reimagine Downtown Lewiston

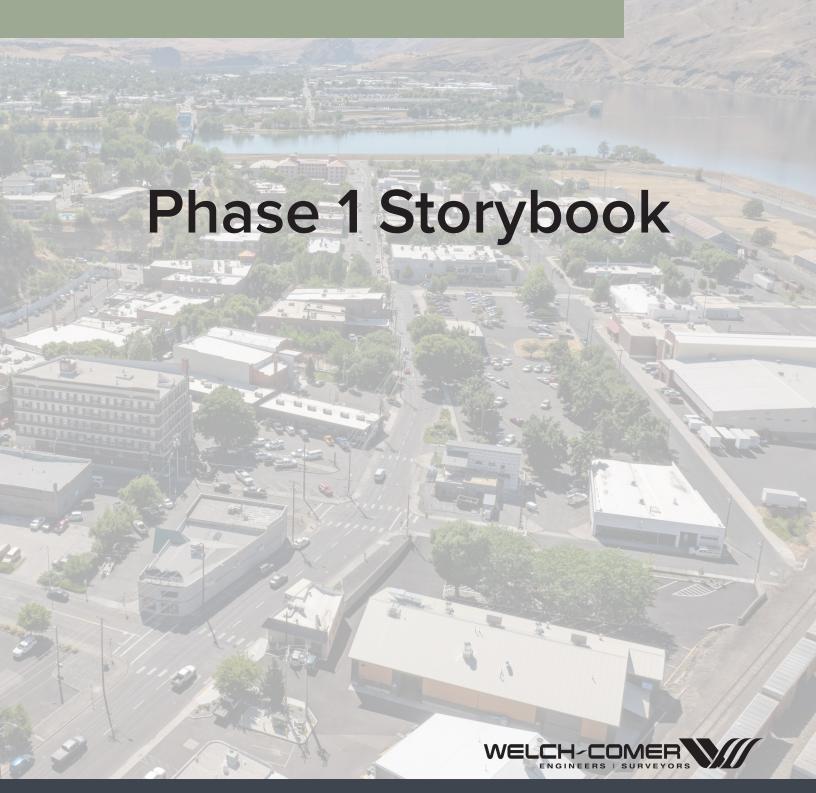


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Chapter 1 DISCOVERY



Setting the Stage

SCOPE Phase 1

Let's Build Something **Great Together**

The City of Lewiston is undertaking a significant project to reconstruct the infrastructure on downtown streets, which is spurred by aging, failing, and undersized underground utilities. As detailed later in this document, tearing up the deep underground utilities destroys much of the aboveground streetscape. Rather than patching the streetscape back, could it be improved to better meet the current desires of the community. Downtown businesses are struggling and there is a desire to have the infrastructure better support business, draw people downtown, and spur investment. Also, improving major transportation corridors has long been a priority for the community, with Main Street consistently ranked at the top.

Reconstructing "out of sight, out of mind" underground utilities does not typically require a lot of public input. However, when the utility reconstruction will destroy an entire neighborhood streetscape, it presents an opportunity to rebuild the streetscape with current community values, which does require extensive public outreach.

This project tackles Phase 1 of the Main Street Corridor Project which has been named Reimagine Downtown Lewiston. This phase consists of significant public outreach, preliminary infrastructure design, and a G.O. Bond election which will ultimately fund the final design and construction.

Concept Design

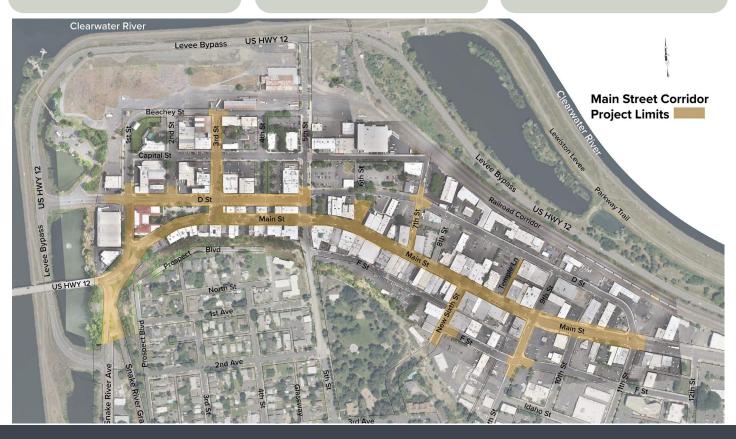
- Streetscape Elements
- Validation of Traffic
- Preliminary Infrastructure
- **Opinions of Cost**
- Phasina
- **Animations**
- Renderings

Public Outreach

- Steering Committee
- Open Houses
- **Business & Property Owner** Meetings
- Pop Ups
- Surveys
- Stakeholder Interviews

G.O. Bond Election

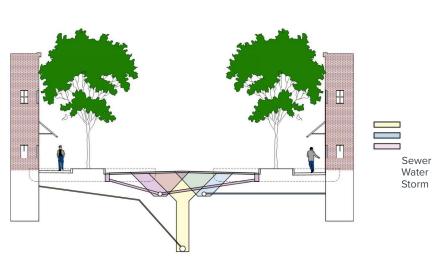
- Passing G. O. allows construction to begin in
- Existing city revenue funds the debt service on the bond, which means no new taxes are anticipated.



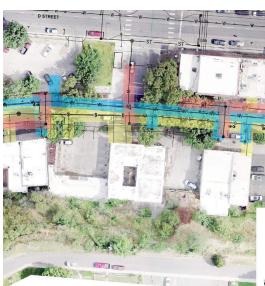
WHY ONE BIG PROJECT?

Knowing it is a significant undertaking to replace major infrastructure in the downtown core, the City wants to be efficient. The underground infrastructure is undersized and, because of its age, requires multiple repairs annually. Replacing the underground sewer, stormwater, and water facilities together is efficient and doing so tears up the majority of the aboveground streetscape, as shown in the cross section and plan view shown on this page.

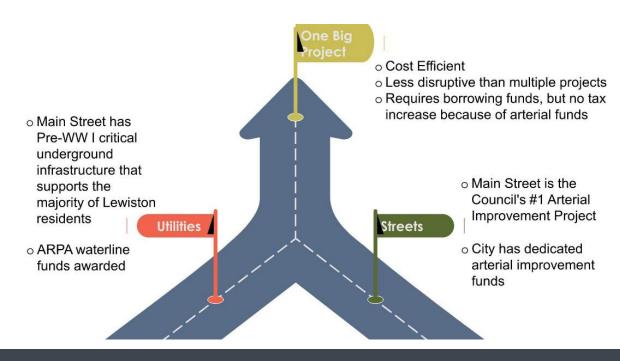
If the City saves for a few years and builds a portion of the project and then saves again for a few years and builds a bit more, it would require four or five separate projects over 20 or more years. There would be less consistency, more impact, and the project would cost at least two times as much in today's dollars.



Cross section showing approximate roadway impact from underground utility replacements.



Plan view that demonstrates the impact aboveground when replacing underground infrastructure.

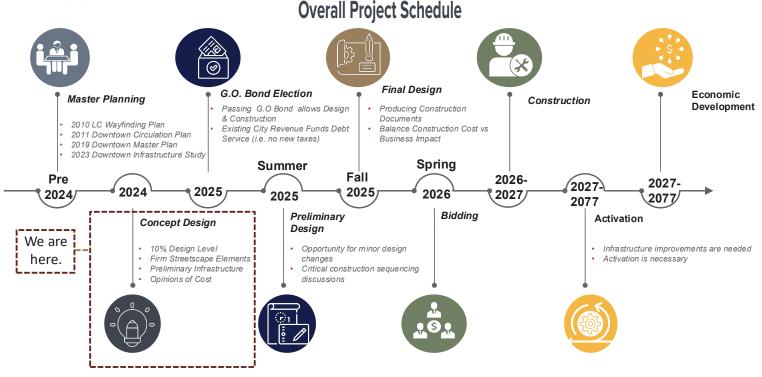


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SCHEDULE

Overall Schedule & Phase 1 Process

Re-imagining the downtown is a lengthy process, that is simplified in the overall schedule below. In getting ready for this infrastructure project, the City conducted planning and studies. Now, the project is in the concept design phase. After the successful bond election in the spring 2025, the final design will commence. Then in spring 2026 the project will be advertised for competitive bids from contractors. The construction is expected to take portions of 2026 and 2027 construction seasons to complete. Following construction, it's up to the downtown business community and the community at large to activate the space by planning events that draw locals and visitors alike to enjoy the new downtown.



Process for the Development of Phase 1



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Setting the Stage KICK-OFF MEETING May 7, 2024

PROJECT OBJECTIVE

Develop a community-centric placemaking design and demonstrate needs that will generate public enthusiasm for a G.O. Bond

The kick off meeting with the City staff and the consultant team was held in May. The meeting objectives were to make sure there was clarity and concurrence on the overall project goals, project approach, decision-making processes and communication protocols.

Public engagement, urban and streetscape design, traffic/ street design, and utilities were discussed. The City staff and consultant team walked the downtown corridor to observe challenges, understand the existing culture, and brainstorm ideas.

Refer to the meeting minutes and slides from the presentation in the appendix for more details.











Highlights

Public Engagement:

- Goal to accurately shape narrative
- Public website with opt in to email list
- Social Media
- Source of truth Build trust
- Want people informed so they understand the project and show up to vote

Urban Design:

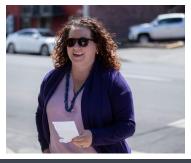
- Need foundation and explain critical items
- Items need to be functional
- Emphasize history/culture over "art"
- What do we need to get people downtown?
- Provide a block by block, business by business approach

Traffic/Street Design:

- D Street overhead powerline dominance
- Bicycle facilities may be an option on D St.
- Two-way traffic on Main Street was previously decided.
- Validate if two-way traffic on D Street also works
- Roundabouts on ITD infrastructure might be a challenge

Utilities:

- Large diameter sewer pipes
- Stormwater system doesn't work
- Water transmission main needed for fire flow





STEERING COMMITTEE MEETING #1 **JUNE 25, 2024**

The City established a steering committee for the project. The steering committee is essentially a sounding board made up of downtown business owners, property owners, and those with a strong commitment to the success of the downtown. The first steering committee meeting had a great turn out with about 30 people attending in person and more attending virtually. Welch Comer Engineers and GGLO were the presenters and gathered great feedback from the committee.

The main topics were trees, speed/safety on Main Street and D Street, community character, ped/ bike connectivity to the waterfront, and invigorating downtown. For more information refer to the meeting minutes and copy of presentation materials in the appendix.





Downtown Project









Existing Trees

- Emphasis on healthy, expansive existing canopy unique to Lewiston
- Shade is very important
- More species variety suggested

Speed, Safety & Connectivity

- Need slower speeds and better crosswalks
- Turning D Street into a two-way is safer
- About 30% of travelers use bypass
- Connect D Street with waterfront using 3rd and/or 5th

Fundina

The public will need to understand the funding for the project (i.e. the bond)

Community Character

- Downtown is cluttered with different types of furnishings
- Cafe seating and benches were mentioned
- No night life
- Businesses marketing together may help unify
- Summer events Hot Aug nights & artwalk
- Cafe seating for downtown experience

Streets, Intersections and Ped Bike

- Locals want better bike/ped facilities
- Use D Street for bike facilities, more space and near waterfront and levee
- May add electric vehicle charging stations
- Suggestion to add motorcycle parking
- Connectivity to levee and waterfront

BUSINESS & PROPERTY OWNERS MEETING #1 July 30, 2024

The first Business and Property Owners meeting had a great turn out with more that 40 people attending. Dustin Johnson, the City Public Works Director, opened the meeting by introducing the project and explaining how it's evolved to this point.

Phil Boyd with Welch Comer Engineers gave a short presentation with an overview of the project, what to expect at each station, and the importance of their opinion at this stage of the concept design.

Attendees visited each of the five stations to ask questions of the consultant team, give feedback and vote on design, character and historical themes.













Highlights

Downtown Destinations

- Shops and Restaurants
- Downtown Events
 - Night Market
 - Plaza Events

Art & History Themes

- Nez Perce Tribes
- Festivals & Events
- Recreation

Downtown Character

- Traditional with contemporary elements
- · Enhanced crossings and sidewalks
- Seat walls & pedestrian lighting

Vaults

- Develop a policy between city and property owners
- Repair or keep historic glass

Construction

- Keep sidewalks open and increase signage
- Additional and/or improved parking
- Non-Motorized connectivity
- Shared-use path on one side of D Street

Traffic & Pedestrian Safety

- Raised crosswalks at mid-block crossings
- Positive response on two-way traffic

Street Trees

Keeping existing trees, if healthy

STEERING COMMITTEE MEETING #2

August 20, 2024

At the steering committee meeting #2, 11 members attended in person and few more virtually along with city staff. Design consults from Welch Comer Engineers and GGLO were the presenters.

Agenda topics were project overview and process, feedback from business & property owners meeting and survey, stakeholders meetings and feedback to date, streetscape concepts, roadway concepts and the next steps. For more information on the content of the meeting, refer to the meeting minutes and a copy of presentation in appendix.



Highlights

Social Media

- Initial video created by Recraft Creative received good feedback
- Social media accounts for Facebook, Youtube and Instagram are live
- Website is also active.

Feedback

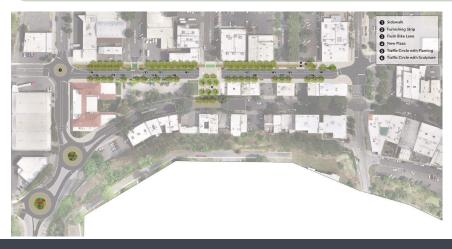
- Parking and loading areas are a concern and there needs to be better wayfinding for public parking
- Understanding businesses and public opinions/needs
- Need clear communication with business owners of when construction will start
- Be clear that the underground infrastructure is driving the aboveground work

Streetscape Concepts

- Existing trees: loved, provide shade, hide buildings, need better maintenance
- New trees: temp shade options until mature
- Color, flowers, hanging baskets needed

Roadway Concepts

- Supportive of roundabout at bridge which improves both pedestrian and vehicular access at to Snake River Avenue
- Two-traffic and raised crossings improve pedestrian safety
- Prefer parallel parking instead of angle parking on Main Street west of 9th Street, but only if parking counts are maintained





BUSINESS & PROPERTY OWNERS MEETING #2 October 1, 2024

The second Business and Property owners meeting included many familiar faces from the first meeting and some new attendees. It was opened with a project overview from Dustin Johnson, the City Public Works Director, and a presentation by Phil Boyd from Welch Comer Engineers along with Mark Sindell from GGLO. The purpose of the meeting was to update attendees on new details, show them some ideas, answer any questions they had, and obtain their input. Attendees visited stations to interact with the design team.









Highlights

Why One Big Project?

- Cost efficient
- Less disruptive
- Requires borrowing funds
- No tax increase

What We've Heard

- Slow speeds & safer ped crossings
- Save trees, if possible, but also concern over tree health/longevity
- Sidewalk vault options
- Concern about impact on businesses
- · Perspective of not enough parking
- Better ped/bike connectivity to downtown and water front
- · Interested in 'festival streets" for events

Roadway and Intersection Design

- Two-way on Main St, D St, and 1st St.
- Close 3rd
- Parallel parking on Main between 1st & 9th
- Angle parking on Main between 9th & 11th
- D Street
 - · Parallel parking
 - · Shared-use path
 - Sidewalks 1st to 5th
- 1st/Main roundabout (s)
- 1st/D (compact roundabout)

Loading Zones and Time-Restricted Parking

- Loading zones in strategic locations
- Open discussion for location suggestions



STEERING COMMITTEE MEETING #3 October 22, 2024

The purpose of the third steering committee meeting was to present refined concepts and gather final feedback as the design team finalizes the preliminary design phase and prepares for the second public Open House. Other topics included explaining the financing for the project, the need for the sewer infrastructure replacement and how it serves the majority of the City, loading zones, transit, parking, and roadway design. Consultants from Welch Comer Engineers and GGLO were the presenters.

Highlights

Potential Public Art & History Locations

- Roundabout at 1st and D Street
- Roundabout at 1st and Main Street
- 3rd St. Plaza
- New 6th Festival Street
- Planted median between 10th and 11th St.

Roadway Concepts

- New 6th Festival Street
- Enhanced Brackenbury Square
- Raised intersection with potential closure during events
- Potential to close 3rd St to traffic

Project Financing

- Option 1
 - Build soon with loan
 - Payback with annual payments over 20 years
- Option 2
 - Build in 4 separate projects over 20 years
 - Pay double
 - Less consistency
 - More impact to downtown









ARTS & CULTURE ORGANIZATION MEETING November 13, 2024

Welch Comer staff invited over 30 community members involved in arts and cultural organizations in downtown Lewiston and the Lewis-Clark Valley to participate in a stakeholder meeting held on November 13, 2024, at the Lewiston City Library. The stakeholder meeting was attended by 14 community members.

The meeting objectives were to bring everyone up to speed on the project, review arts and culture themes for the concept design, discuss preliminary locations, and discuss collaborative funding opportunities for installation during final design.

Potential Locations for Arts & Culture Opportunities

- Roundabouts at 1st Street/ Snake River Avenue/Main Street
- Roundabout at 1st Street and D Street
- 3. 3rd Street Plaza
- 4. New 6th Street Festival street
- Main Street/1lth Street/D Street



Recommendations

- Provide power up and down streets for vendors and food trucks.
- Provide power at 3rd Street Plaza and New 6th Street Festival Street for vendors and food trucks
- Consider the development of a City of Lewiston Arts Commission to lead art program throughout the community.
- Revise 3rd Street Plaza design to be more open, and include infrastructure for a fountain.
- Meet with this group early in the Final Design process to review concept design and refine plans.
- Include plinths/footings for future public art on street corners.
- Include power along curb line or along property line to up-light murals.
- Include tall poles on New 6th festival street for seasonal installation of something that would
 cast shade on the area. Consider continuing the shade-casting infrastructure to the north side of
 Main Street.
- Include "gateway" permanent signage across Main Street at the eastern edge of the project.

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Stakeholder Interview Summary June - November 2024

Between June and early November 2024, Welch Comer conducted 41 interviews with property and business owners in the downtown core. These discussions aimed to inform stakeholders about the project, gather design feedback in a small-group setting, and address the overall scope of the project. Interviewees were selected based on their property or business's interaction with the concept design, their direct request, or to ensure an opportunity for input on proposed streetscape modifications during the concept design phase. Initially, a standardized interview script was used, which was adjusted as major preliminary design decisions took shape. The full report is available in the appendix.

Take-a-Ways

- Consider a demonstration to help people understand the two-way traffic on Main & D Street
- Retain as many established trees as possible
- Address the sidewalk vaults so they are not an impediment to redevelopment
- Plan for public bathrooms in public gathering areas
- Retain and maximize parking. Introduce ADAcompliant parking where possible.
- Feather the transition of design between Main St east of 9th and Main St. from 1st to 9th
- The existing landscaping irrigations is connected to buildings and disconnecting them will need to be managed with new streetscapes
- Include electrical plug-ins for future vendors stands up and down Main Street.
- Include locations for future electric vehicle charging stations in public parking lots.
- Extend Main Street/D Street "streetscape" amenities, like lighting, into public parking lots and upgraded signage.
- Continue business and property owner coordination through the Final Design phase.

- Strengthen partnerships with economic development organizations to give property owners tools to prepare for construction impacts.
- With the excitement of the new public plaza spaces, the city should consider an "open container waiver policy" for events, for participants 21 and over.
- The city should plan for maintenance of enhanced public spaces.
- Consistent interest in the city's acquisition of the Twin City Foods property for redevelopment.
- Consider overnight leasing of publicly-owned parking to upper story residential unit tenants.
- Application of Fire Codes is inconsistent and challenging for redevelopment.
- Installation of fire suppression systems is cost prohibitive. The city should include an option for property owners to invest in a "fire line" during the final design phase of the project and also partner with the Lewiston URA to extend "fire lines" to property lines or install fire suppression systems in buildings.



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Business and Property Owner Survey Summary

In addition to Business and Property Owner meetings and stakeholder interviews, we also had a survey specifically for downtown business and property owners to complete. There were 18 questions relating to downtown in general, community character, Main Street and D Street streetscape, non-motorized facilities on D Street, and underground infrastructure challenges. These responses helped to shape the concept design priorities. The full survey results are in the appendix and a summary is provided below.

What are current barriers to the success of your busin

What aspects of Main Street and D Street, and Downtown Lewiston are current barriers to the success of your business? Top results were:

- Lack of foot traffic
- Lack of parking
- Lack of local residents
- Lack of pedestrian amenities

The perception of lack of parking came up throughout Phase 1, despite a recent parking study finding that there is more than adequate public parking in the downtown core. The design team took this to mean that there is a perception of not having enough parking because the conditions for pedestrians are currently unsafe. People are more likely to park on D Street or even further north and walk to their destination if the vehicle travel speeds are low and safe, clear, and visible crosswalks are provided.

The design team, took these comments into consideration when designing streetscape that prioritizes people over cars and encourages downtown pedestrian activity.

What works well and should be preserved on Main Street? Top results were:

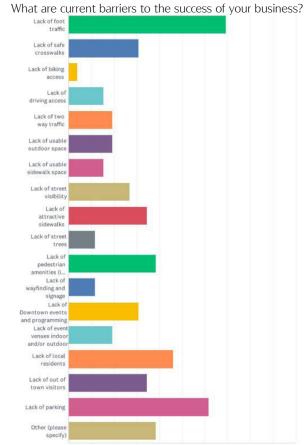
- Benches
- Trees
- Cafe Seating
- Historic and Cultural Elements

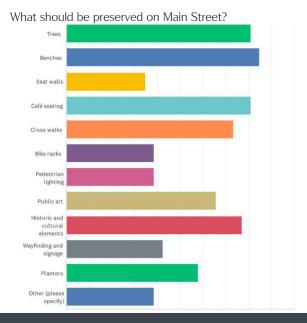
The design team created opportunities to install benches and expand seating opportunities with functional seal walls around landscaping and expanded opportunities for cafe seating. Additionally, an arborist was hired to help assess the health of the trees and the design team attempted to preserve as many trees as possible.

What works well and should be preserved on Main Street? Top results were:

- Benches
- Trees
- Cafe Seating
- Historic and Cultural Elements

The design team created opportunities to install benches and expand seating opportunities with functional seal walls around landscaping and expanded opportunities for cafe seating. Additionally, an arborist was hired to help assess the health of the trees and the design team attempted to preserve as many trees as possible.





Macro Public Involvement BROAD OUTREACH

In addition to targeted outreach to stakeholders and business and property owners, broad public outreach kept the community at large up to speed. The website allowed for people to opt-in to newsletter updates, which went out every few weeks over the course of the project. There were yard signs around town and table-toppers in downtown businesses that pointed the public toward the website, public survey, and social media accounts. The design team collaborated on write-ups regarding the project in Chamber of Commerce and City newsletters, in addition to providing content to the Lewiston Tribune who wrote several articles about the project over the course of Phase 1.





Yard signs were place around downtown and included a map of the project and QR codes for the public survey and to the website.



Please Join Us to Talk About Reconstructing Lewiston's Main Street



Reconstruction of Lewiston's Main Street from 1st to 10th

Lewiston's Main Street Corridor Project is a much-needed upgrade of our utilities and street infrastructure. Our underground water mains are in rough shape, and there are new design enhancements to the street and sidewalks that can benefit our community

Above is a portion of one of many email newsletters updates that went out every few weeks during Phase 1.



250 table toppers were placed in downtown businesses with QR codes for the public survey and to the website/social media channels.

restore.

Virtual Public Outreach

The project website: ReimagineDTLewiston.org, as well as, social media channels such as Facebook, YouTube, and Instagram (@ reimagineDTLewiston) allowed the project team to inform the public.





Macro Public Involvement POP-UP EVENTS

The design team staff attended two "pop-up" events to go to the people to inform about the project and gather feedback. The events the team attended were Hot August Nights and Artwalk, which we both well attended and gave the team ample opportunity to connect with the public.

HOT AUGUST NIGHTS



A Welch Comer staff member roamed the Hot August Nights car show in downtown Lewiston, informed the public about the project, and asked attendees to complete a survey about downtown Lewiston.

While not everyone wanted to take the survey, those who did were enthusiastic about downtown Lewiston and provided valuable input.

About 30 people completed the survey, and responses have been used in completing the preliminary design.

ART WALK



Melissa Cleveland and Courtney Kramer, from Welch Comer Engineers, had a station at the Art Walk on Friday, October 4th and engaged with people attending.

Takeaways from the locals were very positive regarding the proposed streetscape. The public was very interested in learning more about the underground infrastructure problems. The bond and project financing information was also well received.





GENERAL OPEN HOUSE #1 September 10, 2024

The first general public Open House was a great opportunity to build off of the steering committee and business/ property owner feedback to present themes, concepts, and information and gather feedback from the community. The purpose of the meeting was to describe where the project is headed, show them some ideas, and answer any questions they had. This was also a good opportunity to gauge if the project or messaging needed any course correction.

There was a short presentation and engagement stations for people to talk to the design team one-on-one. The first stop was the welcome station at the entrance to collect contact information and QR codes to sign up for the project social media and newsletters. The other stations included: What Makes Downtown Special, Community Character, and Transportation.

The meeting was advertised in the Lewiston Tribune, as well as, on the project website and social media pages. Copies of the presentation slides, station boards, and public notice are included in the appendix.

Highlights

- Positive response to 2-way traffic
- Want slower speeds and safe pedestrian crossings
- Discussion on wanting better pedestrian access from Normal Hill
- Seemed to understand need for bond to finance the construction
- Parking continues to be a concern and there is a perception that there is currently not enough
- Mostly positive response to the proposed share-use path on D Street
- Desire for public festival spaces (New 6th and others)
- Trees are desirable, but want to make sure they are healthy and work long-term





Open House



Sept 10th 5:15 pm*-6:45 pm Lewiston Library

The City of Lewiston has advanced to the preliminary design phase of the Main Street Corridor infrastructure project. Building off of past planning efforts, the City intends to complete underground utility upgrades and replace above ground roadways and streetscapes on portions of downtown streets.

Attend this meeting to ask questions of the design team and provide feedback.

*a brief presentation will occur at 5:15 pm

reimagine DOWNTOWN Lewiston Take the online survey by scanning the OR code below

GENERAL OPEN HOUSE #2 November 13, 2024

The second general public Open House gave the community at large the opportunity to see the evolution of the project concept since the first Open House in September. The meeting began with a presentation that helped walk through the design process, feedback to date, design revisions in response to past feedback, and provide information the team thought the public may seek. The presentation explained first and foremost that the poor underground infrastructure is the driving force behind the project. A discussion on the bond, financing, and reasoning for constructing as one big project were also part of the presentation. Like in past meetings, people were able to visit various stations to ask questions and provide input on specific topics. See highlights below and slides from the presentation and the station boards in the appendix.

Highlights

Why One Big Project

- Cost efficient
- Less disruptive
- Requires borrowing funds
- No tax increase

Utilities

- High amount of stormwater infiltration into old sewer pipes creating capacity issues
- Majority of Lewiston sewer flows through main in 1st Street

Project Financing

- Option 1
 - Build soon with loan
 - Payback with annual payments over 20 years
- Option 2
 - Build in 4 separate projects over 20 years
 - Pay double
 - Less consistency
 - More impact to downtown

Two-way Traffic

- Slower traffic speeds
- Encourage bypass use
- Ease of access for motorists















Public Survey Summary

In addition to Open Houses we also had a survey to gather information from the public. There were 15 questions relating to downtown in general, community character, Main Street and D Street streetscape, non-motorized facilities on D Street, and underground infrastructure challenges. The responses from the 122 people who completed the survey helped to validate and redirect design priorities. The full survey results are in the appendix and a summary is provided below.

What do you do when in downtown Lewiston? Top results were:

- Visit restaurants and bars
- Shop
- Drive through

Though the team expected the first two, notice how the third most popular answer was to just drive through. As mentioned before, cars do not frequent downtown businesses, people do. A bypass exists that is faster and more convenient for traffic without a downtown destination. The proposed design includes raised intersections, narrower, lanes, and roundabouts to slow travel speeds, which will encourage bypass use.

What would bring you to downtown Lewiston more? Top results were:

- Connection to waterfront
- Downtown events
- Better indoor and outdoor spaces

The proposed plan includes new gathering spaces at 3rd Street and New 6th, which provide the opportunity for event space. Additionally, proposed new non-motorized facilities on D Street enhance the connectivity to the waterfront.

What aspects of Main Street, D Street, and Downtown Lewiston are important to you? Top results were:

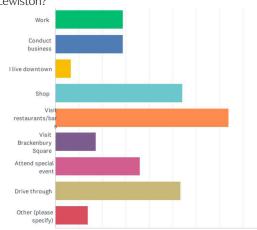
- Foot traffic
- Outdoor cafe space
- Attractive sidewalks
- Pedestrian amenities

How would you describe Main Street? Top results were:

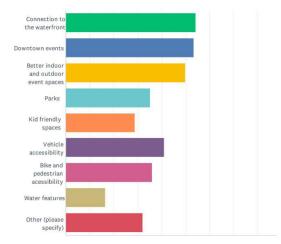
- Pleasant
- Outdated

The design team understands that the Lewiston community is practical. They like their downtown character, but understand that the underground utilities need to be replaced, which will tear up the majority of the above ground streetscape. There is not much wrong with Lewiston's downtown except that it is outdated and the infrastructure needs to support gathering of people a little better.

What do you do when you are in downtown Lewiston?



What would bring you Downtown Lewiston more?



Chapter 2 EARLY-STAGE DESIGN



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Early-Stage Design SEWER

Highlights

- Existing sewer lines in 1st Street and Main (1st to 5th) date back to WWI and need to be upgraded.
- The mainline in 1st Street, extending south to the Snake River Grade currently serves the majority of the City, routing flow to the wastewater treatment plant (WWTP). It needs to be upsized (another consulting engineer, Keller, confirmed minimum 30"; we are estimating based on 36")
- The City is planning to consolidate two main sewer lines (one coming from Snake River Grade and one from the Snake River Road) before the proposed intersection improvements at 1st/Main Street.
- No sewer replacement planned for D Street (condition is assumed to be good)

Key items for final design:

- Service location by third-party sewer service (i.e. Roto-rooter); services currently shown based on tap location in mainline sewer videos
 - Confirm which services can be abandoned
 - Finalize which storm drains are connected to sewer service and remove from sewer service
- No replacement planned for 36-inch line
- Determine final tree impacts based on services
- Modifying current non-manhole penetration on 36-inch line
- Confirm bypass alignment for 1st St sewer. Plan on larger flow identified in I&I study (2019)
- Come up with detail to remove manholes with flush valves
- Planning on trench boxes for the deeper sewer (no shoring)
- May need geotechnical engineering to confirm soils can lay back at 1.5:1 slope
- Finalize trenchless vs. trenched options once service impacts to trees are finalized

Legend Central Orchards Sewer Basin Flows Through First Street Sewer Flows Through Main St.



The 1st Street sewer has a high amount of stormwater infiltration, creating capacity issues. Roughly 45% of Lewiston sewer flows through 1st Street. There are also isolated areas of significant root damage.

Early-Stage Design WATER

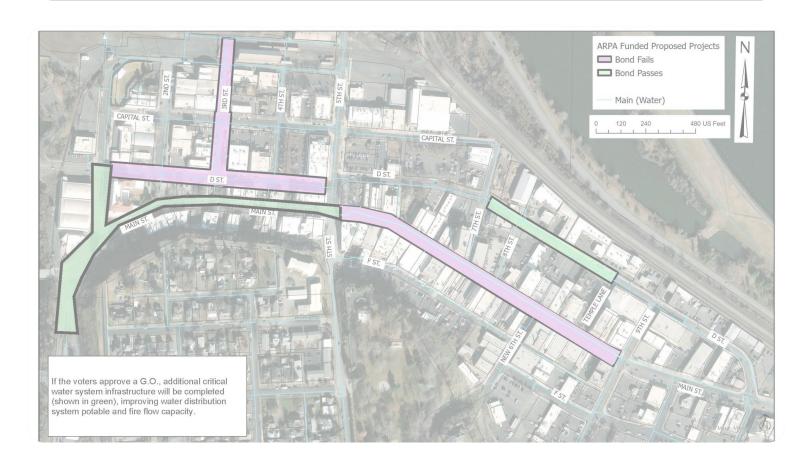
Highlights

WATER

- Existing waterlines in 1st Street and Main (1st to 5th) date back to WWII and need to be upgraded to meet current demand and fire flow needs.
- ARPA funds are currently slated for Main Street (5th to 9th), D Street (1st to 5th), and 3rd Street (Main to B) to improve transmission capacity. Merrick has designed these alignments.
- ARPA funds can be leveraged elsewhere if the bond passes, so the Main Street waterline design (prepared by Merrick) would then be incorporated into the Reimagine project. D Street and 3rd Street would still be completed with ARPA funds as they are outside of the utility replacement plan for Reimagine.

Key items for final design:

- Verify which water meters are in basements and relocate them to ROW
- Final coordination with another consulting firm's water plans (Merrick)



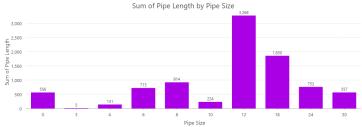
Early-Stage Design STORMWATER

Downtown Lewiston is very flat. On Main Street, between 1st Street and 11th Street there is only 6 feet of vertical fall. To alleviate ponding in the flat areas, additional stormwater facilities like catch basins will be placed in higher frequency than existing today in locations with gutter slopes less than 0.5%.

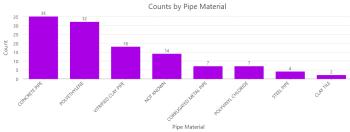
Similar to the City of Lewiston's sewer system, a large portion of stormwater from outside the downtown area relies on the performance of downtown Lewiston's stormwater system to deliver stormwater to its final destination in stormwater ponds near the levy.

Proposed Improvements

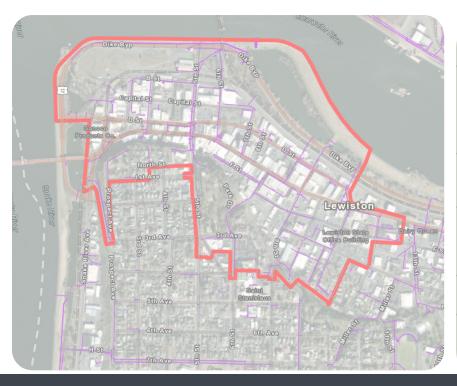
- Existing stormwater basins throughout the project will generally be retained and upgraded.
- Surface utilities will be kept out of the wheel path where grade allows for catch basin connections.
- Type 2 catch basins (manhole-style) will be used whenever deep catch basins are required or when there are more than 3 connections into one junction.



Almost 30% of the stormwater mains in the Phase 1 Downtown Lewiston project area are under 12" in diameter (per City of Lewiston GIS). The project will upsize these stormwater mains to be a minimum of 12", increasing the system's overall stormwater capacity.



Approximately 46% (not including stormwater mains with unknown materials) of the stormwater mains in the Phase 1 Downtown Lewiston project area are constructed out of concrete and clay pipe (per City of Lewiston GIS). All new stormwater mains will be constructed with D3034 PVC, C900, or ductile iron materials.



Key items for final design

- Confirm Existing stormwater easements in following locations:
 - Caldwell Banker
 - Outfall area west of 1st Street
- Confirm stormwater roof drain locations and route to underground service connections where possible.
- Stormwater locations on D Street and Main Street (East of 5th St) will require coordination with Merrick's proposed water utilities.
- Clarify stormwater drainage basin for new 6th Street
- Complete stormwater analysis to confirm stormwater main sizes and proposed catch basin locations.

Early-Stage Design TWO-WAY TRAFFIC VALIDATION

Traffic Validation

Downtown traffic had been studied in the past several times. Through past studies and public involvement processes, it had been determined that Main Street would go from one-way eastbound to two-way. However, the fate of D Street was not clearly determined in the previous studies. City staff and the Welch Comer team both felt that two-way traffic on both Main Street and D Street made the most sense, but wanted to validate this conclusion. Therefore, we chose a validation phase to model two-way traffic on both Main Street and D Street, as well as, the intersections of lst/D Street, lst/Main Street/Snake River Avenue, 3rd Street/D Street, 3rd Street/Main Street, 5th Street/D Street, and 5th Street/Main Street. The team took simultaneous video intersection traffic counts the first part of May 2024. It was confirmed that two-way traffic on both Main Street and D Street would function well.

The Main Street project length extends east to 11th Street, however, the City and design team wanted to limit the amount of "studying" in the overall project scope. The previous studies had identified Main Street/Ilth Street/D Street to function well as a two-way stop-controlled intersection well into the future. This conclusion seemed reasonable; therefore, the design team accepted this conclusion and did not further study the intersection. There are two signals on 9th Street at 9th/Main Street and 9th/D Street. We have assumed the signal on Main Street is still warranted with two-way traffic. Alternatively, we have assumed that the signal at 9th Street/D Street is no longer warranted with two-way traffic. The assumptions with the signals on 9th Street should be confirmed during final design.

Once two-way traffic was confirmed, intersection control at 1st Street/D Street and 1st Street/Main Street/Snake River Avenue were considered. Both City staff and Welch Comer were interested in roundabouts at these intersections, as contemplated in previous studies. It was determined that signals and roundabouts both function at these intersections, as discussed in more detail in another section.

Refer to the appendix for the Two-Way Traffic Validation Technical Memo.

Why Two-Way Traffic?

Vibrant downtowns need a lot of pedestrians – people buy goods and frequent businesses, not cars. Areas that have a significant amount of pedestrians need slow vehicular speeds. Two-way traffic means motorists have opposing traffic, which makes them feel uncomfortable traveling at high speeds.

Additionally, two-way traffic improves visibility of pedestrians in crosswalks. In the exhibit, notice how with one-way traffic, the driver in the outside lane cannot see a pedestrian blocked by the car in the inside lane. Additionally, two-way traffic allows for ease of access for motorists, allows for the removal of the signals on Third Street, and makes it simpler to close streets or re-route traffic for festivals.



On one-way streets, Car A blocks the Car B's view of pedestrians.

BENEFITS OF TWO-WAY TRAFFIC

- Slower traffic speeds
- Encourage bypass use
- Better visibility for pedestrians at crossings
- Close streets for festivals
- Close 3rd St for plaza space

Highlights

- The network functions well if both Main Street and D Street switch from a one-way couplet to two-way.
- The 3rd Street/D Street and the 3rd/Main Street signals are no longer needed once traffic on both streets is changed to two-way, which allows for closing this section of 3rd Street for a plaza.
- Key items for final design
 - 9th Street signal warrants (Main Street and D Street) will require intersection traffic counts. The design team recommends counting during the first part of May to have the new counts be a similar time of year to when the 2024 counts were taken.

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Early-Stage Design PARKING

Parking

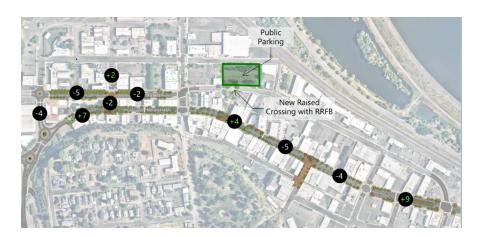
At the start of the project, we had a project goal of no net loss, which is difficult because current ADA parking stall standards take up more space than what are currently marked. Additionally, we have designed the curb bulbs to be flatter along the curb than existing, which will make pulling in and out easier, but also takes up more room. To accommodate the no net loss to parking, some smaller curb islands with trees were removed. In most cases, the tree removal would have been necessary anyway because of utility service conflicts. The change in parking count per block is shown in the exhibit, which results in a total gain of three parking spaces in the project area.

ADA Parking

Accessible parking will be provided on every block within the project area to meet federal accessibility standards. In the proposed project area, there are 12 ADA spots designated.

Public Parking Lots

There is a public parking lot on D Street east of 5th Street that is under-utilized. Two concerns with this lot are: 1) better signing would alert the public to the existing of the public lot, and 2) it feels unsafe to cross D Street in this location. Our design team has proposed a raised crossing with curb bulbs and an RRFB to accommodate this crossing. Once the public is aware public parking in this location is available and it is safe to cross D Street into Brackenbury Square, this lot will be more heavily used by motorists for downtown access. See the location of the public lot and the new raised crossing in the exhibit.



Key items for final design

- D Street east of 5th Street was not in our original scope of work. However, it became clear that switching to two-way on D Street would best suit desired vibrant downtown environment, which will eventually require signing and pavement marking revisions on D Street between 5th Street and 11th Street.
- The raised crossing and RRFB at the existing public parking lot will help to improve parking utilization in downtown.
- D Street should be surveyed, the crossing designed (is it currently faked in based on the aerial photo), wayfinding for the parking lot improved, and the existing signing and pavement markings revised to facilitate two-way traffic.
- 3rd Street between D Street and Capitol Street should be designed to accommodate angle parking on both sides, which will result in two additional parking spaces. The design team considered accommodating this with merely pavement markings, the roadway is a bit narrow. The curb on the west side will need to move west to accommodate this parking. The City owns this parcel so moving the curb and reconstructing the sidewalk should not be an issue.

Early-Stage Design TIME RESTRICTED PARKING

Today, Main Street and D Street are one-way streets with two-lanes on each. This allows for delivery trucks to stop in a lane of traffic and other traffic weaves around using the other travel lane. Once Main Street and D Street are converted to two-way traffic, loading/unloading won't be able to happen as it does today because the other lane will be opposing traffic. The design team has proposed time-restricted parking loading zones. These loading zone will be in parking spaces and available for loading/unloading during off-peak parking times of the day. The business owners would need to schedule deliveries to occur during the times of the day when parking is not allowed in the loading zones. All other times of the day, the spaces are available for parking. The proposed locations of the time restricted parking and loading/unloading zones are shown in the exhibit.



Key items for final design:

- Further coordination with the downtown business owners is necessary to determine the times to restrict parking and allow for loading and unloading.
- It may also be necessary to shift the locations of and the number of proposed loading zones.

Early-Stage Design NON-MOTORIZED ACCESSIBILITY

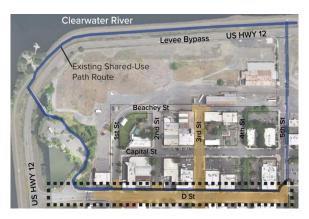
To provide the environment for a thriving downtown, the design must make people feel safe walking. This oftentimes includes slowing vehicular traffic speeds through traffic calming techniques. Throughout the public outreach phase of the project, the design team heard that there is a lack of parking. The reality is that there is not a lack of parking, but rather the sense that it's safe and convenient to walk from available parking to destinations downtown is lacking. Methods used in the project for creating a safer pedestrian environment include: raised crosswalks and rectangular rapid flashing beacons (RRFBs), shared-use path, festival streets and plazas, and wide sidewalks.

Raised Crosswalks and RRFBs

RRFBs are planned in multiple locations along Main Street and D Street, as shown in the exhibit below. RRFBs are a pedestrian-activated system to flash when a pedestrian wishes to cross. Several raised crosswalks are proposed to make pedestrians visible around parked cars. Raised crossings and RRFBs are proposed on Main Street just east of the 1st Street intersection, 3rd Street, Brackenbury Square, and New 6th, and on D Street at 3rd Street and at Brackenbury Square. If roundabouts are constructed, RRFBs are also proposed (but not a raised crosswalk) at the crosswalk between the two roundabouts on the west end of the project.



Locations of Raised Crosswalks with RRFBs in the project area.



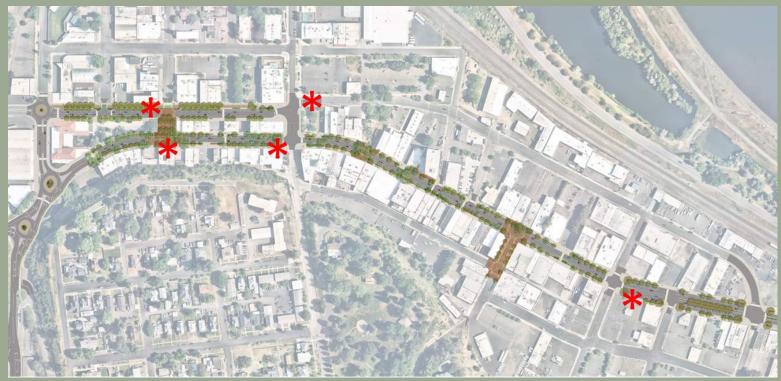
Shared-Use Path

There is a popular shared-use path on the levee that connects to downtown Lewiston via pedestrian bridges on 5th Street and at the Army Corps of Engineers trailhead. A shared use path also connects the pedestrian bridge on 5th Street to downtown, but then ends. A shared-use path was added to connect between the existing shared use path on 5th Street to the west end of the project. This would allow for a shared use path loop through downtown (see exhibit).



Early-Stage Design TRANSIT STOPS

The design team met with transit staff and determined the locations that will work for transit stops once the roadways are converted to two-way traffic. The locations are similar to under existing conditions. In addition, the stops shown on our drawings are designed to accommodate the size of bus transit currently uses, as well as, a larger bus they will likely transition to using in the near future. The transit staff also preferred bus pull-outs, which we were able to accommodate everywhere, but the Third Street stop. The exhibit below shows the locations of the transit stops.



Location of bus stops within the project area.

Early-Stage Design TREES

The trees in downtown Lewiston provide a special downtown environment and shade in the hot summers. Also, there was concern that maybe the trees were unhealthy and were not conducive to a downtown environment. The design team hired an arborist to evaluate the trees and the arborist report is included in the appendix. There were a few trees recommended for removal. There are other trees that are expected to be removed based on conflicts with curblines or underground utilities. However, the design team maintained as many trees as possible during this phase of design. Trees slated for removal are also indicated on the design drawings.



Excerpt from Arborist Report. Full report in appendix.

Key items for final design:

- Further coordination with the arborist to make sure the trees the team is attempting to maintain are likely to survive the construction occurring around them.
- As further water and sewer service investigation is completed, it may become necessary to remove additional trees.
- The goal will remain to save as many healthy trees as possible.

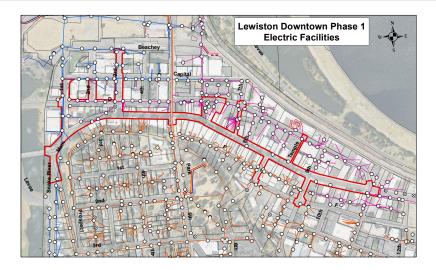
Early-Stage Design PRIVATE DRY UTILITIES

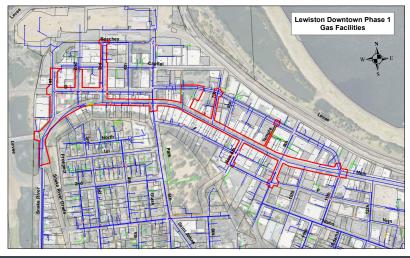
Private Dry Utilities Completed Items:

- Identified existing providers in the project area
- Received maps of existing infrastructure from Avista for gas and power, Lumen and Port of Lewiston for Fiber. Still waiting for maps from Sparklight for their fiber/communications network.
- Received estimates on moving overhead power to underground from Avista
 - We outlined a location within our design geometry. Avista has not confirmed if this is suitable for them.
- Raised the question of a shared trench for utility providers.

Key items for final design

- Specifics on converting each electrical service to be compatible with underground power along D St.
- Which utilities can share a trench and the location.
- Coordinate phasing efforts and requirements during construction for Avista gas lines.
- GPR to find exact locations of gas mains and fiber vaults.
- Walkthrough with providers once layout is finalized.





Early-Stage Design VAULTS

The design team has identified many of the existing sidewalk vaults that exist within the project area using past studies and local knowledge gathered during the public engagement process. There may be other vaults that are, at this time, unknown to the design team. Those that have been identified are shown in the exhibit, along with their current status. For those that are unused or for which the property owner would like to abandon them, the anticipated process for removal will include:

- Have a structural engineer provide a detail for closing any gaps between the building and the vault.
- Fill the vault with structural fill during construction of the roadway and utilities.

For those that are currently used or for which the property owner wishes for them to remain, the process will be to have a structural engineer provide a standard detail for replacing the sidewalk above the existing vault. The logistics of maintaining the use of these vaults during construction will need to be determined in the next phase of design and may be specific to each vault. It is recommended that those that wish to remain obtain an encroachment permit from the City and hold special insurance to have an encroachment into the public right of way. It is unknown at this time how the costs associated with abandonment or maintenance of the vaults will be cost shared between the City and the private property owner. Cost shown in the estimates of cost include structural fill and walls close the gaps between the vault and the building, but do not include structural sidewalk above vaults to remain.



Current status of known sidewalk vaults in the project area.

Early-Stage Design 1ST STREET INTERSECTIONS

Both roundabouts and signals are proposed at the intersections of Main Street/ Snake River Drive and Main Street/1st Street. Also, a compact roundabout or a stop-controlled intersection are both proposed at the intersection of 1st Street/D Street. Roundabouts had been previously considered at the intersections of 1st Street/D Street and 1st Street/Main Street/ Snake River Avenue (see Lewiston Main & D Feasibility Study by Keller and Associates dated 6-15-2020) primarily to facilitate twoway traffic. The exhibits to the right are concepts from the Keller technical memo.



Roundabout at 1st/Main Street in Keller's 2020 Technical Memo



Peanut roundabout at 1st Street Main Street/Snake River Avenue in Keller's 2020 Technical Memo

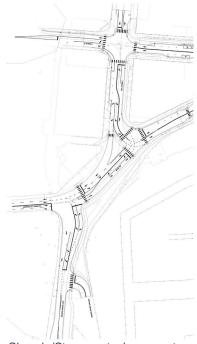
The Reimagine Downtown Lewiston design team built off of these initial roundabout concepts and found a solution that appears to both improve function and fit within the topographical and property ownership constraints.

There are a variety of reasons that the roundabouts are preferred; however, both roundabouts and either signals or stop-controlled intersections function well and improve both pedestrian and vehicular access over existing conditions. Because Idaho Transportation Department has at least partial jurisdiction over portions of D Street, 1st Street, and Main Street where US12 traverses from the bypass onto the Blue Bridge both intersection concepts are designed to accommodate a WB-67 size truck. The design team has shown using software that the truck turning movements can be maintained through the roundabouts and that other smaller size trucks can navigate the roundabouts in any movement. Refer to the roundabout technical memo in the appendix for travel patterns and truck turning movements.

Though roundabouts are shown on the illustrative plans, renderings, and on the preliminary design drawings, the City is still coordinating on the final intersection configuration. Either roundabouts or signals (or stop-controlled intersection at 1st and D) are still on the table and no final decision has been made.



Roundabouts concept



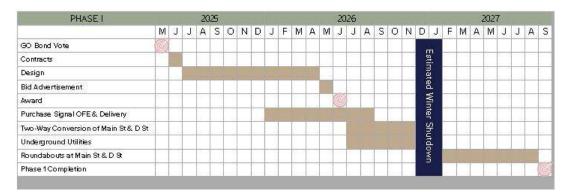
Signals/Stop-control concept

Early-Stage Design PHASING

The schedule below assumes that the GO Bond passes and the full scope of the project can begin design in July 2026. It is assumed that the project will be broken into 2 phases. The design will require careful consideration of potential sequencing so that proper constraints can be established to limit impacts to the public. See Phase diagrams below. It's also possible, that if design can begin earlier, Phase 1 construction could occur in 2026, accelerating the schedule by one year.

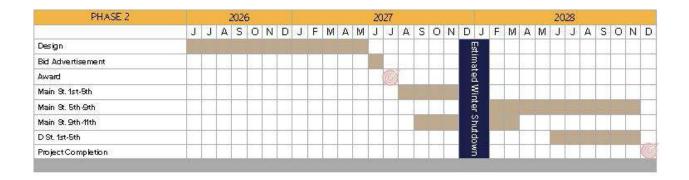
Phase 1

- Two-way conversion of Main Street and D Street between 1st and 11th.
- · Construction of utilities between Snake River Grade and D Street, including the deep sewer main.
- Construction of the three roundabouts at Main/Snake River, Main/1st, & D/1st.
- It's estimated that Phase 1 will be ready to begin construction in mid-2026 and finish in mid-2027.



Phase 2

- Construction of Main St. 1st 5th, including utilities
- Construction of Main St. 5th 9th, including utilities
- Construction of Main St. 9th 11th, including utilities
- Construction of D St. 1st 5th, including utilities
- It's estimated that Phase 2 will be ready to begin construction in mid-2027 and finish at the end of 2028.
 - The contractor is likely to work on multiple subphases at the same time to take full advantage of the second crew. However, the means and methods may vary from contractor to contractor.



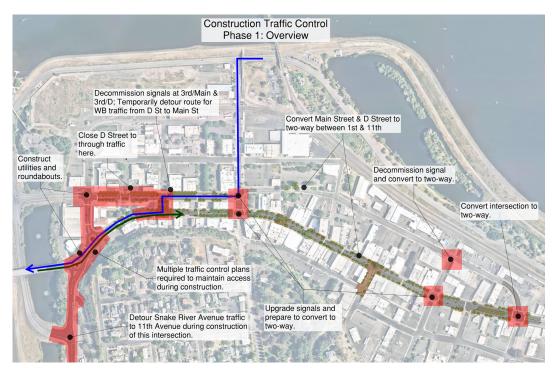
Early-Stage Design CONSTRUCTION TRAFFIC CONTROL & SEQUENCING

Phase 1

- The first portion of Phase 1 will likely require Main Street between 1st and 3rd Street to be converted to twoway. Once this section is two-way, the sewer at D & 1st can begin, with traffic being directed to the bypass & 5th Street.
- Once construction has moved out of D & 1st, this intersection can be temporarily converted to an all-way stop, accommodating eastbound, westbound, & southbound traffic.
- It may be wise to place temporary signal equipment at some or all signalized intersections to avoid conflicts with design in Phase 2.
- While building the Levee Bypass and Snake River Avenue intersection, Snake River Avenue traffic may be detoured.
- When construction moves into Main Street, multiple traffic control plans need to be utilized, which may include but are not limited to:
 - Eastbound traffic directed to D Street via bypass
 - One lane eastbound/westbound
 - Periods of flagger control
 - Possible detour to Southway Bridge
 - Westbound traffic directed to bypass & modifications of Main & Snake to accommodate northbound

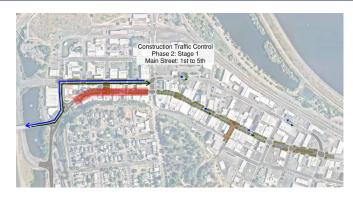
Phase 2

- By the time Phase 2 begins, D Street and Main Street will have been converted to two-way streets allowing them to be used as detours, respectively, during construction.
- During Construction of the Main/5th Street and D/5th intersections, the official detour will likely be at 9th Street. Local traffic may make their way using alternate routes with their knowledge of the local network.

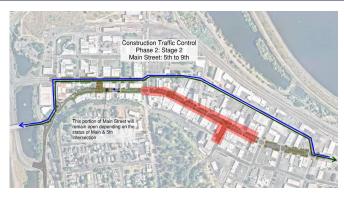


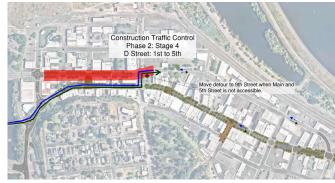
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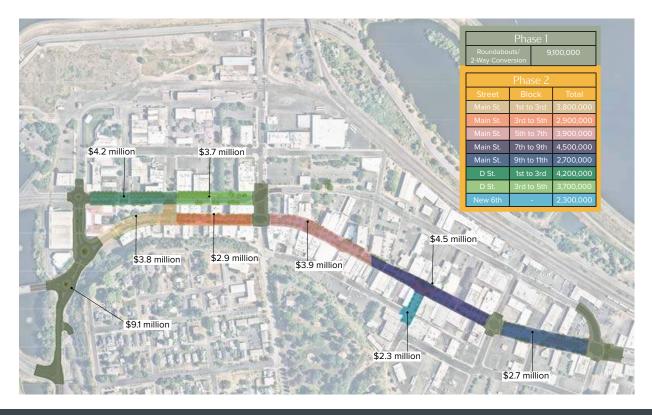
Early-Stage Design CONSTRUCTION TRAFFIC CONTROL & SEQUENCING







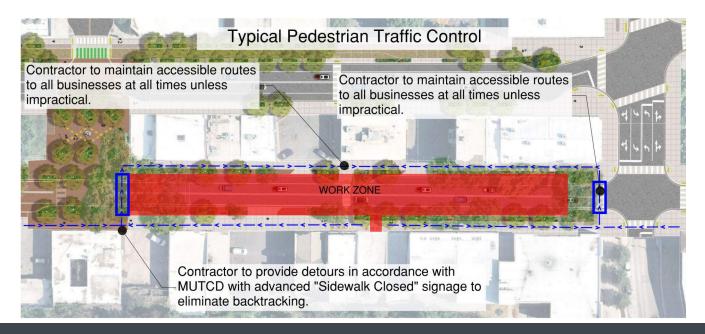




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Early-Stage Design CONSTRUCTION TRAFFIC CONTROL **& SEQUENCING**

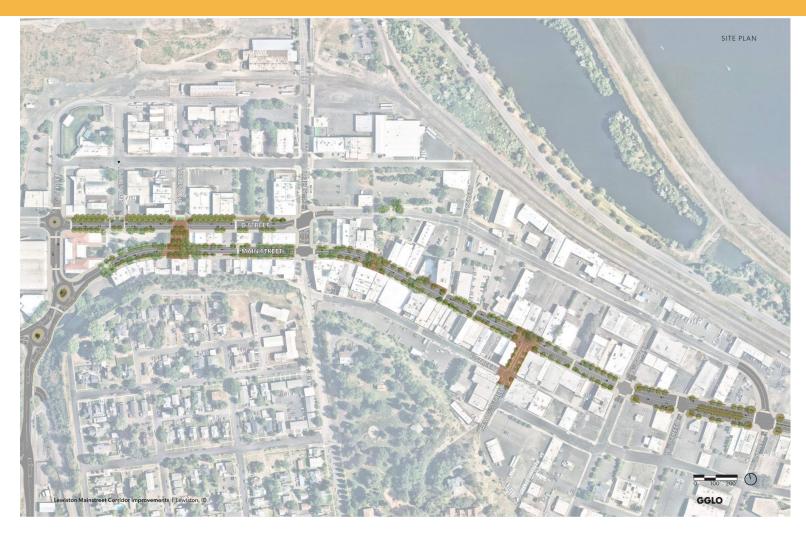
- Every Contractor will have different means and methods of construction sequencing, but Exhibit XX shows a typical construction sequence might look like.
- Generally, the Contractor will begin with the deepest utility first and work their way up.
- Water and Storm are frequently at similar elevations, so their sequencing can vary on a case by case basis.
- For accessibility purposes, it is generally best to leave the existing sidewalk in place until the new sidewalk is ready to be installed. However, when the utility services are installed, patches of sidewalk will need to be removed. The specifications will require clear and concise language regarding how long the sidewalk closures may be as well as requirements for establishing a temporary surface until the final sidewalk is installed.
- Once it is time to remove the existing sidewalk and install the new sidewalk, it becomes impossible at times to maintain an accessible route to every access along the frontage. Once again, it is important to have clear and concise language in the specifications that addresses the requirements of how long closures may be, alternate routes the contractor must provide, as well as services that they may be required to provide.
- Many access issues can be addressed simply by good communication between the contractor, inspectors and the property owners regarding schedule and limitations. For instance, an unavoidable delivery can be accommodated by the contractor provided they know when it will be. Conversely, some deliveries can be rescheduled provided they know when access may be limited.
- In general, the Contractor will likely close the section of roadway they're working in to vehicular traffic, including parking. In some cases, this will be multiple blocks. Not only is this the most efficient way to perform the work, but in some cases, it's impossible to maintain a safe work zone and accommodate vehicular travel.
- It is important to perform an adequate amount of outreach so that the public understands where parking alternatives will be to maintain business downtown.



Chapter 3 **VISION**



Illustrative Plan OVERVIEW



Overall Vision

Reimagine Downtown Lewiston is, first and foremost, a vital underground infrastructure project. However, as we have described earlier in this document, replacing the underground infrastructure impacts the majority of the above ground infrastructure, as well. Because the above ground infrastructure will be virtually wiped out anyway, we may consider modifying the streetscape to better serve the community moving forward.

Throughout the public outreach, it was apparent that the Lewiston community has a practical mindset and prefers elements that are functional and easy to maintain with a traditional (yet possibly slightly contemporary) flair.

Above, in an overview of the illustrative vision for Reimagine Downtown Lewiston, which should not be construed as final. This illustrative plan is developed to give the community a sense for improvements being considered and will likely morph as the project moves through the final design phase. As noted previously in this document, roundabouts shown on the west end of the project are not finalized and the City and ITD are still working out the final intersection configuration.

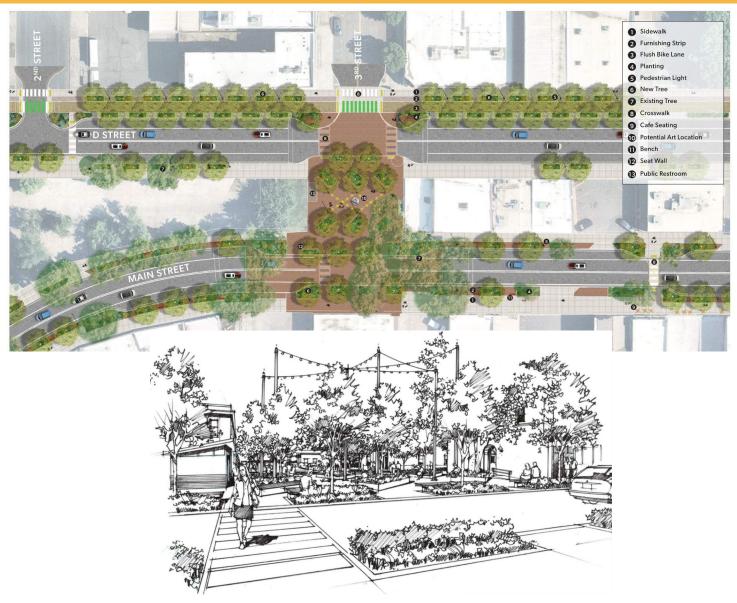
Illustrative Plan Main St/1st St Intersection & Main - 1st to 3rd





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Illustrative Plan 3RD STREET PLAZA



- 3rd Street closed to traffic and transformed into a public
- 3rd Street Plaza features integrated raised planting beds with street trees and concrete seat walls with wooden
- An interactive water feature or a large art installation will be included in the 3rd Street Plaza
- Pedestrian lighting and overhead string lighting will enliven the 3rd Street Plaza at night
- The 3rd Street Plaza extends across D Street to the north and Main Street to the south with raised intersections, enhancing the plaza and creating safe crossings and an improved pedestrian experience

- Preserved healthy existing street trees to maintain the tree canopy
- New street trees to replace unhealthy removed trees and fill gaps, creating a consistent street canopy
- In-ground native plantings at the base of street trees
- Curb bulbs with in-ground native plantings, street trees, and integrated concrete seawalls with wooden tops
- New concrete sidewalk and paver furnishing strip along Main Street with benches, bike racks, pedestrian lighting, and trash receptacles

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Illustrative Plan MAIN ST 5TH TO NEW 6TH



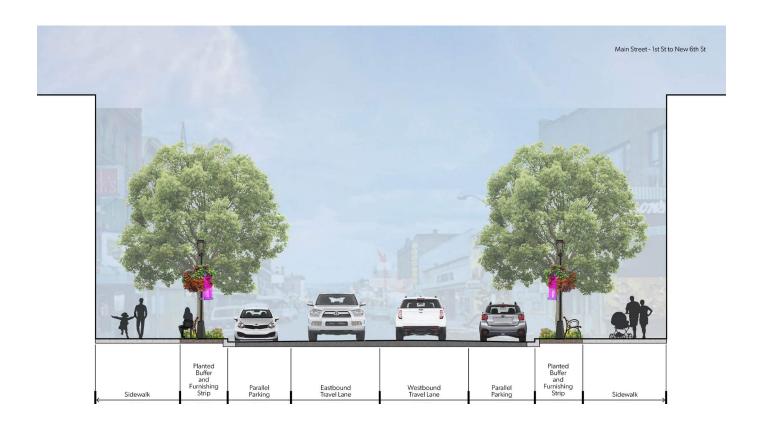


- Two-way vehicular traffic
- Parallel parking on both sides of the street
- Preserved healthy existing street trees to maintain the tree canopy
- New street trees to replace removed unhealthy trees and fill in gaps, creating a consistent street canopy
- Planted buffer with in-ground native plantings at the base of street trees on both sides of the street
- Paver furnishing strip with benches, bike racks, pedestrian lighting, and trash receptacles

- Pedestrian lighting spaced consistently designed to support banner arms and hanging flower baskets
- Raised paver crossing to create an extension of Brackenbury Square to the south side of Main Street, enhancing pedestrian connectivity
- Space for café seating at restaurants on Main Street
- Curb bulbs with in-ground native plantings, street trees, and integrated concrete seawalls with wooden tops
- New concrete sidewalk
- New raised concrete crossing on the north side of Brackenbury Square on D Street, with an RRFB signal for enhanced pedestrian visibility and safer crossing

Illustrative Plan MAIN ST 5TH TO NEW 6TH





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Illustrative Plan NEW 6TH PLAZA



New 6th Street was identified as a festival street. This street would typically remain open to vehicular traffic, but would be designed to make drivers feel like they entered a pedestrian space. This allows for New 6th to be easily closed for farmers markets or other events that need a larger space than can be accommodated at the 3rd Street plaza. This rendering shows catenary lights, bollards to define the curb bulb (since no curbs will be constructed), and trees to create a pedestrian friendly environment. It should be noted that coordination with the fire department will be needed regarding the catenary lights to make sure they do not hinder their ability to fight fire at adjacent structures. Additionally, angle parking is introduced on the south side of Main Street east of New 6th.



New 6th Festival Street looking south from the north side of Main Street.

- Festival street with a curbless, pedestrian-oriented
- Flexible space that can be closed for events, street fairs, performances, and public markets.
- Parallel parking when the street is open, and space for food trucks, stages, and other event equipment when closed.
- Integrated pedestrian lighting with string lights to brighten the space at night.
- New street trees in tree grates for shade and to soften the space, yet sturdy enough to support heavy foot traffic during events.
- Curb bulbs with in-ground native plantings, street trees, and integrated concrete seawalls with wooden
- Street furnishings including benches, bike racks, flexible café tables and chairs, and trash receptacles.

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Illustrative Plans MAIN ST NEW 6TH TO 11TH

New 6th to 9th

- Two-way vehicular traffic
- Parallel parking on south side of the street and angled parking on the north side of the street
- Preserved healthy existing street trees to maintain the tree canopy
- New street trees to replace removed unhealthy trees and fill in gaps, creating a consistent street canopy
- Planted buffer with in-ground native plantings at the base of street trees on both sides of the street
- Paver furnishing strip with benches, bike racks, pedestrian lighting, and trash receptacles
- Pedestrian lighting spaced consistently down the street designed to support banner arms and hanging flower baskets

Main 9th to 11th

- Planted boulevard with street trees and inground native plantings
- Integrate large art installation to welcome residents and visitors into Downtown
- Angled parking on both sides of the street
- New concrete sidewalk
- Paver furnishing strip with benches, bike racks, pedestrian lighting, and trash receptacles





Illustrative Plans D ST 1ST TO 5TH





D Street

- Two-way vehicular traffic
- Planted buffer with in-ground planting and new street trees on either side of the street
- Parallel parking on both sides of the street
- Two-way bike path from 1st Street to 5th Street, with a planted buffer featuring in-ground planting, pedestrian lighting, benches, bike racks, and trash receptacles
- Pedestrian lighting spaced consistently down the street, 60' on center, designed to support banner arms and hanging flower baskets



Graphic Imagery VISION BOARD

Lighting







Festival/Plaza Lighting

Artistic Lighting Expression

Furnishings



Paving



Furnishings

The selected furnishings package will blend seamlessly with the district's historic charm, using durable materials and traditional designs. The furnishing approach aims to create a consistent, cohesive experience along Main Street by strategically placing a curated palette of benches, bike racks, seat walls, and trash receptacles in areas where they are most needed. Pedestrian lighting will be placed consistently along the street, ensuring the area is well-lit at night and supporting seasonal displays such as flowering baskets, event banners, and Christmas lighting.

Paving

Concrete will be used for the clear zones in pedestrian walking areas of the sidewalk and to enhance both raised and street-level crossings. Pavers will be used to pave the entire New 6th Festival Street, the enhanced raised crossing at Brackenbury Square, and the new 3rd Street Plaza, extending from the south side of Main Street to the north side of D Street. A 6-foot paver furnishing strip will run along the concrete clear zone of the sidewalk, creating a separation from vehicular traffic with street trees, plantings, and street furnishings.

Appendix I Kick-Off Meeting

Lewiston Main Street Improvements

May 7, 2024, 10 AM

Public Works Building

City Staff and Welch Comer Team Kick Off Meeting

Attendees

City Staff: Luke Antonich, Alannah Bailey, Shannon Grow, Dustin Johnson, Joe Kaufman, Carol Maurer

Welch Comer Engineers (in person): Phil Boyd, Melissa Cleveland, Adam Dorsey, Courtney Kramer

Welch Comer Engineers (remote): Ashley Williams, Cody Hodgson, Matt Gillis

GGLO: Samantha Jesser, Mark Sindell

BWA: Dell Hatch, Bill LaRue Recraft Creative: Adam Ratliff

Agenda

Agenua	
10:00 am to 10:15 am	Project Understanding and Schedule Phil 10:00 am to 10:15 am
10:15 am to 10:45 am	Public Engagement 10:15am to 10:45
	Stakeholder Outreach and Public Meetings – Phil Discussion with Carol M. Project Branding & Public Engagement Strategy – Adam R./Mark
10:45 am to 11:30 am	Urban Design/Placemaking
	Summary of Previous Plan Key Points – GGLO Vision and Placemaking Process – GGLO Arts, History and Culture – GGLO
11:30 am to 12:30 pm	Site Walk
12:30 pm to 1:30 pm	Lunch/Working Lunch (download site walk)
1:30 pm to 2:15 pm	Traffic and Street Design
	Summary of Previous Plan Key Points - Melissa Traffic Modeling - Melissa Streets and Roundabouts – Adam D.
2:15 pm to 2:30 pm	Utilities
	Summary of Previous Plan Key Points - Ashley (Remote) Concept Design Approach – Ashley (Remote)
2:30 pm to 3:00 pm	Wrap Up

Milestones and Task Assignments

Internal Project Objective Statement

- Dustin Maybe Remove "pedestrian centric"
- Luke Compelling commercial
- Courtney Historic Core
- Alannah Public excitement & Engagement
- Dustin Likes "downtown critical infrastructure needs
- Courtney Will the Community respond to infrastructure or placemaking
 - Luke Conservatives like the practicality of infrastructure, then also make it nice.
- Adam R Have to do it anyway so make it cool.
- Joe ww & water revenue bonds passed with 75% support.
- Phil is "historic" the correct word?
- Mark "Community-Centric" captures it.
- Dell "economic vitality" is placemaking
- Phil This is internal objective. Steering committee can do the outward facing one objective if we need two.

Project Process:

- Phil reviewed the schedule and process diagrams.
- Dustin Mayor wants to put G.O. Bond out in May 2025
- Mark Find ways (Dustin/Luke) can wrap in CC along the way.
- Phil Storybook will help get the CC Knowledge consistent.
- Courtney Storybook also helps tell the story to new Council too.

Project Area:

- Reviewed the project area map.
 - Joe 4th/D needs storm improvements
- Full width on 3rd to Beachey
- 2nd ends at D Street
- 1st/D only intersection, not north to Capital

Public Engagement:

- Adam R Goal is to shape the narrative so someone else doesn't.
 - Project website Opt in to the email list
 - o Be the source of truth and build trust
 - Use social media
 - Avoid anyone acting surprised.
- Dustin Streetscape items needs to be <u>necessary</u>. They can be cool, but also need a functional purpose.
- Courtney Go to the people where they are.
- Luke Water system supply is restricting what businesses can come in downtown.

Urban Design:

- Mark- Don't Be frivolous. Not too fancy.
 - o Parking, traffic flow, infrastructure,
 - o Need "foundation" & explain the critical items.
 - o Maintenance
 - Nostalgia.
 - Embrace giving them what they want.

- Dustin Lewiston is an older community
 - o Yes, nostalgic people.
 - Box stores are closing up
- Shannon 1st/5th incorporated a lot of "art," and it was not received well. People thought it was a waste. How do we avoid this situation this time?
- Mark Emphasize history/culture over just "art". Don't lose the community character.
 - What is the "Right" stuff to incorporate? How do we pick the stuff?
 - o Bradford pears are probably at the end of their life, Norway Maples may last.
- Courtney Hot August Nights, a bit of the art scene.
 - o What do we need to get people downtown?
- Joe What is nostalgia? Purple glass in vaults. Boise stole the capital from Lewiston. Everything came in either by pack animal or boat.
 - Trades Sense of pride
- Sam Need a block by block, business by business approach.

Traffic:

D Street has overhead powerline dominance

• Transmission line? Conversation w/ Avista.

What does D street want to be?

- Allanah D Street could have bike lanes, but people don't generally like to spend money on bike lanes
- Courtney Lots of curb cuts/driveways
- Shannon
 - o CC doesn't seem interested in pursuing Twin City Foods.
 - MPO is willing to work with ITD on roundabout. Used to be a state legislator.
- Alannah maybe slip lane is the "concession" to ITD to allow a roundabout.
- Would Snoco building owners be open to moving?
- Plows not a big deal, but the leaves from trees are terrible.
 - Sweep at night & residents downtown dislike it.

Bond:

- Mayor Getting people to actually vote. Getting them to show up is the challenge.
- Dustin Look at auditorium/parks study to see what the concern will be.

Steering Committee:

- Mayor Let's try to get some variety on the committee.
- Luke Bob Schumacker from ITD maybe attend some steering committee meetings, as needed.

Utilities:

Sewer

- Joe Main street 13th to Brackenbury square
 - This sewer serves most of the City.
- Dustin They did confirm the sewer is really full.
- Joe They are working on a bypass project
- Luke Even with the bypass, sewer on Main Street will still have significant flow. 130year-old infrastructure.

- Joe Main ST has largest water & sewer in town.
- Luke We are attempting to delay AARFA funds. If G.O. Bond successful, then build water line 9th – 5th with the project.
- Alannah Transmission main needed for fire flow. Need to upsize lines on side streets for network.
- Luke D Street needs to be replaced because of material types.
- Joe Bypass may allow CIPP to occur with downtown project. May do CIPP later?
 May need to evaluate condition of pipes further.
 - o Line as been TV'd in the past. Service laterals should come into the top ½.
 - o By full they mean 50% of depth.
 - Do enough to estimate some sewer repairs in the G.O. Bond. Point repairs.
 Replace service connections, too.
 - o Rebuild any lines that aren't the 36".
 - Also consider sizes of laterals to allow for changes of use.
- Joe Would laterals cost e on rate payers or G.O. Bond?
 - Disconnect roof drains from sewer? Hard because sometimes the plumbing combines inside the building.
 - Sewer paid for with rates.
 - Checking if this will be rates or G.O. Bond.
- Luke Commercial back flow in the buildings

Stormwater

- Put in new system that actually works.
- 9th, 7th, 5th, area collection lines are relatively new. (Check capacity of 7th.)
- Drainage Don't want to infiltrate right next to buildings. Rather put in pipe.
- Dustin May find underground springs

Decision Making

- For the most part, communicate through Luke. He'll direct us to get with Alannah & Joe.
- Shannon Maybe consider a board with info permanently installed downtown somewhere.
- Phil Work Session w/ Council on June 3rd.
- Maybe Sunday "Focus" in Lewiston Tribune at start.
- Alannah need to explain the water project & downtown project to avoid mixed messaging





Meeting Objective

Clarity & Concurrence on:

- Overall project goals
- Project approach
- Decision-making processes
- Communication protocols

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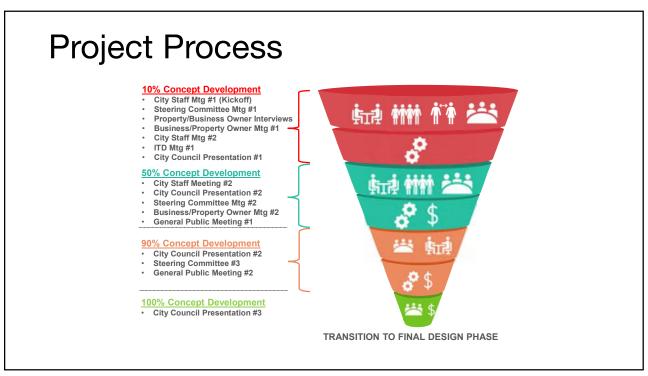
Kick-off Meeting Agenda

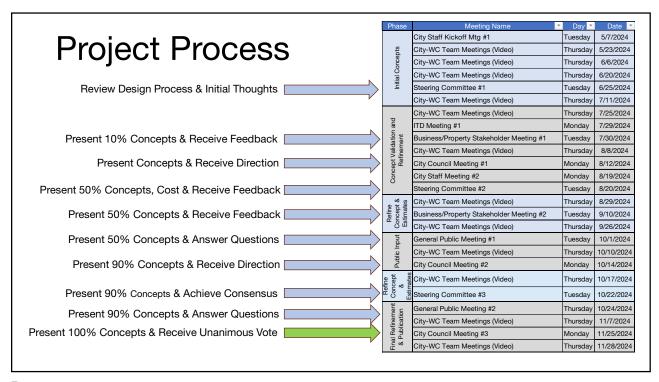
- Project Objective, Process & Schedule
- Public Engagement
- Urban Design/Placemaking
- Site Walk
- Working Lunch
- Traffic/Street Design
- Utilities
- Decision Making and Communication Protocols
- Wrap Up/Task Assignments

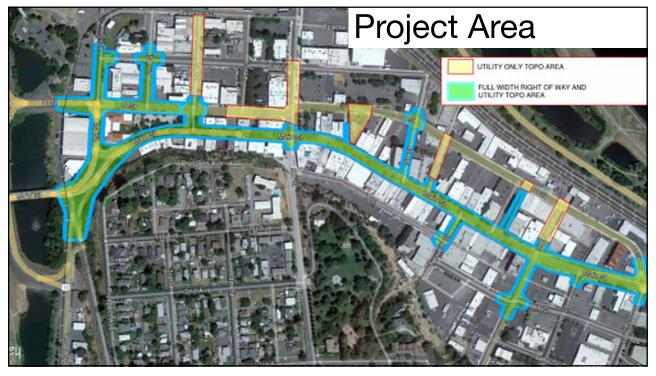
PROJECT OBJECTIVE

Develop a community centric placemaking design and demonstrate downtown's critical infrastructure needs that will generate public enthusiasm for a G.O. Bond vote.

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Lewiston Main Street Improvements Public Engagement Overview Objective: Provide a consistently accurate narrative.

Why...is this project a priority...

What...are we trying to accomplish...

How...

- Stand-alone project branding
- Project website
- Original explainer videos
- Social media channels

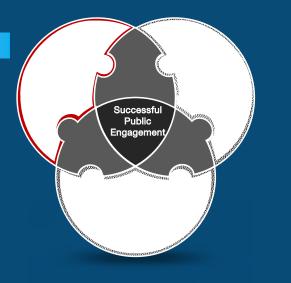


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Lewiston Main Street Improvements Public Engagement Overview Objective: Provide a consistently accurate narrative.

Public Branding

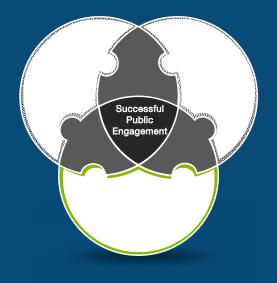
- Project logo, font, colorway
- Project website
- Project YouTube channel
- Project social media accounts
- Project Storybook



Lewiston Main Street Improvements Public Engagement Overview Objective: Provide a consistently accurate narrative.

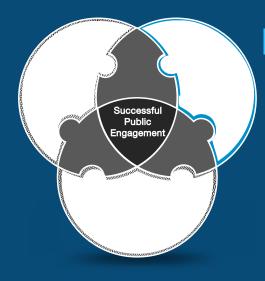
Macro Engagement

- Three explanatory videos
- Virtual surveys
- General public meetings (2)
- Pop up booths (3)



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Lewiston Main Street Improvements Public Engagement Overview Objective: Provide a consistently accurate narrative.

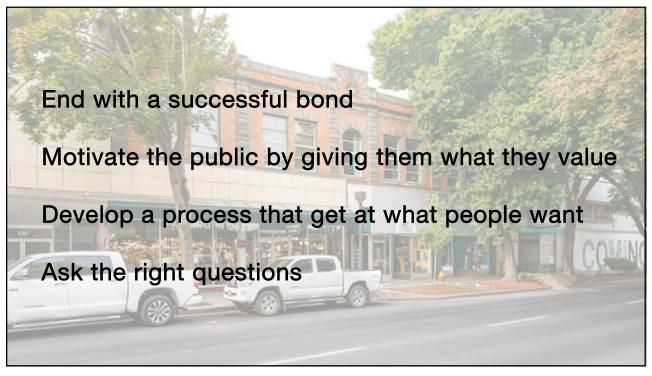


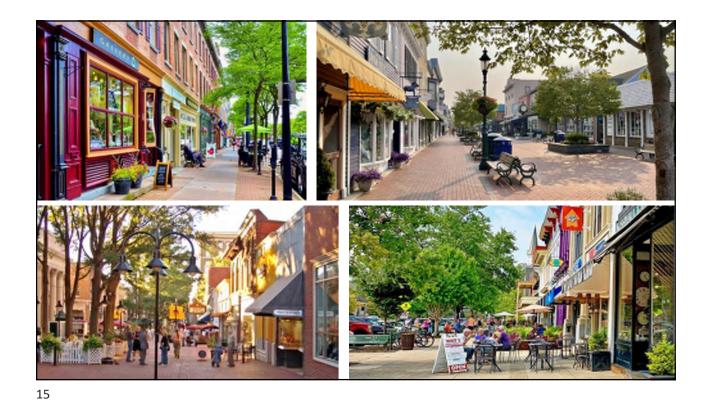
Micro Engagement

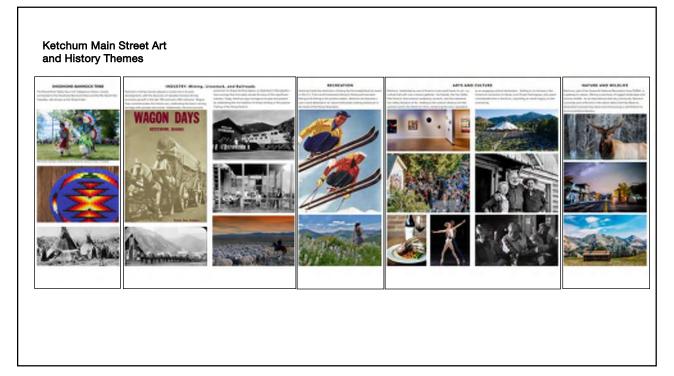
- Steering Committee Meetings (3)
- Business/Property Owner Open House (2)
- Targeted Stakeholder Organizations Outreach (12)
 - Standard Presentation w/ Tailored Discussion Prompts
 - Property and Business Owner Meetings (2)
- Property and Business Owner Outreach (75)
 - Standard Interview Agenda with Standard Questions

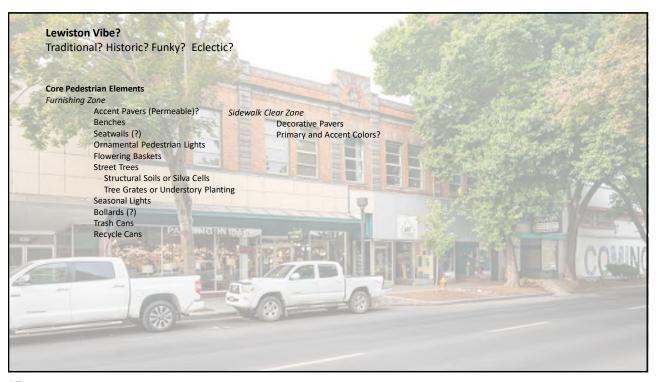
Draft Property and Business Owner Prompts

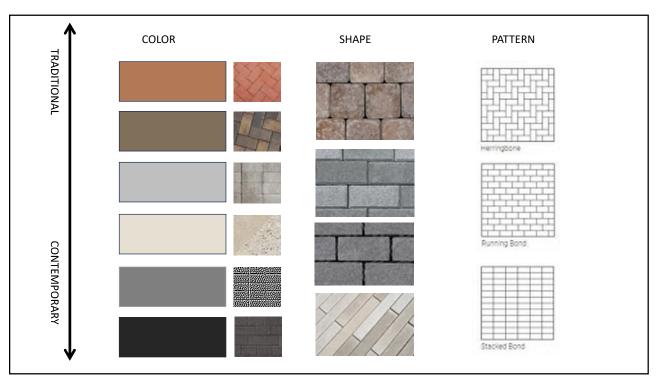
- 1. What words would you like used to describe the future Downtown Lewiston (e.g. authentic, charming, walkable, entreprunerial...)
- 2. What infrastructure deficiencies impact your property/business? (water, sewer, stormwater, vaults, high-speed fiber?)
- 3. What surface-level project outcomes are a priority for you?
 - 1. Slower traffic speeds
 - 2. Parking retention
 - 3. Business visibility
 - 4. Destination landscaping and amenities
- 4. How do you receive merchandise deliveries?
- 5. Construction phase questions...
 - 1. What is your business' slow season?
 - 2. How do we phrase a question about construction approaches?
- 6. What other organizations or individuals should we speak with about this project?

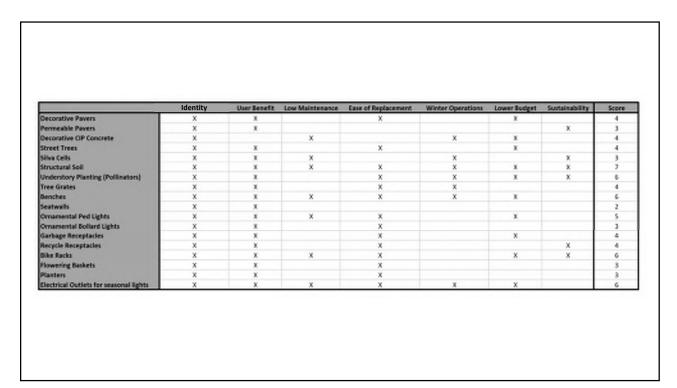


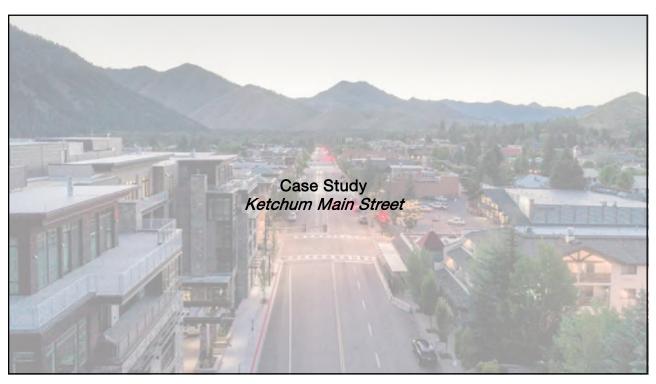












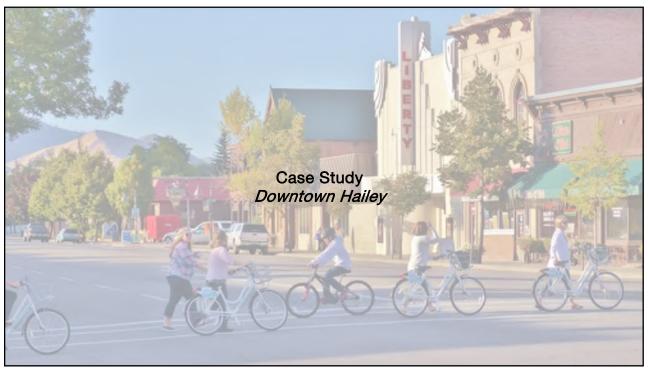


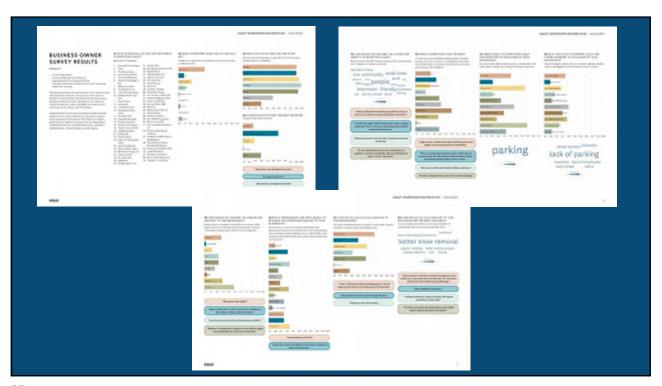


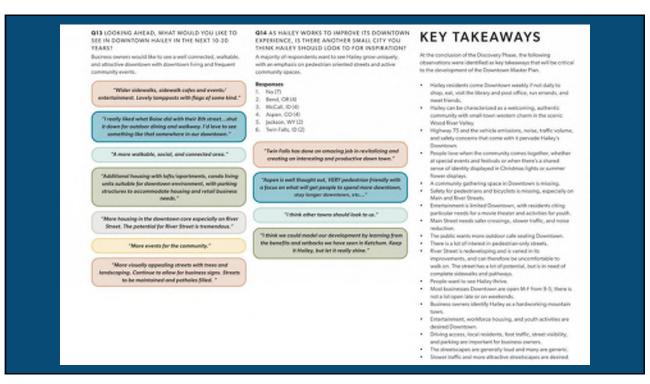


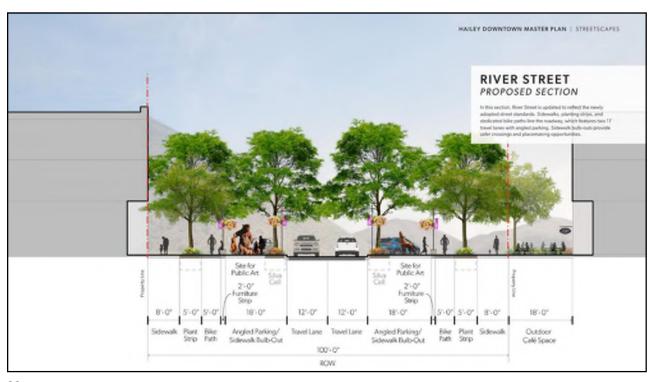




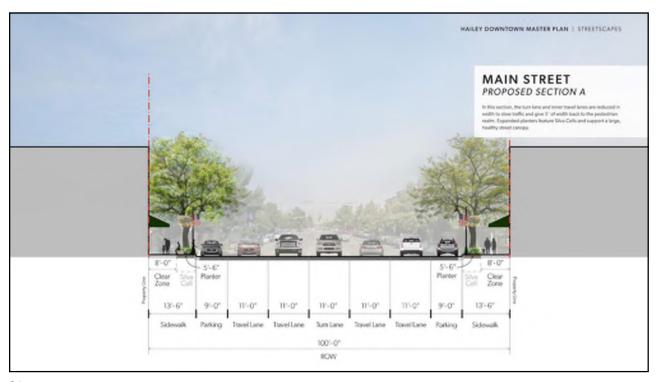


















Downtown is a place where small businesses thrive, local history is honored, and the community gathers together.





Site Walk

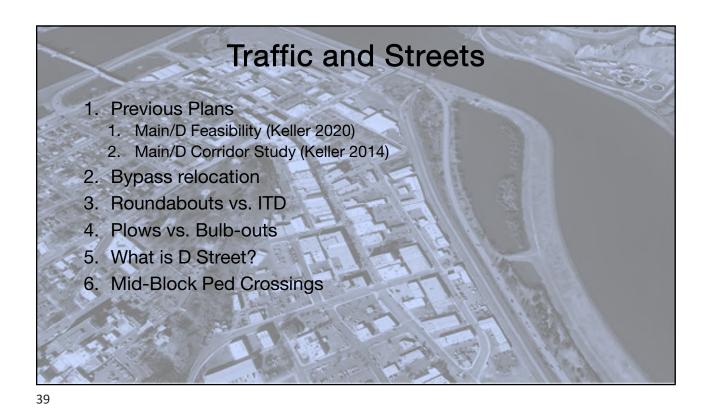
Please point out to us...

- 1. Downtown Lewiston Character Elements
- 2. Important Community Features & Events
- 3. Interesting Downtown History
- 4. Atypical Pedestrian, Bicyclist and Traffic Behaviors
- 5. Utility Highlights
- 6. Roadway Highlights
- 7. Any Other Uniquely Downtown Lewiston Characteristics

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Downtown Impressions

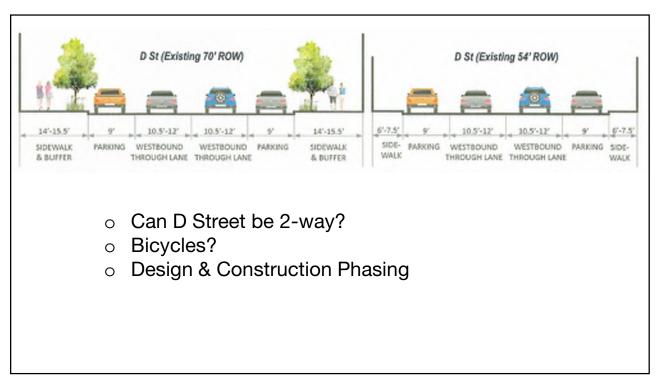
- Interesting brickwork on the buildings
- 5th/Main is 100% corner
- Mix of street trees in raised planters. Rootball elevated
- Mix of light styles
- Need ped crossing strategy (ADA compliance and ease of crossing) dropped curbs vs curb ramps
- Signage and way finding new approach
- 9th street gateway and historic threshold
- 9th to 11th street character change from 1st to 9th



Main St (Proposed 70' ROW)

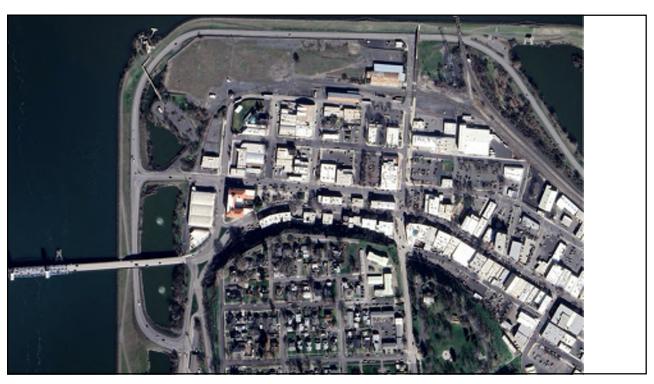
14'-15.5' 9' 10.5'-12' 9' 14'-15.5'

SIDEWALK PARKING EASTBOUND WESTBOUND PARKING SIDEWALK THROUGH LANE THROUGH LANE TO'











Utilities

- 1. Summary of Previous Plans
 - Overarching Question: Justification for Replacing Water, Sewer, and Stormwater
 - For GO Bond purposes: critical infrastructure upsize/replacement OR material/age/condition replacement because of or in coordination with the street-level project
- 2. Concept Design Approach

Summary of Previous Plans/Studies (Utilities)

- 1. Water:
- 2019 WMP: downtown transmission is priority
- Replacement based on material/age/condition and improving hydraulic efficiency
 - Improving fire flow or pressure?



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Summary of Previous Plans/Studies (Utilities)

- 2. Sewer:
- 2018 WWMP & DSS: 6th to 9th Priority 3 improvements
 - Major trunklines downtown convey sewer to WWTP
- City verify "full flow" condition on trunklines?
- Why changing replacement sections? (not 6th to 9th but adding west of Brackenbury)
- Replacement based on material/age/condition



Summary of Previous Plans/Studies (Utilities)

- 3. Stormwater
- 2019 SWMP: minimum 12inch size (25% in downtown area are less than 12-inches)
- Replacement based on age/material/condition
- 4. Private Utilities
- Coordinate with private utilities
- Install dark fiber in downtown core and existing franchise agreements to relocate or improvement



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Utilities Concept Design Approach

Overall: Review existing information (GIS, studies, CCTV) then prepare concept alignment

- 1. Water
- Provide P&S or PFR/study info for Transmission project
- 2. Sewer
- Provide Granite Net Access for Ashley and Cody and flow information
- Refine recommendations for rehab or replacement & develop bypass pumping plan

Utilities Concept Design Approach

- 3. Stormwater
- Identify existing flow lines and highlight areas of low drainage
- 4. Private Utilities
- Coordinate with private utilities for existing data and plans for future networks

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Decision Making

No decision necessary today, but please think through...

- 1. City Staff
 - Technical
 - All through Luke?
 - Other
- 2. City Council
 - Policy
 - Trees
 - D-Street
 - .

Communications

No decision necessary today, but please think through...

- 1. City Staff to Welch Comer Staff Technical Questions?
 - All through Luke?

Or

- Joe <==> Ashley and Alana <==> Melissa with CC to Luke
- 2. Public Information Review Protocol
 - Videos
 - Social Media Posts
 - Steering Committee Communications

.

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Wrap Up

Milestone Events

- 1. Steering Committee Members
- 2. Meeting Dates

Tasks Assignments from this meeting

1.

Thank You.

Appendix II

Steering Committee Meeting #1

Steering Committee 1 Meeting Minutes Lewiston Main Street Improvements

June 25, 2024

In-Person/Virtual

11:00 AM

Agenda

Project Vision

Phil Boyd presented on project overview and vision.

Project Overview, Schedule & Public Engagement

Phil explained G.O. Bond funding. The public does not seem to understand the project funding source. The design process should include public education for bond vote. Brenda Barnes noted she did not understand funding until explanation.

Urban Design & Streetscape

Mark Sindell and Sam Jesser from GGLO presented streetscape design and asked for input on Lewiston downtown character, and existing issues and opportunities.

Existing Trees

- Emphasis on healthy, expansive existing canopy unique to Lewiston
- GGLO -- dense canopy 1st to 7th St, less dense 8th to 9th
- In need of additional data, detailed arborist survey needed
- Adam Ratliff—mentioned public backlash after tree removal in Pullman Downtown Revitalization Project. Would like to start discussion sooner in the design process. "Match project values with town"
- What defines Lewiston?
- Brenda Barnes friend's tree fell in windstorm, business owner pleased since tree branches were covering store sign and clogging sewer/storm pipes. Sidewalk upheaval from tree roots. Plumbing issues are a concern. Clarkston trees destroyed building plumbing; trees were all removed.
- Tobe Finch "Are they the right trees?" Rhododendron look better than existing pear trees. Would prefer more species and variety, specifically in secondary plants in planters for more interest. Trees are good, just want the right ones. Has back patio for restaurant. "Fight for the trees" since restaurants will struggle without them. Some trees don't block signs and aren't in the way. Creates a unique, welcoming feel.
- Morgan Johnson from Lewiston, loves the trees. Gave Lewiston a local, charming feel. Created a 3-dimensional space for her 2nd story, loves the tree canopy view from upper story. Mentioned no other trees nearby until outside the city in the mountains. Provides vital shade for walking and is unique. Prune and remove what you need.
- Linnea Noreen Seattle transplant, moved here because of the trees. Downtown areas need shade. She and her family only feel comfortable walking downtown since there is ample shade. She isn't worried about her children overheating. She won't frequent downtowns if there's no shade. Must but fight for every tree we can since they are special.

- Randee McCollum Feels she's in an ugly area of downtown, mentions multiple times how there are no trees. She feels separated from the rest of downtown. Forgotten portion of Main street, outside of historic district. No streetscape or trees. Beautiful historic buildings in area, but they are not well maintained.
- Steering Committee Test of Business Owner Survey Results
 - Get D Street business owners involved
 - Many have varied business hours, it's good that most people are open on the weekends.
 - Surveys mentioned charming, historic feel in dire need of upgrade.
 - Important downtown improvements: Café seating, benches, crosswalks, historic/cultural elements.
 - Need rest of steering committee to take the survey. Will send out link again.

Café Seating

- Tobe Finch -- People love having outdoor seating, improves energy and overall vibe of downtown.
- Brenda Barnes and other business owners look up to communities like
 CDA and Walla Walla for their vibrant restaurants and downtown areas.
- People are willing to have limited parking if downtown is lively.
- Multiple mentions are Bumper Crop Coffee streetscape and seating design.
- Trees, street scape, and seating block sidewalk, emphasis on trees in planters.
- Tobe Finch mentioned wanting year-round outdoor seating
- Mark Sindell need minimum of 6' for sidewalks, probably need more
- Outdoor seating looks messy and after-the-fact, seating areas must be planned
- Mark Sindell --- mentioned mobile seating like NYC, committee seemed receptive. Fixed seating on edges and mobile in middle
- Barriers are good for privacy, but more cluttered. Removing barriers would make it more lively, European feel. Some enjoy barriers others do not, most seem apathetic. More discussion is needed on this topic.
- D Street: Turning one-way into two-way
 - Main complaint: traffic too fast for safe pedestrian crossing
 - Constant honking and cut-offs due couplet merge area.
 - No one uses the bypass, only about 30% of travelers driving through Lewiston use the bypass. (will update this data in validation phase)
 - Is D-Street a throughfare or destination? People-centric or Vehicle-centric?
 - Consensus was to connect D-Street to Main and make a destination. Change to two-way traffic to slow drivers. Those not wanting to slow down, or experience congestion should use bypass.
 - Mark Sindell explained why two ways are safer

- Needs traffic calming and better crosswalks. Speeding detracts from outdoor space.
- An idea of making Main Street one lane, one way was discussed by the steering committee, but it has already been decided that Main will be two way.

D Street Visioning

- Lots of pedestrian-facing business on D Street, businesses would greatly benefit from improvements. Many businesses here.
- Mixed zoning, opportunities for parking, green spaces, and growth
- Morgan Johnson untapped area, connect D Street with waterfront using 3rd or 5th as a connector.
- Use D Street as the downtown connector from levee and waterfront to Main Street.

Main Street Improvements

- Locals want better bike/ped facilities, more connected network wanted.
 Any issues with hills are remedied by ebikes.
- Downtown is too cluttered, too much random streetscaping
- Improve connectivity, make a destination and connect to Orchards, scary stairs, and Normal Hill (residential areas)
- Randee McCollum -- Weekenders don't come to downtown, go to 21st instead.
- Tobe Finch business must unify! Market events together
- Wendy Price Inconsistent business hours. Very frustrating to not find open retail, restaurants are better it.
- People come downtown for dinner, but then leave because there is nothing to do and nothing is open. Definitely not enough retail. Many empty store fronts, needs infill.
- No night life, no hotels, no venues, no facilities for 18hr days
- Ask the public, what would draw people downtown?
- Brenda Barnes –Three clothing store recently closed since they couldn't afford rent. Business owner extended hours hoping for more business, shortly shut down since too expensive.
- Courtney Kramer Asked where would I throw an event for 1000 people?
 - Brackenbury Square, or close Main or New 6th St. All outdoor venues.
 - Summer events, Hot August Nights and ArtWalk
- Mark Sindell described Caldwell, ID improvements. What's Lewiston's universally appealing, unique attraction?
- Reggie Erb Clearwater Hall, large unfinished storefront. New tech. education campus/event center

• Streets, Intersections, and Ped/Bike Connectivity

Melissa Cleveland presented on connectivity and nonmotorized facilities

- o No bikers downtown since sharrows are scary, but many bikers on levee.
- Use D street for bike facilities, not enough space on Main, also near waterfront and levee.

- Many bikers commuting from Asotin and Normal Hill. Very steep and difficult to navigate. May add electric vehicle charging stations.
- Brenda Barnes larger motorcyclist population/attraction. Many bikers from Orifino, famous trail. Add motorcycle parking
- o No safe connection from levee or over RR tracks on west side
- Dan Mader current pedestrian environment detrimental to downtown feel. Tech is evolving, plan for more nonmotorized users in future years. Wants improve ped/bike network, invite people, not cars to downtown.
- Mark Alexander Connect levee and waterfront to downtown, connectivity is important. Infrastructure and utilities are crumbing. Think of business impact during construction and think ahead.

reimagine Downtown Lewiston

Steering Committee Meeting #1 Lewiston Main Street Improvements

Meeting Sign-in Sheet

Project #48003

Date: June 25, 2024 Time: 11:00am Location: Bell Building

NAME	COMPANY	Initials
Phil Boyd	Welch Comer	PB
Melissa Cleveland	Welch Comer	NC
Adam Dorsey	Welch Comer	AD
Courtney Kramer	Welch Comer	CW
Sadie Sundahl	Welch Comer	55
Mark Sindell	GGLO	MS
Sam Jesser	GGLO	SJ
Luke Antonich	City of Lewiston	YA
Dustin Johnson	City of Lewiston	DJ
Alannah Bailey	City of Lewiston	AB
Joe Kaufman	City of Lewiston	
Shannon Grow	City of Lewiston	
Dan Mader	Mader Properties	online
Elizabeth Coleman	812 Main LLC	
Mark Alexander	Landmark Property Group	online
Tami Meyers	Silvercreek Realty	
Tobe Finch	Happy Day Restaurants	
Brandon Beier	ANS, Morgan's Alley	
Wendy Price	Century 21 Price Right	online
Morgan Johnson	Rooted Salon	Myst
Dawn Abbot	Blue Lantern Coffee	00
Randee Mccollum	Effies Burgers	am

Jennifer Holley	Well Connected Electric	()H
Brenda Barnes		BB
Dan Johnson		
Jessica Klein		JK
Hannah Liedke		HU
Dodd Snodgrass		
Linnea Noreen	Chamber	Lav
Rachel Rinard	Sylvan's Furniture	20
Reggie Erb	LC STATE	4
Janine Bennett	Cornerstone Interiors	9
Mike Cannon	My Architect	
Jerry Chavez		
Kyle Guelcher		
Adam Ratliff	Recraft Creative	AR
		#



Steering Committee Members (Voting)

- · Dan Mader (Mader Properties)
- Elizabeth Coleman (812 Main LLC)
- Mark Alexander (Landmark Property Group)
- Tami Meyers (Silvercreek Realty, downtown property owner)
- Tobe Finch (Happy Day Restaurants)
- · Redgy Erb (LCSC)
- Brandon Beier (ANS, Morgan's Alley)Janine Bennett (Cornerstone Interiors)
- Wendy Price (Century 21 Price Right)
- Morgan Johnson (Rooted Salon)
- Dawn Abbot (Blue Lantern Coffee)
- Randee Mccollum (Effies Burgers)
- Jennifer Holley (Well Connected Electric)
- Brenda Barnes (Business Connections by Brenda Barnes)

- Dan Johnson (Mayor)
- Jessica Klein (City Councilor)
- Hannah Liedke (City Councilor)
- Dodd Snodgrass (CEDA)
- Linnea Noreen (LCV Chamber)

City Staff

- · Dustin Johnson
- Luke Antonich
- Alannah Bailey
- Joe Kaufman
- Shannon Grow

Team Roles



- Design
- ProjectManagement
- Public Engagement

GGLO

- Urban
 Design
- PublicEngagement

Bernardo Wills

- Landscape Architecture
- PublicEngagement

Recraft

PublicEngagement

reimagine Downtown Lewiston

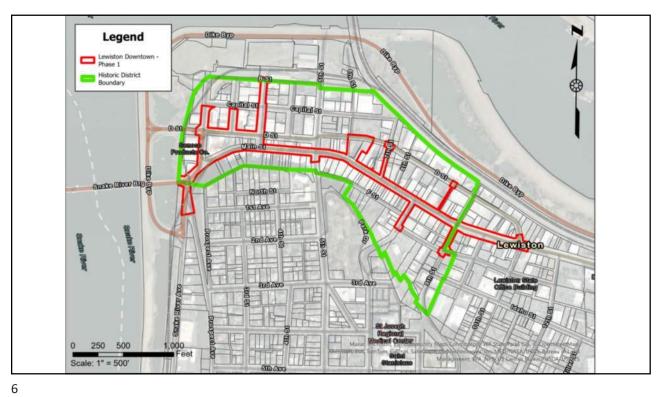
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Agenda

- Project Vision
- Project Overview, Schedule & Public Engagement
- Urban Design & Streetscape
- Streets, Intersections, and Ped/Bike Connectivity

reimagine Downtown Lewiston



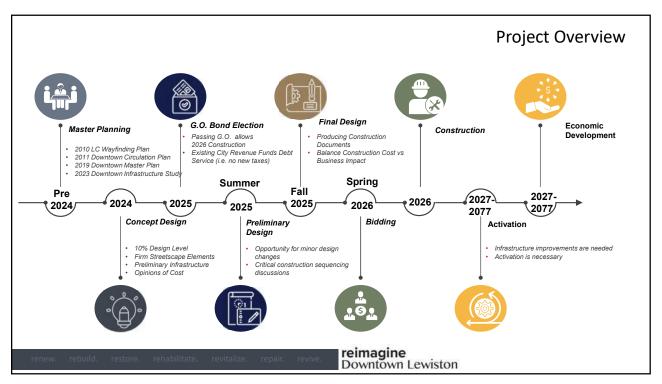


Project Objective

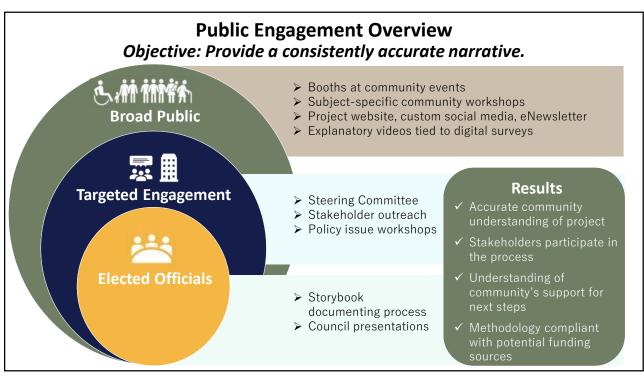
Develop a community centric placemaking concept design and demonstrate downtown's critical infrastructure needs that will generate public enthusiasm for a G.O. Bond vote.

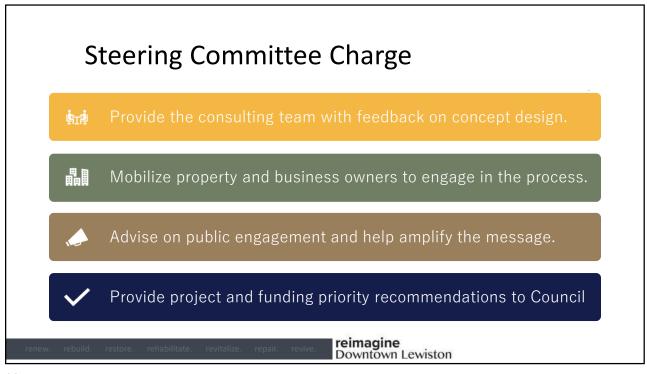
reimagine Downtown Lewiston

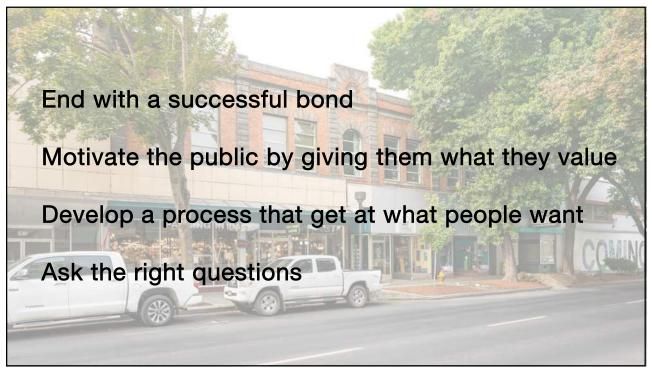
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Concept Design Process & Schedule June 3, 2024 - City Council Meeting #1 June 25, 2024 - Steering Committee Mtg #1 June-July 2024 - Property/Business Owner Interviews July 30, 2024 - Business/Property Owner Mtg #1 August 12, 2024 - City Council Meeting Refine Concepts 50% Concept Development August 20, 2024 - Steering Committee Mtg #2 -Sept. 10, 2024 - Business/Property Owner Mtg #2 October 1, 2024 - General Public Meeting #1 Refine Concepts and Estimate Costs October 14, 2024 - City Council Presentation #3 90% Concept October 22, 2024 - Steering Committee #3 October 24, 2024 - General Public Meeting #2-Finalize Concepts and Estimated Costs November 24, 2024 - City Council Presentation #4 **100% Concept Development** · May 2025 - General Obligation Bond Election















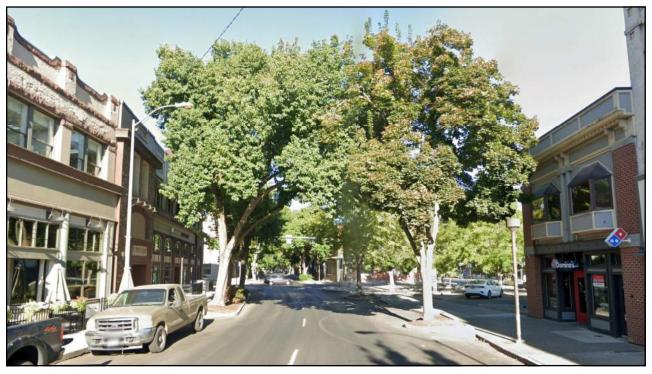


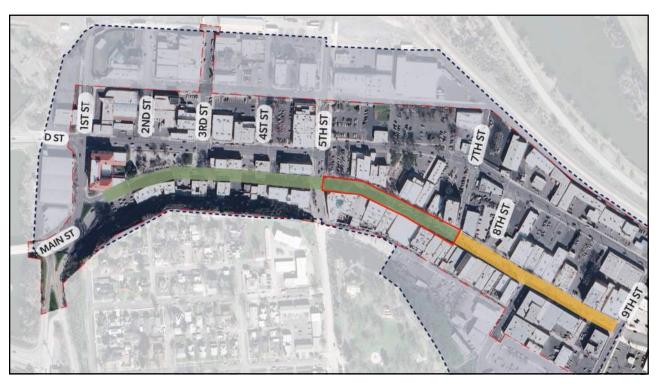


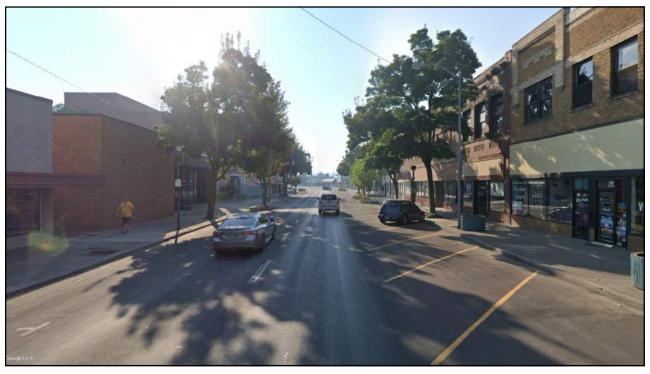
Lewiston Main Street Issues & Opportunities 1. Existing large street trees (in Historic District) 2. Outdated pedestrian amenities 3. Change in general, loss of community character 4. Parking (as a perceived issue) 5. Safe crossings 6. Need for more destinations to draw people downtown 7. Impacts to businesses during construction closures

19

Streetscapes Community Character: 'not too fancy', traditional, are large mature existing trees part of the community character? **Core Pedestrian Elements** Street Trees (existing or new) Silva Cells (if tree grates or small planting areas and desire for larger trees) • Ornamental Pole Mounted Pedestrian Lights (valued accessory or unnecessary? Dark sky Hanging Flowering Baskets and Banners (operations and maintenance ability) Wayfinding & Signage (analog, digital or mix? Historic DT vs not) Sidewalk Paving: 11.5'-15.5' (CIP Concrete, Precast Pavers, or both) Café Seating Area (6'-10') Benches (Seatwalls, Benches or both?) Bike Racks (quantity and location based on volume of bikers) Trash & Recycle Receptacles (Is there sorting and recycling?) Art Elements (integrated, know what not to do based on past Lewiston Art installations) History/Interpretive Elements Planters? Bioretention? Understory planting/pollinators or tree grates and pots? **Bus Shelters?**











Alternative 2
"Street Trees of Downtown Lewiston"

Figure 4: A map depicting the four trees that would be removed under this alternative. These four trees have significant defects and/or a history of past failures. Selected trees are highlighted in turquoise.

25



Alternative 2 "Street Trees of Downtown Lewiston"

Figure 5: A map depicting 24 mature pear trees that are in need of pruning to improve street and/or sidewalk clearance, improve structure, or reduce conflicts with buildings. 16 trees without major issues would receive no treatment. Selected trees are highlighted in turquoise.







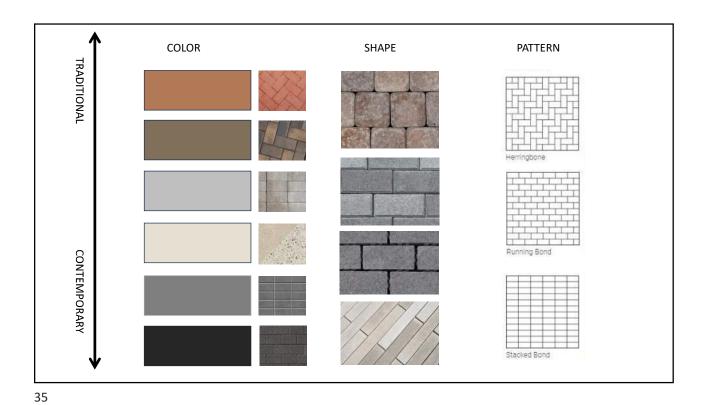


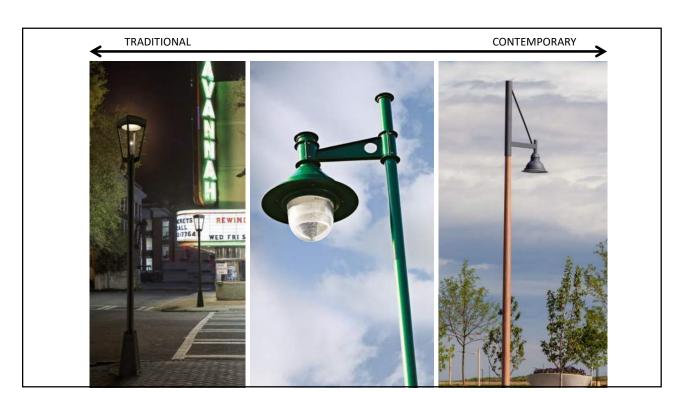


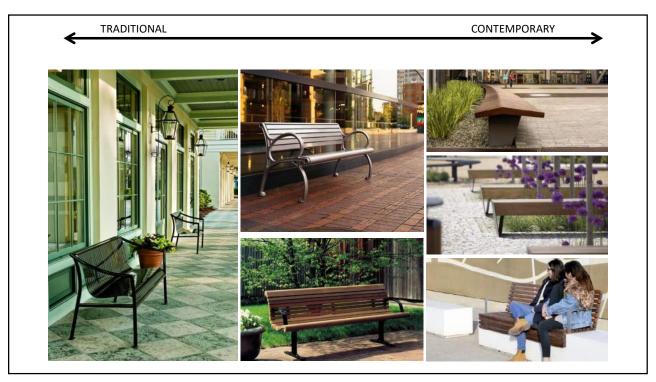


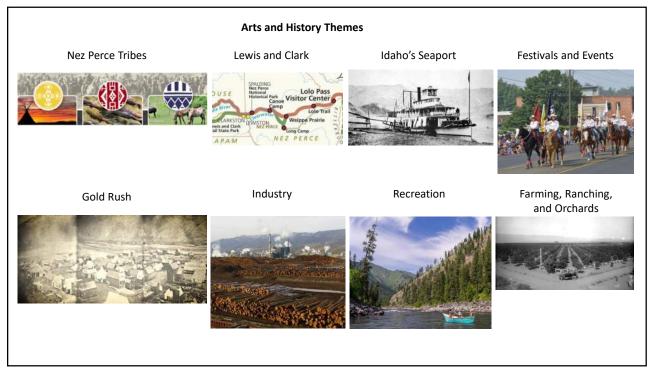


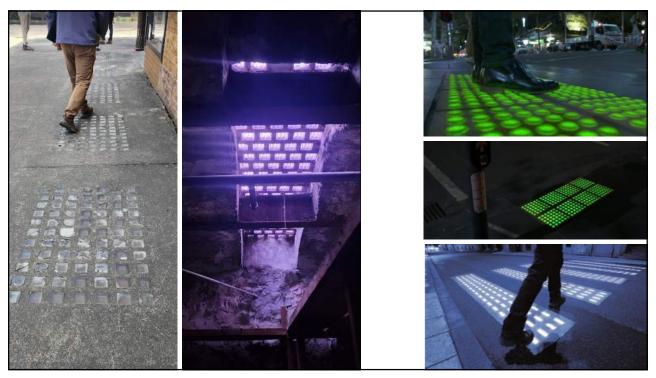






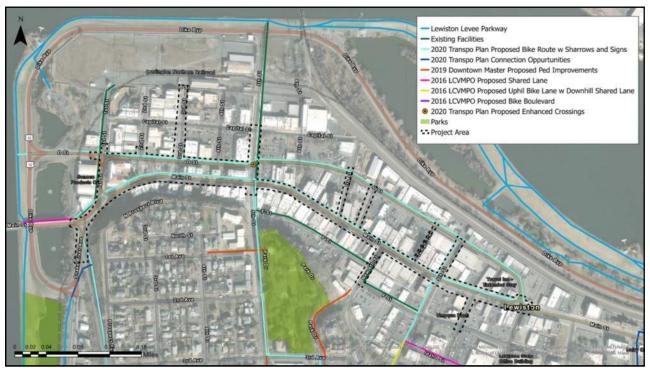






Property and Business Owner Follow Up Survey Results



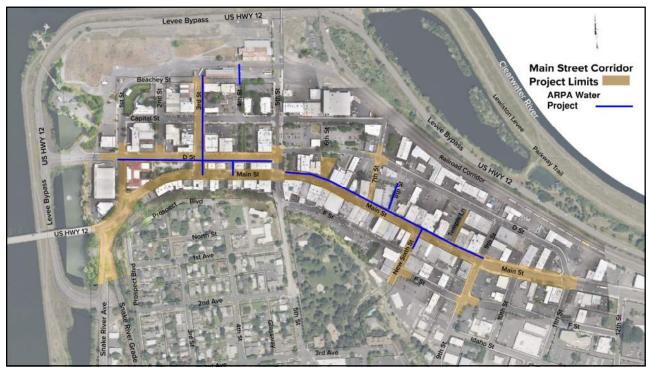


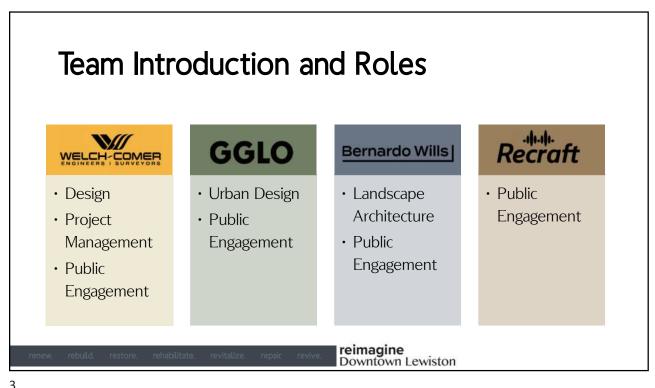
reimagine
DOWNTOWN
Lewiston
Thank You.

Appendix III

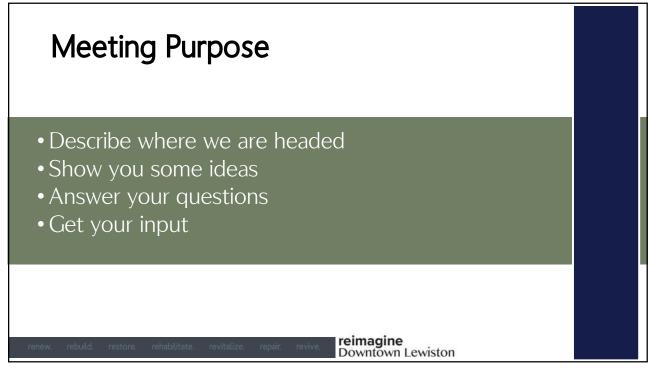
Business & Property Owner Meeting #1



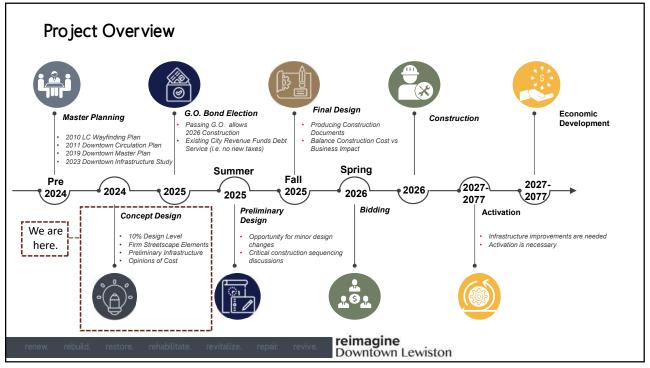




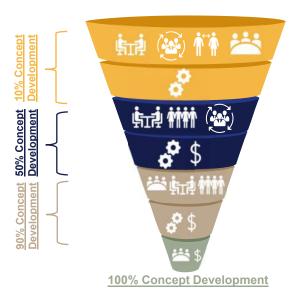
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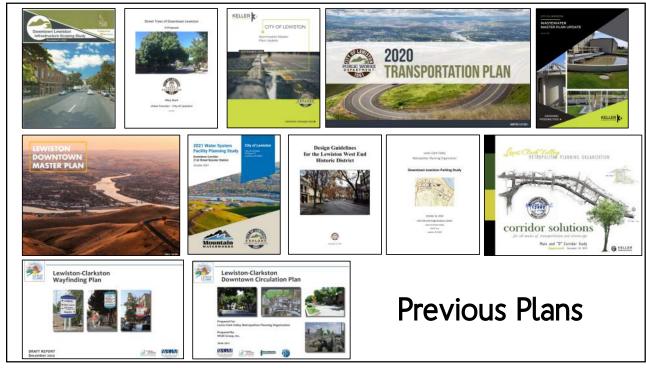


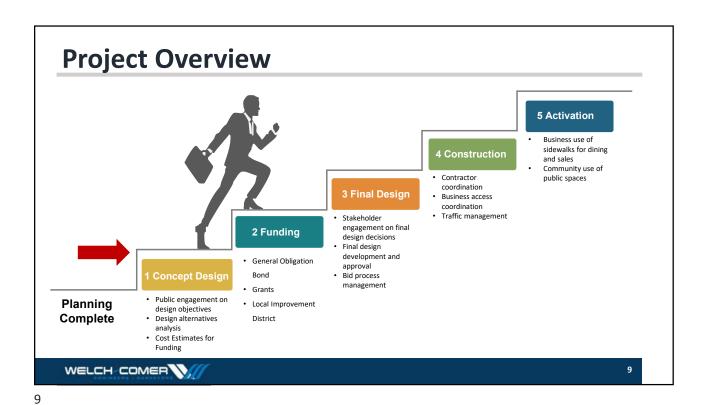
Concept Design Process & Schedule



- June 3, 2024 City Council Meeting #1
- June 25, 2024 Steering Committee Mtg #1
 June–July 2024 Property/Business Owner Interviews
 July 30, 2024 Business/Property Owner Mtg #1
- August 12, 2024 City Council Meeting
- **Refine Concepts**
- August 20, 2024 Steering Committee Mtg #2 Sept. 10, 2024 General Public Meeting #1
- October 1, 2024 Business/Property Owner Mtg #2
- Refine Concepts and Estimate Costs
- October 14, 2024 City Council Presentation #3
- October 22, 2024 Steering Committee #3
- October 24, 2024 General Public Meeting #2-
- · Finalize Concepts and Estimated Costs
- November 24, 2024 City Council Presentation #4
- May 2025 General Obligation Bond Election

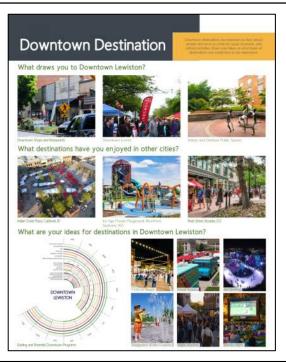
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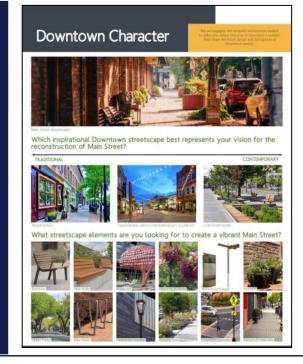
Engagement Stations What Makes Downtown Special Community Character Construction Impact Transportation · Contact Info • Draws · Main St. Culture Timeline Destinations · DSt. History Project Area Street Trees Pedestrians • Art Your Ideas Bicycles reimagine Downtown Lewiston

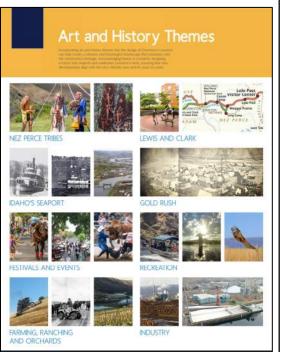




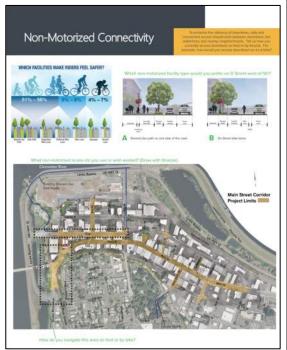


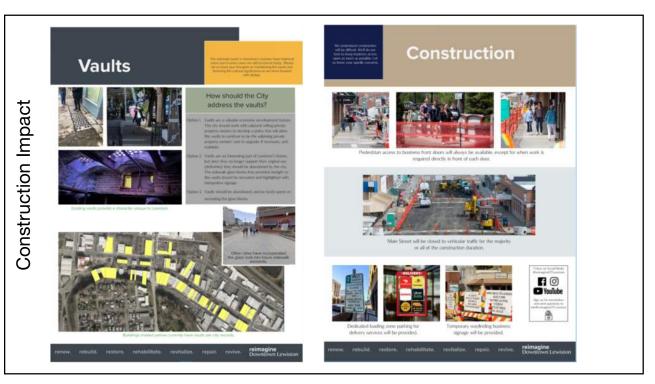
Community Character













WELCONE

reimagine DOWNTOWN Lewiston

Business and Property Owner Meeting #1 July 30, 2024 | 4pm-6pm Lewiston Library | 411 D St, Lewiston

Meeting Purpose

- Describe where we are headed
- Show you some ideas
- Answer your questions
- Get your input

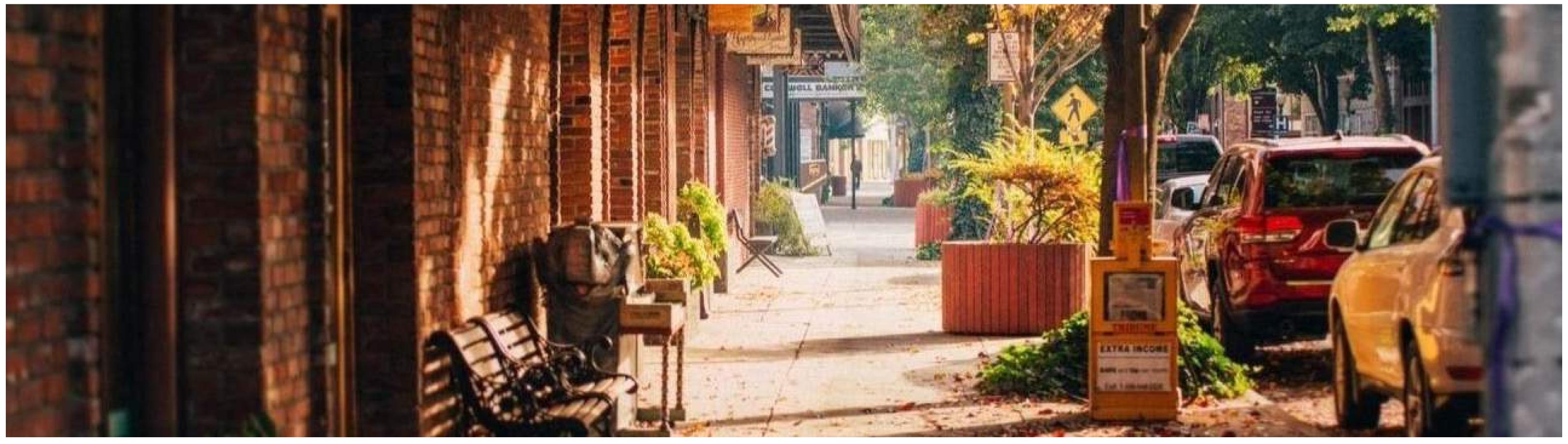
Take the online survey by using the QR code below Project Website reimagineDTLewiston.org

Follow us on Social Media @reimagineDTLewiston O. Sign up for newsletters and send questions to info@reimagineDTLewiston.org

revitalize.

Downtown Character

We are engaging with property and business owners to define the unique character of Downtown Lewiston. Help shape the future design and atmosphere of Downtown streets.



Main Street Streetscape

Which inspirational Downtown streetscape best represents your vision for the reconstruction of Main Street?

CONTEMPORARY **TRADITIONAL**





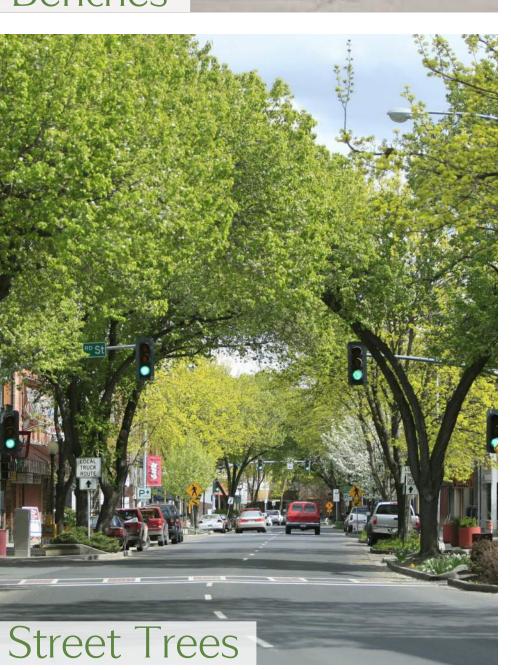
TRADITIONAL WITH CONTEMPORARY ELEMENTS



CONTEMPORARY

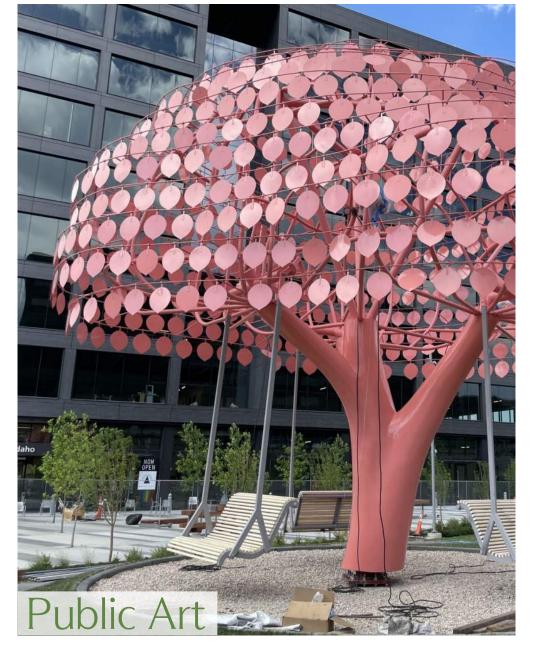
What streetscape elements are you looking for to create a vibrant Main Street?





















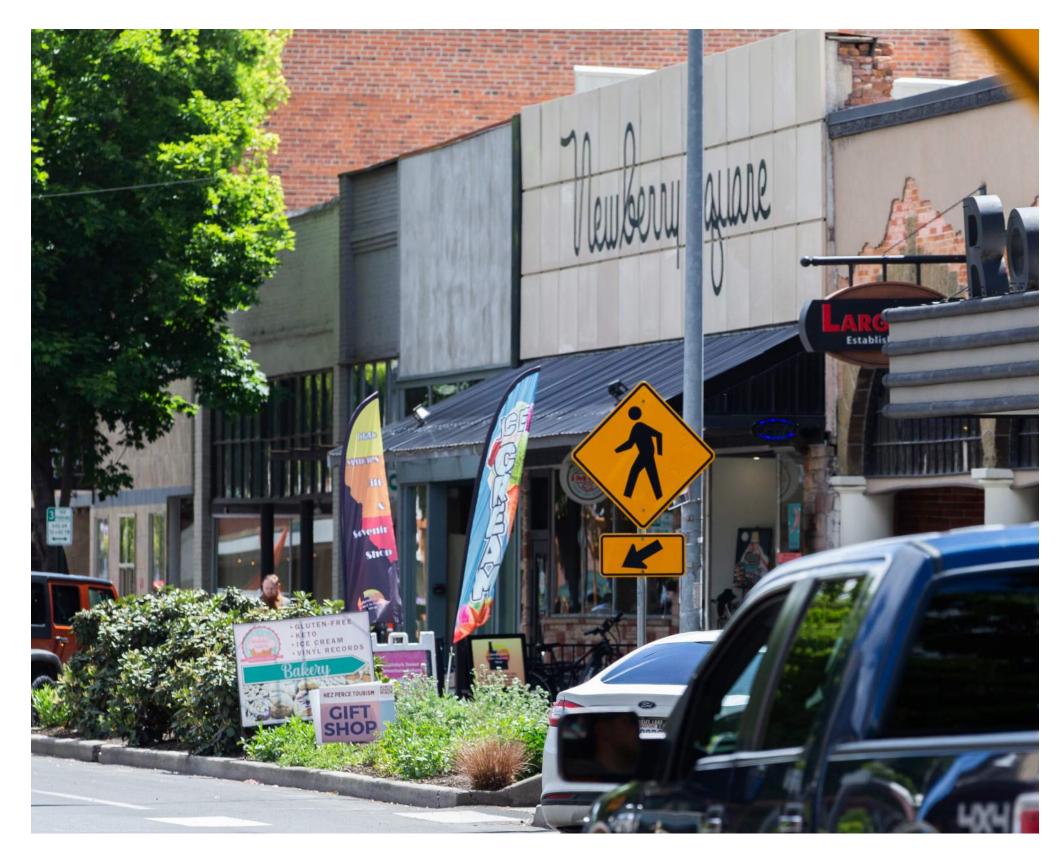




Downtown Destinations

Downtown destinations are important as they attract people and serve as a hub for social, economic, and cultural activities. Share your ideas on what types of destinations you would love to see downtown.

What draws you to Downtown Lewiston?







Downtown Events



Indoor and Outdoor Public Spaces

What destinations have you enjoyed in other cities?



Indian Creek Plaza, Caldwell, ID

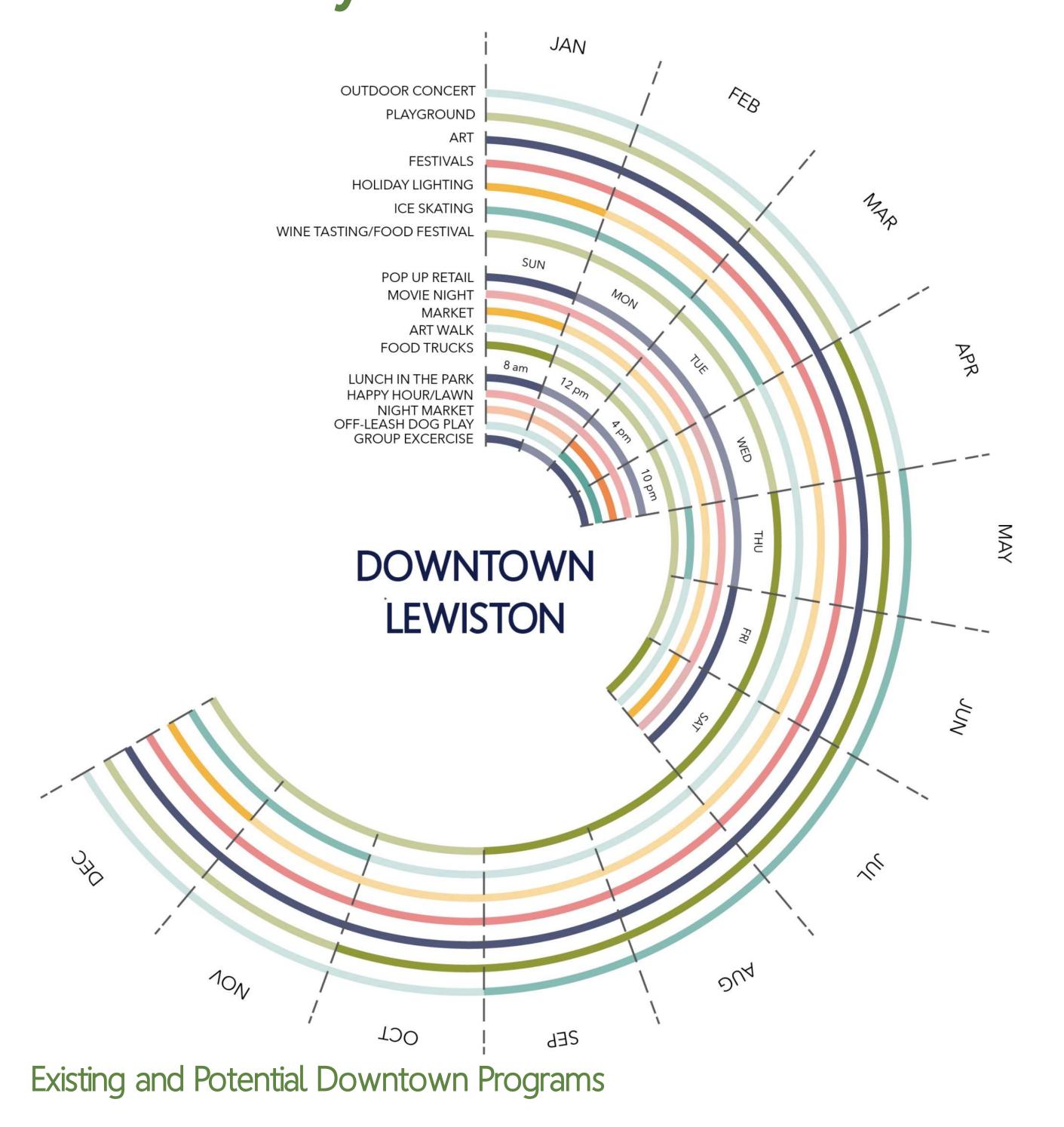


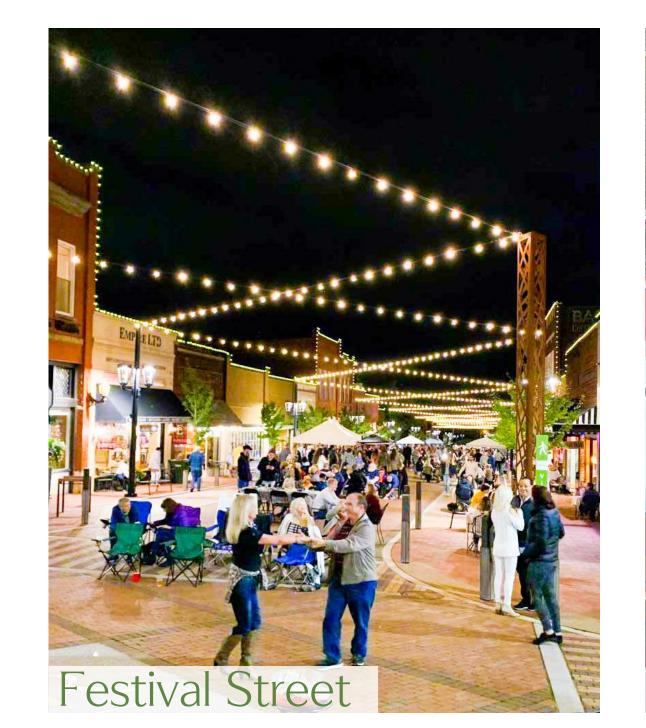
Ice Age Floods Playground, Riverfront Spokane, WA



Pearl Street, Boulder, CO

What are your ideas for destinations in Downtown Lewiston?















Street Trees

What are your thoughts on Main Street's existing street trees?

PLACEMAKING

The existing trees in Downtown enliven Main Street by offering shade, enhancing its historic character, and complementing the buildings.

TREE TYPES

- 1. Flowering Pear Tree
- 2. Linden Tree
- 3. Maple Tree
- 4. Tulip Tree

INFRASTRUCTURE

Throughout the design and construction process, there will be utility and existing street tree conflicts to resolve in the on Main Street.

STRATEGY FOR THE FUTURE

The goal is to develop a successful and adaptive approach to managing existing and future street trees. An arborist report will assess the long-term health of existing trees and provide guidance on how to successfully infill with new trees.



Pros:

- -Shade/heat reduction
- -Placemaking
- -Unifies streetscape
- -Historic value

Cons:

- -Takes up space
- -Longevity
- -Utility and construction planning around trees



Pros:

- -Flexibility of placement of new utilities and streetscape elements
- -Tree selection
- -Ease of construction

Cons:

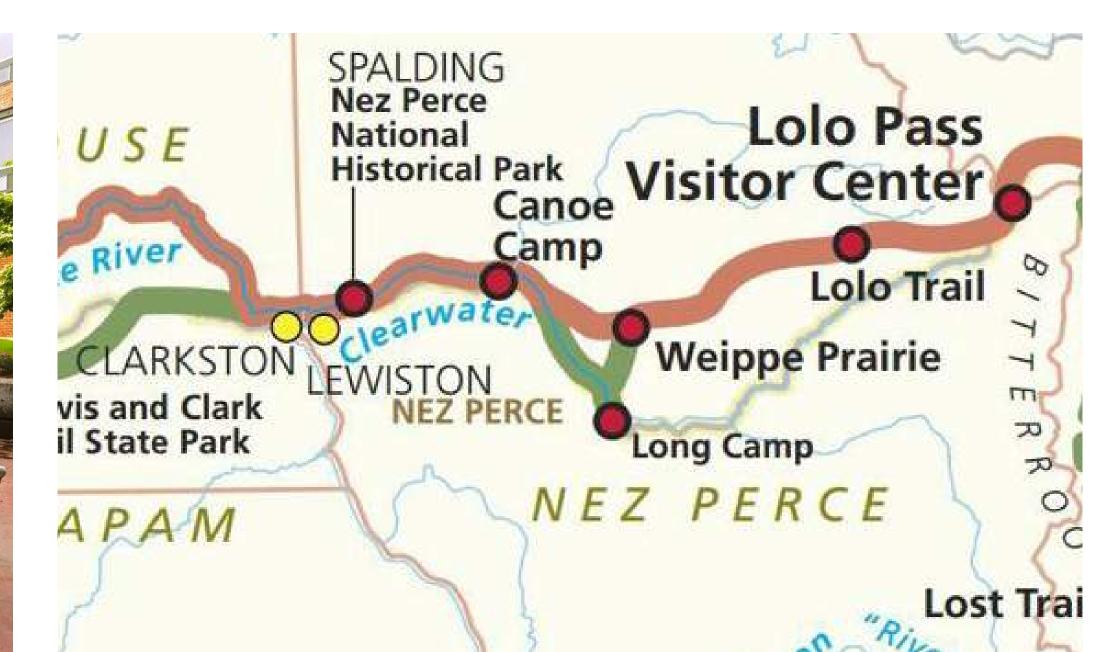
- -Expensive
- -10-20 years to reach maturity
- -Significantly less shade/heat gain reduction

Art and History Themes

Incorporating art and history themes into the design of Downtown Lewiston can help create a cohesive and meaningful streetscape that resonates with the community's heritage. Acknowledging history is crucial for designing a future that respects and celebrates Lewiston's roots, ensuring that new developments align with the city's identity now and for years to come.







NEZ PERCE TRIBES



LEWIS AND CLARK

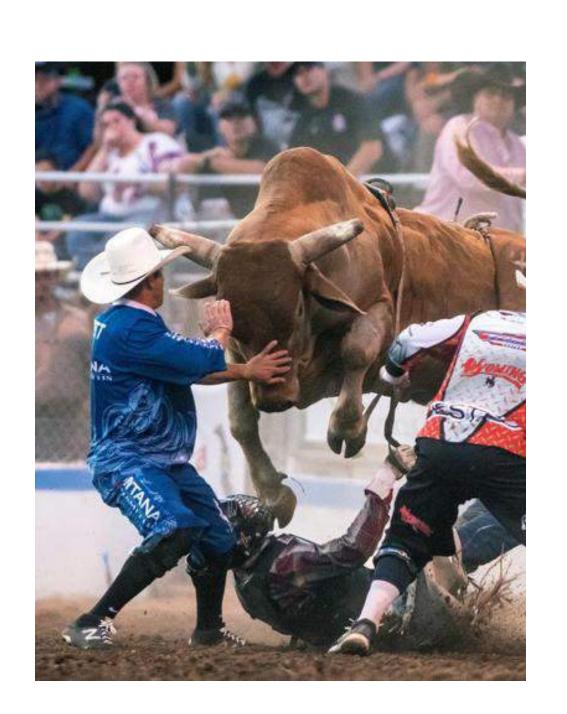


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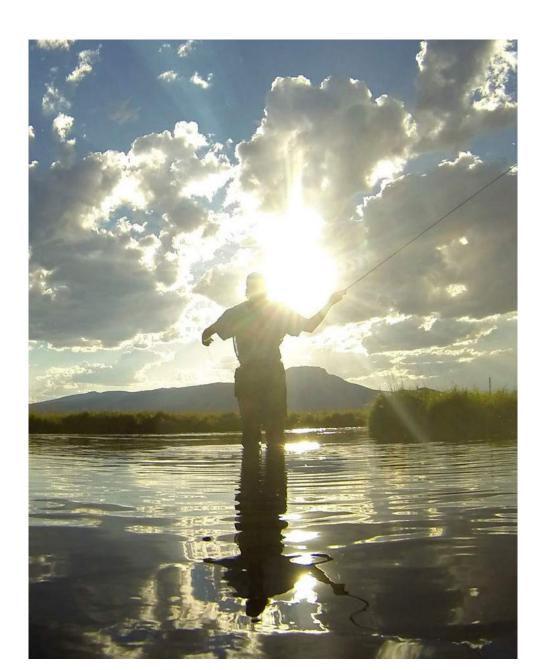
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GOLD RUSH



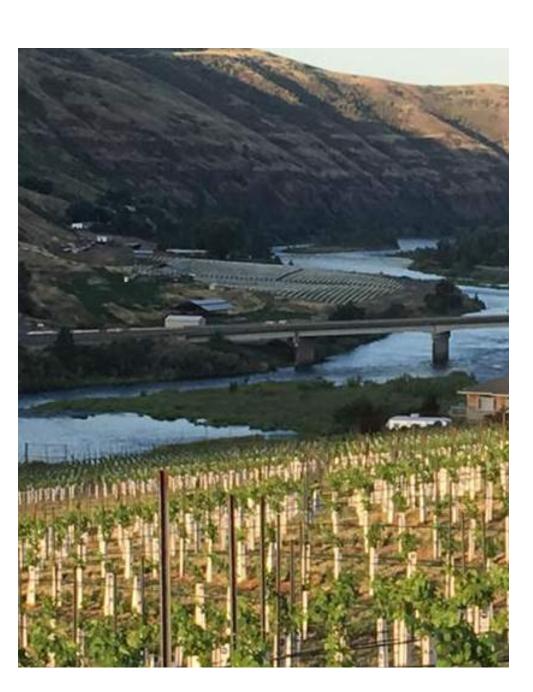




FESTIVALS AND EVENTS









FARMING, RANCHING AND ORCHARDS

INDUSTRY

We understand construction will be difficult. We'll do our best to keep business access open as much as possible. Let us know your specific concerns.

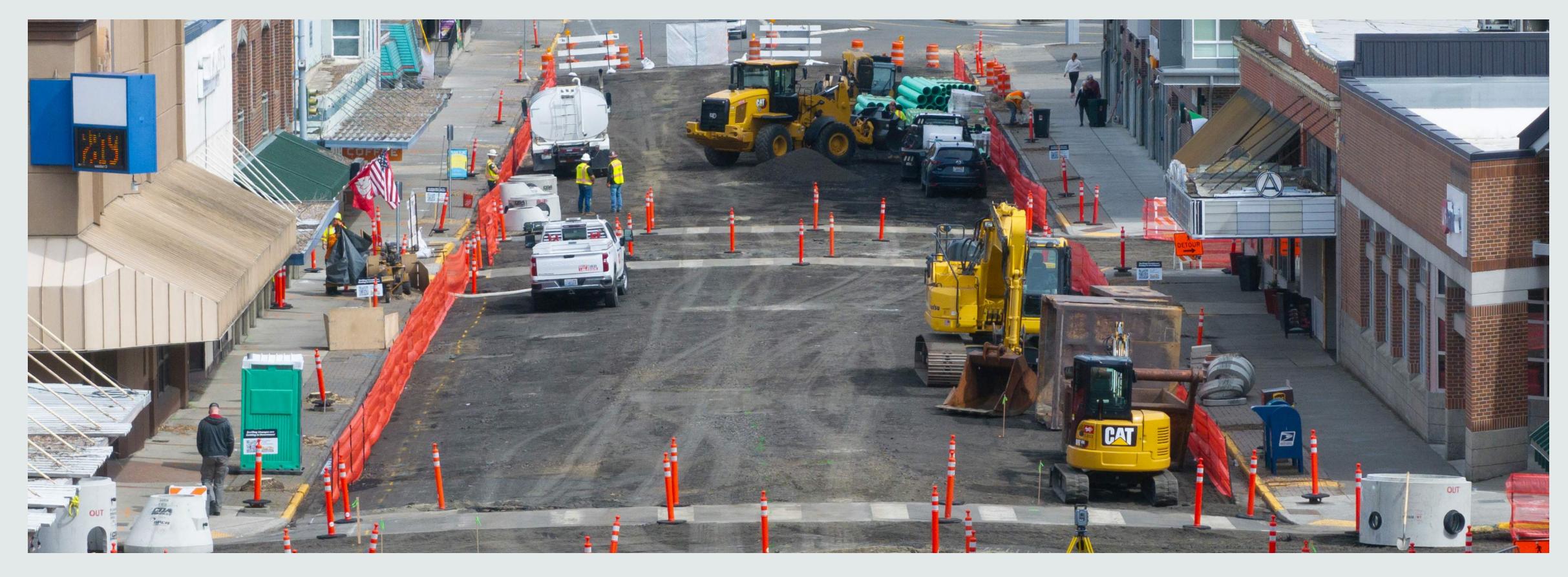
Construction







Pedestrian access to business front doors will always be available, except for when work is required directly in front of each door.



Main Street will be closed to vehicular traffic for the majority or all of the construction duration.





Dedicated loading zone parking for delivery services will be provided.



Temporary wayfinding business signage will be provided.

repair.

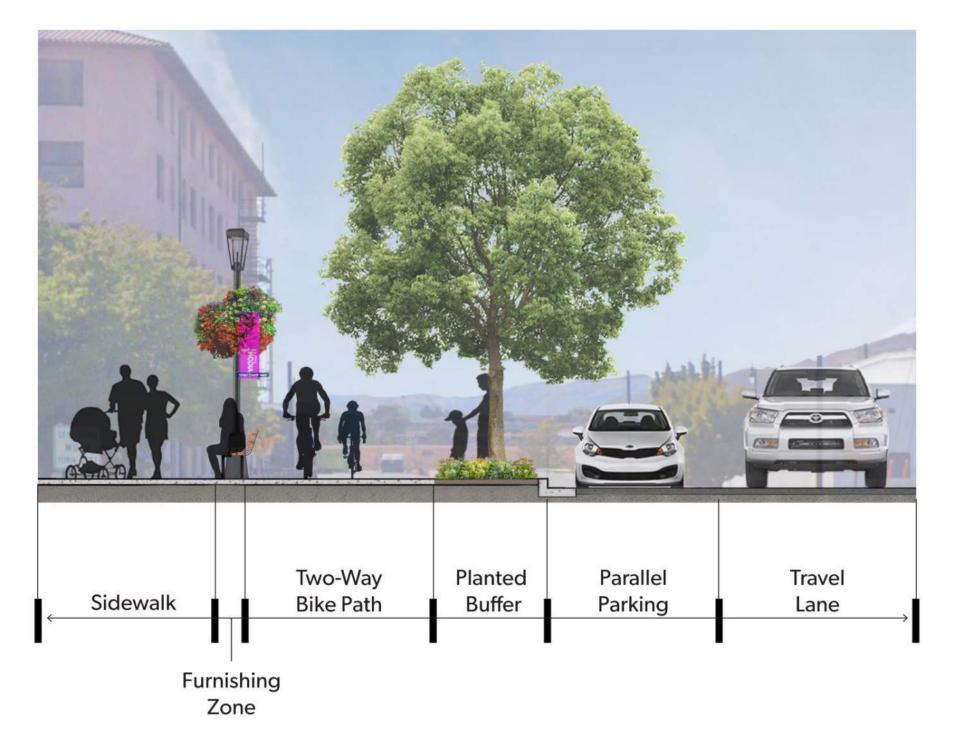


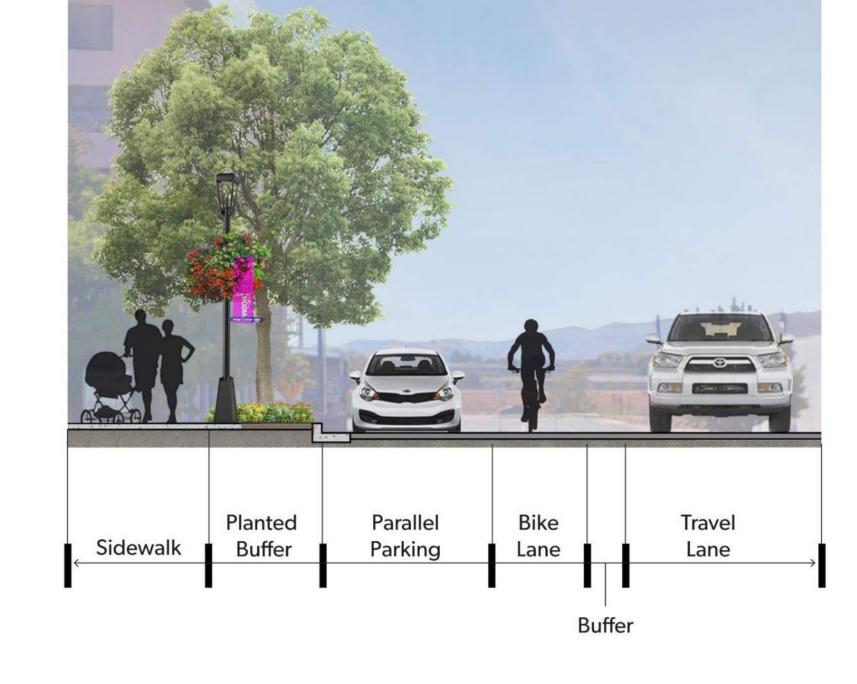
Non-Motorized Connectivity

To enhance the vibrancy of downtown, safe and convenient access should exist between downtown, the waterfront, and nearby neighborhoods. Tell us how you currently access downtown on foot or by bicycle. For example, how would you access downtown on an e-bike?



Which non-motorized facility type would you prefer on D Street west of 5th?





Shared-Use path on one side of the road.

On-Street bike lanes

What non-motorized routes do you use or wish existed? (Draw with Sharpie)



How do you navigate this area on foot or by bike?

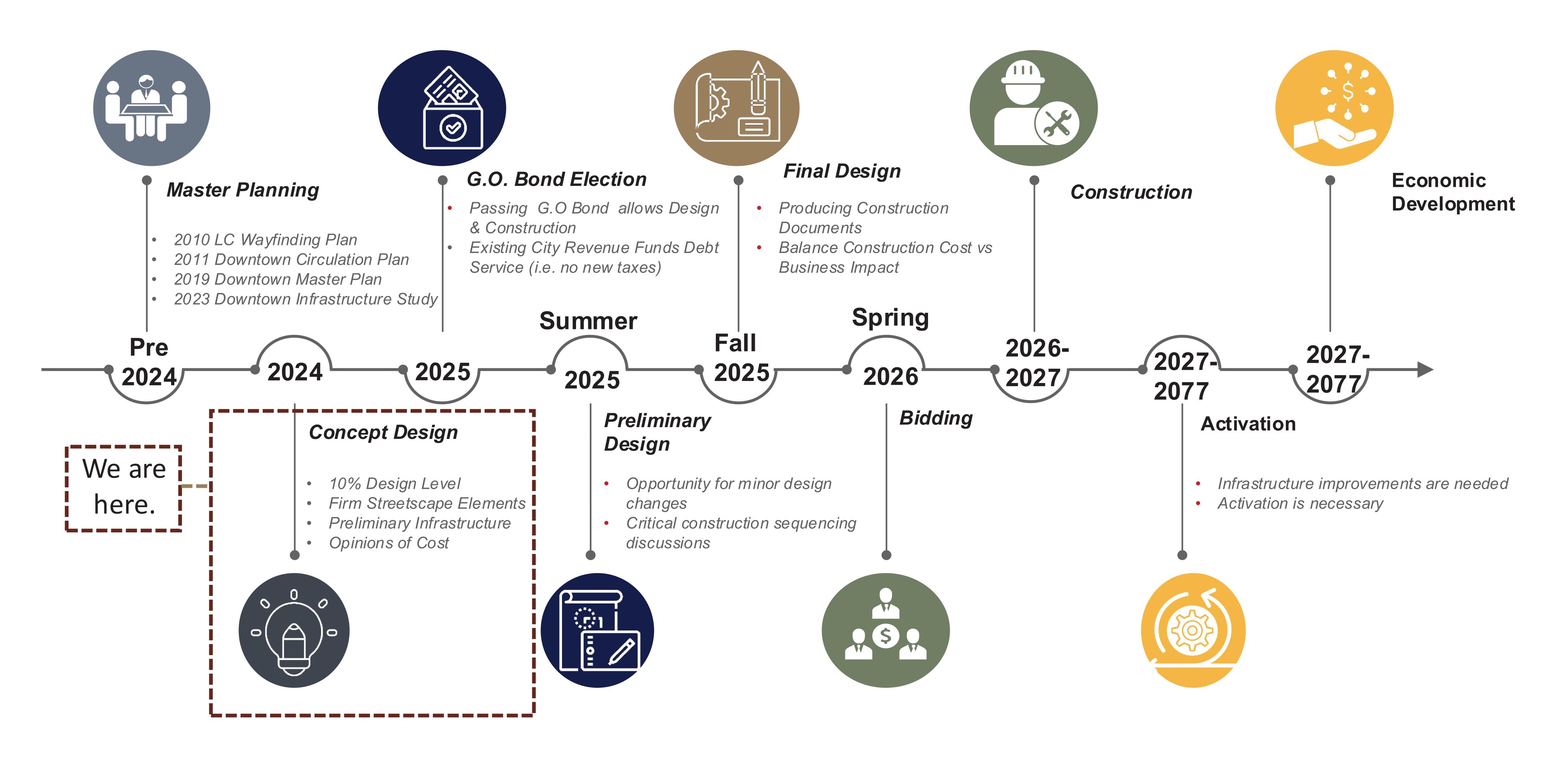
Project Limits



repair.

Project Overview

Project Overview

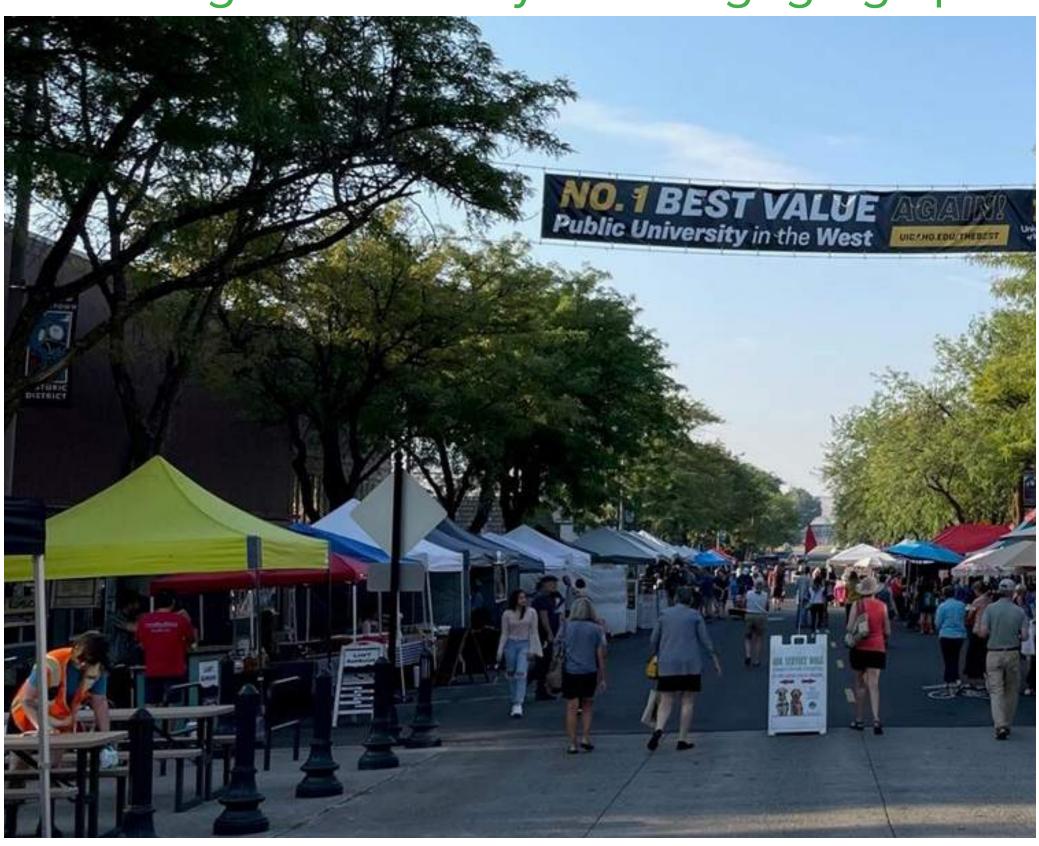


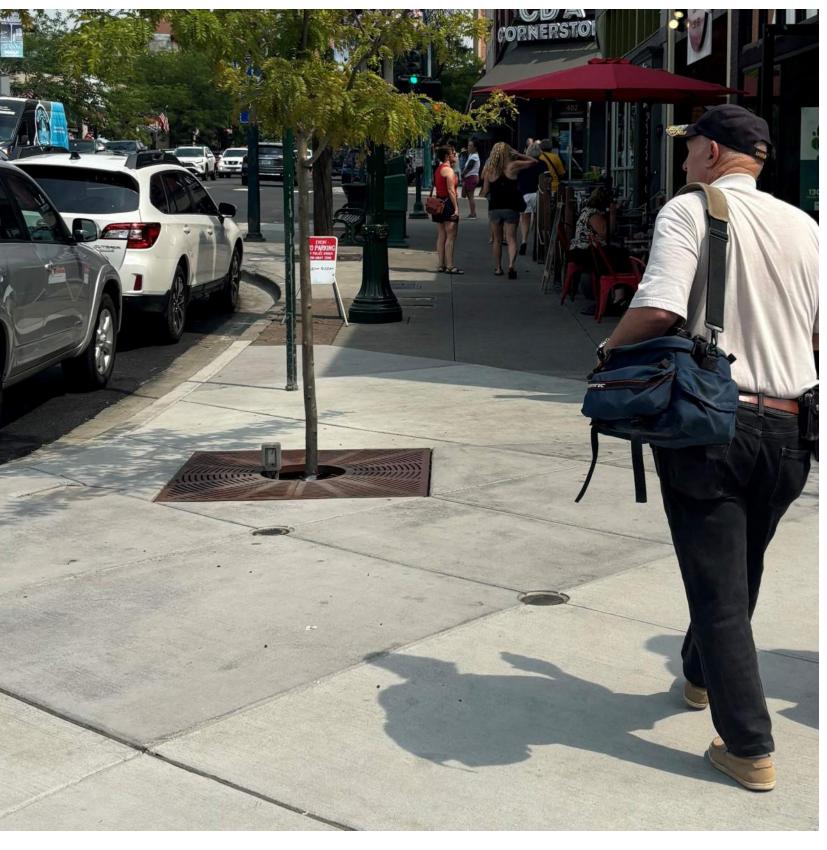
Traffic & Pedestrian Safety

Thriving downtowns should have considerable pedestrians. Roads with many pedestrians should have slow traffic speeds.

Share your experiences with traffic and pedestrian safety in downtown Lewiston with the design team.

Encourage walkability and engaging spaces downtown.



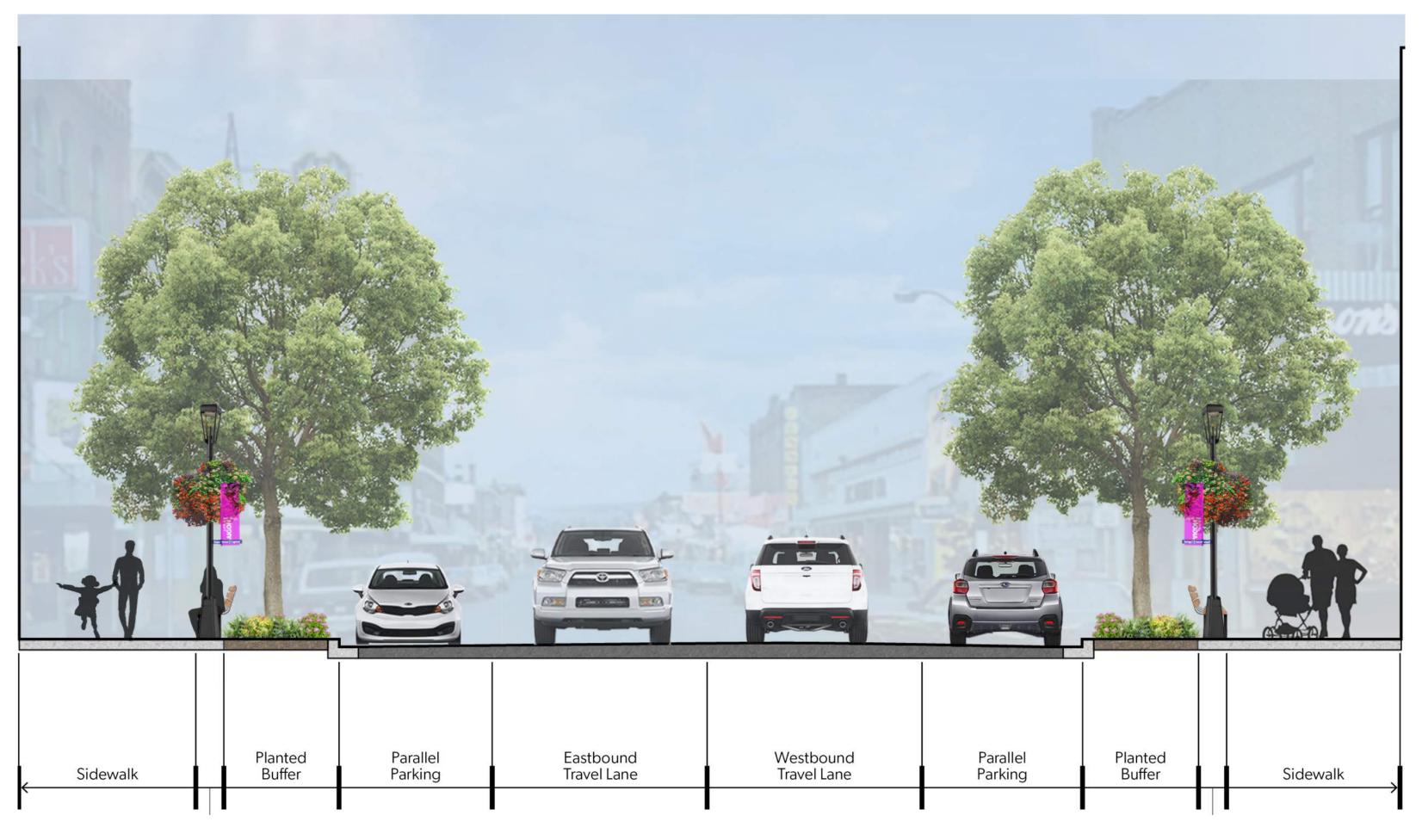






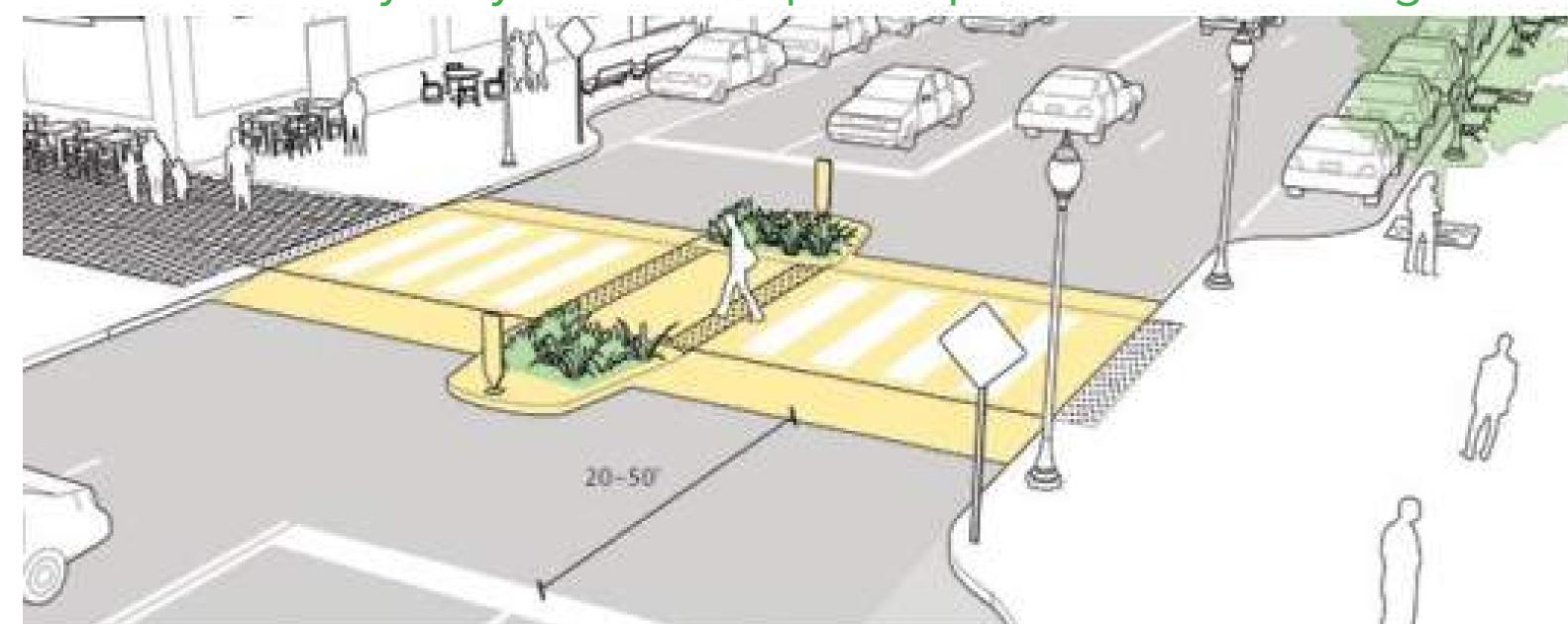
Benefits of Two-Way Traffic

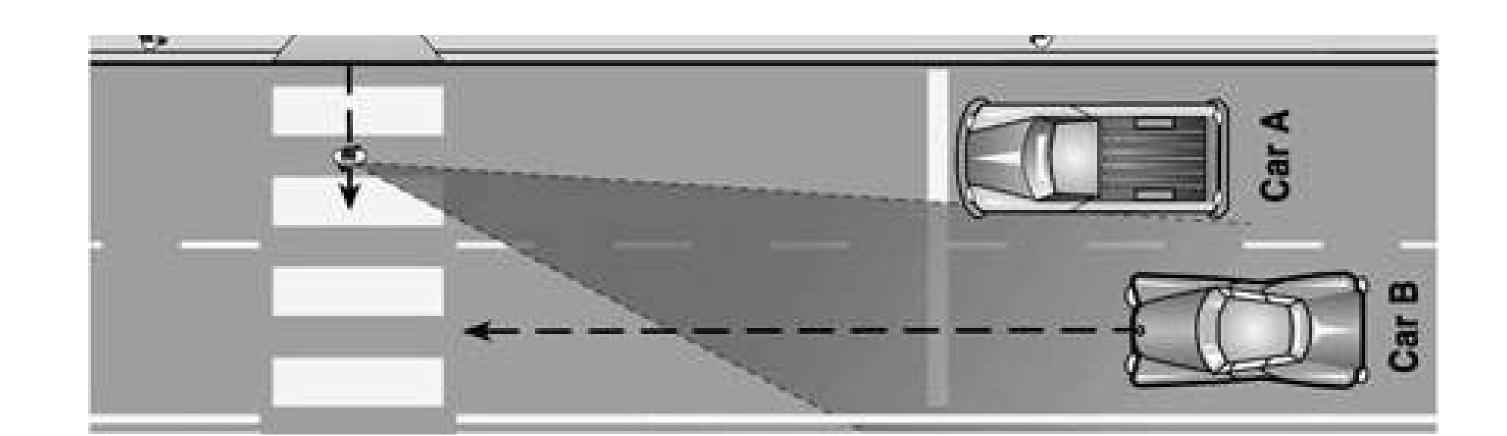
- Slower traffic speeds
- Encourages bypass use
- Better visibility for pedestrians at crossings
- Ease of access for visiting motorists
- Close streets for festivals



The typical section on Main Street, including two-way traffic, was determined through a previous study.







On one-way streets, Car A blocks the Car B's view of pedestrians.









aults

The sidewalk vaults in downtown Lewiston have historical value and in some cases are still functional today. Please let us know your thoughts on maintaining the vaults and honoring the cultural significance as we move forward with design.







Existing vaults provide a character unique to Lewiston.

How should the City address the vaults?

Option 1. Vaults are a valuable economic development feature. The city should work with adjacent willing private property owners to develop a policy that will allow the vaults to continue to be the adjoining private property owners' cost to upgrade, if necessary, and maintain.

Option 2. Vaults are an interesting part of Lewiston's history, but since they no longer support their original use (deliveries) they should be abandoned by the city. The sidewalk glass blocks that provided daylight to the vaults should be recreated and highlighted with interpretive signage.

Option 3. Vaults should be abandoned, and no funds spent on recreating the glass blocks.



Buildings shaded yellow currently have vaults per city records.

You are Invited

DATE July 30th, 2024

TIME

4pm-6pm *short presentation at 4pm

WHERE

Lewiston Library 411 D St, Lewiston



Please scan to take the online survey

Business and Property Owner Meeting #1

reimagine Downtown Lewiston

Thank you for your past involvement in planning downtown Lewiston! Design of major renovations for downtown streets and utilities is underway. As a downtown business or property owner, your participation in this and future meetings is vital. We value your contributions as we create a functional downtown that reflects Lewiston's rich history and bright future.

> Let's build something remarkable together.

For more information, please contact: Courtney Kramer, Public Involvement Specialist 406-581-7243 | ckramer@welchcomer.com

reimagineDTLewiston.org



Printed locally at 4

reimagine Downtown Lewiston

The City of Lewiston is continuing to the next phase of improving Downtown Lewiston by beginning preliminary design of the Main Street Corridor infrastructure project (see the project limits on the reverse side). This preliminary design phase will build upon past master planning efforts and "put pencil to paper" to create preliminary construction plans.

Important Dates

Aug 12th City Council Meeting
Sep 10th General Public Meeting #1
Oct 1st Business/Property Owners #2
Oct 14th City Council Presentation #3
Oct 24th General Public Meeting #2
Nov 24th City Council Presentation #4

Attend these meetings to share your thoughts, see the impact your having and generate project support.



The purpose of this open house is to receive downtown property and business owner input on a variety of topics from the type of street furniture to the construction sequence timing.

Please help us create a project that reflects Lewiston's vison, values and culture by:



Take the online survey by using the QR Code below.



Visit each open house station and using the provided stickers, apply them to your preferred option.

Ask the consulting team questions and provide them your uniquely Lewiston insights







reimagine Downtown Lewiston

Appendix IV Newsletters and Articles

Main Street Corridor Reconstruction Project









The City of Lewiston has advanced to the preliminary design phase of the Main Street Corridor infrastructure project. Building off of past planning efforts, the city intends to complete underground utility upgrades and replace above ground roadways and streetscapes on portions of downtown streets.

Why are we considering this project?

The Main Street Corridor project is a much-needed upgrade of our utilities and street infrastructure. Our underground water mains were constructed before World War I. Today, the materials are substandard and city crews are constantly repairing breaks. The sewer and stormwater systems need critical upgrades, as well. To get the most done with the least disruption, the city would like to address both the underground and above-ground needs at the same time.

The Main Street corridor has long been the top community roadway priority. Let's face it, cars travel too fast on both Main Street and D Street, the pedestrian connectivity is not comfortable, and the downtown environment needs to better support local business. Since we have to tear up the roadways and sidewalks to replace utilities, let's put back something great.

What is needed to complete the job?

The City Council has already reserved transportation funds to make payments on a bond for the project's cost. As a result, the project will be able to be funded without an increase in local taxes. However, in order to complete the project in a timely manner, the city will need to take on a municipal bond (similar to a construction loan) that will be paid back within the existing budget.

How will we move forward?

A bond for this project requires approval from the voters of Lewiston. This will enable the city to get shovels in the ground promptly and complete the project over a shorter period of time, rather than stretching it over fifteen or twenty years, reducing the impact on businesses and citizens. The general obligation bond will be on the ballot in the Spring of 2025.

How can I get involved?

Whether you're a long-time resident, business owner, or newcomer, your perspective is essential in shaping a spaces that meets the needs and aspirations of all. Participate in our public forums, share your ideas, and help us create a downtown that is not only functional and beautiful, but also a true reflection of Lewiston's rich history and bright future.

Let's Build Something Remarkable Together!

reimagineDTLewiston.org

renew rebuild restore rehabilitate revitalize repair revive reimagine Downtown Lewiston

Open House

September 10th 5:15 pm* to 6:45 pm Lewiston Library

a brief presentation will occur at 5:15 pm





@reimagineDTLewiston



Stay Informed





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Join Our Email List



MONTHLY UPDATE

SEPTEMBER 2024

President's Message



Host the September Business After Hours (BAH) at half price! If you are interested, please contact us ASAP. Speaking of Business After Hours, 2025 is starting to fill up. It is on the third Thursday of the month from 5 – 7 pm, and the host provides the food and drink. The cost to host is \$500, but we have funds available for smaller organizations to offset the cost if needed. Please just ask! A huge thank you to our August host, Opportunities Unlimited, and the great work they do. OUI offers people with disabilities job training, programs for children with special needs, and employment so everyone in our community can contribute to our economy. Their 50th Anniversary celebration is on September 14 - more info at *OUI Is 50!*

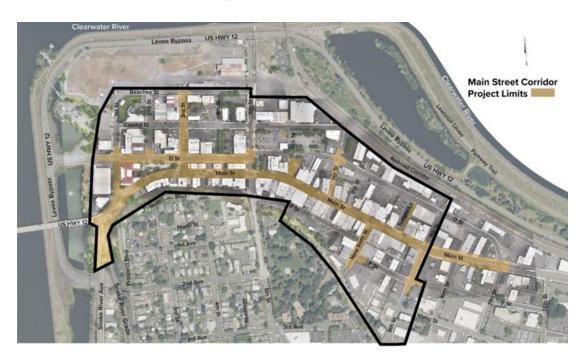
The Chamber Golf Challenge is on Friday, September 27th! Over half the tickets are sold... who doesn't want to golf in the beautiful (less hot, less rainy) end of Fall? Bring yourself and/or a team for mimosas, lunch provided by Jollymore's, games, and dinner catered by My Chef Steph. **Purchase your tickets here:** 2024 Golf Challenge - Event Registration (lcvalleychamber.org)

Is your organization almost or over 100 years old? Please let us know as you will be honored at our October State of the Valley luncheon. **September's luncheon** is all about Advocacy—SEL will present on

the role of various government agencies, plus we will start drafting our Legislative Agenda. **What are the most troublesome parts of running your business?** Is it taxes, regulations, workforce, or something else? Come on Wednesday, September 11th to share your frustrations, identify the problems, and work to finding a solution with our representatives. **Register here:** September Luncheon - SEL presents Government 101 - Event Registration (Icvallevchamber.org)

And, in case you missed it, **we have re-launched the Valley's Young Professionals program!** Events are on the first Tuesday of the month and include networking, informational speakers, and volunteering opportunities. It's a great way to provide professional development to your employees for no cost, in addition to providing marketing for your company. **Register here for the one on September 3rd:** *Young Professionals Taco Tuesday at El Sombrero - Event Registration (Icvalleychamber.org)*

Reimagine Downtown:



Reimagine Downtown Lewiston is almost here! As a continuation of a multi-year process, **the community is invited to an Open House from 5:15—6:45 pm on Tuesday, September 10, 2024,** at the Lewiston City Library to consider and give input to a major renovation of downtown streets and utility systems.

It should come as no surprise that in a city as old as Lewiston, its antiquated underground utilities need to be upgraded and replaced. The City of Lewiston received federal grant funds to replace 2,400 linear feet of the century-old water main under Main Street by the end of 2026. So, in order to get the most done with the least disruption, the City would like to replace and upgrade the other aging infrastructure like sewer lines and stormwater lines at the same time. Dig once, fix twice.

Because the streets and sidewalks will be damaged during the project, the reconstruction will offer an opportunity for us to create a place that we have always dreamed of: a safer downtown with more shops and better walkability. How can we make downtown Lewiston a destination instead of a drive-through? Replacing the underground infrastructure is the core of the project, but reconstructing Lewiston's streets and sidewalks will be the project's most tangible outcome; this is the opportunity for residents to help reimagine what that could be! Should we expand sidewalks for outdoor dining? What pedestrian lighting do we need? The Lewiston Downtown Master Plan called for changing Main Street to two-way traffic to slow traffic speeds and make crosswalks safer. How will that look when the sidewalks are rebuilt? What about parking—where should that go?

This type of project will cost a lot, but it is also expensive to constantly repair old pipes and drains that are no longer working. Fixing the problem comprehensively requires capital funds, and luckily the City of

Lewiston has already reserved money to pay for the project by levying a bond. *As a result, the project could be funded without any increase in local taxes.* Thus, the City will ask voters for approval to take on a municipal bond—like a construction loan—for this capital project, which will be paid back within the existing budget. The Chamber invites you to visit the project's website, at

www.reimaginedtlewiston.org, to sign up for the project's newsletter, view informational videos, and participate in surveys. This is a once-in-a-lifetime opportunity, so as a business community, let's seize it!

Member Spotlight:



Baker Advertising Promotions

Promotional Products Work!

Whether you call it swag, branded merchandise or a promotional product, there should be no mistaking the facts... promo products incentivize and influence people to take action! They're an effective marketing strategy because they increase brand awareness. People feel an instant connection with the brand when they receive promotional products – they will walk out of their way at events to pick one up, buy products, or even say thank you. I am local, having customers in this area for over 25 years. They keep coming back for ideas, best products and service. I love what I do and am always looking to add more customers and friends.

Ambassador Spotlight: Amanda Wilhelm



Amanda Wilhelm is the 2024 President of the Ambassadors for the LCV Chamber of Commerce and currently serves as the Development Coordinator at 2nd Judicial CASA (Court Appointed Special Advocates). Her role at CASA has deepened her understanding of the

essential needs that many children in the community lack and working to lift the barriers brings her immense satisfaction.

Amanda has been a dedicated Ambassador with the Chamber for 6 years, beginning her journey in 2018 when she joined the YWCA Lewiston-Clarkston as the Director of Community Engagement. She is a proud alumna of Leadership LC Valley Class 4 (the best one), and a fervent advocate for the program. Passionate about fostering relationships and community connections, Amanda leverages her network through the Chamber and her Leadership classmates to achieve significant impacts in the non-profit sector. Her goal for the community is to enhance understanding of racial and social justice issues.

New Members:



The Exchange

The Exchange is a leading resource known for its efficiency and exceptional service in connecting buyers and sellers. As the largest weekly classified network in the Pacific Northwest, we reach over 145,000 engaged readers. Whether in print or online, The Exchange is a trusted local resource for individuals and businesses across the region.

Contact: 509-922-3456 ads@spokane.exchange



The Tin Can Company

The Tin Can Company is located on the corner of Sixth Street and Sycamore Street in Clarkston. We offer small batch, hand poured, soy candles infused with essential oils. Our retail also consists of gifts, cards, and small home decor. We create custom candles for groups or companies; our candles are available for wholesale; and the most fun are the scheduled workshops in our Candle Bar. The owner, Hollie Williams, looks forward to meeting new people and serving the community of the LC Valley.

Contact: Hollie Williams, 509-769-7722 Piccadillyon6th@gmail.com



Idaho Commission for the Blind and Visually Impaired

ICBVI provides businesses with disability
Awareness training, Reasonable Accommodations
in the workplace training, Workplace Assessments,
and Information on tax credits. We partner with
businesses through creation of Work Based
Learning Experiences, On the Job
Training assistance, and recruitment & Retention.
ICBVI works to improve employment

opportunities for citizens who are blind and visually impaired while working with organizations to attain qualified employees to meet their business needs. By working together, we can change lives and promote self-sufficiency, independence, and a healthy diverse community.

Contact: Dawn Ristau, 208-799-5009 dawn.ristau@icbvi.idaho.gov



Partner Co.

Partner Co. is a health and wellness company based in Utah. The company offers over 100 top-shelf, health-based products that help men and women live more productive lives. One of the best-selling products is a set of hormone balancing drops that can help with weight loss, decreased inflammation, better sleep, increased energy, balanced thyroid, appetite control, curbing sugar cravings, boosting mood, ridding night sweats and supporting gut health. I love working with people who just want to get healthy again!

Contact: Sherill Calhoun, 559-381-2409, sherillcalhoun@gmail.com

Thank you to those that renewed last month!

- · Alternative Nursing Services, Inc.
- · Applied Surfaces Technology, Inc.
- · Best Western Plus the Inn at Hells Canyon
- Boys and Girls Clubs of the LC Valley
- CA Financial Services
- · Catalyst Medical Group
- Central Optical Laboratories, Inc.
- Century 21 Price Right- Joyce Keefer
- Clarkston Veterinary Clinic, PLLC
- Clearwater Economic Development Association
- Clearwater Propane Company
- Coldwell Banker Tomlinson
- Coleman Oil Company
- Crystal Wendland- Country Financial
- Dr. Mark Sheppard, DDS
- Elks (Lewiston BPO Elks #896)
- Ferguson Enterprises
- Hahn Supply, Inc.
- Hells Canyon Grand Hotel
- Holy Family Catholic School
- · Idaho Beverage
- K&G Construction
- Kenaston Corporation
- · Largents, Inc.
- · Law Office of William Vern McCann Jr.
- Lewis Clark Association of Realtors
- · Lewis Clark Early Childhood Program

- Lewis Clark Terminal Inc.
- Life Care Center of Lewiston
- Life Choices Clinic
- Malcom's Brower-Wann Funeral Home
- Mick McClure Honda
- Mike's Mechanical Services
- Nez Perce County Historical Society & Museum

Chamber Events



UPCOMING CHAMBER EVENTS:

September 3rd

September 19th

Business After Hours TBD

Young Professionals Taco Tuesday

El Sombrero @ 5:30-7:30pm

September 11th

Luncheon - Government 101 with SEL Clarkston Event Center @ 12-1pm (Booking is 1/2 OFF) @ *5-7pm*

September 27th

Chamber Golf Challenge Lewiston Golf & Country Club @ 11am-6:30pm

UPCOMING VALLEY EVENTS:

September 3rd

Free Diabetes Education:

@ TriState Health Conference

Pristate Health Conference Room 4-5pm

September 6th

BDL's First Friday @ Main St Lewiston 5-8pm

September 12th

Boys & Girls Club: Grilled Cheese Thank You Event @ Boys & Girls Club 12-1pm

September 14th

OUI is 50! @ Elks Lodge Country Club Drive 3-9pm September 19th

Free Prediabetes Education Class

@ TriState Health Conference Room 1-3:30pm

September 26th

2024 Health & wellness Fair @ The Lewiston Community Center

9am-2pm

September 28th

CASA Camo Ball @ Holiday Inn Clarkston 7pm-12am

View Calendar of Events

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Appendix

V

Steering Committee Meeting #2



- · Dan Mader (Mader Properties)
- · Elizabeth Coleman (812 Main LLC)
- Mark Alexander (Landmark Property Group)
- · Tami Meyers (Silvercreek Realty, downtown property owner)
- · Tobe Finch (Happy Day Restaurants)
- Redgy Erb (LCSC)
- Brandon Beier (ANS, Morgan's Alley)
- · Janine Bennett (Cornerstone Interiors)
- Wendy Price (Century 21 Price Right)
- Morgan Johnson (Rooted Salon)
- · Dawn Abbot (Blue Lantern Coffee)
- · Randee Mccollum (Effies Burgers)
- · Jennifer Holley (Well Connected Electric)
- Brenda Barnes (Business Connections by Brenda Barnes)

- Dan Johnson (Mayor)
- Jessica Klein (City Councilor)
- Hannah Liedke (City Councilor)
- Dodd Snodgrass (CEDA)
- · Linnea Noreen (LCV Chamber)

- · Dustin Johnson
- Luke Antonich
- Alannah Bailey
- Joe Kaufman Shannon Grow

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Agenda

- Project Overview and Process
- Feedback from Business & Property Owner Meeting/Survey
- Update on Stakeholder Meetings & Feedback to Date
- Streetscape Concepts
- Roadway Concepts
- Next Steps

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3

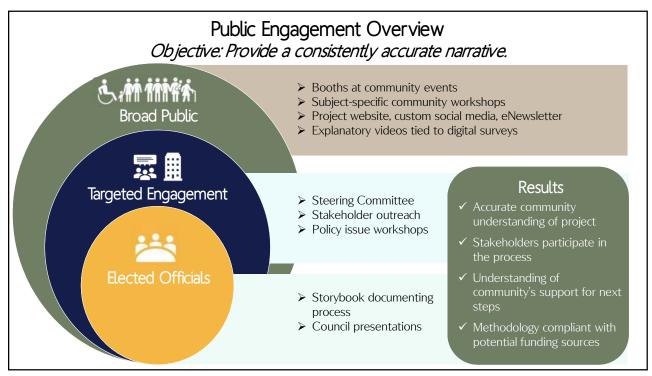
Concept Design Process & Schedule - June 3, 2024 - City Council Meeting #1 - June 25, 2024 - Steering Committee Mtg #1 - June-July 2024 - Property/Business Owner Interviews - July 30, 2024 - Business/Property Owner Mtg #1 - Refine Concepts - August 20, 2024 - Steering Committee Mtg #2 - August 26, 2024 - City Council Meeting No. 1 - October 1, 2024 - Business & Property Owner Meeting No. 2 - Refine Concepts and Estimate Costs - October 14, 2024 - City Council Presentation #3 - October 22, 2024 - Steering Committee #3 - October 24, 2024 - General Public Meeting #2 - Finalize Concepts and Estimated Costs - November 24, 2024 - City Council Presentation #4 - May 2025 - General Obligation Bond Election



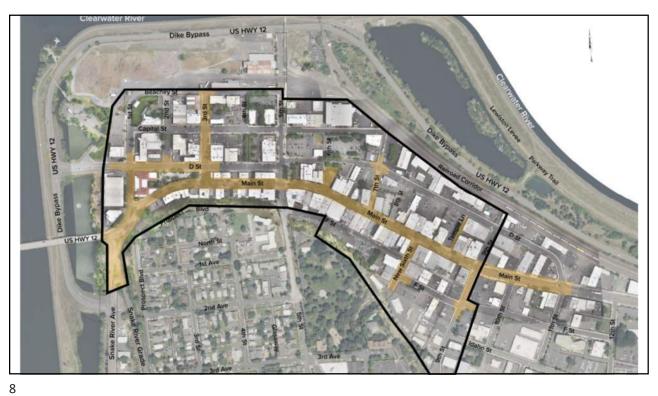
Develop a community centric placemaking concept design and demonstrate downtown's critical infrastructure needs that will generate public enthusiasm for a G.O. Bond vote.

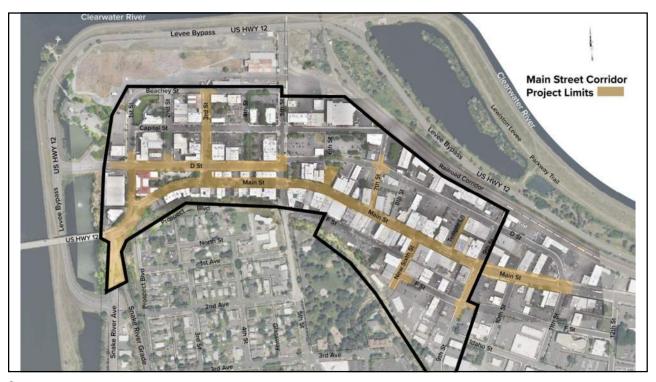
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1



















Steering Committee No. 1 Download

Good participation from an engaged group

Funding: The public will need to understand the funding source Trees: Important to the community (character, cool in summer), but also concern they are the "right" tree

Charming, historic feel: Common theme

- · Café seating, benches, safe cross walks were mentioned
- Don't clutter and make a common feel to "stuff"

D Street:

- Speeds are too fast. Needs traffic calming & safe crossings
- Encourage bypass use
- Connect D Street to waterfront

Ped/Bike:

- More connected network wanted (levy, waterfront, scary stairs)
- Motorcycles, too.
- · Want downtown more inviting for non-motorized uses

11

Describing the Character

"The highway creates an atmosphere of simply passing through Main St. versus stopping, lingering, enjoying, and visiting many shops."

Inaccessible sidewalks

Public Art In disrepair/broken

Dimly lit Historic Beautiful

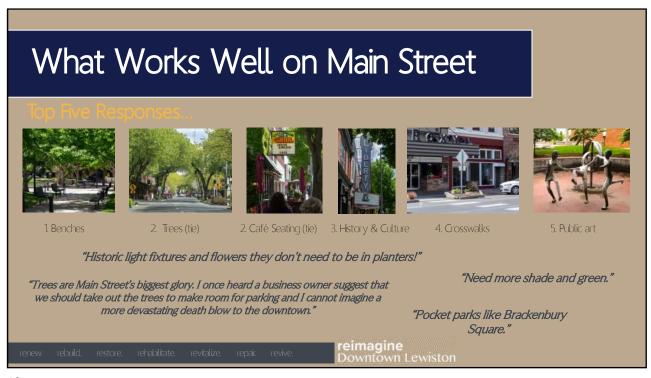
Great potential

Charming

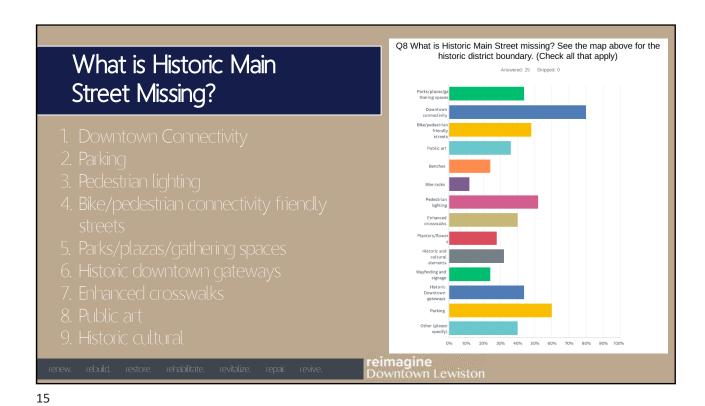
High Vacancy Rates Friendly

"Challenging parking situation, low foot traffic, aggressive drivers, unsafe crosswalks, under-maintained green spaces, sparsely planted and neglected planters."

"Historic and beautiful, but in need of repairs and updates. Lighting and sidewalks need fixed and/or replaced. Traffic is a problem."



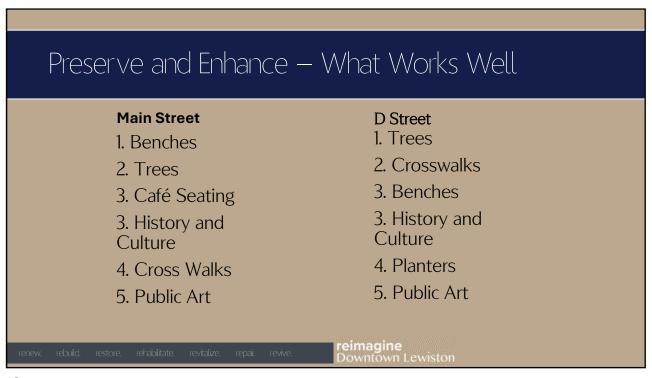
Main Street Preserve and Enhance Preserve What Works Well Enhance with 1. Additional seating/gathering areas 1. Benches 2. Diversity & phased replacement 2. Trees 3. Increased sidewalk width 3. Café Seating 3. History and Culture 4. Unique treatments 5. Lighting & Raised Crossings 4. Cross Walks 6. Identifying locations 5. Public Art <mark>eimagine</mark> Downtown Lewiston



Design Approach to Address "What's Missing" Design (or Operations) Approach What's Missing? 1. Downtown Connectivity 1. Two-way traffic 2. Parking **Promotion and Marketing** 3. Pedestrian lighting 3. Consistent pedestrian scale 4. Bike/ped connectivity friendly 4. Prioritize the pedestrian/bicyclist streéts Identify opportunities 5. 5. Parks/plazas/gathering spaces 6. Create the opportunity 6. Historic downtown gateways 7. See #4 7. Enhanced crosswalks 8. Create the opportunity 8. Public art Unique treatments 9. Historic cultural <mark>eimagine</mark> Downtown Lewiston









Design Approach to Address "What's Missing" Main Street D Street 1. Downtown Connectivity 1. Downtown connectivity 2. Parking 2. Enhanced crosswalks 3. Pedestrian lighting 3. Sidewalk connectivity 4. Bike/ped connectivity friendly 4. Pedestrian lighting 5. Parks/Plazas/Gathering spaces 5. Parks/plazas/gathering spaces 6. Planters/flowers 6. Historic downtown gateways 7. Bike Infrastructure 7. Enhanced crosswalks 8. Wayfinding & Signage 8. Public art 9. Parking, Trees, Historic/Culture 9. Historic cultural

Envisioning D Street Priorities

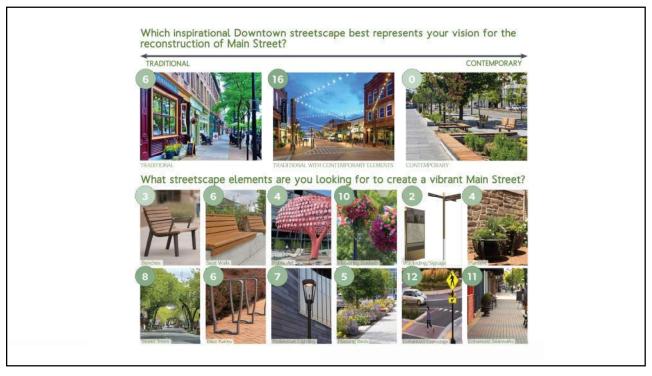
Top Five Responses...

1. Bike friendly street 2. Two-way traffic-calmed street 3. Parking retention escidential amenities

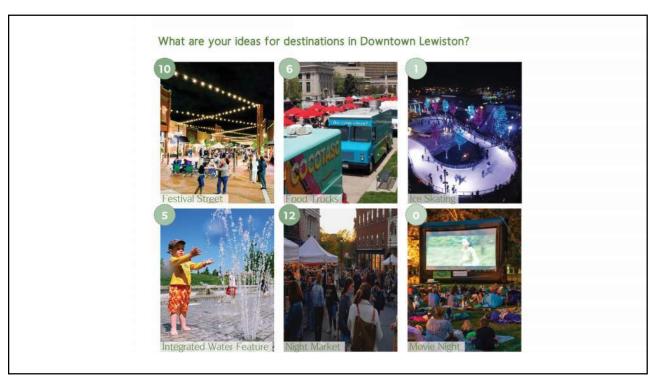
1. Bike friendly street reductive repair revive. relative repair revive. relative repair revive. relative repair revive.

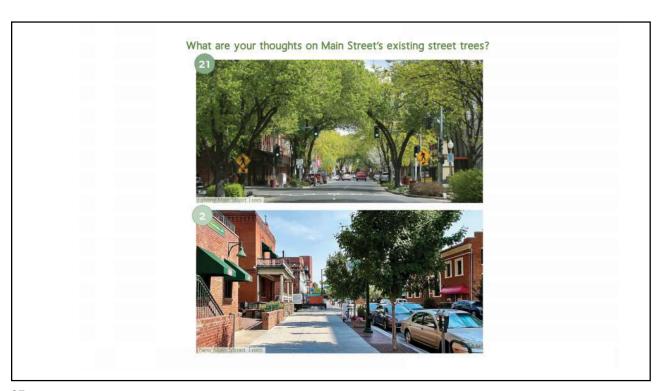
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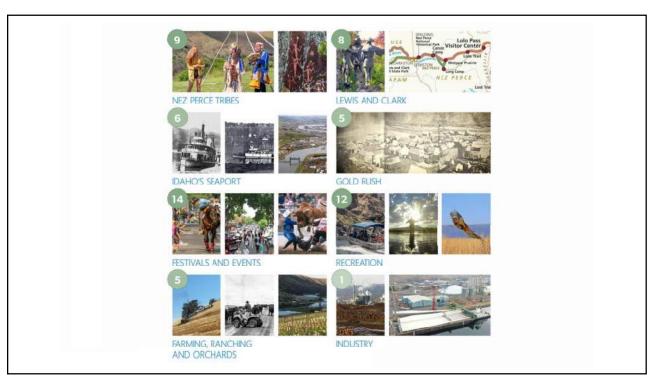














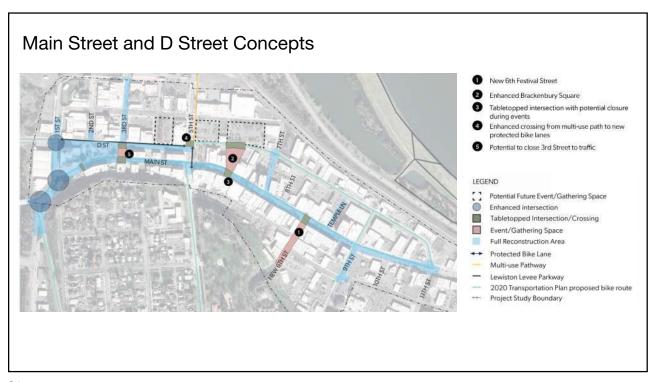
Business and Property Owner Meeting No. 1







- Good attendance. 30 people signed in.
- Common themes
 - Need to replace underground utilities so what to do with surface?
 - Popular destinations were shops/restaurants, plazas/events, festival streets (night market)
 - Tribe, seaport, Lewis & Clark, festivals, and recreation are popular art/history themes
 - Interest in maintaining existing trees rather than planting new
 - Streetscape character leaning towards "Traditional with Contemporary Elements"
 - Seat walls, street trees, bike racks, enhanced crossings, and enhanced sidewalks were popular streetscape elements
 - Definite interest in either maintaining or honoring vaults
 - Desire for the shared use path option on D Street (1st 5th)
 - · Raised crosswalks at mid-block crossings
 - · Positive response to two-way
 - · Lots of feedback on need for better non-motorized connectivity

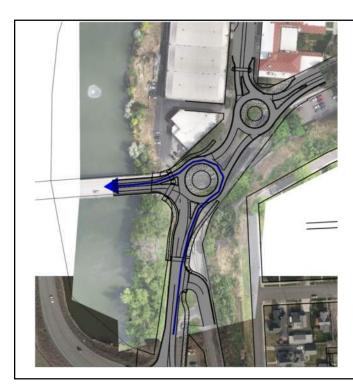






Travel Patterns Today

33



Travel Patterns After



















Next Steps

- 8/26 Council Meeting
- 9/10 General Open House
- 10/1 Business & Property Owner Meeting No. 2
- 10/22 Steering Committee No. 3



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Steering Committee Meeting #2 Lewiston Main Street Improvements

Meeting Sign-in Sheet

Project #48003

Date: Aug 20, 2024 Time: 1:00pm Location: Bell Build nig

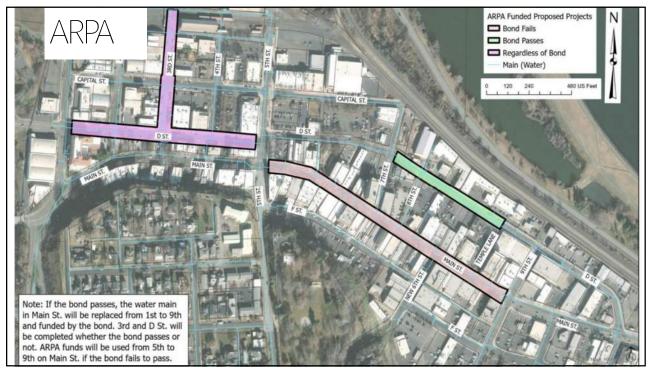
NAME	COMPANY	Initials
Phil Boyd	Welch Comer	PB
Melissa Cleveland	Welch Comer	MC
Adam Dorsey	Welch Comer	
Courtney Kramer	Welch Comer	CK
Sadie Sundahl	Welch Comer	
Mark Sindell	GGLO	Vivinal
Sam Jesser	GGLO	SJ
Luke Antonich	City of Lewiston	LA
Dustin Johnson	City of Lewiston	1)7
Alannah Bailey	City of Lewiston	
Joe Kaufman	City of Lewiston	
Shannon Grow	City of Lewiston	56
Dan Mader	Mader Properties	
Elizabeth Coleman	812 Main LLC	
Mark Alexander	Landmark Property Group	Vivtual
Tami Meyers	Silvercreek Realty	
Tobe Finch	Happy Day Restaurants	AFT.
Brandon Beier	ANS, Morgan's Alley	
Wendy Price	Century 21 Price Right	
Morgan Johnson	Rooted Salon + Spa	ny
Dawn Abbot	Blue Lantern Coffee	
Randee Mccollum	Effies Burgers	Ran Cool Mc (Deens

Jennifer Holley	Well Connected Electric	Arbelley
Brenda Barnes		7
Dan Johnson		
Jessica Klein		
Hannah Liedke		
Dodd Snodgrass		
Linnea Noreen		L.
Rachel Rinard	Sylvan's Furniture	Rachue meninard
Reggie Erb	LCSTATE	1
Janine Bennett	Cornerstone Interiors	Ö
Mike Cannon	My Architect	
Jerry Chavez		
Kyle Guelcher		

Appendix VI

Business & Property Owners Meeting #2





Meeting Purpose

- Update on details since we saw you last
- Show you some ideas
- Answer your questions
- Get your input

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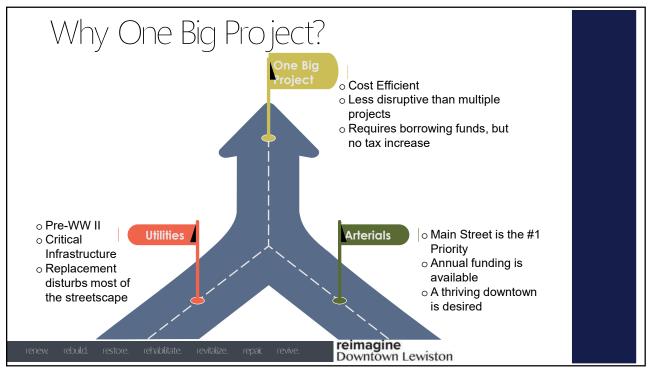
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Concept Design Process & Schedule - June 3, 2024 - City Council Meeting #1 - June 25, 2024 - Steering Committee Mtg #1 - June 25, 2024 - Steering Committee Mtg #1 - June 20, 2024 - Steering Committee Mtg #1 - June 20, 2024 - Steering Committee Mtg #1 - August 12, 2024 - City Council Meeting #1 - August 20, 2024 - Steering Committee Mtg #2 - Sept. 10, 2024 - Steering Committee Mtg #2 - October 1, 2024 - Steering Committee Mtg #2 - October 1, 2024 - Steering Committee Mtg #2 - Refine Concepts and Estimate Costs - October 14, 2024 - City Council Presentation #3 - October 22, 2024 - Steering Committee #3 - November 13, 2024 - General Public Meeting #2- Finalize Concepts and Estimated Costs - November 13, 2024 - General Public Meeting #2- May 2025 - General Obligation Bond Election

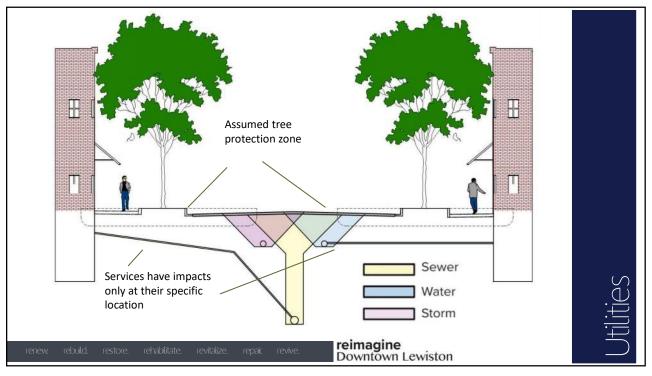
Agenda

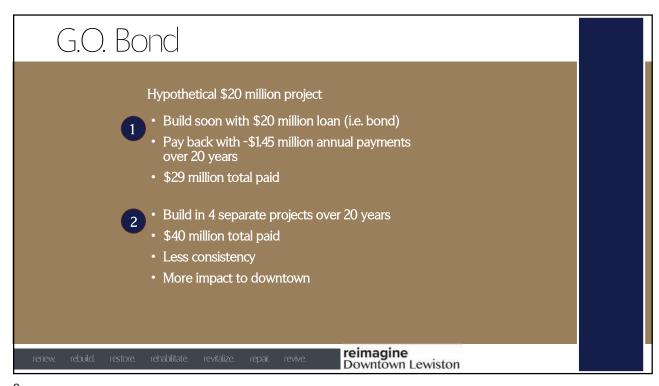
- Project Origins
- Borrow and Build vs. Save and Build
- What we've heard to date
- Streetscape
- Roadway & Intersection design
- Parking
- Vaults
- Loading Zones
- Construction Phasing
- Break out to discuss items with design team

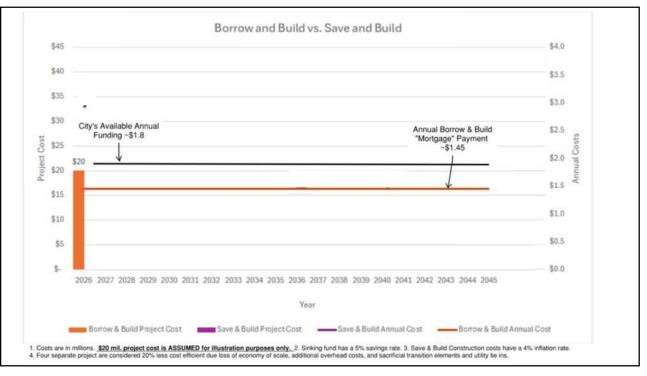
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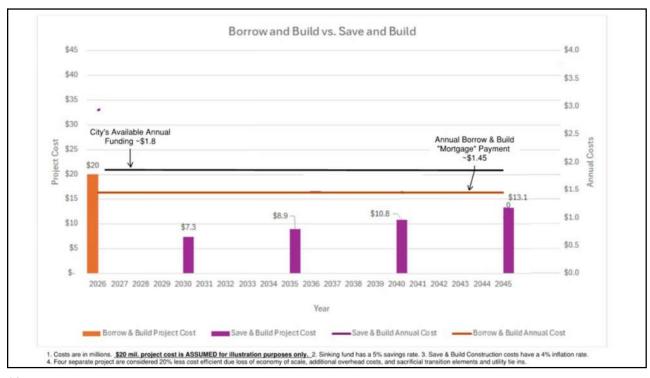


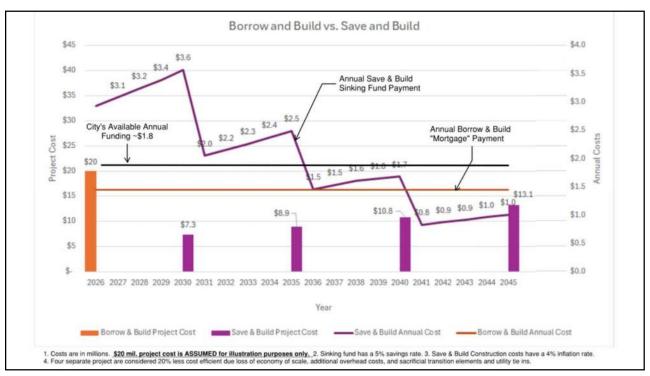


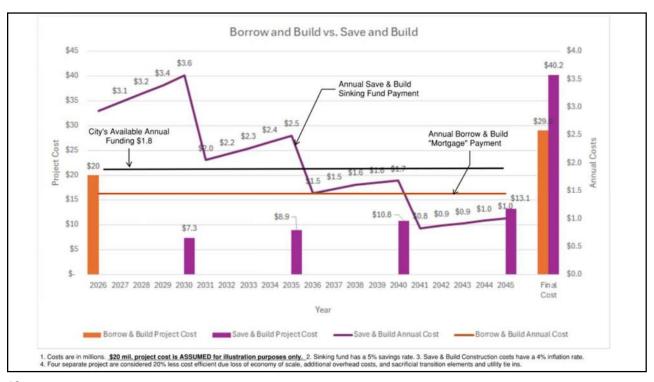












What We've Heard

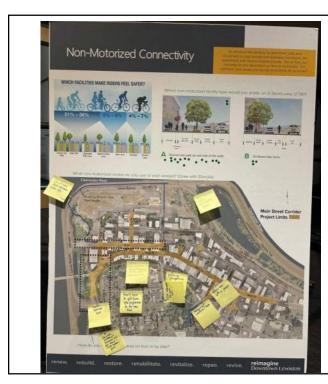
- Slow speeds and safer pedestrian crossings
- Save trees, if possible, but also concern over tree health/longevity
- Interested in options for sidewalk vaults
- Concerned about impacts to businesses during construction
- Concern about parking
- Support better ped/bike connectivity to/through downtown and to the waterfront
- Leaning toward "traditional with contemporary elements" streetscape
- Supportive of 2-way traffic on D Street with shared-use path
- Interest in "festival streets" for events

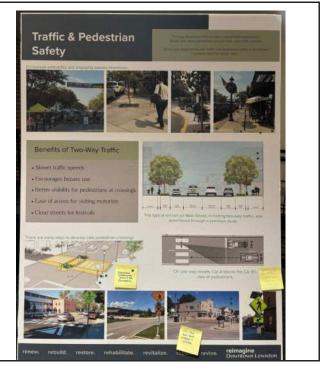
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Downtown Lewiston

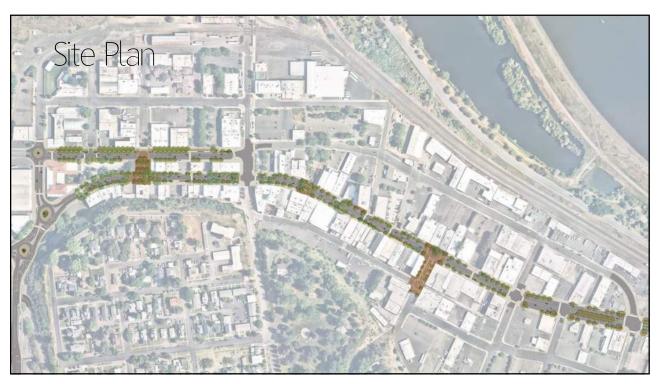


























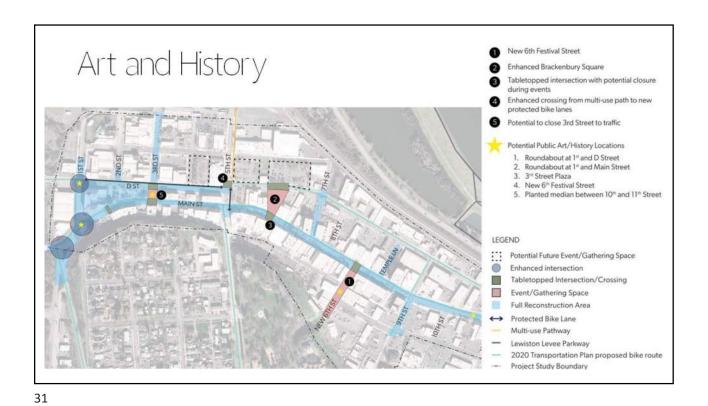






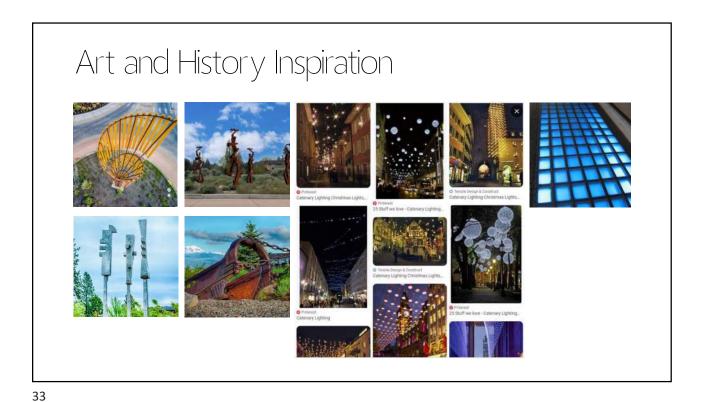






Art and History Themes





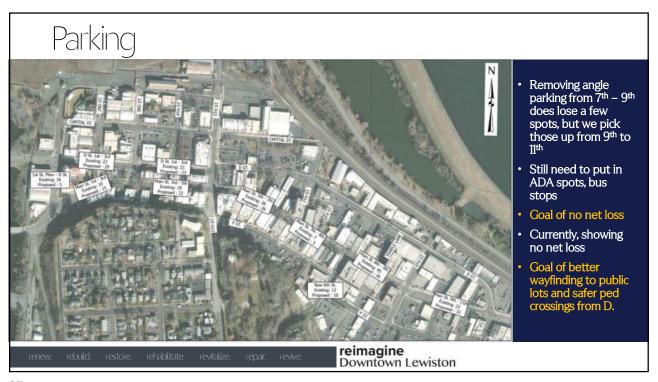
Roadway and Intersection Design

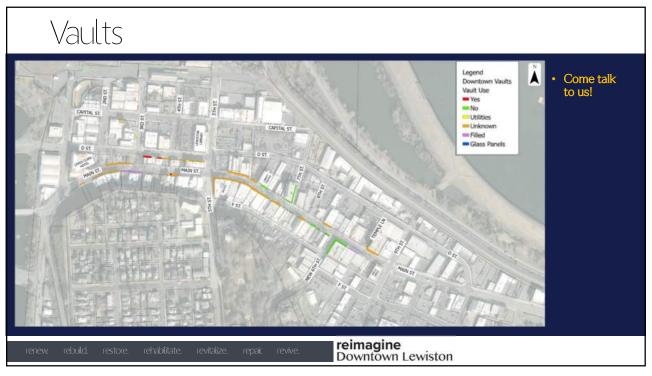
- \bullet Two-way on Main St, D St, and $1\!\!^{\text{st}}$ St
- Close 3rd
- Parallel Parking on Main between 1st and 9th
- \bullet Angle parking on Main between 9^{th} and 11th
- D Street parallel parking, shared-use path, and sidewalks (1st to 5th)
- 1st/Main roundabout (s)
- 1st/D (compact roundabout)

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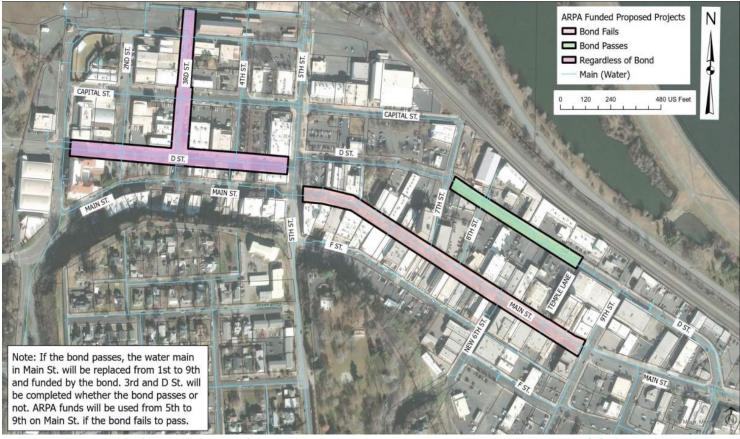






ARPA Funding

The city has secured American Rescue Plan Act (ARPA) funds to be used for specific projects (including utilities) throughout the city. \$3.1 million is designated for water main replacements in the downtown area. The city wants to use these funds efficiently and has developmed a plan in conjunction with the Main Street Corridor project.



Where ARPA funds will be used for waterline replacements downtown - with and without the G.O. Bond passing

What happens to the ARPA funds & G.O. Bond?

If the bond passes:

- The \$3.1 million of ARPA funds will be utilized to upgrade the water pipes outside of Main Street.
- Water main in Main Street (1st to 9th) will be included in the Main Street reconstruction project (and not use ARPA dollars).

If the bond fails:

- •The \$3.1 million of ARPA funds will be used to construct the Main Street water mains. Asphalt will be patched back and minimal improvements to streetscape.
- •Other funding sources will be considered for the Main Street reconstruction project.



We understand construction will be difficult. We'll do our best to keep business access open as much as possible. Let us know your specific concerns.

Construction



CONSTRUCTION WILL BE BROKEN UP IN TWO PHASES





Dedicated loading zone parking for delivery services will be provided.



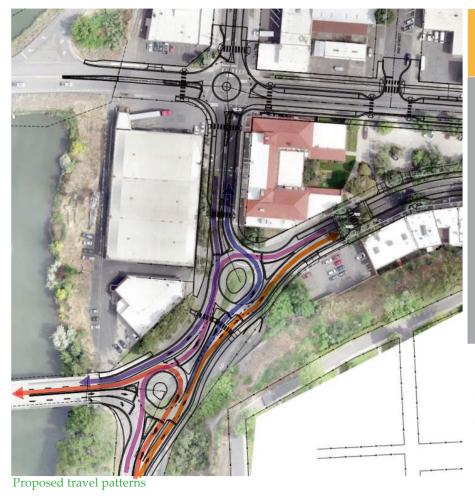
Temporary wayfinding business signage will be provided.



Pedestrian access to businesses will be available, except for when work is required directly in front of each door.

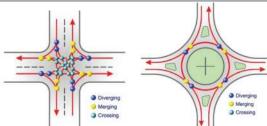
Roundabouts

Roundabouts are proposed at 1st/Main Street and 1st/D Street. These roundabouts improve access for both vehicles and pedestrians. The roundabouts also slow traffic and provide awareness to drivers that the enivornment has changed to one that prioritizes slower speeds and pedestrians (i.e. traffic calming).

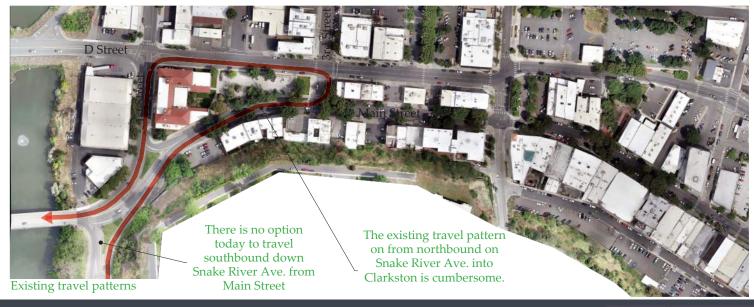


Why are roundabouts preferred over signals?

- •Shorter back-ups during peak hours.
- •Lower delays especially during off-peak times of day.
- •Slow traffic and improve driver awareness.
- •Lower emissions and noise.
- •Fewer conflict points both for pedestrians and vehicles, resulting in less severe crashes.
- •Lower energy and annual maintenance costs.
- •Longer design life.



Conflict points at a signalized intersection and a single lane roundaout.



Vaults

The sidewalk vaults in downtown Lewiston have historical value and in some cases are still functional today. Others are falling into dispair and becoming a public safety and maintenance problem. If you know about a vault not shown or know the status of a vault labeled "unknown," please discuss with the design team.









Existing vaults provide a character unique to Lewiston, though few are currently being used. Many are falling into disrepair.

What is the City's proposed plan to address the vaults?

Vaults are presumed to be actively used. City & property owner need an agreement for cost associated with maintenance, repairs, and liability.

Vaults are presumed to be unused and we're considering filling as a part of the project. City & business owner need to coordinate on logistics and costs associated with filling the vault.

Utilities

As far as we know, the vault's only purpose is for utility services. City & business owner need to determine how to potentially share costs to accomodate utilities, move water meters, and potentially fill the vault.

Unknown

We think this vault exists, but don't know if it's already filled or is being used. Talk to us!

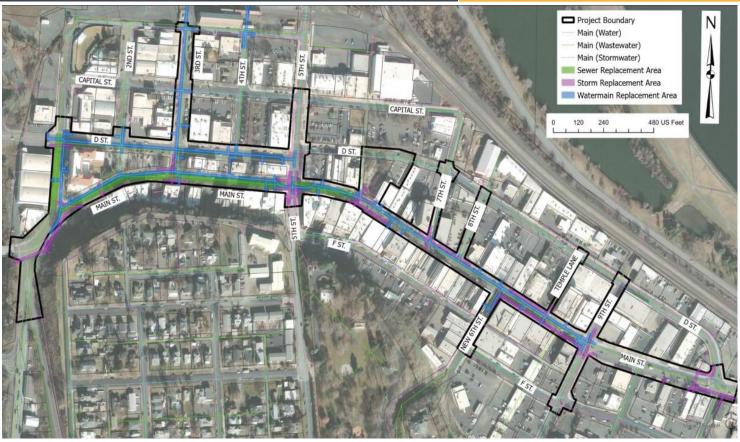
The Main Street Corridor project may seek to memorialize the vaults as part of the project.



Vaults we know about are shown above. We have no records between 9th and 11th. If you know of a vault, please let us know!

Utility Impacts

The utilities in Lewiston's downtown are vitally important; some of which convey significant portions to or from the City's upland service area. Many of the pipelines in the downtown area need to be replaced due to age or the need to upsize. Replacing these utilities at different times can be expensive; so working in conjunction with a downtown revitalization project keeps costs down and improves the lifespan of those pipelines and systems.



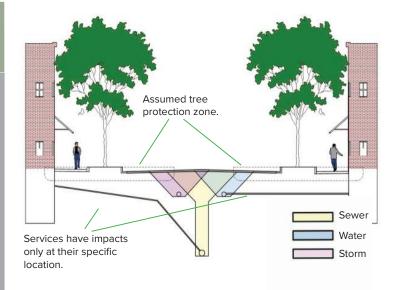
Exsting utility mains and potential replacement areas are shown above.

Utilities that Need Replacement Downtown

• Water mains along Main Street and D Street are the backbone of the water system and need to be upsized. Most of the existing mains pre-date World War I.

- •Sewer mains along Main Street (1st to 5th) pre-date World War II and are constructed of clay material. These need to be replaced.
- The sewer main in 1st Street conveys most of the western side of the City down to the treatment plant. This needs to be upsized to better accommodate flow.

• Conveying stormwater efficiently is challenging due to the flat slopes in the downtown area. The stormwater system needs to be replaced to achieve better drainage.



Replacement techniques may be adjusted (trenchless, restricted width excavation) to attempt to preserve existing streetscape elements and trees.

WELCOME

reimagine DOWNTOWN Lewiston

Business and Property Owner Meeting #2 Oct 1, 2024 | 4:00pm-6:00pm

Lewiston Library | 411 D St, Lewiston

Meeting Purpose

- Update on details since we saw you last
- Show you some ideas
- Answer your questions
- Get your input

Follow us on Social Media @reimagineDTLewiston







Project Website reimagineDTLewiston.org



Sign up for newsletters and send questions to info@reimagineDTLewiston.org

Streetscape Elements

Lighting









Artistic Lighting Expression

Furnishings

























Paving















Back

Attend this meeting to weigh in on and stay informed on the styles of street furniture, plans for intersection and roadway design, loading/unloading zones, changes in parking, pedestrian safety elements, sidewalk vaults, construction phasing, and more.

Let's build something remarkable together.

For more information, please contact: Courtney Kramer, Public Involvement Specialist 406-581-7243 | ckramer@welchcomer.com

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The City of Lewiston is continuing to the next phase of improving Downtown Lewiston by beginning preliminary design of the Main Street Corridor infrastructure project (see the project limits on the reverse side). This preliminary design phase will build upon past master planning efforts and "put pencil to paper" to create preliminary construction plans.

Important Dates

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Oct 24th General Public Meeting #2

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Leave us written comments at the open house stations using the provided sticky notes.

Visit each open house station and using the provided stickers, apply them to your preferred option.

Ask the consulting team questions and provide them your uniquely Lewiston insights



Go to the website to sign up for the newsletter reimagineDTLewiston.org

follow us on social media @reimagineDTLewiston









Appendix VII

Steering Committee Meeting #3



Steering Committee Members (Voting)

- · Dan Mader (Mader Properties)
- Elizabeth Coleman (812 Main LLC)
- · Mark Alexander (Landmark Property Group)
- Tami Meyers (Silvercreek Realty, downtown property owner)
- · Tobe Finch (Happy Day Restaurants)
- · Redgy Erb (LCSC)
- Brandon Beier (ANS, Morgan's Alley)
- · Janine Bennett (Cornerstone Interiors)
- Wendy Price (Century 21 Price Right)
- · Morgan Johnson (Rooted Salon)
- · Dawn Abbot (Blue Lantern Coffee)
- · Randee Mccollum (Effies Burgers)
- · Jennifer Holley (Well Connected Electric)
- Brenda Barnes (Business Connections by Brenda Barnes)

- Dan Johnson (Mayor)
- Jessica Klein (City Councilor)
- Hannah Liedke (City Councilor)
- Dodd Snodgrass (CEDA)
- · Linnea Noreen (LCV Chamber)

City Staff

- · Dustin Johnson
- Luke Antonich
- Alannah Bailey
- Joe Kaufman Shannon Grow

rebuild.

restore.

rehabilitate.

revitalize.

reimagine Downtown Lewiston

Agenda

- Project Overview and Process
- Feedback from Business & Property Owner Meeting/Survey
- Update on Stakeholder Meetings & Feedback to Date
- Project Financing
- Roadway Concepts
- Streetscape Concepts
- Next Steps

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3

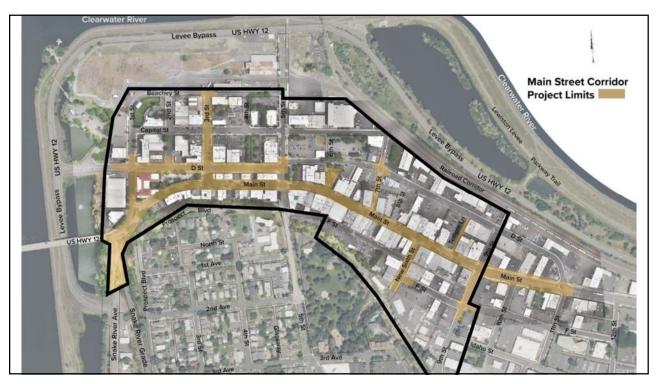
Concept Design Process & Schedule - June 3, 2024 - City Council Meeting #1 - June 25, 2024 - Steering Committee Mtg #1 - June-July 2024 - Property/Business Owner Interviews - July 30, 2024 - Business/Property Owner Mtg #1 - Refine Concepts - August 20, 2024 - Steering Committee Mtg #2 - Sept. 3, 2024 - City Council Meeting No. 1 - October 1, 2024 - Business & Property Owner Meeting No. 2 - Refine Concepts and Estimate Costs - October 1, 2024 - Business & Property Owner Meeting No. 2 - Refine Concepts and Estimate Costs - October 22, 2024 - Steering Committee #3 - November 13, 2024 - General Public Meeting #2 - Finalize Concepts and Estimated Costs - November 13, 2024 - General Public Meeting #2 - May 2025 - General Obligation Bond Election

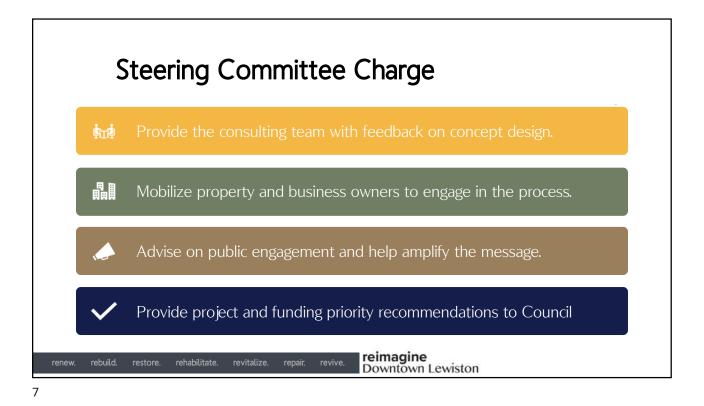
Project Objective

Develop a community centric placemaking concept design and demonstrate downtown's critical infrastructure needs that will generate public enthusiasm for a G.O. Bond vote.

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5





Steering Committee No. 2 Download

What we heard

- Construction impacts on businesses
- Improved access between D and Main
- Parking problem perception
- Traditional with contemporary elements design
- Children spaces, potentially with water
- Support west end roundabouts
- Support closing 3rd
- Delivery strategy where no alley
- Perception vs Reality of 2-way traffic safety with raised crossings
- Remove angle parking on Main west of 9th

What we are doing

- Best practices will be a contractor requirement.
- Improved access between D and Main
- Education, wayfinding, management
- Practical, durable, subtle
- Opportunity at 3rd Street Closure
- Functionality has been modeled and it's efficient
- No meaningful traffic impact
- Time restricted parking areas for deliveries
- Education with visualizations and an educational campaign
- Keeping angle parking to maintain parking count

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rebuild.

Business and Property Owner Meeting No. 2

What we heard

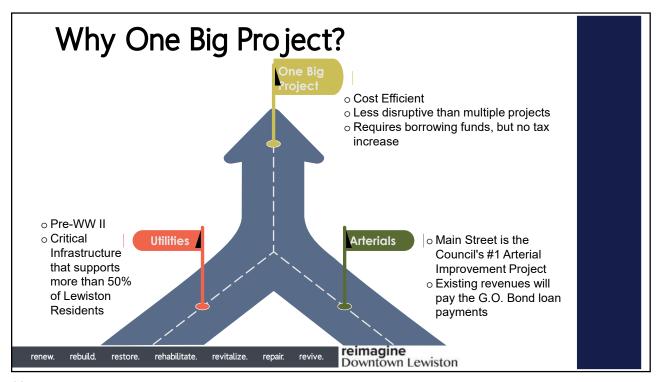
- More interest in infrastructure than streetscape
- No one seemed concerned with the roundabouts
- · Some people wanted to back up and discuss two-way streets, etc.
- Understood the bond/financial discussion
 Make it more succinct
- No comments on time restricted parking for loading zones..

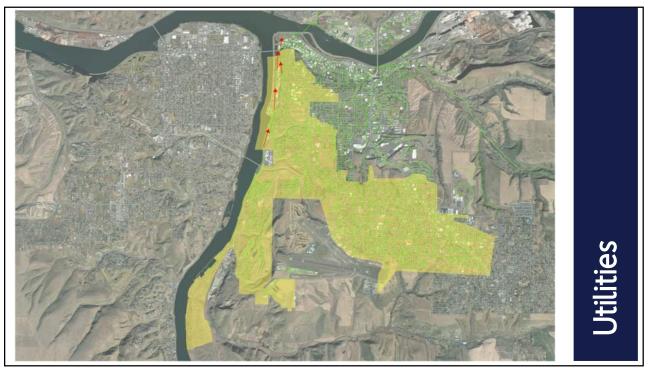
What we are doing

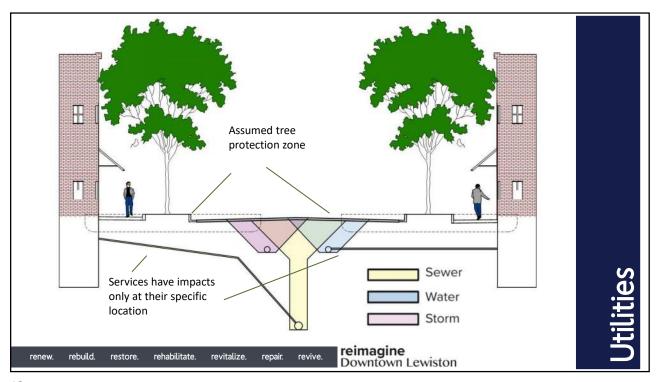
- Re-balancing our presentations
- Reinforcing this commonsense observation
- Education with visualizations and an educational campaign
- Show locations and explain in more detail

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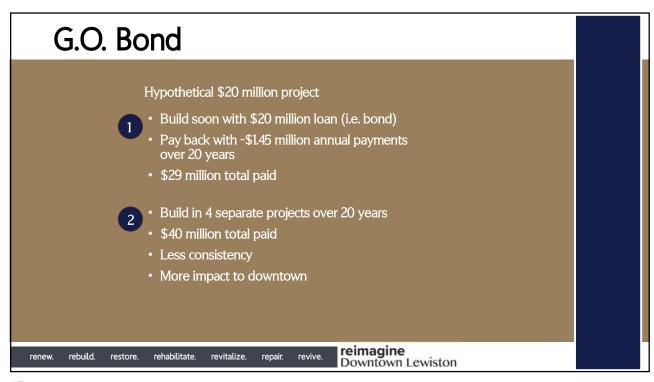


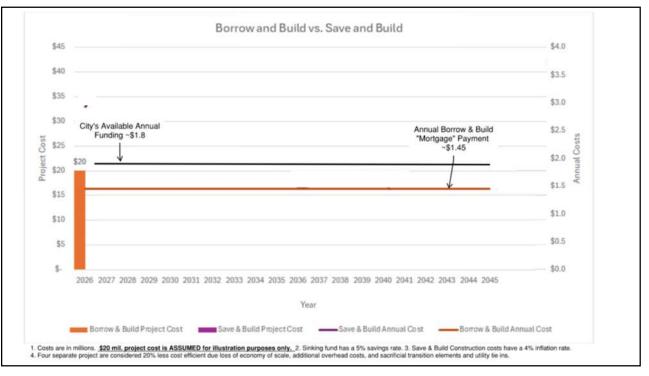


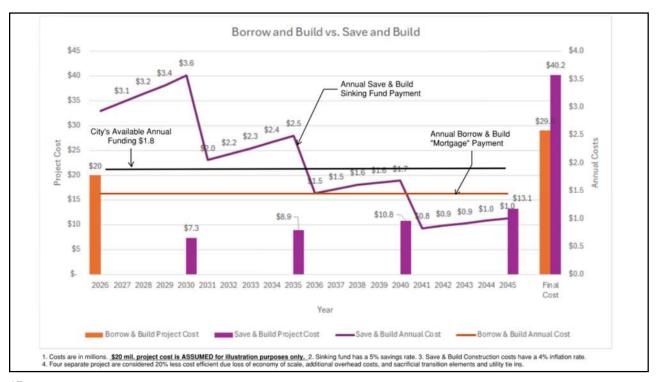


















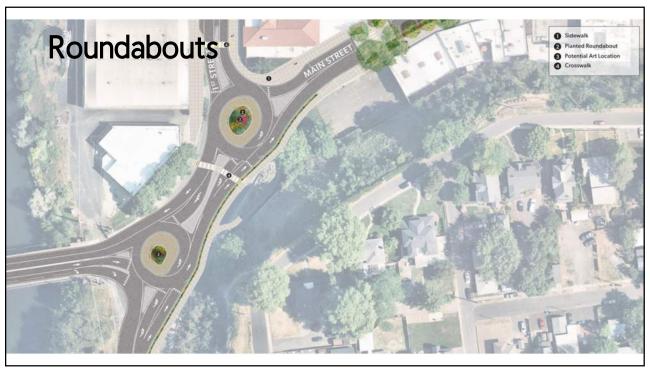
















Travel Patterns Today











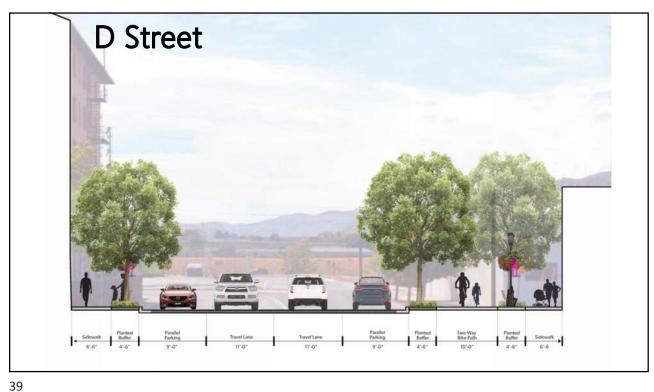








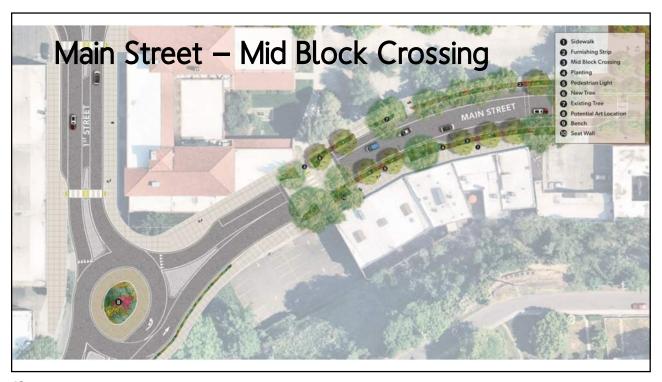




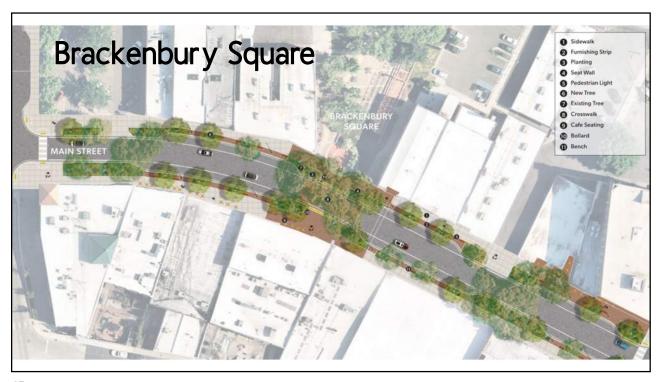










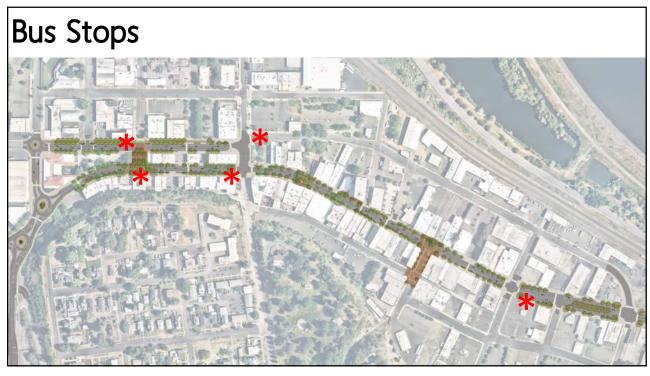




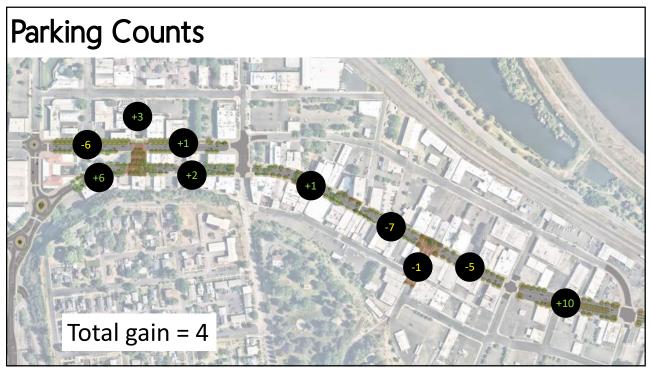


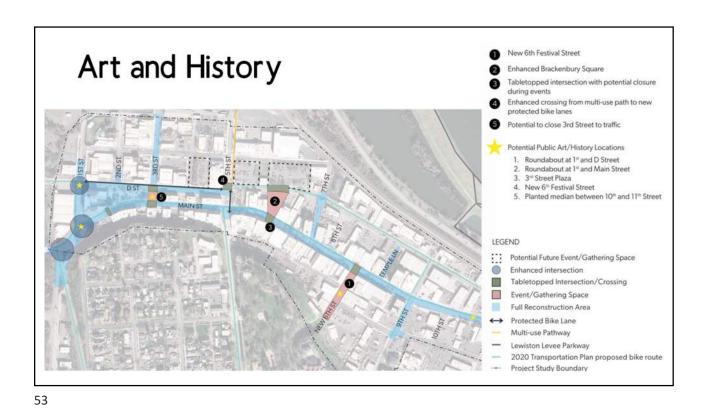






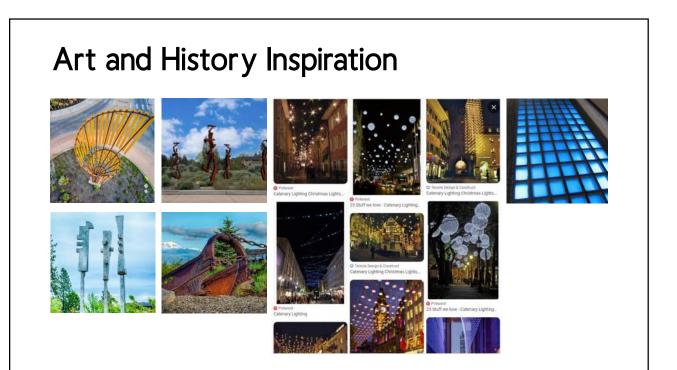


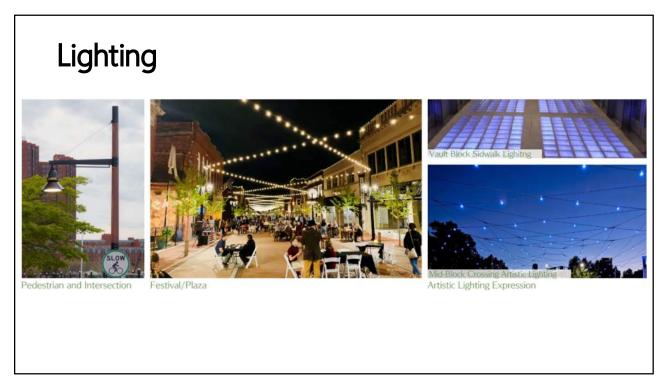




Art and History Themes











Next Steps

- 11/4 Council Update
- 11/13 General Open House No. 2
- 11/25 Council Adoption
- Bond election in May

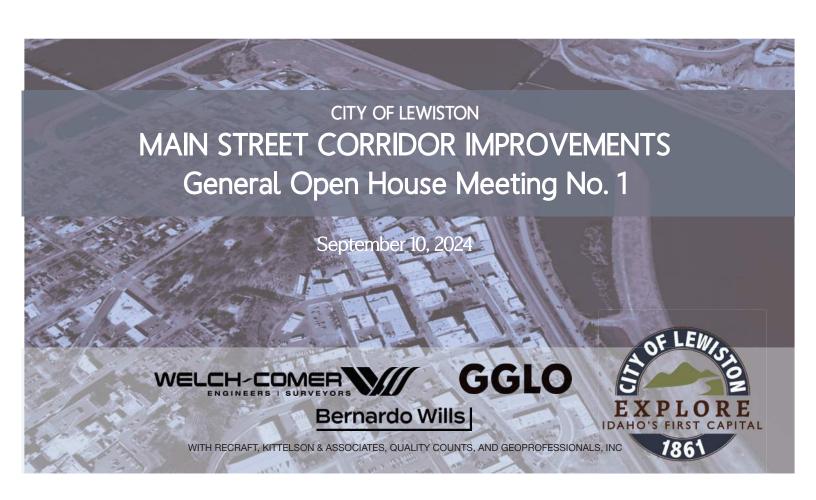
59

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Thank You.

Appendix VIII

General Open House Meeting #1





Team Introduction and Roles



- Design
- ProjectManagement
- PublicEngagement

GGLO

- Urban Design
- PublicEngagement

Bernardo Wills

- Landscape
 Architecture
- PublicEngagement

Recraft

PublicEngagement

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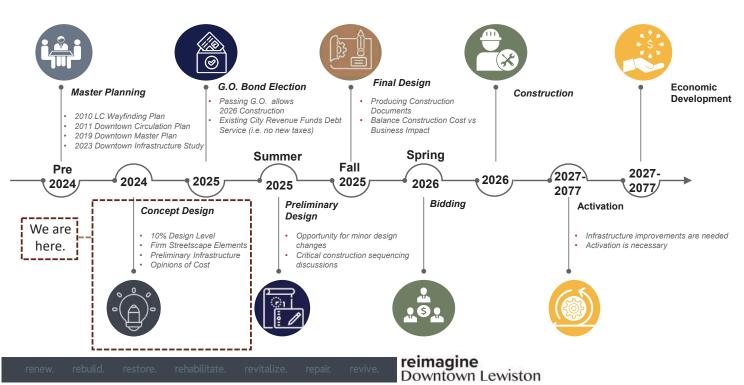
Meeting Purpose

- Describe where we are headed
- Show you some ideas
- Answer your questions
- Get your input

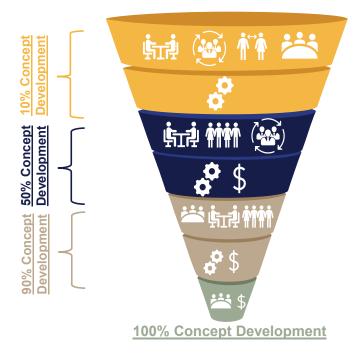




Project Overview

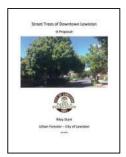


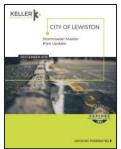
Concept Design Process & Schedule



- June 3, 2024 City Council Meeting #1
- June 25, 2024 Steering Committee Mtg #1
- June–July 2024 Property/Business Owner Interviews
- July 30, 2024 Business/Property Owner Mtg #1
- August 12, 2024 City Council Meeting
- · Refine Concepts
- August 20, 2024 Steering Committee Mtg #2 -
 - Sept. 10, 2024 General Public Meeting #1
- October 1, 2024 Business/Property Owner Mtg #2
- · Refine Concepts and Estimate Costs
- October 14, 2024 City Council Presentation #3
- · October 22, 2024 Steering Committee #3
- · October 24, 2024 General Public Meeting #2-
- Finalize Concepts and Estimated Costs
- November 24, 2024 City Council Presentation #4
- May 2025 General Obligation Bond Election



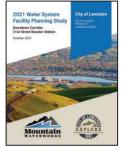


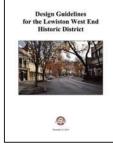




















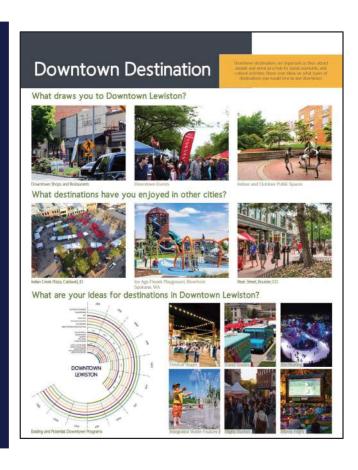
Previous Plans

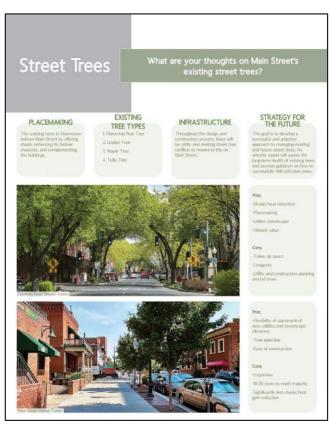
Project Overview

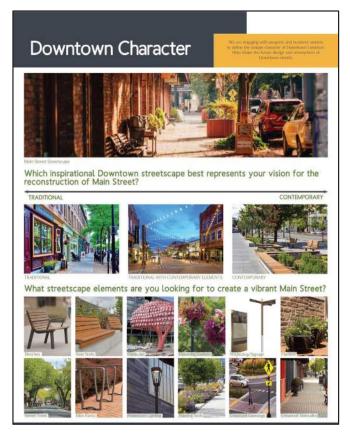


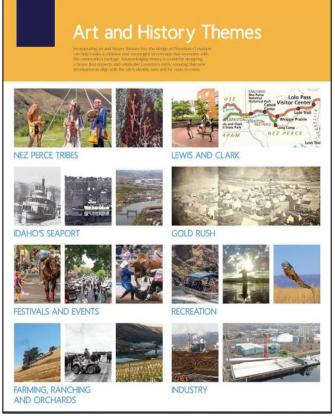
Engagement Stations

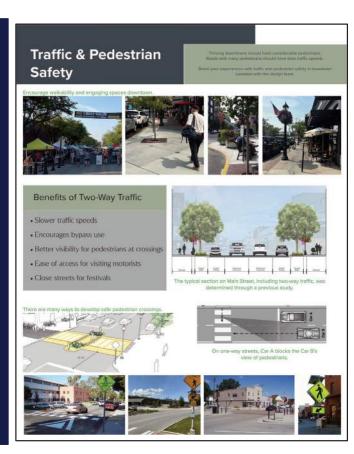
What Makes Community Transportation Construction Impact Downtown Character Special · Contact Info Draws · Main St. Culture Timeline Destinations · D St. History · Project Area · Street Trees Pedestrians Art · Your Ideas Bicycles

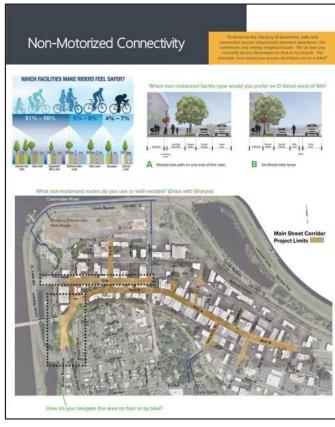


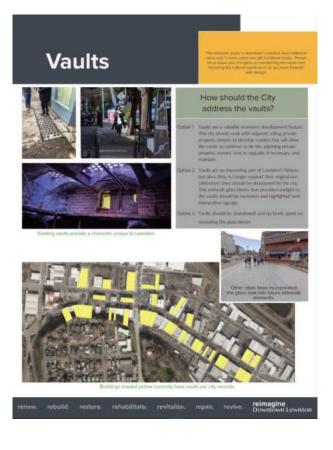














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Thank You.

WELCONE

reimagine DOWNTOWN Lewiston

General Open House Meeting #1 September 10, 2024 | 5:15 pm-6:45 pm Lewiston Library | 411 D St, Lewiston

Meeting Purpose

- Describe where we are headed
- Show you some ideas
- Answer your questions
- Get your input

Take the online survey by using the QR code below



Project Website reimagineDTLewiston.org

Follow us on
Social Media
@reimagineDTLewiston



Sign up for newsletters and send questions to info@reimagineDTLewiston.org



Downtown Character

We are engaging with property and business owners to define the unique character of Downtown Lewiston. Help shape the future design and atmosphere of Downtown streets.



Main Street Streetscape

Which inspirational Downtown streetscape best represents your vision for the reconstruction of Main Street?

CONTEMPORARY **TRADITIONAL**





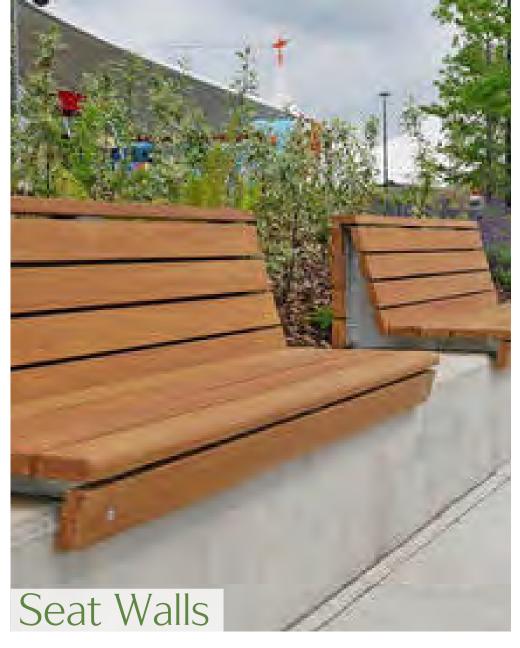


CONTEMPORARY

What streetscape elements are you looking for to create a vibrant Main Street?





















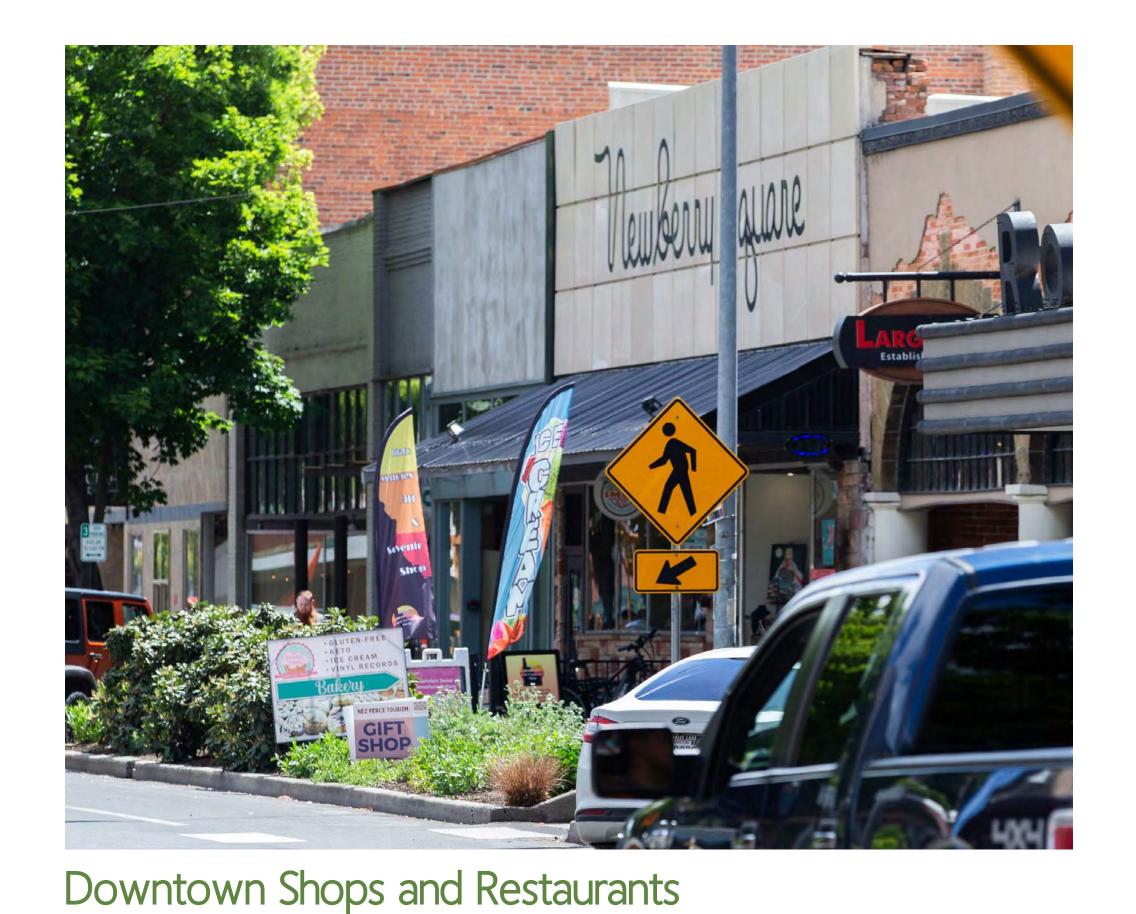




Downtown Destination

Downtown destinations are important as they attract people and serve as a hub for social, economic, and cultural activities. Share your ideas on what types of destinations you would love to see downtown.

What draws you to Downtown Lewiston?



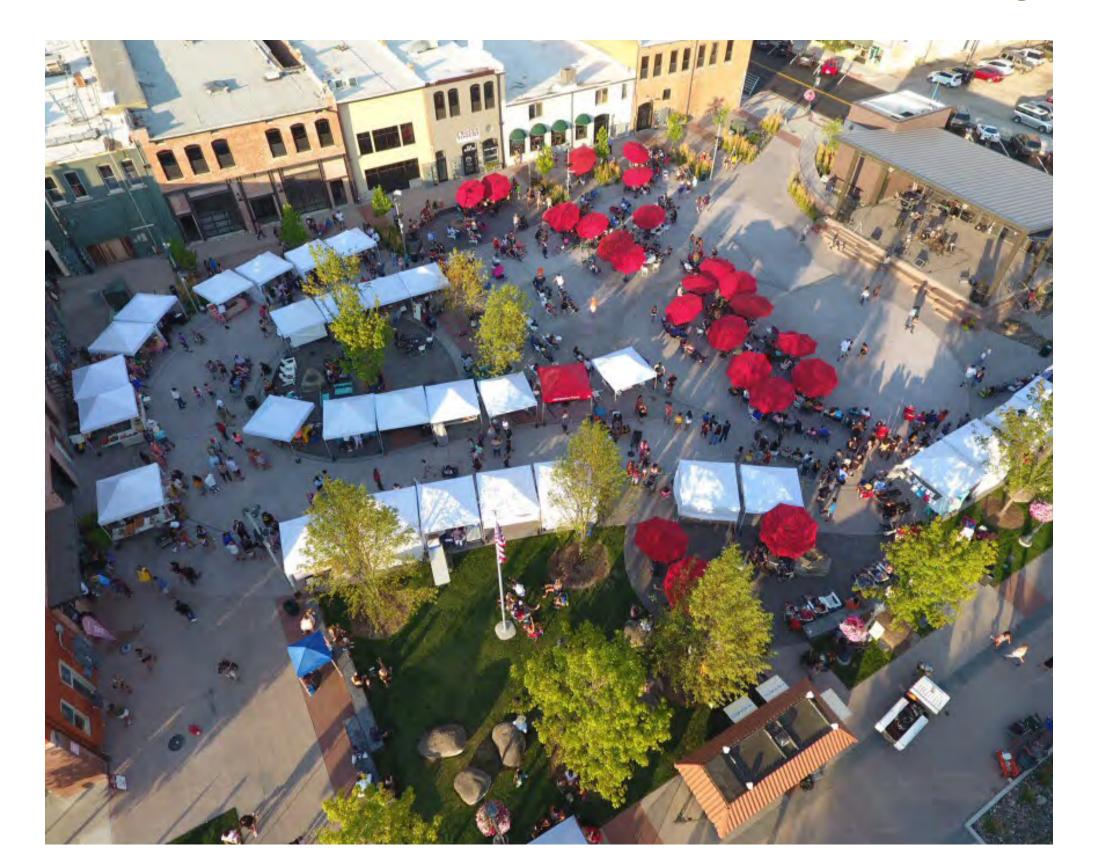




Downtown Events

Indoor and Outdoor Public Spaces

What destinations have you encountered in other cities?





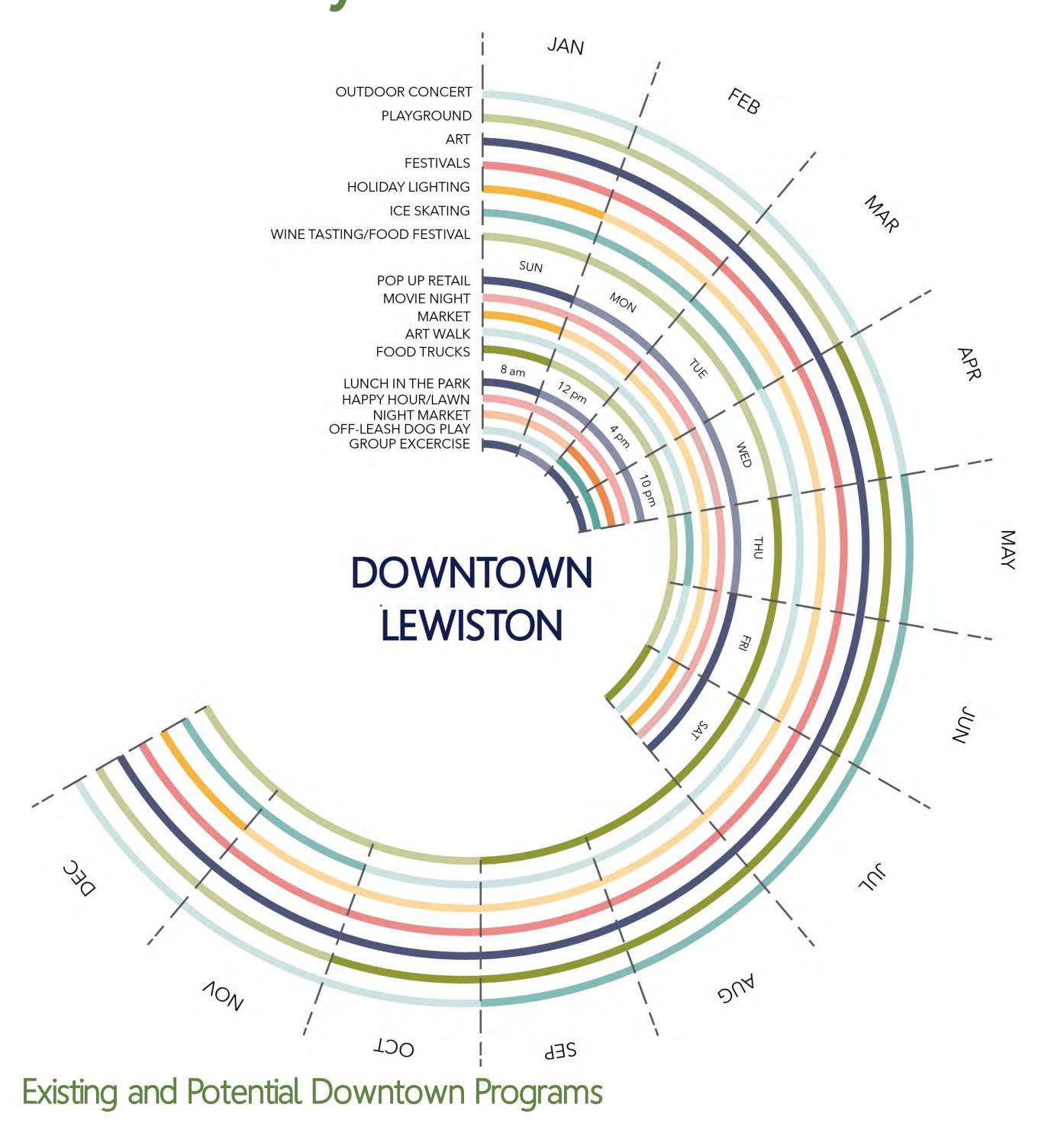


Ice Age Floods Playground, Riverfront Spokane, WA



Pearl Street, Boulder, CO

What are your ideas for destinations in Downtown Lewiston?

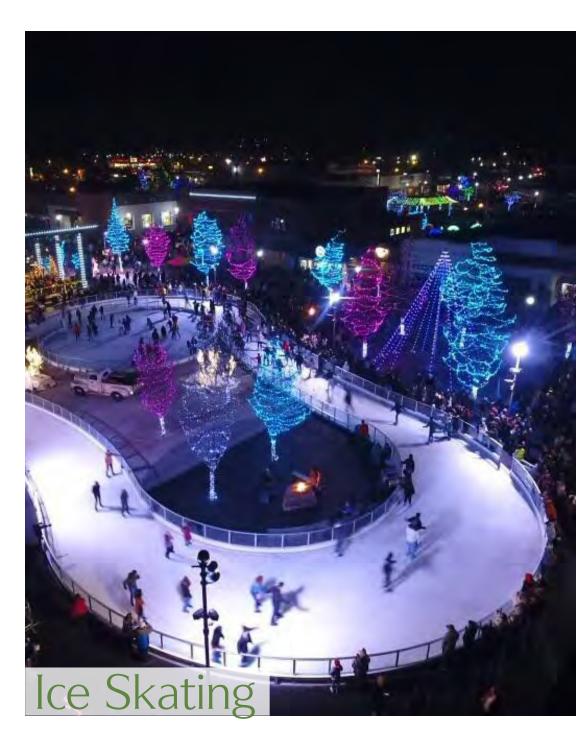














Street Trees

What are your thoughts on Main Street's existing street trees?

PLACEMAKING

The existing trees in Downtown enliven Main Street by offering shade, enhancing its historic character, and complementing the buildings.

EXISTING TREE TYPES

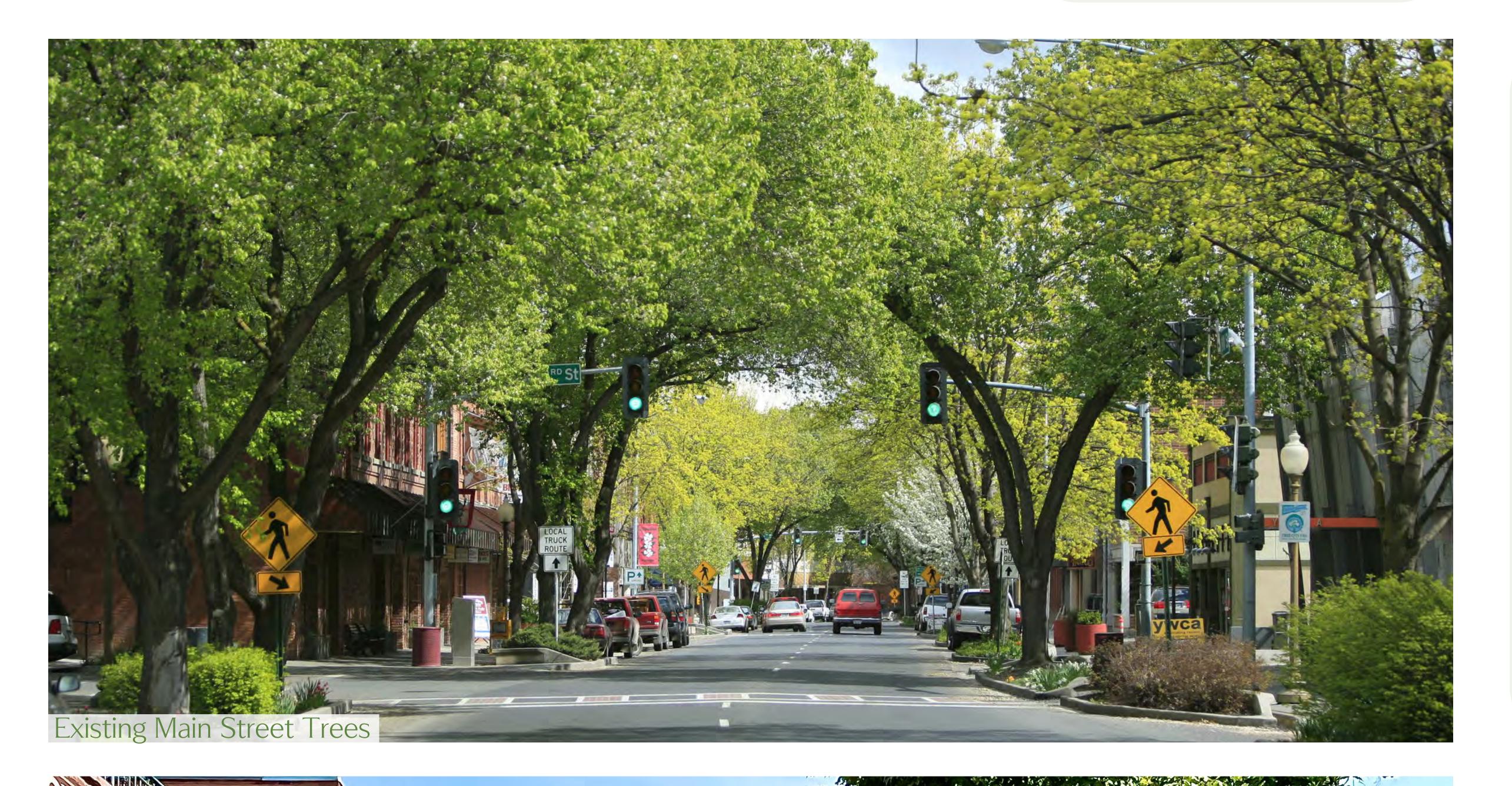
- 1. Flowering Pear Tree
- 2. Linden Tree
- 3. Maple Tree
- 4. Tulip Tree

INFRASTRUCTURE

Throughout the design and construction process, there will be utility and existing street tree conflicts to resolve in the on Main Street.

STRATEGY FOR THE FUTURE

The goal is to develop a successful and adaptive approach to managing existing and future street trees. An arborist report will assess the long-term health of existing trees and provide guidance on how to successfully infill with new trees.



Pros:

- -Shade/heat reduction
- -Placemaking
- -Unifies streetscape
- -Historic value

Cons:

- -Takes up space
- -Longevity
- -Utility and construction planning around trees



Pros:

- -Flexibility of placement of new utilities and streetscape elements
- -Tree selection
- -Ease of construction

Cons:

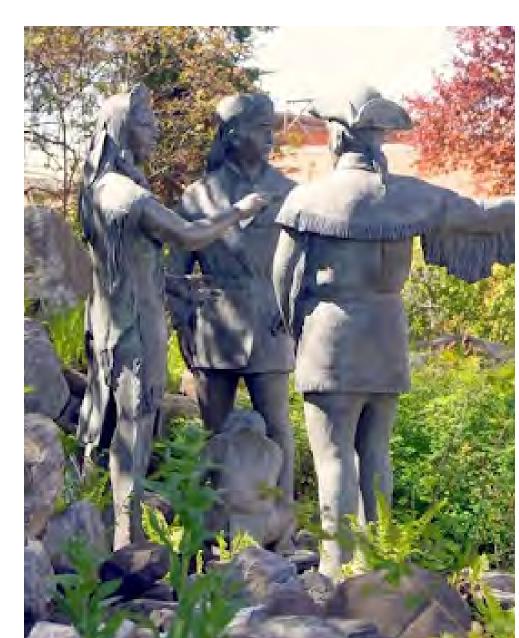
- -Expensive
- -10-20 years to reach maturity
- -Significantly less shade/heat gain reduction

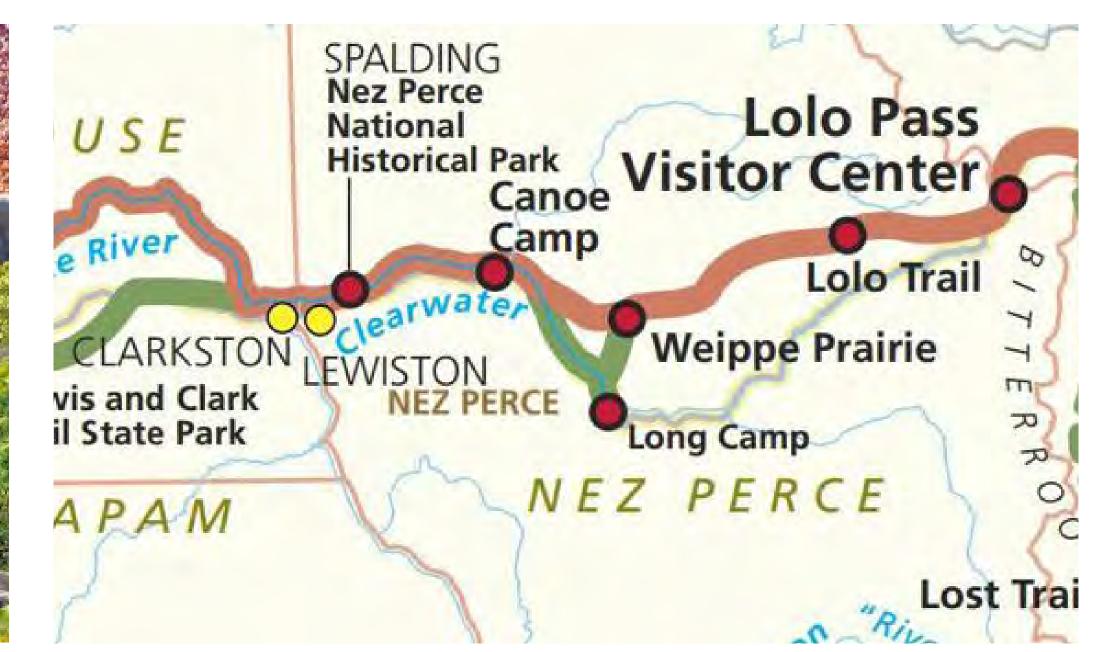
Art and History Themes

Incorporating art and history themes into the design of Downtown Lewiston can help create a cohesive and meaningful streetscape that resonates with the community's heritage. Acknowledging history is crucial for designing a future that respects and celebrates Lewiston's roots, ensuring that new developments align with the city's identity now and for years to come.









NEZ PERCE TRIBES



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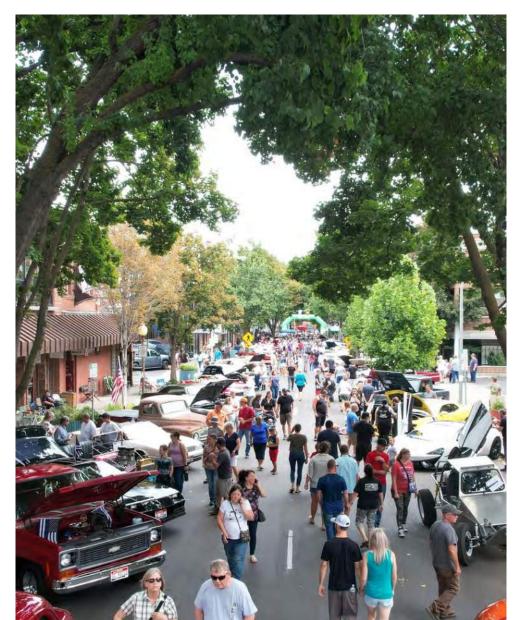


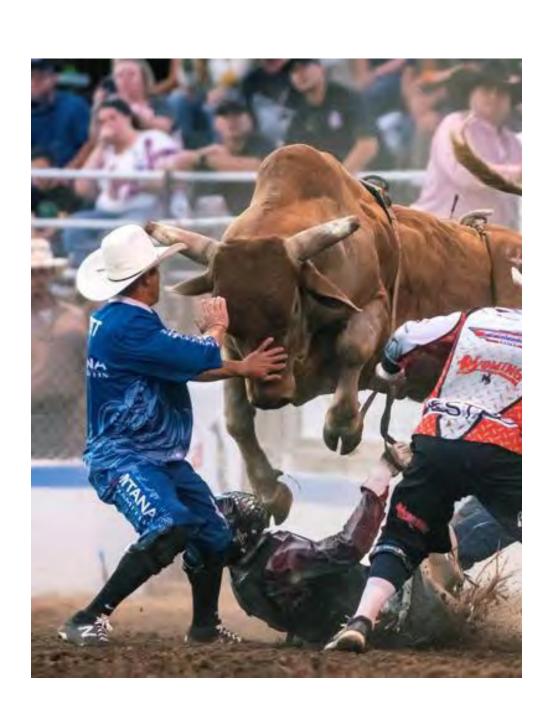
LEWIS AND CLARK



IDAHO'S SEAPORT

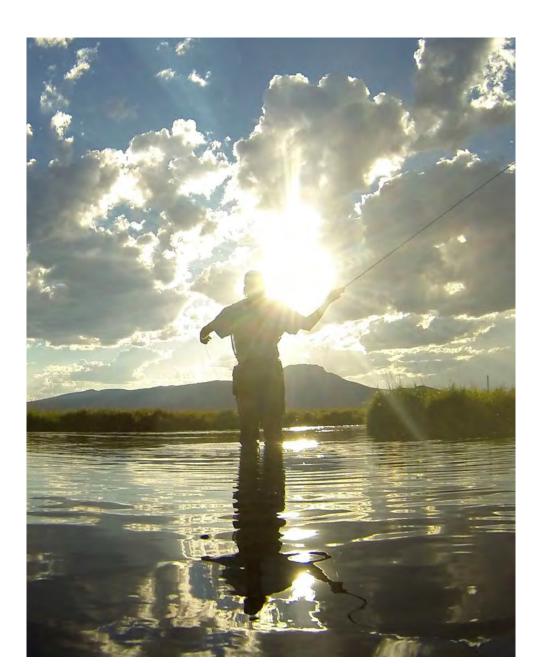






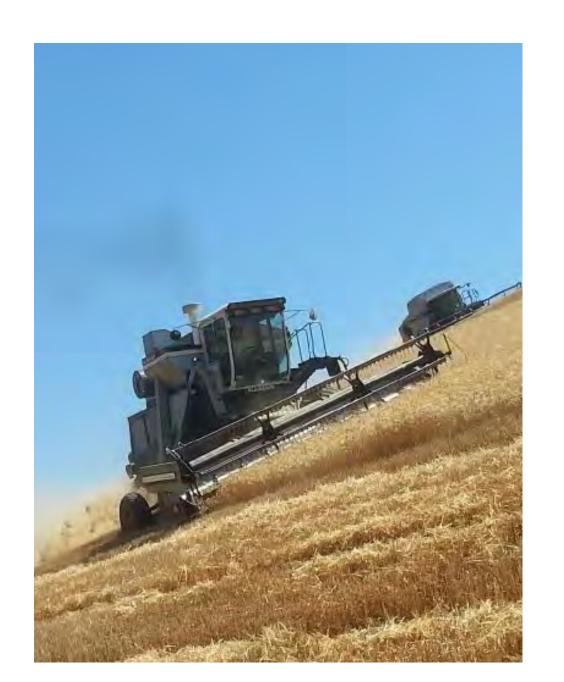
GOLD RUSH







FESTIVALS AND EVENTS







FARMING, RANCHING AND ORCHARDS

INDUSTRY

revive.

We understand construction will be difficult. We'll do our best to keep business access open as much as possible. Let us know your specific concerns.

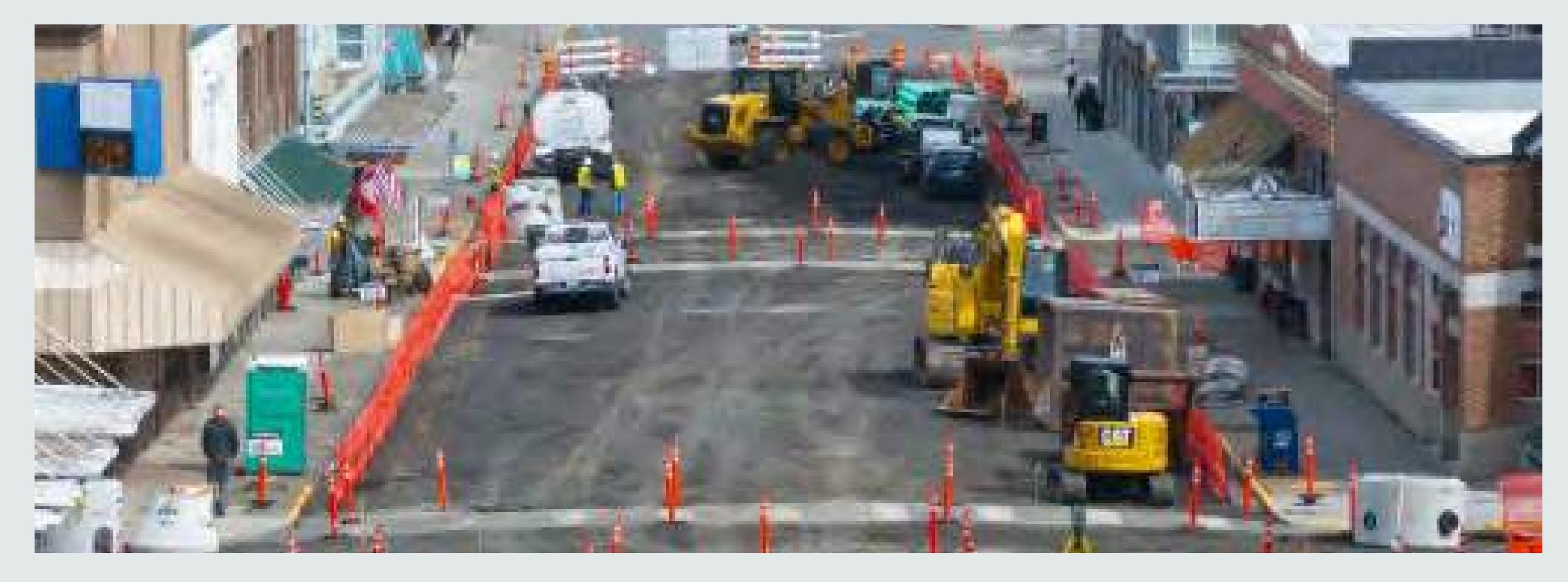
Construction





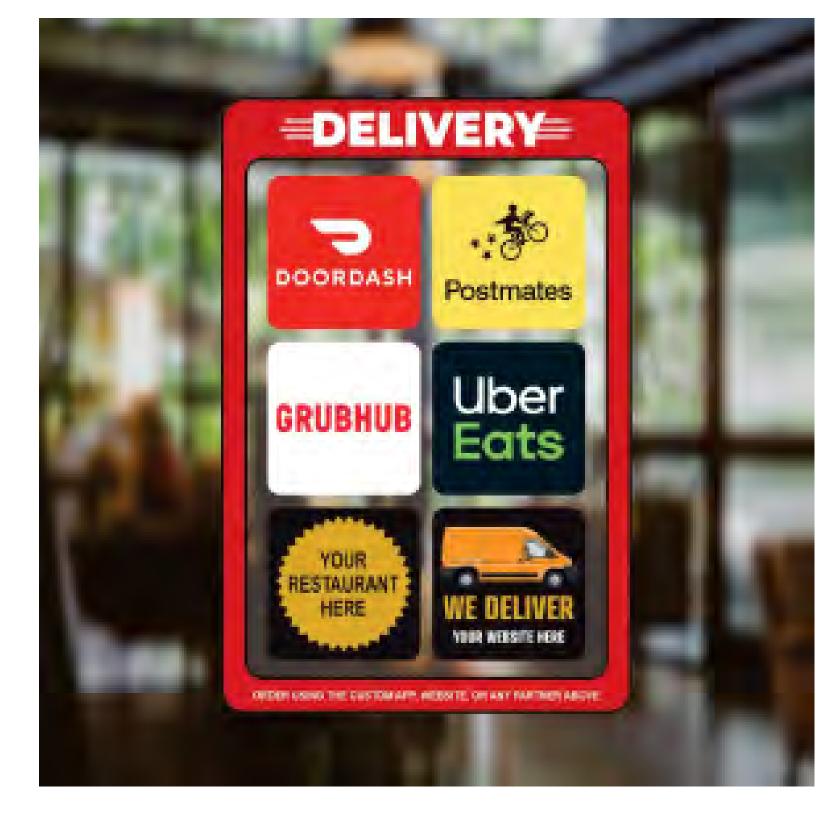


Pedestrian access to business front doors will always be available, except for when work is required directly in front of each door.



Sections of Main Street will be closed in accordance with the construction phasing. Main Street traffic will likely be detoured to D Street. Depending on the final scope of the project, it is expected construction will take more than one season.





Dedicated loading zone parking for delivery services will be provided.



Temporary wayfinding business signage will be provided.



Non-Motorized Connectivity

To enhance the vibrancy of downtown, safe and convenient access should exist between downtown, the waterfront, and nearby neighborhoods. Tell us how you currently access downtown on foot or by bicycle. For example, how would you access downtown on an e-bike?



D Street will have a shared-use path and sidewalk on north side and sidewalk on south side between 1st and 5th.



What non-motorized routes do you use or wish existed? (Draw with Sharpie)



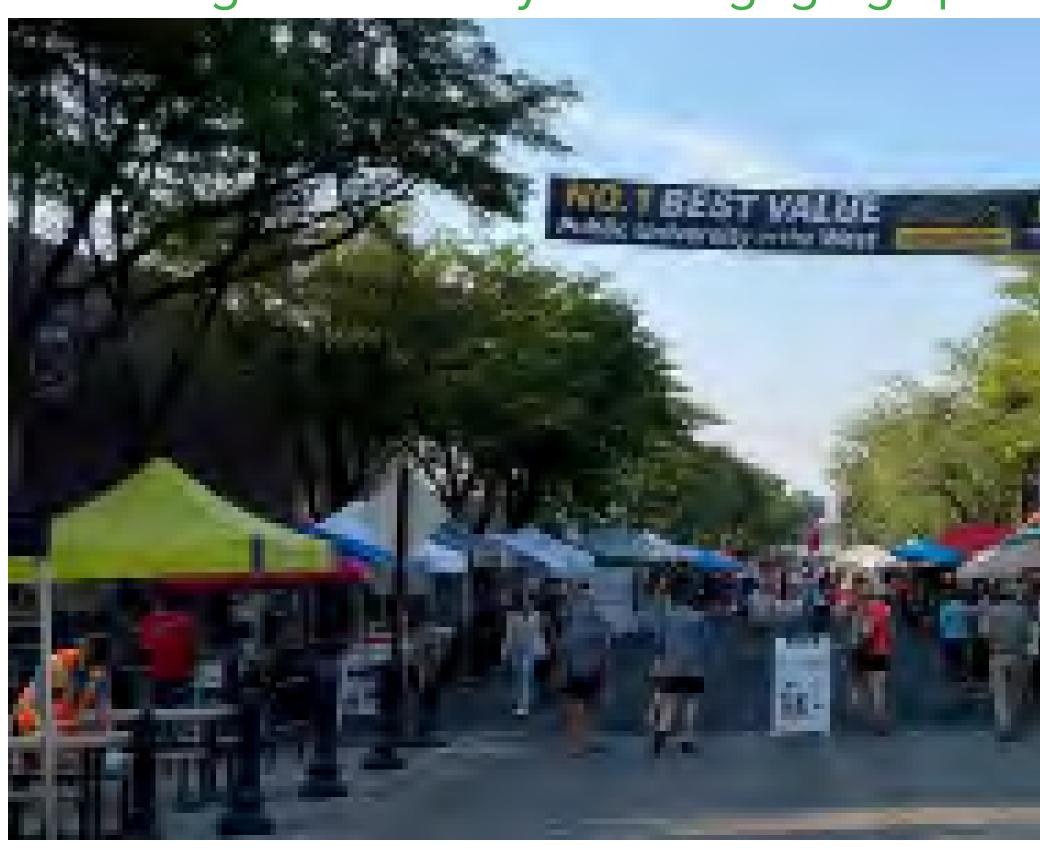
How do you navigate this area on foot or by bike?

Traffic & Pedestrian Safety

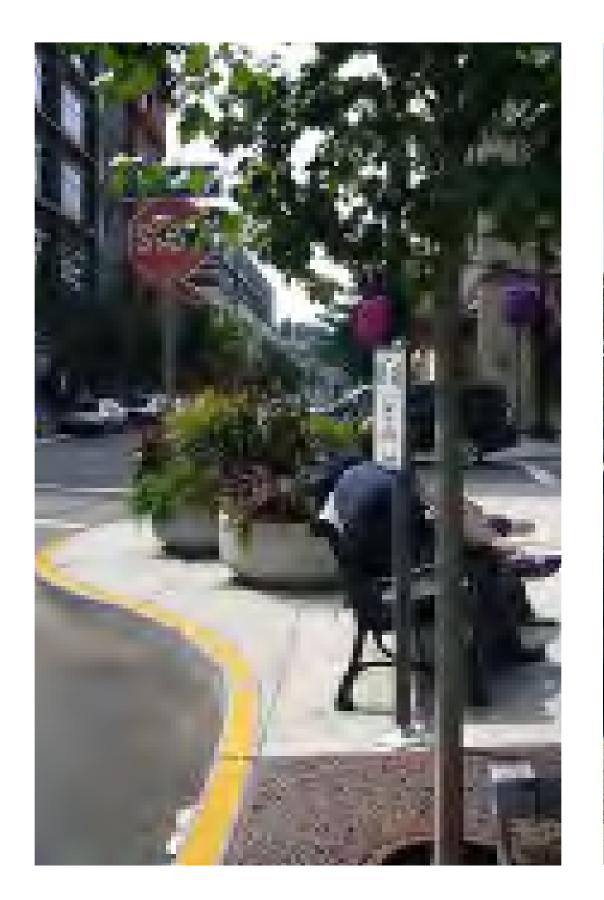
Thriving downtowns should have considerable pedestrians. Roads with many pedestrians should have slow traffic speeds.

Share your experiences with traffic and pedestrian safety in downtown Lewiston with the design team.

Encourage walkability and engaging spaces downtown.



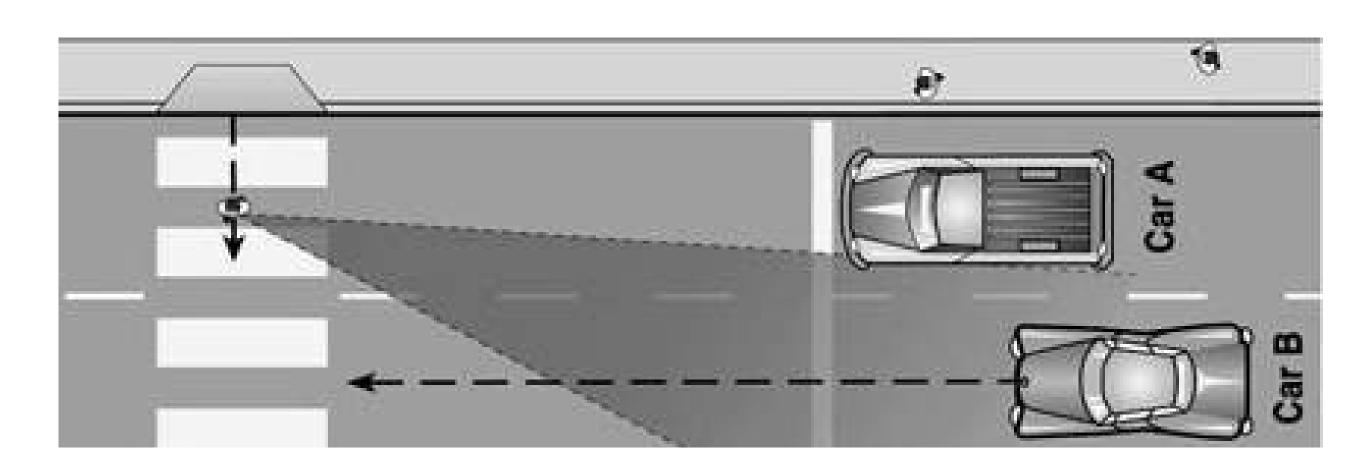




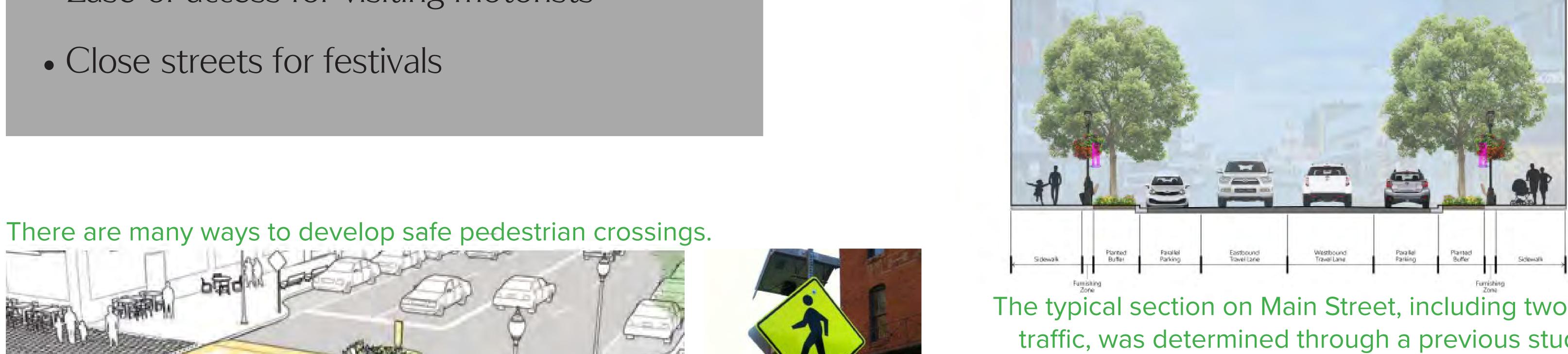


Benefits of Two-Way Traffic

- Slower traffic speeds
- Encourages bypass use
- Better visibility for pedestrians at crossings
- Ease of access for visiting motorists
- Close streets for festivals



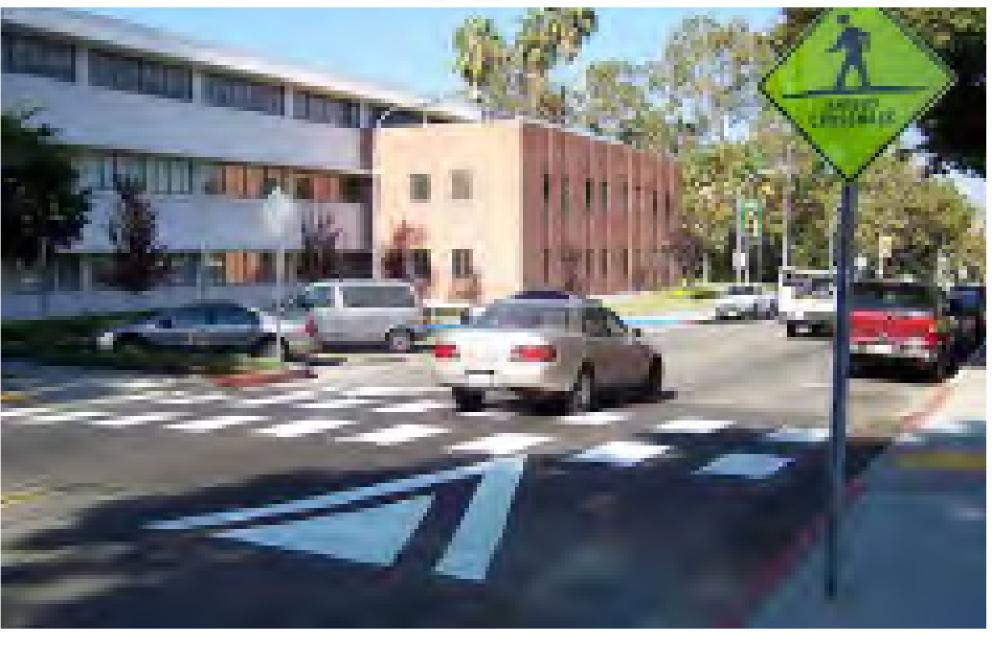
On one-way streets, Car A blocks the Car B's view of pedestrians.



Main St.

The typical section on Main Street, including two-way traffic, was determined through a previous study.









Now, we've confirmed two-way traffic on D Street works, too.

reimagine Downtown Lewiston

The City of Lewiston is continuing to the next phase of improving Downtown Lewiston by beginning preliminary design of the Main Street Corridor infrastructure project (see the project limits on the reverse side). This preliminary design phase will build upon past master planning efforts and "put pencil to paper" to create preliminary construction plans.

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reimagine Downtown Lewiston rebuild. restore. rehabilitate. revitalize. repair. revive. renew.



reimagine Downtown Lewiston

revive.



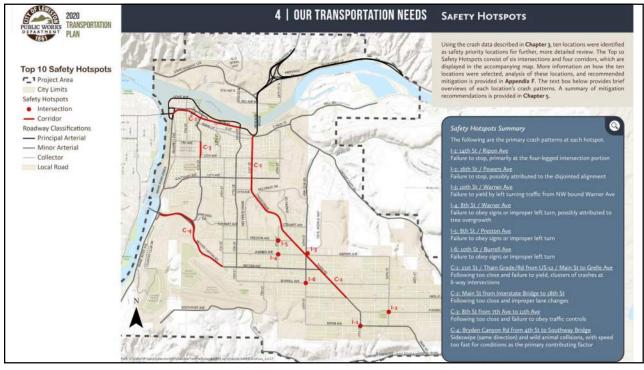
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Appendix IX

General Open House Meeting #2





Project Team



- Design
- ProjectManagement
- Public Engagement

GGLO

- · Urban Design
- Public Engagement

Bernardo Wills

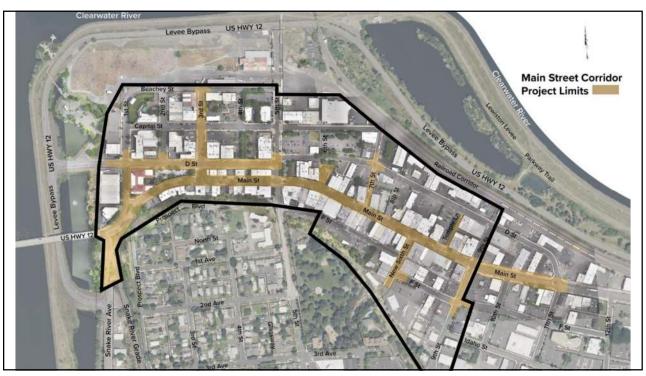
- LandscapeArchitecture
- Public Engagement

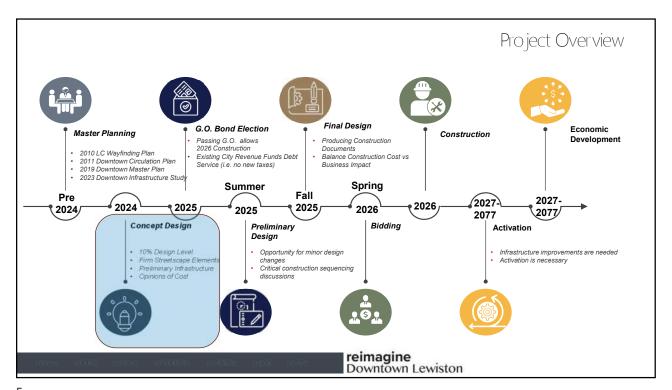
Recraft

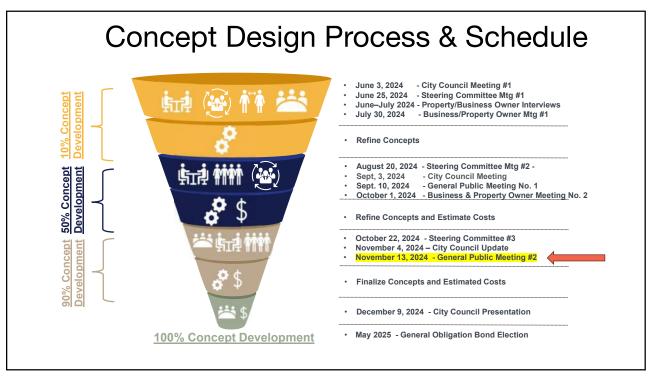
Public Engagement

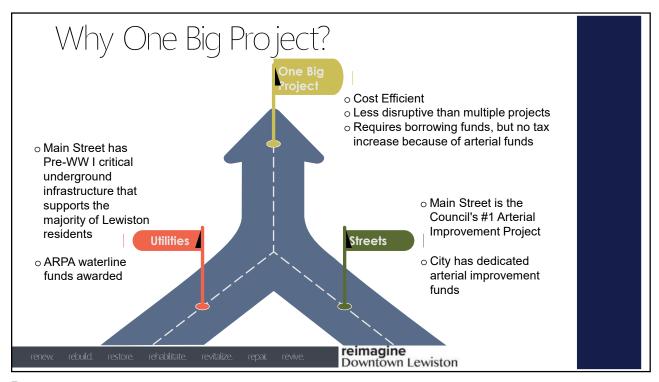
reimagine Downtown Lewiston

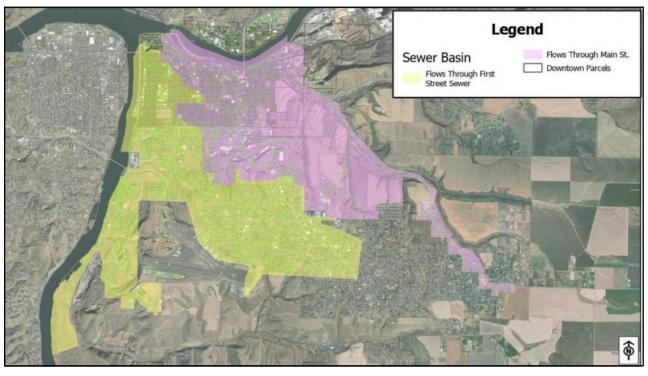
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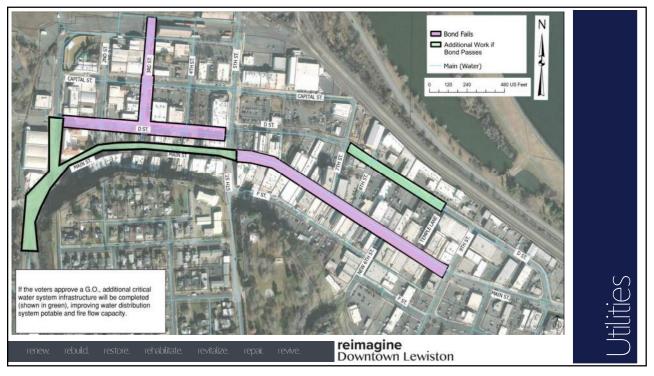


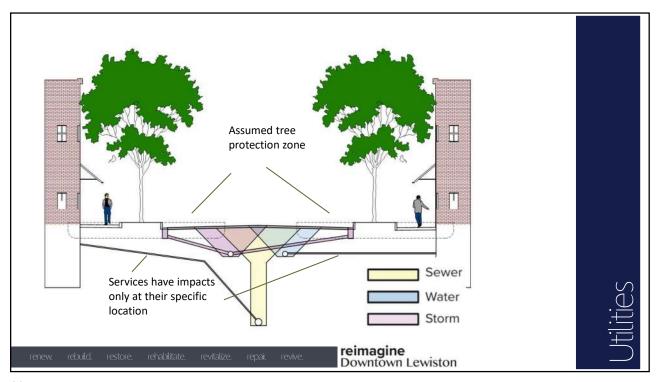




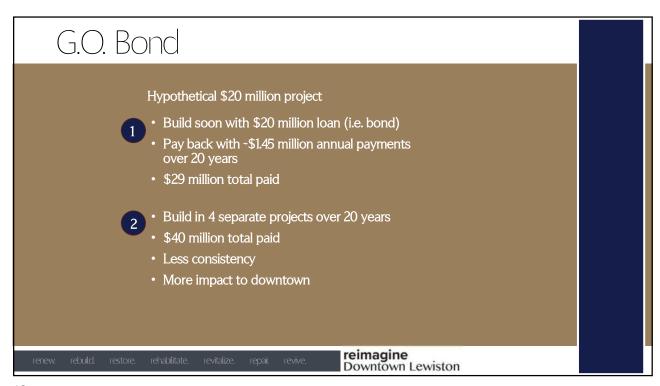


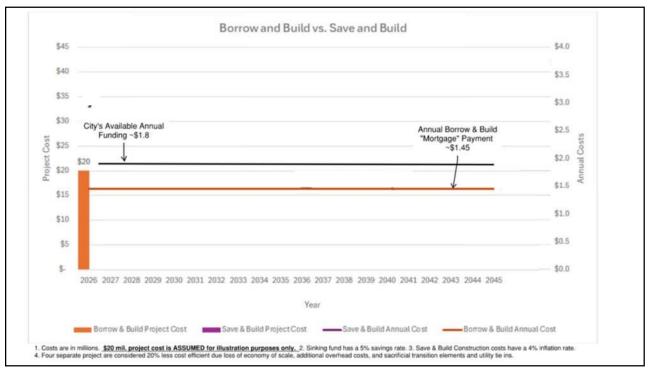


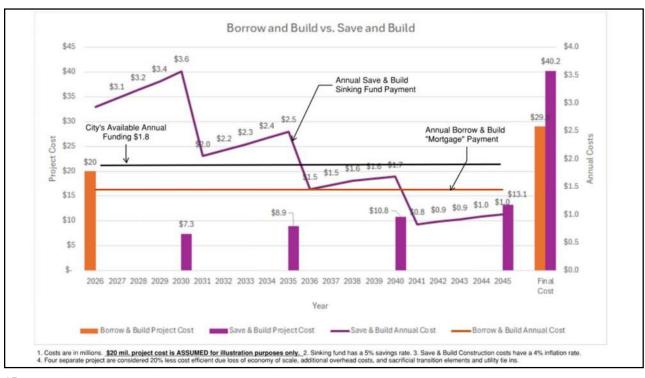










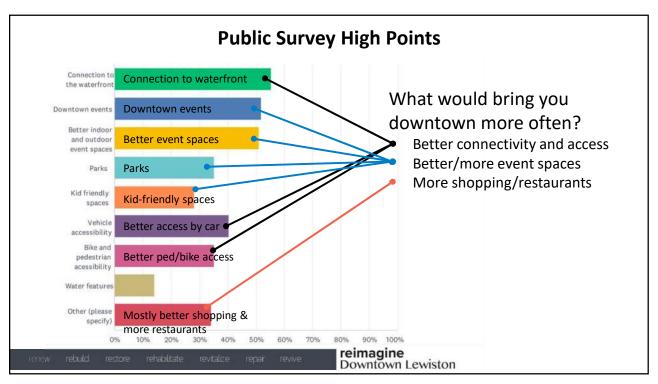


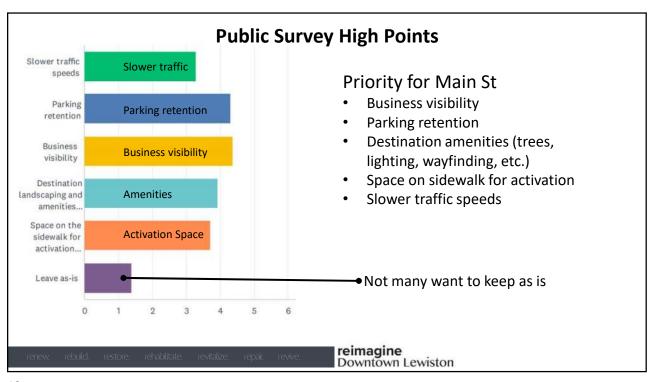
Substantial Public Outreach

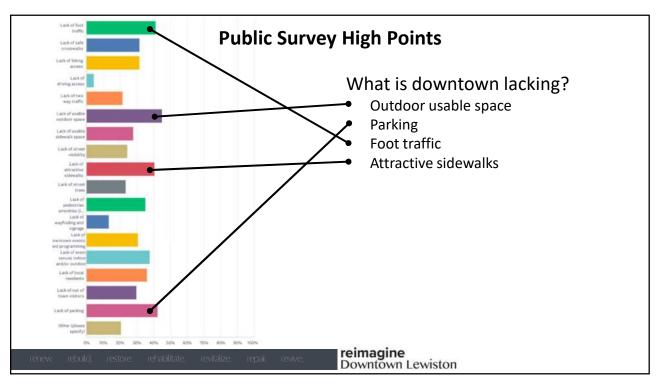
- 3 Steering Committee Meetings
- 2 Business and Property Owner Meetings
- 1 General Open House
- 2nd General Open House 11/13/24
- Public and Business/property owner survey (148 responses)
- 41 stakeholder interviews
- Meetings with stakeholder groups
- Bi-weekly coordination with City staff

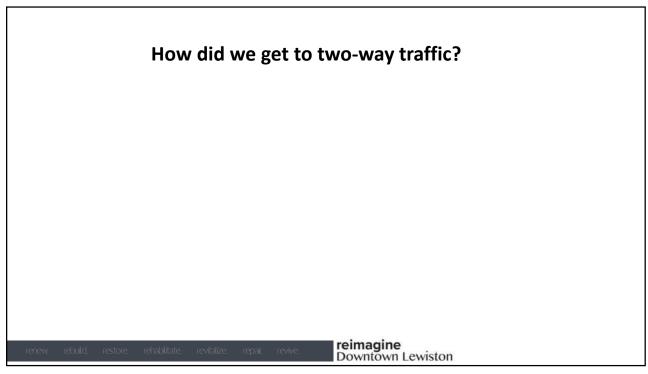




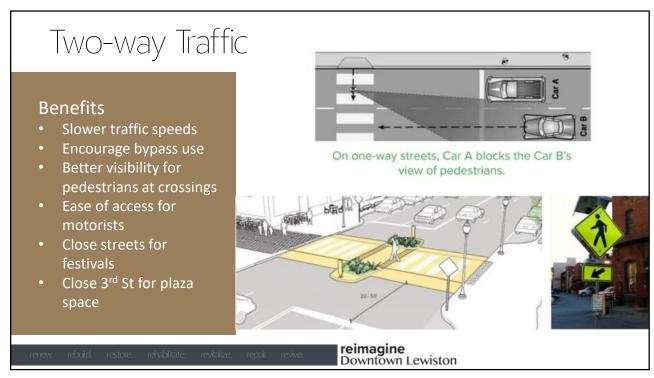


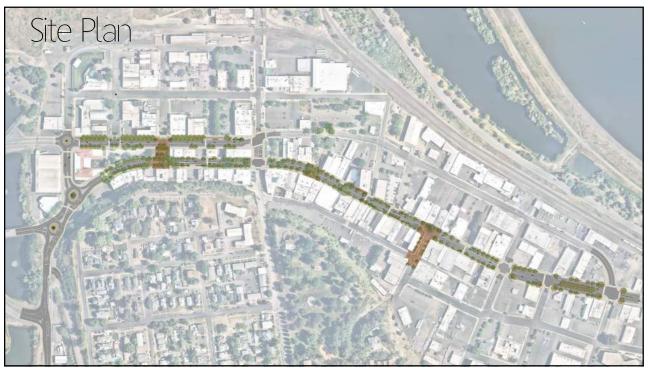




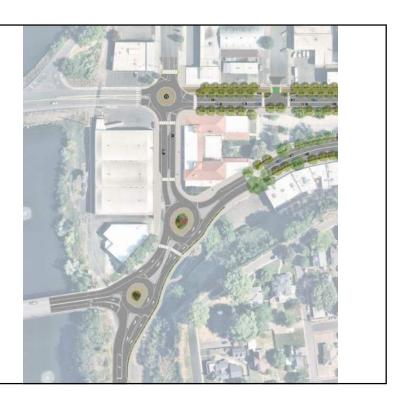














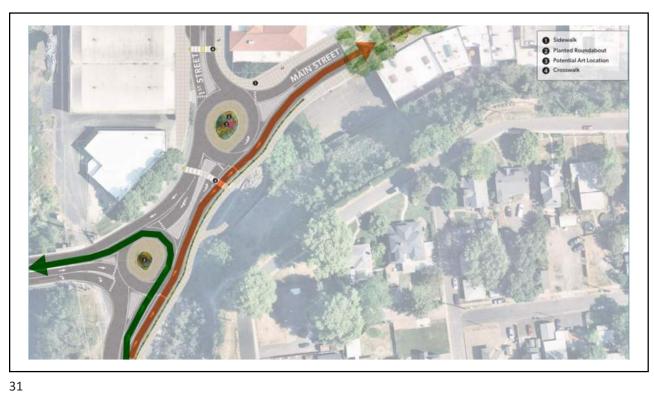








Travel Patterns Today











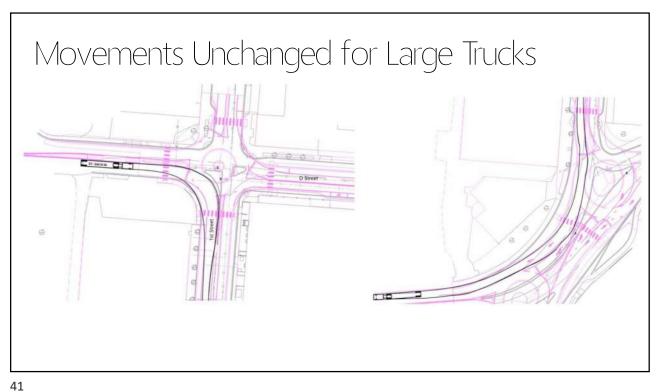


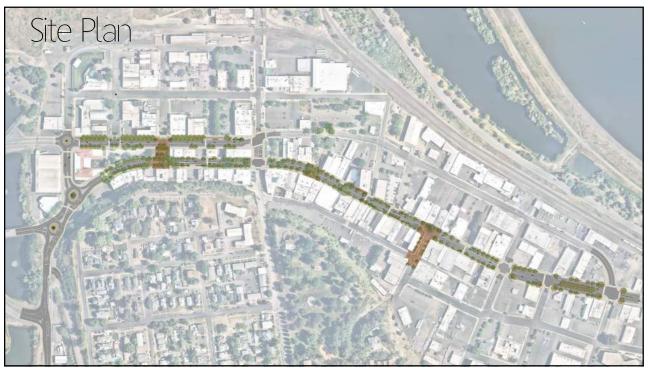










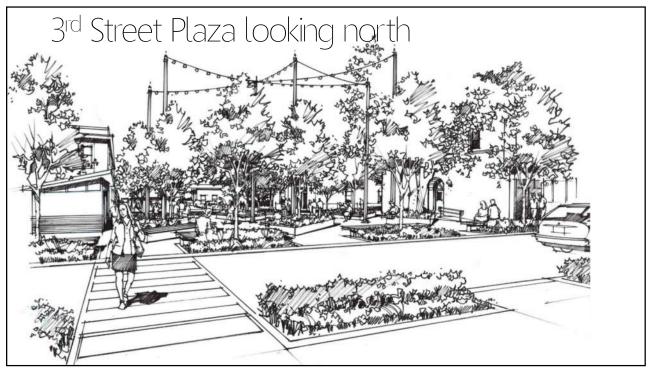






















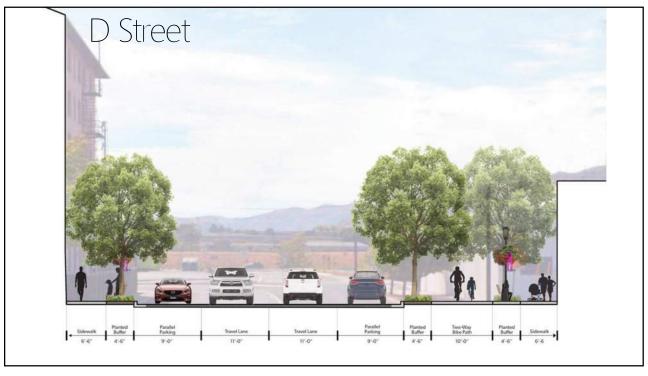


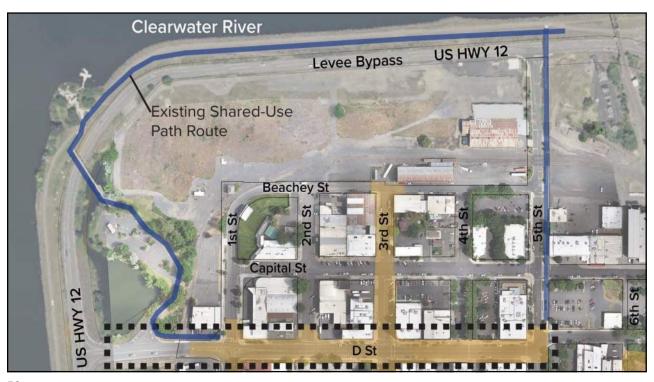




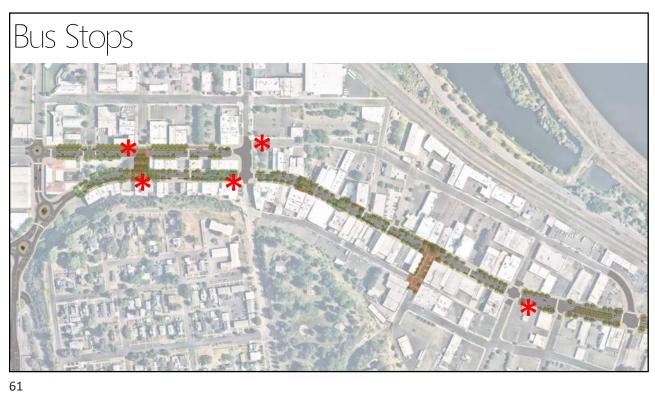




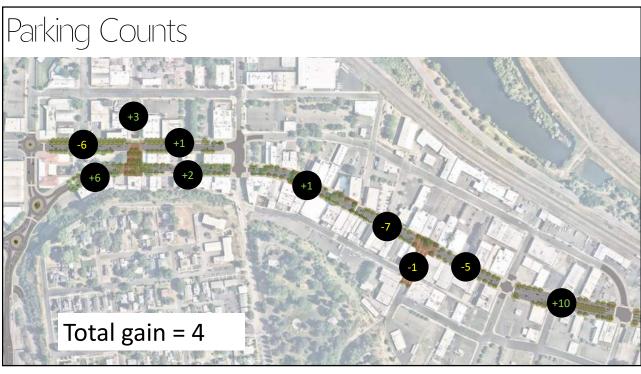












Next Steps

- 11/13 General Open House No. 2
- 12/9 Council Considers Preliminary Design Adoption
- Bond election in May 2025

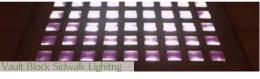


Streetscape Elements

Lighting









Festival/Plaza Lighting

Artistic Lighting Expression

Furnishings

Pedestrian and Intersection













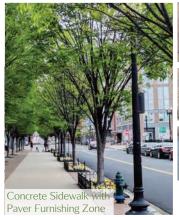








Paving







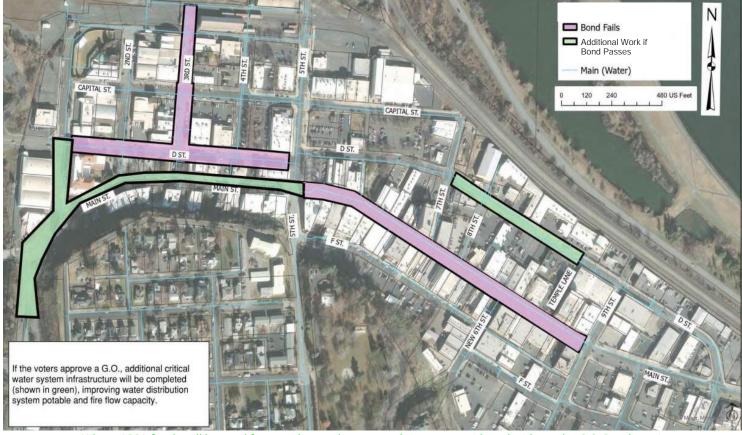






Water Main Reconstruction

The city secured American Rescue Plan Act (ARPA) funds and plans to use \$3.1 million for water main replacements downtown. The funds must be spent by the end of 2026. Because the roadways may be torn up anyway to replace the aging water lines, it is costeffective to replace stormwater and sewer, which are also aging, at the same time.



Where ARPA funds will be used for waterline replacements downtown - with and without the G.O. Bond passing.

What happens to the ARPA funds & G.O. Bond?

If the bond passes:

- The \$3.1 million of ARPA funds will be utilized to upgrade the water pipes outside of Main Street.
- Water main in Main Street (1st to 9th) will be included in the Main Street reconstruction project (and not use ARPA dollars).

If the bond fails:

- The \$3.1 million of ARPA funds will be used to construct the Main Street water mains between 5th and 9th. Asphalt will be patched back and minimal improvements to streetscape.
- The water main on Main Street between 1st and 5th will not be replaced.
- •Other funding sources will be considered for the Main Street reconstruction project.



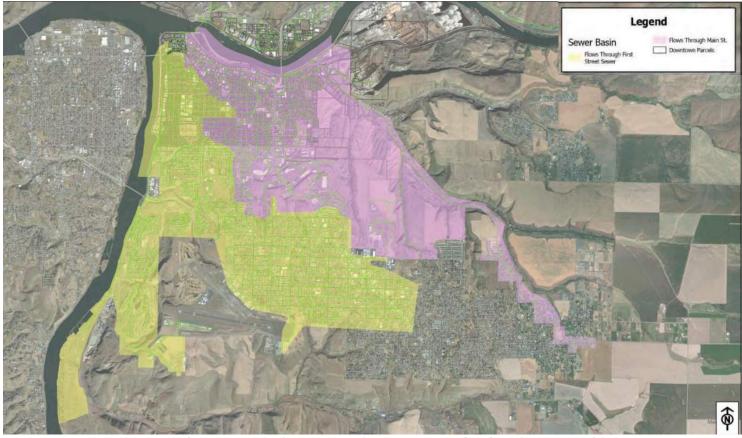
Overview



repair.

Sewer Main Improvements

Sewer lines date back to before WWII and need to be upgraded. Particularly, the mainline in 1st Street, extending south to Snake River Avenue, currently serves the majority of the City, routing flow to the wastewater treatment plant. This line desperately needs to be upsized.



The sewer infrastructure in both 1st Street and Main Street carry flow from the majority of the City.

Why is the sewer infrastructure critical?

1st Street

- The sewer in 1st Street carries flow from much of the city (yellow above). This line pre-dates WWII and is significantly undersized. It is also very deep and upsizing it requires most of the roadway to be disturbed.
- There are actually two sewer lines under the Snake River Avenue/Main Street intersection near the east end of the bridge. Because the project will impact the roadway and revise the intersection, now is the time to upsize and consolidate those aging pipes.

Main Street

 Main Street sewer pipes (1st to 5th) pre-date WWI and have root intrusion and bellies, which create maintenance issues and cause backups into commercial buildings.



The sewer in 1st Street is at capacity.



The local sewer in Main Street is susceptible to root intrustion creating on-going capacity and maintneance issues.



A hump in the the Main Street sewer near Brackenbury Square reduces capacity of the pipe.

Traffic & Pedestrian Safety

Thriving downtowns should have considerable pedestrians. Roads with many pedestrians should have slow traffic speeds.

Pedestrian safety helps downtown's thrive. As commerical areas thrive, the property tax burden on residential areas is lessened.

Encourage walkability and engaging spaces downtown.







Benefits of Two-Way Traffic

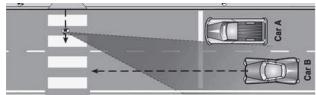
- Slower traffic speeds
- Encourages bypass use
- Better visibility for pedestrians at crossings
- Ease of access for visiting motorists
- Close streets for festivals
- Remove 3rd Street Signals
- As private commercial investment increases, property tax burden on residental areas decreases

There are many ways to develop safe pedestrian crossings.









On one-way streets, Car A blocks the Car B's view of pedestrians.



The typical section on Main Street, including two-way traffic, was determined through a previous study. It's confirmed two-way traffic works on D Street now, too.



Utility Impacts on Roadways

The utilities in Lewiston's downtown are vitally important; and serve significant portions of the City. Many of the pipelines in the downtown area need to be replaced due to age or capacity. When replacing utilities, the surface above is removed; so there is an opportunity for the community to consider what the surface looks like after construction. When the community needs major utility replacements anyway, it is the most practical time to revamp the streetscape.



Replacement areas shown above for a portion of the Main Street demonstrate the impact of the underground utilities on the street.

Utilities that Need Replacement Downtown

Water

• Water mains along Main Street and D Street are the backbone of the water system and need to be upsized. Most of the existing mains pre-date World War I.

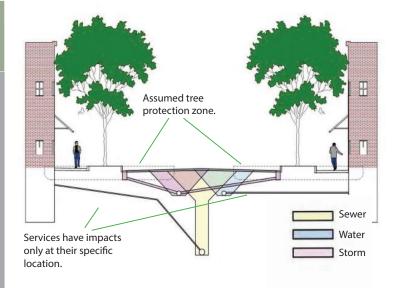
Sewe

- •Sewer mains along Main Street (1st to 5th) pre-date World War II and are constructed of clay material. These need to be replaced.
- The sewer main in 1st Street conveys most of the western side of the City down to the treatment plant. This needs to be upsized to better accommodate flow.

Storm

renew.

• Conveying stormwater efficiently is challenging due to the flat slopes in the downtown area. The stormwater system needs to be replaced to achieve better drainage.



Replacement techniques may be adjusted (trenchless, restricted width excavation) to attempt to preserve existing streetscape elements and trees.

WELCOME

reimagine DOWNTOWN Lewiston

Open House Meeting #2 Nov 13, 2024 | 5:15pm-6:45pm Lewiston Library | 411 D St, Lewiston

Meeting Purpose

- Update on details since we saw you last
- Show you some ideas
- Answer your questions
- Get your input

Follow us on Social Media @reimagineDTLewiston



rebuild.

renew.





restore.

Project Website reimagineDTLewiston.org



Sign up for newsletters and send questions to info@reimagineDTLewiston.org

reimagine Downtown Lewiston

The City of Lewiston has advanced to the preliminary design phase of the Main Street Corridor infrastructure project. Building off of past planning efforts, the City intends to complete underground utility upgrades and replace above ground roadways and streetscapes on portions of downtown streets.

The purpose of this open house is to view the preliminary plan, ask questions of the design team and provide feedback. Please help us create a project that reflects Lewiston's vison, values, and culture by:

Leave us written comments at the open house stations using the provided sticky notes.

Visit each open house station and fill out the comment cards provided.

Ask the consulting team questions and provide them your unique Lewiston insights



Go to the website to sign up for the newsletter reimagineDTLewiston.org

follow us on social media @reimagineDTLewiston





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reimagine Downtown Lewiston rebuild. restore. rehabilitate. revitalize. repair. revive. renew.



reimagine Downtown Lewiston

revive.

Open House



November 13th 5:15 pm*- 6:45 pm Lewiston Library 411 D Street, Lewiston,ID

The City of Lewiston is wrapping up the preliminary design phase of the Main Street Corridor infrastructure project. Building off of past planning efforts and feedback provided to date, the City intends to complete underground utility upgrades and replace above ground roadways and streetscapes on portions of downtown streets.

Attend this meeting to view the preliminary plan, ask questions of the design team and provide feedback.

*a brief presentation will occur at 5:15 pm

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Appendix X Lewiston Tribune Articles

Open House



Sept 10th 5:15 pm*-6:45 pm Lewiston Library

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reimagine DOWNTOWN Lewiston Take the online survey by scanning the QR code below



reimagineDTLewiston.org

Open House



November 13th 5:15 pm*- 6:45 pm Lewiston Library 411 D Street, Lewiston,ID

The City of Lewiston is wrapping up the preliminary design phase of the Main Street Corridor infrastructure project. Building off of past planning efforts and feedback provided to date, the City intends to complete underground utility upgrades and replace above ground roadways and streetscapes on portions of downtown streets.

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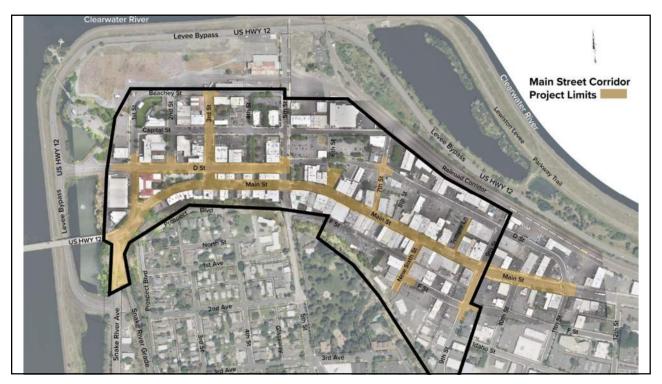
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Appendix XI Arts & Culture Meeting





Arts & Culture Organizations Round Table Overview

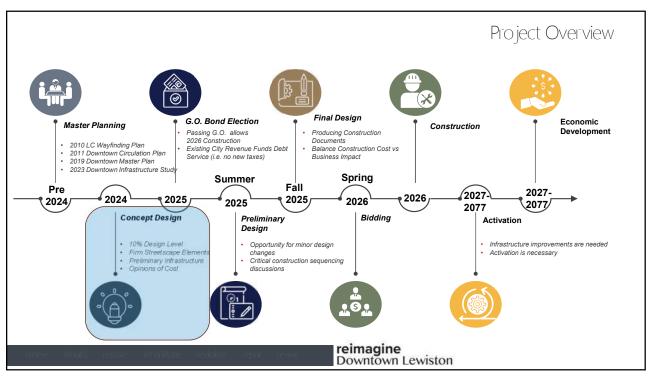
Objectives:

- Bring you up to speed on the project
- Review arts and culture themes for concept design
- Discuss preliminary locations for public arts, cultural and historic interpretive installations
- Discuss collaborative funding for public art and cultural installations during Final Design process

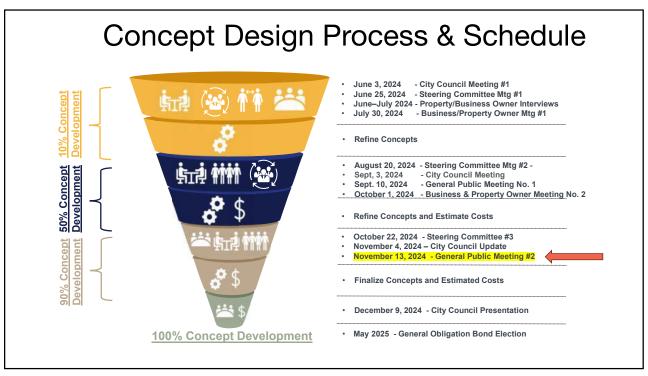


reimagine Downtown Lewiston

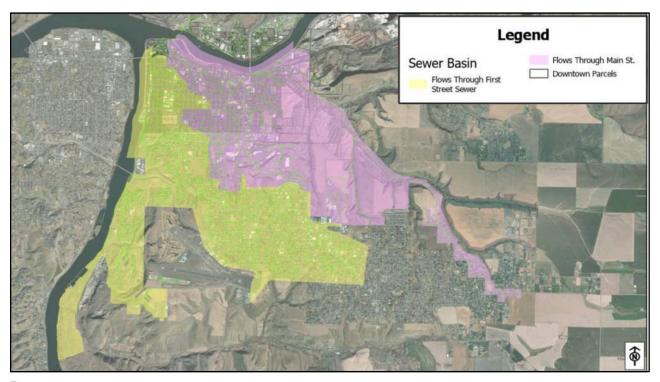
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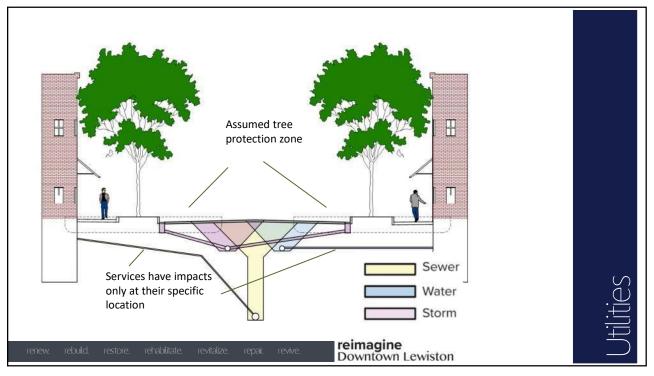


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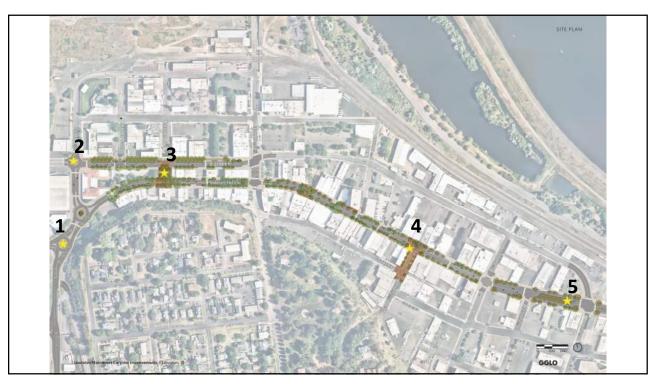


Why One Big Project? One Big Project o Cost Efficient o Less disruptive than multiple projects o Requires borrowing funds, but no tax increase because of arterial funds o Main Street has Pre-WW I critical underground infrastructure that o Main Street is the supports the Council's #1 Arterial majority of Lewiston Improvement Project residents **Utilities** Streets o ARPA waterline City has dedicated arterial improvement funds awarded funds reimagine Downtown Lewiston











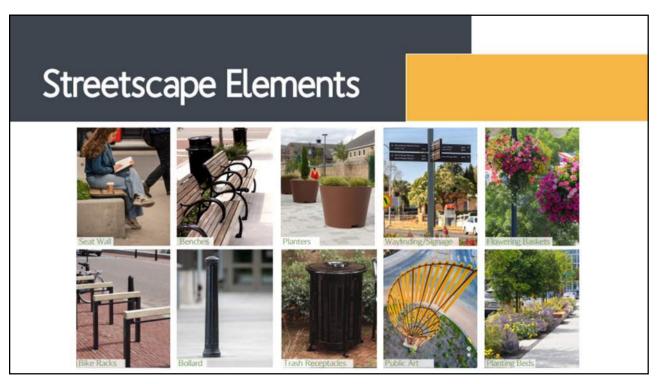


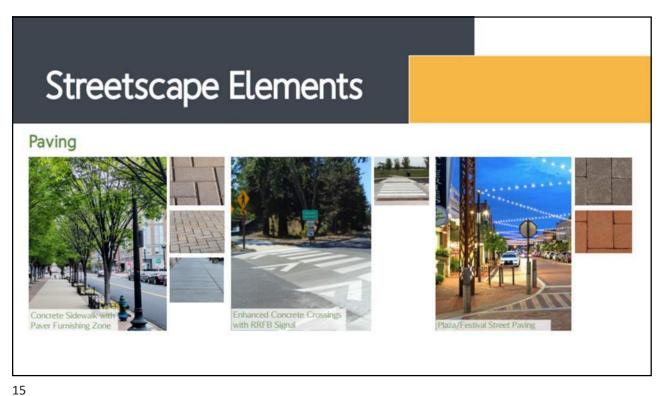
reimagine Downtown Lewiston

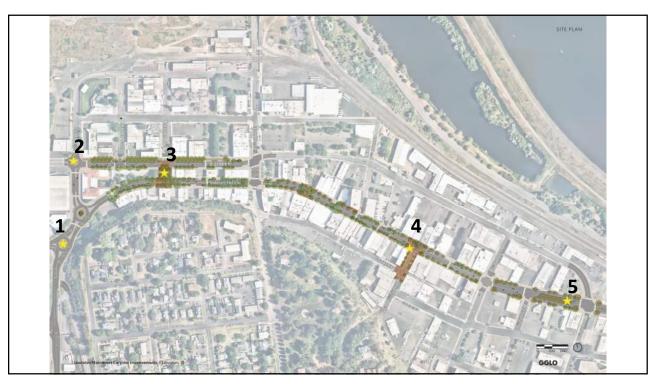
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Streetscape Elements Lighting Pedestrian and Intersection Festival/Plaza Lighting Pedestrian and Intersection Festival/Plaza Lighting Madeliack Crossing Anst. Lighting Artistic Lighting Expression

13









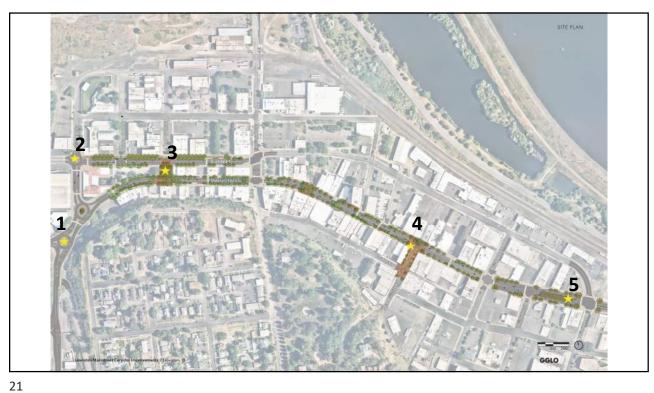








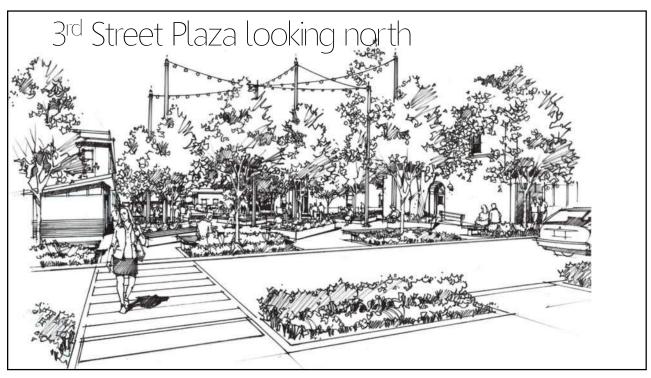




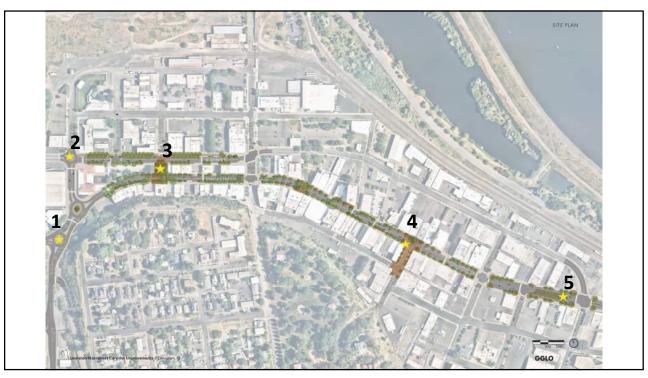




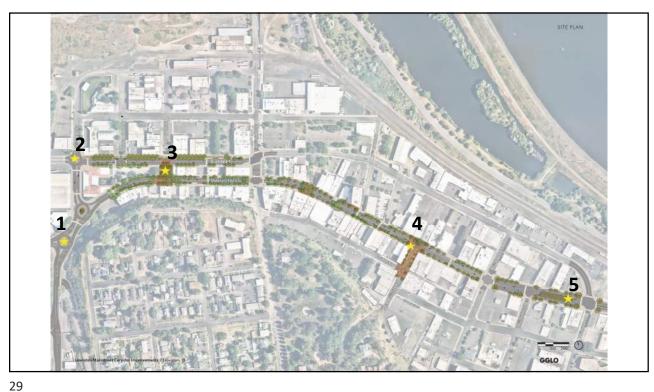










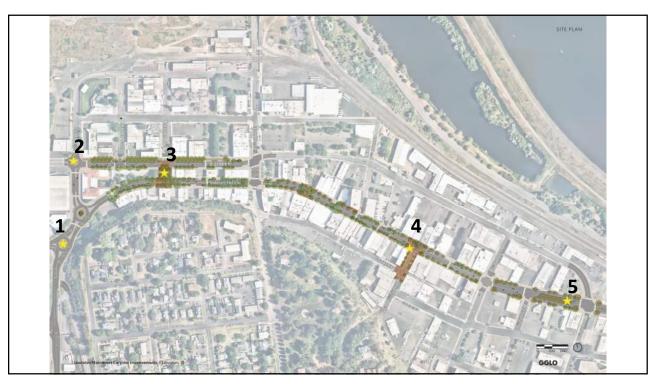




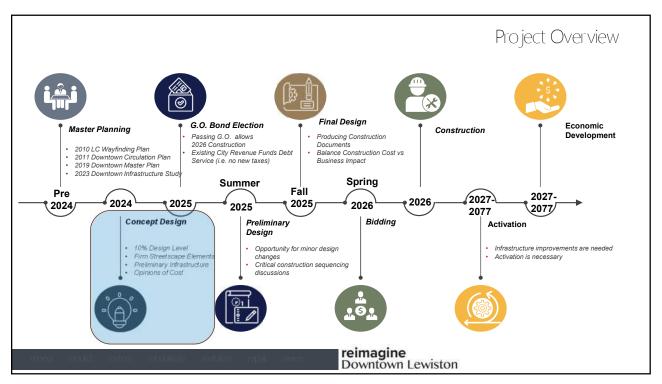












Arts & Culture Organizations Round Table

Discuss:

- What grant funding sources should be targeted for public arts and culture?
- What community partners might be invited to develop public art or interpretative sign?



reimagine Downtown Lewiston

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Arts & Culture Organizations Round Table Overview

Objectives:

- Bring you up to speed on the project
- Review arts and culture themes for concept design
- Discuss preliminary locations for public arts, cultural and historic interpretive installations
- Discuss collaborative funding for public art and cultural installations during Final Design process



reimagine Downtown Lewiston

Next Steps

- 11/13 General Open House No. 2, 5:15—6:45 PM, Lewiston City Library
- 12/9 Council Considers Preliminary Design Adoption
- Bond election in May 2025

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39

reimagine DOWNTOWN Lewiston

Thank You.

Dear Helen,

I am contacting you on behalf of Reimagine Downtown Lewiston, to invite staff and board members of Lewiston Library Foundation Board to participate in a 90-minute "Arts and Culture" roundtable discussion planned for **3:00 pm on Wednesday, November 13, 2024**, at the Lewiston City Library, 411 D Street in downtown Lewiston. The purpose of this meeting is to discuss opportunities to integrate placemaking components of Lewiston's arts and culture into the preliminary design, and eventual final design, for the reconstruction of Lewiston's Main Street and several adjacent streets. The map below shows the project boundaries.



While Reimagine Downtown Lewiston is primarily an infrastructure project, complete reconstruction of the surface transportation systems in downtown Lewiston between 1st and 10th Streets presents an opportunity to collaborate with the community to enhance the place-based amenities that make downtown Lewiston a destination. Our urban designers would like your input on locations for future art installations, interpretive plaques, and other amenities that will help locals and visitors appreciate Lewiston's unique culture and history.

Please let me know by the end of the day on Friday, November 8, if volunteers and staff of Lewiston Library Foundation Board can participate.

Sincerely,

Courtney Kramer | Public Involvement Specialist

Cell: 406.581.7243 | Office: 509.505.5551 | E: ckramer@welchcomer.com | Web: www.welchcomer.com







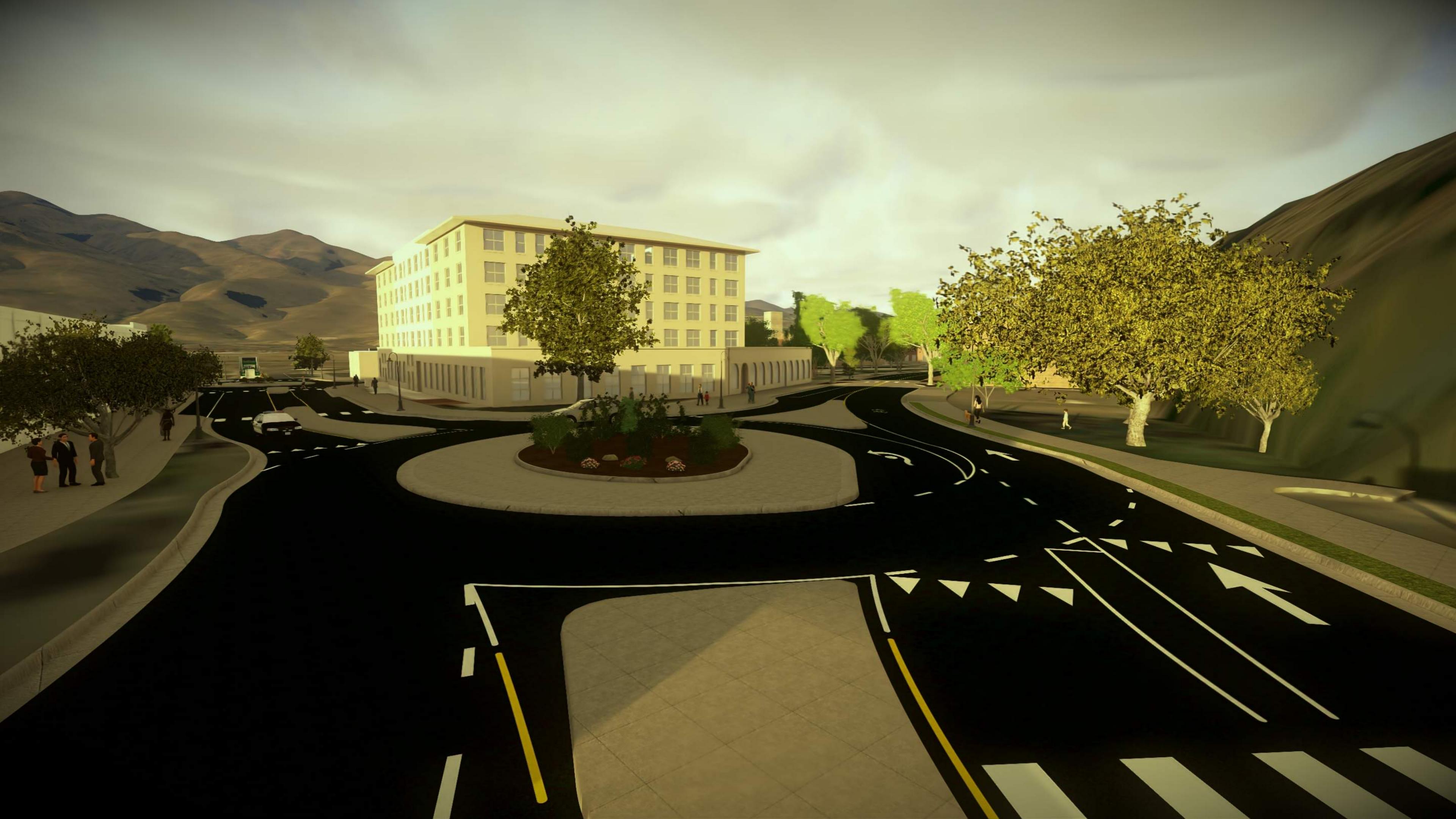


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	 Snake River Ave/Main Street/Blue Bridge Roundabout 	2.1 st and D St. Roundabout	3. 3 rd and Main St. Plaza	4. New 6 th St. and Main Street Festival St.	5. 11 th /D Streets and Main Street
Туре					
Partners					

Appendix XII Renderings











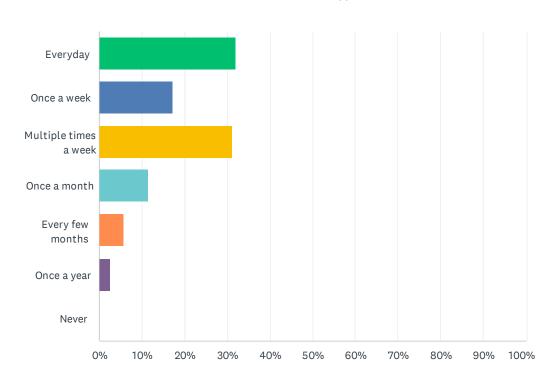




Appendix XIII Surveys

Q1 How often do you visit Downtown Lewiston?

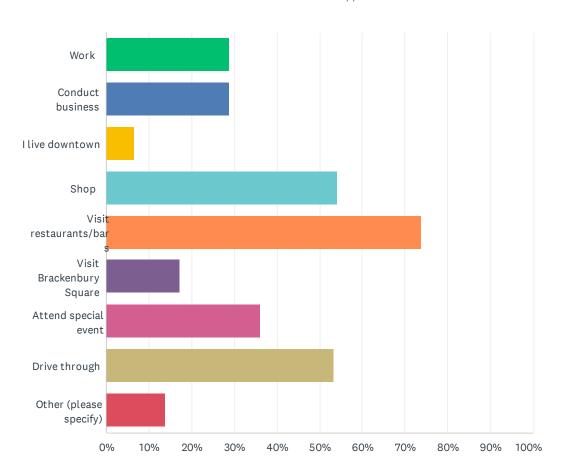




ANSWER CHOICES	RESPONSES	
Everyday	31.97%	39
Once a week	17.21%	21
Multiple times a week	31.15%	38
Once a month	11.48%	14
Every few months	5.74%	7
Once a year	2.46%	3
Never	0.00%	0
TOTAL		122

Q2 What do you do when you are in Downtown Lewiston?





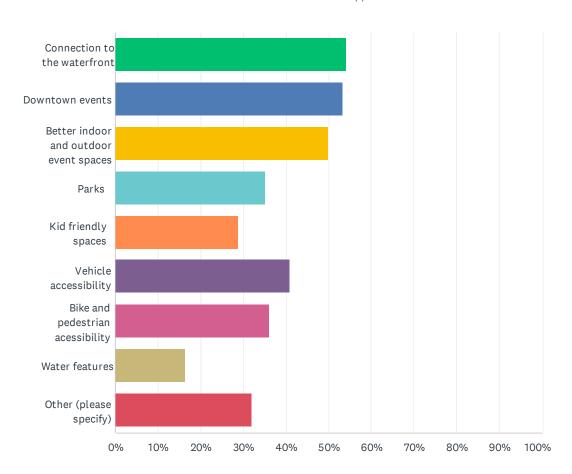
ANSWER CHOICES	RESPONSES	
Work	28.69%	35
Conduct business	28.69%	35
I live downtown	6.56%	8
Shop	54.10%	66
Visit restaurants/bars	73.77%	90
Visit Brackenbury Square	17.21%	21
Attend special event	36.07%	44
Drive through	53.28%	65
Other (please specify)	13.93%	17
Total Respondents: 122		

#	OTHER (PLEASE SPECIFY)	DATE
1	Blue Lantern	10/29/2024 1:41 PM

2	Festival, markets, and various seasonal events	10/19/2024 1:55 PM
3	I live nearby, right on the edge of normal hill	10/14/2024 11:35 AM
4	I	10/11/2024 2:51 PM
5	The public library	10/10/2024 9:58 AM
6	Rehearsal at Civic office. Then there every day during that time.	10/5/2024 10:54 AM
7	Walks	9/21/2024 12:12 PM
8	I'm a visitor from out of town who's done a lot of traveling through downtowns!	9/20/2024 7:10 PM
9	Post office visits , gas up vehicles etc	9/12/2024 11:18 PM
10	Yoga	9/11/2024 8:07 PM
11	go to library	9/11/2024 1:30 PM
12	Library	9/11/2024 8:18 AM
13	Social Activities	9/4/2024 12:32 PM
14	Walk	9/3/2024 11:04 AM
15	I visit downtown a lot for events and restaurants. I shop some too, but would love more options!	9/1/2024 8:03 PM
16	Beauty salons.	8/28/2024 3:18 PM
17	Go to the coffee shop	8/24/2024 11:22 AM

Q3 What would bring you to Downtown Lewiston More?





ANSWER CHOICES	RESPONSES	
Connection to the waterfront	54.10%	66
Downtown events	53.28%	65
Better indoor and outdoor event spaces	50.00%	61
Parks	35.25%	43
Kid friendly spaces	28.69%	35
Vehicle accessibility	40.98%	50
Bike and pedestrian acessibility	36.07%	44
Water features	16.39%	20
Other (please specify)	31.97%	39
Total Respondents: 122		

#	OTHER (PLEASE SPECIFY)	DATE
1	Updated business fronts, businesses that are open (not out of business). An active movie	10/14/2024 11:35 AM

theatre. Grab and go icecream or food trucks.

	theatre. Grab and go icecream or food trucks.	
2	I'm downtown a lot. I live in an apartment on main street	10/11/2024 2:51 PM
3	More restaurants & shopping	10/8/2024 10:39 AM
4	Restaurants	10/5/2024 10:54 AM
5	Parking. We have great businesses downtown but I never go because the parking is horrible	9/30/2024 4:35 PM
6	More retail businesses. Downtown LWS is 20-25% vacant	9/24/2024 12:47 PM
7	Better parking, Accessibility for people in wheelchairs/walkers. I have a hard time bringing my mom and in-laws because they are unable to life their feet to get from street to sidewalk. The amount of steps they are able to take limits us from always using accesses in place. Need a main attraction as an anchor that appeals to families and multi-generations. I adore the diagonal parking in part of downtown.	9/21/2024 11:16 PM
8	Shopping	9/21/2024 3:24 AM
9	If there was a place to stay nearby and walk to the downtown	9/20/2024 7:10 PM
10	No through traffic on Main	9/18/2024 8:30 PM
11	Better parking	9/16/2024 11:02 AM
12	Bars/restaurants that sell alcohol	9/12/2024 11:18 PM
13	More restaurants	9/12/2024 4:06 PM
14	We should have newer clothing stores rather than just thrift shops and more variety for shops.	9/11/2024 4:32 PM
15	Nicer side streets and more activties after 5/6 p.m., especially on weekend (movies, theater, things to do). More resturants that have different offerings.	9/11/2024 2:11 PM
16	more businesses including businesses that support day-to-day living, i.e., groceries, pharmacies, hardware, office supplies/stationery, etc.	9/11/2024 1:30 PM
17	Major stores	9/11/2024 8:18 AM
18	Businesses and restaurants quiet visiting	9/11/2024 7:10 AM
19	Disabled parking easily accessible to business. The ability to view the business as you're driving. Most are hidden behind the trees.	9/10/2024 9:38 PM
20	More Restaurants. Tapped was great, something that isn't Happy Day would be a great change. Also, a more vibrant downtown with housing around that is upper class vs the lower class it is right now would be a great investment. Down Idaho St, all houses around that area are in poverty. Upscale condos and apartments would be a much better. Make it to where downtown is somewhere most people would like to live, especially the younger crowd. That alone will bring people to downtown more often than just for work and occasionally shopping. I have been to many downtowns, and most people gravitate to living/going downtown due to the fun environment.	9/8/2024 7:40 PM
21	More restaurants and shops	9/8/2024 5:51 PM
22	Better professional care of plants and trees to stop damage to green infrastructure and make a more aesthetically pleasing shaded environment.	9/7/2024 1:53 PM
23	More police presence to slow down the traffic which seems to be exceeding the speed limit. If you want to eat at the sidewalk restaurants' you can't hear yourself think because of the cars racing by. A department store!!!	9/6/2024 4:05 PM
24	Farmers market with street closed every Saturday.	9/5/2024 8:49 PM
25	Better restaurants	9/5/2024 5:10 PM
26	Food/drinks/entertainment options	9/4/2024 5:52 PM
27	Businesses that I would want to go to. Going to be hard for Businesses to thrive with the road shutdown for so long. You also need people living Downtown. You aren't going to get that if you force developers to operate in a narrow box in order to move their project ahead.	9/4/2024 12:32 PM

28	More shopping	9/4/2024 11:12 AM
29	More businesses, parks, activities	9/3/2024 5:02 PM
30	Traffic and parking is less than ideal. A parking garage near main would be handy, and walking bridges to go across busy streets. There should be more family friendly destinations downtown. The restaurants and music events are really the only things that draw me and my family regularly. We occasionally go for walks from the library to the levy, but walking across the train tracks is not ideal. There's a need for nice public restrooms. More seating and gathering areas. Wider Sidewalks. More lighting. More store experiences like Newberry Square that are fun, friendly, and welcoming. More nature spaces or another park to gather/host events. Extending to the water would be wonderful if it was done safely. A carousel. A family destination or experiences, like a creamery, children's museum, or immersive art experiences. The library and museum do this a bit, but later hours or expanded Friday/Saturday hours would help working parents go there. Public art (murals, sculptures) and welcoming/cozy lighting, fountains, and facing benches or tables would help keep people there longer.	9/3/2024 1:39 PM
31	More businesses like restaurants and shops	9/1/2024 8:03 PM
32	Work	8/28/2024 4:27 PM
33	There is not much room in downtown Lewiston for much more to be added, but it is difficult to get around, it's crazy to find a parking spot! I work for Uber and take riders from the cruise ships to downtown Lewiston so that they can walk and browse. There is drinks and eats, but not much other than Newberry Square for browsing. Even then, I am not sure if that is well marked to catch the eye of a tourist. I am positive that tourists are not interested in the 2nd hand stores downtown. There's music downtown Lewiston by the water feature. What about a water feature and music at the park next to Roosters? Is the golf place good for a round? It's not inviting from the outside! I don't believe that there are any kind of markings/directions to draw tourists to the levee for walking. It would be nice if stepping off the the cruise ship to land was more welcoming, not industrial like. Maybe make a drawing point to the park right there. I just don't see touristy friendly areas or signs to draw them to places. Very industrial the moment you step on land. River Chicks and Roosters goes unnoticed. Guidance to the levee, Green Belt or shopping does not exist! There are places right there but not eye appealing in my opinion. There are tourists coming and going constantly! I saw at least 5 tour buses come and go this morning. How can this downtown LCV area be more conducive to tourists and community as well? Walk it and see for yourself!	8/28/2024 3:25 PM
34	The sculpture of the children in Brackenbury Square needs to be cleaned up. More public art downtown.	8/28/2024 12:57 PM
35	A variety of desirable shopping options and restaurants. More events like art walk, crazy days, sound downtown. Things that make a great date night or family event, concerts, art shows, community holiday events.	8/28/2024 12:46 PM
36	Connecting to waterfront would be hugh.	8/27/2024 5:10 PM
37	Restaurants near the water.	8/27/2024 1:33 PM
38	NA	8/27/2024 11:22 AM
39	Move the through traffic to another street. It isn't pleasant to walk or eat out doors with all the traffic just passing through, noise and exhaust fumes. Look at Moscow and walla walla for example. Much more pleasant. Turn Main Street into a two way street or one lane with diagonal parking on. Each side. Use D street as a two main road or maybe wide enough for two lanes east and one lane west? Or re route the bypass behind twin city foods property and tie in by jones supply to make it more advantageous to use by pass. This will allow easier closures for events if the main traffic already has a different route. And make Main Street a destination	8/25/2024 9:38 AM

Q4 How would you describe the community character of Downtown Lewiston?

Answered: 115 Skipped: 7

#	RESPONSES	DATE
1	Nice appearance and good walking area	11/4/2024 12:10 PM
2	Confusing	11/1/2024 1:36 PM
3	Quaint	10/29/2024 1:41 PM
4	Very small town vibes	10/26/2024 4:12 PM
5	Dirty, empty buildings, dead, a lot of potential, up and coming	10/21/2024 11:54 AM
6	It's lacking a lot of character and interest to come downtown. It's mostly empty stores, bars and the liquor store. If we had more for entertainment or somewhere to bring kids or something like that, we could gain more interest in people visiting downtown.	10/19/2024 5:49 PM
7	Old, historic, forgotten about	10/19/2024 1:55 PM
8	Moving in the right direction. Growing up here the character was fantastic. It fell on hard times but feels like it's starting to improve	10/18/2024 12:49 PM
9	Improving, but still kind of dead. As in not lively, lasting, and collecting business owners that offer modern needs to this community.	10/14/2024 11:35 AM
10	Feels dated, dirty, and a little sketchy at night. But has potential to be a really charming downtown.	10/11/2024 5:15 PM
11	Sad	10/11/2024 2:51 PM
12	Relaxed. Historic.	10/10/2024 11:24 AM
13	Charming and full of character, safe, clean!	10/10/2024 9:58 AM
14	Historic	10/10/2024 9:36 AM
15	Cute	10/9/2024 10:51 AM
16	Unique, historic buildings and boutique businesses amongst vacant and eye-sore buildings.	10/8/2024 3:17 PM
17	Improving but still needs additional businesses / eating / shopping / dinning. Also need to address traffic speed and the types of vehicles that drive on main street.	10/8/2024 1:05 PM
18	boring	10/8/2024 10:39 AM
19	Simple, straight forward, not enough shopping 😂	10/5/2024 12:28 PM
20	Good	10/5/2024 10:54 AM
21	Friendly	10/4/2024 10:07 AM
22	Old. It would be good to keep character but renovate	10/3/2024 1:34 PM
23	Okd	9/30/2024 4:35 PM
24	Not sure	9/30/2024 11:35 AM
25	It can be a little sketchy sometimes downtown, but overall a beautiful area with hidden gems	9/28/2024 8:50 AM
26	Struggling.	9/24/2024 12:47 PM
27	I absolutely love downtown! I grew up here and saw it transformed many years ago to what it is	9/23/2024 6:33 PM

28	Charming if time is taken to appreciate the architecture, craftsmanship of the old timbers, handmade bricks, glass in sidewalks, etc. Many do not think about what it took to build downtown. Example: timber brought down the river, possibly bricks brought down the hill from brickyard in Uniontown, etc. A unique attraction needs to be created, Anything people could experience as another attraction when cruise boats come in? Tug boat ride with downtown historic tour? Old fashioned candy store and icecream shop? Crafting experience such as Indigenous BeadIng? Wooden toy shop? Something such as glass blowing center?	9/21/2024 11:16 PM
29	Outdated and struggling. Lewiston struggles to support downtown and those who would seem to go to Moscow farmers market and such. I'm willing to bet it's the median income that has the largest impact on downtown culture and a majority of those below it are closest to downtown.	9/21/2024 12:12 PM
30	Nice	9/21/2024 3:24 AM
31	Cute, growing, and full of fun businesses and beautiful classic turn-of-20th century buildings. Also so many grown trees!	9/20/2024 7:10 PM
32	It has gotten more lively over the last 5 years with community events and more shopping and restaurants/bars. It has a small old town feel	9/20/2024 2:53 PM
33	Charming	9/19/2024 9:31 PM
34	Struggling but potential for better.	9/19/2024 8:12 PM
35	Somewhat stale, dated, struggling	9/18/2024 8:30 PM
36	NA	9/16/2024 11:02 AM
37	Outdated and eclectic.	9/14/2024 2:04 PM
38	Crawling forward and needing a thriving business and arts community. It's better. But could be much better.	9/14/2024 12:37 PM
39	Nice	9/13/2024 6:57 PM
40	It's historic and although you it was once thriving more than today, it's been well cared for and maintained. It's a vital part of Lewiston's culture/character.	9/12/2024 11:18 PM
41	It's nice toward the west end but gets a bit blighted further east. Better sidewalks would be nice too	9/12/2024 4:06 PM
42	Friendly	9/12/2024 9:07 AM
43	Shop worn, dated, some historical gems, lots of potential	9/11/2024 8:38 PM
44	Lacking coherence	9/11/2024 8:07 PM
45	Just on the cusp of something great. We just need a little nudge to tip it over the to the right direction.	9/11/2024 6:39 PM
46	Kind of empty.	9/11/2024 5:54 PM
47	Unfriendly parking	9/11/2024 4:43 PM
48	The community character of Downtown Lewiston is old and dingy with a little spice of life. Many of the buildings are old or need paint, especially in the backstreets. There are a few new and vibrant vendors, while others really need a glow up and a new sign.	9/11/2024 4:32 PM
49	Dumpy	9/11/2024 2:58 PM
50	I would say it is progressing into something better, but it is still lacking progress on spaces that detract from downtown. I feel like the businesses that are there do well, but the spaces that are vacant make it less appealing to be down there.	9/11/2024 2:27 PM
51	Nice in some parts, sketchy in others. A few too many stores closed next to open ones. Feels like there is a lot of turn over and maybe downtown isn't a stable office space. I love the events and the charm of the older builders.	9/11/2024 2:11 PM
52	Love it. It has come a long way the last 10 years. Hoping businesses can stay going and new ones can occupy the vacant buildings. Downtown has so much potential but need more investment and draw to get people there.	9/11/2024 2:06 PM

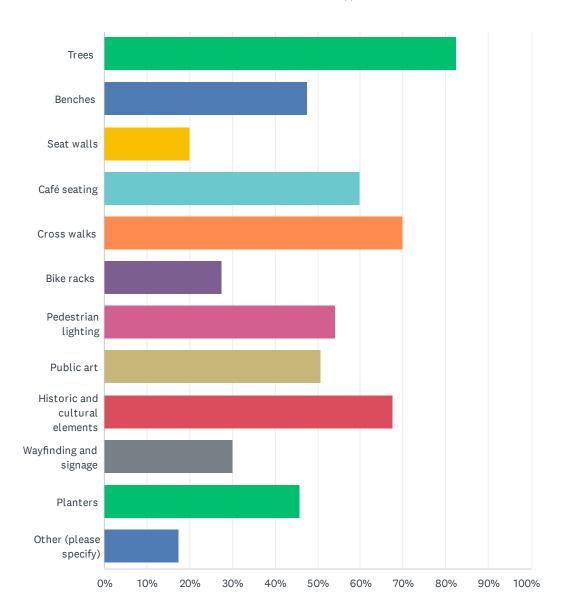
53	cooperative (business owners), relaxed (sidewalk tables at restaurants/bars), safe for families, pretty (trees, old storefronts), historic	9/11/2024 1:30 PM
54	Antiquated, lack of available parking, poor traffic flow, outdated store fronts architecture wise.	9/11/2024 1:28 PM
55	Up and coming historic main street	9/11/2024 10:26 AM
56	Cluttered, not community minded but individual business minded, singular thinking	9/11/2024 10:20 AM
57	Limited draws (reasons to go there), but with much potential	9/11/2024 8:18 AM
58	A lively downtown corridor where people can shop, attend festivals or eat at restaurants.	9/11/2024 7:26 AM
59	Run down and patched together	9/11/2024 7:10 AM
60	Trying, but struggling	9/10/2024 10:00 PM
61	Boring. Please look at the small community of Enumclaw, Wa. People drive from many area towns to attend their weekend activities year round.	9/10/2024 9:38 PM
62	Old, business always closing due to poor shape of buildings and no one wanting to visit downtown.	9/10/2024 9:36 PM
63	Historic but in need of repair. Needs businesses back	9/10/2024 9:20 PM
64	Terrible	9/10/2024 2:23 PM
65	There's quite a few businesses that are the "old timers" that have been here for decades. And then there's newer businesses that come and try to make a go of it but, it seems like they always have trouble getting past the 5 year mark	9/10/2024 10:09 AM
66	Stale, I miss the livelyness of the area from the '60s	9/9/2024 5:35 PM
67	Currently, not a place to live. (I'm a realtor). Decent shopping, limited restaurant options especially if you want to get away from Happy Day.	9/8/2024 7:40 PM
68	Older	9/8/2024 5:51 PM
69	?	9/8/2024 10:01 AM
70	Not inviting and lacks things to do	9/7/2024 6:13 PM
71	In the last 25 years, a place that politicians neglect out of spite, and thus getting shabbier, after a brief period of brighter, uplifting additions of trees and whimsical public sculpture. Obnoxious LED billboards detracting from said improvements.	9/7/2024 1:53 PM
72	The community character is there but could be spruced up.	9/7/2024 11:11 AM
73	Hollow - the amount of vacant storefronts makes things a little bleak.	9/6/2024 4:29 PM
74	It needs to be improved to be more user friendly.	9/6/2024 4:05 PM
75	It has potential. But it doesn't seem quite active or bustling.	9/6/2024 1:55 PM
76	I feel like it is trying to be as awesome as possible. However, we need people to drive more safely. It is scary walking with kids and the parking is rough.	9/6/2024 12:18 PM
77	Depressing. Trees ruin business visibility. City politicians get on the way of small businesses. Many empty buildings. No downtown feel. Need more shops of quality products to bring people in. Give tax incentives to landlords whose properties are being used.	9/5/2024 8:49 PM
78	Intimate (small, close together), and historical. It has a lot of character	9/5/2024 5:59 PM
79	Sad and forgotten	9/5/2024 5:10 PM
80	Improving!	9/5/2024 9:52 AM
31	Number of hidden gem businesses (gift and dining) and a number of non use store fronts.	9/5/2024 5:16 AM
82	Developing	9/4/2024 11:30 PM
83	?	9/4/2024 10:43 PM
84	Like it's trying to be a "downtown". It just isn't in the way that it could be.	9/4/2024 10:04 PM

85	Currently doesn't live up to its potential	9/4/2024 5:52 PM
86	There isn't a Community Character. It is still a business hub, but is more a travel route for people due to poor choices from the City that put Travel needs above the good of the businesses along Main Street.	9/4/2024 12:32 PM
87	Pleasant. Please keep the homeless population away from the waterfront downtown area.	9/4/2024 11:12 AM
88	Adult focused	9/3/2024 5:02 PM
89	Sparse. Minimalist. I like the brick buildings, murals, Brakenbury Square area, and the trees. It is not super pedestrian friendly. Vehicles drive too fast.	9/3/2024 1:39 PM
90	Transitioning slowly	9/3/2024 11:04 AM
91	Charming and welcoming, but needs more businesses. It's pretty too!	9/1/2024 8:03 PM
92	Great but it could be so much more. I wish there were more business options downtown, and we could convince more people to spend time downtown.	9/1/2024 7:28 PM
93	The parking is terrible. My wife has difficulty walking	9/1/2024 2:27 PM
94	Intermittently historic and charming but not a cohensive feel to downtown.	8/31/2024 4:12 PM
95	Charming, nostalgic, a time capsule of many different eras	8/29/2024 9:48 PM
96	Trying it's best.	8/28/2024 7:16 PM
97	Love the old, historical buildings. Otherwise character is lacking.	8/28/2024 4:51 PM
98	Downtown Lewiston has lost its ability to generate visitors. Simply put the dreams of a major hotel investment on the twin city foods property and/or other pipe dreams have diverted resources and logic's away from how we really need to get people to downtown. That is provide events and or services that drive pedestrian traffic and thus supplement retail and dining. Right now downtown is basically a work there eat there place with a few nice dining establishments and is a hodgepodge of old gross buildings and cool redone buildings. To generate life in downtown we need activities that drive pedestrian traffic. Or sports complex, entertainment venue, etc. it's not as easy as pretty'ing up old streets and buildings. That's a waste of resources if we don't give people a reason to go there.	8/28/2024 4:27 PM
99	Old and run down. No easy place to park. Hard to back out when you do park on the street due to traffic.	8/28/2024 3:26 PM
100	Very disruptive. It does not flow well, does not have eye catching signs directing tourists to historical or tourist attractions, walkways.	8/28/2024 3:25 PM
101	Sad with lots of potential.	8/28/2024 3:18 PM
102	Eclectic	8/28/2024 2:16 PM
103	expensive, non inviting	8/28/2024 2:07 PM
104	Slowly closing down Bring more boutiques, restaurants and variety like mall type shops: bookstores, gadgets, home decor other than traditional or farmhouse. Think about what people travel out of town for? More shopping options. We need variety & culture.	8/28/2024 1:30 PM
105	Tiredempty store fronts, businesses need to clean up their store frontsno more thrift	8/28/2024 12:57 PM
105	shops, tattoo parlors, vape shopsit's a little ghetto looking in some places.	
	shops, tattoo parlors, vape shopsit's a little ghetto looking in some places. Downtown feels dark, overgrown, crowded yet empty, sad	8/28/2024 12:46 PM
106		8/28/2024 12:46 PM 8/28/2024 12:30 PM
105 106 107 108	Downtown feels dark, overgrown, crowded yet empty, sad	
106 107 108	Downtown feels dark, overgrown, crowded yet empty, sad Dingy	8/28/2024 12:30 PM
106 107 108 109	Downtown feels dark, overgrown, crowded yet empty, sad Dingy Lacking	8/28/2024 12:30 PM 8/28/2024 12:14 PM
106 107	Downtown feels dark, overgrown, crowded yet empty, sad Dingy Lacking Boring	8/28/2024 12:30 PM 8/28/2024 12:14 PM 8/27/2024 5:10 PM

113	It's a lot better than 10 years ago and with a little traffic fix could be a desirable place to hang out.	8/25/2024 9:38 AM
114	Friendly	8/24/2024 11:22 AM
115	Homelessness	8/22/2024 11:21 PM

Q5 What works well and should be preserved on Main Street? (Check all that apply)



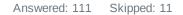


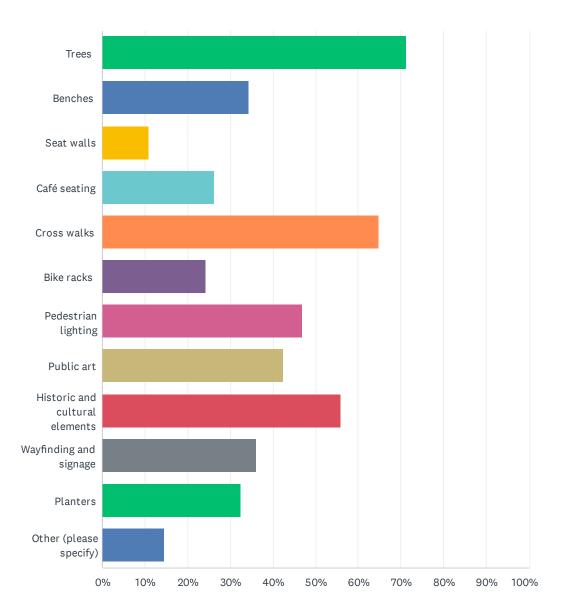
ANSWER CHOICES	RESPONSES	
Trees	82.50%	99
Benches	47.50%	57
Seat walls	20.00%	24
Café seating	60.00%	72
Cross walks	70.00%	84
Bike racks	27.50%	33
Pedestrian lighting	54.17%	65
Public art	50.83%	61
Historic and cultural elements	67.50%	81
Wayfinding and signage	30.00%	36
Planters	45.83%	55
Other (please specify)	17.50%	21
Total Respondents: 120		

#	OTHER (PLEASE SPECIFY)	DATE
1	The trees are great, don't move the trees!	10/11/2024 5:15 PM
2	As someone who has lived on the 400 block of main for two decades I'd say the trees are huge positive. please do everything you can to preserve or replace as many as possible. I'd also like to commend the choice of fast growing tulip tree as the latest replacement species.	10/11/2024 2:51 PM
3	Places easily accesible to the public without having to pay. Examples: the library, LCSC center for arts and history, brackenbury square	10/10/2024 9:58 AM
4	The one-way direction!	10/8/2024 3:17 PM
5	Crossing flagsmuch nicer than blinking crosswalksfor inside corridor. Not at major intersections.	9/23/2024 6:33 PM
6	Water feature	9/21/2024 11:16 PM
7	Cafe seating is huge!	9/21/2024 12:12 PM
8	Please don't eliminate the things that have already been paid for. Clean up and encourage businesses	9/19/2024 8:12 PM
9	Preserving the trees that can be saved makes sense to reduce costs. I'm also not opposed of replacement of trees where it makes the most sense.	9/14/2024 2:04 PM
10	head-in parking, one-way streets that are slowed by addition of parking/bike lanes.	9/11/2024 1:30 PM
11	Cafe seating if done right, not crammed in and messy looking	9/11/2024 10:20 AM
12	Don't spend money on anymore goofy art	9/11/2024 7:10 AM
13	Pedestrian lighting needs improvement. Especially at the parking lots	9/10/2024 10:09 AM
14	I've visited Savanah GA Charlotte NC and Charleston SC they all have such quaint little parks with different themes mostly historical some have fun walkways and flowers fountains. Statues of famous people. They are all unique and pleasant \odot	9/9/2024 5:35 PM
15	Cleaner building appearances. Some buildings look amazing! Some are pretty, "grimey," from what people have told me.	9/8/2024 7:40 PM

All needs to be updated	9/7/2024 6:13 PM
The businesses that operate in the area.	9/4/2024 12:32 PM
Shopping	9/4/2024 11:12 AM
You need more seating/gathering areas. Encourage people to stay for a bit.	9/3/2024 1:39 PM
Given that there's very little pedestrian traffic other than when there are events everything pretty much works well. However, if pedestrian traffic is drastically increased then there will be issues with main street traffic and pedestrians. We should divert out the bypass if downtown is to be a main pedestrian corridor.	8/28/2024 4:27 PM
All of the above if we can fix traffic. Cannot enjoy these things with Smokey diesel engines and Honda speed cars passing all day.	8/25/2024 9:38 AM
	The businesses that operate in the area. Shopping You need more seating/gathering areas. Encourage people to stay for a bit. Given that there's very little pedestrian traffic other than when there are events everything pretty much works well. However, if pedestrian traffic is drastically increased then there will be issues with main street traffic and pedestrians. We should divert out the bypass if downtown is to be a main pedestrian corridor. All of the above if we can fix traffic. Cannot enjoy these things with Smokey diesel engines

Q6 What works well and should be preserved on D Street? (Check all that apply)



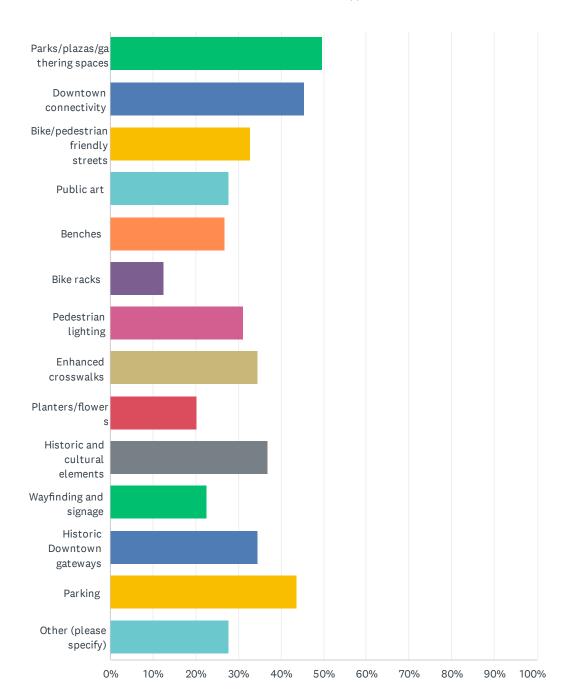


ANSWER CHOICES	RESPONSES	
Trees	71.17%	79
Benches	34.23%	38
Seat walls	10.81%	12
Café seating	26.13%	29
Cross walks	64.86%	72
Bike racks	24.32%	27
Pedestrian lighting	46.85%	52
Public art	42.34%	47
Historic and cultural elements	55.86%	62
Wayfinding and signage	36.04%	40
Planters	32.43%	36
Other (please specify)	14.41%	16
Total Respondents: 111		

#	OTHER (PLEASE SPECIFY)	DATE
1	D Street seems to only be for driving, probably should remain that way.	11/4/2024 12:10 PM
2	D street needs better sidewalks.	10/10/2024 11:24 AM
3	D Street needs to be the two-way street, not Main St.	10/8/2024 3:17 PM
4	Drivability	9/21/2024 3:24 AM
5	Go to Walla Walla and use their examples.	9/19/2024 8:12 PM
6	Parking in the municipal lot	9/18/2024 8:30 PM
7	Parking	9/11/2024 10:20 AM
8	Don't waste money on goofy art	9/11/2024 7:10 AM
9	Same. Pedestrian lighting needs improved on both D street and Capital streets	9/10/2024 10:09 AM
10	Same as I said before about Main Street	9/9/2024 5:35 PM
11	The businesses that operate in the area.	9/4/2024 12:32 PM
12	Parking	9/4/2024 11:12 AM
13	You need more seating/gathering areas. Encourage people to stay for a bit.	9/3/2024 1:39 PM
14	I think D street would benefit from more tree and business. The core of which are in main street. D street gets left behind and most businesses forgotten about	8/28/2024 7:16 PM
15	Nothing. D street is a gross hodgepodge of old buildings with little investment. The service based businesses that are there do not drive traffic and do not promote retail	8/28/2024 4:27 PM
16	Parking	8/24/2024 11:22 AM

Q7 What is Historic Main Street missing? See the map above for the historic district boundary. (Check all that apply)





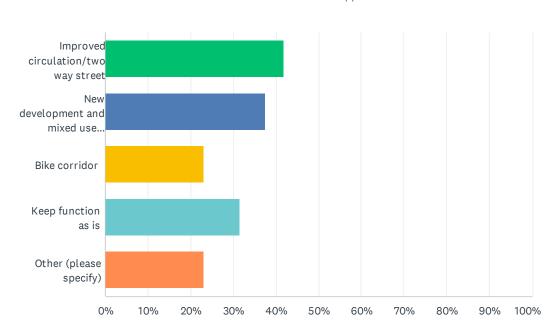
ANSWER CHOICES	RESPONSES	
Parks/plazas/gathering spaces	49.58%	59
Downtown connectivity	45.38%	54
Bike/pedestrian friendly streets	32.77%	39
Public art	27.73%	33
Benches	26.89%	32
Bike racks	12.61%	15
Pedestrian lighting	31.09%	37
Enhanced crosswalks	34.45%	41
Planters/flowers	20.17%	24
Historic and cultural elements	36.97%	44
Wayfinding and signage	22.69%	27
Historic Downtown gateways	34.45%	41
Parking	43.70%	52
Other (please specify)	27.73%	33
Total Respondents: 119		

,,	OTHER (DI FACE ORFOLEV)	DATE
#	OTHER (PLEASE SPECIFY)	DATE
1	Nothing it's fine the way it is	10/26/2024 4:12 PM
2	businesses, people	10/21/2024 11:54 AM
3	Updated and attractive signage by business owners. Filling the empty shops with cool, modern amenities needed by the community.	10/14/2024 11:35 AM
4	It's not contiguous, and most buildings are not occupied/feel run down. Quality restaurant and retail spaces would make it better, but who wants to invest in downtown Lewiston at this point?	10/11/2024 5:15 PM
5	A marketplace for groceries or a weekly farmers market	10/10/2024 9:58 AM
6	Mini mart/grocery store for downtown residents and college students in clearwater	10/10/2024 9:36 AM
7	Parking, parking, parking. Loading zones, temporary parking. The current 3-hour parking is never monitored.	10/8/2024 3:17 PM
8	Cut off traffic and let it be pedestrian only	9/30/2024 4:35 PM
9	Solid and reliable businesses. There are a few, but a downtown full of 2nd hand clothing stores and a handful of restaurants is not good enough to attract and hold people.	9/24/2024 12:47 PM
10	Handicap accessibility/parking. More sidewalks with handicap transition areas.	9/21/2024 11:16 PM
11	Shopping	9/21/2024 3:24 AM
12	Cleanliness	9/19/2024 8:12 PM
13	fix all the city stairs!!!!! seriously!!!! people actually use them/want to use them, which seems to be news to city planners. And buy that eyesore building in St Joe's hospital parking lot (? boarded-up motel??) and turn it into a multi-level parking garage that you can enter/leave either on top (St Joe's) or bottom (downtown). Stop trying to take streets/sidewalks to squeeze more parking; just build a garage. (ideally free parking) More fundamentally, it's missing more businesses in those closed-up storefronts. Gateways would be nice if there were any left-over money (hah!)	9/11/2024 1:30 PM

14	Businesses- there seems to be an awful lot of vacant spaces and turnover	9/10/2024 10:00 PM
15	Capital street seems like it's been forgotten. The building with the recycling place could use a LOT of love	9/10/2024 10:09 AM
16	Parking on D St and F St like it used to be and take it off of main that are could be for bicycle racks	9/9/2024 5:35 PM
17	SHOPPING. Big time. And as i've said, restaurants that are not Happy Day. (I do like Happy Day restaurants, but it gets old. Variety is much appreciated instead of being forced to go to a monopoly.)	9/8/2024 7:40 PM
18	Proper maintenance of what has been installed, especially green infrastructure. Once trees are damaged, they are damaged forever and public money is thrown away.	9/7/2024 1:53 PM
19	M	9/5/2024 5:10 PM
20	Fill the empty buildings with pop up shops or wrap them with colorful art, pics of history in the valley. Even get youth to paint them	9/5/2024 5:16 AM
21	Reasons to be downtown in the evenings and weekends	9/4/2024 5:52 PM
22	Businesses and the freedom for Business to do what they need to grow and prosper rather than being limited by one group of people's vision for downtown. You also need people living Downtown. You aren't going to get that if you force developers to operate in a narrow box in order to move their project ahead. Residences need to be affordable for College age kids and young married couples.	9/4/2024 12:32 PM
23	Ease of doing business. Too many city restrictions for simple shopping to open up.	9/4/2024 11:12 AM
24	I think hanging flower baskets would be beautiful. I think that some of the large planters that jut into the street could be removed and replaced with more parking. Flowers on posts and other landscaping would make up for this loss.	9/1/2024 8:03 PM
25	More business!	9/1/2024 7:28 PM
26	Waterfront connections and access.	8/31/2024 4:12 PM
27	All of this misses the point and it's what we've heard for decades if not centuries. This is what government people want to tell you we need downtown. In all reality we need investment in event centers, sports complex, etc. on the fringes of downtown i.e. the old Twin City foods or Rudolph's or the tribune or The recycling center. All of those need to be cleaned up and used as event centers or for things that drive traffic.	8/28/2024 4:27 PM
28	Are the downtown business employees using Main Street parking?	8/28/2024 12:57 PM
29	waterfront shops and restaurants	8/27/2024 1:33 PM
30	Businesses	8/27/2024 11:22 AM
31	More desirable traffic route	8/25/2024 9:38 AM
32	Theater	8/24/2024 11:22 AM
33	Everything. This place is ghetto	8/22/2024 11:21 PM

Q8 What do you think D Street should be? (Check all that apply)





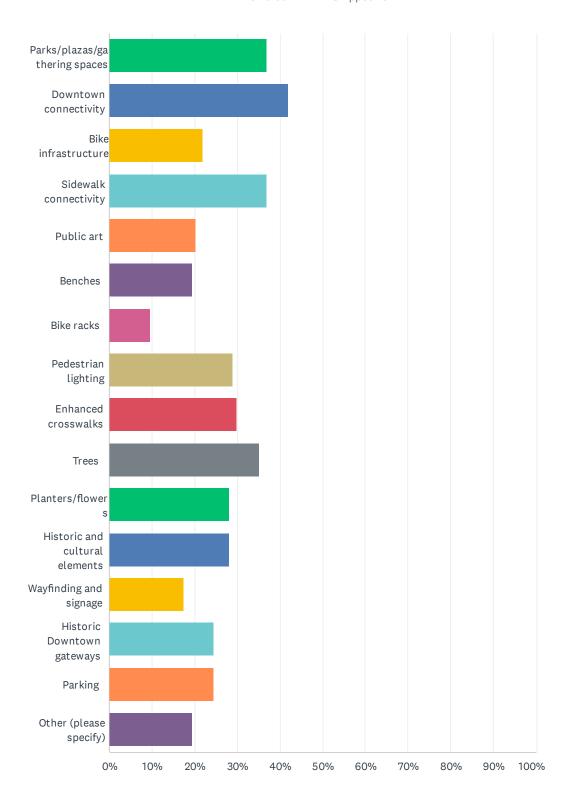
ANSWER CHOICES	RESPONSES	
Improved circulation/two way street	41.88%	49
New development and mixed use housing	37.61%	44
Bike corridor	23.08%	27
Keep function as is	31.62%	37
Other (please specify)	23.08%	27
Total Respondents: 117		

#	OTHER (PLEASE SPECIFY)	DATE
1	Keep it as one way	10/19/2024 1:55 PM
2	Restoration of older/historic buildings. If there is new housing I think it should be in the buildings that already exist.	10/10/2024 9:58 AM
3	D Street would be better utilized as the two-way street. Currently Main Street is used as the fastest thoroughfare to 21st Street from Clarkston. If it were made two-way, traffic would be faster and traffic levels would increase as that would become the fastest route. By making D Street the two-way street and adding additional parking, crosswalks and lighting to Main St., it would help slow traffic and encourage those truly wanting to visit a business or destination ON Main St. D Street would become the fastest thoroughfare for Bridge-to-21st St. access. Further, if Main St. were to be closed for events or parades, traffic would almost never be hampered if D St. were fully open and 2-way. Additionally on Main St., there are times (for loading and unloading) one lane may be blocked for 5-30 minutes and traffic is able to go around unhampered. If Main St. were two directional those temporary lane blockages would be a severe problem.	10/8/2024 3:17 PM
4	Park/Green Belt Area	10/5/2024 12:28 PM

5	I don't know, the idea of changing both streets to 2 way traffic is worth a look though.	9/24/2024 12:47 PM
6	Create parking in old pea plant area	9/23/2024 6:33 PM
7	Unsure	9/21/2024 11:16 PM
8	To me. Downtowns seem like a place-to-be when there's people moving around. More residence here would drive steady business and prime future visitors to come!	9/20/2024 7:10 PM
9	Why would you change it. There are far fewer vacant buildings than Main Street.	9/19/2024 8:12 PM
10	revamp it. Wake it up as it's a bit sleepy.	9/12/2024 11:18 PM
11	Restaurants & Bars. Maybe a brewpub.	9/12/2024 4:06 PM
12	D Dt should be like Main St.	9/11/2024 4:32 PM
13	Just needs to be prettier. I feel like D Street is just a sore sight, even on the nicer end near the community development office.	9/11/2024 2:27 PM
14	parking garage that somehow links to, or gets as close as possible to, or at least has a pleasant walking experience to, the Main Street corridor. And housing, which starts solving one part of the chicken-and-egg problem of no businesses downtown/no one living downtown/no incentive for more businesses downtown. Also, build a freakin' hotel on the old pea plant; it has one of the best views money can buy! We can do **way better in that location than a new motel up by Home Depot or the new Best Western in Clarkston.	9/11/2024 1:30 PM
15	Parking access, crosswalks, biking, pedestrian friendly, the access to main Street	9/11/2024 10:20 AM
16	Make it easier for businesses to start up here.	9/5/2024 5:10 PM
17	D Street should be 2-way, especially IF people want to keep shutting down Main Street once a month for some event.	9/4/2024 12:32 PM
18	Love the 2 way street idea on Main and D.	9/4/2024 11:12 AM
19	A good area for a park, and more sidewalk room for pedestrians. I feel like traffic needs to be somewhat diverted from the downtown area to make it more useable for pedestrain traffic (like how the HWY 95 throughway is NOT main street in Moscow, but Washington Street, leaving Main to feel safer and more friendly for foot traffic) but I am not sure if D Street should be that (unless maybe turning 1st Street into an opposite one-way (traffic going north instead of the current south) and diverting D-street traffic to Levee Bypass) as having a connection to the levy/waterway would be a plus for downtown expansion in the future. But somehow limiting downtown traffic to those who actually want to go downtown, while counterintuitive, might actually help downtown expand positively.	9/3/2024 1:39 PM
20	More businesses!	9/1/2024 7:28 PM
21	Less industrial and more connections to waterfront. Keep historic charm.	8/31/2024 4:12 PM
22	I hate ideas like asking people if they think it should be used as mixed use multifamily. Private individuals own all of the land around the street and therefore it's up to them what they do with their property. I don't like the government telling people what they can do. we need to create events that drive that then needs multifamily and provide a higher and better use to the land owners then running a tattoo shop or auto service center there. We don't need to tell them what they should do on their property or restrict what they can do on their property. That's dangerous rhetoric.	8/28/2024 4:27 PM
23	I just consider it a backstreet. There isn't anything to look at. It is more industrial.	8/28/2024 3:25 PM
24	Maybe make D Street two-way. Ease up traffic on Main. Main is traffic noisy and dangerous. Maybe more law enforcement presence?	8/28/2024 12:57 PM
25	We should improve the parking options on D street to fit our communities needs better. Parking is currently too small and cramped for the vehicles we now drive.	8/28/2024 12:46 PM
26	Parking	8/28/2024 12:30 PM
27	I don't know	8/27/2024 11:22 AM

Q9 What is D Street missing? (Check all that apply)

Answered: 114 Skipped: 8



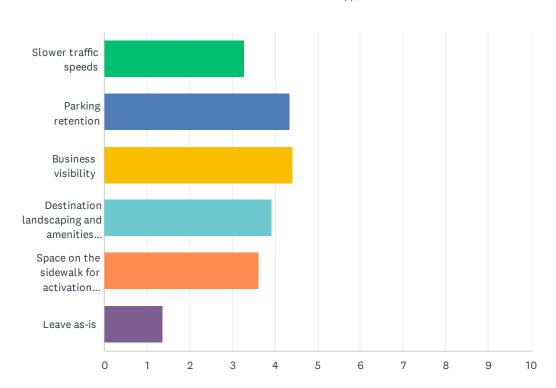
ANSWER CHOICES	RESPONSES	
Parks/plazas/gathering spaces	36.84%	42
Downtown connectivity	42.11%	48
Bike infrastructure	21.93%	25
Sidewalk connectivity	36.84%	42
Public art	20.18%	23
Benches	19.30%	22
Bike racks	9.65%	11
Pedestrian lighting	28.95%	33
Enhanced crosswalks	29.82%	34
Trees	35.09%	40
Planters/flowers	28.07%	32
Historic and cultural elements	28.07%	32
Wayfinding and signage	17.54%	20
Historic Downtown gateways	24.56%	28
Parking	24.56%	28
Other (please specify)	19.30%	22
Total Respondents: 114		

#	OTHER (PLEASE SPECIFY)	DATE
1	No opinion for D Street. Seems to be missing everything except parking and connectivity.	11/4/2024 12:10 PM
2	businesses, people, places people want to go	10/21/2024 11:54 AM
3		10/14/2024 11:35 AM
4	Feels like a highway that wants to be downtown, either make it more of a downtown area or make it a thoroughfare.	10/11/2024 5:15 PM
5	I don't know its a back street to me	9/30/2024 4:35 PM
6	Nothing	9/23/2024 6:33 PM
7	2 way traffic	9/21/2024 3:24 AM
8	It's missing people who live here giving it foot traffic and drawing my attention to cool things. Mixed use housing!	9/20/2024 7:10 PM
9	Incentive for businesses to come to downtown.	9/19/2024 8:12 PM
10	Everything.	9/11/2024 8:38 PM
11	People. D Street is missing people. There's nothing there except some tattoo parlors and auto shops. Mind, those are important, but there's nothing ***else. Nothing family-friendly, nothing visitor-friendly, nothing that helps day-to-day life (groceries, pharmacies, laundry, hardware, what have you). Of course, that would require people living there in housing that doesn't exist.	9/11/2024 1:30 PM
12	See above	9/11/2024 10:20 AM
13	This section is week done and has easy access to bike path and downtown	9/7/2024 6:13 PM

14	W	9/7/2024 11:11 AM
15	In empty business have a youth challenge of what can be have business plans created and open house with the youth present the plans. Wrap or have empty business decorate the windows so it's less empty.	9/5/2024 5:16 AM
16	Businesses and the freedom for Business to do what they need to grow and prosper rather than being limited by one group of people's vision for downtown. You also need people living Downtown. You aren't going to get that if you force developers to operate in a narrow box in order to move their project ahead. Residences need to be affordable for College age kids and young married couples.	9/4/2024 12:32 PM
17	Safety from the homeless or drug addicted.	9/4/2024 11:12 AM
18	Need more businesses!	9/1/2024 8:03 PM
19	More busimesses	9/1/2024 7:28 PM
20	The street is missing all sorts of stuff. Like I said before we need to improve the downtown corridor and then the landlords will improve their properties. I am honestly tired of people talking about waterfront in downtown. There is 0 feet of waterfront property in downtown Lewiston. The core of engineer prohibits that and we need to stop pretending that. There is nowhere in downtown outside of third or fourth story Buildings where you can even see the river so calling at waterfront is not even reasonable	8/28/2024 4:27 PM
21	I think it's primary purpose should be getting traffic in and out of town and eliminate the noise and congestion on Main. People do not adhere to the speed limit.	8/28/2024 12:57 PM
22	Businesses	8/27/2024 11:22 AM

Q10 Rank in order of priority for the reconstruction of Main Street

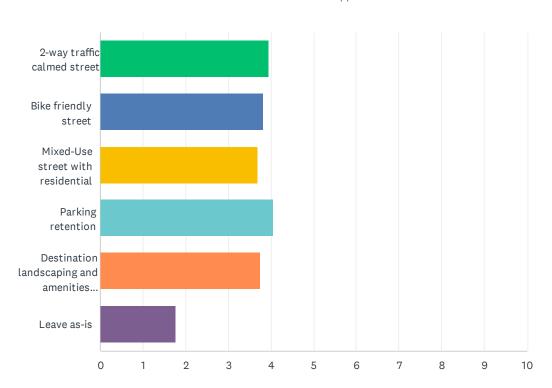
Answered: 120 Skipped: 2



	1	2	3	4	5	6	TOTAL	SCORE
Slower traffic speeds	9.17% 11	16.67% 20	15.83% 19	19.17% 23	30.00% 36	9.17% 11	120	3.28
Parking retention	36.67% 44	18.33% 22	10.00% 12	15.83% 19	17.50% 21	1.67% 2	120	4.36
Business visibility	25.83% 31	28.33% 34	19.17% 23	16.67% 20	9.17% 11	0.83%	120	4.42
Destination landscaping and amenities (street trees, pedestrian lighting, wayfinding, bike facilities,etc.)	14.17% 17	20.00%	27.50% 33	25.00% 30	10.00% 12	3.33%	120	3.93
Space on the sidewalk for activation (patio tables, sidewalk sales, etc.)	11.67% 14	16.67% 20	25.00% 30	20.00% 24	23.33% 28	3.33%	120	3.63
Leave as-is	2.50%	0.00%	2.50%	3.33%	10.00% 12	81.67% 98	120	1.37

Q11 Rank in order of priority for the reconstruction of D Street

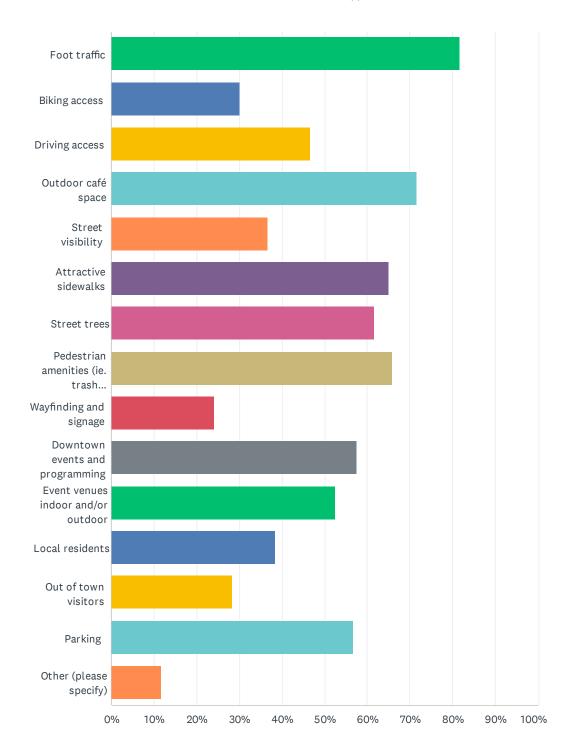
Answered: 118 Skipped: 4



	1	2	3	4	5	6	TOTAL	SCORE
2-way traffic calmed street	31.36%	13.56%	11.02%	16.10%	17.80%	10.17%		
	37	16	13	19	21	12	118	3.94
Bike friendly street	11.02%	29.66%	18.64%	20.34%	10.17%	10.17%		
	13	35	22	24	12	12	118	3.81
Mixed-Use street with residential	13.56%	14.41%	27.97%	19.49%	19.49%	5.08%		
	16	17	33	23	23	6	118	3.68
Parking retention	25.42%	12.71%	24.58%	17.80%	18.64%	0.85%		
	30	15	29	21	22	1	118	4.06
Destination landscaping and amenities (street	12.71%	27.12%	16.10%	16.95%	21.19%	5.93%		
trees, pedestrian lighting, wayfinding, bike facilities,etc.)	15	32	19	20	25	7	118	3.75
Leave as-is	5.93%	2.54%	1.69%	9.32%	12.71%	67.80%		
	7	3	2	11	15	80	118	1.76

Q12 What aspects of Main Street, D Street, and Downtown Lewiston are important to you? (Check all that apply)

Answered: 120 Skipped: 2



ANSWER CHOICES	RESPONSES	
Foot traffic	81.67%	98
Biking access	30.00%	36
Driving access	46.67%	56
Outdoor café space	71.67%	86
Street visibility	36.67%	44
Attractive sidewalks	65.00%	78
Street trees	61.67%	74
Pedestrian amenities (ie. trash receptacles, seat walls, benches, lighting, etc.)	65.83%	79
Wayfinding and signage	24.17%	29
Downtown events and programming	57.50%	69
Event venues indoor and/or outdoor	52.50%	63
Local residents	38.33%	46
Out of town visitors	28.33%	34
Parking	56.67%	68
Other (please specify)	11.67%	14
Total Respondents: 120		

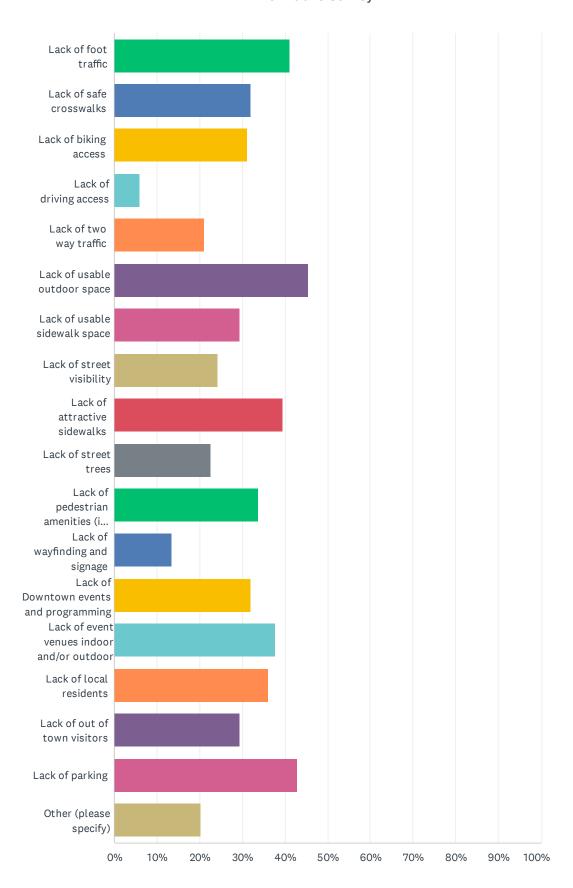
#	OTHER (PLEASE SPECIFY)	DATE
1	None of this other stuff even matters if there are not viable businesses thriving in downtown	9/24/2024 12:47 PM
2	Could change with the plan. I like the trees and when flowers are sprinkled in. Need visitors and locals.	9/21/2024 11:16 PM
3	Cleanliness and incentives for businesses to locate here. We have great bike access from the dikes.	9/19/2024 8:12 PM
4	Traffic goes much faster than is safe, limited sight distance at crossings, D and F should have the parking and through traffic	9/18/2024 8:30 PM
5	View of the water front	9/11/2024 4:32 PM
6	As far as locals, it's having businesses they want to go to (i.e., *please not another gift shop) and places they can live (and be supported by some modest shopping; you don't want to drive to Costco every time you want to buy milk). Locals who don't live downtown need to have a place to park; put in a parking garage and stop trying to nickel-and-dime and squeeze out a few more street spaces Go big and solve it once and for all. Re-open city stairs; there's a whole chunk of Lewiston within easy walking but no way to walk there. Build a place out-of-town visitors want to see. Take a page out of Walla Walla's book; they are thriving, and we have waaaaay more potential; we just don't use it.	9/11/2024 1:30 PM
7	Outskirts parking, walk ability to main St area, cars can use bypass for thru traffic	9/11/2024 10:20 AM
8	The look that it's vibrant and alive. The business downtown are doing but the empty is not helping.	9/5/2024 5:16 AM
9	I like the sewer lid bench, bike rack sculptures, the library area was obviously well-thought-out with wider sidewalks, green patches, trash receptacles, and useful/fun sculptures/features and plenty of parking. The historical mural with signage by Domino's - nice to look at, useful and you learn about the area. The Lewiston Tribune sculpture and seating area. Brakenbury Square is a unique and fun space. Trees (and what green space there is) is nice but more greenery	9/3/2024 1:39 PM

and gathering space (seating) is needed, perhaps like the Lewis-Clark Hotel courtyard, except with benches. What a pretty space, not big, but green and inviting. The covered walkways are nice there, too. I like how Newberry Square has a nice, safe, community vibe to it that makes you want to stop in more than one shop. It's a rare success downtown in that I keep going back, whether for tea, ice cream, or unique gifts, or to eat. It is a pleasant experience. People want pleasant and unique experiences.

10	More businesses	9/1/2024 8:03 PM
11	More businesses	9/1/2024 7:28 PM
12	Waterfront connections.	8/31/2024 4:12 PM
13	No one wants to come to Lewiston. We need more reasons for people to want to come other than just "Events" what stores do we have that is unique to anywhere else?	8/28/2024 1:30 PM
14	Library	8/24/2024 11:22 AM

Q13 What aspects of Main Street, D Street and Downtown are lacking? (Check all that apply)

Answered: 119 Skipped: 3



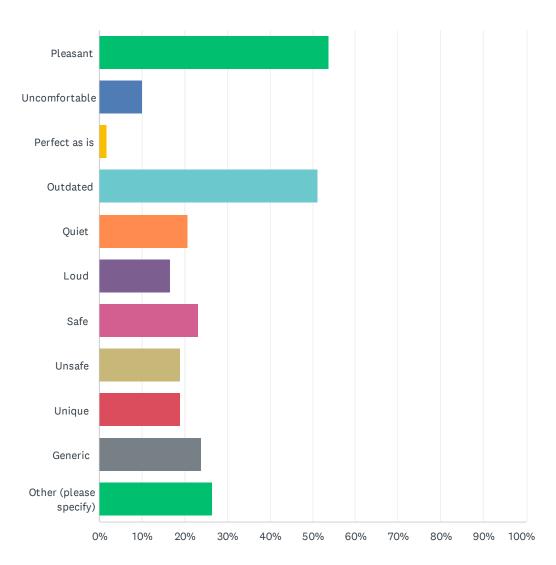
ANSWER CHOICES	RESPONSE	S
Lack of foot traffic	41.18%	49
Lack of safe crosswalks	31.93%	38
Lack of biking access	31.09%	37
Lack of driving access	5.88%	7
Lack of two way traffic	21.01%	25
Lack of usable outdoor space	45.38%	54
Lack of usable sidewalk space	29.41%	35
Lack of street visibility	24.37%	29
Lack of attractive sidewalks	39.50%	47
Lack of street trees	22.69%	27
Lack of pedestrian amenities (ie. trash receptacles, seat walls, benches, lighting, etc.)	33.61%	40
Lack of wayfinding and signage	13.45%	16
Lack of Downtown events and programming	31.93%	38
Lack of event venues indoor and/or outdoor	37.82%	45
Lack of local residents	36.13%	43
Lack of out of town visitors	29.41%	35
Lack of parking	42.86%	51
Other (please specify)	20.17%	24
Total Respondents: 119		

6	Lack of retail and other businesses	9/24/2024 12:47 PM
ō	Signage could be better. Would like to see vacant buildings and lots cleaned up. Trees and planters should be removed for better parking. Some trees should be replaced with the appropriate type of trees that thrive in street spaces and do not become cumbersome or dangerous over time. It's been said in meetings that Main St. does have ample parking even if it's a block away, and that Moscow is an example of what our Main St. should be. Our age demographics are older than Moscow, and my business has customers that already struggle with parking. I've been told by multiple guests when they can't find parking within a few spots or across the street, they go elsewhere. We should not only make our downtown aesthetically pleasing and more pedestrian friendly to encourage new customers and visitors, but also keep in mind the demographics of the locals who have been here for years and are the staple customer base form many downtown businesses.	10/8/2024 3:17 PM
4	Market for groceries accesible to downtown residents	10/10/2024 9:58 AM
3	Lack of businesses. Lack of attractive business signage.	10/14/2024 11:35 AM
2	The planter boxes with treesreally need to go. There's other ways to beautify main Street. Parking is horrible	10/15/2024 8:33 PM
-	As a driver and pedestrian, I witness the worst as people navigate through Main St. Possibly focus on making 5th through 9th Street more pedestrian friendly. Perhaps make new 6th Street one way traffic.	11/4/2024 12:10 PM
	OTHER (PLEASE SPECIFY)	DATE

7	Lack of ease to conduct business.	9/21/2024 3:24 AM
8	Bike parking/locking area so we can walk Main Street etc.	9/19/2024 8:12 PM
9	One note on parking: it's not THAT bad. People walk farther from the Costco parking lot than they do from their Main St parking, but they complain about Main St parking more. Go figure. But build a garage and don't try to squeeze out a few more street spots that won't even solve the problem; waste of \$ and everyone would still be frustrated. Get people living downtown; give them the basic services so they *can live downtown (mini-mart, drugstore, etc.). Build a hotel on the pea plant; best view in the whole valley.	9/11/2024 1:30 PM
10	Needs free space where non-profits can have booths during events	9/11/2024 12:10 PM
11	Interesting businesses	9/11/2024 10:20 AM
12	Again, lack of businesses- it seems like many start but struggle to remain viable.	9/10/2024 10:00 PM
13	Disabled Parking	9/10/2024 9:38 PM
14	Shopping. Restaurants (Not Happy Day). Not a vibrant downtown, known as a little dirty and not necessarily safe at night.	9/8/2024 7:40 PM
15	Lack of care	9/7/2024 1:53 PM
16	D street needs to be 2way traffic	9/5/2024 5:10 PM
17	Lacking a move in now and open your business. Or we have a space for you, in the meantime it's filled with history or colorful art.	9/5/2024 5:16 AM
18	Unfortunately, I think vehicle traffic flow is part of the problem, and a costly improvement to make.	9/3/2024 1:39 PM
19	Lack of businesses. Also, there is a large parking area behind main st (Behind the Diamond Shop, etc) that is largely fenced off, and much of it says no parking. Major disadvantage that I'm sure keeps people away.	9/1/2024 8:03 PM
20	Businesses!!	9/1/2024 7:28 PM
21	Lack of parking around areas of 5th St through 9th St	9/1/2024 2:27 PM
22	I hate the drive-in parking! If my little car gets between a couple of big-assed pickups, it's dangerous trying to pull out because vision is blocked. Eliminate this from Main Street!	8/28/2024 12:57 PM
23	lack of energy	8/27/2024 12:35 PM
24	Idk	8/27/2024 11:22 AM

Q14 How would you describe Main Street? (Check all that apply)





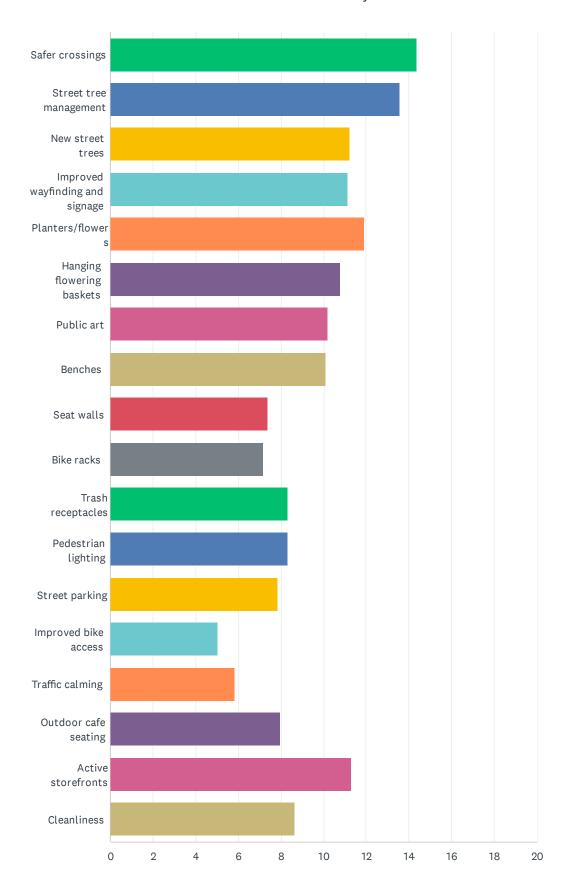
ANSWER CHOICES	RESPONSES	
Pleasant	53.72%	65
Uncomfortable	9.92%	12
Perfect as is	1.65%	2
Outdated	51.24%	62
Quiet	20.66%	25
Loud	16.53%	20
Safe	23.14%	28
Unsafe	19.01%	23
Unique	19.01%	23
Generic	23.97%	29
Other (please specify)	26.45%	32
Total Respondents: 121		

#	OTHER (PLEASE SPECIFY)	DATE
1	Downtown lewiston has so much potential and needs some love	10/19/2024 1:55 PM
2	Parking is unsafe	10/15/2024 8:33 PM
3	"Fine"	10/14/2024 11:35 AM
4	Main Street at night is sketchy, and it doesn't have to be. Could benefit from increased law enforcement presence. Especially cracking down on loud trucks and bikes on D street, there has to be some kind of noise ordinance there	10/11/2024 5:15 PM
5	Traffic on main is quite load	10/11/2024 2:51 PM
6	It could use some improvements here and there but the general walkability is good and as someone who lives downtown I appreciate that, and hope it stays that way or improves! The historic elements make the town unique and I hope they are able to be restored continuously.	10/10/2024 9:58 AM
7	Some buildings need a facelift to give it a more streamlined cohesive look.	10/9/2024 10:51 AM
8	The vacant spaces give it a feel that nothing is connected. Whitefish, MT is a good example for what I would hope to see for our downtown. Lighted, vibrant, updated spaces and minimal vacant spaces. If something IS vacant, at least it should be kept up to some degree. Crime is active downtown and those things would help reduce that as well.	10/8/2024 3:17 PM
9	Struggling	9/24/2024 12:47 PM
10	Charming but unnoticeable.	9/21/2024 11:16 PM
11	The cross walks are dangerous. People can't see past the planters then people step out into the road and the 2nd lane travelers don't stop	9/19/2024 9:31 PM
12	Dirty	9/19/2024 8:12 PM
13	Dated	9/18/2024 8:30 PM
14	Don't like the planters (lose parking) and don't like diagonal parking	9/11/2024 4:43 PM
15	Fabulous little historic street, way better than other towns/cities in the region. But way too many boarded-up businesses; sad.	9/11/2024 1:30 PM
16	Not consumer friendly or inviting	9/11/2024 10:20 AM
17	Nearly interesting	9/10/2024 10:00 PM

18	The traffic runs too fast and is extremely noisy.	9/6/2024 4:05 PM
19	Overly Controlled. Main Street at its height had a freedom and pioneer spirit to it. You could tear down old buildings and rebuild what you wanted. If you were a success, great. If you failed, people moved on to the next thing. People now are chasing a picture of other downtowns that Main Street never was and will never be.	9/4/2024 12:32 PM
20	Vacant buildings need filled	9/3/2024 5:02 PM
21	Some businesses are doing a great job of improving the sidewalk front and it's making the space better for everyone	9/3/2024 11:04 AM
22	Fun	9/1/2024 8:03 PM
23	A Diamond in the rough	9/1/2024 7:28 PM
24	I don't stop in Downtown after dark. The trees need to be cut back. Some are blocking the street signs and stop lights!	9/1/2024 2:27 PM
25	Enhance historic character and river presence and access.	8/31/2024 4:12 PM
26	Not entirely unsafe but I don't always feel very safe. Better lighting and more events and people would help.	8/29/2024 9:48 PM
27	Dead or dying, dark, dreary	8/28/2024 4:51 PM
28	Pleasant to walk but frustrating to drive. Parking is ridiculous.	8/28/2024 3:25 PM
29	I only ever come downtown to visit 3-4 places and not all at once. I can't think of a time I just wanted to walk around and look at the other shops/businesses. I think instead of saying places are for lease/sale ideas need to be placed in peoples minds. Ie: bookstore, vintage shop, clothing boutique, cafe	8/28/2024 1:30 PM
30	The traffic totally ruins the ambiance of downtown. Noisy, drive too fast and unsafe.	8/28/2024 12:57 PM
31	When I am downtown I feel like I am in a dark overgrown tunnel	8/28/2024 12:46 PM
32	Fix the traffic. Unsafe and loud	8/25/2024 9:38 AM

Q15 Rank in order the streetscape improvements you would like to see.

Answered: 117 Skipped: 5



	1	2	3	4	5	6	7	8	9	10	11
Safer crossings	26.50% 31	15.38% 18	6.84% 8	10.26% 12	8.55% 10	10.26% 12	4.27% 5	3.42% 4	2.56% 3	1.71% 2	2.56% 3
Street tree management	6.84% 8	15.38% 18	17.95% 21	11.11% 13	6.84% 8	11.97% 14	7.69% 9	2.56% 3	1.71% 2	8.55% 10	1.71% 2
New street trees	4.27% 5	7.69% 9	11.11% 13	12.82% 15	5.13% 6	9.40% 11	5.98% 7	6.84%	5.13% 6	0.85%	7.69% g
Improved wayfinding and signage	0.00%	6.84%	6.84%	13.68% 16	13.68% 16	9.40%	5.98% 7	5.98% 7	5.98% 7	5.98% 7	2.56%
Planters/flowers	2.56%	5.13% 6	5.98% 7	11.11% 13	12.82% 15	16.24% 19	8.55% 10	11.97% 14	5.98% 7	1.71% 2	5.13% 6
Hanging flowering baskets	0.85%	4.27% 5	4.27% 5	8.55% 10	10.26% 12	7.69% 9	12.82% 15	11.97% 14	8.55% 10	5.13% 6	4.27% 5
Public art	5.13% 6	2.56%	1.71%	1.71%	9.40% 11	5.13% 6	14.53% 17	13.68% 16	9.40% 11	10.26% 12	3.42%
Benches	0.00%	0.85% 1	4.27% 5	4.27% 5	5.98% 7	4.27% 5	9.40% 11	14.53% 17	14.53% 17	13.68% 16	11.11% 13
Seat walls	0.00%	0.00%	0.00%	0.00%	0.85%	0.85%	0.85%	5.98% 7	13.68% 16	16.24% 19	12.82% 15
Bike racks	0.00%	0.00%	1.71% 2	2.56%	0.00%	1.71% 2	3.42% 4	1.71% 2	5.13% 6	17.09% 20	15.38% 18
Trash receptacles	1.71%	0.85%	2.56%	0.00%	2.56%	5.13% 6	7.69% 9	5.13% 6	6.84%	3.42%	17.09% 20
Pedestrian lighting	1.71%	2.56%	5.13% 6	5.13% 6	4.27% 5	4.27% 5	2.56%	2.56%	5.13% 6	4.27% 5	5.13%
Street parking	9.40%	6.84%	5.13% 6	1.71%	0.85%	0.85%	0.85%	1.71%	3.42%	3.42%	0.00% C
Improved bike access	0.00%	2.56%	0.85%	0.00%	4.27% 5	0.85%	1.71% 2	0.00%	0.85%	0.00%	4.27% 5
Traffic calming	1.71%	5.98% 7	3.42%	0.85%	0.85%	1.71%	2.56%	3.42%	2.56%	1.71% 2	0.85%
Outdoor cafe seating	5.13% 6	8.55% 10	5.13% 6	2.56%	3.42%	4.27% 5	4.27% 5	4.27% 5	3.42%	2.56%	2.56%
Active storefronts	28.21% 33	9.40% 11	5.98% 7	7.69% 9	5.13% 6	2.56%	0.85%	0.00%	1.71% 2	1.71% 2	0.00% C
Cleanliness	5.98%	5.13%	11.11%	5.98%	5.13%	3.42%	5.98%	4.27%	3.42%	1.71%	3.42%

Q16 Give us your examples of great Downtowns. What makes them destinations?

Answered: 100 Skipped: 22

#	RESPONSES	DATE
1	I admire Downtown Moscow, nice walking atmosphere except during winter months.	11/4/2024 12:10 PM
2	Nice sidewalks, no empty building like now seems 25% or more	10/29/2024 1:41 PM
3	History	10/26/2024 4:12 PM
4	Moscow, Coeur d'alene. Open layout, walkable, good food, ice cream, coffee, art, not tucked away. CDA close to the water. Tourism attractions. People need to have a reason to go there. No one has a reason to go downtown in Lewiston today.	10/21/2024 11:54 AM
5	Spokane downtown. There's a lot more to entertainment and kid friendly amenities.	10/19/2024 5:49 PM
6	Coeur d alene, Santa fe nm and Austin Texas. They have easily accessible restaurants and are taken care of well with beautiful trees and landscaping and many people visit.	10/19/2024 1:55 PM
7	Downtown Gilbert, AZ CDA Enoug destination spots to justify coming down there. Clean. Very good traffic flow. Great amount of parking. Great mixed use spaces with restaurants. Splash pads/parks	10/18/2024 12:49 PM
8	McCall. Whitefish. Enterprise. Even Pomeroy has a prettier and fuller downtown than Lewiston.	10/14/2024 11:35 AM
9	I'm from Colorado, pearl street or old town Fort Collins comes to mind, mainly due to walkability and quality of restaurants/retail. But even Moscow is a good downtown, and that comes down to not feeling dirty and outdated, as well as not feeling sketchy from a homeless/drug standpoint, or a street traffic noise standpoint.	10/11/2024 5:15 PM
10	The community makes a great downtown. This one struggles because this is a mill town where many in the population are not socialized properly.	10/11/2024 2:51 PM
11	ACTIVE BUSINESS, Pedestrian based, wide sidewalks, light traffic, perimeter parking and traffic. Closer to Moscow and Sandpoint. Forget about bikes - too hard to access due to hills. Create reasons for people to come and spend time downtown.	10/10/2024 11:24 AM
12	Flagstaff, AZ. The historic elements are retained. They have a connection to the community and things that bring the community together, such as farmers markets, theaters/live performances, public art (the public art is great in Lewiston!).	10/10/2024 9:58 AM
13	Variety of small businesses that are hard to find in more rural/suburban areas. Community, events, & art.	10/10/2024 9:36 AM
14	Coeur d'Alene, Walla Walla, Wenatchee, Bellingham. Variety of businesses, family friendly establishments, walkability/bike friendly, connection to waterfront, cohesive appearance.	10/9/2024 10:51 AM
15	Whitefish, Montana Very walkable, but also ample parking in front of each storefront. The streets are clean, and every storefront is clean even if vacant, nothing boarded up. Good lighting also helps it feel very safe.	10/8/2024 3:17 PM
16	great shopping experience, great dining options, and a safe environment to do those activities. Must be pedestrian friendly with slower traffic speeds to encourage walking and outdoor dinning / shopping.	10/8/2024 1:05 PM
17	A variety of shops and restaurants. Night Parades throughout the year.	10/8/2024 10:39 AM
18	It's all about community having enough space to bring one another together! Space for events and general fun having!	10/5/2024 12:28 PM
19	Walla Walla, WA Wallace, ID Colfax, WA	10/4/2024 10:07 AM
20	Charlotte NC Has updated older buildings and lots of restaurants and activities	10/3/2024 1:34 PM

21		9/30/2024 4:35 PM
22	N/a	9/28/2024 8:50 AM
23	Salmon ID, Baker City OR, Grangeville ID, Walla Walla WA. Vacancies are almost non existent whereas Lewiston has dozens of empty storefronts.	9/24/2024 12:47 PM
24	Carnation, WABUT i think ours is great!! Just repair some side streetsand fill all the empty buildings!!	9/23/2024 6:33 PM
25	Unique attraction, clean and attractive. Family oriented.	9/21/2024 11:16 PM
26	Moscow idaho. Local restaurants which are affordable and some fancy places for date nights. Local communities support each other well.	9/21/2024 12:12 PM
27	Keeping the drug rehabilitation and homeless shelters far away from tourist and shopping areas.	9/21/2024 3:24 AM
28	People. People give a community and a street a pulse. If people live on the street and are able to frequent the places, they talk about them, and shape a local identity that makes the area stand out.	9/20/2024 7:10 PM
29	Walla Walla, Missoula, Couer'dalene, Sandpoint. These downtown areas are easily walkable. They feel safe. Businesses seem like they are active and the area seems lively. There is good signage, pointing to activities or parking and businesses. These towns also capitalize on the waterfront areas or the uniqueness of their area. They do not allow homeless people to mingle in the downtown business area and keep. The services for homeless out of the downtown business district.	9/20/2024 2:53 PM
30	Boise very easy to walk around	9/19/2024 9:31 PM
31	Walla Walla. Seating, thriving, clean, lots of businesses and restaurants and tasting rooms.	9/19/2024 8:12 PM
32	Updated store fronts, level surfaces for walking, close parking and access, openness	9/18/2024 8:30 PM
33	Thriving businesses - we need to loosen red tape around building permit requirements which can be cost prohibitive to bringing business into our downtown. Family one-stop shopslots of family attractions, shopping and restaurants.	9/14/2024 2:04 PM
34	Diverse shopping, cafes/restaurants, outdoor signage, community events, public access. D street needs more development along that corridor. Improvement has been made, but maybe two way traffic on main and d would allow more access rather than choosing Main as the only corridor for business and traffic.	9/14/2024 12:37 PM
35	Calm, comfy, good restrant etc,	9/13/2024 6:57 PM
36	Key west Florida . World famous bars next to high end clothing stores and museums	9/12/2024 11:18 PM
37	Pleasanton CA. Lots of cafe seating and restaurants. Active stores and businesses	9/12/2024 4:06 PM
38	Lively	9/12/2024 9:07 AM
39	Lahaina, Key West, Nelson BC. Lots of people having a good time. Open door art galleries. Store front museums.	9/11/2024 8:38 PM
40	Connection to the waterfront. More lively businesses and public events	9/11/2024 8:07 PM
41	Active businesses, not empty storefronts.	9/11/2024 5:54 PM
42	Great Downtowns have variety, something unique about them, flowers, gathering places, grass, views of waterfront.	9/11/2024 4:32 PM
43	Walla Walla is a great example of a good downtown. When I'm there, I feel like I can walk around, see the businesses and it doesn't feel empty. Moscow has also done a great job with their downtown. It is very walkable and you don't realize the busy one way streets on each side of it. I also like how the farmers market is connected to the downtown in Moscow as that promotes a community aspect instead of just a parking lot or one particular business. But if you do it downtown, it needs to be in an attractive area, not a parking lot.	9/11/2024 2:27 PM
44	CDA, great access to their lake and shopping and restaurants. Walla Walla, I'm not a huge wine person, but with those businesses they keep the downtown looking full, active and open.	9/11/2024 2:11 PM

	Ellensburg, they use their old buildings really nicely. I usually pass through when traveling to Seattle to eat.	
45	Walla Wallaabsolutely fabulous, and frankly working with not-as-nice natural resources as we have. Moscow, ditto. Waitsburg to a lesser extent, but they've done super-well with what they have.	9/11/2024 1:30 PM
46	Easy access, plenty of parking, good pedestrian crossings, viable n architectural pleasing streets n storefronts. Well groomed trees, safe walking paths. Create a vibrant downtown not something from the 50's, 60's, etc.	9/11/2024 1:28 PM
47	Areas that draw in people	9/11/2024 12:10 PM
48	Unique stores, restaurants and activities - options for dining and visiting at all times of the day or week	9/11/2024 10:26 AM
49	16th St Mall in Denver , lots to do , see and experience. No cars	9/11/2024 10:20 AM
50	Coeur 'd alene, Wallace. Amenities nearby, like parks or river/lake, events, unique businesses, restaurants with sidewalk café seating, Live music events, CDA has a large park that attracts people who also shop downtown. Downtown can't be one dimensional (shopping only), there has to be different options for activates to draw people downtown and be able to see the coffee shops or a store to shop in.	9/11/2024 7:26 AM
51	Purposeful businesses	9/11/2024 7:10 AM
52	The best downtowns have variety and local flavor. Generally this means creating an environment in which local businesses will naturally thrive. Great downtowns work to be attractive to their own residents- if the people in the area love their downtown, visitors are likely to love it too.	9/10/2024 10:00 PM
53	Enumclaw WA They have been doing it right for years. People desire moving their to be a part of the vibrant small town weekly activities.	9/10/2024 9:38 PM
54	Open business, cafes, restaurants that host events that people want to visit.	9/10/2024 9:36 PM
55	Safety (dedicated police pressence, well lit), attractive store fronts, good dining places, ample, easy parking, small town quaint.	9/10/2024 9:20 PM
56	Clean,safe,friendly. Attractive, inviting.	9/10/2024 2:23 PM
57	Active storefronts and restaurants. Beautiful things to look at and things to do. Relaxing fountains, quiet traffic	9/10/2024 10:09 AM
58	Charlotte, Charleston, Hilton Head, Savanah beautiful parks water fountains	9/9/2024 5:35 PM
59	Whitefish, MT. Everything about that downtown is very desirable. The Main St (And all of the shopping) isn't down the main street that goes through town but it is very accessible. Lots of shops, bars, local restaurants, and very vibrant. It is NOT a huge town, but draws lots of tourists and is very safe and walkable at all hours of the day. Very busy especially during the weekends as far as walkable traffic goes. I didn't notice any kind of bike racks, or benches. That seems to be in bigger cities and places where people you don't want hanging around, hang around. Hotels are downtown, as well as very nice condos. Another one on the other side of the spectrum is Boise. Of course, it is much larger. However what it offers is the fact that it is very vibrant, there are events going on all the time downtown from sports events, to art in the park, etc. Not only that, but people like living downtown (Especially the younger crowd). I would not dare to suggest people to live off of any of those streets off Idaho St. Instead of investing in a football stadium that you won't get the money back on, how about making desirable housing off of all of those Idaho St connecting streets? Upscale condos, apartments, and townhouses would be great! Once you get the momentum of people actually wanting to live downtown, you'll do nothing but increase the value, and make places like downtown and Normal Hill the "IT" part. Other downtowns, not just Boise are very desirable to live in the downtown area. Don't develop residential on D St, that should serve as mostly commercial. Maybe a condo building on Main St though.	9/8/2024 7:40 PM
60	New restaurants and shopping	9/8/2024 5:51 PM
61	?	9/8/2024 10:01 AM
62	Coeur d'Alene it's walkable, there's a couple of large parks that are fun for all ages, cafes, and	9/7/2024 6:13 PM

	feels community centered. Nelson BC walkable, parks close by, midterms and other stores to go into, co-op grocery store, and there are always people out walking around. Both cities are less car centric.	
63	Dayton, Washington (for its size.) Trees, active storefronts, park area one block over from Main Street.	9/7/2024 1:53 PM
64	Just look at Walla Walla Main Street. It is great.	9/6/2024 4:05 PM
65	Downtown Moscow. There always seems to be a lot of foot traffic and general liveliness. They seem to have events that always brings the community to the downtown. Lewiston seems like it is starting to do that with some events here and there.	9/6/2024 1:55 PM
66	Moscow, 5 years ago. Coeur d'alene. Diverse businesses, pedestrian friendly, safe indoor and outdoor spaces for families. It seems like the people who have businesses down there don't seem like they feel supported, that should be top priority.	9/6/2024 12:18 PM
67	Walla Walla Moscow Coeur d'Alene They have that downtown vibe with plenty of shops and places to eat and drink. Trees and benches are not priority in these downtowns. They are business friendly. This town is anti business.	9/5/2024 8:49 PM
68	Coeur d'alene, the area on N Main St between N Beebe Blvd and N Old Mill Loop. It's a clean looking area, lots of small shops along with name-brand stores. The sidewalks and greenery always look nice, and the architecture of the buildings is very pleasant. There's ample parking and it's also a fairly quiet street.	9/5/2024 5:59 PM
69	Moscow. Walla Walla. Sacramento. Places with downtown restaurants, bars that figure out how to incorporate nature with the city. We have 2 rivers in this area and the lack of using those waterfronts is sad. There is 1 restaurant on the river in the area and that's just sad. Why is there no marina? No public pier to hang out around that water? Why is there not a resort on the water? This area could be an amazing tourist destination if the people in charge would start using what they have in front of them instead of building a new court house that wasn't needed. The paper mill needs to goit is making the community sick with its air pollution and no longer serves the community the way it did. It's the biggest eye sore this community has.	9/5/2024 5:10 PM
70	A few anchor business with others around. United "open for business" attitude, local culture infused, and vacant or empty business are hidden with art, photos or small pop up shops.	9/5/2024 5:16 AM
71	Couer d alene, 4th St area by Resort. Lots of businesses and fun events like the art walk and wine events. Lots to look at and do, and great close access to the lake!	9/4/2024 11:30 PM
72	Beautiful, active, safe, clean, easy access.	9/4/2024 10:43 PM
73	Active storefronts. So much of downtown is places I'd never visit.	9/4/2024 10:04 PM
74	Cool places of all types to eat and drink, interesting shops, fun events	9/4/2024 5:52 PM
75	Moscow, because its downtown is surrounded by the town so it is a good spot for businesses. Sandpoint, because it has the Lake and the Beach as destinations. We aren't ever going to get Waterfront along the rivers, so what is the destination for Lewiston other than business?	9/4/2024 12:32 PM
76	Coeur d'Alene, McCall, Florida, Walla Walla, Sydney etc. They all have their homeless shelters away from the waterfront, walking paths and downtown areas to give a sense of peace, welcoming, and safety.	9/4/2024 11:12 AM
77	Vibrant with open businesses, visually beautiful, family friendly, lots to do, and something that draws people.	9/3/2024 5:02 PM
78	Vibrant Restaurants and Cafes. Trees and green spaces. Public gathering places and seating. Well-lit areas that feel cozy yet safe. Nice Public Restrooms. A few more trash receptacles. Unique and/or useful art installations. Lots of foot traffic (and bike) but minimal vehicle traffic. Places that are open evenings and weekends for those of us who work. Lively music playing on speakers/background music to set the tone of an area (Newberry Square/Imua has this. Relatively simple but Genius.) Live music on Fridays/Weekends. Eclectic Shops to encourage last minute shopping for gifts or weekend shopping trips, including toys/books/music/clothing/thrift/gift-shops/pharmacy/convenience store. Apartments or hotels would help increase foot traffic simply because people would live or visit there often. "Destination" attraction (something unique that can't be found anywhere else close by - like carousels in Spokane/Cda, Missoula, and Kennewick; drive-in theatres like Grangeville, La	9/3/2024 1:39 PM

Grande, or Milton-Freewater (even if not immediately downtown, they draw people to the area, where they may eat, shop, or stay.) A push from local leaders to buy local. Buy-in from local retailers to make online ordering, pick-up orders, to-go orders, or deliveries/mailing an option for busy shoppers. Well-organized events with visible staff or security personnel in case visitors have questions or need help. Large, well-lit, and conveniently-located parking lots or garages with safe access to and from parking spots (like redirected traffic, more stop lights, or walking bridges). Lots of green space, grass and trees, and/or open spaces (plaza, coutyards) as much as possible - like the Lewis-Clark Hotel. Greenery makes things more inviting and makes me want to stay in a space longer. Experiences to enjoy - pleasant and unique experiences will encourage people to return.

	oxpenences will encourage people to return	
79	Moscow, pedestrian friendly and cleaner	9/3/2024 11:04 AM
80	Walla Walla, Bozeman, CDA - thriving businesses including shops, restaurants, and bars. Flowers!	9/1/2024 8:03 PM
81	Walla Walla. Lots of businesses. Very vibrant. A good model for Lewiston!	9/1/2024 7:28 PM
82	NA	9/1/2024 2:27 PM
83	Cannon Beach, LaConner, Ashland. Towns that have a cohesive feel.	8/31/2024 4:12 PM
84	Ann Arbor, MI. Amsterdam, Netherlands. Walkability to everything you need	8/29/2024 2:00 PM
85	Moscow Idaho, lots of businesses of all different types. Lots of pedestrian street walkways. Lots of big events like the farmers market that brings a lot of people, residents and out of town. Food trucks often park in the areas as well. Lots of diversity	8/28/2024 7:16 PM
86	Grass Valley California completely closed off their main street where all the shops are. They cobblestoned the street surface. It's an awesome change. Parking is on the outside perimeter of town. There are benches and cafe seating. Lewiston could do this by closing Main street between 5th and 9th. Tear down a couple old dead buildings to make more parking options. The downtown area has lots of potential.	8/28/2024 4:51 PM
87	I have been involved in a lot of these discussions over the years. I am tired of people talking about Walla Walla and how great the downtown is. Yeah duh it's great. But that is because Walla Walla is world famous for its wine. People go to Walla Walla for the wine not to go downtown. People go downtown Walla Walla to get wine and food. Downtown isn't driving out of town visits to Walla Walla. So many municipalities spend a fortune trying to be Walla Walla, but then nobody shows up downtown because the municipality has no appeal to outside visitors. We have to create entertainment and food that drives people downtown and all the retail and service businesses will benefit from it. It's really that simple. Create an event center at Twin City foods or an athletic center that host basketball volleyball cheer tournaments every weekend and you'll bring in thousands of people every weekend that will then meander downtown. We don't need to spend millions on planters that won't drive people to go downtown	8/28/2024 4:27 PM
88	Walla Walla. Great art, food, culture, clean, modern yet quaint.	8/28/2024 3:26 PM
89	Outdoor/indoor events, unique food and drink places, unique shopping spots.	8/28/2024 3:25 PM
90	5th Avenue in Naples, Floruda. A great mix of shopping, restaurants, and cultural events. https://www.fifthavenuesouth.com/ Boise, ID Walnut Creek, CA	8/28/2024 3:18 PM
91	Spokane, very walkable, lots to do, lots of events, lots of restaurants	8/28/2024 2:16 PM
92	Chicago, Inviting, safe, historical	8/28/2024 2:07 PM
93	Colfax - unique shopping and also willing to drive an 1 hr to shop there. Moscow much more variety and mall willing to drive 40 min, Spokane for shopping and restaurants/culture. Bring our food trucks to storefronts	8/28/2024 1:30 PM
94	I couldn't get the survey above to work but traffic issues is my main concern. I like going to Moscow. Lots of interesting shops, good traffic control, parking on and off Main Street. Lots of people downtowngood vibe.	8/28/2024 12:57 PM
95	Walla Walla WA has a great downtown we travel often to too enjoy. It is open, bright, inviting, easy to access by car or foot, offers a variety of shops and restaurants.	8/28/2024 12:46 PM

97	CDA, a lot of activity with bars, shops, activities and restaurants.	8/27/2024 1:33 PM
98		8/27/2024 11:22 AM
99	Library at the coffee shop	8/24/2024 11:22 AM
100	Quiet, green	8/22/2024 11:21 PM

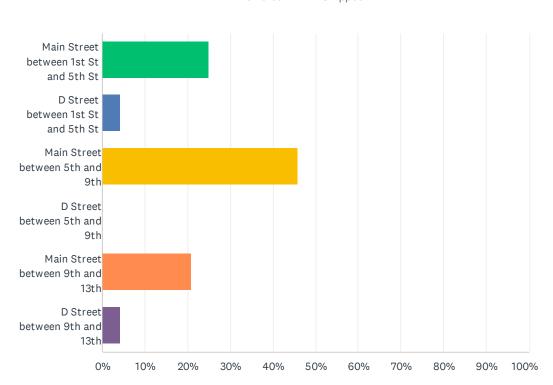
Q1 What business and/or property do you own or operate in Downtown Lewiston?

Answered: 26 Skipped: 0

#	RESPONSES	DATE
1	YWCA	8/16/2024 4:06 PM
2	CornerStone Interiors	8/7/2024 2:39 PM
3	Blondie's Beauty Bar	8/6/2024 5:20 PM
4	CornerStone Interiors	8/6/2024 4:54 PM
5	The Storm Cellar Lewiston (co-owner)	8/6/2024 9:29 AM
6	Western Appraisals, 1012 & 1014 Main Steet	8/5/2024 3:32 PM
7	Lucidity Photography Gallery and Gift in Newberry Square	8/5/2024 1:39 PM
8	Lucidity Photography Gallery & Gift	8/5/2024 1:11 PM
9	Clearwater Gemstones	8/1/2024 3:31 PM
10	201 1st Street Lewiston ID 83501	7/30/2024 4:49 PM
11	Bircher's Grill	7/30/2024 4:40 PM
12	The Storm Cellar at 835 Main St	7/30/2024 3:52 PM
13	203 D ST AND 0222 1ST ST	7/30/2024 11:24 AM
14	Performance Health + Wellness	7/29/2024 6:18 PM
15	Chamber of Commerce	7/12/2024 11:57 AM
16	RiverView Marina 711 Snake River Ave	6/28/2024 3:46 PM
17	The Blue Lantern Coffee House, 326 Main Street	6/25/2024 12:42 PM
18	Well Connected Electric, 227 Snake River Ave	6/25/2024 10:05 AM
19	Happy Day Restaurants - Main Street Grill, Mystic Cafe	6/24/2024 6:05 PM
20	Lewis Clark State College, Clearwater Hall (dormitory, Adult Basic Education program, Small Business Development Center)	6/24/2024 5:43 PM
21	LC Hotel (111 Main), Dahmen House (200 Main), Kettenbach Building (128 Main), Towne Square (504 Main2 buildings), 513 Main, 609 Main, 610 Main, Jacobson Mall (618 D & 621 Main2 buildings), The Old Zions Bank Building(623 Main), 1209 Main (Bargain Hunters Mall)and 9 parking lots along Main and F streetsIm a property owner	6/24/2024 4:21 PM
22	Rooted Salon and Spa	6/24/2024 3:48 PM
23	Effies Tavern	6/24/2024 9:15 AM
24	Century 21 Price Right and Century 21 Price Right Property Management	6/21/2024 4:33 PM
25	Sylvan Furniture 815 Main Street Lewiston	6/21/2024 11:07 AM
26	326 Main St- Own	6/20/2024 6:22 PM

Q2 Where on Main Street or D Street are you located?

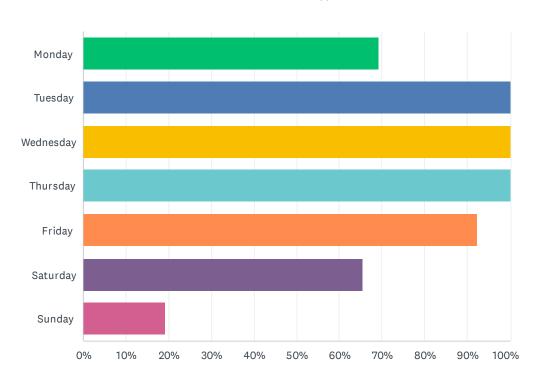
Answered: 24 Skipped: 2



ANSWER CHOICES	RESPONSES	
Main Street between 1st St and 5th St	25.00%	6
D Street between 1st St and 5th St	4.17%	1
Main Street between 5th and 9th	45.83%	11
D Street between 5th and 9th	0.00%	0
Main Street between 9th and 13th	20.83%	5
D Street between 9th and 13th	4.17%	1
TOTAL		24

Q3 What days of the week is your business open?

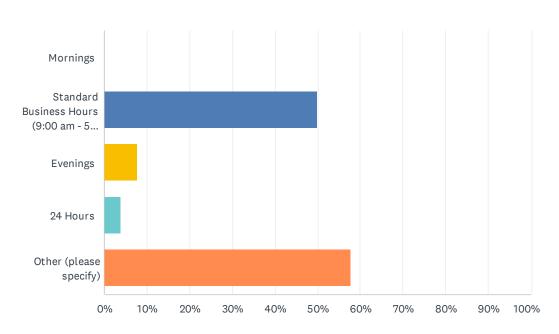




ANSWER CHOICES	RESPONSES	
Monday	69.23%	18
Tuesday	100.00%	26
Wednesday	100.00%	26
Thursday	100.00%	26
Friday	92.31%	24
Saturday	65.38%	17
Sunday	19.23%	5
Total Respondents: 26		

Q4 What are your operating business hours?

Answered: 26 Skipped: 0



ANSWER CHOICES	RESPONSES	
Mornings	0.00%	0
Standard Business Hours (9:00 am - 5:00 pm)	50.00%	13
Evenings	7.69%	2
24 Hours	3.85%	1
Other (please specify)	57.69%	15
Total Respondents: 26		

#	OTHER (PLEASE SPECIFY)	DATE
1	10:00am -5:00 Tuesday through Saturday	8/7/2024 2:39 PM
2	10-6pm	8/6/2024 9:29 AM
3	8 am - 5 PM	8/5/2024 3:32 PM
4	10am - 6pm	8/5/2024 1:11 PM
5	10-5	8/1/2024 3:31 PM
6	11-8tue-fri sat9-8 sun9-2	7/30/2024 4:40 PM
7	Tuesday-Saturday 10-6 (and sometimes Mondays)	7/30/2024 3:52 PM
8	8-6 Mon-Fri 8-2 Sat	6/28/2024 3:46 PM
9	7am to 7pm	6/25/2024 12:42 PM
10	7 am to 4 pm	6/25/2024 10:05 AM
11	24/7 for dormitory, business hours for ABE & SBDC	6/24/2024 5:43 PM

Property and Business Owner Survey

12	10am- 9pm	6/24/2024 9:15 AM
13	and on call	6/21/2024 4:33 PM
14	9:00am-6:00pm	6/21/2024 11:07 AM
15	7am-6pm	6/20/2024 6:22 PM

Q5 How would you describe the community character of Downtown Lewiston?

Answered: 26 Skipped: 0

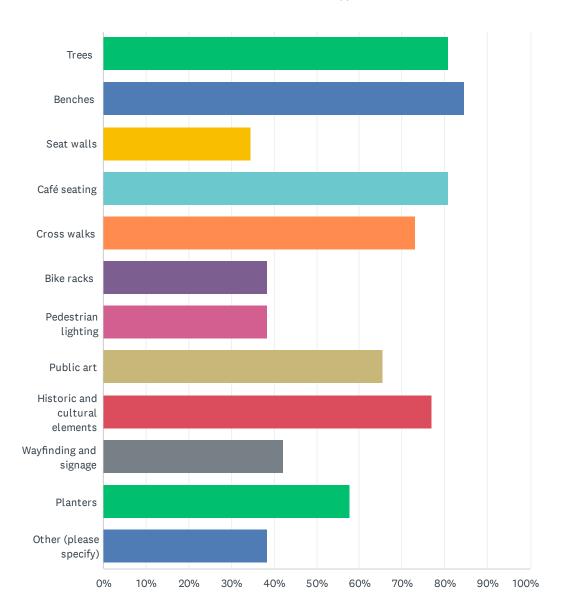
#	RESPONSES	DATE
1	loved by some, neglected by others	8/16/2024 4:06 PM
2	Beautiful! Friendly, Great shopping, well maintained, growing	8/7/2024 2:39 PM
3	Not sure yet	8/6/2024 5:20 PM
4	It's friendly and historic, However the years of construction and roadwork already happening has taken it's toll on all downtown businesses.	8/6/2024 4:54 PM
5	There is a lot of room to grow. As a mom of three young children, I often feel unsafe walking on and in the vicinity of Main Street due to the fast traffic (cars more often do not stop for crosswalks than do), and drug users/homeless in the area (there was a meth needle my kids and I passed on the ground close to the Idaho Food Bank while walking to work). Every town has seedy characters but on Lewiston Main St right now the seedy characters out number the families and working people who are downtown to enjoy the community, and this makes the area feel rough and unsafe. The community character of downtown also feels a lot like your in the trenches as a small business, and that the cards are stacked against you. The high property taxes in the area do not correlate to the foot traffic downtown and make it extremely difficult to survive as a small business. The highway creates an atmosphere of simply passing through Main St. versus stopping, lingering, enjoying, visiting many shops.	8/6/2024 9:29 AM
6	Its a nice downtown area with historically high vacancy rates. Other than restaurants, there's not much to draw people.	8/5/2024 3:32 PM
7	The community character is a bit disjointed right now, but there are more and more people wanting to come together to make downtown even better	8/5/2024 1:39 PM
8	Seems to be lacking of community as of late.	8/5/2024 1:11 PM
9	A sense of hopelessness, many businesses can't seem to make it. Disordered-city doesn't maintain outside areas like they should.	8/1/2024 3:31 PM
10	The downtown area was a former retail outlet that has now become more of a service industry catering to the LC Valley	7/30/2024 4:49 PM
11	Friendly	7/30/2024 4:40 PM
12	Great camaraderie between business owners, who all seem to share a deep cynicism about Main Street becoming the entertainment district of the city of Lewiston it could be. Generally, the community character of downtown Lewiston is incredibly dour and there is a prevailing sense of downtown being on "hard times." Between buildings sitting empty for years, businesses regularly closing especially last year, the development projects that remain inactive, the incredibly fast traffic, the unfortunate lack of traction from Beautiful Downtown Lewiston eventsdowntown's community character is currently "broken."	7/30/2024 3:52 PM
13	THE TABLES AND METAL GATES THAT ARE PUT UP IN FRONT OF BUSINESS NEED TO COME DOWN YOU CANNOT WALK ON THE SIDEWALKS WITHOUT HAVING TO GO AROUND THESE PLACES, SIDEWALKS NEED TO BE CLEARED FOR WALKING	7/30/2024 11:24 AM
14	It is lacking appealing character, looks more like a ghost town.	7/29/2024 6:18 PM
15	Historic, Gold-rush-y, Western frontier/wild west	7/12/2024 11:57 AM
16	Downtown district close to waterfront.	6/28/2024 3:46 PM
17	Challenging parking situation, low foot traffic, aggressive drivers, unsafe crosswalks, undermaintained green spaces, sparsely planted and neglected planters.	6/25/2024 12:42 PM

Property and Business Owner Survey

18	I would say the character of Downtown is hopeful yet struggling. People can see the potential but there is a need for strong guidance.	6/25/2024 10:05 AM
19	I love the big trees / I see it as a venue for community - Art and thriving local economy.	6/24/2024 6:05 PM
20	Vibrant, good energy, good variety of shops/businesses. Good recent developments/renovations.	6/24/2024 5:43 PM
21	Charming & historic but in dire need of upgrade	6/24/2024 4:21 PM
22	Charming and Historic	6/24/2024 3:48 PM
23	Charming downtown with great businesses and amazing potential.	6/24/2024 9:15 AM
24	While I want to say it's a thriving small community with energy and a specific cultureI'm not certain you can narrow it down to anything like that. Businesses are not consistently open, the mix is just so so and business collaboration is not really there the way it is in other communities. I'm not sure I can describe our community character. A mix of history, arts/events, service businesses and some shopping. What would you call that?	6/21/2024 4:33 PM
25	Historic and beautiful, but in need of repairs and updates. Lighting and sidewalks need fixed and/or replaced. Traffic is a problem.	6/21/2024 11:07 AM
26	Charming with some comradery building with events and entertainment activities. The historic buildings are a point of interest and there is growth opportunity.	6/20/2024 6:22 PM

Q6 What works well and should be preserved on Main Street? (Check all that apply)

Answered: 26 Skipped: 0



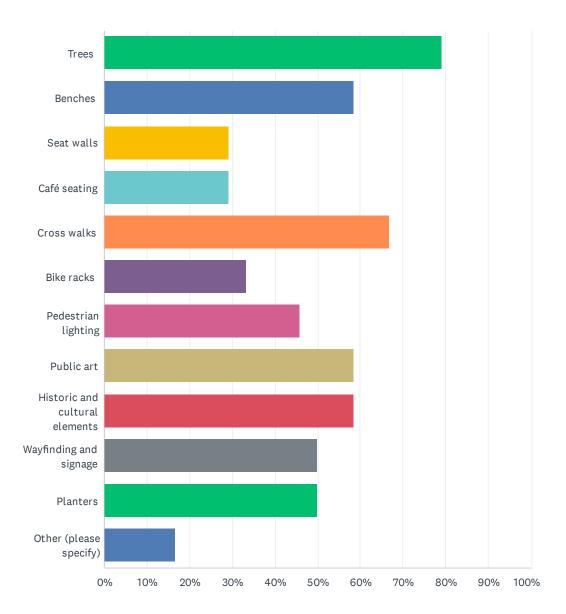
Property and Business Owner Survey

ANSWER CHOICES	RESPONSES	
Trees	80.77%	21
Benches	84.62%	22
Seat walls	34.62%	9
Café seating	80.77%	21
Cross walks	73.08%	19
Bike racks	38.46%	10
Pedestrian lighting	38.46%	10
Public art	65.38%	17
Historic and cultural elements	76.92%	20
Wayfinding and signage	42.31%	11
Planters	57.69%	15
Other (please specify)	38.46%	10
Total Respondents: 26		

#	OTHER (PLEASE SPECIFY)	DATE
1	Downtown Lewiston is a very pretty place to be, It would be nice to have all vacancy's full. We should be doing some joint advertising for our downtown.	8/7/2024 2:39 PM
2	The trees are Main St's biggest glory. I once heard a business owner suggest that we should take out the trees to make more room for parking and I cannot imagine a more devastating death blow to the downtown. The trees provide shade and beauty in Lewiston's hot desert summer. Downtown is already low on foot traffic in the summer but it would be a ghost town if the trees were gone.	8/6/2024 9:29 AM
3	In order to draw people, there needs to be real stores with everyday items that people need.	8/5/2024 3:32 PM
4	Need more shade and green. It gets too hot in the summer for people to go downtown.	8/5/2024 1:11 PM
5	Planters would work if the way were maintained. Historic district would work if the regulations were adhered to.	8/1/2024 3:31 PM
6	ALL OF THE OUTSIDE SEATING THAT IS ROPPED OFF BY METAL SURROUNDINGS SHOULD BE REMOVED, CANNOT BELIEVE THE CITY EVER OK'D THIS IN THE BEGINNING, REDUCES WALKING ON THE SIDEWALKS WHICH SHOULD BE CLEARED FOR PEDESTRIANS.	7/30/2024 11:24 AM
7	Historic light fixtures, flowers - doesn't need to be in planters!	7/12/2024 11:57 AM
8	There should be more of all things listed, as well as ***RAISED CROSSWALKS*** like speed bumps installed in all downtown Main Street. These are traffic calming measures intended to slow vehicles down as they approach pedestrian crossings. When implemented in conjunction with other measures such as speed limits, signage, and road markings, they can contribute to creating safer and more pedestrian-friendly environments.	6/25/2024 12:42 PM
9	Pocket parks like Brackenberry Square.	6/24/2024 5:43 PM
10	Planters are brand new	6/20/2024 6:22 PM

Q7 What works well and should be preserved on D Street? (Check all that apply)





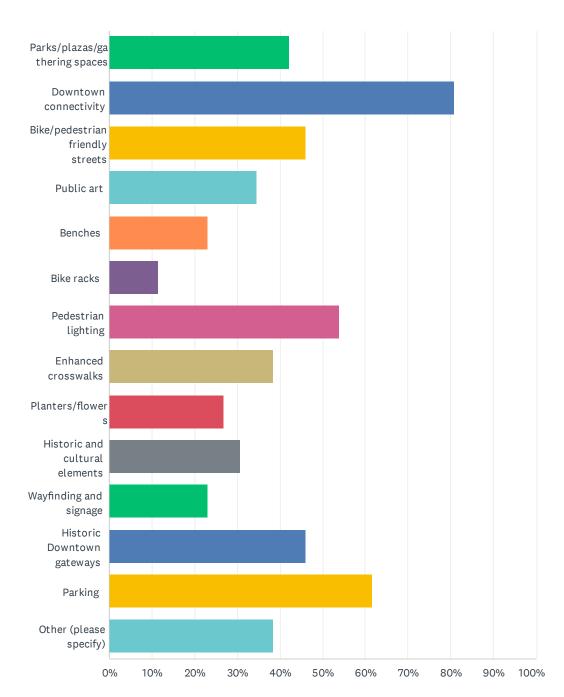
Property and Business Owner Survey

ANSWER CHOICES	RESPONSES	
Trees	79.17%	19
Benches	58.33%	14
Seat walls	29.17%	7
Café seating	29.17%	7
Cross walks	66.67%	16
Bike racks	33.33%	8
Pedestrian lighting	45.83%	11
Public art	58.33%	14
Historic and cultural elements	58.33%	14
Wayfinding and signage	50.00%	12
Planters	50.00%	12
Other (please specify)	16.67%	4
Total Respondents: 24		

#	OTHER (PLEASE SPECIFY)	DATE
1	More trees! It's hard to walk on a lot of D St because it is in full hot sunlight.	8/6/2024 9:29 AM
2	Historic light fixtures, flowers - doesn't need to be in planters!	7/12/2024 11:57 AM
3	Ample parking	6/25/2024 10:05 AM
4	East end of D street could be updated to match the west end. Not pleasing to the eye.	6/21/2024 11:07 AM

Q8 What is Historic Main Street missing? See the map above for the historic district boundary. (Check all that apply)





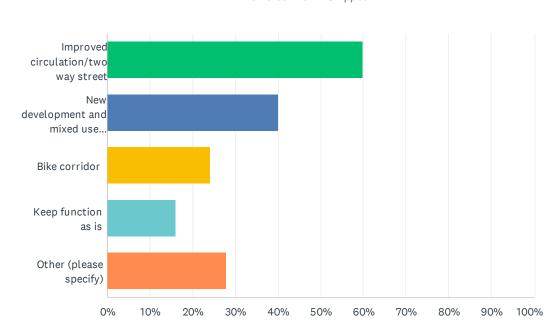
Property and Business Owner Survey

ANSWER CHOICES	RESPONSES	
Parks/plazas/gathering spaces	42.31%	11
Downtown connectivity	80.77%	21
Bike/pedestrian friendly streets	46.15%	12
Public art	34.62%	9
Benches	23.08%	6
Bike racks	11.54%	3
Pedestrian lighting	53.85%	14
Enhanced crosswalks	38.46%	10
Planters/flowers	26.92%	7
Historic and cultural elements	30.77%	8
Wayfinding and signage	23.08%	6
Historic Downtown gateways	46.15%	12
Parking	61.54%	16
Other (please specify)	38.46%	10
Total Respondents: 26		

#	OTHER (PLEASE SPECIFY)	DATE
1	Handicap parking	8/6/2024 5:20 PM
2	I would love a small play structure/public gathering place similar to Friendship square in Moscow. Currently the only place to take my kids during the work day is the library (which is absolutely wonderful)! But it would be great to have another option and I know it would draw families downtown who would them be motivated to stop in at local restaurants or cafes for lunch.	8/6/2024 9:29 AM
3	Honestly, I don't think any of these listed things are going to change downtown. Until we have a change in demographics or a major influx of population, its just going to flounder. Downtown needs shoppers and lots of them in order for anything to work long term. It needs real stores, not another 2nd hand store. Restaurants bring people there at certain times, but there is nothing here to hold people and get them to spend \$.	8/5/2024 3:32 PM
4	Much of downtown parking gets taken early by people going to work, leaving visitors to downtown without.	8/5/2024 1:11 PM
5	Hotel	8/1/2024 3:31 PM
6	If I was fixing Main Street for the city of Lewiston, I would: Reroute the traffic coming from Clarkston to D St Turn Main St. into a two way Raise crosswalks Buy the empty warehouse on D St and turn it into a parking garage Aid the Liberty Theatre in acquiring a state grant - Bring the Lewiston Farmer's Market downtown - Work with the county to reduce property taxes for business and property owners for the main street corridor to encourage the crazy people who want to try opening a business in a very difficult corridor	7/30/2024 3:52 PM
7	Piped music	6/25/2024 10:05 AM
8	underground infrastructure is a disaster waiting to happen!!!	6/24/2024 4:21 PM
9	Anyting interactive.	6/21/2024 4:33 PM
10	More outdoor dining, parklets Safe Sidewalks Effective Parking Speed Control Storefront Visibility	6/20/2024 6:22 PM

Q9 What do you think D Street should be? (Check all that apply)

Answered: 25 Skipped: 1

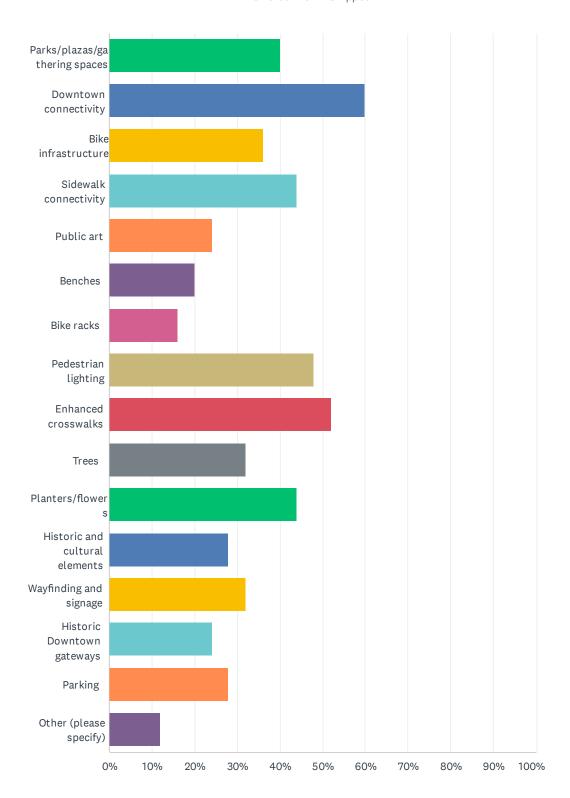


ANSWER CHOICES	RESPONSES	
Improved circulation/two way street	60.00%	15
New development and mixed use housing	40.00%	10
Bike corridor	24.00%	6
Keep function as is	16.00%	4
Other (please specify)	28.00%	7
Total Respondents: 25		

#	OTHER (PLEASE SPECIFY)	DATE
1	D STREET NEEDS TO STAY A ONE WAY	8/6/2024 4:54 PM
2	Maintain historic element	8/1/2024 3:31 PM
3	Housing feels like a difficult thing to emphasize, because housing downtown is only desirable if it puts you close to businesses you want to go to. There are too many retail/restaurant/entertainment vacancies downtown for housing to be interesting to the 18-35 bracket.	7/30/2024 3:52 PM
4	MAKE SURE THAT THE CITY DOES NOT ALLOW ANY CHANGES LIKE THEY DID ON MAIN STREET BY TAKING AWAY SIDEWALKS FOR PEOPLE TO WALK ON WITHOUT BLOCKAGE.	7/30/2024 11:24 AM
5	Shut it down to traffic completely, make a pedestrian and bike walkway.	7/12/2024 11:57 AM
6	I don't know that a two-way street improves circulation. I'm interested to hear the logic behind returning main & D streets to two-way traffic.	6/24/2024 5:43 PM
7	Entertainment	6/21/2024 4:33 PM

Q10 What is D Street missing? (Check all that apply)

Answered: 25 Skipped: 1



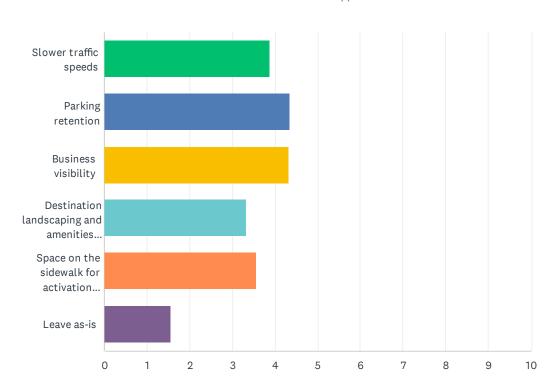
Property and Business Owner Survey

ANSWER CHOICES	RESPONSES	
Parks/plazas/gathering spaces	40.00%	10
Downtown connectivity	60.00%	15
Bike infrastructure	36.00%	9
Sidewalk connectivity	44.00%	11
Public art	24.00%	6
Benches	20.00%	5
Bike racks	16.00%	4
Pedestrian lighting	48.00%	12
Enhanced crosswalks	52.00%	13
Trees	32.00%	8
Planters/flowers	44.00%	11
Historic and cultural elements	28.00%	7
Wayfinding and signage	32.00%	8
Historic Downtown gateways	24.00%	6
Parking	28.00%	7
Other (please specify)	12.00%	3
Total Respondents: 25		

#	OTHER (PLEASE SPECIFY)	DATE
1	same comment	8/5/2024 3:32 PM
2	No strong opinion	6/24/2024 6:05 PM
3	Anything that's more entertainment and engagement for people. Some that live downtown might like a dog area.	6/21/2024 4:33 PM

Q11 Rank in order of priority for the vision of Main Street

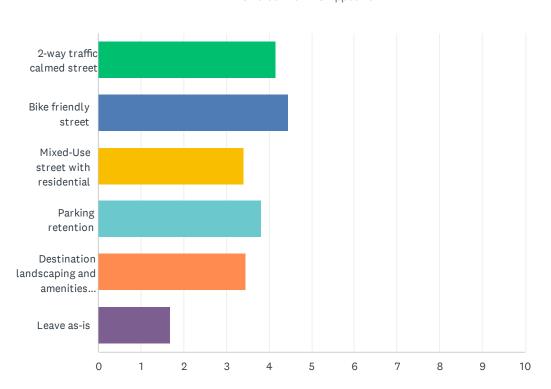
Answered: 25 Skipped: 1



	1	2	3	4	5	6	TOTAL	SCORE
Slower traffic speeds	28.00%	20.00%	12.00%	4.00%	24.00%	12.00%		
	7	5	3	1	6	3	25	3.88
Parking retention	20.00%	36.00%	16.00%	16.00%	12.00%	0.00%		
	5	9	4	4	3	0	25	4.36
Business visibility	28.00%	12.00%	28.00%	28.00%	4.00%	0.00%		
	7	3	7	7	1	0	25	4.32
Destination landscaping and amenities (street	8.00%	12.00%	20.00%	28.00%	28.00%	4.00%		
trees, pedestrian lighting, wayfinding, bike facilities,etc.)	2	3	5	7	7	1	25	3.32
Space on the sidewalk for activation (patio	8.00%	20.00%	20.00%	24.00%	28.00%	0.00%		
tables, sidewalk sales, etc.)	2	5	5	6	7	0	25	3.56
Leave as-is	8.00%	0.00%	4.00%	0.00%	4.00%	84.00%		
	2	0	1	0	1	21	25	1.56

Q12 Rank in order of priority for the vision of D Street

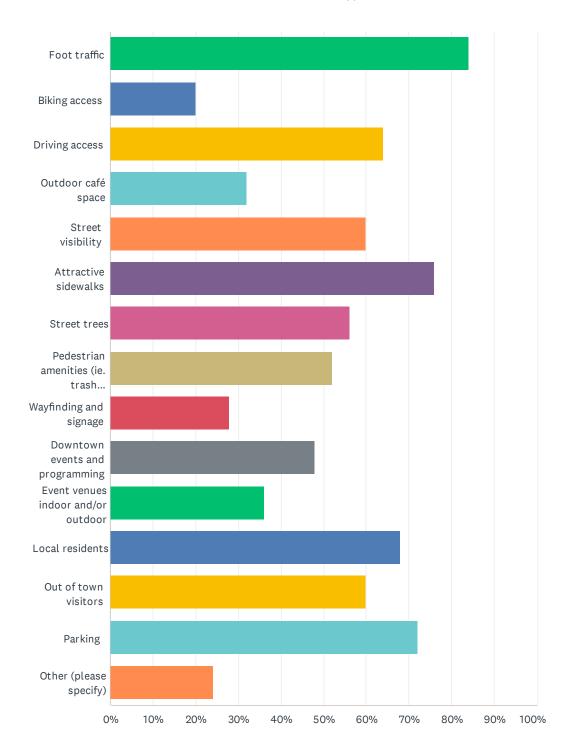
Answered: 26 Skipped: 0



	1	2	3	4	5	6	TOTAL	SCORE
2-way traffic calmed street	42.31%	11.54%	11.54%	7.69%	7.69%	19.23%		
	11	3	3	2	2	5	26	4.15
Bike friendly street	23.08%	42.31%	7.69%	11.54%	15.38%	0.00%		
	6	11	2	3	4	0	26	4.46
Mixed-Use street with residential	7.69%	11.54%	30.77%	23.08%	19.23%	7.69%		
	2	3	8	6	5	2	26	3.42
Parking retention	11.54%	23.08%	23.08%	23.08%	15.38%	3.85%		
	3	6	6	6	4	1	26	3.81
Destination landscaping and amenities (street	7.69%	11.54%	26.92%	30.77%	19.23%	3.85%		
trees, pedestrian lighting, wayfinding, bike facilities, etc.)	2	3	7	8	5	1	26	3.46
Leave as-is	7.69%	0.00%	0.00%	3.85%	23.08%	65.38%		
	2	0	0	1	6	17	26	1.69

Q13 What aspects of Main Street, D Street, and Downtown Lewiston are important to the success of your business? (Check all that apply)





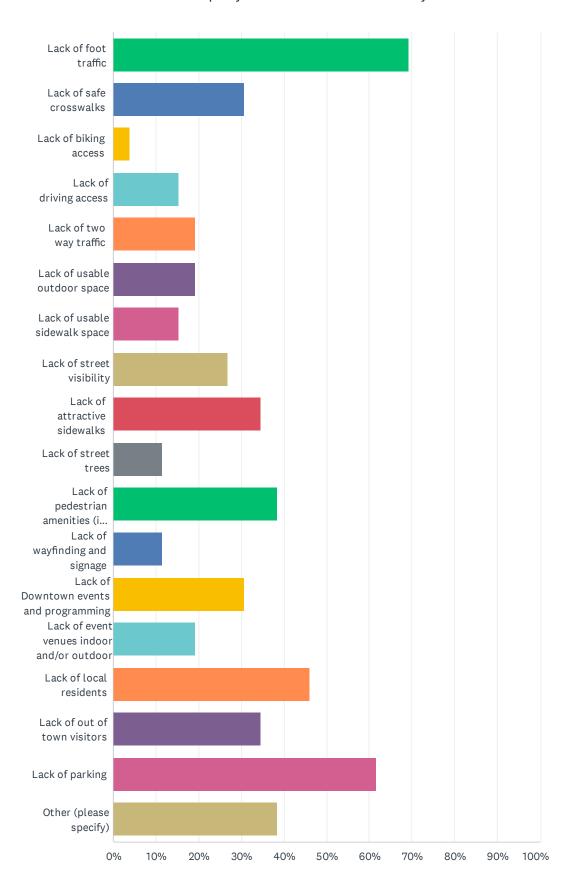
Property and Business Owner Survey

ANSWER CHOICES	RESPONSES	
Foot traffic	84.00%	21
Biking access	20.00%	5
Driving access	64.00%	16
Outdoor café space	32.00%	8
Street visibility	60.00%	15
Attractive sidewalks	76.00%	19
Street trees	56.00%	14
Pedestrian amenities (ie. trash receptacles, seat walls, benches, lighting, etc.)	52.00%	13
Wayfinding and signage	28.00%	7
Downtown events and programming	48.00%	12
Event venues indoor and/or outdoor	36.00%	9
Local residents	68.00%	17
Out of town visitors	60.00%	15
Parking	72.00%	18
Other (please specify)	24.00%	6
Total Respondents: 25		

#	OTHER (PLEASE SPECIFY)	DATE
1	Not have having continuous construction (we've had construction the last 2 spring/summers and it has impacted all businesses between 11-13th st greatly) The lack of parking available due to construction and construction workers taking up business parking has really hurt our blocks foot traffic and customer count. This includes when the street has been shut down for 2 years during our busiest seasons. The notice was not properly given for these projects, we've had water shut off without notice and the overall appearance of the area has significantly been compromised.	8/6/2024 4:54 PM
2	Pedestrian only Main Street or 2 way traffic on Main Street. More retail only businesses. More parking-maybe a structure? More historic themed events/festivals. Enforcement of historic district rules and regulations.	8/1/2024 3:31 PM
3	It has to have a vision for what the destination will be. We desperately need a hotel and some venue for nightlife.	7/12/2024 11:57 AM
4	All of the above would be ideal for ALL of Main Street.	6/25/2024 10:05 AM
5	All of these things are important - I see a crucial aspect of the success of businesses coming together to build a downtown local economy. We have to be instep together.	6/24/2024 6:05 PM
6	Our educational programs at this location will benefit from ease of access (parking), visibility (street & sidewalk view, and wayfinding), and connection with and participation in downtown events.	6/24/2024 5:43 PM

Q14 What aspects of Main Street, D Street and Downtown Lewiston are current barriers success of your business? (Check all that apply)

Answered: 26 Skipped: 0



Property and Business Owner Survey

ANSWER CHOICES	RESPONSE	S
Lack of foot traffic	69.23%	18
Lack of safe crosswalks	30.77%	8
Lack of biking access	3.85%	1
Lack of driving access	15.38%	4
Lack of two way traffic	19.23%	5
Lack of usable outdoor space	19.23%	5
Lack of usable sidewalk space	15.38%	4
Lack of street visibility	26.92%	7
Lack of attractive sidewalks	34.62%	9
Lack of street trees	11.54%	3
Lack of pedestrian amenities (ie. trash receptacles, seat walls, benches, lighting, etc.)	38.46%	10
Lack of wayfinding and signage	11.54%	3
Lack of Downtown events and programming	30.77%	8
Lack of event venues indoor and/or outdoor	19.23%	5
Lack of local residents	46.15%	12
Lack of out of town visitors	34.62%	9
Lack of parking	61.54%	16
Other (please specify)	38.46%	10
Total Respondents: 26		

#	OTHER (PLEASE SPECIFY)	DATE
1	Our business as well as others have been hurt due to on going construction and road closures the last 2 springs/summers. There was never any notice given or length of the projects given.	8/6/2024 4:54 PM
2	Lack of interest in downtown due to lack of retail only businesses. Too many beauty salons, real estate and mortgage companies, lawyers, etc. More shopping would bring more people downtown. Need more interesting businesses. We need a hotel downtown. Why do we have one that sits vacant? More historic events/festivals/culture to attract visitors. Wineries and art galleries might be beneficial.	8/1/2024 3:31 PM
3	To put my position simply: Downtown only works as the city's Entertainment District-restaurants, retail, theatres, etc. But most locals do not use downtown like this. They don't come "downtown," they drive in for a single business. Moscow's downtown used to be similar over forty years ago. Then the city invested in reimagining Main Street. This was controversial and led to the churn and burn of a lot of much beloved businesses. People slowly came to realize that, thanks to the reimagining of Main Street in Moscow, Main Street was awesome and could become the entertainment district of the city it should be. This is a process that will take decades for Lewiston.	7/30/2024 3:52 PM
4	Storefronts are not cohesive - some are well maintained, others are not. Lack of retail - there are not enough shops for people to browse.	7/12/2024 11:57 AM
5	The homeless camp is too close to downtown.	6/28/2024 3:46 PM

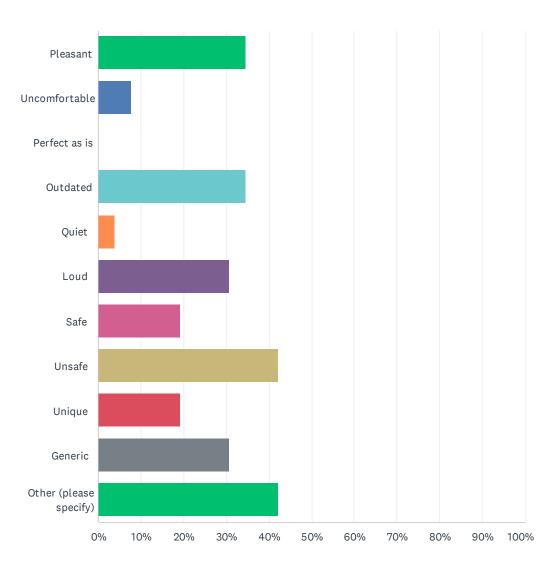
Property and Business Owner Survey

navigating all the regulations in an efficient way without unnecessarily burning up capital. We need to remove barriers to entry and create incentives.

7	I wouldn't say a lack of these elements as much as they could be improved upon.	6/24/2024 5:43 PM
8	one of the biggest obstacles is the apathy from the locals. Too often I hear, "downtown will never get any better"	6/24/2024 4:21 PM
9	I don't have to have any of these for my business, but I will advocate for others in the downtown. When we work together and support each otherwe win. And have fun!	6/21/2024 4:33 PM
10	In front of my building there is attractive sidewalk space and out door seating.	6/20/2024 6:22 PM

Q15 How would you describe the Streetscape adjacent to your business? (Check all that apply)





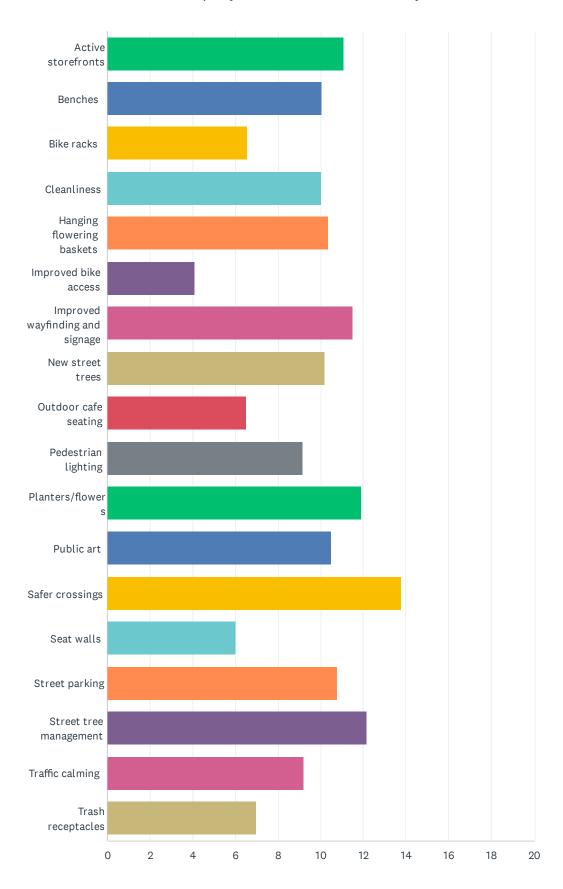
Property and Business Owner Survey

ANSWER CHOICES	RESPONSES	
Pleasant	34.62%	9
Uncomfortable	7.69%	2
Perfect as is	0.00%	0
Outdated	34.62%	9
Quiet	3.85%	1
Loud	30.77%	8
Safe	19.23%	5
Unsafe	42.31%	11
Unique	19.23%	5
Generic	30.77%	8
Other (please specify)	42.31%	11
Total Respondents: 26		

#	OTHER (PLEASE SPECIFY)	DATE
1	I would be nice to have some flowers in cement vessels on the sidewalk like the central area of main has!	8/7/2024 2:39 PM
2	N/A	8/6/2024 4:54 PM
3	I am really tired of e-bikes on the sidewalk at 30 MPH	8/5/2024 3:32 PM
4	We have planter boxes with low plants, but no trees to shade. Also, everyone drives too fast on Main.	8/5/2024 1:11 PM
5	Weed filled planter. Need to restore underground tunnels to increase tourism.	8/1/2024 3:31 PM
6	The crosswalk is unsafe as cars speed and ignore people standing to cross.	6/25/2024 12:42 PM
7	Well Connected is considered in the BDL District but being on Snake River Ave these do not apply to us. We are also a commercial contracting business.	6/25/2024 10:05 AM
8	I love the shade the trees supply our patio outside of Main Street Grill. It's warm and welcoming	6/24/2024 6:05 PM
9	It's a unique location at the intersection of 5th & main streets.	6/24/2024 5:43 PM
10	needs significant upgrading, cleaned up, new storm water, new domestic water, underground dark fiber, elimination of the vaults.new sewer	6/24/2024 4:21 PM
11	We are right after the lightand cars seem to use it as a starting line to race. It HAS gotten better since putting in the pull in parking out front, howeversince COVID our driving traffic has lessened, so there are not always cars in the parking spotsso people are back to racing. Loud and scary at times. For instancepeople coming off 10th onto main sometimes get confused and go the wrong way. We see a lot of wrong way drivers in front of us.	6/21/2024 4:33 PM

Q16 Rank in order what improvements are most needed to enhance the streetscape adjacent to your business.

Answered: 24 Skipped: 2

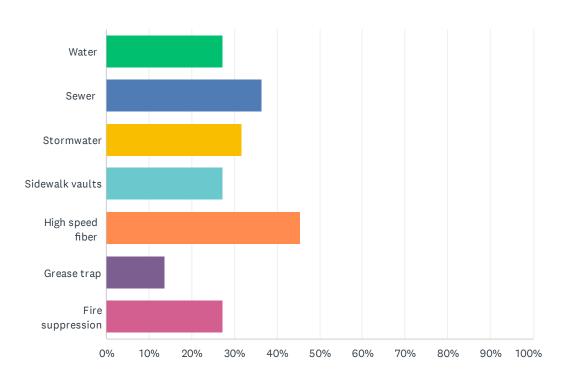


Property and Business Owner Survey

	1	2	3	4	5	6	7	8	9	10	11
Active storefronts	20.83% 5	16.67% 4	12.50% 3	0.00%	4.17% 1	0.00%	4.17% 1	0.00%	0.00%	4.17% 1	4.17% 1
Benches	0.00%	0.00%	4.17% 1	4.17% 1	8.33% 2	4.17% 1	12.50% 3	12.50% 3	0.00%	16.67% 4	20.83%
Bike racks	0.00%	0.00%	0.00%	4.17% 1	0.00%	4.17% 1	0.00%	8.33% 2	8.33% 2	4.17% 1	4.17% 1
Cleanliness	0.00%	8.33% 2	8.33% 2	12.50% 3	8.33% 2	8.33% 2	4.17% 1	0.00%	12.50% 3	8.33% 2	0.00% C
Hanging flowering baskets	0.00%	4.17% 1	0.00%	12.50% 3	4.17% 1	12.50%	8.33% 2	8.33% 2	16.67% 4	0.00%	0.00% C
Improved bike access	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	4.17%	0.00%	4.17%	4.17%	0.00% C
Improved wayfinding and signage	12.50%	4.17%	12.50%	8.33% 2	4.17%	4.17%	12.50%	4.17%	4.17%	8.33%	4.17%
New street trees	4.17% 1	4.17% 1	4.17% 1	4.17% 1	8.33%	8.33%	16.67% 4	4.17% 1	16.67% 4	4.17%	0.00% C
Outdoor cafe seating	0.00%	0.00%	4.17% 1	8.33%	4.17% 1	0.00%	8.33%	0.00%	0.00%	8.33%	8.33%
Pedestrian lighting	4.17% 1	12.50% 3	8.33%	0.00%	0.00%	8.33% 2	4.17%	4.17%	0.00%	0.00%	4.17%
Planters/flowers	8.33%	4.17% 1	4.17%	8.33%	16.67% 4	0.00%	8.33%	20.83%	0.00%	4.17%	12.50% 3
Public art	0.00%	0.00%	8.33%	0.00%	4.17%	16.67% 4	4.17%	12.50% 3	12.50% 3	20.83%	4.17%
Safer crossings	20.83%	0.00%	25.00% 6	12.50% 3	12.50% 3	8.33%	0.00%	0.00%	4.17% 1	4.17%	0.00% C
Seat walls	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	4.17% 1	0.00%	8.33%	4.17%	12.50% 3
Street parking	16.67% 4	8.33%	0.00%	12.50% 3	8.33%	0.00%	4.17% 1	4.17% 1	0.00%	4.17% 1	0.00% C
Street tree management	0.00%	20.83%	4.17% 1	4.17% 1	8.33% 2	16.67% 4	4.17% 1	12.50% 3	8.33% 2	0.00%	12.50% 3
Traffic calming	12.50% 3	12.50% 3	4.17% 1	4.17%	0.00%	4.17% 1	0.00%	8.33%	4.17%	0.00%	0.00% C
Trash receptacles	0.00%	4.17%	0.00%	4.17%	8.33%	4.17%	0.00%	0.00%	0.00%	4.17%	12.50%

Q17 Replacement of sub-surface infrastructure is the purpose for this project. What infrastructure deficiencies impact your property or business? (Check all that apply)





ANSWER CHOICES	RESPONSES	
Water	27.27%	6
Sewer	36.36%	8
Stormwater	31.82%	7
Sidewalk vaults	27.27%	6
High speed fiber	45.45%	10
Grease trap	13.64%	3
Fire suppression	27.27%	6
Total Respondents: 22		

Q18 How do you receive merchandise deliveries?

Answered: 24 Skipped: 2

#	RESPONSES	DATE
1	front door	8/16/2024 4:06 PM
2	At our back door	8/7/2024 2:39 PM
3	Front door	8/6/2024 5:20 PM
4	We used to have our deliveries in the back loading dock, but now since the new courthouse there is no way for trucks to get back there with our goods.	8/6/2024 4:54 PM
5	Back door for large pallets.	8/6/2024 9:29 AM
6	Direct from Main Street. USPS, UPS, FedEX and once in awhile Truck ship.	8/5/2024 3:32 PM
7	F street	8/5/2024 1:39 PM
8	N/A	8/1/2024 3:31 PM
9	USPS, ups and FedEx	7/30/2024 4:49 PM
10	Truck delivery	7/30/2024 4:40 PM
11	Via our backdoor which faces D St across a parking lot	7/30/2024 3:52 PM
12	TRUCK	7/30/2024 11:24 AM
13	N/A	7/29/2024 6:18 PM
14	The back of the building.	7/12/2024 11:57 AM
15	Semi	6/28/2024 3:46 PM
16	Delivery trucks stop in street and block one lane while delivering.	6/25/2024 12:42 PM
17	The trucks park in the lot behind our restaurant and come in the back door	6/24/2024 6:05 PM
18	We have a loading parking space at the south side of the building. Or use main street parking for quick deliveries.	6/24/2024 5:43 PM
19	most of my tenants receive deliveries off of D and F streets.	6/24/2024 4:21 PM
20	Delivery through UPS/Fedex. In our loading zone on main st.	6/24/2024 3:48 PM
21	N/A	6/24/2024 9:15 AM
22	Front dooron Main Street (We don't have much though.)	6/21/2024 4:33 PM
23	22 foot trucks accessing parking lot off D street.	6/21/2024 11:07 AM
24	On Main Street	6/20/2024 6:22 PM

Appendix XIV

Two-Way Traffic Validation Technical Memo

TECHNICAL MEMORANDUM

November 19, 2024 Project# 30060

To: Melissa Cleveland, P.E., Sr. Project Manager (Welch Comer & Associates, Inc.)

From: Charlotte Sobol, Matthew Hagen, and Lauren Nuxoll, PE, PTOE (Kittelson & Associates, Inc.)

RE: Lewiston Main Street Improvements: Traffic Operations

INTRODUCTION

This memorandum summarizes the findings on existing and future traffic operations for Main Street and D Street in Lewiston, Idaho, as part of the Lewiston Main Street Improvements Project. The following topics are addressed in this memorandum:

- Project Background
- Existing Traffic Conditions
- Future Traffic Conditions
- Recommendations

These findings were to be reported through traffic modeling in Synchro (used to simulate stop-controlled and signalized traffic conditions) and in Sidra (used to analyze roundabout configurations).

PROJECT BACKGROUND

The City of Lewiston (City) is proposing to improve their downtown corridors, Main Street and D Street. From previous studies, three scenarios were identified:

- 1. No-Build (D Street and Main Street as one-way)
- 2. D Street as one-way, Main Street as two-way
- 3. D Street and Main Street as two-way

To inform Welch Comer & Associates, Inc. of a recommended design for the two corridors, Kittelson evaluated six intersections:

- 1. D Street & 1st Street
- 2. D Street & 3rd Street
- 3. D Street & 5th Street
- 4. Main Street & 1st Street
- 5. Main Street & 3rd Street
- 6. Main Street & 5th Street

These locations are shown in Exhibit 1.

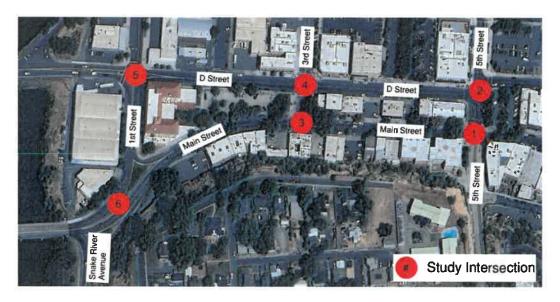


Exhibit 1. Study Intersection Locations

City Operational Standards

The City's traffic operational standards evaluate intersections based on Level of Service (LOS). The City's target operating standard is LOS D or better for overall signalized and roundabout intersections and for the critical movement of an arterial unsignalized intersection. The LOS results were derived from the Highway Capacity Manual (HCM) 6th Edition analysis procedures (Reference 1). To ensure that this analysis is based on a reasonable worst-case scenario, the peak 15-minute flow rate during all peak hours was used in the evaluation of all intersection LOS. The transportation system will likely operate better than these conditions shown in this report during all other time periods outside of the peak 15-minute flow.

Origin – Destination Evaluation

To accurately represent the two scenarios with change to directional traffic flow (D Street as one-way/Main Street as two-way as well as D Street and Main Street as two-way), the software Replica was used to determine how much traffic is assumed to use the downtown streets as a through travel route. An estimated percentage shift of 30% of the traffic on D Street will move to Main Street when converted to a 2-way and from Main Street to D Street when both are converted to two-way.

EXISTING TRAFFIC CONDITIONS

Peak hour turning movement counts were collected in June 2024 mid-week during the PM peak period (4:00 PM – 6:00 PM) for all noted intersections. Attachment A includes the PM peak period traffic counts utilized at each of the study intersections. No signal timing information was available at the time of the analysis, so standard pre-timed timings were assumed with a 90-sec cycle length. It is likely that the existing timings will be updated in the future or with any lane configuration changes.

Existing Traffic Operations

The existing traffic operations are shown below in Table 1 for the three previously mentioned scenarios.

Table 1. Existing Conditions Traffic Operations

No.	Intersection	Intersection Control	Overall Intersection (Scenario 1/ Scenario 2/ Scenario 3)	Lane Group	Scenario 1	Lane Group	Scenario 2	Lane Group	Scenario 3
				EBLT	LOS B	EBLTR	LOS B	EBLTR	LOS B
			LOS B /	EBTR	LOS B	WBLTR	LOS B	WBLTR	LOS B
1	Main Street & 5 th Street	Traffic Signal	LOS B /	NBTR	LOS B	NBLTR	LOS C	NBLTR	LOS C
	d 5 street		LOS B	SBL	LOS C	SBL	LOS B	SBL	LOS B
				SBT	LOS B	SBTR	LOS B	SBTR	LOS B
	D Street & S th Street			WBLT	LOS B	WBLTR	LOS B	EBLTR	LOS B
2			LOS B / LOS B / LOS B	WBTR	LOS B			WBLTR	LOS B
		Traffic Signal		NBL	LOS C	NBL	LOS B	4	-
				NBT	LOS B	NBT	LOS B	NBLTR	LOS C
				SBTR	LOS B	SBTR	LOS B	SBLTR	LOS C
			LOS A / LOS A / LOS A	EBLT	LOS A	EBLT	LOS A	EBLT	LOS A
3	Main Street & 3 rd Street	Traffic Signal		EBT	LOS A	WBTR	LOS A	WBTR	LOS A
	& 3 Street			SBL	LOS B	SBLR	LOS C	SBLR	LOS C
			LOS B /	WBLT	LOS B	WBLTR	LOS B	EBLTR	LOS A
	D Street &	treet 8		WBTR	LOS B		-	WBLTR	LOS B
4	3 rd Street	Traffic Signal	LOS B / LOS B	NBLT	LOS C	NBLT	LOS C	NBLT	LOS C
				SBTR	LOS B	SBTR	LOS B	SBLTR	LOS C
				SBR	LOS A	SBR	LOS B	SBR	LOS A
5	D Street &	Stop- Controlled	-	SBT	LOS A	SBT	LOS B	SBLT	LOS A
	1 Street	Controlled		-	-	NBLT	LOS C	NBLTR	-
6	Main Street & 1 st Street	Free Flow	-	-	_	-	-	-	-

As Table 1 shows, all study intersections operate acceptably during the existing weekday PM peak hour. Attachment B includes the existing conditions analysis worksheets.

FUTURE TRAFFIC CONDITIONS

The future traffic conditions analysis was evaluated assuming year 2040 volumes. The year 2040 traffic volumes reflect existing traffic counts plus 16 years of annual growth at a 1% growth rate, which is consistent with previous studies of the area.

Future Traffic Operations

The traffic operations with the future volumes are shown below in Table 2 for the three previously mentioned scenarios.

Table 2. Future Conditions Traffic Operations

No.	Intersection	Intersection Control	Overall Intersection (Scenario 1/ Scenario 2/ Scenario 3)	Lane Group	Scenario 1	Lane Group	Scenario 2	Lane Group	Scenario 3
				EBLT	LOS B	EBLTR	LOS B	EBLTR	LOS B
			LOS B /	EBTR	LOS B	WBLTR	LOS A	WBLTR	LOS B
1	Main Street & 5 th Street	Traffic Signal	LOS B /	NBTR	LOS C	NBLTR	LOS C	NBLTR	LOS C
			LOS B	SBL	LOS C	SBL	LOS C	SBL	LOS B
				SBT	LOS B	SBTR	LOS C	SBTR	LOS C
				WBLT	LOS B	WBLTR	LOS B	EBLTR	LOS B
2	D Street & 5 th Street	Traffic Signal	LOS B / LOS B / LOS B	WBTR	LOS B	-	-	WBLTR	LOS B
				NBL	LOS C	NBL	LOS B	-	-
				NBT	LOS B	NBT	LOS B	NBLTR	LOS C
				SBTR	LOS B	SBTR	LOS B	SBLTR	LOS C
		Traffic Signal	LOS A /	EBLT	LOS A	EBLT	LOS A	EBLT	LOS A
3	Main Street & 3 rd Street		LOS A / LOS A	EBT	LOS A	WBTR	LOS A	WBTR	LOS A
	as street			SBL	-	SBLR	LOS C	SBLR	LOS C
				WBLT	LOS B	WBLTR	LOS B	EBLTR	LOS A
	D Street &	- (C 5: 1	LOS B /	WBTR	LOS B		-	WBLTR	LOS B
4	3 rd Street	Traffic Signal	LOS B / LOS B	NBLT	LOS C	NBLT	LOS C	NBLT	LOS C
				SBTR	LOS B	SBTR	LOS B	SBLTR	LOS C
				SBR	LOS A	SBR	LOS A	SBR	LOS A
5	D Street & 1 st Street	Stop- Controlled	-	SBT	LOS A	SBT	LOS C	SBLT	LOS A
	June	Controlled		-	-	NBLT	LOS D	NBLTR	-
6	Main Street & 1 st Street	Free Flow	-	-	-	-	-	-	-

As Table 2 shows, all study intersections operate acceptably during the future weekday PM peak hour. Attachment C includes the future conditions analysis worksheets.

3rd Street Closure

Another scenario evaluated was the closure of 3rd Street between D Street and Main Street. The evaluation of the 3rd Street closure aimed to assess the impact on traffic flow at the intersections of 5th Street & Main Street and 5th Street & D Street. According to Table 3, the results indicate that, despite the rerouting of traffic from 3rd Street, operations at both intersections can continue to function within acceptable levels, suggesting that the road closure would not significantly disrupt overall traffic performance in the area.

Table 3. Year 2040 Operations with 3rd Street Closure

No.	Intersection	Intersection Control	Overall Intersection (Scenario 1/ Scenario 2/ Scenario 3)	Lane Group	Scenario 1	Lane Group	Scenario 2	Lane Group	Scenario 3
	THE RES	THE B		EBLT	LOS B	EBLTR	LOS B	EBLTR	LOS B
			LOS B /	EBTR	LOS B	WBLTR	LOS A	WBLTR	LOS B
1	Main Street & 3rd Street	Traffic Signal	LOS B/	NBTR	LOS C	NBLTR	LOS C	NBLTR	LOS C
	a sia street	Signar	LOS B	SBL	LOS C	SBL	LOS C	SBL	LOS B
				SBT	LOS B	SBTR	LOS C	SBTR	LOS C
				WBLT	LOS B	WBLTR	LOS B	EBLTR	LOS B
			LOS B /	WBTR	LOS B	enigen.	and glad	WBLTR	LOS B
2	D Street & 3rd Street	Traffic Signal	LOS B /	NBL	LOS C	NBL	LOS B	-	-
	Sid Street	Signar	LOS B	NBT	LOS B	NBT	LOS B	NBLTR	LOSC
				SBTR	LOS B	SBTR	LOS B	SBLTR	LOS C

Roundabout Analysis

The evaluation of the roundabout at the intersection of Main Street and 1st Street aimed to enhance traffic flow as Main Street transitions to a two-way street. Welch Comer designed the proposed layout, which was then analyzed by Kittelson to verify its operational effectiveness, ensuring that the new configuration would simplify navigation and improve safety for all road users. Exhibit 2 shows the proposed roundabout configuration while Table 4 summarizes the year 2040 future operations.



Exhibit 1. Main Street & 1st Street Roundabout Concept Design

To analyze the dual roundabout, each roundabout had to be analyzed separately. The first roundabout is labeled Main Street & 1st Street, the second roundabout is labeled Snake River Avenue & Blue Bridge.

Table 4. Main Street & 1st Roundabout Operations

No.	Intersection	Intersection Control	Overall Intersection	Lane Group	Results
				Main Street	LOS A
	Main Street & 1 st Street		LOS B	1 st Street	LOS B
6		Roundabout	:	Snake River	LOS B
0	Snake River	Roundabout		Snake River	LOS B
	Avenue &		LOS A	1 st Street	LOS A
	Blue Bridge			Blue Bridge	LOS A

In addition, a single lane mini roundabout was considered at D Street & 1st Street. Exhibit 3 shows the proposed roundabout configuration while Table 5 summarizes the year 2040 future operations under Scenario 3.



Exhibit 2. D Street & 1st Street Roundabout Concept Design

Table 5. D Street & 1st Roundabout Operations

No.	Intersection	Intersection Control	Overall Intersection	Lane Group	Results
				NB	LOS A
5	D Street & 1st	Roundabout	LOS A	WB	LOS A
3	Street	Roundabout		SB	LOS A
			×	EB	LOS A

As Table 4 and 5 show, both roundabouts operate acceptably during the year 2040 weekday PM peak hour. Attachment C includes the year 2040 analysis worksheets.

RECOMMENDATIONS

The traffic analysis scenarios as shown in this memorandum indicates that all intersections will operate within the LOS thresholds set by the City, therefore, several improvements are recommended to enhance the traffic flow and downtown corridors. These include implementing a mini roundabout at the D Street & 1st Street intersection, constructing a multi-lane roundabout at the Main Street & Snake River Avenue & 1st Street intersection, and reconfiguring D Street and Main Street for two-way operations.

Additionally, it is suggested to remove the traffic signals at D Street & 3rd Street and Main Street & 3rd Street and close 3rd Street between D and Main Streets to further improve the downtown pedestrian friendly environment.

We trust the memorandum provides Welch Comer & Associates, Inc with a summary of the existing and future conditions and the next steps in the Lewiston Main Street Improvements in Lewiston, Idaho. Please contact Lauren Nuxoll at 208.472.9817 or lnuxoll@kittelson.com if you have any questions or comments on the information presented in this memorandum.

REFERENCES

1. Transportation Research Board. Highway Capacity Manual, 6th Edition. April 2016.

ATTACHMENTS

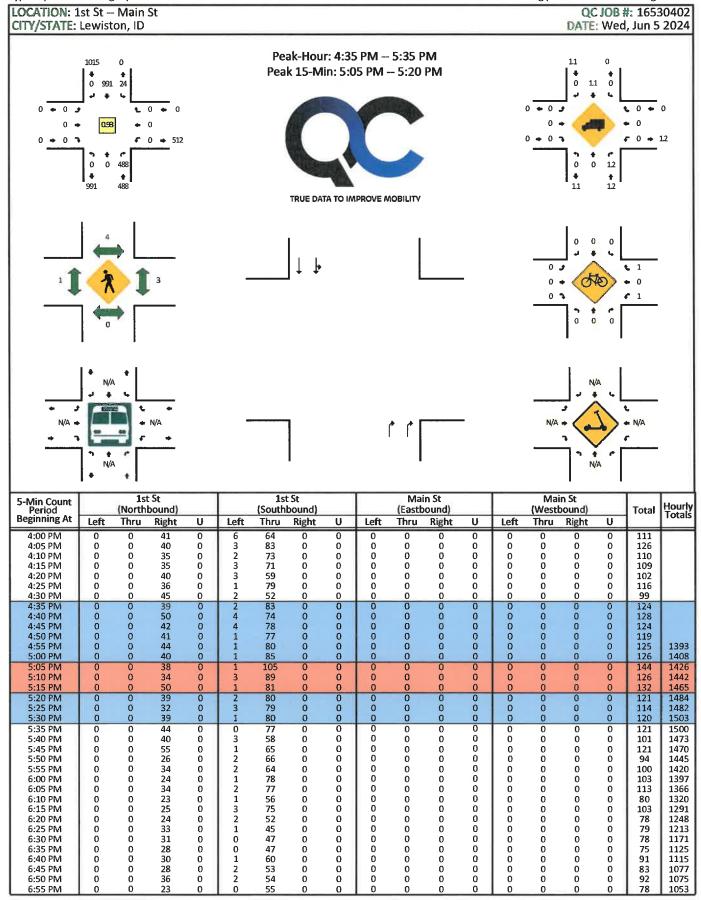
- A. PM Peak Period Traffic Counts
- B. Existing Analysis Worksheets
- C. Future Analysis Worksheets
- D. Roundabout Analysis Worksheets



Attachment A
PM Peak Period Traffic Counts

										Westbound			Total
U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	TOLAI
0	0	0	0	0	0	372	596	0	0	1124	0	0	2208
	0	0	0		0	8	4		0	16	0		28
		0			A SEC.	0				0			0
	0	0	0		0	0	0		0	0	0	1	0
	0	0 0 0	0 0 0	0 0 0 0 0 0	0 0 0 0 0	0 0 0 0 0 0 0	0 0 0 0 0 0 372 0 0 0 0 8 0 0	0 0 0 0 0 0 372 596 0 0 0 0 8 4	0 0 0 0 0 0 372 596 0 0 0 0 0 8 4 0 0	0 0 0 0 0 0 372 596 0 0 0 0 8 4 0 0	0 0 0 0 0 0 372 596 0 0 1124 0 0 0 0 8 4 0 16 0 0 0	0 0 0 0 0 0 372 596 0 0 1124 0 0 0 0 0 8 4 0 16 0	0 0 0 0 0 0 372 596 0 0 1124 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

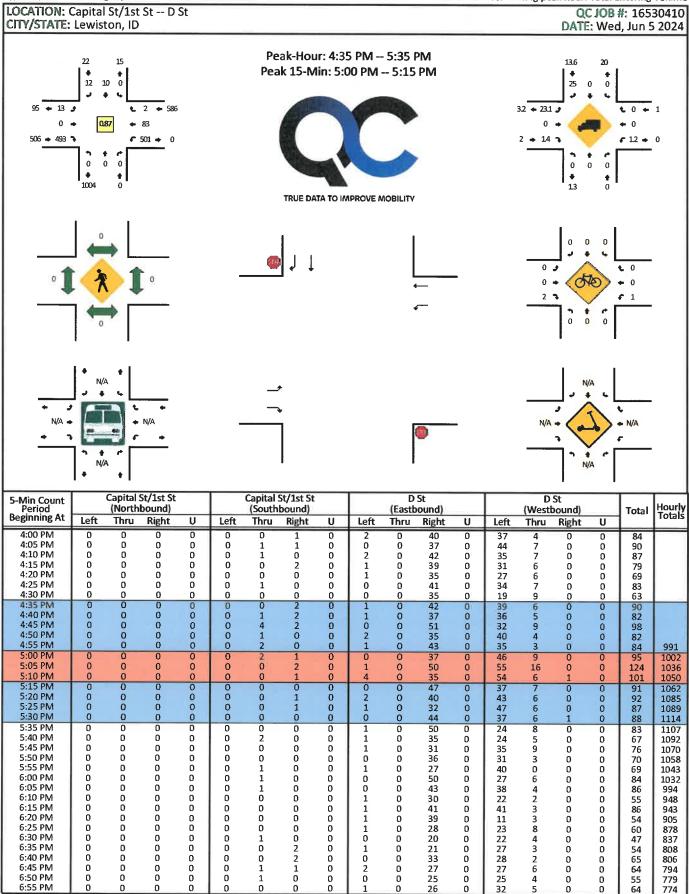


Peak 15-Min		North	bound			South	bound			Eastk	ound			West	bound		Total
Flowrates	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Total
All Vehicles	0	0	488	0	20	1100	0	0	0	0	0	0	0	0	0	0	1608
Heavy Trucks Buses	0	0	8		0	12	0		0	0	0		0	0	0		20
Pedestrians		0				4				0				4			8
Bicycles Scooters	0	0	0		0	0	0		0	0	0		0	0	4		4

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

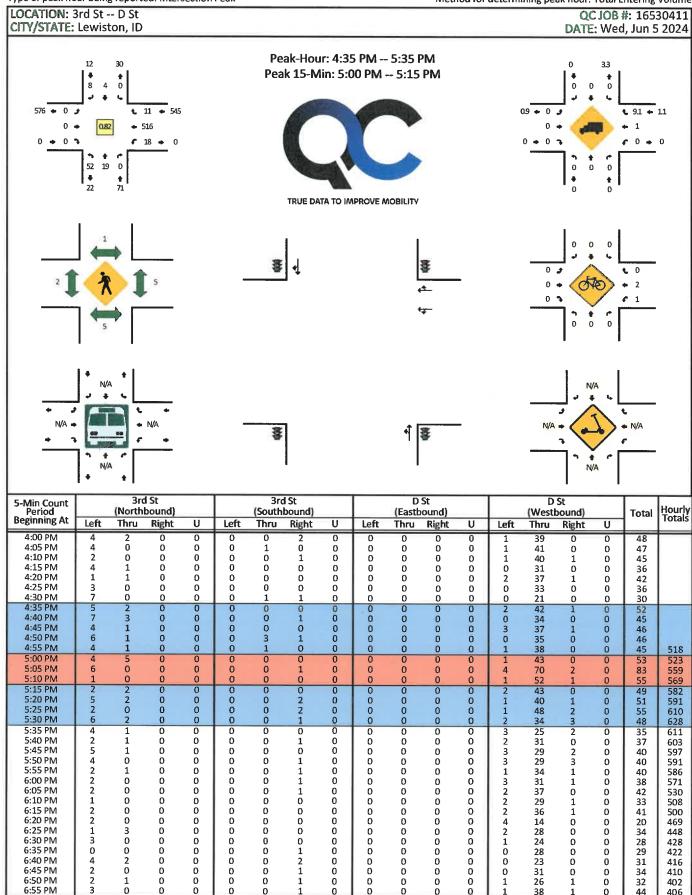
Peak 15-Min		North	bound			South	bound			Eastb	ound			West	bound		Total
Flowrates	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	IUlai
All Vehicles	0	0	0	0	16	0	0	0	88	496	0	0	0	0	0	0	600
Heavy Trucks Buses	0	0	0		0	0	0		0	16	0		0	0	0		16
Pedestrians Bicycles Scooters	0	0	0		0	0	0		0	0 4	0		0	0	0		4

5OURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212



Peak 15-Min		North	bound			South	bound			Eastb	ound			West	oound		Total
Flowrates	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	10(a)
All Vehicles	0	0	0	0	0	8	16	0	20	0	488	0	620	124	4	0	1280
Heavy Trucks Buses	0	0	0		0	0	0		4	0	4		8	0	0		16
Pedestrians		0				0				0				0			0
Bicycles Scooters	0	0	0		0	0	0		0	0	0		0	0	0		0

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

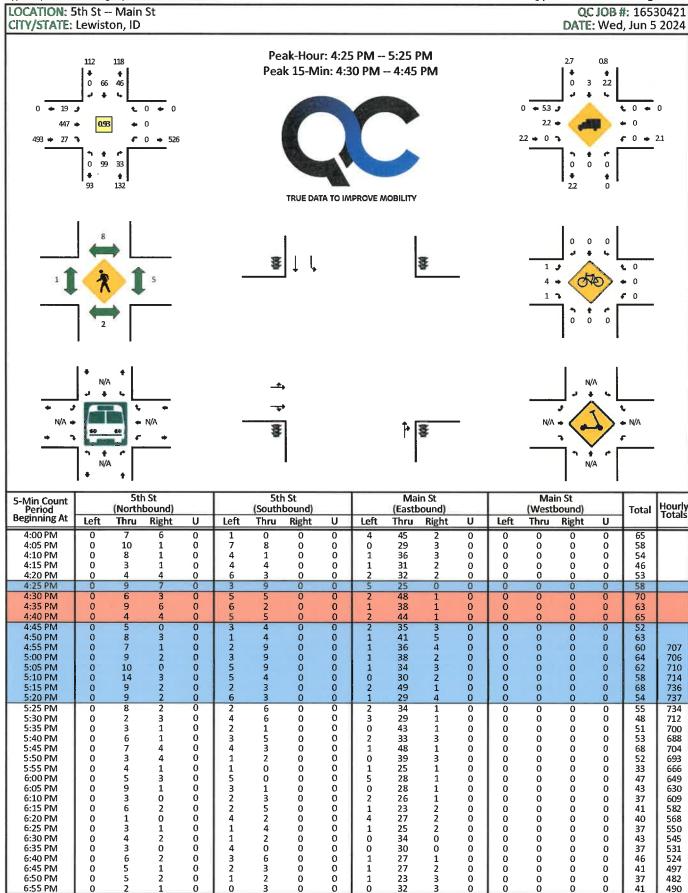


	North	oound			South	bound			Eastb	ound			West	Total		
eft	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Total
14	20	0	0	0	0	4	0	0	0	0	0	24	660	12	0	764
0	0	0		0	0	0		0	0	0		0	8	0		8
	8			200	0			-	8				8			24
0	0	0		0	0	0		0	0	0		0	4	0		4
1	eft 4 0	eft Thru 4 20 0 0	eft Thru Right 4 20 0 0 0 8	######################################	### Thru Right U Left 4 20 0 0 0 0 0 0 0 8	### Thru Right U Left Thru 4 20 0 0 0 0 0 0 0 0 0 0 0 8 0 0	### Thru Right U Left Thru Right 4 20 0 0 0 0 4 0 0 0 0 0 8 0 0	### Thru Right U Left Thru Right U 4 20 0 0 0 0 0 4 0 0 0 0 0 0 0 0 0 0 0	### Thru Right U Left Thru Right U Left 4 20 0 0 0 0 0 4 0 0 0 0 0 0 0 0 8 0 0 0 0 0 0 0	### Thru Right U Left Thru Right U Left Thru A CO	eft Thru Right U Left Thru Right U Left Thru Right 4 20 0 0 0 4 0 0 0 0 0 0 0 0 0 0 0 0 0 8 0 0 8 8 8 8 8	### Thru Right U Left Thru Right U Left Thru Right U 4 20 0 0 0 0 4 0 0 0 0 0 0 0 0 0 0 0 8 8	eft Thru Right U Left Thru Right U Left Thru Right U Left Thru Right U Left 4 20 0 0 0 4 0 0 0 0 0 24 0 0 0 0 0 0 0 0 0 0 0 0 8 0 0 8 8 0 8 8 0 </td <td>eft Thru Right U Left Thru Right U Left Thru Right U Left Thru Right U Left Thru 4 20 0 0 0 4 0 0 0 0 0 24 660 0 0 0 0 0 0 0 0 8 8 0 8 8 8 8</td> <td>eft Thru Right U Left Thru Right U Left Thru Right U Left Thru Right 4 20 0 0 0 4 0 0 0 0 0 24 660 12 0 0 0 0 0 0 0 0 8 0</td> <td>eft Thru Right U Left Thru Right U Left Thru Right U Left Thru Right U 4 20 0 0 0 4 0 0 0 0 0 24 660 12 0 0 0 0 0 0 0 0 0 8 0</td>	eft Thru Right U Left Thru Right U Left Thru Right U Left Thru Right U Left Thru 4 20 0 0 0 4 0 0 0 0 0 24 660 0 0 0 0 0 0 0 0 8 8 0 8 8 8 8	eft Thru Right U Left Thru Right U Left Thru Right U Left Thru Right 4 20 0 0 0 4 0 0 0 0 0 24 660 12 0 0 0 0 0 0 0 0 8 0	eft Thru Right U Left Thru Right U Left Thru Right U Left Thru Right U 4 20 0 0 0 4 0 0 0 0 0 24 660 12 0 0 0 0 0 0 0 0 0 8 0

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

	North	bound			South	bound			Eastb	oound			Westbound			Total
Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Total
0	4	48	0	0	0	0	0	32	520	16	0	0	0	380	0	1000
0	0	0		0	0	0		0	4	0		0	0	16		20
	0				0				0			1440	0			0
0	0	0		0	0	0		0	0	0		0	0	0		0
	0	Left Thru 0 4	0 4 48	Left Thru Right U 0 4 48 0	Left Thru Right U Left 0 4 48 0 0	Left Thru Right U Left Thru 0 4 48 0 0 0	Left Thru Right U Left Thru Right 0 4 48 0 0 0 0	Left Thru Right U Left Thru Right U 0 4 48 0 0 0 0 0	Left Thru Right U Left Thru Right U Left 0 4 48 0 0 0 0 0 32	Left Thru Right U Left Thru Right U Left Thru 0 4 48 0 0 0 0 0 32 520	Left Thru Right U Left Thru Right U Left Thru Right 0 4 48 0 0 0 0 32 520 16	Left Thru Right U Left Thru Right U Left Thru Right U 0 4 48 0 0 0 0 32 520 16 0	Left Thru Right U Left Thru Right U Left Thru Right U Left Thru Right U Left 0 4 48 0 0 0 0 0 32 520 16 0 0 0 0 0 0 0 4 0 0 0	Left Thru Right U Left Thru Right U Left Thru Right U Left Thru Right U Left Thru 0 4 48 0 0 0 0 32 520 16 0	Left Thru Right U Left Thru Right U Left Thru Right U Left Thru Right 0 4 48 0 0 0 0 0 32 520 16 0 0 0 380 0 0 0 0 0 4 0 0 0 16 0 0 0 0 0 0 0 0 0	Left Thru Right U 0 4 48 0 0 0 0 32 520 16 0 0 0 380 0 0 0 0 0 0 4 0 0 0 16 0

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212



Peak 15-Min		North	bound			South	bound			Eastb	ound			West	oound		Total
Flowrates	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Total
All Vehicles	0	76	52	0	64	48	0	0	20	520	12	0	0	0	0	0	792
Heavy Trucks Buses	0	0	0		0	0	0		0	16	0		0	0	0		16
Pedestrians		0				4				0				12			16
Bicycles Scooters	0	0	0		0	0	0		4	0	4		0	0	0		8
Comments:																	

Report generated on 6/11/2024 10:58 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Peak 15-Min		North	bound			South	bound			Eastb	ound			West	bound		Total
Flowrates	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Total
All Vehicles Heavy Trucks	132 0	12 4	0	0	0	64 0	32 0	0	0	0 0	0	0	48 0	504 4	32 4	0	824 12
Buses Pedestrians Bicycles	0	0	0		0	0	0		0	0 0	0		0	0	0		0 4
Scooters Comments:																	

Report generated on 6/11/2024 10:58 AM

SOURCE: Quality Counts, LLC (http://www.qualitycounts.net) 1-877-580-2212

Attachment B Existing Analysis Worksheets

4 t 4 EBR NBL NBT **NBR** SBL SBT Movement EBT WBL WBT WBR 99 Lane Configurations 447 19 27 0 0 0 33 46 66 Traffic Volume (vph) 0 0 99 46 66 0 27 0 0 0 33 Future Volume (vph) 19 447 1900 1900 1900 1900 1900 1900 Ideal Flow (vphpl) 1900 1900 1900 1900 1900 1900 5.0 5.0 Total Lost time (s) 5.0 5.0 0.95 1.00 1.00 1.00 Lane Util. Factor 0.99 0.97 1.00 1.00 Frt 0.95 1.00 FIt Protected 1.00 1.00 Satd. Flow (prot) 3503 1836 1770 1845 Flt Permitted 1.00 1.00 0.67 1.00 1836 1243 1845 Satd. Flow (perm) 3503 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 Peak-hour factor, PHF 0.93 0.93 0 0 106 35 49 0 Adj. Flow (vph) 20 481 29 0 0 71 RTOR Reduction (vph) 0 0 13 0 0 0 4 0 0 0 0 Lane Group Flow (vph) 0 526 0 0 0 0 128 0 49 71 0 Heavy Vehicles (%) 2% 0% 0% 0% 0% 0% 2% 3% 0% 5% 0% 0% Turn Type Perm NA NA Perm NA Protected Phases 2 4 Permitted Phases 2 4 46.0 34.0 34.0 34.0 Actuated Green, G (s) 46.0 34.0 34.0 34.0 Effective Green, g (s) 0.38 0.38 0.38 Actuated g/C Ratio 0.51 Clearance Time (s) 5.0 5.0 5.0 5.0 469 697 Lane Grp Cap (vph) 1790 693 c0.07 0.04 v/s Ratio Prot 0.04 v/s Ratio Perm 0.15 0,18 0.10 0.29 0.10 v/c Ratio 12.7 18.7 18.1 18.1 Uniform Delay, d1 Progression Factor 1.00 1.00 1.37 1.36 0.4 0.3 0.4 0.6 Incremental Delay, d2 24.9 19.3 25.4 Delay (s) 13.1 C В C Level of Service B 0.0 Approach Delay (s) 19.3 25.1 13.1 Approach LOS B B C Intersection Summary HCM 2000 Level of Service В HCM 2000 Control Delay 16.0 HCM 2000 Volume to Capacity ratio 0.25 10.0 Actuated Cycle Length (s) 90.0 Sum of lost time (s) Intersection Capacity Utilization 50.8% ICU Level of Service Α Analysis Period (min) 15

	۶	→	•	1	←	1	1	1	-	1	ļ	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		41						(h		7	^	
Traffic Volume (veh/h)	19	447	27	0	0	0	0	99	33	46	66	0
Future Volume (veh/h)	19	447	27	0	0	0	0	99	33	46	66	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone Ол Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1826	1870	1900				0	1900	1900	1870	1856	0
Adj Flow Rate, veh/h	20	481	29				0	106	35	49	71	0
Peak Hour Factor	0.93	0.93	0.93				0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	5	2	0				0	0	0	2	3	0
Cap, veh/h	68	1712	108				0	517	171	486	701	0
Arrive On Green	0.51	0.51	0.51				0.00	0.38	0.38	0.38	0.38	0.00
Sat Flow, veh/h	133	3351	212				0	1367	451	1248	1856	0
Grp Volume(v), veh/h	279	0	251				0	0	141	49	71	0
Grp Sat Flow(s),veh/h/ln	1864	0	1832				0	0	1819	1248	1856	0
Q Serve(g_s), s	7.8	0.0	7.0				0.0	0.0	4.7	2.5	2.2	0.0
Cycle Q Clear(g_c), s	7.8	0.0	7.0				0.0	0.0	4.7	7.2	2.2	0.0
Prop In Lane	0.07		0.12				0.00		0.25	1.00		0.00
Lane Grp Cap(c), veh/h	953	0	936				0	0	687	486	701	0
V/C Ratio(X)	0.29	0.00	0.27				0.00	0.00	0.21	0.10	0.10	0.00
Avail Cap(c_a), veh/h	953	0	936				0	0	687	486	701	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	12.7	0.0	12.5				0.0	0.0	18.9	21.3	18.1	0.0
Incr Delay (d2), s/veh	0.8	0.0	0.7				0.0	0.0	0.7	0.4	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	0.0	2.9				0.0	0.0	2.1	0.8	1.0	0.0
Unsig. Movement Delay, s/veh												- HISSOI
LnGrp Delay(d),s/veh	13.4	0.0	13.2				0.0	0.0	19.6	21.7	18.4	0.0
LnGrp LOS	В	Α	В				Α	Α	В	С	В	Α
Approach Vol, veh/h		530						141			120	
Approach Delay, s/veh		13.3						19.6			19.8	
Approach LOS		В						В			В	
Timer - Assigned Phs		2		.4			-	8	-			
Phs Duration (G+Y+Rc), s		51.0		39.0				39.0				
Change Period (Y+Rc), s		5.0		5.0				5.0				
Max Green Setting (Gmax), s		46.0		34.0				34.0				
Max Q Clear Time (g_c+l1), s		9.8		9.2				6.7				
Green Ext Time (p_c), s		3.5		0.5				0.8				
Intersection Summary												188
HCM 6th Ctrl Delay			15.4							-		
HCM 6th LOS			В									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					47>		7	1			P	
Traffic Volume (vph)	0	0	0	42	414	33	95	16	0	0	65	19
Future Volume (vph)	0	0	0	42	414	33	95	16	0	0	65	19
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.5		4.5	4.5			4.5	
Lane Util. Factor					0.95		1.00	1.00			1.00	
Frt					0.99		1.00	1.00			0.97	
Flt Protected					1.00		0.95	1.00			1.00	
Satd. Flow (prot)					3515		1787	1792			1814	
Flt Permitted					1.00		0.69	1.00			1.00	
Satd. Flow (perm)					3515		1301	1792			1814	
Peak-hour factor, PHF	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Adj. Flow (vph)	0	0	0	51	499	40	114	19	0	0	78	23
RTOR Reduction (vph)	0	0	0	0	6	0	0	0	0	0	12	0
Lane Group Flow (vph)	0	0	0	0	584	0	114	19	0	0	89	0
Heavy Vehicles (%)	0%	0%	0%	2%	1%	3%	1%	6%	0%	0%	2%	0%
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases		100			8			2		100	6	
Permitted Phases				8			2					
Actuated Green, G (s)			-11.00		44.5		36.5	36.5			36.5	44.49
Effective Green, g (s)					44.5		36.5	36.5			36.5	
Actuated g/C Ratio		- "			0.49		0.41	0.41			0.41	
Clearance Time (s)					4.5		4.5	4.5			4.5	
Lane Grp Cap (vph)				- 7	1737		527	726			735	
v/s Ratio Prot					1101			0.01			0.05	
v/s Ratio Perm					0.17		c0.09					
v/c Ratio					0.34		0.22	0.03			0.12	
Uniform Delay, d1					13.8		17.4	16.1			16.7	
Progression Factor					1.00		1.48	1.49			1.00	
Incremental Delay, d2					0.5		0.9	0.1			0.3	
Delay (s)					14.3		26.8	24.0			17.1	
Level of Service					В		C	C			В	
Approach Delay (s)		0.0			14.3			26.4			17.1	
Approach LOS	TT.	Α			В			C			В	
Intersection Summary												
HCM 2000 Control Delay			16.6	Н	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capacity	ratio		0.28									
Actuated Cycle Length (s)	HEL		90.0	S	um of los	t time (s)			9.0			
Intersection Capacity Utilization	n		50.8%		CU Level)		Α			
Analysis Period (min)			15									
c Critical Lane Group												

	۶	-	*	1	4	4	4	†	1	1	ļ	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					41		1	*			fo.	
Traffic Volume (veh/h)	0	0	0	42	414	33	95	16	0	0	65	19
Future Volume (veh/h)	0	0	0	42	414	33	95	16	0	0	65	19
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus. Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1885	1856	1885	1811	0	0	1870	1900
Adj Flow Rate, veh/h				51	499	40	114	19	0	0	78	23
Peak Hour Factor				0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %				2	1	3	1	6	0	0	2	0
Cap, veh/h				152	1551	130	563	734	0	0	563	166
Arrive On Green				0.49	0.49	0.49	0.41	0.41	0.00	0.00	0.41	0.41
Sat Flow, veh/h				307	3137	264	1304	1811	0	0	1388	409
Grp Volume(v), veh/h				311	0	279	114	19	0	0	0	101
Grp Sat Flow(s), veh/h/ln				1870	0	1838	1304	1811	0	0	0	1797
Q Serve(g_s), s				9.1	0.0	8.1	5.4	0.6	0.0	0.0	0.0	3.2
Cycle Q Clear(g_c), s				9.1	0.0	8.1	8.6	0.6	0.0	0.0	0.0	3.2
Prop In Lane				0.16		0.14	1.00		0.00	0.00		0.23
Lane Grp Cap(c), veh/h				925	0	909	563	734	0	0	0	729
V/C Ratio(X)				0.34	0.00	0.31	0,20	0.03	0.00	0.00	0.00	0.14
Avail Cap(c_a), veh/h				925	0	909	563	734	0	0	0	729
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh				13.8	0.0	13.6	19.6	16.1	0.0	0.0	0.0	16.8
Incr Delay (d2), s/veh			1177	1.0	0.0	0.9	0.8	0.1	0.0	0.0	0.0	0.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.9	0.0	3.4	1.7	0.2	0.0	0.0	0.0	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				14.8	0.0	14.4	20.4	16.1	0.0	0.0	0.0	17.2
LnGrp LOS				В	Α	В	С	В	Α	Α	Α	В
Approach Vol, veh/h					590			133			101	
Approach Delay, s/veh					14.6			19.8			17.2	
Approach LOS					В			В			В	
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		41.0				41.0		49.0				
Change Period (Y+Rc), s		4.5				4.5		4.5				
Max Green Setting (Gmax), s		36.5				36.5		44.5				
Max Q Clear Time (g_c+l1), s		10.6				5.2		11.1				
Green Ext Time (p_c), s		0.4				0.5		4.0		- ' - '		
Intersection Summary												
HCM 6th Ctrl Delay			15.8									
HCM 6th LOS			В									

	۶	-	-	4	1	4			
Movement	EBL	EBT	WBT	WBR	SBL	SBR			-
ane Configurations		44			7				
raffic Volume (vph)	70	467	0	0	20	0	15.00	- 5	
uture Volume (vph)	70	467	0	0	20	0			
eal Flow (vphpl)	1900	1900	1900	1900	1900	1900			
tal Lost time (s)		4.5			4.5				
ne Util. Factor		0.95	*		1.00				
		1.00			1.00				
Protected		0.99			0.95				
td. Flow (prot)		3495			1805				
Permitted		0.99			0.95		15 34		
d. Flow (perm)		3495			1805				
ak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93			
j. Flow (vph)	75	502	0	0	22	0			
OR Reduction (vph)	0	0	0	0	0	0			
ne Group Flow (vph)	0	577	0	0	22	0			
avy Vehicles (%)	0%	3%	0%	0%	0%	0%			
n Type	Perm	NA			Prot				
tected Phases		4			6				
mitted Phases	4								
uated Green, G (s)		55.5		- 7	25.5				
ctive Green, g (s)		55.5			25.5				
ated g/C Ratio		0.62			0.28				
arance Time (s)		4.5			4.5				
e Grp Cap (vph)		2155	100		511				
Ratio Prot					c0.01				
Ratio Perm		0.17							
Ratio		0.27			0.04				
orm Delay, d1		7.9	11 "		23.4				Ш
gression Factor		1.00			1.36				
emental Delay, d2		0.3			0.2				ш
ay (s)		8.2			32.0				
vel of Service		Α			С				
oroach Delay (s)		8.2	0.0		32.0				
oroach LOS		A	A		C				
ersection Summary									
M 2000 Control Delay			9.1	H	CM 2000	Level of Service)	Α	71
M 2000 Volume to Capac	city ratio		0.20						
lated Cycle Length (s)			90.0	St	um of lost	t time (s)		9.0	
ersection Capacity Utilizat	tion		26.6%	IC	U Level	of Service		Α	
alysis Period (min)			15						
Critical Lane Group									

	۶	→	+	4	1	1
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		44			7	
Traffic Volume (veh/h)	70	467	0	0	20	0
Future Volume (veh/h)	70	467	0	0	20	0
Initial Q (Qb), veh	0	0			0	0
Ped-Bike Adj(A_pbT)	1.00				1.00	1.00
Parking Bus, Adj	1.00	1.00			1.00	1.00
Work Zone On Approach		No			No	
Adj Sat Flow, veh/h/ln	1900	1856			1900	0
Adj Flow Rate, veh/h	75	502			22	0
Peak Hour Factor	0.93	0.93			0.93	0.93
Percent Heavy Veh, %	0	3			0	0
Cap, veh/h	426	2737			0	0
Arrive On Green	0.93	0.93			0.00	0.00
Sat Flow, veh/h	379	3044			0	
Grp Volume(v), veh/h	303	274			0.0	
Grp Sat Flow(s), veh/h/ln	1734	1604				
Q Serve(g_s), s	0.0	0.9				
Cycle Q Clear(g_c), s	0.9	0.9	= -1			
Prop In Lane	0.25					
Lane Grp Cap(c), veh/h	1679	1484				
V/C Ratio(X)	0.18	0.18				
Avail Cap(c_a), veh/h	1679	1484				
HCM Platoon Ratio	1.00	1.00				
Upstream Filter(I)	1.00	1.00				
Uniform Delay (d), s/veh	0.2	0.2				
Incr Delay (d2), s/veh	0.2	0.3				
Initial Q Delay(d3),s/veh	0.0	0.0				
%ile BackOfQ(50%),veh/ln	0.1	0.1				
Unsig. Movement Delay, s/veh	9,,	3.,				
LnGrp Delay(d),s/veh	0.4	0.5				
LnGrp LOS	A	A				
Approach Vol, veh/h		577				
Approach Delay, s/veh		0.5				
Approach LOS		Α				
Timer - Assigned Phs				4		
Phs Duration (G+Y+Rc), s				60.0		
Change Period (Y+Rc), s				4.5		
Max Green Setting (Gmax), s				55.5		
Max Q Clear Time (g_c+l1), s				2.9		
Green Ext Time (p_c), s				4.0		
Intersection Summary						
HCM 6th Ctrl Delay			0.5			
HCM 6th LOS			Α			

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					वी के			र्ब			P	
Traffic Volume (vph)	0	0	0	18	516	11	52	19	0	0	4	8
Future Volume (vph)	0	0	0	18	516	11	52	19	0	0	4	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.5			4.5			4.5	
Lane Util. Factor					0.95			1.00			1.00	
Frt					1.00			1.00			0.91	
Flt Protected					1.00			0.96			1.00	
Satd. Flow (prot)					3554			1833			1729	
Flt Permitted					1.00			0.81			1.00	
Satd. Flow (perm)					3554			1547			1729	
Peak-hour factor, PHF	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Adj. Flow (vph)	0	0	0	22	629	13	63	23	0	0	5	10
RTOR Reduction (vph)	0	0	0	0	1	0	0	0	0	0	7	0
Lane Group Flow (vph)	0	0	0	0	663	0	0	86	0	0	9	0
Heavy Vehicles (%)	0%	0%	0%	0%	1%	9%	0%	0%	0%	0%	0%	0%
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					8	100		2			6	
Permitted Phases				8			2				10.50	
Actuated Green, G (s)					49.5			31.5			31.5	
Effective Green, g (s)					49.5			31.5			31.5	
Actuated g/C Ratio					0.55			0.35			0.35	
Clearance Time (s)					4.5			4.5			4.5	
Lane Grp Cap (vph)					1954			541			605	
v/s Ratio Prot								•			0.00	
v/s Ratio Perm					0.19			c0.06				
v/c Ratio					0.34			0.16			0.01	
Uniform Delay, d1					11.2	71.7		20.1			19.1	
Progression Factor					1.00			1.93			1.00	
Incremental Delay, d2					0.5			0.6			0.0	
Delay (s)	_				11.7			39.4			19.1	
Level of Service		111			В			D			В	
Approach Delay (s)		0.0			11.7			39.4			19.1	
Approach LOS		Α			В		7, 1	D			В	
Intersection Summary								1				
HCM 2000 Control Delay			14.9	Н	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capacity	ratio		0.27									
Actuated Cycle Length (s)			90.0	S	um of lost	time (s)			9.0			, 11
Intersection Capacity Utilization			33.2%	IC	U Level	of Service			Α			
Analysis Period (min)			15									
c Critical Lana Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					413			4			(h	
Traffic Volume (veh/h)	0	0	0	18	516	11	52	19	0	0	4	8
Future Volume (veh/h)	0	0	0	18	516	11	52	19	0	0	4	8
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln			100	1900	1885	1767	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				22	629	13	63	23	0	0	5	10
Peak Hour Factor				0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %				0	1	9	0	0	0	0	0	0
Cap, veh/h				65	1955	42	451	155	0	0	198	396
Arrive On Green				0.55	0.55	0.55	0.35	0.35	0.00	0.00	0.35	0.35
Sat Flow, veh/h				119	3555	77	1090	442	0	0	565	1131
Grp Volume(v), veh/h				348	0	316	86	0	0	0	0	15
Grp Sat Flow(s), veh/h/ln				1879	0	1871	1532	0	0	0	0	1696
Q Serve(g_s), s				9.2	0.0	8.2	2.6	0.0	0.0	0.0	0.0	0.5
Cycle Q Clear(g_c), s				9.2	0.0	8.2	3.3	0.0	0.0	0.0	0.0	0.5
Prop In Lane				0.06		0.04	0.73		0.00	0.00		0.67
Lane Grp Cap(c), veh/h				1034	0	1029	606	0	0	0	0	594
V/C Ratio(X)				0.34	0.00	0.31	0.14	0.00	0.00	0.00	0.00	0.03
Avail Cap(c_a), veh/h				1034	0	1029	606	0	0	0	0	594
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh				11.2	0.0	11.0	20.0	0.0	0.0	0.0	0.0	19.2
Incr Delay (d2), s/veh				0.9	0.0	0.8	0.5	0.0	0.0	0.0	0.0	0.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.8	0.0	3.4	1.3	0.0	0.0	0.0	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				12.1	0.0	11.7	20.5	0.0	0.0	0.0	0.0	19.3
LnGrp LOS				В	Α	В	С	Α	Α	Α	A	В
Approach Vol, veh/h					664			86			15	
Approach Delay, s/veh					11.9			20.5			19.3	
Approach LOS					В			C			В	
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		36.0				36.0		54.0				
Change Period (Y+Rc), s		4.5				4.5		4.5				
Max Green Setting (Gmax), s		31.5				31.5		49.5				- 1
Max Q Clear Time (g c+l1), s		5.3				2.5		11.2				
Green Ext Time (p_c), s		0.4				0.0		4.6				
Intersection Summary												
HCM 6th Ctrl Delay			13.0									
HCM 6th LOS			В									

Movement	Intersection				-								
Movement EBL EBT EBR WBL WBT WBR NBL NBT NBR SBL SBR SBR Cane Configurations 13	Int Delay, s/veh	0											
Canne Configurations			EDT	EDD	WEI	WET	WED	NE	NPT	NPD	CDI	CRT	CDD
Traffic Vol, veh/h Traffi			EDI				VVDIN	INDL	NDI	NDE	OBF		
Future Vol, veh/h Conflicting Peds, #hr O O O O O O O O O O O O O			Λ				2	Λ	n	0	0		
Conflicting Peds, #hr											111001		
Sign Control Free													
RT Channelized													
Storage Length													
Veh in Median Storage, # - 1 - 0 20 - 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 14 4 Minor III 0 0 0 0 - 1248 96 96 Stage 1 - 1248 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>-</td> <td>-</td> <td></td> <td></td> <td>- 11.00</td> <td></td>								-	-			- 11.00	
Grade, % - 0 - 0 - 0 0 - 0 0 - 0 0 - 0 0 0 0 0					_	n			0			0	
Peak Hour Factor										113.0			200
Heavy Vehicles, %													
Mymit Flow 15 0 567 576 95 2 0 0 0 11 14 Major/Minor Major2 Minor2 Conflicting Flow All 0 0 0 - 1248 96 Stage 1 - - - - 1248 - Stage 2 - - - 0 - - Critical Hdwy Stg 1 - - - 6.5 6.45 Critical Hdwy Stg 2 - - - - - 5.5 -													
Major/Minor Major Minor													
Conflicting Flow All	INIALLIT LIONA	10	V	301	3/0	99	4	V	U	0	U		די
Conflicting Flow All											COLUMN TO THE PARTY OF THE PART		
Stage 1	Major/Minor				Major2						Minor2		
Stage 2	Conflicting Flow All				0	0	0				-		96
Critical Hdwy					3								9
Critical Hdwy Stg 1						-	-						-
Critical Hdwy Stg 2	Critical Hdwy			4	4.11	-	•	100			-		6.45
Follow-up Hdwy 2.209 4 3.525 Pot Cap-1 Maneuver 0 175 901 Stage 1 0 247 - Stage 2 0 901 Mov Cap-1 Maneuver 0 901 Mov Cap-1 Maneuver 0 901 Mov Cap-2 Maneuver 0 901 Stage 1 0 - 0 - Stage 2 0 - 0 - Stage 2 0 - 0 - Stage 2 0 Minor Lane/Major Mvmt WBL WBT WBR SBLn1 SBLn2 Capacity (veh/h) 901 HCM Lane V/C Ratio 0.015 HCM Control Delay (s) 9.1 HCM Lane LOS A	Critical Hdwy Stg 1				-	-	_				-	5.5	-
Pot Cap-1 Maneuver 0 175 901 Stage 1 0 247 - Stage 2 0 247 - Platoon blocked, % Mov Cap-1 Maneuver 0 901 Mov Cap-2 Maneuver 0 901 Mov Cap-2 Maneuver 0 - 0 - Stage 1 0 - Stage 2 0 - 0 - Stage 2 0 Minor Lane/Major Mvmt WBL WBT WBR SBLn1 SBLn2 Capacity (veh/h) 901 HCM Lane V/C Ratio 0.015 HCM Control Delay (s) 9.1 HCM Lane LOS A	Critical Hdwy Stg 2					1	•				4		
Stage 1	Follow-up Hdwy				2.209	-	-						
Stage 2	Pot Cap-1 Maneuver	4 7 1			- 3			1					901
Platoon blocked, % Mov Cap-1 Maneuver					-	-	-					247	-
Mov Cap-1 Maneuver - - 0 901 Mov Cap-2 Maneuver - - 0 - Stage 1 - - 0 - Stage 2 - - - 0 - Approach WB SB HCM Control Delay, s -				A E							0		- 19
Mov Cap-2 Maneuver	-					-	-						
Stage 1 0 - Stage 2 0 - Approach WB SB HCM Control Delay, s HCM LOS - Minor Lane/Major Mvmt WBL WBT WBR SBLn1 SBLn2 Capacity (veh/h) 901 HCM Lane V/C Ratio 0.015 HCM Control Delay (s) 9.1 HCM Lane LOS A		1 3			9	- 1				J. I.	- 1		901
Stage 2	Mov Cap-2 Maneuver				-		-				-		-
Approach WB SB HCM Control Delay, s HCM LOS - Minor Lane/Major Mvmt WBL WBT WBR SBLn1 SBLn2 Capacity (veh/h) 901 HCM Lane V/C Ratio 0.015 HCM Control Delay (s) 9.1 HCM Lane LOS A				11 11	7								3
HCM Control Delay, s HCM LOS - Minor Lane/Major Mvmt WBL WBT WBR SBLn1 SBLn2 Capacity (veh/h) 901 HCM Lane V/C Ratio 0.015 HCM Control Delay (s) 9.1 HCM Lane LOS A	Stage 2				-		-				-	0	-
HCM Control Delay, s HCM LOS - Minor Lane/Major Mvmt WBL WBT WBR SBLn1 SBLn2 Capacity (veh/h) 901 HCM Lane V/C Ratio 0.015 HCM Control Delay (s) 9.1 HCM Lane LOS A										- 1			
HCM Control Delay, s HCM LOS - Minor Lane/Major Mvmt WBL WBT WBR SBLn1 SBLn2 Capacity (veh/h) - 901 HCM Lane V/C Ratio 0.015 HCM Control Delay (s) 9.1 HCM Lane LOS A	Approach				WB						SB		
HCM LOS													
Minor Lane/Major Mvmt WBL WBT WBR SBLn1 SBLn2 Capacity (veh/h) 901 HCM Lane V/C Ratio 0.015 HCM Control Delay (s) 9.1 HCM Lane LOS A											_		
Capacity (veh/h) - - 901 HCM Lane V/C Ratio - - 0.015 HCM Control Delay (s) - - 9.1 HCM Lane LOS - - A		74.			7 = 1				F v		777		
Capacity (veh/h) - - - 901 HCM Lane V/C Ratio - - - 0.015 HCM Control Delay (s) - - - 9.1 HCM Lane LOS - - A	NAME OF TAXABLE PARTY.		14.00	V A Vencione	V X Jan. and	001	OBJECT						
HCM Lane V/C Ratio 0.015 HCM Control Delay (s) 9.1 HCM Lane LOS A		1											
HCM Control Delay (s) 9.1 HCM Lane LOS A													
HCM Lane LOS A				_									
								-				L	
HCM 95th %tile Q(veh)													
	HCM 95th %tile Q(veh)				- 4	<u> </u>	0						

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		ŵ			4			4		34	þ	
Traffic Volume (vph)	19	447	27	13	124	10	29	99	33	46	66	6
Future Volume (vph)	19	447	27	13	124	10	29	99	33	46	66	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			4.5			5.0		5.0	5.0	
Lane Util. Factor		1.00			1.00			1.00		1.00	1.00	
Frt		0.99			0.99			0.97		1.00	0.99	
Flt Protected		1.00			1.00			0.99		0.95	1.00	
Satd. Flow (prot)		1845			1874			1831		1770	1827	
Flt Permitted		0.99			0.95			0.95		0.64	1.00	
Satd. Flow (perm)		1826			1789			1747		1184	1827	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	20	481	29	14	133	11	31	106	35	49	71	6
RTOR Reduction (vph)	0	2	0	0	3	0	0	10	0	0	3	0
Lane Group Flow (vph)	0	528	0	0	155	0	0	162	0	49	74	0
Heavy Vehicles (%)	5%	2%	0%	0%	0%	0%	0%	0%	0%	2%	3%	0%
Tum Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	- 20.00
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4	7/1	
Actuated Green, G (s)		46.0			46.5			34.0		34.0	34.0	
Effective Green, g (s)		46.0			46.5			34.0		34.0	34.0	
Actuated g/C Ratio		0.51			0.52			0.38		0.38	0.38	
Clearance Time (s)		5.0			4.5			5.0		5.0	5.0	
Lane Grp Cap (vph)		933			924			659		447	690	-
v/s Ratio Prot											0.04	
v/s Ratio Perm	- 10	c0.29			0.09	-		c0.09		0.04	The Sales	
v/c Ratio		0.57			0.17			0.25		0.11	0.11	
Uniform Delay, d1		15.1			11.5			19.2		18.2	18.2	
Progression Factor		1.00			1.00			1.00		1.52	1.54	
Incremental Delay, d2		2.5			0.4		100	0.9		0.5	0.3	
Delay (s)		17.6			11.9			20.1		28.2	28.3	
Level of Service		В			В			С		С	С	
Approach Delay (s)		17.6			11.9			20.1			28.3	
Approach LOS		В			В			С			C	
Intersection Summary												
HCM 2000 Control Delay			18.5	H	CM 2000	Level of	Service		В		- 17	
HCM 2000 Volume to Capacity	y ratio		0.43									
Actuated Cycle Length (s)			90.0	Si	um of lost	time (s)			10.0			
Intersection Capacity Utilization	n		53.4%		U Level		1		A			
Analysis Period (min)			15			. 5011100						

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EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
	ep.			4			4				
19	447	27		124					46		6
19	447	27	13	124	10			33	46	66	6
0	0	0	0	0	0	0	0	0	0	0	0
1.00		1.00	1.00		1.00	1.00					1.00
1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00
	No			No							
1826	1870	1900	1900	1900	1900						1900
20	481	29	14	133	11	31					6
0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
5	2	0	0	0	0	0	0	0	2	3	0
58	871	51	90	798	63	134	438	134	550	637	54
0.51	0.51	0.51	0.51	0.51	0.51	0.38	0.38	0.38	0.38	0.38	0.38
32	1703	100	92	1561	124	229	1159	354	1248	1687	143
530	0	0	158	0	0	172	0	0	49	0	77
		0		0	0	1741	0	0	1248	0	1830
					0.0			0.0		0.0	2.5
											2.5
	4,14										0.08
	0			0			0	0		0	691
								0.00			0.11
											691
											1.00
											1.00
											18.2
											0.3
											0.0
											1.1
7.0	0.0	0.0		0,0	0.0	LIV	0.0	0.0	0.7	0.0	
17.2	0.0	0.0	12.1	0.0	0.0	20.0	0.0	0.0	18.5	0.0	18.5
											В
		-									
	D			D			C			Þ	
	2		4		6		8				
	51.0		39.0		51.0						
	5.0		5.0				5.0				
	46.0		34.0		* 18		34.0				
	19.6		4.5		6.0		7.8				
	3.7		0.6		0.6		1.0				
		17.1						45.1			
		В									
	19 19 0 1.00 1.00 1826 20 0.93 5 58 0.51	19 447 19 447 19 447 0 0 1.00 1.00 1.00 1.00 1.00 1.00 1.00	## Company Com	EBL EBT EBR WBL 19 447 27 13 19 447 27 13 0 0 0 0 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1826 1870 1900 1900 20 481 29 14 0.93 0.93 0.93 0.93 5 2 0 0 58 871 51 90 0.51 0.51 0.51 0.51 32 1703 100 92 530 0 0 158 1836 0 0 1777 0.0 0.0 0.0 0.0 17.6 0.0 0.0 4.0 0,04 0.05 0.09 980 0 0 952	## Company Com	Table Tabl	The number of the color of th	The color of the	EBL EBT EBR WBL WBT WBR NBL NBT NBR	EBL EBT EBR WBL WBT WBR NBL NBT NBR SBL 19 447 27 13 124 10 29 99 33 46 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1.00 1.00	EBL EBT EBR WBL WBT WBR NBL NBT NBR SBL SBT 19 447 27 13 124 10 29 99 33 46 66 19 447 27 13 124 10 29 99 33 46 66 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1.00 1.00

^{*} HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					4 P		7	4			P	
Traffic Volume (vph)	0	0	0	29	290	23	67	16	0	0	65	13
Future Volume (vph)	0	0	0	29	290	23	67	16	0	0	65	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.5		4.5	4.5			4.5	
Lane Util. Factor					0.95		1.00	1.00			1.00	
Frt					0.99		1.00	1.00			0.98	
Flt Protected					1.00		0.95	1.00			1.00	
Satd. Flow (prot)					3515		1787	1792			1826	
Flt Permitted					1.00		0.70	1.00			1.00	4-4
Satd. Flow (perm)					3515		1310	1792			1826	
Peak-hour factor, PHF	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Adj. Flow (vph)	0	0	0	35	349	28	81	19	0	0	78	16
RTOR Reduction (vph)	0	0	0	0	6	0	0	0	0	0	8	0
Lane Group Flow (vph)	0	0	0	0	406	0	81	19	0	0	86	0
Heavy Vehicles (%)	0%	0%	0%	2%	1%	3%	1%	6%	0%	0%	2%	0%
Turn Type		0.10	070	Perm	NA	0,0	Perm	NA	8.00	3,12	NA	
Protected Phases		-		1 CIIII	8		T CITI	2			6	
Permitted Phases				8	•		2	-			•	
Actuated Green, G (s)			-		44.5		36.5	36.5			36.5	-
Effective Green, g (s)					44.5		36.5	36.5			36.5	
Actuated g/C Ratio					0.49		0.41	0.41			0.41	
Clearance Time (s)					4.5		4.5	4.5			4.5	
Lane Grp Cap (vph)					1737		531	726			740	
v/s Ratio Prot					1757		001	0.01			0.05	
v/s Ratio Perm					0.12		c0.06	0.01			0.00	
v/c Ratio					0.12		0.15	0.03			0.12	
Uniform Delay, d1					13.0		16.9	16.1			16.7	
Progression Factor					1.00		1.42	1.42			1.00	
Incremental Delay, d2					0.3		0.6	0.1			0.3	
Delay (s)					13.3		24.7	22.9			17.0	
Level of Service					10.0	T.	24.7 C	22.5 C			17.0	
Approach Delay (s)		0.0			13.3		U	24.4			17.0	
Approach LOS		Α.			13.3 B			24.4 C	_	-	17.0 B	
.,								U	_	_	U	
Intersection Summary			45.7		014 0000	1 1 (0 '			_	_	-
HCM 2000 Control Delay			15.7	Н	CM 2000	Level of	Service		В			-
HCM 2000 Volume to Capacity	/ ratio		0.20			. 9.4			0.0			
Actuated Cycle Length (s)			90.0		um of lost				9.0			
Intersection Capacity Utilization	n		27.5%	IC	U Level o	of Service	;		Α			
Analysis Period (min) c Critical Lane Group			15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					बी कि		195	4			P	
Traffic Volume (veh/h)	0	0	0	29	290	23	67	16	0	0	65	13
Future Volume (veh/h)	0	0	0	29	290	23	67	16	0	0	65	13
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1885	1856	1885	1811	0	0	1870	1900
Adj Flow Rate, veh/h				35	349	28	81	19	0	0	78	16
Peak Hour Factor				0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %				2	1	3	1	6	0	0	2	0
Cap, veh/h				149	1554	130	570	734	0	0	611	125
Arrive On Green				0.49	0.49	0.49	0.41	0.41	0.00	0.00	0.41	0.41
Sat Flow, veh/h				302	3142	264	1312	1811	0	0	1506	309
Grp Volume(v), veh/h				217	0	195	81	19	0	0	0	94
Grp Sat Flow(s), veh/h/ln				1870	0	1838	1312	1811	0	0	0	1815
Q Serve(g_s), s				6.0	0.0	5.4	3.7	0.6	0.0	0.0	0.0	2.9
Cycle Q Clear(g_c), s				6.0	0.0	5.4	6.6	0.6	0.0	0.0	0.0	2.9
Prop In Lane				0.16		0.14	1.00		0.00	0.00		0.17
Lane Grp Cap(c), veh/h				925	0	909	570	734	0	0	0	736
V/C Ratio(X)				0.23	0.00	0.21	0.14	0.03	0.00	0.00	0.00	0.13
Avail Cap(c_a), veh/h				925	0	909	570	734	0	0	0	736
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh				13.0	0.0	12.9	18.8	16.1	0.0	0.0	0.0	16.8
Incr Delay (d2), s/veh				0.6	0.0	0.5	0.5	0.1	0.0	0.0	0.0	0.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				2.5	0.0	2.3	1.2	0.2	0.0	0.0	0.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				13.6	0.0	13.4	19.4	16.1	0.0	0.0	0.0	17.1
LnGrp LOS				В	Α	В	В	В	Α	Α	Α	В
Approach Vol. veh/h					412			100			94	
Approach Delay, s/veh					13.5			18.8			17.1	
Approach LOS					В			В			В	
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s	_	41.0				41.0		49.0		5000		
Change Period (Y+Rc), s		4.5				4.5		4.5				
Max Green Setting (Gmax), s		36.5				36.5		44.5				
Max Q Clear Time (g_c+l1), s		8.6				4.9		8.0				
Green Ext Time (p_c), s		0.3				0.5		2.6	11 11			-
		0.0				0.0						
Intersection Summary			410					_				
HCM 6th Ctrl Delay			14.9								1 - 12	1
HCM 6th LOS			В									

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Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations		474	P		W	200	_
Traffic Volume (vph)	70	467	155	3	20	2	
Future Volume (vph)	70	467	155	3	20	2	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	
Total Lost time (s)		4.5	4.5		4.5		
Lane Util. Factor		0.95	1.00		1.00		
Frt		1.00	1.00		0.99		
Flt Protected		0.99	1.00		0.96		
Satd. Flow (prot)		3495	1895		1796		
Flt Permitted		0.89	1.00		0.96		
Satd. Flow (perm)		3121	1895		1796		
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	
Adj. Flow (vph)	75	502	167	3	22	2	
RTOR Reduction (vph)	0	0	1	0	1	0	
Lane Group Flow (vph)	0	577	169	0	23	0	
Heavy Vehicles (%)	0%	3%	0%	0%	0%	0%	
Turn Type	Perm	NA	NA		Prot		
Protected Phases		2	6		4		
Permitted Phases	2				AT.		
Actuated Green, G (s)		56.5	56.5		24.5		
Effective Green, g (s)		56.5	56.5		24.5		
Actuated g/C Ratio		0.63	0.63		0.27		
Clearance Time (s)		4.5	4.5		4.5		
Lane Grp Cap (vph)		1959	1189		488		
v/s Ratio Prot			0.09		c0.01		
v/s Ratio Perm		c0.18					
v/c Ratio		0.29	0.14		0.05		
Uniform Delay, d1	717	7.6	6.8		24.1		
Progression Factor		1.00	1.00		0.78		
Incremental Delay, d2		0.4	0.3		0.2		
Delay (s)		8.0	7.1		19.1		
Level of Service		Α	Α		В		
Approach Delay (s)		8.0	7.1		19.1		
Approach LOS		Α	Α		В		
Intersection Summary							
HCM 2000 Control Delay			8.2	Н	CM 2000	Level of Service	
HCM 2000 Volume to Capacit	ty ratio		0.22				
Actuated Cycle Length (s)	,		90.0	Sı	um of lost	time (s)	
Intersection Capacity Utilization	on		38.7%		U Level o		
Analysis Period (min)			15				
c Critical Lane Group							

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Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		414	Î		M	
Traffic Volume (veh/h)	70	467	155	3	20	2
Future Volume (veh/h)	70	467	155	3	20	2
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1856	1900	1900	1900	1900
Adj Flow Rate, veh/h	75	502	167	3	22	2
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	3	0	0	0	0
Cap, veh/h	282	1816	1168	21	430	39
Arrive On Green	0.63	0.63	0.63	0.63	0.27	0.27
Sat Flow, veh/h	369	2977	1861	33	1580	144
Grp Volume(v), veh/h	297	280	0	170	25	0
Grp Sat Flow(s), veh/h/ln	1657	1604	0	1894	1795	0
				3.3	0.9	0.0
Q Serve(g_s), s	0.5	7.1	0.0	3.3	0.9	0.0
Cycle Q Clear(g_c), s	6.5	7.1	0.0			
Prop In Lane	0.25	4007	0	0.02	0.88	0.08
Lane Grp Cap(c), veh/h	1090	1007	0	1189	489	0
V/C Ratio(X)	0.27	0.28	0.00	0.14	0.05	0.00
Avail Cap(c_a), veh/h	1090	1007	0	1189	489	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	7.4	7.6	0.0	6.8	24.2	0.0
Incr Delay (d2), s/veh	0.6	0.7	0.0	0.3	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.5	2.4	0.0	1.3	0.4	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	8.0	8.2	0.0	7.1	24.4	0.0
LnGrp LOS	Α	Α	Α	Α	С	Α
Approach Vol. veh/h	EH .	577	170		25	
Approach Delay, s/veh		8.1	7.1		24.4	
Approach LOS		A	Α		C	
Approach EOO		- 20	-	-		
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		61.0		29.0		61.0
Change Period (Y+Rc), s		4.5		4.5		4.5
Max Green Setting (Gmax), s		56.5		24.5		18.0
Max Q Clear Time (g_c+l1), s		9.1		2.9		5.3
Green Ext Time (p_c), s		4.0		0.0		0.7
Intersection Summary						
HCM 6th Ctrl Delay			8.4			
			0.4 A			
HCM 6th LOS			A			

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					d þ			ર્લ			Pa	
Traffic Volume (vph)	0	0	0	18	361	8	52	19	0	0	4	6
Future Volume (vph)	0	0	0	18	361	8	52	19	0	0	4	- 6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.5			4.5			4.5	
Lane Util. Factor					0.95			1.00			1.00	
Frt					1.00			1.00			0.92	
Flt Protected					1.00			0.96			1.00	
Satd. Flow (prot)					3550			1833			1750	
Flt Permitted					1.00			0.82			1.00	
Satd. Flow (perm)					3550			1550			1750	
Peak-hour factor, PHF	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Adj. Flow (vph)	0	0	0	22	440	10	63	23	0	0	5	7
RTOR Reduction (vph)	0	0	0	0	2	0	0	0	0	0	5	0
Lane Group Flow (vph)	0	0	0	0	470	0	0	86	0	0	7	0
Heavy Vehicles (%)	0%	0%	0%	0%	1%	9%	0%	0%	0%	0%	0%	0%
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases				1 01111	8		TOTAL	2			6	
Permitted Phases				8			2					
Actuated Green, G (s)					49.5		mi	31.5			31.5	
Effective Green, g (s)					49.5			31.5			31.5	
Actuated g/C Ratio					0.55			0.35			0.35	
Clearance Time (s)					4.5			4.5			4.5	
Lane Grp Cap (vph)					1952			542			612	
v/s Ratio Prot					1002			072			0.00	
v/s Ratio Perm					0.13			c0.06			0.00	
v/c Ratio					0.24			0.16			0.01	
Uniform Delay, d1					10.5			20.1			19,1	
Progression Factor					1.00			0.72			1.00	
Incremental Delay, d2					0.3			0.6			0.0	
Delay (s)					10.8			15.1			19.1	
Level of Service					В			В			В	
Approach Delay (s)		0.0			10.8			15.1			19,1	
Approach LOS		A			В			В			В	
Intersection Summary												
HCM 2000 Control Delay			11.6	Н	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capacit	y ratio		0.21	- 12					Aur.		-	
Actuated Cycle Length (s)			90.0	S	um of lost	time (s)			9.0			
Intersection Capacity Utilizatio	חי		28.8%		U Level				A			
Analysis Period (min)			15									
0.111 11												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					4%			લ			P	
Traffic Volume (veh/h)	0	0	0	18	361	8	52	19	0	0	4	6
Future Volume (veh/h)	0	0	0	18	361	8	52	19	0	0	4	6
Initial Q (Qb), veh				0	.0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1885	1767	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				22	440	10	63	23	0	0	5	7
Peak Hour Factor				0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %				0	1	9	0	0	0	0	0	0
Cap, veh/h				92	1923	46	452	155	0	0	251	351
Arrive On Green				0.55	0.55	0.55	0.35	0.35	0.00	0.00	0.35	0.35
Sat Flow, veh/h				167	3497	83	1092	443	0	0	716	1003
Grp Volume(v), veh/h				247	0	225	86	0	0	0	0	12
Grp Sat Flow(s), veh/h/ln				1877	0	1870	1535	0	0	0	0	1719
Q Serve(g_s), s				6.2	0.0	5.5	2.6	0.0	0.0	0.0	0.0	0.4
Cycle Q Clear(g_c), s				6.2	0.0	5.5	3.3	0.0	0.0	0.0	0.0	0.4
Prop In Lane				0.09		0.04	0.73		0.00	0.00		0.58
Lane Grp Cap(c), veh/h				1032	0	1029	607	0	0	0	0	602
V/C Ratio(X)				0.24	0.00	0.22	0.14	0.00	0.00	0.00	0.00	0.02
Avail Cap(c_a), veh/h				1032	0	1029	607	0	0	0	0	602
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh				10.5	0.0	10.4	20.0	0.0	0.0	0.0	0.0	19.1
Incr Delay (d2), s/veh				0.5	0.0	0.5	0.5	0.0	0.0	0.0	0.0	0.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				2.5	0.0	2.3	1.3	0.0	0.0	0.0	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d).s/veh				11.0	0.0	10.8	20.5	0.0	0.0	0.0	0.0	19.2
LnGrp LOS				В	Α	В	С	Α	Α	Α	Α	В
Approach Vol, veh/h					472			86			12	
Approach Delay, s/veh					10.9			20.5			19.2	
Approach LOS					В			С			В	
Timer - Assigned Phs		2				6		8			-	
Phs Duration (G+Y+Rc), s		36.0		4		36.0		54.0				
Change Period (Y+Rc), s		4.5				4.5		4.5				
Max Green Setting (Gmax), s	-	31.5			151	31.5		49.5			-	
Max Q Clear Time (g_c+l1), s		5.3				2.4		8.2				
Green Ext Time (p_c), s	1.1.	0.4				0.0		3.1		-415		
Intersection Summary												
HCM 6th Ctrl Delay			12.6								No. III	
HCM 6th LOS	- 4		В									

S												
Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	19		7	19	ß			4			4	78
Traffic Vol., veh/h	13	0	163	351	58	1	25	1	0	0	10	12
Future Vol, veh/h	13	0	163	351	58	1	25	1	0	0	10	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized		-	None	(*)	*	None	187	ä	None	141		None
Storage Length	100	-	0	0	-		-	-	-	_	-	0
Veh in Median Storage,	# -	1	-		0		180	0	(4)	-	0	122
Grade, %	-	0	-	-	0	-	-	0	-	_	0	_
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	23	0	1	1	0	0	0	0	0	0	0	25
Mymt Flow	15	0	187	403	67	1	29	- 1	0	0	11	14
Major/Minor	-		1	Major2			Minor1		N	/linor2		
Conflicting Flow All				0	0	0	886	874		_	874	68
Stage 1					-		0	0		(*)	874	100
Stage 2				-			886	874		_	0	_
Critical Hdwy	1	779		4.11			7.1	6.5	(*		6.5	6.45
Critical Hdwy Stg 1				-	-	-	-		-		5.5	-
Critical Hdwy Stg 2							6.1	5.5	(#6		-	
Follow-up Hdwy				2.209	-	-	3.5	4	-	_	4	3.525
Pot Cap-1 Maneuver	160	- 1.7		21200		-	267	290	0	0	290	935
Stage 1				-			_		0	0	370	-
Stage 2				191			342	370	0	0	-	_
Platoon blocked, %					-	-	0 1/2	0,0	,	9		
Mov Cap-1 Maneuver							255	290			290	935
Mov Cap-2 Maneuver					-	-	255	290	-	_	290	-
Stage 1							-				370	- 10-
Stage 2				_	_		326	370	_	_	-	_
								2.0				
Approach				WB			NB			SB		
HCM Control Delay, s							20.9			13		
HCM LOS							C			В		
					119		J					
Minor Lane/Major Mymt		IBLn1	WBL	WBT	WBR	SBLn1	SBI n2			-		
Capacity (veh/h)		256				290	935					
HCM Lane V/C Ratio		0.117		150			0.015					
HCM Control Delay (s)		20.9	-	- 8		17.9	8.9					
HCM Lane LOS		20.9 C			_	17.9 C						
HCM 95th %tile Q(veh)		0.4		- 3	-	0.1	A 0					
How som while Q(ven)		0.4	3	11.5%		0,1	U					

Scenario 3: Two Way

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			eÎ.		4	^	
Traffic Volume (vph)	13	313	19	13	124	10	29	99	23	32	66	6
Future Volume (vph)	13	313	19	13	124	10	29	99	23	32	66	6
Ideal Flow (vphpi)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0			5.0		5.0	5.0	
Lane Util. Factor		1.00			1.00			1.00		1.00	1.00	
Frt		0.99			0.99			0.98		1.00	0.99	
Flt Protected		1.00			1.00			0.99		0.95	1.00	
Satd. Flow (prot)		1846			1874			1843		1770	1827	
Flt Permitted		0.99			0.96			0.94		0.64	1.00	
Satd. Flow (perm)		1829			1810			1752		1195	1827	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	14	337	20	14	133	11	31	106	25	34	71	6
RTOR Reduction (vph)	0	2	0	0	3	0	0	7	0	0	3	0
Lane Group Flow (vph)	0	369	0	0	155	0	0	155	0	34	74	0
Heavy Vehicles (%)	5%	2%	0%	0%	0%	0%	0%	0%	0%	2%	3%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	-
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		48.0			48.0			32.0		32.0	32.0	
Effective Green, g (s)		48.0			48.0			32.0		32.0	32.0	
Actuated g/C Ratio		0.53			0.53			0.36		0.36	0.36	
Clearance Time (s)		5.0			5.0			5.0		5.0	5.0	
Lane Grp Cap (vph)		975			965			622		424	649	
v/s Ratio Prot											0.04	
v/s Ratio Perm		c0.20			0.09			c0.09		0.03		
v/c Ratio		0.38			0.16			0.25		0.08	0.11	
Uniform Delay, d1		12.3			10.7			20.5		19.2	19.5	
Progression Factor		1.00			1.00			1.00		0.74	0.73	
Incremental Delay, d2		1.1			0.4			1.0		0.4	0.4	
Delay (s)		13.4			11.1			21.5		14.6	14.5	
Level of Service		В			В			C		В	В	
Approach Delay (s)		13,4			11.1			21.5			14.5	
Approach LOS		В		77	В			C			В	
Intersection Summary												
HCM 2000 Control Delay			14.7	H	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capaci	ity ratio		0.33									
Actuated Cycle Length (s)			90.0		um of lost				10.0			
Intersection Capacity Utilizati	on		43.8%	IC	U Level	of Service			Α			
Analysis Period (min)			15									
o Critical Lana Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			do.			4		7	个	
Traffic Volume (veh/h)	13	313	19	13	124	10	29	99	23	32	66	6
Future Volume (veh/h)	13	313	19	13	124	10	29	99	23	32	66	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1870	1900	1900	1900	1900	1900	1900	1900	1870	1856	1900
Adj Flow Rate, veh/h	14	337	20	14	133	11	31	106	25	34	71	6
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	5	2	0	0	0	0	0	0	0	2	3	0
Cap, veh/h	56	913	53	95	841	67	135	439	96	529	600	51
Arrive On Green	0.53	0.53	0.53	0.53	0.53	0.53	0.36	0.36	0.36	0.36	0.36	0.36
Sat Flow, veh/h	27	1712	99	96	1577	125	245	1235	270	1259	1687	143
Grp Volume(v), veh/h	371	0	0	158	0	0	162	0	0	34	0	77
Grp Sat Flow(s), veh/h/ln	1839	0	0	1798	0	0	1750	0	0	1259	0	1830
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5
Cycle Q Clear(g_c), s	10.5	0.0	0.0	3.9	0.0	0.0	5.6	0.0	0.0	1.6	0.0	2.5
Prop In Lane	0.04		0.05	0.09		0.07	0.19		0.15	1.00		0.08
Lane Grp Cap(c), veh/h	1022	0	0	1003	0	0	670	0	0	529	0	651
V/C Ratio(X)	0.36	0.00	0.00	0.16	0.00	0.00	0.24	0.00	0.00	0.06	0.00	0.12
Avail Cap(c_a), veh/h	1022	0	0	1003	0	0	670	0	0	529	0	651
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	12.3	0.0	0.0	10.7	0.0	0.0	20.5	0.0	0.0	19.2	0.0	19.5
Incr Delay (d2), s/veh	1.0	0.0	0.0	0.3	0.0	0.0	0.9	0.0	0.0	0.2	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	0.0	0.0	1.6	0.0	0.0	2.5	0.0	0.0	0.5	0.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	13.3	0.0	0.0	11.0	0.0	0.0	21.3	0.0	0.0	19.4	0.0	19.9
LnGrp LOS	В	Α	Α	В	Α	Α	С	Α	Α	В	Α	В
Approach Vol, veh/h		371			158			162			111	
Approach Delay, s/veh		13.3			11.0			21.3			19.7	
Approach LOS		В			В			С			В	
Timer - Assigned Phs		2		4		6		8			-	
Phs Duration (G+Y+Rc), s		53.0		37.0		53.0		37.0				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		48.0		32.0		48.0		32.0				
Max Q Clear Time (g_c+l1), s		12.5		4.5		5.9		7.6				
Green Ext Time (p_c), \$		2.5		0.5		1.0		0.9				
Intersection Summary						-						
HCM 6th Ctrl Delay			15.3									
HCM 6th LOS			В									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			क्			4	14
Traffic Volume (vph)	6	134	8	29	290	23	67	16	10	14	65	13
Future Volume (vph)	6	134	8	29	290	23	67	16	10	14	65	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0			5.0			5.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.99			0.99			0.99			0.98	
Fit Protected		1.00			1.00			0.97			0.99	
Satd. Flow (prot)		1882			1852			1776			1825	
Flt Permitted		0.99			0.97			0.75			0.96	
Satd. Flow (perm)		1858			1800			1389			1761	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	7	149	9	32	322	26	74	18	11	16	72	14
RTOR Reduction (vph)	0	2	0	0	3	0	0	5	0	0	7	0
Lane Group Flow (vph)	0	163	0	0	377	0	0	98	0	0	95	0
Heavy Vehicles (%)	0%	0%	0%	2%	1%	3%	1%	6%	0%	0%	2%	0%
Tum Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		50.0			50.0			30.0			30.0	
Effective Green, g (s)		50.0			50.0			30.0			30.0	
Actuated g/C Ratio		0.56			0.56			0.33			0.33	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Lane Grp Cap (vph)		1032			1000			463			587	
v/s Ratio Prot												
v/s Ratio Perm		0.09			c0.21			c0.07			0.05	
v/c Ratio		0.16			0.38			0.21			0.16	
Uniform Delay, d1		9.7			11.2			21.5			21.1	
Progression Factor		1.00			1.00			0.41			1.00	
Incremental Delay, d2		0.3			1.1			1.0			0.6	
Delay (s)		10.1			12.3			9.9			21.7	
Level of Service		В			В			A			C	
Approach Delay (s)		10.1			12.3			9.9			21.7	
Approach LOS		В			В			A			С	
Intersection Summary												
HCM 2000 Control Delay			12.8	Н	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capac	city ratio		0.32									
Actuated Cycle Length (s)			90.0	S	um of lost	time (s)			10.0			
Intersection Capacity Utiliza	tion		48.3%		CU Level				Α			
Analysis Period (min)			15		100							
0.111.11												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4			4	
Traffic Volume (veh/h)	6	134	8	29	290	23	67	16	10	14	65	13
Future Volume (veh/h)	6	134	8	29	290	23	67	16	10	14	65	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1870	1885	1856	1885	1811	1900	1900	1870	1900
Adj Flow Rate, veh/h	7	149	9	32	322	26	74	18	11	16	72	14
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	2	1	3	1	6	0	0	2	0
Cap, veh/h	59	958	56	95	888	69	396	93	50	107	446	81.
Arrive On Green	0.56	0.56	0.56	0.56	0.56	0.56	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	31	1724	101	92	1598	124	981	280	151	182	1339	242
Grp Volume(v), veh/h	165	0	0	380	0	0	103	0	0	102	0	0
Grp Sat Flow(s), veh/h/in	1857	0	0	1815	0	0	1412	0	0	1762	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	3.8	0.0	0.0	10.3	0.0	0.0	3.8	0.0	0.0	3.6	0.0	0.0
Prop In Lane	0.04		0.05	0.08		0.07	0.72		0.11	0.16		0.14
Lane Grp Cap(c), veh/h	1073	0	0	1052	0	0	540	0	0	634	0	0
V/C Ratio(X)	0.15	0.00	0.00	0.36	0.00	0.00	0.19	0.00	0.00	0.16	0.00	0.00
Avail Cap(c_a), veh/h	1073	0	0	1052	0	0	540	0	0	634	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	9.7	0.0	0.0	11.2	0.0	0.0	21.2	0.0	0.0	21.2	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.0	0.0	1.0	0.0	0.0	0.8	0.0	0.0	0.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	0.0	4.2	0.0	0.0	1.6	0.0	0.0	1.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d).s/veh	10.0	0.0	0.0	12.1	0.0	0.0	22.0	0.0	0.0	21.7	0.0	0.0
LnGrp LOS	В	A	Α	В	Α	Α	С	Α	Α	С	Α	A
Approach Vol, veh/h		165			380			103			102	
Approach Delay, s/veh		10.0			12.1			22.0			21.7	
Approach LOS		В			В			С			С	
Timer - Assigned Phs		2		- 4		6		8				
Phs Duration (G+Y+Rc), s		55.0		35.0		55.0		35.0				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		50.0		30.0		50.0		30.0				
Max Q Clear Time (g_c+l1), s		5.8		5.6		12.3		5.8				
Green Ext Time (p_c), s		1.0		0.5		2.6		0.5				
Intersection Summary												
HCM 6th Ctrl Delay			14.3									
HCM 6th LOS			В									

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Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations		4	Î		W			
raffic Volume (vph)	49	327	155	3	14	2		
uture Volume (vph)	49	327	155	3	14	2		
eal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
otal Lost time (s)		5.0	5.0		5.0			
ne Util. Factor		1.00	1.00		1.00			
		1.00	1.00		0.98			
Protected		0.99	1.00		0.96			
td. Flow (prot)		1840	1895		1791			
Permitted		0.94	1.00		0.96			
d. Flow (perm)		1746	1895		1791			
ak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93		
. Flow (vph)	53	352	167	3	15	2		
OR Reduction (vph)	0	0	1	0	1	0		
ne Group Flow (vph)	0	405	169	0	16	0		
avy Vehicles (%)	0%	3%	0%	0%	0%	0%		
n Type	Perm	NA	NA		Prot			
ected Phases		2	6		4			_
nitted Phases	2							
uated Green, G (s)		56.0	56.0		24.0			
ctive Green, g (s)		56.0	56.0		24.0			
uated g/C Ratio		0.62	0.62		0.27			
arance Time (s)		5.0	5.0		5.0			
e Grp Cap (vph)		1086	1179		477			
Ratio Prot			0.09		c0.01			
Ratio Perm		c0.23						
Ratio		0.37	0.14		0.03			
orm Delay, d1		8.4	7.1	1 1	24.4			
gression Factor		1.00	1.00		1.46			
emental Delay, d2		1.0	0.3		0.1			
ay (s)		9.3	7.3		35.8			
el of Service		A	Α	ш,	D			
proach Delay (s)		9.3	7.3		35.8			
roach LOS		Α	Α		D			
rsection Summary								
M 2000 Control Delay			9.5	Н	CM 2000	Level of Service		A
M 2000 Volume to Capa	city ratio		0.27					
uated Cycle Length (s)			90.0		um of lost		10.	
ersection Capacity Utiliza	ation		44.9%	IC	U Level o	of Service		A
alysis Period (min)			15					
Critical Lane Group								

c Critical Lane Group

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Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		बी	ß	A POSSIBLE	Υſ	Second (A)
Traffic Volume (veh/h)	49	327	155	3	14	2
Future Volume (veh/h)	49	327	155	3	14	2
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1856	1900	1900	1900	1900
Adj Flow Rate, veh/h	53	352	167	3	15	2
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0.55	3	0.55	0.55	0.55	0.33
Cap, veh/h	154	988	1158	21	398	53
Arrive On Green	0.62	0.62	0.62	0.62	0.27	0.27
	174	1588	1861	33		
Sat Flow, veh/h					1491	199
Grp Volume(v), veh/h	405	0	0	170	18	0
Grp Sat Flow(s), veh/h/ln	1762	0	0	1894	1790	0
Q Serve(g_s), s	0.0	0.0	0.0	3.4	0.7	0.0
Cycle Q Clear(g_c), s	9.5	0.0	0.0	3.4	0.7	0.0
Prop In Lane	0.13			0.02	0.83	0.11
Lane Grp Cap(c), veh/h	1141	0	0	1178	477	0
V/C Ratio(X)	0.35	0.00	0.00	0.14	0.04	0.00
Avail Cap(c_a), veh/h	1141	0	0	1178	477	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	8.2	0.0	0.0	7.1	24.4	0.0
Incr Delay (d2), s/veh	0.9	0.0	0.0	0.3	0.1	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	0.0	0.0	1.3	0.3	0.0
Unsig. Movement Delay, s/veh	J.,	510	0.0	1.0	010	0.0
LnGrp Delay(d),s/veh	9.1	0.0	0.0	7.3	24.6	0.0
LnGrp LOS	9.1 A		Α	7.3 A	24.0 C	
		A05		А	18	Α
Approach Vol, veh/h		405	170			
Approach Delay, s/veh		9.1	7.3		24.6	
Approach LOS		Α	Α		C	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		61.0		29.0		61.0
Change Period (Y+Rc), s		5.0		5.0		5.0
Max Green Setting (Gmax), s		56.0		24.0		56.0
Max Q Clear Time (g_c+l1), s		11.5		2.7		5.4
Green Ext Time (p_c), s		2.9		0.0		1.0
		5.1		0.0		1.0
Intersection Summary				_	_	
HCM 6th Ctrl Delay			9.0			
HCM 6th LOS			Α			

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			લ			€ \$	
Traffic Volume (vph)	21	140	0	18	361	8	52	19	0	6	4	8
Future Volume (vph)	21	140	0	18	361	8	52	19	0	6	4	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0			5.0			5.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		1.00			1.00			1.00			0.94	
Flt Protected		0.99			1.00			0.96			0.98	
Satd. Flow (prot)		1888			1869			1833			1755	
Flt Permitted		0.92			0.98			0.80			0.94	
Satd. Flow (perm)		1746			1842			1524			1677	
Peak-hour factor, PHF	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Adj. Flow (vph)	26	171	0	22	440	10	63	23	0	7	5	10
RTOR Reduction (vph)	0	0	0	0	1	0	0	0	0	0	7	0
Lane Group Flow (vph)	0	197	0	0	471	0	0	86	0	0	15	0
Heavy Vehicles (%)	0%	0%	0%	0%	1%	9%	0%	0%	0%	0%	0%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2	- 1 F		6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		52.0			52.0			28.0			28.0	
Effective Green, g (s)		52.0			52.0			28.0			28.0	
Actuated g/C Ratio		0.58			0.58			0.31			0.31	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Lane Grp Cap (vph)	*	1008			1064			474		TIL	521	
v/s Ratio Prot												
v/s Ratio Perm		0.11			c0.26			c0.06	11,11		0.01	- 1
v/c Ratio		0.20			0.44			0.18			0.03	
Uniform Delay, d1		9.0			10.8			22.6			21.6	
Progression Factor		1.00			1.00			1.42			1.00	
Incremental Delay, d2	T-17	0.4			1.3			0.8			0.1	
Delay (s)		9.5			12.1			33.0			21.7	
Level of Service		A			В			C			C	- 1
Approach Delay (s)		9.5			12.1			33.0			21.7	
Approach LOS		A			В			C			C	
Intersection Summary							20,00					
HCM 2000 Control Delay			14.0	Н	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capac	city ratio		0.35									
Actuated Cycle Length (s)			90.0		um of lost				10.0			
Intersection Capacity Utilizat	tion		38.7%	IC	U Level	of Service			Α			
Analysis Period (min)			15									
c Critical Lane Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			बी			4	
Traffic Volume (veh/h)	21	140	0	18	361	8	52	19	0	6	4	8
Future Volume (veh/h)	21	140	0	18	361	8	52	19	0	6	4	8
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1885	1767	1900	1900	0	1900	1900	1900
Adj Flow Rate, veh/h	26	171	0	22	440	10	63	23	0	7	5	10
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	1	9	0	0	0	0	0	0
Cap, veh/h	142	906	0	66	1026	23	408	139	0	186	141	229
Arrive On Green	0.58	0.58	0.00	0.58	0.58	0.58	0.31	0.31	0.00	0.31	0.31	0.31
Sat Flow, veh/h	167	1568	0	41	1775	39	1087	447	0	430	453	736
Grp Volume(v), veh/h	197	0	0	472	0	0	86	0	0	22	0	0
Grp Sat Flow(s).veh/h/ln	1735	0	0	1856	0	0	1534	0	0	1618	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g c), s	4.4	0.0	0.0	12.8	0.0	0.0	3.5	0.0	0.0	0.8	0.0	0.0
Prop In Lane	0.13		0.00	0.05		0.02	0.73		0.00	0.32		0.45
Lane Grp Cap(c), veh/h	1048	0	0	1114	0	0	547	0	0	556	0	0
V/C Ratio(X)	0.19	0.00	0.00	0.42	0.00	0.00	0.16	0.00	0.00	0.04	0.00	0.00
Avail Cap(c_a), veh/h	1048	0	0	1114	0	0	547	0	0	556	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	9.0	0.0	0.0	10.7	0.0	0.0	22.5	0.0	0.0	21.6	0.0	0.0
Incr Delay (d2), s/veh	0.4	0.0	0.0	1.2	0.0	0.0	0.6	0.0	0.0	0.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	0.0	5.2	0.0	0.0	1.4	0.0	0.0	0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.3	0.0	0.0	11.9	0.0	0.0	23.1	0.0	0.0	21.8	0.0	0.0
LnGrp LOS	Α	Α	Α	В	Α	Α	С	Α	Α	С	Α	Α
Approach Vol, veh/h		197			472			86			22	
Approach Delay, s/veh		9.3			11.9			23.1			21.8	
Approach LOS		Α			В			С			С	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		57.0		33.0		57.0		33.0				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		52.0		28.0		52.0		28.0	-1 1 =			
Max Q Clear Time (g_c+l1), s		6.4		2.8		14.8		5.5				
Green Ext Time (p_c), s		1.3		0.1		3.4		0,4				
Intersection Summary												_
HCM 6th Ctrl Delay			12.8									
HCM 6th LOS			В									

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	7		75		4			4			4	7
Traffic Vol, veh/h	13	39	163	351	58	1	25	1	146	7	10	12
Future Vol, veh/h	13	39	163	351	58	1	25	1	146	7	10	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	*	18	None	1 _ 2	V de	None	J - 181		None			None
Storage Length	100	-	0	-	-	-	-	-	-	-	-	0
Veh in Median Storage	.,# -	0			0			0	:6:		0	(#)
Grade, %	-	0	-	-	0		-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	23	0	1	1	0	0	0	0	0	0	0	25
Mvmt Flow	15	45	187	403	67	1	29	1	168	8	11	14
Major/Minor			N 1	Major2			Minor1		1	Minor2		
Conflicting Flow All				0	0	0	886	874	0	959	874	68
Stage 1							0	0	-	874	874	-
Stage 2				-	-	-	886	874	-	85	0	
Critical Hdwy	T. I			4.11		1.70	7.1	6.5	6.2	7.1	6.5	6.45
Critical Hdwy Stg 1				-	_	-	_	-	-	6.1	5.5	-
Critical Hdwy Stg 2						2.71	6.1	5.5				- 3
Follow-up Hdwy				2.209		-	3.5	4	3.3	3.5	4	3.525
Pot Cap-1 Maneuver	4					100	267	290	-	239	290	935
Stage 1				_	-	-	-	-	-	347	370	-
Stage 2						655	342	370				
Platoon blocked, %					-	-						
Mov Cap-1 Maneuver						0.50	255	290	100		290	935
Mov Cap-2 Maneuver				-	-	-	255	290	-	-	290	-
Stage 1							181	112		347	370	1.5
Stage 2				-	-		326	370	-	-	-	-
					101						15	
Approach				WB			NB			SB		
HCM Control Delay, s				- 112			- 753					
HCM LOS												
TIOM LOS				77.0		7.	TIE,					
		LID!	1100	14.55.5	MARINE	oni -	CDI C					
Minor Lane/Major Mvn	nt	NBLn1	WBL	WBT		SBLn1	-					
Capacity (veh/h)		-					935					
HCM Lane V/C Ratio		-		-	_		0.015					
HCM Control Delay (s))			i i		1 1 10				H. Hi		
HCM Lane LOS				-	_		Α					
HCM 95th %tile Q(veh	1)	-		(+	*	1 5	0			1-1		

Attachment C Future Analysis Worksheets 101: 5th Street & Main Street

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		ৰ চি						Ta		7	^	
Traffic Volume (vph)	22	524	32	0	0	0	0	116	39	54	77	0
Future Volume (vph)	22	524	32	0	0	0	0	116	39	54	77	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0						5.0		5.0	5.0	
Lane Util. Factor		0.95						1.00		1.00	1.00	
Frt		0.99						0.97		1.00	1.00	
Flt Protected		1.00						1.00		0.95	1.00	
Satd. Flow (prot)		3503						1835		1770	1845	
Flt Permitted		1.00						1.00		0.64	1.00	
Satd. Flow (perm)		3503						1835		1188	1845	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	24	563	34	0	0	0	0	125	42	58	83	0
RTOR Reduction (vph)	0	4	0	0	0	0	0	14	0	0	0	0
Lane Group Flow (vph)	0	617	0	0	0	0	0	153	0	58	83	0
Heavy Vehicles (%)	5%	2%	0%	0%	0%	0%	0%	0%	0%	2%	3%	0%
Turn Type	Perm	NA						NA		Perm	NA	
Protected Phases		2						8			4	
Permitted Phases	2	===								4		
Actuated Green, G (s)		46.0						34.0		34.0	34.0	
Effective Green, g (s)		46.0						34.0		34.0	34.0	
Actuated g/C Ratio		0.51						0.38		0.38	0.38	
Clearance Time (s)		5.0						5.0		5.0	5.0	
Lane Grp Cap (vph)		1790						693	111	448	697	
v/s Ratio Prot		11.55						c0.08			0.04	
v/s Ratio Perm		0.18								0.05		
v/c Ratio		0.34						0.22		0.13	0.12	
Uniform Delay, d1		13.1						19.0		18.3	18.2	
Progression Factor		1.00						1.00		1.42	1.41	
Incremental Delay, d2		0.5						0.7		0.6	0.3	
Delay (s)		13.6						19.7		26.6	26.1	
Level of Service		В						В		C	C	
Approach Delay (s)		13.6			0.0			19.7			26.3	
Approach LOS		В			Α			В			C	- 1
Intersection Summary												
HCM 2000 Control Delay			16.6	H	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capacit	y ratio		0.29									
Actuated Cycle Length (s)			90.0		um of los				10.0			
Intersection Capacity Utilization	n		57.7%	10	CU Level	of Service)		В			
Analysis Period (min)			15	تصيف								
c Critical Lane Group												

c Critical Lane Group

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		419						P		4	^	
Traffic Volume (veh/h)	22	524	32	0	0	0	0	116	39	54	77	0
Future Volume (veh/h)	22	524	32	0	0	0	0	116	39	54	77	0
nitial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1826	1870	1900				0	1900	1900	1870	1856	0
Adj Flow Rate, veh/h	24	563	34				0	125	42	58	83	0
Peak Hour Factor	0.93	0.93	0.93				0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	5	2	0				0	0	0	2	3	0
Cap, veh/h	70	1711	108				0	514	173	464	701	0
Arrive On Green	0.51	0.51	0.51				0.00	0.38	0.38	0.38	0.38	0.00
Sat Flow, veh/h	137	3347	212				0	1361	457	1218	1856	0
Grp Volume(v), veh/h	327	0	294				0	0	167	58	83	0
Grp Sat Flow(s),veh/h/ln	1864	0	1832				0	0	1818	1218	1856	0
Q Serve(g_s), s	9.4	0.0	8.4				0.0	0.0	5.7	3.1	2.6	0.0
Cycle Q Clear(g_c), s	9.4	0.0	8.4				0.0	0.0	5.7	8.7	2.6	0.0
Prop In Lane	0.07		0.12				0.00		0.25	1.00		0.00
Lane Grp Cap(c), veh/h	952	0	936				0	0	687	464	701	0
V/C Ratio(X)	0.34	0.00	0.31				0.00	0.00	0.24	0.13	0.12	0.00
Avail Cap(c_a), veh/h	952	0	936				0	0	687	464	701	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	0.00	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	13.0	0.0	12.8				0.0	0.0	19.2	22.2	18.2	0.0
Incr Delay (d2), s/veh	1.0	0.0	0.9				0.0	0.0	0.8	0.6	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	0.0	3.5				0.0	0.0	2.5	0.9	1.2	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.0	0.0	13.7				0.0	0.0	20.0	22.7	18.6	0.0
LnGrp LOS	В	Α	В				Α	Α	С	С	В	A
Approach Vol. veh/h		621						167			141	
Approach Delay, s/veh		13.9						20.0			20.3	
Approach LOS		В						С			С	
Timer - Assigned Phs		2		4				8				
Phs Duration (G+Y+Rc), s		51.0		39.0				39.0				
Change Period (Y+Rc), s		5.0		5.0				5.0				
Max Green Setting (Gmax), s		46.0		34.0				34.0				
Max Q Clear Time (g_c+l1), s		11.4		10.7				7.7				
Green Ext Time (p_c), s		4.2		0.6				0.9	177			
Intersection Summary												
HCM 6th Ctrl Delay			16.0									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					dî.		7	4			P	
Traffic Volume (vph)	0	0	0	49	485	39	111	19	0	0	79	22
Future Volume (vph)	0	0	0	49	485	39	111	19	0	0	79	22
Ideal Flow (vphpI)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.5		4.5	4.5			4.5	
Lane Util. Factor					0.95		1.00	1.00			1.00	
Frt					0.99		1.00	1.00			0.97	
Flt Protected					1.00		0.95	1.00			1.00	
Satd. Flow (prot)					3515		1787	1792			1815	
Flt Permitted					1.00		0.68	1.00			1.00	
Satd. Flow (perm)					3515		1277	1792			1815	
Peak-hour factor, PHF	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Adj. Flow (vph)	0	0	0	59	584	47	134	23	0	0	95	27
RTOR Reduction (vph)	0	0	0	0	6	0	0	0	0	0	12	0
Lane Group Flow (vph)	0	0	0	0	684	0	134	23	0	0	110	0
Heavy Vehicles (%)	0%	0%	0%	2%	1%	3%	1%	6%	0%	0%	2%	0%
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases					8			2	7-3-7		6	-
Permitted Phases				8			2					
Actuated Green. G (s)					45.5		35.5	35.5			35.5	
Effective Green, g (s)					45.5		35.5	35.5			35.5	
Actuated g/C Ratio					0.51		0.39	0.39	100		0.39	
Clearance Time (s)					4.5		4.5	4.5			4.5	
Lane Grp Cap (vph)					1777		503	706			715	
v/s Ratio Prot					1111		000	0.01			0.06	
v/s Ratio Perm					0.19		c0.10	0.01				
v/c Ratio					0.38		0.27	0.03			0.15	
Uniform Delay, d1					13.7		18.4	16.7			17.6	
Progression Factor					1.00		1.44	1,44			1.00	
Incremental Delay, d2					0.6		1.3	0.1		110 F	0.5	- 11
Delay (s)					14.3		27.8	24.1			18.0	
Level of Service					В		C	C			В	
Approach Delay (s)		0.0			14.3		9	27.3			18.0	
Approach LOS		A	-117		В			C			В	
Intersection Summary								Territor.				
HCM 2000 Control Delay			16.9	Н	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capacity	ratio		0.33									
Actuated Cycle Length (s)		3 1 7	90.0	S	um of lost	time (s)			9.0			
Intersection Capacity Utilization	1		57.7%		CU Level o				В			
Analysis Period (min)			15							4		
c Critical Lane Group												

c Critical Lane Group

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					46		7	4			P	
Traffic Volume (veh/h)	0	0	0	49	485	39	111	19	0	0	79	22
Future Volume (veh/h)	0	0	0	49	485	39	111	19	0	0	79	22
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1885	1856	1885	1811	0	0	1870	1900
Adj Flow Rate, veh/h				59	584	47	134	23	0	0	95	27
Peak Hour Factor				0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %				2	1	3	1	6	0	0	2	0
Cap, veh/h				153	1587	134	528	714	0	0	552	157
Arrive On Green				0.51	0.51	0.51	0.39	0.39	0.00	0.00	0.39	0.39
Sat Flow, veh/h				303	3139	265	1279	1811	0	0	1401	398
Grp Volume(v), veh/h				364	0	326	134	23	0	0	0	122
Grp Sat Flow(s), veh/h/ln				1870	0	1837	1279	1811	0	0	0	1799
Q Serve(g_s), s				10.8	0.0	9.6	6.8	0.7	0.0	0.0	0.0	4.0
Cycle Q Clear(g_c), s				10.8	0.0	9.6	10.8	0.7	0.0	0.0	0.0	4.0
Prop In Lane				0.16		0.14	1.00		0.00	0.00		0.22
Lane Grp Cap(c), veh/h				945	0	929	528	714	0	0	0	709
V/C Ratio(X)				0.39	0.00	0.35	0.25	0.03	0.00	0.00	0.00	0.17
Avail Cap(c_a), veh/h	-			945	0	929	528	714	0	0	0	709
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh				13.7	0.0	13.4	21.2	16.7	0.0	0.0	0.0	17.7
Incr Delay (d2), s/veh				1.2	0.0	1.0	1.2	0.1	0.0	0.0	0.0	0.5
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				4.6	0.0	4.0	2.2	0.3	0.0	0.0	0.0	1.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				14.8	0.0	14.4	22.4	16.8	0.0	0.0	0.0	18.2
LnGrp LOS				В	Α	В	С	В	Α	Α	Α	В
Approach Vol, veh/h					690			157			122	
Approach Delay, s/veh					14.6			21.6			18.2	
Approach LOS					В			C			В	7
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		40.0				40.0		50.0				
Change Period (Y+Rc), s		4.5				4.5		4.5				
Max Green Setting (Gmax), s		35.5				35.5		45.5	-11			
Max Q Clear Time (q_c+l1), s		12.8				6.0		12.8				
Green Ext Time (p_c), s		0.5				0.7		4.8				
Intersection Summary												
HCM 6th Ctrl Delay			16.2									
HCM 6th LOS			В									

	*	→	-	*	\	4		
Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations		414			19			
Traffic Volume (vph)	82	548	0	0	23	0		
Future Volume (vph)	82	548	0	0	23	0		
deal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Total Lost time (s)		4.5			4.5			
Lane Util. Factor		0.95	-		1.00			
Frt		1.00			1.00			
FIt Protected		0.99			0.95			
Satd. Flow (prot)		3495			1805			
Flt Permitted		0.99			0.95			II.
Satd. Flow (perm)		3495			1805			
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93		
Adj. Flow (vph)	88	589	0	0	25	0		
RTOR Reduction (vph)	0	0	0	0	0	0	1000	
Lane Group Flow (vph)	0	677	0	0	25	0		
Heavy Vehicles (%)	0%	3%	0%	0%	0%	0%		
Turn Type	Perm	NA			Prot			
Protected Phases		4			6			
Permitted Phases	4	34						
Actuated Green, G (s)		56.5		-	24.5			
Effective Green, g (s)		56.5			24.5			
Actuated g/C Ratio		0.63			0.27			
Clearance Time (s)		4.5			4.5			
Lane Grp Cap (vph)		2194			491			
v/s Ratio Prot		_,,,,			c0.01			
v/s Ratio Perm		0.19						
v/c Ratio		0.31			0.05			
Uniform Delay, d1		7.7			24.2			
Progression Factor		1.00			1.31			
Incremental Delay, d2	100	0.4			0.2			
Delay (s)		8.1			31.9			
Level of Service		Α			C			
Approach Delay (s)		8.1	0.0		31.9			
Approach LOS		Α	Α		С			
Intersection Summary								
HCM 2000 Control Delay			8.9	Н	CM 2000	Level of Servic		Α
HCM 2000 Volume to Capa	city ratio		0.23					
Actuated Cycle Length (s)			90.0	S	um of lost	t time (s)		9.0
Intersection Capacity Utiliza	ation		29.2%			of Service		Α
Analysis Period (min)			15					
c Critical Lane Group								

c Critical Lane Group

Movement EBL EBT WBT WBR SBL SBR Lane Configurations ♣↑
Traffic Volume (veh/h) 82 548 0 0 23 0
Future Volume (veh/h) 82 548 0 0 23 0
Initial Q (Qb), veh 0 0 0
Ped-Bike Adj(A_pbT) 1.00 1.00 1.00
Parking Bus, Adj 1.00 1.00 1.00 1.00
Work Zone On Approach No No
Adj Sat Flow, veh/h/ln 1900 1856 1900 0
Adj Flow Rate, veh/h 88 589 25 0
Peak Hour Factor 0.93 0.93 0.93 0.93
Percent Heavy Veh, % 0 3 0 0
Cap, veh/h 427 2739 0 0
Arrive On Green 0.93 0.93 0.00 0.00
Sat Flow, veh/h 381 3041 0
Grp Volume(v), veh/h 355 322 0.0
Grp Sat Flow(s), veh/h/in 1734 1604
Q Serve(g_s), s 0.0 1.1
Cycle Q Clear(g_c), s 1.1 1.1
Prop In Lane 0.25
Lane Grp Cap(c), veh/h 1680 1486
V/C Ratio(X) 0.21 0.22
Avail Cap(c_a), veh/h 1680 1486
HCM Platoon Ratio 1.00 1.00
Upstream Filter(I) 1.00 1.00
Uniform Delay (d), s/veh 0.2 0.2
Incr Delay (d2), s/veh 0.3 0.3
Initial Q Delay(d3),s/veh 0.0 0.0
%ile BackOfQ(50%),veh/ln 0.1 0.1
Unsig. Movement Delay, s/veh
LnGrp Delay(d).s/veh 0.5 0.5
LnGrp LOS A A
Approach Vol, veh/h 677
Approach Delay, s/veh 0.5
Approach LOS A
Timer - Assigned Phs 4
Phs Duration (G+Y+Rc), s 61.0
Change Period (Y+Rc), s 4.5
Max Green Setting (Gmax), s 56.5
Max Q Clear Time (g_c+l1), s 3.1
Green Ext Time (p_c), s 4.8
Intersection Summary
HCM 6th Ctrl Delay 0.5
HCM 6th LOS A

Scenario 1

	۶	→	7	1	+	4	4	†	-	1	+	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR.	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					44			વ			B	
Traffic Volume (vph)	0	0	0	21	605	13	61	22	0	0	5	9
Future Volume (vph)	0	0	0	21	605	13	61	22	0	0	5	9
ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.5			4.5			4.5	
Lane Util. Factor					0.95			1.00			1.00	
Frt					1.00			1.00			0.91	
Flt Protected					1.00			0.96			1.00	
Satd. Flow (prot)					3553			1833			1734	
Flt Permitted					1.00			0.80			1.00	
Satd. Flow (perm)					3553			1529			1734	
Peak-hour factor, PHF	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Adj. Flow (vph)	0	0	0	26	738	16	74	27	0	0	6	11
RTOR Reduction (vph)	0	0	0	0	2	0	0	0	0	0	7	0
Lane Group Flow (vph)	0	0	0	0	778	0	0	101	0	0	10	0
Heavy Vehicles (%)	0%	0%	0%	0%	1%	9%	0%	0%	0%	0%	0%	0%
Turn Type				Perm	NA		Perm	NA			NA	
Protected Phases			T		8			2			6	
Permitted Phases				8			2					
Actuated Green, G (s)					49.5			31.5			31.5	
Effective Green, g (s)				_	49.5			31.5			31.5	-
Actuated g/C Ratio					0.55			0.35			0.35	
Clearance Time (s)					4.5			4.5			4.5	
Lane Grp Cap (vph)			= 1		1954			535			606	
v/s Ratio Prot					1001			000			0.01	
v/s Ratio Perm					0.22			c0.07				
v/c Ratio					0.40			0.19			0.02	
Uniform Delay, d1					11.7			20.4	_	-1 -11	19.1	
Progression Factor					1.00			1.93			1.00	
Incremental Delay, d2					0.6			0.8			0.0	
Delay (s)					12.3			40.1			19.2	
Level of Service					В		15.0	D			В	
Approach Delay (s)		0.0			12.3			40.1			19.2	-
Approach LOS		Α			В			D			В	
Intersection Summary												
HCM 2000 Control Delay			15.5	Н	CM 2000	Level of	Service		В	H 53		
HCM 2000 Volume to Capaci	ity ratio		0.32									
Actuated Cycle Length (s)			90.0	Si	um of los	t time (s)			9.0			1
Intersection Capacity Utilizati	on		36.4%		U Level		;		Α			
Analysis Period (min)			15									
c Critical Lane Group												

c Critical Lane Group

	۶	→	*	•	4-	4	4	†	~	/	+	4
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					41-			4			Þ	
Traffic Volume (veh/h)	0	0	0	21	605	13	61	22	0	0	5	9
Future Volume (veh/h)	0	0	0	21	605	13	61	22	0	0	5	9
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1885	1767	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				26	738	16	74	27	0	0	6	11
Peak Hour Factor				0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %				0	1	9	0	0	0	0	0	0
Cap, veh/h				66	1952	44	450	154	0	0	210	385
Arrive On Green				0.55	0.55	0.55	0.35	0.35	0.00	0.00	0.35	0.35
Sat Flow, veh/h				119	3550	81	1089	441	0	0	601	1101
Grp Volume(v), veh/h				409	0	371	101	0	0	0	0	17
Grp Sat Flow(s), veh/h/ln				1879	0	1871	1530	0	0	0	0	1702
Q Serve(g_s), s				11.3	0.0	10.0	3.2	0.0	0.0	0.0	0.0	0.6
Cycle Q Clear(g_c), s				11.3	0.0	10.0	4.0	0.0	0.0	0.0	0.0	0.6
Prop In Lane				0.06		0.04	0.73		0.00	0.00		0.65
Lane Grp Cap(c), veh/h				1034	0	1029	605	0	0	0	0	596
V/C Ratio(X)				0.40	0.00	0.36	0.17	0.00	0.00	0.00	0.00	0.03
Avail Cap(c_a), veh/h				1034	0	1029	605	0	0	0	0	596
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh				11.6	0.0	11.4	20.3	0.0	0.0	0.0	0.0	19.2
Incr Delay (d2), s/veh				1.1	0.0	1.0	0.6	0.0	0.0	0.0	0.0	0.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%).veh/ln				4.7	0.0	4.1	1.5	0.0	0.0	0.0	0.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				12.8	0.0	12.3	20.8	0.0	0.0	0.0	0.0	19.3
LnGrp LOS				В	Α	В	С	Α	Α	Α	Α	В
Approach Vol. veh/h					780			101			17	
Approach Delay, s/veh					12.6			20.8			19.3	-
Approach LOS					В			С			В	
Timer - Assigned Phs		2				6		8	-			
Phs Duration (G+Y+Rc), s		36.0				36.0		54.0	-			
Change Period (Y+Rc), s		4.5				4.5		4.5				
Max Green Setting (Gmax), s		31.5				31.5		49.5				-
Max Q Clear Time (g_c+l1), s		6.0				2.6		13.3		11 01		
Green Ext Time (p_c). s		0.5				0.0		5.6		7.4		
Intersection Summary												
HCM 6th Ctrl Delay			13.6									
HCM 6th LOS			13.0 B									
TIOW OUT EOG			D									

Scenario 1

Intersection		F. 3										
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	1	In let 1	F	7	1>	THE I	1.100	INSI			4	717
Traffic Vol, veh/h	15	0	578	587	97	2	0	0	0	0	12	14
Future Vol, veh/h	15	0	578	587	97	2	0	0	0	0	12	14
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	1100	-	None	1100	1100	None	Otop	- Otop	None	Otop	Otop	None
Storage Length	100	_	0	0	- 17	-	_	-	-	-		0
Veh in Median Storage,		1			0	:=:		0			0	
Grade, %	, <i>II</i> -	0		-	0		-	0		_	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	23	0	1	1	0	0	0	0	0	0	0	25
Mymt Flow	17	0	664	675	111	2	0	0	0	0	14	16
WINITION	- 17	U	004	010		4	U	.0		0	17	.0
Major/Minor	H 1			Major2					N	Ainor2		
Conflicting Flow All				0	0	0				-	1462	112
Stage 1											1462	
Stage 2				-	-	-				-	0	-
Critical Hdwy				4.11							6.5	6.45
Critical Hdwy Stg 1				-	-	-				-	5.5	-
Critical Hdwy Stg 2											-	
Follow-up Hdwy				2.209	-	-				-		3.525
Pot Cap-1 Maneuver										0	130	882
Stage 1				-	-	-				0	195	
Stage 2				-	5					0	-	
Platoon blocked, %					-	-						
Mov Cap-1 Maneuver			MIL.			4	P. L				0	882
Mov Cap-2 Maneuver				-	-	-				-	0	-
Stage 1		T.U				5-				JI's	0	18
Stage 2				-		-				-	0	-
	11 11											
Annesseh				WB						SB		
Approach				VVB						00		
HCM Control Delay, s						1	18					
HCM LOS												
Minor Lane/Major Mym	t	WBL	WBT	WBR	SBLn1	SBLn2						
Capacity (veh/h)		-	6									
HCM Lane V/C Ratio		_		-		0.018						
HCM Control Delay (s)		2	- 2			2010			77			
HCM Lane LOS		_										
HCM 95th %tile Q(veh))	-				0.1				=		
TOTAL TOUR OCCUPANT						9.1						

	۶	-	•	1	←	*	1	†	-	1	1	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			की		W	Þ	
Traffic Volume (vph)	22	524	32	15	146	12	33	116	39	54	77	7
Future Volume (vph)	22	524	32	15	146	12	33	116	39	54	77	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			4.5			5.0		5.0	5.0	
Lane Util. Factor		1.00			1.00			1.00		1.00	1.00	
Frt		0.99			0.99			0.97		1.00	0.99	
Flt Protected		1.00			1.00			0.99		0.95	1.00	-1, -1
Satd. Flow (prot)		1845			1874			1831		1770	1825	
Flt Permitted		0.99			0.94			0.94		0.54	1.00	
Satd. Flow (perm)		1823			1778			1731		1002	1825	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	24	563	34	16	157	13	35	125	42	58	83	8
RTOR Reduction (vph)	0	2	0	0	3	0	0	10	0	0	4	0
Lane Group Flow (vph)	0	619	0	0	183	0	0	192	0	58	87	0
Heavy Vehicles (%)	5%	2%	0%	0%	0%	0%	0%	0%	0%	2%	3%	0%
Tum Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6	-17		8			4	
Permitted Phases	2			6	150		8	-		4		
Actuated Green, G (s)		57.0			57.5			23.0		23.0	23.0	
Effective Green, g (s)		57.0			57.5			23.0		23.0	23.0	
Actuated g/C Ratio		0.63			0.64			0.26		0.26	0.26	
Clearance Time (s)		5.0			4.5			5.0		5.0	5.0	
Lane Grp Cap (vph)		1154			1135			442		256	466	The state of
v/s Ratio Prot			_								0.05	
v/s Ratio Perm		c0.34			0.10			c0.11		0.06		
v/c Ratio		0.54			0.16			0.43		0.23	0.19	
Uniform Delay, d1		9.2			6.5	-		28.0		26.5	26.2	
Progression Factor		1.00			1.00			1.00		1.41	1.43	
Incremental Delay, d2		1.8			0.3			3.1		2.0	0.9	
Delay (s)		10.9			6.8			31.1		39.4	38.4	
Level of Service		В			А			С		D	D	
Approach Delay (s)		10.9			6.8			31.1		_	38.8	-
Approach LOS		В			Α			С			D	
Intersection Summary												
HCM 2000 Control Delay			17.4	Н	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capacity	ratio		0.51						-			
Actuated Cycle Length (s)			90.0	Sı	um of lost	time (s)			10.0			
Intersection Capacity Utilization	n		60.0%		U Level		!		В			
Analysis Period (min)			15									
c Critical Lane Group												

	٠	→	•	1	4	*	4	†	1	1	↓	1
Movement	EBL	EBT	EBR	WBL.	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4		ħ	Pa	
Traffic Volume (veh/h)	22	524	32	15	146	12	33	116	39	54	77	
Future Volume (veh/h)	22	524	32	15	146	12	33	116	39	54	77	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	(
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1870	1900	1900	1900	1900	1900	1900	1900	1870	1856	1900
Adj Flow Rate, veh/h	24	563	34	16	157	13	35	125	42	58	83	3
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	5	2	0	0	0	0	0	0	0	2	3	(
Cap, veh/h	64	1079	64	104	976	78	94	305	93	360	423	41
Arrive On Green	0.64	0.64	0.64	0.64	0.64	0.64	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	35	1698	100	96	1537	123	188	1201	365	1218	1666	161
Grp Volume(v), veh/h	621	0	0	186	0	0	202	0	0	58	0	91
Grp Sat Flow(s), veh/h/ln	1833	0	0	1755	0	0	1753	0	0	1218	0	1827
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.5
Cycle Q Clear(g_c), s	16.6	0.0	0.0	3.6	0.0	0.0	8.4	0.0	0.0	4.6	0.0	3.5
Prop In Lane	0.04	0.0	0.05	0.09	0.0	0.07	0.17		0.21	1.00		0.09
Lane Grp Cap(c), veh/h	1206	0	0.00	1159	0	0	492	0	0	360	0	464
V/C Ratio(X)	0.51	0.00	0.00	0.16	0.00	0.00	0.41	0.00	0.00	0.16	0.00	0.20
Avail Cap(c_a), veh/h	1206	0.00	0.00	1159	0.00	0.00	492	0	0.00	360	0	464
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	9.1	0.0	0.0	6.7	0.0	0.0	28.3	0.0	0.0	26.9	0.0	26.5
Incr Delay (d2), s/veh	1.6	0.0	0.0	0.3	0.0	0.0	2.5	0.0	0.0	1.0	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.4	0.0	0.0	1.4	0.0	0.0	3.9	0.0	0.0	1.1	0.0	1.6
Unsig. Movement Delay, s/veh		0.0	0.0		0.0	0.0	0.0	0.0	0.0	,,,	0.0	1.15
LnGrp Delay(d),s/veh	10.6	0.0	0.0	7.0	0.0	0.0	30.8	0.0	0.0	27.8	0.0	27.4
LnGrp LOS	В	Α.	Α	Α.	Α	Α	C	A	A	C	Α	(
		621			186			202			149	K-III
Approach Vol, veh/h								30.8			27.6	
Approach Delay, s/veh		10.6		_	7.0			30.0 C			21.0 C	-
Approach LOS		В			Α			U	100		C	_
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		62.5		28.0		62.5		28.0				
Change Period (Y+Rc), s		5.0		5.0		* 5		5.0				
Max Green Setting (Gmax), s		57.0	- Die	23.0		* 58		23.0				
Max Q Clear Time (g_c+l1), s		18.6		6.6		5.6		10.4				
Green Ext Time (p_c), s		4.9		0.5		1.2		0.9				
Intersection Summary												
HCM 6th Ctrl Delay			15.7					-15				
HCM 6th LOS			В									
Notes		_										

^{*} HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBF
Lane Configurations					di		*	4			P	
Traffic Volume (vph)	0	0	0	34	340	27	78	19	0	0	76	16
Future Volume (vph)	0	0	0	34	340	27	78	19	0	0	76	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.5		4.5	4.5			4.5	
Lane Util. Factor					0.95		1.00	1.00			1.00	
Frt					0.99		1.00	1.00			0.98	
Flt Protected					1.00		0.95	1.00			1.00	
Satd. Flow (prot)					3515		1787	1792			1826	
Flt Permitted					1.00		0.69	1.00			1.00	
Satd. Flow (perm)					3515		1289	1792			1826	
Peak-hour factor, PHF	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Adj. Flow (vph)	0	0	0	41	410	33	94	23	0	0	92	19
RTOR Reduction (vph)	0	0	0	0	6	0	0	0	0	0	8	0
Lane Group Flow (vph)	0	0	0	0	478	0	94	23	0	0	103	0
Heavy Vehicles (%)	0%	0%	0%	2%	1%	3%	1%	6%	0%	0%	2%	0%
Turn Type			0.0	Perm	NA		Perm	NA	0.70	070	NA	0 / 0
Protected Phases				7 01111	8		i Cilli	2	-11		6	
Permitted Phases				8	0		2	2			v	
Actuated Green, G (s)					43.5		37.5	37.5			37.5	
Effective Green, g (s)					43.5		37.5	37.5			37.5	
Actuated g/C Ratio					0.48		0.42	0.42			0.42	
Clearance Time (s)					4.5		4.5	4.5			4.5	
Lane Grp Cap (vph)		7			1698		537	746			760	
v/s Ratio Prot					1050		007	0.01			0.06	
v/s Ratio Perm					0.14		c0.07	0.01			0.00	
v/c Ratio					0.14		0.18	0.03			0.14	
Uniform Delay, d1	_				13.9		16.5	15.5			16.2	
Progression Factor					1.00		1.16	1.10			1.00	
Incremental Delay, d2					0.4		0.7	0.1			0.4	
Delay (s)					14.3		19.7	17.2			16.6	
Level of Service					14.5 B		В	В			10,0	
Approach Delay (s)		0.0			14.3		U	19.2			16.6	
Approach LOS		Α			В			13.2 B			10.0 B	
Intersection Summary				_					_	_	_	-
HCM 2000 Control Delay			15.5	Н	CM 2000	l evel of	Service		В			
HCM 2000 Volume to Capacity	/ ratio		0.23	- 11	OIN 2000	LOVOI OI	OUI VIOC		U			
Actuated Cycle Length (s)	· allo		90.0	S	um of lost	time (s)			9.0			
Intersection Capacity Utilizatio	n		29.7%		U Level o	-			9.0 A			
Analysis Period (min)			15	10	O LOVOI C	71 OCI VICE						
c Critical Lane Group			15									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					413		ħ	4			Þ	
Traffic Volume (veh/h)	0	0	0	34	340	27	78	19	0	0	76	16
Future Volume (veh/h)	0	0	0	34	340	27	78	19	0	0	76	16
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1885	1856	1885	1811	0	0	1870	1900
Adj Flow Rate, veh/h				41	410	33	94	23	0	0	92	19
Peak Hour Factor				0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Percent Heavy Veh, %				2	1	3	1	6	0	0	2	0
Cap, veh/h				145	1519	128	569	755	0	0	627	129
Arrive On Green				0.48	0.48	0.48	0.42	0.42	0.00	0.00	0.42	0.42
Sat Flow, veh/h			in the	301	3142	265	1292	1811	0	0	1504	311
Grp Volume(v), veh/h				255	0	229	94	23	0	0	0	111
Grp Sat Flow(s), veh/h/ln				1870	0	1838	1292	1811	0	0	0	1814
Q Serve(g_s), s		_		7.3	0.0	6.6	4.4	0.7	0.0	0.0	0.0	3.4
Cycle Q Clear(g_c), s				7.3	0.0	6.6	7.8	0.7	0.0	0.0	0.0	3.4
Prop In Lane				0.16		0.14	1.00		0.00	0.00		0.17
Lane Grp Cap(c), veh/h				904	0	888	569	755	0	0	0	756
V/C Ratio(X)				0.28	0.00	0.26	0.17	0.03	0.00	0.00	0.00	0.15
Avail Cap(c_a), veh/h				904	0	888	569	755	0	0	0	756
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	1.00	1.00	0.00	0.00	0.00	1.00
Uniform Delay (d), s/veh				13.9	0.0	13.7	18.7	15.5	0.0	0.0	0.0	16.3
Incr Delay (d2), s/veh				0.8	0.0	0.7	0.6	0.1	0.0	0.0	0.0	0.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				3.1	0.0	2.8	1.4	0.3	0.0	0.0	0.0	1.5
Unsig. Movement Delay, s/veh												0,000
LnGrp Delay(d).s/veh				14.7	0.0	14.4	19.4	15.6	0.0	0.0	0.0	16.7
LnGrp LOS				В	Α	В	В	В	Α	Α	Α	В
Approach Vol. veh/h					484			117			111	
Approach Delay, s/veh			_		14.6			18.6			16.7	
Approach LOS					В			В			В	
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		42.0				42.0	-	48.0				
Change Period (Y+Rc), s		4.5				4.5		4.5				
Max Green Setting (Gmax), s	11	37.5		JUL .		37.5		43.5				
Max Q Clear Time (g_c+l1), s		9.8				5.4		9.3				
Green Ext Time (p_c), s		0.4				0.6		3.2				
Intersection Summary												
HCM 6th Ctrl Delay		To the	15.6									
HCM 6th LOC			D									

HCM 6th LOS

В

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Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations		44	ĵ»		Top of			
Traffic Volume (vph)	82	548	182	4	23	3		
uture Volume (vph)	82	548	182	4	23	3		
deal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Total Lost time (s)		4.5	4.5		4.5			
ane Util. Factor		0.95	1.00		1.00			
rt		1.00	1.00		0.99			
It Protected		0.99	1.00		0.96			
Satd. Flow (prot)		3495	1895		1792			
It Permitted		0.88	1.00		0.96		11	
Satd. Flow (perm)		3088	1895		1792			
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93		
Adj. Flow (vph)	88	589	196	4	25	3		
RTOR Reduction (vph)	0	0	1	0	2	0		
Lane Group Flow (vph)	0	677	199	0	26	0		
Heavy Vehicles (%)	0%	3%	0%	0%	0%	0%	_	
Turn Type	Perm	NA	NA		Prot			
Protected Phases	44	2	6		4			
Permitted Phases	2	_						
Actuated Green, G (s)		59.5	59.5		21.5			
Effective Green, g (s)		59.5	59.5		21.5			
Actuated g/C Ratio		0.66	0.66		0.24			- "
Clearance Time (s)		4.5	4.5		4.5			
ane Grp Cap (vph)		2041	1252		428			
//s Ratio Prot		44.5	0.11		c0.01			
//s Ratio Perm		c0.22			55.01			
v/c Ratio		0.33	0.16		0.06			
Uniform Delay, d1		6.6	5.8		26.4			
Progression Factor		1.00	1.00		0.79			
ncremental Delay, d2		0.4	0.3		0.3			
Delay (s)		7.1	6.0		21.2			
evel of Service		А	Α.		C			
Approach Delay (s)		7.1	6.0		21.2			
Approach LOS		Α	A		C			
ntersection Summary								
ICM 2000 Control Delay			7.3	H	CM 2000	Level of Service		Α
HCM 2000 Volume to Capac	ity ratio		0.26					
actuated Cycle Length (s)			90.0	Sı	um of lost	time (s)		9.0
ntersection Capacity Utilizati	ion		42.8%			of Service		A
Analysis Period (min)			15		5 257070	50, 1,00		
Critical Lane Group			-					

	۶	-	4	4	1	1
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		44	ß		N/F	
Traffic Volume (veh/h)	82	548	182	4	23	3
Future Volume (veh/h)	82	548	182	4	23	3
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1856	1900	1900	1900	1900
Adj Flow Rate, veh/h	88	589	196	4	25	3
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	3	0	0	0	0
Cap, veh/h	295	1900	1227	25	369	44
Arrive On Green	0.66	0.66	0.66	0.66	0.24	0.24
Sat Flow, veh/h	371	2958	1855	38	1543	185
Grp Volume(v), veh/h	346	331	0	200	29	0
Grp Sat Flow(s), veh/h/ln	1640	1604	0	1893	1790	0
Q Serve(g_s), s	1.3	7.9	0.0	3.6	1.1	0.0
Cycle Q Clear(g_c), s	7.2	7.9	0.0	3.6	1.1	0.0
Prop In Lane	0.25			0.02	0.86	0.10
Lane Grp Cap(c), veh/h	1134	1060	0	1252	428	0
V/C Ratio(X)	0.31	0.31	0.00	0.16	0.07	0.00
Avail Cap(c_a), veh/h	1134	1060	0	1252	428	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	6.4	6.5	0.0	5.8	26.5	0.0
Incr Delay (d2), s/veh	0.7	0.8	0.0	0.3	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	2.6	0.0	1.3	0.5	0.0
Unsig. Movement Delay, s/veh		-10	0.0	1.0	J.0	0.0
LnGrp Delay(d),s/veh	7.1	7.3	0.0	6.1	26.8	0.0
LnGrp LOS	A	A	A	A	C	A
Approach Vol, veh/h		677	200		29	
Approach Delay, s/veh		7.2	6.1		26.8	
Approach LOS		1.Z	A		Z0.0	
			- M		0	
Timer - Assigned Phs		2		-4		6
Phs Duration (G+Y+Rc), s		64.0		26.0		64.0
Change Period (Y+Rc), s		4.5		4.5		4.5
Max Green Setting (Gmax), s		59.5		21.5		59.5
Max Q Clear Time (g_c+l1), s		9.9		3.1		5.6
Green Ext Time (p_c), s		5.0		0.0	-	1.3
Intersection Summary						
HCM 6th Ctrl Delay			7.5			
HCM 6th LOS			A			
TIOW OUI LOO			\sim			

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					47			बी			ß	
Traffic Volume (vph)	0	0	0	21	424	9	61	22	0	0	5	7
Future Volume (vph)	0	0	0	21	424	9	61	22	0	0	5	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.5			4.5			4.5	
Lane Util. Factor					0.95			1.00			1.00	
Frt					1.00			1.00			0.92	
Flt Protected					1.00			0.96			1.00	
Satd. Flow (prot)					3551			1833			1746	
Flt Permitted					1.00			0.81			1.00	
Satd. Flow (perm)					3551			1531			1746	
Peak-hour factor, PHF	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Adj. Flow (vph)	0	0	0	26	517	11	74	27	0	0	6	9
RTOR Reduction (vph)	0	0	0	0	1	0	0	0	0	0	6	0
Lane Group Flow (vph)	0	0	0	0	553	0	0	101	0	0	9	0
Heavy Vehicles (%)	0%	0%	0%	0%	1%	9%	0%	0%	0%	0%	0%	0%
Turn Type				Perm	NA		Perm	NA	0,70		NA	
Protected Phases					8	-	- Onn	2	_		6	
Permitted Phases				8	,		2				J	
Actuated Green, G (s)					49.5		أدا	31.5			31.5	
Effective Green, g (s)					49.5			31.5			31.5	
Actuated g/C Ratio					0.55			0.35			0.35	
Clearance Time (s)					4.5			4.5			4.5	
Lane Grp Cap (vph)					1953			535			611	
v/s Ratio Prot					1000			000			0.01	
v/s Ratio Perm					0.16			c0.07			0.01	
v/c Ratio					0.28			0.19			0.01	
Uniform Delay, d1					10.8			20.4			19.1	
Progression Factor					1.00			0.75			1.00	
Incremental Delay, d2					0.4			0.8			0.0	
Delay (s)					11.2			16.1			19.2	_
Level of Service	-				В			В			В	
Approach Delay (s)		0.0			11.2			16.1			19.2	
Approach LOS		A			В			В			В	
Intersection Summary												
HCM 2000 Control Delay			12.1	Н	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capacit	y ratio		0.25						11072			
Actuated Cycle Length (s)			90.0	S	um of lost	time (s)			9.0			
Intersection Capacity Utilization	n		31.3%		U Level				Α			
Analysis Period (min)			15									

Scenario 2

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					413			લી			ĵ.	
Traffic Volume (veh/h)	0	0	0	21	424	9	61	22	0	0	5	7
Future Volume (veh/h)	0	0	0	21	424	9	61	22	0	0	5	7
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	- 0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1900	1885	1767	1900	1900	0	0	1900	1900
Adj Flow Rate, veh/h				26	517	11	74	27	0	0	6	9
Peak Hour Factor				0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %				0	1	9	0	0	0	0	0	0
Cap, veh/h				92	1926	43	451	155	0	0	240	360
Arrive On Green				0.55	0.55	0.55	0.35	0.35	0.00	0.00	0.35	0.35
Sat Flow, veh/h				168	3502	78	1090	442	0	0	686	1029
Grp Volume(v), veh/h				290	0	264	101	0	0	0	0	15
Grp Sat Flow(s), veh/h/ln				1877	0	1871	1532	0	0	0	0	1715
Q Serve(g_s), s				7.4	0.0	6.6	3.2	0.0	0.0	0.0	0.0	0.5
Cycle Q Clear(g_c), s	T TE			7,4	0.0	6.6	4.0	0.0	0.0	0.0	0.0	0.5
Prop In Lane				0.09	0.0	0.04	0.73	0.0	0.00	0.00	0.0	0.60
Lane Grp Cap(c), veh/h				1032	0	1029	606	0	0.00	0.00	0	600
V/C Ratio(X)				0.28	0.00	0.26	0.17	0.00	0.00	0.00	0.00	0.02
Avail Cap(c_a), veh/h				1032	0.00	1029	606	0.00	0.00	0.00	0.00	600
HCM Platoon Ratio			_	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
			_	1.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00
Upstream Filter(I)		-	_	10.8	0.00	10.6	20.3	0.0	0.00	0.0	0.00	19.2
Uniform Delay (d), s/veh			_	0.7	0.0	0.6	0.6	0.0	0.0	0.0	0.0	0.1
Incr Delay (d2), s/veh							0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh				0.0	0.0	0.0 2.7	1.5	0.0		0.0	0.0	0.0
%ile BackOfQ(50%).veh/ln				3.1	0.0	2.1	1.0	0.0	0.0	0.0	0.0	0.2
Unsig. Movement Delay, s/veh	_			44.5	0.0	44.0	00.0	0.0	0.0	0.0	0.0	40.0
LnGrp Delay(d),s/veh				11.5	0.0	11.2	20.8	0.0	0.0	0.0	0.0	19.3
LnGrp LOS				В	Α	В	С	A	Α	Α	A	В
Approach Vol, veh/h					554			101			15	
Approach Delay, s/veh					11.3			20.8			19.3	
Approach LOS					В			С			В	
Timer - Assigned Phs		2				6		8				
Phs Duration (G+Y+Rc), s		36.0				36.0		54.0				
Change Period (Y+Rc), s		4.5				4.5		4.5				
Max Green Setting (Gmax), s		31.5				31.5		49.5				
Max Q Clear Time (g_c+l1), s		6.0				2.5		9.4				
Green Ext Time (p_c), s		0.5				0.0		3.7			117	
Intersection Summary												
HCM 6th Ctrl Delay			13.0			The Fig.						
HCM 6th LOS			В									

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Scen	250	٠,

Intersection												11.00
Int Delay, s/veh	2.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	Ti.		7	Ŋ	P			લ			4	7/
Traffic Vol, veh/h	15	0	191	411	68	1	29	1	0	0	12	14
Future Vol, veh/h	15	0	191	411	68	1	29	1	0	0	12	14
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-		None			12.0		1)#3	None			None
Storage Length	100	-	0	0	-	-	_		_	-	_	0
Veh in Median Storage.	,# -	1			0	- 10		0	196		0	
Grade, %	-	0	-	-	0	-	-	0	-		0	
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	23	0	1	1	0	0	0	0	0	0	0	25
Mvmt Flow	17	0	220	472	78	1	33	1	0	0	14	16
Major/Minor			1	Major2			Vinor1		N	/linor2		
Conflicting Flow All				0	0	0	1038	1023	-	-	1023	79
Stage 1				16 :	1.	-	0	0	180		1023	-
Stage 2				_		-	1038	1023	-	-	0	-
Critical Hdwy				4.11		1 (6)	7.1	6.5	(#3)		6.5	6.45
Critical Hdwy Stg 1				-	-	-	-	-	-	-	5.5	-
Critical Hdwy Stg 2	- 6.1						6.1	5.5	- 180			
Follow-up Hdwy				2.209	_	-	3.5	4	-	-	4	3.525
Pot Cap-1 Maneuver	-						211	238	0	0	238	921
Stage 1				-	-	-	-	-	0	0	316	
Stage 2				11 3			281	316	0	0		-
Platoon blocked, %					-	-						
Mov Cap-1 Maneuver				*	*		198	238		-	238	921
Mov Cap-2 Maneuver				-	-	-	198	238		-	238	-
Stage 1						-	-		160		316	140
Stage 2				-	-	-	264	316	-	-		-
Approach				WB			NB		11	SB		
HCM Control Delay, s							26.8			14.6		
HCM LOS							D			В		
Minor Lane/Major Mvm	t t	VBLn1	WBL	WBT	WBR	SBLn1	SBLn2		100			
Capacity (veh/h)		199					921					
HCM Lane V/C Ratio		0.173	-	-		0.058						
HCM Control Delay (s)		26.8					9					
HCM Lane LOS		D	-	-	-	С	A					
HCM 95th %tile Q(veh)		0.6		-		0.2	0.1					

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			ap.			क्		7	^	
Traffic Volume (vph)	16	367	22	15	146	12	33	116	27	38	77	7
Future Volume (vph)	16	367	22	15	146	12	33	116	27	38	77	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0			5.0		5.0	5.0	
Lane Util. Factor		1.00			1.00			1.00		1.00	1.00	
Frt		0.99			0.99			0.98		1.00	0.99	
Fit Protected		1.00			1.00			0.99		0.95	1.00	
Satd. Flow (prot)		1845			1874			1844		1770	1825	
FIt Permitted		0.99			0.96			0.94		0.61	1.00	
Satd. Flow (perm)		1825			1799			1747		1134	1825	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	17	395	24	16	157	13	35	125	29	41	83	8
RTOR Reduction (vph)	0	2	0	0	3	0	0	7	0	0	4	0
Lane Group Flow (vph)	0	434	0	0	183	0	0	182	0	41	87	0
Heavy Vehicles (%)	5%	2%	0%	0%	0%	0%	0%	0%	0%	2%	3%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		48.0			48.0			32.0		32.0	32.0	
Effective Green, g (s)		48.0			48.0			32.0		32.0	32.0	
Actuated g/C Ratio		0.53			0.53			0.36		0.36	0.36	
Clearance Time (s)		5.0			5.0			5.0		5.0	5.0	
Lane Grp Cap (vph)		973			959			621		403	648	
v/s Ratio Prot											0.05	
v/s Ratio Perm		c0.24			0.10			c0.10		0.04		
v/c Ratio		0.45			0.19			0.29		0.10	0.13	
Uniform Delay, d1		12.9			10.9			20.9		19.4	19.6	
Progression Factor		1.00			1.00			1.00		0.73	0.71	
Incremental Delay, d2		1.5			0.4			1.2		0.5	0.4	
Delay (s)		14.3			11.4			22.1		14.6	14.4	
Level of Service		В			В			С		В	В	
Approach Delay (s)		14.3			11.4			22.1			14.5	
Approach LOS		В			В			С			В	
Intersection Summary												
HCM 2000 Control Delay			15.3	Н	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capac	city ratio		0.38									
Actuated Cycle Length (s)			90.0		um of lost				10.0	- "		-, 44
Intersection Capacity Utilizat	tion		49.0%	IC	CU Level	of Service	1		Α			
Analysis Period (min)			15		-						4	1
a Critical Lana Group												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			4		F	^	
Traffic Volume (veh/h)	16	367	22	15	146	12	33	116	27	38	77	7
Future Volume (veh/h)	16	367	22	15	146	12	33	116	27	38	77	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1826	1870	1900	1900	1900	1900	1900	1900	1900	1870	1856	1900
Adj Flow Rate, veh/h	17	395	24	16	157	13	35	125	29	41	83	8
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	5	2	0	0	0	0	0	0	0	2	3	0
Cap, veh/h	58	909	54	92	841	67	130	444	96	509	592	57
Arrive On Green	0.53	0.53	0.53	0.53	0.53	0.53	0.36	0.36	0.36	0.36	0.36	0.36
Sat Flow, veh/h	31	1704	101	91	1576	125	234	1248	269	1233	1666	161
Grp Volume(v), veh/h	436	0	0	186	0	0	189	0	0	41	0	91
Grp Sat Flow(s), veh/h/ln	1836	0	0	1793	0	0	1751	0	0	1233	0	1827
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0
Cycle Q Clear(g_c), s	12.9	0.0	0.0	4.6	0.0	0.0	6.6	0.0	0.0	2.2	0.0	3.0
Prop In Lane	0.04		0.06	0.09		0.07	0.19		0.15	1.00		0.09
Lane Grp Cap(c), veh/h	1021	0	0	999	0	0	670	0	0	509	0	649
V/C Ratio(X)	0.43	0.00	0.00	0.19	0.00	0.00	0.28	0.00	0.00	0.08	0.00	0.14
Avail Cap(c_a), veh/h	1021	0	0	999	0	0	670	0	0	509	0	649
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	12.8	0.0	0.0	10.9	0.0	0.0	20.8	0.0	0.0	19.4	0.0	19.7
Incr Delay (d2), s/veh	1.3	0.0	0.0	0.4	0.0	0.0	1.1	0.0	0.0	0.3	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/In	5.4	0.0	0.0	1.9	0.0	0.0	3.0	0.0	0.0	0.6	0.0	1.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	14.1	0.0	0.0	11.3	0.0	0.0	21.9	0.0	0.0	19.7	0.0	20.1
LnGrp LOS	В	Α	Α	В	Α	Α	С	A	Α	В	Α	C
Approach Vol. veh/h		436			186			189			132	
Approach Delay, s/veh		14.1			11.3			21.9			20.0	
Approach LOS		В			В			С			В	
Timer - Assigned Phs		2		4		6		8	-			
Phs Duration (G+Y+Rc), s		53.0		37.0		53.0		37.0				
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		48.0		32.0		48.0		32.0				
Max Q Clear Time (g_c+l1), s		14.9		5.0		6.6		8.6				
Green Ext Time (p_c), s		3.0		0.6		1.2		1.0				
Intersection Summary												
HCM 6th Ctrl Delay			15.9	77								
HCM 6th LOS			В									

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			क्			4	
Traffic Volume (vph)	7	157	9	34	340	27	78	19	12	16	76	16
Future Volume (vph)	7	157	9	34	340	27	78	19	12	16	76	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0			5.0			5.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.99			0.99			0.99			0.98	
Flt Protected		1.00			1.00			0.97			0.99	
Satd. Flow (prot)		1883			1852			1776			1822	
Flt Permitted		0.98			0.96			0.74			0.96	
Satd. Flow (perm)		1854			1792			1359			1754	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	8	174	10	38	378	30	87	21	13	18	84	18
RTOR Reduction (vph)	0	2	0	0	3	0	0	- 5	0	0	7	0
Lane Group Flow (vph)	0	190	0	0	443	0	0	116	0	0	113	0
Heavy Vehicles (%)	0%	0%	0%	2%	1%	3%	1%	6%	0%	0%	2%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6	77.71		8	144		4	and:
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		50.0			50.0			30.0		187714	30.0	- 5
Effective Green, g (s)		50.0			50.0			30.0			30.0	
Actuated g/C Ratio		0.56			0.56	- 1		0.33			0.33	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Lane Grp Cap (vph)		1030		-	995			453			584	
v/s Ratio Prot												
v/s Ratio Perm		0.10			c0.25			c0.09			0.06	6
v/c Ratio		0.18			0.45			0.26			0.19	
Uniform Delay, d1		9.9			11.8			21.9			21.4	
Progression Factor		1.00			1.00			0.41			1.00	
Incremental Delay, d2		0.4			1.4			1.3		* 7	0,7	
Delay (s)		10.3			13.3			10.3			22.1	
Level of Service		В			В			В			C	
Approach Delay (s)		10.3			13.3			10.3			22,1	
Approach LOS		В			В			В			C	-19
Intersection Summary												
HCM 2000 Control Delay			13.4	Н	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capa	city ratio		0.37									
Actuated Cycle Length (s)			90.0	S	um of lost	time (s)	- 1		10.0			
Intersection Capacity Utiliza	ation		54.0%	IC	U Level	of Service			Α			
Analysis Period (min)			15	, ,								
a Critical Lana Craun												

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			d.			4			de.	
Traffic Volume (veh/h)	7	157	9	34	340	27	78	19	12	16	76	16
Future Volume (veh/h)	7	157	9	34	340	27	78	19	12	16	76	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1870	1885	1856	1885	1811	1900	1900	1870	1900
Adj Flow Rate, veh/h	8	174	10	38	378	30	87	21	13	18	84	18
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	2	1	3	1	6	0	0	2	0
Cap, veh/h	58	960	54	95	886	68	395	93	50	103	442	88
Arrive On Green	0.56	0.56	0.56	0.56	0.56	0.56	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	30	1729	97	93	1596	122	979	278	151	170	1327	264
Grp Volume(v), veh/h	192	0	0	446	0	0	121	0	0	120	0	0
Grp Sat Flow(s), veh/h/ln	1855	0	0	1811	0	0	1408	0	0	1761	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	4.5	0.0	0.0	12.6	0.0	0.0	4.5	0.0	0.0	4.2	0.0	0.0
Prop In Lane	0.04		0.05	0.09		0.07	0.72		0.11	0.15		0.15
Lane Grp Cap(c), veh/h	1072	0	0	1050	0	0	538	0	0	633	0	0
V/C Ratio(X)	0.18	0.00	0.00	0.42	0.00	0.00	0.22	0.00	0.00	0.19	0.00	0.00
Avail Cap(c_a), veh/h	1072	0	0	1050	0	0	538	0	0	633	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	9.9	0.0	0.0	11.7	0.0	0.0	21.5	0.0	0.0	21.4	0.0	0.0
Incr Delay (d2), s/veh	0.4	0.0	0.0	1.3	0.0	0.0	1.0	0.0	0.0	0.7	0.0	0.0
Initial Q Delay(d3),s/veh	1.9		0.0	0.0 5.2	0.0		0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln Unsig. Movement Delay, s/veh		0.0	0.0	5.2	0.0	0.0	1.9	0.0	0.0	1.9	0.0	0.0
LnGrp Delay(d),s/veh	10.3	0.0	0.0	12.9	0.0	0.0	22.4	0.0	0.0	22.1	0.0	0.0
LnGrp LOS	10.3	0.0 A	Α	12.9 B	Α	Α	22.4 C	Α.0	Ο.0	22.1 C	Α.	
Approach Vol. veh/h	В	192	^		446	^	U	121			120	A
Approach Vol. Ven/n Approach Delay, s/veh		10.3			12.9			22.4			22.1	
Approach LOS	-	10.3 B	-		12.9 B			22.4 C			ZZ.1	
		1000			Б						C	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		55.0		35.0		55.0		35.0				_
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		50.0		30.0		50.0		30.0	311			
Max Q Clear Time (g_c+l1), s		6.5		6.2		14.6		6.5				
Green Ext Time (p_c), s		1.2		0.6		3.2		0.6	-			
Intersection Summary												
HCM 6th Ctrl Delay			14.9									
HCM 6th LOS			В									

	1		4	*	-	4		
Movement	EBL	EBT	WBT	WBR	SBL	SBR		
Lane Configurations		4	ĵ»		NA.			
Traffic Volume (vph)	57	383	182	4	16	3		101111111111
Future Volume (vph)	57	383	182	4	16	3		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900		
Total Lost time (s)		5.0	5.0		5.0			
Lane Util. Factor		1.00	1.00		1.00			
Frt		1.00	1.00		0.98			
Flt Protected		0.99	1.00		0.96			
Satd. Flow (prot)		1840	1895		1786			
FIt Permitted		0.94	1.00		0.96			
Satd. Flow (perm)		1735	1895		1786			
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93		
Adj. Flow (vph)	61	412	196	4	17	3		
RTOR Reduction (vph)	0	0	- 1	0	2	0		
Lane Group Flow (vph)	0	473	199	0	18	0		
Heavy Vehicles (%)	0%	3%	0%	0%	0%	0%		
Tum Type	Perm	NA	NA		Prot			
Protected Phases		2	6		4			
Permitted Phases	2							
Actuated Green, G (s)		56.0	56.0		24.0			
Effective Green, g (s)		56.0	56.0		24.0			
Actuated g/C Ratio		0.62	0.62		0.27			
Clearance Time (s)		5.0	5.0		5.0			
Lane Grp Cap (vph)		1079	1179		476			
v/s Ratio Prot			0.11		c0.01			
v/s Ratio Perm		c0.27						
v/c Ratio		0.44	0.17		0.04			
Uniform Delay, d1		8.8	7.2		24.4			
Progression Factor		1.00	1.00		1.39			
Incremental Delay, d2		1.3	0.3		0.1			
Delay (s)		10.1	7.5		34.2			
Level of Service		В	A		С			
Approach Delay (s)		10.1	7.5		34.2			
Approach LOS		В	A		C			
Intersection Summary								
HCM 2000 Control Delay			10.1	Н	CM 2000	Level of Service	В	
HCM 2000 Volume to Capa	city ratio		0.32					
Actuated Cycle Length (s)			90.0		um of lost		10.0	
Intersection Capacity Utiliza	ition		49.8%	IC	U Level	of Service	A	
Analysis Period (min)			15					
0 111 11 0								

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Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		ર્લ	ß		W	
Traffic Volume (veh/h)	57	383	182	4	16	3
Future Volume (veh/h)	57	383	182	4	16	3
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1900	1856	1900	1900	1900	1900
Adj Flow Rate, veh/h	61	412	196	4	17	3
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	0	3	0	0	0	0
Cap, veh/h	151	987	1154	24	385	68
Arrive On Green	0.62	0.62	0.62	0.62	0.27	0.27
Sat Flow, veh/h	170	1587	1855	38	1443	255
Grp Volume(v), veh/h	473	0	0	200	21	0
Grp Sat Flow(s), veh/h/ln	1757	0	0	1893	1782	0
Q Serve(g_s), s	0.0	0.0	0.0	4.0	0.8	0.0
Cycle Q Clear(g_c), s	11.6	0.0	0.0	4.0	0.8	0.0
Prop In Lane	0.13	0.0	0.0	0.02	0.81	0.14
Lane Grp Cap(c), veh/h	1138	0	0	1178	475	0.14
V/C Ratio(X)	0.42	0.00	0.00	0,17	0.04	0.00
Avail Cap(c_a), veh/h	1138	0.00	0.00	1178	475	0.00
HCM Platoon Ratio						
	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	8.6	0.0	0.0	7.2	24.5	0.0
Incr Delay (d2), s/veh	1.1	0.0	0.0	0.3	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	0.0	0.0	1.6	0.4	0.0
Unsig. Movement Delay, s/veh			-			
LnGrp Delay(d),s/veh	9.7	0.0	0.0	7.5	24.7	0.0
LnGrp LOS	Α_	Α	Α	Α	С	Α
Approach Vol. veh/h		473	200		21	
Approach Delay, s/veh		9.7	7.5		24.7	
Approach LOS		A	Α		С	
Timer - Assigned Phs		2		- 4		6
Phs Duration (G+Y+Rc), s		61.0		29.0		61.0
Change Period (Y+Rc), s		5.0		5.0		5.0
Max Green Setting (Gmax), s		56.0		24.0		56.0
Max Q Clear Time (g_c+l1), s		13.6		2.8		6.0
Green Ext Time (p_c, s		3.5	-15-	0.0		1.3
W = 1:		3.0		0.0		1.3
Intersection Summary						
HCM 6th Ctrl Delay			9.5			
HCM 6th LOS			Α			

Scenario 3: Two Way

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			ब			4	
Traffic Volume (vph)	25	164	0	21	424	9	61	22	0	7	5	7
Future Volume (vph)	25	164	0	21	424	9	61	22	0	7	5	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		5.0			5.0			5.0			5.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		1.00			1.00			1.00			0.95	
Flt Protected		0.99			1.00			0.96			0.98	
Satd. Flow (prot)		1888			1870			1833			1771	
FIt Permitted		0.91			0.98			0.79			0.92	
Satd. Flow (perm)		1720			1837			1500			1661	
Peak-hour factor, PHF	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Adj. Flow (vph)	30	200	0	26	517	11	74	27	0	9	6	9
RTOR Reduction (vph)	0	0	0	0	- 1	- 0	0	0	0	0	6	0
Lane Group Flow (vph)	0	230	0	0	553	0	0	101	0	0	18	0
Heavy Vehicles (%)	0%	0%	0%	0%	1%	9%	0%	0%	0%	0%	0%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2	1		6			8			4	-)
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		54.0			54.0			26.0			26.0	1,45
Effective Green, g (s)		54.0			54.0			26.0			26.0	
Actuated g/C Ratio		0.60			0.60			0.29			0.29	
Clearance Time (s)		5.0			5.0			5.0			5.0	
Lane Grp Cap (vph)		1032			1102	Total		433			479	
v/s Ratio Prot												
v/s Ratio Perm	11	0.13			c0.30			c0.07			0.01	
v/c Ratio		0.22			0.50			0.23			0.04	
Uniform Delay, d1	-	8.3			10.3			24.4			23.0	
Progression Factor		1.00			1.00			1.40			1.00	
Incremental Delay, d2		0.5		1	1.6			1.2			0.1	
Delay (s)		8.8			11.9			35.4			23.1	
Level of Service		A			В			D			C	
Approach Delay (s)		8.8			11.9			35.4			23.1	
Approach LOS		A			В			D			С	
Intersection Summary												
HCM 2000 Control Delay			14.1	Н	CM 2000	Level of	Service		В			
HCM 2000 Volume to Capacity	y ratio		0.41									
Actuated Cycle Length (s)			90.0		um of los				10.0			
Intersection Capacity Utilizatio	n		43.3%	IC	CU Level	of Service)		Α			
Analysis Period (min)			15							100		
c Critical Lane Group												

c Critical Lane Group

	۶	→	*	•	←	*	1	†	~	1	ļ	1
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		4			4			લી			4	
Traffic Volume (veh/h)	25	164	0	21	424	9	61	22	0	7	5	7
Future Volume (veh/h)	25	164	0	21	424	9	61	22	0	7	5	7
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1900	1900	1900	1900	1885	1767	1900	1900	0	1900	1900	1900
Adj Flow Rate, veh/h	30	200	0	26	517	11	74	27	0	9	6	9
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	0	0	0	0	1	9	0	0	0	0	0	0
Cap. veh/h	144	935	0	69	1063	22	383	130	0	206	142	175
Arrive On Green	0.60	0.60	0.00	0.60	0.60	0.60	0.29	0.29	0.00	0.29	0.29	0.29
Sat Flow, veh/h	165	1558	0	44	1771	37	1086	450	0	522	490	607
Grp Volume(v), veh/h	230	0	0	554	0	0	101	0	0	24	0	0
Grp Sat Flow(s),veh/h/ln	1723	0	0	1853	0	0	1536	0	0	1620	0	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	3.4	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	5.0	0.0	0.0	15.1	0.0	0.0	4.3	0.0	0.0	0.9	0.0	0.0
Prop In Lane	0.13		0.00	0.05		0.02	0.73		0.00	0.37		0.37
Lane Grp Cap(c), veh/h	1079	0	0	1153	0	0	513	0	0	523	0	0
V/C Ratio(X)	0.21	0.00	0.00	0.48	0.00	0.00	0.20	0.00	0.00	0.05	0.00	0.00
Avail Cap(c_a), veh/h	1079	0	0	1153	0	0	513	0	0	523	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	8.2	0.0	0.0	10.2	0.0	0.0	24.2	0.0	0.0	23.1	0.0	0.0
Incr Delay (d2), s/veh	0.5	0.0	0.0	1.4	0.0	0.0	0.9	0.0	0.0	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%).veh/ln	2.0	0.0	0.0	6.0	0.0	0.0	1.7	0.0	0.0	0.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.6	0.0	0.0	11.6	0.0	0.0	25.1	0.0	0.0	23.2	0.0	0.0
LnGrp LOS	Α	Α	Α	В	Α	Α	С	Α	А	С	Α	A
Approach Vol, veh/h		230			554			101			24	
Approach Delay, s/veh		8.6			11.6			25.1			23.2	
Approach LOS	-	Α			В			C			C	
Timer - Assigned Phs		2	_			0	_	8	_	_		
Phs Duration (G+Y+Rc), s	_			31.0	_	50.0	_	31.0	_			
	_	59.0			-	59.0			_		-	
Change Period (Y+Rc), s		5.0		5.0		5.0		5.0				
Max Green Setting (Gmax), s		54.0		26.0		54.0		26.0	==			
Max Q Clear Time (g_c+l1), s		7.0		2.9		17.1		6.3				
Green Ext Time (p_c), s		1.6		0.1		4.2		0.4				
Intersection Summary												
HCM 6th Ctrl Delay			12.7				فالات					
HCM 6th LOS			В									

Scenario 3: Two Way

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	17		T.		4			4			स्	7
Traffic Vol, veh/h	15	46	191	411	68	1	29	1	172	8	12	14
Future Vol., veh/h	15	46	191	411	68	1	29	1	172	8	12	14
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-		None	.00	-	None	3005		None	90		None
Storage Length	100	-	0	-		-				-	-	0
Veh in Median Storage	,# -	0			0			0		190	0	
Grade, %	-	0	-	_	0	-	-	0		-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	23	0	1	1	0	0	0	0	0	0	0	25
Mvmt Flow	17	53	220	472	78	- 1	33	1	198	9	14	16
Major/Minor				Vlajor2			Minor1			Minor2		
Conflicting Flow All				0	0	0	1038	1023	0	1123	1023	79
Stage 1							0	0		1023	1023	
Stage 2		_					1038	1023		100	0	_
Critical Hdwy				4.11			7.1	6.5	6.2	7.1	6.5	6.45
Critical Hdwy Stg 1				-		-	-		-	6.1	5.5	_
Critical Hdwy Stg 2		T					6.1	5.5				
Follow-up Hdwy				2.209	-		3.5	4	3.3	3.5	4	3.525
Pot Cap-1 Maneuver	11 - 1			200			211	238	-	185	238	921
Stage 1								-	_	287	316	
Stage 2	===						281	316			11.0	_
Platoon blocked, %						-		0.0				
Mov Cap-1 Maneuver						-	198	238			238	921
Mov Cap-2 Maneuver					-		198	238	-	_	238	-
Stage 1	17.15						-	-		287	316	
Stage 2				-			264	316	-		-	-
Olugo Z			11 , 12			127			4	1		
				17.00			2120			66		
Approach				WB			NB			SB		
HCM Control Delay, s				777								
HCM LOS										-		
Annual Control		- 5					=			- 55		
Minor Lane/Major Mvm	it l	NBLn1	WBL	WBT	WBR	SBLn1	SBLn2					
Capacity (veh/h)		- 8		-		- 2	921					
HCM Lane V/C Ratio		_	-	-	-	-	0.017					
HCM Control Delay (s)				-			9		W	,, =		1
HCM Lane LOS		_	-	-			Α					
HCM 95th %tile Q(veh)	-		1/4			0.1					

Attachment D Roundabout Analysis Worksheets

MOVEMENT SUMMARY

♥ Site: 101 [D & 1st 2040 D2M2-PM]

Site Category: (None)

Roundabout

Mov	Turn	Demand		Deg.	Average	Level of	95% Back	of Queue	Prop.	Effective	Aver. No.	
ID		Total veh/h	HV %	Satn v/c	Delay sec	Service	Vehicles veh	Distance m	Queued	Stop Rate	Cycles	Speed km/h
South	: 1st Stre		78	V/C	360		Ven				100	13/11/1
1	L2	33	0.0	0.171	9.1	LOS A	1.0	7.3	0.26	0.50	0.26	55.5
2	T1	1	0.0	0.171	4.5	LOS A	1.0	7.3	0.26	0.50	0.26	55.6
3	R2	198	0.0	0.171	4.2	LOS A	1.0	7.3	0.26	0.50	0.26	54.2
Appro	oach	232	0.0	0.171	4.9	LOS A	1.0	7.3	0.26	0.50	0.26	54.4
East:	D Street											
4	L2	472	1.0	0.371	9.0	LOS A	2.6	18.1	0.23	0.59	0.23	53.0
5	T1	78	0.0	0.371	4.4	LOS A	2.6	18.1	0.23	0.59	0.23	53.0
6	R2	1	0.0	0.371	4.2	LOS A	2.6	18.1	0.23	0.59	0.23	51.8
Appro	oach	552	0.9	0.371	8.4	LOS A	2.6	18.1	0.23	0.59	0.23	53.0
North	: 1st Stree	et										
7	L2	9	0.0	0.047	11.7	LOS B	0.3	1.9	0.61	0.65	0.61	53.2
8	T1	14	0.0	0.047	7.0	LOS A	0.3	1.9	0.61	0.65	0.61	53.3
9	R2	16	25.0	0.047	7.7	LOS A	0.3	1.9	0.61	0.65	0.61	51.3
Appro	oach	39	10.3	0.047	8.4	LOS A	0.3	1.9	0.61	0.65	0.61	52.5
West	D Street											
10	L2	17	23.0	0.311	12.6	LOS B	1.9	13.7	0.65	0.71	0.65	53.2
11	T1	53	0.0	0.311	7.1	LOS A	1.9	13.7	0.65	0.71	0.65	54.2
12	R2	220	1.0	0.311	6.9	LOS A	1.9	13.7	0.65	0.71	0.65	52.8
Appro	oach	290	2.1	0.311	7.3	LOS A	1.9	13.7	0.65	0.71	0.65	53.1
All Ve	hicles	1113	1.3	0.371	7.4	LOSA	2.6	18.1	0.36	0.60	0.36	53.3

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: SIDRA Roundabout LOS.

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akcelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

♥ Site: 101 [Main & 1st 2040 D2M2 - Rdbt 1]

New Site

Site Category: (None)

Roundabout

Mov	Turn	Demand I	-lows_	Deg.	Average	Level of	95% Back	of Queue	Prop.	Effective	Aver. No.	Average
ID		Total	HV	Satn	Delay	Service	Vehicles	Distance	Queued	Stop Rate	Cycles	
North	East: Mai	veh/h	%	v/c	sec		veh	ft	_			mph
			2.0	0.004	F.4	1.00.4	4.4	00.0	0.00	0.00	0.00	05.0
6x	T1	220	3.0	0.231	5.4	LOS A	1.1	28.6	0.39	0.26	0.39	35.0
16bx	R3	32	3.0	0.231	5.4	LOS A	1.1	28.6	0.39	0.26	0.39	33.6
Аррго	ach	253	3.0	0.231	5.4	LOS A	1.1	28.6	0.39	0.26	0.39	34.8
North:	1st Stree	et										
7b	L3	30	3.0	0.615	11.8	LOS B	6.1	157.2	0.65	0.57	0.78	32.3
14a	R1	624	3.0	0.615	11.8	LOS B	6.1	157.2	0.65	0.57	0.78	31.6
Appro	ach	654	3.0	0.615	11.8	LOS B	6.1	157.2	0.65	0.57	0.78	31.6
South	West: To	Blue Bridge										
5ax	L1	191	3.0	0.606	10.0	LOS B	5.7	146.6	0.26	0.09	0.26	31.9
2x	T1	596	3.0	0.606	10.0	LOS B	5.7_	146.6	0.26	0.09	0.26	32.2
Appro	ach	787	3.0	0.606	10.0	LOSB	5.7	146.6	0.26	0.09	0.26	32.1
All Vel	hicles	1694	3.0	0.615	10.0	LOSB	6.1	157.2	0.43	0.30	0.48	32.3

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6). Roundabout Capacity Model: US HCM 6.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies. Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

♥ Site: 101 [Main & 1st 2040 D2M2 - Rdbt 2]

New Site

Site Category: (None)

Roundabout

Move	ement Pe	erformanc	e - Vehi	icles								
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	
South	n: Snake F	River	1000									
3	L2	416	3.0	0.537	12.7	LOS B	3.8	96.2	0.72	0.86	1.12	29.4
8	T1	171	0.0	0.214	6.8	LOS A	0.9	21.8	0.58	0.57	0.58	34.3
Appro	oach	587	2.1	.0.537	11.0	LOS B	3.8	96.2	0.68	0.78	0.96	30.6
North	: 1st Stree	et										
4	T1	38	1.0	0.326	7.1	LOS A	1.4	36.2	0.52	0.47	0.52	34.1
14	R2	806	3.0	0.326	2.5	LOS A	1.4	36.2	0.18	0.16	0.18	35.7
Appro	oach	844	2.9	0.326	2.7	LOS A	1.4	36.2	0.19	0.17	0.19	35.6
West	: Blue Brid	lge										
5	L2	615	3.0	0.462	7.3	LOS A	3.0	77.7	0.20	0.07	0.20	31.5
12	R2	666	3.0	0.500	7.9	LOS A	3.5	89.8	0.21	0.08	0.21	32.7
Appro	oach	1281	3.0	0.500	7.6	LOS A	3.5	89.8	0.21	0.08	0.21	32.1
All Ve	hicles	2712	2.8	0.537	6.8	LOSA	3.8	96.2	0.31	0.26	0.37	32.7

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6). Roundabout Capacity Model: US HCM 6.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies. Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Appendix XV Arborist Report







Symbols: (Approximate location)

Tree recommended for preservation

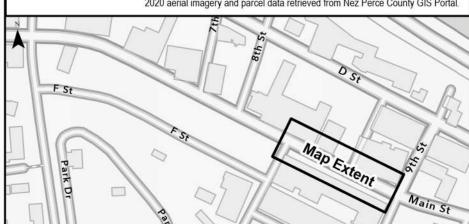
Tree recommended for removal

Planter - Soil Sample collected and analyzed

Planter - No Soil Sample collected

Estimated Critical Root Zone (CRZ)

2020 aerial imagery and parcel data retrieved from Nez Perce County GIS Portal.



		1								
Tree ID	Species	DBH	Overall Condition	Preservation Suitability	General Recs	Rec Notes	Tree Notes			
1	Norway maple (Acer platanoides)	14.8	Fair	Medium	Preserve		Cankers on large branches. Minor leaf scorch.			
2	Norway maple (Acer platanoides)	14.8	Fair	Medium	Preserve		Leaf scorch. Small wound on branch overhanging parking stall. Damaged and girdled roots.			
3	Tulip tree (Liriodendron tulipifera)	5.4	Fair	Medium	Preserve	Mulch and irrigate.	Leaf scorch and girdling roots.			
4	Tulip tree (Liriodendron tulipifera)	5.1	Good	High	Preserve	Mulch and irrigate,	Young healthy tree.			
5	Tulip tree (Liriodendron tulipifera)	4.9	Fair	Medium	Preserve	Mulch and irrigate.	Minor leaf scorch, otherwise tree is in good health.			
6	Tulip tree (Liriodendron tulipifera)	5	Fair	Medium	Preserve	Mulch and irrigate.	Minor leaf scorch and girdling roots.			
7	Norway maple (Acer platanoides)	11.6	Fair	Medium	Preserve	Prune branch overhanging parking stall. Mulch and irrigate. Increase soil volume of planting area.	Bark peeling on branch overhanging parking stall.			
8	Norway maple (Acer platanoides)	15.9	Good	Medium	Preserve	Increase soil volume of the planting space.	Girdling roots. Beginning to outgrow planting space.			
82	Callery pear (Pyrus calleryana)	26.5	Fair	Medium	Preserve	Reduce length of damaged branch overhanging street. Mulch and irrigate.	Mechanical damage on one branch. Occluded bark on past branch failures. Girdling roots.			
83	Norway maple (Acer platanoides)	18.1	Fair	Medium	Preserve	Reduce length of branch overhanging parking stall. Mulch and irrigate. Increase soil volume of planting space.	Canker on one branch, exposed wood is decayed. Leaf scorch.			
84	Norway maple (Acer platanoides)	17.8	Fair	Medium	Preserve	Reduce length of branches with defects. Mulch and irrigate. Increase soil volume of planting space.	Two cavities at six and seven feet above ground. Canker on branch overhanging street.			
85	Red maple (Acer rubrum)	14.3	Poor	Low	Remove	Remove and replace. Plant a species suitable for the site. Increase soil volume for replacement tree.	Canker on trunk extends from ground to seven feet.			
86	Norway maple (Acer platanoides)	17.5	Fair	Medium	Preserve	Reduce length of damaged branch overhanging street. Mulch and irrigate. Increase soil volume of planting space.	Leaf scorch. Mechanical damage on one branch. Bacterial oozing a pruning cut.			
87	Red maple (Acer rubrum)	8.1	Poor	Low	Remove	Remove and replace. Plant a suitable species for the site,	Canker on trunk, extends from ground to six feet.			



Evaluation Lewiston Main Street Tree Tree Evaluation Site Plan

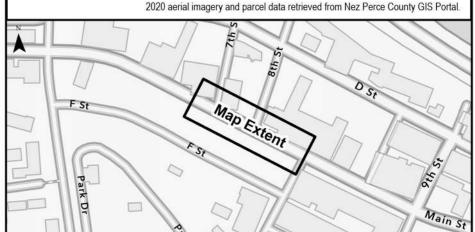
Portions of Main Street and D Street Lewiston, Idaho © Urban Forestry Services|
Bartlett Consulting – A Division of
The F. A. Bartlett Tree Expert
Company, October 2024. These
documents have been prepared
specifically for the above-named
project. They are not suitable for
use on other projects, or in other
locations, and/or without the
approval and participation of the approval and participation of the The F.A. Bartlett Tree Expert Company.





- Tree recommended for preservation
- Tree recommended for removal
- Planter Soil Sample collected and analyzed
 - Planter No Soil Sample collected
 - Estimated Critical Root Zone (CRZ)

2020	imagery and		J-4	ationed.	former !	Main	Davas	Carmbi	CIC	Danta	1
ZUZU APRIAL	imagery and	narcer	тата г	erneven	Irom I	NPZ	PALCE	L.OHIDIV	(715)	Ропа	4



	Name of the last o	- 12	- 4	980			
Tree ID	Species	DBH	Overall Condition	Preservation Suitability	General Recs	Rec Notes	Tree Notes
9	Norway maple (Acer platanoides)	18	Fair	Medium	Preserve	Increase soil volume of planting space.	Minor leaf scorch.
10	Norway maple (Acer platanoides)	12.4	Fair	Medium	Preserve	Monitor condition of exposed wood. Increase soil volume of planting space.	Past branch failures, exposed wood is solid.
11	Pacific dogwood (Cornus nuttallii)	6.5	Fair	Medium	Preserve	Mulch and irrigate. Increase soil volume of planting space.	Leaf scorch.
12	Pacific dogwood (Cornus nuttallii)	7.2	Fair	Medium	Preserve	Prune branches for clearance along building, Mulch and irrigate. Increase soil volume of planting space.	Tree is declining, the smallest stem has a canker.
13	Pacific dogwood (Cornus nuttallii)	4.9	Fair	Medium	Preserve	Clearance prune along building. Mulch and irrigate. Increase soil volume of planting space.	Tree in decline.
14	Callery pear (Pyrus calleryana)	7.1	Fair	Medium	Preserve	Mulch and irrigate. Prune to improve structure.	Healthy tree, poor structure typical of species.
15	Callery pear (Pyrus calleryana)	8.4	Fair	High	Preserve	Mulch and irrigate.	Healthy tree.
16	Norway maple (Acer platanoides)	16.8	Good	High	Preserve	Mulch and irrigate.	Healthy tree.
76	Red maple (Acer rubrum)	7.6	Fair	Low	Remove	Remove and replace. Plant replacement tree in planter east of existing tree (Planter 78).	Trunk is close to grate and will outgrow planting space.
77	Red maple (Acer rubrum)	17.1	Poor	Low	Remove	Remove and replace. Replace with a species suitable for the site. Increase soil volume of planting area for replacement tree.	Condition of the trunk is deteriorating. Multiple layers of reaction wood.
78	Red maple (Acer rubrum)	10.7	Fair	Medium	Preserve	Monitor condition of trunk for cankers. Mulch and irrigate. Increase soil volume of planting space.	Dead butress root.
79	Norway maple (Acer platanoides)	15.2	Fair	Medium	Preserve	Monitor condition of branch overhanging street and condition of trunk. Mulch and irrigate.	Mechanical damage at base, no reaction wood. Peeling bark on branch.
80	Red maple (Acer rubrum)	16.5	Fair	Low	Preserve	Monitor condition of trunk. Mulch and irrigate. Increase soil volume in planting space.	Trunk condition is deteriorating, canker on trunk.
81	Red maple (Acer rubrum)	10.4	Fair	Low	Preserve	Reduce height of branch leaning towards street. Monitor condition of trunk, Mulch and irrigate. Increase soil volume in planting	Trunk condition is deteriorating, canker.





Online Interactive Map Viewer Main Street-**Main Street** Main-Street Symbols: (Approximate location)

- Tree recommended for preservation
- Tree recommended for removal
- Planter Soil Sample collected and analyzed
- Planter No Soil Sample collected
- Estimated Critical Root Zone (CRZ)

2020 aerial imagery and parcel data retrieved from Nez Perce County GIS Portal.



)		Condition	Suitability			
	17	Norway maple (Acer platanoides)	15.6	Fair	Medium	Preserve	Prune for clearance along building, Mulch and irrigate. Increase soil volume of planting space.	Leaf scorch.
	18	Field maple (Acer campestre)	2.1	Good	High	Preserve	Mulch and irrigate. Expose root collar.	Young healthy tree.
	19	Callery pear (Pyrus calleryana)	20.8	Fair	Medium	Preserve	Monitor condition of branch extending over road. Prune branches for clearance along building. Prune epicormic sprouts at 6 feet to improve form. Mulch and irrigate.	Healthy tree with a wound on branch extending over road.
	20	Callery pear (Pyrus calleryana)	19.6	Fair	Medium	Preserve	Reduce length of branch extending over road. Mulch and irrigate.	Girdling roots. Torsional stress on lower trunk. Branch extending over road has a narrow attachment to the trunk.
	21	Callery pear (Pyrus calleryana)	22.2	Fair	Medium	Preserve	Reduce length of branch overhanging parking stall to reduce likelihood of failure. Prune for clearance along building. Remove epicormic sprouts on lower trunk. Mulch and irrigate.	Girdling roots. Poor branch attachments.
	22	Norway maple (Acer platanoides)	15.1	Fair	Medium	Preserve	Mulch and irrigate. Increase soil volume of planting space.	Dieback and leaf scorch.
	23	Norway maple (Acer platanoides)	13.1	Fair	Medium	Preserve	Mulch and irrigate. Increase soil volume of planting space.	Leaf scorch and cankers on branches.
	24	Field maple (Acer campestre)	3.6	Good	High	Preserve	Prune for clearance along streetlight. Mulch and irrigate.	Young healthy tree.
	25	Callery pear (Pyrus calleryana)	19.6	Fair	Medium	Preserve	Mulch and irrigate.	Girdling roots.
	26	Callery pear (Pyrus calleryana)	7.6	Fair	Medium	Preserve	Reduce height of competing codominant stem. Mulch and irrigate.	Crown is thinner than other trees of same species in inventory area. Codominant stems.
	27	Paperbark birch (Betula papyrifera)	9.5	Poor	Low	Remove	Remove and replace. Increase soil volume of new planting space, mulch and irrigate new planting.	Tree in decline. Multiple cavities in trunk and branches in crown.
	28	Norway maple (Acer platanoides)	13.3	Fair	Low	Remove	Remove and replace tree. Remove metal grate from planting space. Increase soil volume of planting space. Mulch and irrigate new planting.	Cankers on branches. Metal grate is girdling the trunk,
	29	Callery pear (Pyrus calleryana)	22.1	Good	High	Preserve	Monitor conditon of damaged branches. Mulch and irrigate.	Mechanical damage on branches overhanging street.
	67	Norway maple (Acer platanoides)	15.7	Fair	Medium	Preserve	Mulch and irrigate.	Leaf scorch and girdling roots.
	68	Norway maple (Acer platanoides)	15.5	Fair	Low	Preserve	Monitor condition of trunk. Mulch and irrigate. Increase soil volume in planting space.	Leaf scorch and dieback. Occluded bark on trunk. Torsional stress. Bacterial oozing at pruning cut. Past branch failure.
	69	Callery pear (Pyrus calleryana)	23.3	Fair	Medium	Preserve	Reduce length of branch extending over street. Mulch and irrigate.	Narrow branch attachments with included bark. Past branch failures.
	70	Callery pear (Pyrus calleryana)	20.2	Fair	Medium	Preserve	Monitor condition of trunk. Mulch and irrigate.	Mechanical damage at trunk base.
	71	Callery pear (Pyrus calleryana)	23.8	Fair	Medium	Preserve	Prune stubs back to main stem. Monitor condition of trunk and branches. Mulch and irrigate.	Two large branch failures, Codominant with narrow attachment.
	72	Callery pear (Pyrus calleryana)	1	Fair	Medium	Preserve	Transplant to appropriate site. Replace with a species appropriate to site. Increase soil volume for replacement tree.	New planting. Species not appropriate for site.
	73	Red maple (Acer rubrum)	17.3	Fair	Low	Preserve	Mulch and irrigate.	Leaf scorch and girdling roots.
1	74	Norway maple (Acer platanoides)	17	Fair	Medium	Preserve	Mulch and irrigate.	Leaf scorch and girdling roots.
	75	Norway maple (Acer platanoides)	16.2	Fair	Medium	Preserve	Mulch and irrigate. Increase soil volume of planting space.	Leaf scorch. Dense surface roots.

Tree recommended for preservation

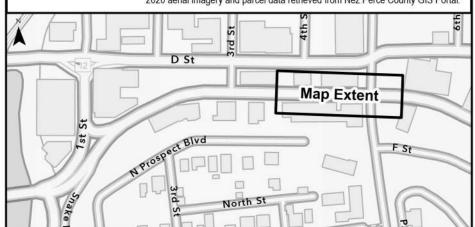
Tree recommended for removal

Planter - Soil Sample collected and analyzed

Planter - No Soil Sample collected

Estimated Critical Root Zone (CRZ)

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ree ID	Species	DBH	Overall Condition	Preservation Suitability	General Recs	Rec Notes	Tree Notes
30	Callery pear (Pyrus calleryana)	11.2	Fair	Medium	Preserve	Mulch and irrigate.	Healthy tree.
31	Callery pear (Pyrus calleryana)	19.8	Poor	Low	Preserve	Clearance prune along building. Remove epicormic sprouts on lower trunk to improve vehicle view along street. Mulch and irrigate.	Two, large past branch failures.
32	Callery pear (Pyrus calleryana)	16.5	Fair	Medium	Preserve	Mulch and irrigate.	Open crown.
33	Callery pear (Pyrus calleryana)	19	Fair	Medium	Preserve	Mulch and irrigate.	Tree has an open crown and is beginning to fill in space.
34	Norway maple (Acer platanoides)	19.6	Good	High	Preserve	Mulch and irrigate. Increase soil volume of planting space.	Leaf scorch.
35	Norway maple (Acer platanoides)	18.6	Fair	Medium	Preserve	Monitor condition of codominant stem with a canker, Mulch and irrigate. Increase soil volume of planting space.	Leaf scorch. One codominant stem has a canker.
36	Callery pear (Pyrus calleryana)	16	Fair	Medium	Preserve	Clearance prune for pedestrian access along sidewalk. Mulch and irrigate.	Healthy tree.
37	Tulip tree (Liriodendron tulipifera)	5.6	Good	High	Preserve	Mulch and irrigate.	Girdling roots.
61	Callery pear (Pyrus calleryana)	14.4	Fair	Medium	Preserve	Mulch and irrigate. Expose root flare.	Healthy tree, poor branch attachments.
62	Norway maple (Acer platanoides)	19	Good	High	Preserve	Mulch and irrigate.	Canker on one branch.
63	Norway maple (Acer platanoides)	16.3	Fair	Medium	Preserve	Mulch.	Bacterial oozing at pruning cuts. Minor leaf scorch,
64	Norway maple (Acer platanoides)	20.4	Fair	Low	Preserve	Mulch and irrigate. Increase soil volume in planting space.	Over half the canopy impacted by leaf scorch.
65	Callery pear (Pyrus calleryana)	23.6	Fair	Medium	Preserve	Monitor condition of branch attachments. Mulch and irrigate.	Poorly attached branches with included bark,
66	Red maple (Acer rubrum)	12.7	Fair	Medium	Preserve	Mulch and irrigate. Expose the root flare.	Cankers on branches. Leaf scorch.

Lewiston Main Street Tree Evaluation Tree Evaluation Site Plan

EXPLORE
IDAHO'S FIRST CAPITAL

Portions of Main Street and D Street Lewiston, Idaho © Urban Forestry Services|
Bartlett Consulting – A Division of
The F. A. Bartlett Tree Expert
Company, October 2024. These
documents have been prepared
specifically for the above-named
project. They are not suitable for
use on other projects, or in other
locations, and/or without the
approval and participation of the approval and participation of the The F.A. Bartlett Tree Expert Company.



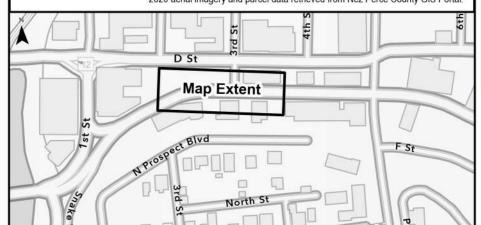




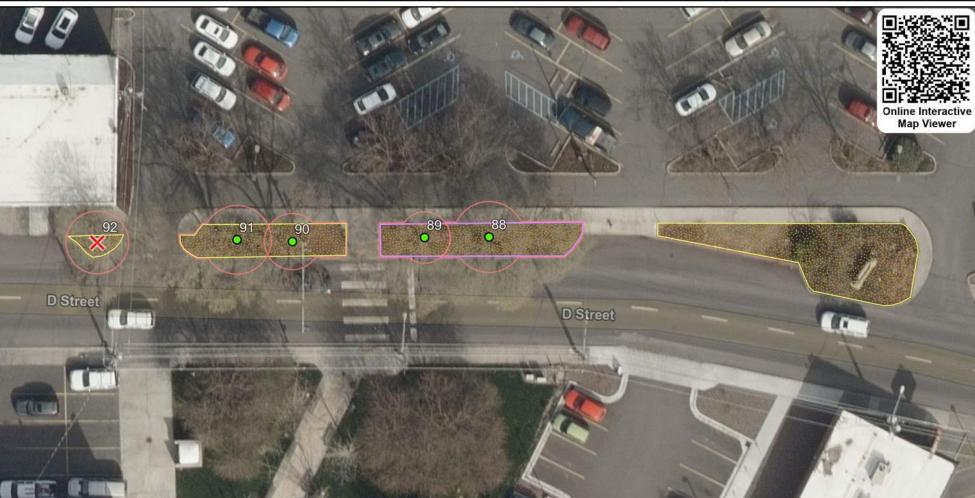
Symbols: (Approximate location)

- Tree recommended for preservation
- Tree recommended for removal
 - Planter Soil Sample collected and analyzed
 - Planter No Soil Sample collected
- Estimated Critical Root Zone (CRZ)

2020 aerial imagery and parcel data retrieved from Nez Perce County GIS Portal.



Tree ID	Species	DBH	Overall Condition	Preservation Suitability	General Recs	Rec Notes	Tree Notes
38	Tulip tree (Liriodendron tulipifera)	6.9	Fair	Medium	Preserve	Mulch and irrigate,	Leaf scorch.
39	Norway maple (Acer platanoides)	23.2	Fair	Medium	Preserve	Mulch and irrigate.	Leaf scorch.
40	Callery pear (Pyrus calleryana)	24.3	Fair	Medium	Preserve	Reduce the length of the branch extending over street. Mulch and irrigate.	Mechanical damage at base (struck by vehicle). Past branch failures.
41	Norway maple (Acer platanoides)	16.2	Fair	Medium	Preserve	Mulch and irrigate,	Leaf scorch.
42	Norway maple (Acer platanoides)	15.5	Good	Medium	Preserve	Mulch and irrigate.	Leaf scorch.
43	Norway maple (Acer platanoides)	18.3	Good	High	Preserve	Clearance prune around streetlight. Mulch and irrigate.	Mechanical damage at base of trunk (struck by vehicle).
48	Norway maple (Acer platanoides)	19	Fair	Low	Preserve	Mulch and irrigate.	Leaf scorch.
49	Norway maple (Acer platanoides)	16.6	Fair	Medium	Preserve	Mulch and irrigate.	Crown dieback.
50	Norway maple (Acer platanoides)	15.1	Poor	Medium	Preserve	Mulch and irrigate. Increase soil volume of planting space.	Crown dieback.
51	Norway maple (Acer platanoides)	14.4	Fair	Medium	Preserve	Mulch and irrigate. Increase soil volume of planting space.	Crown dieback.
52	Norway maple (Acer platanoides)	12.1	Fair	Medium	Preserve	Mulch and irrigate. Increase soil volume of planting space.	Leaf scorch.
53	Callery pear (Pyrus calleryana)	24.5	Fair	Medium	Preserve	Reduce length of branch overhanging street. Monitor condition of wounds on main stem. Mulch and irrigate.	Two large wounds on main stem, both have good reaction wood. Open crown from past failure.
54	Callery pear (Pyrus calleryana)	19.2	Fair	Medium	Preserve	Monitor condition of wound on main stem. Mulch and irrigate.	Wound on trunk with good reaction wood and occluded bark.
55	Callery pear (Pyrus calleryana)	29.2	Fair	Low	Preserve	Prune for clearance along building. Monitor condition of small cavity on trunk. Mulch and irrigate,	Seam developing on east side of trunk. Small cavity on branch extending west.
56	Callery pear (Pyrus calleryana)	20.9	Fair	Medium	Preserve	Monitor large branch with torsional stress. Expose root flare. Mulch and irrigate.	Large poorly attached branches. Root flare covered in mulch.
57	Callery pear (Pyrus calleryana)	22.5	Fair	Medium	Preserve	Expose root collar. Mulch and irrigate.	Large poorly attached branches. Root flare covered in mulch.
58	Norway maple (Acer platanoides)	14.2	Fair	Medium	Preserve	Mulch and irrigate. Increase soil volume of planting space.	Leaf scorch.
59	Norway maple (Acer platanoides)	7.2	Poor	Low	Remove	Remove and replace tree. Increase soil volume in planting space for replacement tree. Mulch and irrigate.	Severe decline.
60	Norway maple (Acer platanoides)	13.1	Poor	Low	Preserve	Mulch and irrigate.	Leaf scorch. Several branches with cankers.



Symbols: (Approximate location)

Tree recommended for preservation

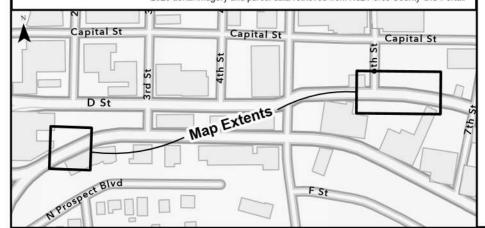
Tree recommended for removal

Planter - Soil Sample collected and analyzed

Planter - No Soil Sample collected

Estimated Critical Root Zone (CRZ)

2020 aerial imagery and parcel data retrieved from Nez Perce County GIS Portal.



Tree ID	Species	DBH	Overall Condition	Preservation Suitability	General Recs	Rec Notes	Tree Notes
43	Norway maple (Acer platanoides)	18.3	Good	High	Preserve	Clearance prune around streetlight. Mulch and irrigate.	Mechanical damage at base of trunk (struck by vehicle).
44	Callery pear (Pyrus calleryana)	25.1	Fair	Medium	Preserve	Prune for clearance along building. Reduce the length of branch extending over road. Mulch and irrigate.	Healthy tree.
45	Norway maple (Acer platanoides)	22.3	Fair	Medium	Preserve	Monitor condition of trunk. Mulch and irrigate,	Mechanical injury on the lower trunk. Bark has been peeled off on north side of trunk up to a height of seven feet. Bacterial staining at old pruning cut. Six-inch root was pruned. Dieback in top of crown.
46	Norway maple (Acer platanoides)	14.6	Good	High	Preserve	Mulch and irrigate.	Healthy tree.
47	Callery pear (Pyrus calleryana)	4.7	Fair	Medium	Preserve	Install stakes to support tree. Mulch and irrigate.	Young healthy tree. Poorly planted, rootball moves in wind.
48	Norway maple (Acer platanoides)	19	Fair	Low	Preserve	Mulch and irrigate.	Leaf scorch.
49	Norway maple (Acer platanoides)	16.6	Fair	Medium	Preserve	Mulch and irrigate.	Crown dieback.
88	Callery pear (Pyrus calleryana)	24	Fair	Medium	Preserve	Root invigoration, decompact soil in planting area.	Mechanical damage at base. Past branch failure. Epicormic sprouting at roots.
89	Callery pear (Pyrus calleryana)	17.4	Fair	Medium	Preserve	Root invigoration, decompact soil in planting area.	Poor branch attachments. Minor dieback.
90	Callery pear (Pyrus calleryana)	19	Fair	Medium	Preserve	Root invigoration, decompact soil in planting area.	Poor branch attachments.
91	Callery pear (Pyrus calleryana)	23.2	Fair	Medium	Preserve	Root invigoration, decompact soil in planting space. Monitor condition of main stem.	Past branch failure. Poorly attached branches.
92	Callery pear (Pyrus calleryana)	21.2	Fair	Low	Remove	Remove and replace. Select small maturing species that is manageable under power lines.	Past branch failure. Epicormic sprouting at root flare, Sidewalk uplift.

Lewiston Main Street Tree Evaluation Tree Evaluation Site Plan

Portions of Main Street and D Street Lewiston, Idaho © Urban Forestry Services|
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The F. A. Bartlett Tree Expert
Company, October 2024. These
documents have been prepared
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locations, and/or without the
approval and participation of the approval and participation of the The F.A. Bartlett Tree Expert





ARTLET	BARTLETT CONS Divisions of The FA. Bartlett Tree E	ULTIN	G						Downt	elch Com cown Lev Improve	wiston
Prelilmi	nary Tree Evaluation Tab	le									
Tree No.	Species	DBH (inch)	Drip (feet)	Est. CRZ (feet)	Condition	Health	Structure	Form	Suitability for Preservation	General Recs	Rec Notes
1	Norway maple (Acer	14.8	16	7.4	Fair	Fair	Fair	Poor	Medium	Preserve	

Prelilminary Tree Evaluation Table												
Tree No.	Species	DBH (inch)	Drip (feet)	Est. CRZ (feet)	Condition	Health	Structure	Form	Suitability for Preservation	General Recs	Rec Notes	Tree Notes
1	Norway maple (Acer platanoides)	14.8	16	7.4	Fair	Fair	Fair	Poor	Medium	Preserve		Cankers on large branches. Minor leaf scorch.
2	Norway maple (Acer platanoides)	14.8	18	7.4	Fair	Fair	Fair	Fair	Medium	Preserve		Leaf scorch. Small wound on branch overhanging parking stall. Damaged and girdled roots.
3	Tulip tree (Liriodendron tulipifera)	5.4	7	2.7	Fair	Fair	Good	Good	Medium	Preserve	Mulch and irrigate.	Leaf scorch and girdling roots.
4	Tulip tree (Liriodendron tulipifera)	5.1	8	2.6	Good	Good	Good	Good	High	Preserve	Mulch and irrigate.	Young healthy tree.
5	Tulip tree (Liriodendron tulipifera)	4.9	8	2.5	Fair	Fair	Good	Good	Medium	Preserve	Mulch and irrigate.	Minor leaf scorch, otherwise tree is in good health.
6	Tulip tree (Liriodendron tulipifera)	5.0	9	2.5	Fair	Fair	Good	Good	Medium	Preserve	Mulch and irrigate.	Minor leaf scorch and girdling roots.
7	Norway maple (Acer platanoides)	11.6	20	5.8	Fair	Fair	Fair	Fair	Medium	Preserve	Prune branch overhanging parking stall. Mulch and irrigate. Increase soil volume of planting area.	Bark peeling on branch overhanging parking stall.
8	Norway maple (Acer platanoides)	15.9	17	8.0	Good	Good	Good	Good	Medium	Preserve	Increase soil volume of the planting space.	Girdling roots. Beginning to outgrow planting space.
9	Norway maple (Acer platanoides)	18.0	23	9.0	Fair	Fair	Good	Good	Medium	Preserve	Increase soil volume of planting space.	Minor leaf scorch.
10	Norway maple (Acer platanoides)	12.4	18	6.2	Fair	Good	Fair	Fair	Medium	Preserve	Monitor condition of exposed wood. Increase soil volume of planting space.	Past branch failures, exposed wood is solid.
11	Pacific dogwood (Cornus nuttallii)	6.5	8	3.2	Fair	Fair	Good	Good	Medium	Preserve	Mulch and irrigate. Increase soil volume of planting space.	Leaf scorch.
12	Pacific dogwood (Cornus nuttallii)	7.2	8	3.6	Fair	Fair	Good	Fair	Medium	Preserve	Prune branches for clearance along building. Mulch and irrigate. Increase soil volume of planting space.	Tree is declining, the smallest stem has a canker.
13	Pacific dogwood (Cornus nuttallii)	4.9	9	2.5	Fair	Poor	Good	Good	Medium	Preserve	Clearance prune along building. Mulch and irrigate. Increase soil volume of planting space.	Tree in decline.
14	Callery pear (Pyrus calleryana)	7.1	9	3.6	Fair	Good	Poor	Poor	Medium	Preserve	Mulch and irrigate. Prune to improve structure.	Healthy tree, poor structure typical of species.
15	Callery pear (Pyrus calleryana)	8.4	9	4.2	Fair	Good	Fair	Fair	High	Preserve	Mulch and irrigate.	Healthy tree.
16	Norway maple (Acer platanoides)	16.8	20	8.4	Good	Good	Good	Good	High	Preserve	Mulch and irrigate.	Healthy tree.
17	Norway maple (Acer platanoides)	15.6	21	7.8	Fair	Fair	Good	Good	Medium		Prune for clearance along building. Mulch and irrigate. Increase soil volume of planting space.	Leaf scorch.
18	Field maple (Acer campestre)	2.1	5	1.1	Good	Good	Good	Good	High	Preserve	Mulch and irrigate. Expose root collar.	Young healthy tree.

Page 1 of 6 Date of Report: 10/4/2024



BARTLETT	Urban Forestry Services
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	Divisions of The F.A. Bartlett Tree Expert Company

Tree No.	Species	DBH (inch)	Drip (feet)		Condition	Health	Structure	Form	Suitability for Preservation	General Recs	Rec Notes	Tree Notes
19	Callery pear (Pyrus calleryana)	20.8	30	10.4	Fair	Good	Fair	Fair	Medium	Preserve	Monitor condition of branch extending over road. Prune branches for clearance along building. Prune epicormic sprouts at 6 feet to improve form. Mulch and irrigate.	Healthy tree with a wound on branch extending over road.
20	Callery pear (Pyrus calleryana)	19.6	26	9.8	Fair	Good	Fair	Fair	Medium	Preserve	Reduce length of branch extending over road. Mulch and irrigate.	Girdling roots. Torsional stress on lower trunk. Branch extending over road has a narrow attachment to the trunk.
21	Callery pear (Pyrus calleryana)	22.2	28	11.1	Fair	Good	Fair	Fair	Medium	Preserve	Reduce length of branch overhanging parking stall to reduce likelihood of failure. Prune for clearance along building. Remove epicormic sprouts on lower trunk. Mulch and irrigate.	Girdling roots. Poor branch attachments.
22	Norway maple (Acer platanoides)	15.1	16	7.6	Fair	Fair	Good	Good	Medium	Preserve	Mulch and irrigate. Increase soil volume of planting space.	Dieback and leaf scorch.
23	Norway maple (Acer platanoides)	13.1	23	6.6	Fair	Fair	Good	Good	Medium	Preserve	Mulch and irrigate. Increase soil volume of planting space.	Leaf scorch and cankers on branches.
24	Field maple (Acer campestre)	3.6	7	1.8	Good	Good	Good	Good	High	Preserve	Prune for clearance along streetlight. Mulch and irrigate.	Young healthy tree.
25	Callery pear (Pyrus calleryana)	19.6	23	9.8	Fair	Good	Fair	Fair	Medium	Preserve	Mulch and irrigate.	Girdling roots.
26	Callery pear (Pyrus calleryana)	7.6	11	3.8	Fair	Fair	Fair	Poor	Medium	Preserve	Reduce height of competing codominant stem. Mulch and irrigate.	Crown is thinner than other trees of same species in inventory area. Codominant stems.
27	Paperbark birch (Betula papyrifera)	9.5	12	4.8	Poor	Very Poor	Poor	Poor	Low	Remove	Remove and replace. Increase soil volume of new planting space, mulch and irrigate new planting.	Tree in decline. Multiple cavities in trunk and branches in crown.
28	Norway maple (Acer platanoides)	13.3	15	6.7	Fair	Fair	Good	Fair	Low	Remove	Remove and replace tree. Remove metal grate from planting space. Increase soil volume of planting space. Mulch and irrigate new planting.	Cankers on branches. Metal grate is girdling the trunk.
29	Callery pear (Pyrus calleryana)	22.1	23	11.1	Good	Good	Good	Good	High	Preserve	Monitor conditon of damaged branches. Mulch and irrigate.	Mechanical damage on branches overhanging street.
30	Callery pear (Pyrus calleryana)	11.2	15	5.6	Fair	Fair	Fair	Fair	Medium	Preserve	Mulch and irrigate.	Healthy tree.
31	Callery pear (Pyrus calleryana)	19.8	17	9.9	Poor	Poor	Fair	Poor	Low	Preserve	Clearance prune along building. Remove epicormic sprouts on lower trunk to improve vehicle view along street. Mulch and irrigate.	Two, large past branch failures.
32	Callery pear (Pyrus calleryana)	16.5	18	8.3	Fair	Fair	Fair	Good	Medium	Preserve	Mulch and irrigate.	Open crown.
33	Callery pear (Pyrus calleryana)	19.0	25	9.5	Fair	Good	Fair	Poor	Medium	Preserve	Mulch and irrigate.	Tree has an open crown and is beginning to fill in space.
34	Norway maple (Acer platanoides)	19.6	22	9.8	Good	Good	Good	Good	High	Preserve	Mulch and irrigate. Increase soil volume of planting space.	Leaf scorch.

Page 2 of 6 Date of Report: 10/4/2024



BARTLETT	Urban Forestry Services
V.	BARTLETT CONSULTING
A	Divisions of The F.A. Bartlett Tree Expert Company

Tree No.	Species	DBH (inch)	Drip (feet)	Est. CRZ (feet)	Condition	Health	Structure	Form	Suitability for Preservation	General Recs	Rec Notes	Tree Notes
35	Norway maple (Acer platanoides)	18.6	20	9.3	Fair	Fair	Good	Good	Medium	Preserve	Monitor condition of codominant stem with a canker. Mulch and irrigate. Increase soil volume of planting space.	Leaf scorch. One codominant stem has a canker.
36	Callery pear (Pyrus calleryana)	16.0	19	8.0	Fair	Good	Good	Fair	Medium	Preserve	Clearance prune for pedestrian access along sidewalk. Mulch and irrigate.	Healthy tree.
37	Tulip tree (Liriodendron tulipifera)	5.6	9	2.8	Good	Good	Good	Good	High	Preserve	Mulch and irrigate.	Girdling roots.
38	Tulip tree (Liriodendron tulipifera)	6.9	9	3.5	Fair	Fair	Good	Good	Medium	Preserve	Mulch and irrigate.	Leaf scorch.
39	Norway maple (Acer platanoides)	23.2	27	11.6	Fair	Fair	Good	Good	Medium	Preserve	Mulch and irrigate.	Leaf scorch.
40	Callery pear (Pyrus calleryana)	24.3	35	12.2	Fair	Good	Good	Fair	Medium	Preserve	Reduce the length of the branch extending over street. Mulch and irrigate.	Mechanical damage at base (struck by vehicle). Past branch failures.
41	Norway maple (Acer platanoides)	16.2	25	8.1	Fair	Fair	Good	Good	Medium	Preserve	Mulch and irrigate.	Leaf scorch.
42	Norway maple (Acer platanoides)	15.5	22	7.8	Good	Good	Good	Good	Medium	Preserve	Mulch and irrigate.	Leaf scorch.
43	Norway maple (Acer platanoides)	18.3	24	9.2	Good	Good	Good	Good	High	Preserve	Clearance prune around streetlight. Mulch and irrigate.	Mechanical damage at base of trunk (struck by vehicle).
44	Callery pear (Pyrus calleryana)	25.1	29	12.6	Fair	Good	Good	Fair	Medium	Preserve	Prune for clearance along building. Reduce the length of branch extending over road. Mulch and irrigate.	Healthy tree.
45	Norway maple (Acer platanoides)	22.3	24	11.2	Fair	Fair	Good	Fair	Medium	Preserve	Monitor condition of trunk. Mulch and irrigate.	Mechanical injury on the lower trunk. Bark has been peeled off on north side of trunk up to a height of seven feet. Bacterial staining at old pruning cut. Six-inch root was pruned. Dieback in top of crown.
46	Norway maple (Acer platanoides)	14.6	17	7.3	Good	Good	Good	Good	High	Preserve	Mulch and irrigate.	Healthy tree.
47	Callery pear (Pyrus calleryana)	4.7	6	2.4	Fair	Good	Fair	Fair	Medium	Preserve	Install stakes to support tree. Mulch and irrigate.	Young healthy tree. Poorly planted, rootball moves in wind.
48	Norway maple (Acer platanoides)	19.0	27	9.5	Fair	Poor	Fair	Good	Low	Preserve	Mulch and irrigate.	Leaf scorch.
49	Norway maple (Acer platanoides)	16.6	22	8.3	Fair	Fair	Fair	Good	Medium	Preserve	Mulch and irrigate.	Crown dieback.
50	Norway maple (Acer platanoides)	15.1	22	7.6	Fair	Good	Fair	Fair	Medium	Preserve	Mulch and irrigate. Increase soil volume of planting space.	Crown dieback.
51	Norway maple (Acer platanoides)	14.4	21	7.2	Fair	Poor	Fair	Good	Medium	Preserve	Mulch and irrigate. Increase soil volume of planting space.	Crown dieback.
52	Norway maple (Acer platanoides)	12.1	18	6.1	Fair	Fair	Fair	Good	Medium	Preserve	Mulch and irrigate. Increase soil volume of planting space.	Leaf scorch.
53	Callery pear (Pyrus calleryana)	24.5	31	12.3	Fair	Good	Fair	Poor	Medium	Preserve	Reduce length of branch overhanging street. Monitor condition of wounds on main stem. Mulch and irrigate.	Two large wounds on main stem, both have good reaction wood. Open crown from past failure.
54	Callery pear (Pyrus calleryana)	19.2	21	9.6	Fair	Good	Fair	Poor	Medium	Preserve	Monitor condition of wound on main stem. Mulch and irrigate.	Wound on trunk with good reaction wood and occluded bark.

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BARTLETT	Urban Forestry Services
Y.	BARTLETT CONSULTING
A	Divisions of The F.A. Bartlett Tree Expert Company

Tree No.	Species	DBH (inch)	Drip (feet)	Est. CRZ (feet)	Condition	Health	Structure	Form	Suitability for Preservation	General Recs	Rec Notes	Tree Notes
55	Callery pear (Pyrus calleryana)	29.2	38	14.6	Fair	Good	Fair	Poor	Low		Prune for clearance along building. Monitor condition of small cavity on trunk. Mulch and irrigate.	Seam developing on east side of trunk. Small cavity on branch extending west.
56	Callery pear (Pyrus calleryana)	20.9	21	10.5	Fair	Good	Fair	Poor	Medium	Preserve	Monitor large branch with torsional stress. Expose root flare. Mulch and irrigate.	Large poorly attached branches. Root flare covered in mulch.
57	Callery pear (Pyrus calleryana)	22.5	23	11.3	Fair	Good	Fair	Poor	Medium	Preserve	Expose root collar. Mulch and irrigate.	Large poorly attached branches. Root flare covered in mulch.
58	Norway maple (Acer platanoides)	14.2	19	7.1	Fair	Good	Fair	Good	Medium	Preserve	Mulch and irrigate. Increase soil volume of planting space.	Leaf scorch.
59	Norway maple (Acer platanoides)	7.2	14	3.6	Poor	Very Poor	Poor	Poor	Low	Remove	Remove and replace tree. Increase soil volume in planting space for replacement tree. Mulch and irrigate.	Severe decline.
60	Norway maple (Acer platanoides)	13.1	21	6.6	Poor	Poor	Fair	Poor	Low	Preserve	Mulch and irrigate.	Leaf scorch. Several branches with cankers.
61	Callery pear (Pyrus calleryana)	14.4	21	7.2	Fair	Good	Fair	Fair	Medium	Preserve	Mulch and irrigate. Expose root flare.	Healthy tree, poor branch attachments.
62	Norway maple (Acer platanoides)	19.0	22	9.5	Good	Good	Good	Good	High	Preserve	Mulch and irrigate.	Canker on one branch.
63	Norway maple (Acer platanoides)	16.3	22	8.2	Fair	Fair	Good	Good	Medium	Preserve	Mulch.	Bacterial oozing at pruning cuts. Minor leaf scorch.
64	Norway maple (Acer platanoides)	20.4	29	10.2	Fair	Poor	Fair	Fair	Low	Preserve	Mulch and irrigate. Increase soil volume in planting space.	Over half the canopy impacted by leaf scorch.
65	Callery pear (Pyrus calleryana)	23.6	27	11.8	Fair	Good	Fair	Poor	Medium	Preserve	Monitor condition of branch attachments. Mulch and irrigate.	Poorly attached branches with included bark.
66	Red maple (Acer rubrum)	12.7	21	6.4	Fair	Fair	Fair	Good	Medium	Preserve	Mulch and irrigate. Expose the root flare.	Cankers on branches. Leaf scorch.
67	Norway maple (Acer platanoides)	15.7	19	7.9	Fair	Fair	Good	Good	Medium	Preserve	Mulch and irrigate.	Leaf scorch and girdling roots.
68	Norway maple (Acer platanoides)	15.5	18	7.8	Fair	Fair	Fair	Fair	Low	Preserve	Monitor condition of trunk. Mulch and irrigate. Increase soil volume in planting space.	Leaf scorch and dieback. Occluded bark on trunk. Torsional stress. Bacterial oozing at pruning cut. Past branch failure.
69	Callery pear (Pyrus calleryana)	23.3	27	11.7	Fair	Good	Fair	Fair	Medium	Preserve	Reduce length of branch extending over street. Mulch and irrigate.	Narrow branch attachments with included bark. Past branch failures.
70	Callery pear (Pyrus calleryana)	20.2	29	10.1	Fair	Good	Fair	Poor	Medium	Preserve	Monitor condition of trunk. Mulch and irrigate.	Mechanical damage at trunk base.
71	Callery pear (Pyrus calleryana)	23.8	38	11.9	Fair	Good	Poor	Poor	Medium	Preserve	Prune stubs back to main stem. Monitor condition of trunk and branches. Mulch and irrigate.	Two large branch failures. Codominant with narrow attachment.
72	Callery pear (Pyrus calleryana)	1.0	2	0.5	Fair	Fair	Poor	Fair	Medium	Preserve	Transplant to appropriate site. Replace with a species appropriate to site. Increase soil volume for replacement tree.	New planting. Species not appropriate for site.
73	Red maple (Acer rubrum)	17.3	16	8.7	Fair	Poor	Good	Fair	Low	Preserve	Mulch and irrigate.	Leaf scorch and girdling roots.

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Welch Comer Downtown Lewiston Utility Improvements

Tree No.	Species	DBH (inch)	Drip (feet)	Est. CRZ (feet)	Condition	Health	Structure	Form	Suitability for Preservation	General Recs	Rec Notes	Tree Notes
74	Norway maple (Acer platanoides)	17.0	22	8.5	Fair	Fair	Good	Good	Medium	Preserve	Mulch and irrigate.	Leaf scorch and girdling roots.
75	Norway maple (Acer platanoides)	16.2	24	8.1	Fair	Fair	Good	Good	Medium	Preserve	Mulch and irrigate. Increase soil volume of planting space.	Leaf scorch. Dense surface roots.
76	Red maple (Acer rubrum)	7.6	9	3.8	Fair	Fair	Good	Fair	Low	Remove	Remove and replace. Plant replacement tree in planter east of existing tree (Planter 78).	Trunk is close to grate and will outgrow planting space.
77	Red maple (Acer rubrum)	17.1	20	8.6	Poor	Very Poor	Fair	Very Poor	Low	Remove	Remove and replace. Replace with a species suitable for the site. Increase soil volume of planting area for replacement tree.	Condition of the trunk is deteriorating. Multiple layers of reaction wood.
78	Red maple (Acer rubrum)	10.7	11	5.4	Fair	Good	Good	Fair	Medium	Preserve	Monitor condition of trunk for cankers. Mulch and irrigate. Increase soil volume of planting space.	Dead butress root.
79	Norway maple (Acer platanoides)	15.2	21	7.6	Fair	Fair	Fair	Poor	Medium	Preserve	Monitor condition of branch overhanging street and condition of trunk. Mulch and irrigate.	Mechanical damage at base, no reaction wood. Peeling bark on branch.
80	Red maple (Acer rubrum)	16.5	24	8.3	Fair	Fair	Fair	Poor	Low	Preserve	Monitor condition of trunk. Mulch and irrigate. Increase soil volume in planting space.	Trunk condition is deteriorating, canker on trunk.
81	Red maple (Acer rubrum)	10.4	10	5.2	Fair	Fair	Fair	Poor	Low	Preserve	Reduce height of branch leaning towards street. Monitor condition of trunk. Mulch and irrigate. Increase soil volume in planting space.	Trunk condition is deteriorating, canker.
82	Callery pear (Pyrus calleryana)	26.5	26	13.3	Fair	Good	Good	Poor	Medium	Preserve	Reduce length of damaged branch overhanging street. Mulch and irrigate.	Mechanical damage on one branch. Occluded bark on past branch failures. Girdling roots.
83	Norway maple (Acer platanoides)	18.1	17	9.1	Fair	Fair	Fair	Poor	Medium	Preserve	Reduce length of branch overhanging parking stall. Mulch and irrigate. Increase soil volume of planting space.	Canker on one branch, exposed wood is decayed. Leaf scorch.
84	Norway maple (Acer platanoides)	17.8	19	8.9	Fair	Fair	Fair	Poor	Medium	Preserve	Reduce length of branches with defects. Mulch and irrigate. Increase soil volume of planting space.	Two cavities at six and seven feet above ground. Canker on branch overhanging street.
85	Red maple (Acer rubrum)	14.3	11	7.2	Poor	Poor	Poor	Very Poor	Low	Remove	Remove and replace. Plant a species suitable for the site. Increase soil volume for replacement tree.	Canker on trunk extends from ground to seven feet.
86	Norway maple (Acer platanoides)	17.5	19	8.8	Fair	Fair	Good	Good	Medium	Preserve	Reduce length of damaged branch overhanging street. Mulch and irrigate. Increase soil volume of planting space.	Leaf scorch. Mechanical damage on one branch. Bacterial oozing at pruning cut.
87	Red maple (Acer rubrum)	8.1	10	4.1	Poor	Very Poor	Poor	Poor	Low	Remove	Remove and replace. Plant a suitable species for the site. Increase soil volume of planting space for replacement tree.	Canker on trunk, extends from ground to six feet.

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Welch Comer Downtown Lewiston Utility Improvements

Tyler Holladay, Josh Hollinger ISA Certified Arborists ISA Tree Risk Assessment Qualified (TRAQ)

Tree No.	Species		Drip (feet)	Est. CRZ (feet)	Condition	Health	Structure	⊢∩rm	Suitability for Preservation	General Recs	Rec Notes	Tree Notes
88	Callery pear (Pyrus calleryana)	24.0	19	12.0	Fair	Good	Fair	Poor	Medium		Root invigoration, decompact soil in planting area.	Mechanical damage at base. Past branch failure. Epicormic sprouting at roots.
89	Callery pear (Pyrus calleryana)	17.4	29	8.7	Fair	Fair	Fair	Fair	Medium	Procorvo	Root invigoration, decompact soil in planting area.	Poor branch attachments. Minor dieback.
90	Callery pear (Pyrus calleryana)	19.0	28	9.5	Fair	Good	Fair	Fair	Medium	Pracarva	Root invigoration, decompact soil in planting area.	Poor branch attachments.
91	Callery pear (Pyrus calleryana)	23.2	31	11.6	Fair	Fair	Fair	Poor	Medium	Preserve	Root invigoration, decompact soil in planting space. Monitor condition of main stem.	Past branch failure. Poorly attached branches.
92	Callery pear (Pyrus calleryana)	21.2	28	10.6	Fair	Fair	Fair	Poor	Low	Remove	Remove and replace. Select small maturing species that is manageable under power lines.	Past branch failure. Epicormic sprouting at root flare. Sidewalk uplift.

General Recommendations on preservation and removal are based on current findings and are preliminary in nature. As this project progresses from the planning phase to the design phase UFS | BC can provide specific tree protection recommendations once plans are finalized.

Definitions

Critical root zone (CRZ) - The minimum volume of roots necessary to have for tree health and stability. Equal to 6-inches in diameter for every 1 inch of DBH. For example, a tree with a 14-inch DBH would have a critical root zone of 7 feet.

Suitability for preservation - Categorization of a tree's potential to be an asset to the project following development. This is based on species, size, condition and species tolerance to construction impacts.

Date of Report: 10/4/2024

Appendix XVI Roundabout Technical Memo



9 0: 509-505-5551 F: 208-664-5946 5620 E Desmet Ave Spokane, WA 99212

Memorandum

TO: LUKE ANTONICH, P.E., CITY ENGINEER

FROM: MELISSA CLEVELAND, P.E.

PRJ. #: 48003

SUBJECT: DOWNTOWN LEWISTON ALTERNATIVES ANALYSIS

DATE: DECEMBER 27, 2024

CC: SHANNON GROW AND DUSTIN JOHNSON



Introduction

This memo provides an alternatives analysis to compare 1) roundabouts with signals at the 1st Street/Main Street and Snake River Avenue/Main Street and 2) two-way stop controlled (TWSC) intersection with a compact roundabout at the 1st Street/D Street intersection. This analysis will provide information to coordinate with the Idaho Transportation Department who has jurisdiction over a portion of these roadways. Converting these intersections from current stop control is precipitated by the City's Main Street Corridor (Reimagine Downtown Lewiston) project, which is expected to switch Main Street, D Street, and 1st Street from one-way streets to two-way streets.

Existing Conditions

Vehicular Access: Today, to enter Clarkston, Washington heavy vehicles traverse the bypass, exit onto D Street, and take two right turns at 1st Street and Main Street to access the Blue Bridge. Movements to and from Snake River Avenue are restricted under the existing intersection configuration. Northbound Snake River Avenue drivers cannot access Clarkston (via Blue Bridge) directly. Rather, they must navigate either a loop through downtown Lewiston by 1) turning east onto Main Street, north on Third Street, west on D Street, and south on 1st Street or 2) turn west on the bypass, east on D Street, and south on 1st Street. Likewise, downtown traffic cannot access Snake River Avenue without first accessing the bypass and then exiting south of the Snake River Avenue/Main Street intersection.

Pedestrian Access: Pedestrian access is very restricted at the existing Snake River Avenue/Main Street intersection. The legal walking route from Snake River Avenue onto the Blue Bridge requires crossing Main Street east of the 1st Street intersection, backtracking along Main Street to the crossing on D Street, the along the west side to 1st Street to access the bridge. This route takes pedestrians one-fifth of a mile out of their way, explaining why locals have indicated that jaywalking is prevalent. Refer to the existing traffic and non-motorized patterns exhibits.

City's Goals

The City has goals of creating a vibrant and pedestrian-friendly downtown. Therefore, they are moving toward two-way traffic on both Main Street and D Street and designing these roads to encourage slow traffic speeds. The City had studied two-way traffic on downtown streets several times before for more than a decade with the same conclusion (2024 Lewiston Main Street Improvements: Traffic Operations, 2023 Downtown Infrastructure Scoping Study, 2020 Lewiston Main and D Feasibility Study, 2019 Downtown Lewiston Master Plan, and 2011 Lewiston-Clarkston Downtown Circulation Plan). The City also has goals of improving vehicular and non-motorized route connectivity to and through downtown.



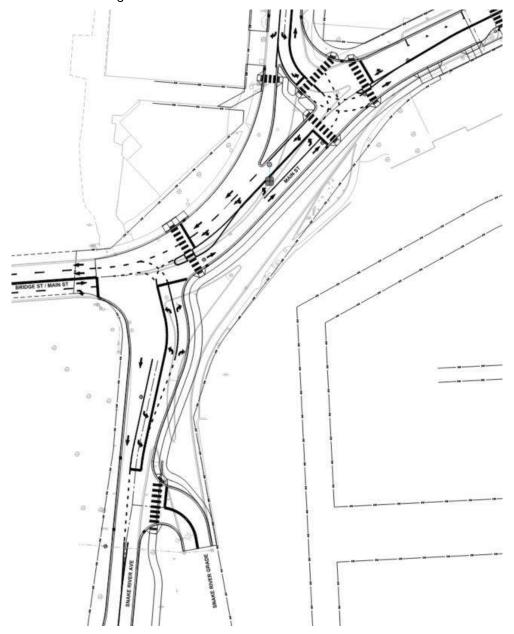
Existing Traffic Patterns from Snake River Avenue to Clarkston, WA



Existing Non-Motorized Travel Patterns from Snake River Avenue to Clarkston, WA

Proposed Improvements

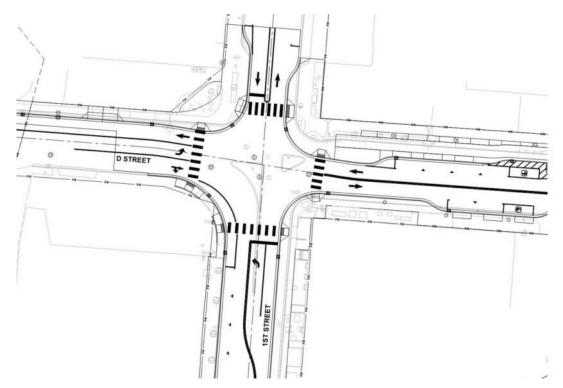
Both signalized intersections and roundabouts were proposed at the Main Street/1st Street and Main Street/Snake River Avenue intersections. At 1st Street/D Street, a compact roundabout and a two-way stop-controlled (TWSC) intersection were both considered. Concepts for both are shown in the following exhibits.



Main Street Signal Concept



Main Street Roundabouts Concept



1st Street/D Street TWSC Stop-Controlled Intersection Concept



1st Street/D Street Stop Compact Roundabout Concept

Operations Comparison

Comparisons of the operations of these intersections in the future year 2040 with both signals and roundabouts are shown in the tables below.

Performance Metric	Control Type	EBT	EBR	WBL	WBT	NBL	NBR
v/c	Signal	0.74	0.95	0.58	0.58	0.70	0.33
47.0	Roundabout	0.46	0.50	0.33	0.33	0.54	0.21
LOS	Signal	В	D	В	В	С	В
	Roundabout	Α	Α	Α	Α	В	Α
95th Percentile Queue	Signal	290*	44	133	133	216*	30
Length (ft)	Roundabout	78	90	36	36	96	22
Delay (s/veh)	Signal	14.2	35.2	10.3	10.5	20.6	13.2
Bolay (3/ Veri)	Roundabout	7.3	7.9	7.1	2.5	12.7	6.8

^{*}This queue length does not always clear in one cycle length.

At this intersection, the roundabout outperforms the signal in every metric. The delay at the roundabouts is roughly one-half of the signals. Even in the year 2040, every movement at the roundabout has level of service A, with the exception of the northbound left, which is LOS B. With the signal, no movements will experience level of service A and range from LOS B to D. Overall, the intersection level of service in 2040 with the roundabout and signal are A and B, respectively. Both alternatives perform acceptably, but the roundabout performs better.

Main Street/1st Street 2040 Operations

Performance Metric	Control Type	EBL	EBT	WBT	WBR	SBL	SBR
v/c	Signal	0.24	0.58	0.46	0.09	0.03	
	Roundabout	0.61	0.61	0.23	0.23	0.62	0.62
LOS	Signal	Α	Α	Α	Α	В	
	Roundabout	В	В	Α	Α	В	В
95 th Percentile Queue Length (ft)	Signal	58	221	93	14	18	66
Length (it)	Roundabout	147	147	29	29	157	157
Delay (s/veh)	Signal	3.2	3.0	6.8	5.9	11.3	0
	Roundabout	10.0	10.0	5.4	5.4	11.8	11.8

At this intersection, the roundabout and signal both perform well. For the eastbound leg, the signal performs better from a delay standpoint, but the eastbound through queue length is longer with the signal. For the southbound and westbound legs, the signal and roundabouts perform similarly from a delay standpoint, but the southbound queue (though rolling) is expected to be longer at the roundabout than the signal. With the signal, all movements will experience LOS A. At the roundabout, the eastbound and southbound movements will experience a LOS B, while the westbound movements experience LOS A. Overall, the LOS in 2040 with the roundabout and signal are B and A, respectively. Both alternatives perform acceptably, but the signal performs better.

TWSC D Street/1st	Street 2040	Operations
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Performance Metric	Control Type	EBL	EBTR	WBL	WBTR	NBL	NBTR	SBL	SBTR
v/c	Stop Control	0.01		0.34		0.28	0.22		0.24
	Roundabout	0.31	0.31	0.37	0.37	0.17	0.17	0.05	0.05
LOS	Stop Control	Α	Α	Α	А	Е	В		E
	Roundabout	В	Α	Α	А	Α	Α	В	Α
95 th Percentile	Stop Control	0		30		22	20		20
Queue Length (ft)	Roundabout	45	45	59	59	24	24	20	20
Delay (s/veh)	Stop Control	7.6		9.1		49.8	10.3		35.1
	Roundabout	12.6	7.1	9.1	4.4	9.1	4.5	11.7	7.0

At this intersection, the roundabout and two-way stop-controlled intersection both perform well. The stop-controlled intersection has high delay for northbound and southbound movements, though those movements have low volumes. The roundabout has low delay and LOS A or B for all movements. The stop-controlled intersection has LOS E for northbound and southbound movements. Because northbound and southbound volumes are low at this intersection, queue lengths are not long with either concept. A signal was not analyzed because a signal was not expected to be warranted in the year 2040.

Non-Peak Times of Day

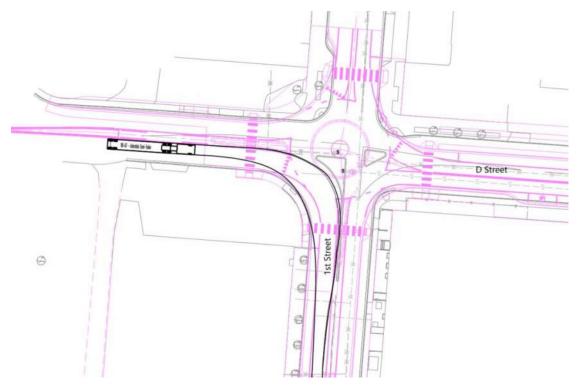
Traffic studies are typically conducted using peak hour and the alternatives analysis in this memo is no different. However, the public traverses these intersections at all times of the day. The beauty of roundabouts is that if a vehicle arrives at the intersection and there is no other traffic, the driver does not stop. We have all experienced the frustration of being the only vehicle at a signal in an off-peak time of day and sitting idle until the light turns green. This does not happen at a roundabout. Although the roundabouts and the signals perform very similarly in the future peak hour, the roundabouts will have far less overall delay when you consider the other 23 hours of the day.

Freight Turning Movements

At the signal/TWSC concepts, freight movements will be virtually unchanged from existing conditions.

At the roundabout concepts, both eastbound and westbound freight will make right-hand turn movements only. Westbound freight traversing from the bypass to Clarkston will not have their traffic pattern changed. Freight will make two right-turns onto 1st Street from D Street and onto Main Street from 1st Street. Neither right turn movement will require a WB-67 truck to use the truck apron, as shown in the turning movement exhibits.

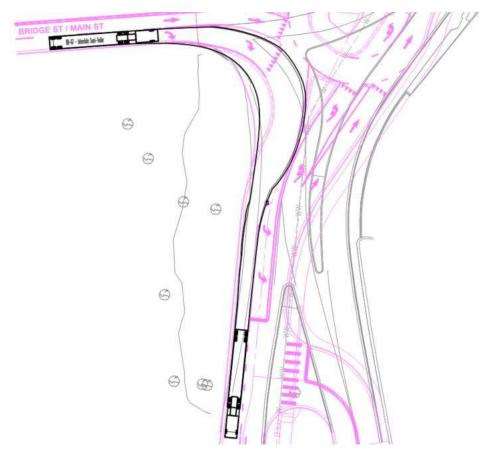
Eastbound trucks will not change their pattern at all. Trucks coming off the bridge will turn right onto Snake River Avenue and then turn right again onto the bypass, as they do today.



1st/D WB-67 Right-Turn Movement (westbound freight)



1st/Main/Snake River Avenue WB-67 Right-Turn Movement (westbound freight)



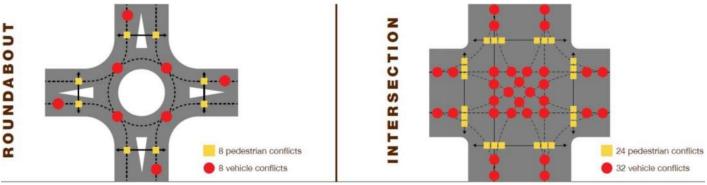
Snake River Avenue WB-67 Right-Turn Movement (eastbound freight)

Truck Operations

Truck percentages at these intersections are less than 2% in the peak hour. For the most part, trucks at roundabouts, if delayed at all, will be in a rolling queue. This means that the queue rarely completely stops. At signalized intersections, trucks will come to a full stop unless the signal is green when they arrive. Trucks are difficult to move efficiently after a full stop. Rolling queue conditions at the roundabout are easier for trucks to navigate than full stop conditions at signalized intersections.

<u>Safety</u>

Signalized intersections have more conflict points than roundabouts. Additionally, crashes at signalized intersections are often more severe, while crashes at roundabouts are typically "property damage only" with side-swipe as the most typical type. Roundabouts virtually eliminate the deadliest T-bone and head-on style crashes. Roundabouts also reduce rear-end crashes because traffic must slow down in order to enter. The following exhibit demonstrates the reduction in conflict points for both pedestrians and vehicles at roundabouts when compared to signals. Traditional intersections have 36 different points at which vehicles can crash into one another, compared to 20 points at a multi-lane roundabout. Research has shown that crash rates at signalized intersections are higher than at roundabouts.



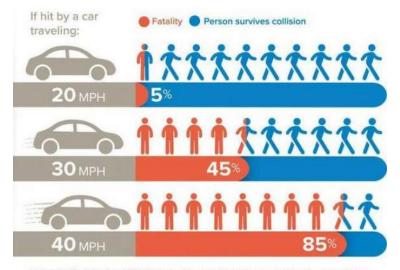
Comparing Conflict Points at Roundabouts and TWSC/Signalized Intersections (Source: Montana DOT at https://mdt.mt.gov/visionzero/roads/roundabouts/purpose.aspx)

Pedestrian Access & Safety

At all proposed intersections, non-motorized access is greatly improved over existing conditions because all concepts remove the restrictions currently in place and allow for safe ease of access for pedestrians.

Roundabouts slow vehicular speeds to typically between 15 and 20 mph. Signals do not slow speeds, particularly if the vehicles are arriving on green. Signals can even increase speeds when there is a standing green light and the driver speeds up to beat the yellow.

Slower vehicular speeds improve safety for pedestrians. As shown in the following exhibit, borrowed from the National Traffic Safety Board (2017), pedestrians are far more likely to survive a crash when hit by a vehicle travelling 20 mph or slower than at higher speeds.



National Traffic Safety Board (2017) Reducing Speeding-Related Crashes Involving Passenger Vehicles. Available from: https://www.ntsb.gov/safety/safety-studies/Documents/SS1701.pdf

Vehicle Speed vs Chance of Pedestrian Death

Cost

Construction of signals on Main Street and stop controlled intersection at 1st Street/D Street are anticipated to cost roughly \$1 million more than option with roundabouts. Additionally, the signal option will have higher energy cost and cost more to maintain over the design life than the roundabout option.

Traffic Calming

The roundabouts do far more to slow traffic and increase driver awareness than the signals and stop controlled intersection. The design of roundabouts naturally slows vehicular speeds to between 15 and 20 mph. There is no speed control designed into signalized intersections. Therefore, if the light is green, through movement speeds could easily be 35 mph or greater, especially if a driver is trying to beat the yellow light. The roundabouts have many opportunities for landscaping, which helps to alert the driver that they have entered a different type of environment.

Emissions and Noise

Roundabouts rarely have a stopped queue, rather queues continue to roll as vehicles are served. Therefore, there is less braking and engine noise and few emissions that at stop-controlled intersections or traffic signals.

Dependability

Signals require power and do not function well if the power is out. Roundabouts, on the other hand, function the same with or without a power failure. Additionally, the operations analysis in this memo assumes optimizes conditions for signals. To maintain an optimized condition in the real world, staff would need to keep up on the coordination and timings of the signals to keep them running smoothly. Otherwise, the signal functionality deteriorates over time.

Preferred Alternative

The roundabouts at all three intersections are preferred and the following matrices help to explain the reasoning.

Main Street/Snake River Avenue Intersection

	Roundabout	Signal
Safety	X	
Construction Cost	X	
Annual Maintenance Cost	X	
Peak Hour Performance (Delay and Queue Lengths)	X	
Off-Peak Performance (Delay and Queue Lengths)	X	
Emissions and Noise	X	
Dependability	X	
Freight Mobility	X	X
Traffic Calming	X	

Main Street/1st Street Intersection

	Roundabout	Signal
Safety	X	
Construction Cost	X	
Annual Maintenance Cost	X	
Peak Hour Performance (Delay and Queue Lengths)	X	Х
Off-Peak Hour Performance (Delay and Queue Lengths)	X	
Emissions and Noise	X	
Dependability	X	
Freight Mobility	X	Х
Traffic Calming	X	

D Street/1st Street Intersection

	Roundabout	TWSC
Safety	X	
Construction Cost	X	Х
Annual Maintenance Cost	X	Х
Performance (Delay and Queue Lengths)	X	Х
Emissions and Noise	X	
Dependability	X	Х
Freight Mobility	X	Х
Traffic Calming	X	

Though the signals can perform as well as the roundabout in the peak hour, (even outperform in some movements), the roundabouts better serve the community by having lower construction cost, lower annual maintenance cost, better off-peak operations, lower emissions and noise (less stopping traffic), better dependability, less staff maintenance responsibility, and naturally slow speeds which results in traffic calming. For these reasons, roundabouts are the preferred alternative.

2040 1st/D TWSC Synchro Worksheets & Queue Length Worksheets

	→	•	•	←	•	/
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	†	7		414	*	7
Traffic Volume (veh/h)	615	666	38	806	416	171
Future Volume (veh/h)	615	666	38	806	416	171
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)		1.00	1.00		1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1723	1723	1723	1723	1723	1723
Adj Flow Rate, veh/h	615	666	38	806	416	171
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	826	700	101	1355	591	526
Arrive On Green	0.48	0.48	0.48	0.48	0.36	0.36
Sat Flow, veh/h	1723	1460	48	2904	1641	1460
Grp Volume(v), veh/h	615	666	431	413	416	171
Grp Sat Flow(s),veh/h/ln	1723	1460	1384	1489	1641	1460
Q Serve(g_s), s	14.4	21.8	1.3	10.0	10.9	4.2
Cycle Q Clear(g_c), s	14.4	21.8	15.7	10.0	10.9	4.2
Prop In Lane		1.00	0.09		1.00	1.00
Lane Grp Cap(c), veh/h	826	700	742	714	591	526
V/C Ratio(X)	0.74	0.95	0.58	0.58	0.70	0.33
Avail Cap(c_a), veh/h	828	701	744	716	591	526
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.5	12.4	9.1	9.4	13.7	11.6
Incr Delay (d2), s/veh	3.7	22.7	1.1	1.2	6.9	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	10.0	2.8	2.8	4.6	1.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	14.2	35.2	10.3	10.5	20.6	13.2
LnGrp LOS	В	D	В	В	С	В
Approach Vol, veh/h	1281			844	587	
Approach Delay, s/veh	25.1			10.4	18.4	
Approach LOS	С			В	В	
		2		1		
Timer - Assigned Phs		2		4		
Phs Duration (G+Y+Rc), s		22.0		27.9		
Change Period (Y+Rc), s		4.0		4.0		
Max Green Setting (Gmax), s		18.0		24.0		
Max Q Clear Time (g_c+l1), s		12.9		23.8		
Green Ext Time (p_c), s		1.0		0.1		
Intersection Summary						
HCM 6th Ctrl Delay			19.1			
HCM 6th LOS			В			

Movement		۶	-	←	•	-	4			
Lane Configurations	Movement	EBL	EBT	WBT	WBR	SBL	SBR			
Traffic Volume (veh/h) 191 596 220 32 30 624 Future Volume (veh/h) 191 596 220 32 30 624 Initial Q (Qb), veh 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0										
Future Volume (veh/h)										
Initial Q (Qb), veh	,									
Ped-Bike Adji(A_pbT)	. ,									
Parking Bus, Adj			•	V						
Work Zone On Ápproach No No No No Adj Sat Flow, veh/h/In 1709 1709 1723 1723 1750 1750 Adj Flow Rate, veh/h 191 596 220 32 30 0 Peak Hour Factor 1.00 1.00 1.00 1.00 1.00 1.00 Percent Heavy Veh, % 3 3 2 2 0 0 Cap, veh/h 795 1030 479 370 92 Arrive On Green 0.15 0.60 0.28 0.25 0.06 0.00 Sat Flow, veh/h 191 596 220 32 30 0 Grp Volume(v), veh/h 191 596 220 32 30 0 Grp Sat Flow(s), veh/h 191 596 220 32 30 0 Grp Sat Flow(s), veh/h 191 596 220 32 30 0 Grp Sat Flow(s), veh/h 191 596 20 3	, _, ,		1 00	1 00						
Adj Sat Flow, veh/h/In 1709 1709 1723 1723 1750 1750 Adj Flow Rate, veh/h 191 596 220 32 30 0 Peak Hour Factor 1.00 1.00 1.00 1.00 1.00 1.00 Percent Heavy Veh, % 3 3 2 2 0 0 Arrive On Green 0.15 0.60 0.28 0.25 0.06 0.00 Sat Flow, veh/h 191 596 220 32 30 0 Grp Volume(v), veh/h 191 596 220 32 30 0 Grp Sat Flow(s), veh/h/ln 1628 1709 1723 1460 1667 1483 Gsp Sat Flow(s), veh/h/ln 1628 1709 1723 1460 1667 1483 Q Serve(g. s), s 1.3 4.4 2.2 0.3 0.4 0.0 Spr Sat Flow(s), veh/h 795 1030 479 370 92 V/C Ratio(X) 0.24 0.58 0.46 0.09 0.33 Avail Cap(c. a), veh/h <td></td> <td>1.00</td> <td></td> <td></td> <td>1.00</td> <td></td> <td>1.00</td> <td></td> <td></td> <td></td>		1.00			1.00		1.00			
Adj Flow Rate, veh/h		1709			1723		1750			
Peak Hour Factor										
Percent Heavy Veh, % 3 3 3 2 2 0 0 0 Cap, veh/h 795 1030 479 370 92 Arrive On Green 0.15 0.60 0.28 0.25 0.06 0.00 Sat Flow, veh/h 1628 1709 1723 1460 1667 1483 Grp Volume(v), veh/h 191 596 220 32 30 0 Grp Sat Flow(s),veh/h/h 1628 1709 1723 1460 1667 1483 Grp Volume(v), veh/h 1628 1709 1723 1460 1667 1483 Grp Volume(v), veh/h 1628 1709 1723 1460 1667 1483 Q Serve(g, s), s 1.3 4.4 2.2 0.3 0.4 0.0 Cycle Q Clear(g, c), s 1.3 4.4 2.2 0.3 0.4 0.0 Prop In Lane 1.00 1.00 1.00 1.00 1.00 Avail Cap(c, veh/h 795 1030 479 370 92 V/C Ratio(X) 0.24 0.58 0.46 0.09 0.33 Avail Cap(c, a), veh/h 902 2088 1431 1177 1466 HCM Platoon Ratio 1.00 1.00 1.00 1.00 1.00 Uniform Delay (d), s/veh 3.1 2.5 6.1 5.8 9.3 0.0 Incr Delay (d2), s/veh 0.2 0.5 0.7 0.1 2.0 0.0 Mile BackOfQ(50%), veh/h 0.0 0.0 0.0 0.0 0.0 0.0 Wile BackOfQ(50%), veh/h 0.0 0.1 0.5 0.3 0.1 0.0 Unsig. Movement Delay, s/veh LnGrp Delay(d), s/veh 3.1 6.7 11.3 Approach Delay, s/veh 3.1 6.7 11.3 Approach Delay (9+Rc), s 15.8 4.6 6.6 9.2 Change Period (Y+Rc), s 4.0 4.0 4.0 4.0 4.0 Max Green Setting (Gmax), s 4.0 4.0 4.0 4.0 Max Green Setting (Gmax), s 4.1 Max Q Clear Time (g, c, e+I), s 6.4 2.4 3.3 4.2 Green Ext Time (p, c), s 3.8 0.0 0.0 1.1 Intersection Summary HCM 6th Ctrl Delay										
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Arrive On Green 0.15 0.60 0.28 0.25 0.06 0.00 Sat Flow, veh/h 1628 1709 1723 1460 1667 1483										
Sat Flow, veh/h 1628 1709 1723 1460 1667 1483 Grp Volume(v), veh/h 191 596 220 32 30 0 Grp Sat Flow(s), veh/h/h/In 1628 1709 1723 1460 1667 1483 Q Serve(g.s), s 1.3 4.4 2.2 0.3 0.4 0.0 Cycle Q Clear(g.c), s 1.3 4.4 2.2 0.3 0.4 0.0 Prop In Lane 1.00 1.00 1.00 1.00 1.00 1.00 Lane Grp Cap(c), veh/h 795 1030 479 370 92 V/C Ratio(X) 0.24 0.58 0.46 0.09 0.33 Avail Cap(c.a), veh/h 902 2088 1431 1177 1466 HCM Platoon Ratio 1.00							0.00			
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Q Serve(g_s), s										
Cycle Q Clear(g_c), s 1.3 4.4 2.2 0.3 0.4 0.0 Prop In Lane 1.00 1.00 1.00 1.00 1.00 Lane Grp Cap(c), veh/h 795 1030 479 370 92 V/C Ratio(X) 0.24 0.58 0.46 0.09 0.33 Avail Cap(c_a), veh/h 902 2088 1431 1177 1466 HCM Platoon Ratio 1.00 1.00 1.00 1.00 1.00 1.00 Upstream Filter(I) 1.00 1.00 1.00 1.00 1.00 1.00 Uniform Delay (d2), s/veh 3.1 2.5 6.1 5.8 9.3 0.0 Incr Delay (d2), s/veh 0.2 0.5 0.7 0.1 2.0 0.0 Initial Q Delay(d3),s/veh 0.0 0.0 0.0 0.0 0.0 0.0 Unsig. Movement Delay, s/veh 3.2 3.0 6.8 5.9 11.3 0.0 LnGrp LoS A A <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>										
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V/C Ratio(X) 0.24 0.58 0.46 0.09 0.33 Avail Cap(c_a), veh/h 902 2088 1431 1177 1466 HCM Platoon Ratio 1.00 1.00 1.00 1.00 1.00 1.00 Upstream Filter(I) 1.00 1.00 1.00 1.00 0.00 0.00 Uniform Delay (d), s/veh 3.1 2.5 6.1 5.8 9.3 0.0 Incr Delay (d2), s/veh 0.2 0.5 0.7 0.1 2.0 0.0 Initial Q Delay(d3), s/veh 0.0 0.0 0.0 0.0 0.0 0.0 Wile BackOfQ(50%), veh/ln 0.0 0.1 0.5 0.3 0.1 0.0 Unsign Movement Delay, s/veh 3.2 3.0 6.8 5.9 11.3 0.0 LnGrp Delay(d), s/veh 3.2 3.0 6.8 5.9 11.3 0.0 LnGrp Delay(d), s/veh 3.1 6.7 11.3 0.0 1.1 1.1 Approach Vol,			1030	170			1.00			
Avail Cap(c_a), veh/h HCM Platoon Ratio 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0										
HCM Platoon Ratio	. ,									
Upstream Filter(I) 1.00 1.00 1.00 1.00 0.00 Uniform Delay (d), s/veh 3.1 2.5 6.1 5.8 9.3 0.0 Incr Delay (d2), s/veh 0.2 0.5 0.7 0.1 2.0 0.0 Initial Q Delay(d3), s/veh 0.0 0.0 0.0 0.0 0.0 0.0 Wisig. Movement Delay, s/veh 0.0 0.1 0.5 0.3 0.1 0.0 Unsig. Movement Delay, s/veh 3.2 3.0 6.8 5.9 11.3 0.0 LnGrp LOS A A A A B A B Approach Vol, veh/h 787 252 30 A A B B Timer - Assigned Plas 4 6 7 8 B B Timer - Assigned Phs 4 6 7 8 A A A B A A A A A A A A A A	, .						1 00			
Uniform Delay (d), s/veh 3.1 2.5 6.1 5.8 9.3 0.0 Incr Delay (d2), s/veh 0.2 0.5 0.7 0.1 2.0 0.0 Initial Q Delay(d3),s/veh 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.										
Incr Delay (d2), s/veh	, , ,									
Initial Q Delay(d3),s/veh										
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Approach Vol, veh/h 787 252 30 Approach Delay, s/veh 3.1 6.7 11.3 Approach LOS A A B Timer - Assigned Phs 4 6 7 8 Phs Duration (G+Y+Rc), s 15.8 4.6 6.6 9.2 Change Period (Y+Rc), s 4.0 4.0 4.0 Max Green Setting (Gmax), s 24.5 17.5 4.0 16.5 Max Q Clear Time (g_c+l1), s 6.4 2.4 3.3 4.2 Green Ext Time (p_c), s 3.8 0.0 0.0 1.1 Intersection Summary HCM 6th LOS A	, , , , , , , , , , , , , , , , , , , ,						0.0			
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Change Period (Y+Rc), s 4.0 4.0 4.0 4.0 Max Green Setting (Gmax), s 24.5 17.5 4.0 16.5 Max Q Clear Time (g_c+l1), s 6.4 2.4 3.3 4.2 Green Ext Time (p_c), s 3.8 0.0 0.0 1.1 Intersection Summary HCM 6th Ctrl Delay 4.1 HCM 6th LOS A	Phs Duration (G+Y+Rc), s				15.8		4.6	6.6	9.2	
Max Green Setting (Gmax), s 24.5 17.5 4.0 16.5 Max Q Clear Time (g_c+l1), s 6.4 2.4 3.3 4.2 Green Ext Time (p_c), s 3.8 0.0 0.0 1.1 Intersection Summary HCM 6th Ctrl Delay 4.1 HCM 6th LOS A					4.0		4.0	4.0	4.0	
Max Q Clear Time (g_c+l1), s 6.4 2.4 3.3 4.2 Green Ext Time (p_c), s 3.8 0.0 0.0 1.1 Intersection Summary HCM 6th Ctrl Delay 4.1 HCM 6th LOS A										
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HCM 6th Ctrl Delay 4.1 HCM 6th LOS A	Intersection Summary									
HCM 6th LOS A				4 1						
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	Notes									

Unsignalized Delay for [SBR] is excluded from calculations of the approach delay and intersection delay.

14: Snake River Ave. & Main St.

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Lane Group	EBT	EBR	WBT	NBL	NBR
Lane Group Flow (vph)	615	666	844	416	171
v/c Ratio	0.78	0.65	0.62	0.68	0.26
Control Delay	19.7	4.3	12.2	21.3	3.7
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	19.7	4.3	12.2	21.3	3.7
Queue Length 50th (ft)	134	0	86	101	0
Queue Length 95th (ft)	#290	44	133	#216	30
Internal Link Dist (ft)	603		339	867	
Turn Bay Length (ft)				200	
Base Capacity (vph)	853	1060	1463	608	651
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.72	0.63	0.58	0.68	0.26
Intersection Summary					

^{# 95}th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

	•	→	←	•	\	1
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Group Flow (vph)	191	596	220	32	30	624
v/c Ratio	0.36	0.68	0.37	0.06	0.07	0.76
Control Delay	7.6	12.0	12.7	5.4	11.1	8.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.6	12.0	12.7	5.4	11.1	8.9
Queue Length 50th (ft)	12	52	28	0	4	4
Queue Length 95th (ft)	58	221	93	14	18	66
Internal Link Dist (ft)		339	362		413	
Turn Bay Length (ft)	100			75	100	
Base Capacity (vph)	533	1254	882	744	905	1067
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.36	0.48	0.25	0.04	0.03	0.58
Intersection Summary						

2040 Main/Snake River & Main 1st Signalized Intersections Synchro Worksheets & Queue Length Worksheets

Intersection												
Int Delay, s/veh	0											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ		7		4			4			ર્ન	7
Traffic Vol, veh/h	15	46	191	411	68	1	29	1	172	8	12	14
Future Vol, veh/h	15	46	191	411	68	1	29	1	172	8	12	14
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	100	-	0	-	-	-	-	-	-	-	-	0
Veh in Median Storage	,# -	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	23	0	1	1	0	0	0	0	0	0	0	25
Mvmt Flow	16	50	208	447	74	1	32	1	187	9	13	15
Major/Minor			1	Major2		1	Minor1		N	/linor2		
Conflicting Flow All				0	0	0	983	969	0	1063	969	75
Stage 1				-	-	-	0	0	-	969	969	-
Stage 2				-	-	-	983	969	-	94	0	-
Critical Hdwy				4.11	_	-	7.1	6.5	6.2	7.1	6.5	6.45
Critical Hdwy Stg 1				_	-	-	-	-	-	6.1	5.5	_
Critical Hdwy Stg 2				-	-	-	6.1	5.5	-	_	-	-
Follow-up Hdwy				2.209	-	-	3.5	4	3.3	3.5	4	3.525
Pot Cap-1 Maneuver					_	-	230	256	-	203	256	926
Stage 1				-	_	-	-	_	-	307	334	_
Stage 2				-	-	-	302	334	-	-	-	-
Platoon blocked, %					-	-						
Mov Cap-1 Maneuver				-	-	-	217	256	-	-	256	926
Mov Cap-2 Maneuver				-	-	-	217	256	-	-	256	-
Stage 1				-	-	-	-	-	-	307	334	-
Stage 2				-	-	-	285	334	-	-	-	-
ŭ												
Approach				WB			NB			SB		
HCM Control Delay, s												
HCM LOS							-			-		
Minor Lane/Major Mvm	t N	NBLn1	WBL	WBT	WBR :	SBLn1	SBLn2					
Capacity (veh/h)		-	-	-	-	-	926					
HCM Lane V/C Ratio		-	_	-	-	-	0.016					
HCM Control Delay (s)		-	-	-	-	-	9					
HCM Lane LOS		_	_	_	-	-	A					
HCM 95th %tile Q(veh)		-	-	_	-	-	0.1					
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,												

2040 Main/Snake River, Main/1st, & 1st/D Roundabout Worksheets

(excerpt from Kittelson Technical Memo, "Lewiston Main Street Improvements: Traffic Operations" dated 11-19-2024)

MOVEMENT SUMMARY

₩ Site: 101 [D & 1st 2040 D2M2-PM]

New Site

Site Category: (None)

Roundabout

Mov	Turn	Demand	Flows	Deg.	Average	Level of	95% Back	of Queue	Prop.	Effective	e Aver. No.	Average
ID		Total veh/h	HV %	Satn v/c	Delay sec	Service	Vehicles veh	Distance	Queued		Cycles	
South	: 1st Stre						1 2 10 1					
1	L2	33	0.0	0.171	9.1	LOSA	1.0	7.3	0.26	0.50	0.26	55.
2	T1	1	0.0	0.171	4.5	LOS A	1.0	7.3	0.26	0.50	0.26	55.
3	R2	198	0.0	0.171	4.2	LOS A	1.0	7.3	0.26	0.50	0.26	54.
Appro	ach	232	0.0	0.171	4.9	LOS A	1.0	7.3	0.26	0.50	0.26	54.
East:	D Street											
4	L2	472	1.0	0.371	9.0	LOS A	2.6	18.1	0.23	0.59	0.23	53.
5	T1	78	0.0	0.371	4.4	LOS A	2.6	18.1	0.23	0.59	0.23	53.
6	R2	1	0.0	0.371	4.2	LOSA	2.6	18.1	0.23	0.59	0.23	51.
Appro	ach	552	0.9	0.371	8.4	LOS A	2.6	18.1	0.23	0.59	0.23	53.
North	1st Stree	et										
7	L2	9	0.0	0.047	11.7	LOS B	0.3	1.9	0.61	0.65	0.61	53.
8	T1	14	0.0	0.047	7.0	LOS A	0.3	1.9	0.61	0.65	0.61	53.
9	R2	16	25.0	0.047	7.7	LOS A	0.3	1.9	0.61	0.65	0.61	51.
Appro	ach	39	10.3	0.047	8.4	LOSA	0.3	1.9	0.61	0.65	0.61	52.
West:	D Street											
10	L2	17	23.0	0.311	12.6	LOS B	1.9	13.7	0.65	0.71	0.65	53.
11	T1	53	0.0	0.311	7.1	LOS A	1.9	13.7	0.65	0.71	0.65	54.
12	R2	220	1.0	0.311	6.9	LOS A	1.9	13.7	0.65	0.71	0.65	52.
Appro	ach	290	2.1	0.311	7.3	LOS A	1.9	13.7	0.65	0.71	0.65	53.
All Ve	hicles	1113	1.3	0.371	7.4	LOSA	2.6	18.1	0.36	0.60	0.36	53.

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: SIDRA Roundabout LOS.

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model is used. Control Delay includes Geometric Delay.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Project: H:\30\30060 - Lewiston Main Street Corridor\analysis\Sidra\Project1.sip8

MOVEMENT SUMMARY

♥ Site: 101 [Main & 1st 2040 D2M2 - Rdbt 1]

New Site

Site Category: (None)

Roundabout

Move	ment Pe	erformance	e - Vehi	icles	1000	1		1885	1-7/19	Tribal I	100	The same
Mov ID	Turn	Demand I Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	
NorthE	East: Mai	n Street										
6x	T1	220	3.0	0.231	5.4	LOSA	1.1	28.6	0.39	0.26	0.39	35.0
16bx	R3	32	3.0	0.231	5.4	LOSA	1.1	28.6	0.39	0.26	0.39	33.€
Approa	ach	253	3.0	0.231	5.4	LOSA	1.1	28.6	0.39	0.26	0.39	34.8
North:	1st Stree	et										
7b	L3	30	3.0	0.615	11.8	LOS B	6.1	157.2	0.65	0.57	0.78	32.3
14a	R1	624	3.0	0.615	11.8	LOS B	6.1	157.2	0.65	0.57	0.78	31.6
Approa	ach	654	3.0	0.615	11.8	LOS B	6.1	157.2	0.65	0.57	0.78	31.6
South\	West: To	Blue Bridge										
5ax	L1	191	3.0	0.606	10.0	LOS B	5.7	146.6	0.26	0.09	0.26	31.9
2x	T1	596	3.0	0.606	10.0	LOS B	5.7	146.6	0.26	0.09	0.26	32.2
Approa	ach	787	3.0	0.606	10.0	LOS B	5.7	146.6	0.26	0.09	0.26	32.
All Veh	nicles	1694	3.0	0.615	10.0	LOS B	6.1	157.2	0.43	0.30	0.48	32.3

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies. Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

♥ Site: 101 [Main & 1st 2040 D2M2 - Rdbt 2]

New Site

Site Category: (None)

Roundabout

Move	ment Pe	erformanc	e - Veh	icles	24.14		7-5-7	13/10/10	The State of	ENAME	The P	5 64 6
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back Vehicles veh	of Queue Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	9
South	: Snake F	River										
3	L2	416	3.0	0.537	12.7	LOS B	3.8	96.2	0.72	0.86	1.12	29.4
8	T1	171	0.0	0.214	6.8	LOSA	0.9	21.8	0.58	0.57	0.58	34.3
Appro	ach	587	2.1	0.537	11.0	LOSB	3.8	96.2	0.68	0.78	0.96	30.6
North:	1st Stree	et										
4	T1	38	1.0	0.326	7.1	LOSA	1.4	36.2	0.52	0.47	0.52	34.1
14	R2	806	3.0	0.326	2.5	LOSA	1.4	36.2	0.18	0.16	0.18	35.7
Appro	ach	844	2.9	0.326	2.7	LOSA	1.4	36.2	0.19	0.17	0.19	35.6
West:	Blue Brid	lge										
5	L2	615	3.0	0.462	7.3	LOSA	3.0	77.7	0.20	0.07	0.20	31.5
12	R2	666	3.0	0.500	7.9	LOSA	3.5	89.8	0.21	0.08	0.21	32.7
Appro	ach	1281	3.0	0.500	7.6	LOSA	3.5	89.8	0.21	0.08	0.21	32.1
All Ve	hicles	2712	2.8	0.537	6.8	LOSA	3.8	96.2	0.31	0.26	0.37	32.7

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab). Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: US HCM 6.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies. Gap-Acceptance Capacity: Traditional M1.

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Appendix XVII

Stakeholder Interview Report



Executive Summary:

As a component of the "Micro" public engagement for Reimagine Downtown Lewiston, Welch Comer Engineers conducted 41 stakeholder interviews with property or business owners in downtown Lewiston. The objective was to ensure that these stakeholders were aware of the project, identify any design concerns in a small-group setting, and discuss the overall project with the stakeholder.

Welch Comer staff reached out to stakeholders to schedule interviews on a rolling basis between June and early November 2024. Interviewees were identified based on their property's interaction with the concept design, the property or business owner's request, or the consulting team's desire to ensure the adjacent stakeholder had an opportunity to provide input to the modifications in the streetscape during the concept design phase. A standardized interview script was used initially, which evolved as major preliminary design decisions were made and the project evolved.

Design-Related Take-Aways:

- 1. Support for conversation of Main and D Streets to two-way traffic, with caveat that it's hard for many community members to imagine two-way traffic and understand how it will be safer for pedestrians.
 - a. Recommendation: Do a demonstration project
- 2. Retain as many established trees as possible.
- 3. Address the sidewalk vaults so they are not an impediment to redevelopment.
 - a. Recommendations:
 - i. Anticipate the need to document vaults as historic structures.
 - ii. Incorporate prismatic glass into streetscape design if possible.
 - iii. Identify a policy through which property owners who want to retain the sidewalk vault associated with their building can work with the City of Lewiston to do so.
- 4. Plan for public bathrooms in public gathering areas.
- 5. Parking remains a primary concern.
 - a. Recommendations:
 - i. Retain and maximize parking.
 - ii. Introduce ADA-compliant parking where possible.
- 6. Main Street east of 9th Street is very different from the historic core of Main Street from 1st to 9th.
 - a. Recommendations:
 - i. The design should incorporate some elements to feather in the transition.
 - ii. Extend the Main Street surface modifications scope to 13th Street to have a more comprehensive vision for the streetscape to the historic train depot and Nez Perce County Courthouse.
 - iii. Evaluate if the diagonal parking could be extended between 11th and 13th Streets without replacing sidewalks.
- 7. Note that existing landscaping irrigation is connected to buildings and disconnecting the irrigation system will need to be managed with installation of new streetscape.
- 8. Include electrical plug-ins for future vendors stands up and down Main Street.
- 9. Include locations for future electric vehicle charging stations in public parking lots.
- 10. Extend Main Street/D Street "streetscape" amenities, like lighting, into public parking lots. Include upgraded public parking lot signage in the design.



Other Recommendations:

- 1. Include business and property owner interviews early in the Final Design phase to review the proposed design with each property or business owner.
- 2. Construction phasing will significantly impact businesses. The City of Lewiston should strengthen partnerships with economic development organizations and coordinate with these organizations to give them time to prepare tools and resources for businesses.
- 3. There is real excitement about activating the new public plaza spaces included in the concept design. The City of Lewiston should develop a process to allow events in the street that include the service of alcohol in open containers to participants 21 years of age or older, i.e., an "open container waiver policy."
- 4. The City of Lewiston should plan for cleaning and maintenance of public spaces.
- 5. Stakeholder interviewees consistently expressed interest in the City's acquisition of Twin City Foods for redevelopment.
- 6. Parking management and enforcement needs to be reinstated by the City of Lewiston. An updated parking management policy should consider the overnight leasing of publicly owned parking lots to the tenants of upper story residential dwelling units.
- 7. Fire Department application of Fire Codes is problematic, inconsistent, and challenging to redevelopment.
- 8. Installation of fire suppression systems is cost prohibitive. The City of Lewiston should:
 - a. Include an option for property owners to invest in a "fire line" during the final design phase of the project.
 - b. Partner with the Lewiston URA to extend "fire lines" to property lines or install fire suppression systems in buildings.



Stakeholder Interview Script-- example

PROPERTY AND BUSINESS OWNER MEETING AGENDA

Introductions:

Project Background

Roles:

- City of Lewiston
- Welch Comer Engineers
- Steering Committee
- Property and Business Owner
- Community

Interview Prompts:

- 1. Please confirm that the owner identification information we have on record and verify that contact emails and phone numbers are accurate.
- 2. What words would you like used to describe the future character of downtown Lewiston? (e.g. authentic, charming, walkable...)
- 3. We would like to understand what works well and should be preserved on Main Street. What elements of the built environment particularly "work" for downtown Lewiston? How does your answer change when thinking about Main Street between Historic (1st to 9th) and the East Gateway (9th to 13th)?
- 4. We would like to understand what works well and should be preserved on D Street. What elements of the built environment particularly "work" for downtown Lewiston?
- 5. What is the surface treatment of Main Street and downtown Lewiston missing? Be aspirational when thinking about fit, finish, and placemaking amenities and enhancements. (e.g. more benches, fountains, bike racks)
- 6. Replacement of all the sub-surface infrastructure is the impetus for this project. What infrastructure deficiencies impact your property or business?
 - Water
 - o Sewer
 - Stormwater
 - Sidewalk vaults
 - High speed fiber
 - Grease trap interceptor
 - Fire suppression
- 7. How do you receive merchandise deliveries?
- 8. If Main Street is completely rebuilt, with two-way traffic, what would you want D Street to be? What about side streets that connect Main and D Streets?
 - o Examples:
 - River Street in Hailey
 - Main Street in Ketchum
 - Adjacent streets in Twin Falls
 - A parking street
- 9. Does this building have any residential tenants Or, is there the opportunity to create residential units? What prevents you from putting in residential units?



- 10. Are you aware of any policies that impede private investment?
- 11. Programming:
 - o Are you satisfied with the overall cleanliness and maintenance of downtown Lewiston?
 - o What amenities currently draw people downtown? What amenities are missing?
- 12. After reviewing the public engagement plan for Phase 1-Concept Design, including the list of community members and organizations we are scheduled to meet with, can you recommend anyone else we should meet with?

Closing:

- Review public engagement plan and extend invitation.
- Note that a follow-up survey will be provided via email to gather more detailed information. Some of the questions are duplicated between the in-person interview and the virtual survey.
- Project contact information.



Stakeholder Interview Map

Stakeholder Interview Index	Completed	Scheduled	Pending Interview Requests	Priority not yet scheduled
As of 11/18/2024	41	0	8	7





Downtown Lewiston
Property Owner Interviews

Sources: ESRI Basemaps	
PROJECT NO.	48003
DRAWN BY	[5]
FILENAME	Propinterview
DATE	41/19/9099



Stakeholder Interview Index

Property Address	OWNER1	OWNER2	Interview	Date	Trees opinion	Traffic opinion	Sidewalk vault
103 MAIN ST	ART BEAT INC	TODD BLAMIRES	Completed	10/29/2024	Retain trees	Concerns about two- way traffic impeding truck loading zone	Not present
812 Main Street	812 MAIN STREET LLC	ELIZABETH COLEMAN	Completed	7/24/2024	Retain trees	Main and D to two- way.	Not present
816 Main Street	MADER FAMILY TRUST	MADER DANIEL K &	Completed	7/19/2024	Preserve	Supports two-way traffic on Main and D	Has, not in use. The sidewalk glass is neat and should be preserved, otherwise would be fine to fill.
326 MAIN ST	BLUE LANTERN COFFEE HOUSE	DAWN ABBOTT	Completed	6/12/2024	Retain trees	Prefer one lane with diagonal parking	Has a sidewalk vault
621 MAIN ST STE A	PERFORMANCE PHYSIO	KYLE & MELISSA PALMER	Completed	10/4/2024	Preserve where possible	Supports two-way on Main	No vault on the property
703 Main Street	FINCH BRUCE &	TOBE FINCH	Completed	7/26/2024	Preserve to add atmosphere	Supports Main and D to two-way	Does not have vault.
1101 Main Street	THE COMPUTER CHIP	DAVE & HILLARY CLIFFORD	Completed	10/16/2024	Retain trees	Supports two-way traffic	No vault on property
815 MAIN ST	SYLVAN FURNITURE	RACHEL RINARD	Completed	7/17/2024	Preserve where possible.	Interested in one-lane with diagonal parking down both sides.	No vaults on property. They need to be addressed as a policy issue.
920 Main Street	PRICE RIGHT INVESTMENTS LLC	WENDY PRICE	Completed	7/25/2024	Preserve where possible, but if some have to go that's okay	Supports two-way traffic on Main and D; would like more diagonal parking	Does not have a vault on the property. Would like to see them remediated and not be an impediment to redevelopment.
208 Main Street	THOMAS DEAN & HOSKINS INC	MICHELLE BLY	Completed	7/25/2024	Preserve where it makes sense	Supports two-way on Main and D, as long as parking can be retained	TD&H did previous research on vaults. Thinks that if the owner wants to preserve them, they should be able to. Otherwise, should be remediated to enable redevelopment.
818 F ST	818 F STREET EVENTS CENTER	MARTIN & MARGIE FROSTAD	Completed	11/4/2024	Retain trees	Supports two-way traffic	not present
0123 1st Street	SONOCO	TED & CAROLYN BURRAGE	Completed	10/29/2024	Note no new trees planned for 1st Street	Concerns about two- way traffic impeding truck loading znoe	



Property Address	OWNER1	OWNER2	Interview	Date	Trees opinion	Traffic opinion	Sidewalk vault
300 Main Street	YOUNG WOMEN'S CHRISTIAN ASSN	LAURIE LEWIS	Completed	11/4/2024	Retain trees	Supportive of two-way traffic	Not present
800 Main Street	NEWBERRY SQUARE LLC	VIKKY AND JOHN ROSS	Completed	7/22/2024	Preserve	Supports two-way traffic on Main and D	Vault a 800 Main filled in 2019. They need to be addressed so that redevelopment can happen.
719 D Street	FREEDOM MUNITIONS, LLC	HOWELL DAVID C	Completed	11/4/2024	Neutral. Preserve if possible but getting the infrastructure right is more important	Curious about two- way traffic, would benefit from traffic modeling	No vault on the property
528 MAIN ST	LEWIS CLARK VALLEY CHAMBER OF COMMERCE	LINNEA NOREEN	Completed	6/19/2024	Preserve	Supports two-way traffic	No vaults
200 MAIN STREET	ROOTED SALON AND SPA	MORGAN JOHNSON	Completed	6/19/2024	Preserve	Supports two-way on Main and D	N/A
324 Main Street	DOWNTOWNMC LLC	TAMI MEYERS	Completed	6/12/2024	Preserve where possible	Main and D to two-way	Has, and is in-use. Will need to be preserved or managed.
642 Main Street	HAINES PROPERTIES LLC; DIAMOND SHOPS	MIKE AND DEANNA HAINES	Completed	7/19/2024	Preserve	Supports two-way on Main and D	Has, not in use
718 MAIN ST	LARGENT'S INC	CRAIG LAVOIE	Completed	11/4/2024	Neutral on trees, preserve and expand parking where possible.	Supportive of two-way traffic	No vaults on property. They need to be addressed as a policy issue.
106 Main Street	LEWISTON CITY OF	DAN JOHNSON	Completed	6/3/2024	Neutral on trees, do what makes sense	Supports two-way traffic	Wants to address vaults with project and remove them as an impediment to redevelopment.
703 MAIN ST	HAPPY DAY CORPORATION	HAPPY DAY CORPORATION	Completed	6/19/2024	Preserve	Supports two-way on Main and D	Not present
111 Main Street	ALEXANDER INVESTORS LLC	MARK ALEXANDER	Completed	7/8/2024	Retrain trees	Main and D To two- way	Has many, would be happy to see them go away



Property Address	OWNER1	OWNER2	Interview	Date	Trees opinion	Traffic opinion	Sidewalk vault
609 MAIN ST	AMPERSAND OIL & VINEGAR TAP HOUSE LLC	KEELY GARRITY	Completed	7/22/2024	Retain trees	Supports two-way traffic	N/A
301 Main Street	Bollinger 301 LLC	IAN COLEMAN	Completed	7/24/2024	Neutral on trees, do what makes sense	Supports two-way traffic	Nonissue for the property
821 MAIN ST	EVENTS BY BRENDA BARNES	BRENDA BARNES	Completed	7/25/2024	Preserve where possible	Supports two-way on Main and D	N/A
1112 Main Street	CORNERSTONE INTERIORS	JANINE BENNETT	Completed	7/30/2024	Retain trees, please plant more east of 9th Street	Supports two-way traffic on Main and D	N/A
313 D Street Suite 201	VALLEY VISION	JERRY CHAVEZ	Completed	8/20/2024	Preserve where possible	Supports two-way traffic on Main and D	Vaults need to be addressed so that redevelopment can happen. No vaults on properties he's involved with.
0305 CAPITAL STREET	CAPITAL STREET PARTNERS	JEFF NESSETT	Completed	8/21/2024	Retain trees where possible.	Supports two-way traffic on Main and D	Remediate vaults
504 MAIN ST STES 201, 202, 110, COURTYARD	BRAVA'S & BROCKS	KRISTOPHER MAXEY, AUBREE SMITH, REBECCA WILLIAMS	Completed	8/21/2024	Preserve	Concern that two-way traffic will be less safe	Not an issue
0315 4th Street	WESTCON LLC	DAN RUDOLPH, JR	Completed	9/3/2024	Neutral. Preserve if possible but getting the infrastructure right is more important	Supports two-way traffic on Main and D	Vaults need to be addressed so that redevelopment can happen. No vaults on properties he's involved with.
0334 2nd Street	WESTERN RECYCLERS, INC	CASE STEDHAM	Completed	9/3/2024	Neutral. Preserve if possible but getting the infrastructure right is more important	Supports two-way traffic on Main and D	No vaults on properties.
1029 Main Street	BEIER PROPERTIES LLC	BRANDON BEIER	Completed	9/3/2024	Retain trees	Main and D to two-way	Has vaults in use on north side of the building. Stormwater drainage on the north curb line problematic; stormwater seeps through rock foundation of sidewalk vaults



Property Address	OWNER1	OWNER2	Interview	Date	Trees opinion	Traffic opinion	Sidewalk vault
502 Beachey Street	RUDOLPH DANIEL E &	DAN RUDOLPH, JR	Completed	9/3/2024	Neutral. Preserve if possible but getting the infrastructure right is more important	Supports two-way traffic on Main and D	Vaults need to be addressed so that redevelopment can happen. No vaults on properties he's involved with.
1122 Idaho Street	MARTIN INSURANCE	ANNE WATKINS	Completed	9/25/2024	Preserve where possible	Concern that two-way traffic will be less safe	No vault on properties; make them a non-issue for redevelopment
1203 IDAHO ST	CHAS LEWIS AND CLARK MEDICAL CLINIC	CASSIE HEIMGARTNER	Completed	10/9/2024	Retain trees	Supports two-way traffic	
312 MAIN ST	TEC LAW, PLLC	TECLA DRUFFEL	Completed	10/18/2024	Retain trees	Supports two-way traffic	
808 Main Street	GARY BERGEN	GARY BERGEN	Completed	10/1/2024	Preserve	Supports two-way traffic on Main and D	Vault remediated in the last week of September.
505 CAPITAL ST	LEWISTON TRIBUNE	BUTCH ALFORD, NATHAN ALFORD	Completed	7/30/3034	Neutral on trees, would be nice to preserve	Supportive of two-way traffic	No vaults on properties
0225 7th Street	INLAND AUTO GLASS INC	STEDMAN KIRK W	Completed	11/8/2024	Neutral on trees, would be nice to preserve	Supports two-way traffic on Main and D	No vaults on properties
0314 3rd Street	JMS LIMITED PARTNERSHIP	RAY SKELTON	Completed	11/11/2024	Remove trees where problematic for infrastructure	Supports two-way traffic on Main and D	Has extensive vaults at buildings on New 6 th and Main Street. Will want to understand liability complexities, who pays for structural engineering, etc.
1015 F Street	WHITE "F" STREET PROP LLC	DICK WHITE	Requested				
1120 MAIN ST	EFFIE'S TAVERN	WILLIAM & RANDEE MCCOLLUM	Requested				
1126 MAIN ST	CASTELLAW KOM ARCHITECTS	1126 MAIN ST	Requested				
620 Main Street	PORTER BLOCK LLC	JUSTIN SULT	Requested				



Property Address	OWNER1	OWNER2	Interview	Date	Trees opinion	Traffic opinion	Sidewalk vault
714 D Street	FOLLETT'S MOUNTAIN SPORTS LLC	MICHAEL AND THERA FOLLETT	Requested				
868 MAIN ST	WELLS FARGO BANK NA	BUSINESS LICENSE DEPARTMENT	Requested				
1021 MAIN ST	SUPERNOVA MOTEL: EXTENDED STAY	ZACHARY LEAVITT, ALAN LEAVITT	Priority				
1021 Main Street	LEWISTON MOTELS LLC		Priority				
1117 Main Street	FASTENERS PROPERTIES INC		Priority				
325 MAIN ST	COLDWELL BANKER TOMLINSON ASSOC	NORTHWEST REAL ESTATE BROKERS, LLC	Priority				
821 MAIN ST	DZ DESIGNS	DEBBIE ZENNER	Priority				
835 MAIN ST STE. A & B	THE STORM CELLAR, LLC	CALEB WARNER	Priority				
514 MAIN ST	BIRCHER'S GRILL	ROBERT BIRCHER	Priority				