# CHRISTINA RIVER BRIDGE PROJECT

May 2011



#### Agenda

- Project History
- Purpose and Need
- Livability Principles
- Existing Conditions/Resources
- Navigation/Bridge Clearance
- Study Alternatives
- Recommended Alternative
- Draft Schedule



#### **PROJECT HISTORY**





To ensure that infrastructure enables the Wilmington Riverfront area to continue to effectively redevelop, while accommodating growing transportation demands from increased development.



#### PURPOSE AND NEED NEEDS FOR THE PROJECT

- Needs:
  - Economic Development
  - Livability
  - System Linkage between both sides of the River
  - Community Mobility and Multi-modal Access
  - Congestion relief
- Funding Sources:

**BKK** 

- US Congressional earmark
- 20% State participation





## LIVABILITY



#### FHWA Livability Initiative

Livability

PK K

- » Is about tying the quality and location of transportation facilities to broader opportunities such as, access to good jobs, affordable housing, quality schools, and safe streets.
- » This includes addressing safety and capacity issues on all roads through better planning and design, maximizing and expanding new technologies.
- » For example, "being able to take your kids to school, go to work, see a doctor, drop by the grocery or post office, go out to dinner and a movie, and play with your kids at the park, all without having to get into your car."
  - ~ Secretary Ray LaHood, US Department of Transportation



#### **EXISTING CONDITIONS ENVIRONMENTAL FEATURES**



# NAVIGATION/ BRIDGE CLEARANCE



Market Street Bridge Type of Bridge: Bascule Horizontal Clearance: 175' Vertical Clearance (high water): Closed = 8' Open = Unlimited

#### Railroad Bridge CR 1888 Shellpot Branch

Type of Bridge: **Swing** Horizontal Clearance: **62'** Vertical Clearance (high water): Closed = **6'** Open = **Closed in place** 

95

RKK

Walnut Street Bridge Type of Bridge: Bascule Horizontal Clearance: 175' Vertical Clearance (high water): Closed = 14' Open = Unlimited

495

<u>4<sup>th</sup> Street Bridge</u> Type of Bridge: Bascule Horizontal Clearance: 145' Vertical Clearance : 14' (high water)

**Railroad Bridge CR** Swing span no longer in use Swing span is in open position Approach span is missing

Interstate 95 Type of Bridge: Fixed Horizontal Clearance: 60' Vertical Clearance : 22' (high water)



#### **STUDY ALTERNATIVES** BRIDGE TYPICAL SECTION - LOOKING EAST





#### STUDY ALTERNATIVES West Bridge Approach



Delmarva Lane, West Bridge Approach



#### STUDY ALTERNATIVES EAST BRIDGE APPROACH





#### STUDY ALTERNATIVES OVERVIEW





#### **STUDY ALTERNATIVES** PURPLE ALTERNATIVE - EXISTING CONDITIONS





From Justison St at Beech St Intersection





#### **STUDY ALTERNATIVES PURPLE ALTERNATIVE**







#### **STUDY ALTERNATIVES PURPLE ALTERNATIVE**

CHILDREN'S MUSEUM	CHILDREN'S MUSEUM PROPERTY	 PURPLE BRIDGE AL	IGNMENT	JOE'S CRAB SHACK

Purple Bridge Option - Section Looking East

Scale: 1/16" = 1'-0"



#### STUDY ALTERNATIVES PURPLE ALTERNATIVE

RK K





- Shortest route between existing development
- Preserves Riverwalk along water
- Expands urban street grid
- Perpendicular crossing
- Promotes livability- connects communities
- Partially improves regional circulation
- Minimizes redevelopment opportunities
- Children's Museum displaced
- 1 Market Street business displaced
- Impacts restaurant parking
- Impacts floating docks (2)
- Proximity to Market & Walnut Street Bridges minimizes MLK traffic diversion
- Operation of Justison/ Beech intersection will deteriorate
- Event traffic restricted to current operations
- Limits Kalmar Nyckel operation

#### **STUDY ALTERNATIVES** GREEN ALTERNATIVE - EXISTING CONDITIONS





Looking east from Justison St at Green Alternative Crossing



Looking east from Green Alternative Crossing



#### STUDY ALTERNATIVES GREEN ALTERNATIVE







#### **STUDY ALTERNATIVES** GREEN ALTERNATIVE

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ISTING RKING PT	PLAZA	PLANTER	PLAZA	ł	GREEN	BRIDGE ALIG	NMENT	+	PLAZA	PLANTER SIDE WAL	THE K SHIPYARI SHOPS

Scale: 1/16" = 1'-0"



#### **STUDY ALTERNATIVES** GREEN ALTERNATIVE





- Preserves Riverwalk along water
- Improves regional circulation
- Perpendicular crossing
- No total parcel takes
- Promotes livability- connects communities
- Improves traffic operations during events
- Minimizes redevelopment opportunities
- Impacts dock
- Removes intersection at Justison Street
- Impacts stadium parking
- Greatest property impacts
- Compromises existing urban grid
- 2 Market Street businesses displaced

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#### **STUDY ALTERNATIVES** ORANGE A ALTERNATIVE - EXISTING CONDITIONS







#### STUDY ALTERNATIVES ORANGE A ALTERNATIVE - EAST BANK







#### **STUDY ALTERNATIVES ORANGE A ALTERNATIVE**

THE PLANTING WALK WAY/ SHIPYARD PROPOSED SHOPS BIKE PATH	PLAZA ORANGE A BRIDGE	ORANGE A BRIDGE ALIGNMENT
Orange A Option - Westbank Section Looking East Scale: 1/16" = 1'-0"		



#### STUDY ALTERNATIVES ORANGE A ALTERNATIVE





- Improves regional circulation
- Perpendicular crossing
- No dock impacts
- Maximizes redevelopment opportunities
- Improves event traffic congestion
- Expands urban grid
- Direct connection to Greenway
- Promotes livability- connects communities
- Minor impacts to stadium parking
- Impacts to Shipyard Shops parking
- 3 Market Street businesses displaced
- 3 total parcel takes
- 6 business entrances impacted
- Least desirable access management

RKK

#### **STUDY ALTERNATIVES** ORANGE B ALTERNATIVE - EXISTING CONDITIONS

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## STUDY ALTERNATIVES

**ORANGE B ALTERNATIVE - RECOMMENDED** 







#### **STUDY ALTERNATIVES** ORANGE B ALTERNATIVE - RECOMMENDED





#### **STUDY ALTERNATIVES** ORANGE B ALTERNATIVE - RECOMMENDED





- Takes advantage of State-owned right-of-way
- Improves regional circulation
- No docks impacts
- Maximizes redevelopment opportunities
- Improves event traffic congestion
- Expands urban grid
- Direct connection to Greenway
- No total takes or business displacements
- Promotes livability- connects communities
- Minor impacts to stadium parking
- Impacts to Shipyard Shops parking
- Not a perpendicular crossing longer span
- Greater impacts to Waters of US and wetlands due to skewed crossing

## SCHEDULE



Public Meeting to present Recommended Alternative	May 2011
Draft Environmental Assessment (EA) presented at Agency Meeting	May 2011
Final EA	August 2011
Finding of No Significant Impacts (FONSI)	October 2011
<ul> <li>Final Design</li> </ul>	October 2011- May 2013
Approximate Bridge Construction Start	Fall 2013
Approximate Bridge Opening	Fall 2015

