



10375 Park Meadows Drive, Suite 425
Lone Tree, CO 80124

303.694.6622
walkerconsultants.com

March 26, 2021

Mr. Don Reimer and Ms. Diane McBride
Town of Frisco
1 Main Street
Frisco, CO 80443

Re: Marina & Park Parking, Access and Circulation Master Plan

Dear Don and Diane:

Walker Consultants is pleased to submit this final report for our Frisco Marina & Park Parking, Access, and Circulation Master Plan.

In this report, we outline our assessment of existing conditions at and immediately surrounding the Frisco Marina as they pertain to boat and vehicle parking, traffic circulation, pedestrian and cyclist movements, and operations.

Also, you will find our proposed operational and design mitigation tactics to improve operations, traffic circulation, pedestrian access, and parking at the Marina that the Town can consider moving forward. These strategies have been formulated with an eye towards compatibility with future planned improvement phases. The various options, strategies, and improvements have been sorted by topic and by time horizon. Also, you will find high-level cost estimates for each strategy outlined.

Sincerely,

WALKER CONSULTANTS

A handwritten signature in blue ink that reads "Andrew J. Vidor".

Andrew J. Vidor
Director of Planning

A handwritten signature in blue ink that reads "Drew Willsey".

Drew Willsey, AICP
Analyst & Planner



Marina & Park Parking, Access, and Circulation Master Plan

Final Report
Town of Frisco, CO

March 26, 2021

Prepared for:
Town of Frisco



WALKER
CONSULTANTS

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SUMMARY OF RECOMMENDATIONS

After analyzing existing conditions at the Marina and Park relating to parking, access, wayfinding, and other considerations, Walker Consultants have identified some preferred strategies and recommendations in this summary for implementation in the short term, mid term, and long term. The short-term strategies focus on projects that can be completed during the spring and summer of 2021. These are projects that can provide a great deal of enhancement and benefit given the time and budget available to design, plan, and construct improvements within the next year. The mid-term strategies focus on projects that will require additional planning and budgeting beyond next year. Lastly, the long-term strategies consider some larger-scale options and solutions beyond the next few years that would require further planning, analysis, community consensus building, and implementation in coordination with the Marina Master Plan.

All strategies identified in this document consider goals and objectives stated in the Marina Master Plan, currently-funded 2021 construction projects (the CDOT “Gap” Project on SH-9, new Marina office, lift station, fuel pump improvements, et cetera), and other planned projects being undertaken or considered by the Town, such as the Lund House improvements, playground relocation, and the “Great Lawn.”

SHORT TERM OPTIONS

These options for 2021 constitute “easy wins” that will improve the guest experience with modest cost and effort. They focus on both physical and operational changes. The planned construction projects and “Gap” Project should not impact the implementation of these strategies. The total cost for all of these strategies should be budgeted for a maximum of \$100k. However, it is possible that the maximum total cost could be less depending on how much design and construction for these options can be accomplished in-house by Town staff.

Formalize Parking Spaces in B-1 Lot

We recommend applying limestone or chalk striping on the existing gravel/dirt. This would serve the dual purpose of making it clear that this is, in fact, a parking lot for automobiles, as well as increasing the number of vehicles that can be parked in the Lot due to the organization and efficiency gained by having formally delineated spaces. For the existing dirt/gravel surface, this Lot would need to be restriped/rechalked several times through the season to maintain the stripes' visibility; limestone chalk is recommended because it is more durable than paint on such surfaces and would minimize the number of restripings needed.

Install Three-Way Stop Signs & Remove Foliage Overgrowth at Existing “T” Intersection

The three-way stop will reduce vehicle speeds in the east-west direction along Marina Dr. and make the intersection more pedestrian- and bike-friendly, as vehicles would be stopping for both vehicular traffic and bike/ped traffic crossing Marina along the Lakefront Path. Removing overgrowth and excess foliage would provide increased visibility for motorists and pedestrians and prepare the intersection for future improvements.

Prohibit Shuttle/Van Operators from Waiting, Picking Up, or Dropping Off in Unpermitted Areas

Walker recommends that Town staff meet with and work with operators of third-party recreational companies that utilize the Marina for pick-up/drop-off activity to communicate restrictions on such activity. Also, the Town

should establish a designated area where vans and shuttles would be allowed to wait, pick up, and drop off that does not conflict with other Marina users. The B-1 Lot be considered as the preferred designated area.

Mast Hoist Operational Changes

Current parking lot geometries in the mast hoisting area are such that trailers may encroach into the adjacent trailer parking spaces as they pull out to leave. While relocation of the mast hoist may not be feasible in the short term, Walker recommends extending the mast hoist zone into the existing adjacent space. This can be accomplished with a simple restriping.

Install New Wayfinding and Regulatory Signage

The first phase, which begins this spring and lasts through the completion of the CDOT “Gap” Project, will address “low-hanging fruit” issues related to signage and wayfinding, particularly for pedestrians, with simple, standardized signs that can be easily, quickly, and inexpensively designed, fabricated, and installed in-house.

Install Bollards and Stop Signs for Cyclists along Lakefront Path at “T” Intersection Crossing

To address the concerns of bikers crossing the road from the rec path, “STOP” signs could be posted at the north and south approaches of the trail for bikers at the Marina Dr. crossing. Also, bollards could optionally be installed, visually narrowing the path at each side of the crossing and prompting cyclists to slow down.

MID-TERM OPTIONS

The mid-term options are prioritized to be completed after 2021. This timing of implementation for these options is a function of budget, other projects planned for 2021 that would impact feasibility, need, and how much planning and design could be completed for some or all of these strategies during the short term.

Solicit Further Interest for Reserved Parking/Conduct Paid Parking Study

As an operational tool to manage consistently high parking demand with constrained parking supply, some have expressed an interest in eventually implementing paid parking at the Marina, either in part or across all Marina parking areas. Also, some Marina slip holders have expressed interest in being able to purchase a reserved parking space at the Marina. In order to evaluate these options, Walker recommends that a formal study be conducted after all short-term and mid-term Marina construction projects are completed. Because there is no paid parking in Frisco currently, implementing either option at the Marina and Park only may be operationally and financially infeasible. Also, it is not yet understood how much new parking in the future will alleviate future parking demand crunches overall.

Update Existing Wayfinding Signage and Install Destination ID Signage

In addition to the signage recommended for installation in 2021, we recommend installing additional vehicular and pedestrian wayfinding signage, as well as Destination ID signage for the parking lots and some of the Marina and Park facilities, once construction is completed. Some existing signage can be upgraded to conform with the wayfinding aesthetic currently found downtown.

Construct Sidewalk Connections between Lakefront Path and Marina Pedestrian Promenade

Additional pedestrian connections through the core of the Marina and Park are recommended. An east-west connection from the existing “T” intersection to the Marina was planned for as part of the Marina Master Plan, in accordance with the “Mountains to Marina” vision. Currently, pedestrians and persons exiting their parked vehicles walk within drive aisles to access the Marina, creating a safety hazard. An east-west crossing across the existing green area between the two lots would provide people a safe and pleasant walking path, with the exact routing of that path to be determined. Optionally, spurs could branch off connecting to the north and south parking lot curbs, as well as to the Great Lawn area.

Provide Pedestrian Crossing at “T” Intersection

Crosswalk improvements/reconfiguration at the “T” intersection are needed to improve pedestrian access and safety between downtown and Marina facilities. These improvements would be in addition to the three-way stop proposed as a short-term solution. The focus would be on providing an additional pedestrian-only crosswalk to connect to the new east-west pedestrian path, with two configuration options possible. This crossing is considered a priority, and planning and design should be started as soon as budget allows.

Install Speed Feedback Signs

If existing vehicular speed concerns along Marina Dr. are not alleviated by the three-way stop proposed in the short term, we suggest installing permanent speed feedback signs, or deploying temporary portable ones, to further reinforce the posted speed limit.

Relocation of Long-Term Trailer Storage

Relocation of long-term trailer storage is an option for increasing the parking supply within the existing footprint of the Marina and Park. While there remains a need for long-term trailer storage, the continued evolution of and diversification of uses at the Marina and Park may make repurposing of the long-term storage areas desirable, either for increased vehicle parking or for other development/uses in the future. This option requires further study to determine feasibility, as well as to establish candidate sites for relocation.

Construct New Surface Parking

Parking supply at the Marina and Park has become constrained and is expected to continue to become more and more limited as the Marina and Park continue to expand. As a result, we recommend providing additional parking capacity. Options include providing a permanent surface lot on the B-1 Lot, expansion of the North Lot once the existing playground is relocated, converting long-term boat trailer storage into parking, and adding more short-term boat trailer spaces in the South Lot.

Install Additional Electric Vehicle Charging Stations

While two EV-charging parking spaces are already planned in the short term for the Marina, the rates of adoption and usage of electric vehicles continues to accelerate. Also, the Town and Summit County both now require EV parking for most new development. As a result of these factors, the Town should add to its EV parking supply in accordance with Town code and future need.

Provide Pedestrian Refuge Areas/Paths in South Lot

Sidewalks or gravel areas that are compatible with softscape areas and the wetlands bordering the Marina to the south, fronting the south and north curbs/sides of the South Lot, would benefit pedestrians and persons exiting their cars after parking by providing them refuge while loading/unloading, as well as another path to cross the lot without having to use or cross drive aisles.

Relocate Mast Hoisting Area

Relocating the mast hoisting area is recommended to reduce existing traffic congestion caused by vehicles using the mast hoist. Potential areas for relocation include the boat launching area and the staging area adjacent to the boat maintenance lot. Walker recommends that Marina and Park management conduct further review of this option in order to identify the preferred area for relocation should relocation occur.

LONG-TERM OPTIONS

Long-term options evaluated require additional study, prioritization, and should have certain “trigger” criteria, some of which are outlined in the Master Plan and some of which are related to future operational policies.

Implement Reserved Parking for Marina Slip Holders/Paid Parking

If a parking study deems it feasible, paid and/or reserved parking could be implemented if desired Town-wide if desired according to the criteria, triggers, and timeline established as part of the study.

Remote Parking and Shuttle Program

Remote parking and shuttle operation may be a desired strategy in the long term, either as an ad hoc solution for special events or as a seasonal solution if parking needs cannot be addressed by other means.

Construct Structured Parking/Incorporate Public Parking into Parking for New Developments

In the long term, structured parking may be needed to support the Marina and Park's continued growth. This parking could be either publicly constructed and operated or be part of a future private development where some of the parking structure is leased for general public use by Marina patrons. In either case, future consideration of this opportunity should be explored as part of a larger mixed-use redevelopment plan.

Main Street/Marina Dr. Realignment and Connection to Downtown

As part of the “Mountains to Marina” vision identified in the Marina Master Plan, a realigned/straightened Marina Dr. was considered as a long-term option. From a pedestrian and vehicular access perspective, straightening this road segment would improve intersection geometries and make crossings safer for bikes and peds. The overall “look and feel” of a straightened Marina Dr. could be more like existing Main Street, with sidewalks and angled on-street parking on both sides of the street, with mixed-use redevelopment to the south.



01 Existing Conditions

SECTION 1 – EXISTING CONDITIONS

Walker Consultants has conducted a review of the existing conditions at and immediately surrounding the Frisco Marina as they pertain to boat and vehicle parking, traffic circulation, pedestrian and cyclist movements and operations.

We have outlined our findings below by the following topics: parking supply; pedestrian access; vehicular, bicycle, and pedestrian wayfinding; vehicle speeds; kayaks, stand-up paddleboarders, and boat rental storage; Lakefront Path/Summit Blvd. Path; van and shuttle pick-up/drop-off; long-term boat storage areas; mast hoisting and trailer parking; and Sanitation District access.

PARKING SUPPLY

Growth in use of the Marina over the past few years has increased the strain on the Marina's formal parking supply. While overall recreational and boating activity were steadily increasing even before the Marina's reconfiguration and addition of the beach, it has been observed by Town staff that the rate of increase has accelerated in the last year, since the initial phase of improvements and additions were made.

As a direct result of the improved amenities those parking at the Marina are, on average, staying longer than they were before. This reduces turnover, or the number of spaces opening up as a result of people leaving, making fewer spaces available for visitors across the day.

The COVID-19 pandemic has led to an increase in overall recreational activity, and demand for recreational parking, during peak times across the country compared to typical trendlines. The Frisco Marina is no exception, and it was observed that recreational activity was much busier than usual in 2020. However, there has also been an increase in activity due to the increased number of recreational services offered at the Marina after recent Marina improvements were completed.

The increased parking demand resulting from increases in Marina activity has resulted in the parking supply at the Marina filling to capacity frequently during busy summer days and on the weekends. It is understood that when the parking system nears or reaches capacity, prospective visitors can choose to either turn around and leave the Marina, or simply wait for another parked vehicle to leave. Visitors who choose to wait typically do so either by idling in a drive aisle or by circulating through the parking lots multiple times until a space opens up.

This activity leads to a congested parking system, which has the effect of frustrating visitors attempting to park while also making the parking system operate inefficiently. In addition, a congested parking system directly contributes to safety concerns for pedestrians, who currently walk within the drive aisles to access Marina amenities after parking due to the lack of direct sidewalks or pedestrian paths, particularly in the South Lot.

It should be noted that these issues with the parking supply are a side-effect of the fact that the improvements have been beneficial to the community and to Marina visitors and users. Full parking lots and congestion mean that the Marina and its related amenities are popular and well-utilized, indicating that the improvements made have been successful and have functioned as intended.

PEDESTRIAN ACCESS

For pedestrians wishing to access the Marina from downtown Frisco, it is currently necessary to cross over to the south side of Main Street one block west of Summit Blvd., as there is currently no sidewalk on the north side east of 7th Avenue, nor is there a pedestrian crossing on the north leg of the Main/Summit intersection.

There is currently no complete sidewalk or path running along either side of Summit Blvd. Walker understands that the improvements for Summit Blvd/Highway 9 planned by CDOT, which will begin construction in 2021, will add a path/sidewalk along the east side of the road that will connect up with the existing reservoir trail to the north and south. This, along with planned intersection improvements, should improve the crossing experience for pedestrians and address some of the concerns highlighted above.



Pedestrians using drive aisles to walk

Starting from the southeast corner of Marina Dr./Main St. and Summit Blvd., a wide path opens up that looks like a multi-use or bike-only path, which continues for approximately 420 feet east along the Marina access road, ending at a “T” intersection with the Dillon Reservoir bicycle path. From this point, there is no sidewalk/path access that continues along the south side of the Marina, through the South Lot.

Pedestrians wishing to continue walking towards the boat launch area and boat ramp must either walk in the middle of the road and down the drive aisles of the South Lot until the end of the Lot, approximately 850 feet, or cross the Marina access road and walk through the park. Currently, there is no sanctioned/stripped crossing into the park, and the park itself is visually obstructed by a clump of trees on the east side of the “T” intersection that lets drivers continue to the boat launch area or turn left to access general parking, the paddle boat rental area, and the Marina restaurant. There are no paths through the park or along the north or south edges/curbs of it.

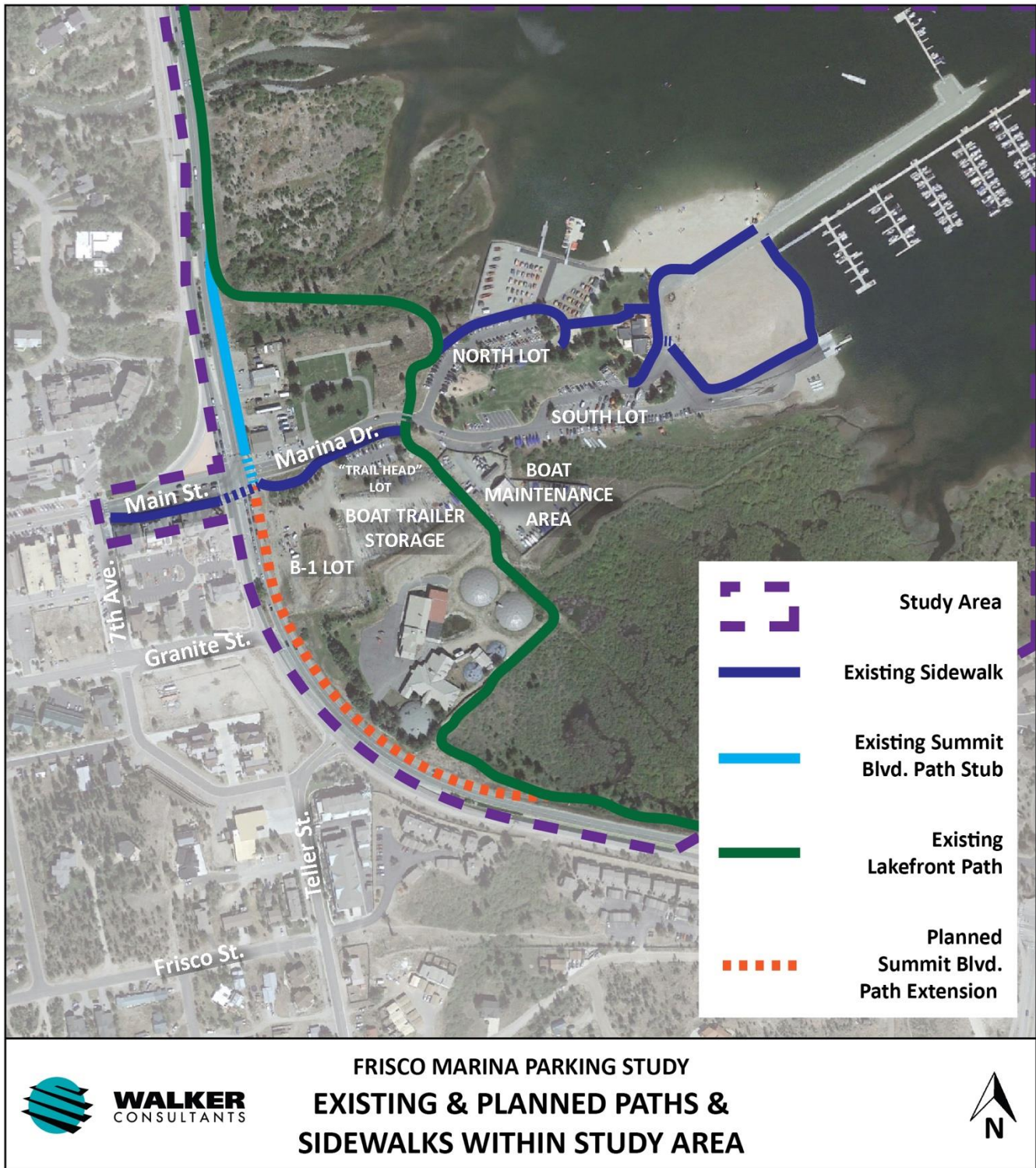
Pedestrians wishing to continue walking towards the paddle boat rental area, Marina house, restaurant, and pier cross the Marina access road at the striped crossing for the Reservoir recreation path and continue for approximately 215 feet before a pedestrian sidewalk splits off and continues along the north curb of the North Lot. There is no sidewalk along the south curb/along the north edge of the park. Persons who have exited their vehicle after parking in the South Lot must walk east towards the Marina and boat launch area through the drive aisles of the parking lot. In the North Lot, there is an existing sidewalk along the north parking row. Those parking along the south row can walk east via the drive aisle or through the park/existing green space.

The remainder of the Marina has complete pedestrian access/connectivity. There is an existing pedestrian promenade that connects General Parking with the restaurant, beach, and pier, as well as a newly-constructed sidewalk that surrounds the land slated for future development across from the Marina restaurant.

The existing and planned network of sidewalks and paths, and existing parking lots and trailer storage/boat maintenance areas, is shown in Figure 1 on the next page.



Figure 1: Existing and Planned Paths and Sidewalks within Study Area



Source: Google Earth, Walker Consultants

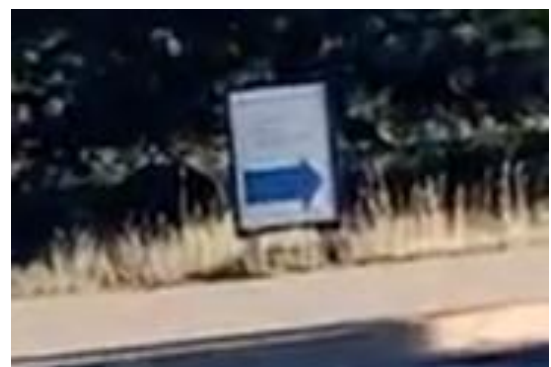


Existing single crossing for reservoir recreation path, showing no continuing sidewalk as well as trees and vegetation obstructing view of park for approaching pedestrians

VEHICULAR, BICYCLE, AND PEDESTRIAN WAYFINDING

Pedestrians currently must rely on existing vehicular wayfinding signage and signage intended for users of the reservoir trail in order to navigate to and around the Marina and its facilities. However, the existing reservoir recreation path signage is not focused on the Marina, making it of limited use for pedestrians or bicyclists who are Marina bound.

Vehicular wayfinding, while present, would benefit from improvements. Walker observed only one set of permanent vehicular wayfinding signs along the Marina access road that are aesthetically consistent with the design of the Town of Frisco wayfinding signage found throughout downtown. Most other vehicular signage is small, features inconsistent aesthetics, does not meet typical design guidelines or recommendations per the Manual of Uniform Traffic Control Devices (MUTCD), and/or is temporary in nature, with signs mounted on wood posts supported by concrete-filled tires.



Most existing pedestrian-scale signage observed is intended for reservoir path cyclists (left, center). Only one pedestrian-orientated sign observed (right). All signs feature inconsistent design aesthetics.

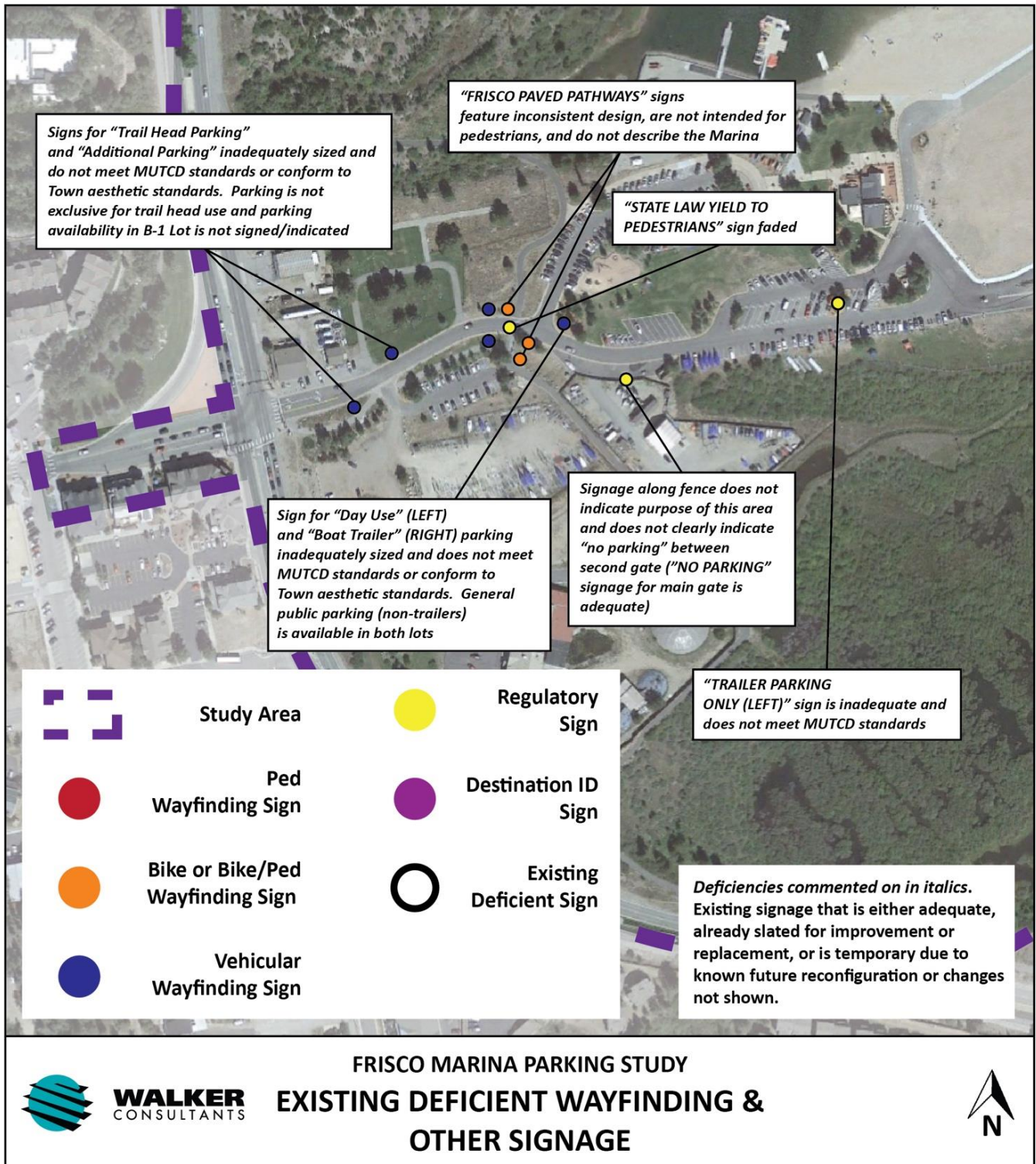


Inadequately-sized, non-MUTCD-compliant signage supported by concrete-filled tires (left two photos).

In the figure on the next page, Walker has indicated the locations of existing deficient signage, with descriptions of the deficiencies detailed.



Figure 2: Existing Deficient Wayfinding and Other Signage



Source: Google Earth, Walker Consultants

VEHICLE SPEEDS

Marina staff have indicated to Walker that vehicles appear to travel faster than the posted vehicle speed, 20 MPH, within the Marina. Given the lack of pedestrian walkways or sidewalks in the lots described previously, excessive vehicle speeds could contribute to safety concerns and increase the risk of vehicle/pedestrian conflicts.

STORAGE RACKS AND PADDLE SPORT RENTALS

Before the recent Marina improvements were made, human-powered boats were stored in boat rack areas, as shown in the below-left aerial photo from 2018, located in two different locations (highlighted in red): one adjacent to North Lot and the former paddle board/kayak launch area (highlighted in blue), and one across from the restaurant. As a result, some standup paddle boarders and kayakers were understood to park near the boat launch, in the South Lot.

As part of the Marina improvements, storage racks and paddle sport rentals were relocated to an expanded storage area, as shown in the below-right aerial photo, adjacent to the north lot (highlighted in red), immediately adjacent to a new paddle board/kayak launch area (highlighted in blue) that was relocated slightly to the west from the previous location. Since then, Walker understands that most of these users now park in the parking lot on the north side of the Marina.



Storage, paddle sports, and launch area (Pre-2019)



Storage, paddle sports, and launch area (Current)

LAKEFRONT PATH/SUMMIT BLVD. PATH

The recreational multi-use path circling the Dillion Reservoir, called the Lakefront Path and forming part of the Frisco Paved Pathways system, is a popular trail for cycling and other foot-powered recreational vehicles during the summer. The Frisco Marina is indicated as the “Mile 0” point on many informational guides published by non-Town organizations, as well as in many places on the Internet. As a result, many rec path users park at the Marina and consider the Marina parking to be rec trail parking. This generates additional load on the Marina parking system from non-Marina-related users.

Currently there is only one primary route available on the Lakefront/Summit Blvd. Path when passing by/through Frisco. The path, from south to north, runs generally adjacent to Highway 9, along the southern perimeter of the wetlands area to the north. When it approaches the Frisco Sanitation Facility, it turns right and goes around the facility. It then goes between the facility and one of the two long-term boat storage areas located at the Marina before crossing Marina Road at a marked crossing.

The crossing is adjacent to the “T” intersection that takes drivers to either the north or south parking areas at the Marina. There is currently one “State Law Yield to Pedestrians” sign in the middle of Marina Drive, but vehicles are otherwise not required to stop (there is a “STOP” sign for vehicles exiting the north lot). The path then continues through the Marina, with a sidewalk splitting off for pedestrians or bicyclists wanting to access the Marina, as noted above, before turning northwest to run back towards Highway 9.

An unsigned spur of the Summit Blvd. Path begins on the north side of the Summit/Marina Dr. intersection and continues north along Highway 9 before rejoining the Lakefront Trail. However, there is no sidewalk or trail south of Marina Drive. Therefore, all through recreational bicycle traffic must go through the Marina, which creates a traffic “choke point” at the crossing with frequent interaction amongst high-speed cyclists, vehicles, and pedestrians.

It is understood that the CDOT Highway 9 roadway improvements (“Gap Project”) planned for 2021 will provide a by-pass pathway for through recreational traffic not wishing to access the Marina by completing the trail between Marina Drive and the south end of the Sanitation Facility. This by-pass should therefore reduce the number of through cyclists on the Marina sections of the trail. This should have the effect of reducing the number of cyclist/vehicle and cyclist/pedestrian interactions at the crossing on Marina Dr. If signage improvements are not currently planned at each end of the new bypass, we recommend adding signage when the bypass is completed to encourage usage.

VAN AND SHUTTLE PICK-UP/DROP-OFF

Some non-Town-operated recreation companies provide bicycle tours or other services that involve private shuttles and pick-up/drop-off service to customers. This private shuttle and pick-up/drop-off activity commonly take place within the Marina’s parking lots and along Marina Dr. Walker understands that these services therefore contribute to the overall congestion in the Marina during peak times for a few reasons.

Vans and trailers commonly park in parking spaces, in loading areas, or within parking lot drive aisles or the roadway as they stage or wait for passengers. parking and picking up passengers in the parking lot drive aisles or other vehicle circulation paths. Also, cyclists returning to be picked up by a van or shuttle have been observed utilizing the roadway and parking lots to ride within as well as wait for vans or shuttle, prompting additional safety concerns.

LONG-TERM BOAT STORAGE AREA/MAINTENANCE YARD

Long-term trailer parking storage is currently located on two separate pieces of land, highlighted in red at right. However, it is understood that both long-term boat parking areas are reaching capacity.

The west storage area, adjacent to the B-1 parking lot, informally known as the “Fruit Stand” Lot, is owned by the Sanitation District, and is currently leased to the Town for \$15,000 per year. The east area is the boat maintenance yard, which is leased from Denver Water. While the lease on the west storage area currently does not have an end date, this land may not be available for boat storage use in the long-term, depending on Sanitation District needs.

MAST HOISTING & TRAILER PARKING

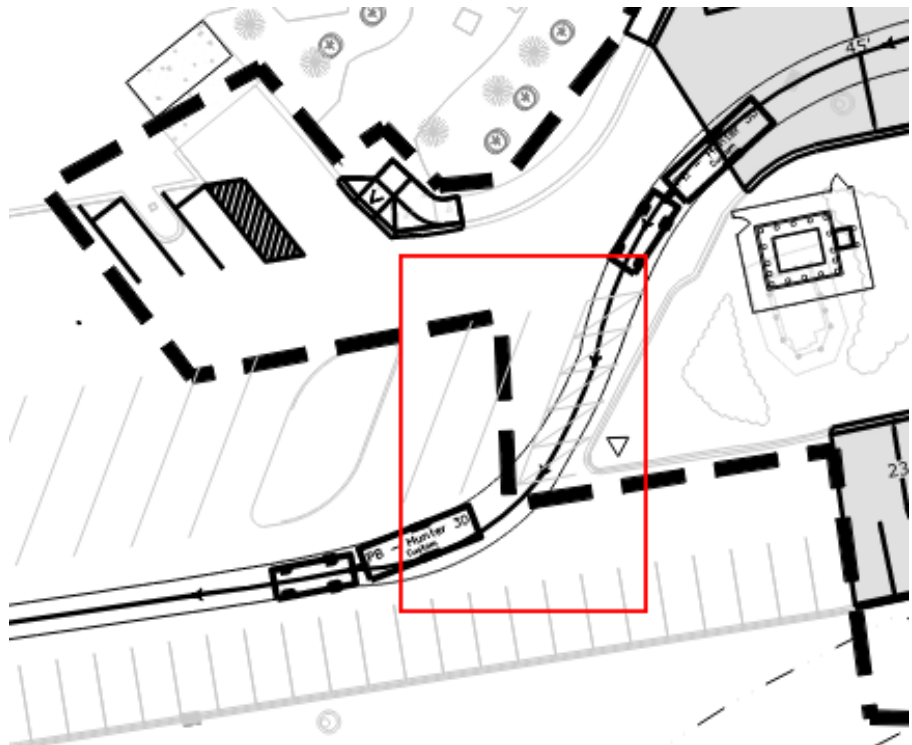
The current location of the mast hoisting rig, shown with a triangle in the figure at below-right, can inhibit access to the two adjacent truck-trailer parking spaces, highlighted within the red box.

In the current configuration, boat trailers that use the hoist area may encroach into the adjacent trailer parking space when turning into the drive aisle to leave.

Overall, the location of the mast hoist, in the middle of primary pedestrian and parking activity areas, is not optimal.



Existing long-term boat storage/parking and maintenance yard



Existing mast hoist area, trailer parking, and vehicle movements

SANITATION DISTRICT ACCESS

Prior to 2021, the primary access for the Sanitation Facility was located off of Summit Blvd. to the south of Marina Dr, as shown at right with the red "X."

However, in preparation for Highway 9 improvements and reconfiguration, the access was recently relocated to off of Marina Dr., with curb cuts being installed for the new access right off of the access drive for the "Trail Head Lot," as shown with the red arrow at right. The Sanitation District moved their primary access following improvements in 2022. The previous driveway off of Highway 9 will only be used for emergency access once improvements are made.



Former and current/new Sanitation Facility access point

With sanitation vehicles now accessing the facility via Marina Dr., there will be additional traffic and congestion, particularly in the morning for deliveries, as a result.



02 Strategies

SECTION 2 – STRATEGIES

The Town has only completed the initial phases of implementing the long-term vision outlined in the Marina Master Plan, which included adding about 220,000 square feet of new land, using soil and sand that were excavated from Lake Dillon, as well as greatly expanding the boat slip area and a total reconstruction and reconfiguration of the pier. Some of the new land was used to add a beach area, as well as to centralize and double in size the storage area for paddleboards, kayaks, and rental boats.

2021 improvements include a new Marina office, modernization of the fueling system, and a new lift station. Longer-term improvements, currently unfunded, include “The Great Lawn,” featuring a pavilion/flex house intended to host events throughout the warmer months, such as concerts, a lake-front promenade area, relocation of the existing playground, and adding more boat slips. The Sanitation District may need to expand into the long-term boat/trailer storage area in the future, which would terminate the current Town lease for that area and displace the existing boat trailer storage. Finally, the existing B-1 parking lot may be partially or completely developed with retail, office, restaurant, or residential uses.

Other long-term visions identify an improved connection between Main Street and the Marina, which would allow for the addition of street-facing “Main Street” style development along the south side of Marina Dr. Such development, which would have the effect of “extending” Main Street across Summit Blvd. into the Marina, may also involve redevelopment of existing land along the east side of Summit.

These improvements will likely result in the continued increase of parking demand at the Marina due to continued growth in use of Marina functions and facilities. This is especially true if the Great Lawn is used to host events such as concerts, which would have the effect of dramatically increasing Marina parking demand during such events. However, long-term improvements envisioned will have significant impacts on both parking supply and parking demand at the Marina. Development on both the Great Lawn area, in the B-1 parking lot, or on the existing Sanitation-District-owned or Town-owned long-term boat storage parcels, will reduce the existing public parking supply while also adding new parking demand.

In conjunction with anticipated increases in parking demand that will continue through the mid-term and long-term, pedestrian access needs will also increase.

Walker recommends that the Town consider a variety of operational and design mitigation tactics to improve operations, traffic circulation, pedestrian access, and parking at the Marina with an eye towards compatibility with future planned improvement phases. To that end, Walker has identified varying options, strategies, and improvements, sorted by time horizon, that the Town can consider moving forward.

SHORT TERM OPTIONS (SUMMER 2021)

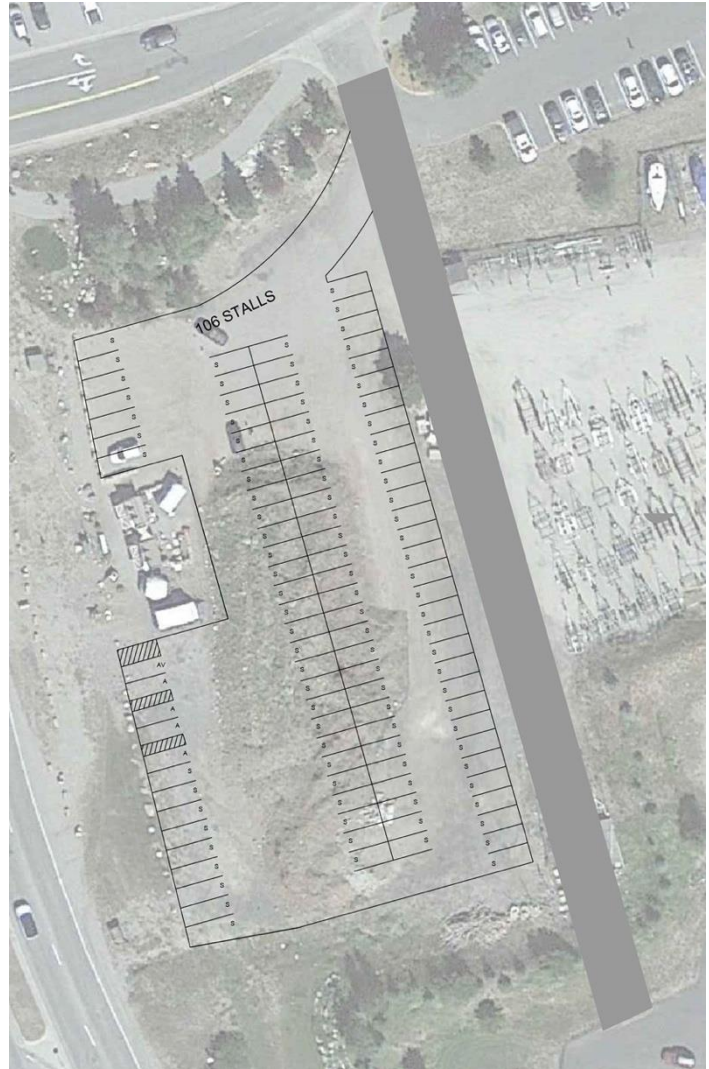
FORMALIZE PARKING SPACES IN B-1 LOT

The current Lot is an unimproved dirt/gravel area, and it is unclear whether this area is even available for parking to those unfamiliar with the Marina. Because there are no striped demarcations distinguishing parking spaces, it is likely that this Lot fills up inefficiently, with vehicles occupying more space than necessary and parking irregularly within and between rows. This inefficient parking reduces the parking capacity that can be achieved in the Lot.

We recommend applying striping on the existing gravel/dirt. This serves the dual purpose of making it clear that this is, in fact, a parking lot for automobiles, as well as increasing the number of vehicles that could be parked in the Lot. For the existing dirt/gravel surface, this Lot would need to be restriped several times through the season to maintain the visibility of the stripes. The use of limestone chalk for striping, instead of acrylic paint, is recommended as the chalk tends to last far longer than paint on gravel/informal surfaces.

We suggest budgeting around \$10,000 for these improvements annually. This assumes \$5,000 for grading and another \$5,000 for striping the Lot twice during the summer.

In addition to striping, some flexible delineators or flags could be installed at various points down the centerlines and corners of each row of parking to further enforce organized parking. This could have the added benefit of lengthening the time intervals between restripings.



Conceptual short-term striping plan for B-1 Lot

According to our conceptual layout, as shown to the right, about 106 parking spaces could be formalized without encroaching on the existing Uncle John's fruit stands. An additional 8 or 9 spaces could be added were the fruit stands to be relocated or consolidated. Optionally, the Town could explore working with existing leaseholders to consolidate/relocate the fruit stands in such a manner that benefits the operators and reduces conflicts between vehicles parking and the fruit stands, as well as improves the flow and layout of the parking.

This layout only shows one ingress/egress point on the north side of the Lot, with a second point located on the south side currently prevented by an existing gate for sanitation access only along the sanitation access drive, shown in grey, located just south of the north ingress/egress. Walker recommends that, if possible, the Town

consider working with the Sanitation District to relocate the gate southward to allow for two ingress/egress points for the B-1 Lot.

It should be noted that some of this Lot is or may be targeted for construction staging by CDOT during the “Gap” Project during the summer of 2021. This would have the effect of reducing the passenger vehicle parking capacity of this Lot next summer considerably.

The “Bone Yard” will also be used for construction staging, especially during initial construction stages, which may make most of the B-1 Lot available during at least some of the busy months. Town staff also has indicated to Walker that the future Great Lawn, currently unimproved, may or could also be used for some construction staging instead of the B-1 Lot.

CONDUCT SPEED STUDY ON MARINA DR.

The Town should commission a speed study by a transportation planning/engineering firm that specializes in such studies to determine the appropriate speed limit by gauging average vehicle speeds. Also, the study would determine the number of vehicles speeding through the parking lots and down Marina Dr and quantify bike/vehicle and ped/vehicle interactions at the Lakefront Path crossing. This study should be conducted as soon as possible, though the Town may want to wait until SH 9 improvements are completed to do so.

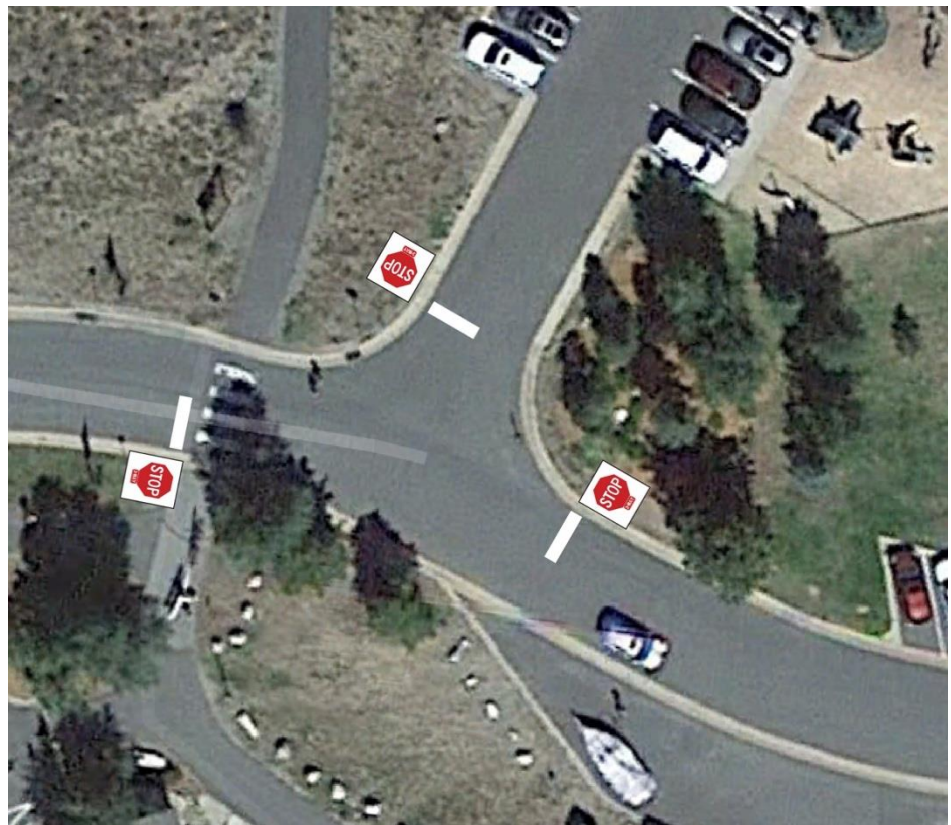
A speed study could be completed for around \$5,000.

INSTALL THREE-WAY STOP SIGNS & REMOVE FOLIAGE OVERGROWTH AT EXISTING “T” INTERSECTION

The existing intersection where Marina Dr. splits into the main drive aisles for the North and South Lots should be converted to a three-way stop, with both stop signs and stop bars utilized for this improvement.

The three-way stop will reduce vehicle speeds in the east-west direction as well as make the intersection more pedestrian- and bike- friendly, as vehicles would be stopping for both vehicular traffic as well as Lakefront Path crossing traffic.

In conjunction with this improvement, Walker also recommends installing



Existing “Y” intersection shown with “STOP” signs and stop bars

new/updated “STATE LAW – YIELD TO PEDESTRIANS” signage on both the east approach and west approach. Currently, there is one sign on the west leg.

A warrant study would likely be required and could be completed for around \$3k. If the warrant study deemed three-way STOP sign control at the intersection to be appropriate, a budget for installing the three stop signs and stop bars ranges between \$5,000 to \$6,000 (\$1,500 for each sign plus the stop bars).

As part of this option, Walker would also recommend removing excess foliage/overgrowth from both the south and east sides of the intersection. This would provide better sight lines for drivers and pedestrians as well as increase the size of the pedestrian refuge adjacent to the trail on the southwest side. Areas proposed for vegetation removal are shown below with red X's.



Areas of proposed tree/vegetation overgrowth removal

The additional cost of landscape removal would be around \$15k, assuming the removal of 10 trees and some other overgrowth. Note that this cost estimate assumes that the work would be performed under contract by a private, third-party arborist or landscape company. Town staff has noted to Walker that it may have the capability to perform this task without needing to contract out, which would negate this cost estimate.

PROHIBIT SHUTTLE/VAN OPERATORS FROM WAITING, PICKING UP, OR DROPPING OFF IN UNPERMITTED AREAS

Walker recommends that Town staff meet with and work with operators of third-party recreational companies that utilize the Marina for pick-up/drop-off activity to communicate restrictions on such activity. Also, the Town should establish a designated area where vans and shuttles would be allowed to wait, pick up, and drop off that does not conflict with other Marina users. Walker recommends that the B-1 Lot be considered as the designated area.

If the Town implements this option, Walker recommends that the Town reach out to some nearby business owners to assure them that shuttle/van loading activity would not take place in front of their businesses or otherwise encroach on or impede access for their businesses.

Also, with this option, the Town should post supplementary signage along Marina Dr. that communicates that the B-1 Lot is the designated Lot for shuttle/van loading activity, in addition to signage within the Lot itself if the Town wishes to isolate the activity to one area of the Lot. Note that this could potentially limit the passenger vehicle capacity of the Lot by a few spaces as shown above on page 14.

MAST HOIST AREA OPERATIONAL CHANGES

Current parking lot geometries in the mast hoisting area are such that trailers may encroach into the adjacent trailer parking spaces as they pull out to leave. While relocation of the mast hoist may not be feasible in the short term, Walker recommends that the Town consider extending the mast hoist zone into the existing adjacent space. This can be accomplished with a simple restriping, as shown to the right.



Conceptual enlarged mast hoist parking area

In conjunction with, or instead of, expansion of the area, use of the mast hoist can be restricted/managed during peak activity times. This can be done with temporary signage and locking the hoist.

INSTALL NEW WAYFINDING AND REGULATORY SIGNAGE

To address signage deficiencies identified and discussed, Walker has proposed a solution that takes place in two phases.

The first phase, which begins this spring and lasts through the completion of the CDOT “Gap” Project, will address “low-hanging fruit” issues with simple, standardized signs that can be easily and quickly and inexpensively designed, fabricated, and installed. All non-regulatory signs proposed in this phase can be temporary or permanent, depending on the Town’s desire to create a new pedestrian wayfinding sign family in the long-term that conforms to existing aesthetic standards for Town vehicular wayfinding found along Main Street, as well as the desire to upgrade some vehicular wayfinding signs in the future.

This phase includes new bicyclist wayfinding along the Lakefront Path when the path bypass is completed as part of the “Gap” Project. It is Walker’s opinion that this simple pedestrian wayfinding signage proposed is especially essential given the disruption and confusion that may result for pedestrians trying to go between the Marina and downtown during construction for the project.

In this phase, all proposed aluminum vehicular wayfinding sign panels are 30” x 24” and all proposed pedestrian wayfinding sign panels are 12” x 18”. All regulatory signage proposed is off-the-shelf signs that meet specifications for each respective sign as outlined in the Manual of Uniform Traffic Control Devices, or MUTCD. New cyclist wayfinding signs should conform to the existing standard for the Frisco Paved Pathways System.

We have identified a total of 26 signs (\$1,500 per sign) to be installed totaling approximately \$40,000. This assumes the signs are procured and installed to meet MUTCD requirements.

A-FRAME SIGNAGE

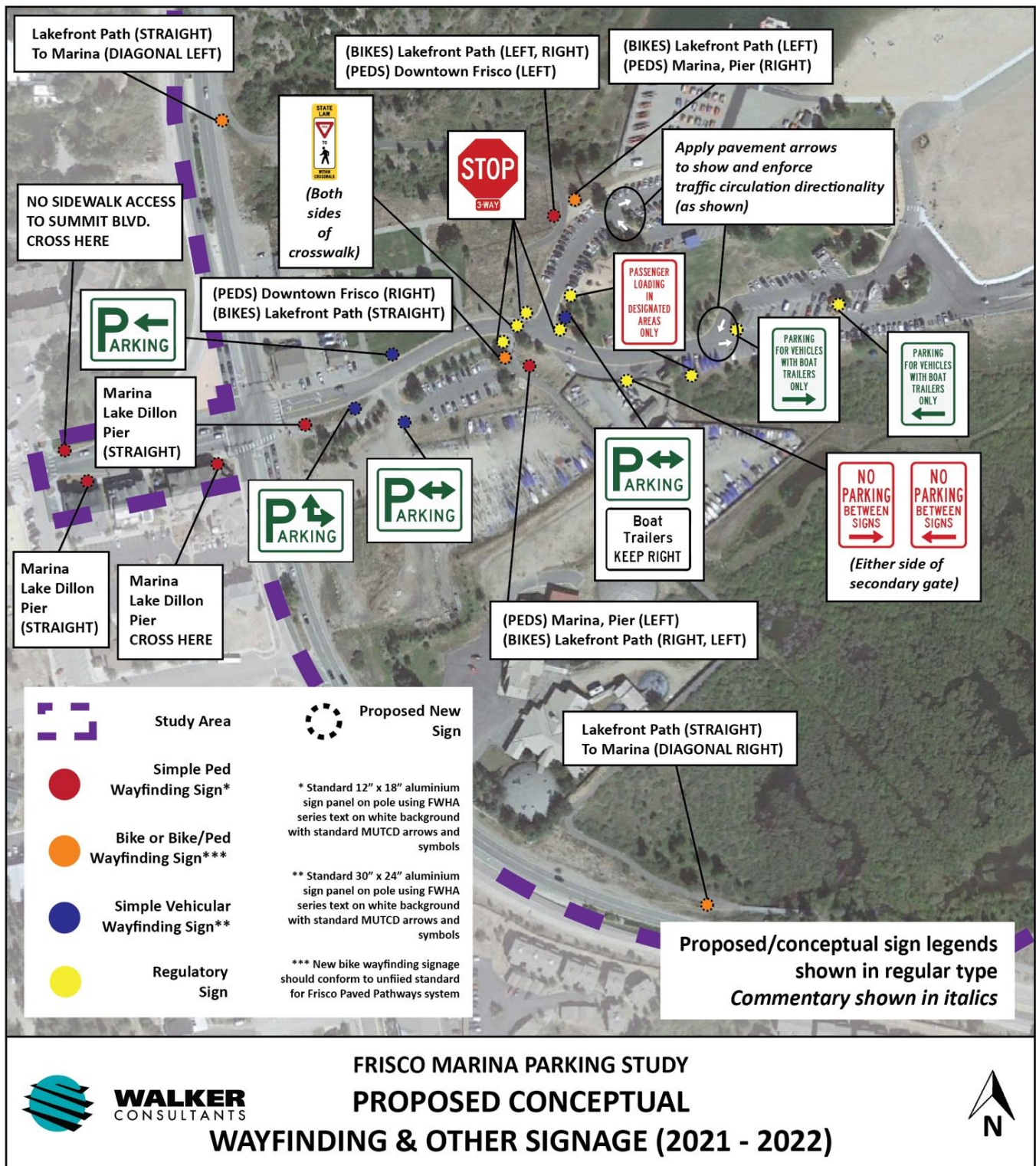
In addition to permanent metal signage, in the short-term, the Town could also deploy temporary A-frame-type signage during peak parking demand times on the busiest days to alert motorists if lots are full. If drivers can see the signs in time, it may reduce the amount of circulating/circling traffic in drive aisles resulting from drivers not knowing a lot is full.

It should be noted, however, that such signs would require active management, with Town staff needing to keep track of the parking lots throughout the busy hours to ensure that signage is actively deployed only when the lots are actually full. If regular Marina and Park patrons begin to notice that signage is deployed when the lots have open spaces, they may ignore the signs. Also, it should be noted that there are no opportunities to turn around once past the “T” intersection for vehicles attempting to park, which would also affect the benefit of such signs.

In Walker’s opinion, deployment of this type of “LOT FULL” signage may be most beneficial during event days when all Marina and Park lots are full, and the signage can be placed at the Marina entrance near the intersection with SH 9.

The next figure shows signage and wayfinding that addresses concerns and needs in the first phase. This phase is projected to extend through this year and the completion of the CDOT “Gap” Project in 2022.

Figure 3: Proposed New Wayfinding and Other Signage Through 2022



Source: Google Earth, Walker Consultants

INSTALL BOLLARDS AND STOP SIGNS FOR CYCLISTS ALONG LAKEFRONT PATH AT "T" INTERSECTION CROSSING

To address the problem of frequent bikers speeding along the path and through the existing crossing at the "T" intersection, "STOP" signs could be posted at the north and south approaches of the trail for bikers, as shown in the figure to the right.

Optionally, flexible bollards could be posted across from the stop signs on the other side of the path for each approach that would have the effect of visually narrowing the pathway, providing a visual queue for bikers to slow down as they traverse the crossing. These are shown with the yellow circles at right.



Existing Lakefront Path crossing with STOP signs for cyclists and flexible bollards placed across from STOP signs

This treatment, along with conversion of the "T" intersection into a three-way stop for vehicles, could slow both cyclists and vehicles down enough to where a formal speed study may not be necessary. If one or both options are installed, Walker recommends continued informal monitoring of speeds by Town staff throughout the summer to determine if speeding and resulting safety concerns are still an issue.

MID TERM OPTIONS (BEYOND SUMMER 2021)

SOLICIT FURTHER INTEREST FOR RESERVED PARKING/CONDUCT PAID PARKING STUDY

Walker understands that some existing boat slip holders have expressed interest to the Town in having reserved vehicle parking for slip holders only. While designating some spaces as reserved for slip holders could become a potential revenue stream for the Town, there are several potential drawbacks. Reserved spaces could not be used at any time by any other user groups and would thus remove general public parking spaces from the supply, which is already at capacity during peak times. As a result, reserved parking would not help address existing parking supply inadequacies. Because of the nature of reserved parking, Walker would recommend that reserved parkers purchase permits for such spaces.

In addition, the Town currently does not have paid parking anywhere, and therefore lacks operational infrastructure and dedicated staff needed for enforcement of parking restrictions. Due to this, it is likely that the cost of implementing even basic parking enforcement for purposes of enforcing reservation restrictions for a handful of parking spaces would exceed revenue potential for those spaces.

Walker does not recommend exploration of for-fee reserved parking for slip holders unless paid parking is implemented for public parking in the Marina and/or downtown. For these reasons, Walker does recommend that the Town consider conducting a paid parking study to explore in detail the possibility of charging for general public parking in high-demand areas. While such a study would determine the feasibility, revenue potential, and parking demand mitigation effects of paid parking, the Town should, as part of the study or separately, solicit existing slip holders to quantify interest in potential reserved parking and to determine a range of price points for those spaces. For pricing purposes, any reserved spaces should be treated as if they were “full” at all times.

A paid parking study to identify paid parking feasibility and strategies ranges between \$30,000 to \$40,000. Public engagement is an important part of this process and the needs of the Town will impact this level of effort and cost for this level of study.

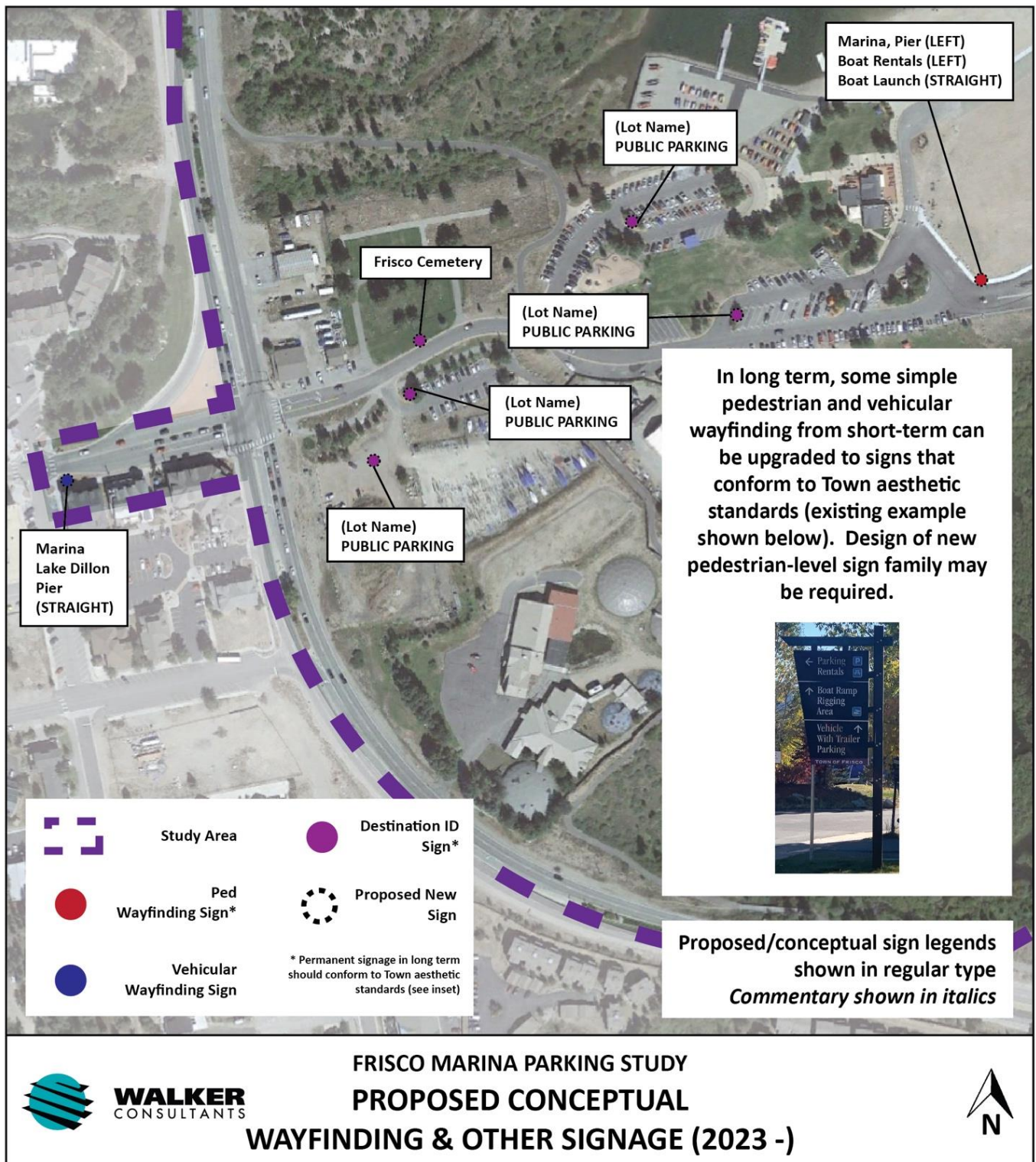
UPDATE EXISTING WAYFINDING SIGNAGE AND INSTALL DESTINATION ID SIGNAGE

The second phase of sign updates, beyond 2023, would address long-term parking wayfinding needs, once the Marina Master Plan is fully built out and all major infrastructure and new construction projects are completed, including the final build out of the parking system. In this phase, we envision replacement of some or all of the non-regulatory signage with permanent, “fancier” signage that conforms to Town wayfinding aesthetics, in conjunction with establishing and signing formal names/ID’s for each parking facility/lot and the addition of a few additional signs.

The next figure shows a signage and wayfinding plan that proposes establishing destination ID signage for each long-term parking facility and the cemetery, as well as a few additional vehicular and pedestrian wayfinding signs after buildout of the Marina is largely complete.

The cost to fabricate and install this signage can vary greatly depending on the architectural character and materials used for the sign; however, we suggest budgeting \$10,000 per sign. As shown below, these enhanced signs would cost approximately \$70,000 for the seven signs identified.

Figure 4: Proposed New Wayfinding and Other Signage Beyond 2023/When Buildout is Completed



Source: Google Earth, Walker Consultants

CONSTRUCT SIDEWALK CONNECTIONS BETWEEN LAKEFRONT PATH AND MARINA PEDESTRIAN PROMENADE

Walker agrees with the Town's master planning team that the appropriate location for an east-west pedestrian connection that fills in the existing pedestrian access gap for the Marina is through, or along the perimeter of, the existing green space between the North and South parking lots.



Potential end points of east-west main path and spur connections represented by blue dots with yellow border given existing configuration of lots and green space. Final routings would depend on final configurations for other projects and implemented solutions from this plan.

In the figure above, we show potential end points for the new path or paths. Assuming a gently-curving path that connects with the existing sidewalk that curves around the east end of the North Lot, approximately 375 new linear feet of path would have to be constructed for the main path (give or take depending on the exact routing), with the width matching the existing width of the pedestrian path to the west.

Optionally, the Town could also construct one or three sidewalk "spurs" that would connect the path to the North and South Lots as well as the new boat ramp area and future "Great Lawn."

The first two spurs could provide a paved connection for persons walking from their vehicles to the Marina between the parking lots and the path, which could further discourage persons from instead walking down drive aisles. Assuming the main path were routed down the center of the green space, such spurs would be about 60 linear feet and 80 linear feet respectively for the south and north spurs as shown.

The third spur could act as more of a secondary main path that would more directly connect pedestrians through to the future Great Lawn area. Such a connection will likely be desirable once the Great Lawn and surrounding area is fully built out, therefore creating another node for pedestrian activity. The west end of the main path, as well as the north and south ends of the two optional spurs, should provide an accessible ramp/curb cut to the street or parking lot. Though it would vary somewhat depending on the exact routing, this secondary main path would likely be around 300 linear feet of additional path.

Sidewalk construction, assuming minimal grading is generally installed for \$10-\$12 per square foot. Depending on the final configuration of the main pathway, this pedestrian connection may range in cost between \$30,000 - \$40,000.

PROVIDE PEDESTRIAN CROSSINGS AT “T” INTERSECTION

This new east-west sidewalk connection across the existing green area may require a new crosswalk at the existing intersection, as well as the removal of some existing trees and vegetation to improve the sight distance. Walker understands that some of this foliage is simply overgrowth and has already been targeted for removal by the Marina consultant team. It should be noted that Norris Design has already completed a design concept for completing this connection.

We have identified two options for how the new sidewalk connection would interface with the existing “T” crossing. Both options would provide bike/ped crossings that are adjacent and parallel/perpendicular with the existing intersection, which is desirable from a functional and safety perspective. Having the crossing paths separated by too much distance from the intersection, as well as having odd-angled crossings, could create a situation where there are two or three effective “separate” crossings along Marina Dr. instead of one consolidated multi-modal crossing with one effective node of crossing activity. One node of crossing/intersecting activity decreases the possibility of vehicles potentially having to make multiple stops as they traverse the intersection along Marina Dr.

In either option, trees and vegetation would need to be removed at both the south-east leg and east leg of the intersection to provide better sight lines for drivers and pedestrians. This was recommended as an option as part of the conversion of the intersection to a three-way stop, proposed as a short-term strategy in the previous section.

The primary costs associated with this work include paving the pedestrian refuge areas and providing new crosswalk markings, new sidewalk curb cuts, traffic control, and sidewalk/pathway extensions to connect to the crosswalks. A project of this size could range in cost from \$20,000 to \$30,000, assuming that landscape removal had already been completed in the short term.

OPTION 1

The first option involves adding a new crosswalk on the north side of the intersection, as already outlined in a design concept provided by Norris. This option would require removal of trees on the east sides of the intersection so as not to obstruct visibility of the bike path crossing for westbound vehicles on Marina Dr. Also, the additional removal would provide additional pedestrian refuge areas in and around the intersection, especially important as, with this option, pedestrians would be sharing the Lakefront Path for a short distance.

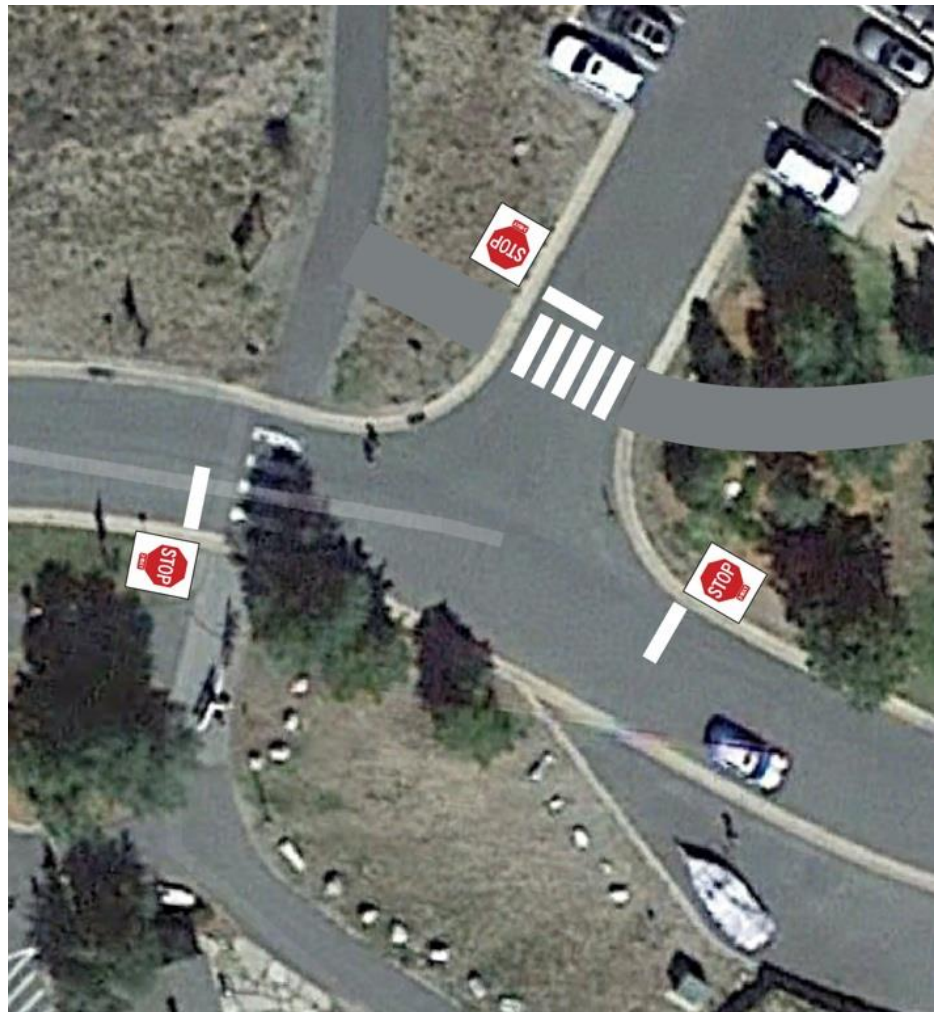
This option requires two intersection crossings for pedestrian to access the pathway further into the Marina, as indicated in the below figure. Compared to Norris's conceptual layout, however, Walker proposes that the crossing be at a 90-degree angle to the intersection rather than an angled intersection crossing. It appears that the angled crossing outlined in the Norris Design concept is intended to prevent vegetation removal adjacent to the existing playground. Also, the design for the new sidewalk/path would need to take into account an existing drainage ditch on the northeast side.

Pros:

- Keeps pedestrians away from the Marina boat repair area
- Fewer linear feet of new sidewalk/path needed

Cons:

- Requires pedestrians to make two road crossings
- Requires removal of trees and vegetation to facilitate adequate sight visibility of pedestrians and vehicles for all approaching vehicles
- Potentially increased construction cost due to drainage ditch



Modified two crossing design proposed by Walker (not showing vegetation removal)

OPTION 2

The second option provides a more direct pedestrian connection for pedestrians coming from or going towards downtown. It would do this by reducing the crossings needed from two to one, as well as provide pedestrians with a fully-dedicated path to the Marina, eliminating the need to use a short stretch of the existing Lakefront Path.

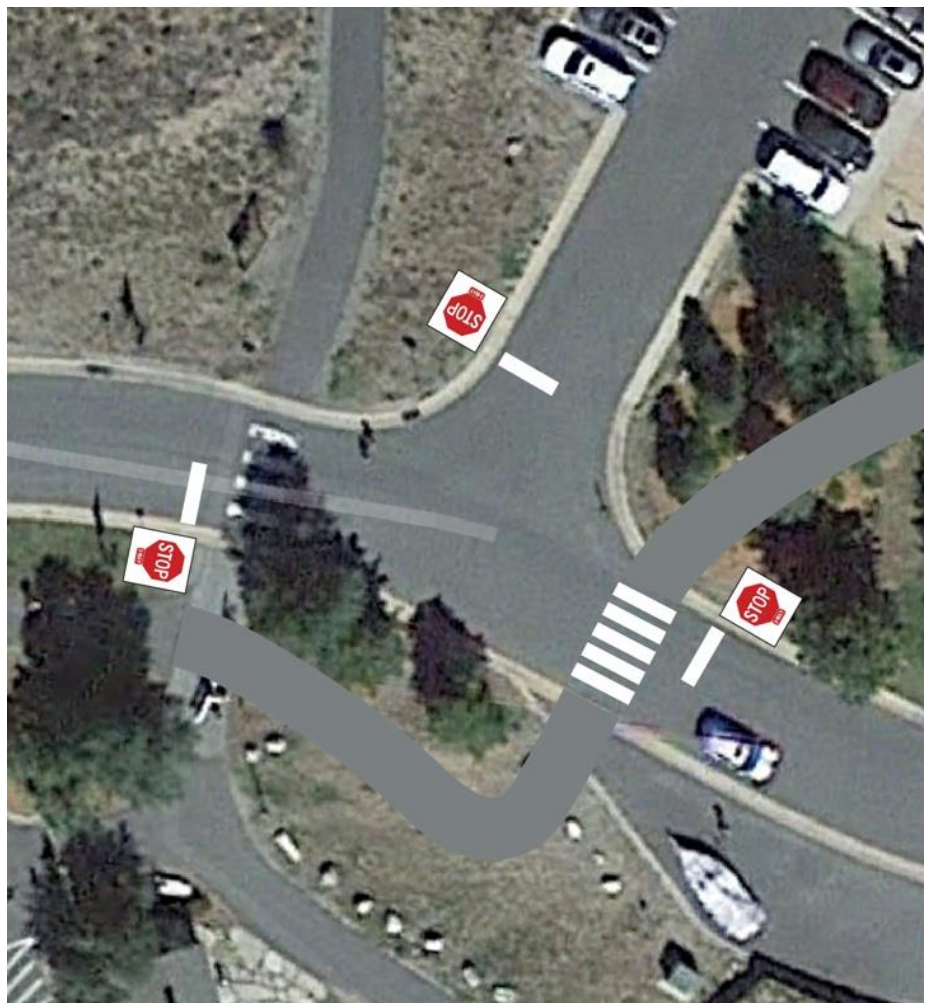
This crossing would be located at the east leg of the intersection, adjacent to the existing Marina boat maintenance area. This option would require additional tree/vegetation removal on the south side of the intersection, both for visibility as well as to accommodate path construction between the new crossing and the end of the existing sidewalk at the Lakefront Path.

Pros:

- Only one crossing is required for pedestrians coming to/from downtown
- Pedestrians do not need to share path with Lakefront Path cyclists
- No need to design around drainage ditch on northwest side

Cons:

- Boat maintenance pull-out area will be impacted by the new crossing
- More trees and vegetation would need to be removed as compared to Option 1
- Slightly more linear feet of new sidewalk required as compared to Option 1



Modified one-crossing design proposed by Walker (not showing vegetation removal)

INSTALL SPEED FEEDBACK SIGNS

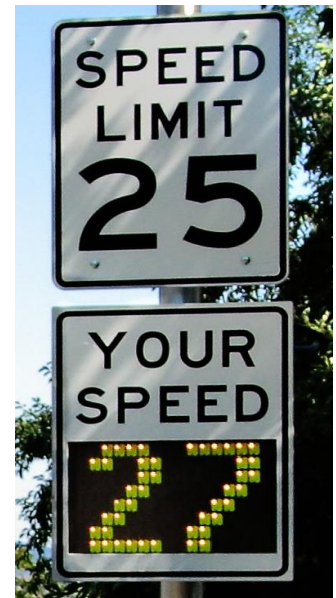
Depending on results of a speed study, the Town could opt to install a dynamic speed feedback sign along Marina Dr. This is a sign that would alert approaching vehicles to their actual speed as compared to the posted speed limit. An example of such a sign is shown at right.

Typically, such signs have various features that encourage motorists to slow down, anything from simply flashing the displayed speed when the posted speed is exceeded to red and orange flashing lights that are activated, mimicking police vehicle lights.

In the interim, in the short term or mid term, the Town could potentially deploy a portable police trailer that displays the speed of drivers passing by the trailer. The Town has indicated to Walker that the police department does possess such a trailer that they operate and deploy strategically along busy roads.

Along with other options included in this plan, a desirable effect on speed caused by the police trailer's speed feedback could potentially eliminate the need for a speed study to be conducted.

The cost of installing a sign like this would range between \$4,000 and \$5,000. Before installing the sign, the speeds should be monitored after the three-way stop sign controlled intersection is completed.



Example of a speed feedback sign

RELOCATE LONG-TERM BOAT/TRAILER STORAGE AND/OR BOAT MAINTENANCE FACILITIES

Removing long-term boat and trailer storage from the Marina is one of the objectives that has been identified in the Marina Master Plan. The Plan calls for creating opportunities for year-round use of the park and access to the reservoir. One important strategy to accomplish this goal is to push parking away from the Marina and Lake and towards Highway 9. Equally important, however, is the reduction of winter storage at the site. According to the plan: "Currently, winter storage of boats and snow create conditions that limit access and create security and safety concerns." Walker estimates that the existing Sanitation District-owned area that contains most of the existing long-term winter storage is around 52,000 square feet in size.

The Plan also identifies redesigning the Boat Maintenance Facility. According to the Plan: "The Boat repair facility has outgrown its current facility, which was originally intended to be temporary. Increased demand for mechanical and non-mechanical repairs and storage, as well as the inefficient current site layout drives the need for redesign." The existing Boat Maintenance Yard is about 48,000 square feet in size.

In conjunction with the goals of the Plan, one potentially long-term solution for addressing parking supply inadequacies would be to convert existing boat and trailer long-term storage, located in the boat maintenance yards and Sanitation District-owned land, to vehicular parking. However, this step would require that the Town secure and develop alternative parcels to accommodate long-term trailer and boat storage before the areas could be converted to parking. Also, boat maintenance facilities would also have to be completely relocated, instead of merely improved/reconstructed within the existing area.

Options for relocation include the “Bone Yard,” which is Town-owned property located on the “Frisco Peninsula,” accessible from Recreation Way. The area is about 1.5 miles away, by car, from the existing storage areas. It should be noted that currently, the Town’s Public Works Department currently uses the “Bone Yard” extensively for storage and staging, and it has expressed that the Yard may not be an ideal candidate for relocation of long-term boat trailer storage due to the scarcity of large, flat areas in or near the area that could be repurposed for use by Public Works.



“Bone Yard,” outlined in red, and existing long-term boat/trailer storage at Marina, outlined in blue

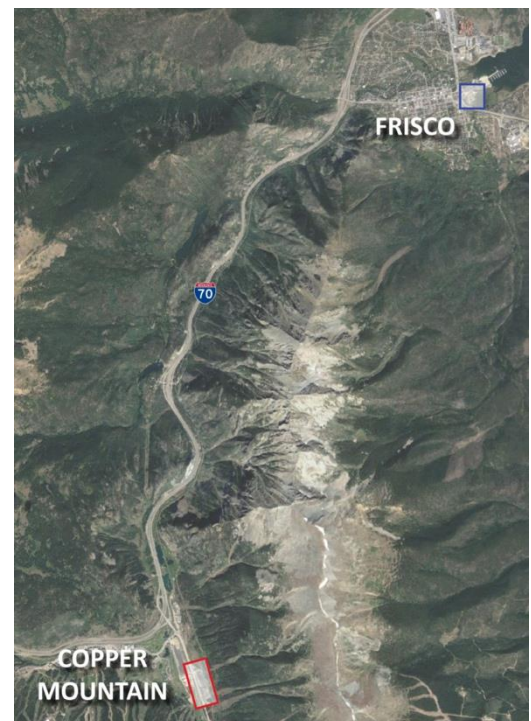
Alternatively, the Town could lease or purchase privately-owned land elsewhere. The Copper Mountain Ski Resort’s parking overflow lot, about 7 miles away, has been mentioned as a potential candidate, considering that the overflow parking is rarely or never needed during the summer months

Because boats and trailers in long-term storage are, by definition, not accessed frequently, relocation is likely feasible. However, there are financial considerations that would need to be considered. Currently, trailer parking revenue ranges from about \$25k to \$30k, according to Town staff. This exceeds the \$15k annual lease paid to the Sanitation District, making boat/trailer storage profitable. Relocating to other Town owned land still affords the opportunity for a revenue stream.

Despite the fact that there is somewhat inelastic demand for long-term boat/trailer storage within the vicinity of the Marina, it is still the case that relocation of this storage to an area more than a mile away may possibly necessitate a decrease in rental fees that the Town could feasibly charge boat/trailer owners for long-term storage due to the loss of convenience.

There would be additional time and expenses associated with transport of trailers and boats to and from the storage area, which would remain the responsibility of the Town. Also, there would be some up-front capital costs for preparing/grading the area to accommodate boat/trailer storage, as well as installing security provisions such as fencing.

Leasing land not currently owned by the Town would incur additional expenses, though the “Bone Yard” would incur no additional lease fees. It should be noted that, if the Sanitation land were converted to parking, the \$15k annual lease would still apply.



Copper overflow parking, outlined in red, and existing long-term boat/trailer storage at Marina, outlined in blue

CONSTRUCT NEW SURFACE PARKING

The Marina Master Plan calls for new parking to be created. However, it excludes the Sanitation-owned long-term storage area from its study area, as well as proposes that the Boat Maintenance area continue as such, albeit with redesigned and expanded facilities. The Plan only envisioned that the B-1 parking lot be converted/formalized into a new surface lot.

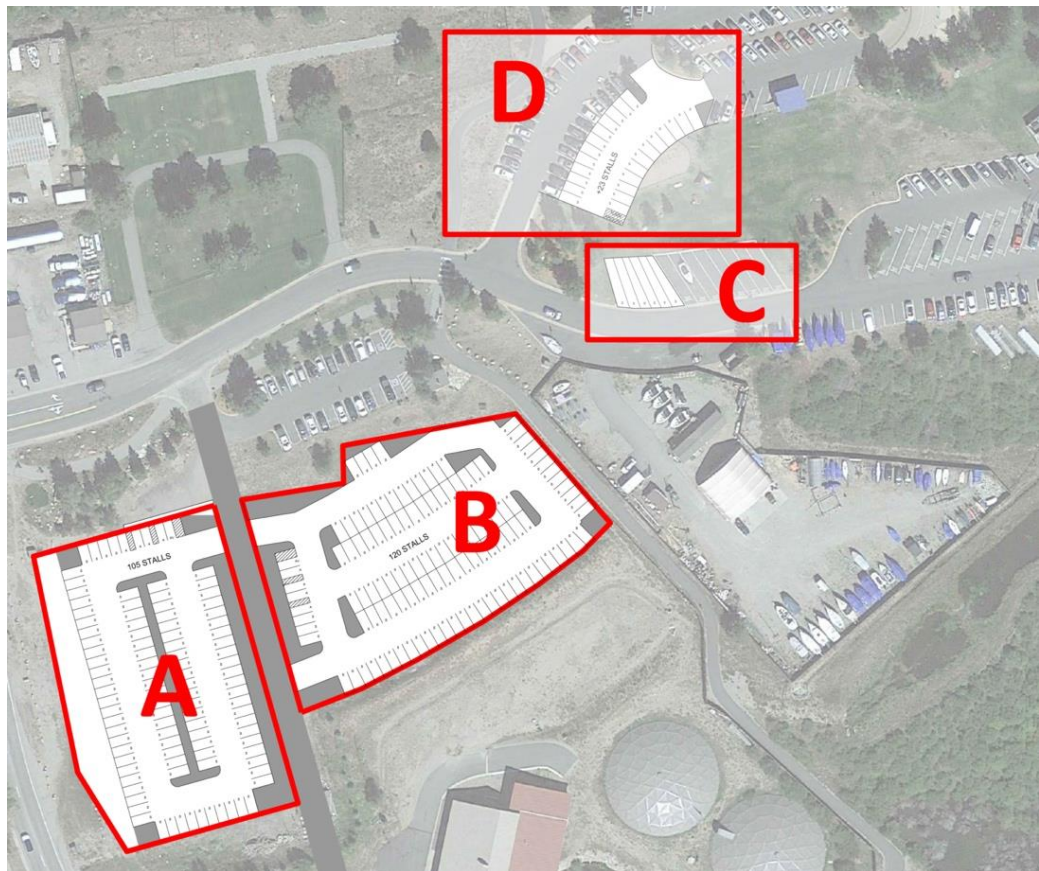
In accordance with the Plan's objective, Walker proposes that the Town consider using the Sanitation-owned land as

additional vehicular parking, assuming that the Town has already relocated long term storage and/or the boat maintenance area. Converting the area to vehicular parking could happen in addition to full improvement of the B-1 Lot to parking, as currently outlined in the Plan. In all cases, these additional parking opportunities would require that certain operational changes be made.

Additional opportunities for additional parking are conversion of existing passenger vehicle spaces to short-term boat trailer parking in the South Lot, as well as expansion of the North Lot where the playground currently exists.

Walker identified conceptual layouts for converting all of these areas into formal parking lots within the boundaries of the existing parcels, or for expanding existing lots, as shown in the next figure.

Constructing surface parking generally ranges between \$10,000 - \$15,000 per space. This range in cost is partly a function of the level of amenities provided in the Lot. These parking lots proposed would require stormwater drainage, lighting, curb and gutter, paving, and landscaping. With these amenities, the cost would range from \$1,000,000 to \$1,500,000 to construct a formal, improved lot in either the B-1 area or the B-2 area.



B-1 Lot (A), Sanitation District area (B), additional short-term trailer parking (C), additional North Lot parking (D)

FULL IMPROVEMENT OF B-1 LOT

As parking demand continues to increase in the mid-term, the Town should consider converting the B-1 parking lot into a formal, improved lot. These improvements could include pavement, lighting, curbs/gutters, signage, pedestrian connectivity, and optional landscaping.

The development timeline for this recommendation should be considered against the long-term redevelopment timeline. For instance, if the B-1 parcel is targeted for new development within the next 5 years, then the Town should potentially only improve part of the Lot, with the portion targeted for new construction left unimproved. The improved portion could then serve as parking for the new development with minimal reconfiguration required.

However, if the development horizon is closer to 8 – 10 years out, then the Lot can be fully improved to serve Marina parking needs in the mid-term. The costs and demolition of the Lot to accommodate long-term development can then be the responsibility of the future developer. This option, outlined as Area A above, could yield about 102 new parking spaces as shown.

SANITATION DISTRICT-OWNED AREA (B-2 LOT)

This option, outlined as Area B above, could yield about 120 parking spaces according to our conceptual rendering. However, since this is not Town-owned land, and the Sanitation District, as noted previously, reserves the right to end the lease and repurpose the land for their own uses, the Town may not want to provide a completely improved lot under this option, unless the Town were to acquire the Lot. However, providing an improved gravel surface and striping the Lot would address the need to provide more passenger vehicle parking supply in an efficient manner without the expenditures associated with full improvement (pavement, et cetera).

If this Lot were to be merged with the existing “Trail Head” Lot immediately to the north, additional parking supply could be netted.

ADDITIONAL SHORT-TERM TRAILER PARKING

Finally, as shown in Area D above, about six additional trailer-length parking spaces could feasibly be constructed adjacent to the existing eight spaces across from the Boat Maintenance area.

Making these improvements to this area could cost between \$230,000 - \$340,000 at \$10,000 - \$15,000 per space.

ADDITIONAL PASSENGER VEHICLE PARKING IN NORTH LOT

After the existing playground is relocated, the area could be paved and integrated with the existing North Lot in order to yield additional parking supply for passenger vehicles. According to our conceptual layout, about 23 additional parking spaces could be added to and integrated with the existing lot layout, including one space used for vehicle turnaround. This option is shown as Area E above.

INSTALL ADDITIONAL ELECTRIC VEHICLE CHARGING STATIONS

Both the Town of Frisco and Summit County require EV-enabled parking spaces for all new construction. The new Marina office building, and other new buildings constructed within and adjacent to the Marina, will have electric charging-enabled parking spaces provided. As of this writing, two new EV spaces are slated to be installed in summer 2021 in the South Lot, using a grant provided by the State of Colorado, to satisfy the requirement for the new Marina office building.

However, the EV requirements do not retroactively extend to existing parking, nor do they extend explicitly to park-related uses not related to a building or occupied structure. Also, electric vehicle usage is rising at an increasing rate, with conversion of the vehicle fleet to electric projected to take place within the next two decades. As a result, the need for and expectation of electric vehicle parking is also rising at an increasing rate. Therefore, the Town should consider providing a handful of parking spaces enabled for electric vehicle charging in addition to the two slated to serve Marina office building users.

These spaces should be located where the nearest electrical infrastructure is to minimize up-front expenditures and the amount of new infrastructure needed, such as electrical conduit. The Town could begin with one or two additional spaces available for general public use, adjacent to the two slated to be installed for the Marina Office in the South Lot, and then periodically monitor demand for those spaces over time. When observed demand for those spaces is persistently high, more spaces can be added as needed in both the South and North Lots.

Options for minimizing the up-front cost associated with new EV charging stations are numerous. Many vendors of EV charging equipment and infrastructure even provide grants and/or subsidies to jurisdictions willing to convert public parking spaces to EV charging spaces.

EV charging stations, assuming Level 2 charging, can be installed for around \$10,000 - \$12,000 each plus the cost of running the electrical infrastructure to the stations.

PROVIDE PEDESTRIAN REFUGE AREAS/PATHS IN SOUTH LOT

Even with potential construction of a new pedestrian path across the existing green area between the two parking lots, persons exiting their vehicles after parking in the South Lot do not currently have a refuge outside of the parking lot to stand/wait in or to walk towards the boat ramp. One solution could be to install a dedicated path/area of refuge immediately adjacent to the south of the south-side parking spaces, as conceptually shown in black-highlighted brown rectangle at right.

This area only would need to be 4 – 6 feet wide (wider if plowed in the winter) and would not necessarily have to be paved. It could be a softscape or permeable surface that would be compatible with and transition to the adjacent wetlands. A similar path/area of refuge could be installed along the north side of the north-side parking spaces, next to the existing green area, also shown at right.

Such a path/area of refuge would enable persons exiting their vehicles to have the ability to avoid having to walk down the drive aisle to reach the end of the parking lot. It also could provide an area for visitors to unload if they were to back into a parking space. Optionally, a striped crossing could be added across the boat launch access between the end of the path and the sidewalk on the perimeter of the future “Great Lawn.” As trailers currently must stop to be checked in this area, it is a natural place for a demarcated pedestrian crossing. While feasible,

we understand there to be some operational concerns such as the like hood of these areas being used, the wetlands to the south, and vehicles backing too far into the space and hanging over into the sidewalk.

Creating these pedestrian refuge areas would be likely to cost around \$30,000, if paved with concrete, and about half that if crushed stone were used.



Conceptual pedestrian refuges/paths and crossing in South Lot

RELOCATE MAST HOISTING AREA

As uses of the Marina continue to diversify from only boating, the current location for mast hosting may become problematic from the perspective of congestion and pedestrian safety. Walker recommends that the mast hoisting area be relocated away from the core parking lot.

Specifically, a location adjacent to the existing boat maintenance area or adjacent to the new boat inspection area or boat ramp should be considered, as shown below as option A and B respectively. Area A is currently used for boat cleaning/decontamination, though the area could continue to serve that purpose if the mast hoist were to be relocated there.

The cost to relocate the mast hoisting arm would be relatively modest, assuming no civil work is required. The primary cost to relocate the mast arm would be associated with removal of the existing foundation, physical relocation, and constructing a new foundation. This could be completed for around \$5,000. If a new staging area for the truck and trailer were required, the cost could increase to between \$20,000 and \$30,000.



Potential candidate areas for mast hoist relocation

LONG TERM OPTIONS

IMPLEMENT RESERVED PARKING FOR MARINA SLIP HOLDERS/PAID PARKING

Depending on interest in reserved parking by slip holders, as well as the monthly fees that holders are willing to pay, the Town may choose to implement reserved parking for slip holders in the mid-term. Conversion of some spaces to reserved is a simple matter of signing them as reserved, with the number of such spaces able to be continually adjusted based on demand.

Walker would recommend that this step take place in conjunction with the implementation of paid public parking within the Marina and/or downtown, if a study found that implementation of paid parking was feasible in the mid-term time horizon. Implementation of paid parking could yield a revenue stream for the Town as well as help balance and diffuse parking demand, especially if demand continues to increase with no significant additions to the parking supply.

REMOTE PARKING WITH SHUTTLE ACCESS

If Marina and/or downtown parking needs in the long term begin to vastly exceed supply, one option for expanding the public parking supply that would allow the Town to defer significant up-front capital costs associated with constructing new parking supply would be to lease existing parking located in Town and utilize it as remote parking.

This option would necessitate that the Town enter into an agreement/lease with another entity willing to lease some or all of its parking, at certain times or during certain seasons, to the Town for use as remote parking. A natural candidate for this option would be a parking facility, public or private, where parking is typically minimally utilized during the summer months, when Marina/downtown activity is at its peak.

With this option, the Town would need to provide ample marketing and public outreach, as well as signage, to communicate the existence of remote parking to prospective users, as well as provide incentives for why users should use the remote parking instead of simply waiting for parking to become available in the Marina lots. Also, ongoing costs would be associated with shuttle service, which would need to be frequent enough to make remote parking competitive from a convenience perspective.

Potential usage of remote parking would have to surpass a critical threshold necessary to make this option financially viable for Town. Remote parking may be most feasible as an *ad hoc* option to address potential temporary parking supply crunches resulting from summer events such as concerts that may be hosted at the new Pavilion/Great Lawn once those facilities are completed. In other words, remote parking could only be used on certain specified days, as opposed to being available every day for the entire season.

Any remote parking would require a shuttle program be implemented. This would come with an additional operational cost that would be ongoing. It should be noted that the Marina Master Plan envisions a revival of the “Frisco Flyer” shuttle that would connect both ends of Main Street to the Marina. Assuming that the Flyer were to be revived, it could incorporate the remote parking as one stop along the shuttle route, eliminating the need for a dedicated shuttle serving only the remote parking.

CONSTRUCT STRUCTURED PARKING

Depending on time horizons, parking needs, and how development progresses in the long-term, the Town may want to consider construction of a centralized town public parking facility that would serve both the Marina and downtown. This facility could be constructed on either side of Highway 9, in either a greenfield location or as a replacement of (an) existing building(s) or existing surface parking.

Depending on the scale and size of such a facility, other, smaller existing parking lots could become unnecessary, and thus become candidates for redevelopment/repurposing.

INCORPORATE PUBLIC PARKING INTO PRIVATELY-CONSTRUCTED PARKING FOR NEW DEVELOPMENT

A related option to constructing new public surface parking would be to incorporate public parking for Marina users and downtown visitors into privately-constructed parking intended to serve the parking needs of new buildings/development slated for in and around the Marina. For instance, if the B-1 Lot were developed into a mixed-use center, the Town could work with the developer to ensure that parking for the center was partially allocated for public use. This may involve the Town sharing construction and ongoing maintenance costs with the developer or new landowner.

MAIN STREET/MARINA DR. REALIGNMENT AND CONNECTION TO DOWNTOWN

An important long-term concept that has emerged during the Marina Master Plan planning process is connecting the “Mountains to the Marina.” The basic underlying idea of this concept is that Main Street would eventually cross Summit Blvd. and extend seamlessly into the Marina, connecting land on either side of Highway 9 and minimizing the edge effect of that highway through downtown and the Marina.

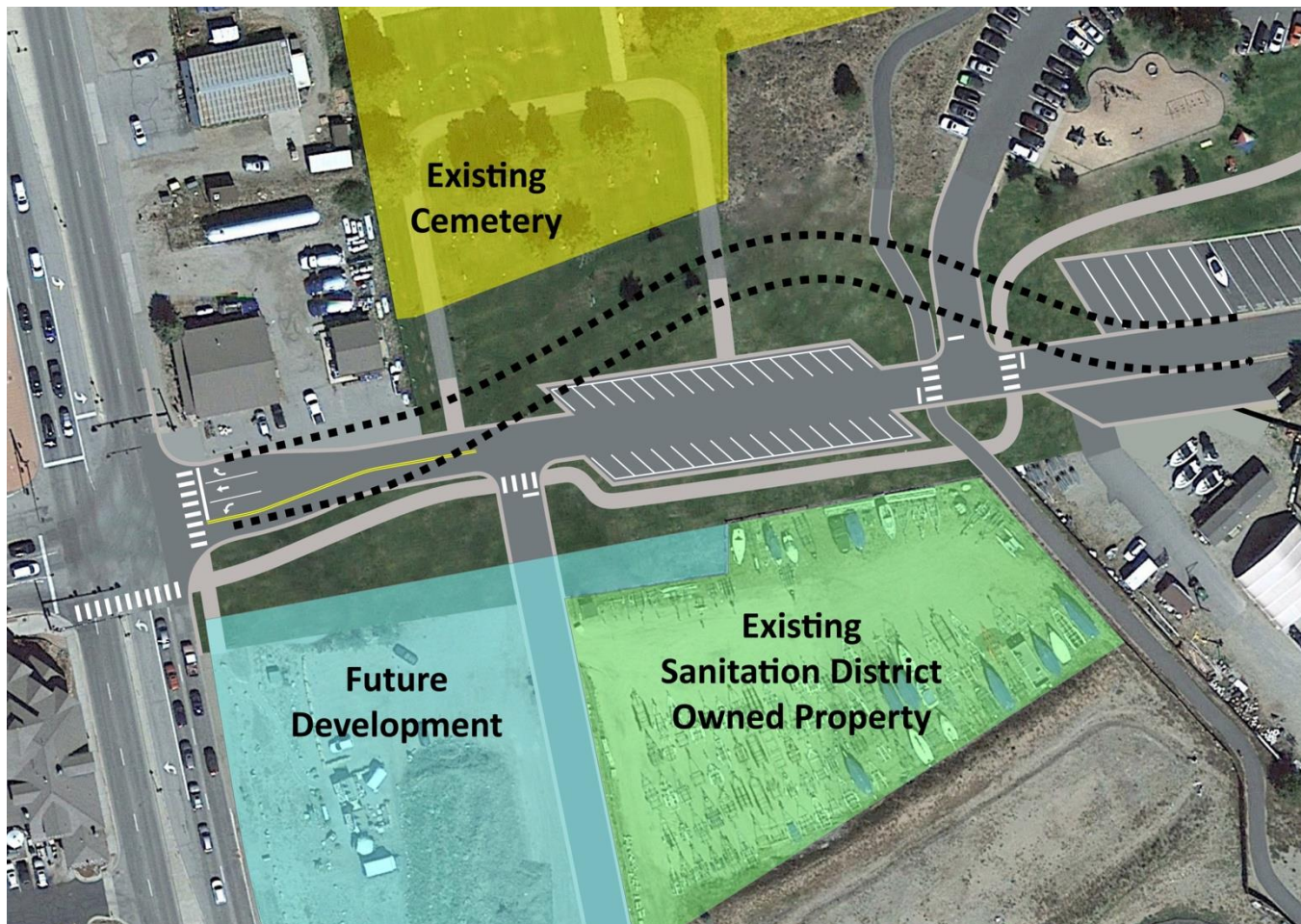
The east side of Highway 9, including the Marina, currently features a lack of high-quality pedestrian interconnections. However, the 2021 CDOT “Gap” project will be an important next step in establishing new pedestrian connectivity and realizing the “Mountains to the Marina” long-term goal. Planned improvements as part of this project will increase pedestrian access across Summit Blvd. as well as provide a longer signal phase for pedestrians at the intersection of Main St./Marina Dr. Also, as stated previously, the “Gap” Project will also construct a new sidewalk/path along the east side of Highway 9, connecting to the Lakefront Path to the north and south.

These discussions have also considered improved pedestrian-scale amenities, including lighting and street scape amenities similar to those in downtown. These improvements would need to occur in conjunction with roadway infrastructure improvements, such as curb, gutter, and vehicle-orientated lighting, in addition to permanent signage that conforms to Town aesthetics. Also, Marina Dr. would be straightened and reconfigured through to the existing “T” intersection in order to improve sight distances, visibility, and consolidate intersections/crossings.

These improvements, in addition to all the benefits stated above, would also have the effect of creating room not only for some on-street parking along Marina Dr., but also provide some small street-facing developable land. In conjunction with eventual development of the B-1 parcel, such development would have the effect of activating the east side of Summit Blvd. and extending Main Street-style businesses and services through to the Marina.

The below figure represents a rough conceptual visual of what the realignment/straightening of Marina Dr. could look like, with diagonal on-street parking shown as well as developable land for Main Street-style development on the south side of Marina/Main. In this concept, Marina Dr. is aligned with respect to the existing axis of the South Lot's access drive and is therefore slightly offset from the Main Street axis. Also, all intersections and crossings are at right angles to one another.

Note that the black dashed lines represent the existing alignment of Marina Dr. Also note that this concept's road alignment slightly encroaches onto existing boat maintenance lot space.



Conceptual rendering of a straightened Marina Dr./Main St. with on-street parking and future developable land shown

INSTALL ADDITIONAL VEHICLE CHARGING STATIONS

Based on sustained increases in demand and an accelerated pace of converting the vehicle fleet to electric, Walker recommends that more EV-enabled parking spaces be added adjacent to ones potentially installed in the mid term.



03 Order of Magnitude Costs

SECTION 3 – ORDER OF MAGNITUDE COSTS

SHORT TERM OPTIONS

Table 1: Estimated Costs for Short-Term Options

Option/Strategy	Cost Description	Estimated Cost
Formalize Parking Spaces in B-1 Lot	Apply limestone chalk to delineate parking spaces, grade lot	\$10k (\$5k for grading, \$5k for striping twice per summer)
Conduct Speed Study on Marina Dr.		\$5k
Install Three-Way STOP Signs & Remove Foliage Overgrowth at Existing "T" Intersection	Install three STOP signs with pavement STOP bars	\$5k - \$6k for signs and bars, \$15k for tree removal by third-party landscape service (10 trees @ \$1.5k per tree)
Prohibit Shuttle/Van Operators from Waiting, Picking Up, or Dropping Off in Unpermitted Areas	Designate loading area and meet with shuttle operators, post supplementary wayfinding/regulatory signage	\$0 - \$3k (2 supplementary signs @ 1.5k per sign)
Mast Hoist Area Operational Changes	Widen striped area, secure/limit usage during peak times	\$5k for restriping, posting signage, and installing locks
Install New Wayfinding and Regulatory Signage (Excluding STOP signs)	Install new vehicular (30" x 24") and regulatory (12" x 18") signage	\$40k for 26 signs @ \$1.5k per sign
Install Bollards and STOP Signs for Cyclists along Lakefront Path at "T" Intersection		\$6k (2 STOP signs @ \$1.5k each, 2 bollards @ \$1.5k each)

Source: Walker Consultants

MID TERM OPTIONS

Table 2: Estimated Costs for Mid-Term Options

Option/Strategy	Cost Description	Estimated Cost
Solicit Further Interest for Reserved Parking/Conduct Paid Parking Study		\$20k - \$40k for study
Update Existing Wayfinding Signage & Install Destination ID Signage	New and updated signs with design aesthetic that conforms to existing Town custom standard as seen along Main St.	\$70k as shown in plan for seven new signs @ \$10k per sign
Construct Sidewalk Connection between Lakefront Path and Marina Pedestrian Promenade	Construct main segment (6 feet wide). Does not include optional spur connections.	\$30k - \$40k (\$10 - \$12 per square foot)
Provide Pedestrian Crossings at "T" Intersection	Construct 30 - 70 feet of new path depending on option chosen (6 feet wide), install crosswalk striping	\$20k - \$30k (4 curb cuts @ \$2,500 each, 5 days of traffic control @ \$1.5k per day during construction, concrete & striping \$10k)
Install Speed Feedback Signs	Install digital insert on existing sign pole (not including infrastructure improvements needed)	\$4k - \$5k
Relocate Long-Term Boat/Storage and/or Boat Maintenance Facilities	Prepare land with fencing and security for new storage area	Varies depending on location
Construct New Surface Parking	Full improvement, including paving, curbs, gutters, striping, lighting, and basic landscaping in B-1 and/or B-2 Lots	\$1M - \$1.5M per large lot (\$10k - \$15k per space).
	Pave additional area in South Lot to accommodate 5 - 6 new trailer parking spaces	\$30k
	Formally expand existing North Lot	\$230,000 - \$340,000
Install Additional Electric Vehicle Charging Stations		\$10k - \$12k each + electrical infrastructure
Provide Pedestrian Refuge Areas/Paths in South Lot	Install crushed DT surface or concrete surface along south and north edge of lot	\$15k (crushed DT) - \$30k (concrete)
Relocate Mast Hoisting Area		\$5k for the mast only. \$20k - \$30k if new staging area is required

Source: Walker Consultants

LONG TERM OPTIONS

Table 3: Estimated Costs for Long-Term Options

Option/Strategy		Cost Description	Estimated Cost
Implement Reserved Parking for Marina Slip Holders/ Paid Parking			Varies depending on scope and scale of program
Remote Parking with Shuttle Access			Varies depending on location of remote parking and scale of shuttle program
Construct Structured Parking	Construct small parking garage within simple footprint		\$7.5M for structure to fill B-1 Lot
Incorporate Public Parking into Privately-Constructed Parking for New Development			Varies depending on terms of future agreement
Main Street/Marina Drive Realignment and Connection to Downtown	Straighten Marina Dr., install infrastructure improvements, reconfigure intersections		\$500k - \$750k
Install Additional Electric Vehicle Charging Stations			\$10k - \$12k each + electrical infrastructure

Source: Walker Consultants

END OF REPORT