1.0 | Project Summary Information

1.1 Project Name (35 letters max) Elk Ridge Drive

1.2 Project Type Road - Widen

1.3 Limits (descriptions should be identifiable. i.e: intersections, place names, landmarks, 35 characters max) SR-198 through the Salem Canal Road intersection to 11200 South

1.4 Project Description (summary of project) The project would add 6 foot wide asphalt shoulders from SR-198 to the Salem Canal Road intersection staying within the existing right-of-way. The project would also realign the intersection at Salem Canal Road to accommodate turn lanes as well as 6 foot wide asphalt shoulders. From the intersection of Salem Canal Road heading south, the project would then widen the roadway to 2 - 12 ft travel lanes with 6 foot wide asphalt shoulders on both sides. It would also provide clear zones within the road right-of-way and remove obstacles from the travel lanes. The project would also improve the intersection at 11200 South to accommodate a turn lane.

1.5 Sponsor (jurisdiction, agency name) Utah County

1.6 Project Manager Richard Nielson
   Office Phone 801-851-8601  Cell Phone 801-404-7010  Fax 801-851-8612  Email richardjn@utahcounty.gov

1.7 Total Project Cost (includes local match and additional funds) $5,742,000
   PE Cost $318,000
   ROW Cost $1,040,000
   Construction Cost $4,384,000
   Funds already available to project (less local match) $0
   MPO Federal Funds Request (includes 6.77% local match) $5,742,000

1.8 Local/Regional Significance
   Is project in local general plan? Yes
   Is project in MPO transportation plan? Supported in plan
   Is project on a corridor on the Utah State Functional Class Map? Yes
1.9 Air Quality Benefit (summarize CM/AQ Report, NA for non-CM/AQ eligible projects)  
Not eligible for CM/AQ funds

1.10 Leadership Approval (local=mayor, manager, commissioner; state=dept. head). Acknowledges knowledge, support and approval to submit project to Mountainland.

[Signature]  [Position]  [Date]
2.0 | Project Scope
Enter NA for answers to questions not applicable to your project.

2.1 Describe purpose and need of project.
Elk Ridge Drive is a major north-south route in the south part of the valley. It provides access to the south end of Salem City and is the major route in and out of Elk Ridge City and an alternate route in and out of Woodland Hills. This would also provide a more functional loop road system.

2.2 Describe existing service/conditions
The current roadway consists of 2 - 22 foot travel lanes with minimal paved shoulders, sub-standard (5 feet or less) clear zones with intermediate obstacles throughout the stretch of road. The current condition of the road provides for no turn lanes at the major intersections and does not accommodate the existing charter school.

2.3 Highway Project Information

SR# or FA#
Route # 2872

Beginning Mile Post
na

End Mile Post
na

Length of project
1.5 miles

Existing number of Travel Lanes
2

Width of facility.
22 feet of asphalt, SR-198 to Salem Canal Road 66 foot right-of-way, Salem Canal Road to 11200 South 36 foot right-of-way varies.

Facility surface type.
asphalt

2.4 Transit / Pedestrian Facility Project Information

Route#
na

Length of project
2.5 Describe any equipment to be purchased (buses, ITS, etc.).

na

2.6 Describe how project is consistent with local plans.
Elk Ridge Drive is listed on the Utah County Transportation Plan as an Arterial Roadway. It is also shown on Salem City's General Plan and is the major in and out route for Elk Ridge City. It functions as part of a loop road system as part of the Utah County Transportation Plan.

2.7 Describe how project is consistent with Utah County ITS plan.

na

2.8 If phased or segmented, describe how the phase has logical termini and what will future phases consist of.

na

2.9 Is project being coordinated with or constructed with a larger project?
No

2.10 Describe how project will alleviate congestion on this or other facilities.

na

2.11 Describe any traffic improvements. (i.e. lanes, signal coordination, ITS, turn lanes, bus pullouts, etc.)
This project will provide for additional lane widths. It will also provide turn lanes at the major intersections.

2.12 Describe any safety improvements for vehicular and pedestrian traffic. (i.e. raised median, channelization of turn movements, barriers, parkway strips, etc.)
This project will provide paved shoulders and adequate clear zones to make the roadway safer, in addition to designated turn lanes at major intersections.

2.13 How are complete streets addressed with this project? (plan for pedestrians, bikes, transit, trails, ITS)
By adding 6 foot wide paved shoulders, this will provide an area for bicyclists to ride along the roadway.

2.14 Describe traffic control changes at intersections. (include info to warrant changes)
Intersections will be stop controlled. There will be added width and turn lanes to accommodate school buses and larger vehicles.

2.15 What right-of-way is already secured?
The existing road right-of-way from SR-198 to Salem Canal Road of 66 feet is secured. There are minor portions from the stretch of Salem Canal Road to 11200 South that have also been secured in addition to the existing 36 foot right-of-way that is currently being utilized.

2.16 What additional right-of-way is needed?
Additional right-of-way will be purchased on both the east and west side of the existing roadway from Salem Canal Road to 11200 South to accommodate a 96 foot road right-of-way.

2.17 Describe utility work to be performed and indicate who will do the work.
na

2.18 What type of environmental work will most likely be needed?
Categorical Exclusion

2.19 Facility Design

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<th>Design Year w/o Improvements</th>
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<tr>
<td>Park and Ride Usage</td>
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</tbody>
</table>
3.0 | Project Ranking
The following categories will be used by MPO staff to score each project. The points associated with each category show what total points MPO staff can give. MPO staff’s recommendations will be made available to the MPO TAC Committee for their use in making final project selection recommendations. MPO staff ranking is a tool to aid the MPO TAC Committee in their final selection. The committee is not required to pick projects solely on MPO staff ranks. Please note, if questions pertinent to the project are not answered, zero points will be given.

3.1 Congestion Relief (25 Points)
Explain if the project...

a) Provides an alternate transportation facility that corrects an identified congested problem?
   Yes, this project will provide greater carrying capacity on Elk Ridge Drive for Elk Ridge, Woodland Hills, and Salem residents during peak hours and addresses safety concerns.

b) Reduces congestion by reducing the number of vehicles.
   This project will allow for bike lanes for bicyclists and will reduce the wait time at intersections by providing turn lanes.

c) Reduces the need for additional highway lanes for peak hour capacity.
   This project will relieve some of the current traffic congestion on Woodland Hills Drive and eliminate the immediate need to expand Woodland Hills Drive.

d) Increases the efficiency of transportation system through traffic management measures.
   This project will provide for a limited access road that collects and facilitates the movement of residential traffic by making the current traffic loop system more efficient.

e) Adds turning movements to relieve a congested intersection.
   This project adds turning lanes at major intersections in order to provide for more freely moving traffic and aiding disbursement of traffic across a greater area while reducing congestion.

f) Design year number of users. Users include the average AADT for highways and users per day for transit, trails, and other projects.
   4300 AADT

g) 2020 V/C data (computed by MPO staff)
   The PM peak V/C for Elk Ridge Dr ranges from 0.3 to 0.4

3.2 Mode Choice (25 points)
Explain if the project...

a) Benefits multiple transportation systems (transit and highway, pedestrian and transit). This project will provide paved shoulders on the widened roadway benefiting vehicular, pedestrian, and bicycle traffic.
b) Promotes alternative transportation solution to SOV use.

With the paved shoulders that will be added there will added incentive to use alternative transportation methods.

c) Creates or improves linkages between transportation modes.
This project will allow for larger transportation vehicles such as buses to move easier and helps the current traffic loop system function more efficiently.

d) Reduces physical, psychological, or economic barriers to carpool, bike, walk, or transit use.
Improves safety along the roadway and provides for pedestrian and bike use as well as adequate clear zones.

e) Provides incentives to carpool, bike, walk, or transit use.
Provides for a safer location and a safer surface for pedestrian and bike use.

3.3 Environmental Quality (15 points)
Explain if the project...

a) Provides cost effective emission reductions (amount of reduction justifies cost).
Emission costs were not considered with this proposal, but providing turn lanes at intersections is anticipated to reduce emissions by reducing vehicle idling time.

b) Helps efforts to attain and maintain national air quality standards.
See 3.3a above

c) Minimizes environmental impacts or reduces existing impacts (e.g. air/water/noise pollution).
See 3.3a above

d) Enhances the natural, cultural, or historic environment.
This project is a big step to improve the culture of the Elk Ridge, Woodand Hills, and Salem Area. It will provide air quality benefits by reducing idling time. The overall quality of life will be increased and allow for greater mobility on Elk Ridge Drive.

e) Mitigates invasive impacts to existing neighborhoods/commercial areas (minimal relocations).
This project is aligned to reduce the invasive impacts to existing neighborhoods by improving the movement of pedestrian and vehicular traffic while providing a functional arterial road.

3.4 Safety (20 points)
Explain if the project...

a) Corrects/improves a verified or potential safety or accident problem.
This project corrects a safety concern at the major intersections where turning vehicles cross over into on-coming travel lanes to make the turning movements. In addition, it provides adequate clear zones and functional shoulders.
b) Improves information/communications for traffic operations and emergency responders. 
   na

c) Reduces severity of crashes. 
   By providing wider lanes and turn lanes, this project reduces the possibility of head-on or near 
   head-on collisions near the intersections. Also, by providing paved shoulders and clear zones, 
   the chance of accidents form leaving the paved surface is greatly reduced. 

d) Enhances safe movement of pedestrian, bicycle traffic. 
   By providing paved shoulders, there is a safer area for pedestrians and bicyclists along the 
   roadway. 

e) Provides an intermodal safety improvement (e.g. separation of vehicles-trains, vehicles-
   pedestrian). 
   By providing paved shoulders, there is a safer area for pedestrians and bicyclists along the 
   roadway. 

3.5 Other Considerations (15 points) 
Explain if the project...

a) Effectively distributes funding throughout the MPO area. 
   This project is located in the south end of the MPO area. 

b) Phases project in a manner that the MPO can use limited funds efficiently. 
   This project is a single phase project. It will provide for road widening on a route that will 
   continue to get busier as development continues in the south end of the valley. 

c) Cost effectiveness is appropriate for the amount of improvement made. 
   Yes 

d) Benefits transportation users from adjacent municipalities. 
   The majority of the users come from the Salem/Woodland Hills/Elk Ridge City areas. 

e) Is supported by elected officials. 
   Has support from Utah County, Woodland Hills City, Elk Ridge City, and Salem City.
4.0 | Air Quality Report

All projects that are eligible for CM/AQ and CM/AQ-PM2.5 funds must complete this report (see CM/AQ Eligibility list at www.mountainland.org/tipselection). These funds are eligible for projects and programs countywide.

4.1 Eligibility

CM/AQ funds can only be used for projects and programs that a direct benefit to air quality can be demonstrated. Highway expansion, such as new single occupancy vehicle lanes, is not eligible. Turn lanes at congested intersections, transit programs, pedestrian and trail projects, signal modernization, ITS, and IM programs are typical eligible CM/AQ projects.

4.2 CM/AQ Program

The purpose of the CM/AQ program is to fund transportation projects or programs that will contribute to attainment or maintenance of the National Ambient Air Quality Standards (NAAQS) in Ozone (O₃), Carbon monoxide (CO), Particulate Matter – 10 microns (PM₁₀), and PM₂.₅ non-attainment and maintenance areas. The city of Provo is a maintenance area for CO and Utah County is a non-attainment area for PM₁₀ and PM₂.₅.

4.3 Completing this Report

All projects eligible for CM/AQ funds must complete this report. Completing this report can be quite technical, Susan Hardy, Air Quality Coordinator at Mountainland, can help with filling out this report. Contact her at 801/229-3842 or shardy@mountainland.org

4.4 Quantitative Analyses

A quantitative assessment of how a proposed project or program is expected to reduce emissions is important to assist in selecting the most effective use of this fund. List below all travel benefits directly related to this project. Air quality benefit calculations must utilize Mobile 6. The air quality analysis should include assessing emission reductions of transit, traffic flow improvements, ITS projects and programs, ridesharing, bicycle and pedestrian improvements. Complete at least: one of the sections below. If quantitative analyses cannot be done, do a qualitative assessment in 4.3.

a) Vehicle Miles Traveled

Number of Vehicle Miles Traveled reduced (VMT): na
Average distance of trips reduced: na
Emission reduction per average weekday: na

b) Idling Time

Average idling time per vehicle reduced: na
Number of vehicles with reduced idling time: na
Emission reduction per average weekday: na

C) Vehicle Speed

Average change in vehicle speed (speed before and after): na
Number of vehicles affected: na
Emission reduction per average workday: na
4.5 Qualitative Assessment

Although a quantitative analyses of air quality impacts is required whenever possible, some improvements may not lend themselves to rigorous quantitative analysis, because of the projects characteristics or because practical experience is lacking to adequately analyze the project. In these cases, a qualitative assessment based on a reason and logical examination of how the project or program will decrease emissions and contribute to attainment or maintenance of a NAAQS is appropriate.

na
5.0 | Project Cost Estimate
To develop a project cost estimate, please supply a detailed cost breakdown of your unit costs, inflation, equipment, right-of-way, contingency, etc. To do so, use the Concept Costs Estimate Excel form provided by UDOT (available at www.mountainland.org/tipselection). Non-construction projects such as equipment purchases, operations, administration programs, studies, etc. can use other methods to show their estimated costs. All sheets or methods used should be submitted as part of the Supplemental Information accompanying the Concept Report.

5.1 Cost Summary
Summarize the information from the Costs Estimate Excel form or other method. Enter NA for items that do not apply to the project.

a) Preliminary Engineering $318,000
b) Environmental Work $0
c) Construction $3,976,000
d) UDOT Review (project cost <$500k = $5k, >$500k = $10k) $10,000
e) Construction Engineering $398,000
f) Subtotal $5,742,000
g) Inflated Cost Factor (inflation to year of construction) $918,669
h) Total Project Cost (enter total cost, not funding request) $6,660,349
i) Additional Funds (less local match) Available to Project $0
j) MPO Federal Funds Request (includes 6.77% local match) $5,742,000

6.0 | Supplemental Information
Please submit any supporting documentation including maps, diagrams, charts, cost estimates, etc. that will allow MPO and UDOT staff and any Technical Advisory Committee to make an informed decision regarding the proposed project. Keep Supplemental Information submittals to 8 pages total.

6.1 Concept Report Submittal
In order to facilitate the distribution of the Concept Reports and any supplemental information, all Concept Reports with leadership signature, shall be combined with any supplemental information and saved in PDF format as one document. Please note that this might create a large data file that might be too large to emailed. Plan accordingly to submit your report in electronic format (CD, DVD, Flash Drive) by the required due date. Concept Reports are due by Thursday 03/24/2016 at 6pm.

6.2 Contacts, Questions
For help with the Concept Report or questions, please contact:

Bob Allen, AICP
586 East 800 North, Orem UT 84651
p.801/229-3813 f.801/229-3801
e-mail ballen@mountainland.org

Shawn Eliot, AICP
586 East 800 North, Orem, UT 84097
p.801/229-3841 f.801/229-3801
e-mail seliot@mountainland.org
**PIN:** PROJECT #    PROJECT NAME: Elk Ridge Dr Widening  
Cost Estimate - Concept Level

Prepared By: Richard Nelson    Date: 3/16/2016

Proposed Project Scope: Elk Ridge Dr - SR-196 to 11200 South Widening Project

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<tr>
<td>Current FY Year (July-June) =</td>
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<td>Assumed Construction FY Year =</td>
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<tr>
<td>Construction Items Inflation Factor =</td>
<td>1.16</td>
<td>3 yrs for inflation</td>
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<tr>
<td>Assumed Yearly Inflation for Engineering Services (9% and CE) [%/yr] =</td>
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<tr>
<td>Assumed Yearly Inflation for Right of Way [%/yr] =</td>
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<tr>
<td>Items not Estimated (% of Construction) =</td>
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<td></td>
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<tr>
<td>Preliminary Engineering (% of Construction + Incentives) =</td>
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### Construction Items

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<th>Remarks</th>
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<tr>
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<td>Roadway and Drainage</td>
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<td>Traffic and Safety</td>
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<tr>
<td>ITS</td>
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| Items not Estimated (20%) | $520,641 |
| Construction Subtotal | $3,125,446 |

| P.E. Cost | P.E. Subtotal | 8% |
| C.E. Cost | C.E. Subtotal | 10% |
| Right of Way | Right of Way Subtotal | $1,040,200 |
| Utilities | Utilities Subtotal | $0 |
| Incentives | Incentives Subtotal | $0 |
| Miscellaneous | Miscellaneous Subtotal | $0 |

### Cost Estimate (ePM screen 505)

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