Project Steering Committee Meeting #5

May 9, 2013

marta

Today's Meeting Purpose

- Where We Are
- What We've Heard
- Screen 2 Analysis Results
- Question and Answer
- Where Do We Go From Here?

Purpose and Importance of this Study

- Evaluate feasibility of increased transit service
- Identify potential for high-capacity transit project implementation

Differentiation Between Past Studies

- Focused investment along GA 400 corridor
- Assess land development over past decade
- Consider demographic changes in study area
- Advance planning process from previous studies

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Where We Are

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Connect 400 Alternatives Analysis Schedule

DISCOVERY
- Goals and Objectives
- Purpose and Need
- Existing Conditions

DISCUSSION
- Evaluation Methodology
- Definition of Alternatives
- Refine Ridership Model

DEVELOPMENT
- Evaluation of Alternatives
- Refine Alternatives

DOCUMENTATION
- Early Scoping

2011	2012	2012-2013	2013
Winter	Spring	Summer-Spring	Summer

We are Here

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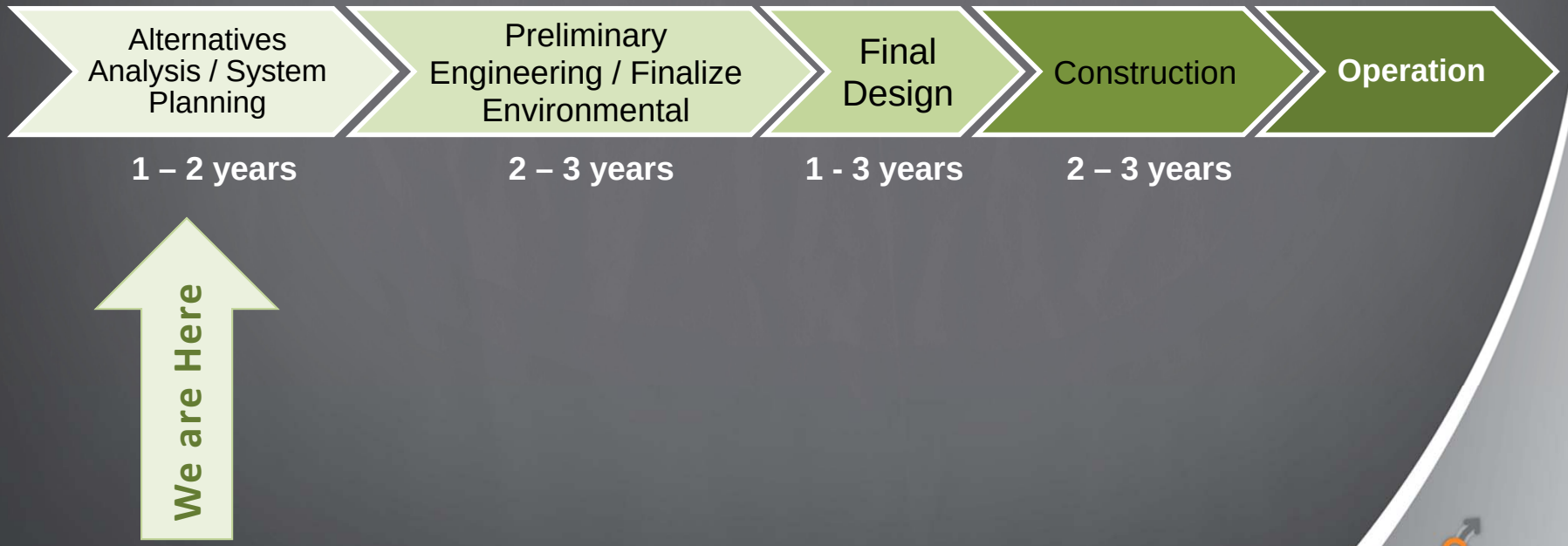
Federal Project Development Process

Project Development: Typically 6 – 12 years



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Screening Process and What We've Heard

Technical Screening Process

Fatal Flaw Analysis considers at a high level:
- Purpose & Need
- Constructability & right-of-way impacts
- Generalized Technology Assessment

Defined alternatives (combinations of alignment & transit technology) for Screen 1

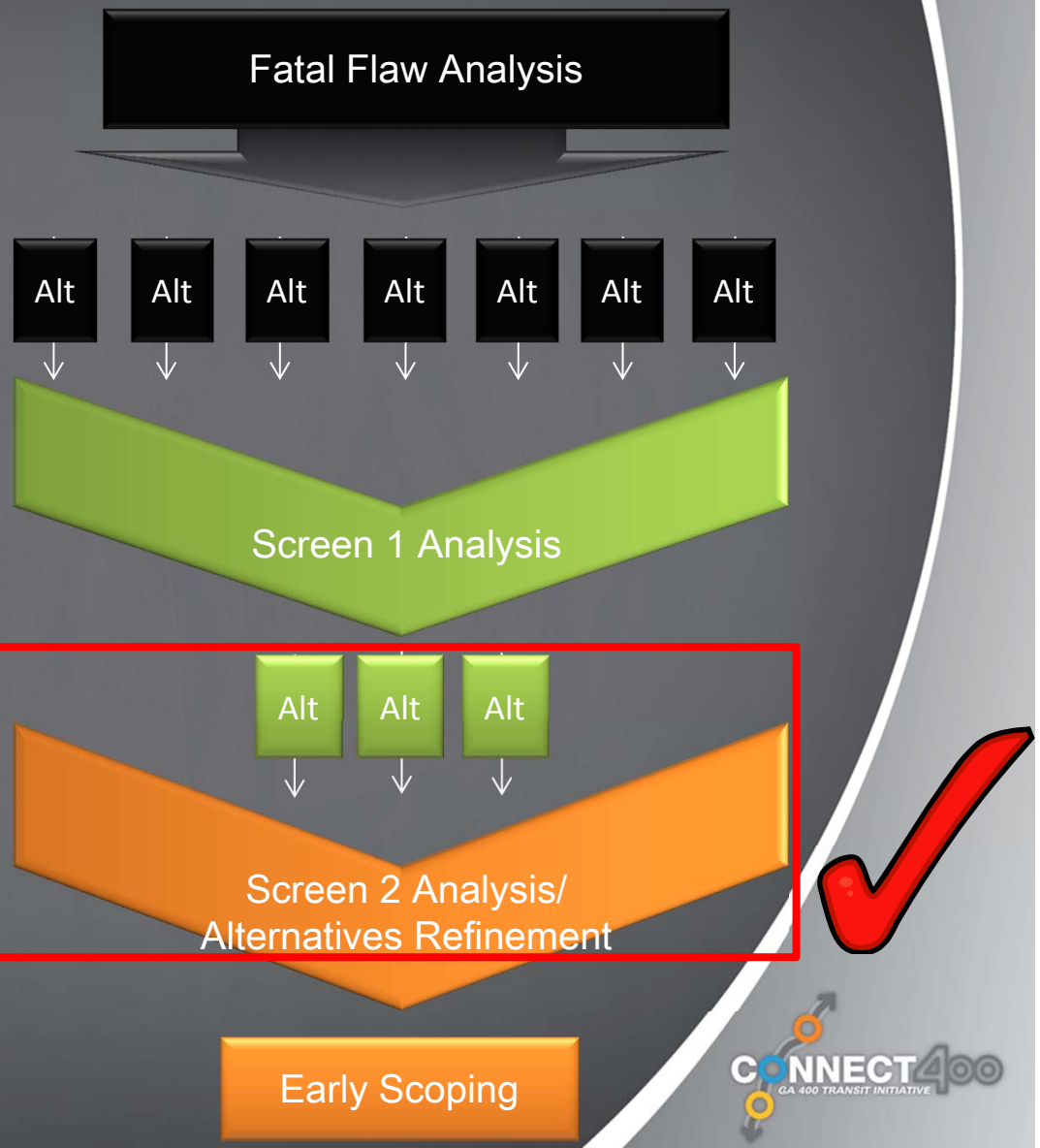
Screen 1 applies both quantitative & qualitative evaluation criteria to reduce the number of alternatives

Smaller set of alternatives advance into Screen 2

Screen 2 involves a more in-depth analysis using additional performance measures

Screen 2 refines the alternatives

Recommendation to MARTA Board



Stakeholder and Community Outreach

- **Stakeholder Interviews – approx. 30**
  - February to April 2012
  - Staff and local officials throughout study area
- **Public Meetings**
  - January 22, 2012; May 22, 2012; March 21, 2013
  - Minority and Non-English Speaking Leadership Meeting – Dec. 13, 2011
  - North Fulton Chamber of Commerce Breakfast Forum – Aug. 30, 2012
- **Technical Advisory Committee**
  - Dec. 13, 2011; Feb. 28, 2012; Oct. 25, 2012 (on-line)
  - Reviews process and provides guidance on screening methodology
- **Project Steering Committee**
  - Jan. 18, 2012; Mar. 22, 2012; Nov. 14 2012; Feb. 26, 2013
  - Provides guidance on local policies and broader community concerns
- **Holiday/Winter Survey – 136 Respondents**
  - Prefer heavy rail extension
  - Dec. 12, 2012 to Jan. 17, 2013

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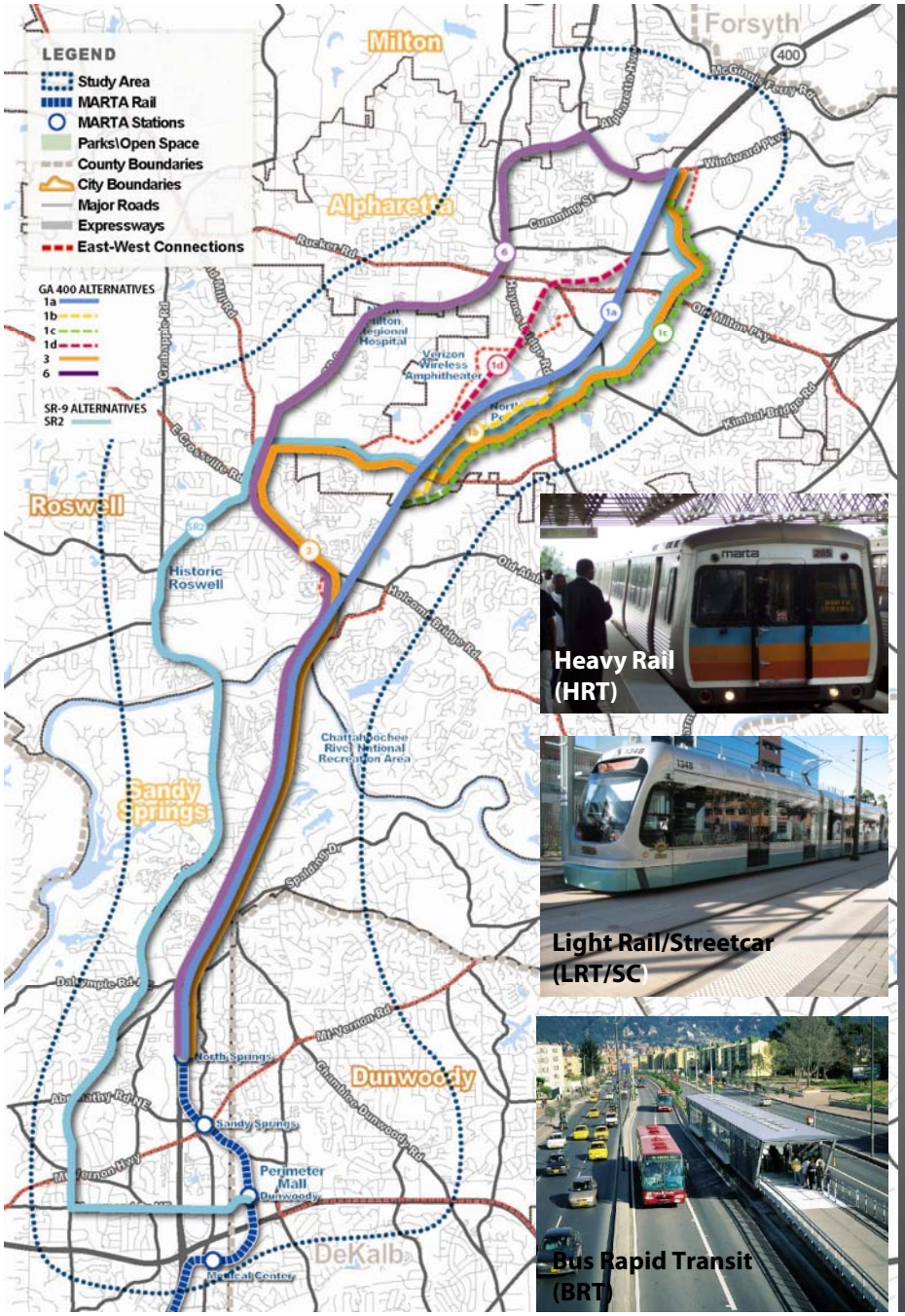
Overview of Fatal Flaw Analysis



Step 1: Technology Assessment

- Independent review of 6 modes
- Most appropriate - Bus Rapid Transit (BRT); Light Rail/Streetcar (LRT/SC); Heavy Rail (HRT)

Step 2: Universe of Alternatives

- 3 modes + 9 alignments along GA 400 & SR 9

Step 3: Fatal Flaw Analysis

- Reduce ‘universe’ to a smaller set for Screen 1
- High-level based on purpose/need & constructability

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Screen 1 and Outreach Summary

- **Methodology/Assumptions**
  - Qualitative and quantitative analysis
  - Performance measures based on Purpose and Need, Goals and Objectives
  - Station-related measures normalized for number of stations
- **Results**
  - Alignments should be limited to be adjacent to or within GA 400 right-of-way
    - Fewer potential community and environmental impacts
    - More population and employment access per station
    - East/West feeder connections are needed to relieve arterials
  - Heavy Rail Transit (HRT) was preferred due to speed and elimination of transfer
  - Windward Parkway was preferred to be a Regional Station
  - Northridge rather Pitts was a preferred station location
  - Community Stations are preferred for:
    - Northridge, Holcomb Bridge, Mansell, North Point, and Old Milton

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Screen 1 Findings

Fatal Flaw Analysis considers at a high level:
·Purpose & Need
·Constructability & right-of-way impacts
·Generalized Technology Assessment

Defined alternatives (combinations of alignment & transit technology) for Screen 1

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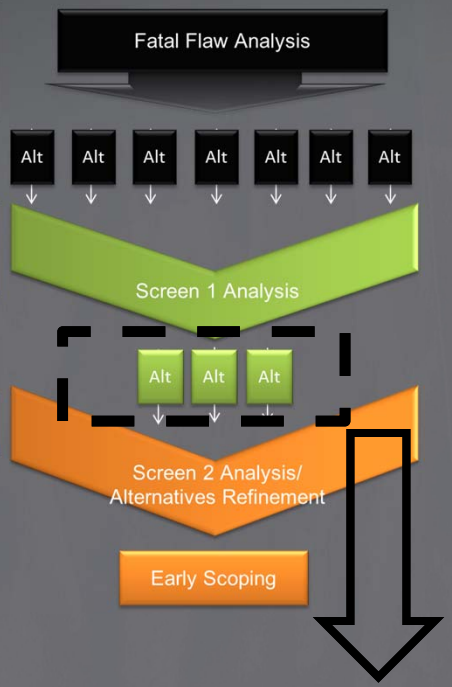
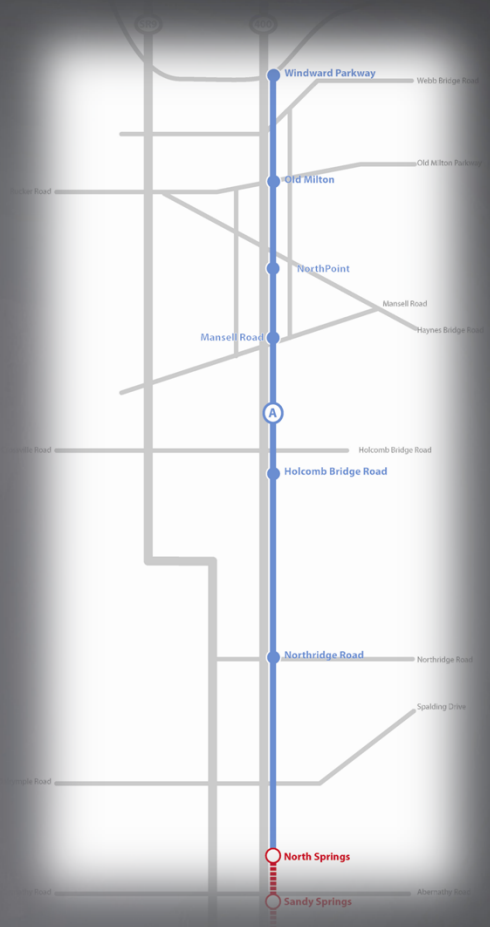
Smaller set of alternatives advance into Screen 2

Screen 2 involves a more in-depth analysis using additional performance measures

Screen 2 refines the alternatives

Recommendation to MARTA Board





GA 400-1A

Heavy Rail (HRT)

Light Rail (LRT)

Bus Rapid Transit (BRT)

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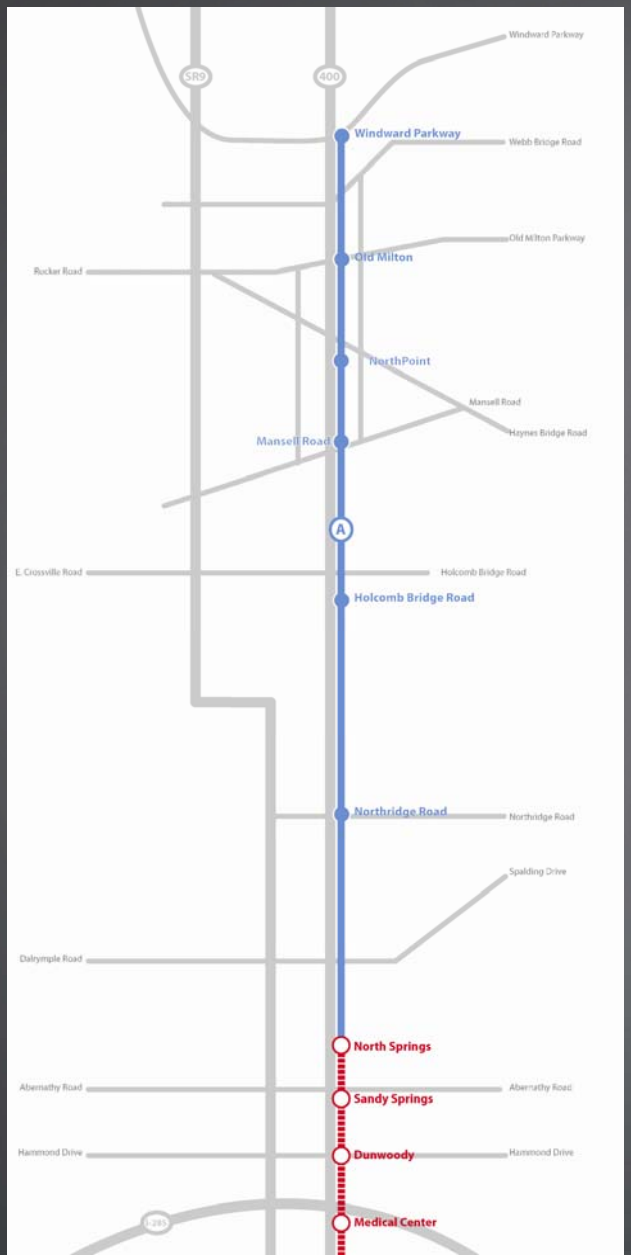
Detailed Screen 2 Findings

Alternatives for Screen 2

Georgia 400 – 1 (A)



Alignment

- 11.9 miles Long
- North Springs Station – Windward via GA 400

Transit Technology

- Bus Rapid Transit
- Light Rail/Streetcar
- Heavy Rail

Potential Stations

- Northridge
- Holcomb Bridge
- Mansell Road
- North Point
- Old Milton
- Windward Parkway

* GDOT ROW availability on GA 400 to be determined based on Managed Lanes Study

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Screen 2 Analysis

- **Rating System**
  - High, Medium, or Low with a score of 2,1, or 0 respectively
  - Best performing alternative rated 'High' for each measure; other alternatives rated relative to best performing alternative

Rating	Deviation from Highest Performing	Scoring
High	0 to 10%	2
Medium	10 to 20%	1
Low	Greater Than 20%	0

Screen 2 Findings

Distinguishing Performance Measures

- Many of the performance measures showed no significant difference between alternatives.
- Distinguishing Measures are those measures where the alternatives rated differently.

Goal 1: Mobility & Access	Goal 2: Land Use & Economic Development
Ridership	Transit Supportive Land Use
Time Savings	Underutilized Land
Crash Reductions	
Goal 3: Cost Effective Service	**Goal 4: Environment**
Capital	Changes in VMT
Operations & Maintenance	Pollution
Cost per Trip	Noise

Screen 2 Results – Goal 1

Goal 1: Improve Mobility & Access

Best Performing Alternative(s): HRT

Distinguishing Measures

- Scored significantly higher than other alternatives for Goal 1
- Scored ‘High’ while other alternatives scored ‘Low’ for:
  - Daily Projected Transit Boardings
  - New Transit Riders
  - Annual Corridor Crash Reductions

- Scored ‘High’ while other alternatives scored ‘Medium’ for:
  - Projected Population and Employment within a 10-Minute Drive
  - Low-income residents within 10-Minute Walk
  - Interface with existing/future transit (including Concept 3)

Screen 2 Results – Goal 1

Mobility & Ridership

	Heavy Rail Transit (HRT)	Light Rail Transit (LRT)	Bus Rapid Transit (BRT)
Daily Transit Boardings (2040)	23,700	15,800	13,300
New Transit Riders (2040)	10,900	7,000	5,400
Annual Corridor Crash Reductions	44	14	9
Daily Travel Time Savings (Hours of User Benefits)	9,300	6,200	4,500

All ridership forecasts are estimates and are subject based on further analysis

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Screen 2 Results – Goal 2

Goal 2: Support Land Use & Economic Development

Best Performing Alternative(s): LRT

Distinguishing Measures

- Rated 'High' in 3 of the 4 Distinguishing Measures:
  - Consistency with adopted local/regional plans
  - Transit-supportive land use/zoning within ½ mile of stations
  - Acres of vacant or underutilized land within ½ mile of stations

Screen 2 Results – Goal 3

Goal 3: Provide Cost-Effective Transit Service

Best Performing Alternative(s): BRT

Distinguishing Measures

- Scored significantly higher than others in cost measures
- Scored 'High' in all four of the Distinguishing Measures while other alternatives scored 'Low':
  - Annual Operating & Maintenance (O&M) Costs
  - Construction Capital Costs

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Screen 2 Results – Goal 3

Costs & Cost-Effectiveness

	Heavy Rail Transit (HRT)	Light Rail Transit (LRT)	Bus Rapid Transit (BRT)
Annual Estimated O&M Costs	$18 Million	$20 Million	$10 Million
Construction Capital Costs	$2.4 Billion	$1.8 Billion	$631 Million
Cost Per Trip	$17	$21	$12

All costs are estimates and are subject to change based on additional engineering analysis

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Screen 2 Results – Goal 4

Goal 4: Minimize Environmental Impacts

Best Performing Alternative(s): HRT

Distinguishing Measures

- HRT slightly better than BRT; LRT scored low
  - HRT (14)
  - BRT (9)
  - LRT (4)
- Distinguishing Measures:
  - HRT has greatest ability to reduce vehicle miles traveled (VMT) and air quality pollutants
  - BRT has least impact on noise-sensitive land uses
  - HRT would have lesser impact to water resources, historic resources and vibration-sensitive locations because of the absence of Old Milton station

Screen 2 Results – Goal 4

Environmental/Community Impact

	Heavy Rail Transit (HRT)	Light Rail Transit (LRT)	Bus Rapid Transit (BRT)
Change in Vehicle Miles Traveled	-48,000	-24,000	-16,000
Reduction in Air Quality Pollutants	Highest	Intermediate	Lowest
Noise-Sensitive Land Uses w/in 750' of HRT, 350' of LRT, 200' of BRT (Residential + Low-Density Commercial + Institutional)	841 acres	250 acres	73 acres

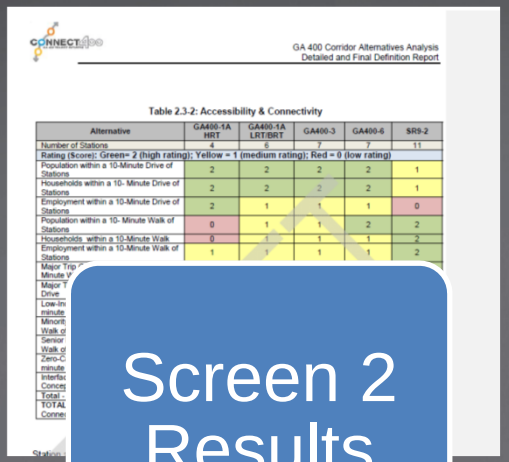
Screen 2 Results – Summary

- **HRT** provides higher ridership numbers, transit benefits and reductions in vehicular traffic
- **All three alternatives** are relatively equal in supporting land use & economic development planning **BRT** is much cheaper and cost-effective than the other alternatives
- **HRT** presents least environmental impact, and most beneficial to reducing VMT and air pollutants.

Questions or Feedback?

- Screen 2 Results
- Alignment
- Station Types

Moving Forward



GA 400 Corridor Alternatives Analysis
Detailed and Final Definition Report

Table 2.3-2: Accessibility & Connectivity

Alternative	GA400-1A HRT	GA400-1A LRT/BRT	GA400-3	GA400-6	SR9-2
Number of Stations	4	6	7	7	11
Rating (Score): Green= 2 (high rating); Yellow = 1 (medium rating); Red = 0 (low rating)					
Population within a 10-Minute Drive of Stations	2	2	2	2	1
Households within a 10- Minute Drive of Stations	2	2	2	2	1
Employment within a 10-Minute Drive of Stations	2	1	1	1	0
Population within a 10- Minute Walk of Stations	0	1	1	2	2
Households within a 10-Minute Walk	0	1	1	1	2
Employment within a 10-Minute Walk of Stations	1	1	1	1	2

Public Input

Screen 2 Results

Steering Committee Input

Early Scoping

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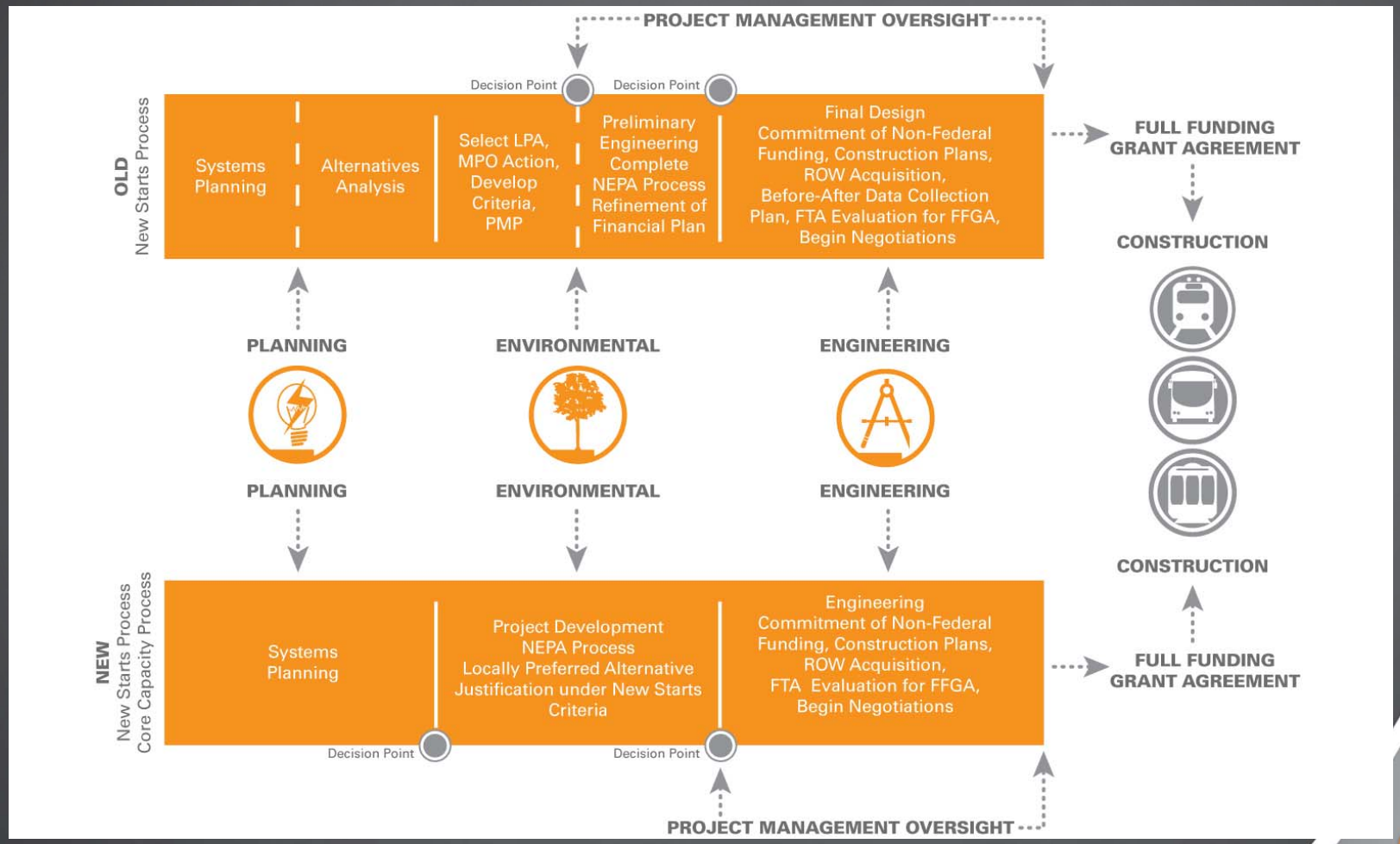
Next Steps

- Engineering refinement
- Present final alternatives to public (Early Scoping for NEPA) in June
- Environmental (NEPA) Process
- Begin second round of stakeholder interviews

OLD New Starts vs. NEW New Starts Process



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