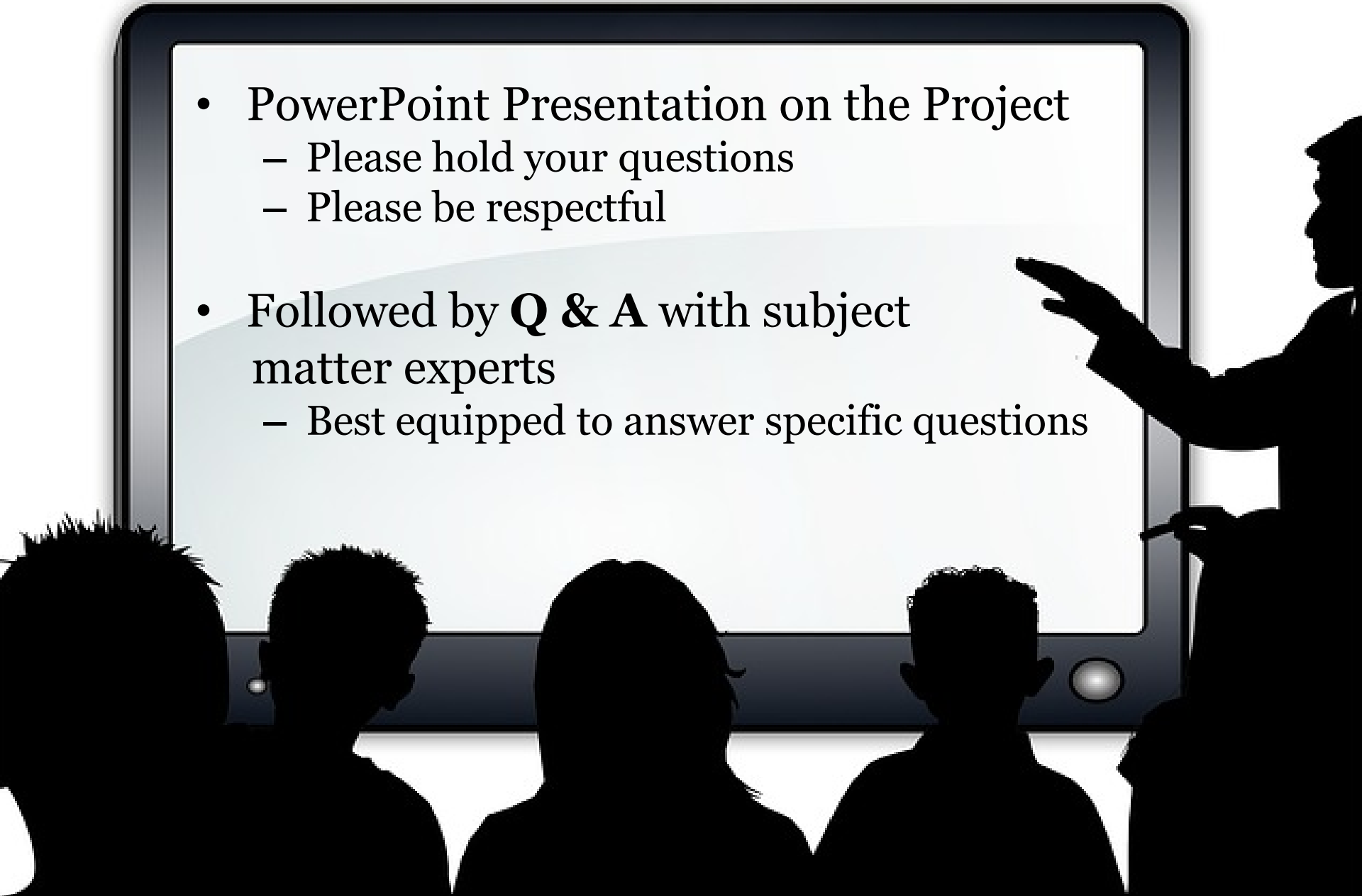
Snake River Bridge Replacement
390/22 Intersection

Wyoming Department of Transportation

Bob Hammond, P.E.
Resident Engineer

Keith Compton, P.E.
District 3 Engineer

Introduction



- PowerPoint Presentation on the Project
  - Please hold your questions
  - Please be respectful
- Followed by **Q & A** with subject matter experts
  - Best equipped to answer specific questions

WYDOT: Mission and values

The Wyoming Department of Transportation was formed in **1991**, when the Wyoming Highway Department, along with the Wyoming Aeronautics Commission and other transportation-related elements were combined to one department. However, the highway department has existed **since 1917**, when it was created in response to the Federal Aid Road Act of 1916.

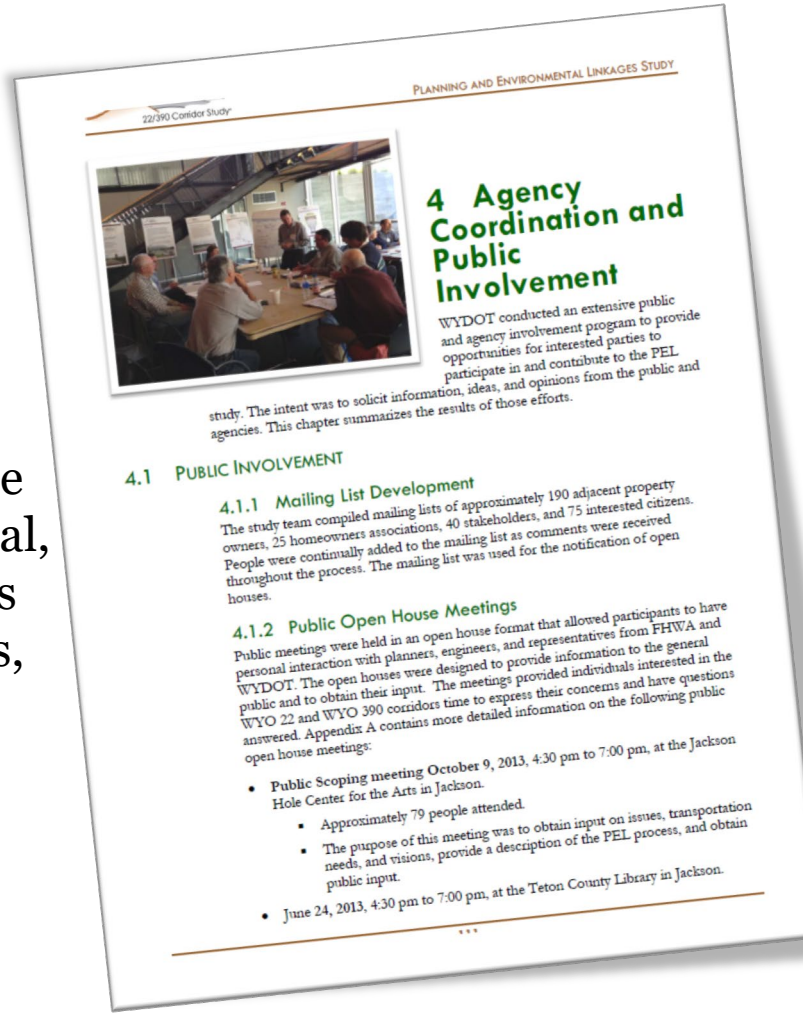
WYDOT's mission to provide a safe, high quality and efficient transportation system for the people of the State of Wyoming. WYDOT employees a team of engineers and experts to carry out WYDOT's goals.

WYDOT: The Public Involvement Process

The Wyoming Department of Transportation acknowledges the public's desire to share in the transportation decision-making process, which seeks to balance WYDOT's goals of safety and efficiency with various community concerns to the greatest extent possible.

WYDOT will communicate the agency's mission and goals to the widest audience possible and consider feedback received from outside organizations and the public.

WYDOT strives to provide early and continuing opportunities during project development for the public to be involved in the identification of social, economic, and environmental impacts, as well as impacts associated with relocation of individuals, groups, or institutions.



22/390 Corridor Study

Planning and Environmental Linkages Study

4 Agency Coordination and Public Involvement

WYDOT conducted an extensive public and agency involvement program to provide opportunities for interested parties to participate in and contribute to the PEL study. The intent was to solicit information, ideas, and opinions from the public and agencies. This chapter summarizes the results of those efforts.

4.1 Public Involvement

4.1.1 Mailing List Development

The study team compiled mailing lists of approximately 190 adjacent property owners, 25 homeowners associations, 40 stakeholders, and 75 interested citizens. People were continually added to the mailing list as comments were received throughout the process. The mailing list was used for the notification of open houses.

4.1.2 Public Open House Meetings

Public meetings were held in an open house format that allowed participants to have personal interaction with planners, engineers, and representatives from FHWA and WYDOT. The open houses were designed to provide information to the general public and to obtain their input. The meetings provided individuals interested in the WYO 22 and WYO 390 corridors time to express their concerns and have questions answered. Appendix A contains more detailed information on the following public open house meetings:

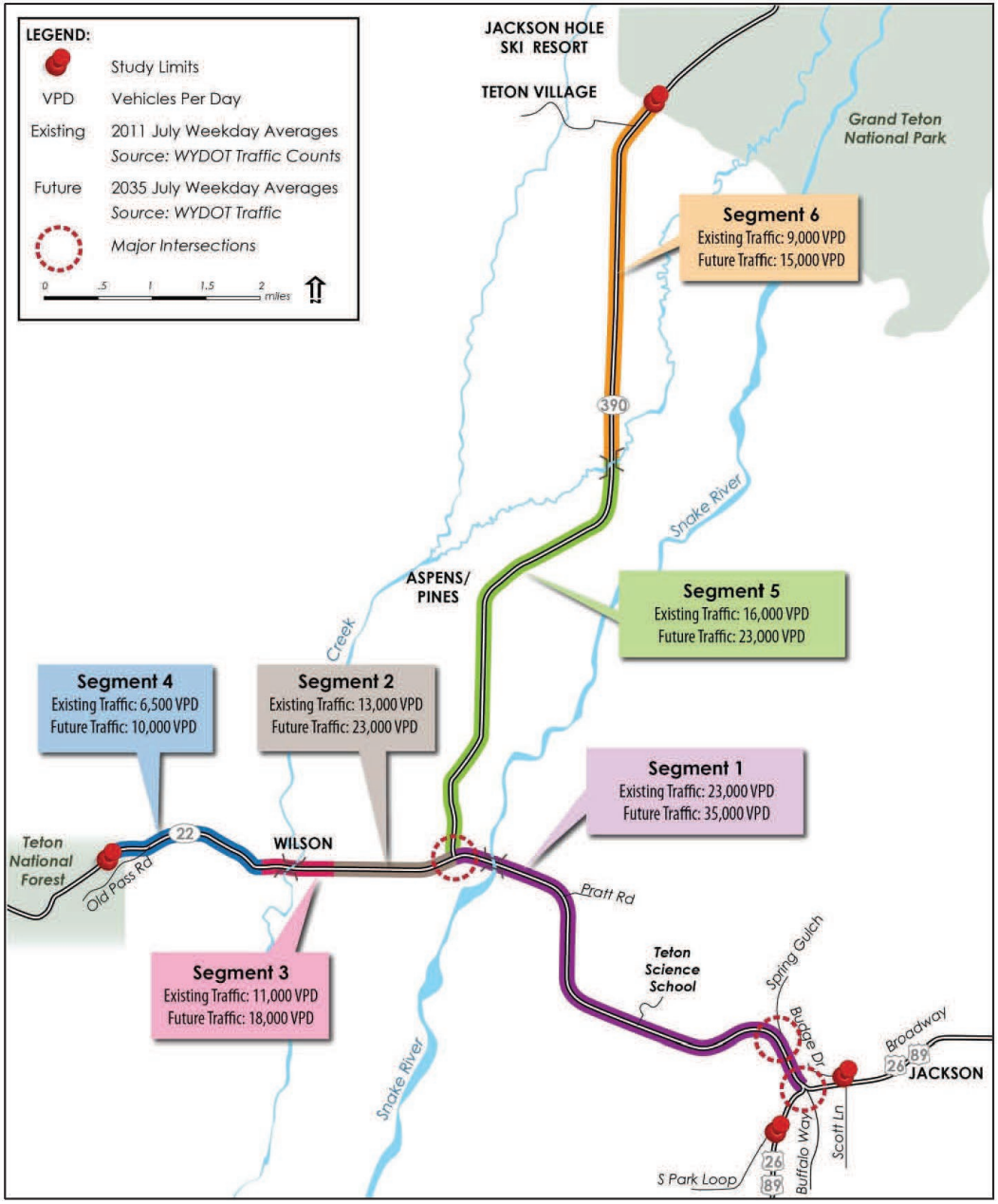
- **Public Scoping meeting October 9, 2013, 4:30 pm to 7:00 pm, at the Jackson Hole Center for the Arts in Jackson.**
  - Approximately 79 people attended.
  - The purpose of this meeting was to obtain input on issues, transportation needs, and visions, provide a description of the PEL process, and obtain public input.
- June 24, 2013, 4:30 pm to 7:00 pm, at the Teton County Library in Jackson.

Planning & Environmental Linkage Study (PELS)

Purpose:

- Develop a vision
- Identify transportation needs
- Facilitate future projects and priority improvements that align with long-term vision

As noted by the FHWA, a PEL study represents an approach to transportation decision-making that considers environmental, community, and economic goals early in the planning process. This PEL study would precede, and serve as the basis for, any future environmental documents prepared in compliance with the National Environmental Policy Act (NEPA).

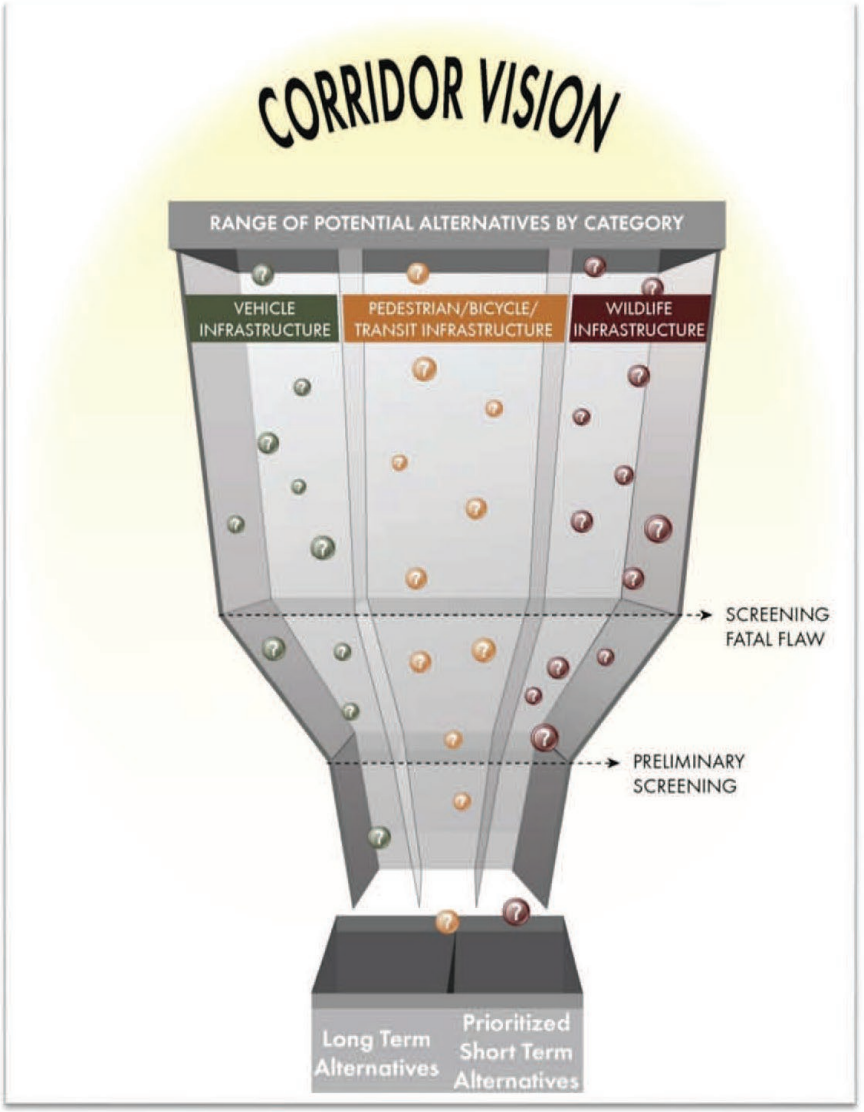


PELS screening criteria

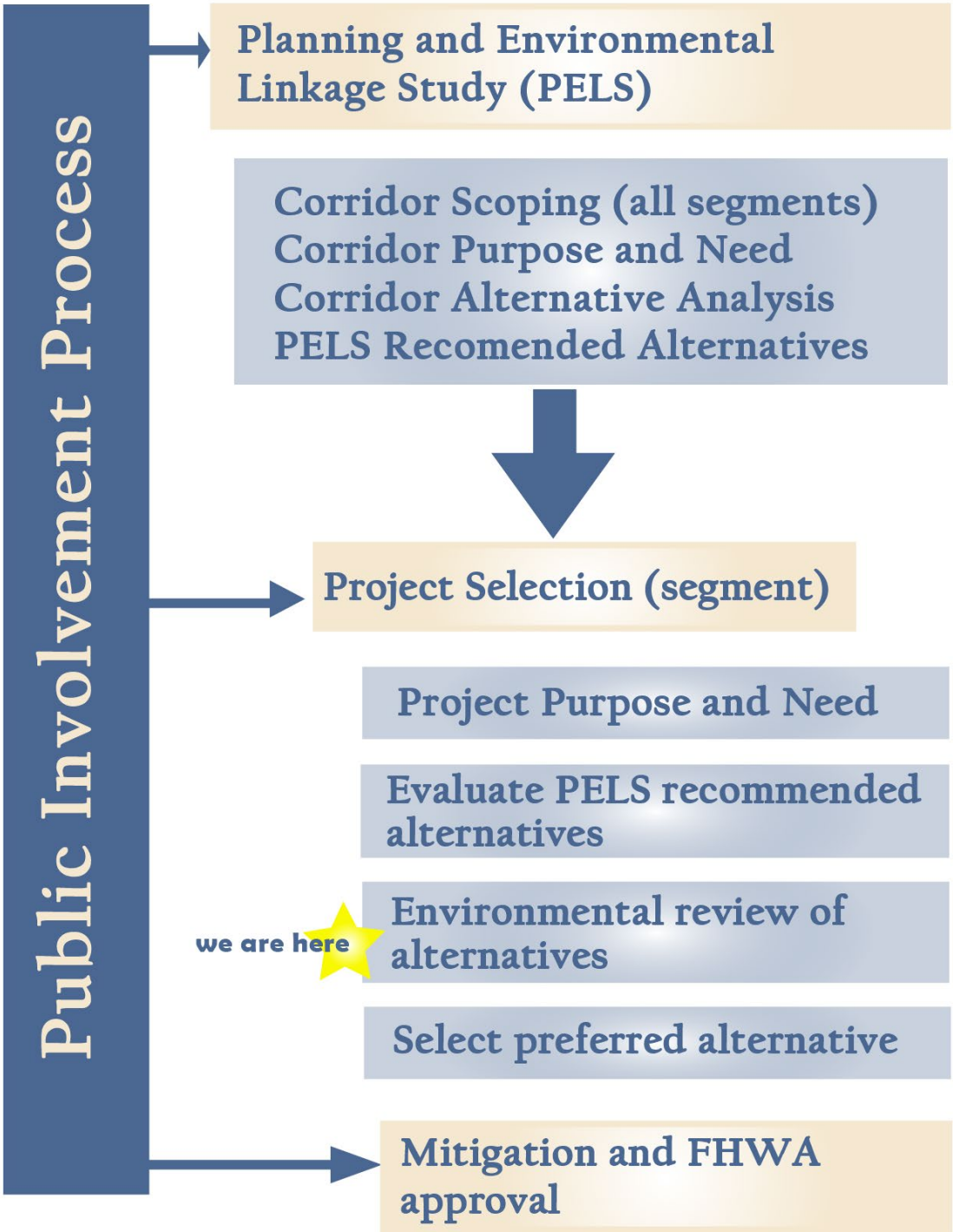
The vision statement, purpose and need, and goals shaped the screening criteria by which potential alternatives were compared. Criteria was based on the purpose and need and project goals in cooperation with resource agencies and the Teton County Transportation Advisory Committee. The screening criteria are presented below, grouped according to the four transportation needs and environmental considerations:

- Mobility
- Bicycle & pedestrian
- Transit
- Safety & wildlife
- Community, land use & environment

Figure 4: Alternatives Development and Screening Process



How does the PELS affect the environmental process for the Snake River Bridge replacement project?



Integrated Transportation Plan (ITP) Teton County Comprehensive Plan

WY-22 Multi-Lane, Multimodal Improvements, BRT/HOV

- WYDOT PEL study concluded a four-lane+ cross section
- Outcome confirmed in Integrated Transportation Plan
- Work with WYDOT to explore dedicated Bus Rapid Transit / HOV lane

Comprehensive Plan Policy 7.2.d

"*Pursue a multi-lane complete street roadway with WYDOT on Highway 22 between Town and Highway 390.*" (CV-3-21)

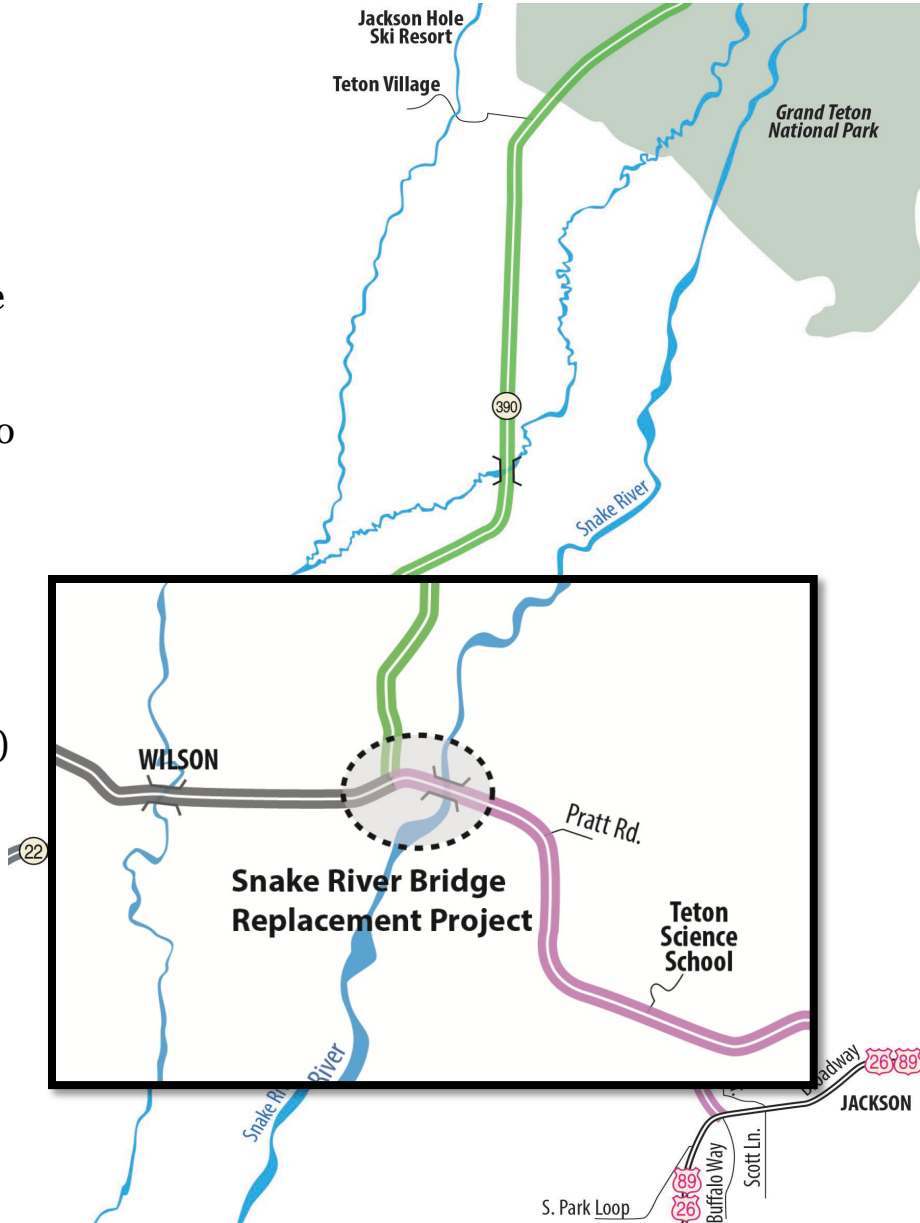
TETON COUNTY WYOMING

Snake River Bridge Project
Purpose and Need

1) The Snake River Bridge is deficient and needs to be replaced.
    1) The **bridge deck is deteriorated** and its difficult to work on given the traffic volumes and narrowness of the existing width
    2) The bridge is nearing the end of its service life
    3) Two-girder **fracture-critical** system

2) The intersection of WYO 390 and WYO 22 is failing to meet the standard level of service and needs to be redesigned to accommodate future traffic. Due to the close proximity of the intersection to the bridge, it has been included as part of this project.

The WYO 390 – WYO 22 intersection was identified in the Planning and Environmental Linkages Study (PELS) as a major intersection in which motorists encounter delays. The PELS listed the intersection and the Snake River Bridge as a **high priority improvement project**.



Snake River Bridge Project Stakeholder Group

WYDOT has put together a stakeholder group.

The mission of the group is to provide recommendations on the road design that will positively affect safety, travel, economic, environmental and aesthetic considerations.

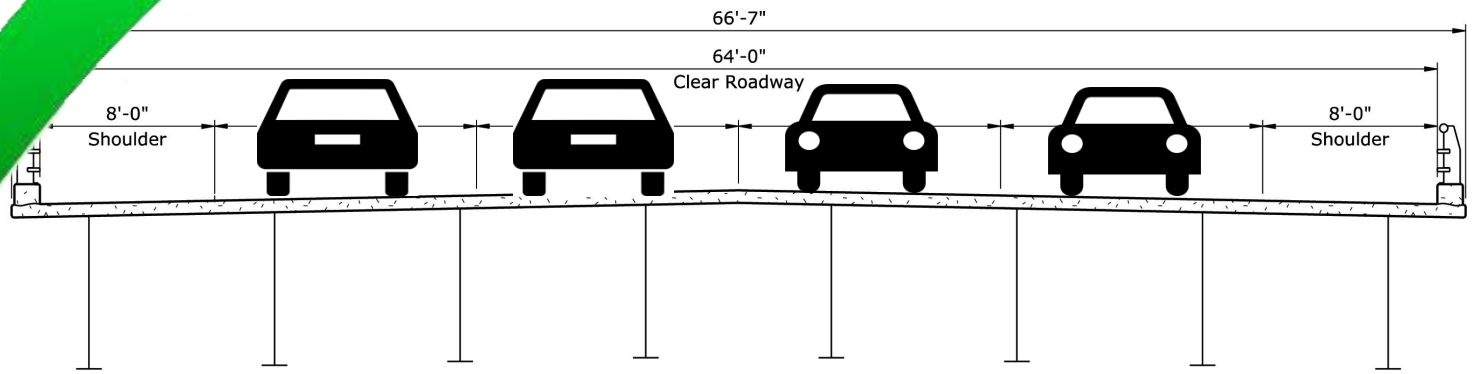
The group consists of a representative from:
- Wyoming Department of Transportation
- Wyoming Game and Fish
- Teton County
- START Bus
- Friends of Pathways
- Greater Yellowstone Coalition
- River Hollows Homeowners Association
- Jackson Hole Mountain Resort
- Teton Village Association ISD
- Community Representative

Snake River Bridge Alternatives

These costs are for the bridge only, and do not include the additional guardrail, roadway width, maintenance, etc.

Snake River Bridge Alternatives

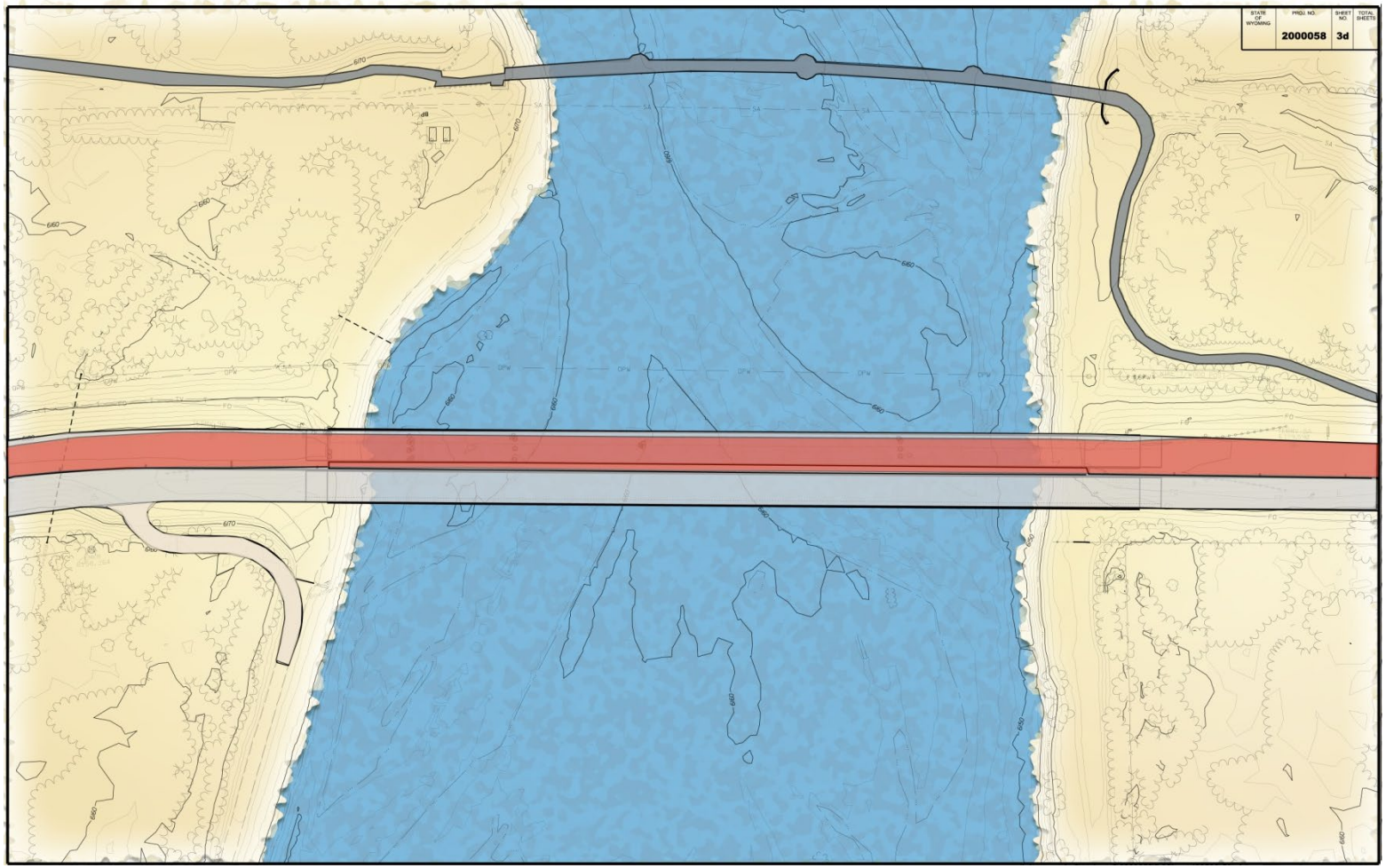
Option 1 four-lane structure



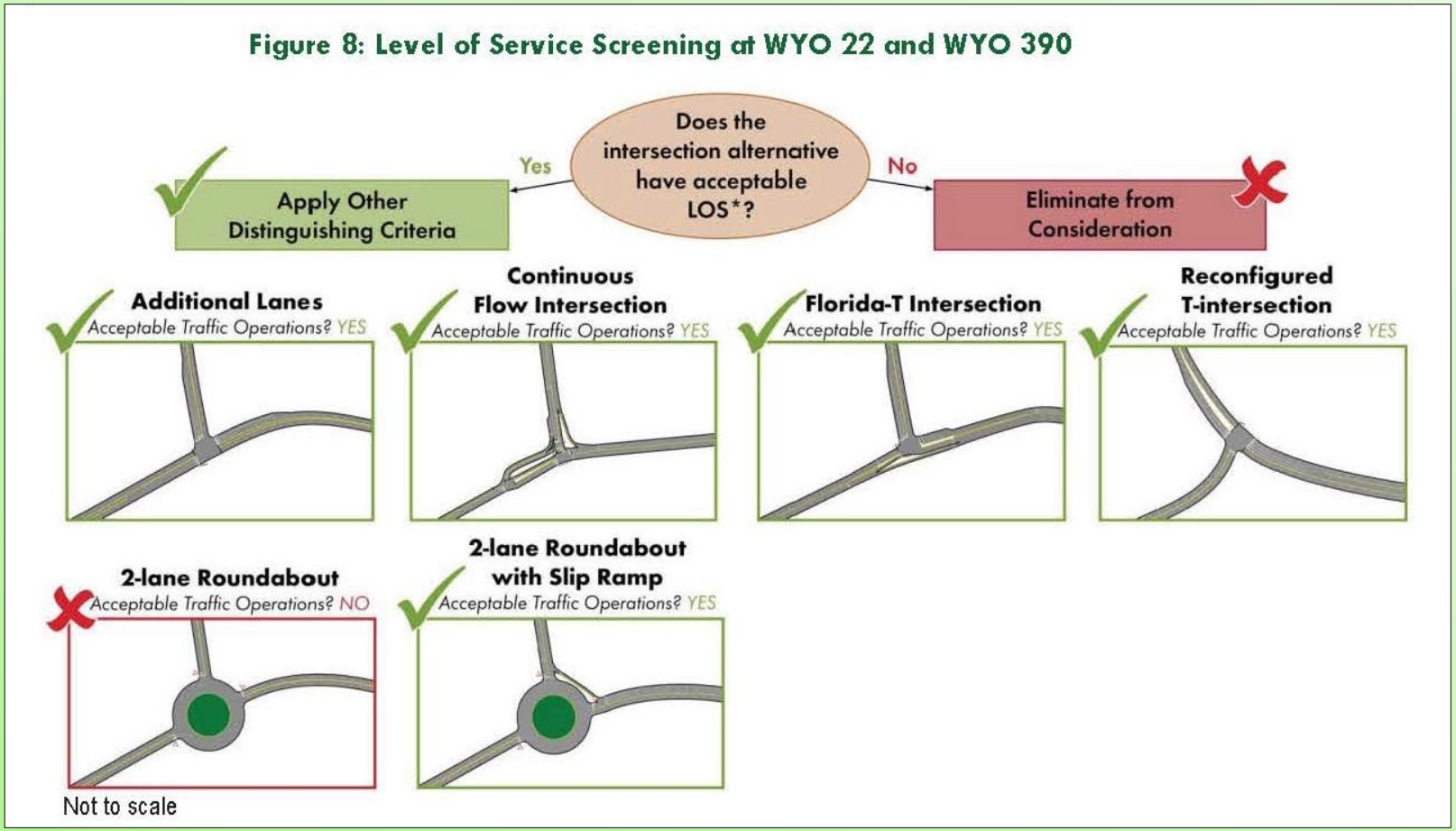
The PELS recommended four lanes of travel through segment 1, which is the section that encompasses the Snake River Bridge. Option 1 provides a cost effective four lane bridge while trying to minimize the overall footprint.

Snake River Bridge Preliminary design

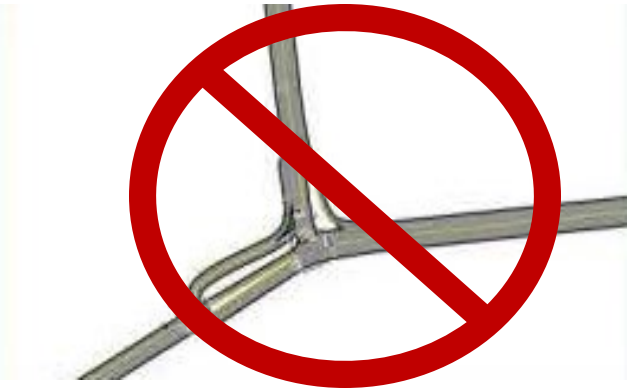
Purpose of Preliminary Plans:
- View mapping for accuracy
-Review options (if any) for alignment
- Show initial vertical and horizontal alignments
- Review and discussion
- See impacts and issues



PELS Intersection Alternatives



Eliminated intersection alternatives



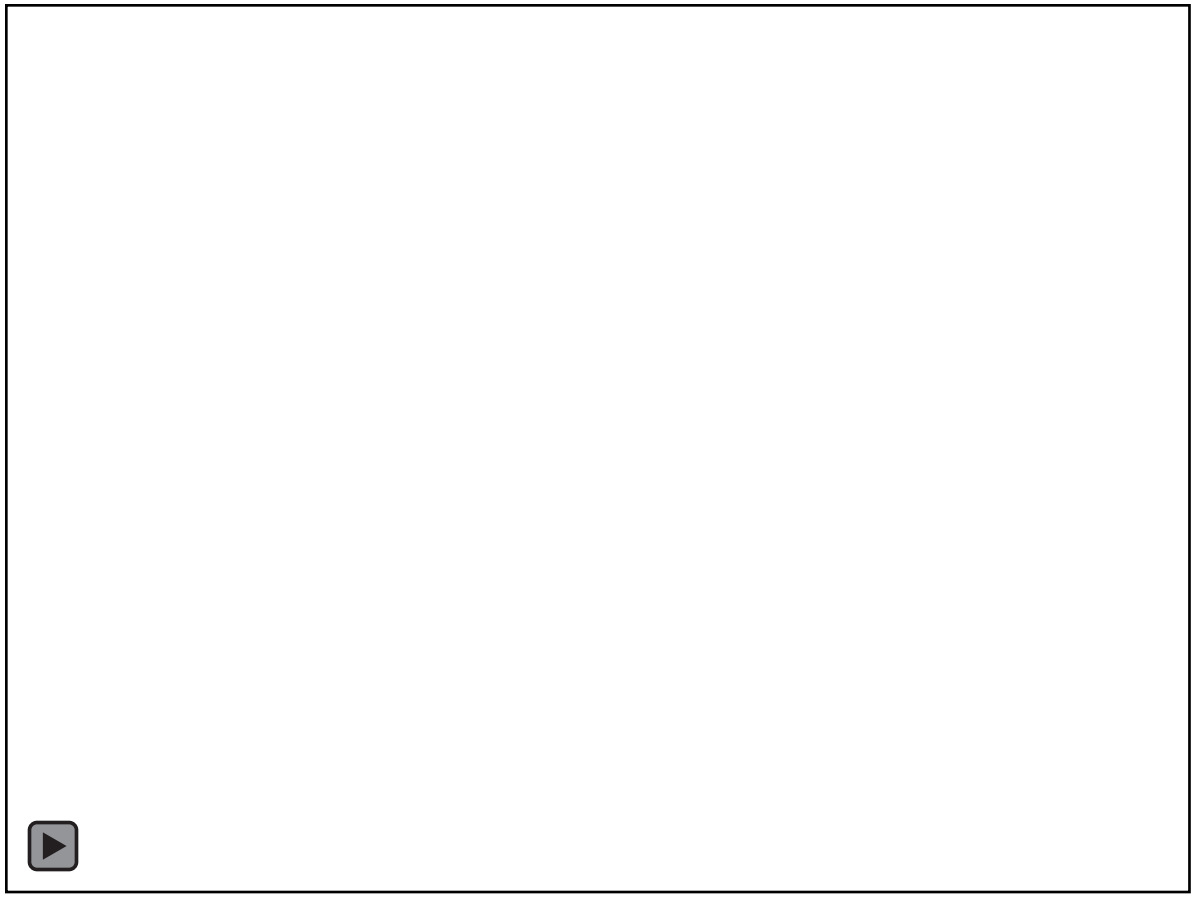
The Continuous Flow Intersection (CFI)
•Would require multiple signalized intersections
•Would require additional overhead sign structures to provide directional guidance
• The existing below grade pedestrian crossing would potentially need to be modified.

The Reconfigured-T (Modified-T)
•No route continuity Also this type of intersection
•Would require dual lefts for the westbound 22 movement and overhead sign structures would be necessary to provide directional guidance
• No adequate u-turn locations are available on WY 390 for drivers that inadvertently head northbound on WY 390
•The existing below grade pedestrian crossing would need to be modified.
•Environmental concerns exist because of impacts to adjacent wetlands.

The Expanded Existing (Additional lanes)
•The intersection level of service D in the design year and the southbound WY 390 leg is over capacity.

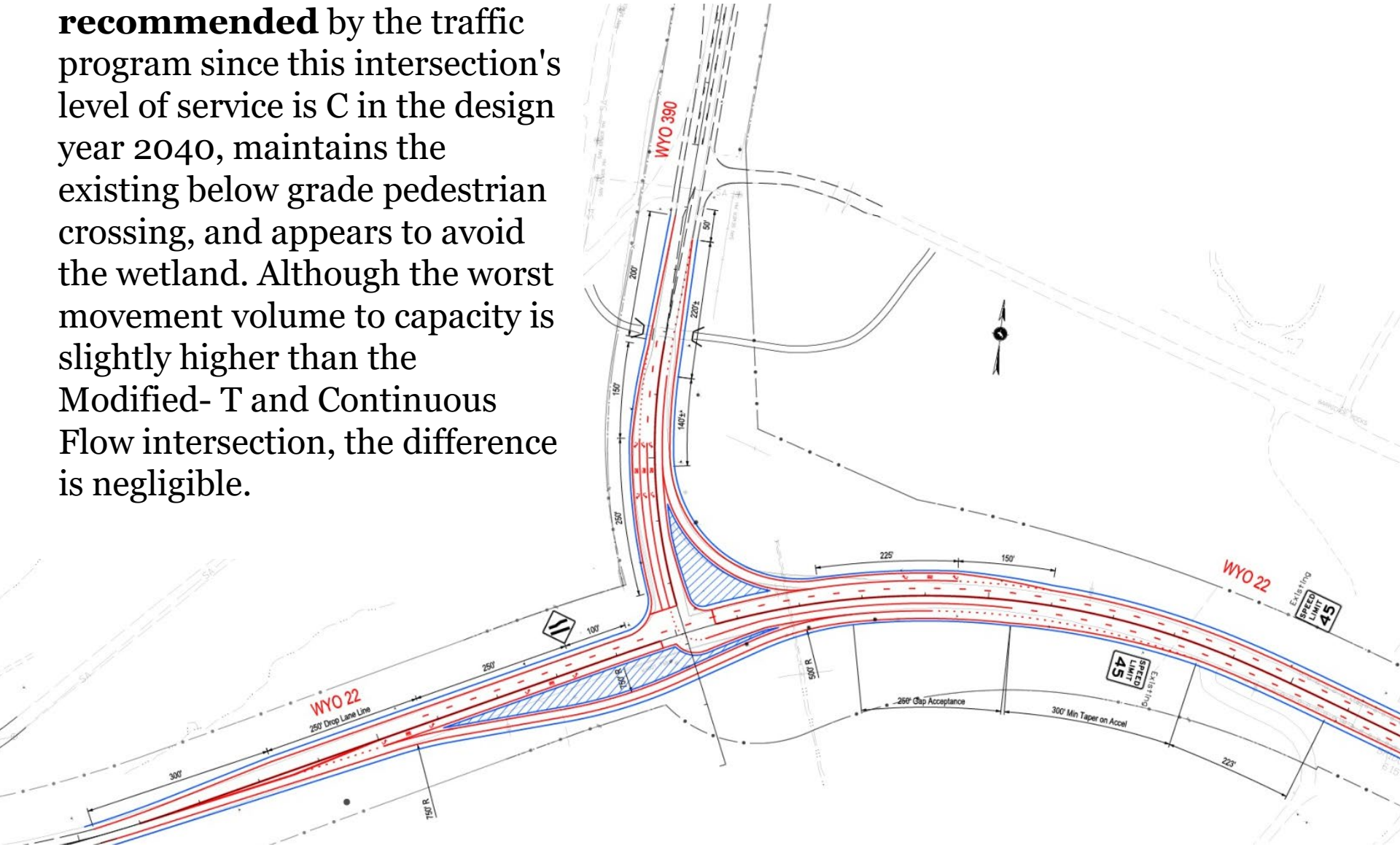
Eliminated alternative: Roundabout

The 2- lane Roundabout with Slip Ramp is not recommended due to the intersection Level of Service E in the design year and the southbound WY 390 leg is over capacity. This intersection is the least likely to handle the large opposing traffic volumes of WY 22 westbound and WY 390 left turns. This option would have considerable environmental impacts as well.



Florida T Intersection

The Florida-T intersection is **recommended** by the traffic program since this intersection's level of service is C in the design year 2040, maintains the existing below grade pedestrian crossing, and appears to avoid the wetland. Although the worst movement volume to capacity is slightly higher than the Modified- T and Continuous Flow intersection, the difference is negligible.



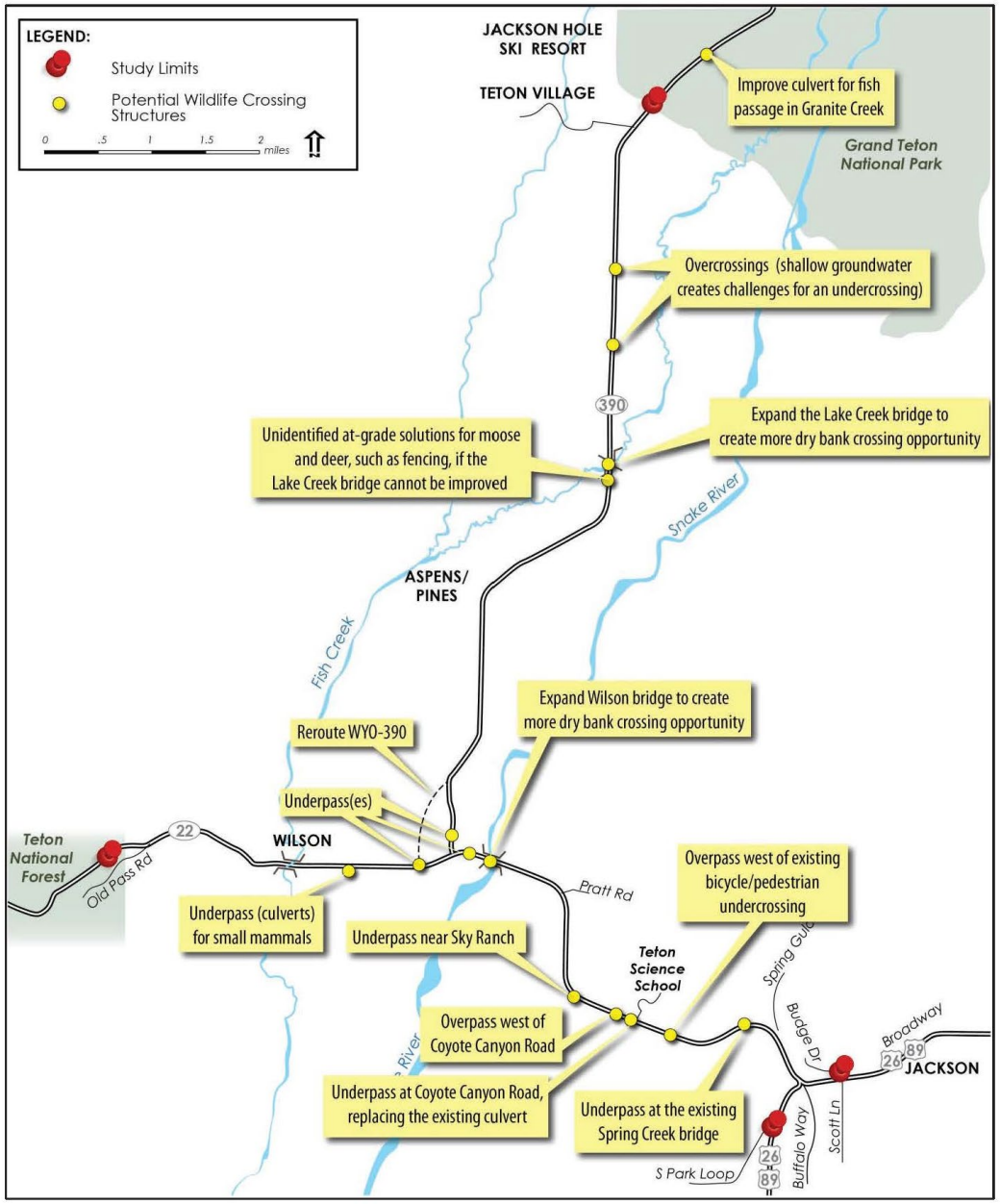
Florida T Intersection

PELS Wildlife Crossings

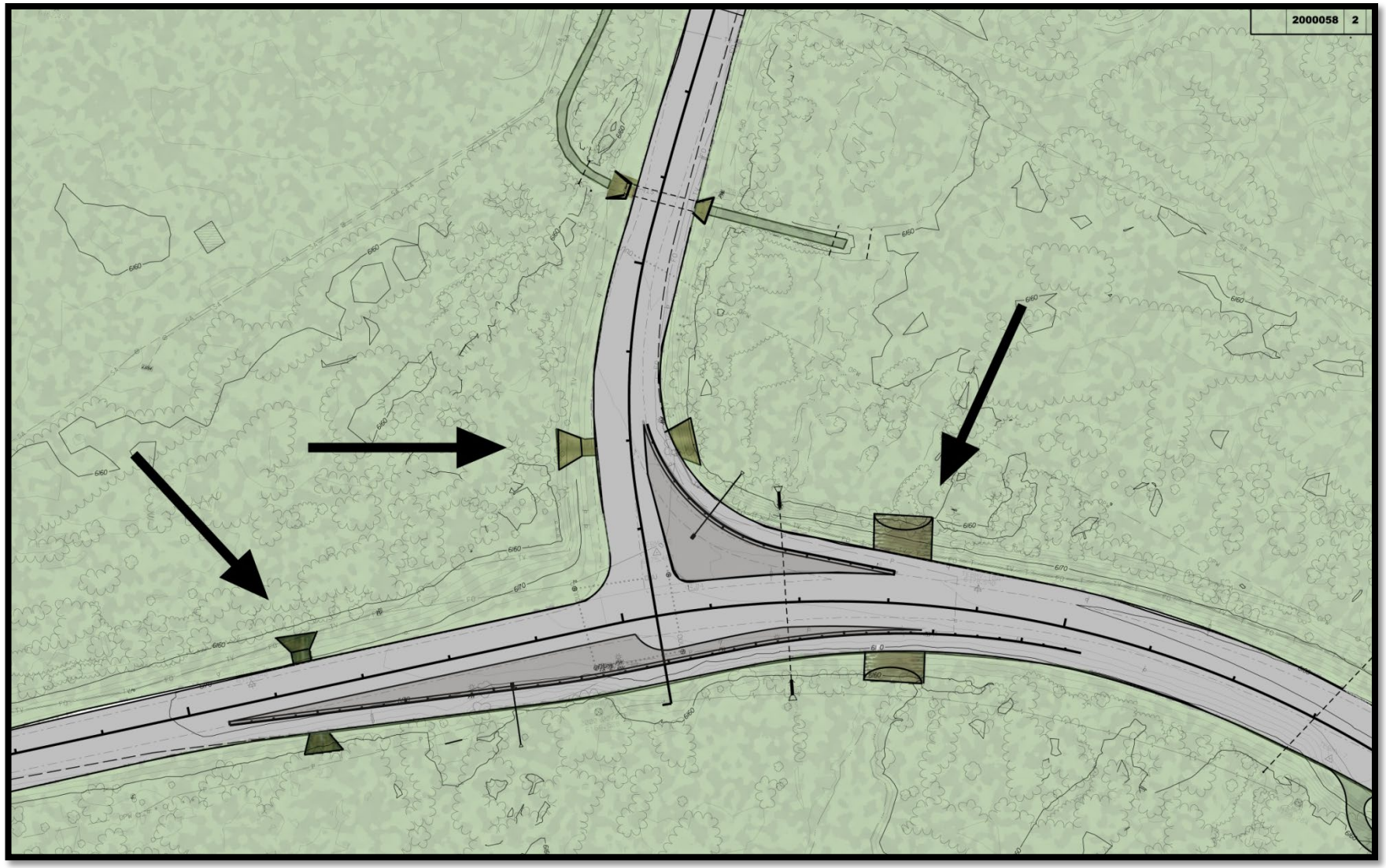
The selection of appropriate safety enhancements depends on many factors, and is not limited to the type of animals in the area, topography, and driver behavior. In addition to wildlife crossings, the PELS recommended looking at:

- Fencing
- Signage
- Seasonal speed reductions
- Automated speed detectors
- Vegetation management

Wildlife detection systems were eliminated in Level 1 screening because it is an unproven technology.



WYO 22/ WYO 390 Intersection Wildlife Crossings



Wildlife Crossings
Game & Fish collar program

WYDOT funding WY G&F research on moose

- Catch and collar up to 10 moose in the area
- expect this spring

Next steps

Construction 2023

Programming Phase

- Get it in the STIP
- Get authorization of expenditure to start working
- Get ready to scope

Recon and Survey Phase

- Collect data
  - Location
  - Existing infrastructure
- Need any special studies/work?
- What NEPA document is needed?

PELS assisted

Preliminary Design Phase

- **July 2020**
  - Start looking at designs
  - Identify and address issues/features
  - Incorporate recommendations
  - **Preliminary plans**
  - **Grading plans**

Final Design Phase

- **October 2020**
  - Develop final design
  - Add/changes to project
  - **Right of way plans**
  - **Utility Plans**
    - Summaries, quantities, special revisions ect.
  - **Final plans 2021**
    - Review and revise, then proceed to contract

Traffic flow and construction sequencing

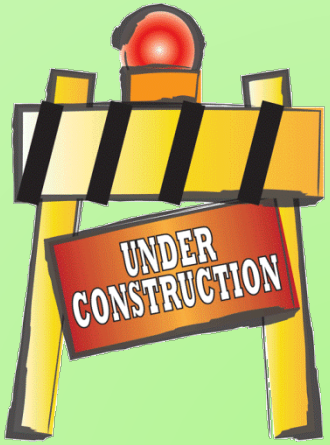
Important to Keep Traffic Moving During Construction

Staged Construction for the Bridge

- Build half of new bridge next to existing bridge
- Move traffic onto new half of bridge
- Remove old bridge
- Build 2nd half of new bridge
- Tie them together

Intersection Traffic - Options

- Build detours around work zone
- Move side to side



Wildlife Crossings

- Build dirt and temp road on one side
- Build crossing on the other
- Switch

The public involvement process

Did we miss something? Help us identify challenges we may face and opportunities to make this project better.

Help provide us with some anecdotal data, such as localized information on wildlife movements, pedestrian/bicycle movements, and local development and buildings, like parking areas and schools.

www.dot.state.wy.us/SnakeRiver