

Transportation Transformations How Highway Conversions Can Pave the Way for More Inclusive and Resilient Places

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ROGER EATON HDR, INC U.S. DEPARTMENT OF TRANSPORTATION

MARCH 1, 2024

Today's Speakers



Keith Baker

Executive Director

ReConnect Rondo



Mariia Zimmerman

Strategic Advisor for Technical Assistance and Community Solutions

United States Department of Transportation



Roger Eaton

Senior Bridge Engineer HDR, Inc.



Matt Norris

Senior Director Healthy Places

Urban Land Institute





Randall Lewis Center for Sustainability in Real Estate

Lead the real estate industry in creating buildings and places where people and the environment thrive





Today's Agenda and Housekeeping

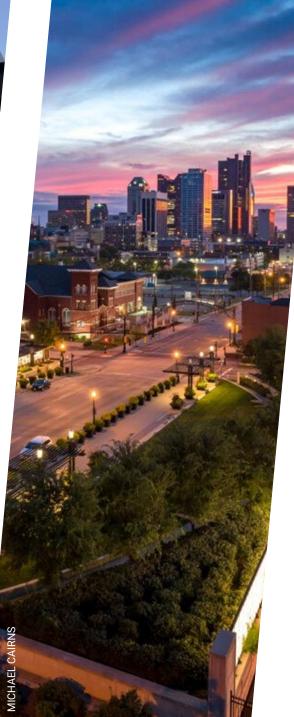
- 1. Overview of *Transportation Transformations* report
- 2. Panelist perspectives on highway conversion efforts
- 3. Discussion and Q&A
- 4. Survey

Housekeeping:

- This presentation will be recorded and distributed
- Please submit questions through the Q&A feature, and upvote the questions you want to see asked







TRANSPORTATION TRANSFORMATIONS

How Highway Conversions Can Pave the Way for More Inclusive and Resilient Places

> Matt Norris Senior Director ULI Healthy Places Initiative



Randall Lewis Center for Sustainability in Real Estate

SELECTED RECENT HEADLINES



BRONX*Times*

Exclusive: City to begin community engagement for transformation of Cross Bronx Expressway

The Seattle Times

Feds award money to study removing Highway 99 in one Seattle neighborhood

Detroit Free Press

I-375 replacement project in Detroit moves closer to reality, gets OK from feds

The Philadelphia Inquirer Work is officially underway on 'Park at Penn's Landing' over I-95 in Philadelphia



Transportation Transformations

How Highway Conversions Can Pave the Way for More Inclusive and Resilient Places

ULI RESOURCE

Highlights connections among transportation infrastructure and health, resilience, and real estate

Makes the case for leveraging public and private funds to support efforts to reconnect communities divided by automobile-oriented infrastructure

Shares promising examples of efforts to reconnect communities through multimodal transportation investments, parks, and equitable development

uli.org/transportationtransformations

HIGHWAY ROUTING IN THE UNITED STATES

Planners of the interstate highway system routed many highways directly through Black and brown communities— often deliberately.

In many cases, the government took homes and businesses by eminent domain.

Some neighborhoods were targeted for new highway routes when other, more logical locations were available.



HARMFUL EFFECTS OF URBAN HIGHWAYS

RESIDENTIAL DISPLACEMENT

RACIAL AND ECONOMIC SEGREGATION

EXACERBATED EXTREME WEATHER EVENTS

REDUCED LAND VALUES

PHYSICAL BARRIERS

CONTRIBUTING TO CLIMATE CHANGE

NEGATIVE HEALTH OUTCOMES

LOWER TRANSIT INVESTMENT

REDUCED PEDESTRIAN SAFETY



HIGHWAY CONVERSION APPROACHES

STITCHES	Enhanced crossings over highway rights-of-way that often include widened sidewalks, bike lanes, seating areas, art installations, and green spaces	
CAPS	Full structural covers over highway rights-of-way that include features such as green space, parks, crossing streets, and buildings	
REMOVALS	Turning limited-access roadways into lower-capacity surface- level boulevards, green spaces, or waterways to increase safety, reduce traffic, and improve the built environment	
PUBLIC SPACE BENEATH ELEVATED ROADWAYS	Creating parks, enhanced public realms, and trails beneath active roadways	

POTENTIAL BENEFITS OF HIGHWAY CONVERSIONS



Enhanced equitable development opportunities



Increased access to parks and green space



Opportunity to incorporate green infrastructure and nature-based solutions



Reduced greenhouse gas emissions



Enhanced resilience to the impacts of extreme weather events



Incorporation of community-serving retail



Potential for equitable economic development



Safer and more convenient pedestrian and bicyclist infrastructure



Improved air quality



More social gathering spaces



Reconnecting communities





Undoing past harms of racially motivated transportation investments



FUNDING OPPORTUNITIES AND CONSTRAINTS

Funding Opportunities

- Reconnecting Communities
- Neighborhood Access and Equity Grants
- Rebuilding American
 Infrastructure with
 Sustainability and Equity
 (RAISE)
- Flexible federal highway programs
- Private development



Constraints

- 87 percent of federal funds that state departments of transportation (DOTs) receive are formula funds, which can be used for almost all types of transportation projects.
- Only **2.1 percent** of federal transportation funds was designated for **walking and biking projects** between 2012 and 2016

COLUMBUS I-70/71 LONG STREET BRIDGE

CONNECTS KING-LINCOLN AND NEAR EAST SIDE NEIGHBORHOODS TO DOWNTOWN

CREATES A MULTIMODAL CONNECTION AND GATHERING SPACE

INCLUDES "CULTURAL WALL DESIGNED BY TWO LOCAL ARTISTS TO CELEBRATE THE COMMUNITY'S PEOPLE & HISTORY

FEATURES A GREEN CAP PARK AND PANELS TO BLOCK HIGHWAY NOISE, WIND, AND SPRAY



SAN FRANCISCO PRESIDIO TUNNEL TOPS



NEW PARK SPACE CREATED AFTER THE FORMERLY ELEVATED DOYLE DRIVE HIGHWAY WAS REPLACED WITH AT-GRADE ROADWAY AND TUNNELS

REDUCATION IN IMPERVIOUS PAVEMENT & CREATION OF 14 ACRES OF GREEN SPACE AND NEW PARKLAND

RECONNECTION OF AREAS OF THE PRESIDIO FOR FIRST TIME SINCE 1930s



LESSONS LEARNED





Understand and acknowledge the current and historical context to build trust

Create a communitycentered process

Enhance resilience

Leverage public and private funding

Embrace nature

Integrate local storytelling and art



Keith Baker

Executive Director

ReConnect Rondo



ULI Transportation Transformation Webinar

March 01, 2024

BUILD A BRIDGE BETWEEN YESTERDAY, TODA AND TOMORROW



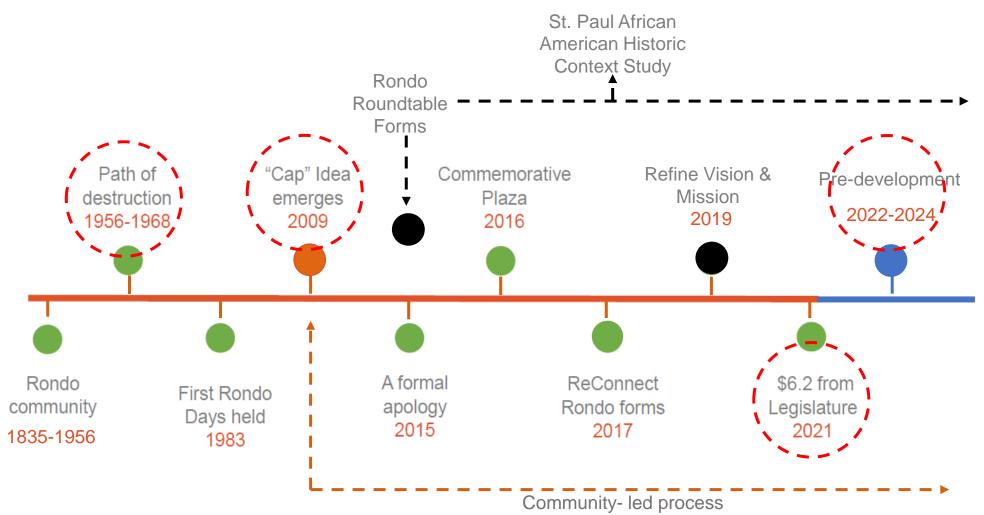
RESTORATIVE MOVEMENT

Moving Minnesota toward equitable development success Our **Mission** is to lead the effort to revitalize the Rondo community with a land bridge that reconnects Rondo and reignites a vibrant African American cultural enterprise district in Saint Paul

Our **Plan:** Connect Minnesota leaders, equity organizations and the Rondo community to ensure a better, brighter and more equitable future

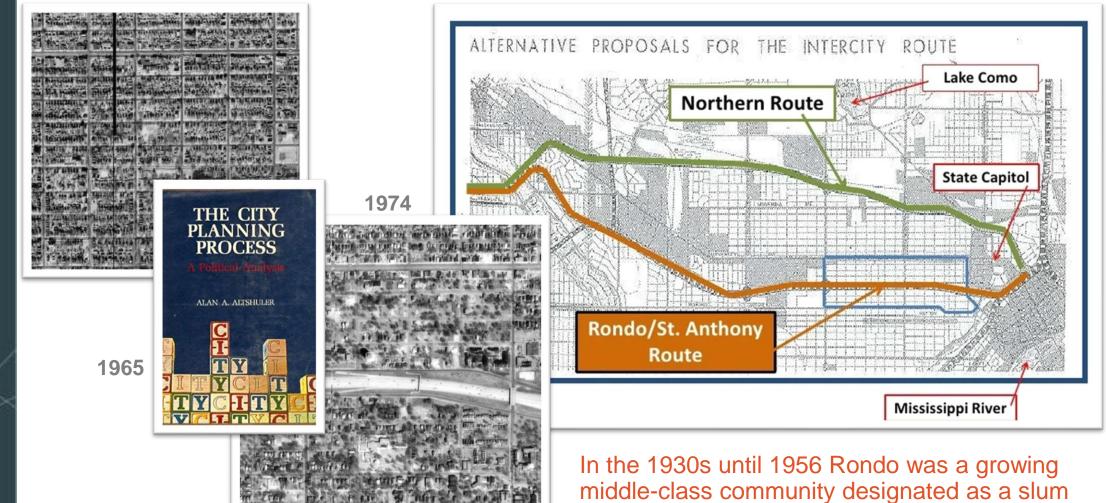


It's been a long and hard fought journey



It was a political and intentional decision

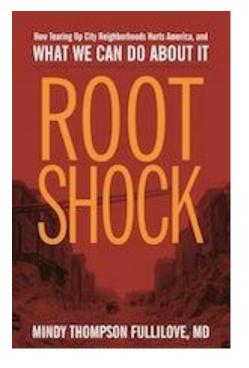
1953





"Root Shock" at the individual and community level

"...the traumatic stress reaction to the destruction of all or part of one's emotional ecosystem." ^{26 (p11)}



- Disperses people in all directions of the compass.
- Profound emotional upheaval that destroys the working model of the world that had existed in the individual's head.
- Repaired geography is not enough to repair injuries to the complex community system.
- Undermined trust and increases anxiety destabilizes
 relationships
- Destroys social, emotional and financial resources
- Increases the risk for every kind of stress related disease from depression to heart attack.



BUILDING THE CASE

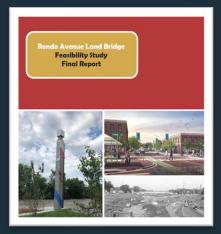




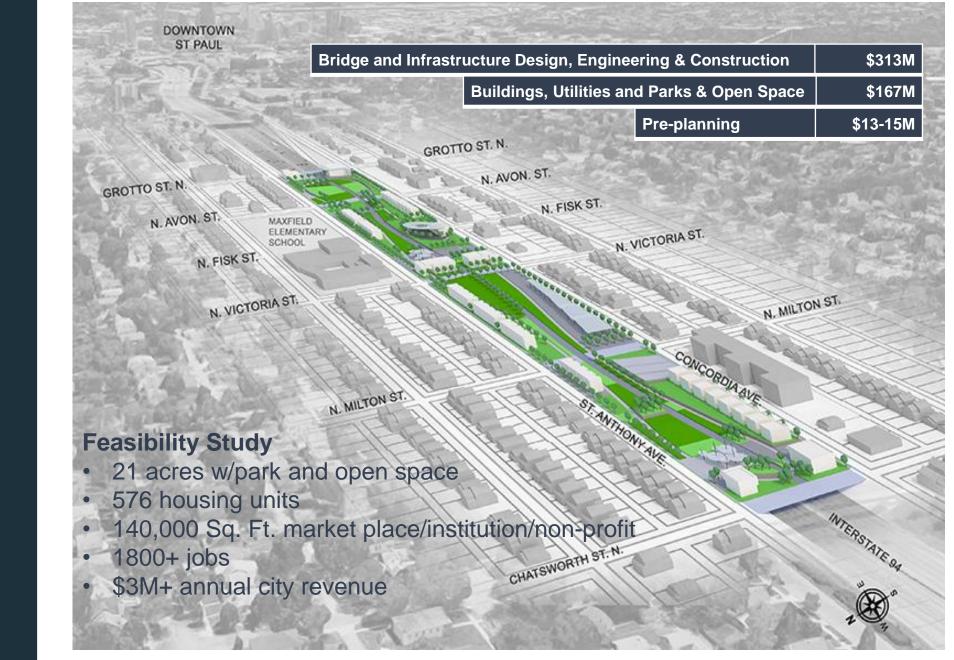
STRATEGIC PARTNER







LAND BRIDGE FEASIBILITY STUDY







RONDO SCORECARD

Residual Impacts in Rondo

SELF-ACUALIZTION What was lost Leisure time security -50 Exploitive Exploitive Educational security -75 Exploitive Generational ripple effect ESTEEM 700 homes 300 Business (1950-1969) Family -45 Conventional Proximity to pollution -60 Exploitive Heat island effect -50 Exploitive -50 Exploitive Access to exercise Homeownership Loss 48% ٠ Access to healthy food -30 Conventiona Health -60 Exploitive LOVE AND BELONGING Financial security -75 Exploitive Population loss 61% Employment + career security -65 Exploitive Exploitive Safe neighborhood -60 -60 Exploitive Physical safety Energy security -45 Conventional Intergenerational wealth - \$35M (1980) ۲ Shelter -50 Exploitive SAFETY NEEDS Food security -60 Exploitive Water security -45 Conventional Air quality -30 Conventional Total -50 Exploitive Net Zero PHYSIOLOGICAL NEEDS -27 Energy Net Net Negative Positive Land Use & Culture & -46 -28 Planning Identity 18 Net-negative GOAL -47 Food Access indicators -32 & Mobility Waste & -41 Materials Health & -49 \$250M unrealized • Wellbeing Digital -37 Development equity -47 Economy X YORTH Management -38 & Governance -50 30 -40 -30 -20 -10 0 10 20 50 40 Exploitive **Sustainable** Restorative



Restorative Development in Rondo Solicitation of Expressions of Interest Confidential - For Internal Use Only

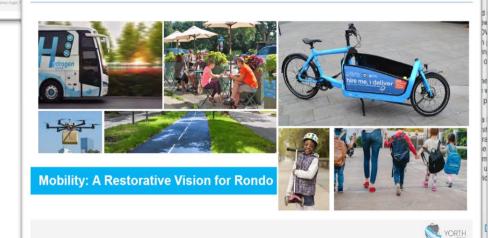


RESTORATIVE DEVELOPMENT VISION

Industrial Symbiosis & Circular Economy



Water: A Restorative Vision for Rondo



Equity is building a resilient and sustainable community ecosystem that is responsive to environmental, social and economic inequities to that

safeguard health and wellbeing and improve quality of life.

VISION FOR RONDO KEY ELEMENT: REGENERATIVE URBANISM

value and increase

Through its holistic

the following outcom

Resilient and

RESTORATIVE CITIES: OVERVIEW

Restorative development relies on three foundations that are stacked on top of one another to provide net-positive benefits.

Circular Economy & Industrial Symbiosis

A restorative economic strategy is based on an industrial symbiotic infrastructure, where an output or byproduct of one company becomes an input for another, effectively eliminating waste from the system

- · Supply chains draw on resources locally, lowering the need for virgin materials from depleting sources.
- · Skill training, education, and local living-wage jobs lift up underserved communities and build equity.

Blue and green infrastructure is seemlessly integrated with public realm and mobility Materials are transported underground to a reclamation and anufacturing facili A smart grid connects utility and resource flows with needs from industry mes and mobili

Regenerative Urbanism

residential areas to coexist.

easy access to all essential services.

ensuring:

A regenerative approach to urban design actively promotes and generates health and wellbeing by

· Proximity of places through mixed-use use zoning

that makes it possible for living-wage jobs and

· A restorative mobility infrastructure which provides

· Blue and green infrastructure (BGI) that actively

restores natural resources while also creating public amenities, such as pools and skating rinks.

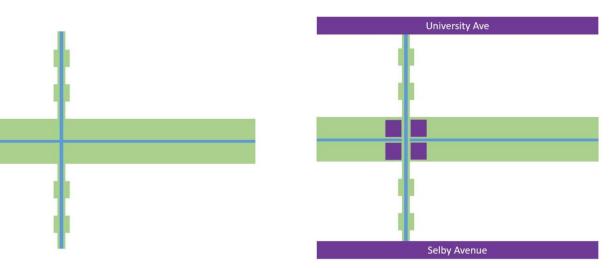
X YORTH

YORTH

Digital Access: Smart Grid, Artificial Intelligence & Civic Infrastructure

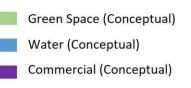
A restorative city is an intelligent city. It fosters economic competitiveness and quality of life through high-performing and secure digital infrastructure in all sectors and for all users. It is affordable and reliable and utilizes high speed internet and significant local data storage to power smart city operations and artificial intelligence while providing residents and local businesses with access to information and local and global markets.

Restorative Vision for Rondo



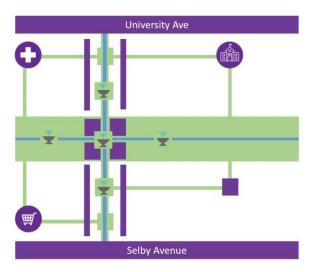
Vision

- Mobility and connection to places where people live, work, learn, and play.
- Access to education, nature, health, prosperity, wellbeing, community, and beauty for all.



Restorative Context

- Safe walkable and bikeable mobility infrastructure that help to build local economic activity.
- Connecting the land bridge with commercial options and opportunities.
- Climate-proof ecosystem of trees, vegetation, and parks; and water features, such as ponds, streams, fountains, and pools.

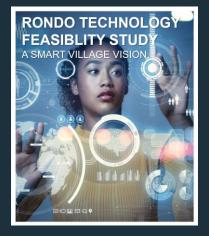


Land Bridge: Prosperity Catalyst

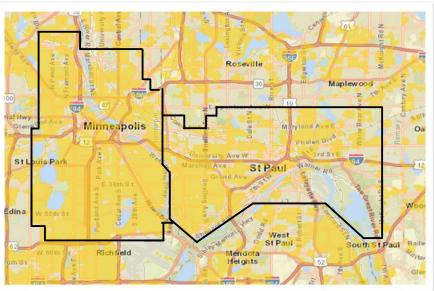
- Interconnected mobility, economic and environmental infrastructure that enables and encourages engagement to the north and south of the neighborhood.
- Development of infrastructure serves as connector and catalyst for prosperity beyond the land bridge.







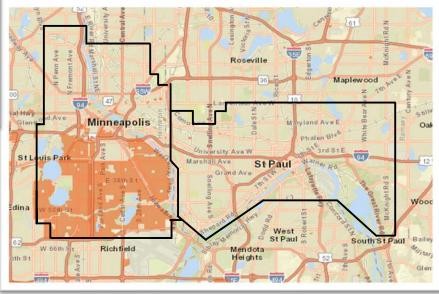
TECHNOLOGY FEASIBLITY STUDY



Current Condition (Yellow) Fiber Broadband of at least 25M/3M



Current Condition (Orange) Fiber Broadband of at least 1G/1G



- Data center or Connection Center to provide connectivity
- Solutions for water resource management, energy, healthcare access, transportation mobility, and more
- Opportunities for advanced educational programs, commercial opportunities, and civic engagement





Urban Land

RONDO ANTI-DISPLACEMENT AND COMMUNITY INVESTMENT STRATEG



ANTI-DISPLACEMENT & COMMUNITY INVESTMENT



Develop an Anti-**Displacement Toolkit** to keep residents and businesses in the neighborhood.



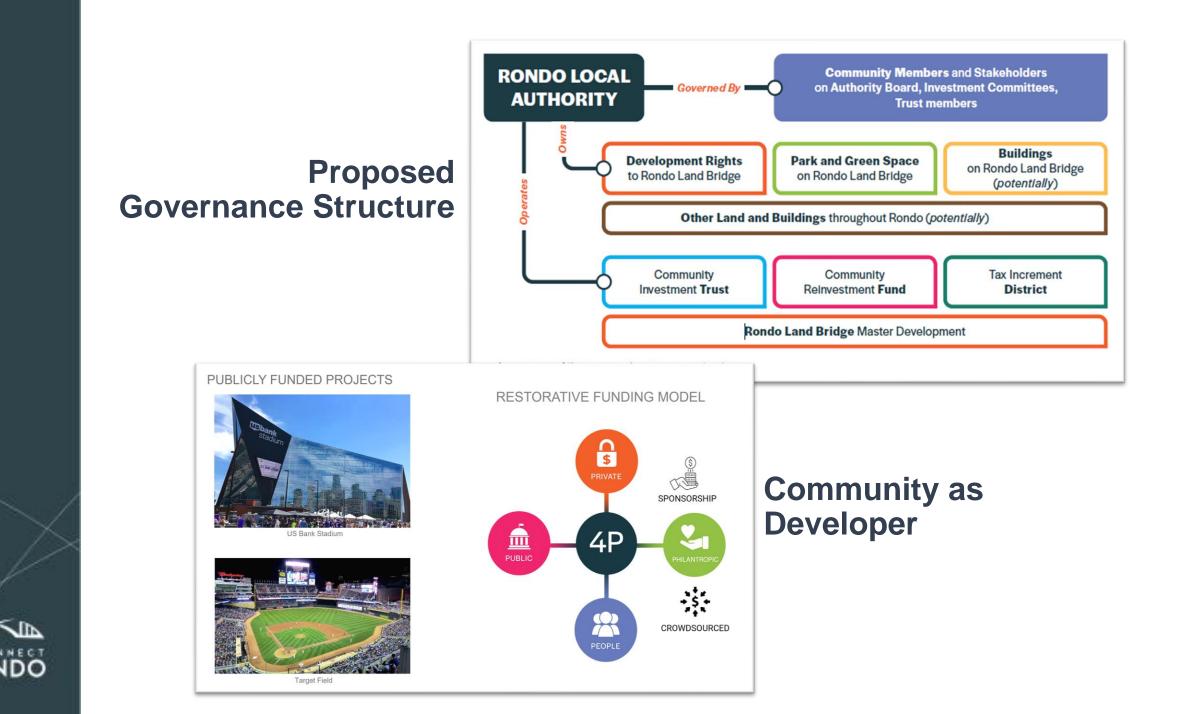
Establish a **Right to** Remain and Return for people who were displaced by the construction of I-94, and their descendants.



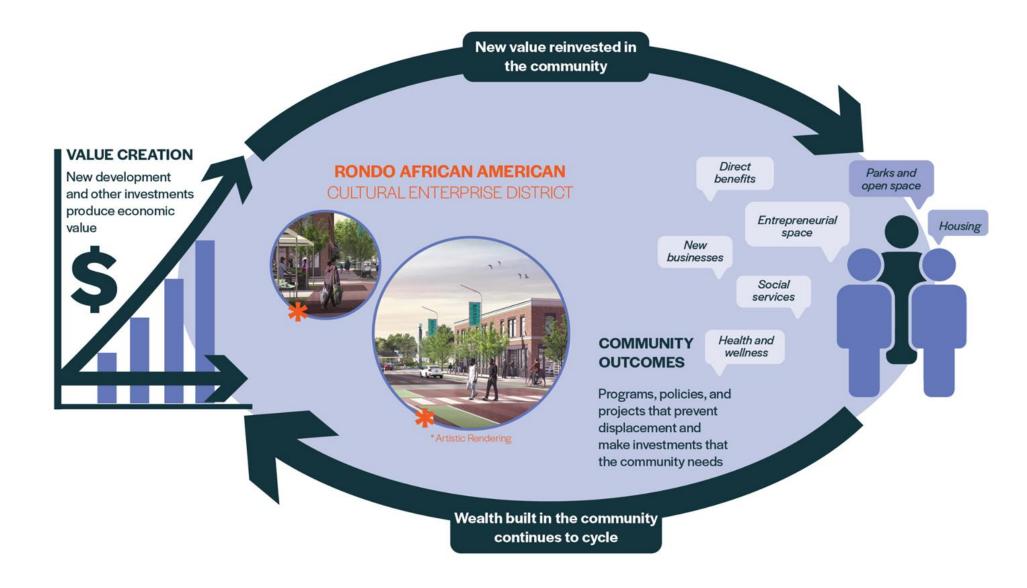
Establish a Rondo Community Investment Trust to enable the Rondo community to benefit from future development on and off the land bridge.



Establish a Rondo Community Reinvestment Fund to use revenues from the land bridge to support community assets.



Reinvesting Economic Benefits in Community

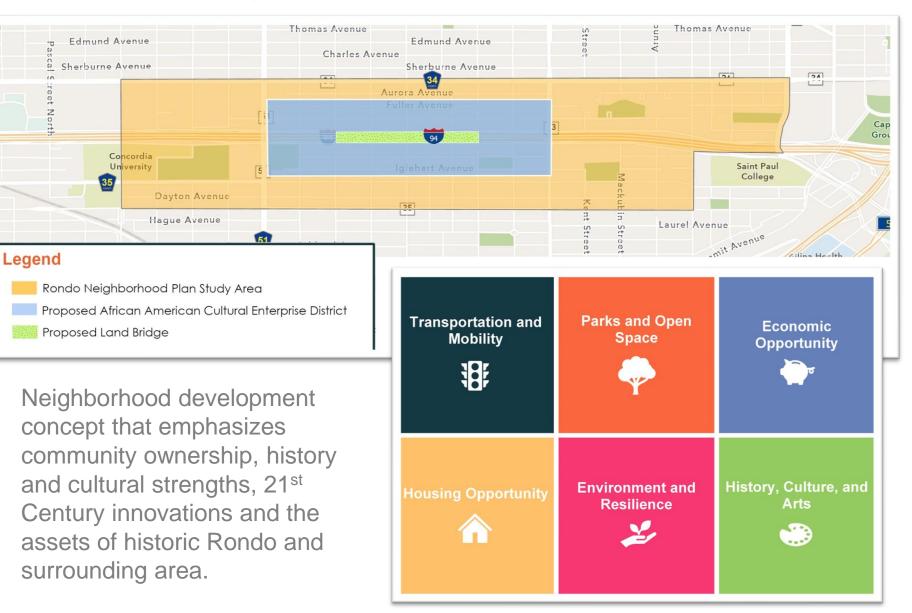






RESTORATIVE NEIGHBORHOOD AREA PLAN

Neighborhood Study Area and Key Elements



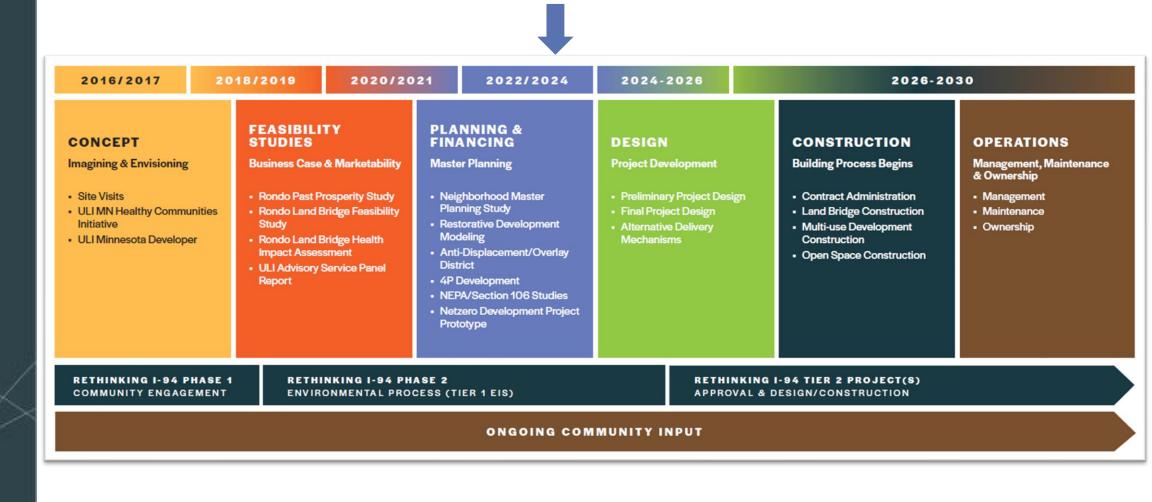
Restorative planning

RONDO

3 INTERLOCKING PLANS - ONE RESTORATIVE VISION FOR RONDO

Family of Plans To achieve the goals stated above, ReConnect Rondo is facilitating three planning efforts: INTENT Restorative Anti-Displacement Development & Community Development of neighborhood concepts Neighborhood Investment Study Plan that highlight 21st century innovations, community ownership, assets, history, and cultural strengths of the Rondo community and the surrounding area that leverage Restorative public, private and philanthropic expertise Development and resources to the direct benefit of the Vision for Rondo local community Major Plan Development **Events** Dec January 2023 Ð 2023 Tech Team Roll Visual Focus Area Existing Out Preference/ Identification Conditions + Project Goals and August August Identification Objectives 2022 2023

A purposeful path to equity





Thank you!

https://reconnectrondo.com



Roger Eaton

Senior Bridge Engineer

HDR, Inc.

ULI – Transportation Transformations Webinar March 1, 2024

The I-579 Urban Open Space Cap Project

Roger Eaton, PE







pennsylvania DEPARTMENT OF TRANSPORTATION



FX

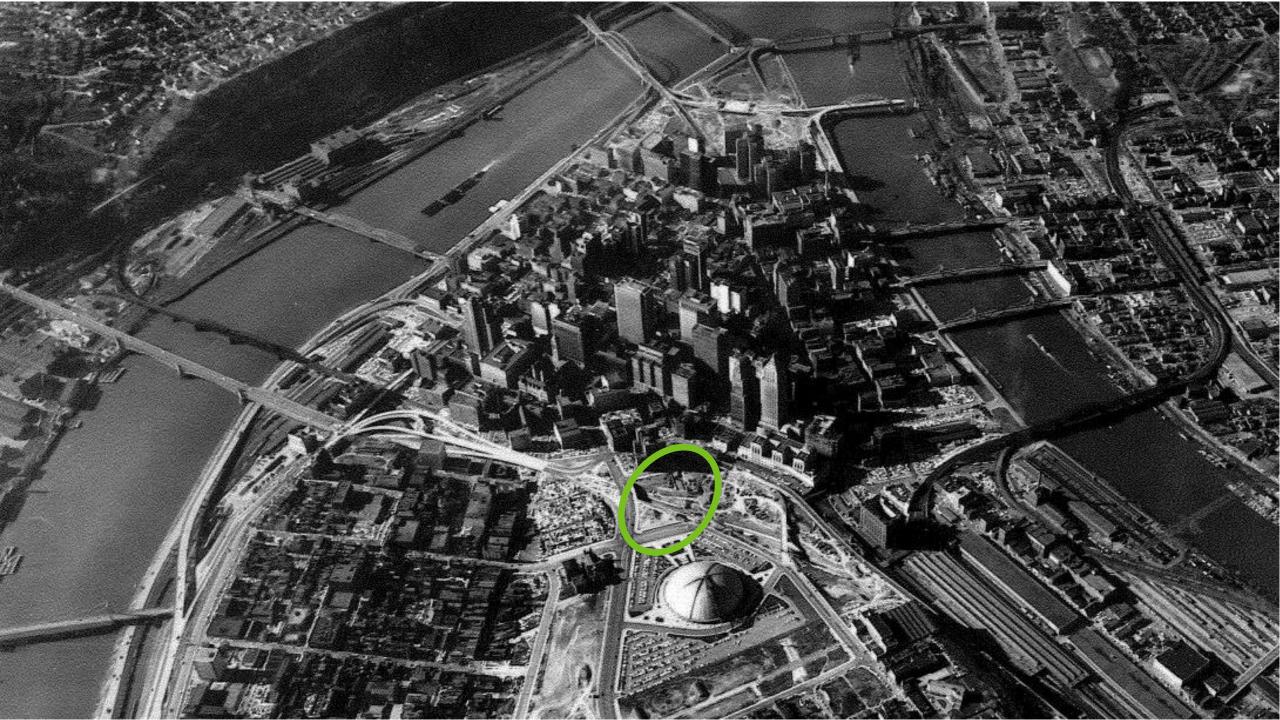
OUTLINE

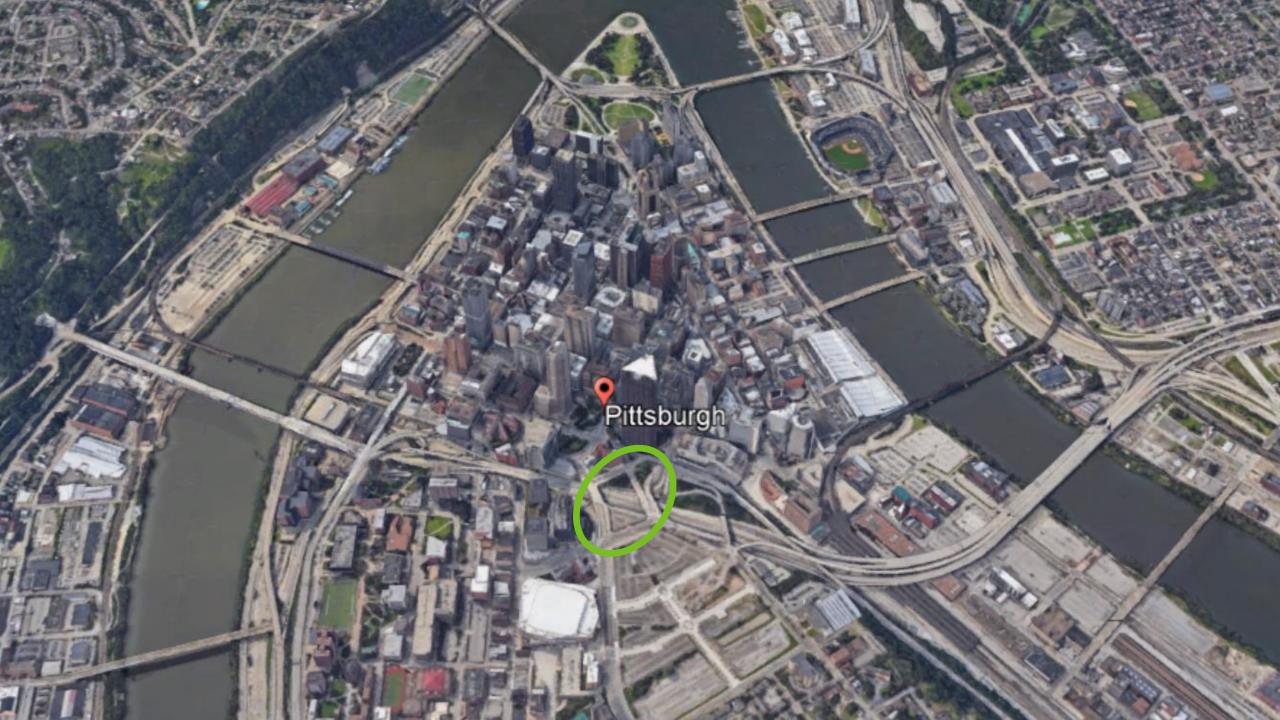
- 1 Location & History
- 2 Community Outreach
- 3 Design Enhancements
- 4 Construction



Location & History





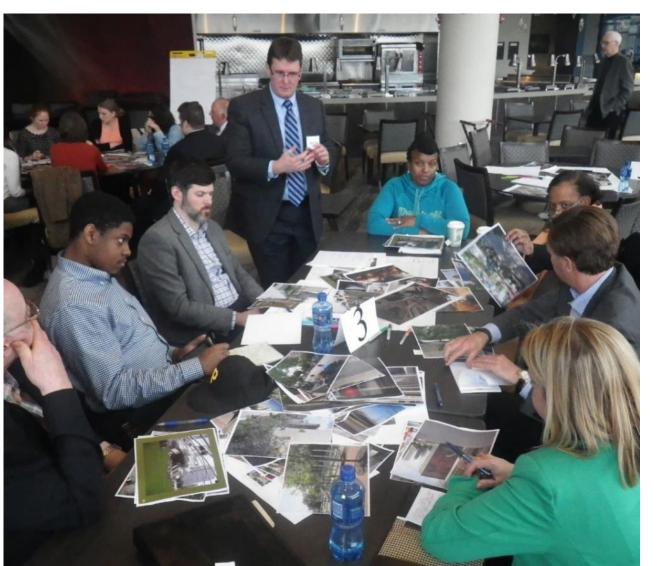






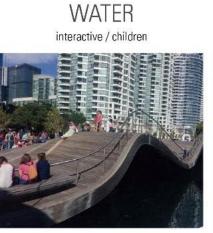
Community Outreach

Design Charettes



- Convey the project purpose
- Solicit input on design amenities
 - Use of Photographs

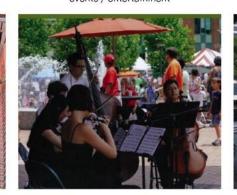
Common Themes





GREEN

DESTINATION family / events / daytime / night / food MUSIC events / entertainment



SEATING moveable / strategic / flexible



CONNECTION gateway / history / culture













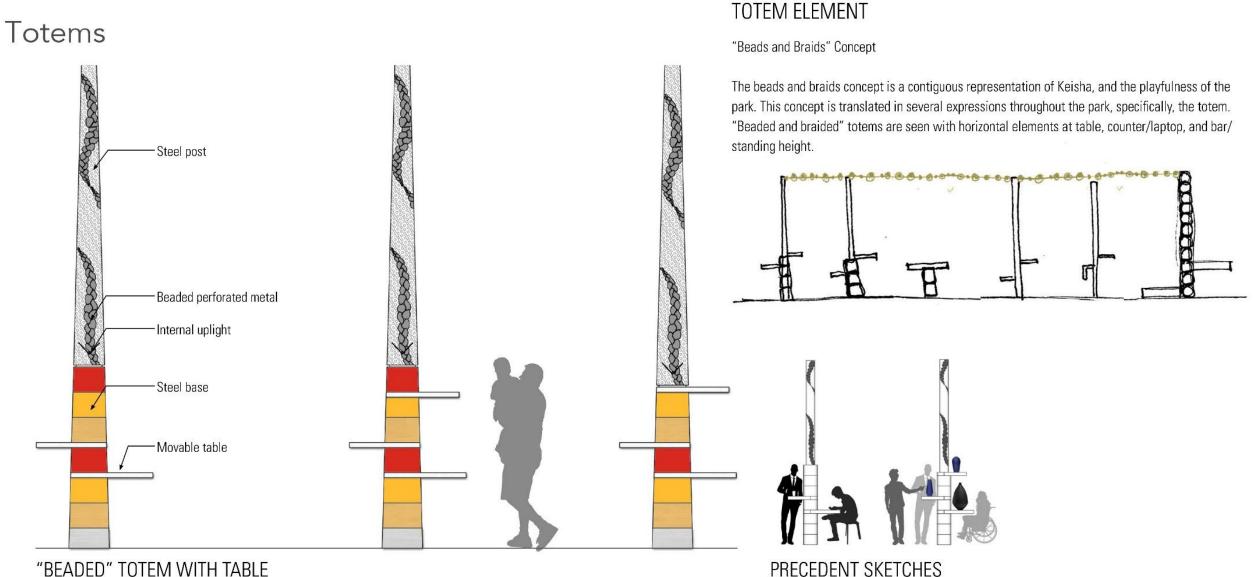




Final Plan

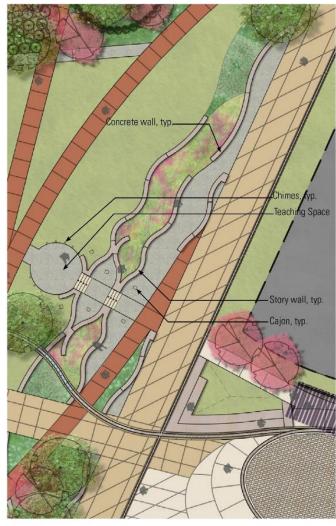






"BEADED" TOTEM WITH TABLE

The Garden Classroom

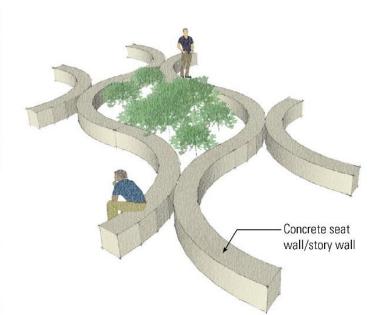




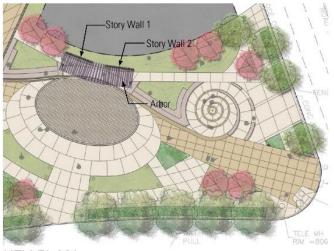




WALL ENGRAVING/ETCHING

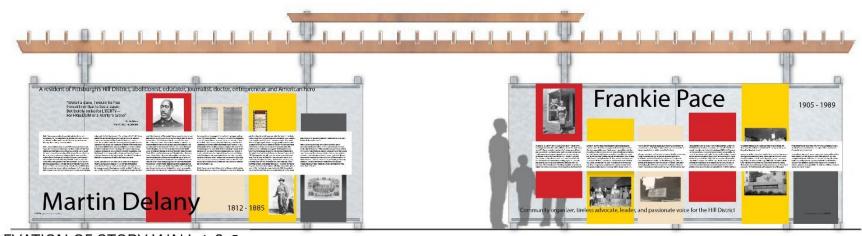


Story Walls

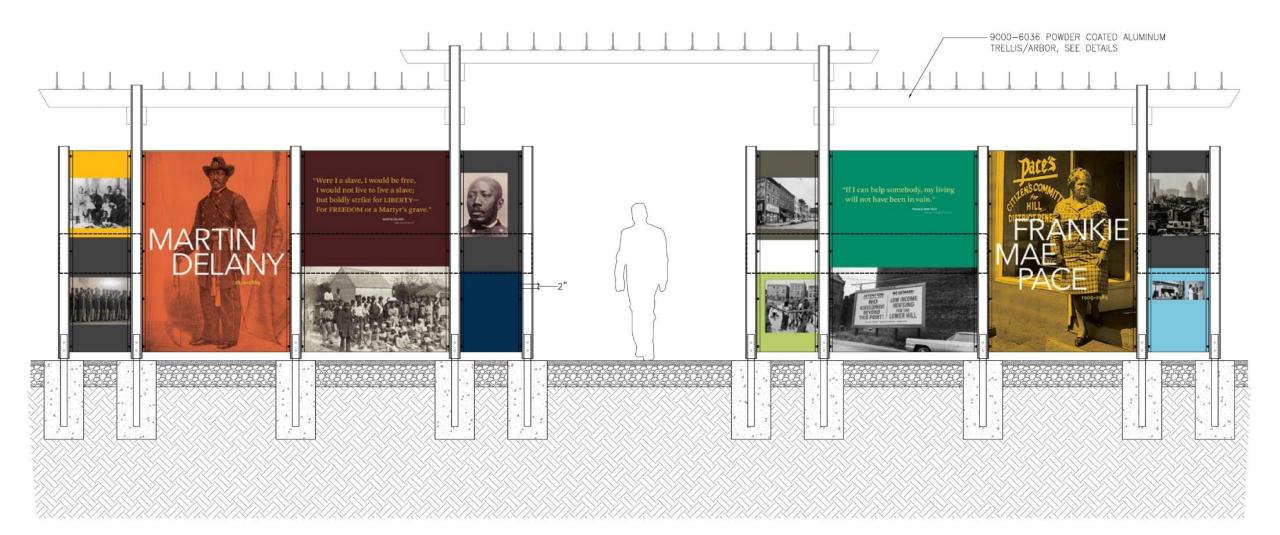




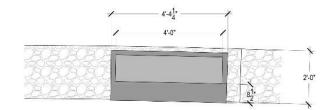
KEY PLAN

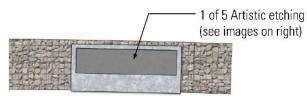


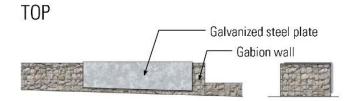
ELEVATION OF STORY WALL 1 & 2



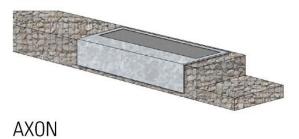
Water

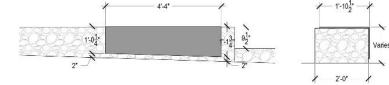


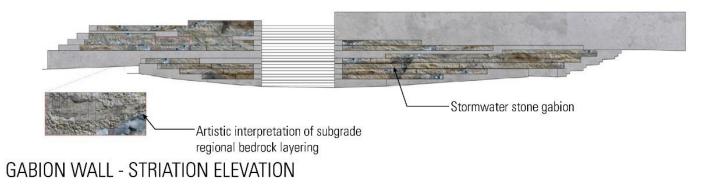


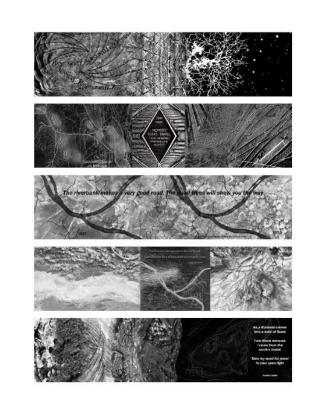










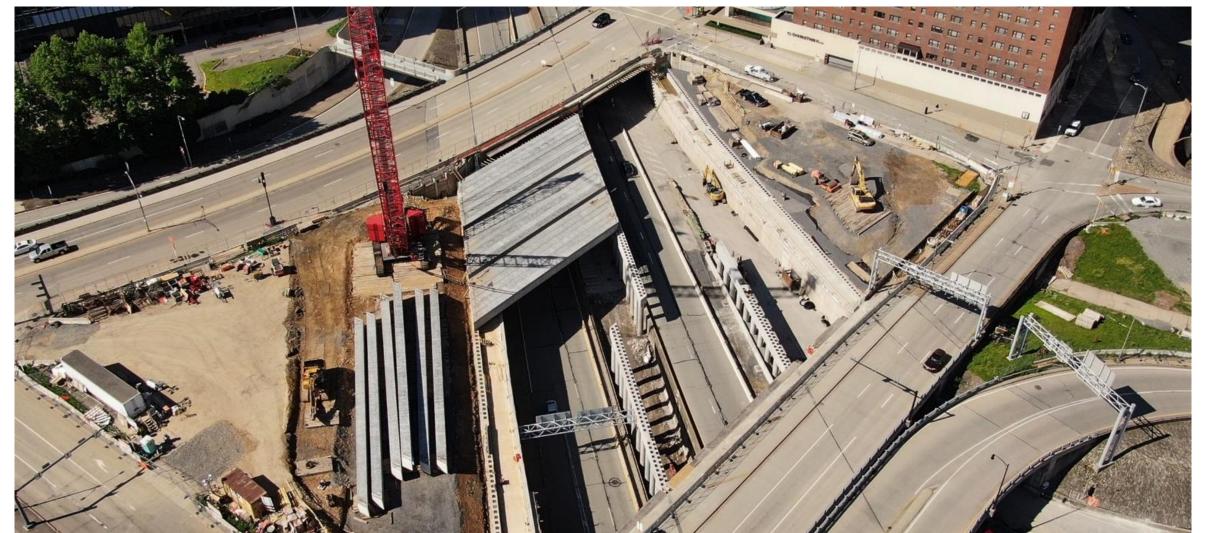




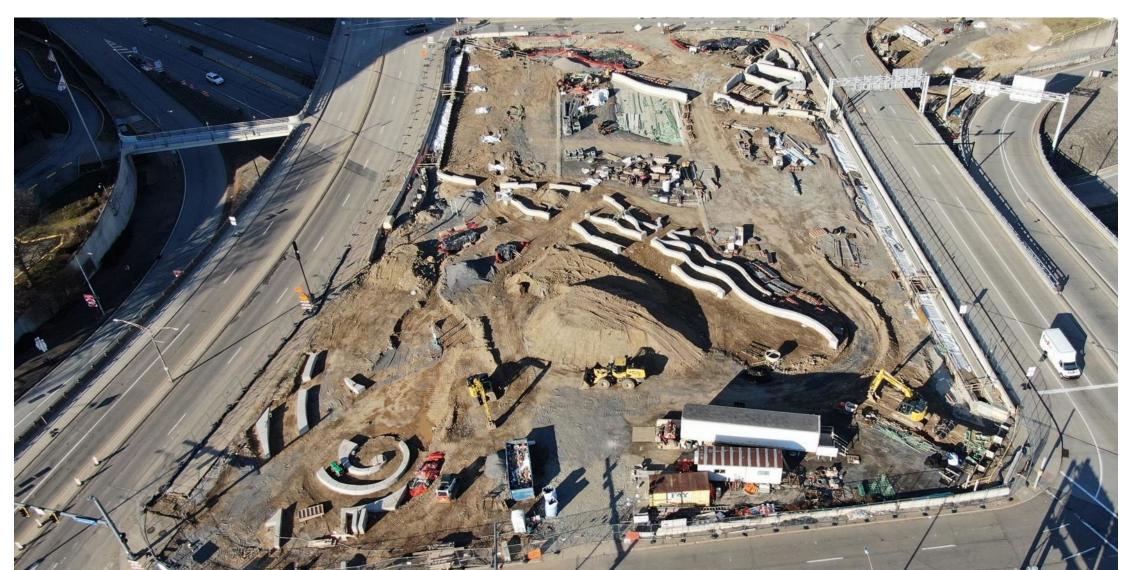




Beam Setting – Abutment 2 - 126 unique P/S concrete box beams (12,190 lf)



Excavation - 10,000 cy of class 1, 1B, 3 and 4 excavation



Site Walls – 1,700 lf of wall



Totems



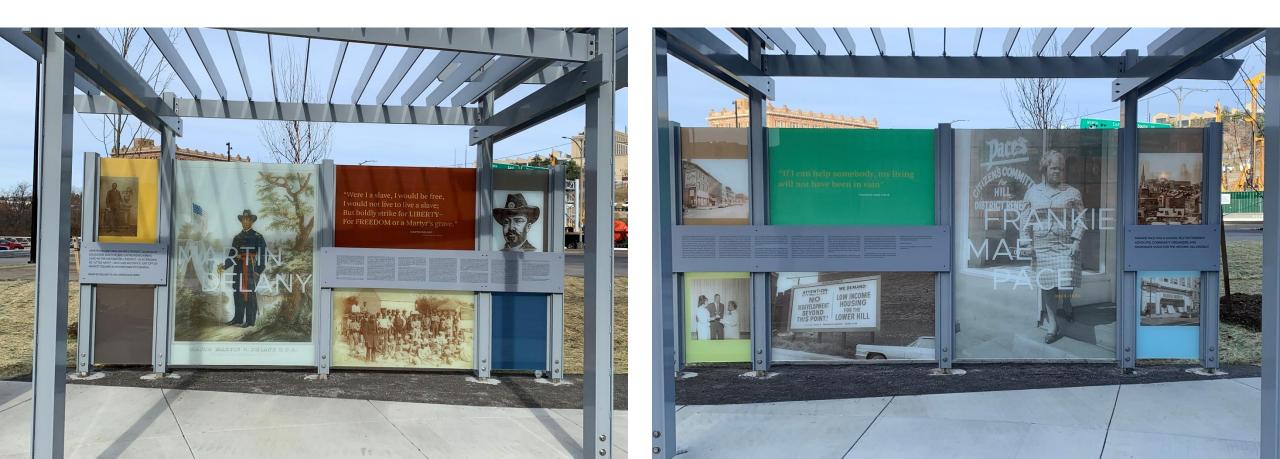




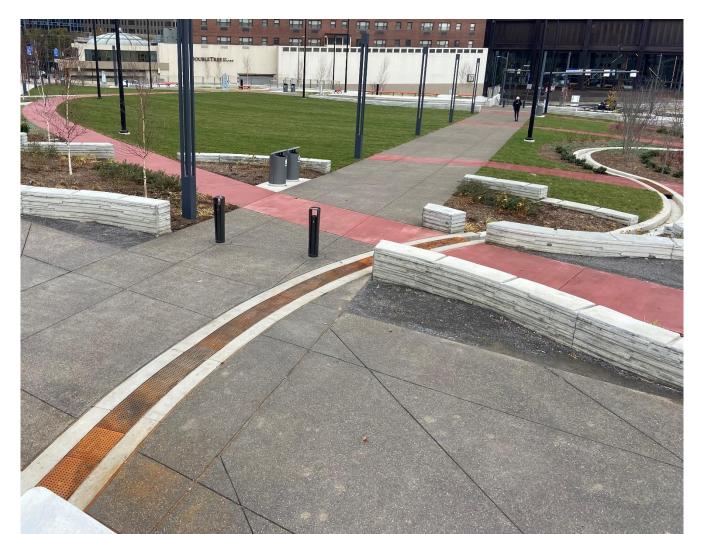
Classroom

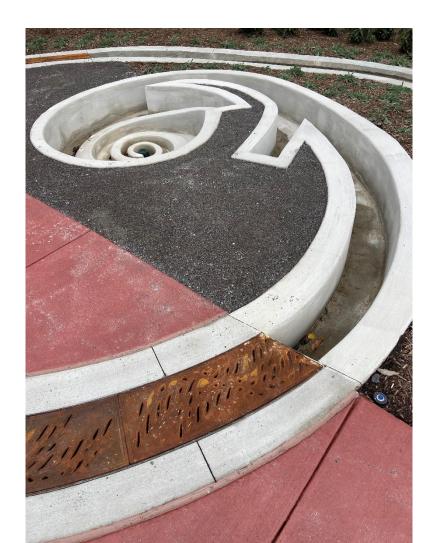


Story Walls

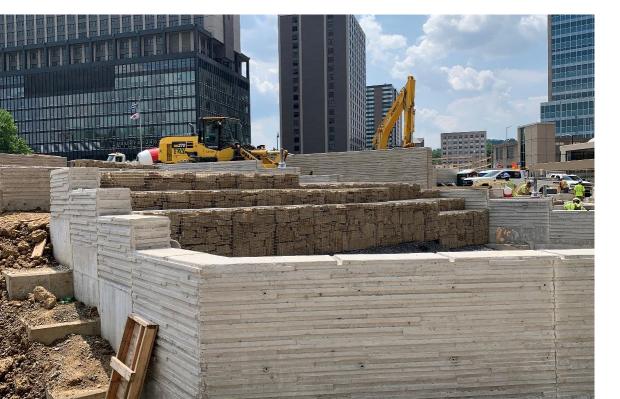


Trench Drains





Gabion Walls Rain Gardens

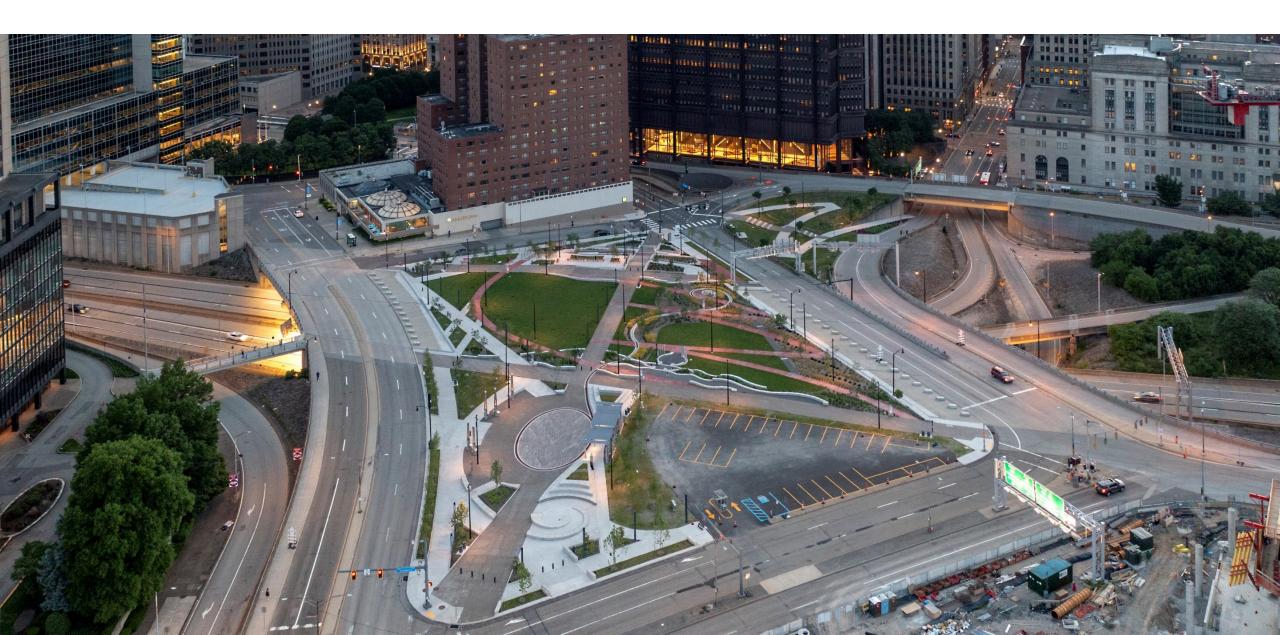




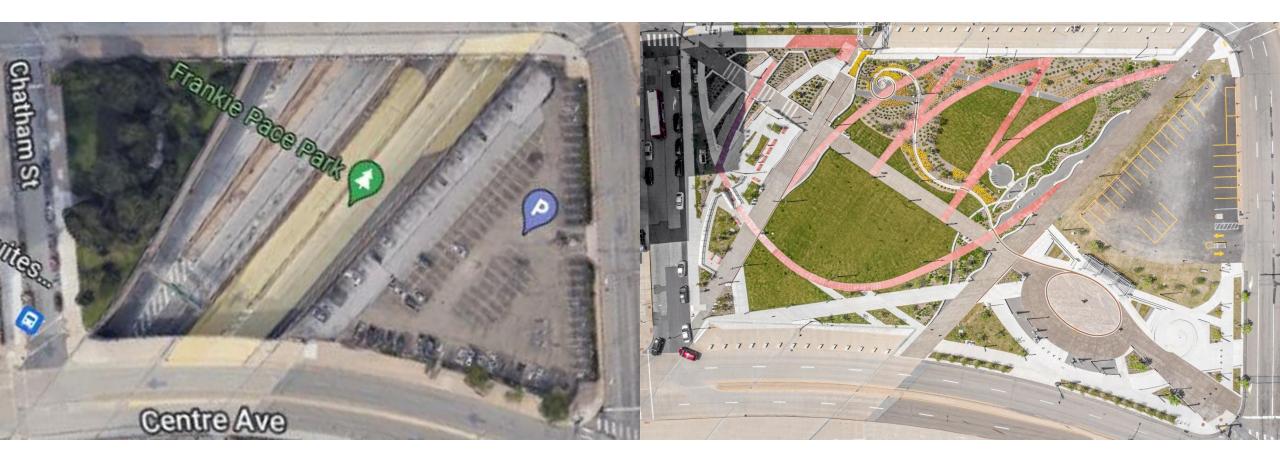
Overview – Ribbon Cutting November 22, 2021



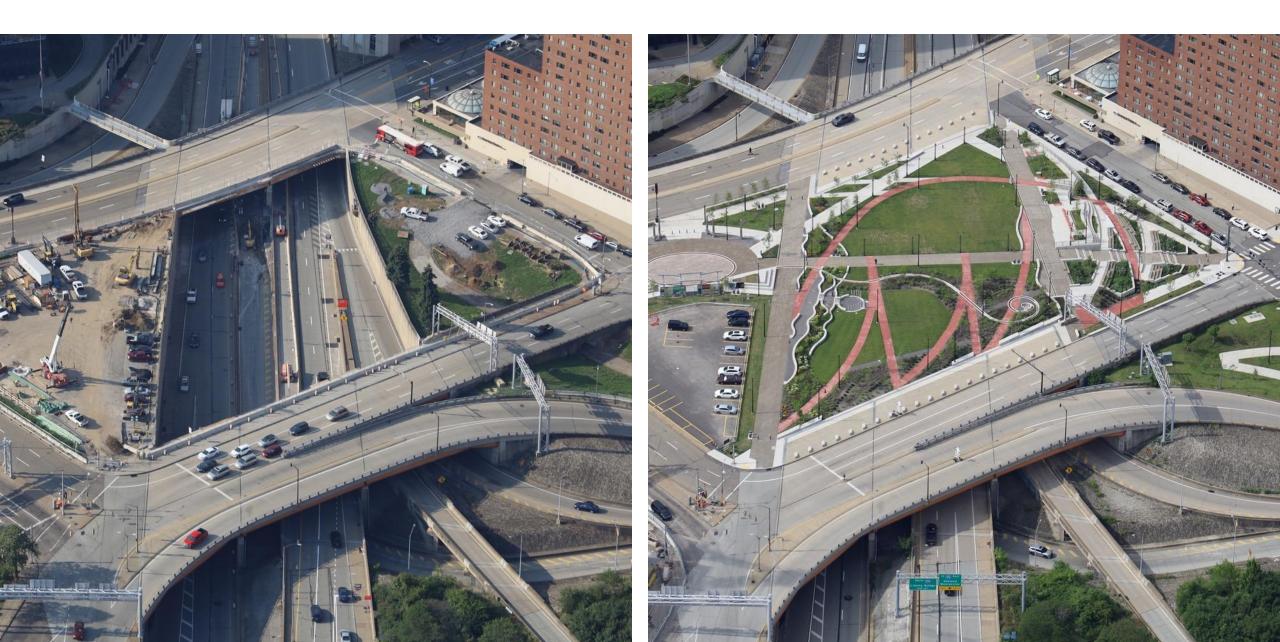




Before and After



Before and After





Mariia Zimmerman

Strategic Advisor for Technical Assistance and Community Solutions

> United States Department of Transportation



PORTA

Transformative Infrastructure Investments to help Communities Reconnect and Thrive

Mariia Zimmerman, Office of the Secretary, USDOT

March 1, 2024 Urban Land Institute Transportation Transformations Webinar





- Infrastructure is central to economic opportunity, to meeting climate goals, to realizing equity for all.
- 2. The Bipartisan Infrastructure Law (aka BIL & also known as IIJA) is a very big deal.
- 3. Reconnecting Communities is both a principle and a program.



Reconnecting Communities is a Principle, and a Program



Image source: US Department of Transportation

FHWA: Pueblo of Acoma, NM

"Transportation should never divide communities – its purpose is to connect people to jobs, schools, housing, groceries, family, places of worship, and more. That's what the Reconnecting Communities program and the Neighborhood Access and Equity program are designed to ensure." - Secretary Buttigieg





PRO TIP: Reconnecting activities can be funded with transportation FORMULA funds and with discretionary GRANT programs!

Jason Cameron/Getty Images

Specific New Programs to Reconnect & Restore Communities

Under BIL/IIJA, the **\$1 billion Reconnecting** Communities Pilot Program

The first-ever dedicated federal funding program to reconnect communities cut off from opportunity by transportation infrastructure, such as highways and rail-lines, with planning grants, capital construction grants, and technical assistance



SeanPavonePhoto - stock.adobe.com

Daisy Daisy - stock.adobe.com

Under IRA, the \$3.1 billion Neighborhood Access and Equity Grant Program

Funds to:

- remove, remediate, or retrofit surface transportation facilities that create obstacles to community connectivity
- mitigate air pollution, noise, stormwater, and other negative impacts to a disadvantaged or underserved community from a surface transportation facility
- planning and capacity building in disadvantaged or underserved communities

Combined in 2023 by USDOT into the Reconnecting Communities and Neighborhoods (RCN) notice of funding opportunity.

RCN Program – Barriers & Solutions

Barriers – Examples of transportation facilities *creating* barriers may include:

- Facility's volume of traffic, high speeds, or design creates unsafe conditions for crossing
- Facility reduces access to everyday destinations
- Grade separations that create a physical barrier
- Facility is missing sidewalks or safe pedestrian crossings.
- Facility is frequently unusable after severe weather events (lack of resilience features)

Solutions - Examples of removing, retrofitting, mitigating or replacing an existing, eligible facility may include:

- Infrastructure removal
- Pedestrian walkways and overpasses
- Linear parks and trails
- Roadway redesigns and complete streets conversions
- Community and main street revitalization
- High-quality public transportation
- Capping and lids
- Combinations of the above,
- And more!



Source: AP/Michael Dwyer

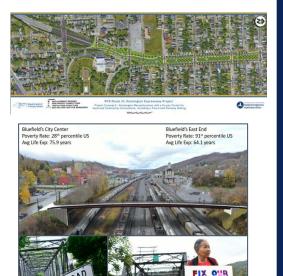


Announced in 2023: 45 Reconnecting Communities Pilot Program Awards totaling \$185.2 million

- 6 Construction Grants (\$138.2M / ~75%)
- 39 Planning Grants (\$47M / ~25%)
- 4 Planning Awards to Non-Profits

<u>All FY22 awards were given to projects serving</u> <u>disadvantaged communities.</u> **The FY2023 RCN Awards will be announced spring 2024! Additional funding opportunities available through FY2025.**

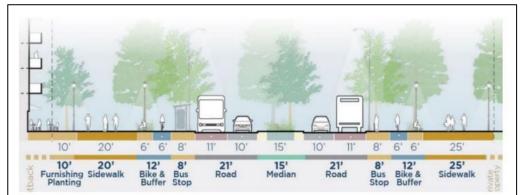


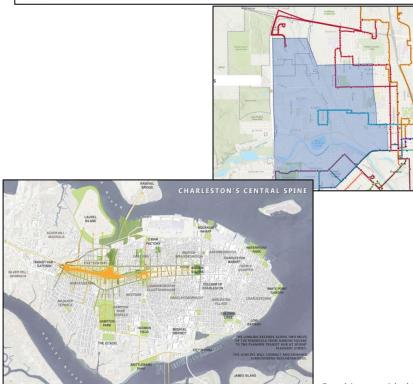


Graphics provided by FHWA / USDOT

Reconnecting through RAISE & INFRA Programs

- **Detroit, MI:** I-375 Community Reconnection Project: Highway to boulevard conversion
- Reimagine 9th Street, City of Louisville, KY: Complete Streets project
- West Side Connector, City of Pueblo, CO: Improving access to essential services and employment centers.
- **Charleston, SC** Lowcountry Lowline: Planning and preconstruction activities for shared pathway near I-26 that will create new linkages to metro area's transit system
- West Tulsa, OK W. 51st Street Extension Project: Reconnecting neighborhoods under I-75





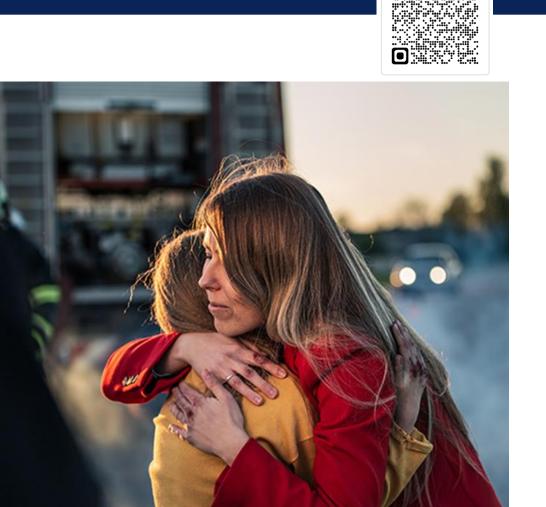
Graphics provided by FHWA / USDOT

Reconnecting to Improve Safety

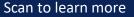
Safe Streets and Roads for All (SS4A)

- \$5 billion discretionary grant program, with ~\$1 billion/year over 5 years for <u>Local Solutions</u>
 - The \$1.26 billion FY2024 funding opportunity is now open!
 - Three different types of grants; rolling deadlines (April – August 2024)
- Purpose: prevent deaths and serious injuries on our roadways
- Focus on comprehensive safety action planning, and implementing those plans
- Inclusive of all types of roadway safety interventions across the Safe System Approach





In 2023, USDOT awarded 385 SS4A grants totaling \$813 million.





Contact Information

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Survey

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