

AGS/ICS Briefing

Findings and Conclusions



January 3, 2014



CH2MHILL

What Are the AGS & ICS Studies?

Purpose:

- The purpose of the AGS & ICS projects are to provide Colorado with a well supported modal option for the State's transportation network that connects communities and destinations for interregional business and tourism travel; builds on and strengthens Colorado's existing transportation infrastructure; supports the State's Vision, as articulated in the 'State Rail Plan'; and *offers statewide social, environmental, and economic benefits that are greater than the capital and operating costs of its implementation.*

Needs:

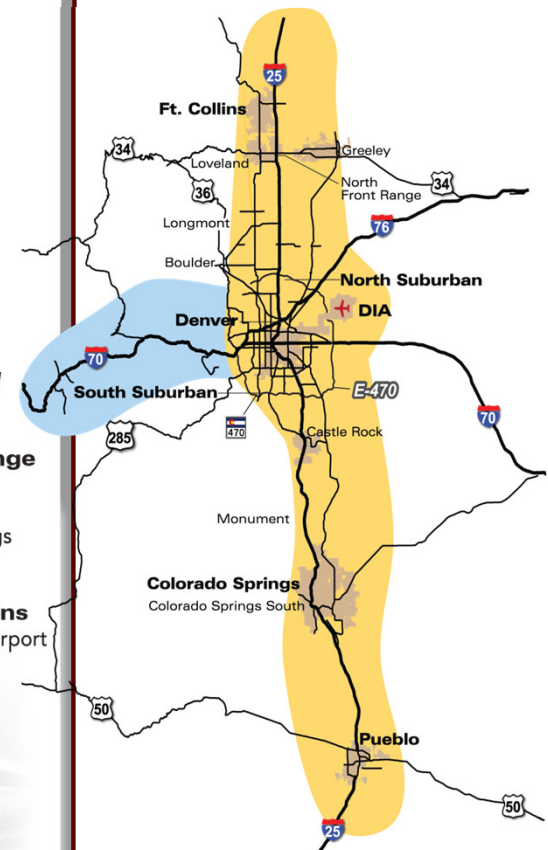
- Address the mobility demands of future population growth.
- Improve mobility through provision of a travel option.
- Enhance economic development through improved connectivity.
- Improve the State's environmental quality and energy efficiency.
- Provide economic benefits sufficient to receive new funding sources.

ICS - Front Range

- Fort Collins
- Denver
- Colorado Springs
- Pueblo

AGS - Mountains

- Eagle County Airport



What is High Speed Transit?

Federal Railroad Administration's (FRA) Definition of High Speed Intercity Passenger Rail (HSIPR)

High Speed - Express	High Speed - Regional	Emerging High Speed Rail	Conventional Rail
<ul style="list-style-type: none"> ▪ Frequent, express service ▪ Serves major population centers 200–600 miles apart ▪ Few intermediate stops ▪ Top speed at least 150 mph ▪ Grade-separated, dedicated rights-of way (some exceptions) 	<ul style="list-style-type: none"> ▪ Relatively frequent service ▪ Serves major/moderate population centers 100–500 miles apart ▪ Some intermediate stops ▪ Top speed of 110–150 mph ▪ Grade-separated (some dedicated and shared track) 	<ul style="list-style-type: none"> ▪ Developing corridors of 100–500 miles ▪ Strong potential for future HSR Regional and/or Express service ▪ Top speed up to 90–110 mph ▪ Primarily shared track 	<ul style="list-style-type: none"> ▪ Traditional IPR services of more than 100 miles ▪ One to 12 daily frequencies ▪ Potential for future HSR service ▪ Top speed up to 79 to 90 mph ▪ Generally on shared track



HST Study Findings

- ▶ **Public and community interest /enthusiasm throughout service area**
- ▶ **Speed and convenience induce ridership**
 - Faster than driving
 - One-seat ride best/minimal transfers next
- ▶ **DIA major origin/destination**
- ▶ **RTD FasTracks interface/“Connectivity”**
 - Avoid redundancy
 - Beltway around Denver metro area
 - Transfer stations at FasTracks rail corridors
 - Shared track to CBD/DUS possible (rail, not high speed)



HST Study Findings, continued

- ▶ **HSR not compatible with Railroads for shared track**
 - No available RR capacity/extensive single track sections
 - Slow speed & operating constraints
- ▶ **Greenfield alignments preferred**
- ▶ **Viable Technologies (in commercial operation)**
 - High speed rail (HSR) – steel wheel on steel rail
 - High speed magnetic levitation (maglev)
 - Other emerging linear induction technologies possible over time
- ▶ **Capital costs**
 - HSR - \$75 Million/mile
 - Maglev - \$105 Million/mile
 - Mountain terrain requires 20-60% tunnels
 - Maglev more cost effective
- ▶ **AGS not financially feasible at this time**

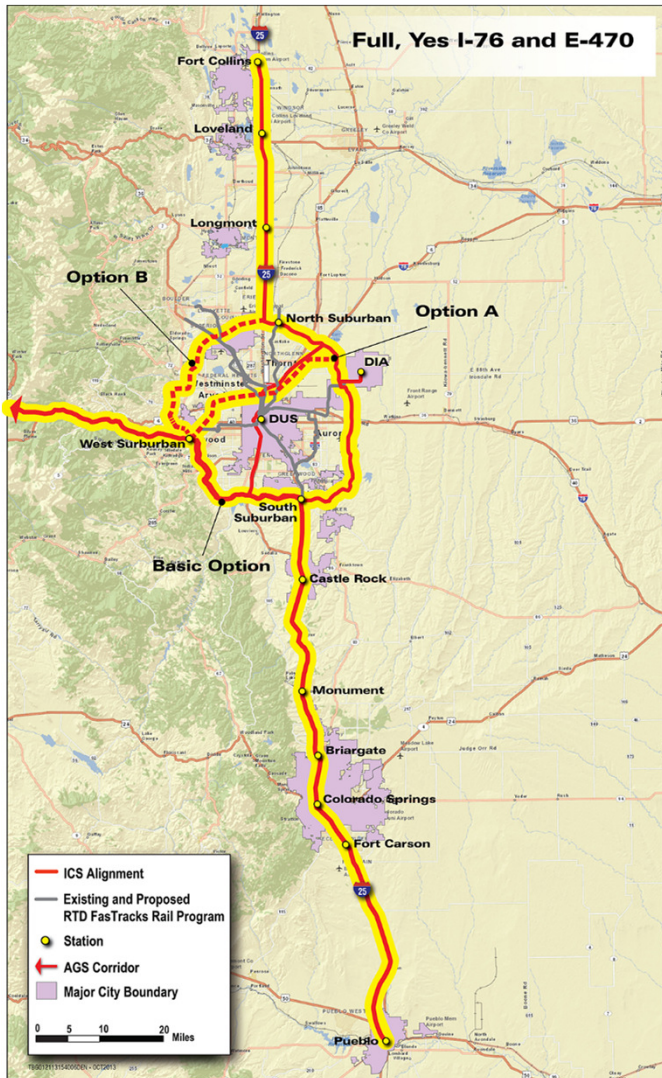


Overall Conclusions

- ▶ **Vision for HST is feasible, long term**
 - Calculated benefits outweigh costs
- ▶ **No funding sources identified**
 - Federal funding is a must to implement HST in Colorado
 - Evaluate local match for 16 counties within service area, rather than statewide
 - P3 Concession will require significant federal and state/municipal investment (“local match”)
- ▶ **Additional agreements and studies needed to further Vision**
 - No funding identified



HST Vision forms the basis...



Scenario Description

Measure

- ▶ **North:**
 - North Suburban to Fort Collins
- ▶ **Metro:**
 - West Suburban to DIA via C-470, I-76 or NWQ
 - North to South Suburban via E-470
- ▶ **South:**
 - South Suburban to Pueblo
- ▶ **West:**
 - West Suburban to Eagle County Regional Airport

- Total Mileage – 340
- Capital Cost - ~\$30.1 B
- OPEX - \$198.4 M/yr
- Ridership - 18.3 M
- Revenue - \$344 M
- OPEX Ratio - 1.7

Next Steps

- ▶ **Study completion and integration**
- ▶ **TC Workshop in February or March**
- ▶ **Identify priority corridor(s) or project**
 - Federal “Pipeline” ready
- ▶ **Update State Freight & Passenger Rail Plan**
 - Required for federal funding eligibility
- ▶ **Request Inclusion in fiscally-unconstrained Regional Transportation Plans**
 - NFRMPO, DRCOG, PPACG, PACOG, Intermountain TPR – 2040 Plans
 - Required for federal funding eligibility



Questions?

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