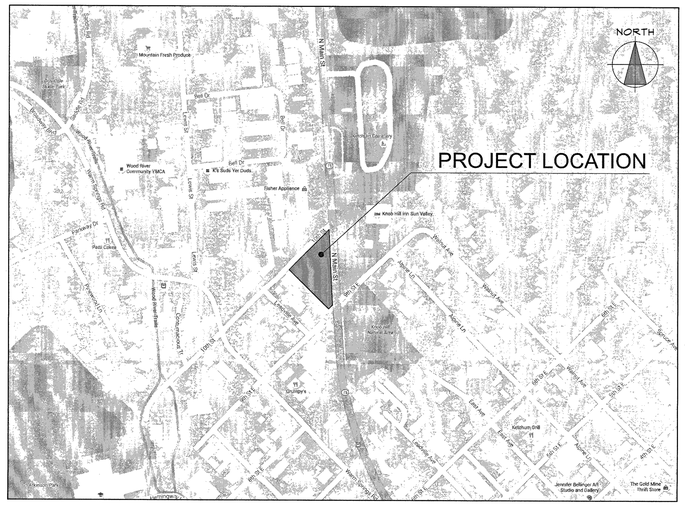
DIMENSIONAL STANDARDS/PROPOSED SETBACKS			
Front: 20'	Side: 13'-4"	Side: 0	Rear: N/A TRIANGLE LOT
Building Height: 24'-8"+/-@ NW ALLEY CORNER / 13'-8" @ HWY 75			

OFF STREET PARKING			
Parking Spaces Provided:	17 PLUS SHORT TERM HOLDING SPACES AT PUMPS		
Curb Cut: 80 Sq. Ft.	29 %	(35% ALLOWED)	

WATER SYSTEM	
☒ Municipal Service	☐ Ketchum Spring Water

The Applicant agrees in the event of a dispute concerning the interpretation or enforcement of the Design Review Application in which the city of Ketchum is the prevailing party, to pay the reasonable attorney fees, including attorney fees on appeal and expenses of the city of Ketchum. I, the undersigned, certify that all information submitted with and upon this application form is true and accurate to the best of my knowledge and belief.

[signature]	4.28.16
Signature of Owner/Representative	Date



BRACKEN STATION

A CONDITIONAL USE PERMIT / DESIGN REVIEW APPLICATION
FOR:
A MOTOR VEHICLE FUELING STATION
LOT 5A / BLK 30 / ZONE LI-1

LOCATOR MAP

SITE PHOTO

DRAWING INDEX	
A.0	COVER PAGE.
A.1	EXISTING SITE PLAN. 1"= 10'
A.2	PROPOSED SITE PLAN. 1"= 10'
A.3	10TH STREET VIEW: EXISTING AND PROPOSED. 1/8"= 1'
A.4	ALLEY VIEW: EXISTING AND PROPOSED. 1/8"= 1'
A.5	STORE FRONT ELEVATION AND FLOOR PLANS WITH AREA SQ. FOOTAGE CALCULATIONS. 1/4"= 1'
A.6	ENLARGED VIEW - ALLEY RETAINING WALLS. 1/4"= 1'
C.1	SITE SURVEY.
C.2	CIVIL ACCESS PLAN TO HWY 75.
L.1.0	LANDSCAPE PLAN.
	COMPUTER GENERATED MODELS: • NORTH VIEW – BEFORE / AFTER • SOUTH VIEW – BEFORE / AFTER • NORTH ENLARGED VIEW • SOUTH ENLARGED VIEW

GENERAL CONTRACTOR AND ALL SUBCONTRACTORS TO ASSURE ALL WORK CONFORMS TO NATIONAL, STATE, AND LOCAL CODES THAT APPLY TO THIS PROJECT. WHEN INCONSISTENCIES EXIST BETWEEN DRAWINGS OR SPECS. AND APPLICABLE CODE REQUIREMENTS, CONFORMANCE TO ALL CODES SHALL HAVE PRECEDENCE OVER DRAWINGS AND SPECS.

STEVE R. COOK, ARCHITECT
323 SOUTH LEWIS ST. SUITE H, P.O. BOX 680, KETCHUM ID, 83340
PH#: (208) 725-5566
FX#: (208) 725-5568
■ ■ ■ MEMBER AMERICAN INSTITUTE OF ARCHITECTS ■ ■ ■

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[illegible] - LOT 5A BLK 30
LOT 5A / BLK 30 / ZONE LI - 1
KETCHUM, ID

REVISION RECORD		
NO.	DATE	BY

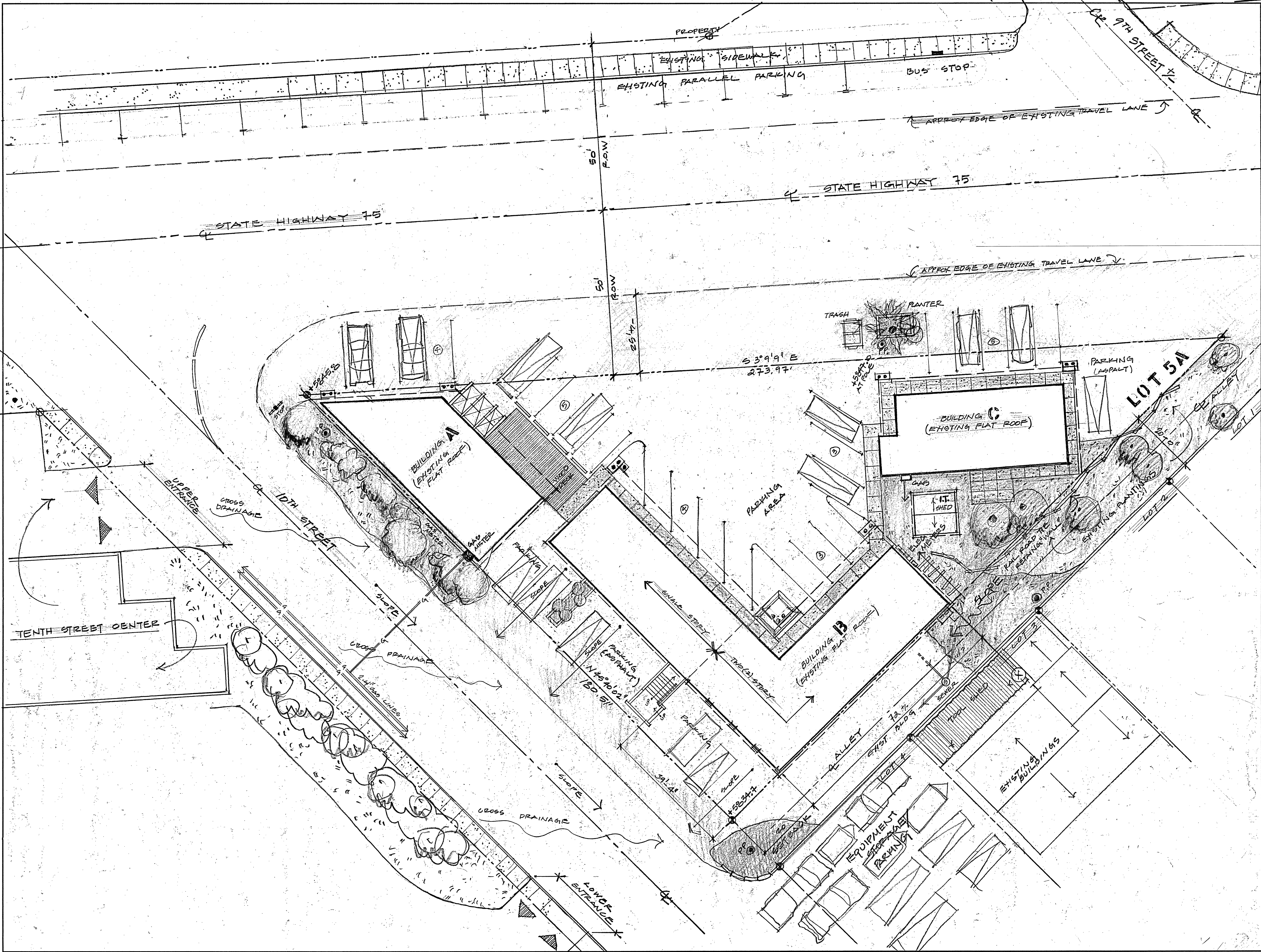
DRAWING NAME: COVER PAGE

DATE OF ISSUE: 5,23,16
SUPERSEDES ALL PREVIOUS DRAWINGS

PLOT DATE: 4/27/16

SCALE: NONE

SHEET NO. A.0



THE BRACKEN STATION
LOT 5A, BLOCK 30, ZONE L.I.
KETCHUM, IDAHO

STEVE R. COOK, ARCHITECT
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PH#: (208) 725-5566
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REVISION RECORD

NO.	DATE	BY

DRAWING NAME: EXISTING SITE PLAN

SCALE: 1"=10'-0"

DATE OF ISSUE: 5.23.16

PLOT DATE:

SHEET NO. A·1


PROPERTY LINE
E 9TH ST
KNOB HILL
EXISTING SIDEWALK
EXISTING BUS STOP
CITY DRY WELL
EXISTING PARKING
APPROX EDGE OF EXISTING TRAVEL LANE (FOG LINE)
NORTH BOUND 25 MPH
STATE HIGHWAY 75
PROPOSED TURNING LANE
25 MPH
SOUTH BOUND
50' ROW
PROPOSED CROSS WALK RAPID FLASH WARNING LIGHTS
PROPOSED SIDEWALK (8'-0")
PERMITTED LANDSCAPE - SEE LS.1
EXISTING TREE TO REMAIN
POWER POLE
PROPERTY LINE S03°28'40"E 273.97'
BOULEVARD APPROACH
OFF-STREET LOADING 14' X 55'
SNOW STORAGE 350+/- SF
SIGN
13'-4" SETBACK
LOGO
FUELING ISLANDS
43' CANOPY LINE
DEMO THIS EXIST. BLDG
BIKE RACK
GARBAGE
PROPANE LOCATION
SCREENED RECYCLE/ STO
PROPOSED PATIO AREA
RETAINING WALL (NEW)
ALLEY
EXISTING GRADE - NOT ASPHALT
LOT 1
LOT 2
LOT 5A .4267 AC (18,590 S.F.)
20' X 25.5' PROPOSED ADDITION 508 SQ. FT.
RR TIE WALL
FUTURE EXPANSION
REPURPOSE EXTG RETAIL BLD'G TO INCLUDE STORE WITH DELI SERVICE 2,084 SQ. FT.
PROPOSED LOWER LEVEL ACCESS FROM ALLEY
END OF EXISTING BUILDING
PROPERTY LINE S44°41'44"E 205.99'
EXISTING BLD'G TO REMAIN - 72'
LOT 3
LOT 4
20' SETBACK
EXISTING LOWER LEVEL ENTRY
PROPOSED STAIRWAY
PROPOSED SIDEWALK (5'-0")
DEMO THIS PORTION OF EXIST. BLDG
DEMO EXIST. BLDG
CHARGING STATION
RETAINING WALL (NEW)
NEW PROPOSED PARALLEL PKG
PROPERTY LINE N45°16'21"E 180.52'
SNOW STORAGE = 857 SF
POWER POLE TO BE REMOVED
(Install below grade fuel tanks)
10TH ST
EXT'G CURB CUT
TENTH STREET CENTER PARKING
TENTH STREET CENTER
SIDEWALK
PROPERTY LINE
30'-0"
SLOPE = 7%
SLOPE = 10%
REVISED 6-09-16
N DRAWING NORTH
CONDTIONAL USE/ PREAPPLICATION SITE PLAN
NOTE: SEE CIVIL ENGINEERING DRAWINGS FOR ALL SITE DRAINAGE AND STREET GRADING DESIGN
scale: 1"= 10'
1 A-2
GENERAL CONTRACTOR AND ALL SUBCONTRACTORS TO ASSURE ALL WORK CONFORMS TO NATIONAL, STATE, AND LOCAL CODES THAT APPLY TO THIS PROJECT. WHEN INCONSISTENCIES EXIST BETWEEN DRAWINGS OR SPECS. AND APPLICABLE CODE REQUIREMENTS, CONFORMANCE TO ALL CODES SHALL HAVE PRECEDENCE OVER DRAWINGS AND SPECS.
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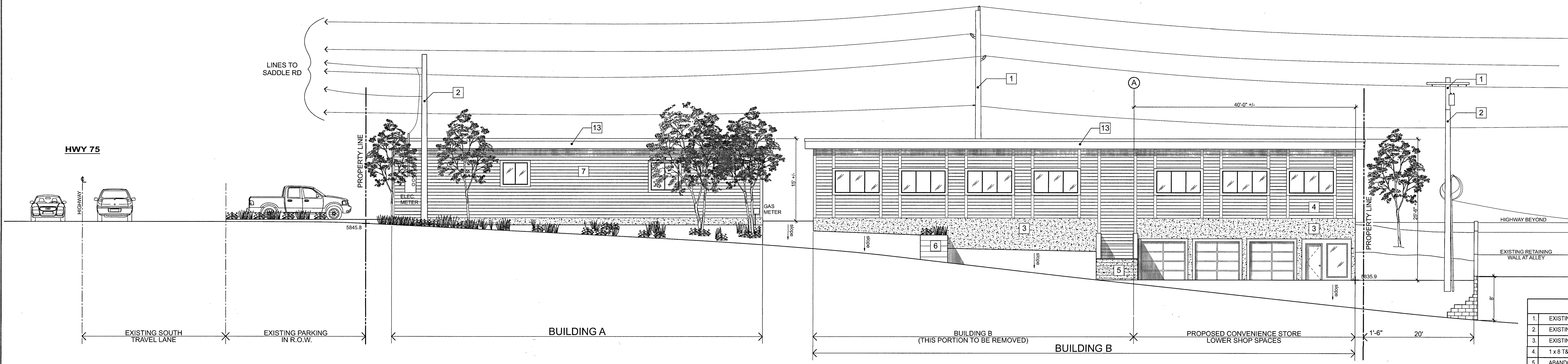
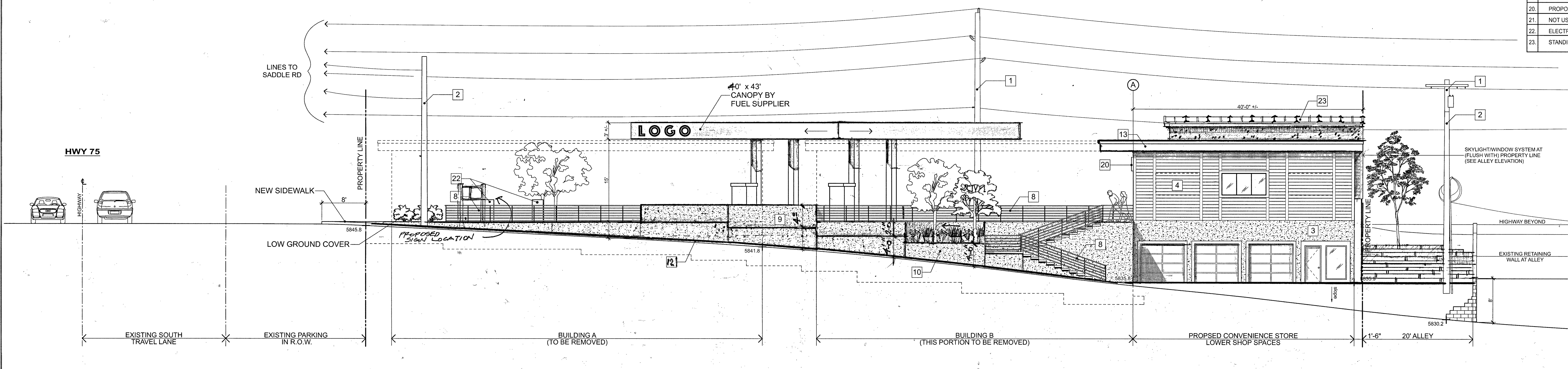
PH# (208) 725-5566
FX# (208) 725-5568
MEMBER AMERICAN INSTITUTE OF ARCHITECTS
PRELIMINARY DESIGN PHASE - LOT 5A BLK 30
LOT 5A / BLK 30 / ZONE LI - 1
KETCHUM, ID
REVISION RECORD
NO. DATE BY
DRAWING NAME:
SITE PLAN
DATE OF ISSUE:
PLOT DATE: 4/5/16
SCALE: 1"=10'
SHEET NO. A-2



1 EXISTING NORTH ELEVATION - 10th STREET VIEW
scale: 1/8"= 1'-0"

KEY INDEX	
1.	EXISTING POWER POLE- HWY 75.
2.	EXISTING POWER POLE- 10TH STREET/ALLEY.
3.	EXISTING CONC. WALL (MARINA GREY #1599).
4.	1 x 8 T&G WD SIDING (ROLLING HILLS #1497).
5.	ABANDONED STAIRWAY.
6.	ABANDONED RAILROAD PLANTER.
7.	EXISTING HORIZ. WOOD SIDING.
8.	NEW METAL GUARDRAIL/HANDRAIL- BLACK.
9.	NEW POURED-IN-PLACE RETAINING WALL- SANDBLAST (MARINA GREY STAIN).
10.	NEW STAIR - MID LANDING PLANTER.
11.	EXISTING RAILROAD RETAINING WALL AT ALLEY.
12.	PROPOSED SIDWALK.
13.	EXISTING FASCIA.
14.	MATCH EXISTING FASCIA.
15.	NEW SKYLIGHT.
16.	ELEC. METERS.
17.	RAIN GUTTER / DOWNSPOUT.
18.	ROOF DRAIN (INTERNAL).
19.	GAS METERS.
20.	PROPOSED SIGN.
21.	NOT USED.
22.	ELECTRIC CHARGING STATION(S).
23.	STANDING SEAM METAL ROOF SKYLIGHT.



2 PROPOSED NORTH ELEVATION - 10th STREET VIEW
scale: 1/8"= 1'-0"

GENERAL CONTRACTOR AND ALL SUBCONTRACTORS TO ASSURE ALL WORK CONFORMS TO NATIONAL, STATE, AND LOCAL CODES THAT APPLY TO THIS PROJECT. WHEN INCONSISTENCIES EXIST BETWEEN DRAWINGS OR SPECS. AND APPLICABLE CODE REQUIREMENTS, CONFORMANCE TO ALL CODES SHALL HAVE PRECEDENCE OVER DRAWINGS AND SPECS.

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CUP APPLICATION AND DESIGN REVIEW - PRE-APP
LOT 5A / BLK 30 / ZONE LI - 1
KETCHUM, ID

REVISION RECORD		
NO.	DATE	BY

DRAWING NAME: EXTERIOR ELEVATIONS: NORTH

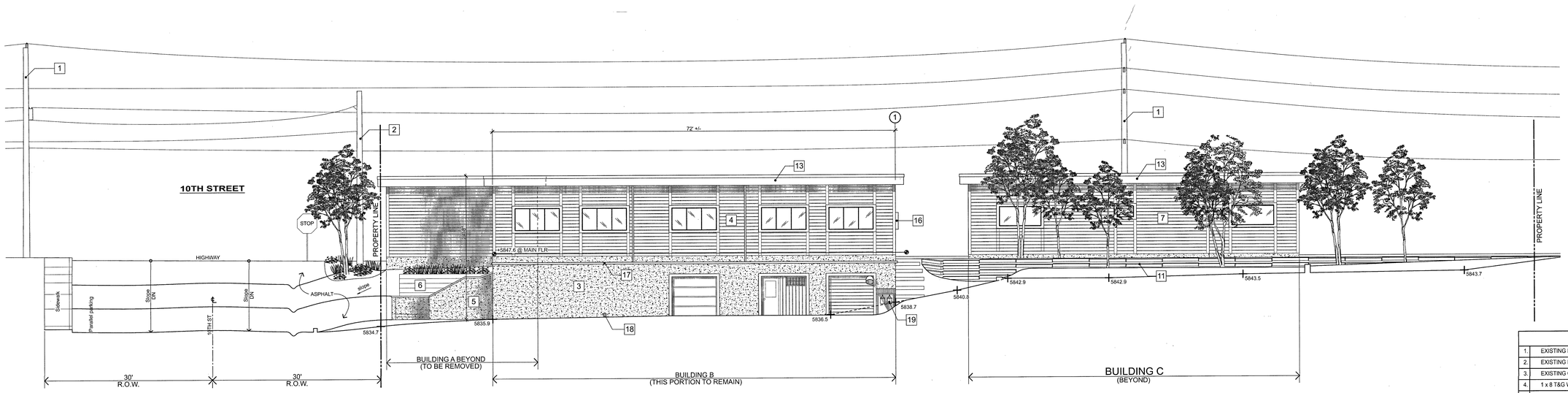
DATE OF ISSUE: 5.23.16
SUPERSEDES ALL PREVIOUS DRAWINGS

PLOT DATE: 4/27/16

SCALE: 1/8" = 1'-0"

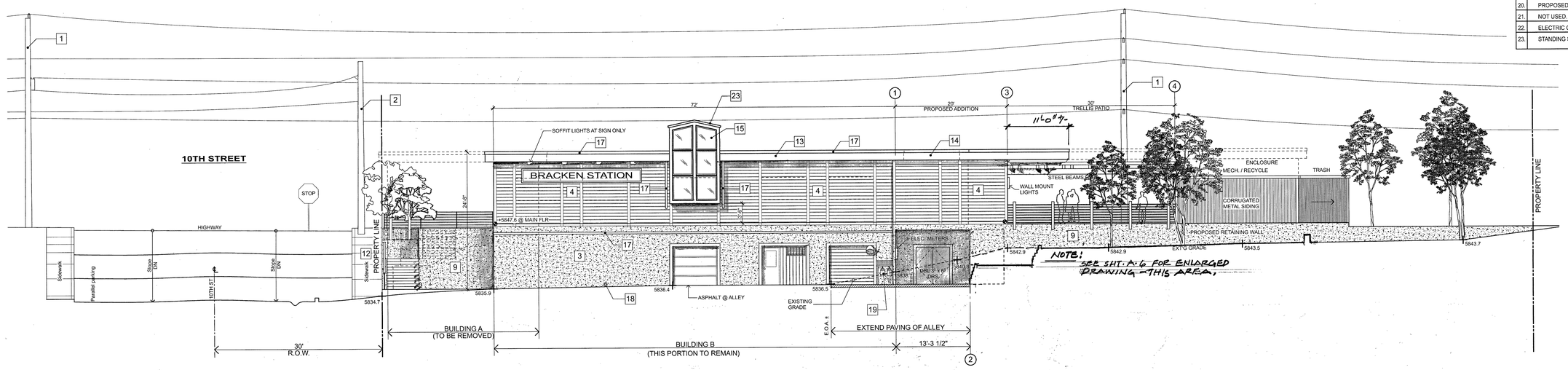
SHEET NO. A.3

Shade/ Shadow △



1 EXISTING WEST ELEVATION - ALLEY VIEW

KEY INDEX	
1.	EXISTING POWER POLE- HWY 75.
2.	EXISTING POWER POLE- 10TH STREET/ALLEY.
3.	EXISTING CONC. WALL (MARINA GREY #1599).
4.	1 x 8 T&G WD SIDING (ROLLING HILLS #1497).
5.	ABANDONED STAIRWAY.
6.	ABANDONED RAILROAD PLANTER.
7.	EXISTING HORIZ. WOOD SIDING.
8.	NEW METAL GUARDRAIL/HANDRAIL- BLACK.
9.	NEW POURED-IN-PLACE RETAINING WALL- SANDBLAST (MARINA GREY STAIN).
10.	NEW STAIR - MID LANDING PLANTER.
11.	EXISTING RAILROAD RETAINING WALL AT ALLEY.
12.	PROPOSED SIDWALK.
13.	EXISTING FASCIA.
14.	MATCH EXISTING FASCIA.
15.	NEW SKYLIGHT.
16.	ELEC. METERS.
17.	RAIN GUTTER / DOWNSPOUT.
18.	ROOF DRAIN (INTERNAL).
19.	GAS METERS.
20.	PROPOSED SIGN.
21.	NOT USED.
22.	ELECTRIC CHARGING STATION(S).
23.	STANDING SEAM METAL ROOF SKYLIGHT.



2 PROPOSED WEST ELEVATION - ALLEY VIEW

scale: 1/8"= 1'-0"

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PH#: (208) 725-5566
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■ ■ ■ MEMBER AMERICAN INSTITUTE OF ARCHITECTS ■ ■ ■

CUP APPLICATION - LOT 5A BLK 30
AND DESIGN REVIEW - PRE-APP
LOT 5A / BLK 30 / ZONE LI - 1
KETCHUM, ID

REVISION RECORD		
NO.	DATE	BY

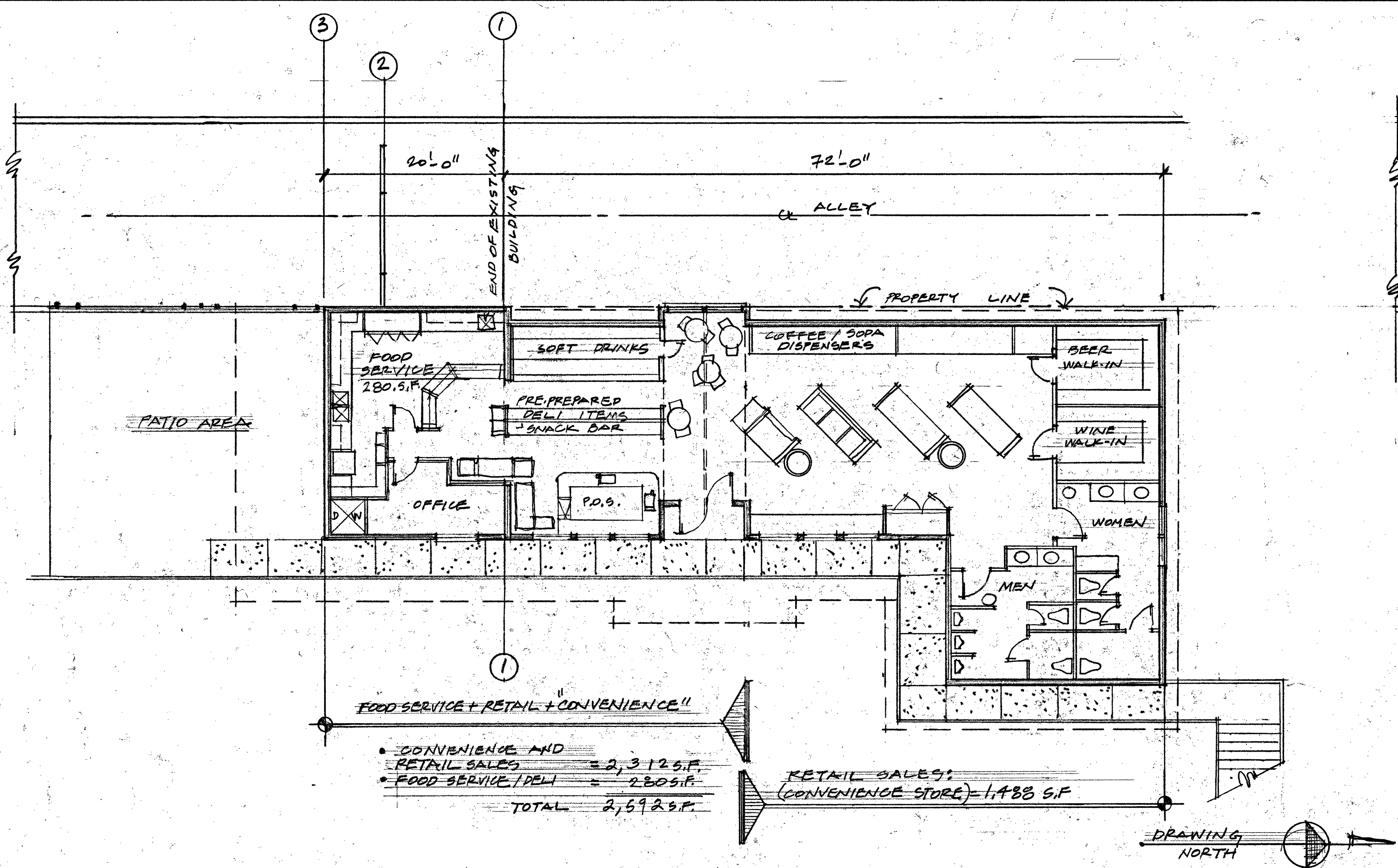
DRAWING NAME: EXTERIOR ELEVATIONS: WEST

DATE OF ISSUE: 5.23.16
SUPERSEDES ALL PREVIOUS DRAWINGS

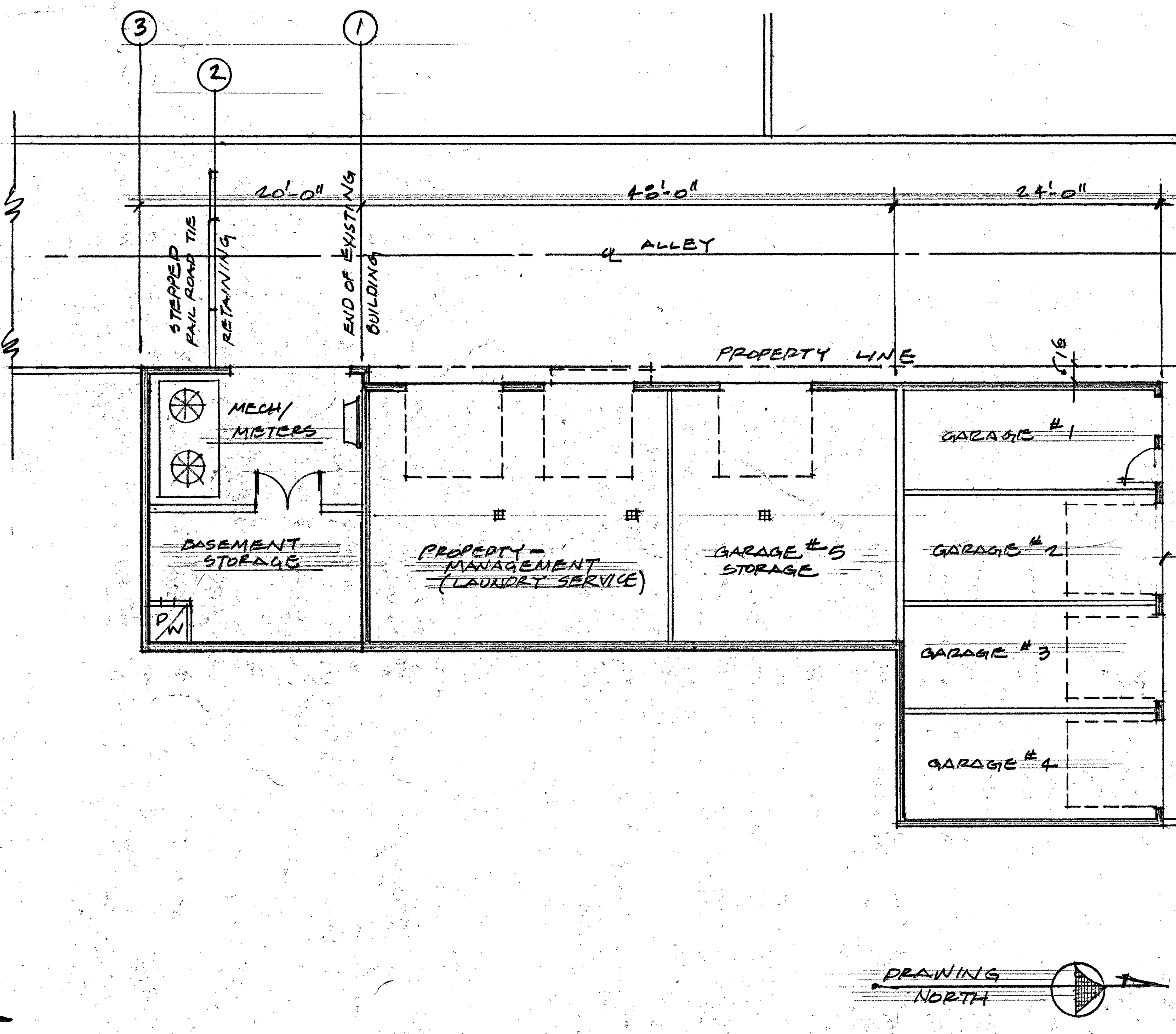
PLOT DATE: 4/27/16

SCALE: 1/8" = 1'-0"

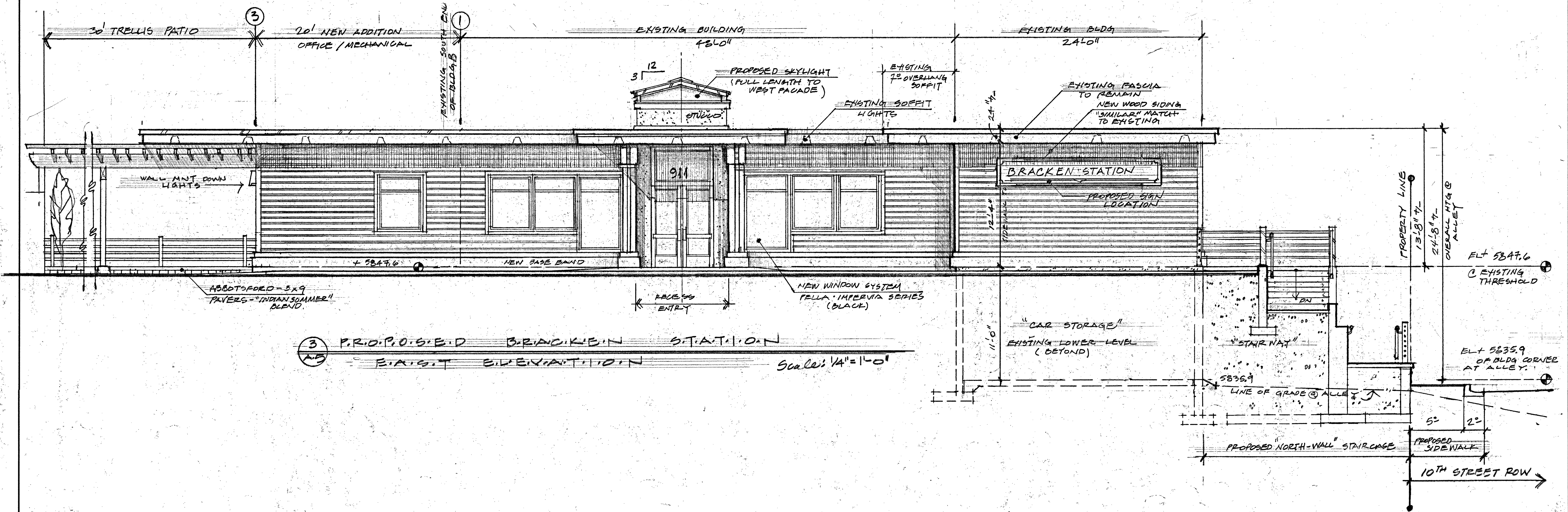
SHEET NO. A.4



1 PROPOSED UPPER LEVEL Scale: 1/8"



2 PROPOSED LOWER LEVEL Scale 1/8"



3 A5 PROPOSED BRACKEN STATION EAST ELEVATION Scale: 1/4" = 1'-0"

THE BRACKEN STATION
LOT 5A, BLK 30, L.T.I
KETCHUM · IDAHO

STEVE R. COOK, ARCHITECT
323 SOUTH LEWIS ST, SUITE H, P.O. BOX 680, KETCHUM ID, 83340
■ ■ MEMBER AMERICAN INSTITUTE OF ARCHITECTS ■ ■
PH (208) 725-5566
FAX (208) 725-5568

REVISION RECORD

NO.	DATE	BY

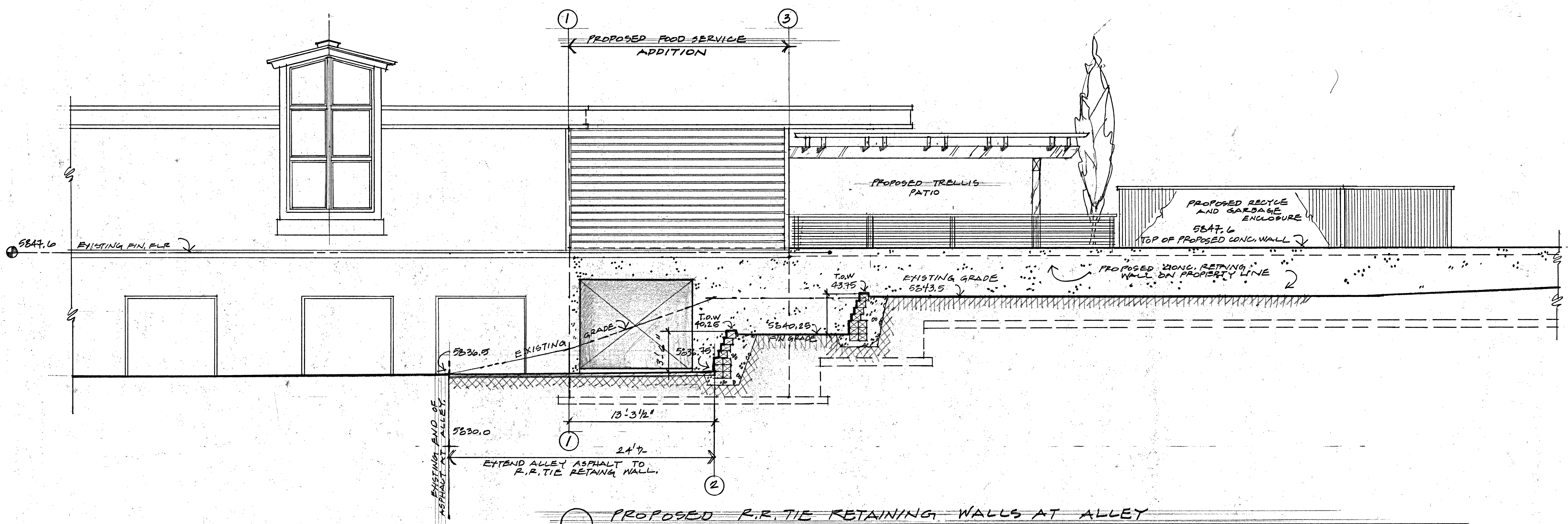
DRAWING NAME: PROPOSED FRONT ELEVATION

SCALE: 1/4" = 1'-0"

DATE OF ISSUE: 5.23.16

PLOT DATE:

SHEET NO. A·5



PROPOSED R.R. TIE RETAINING WALLS AT ALLEY

Scale: 1/4"=1'-0"

BRACKEN STATION
LOT 5A - BLK 30
KETCHUM, IDAHO
CUP APPLICATION AND
DESIGN REVIEW - PRE-APP

STEVE R. COOK, ARCHITECT
323 SOUTH LEWIS ST. SUITE H, P.O. BOX 680, KETCHUM ID, 83340
PH#: (208) 725-5566
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REVISION RECORD

NO.	DATE	BY

DRAWING NAME: ALLEY R.R. TIE RETAINING WALLS

SCALE: 1/4"=1'-0"

DATE OF ISSUE: 5. 23. 16

PLOT DATE:

SHEET NO. A-6


LEGEND
Boundary Line
Adjoiner's Lot Line
Centerline Highway/Street
DY = Double Yellow Line
FOG = Fog Line
Building/Structure Line
Concrete Line
Retaining Wall/Planter Line
EOA = Edge of Asphalt Line
Gasmain Line
Cable Television Line (Buried & Overhead)
Telephone Line (Buried & Overhead)
Sewermain Line
Sewer Service Line
Watermain Line
Water Service Line
Overhead Power Line
Buried Fiber Optic Line
CNTRL = Survey Control
FND-5/8" = Found 5/8" Rebar
STORM MH = Stormdrain Manhole
Power Pole
Power Meter
Gas Meter
Sewer Cleanout
Sewer Manhole
Water Valve
Telephone Box
SGN = Sign
DT = Deciduous Tree
CT = Coniferous Tree
AP Angle Point
BLDG Building
COR Corner
GS Ground Shot
TP Top of Pavement
TOP Top of SLope
CONC Concrete
PMTR Power Meters
GMTRS Gas Meters
SS Sewer Service
UTIL Utility
CL Centerline
NE Northeast
NOEL No Elevation
NOTES
1. Basis of Bearings is Idaho State Plane Coordinate System, NAD83, Central Zone, at Grid in US Survey Feet. Vertical Datum is NAVD1988.
2. Boundary information is from the Plat of Lot 5A, Block 30, Ketchum Townsite, filed as Instrument Number 538822, Blaine County Records.
3. Utility locations by Digline and visual evidence. Digline should be contacted again to locate utilities prior to any excavation.
4. Log Columns on the Existing building are not shown.
5. The southerly corner of the property had a large snow pile. Some features may not have been visible.
6. A title report was not available at the time of this survey. Some easements may not be shown.
GRAPHIC SCALE
(IN FEET)
1 inch = 10 ft.
CENTERLINE EAST AVENUE
CENTERLINE TENTH STREET
STATE HIGHWAY 75
100' Right-of-Way
LOT 5A
ALLEY
BURIED FIBER OPTIC LINE
S = 7% (TYP.)
S = 10% (TYP.)
S = 0.5% (TYP.)
N 45°40'2" E
180.52
[N 45°35'52" E]
[180.52]
S 34°56'59" E
273.97
[S 3°09'09" E]
[273.97]
N 44°18'3" W
205.99
[N 44°22'13" W]
[205.99]
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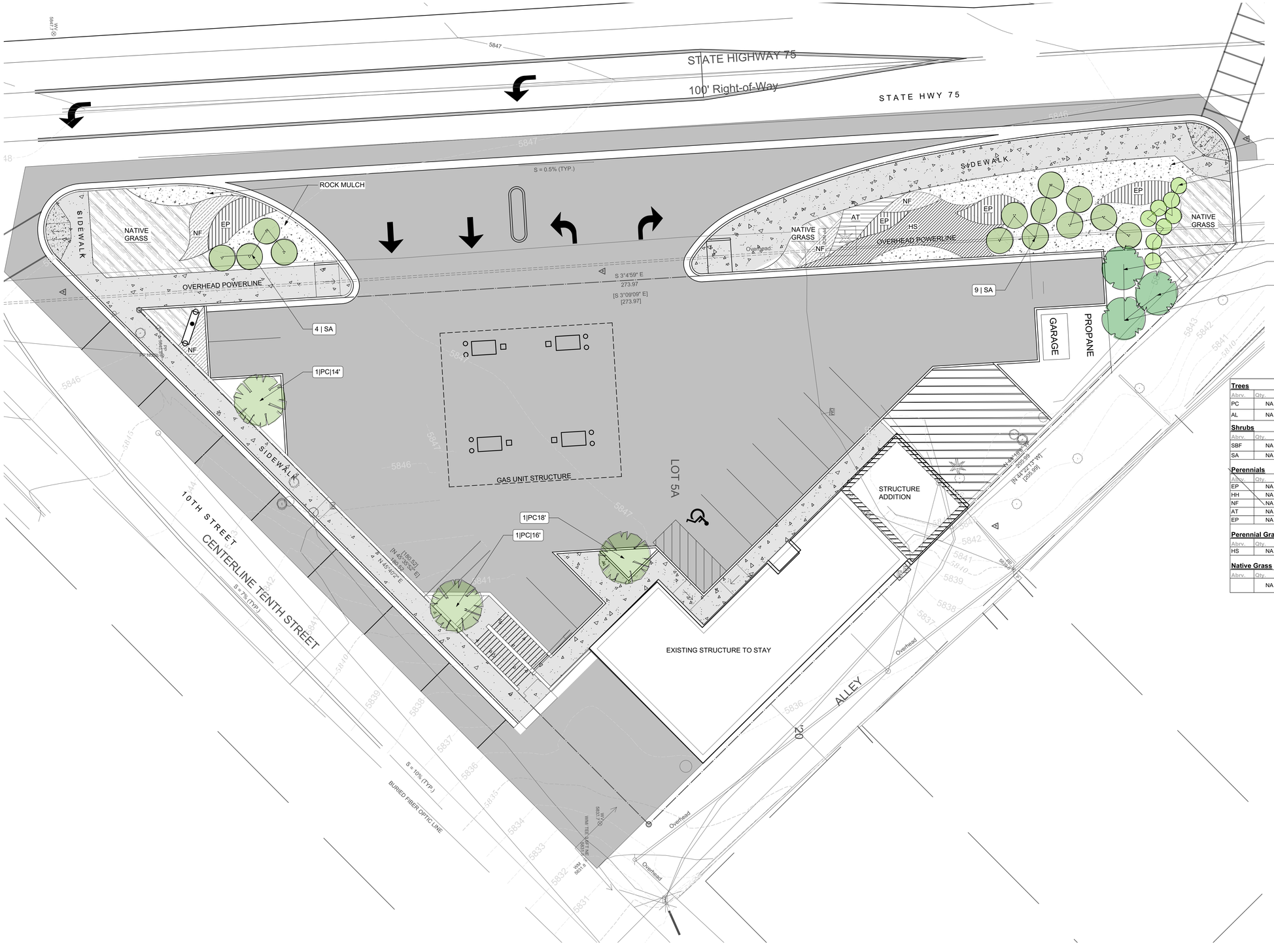
Alpine Enterprises Inc.
Surveying, Mapping, and Natural Hazards Consulting
221 Northwood Way, Unit A-100
P.O. Box 2037, Ketchum, ID 83340 USA
(208) 727-1988 727-1987 fax
email: bsmith@alpineenterprisesinc.com
PROFESSIONAL LAND SURVEYOR
REGISTERED
7040
23Mar16
STATE OF IDAHO
BRUCE SMITH
A SITE SURVEY SHOWING
LOT 5A, BLK 30, KETCHUM TOWNSITE
WITHIN S13, T.4N., R.17E., B.M., CITY OF KETCHUM, BLAINE COUNTY, IDAHO
PREPARED FOR ROY BLACKEN & STEVE COOK, ARCHITECT
REVISIONS
NO DATE BY
Sheet 1 of 1



Drawing Legend

Symbol	Definition
	Property Line
(80) (79)	Existing Contours
80 79	Proposed Contours

Drawing Legend

Symbol	Definition
	Concrete Walkeway
	River Rock Mulch
	Proposed Perennials: See Planting Schedule
	Proposed Shrubs: See Planting Schedule
	Proposed Evergreen Trees: See Planting Schedule

Trees

Abrv.	Qty.	Size	Botanical Name	Common Name	Spacing
PC	NA	Varies	Pinus contorta	Lodge Pole Pine	Per Plan
AL	NA	Varies	Abies lasiocarpa	Sub Alpine Fir	Per Plan

Shrubs

Abrv.	Qty.	Size	Botanical Name	Common Name	Spacing
SBF	NA	10 Gal.	Salix brachycarpa 'Blue Fox'	Blue Fox Willow	Per Plan
SA	NA	20 Gal.	Salix arctica	Arctic Willow	Per Plan

Perennials

Abrv.	Qty.	Size	Botanical Name	Common Name	Spacing
EP	NA	1 Gal.	Perovskia atriplicifolia	Russian Sage	Per Plan
HH	NA	1 Gal.	Heliopsis helianthoides	Sun Flower	Per Plan
NF	NA	1 Gal.	Nepeta x faassinni	Catmint	Per Plan
AT	NA	1 Gal.	Achillea millefolium 'Terracotta'	Yarrow	Per Plan
EP	NA	1 Gal.	Echinacea	Purple Cone Flower	Per Plan

Perennial Grasses

Abrv.	Qty.	Size	Botanical Name	Common Name	Spacing
HS	NA	2 Gal.	Helictotrichon sempervirens	Blue Oat Grass	Per Plan

Native Grass

Abrv.	Qty.	Size	Botanical Name	Common Name	Spacing
	NA	Hydro Seed		Native Grass Mix	Per Plan

N

0 10 20 30 40 FT

SCALE: 1"= 10'-0"

BYLA
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323 Lewis _ | Ketchum, ID
(208) 726 5997 - (208) 720 0215
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No. | Description | Signature | Date

BRACKEN STATION
BRACKEN BUILDING
LOT 5A | BLK 30 | SONE LI-1, KETCHUM, ID

LANDSCAPE OVERVIEW

Date: 05.23.2016
Drawn By: TB
Checked By: CG
File: Filename

Sheet No.
L1.0
1

LEGEND:
EXISTING PROPERTY LINE
EXISTING ADJOINER
EXISTING CENTERLINE
PROPOSED CONCRETE CURB & GUTTER
PROPOSED CONCRETE
PROPOSED ASPHALT
PROPOSED PAVERS

0 20 40 Feet

KETCHUM BLOCK 50 LOT 1AA
KETCHUM BLOCK 50 LOT 2A
KETCHUM BLOCK 29 LOT 1 & 2
E 9TH STREET ℄
RECTANGULAR RAPID FLASHING BEACON
EXISTING PARALLEL PARKING
EOA
62.5'
EXISTING STRIPING
PROPOSED STRIPING
71.2' (50' MIN.)
50'±
13'
12'
100'± R.O.W.
STATE HWY 75 ℄
6'
25'
35'
23'
19'
R480'
R10'
PROPOSED 2' VALLEY GUTTER
R50'
40'
13.9'
R30'
R200'
R3' TYP.
4'
ITD SNOW STORAGE AND PERMITTED LANSCAPING; SEE LANSCAPE PLANS
RETAIN AND PROTECT EXISTING TREE
RETAIN AND PROTECT EXISTING POWER POLE
8"
24'
12.9'
KETCHUM BLOCK 30 LOT 5A
EXISTING STRIPING
RECTANGULAR RAPID FLASHING BEACON
10' TYP.
15'
20' TYP.
PROPOSED ADDITION
EXISTING BUILDING
ALLEY
LOT 1
LOT 2
LOT 3
LOT 4
60'
E 10TH STREET ℄
N LEADVILLE AVENUE ℄
TENTH ST LIGHT INDUSTRIAL COMPLEX
TL 4808

1 EX VICINITY MAP
SCALE: N.T.S.

PRELIMINARY ONLY NOT FOR CONSTRUCTION

REVISIONS

No.	DESCRIPTION	DATE	BY
1	EXTEND TURN LANE SOUTH	6/3/16	SKS

BENCHMARK ASSOCIATES

PREPARED BY:
BENCHMARK ASSOCIATES, P.A.
P.O. BOX 733 100 BELL DRIVE
KETCHUM, IDAHO 83340
(208) 726-9512
FAX 726-9514
WEB: WWW.BMASB.COM
MAIL: WWW.BMASB.COM

PRELIMINARY IMPROVEMENTS PLAN

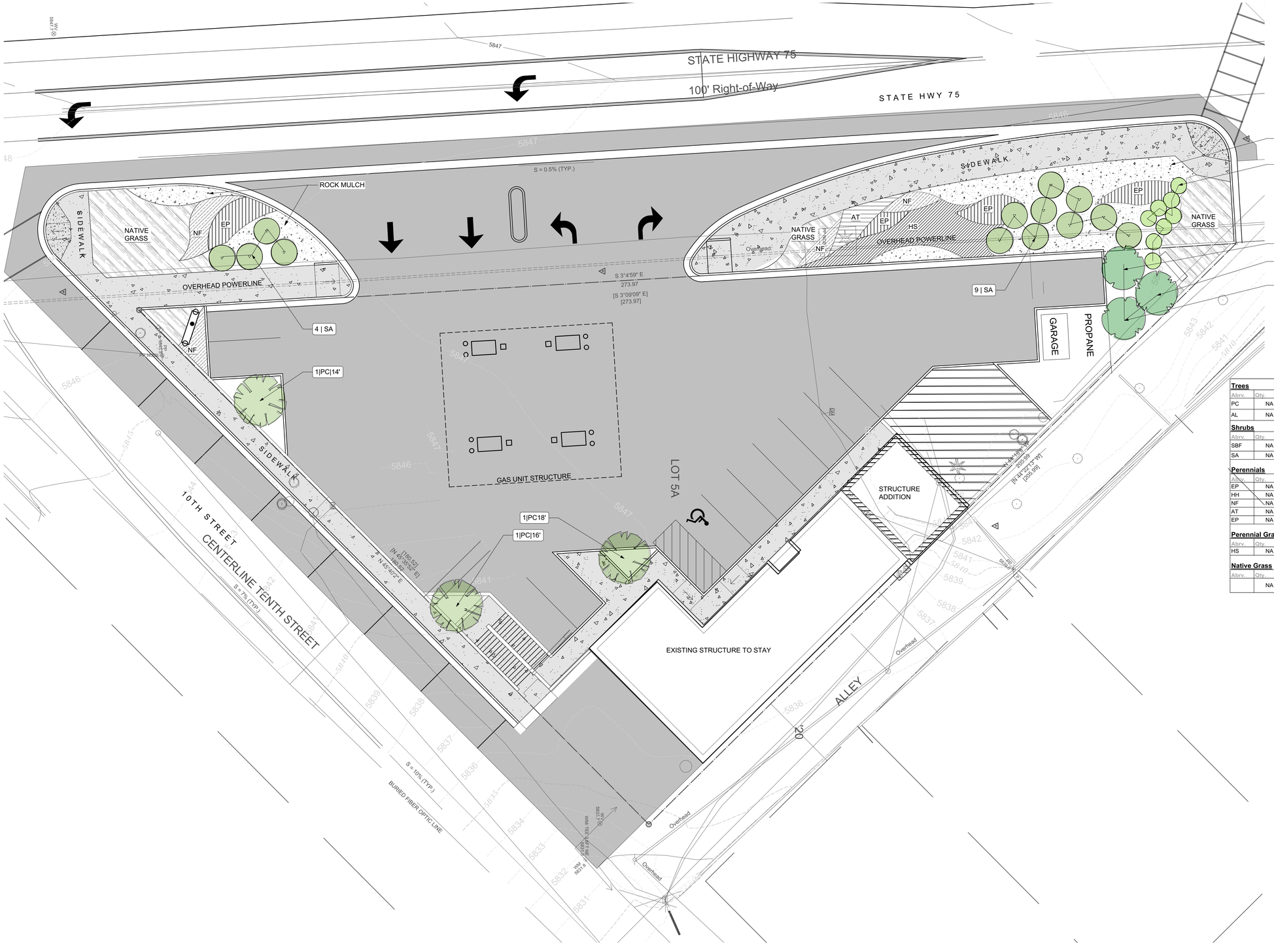
KETCHUM TOWNSITE BLOCK 30, LOT 5A
T4N, R17E, SEC 13, B.M., BLAINE COUNTY, IDAHO

PREPARED FOR: ROY BRACKEN

DRAWN BY: SKS
DESIGNED BY: JPG
CHECKED BY: SB
DATE: 05/03/16
PROJECT NO.: 16051

SHEET NUMBER

EX



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0 10 20 30 40 FT

SCALE: 1"= 10'-0"

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LOT 5A | BLK 30 | SONE LI-1, KETCHUM, ID

LANDSCAPE OVERVIEW

Date: 05.23.2016
Drawn By: TB
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File: Filename

Sheet No.
L1.0
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WARM SPRINGS
ROAD


WARM SPRINGS
ROAD


WARM SPRINGS
ROAD

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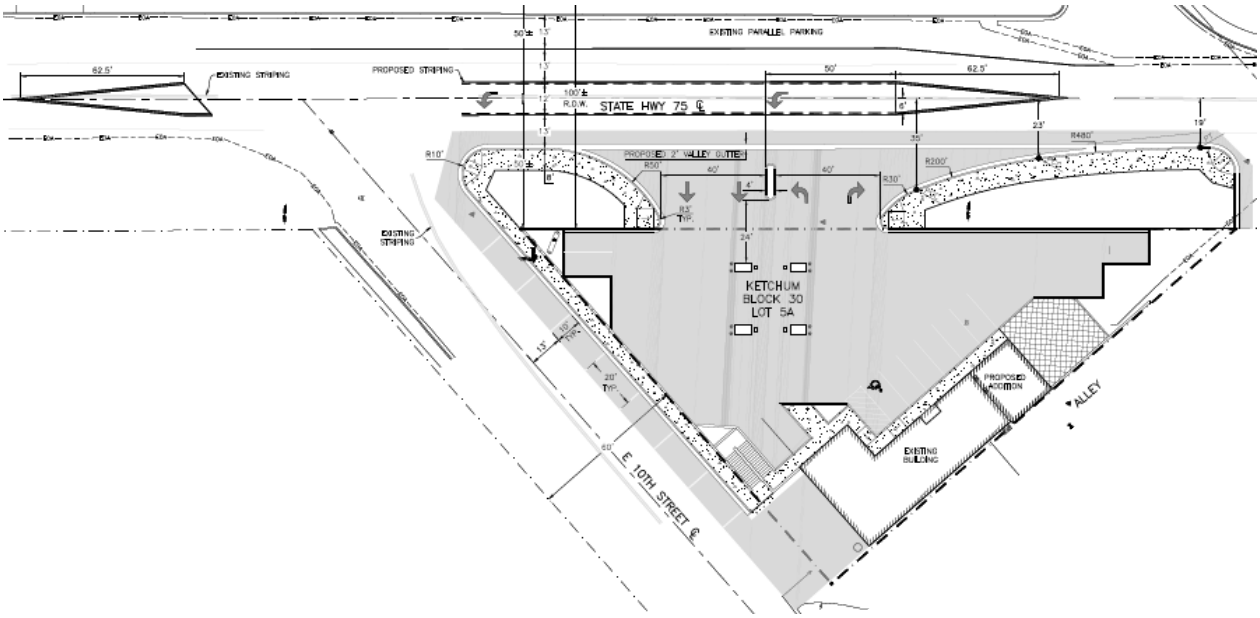
Ketchum Gas Station

Traffic Impact Study *UPDATED*



Ketchum, Idaho

May 2016

UT16-851

1220 North 500 West, Ste. 202 Lehi, UT 84043 p 801.766.4343
www.**hales**engineering.com

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EXECUTIVE SUMMARY

This study addresses the traffic impacts associated with the proposed gas station in Ketchum, Idaho. The proposed gas station will be located on the southwest corner of the Main Street (SH-75) / 10th Street intersection.

Included within the analyses for this study are the traffic operations and recommended mitigation measures for existing conditions and plus project conditions (conditions after development of the proposed project) at key intersections and roadways in the vicinity of the site. Future 2020 conditions are also analyzed.

TRAFFIC ANALYSIS

The following is an outline of the traffic analysis performed by Hales Engineering for the traffic conditions of this project.

Existing (2016) Background Conditions Analysis

Hales Engineering used previous data for weekday morning (7:00 to 9:00 a.m.) and afternoon (4:00 to 6:00 p.m.) peak period traffic counts at the following intersections:

- Main Street (SH-75) / 10th Street

These counts were performed for a previous project on Wednesday, February 13, 2008. Data from an automatic traffic recorder (ATR 68) was used to determine an annual growth rate of 1.1% and a seasonal adjustment of 30% for this segment of SH-75. Using these adjustments, peak period traffic volumes were calculated for the study intersection. The a.m. peak hour was determined to be between the hours of 8:00 and 9:00 a.m., and the p.m. peak hour was determined to be between the hours of 4:15 and 5:15 p.m. Detailed count data are included in Appendix A. The traffic volumes at this intersection was approximately 15% higher during the p.m. peak hour than during the a.m. peak hour. Therefore, the p.m. peak hour was chosen for detailed analysis as this represents the worst-case scenario.

As shown in Table ES-1, the Main Street (SH-75) / 10th Street intersection is currently operating at LOS A during the p.m. peak hour. The 95th percentile queues on the north- and eastbound approaches to the 10th Street / Main Street (SH-75) intersection was observed extend for approximately 80 feet. No other significant queuing was observed.

Project Conditions Analysis

The proposed land use for the development has been identified as follows:

- Gasoline/Service Station with Convenience Market 8 Vehicle Fueling Positions

Trip generation for the development was calculated using trip generation rates published in the Institute of Transportation Engineers (ITE) *Trip Generation (9th Edition, 2012)*. Trip generation for the proposed project is as follows:

- Weekday Daily Trips: 1,304
- a.m. Peak Hour Trips: 82
- p.m. Peak Hour Trips: 110

Existing (2016) Plus Project Conditions Analysis

As shown in Table ES-1, all study intersections are anticipated to operate at acceptable levels of service during the p.m. peak hour. During the p.m. peak hour, the 95th percentile queue length on the on the eastbound approach to the Main Street (SH-75) / 10th Street intersection is anticipated to extend for approximately 80 feet with project traffic added. Some queuing on northbound Main Street (SH-75) is also anticipated, which is likely attributed to left-turning vehicles blocking through traffic at the Main Street (SH-75) / 10th Street intersection as well as at the project access.

Future (2020) Background Conditions Analysis

As shown in Tables ES-1, the Main Street (SH-75) / 10th Street intersection is anticipated to operate at LOS C during the p.m. peak hour with future (2020) background traffic conditions. The 95th percentile queues on the north- and eastbound approaches to the Main Street (SH-75) / 10th Street intersection are anticipated to extend for approximately 110 feet. No other significant queuing is anticipated.

Future (2020) Plus Project Conditions Analysis

As shown in Tables ES-1, the Main Street (SH-75) / 10th Street intersection is anticipated to operate at LOS C with project traffic added, while the proposed access is anticipated to operate at LOS A during the p.m. peak hour. During the p.m. peak hour, the 95th percentile queue length on the northbound approach to the Main Street (SH-75) / 10th Street intersection is anticipated to extend for approximately 50 feet. All other queuing is anticipated to be nominal.

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TABLE ES-1 P.M. Peak Hour ID Ketchum Gas Station TIS				
Intersection	Projected 2016 Background	Projected 2016 Plus Project	Future 2020 Background	Future 2020 Plus Project
Description	LOS (Sec/Veh[1])	LOS (Sec/Veh[1])	LOS (Sec/Veh[1])	LOS (Sec/Veh[1])
Main Street (ID-75) / 10th Street	**A (9.7) / EB**	**B (10.9) / EB**	**C (15.9) / EB**	**C (17.8) / EB**
Main Street (ID-75) / Access 1	**-**	**A (6.5) / EB**	**-**	**A (9.2) / EB**

1. Intersection LOS and delay (seconds/vehicle) values represent the overall intersection average for signalized and all-way stop controlled intersections and the worst approach for all other unsignalized intersections.

2. This is a project intersection and is only analyzed in the plus project scenarios.

Source: Hales Engineering, May 2016

RECOMMENDATIONS

The following mitigation measures are recommended:

Existing (2016) Background Conditions Analysis

No mitigation measures are recommended.

Existing (2016) Plus Project Conditions Analysis

It is recommend that a two-way left-turn lane be constructed from a location north of 10th Street to a location south of the project. No other mitigation measures are recommended.

Future (2020) Background Conditions Analysis

No additional mitigation measures are recommended.

Future (2020) Plus Project Conditions Analysis

No additional mitigation measures are recommended.

SUMMARY OF KEY FINDINGS/RECOMMENDATIONS

The following is a summary of key findings and recommendations:

- The Main Street (SH-75) / 10th Street intersection is currently operating at LOS A during the p.m. peak hour.
- With project traffic added, the Main Street (SH-75) / 10th Street intersection is anticipated to operate at LOS B, and the proposed project access is anticipated to operate at LOS A.
- It is recommended that a two-way left-turn lane be constructed on Main Street (SH-75) from a location north of 10th Street to a location south of the project.
- With future (2020) traffic conditions, the Main Street (SH-75) / 10th Street intersection is anticipated to operate at LOS C during the p.m. peak hour.
- With project traffic added, the Main Street (SH-75) / 10th Street intersection is anticipated to operate at an acceptable level of service, as well as the project access.

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I. INTRODUCTION

A. Purpose

This study addresses the traffic impacts associated with the proposed gas station in Ketchum, Idaho. The proposed gas station will be located on the southwest corner of the Main Street (SH-75) / 10th Street intersection. Figure 1 shows a vicinity map of the proposed development.

Included within the analyses for this study are the traffic operations and recommended mitigation measures for existing conditions and plus project conditions (conditions after development of the proposed project) at key intersections and roadways in the vicinity of the site. Future 2020 conditions are also analyzed.

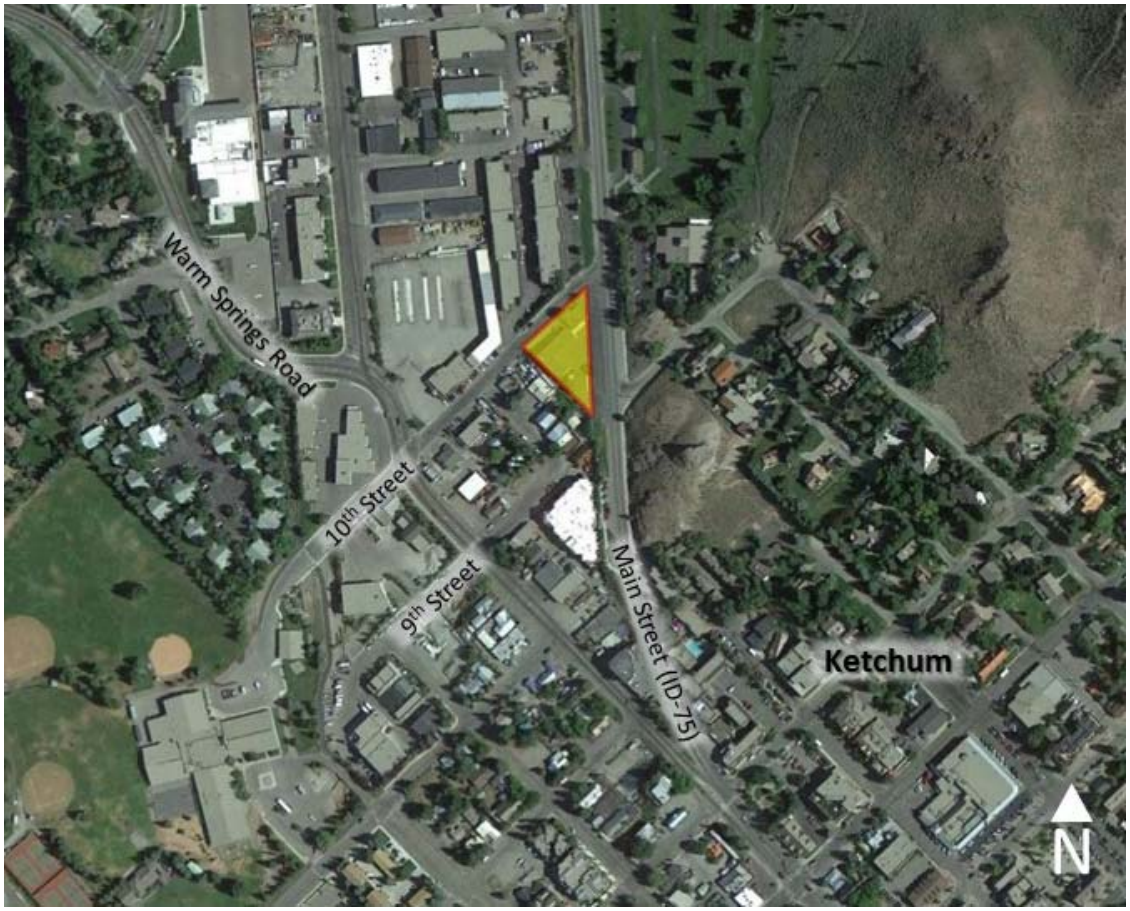

Figure 1 Vicinity map showing the project location in Ketchum, Idaho

B. Scope

The study area was defined based on conversations with the development team, following general guidelines for traffic impact studies. This study was scoped to evaluate the traffic operational performance impacts of the project on the following intersection:

- Main Street (SH-75) / 10th Street

C. Analysis Methodology

Level of service (LOS) is a term that describes the operating performance of an intersection or roadway. LOS is measured quantitatively and reported on a scale from A to F, with A representing the best performance and F the worst. Table 1 provides a brief description of each LOS letter designation and an accompanying average delay per vehicle for both signalized and unsignalized intersections.

The Highway Capacity Manual 2010 (HCM 2010) methodology was used in this study to remain consistent with "state-of-the-practice" professional standards. This methodology has different quantitative evaluations for signalized and unsignalized intersections. For signalized and all-way stop intersections, the LOS is provided for the overall intersection (weighted average of all approach delays). For all other unsignalized intersections LOS is reported based on the worst approach.

D. Level of Service Standards

For the purposes of this study, a minimum overall intersection performance for each of the study intersections was set at LOS D. However, if LOS E or F conditions exist, an explanation and/or mitigation measures will be presented. An LOS D threshold is consistent with "state-of-the-practice" traffic engineering principles for urbanized areas.

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Table 1 Level of Service Descriptions

Level of Service	Description of Traffic Conditions	Average Delay (seconds/vehicle)
Signalized Intersections		**Overall Intersection**
A	Extremely favorable progression and a very low level of control delay. Individual users are virtually unaffected by others in the traffic stream.	0 ≤ 10.0
B	Good progression and a low level of control delay. The presence of other users in the traffic stream becomes noticeable.	> 10.0 and ≤ 20.0
C	Fair progression and a moderate level of control delay. The operation of individual users becomes somewhat affected by interactions with others in the traffic stream.	>20.0 and ≤ 35.0
D	Marginal progression with relatively high levels of control delay. Operating conditions are noticeably more constrained.	> 35.0 and ≤ 55.0
E	Poor progression with unacceptably high levels of control delay. Operating conditions are at or near capacity.	> 55.0 and ≤ 80.0
F	Unacceptable progression with forced or breakdown operating conditions.	> 80.0
Unsignalized Intersections		**Worst Approach**
A	Free Flow / Insignificant Delay	0 ≤ 10.0
B	Stable Operations / Minimum Delays	>10.0 and ≤ 15.0
C	Stable Operations / Acceptable Delays	>15.0 and ≤ 25.0
D	Approaching Unstable Flows / Tolerable Delays	>25.0 and ≤ 35.0
E	Unstable Operations / Significant Delays	>35.0 and ≤ 50.0
F	Forced Flows / Unpredictable Flows / Excessive Delays	> 50.0

Source: Hales Engineering Descriptions, based on Highway Capacity Manual, 2010 Methodology (Transportation Research Board, 2010)

II. EXISTING (2016) BACKGROUND CONDITIONS

A. Purpose

The purpose of the existing (2016) background analysis is to study the intersections and roadways during the peak travel periods of the day with background traffic and geometric conditions. Through this analysis, background traffic operational deficiencies can be identified and potential mitigation measures recommended. This analysis will provide a baseline condition that may be compared to the build conditions to identify the impacts of the development.

B. Roadway System

The primary roadways that will provide access to the project site are described below:

Main Street (SH-75) – is a state-maintained roadway that is classified by ITD as a "regional" route in the vicinity of the project. SH-75 is a north/south route connecting Ketchum, as well as other communities such as Sun Valley and Hailey, to US-20 to the south. As a regional route in an urban area with a speed limit less than 35 mph, this roadway has minimum signal spacing of 2,640 feet, and a minimum street spacing of 660 feet. The minimum driveway distance from an upstream intersection is 250 feet, the minimum distance from a downstream intersection is 660 feet, and the minimum distance between accesses is 250 feet. Main Street (SH-75) has one travel lane in each direction and the posted speed limit in the vicinity of the proposed project is 25 mph.

C. Traffic Volumes

Hales Engineering performed weekday morning (7:00 to 9:00 a.m.) and afternoon (4:00 to 6:00 p.m.) peak period traffic counts at the following intersections:

- Main Street (SH-75) / 10th Street

These counts were performed for a previous project on Wednesday, February 13, 2008. Data from a nearby automatic traffic recorder (ATR 68) was used to determine an annual growth rate of 1.1% and a seasonal adjustment of 30% for this segment of SH-75. Using these adjustments, peak period traffic volumes were calculated for the study intersection. The a.m. peak hour was determined to be between the hours of 8:00 and 9:00 a.m., and the p.m. peak hour was determined to be between the hours of 4:15 and 5:15 p.m. Detailed count data are included in Appendix A. The traffic volumes at this intersection were approximately 15% higher during the p.m. peak hour than during the a.m. peak hour. Therefore, the p.m. peak hour was chosen for detailed analysis as this represents the worst-case scenario.

Figure 2 shows the existing p.m. peak hour volume as well as intersection geometry at the study intersection.

D. Level of Service Analysis

Using Synchro/SimTraffic, which follow the Highway Capacity Manual (HCM) 2010 methodology introduced in Chapter I, the p.m. peak hour LOS was computed for the study intersection. The results of this analysis are reported in Table 2 (see Appendix B for the detailed LOS reports). Multiple runs of SimTraffic were used to provide a statistical evaluation of the intersection. These results serve as a baseline condition for the impact analysis of the proposed development during existing (2016) conditions. As shown in Table 2, the Main Street (SH-75) / 10th Street intersection is currently operating at LOS A during the p.m. peak hour.

E. Queuing Analysis

Hales Engineering calculated the 95th percentile queue lengths for each of the study intersections. The queue reports can be found in Appendix D. The 95th percentile queues on the north- and eastbound approaches to the 10th Street / Main Street (SH-75) intersection was observed extend for approximately 80 feet. No other significant queuing was observed.

F. Mitigation Measures

No mitigation measures are recommended.

Table 2 Existing (2016) Background p.m. Peak Hour Level of Service

Intersection		Worst Approach			Overall Intersection	
Description	Control	Approach[1,3]	Aver. Delay (Sec/Veh)[1]	LOS[1]	Aver. Delay (Sec/Veh)[2]	LOS[2]
Main Street (SH-75) / 10th Street	EB Stop	EB	9.7	A	-	-

1. This represents the worst approach LOS and delay (seconds / vehicle) and is only reported for non-all-way stop unsignalized intersections.
2. This represents the overall intersection LOS and delay (seconds / vehicle) and is reported for all-way stop, roundabout, and signalized intersections.
3. Southbound = Southbound approach, etc.

Source: Hales Engineering, May 2016

ID Ketchum Gas Station TIS
Existing (2016) Background

p.m. Peak Hour
Figure 2

III. PROJECT CONDITIONS

A. Purpose

The project conditions analysis explains the type and intensity of development. This provides the basis for trip generation, distribution, and assignment of project trips to the surrounding study intersections defined in the Introduction.

B. Project Description

This study addresses the traffic impacts associated with the gas station in Ketchum, Idaho. The proposed gas station will be located on the southwest corner of the Main Street (SH-75) / 10th Street intersection. A site plan for the proposed development can be found in Appendix C.

The proposed land use for the development has been identified as follows:

- Gasoline/Service Station with Convenience Market 8 Vehicle Fueling Positions

C. Trip Generation

Trip generation for the development was calculated using trip generation rates published in the Institute of Transportation Engineers (ITE) *Trip Generation (9th Edition, 2012)*. Trip Generation for the proposed project is included in Table 3.

D. Trip Distribution and Assignment

Project traffic is assigned to the roadway network based on the type of trip and the proximity of project access points to major streets, high population densities, and regional trip attractions. Existing travel patterns observed during data collection also provide helpful guidance to establishing these distribution percentages, especially in close proximity to the site. The resulting distribution of projected generated trips is as follows:

<u>To/From Project:</u>

- 15% North
- 85% South

These trip distribution assumptions and the prevailing movements at each intersection were used to assign the evening peak hour generated traffic at the study intersections to create trip assignment for the proposed development. Trip assignment for the development is shown in Figure 3.

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Table 3
ID Ketchum Gas Station TIS
Trip Generation

Weekday Daily Land Use[1]	Number of Units	Unit Type	Trip Generation	% Entering	% Exiting	Trips Entering	Trips Exiting	Total Daily Trips
Gasoline/Service Station with Convenience Marke	8	Vehicle Fueling Positions	1,304	50%	50%	652	652	**1,304**
Project Total Daily Trips						**652**	**652**	**1,304**
A.M. Peak Hour Land Use[1]	Number of Units	Unit Type	Trip Generation	% Entering	% Exiting	Trips Entering	Trips Exiting	**Total a.m. Trips**
Gasoline/Service Station with Convenience Marke	8	Vehicle Fueling Positions	82	50%	50%	41	41	**82**
Project Total a.m. Peak Hour Trips						**41**	**41**	**82**
P.M. Peak Hour Land Use[1]	Number of Units	Unit Type	Trip Generation	% Entering	% Exiting	Trips Entering	Trips Exiting	**Total p.m. Trips**
Gasoline/Service Station with Convenience Marke	8	Vehicle Fueling Positions	110	50%	50%	55	55	**110**
Project Total p.m. Peak Hour Trips						**55**	**55**	**110**

1. Land Use Code from the Institute of Transportation Engineers Trip Generation Manual (9th Edition - 2012)

SOURCE: Hales Engineering, March 2016

E. Access

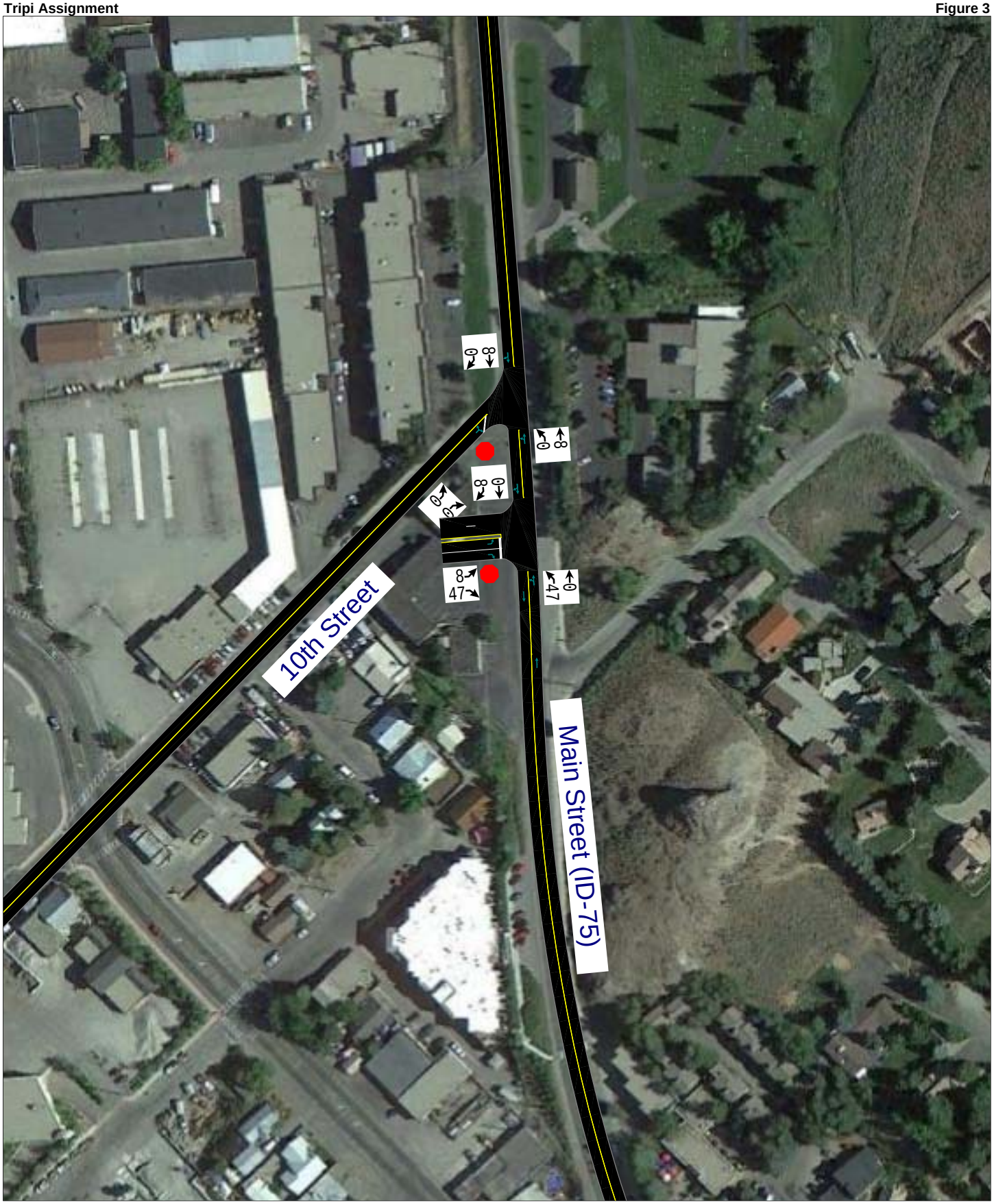
The proposed access for the site will be gained at the following locations (see also site plan in Appendix C):

Main Street (SH-75):

- One full-movement "boulevard approach" accesses is proposed on Main Street (SH-75), one approximately 60 feet south of 10th Street. A "boulevard approach" consists of two forty foot wide openings in the curb separated by a small island. One opening is for ingress movements, and the other for egress movements.

ID Ketchum Gas Station TIS
Tripi Assignment

p.m. Peak Hour
Figure 3



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IV. EXISTING (2016) PLUS PROJECT CONDITIONS

A. Purpose

This section of the report examines the traffic impacts of the proposed project at each of the study intersections. The net trips generated by the proposed development were combined with the existing background traffic volumes to create the existing plus project conditions. This scenario provides valuable insight into the potential impacts of the proposed project on background traffic conditions.

B. Traffic Volumes

Project trips were assigned to the study intersections based on the trip distribution percentages discussed in Chapter III and permitted intersection turning movements. The existing (2016) plus project p.m. peak hour volumes were generated for the study intersections and are shown in Figure 4.

C. Level of Service Analysis

Using Synchro/SimTraffic, which follow the Highway Capacity Manual (HCM) 2010 methodology introduced in Chapter I, the p.m. peak hour LOS was computed for each study intersection. The results of this analysis are reported in Table 4 (see Appendix B for the detailed LOS reports). Multiple runs of SimTraffic were used to provide a statistical evaluation of the interaction between the intersections. As shown in Table 4, all study intersections are anticipated to operate at acceptable levels of service during the p.m. peak hour.

D. Queuing Analysis

Hales Engineering calculated the 95th percentile queue lengths for each of the study intersections. The queue reports can be found in Appendix D. During the p.m. peak hour, the 95th percentile queue length on the on the eastbound approach to the Main Street (SH-75) / 10th Street intersection is anticipated to extend for approximately 80 feet with project traffic added. Some queuing on northbound Main Street (SH-75) is also anticipated, which is likely attributed to left-turning vehicles blocking through traffic at the Main Street (SH-75) / 10th Street intersection as well as at the project access.

E. Mitigation Measures

It is recommend that a two-way left-turn lane be constructed from a location north of 10th Street to a location south of the project. No other mitigation measures are recommended.

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Table 4 Existing (2016) Plus Project p.m. Peak Hour Level of Service

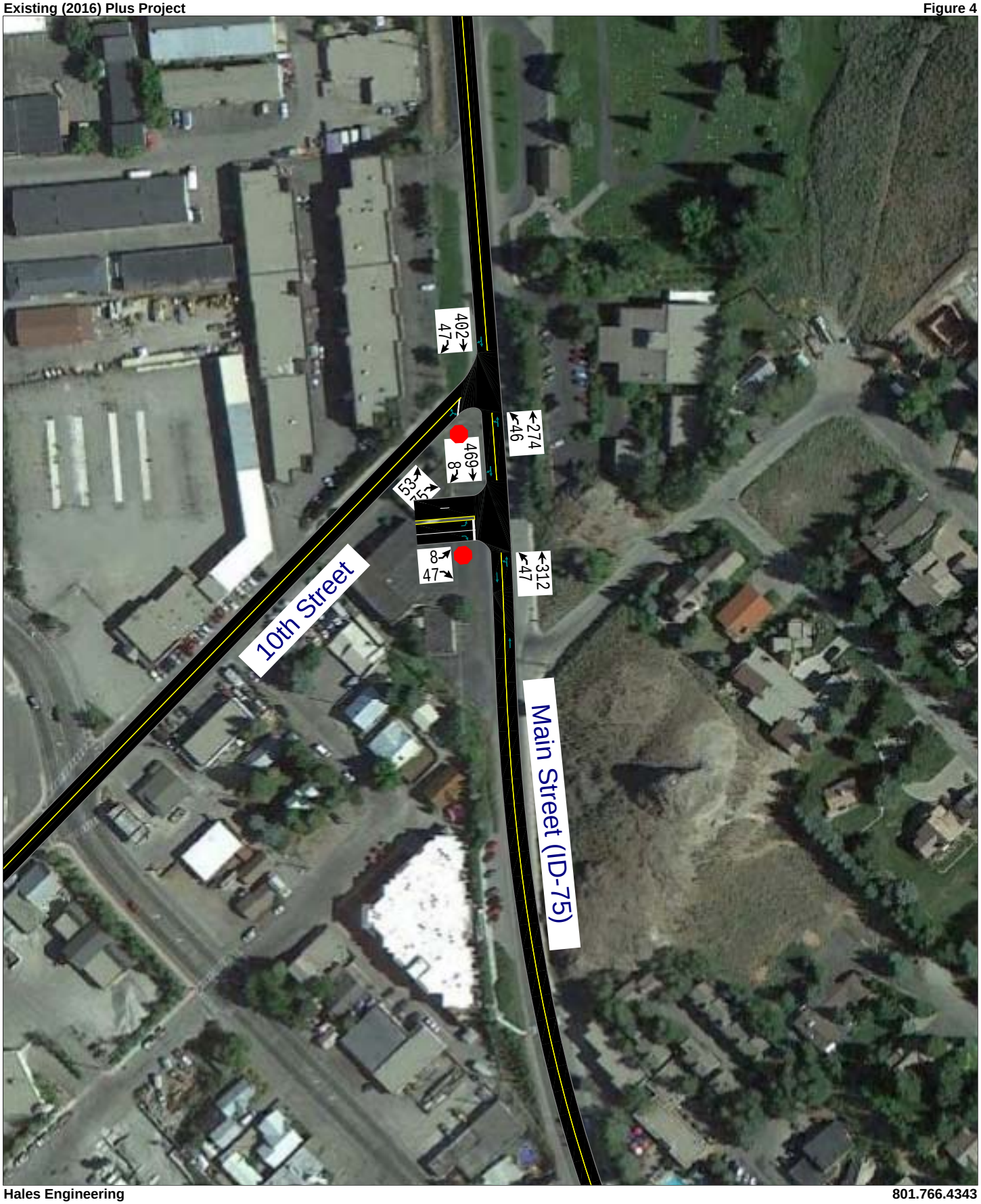
Intersection		Worst Approach			Overall Intersection	
Description	Control	Approach[1,3]	Aver. Delay (Sec/Veh)[1]	LOS[1]	Aver. Delay (Sec/Veh)[2]	LOS[2]
Main Street (SH-75) / 10th Street	EB Stop	EB	10.9	B	-	-
Main Street (SH-75) / Access 1	EB Stop	EB	6.5	A	-	-

1. This represents the worst approach LOS and delay (seconds / vehicle) and is only reported for non-all-way stop unsignalized intersections.
2. This represents the overall intersection LOS and delay (seconds / vehicle) and is reported for all-way stop, roundabout, and signalized intersections.
3. Southbound = Southbound approach, etc.

Source: Hales Engineering, May 2016

ID Ketchum Gas Station TIS
Existing (2016) Plus Project

p.m. Peak Hour
Figure 4



V. FUTURE (2020) BACKGROUND CONDITIONS

A. Purpose

The purpose of the future (2020) background analysis is to study the intersections and roadways during the peak travel periods of the day for future background traffic and geometric conditions. Through this analysis, future background traffic operational deficiencies can be identified and potential mitigation measures recommended.

B. Roadway Network

Based on information received, no improvements are planned for any of the roadways or intersections within the study area before 2020.

C. Traffic Volumes

Hales Engineering used the calculated annual growth rate discussed in Chapter II to project future (2020) traffic volumes for the study intersection. Future 2020 p.m. peak hour turning movement volumes are shown in Figure 5.

D. Level of Service Analysis

Using Synchro/SimTraffic, which follow the Highway Capacity Manual (HCM) 2010 methodology introduced in Chapter I, the p.m. peak hour LOS was computed for each study intersection. The results of this analysis are reported in Table 5 (see Appendix B for the detailed LOS reports). Multiple runs of SimTraffic were used to provide a statistical evaluation of the interaction between the intersections. These results serve as a baseline condition for the impact analysis of the proposed development for future (2020) conditions. As shown in Table 5, the Main Street (SH-75) / 10th Street intersection is anticipated to operate at LOS C during the p.m. peak hour with future (2020) background traffic conditions.

E. Queuing Analysis

Hales Engineering calculated the 95th percentile queue lengths for each of the study intersections. The queue reports can be found in Appendix D. The 95th percentile queues on the north- and eastbound approaches to the Main Street (SH-75) / 10th Street intersection are anticipated to extend for approximately 110 feet. No other significant queuing is anticipated.

F. Mitigation Measures

No additional mitigation measures are recommended.

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Table 5 Future (2020) Background p.m. Peak Hour Level of Service

Intersection		Worst Approach			Overall Intersection	
Description	Control	Approach[1,3]	Aver. Delay (Sec/Veh)[1]	LOS[1]	Aver. Delay (Sec/Veh)[2]	LOS[2]
Main Street (SH-75) / 10th Street	EB Stop	EB	15.9	C	-	-

1. This represents the worst approach LOS and delay (seconds / vehicle) and is only reported for non-all-way stop unsignalized intersections.
2. This represents the overall intersection LOS and delay (seconds / vehicle) and is reported for all-way stop, roundabout, and signalized intersections.
3. Southbound = Southbound approach, etc.

Source: Hales Engineering, May 2016

ID Ketchum Gas Station TIS
Future (2020) Background

p.m. Peak Hour
Figure 5

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VI. FUTURE (2020) PLUS PROJECT CONDITIONS

A. Purpose

The purpose of the future (2020) plus project analysis is to study the intersections and roadways during the peak travel periods of the day for future background traffic and geometric conditions plus the net trips generated by the proposed development. This scenario provides valuable insight into the potential impacts of the proposed project on future background traffic conditions.

B. Traffic Volumes

Trips were assigned to the study intersections based on the trip distribution percentages discussed in Chapter III and permitted intersection turning movements. It was also assumed that the previously recommended center TWLTL had been constructed along the project frontage.

The future (2020) plus project p.m. peak hour volumes were generated for the study intersections and are shown in Figure 6.

C. Level of Service Analysis

Using Synchro/SimTraffic, which follow the Highway Capacity Manual (HCM) 2010 methodology introduced in Chapter I, the p.m. peak hour LOS was computed for each study intersection. The results of this analysis are reported in Table 6 (see Appendix B for the detailed LOS reports). Multiple runs of SimTraffic were used to provide a statistical evaluation of the interaction between the intersections. As shown in Table 6, the Main Street (SH-75) / 10th Street intersection is anticipated to operate at LOS C with project traffic added, while the proposed access is anticipated to operate at LOS A during the p.m. peak hour.

D. Queuing Analysis

Hales Engineering calculated the 95th percentile queue lengths for each of the study intersections. The queue reports can be found in Appendix D. During the p.m. peak hour, the 95th percentile queue length on the northbound approach to the Main Street (SH-75) / 10th Street intersection is anticipated to extend for approximately 50 feet. All other queuing is anticipated to be nominal.

E. Mitigation Measures

No additional mitigation measures are recommended.

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Table 6 Future (2020) Plus Project p.m. Peak Hour Level of Service

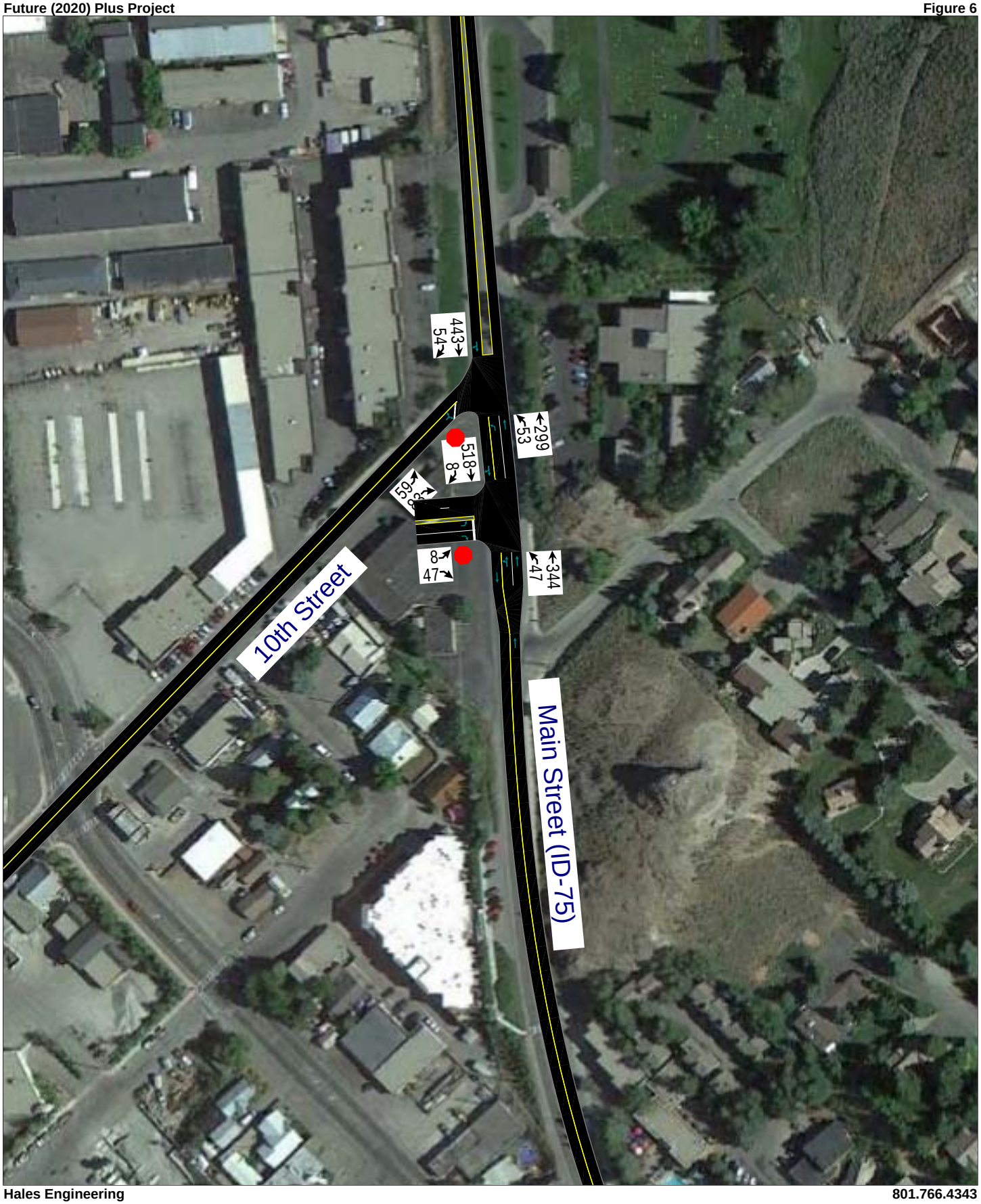
Intersection		Worst Approach			Overall Intersection	
Description	Control	Approach[1,3]	Aver. Delay (Sec/Veh)[1]	LOS[1]	Aver. Delay (Sec/Veh)[2]	LOS[2]
Main Street (SH-75) / 10th Street	EB Stop	EB	17.8	C	-	-
Main Street (SH-75) / Access 1	EB Stop	EB	9.2	A	-	-

1. This represents the worst approach LOS and delay (seconds / vehicle) and is only reported for non-all-way stop unsignalized intersections.
2. This represents the overall intersection LOS and delay (seconds / vehicle) and is reported for all-way stop, roundabout, and signalized intersections.
3. Southbound = Southbound approach, etc.

Source: Hales Engineering, May 2016

ID Ketchum Gas Station TIS
Future (2020) Plus Project

p.m. Peak Hour
Figure 6



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APPENDIX A

Turning Movement Counts

TrafficCounts
2364 North 1450 East
Lehi, UT 84043
801.636.0891

Intersection Turning Movement Summary

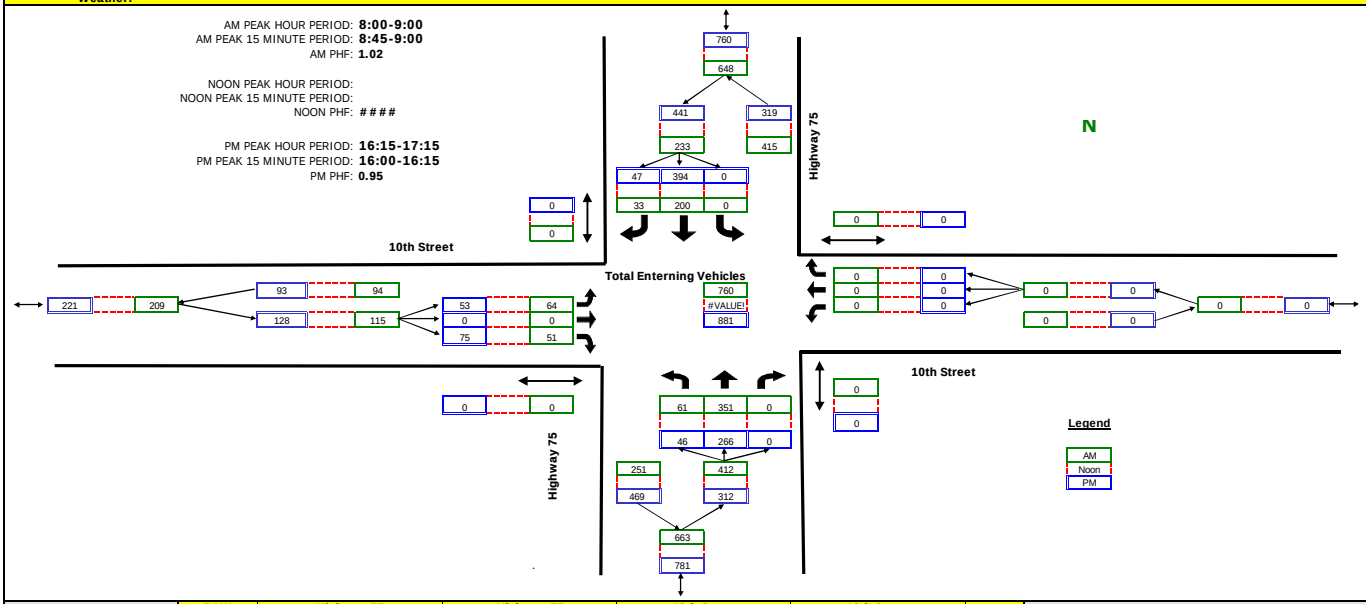
Intersection: Highway 75 / 10th Street
North/South: Highway 75
East/West: 10th Street
Jurisdiction: Ketchum, Idaho
Project Title: Ketchum - Warm Springs Road
Project No: P112
Weather:

Date: 2-13-08, Wed
Day of Week Adjustment: 100.0%
Month of Year Adjustment: 70.0%
Adjustment Station #: 68
Growth Rate: 1.1%
Number of Years: 8

AM PEAK HOUR PERIOD: **8:00-9:00**
AM PEAK 15 MINUTE PERIOD: **8:45-9:00**
AM PHF: **1.02**

NOON PEAK HOUR PERIOD:
NOON PEAK 15 MINUTE PERIOD:
NOON PHF: **####**

PM PEAK HOUR PERIOD: **16:15-17:15**
PM PEAK 15 MINUTE PERIOD: **16:00-16:15**
PM PHF: **0.95**



RAW COUNT SUMMARIES	Highway 75 Northbound				Highway 75 Southbound				10th Street Eastbound				10th Street Westbound				
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	

AM PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
7:00-7:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15-7:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30-7:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45-8:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00-8:15	18.5714	68.5714	0	0	0	38.571	7.1429	0	15.714	0	10	0	0	0	0	0	158.5714
8:15-8:30	17.1429	81.4286	0	0	0	45.714	7.1429	0	15.714	0	10	0	0	0	0	0	177.1429
8:30-8:45	10	82.8571	0	0	0	48.571	8.5714	0	14.286	0	10	0	0	0	0	0	174.2857
8:45-9:00	10	88.5714	0	0	0	50	7.1429	0	12.857	0	17.143	0	0	0	0	0	185.7143

NOON PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
11:00-11:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15-11:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30-11:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45-12:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00-12:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15-12:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30-12:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45-13:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PM PERIOD COUNTS

Period	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	TOTAL
16:00-16:15	10	64	0	0	0	114	11	0	17	0	16	0	0	0	0	0	232
16:15-16:30	10	76	0	0	0	77	11	0	17	0	16	0	0	0	0	0	207
16:30-16:45	7	43	0	0	0	114	14	0	16	0	19	0	0	0	0	0	213
16:45-17:00	11	59	0	0	0	87	7	0	6	0	14	0	0	0	0	0	184
17:00-17:15	14	66	0	0	0	83	11	0	10	0	20	0	0	0	0	0	204
17:15-17:30	7	44	0	0	0	67	4	0	10	0	6	3	0	0	0	0	138
17:30-17:45	7	47	0	0	0	69	3	0	11	0	6	0	0	0	0	0	143
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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APPENDIX B

Level of Service Results

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SimTraffic LOS Report

Project: ID Ketchum Gas Station TIS
Analysis Period: *Existing (2016) Background*
Time Period: *p.m. Peak Hour* **Project #:** *UT-16-851*

Intersection: 10th Street & Main Street (ID-75)
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	46	45	98	5.2	*A*
	T	266	263	99	1.0	*A*
	Subtotal	312	308	99	1.6	*A*
SB	T	394	396	101	0.8	*A*
	R	47	44	94	0.4	*A*
	Subtotal	441	440	100	0.8	*A*
NE	L	53	49	92	14.2	*B*
	R	75	76	101	6.8	*A*
	Subtotal	***128***	***125***	***98***	***9.7***	***A***
Total		880	873	99	2.4	*A*

Intersection:
Type:

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
Total						

3: 10th Street & Main Street (ID-75) Performance by movement Interval #1 4:15

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.3	0.3	0.2	0.1	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	5.7	1.0	0.8	0.5	12.0	6.0	2.2
Vehicles Entered	10	66	98	12	12	18	216
Vehicles Exited	10	66	97	12	12	19	216
Hourly Exit Rate	40	264	388	48	48	76	864
Input Volume	45	261	387	46	52	74	865
% of Volume	89	101	100	104	92	103	100

3: 10th Street & Main Street (ID-75) Performance by movement Interval #2 4:30

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.3	0.4	0.2	0.2	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	4.7	0.9	0.8	0.3	12.7	6.6	2.2
Vehicles Entered	11	66	96	11	13	20	217
Vehicles Exited	11	66	96	11	12	19	215
Hourly Exit Rate	44	264	384	44	48	76	860
Input Volume	45	261	387	46	52	74	865
% of Volume	98	101	99	96	92	103	99

3: 10th Street & Main Street (ID-75) Performance by movement Interval #3 4:45

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.4	0.4	0.2	0.2	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.2
Total Del/Veh (s)	5.8	1.4	0.9	0.5	18.7	7.8	2.9
Vehicles Entered	13	66	107	11	12	20	229
Vehicles Exited	13	66	108	12	13	20	232
Hourly Exit Rate	52	264	432	48	52	80	928
Input Volume	48	280	415	49	56	79	927
% of Volume	108	94	104	98	93	101	100

3: 10th Street & Main Street (ID-75) Performance by movement Interval #4 5:00

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.3	0.2	0.2	0.2	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	4.5	0.7	0.7	0.3	12.4	5.7	2.0
Vehicles Entered	11	65	96	10	13	18	213
Vehicles Exited	10	65	95	10	12	18	210
Hourly Exit Rate	40	260	380	40	48	72	840
Input Volume	45	261	387	46	52	74	865
% of Volume	89	100	98	87	92	97	97

3: 10th Street & Main Street (ID-75) Performance by movement Entire Run

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.4	0.3	0.2	0.2	0.2
Total Delay (hr)	0.1	0.1	0.1	0.0	0.2	0.1	0.6
Total Del/Veh (s)	5.2	1.0	0.8	0.4	14.2	6.8	2.4
Vehicles Entered	45	263	396	44	49	76	873
Vehicles Exited	45	263	396	44	49	76	873
Hourly Exit Rate	45	263	396	44	49	76	873
Input Volume	46	266	394	47	53	75	880
% of Volume	98	99	101	94	92	101	99

Total Network Performance By Interval

Interval Start	4:15	4:30	4:45	5:00	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.3	0.3	0.3	0.3	0.3
Total Delay (hr)	0.2	0.2	0.3	0.2	0.9
Total Del/Veh (s)	3.4	3.4	4.3	3.3	3.8
Vehicles Entered	216	218	230	210	872
Vehicles Exited	216	217	231	209	872
Hourly Exit Rate	864	868	924	836	872
Input Volume	2497	2497	2676	2497	2542
% of Volume	35	35	35	33	34

Intersection: 3: 10th Street & Main Street (ID-75), Interval #1

Movement	NB	NE
Directions Served	LT	LR
Maximum Queue (ft)	82	73
Average Queue (ft)	27	40
95th Queue (ft)	80	72
Link Distance (ft)	274	1052
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: 10th Street & Main Street (ID-75), Interval #2

Movement	NB	NE
Directions Served	LT	LR
Maximum Queue (ft)	66	77
Average Queue (ft)	25	44
95th Queue (ft)	73	84
Link Distance (ft)	274	1052
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: 10th Street & Main Street (ID-75), Interval #3

Movement	NB	SB	NE
Directions Served	LT	TR	LR
Maximum Queue (ft)	85	2	88
Average Queue (ft)	35	0	46
95th Queue (ft)	93	5	91
Link Distance (ft)	274	610	1052
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 3: 10th Street & Main Street (ID-75), Interval #4

Movement	NB	NE
Directions Served	LT	LR
Maximum Queue (ft)	64	67
Average Queue (ft)	24	39
95th Queue (ft)	66	70
Link Distance (ft)	274	1052
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: 10th Street & Main Street (ID-75), All Intervals

Movement	NB	SB	NE
Directions Served	LT	TR	LR
Maximum Queue (ft)	105	2	99
Average Queue (ft)	28	0	42
95th Queue (ft)	79	2	80
Link Distance (ft)	274	610	1052
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty, Interval #1: 0
Network wide Queuing Penalty, Interval #2: 0
Network wide Queuing Penalty, Interval #3: 0
Network wide Queuing Penalty, Interval #4: 0
Network wide Queuing Penalty, All Intervals: 0

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SimTraffic LOS Report

Project: ID Ketchum Gas Station TIS
Analysis Period: *Existing (2016) Plus Project*
Time Period: *p.m. Peak Hour* **Project #:** *UT-16-851*

Intersection: 10th Street & Main Street (ID-75)
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	46	45	98	5.1	*A*
	T	274	271	99	1.0	*A*
	Subtotal	320	316	99	1.6	*A*
SB	T	402	404	100	0.9	*A*
	R	47	52	111	0.6	*A*
	Subtotal	449	456	102	0.9	*A*
NE	L	53	52	98	15.2	*C*
	R	75	73	97	7.8	*A*
	Subtotal	***128***	***125***	***98***	***10.9***	***B***
Total		897	897	100	2.5	*A*

Intersection: Main Street (ID-75) & Access 1
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	47	44	94	3.5	*A*
	T	312	309	99	0.7	*A*
	Subtotal	359	353	98	1.0	*A*
SB	T	469	470	100	0.4	*A*
	R	8	8	100	0.2	*A*
	Subtotal	477	478	100	0.4	*A*
EB	L	8	7	88	11.8	*B*
	R	47	50	107	5.8	*A*
	Subtotal	***55***	***57***	***104***	***6.5***	***A***
Total		891	888	100	1.1	*A*

1: 10th Street & Main Street (ID-75) Performance by movement Interval #1 4:15

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.4	0.4	0.2	0.2	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.2
Total Del/Veh (s)	4.8	0.9	0.8	0.5	16.1	7.5	2.4
Vehicles Entered	10	69	101	13	12	18	223
Vehicles Exited	10	70	100	13	13	18	224
Hourly Exit Rate	40	280	400	52	52	72	896
Input Volume	45	270	395	46	52	74	882
% of Volume	89	104	101	113	100	97	102

1: 10th Street & Main Street (ID-75) Performance by movement Interval #2 4:30

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.3	0.3	0.2	0.2	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	4.5	0.9	0.8	0.6	12.7	6.6	2.2
Vehicles Entered	12	64	96	13	12	17	214
Vehicles Exited	12	64	97	13	12	17	215
Hourly Exit Rate	48	256	388	52	48	68	860
Input Volume	45	270	395	46	52	74	882
% of Volume	107	95	98	113	92	92	98

1: 10th Street & Main Street (ID-75) Performance by movement Interval #3 4:45

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.4	0.4	0.1	0.2	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.2
Total Del/Veh (s)	6.4	1.2	1.0	0.5	14.5	8.3	2.8
Vehicles Entered	12	69	106	16	15	18	236
Vehicles Exited	12	69	104	16	14	18	233
Hourly Exit Rate	48	276	416	64	56	72	932
Input Volume	48	288	423	49	56	79	943
% of Volume	100	96	98	131	100	91	99

1: 10th Street & Main Street (ID-75) Performance by movement Interval #4 5:00

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.4	0.5	0.3	0.2	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.2
Total Del/Veh (s)	5.0	0.9	0.8	0.8	14.0	8.0	2.4
Vehicles Entered	10	68	101	11	12	20	222
Vehicles Exited	10	68	102	11	12	20	223
Hourly Exit Rate	40	272	408	44	48	80	892
Input Volume	45	270	395	46	52	74	882
% of Volume	89	101	103	96	92	108	101

1: 10th Street & Main Street (ID-75) Performance by movement Entire Run

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.0	0.0	0.4	0.4	0.2	0.2	0.2
Total Delay (hr)	0.1	0.1	0.1	0.0	0.2	0.2	0.6
Total Del/Veh (s)	5.1	1.0	0.9	0.6	15.2	7.8	2.5
Vehicles Entered	45	271	404	52	51	74	897
Vehicles Exited	45	271	404	52	52	73	897
Hourly Exit Rate	45	271	404	52	52	73	897
Input Volume	46	274	402	47	53	75	897
% of Volume	98	99	100	111	98	97	100

2: Main Street (ID-75) & Access 1 Performance by movement Interval #1 4:15

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	8.7	6.3	3.4	0.7	0.4	0.3	1.0
Vehicles Entered	2	11	11	78	118	1	221
Vehicles Exited	2	11	11	78	117	1	220
Hourly Exit Rate	8	44	44	312	468	4	880
Input Volume	8	46	46	307	461	8	876
% of Volume	100	96	96	102	102	50	100

2: Main Street (ID-75) & Access 1 Performance by movement Interval #2 4:30

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	6.8	5.6	3.5	0.6	0.4	0.1	1.0
Vehicles Entered	2	13	12	75	113	2	217
Vehicles Exited	2	13	12	74	113	2	216
Hourly Exit Rate	8	52	48	296	452	8	864
Input Volume	8	46	46	307	461	8	876
% of Volume	100	113	104	96	98	100	99

2: Main Street (ID-75) & Access 1 Performance by movement Interval #3 4:45

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	14.6	5.9	3.7	0.9	0.5	0.2	1.2
Vehicles Entered	2	14	10	79	121	2	228
Vehicles Exited	2	14	10	80	120	2	228
Hourly Exit Rate	8	56	40	320	480	8	912
Input Volume	8	49	49	328	494	8	936
% of Volume	100	114	82	98	97	100	97

2: Main Street (ID-75) & Access 1 Performance by movement Interval #4 5:00

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	11.3	5.6	3.4	0.6	0.4	0.1	1.0
Vehicles Entered	2	11	11	77	118	3	222
Vehicles Exited	2	12	11	77	119	3	224
Hourly Exit Rate	8	48	44	308	476	12	896
Input Volume	8	46	46	307	461	8	876
% of Volume	100	104	96	100	103	150	102

2: Main Street (ID-75) & Access 1 Performance by movement Entire Run

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.1	0.0	0.1	0.1	0.0	0.3
Total Del/Veh (s)	11.8	5.8	3.5	0.7	0.4	0.2	1.1
Vehicles Entered	7	50	44	309	470	8	888
Vehicles Exited	7	50	44	309	470	8	888
Hourly Exit Rate	7	50	44	309	470	8	888
Input Volume	8	47	47	312	469	8	891
% of Volume	88	107	94	99	100	100	100

Total Network Performance By Interval

Interval Start	4:15	4:30	4:45	5:00	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.3	0.3	0.3	0.3	0.3
Total Delay (hr)	0.3	0.3	0.4	0.3	1.3
Total Del/Veh (s)	4.4	4.2	4.8	4.4	4.7
Vehicles Entered	245	239	261	244	989
Vehicles Exited	245	241	257	248	989
Hourly Exit Rate	980	964	1028	992	989
Input Volume	3591	3591	3840	3591	3653
% of Volume	27	27	27	28	27

Intersection: 1: 10th Street & Main Street (ID-75), Interval #1

Movement	NB	SB	NE
Directions Served	LT	TR	LR
Maximum Queue (ft)	73	3	74
Average Queue (ft)	28	0	41
95th Queue (ft)	79	6	85
Link Distance (ft)	76	610	1051
Upstream Blk Time (%)	1		
Queuing Penalty (veh)	2		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 1: 10th Street & Main Street (ID-75), Interval #2

Movement	NB	SB	NE
Directions Served	LT	TR	LR
Maximum Queue (ft)	63	2	78
Average Queue (ft)	28	0	39
95th Queue (ft)	72	5	75
Link Distance (ft)	76	610	1051
Upstream Blk Time (%)	0		
Queuing Penalty (veh)	1		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 1: 10th Street & Main Street (ID-75), Interval #3

Movement	NB	SB	NE
Directions Served	LT	TR	LR
Maximum Queue (ft)	74	2	86
Average Queue (ft)	29	0	50
95th Queue (ft)	79	4	88
Link Distance (ft)	76	610	1051
Upstream Blk Time (%)	2		
Queuing Penalty (veh)	7		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 1: 10th Street & Main Street (ID-75), Interval #4

Movement	NB	SB	NE
Directions Served	LT	TR	LR
Maximum Queue (ft)	61	12	77
Average Queue (ft)	26	2	44
95th Queue (ft)	71	22	80
Link Distance (ft)	76	610	1051
Upstream Blk Time (%)	1		
Queuing Penalty (veh)	2		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 1: 10th Street & Main Street (ID-75), All Intervals

Movement	NB	SB	NE
Directions Served	LT	TR	LR
Maximum Queue (ft)	81	19	102
Average Queue (ft)	28	1	43
95th Queue (ft)	75	12	83
Link Distance (ft)	76	610	1051
Upstream Blk Time (%)	1		
Queuing Penalty (veh)	3		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: Main Street (ID-75) & Access 1, Interval #1

Movement	EB	EB	NB	B3	SB
Directions Served	L	R	LT	T	TR
Maximum Queue (ft)	23	51	81	8	19
Average Queue (ft)	5	29	26	1	3
95th Queue (ft)	23	57	78	10	17
Link Distance (ft)	68	68	38	1119	76
Upstream Blk Time (%)		0	2		
Queuing Penalty (veh)		0	0		
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 2: Main Street (ID-75) & Access 1, Interval #2

Movement	EB	EB	NB	B3	SB
Directions Served	L	R	LT	T	TR
Maximum Queue (ft)	25	49	71	2	25
Average Queue (ft)	6	28	28	0	4
95th Queue (ft)	26	52	74	5	21
Link Distance (ft)	68	68	38	1119	76
Upstream Blk Time (%)		0	3		
Queuing Penalty (veh)		0	0		
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 2: Main Street (ID-75) & Access 1, Interval #3

Movement	EB	EB	NB	B3	SB
Directions Served	L	R	LT	T	TR
Maximum Queue (ft)	29	46	78	7	28
Average Queue (ft)	8	29	30	1	5
95th Queue (ft)	28	52	84	11	27
Link Distance (ft)	68	68	38	1119	76
Upstream Blk Time (%)		0	3		0
Queuing Penalty (veh)		0	0		0
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 2: Main Street (ID-75) & Access 1, Interval #4

Movement	EB	EB	NB	SB
Directions Served	L	R	LT	TR
Maximum Queue (ft)	23	46	72	25
Average Queue (ft)	7	26	27	5
95th Queue (ft)	27	53	73	27
Link Distance (ft)	68	68	38	76
Upstream Blk Time (%)		0	2	
Queuing Penalty (veh)		0	0	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: Main Street (ID-75) & Access 1, All Intervals

Movement	EB	EB	NB	B3	SB
Directions Served	L	R	LT	T	TR
Maximum Queue (ft)	31	61	103	17	41
Average Queue (ft)	6	28	28	1	4
95th Queue (ft)	26	54	78	8	24
Link Distance (ft)	68	68	38	1119	76
Upstream Blk Time (%)		0	3		0
Queuing Penalty (veh)		0	0		0
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Network Summary

Network wide Queuing Penalty, Interval #1: 2
Network wide Queuing Penalty, Interval #2: 1
Network wide Queuing Penalty, Interval #3: 7
Network wide Queuing Penalty, Interval #4: 2
Network wide Queuing Penalty, All Intervals: 3

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SimTraffic LOS Report

Project: ID Ketchum Gas Station TIS
Analysis Period: *Future (2020) Background*
Time Period: *p.m. Peak Hour* **Project #:** *UT-16-851*

Intersection: 10th Street & Main Street (ID-75)
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	56	56	100	6.2	*A*
	T	323	331	103	1.6	*A*
	Subtotal	379	387	102	2.3	*A*
SB	T	479	474	99	1.0	*A*
	R	57	52	91	0.6	*A*
	Subtotal	536	526	98	1.0	*A*
NE	L	64	61	95	22.3	*C*
	R	91	90	99	11.5	*B*
	Subtotal	***155***	***151***	***97***	***15.9***	***C***
Total		1,070	1,064	99	3.6	*A*

Intersection:
Type:

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
Total						

3: 10th Street & Main Street (ID-75) Performance by movement Interval #1 4:15

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.4	0.5	0.2	0.2	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.1	0.2
Total Del/Veh (s)	5.1	1.0	1.0	0.7	20.3	11.5	3.4
Vehicles Entered	13	80	114	14	16	23	260
Vehicles Exited	13	80	114	14	16	23	260
Hourly Exit Rate	52	320	456	56	64	92	1040
Input Volume	55	317	471	56	63	89	1051
% of Volume	95	101	97	100	102	103	99

3: 10th Street & Main Street (ID-75) Performance by movement Interval #2 4:30

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.4	0.4	0.2	0.2	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.1	0.3
Total Del/Veh (s)	5.3	1.5	1.0	0.5	23.6	13.4	3.7
Vehicles Entered	14	86	118	14	15	21	268
Vehicles Exited	14	87	119	13	16	21	270
Hourly Exit Rate	56	348	476	52	64	84	1080
Input Volume	55	317	471	56	63	89	1051
% of Volume	102	110	101	93	102	94	103

3: 10th Street & Main Street (ID-75) Performance by movement Interval #3 4:45

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.5	0.5	0.2	0.2	0.3
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.1	0.3
Total Del/Veh (s)	8.0	2.1	1.1	0.7	24.5	10.4	3.9
Vehicles Entered	16	83	125	14	15	24	277
Vehicles Exited	15	83	124	14	15	24	275
Hourly Exit Rate	60	332	496	56	60	96	1100
Input Volume	59	340	504	60	67	96	1126
% of Volume	102	98	98	93	90	100	98

3: 10th Street & Main Street (ID-75) Performance by movement Interval #4 5:00

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.4	0.4	0.1	0.2	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.1	0.2
Total Del/Veh (s)	5.5	1.6	1.0	0.4	18.2	9.0	3.2
Vehicles Entered	14	81	118	11	15	22	261
Vehicles Exited	14	82	116	11	15	21	259
Hourly Exit Rate	56	328	464	44	60	84	1036
Input Volume	55	317	471	56	63	89	1051
% of Volume	102	103	99	79	95	94	99

3: 10th Street & Main Street (ID-75) Performance by movement Entire Run

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.0	0.0	0.4	0.4	0.2	0.2	0.2
Total Delay (hr)	0.1	0.1	0.1	0.0	0.4	0.3	1.1
Total Del/Veh (s)	6.2	1.6	1.0	0.6	22.3	11.5	3.6
Vehicles Entered	56	331	474	52	61	91	1065
Vehicles Exited	56	331	474	52	61	90	1064
Hourly Exit Rate	56	331	474	52	61	90	1064
Input Volume	56	323	479	57	64	91	1070
% of Volume	100	103	99	91	95	99	99

Total Network Performance By Interval

Interval Start	4:15	4:30	4:45	5:00	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.3	0.4	0.4	0.3	0.3
Total Delay (hr)	0.4	0.4	0.5	0.4	1.6
Total Del/Veh (s)	4.8	5.1	5.5	4.7	5.3
Vehicles Entered	259	269	278	258	1064
Vehicles Exited	260	272	275	260	1065
Hourly Exit Rate	1040	1088	1100	1040	1065
Input Volume	3034	3034	3251	3034	3088
% of Volume	34	36	34	34	34

Intersection: 3: 10th Street & Main Street (ID-75), Interval #1

Movement	NB	NE
Directions Served	LT	LR
Maximum Queue (ft)	70	103
Average Queue (ft)	25	60
95th Queue (ft)	73	112
Link Distance (ft)	274	1052
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: 10th Street & Main Street (ID-75), Interval #2

Movement	NB	SB	NE
Directions Served	LT	TR	LR
Maximum Queue (ft)	97	5	112
Average Queue (ft)	40	1	63
95th Queue (ft)	102	11	124
Link Distance (ft)	274	610	1052
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 3: 10th Street & Main Street (ID-75), Interval #3

Movement	NB	SB	NE
Directions Served	LT	TR	LR
Maximum Queue (ft)	113	2	102
Average Queue (ft)	53	0	60
95th Queue (ft)	130	5	107
Link Distance (ft)	274	610	1052
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 3: 10th Street & Main Street (ID-75), Interval #4

Movement	NB	NE
Directions Served	LT	LR
Maximum Queue (ft)	97	105
Average Queue (ft)	37	53
95th Queue (ft)	102	98
Link Distance (ft)	274	1052
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: 10th Street & Main Street (ID-75), All Intervals

Movement	NB	SB	NE
Directions Served	LT	TR	LR
Maximum Queue (ft)	148	7	138
Average Queue (ft)	39	0	59
95th Queue (ft)	105	6	111
Link Distance (ft)	274	610	1052
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Network Summary

Network wide Queuing Penalty, Interval #1: 0
Network wide Queuing Penalty, Interval #2: 0
Network wide Queuing Penalty, Interval #3: 0
Network wide Queuing Penalty, Interval #4: 0
Network wide Queuing Penalty, All Intervals: 0

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SimTraffic LOS Report

Project: ID Ketchum Gas Station TIS
Analysis Period: *Future (2020) Plus Project*
Time Period: *p.m. Peak Hour* **Project #:** *UT-16-851*

Intersection: 10th Street & Main Street (ID-75)
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	56	55	98	6.0	*A*
	T	332	342	103	0.2	*A*
	Subtotal	388	397	102	1.0	*A*
SB	T	487	478	98	1.1	*A*
	R	57	58	102	0.7	*A*
	Subtotal	544	536	99	1.1	*A*
NE	L	64	64	100	24.2	*C*
	R	91	92	101	13.3	*B*
	Subtotal	***155***	***156***	***101***	***17.8***	***C***
Total		1,086	1,089	100	3.4	*A*

Intersection: Main Street (ID-75) & Access 1
Type: Unsignalized

Approach	Movement	Demand Volume	Volume Served		Delay/Veh (sec)	
			Avg	%	Avg	LOS
NB	L	47	44	94	3.8	*A*
	T	379	386	102	0.2	*A*
	Subtotal	426	430	101	0.6	*A*
SB	T	570	564	99	0.5	*A*
	R	8	7	88	0.2	*A*
	Subtotal	578	571	99	0.5	*A*
EB	L	8	10	125	15.9	*C*
	R	47	48	103	7.8	*A*
	Subtotal	***55***	***58***	***105***	***9.2***	***A***
Total		1,058	1,059	100	1.0	*A*

1: 10th Street & Main Street (ID-75) Performance by movement Interval #1 4:15

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.4	0.4	0.2	0.2	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.1	0.3
Total Del/Veh (s)	5.2	0.2	1.1	0.6	24.1	14.9	3.8
Vehicles Entered	15	81	113	14	17	23	263
Vehicles Exited	15	81	113	14	15	24	262
Hourly Exit Rate	60	324	452	56	60	96	1048
Input Volume	55	326	478	56	63	89	1067
% of Volume	109	99	95	100	95	108	98

1: 10th Street & Main Street (ID-75) Performance by movement Interval #2 4:30

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.4	0.5	0.2	0.2	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.1	0.2
Total Del/Veh (s)	5.4	0.2	1.0	0.9	20.0	11.4	3.0
Vehicles Entered	14	87	120	15	15	22	273
Vehicles Exited	14	87	120	15	16	23	275
Hourly Exit Rate	56	348	480	60	64	92	1100
Input Volume	55	326	478	56	63	89	1067
% of Volume	102	107	100	107	102	103	103

1: 10th Street & Main Street (ID-75) Performance by movement Interval #3 4:45

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.5	0.4	0.1	0.2	0.3
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.1	0.3
Total Del/Veh (s)	7.2	0.2	1.2	0.6	24.4	14.1	3.8
Vehicles Entered	13	86	125	15	18	24	281
Vehicles Exited	13	86	126	15	17	23	280
Hourly Exit Rate	52	344	504	60	68	92	1120
Input Volume	59	348	513	60	67	96	1143
% of Volume	88	99	98	100	101	96	98

1: 10th Street & Main Street (ID-75) Performance by movement Interval #4 5:00

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.5	0.6	0.2	0.2	0.3
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.1	0.2
Total Del/Veh (s)	5.8	0.2	1.1	0.8	20.9	11.1	3.1
Vehicles Entered	12	87	119	14	14	22	268
Vehicles Exited	12	87	120	13	15	22	269
Hourly Exit Rate	48	348	480	52	60	88	1076
Input Volume	55	326	478	56	63	89	1067
% of Volume	87	107	100	93	95	99	101

1: 10th Street & Main Street (ID-75) Performance by movement Entire Run

Movement	NBL	NBT	SBT	SBR	NEL	NER	All
Denied Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.0	0.0	0.5	0.5	0.2	0.2	0.3
Total Delay (hr)	0.1	0.0	0.1	0.0	0.4	0.3	1.0
Total Del/Veh (s)	6.0	0.2	1.1	0.7	24.2	13.3	3.4
Vehicles Entered	55	342	477	58	64	92	1088
Vehicles Exited	55	342	478	58	64	92	1089
Hourly Exit Rate	55	342	478	58	64	92	1089
Input Volume	56	332	487	57	64	91	1086
% of Volume	98	103	98	102	100	101	100

2: Main Street (ID-75) & Access 1 Performance by movement Interval #1 4:15

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.2	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	17.6	7.2	3.4	0.2	0.5	0.1	1.0
Vehicles Entered	2	12	11	93	135	2	255
Vehicles Exited	2	11	12	93	135	2	255
Hourly Exit Rate	8	44	48	372	540	8	1020
Input Volume	8	46	46	372	560	8	1040
% of Volume	100	96	104	100	96	100	98

2: Main Street (ID-75) & Access 1 Performance by movement Interval #2 4:30

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.2	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	16.1	8.5	3.3	0.2	0.4	0.4	1.0
Vehicles Entered	3	12	11	98	142	1	267
Vehicles Exited	3	12	11	98	142	1	267
Hourly Exit Rate	12	48	44	392	568	4	1068
Input Volume	8	46	46	372	560	8	1040
% of Volume	150	104	96	105	101	50	103

2: Main Street (ID-75) & Access 1 Performance by movement Interval #3 4:45

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	20.6	6.9	4.3	0.2	0.5	0.2	1.0
Vehicles Entered	2	12	12	97	147	2	272
Vehicles Exited	2	12	12	97	147	2	272
Hourly Exit Rate	8	48	48	388	588	8	1088
Input Volume	8	49	49	399	601	8	1114
% of Volume	100	98	98	97	98	100	98

2: Main Street (ID-75) & Access 1 Performance by movement Interval #4 5:00

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.2	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	17.4	8.5	3.7	0.2	0.5	0.3	1.0
Vehicles Entered	2	12	10	97	140	2	263
Vehicles Exited	2	12	10	97	140	2	263
Hourly Exit Rate	8	48	40	388	560	8	1052
Input Volume	8	46	46	372	560	8	1040
% of Volume	100	104	87	104	100	100	101

2: Main Street (ID-75) & Access 1 Performance by movement Entire Run

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.2	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.1	0.0	0.0	0.1	0.0	0.3
Total Del/Veh (s)	15.9	7.8	3.8	0.2	0.5	0.2	1.0
Vehicles Entered	10	48	44	385	564	7	1058
Vehicles Exited	10	48	44	386	564	7	1059
Hourly Exit Rate	10	48	44	386	564	7	1059
Input Volume	8	47	47	379	570	8	1058
% of Volume	125	103	94	102	99	88	100

Total Network Performance By Interval

Interval Start	4:15	4:30	4:45	5:00	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.4	0.4	0.4	0.4	0.4
Total Delay (hr)	0.5	0.4	0.5	0.4	1.9
Total Del/Veh (s)	5.7	5.1	5.7	5.1	5.7
Vehicles Entered	285	295	305	291	1180
Vehicles Exited	285	297	305	294	1181
Hourly Exit Rate	1140	1188	1220	1176	1181
Input Volume	4290	4290	4594	4290	4366
% of Volume	27	28	27	27	27

Intersection: 1: 10th Street & Main Street (ID-75), Interval #1

Movement	NB	SB	NE
Directions Served	L	TR	LR
Maximum Queue (ft)	47	16	129
Average Queue (ft)	26	2	64
95th Queue (ft)	53	16	130
Link Distance (ft)	71	616	1045
Upstream Blk Time (%)	0		
Queuing Penalty (veh)	0		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 1: 10th Street & Main Street (ID-75), Interval #2

Movement	NB	SB	NE
Directions Served	L	TR	LR
Maximum Queue (ft)	49	6	114
Average Queue (ft)	24	1	61
95th Queue (ft)	54	9	121
Link Distance (ft)	71	616	1045
Upstream Blk Time (%)	0		
Queuing Penalty (veh)	1		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 1: 10th Street & Main Street (ID-75), Interval #3

Movement	NB	SB	NE
Directions Served	L	TR	LR
Maximum Queue (ft)	51	8	122
Average Queue (ft)	25	1	66
95th Queue (ft)	57	11	127
Link Distance (ft)	71	616	1045
Upstream Blk Time (%)	1		
Queuing Penalty (veh)	1		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 1: 10th Street & Main Street (ID-75), Interval #4

Movement	NB	SB	NE
Directions Served	L	TR	LR
Maximum Queue (ft)	41	14	94
Average Queue (ft)	18	2	56
95th Queue (ft)	50	17	103
Link Distance (ft)	71	616	1045
Upstream Blk Time (%)	1		
Queuing Penalty (veh)	1		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 1: 10th Street & Main Street (ID-75), All Intervals

Movement	NB	SB	NE
Directions Served	L	TR	LR
Maximum Queue (ft)	64	27	158
Average Queue (ft)	23	2	62
95th Queue (ft)	54	14	121
Link Distance (ft)	71	616	1045
Upstream Blk Time (%)	0		
Queuing Penalty (veh)	1		
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 2: Main Street (ID-75) & Access 1, Interval #1

Movement	EB	EB	NB	SB
Directions Served	L	R	LT	TR
Maximum Queue (ft)	29	54	47	32
Average Queue (ft)	10	28	18	6
95th Queue (ft)	33	55	51	26
Link Distance (ft)	68	68	38	71
Upstream Blk Time (%)		0	2	
Queuing Penalty (veh)		0	0	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: Main Street (ID-75) & Access 1, Interval #2

Movement	EB	EB	NB	SB
Directions Served	L	R	LT	TR
Maximum Queue (ft)	32	56	40	30
Average Queue (ft)	10	31	18	7
95th Queue (ft)	33	63	46	31
Link Distance (ft)	68	68	38	71
Upstream Blk Time (%)	0	1	1	0
Queuing Penalty (veh)	0	0	0	0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: Main Street (ID-75) & Access 1, Interval #3

Movement	EB	EB	NB	SB
Directions Served	L	R	LT	TR
Maximum Queue (ft)	29	47	51	32
Average Queue (ft)	10	27	22	5
95th Queue (ft)	32	49	60	29
Link Distance (ft)	68	68	38	71
Upstream Blk Time (%)		0	2	0
Queuing Penalty (veh)		0	0	0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: Main Street (ID-75) & Access 1, Interval #4

Movement	EB	EB	NB	SB
Directions Served	L	R	LT	TR
Maximum Queue (ft)	29	61	48	30
Average Queue (ft)	8	30	16	6
95th Queue (ft)	31	61	50	26
Link Distance (ft)	68	68	38	71
Upstream Blk Time (%)	0	1	2	
Queuing Penalty (veh)	0	0	0	
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 2: Main Street (ID-75) & Access 1, All Intervals

Movement	EB	EB	NB	SB
Directions Served	L	R	LT	TR
Maximum Queue (ft)	36	72	63	46
Average Queue (ft)	9	29	19	6
95th Queue (ft)	32	58	52	28
Link Distance (ft)	68	68	38	71
Upstream Blk Time (%)	0	0	2	0
Queuing Penalty (veh)	0	0	0	0
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty, Interval #1: 0
Network wide Queuing Penalty, Interval #2: 1
Network wide Queuing Penalty, Interval #3: 1
Network wide Queuing Penalty, Interval #4: 1
Network wide Queuing Penalty, All Intervals: 1

HALES ENGINEERING
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APPENDIX C

Site Plan

LEGEND:
EXISTING PROPERTY LINE
EXISTING ADJOINER
EXISTING CENTERLINE
PROPOSED CONCRETE CURB & GUTTER
PROPOSED CONCRETE
PROPOSED ASPHALT
PROPOSED PAVERS

0 20 40 Feet

KETCHUM BLOCK 50 LOT 1AA
KETCHUM BLOCK 50 LOT 2A
KETCHUM BLOCK 29 LOT 1 & 2
E 9TH STREET ℄
EXISTING PARALLEL PARKING
EXISTING STRIPING
PROPOSED STRIPING
62.5'
50'±
13'
12'
100'± R.O.W.
STATE HWY 75 ℄
50'
6'
23'
19'
35'
R480'
R200'
R10'
R50'
40'
4'
R30'
R3' TYP.
PROPOSED 2' VALLEY GUTTER
8'
24'
KETCHUM BLOCK 30 LOT 5A
10' TYP.
15'
20' TYP.
PROPOSED ADDITION
EXISTING BUILDING
ALLEY
LOT 1
LOT 2
LOT 3
LOT 4
60'
E 10TH STREET ℄
N LEADVILLE AVENUE ℄
TENTH ST LIGHT INDUSTRIAL COMPLEX
TL 4808

1 EX VICINITY MAP
SCALE: N.T.S.

PRELIMINARY ONLY NOT FOR CONSTRUCTION

REVISIONS

No.	DESCRIPTION	DATE	BY

BENCHMARK ASSOCIATES

PREPARED BY:
BENCHMARK ASSOCIATES, P.A.
P.O. BOX 733 100 BELL DRIVE
KETCHUM, IDAHO 83340
(208) 726-9512
FAX 726-9514
WEB: WWW.BMASB.COM
MAIL: WWW.BMASB.COM

PRELIMINARY IMPROVEMENTS PLAN

KETCHUM TOWNSITE BLOCK 30, LOT 5A
T4N, R17E, SEC 13, B.M., BLAINE COUNTY, IDAHO

PREPARED FOR: ROY BRACKEN

DRAWN BY: SKS
DESIGNED BY: JPG
CHECKED BY: SB
DATE: 05/03/16
PROJECT NO.: 16051

SHEET NUMBER
EX

HALES ENGINEERING
innovative transportation solutions

APPENDIX D

95th Percentile Queue Length Reports

SimTraffic Queueing Report
Project: ID Ketchum Gas Station TIS
Time Period: p.m. Peak Hour
95th Percentile Queue Length (feet)

HALES ENGINEERING
Innovative transportation solutions

Project #: UT-16-851

Intersection	Time Period	NB	NE	SB
		LT	LR	TR
10th Street & Main Street (ID-75)	Existing (2016) Background	79	80	2

SimTraffic Queueing Report
Project: ID Ketchum Gas Station TIS
Time Period: p.m. Peak Hour
95th Percentile Queue Length (feet)

HALES ENGINEERING
Innovative transportation solutions

Project #: UT-16-851

Intersection	Time Period	B3	EB		NB	NE	SB
		T	L	R	LT	LR	TR
10th Street & Main Street (ID-75)	Existing (2016) Plus Project	--	--	--	75	83	12
Main Street (ID-75) & Access 1	Existing (2016) Plus Project	8	26	54	78	--	24

SimTraffic Queueing Report
Project: ID Ketchum Gas Station TIS
Time Period: p.m. Peak Hour
95th Percentile Queue Length (feet)

HALES ENGINEERING
Innovative transportation solutions

Project #: UT-16-851

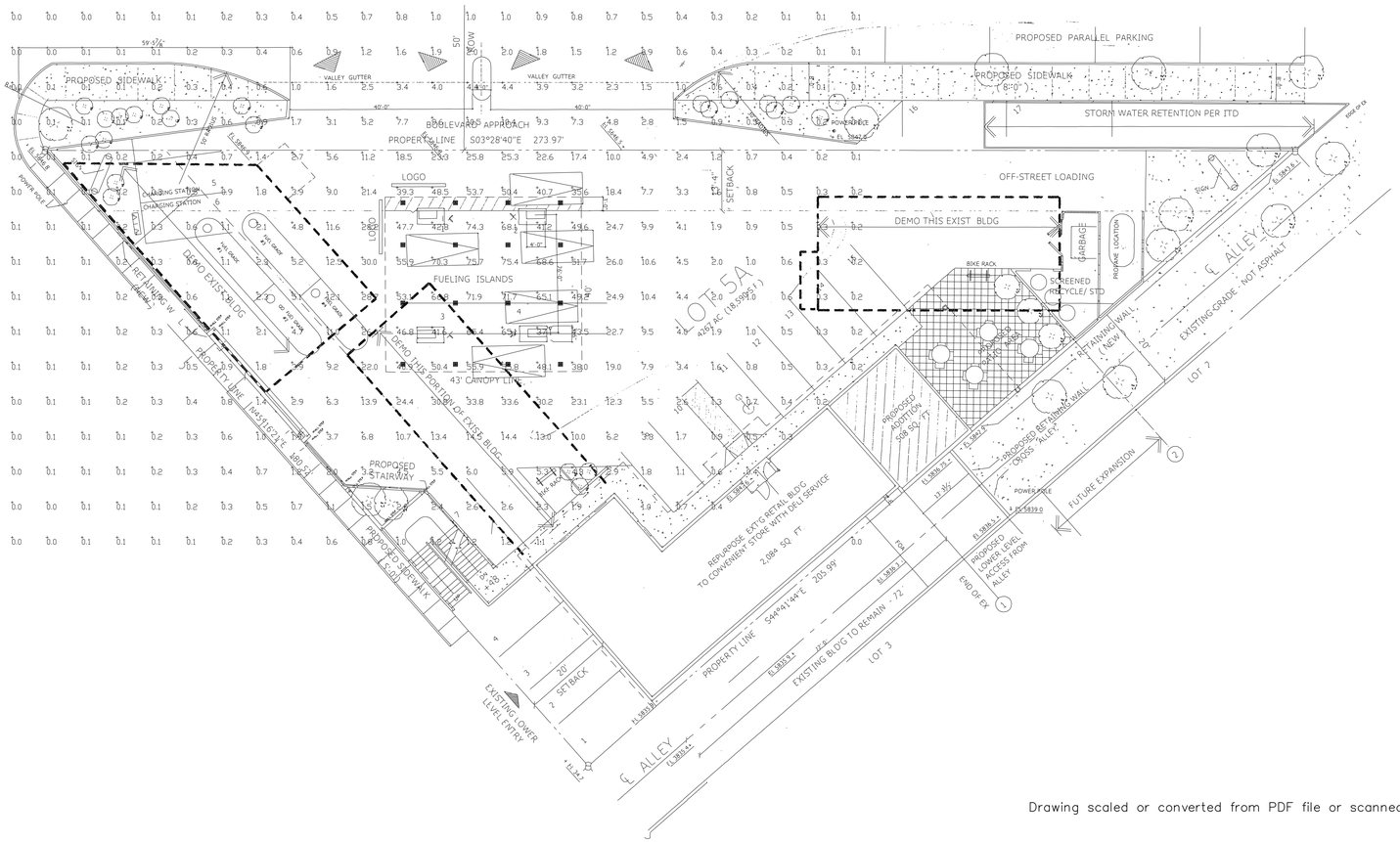
Intersection	Time Period	NB	NE	SB
		LT	LR	TR
10th Street & Main Street (ID-75)	Future (2020) Background	105	111	6

SimTraffic Queueing Report
Project: ID Ketchum Gas Station TIS
Time Period: p.m. Peak Hour
95th Percentile Queue Length (feet)

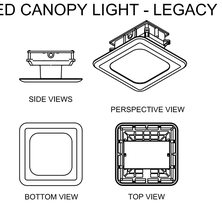
HALES ENGINEERING
Innovative transportation solutions

Project #: UT-16-851

Intersection	Time Period	EB		NB		NE	SB
		L	R	L	LT	LR	TR
10th Street & Main Street (ID-75)	Future (2020) Plus Project	--	--	54	--	121	14
Main Street (ID-75) & Access 1	Future (2020) Plus Project	32	58	--	52	--	28



CRUS-SC-LED
LED CANOPY LIGHT - LEGACY



Drawing scaled or converted from PDF file or scanned / submitted image. Dimensions are approximate.

Luminaire Schedule								
Symbol	Qty	Label	Arrangement	Description	LLF	Lumens/Lamp	Arr. Lum. Lumens	Arr. Watts
▪	16	A	SINGLE	CRUS-SC-LED-SS-CW-UE MTD @ 15'	1.000	N.A.	13554	114

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
ALL CALC POINTS	Illuminance	Fc	8.38	75.7	0.0	N.A.	N.A.
CANOPY	Illuminance	Fc	56.26	75.7	37.1	1.52	2.04

Based on the information provided, all dimensions and luminaire locations shown represent recommended positions. The engineer and/or architect must determine the applicability of the layout to existing or future field conditions.

This lighting plan represents illumination levels calculated from laboratory data taken under controlled conditions in accordance with The Illuminating Engineering Society (IES) approved methods. Actual performance of any manufacturer's luminaires may vary due to changes in electrical voltage, tolerance in lamps/LED's and other variable field conditions. Calculations do not include obstructions such as buildings, curbs, landscaping, or any other architectural elements unless noted.

Total Project Watts
Total Watts = 1824

10000 ALLIANCE RD. CINCINNATI, OHIO 45242 USA
(513) 793-3200 ▪ FAX (513) 793-4003

LIGHTING PROPOSAL LD-133509

43 X 40 CANOPY
STATE HWY 75
KETCHUM,ID

BY:MVE	DATE:6-20-16	REV:	SHEET 1 OF 1

SCALE: 1"=16' 0 16

City of Ketchum
Planning & Building

June 27, 2016

Planning and Zoning Commission
City of Ketchum
Ketchum, Idaho

Commissioners:

STAFF REPORT
KETCHUM PLANNING AND ZONING COMMISSION
REGULAR MEETING OF JUNE 27, 2016

PROJECT: Armour Residence Waterways Design Review

FILE NUMBER: #16-045

OWNERS: Norman and Salita Armour

REQUEST: Waterways Design Review and Floodplain Development Permit for a new residence

LOCATION: 112 Irene Street (Lot 12, Warm Springs Creekside Sub)

NOTICE: Notice was mailed to adjacent property owners on June 8, 2016. Notice was posted in three locations within the City of Ketchum (City Hall, Community Library, Town Square Kiosk) on June 8, 2016.

ZONING: General Residential – Limited (GR-L)

OVERLAYS: Floodplain, Waterways

REVIEWERS: Brittany Skelton, Associate Planner and Jim Zarubica, PE, PG, CFM

ATTACHMENTS:

A. Application
- Application Form, dated May 23, 2016
- Riparian Management and Mitigation Plan, Sawtooth Environmental Consulting, LLC, dated May, 2016
  - Landscape Plan (Riparian Reclamation/Enhancement Exhibit), dated June 9, 2016
- Plan Set
  - Site Plan and Architectural Plans, dated June 1, 2016
    - Sheet A-1.0, revised, dated June 17, 2016
  - Drainage Plan, dated June 15, 2016

BACKGROUND

1. The applicant is requesting a Flood Plain Development Permit and a Waterways Design Review for construction of a new single-family residence. The subject property is located on Irene Street and contains a minimal amount of regulatory floodplain, therefore requiring a Flood Plain Development Permit, and is located within 25' of Warm Springs Creek, and therefore requires a Waterways Design Review.

2. Single-family residences are exempt from Design Review, so only the provisions related to Flood Plain Design Review and Waterways Design Review will be considered.

3. As of June 22, 2016 no written public comment regarding this project was received.

4. As of June 22, 2016 the Public Works department has concerns regarding drainage based on the Drainage Plan dated June 15, 2016.

Table 1: General Requirements for all Floodplain Development applications

General Requirements for all FPDP Applications				
Compliant			**Standards and Staff Comments**	
Yes	**No**	**N/A**	**City Code**	**City Standards and *Staff Comments***
☐	☒	☐	**17.88.060.C**	**Complete Application**
				Fire Department 1. The above project shall meet all 2012 International Fire Code requirements in addition to specific City Building and Fire Ordinances. 2. **IF** a monitored fire detection system exists or is installed, it shall meet NFPA 72 and be monitored by an approved alarm monitoring station. An approved key box shall be installed, with the appropriate keys, for emergency fire department access in a location approved by the fire department. 3. Approved address numbers shall be placed in such a position to be plainly visible and legible from the road fronting the property. Numbers and letters shall be a minimum of four (4) inches tall, contrast with their background and be positioned a minimum of forty-eight (48) inches above final grade. 4. Vehicle parking and material storage during construction shall not restrict or obstruct public streets or access to any building. A **minimum** twenty-foot travel lane for emergency vehicle access shall be maintained clear and unobstructed at all times. All required Fire Lanes, including within 15 feet of fire hydrants, shall be maintained clear and unobstructed at all times. 5. Fire extinguishers shall be installed and maintained per 2012 IFC Section 906 both during construction and upon occupancy of the building. 6. Spark arresters are required on all solid fuel burning appliance chimneys to reduce potential fires from burning embers.
				Public Works 1. Revise the drainage plans to address: a. Location of drywells with respect to drainage arrows indicating flow away from drains and towards right-of-way; move drains to better accommodate roof and surface flow. b. Upsize the 8" PVC in order to accommodate a potential rain or thaw event that occurs while the ground frozen. c. Indicate improved drainage in the right-of-way that is in compliance with city standards.

				City Arborist 1. The City Arborist is in concurrence with all written information regarding treatment of the 25' riparian setback.
				Utilities 1. A sewer stub is provided for the lot. The water service tap will need to come off Irene. The 12" line in the easement is not available.
				Building Official o No comment.
				Police o No comment.

Table 2: Zoning Standards Analysis

Compliance with Zoning District and Overlay Requirements				
Compliant			**Standards and Staff Comments**	
Yes	**No**	**N/A**	**Guideline**	**City Standards and *Staff Comments***
☒	☐	☐	**17.12.030.C**	**Lot Area**
				Minimum: 8,000 sf *Proposed: 11,945*
☒	☐	☐	**17.12.030.C & ####**	**Setbacks – Zoning & Waterways**
			Staff Comments	Front – *Required: 15'* Side – *Required: The greater of 1' for every 3' in building height, or 5' (9'4")* Rear – *Required: The greater of 1' for every 3' in building height, or 15'; rear of property is adjacent to Warm Springs Creek, 25' setback is required* Front (north) – *Proposed: 15'* Side (east) – *Proposed: 10'* Side (west) – *Proposed: 10'* Rear (south) – *Proposed: 25'*
☒	☐	☐	**17.12.030.C**	**Building Height**
			Staff Comments	*Allowed: 35'* *Proposed: 27'-10"*
☒	☐	☐	**17.12.030.C**	**Maximum Building Coverage**
			Staff Comments	*Allowed: 35%* *Proposed: 33.9%*
☒	☐	☐	**17.125.030.H**	**Curb Cut**
			Staff Comments	*Allowed: A maximum of thirty five percent (35%) of the linear footage of any street frontage can be devoted to access off street parking.* *Proposed: 30.8%*
☒	☐	☐	**17.125.050.6**	**Parking Spaces**
			Staff Comments	*Required: 1.5 space per dwelling unit* *Proposed: 3 garage, 3 driveway*

Table 3: Floodplain Design Review Requirements

Floodplain Design Review Requirements				
1. EVALUATION STANDARDS: 17.88.050(E)				
Compliant			**Standards and Staff Comments**	
Yes	**No**	**N/A**	**Guideline**	**City Standards and *Staff Comments***
☒	☐	☐	**17.88.050(E)1 FLOODPLAIN DEVELOPMENT /WATERWAYS DESIGN REVIEW**	**Preservation or restoration of the inherent natural characteristics of the river and creeks and floodplain areas. Development does not alter river channel.**
			Staff Comments	*No development is proposed within the floodplain or the within the river channel.*
☒	☐	☐	**17.88.050(E)2**	**Preservation or enhancement of riparian vegetation and wildlife habitat, if any, along the stream bank and within the required minimum twenty-five (25) foot setback or riparian zone. No construction activities, encroachment or other disturbance into the twenty five foot (25') riparian zone shall be allowed at any time without written City approval per the terms of this ordinance.**
			Staff Comments	*Please see Attachment A, Riparian Management and Mitigation Plan, conducted by Sawtooth Environmental Consulting, LLC. The Riparian Setback has been altered in the past. The applicant proposes to preserve the existing riparian setback area by installing a Limits of Disturbance barrier approximately 15' from MHW.* *The project is requesting to conduct construction activities within about the first ten feet of the riparian setback in an area that currently has non-native plants and has been altered in the past. Disturbed areas of the Riparian Setback will be reclaimed and enhanced by planting 22 native shrubs and 3 native trees. Non-native grass and forbs species will be removed and all disturbed areas will be revegetated with native riparian grass species. The applicant proposes to limit the area of disturbance in terms of both extent and duration by optimizing construction sequencing and using standard BMP's during construction activities.* *The proposed development does not encroach into the riparian zone.*
☒	☐	☐	**17.88.050(E)3**	**No development other than development by the City of Ketchum or development required for emergency access shall occur within the twenty-five (25) foot riparian zone with the exception of approved stream stabilization work. The Planning and Zoning Commission may approve access to property where no other primary access is available. Private pathways and staircases shall not lead into or through the riparian zone unless deemed necessary by the Planning and Zoning Commission.**
			Staff Comments	*No proposed development will encroach into the riparian zone.*
☒	☐	☐	**17.88.050(E)4**	**Plan and time frame are provided for restoration of riparian vegetation damaged as a result of the work done.**
			Staff Comments	*Riparian reclamation and enhancement will occur once all major construction activities have been completed (Fall 2016/Summer 2017)*
☒	☐	☐	**17.88.050(E)5**	**New or replacement planting and vegetation includes plantings that are low-growing and have dense root systems for the purpose of stabilizing stream banks and repairing damage previously done to riparian vegetation. Examples of such plantings include: red osier dogwood, common choke cherry, service berry, elder berry, river birch, skunk bush sumac, beb's willow, drummond's willow, little wild rose, gooseberry, and honeysuckle.**
			Staff Comments	*See the "Conceptual Riparian Reclamation/Enhancement Exhibit" prepared by Sawtooth Environmental Consulting, LLC. Proposed riparian plantings consist of a total of twenty-two shrubs, including*

Compliant			Standards and Staff Comments	
Yes	No	N/A	Guideline	City Standards and *Staff Comments*
				service berry, currant, snowberry, and wood's rose, and three aspen trees. The City Arborist has reviewed the proposed vegetation and concurs with all written information regarding treatment of the 25' riparian setback.
☒	☐	☐	17.88.050(E)6	**Landscaping and driveway plans to accommodate the function of the floodplain to allow for sheet flooding. Flood water carrying capacity is not diminished by the proposal. Surface drainage is controlled and does not adversely impact adjacent properties including driveways drained away from paved roadways. Culvert(s) under driveways may be required. Landscaping berms are designed to not dam or otherwise obstruct floodwaters or divert same onto roads or other public pathways.**
			Staff Comments	*The driveways are outside of the floodplain. A minor area of floodplain exists on the lot and lies within a few feet of the creek. No disturbance is proposed in the floodplain.*
☒	☐	☐	17.88.050(E)7	**Impacts of the development on aquatic life, recreation, or water quality upstream, downstream or across the stream are not adverse.**
			Staff Comments	*No development is proposed in the floodplain or adjacent to the river. There will be no adverse impact from the development on aquatic life, recreation or water quality.*
☒	☐	☐	17.88.050(E)8	**Building setback in excess of minimum required along waterways is encouraged.**
			Staff Comments	*Due to the limited size of the lot, the proposed structure is only marginally setback from the riparian setback in most areas, however, no proposed development will encroach in the 25' riparian setback.*
☐	☐	☒	17.88.050(E)9	**The top of the lowest floor of a building located in the 1% annual chance floodplain shall be a minimum of twenty-four inches (24") above the base flood elevation of the subject property.**
			Staff Comments	*No development is proposed in the regulatory floodplain.*
☐	☐	☒	17.88.050(E)10	**The back fill used around the foundation in the floodplain provides a reasonable transition to existing grade, but is not used to fill the parcel to any greater extent. Compensatory storage shall be required for any fill placed within the floodplain. A LOMA-F shall be obtained prior to placement of any additional fill in the floodplain.**
			Staff Comments	*No development is proposed in the regulatory floodplain.*
☒	☐	☐	17.88.050(E)11	**All new buildings shall be constructed on foundations that are approved by a licensed professional engineer.**
			Staff Comments	*No development is proposed in the regulatory floodplain.*
☒	☐	☐	17.88.050(E)12	**Driveways comply with effective Street Standards; access for emergency vehicles has been adequately provided for.**
			Staff Comments	*Street and Fire Departments have commented on this application. As a condition of approval, the building permit application shall address all of the comments from the Street and Fire Departments in Table 1.*
☒	☐	☐	17.88.050(E)13	**Landscaping or revegetation conceals cuts and fills required for driveways and other elements of the development.**
			Staff Comments	*Minimal cut and fill will be required for the driveway and foundation. Landscaping and revegetation is proposed for all disturbed areas.*
☐	☐	☒	17.88.050(E)14	**(Stream Alteration) The proposal is shown to be a permanent solution and creates a stable situation.**
			Staff Comments	*No stream alteration is proposed.*
☐	☐	☒	17.88.050(E)15	**Stream Alteration) No increase to the 100-year floodplain upstream or downstream has been certified by a registered Idaho engineer.**
			Staff Comments	*No stream alteration is proposed.*
☐	☐	☒	17.88.050(E)16	**(Stream Alteration) The recreational use of the stream including access along any and all public pedestrian/fisherman's easements and the aesthetic beauty is not obstructed or interfered with by the proposed work.**

Compliant			Standards and Staff Comments	
Yes	**No**	**N/A**	**Guideline**	**City Standards and *Staff Comments***
			Staff Comments	*No stream alteration is proposed.*
☐	☐	☒	**17.88.050(E)17**	**Where development is proposed that impacts any wetland, first priority shall be to move development from the wetland area. Mitigation strategies shall be proposed at time of application that replace the impacted wetland area with a comparable amount and/or quality of new wetland area or riparian habitat improvement.**
			Staff Comments	*The property contains no identified wetlands, and no work is being proposed in the floodplain or along the stream bank.*
☐	☐	☒	**17.88.050(E)18**	**(Stream Alteration) Fish habitat is maintained or improved as a result of the work proposed.**
			Staff Comments	*No stream alteration is proposed.*
☐	☐	☒	**17.88.050(E)19**	**(Stream Alteration) The proposed work is not in conflict with the local public interest, including, but not limited to, property values, fish and wildlife habitat, aquatic life, recreation and access to public lands and waters, aesthetic beauty of the stream and water quality.**
			Staff Comments	*No stream alteration is proposed.*
☐	☐	☒	**17.88.050(E)20**	**(Stream Alteration) The work proposed is for the protection of the public health, safety and/or welfare such as public schools, sewage treatment plant, water and sewer distribution lines and bridges providing particularly limited or sole access to areas of habitation.**
			Staff Comments	*No stream alteration is proposed.*

STAFF RECOMMENDATION

Staff recommends continuance of the proposed Waterways Design Review, finding that it meets nearly all applicable floodplain management and zoning standards but does not satisfactorily address on-site drainage and drainage in the right-of-way, as indicated in the Public Works Department's comments. However, a revised drainage plan may be submitted that addresses the Public Works Department's concerns.

The Commission should consider the full record of facts and evidence brought forward on this application based on staff reports, applicant information, public comments, and other relevant information. Based on the information presented and received, the following options should be determined:

1. On the whole, this application is in compliance with the floodplain management and zoning ordinances and other adopted or enforced city policies or codes and approve the floodplain development permit/waterways design review request with conditions 1-8 below.

2. On the whole, this application is not in compliance with the floodplain management and zoning ordinances and other adopted or enforced city policies or codes and deny the request for a townhouse final plat because the following standards (Commission to insert reasons for denial).

3. If the Commission is not opposed to the entire application but only with certain aspects of the proposal, the Commission may amend and revise the proposal and/or modify conditions to address their concerns and proceed with approving the t proposed Waterways Design Review application.

4. If the Commission does not feel they have all the information they need to make a decision they may require additional information to be brought forth at a future meeting.

5. The Commission may determine some other option based on the information presented at the meeting.

Based on the information submitted to date, staff recommends continuance of this project, Armour Waterways Design Review, subject to the conditions 1 below; if a revised drainage plan addressing condition 1 has been submitted, reviewed and approved by the June 27, 2016 meeting, staff recommends approval of the Armour Waterways Design Review subject to conditions 2 - 10 below.

FOR MOTION PURPOSES

1. "I move to continue review of this project, Armour Waterways Design Review, to a date certain so that concerns regarding drainage indicated in condition 1, below, may be addressed."

2. "I move to deny this project, Armour Waterways Design Review, because it **does not** meet the standards for approval under Chapter 17.88 of Ketchum Zoning Code Title 17 **because of the following standards** (Commission to insert reasons for denial); or,

3. "I move to approve this project, Armour Waterways Design Review, because **does** meet the standards for approval under Chapter 17.88 of Ketchum Code Title 17 only if the following conditions of approval are met.

PROPOSED CONDITIONS

1. Revise the drainage plans to address:
    a. Location of drywells with respect to drainage arrows indicating flow away from drains and towards right-of-way; move drains to better accommodate roof and surface flow;
    b. Upsize the 8" PVC in order to accommodate a potential rain or thaw event that could occur while the ground is frozen; and
    c. Indicate improved drainage in the right-of-way that is in compliance with city standards.

2. Waterways Design Review approval shall expire one (1) year from the date of signing of approved Findings of Fact per the terms of KMC, Section 17.88.060.G, Terms of Approval;

3. This Waterways Design Review approval is based on the plans, as dated in the list of attachments above, and information presented and approved at the meeting on the date noted herein. Any building or site discrepancies which do not conform to the approved plans will be subject to removal;

4. Pursuant to Chapter 17.88.050.C, no chemicals or soil sterilants are allowed within 100 feet of the mean high water mark. No pesticides, herbicides, or fertilizers are allowed within 25 feet of the mean high water mark unless approved by the City Arborist 5. All applications of herbicides and/or pesticides within one hundred feet (100') of the mean high water mark, but not within twenty five feet (25') of the mean high water mark, must be done by a licensed applicator and applied at the minimum application rates. Application times for herbicides and/or pesticides will be limited to two (2) times a year; once in the spring and once in the fall unless otherwise approved by the city arborist. The application of dormant oil sprays and insecticidal soap within the riparian zone may be used throughout the growing season as needed.

5. Prior to commencement of any work in the riparian setback, a silt fence shall be installed to keep all silt and debris out of Warm Springs Creek. Said fence shall remain in place for the duration of the riparian landscaping work.

6. The proposed construction silt fence at the Limits of Disturbance, as shown on the submitted plans, shall remain in place for the duration of construction of the house. It may be removed upon final inspection approval by Planning staff.

7. A permit is required for any subsequent work in the riparian setback occurring after the duration of this approval.

8. The above project shall meet all 2012 International Fire Code requirements in addition to specific City Building and Fire Ordinances.

9. If a monitored fire detection system exists or is installed, it shall meet NFPA 72 and be monitored by an approved alarm monitoring station. An approved key box shall be installed, with the appropriate keys, for emergency fire department access in a location approved by the fire department. Fire extinguishers shall be installed and maintained per 2012 IFC Section 906 both during construction and upon occupancy of the building. Spark arresters are required on all solid fuel burning appliance chimneys to reduce potential fires from burning embers.

10. Approved address numbers shall be placed in such a position to be plainly visible and legible from the road fronting the property. Numbers and letters shall be a minimum of four (4) inches tall, contrast with their background and be positioned a minimum of forty-eight (48) inches above final grade. Vehicle parking and material storage during construction shall not restrict or obstruct public streets or access to any building. A minimum twenty-foot travel lane for emergency vehicle access shall be maintained clear and unobstructed at all times. All required Fire Lanes, including within 15 feet of fire hydrants, shall be maintained clear and unobstructed at all times.

File Number: 16-045

FLOODPLAIN MANAGEMENT OVERLAY APPLICATION

CERTIFIED COMPLETE 5/23/16 KD

Use for:

Floodplain Development Permit
Waterways Overlay Design Review
Stream Alteration Permit

Project Name: Armour Residence – Lot 12, Warm Springs Creekside Subdivision
Owner: Norman & Salita Armour Phone No.: 530-412-0309
Mailing Address: P.O. Box 2275, 82 Winding Ck Rd, Olympic Village, CA 96146-0000
Email: salitaarmour@gmail.com
Architect/Representative: Nic Holland Architects Phone No.: 512-346-6620
Mailing Address: 6612 Sitio del Rio Blvd., Austin, TX 78730
Email: nic@nichollandarchitects.com
Engineer of Record: Craig Maxwell- Maxwell Structural DS Engineer Email: craig@maxwellsds.com
Floodplain Management Review Fee: _____ Date Paid: _____
Legal Land Description: 112 Irene Street, Sec 11, Twn.4N., Rng.17 E

Street Address: 112 Irene Street, Ketchum, ID 83340
Lot Area: 11,945 sq.ft. Zoning District: GL-R, FP Anticipated Use: Residential
Type Construction: New X Remodel ____ Addition ____ Other ____

Total Floor Area:	Proposed	Existing
Basements:	NONE	_____
1st Floor:	2,636 sq.ft.	_____
2nd Floor:	825 sq.ft.	_____
3rd Floor:	_____	_____
Mezzanine:	_____	_____
Total:	3,461 sq.ft.	NOTE: total building footprint = 4,054 sq.ft.

Percent of Building Coverage: 34% (0.3394) Curb Cut: _____
Setbacks: Front 25 Side 10 Side 10 Rear 15
Height: 24' 10-3/4" Parking Spaces Provided: 2
Will fill or excavation be required? If yes, amount in cubic yards- Fill _____ Excavation _____
Will existing trees or vegetation be removed? Yes _____ No X
NONE within Riparian Management Zone

The Applicant agrees in the event of a dispute concerning the interpretation or enforcement of the Floodplain Management Overlay Application in which the City of Ketchum is the prevailing party to pay the reasonable attorney fees, including attorney fees on appeal, and expenses of the City of Ketchum.

I, the undersigned, certify that all information submitted with and upon this application form is true and accurate to the best of my knowledge and belief.

Signature of Owner: _____ Date: May 23, 2016
c/o Norman & Salita Armour

Approved/Denied: _____ Date: _____

Pursuant to Resolution No. 08-123, any direct costs incurred by the City of Ketchum to review this application will be the responsibility of the applicant. Costs include but are not limited to: engineer review, attorney review, legal noticing, and copying costs associated with the application. The City will require a retainer to be paid by the applicant at the time of application submittal to cover said costs. Following a decision or other closure of an application, the applicant will either be reimbursed for unexpended funds or billed for additional costs incurred by the City.

Sawtooth Environmental Consulting, LLC
P.O. Box 2707 Ketchum, ID. 83340
208-727-9748

Armour – Lot 12, Warm Springs Creekside Subdivision
Riparian Management and Mitigation Plan
May 2016

Landowner: Norman and Salita Armour

Location: 112 Irene Street, Section 11, Township 4 North, Range 17 East, City of Ketchum, Blaine County, Idaho.

Project: Residential Home Site Development

The purpose of this report is to provide an overview of the proposed actions and environmental resources associated with the subject parcel and to outline the protection, management and mitigation strategies being proposed for the project as they relate to the parcel's riparian area.

The proposed development project is to construct a single-family residence on Lot 12, of the Warm Springs Creekside Subdivision, located at 112 Irene Street, within Section 11, Township 4 North, Range 17 East, B.M., City of Ketchum, Blaine County, Idaho.

To meet landowner objectives and create a practical area to develop within the subject parcel the applicant seeks approval to conduct work within the regulated twenty-five foot (25') riparian management zone during construction activities, and to reclaim and enhance portions of the riparian buffer with native plant species.

Due to the size limit of the existing parcel, the physical configuration of the lot and associated natural features we ask the Planning and Zoning Commission to allow for work to be conducted with mechanized equipment within the riparian management zone during construction phases, and to allow for active restoration and reclamation of the riparian buffer once major construction activities are completed.

The proposed project has been designed to avoid jurisdictional waters of the United States, including jurisdictional wetlands and to avoid adverse impacts to the parcel's stream bank and delineated 100-year floodplain area. All proposed permanent development applications will be constructed outside of the riparian buffer, within areas impacted by past development applications, in an area where the natural site characteristics and vegetation have been altered by past land use applications.

Understanding the importance of riparian habitats and their role in protecting water quality and providing valuable wildlife habitat the applicant proposes to protect undisturbed valued riparian habitat elements located on the parcel, and to reclaim and enhance associated riparian habitat elements altered by past land use applications and proposed construction activities.

Prescribed riparian management applications outlined in this plan are presented to protect water quality and enhance riparian habitat. As well as help mitigate for the proposed site development and past site alterations, which have altered the natural vegetation characteristics of the site.

Site Description

The project site is located approximately 1.6 miles west of downtown Ketchum. The subject parcel is approximately 11,945 SF (0.274 acre), and is immediately adjacent to Warm Springs Creek, which is located to the southwest of the designated building site. Warm Springs Creek is deeply incised with limited floodplain access throughout the subject project reach. The active channel and associated floodway are at an elevation approximately 6 to 7 feet below the proposed home site area.

Native riparian vegetation is limited to a narrow margin along the western boundary of the parcel, which includes the top of bank and sloped stream bank area directly adjacent to the stream channel. Native riparian vegetation associated with the site is comprised of a cottonwood tree (*Populus trichocarpa*) upper canopy, a woody shrub mid-canopy consisting of willows (*Salix spp.*), currant (*Ribes spp.*), and woods rose (*Rosa woodsii*) and herbaceous ground cover mix of various grasses and forbs.

The balance of the riparian area located within the 25-foot riparian management zone has been altered by past development applications and land use applications. Vegetation consists of a predominant herbaceous ground cover including mixed grasses and forbs, both introduced and native species being present. Dominant species include Smooth brome (*Bromus inermis*), Kentucky bluegrass (*Poa pratensis*), common dandelion, woods rose and numerous mixed forbs.

Riparian Enhancement Plan

The proposed project plans to reclaim, enhance and protect the natural riparian characteristics associated with Warm Springs Creek by addressing portions of the riparian buffer which have been altered by past land-use applications including vegetation removal and grading. Undisturbed riparian habitat elements and the reclaimed riparian areas will be considered natural zones, future management and maintenance activities will be minimized to the necessary control of noxious weeds, the removal of dead and/or hazardous trees, and emergency stream bank stabilization activities (if necessary). No further

development will be proposed within the regulated 25-foot riparian management zone.

The riparian buffer will consist of perennial native vegetation (grasses, forbs, shrubs and trees) and be managed for perpetuity to enhance and protect aquatic resources from potential adverse impacts associated with site development and future land use applications. Project objectives include:

- Promote riverbank stabilization
- Improve floodplain function
- Filter nutrients, herbicides and other chemicals from land-use applications
- Enhance fish and wildlife habitat
- Restore native plant communities

Riparian Applications

Development and mitigation applications will incorporate all applicable Best Management Practices (BMP's) to protect resource values and to ensure compliance with state and federal Water Quality Standards. The following project applications within the 25-foot riparian management zone are being proposed to meet landowner objectives, reclaim altered riparian habitat elements and to help mitigate for the proposed and past land-use applications.

- Preserve undisturbed riparian vegetation adjacent to all surface water resources. Construction and/or silt fence will be placed along this boundary at approximately 15-feet from the mean high water mark to inhibit encroachment during site excavation and construction of the proposed project, and associated reclamation applications.

- Conduct work with mechanized equipment within the regulated twenty five foot (25') riparian setback during construction phases in order to construct the proposed single-family residence, remove non-native materials, and reclaim site topography and native vegetation. Construction zone will include a 10-foot wide margin from the edge of the structure to the construction and/or silt fence located to the west, approximately.

- Remove non-native materials and conduct minor graded to match adjacent topography. Materials include:

    - Non-native aggregate: small amount of asphalt and cobble
    - Non-native vegetation: attempt to remove non-native species (smooth brome and introduced forbs) via mechanical removal restore native grasses, shrubs and trees.

- Reclaim all disturbed areas with native riparian grass, shrub and tree species.

- Reclaim/enhance altered riparian habitat elements within the riparian management zone. Undisturbed riparian habitat elements and reclaimed areas will be managed for perpetuity as a natural area to enhance riparian function and value.

  Proposed reclamation applications include:

  - Encourage natural recruitment of native riparian plant species by not mowing undisturbed riparian areas and the identified reclamation areas.

  - Plant twenty-two (22) native riparian shrubs, 5 gallon nursery stock (golden currant, snowberry, serviceberry and wild rose) to restore and enhance riparian habitat elements within the 25-foot riparian management zone.

  - Plant three (3) native riparian trees, 5 - 15 gallon nursery stock (Quaking aspen) to restore and enhance riparian habitat elements within the 25-foot riparian management zone.

    Reclamation plantings will be sited to enhance the natural beauty of the stream corridor and to preserve views from the subject property. New plantings and seeded areas will be irrigated for a minimum of two (2) years to promote establishment and root development.

  - Work to remove non-native grass and forbs species (Smooth brome, knapweed). Incorporate native riparian grass species (Idaho fescue, fowl bluegrass) into the designated reclamation areas and all disturbed areas.

- Limit the area of disturbance in terms of both extent and duration by the use of practical construction sequencing and applied Best Management Practices.

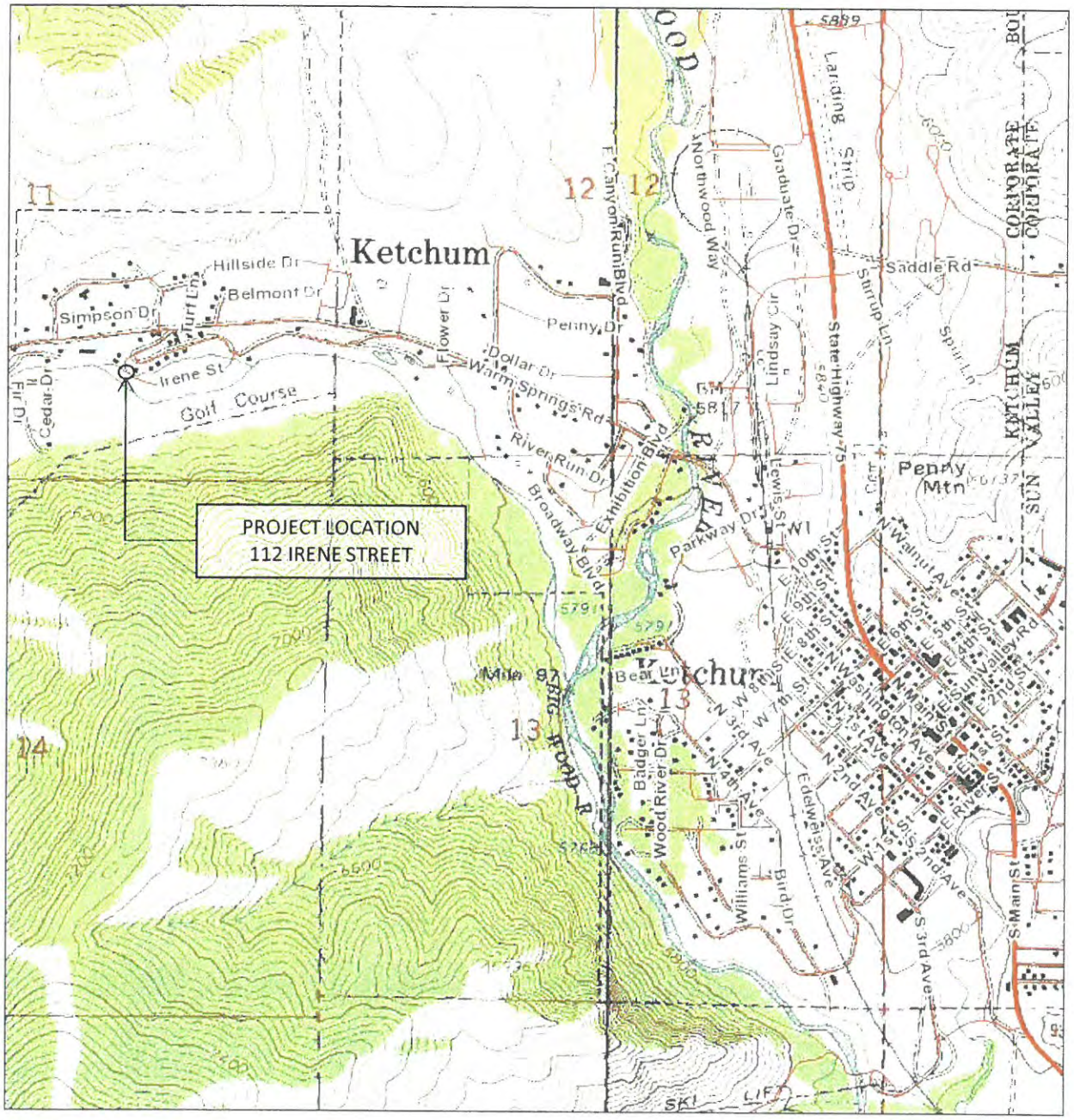
- Control noxious weeds and invasive plant species throughout the parcel on an as need basis. The preferred method of hand pulling will be applied for weeds that are isolated and not widespread, while spot herbicide applications will be utilized to control widespread infestations.

  No additional use of herbicides, pesticides or fertilizers will be used within the 25-foot riparian management zone unless approved by the City Arborist.

Schedule

Riparian reclamation and associated enhancement applications will be implemented once all major construction activities have been completed (Fall 2016 / Summer 2017).

Armour – Lot 12, Warm Springs Creekside Subdivision
Riparian Management and Mitigation Plan - Vicinity Map
May 20, 2016



May 20, 2016

1:16,225

0 0.125 0.25 0.5 mi
0 0.2 0.4 0.8 km

Sawtooth Environmental Consulting, LLC

Made by: Blaine County GIS

CONCEPTUAL RIPARIAN RECLAMATION/ENHANCEMENT EXHIBIT

LEGEND

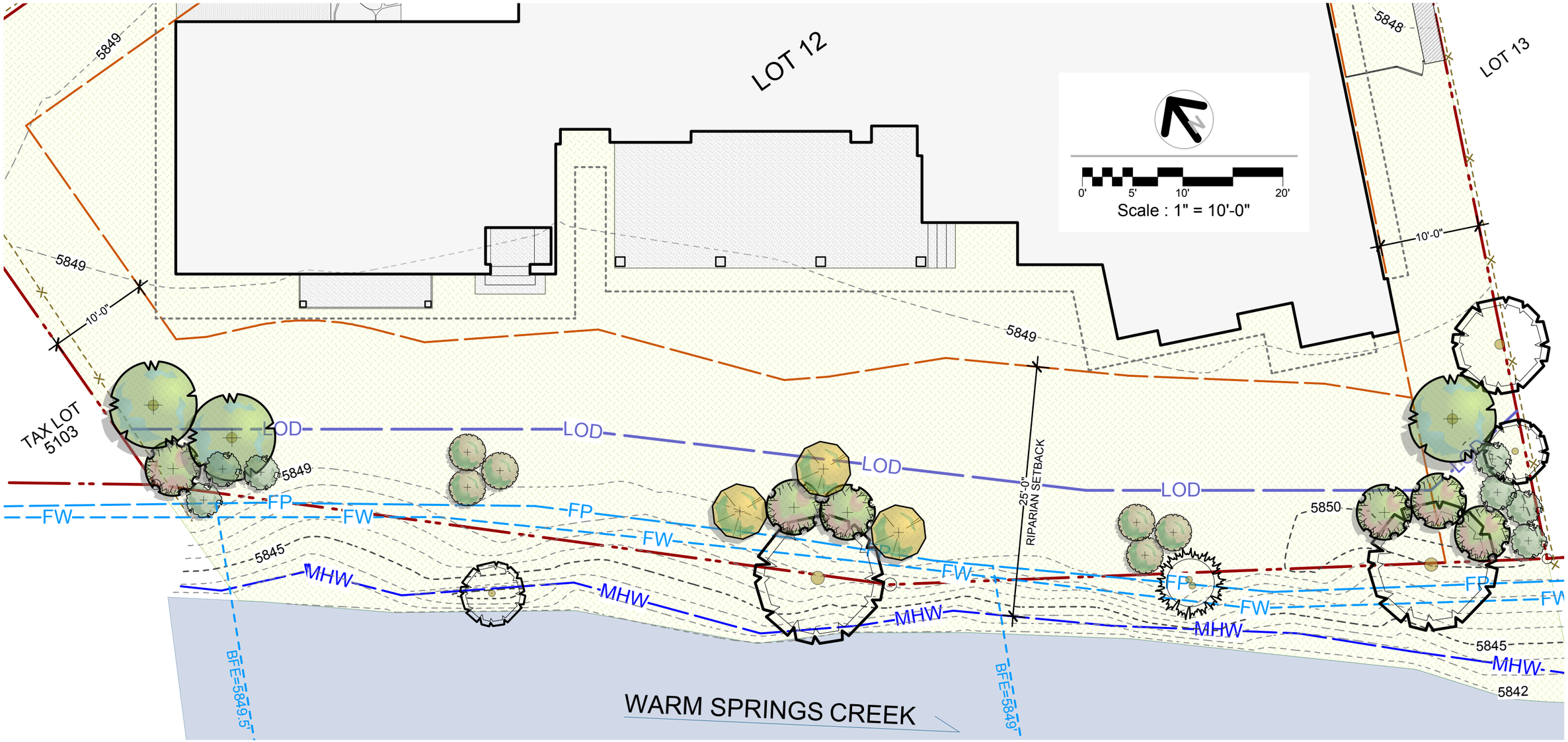
- PROPERTY LINE
- EASEMENT/SETBACK
- MEAN HIGH WATER MARK (MHW)
- FLOODPLAIN (FP)
- FLOODWAY (FW)
- EXISTING CONTOUR LINE (-5952-)
- EXISTING FENCE
- PROPOSED ROOF DRIP LINE
- PROPOSED LIMIT OF DISTURBANCE (LOD) -SILT FENCE
- EXISTING ASPHALT
- PROPOSED ASPHALT
- PROPOSED CONCRETE
- PROPOSED FLAGSTONE
- PROPOSED WALL
- PROPOSED NATIVE GRASS
- EXISTING EVERGREEN TREE
- EXISTING DECIDUOUS TREE
- PROPOSED ASPEN
- PROPOSED SERVICEBERRY
- PROPOSED CURRANT
- PROPOSED SNOWBERRY
- PROPOSED WOOD'S ROSE

PLANT SCHEDULE

ID	Qty	Botanical Name	Common Name	Size	Remarks
AMal'Re'	6	Amelanchier alnifolia 'Regent'	Regent Serviceberry	10 gallon	
POtr-10s	3	Populus tremuloides	Quaking Aspen	10 gallon	Single-stem
Rlau	3	Ribes aureum	Golden Currant	5 gallon	
ROwo	7	Woods' Rose	Rosa woodsii	5 gallon	
SYal	6	Symphoricarpos alba	Snowberry	5 gallon	

NOTES:

1. This plan was prepared for the express use of the Client and is not transferable to others without written consent.
2. This is a conceptual plan only. It is subject to change and is not intended to be used as a construction document.
3. Boundary information is based on record information. Please refer to recorded plat of Warm Springs Creekside Subdivision.
4. Refer to plat notes, conditions, covenants and restrictions on original plat.
5. All site & survey information based on survey(s) provided by the Client and prepared by Alpine Enterprises, Inc.
6. All work described by these documents shall be performed in full accordance with all applicable codes as adopted by the City of Ketchum, Idaho.
7. Refer to architectural plans for final proposed building details.
8. Drawings of existing facilities are, in general, diagrammatic. Exact locations shall be determined by the Contractor from field measurements taken by Contractor's personnel.
9. Contractor shall review these plans thoroughly, make a detailed site visit, and immediately bring any inconsistency, site layout problem, or any other request for clarification to the Landscape Architect for resolution.
10. Above and below ground utility locations are approximate and must be located and verified in the field before any excavation. All regulations with regard to hand-dig setbacks must be followed.
11. New plantings and seeded areas shall be irrigated for a minimum of two (2) years to promote establishment and root develepment.
12. All proposed plant material to comply with the American Association of Nurserymen standards including, but not limited to: size, character, quality, planting and irrigation procedures.
13. Locations of existing plants are approximate and must be verified in the field.
14. Contractor shall protect all existing plants to remain from construction damage, including but not limited to: protect root zone from compaction; tie up branches as necessary.
15. Contractor shall establish a temporary irrigation system to water all existing vegetation that is to remain during the entire construction process.
16. All existing soils that are to be used for planting will be evaluated and appropriately ammended to support the specific plant needs in each specified planting area.
17. Prior to planting, contractor shall decompact & aerate all soils, that are to be planted into. Decompaction depth shall be equal to or greater than the mature root depth of the plants to be planted.
18. All disturbed soils on steep slopes greater than 30% shall be protected from excessive errosion by the irrigation system and significant weather events. BMP's shall be provided to ensure soil stabilization until established plantings can hold the soil naturally.



P.O. Box 2707
Ketchum, ID
83340
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trentsumph@cox-internet.com

SAWTOOTH ENVIRONMENTAL CONSULTING, LLC

ARMOUR RESIDENCE
LOT 12, WARM SPRINGS CREEKSIDE SUB.
112 IRENE STREET
KETCHUM, IDAHO

L-1
06/09/2016

Armour – Lot 12, Warm Springs Creekside Subdivision
Riparian Management and Mitigation Plan
May 20, 2016

ARMOUR RESIDENCE

LOT 12 WARM SPRINGS CREEKSIDE KETCHUM, IDAHO

+/- 0.27 AC. +/- 11,945 SQ. FT.

NOT FOR REGULATORY APPROVAL, PERMITTING, OR CONSTRUCTION

PROPERTY OWNER
NORMAN AND SALITA ARMOUR
5144 SOUTH TABOO AVE.
BOISE, IDAHO 83716
530.412.0309

ARCHITECT
NIC HOLLAND ARCHITECTS
NIC HOLLAND
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AUSTIN, TEXAS 78730
512.346.6620 (O) 512.422.5621 (C)

STRUCTURAL ENGINEER
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30 WYATT DR.
BELLEVUE, IDAHO 83313
208.440.1946

ENVIRONMENTAL CONSULTANT
SAWTOOTH ENVIRONMENTAL CONSULTING, LLC
TRENT STUMPH
540 NORTH 1ST AVE., P.O. BOX 2707
KETCHUM, IDAHO 83340
208.727.9748 (O) 208.720.1243 (C)

INSULATION
ALTITUDE INSULATION
PETE SCHWARTZ
P.O. BOX 1139
KETCHUM, IDAHO 83340
208.720.8935

CONTRACTOR
NORTHSTREAM CONSTRUCTION
JEFF KAISER
208.720.4596

SHEET INDEX

ARCHITECTURAL

06/01/16

COVER SHEET

A-0.0

NOT FOR REGULATORY APPROVAL, PERMITTING, OR CONSTRUCTION

NIC HOLLAND ARCHITECTS

6612 Sitio del Rio, Suite 200
Austin, Texas 78730
P 512.346.6620
F 512.346.6623
www.nichollandarchitects.com

ARMOUR RESIDENCE

LOT 12 WARM SPRINGS CREEKSIDE KETCHUM, IDAHO

+/- 0.27 AC. +/- 11,945 SQ. FT.

06/01/16

SITE PLAN

A-1.0

LOT 13

A SITE PLAN SHOWING
LOT 12, WARM SPRINGS CREEKSIDE SUBDIVISION
WITHIN S11, T.4N., R.17E., B.M., CITY OF KETCHUM, BLAINE COUNTY, IDAHO

1. Basis of Bearings is Idaho State Plane Coordinate System, NAD83, Central Zone, at Grid in US Survey Feet. Vertical Datum is NAVD1988.

2. Boundary Information is from the Plat of WARM SPRINGS CREEKSIDE SUBDIVISION filed as Instrument Number 166033, Blaine County Records.

3. Utility Locations shown are based on visual surface evidence only. Utility locations should be verified by Digline, prior to any excavation.

4. The current zoning is GR-L. Please refer to City of Ketchum Zoning Ordinance for specific information about this zone. Side setbacks are based on building height, with a maximum height of 35'. The property will likely be subject to the City of KEtchum's Waterways Design Review.

5. Floodway, Floodplain, and Base Flood Elevations shown are from FEMA DFIRM panel 16013C0434E, effective November 26, 2010.

Survey Provided By:
Alpine Enterprises Inc.
Surveying, Mapping, and Natural Hazards Consulting
221 Northwood Way, Unit A-100
P.O. Box 2037, Ketchum, ID 83340 USA
(208) 727-1988 727-1987 fax
email: bsmith@alpineenterprisesinc .com

- Boundary Line
- Adjoiner's Lot Line
- Minimum Building Envelope Setback
- Maximum Side Yard Setback
- 25' Riparian Setback for Building Envelope
- Floodway Line
- Floodplain Line
- Base Flood Elevation Line
- MHW = Mean High Water Line
- EOW = Edge of Water Line (22Mar16)
- 1' Contour Line
- 5' Contour Line
- Edge of Deciduous Tree Cluster
- FNC = Fence Line
- EOA = Edge of Asphalt Line
- SWR = Approximate Sewermain Line per City paint marks
- SS = Approximate Sewer Service Line per City paint marks
- Approximate Watermain Line per City maps
- 10' Water Line Easement

- CNTRL = Survey Control
- FND-1/2" = Found 1/2" Rebar
- FND-5/8" = Found 5/8" Rebar
- PHBOX = Telephone Riser
- CABOX = Cable Television Riser
- WV = Water Valve
- SCO PAINT = Painted Sewer Cleanout
- DT = Deciduous Tree
- CT = Coniferous Tree

COR	Corner
GS	Ground Shot
IC	Illegible Cap
NC	No Cap
NOEL	No Elevation
TOP	Top of Slope

WARM SPRINGS RANCH RESORT P.U.D.

WARM SPRINGS CREEK

BFE=5849'

BFE=5849.5'

FLOOD WAY
FLOOD PLAIN

N 56°47'08" W
65.59'

N 46°46'53" W
73.97'

5842 5843 5844 5845 5846 5847 5848 5849 5850

5849.5
BASE FLOOD
ELEVATION

25' SETBACK
FROM MEAN
HIGH WATER

N 23°51'01" E
103.63'

12"

N 0°21'34" E
46.69'

10'-0" BE

9'-4" BE

54.74'
S 89°50'33" E

103.00'
S 68°10'05" E

MASTER
12'-0" X 16'-0"

NOOK
6'-0" X 6'-0"
CONCRETE

COVERED TERRACE
12'-6" X 33'-4"
CONCRETE

BBQ

KITCHEN
12'-6" X 17'-9"
GRANITE

PANTRY
CONCRETE

GARAGE
20'-0" X 21'-0"
CONCRETE

LAUNDRY
6'-1" X 13'-3"
CONCRETE

GREAT ROOM
19'-0" X 20'-1"
± 5851.6 F.F

FOYER
CONCRETE

GUEST
ENTRY
CONCRETE

BENCH
CONCRETE

POWDER

PORCH
CONCRETE

BEDROOM 2
12'-0" X 12'-0"

GARAGE 2
12'-0" X 20'-3"
CONCRETE

FLAGSTONE

ASPHALT

GARDEN COURT

15'-0" BE

10'-0" BE & WTR LINE ESMT

STREET
SIGN

EOA
PER
SURVEY

APPROX.
EOA PER
AERIAL

TAX LOT 5103

LOT 11

IRENE STREET
(60' Right-of-Way)

KCW

S

N

01 SITE PLAN

0 2 4 6 8 16

LOT 13

WARM SPRINGS RANCH RESORT P.U.D.

WARM SPRINGS CREEK

BFE=5849'

BFE=5849.5'

5842
5843
5844
5845
5846
5847
5848
5849

N 56°47'08" W
65.59'

5850

SILT FENCE & LIMITS OF CONSTRUCTION, TYPICAL

FLOOD WAY
FLOOD PLAIN

N 46°46'53" W
73.97'

5849.5
BASE FLOOD
ELEVATION

25' SETBACK
FROM MEAN
HIGH WATER

N 0°21'34" E
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S 89°50'33" E

LOT 11

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103.63'

12"

10'-0" BE & WTR LINE ESMT

15'-0" BE

103.00'
S 68°10'05" E

20'-0"

8"

11'-9 1/2"

EOA PER SURVEY

APPROX. EOA PER AERIAL

IRENE STREET
(60' Right-of-Way)

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12'-0" X 16'-0"

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6'-0" X 6'-0"
CONCRETE

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12'-6" X 17'-0"

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GREAT ROOM
19'-0" X 29'-3"
CONCRETE

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GUEST
ENTRY
CONCRETE

BENCH

POWDER

PORCH
CONCRETE

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CONCRETE

FLAGSTONE

ASPHALT

GARDEN COURT

MATERIAL
STORAGE
& DELIVERIES

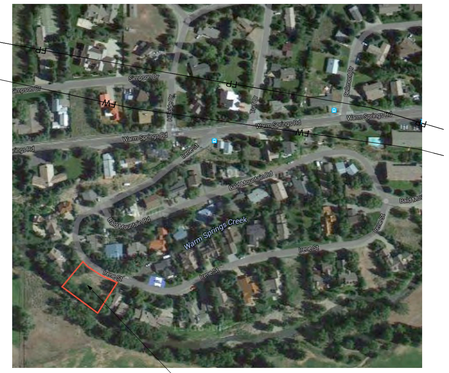
DUMPSTER

TEMP.
RESTROOM

STREET
SIGN

5851.6 F.F

VICINITY MAP



SUBJECT LOT

A SITE PLAN SHOWING
LOT 12, WARM SPRINGS CREEKSIDE SUBDIVISION
WITHIN S11, T.4N., R.17E., B.M., CITY OF KETCHUM, BLAINE COUNTY, IDAHO

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GS	Ground Shot
IC	Illegible Cap
NC	No Cap
NOEL	No Elevation
TOP	Top of Slope

01 SITE PLAN
0 2 4 6 8 16

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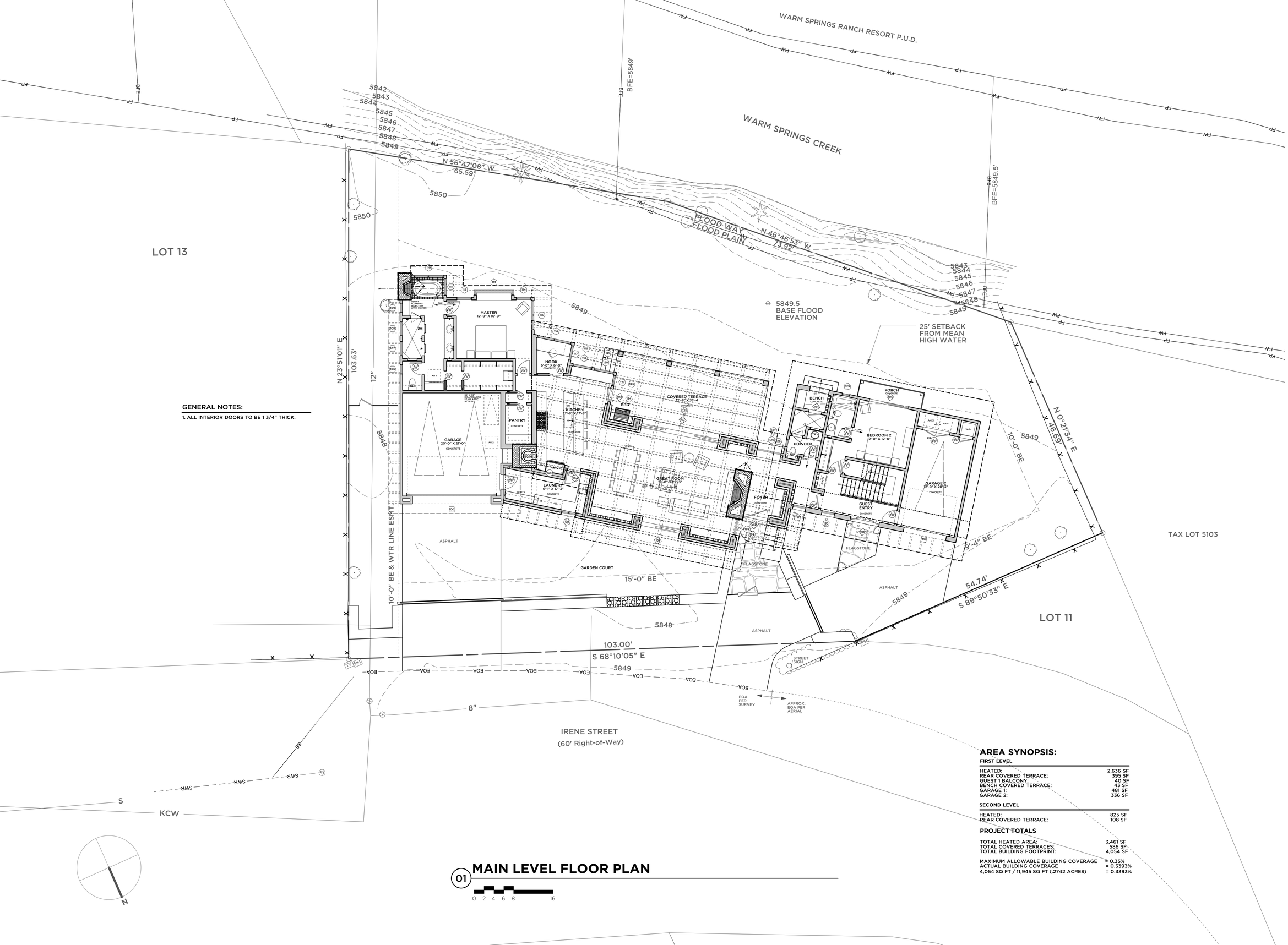
+/- 0.27 AC. +/- 11,945 SQ. FT.

06/17/16

SITE PLAN

A-1.0



GENERAL NOTES:

1. ALL INTERIOR DOORS TO BE 1 3/4" THICK.

AREA SYNOPSIS:

FIRST LEVEL

HEATED:	2,636 SF
REAR COVERED TERRACE:	395 SF
GUEST 1 BALCONY:	40 SF
BENCH COVERED TERRACE:	43 SF
GARAGE 1:	481 SF
GARAGE 2:	336 SF

SECOND LEVEL

HEATED:	825 SF
REAR COVERED TERRACE:	108 SF

PROJECT TOTALS

TOTAL HEATED AREA:	3,461 SF
TOTAL COVERED TERRACES:	586 SF
TOTAL BUILDING FOOTPRINT:	4,054 SF
MAXIMUM ALLOWABLE BUILDING COVERAGE	= 0.35%
ACTUAL BUILDING COVERAGE	= 0.3393%
4,054 SQ FT / 11,945 SQ FT (.2742 ACRES)	= 0.3393%

01 MAIN LEVEL FLOOR PLAN

0 2 4 6 8 16

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06/01/16

MAIN LEVEL FLOOR PLAN

A-2.0

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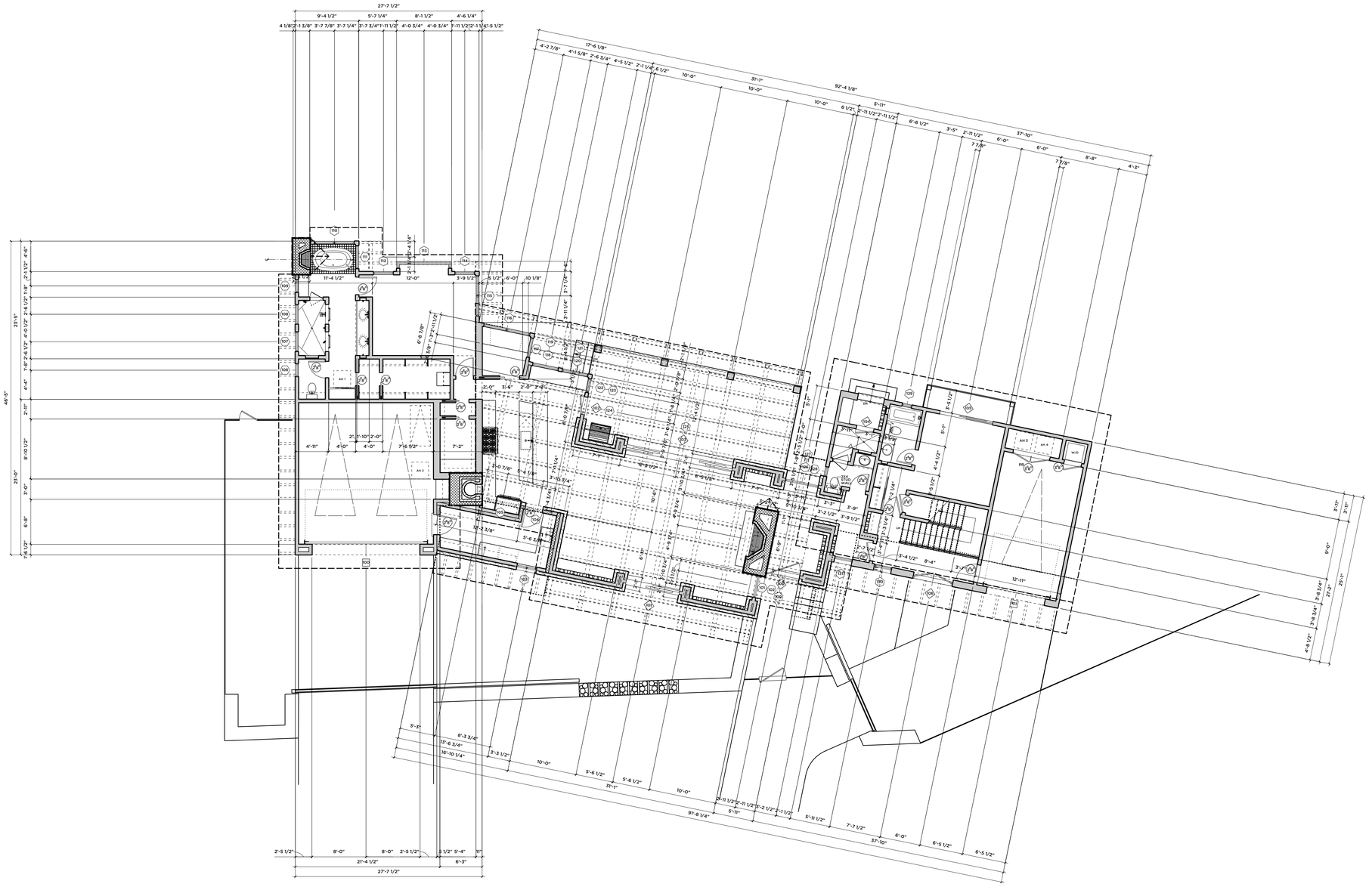
06/01/16



MAIN LEVEL DIMENSIONED FLOOR PLAN

01

0 2 4 6 8 16

MAIN LEVEL DIMENSIONED FLOOR PLAN

A-2.1

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06/01/16

SECOND LEVEL FLOOR PLAN

A-2.2

WARM SPRINGS RANCH RESORT P.U.D.

WARM SPRINGS CREEK

BFE=5849'

BFE=5849.5'

FLOOD WAY
FLOOD PLAIN

N 56°47'08" W
65.59'

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5842 5843 5844 5845 5846 5847 5848 5849 5850

5849.5
BASE FLOOD
ELEVATION

25' SETBACK
FROM MEAN
HIGH WATER

LOT 13

LOT 11

TAX LOT 5103

N 23°51'01" E
103.63'

12"

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46.69'

10'-0" BE

9'-4" BE

15'-0" BE

10'-0" BE & WTR LINE ESMT.

54.74'
S 89°50'33" E

103.00'
S 68°10'05" E

5851.6 F.F

BALCONY
WOOD

BEDROOM 3
12'-0" X 12'-0"

SITTING
12'-0" X 12'-0"

BEDROOM 4
12'-0" X 12'-0"

ASPHALT

FLAGSTONE

STREET SIGN

TV PH

EOA

EOA PER SURVEY

APPROX. EOA PER AERIAL

8"

IRENE STREET
(60' Right-of-Way)

SS

SWR

S

KCW

N

GENERAL NOTES:

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4,054 SQ FT / 11,945 SQ FT (.2742 ACRES)	= 0.3393%

01 SECOND LEVEL FLOOR PLAN

0 2 4 6 8 16

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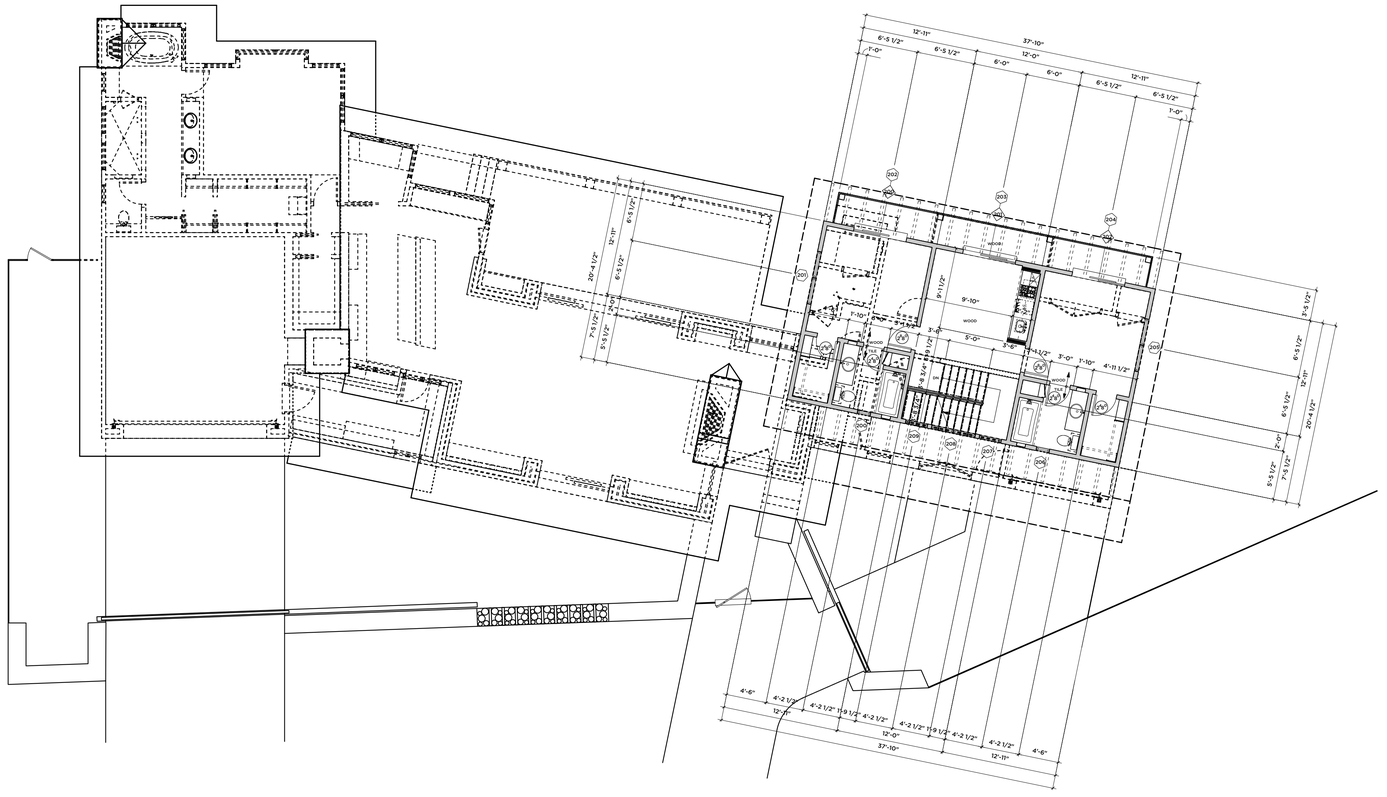
SECOND LEVEL
DIMENSIONED FLOOR
PLAN

A-2.3



01 SECOND LEVEL DIMENSIONED FLOOR PLAN

0 2 4 6 8 16

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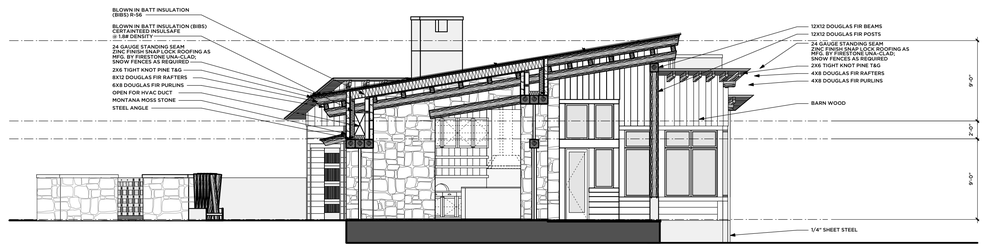
1 SECTION LOOKING NORTH WEST

SCALE: 1/8" = 1'-0"

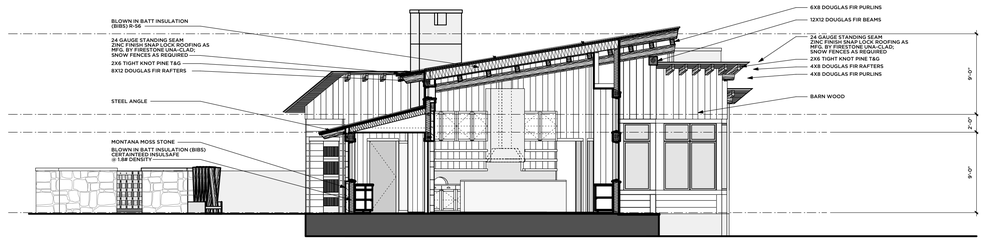
0 2 4 6 8 16



2 SECTION LOOKING SOUTH EAST THROUGH GREAT ROOM

SCALE: 1/8" = 1'-0"

0 2 4 6 8 16



3 SECTION LOOKING SOUTH EAST THROUGH LAUNDRY & KITCHEN

SCALE: 1/8" = 1'-0"

0 2 4 6 8 16

4 EAST ELEVATION

SCALE: 1/8" = 1'-0"

5 WEST ELEVATION

SCALE: 1/8" = 1'-0"

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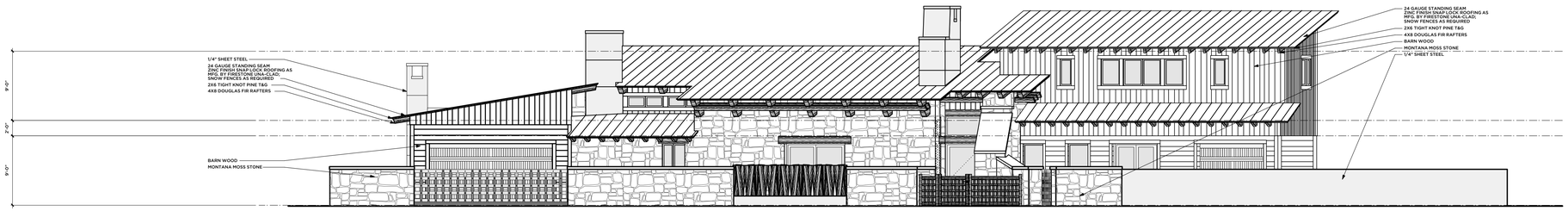
BUILDING SECTIONS&
BUILDING ELEVATIONS

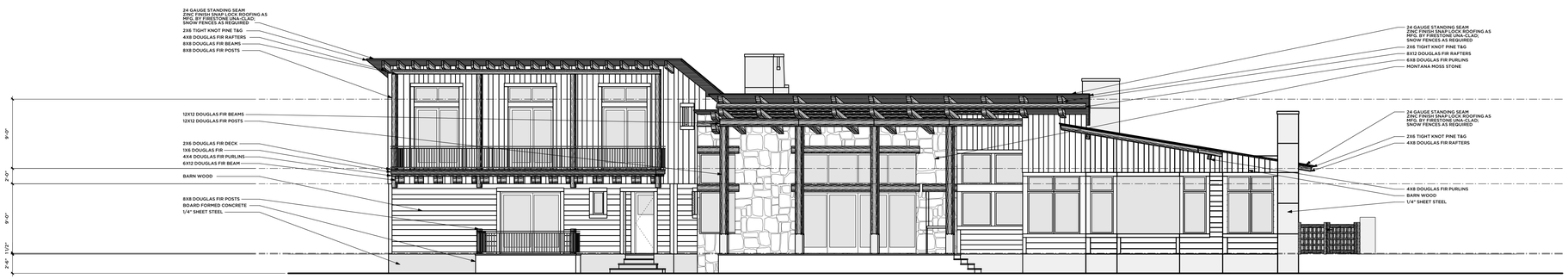
A-3.0



1 NORTH EAST ELEVATION

SCALE: 1/8" = 1'-0"

0 2 4 6 8 16



2 SOUTH WEST ELEVATION

SCALE: 1/8" = 1'-0"

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BUILDING ELEVATIONS

A-4.0

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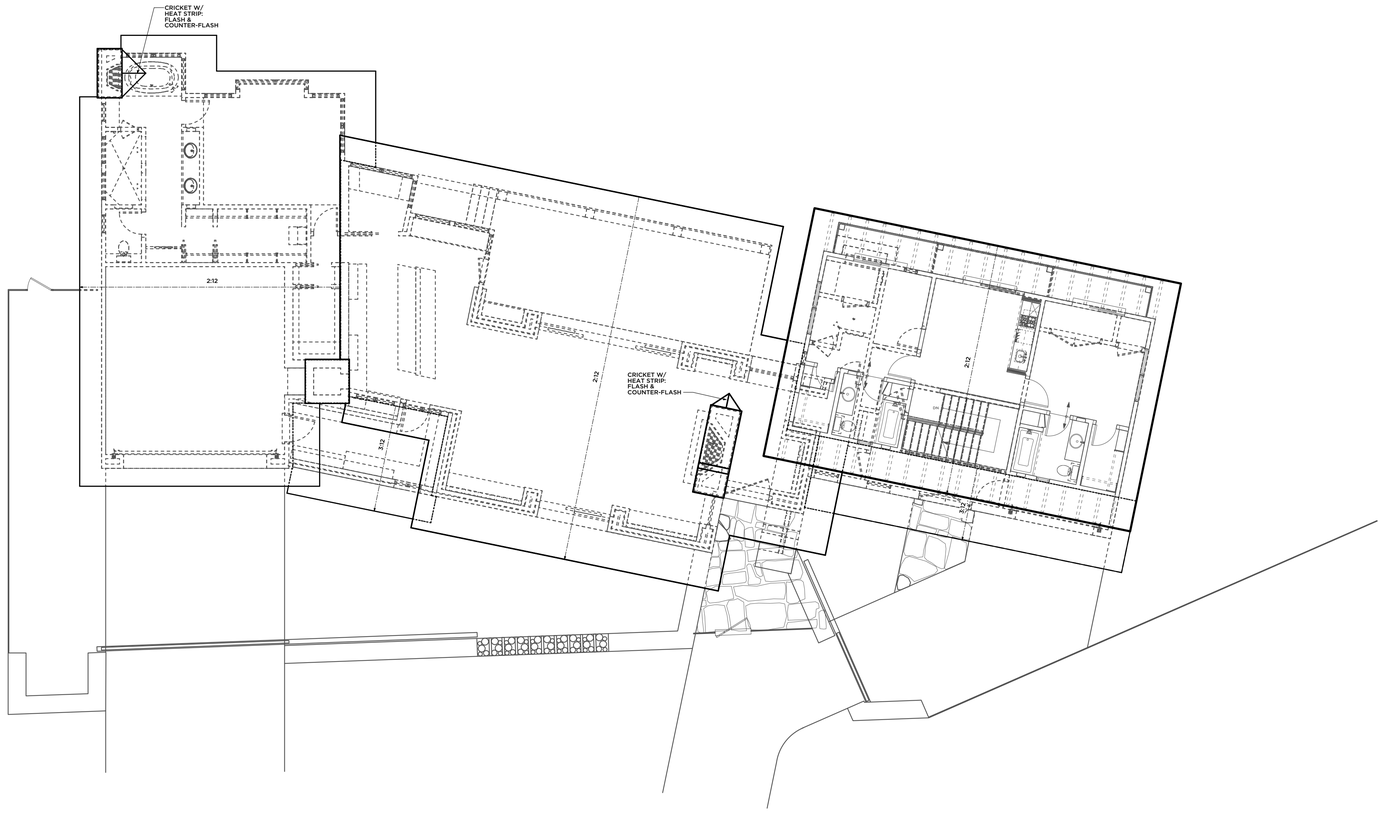

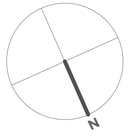

01 **ROOF PLAN**

0 2 4 6 8 16

06/01/16

ROOF PLAN

A-5.0

MAIN HOUSE EXTERIOR DOOR SCHEDULE
NOTE: DIMENSIONS NOMINAL

DOOR NO.	LOCATION	DESCRIPTION	MFR.	REMARKS	NOM. DOOR HEADER HT.
100	Foyer	5'-0" x 8'-0" Pivot Door	Custom	Transom Above. Do Not Mull. See Window Schedule, Building Sections & Elevations for Alignment Notes.	8'-0"
101	Great Room	8'-0" x 8'-0" Sliding Glass Door	Pella	See Building Sections & Elevations for Alignment Notes.	8'-0"
102	BBQ	2'-8" x 8'-0"	Pella	Transom Above. Do Not Mull. See Window Schedule, Building Sections & Elevations for Alignment Notes.	8'-0"
103	Great Room	16'-0" x 8'-0" Sliding Glass Door	Pella	Transom Above. Do Not Mull. See Window Schedule, Building Sections & Elevations for Alignment Notes.	8'-0"
104	Powder Room	2'-8" x 8'-0"	Pella	No Jamb Extensions. See Building Sections & Elevations for Alignment Notes.	8'-0"
105	Bedroom 2	8'-0" x 8'-0" Sliding Glass Door	Pella	See Building Sections & Elevations for Alignment Notes.	8'-0"
106	Guest Entry	6'-0" x 8'-0" French Door	Pella	See Building Sections & Elevations for Alignment Notes.	8'-0"
200	Bedroom 3	6'-0" x 8'-0" Sliding Glass Door	Pella	Transom Above. Do Not Mull. See Window Schedule, Building Sections & Elevations for Alignment Notes.	8'-0"
201	Sitting Room	6'-0" x 8'-0" Sliding Glass Door	Pella	Transom Above. Do Not Mull. See Window Schedule, Building Sections & Elevations for Alignment Notes.	8'-0"
202	Bedroom 4	6'-0" x 8'-0" Sliding Glass Door	Pella	Transom Above. Do Not Mull. See Window Schedule, Building Sections & Elevations for Alignment Notes.	8'-0"

MAIN HOUSE OVERHEAD DOOR SCHEDULE
NOTE: DIMENSIONS NOMINAL

DOOR NO.	LOCATION	DESCRIPTION	MFR.	REMARKS	NOM. DOOR HEADER HT.
100	Garage	18'-0" x 8'-0" Nom. Custom Wood Overhead Garage Door		See Building Sections & Elevations for Alignment Notes.	Verify
101	Garage	10'-0" x 8'-0" Nom. Custom Wood Overhead Garage Door		See Building Sections & Elevations for Alignment Notes.	Verify

MAIN HOUSE EXTERIOR WINDOW SCHEDULE
NOTE: DIMENSIONS NOMINAL

WINDOW NO.	LOCATION	DESCRIPTION	MFR.	REMARKS	NOMINAL HEADER HT.	NOM. TRANSOM HEADER HT.
100	Foyer	5'-0" x 2'-6 7/8" Awning Transom	Pella	Do Not Mull. Align w/ Door 100.		11'-5 7/8"
101	Great Room	3'-4" x 5'-6" Custom Casement	Pella	Transom Above. Do Not Mull.	8'-0"	
102	Great Room	3'-4" x 2'-6 7/8" & 2'-0" Stiles w/ 2:12 Sloped Top Rail Custom Fixed Transom	Pella	Do Not Mull. Align width w/ Window 101 & height w/ Window 100. See Int. Elevations.		11'-5 7/8"
103	Laundry	Pair of 1'-6" x 4'-6" Casements	Pella	See Building Sections & Elevations for Alignment Notes.	8'-0"	
104	Kitchen	Pair of 2'-2" x 1'-6" Awning Transoms	Pella	See Building Sections & Elevations for Alignment Notes.		14'-1 3/4"
105	Kitchen	Pair of 2'-2" x 1'-6" Awning Transoms	Pella	See Building Sections & Elevations for Alignment Notes.		14'-1 3/4"
106	Master Bath	2'-0" x 3'-0" Casement	Pella	See Building Sections & Elevations for Alignment Notes.	8'-0"	
107	Master Bath	3'-0" x 3'-0" Casement	Pella	No Jamb Extensions. See Building Sections & Elevations for Alignment Notes.	8'-0"	
108	Master Bath	3'-0" x 3'-0" Casement	Pella	No Jamb Extensions. See Building Sections & Elevations for Alignment Notes.	8'-0"	
109	Master Bath	2'-0" x 3'-0" Casement	Pella	See Building Sections & Elevations for Alignment Notes.	8'-0"	
110	Master Bath	Pair of 3'-0" x 5'-6" Casements w/ 3'-0" x 2'-0" Awning Transom Mulled Above	Pella	Transom Above. No Jamb Extensions. See Building Sections & Elevations for Alignment Notes.	8'-0"	10'-0"
111	Master Bath	3'-6" x 5'-6" Casement w/ 3'-6" x 2'-0" Awning Transom Mulled Above	Pella	Transom Above. No Jamb Extensions. See Building Sections & Elevations for Alignment Notes.	8'-0"	10'-0"
112	Master Bedroom	3'-0" x 5'-6" Casement w/ 3'-0" x 2'-0" Awning Transom Mulled Above	Pella	Transom Above. See Building Sections & Elevations for Alignment Notes.	8'-0"	10'-0"
113	Master Bedroom	Fixed Bay 7'-8" x 10'-0" w/ Flanking 0'x9 3/4"		See Plan, Building Sections & Elevations for Butt Glazing Conditions.	10'-0"	
114	Master Bedroom	3'-0" x 5'-6" Casement w/ 3'-0" x 2'-0" Awning Transom Mulled Above	Pella	Transom Above. See Building Sections & Elevations for Alignment Notes.	8'-0"	10'-0"
115	Master Bedroom	Pair of 3'-0" x 5'-6" Casements w/ Pair of 3'-0" x 2'-0" Awning Transoms Mulled Above	Pella	Transom Above. See Building Sections & Elevations for Alignment Notes.	8'-0"	10'-0"
116	Nook	Pair of 3'-6" x 5'-6" Casements w/ Pair of 3'-6" x 2'-0" Awning Transoms Mulled Above	Pella	Transom Above. See Building Sections & Elevations for Alignment Notes.	8'-0"	10'-0"
117	Nook	3'-0" x 5'-6" Casement w/ 3'-0" x 2'-0" Awning Transom Mulled Above	Pella	Transom Above. See Building Sections & Elevations for Alignment Notes.	8'-0"	10'-0"
118	Kitchen	4'-0" x 4'-6" Casement	Pella	Transom Above. Do not Mull.	8'-0"	
119	Kitchen	4'-0" x 4'-0" Awning Transom	Pella	Do Not Mull. Align w/ Window 118. See Building Sections & Elevations for Alignment Notes.		12'-11 1/4"
120	Kitchen	4'-0" x 4'-6" Casement	Pella	Transom Above. Do not Mull.	8'-0"	
121	Kitchen	4'-0" x 4'-0" Awning Transom	Pella	Do Not Mull. Align w/ Window 120. See Building Sections & Elevations for Alignment Notes.		12'-11 1/4"
122	Kitchen	2'-2" x 4'-6" Casement	Pella	Transom Above. Do not Mull.	8'-0"	
123	Kitchen	2'-2" x 4'-0" Awning Transom	Pella	Do Not Mull. Align w/ Window 122. See Building Sections & Elevations for Alignment Notes.		12'-11 1/4"
124	BBQ	2'-8" x 4'-0" Awning Transom	Pella	Do Not Mull. Align w/ Door 102. See Building Sections & Elevations for Alignment Notes.		12'-11 1/4"
125	Great Room	16'-0" x 4'-0" Awning Transom	Pella	Do Not Mull. Align w/ Door 103. See Building Sections & Elevations for Alignment Notes.		12'-11 1/4"
126	Foyer	5'-0" x 5'-6" Casement	Pella	Transom Above. Do not Mull.	8'-0"	
127	Foyer	5'-0" x 4'-0" Awning Transom	Pella	Do Not Mull. Align w/ Window 126. See Building Sections & Elevations for Alignment Notes.		12'-11 1/4"
128	Powder Room	1'-6" x 3'-0" Casement	Pella	See Building Sections & Elevations for Alignment Notes.	8'-0"	
129	Bath 2	1'-6" x 3'-0" Casement	Pella	No Jamb Extensions. See Building Sections & Elevations for Alignment Notes.	8'-0"	
130	Guest Entry	2'-8" x 4'-6" Casement	Pella	See Building Sections & Elevations for Alignment Notes.	8'-0"	
131	Guest Entry	2'-8" x 4'-6" Casement	Pella	See Building Sections & Elevations for Alignment Notes.	8'-0"	
200	Bath 3	1'-6" x 3'-6" Casement	Pella	See Building Sections & Elevations for Alignment Notes.	8'-0"	
201	Bedroom 3	Pair of 3'-0" x 2'-6" Casements	Pella	See Building Sections & Elevations for Alignment Notes.	8'-0"	
202	Bedroom 3	6'-0" x 2'-0" Awning Transom	Pella	Do Not Mull. Align w/ Door 200. See Building Sections & Elevations for Alignment Notes.		10'-7 1/4"
203	Sitting Room	6'-0" x 2'-0" Awning Transom	Pella	Do Not Mull. Align w/ Door 201. See Building Sections & Elevations for Alignment Notes.		10'-7 1/4"
204	Bedroom 4	6'-0" x 2'-0" Awning Transom	Pella	Do Not Mull. Align w/ Door 202. See Building Sections & Elevations for Alignment Notes.		10'-7 1/4"
205	Bedroom 4	Pair of 3'-0" x 3'-6" Casements	Pella	See Building Sections & Elevations for Alignment Notes.	8'-0"	
206	Bath 4	1'-6" x 3'-6" Casement	Pella	See Building Sections & Elevations for Alignment Notes.	8'-0"	
207	Stair	2'-6" x 3'-6" Casement	Pella	See Building Sections & Elevations for Alignment Notes.	8'-0"	
208	Stair	Pair of 2'-6" x 3'-6" Casement	Pella	See Building Sections & Elevations for Alignment Notes.	8'-0"	
209	Stair	2'-6" x 3'-6" Casement	Pella	See Building Sections & Elevations for Alignment Notes.	8'-0"	

GENERAL NOTES:

-VERIFY ALL ROUGH OPENINGS ACCORDING TO EXTERIOR DOOR AND WINDOW ORDER.

-REFER TO BUILDING SECTIONS, INTERIOR & EXTERIOR ELEVATIONS & DETAILS

-CONTACT ARCHITECT FOR ANY DISCREPANCIES PRIOR TO MATERIALS ORDERING & CONSTRUCTION.

-ALL WINDOWS TO BE OPERABLE UNLESS NOTED.

-ALL WINDOWS & DOORS TO HAVE INSULATED, LOW-E GLAZING.

-ALL TRANSOM WINDOWS SASH SET.

- ALL WINDOWS & DOORS PELLA, CLAD; CLADDING COLOR SELECTED BY OWNER.

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ARMOUR RESIDENCE

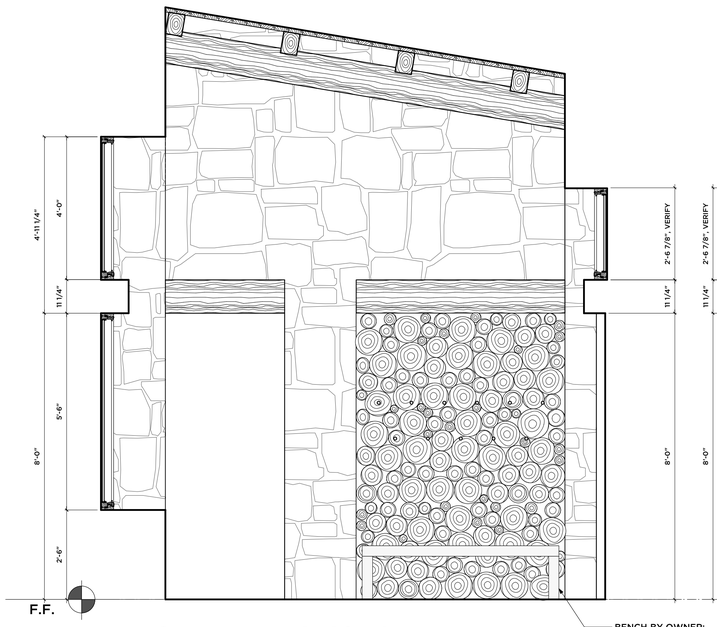
LOT 12 WARM SPRINGS CREEKSIDE DE KETCHUM, IDAHO

+/- 0.27 AC. +/- 11,945 SQ. FT.

06/01/16

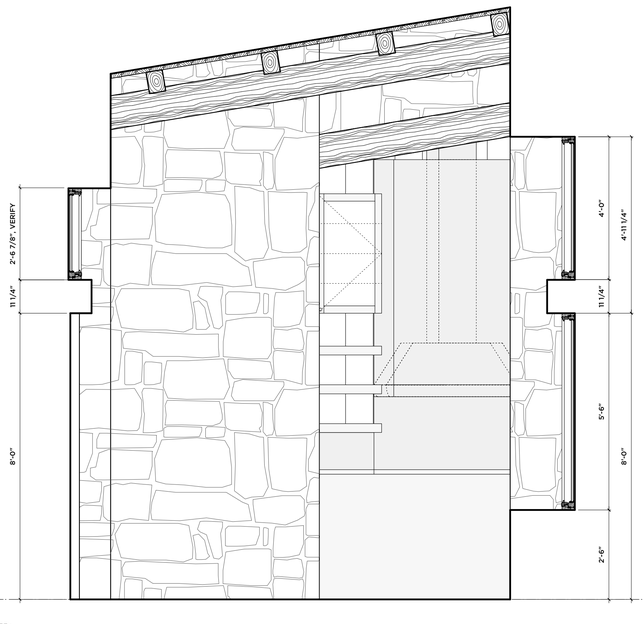
EXTERIOR DOOR & WINDOW SCHEDULES

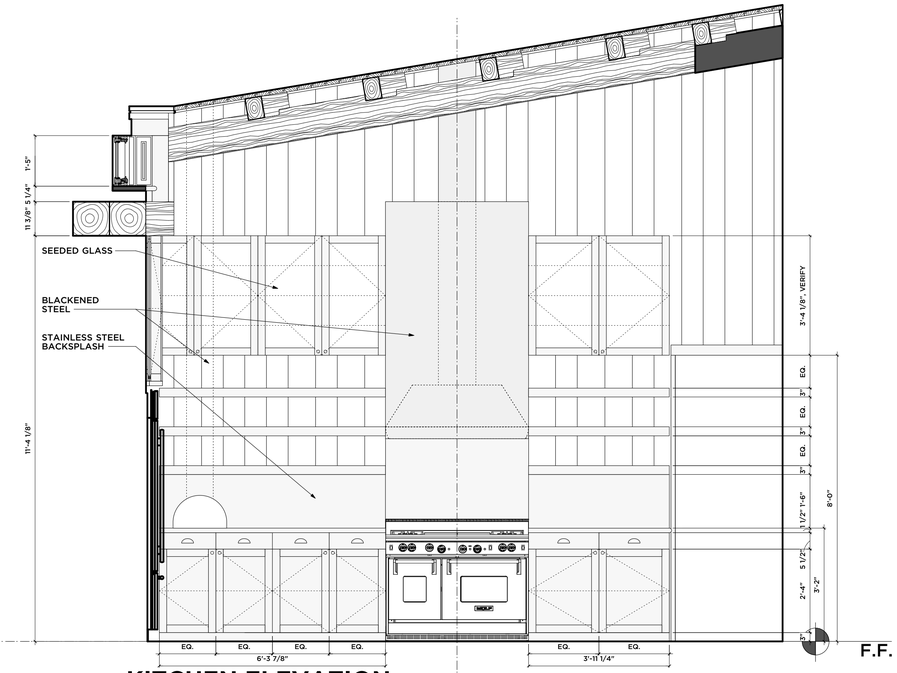
A-6.0



01 FOYER ELEVATIONS

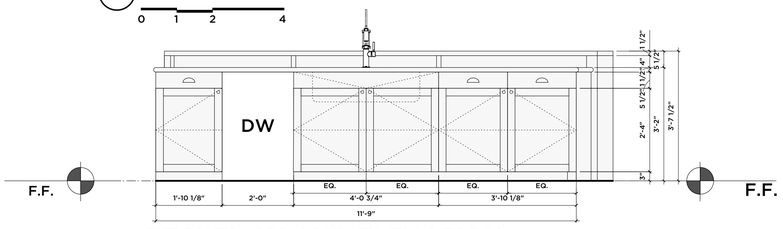
0 1 2 4





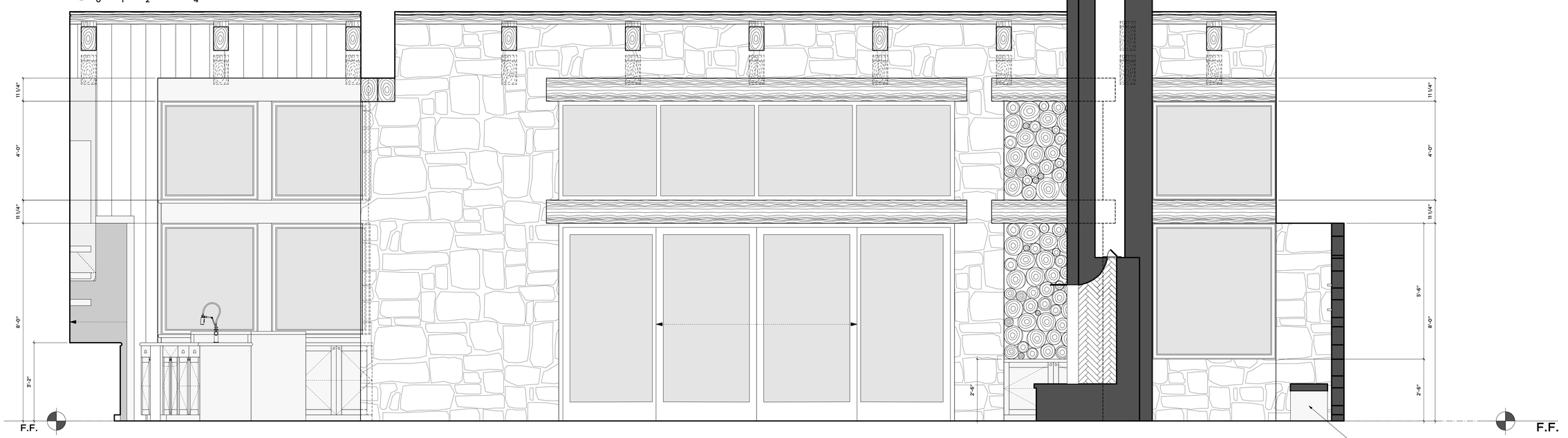
02 KITCHEN ELEVATION

0 1 2 4



03 KITCHEN ISLAND ELEVATION

0 1 2 4



04 KITCHEN / GREAT ROOM / FOYER ELEVATION

0 1 2 4

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INTERIOR ELEVATIONS

A-7.0

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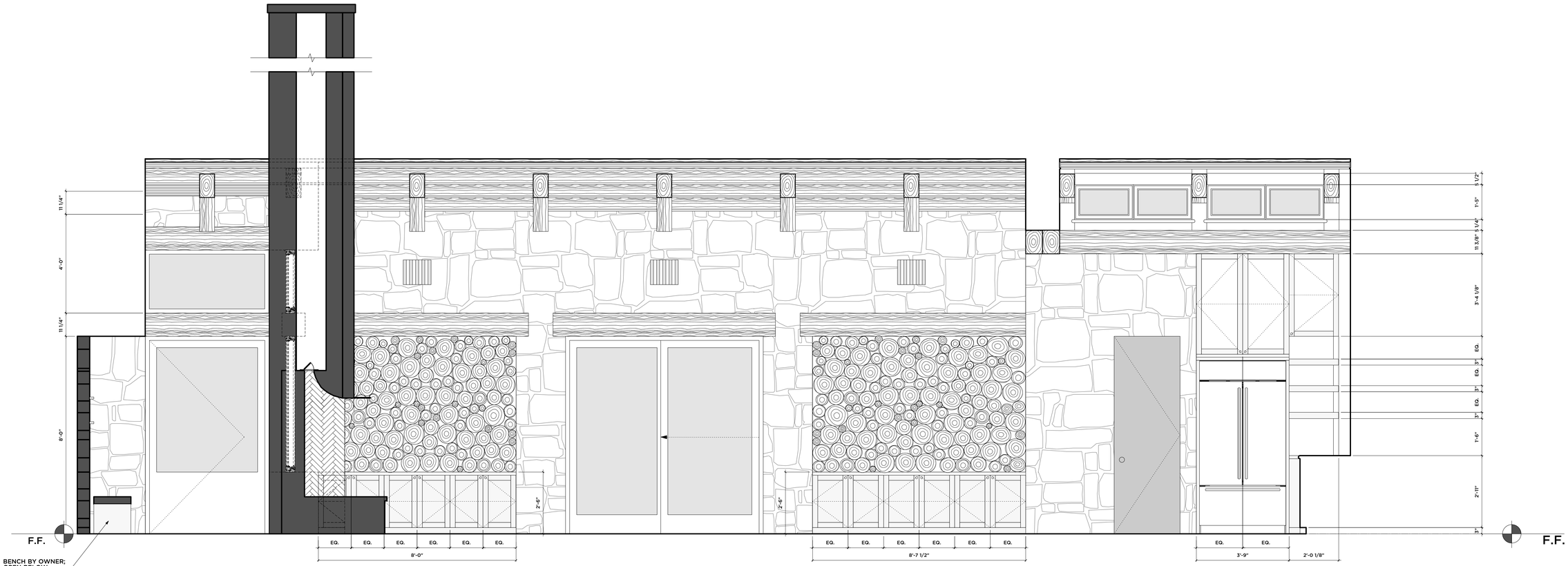
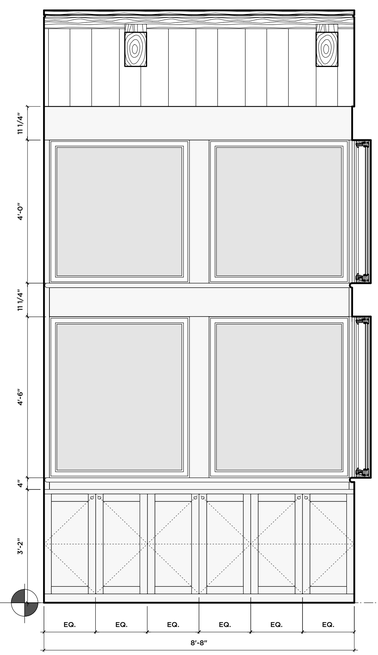
INTERIOR ELEVATIONS

A-7.1



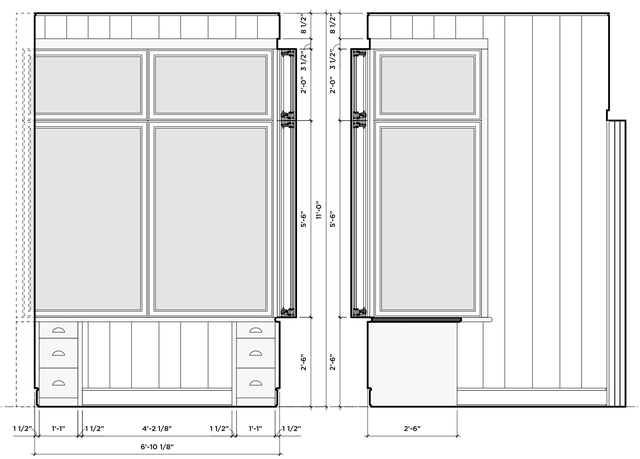
01 FOYER / GREAT ROOM / KITCHEN ELEVATION

0 1 2 4



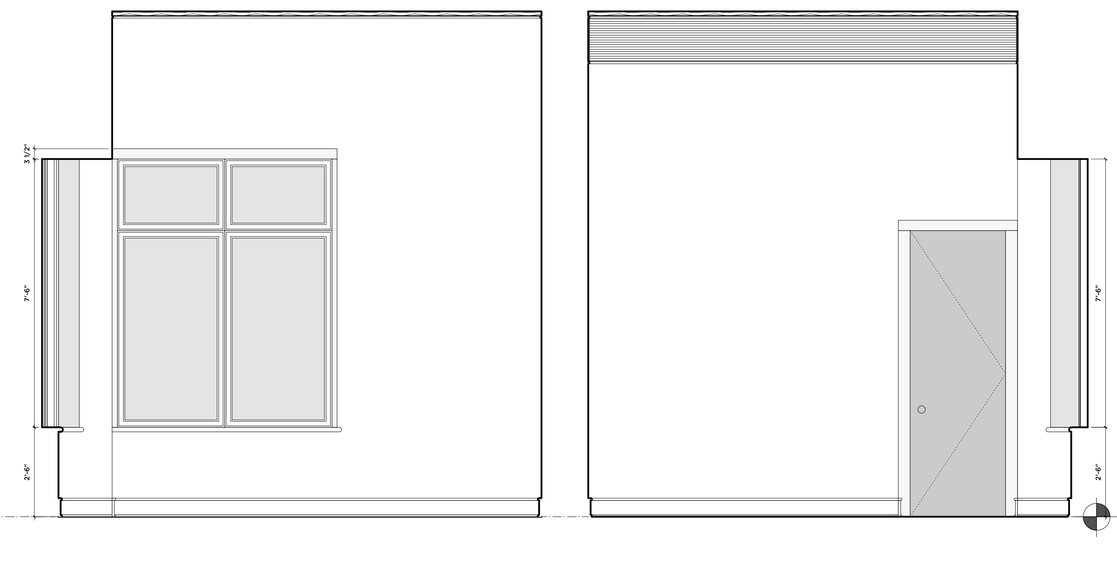
02 KITCHEN ELEVATION

0 1 2 4



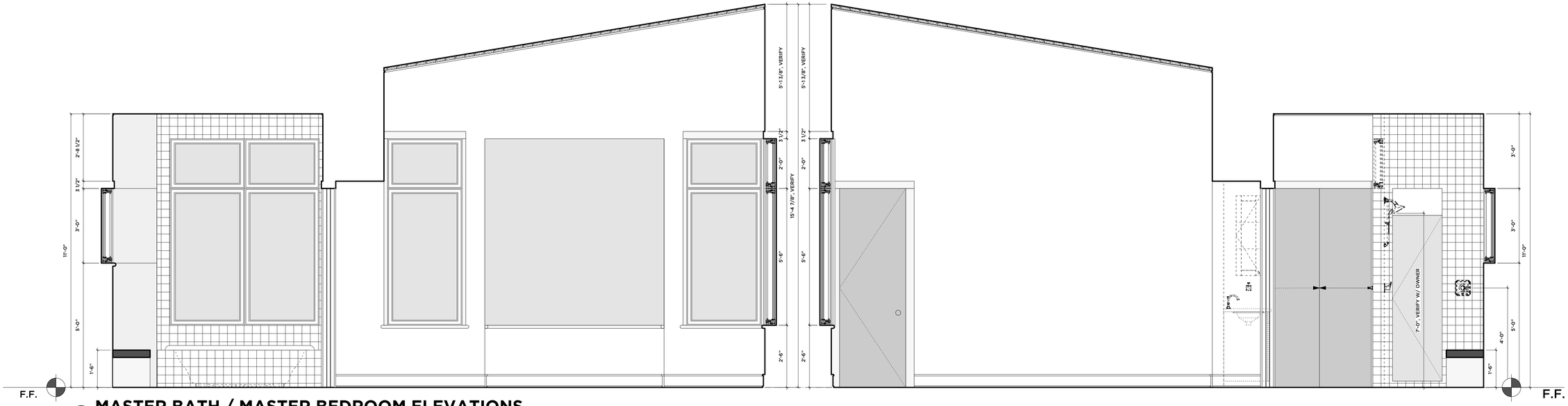
03 NOOK ELEVATIONS

0 1 2 4



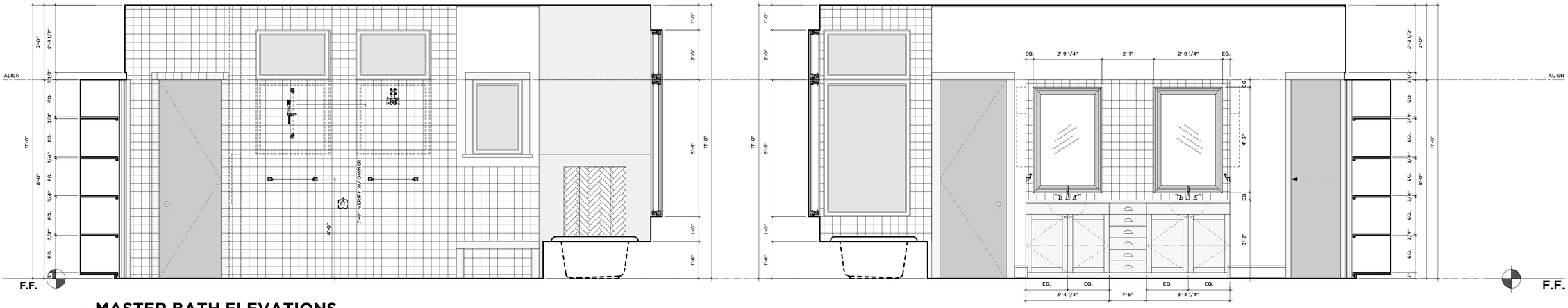
04 MASTER BEDROOM ELEVATIONS

0 1 2 4



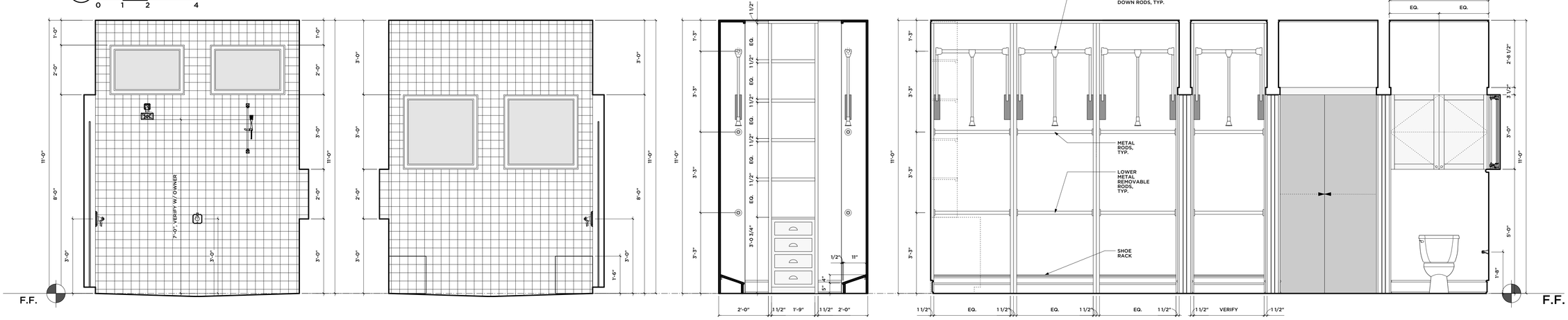
01 MASTER BATH / MASTER BEDROOM ELEVATIONS

0 1 2 4



02 MASTER BATH ELEVATIONS

0 1 2 4



03 MASTER SHOWER ELEVATIONS

0 1 2 4

04 MASTER CLOSET / MASTER BATH ELEVATIONS (SIM. OPP.)

0 1 2 4

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INTERIOR ELEVATIONS

A-7.2

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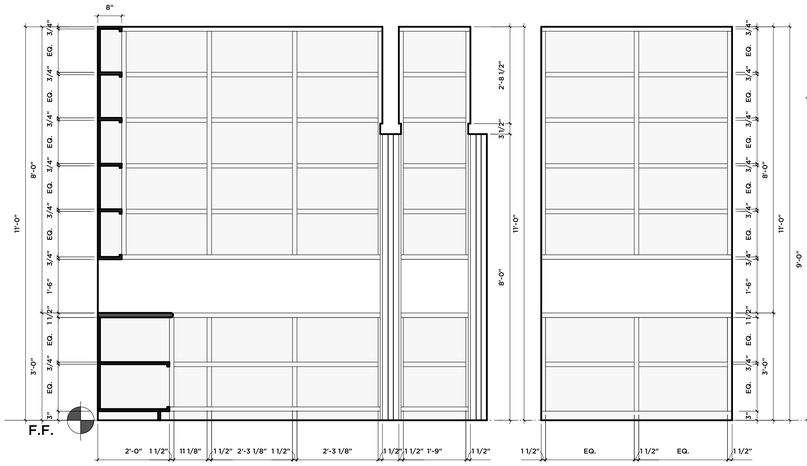
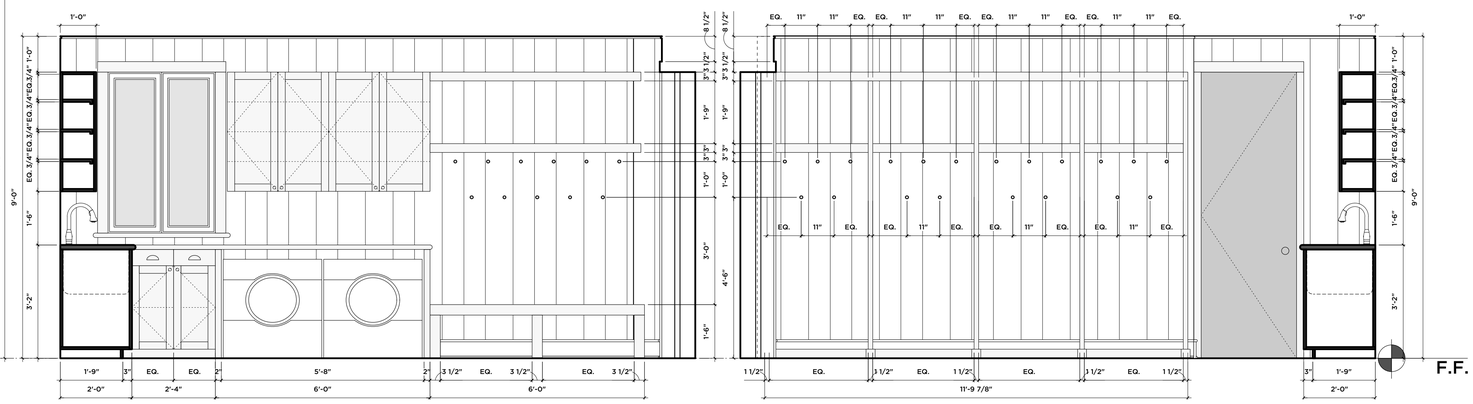
INTERIOR ELEVATIONS

A-7.3



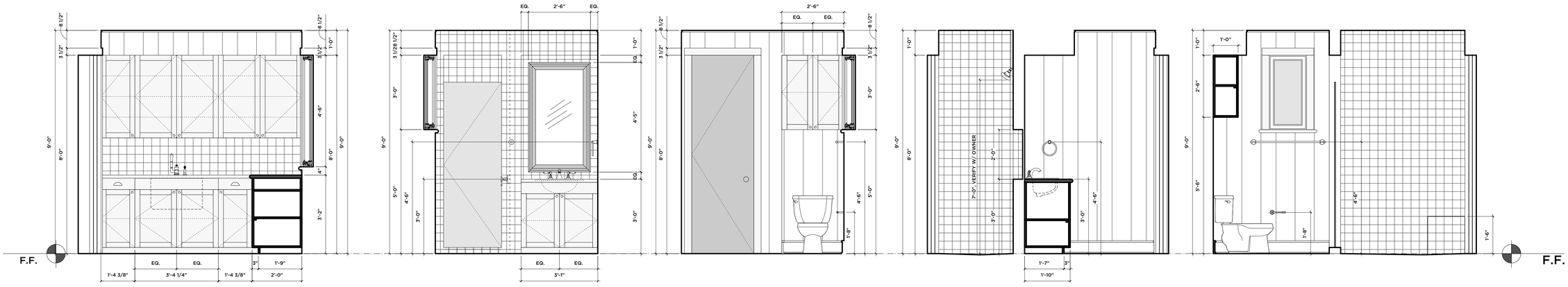
01 PANTRY ELEVATIONS (SIM. OPP.)

0 1 2 4



02 LAUNDRY ROOM ELEVATIONS

0 1 2 4

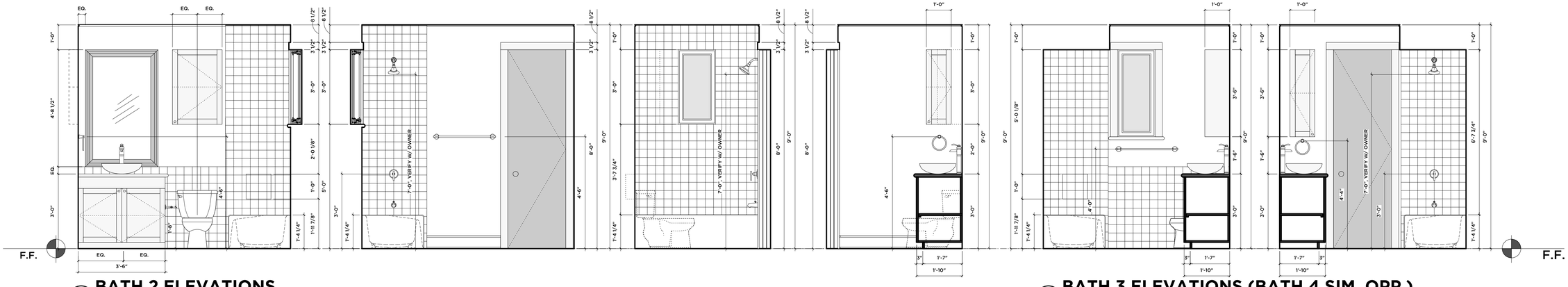


03 LAUNDRY ROOM ELEVATION

0 1 2 4

04 POWDER ROOM ELEVATIONS

0 1 2 4



05 BATH 2 ELEVATIONS

0 1 2 4

06 BATH 3 ELEVATIONS (BATH 4 SIM. OPP.)

0 1 2 4

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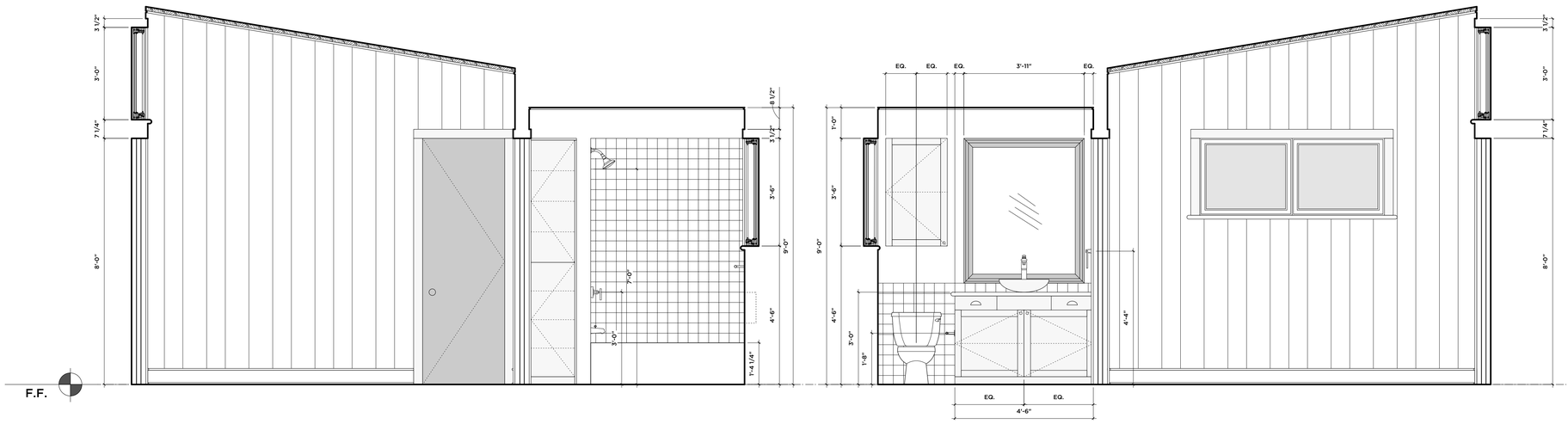
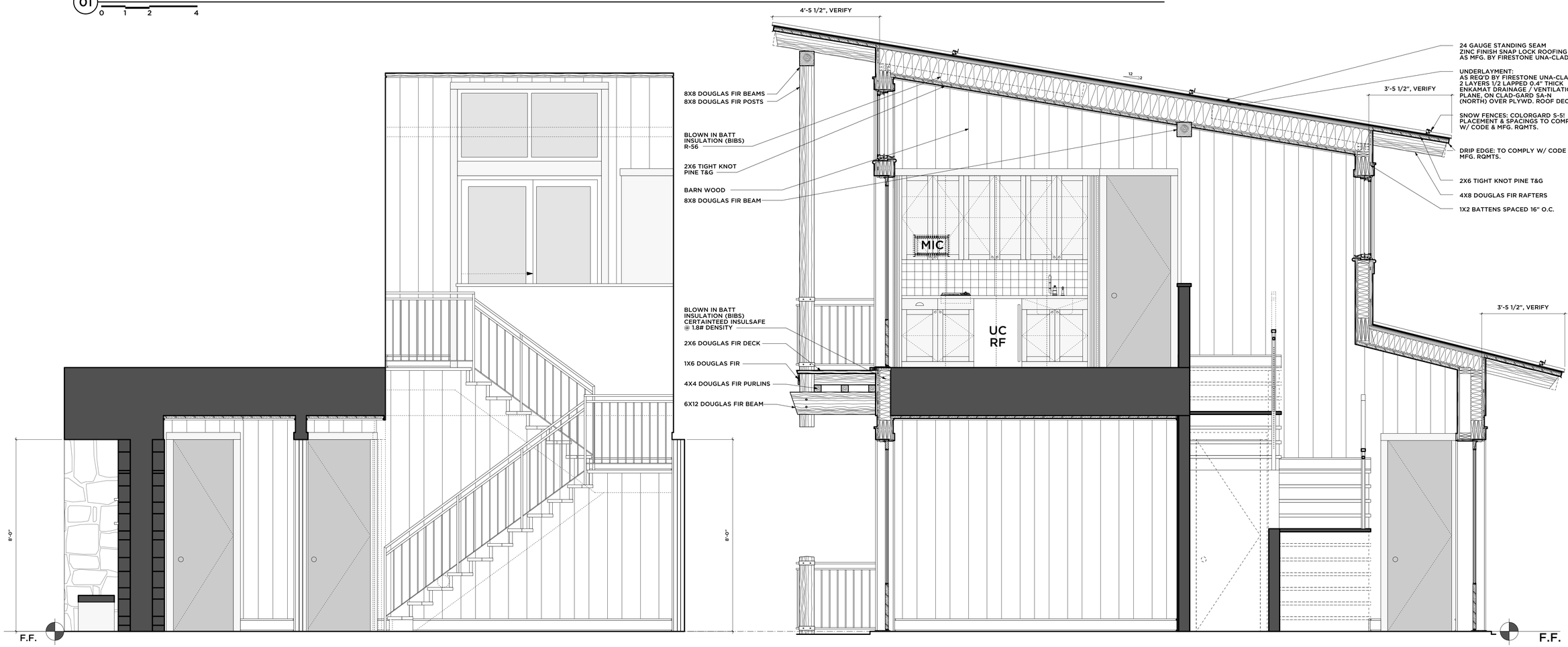


01 BEDROOM 3 / BATH 3 ELEVATIONS (BEDROOM 4 / BATH 4 SIM. OPP.)

0 1 2 4



02 GUEST ENTRY / STAIR / SITTING ELEVATION

0 1 2 4

03 GUEST ENTRY / BEDROOM 2 / STAIR / SITTING SECTION

0 1 2 4

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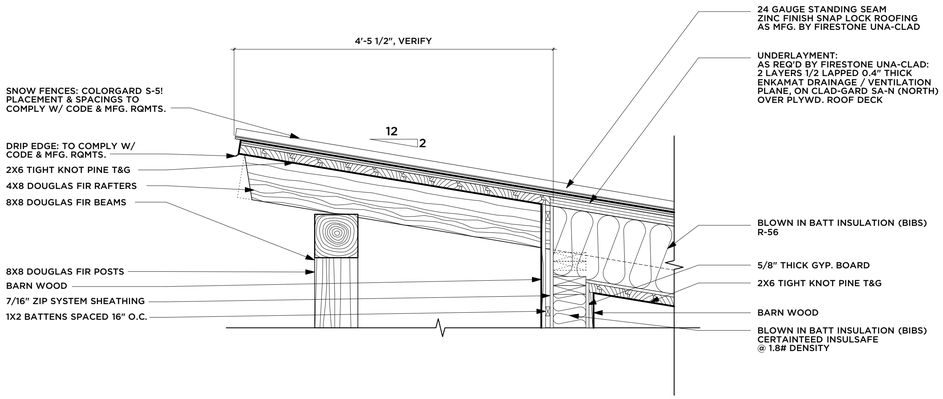
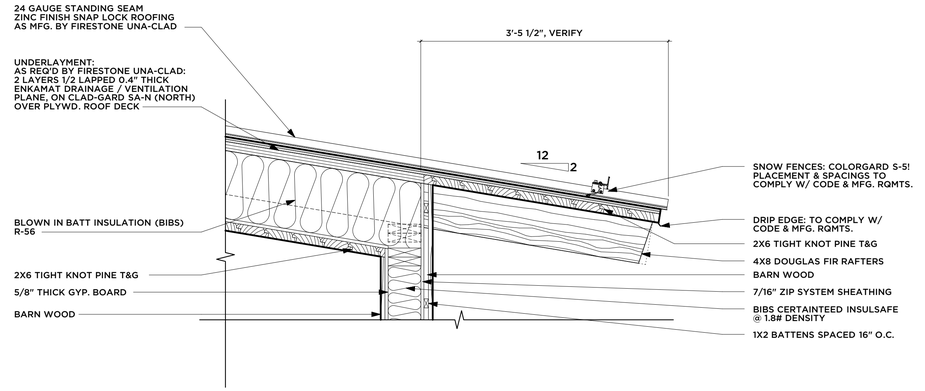
INTERIOR ELEVATIONS

A-7.4



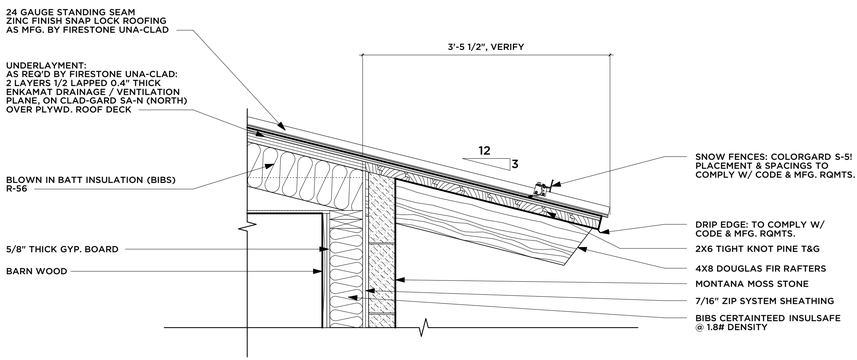
01 OVERHANG DETAIL @ BALCONY

0 1 2



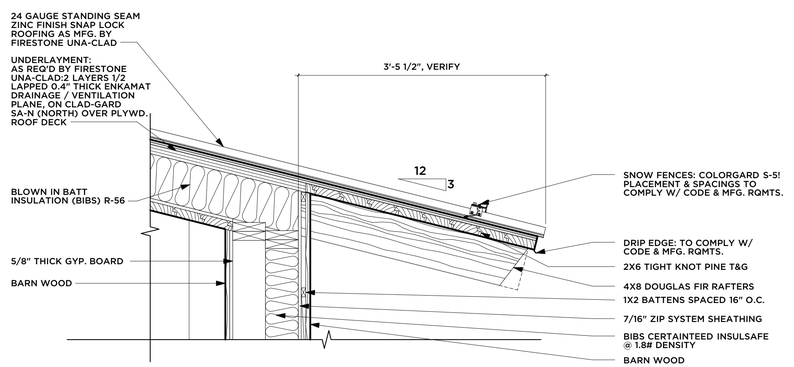
02 OVERHANG DETAIL @ STAIR

0 1 2



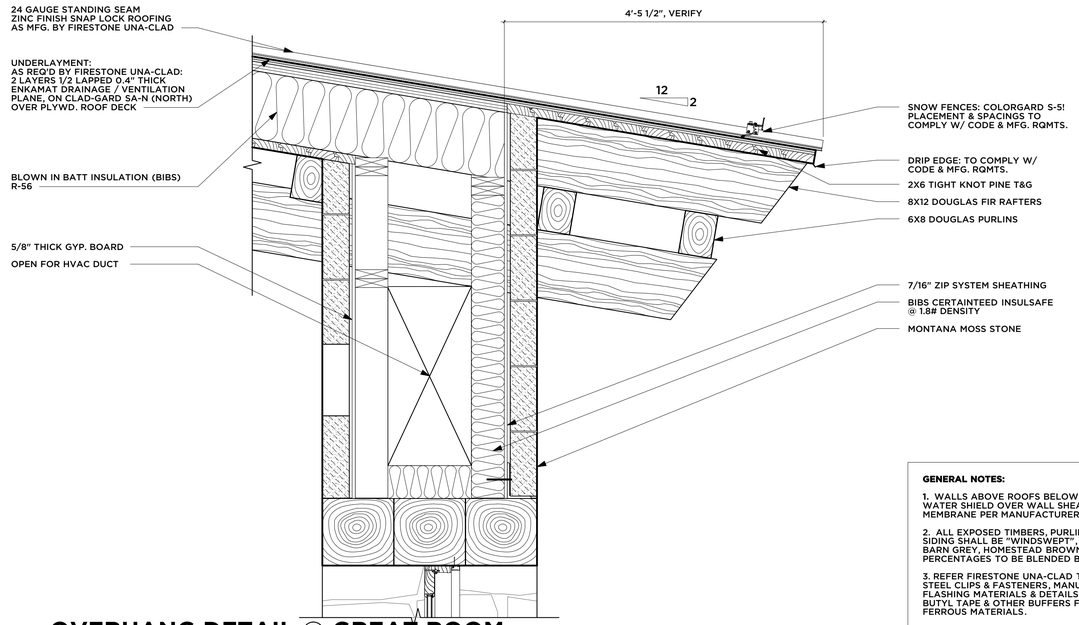
03 OVERHANG DETAIL @ LAUNDRY

0 1 2



04 OVERHANG DETAIL @ GUEST ENTRY

0 1 2



05 OVERHANG DETAIL @ GREAT ROOM

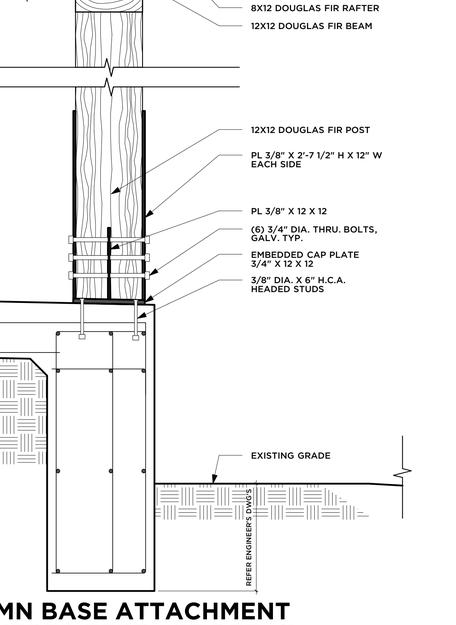
0 1 2

GENERAL NOTES:

1. WALLS ABOVE ROOFS BELOW SHALL RECEIVE GRACE ICE & WATER SHIELD OVER WALL SHEATHING, LAPPED UNDER ROOF MEMBRANE PER MANUFACTURER'S INSTRUCTIONS.

2. ALL EXPOSED TIMBERS, PURLINS, RAFTERS, SOFFIT T&G, AND SIDING SHALL BE "WINDSWEPT", PRE-FINISHED BY TETON WEST IN BARN GREY, HOMESTEAD BROWN, AND WAGON RED. PERCENTAGES TO BE BLENDED BY OWNER.

3. REFER FIRESTONE UNA-CLAD TIS FOR ALL APPLICABLE STAINLESS STEEL CLIPS & FASTENERS, MANUFACTURER'S RECOMMENDED FLASHING MATERIALS & DETAILS, INCLUDING WHERE REQUIRED, BUTYL TAPE & OTHER BUFFERS FOR SEPARATION OF DISSIMILAR FERROUS MATERIALS.



06 COLUMN BASE ATTACHMENT @ COVERED TERRACE DETAIL

0 1 2

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ROOF DETAILS

A-8.0

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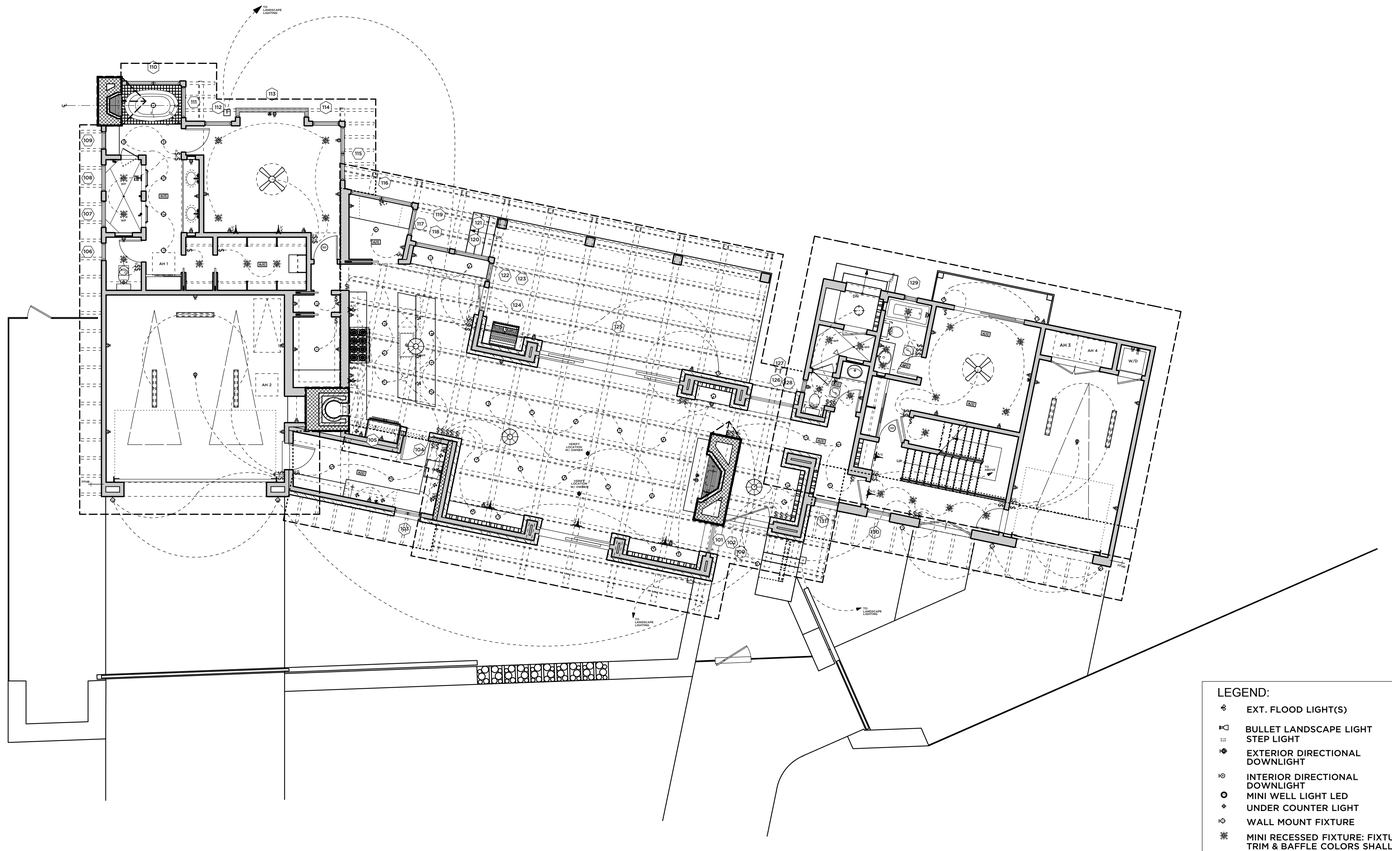

01 MAIN LEVEL MECHANICAL, ELECTRICAL & PLUMBING PLAN

0 2 4 6 8 16

LEGEND:

- EXT. FLOOD LIGHT(S)
- BULLET LANDSCAPE LIGHT
- STEP LIGHT
- EXTERIOR DIRECTIONAL DOWNLIGHT
- INTERIOR DIRECTIONAL DOWNLIGHT
- MINI WELL LIGHT LED
- UNDER COUNTER LIGHT
- WALL MOUNT FIXTURE
- MINI RECESSED FIXTURE: FIXTURE, TRIM & BAFFLE COLORS SHALL COORDINATE WITH CEILING FINISH. MANUFACTURER PER OWNER'S SELECTION.
- MINI RECESSED I.C. RATED FIXTURE: FIXTURE, TRIM & BAFFLE COLORS SHALL COORDINATE WITH CEILING FINISH. MANUFACTURER PER OWNER'S SELECTION.
- RECESSED FIXTURE: FIXTURE, TRIM & BAFFLE COLORS SHALL COORDINATE WITH CEILING FINISH. MANUFACTURER PER OWNER'S SELECTION.
- VENT/EXHAUST
- SURFACE MOUNT FIXTURE
- WIRE GUARDED INCANDESCENT
- HANGING FIXTURE - DIAM. VARIES
- CEILING FAN: ALL TO BE INSTALLED W/O LIGHT KIT
- 2 X 4 FLUOR. (SURFACE MOUNT)
- LED LIGHTING STRIP
- DUPLEX SWITCH
- SWITCH (3 OR 4 WAY)
- DIMMER SWITCH
- DUPLEX OUTLET
- DUPLEX W/ WATER PROOF OUTLET
- SPLIT-WIRED DUPLEX OUTLET
- RANGE OUTLET
- DUPLEX FLOOR OUTLET
- 220V OUTLET
- CABLE T.V. OUTLET/DSS
- PHONE OUTLET
- SMOKE DETECTOR
- CARBON MONOXIDE DETECTOR
- BUTTON SWITCH
- JUNCTION BOX
- CEILING A/C REGISTER
- FLOOR A/C REGISTER
- WALL A/C REGISTER
- SUPPLY AIR TRUNK
- SUPPLY AIR FLEX DUCT
- GAS
- GAS CONTROL LOCATION (VERIFY GAS LOG SET W/ OWNER)
- FROST FREE HOSE BIBB
- PVC SLEEVES AS REQUIRED
- SECURITY KEYPAD
- ELECTRICAL METER
- MAIN PANEL
- SUB PANEL

NOTES:

1. PROVIDE FIRE SUPPRESSION SYSTEM COMPLIANT WITH NATIONAL FIRE PROTECTION ASSOCIATION NFPA 13 D. SUCH COMPLIANCE SHALL BY EXTENSION EITHER MEET OR EXCEED INTERNATIONAL FIRE CODE STANDARDS.
2. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL WIRING, CONDUIT, POWER TO HVAC EQUIP., WATER HEATERS, WATER FEATURES, EXTERIOR LIGHTING AS MAY BE REQUIRED BY THE JURISDICTIONS, & ALL OTHER ITEMS REQUIRING ELECTRICITY AS PER CODE.
3. ELECTRICAL CONTRACTOR SHALL USE CATEGORY 5 OR BETTER ON ALL TELEPHONE & DATA LINES. ALL TELEPHONE LINES TO BE HOME RUNS.
4. VERIFY ALL SWITCH HEIGHTS WITH OWNER.
5. VERIFY ALL DUPLEX OUTLET HEIGHTS WITH OWNER.
6. PROVIDE GFI AS REQUIRED BY CODE.
7. SWITCHES SHALL BE DECORA STYLE. ALL SWITCHES, DUPLEX OUTLETS, AND COVER PLATES SHALL BE ALMOND COLOR. EXCEPTION: USE DARK BROWN AT DARK GRANITE OR TILE SURFACES.
8. PROVIDE CARBON MONOXIDE DETECTORS IN COMPLIANCE WITH IRC 315.

06/01/16

MAIN LEVEL MEP PLAN

E-1.0

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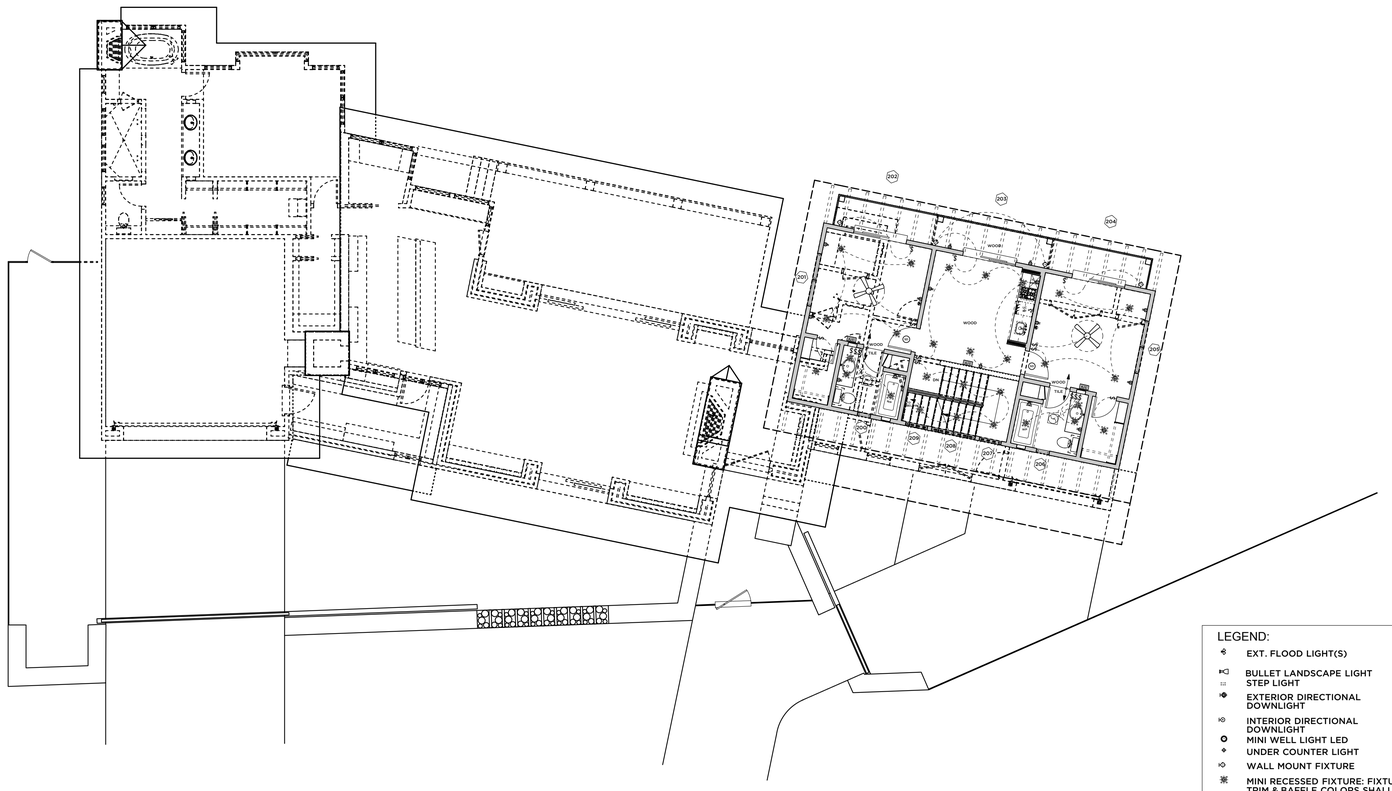
+/- 0.27 AC. +/- 11,945 SQ. FT.

06/01/16



LEGEND:

- EXT. FLOOD LIGHT(S)
- BULLET LANDSCAPE LIGHT
- STEP LIGHT
- EXTERIOR DIRECTIONAL DOWNLIGHT
- INTERIOR DIRECTIONAL DOWNLIGHT
- MINI WELL LIGHT LED
- UNDER COUNTER LIGHT
- WALL MOUNT FIXTURE
- MINI RECESSED FIXTURE: FIXTURE, TRIM & BAFFLE COLORS SHALL COORDINATE WITH CEILING FINISH. MANUFACTURER PER OWNER'S SELECTION.
- MINI RECESSED I.C. RATED FIXTURE: FIXTURE, TRIM & BAFFLE COLORS SHALL COORDINATE WITH CEILING FINISH. MANUFACTURER PER OWNER'S SELECTION.
- RECESSED FIXTURE: FIXTURE, TRIM & BAFFLE COLORS SHALL COORDINATE WITH CEILING FINISH. MANUFACTURER PER OWNER'S SELECTION.
- VENT/EXHAUST
- SURFACE MOUNT FIXTURE
- WIRE GUARDED INCANDESCENT
- HANGING FIXTURE - DIAM. VARIES
- CEILING FAN: ALL TO BE INSTALLED W/O LIGHT KIT
- 2 X 4 FLUOR. (SURFACE MOUNT)
- LED LIGHTING STRIP
- $ DUPLEX SWITCH
- SWITCH (3 OR 4 WAY)
- DIMMER SWITCH
- DUPLEX OUTLET
- DUPLEX W/ WATER PROOF OUTLET
- SPLIT-WIRED DUPLEX OUTLET
- RANGE OUTLET
- DUPLEX FLOOR OUTLET
- 220V OUTLET
- CABLE T.V. OUTLET/DSS
- PHONE OUTLET
- SMOKE DETECTOR
- CARBON MONOXIDE DETECTOR
- BUTTON SWITCH
- JUNCTION BOX
- CEILING A/C REGISTER
- FLOOR A/C REGISTER
- WALL A/C REGISTER
- SUPPLY AIR TRUNK
- SUPPLY AIR FLEX DUCT
- GAS
- GAS CONTROL LOCATION (VERIFY GAS LOG SET W/ OWNER)
- FROST FREE HOSE BIBB
- PVC SLEEVES AS REQUIRED
- SECURITY KEYPAD
- ELECTRICAL METER
- MAIN PANEL
- SUB PANEL

NOTES:

1. PROVIDE FIRE SUPPRESSION SYSTEM COMPLIANT WITH NATIONAL FIRE PROTECTION ASSOCIATION NFPA 13 D. SUCH COMPLIANCE SHALL BY EXTENSION EITHER MEET OR EXCEED INTERNATIONAL FIRE CODE STANDARDS.
2. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL WIRING, CONDUIT, POWER TO HVAC EQUIP., WATER HEATERS, WATER FEATURES, EXTERIOR LIGHTING AS MAY BE REQUIRED BY THE JURISDICTIONS, & ALL OTHER ITEMS REQUIRING ELECTRICITY AS PER CODE.
3. ELECTRICAL CONTRACTOR SHALL USE CATEGORY 5 OR BETTER ON ALL TELEPHONE & DATA LINES. ALL TELEPHONE LINES TO BE HOME RUNS.
4. VERIFY ALL SWITCH HEIGHTS WITH OWNER.
5. VERIFY ALL DUPLEX OUTLET HEIGHTS WITH OWNER.
6. PROVIDE GFI AS REQUIRED BY CODE.
7. SWITCHES SHALL BE DECORA STYLE. ALL SWITCHES, DUPLEX OUTLETS, AND COVER PLATES SHALL BE ALMOND COLOR. EXCEPTION: USE DARK BROWN AT DARK GRANITE OR TILE SURFACES.
8. PROVIDE CARBON MONOXIDE DETECTORS IN COMPLIANCE WITH IRC 315.

01 SECOND LEVEL MECHANICAL, ELECTRICAL & PLUMBING PLAN

0 2 4 6 8 16

SECOND LEVEL MEP PLAN

E-1.1

NOT FOR REGULATORY APPROVAL, PERMITTING, OR CONSTRUCTION

NIC HOLLAND ARCHITECTS

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ARMOUR RESIDENCE

LOT 12 WARM SPRINGS CREEKSIDE KETCHUM, IDAHO

+/- 0.27 AC. +/- 11,945 SQ. FT.

06/15/16

DRAINAGE PLAN

A-1.1

WARM SPRINGS RANCH RESORT P.U.D.

WARM SPRINGS CREEK

BFE=5849'

BFE=5849.5'

FLOOD WAY
FLOOD PLAIN

SILT FENCE & LIMITS OF CONSTRUCTION, TYPICAL

5849.5
BASE FLOOD
ELEVATION

25' SETBACK
FROM MEAN
HIGH WATER

LOT 13

TAX LOT 5103

LOT 11

N 56°47'08" W
65.59'

N 46°46'53" W
73.97'

N 0°21'34" E
46.69'

S 89°50'33" E
54.74'

N 23°51'01" E
103.63'

S 68°10'05" E
103.00'

SURFACE FLOW DIRECTION

12"

ROOF FLOW

5851.6 F.F

10'-0" BE & WTR LINE ESMT

15'-0" BE

10'-0" BE

9'-4" BE

FLAGSTONE

ASPHALT

STREET SIGN

8"

IRENE STREET
(60' Right-of-Way)

EOA PER SURVEY

APPROX. EOA PER AERIAL

SNOW FENCE, TYP.
SEE A7.4 & A8.0

12" X 12" X 1" SQUARE GRATE
BY EAST JORDAN IRON WORKS
IN 18.5" X 18.5" CONCRETE BOX INLET
W/ 8" PVC VERTICAL BELOW TO APPROPRIATE
DEPTH PER FIELD CONDITIONS, TYPICAL

NOTE:
HIGHEST ELEVATION OF LOT = 5850.00 AT EDGE OF BLUFF;
LOWEST ELEVATION OF LOT = 5848.00.

ALL ROOFS SLOPE AWAY FROM CREEK. THEREFORE, ALL SURFACE FLOW WILL BE TO NORTH, NORTH EAST AND 3 DRY WELLS AS SHOWN. ARROWS INDICATE DIRECTION OF FLOW ALONG ROOFS, AND SURFACE IN ORDER TO PROTECT CREEK.

01 DRAINAGE PLAN

0 2 4 6 8 16

Planning and Zoning

Regular Meeting

~ Minutes ~

480 East Avenue North
Ketchum, ID 83340
http://ketchumidaho.org/

Keshia Owens
(208) 726-7801

Monday, June 13, 2016 | **05:30 PM** | **Ketchum City Hall**

Commissioners Present:	Steve Cook, Chairperson
	Jeff Lamoureux, Commissioner
	Betsy Mizell, Commissioner
Conference Call:	Erin Smith, Commissioner
Recused:	Steve Cook
Staff Present:	Micah Austin, Director of Planning & Building
	Brittany Skelton, Associate Planner
	Robyn Mattison, City Engineer
	Stephanie Bonney, City Attorney
	Keshia Owens, Planning Technician
	Citizens

5:00 PM-SITE VISIT: 911 North Main Street, Ketchum, Idaho (AM Lot 5A, Block 30, Ketchum Townsite)

5:30 PM - CALL TO ORDER: City Hall, 480 East Avenue North, Ketchum, Idaho

PUBLIC COMMENT - Communications from the public for items not on the agenda.

COMMUNICATIONS FROM STAFF

Bracken Station Conditional Use Permit Public Hearing: 911 North Main Street, Ketchum, ID (Ketchum AM Lot 5A Block 30 18,590 SF) The applicant is proposing to construct a motor vehicle fueling station with accessory food service. The property is 0.435 acres in size and zoned Light Industrial-1 (LI-1).

COMMENTS:

Steve Cook, representing the applicant, said that the Roy Bracken is requesting a conditional use permit for a motor vehicle fueling station. He commented that when comparing the project to the District Use Matrix the conditional use permit is an allowed use. He also added that food service, which is allowed in the LI, is to be included in the conditional use permit. Cook commented that the applicant feels that this project meets all of the requirements of the transitional uses of the LI. He added that the gas station will have a very "mom and pop" feel and will fit well into the community. He also said that they are making the project as compatible with the previous use as much as they can and noted that the applicant has worked closely with ITD, the City of Ketchum, and Idaho Power. He also said that construction of the fueling station will require crosswalks, a rapid-flashing beacon, sidewalks, and a connection to Frenchman's Place. Cook noted that the current building A and C will be removed, but building B will remain.

Ned Williams, on behalf of the applicant, said that he reviewed the staff report and public comments and noted that the standards are there to keep everyone objective.

The standards and his comments included:

1. Compatibility- a gas station is an allowed use in the LI zoning district, so the project is compatible.
2. CUP will not endanger community- the project will comply with safety and regulation standards.
3. Traffic- the project has been looked at thoroughly by ITD and they have concluded that there will be a two second delay by 2020.
4. Support by public facilities- the project will be adequately supported by public services, like fire.
5. CUP in conflict with Comprehensive Plan- when there is a conflict between the zoning ordinance and the comprehensive plan the, zoning ordinance controls.

He added that based on everything the CUP should be allowed.

Staff's Comments:

Austin noted that staff has identified some impacts like pedestrian and vehicular traffic, which would require mitigation and provided a list of recommendations for the impacts. He also said that if the CUP is approved, a drainage plan will be required and added that the proposed building complies with the requirements of building coverage, height, curb cut, parking spaces, and off-street parking.

Staff's recommendations:

- The applicant should construct two new crosswalks at the intersection of Highway-75 and Ninth Street and another at Highway-75 and going across Tenth Street.
- A Rapid flashing beacon should be added at Highway-75 and Ninth Street.
- The sidewalk should continue to Frenchman's, so that it can connect with existing sidewalks.

Skelton said that eight comments were received by the time the packets were compiled. Seven comments were against and one comment was neutral. Two additional comments in opposition were received after the packets were distributed, including one comment the day of the meeting.

- Kathleen Nichols/Douglas Holen, opposed, concerned about impact on nearby residential property values. The area is already adequately served by nearby gas stations.
- Edward Jacobs, opposed, concerned about increased traffic, congestion, impact on residential property values.
- Sarah Gorham, opposed, concerned about increased traffic, congestion, impact on residential property values.
- Liz Roquet, opposed, concerned about increased traffic, congestion, impact on residential property values, and potential contaminated water.
- J. Kevin Lawler, opposed, concerned about incompatibility of the fueling station. The area is already served by gas stations.
- Gary Lipton, neutral, concerned about dark sky compliance and relevancy of traffic study.
- Barbi Reed, opposed, concerned about increase traffic, congestion, safety, health concerns, incompatibility, impact on nearby properties.
- Jody Vering, opposed, concerned with high number of existing gas stations and incompatibility of the fueling station.
- Joel Brazil, opposed, the area already served and would like to see different types of uses in the area.

- Richard Walsworth, opposed, already served by gas stations and is concerned about the number of restaurants in the LI zone.

Public Comment:

Andrew Wall, Ketchum resident, said that the Knob Hill Inn and surrounding property owners have hired a community and environmental services firm that has conducted a preliminary need analysis for Bracken Station. He commented that the need analysis utilizes statistics from the 2012 Ketchum Economic Profile and it shows that Ketchum is over-supplied by existing gas stations. He added that in reviewing the attachments, he is asking the Commission to deny the permit as he doesn't think that the applicant has fully identified that there is no potential threat to health and safety. He noted that the station will likely have a large impact on left turning vehicle traffic on tenth street and that fire and public safety may have a hard time responding.

Jay Coleman, former Ketchum resident, said that the project runs contrary to the concerns of congestion, pedestrian and bicycle safety, employee parking, and the free-flow of commerce down Tenth Street. He noted that having four convenience stores so close to each other could hurt existing businesses and said that the applicant, not the tax payers, should be financially responsible for the cost of the restructuring of Tenth Street.

Gary Lipton, adjacent property owner, said that the Planning and Zoning Commission should take a stand now to require any project to replace telephone poles with underground facilities, as it is a win-win situation. He added that regarding the traffic study, the City should put a speed trap wire across the road to see that no one drives twenty-five MPH down Highway-75. He also commented that the fire department will not be able to access the alley where trucks may be unloading and noted that the project will not be dark sky compliant.

Mickey Garcia, Ketchum resident, said that the worst thing about the project is affordable housing for small businesses will be eliminated. He added that this is the perfect location for a gas station, as the road is a state highway and not a Ketchum street. He also noted that directing tourists to the current gas stations can be difficult and added that having a gas station located at the northern and southern end of town is a great idea.

Barbi Reed, Ketchum Resident, said that the paradigm with this project is where the gas station is located and not the fact that it will be a new gas station. She added that the success of convenience stores and gas stations, no matter where they are located, are dependent upon high traffic volumes. She also noted that the type of vehicles that will likely be using the fueling station has not been clarified. She explained that there will not only be cars, but RVs, trailers, snow mobiles, horse trailers, possibly semi-trucks, small trucks, construction trucks, and big vehicles using the station. Reed added that there should be a study of the type of vehicles this gas station would attract. She noted that ITD didn't deal with unintended consequences as far as traffic, especially with cutoff and added that there will be an impact without question when people find out that they can get through the traffic cutoff. She also noted that the impact of the old Anderson Lumber will be enormous once it is developed because of the amount of traffic increase. Reed explained that if this project does not pass, a project more in keeping with the Comprehensive Plan and zoning purposes allowing for smaller businesses and perhaps residential on smaller floors will happen. She also explained that there is no safety for pedestrians, there will be children entering and exiting the proposed convenience store, and that the uses must be evaluated with the suitability of the project. Reed also said that the concern of fire had not been mentioned and noted that Knob Hill is filled with vegetation and if there were westerly prevailing winds a fire could drop down into Ketchum. Reed also noted a study that shows that living near a fuel station reveals that there is a quadruple risk of acute leukemia in children.

Ruth Lieder, Ketchum resident said that she agreed totally with Barbi Reed's comments and added that she would like for the Commission to really consider the compatibility of the project, especially since Ketchum has been developing very lovely neighborhoods.

Karen McCall, Ketchum resident, said that she is concerned about lighting, as it is a big issue when we are trying to create a dark sky zone. She also questioned signage, paying for the sidewalk's construction, and the location because small businesses that are there will be displaced. She also noted that a gas station should not be at the entrance to the City because this area is not a transition zone.

Brian Emeric, employed in Ketchum, said that this is the perfect place for a gas station. He noted that explaining to people where a gas station is can be difficult and said that many of the gas stations in town are already traffic accidents waiting to happen. He added that his parents own the current building and are getting to a point where they can no longer care for it. He said that the existing buildings are not architecturally pleasing and said that both Bellevue and Hailey have shown the proper location of gas stations. He also noted that this new building will be the nicest thing in North Ketchum.

Susan Nieman, Ketchum resident, said that the issues of pedestrians and vehicles are troubling. She noted that she is concerned with the deli that will be added to the restaurant space and asked if the food service will be something like Subway or if it will be "mom and pop". She added that the highway in this area is dangerous and said that Ketchum doesn't need a south and a north gas station because this may lead people to leaving the valley.

Dusty Wendland, Hailey resident and owner of fuel stations in Ketchum, said that the quantity of volume in fuel is not significant in Ketchum and there is not an intense need to steer tourists to a station they can't find because the fuel simply doesn't get pumped. He added that most business is done servicing locals and there is not a tremendous amount of volume done servicing the north side. He added that there is no way to put in a fuel station without creating an eyesore and said that the displacement of small business ends up driving rents up as the LI-district turns into more retail. He noted that in the event the fueling station fails, it could be scooped up by someone with larger pockets and there would be no legal grounds to stop it.

The Commission directed the applicant to provide more information on the following:

- An industry study that shows of types of vehicles and their turning radius, especially around the proposed pumps
- Site circulation
- Pedestrian access
- Pedestrian traffic evaluation
- Traffic counts
- Issue with grading and sidewalks
- Makeup of the traffic
- What traffic could look like northbound and southbound
- Warnings for signalized crosswalks

Commissioner Mizell motioned to continue the Bracken Station Conditional Use Permit to Monday, June 22, 2016 and Commissioner Smith seconded.

RESULT:	**ADOPTED [UNANIMOUS]**
MOVER:	Betsy Mizell, Commissioner
SECONDER:	Erin Smith, Commissioner
AYES:	Jeff Lamoureux, Erin Smith, Betsy Mizell
RECUSED:	Steve Cook, Commissioner

Bracken Station Pre-Application Design Review Public Hearing: 911 North Main Street, Ketchum, ID (Ketchum AM Lot 5A Block 30 18,590 SF) The applicant is proposing to construct a motor vehicle fueling station with accessory food service. The property is 0.435 acres in size and zoned Light Industrial-1 (LI-1).

COMMENTS:

The Commissioners asked for more information on lighting and finishes.

Commissioner Mizell motioned to continue the Pre-Application Design Review Public Hearing to Monday, June 27, 2016 and Commissioner Smith seconded.

RESULT:	**ADOPTED [UNANIMOUS]**
MOVER:	Betsy Mizell, Commissioner
SECONDER:	Erin Smith, Commissioner
AYES:	Steve Cook, Jeff Lamoureux, Erin Smith, Betsy Mizell
RECUSED:	Steve Cook, Commissioner

Zoning Ordinance Phase II Update: Work Session

Austin said that the current sign code is not compliant with Reed v. Gilbert and added that anything that was content regulated was removed from the Ordinance. He noted that a sign matrix was added, which makes the code easier to follow. He also noted that dimensional standards were added to the Code and said both of these items will be discussed during a public hearing on July 11, 2016.

CONSENT CALENDAR

APPROVAL OF MINUTES

May 9, 2016: Minutes

COMMENTS - Current Meeting:

Commissioner Lamoureux motioned to approve the May 9, 2016 minutes and Commissioner Mizell seconded.

FUTURE PROJECTS AND NOTICING REQUIREMENTS

No projects noticed at this time.

STAFF REPORTS & CITY COUNCIL MEETING UPDATE

Austin said that the developer of the Warm Springs Ranch project has requested an eight-year extension on the project. City Council will discuss the applicant's request to amending the Development Agreement to allow for the extension at the June 20th meeting. .

8. Commission reports and ex parte discussion disclosure

Commissioner Lamoureux would have liked to see the complete traffic study for Bracken Station, rather than the executive summary, in the packets.

9. ADJOURNMENT

Commissioner Mizell motioned to adjourn and Commissioner Smith seconded.