US95 Access Management Study

Kootenai Metropolitan Planning Organization

Why another study?

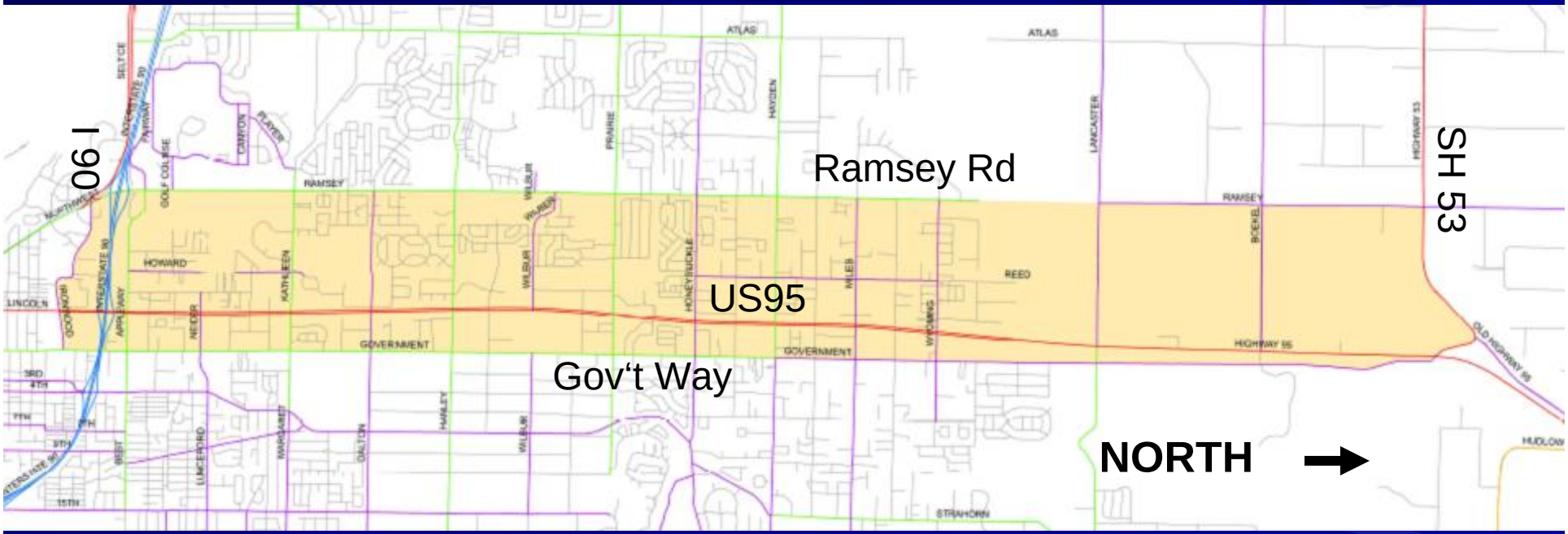
- In 2006, Idaho Transportation Board considered closing unsignalized median crossings

- Before taking action, IT Board asked KMPO to:
  - Evaluate the impacts of median closures
  - Look for ways to improve mobility on US95

KMPO's Approach

- Study undertaken in 2008.
- A "system" approach.
- "US95 is not an island". Efficient operation of supporting arterials and collectors is also important.
- Considered all highway users – through travelers as well as regional and community users.

Study Area


I 90
Ramsey Rd
SH 53
US95
Gov't Way
NORTH
ATLAS
RAMSEY
HOWARD
LINCOLN
GOVERNMENT
REED
HIGHWAY 95
STRAHORN

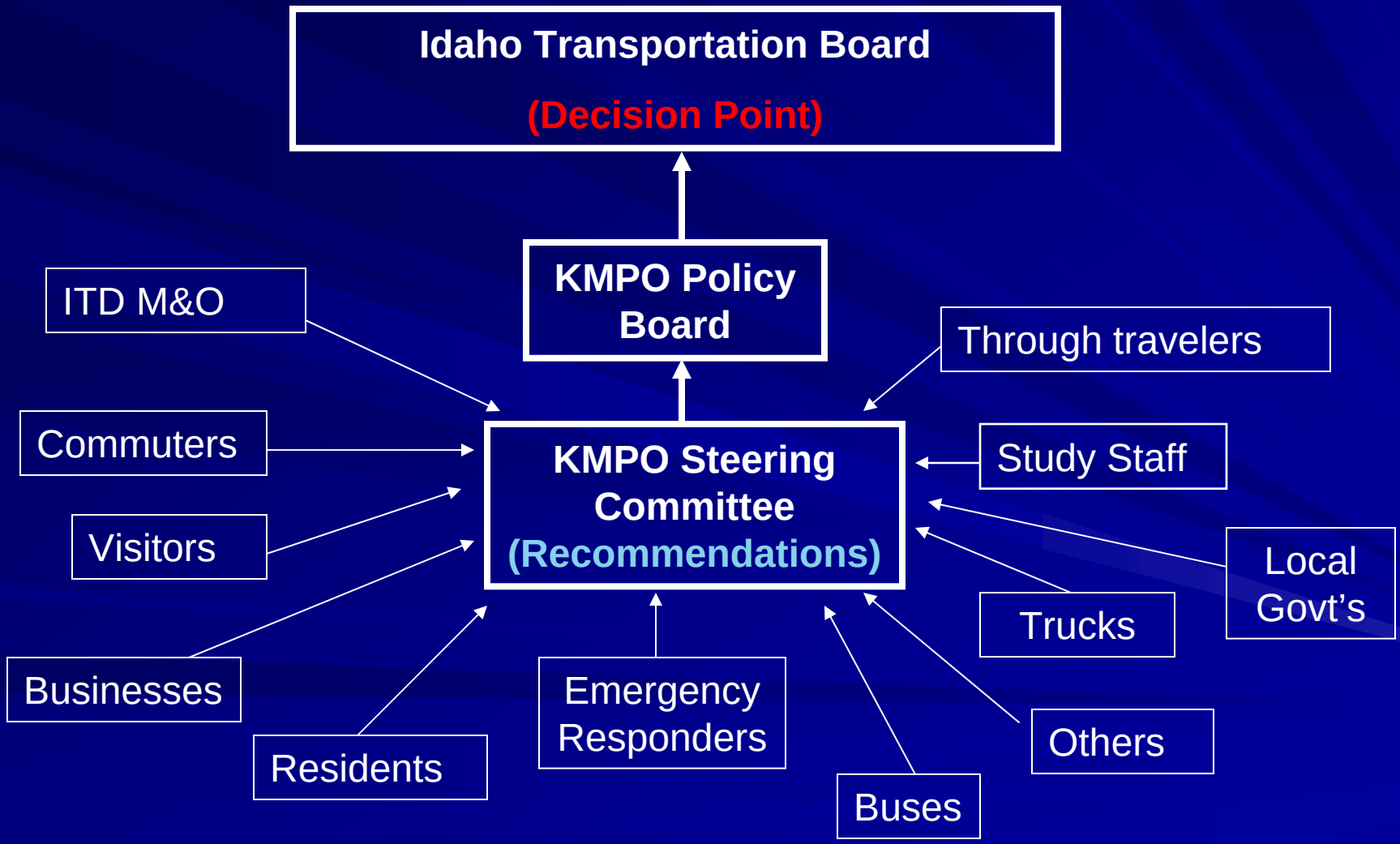
Study Goals

- Find practical, *low-cost* ideas to improve US95 operations.
- Manage and balance safety and mobility on US95, while providing essential community access to and from the highway.

Study Process

- Identify practical, low cost alternatives
- Develop evaluation measures
- Invite public participation
- Refine alternatives
- Recommend a master strategy for US95

What is KMPO's Role?



A collaborative approach was used for the study.

US95 Steering Committee

Lakes Highway District

City of CdA

City of Hayden

ITD

CdA Chamber

State Senate

Community Outreach

- Three community meetings
- Mailers to all addresses in the study area twice during the study
- Study info on KMPO Website
- Channel 19 program, press releases, news articles, KMPO Blog
- Interviews with large businesses and land owners

Alternatives

- 7 different alternatives evaluated

  Combinations of:

  - Median closures
  - Turn restrictions
  - New signals
  - Removal or relocation of existing signals

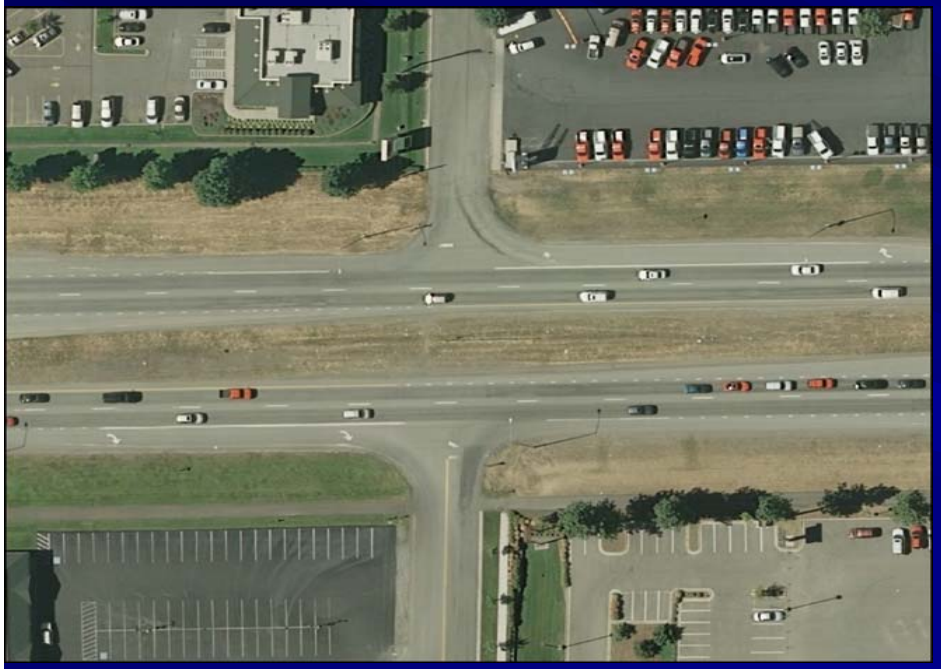
- Alternatives focus on US95 intersections because this is where most of the accidents and delays occur.

Evaluation Criteria

- Is safety enhanced?
- Does delay increase or decrease?
- Do miles travelled increase or decrease?
- Is signal time used efficiently?
- Does US95 travel time increase or decrease?
- Intangible criteria: Community access, business needs, driver expectation, other.

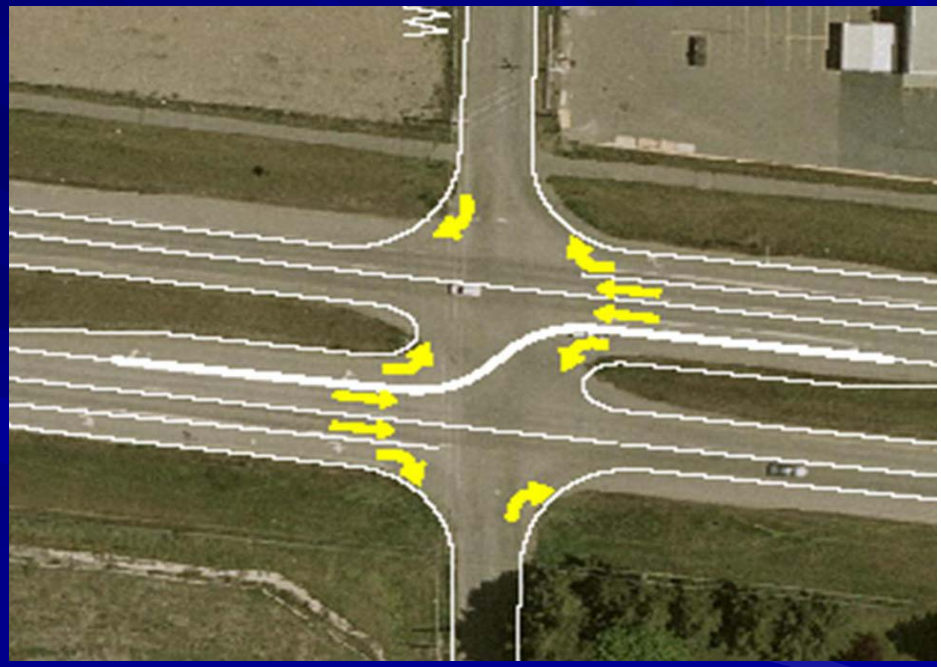
Median Treatments: What we mean when we say…

“Closed Median”



Existing Sunset Ave Intersection

“Turn Restriction”



Turn Restriction Layout

Median treatments can dramatically affect safety.

Open Median:

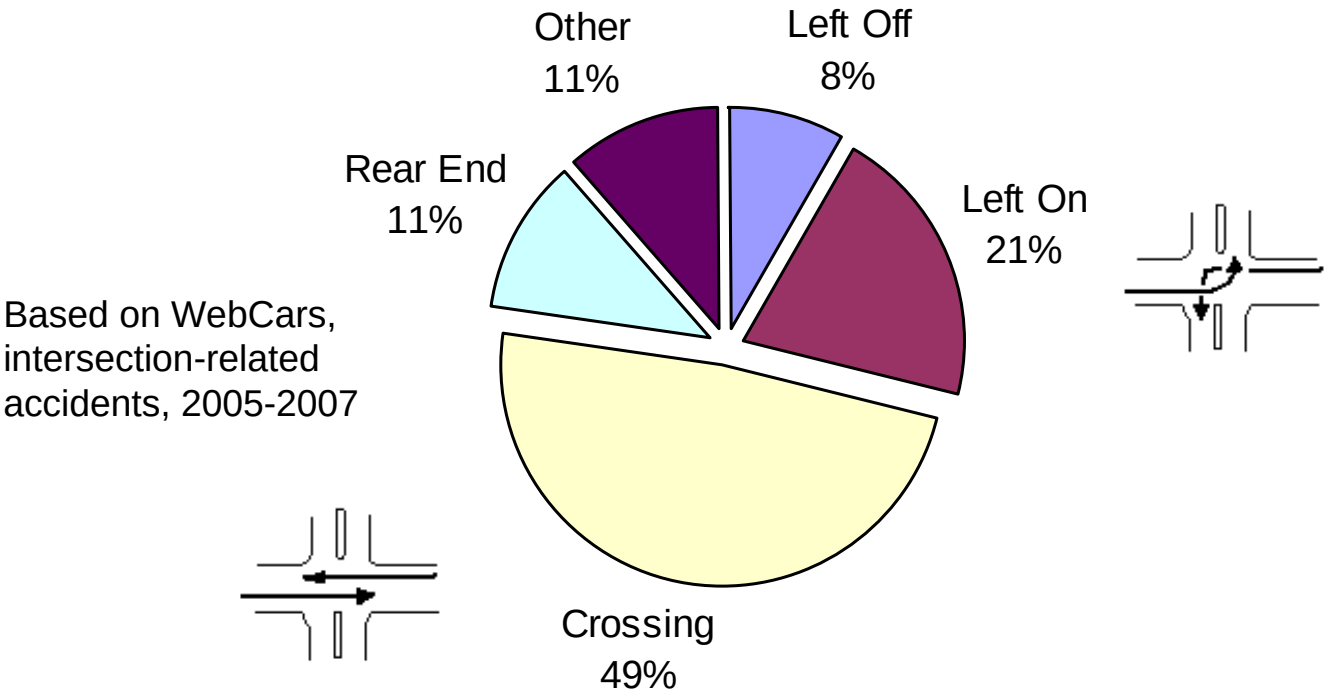
32 CROSSING CONFLICT POINTS

Turn Restriction:

16 CROSSING CONFLICT POINTS

Safety at Unsignalized Intersections

Accidents at US95 Unsignalized Intersections



Restricting left on and crossing movements at unsignalized intersections is recommended to significantly enhance safety.

Why is Signal Spacing Important?

- If signals are spaced at even half-mile intervals, it is mathematically possible to reduce the overall cycle length for all of the signals.
- This means there could be more “green time” available for cross street traffic.
- ½-mile signal spacing has big benefits for the local system, and smaller benefits for through travellers on US95.

What about “Smart Signals?”

- “Adaptive” signal technology for US95 is already under consideration by ITD.
- “Smart signal” technology may enhance the recommended strategy, but is not a stand-alone alternative.

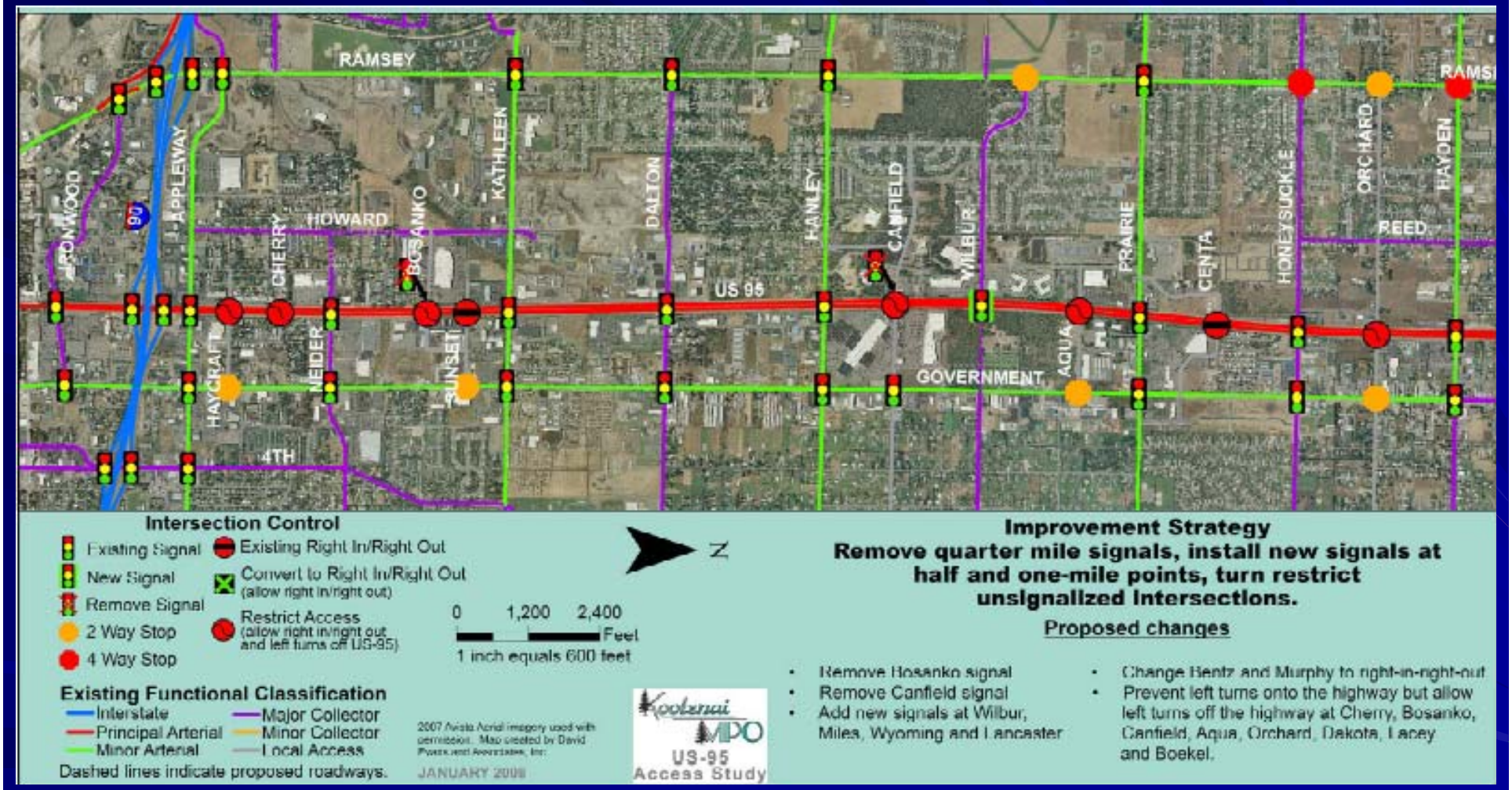
Recommended Strategy for US95

- Signals at ½-mile intervals between Appleway and Wyoming and a signal at Lancaster.
- Turn restrictions to improve safety at ¼ mile points (between signals)
- New right and left turn lanes as needed to improve intersection flow

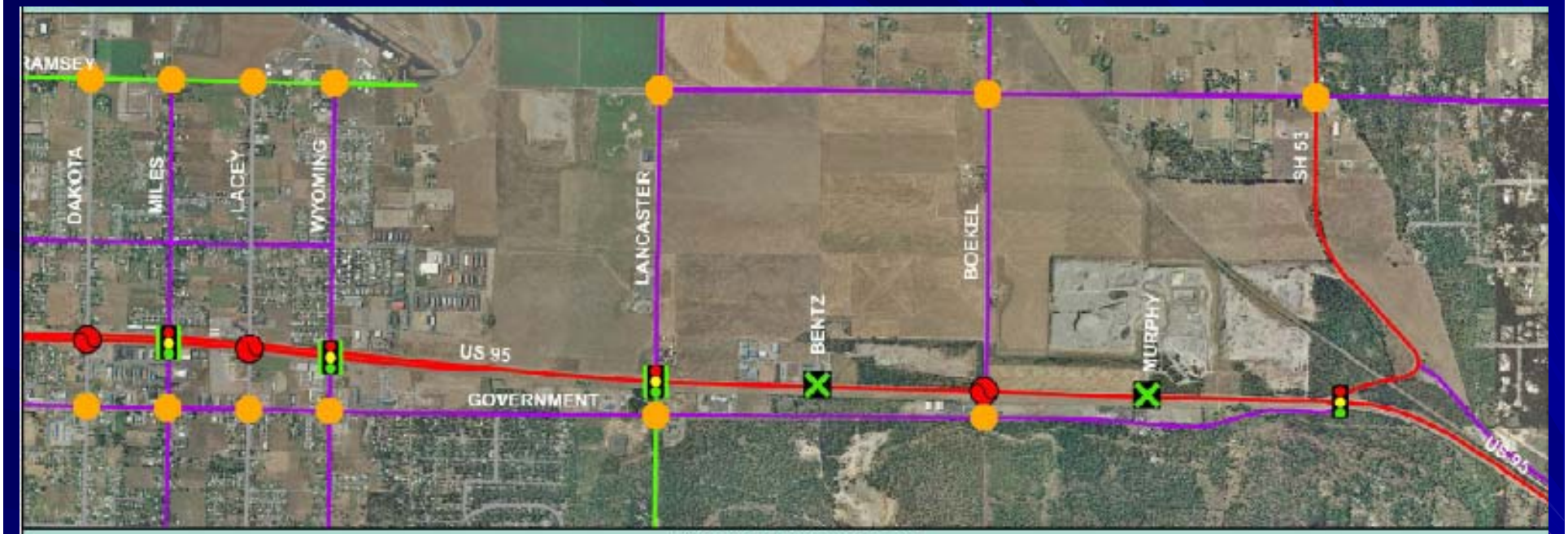
Applying the Strategy

- Signal at Bosanko would be removed
- Signal at Canfield would be moved to Wilbur
- New signals at Miles and Wyoming
- Turn restrictions would be installed at Cherry, Bosanko, Canfield, Aqua, Orchard, Dakota, Lacey, and Boekel
- Most major intersections would receive geometric improvements

Improvement Strategy – South Study Area



Improvement Strategy – North Study Area



Mitigated System Results

SAFETY

- Safety is improved at existing unsignalized intersections.
- Reduces intersection crossing points, thus reducing the number of potential accident locations.
- Traffic wishing to turn left onto or travel across the highway is forced to signals. Additional traffic at the signals may increase the number of collisions there.
- New signals may reduce severity of collisions, but may increase the number of collisions.

US95 MOBILITY

- Southbound US-95 travel time is increased slightly by 16.1 seconds.
- Northbound US-95 travel time is reduced by 48.5 seconds.
- Reduces total northbound US-95 delay.
- Slightly increases total southbound US-95 delay.

SYSTEMWIDE IMPACTS

- Total hours of driver delay for the entire study area is reduced.
- Unsignalized cross-street delay is reduced (by eliminating movements and rerouting traffic).
- Signalized cross street delay in the urban section of the corridor is reduced.
- Better signal coordination is possible due to evenly spaced signals on half-mile and one-mile points.
- Total system-wide vehicle miles traveled (VMT) is slightly increased

Anticipated Benefits for ITD and US95

- Improved safety at unsignalized intersections
- US95 delay reduced about 5%
- Local agency agreement on future access restrictions and signal spacing

Anticipated Benefits for Cities and Local Streets

- Total delay throughout the study area reduced by over 70%. (Most of this benefit is on local street system.)
- Efficient use of signal “green band” means less wait time for drivers on cross streets.
- Consistent and predictable message from all government agencies to developers.

Anticipated Benefits for Everyone

- Improved safety for people we care about: Friends, family members, employees and customers.
- Improved mobility and reduced delays means less time sitting in traffic.
- US95's "life" will be extended as long as possible, preserving scarce public funds for other important uses.

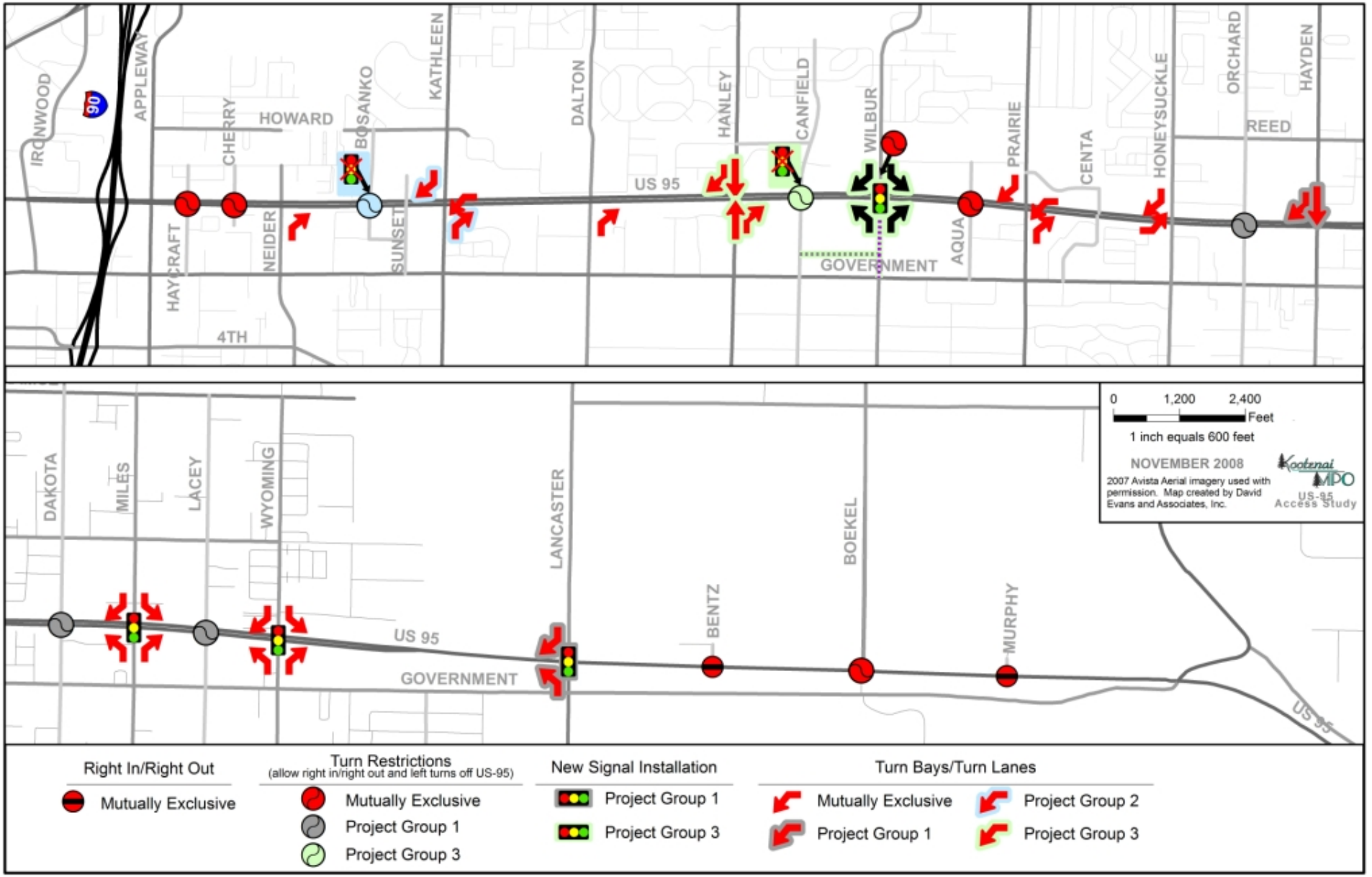
Anticipated Tradeoffs

- Access from US95 will remain unchanged in most cases. However access to US95 will change for some drivers.
- Additional right of way will be needed to add lanes at some intersections.
- Local agencies are encouraged to pursue complimentary access management measures and local system improvements.
- Some improvements will need to be development driven (and development funded.)

The Implementation “Menu”

- No strict priorities in the study recommendations.
- Study recommendations identify which projects are dependent on each other.
- Some projects are stand-alone projects that can be done at any time.
- Recommended projects are small enough that most could be accomplished within 5-years if funding permits.

RECOMMENDED PROJECTS



The Price Tag

- Costs of individual projects range from $40,000 to $500,000.
- Combined total for all recommendations is $6.8 million

Current Status

- Idaho Transportation Board accepted study findings on February 18.
- As recommended strategies are implemented, ITD and cities of Coeur d'Alene and Hayden will continue to work with the community.

Construction Timeline

- Funding for implementation still has to be found.
- Some projects, such as new turn lanes, could begin within the next 1-5 years.
- Other projects, such as the relocation of the Canfield signal to Wilbur, will wait until additional land development occurs and necessary supporting local roadway connections are made.

QUESTIONS?

Please contact KMPO at:

(800) 698-1927

www.kmpo.net