

Moscow City Council



Regular Meeting ~Agenda~

www.ci.moscow.id.us

Laurie M. Hopkins
City Clerk

208.883.7015

Monday, February 3, 2020

7:00 PM

**Council Chambers
206 E. Third St.**

The Moscow Mayor, City Council and Staff welcome you to tonight's meeting. We appreciate and encourage public participation. For regular agenda items, an opportunity for public comment is sometimes provided after the staff report. However, the formality of procedures varies with the purpose and subject of the agenda item; therefore, the Mayor may exercise discretion in deciding when to allow public comment during the course of the proceedings and limitations may be placed on the time allowed for comments. Citizens wishing to comment on business that is not on the agenda will be provided the opportunity to do so during the public comment item on the agenda. If you plan to address the Council, you will find a list of "Tips for Addressing the Council" in the door pocket outside the City Council Chambers. Please note that Moscow City Council meetings are televised, videotaped and/or recorded. Thank you for your interest in City government.

PLEDGE OF ALLEGIANCE

CONSENT AGENDA

1. All Consent Items (ACTION ITEM)

A. Approval of Moscow City Council January 12, 2020 Minutes - Laurie M. Hopkins

ACTION: Approve minutes.

B. Transportation Alternatives Program South Main Pedestrian Underpass Grant Application - Bill Belknap / Alisa Anderson

Following the construction of the Troy Highway pedestrian underpass, the City and Moscow Urban Renewal Agency jointly funded a study to assess the feasibility of the construction of a similar underpass on South Main/U.S. 95 just south of the south couplet intersection. The study included conceptual designs, cost estimation, and a wetland delineation of the project area. As previously reported to the City Council, the study indicated the pedestrian underpass construction was feasible and would have negligible impact upon flood elevations within the area. The proposed underpass will enhance non-motorized transportation use of the pathway system and improve pedestrian safety in the project area. The proposed project is supported by the Moscow Pathways Commission, Moscow Transportation Commission, and Moscow Urban Renewal Agency. City Staff have prepared a Transportation Alternatives Program (TAP) grant application to assist with funding the project which is before the Council for approval. This was reviewed by the Public Works/Finance Committee on January 13, 2020 and recommended for approval.

ACTION: Approve submission of the Transportation Alternatives Program grant application for the South Main Pedestrian Underpass Project.

REGULAR AGENDA

2. Staff Recognition Report - Gary J. Riedner

3. Mayors Appointments (ACTION ITEM)

4. Public Comment and Mayor's Response Period (limit 15 minutes)

5. Citizen Commission Report

6. Approval of Subrecipient Agreement for the FEMA Advance Assistance Paradise Creek Flood Hazard Mitigation Study Project (ACTION ITEM) - Bill Belknap / Alisa Anderson

Following flooding events in the spring of 2017, in consultation with FEMA officials the City was encouraged to apply for a Flood Hazard Mitigation Grant to identify and construct potential flood hazard mitigation actions to reduce property damage from flooding events on Paradise Creek. After an extended review period and multiple requests for additional information, the City's application was shifted to FEMA's Advanced Assistance Program which is intended to fund advanced studies to assess and identify potential flood hazard mitigation actions. The City was recently notified it has been awarded \$295,200 in grant funding to support the study. The total estimated study cost is \$393,600 with \$98,400 in local match (which includes \$10,000 in pre-application engineering, \$41,600 in City staff in-kind labor match for project administration, and \$46,800 in local cash match). On January 22, the City received the attached subrecipient agreement from the Idaho Office of Emergency Management for review and execution by the City. This was reviewed by the Public Works/Finance Committee on January 27, 2020 and recommended for approval.

PROPOSED ACTIONS: Approve the Subrecipient Agreement for the FEMA Advance Assistance Paradise Creek Flood Hazard Mitigation Study Project; or take other such other action deemed appropriate.

7. Latah County All Hazard Mitigation Plan Project List Approval (ACTION ITEM) - Bill Belknap / Alisa Anderson

Latah County is currently updating the 2011 Latah County All Hazards Mitigation Plan which includes and covers all cities within the County. In early January of this year, City Staff received a request to identify and prepare a list of hazard mitigation actions the City may pursue to reduce the risk and impact of hazards facing the community. This request was distributed to the relevant City Departments including Administration, Police, Fire, IS, Public Works Services, Planning, Engineering and Parks and Facilities to compile a list of potential hazard mitigation actions. Inclusion of the mitigation actions in the Plan will allow the City to continue to receive various grant funds for emergency response planning and equipment and will assist the City in pursuing additional grant funding for the identified projects in the future. This was reviewed by the Public Works/Finance Committee on January 27, 2020 and forwarded to the full Council.

PROPOSED ACTIONS: Approve the proposed hazard mitigation action list; or take other such other action deemed appropriate.

REPORTS

City Council

Mayor

Staff

ADJOURN

NOTICE: Moscow City Council and committee meetings are televised, videotaped and/or recorded. Individuals attending the meeting who require special assistance to accommodate physical, hearing, or other impairments, please contact the City Clerk, at (208) 883-7015 or TDD 883-7019, as soon as possible so that arrangements may be made.

Moscow City Council



Regular Meeting ~Minutes~

www.ci.moscow.id.us

Laurie M. Hopkins
City Clerk

208.883.7015

Tuesday, January 21, 2020

7:00 PM

**Council Chambers
206 E. Third St.**

The meeting was called to order at 7:00 p.m.

PRESENT: Mayor Bill Lambert, Art Bettge, Jim Boland, Kathryn Bonzo, Brandy Sullivan, Gina Taruscio, Anne Zabala

STAFF: Gary J. Riedner, Mia Bautista, Bill Belknap, Karl Riedinger, Evan Timar, Justin Smith, Mike Ray, Laurie M. Hopkins

PLEDGE OF ALLEGIANCE

Council Vice President Bettge led the Pledge of Allegiance.

PROCLAMATION ROTARY CLUB OF MOSCOW CENTENNIAL ANNIVERSARY WEEK

Mayor Lambert read the proclamation and presented it to numerous Rotarians. Connie Hall said a few words about the organization and thanked the City for helping with the flag pole installation at the Jim Lyle Park.

CONSENT AGENDA

1. All Consent Items (ACTION ITEM)

A. Approval of Moscow City Council January 6, 2020 Minutes - Laurie M. Hopkins

Minutes presented for approval.

ACTION: Approve minutes.

B. Disbursement Report December 2019 - Sarah Banks

Staff will present the Accounts Payable Report for the month ending December 2020. This was reviewed by the Public Works/Finance Committee on January 13, and recommended for approval.

ACTION: Sign the Disbursements Report for the month of December, 2019.

C. First Quarter Financial Report October 1, 2019 to December 31, 2019 for FY2020 - Sarah Banks

Staff will present the financial report for the first quarter of Fiscal Year 2020 (October 1, 2019 to December 31, 2019).

ACTION: Approve the FY2020 First Quarter Report.

D. Lot Line Adjustment for 1614 Christopher Lane – Aimee Hennrich

The applicants, Brad and Debbie Capawana, are requesting a lot line adjustment between two properties located at 1614 Christopher Lane and legally described as Lot 12 and 13, Block A, of Christopher's Crossing Subdivision. The proposed lot line adjustment would reduce Lot 13 from 1.95 acres to 1.78 acres and expand Lot 12 from 1.25 acres to 1.42 acres. The applicant is requesting the lot line adjustment due to already developed landscaping on Lot 12 and future plans to sell Lot 13. Lot 12 currently has an existing single-family dwelling upon it and Lot 13 is currently vacant. The subject properties are both located within the Suburban Residential (SR) Zoning District. Within the SR Zoning District, lots require a minimum lot size of 1 acre and a minimum lot width of 100 feet. The proposed lot line adjustment meets both of these standards and the existing home will meet all setback requirements. This was approved by the Public Works and Finance Committee on January 13, 2020.

ACTION: Approve the lot line adjustment request with no conditions.

E. Amended 2020 City Council Organization - Gary J. Riedner

At the City Council meeting January 6, 2020, Council President Brandy was approved to serve on the Administrative Committee, and the Council Vice President Bettge on the Public Works/Finance Committee. After discussions between them, they would like to switch the Committees they were approved to serve. An email was sent to the City Council members and the switch of Committees received no objections.

ACTION: Approve amendment to City Council assignments for 2020.

F. Police Department Traffic Enforcement Mobilization Grants - Alisa Anderson / James Fry / Eric Warner

The Idaho Transportation Department (ITD), through the Office of Highway Safety (OHS) administers the Traffic Enforcement Mobilizations program. The goal of the program is to eliminate death and serious injuries resulting from motor vehicle crashes and to implement programs designed to address driver behavior. The program provides funding at the state and community level for highway safety problems to address Idaho's own unique circumstances and highway safety needs. Traffic enforcement has been proven to be an effective countermeasure to reduce unsafe driving behaviors. The Traffic Enforcement Mobilization program establishes project requirements and a funding process to support the enforcement efforts as part of the Idaho's Strategic Highway Safety Plan (SHSP). The program funds dedicated overtime enforcement hours and/or traffic enforcement equipment. OHS also offers Mini Grants to support data-driven Idaho Safety Traffic Goals as established in the annual Highway Safety Plan for traffic training support, traffic equipment and enforcement. These Mini Grants allow agencies to be reimbursed for training and special emphasis patrols. Moscow Police Department (MPD) has successfully participated in mobilizations offered through the OHS program for several years. Attached is the 2019-2020 Idaho Transportation Department, Office of Highway Safety, Traffic Enforcement Grant Project Agreement (TEGPA), the Certifications and Assurances, and the Subrecipient Risk Assessment required for participation in the program. This was reviewed by the Public Works/Finance Committee on January 13, 2020 and recommended for approval.

ACTION: Ratify the FY2020 Traffic Enforcement Grant Project Agreement (TEGPA), the

Certifications and Assurances, and the Subrecipient Risk Assessment required for participation in the program for mobilizations during specified Highway Safety Performance Plan focus area events, campaigns, and/or Mini-Grant requests up to an accumulative amount per program fiscal year of \$50,000 with administrative approval.

G. Fire Department – FM Global Fire Prevention Grant Approval – Alisa Anderson / Brian Nickerson

FM Global is a worldwide philanthropic organization promoting fire prevention and awards grant funds to public organizations which support their mission. Funding requests are accepted to help organizations working to combat fire for a wide array of fire prevention, preparedness and control efforts. Program funding scopes include Pre-Incident Planning; Fire Prevention Education and Training; and Arson Prevention and Fire Investigation. A grant application was submitted to FM Global in June of 2019. This was the first time the Fire Department had requested funds from this organization, therefore anticipated approval was considered unlikely as the organization normally funds much larger departments. A grant request was submitted for \$2,500 to purchase equipment to include two sets of a DeWalt Cordless Tool Combo Kits and two Pelican Remote Area Lighting Systems under the Arson Prevention/Fire Investigation category. On December 18, 2019, staff received an award letter for \$1,720. A copy of the program information, grant request and award are attached to this report.

ACTION: Accept the FM Global Fire Prevention Grant Award for \$1,720 to purchase fire investigation equipment.

H. Local Highway Safety Improvement Program Grant Application - A Street and Baker Street Intersection - Safety Improvement Project - Alisa Anderson / Bill Belknap / Nate Suhr

The intersection of A and Baker Streets has been determined by Engineering staff as an eligible project for Federal Highway Safety Improvement Program (HSIP) grant funding. The Local Highway Technical Assistance Council (LHTAC) administers those funds through the Local Highway Safety Improvement Program (LHSIP). Additional details are provided in the attached memo from Alisa Anderson, Grants Manager.

This grant request is proposed for the project for a total project cost estimated not to exceed \$800,000. Staff's recommendation is to request \$741,280 in LHSIP funding, with the providing the required 7.34% local match of \$58,720. If approved by LHTAC, the project would be scheduled for design in 2022 and construction in 2023. This grant request was reviewed by the Public Works/Finance Committee on January 13, 2020, and recommended for approval.

ACTION: Approve submission of the grant request for the LHSIP FY22 Application for safety improvements to the intersection of A and Baker streets with an estimated total project costs not to exceed \$800,000; requesting \$741,280 in LHSIP funding with the required 7.34% local match of \$58,720.

I. Sewer Conveyance Vacuum Truck Purchase - Tyler Palmer

Fleet is requesting an early replacement of Unit #148 (Sewer Conveyance Vacuum Truck) in FY2020 due to reliability concerns with the current 2011 International chassis. With this unit being down for repairs for more than 30% of the year already, it is clear that Sewer Conveyance cannot successfully continue to rely on this vehicle in the critical maintenance of the City's

water reclamation system. This unit will continue to have excessive issues as it is a known problem year for Navistar MaxxForce engines due to the design of the emissions system. Fleet has accumulated funds in the amount of \$364,154 for the scheduled replacement of this unit. Because of the reliability issues, it is requested to move the replacement up to FY2020. The cost of replacement, considering the trade of the old unit, is \$379,659. Accumulation for other Sewer Fund fleet replacements will be utilized for the remaining \$15,505. If approved by City Council, the appropriation will be brought forward in the FY2020 open budget process. This was reviewed by the Public Works/Finance Committee on January 13, 2020, and recommended for approval.

ACTION: Approve replacement of Unit #148 in the FY2020 budget year, and direct staff to bring the adjustment forward in the FY2020 open budget process.

Bettge moved and Taruscio seconded to approve the consent agenda as presented. Roll Call Vote: Ayes: Unanimous. Nays: None. Abstentions: None. Motion carried.

REGULAR AGENDA

2. Staff Recognition Report - Gary J. Riedner

None offered.

3. Mayors Appointments (ACTION ITEM)

The Mayor proposed the following appointments: Rebecca Marquez to the Fair and Affordable Housing Commission; Rich Beebe to the Planning and Zoning Commission; Pamela Brunfeld to the Tree Commission; MacKenzie Lawrence to the Farmers Market Commission and the reappointment of Lennea Sheneman to the Moscow Arts Commission

Bettge moved and Kelly seconded to approve the appointments. Roll Call Vote: Ayes: Unanimous. Nays: None. Abstentions: None. Motion carried.

4. Public Comment and Mayor's Response Period (limit 15 minutes)

None offered.

5. Public Hearing: Ordinance Amending Title 6, Chapters 2, 3, and 4 of Moscow City Code Regarding Mobile Home and Recreational Vehicle Parks (ACTION ITEM) - Mike Ray

On November 23, 2018, the Community Development Department received a letter from Mr. Gary Lester, requesting that the Planning and Zoning Commission review and potentially remove the 6-month stay limitation for Recreational Vehicles (RVs) within the City of Moscow. The Commission discussed Mr. Lester's request at their January 9, 2019 and February 13, 2019 meetings and directed staff to prepare a code amendment to eliminate the 6-month stay limitation and provide greater opportunities for tiny houses within mobile home parks. After review of the existing RV park and mobile home park ordinances, it was determined that the codes have not been updated since the early 80's. Therefore, the code amendment was expanded to include the mobile home park chapters, which have been updated in order to align the chapters with current State and Federal definitions and reorganized for ease of use. On December 11, 2019, the Commission conducted a public hearing upon the proposed ordinance and recommended approval to City Council. This item was reviewed by the Administrative Committee on January 13, 2020.

PROPOSED ACTIONS: After conducting the public hearing and consideration of testimony

received, approve the proposed Ordinance under suspension of the rules requiring three complete and separate readings and that it be read by title and published by summary; or consider the Ordinance on first reading; or reject the Ordinance; or take such other action deemed appropriate.

Ray introduced the item as written above and gave details about the reorganization of the chapters and the addition of modular homes, which will allow for tiny homes.

Mayor Lambert opened the public hearing at 7:17 p.m.

Gary Lester, 1214 Logan St Moscow, feels mobile home parks are the last frontier of affordable housing. Mobile homes can be purchased new or used and inexpensive without a mortgage and have affordable lot rents. Since purchasing Abiel Mobile Home Community in 2015, of the 91 spaces, there are only four empty spaces. By removing the six month stay limitation and allowing RV's, tiny homes etc., it will attract construction workers, students, retirees.

Rusty Olps, 931 Harold St Moscow, owns a mobile home park in the county and struggles with entry level models under current standards. He agrees with what Mr. Lester said. This change would allow tiny homes and is in favor of the proposal.

Dan Gruss, Palouse Hills Mobile Home, has four places that are empty but lots are two short to put anything on them. He receives calls for RV long-term space, and is in support of the proposed changes and reiterates what Gary and Rusty said.

Jerry Schutz, 520 Empire Lane, this was one of the things he was passionate about when on P&Z. He encourages the Council to pass the ordinance on first reading.

Jean Elliot, lives in the county and encourages the Council to think of positives and negatives. She can see a 6 month stay with an RV vehicle. If the City approves this proposed change, it could extend to rest of the county. A campground could be disruptive, don't know who is in the vicinity, and also concern of dust, dogs, etc., which could in the future lead to downsides. She suggests the Council look to the future.

Mayor Lambert closed the public hearing at 7:28 p.m.

Council members expressed support for the changes commenting on the changes providing affordable housing, complete use of the parks, long term stays for those working on construction projects, flexibility in solving housing issues, and diversity in housing.

Bettge moved to approve the proposed Ordinance under suspension of the rules requiring three complete and separate readings and that it be read by title and published by summary. Seconded by Zabala. Roll Call Vote: Ayes: Unanimous. Nays: None. Abstentions: None. Motion carried.

Mayor Lambert read Ordinance 2020-01 by title:

AN ORDINANCE OF THE CITY OF MOSCOW, IDAHO, A MUNICIPAL CORPORATION OF THE STATE OF IDAHO; PROVIDING FOR THE AMENDMENT OF MOSCOW CITY CODE TITLE 6, CHAPTERS 2, 3, AND 4, REGARDING AMENDMENTS TO THE MOBILE HOME PARKS AND RECREATION VEHICLE PARKS CHAPTERS; PROVIDING THAT THE PROVISIONS OF THIS ORDINANCE BE DEEMED SEVERABLE; AND PROVIDING FOR THIS

ORDINANCE TO BE IN FULL FORCE AND EFFECT FROM THE DATE OF ITS PASSAGE, APPROVAL AND PUBLICATION ACCORDING TO LAW.

**6. Public Hearing: Proposed Rezone at 904, 908, and 912 S Washington Street (ACTION ITEM)
- Mike Ray**

The applicant, Latah Federal Credit Union, is requesting to rezone a 25,000 square foot area of land at located at 904, 908 and 912 S Washington Street. The parcel is currently zoned Residential Office (RO) which the applicant is proposing to change to the General Business (GB) Zone. The Planning and Zoning Commission conducted a public hearing on December 11, 2019 and recommended approval of the rezone request.

PROPOSED ACTIONS: After conducting the public hearing and consideration of testimony received, approve the proposed Zoning Ordinance under suspension of the rules requiring three complete and separate readings and that it be read by title and published by summary and adopt the Planning and Zoning Commission Reasoned Statement of Relevant Criteria; or consider the Zoning Ordinance on first reading; or reject the Zoning Ordinance and direct staff to prepare a Reasoned Statement of Relevant Criteria; or take such other action deemed appropriate.

Ray introduced the item by reviewing the zoning and comprehensive designation in the neighborhood and describing the definitions of the zones.

Mayor Lambert opened the public hearing at 7:43 p.m.

Scott Becker, Hodge and Assoc, thanked staff for the presentation. The north structure is not in good shape and the request will put the zoning in compliance.

Russ Wheelhouse, Moscow, said he is not against putting a business on the property but wants to point out parking could become a problem.

Marlis Wilson, 912 S Washington St., is the President for the credit union. She said the structure is beyond repair and the area will become parking. An expansion of the building could happen but would go into park of the existing parking. They are aware of the parking issues as neighborhood residents have parked in the credit union lot.

Mayor Lambert closed the public hearing at 7:48 p.m.

Sullivan said the rezone makes sense with the surrounding neighborhood as well as addressing the nonconformity.

Sullivan moved and Taruscio seconded to approve the proposed Zoning Ordinance under suspension of the rules requiring three complete and separate readings and that it be read by title and published by summary and adopt the Planning and Zoning Commission Reasoned Statement of Relevant Criteria. Roll Call Vote: Ayes: Unanimous. Nays: None. Abstentions: None. Motion carried.

Mayor Lambert read Ordinance 2020-02 by title:

AN ORDINANCE OF THE CITY OF MOSCOW, IDAHO, A MUNICIPAL CORPORATION OF THE STATE OF IDAHO; PROVIDING FOR THE ZONING OF AN APPROXIMATELY FORTY-THREE THOUSAND (43,000) SQUARE FEET OF PROPERTY, DESCRIBED IN SECTION 1 OF

THIS ORDINANCE, AS GENERAL BUSINESS (GB); PROVIDING THAT THE PROVISIONS OF THIS ORDINANCE BE DEEMED SEVERABLE; PROVIDING FOR THIS ORDINANCE TO BE IN FULL FORCE AND EFFECT FROM AND AFTER ITS PASSAGE, APPROVAL AND PUBLICATION ACCORDING TO LAW.

REPORTS

City Council

Moscow Tree Commission – Sullivan said the Arbor Day celebration is scheduled for April 24; the Commission approved three classes with P&R; and had a discussion on pruning practices in response to concerns.

Transportation Commission – Sullivan reported the Commission received a presentation for the A and Baker St proposal; and discussed a ROW vacation on Howard Street.

Moscow Volunteer Fire Department – Laflin reported the Department discussed fundraising efforts and data on participation over the holidays when residents are not in town.

Human Rights Commission – Laflin said the Commission is sponsoring a movie on woman suffrage and also sponsoring Selma sometime this year.

Sustainable Environment Commission – Laflin said the Commission is discussing small cell 5g and the use of it and the criteria for regulations.

Palouse Knowledge Corridor – Bettge said the group hopes to schedule a report to Council in March or April; transitioning student projects; received a couple grants.

SMART Transit – Bettge said the new buses are almost ready; the Board discussed altering routes to skip early routes in the northeast and add more to the northwest.

Planning & Zoning Commission – Kelly said the Commission discussed 5G and how close the mini towers would be and the esthetics.

Moscow Pathways Commission – Kelly said they discussed a banner for farmers market and a map of pathways.

Mayor

The Mayor said the MYAC met and the students lined out some projects including downtown cleanup, another first responders' lunch in May and recruiting efforts are picking up. He attended the Quarterly breakfast meeting and the MLK breakfast.

Staff

There are five council members going to the AIC City Officials Day at the Capitol and a few staff will also attend. A lunch with the local legislators has been scheduled and they will receive an update on the legislative session.

ADJOURN

The meeting adjourned at 8:08 p.m.

Bill Lambert, Mayor

ATTEST:

Laurie M. Hopkins, City Clerk

COMMITTEE STAFF REPORT

DATE: Monday, February 3, 2020



RESPONSIBLE STAFF

Bill Belknap, Deputy City Supervisor, Community Planning and Design, Alisa Anderson, Grants Manager

ADDITIONAL PRESENTER(S)

OTHER RESOURCES

AGENDA ITEM TITLE

Transportation Alternatives Program South Main Pedestrian Underpass Grant Application - Bill Belknap / Alisa Anderson

DESCRIPTION

Following the construction of the Troy Highway pedestrian underpass, the City and Moscow Urban Renewal Agency jointly funded a study to assess the feasibility of the construction of a similar underpass on South Main/U.S. 95 just south of the south couplet intersection. The study included conceptual designs, cost estimation, and a wetland delineation of the project area. As previously reported to the City Council, the study indicated the pedestrian underpass construction was feasible and would have negligible impact upon flood elevations within the area. The proposed underpass will enhance non-motorized transportation use of the pathway system and improve pedestrian safety in the project area. The proposed project is supported by the Moscow Pathways Commission, Moscow Transportation Commission, and Moscow Urban Renewal Agency.

City Staff have prepared a Transportation Alternatives Program (TAP) grant application to assist with funding the project. The City received a TAP grant to fund the construction of the Troy Highway underpass in 2018. The South Main Underpass Project would include the construction of an underpass structure similar to that of the Troy Highway underpass, and will include removal of the old U.S. 95 bridge. Construction of a new pedestrian pathway along the west side of Main Street would connect to the existing pathway system west of Main where it traverses the University of Idaho's property on the east side of their Lot 60 parking lot, and would include installation of additional sidewalks along the west side of Main Street to the south couplet intersection. The total estimated project cost including design, administration and contingency is \$1,006,330 which is proposed to be funded with \$499,643 in TAP grant funding and a local match contribution of \$506,687. The local match is proposed to be jointly funded by the City and the Moscow Urban Renewal Agency with each entity contributing \$253,343 to the project. If the grant is awarded, design would likely occur in 2022 with construction in 2023.

The current TAP application submission deadline is February 2, 2020, and Staff is seeking Council approval to submit the proposed grant application.

This was reviewed by the Public Works/Finance Committee on January 13, 2020 and recommended for approval.

STAFF RECOMMENDATION

Approve the Transportation Alternatives Program grant application for the South Main Pedestrian Underpass Project.

PROPOSED ACTIONS

ACTION: Approve submission of the Transportation Alternatives Program grant application for the South Main Pedestrian Underpass Project.

FISCAL IMPACT

\$253,343 in local cash match will be required in FY2023 from the General Fund Capital Projects accumulation.

PERSONNEL IMPACT

ATTACHMENTS

1. TAP FY20 CITY OF MOSCOW DRAFT APPLICATION

**Transportation Alternatives Program (TAP)
2020 Application – Funding Project Years:
FY 2021, 2022 & 2023**

Identification I.D. (Department use only)

Application deadline: Friday February 2, 2020 at 12:00 p.m., Mountain Standard Time

Kick-Off Call for Applications: September 23rd, 2019, noon.

Applicants **MUST participate in a Pre-Application coordination meeting** with the District or LHTAC Coordinator and complete a Pre-Application Checklist for the Mid Application Screening.

Applicants **MUST submit a draft application to TAP@itd.idaho.gov for a Mid-Application screening** with the District or LHTAC Coordinator on or PRIOR TO: November 8th, 2019

During the Mid-Application Screening, a panel of Subject Matter Experts will review the draft applications and provide feedback to applicants that helps strengthen the proposals, returning these to the applicant by December 13th 2019. The final draft applications will be scored by a different group.

Applicants **MUST submit their Application to TAP@itd.idaho.gov** with the District or LHTAC Coordinator on or PRIOR TO: February 2nd, 2020

The Idaho Transportation Department is now soliciting applications for the Transportation Alternatives Program (TAP) to add projects to our fiscal year 2021*, 2022 and 2023 program. FY2021 is limited to non-infrastructure and construction only projects. The purpose of TAP is to provide for a variety of alternative transportation projects and to advance the Idaho Transportation Department's (ITD) strategic goals of Mobility, Safety and Economic Opportunity while maximizing the use of federal funds. The TAP provides funding for programs and projects defined as transportation alternatives, including on- and off-road pedestrian and bicycle facilities, infrastructure projects for improving non-driver access to public transportation and enhanced mobility, and safe routes to school educational projects. Applicant award capped at one \$500,000 in federal aid per year per funding source, not to exceed \$750,000 federal (not counting TAP-TMA or TAP statewide balancing). There is a Partial Award category in preferred funding year to accommodate small scale projects up to \$50,000 allowing applicants to apply for scalable project awards.

Final applications must be submitted to ITD electronically. Applications including attachments must be submitted by e-mail to TAP@itd.idaho.gov. Additionally, all questions regarding this application are to be submitted to TAP@itd.idaho.gov. For all e-mail correspondence, please indicate "2020 TAP Application" in the subject line along with the sponsor's name. For example, Subject: 2020 TAP Application - City of Lava Hot Springs.

Format: Application form must be saved electronically and then transmitted to the Department. All supporting maps, letters and other documents must be saved as a pdf and transmitted to the Department with the application form. If the file size of any or all of the attachments exceeds e-mail transmittal capabilities (15MB), files may be saved to either a disc or thumb drive and submitted via postal mail. All postal mail is to be sent to the following address and must be received prior to the designated application deadline.

Idaho Transportation Department Headquarters
Attn: Ryan McDaniel CFM, PMP
Project Manager, Contracting Services
P.O. Box 7129
Boise, ID 83707-1129

If sponsor is submitting multiple applications, please prioritize them in order of importance from 1 to X, with 1 being the most important project.

Priority Number 1

Applicant Information

Applicant: City of Moscow, Idaho

Mailing Address:

206 East Third Street, PO Box 9203

City: Moscow

State: ID

Zip Code: 83843

Contact Person 1: Alisa Anderson

Title: Grants Manager

Phone: 208-883-7600

Email: aanderson@ci.moscow.id.us

Contact Person 2: Bill Belknap

Title: Deputy City Super. City Ser

Phone: 208-883-7011

Email: bbelknap@ci.moscow.id.us

Co-Applicant (if different from Applicant): Not Applicable

Mailing Address:

City: _____

State: _____

Zip Code: _____

Contact Person: _____

Title: _____

Phone: _____

Email: _____

Sponsor certifies the following conditions of application:

- We are familiar with Transportation Alternatives Program eligibility criteria & TAP manual.
- All right-of-way (ROW) is acquired and no environmental issues are known to exist.
- Our budget accurately reflects the anticipated cost of the proposed project.
- The information in the application accurately reflects available knowledge of our staff.
- We understand this is a reimbursement grant and must furnish cash local match upfront and will be reimbursed as work progresses and invoices submitted with accompanying documentation.
- We acknowledge that there is no contingency funding beyond the amount budgeted in this application and all overruns will be borne by the local sponsor.
- The project must be brought to completion to receive funding.
- We accept responsibility for future maintenance and operating costs of the completed project.

Sponsor Signature (Authorized Official)

Date

Sponsor Printed Name

Bill Lambert, Mayor

Date

Project Information

Project Name South Main Pedestrian Underpass Project

Total Project Design Estimate	<u>128,000</u>
Total Project Construction Estimate	<u>879,000</u>
Total Non-Infrastructure Estimate	<u>-0-</u>
Define Partial Project Construction Estimate	<u>-0-</u>
Total Project Cost Estimate	<u>1,007,000</u>

Project location

(Please include street or trail name, city, county, and beginning/end points as applicable)
(Maximum 500 Characters)

Main Street and US Hwy. 95 south of US Hwy. 8, extension of Paradise Path as an underpass, Moscow, Latah County, Idaho. (See attached maps.)

State Highway Route(s) if applicable Hwy. 95

Beginning Mile Posts(s) if applicable _____

Ending Mile Posts(s) if applicable _____

Project Area

☐ Urbanized - Areas with population over 200,000

☒ Urban - Areas with population of 5,001 to 200,000

☐ Rural - Areas with population of 5,000 or less

Funding Year (for initial programming only, project may advance or delay at a later date)

Preference 1		Preference 2	
Non-Infrastructure		Non-Infrastructure	
2021	☐	2021	☐
2022	☐	2022	☐
2023	☐	2023	☐
Design		Design	
2021	☐	2021	☐
2022	☒	2022	☐
2023	☐	2023	☒
Construction		Construction	
2021*	☐	2021*	☐
2022	☐	2022	☐
2023	☒	2023	2024 ☒

Partial Award			Partial Award	
2021	—		2021	—
2022	—		2022	—
2023	—		2023	—

*Design must be completed to federal requirements for FY21 and any 'construction only' project and see TAP manual for additional requirements

Project Cost Estimate

Instructions:

1. Project estimate must include all related project costs, including administrative.
2. For both infrastructure and non-infrastructure type projects, the sponsor match is 7.34% of the total project cost.
3. **Infrastructure is Cash match only:** Non-cash items such as in-kind contributions are not eligible to count towards the sponsor's match, in-kind is eligible on non-infrastructure only.
4. Use the ITD provided TAP Project Estimating Worksheet to indicate the total project estimate. A copy of the worksheet can be accessed at <https://itd.idaho.gov/wp-content/uploads/2019/09/TAP-Estimating-Worksheet-SUBJECT-TO-CHANGE.pdf>
5. Separate applications must be submitted for infrastructure *and* non-infrastructure projects.
 - (a) Infrastructure: Federal reimbursement requested for: (select all that apply)
 - ☒ Design activities
 - ☒ Construction activities
 - (b) Non-infrastructure: Federal reimbursement is being requested for:
 - ☐ Non-Infrastructure: Safe routes to school coordination and education.

If the sponsor is applying for federal funds to participate in construction activities only, there are still administrative costs that ITD will incur in order to review project documents, provide oversight, and authorize a project for competitive bidding. The sponsor will need to account for these costs within the project estimate. Federal funds for construction activities require compliance with federal processes and procedures. Prior design of the project must also comply with federal process and procurement requirements. So, if federal funds are sought for construction only, then the preceding tasks to that construction must also have been federally compliant (NEPA, Davis Bacon Act, procurement process, et cetera).

Eligible Project Activities

For a list of eligible project activities, please reference FHWA publication "Transportation Alternatives" at <http://www.fhwa.dot.gov/fastact/factsheets/transportationalternativesfs.cfm>

From the list below, select the main project activity that best describes proposed project.

- ☒ Infrastructure: Design and/or construction of infrastructure and systems that will provide safe routes for non-drivers.

- ☒ Infrastructure: Design and/or construction of infrastructure to improve the ability of students who live within two miles of the school building to walk or bicycle to school.
- ☐ Non-Infrastructure activities: Safe routes to school coordination and education.

Environmental requirements for infrastructure projects shall not exceed NEPA Categorical Exclusion level of review (i.e. a project expecting EA/ROD/FONSI are not eligible). The acquisition of right-of-way is not an eligible activity for TAP funding (all ROW acquisition activities must be completed prior to submitting an application). NEPA or ROW issues are cause for finding a project ineligible.

Eligible Project Sponsors

Only certain entities are eligible sponsors per 23U.S.C 133(h)(4)(b), select the description that best categorizes your organization as the project sponsor.

- ☒ Local government
- ☐ Regional transportation authority
- ☐ Transit agency
- ☐ Natural resource or public land agency
- ☐ School district, local education agency or school
- ☐ Tribal government
- ☐ Nonprofit entity responsible for the administration of local transportation safety programs
- ☐ Any other local or regional governmental entity with responsibility for oversight of transportation
- ☐ Recreational Trails (other than a metropolitan planning organization or a State agency) that the State determines to be eligible, consistent with the goals of subsection (c) of section 213 of title 23.

1. Project/Program Elements (20 Points)

(a1) For infrastructure type projects, this project includes the following facilities. (select all that apply)

Sidewalk: Surface _____ Width _____ Length _____

Crosswalk: Width _____ Qty. ⁰ _____

Curb Ramps: #⁰ _____

On-Street Bicycle Facilities: ☐ bike lane, ☐ shared lane, ☐ cycle track: Length _____

Shared-Use Path: Surface Asp Width 10' Length 710'

Signalization/Traffic Control: Type nearby

Bicycle Parking/Racks/Amenities: Type _____ # Spaces _____

Pedestrian Amenities/Streetscape (lighting, landscaping, etc.): yes

Transit Stops and Amenities: nearby

Traffic Calming: _____

Other: _____

(a2) For non-infrastructure type projects, this project includes the following activities. (select all that apply)

Education materials and activities: ☐ Travel Plan ☐ Safety Booklets ☐ Other

Encouragement materials and activities: ☐ Bike Rodeo ☐ Walk/Bike to School Day Activities ☐
Walking or Biking Technical Skills Training ☐ Pre-Drivers Education ☐ Rules of the Road

Project workplan needs approval from ITD within 30 days of executing the non-infrastructure SLA

(b2) Description of Project **15 pts.**

Describe existing conditions and provide a clear description of the purpose of the project and the scope of work. Supplemental materials such as pictures, maps, project plans, exhibits, diagrams, etc. may be provided as necessary to explain existing conditions and proposed improvements. Vague descriptions may result in lower evaluation scores and lower ranking. Information about the project scope should be consistent with the project budget. (Max 1200 Characters)

To construct a bike/pedestrian underpass on an existing streambanks and within the current concrete bridge for Paradise Creek at US Hwy. 95 crossing. The underpass would allow pedestrians and bike traffic to cross under US Hwy. 95 on Paradise Path without needing to cross US Hwy. 95, disrupting traffic flow on a busy sections of highway. The new path extension will be 710 feet long and 10 feet wide connection to an existing route on Paradise Path leading into the University of Idaho campus with adjacent connections to Gritman Medical Center, student housing and downtown Moscow.

(c) This project implements or meets a Safe Routes to School (SRTS) non-infrastructure educational, encouragement or safety program project/need and is supported by the SRTS Coordinator. **3 pts.**

☐ Yes, a TAP funded SRTS Coordinator provided a letter of support

☐ No

☒ Not Applicable

2. Property Ownership and Acquisition Information (Pass/Fail)

Applications that indicate a No response is cause for finding application ineligible.

(a) Has all of the property needed for the project construction been acquired? (select one)

☐ Yes

☒ No, Property must still be acquired for the project construction.

☐ Not Applicable

(b) Have all necessary easements or access agreements been acquired for the project? (select one)

☐ Yes

☒ No

☐ Not Applicable

If no, describe how and when the easement or access agreement will be acquired. Note: the application must include a commitment letter by the current property owner indicating an easement or access agreement is under development and will be granted. Applications that indicate a No response and do not include a commitment letter by the current property owner will be deemed incomplete. (Maximum 500 Characters)

Access easements will be finalized and completed prior to final grant application submittal.

(c) Projects proposing to build facilities along or through railroad right-of-way must include evidence from the railroad granting a right of entry or an executed encroachment permit. Has the railroad granted a right of entry or executed an encroachment agreement? (select one)

☐ Yes

☐ No

☒ Not Applicable

If no, describe how and when the agreement will be executed. Note: the application must include a commitment letter by the railroad that a right of entry or an executed encroachment agreement is under development and will be granted. Applications that indicate a No response and do not include a commitment letter from the railroad will be deemed incomplete. (Maximum 500 Characters)

3. Financial Readiness (15 pts)

(a) Is the proposed project in a Transportation Plan? **2 pts.**

- ☒ Yes, by: Pg. 470
☐ No
☐ Not Applicable

(b) If project is in a Transportation Plan, is the plan current (updated and/or re-adopted within last 5 years)? **2 pts.**

- ☒ Yes, date of last update 2014
☐ No
☐ Not Applicable

(c) Does your community have a written bicycle/pedestrian transportation plan, either as part of an overall transportation plan or a standalone? **2 pts.**

- ☒ Yes, this project implement this plan by: 10 years ☐ No
☐ No
☐ Not Applicable

(d) Do you have a written commitment to bring this project forward for approval of funds at a town meeting, through capital reserves funds, through inclusion in a capital improvement program/plan or any other available funds? **2 pts.**

- ☒ Yes
☐ No
☐ Not Applicable

(e) Are the funds appropriated or programmed to be appropriated in an adopted budget? **2 pts.**

- ☒ Yes
☐ No
☐ Not Applicable

(f) Please provide the details for (a)-(f) and provide details on the available financial management practices and accounting software used for this project. **5 pts.**

Capital Projects FY2020 Budget has accumulated funding set aside into to be ready to design and construct this project within the dates set forth in this funding request. The City of Moscow uses Sprinkbrook, Municipal Accounting Software and has been subject to Single Audit 10 out of the last 12 years, with no findings.

4. Mobility (20pts)

(a) Check the following connections that this project provides (within .25 miles of route): **1/2 pts ea**

- | | | |
|---|--|--|
| ☐ Residential to Retail/Dining | ☐ Residential to Recreation | ☐ Residential to Employment |
| ☐ Residential to Education | ☐ Employment to Recreation | ☐ Employment to Education |
| ☐ Employment to Retail/Dining | ☐ Recreation to Retail/Dining | |

(b) Does the project provide a new connection? **4 pts.**

- ☐ Yes
☐ No

(c) Does the project fill a sidewalk or pathway gap? **4 pts.**

- ☐ Yes
☐ No

(d) Will the project increase walking and biking trips after project completed? **4 pts.**

- ☐ Yes
☐ No

(e) Briefly describe the improvements to mobility outlined in (a)-(g): **4 pts.**

5. Safety (20 pts)

(a) Does the project provide a safety improvement? **3 pts.**

☒ Yes

☐ No

(b) The safety improvements apply to (check all that apply): **3 pts.**

☒ Bicyclists

☒ Pedestrians

☒ Children

☒ Elderly

☒ People with Disabilities

☐ Others _____

(c) Will the project enhance awareness of cyclists and pedestrians outside the project limits? **3 pts.**

☒ Yes

☐ No

(d) Is the project within two miles of a school and provide a safe connection between a residential community, the school, library, park, after-school activities, et cetera? **3 pts.**

☒ Yes

☐ No

(e) If a traffic safety issue has been identified in direct connection with this proposed project and proposed project location, are the applicants and/or their community based law enforcement partners already working with the ITD Office of Highway Safety (OHS) traffic safety grant programs (5pt), planning to work with OHS (3pt) or No/Not applicable (0 pt)? Please identify the primary contact at OHS. **3-5 pts.**

☒ Yes, already working with OHS Contact _____

☐ Yes, planning work with OHS Contact _____

☐ No/Not Applicable

(f) Please describe the details of the safety improvements: **3 pts.**

6. Economic Opportunity (10 pts)

- (a) The project improve economic opportunity by bringing more people to businesses. **2 pts.**

☒ Yes

☐ No (If no, the following answers are not needed to be completed)

- (b) The project provides a NEW connection to small businesses. **2pts.**

☒ Yes

☐ No

- (c) The project close a gap in existing walking and biking infrastructure to improve usability in a downtown, revitalization or business district. **3 pts.**

☒ Yes

☐ No

- (d) Please give details that substantiate answers (a)-(g): **_3_ pts.**

Project Schedule

Instructions: * Provide a project schedule showing critical project milestones and logical time lines for design and/or construction activities. A copy of the base schedule format can be found at <http://itd.idaho.gov/ContractingServices/TAP/default.htm>

TAP Coordinator Endorsement *(Infrastructure projects only)*

See list below for contact information. To find the district in which your project is located, use the ITD map located at <http://itd.idaho.gov/>. Select District or LHTAC TAP Coordinator:

- ☐ District 1 (North Idaho): Greg Brands, (208) 772-1274
- ☒ District 2 (North-Central Idaho): Ken Helm, (208) 799-4223
- ☐ District 3 (Southwest Idaho): Aaron Bauges, (208) 334-8964
- ☐ District 4 (South-Central Idaho): Adrienne Woods, (208) 886-7841
- ☐ District 5 (Southeast Idaho): Melodie Halstead, (208) 239-3370
- ☐ District 6 (East Idaho): Mark Layton, (208) 745-5626
- ☐ LHTAC (Statewide): Amanda LaMott, (208) 344-0565

Please include as an attachment the documentation of District Coordination provided by the applicable District or LHTAC TAP Coordinator.

Metropolitan Planning Organization (MPO) Coordination

If a proposed project is located within a Metropolitan Planning Organization (MPO) boundary, the project applicant should coordinate with the MPO to have the proposed project reviewed and approved by the MPO. The MPO will require that the proposed project within their boundary be identified through their planning process and be consistent with their long-range transportation plan. Contact the appropriate MPO prior to submitting the application for more information and specific requirements designated by the affected MPO. A list of our MPO partners can be found at <https://itd.idaho.gov/funding/?target=advisory-boards>. As part of the application, if the project falls within an MPO boundary, provide a letter of support from the MPO.

Is the proposed project within an MPO boundary?

- ☐ Yes
☐ No
☒ Not Applicable

If yes, has the proposed project been identified as part of the MPO planning process or is in any MPO planning document like a Long Range Transportation Plan or Bicycle and Pedestrian Transportation Plan?

- ☐ Yes ☐ No

Does the MPO support the proposed project?

If proposed project is not within an MPO boundary, mark Not Applicable.

- ☐ Yes ☐ No ☒ Not Applicable

Select MPO area:

If proposed project is not within an MPO boundary, mark Not Applicable.

- ☐ Bannock Planning Organization (BPO)
☐ Bonneville Metropolitan Planning Organization (BMPO)
☐ Community Planning Association of Southwest Idaho (COMPASS)
☐ Kootenai Metropolitan Planning Organization (KMPO)
☐ Lewis-Clark Valley Metropolitan Planning Organization (LCVMPO)
☒ Not Applicable

Attachments

The following attachments are to be completed and submitted with the application:

- ☒ Detailed Project Cost Estimate (Infrastructure) Project Budget (Non-infrastructure)
- ☐ Letters of Support (Minimum Local Government or Facility Owner, additional encouraged)
- ☐ Match Commitment
- ☒ Project Delivery Schedule
- ☐ District Coordination Letter

Additional Attachments

Question 1 – Project/Program Elements

- ☒ Site Map – Project Location
- ☒ Project Site Photos
- ☒ Environmental Screening (ITD-1983)
- ☐ site checklist

Question 2 – Property Ownership

- ☒ Right-of-Way Certificate
- ☐ Other

Question 3 – Financial Readiness

- ☐ Other

Question 4 – Mobility

- ☒ Site Map of connections labeling Land Use Types
- ☐ Documentation on capacity/trip induction

Question 5 – Safety

- ☐ Documentation
- ☐ Other

Question 6 – Economic Opportunity

- ☒ Site Map showing location of small businesses in relation to the project
- ☐ Letters of Support from Local Businesses
- ☐ Other

Question 7 – Bicycle and/or Pedestrian Count Data

Site Map of area(s) where counts have been conducted
If data has been collected over time, please provide all data
To be included in final application.

PRE-APPLICATION CHECKLIST

*All questions contained in this checklist are for infrastructure projects only
and are to be completed in collaboration with the District TAP Coordinator.*

PART 1: QUESTIONS

Applicant: City of Moscow, Idaho

Project Name: South Main Pedestrian Underpass Project

Project Manager:

Contact Information Email: aanderson@ci.moscow.id.us; Phone 208-883-7600 or bbelknap@ci.moscow.id.us 208-883-7011
for Project Manager:

Is the applicant an eligible sponsor? ☒ Yes ☐ No

Has the applicant previously completed a federal aid project? ☒ Yes ☐ No

Does the applicant acknowledge that receipt of funds requires compliance with several federal and state requirements, including but not limited to wage, equal opportunity, and environmental requirements? ☒ Yes ☐ No

BICYCLE FACILITIES (IF APPLICABLE)

Bicycle Facility description ☒ Shared use pathway ☐ Sharrow ☐ Striped bicycle lane ☐ Widened shoulder
☒ Other

Width of pathway, bicycle lane, shoulder, etc.: 10 feet Length: 710 feet

Distance from curb (for pathways): Varies from 0 - 45 feet from curb depending on location

Materials used: ☒ Asphalt ☒ Concrete ☐ Other

Standards Used: ☐ AASHTO ☒ Idaho State Public Works Construction ☐ ITD ☒ Local

This project is: ☐ part of road widening ☐ part of an existing road

Are there any areas where the facility will narrow to accommodate trees, signs or other obstructions? ☐ Yes ☒ No
If yes, explain:

What is the plan for maintaining the facility after construction is complete?

The City of Moscow, Park and Recreation/Public Works Departments will maintain the project.

Does your community normally require sidewalks or other pedestrian/bicycle improvements as a condition of subdivision or site plan approval? Explain: ☒ Yes ☐ No

PEDESTRIAN FACILITIES (IF APPLICABLE)

Pedestrian Facility description ☐ Sidewalk ☐ Sidewalk with curb and gutter ☒ Pathway
☒ Other

Width of pathway, bicycle lane, shoulder, etc.: 10 Length: 710 feet

Distance from curb (for pathways): Varies from 0 - 45 feet depending on location.

Materials used ☒ Asphalt ☒ Concrete ☐ Other

Number of curb ramps: 0

Standards Used: ☐ AASHTO ☒ Idaho State Public Works Construction ☐ ITD ☒ Local

This project is: ☐ part of road widening ☐ part of an existing road

Are there any areas where the facility will narrow to accommodate trees, signs or other obstructions? ☐ Yes ☒ No
If yes, explain:

What is the plan for maintaining the facility after construction is complete? City of Moscow will maintain.

Does your community normally require sidewalks or other pedestrian/bicycle improvements as a condition of subdivision or site plan approval? Explain:	☒ Yes	☐ No
RIGHT-OF-WAY		
Does the sponsor possess the necessary right-of-way to construct the project? If not, explain how right-of-way will be acquired.	☐ Yes	☒ No
The necessary easements will be obtained prior to the final grant due date.		
Does the sponsor hold necessary easements to construct the project? If not, explain how easements will be obtained.	☐ Yes	☒ No
The necessary easements will be obtained prior to the final grant due date.		
ENVIRONMENTAL		
Is it apparent that the project will meet the environmental criteria for Categorical Exclusion?	☒ Yes	☐ No
Is it apparent that the proposed project will require extensive cultural clearance?	☐ Yes	☒ No
Is it apparent that supplemental environmental documentation will be required to support a Categorical Exclusion determination?	☐ Yes	☒ No
For example: ☐ Wetlands ☐ Endangered Species ☐ Other		
Is it apparent that the project will cause an adverse effect to environmental resources? If yes, explain:	☐ Yes	☒ No
Are there any permitting requirements for the project? If yes, explain:		
Corp of Engineers 404 Permit and IDWR Stream Alteration Permit - Joint Application		
UTILITIES		
Is it apparent that the project will have utility conflicts? If yes, explain and identify affected utilities and how conflicts will be mitigated.	☐ Yes	☒ No
IRRIGATION		
Is it apparent that the project will have crossings or conflicts with irrigation facilities? If yes, explain and identify affected irrigation facilities and how conflicts will be mitigated.	☐ Yes	☒ No

PART 2: FORMS

- A. Environmental Screening Form
- B. Right-of-Way Certification
- C. TAP: Project Estimating Worksheet (used during application process to establish initial estimate)
- D. ITD-1150: Project Cost Summary Sheet (for infrastructure projects and used during development stage)

Instructions:

1. Line 16 of this form is for Mobilization, calculated as a percentage of the construction items listed on Lines 3 through 14. It is up to the Applicant to determine the appropriate percentage for the project, but 5 to 10% would be considered typical.
2. Line 17 of this form is for Construction Engineering and Contingencies, calculated as a percentage of the construction items listed on Lines 3 through 14 and the Mobilization cost listed on Line 16. Again, it is up to the Applicant to determine the appropriate percentage for the project, but 15%

would be considered typical, with 10% allocated to Construction Engineering and 5% allocated to Contingencies.

- E. Cost Estimate for Non-Infrastructure Projects: Safe Routes to School (for safe routes to school non-infrastructure projects)
- F. Has a traffic safety issue been identified in this project application? If so, knowing if the applicants and/or their community based law enforcement partners are already working with the ITD Office of Highway Safety (OHS) traffic safety grant programs. If so, please provide project Key Number and verify that the Scope of Work for that project is primarily connected with the area in the TAP application.
- G. Project Schedule (for infrastructure projects)

PART 3: SUMMARY OF REQUIREMENTS FOR FEDERAL AID RECIPIENTS

Applicants should keep in mind that receipt of federal funds requires compliance with the following federal and state requirements (note: this is not an exhaustive list):

1. **Equal Opportunity** requirements (non-discrimination) for construction contracts in excess of \$10,000. The non-discrimination requirements apply to a wide range of project elements, including contracting opportunities. A non-discrimination agreement must be signed as part of the award process, and records must be kept to show compliance. Disadvantaged Business Entity (DBE) requirements might apply.
2. Minimum wage requirements (**Davis-Bacon Act**) and anti-kickback requirements (**Copeland Act**) for construction contracts in excess of \$2,000. Records must be kept to show compliance.
3. No use of federal funds for lobbying, for construction contracts in excess of \$100,000.
4. National Environmental Policy Act (**NEPA**).
 - a. The National Environmental Policy Act requires federal actions (including local transportation projects receiving federal aid) to be evaluated for potential impacts to the environment. ITD and the FHWA jointly conduct this review.
 - i. For major actions that significantly affect the quality of the human environment, an Environmental Impact Statement (EIS) must be prepared. This is a lengthy (and expensive) process that requires consideration of alternatives, analysis of impacts, and compliance with a series of public notice and comment periods. Projects requiring an EIS would not be able to be completed within Community Choices time constraints.
 - ii. For projects in which the significance of the environmental impact is uncertain, an Environmental Assessment (EA) must be prepared. This document is more limited in scope than an EIS, and the procedure is not as lengthy. If through the EA process it is determined that there will not be significant impacts, a Finding of No Significant Impact (FONSI) is issued. If it is determined that there will be significant impacts, an EIS must be prepared.
 - iii. Most federal aid projects qualify for a "categorical exclusion," meaning that the project will not have a significant effect on the human environment. For these projects, neither an EIS nor an EA need be prepared. Federal regulations have identified several project types that typically receive a categorical exclusion (such as installation of utilities along a road; construction of bicycle and pedestrian paths; landscaping; installation of fences, signs, pavement markings and traffic signals, where no substantial land acquisition or traffic disruption would occur; alterations to facilities to make them accessible to elderly and handicapped persons; and other types of projects). Even though a proposed project might fall within an exclusion category, applicants must obtain clearance from ITD.
 - iv. Contact District Environmental Staff (listed at <http://itd.idaho.gov/enviro/District.Staff.htm>) for assistance with navigating the environmental review process.
5. Compliance with audit requirements:

- a. An entity expending \$500,000 or more in a year in combined Federal awards (including any funds received from Federal sources outside ITD: US federal contracts, subcontracts, loans grants, subgrants, and/or cooperative agreements) requires an A-133 Single Audit or program-specific audit each fiscal year.
 - b. An entity whose annual budget (from all sources) exceeds \$250,000 and expends any amount in a year in combined Federal awards are required to have a full and complete audit of financial statements each fiscal year.
 - c. An entity whose annual budget (from all sources) exceeds \$100,000 but does not exceed \$250,000 and expends any amount in a year of combined Federal awards has a minimum requirement of financial statements audit on a biennial basis. Biennial audits shall include an audit of each fiscal year since the previous audit.
 - d. An entity whose annual budget (from all sources) exceeds \$50,000 but does not exceed \$100,000 and expends any amount in a year of combined Federal awards has a minimum requirement of financial statements review on a biennial basis. Biennial review shall include a review of each fiscal year since the previous review.
 - e. An entity whose annual budget (from all sources) does not exceed \$50,000 and expends any amount in a year of combined Federal awards has a minimum requirement of financial statements review by ITD on a biennial basis. Biennial ITD reviews shall include a review of each fiscal year since the previous review.
6. Compliance with **Americans with Disability Act** requirements. This includes a compliance Self-Evaluation, and for agencies with 50 or more employees, an ADA Transition Plan. Transition Plans identify physical obstacles to accessibility, describe methods to make facilities accessible, specify a schedule for completion, identify a responsible official, estimate the cost of each modification, and record completion dates.
 7. Compliance with U.S. Office of Management and Budget (OMB) circulars on allowable costs, as follows:

For the costs of a:	Use the principles in:
State, Local or Indian Tribal Government	2 CFR 225
Private, nonprofit organization other than an (1) institution of higher education, (2) hospital, or (3) organization named in 2 CFR 230 as not subject to that circular	2 CFR 230
Educational institution	2 CFR 220
For-profit organization other than a hospital and an organization named in 2 CFR 230 as not subject to that circular	48 CFR Part 31, Contract Cost Principles and Procedures, or uniform cost accounting standards that comply with cost principles acceptable to the Federal agency.
 8. Compliance with ITD Grant Administration Team reimbursement requirements. Recipients must request reimbursement of an expense within 60 days or the expense will not be reimbursed. ITD has up to 30 days to issue the reimbursement.
 9. Compliance with minimum liability insurance requirements. Contractors must have comprehensive public and general liability insurance of at least \$500,000.00 per occurrence, and \$1,000,000.00 aggregate.

District TAP Coordinator Endorsement

According to the information provided by the sponsor and in this Site Checklist, the Idaho Transportation Department district office endorses this project as a potential TAP project candidate and would offer full support if project is selected.

Endorsement:


11/07/2019 2:27:31 PM

District TAP Coordinator

2

District

Date

Environmental Screening

For Community Transportation Enhancement (CTE),
Safe Routes to School (SR2S) and Scenic Byway Projects



Background - All project actions which involve a federal nexus (federal funds, federal permits or federal lands) must have an approved environmental document. ITD follows Federal Highway Administration guidelines for environmental documentation.

Responsibility - ITD will be responsible for the review and approval of the environmental document. The sponsor is responsible for the preparation of the environmental document. Pre-application coordination with the district office (environmental) is needed. In some cases the sponsor may arrange for ITD to complete all or part of the environmental documentation.

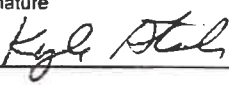
Purpose of Form - This form is not an environmental clearance. The questions screen for issues that could require additional analysis or work. If you answer yes to any of the following questions, the environmental requirements or impacts may be greater than expected. The impacts may not be compatible with your budget or schedule. You should seek further assistance from ITD regarding the viability of the project.

Contacts - For assistance with the environmental process please contact the ITD District Environmental Planner. An abbreviated environmental clearance is available for pavement marking projects.

Answer the following questions and explain in detail any response that is not clear from simply marking the box. When completed electronically, the form will expand to allow room for explanations.

Project Type/Scope of Work (i.e., landscaping, bike/pedestrian path, etc.)	Project Name/Location
Bike/Pedestrian Underpass	South Main Pedestrian Underpass Project/Moscow, ID

	Yes	No
Right of Way/Property Impacts - Will the project require acquisition of temporary or permanent easements, or right of way? Is the project on, or through, federal lands or tribal lands? Will the project cause a temporary or permanent disruption to a commercial property or residential neighborhood? Explain: The project will require the acquisition of permanent easements.	☒	☐
Traffic - Does the project add traffic lanes or traffic capacity? Explain:	☐	☒
Ground Disturbance - Does the project disturb more than one acre of land? Explain: The project is projected to disturb slightly less than two acres.	☒	☐
Stormwater - Where does the water (rain, snowmelt) from this project area drain? ☒ Sheet flows to surface waters (canal, stream, lake) ☐ Conveyed by ditch or pipe to surface waters ☐ Storm Sewer System (Municipal system) ☐ Infiltrate in Place (retention pond or topography with no drainage outlet [low area]) ☐ Other – if none of the above conditions Explain:		
Surface Waters - Does the project site contain any boggy, swampy, or wetland areas? Does the project impact (fill or temporarily impact) any wetland, stream, lake or other water body? Explain: The project will require the placement of fill material below the OHWM of Paradise Creek to facilitate the construction of the bike/pedestrian underpass.	☐ ☒	☒ ☐
Cultural Resources - Are there historical structures (such as buildings, bridges, canals, etc) over 45 years old within or adjacent to (in some cases within view) of the proposed project site? Explain: The Idaho State Historical Preservation Office conducted an inspection of the bridge (constructed in 1934) and determined it to be ineligible for listing in the National Register of Historical Places.	☐	☒

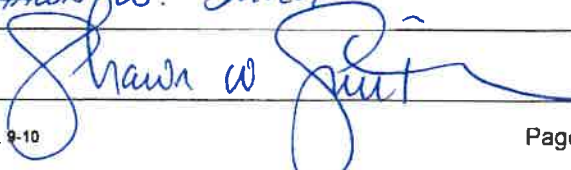
	Yes	No
Section 4f - Is the project site located next to or a part of a special designated land use (i.e., designated park, wildlife refuge, historic district, etc)? Check with local land use map for information.	☐	☒
Explain:		
Hazardous Waste - Is there any indication of waste spill or stain on the project site? Are there any gas stations, dry cleaner, or other industrial facilities adjacent to the project?	☐	☒
Explain:		
Public Involvement - Based on your public involvement, has any public controversy or issue been identified? Do you anticipate any temporary or permanent disruption to a commercial property or residential neighborhood (access changes or detours, construction noise etc?)	☐	☒
Explain:		
Irrigation - Does the project require irrigation? Describe whether the project will require watering and what source will be used for watering.	☐	☒
Explain:		
Right of Way Encroachment - Are there any signs, trees or other features you plan to locate within ITD right of way?	☐	☒
Explain:		
Offsite Work - Will the project require off-site grading, excavation or trenching for utilities, lighting, drainage or other work?	☐	☒
Explain:		
Describe any other known or suspected environmental issue that has not been covered		
Preparer's Printed Name Kyle Steele	Title Environmental Services Manager	Agency or Firm City of Moscow, ID
Signature 		Date 11/7/2019

- ITD Use Only -

Recommendation

- ☒ Based on the information in the project application and on this form, the project is likely to be eligible for a Categorical Exclusion.
- ☐ Based on the information in the project application and on this form, there were environmental areas of concern that should be further discussed prior to funding this project.
- ☐ There was not enough information in the project application and on this form to assess potential environmental issues.

Comment

Printed Name Shawn W. Smith		Title District Environmental Planner Senior
Signature 		Date 11/7/19



Idaho Transportation Department

ITD 1983 (Rev. 08-19)
itd.idaho.gov

Complete the applicable section below and the Certification section.

☐ All roadway work will be done within the existing right of way.

☐ No utilities are involved in this project and, _____, _____, _____ will be retained and protected.

☐ _____ (Number) utilities are impacted and agreements are in place.

[illegible]

I hereby certify that all acquisitions and relocations, if any, were performed in accordance with our assurances to comply with state and federal laws and regulations related to the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 and amendments thereto.

It is further certified that in all cases where the real property rights were obtained through donation, that the property owner(s) was fully informed of the right to receive just compensation and the owner has released our agency from its obligation to appraise the property in the event that the estimated value may exceed \$5,000.00.

I hereby certify that I have no knowledge of any previous hazardous materials use, or contamination discovered, on any of the lands to be utilized on this project.

Agency Contact's Name (Printed) Alisa J. Anderson	Phone Number 883-7600	E-Mail Address aanderson@ci.moscow.id.us	
Attester's Signature (Clerk or Secretary)	Date	Chairman, President, or Mayor's Signature	Date

TAP: Project Estimating Worksheet (Infrastructure)

Project Name: Moscow US 95 Pedestrian Underpass Project

Instructions:

- * Only input information in grey shaded areas below only.
- * Enter 0 in the percentages column if not seeking federal participation.
- * For infrastructure projects, the maximum federal funding is \$500,000.00.
- * Only work performed after the execution of the State and Local agreement is eligible for federal reimbursement.
- * The minimum local match amount is 7.34% of total project cost.
- * Local match is limited to cash only. In-kind contributions are not eligible.
- * Initial sponsor cash match payment is due prior to execution of the State and Local Agreement and counts towards the local cash match. (See amount below)

Infrastructure Project		Proposed Funding Match Rates		Local		Federal	
		50.35%		49.65%			
Phase Code	Description (include amounts for federal-aid items only)	Total Project Cost Percentage	Project Totals	Proposed Local Match Percentage	Local Cash Match	Proposed Federal Percentage	Federal Amount Requested
CN	Preliminary Construction Estimate (PCE) (Construction cost only)		\$653,199.60		\$328,886.00		\$324,313.60
CN	Construction Contingency 20% of PCE (Quantity overruns, change orders)		\$130,639.92		\$65,777.20		\$64,862.72
CE	Construction Engineering - Construction ITD construction admin. Expenses minimum \$4,500 (3% - 10% of PCE depending on the complexity of the project)		\$19,595.99		\$9,866.58		\$9,729.41
CL	Construction Engineering - Construction LHTAC construction admin. Expenses minimum \$10,000 depending on the complexity of the project		\$10,000.00	50.35%	\$5,035.00	49.65%	\$4,965.00
CC	Consultant Construction Inspection (Consultant) 5% - 20% of PCE or \$30,000 minimum (Consultants shall be selected through ITD established procedures)		\$65,319.96		\$32,888.60		\$32,431.36
PE	Preliminary Engineering - ITD Design ITD Expenses minimum \$4,500 (3% - 10% of PCE depending on the complexity of the project)		\$19,595.99		\$9,866.58		\$9,729.41
PL	Preliminary Engineering - LHTAC Design Expenses: \$10,000		\$10,000.00		\$5,035.00		\$4,965.00
PC	Preliminary Engineering - Consultant design Expenses: \$30,000 - \$90,000 (Approximately 5% - 30% of PCE based on complexity of project design)		\$97,979.94		\$49,332.90		\$48,647.04
Total Estimate (Infrastructure):		\$1,006,331.40			\$506,687.86		\$499,643.54

Total Project Estimate		Total Local Match		Total Federal Match	
\$1,006,331.90		\$506,687.86		\$499,643.54	
Meets maximum federal limit for infrastructure.					

Initial cash match payment (10% of Total Local Match, \$3,500 minimum): \$50,668.79

Funding Year		
Activity	Fiscal Year (Option 1)	Fiscal Year (Option 2)
Design	2022	2023
Construction	2023	2024

* In this section, indicate the fiscal years in which the project will be designed and constructed. Design activities should occur one year prior to construction. For scheduling flexibility, provide two options.

Fiscal Year - The fiscal year is the accounting period for the federal government which begins on October 1 and ends on September 30. The fiscal year is designated by the calendar year in which it ends; for example, fiscal year 2016 begins on October 1, 2015 and ends on September 30, 2016.



Project Cost Summary Sheet

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

Round Estimates to Nearest \$1,000

Key Number	Project Number	Date	
TBD	South Main Pedestrian Underpass Project, Moscow, Idaho	11/8/2019	
Location		District	
South Main		2	
Segment Code	Begin Mile Post	End Mile Post	Length in Miles

	Previous ITD 1150	Initial or Revise To
1a. Preliminary Engineering (PE)		\$30,000
1b. Preliminary Engineering by Consultant (PEC)		\$98,000
2. Right-of-Way: Number of Parcels Number of Relocations		
3. Utility Adjustments: ☐ Work ☐ Materials ☐ By State ☐ By Others		
4. Earthwork		\$143,000
5. Drainage and Minor Structures		\$8,000
6. Pavement and Base		\$38,000
7. Railroad Crossing:		
Grade/Separation Structure _____		
At-Grade Signals ☐ Yes ☐ No		
8. Bridges/Grade Separation Structures:		
☐ New Structure Length/Width _____		
Location _____		
☐ Repair/Widening/Rehabilitation Length/Width _____		
Location _____		
9. Traffic Items (Delineators, Signing, Channelization, Lighting, and Signals)		\$11,000
10. Temporary Traffic Control (Sign, Pavement Markings, Flagging, and Traffic Separation)		\$24,000
11. Detours		
12. Landscaping		
13. Mitigation Measures		\$43,000
14. Other Items (Roadside Development, Guardrail, Fencing, Sidewalks, Curb and Gutter, C.S.S. Items)		\$327,000
15. Cost of Constructions (Items 3 through 14)		\$594,000
16. Mobilization % of Item 15		\$59,000
17. Construction Engineer and Contingencies % of Items 15 and 16		\$226,000
18. Total Construction Cost (15 + 16 + 17)		\$879,000
19. Total Project Cost (1 + 2 + 18)		\$1,007,000
20. Project Cost Per Mile		

Prepared By:

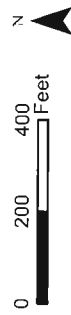
Project Function	Year Quarter
State/Local Agreement	
Obligate Design Funds	
Project Charter	
Environmental Evaluation	
Cultural Resources Evaluation	
Design Project	
Approval of plans, specifications & engineer's estimate	
Obligate Construction Funds	
Advertise & Award construction project	
Contract award	
Construct Project	
Project Completion	

[illegible]

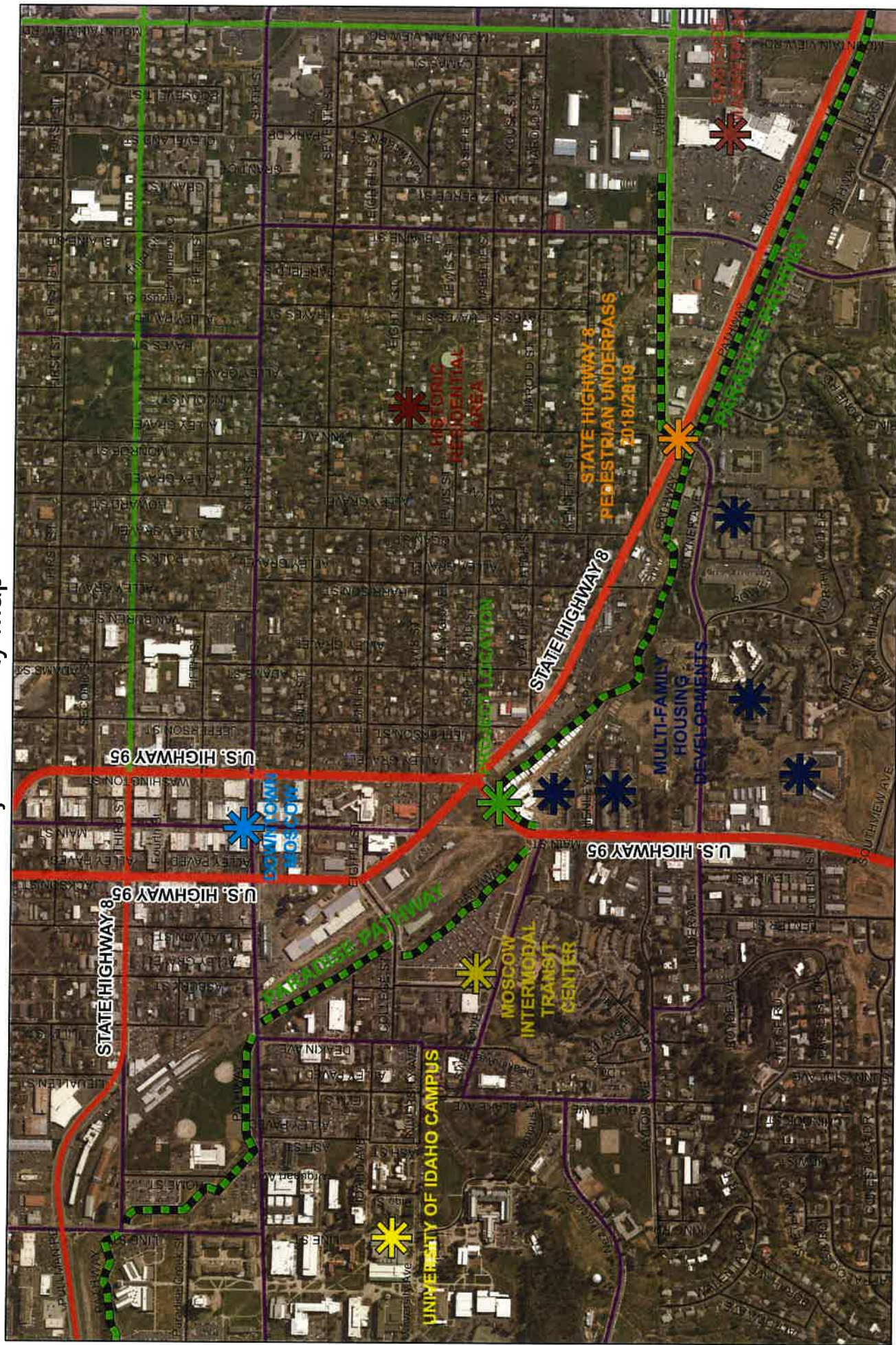
Project Location Map



This aerial map illustrates the project location at the intersection of Main St/U.S. 95 and Troy Rd/State Highway 8. The project area is highlighted with a green dashed line, and a yellow line indicates a boundary or path. The map shows surrounding residential and commercial areas, with labels for 'Project Location', 'TROY RD/STATE HIGHWAY 8', and 'MAIN ST/U.S. 95'.



Project Mobility Map



Alisa J. Anderson

From: Bill Belknap
Sent: Monday, August 20, 2018 11:27 AM
To: Alisa J. Anderson
Subject: FW: [EXTERNAL] RE: South Main/US 95 pedestrian underpass

FYI

From: Jared Hopkins [mailto:Jared.Hopkins@itd.idaho.gov]
Sent: Monday, August 20, 2018 9:21 AM
To: Bill Belknap <bbelknap@ci.moscow.id.us>
Cc: Ken Helm <Ken.Helm@itd.idaho.gov>
Subject: RE: [EXTERNAL] RE: South Main/US 95 pedestrian underpass

Yes Bill. ITD is in support of this project

Jared

From: Bill Belknap [mailto:bbelknap@ci.moscow.id.us]
Sent: Thursday, August 16, 2018 10:22 AM
To: Jared Hopkins
Cc: Ken Helm
Subject: [EXTERNAL] RE: South Main/US 95 pedestrian underpass

--- This email is from an external sender. Be cautious and DO NOT open links or attachments if the sender is unknown. ---

Jared, I was wondering if the permits committee had a chance to review this to determine if ITD would support our potential grant request?

Thank you,
Bill

From: Bill Belknap
Sent: Thursday, August 2, 2018 1:33 PM
To: jared.hopkins@itd.idaho.gov
Cc: Ken Helm (ken.helm@itd.idaho.gov) <ken.helm@itd.idaho.gov>
Subject: South Main/US 95 pedestrian underpass

Jared, it was great visiting with you and Ken and today. Attached is the sketch of the potential underpass project, along with the hydraulic assessment and wetland reports.

I will forward you the concept design drawings when I receive them which is expected by the end of this month. The concept sketches were just something that I prepared.

It would be helpful for us to understand if District 2 would be supportive of the project before we take any further steps. If D2 and Ken as the District TAP Coordinator are supportive of the project, I expect that we would get an archeological assessment completed and submitted to SHPO to get their opinion, below is their initial take on what their opinion would likely be.

Thanks,
Bill

Bill J. Belknap

Community Development Director, City of Moscow
Executive Director, Moscow Urban Renewal Agency
221 E. Second Street
Moscow, ID 83843
208.883.7011

From: Tricia Canaday <Tricia.Canaday@ishs.idaho.gov>
Sent: Wednesday, July 18, 2018 1:41 PM
To: Jamee Fiore <Jamee.Fiore@ishs.idaho.gov>; Michael Ray <mray@ci.moscow.id.us>
Cc: Matt Halitsky <Matt.Halitsky@ishs.idaho.gov>
Subject: Re: Bridge Question

Hi Mike:

Just weighing in to add that, technically, it is the federal agency's responsibility to consult with our office - so whichever agency might be funding the project, or issuing a permit - and not you as the fund-receiver/permittee.

I'll further say that, while we would need more specific information about the bridge and the process would still need to be completed, given the fact that one of the bridge's sidewall's is missing, it has poor integrity and it's unlikely that we would have any concerns. But again, if there's federal involvement of any kind, you'll still need to go through the process and make sure all the ts are crossed, etc., etc.

tlc



Science & Engineering, Inc.

alta-se.com

220 East Fifth Street, Suite 325
Moscow, Idaho 83843
Ph: (208) 882-7858; Fax: (208) 883-3785

MEMORANDUM

To: Bill Belknap, City of Moscow, Moscow, ID
From: Jess Dzara, Alta Science & Engineering, Moscow, ID
Susan Firor, Alta Science & Engineering, Moscow, ID
Date: July 2, 2018
Job Code: 18059
Subject: City of Moscow US95 Underpass Feasibility Memo

The City of Moscow is investigating the feasibility of constructing a bike/pedestrian underpass on existing streambanks and within the current concrete bridge for Paradise Creek at the US Highway 95 (US 95) crossing. This underpass would allow pedestrians and bike traffic to cross under US 95 on Paradise Path without needing to cross US 95, disrupting traffic flow on the highway. A similar underpass was designed and is being built in summer 2018 in the concrete bridge for Paradise Creek at the intersection of Highway 8 and White Avenue/Styner Avenue. The success of this project has motivated the City of Moscow to consider additional underpass opportunities to enhance pedestrian movement and safety in Moscow.

Alta Science & Engineering (Alta) was tasked to complete a review of the site hydrology and develop a hydraulic model to ensure project feasibility prior to engineering design. This memorandum summarizes the tasks and analyses completed. Elements necessary for this analysis include existing field survey, hydrologic estimates, and developing and interpreting the hydraulic model.

In order to move forward with this project, it is assumed the proposed condition must have no negative effects on the existing bridge during the 50-year flood event. The modeled proposed condition is a concrete and asphalt path approximately 10 feet wide, with a top finished grade surface 8 feet below the bottom chord of the bridge, located along the left (southwest) side of the bridge. Alta assumed the following project constraints and conditions for this analysis:

- The underpass trail shall be a minimum of 8 feet wide.
- The trail surface shall be a minimum of 8 feet below the low chord of the bridge.
- The trail shall be placed along the south bank of the stream and inside the bridge.
- The project shall cause no new flooding impacts upstream or downstream of the project.
- The project shall meet FEMA requirements for construction in a floodway.

Section 1 Field Survey

Alta completed a topographic and cross-sectional survey in February 2018 as part of the LOMR analysis on Paradise Creek. Existing survey data were used to model and analyze the bridge, associated infrastructure, and Paradise Creek for the existing condition and proposed US 95 underpass. This survey included stream channel cross-sections, a thalweg profile, and infrastructure inventory. The US 95 bridge structure was surveyed, including the concrete wingwalls, road surface elevation, bridge bottom chord elevation, width, and height of the

structure. All of this information was used in the hydraulic model to assess the hydraulic capacity of the existing structure. A supplemental survey is tentatively planned for the beginning of July 2018 to survey the existing sidewalk, path, and topography for conceptual design.

Section 2 Hydrologic Analysis

The objectives of hydrologic modeling are to determine reasonable estimates of peak flood flows and ensure that the proposed project will meet the requirements set forth by the City of Moscow and Idaho Transportation Department (ITD) for the modified bridge structure. Alta used several methods to estimate peak flows for use in the hydraulic model. The same methods were used in the Highway 8 Paradise Creek underpass design, but this analysis adds four years of flow data.

A real-time U.S. Geological Survey (USGS) gauge, #13346800 (USGS 1979–Current), is located on Paradise Creek in Moscow at the University of Idaho. This gauge has been in operation since 1979 and collects daily streamflow data from which USGS derives annual peak streamflows. These 39 years of peak streamflow data were used in accordance with Bulletin 17b (Interagency Advisory Committee on Water Data 1982) to estimate the 10-, 25-, 50-, and 100-year (Q_{10} , Q_{25} , Q_{50} , and Q_{100}) return interval flood flows at the gauge. See Attachment A for a complete list of recorded peak flows and storm event estimates. Because the site is upstream from the gauge, Alta adjusted these data to the specific project location using the similar watersheds method (Berenbrock 2002) for this region. Table 1 summarizes the peak streamflows calculated using the gauge data.

Peak flows were also estimated using regional regression equations developed by the USGS for Idaho (Berenbrock 2002) using the web-based StreamStats program (USGS, 2009). This analysis resulted in the peak streamflow values shown in Table 1 and complete output is included in Attachment A.

Table 1. Peak Flow Estimates at US Highway 95 Paradise Creek Bridge

Peak Flow Estimates at US Highway 95 Paradise Creek Bridge				
Method	Q_{10}	Q_{25}	Q_{50}	Q_{100}
Gage Data Corrected for Watershed Size (cfs)	489	630	737	846
Regional Regression - StreamStats (cfs)	409	589	743	904
ITD Structure Survey (cfs)	n/a	n/a	890	1100
FEMA Flood Insurance Study (cfs)	540	n/a	890	1070

As shown in Table 1, the peak flow estimates for the 50- and 100-year storm events vary significantly. The ITD structure survey (included in Attachment A) has the highest flow rates of all methods compared (ITD 1978). It is not known what methods and calculations ITD used. The analysis was done over 30 years ago; since then, much more stream gauge data have been collected and can be used to refine the analysis. The FEMA Flood Insurance Study for the City of Moscow has similar 50- and 100-year flow rates to the ITD structure survey (City of Moscow, 2002). Therefore, the maximum 50-yr storm event, 890 cubic feet per second (cfs), and the 100-year FEMA FIS flow of 1070 cfs were chosen as the design flows to provide the

most conservative model results and to remain consistent with the method used in the Paradise Creek Highway 8 Underpass hydraulic analysis.

Section 3 Hydraulic Analysis

The steady-state hydraulic analyses for the existing and proposed conditions were modeled using HEC-RAS 4.1.0 (USACE 2010). The existing survey data and hydrologic analyses described above were used to develop the base existing condition model to define the current conditions of Paradise Creek and the bridge. The proposed condition was modeled by modifying the cross-sections immediately upstream and downstream of the bridge with the addition of the trail.

The existing conditions for Paradise Creek at the US 95 Highway bridge consist of a fairly deep channel, nearly trapezoidal in shape, with a smaller, low-flow channel at the bottom that conveys the summer baseflow. Channel slopes range from adverse to 1.2% in the project reach. Alta assumed Manning's roughness coefficients (Manning's n) ranging from 0.013 for concrete or asphalt to 0.060 where thick reed canarygrass covers the streambanks.

The hydraulic model was run for the range of peak flows for both the existing and proposed conditions but, for the purpose of this memorandum, the focus is on the 50-year event, which is the required design flood event set forth by ITD; the highest estimated 50-year flood event (ITD and FEMA Flood Insurance Survey) was used to get the most conservative model results.

Section 4 Results

After completion of the full hydraulic analysis for the existing bridge with and without the proposed underpass, Alta concludes the project will result in minimal change in flow characteristics as a result of changes through the structure. This conclusion is based on comparison of the 50-year and 100-year return interval flows in existing and proposed conditions. At Q_{50} , the model indicates the proposed project will increase water surface elevation by a maximum of 0.10 feet, while velocity increases by a maximum of 1.07 feet per second. At Q_{100} , the model shows an increase of 0.10 feet in water surface elevation at the cross section 13 feet upstream of the bridge inlet. This minimal increase is not considered an issue at this phase of the design and will be minimized as the design progresses. Complete HEC-RAS model output is provided in Attachment B.

The proposed path is expected to flood for at least a few days almost every year. Based on 39 years of mean daily discharge records from the USGS gauge, the trail would be inundated for an average of 4.1 days per year (Table 2). This analysis was based upon a project site flow rate of 73 cfs, which correlates to a gauge flow rate of 85 cfs. It is noteworthy that these flooding events mainly occur between January and April when pedestrian and bicycle activity is at its lowest due to inclement weather.

Table 2. Bike Path Inundation at the Upstream End of US Highway 95 Paradise Creek Bridge

Bike Path Inundation at US Highway 95 Paradise Creek Bridge			
Days with Mean Daily Discharge Above 85 cfs	Minimum (Days/Year)	Maximum (Days/Year)	Average (Days/Year)
Total Days	0	17	4.1
Consecutive Days	0	8	2.1

Section 5 References

- Berenbrock, Charles, 2002. Estimating the Magnitude of Peak Flows at Selected Recurrence Intervals for Streams in Idaho, USGS Water-Resources Investigations Report 02-4170.
- City of Moscow, 2002. Flood Insurance Study, Revised April 15, 2002. Federal Emergency Management Agency Community Number 160090V000.
- Idaho Transportation Department (ITD), 1978. Hydraulic Structure Survey: Paradise Creek Bridge, July 18, 1978.
- Interagency Advisory Committee on Water Data, 1982. Guidelines for determining flood flow frequency Bulletin 17B of the Hydrology Subcommittee: U.S. Geological Survey, Office of Water Data Coordination, 183 p.
- U.S. Army Corps of Engineers (USACE), 2010. HEC-RAS, River Analysis System. Version 4.1.0
- U.S. Geological Survey (USGS), 1979–Current. "USGS 13346800 Paradise Cr at University of Idaho at Moscow ID"
<http://waterdata.usgs.gov/nwis/uv/?site_no=13346800&agency_cd=USGS> accessed June 2018.
- USGS, 2009. "StreamStats for Idaho" < <http://water.usgs.gov/osw/streamstats/index.html>>, accessed June 2018.



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Moscow, Idaho 83843

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Attachment A

Hydrology

U of I Gage Peak Flows_PeakFQ.txt
USGS

Z13346800			
H13346800	4643551170127001616057SW1706010817.7	17.7	2543.46
N13346800	PARADISE CR AT UNIVERSITY OF IDAHO AT MOSCOW ID		
Y13346800			
313346800	19790226	307	7.96
313346800	19800218	287	7.85
313346800	19810214	290	7.78
313346800	19820220	386	8.88
313346800	19830218	368	8.58
313346800	19840124	429	9.18
313346800	19850318	211	6.61
313346800	19860223	414	9.07
313346800	19870201	392	8.84
313346800	19871210	135	6.09
313346800	19890309	436	9.38
313346800	19900108	534	10.27
313346800	19910115	412	9.00
313346800	19920822	184	6.64
313346800	19930504	260	7.44
313346800	19940517	92.0	5.55
313346800	19950219	332	8.19
313346800	19960209	970	11.26
313346800	19970101	753	10.44
313346800	19971030	186	6.85
313346800	19981228	428	8.89
313346800	20000202	306	8.11
313346800	20010627	130	6.83
313346800	20020223	382	8.62
313346800	20030131	378	8.98
313346800	20040218	258	8.27
313346800	20050118	721	
313346800	20060117	1101	
313346800	20070103	1471	
313346800	20080229	202	8.30
313346800	20090108	273	9.01
313346800	20100105	182	8.07
313346800	20110116	339	9.58
313346800	20120326	398	10.04
313346800	20130930	111	7.15
313346800	20140309	152	8.05
313346800	20150209	181	8.54
313346800	20151207	73	8.59
313346800	20170310	735	10.86

U OF I GAGE PEAK FLOWS_PEAKEFQ_same specs as Uderpass 2014.PRT.txt

1

```

Program PeakFq          U. S. GEOLOGICAL SURVEY          Seq.002.000
Version 7.2             Annual peak flow frequency analysis  Run Date / Time
3/28/2018                06/14/2018 09:01

```

```

--- PROCESSING OPTIONS ---

```

```
Plot option           = Graphics device
Basin char output    = None
Print option         = Yes
Debug print          = No
Input peaks listing  = Long
Input peaks format   = WATSTORE peak file
```

Input files used:

```

peaks (ascii) - P:\Engineering\City of Moscow US95
Underpass\Hydrology\Gage\PeakFQ\U OF I GAGE PEAK FLOWS_PEAKEFQ.TXT

```

specifications - P:\Engineering\City of Moscow US95

Underpass\Hydrology\Gage\PeakFQ\PKFQWPSF.TMP

Output file(s):

main - P:\Engineering\City of Moscow US95
Underpass\Hydrology\Gage\PeakFQ\U OF I GAGE PEAK FLOWS_PEAKEFQ.PRT

```
*** User responsible for assessment and interpretation of the following analysis
***
```

1

```

Program PeakFq          U. S. GEOLOGICAL SURVEY          Seq.001.001
Version 7.2             Annual peak flow frequency analysis  Run Date / Time
3/28/2018                06/14/2018 09:01

```

Station - 13346800 PARADISE CR AT UNIVERSITY OF IDAHO AT MOSCOW ID

TABLE 1 - INPUT DATA SUMMARY

Number of peaks in record	=	39
Peaks not used in analysis	=	0
Gaged peaks in analysis	=	39
Historic peaks in analysis	=	0
Beginning Year	=	1979
Ending Year	=	2017

U OF I GAGE PEAK FLOWS_PEAKEFQ_same specs as Uderpass 2014.PRT.txt

Historical Period Length	=	39
Skew option	=	WEIGHTED
Regional skew	=	-0.293
Standard error	=	0.550
Mean Square error	=	0.303
Gage base discharge	=	0.0
User supplied high outlier threshold	=	--
User supplied PILF (LO) criterion	=	--
Plotting position parameter	=	0.00
Type of analysis		BULL.17B
PILF (LO) Test Method		GBT
Perceptible Ranges	=	Not Applicable
Interval Data	=	Not Applicable

TABLE 2 - DIAGNOSTIC MESSAGE AND PILF RESULTS

WCF134I-NO SYSTEMATIC PEAKS WERE BELOW GAGE BASE.	0.0
WCF195I-NO LOW OUTLIERS WERE DETECTED BELOW CRITERION.	49.9
WCF163I-NO HIGH OUTLIERS OR HISTORIC PEAKS EXCEEDED HHBASE.	1383.0
**WCF164W-HISTORIC PERIOD IGNORED.	39.0
WCF002J-CALCS COMPLETED. RETURN CODE = 2	

Kendall's Tau Parameters

	TAU	P-VALUE	MEDIAN SLOPE	No. of PEAKS
GAGED PEAKS	-0.217	0.053	-4.000	39

1

Program PeakFq	U. S. GEOLOGICAL SURVEY	Seq.001.002
Version 7.2	Annual peak flow frequency analysis	Run Date / Time
3/28/2018		06/14/2018 09:01

Station - 13346800 PARADISE CR AT UNIVERSITY OF IDAHO AT MOSCOW ID

TABLE 3 - ANNUAL FREQUENCY CURVE PARAMETERS -- LOG-PEARSON TYPE III

FLOOD BASE	LOGARITHMIC
-----	-----

U OF I GAGE PEAK FLOWS_PEAKEQ_same specs as Uderpass 2014.PRT.txt

	DISCHARGE	EXCEEDANCE PROBABILITY	MEAN	STANDARD DEVIATION	SKEW
SYSTEMATIC RECORD	0.0	1.0000	2.4193	0.2701	-0.249
BULL.17B ESTIMATE	0.0	1.0000	2.4193	0.2701	-0.263

BULL.17B ESTIMATE OF MSE OF AT-SITE SKEW 0.1488

TABLE 4 - ANNUAL FREQUENCY CURVE -- DISCHARGES AT SELECTED EXCEEDANCE PROBABILITIES

ANNUAL EXCEEDANCE PROBABILITY	BULL.17B ESTIMATE	SYSTEMATIC RECORD	<-- FOR BULLETIN 17B ESTIMATES --> LOG VARIANCE OF EST.	CONFIDENCE INTERVALS	
				5% LOWER	95% UPPER
0.9950	45.4	45.8	----	29.0	62.3
0.9900	54.8	55.2	----	36.5	73.4
0.9500	90.3	90.5	----	66.4	113.4
0.9000	116.5	116.6	----	89.8	142.4
0.8000	157.1	157.0	----	126.8	187.3
0.6667	205.5	205.3	----	171.2	242.3
0.5000	269.8	269.4	----	228.6	319.2
0.4292	301.1	300.7	----	255.6	358.4
0.2000	446.1	445.9	----	373.7	553.6
0.1000	571.4	572.1	----	469.2	737.1
0.0400	735.9	738.4	----	588.4	993.2
0.0200	861.4	865.8	----	676.1	1198.0
0.0100	988.6	995.3	----	762.6	1413.0
0.0050	1118.	1127.	----	848.6	1638.0
0.0020	1292.	1306.	----	961.8	1951.0

1

Program PeakFq	U. S. GEOLOGICAL SURVEY	Seq.001.003
Version 7.2	Annual peak flow frequency analysis	Run Date / Time
3/28/2018		06/14/2018 09:01

Station - 13346800 PARADISE CR AT UNIVERSITY OF IDAHO AT MOSCOW ID

TABLE 5 - INPUT DATA LISTING

WATER YEAR	PEAK VALUE	PEAKEQ CODES	REMARKS
1979	307.0		

U OF I GAGE PEAK FLOWS_PEAKFQ_same specs as Uderpass 2014.PRT.txt

1980	287.0
1981	290.0
1982	386.0
1983	368.0
1984	429.0
1985	211.0
1986	414.0
1987	392.0
1988	135.0
1989	436.0
1990	534.0
1991	412.0
1992	184.0
1993	260.0
1994	92.0
1995	332.0
1996	970.0
1997	753.0
1998	186.0
1999	428.0
2000	306.0
2001	130.0
2002	382.0
2003	378.0
2004	258.0
2005	72.0
2006	110.0
2007	147.0
2008	202.0
2009	273.0
2010	182.0
2011	339.0
2012	398.0
2013	111.0
2014	152.0
2015	181.0
2016	73.0
2017	735.0

Explanation of peak discharge qualification codes

PeakFQ CODE	NWIS CODE	DEFINITION
D	3	Dam failure, non-recurrent flow anomaly
G	8	Discharge greater than stated value
X	3+8	Both of the above

U OF I GAGE PEAK FLOWS_PEAKFQ_same specs as Uderpass 2014.PRT.txt
 L 4 Discharge less than stated value
 K 6 OR C Known effect of regulation or urbanization
 H 7 Historic peak

- Minus-flagged discharge -- Not used in computation
 -8888.0 -- No discharge value given
- Minus-flagged water year -- Historic peak used in computation

1

Program PeakFq	U. S. GEOLOGICAL SURVEY	Seq.001.004
Version 7.2	Annual peak flow frequency analysis	Run Date / Time
3/28/2018		06/14/2018 09:01

Station - 13346800 PARADISE CR AT UNIVERSITY OF IDAHO AT MOSCOW ID

TABLE 6 - EMPIRICAL FREQUENCY CURVES -- WEIBULL PLOTTING POSITIONS

WATER YEAR	RANKED DISCHARGE	SYSTEMATIC RECORD	B17B ESTIMATE
1996	970.0	0.0250	0.0250
1997	753.0	0.0500	0.0500
2017	735.0	0.0750	0.0750
1990	534.0	0.1000	0.1000
1989	436.0	0.1250	0.1250
1984	429.0	0.1500	0.1500
1999	428.0	0.1750	0.1750
1986	414.0	0.2000	0.2000
1991	412.0	0.2250	0.2250
2012	398.0	0.2500	0.2500
1987	392.0	0.2750	0.2750
1982	386.0	0.3000	0.3000
2002	382.0	0.3250	0.3250
2003	378.0	0.3500	0.3500
1983	368.0	0.3750	0.3750
2011	339.0	0.4000	0.4000
1995	332.0	0.4250	0.4250
1979	307.0	0.4500	0.4500
2000	306.0	0.4750	0.4750
1981	290.0	0.5000	0.5000
1980	287.0	0.5250	0.5250
2009	273.0	0.5500	0.5500
1993	260.0	0.5750	0.5750
2004	258.0	0.6000	0.6000

U OF I GAGE PEAK FLOWS_PEAKEQ_same specs as Uderpass 2014.PRT.txt

1985	211.0	0.6250	0.6250
2008	202.0	0.6500	0.6500
1998	186.0	0.6750	0.6750
1992	184.0	0.7000	0.7000
2010	182.0	0.7250	0.7250
2015	181.0	0.7500	0.7500
2014	152.0	0.7750	0.7750
2007	147.0	0.8000	0.8000
1988	135.0	0.8250	0.8250
2001	130.0	0.8500	0.8500
2013	111.0	0.8750	0.8750
2006	110.0	0.9000	0.9000
1994	92.0	0.9250	0.9250
2016	73.0	0.9500	0.9500
2005	72.0	0.9750	0.9750

1

End PeakEQ analysis.

Stations processed :	1
Number of errors :	0
Stations skipped :	0
Station years :	39

Data records may have been ignored for the stations listed below.
(Card type must be Y, Z, N, H, I, 2, 3, 4, or *.)
(2, 4, and * records are ignored.)

For the station below, the following records were ignored:

FINISHED PROCESSING STATION: 13346800 USGS PARADISE CR AT UNIVERSITY OF

For the station below, the following records were ignored:

FINISHED PROCESSING STATION:

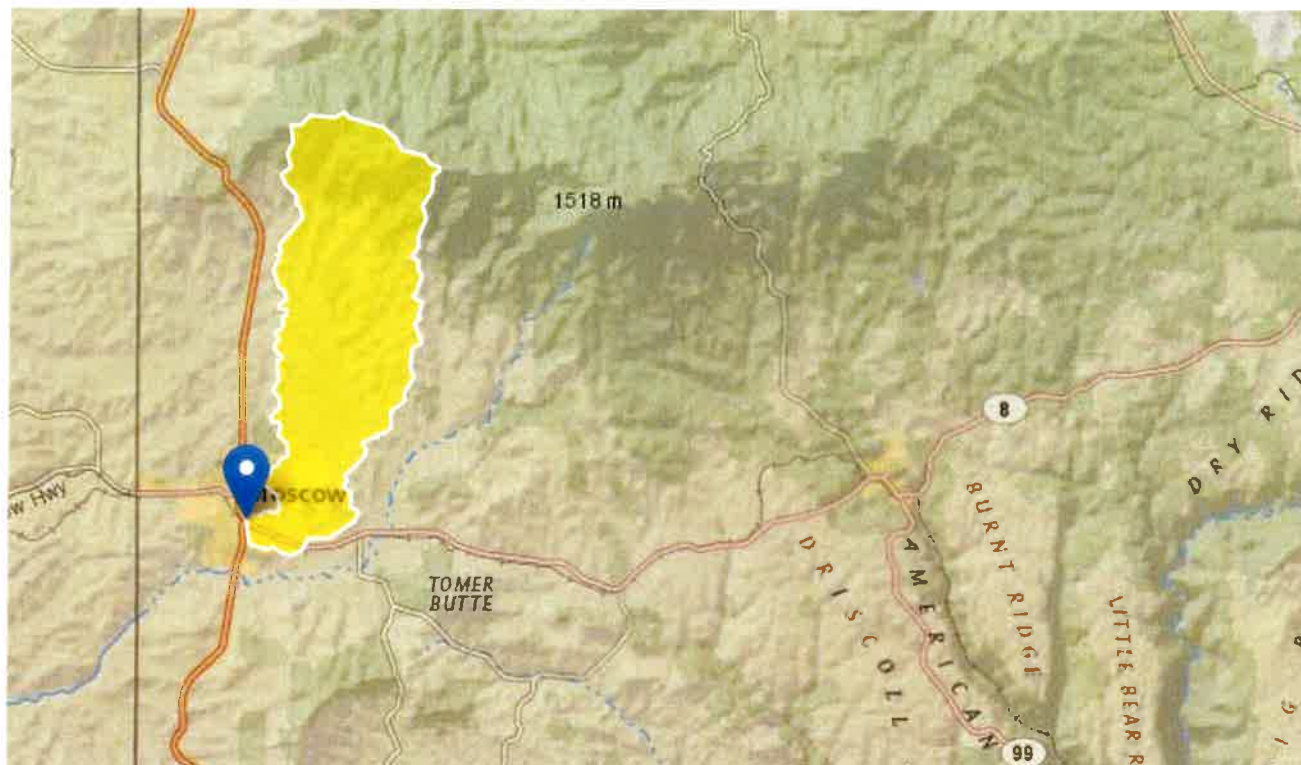
Hwy 95 Underpass StreamStats Report with Basin Characteristics

Region D: ID

Workspace ID: D20180613184445174000

Clicked Point (Latitude, Longitude): 46.72593, -117.00027

Time: 2018-06-13 11:45:01 -0700



Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	14.68	square miles
AG_OF_DA	Agricultural Land in Percentage of Drainage Area (Idaho Logistic Regression Equations S R 2006-5035	68.9	percent
BSLDEM10M	Mean basin slope computed from 10 m DEM	15	percent
BSLDEM30M	Mean basin slope computed from 30 m DEM	13.6	percent

Parameter Code	Parameter Description	Value	Unit
DV_OF_DA	Developed Land in Percentage of Drainage Area (Idaho Logistic Regression Equations S R 2006-5035)	11.6	percent
ELEV	Mean Basin Elevation	2890	feet
ELEVMAX	Maximum basin elevation	4350	feet
FOREST	Percentage of area covered by forest	15	percent
MINBELEV	Minimum basin elevation	2560	feet
REL_EF	Maximum - minimum elevation	1800	feet

Peak-Flow Statistics Parameters [Peak Flow Region 3 2016 5083]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	14.68	square miles	2.13	2500

Peak-Flow Statistics Flow Report [Peak Flow Region 3 2016 5083]

PI : Prediction Interval -Lower, P_u : Prediction Interval -Upper, SEp: Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	PI	P_u	SEp
1.25 Year Peak Flood	73.4	ft ³ /s	13.9	388	114
1.5 Year Peak Flood	102	ft ³ /s	21.7	481	103
2 Year Peak Flood	146	ft ³ /s	35.6	599	91.2
2.33 Year Peak Flood	169	ft ³ /s	43.3	658	86.7
5 Year Peak Flood	287	ft ³ /s	90.2	913	70.4
10 Year Peak Flood	409	ft ³ /s	148	1130	60.4
25 Year Peak Flood	589	ft ³ /s	251	1380	48.8
50 Year Peak Flood	743	ft ³ /s	355	1550	41.5
100 Year Peak Flood	904	ft ³ /s	482	1700	34.5
200 Year Peak Flood	1080	ft ³ /s	624	1880	29.1
500 Year Peak Flood	1330	ft ³ /s	853	2080	22.8

Peak-Flow Statistics Citations

Wood, M.S., Fosness, R.L., Skinner, K.D., and Veilleux, A.G., 2016, Estimating peak-flow frequency statistics for selected gaged and ungaged sites in naturally flowing streams and rivers in Idaho: U.S. Geological Survey Scientific Investigations Report 2016-5083, 56 p. (<http://dx.doi.org/10.3133/sir20165083>)

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Application Version: 4.2.1



HYDRAULIC STRUCTURES SURVEY

 BRIDGE ☒
 VERT ☐

 PROJECT NO. BRM-7744(1) STATION 30+62 DATE OF SURVEY July 18, 1978
 PROJECT TITLE Paradise Creek Bridge LOCAL NAME _____
 LOCATION South-East portion of Moscow COUNTY Latah
 ROADWAY IDENTIFICATION S.H. 8 CROSSING Paradise ☒ CREEK A TRIBUTARY OF Palouse River
☐ RIVER

HYDROLOGIC DATA

 FOR: UNOBSTRUCTED STREAM (PREFERRED) _____ EXISTING STRUCTURE ☒ ANTICIPATED STRUCTURE _____

Q _{MIN} <u>- 0 -</u> CFS;	V <u>- 0 -</u> FPS;	ELEV <u>2569.2</u> FT;	SOURCE <u>"A flood analysis of</u>
*Q ₅₀ <u>890</u> CFS;	V <u>3.68</u> FPS;	ELEV <u>2578.4</u> FT;	SOURCE <u>Paradise Creek, an</u>
Q ₁₀₀ <u>1,100</u> CFS;	V <u>4.55</u> FPS;	ELEV <u>2579.5</u> FT;	SOURCE <u>ungaged stream near</u>
Q <u>680⁺</u> CFS;	V <u>3.04</u> FPS;	ELEV <u>2578.0⁴</u> FT;	DATE <u>1/29/65</u>
+estimate by Abbott, 1968			measured from photographs J.W. Abbott, 1968
CHARACTER OF WATERSHED <u>19% Forest, 81% Palouse Prairie</u>			DRAINAGE AREA <u>14.5</u> ☐ ACRES
			☒ SQ MI

*(IF 500 CFS OR GREATER, A HYDRAULIC REPORT SHOULD ACCOMPANY THIS FORM)

HYDRAULIC DATA

 NATURAL STREAM OR CANAL Natural stream (with rechanneled MONTHS DRY, IF ANY Summer (some years)
sections)
 IS STREAM CUTTING OR FILLING filling STREAMBED ELEV 2569.2 E
 DOES STREAM CARRY AN APPRECIABLE AMOUNT OF ICE No ICE THICKNESS --- IN
 DOES STREAM CARRY AN APPRECIABLE AMOUNT OF DRIFTWOOD No
 CHARACTER OF STREAMBED MATERIAL silty-sand
 IS FLOW CONTROLLED No IF SO, DESCRIBE MANNER AND DEGREE OF CONTROL: ----

 AVERAGE GRADIENT OF EXISTING CHANNEL TO BE ALTERED 3.22 FEET PER THOUSAND FEET. DESCRIBE THE SECTION OF THE STREAM TO BE ALTERED BY REFERENCE TO A SECTION CORNER, OR OTHER PERMANENT REFERENCE.

PRESENT STRUCTURE

 DESCRIPTION (BRIDGE, CULVERT SIZE, LENGTH, ETC) Bridge; 34.5' span, 29.8' wide, 30° skew
 CONDITION Insufficient width for traffic volumes
 BRIDGE: NUMBER AND TYPE OF PIERS None EFFECTIVE WATERWAY AREA 224 sq. ft.
 SPREAD FOOTING OR PILES Piles CLEARANCE ABOVE DESIGN HIGH WATER ---
 CULVERT: HAS EXISTING CULVERT CARRIED FLOW ADEQUATELY ----
 REMARKS: Photographs of flood indicate that the existing effective waterway area should be retained if not increased.

PROPOSED STRUCTURE

REVERSE SIDE OF DH-210

TYPE RECOMMENDED Bridge, single span

BRIDGE: NUMBER AND LENGTH OF SPANS one, 34.5' span, (minimum) SKEW 30°

CLEARANCE ABOVE DESIGN HIGH WATER -0.0- WATERWAY AREA 224.0 min. F.

NUMBER OF PIERS -0- TYPE OF PIERS --- FLOW ANGLE TO PIERS ---

CHARACTER OF FOUNDATION MATERIAL blue clay*
 *(From File No. 604, Drawing No. 2724, Proj. No. 190-A, 1935)

CULVERT: TYPE --- DIMENSIONS --- TYPE INLET ---

INLET ELEV --- OUTLET ELEV --- AVAILABLE HEADWATER --- FT

CULVERT FLOWING UNDER ☐ INLET CONTROL ☐ OUTLET CONTROL TAILWATER DEPTH --- FT

WILL ALL FLOOD WATER PASS THROUGH THE PROPOSED STRUCTURE Yes IF NOT, ATTACH PROVISIONS FOR OVERFLOW

MINIMUM ACCEPTABLE BALLAST AT SHOULDER --- IS PAINTING OF CONCRETE RECOMMENDED ---

RECOMMENDED FILL SLOPE: UNDER STRUCTURE 2:1 max. AT WINGS 2:1 max.

IS RIPRAP REQUIRED Outlet channel IF SO, ATTACH RECOMMENDED SECTION, LIMITS, SIZE, TOE EMBEDMENT

IS CANAL LINING REQUIRED --- (IF SO, ATTACH TYPICAL SECTION OF LINING AND LIMITS)

WILL STRUCTURE REQUIRE CANAL COMPANY APPROVAL --- COMPANY NAME ---

IN ADDITION TO THE ABOVE INFORMATION, SUBMIT AND CHECK EACH OF THE FOLLOWING:

- ☒ A TYPICAL PROPOSED ROADWAY SECTION AT THE STRUCTURE
- ☒ A 22"x36" CONTOUR MAP OF A (BRIDGE)(CULVERT) SITE; ~~A CANAL USED FOR NAVIGATION, OR THE EFFECTS OF A DIVERSION STRUCTURE;~~ SHOWING 1-FOOT CONTOURS. IF THE STRUCTURE CROSSES A NATURAL STREAM, SHOW ON THE MAP THE NAMES AND ADDRESSES OF PROPERTY OWNERS WHO ADJOIN THE WATERWAY
- ☒ A CENTERLINE PROFILE TO THE SAME SCALE AS THE CONTOUR MAP
- ☒ IF THE STRUCTURE PROFILE CROSSES A NATURAL STREAM, A REPRODUCIBLE OF AN AREA MAP, SUCH AS A COUNTY MAP, WITH THE LOCATION OF THE STRUCTURE CLEARLY INDICATED
- ☒ A STREAMBED PROFILE 1000 FEET ABOVE AND BELOW THE STRUCTURE (OR WATERLINE PROFILE)
- ☐ IF PRACTICAL, PHOTOGRAPHS OF EXISTING STRUCTURE AND CHANNEL UPSTREAM & DOWNSTREAM FROM SITE

A LEGAL DESCRIPTION OF THE LOCATION

LOCATED IN THE NE 1/4, SW 1/4 (1/16 SECTION OR LOT NO.)
 OF SECTION 17, TOWNSHIP 39N, RANGE 5 W, B.M.
 IN Latah COUNTY.

APPROVALS

NOTES BY Lane Fortin

NOTES AND RECOMMENDATIONS APPROVED BY

HYDRAULICS-RELATED DATA APPROVED BY

APPROVED ---
 ROADWAY DESIGN SUPERVISOR

CONSULTANT'S

SIGNATURE AND SEAL

D. J. McAttee
 DISTRICT DESIGN ENGINEER

 WATER RESOURCE ENGINEER

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Moscow, Idaho 83843

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Attachment B

Hydraulics

50-yr Flow Event Hydraulic Model Outputs

Reach	River Sta	Profile	Plan	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	W.S. Elev Diff (ft)	Vel Chnl (ft/s)	Vel Chnl Diff (ft/s)	Flow Area (sq ft)	Top Width (ft)
PARADISECR	4099.7	FIS 50-yr	Existing	890	2570.39	2580.04		4.77		189.7	34
PARADISECR	4099.7	FIS 50-yr	Design	890	2570.39	2580.04	0.00	4.77	0.00	189.7	34
PARADISECR	4074	FIS 50-yr	Existing	890	2571.35	2579.98		4.82		186.2	39
PARADISECR	4074	FIS 50-yr	Design	890	2571.35	2579.98	0.00	4.82	0.00	186.2	39
PARADISECR	4026.7	FIS 50-yr	Existing	890	2571.02	2579.77		5.15		175.0	38
PARADISECR	4026.7	FIS 50-yr	Design	890	2571.02	2579.77	0.00	5.15	0.00	175.0	38
PARADISECR	3774.6	FIS 50-yr	Existing	890	2569.77	2579.10		4.56		200.4	42
PARADISECR	3774.6	FIS 50-yr	Design	890	2569.77	2579.10	0.00	4.56	0.00	200.4	42
PARADISECR	3588	FIS 50-yr	Existing	890	2569.20	2578.54		4.55		199.4	69
PARADISECR	3588	FIS 50-yr	Design	890	2569.20	2578.54	0.00	4.55	0.00	199.4	69
PARADISECR	3475.6	FIS 50-yr	Existing	890	2570.13	2578.03		5.12		175.0	40
PARADISECR	3475.6	FIS 50-yr	Design	890	2570.13	2578.03	0.00	5.12	0.00	175.0	40
PARADISECR	3368.5	FIS 50-yr	Existing	890	2569.34	2577.80		4.49		206.5	49
PARADISECR	3368.5	FIS 50-yr	Design	890	2569.34	2577.80	0.00	4.49	0.00	206.5	49
PARADISECR	3230.7	FIS 50-yr	Existing	890	2569.24	2577.25		5.30		170.3	48
PARADISECR	3230.7	FIS 50-yr	Design	890	2569.24	2577.25	0.00	5.30	0.00	170.3	48
PARADISECR	3147	FIS 50-yr	Existing	890	2571.97	2577.34		2.89		331.3	122
PARADISECR	3147	FIS 50-yr	Design	890	2571.97	2577.34	0.00	2.89	0.00	331.3	122
PARADISECR	3132.4	FIS 50-yr	Existing	890	2570.41	2577.13		4.40		227.4	106
PARADISECR	3132.4	FIS 50-yr	Design	890	2570.41	2577.13	0.00	4.40	0.00	227.5	106
PARADISECR	2954.9	FIS 50-yr	Existing	890	2566.39	2576.74		3.99		275.0	114
PARADISECR	2954.9	FIS 50-yr	Design	890	2566.39	2576.74	0.00	3.99	0.00	275.1	114
PARADISECR	2649.9	FIS 50-yr	Existing	890	2567.77	2576.28		3.11		413.1	244
PARADISECR	2649.9	FIS 50-yr	Design	890	2567.77	2576.28	0.00	3.11	0.00	413.4	244
PARADISECR	2375.9	FIS 50-yr	Existing	890	2565.97	2575.87		3.20		287.6	82
PARADISECR	2375.9	FIS 50-yr	Design	890	2565.97	2575.87	0.00	3.20	0.00	287.7	82
PARADISECR	2293.5	FIS 50-yr	Existing	890	2566.76	2575.58		4.30		206.9	51
PARADISECR	2293.5	FIS 50-yr	Design	890	2566.76	2575.58	0.00	4.30	0.00	207.0	51
PARADISECR	2140.8	FIS 50-yr	Existing	890	2566.79	2575.07		4.63		203.4	100
PARADISECR	2140.8	FIS 50-yr	Design	890	2566.79	2575.07	0.00	4.62	-0.01	203.7	100
PARADISECR	1977.7	FIS 50-yr	Existing	890	2566.44	2573.67		8.01		117.1	26
PARADISECR	1977.7	FIS 50-yr	Design	890	2566.44	2573.67	0.01	7.99	-0.02	117.4	26
PARADISECR	1723.3	FIS 50-yr	Existing	890	2564.70	2572.96		5.68		174.0	56
PARADISECR	1723.3	FIS 50-yr	Design	890	2564.70	2572.98	0.02	5.63	-0.05	175.6	56
PARADISECR	1453.9	FIS 50-yr	Existing	890	2563.95	2571.78		6.47		138.5	31
PARADISECR	1453.9	FIS 50-yr	Design	890	2563.95	2571.84	0.06	6.38	-0.09	140.6	31
PARADISECR	1413.65*	FIS 50-yr	Existing	890	2564.05	2571.75		5.44		164.0	40
PARADISECR	1413.65*	FIS 50-yr	Design	890	2564.05	2571.83	0.08	5.35	-0.09	166.9	40
PARADISECR	1373.4	FIS 50-yr	Existing	890	2564.15	2571.23		6.85		129.9	44
PARADISECR	1373.4	FIS 50-yr	Design	890	2564.15	2571.33	0.10	6.71	-0.14	132.7	45
PARADISECR	1360.4	FIS 50-yr	Existing	890	2564.04	2571.41		4.47		199.1	27
PARADISECR	1360.4	FIS 50-yr	Design	890	2564.04	2571.40	-0.01	5.54	1.07	160.6	27
PARADISECR	1313			Bridge							
PARADISECR	1266.4	FIS 50-yr	Existing	890	2562.91	2571.36		3.90		228.2	27
PARADISECR	1266.4	FIS 50-yr	Design	890	2562.91	2571.24	-0.12	4.73	0.83	188.0	27
PARADISECR	1246	FIS 50-yr	Existing	890	2562.66	2570.73		7.10		125.4	44
PARADISECR	1246	FIS 50-yr	Design	890	2562.66	2570.73	0.00	7.10	0.00	125.4	44
PARADISECR	1191.6	FIS 50-yr	Existing	890	2563.17	2569.61		9.05		99.0	30
PARADISECR	1191.6	FIS 50-yr	Design	890	2563.17	2569.61	0.00	9.05	0.00	99.0	30
PARADISECR	1111.1	FIS 50-yr	Existing	890	2564.17	2569.76		5.77		176.1	49
PARADISECR	1111.1	FIS 50-yr	Design	890	2564.17	2569.76	0.00	5.77	0.00	176.1	49
PARADISECR	1064.45*	FIS 50-yr	Existing	890	2563.05	2570.00		2.34		390.1	81
PARADISECR	1064.45*	FIS 50-yr	Design	890	2563.05	2570.00	0.00	2.34	0.00	390.1	81
PARADISECR	1017.8	FIS 50-yr	Existing	890	2561.92	2569.87		3.25		273.7	119
PARADISECR	1017.8	FIS 50-yr	Design	890	2561.92	2569.87	0.00	3.25	0.00	273.7	119
PARADISECR	972			Bridge							
PARADISECR	906.3	FIS 50-yr	Existing	890	2563.22	2568.52		7.72		115.3	36
PARADISECR	906.3	FIS 50-yr	Design	890	2563.22	2568.52	0.00	7.72	0.00	115.3	36
PARADISECR	817.4	FIS 50-yr	Existing	890	2560.97	2568.48		3.88		239.7	92
PARADISECR	817.4	FIS 50-yr	Design	890	2560.97	2568.48	0.00	3.88	0.00	239.7	92
PARADISECR	607.4	FIS 50-yr	Existing	890	2560.50	2568.31		2.56		362.2	109
PARADISECR	607.4	FIS 50-yr	Design	890	2560.50	2568.31	0.00	2.56	0.00	362.2	109

100-yr Flow Event Hydraulic Model Outputs

Reach	River Sta	Profile	Plan	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	W.S. Elev Diff (ft)	Vel Chnl (ft/s)	Vel Chnl Diff (ft/s)	Flow Area (sq ft)	Top Width (ft)
PARADISECR	4099.7	FIS 100-yr	Existing	1070	2570.39	2580.58		5.25		208.2	35
PARADISECR	4099.7	FIS 100-yr	Design	1070	2570.39	2580.58	0.00	5.25	0.00	208.2	35
PARADISECR	4074	FIS 100-yr	Existing	1070	2571.35	2580.52		5.22		207.8	41
PARADISECR	4074	FIS 100-yr	Design	1070	2571.35	2580.52	0.00	5.22	0.00	207.8	41
PARADISECR	4026.7	FIS 100-yr	Existing	1070	2571.02	2580.30		5.57		195.5	40
PARADISECR	4026.7	FIS 100-yr	Design	1070	2571.02	2580.30	0.00	5.57	0.00	195.5	40
PARADISECR	3774.6	FIS 100-yr	Existing	1070	2569.77	2579.58		5.00		221.6	47
PARADISECR	3774.6	FIS 100-yr	Design	1070	2569.77	2579.58	0.00	5.00	0.00	221.6	47
PARADISECR	3588	FIS 100-yr	Existing	1070	2569.20	2579.06		4.68		240.0	97
PARADISECR	3588	FIS 100-yr	Design	1070	2569.20	2579.06	0.00	4.68	0.00	240.0	97
PARADISECR	3475.6	FIS 100-yr	Existing	1070	2570.13	2578.49		5.59		193.8	42
PARADISECR	3475.6	FIS 100-yr	Design	1070	2570.13	2578.49	0.00	5.59	0.00	193.8	42
PARADISECR	3368.5	FIS 100-yr	Existing	1070	2569.34	2578.25		4.90		229.1	50
PARADISECR	3368.5	FIS 100-yr	Design	1070	2569.34	2578.25	0.00	4.90	0.00	229.1	50
PARADISECR	3230.7	FIS 100-yr	Existing	1070	2569.24	2577.62		5.84		193.4	72
PARADISECR	3230.7	FIS 100-yr	Design	1070	2569.24	2577.62	0.00	5.84	0.00	193.4	72
PARADISECR	3147	FIS 100-yr	Existing	1070	2571.97	2577.74		3.09		383.5	137
PARADISECR	3147	FIS 100-yr	Design	1070	2571.97	2577.74	0.00	3.09	0.00	383.6	137
PARADISECR	3132.4	FIS 100-yr	Existing	1070	2570.41	2577.52		4.69		273.5	125
PARADISECR	3132.4	FIS 100-yr	Design	1070	2570.41	2577.52	0.00	4.69	0.00	273.5	125
PARADISECR	2954.9	FIS 100-yr	Existing	1070	2566.39	2577.14		4.17		323.3	126
PARADISECR	2954.9	FIS 100-yr	Design	1070	2566.39	2577.14	0.00	4.17	0.00	323.4	126
PARADISECR	2649.9	FIS 100-yr	Existing	1070	2567.77	2576.82		2.77		546.3	249
PARADISECR	2649.9	FIS 100-yr	Design	1070	2567.77	2576.82	0.00	2.77	0.00	546.6	249
PARADISECR	2375.9	FIS 100-yr	Existing	1070	2565.97	2576.43		3.40		337.2	97
PARADISECR	2375.9	FIS 100-yr	Design	1070	2565.97	2576.43	0.00	3.40	0.00	337.4	97
PARADISECR	2293.5	FIS 100-yr	Existing	1070	2566.76	2576.12		4.52		246.5	94
PARADISECR	2293.5	FIS 100-yr	Design	1070	2566.76	2576.13	0.01	4.52	0.00	246.7	94
PARADISECR	2140.8	FIS 100-yr	Existing	1070	2566.79	2575.73		4.56		278.2	128
PARADISECR	2140.8	FIS 100-yr	Design	1070	2566.79	2575.73	0.00	4.56	0.00	278.7	128
PARADISECR	1977.7	FIS 100-yr	Existing	1070	2566.44	2574.20		8.62		131.6	28
PARADISECR	1977.7	FIS 100-yr	Design	1070	2566.44	2574.21	0.01	8.60	-0.02	132.0	28
PARADISECR	1723.3	FIS 100-yr	Existing	1070	2564.70	2573.64		5.46		215.7	65
PARADISECR	1723.3	FIS 100-yr	Design	1070	2564.70	2573.67	0.03	5.41	-0.05	217.5	65
PARADISECR	1453.9	FIS 100-yr	Existing	1070	2563.95	2572.40		6.82		160.4	41
PARADISECR	1453.9	FIS 100-yr	Design	1070	2563.95	2572.48	0.08	6.73	-0.09	163.4	42
PARADISECR	1413.65*	FIS 100-yr	Existing	1070	2564.05	2572.42		5.64		191.4	44
PARADISECR	1413.65*	FIS 100-yr	Design	1070	2564.05	2572.49	0.07	5.55	-0.09	194.7	44
PARADISECR	1373.4	FIS 100-yr	Existing	1070	2564.15	2571.80		7.36		145.4	48
PARADISECR	1373.4	FIS 100-yr	Design	1070	2564.15	2571.90	0.10	7.22	-0.14	148.1	48
PARADISECR	1360.4	FIS 100-yr	Existing	1070	2564.04	2572.00		4.98		215.0	27
PARADISECR	1360.4	FIS 100-yr	Design	1070	2564.04	2571.98	-0.02	6.07	1.09	176.2	27
PARADISECR	1313			Bridge							
PARADISECR	1266.4	FIS 100-yr	Existing	1070	2562.91	2571.94		4.39		243.9	27
PARADISECR	1266.4	FIS 100-yr	Design	1070	2562.91	2571.80	-0.14	5.27	0.88	203.1	27
PARADISECR	1246	FIS 100-yr	Existing	1070	2562.66	2571.19		7.81		137.2	46
PARADISECR	1246	FIS 100-yr	Design	1070	2562.66	2571.19	0.00	7.81	0.00	137.2	46
PARADISECR	1191.6	FIS 100-yr	Existing	1070	2563.17	2570.10		9.54		114.3	33
PARADISECR	1191.6	FIS 100-yr	Design	1070	2563.17	2570.10	0.00	9.54	0.00	114.3	33
PARADISECR	1111.1	FIS 100-yr	Existing	1070	2564.17	2570.34		6.07		204.9	52
PARADISECR	1111.1	FIS 100-yr	Design	1070	2564.17	2570.34	0.00	6.07	0.00	204.9	52
PARADISECR	1064.45*	FIS 100-yr	Existing	1070	2563.05	2570.60		2.51		439.1	84
PARADISECR	1064.45*	FIS 100-yr	Design	1070	2563.05	2570.60	0.00	2.51	0.00	439.1	84
PARADISECR	1017.8	FIS 100-yr	Existing	1070	2561.92	2570.43		3.63		295.0	120
PARADISECR	1017.8	FIS 100-yr	Design	1070	2561.92	2570.43	0.00	3.63	0.00	295.0	120
PARADISECR	972			Bridge							
PARADISECR	906.3	FIS 100-yr	Existing	1070	2563.22	2569.00		8.11		132.0	38
PARADISECR	906.3	FIS 100-yr	Design	1070	2563.22	2569.00	0.00	8.11	0.00	132.0	38
PARADISECR	817.4	FIS 100-yr	Existing	1070	2560.97	2569.07		3.82		295.0	96
PARADISECR	817.4	FIS 100-yr	Design	1070	2560.97	2569.07	0.00	3.82	0.00	295.0	96
PARADISECR	607.4	FIS 100-yr	Existing	1070	2560.50	2568.92		2.61		429.7	113
PARADISECR	607.4	FIS 100-yr	Design	1070	2560.50	2568.92	0.00	2.61	0.00	429.7	113



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MEMORANDUM

To: Bill Belknap, City of Moscow
From: Tom Jenkins, Alta
Susan Firor, Alta
Date: July 16, 2018
Job Code: 18059
Subject: Wetland Investigation – City of Moscow US-95 Path Underpass

Section 1 Introduction

The City of Moscow is investigating the feasibility of constructing a bike/pedestrian underpass on existing streambanks and within the current concrete bridge for Paradise Creek at the US Highway 95 (US 95) crossing. In consideration of potential underpass construction, Alta has been tasked to perform a wetland investigation/delineation. The approximate project footprint is located in Moscow, Idaho, to the east and west of the bridge on US 95, and between Sweet Avenue and the existing Paradise Path to the south and Highway 8 to the northeast. Figure 1 shows the spatial extent of this wetland investigation.

The National Wetlands Inventory (USFWS 2018) indicates the potential for riverine wetlands to occur along the banks of Paradise Creek.

On July 5, 2018, field personnel conducted a visual assessment to determine whether wetlands occur in the project area. Determinations were based on the US Army Corps of Engineers guidance in the Wetland Delineation Manual (USACE 1987).

Section 2 Wetland Indicators

The presence of a wetland is determined based on three main characteristics as described in the Western Mountains, Valleys, and Coast Regional Supplement (USACE 2010): (1) site must exhibit dominance of hydrophytic vegetation, (2) site must have hydric soils, and (3) site must have evidence of wetland hydrology. This section presents observed site information for each of these wetland indicators.

2.1 Vegetation

Non-native vegetation is dominant within the proposed boundaries of the project area. Non-native species include reed canarygrass (*Phalaris arundinacea*), prickly lettuce (*Lactuca serriola*), stinking chamomile (*Anthemis cotula*), oxeye daisy (*Leucanthemum vulgare*), and spotted knapweed (*Centaurea stoebe*). Vegetation facultative to wetlands primarily exists within the stream channel and low stream banks. The dominant species within the stream channel is Pacific willow (*Salix lucida*). Identification of grasses outside the stream channel is made difficult due to regular mowing activities that occur during the growing season. Reed canarygrass and Pacific willow are both wetland plant species found within the banks of the creek.

2.2 Hydric Soils

A brief check of the U.S. Department of Agriculture (USDA) Web Soil Survey for this site indicates the soil properties have no hydric soil rating (USDA 2018). The man-made banks of Paradise Creek in the project reach consist primarily of riprap and do not promote water storage in the soils or flooding outside the existing stream channel. Within the channel, soils are too rocky to dig test pits and show no indicators of wetland hydrology. Hydrologic conditions that promote hydric soils along the banks are very short lived in this reach in most years. Visual observations made during annual peak-flow periods indicate no water migration beyond the banks of Paradise Creek. Due to a lack of inundation, soils outside the stream channel are not exposed to anaerobic conditions for periods long enough to develop hydric indicators.

2.3 Hydrology

Typical hydrologic indicators of wetlands include surface water, saturation, drainage patterns, and others as listed in the supplement (USACE 2010). None of these indicators were present at this site during the field visit. Even during wetter periods of the year, due to the hydrology of the Paradise Creek, no substantial water storage is likely to occur beyond the lowest portion of the stream channel.

Section 3 Conclusions

The presence or occurrence of wetlands in the project area is unlikely due to the factors discussed in Section 2. No formal wetland delineation is recommended due to conditions observed in the field.

Section 4 References

- U.S. Army Corps of Engineers (USACE), 1987. Corps of Engineers Wetlands Delineation Manual.
- USACE, 2010. Regional Supplement to the Corps of Engineers Wetlands Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0).
- U.S. Department of Agriculture (USDA), 2018. Plants Database. Accessed July 12, 2018. <https://plants.usda.gov/core/profile?symbol=RAAC3>
- USDA. 2018. Web Soil Survey website. Accessed July 5, 2018. <http://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>
- U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory wetland mapper. Accessed July 5, 2018, at <http://www.fws.gov/wetlands/Data/Mapper.html>

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NO.	DATE	REV	DATE	BY	CHK	DATE	BY	CHK	DATE	BY	CHK
1	11/13/18										
2	11/13/18										
3	11/13/18										
4	11/13/18										
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6	11/13/18										
7	11/13/18										
8	11/13/18										
9	11/13/18										
10	11/13/18										

DESIGNER	J. CZARA	COORDINATE SYSTEM	NA
SCALE	1" = 60'	APPROVED	
CHECKED	S. PIRCH	DATE	11/13/18



CITY OF MOSCOW US95 PATH UNDERPASS
MOSCOW, IDAHO

FIGURE 1. US95 PARADISE PATH WETLAND INVESTIGATION AREA

SHEET	1
DATE	11/13/18
PROJECT NO.	18018
SHEET NO.	1 OF 1

AUGUST 2018

PREPARED FOR:

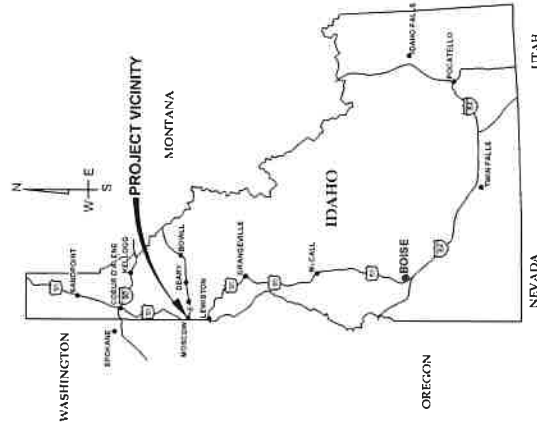


CITY OF MOSCOW
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ENGINEER:



Alta Science & Engineering, Inc.
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VICINITY MAP

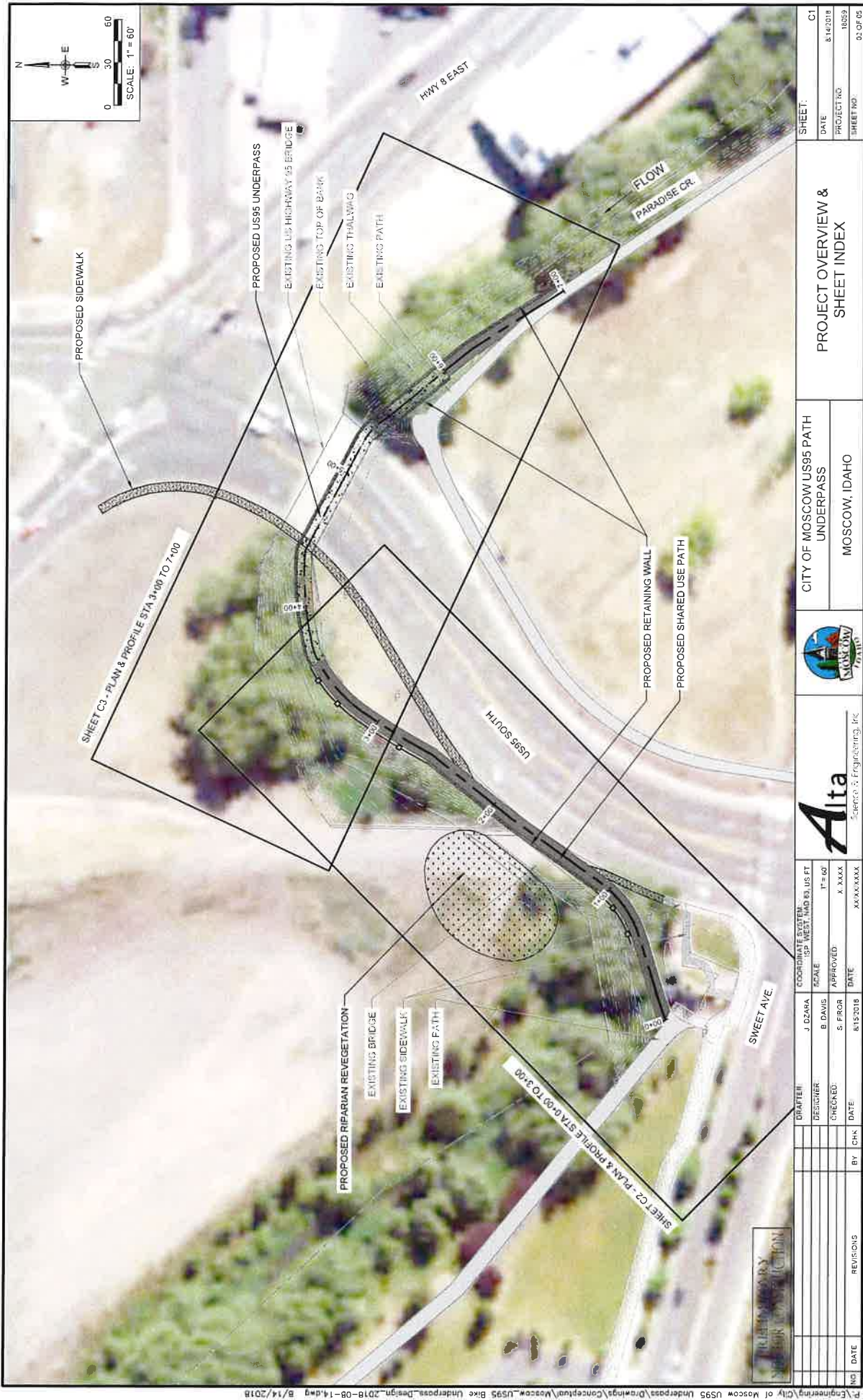


LOCATION MAP
SCALE: 1" = 500'

SHEET #	SHEET NAME	SHEET INDEX
1	COVER SHEET	CS
2	PROJECT OVERVIEW & SHEET INDEX	C1
3	PATH PLAN & PROFILE - STA 0+00 TO 3+00	C2
4	PATH PLAN & PROFILE - STA 3+00 TO 7+00	C3
5	DETAILS	D1

PRELIMINARY
NOT FOR CONSTRUCTION

NO.	DATE	REVISIONS	BY	CHK	DATE	08/15/2018	S	FROR	AS SHOWN	SCALE	COORDINATE SYSTEM NAD 83 - UTM ZONE 18Q UTM	DATE	08/15/2018	J	TEBARA	ENGINEER	DRAWN BY	CITY OF MOSCOW US95 PATH UNDERPASS	CITY OF MOSCOW, IDAHO	COVER SHEET	PROJECT NO	1829	DATE	8/14/2018	SHEET	1 OF 05	SHEET NAME:	CS
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SHEET:	C1
DATE:	8/14/2018
PROJECT NO:	10059
SHEET NO:	03 OF 03

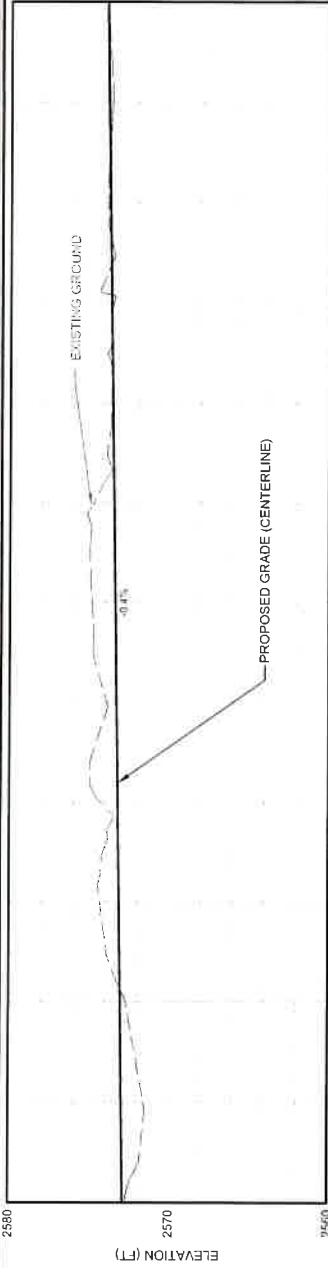
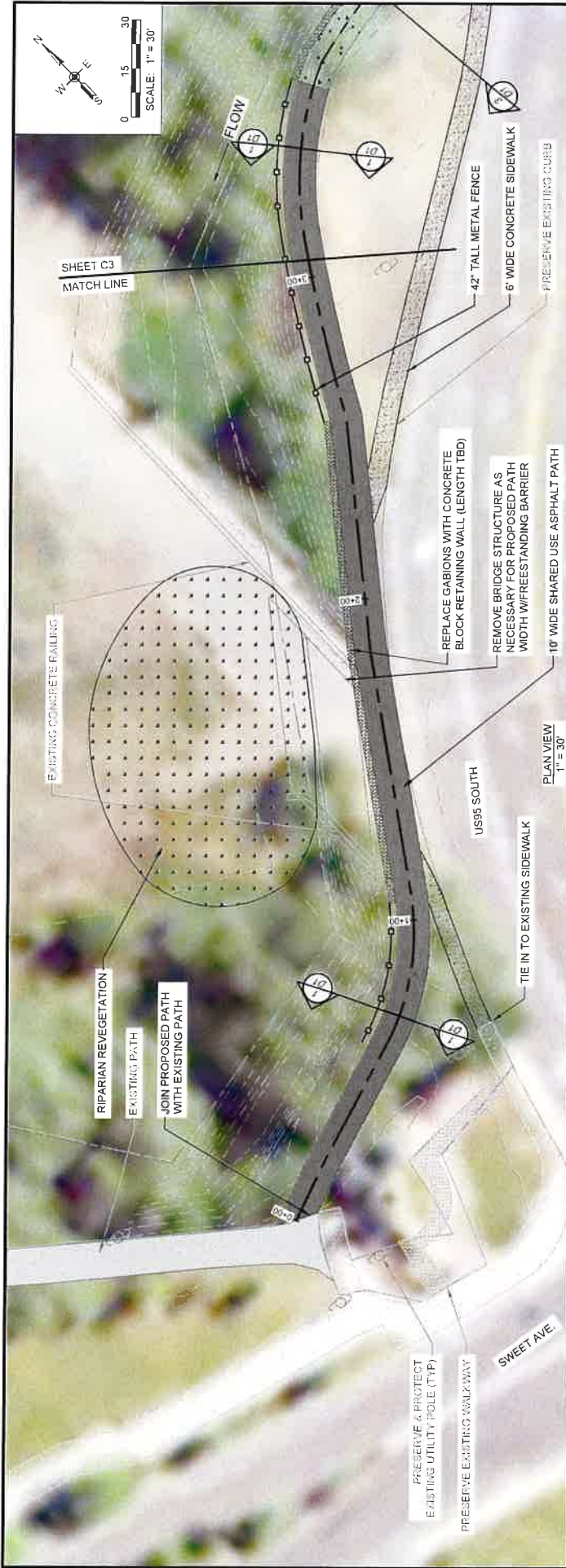
**PROJECT OVERVIEW &
SHEET INDEX**

CITY OF MOSCOW US95 PATH UNDERPASS
MOSCOW, IDAHO



DRAWN:	J. DANA
DESIGNED:	B. DAVIS
CHECKED:	S. FROST
DATE:	8/15/2018
BY:	CHK
REVISIONS:	

COORDINATE SYSTEM:	UTM WEST, NAD 83, US FT
SCALE:	1" = 60'
APPROVED:	X XXXX
DATE:	XXXXXXX



**PRELIMINARY
NOT FOR CONSTRUCTION**

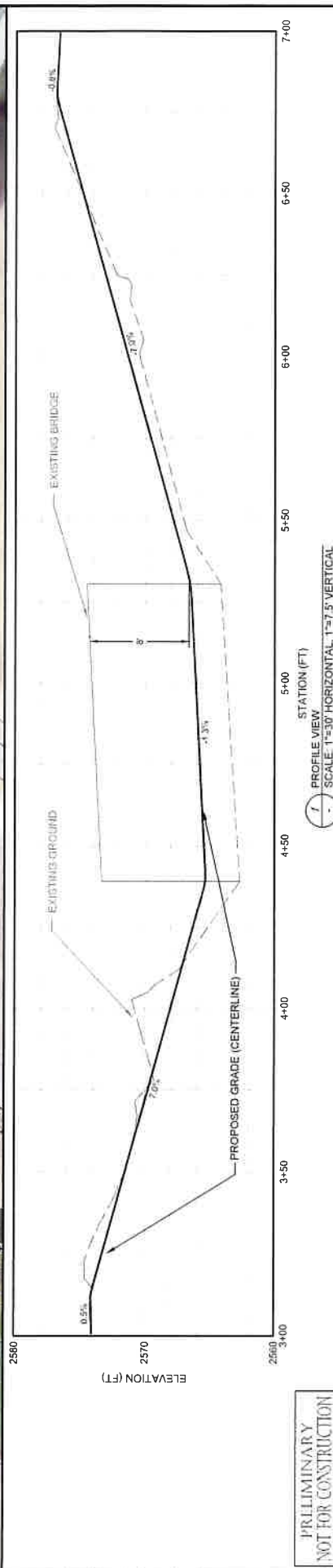
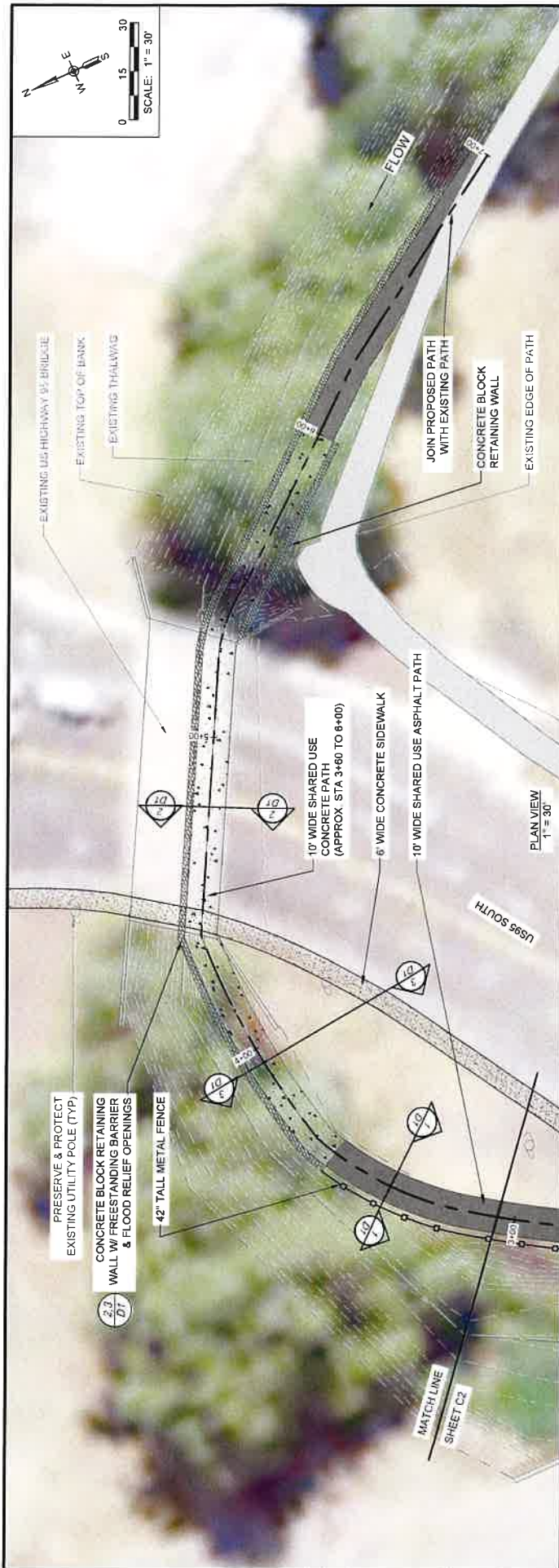
PROFILE VIEW
SCALE: 1"=30' HORIZONTAL, 1"=5' VERTICAL

NO	DATE	REVISIONS	BY	CHK	DATE	APPROVED	SCALE	COORDINATE SYSTEM	DRAWN	DESIGNER	CHECKED	DATE	DATE	PROJECT NO	SHEET NO	SHEET
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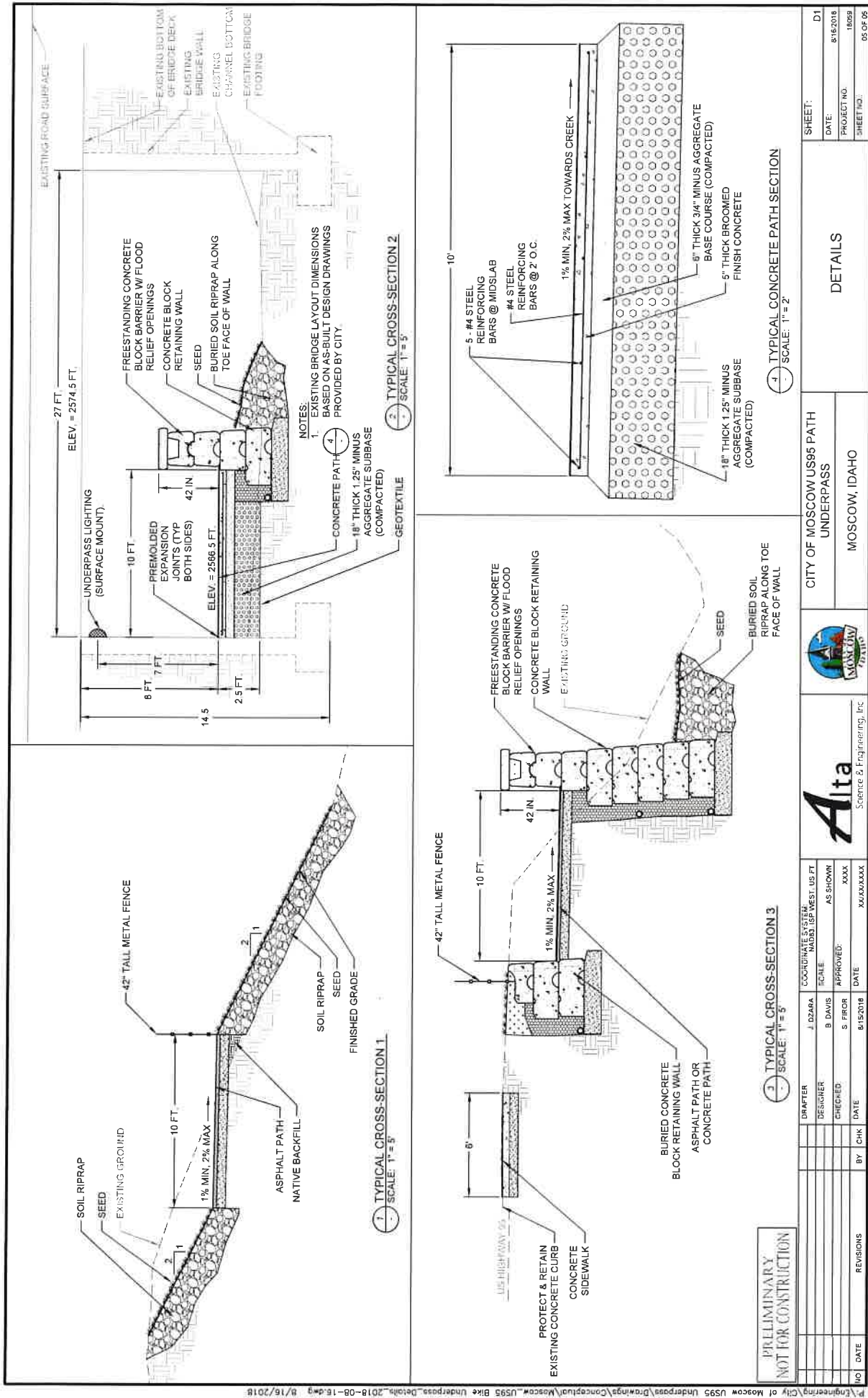


CITY OF MOSCOW US95 PATH
UNDERPASS
MOSCOW, IDAHO

PATH PLAN & PROFILE
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IDAHO STATE
**HISTORICAL
SOCIETY**



C.L. "Butch" Otter
Governor of Idaho

Janet Gallimore
Executive Director
State Historic
Preservation Officer

Administration:
2205 Old Penitentiary Rd.
Boise, Idaho 83712
208.334.2682
Fax: 208.334.2774

Idaho State Museum:
610 Julia Davis Dr.
Boise, Idaho 83702
208.334.2120

**Idaho State Archives
and State Records
Center:**
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Boise, Idaho 83712
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**State Historic
Preservation Office:**
210 Main St.
Boise, Idaho 83702
208.334.3861

**Old Idaho Penitentiary
and Historic Sites:**
2445 Old Penitentiary Rd.
Boise, Idaho 83712
208.334.2844

HISTORY.IDAHO.GOV

25 September 2018

Bill Belknap, Director
Community Development Department
221 East Second Street
Moscow, Idaho 83843

Re: Paradise Creek Bridge, Moscow, Idaho

Dear Mr. Belknap:

On 18 September 2018, I conducted a site visit to confirm the eligibility of the Paradise Creek Bridge in Moscow, Idaho, for listing in the National Register of Historic Places. The historic bridge, constructed in 1934, was previously determined eligible for listing by this office in 1998.

While I concur that, at the time, the bridge was likely eligible, on-site evaluation revealed diminished integrity that unfortunately renders the bridge ineligible. Specifically, integrity of setting, feeling and association have all been lost. In addition, integrity of design has been diminished due to removal of much of the western railing. As indicated in National Register Bulletin 15, a property must possess several, and typically most, of the seven aspects of integrity in order to remain eligible for listing in the National Register.

If you have any questions, please contact me via phone or email at 208.488.7468 or matt.halitsky@ishs.idaho.gov.

Sincerely,

Matthew Halitsky, AICP
Historic Preservation Review Officer
Idaho State Historic Preservation Office

COMMITTEE STAFF REPORT

DATE: Monday, February 3, 2020



RESPONSIBLE STAFF

Bill Belknap, Deputy City Supervisor, Community Planning and Design, Alisa Anderson, Grants Manager

ADDITIONAL PRESENTER(S)

OTHER RESOURCES

AGENDA ITEM TITLE

Approval of Subrecipient Agreement for the FEMA Advance Assistance Paradise Creek Flood Hazard Mitigation Study Project (ACTION ITEM) - Bill Belknap / Alisa Anderson

DESCRIPTION

Following flooding events in the spring of 2017, in consultation with FEMA officials, the City was encouraged to apply for a Flood Hazard Mitigation Grant to identify and construct potential flood hazard mitigation actions to reduce property damage from flooding events on Paradise Creek. After an extended review period and multiple requests for additional information, the City's application was shifted to FEMA's Advanced Assistance Program which is intended to fund advanced studies to assess and identify potential flood hazard mitigation actions.

Through the study, the City will explore potential flood hazard mitigation alternatives and determine the most viable method to resolve flooding issues extending from the northeast city limits near Mountain View Park to the Paradise Creek crossing of the Troy Highway near the intersection with Styner and White Avenue (the impacted area). The modeling extent of the proposed study will extend upstream to the area from Darby Road Bridge to south of the Troy Highway (Idaho State Highway 8) crossing. Alternatives will be developed and assessed to mitigate flooding within the impacted area. The results of study would be used to select an alternative, prepare 30% design documents, and complete a Benefit Cost Analysis of the selected alternative.

The City was recently notified it has been awarded \$295,200 in grant funding to support the study. The total estimated study cost is \$393,600 with \$98,400 in local match (which includes \$10,000 in pre-application engineering, \$41,600 in City staff in-kind labor match for project administration, and \$46,800 in local cash match). On January 22, the City received the attached subrecipient agreement from the Idaho Office of Emergency Management for review and execution by the City. This was reviewed and recommended for approval by the Public Works Finance Committee on January 27, 2020. This was reviewed by the Public Works/Finance Committee on January 27, 2020 and recommended for approval.

STAFF RECOMMENDATION

Approve the Subrecipient Agreement for the FEMA Advance Assistance Paradise Creek Flood Hazard Mitigation Study Project.

PROPOSED ACTIONS

PROPOSED ACTIONS: Approve the Subrecipient Agreement for the FEMA Advance Assistance Paradise Creek Flood Hazard Mitigation Study Project; or take other such other action deemed appropriate.

FISCAL IMPACT

\$41,600 in City staff in-kind labor match for project administration and \$46,800 in local cash match.

PERSONNEL IMPACT

ATTACHMENTS

1. PWF Packet 1-27-2020



Idaho Office of Emergency Management

2019 Subrecipient Agreement

for

City of Moscow

Advance Assistance Paradise Creek Flood Mitigation Project

Federal Award Date

January 3, 2020

1. Subrecipient Name and Address	2. Prepared by: Quarles, Mary	3. Award Number: DR43133R
City of Moscow 206 East Third Street Moscow, ID 83843	4. Federal Grant Information	
	Federal Grant Title:	D4313H - HMGP
	Federal Grant Award Number/CFDA Number:	4313DRIDP00000005 / 97.039
	Federal Granting Agency:	Grant Programs Directorate Federal Emergency Management Agency U.S. Department of Homeland Security

5. Award Amount and Grant Breakdowns	
Subrecipient DUNS Number: 958856338	D4313H - HMGP Performance Period: Jan 3, 2020 through Feb 12, 2021
Award Amount This Action: \$295,200.00	
Subrecipient Match Amount: \$98,400.00	
State Share Amount: \$ 0.00	
Total Award Amount: \$393,600.00	

6. Requirements: This Subaward is approved subject to such conditions or limitations as are set forth on the following pages of this document and in the Project-Specific Programmatic Conditions of Approval and Standard Administrative Provisions for Hazard Mitigation Grant Program. This is a not a Research & Development Subaward. Subrecipients must give the Idaho Office of Emergency Management (IOEM), Department of Homeland Security (DHS) and auditors access to and the right to examine and copy records, accounts, and other documents and sources of information related to the grant and permit access to facilities, personnel, and other individuals and information as may be necessary, as required by DHS regulations and other applicable laws or program guidance.

The Subrecipient certifies that the Subrecipient and its' contractors/vendors are not presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded by any federal department or agency and do not appear in the Debarred and Suspended list at <http://www.sam.gov>.

The Subrecipient certifies compliance with the 2CFR200 Subpart F – Audit Requirements and Idaho State Code 67-450B – Independent Financial Audits of Local Governmental Entities—Filing Requirements.

Acceptance of subaward certifies compliance with requirements detailed above.

7. Agency Approval	
Approving IOEM Official: Brad Richy, Director Idaho Office of Emergency Management (208) 258-6501	Signature of IOEM Director: <i>KN</i>  Date: <i>21 Jan 2020</i>

8. Subrecipient Acceptance	
I have read and understand the attached Terms and Conditions. Signature certifies compliance with requirements detailed on subaward subrecipient agreement.	
Print name and title of Authorized Subrecipient official:	Signature of Authorized Subrecipient Official:

9. Enter Employer Identification Number (EIN) / Federal Tax Identification Number:	10. Date Signed :

11. DUE DATE: 2/18/2020

Signed award and Direct Deposit Form (if applicable) must be returned to IOEM on or before the above due date.

City of Moscow

Advanced Assistance Request

Paradise Creek Advance Assistance

Scope of Work

This Advance Assistance scope of work describes the primary task elements for completing a Hydrologic and Hydraulic Study (H & H Study) of Paradise Creek (Phase I), an alternatives analysis, local ordinance and permit review, LiDAR and data collection, environmental considerations, application development, benefit cost analysis, pre-engineering, and CLOMR application. The City will explore potential flood hazard mitigation alternatives and determine the most viable method to resolve flooding issues extending from the northeast city limits near Mountain View Park to the Paradise Creek crossing of the Troy Highway near the intersection with Styner and White Avenue (the impacted area). The H&H modeling extent of the proposed study will extend upstream to the area from Darby Road Bridge to south of the Troy Highway (Idaho State Highway 8) crossing. Alternatives will be developed and assessed to mitigate flooding within the impacted area. The results of H & H Study would be used to select an alternative, prepare 30% design documents, and complete a Benefit Cost Analysis (BCA) of the selected alternative. One of the objectives is to provide the City of Moscow (City) information to apply to FEMA for a Conditional Letter of Map Revision (CLOMR) upon the design of the selected mitigation alternative.

To the extent possible, the H & H Study will draw information from several past projects including the Paradise Creek enhancements on the University of Idaho campus, the Department of Environmental Quality funded restoration project at the Bridge Street Park, the City of Moscow Paradise Creek US 95 – Hwy. 8 LOMR, and the City of Moscow Highway 8 Underpass design. Mitigation efforts will focus on near-channel storage expansion locations through acquisition and restoration of prior disturbed riparian areas, enhanced stormwater detention facilities along with flow obstruction removal, and additional stormwater mitigation elements as deemed necessary in the H & H Study. The H & H Study will include the following:

- The field survey data will be collected to improve the accuracy of the updated hydraulic model and representation of the existing system. Survey data will include all FEMA Flood Insurance Study (FIS) and Flood Insurance Rate Map (FIRM) cross sections, all bridges, culverts and other related structures, and additional channel cross sections as needed. UAV-LiDAR based topography will be collected along the channel alignment. Survey data will be provided in both digital format and a certified topographic map in accordance with FEMA standards and requirements.
- The Paradise Creek hydrologic flows will be assessed utilizing more current and accurate methods including an analysis of historical gauge data for Paradise Creek and USGS regional regression analysis to ascertain the most accurate hydrologic input to be utilized in the study and flood hazard mitigation alternative assessment.
- The current effective HEC-2 hydraulic model will be obtained from FEMA and converted to the current HEC-RAS modeling platform. Field survey data described above will be utilized to update the hydraulic model to reflect current conditions and utilized to perform the duplicate effective model run in accordance with FEMA standards and requirements. The H & H Study may include adding 2-dimensional reaches to the model to gain more specific insights in critical locations.
- The flood hazard mitigation alternatives will be developed and examined using the hydraulic model and compared against a set of screening criteria that is developed with the City. The results of the alternatives analysis will be presented at a meeting with City leadership and stakeholders to select one of the alternatives or a hybrid of the preferred flood hazard mitigation measures as the preferred alternative.

- The H & H Study will document the methods and findings and describe the preferred flood hazard mitigation project. The intent is to be able to build upon the H & H Study through the design process and demonstrate the impacts of the selected alternative.

The Advance Assistance Scope of Work will be organized into the following primary tasks:

Task 1 - Project Management

- a. Status reporting to the City.
- b. Manage the consultant technical team.
- c. Quality assurance review on deliverables to the City.
- d. Preparation and participation in stakeholder meetings.
- e. Interactions with FEMA as requested by the City.
- f. Review local ordinances, codes, and permitting, update as needed.
- g. Environmental Planning and Historic Preservation (EHP) Review process.

Task 2 - Surveying and Data Collection

- a. Project Open House No. 1 – Community meeting to introduce the project scope, goals and objectives to property owners within the study area and other community members and stakeholders.
- b. Access Agreements - Secure property owner approvals to survey or fly with UAV to collect design-level topographic data.
- c. Acquire and incorporate the 2016 3DEP LiDAR mapping and tie into common control.
- d. UAV-LiDAR flight and data process of floodplain:
 - i. LiDAR mapping includes at least two flights, approximately 50' apart, on each side of the approximate 8,500 LF channel yielding a maximum swath up to 500' wide at the planned 60m altitude.
 - ii. Approximately 150 channel sections including all FIS cross sections and additional channel sections up to 100' wide at nominal 50-60' intervals are estimated, with final locations moved up or down station to accommodate structures and avoid obstructions.
- e. Prepare certified topographic map in accordance with FEMA standards and requirements.
- f. Survey, inspect, and analyze all stormwater detention facilities contributing to the impacted area to ensure facility condition, discharge control rates and other design and function parameters.

Task 3 - Hydrologic Analysis

- a. Review existing FEMA data and data gaps.
- b. Statistical review of existing gauge data.
- c. Integrate previous models.

Task 4 - Flooding Analysis and Characterization

- a. Develop current 1-D Hydraulic Model.
- b. Perform the duplicate effective model run in accordance with FEMA standards and requirements.
- c. Add 2-D Hydraulics in key locations.
- d. Analyze existing system and identify flood impacts and causes.

Task 5 - Develop Conceptual Flood Hazard Mitigation Alternatives

- a. Workshop No. 1 – City, Stakeholder, Consultant workshop to review drainage characteristics and develop flood hazard mitigation alternatives. Mitigation alternatives to be assessed may include property buyouts, structure elevations, different approaches to stormwater management, stream channel/floodplain storage or conveyance improvements, or any combination thereof. Consultant will seek to incorporate green Infrastructure elements such as riparian enhancements or bioengineered features for each alternative (map locations and describe type of improvements).

- b. Development of Alternative Assessment Criteria - City and the consultant will establish clear and objective evaluation criteria including, but not limited to, relative level of flood protection, relative benefit cost rating, floodplain beneficial function, impacts on the environment, impacts on existing developed properties, long-term effectiveness, cost of construction, and long-term operation and maintenance.

Task 6 - Alternatives Analysis and Evaluation

- a. Consultant shall complete an assessment of the identified alternatives utilizing the criteria established in Task 5 and an updated BCA for each mitigation alternative. Alternative assessments shall include all costs and impacts on the flood plain within, upstream, and downstream of the project area.
- b. Workshop 2 – City, Stakeholder, Consultant workshop to review the results of the alternatives assessment for all mitigation alternatives and to confirm the selection of the preferred alternatives.
- c. Prepare a final benefit cost assessment and an alternative assessment with a selection report including the reasoning and rational behind the recommended preferred alternative as well as an explanation why the non-preferred alternatives were not feasible or practical.
- d. Prepare proposed effective model based upon selected flood hazard mitigation alternative.
- e. Prepare annotated FEMA FIRM map showing revised 500, 100 year, and floodway boundaries and cross section elevations for the selected flood hazard mitigation alternative.
- f. Prepare a map of the sub-basins and stormwater facilities draining to Paradise Creek to include sub-basins with stormwater detention/retention facilities indicating what level of storm event the facilities are designed to detain.
- g. Consider environmental and historical impacts, coordinate with necessary agencies, and gather documentation.
- h. Prepare final concept level cost estimate for the selected flood hazard mitigation alternative.
- i. Project Open House No. 2 – Community meeting to share the mitigation alternatives, alternative assessments and selected preferred alternative.
- j. Prepare written report of the H & H Study to document the methods and findings and describe the preferred flood hazard mitigation project, including projected project costs, pre-and-post flood elevations at all FEMA cross sections, and an annotated FIRM map illustrating the projected changes to the location and extent of the floodway with 100 and 500-year floodplain boundaries.

Task 7 –Selected Alternative Construction Predesign and Conditional Letter of Map Revision

- a. Prepare preliminary (30%) design and construction plans including construction staging areas, dewatering and bypasses, and location and mapping of any temporary facilities and other project details necessary for Environmental Planning and Historic Preservation (EHP) review.
- b. Prepare a project Storm Water Management and Treatment Plan per applicable state and federal standards.
- c. Identify, describe, and map any necessary property or easement acquisitions.
- d. Prepare a final design and construction project budget based upon the FEMA approved selected alternative and preliminary construction design.
- e. Prepare an updated effective model based upon the preliminary construction design including an updated annotated FEMA FIRM map showing revised 500, 100 year, and floodway boundaries and cross section elevations for the selected flood hazard mitigation alternative
- f. Prepare all necessary supporting documentation and CLOMR application materials for the FEMA approved selected alternative.

→

[illegible]

Cost Category (p represents pre-award cost)	Total Cost
1 Administrative and legal expenses	\$102,850.00
2 Land, structures, rights-of-way, appraisals, etc.	\$0.00
3 Relocation expenses and payments	\$0.00
4 Architectural and engineering fees	\$264,250.00
5 Other architectural and engineering fees	\$0.00
6 Project inspection fees	\$0.00
7 Site work	\$0.00
8 Demolition and removal	\$0.00
9 Construction	\$0.00
10 Equipment	\$0.00
11 Miscellaneous	\$16,500.00
1-p Administrative and legal expenses	\$0.00
2-p Land, structures, rights-of-way, appraisals, etc.	\$0.00
4-p Architectural and engineering fees	\$0.00
5-p Other architectural and engineering fees	\$10,000.00
6-p Project inspection fees	\$0.00
11-p Miscellaneous	\$0.00
Total	\$393,600.00

Total Project Costs	\$393,600.00
Local Match	
In-Kind Local Labor Match	\$41,600.00
Local Cash Match	
Pre-Application Engineering	\$10,000.00
Task 7	\$46,800.00
Total Local Match**	\$98,400.00
Total Federal Funds	\$295,200.00
Total Local Match Percentage	25%

CITY OF MOSCOW - PROJECT SCHEDULE FEMA Advanced Assistance Application	PARADISE CREEK FLOOD MITIGATION PROJECT									
Project Components	Qtr. 1 Oct-Dec 2019 Qtr. 2 Jan-Mar 2020 Qtr. 3 Apr-June 2020 Qtr. 4 July-Sept 2020 Qtr. 5 Oct-Dec 2020 Qtr. 6 Jan-Mar 2021 Qtr. 7 Apr-June 2021 Qtr. 8 July-Sept 2021 Qtr. 9 Oct-Dec 2021									
	YEAR 1				YEAR 2+Q					
H&H Study and Predesign Advanced Assistance to HMPG Submittal/Review										
Surveying, Data Collection, Hydraulic Analysis and Characterization										
Mitigation Alternative Development and Assessment										
Preferred Alternative Predesign										
CLOMR Application and Approval										
Finalize Advanced Assistance SOW Tasks & Submit to FEMA for Review										
Update and Submit HMPG Application to Implement Preferred Mitigation Alternative										

COMMITTEE STAFF REPORT

DATE: Monday, February 3, 2020



RESPONSIBLE STAFF

Bill Belknap, Deputy City Supervisor, Community Planning and Design, Alisa Anderson, Grants Manager

ADDITIONAL PRESENTER(S)

OTHER RESOURCES

AGENDA ITEM TITLE

Latah County All Hazard Mitigation Plan Project List Approval (ACTION ITEM) - Bill Belknap / Alisa Anderson

DESCRIPTION

Latah County is currently updating the 2011 Latah County All Hazards Mitigation Plan which includes and covers all cities within the County. On January 3, 2020 City Staff received a request to identify and prepare a list of hazard mitigation actions the City may pursue to reduce the risk and impact of hazards facing the community. This request was distributed to the relevant City Departments including Administration, Police, Fire, IS, Public Works Services, Planning, Engineering, Information Systems, and Parks and Facilities to compile a list of potential hazard mitigation actions.

Inclusion of the mitigation actions in the Plan will allow the City to continue to receive various grant funds for emergency response planning and equipment and will assist the City in pursuing additional grant funding for the identified projects in the future. The initial draft list has been prepared and is in the process of final review and ranking for the Council's consideration and approval at the February 3, 2020 Council meeting. The draft list will be presented to the Public Works Finance Committee for review.

This item was reviewed and recommended for approval by the Public Works Finance Committee on January 27, 2020.

STAFF RECOMMENDATION

Approve the City of Moscow hazard mitigation action list.

PROPOSED ACTIONS

PROPOSED ACTIONS: Approve the proposed hazard mitigation action list; or take other such other action deemed appropriate.

FISCAL IMPACT

PERSONNEL IMPACT

ATTACHMENTS

1. Mitigation Actions for Council Approval

City of Moscow All Hazard Disaster Mitigation Projects										
Department - Waste Water Reclamation and Reuse Facility										
Jurisdiction/Agency	Hazard Addressed	Mitigation Action/Background	Lead Implementing Agency	Community Partners	Potential Funding Avenue	Cost Estimate	Losses Avoided	Estimated Timeline	STAPLEE Score Average	Priority Assigned
City of Moscow - Waste Water	Prevention of untreated waste water effluent release	Identify high risk infrastructure to calculate and identify areas in need of restoration to reduce sewer inflow and infiltration (I & I) during flooding events	City of Moscow	IDEQ	City of Moscow	\$1,000,000	Reduction of sanitary sewer overflows due to flooding events. Alleviate treatment facility hydraulic overloading	5-7 years	9.75	High
City of Moscow - Waste Water	Continuity of sanitary sewer service	Installation of backup power at key area lift stations to maintain continuity of operations during flooding events	City of Moscow	IDEQ	City of Moscow	\$5,000	Environmental impact due to flooding	2 years	10.00	High
City of Moscow - Waste Water	Continuity of sanitary sewer service	Continue capital replacement program and actively identify aging waste water collection infrastructure	City of Moscow	IDEQ	City of Moscow	\$250,000 per project	Minimize the vulnerability of property and environmental impact due to flooding	Long term	9.50	High
City of Moscow - Waste Water	Protection of critical Waste Water Reclamation and Reuse Facility equipment	Floodproof Water Reclamation and Reuse Facility from damage during high-flow flooding events	City of Moscow	IDEQ	City of Moscow	\$250,000	Effluent excursions	5-7 years	7.50	Medium
Department - Moscow Fire Department										
Jurisdiction/Agency	Hazard Addressed	Mitigation Action/Background	Lead Implementing Agency	Community Partners	Potential Funding Avenue	Cost Estimate	Losses Avoided	Estimated Timeline		
City of Moscow - Fire	Disaster response readiness	Facilitate continued funding for Personal Protective Equipment (PPE) for staff	City of Moscow	N/A	Potential Grant Funding	\$3,500 each	Property Damage and Personal Injury/Loss of Life	Ongoing	8.25	High
City of Moscow - Fire	Disaster response readiness	Facilitate continued funding for volunteer fire department training and equipment and community fire prevention awareness	City of Moscow	N/A	Potential Grant Funding	TBD	Property Damage and Personal Injury/Loss of Life	Ongoing	9.25	High
City of Moscow - Fire	Emergency response communications	Update aging emergency radio communication system for the City and Rural Fire District	City of Moscow	N/A	Potential Grant Funding	TBD	Property Damage and Personal Injury/Loss of Life	TBD - ASAP	6.75	Medium
City of Moscow - Fire	Emergency response coordination	Funding to establish an Emergency Operations Center for the City	City of Moscow	N/A	Potential Grant Funding	TBD	Property Damage and Personal Injury/Loss of Life	TBD	3.50	Low
City of Moscow - Fire	Disaster response continuity of operations	Emergency generator at Fire Station 2 to power critical infrastructure during disaster events	City of Moscow	N/A	Potential Grant Funding	\$100,000+	Property Damage and Personal Injury/Loss of Life	TBD	8.75	High
City of Moscow - Fire	Hazardous material release response	Identify potential sources of HAZMAT storage areas in the event of release	City of Moscow	Lewiston Regional HAZMAT Team	Potential Grant Funding	TBD	Property Damage and Personal Injury/Loss of Life	Ongoing	4.25	Medium
City of Moscow - Fire	Disaster response readiness	Provide upgraded training facility for the Moscow Fire Department and the surrounding agencies	City of Moscow	Regional Emergency Service Agencies	Potential Grant Funding	TBD	Property Damage and Personal Injury/Loss of Life	TBD	2.25	Low
City of Moscow - Fire	Emergency response time preservation	Obtain funding for expansion and renovation of Fire Station 2 to increase resident fire fighter staffing to improve response times and capacity	City of Moscow	N/A	Potential Grant Funding	TBD	Property Damage and Personal Injury/Loss of Life	TBD	3.75	Low
City of Moscow - Fire	Emergency response time preservation	Obtain funding and location for future Fire Station 4	City of Moscow	N/A	Potential Grant Funding	TBD	Property Damage and Personal Injury/Loss of Life	TBD	1.00	Low
Department - Moscow Water Department										
Jurisdiction/Agency	Hazard Addressed	Mitigation Action/Background	Lead Implementing Agency	Community Partners	Potential Funding Avenue	Cost Estimate	Losses Avoided	Estimated Timeline		
City of Moscow - Water	Maintenance of fire suppression capability	Replace fire hydrants older than 40 years to improve operation for emergencies	City of Moscow	N/A	TBD	TBD	Continuity of fire suppression operations to minimize potential property loss and personal injury	Ongoing	11.25	High
City of Moscow - Water	Maintenance of potable water supply	Continue capital replacement program and actively identify aging water distribution infrastructure (water mains)	City of Moscow	N/A	TBD	TBD	Continuity of potable water production and delivery	Ongoing	11.25	High
City of Moscow - Water	Maintenance of potable water supply	Perform maintenance on all well pumps and controls based on hours of operation and/or as per manufacture specifications	City of Moscow	N/A	TBD	TBD	Continuity of potable water production and delivery	Ongoing	9.25	High
City of Moscow - Water	Preservation of high-pressure zone water delivery	Perform maintenance based on hours of operation and/or as per manufacture specifications	City of Moscow	N/A	TBD	TBD	Continuity of potable water and fire flow delivery	Ongoing	7.25	Medium

City of Moscow - Water	Maintenance of fire suppression capability	Replacement of three aging water booster stations including installation of backup power generation to meet fire flow requirements and continuity of fire protection during power outage	City of Moscow	N/A	TBD	TBD	Continuity of fire suppression operations to minimize potential property loss and personal injury	2 years	10.25	High
City of Moscow - Water	Maintenance of potable water supply	Perform maintenance and inspections on all water storage facilities every two years	City of Moscow	N/A	TBD	TBD	Continuity of potable water production and delivery	Ongoing	9.50	High
City of Moscow - Water	Maintenance of potable water supply	Annually update System (SCADA) control software and control features	City of Moscow	N/A	TBD	TBD	Continuity of potable water production and delivery	Ongoing	7.50	Medium
City of Moscow - Water	Maintenance of potable water supply	Operate and maintain all distribution valves and replace damaged valve stacks.	City of Moscow	N/A	TBD	TBD	Continuity of potable water production and delivery.	Ongoing	9.75	High
Department - Moscow Police Department										
Jurisdiction/Agency	Hazard Addressed	Mitigation Action/Background	Lead Implementing Agency	Community Partners	Potential Funding Avenue	Cost Estimate	Losses Avoided	Estimated Timeline		
City of Moscow - Police	Protect large crowds from vehicle-borne threat or terrorist act	Provide barriers at Sixth & Main and Third & Main to reduce vehicle threats at downtown community events	City of Moscow	Downtown Businesses	Grants/Special Projects	\$100,000	Human life	1 year	7.75	Medium
City of Moscow - Police	Lack of central command post to communicate during hazardous event	Equip police department training room with command post equipment in case of an emergency (furniture, radio, computer capabilities, monitors, etc.)	City of Moscow	University of Idaho	Grants/Special Projects	TBD	Coordinated response time and human life	2 years	7.00	Medium
City of Moscow - Police	Emergency response communications	Update aging emergency radio communication system to improve City radio coverage and interagency communications	City of Moscow	Area emergency response agencies	Grants/Special Projects	TBD	Coordinated response time and human life	3 years	8.75	High
Department - Moscow Streets/Stormwater										
Jurisdiction/Agency	Hazard Addressed	Mitigation Action/Background	Lead Implementing Agency	Community Partners	Potential Funding Avenue	Cost Estimate	Losses Avoided	Estimated Timeline		
City of Moscow - Streets/Storm	Stormwater and flooding	Create capital replacement program and actively identify aging/failed stormwater infrastructure	City of Moscow	N/A	City of Moscow	TBD	Minimize flood damage	Long-term	8.75	High
City of Moscow - Streets/Storm	Stormwater and flooding	Conduct a comprehensive study of Moscow's creek systems including Paradise Creek and Hogg Creek to identify problem areas and develop plans and projects to mitigate flooding	City of Moscow	N/A	Grants/City of Moscow	TBD	Minimize flood damage	Long-term	9.00	High
City of Moscow - Streets/Storm	Stormwater and flooding	Assess, plan for and fund the replacement of bridge and culvert structures that are substandard, deteriorating, or are an obstruction in flooding events	City of Moscow	N/A	City of Moscow	TBD	Minimize flood damage	Long-term	4.00	Low
City of Moscow - Streets/Storm	Stormwater and flooding	Acquire easements and develop access points and pathways to allow for maintenance and emergency repairs of drainage facilities	City of Moscow	N/A	City of Moscow	TBD	Minimize flood damage	Long-term	5.50	Medium
City of Moscow - Streets/Storm	Stormwater and flooding	Perform comprehensive assessment of the condition of City-owned stormwater infrastructure	City of Moscow	N/A	City of Moscow	TBD	Minimize flood damage	Long-term	7.75	Medium
City of Moscow - Streets/Storm	Hazardous high wind weather	Develop a response plan for wind events	City of Moscow	Local utility companies	City of Moscow	TBD	Minimize impact of wind damage	Long-term	7.67	Medium
City of Moscow - Streets/Storm	Hazardous weather roadway damage prevention	Continue to support the pavement management program and actively maintain roadway system to prevent premature damage	City of Moscow	N/A	Grants/City of Moscow	TBD	Minimize impacts of winter storms	Long-term	8.50	High
City of Moscow - Streets/Storm	Disaster response continuity of operations	Install a backup power generator for City Shop facility which acts as a command post during flooding, wind storms and snow removal situations, and houses the City's fuel system	City of Moscow	N/A	City of Moscow	TBD	Minimize impact of extreme weather	Long-term	5.00	Medium
Department - Information Systems										
Jurisdiction/Agency	Hazard Addressed	Mitigation Action/Background	Lead Implementing Agency	Community Partners	Potential Funding Avenue	Cost Estimate	Losses Avoided	Estimated Timeline		
City of Moscow - IS	Emergency response communications	Update radio repeater infrastructure	City of Moscow	Moscow Police & Volunteer Fire Department	Grants/City of Moscow	TBD	Property damage and personal injury/loss of life	5 years	8.50	High
City of Moscow - IS	Emergency response communications	Replace mobile and portable radios that are beyond their useful life	City of Moscow	Moscow Volunteer Fire Department	Grants/City of Moscow	TBD	Property damage and personal injury/loss of life	3 Years	9.00	High
City of Moscow - IS	Communication outage from cut fiber	Add City-wide wireless network for redundancy	City of Moscow	TBD	Grants/City of Moscow	TBD	Property damage and personal injury/loss of life	5-7 Years	7.50	Medium

City of Moscow - IS	SCADA outage from cellular network outage	Build fiber to utility sites	City of Moscow	TBD	Grants/City of Moscow	TBD	Property damage and personal injury/loss of life	5-7 Years	7.75	Medium
Department - Administration										
Jurisdiction/Agency	Hazard Addressed	Mitigation Action/Background	Lead Implementing Agency	Community Partners	Potential Funding Avenue	Cost Estimate	Losses Avoided	Estimated Timeline		
City of Moscow - Admin	Continuity of governmental operations	Ensure preservation of public records by moving City record storage facility to a location not prone to flood damage	City of Moscow	TBD	Grants/City of Moscow	TBD	Public record damage or loss and continuity of governmental operations	5 years	10.00	High
City of Moscow - Admin	Continuity of governmental operations	Scan all critical public records with redundant digital storage	City of Moscow	TBD	Grants/City of Moscow	TBD	Public record damage or loss and continuity of governmental operations	6 years	8.75	High
City of Moscow - Admin	Continuity of governmental operations	Assess and install security systems at all critical governmental facilities	City of Moscow	TBD	Grants/City of Moscow	TBD	Public record damage or loss and continuity of governmental operations	6 years	4.50	Medium
City of Moscow - Admin	Continuity of governmental operations	Install a natural gas backup power generator at the Hamilton Indoor Recreation Center (HIRC)which is designated as an emergency shelter for the City. It is critical that the facility be operational during any emergency but the HIRC currently has no backup power source in case of electrical outage.	City of Moscow	TBD	Grants/City of Moscow	TBD	Property damage and personal injury/loss of life	4 years	8.50	High

2020 New Mitigation Action Worksheet

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Jurisdiction / Agency	City of Moscow - Waste Water
Hazard(s) Addressed	Prevention of untreated waste water effluent release
Mitigation Action & Background	Identify high risk infrastructure to calculate and identify areas in need of restoration to reduce sewer inflow and infiltration (I & I) during flooding events
Lead Implementing Agency	City of Moscow
Community Partners	IDEQ
Potential Funding Avenue	City of Moscow
Cost Estimate	\$1,000,000
Losses Avoided	Reduction of sanitary sewer overflows due to flooding events. Alleviate treatment facility hydraulic overloading
Estimated Timeline	5-7 years
STAPLEE Score	9.75
Priority Assigned	High

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Jurisdiction / Agency	City of Moscow - Waste Water
Hazard(s) Addressed	Continuity of sanitary sewer service
Mitigation Action & Background	Installation of backup power at key area lift stations to maintain continuity of operations during flooding events
Lead Implementing Agency	City of Moscow
Community Partners	IDEQ
Potential Funding Avenue	City of Moscow
Cost Estimate	\$5,000
Losses Avoided	Environmental impact due to flooding
Estimated Timeline	2 years
STAPLEE Score	10
Priority Assigned	High

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Jurisdiction / Agency	City of Moscow - Waste Water
Hazard(s) Addressed	Continuity of sanitary sewer service
Mitigation Action & Background	Continue capital replacement program and actively identify aging waste water collection infrastructure
Lead Implementing Agency	City of Moscow
Community Partners	IDEQ
Potential Funding Avenue	City of Moscow
Cost Estimate	\$250,000 per project
Losses Avoided	Minimize the vulnerability of property and environmental impact due to flooding
Estimated Timeline	Long term
STAPLEE Score	9.5
Priority Assigned	High

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Jurisdiction / Agency	City of Moscow - Waste Water
Hazard(s) Addressed	Protection of critical Waste Water Reclamation and Reuse Facility equipment
Mitigation Action & Background	Floodproof Water Reclamation and Reuse Facility from damage during high-flow flooding events
Lead Implementing Agency	City of Moscow
Community Partners	IDEQ
Potential Funding Avenue	City of Moscow
Cost Estimate	\$250,000
Losses Avoided	Effluent excursions
Estimated Timeline	5-7 years
STAPLEE Score	7.5
Priority Assigned	Medium

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Jurisdiction / Agency	City of Moscow - Fire
Hazard(s) Addressed	Disaster response readiness
Mitigation Action & Background	Facilitate continued funding for Personal Protective Equipment (PPE) for staff
Lead Implementing Agency	City of Moscow
Community Partners	N/A
Potential Funding Avenue	Potential Grant Funding
Cost Estimate	\$3,500 each
Losses Avoided	Property Damage and Personal Injury/Loss of Life
Estimated Timeline	Ongoing
STAPLEE Score	8.25
Priority Assigned	High

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Jurisdiction / Agency	City of Moscow - Fire
Hazard(s) Addressed	Disaster response readiness
Mitigation Action & Background	Facilitate continued funding for volunteer fire department training and equipment and community fire prevention awareness
Lead Implementing Agency	City of Moscow
Community Partners	N/A
Potential Funding Avenue	Potential Grant Funding
Cost Estimate	TBD
Losses Avoided	Property Damage and Personal Injury/Loss of Life
Estimated Timeline	Ongoing
STAPLEE Score	9.25
Priority Assigned	High

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Jurisdiction / Agency	City of Moscow - Fire
Hazard(s) Addressed	Emergency response communications
Mitigation Action & Background	Update aging emergency radio communication system for the City and Rural Fire District
Lead Implementing Agency	City of Moscow
Community Partners	N/A
Potential Funding Avenue	Potential Grant Funding
Cost Estimate	TBD
Losses Avoided	Property Damage and Personal Injury/Loss of Life
Estimated Timeline	TBD - ASAP
STAPLEE Score	6.75
Priority Assigned	Medium

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Jurisdiction / Agency	City of Moscow - Fire
Hazard(s) Addressed	Emergency response coordination
Mitigation Action & Background	Funding to establish an Emergency Operations Center for the City
Lead Implementing Agency	City of Moscow
Community Partners	N/A
Potential Funding Avenue	Potential Grant Funding
Cost Estimate	TBD
Losses Avoided	Property Damage and Personal Injury/Loss of Life
Estimated Timeline	TBD
STAPLEE Score	3.5
Priority Assigned	Low

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Jurisdiction / Agency	City of Moscow - Fire
Hazard(s) Addressed	Disaster response continuity of operations
Mitigation Action & Background	Emergency generator at Fire Station 2 to power critical infrastructure during disaster events
Lead Implementing Agency	City of Moscow
Community Partners	N/A
Potential Funding Avenue	Potential Grant Funding
Cost Estimate	\$100,000+
Losses Avoided	Property Damage and Personal Injury/Loss of Life
Estimated Timeline	TBD
STAPLEE Score	8.75
Priority Assigned	High

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Jurisdiction / Agency	City of Moscow - Fire
Hazard(s) Addressed	Hazardous material release response
Mitigation Action & Background	Identify potential sources of HAZMAT storage areas in the event of release
Lead Implementing Agency	City of Moscow
Community Partners	Lewiston Regional HAZMAT Team
Potential Funding Avenue	Potential Grant Funding
Cost Estimate	TBD
Losses Avoided	Property Damage and Personal Injury/Loss of Life
Estimated Timeline	Ongoing
STAPLEE Score	4.25
Priority Assigned	Medium

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Jurisdiction / Agency	City of Moscow - Fire
Hazard(s) Addressed	Disaster response readiness
Mitigation Action & Background	Provide upgraded training facility for the Moscow Fire Department and the surrounding agencies
Lead Implementing Agency	City of Moscow
Community Partners	Regional Emergency Service Agencies
Potential Funding Avenue	Potential Grant Funding
Cost Estimate	TBD
Losses Avoided	Property Damage and Personal Injury/Loss of Life
Estimated Timeline	TBD
STAPLEE Score	2.25
Priority Assigned	Low

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Jurisdiction / Agency	City of Moscow - Fire
Hazard(s) Addressed	Emergency response time preservation
Mitigation Action & Background	Obtain funding for expansion and renovation of Fire Station 2 to increase resident fire fighter staffing to improve response times and capacity
Lead Implementing Agency	City of Moscow
Community Partners	N/A
Potential Funding Avenue	Potential Grant Funding
Cost Estimate	TBD
Losses Avoided	Property Damage and Personal Injury/Loss of Life
Estimated Timeline	TBD
STAPLEE Score	3.75
Priority Assigned	Low

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Jurisdiction / Agency	City of Moscow - Fire
Hazard(s) Addressed	Emergency response time preservation
Mitigation Action & Background	Obtain funding and location for future Fire Station 4
Lead Implementing Agency	City of Moscow
Community Partners	N/A
Potential Funding Avenue	Potential Grant Funding
Cost Estimate	TBD
Losses Avoided	Property Damage and Personal Injury/Loss of Life
Estimated Timeline	TBD
STAPLEE Score	1
Priority Assigned	Low

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Jurisdiction / Agency	City of Moscow - Water
Hazard(s) Addressed	Maintenance of fire suppression capability
Mitigation Action & Background	Replace fire hydrants older than 40 years to improve operation for emergencies
Lead Implementing Agency	City of Moscow
Community Partners	N/A
Potential Funding Avenue	TBD
Cost Estimate	TBD
Losses Avoided	Continuity of fire suppression operations to minimize potential property loss and personal injury
Estimated Timeline	Ongoing
STAPLEE Score	11.25
Priority Assigned	High

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Jurisdiction / Agency	City of Moscow - Water
Hazard(s) Addressed	Maintenance of potable water supply
Mitigation Action & Background	Continue capital replacement program and actively identify aging water distribution infrastructure (water mains)
Lead Implementing Agency	City of Moscow
Community Partners	N/A
Potential Funding Avenue	TBD
Cost Estimate	TBD
Losses Avoided	Continuity of potable water production and delivery
Estimated Timeline	Ongoing
STAPLEE Score	11.25
Priority Assigned	High

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Jurisdiction / Agency	City of Moscow - Water
Hazard(s) Addressed	Maintenance of potable water supply
Mitigation Action & Background	Perform maintenance on all well pumps and controls based on hours of operation and/or as per manufacture specifications
Lead Implementing Agency	City of Moscow
Community Partners	N/A
Potential Funding Avenue	TBD
Cost Estimate	TBD
Losses Avoided	Continuity of potable water production and delivery
Estimated Timeline	Ongoing
STAPLEE Score	9.25
Priority Assigned	High

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Jurisdiction / Agency	City of Moscow - Water
Hazard(s) Addressed	Preservation of high-pressure zone water delivery
Mitigation Action & Background	Perform maintenance based on hours of operation and/or as per manufacture specifications
Lead Implementing Agency	City of Moscow
Community Partners	N/A
Potential Funding Avenue	TBD
Cost Estimate	TBD
Losses Avoided	Continuity of potable water and fire flow delivery
Estimated Timeline	Ongoing
STAPLEE Score	7.25
Priority Assigned	Medium

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Jurisdiction / Agency	City of Moscow - Water
Hazard(s) Addressed	Maintenance of fire suppression capability
Mitigation Action & Background	Replacement of three aging water booster stations including installation of backup power generation to meet fire flow requirements and continuity of fire protection during power outage
Lead Implementing Agency	City of Moscow
Community Partners	N/A
Potential Funding Avenue	TBD
Cost Estimate	TBD
Losses Avoided	Continuity of fire suppression operations to minimize potential property loss and personal injury
Estimated Timeline	2 years
STAPLEE Score	10.25
Priority Assigned	High

2020 New Mitigation Action Worksheet

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Jurisdiction / Agency	City of Moscow - Water
Hazard(s) Addressed	Maintenance of potable water supply
Mitigation Action & Background	Perform maintenance and inspections on all water storage facilities every two years
Lead Implementing Agency	City of Moscow
Community Partners	N/A
Potential Funding Avenue	TBD
Cost Estimate	TBD
Losses Avoided	Continuity of potable water production and delivery
Estimated Timeline	Ongoing
STAPLEE Score	9.5
Priority Assigned	High

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Jurisdiction / Agency	City of Moscow - Water
Hazard(s) Addressed	Maintenance of potable water supply
Mitigation Action & Background	Annually update System (SCADA) control software and control features
Lead Implementing Agency	City of Moscow
Community Partners	N/A
Potential Funding Avenue	TBD
Cost Estimate	TBD
Losses Avoided	Continuity of potable water production and delivery
Estimated Timeline	Ongoing
STAPLEE Score	7.5
Priority Assigned	Medium

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Jurisdiction / Agency	City of Moscow - Water
Hazard(s) Addressed	Maintenance of potable water supply
Mitigation Action & Background	Operate and maintain all distribution valves and replace damaged valve stacks.
Lead Implementing Agency	City of Moscow
Community Partners	N/A
Potential Funding Avenue	TBD
Cost Estimate	TBD
Losses Avoided	Continuity of potable water production and delivery.
Estimated Timeline	Ongoing
STAPLEE Score	9.75
Priority Assigned	High

2020 New Mitigation Action Worksheet

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Return completed documents to Mike Neelon at mneelon@latah.id.us and Mark Rud at rud4758@vandals.uidaho.edu.

Jurisdiction / Agency	City of Moscow - Police
Hazard(s) Addressed	Protect large crowds from vehicle-borne threat or terrorist act
Mitigation Action & Background	Provide barriers at Sixth & Main and Third & Main to reduce vehicle threats at downtown community events
Lead Implementing Agency	City of Moscow
Community Partners	Downtown Businesses
Potential Funding Avenue	Grants/Special Projects
Cost Estimate	\$100,000
Losses Avoided	Human life
Estimated Timeline	1 year
STAPLEE Score	7.75
Priority Assigned	Medium

2020 New Mitigation Action Worksheet

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Jurisdiction / Agency	City of Moscow - Police
Hazard(s) Addressed	Lack of central command post to communicate during hazardous event
Mitigation Action & Background	Equip police department training room with command post equipment in case of an emergency (furniture, radio, computer capabilities, monitors, etc.)
Lead Implementing Agency	City of Moscow
Community Partners	University of Idaho
Potential Funding Avenue	Grants/Special Projects
Cost Estimate	TBD
Losses Avoided	Coordinated response time and human life
Estimated Timeline	2 years
STAPLEE Score	7
Priority Assigned	Medium

2020 New Mitigation Action Worksheet

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Jurisdiction / Agency	City of Moscow - Police
Hazard(s) Addressed	Emergency response communications
Mitigation Action & Background	Update aging emergency radio communication system to improve City radio coverage and interagency communications
Lead Implementing Agency	City of Moscow
Community Partners	Area emergency response agencies
Potential Funding Avenue	Grants/Special Projects
Cost Estimate	TBD
Losses Avoided	Coordinated response time and human life
Estimated Timeline	3 years
STAPLEE Score	8.75
Priority Assigned	High

2020 New Mitigation Action Worksheet

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Jurisdiction / Agency	City of Moscow - Streets/Storm
Hazard(s) Addressed	Stormwater and flooding
Mitigation Action & Background	Create capital replacement program and actively identify aging/failed stormwater infrastructure
Lead Implementing Agency	City of Moscow
Community Partners	N/A
Potential Funding Avenue	City of Moscow
Cost Estimate	TBD
Losses Avoided	Minimize flood damage
Estimated Timeline	Long-term
STAPLEE Score	8.75
Priority Assigned	High

2020 New Mitigation Action Worksheet

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Jurisdiction / Agency	City of Moscow - Streets/Storm
Hazard(s) Addressed	Stormwater and flooding
Mitigation Action & Background	Conduct a comprehensive study of Moscow's Creek systems including Paradise Creek and Hogg Creek to identify problem areas and develop plans and projects to mitigate flooding
Lead Implementing Agency	City of Moscow
Community Partners	N/A
Potential Funding Avenue	Grants/City of Moscow
Cost Estimate	TBD
Losses Avoided	Minimize flood damage
Estimated Timeline	Long-term
STAPLEE Score	9
Priority Assigned	High

2020 New Mitigation Action Worksheet

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Jurisdiction / Agency	City of Moscow - Streets/Storm
Hazard(s) Addressed	Stormwater and flooding
Mitigation Action & Background	Assess, plan for and fund the replacement of bridge and culvert structures that are substandard, deteriorating, or are an obstruction in flooding events
Lead Implementing Agency	City of Moscow
Community Partners	N/A
Potential Funding Avenue	City of Moscow
Cost Estimate	TBD
Losses Avoided	Minimize flood damage
Estimated Timeline	Long-term
STAPLEE Score	4
Priority Assigned	Low

2020 New Mitigation Action Worksheet

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Jurisdiction / Agency	City of Moscow - Streets/Storm
Hazard(s) Addressed	Stormwater and flooding
Mitigation Action & Background	Acquire easements and develop access points and pathways to allow for maintenance and emergency repairs of drainage facilities
Lead Implementing Agency	City of Moscow
Community Partners	N/A
Potential Funding Avenue	City of Moscow
Cost Estimate	TBD
Losses Avoided	Minimize flood damage
Estimated Timeline	Long-term
STAPLEE Score	5.5
Priority Assigned	Medium

2020 New Mitigation Action Worksheet

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Jurisdiction / Agency	City of Moscow - Streets/Storm
Hazard(s) Addressed	Stormwater and flooding
Mitigation Action & Background	Perform comprehensive assessment of the condition of City-owned stormwater infrastructure
Lead Implementing Agency	City of Moscow
Community Partners	N/A
Potential Funding Avenue	City of Moscow
Cost Estimate	TBD
Losses Avoided	Minimize flood damage
Estimated Timeline	Long-term
STAPLEE Score	7.75
Priority Assigned	Medium

2020 New Mitigation Action Worksheet

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Jurisdiction / Agency	City of Moscow - Streets/Storm
Hazard(s) Addressed	Hazardous high wind weather
Mitigation Action & Background	Develop a response plan for wind events
Lead Implementing Agency	City of Moscow
Community Partners	Local utility companies
Potential Funding Avenue	City of Moscow
Cost Estimate	TBD
Losses Avoided	Minimize impact of wind damage
Estimated Timeline	Long-term
STAPLEE Score	7.67
Priority Assigned	Medium

2020 New Mitigation Action Worksheet

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Jurisdiction / Agency	City of Moscow - Streets/Storm
Hazard(s) Addressed	Hazardous weather roadway damage prevention
Mitigation Action & Background	Continue to support the pavement management program and actively maintain roadway system to prevent premature damage
Lead Implementing Agency	City of Moscow
Community Partners	N/A
Potential Funding Avenue	Grants/City of Moscow
Cost Estimate	TBD
Losses Avoided	Minimize impacts of winter storms
Estimated Timeline	Long-term
STAPLEE Score	8.5
Priority Assigned	High

2020 New Mitigation Action Worksheet

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Jurisdiction / Agency	City of Moscow - Streets/Storm
Hazard(s) Addressed	Disaster response continuity of operations
Mitigation Action & Background	Install a backup power generator for City Shop facility which acts as a command post during flooding, wind storms and snow removal situations, and houses the City's fuel system
Lead Implementing Agency	City of Moscow
Community Partners	N/A
Potential Funding Avenue	City of Moscow
Cost Estimate	TBD
Losses Avoided	Minimize impact of extreme weather
Estimated Timeline	Long-term
STAPLEE Score	5
Priority Assigned	Medium

2020 New Mitigation Action Worksheet

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Jurisdiction / Agency	Department - Information Systems
Hazard(s) Addressed	
Mitigation Action & Background	
Lead Implementing Agency	
Community Partners	
Potential Funding Avenue	
Cost Estimate	
Losses Avoided	
Estimated Timeline	
STAPLEE Score	
Priority Assigned	

2020 New Mitigation Action Worksheet

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Jurisdiction / Agency	Jurisdiction/Agency
Hazard(s) Addressed	Hazard Addressed
Mitigation Action & Background	Mitigation Action/Background
Lead Implementing Agency	Lead Implementing Agency
Community Partners	Community Partners
Potential Funding Avenue	Potential Funding Avenue
Cost Estimate	Cost Estimate
Losses Avoided	Losses Avoided
Estimated Timeline	Estimated Timeline
STAPLEE Score	
Priority Assigned	

2020 New Mitigation Action Worksheet

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Jurisdiction / Agency	City of Moscow - IS
Hazard(s) Addressed	Emergency response communications
Mitigation Action & Background	Update radio repeater infrastructure
Lead Implementing Agency	City of Moscow
Community Partners	Moscow Police & Volunteer Fire Department
Potential Funding Avenue	Grants/City of Moscow
Cost Estimate	TBD
Losses Avoided	Property damage and personal injury/loss of life
Estimated Timeline	5 years
STAPLEE Score	8.5
Priority Assigned	High

2020 New Mitigation Action Worksheet

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Jurisdiction / Agency	City of Moscow - IS
Hazard(s) Addressed	Emergency response communications
Mitigation Action & Background	Replace mobile and portable radios that are beyond their useful life
Lead Implementing Agency	City of Moscow
Community Partners	Moscow Volunteer Fire Department
Potential Funding Avenue	Grants/City of Moscow
Cost Estimate	TBD
Losses Avoided	Property damage and personal injury/loss of life
Estimated Timeline	3 Years
STAPLEE Score	9
Priority Assigned	High

2020 New Mitigation Action Worksheet

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Jurisdiction / Agency	City of Moscow - IS
Hazard(s) Addressed	Communication outage from cut fiber
Mitigation Action & Background	Add City-wide wireless network for redundancy
Lead Implementing Agency	City of Moscow
Community Partners	TBD
Potential Funding Avenue	Grants/City of Moscow
Cost Estimate	TBD
Losses Avoided	Property damage and personal injury/loss of life
Estimated Timeline	5-7 Years
STAPLEE Score	7.5
Priority Assigned	Medium

2020 New Mitigation Action Worksheet

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Jurisdiction / Agency	City of Moscow - IS
Hazard(s) Addressed	SCADA outage from cellular network outage
Mitigation Action & Background	Build fiber to utility sites
Lead Implementing Agency	City of Moscow
Community Partners	TBD
Potential Funding Avenue	Grants/City of Moscow
Cost Estimate	TBD
Losses Avoided	Property damage and personal injury/loss of life
Estimated Timeline	5-7 Years
STAPLEE Score	7.75
Priority Assigned	Medium

2020 New Mitigation Action Worksheet

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Jurisdiction / Agency	
Hazard(s) Addressed	
Mitigation Action & Background	
Lead Implementing Agency	
Community Partners	
Potential Funding Avenue	
Cost Estimate	
Losses Avoided	
Estimated Timeline	
STAPLEE Score	
Priority Assigned	

2020 New Mitigation Action Worksheet

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Jurisdiction / Agency	Department - Administration
Hazard(s) Addressed	
Mitigation Action & Background	
Lead Implementing Agency	
Community Partners	
Potential Funding Avenue	
Cost Estimate	
Losses Avoided	
Estimated Timeline	
STAPLEE Score	
Priority Assigned	

2020 New Mitigation Action Worksheet

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Jurisdiction / Agency	Jurisdiction/Agency
Hazard(s) Addressed	Hazard Addressed
Mitigation Action & Background	Mitigation Action/Background
Lead Implementing Agency	Lead Implementing Agency
Community Partners	Community Partners
Potential Funding Avenue	Potential Funding Avenue
Cost Estimate	Cost Estimate
Losses Avoided	Losses Avoided
Estimated Timeline	Estimated Timeline
STAPLEE Score	
Priority Assigned	

2020 New Mitigation Action Worksheet

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Jurisdiction / Agency	City of Moscow - Admin
Hazard(s) Addressed	Continuity of governmental operations
Mitigation Action & Background	Ensure preservation of public records by moving City record storage facility to a location not prone to flood damage
Lead Implementing Agency	City of Moscow
Community Partners	TBD
Potential Funding Avenue	Grants/City of Moscow
Cost Estimate	TBD
Losses Avoided	Public record damage or loss and continuity of governmental operations
Estimated Timeline	5 years
STAPLEE Score	10
Priority Assigned	High

2020 New Mitigation Action Worksheet

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Jurisdiction / Agency	City of Moscow - Admin
Hazard(s) Addressed	Continuity of governmental operations
Mitigation Action & Background	Scan all critical public records with redundant digital storage
Lead Implementing Agency	City of Moscow
Community Partners	TBD
Potential Funding Avenue	Grants/City of Moscow
Cost Estimate	TBD
Losses Avoided	Public record damage or loss and continuity of governmental operations
Estimated Timeline	6 years
STAPLEE Score	8.75
Priority Assigned	High

2020 New Mitigation Action Worksheet

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Jurisdiction / Agency	City of Moscow - Admin
Hazard(s) Addressed	Continuity of governmental operations
Mitigation Action & Background	Assess and install security systems at all critical governmental facilities
Lead Implementing Agency	City of Moscow
Community Partners	TBD
Potential Funding Avenue	Grants/City of Moscow
Cost Estimate	TBD
Losses Avoided	Public record damage or loss and continuity of governmental operations
Estimated Timeline	6 years
STAPLEE Score	4.5
Priority Assigned	Medium

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Jurisdiction / Agency	City of Moscow - Admin
Hazard(s) Addressed	Continuity of governmental operations
Mitigation Action & Background	Install a natural gas backup power generator at the Hamilton Indoor Recreation Center (HIRC) which is designated as an emergency shelter for the City. It is critical that the facility be operational during any emergency but the HIRC currently has no backup
Lead Implementing Agency	City of Moscow
Community Partners	TBD
Potential Funding Avenue	Grants/City of Moscow
Cost Estimate	TBD
Losses Avoided	Property damage and personal injury/loss of life
Estimated Timeline	4 years
STAPLEE Score	8.5
Priority Assigned	High