Surface Transportation Block Grant Program – Urban (STBG-U)
Project Application and Ranking Process - Safety

Due: February 3, 2021

Project Name, Location and Brief Description:
Project Name: 17th Street and Curlew Intersection Upgrades
Project Description: Upgrade the intersection of 17th Street and Curlew, adding new vehicle signal heads, controller cabinet, pavement markings, pedestrian signals, and improving pavement surface.

Attachment 2435 Form

A) Safety (0-35 points)

When assigning points consider how well the project addresses high accident locations by including safety improvements to mediate the primary causes of crashes.

What location(s) exist within the project's scope that are considered to have a high degree of accidents? Why are they deemed to be critical accident locations that need attention? **Many of the crashes at this intersection are either rear-end crashes due to drivers following to close or angle crashes due to drivers failure to yield. The most severe crashes happened inside the intersection and were a result of drivers failing to yield while making left turns. This project, in conjunction with the paving project, could significantly reduce the number of crashes at or near this intersection. A number of these crashes occur when the surface pavement conditions are icy and wet. The poor pavement conditions, mainly rutting, create poor drainage on the roadway and allows for build up of water and ice.**

Accident Location and Rates:

1) 17th and Curlew Crash:0.71	Severity:1.05	Density: 6.60	Overall:2.00
2) Crash:	Severity:	Density:	Overall:
3) Crash:	Severity:	Density:	Overall:

'Accident Worksheet

What are the primary causes of accidents and contributing circumstances from crash reports? **The most severe accidents were caused by drivers making left hand turns and failing to yield to other vehicles as well as pedestrians.**

This project, in conjunction with the paving project, could significantly reduce the number of crashes at or near this intersection. A number of crashes in this area can be attributed to icy and wet road conditions.

If the overall rate based on crash, severity and density rates is below average, what evidence exists that the proposed improvements will provide a safety benefit? **The current crash rate at this intersection is above the base rates for similar type intersections. The Severity Rate and the Crash Density are also above the base rates for similar type intersections. Based on the crash modification factors, this project, along with the resurfacing project, should reduce the crash rates below the base rates.**

Identify project design elements/counter measures implemented to address primary causes of accidents. Include related crash reduction factor:

Crash reduction counter measures:	Crash reduction factor:
1) Install protective/permissive flashing yellow (for all left turn crashes)	40.2 (CMF ID 7684)
2) Addition of reflective tape to backplates (property damage crashes only)	15 (CMF ID 1410)

B) System Preservation (0-5 points)

When assigning points consider how well the project preserves or enhances the transportation system.

What traffic control devices, if any, will be added or upgraded? **This traffic signal will be updated with new vehicle signal heads, visors, and backplate, along with new pedestrian signal heads. The signal cabinet and controller with also be upgraded to the latest TS2 Type 1 cabinet. The left turn lanes for the north and south legs of the intersection will be upgraded to included a 4 section head with flashing yellow arrows and the controller will provide a protective/permissive left turn movement. In conjunction with the new pavement surface, new pavement markings for both vehicles and pedestrians will be replaced.**

C) Multi-modal and Accessibility (0-5 points)

When scoring points consider if the project includes multi-modal facilities for improved accessibility, connectivity and safety.

What bicycle and pedestrian and/or public transportation improvements, if any, are included in the project? Why are the improvements deemed important? **All pedestrian signals will be replaced along with any inoperable push buttons. Currently, the painted crosswalks and stop lines at this intersection are very worn and less visible to drivers. The lack of these markings, causes both vehicles and pedestrians to encroach into each other spaces. While there is only one pedestrian involved crash at this location in the past five years, as the traffic increases so will the frequency of these crashes. Unfortunately pedestrian crashes are usually severe, so making these improvements now is very important.**

D) Project Cost (0-5 points)

When scoring points consider if the project is a good use of limited federal funds.

Attachment 1150 Form

What is the total estimated cost of the project? **S110,000**

Summarize the benefits of the completion of this project relative to its estimated cost:
Using the typical societal cost of all the crashes over the last 5 years at this intersection, the value of those crashes equals $1.4million. If the sum of the safety improvement can reduce crashes by 15%, the 5 year benefit would be $215,000. With a project cost of $110,000, this project would save $105,000 of societal cost over 5 years.

Is the project coordinated with other projects or funding sources? **No**, **but this project in conjunction with the paving project could help with reducing some of the crashes that occur during icy or wet surface conditions.**

Safety Application Requirements and Criteria

A) Safety

Project types: access management techniques, improved traffic signal indication, rumble strips, enhanced delineation, etc.

Accident rates and density - higher rates and density, when considered with proven project safety improvements, typically assume a higher point value be assigned to this category.

- **Crash rate** - compares the number of crashes with the number of vehicles at a location.
- **Severity rate** - identifies the severity of the crashes at the location.
- **Crash density** - identifies the average number of crashes that occur at a location per year.
- **Overall rate** - the composite of all factors being considered.

Average rates and density based on arterial and collector streets where traffic volumes have been collected:

Crash rate: 0.65

Severity rate: 1.00

Crash density: 5.00

Overall rate: 1.33

Crash reduction counter measure and crash reduction factor - using your experience, area knowledge, and the FHWA Crash Reduction Factor Toolkits or Crash Modification Factors (CMF) Clearinghouse, select counter measures and reduction factors for the project areas.

B) System Preservation

Traffic control devices - a project that replaces or upgrades traffic control devices which improves the operation of an intersection or roadway typically assumes a higher point value be assigned to this

C) Multi-modal and Accessibility

Project types: pedestrian crossing treatments (e.g. grade separation, beacons and signage), bicycle lanes, shared use paths, bus stop improvements (e.g. bus pullouts, curb cuts and ramps near shelters), etc.

Bicycle and pedestrian improvements - projects located near schools or parks, extend or tie together existing facilities, and create a safer condition for bicyclists and pedestrians typically assume a higher point value be assigned to this category.

Public transportation improvements - projects that improve accessibility and safety related to existing public transportation services typically assume a higher point value be assigned to this category.

D) Project Cost

Costs - the most recent project cost estimate from the ITD 1150 form will be considered under this criterion. Typically, lower cost projects per mile assume a higher point value be assigned to this category.

Funding sources - projects that can be constructed in conjunction with another project or utilize additional funding sources typically assume a higher point value be assigned to this category.

Safety Application Deadline:

Completed applications must be submitted electronically to bmpo@bmpo.org by 4:30 p.m. on February

3rd, 2021.

Include attachments:

ITD 1150 and 2435 Forms

Accident Worksheets used to develop crash, severity, density and overall rates

Any other maps, data, pictures, etc. that enhance the understanding of the project

Project Cost Summary Sheet

ITD 1150 (Rev. 06-17)
itd.idaho.gov

Round Estimates to Nearest $1,000

Key Number	Project Number	Date
		2/1/2021

Location	District
17th Street, Curlew Drive Intersection Improvement	6

Segment Code	Begin Mile Post	End Mile Post	Length in Miles
3980	7.8	7.8	Spot Location

	Previous ITD 1150	Initial or Revise To
1a. Preliminary Engineering (PE)		$6,000
1b. Preliminary Engineering by Consultant (PEC)		$12,000
2. Right-of-Way: Number of Parcels 0 Number of Relocations		$0
3. Utility Adjustments: Work Materials By State By Others		$0
4. Earthwork		$0
5. Drainage and Minor Structures	$0	$0
6. Pavement and Base	$0	$0
7. Railroad Crossing:	$0	$0
Grade/Separation Structure _____		
At-Grade Signals Yes No		
8. Bridges/Grade Separation Structures:		
New Structure Length/Width _____	$0.00	$0.00
Location _____		
Repair/Widening/Rehabilitation Length/Width _____	$0.00	$0.00
Location		
9. Traffic Items (Delineators, Signing, Channelization, Lighting, and Signals)	$0	$65,000
10. Temporary Traffic Control (Sign, Pavement Markings, Flagging, and Traffic Separation)	$0	$7,000
11. Detours	$0	$0
12. Landscaping	$0	$0
13. Mitigation Measures	$0	$0
14. Other Items (Roadside Development, Guardrail, Fencing, Sidewalks, Curb and Gutter, C.S.S. Items)	$0	$0
15. Cost of Constructions (Items 3 through 14)	$0	$72,000
16. Mobilization 11 % of Item 15	$0	$8,000
17. Construction Engineer and Contingencies 15 % of Items 15 and 16	$0	$12,000
18. Total Construction Cost (15 + 16 + 17)	FALSE	$92,000
19. Total Project Cost (1 + 2 + 18)	FALSE	$110,000
20. Project Cost Per Mile		

Prepared By:

K. Hoopes

ITD 2435 (Rev. 01-09)

Local Federal-Aid Project Request

Instructions

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 Agreeing to Follow all of the Federal Requirements Which Can Add Substantial Time and Costs to the Development of the Project.

Sponsor (City, County, Highway District, State/Federal Agency)	Date
City of Ammon	1/29/2021

Project Title (Name of Street or Road)	F.A. Route Number	Project Length	Bridge Length
17th Street and Curlew Intersection Improvements	7406	Spot Location	NA

Project Limits (Local Landmarks at Each End of the Project)
17th Street and Curlew Intersection Improvements

Character of Proposed Work (Mark Appropriate Items)

☐ Excavation	☐ Bicycle Facilities	☐ Utilities	☐ Sidewalk
☐ Drainage	☒ Traffic Control	☐ Landscaping	☐ Seal Coat
☐ Base	☐ Bridge(s)	☐ Guardrail	☒ Signal Upgrade
☒ Bit. Surface	☒ Curb & Gutter	☐ Lighting	

Estimated Costs (Attach ITD 1150, Project Cost Summary Sheet)

Preliminary Engineering (ITD 1150, Line 1)	$ 18,000
Right-of-Way (ITD 1150, Line 2)	$ 0
Construction (ITD 1150, Line 18)	$ 92,000

Preliminary Engineering By: ☐ Sponsor Forces ☒ Consultant

Checklist (Provide Names, Locations, and Type of Facilities)

Railroad Crossing	NA
Within 2 miles of an Airport	NA
Parks (City, County, State or Federal)	NA
Environmentally Sensitive Areas	NA
Federal Lands (Indian, BLM, etc.)	NA
Historical Sites	Homes along 17th May be eligible for historic registry
Schools	NA
Other	

Additional Right-of-Way Required: ☒ None ☐ Minor (1-3 Parcels) ☐ Extensive (4 or More Parcels)

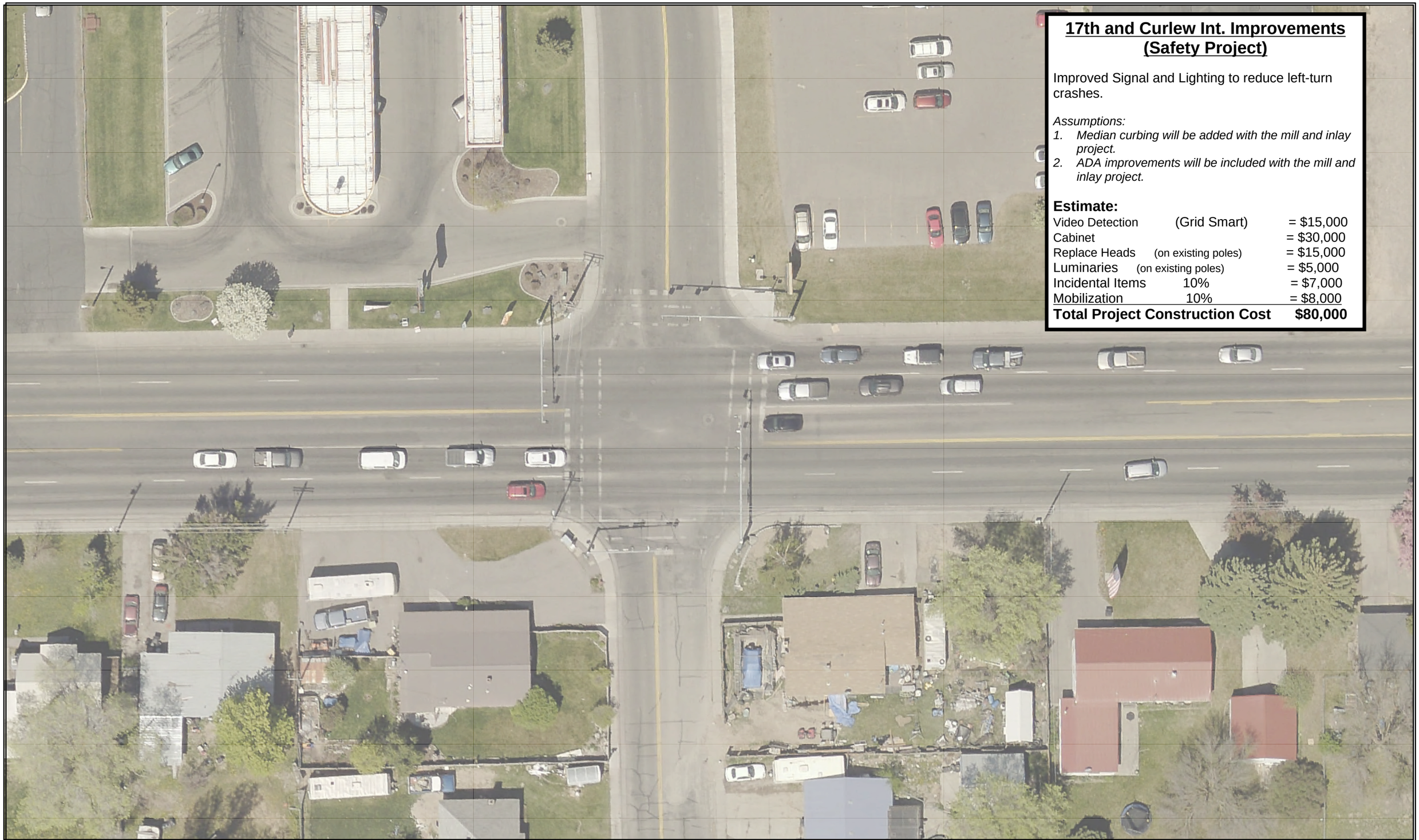
Will any Person or Business be Displaced: ☐ Yes ☒ No ☐ Possibly

Standards	Existing	Proposed	Standards	Existing	Proposed
Number of Lanes	5	5	Roadway Width (Shoulder to Shoulder)	60 ft	60 ft
Pavement Type	HMA	HMA	Right-of-Way Width	80 ft	80 ft

Sponsor's Signature	Title
Tracy Bowen	City Engineer/Public Works Director

Additional Information to be Furnished by the District

Functional Classification Minor Arterial	Terrain Type Flat	20 19	ADT/DHV 20,500



17th and Curlew Int. Improvements (Safety Project)

Improved Signal and Lighting to reduce left-turn crashes.

Assumptions:

1. *Median curbing will be added with the mill and inlay project.*
2. *ADA improvements will be included with the mill and inlay project.*

Estimate:

Video Detection	(Grid Smart)	= $15,000
Cabinet		= $30,000
Replace Heads	(on existing poles)	= $15,000
Luminaries	(on existing poles)	= $5,000
Incidental Items	10%	= $7,000
Mobilization	10%	= $8,000
Total Project Construction Cost		**$80,000**

N W E S

0 20 40 80 Feet

17th and Curlew Drive

CITY OF Ammon WHERE TOMORROW BEGINS