

# EAST SIDE COASTAL RESILIENCY PROJECT

PROJECT ID: SANDRESM1



NEW YORK CITY DEPARTMENT OF DESIGN + CONSTRUCTION  
IN PARTNERSHIP WITH THE NEW YORK CITY DEPARTMENT OF PARKS & RECREATION  
AND THE MAYOR'S OFFICE OF RECOVERY & RESILIENCY

# AGENDA

## PROJECT BACKGROUND

- Project Goals - A Stronger More Resilient New York
- Past Efforts - The BIG-U & Rebuild by Design
- Where We Are Now - East Side Coastal Resiliency Project
- What Else is Happening - Complementary Processes
- Community Engagement Objectives
- Project Team

## PROJECT OVERVIEW

- Where We're Working - Project Scope
- Project Schedule
- Design Elements

## ONGOING ENGINEERING

- What's There Now - Investigating Existing Conditions
- What Happened During Sandy - Collecting Data and Existing Knowledge

## DESIGN AND PUBLIC ENGAGEMENT

- Designing with the Community
- Community Engagement Schedule
- Create Concept Design Options through Workshops and Meetings

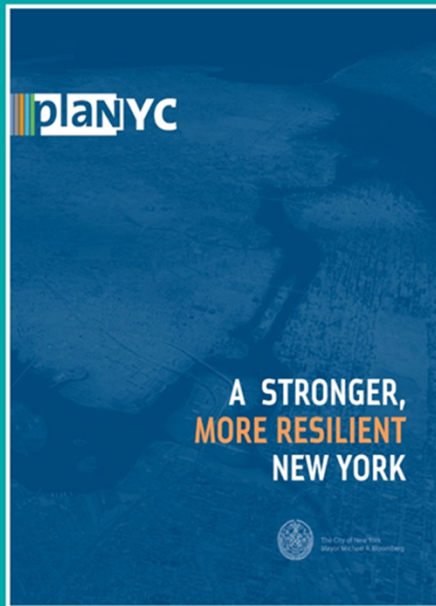
## QUESTIONS AND ANSWERS





# A STRONGER, MORE RESILIENT NEW YORK

The City's 257 initiatives comprise a comprehensive citywide plan to reduce the risk of extreme weather and climate change



- Strengthen Coastal Defenses
- Upgrade Buildings
- Protect Infrastructure and Services
- Make Neighborhoods Safer and More Vibrant

## Coastal Protection Initiative 21: Install an integrated flood protection system in Lower Manhattan, Including the Lower East Side





## REBUILD BY DESIGN

CITY RELEASES  
*A STRONGER  
MORE RESILIENT  
NEW YORK*

**REBUILD BY DESIGN  
COMPETITION  
START**

HUD SELECTS  
BIG TEAM TO  
FOCUS ON MANHATTAN

CITY REQUESTS  
FOCUS ON  
EAST SIDE

BIG TEAM  
PRESENTS  
TO HUD JURY

**HUD AWARDS  
\$335 MILLION  
FEDERAL FUNDING  
TO CITY FOR  
ONE OF THE THREE  
COMPARTMENTS**

# REBUILD BY DESIGN PROCESS

JUNE  
2013

**AUGUST  
2013**

NOVEMBER  
2013

DECEMBER  
2013

APRIL  
2014

**JUNE  
2014**



CITY PROJECT TEAM  
ESTABLISHED

OFFICIAL  
CONCEPT DESIGN  
START

SCHEDULED  
CONCEPT DESIGN  
COMPLETION

PROJECT  
CONSTRUCTION  
START

CITY ISSUES  
RFP FOR  
CONCEPT DESIGN

Q1

Q2

Q3

Q4

DESIGN REFINEMENT

ENVIRONMENTAL REVIEW

PERMITTING

# EAST SIDE COASTAL RESILIENCY

SEPTEMBER  
2014

JUNE  
2014

DECEMBER  
2014

DECEMBER  
2015

★ JUNE  
2017

# COMPLEMENTARY INITIATIVES

## PROJECT LIST

- 1 INTEGRATED FLOOD PROTECTION STUDY (ORR)
- 2 MULTI-PURPOSE LEVEE STUDY(EDC)
- 3 PIER 42 PARK (DPR)
- 4 LOWER EAST SIDE ECOLOGY CENTER (DPR)
- 5 EAST SIDE COASTAL RESILIENCY PROJECT
- 6 RESILIENT NEIGHBORHOODS STUDY(DCP)
- 7 CON-EDISON
- 8 SOLAR ONE
- 9 HOSPITAL ROW INVESTMENTS

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# COMMUNITY ENGAGEMENT OBJECTIVES

- Continue Public Engagement Begun with Rebuild by Design
- Enable and Facilitate Input from Community Stakeholders through Design
- Collaborate with Community to Establish Design Alternatives in Each Project Area
- Discuss & Balance Opportunities with Project Goals
- Make Team Available as a Resource for Community Planning



# CITY

**DDC / DPR / ORR**

**MANAGING LEAD**

**AKRF**

## URBAN DESIGN

**BIG**

LEAD

**STARR WHITEHOUSE**

LANDSCAPE ARCHITECTURE

**ONE ARCHITECTURE**

PLANNING

**JAMES LIMA P+D**

PUBLIC POLICY

**FITZGERALD & HALLIDAY**

COMMUNITY ENGAGEMENT

**COMMUNITY  
ENGAGEMENT**

## ENGINEERING DESIGN

**ARCADIS**

FLOOD PROTECTION + MODELING

**CH2MHILL**

MARINE ENGINEERING

**MATHEWS NIELSEN**

LANDSCAPE ARCHITECTURE



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# ESCR STUDY AREA

PROJECT AREA  
2

PROJECT AREA  
1

EAST RIVER

23RD ST  
2ND AVE

14TH ST  
2ND AVE

9TH ST  
1ST AVE

HOUSTON ST  
AVE A

PITT ST  
MONTGOMERY ST

HUD AWARDS  
\$335 MILLION  
FEDERAL FUNDING FOR  
ONE OF THREE  
COMPARTMENTS

**OFFICIAL  
CONCEPT DESIGN  
START**

**SCHEDULED  
CONCEPT DESIGN  
COMPLETION**

CITY ISSUES  
RFP FOR  
CONCEPT DESIGN

Q1

Q2

Q3

Q4

**RBD**

# EAST SIDE COASTAL RESILIENCY

SEPTEMBER  
2014

MARCH  
2015

JUNE  
2015

SEPTEMBER  
2015

JUNE  
2014

**DECEMBER  
2014**

**DECEMBER  
2015**

**OFFICIAL  
CONCEPT DESIGN  
START**

**PROJECT AREA 2  
FEASIBILITY STUDY  
REPORT**

**WATERFRONT  
STRUCTURES  
INSPECTION  
REPORT**

**BRIDGE  
INSPECTION  
AND LOAD RATING  
REPORT**

**HYDROLOGY AND FLOOD  
RISK ASSESSMENT  
REPORT**

**SUBSURFACE  
EXPLORATION  
REPORTS**

**DRAFT  
CONCEPT DESIGN  
REPORT**

**FINAL  
CONCEPT DESIGN  
REPORT**

**SCHEDULED  
CONCEPT DESIGN  
COMPLETION**

Q1

Q2

Q3

Q4

# EAST SIDE COASTAL RESILIENCY

DECEMBER  
2014

FEBRUARY  
2015

MARCH  
2015

APRIL  
2015

JUNE  
2015

AUGUST  
2015

NOVEMBER  
2015

DECEMBER  
2015

## MAJOR DELIVERABLES



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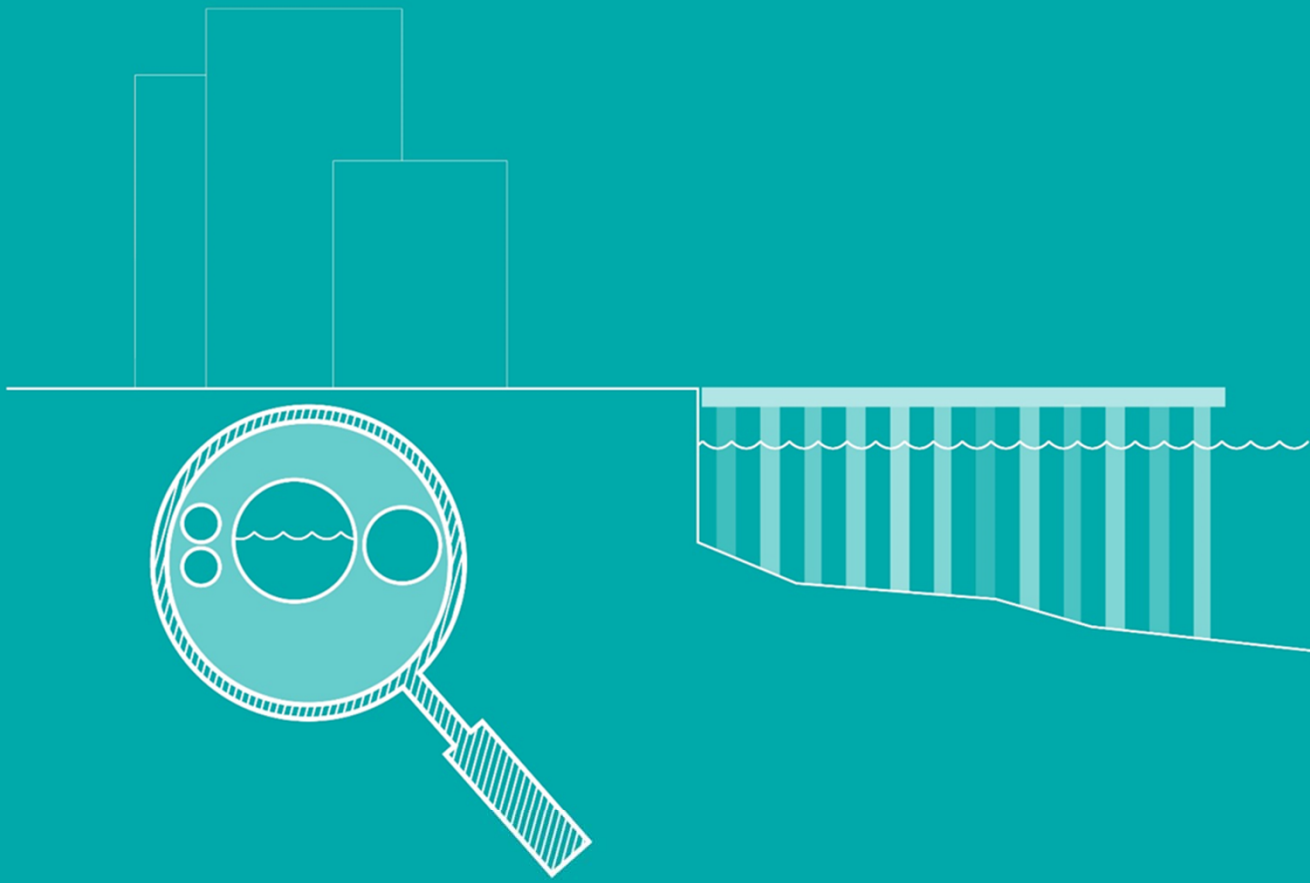
# PROJECT ELEMENTS

## PROJECT AREA 2

- 2.1 CON-ED
- 2.2 ELEVATED FDR
- 2.3 23RD STREET CLOSURE
- 2.4 STORMWATER PLAN

## PROJECT AREA 1

- 1.1 PROTECTIVE BERM
- 1.2 BRIDGES AND ACCESS
- 1.3 WATERFRONT AND CONNECTIONS
- 1.4 PIER 42 PARK/MONTGOMERY CLOSURE
- 1.5 STORMWATER PLAN



# BELOW GROUND INVESTIGATION

(AFFILIATED INITIATIVE DDC)

AUGUST 2014 - JULY 2015

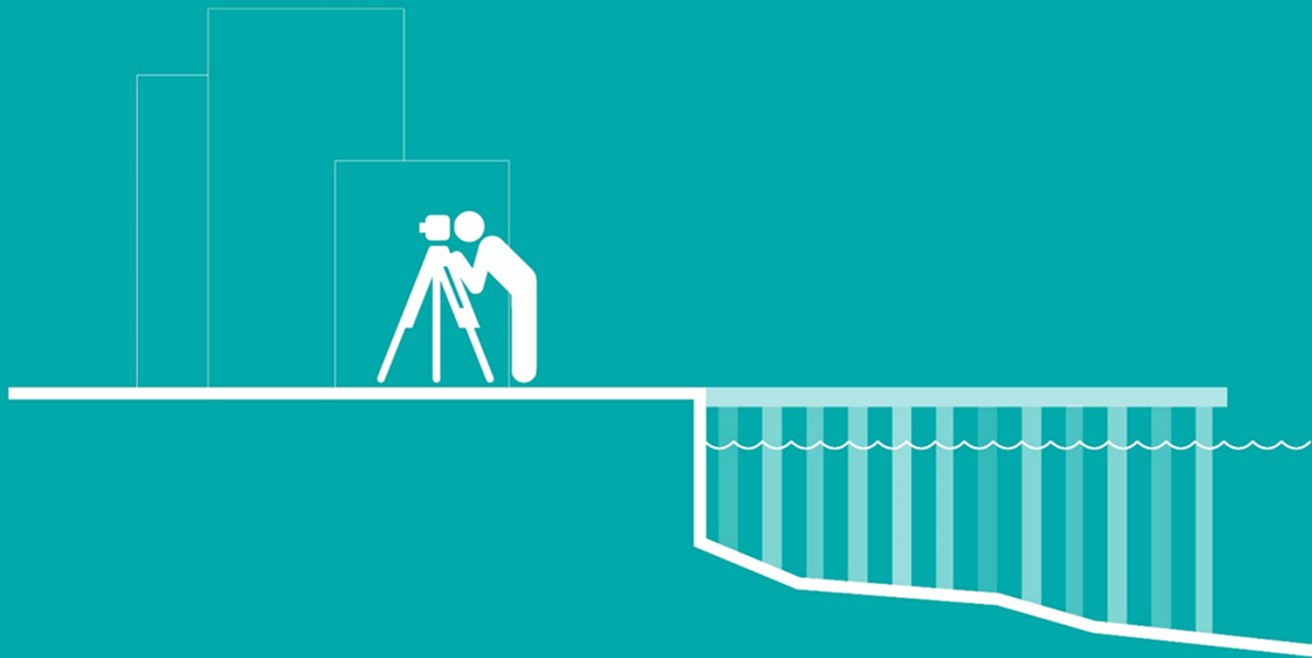


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MANHATTAN, NY FDR RD E. BOUND  
M157M -> M174M  
VOP Circular 15



# LAND SURVEY

(AFFILIATED INITIATIVE DDC)

SEPTEMBER 2014 - FEBRUARY 2015



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## Q1 + Q2: SITE ANALYSIS / NEW DATA COLLECTION

JANUARY - JULY 2015

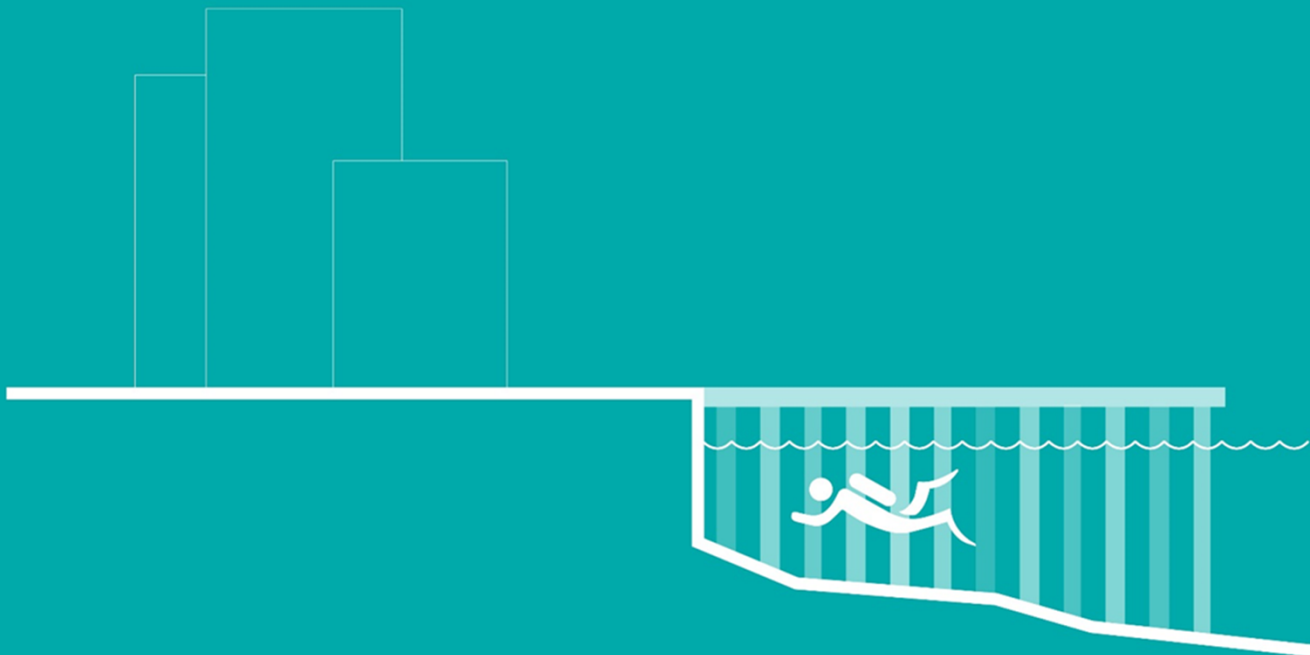


DESIGN + CONSTRUCTION



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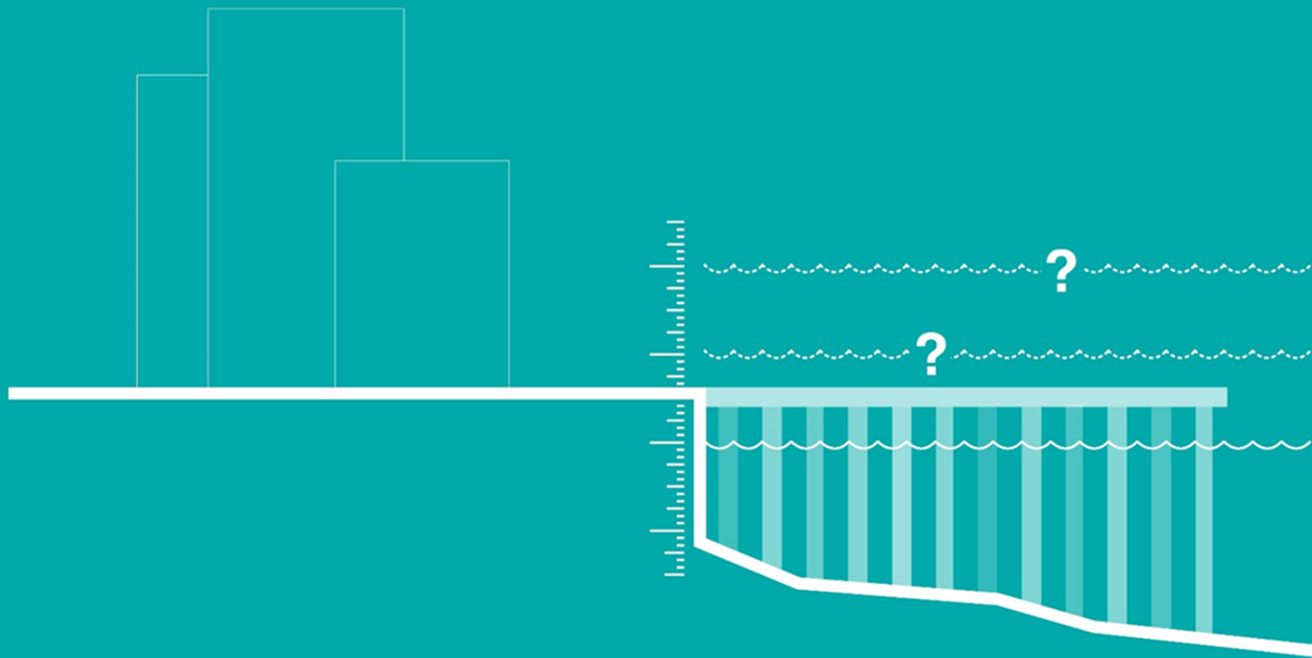


# Q1: UNDERWATER INSPECTION OF WATERFRONT STRUCTURES

JANUARY - MARCH 2015



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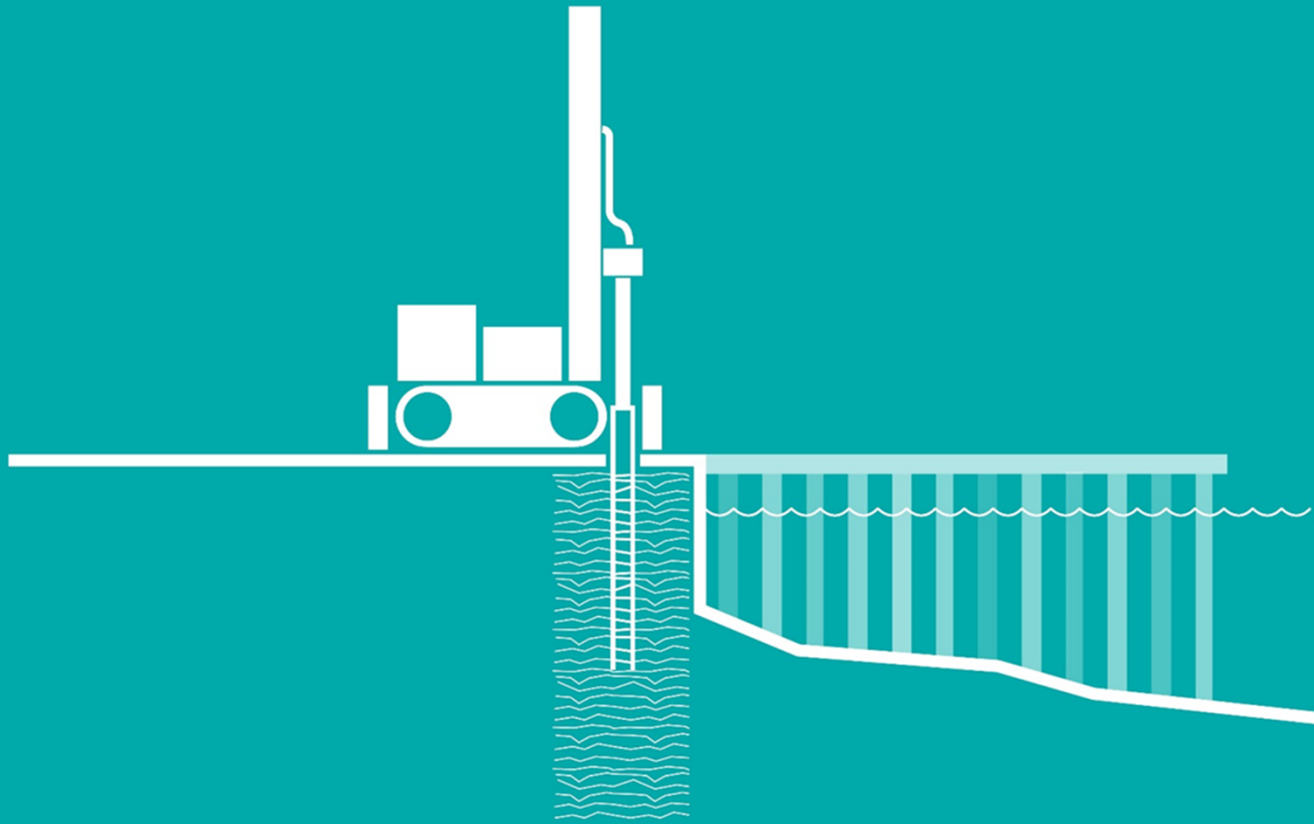
## Q1 + Q2: HYDROLOGY AND FLOOD RISK ASSESSMENT

JANUARY - JULY 2015



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## Q1 + Q2: SUBSURFACE EXPLORATION PROGRAM

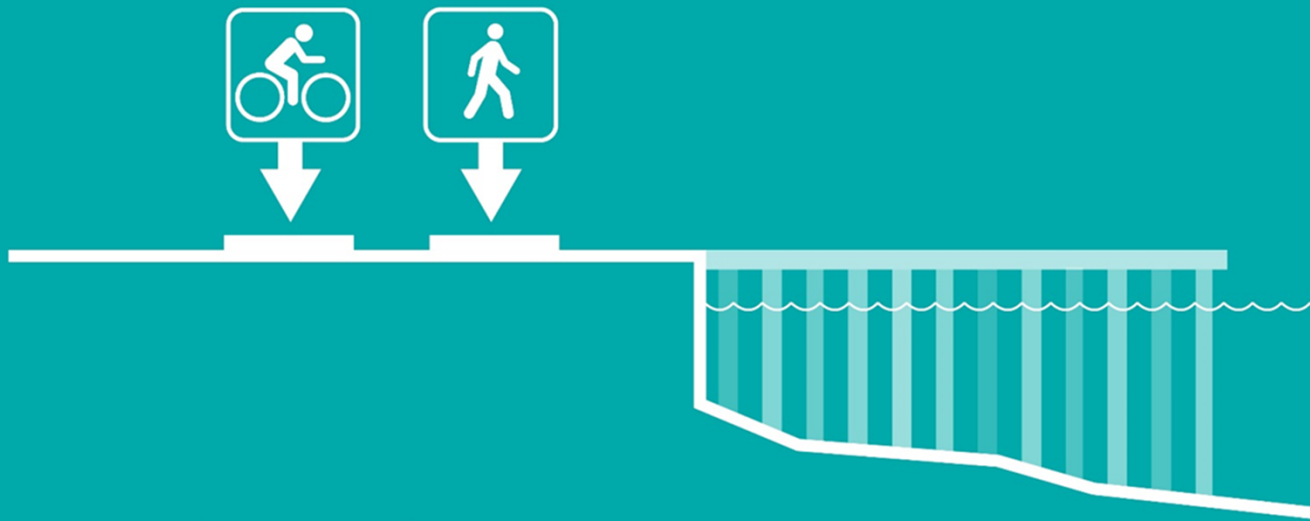
JANUARY - JULY 2015



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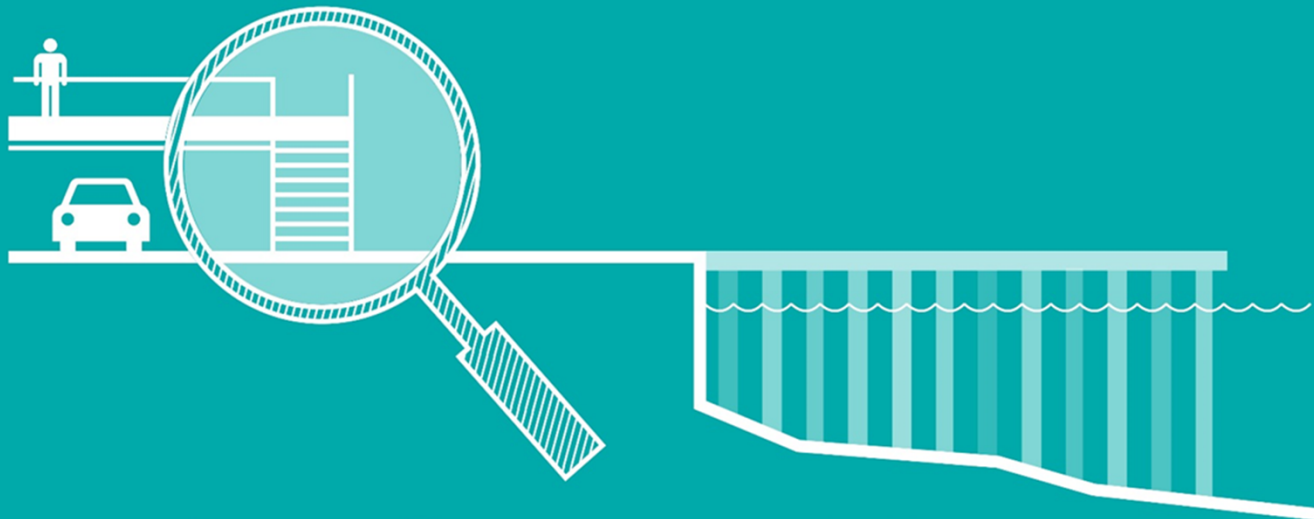
## Q1 + Q2: PEDESTRIAN AND BICYCLE TRAFFIC STUDIES

JANUARY - JULY 2015



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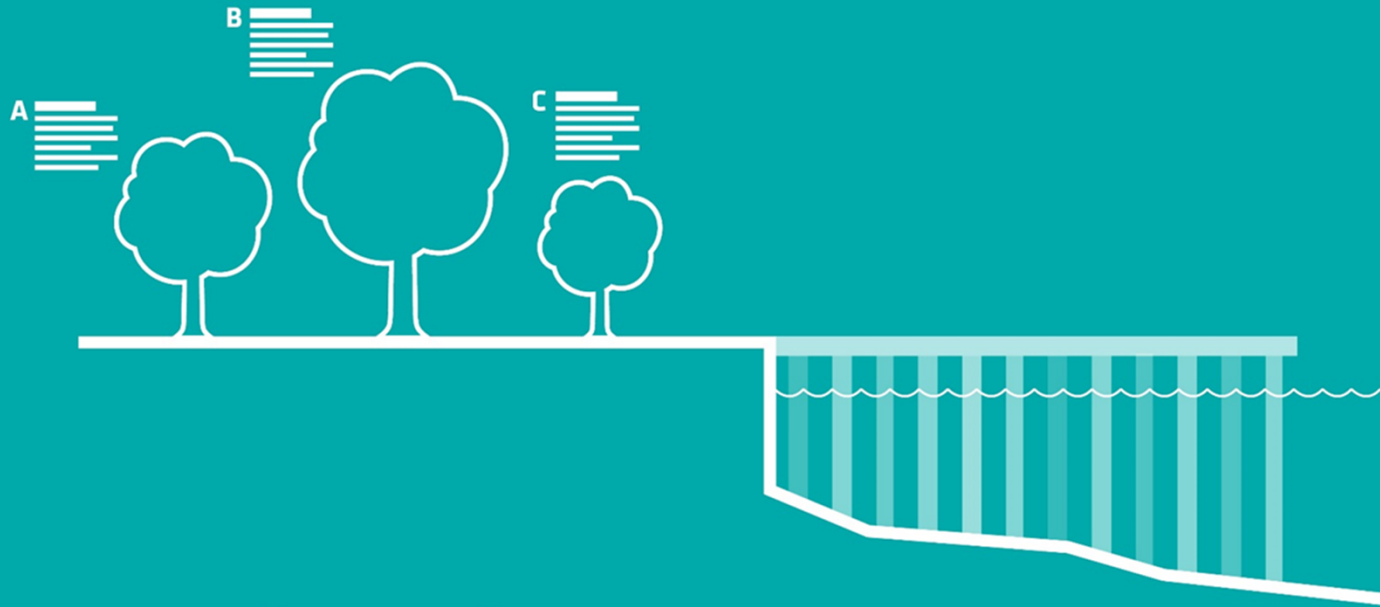


## Q1 + Q2: BRIDGE INSPECTIONS

JANUARY - JULY 2015



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## Q1 + Q2: TREE INVENTORY

JANUARY - JULY 2015



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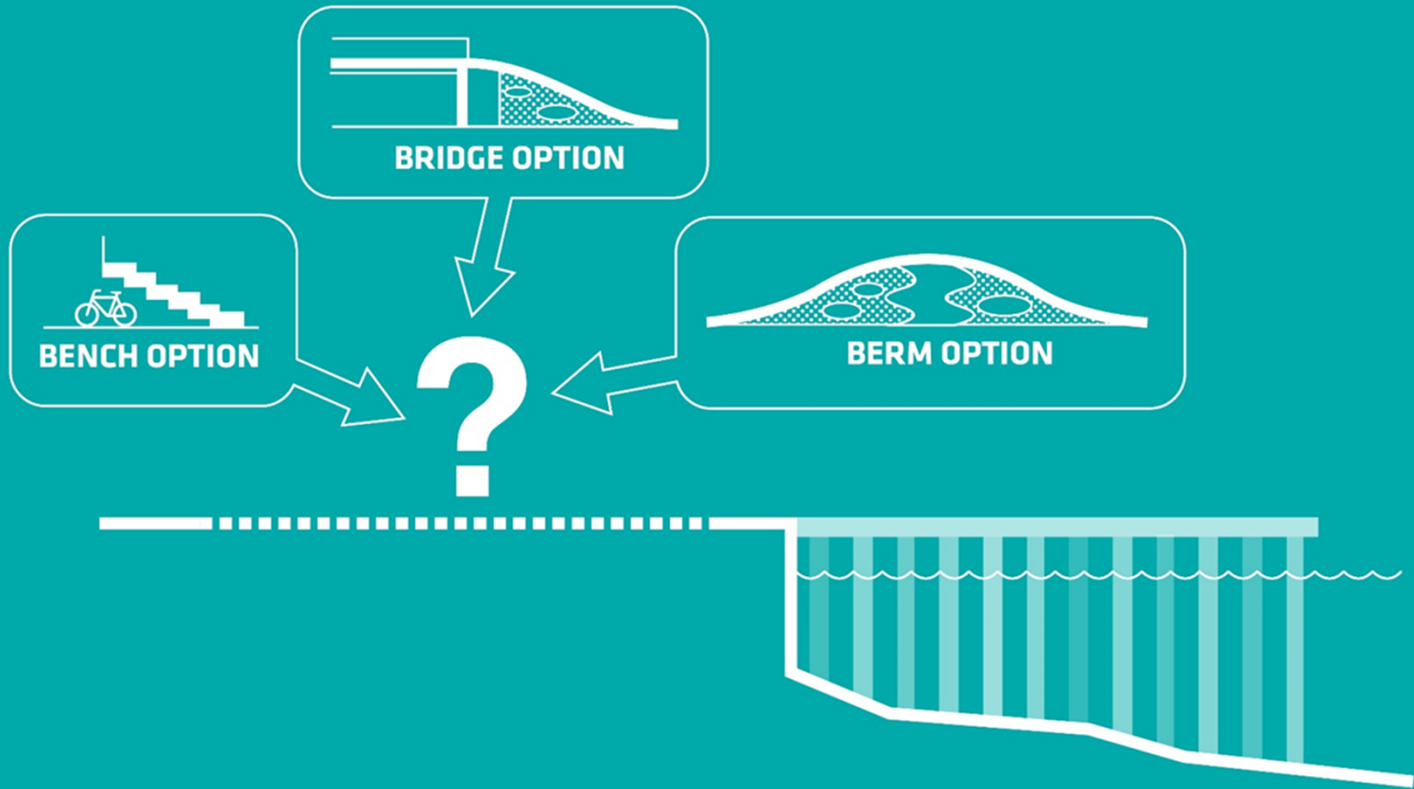


## Q1: REVIEW AND INTEGRATION OF RELEVANT STUDIES

DECEMBER 2014 - MARCH 2015



## CONTINUAL PUBLIC INPUT



## Q2+Q3+Q4: CONCEPT DESIGN DEVELOPMENT

MARCH - DECEMBER 2015



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# KEY ISSUES IDENTIFIED BY THE COMMUNITY DURING RBD

## PEDESTRIAN BRIDGE CONNECTIONS

- Locations
- Landing Design
- Bridge Design

## EAST RIVER PARK BIKEWAY/WALKWAY AND RECREATIONAL FACILITIES

- Addressing narrow segments
- Allowance for Emergency and Maintenance Access
- Programming and Connections

## WATERFRONT VIEW CORRIDORS

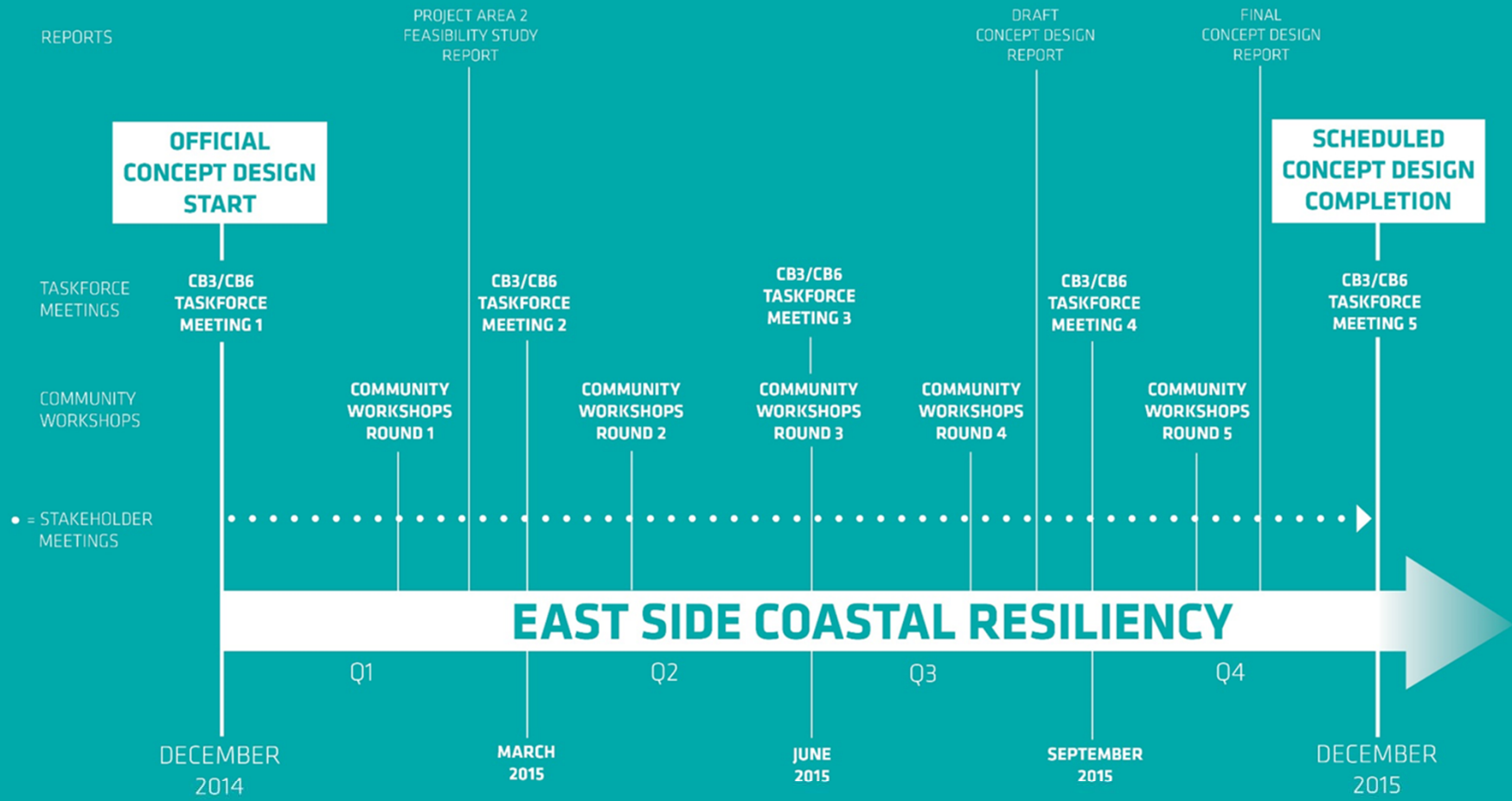
- Height and Width of Flood Protection Elements
- Finishes

## PARK ECOLOGY

- Planting Plans
- Trees
- Upland Connections

## NEW ISSUES...





## PRELIMINARY COMMUNITY ENGAGEMENT SCHEDULE

**1** ENGAGE COMMUNITY/  
STAKEHOLDERS

**2** COORDINATE WITH  
FEASIBILITY ANALYSIS

**3** DETERMINE INPUT TO  
CONCEPT DESIGN

**PRESENTATIONS AND**  
*COMMUNITY-TEAM-CITY*

- OVERARCHING DESIGN PRINCIPLES AND OBJECTIVES
- WHERE THE DESIGN COMPETITION WORK LEFT OFF
- KEY DESIGN OBJECTIVES FOR PROJECT AREAS ONE AND TWO
- ENGINEERING OBJECTIVES
- CONCEPT DESIGN ISSUES, INCLUDING NEED TO CONSIDER ALTERNATIVES

**WORKSHOPS AND MEETINGS**  
*COMMUNITY*

- INPUT THROUGH ENGAGEMENT SESSIONS
- PUBLIC AND STAKEHOLDER NEEDS
- PRIORITIES FOR CONSIDERATION IN CONCEPT DESIGN

**INTERNAL MEETINGS**  
*TEAM*

- OPTIONS AND ALTERNATIVES
- ENGINEERING FEASIBILITY
- BENEFIT/COST IMPLICATIONS
- TARGETED DESIGN CONCEPTS

**COORDINATION AND UPDATE MEETINGS**  
*CITY*

- DESIGN RECOMMENDATIONS
- DESIGN OBJECTIVES FOR PROJECT AREA
- EVALUATE COMMUNITY PRIORITIES VS. OPPORTUNITIES AND CONSTRAINTS

**FINAL CONCEPT DESIGN**  
*COMMUNITY-TEAM-CITY*

- BALANCE COMMUNITY PRIORITIES WITH OPPORTUNITIES AND CONSTRAINTS
- RISK MITIGATION
- URBAN IMPACT + QUALITY OF LIFE
- COST



**COMMUNITY ENGAGEMENT / CONCEPT DESIGN**

## HOUSING ?

**GROUP**

ORGANIZATIONS  
COMMUNITY GROUPS  
CITY AGENCIES

## ENVIRONMENT ?

**GROUP**

ORGANIZATIONS  
COMMUNITY GROUPS  
CITY AGENCIES

**GROUP**

ORGANIZATIONS  
COMMUNITY GROUPS  
CITY AGENCIES

## PLANNING ?

**GROUP**

ORGANIZATIONS  
COMMUNITY GROUPS  
CITY AGENCIES

**GROUP**

ORGANIZATIONS  
COMMUNITY GROUPS  
CITY AGENCIES

**GROUP**

ORGANIZATIONS  
COMMUNITY GROUPS  
CITY AGENCIES

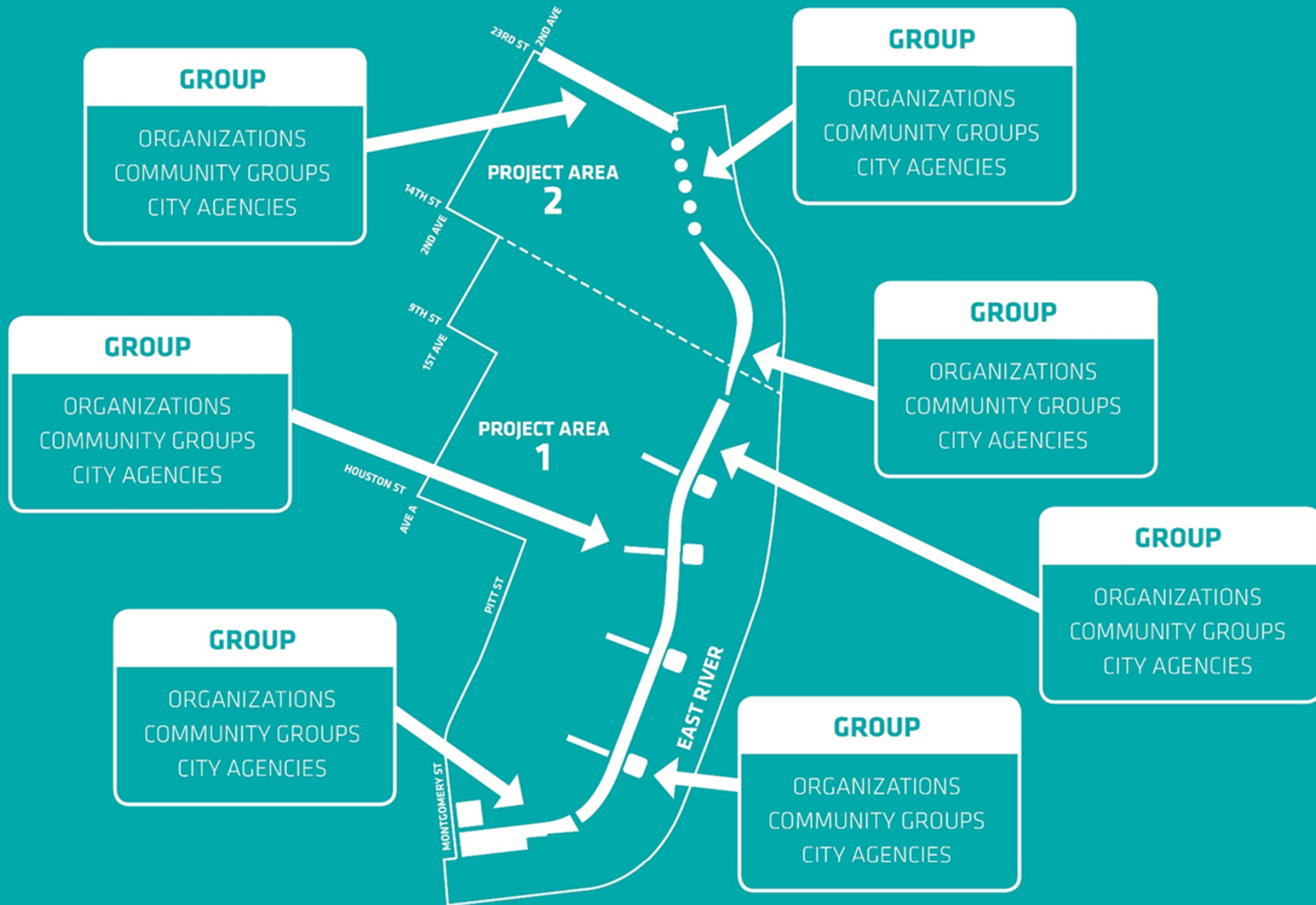
## POLICY ?

**GROUP**

ORGANIZATIONS  
COMMUNITY GROUPS  
CITY AGENCIES

## KEY COMMUNITY / STAKEHOLDERS WORKING GROUPS





## KEY COMMUNITY / STAKEHOLDERS WORKING GROUPS



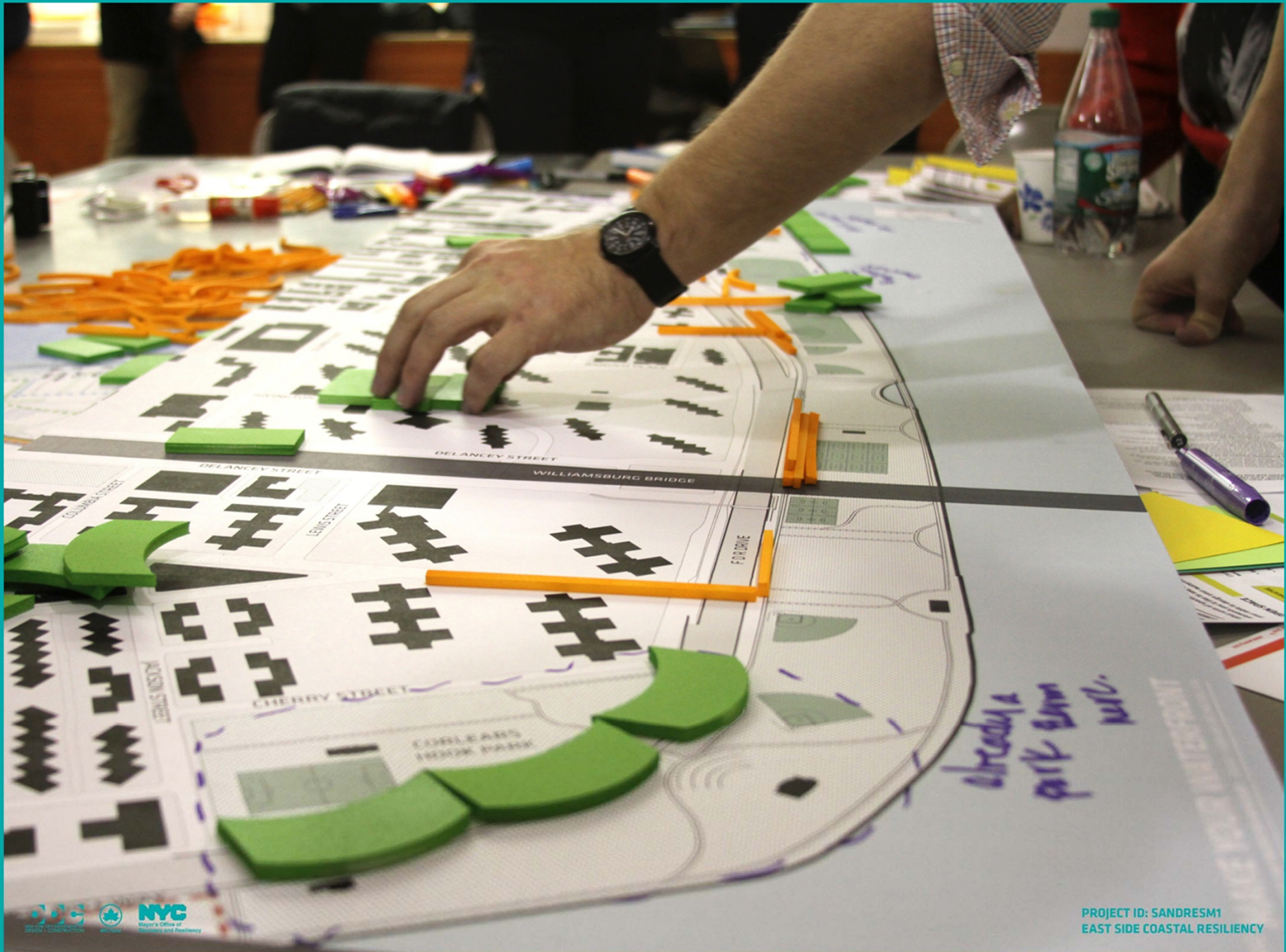












OFFICIAL  
CONCEPT DESIGN  
START

SCHEDULED  
CONCEPT DESIGN  
COMPLETION

URBAN  
DESIGN

Q1	Q2	Q3	Q4
<p>STAKEHOLDER MTGS</p> <p>INITIAL ENGAGEMENT MTGS</p>	<p>STAKEHOLDER MTGS</p> <p>ENGAGEMENT MTGS/ DESIGN WORKSHOPS</p> <p><i>IMAGINE ALTERNATIVES ESTABLISH PRIORITIES</i></p>	<p>STAKEHOLDER MTGS</p> <p>DESIGN WORKSHOPS</p> <p><i>PRESENT ALTERNATIVES RECEIVE FEEDBACK DISCUSS PRIORITIES</i></p>	<p>STAKEHOLDER MTGS</p> <p>SHARE DESIGN RESULTS</p> <p><i>SHOW EFFECT OF FEEDBACK SHOW COST-RISK COMPARISONS OPERATIONS AND MAINTENANCE</i></p>

**COMMUNITY ENGAGEMENT**

ENGINEERING  
DESIGN

<p>DATA GATHERING INSPECTION &amp; TESTING (STRUCTURAL, GEOTECHNICAL, UTILITIES, TRAFFIC)</p> <p>HYDROLOGY STUDIES FLOOD/RISK ASSESSMENT</p> <p>PROJECT AREA 2 FEASIBILITY STUDY</p>	<p>FINAL HYDROLOGY AND FLOOD RISK REPORT</p> <p>COMPLETE FEASIBILITY STUDY PROJECT AREA 2</p> <p>DEVELOP PROJECT AREA 1 AND 2 ALTERNATIVES</p>	<p>REFINE ALTERNATIVE</p> <p>DRAFT CONCEPT DESIGN REPORT</p>	<p>FINAL CONCEPT DESIGN COST-RISK-IMPACT ANALYSIS</p> <p>OPERATIONS &amp; MAINTENANCE ANALYSIS</p>
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DECEMBER  
2014

DECEMBER  
2015





# QUESTIONS / DISCUSSION



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