# STBG-URBAN APPLICATION 

## Project Information Sheet

1. Project Name and Location (in addition, attach at the end of this information sheet a location map that includes project dimensions and if applicable logical termini): Intersection Improvement: $21^{\text {st }} \mathrm{S}$ and Crowley Rd

- Project Description (provide ample information regarding the details of the project): The project will improve safety and congestion at the intersection of $21^{\text {st }}$ Street and Crowley Road in the City of Ammon. The project will install a multi-lane roundabout at the intersection that is currently controlled by a two-way stop. Crowley is expected to be widened to 5 lanes at the time of this improvement and 21st Street is assumed to be widened to 3 lanes. The project will install ADA crossings on all legs and integrate the existing walking path that crosses 45th E at this location. It is anticipated that there may need to be utility relocations or adjustments. Right-of-way will need to be acquired on the southeast corner.
- Jurisdiction: City of Ammon
- Contact name: Tracy Bono, City Engineer

Phone: 208-612-4028
Email: tbono@cityofammon.us

- Project Type (select primary project type(s) and then check all other types of applicable improvements associated with the project):


## Roadway/Intersection Congestion Mitigation Application

## Primary Project Type

Roadway Expansion (width and/or length)Intersection ImprovementOther Congestion Mitigation Improvement
## Secondary Project Type

Safety Improvement - Traffic Signal UpgradeSafety Improvement - OtherPavement UpgradeMulti-modal ImprovementBONNEVILLE
METROPOLITAN
PLANNING
ORGANIZATION

Safety Application - Address high accident locations or prevent serious accidents at unsafe locations.
Primary Project TypeSafety Improvement - Traffic Signal UpgradeSafety Improvement - Other

Secondary Project TypePavement UpgradeMulti-modal Improvement

## Pavement Rehabilitation/Reconstruction Application

Primary Project TypeSealcoatOverlayReconstruction

## Secondary Project Type

Safety Improvement - Traffic Signal UpgradeSafety Improvement - OtherMulti-modal ImprovementTransportation Plan/Study Application
Primary Project Type
$\square$ Transportation Plan/Study

## Attach the appropriate application related to the "Primary Project Type."

- Current BMPO Long Range Transportation Plan (LRTP) Primary Project Verification

It is required that the primary project be identified by name or reference in the LRTP: This project is mentioned on page 94 in Appendix $F$ of the LRTP. In the LRTP the project is called out as a mini roundabout however, after evaluating future traffic volumes and the widening of 45th $E$ this has been upgraded to a full-size multi lane roundabout.

## Continue to next page...

- Verify that the project is located in the current BMPO 2020 Urban Area

- Note all applicants/project sponsors are required to attend the March BMPO Policy Board meeting.


# Roadway/Intersection Congestion Mitigation Project Application 

This project requires the completion of ITD form 2435. Please use STBG-U Application Data and Worksheets > 2435 https://www.bmpo.org/s/STBG-U-Application-Data-and-Worksheets-x4iz.x|sx

## A) Roadway/Intersection Congestion Relief (0-40 points)

When answering questions consider how well the project provides immediate and long-term congestion relief at a roadway, intersection, or the network as a whole.

Using STBG-U Application Data and Worksheets > Capacity Worksheet answer the following: https://www.bmpo.org/s/STBG-U-Application-Data-and-Worksheets-x4jz.xlsx

How congested is the roadway segment or intersection currently and projected to be in the future?
The current intersection is reaching capacity with a V/C ratio nearing 1.00. The intersection will exceed capacity in the design year without the project.

1) Current v/c ratio: . 68
2) Projected no-build v/c ratio: 1.18

To what degree is the project expected to improve capacity, not only on the roadway itself but elsewhere in the transportation system?

This will prepare the corridor for future widening to 4 lanes (possibly 5 lanes) and will improve north to south traffic on all of Crowley Road between US-26 and Sunnyside Road.

| 3) Projected build v/c ratio*: <br> 0.61 (2 lane round about) |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :---: |
| Location: |  | Transportation system v/c ratios*: |  |  |  |  |
| 4) | Crowley | No-build v/c ratio: | 1.18 | Build v/c ratio: | 0.61 |  |
| 5$)$ | 21 st Street | No-build v/c ratio: | 0.69 | Build v/c ratio: | 0.36 |  |
| 6$)$ |  | No-build v/c ratio: |  | Build v/c ratio: |  |  |
| 7) |  | No-build v/c ratio: |  | Build v/c ratio: |  |  |
| 8$)$ |  | No-build v/c ratio: |  | Build v/c ratio: |  |  |

*may require additional model runs to determine traffic projections under build conditions.

## B) Safety (0-15 points)

When answering questions consider if the congestion mitigation project includes safety improvements that may benefit both motorists and other users of the transportation system.

What safety improvements are being coordinated with the pavement of the roadway? Why are the improvements deemed important?
The current 2-way stop intersection has a history of several $A / B / C$ type crashes mainly attributed to failure to yield and angle-turning. The installation of a roundabout at this location is hoped to reduce the number and/or severity of these crashes.

## C) Pavement Rehabilitation (0-15 points)

When answering questions consider if the congestion mitigation project includes pavement enhancements that helps preserve the roadway network.

Using - STBG-U Application Data and Worksheets > Pavement Rating System answer the following: https://www.bmpo.org/s/STBG-U-Application-Data-and-Worksheets-x4jz.xlsx

What number would you assign as the pavement surface rating?

## 6

Explain the current pavement condition as it relates to the rating?

## Some longitudinal cracking and wear

## D) Multi-modal and Accessibility (0-10 points)

When answering questions consider if the congestion mitigation project includes multi-modal facilities for improved accessibility, connectivity and safety.

Identify plan or study, other than the LRTP, that recognizes the multi-modal project or need:
The connecting our communities map shows a walking path connection across 45th E at this location.

What bicycle and pedestrian improvements, if any, are included in the project and why are the improvements deemed important?

The city already installed a walking path connection with a RRFB across 45th E this last summer. This project would maintain and update this crossing as needed.

## E) Support Economic Vitality (0-10 points)

When answering questions consider if the project improves access to housing, jobs, recreation and other areas of economic importance thus promoting a transportation system that enhances the movement of people and goods.

Does the project apply strategies that improves traffic flow and access to areas that are economically vital to the area? If so, how?

This intersection is along the main route used by Ammon and Bonneville county residents along 21st and beyond to get to work, school, and other services. This intersection is anticipated to become more congested with the expected growth in the areas along 21st E .

## F) Project Feasibility (0-10 points)

When answering questions consider if the project is good fit for federal funds based on cost and potential environmental impacts.

Using - STBG-U Application Data and Worksheets >1150 answer the following: https://www.bmpo.org/s/STBG-U-Application-Data-and-Worksheets-x4iz.xlsx

What is the total estimated cost of the project?
$\$ 1,313,000$
Is the project cost consistent with STBG-Urban fund availability and limitations? Yes
What is the estimated cost per mile? $3,549,000$
Is the project coordinated with other funding sources? If so, explain.
There are no additional funding sources

What potential environmental impacts may require remediation?
This project is expected to have minimal to no environmental impacts. The will not impact any irrigation facilities or other potential Waters of the US. The project is not a Type 1 project so a noise analysis is not necessary.

## ATTACHMENTS:

■ ITD FORM 2435

- PROJECT LOCATION MAP

■ PRELIMINARY DESIGN AND/OR TYPICAL SECTION
■ CAPACITY WORKSHEET
■ ACCIDENT WORKSHEET (if applicable)
■ DOCUMENTATION FROM RELEVANT PLANS, ORDINANCES OR POLICIES RELATED TO THE PROJECT (at a minimum the project should be identified by project, need or reference in the current BMPO LRTP. If multi-modal improvements are included additional documentation is needed)
■ ITD FORM 1150

- OPTIONAL MATERIAL THAT IS DEEMED IMPORTANT FOR THE PROPER EVALUATION OF THE PROJECT


## Please Complete Additional Supplementary Documents

Surface Transportation Block Grant Program - Urban (STBG-U)
Rating Worksheet - Roadway/Intersection Congestion Mitigation
https://www.bmpo.org/s/STBG-U-Roadway-Scoring-Sheet-hsds.xlsx

Double click on form to complete
ITD 2435 (Rev.01-09)

## Local Federal-Aid Project Request

## Insfructions

1. Under Character of Proposed Work, mark appropriate boxes when work includes Bridge Approaches in addition to a Bridge.
2. Attach a Vicinity Map showing the extent of the project limits.
3. Attach an ITD 1150, Project Cost Summary Sheet.
4. Signature of an appropriate local official is the only kind recognized.

Note: In Applying for a Federal-Aid Project, You are Agre eing to Follow all of the Federal Requirements Which Can Add Substantial Time and Costs to the Development of the Project.


| Standards | Existing | Proposed | Standards | Existing | Proposed |
| :--- | :---: | :---: | :--- | :--- | :--- |
| Number of Lanes | 2 | $5 / 3$ | Roadway Width <br> (Shoulder to Shoulder) | Varies ft | Varies ft |
| Pavement Type | HMA | HMA | Right-of-Way Width | Varies ft | Varies ft |



Additional Information to be Furnished by the District



Intersection Improvement 45th E \& 21st S (Roundabout)


## Capacity Worksheet for Roadway Segments

Roadway
Segment
Current/Model Year 2019/2050
Functional Classification
Number of Current/Future Lanes
Capacity Threshold
Current/Projected Traffic Volume
V/C Ratio

Collector
2
20501
Crowley7297
0.36

## Basic Intersection Crash Performance

Location: 21st and Crowley


Input Analysis Period (in years)
Input \# Fatal Crashes at Intersection (Not \# of Persons) Input \# of 'A' Severity Crashes at Intersection Input \# of 'B' Severity Crashes at Intersection Input \# of 'C' Severity Crashes at Intersection Input \# of Property Damage Crashes at Intersection Input Average \# of Vehicles Entering Intersection Daily*

| 5 |
| :---: |
| 0 |
| 1 |
| 1 |
| 1 |
| 4 |
| 8162 |

Historical Crash Data - WebCARS Office of Highway Safety Crash Analysis Reporting System

Refer to Traffic Counts Worksheet

18C484132 C Injury 18C505785 PDO 19C514360 PDO 19 C 519241 B Injury 20C53949 PDO 20C543732 A Injury 22C614494 PDO
*Average number of vehicles entering intersection can be calculated by adding ADTs for all of the intersection legs, and then dividing that by 2 . This assumes that directional split of the roadway for the average day is 50/50

Intersection Crash Rate (average 0.65) = Intersection Severity Rate (average 1.00) = Intersection Crash Density (average 5.00) =

| 0.47 | per million entering vehicles |
| :--- | :--- |
| 0.87 |  |
| 1.40 | crashes per year |

## Crash Rate Score

Severity Rate Score
Crash Density Score
Overall Rate (average 1.33)

| 1 |
| :---: |
| 2 |
| 0 |
| 1.00 |

## Appendix F - Planned Projects 2035-2050* Adjustments to TransCAD Build Model Networks

- 1st Street, 25th East (Hitt) to 45th East (Crowley) - widen to 5 lanes (note Ammon to $45^{\text {th }} \mathrm{E}$ will be widened to 3 lanes and then eventually to 5 lanes)
- 15 th East (St. Leon), US-20 to US-26 - widen to 5 lanes and signals at US-20 IC ramps
- 17th Street, Ammon to $45^{\text {th }}$ East (Crowley) - widen to 5 lanes
- 25th East (Hitt), US-20 to US-26 - widen to 5 lanes
- 25 th East (Hitt), $1 / 2$ mile north to $49^{\text {th }}$ South
- 49th South (Township), $5^{\text {th }}$ West to $25^{\text {th }}$ East (Hitt) - widen to 5 lanes and add signals at 5th East (Holmes) and 15th East (St. Clair)
- 45th East (Crowley), US-26 to Sunnyside - widen to 5 lanes and add signal at Sunnyside and mini-roundabout at 21 st Street
- Ammon Road, US-26 to $17^{\text {th }}$ Street - widen to 5 lanes and add a roundabout at Iona
- Ammon Road, Sunnyside to $49^{\text {th }}$ South (Township) - widen to 5 lanes and add a mini-roundabout at Township
- Lincoln Road, Ammon to $45^{\text {th }}$ East (Crowley) - widen to 5 lanes
- Sunnyside Road, Ammon to $45^{\text {th }}$ East (Crowley) - widen 5 lanes and add a roundabout at Crowley

Note: I-15/US-20 realignment was not added to the model at this time. It is anticipated that the impacts will be substantial and addressed in an upcoming LRTP amendment.
*Projects may be completed before 2035. However, because there currently are no identifiable funding sources for the projects, they were included in the 2050 model.

Round Estimates to Nearest \$1,000

| Key Number $\quad$ Project Nu | Project Number |  |  | Date |
| :---: | :---: | :---: | :---: | :---: |
| Location <br> City of Ammon: Intersection of 21st and Crowley Rd |  |  |  | District <br> 6 |
| $\begin{aligned} & \hline \text { Segment Code } \\ & 015880 \text { / } 020167 \text { / } 033297 \end{aligned}$ | $\begin{aligned} & \text { Begin Mile Post } \\ & 10.67 \text { / } 100.00 \text { / } 99.95 \end{aligned}$ | $\begin{array}{\|l} \hline \text { End Mile Post } \\ 10.85 / 100.09 / 100.04 \end{array}$ | $\begin{aligned} & \text { Length in Miles } \\ & 0.19 \text { / } 0.09 \text { / } 0.09 \end{aligned}$ |  |


|  | Previous ITD 1150 | Initial or Revise To |
| :---: | :---: | :---: |
| 1a. Preliminary Engineering (PE) | \$20,000 |  |
| 1b. Preliminary Engineering by Consultant (PEC) | \$200,000 |  |
| 2. Right-of-Way: Number of Parcels 4 Number of Relocations 0 | \$80,000 |  |
| 3. Utility Adjustments: Work Materials By State By Others |  |  |
| 4. Earthwork | \$105,000 |  |
| 5. Drainage and Minor Structures | \$53,000 |  |
| 6. Pavement and Base | \$245,000 |  |
| 7. Railroad Crossing: |  |  |
| Grade/Separation Structure <br> At-Grade Signals Yes No |  |  |
| 8. Bridges/Grade Separation Structures: |  |  |
| New Structure <br> Length/Width | \$0.00 |  |
| Location |  |  |
| Repair/Widening/Rehabilitation Length/Width | \$0.00 |  |
| Location |  |  |
| 9. Traffic Items (Delineators, Signing, Channelization, Lighting, and Signals) | \$85,000 |  |
| 10. Temporary Traffic Control (Sign, Pavement Markings, Flagging, and Traffic Separation) | \$45,000 |  |
| 11. Detours | \$1,500 |  |
| 12. Landscaping | \$45,000 |  |
| 13. Mitigation Measures | \$10,000 |  |
| 14. Other Items (Roadside Development, Guardrail, Fencing, Sidewalks, Curb and Gutter, C.S.S. Items) | \$176,000 |  |
| 15. Cost of Constructions (Items 3 through 14) | \$766,000 | \$0 |
| 16. Mobilization 15 \% of Item 15 | \$115,000 | \$0 |
| 17. Construction Engineer and Contingencies $15 \%$ of Items 15 and 16 | \$132,000 | \$0 |
| 18. Total Construction Cost (15+16+17) | \$1,013,000 |  |
| 19. Total Project Cost ( $1+2+18$ ) | \$1,313,000 |  |
| 20. Project Cost Per Mile |  |  |
| Prepared By: <br> Kelly Hoopes |  |  |

## Existing Conditions



