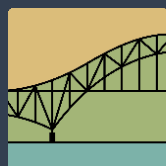




SR 28

East Wenatchee to Rock Island Corridor Study



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BACKGROUND

State Route 28 (SR 28) is one of three highway corridors connecting the Wenatchee Valley to the rest of Washington State, the West, and beyond (Figure 1). It carries a share of the region's agricultural commodities to markets across the world. It's also the primary corridor for local trip making between East Wenatchee and Rock Island and regional trip making between households in the Wenatchee Valley and job centers in Grant County. This Plan focuses on the urbanized section of SR 28 between East Wenatchee and Rock Island (Figure 2) due to the complexity of competing safety, traffic, transit, bicycle, and pedestrian needs along the corridor and the significance of the highway corridor to the communities in Chelan and Douglas counties.

Figure 1. SR 28 Regional & State Context

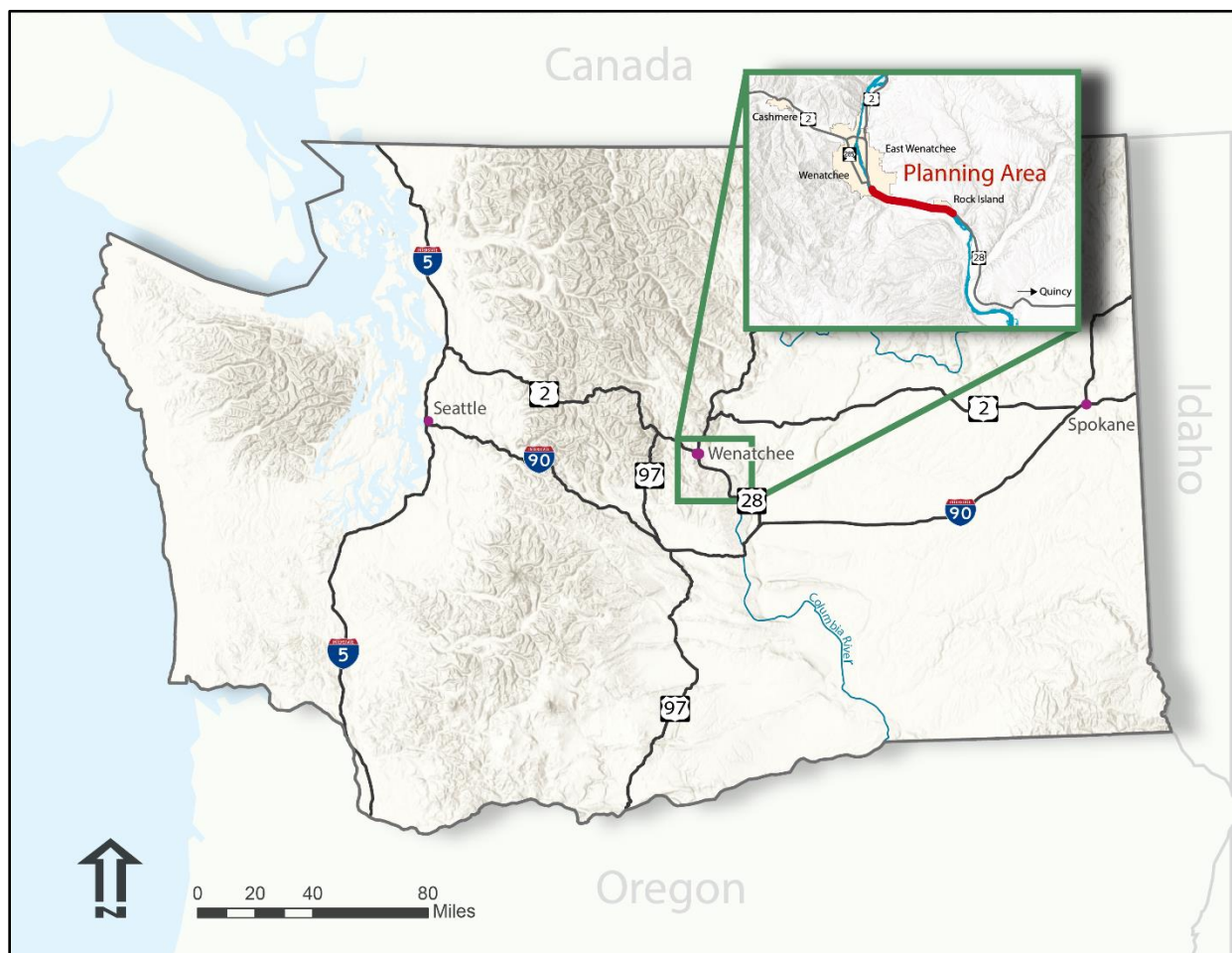


Figure 2. SR 28 Planning Area Detail



CDTC initiated the planning process to assess what can be done to reduce severe collisions (collisions resulting in serious injuries or death). Current WSDOT and CDTC safety policy are based on the Washington Traffic Safety Commission's Target Zero policy, which strives to reduce severe collisions on all roads to zero by 2030¹. The process also assesses whether the highway and surrounding county road network can facilitate forecasted vehicle and freight traffic growth and provide safe and comfortable bicycle and pedestrian connectivity and access. The planning process was completed in phases between 2021 and 2024 and was guided by a stakeholder group comprised of transportation officials from the affected jurisdictions and agencies, community members, and businesses owners along the corridor.

This plan summarizes technical evaluations, CDTC Policy Board workshops, and public engagement efforts conducted over three years that informed the development and selection of the Preferred Alternative Highway Improvement Scenario for SR 28 described in the pages below. The reports, memos, and analyses documenting those efforts are referenced throughout the plan and can be viewed and downloaded on the CDTC website.

The first phase of work developed and evaluated three alternative highway improvement scenarios between East Wenatchee and Rock Island that would improve safety, transit, multimodal mobility and maintain the highway's functionality as a lifeline for Central Washington's economy and a corridor that connects residents of the Wenatchee Valley to their jobs in Chelan, Douglas, and Grant counties. This work was completed in September 2022 and is referred to as the SR 28 Study throughout this Plan. This initial SR 28 Study Report can be viewed and downloaded on the CDTC website.

Following completion of the SR 28 Study, CDTC staff led the CDTC governing board in a series of workshops comparing the costs and benefits of each highway improvement scenario. Ultimately, the Board chose to combine two of the three alternative scenarios into a Preferred Alternative to be

¹ Washington Highway Safety Plan, July 2023

implemented over time in multiple phases. The short-and mid-term implementation phases prioritize safety improvements, and the long-term phases address projected traffic growth. The short and mid-term safety improvements are defined as a two-lane highway with a median treatment, access control, and installation of roundabouts to facilitate safe left turns and U-turns, while the long-term traffic capacity improvement phase is defined as widening to a four-lane divided highway with multi-lane roundabouts. The governing board workshops were completed by January 2023.

Following the board workshop, CDTC partnered with WSDOT to fund the refinement of the Preferred Alternative to identify lower-cost, incremental implementation of the safety improvements. Improvements with independent utility were prioritized and sequenced based on collision history, collision factors, and opportunities to connect residential development with county roads and consolidate highway access. The cost of adding a second lane of capacity in each direction was also fleshed out in more detail. This work was completed in July 2023.

This document summarizes existing and projected safety and traffic issues on SR 28 and provides conclusions of recommended safety improvements and an implementation strategy for phasing a series of investments that reduce severe collision on the highway.

STAKEHOLDER & PUBLIC ENGAGEMENT

CDTC engaged early with stakeholders and the public to understand policies, priorities, and concerns on the SR 28 corridor from a broad cross section of users. Coordination also occurred with CDTC's partner agencies because addressing the needs on SR 28 includes recommended improvements to county roads connecting and adjacent to the highway. The input gathered throughout all public engagement efforts was used by the CDTC governing board to select the Preferred Alternative for the SR 28 corridor.

Multiple methods and forums were used to engage the public with a principal goal of encouraging participation and removing time, convenience and language-related barriers to being involved. Input was sought from residents in the East Wenatchee and Rock Island areas as well as feedback from commuters and other users of the SR 28 corridor. The following outreach tools, platforms, and events were used to understand the public's concerns and preferences on the SR 28 corridor:

- Flyers
- News publications
- Agency social media posts
- Project website with information and interactive "Social Pinpoint" map
- Virtual (online) office hours
- In-person community events
- Individual stakeholder interviews

Stakeholder Advisory Committee

A stakeholder advisory committee was established in March of 2021 and met regularly through October 2021 to provide feedback on the development and evaluation of the three alternative improvement scenarios. The committee included individuals from the agencies affected by the project as well as community members with a vested interest in the future of the corridor (Table 1).

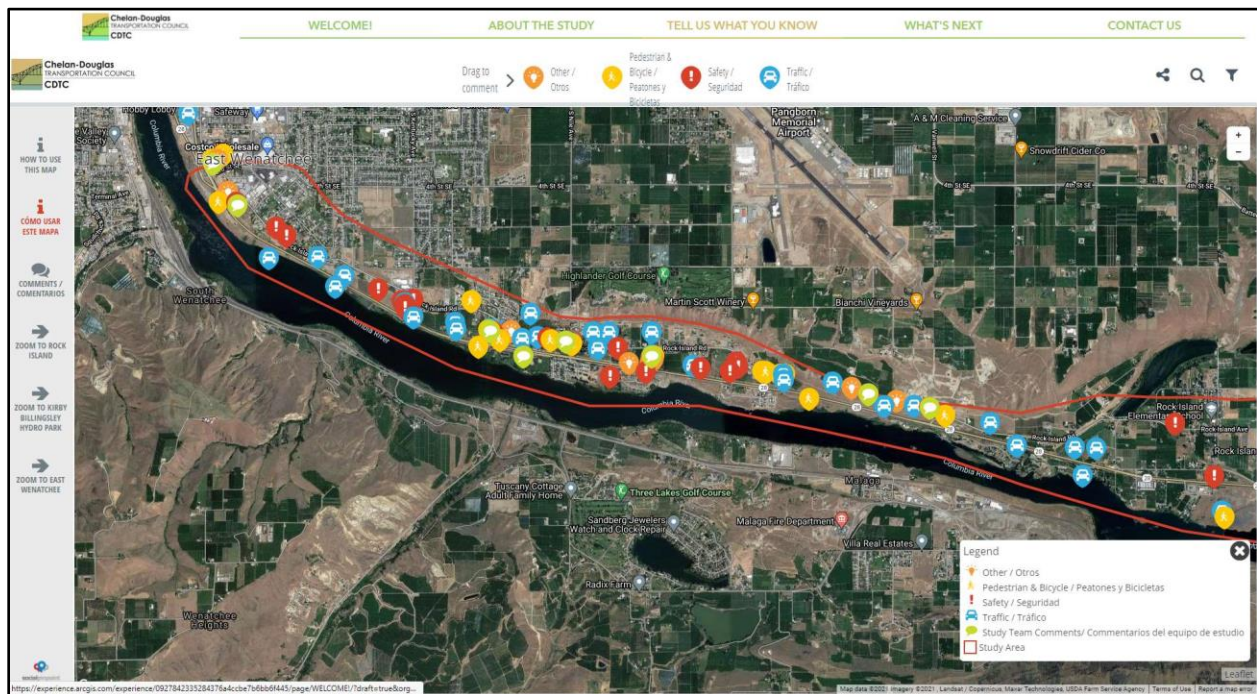
Table 1. Stakeholder Advisory Group

Name	Agency / Affiliation
George Mazur	Washington State Department of Transportation
Shaun Darveshi	Washington State Department of Transportation
Richard DeRock	Link Transit
Randy Agnew	City of Rock Island
Aaron Simmons	Douglas County
Garren Melton	City of East Wenatchee
Matt Shales	Chelan County PUD
Kelly Gregerson	Washington State Patrol
Kurt Davis	J&K Earthworks (Corridor Business Owner)
Cassidy Cue	Corridor Resident
Mike Sorensen	Complete the Loop Coalition

CDTC recognized the importance of receiving feedback from all corridor users, including the Spanish-speaking community with all written materials produced in both Spanish and English.

One of the most useful, user-friendly and effective tools for collecting public input was the project website, specifically the interactive Social Pinpoint map. The map allowed the public to add comments noting concerns, issues, and desires throughout the corridor (Figure 3). The public could also “like” or “dislike” other comments. The most common comments were those that supported adding lanes to SR 28; bicycle and pedestrian improvements; connecting the Apple Capital Loop Trail to Rock Island; and reducing speeds. In total, 120 comments and 1,800 likes or dislikes were recorded.

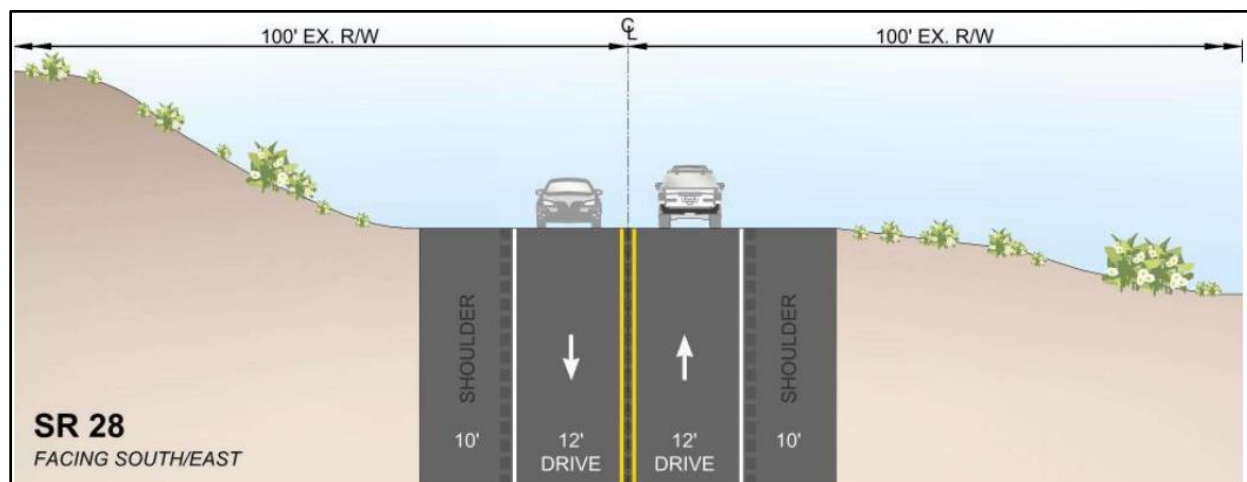
Figure 3. Social Pinpoint Map



EXISTING CONDITIONS

Between the intersection at 3rd Street SE in East Wenatchee and the western intersection of Rock Island Road and SR 28, SR 28 is a 2-lane 50 MPH highway; the speed limit increases to 60 MPH east of that intersection (Figure 4). Some intersections include right and/or left turn channelization and a westbound passing lane extends for approximately one mile between the two Rock Island Road T-intersections. There are sixteen stop-sign controlled intersections and 10 driveways providing access between SR 28 and the adjacent developed area.

Figure 4. SR 28 Typical Section

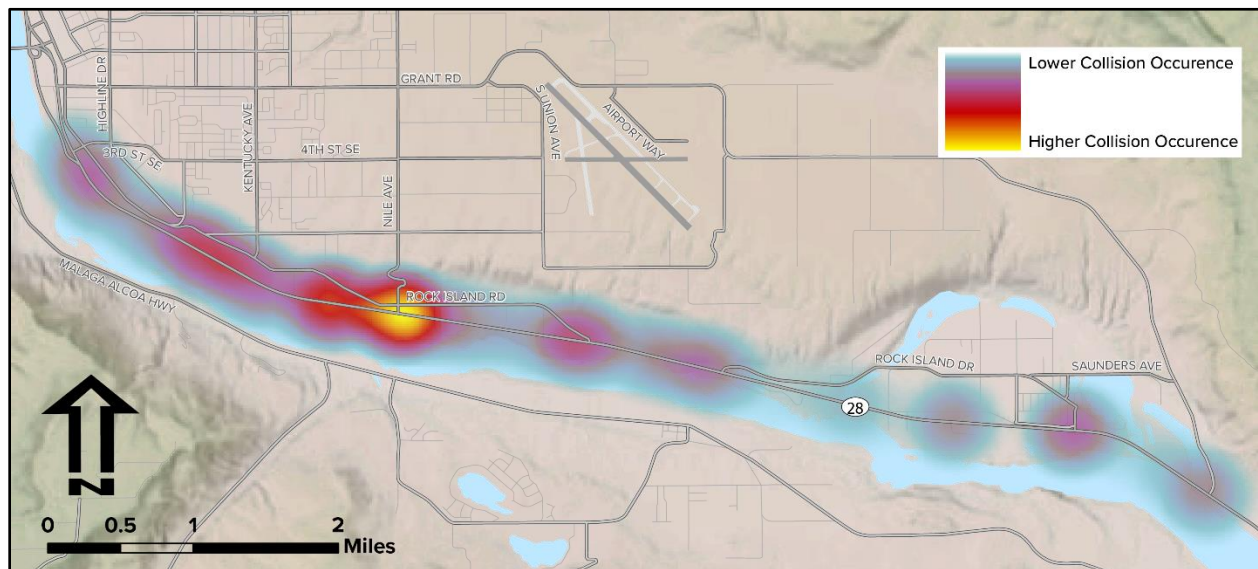


Collision History

Between 2018 and 2022 there have been 128 reported collisions on SR 28. Forty-nine collisions are intersection-related, and 79 collisions are non-intersection related. Thirty-three of those collisions were caused by vehicles either turning left onto/off the highway or crossing the centerline. Six severe collisions have occurred with three collisions each caused by vehicles turning left onto/off the highway or crossing the centerline and colliding head-on. Additionally, comments on “near-miss” collisions and unsafe driver behavior were common throughout all public engagement efforts.

In general, collisions occur uniformly across the corridor except for the section of highway between the Hydro Park boat ramp and Nile Ave where collisions occur slightly more often (Figure 5). Over half of the collisions described above have occurred on this segment. The collision analysis conducted during the SR 28 Study identified the SR 28/Mary Avenue and SR 28/Nile Avenue intersections as having somewhat higher or significantly higher crash rates and the intersections of SR 28 and Rock Island Road (West), Nature Shores Drive, and Rock Island Drive as having slightly higher crash rates when compared to predicted rates. The detailed analysis can be found in Appendix A of the SR 28 Study.

Figure 5: Collision Heat Map



Traffic and Freight

Traffic volumes on the corridor vary between 8,500 and 13,000 vehicles per day with the highest volumes on the west end of the corridor in the city of East Wenatchee. Heavy trucks represent approximately 13% of the total traffic volumes on SR 28.

SR 28 facilitates travel and accessibility for many different users and purposes. Approximately 67% of trips on SR 28 pass through the corridor from one end to the other; 21% of trips start or end in Rock Island; and 12% of trips start or end at locations in between Hydro Park and Rock Island Road (West). While

important for local travel and access, this data indicates a strong long-distance travel connection between the Wenatchee Valley and destinations to the south and east². Approximately 51% of truck trips between the Wenatchee Valley and the rest of the state use SR 28³.

Bicycle and Pedestrian Infrastructure

The Hydro Park spur of the Apple Capital Loop Trail runs adjacent to SR 28 for approximately two miles between 3rd Street SE and where it currently ends inside the park. The Loop Trail is typically 10 feet to 12 feet wide and is located between SR 28 and the Columbia River, with varying degrees of separation from SR 28. A short section of the trail just west of the Hydro Park boat launch is separated by only a concrete barrier while the rest of the trail is typically separated from the highway by a large, landscaped buffer and vertical separation. There are no existing marked or signed at-grade or grade-separated bicycle/pedestrian crossings of SR 28.

Transit

LINK Transit provides service between Wenatchee and Rock Island using Route 23, which uses Rock Island Road to service the corridor with all stops located on Rock Island Road; the route briefly uses SR 28 where Rock Island Road terminates into SR 28 at T intersections. These intersections require left turns onto and off the highway for buses traveling eastbound that may cause some delays to route operations. Additionally, the southbound left turns from Rock Island Road to SR 28 don't have a protected acceleration lane, making the movement challenging and potentially unsafe during peak travel periods. Traffic volume increase over time will make this movement more challenging and unsafe.

While transit users on the north side of the highway have direct access to bus stops, users on the south side of the highway face a barrier to transit access given that no highway pedestrian crossings exist currently. The stops with the highest ridership on Route 23 are at the eastern end of the corridor within the City of Rock Island. Moderate ridership is shown at Nile Ave & Rock Island Road.

ALTERNATIVE HIGHWAY IMPROVEMENT SCENARIOS

This study was developed by evaluating alternative highway improvement scenarios that prioritize different outcomes that illustrate and emphasize policy tradeoffs between different visions for the highway corridor and surrounding land uses. For example, adding lanes to increase capacity achieves benefits for vehicle and freight throughput, but may not be the safest alternative, the most comfortable for pedestrian and bicycle travel along and crossing the highway, nor the most cost-effective alternative.

² Streetlight Data, July 2023

³ Streetlight Date, July 2023

CDTC developed the three scenarios based on the reasonable long-term assumptions for transportation investment and evaluated them using metrics related to automobile speed, safety, access, transit operations, and active transportation comfort, the concepts are:

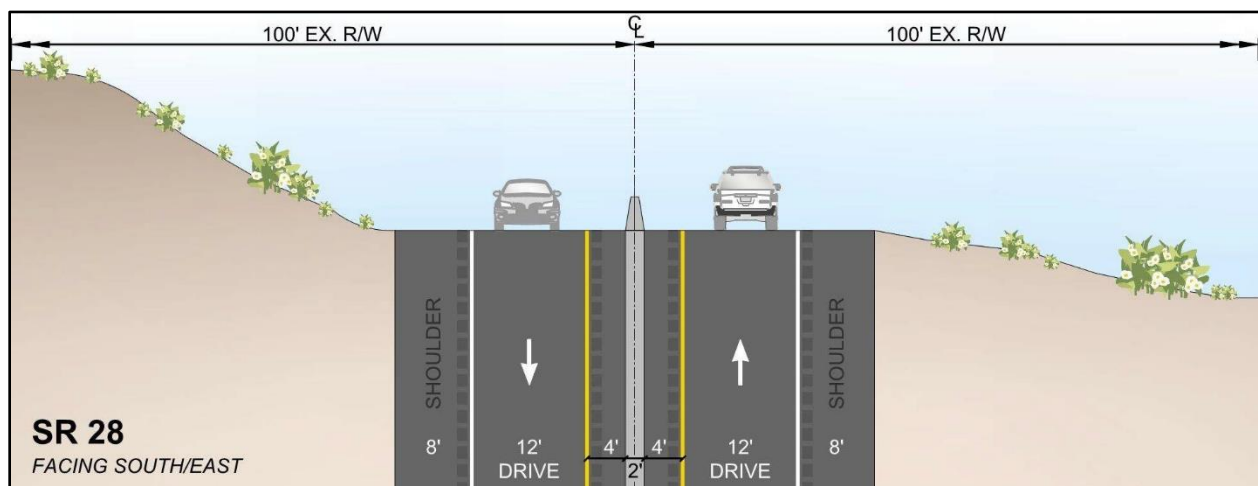
- High-Speed, Two-Lane
- High-Speed, Four-Lane
- Intermediate-Speed, Three-Lane

Concepts and cost estimates were also developed for major capital improvements to Rock Island Road and the Apple Capital Loop Trail. These improvement concepts were developed to create a holistic understanding of how the corridor could facilitate multimodal transportation demand on the highway, adjacent county roads, and active transportation infrastructure. These concepts require additional planning and design as standalone projects, with the recommended improvements and implementation strategy in this plan focusing on SR 28.

High-Speed, Two-Lane Scenario

The High-Speed, Two-Lane Scenario (Figure 6) maintains the existing two-lane cross-section but includes access control through a median treatment, access control, and roundabouts at five intersections. All intersections and driveway access points will become right-in/right-out with left turns facilitated by U-turns via roundabouts at the Hydro Park Boat Launch, Nile Avenue, Union Avenue, Riverside Place, and Rock Island Drive. The Scenario has a posted speed of 60 mph. In the summer of 2023 WSDOT conducted a paving project that included a speed-limit reductions west of Rock Island Road. The Scenario is designed so that the speed limit could be restored to 60mph if implemented. The estimate to construct the High-Speed, Two-Lane Scenario by 2029 is \$170 million.

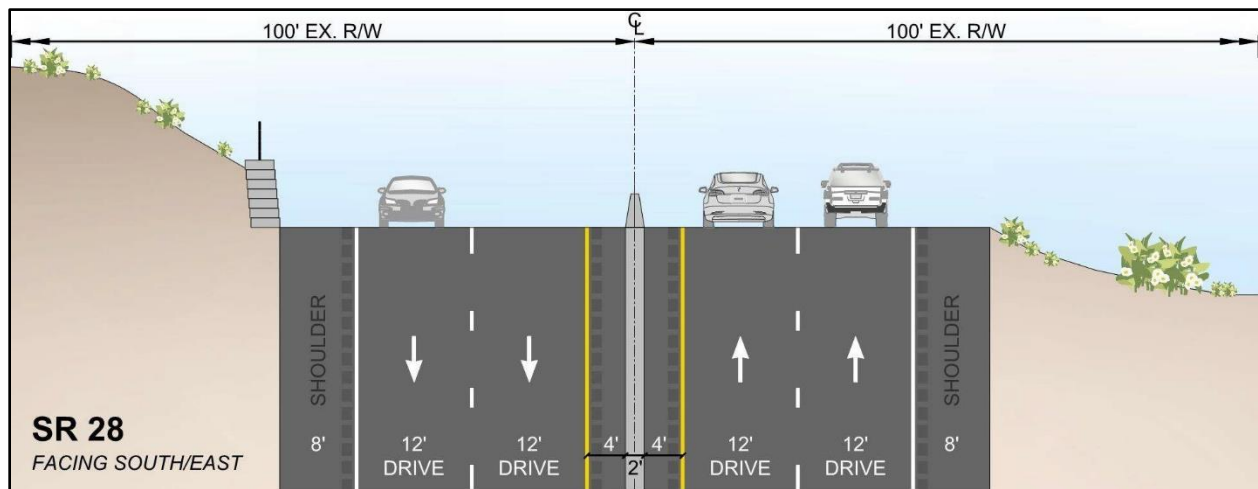
Figure 6. High-Speed, Two-Lane Scenario



High-Speed, Four-Lane Scenario

The High-Speed, Four-Lane Scenario (Figure 7) includes many of the same features of the two-lane Scenario but adds one lane of capacity in either direction for a total of four general purpose lanes, two in each direction. The Scenario retains a 60mph speed, adds median barrier, treatment access control, and adds roundabouts at the Hydro Park Boat Launch, Nile Avenue, Union Avenue, Riverside Place, and Rock Island Drive to facilitate U-turns for driveways and intersections converted to right-in/right out. The estimate to construct the High-Speed, Two-Lane Scenario by 2029 is \$258 million.

Figure 7. High-Speed, Four Lane Scenario

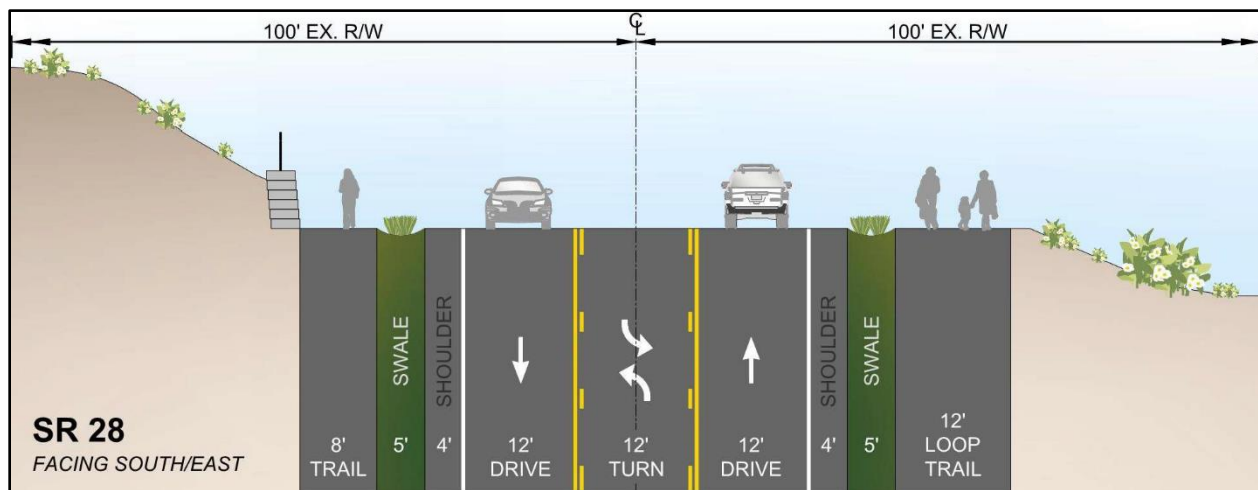


Intermediate-Speed, Three Lane Scenario

The Intermediate-Speed, Three Lane Scenario (Figure 8) includes one travel lane per direction and a center turn lane that is channelized as two-way, left-turn lane or a one-way, left-turn lane depending on location and reduces the speed limit to 40mph. The Scenario includes bicycle and pedestrian infrastructure on both sides of the road with a 12' path on the south side of the highway, representing an extension of the Apple Capital Loop Trail, and a 8' sidewalk on the north side.

This Scenario is based on a land development scenario where future land development would have direct access to SR 28 without turn movement restrictions. The highway would become an urban arterial consistent with a suburban land use context, providing access to adjacent lands at a slower speed and providing active transportation connections with less separation from vehicle travel lanes. The estimate to construct the Intermediate-Speed, Three-Lane Scenario by 2029 is \$183 million.

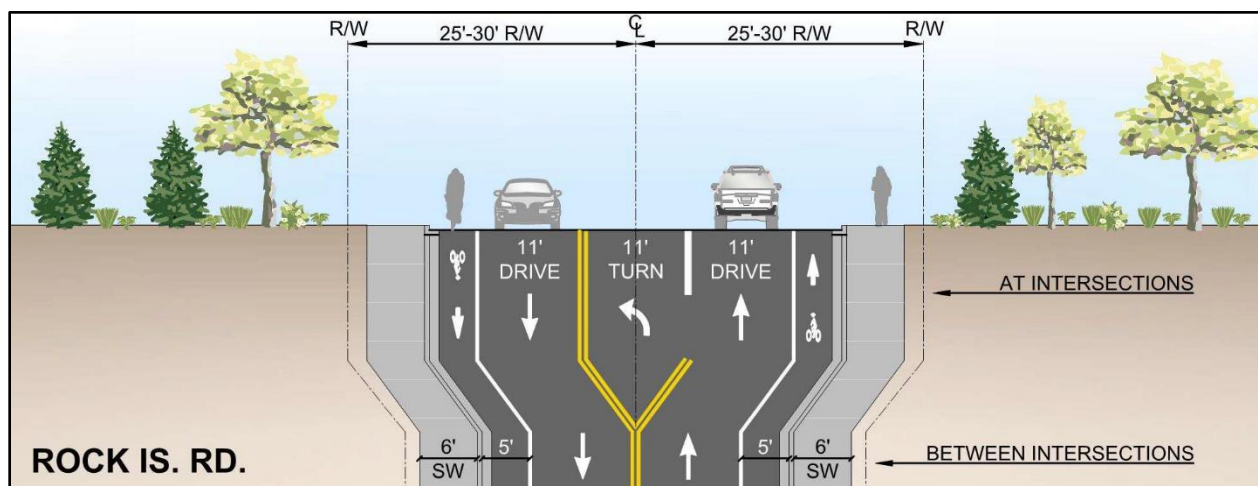
Figure 8. Intermediate-Speed, Three-Lane Scenario



Rock Island Road & Loop Trail Improvements

Two improvement concepts were developed for Rock Island Road to understand the cost magnitude for creating a parallel county road connection between East Wenatchee and Rock Island that reduces local traffic on SR 28. An engineer's estimate of cost to add curb, gutter, sidewalk, bike lanes, and turn lanes at intersections to the existing sections of Rock Island Road between 3rd Street SE in East Wenatchee and Douglas Street in Rock Island is approximately \$100 million if constructed by 2029 (Figure 9). An additional project connecting the two segments of Rock Island Road where they currently terminate at SR 28, creating a continuous parallel road, is estimated at an additional \$30 million if constructed by 2029.

Figure 9. Rock Island Road Improvement



The Rock Island Road connection was assumed to be included in the High-Speed, Two-Lane concept due to the additional lane capacity and mobility benefits to the highway. This is reflected in the cost of the improvement scenario above.

The Apple Capital Loop Trail currently terminates at Hydro Park. Extending the Loop Trail to Rock Island was one of the most recurring comments during public engagement. A high-level alignment wholly within WSDOT right-of-way was identified along the south side of the highway with an estimated cost of roughly \$20 million for a 12' wide path. This alignment was determined to meet WSDOT bicycle and pedestrian level of traffic stress standards. Further planning, concept development, and design is recommended to understand and identify issues with grades, retaining walls, local road crossings, and to identify potential SR 28 crossing improvements for trail access and connectivity into Rock Island.

Evaluation of The Alternative Highway Improvement Scenarios

The alternative highway improvement scenarios were evaluated using a suite of metrics developed in collaboration with the stakeholder advisory committee, related to vehicle mobility & safety, access, pedestrian and bicycle mobility and safety, environmental impacts, transit operations, and cost. A comprehensive list of the metrics and evaluation results is provided in the initial SR 28 Study Report. The purpose of the evaluation was to compare the benefits and costs of each alternative and inform CDTC board discussions on corridor priorities and policies and selection of a preferred alternative.

SELECTION OF PREFERRED ALTERNATIVE

Selection of a preferred alternative occurred through a series of workshops with the CDTC governing board the determined the most relevant criteria and methods for scoring and comparing the three alternative highway improvement scenarios. An extensive array of metrics were used to evaluate the alternatives by the staff and project team for comparing alternatives; however, the CDTC governing board narrowed down to five priority criteria that best reflected the policy tradeoffs necessary to select a preferred alternative. These criteria are described in Table 2.

After the criteria were determined, staff developed a methodology to quantify the performance of each alternative. In general, the alternative that performed the worst for a given criteria was given a score of one point, the alternative that scored the best received a score of three points, with the third alternative receiving a score between one and three proportional to its relative performance compared to the best and worst alternatives. This approach was performed for each of the five criteria to establish a total score for each alternative.

Table 2. Final Comparison Criteria Selected By CDTC Governing Board

Criterion	Definition	Measure
Safety	Degree to which scenario improves safety compared to existing conditions	Estimated reduction in fatalities and serious injuries
Cost	Estimated construction cost of project	Costs directly associated with highway improvements, except for the 2-Lane High Speed scenario
Travel Time	Travel time from 3 rd St SE to Batterman Rd during weekday evening peak hour, compared to 2045 "No-Build" traffic model forecast	Time savings or added delay of each scenario compared to the 2045 "No-Build" traffic model forecast
Public Support	Public support or opposition to the scenario, or specific elements of the scenario	Qualitative characterization of support or opposition received through study public engagement efforts
Remaining Capacity	Years until SR 28 is at capacity beyond 2045 with the full build-out of each scenario	Traffic growth from CDTC travel demand model projected beyond 2045

With guidance from staff, the CDTC board assigned weights to each of the criteria to reflect the board's relative priority of each criterion. Table 3 shows the alternative scoring and criteria weighting results.

Table 3. Alternative Scoring Results

	High Speed, Two-Lane			High Speed, Four-Lane			Intermediate Speed, Three-Lane		
Criteria	Evaluation Results	Score	Weighted Score	Evaluation Results	Score	Weighted Score	Evaluation Results	Score	Weighted Score
Safety	31.4% Collision Reduction	3	9.0	19.7% Collision Reduction	2.2	6.6	1.9% Collision Reduction	1	3.0
Cost¹ (Millions)	\$140	3	7.1	\$258	1	2.4	\$183	2.7	6.4
Travel Time Reduction Increase²	1 minute reduction	2.8	2.8	2 minute reduction	3	3.0	7.5 minute increase	1.0	1.0
Public Support	Moderate Support	2	3.3	Strong Support	3	4.9	Low Support	1	1.6
Reserve Capacity²	12 Years	1.7	3.4	33 Years	3	6.0	0 Years	1	2.0
Total		10.8	22.2		9.2	16.9		5.7	12.0

1: Includes Apple Capital Loop Trail extension to Rock Island

2: Travel time and reserve capacity analyses were performed using the 2020-2045 travel demand model.

The scoring results showed the High Speed, Two-Lane alternative as performing the best among the three alternatives largely due to the degree of projected collision reduction and low relative cost, which were the two highest weighted criteria (and highest priorities established by the governing board). The High Speed, Four-Lane Scenario performs best for travel time reduction, reserve capacity, and public support. The Intermediate Speed, Three-Lane Scenario performed the worst for four of the five criteria.

Although the High Speed, Two-Lane alternative scored the best quantitatively, there were concerns about whether a two-lane highway could provide adequate long-term capacity for future traffic growth. As a result, the Board chose a Preferred Alternative that combined two of three scenarios, in the following sequence of implementation:

1. Prioritize safety improvements by first constructing the High-Speed, Two-Lane Scenario.
2. Construct the High-Speed, Four-Lane Scenario to address long-term capacity for traffic growth.

In addition to merging two highway improvement scenarios into a “preferred alternative,” the board directed that a phasing plan be identified to identify achievable steps, as described in the next section.

PREFERRED ALTERNATIVE

The SR 28 Corridor between East Wenatchee and Rock Island has complex, competing needs and constraints related to the amount of urban development that has already occurred throughout the corridor, particularly on the south side of SR 28 between the highway and Columbia River. Numerous severe collisions have occurred in the last five years and forecasted traffic growth is likely to exacerbate safety issues in multiple ways. SR 28 has a high number of side streets and driveways with unrestricted turn movements where left turns occur. As traffic volumes increase, gaps between traffic platoons decrease and cause more delay for vehicles turning from minor streets and driveways, increasing the likelihood of drivers becoming frustrated and making high-risk turning movements. Additionally, drivers may attempt more unsafe passing as congestion increases. Although traffic is forecasted to increase, it’s not expected to reach capacity and cause substantial delay until after 2050. For this reason, the recommendations center on first making investments to provide for safer turning opportunities that will reduce severe crashes.

The Preferred Alternative prioritizes safety improvements where they’re needed most and implements WSDOT & CDTC Target Zero policy by recommending sequenced implementation of roundabouts, and if warranted, additional access control to reduce the likelihood of collisions in locations that continue to experience higher than average crash rates⁴.

⁴ <https://tsmowa.org/category/transportation-operations/roundabouts-design-installation>

The Preferred Alternative is a combination of two different highway improvement scenarios, merging the safety elements of the “High-Speed, Two Lane” scenario with the four-lane scenario that adds lanes and expands capacity. With this combination of scenarios, the following components of the two-lane scenario are not necessary:

- 1) Connecting the two separate sections of Rock Island Road was identified in the two-lane scenario to address capacity limitations of the highway, at a cost estimate of \$30 million. With the recommendation to add lanes to the highway, this component is no longer necessary for the purpose of improving SR 28. Additionally, Douglas County, East Wenatchee and Rock Island will need to work together to upgrade the existing segments of Rock Island Road to urban standards as development continues to occur, as a separate project.
- 2) Installing a physical median between new roundabouts on SR 28 was also identified in the two-lane scenario to address severe crashes by eliminating left-turns across oncoming traffic between the intersections controlled by a roundabout. However, the recommendation to add lanes to SR28 also includes construction of a center median, therefore, it would be more cost effective to construct center median safety improvements during highway widening only. Constructing the identified roundabouts may take up to 30 years, at which time adding lanes is expected to be warranted by traffic volume.

With these adjustments to the preferred alternative, the total cost of the initial “safety” phase of constructing roundabouts is reduced from \$180 million to approximately \$21 million.

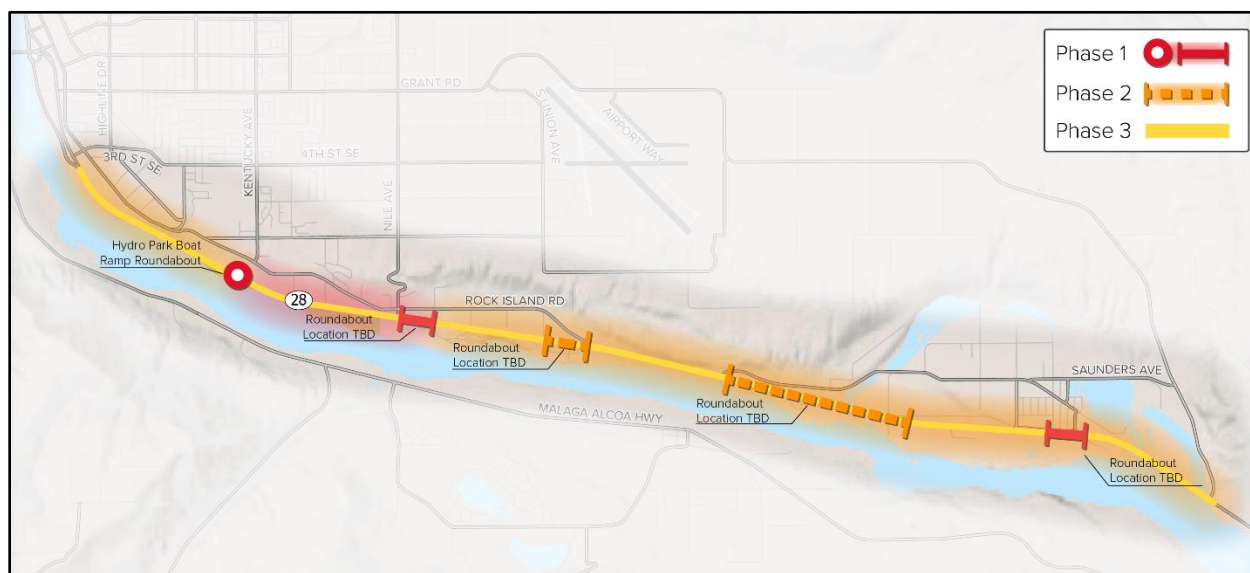
The estimated cost of adding lanes in a “capacity” phase of improvements is \$223-\$237 million, depending on the number of roundabouts constructed before lanes are added.

PHASING IMPLEMENTATION & FUNDING

Phasing

The Preferred Alternative recommends stepwise implementation of safety and access improvements with ongoing monitoring of collision and traffic data to determine the effectiveness of the improvements and whether additional investment is needed. The initial phase has both safety and access benefits and can be implemented as multiple spot improvement projects over time. Implementation of access control in highway segments not included in phase 1 improvements is recommended if the rate of collisions increases. Long-term highway widening should occur as traffic volume approaches highway capacity.

Figure 10: Preferred Alternative Phasing



The overall recommended sequence of roundabout construction, access control, and highway widening is as follows:

Phase 1: Construct Three Roundabouts and Access Control⁵ (\$21 Million)

Construct three new roundabouts to improve safety and reduce the incidence of severe collisions by consolidating access and left-turn movements in highway segments where collisions occur most often.

Roundabouts are recommended to be constructed in the following sequence:

- 1)** The first roundabout would be located at the intersection of SR 28 and either Nile Avenue or Perry Avenue that includes an extension of the Apple Capital Loop Trail from its current terminus in Hydro Park to the new roundabout, and pedestrian accommodation across SR 28. The final roundabout location should be determined based on additional engineering evaluation and maximizing opportunities to consolidate access and connect residential development via county roads (Figure 11).
- 2)** The second roundabout would be located at the intersection of SR 28 and the Hydro Park Boat Ramp combined with installation of access control eliminating left turns into and out of Hydro Park ball field driveway and frontage roads to consolidate future development access (Figure 12). Access to the park from westbound SR 28 would require a U-turn at the boat ramp, followed by a right turn into the park. Egress from the park to westbound SR 28 would require a right turn, and then a U-turn at the SR28/Nile roundabout.

⁵ Access control costs not included as the specific treatment is yet to be determined. A memo documenting options to restrict left turns can be found on CDTC's website on the SR 28 Plan webpage.

Figure 11: Nile Avenue – Perry Avenue Roundabout Options

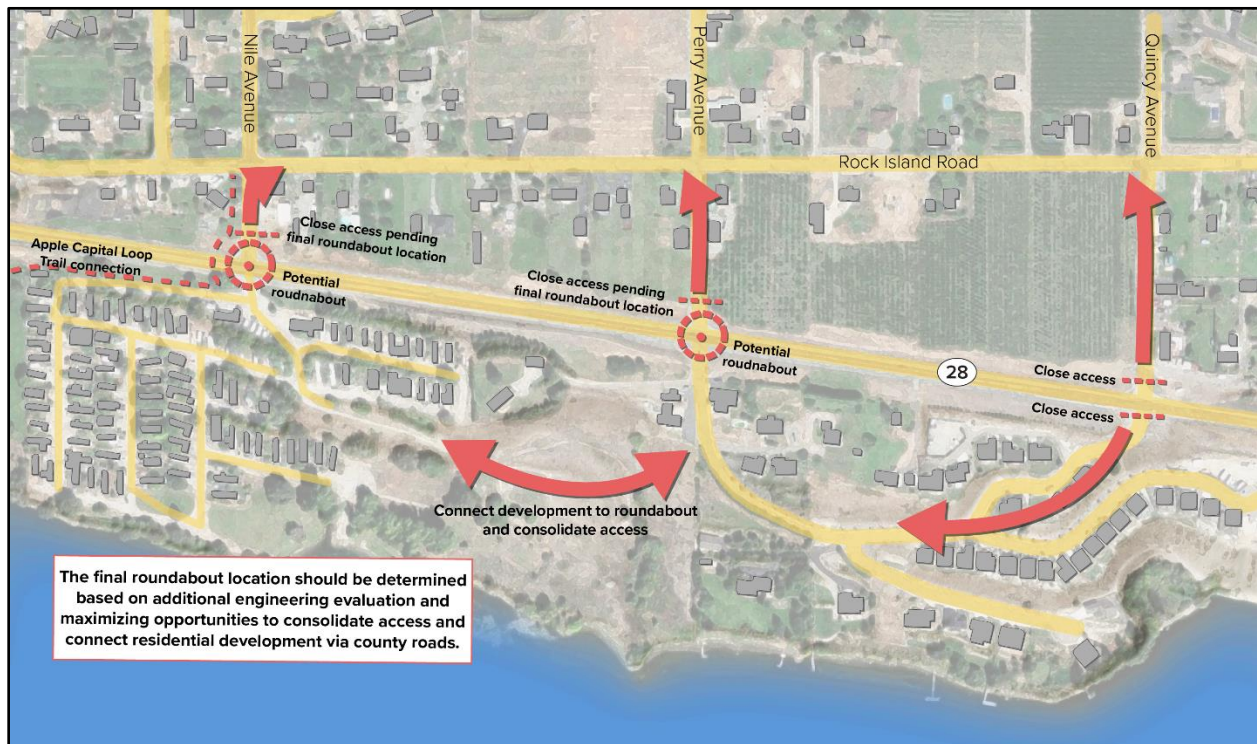


Figure 12: Hydro Park Boat Ramp Roundabout and Access Control



3) The third roundabout would be located at the intersection of SR 28 and the vicinity of Rock Island Drive. The final location of the roundabout should be guided by opportunities to improve access to the City of Rock Island and support redevelopment of Rock Island's waterfront (Figure 13).

Figure 13: Rock Island Roundabout Options



Phase 2: If Warranted, Construct Additional Roundabouts & Access Control (\$7 - \$14 Million)

Following construction of the first three roundabouts, based on continued analysis of crash data, evaluate the need for additional access control. If crash rates and severity decline with Phase 1 improvements, some or all of the following may not be needed. Improvements ranging from frontage roads to access closures should be considered, depending on the location of the roundabout and adjacent residential development.

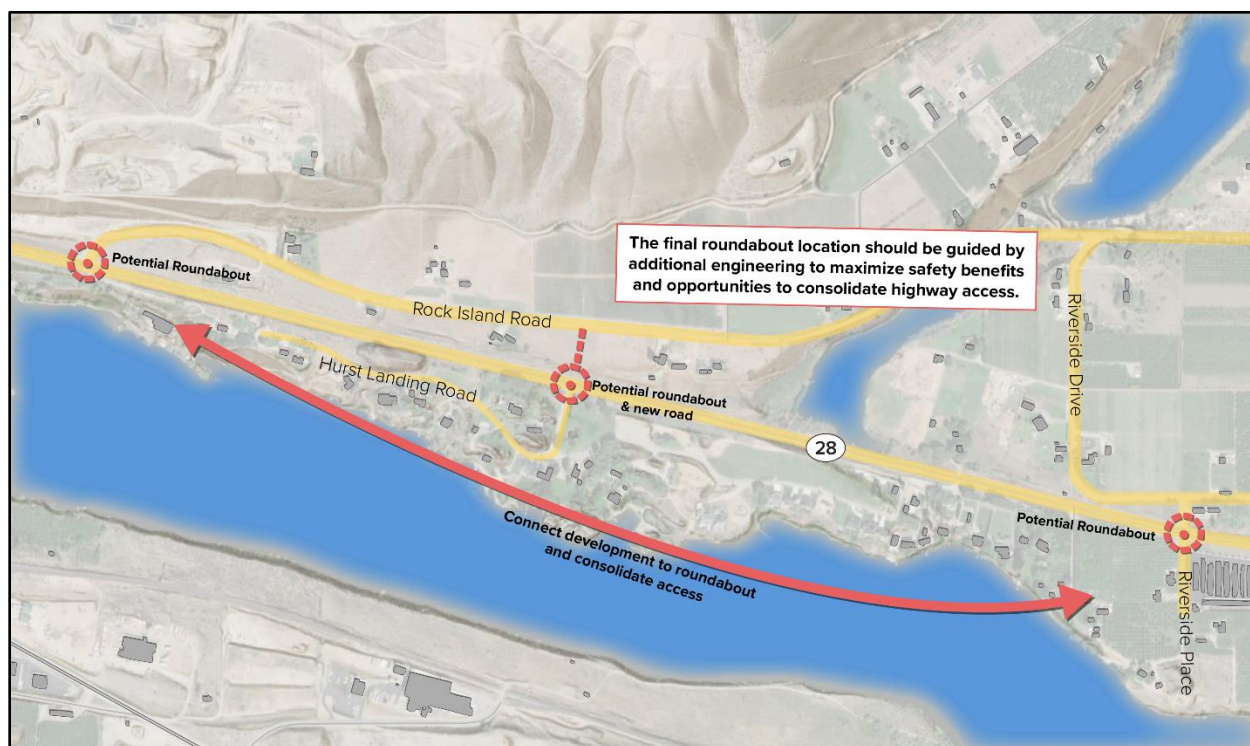
- Closure of county road intersections and acquisition of private driveway access rights along the north side of SR 28 and to further consolidate residential access at roundabout-controlled intersections.
- Construct a roundabout in the vicinity of the three SR 28 intersections of Union Avenue, Tye Avenue and Rock Island Road. The final location should be determined by additional engineering with an alignment that allows for a four-way intersection to consolidate access for residences on both sides of the highway (Figure 14).

- Construct a roundabout in the vicinity of the SR28 & Riverside Place intersection. The final location and alignments should be guided by additional engineering to maximize safety benefits and opportunities to consolidate highway access and informed by continued analysis of crash data (Figure 15).
- Connect residential development adjacent to the highway with new county roads or highway frontage road sections, further consolidating highway access at controlled intersections.
- Restrict left turns⁶ onto and off the highway with access control treatments potentially including short sections of fixed median at intersections and driveways that exhibit high collision rates, or in locations where crossover collisions continue to occur.

Figure 14: Union Avenue - Rock Island Road Roundabout Options

⁶ A memo documenting options to restrict left turns can be found on CDTC's website on the SR 28 Plan webpage.

Figure 15: Rock Island Road - Riverside Place Roundabout Options



Phase 3: Highway Widening (\$223-237 Million)

When traffic volume exceeds peak hour capacity, construct an additional lane in each direction for the full length of the corridor. If necessary to construct in phases, widening should begin at the westerly end of the corridor at the intersection of SR28 and 3rd Street SE.

Implementation & Funding

Additional concept development and analysis is needed to determine whether one or more roundabouts should be pursued for funding and implementation at one time. Potential funding sources differ depending on improvement size and scope. Smaller, spot improvements like roundabouts or access control at specific intersections may be funded through WSDOT internal programs, competitive federal discretionary grants, state grants, or a combination of all three. WSDOT internal programs are unlikely funding sources for long segments of access control or multiple roundabouts due to highways in other parts of the state with more severe collision histories. Funding larger projects is likely limited to highly competitive federal discretionary grants or by state and/or federal legislative appropriation. CDTC and WSDOT should continue to monitor funding opportunities and develop near-term improvement concepts to increase grant competitiveness and understanding of potential project risks.

Funding and implementing the and long-term capacity improvements will require a collaborative effort with costs estimated at up to \$237 million. State funded highway projects of this magnitude are typically directed by the legislature. For this reason, it is assumed funding the project would likely require a

regional effort to advocate for state funds or compete for state and federal grant programs. Implementing the safety improvements first, before widening the highway is well-aligned with state and national priorities for transportation spending. Funding programs at the regional, state, and federal levels currently emphasize multimodal connectivity, safety, and equity, as a higher priority than building wider highways.

The SR 28 Preferred Alternative establishes the highway improvement scenario for the corridor with a priority on improvements that reduce the likelihood of severe collisions and improve access for existing and future residential development. Ongoing implementation of additional safety improvements will be based on analysis and monitoring of collisions. The first and second phases of improvements can be sequenced and scoped to match various funding opportunities at the state and federal level. As with any potential large, regional investment, the final phase for widening SR 28 will be evaluated against performance criteria and future available funding in the Regional Transportation Plan (RTP). Additional planning, concept development, and design should occur if the project is prioritized through the RTP process.

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Additional copies of this document or any supporting study files may be obtained by contacting:

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