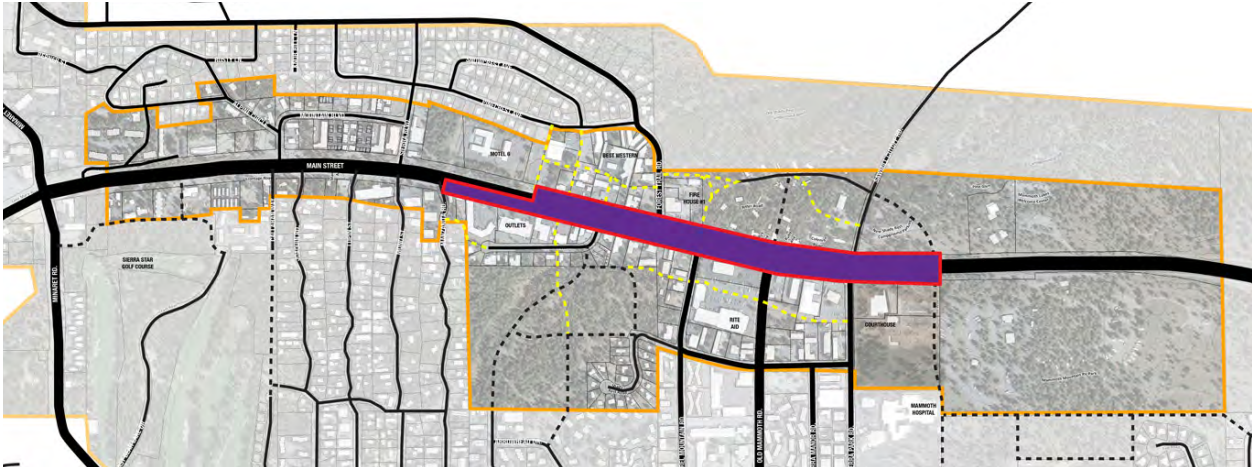


ATTACHMENT A:

STREET DESIGN ALTERNATIVES



The Main Street planning process included community evaluation of several street design and configuration alternatives for the Downtown Main Street area between Thompson's way and Manzanita (illustrated above). They included the specific alternative recommended in the earlier Downtown Concept for Main Street (DCMS) planning process, as well as other alternatives to promote a more pedestrian-oriented Main Street.

The community reviewed each of the street design alternatives described in the following pages during a series of workshops in the Spring of 2013. Ultimately, they expressed a strong preference for a variation on Street Design Alternative 2. A complete description of the final recommended street design is provided in Chapter 4 of the Mammoth Lakes Main Street Plan.

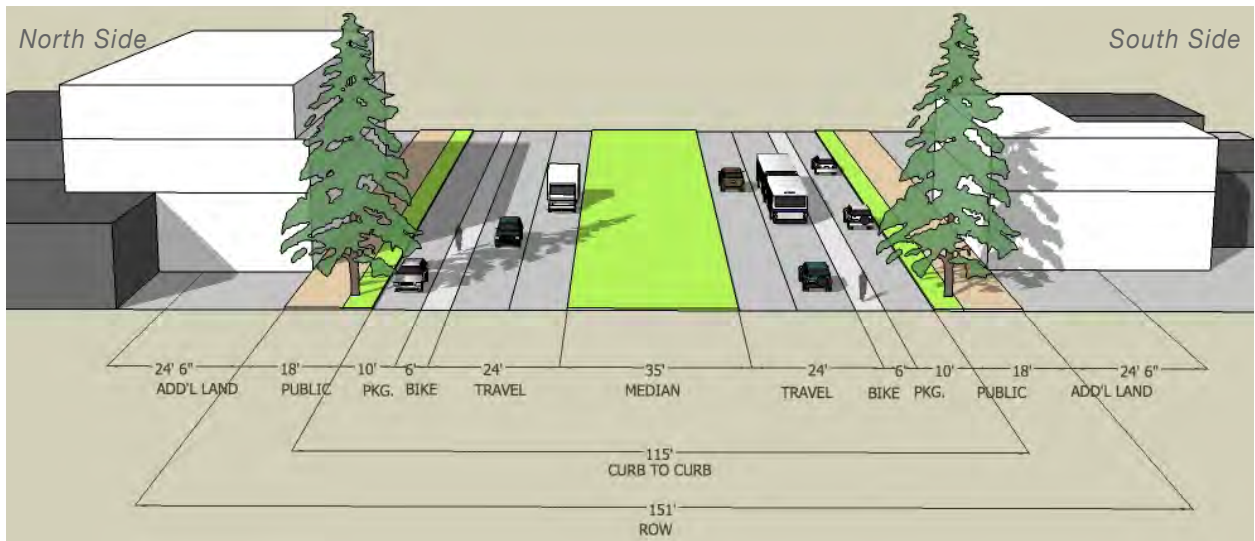
Each alternative seeks to:

- be phaseable
- use additional space for new development
- address different types of development
- use open space and landscaping as an amenity for the public to enjoy
- retain mature trees along Main Street
- find options that work whether new development occurs or not

Alternative 1: DCMS Preferred Alternative

The preferred cross section identified the DCMS is shown on the next page. It includes removal of the existing frontage roads, maintains two travel lanes in each direction, a generous median (inspired by ideas about adding a gondola down the center of Main Street in the future), on-street bike lanes and on-street parallel parking. Outside of the curb is a small landscape strip and 15' sidewalk adjacent to new buildings. The new ROW (and buildings) would move closer to the street, approximately 24' closer on either side, from a 200' ROW (existing) to 152' ROW. This concept is where the initial idea about transferring, or making available for purchase, more land from the existing ROW was born.

Note that Alternatives 2-4 are refinements of the DCMS Preferred Alternative.



DCMS Preferred Alternative recommends removing frontage roads and adding a significant median.

Key Features:

- **151' ROW**
- **35' Median**
- **Parking on-street**

- **Bike lanes on the street**
- **Significant trees saved**
- **50' land gain (24'6" each side)**
- **18' public (sidewalk/buffer)**

Opportunities:

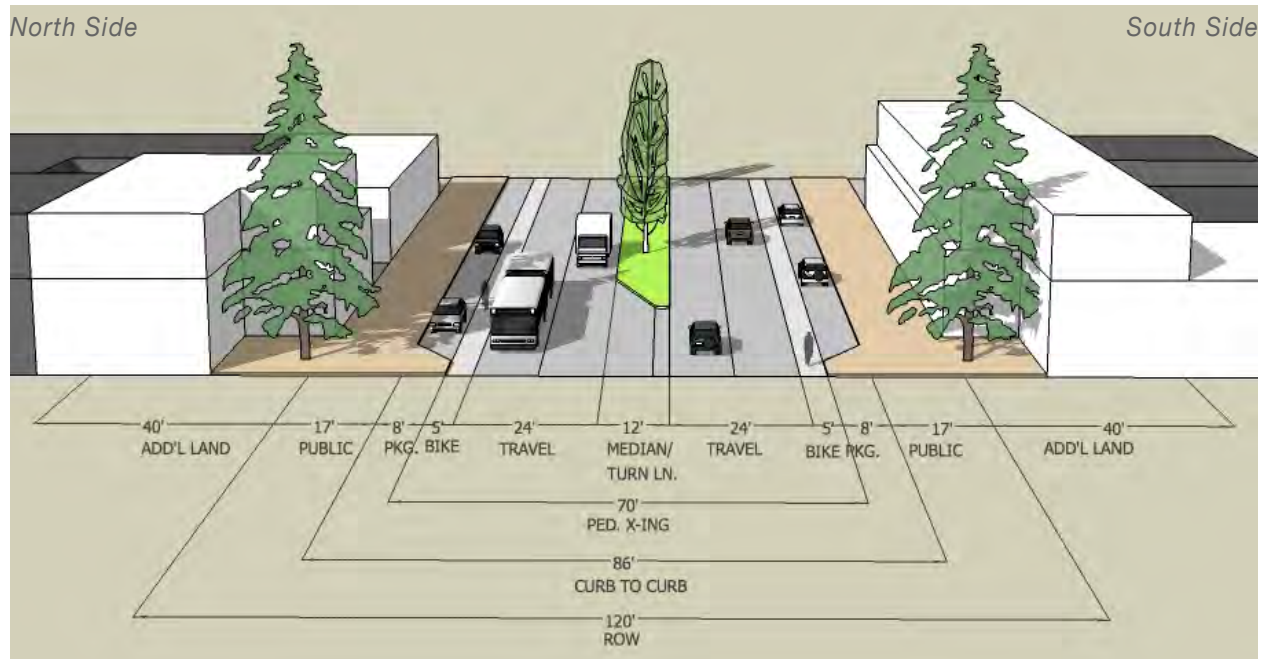
- Approximately 9 acres gained for redevelopment (entire corridor).
- Existing significant trees could be saved.
- Median used for temporary snow storage.
- Extra-wide median allows for future transit service, such as a gondola or bus rapid transit.

Constraints:

- Would require moving curbs (more expensive).
- Combines local and regional traffic.
- Could be difficult to parallel park with heavy traffic.
- Novice bicyclists may not feel comfortable using on-street bike lane on highway
- Bike lanes not protected from snow sludge/splashing.
- Suggested ROW is 152', which is still a significant distance for pedestrians to cross.
- If dedicated transit in median never happens, result is an extra-wide street section that isn't human-scaled.
- Need creative financing strategy to help pay for pedestrian upgrades.
- May be difficult to arrange left turn lanes based on the spacing of future gondola infrastructure or dedicated BRT lane.

Alternative 2: A Traditional Main Street

In this alternative, the cross section is a narrower version of the DCMS preferred alternative, with two travel lanes in each direction, a modest landscaped median, on-street bike lanes and on-street parallel parking. The public realm outside the curb would be approximately 17' with landscaping in grates and planters, as opposed to a grass strip. The proposed new ROW is 120'. This option leaves the most land, 40' on each side, for new development opportunities.



Traditional Main Street section includes the same amenities as DCMS Preferred Alternative, but in a reduced right-of-way.

Key Features:

- 120' ROW
- 12' Median
- Parking on-street

- Bike lanes in the street
- Significant trees saved
- 80' land gain (40' each side)
- 17' public (sidewalk/buffer)

Opportunities:

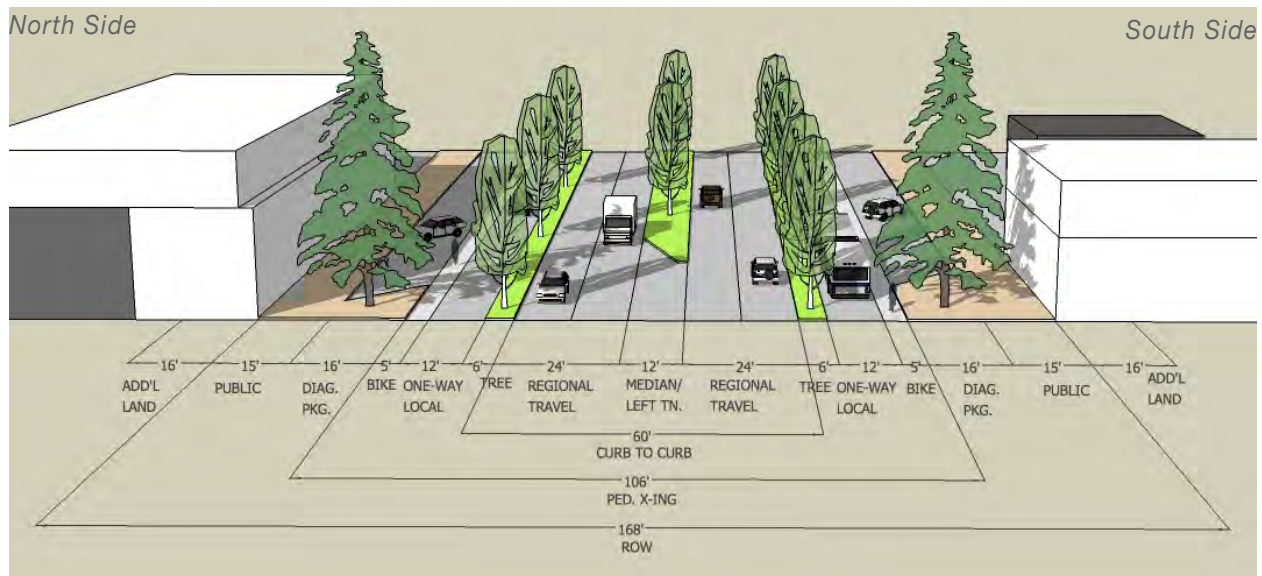
- Approximately 14.5 acres gained for new redevelopment.
- Existing significant trees could be saved.
- Median used for temporary snow storage.
- Bike lanes and parking lane would be cleared by CalTrans.
- 2 to 4-story (as planned) would create a very human-scaled environment.

Constraints:

- Would require moving curbs (more expensive).
- Could be difficult to parallel park with heavy traffic.
- Novice bicyclists may not feel comfortable using on-street bike lane on highway.
- Bike lanes are not protected from snow sludge/splashing.
- Need creative financing strategy to help pay for pedestrian upgrades.

Alternative 3: A Grand Boulevard

The Grand Boulevard alternative operates similarly to the existing Main Street and frontage road condition. It includes two travel lanes in each direction and a modest landscaped median with turn lanes. A 6' landscaped buffer is located between the street and new one-way frontage roads. Bike lanes and on-street diagonal parking adjacent to new buildings are also provided in the frontage road area. The public realm outside the frontage road curb is approximately 15' with trees/landscaping in grates and planters, as opposed to a grass strip. The proposed new ROW is 168', leaving 16' on each side for new development opportunities.



Grand Boulevard includes one-way frontage roads and diagonal parking adjacent to new buildings.

Key Features:

- **168' ROW**
- **12' Median**
- **One-way frontage roads with diagonal parking**
- **Bike lanes on frontage road**
- **Significant trees saved**
- **32' land gain (16' each side)**
- **15' public (sidewalk/buffer)**

Opportunities:

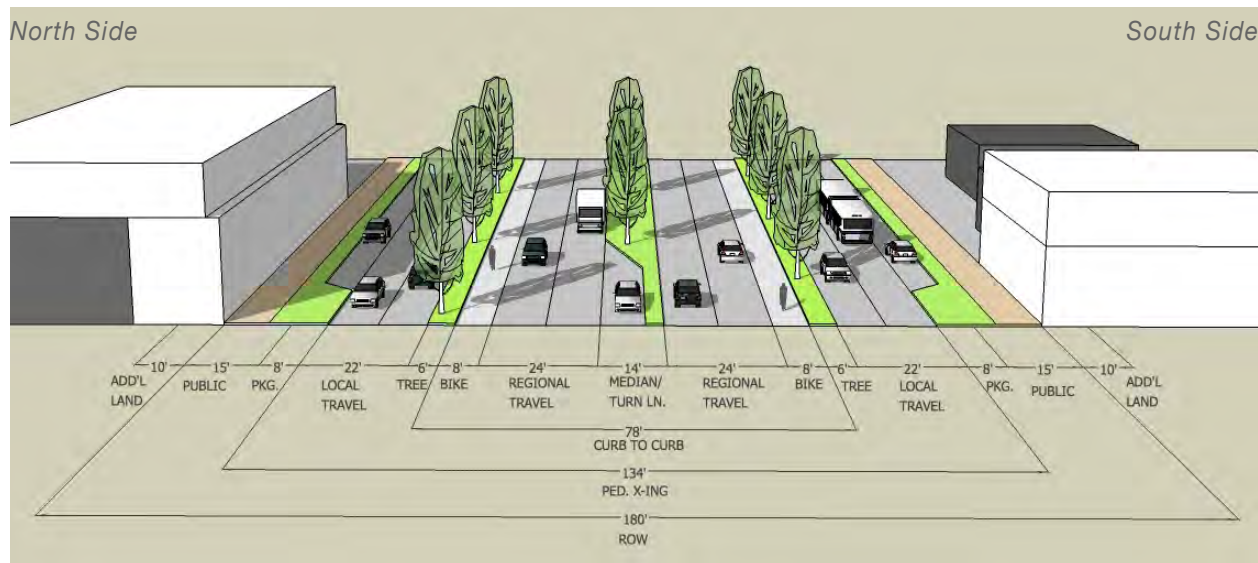
- Approximately 5.8 acres gained for redevelopment.
- Existing significant trees could be saved.
- Median could be used for temporary snow storage.
- Diagonal parking allows for more street-side parking for businesses.
- Bikes and pedestrians are protected from the snow sludge/splashing.

Constraints:

- Would require moving curbs (more expensive).
- Design of one-way local traffic may be difficult to make work efficiently.
- New ROW is still a significant distance for pedestrians to cross.
- Need creative financing strategy to help pay for pedestrian upgrades.

Alternative 4: Reconfiguration of Frontage Roads

This cross section alternative is a reconfiguration of the existing frontage roads. The existing curb to curb dimensions and configurations, with two travel lanes in each direction and on-street bike lanes, but adds landscaping to the median/turn lane area. The existing buffer of approximately 15' is reduced to 6' and the parking along the frontage road is moved to be adjacent to new buildings instead of the highway. The parking is changed from diagonal to parallel to dedicate more space to redevelopment and public space. A 15' public realm includes a grass strip with appropriate landscaping and new buildings would move approximately 10' closer to the frontage roads. The proposed ROW is 180'.



The Reconfiguration of Frontage Roads section operates similar to Main Street today.

Key Features:

- 180' ROW
- 14' Median
- Two-way frontage roads with parallel parking
- Bike lanes on Main Street
- 20' land gain (10' each side)
- 15' public (sidewalk/buffer)

Opportunities:

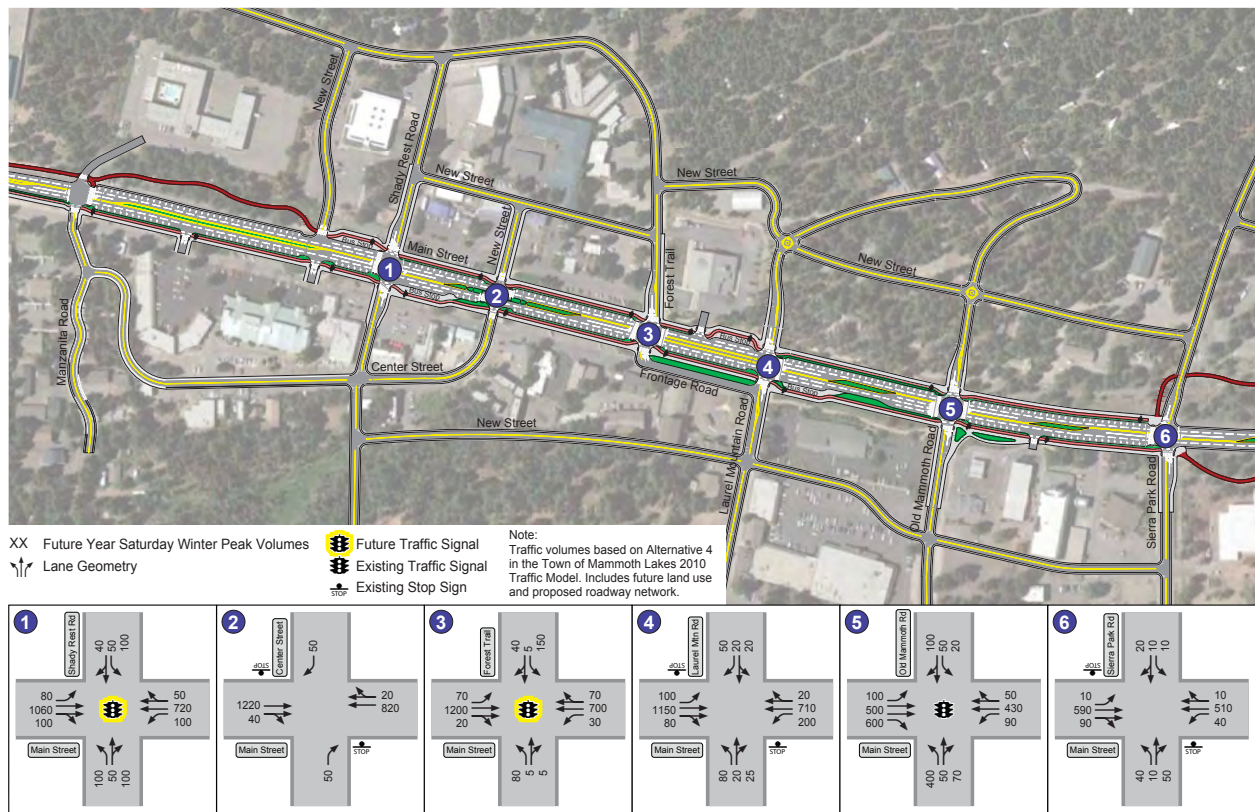
- Approximately 3.6 acres gained for redevelopment.
- Keeps existing curb to curb dimension.
- Separates local and regional traffic.
- Median used for temporary snow storage.

Constraints:

- Does not keep existing significant trees.
- New ROW is still a significant distance for pedestrians to cross.
- Extra 10' might not be enough of an incentive for properties to redevelop.
- Need creative financing strategy to help pay for pedestrian upgrades.
- Bikes not protected from snow sludge/splashing.

ATTACHMENT B:

TRANSPORTATION ANALYSIS



September 2013
SJ13_1420 Mammoth Main Street Trans Corridor Implementation

Main Street Mammoth Lakes
Design Traffic Volumes - Mid-Day Winter Saturday plus Land Use Build-Out

Figure 1



MEMORANDUM

Date: October 2, 2013
To: Cheney Bostic, Winter & Company
From: Katy Cole, Fehr & Peers
Subject: **Mammoth Lakes Main Street Transportation Corridor and Implementation Plan – Roadway Concept and Transportation Analysis**

SJ13-1420

INTRODUCTION

This memorandum describes the preferred alternative street concept for Main Street in Mammoth Lakes.

The preferred street design concept includes a 4-lane, bi-directional multi-modal corridor with a center median from Manzanita Road to Sierra Park Road. Frontage roads parallel to Main Street will be removed and converted to bicycle/pedestrian facilities with extra space transferred to parcel owners for storefront development. The preferred concept includes a wide sidewalk and "cycle track" bicycle facilities.

Several new street connections are proposed to facilitate vehicle circulation within downtown such as a new north/south roadway (referred to as "New Roadway") between Center Street and Manzanita Road, and an extension of Old Mammoth Road to north of Main Street. New traffic signals and crosswalks will be installed at several intersections to accommodate pedestrians and enhance traffic flow.



BACKGROUND

Over the last several years, the Mammoth Lakes community and town staff developed a vision for Main Street that enhances the entrance to Town, is a pedestrian oriented environment, and supports all modes of transportation. The *Town of Mammoth Lakes Commercial Corridor Management Plan (CCMP)* (February 2011) describes the following guiding principles that have helped shape the preferred corridor plan:

- Create a grand boulevard. Determine how to improve the appearance of State Route 203 and the entrance to town ("sense of arrival"), including appropriate traffic calming.
- Improve connectivity and circulation with bike and pedestrian paths, sidewalks, roads, and transit; emphasize connectivity, especially "feet-first" connections to the North Village and the resort corridor. Incorporate suitable traffic calming measures and effective snow removal strategies (e.g. assessment districts.)
- Create pedestrian-oriented streetscapes that are walkable year-round, landscaped, accessible, and safe.
- Assess strategic parking solutions tailored to context and location. Provide convenient public parking facilities, structured parking, small-scale surface parking, and shared and pooled parking.

The CCMP defines the existing transportation conditions and evaluates several corridor options, and identifies a preferred corridor concept. The purpose of this transportation analysis is to refine the preferred concept presented in the CCMP, provide conceptual design that shows how the concept works at an intersection level, and provide updated transportation operational analysis.

PREFERRED CORRIDOR CONCEPT ELEMENTS

Main Street (State Route 203) in Mammoth Lake is a major roadway that connects US Highway 395 to Mammoth Lakes, and is under Caltrans jurisdiction. Main Street is often the first roadway that visitors experience as they enter Mammoth Lakes and it travels through the downtown commercial core. The vision and preferred street concept from the CCMP follow "complete streets" principals. "Complete streets" has become a buzz-word within the transportation planning community and many jurisdictions are adopting complete streets standards, which put an emphasis on providing well thought-out facilities for all modes of transportation.



A successful complete street helps to create an inviting environment, encourages economic development, stimulates private sector investment and enhances the existing positive features within a corridor. Each streetscape is unique and there is no one-size-fits-all description, but ingredients found on a “complete street” include managed access sidewalks, bike facilities, parking lanes, crosswalks, pedestrian lighting and signals, and traffic calming measures such as curb extensions and medians. The preferred Main Street concept includes these ingredients, which are described in the following sections.

ACCESS MANAGEMENT/TRAFFIC CONTROL DEVICES

Access management involves managing the location, spacing, design, and operation of driveways, median openings, and street connections to a roadway to provide vehicular access to land uses in a manner that preserves the safety and efficiency of the roadway.

Currently, Main Street does not have many access management features. The preferred concept includes several access management strategies including installing traffic signals that are appropriately spaced, restricting left-turns in/out of driveways, and installing a center median. The segment of Main Street between Sierra Park Road and Manzanita Road is approximately ½ mile long and the preferred concept includes three signalized intersections, three unsignalized full-access intersections, two restricted access intersections, three restricted access driveways, and one full-access driveway (at the fire station).

The concept includes traffic signals at the following locations:

- Old Mammoth Road (existing traffic signal)
- Forest Trail
- New Roadway

Each of these signals are spaced approximately 700 feet apart, which is typical in downtown environments. The traffic signals promote vehicle circulation to/from downtown land uses. Additionally, the traffic signals provide a protected crossing location for pedestrians.

Driveways and roadways between the signalized intersections will only allow for right-turns in and out and the movements will be restricted by the center median (with the exception of Laurel Mountain Road and Manzanita Road). This restriction enhances traffic flow and safety by shifting left-turning vehicles to signalized intersections, thus eliminating delay and conflicts at driveways.



Left-turn pockets are provided at intersections to prevent vehicle queues from blocking through traffic. Restricting left-turn movements does increase U-turn maneuvers within a corridor, and U-turns can be accommodated at the signalized intersections.

The only section of Main Street in Downtown Mammoth Lakes that provides a two-way left-turn lane instead of a center median is in front of the fire station. Emergency vehicles need full access to Main Street to maintain acceptable response times. The fire station driveway is the only driveway along the corridor that provides full-access.

Previous plans included a roundabout at the Sierra Park Road/Main Street intersection. The level of service/delay analysis presented in the subsequent section documents that this intersection functions well in its existing configuration. In addition, Sierra Park Road is only approximately 260 feet from Old Mammoth Road. Given the close spacing and the fact that there are no traffic flow problems, a roundabout was not included at Sierra Park Road in the final preferred concept.

PEDESTRIAN FACILITIES

Wide sidewalks (12-feet or greater) are provided on Main Street between Sierra Park Road and Manzanita Road. Wide sidewalks provide a more comfortable pedestrian experience by offering more space, increasing distance from adjacent traffic, and allowing for attractive amenities such as benches, trees, and sidewalk cafes. The sidewalks will be separated from the vehicle travel way by the on-street parking lane, a 6-foot wide landscape buffer, and bicycle "cycle track".

Crosswalks

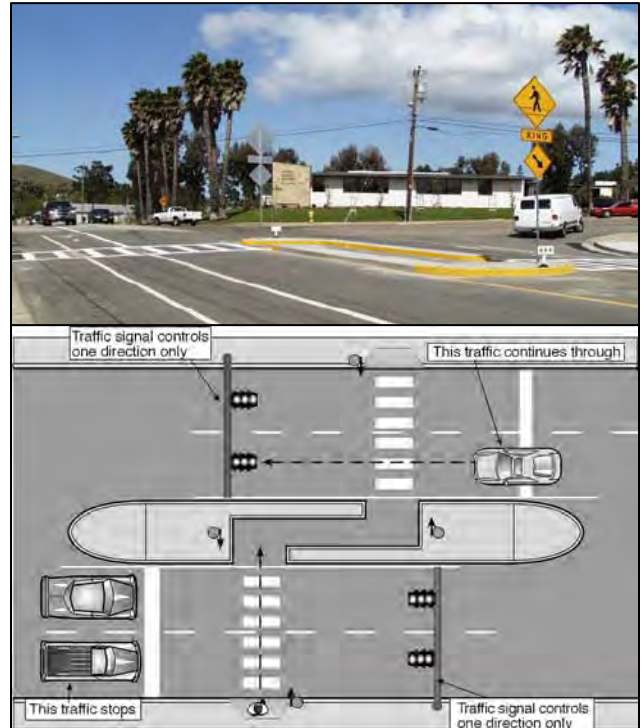
Protected crosswalks with pedestrian push-buttons will be provided at all signalized intersections. Marked crosswalks with enhanced treatments will be provided at selected locations between signalized intersections. The enhanced treatments include:

- Curb Extensions (also known as "bulb-outs") – Curb extensions are areas on the sidewalk at a crosswalk that extend into the roadway (into the on-street parking lane). They increase pedestrian visibility to motorists because the pedestrian is standing on the outside of the parking lane and is not blocked by parked cars. In addition, they shorten the pedestrian





- crossing distance and they reduce right-turning vehicle speeds.
- **Split Pedestrian Crossing** – A split pedestrian crossing is a two-stage pedestrian crossing. First the pedestrian crosses one direction of vehicle travel; then they wait in the center refuge median, which forces the pedestrian to walk toward the second direction of vehicle travel. Once clear they cross the second direction of vehicle travel. The treatment is beneficial because it increases pedestrian visibility, forces a pedestrian to make eye contact with drivers, and provides a refuge area in the center of the roadway. The treatment can be signalized or unsignalized, and in the preferred concept it is unsignalized but includes Rapid Rectangular Flashing Beacons (RRFB).
 - **Rapid Rectangular Flashing Beacons (RRFB)** – RRFBs are pedestrian activated beacons that alert drivers to the pedestrians presence. They have rapid flashing LED lights that are visible during day and night and are similar to an emergency vehicle's flashing pattern. Studies have shown that they have high driver compliance with drivers yielding when the device is active.
 - **Pedestrian Hybrid Beacon** – The Pedestrian Hybrid Beacon (also known as HAWK Signal) is a pedestrian activated traffic signal located between intersections where there are no other traffic signals to accommodate pedestrian cross-traffic. When activated by a pedestrian, the signal becomes red, requiring





vehicles to stop and the pedestrian gets a “walk” indication (the same as if they were at a traffic signal). Once the pedestrian gets the “don’t walk” indication, the beacon changes to a flashing red light for vehicles indicating that they can proceed if the pedestrian has finished crossing. The benefit is that if a pedestrian crosses more quickly than the signal allows for, vehicles don’t have to continue to wait.

Table 1 displays crosswalk locations and proposed features:

TABLE 1: PROPOSED CROSSWALKS

Crosswalk Location	Type	Enhanced Features	Spacing to Next Crosswalk
Sierra Park Road	Unsignalized Marked Crosswalk	Curb-extensions	500-feet to the west
Old Mammoth Road	Signalized Intersection	Curb-extensions	500-feet to the east 430-feet to the west
Laurel Mountain Road	Unsignalized Intersection Crossing	- Curb-extensions - RRFB - Access to transit stops	430-feet to the east 280-feet to the west
Forest Trail	Signalized Intersection	Curb-extensions	280-feet to the east 400-feet to the west
Center Street	Unsignalized Intersection Crossing	- Split Pedestrian Crossing - Curb-extensions - RRFB	400-feet to the east 260-feet to the west
New Roadway	Signalized Intersection	- Curb-extensions - Access to transit stops	260-feet to the east 750-feet to the west
Manzanita Road	Pedestrian Hybrid Beacon	- Curb-extensions - Pedestrian Hybrid Beacon	750-feet to the east

Source: Fehr & Peers, 2013



BICYCLE FACILITIES

A combination of "cycle-tracks" and mixed-use paths will be provided on both sides of Main Street from Thompson Way to Manzanita Road. A cycle track is an exclusive bikeway that is physically separated from the vehicle travel way. A cycle track has the feel of a mixed-use path but is intended for exclusive bicycle use such as a bike lane. On Main Street, the cycle tracks will be 8-foot wide one-way facilities (for example if you are riding your bicycle eastbound you would ride on the south side of the street), separated from the vehicle travel way by the on-street parking lane and landscape buffer.

The cycle-track will be adjacent to the sidewalk and at the same elevation but demarcated by a different pavement color and pavers delineating the cycling space. At intersections, the cycle-track will transition to the street and bicyclists will cross in a marked path that is adjacent to the crosswalk. Samples of cycle tracks and intersection crossing treatments are shown in the photos, which are available in the National Association of City Transportation Officials (NACTO) *Urban Bikeway Design Guide* (<http://nacto.org/cities-for-cycling/design-guide/>).

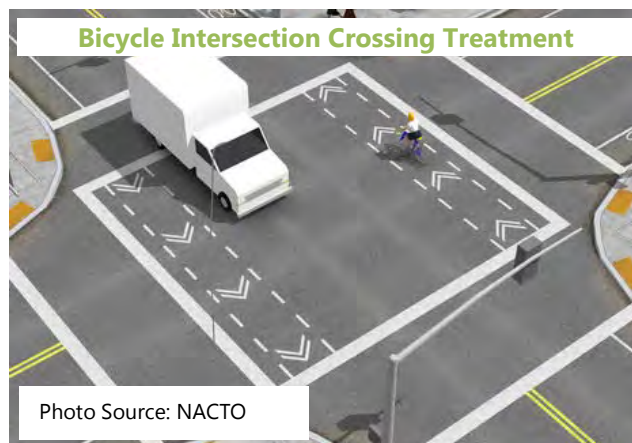
Benefits of Cycle Tracks

Provides a separate space for bicycles

Provides a greater sense of comfort/safety for less-experience cyclists and kids which can lead to increased ridership

Encourages cyclists to ride in the bicycle facility instead of the sidewalk

Eliminates the "door-zone" where parked cars open their door into the bicycle lane

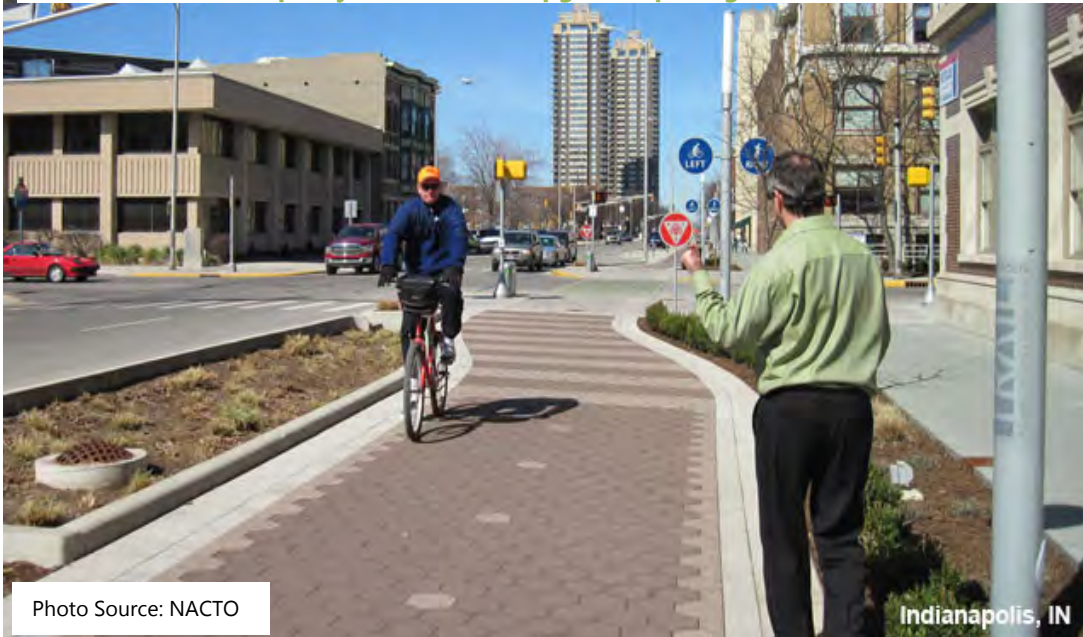




Sample one-way cycle track positioned between on-street parking and the landscape buffer. The Mammoth Lakes Main Street cycle track will be positioned between the landscape buffer and the sidewalk.



Sample cycle track with upgraded paving treatment.



There are existing discontinuous mixed-use paths along the eastern and western ends of the Main Street corridor in downtown that will remain in-place and connect to the cycle tracks. Connections will occur at Sierra Park Road and at the Post Office. Once the connections are made, there will be continuous separated bicycle facilities on both sides of Main Street through downtown.



TRANSIT FACILITIES

There are four existing bus stops on Main Street between Sierra Park Road and Manzanita Road: two eastbound and two westbound. The existing stops have virtually no amenities and are not connected to sidewalks. Riders have to wait on unpaved areas or on the shoulder of Main Street for the bus. The preferred concept includes enhanced stops with shelters, benches, landscaping, and other pedestrian amenities to make bus stop areas inviting. The upgraded transit stops will shift slightly from their existing locations and will be located on the eastbound and westbound sides of Main Street at Laurel Mountain Road and New Roadway. A bus pull-out area will be provided so that buses do not block the vehicle travel lanes.

ON-STREET PARKING

The preferred concept includes on-street parking lanes on both sides of Main Street that extend from Manzanita Road to Sierra Park Road. The on-street parking lane will be 8-feet wide. The conceptual design includes approximately 200 on-street parking spaces on Main Street to serve visitors and business patrons.

SNOW MANAGEMENT

During the winter months, on-street parking spaces will serve as temporary storage areas for snow removed from travel lanes by Caltrans snow maintenance vehicles. The snow will be removed from the parking spaces by the town or other stakeholders to keep the street clear. In addition, snow will be removed from the sidewalk/cycle track area. One benefit to the sidewalk and cycle track being adjacent to each other is that snow can be removed from both facilities simultaneously.

INTERSECTION OPERATIONS

This section describes vehicle operations at intersections on Main Street in Downtown Mammoth Lakes.



METHODOLOGY

Transportation engineers and planners commonly use the term level of service (LOS) to measure and describe how well an intersection functions. An intersection's level of service can range from LOS A (indicating zero congestion), to LOS F (representing very congested conditions where traffic flows exceed design capacity, resulting in long queues and delays). Typically, traffic engineers consider LOS D during the peak hours optimal because it indicates that the size of the intersection is correct, and while there is some delay, it is not extensive.

Table 2 provides the definition of each LOS category based on the Highway Capacity Manual (2010), which is the document used by traffic engineers to evaluate transportation conditions. LOS is based on average vehicle delay at an intersection during the study peak hour.

TABLE 2
INTERSECTION LEVEL OF SERVICE DEFINITIONS

Level of Service	Description	Unsignalized Intersections (Average Delay)	Signalized Intersections (Average Delay)
A	Represents free flow. Individual users are virtually unaffected by others in the traffic stream.	≤10 seconds	≤10 seconds
B	Stable flow, but the presence of other users in the traffic stream begins to be noticeable.	> 10 to 15 seconds	> 10 to 20 seconds
C	Stable flow, but the operation of individual users becomes significantly affected by interactions with others in the traffic stream.	> 15 to 25 seconds	> 20 to 35 seconds
D	Represents high-density, but stable flow.	> 25 to 35 seconds	> 35 to 55 seconds
E	Represents operating conditions at or near the capacity level.	> 35 to 50 seconds	> 55 to 80 seconds
F	Represents forced or breakdown flow.	> 50 seconds	> 80 seconds

Source: Highway Capacity Manual (2010)



Level of service can be analyzed using a variety of computer based tools. "Microsimulation" was used to evaluate the "design conditions" level of service and delay for this study. Microsimulation accounts for interactions between adjacent intersections and was performed using SimTraffic 7 Software. Microsimulation is the preferred method for analyzing busy roadway networks, intersections that are closely spaced, or intersections with unique geometries.

TRAFFIC VOLUMES

The following intersections were evaluated:

- Sierra Park Road/Main Street
- Old Mammoth Road/Main Street
- Laurel Mountain Road/Main Street
- Forest Trail/Main Street
- Center Street/Main Street
- New Roadway/Main Street

Several traffic operations studies have been conducted on Main Street previously. In addition, Mammoth Lakes has a travel demand model. As part of previous Main Street alternative analyses, traffic volumes were developed for several Main Street configurations and future land use growth, including an option that is similar to the final preferred alternative presented in this study. The traffic volumes used for this analysis are based on Alternative 4 in the "Downtown Concept for Main Street" (DCMS) and the "Commercial Corridor Management Plan" (CCMP). Alternative 4 includes the following assumptions:

- Roadway Network: Includes all roads in the Mammoth Lakes Mobility Plan and on Main Street the frontage roads are removed.
- Land Uses (for entire Town): Residential is based on Person At One Time (PAOT) assumptions for units and rooms. Commercial is based on approved projects plus 0.25 floor area ratio for vacant/redevelopment land in CG/CL zones. Industrial is based on a 0.9 floor area ratio for vacant land in Industrial zones. In addition, the alternative includes new units and commercial area available due to right-of-way relinquishment along Main Street and new events and civic centers. (See the 2010 Mammoth Lakes Traffic Model documentation for additional information).



The design peak traffic hour reflected in the analysis volumes for Mammoth Lakes is mid-day on a typical winter Saturday. The traffic volumes used in the analysis presented below were manually adjusted to reflect the New Roadway and other slight modifications in the roadway network. The traffic volumes were also balanced between intersections and rounded to reflect the speculative nature of the analysis. The traffic volumes used in the analysis are shown on Figure 1.

RESULTS

The LOS and delay based on the design traffic volumes results for six study intersections are presented in **Table 3**. All of the intersections operate at acceptable LOS (D and better) except Laurel Mountain Rd/ Main St. The technical analysis reports are provided in Appendix A.



**TABLE 3: INTERSECTION OPERATIONS ANALYSIS
FUTURE YEAR WINTER SATURDAY MID-DAY**

Intersection	LOS ¹	Delay ¹ Seconds/Vehicle	Vehicle Queues	
			Direction	95 th Percentile Queue (feet)
Sierra Park Rd/ Main St (unsignalized)	A (A)	2.8 (8.8)	n/a	n/a
Old Mammoth Rd/ Main St	C	29.8	WB Left Turn SB Left Turn EB Left Turn NB Thru/Right Turn	125 (5 cars) 50 (2 cars) 150 (6 cars) 100 (4 cars)
Laurel Mountain Rd/ Main St (unsignalized)	F (F)	>50 (>50)	n/a	n/a
Forest Trail/ Main St	B	16.9	SB Left Turn EB Left Turn	150 (6 cars) 100 (4 cars)
Center St/ Main St (unsignalized)	A (B)	3.4 (13.7)	n/a	n/a
New Roadway/ Main St (signalized)	C	30.1	WB Left Turn SB Thru/Right Turn EB Left Turn NB Thru/Right Turn	125 (5 cars) 100 (4 cars) 125 (5 cars) 125 (5 cars)

¹ For unsignalized intersections, overall LOS and Delay are shown with worst approach LOS and Delay in parentheses.

NB=Northbound; SB=Southbound; EB=Eastbound; WB=Westbound

Source: Fehr & Peers, 2013

The results show that Laurel Mountain Road operates at an unacceptable LOS F during the study peak hour. This result is consistent with previous operations studies. A traffic signal would improve the level service; however, Laurel Mountain Road is only 430 feet from the traffic signal at Old Mammoth Road, which is too close. One option for improving operations at Laurel Mountain Road is to restrict left-turn out access, which would force drivers to make U-turns or shift to an adjacent street.

Table 4 shows the existing winter conditions levels of service as reported in the Town of Mammoth Lakes Travel Model, February 15, 2013 (LSC Transportation Consultants, Inc.). It is important to note that Synchro software was used to analyze existing conditions, which is



different from Simtraffic, which was used for the "Future Winter Saturday" conditions. Therefore, this is not an "apples to apples" comparison. The comparison does show some trends and locations where the roadway changes will contribute to improved level of service.

**TABLE 4: INTERSECTION OPERATIONS ANALYSIS
EXISTING VS. FUTURE**

Intersection	Existing Winter Saturday Mid-Day ¹		Future Winter Saturday Mid-Day	
	LOS ²	Delay ² Seconds/Vehicle	LOS ³	Delay ³ Seconds/Vehicle
Sierra Park Rd/ Main St (unsignalized)	B	13.4	A (A)	2.8 (8.8)
Old Mammoth Rd/ Main St	B	14.3	C	29.8
Laurel Mountain Rd/ Main St (unsignalized)	F	0.87	F (F)	>50 (>50)
Forest Trail/ Main St (unsignalized for Existing, signalized for Future)	F	1.17	B	16.9
Center St/ Main St (unsignalized)	D	31.9	A (B)	3.4 (13.7)
New Roadway/ Main St (signalized)	N/A	N/A	C	30.1

1 Source: Town of Mammoth Lakes Travel Model, February 15, 2013, LSC Transportation Consultants, Inc. Operations were analyzed using Synchro capacity analysis software.

2 LOS and Delay taken directly from the Town of Mammoth Lakes Travel Model. For signalized intersections delay/LOS is for the overall intersection. For unsignalized intersections delay/LOS is for the worst approach, and in cases where the LOS is F at an unsignalized intersection critical approach volume to capacity (v/c) ratio is reported instead of delay.

3 For unsignalized intersections, overall LOS and Delay are shown with worst approach LOS and Delay in parentheses. Operations were analyzed using SimTraffic micro-simulation software. Same results as shown in Table 3.

Source: Fehr & Peers, 2013



COORDINATION WITH CALTRANS

Main Street is Caltrans' State Route 203 and is managed and maintained by Caltrans. The roadway will remain a Caltrans facility after implementation of the streetscape improvements; therefore, coordination with Caltrans is an important component to this project. **Table 5** summarizes coordination with Caltrans. Two meetings were held with Caltrans representatives: a phone conference with Forrest Becket on March 13, 2013 and a meeting with several Caltrans representatives (planning, operations, and maintenance staff) on April 3, 2013.

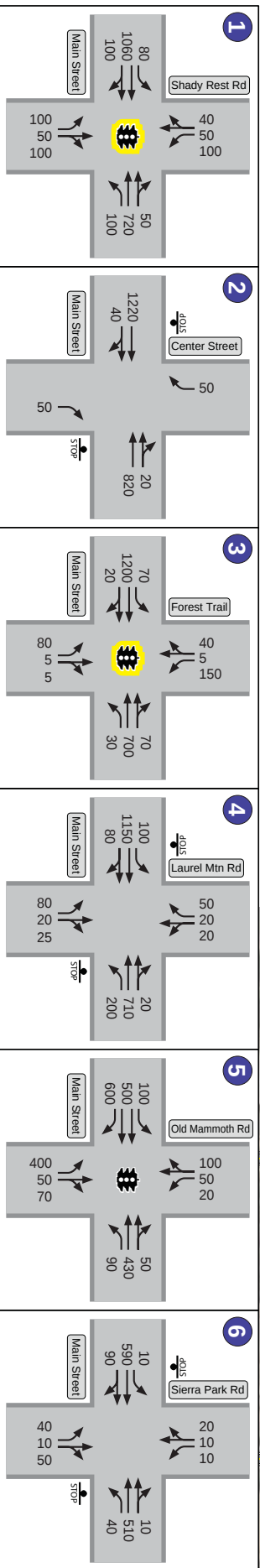
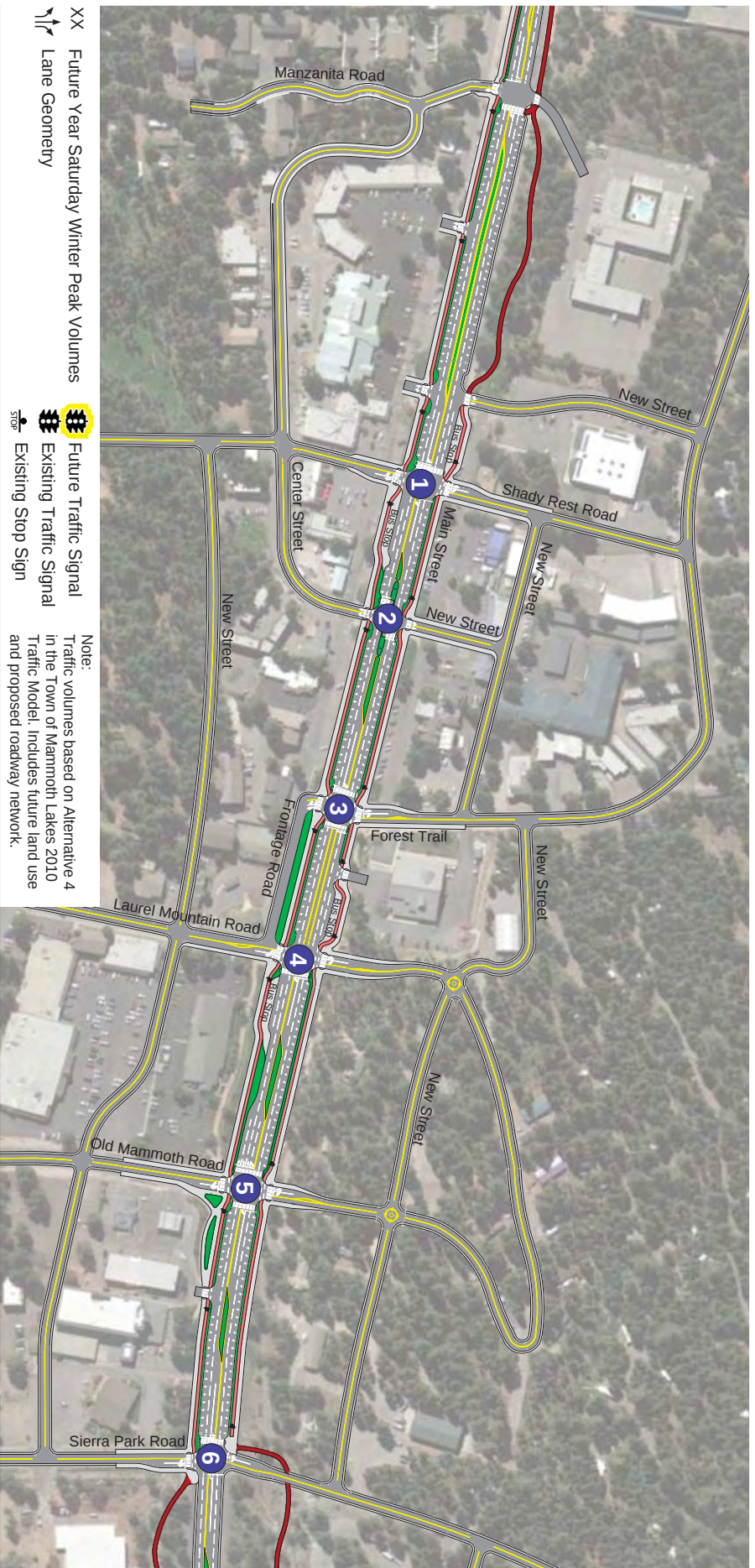
TABLE 5
COORDINATION WITH CALTRANS

Coordination Area	Caltrans Comments	How Comments Were Addressed
General Street Concept	Caltrans has "bought off" on the following general concepts: • Removal of frontage roads • Adding on-street parking • Widened sidewalks • Adding a raised center median • Moving the businesses to the front of the street with parking located behind the building	• These features are included in the final preferred alternative.
Access Management	• The current access points on Main Street are at logical locations. Do not add additional full-access driveways. • Signals should be spaced at appropriate intervals (Laurel Mountain Road is too close to Old Mammoth Road for a traffic signal)	• Access is managed by the center median and all driveway locations have limited access. • Signals are spaced 700' apart and a signal was included at Forest Trail instead of Laurel Mountain Road.
Pedestrian Facilities and Crosswalks	• Caltrans' philosophy is to "consolidate and enhance pedestrian crosswalks. Caltrans is supportive of the Pedestrian Hybrid Beacon treatment and somewhat supportive of the RRFB treatment (there is not full-buyoff because it has not been around long enough to prove that it works). Marked crosswalks should not be placed "everywhere".	• The final preferred concept includes regularly spaced and enhanced crosswalks in logical locations. There are some RRFB treatments included which will need final approval by Caltrans.



Bicycle Facilities	Caltrans is supportive of bicycle facilities on Main Street. The "cycle-track" concept is supported by Caltrans staff as long as intersection treatments are well designed.	Continuous bicycle facilities will be provided and bicycle crossings at intersections will have enhanced treatments.
Transit	Caltrans does not support a center running gondola concept. There needs to be a designated pedestrian waiting area and the buses should be able to pull-out of the travel lanes for boarding/unloading.	The preferred concept includes full transit stops and bus pull-outs.
Snow Removal	Improvements need to consider snow removal. A snow maintenance agreement will be necessary. Caltrans blows snow off of the street but will not haul it away. The Town or property owners will also need to remove snow from sidewalks/cycle tracks.	The preferred concept will include a snow management strategy.
Lane Widths	Travel lanes should be at least 12-feet wide. In addition, the on-street parking lane width should be maximized (10-feet desirable).	These travel lane widths are 12-feet wide. The on-street parking lane is 8-feet wide, which is the maximum width that remains within the existing curb-to-curb section.

Source: Fehr & Peers, 2013



ATTACHMENT C:

ECONOMICS ANALYSIS

A. Plescia & Co

Redevelopment – Planning – Economic Development

SECTION II.

C. Real Estate Market Characteristics and Conditions

The purpose of this section is to present a general overview of the Mammoth Lakes real estate market characteristics and conditions in relation to future development opportunities along the Main Street transportation corridor. It also provides a description of the forces driving Mammoth's economy and how the various sectors of the real estate market have been impacted over the past ten years. The summary information presented in this section is primary from various existing economic and financial studies from the Town of Mammoth Lakes including Mammoth Lakes Economic Forecast and Revitalization Strategies Report (October 2011) and Mammoth Lakes Market Report 2012.

1. General Economy

Mammoth is one of the top ski resorts in North America in terms of skier visits with approximately 1.4 to 1.5 million annual skier visits. It is the largest single ski resort in California, exceeding Heavenly, Northstar, Squaw Valley, and Kirkwood individually in skier visits, although collectively the Tahoe region attracts more skiers than Mammoth Lakes. Mammoth Lakes is also comparable to some of the top resorts in North America in terms of skier visits, including Vail (1.6 million), the Park City area (1.6 million), Breckenridge (1.6 million), the Aspen area (1.3 million), and Steamboat (1.0 million). While Mammoth Lakes' skier visits are strong, retail revenues and lodging occupancies are comparatively low.

Since Mammoth Lakes is a resort community demand for new development is almost entirely derived from its visitor-based industries e.g. recreational activities and supporting hospitality, lodging and second-home units, and visitor serving commercial businesses. In addition the demand for new development is influenced by cyclical regional and national economic conditions and natural conditions (e.g. ski resort visits typically vary directly with the timing, amount, and quality of snowfall that occurs during a given season). Also the character and amount of future development in Mammoth Lakes will be determined as much by local planning, resort investment, and economic development efforts.

The Town of Mammoth Lakes draws its economic vitality nearly entirely from visitors to its recreational assets and facilities. These visitors support the local economy create the “economic base” through their expenditures on lodging, retail goods and services, and recreational services. These include:

- Second Homeowners – a substantial portion of existing single-family homes and condominiums in Mammoth Lakes are owned by absentee (non-resident) owners and are used as vacation or second homes

- Southern California-based Visitors - the largest single source of demand for Mammoth Lakes is Southern California-based “regional” visitors
- Nationally-and Internationally-based Destination Visitors - Mammoth Lakes does attract some nationally and internationally-based destination visitors, however, commercial air service remains limited, particularly in summer, and competition with other destination resorts limits visitation by this group

The Mammoth Lakes Economic Forecast and Revitalization Strategies Report prepared in October 2011 includes a summary of findings. These included:

1. Mammoth Lakes’ has since its inception benefitted from its diverse and high quality recreational opportunities and its proximity to a very large base of visitors from Southern California. The scale and diversity of the visitor demand derived from markets served by Mammoth Lakes provide opportunities for revitalization and growth of the resort community consistent with the Town of Mammoth Lakes General Plan.
2. Visitor demand and related economic activity can never be taken for granted -- visitor demand will only be sustained and increased through a process of continual reinvestment and improvement that responds to competitive conditions, particularly for the destination visitor which is the Town’s greatest opportunity is to expand beyond the traditional Southern California based visitor market.
3. Shifting the quality of the visitor (e.g. towards attracting more destination visitors) and improving economic performance by creating competitive and attractive commercial space means greater economic and fiscal performance with proportionately less development. In addition to better serving visitors, such new commercial space can expand retail and service opportunities for residents as well, reducing the existing “leakage” of sales to other places.
4. In order to achieve the revitalization and development of Mammoth Lakes envisioned in the General Plan and District Plans it will be necessary create more “all-season” facilities and attractions, incentivize private investment in resort development, and to increase attractiveness to national and internationally-based destination visitors. Competing for a larger market share of the desired groups will require, in addition to sustaining and improving outdoor recreation facilities, a long term and aggressive focus on improving Mammoth’s built environment and the range of non-skiing/boarding, non-outdoor recreation activities and attractions.

2. Lodging

According to the Town of Mammoth Lakes, there are approximately 10,148 lodging and dwelling units in the Town. Of this total slightly less than 9,000 units are dwelling units (single family homes,

condominiums, and apartments). The Town of Mammoth Lakes has a permanent population of 8,234 in approximately 2,700 households indicating that 30% of the Town's housing stock is occupied by permanent residents. Approximately 40% of the housing stock is estimated to be used as second homes, and approximately 30% as transient overnight accommodations.

There are approximately 1,181 hotel and motel rooms in Mammoth Lakes. While there are several high end condominium hotel and fractional ownership properties (e.g. Westin Monache, Juniper Springs Lodge), there are not any traditional full- service four to five star hotels. The existing hotel stock is a mixture of economy and limited service properties, with a large number of aging hotel properties reaching the end of their useful physical and economic life.

The Town's lodging occupancy rate has fluctuated from approximately 35% to 40% percent between 2001 and 2006. Beginning in 2007 the lodging occupancy rate declined to the approximately 30% to 35% range, reflecting a slowing regional, state and national economy. The average lodging occupancy rate for the past ten years is approximately 36% for all properties. Large declines in sales occurred from 2006 to 2007, with a 6.1 percent drop in sales, and from 2008 to 2009 when sales declined by nearly 16 percent coinciding with the State and national recession.

Table 1 below presents information regarding the average annual lodging occupancy rates and corresponding annual Transient Occupancy Tax (TOT) collections for the period from 2006 to 2011.

Table 1: Transient Occupancy Tax Collections – Town of Mammoth Lakes, 2006 to 2011			
Year	Ave. Annual Occupancy	Annual TOT Collections	% Change Collections
2006	39	10,663,921	NA
2007	33	9,749,192	(8.58)
2008	33	10,951,645	12.3
2009	30	9,687,896	(11.5)
2010	34	10,964,807	13.2
2011	NA	11,269,541	2.8
Source: Town of Mammoth Lakes			

In Mammoth Lakes lodging occupancy rates vary by property type, with hotels achieving the highest occupancy rates. Reports from the Town of Mammoth Lakes indicate hotels of all types achieving an average of approximately 54% occupancy over the past ten year period. Condominiums have achieved an average of approximately 30% occupancy over the same time period.

Table 2: Lodging Occupancy Rates by Unit Type – Mammoth Lakes, 2001 to 2012			
Year	Condominiums (%)	Hotels (%)	Campgrounds (%)
2001	28	48	28
2002	28	58	27
2003	27	52	27
2004	28	53	25
2005	27	60	28
2006	30	59	34
2007	30	59	34
2008	42	54	15
2009	22	48	18
2010	23	51	12
2011	26	53	23
Source: Town of Mammoth Lakes			

Typical of mountain resorts, there are wide variance in occupancy rates between the winter and summer peak months and the fall and spring “shoulder season” months. However, the most successful and economically balanced communities are able to achieve higher occupancies not only by expanding summer and winter business, but also by increased event and activity programming in the early fall and late spring months. Table 3 below presents information regarding the overall occupancy rates by month for Mammoth Lakes for the period from 2006 to 2012.

Table 3: Overall Lodging Occupancy Rates By Month – Mammoth Lakes, 2006 to 2012 (in %)												
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2006	59	58	54	53	25	26	41	47	33	20	14	41
2007	42	48	42	30	17	26	40	48	28	17	12	41
2008	48	49	50	28	17	28	42	52	25	16	13	34
2009	39	43	34	30	18	25	40	44	27	16	12	36
2010	45	48	40	36	19	27	40	48	30	19	16	42
2011	46	46	36	28	20	26	48	53	34	18	15	37
2012	35	40	41	35								
Source: Town of Mammoth Lakes												

3. Residential

Mammoth Lakes, like other resort communities, tends to follow regional trends. Moreover, recovery from the price and sale volume declinations in this type of resort community usually take longer than in urban areas, therefore Mammoth Lakes has a history of lagging behind regional urban trends.

Single-Family Residential

The Mammoth Lakes Market Report 2012 (Trademark Properties) studied various segments of real estate sales activity in Mammoth Lakes from 2002 through 2012 including single-family residential, condominium, commercial retail and vacant land uses. Table 4 below presents information regarding sales of single family residential uses from 2002 to 2012.

Table 4: Single-Family Residential Sales History – Town of Mammoth Lakes, 2002 to 2012				
Year	No. of Sales	Average Price (in \$)	Median Price (in \$)	% Change Median Price
2002	59	541,329	542,500	NA
2003	117	688,858	580,500	7.00
2004	107	923,040	745,000	28.34
2005	129	1,055,961	825,000	10.74
2006	55	1,091,874	895,000	8.48
2007	41	1,078,709	900,000	0.56
2008	44	1,093,502	829,500	(7.83)
2009	60	827,788	667,250	(19.56)
2010	70	885,442	641,190	(3.91)
2011	72	671,627	560,000	(12.66)
2012	87	705,445	615,000	9.82
Source: Mammoth Lakes Market Report 2012, Trademark Properties				

Overall, the median selling price of a detached single-family dwelling in 2012 declined approximately 36% since the peak market prices from 2005 through 2008. Trends starting in 2012 are indicating the first increase in sales price since median price declines started in 2007, with a 9.82% increase in 2012 from 2011.

Condominium Market

The Mammoth Lakes Market Report 2012 (Trademark Properties) includes information regarding annual condominium sales for the period from 2002 to 2012. In Mammoth Lakes the condominium market is the most active market in terms of sales volume – for example there has been approximately 4,100 sales over the period from 2002 to 2012. Table 5 below presents information regarding sales of condominiums from 2002 to 2012.

Table 5: Condominium Sales History – Town of Mammoth Lakes, 2002 to 2012				
Year	No. of Sales	Average Price (\$)	Median Price (\$)	% Change Median Price
2002	290	297,452	255,000	NA
2003	609	406,058	351,000	37.65
2004	491	514,427	449,900	28.18
2005	619	600,693	530,000	17.80
2006	374	661,703	560,000	5.66
2007	278	651,157	540,700	(3.45)
2008	206	555,530	475,000	(12.15)
2009	295	387,292	325,000	(31.58)
2010	375	350,657	280,000	(13.85)
2011	306	300,799	242,000	(13.57)
2012	298	294,415	244,500	1.03
Source: Mammoth Lakes Market Report 2012, Trademark Properties				

The volume of sales indicates the condominium market may be more reflective of real estate market conditions as a whole. Overall, median prices decreased approximately 57% between 2006 and 2011, with the 2011 median pricing being comparable to the selling prices last seen in 2002. There appears to be signs of stabilization beginning in 2012 with an increase in median prices (1.0%).

4. Commercial Retail

Inventory

The performance of Mammoth Lakes' retail and restaurant businesses ("retail" collectively) are a function of several factors, including: 1) the annual occupancy of the transient bed base; 2) visitors to recreation opportunities; 3) the extent and quality of the retail offerings; 4) the degree to which resident purchases are captured in the community; and 5) the average expenditure levels of overnight guests.

According to the Town there is approximately 557,000 square feet of retail space currently in Mammoth Lakes. The convenience goods category contains approximately 116,000 square feet of space, comprised largely of the 60,000 square foot (approximately) Von's supermarket. There is an additional 8,000 square feet of space in beer, wine, and liquor stores, and 33,000 square feet of health and personal care space, including a Rite Aid pharmacy.

Mammoth Lakes does not have a traditional general merchandise or discount store such as a Target, Kohls, or K-Mart. Mammoth Lakes' retail mix is heavily weighted towards the clothing, sporting goods, and specialty retail categories with approximately 206,000 square feet of space in these categories. Mammoth Lakes also has 235,000 square feet of eating and drinking space, making up 41% of the

Town's retail inventory. In addition to traditional retail business, there are several factory outlet stores featuring name brands such as Ralph Lauren, Van Heusen and Bass Shoes.

The Mammoth Lakes commercial real estate market is basically divided up into three distinctive districts, including:

- *The Old Mammoth Road District* – which is represented primarily by commercial real estate along the east and west sides of Old Mammoth Road.
- *The Main Street District* -consisting of property on the north and south sides of Main Street, and secondary arterial streets.
- *The North Village* – comprised of all property within the North Village Specific Plan, with the core at the Village at Mammoth.

The Main Street District is perhaps the least economically impacted area of the Town primarily due to the fact it is located on the most heavily traveled area of town with the greatest exposure and most desirable parking arrangements. Perhaps the greatest reason for this part of town's stability is the fact many of the businesses are long-time owner-operator in freestanding buildings. For example:

- *The Gateway Center* is one of the foundation centers of Mammoth as it is located on the two primary corridors of Mammoth Lakes (Main Street and Old Mammoth Road). This center has approximately 10% vacancy and is anchored with a Rite Aid and a Do-It-Center (hardware).
- *The Luxury Outlet Mall* has historically been a very successful center, attributable to its very visible location in the center of Main Street. This center is anchored by three national outlet chains: Ralph Lauren, Polo and Coach. Vacancy rates for this center have historically remained consistent; about 10%.

Retail Sales

In 2010, the Town had \$136.5 million in retail sales. From 2005 to 2010 the Town's retail sales declined by 7.1 percent. Large declines in sales occurred from 2006 to 2007, with a 6.1 percent drop in sales, and from 2008 to 2009 when sales declined by nearly 16 percent coinciding with the State and National recession. The retail trade is sensitive to the same external variables as the other tourist-related business e.g. snowfall, the state of the general economy, etc. As with the national economic downturn retail sales activity in Mammoth Lakes has declined dramatically in recent years.

Table 6 below presents information regarding annual sales tax revenue for the Town of Mammoth Lakes from fiscal year 1999 / 2000 to fiscal year 2011 / 2012. These figures presented below indicate the annual sales tax revenue amount, percentage change from the previous fiscal year and total annual General Fund revenue.

Table 6: Sales Tax Revenue for Town of Mammoth Lakes, 1999 to 2012			
Fiscal Year	Sales Tax (in \$)	% Change from Prior Year	Total Revenue (General Fund) (in \$)
1999 / 2000	1,641,799	NA	891,079
2000 / 2001	1,685,341	2.65	10,170,904
2001 / 2002	1,761,430	4.51	10,800,478
2002 / 2003	1,878,808	6.66	12,785,455
2003 / 2004	1,944,986	3.52	16,841,278
2004 / 2005	2,105,148	8.23	15,582,688
2005 / 2006	2,326,410	10.51	17,805,012
2006 / 2007	2,492,706	7.15	21,169,261
2007 / 2008	2,141,486	(14.08)	19,049,406
2008 / 2009	1,830,635	(14.53)	17,703,857
2009 / 2010	1,653,588	(9.67)	17,972,813
2010 / 2011	1,754,736	6.12	19,012,905
2011 / 2012	1,832,000	4.40	16,472,274
Source: Mammoth Lakes Market Report 2012, Trademark Properties			

As indicated annual sales tax revenues peaked in fiscal year 2006 / 2007. Since then the tax collected from retail sales in Mammoth Lakes has declined by 38% through 2010, with slight increases in fiscal year 2010 / 2011 and fiscal year 2011 / 12.

Table 7 below provides information regarding the overall activity for commercial real estate in Mammoth Lakes over the period from 2002 to 2012. As indicated there was a significant decrease in the number of reported sales from 2003 through 2011. There has been very little commercial real estate sales activity in Mammoth Lakes over the past four years, however there is an increase in activity in 2012.

Table 7: Commercial Building Space Sales – Mammoth Lakes, 2001 to 2012				
Year	No. of Sales	Average Price (in \$)	Median Price (in \$)	% Change in Median Price (%)
2002	2	875,000	875,000	NA
2003	10	1,841,300	1,200,000	37.14
2004	7	1,950,000	1,200,000	0.00
2005	4	1,212,943	937,500	(21.88)
2006	9	1,232,411	1,050,000	12.00
2007	6	1,219,750	1,085,000	3.33
2008	1	677,250	677,250	(37.58)
2009	1	400,000	400,000	(40.94)
2010	1	925,000	925,000	131.25
2011	1	1,065,000	1,065,000	15.14
2012	3	3,458,000	1,200,000	12.68
Source: Mammoth Lakes Market Report 2012, Trademark Properties				

According to the Mammoth Lakes Market Report 2012, in 2011 there was one commercial sale - a 3,000 square foot restaurant located on Old Mammoth Road. This property was sold for \$1,065,000 and consisted of 3,000 square feet of building area on a 0.5 acre parcel of land. There was also one land sale near the south end of Old Mammoth Road. This sale consisted of one acre of land graded, and backing up to forest service lands. The property sold for \$1,175,000 and was zoned Commercial General.

Table 8 below presents information related to existing (2012) monthly lease rates for certain primary commercial centers in Mammoth Lakes, excluding freestanding commercial buildings. As indicated for 2012 there is a large range in monthly lease rates from \$1.00 to \$1.93 per square foot. Overall the average monthly lease rate in 2012 was approximately \$1.37 per square foot, plus a common area and maintenance (CAM) charge of \$0.72 per square foot. The average monthly lease rate in 2012 was approximately 3.5% lower than the average monthly lease rate in 2011 (\$1.42). Commercial lease rates are generally reflective of the quality of the commercial space and the desirability of the location.

Table 8: Commercial Lease Rates – Mammoth Lakes, 2012				
Center	Lease Rate Per SF (2012)	Lease Rate Per SF (2011)	CAM Charge	Vacancy Rate (2012)
Sherwin Plaza	\$1.00	\$1.35	\$0.49	30%
The Plaza	\$1.35	\$1.35	\$0.49	0%
Sierra Center Mall	\$1.00	\$1.00	\$0.85	80%
Minaret Mall	\$1.50	\$1.50	\$0.52	10%
Mammoth Mall	\$1.43	\$1.35	\$0.53	50%
Gateway Center	\$1.25	\$1.45	\$0.50	10%
Luxury Outlet Mall	\$1.50	\$1.50	\$0.90	10%
Village @ Mammoth	\$1.93	\$1.86	\$1.44	25%
Average	\$1.37	\$1.42	\$0.72	29%
Source: Mammoth Lakes Market Report 2012, Trademark Properties				

Common area and maintenance (CAM) expenses appears to be one of the largest hurdles for prospective and existing tenants in Mammoth Lakes due to the wide range of variability and unpredictable nature of the CAM costs. Mammoth Lakes is unique in that its winters can often burden businesses due to the pass-through of snow removal expenses, propane costs, etc. Taxes and other triple net expenses are passed through to the tenant in most commercial centers and depending on the cost basis the CAM can vary greatly.

5. Vacant Land

Sales activity in Mammoth Lakes involving vacant land had significant volume from 2002 through 2006. However the volume of sales activity declined dramatically between 2006 and 2012 as indicated in Table 9 below. From 2002 through 2006 annual vacant land sales activity averaged about 52.5 sales per year; however from 2006 to 2011 the overall activity was approximately eleven (11) sales per year, a decline of 79%.

Table 9: Vacant Land Sales – Mammoth Lakes, 2002 to 2012					
Year	No. of Sales	Average Price (in \$)	Median Price (in \$)	% Change Median Price	Ave. \$ Per SF
2002	36	362,297	339,950	NA	NA
2003	63	453,327	412,500	21.34	NA
2004	69	1,006,919	560,000	35.76	NA
2005	62	649,338	480,500	(14.20)	NA
2006	34	978,977	737,500	53.49	68.37
2007	21	643,250	513,000	(30.44)	47.32
2008	6	396,417	423,750	(17.40)	28.31
2009	11	370,864	355,000	(16.22)	24.06

2010	4	349,625	352,500	(0.70)	20.31
2011	9	202,277	170,000	(51.77)	16.24
2012	22	381,718	250,000	47.06	31.06
Source: Mammoth Lakes Market Report – 2012, Trademark Properties					

In addition to the significant decline in sales volume there was also a decline in vacant land selling prices. Overall market prices for vacant land of all types had declined by about 76% since the peak of the market in 2006 through 2011 (although this figure can be skewed somewhat due to the very limited volume of sales). Land sale trends in 2012 are in line with other sectors of the real estate market in that land volume and prices are showing some signs of stabilization and recovery. Sales data for 2012 indicate that land sale activity for 2012 is approximately 44% higher than 2011 and comparable to 2007 levels, with median land prices increased approximately 47% over 2011 median prices.

Summary

In summary the Town of Mammoth Lakes has the opportunity, given long term market demand and recreational assets and capacity, to achieve the vision set forth in its General Plan. However, in order to achieve that vision there will need to be a concerted effort by the Town to assure that regulatory or financial barriers to the desired development are overcome by a focused set of regulatory reforms (as contemplated in the new zoning ordinance), financial incentives and improved economic and real estate market conditions.

A multi-faceted approach is required, combining land / development planning, marketing, investing in place-making, amenities, and activities, and maintaining good relationships and partnerships with business and economic development groups. There needs to be a commitment to improving the built environment, expanding non-skiing visitor options, and improving the development climate.

Economic Analysis of Case Study Sites: Mammoth Lakes Main Street Plan

Prepared for:

Town of Mammoth Lakes, CA

Prepared by:

**A. Plescia & Co.
as Sub-consultant to Winter & Co.**

May 31, 2013

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List of Attachments

Attachment 1: Summary of Estimated Cost, Revenue, Financing and Investment Assumptions
Attachment 2: Sources of Information

I. INTRODUCTION

This report presents information regarding the preliminary economic analysis prepared for certain hypothetical development sites along Main Street in Mammoth Lakes, California. The purpose of the preliminary analysis is to determine the potential economic feasibility of certain land use types and intensity of development as part of the Main Street Transportation Corridor and Implementation Plan, and in part to test the draft proposed Town of Mammoth Commercial Zoning District development standards. As part of the Town's efforts to prepare the Main Street Transportation Corridor and Implementation Plan and update its Commercial Zoning Districts along Main Street, it is important to address the potential economic and financial feasibility of potential future development consist with such plans and policies.

The case study development sites were selected based on typical size, location and configuration of identified potential development opportunity sites along the Main Street corridor. The hypothetical development programs were collaboratively developed by the Town of Mammoth Lakes staff, Dyett & Bhatia (lead consultant for the Town's effort to update its Commercial Zoning District development standards) and Winter & Co. (lead consultant for the Main Street Transportation Corridor and Implementation Plan. The hypothetical development programs are based in part on the draft proposed Commercial Zoning District development standards, and in part on the type / extent of potential land uses for the Mammoth Lakes market – and include hotel, commercial retail, residential ownership and residential mixed-use (rental housing / commercial retail) uses.

The preliminary economic analysis is based on a stipulated set of cost, revenue, financing and investment assumptions related to the subject hypothetical development programs (see Attachment 1). The preliminary analysis is based on current Mammoth Lakes real estate market conditions and presented in current (2013) dollars. Obviously as market conditions may change over time, the related financial feasibility of potential land use / development may also change reflecting such conditions.

Various existing Town of Mammoth sources of data, information and previous economic studies were used in preparing this preliminary economic analysis. The specific sources used are listed as Attachment 2 to this report.

II. FINDINGS AND CONCLUSIONS

A. General Findings

The preliminary results of the economic analysis of case study site hypothetical development programs indicate the following:

1. The extent of estimated total development costs associated with the case study site hypothetical development programs are very high due to:
 - the cost of construction labor and supplies because of the location of Mammoth Lakes
 - additional construction costs for structural improvements required to accommodate climatic conditions (e.g. snow)
 - the extent of the current Town of Mammoth Lakes development impact and building permit fees required for proposed new development
 - the proposed use of structured parking (above grade or below-grade) for certain development sites

2. The estimated project (market) values associated with the case study site hypothetical development programs are low generally due to the lingering effects of the recent real estate market recession on Mammoth Lakes which results in:
 - lower existing / projected lease rates for commercial retail space and multiple-family residential rental housing;
 - lower existing / projected sale prices for for-sale residential (condominiums, townhomes, etc.)
 - lower annual average hotel occupancy rates

In addition estimated project values are effected by the higher annual operating expenses / costs in Mammoth Lakes due in part to its climatic conditions and labor costs.

3. The estimated total development costs of subject case study site hypothetical development programs are projected to exceed the respective estimated net project values. A primary reason for this result is the inability of current estimated market-rate rents for commercial and multiple-family residential (apartments), hotel average daily room rates, and sale prices for ownership housing to fully offset the estimated total development costs of the subject development.
4. The amount of estimated available net cash flow beyond required debt service payments is projected to be very limited particularly in the early years of project operations. The estimated range for return-on-equity for the subject proposed case study site development programs is projected to be substantially less than the assumed targeted figure for an acceptable return-on-equity to a developer / investor of 15%. Acceptable return-on-equity investment levels may potentially be achieved in the long-term if there is an escalation in values resulting from increased commercial and residential rents over time.

B. Preliminary Conclusions

1. It appears that certain land uses fare better than others in regard to financial feasibility – specifically estimated net project value and . For example, commercial retail lease space and for-sale residential units (condominiums, townhomes, etc.), although still indicating a negative project value, show a proportionately less estimated net project value than the other land uses analyzed in this preliminary economic analysis. This is due in part because of the:
 - the less expensive type of lower density development; and
 - the lower estimated development cost associated with the type of on-site parking (surface, tuck-under, individual garage) provided for in the hypothetical development programs for these two types of land uses.
2. Other land uses analyzed in this preliminary analysis show a significant shortfall in financial feasibility – estimated net project value. For example conventional hotel use shows a significant negative estimated net project value which is due primarily to:
 - lower net operating income because of the low levels of projected annual average occupancy rates which were 40% initial operating year increasing to 50% at the stabilized operating year (4th operating year); and

- the estimated development cost associated with the type of on-site parking (above-grade structured) provided for in the hypothetical development programs for these two types of land uses

In addition, the multiple-family use also shows a significant negative estimated project value which is primarily due to:

- marginal estimated monthly rents for this type of residential rental unit in the Mammoth Lakes market
 - the extent of the estimated total development cost related to vertical building type construction
3. The concept of enlarging the subject case study development sites (by including a portion of the area that is currently part of the Main Street (Highway 203) public right-of-way assuming there is a reduction in the required street right-of-way width through a re-design of the subject street) had only a somewhat positive effect on economic value of certain hypothetical development programs.
 - for Site #1, the additional land area resulted in an increased hotel development program of 120 rooms. However the increased density of development caused the required on-site parking to be provided through structured parking (instead of surface parking) thereby negating any increased economic value due to the additional land area / increased development.
 - for Site #2, the additional land / site area provided for an increase in the amount of commercial retail space (from 5,000 to 9,600 square feet). However the additional land area had very little effect on estimated net project value – actually resulting in a slightly larger estimated negative value.
 - for Site #3, the additional land area along with a redesigned development program for hotel, commercial rental and for-sale residential uses helped decrease the estimated negative project value substantially. However the larger factor was revising the on-site parking from below-grade structured parking to above-grade structured parking, and reducing overall size of the hotel facility.
 4. Further analysis of the subject case study site development programs should be focused on approaches to increase the economic productivity of case study development sites possibly through increased allowed building heights, increased allowable density, reduced on-site parking with provision of some parking required through joint-use / shared parking facilities strategically located along the Main Street corridor. In the early years of the planned Main Street corridor revitalization development programs will need to focus on providing required on-site parking by means of surface or tuck-under (under structure) parking.

III. LAND USE AND DEVELOPMENT PROGRAMS

For the purposes of this preliminary economic analysis we used hypothetical development programs for three subject development opportunity sites on Main Street, which were developed, in part to test the Town's draft proposed Commercial Zoning District's development standards.

For each development opportunity site we presented and evaluated two alternative hypothetical development programs. The first hypothetical development program for each site (Sites A, D and E) includes the initial identified site area. The second alternative hypothetical development program for each site (Sites A-1, D-1 and E-1) is based enlarging the sites by including a portion of the area that is currently part of the Main Street (Highway 203) public right-of-way assuming there is a reduction in the required street right-of-way width through a re-design of the subject street. This potential approach could add approximately 4,000 square feet to Site #1, 7,200 square feet to Site #2, and 15,300 square feet to Site #3.

The hypothetical development programs summarized below are further described in detail in the respective attachments to this report.

1. Site #1: Hotel - The proposed development program includes a four-story hotel building with 80 rooms (50,000 gross square feet) along with 86 on-site parking spaces (43 surface spaces, 8 tuck-under spaces and 35 covered spaces) on the 48,000 square foot (1.01 acre) site in the proposed MLR zoning district.
2. Site #1-1: Hotel (with additional land area) - The proposed development program includes a two to five-story hotel building with 120 rooms (90,000 gross square feet) along with 120 on-site structured parking spaces on the 52,400 square foot (1.20 acre) site in the proposed MLR zoning district.
3. Site #2: Commercial / Residential Mixed-Use - The proposed development includes a two-story building with one-story of multiple-family rental housing (10 apartments) above a one-story ground floor retail space (5,000 square feet) on the 22,620 square foot (0.52 acre) site in the proposed D zoning district. On-site surface parking (10 surface spaces) is included as part of the hypothetical development program.
4. Site #2-1: Commercial / Residential Mixed-Use (with additional land area) - The proposed development includes a two-story building with one-story of multiple-family rental housing (10 apartments) above a one-story ground floor retail space (9,600 square feet) on the 29,797 square foot (0.68 acre) site in the proposed D zoning district. On-site surface parking (40 surface spaces) and on-street parking (53 spaces) are included as part of the hypothetical development program.
5. Site #3: Commercial, Hotel and Residential - The proposed program includes a 5-story hotel building with 300 rooms (215,000 square feet) and 10,000 square feet of ground floor commercial retail space, 25,000 square feet of free-standing commercial retail space and 34 for-sale residential units (26 condominium units and 8 townhouse units) on the 205,000 square foot (4.71 acre) site in the proposed D & NOMR zoning districts. On-site parking for the commercial and hotel is provided by a 440 space below-grade parking garage, with fifty-two (52) on-site surface parking spaces provided for the condominium units, and individual two-car garages provided for each townhouse unit.
6. Site #3-1: Commercial, Hotel and Residential (with additional land area) - The proposed program includes a 4-story hotel building with 300 rooms (160,000 square feet), 28,500 square feet of commercial retail space, and 28 for-sale residential units (20 condominium units and 8 townhouse units) on the 220,292 (5.0 acre) site in the proposed D & NOMR zoning districts. Parking for the commercial and hotel is provided by a 475 space above-grade parking garage, 60 on-site surface parking spaces and 29 on-street surface parking spaces – for a total of 564 parking spaces.

IV. PRELIMINARY ECONOMIC ANALYSIS

A. Development Costs

Estimated total development costs were prepared for each of the case study hypothetical development programs including land, direct construction, indirect and financing costs providing an "order-of-magnitude" estimate (presented in 2012 dollars) as described below. A detailed description of the land, direct construction, indirect and financing costs is included as Attachment 1. These assumptions were developed through a review of secondary real estate market data and information, various industry standards for the proposed types of land use / development, and meetings / interviews with local real estate developers and brokers with a working knowledge of the Mammoth Lakes real estate market.

Land

Based on our interviews with local developers and review of applicable materials provided by the Town of Mammoth Lakes staff, we used an assumption that the estimated existing value of vacant land similar in terms of size to the hypothetical case study sites along Main Street is approximately \$1.0 million per acre.

Direct Construction

The estimate of direct construction costs include costs for public improvements, site work, building construction, tenant improvements, parking, general contractor and contingency (see Attachment 1). Table 2 of each case study site development program analysis attached to this memorandum summarizes the estimated development cost associated with each hypothetical land use development type. As part of the preliminary analysis we used the following assumed basic building construction cost estimates (plus a 15% general contractor cost and 7% contingency cost).

- commercial retail space - \$245 per square foot (wood frame);
- hotel – \$325 per square foot (wood frame);
- multiple family residential (apartment) - \$295 per square foot (wood frame); and
- for-sale residential (condominium and townhouse) - \$325 per square foot (wood frame)

Based on our interviews with developers, prior experience, and review of applicable materials provided by the Town of Mammoth Lakes staff, we used the assumed sources of development cost listed below. The estimated development costs do not include any off-site public infrastructure (water, sewer, etc.) improvement or on-site environmental remediation costs.

- Site work - \$12 per square foot of site area
- Tenant improvements - \$40 to \$50 per square foot of commercial retail lease space
- Hotel FF&E - \$15,000 to \$20,000 per room
- Surface Parking - \$15 per square foot of parking area
- Structured Parking (Above-grade) - \$75 per square foot of parking area
- Structured Parking (Below-grade) - \$100 per square foot of parking area

Indirect Construction

The estimated costs for non-construction items including predevelopment / entitlement, architecture, engineering, permits / fees, taxes, legal, title, closing, marketing, leasing commissions, administration / overhead, developer fee and contingency (see Attachment 1).

The predevelopment / entitlement item includes estimated costs for securing required land use entitlements and related project approvals, while the permits / fees item includes estimated costs for Town of Mammoth Lakes development impact and building permit fees. In addition, the Town of Mammoth Lakes Affordable Housing Policy is applied to the hypothetical development programs.

Financing

The estimated costs associated with private financing of the proposed development improvements include estimated construction loan fees / related loan costs and construction loan interest (see Attachment 1). A summary of the estimated total development cost for each of the subject case study site development programs is presented in Table 1 below.

Table 1: Summary of Estimated Development Costs (in millions)			
	Site #1	Site #1-1	Site #2
Land	\$ 1.01	\$ 1.01	\$ 0.52
Direct Construction	\$17.98	\$34.67	\$ 5.08
Indirect	\$ 6.60	\$10.83	\$ 1.48
Financing	\$ 0.88	\$ 1.60	\$ 0.41
Total	\$26.47	\$48.11	\$ 7.49
Cost Per SF (not in millions)	\$ 529	\$ 534	\$ 477
	Site #2-1	Site #3	Site #3-1
Land	\$ 0.68	\$ 4.71	\$ 4.71
Direct Construction	\$ 6.48	\$119.25	\$ 88.96
Indirect	\$ 1.91	\$ 37.58	\$ 31.79
Financing	\$ 0.51	\$ 11.34	\$ 8.80
Total	\$ 9.58	\$172.87	\$134.26
Cost Per SF (not in millions)	\$ 472	\$ 586	\$ 616
Source: A. Plescia & Co.			

B. Operating Revenue and Expenses

Revenue and Income

Based on interviews with knowledgeable local real estate brokers and a review of secondary real estate market data we made assumptions for lease rates for commercial retail space, average daily room rates for hotel, monthly rents for multiple family residential (apartment) units, and unit sale prices for for-sale residential (condominium and townhouse) units as follows:

- Commercial retail space - \$1.50 to \$2.00 per square foot (triple net) plus \$0.75 in tenant reimbursements (common area maintenance) charges;
- Hotel - blended average daily room rate of \$250.00 per room per night taking into account peak and non-peak seasons;
- Multiple family residential (apartment) - monthly rent of \$2.00 per square foot; and
- For-sale residential - \$400.00 per square foot and \$450.00 per square foot for condominium and townhouse units, respectively.

Expenses

For purposes of this preliminary economic analysis annual operating expenses are assumed to be as follows:

- Commercial retail space - \$10 to \$12 per square foot (including management, repairs, maintenance, insurance, taxes and reserves)
- Hotel - 25% of estimated annual gross income (including administration / general, marketing, franchise fee, operations / maintenance and utilities), and 7% to 10% of estimated annual gross income for fixed expenses (management fee, property taxes, insurance and replacement reserves)
- Multiple-family residential (apartments) - 30% of effective gross income (including management, repairs, maintenance, insurance, taxes and reserves)

Table 2 below presents a summary of the basic estimated operating revenue / income and expense assumptions. A more detailed description of the estimated operating revenue / income and expenses is presented in Attachment 1.

Table 2: Operating Revenue and Expense Parameters			
	Commercial	Hotel	Apartment
Base Monthly Lease Rate	\$1.50 / SF (triple net)		\$2.00 / SF
Average Daily Room Rate		\$250.00	
Annual Occupancy Rate	90%	50%	95%
Annual Revenue Escalation	3%	3%	3%
Annual Operating Expenses	\$10.00 / SF	25% of gross income	30% of gross income
Annual Expense Escalation	3%	3%	3%
Source: A. Plescia & Co.			

C. Net Project Value

A summary of the estimated net project value for each of the subject case study site development programs is presented in Table 3 below.

Table 3: Estimated Net Project Values (in millions)			
	Site #1	Site #1-1	Site #2
Net Operating Income	\$ 1.46	\$ 2.20	\$ 0.26
Net Sale Proceeds			
Net Project Value	\$18.31	\$27.46	\$ 3.19
Development Cost	\$26.47	\$48.10	\$ 7.49
Net Project Value	(\$ 8.16)	(\$20.64)	(\$ 4.30)
	Site #2-1	Site #3	Site #3-1
Net Operating Income	\$ 0.33	\$ 8.03	\$ 7.95
Net Sale Proceeds		\$ 15.69	\$ 12.58
Net Project Value	\$ 4.17	\$116.05	\$111.93
Development Cost	\$ 9.58	\$172.87	\$134.26
Net Project Value	(\$ 5.41)	(\$ 56.82)	(\$ 22.33)
Source: A. Plescia & Co.			

Project value estimates were prepared based on an income approach to valuation using estimated net operating income for the commercial retail, hotel and multiple-family residential (apartment) uses. The estimated project values were derived by capitalizing the estimated annual net

operating income using a capitalization rate of 8.0% (derived from information obtained from local real estate brokers / developers)

The estimated project value of the for-sale residential units is based on the estimated net sale prices / proceeds from the sale of such units. For purposes of this preliminary economic analysis it is assumed that the for-sale housing development program would include 10% of the units as affordable units per the Town of Mammoth Lakes Affordable Housing Policy.

As indicated the estimated total development cost of subject hypothetical development programs (based on the assumptions presented in this memorandum) exceed the respective estimated net project values. The primary reasons for this result are:

- the extent of development costs associated with the proposed type of the proposed development programs and developing in the Town of Mammoth Lakes – in particular the cost of construction labor and supplies due to the location of Mammoth Lakes, additional construction costs for structural improvements required to accommodate climatic conditions (e.g. snow), and the proposed use of structured parking (above grade or below-grade) for certain development sites;
- the extent of the current Town of Mammoth Lakes development impact and building permit fees required for proposed new development; and
- the inability of current estimated market-rate rents for commercial and multiple-family residential (apartments), hotel average daily room rates, and sale prices for ownership housing to fully offset the estimated total development costs of the development

D. Project Cash Flow and Investment Return

For each case study development site / hypothetical development program we prepared a 20-year operating pro-forma to indicate estimated annual income, operating expenses and net operating income – including the commercial retail, hotel and multiple-family residential (apartment) uses. The purpose of these calculations was to estimate the amount of available annual net operating that before payment of debt service (permanent loan financing) and return to equity investors.

We also prepared a 20-year investment pro-forma for each case study site indicating the estimated amount of construction loan, equity, net operating income (or sale proceeds for the for-sale residential), debt service and net cash flow. The estimated annual debt service is based on the assumptions listed in Table 4 below and Attachment 1 to this report. The percentages indicated for construction loan, mortgage loan and equity items are presented as a percentage of the estimated total development cost.

Table 4: Estimated Financing and Investment Parameters		
	Commercial / Residential	Hotel
Construction / Mortgage Loan Ratio	65%	50%
Equity Ratio	35%	50%
Construction / Mortgage Loan Interest Rate	6%	6%
Mortgage Term	20-years	20-years
Targeted Return-on-Equity	15%	15%
Source: A. Plescia & Co.		

The estimated net cash resulting from these calculations is then compared to amount of equity required by the assumed loan-to-cost (value) ratios. Dividing the estimated net cash flow yields an estimated return on equity.

Based on the preliminary economic analysis, the estimated average annual return-on-equity for the subject case study development sites / hypothetical development programs over the initial 18-year operating period ranged from a negative 2.0% to a positive 7.0%. The worst estimated average annual return-on-equity was for Site #2 and Site #2-1. The best estimated average annual return-on-equity was for Site #3-1.

CAVEATS AND LIMITATIONS

1. The preliminary economic analysis contained in this document is based, in part, on data and information from secondary sources, including the Town of Mammoth. A. Plescia & Co. believes that these sources are reliable, however, A. Plescia & Co. cannot guarantee the accuracy of such data and information.
2. The preliminary economic analysis assumes that neither the local, regional or national economy will experience a major recession. If an unforeseen change occurs in either the local, regional or national economy the information contained in this document might not be valid.
3. The information contained in this preliminary economic analysis is based on economic considerations, not political considerations. Therefore the preliminary information should not be construed as a representation or opinion that any required governmental approvals would be secured for any analyzed hypothetical development projects.
4. The preliminary economic analysis is based on the informed judgment of A. Plescia & Co. using the best available market, business and economic data and information that reflects current real estate market conditions as of the date of this preliminary analysis. The preliminary information and analysis should not be relied upon as sole input and basis for any final business decisions regarding any analyzed hypothetical development projects.
5. Any preliminary estimated land values, construction costs, financing costs, lease rates, sales income projections, etc. are based on the best available data and information as of the date of this preliminary economic analysis. No warranty or representation, either expressed or otherwise, is made that these estimates would actually materialize.

**ATTACHMENT 1:
SUMMARY OF COST, REVENUE, FINANCING
AND INVESTMENT ASSUMPTIONS**

Development Cost Assumptions	
Land	
Land Value	\$1.0 million per acre
Direct Construction	
Off-site Improvements	Allowance; \$250 / lineal foot of public
Site work / Land Development	\$12.00 per square foot of site area
Building Construction	
Commercial	\$245 / square foot of bldg.. area (vanilla shell) (1)
Hotel	\$325 / square foot of building area (1)
Residential – Rental	\$295 / square foot of building area (1)
Residential – Ownership	\$325 / square foot of building area (1)
Tenant Improvements (Commercial)	\$40.00 to 50.00 / square foot of building area
Furniture Fixtures & Equipment (Hotel)	\$15,00 to \$20,000 / room
Parking – Surface	\$15.00 per square foot of parking area
Parking – Structured (Above Grade)	\$75.00 per square foot of parking area
Parking – Structured (Below Grade)	\$100 per square foot of parking area
General Contractor	15.0% of estimated direct construction costs
Contingency	7.0% of estimated direct construction costs
Indirect	
Predevelopment / Entitlement	3% of estimated Direct Construction Cost
Architecture / Engineering	5% of estimated Direct Construction Cost
Permits & Fees	See attached Development Impact Fee Schedule
Affordable Housing Fee	\$23,222 / unit (per Town of Mammoth Lakes)
Taxes, Legal & Insurance	2% of estimated Direct Construction Cost
Administration & Overhead	2% of estimated Direct Construction Cost
Leasing Commissions (Commercial)	5% of lease income for initial 5-year lease period
Marketing & Advertising (Hotel)	Estimated Allowance
Marketing & Advertising (Commercial)	\$2.50 / square foot of lease space
Franchise Fee (Hotel)	Estimated Allowance
Pre-Opening Expenses (Hotel)	Estimated Allowance
Warranty Reserve (For-Sale Residential)	0.5% of estimated Net Sale Proceeds
Contingency	5% of estimated Indirect costs
Developer Fee	5% of estimated Direct Construction cost
Financing	
Construction Loan Fee & Costs	3% of estimated loan amount
Interest during Construction	6.0% interest rate; 12 to 36 month construction

Commercial Income and Expense Assumptions

Rent per Square Foot / Month	\$1.50 to \$2.00 per square foot / month
Tenant Reimbursements	\$0.75 per square foot / month
Vacancy Rate	10.0%
Operating Expenses	\$10.00 to \$12.00 per square foot / year
Annual Escalation (Income / Expenses)	3.0%

Hotel Income and Expense Assumptions

Average Daily Room Rate	\$250.00 (blended average; in 2012 dollars)
Average Occupancy	
Initial Operating Year	40%
Stabilized Year (4 th Operating Year)	50%
Cost of Sales	30% of estimated Gross Revenue
Operating Expenses	25% of estimated Gross Revenue
Fixed Charges	7% to 10% of estimated Gross Revenue
Management Fee	3% of estimated Gross Revenue
Annual Escalation (Income / Expenses)	3%

Residential (Rental) Income and Expense Assumptions

Rent per Square Foot / Month	\$2.00 per square foot / month
Parking Income	None
Other Income	2% of estimated Gross Income
Vacancy Rate	5%
Operating Expenses	30% of estimated Effective Gross Income
Annual Escalation (Income / Expenses)	3%

Residential (For-Sale) Income and Expense Assumptions

Sale Price Per Square Foot (Market Rate)	
Condominium	\$400 per square foot of building area
Townhouse	\$450 per square foot of building area
Sale Price Per Square Foot (Affordable)	
Condominium	\$264 per square foot of building area
Townhouse	\$264 per square foot of building area
Cost of Sales / Closing	4% of estimated Gross Sale Proceeds
Developer Profit	10% of estimated Gross Sale Proceeds

Financing Assumptions	
Construction Loan-to-Cost Ratio	65% for commercial and residential; 50% for hotel
Construction Loan Interest Rate	6%
Amount of Equity	35% for commercial and residential; 50% for hotel
Construction Period	12 to 24 months (depending on project)
Permanent Loan Interest Rate	6.0%
Permanent Loan Term	20 years
Project Value	8% capitalization rate

Footnotes:

(1) Includes 15% General Contractor cost and 7% Contingency cost

Development Impact Fees

Table 1
Summary of Fees [1]
Town of Mammoth Lakes Development Cost Review; EPS #19065

Item	Residential				Nonresidential		
	Single Family (per unit)	Single Family Transient (per unit)	Multifamily (per unit)	Multifamily Transient (per unit)	Retail (per sq.ft)	Office (per sq.ft)	Light Industrial (per sq.ft)
Processing Fees [2],[3]	\$5,699	\$5,699	\$1,664	\$1,664	\$1.15	\$1.37	\$0.79
Town Development Impact Fees							
Law Enforcement	\$673	\$1,125	\$673	\$1,125	\$1.13	\$1.13	\$0.21
Traffic	\$3,556	\$1,814	\$2,241	\$1,451	\$3.38	\$3.38	\$2.38
Transit	\$5,996	\$10,013	\$5,996	\$7,510	\$10.01	\$10.01	\$1.86
Drainage	\$10,735	\$13,587	\$4,773	\$2,972	\$3.49	\$3.49	\$4.62
General Facilities	\$1,965	\$3,282	\$1,965	\$2,462	\$3.28	\$3.28	\$0.61
Parks	\$4,134	\$9,050	\$5,419	\$9,050	\$0.00	\$0.00	\$0.00
Airport	\$209	\$349	\$209	\$349	\$0.00	\$0.00	\$0.00
Public Art Fee	Exempt	Exempt	\$2,953	\$2,953	\$0.66	\$0.78	\$0.46
Subtotal Town Development Impact Fees	\$27,268	\$39,220	\$24,229	\$27,872	\$21.94	\$22.07	\$10.14
Other Agency Fees							
Mammoth Community Water District Water Connection Fee [4]	\$8,270	\$8,270	\$3,336	\$3,336	\$1.52	\$2.21	\$0.96
Mammoth Community Water District Sewer Connection Fee [4]	\$2,171	\$2,171	\$474	\$474	\$0.29	\$0.43	\$0.14
Mammoth Lakes Fire Protection District Fee	\$1,148	\$1,511	\$725	\$1,511	\$1.97	\$1.97	\$0.96
Mammoth County Office of Education Library Fee	\$1,942	\$335	\$1,673	\$335	\$0.00	\$0.00	\$0.00
Mammoth County Office of Education Child Care Fee	\$363	\$604	\$363	\$604	\$0.00	\$0.00	\$0.00
School Impact Fees	\$5,786	\$5,786	\$2,236	\$2,236	\$0.42	\$0.42	\$0.42
Subtotal Other Agency Fees	\$19,680	\$18,677	\$8,806	\$8,495	\$4.20	\$5.03	\$2.47
Total Fees	\$52,647	\$63,596	\$34,699	\$38,031	\$27.30	\$28.46	\$13.41

- [1] Reflects Town of Mammoth Lakes fee schedule current as of January 2009. Development impact fee rates based on 2007 DIF justification study and reflect Town Council action in September 2008 to reduce overall SFR fees by 10 percent, resulting in reductions to parks and drainage components. Does not reflect February 2009 action to reduce overall SFR fees by 50 percent.
- [2] Processing fees include plan review, document management archive fee, strong motion instrumentation program, new development fee, and new construction fee.
- [3] New Development Fee is collected on all new residential, commercial, and industrial construction for the purpose of Town Long Range Planning and is charged per square foot of gross buildable area, exclusive of parking and open walkway and deck areas.
- [4] Assumes a 2-inch meter for single family, a 4-inch meter for multifamily, two 4-inch meters for hotel, two 2-inch meters for retail and office, and a 4-inch meter for industrial.
- Source: Town of Mammoth Lakes Building Division Fee Schedule for Fiscal Year 2008-2009, Developmental Engineering Division Fee Schedule for Fiscal Year 2008-2009.

ATTACHMENT 2: SOURCES OF INFORMATION

The preliminary economic analysis was prepared using certain data and information from the following sources.

1. 2007 – 2014 Housing Element, Mammoth Lakes General Plan, Town of Mammoth Lakes, June 23, 2010
2. Destination Resort Community and Economic Development Strategy Three-Year Update, Town of Mammoth Lakes, March 2012
3. Mammoth Creek Inn Project Review, Economic Planning Systems, October 29, 2012
4. Mammoth Lakes Development Impact Fee and Housing Program Update, Economic Planning Systems, March 18, 2010
5. Mammoth Lakes Development Impact Fee Schedule, Town of Mammoth, May 6, 2010
6. Mammoth Lakes Economic Forecast and Revitalization Strategies, Economic Planning Systems, October 6, 2011
7. Mammoth Lakes Housing Needs Assessment 2011, RRC Associates / Rees Consulting, September 28, 2011
8. Mammoth Lakes Market Report – 2012, Trademark Properties, 2013
9. Mammoth View Feasibility Evaluation, Economic Planning Systems, April 28, 2011
10. Market Study for Mammoth Lakes Conference Center, HVS, September 2008
11. Real Estate Market Outlook and Development Strategy, Economic Planning Systems, October 2007
12. Residential Escrows 2005 - 2012, Mammoth Lakes Board of Realtors, February 2013
13. Resort Investment and Public Facilities Element, Town of Mammoth Lakes, June 2, 2011
14. Town of Mammoth Affordable Housing Policy, Resolution No. 09-76, Town of Mammoth, November 18, 2009
15. Interviews:
 - Jim Smith, Mammoth Mountain Ski Area
 - Madeline Brown, Resort Property Realty
 - Hector Caldera, Britannia Pacific Properties, Inc.
 - Matthew Lehman, Matthew Lehman Appraisal, Inc.

ATTACHMENT D:

CIVIL ENGINEERING ANALYSIS AND COST ESTIMATES



Memorandum Prepared by CFA, Inc.
For the Town of Mammoth Lakes Main Street Plan
Summary of Cost Estimates, Summary of Power Relocation and Preliminary
Engineers Cost Estimate for Main Street Improvements.

Summary of cost estimates:

The following is a summary of the preliminary engineers estimate (attached) dated 05/31/13.

Item 1 - Mobilization, Demobilization & Cleanup

- a. Assumptions: Highway and utility infrastructure will be constructed in one single phase.
- b. Cost basis: TOML Bid Summary for Main Street South Frontage Road Rehabilitation and Tavern Road SRTS Project.

Item 2 – Storm Water Management

- a. Assumptions: Construction will take place during the summer months when precipitation is minimized.
- b. Cost basis: Construction allowance based on similar projects.

Item 3 – Construction surveying (staking)

- a. Assumptions: Construction staking to be provided by a California licensed professional land surveyor.
- b. Cost basis: Construction allowance based on similar projects.

Item 4 – Saw Cut Ex. Roadway

- a. Assumptions: Removal of existing asphalt, within CAL-TRANS ROW and frontage roads, for installation of proposed improvements (e.g. center median island, landscape buffer zone, bike lane & sidewalk) will be saw cut prior to excavation.
- b. Cost basis: TOML Bid Summary for Tavern Road SRTS Project and Lakeview Road Ice Melt Project.

Item 5 – Utility Verification (potholing)

- a. Assumptions: Contractor will pothole to verify location and depth of existing utility infrastructure for the entire length of the project prior to construction of proposed improvements.
- b. Cost basis: Construction allowance based on similar road projects.

Item 6 – Adjust Manholes and valves to grade

- a. Assumptions: Contractor will lower all manhole frame and covers, utility vaults, gas valves and water valves prior to grinding and overlaying roadway. Contractor will adjust all frames, covers vaults and valves to finish grade upon completion of construction.
- b. Cost basis: TOML Bid Summary for Main Street South Frontage Road Rehabilitation.

Item 7 – 5' High Masonry Block Retaining Wall

- a. Assumptions: Installation of one (minimum) 5' high block retaining wall will be required on the south side of the highway between Manzanita Road and Minaret Road to accommodate the installation of a landscape buffer and sidewalk between the upper highway and the lower frontage road. Installation of three (minimum) 5' high block retaining walls will be required on the north side of the highway between Mountain Boulevard and Minaret Road to accommodate the installation of a multi-use path, bus stops and slope terracing.
- b. Cost basis: TOML Bid Summary for Main Street South Frontage Road Rehabilitation.

Item 8 – Remove Existing Plantmix Bituminous Pavement and Agg Base to a Depth of 10" (TOML)

- a. Assumptions: Contractor will remove existing asphalt, within CAL-TRANS ROW and frontage roads, prior to the installation of proposed improvements (e.g. landscape buffer zone, bike lane & sidewalk).
- b. Cost basis: TOML Bid Summary for Tavern Road SRTS Project and Lakeview Road Ice Melt Project and bid estimates on similar roadway projects.

Item 9 – Remove Existing Plantmix Bituminous Pavement and Agg Base to a Depth of 16" (Cal-Trans)

- a. Assumptions: Contractor will remove existing asphalt, within CAL-TRANS ROW and frontage roads, prior to the installation of proposed improvements (e.g. center median island).
- b. Cost basis: TOML Bid Summary for Tavern Road SRTS Project and Lakeview Road Ice Melt Project and bid estimates on similar roadway projects (Reno, NV).

Item 10 – Remove Existing PCC Roll Curb and Gutter

- a. Assumptions: In the preferred design option, we plan to utilize the existing curblines along Main Street from Thompson Road to Manzanita Road. Existing curbs will be removed for bus stops only along this stretch. Existing curb on the south side of Main Street (no curb exists on the north side) between Manzanita Road and Mountain Boulevard will be removed in order to accommodate the proposed roadway section (e.g. buffer zone, MUP & sidewalk). A small portion (200 LF) of existing curb along the southeast corner of Minaret Road and Main Street will be removed in the section between Mountain Boulevard and Minaret Road. No other curb exists in this section.
- b. Cost basis: Unit price based on bid estimates from similar roadway projects (Reno, NV).

Item 11 - Removal of Existing Trees

- a. Assumptions: Removal of existing trees (large) that appear to be in conflict with proposed improvements (e.g. landscape buffer zone, bike lane, MUP, sidewalk & retaining walls) throughout the project.
- b. Cost basis: TOML Bid Summary for Main Street South Frontage Road Rehabilitation and bid estimates from similar development projects (Reno, NV).

Item 12 – Mass Grading

- a. Assumptions: Mass grading areas include proposed cut and fill areas outside of the existing pavement areas where new improvements are proposed. A 24" cut/fill depth was assumed for all improvement areas (e.g. landscape buffer zone, bike lane, MUP, & sidewalk) that are proposed to fall outside of the existing Main Street pavement section. An earthwork quantity was also estimated for the terraced slope treatment proposed between Mountain Boulevard and Minaret Road.
- c. Cost basis: TOML Bid Summary for the Lake Mary Road Rehabilitation Project, Lakeview Road Ice Melt Project and bid estimates from similar development projects (Reno, NV).

Item 13 – 3/4" Grind and Overlay (Cal-Trans ROW)

- a. Assumptions: Contractor will grind and overlay the entire curb to curb width of the finished roadway section. Grinding the surface will remove existing striping and the 3/4" overlay will provide a clean surface for final striping.
- b. Cost basis:

Estimate Summary for Power Relocation

Thompsons Way to Manzanita Road

Verizon: On the Northern side there are about 850 LF of lines from old Mammoth Road to the Fire Station near Forest Trail that will need to be relocated. This line shows four lines in parallel, but are assumed to be in the same trench and only counted as one single move. There are also 600 LF of lines between the Fire Station and Napa Auto Parts that will need to be relocated. These are three lines in parallel and will be counted as only one move. They are currently in the frontage roads which are designed to be transitioned into where new buildings will be located in order for the buildings to be accessible from the new walkways. The lines will be relocated into the new road in order to be accessible in the future. On the Southern side there is what looks like the major line that runs 1650 LF from Old Mammoth Road to past Manzanita Road. This line is also in the frontage road that will be overlaid with buildings in the future and will need to be relocated to the new road. The total amount of lines moved will be about 3850 LF.

Edison: On the Northern side from the Fire Station to the Motel 6 there are about 1,000 LF of underground lines in the frontage road. At the Motel 6 the lines turn into above ground which will still need to be relocated and can be turned into underground power if desired, but will be more expensive. There are about 550 LF of above ground lines. The total amount of lines moved will be about 1,650 LF.

Manzanita Road to Mountain Boulevard

Verizon: The main line still runs across this whole section on the south side, but will not need to be relocated. The frontage road where it is located will not be removed.

Edison: The above ground power lines continue on the northern side across this whole section, but will be remaining in place. The new design shows the northern slope being regarded to be less of a slope, but the lines are thought to not be affected. These lines are above ground. Underground lines are preferred, but are not included in this cost estimate at this time.

Mountain Boulevard to Minaret Road

Verizon: All of the lines are in the frontage road on the southern side and will not be affected by the new design.

Edison: On the northern side the above ground lines run to just past Viewpoint Road. Again these lines are planned to remain in place, but are preferred to be placed underground. There are about 500 LF of lines on the southern side, but are also located in the frontage road and will not need to be relocated.

Mammoth Lakes, CA Main Street Transportation Corridor & Implementation Plan 09-23-13								
DESCRIPTION		Unit Cost	Unit	Thompson to Manzanita	Manzanita to Mountain	Mountain to Minaret	TOTAL	TOTAL
	Preliminary Engineers Estimate			QTY	QTY	QTY	QTY	\$
1	Mobilization, Demobilization, & Cleanup	\$45,000.00	LS				1	\$45,000.00
2	Storm Water Management	\$20,000.00	LS				1	\$20,000.00
3	Construction Surveying (Staking)	\$40,000.00	LS				1	\$40,000.00
4	Saw Cut Ex. Roadway (\$2/LF)	\$19,000.00	LS				1	\$19,000.00
5	Utility Verification (Potholing)	\$16,000.00	LS				1	\$16,000.00
6	Adjust Manholes And Valves To Grade	\$500.00	EA	30	7	8	45	\$22,500.00
7	5' High Masonry Block Retaining wall (\$250/LF)	\$250.00	LF	0	1,130	1,650	2,780	\$695,000.00
8	Remove Existing Plantmix Bituminous Pavement and Agg Base to a Depth of 10" (TOML)	\$1.10	SF	16,986	25,188	0	42,174	\$46,391.40
9	Remove Exist. Plantmix Bituminous Pavement and Agg Base to a Depth of 16" (Cal-Trans)	\$1.80	SF	36,629	22,015	26,887	85,531	\$153,956.16
10	Remove Existing PCC Roll Curb and Gutter	\$6.00	LF	840	1,275	200	2,315	\$13,890.00
11	Remove Existing Trees	\$1,500.00	EA	30	16	15	61	\$91,500.00
12	Mass Grading	\$30.00	CY	12,195	1,902	4,275	18,372	\$551,148.89
13	3/4" grind and overlay, (Cal-Trans- ROW)	\$15.00	SY	19,084	8,335	8,305	35,723	\$535,847.50
14	Install Storm Drain Infrastructure Improvements (pipe, manholes, inlets, ect.)	\$120.00	LF	1,000	500	2,000	3,500	\$420,000.00
15	Install Traffic Signal at Intersection w/ Forest Trail Road and New Street (Shady Rest Road)	\$300,000.00	LS	2	0	0	2	\$600,000.00
16	Install Pedestrian Signal at Laurel Mountain (RRBF), Center Street (RRBF) and Manzanita Road (HAWK)	\$150,000 (HAWK) \$20,000 (RRBF)	LS	2	1	0	3	\$190,000.00
17	Install PCC Bus Stop Section (8" Reinforced PCC on 6" Type 2 Base)	\$15.00	SF	7,200	3,400	0	10,600	\$159,000.00
18	Install Bus Stop Shelter (Large)	\$15,000.00	LS	2	0	0	2	\$30,000.00
19	Install Bus Stop Shelter (Small)	\$10,000.00	LS	4	4	4	12	\$120,000.00
20	Install Public Restroom Building, complete in place	\$250,000.00	EA	1	0	0	1	\$250,000.00
21	Install Landscaping (Cal-Trans median), complete in place	\$5.00	SF	33,426	0	0	33,426	\$167,130.00
22	Install (16") Top Soil Material & Amend Exist. Subgrade Soil (14") Cal-Trans	\$1.50	SF	33,426	0	0	33,426	\$50,139.00
23	Install Landscaping (cycle track promenade TOML), complete in place	\$6.00	SF	38,200	23,804	14,000	76,004	\$456,024.00
24	Install Site Furnishings (benches, trash receptacles, bike racks, ect)	\$400,000.00	LS	1	0	0	1	\$400,000.00
25	Install PCC commercial driveway apron, complete in place	\$10.00	SF	3,512	1,219	2,330	7,061	\$70,610.00
26	Install PCC Median curb (depressed), complete in place	\$25.00	LF	6,666	0	0	6,666	\$166,650.00
27	Install PCC Roll curb, complete in place	\$40.00	LF	500	2,674	3,174	6,348	\$253,920.00
28	Install PCC pedestrian ramps with truncated domes, complete in place	\$2,000.00	EA	36	14	4	54	\$108,000.00
29	Install Concrete Pavers at Cycle Track, complete in place	\$15.00	SF	3,166	0	0	3,166	\$47,490.00
30	Install PCC cycle track (non-reinforced)	\$8.00	SF	50,914	0	0	50,914	\$407,312.00
31	Install PCC MUP	\$8.00	SF	0	20,018	19,500	39,518	\$316,144.00
32	Install PCC Sidewalk (brushed finish), complete in place	\$11.00	SF	73,205	10,250	10,000	93,455	\$1,027,999.50
33	Install New Decorative Street Light	\$8,000.00	EA	40	0	20	60	\$480,000.00
34	Relocate Existing Underground Verizon Fiber Optic	\$500.00	LF	3,850	0	0	3,850	\$1,925,000.00
35	Relocate Existing 33KV Underground Power	\$500.00	LF	1,650	0	0	1,650	\$825,000.00
36	Install Electric Meter Pedestal, complete in place	\$11,000.00	LS	1	0	0	1	\$11,000.00
37	Install 4-inch solid white traffic paint lane stripe, complete in place	\$0.20	LF	13,492	7,945	8,250	29,687	\$5,937.40
38	Install curb paint	\$1.00	LF	1,204	2,110	1,650	4,964	\$4,964.00
39	Install 24-inch Thermoplastic stop bar, complete in place	\$8.50	LF	298	117	134	549	\$4,662.25
40	Install 24-inch Thermoplastic crosswalk marking, complete in place	\$8.00	LF	1,488	292	384	2,164	\$17,312.00
41	Install Thermoplastic Bike Lane Symbol pavement marking, complete in place	\$185.00	EA	44	0	0	44	\$8,140.00
42	Parking Garage (per stall)	\$30,000.00	EA	150	0	0	150	\$4,500,000.00
43	Surface Parking Lot (per stall)	\$3,000.00	EA	100	0	0	100	\$300,000.00
44	Civic Plaza	\$750,000.00	LS	1	0	0	1	\$750,000.00
45	Traffic Control	\$200,000.00	LS				1	\$200,000.00
46	Contract Contingency (+/-10%)	\$1,652,266.81	LS				1	\$1,652,266.81
	BID ITEMS TOTAL							\$18,174,934.91

ATTACHMENT E:

EXISTING FUNDING TOOLS AND GRANT OPTIONS



EXISTING TOOLS

Old Mammoth Road Assessment District

TYPE OF DISTRICT:	Benefit Assessment District (BAD)
WHAT IT PAYS FOR:	Snow management, landscaping, street lighting and sidewalk maintenance (Town pays 1/3 cost.)
ASSESSMENT RATE:	\$13.02 per LF (lineal foot) of frontage. Condos pay a per unit cost. \$25.78 per LF is the maximum.
BUDGET:	\$180,000 per year
WHO IS ASSESSED:	Properties in the area, including residential and governmental buildings
HOW ASSESSMENT IS COLLECTED:	Assessment is paid through annual tax bill, and the Town receives funds less the collection fee by the County.
TERM:	District is perpetual.

North Village Assessment District

TYPE OF DISTRICT:	Benefit Assessment District (BAD) - only for Interwest property (it passed for whole was only enacted for the core.)
WHAT IT PAYS FOR:	
ASSESSMENT RATE:	By unit size - \$0.27 per Square Foot, \$150 for 1-bedroom.
BUDGET:	
WHO IS ASSESSED:	
HOW ASSESSMENT IS COLLECTED:	
TERM:	

Bluffs

TYPE OF DISTRICT:	1911 Act
WHAT IT PAYS FOR:	Full maintenance of street area.
ASSESSMENT RATE:	\$1,600 per year
BUDGET:	
WHO IS ASSESSED:	
HOW ASSESSMENT IS COLLECTED:	
TERM:	

Juniper Ridge Assessment District

TYPE OF DISTRICT:	Lighting and Landscape District Act
WHAT IT PAYS FOR:	
ASSESSMENT RATE:	\$1,000 per year
BUDGET:	
WHO IS ASSESSED:	
HOW ASSESSMENT IS COLLECTED:	
TERM:	

DIF Mello Roos

TYPE OF DISTRICT:	Only 1 property has used it.
WHAT IT PAYS FOR:	
ASSESSMENT RATE:	\$1,000 per year
BUDGET:	
WHO IS ASSESSED:	
HOW ASSESSMENT IS COLLECTED:	Instead of enacting DIF, they just do Mello Roos. Can't opt out of it...was only for the capital part of DIF; wouldn't do it.
TERM:	

Fractional Mello Roos

TYPE OF DISTRICT:	Set up to pay in-lieu of TOT
WHAT IT PAYS FOR:	
ASSESSMENT RATE:	\$100 per year per unit
BUDGET:	\$200,000 per year
WHO IS ASSESSED:	
HOW ASSESSMENT IS COLLECTED:	Instead of enacting DIF, they just do Mello Roos. Can't opt out of it...was only for the capital part of DIF; wouldn't do it.
TERM:	

Transit Services Mello Roos

TYPE OF DISTRICT:	For any new transient property.
WHAT IT PAYS FOR:	Perpetual - should be a tax.
ASSESSMENT RATE:	\$157 per year
BUDGET:	
WHO IS ASSESSED:	
HOW ASSESSMENT IS COLLECTED:	
TERM:	

MAMMOTH LAKES MAIN STREET COORIDOR: FUNDING OPPORTUNITIES

Funding Source	Description	Facilities That It Can Fund
<i>Federal Sources</i>		
Surface Transportation Program (STP)	STP provides flexible funding that may be used by States in local jurisdictions for projects on any Federal-aid highway. In the past this funding was authorized by SAFETEA-LU which expired in 2009. Future Funding for STP is authorized by the Moving Ahead for Progress in the 21 st Century Act (MAP-21).	Bike facilities, pedestrian facilities, transit facilities, roadway facilities (traffic signals, medians)
Transportation Alternatives Program (TAP)	MAP-21 establishes a new program to provide for a variety of alternative transportation projects, including many that were previously eligible activities under separately funded programs. The TAP replaces the funding from pre-MAP-21 programs including Transportation Enhancements, Recreational Trails, Safe Routes to School, and several other discretionary programs, wrapping them into a single funding source.	Bike facilities, pedestrian facilities, trails, transit facilities
Congestion Mitigations and Air Quality Improvement Program (CMAQ)	The CMAQ program is continued in MAP-21 to provide a flexible funding source to State and local governments for transportation projects and programs to help meet the requirements of the Clean Air Act.	Signal improvements, bicycle facilities, pedestrian facilities, transit facilities Note that it needs to fund projects that contribute to the attainment or maintenance of air quality standards.
<i>State of California Sources</i>		
Highway Safety Improvement Program (HSIP)	Highway Safety Improvement Program (HSIP) remains as one of the core federal-aid programs in MAP-21. In California, this program is administered by Caltrans. The call for projects is typically in July.	Bike facilities, pedestrian facilities, roadway facilities (traffic signals, medians)

California Bicycle Transportation Account (BTA)	The Bicycle Transportation Account (BTA) is an annual program providing state funds for city and county projects that improve safety and convenience for bicycle commuters. In accordance with the Streets and Highways Code (SHC) Section 890-894.2 - California Bicycle Transportation Act, projects must be designed and developed to achieve the functional commuting needs and physical safety of all bicyclists. Local agencies first establish eligibility by preparing and adopting a Bicycle Transportation Plan (BTP) that complies with SHC Section 891.2. The BTP must be approved by the local agency's Regional Transportation Planning Agency.	Bicycle facilities, bicycle parking, bikeways maintenance, bikeways engineering and design
Local Transportation Fund (LTF)	The LTF is part of the Transportation Development Act which provides funding for public transportation. In addition, limited amounts from the LTF, which is derived for a ¼ cent of the general statewide sales tax, can be used for bicycle and pedestrian facilities.	Bicycle facilities, pedestrian facilities, transit facilities and operation
Land and Water Conservation Fund (LWCP)	The National Park Service and California State Parks administer the LWCP which provides matching grants to states and local governments for the acquisition and development of public outdoor recreations areas and facilities. Requires a 50% local match.	Public recreational spaces, mulit-use paths/trails
Recreational Trails Program	The California State Parks administers the state's Recreational Trails Program, which provides annual funding for recreational trails and related projects. The program requires an applicant match 12 percent of the total project cost.	Multi-use paths/trails

Active Transportation Program

The Governor has proposed to consolidate five existing state funded programs: Transportation Alternatives Program, Recreational Trails program, Safe Routes to Schools, Environmental Enhancement and Mitigation Program and the Bicycle Transportation Account. Under the new plan the Governor proposes to create a single Active Transportation Program (ATP) administered by the state Business, Transportation and Housing Agency.

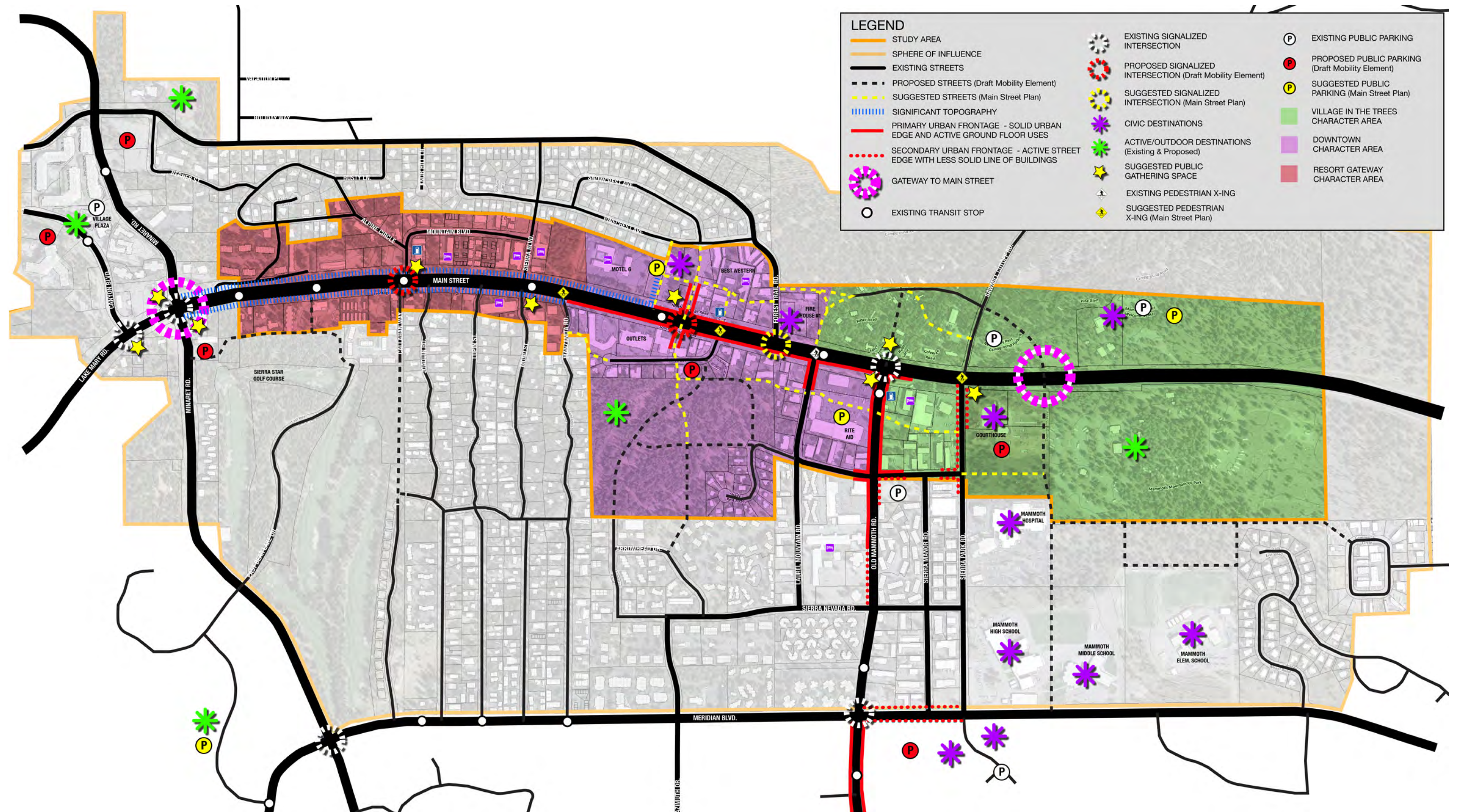
Bike facilities, pedestrian facilities, roadway facilities (traffic signals, medians)

Source: Fehr & Peers.

ATTACHMENT F:

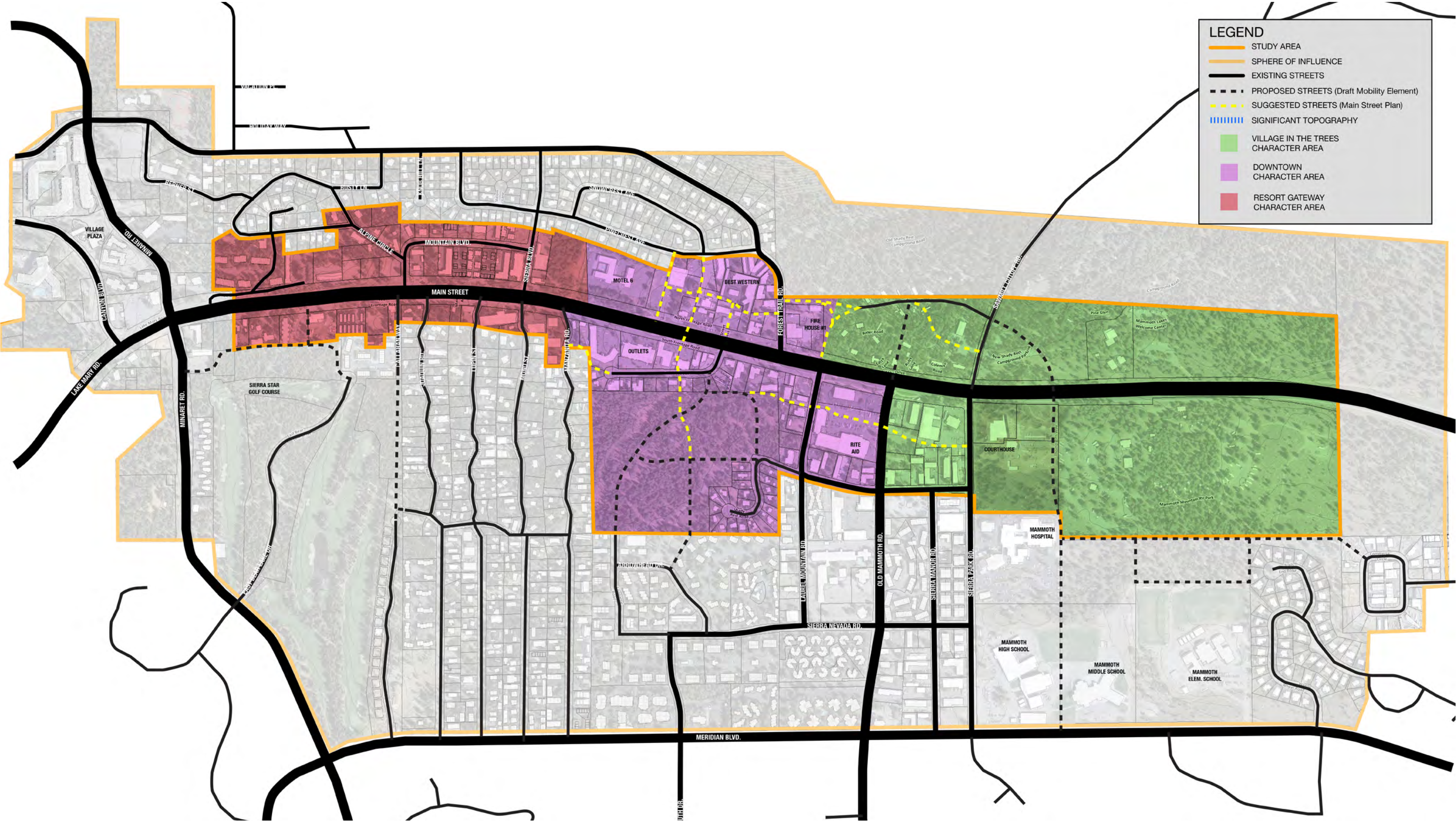
DESIGN ANALYSIS FOLD-OUTS





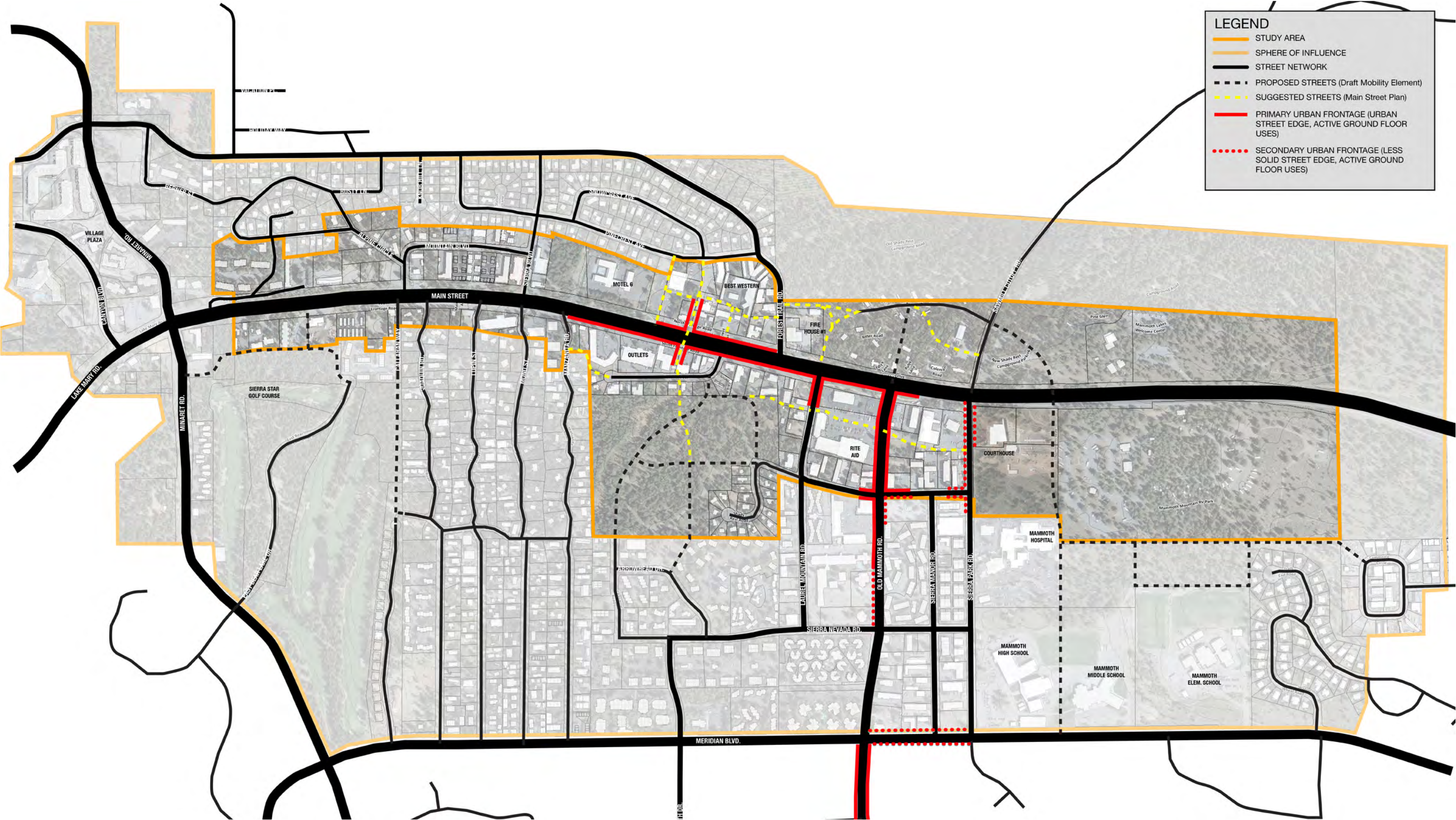
FRAMEWORK CONCEPT

Mammoth Lakes Main Street Plan



CHARACTER AREAS

Mammoth Lakes Main Street Plan

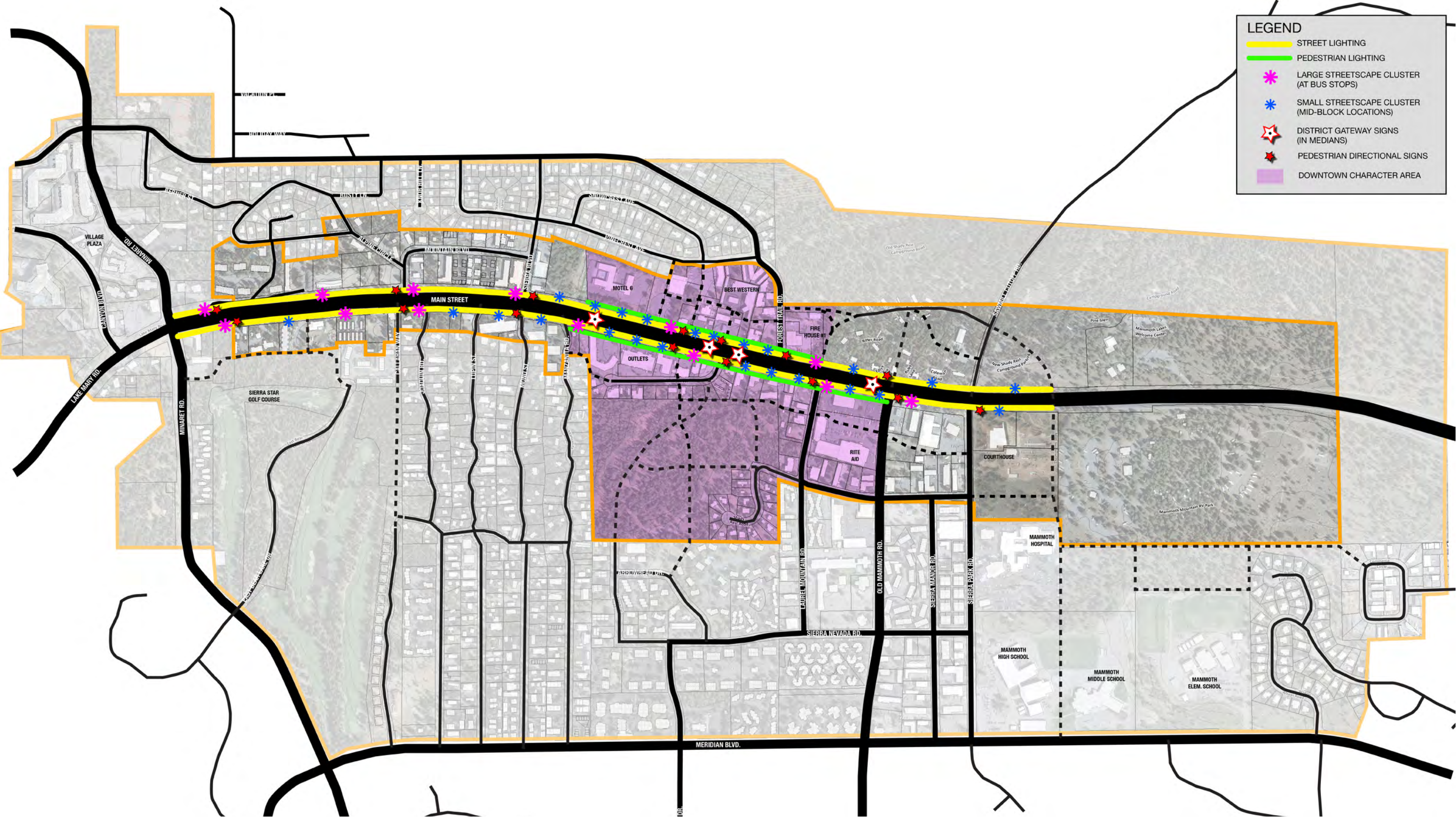


LEGEND

- STUDY AREA
- SPHERE OF INFLUENCE
- STREET NETWORK
- PROPOSED STREETS (Draft Mobility Element)
- SUGGESTED STREETS (Main Street Plan)
- PRIMARY URBAN FRONTAGE (URBAN STREET EDGE, ACTIVE GROUND FLOOR USES)
- SECONDARY URBAN FRONTAGE (LESS SOLID STREET EDGE, ACTIVE GROUND FLOOR USES)

BUILDING FRONTAGES

Mammoth Lakes Main Street Plan





NEW DEVELOPMENT CONCEPT ILLUSTRATIVE
Mammoth Lakes Main Street Plan