



Airport/West Corridor

Extension of Garrison Road and Widening of Dixie River Road

Advanced Preliminary Planning – Phase 1
CIP West Team Meeting: August 18, 2015

HNTB

MICHAEL GALLIS & ASSOCIATES

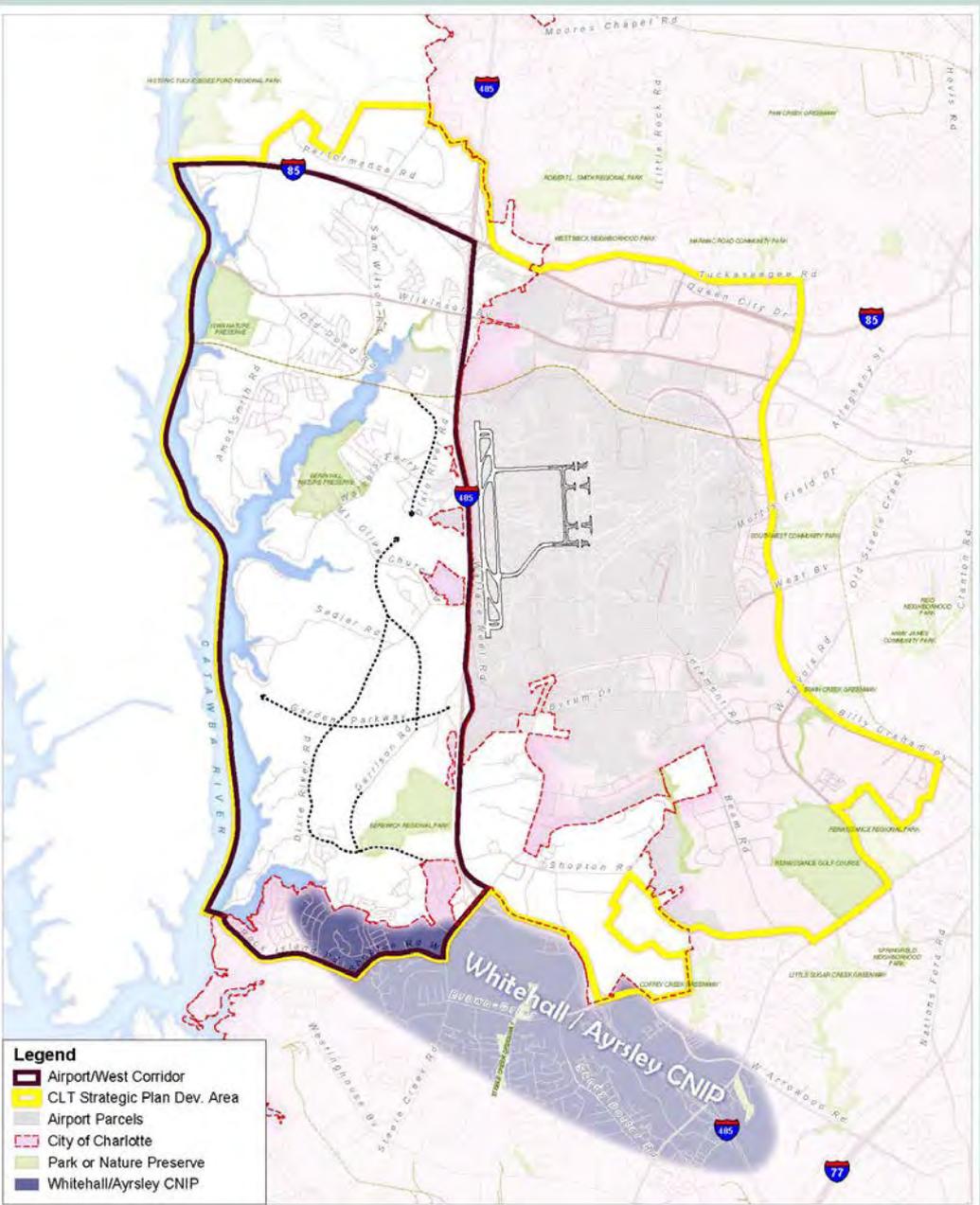
neighboring
concepts

Airport/West Corridor

*Extension of Garrison Road and
Widening of Dixie River Road*

Topics

- Key Takeaways
- Project Tasks & Outcomes
- Summary



January 26, 2015

Legend

- Airport/West Corridor
- CLT Strategic Plan Dev. Area
- Airport Parcels
- City of Charlotte
- Park or Nature Preserve
- Whitehall/Ayrley CNIP

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Key Takeaways

There is a high level of expectation and excitement around transportation investment in the study area



There are 3,900 acres with a strong development/redevelopment potential

The project cost is ~\$130M, which can be built in logical segments and can yield multiple times its value in development

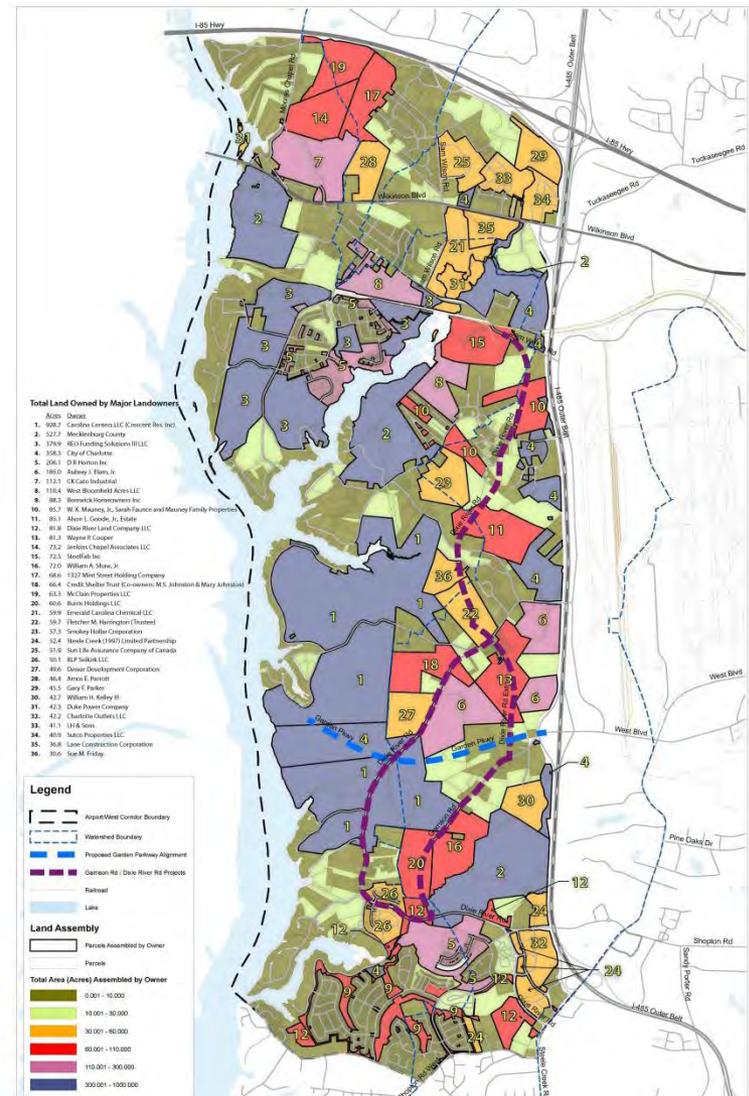


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Phase 1 – Tasks

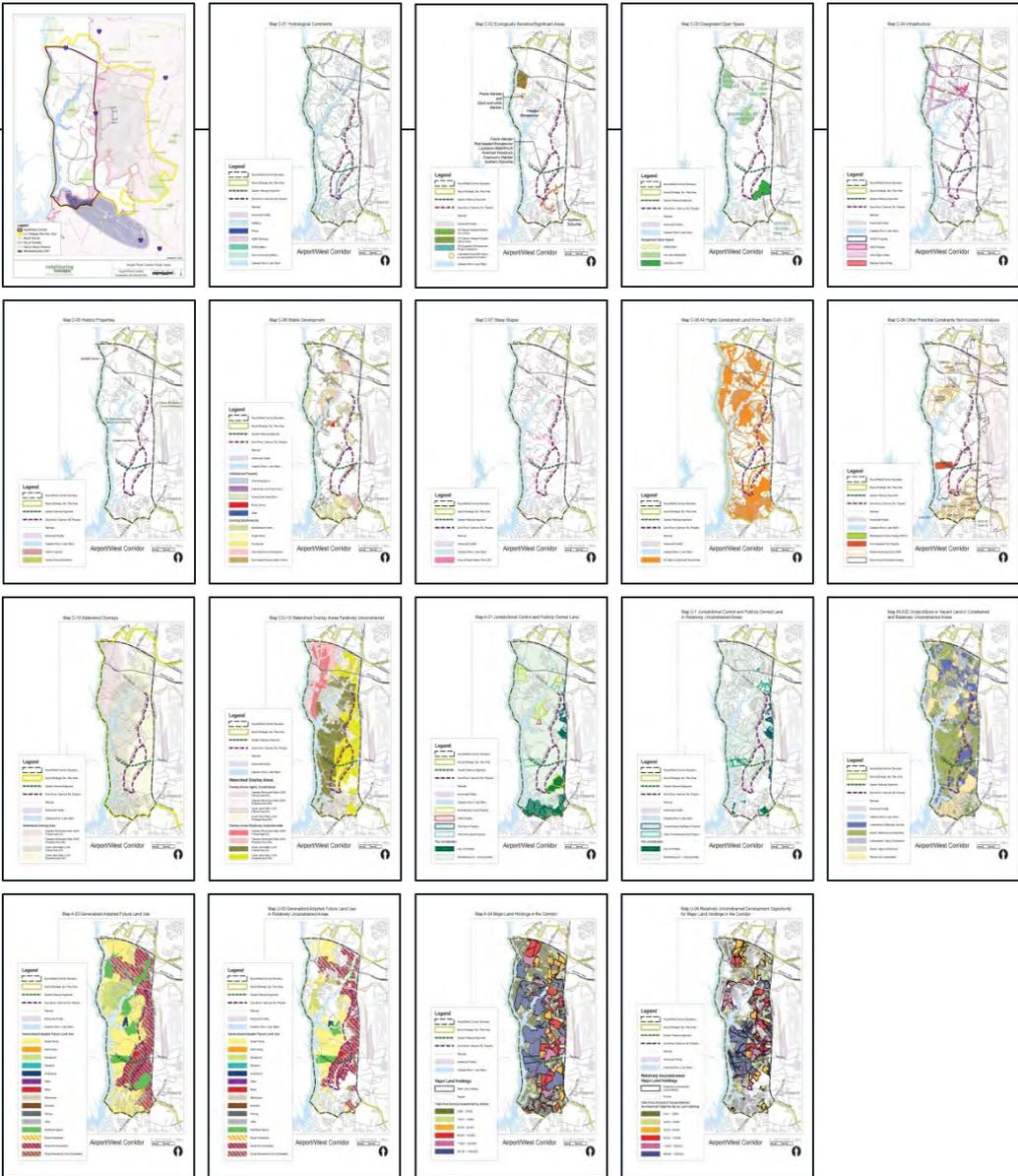
- **GIS Mapping/Focus Groups**
 - Opportunities & Constraints Analysis
- **Market Analysis**
 - Development/Redevelopment Potential
- **Cost projections**
 - Cost to construct the planned project by segment



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GIS Mapping



- Project Area Map
- Hydrologic Constraints
- Ecologically Sensitive/Significant Areas
- Designated Open Space
- Infrastructure (incl. Utilities)
- Historic Properties
- Stable Development
- Steep Slopes
- All Highly Constrained Land
- Other Potential Constraints
- Watershed Overlays
- Watershed Overlay Areas Relatively Unconstrained
- Jurisdictional Control and Publicly Owned Land
- Jurisdictional Control and Publicly Owned Land in Relatively Unconstrained Areas
- Underutilized or Vacant Land in Constrained and Relatively Unconstrained Areas
- Generalized Adopted Future Land Use
- Generalized Adopted Future Land Use in Relatively Unconstrained Areas
- Major Land Holdings in the Corridor
- Relatively Unconstrained Development Opportunity for Major Land Holdings in Corridor

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GIS Mapping

Typical Constraints:

- Environmental Assets
- Cultural Assets
- Utility Corridors
- Steep Slopes
- Stable Development

Of the 7,500 acres in the study area, 55% is relatively unconstrained.

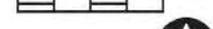


Legend

- Airport/West Corridor Boundary
- Airport Strategic Dev. Plan Area
- Garden Parkway Alignment
- Dixie River / Garrison Rd. Projects
- Railroad
- Intermodal Facility
- Catawba River / Lake Wylie
- All Highly Constrained Parcel Areas

Airport/West Corridor

0 0.25 0.5 0.75 1 Miles



Airport/West Corridor

Extension of Garrison Road and Widening of Dixie River Road

Focus Group Participants

1.	Ursula Barnette	35.	Shomas Ann Robinson
2.	Viola Brewton	36.	David W. Robinson
3.	David Burris	37.	Jeff Pinkston
4.	Terry Burris	38.	W. Lee Jones
5.	Ann Coleman	39.	Peggy Hey
6.	Carl Frazier	40.	Bill Dillon
7.	Sue Friday	41.	Laura Foor
8.	Billy Grier	42.	Bill McMillan
9.	Robert Grier	43.	Mary Ellen
10.	Andrew Griffith	44.	Jess George
11.	Sheryl Griffith	45.	Kim LeNeave
12.	Evelyn Herron	46.	Matt Covington
13.	Benjamin Hoover	47.	Rick Gaskins
14.	Kathy Marshall	48.	Charles McRorie
15.	Leonard E. Mauney	49.	Emilee Syrewicze
16.	Patricia G. Mauney	50.	Vicki Taylor Jason Wager
17.	Derrick McClain	51.	Rick Roti
18.	Toba McCollie	52.	Tim Gause
19.	W. A. Shaw	53.	Joe Hall
20.	Cheryl Simerly	54.	Mark Oakley
21.	Carol Smith	55.	Marla Chambers
22.	Eugenia Smith	56.	Mary Newsom
23.	Mary D. Smith	57.	Isaac Hinson
24.	Peggy Smith	58.	David Caldwell
25.	Rebecca Smith	59.	Marla Chambers
26.	Sheila Washington	60.	Nancy Daly
27.	Graham Watt	61.	Jeff Horton
28.	James Watt	62.	Hal Bryson
29.	LaFreda Watt	63.	Allison Weakley
30.	Loretta White	64.	Andrew Pitner
31.	Billy Winecoff	65.	Andy Grzymiski
32.	John Winecoff	66.	Candice Leonard
33.	Billy Grier	67.	Stuart Basham
34.	Christian Chapman	68.	Aric Allen
		69.	Jeff Hughes
		70.	Jamie Riggins
		71.	Gregory Brown
		72.	David S. Gafel

Focus Groups

- Residents and Local Businesses
- Churches
- Public Schools and Parks
- Economic Development
- Environmental Conservation
- Environmental Permitting
- Transportation Planning
- Private Utilities



GENERAL ISSUES/CONCERNS

- The Thoroughfare Plan alignment follows Dixie River Road. The Small Area Plan alignment basically followed what was already on the Thoroughfare Plan. The alignment in the Area Plan came from the opportunities and constraints analysis and 4 things: public involvement, delineate the land uses, take advantage of existing rights of way and avoid residential communities
- The big issues for transportation development in the area are topography and water
- The future Garden Parkway is only alive to fight the lawsuit against it
- Environmental issues are very important, and extensively regulated
- There is concern for both water supply and recreation values of the Catawba River/Lake Wylie

LOCATION SPECIFIC ISSUES/CONCERNS

Roadway

- Roads in the area need to be better, but not stimulate development.
- This is a unique area; roads and development should respect the environment and people in the area.
- Neighbors would like Dixie River Road to be a parkway, like Ballantyne Commons Parkway or Queens Road.
- Charlotte Mecklenburg Schools' concern will mostly be Dixie River Road at Berryhill Elementary.
- Ramoth AME Zion Church has been there about 100 years; widening Dixie River Road would help them.
- The Thoroughfare Plan alignment is near the Mt. Olive Church Cemetery.
- Any new alignment for Dixie River Road would mean new alignments for utilities.
- Dixie River Road, south of Ramoth, has enough right-of-way for a parkway cross section, with lanes at different elevations

Mobility

- While some see some an additional river crossing as presenting economic development opportunities many are opposed to it.
- There are a lot of bicycles on weekends
- CATS' Transit System Plan needs updating, but Wilkinson Boulevard transit will probably end at the airport

Development

- There is a very aggressive movement to make the airport and intermodal facility a global center for trade
- Longer term residents consider Berewick as too dense.
- Residents know development is going to come, but they want it to be responsible and attractive.
- Some in the area might welcome change to improve infrastructure and create jobs; others don't want change.
- Much of Steele Creek Church's congregation lives in the area; they would like to see the area stay the same, especially those who live on the Catawba River
- More shopping centers and grocery stores are needed
- Charlotte Meck Stormwater is concerned about Small Area Plan non-residential development close to the Catawba River.
- There is a potential conflict between Norfolk Southern's plans at West Boulevard and Lincoln Harris's plans west of I-485 on an extension of West Boulevard

Environment

- The study area has increased protection for water quality; Charlotte Water would like to see further protections; a lot of damage to the Catawba River water quality was done by the airport expansion, I-485 construction, and Berewick development.
- Low Impact Development would be desirable in the study area: treat stormwater, provide stream buffers, use pervious pavement for sidewalks and parking lots; the percentage of impervious cover is very important
- Dispersed flow is preferred for road runoff; swales are better in this area for runoff; use Low Impact Development techniques

Amenities

- Street lights would be beneficial: it is very dark at night.
- Berewick Regional Park's long range master plan is a future regional park and sports complex and joint use with the school.
- Berryhill Nature Preserve will be a series of trails and an interpretative center.
- Iswa Nature Preserve is a Natural Heritage Program managed area.
- Mecklenburg Co. Park & Recreation would like to provide greenway connections along creeks.
- Land close to the River has more natural and animal life, so Park & Rec prefers that as nature preserves.

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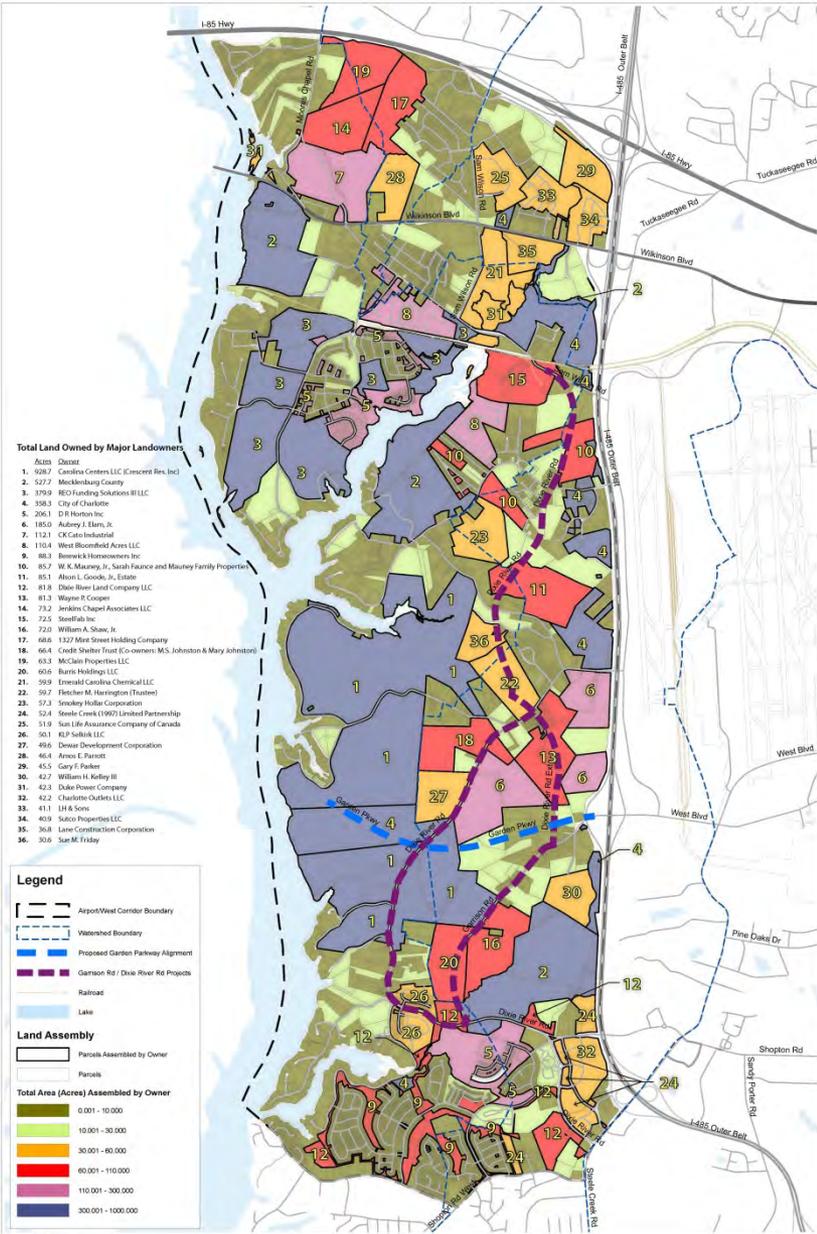
*Extension of Garrison Road and
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What we Heard:

- Environmental Issues are very important, especially water quality
- Many in the community want the roadway to resemble Ballantyne Commons Parkway with bike lanes
- There is a desire for more development and public services to serve the neighborhoods.
- Many stakeholders want responsible development and want to avoid non-residential development close to the river
- The existing alignment was based on development opportunities and environmental constraints at the time of its creation

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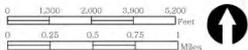
Extension of Garrison Road and
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GIS Mapping/Focus Group Takeaways:

- Of the 7,500 acres in the study area, 55% is relatively unconstrained
- Stakeholders have been hearing about plans for a long time and are enthusiastic for development
- Protecting the environment during the development of the area is a key concern for the stakeholders
- Based on the participation during the focus group meetings, the project has a solid base for future engagement in public meetings

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Major Land Holdings in the Corridor
Map A-04



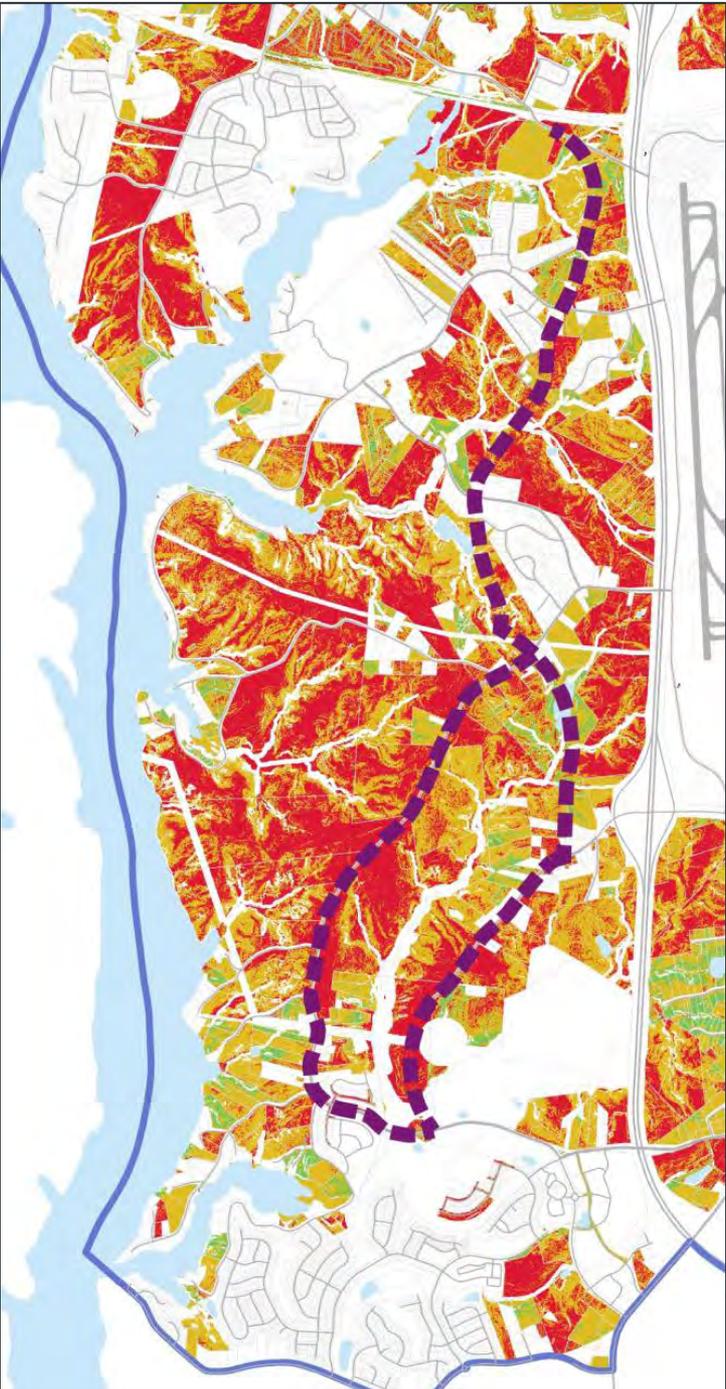
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Market Study:

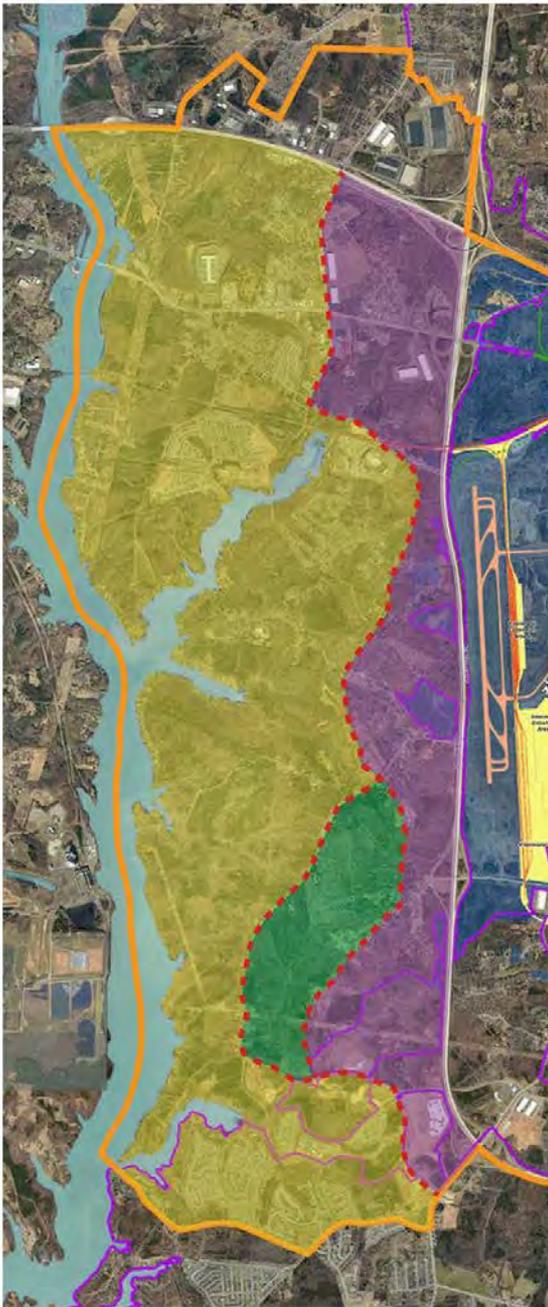
- 95% (3,900 acres) of the unconstrained land has strong (high or med) development/redevelopment potential
- The planned alignment of the roadway does not always provide access to the land that had the highest potential for development.
- The topography and watershed overlays present a unique challenge for development in the area when considering the types of development.

Development/redevelopment potential by parcel



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Market Study:

- The planned roadway will redefine the perception and character of the area, acting as a dividing line between
 - River Oriented Development area (yellow)
 - Transportation Oriented Development (Purple),
 - An Intermediate Zone (green) that will have its own character as the proposed roads create a new development pattern

- Opportunities exist to modify the likely development pattern in the area by altering the alignment to maximize value and a branding identify.

- At minimum, the Market Research supports the findings of the 2013 Proposed CIP Demand Impact Analysis that projected the economic impact to many times greater than the initial infrastructure investment.



Figure 17: Airport/West Corridor Future Investment

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Cost Projections:

- Used the same method used by CRTPO to estimate project cost for planning level estimates
- Assumed a total of 10 miles of 4-lane divided roadway with sidewalks and bike lanes on both sides
- Total estimated cost of the project including planning, design, ROW, environmental permitting and mitigation, utilities and construction is approximately \$130M in 2015 dollars

Estimated Project Cost

(Advanced Planning Level) – Based on Current Alignment

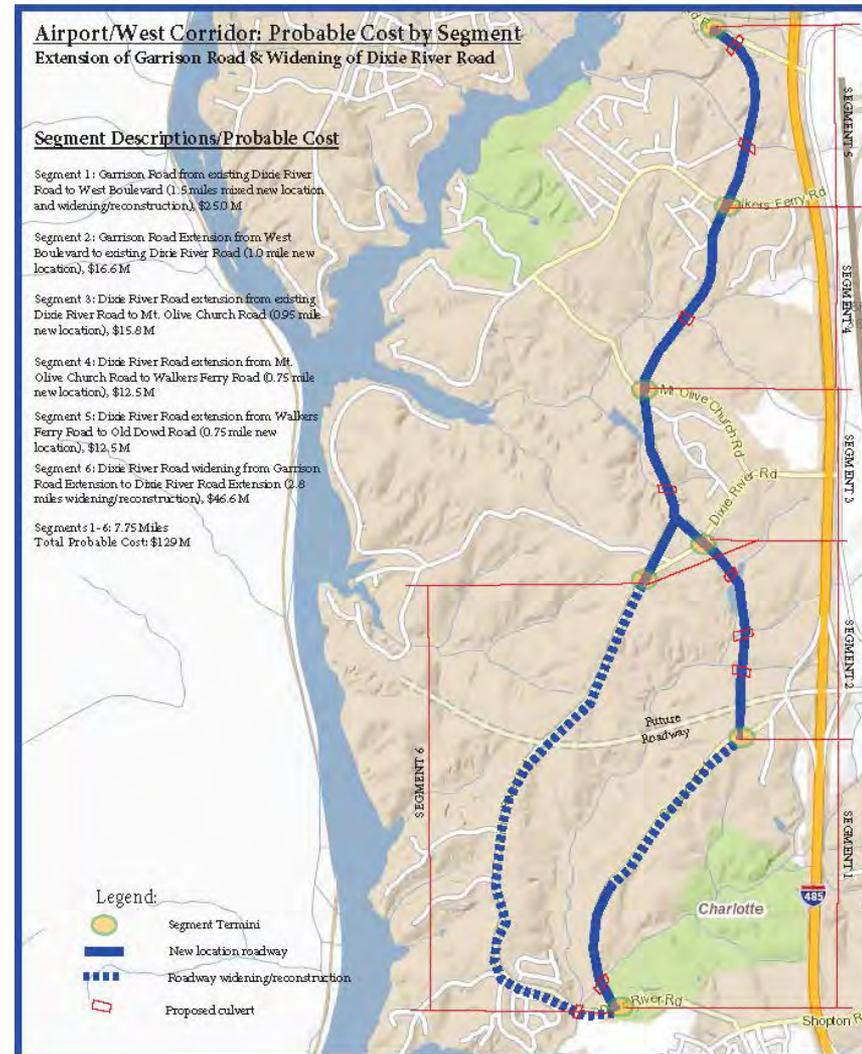
Airport/West Corridor				
Extension of Garrison Road and Widening of Dixie River Road				
Planning / Order of Magnitude Estimate of Probable Costs of Construction				
ESTIMATED PROJECT COST = \$128,936,000				
Revision Date: 5/7/11				
Item Description	Quantity	Unit	Unit Cost	Sub-total Cost
CONSTRUCTION				
New Roadway:				
4-lane curb & gutter w/ raised median plus bike lanes	10.00	Mile	\$ 5,970,000	\$ 59,700,000
Sidewalks:				
5 ft., 2-sides	10.00	Mile	\$ 239,000	\$ 2,390,000
Structures:				
new culvert	900	LF	\$ 350	\$ 336,000
lengthen culvert	400	SP	\$ 350	\$ 21,000
Utility Construction				
Water Line	52800.00	LF	\$ 85	\$ 4,488,000
SUBTOTAL				\$ 66,915,000
Planning Level Contingency (10%)				\$ 20,089,500
SUBTOTAL				\$ 87,015,500
Preliminary Engineering Contingency (9%)				\$ 7,831,395
SUBTOTAL CONSTRUCTION COST				\$ 94,847,000
RIGHT OF WAY				
ROW Land and Displacements				
Select Region for Acreage Costs:				
				West
Commercial	20.00	Acre	\$ 405,000	\$ 8,100,000
Industrial	80.00	Acre	\$ 95,000	\$ 7,600,000
Office	5.00	Acre	\$ 160,000	\$ 800,000
Residential	60.00	Acre	\$ 48,000	\$ 2,880,000
Other (Average)		Acre	\$ 177,000	\$ -
SUBTOTAL				\$ 16,530,000
ROW Acquisition Contingency (50%)				\$ 8,265,000
SUBTOTAL RIGHT OF WAY COST				\$ 24,795,000
UTILITIES				
Utility Relocations				
Length of Project (Widening)	6.00	Miles	\$ 1,000,000	\$ 6,000,000
Length of Project (New Location)	4.00	Miles	\$ 500,000	\$ 2,000,000
SUBTOTAL				\$ 8,000,000
Utilities Contingency (10%)				\$ 800,000
SUBTOTAL UTILITIES COST				\$ 8,800,000
ENVIRONMENTAL MITIGATION				
Streams Impacted	1020.00	LF	\$ 323	\$ 329,460
Wetlands Impacted	2.00	Acre	\$ -59,600	\$ 119,200
SUBTOTAL				\$ 438,660
Environmental Mitigation Contingency (10%)				\$ 44,866
SUBTOTAL ENVIRONMENTAL MITIGATION COST				\$ 494,000
PROJECT COST SUMMARY				
Subtotal Construction Cost				\$ 94,847,000
Subtotal Right of Way Cost				\$ 24,795,000
Subtotal Utilities Cost				\$ 8,800,000
Subtotal Environmental Mitigation Cost				\$ 494,000
TOTAL PROJECT COST (2015 \$)				\$ 128,936,000
Project Notes / Project Assumptions:				\$130M
Assume 10 miles of total construction				
4 lane divided with bike lanes and sidewalks				
Right of Way based on 150' wide corridor				

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Cost Projections:

- The project can be split into 6 segments at logical termini
- Each segment has independent utility and can be constructed in phases
- If segments are constructed in phase then its escalation will have a greater influence on the cost

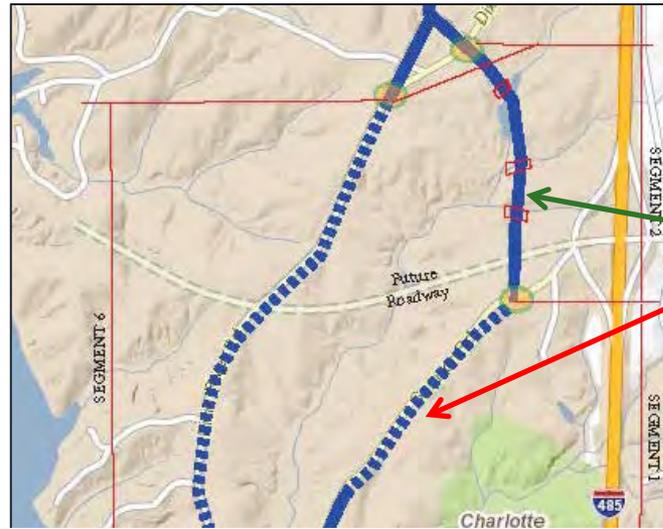


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Cost Projections :

- Although the entire planned project has an estimated cost of \$130M, the project can be built in a phased approach (by segment) and provide contiguous valuable transportation infrastructure.



Example of a phased approach

Segment 2; \$17M
 Segment 1; \$25M
 Approx. Total \$42M

- It will take approximately 10 years to plan, design, and construct this project based on a preliminary schedule developed for this estimate.

Task Name	Duration	Start	Finish	15	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
				H2	H1	H2	H1	H2	H1	H2	H1	H2	H1	H2
City of Charlotte CIP - Airport/West Proj	2523 days	Mon 10/5/15	Mon 7/28/25	[Gantt bar spanning from 10/5/15 to 7/28/25]										
Notice to Proceed	0 days	Mon 10/5/15	Mon 10/5/15	[Gantt bar at 10/5/15]										
Design Tasks	980 days	Mon 11/2/15	Wed 9/11/19	[Gantt bar from 11/2/15 to 9/11/19]										
Task 1 - Advanced Planning	202 days	Mon 11/2/15	Wed 8/17/16	[Gantt bar from 11/2/15 to 8/17/16]										
Task 2 - Planning	346 days	Thu 8/18/16	Fri 12/29/17	[Gantt bar from 8/18/16 to 12/29/17]										
Task 3 - Surveying and Mapping	130 days	Fri 3/31/17	Tue 10/3/17	[Gantt bar from 3/31/17 to 10/3/17]										
Task 4 - UBO and Utility Coordinatio	654 days	Thu 8/18/16	Mon 3/18/19	[Gantt bar from 8/18/16 to 3/18/19]										
Task 5 - Preliminary Design	492 days	Wed 10/4/17	Wed 9/11/19	[Gantt bar from 10/4/17 to 9/11/19]										
Task 6 - Final Design	130 days	Fri 11/9/18	Wed 5/15/19	[Gantt bar from 11/9/18 to 5/15/19]										
Post Design	1755 days	Fri 10/12/18	Mon 7/28/25	[Gantt bar from 10/12/18 to 7/28/25]										
Task 7 - Right of Way Assistance	255 days	Fri 10/12/18	Mon 10/14/19	[Gantt bar from 10/12/18 to 10/14/19]										
Task 8 - Construction Administrator	1500 days	Tue 10/15/19	Mon 7/28/25	[Gantt bar from 10/15/19 to 7/28/25]										
Task 9 - Project Administration	1030 days	Mon 10/5/15	Wed 10/23/19	[Gantt bar from 10/5/15 to 10/23/19]										

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Key Takeaways

- There is a high level of expectation and excitement around transportation investment in the study area
- There are 3,900 acres with a strong development/redevelopment potential
- The project cost is ~\$130M, which can be built in logical segments and yield 5x its value in development



Future Activities

- Building consensus through community engagement activities through workshops and public meetings.
- Determining what will happen in the area if current trends continue without major capital investments (Plan/Trend);
- Determining what would happen under the impact of new major capital investments and a unifying plan development concept to guide future development of commercial and residential real estate in the Area (Value Optimization Scenarios).
- A recommended implementation strategy for building transportation infrastructure in the corridor that improves the quality of life for Charlotte by meeting the goals of the CIP



Next Steps

- Proceed to Phase 2 of the Advanced Planning
- Coordinate closely with CLT Strategic Development Plan scope, activities and schedule





Questions?

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