

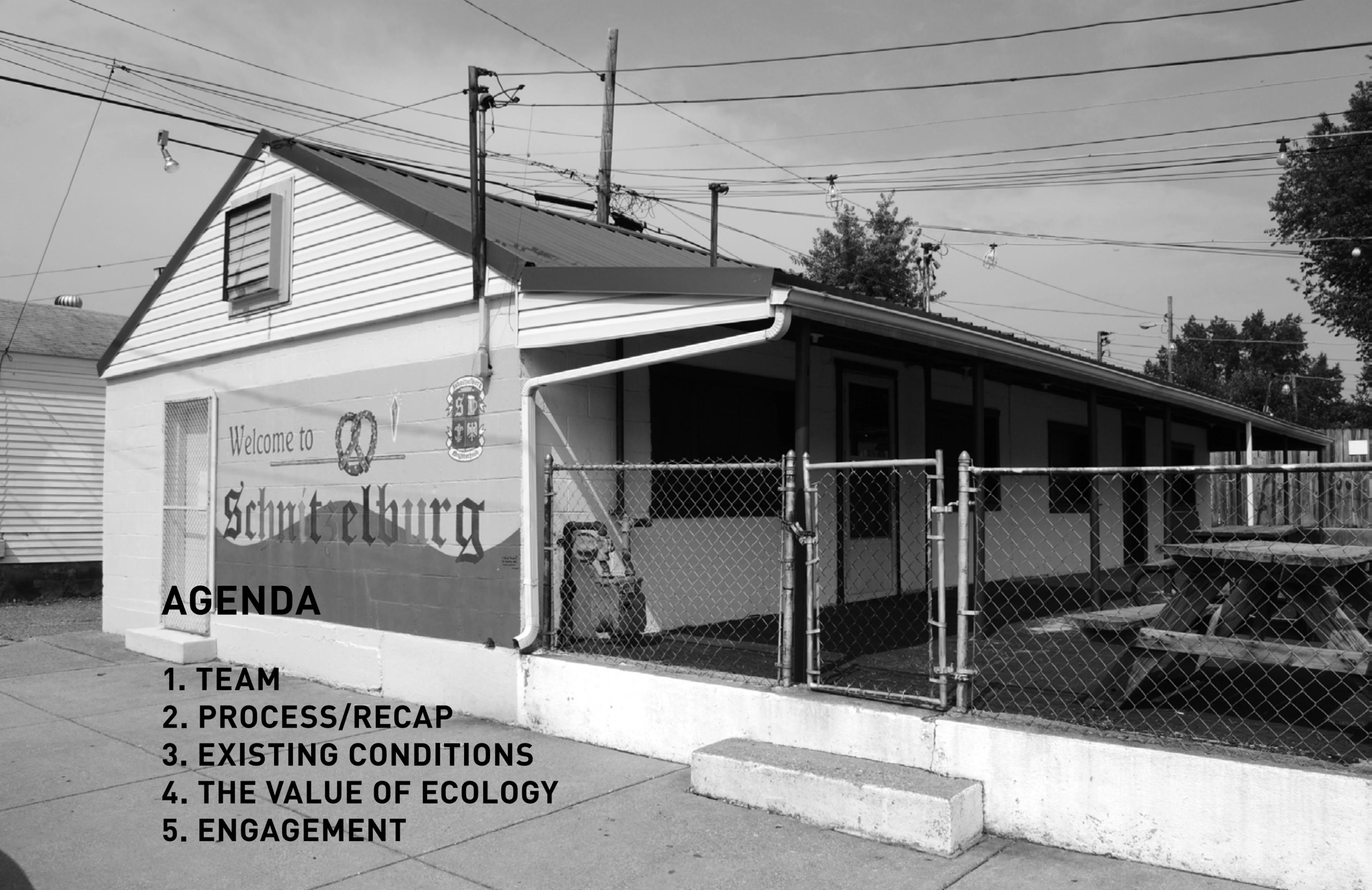
LOUISVILLE CENTRAL RAIL CORRIDOR PLAN

Ecology Forum

October 23, 2014



LORD
AECK
SARGENT



AGENDA

- 1. TEAM**
- 2. PROCESS/RECAP**
- 3. EXISTING CONDITIONS**
- 4. THE VALUE OF ECOLOGY**
- 5. ENGAGEMENT**

TEAM

LORD
AECK
SARGENT



URBAN DESIGN & PLANNING

NEIGHBORHOODS & DISTRICTS
STREETS & PARKS
BUILDINGS & SITES
CORRIDORS & CENTERS

ARCHITECTURE

HISTORIC PRESERVATION
MIXED-USE
SUSTAINABILITY

ECOLOGICAL DESIGN

BROWNFIELD & WETLAND HABITAT
RESTORATION
PUBLIC PARKS
WATERFRONTS

ENVIRONMENTAL

BROWNFIELD REDEVELOPMENT
SOIL & GROUNDWATER
ENVIRONMENTAL COMPLIANCE

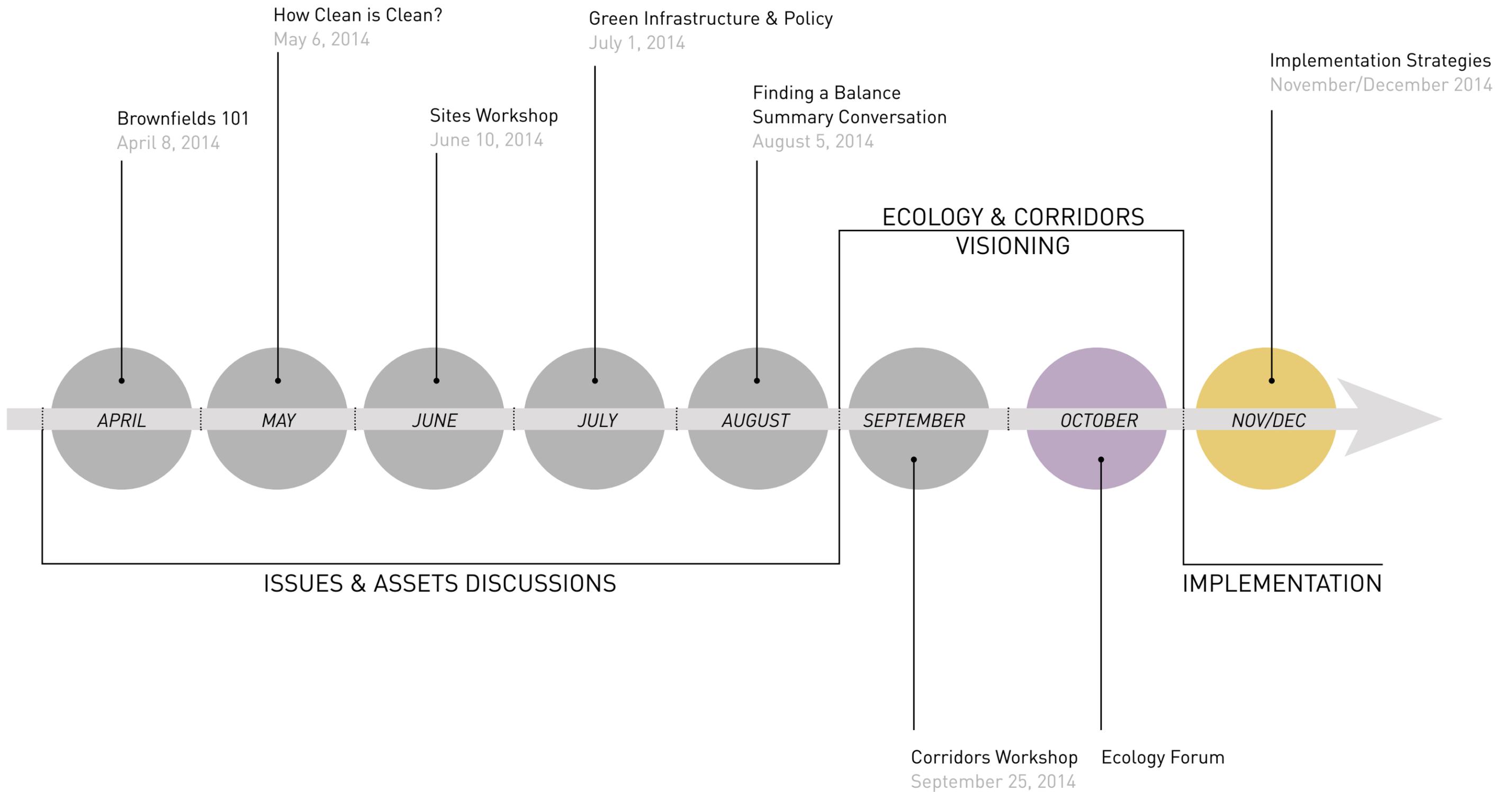
ECONOMIC DEVELOPMENT

DEVELOPMENT PLANNING
BROWNFIELD RE-USE
ECONOMIC FEASIBILITY

ENGINEERING

TRANSPORTATION &
WATER RESOURCE INFRASTRUCTURE

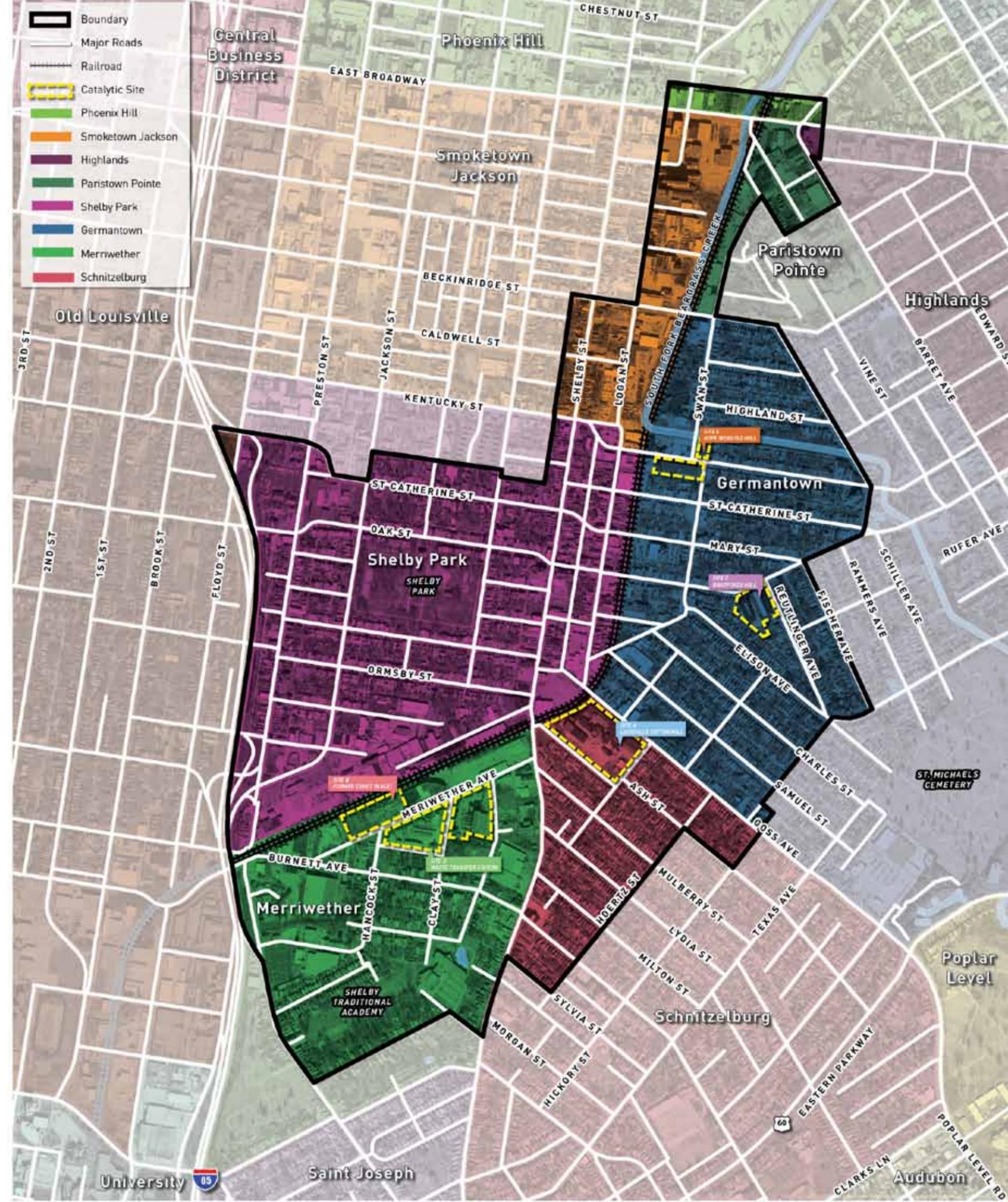
PROCESS



STUDY AREA

A CONFLUENCE OF NEIGHBORHOODS

- GERMANTOWN
- SHELBY PARK
- MERRIWETHER
- SCHNITZELBURG
- PARISTOWN POINTE
- HIGHLANDS
- PHOENIX HILL
- SMOKETOWN



COMMUNITY CONVERSATION RECAP



1. BROWNFIELDS 101
2. HOW CLEAN IS CLEAN?
3. SITES WORKSHOP
4. GREEN INFRASTRUCTURE
5. SUMMARY CONVERSATION

RECAP



ASSETS



RETAIL:

- CONVENIENCE STORE
- CLOTHING STORE
- GYM
- BOOK STORE
- COSMETICS
- CAR REPAIR
- GROCERY STORE
- LIQUOR STORE
- MEDICAL EQUIPMENT
- HOUSEWARES
- BANK
- SERVICE
- CONSTRUCTION
- LANDSCAPE
- MUSIC
- RESTAURANT
- BAR



OPEN SPACE:

- PARK/OPEN SPACE
- COMMUNITY SPACE



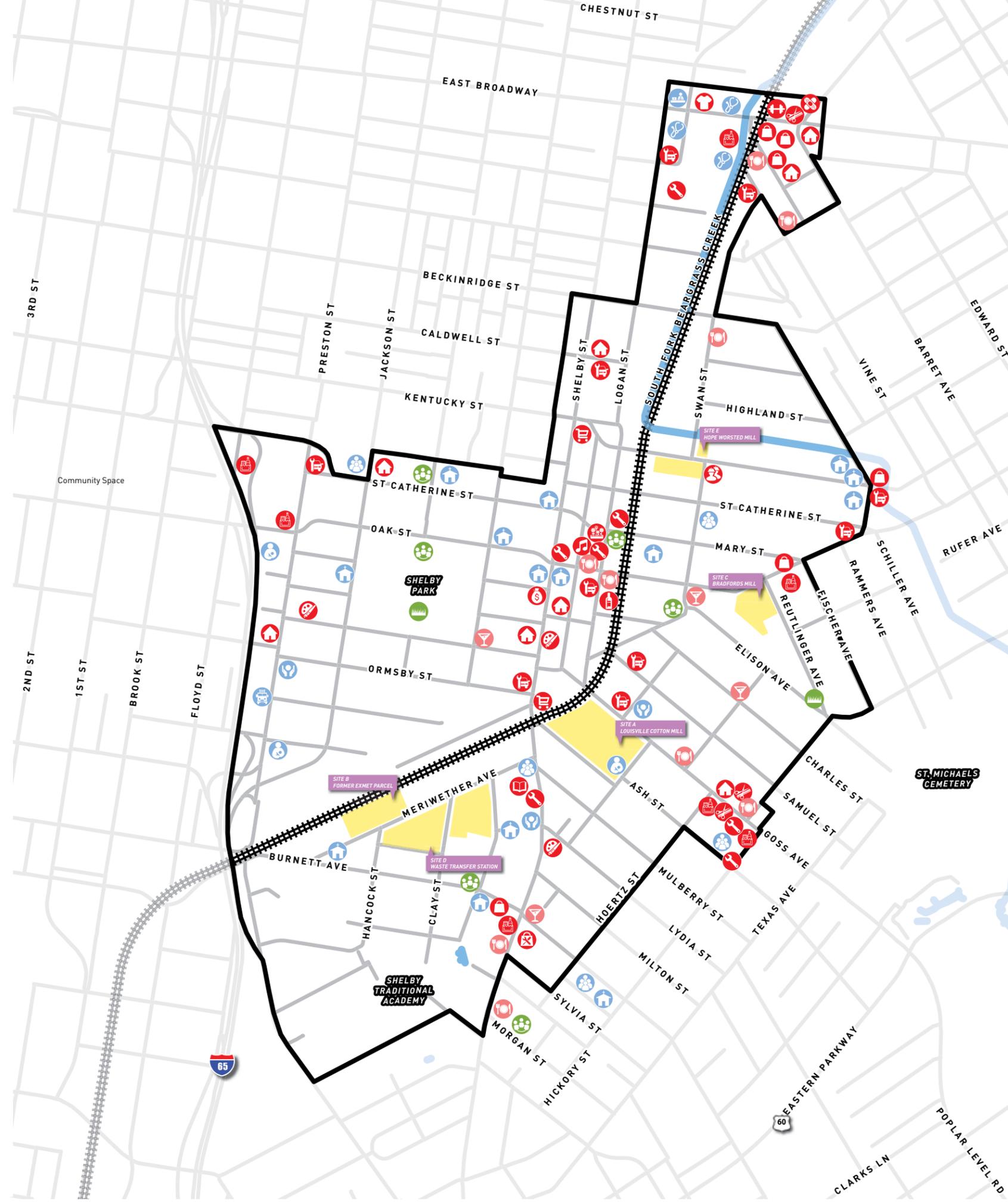
INSTITUTION:

- OFFICE
- CLINIC
- RELIGIOUS INSTITUTION
- FIRE STATION
- DAY CARE
- VOLUNTEER
- COMUNITY ASSOCIATION

ASSETS

IDENTIFIED KEY ASSETS AND SERVICES:

-  **RETAIL**
-  **DINING & DRINKS**
-  **OPEN SPACE**
-  **INSITUTIONS**

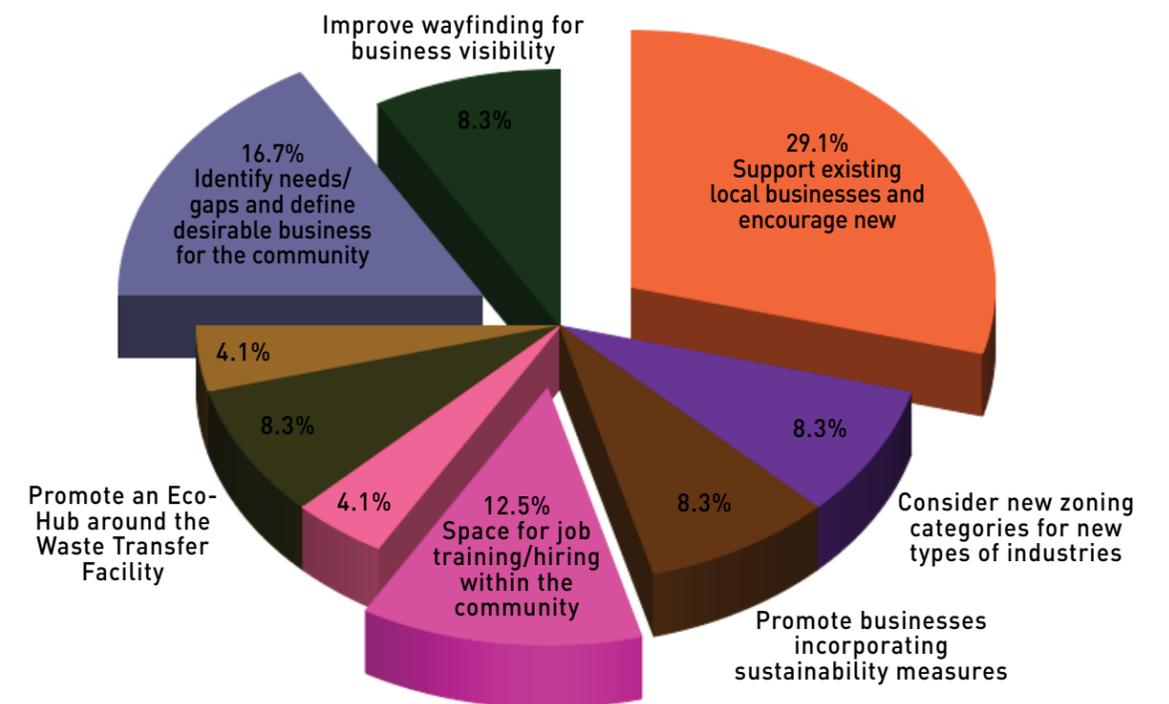


RECAP: ISSUES MATRIX

IDENTIFY PRIORITY ISSUES & OPPORTUNITIES IN 5 KEY AREAS:

- *EMPLOYMENT & ECONOMIC DEVELOPMENT*
- *COMMUNITY*
- *CORRIDORS/STREETS*
- *BROWNFIELD REDEVELOPMENT*
- *HEALTH & SAFETY*

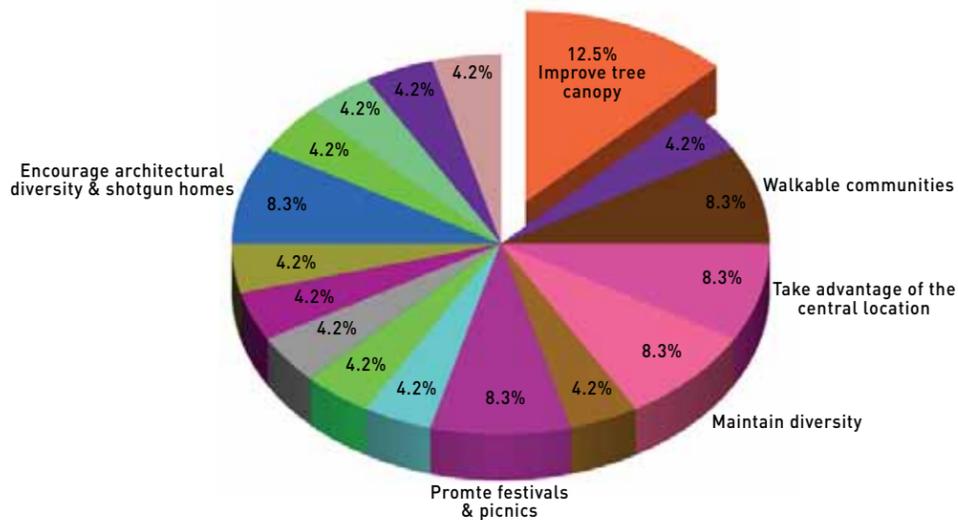
EMPLOYMENT & ECONOMIC DEVELOPMENT



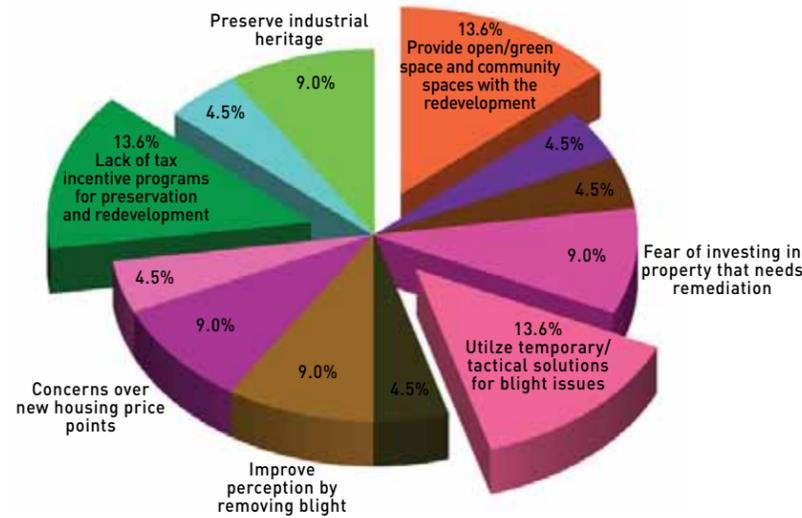
- **SUPPORT EXISTING LOCAL BUSINESSES & ENCOURAGE NEW**
- IDENTIFY NEEDS/GAPS AND DEFINE DESIRABLE BUSINESS FOR THE COMMUNITY
- **SPACE FOR JOB TRAINING/HIRING WITHIN THE COMMUNITY**
- CONSIDER NEW ZONING CATEGORIES FOR NEW TYPES OF INDUSTRIES
- **PROMOTE BUSINESSES INCORPORATING SUSTAINABILITY MEASURES**
- IMPROVE WAYFINDING FOR BUSINESS VISIBILITY

RECAP

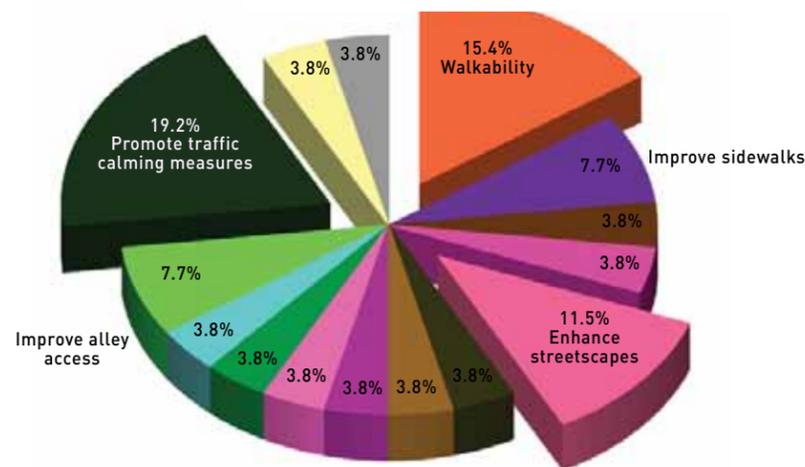
COMMUNITY



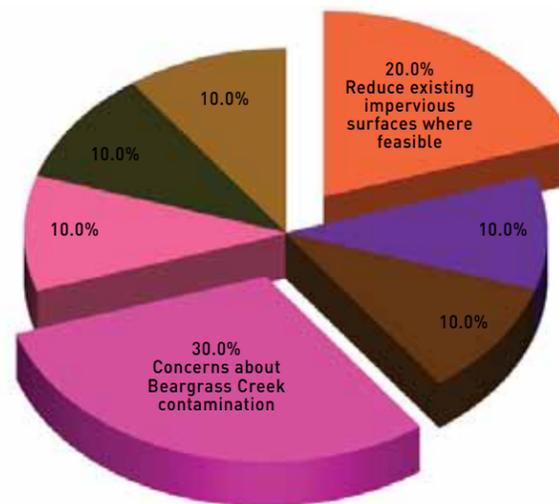
BROWNFIELD REDEVELOPMENT



CORRIDORS & STREETS



HEALTH & SAFETY

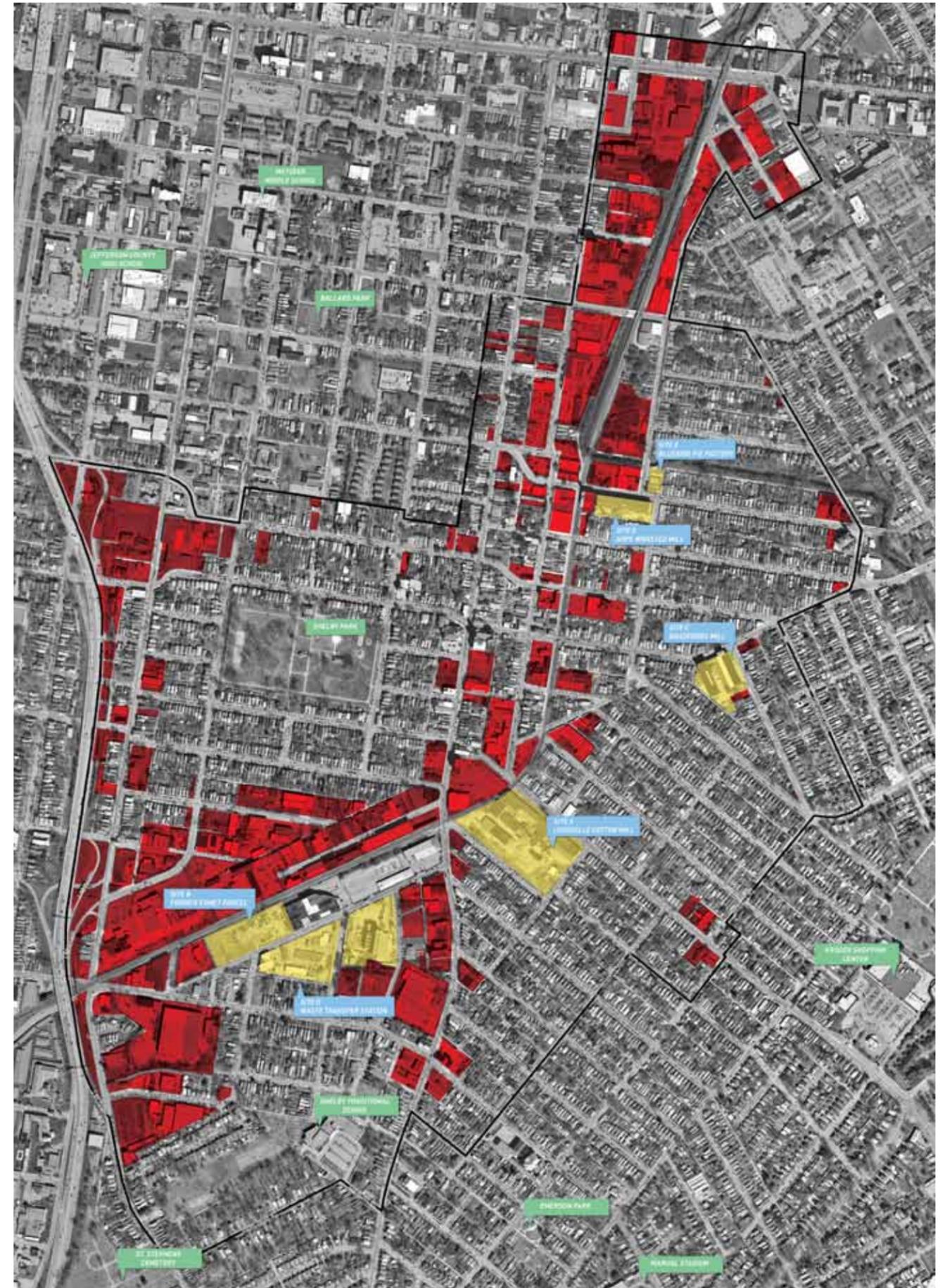


- **IMPROVE TREE CANOPY**
 - **WALKABLE COMMUNITY**
 - **TAKE ADVANTAGE OF CENTRAL LOCATION**
 - **MAINTAIN DIVERSITY**
 - **PROMOTE FESTIVALS & PICNICS**
-
- **PROMOTING TRAFFIC CALMING**
 - **WALKABILITY**
 - **ENHANCE STREETSCAPES**
 - **IMPROVE SIDEWALKS**
-
- **PROVIDE OPEN/GREEN SPACE WITHIN REDEVELOPMENT**
 - **LACK OF TAX INCENTIVE PROGRAMS FOR PRESERVATION & REDEVELOPMENT**
 - **UTILIZE TEMPORARY/TACTICAL SOLUTIONS FOR BLIGHT ISSUES**
 - **FEAR OF INVESTING IN PROPERTY THAT NEEDS REMEDIATION**
-
- **REDUCE EXISTING IMPERVIOUS SURFACES WHERE FEASIBLE**
 - **CONCERNS ABOUT BEARGRASS CREEK CONTAMINATION**

RECAP: OPPORTUNITY EXERCISE

Recent Opportuntiy Projects

- 3-Points Beautification Project
- MSD Basin Implementation
- Bike Infrastructure on Breckenridge & Kentucky Streets



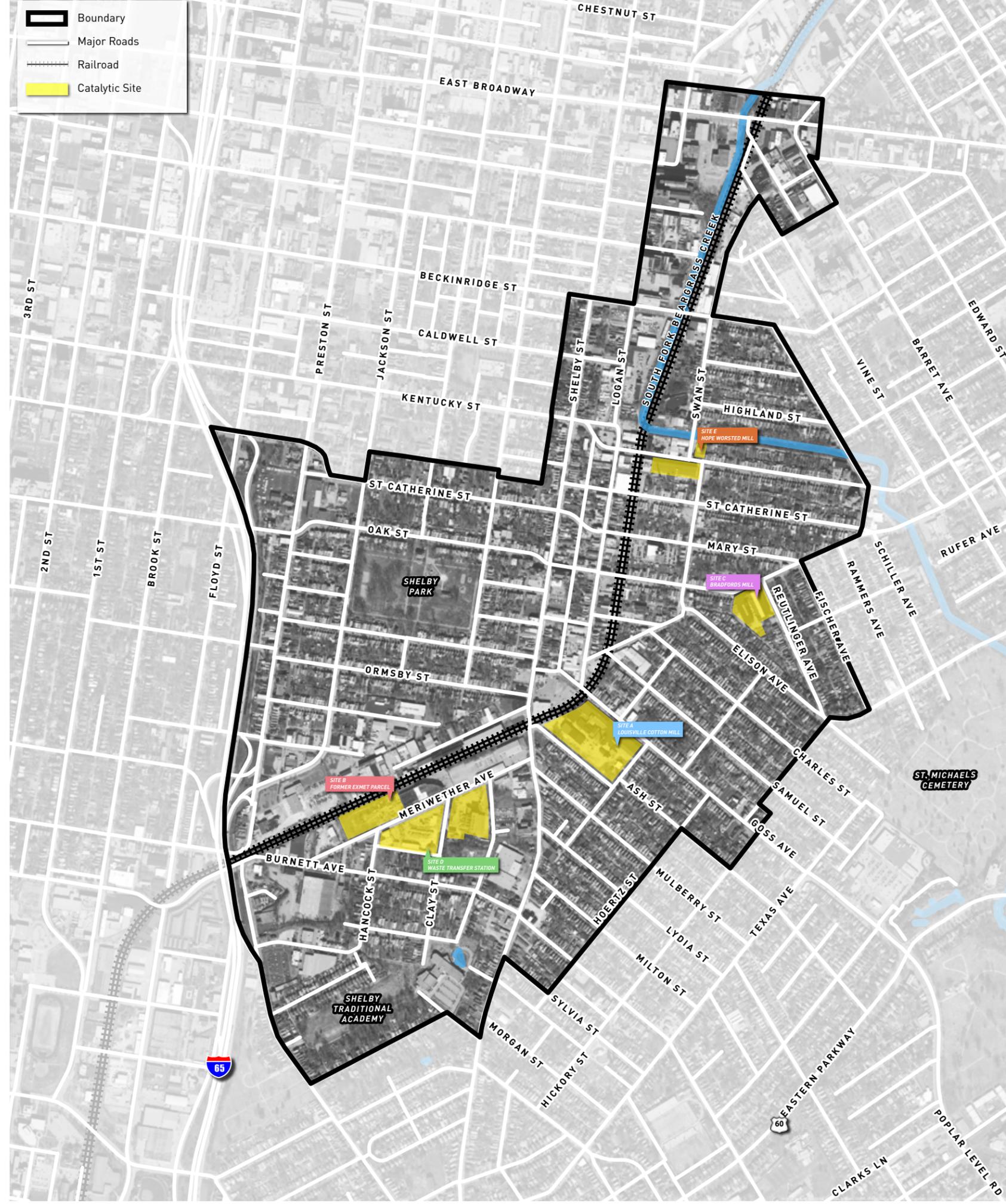
EXISTING CONDITIONS



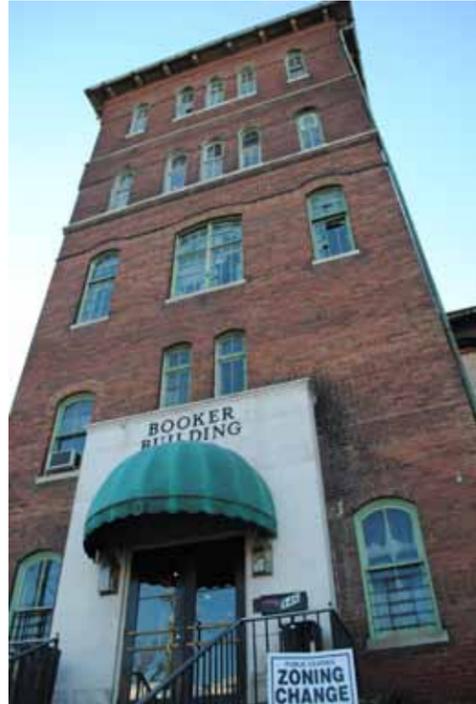
STUDY AREA

652 ACRES:

- LOCATED EAST OF I-65 ALONG THE “SHORT-LINE RAIL CORRIDOR
- LONG HISTORY OF INDUSTRY THAT IS EVIDENT THROUGH CURRENT BUSINESSES AND ARTIFACTS
- TIGHTLY KNIT NEIGHBORHOOD FABRIC
- 5 IDENTIFIED CATALYTIC SITES [YELLOW]



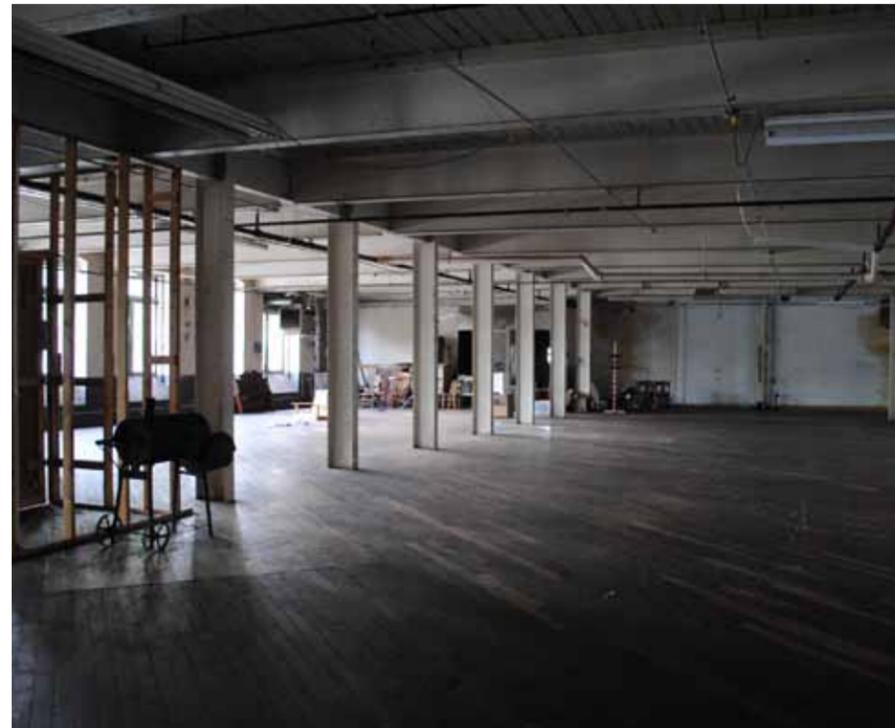
LOUISVILLE COTTON MILL



HOPE WORSTED MILL & BLUEBIRD PIE FACTORY



BRADFORD MILL



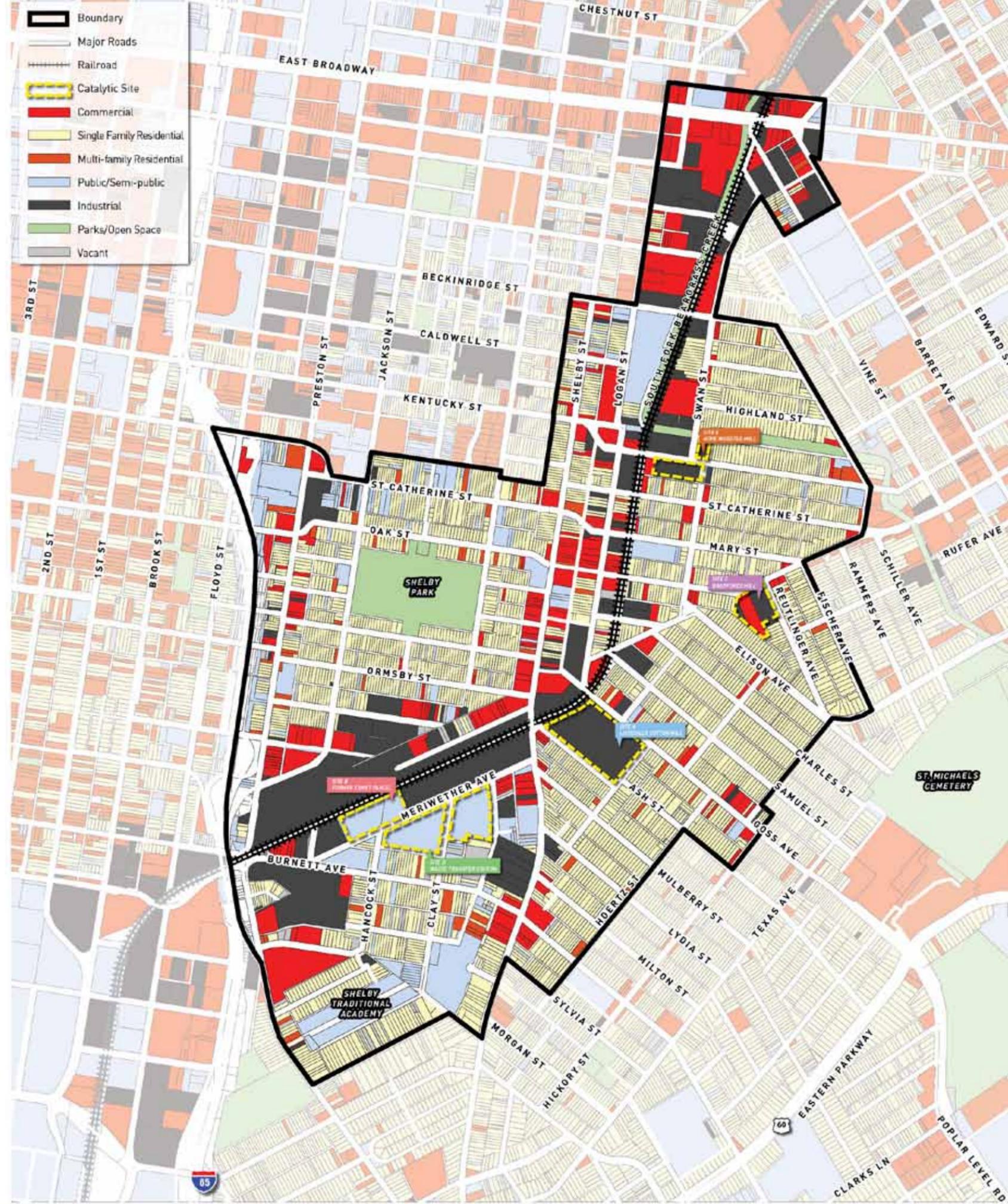
WASTE TRANSFER & EXMET



LAND USE

HIGHLY RESIDENTIAL AND INDUSTRIAL, PERCENT OF TOTAL LAND AREA

- **SINGLE-FAMILY:** 34.1%
- **[RIGHT-OF-WAY:** 27%]
- **INDUSTRY:** 13.5%
- **COMMERCIAL:** 9.9%
- **PUBLIC & SEMI-PUBLIC:** 8.6%
- **PARKS & OPEN SPACE:** 3.6%
- **VACANT:** 1.7%
- **MULTI-FAMILY:** 1.6%





SINGLE FAMILY



INDUSTRIAL

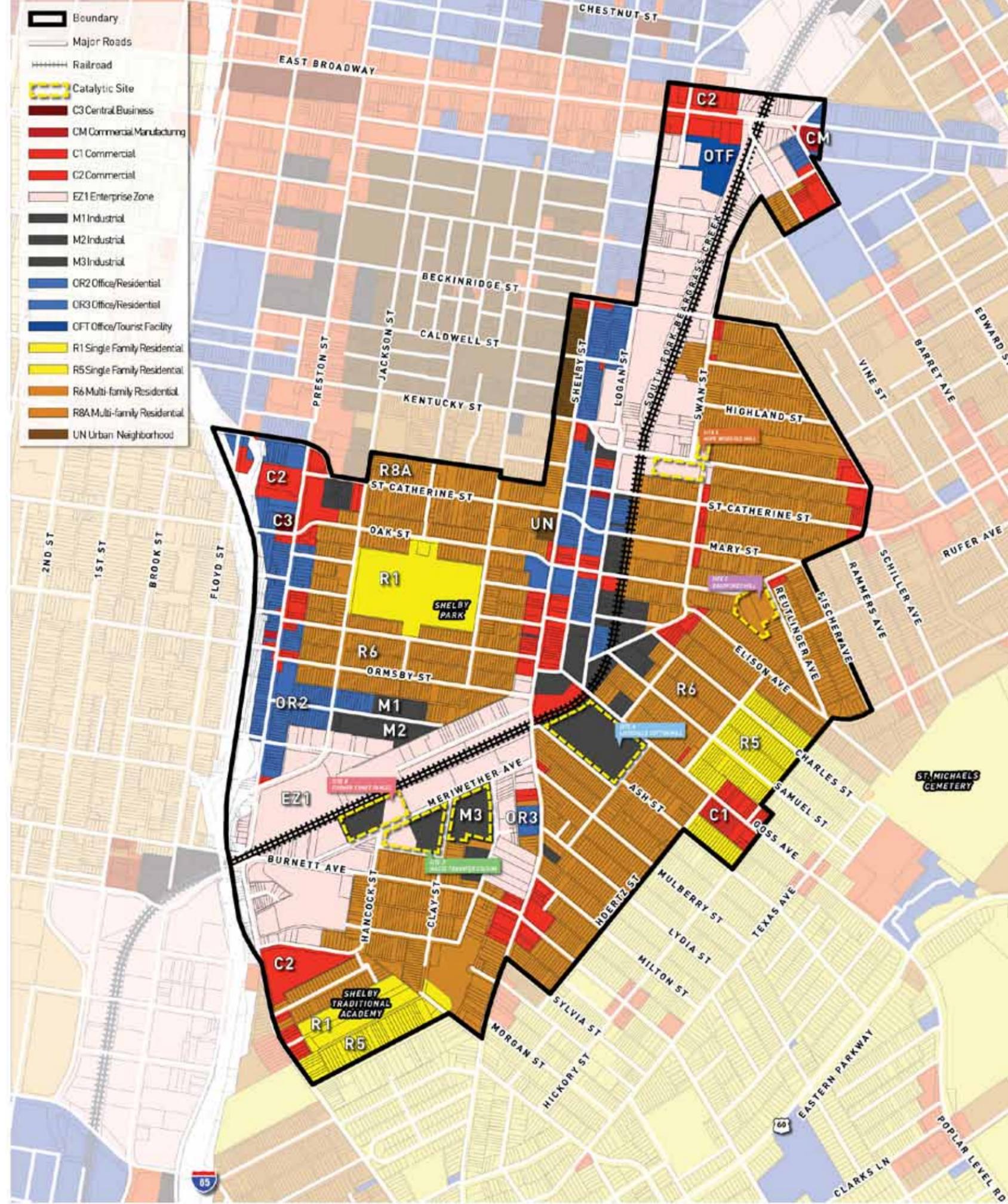


COMMERCIAL

ZONING

ZONED FOR INCREASED DENSITY & ENTERPRISE:

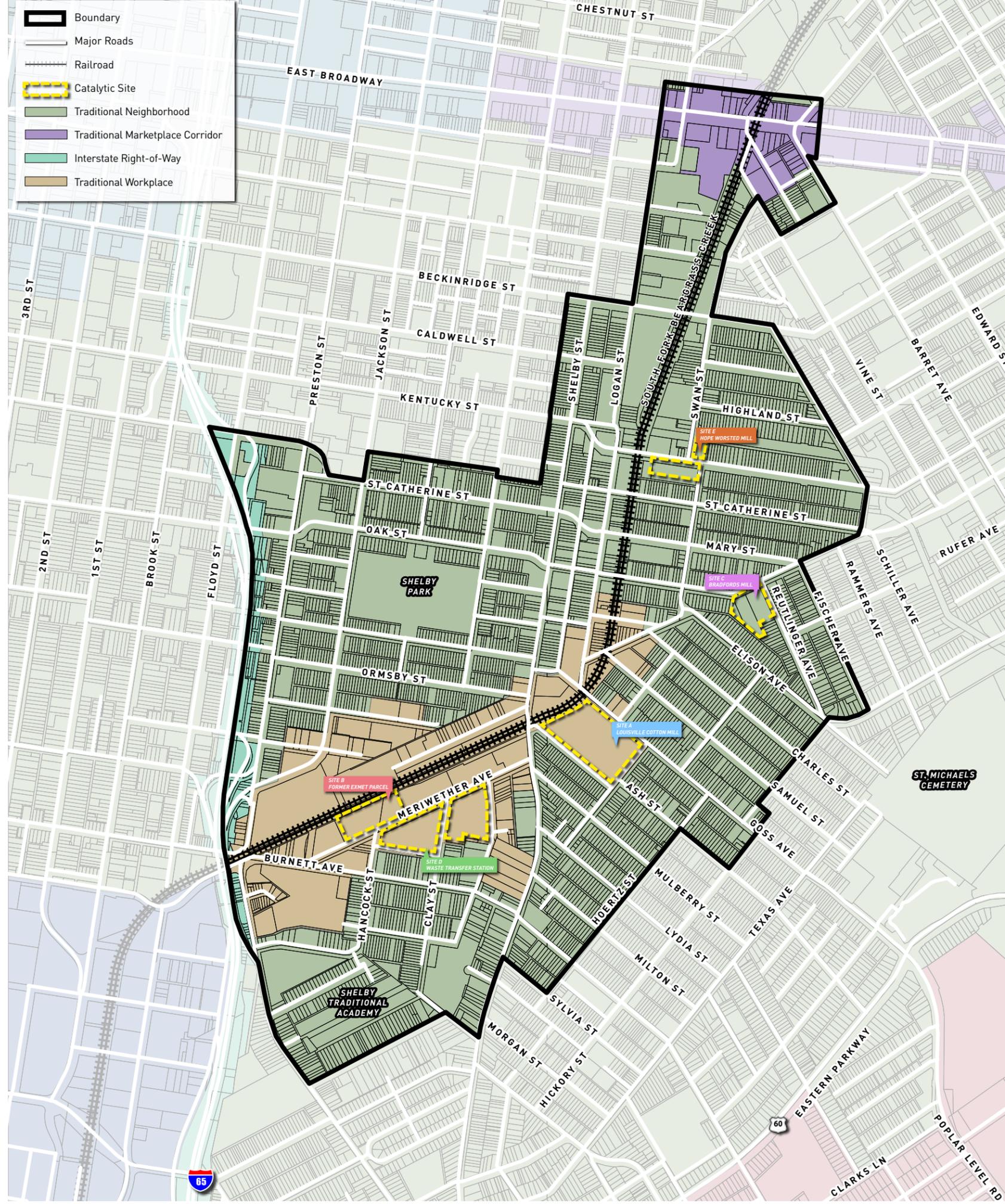
- **MULTI-FAMILY: 44.3%**
- R6, R7, R8A
- **ENTERPRISE ZONE: 20.7%**
- EZ1
- **COMMERCIAL: 9.33%**
- C1, C2, C3
- **SINGLE-FAMILY: 7.8%**
- R1, R5
- **INDUSTRIAL: 7%**
- M1, M2, M3, CM
- **OFFICE: 8%**
- OR2, OR3, OTF



FORM DISTRICTS

TRADITIONAL NEIGHBORHOOD FOCUS:

- **TRADITIONAL NEIGHBORHOOD: 77.1%**
 - INTENDED TO PROMOTE THE ESTABLISHMENT OF A MIXTURE OF USES THAT EFFECTIVELY INTEGRATE RETAIL, OFFICE, INSTITUTIONAL, AND OTHER NON-RESIDENTIAL USES WITHIN TRADITIONAL NEIGHBORHOODS IN A MANNER THAT PROVIDES HIGH QUALITY AND CONVENIENT SERVICE TO RESIDENTS WHILE PROTECTING THE CHARACTER OF THE NEIGHBORHOOD
- **TRADITIONAL WORKPLACE: 17.2%**
 - COMPATIBILITY WITH ADJACENT FORM DISTRICTS AND NON-WORKPLACE USES;
 - ADEQUATE ACCESS FOR EMPLOYEES, FREIGHT, AND PRODUCTS;
 - ALTERNATIVE MODES OF TRAVEL;
 - HIGH QUALITY DESIGN OF INDIVIDUAL AND INTEGRATED SITES; AND
 - A MIXTURE OF USES ON A SITE ESPECIALLY EMPLOYEE-SERVING COMMERCIAL BUSINESSES (E.G., DAY CARE CENTERS, AUTO-SERVICING, DRY CLEANERS AND RESTAURANTS).
- **TRADITIONAL MARKETPLACE CORRIDOR: 3.5%**
 - DEVELOPMENT THAT REINFORCES THE CORRIDOR'S TRADITIONAL VISUAL CHARACTER, FUNCTION, AND IDENTITY;
 - ALTERNATIVE MODES OF TRAVEL;
 - LINKAGES BETWEEN COMMERCIAL DEVELOPMENT WITHIN THE CORRIDOR AND ADJACENT RESIDENTIAL USES;
 - COMPATIBILITY BETWEEN CORRIDOR DEVELOPMENT AND ADJACENT NEIGHBORHOODS; AND
 - HIGH QUALITY DESIGN OF INDIVIDUAL SITES.
- **[INTERSTATE ROW - 2.2%]**

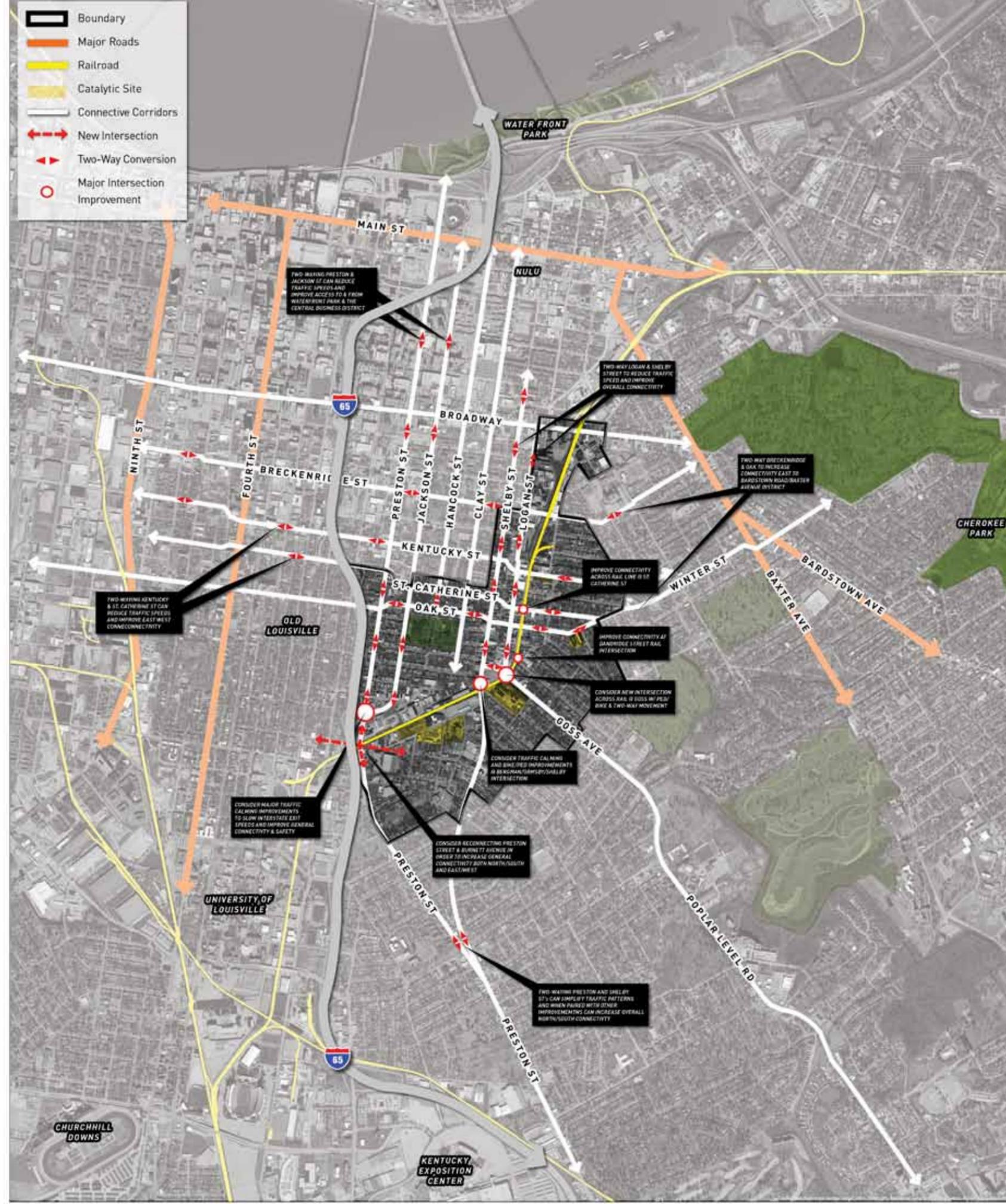




CONNECTIVITY

MAJOR CONNECTIVITY & CIRCULATION ISSUES/ PRIORITIES:

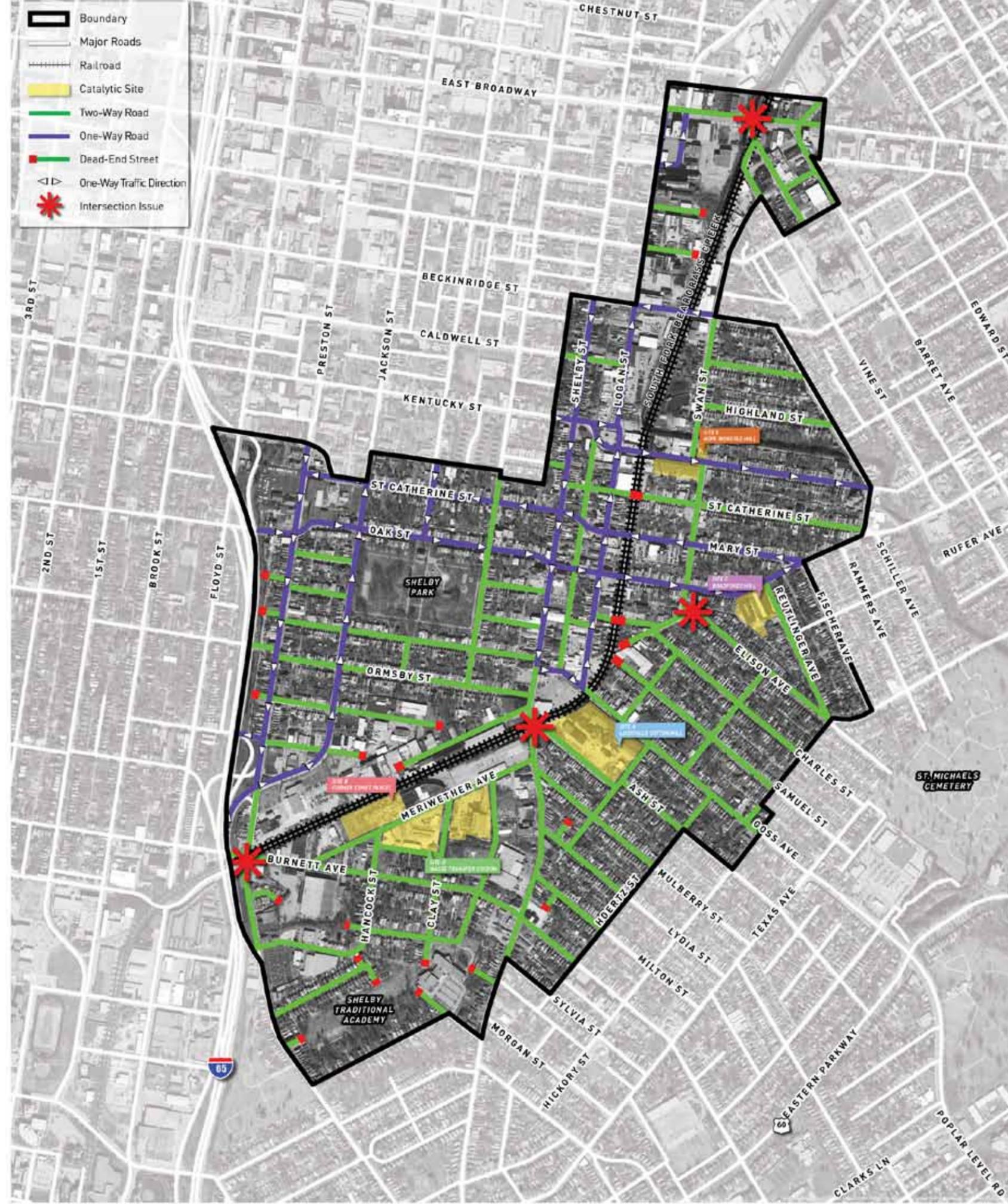
- MAJOR INTERSECTION IMPROVEMENTS, ESPECIALLY NEAR I-65 AND ALONG THE RAIL LINE
- CONSIDER TWO-WAY STREET CONVERSION FOR REDUCED TRAFFIC SPEEDS AND INCREASED WAYFINDING & CIRCULATION
- CREATE NEW CONNECTIONS WHERE POSSIBLE, VEHICULAR, BIKE & PEDESTRIAN



CIRCULATION

MAJOR CONNECTIVITY, WAYFINDING & SAFETY ISSUES:

- ONE-WAY CIRCULATION ISSUES
- DEADENDS & DISCONNECTS
- DIFFICULT TO TRAVERSE INTERSECTIONS
- COMPLICATIONS CREATED BY RAIL LINE

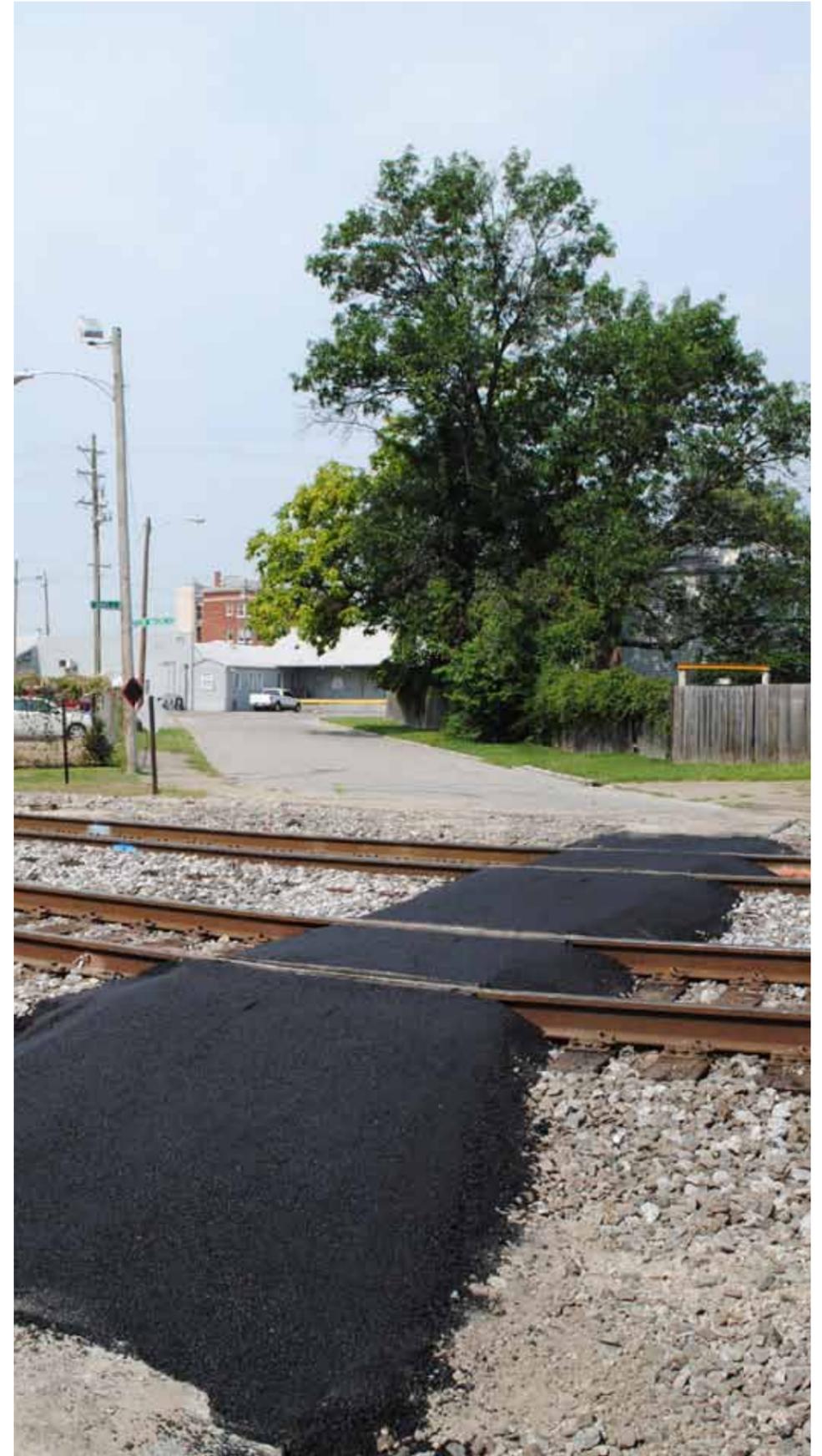




ONE-WAY CONFLICTS



DEAD ENDS

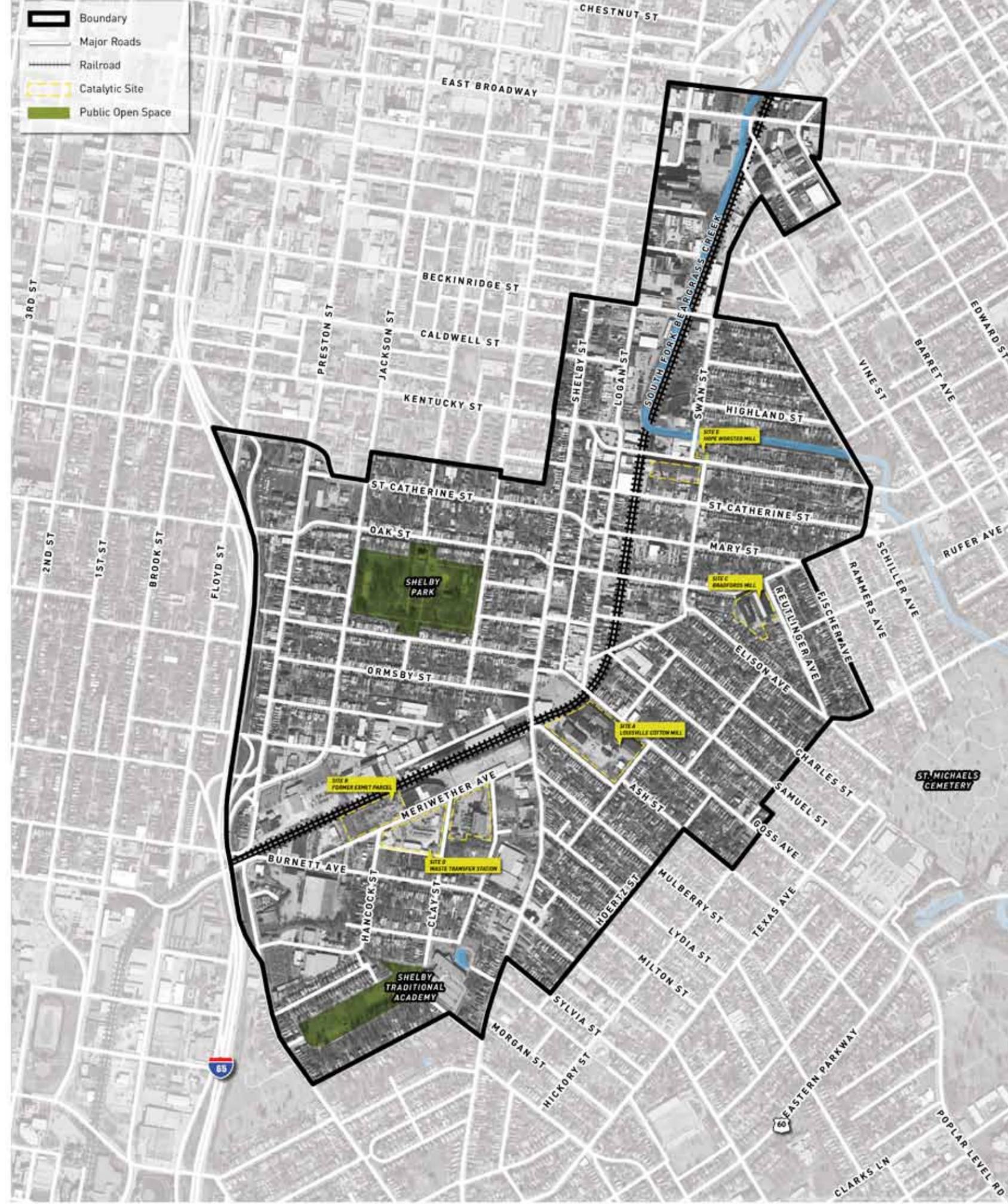


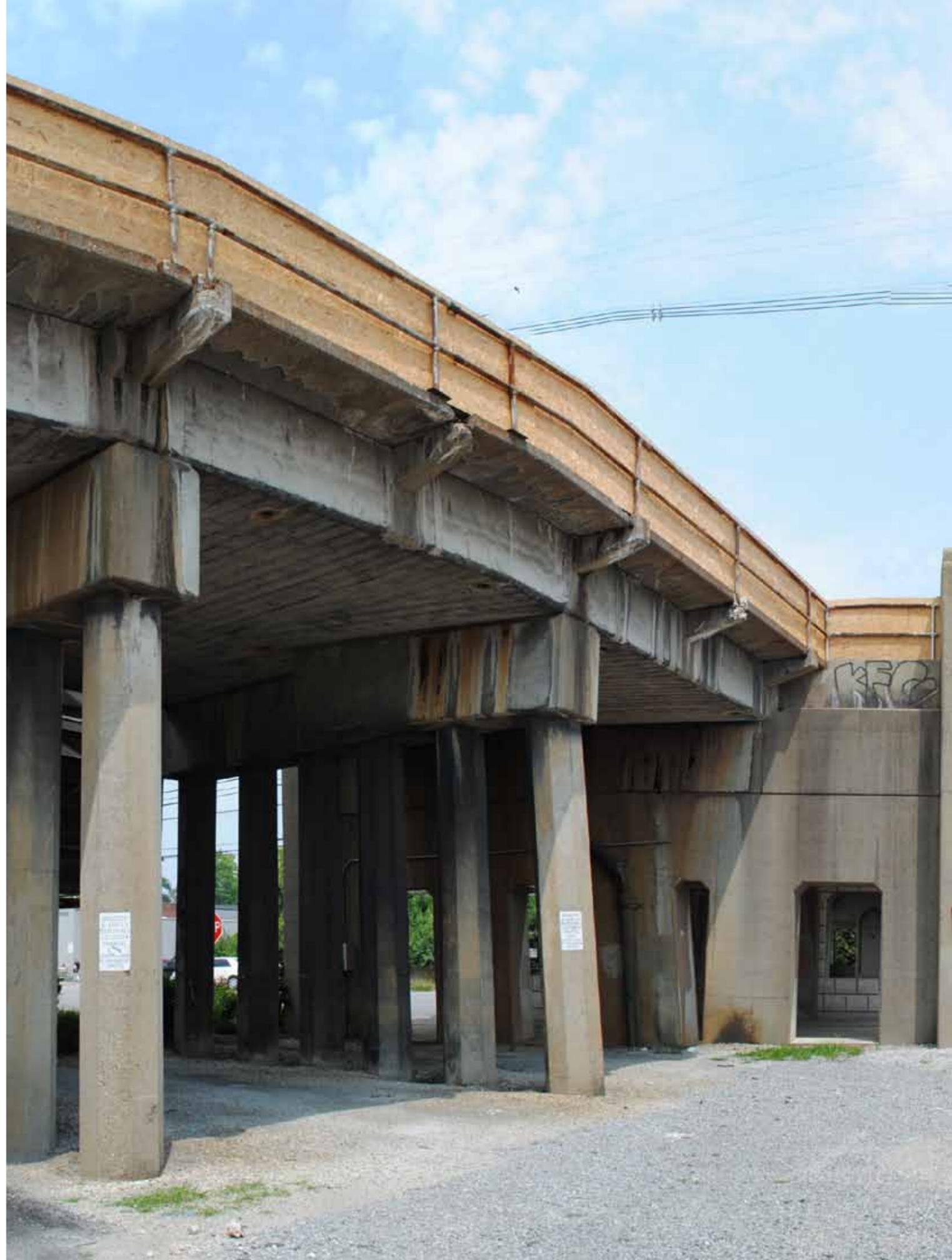
RAIL CONFLICT

OPEN SPACE

EXISTING OPEN SPACES:

- **SHELBY PARK**
 - 16 ACRES
 - BASKETBALL COURTS
 - TENNIS COURTS
 - PLAYGROUND
 - COMMUNITY CENTER
 - OPEN AREAS
 - COVERED GATHERING SPACE
- **JCPS OPEN SPACE**
 - 8 ACRES
 - BASKETBALL COURTS
 - TRAILS
 - OPEN AREA
 - PLAY GROUND





INDUSTRY



MANUFACTURING



WAREHOUSE/TRANSPORTATION



MICRO INDUSTRY



OFFICE

INDUSTRY

IDENTIFIED INDUSTRY:



MANUFACTURING



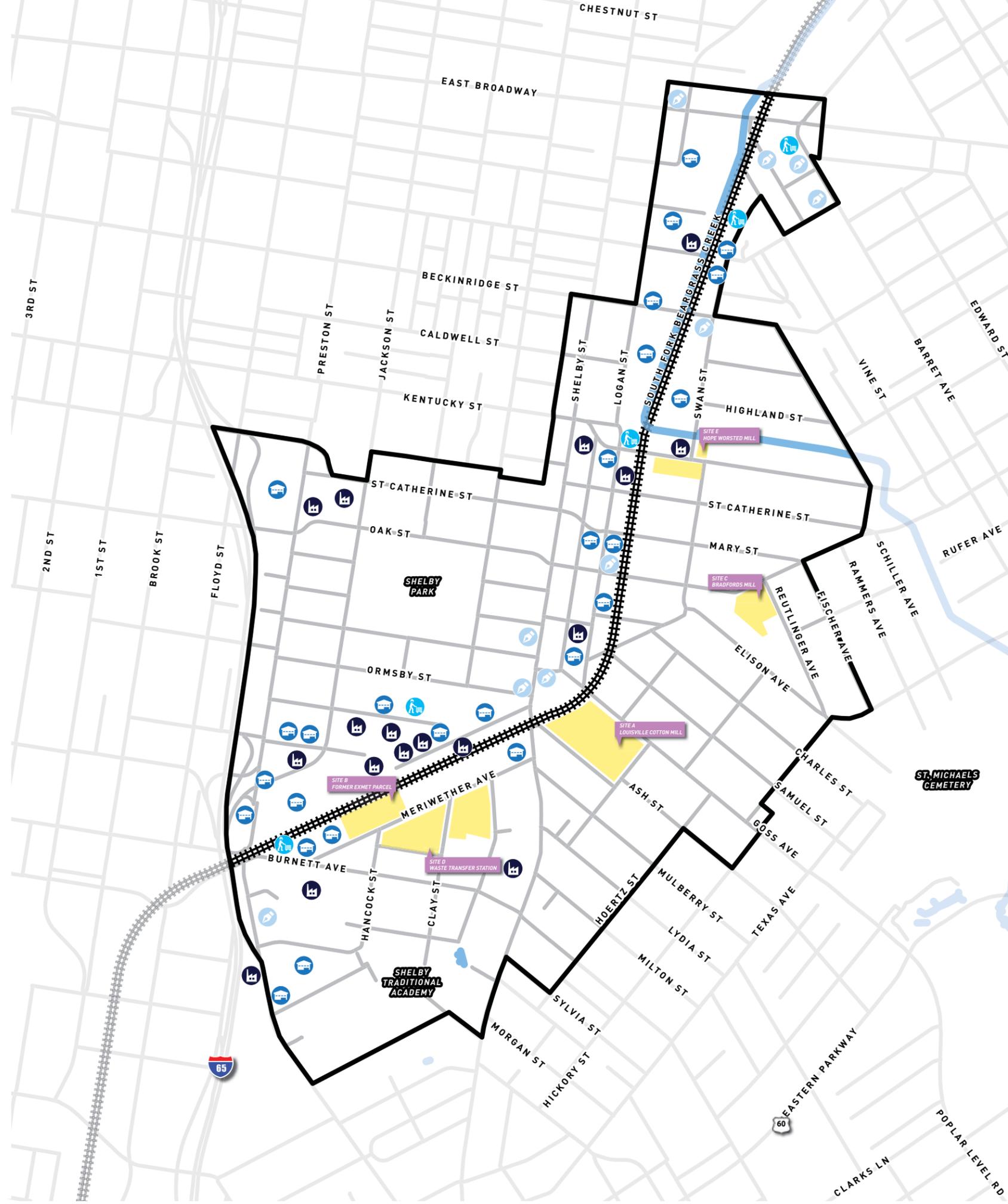
WAREHOUSE/TRANSPORTATION



LIGHT INDUSTRY



OFFICE



OPPORTUNITIES



TIER 1: INFILL REDEVELOPMENT OPPORTUNITY

- *VACANT PROPERTY*
- *VOID SPACE [HIGHWAY R-O-W]*
- *UNDERUTILIZED SURFACE PARKING LOTS*



TIER 2: MID-TERM INFILL OPPORTUNITY

- *PARTIALLY VACANT PROPERTY*
- *NOT DEEMED HIGHEST & BEST USE*
- *IN CONFLICT WITH COMMUNITY VISION, ZONING OR FORM DISTRICTS*



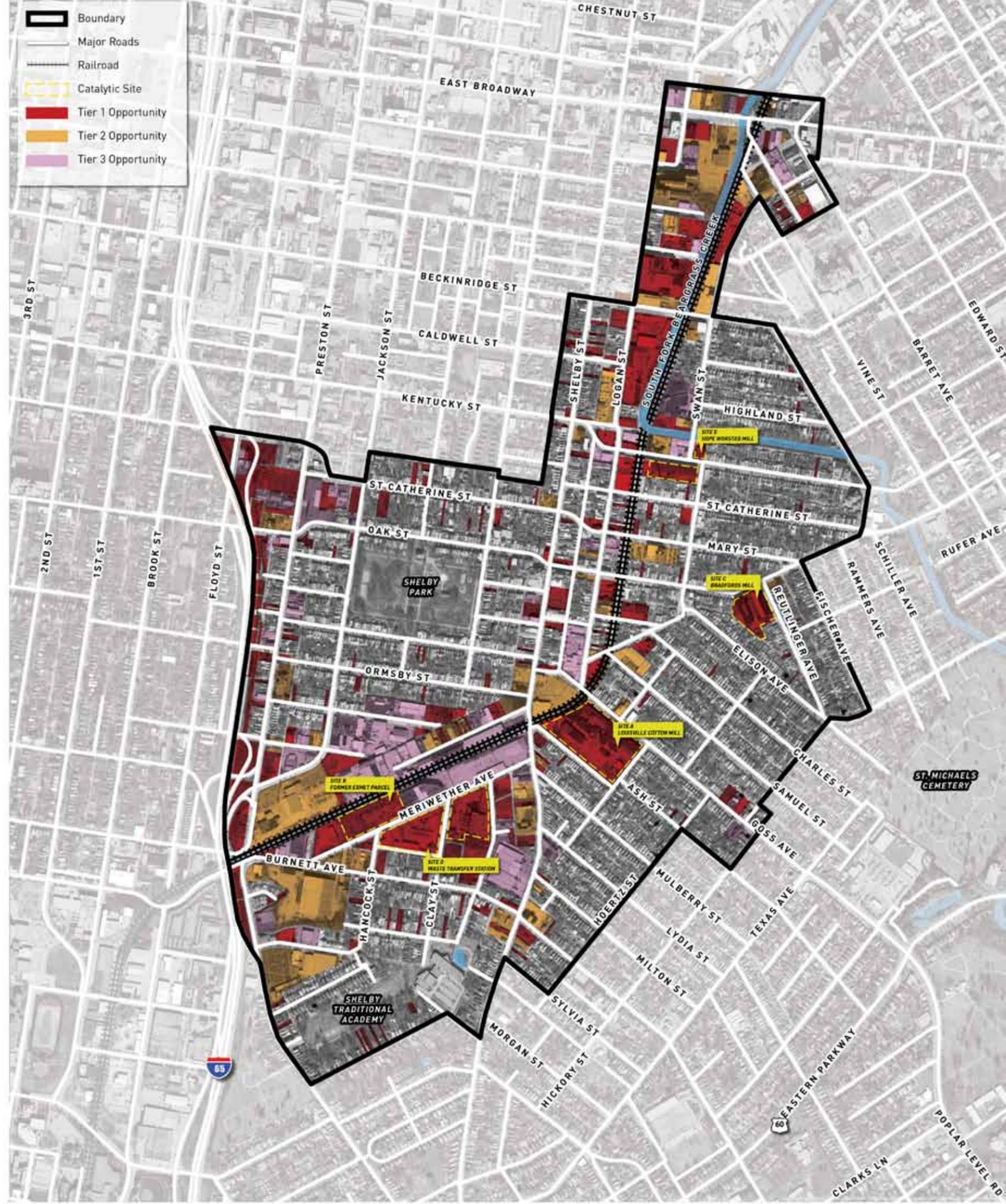
TIER 3: LONG TERM INFILL/SITE IMPROVEMENT OPPORTUNITY

- *LONG TERM IMPROVEMENTS NEEDED*
- *PHYSICAL SITE IMPROVEMENTS*
- *IMPROVE PHYSICAL RELATIONSHIP WITH NEIGHBORS*
- *IDEAL LOCATION FOR IMPROVED SUSTAINABILITY MEASURES*

OPPORTUNITIES

KEY INFILL AND SITE REINVESTMENT OPPORTUNITIES

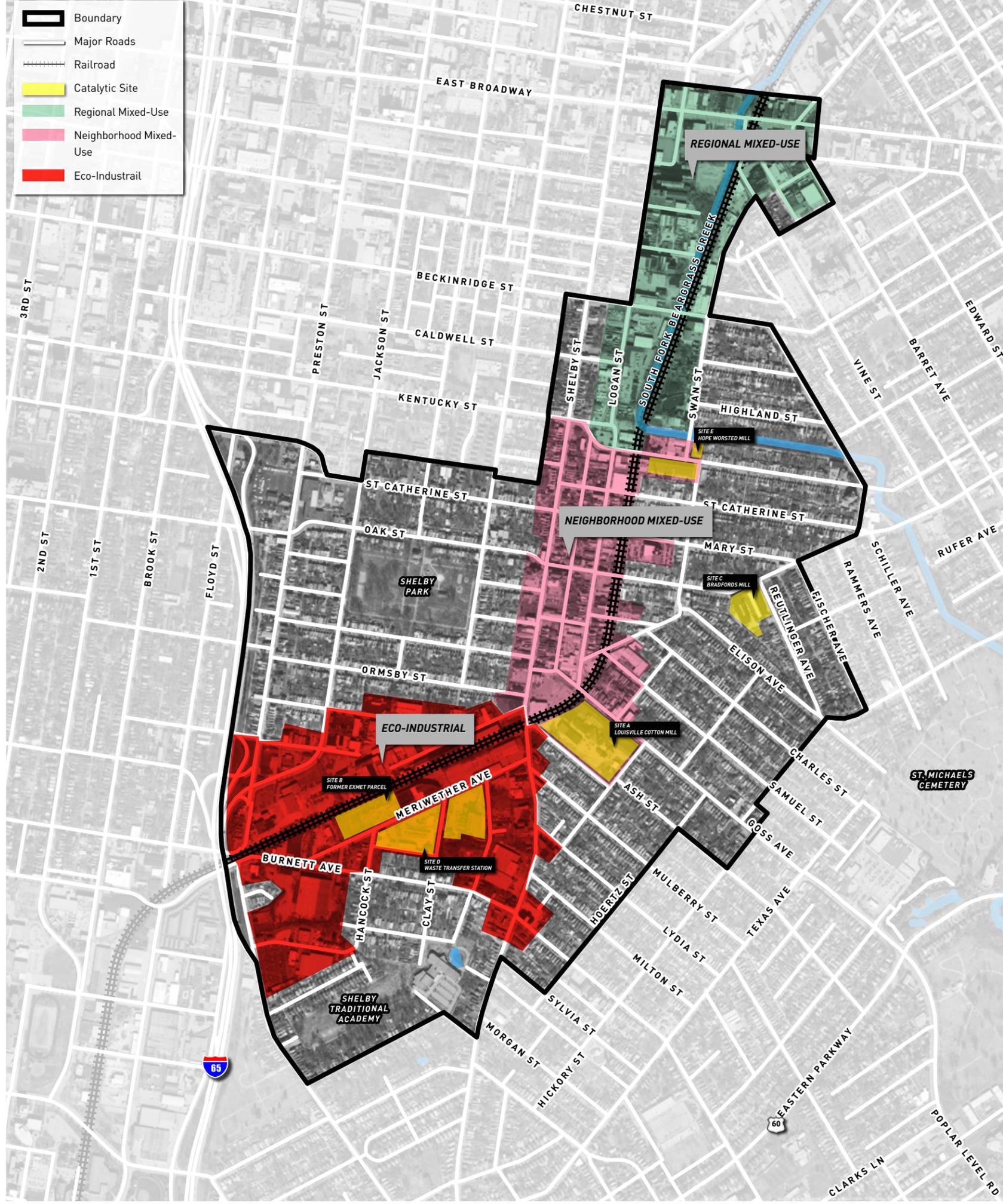
- **TIER 1:**
INFILL REDEVELOPMENT OPPORTUNITY
- **TIER 2:**
MID-TERM INFILL OPPORTUNITY
- **TIER 3:**
LONG TERM INFILL/SITE IMPROVEMENT OPPORTUNITY



DISTRICTS

THREE MAJOR DISTRICTS ALONG THE RAIL CORRIDOR:

- BROADWAY MIXED-USE
- NEIGHBORHOOD CENTER
- ECO-INDUSTRIAL



The Value of Ecology in the Built Environment

Louisville Central Rail Corridor Plan

Joshua Eldridge, Ecologist

Erin Hathaway, Designer



GREATecology
ENVIRONMENT + DESIGN

October 23, 2014

ECOLOGY



DESIGN





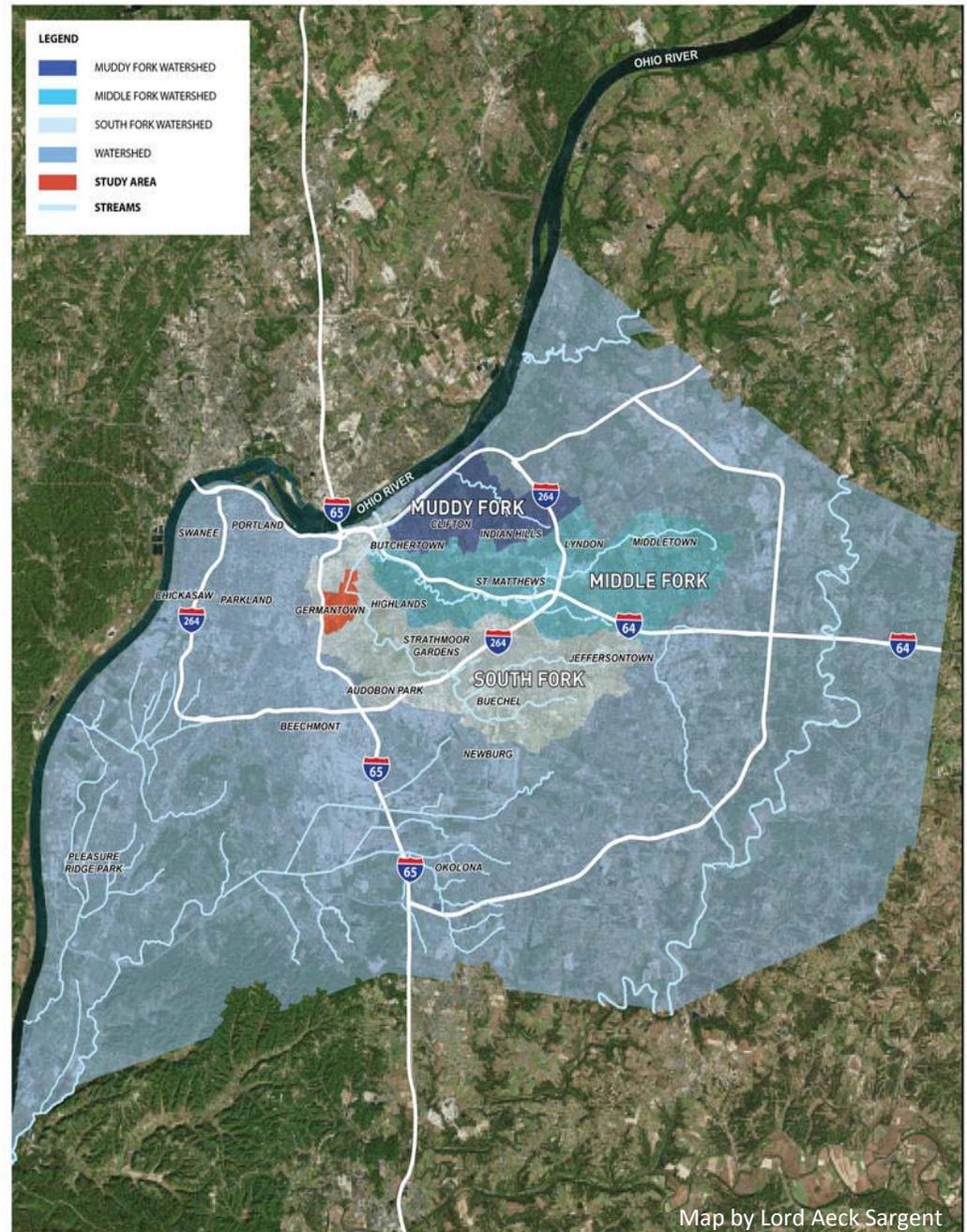
ECOLOGY
+
DESIGN

GERMANTOWN IN CONTEXT

Small piece of larger
watershed

Upstream and downstream
influences

Part of community-wide
initiative



WHAT IS Ecosystem Services +
THE Functions
VALUE? Social
Economic

SERVICES +
FUNCTIONS
OF AN
URBAN
ECOSYSTEM

Flood abatement
Pollution control
Sediment control
Water quality
Pollinators
Air quality
Micro-climate regulation
Carbon sequestration
Nutrient cycling
Wildlife habitat

SOCIAL

Uniqueness + Heritage

Recreation + Exercise

Aesthetic diversity

Quality of life

Environmental awareness/stewardship

Wildlife viewing



ECONOMIC

Increased property values

Tourism revenue

Reduced pressure on
infrastructure

Resiliency to storm events

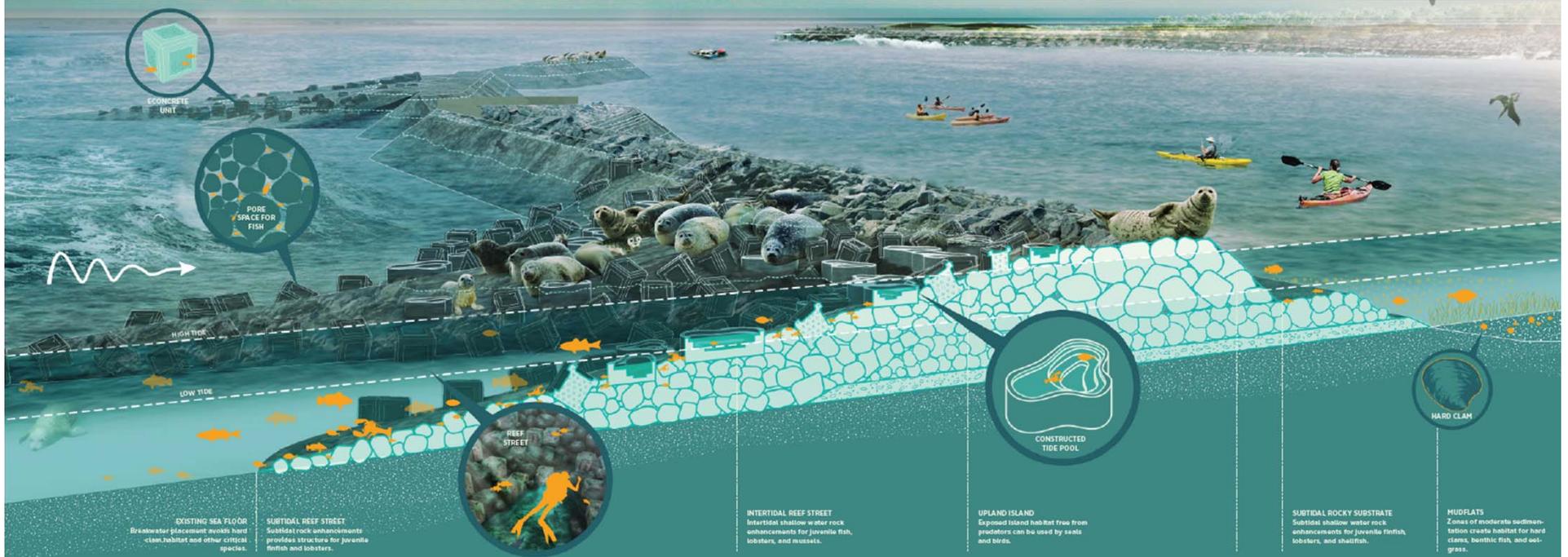
Sustainability



STRESSORS
ON AN
URBAN
ECOSYSTEM

Contamination
Altered hydrology
Stormwater runoff
Soil compaction
Nutrient loading
Habitat fragmentation
Invasive species
Impaired air quality
Remedial impacts
Noise and light pollution

Rendering by SCAPE studio



REBUILD BY DESIGN
HUD \$930 BILLION



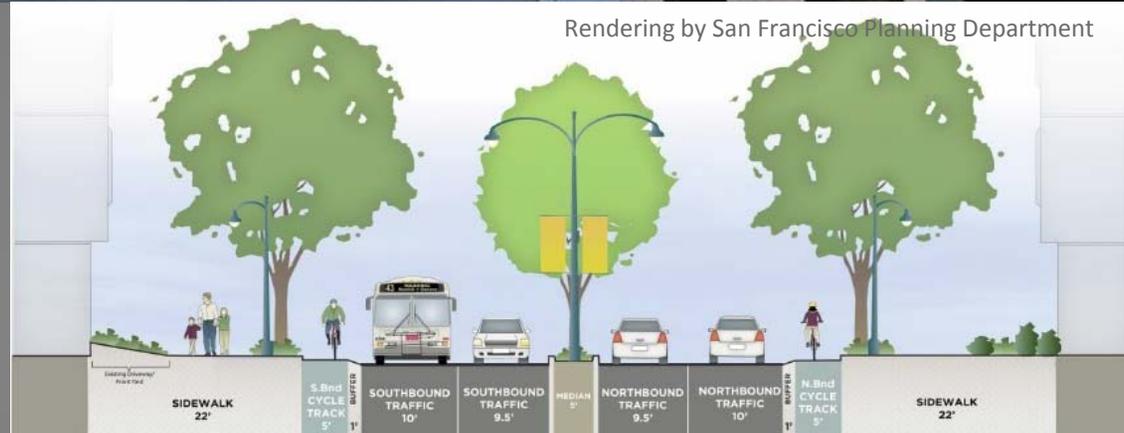


WALLER CREEK



URBAN FOREST CHARLOTTE, NC

Rendering by San Francisco Planning Department





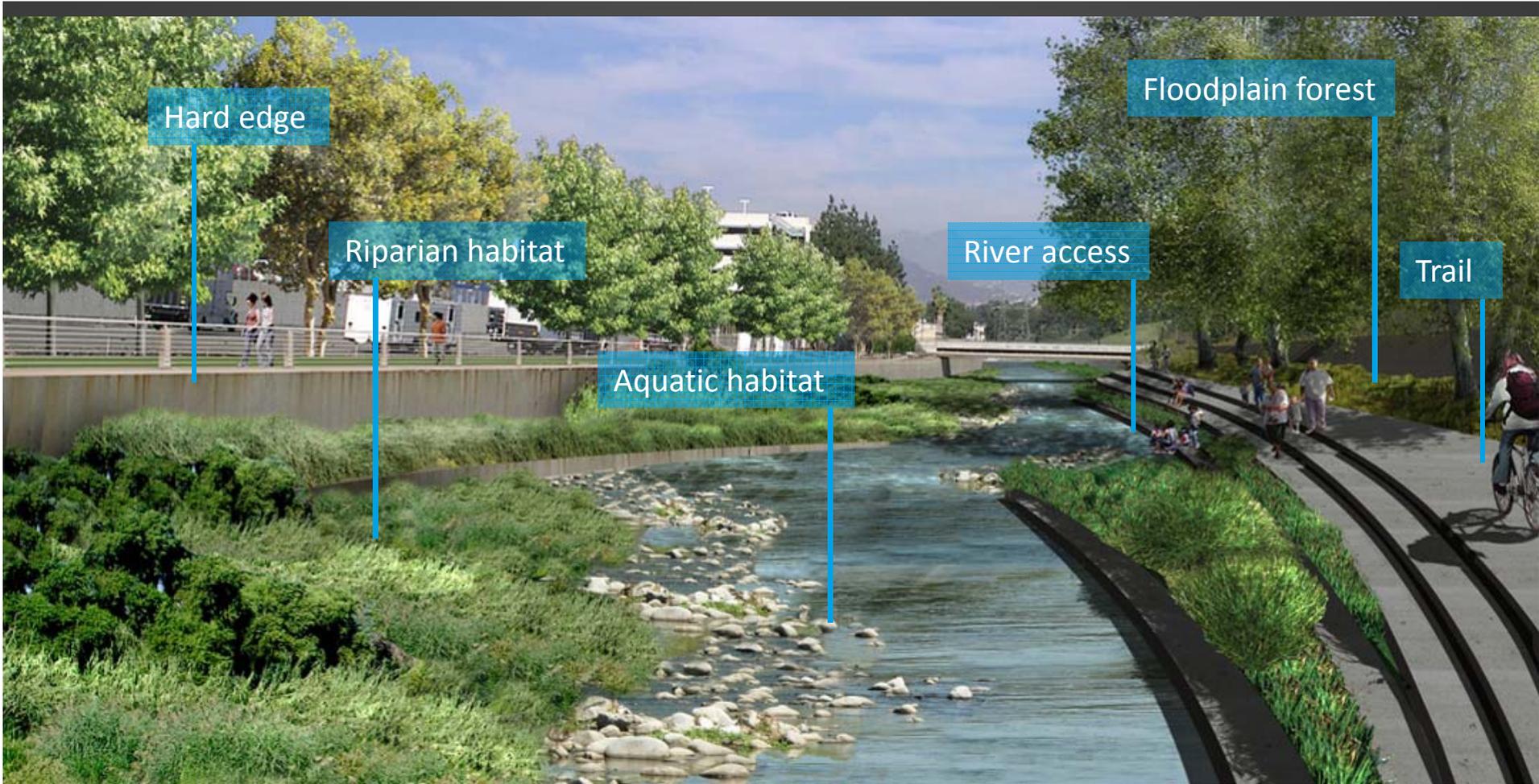
DETROIT PRAIRIE +
FOREST



PHILADELPHIA
GREEN CITIES, CLEAN
WATERS



Rendering and photos by Philadelphia Water Department



LOS ANGELES RIVER RESTORATION



Rendering and photo by Wenk Associates

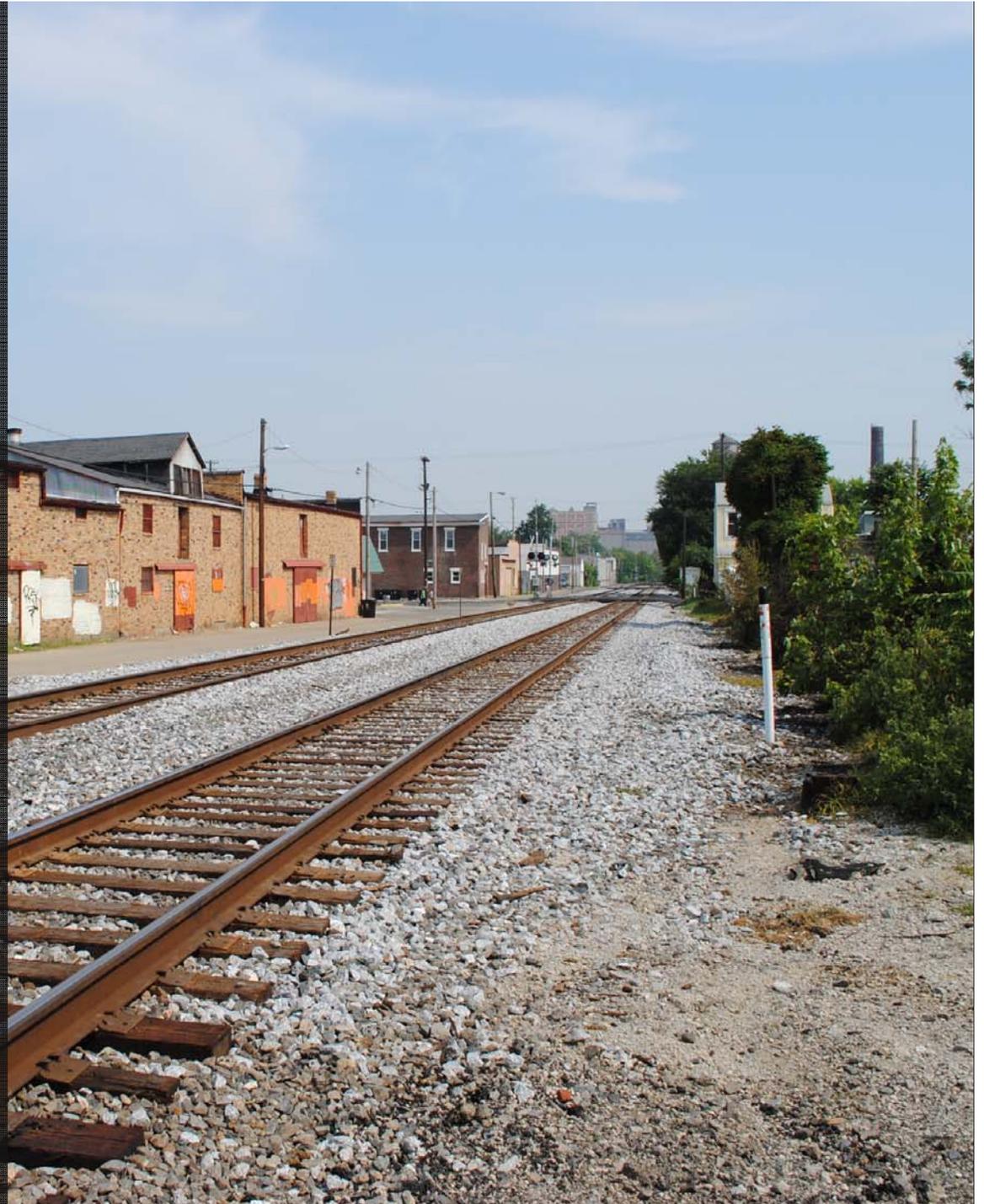
ECOLOGICAL CHALLENGES

High urban density

Limited open space

Dying tree canopy

Stormwater runoff/pollution

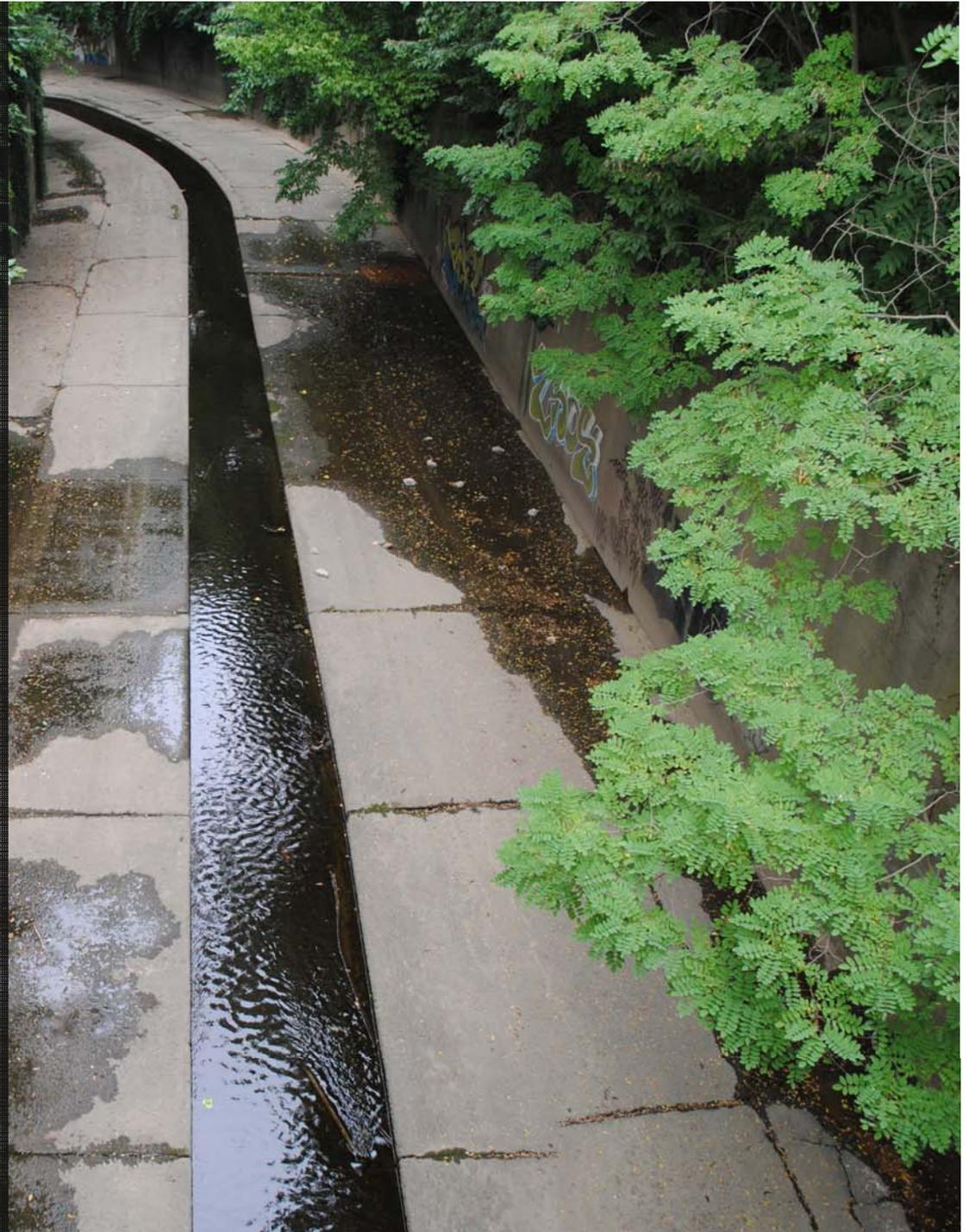


NEIGHBORHOOD ASSETS AND OPPORTUNITIES

Brownfield redevelopment

Beargrass Creek

Corridor enhancement



OPPORTUNITIES TO IMPROVE ECOSYSTEM SERVICES: URBAN FOREST

Increase air + water quality

Reduce energy usage

Increase property values

Create open space

Enhance habitat connectivity

Increase biodiversity

Reduce flooding



OPPORTUNITIES TO IMPROVE ECOSYSTEM SERVICES: GREEN INFRASTRUCTURE

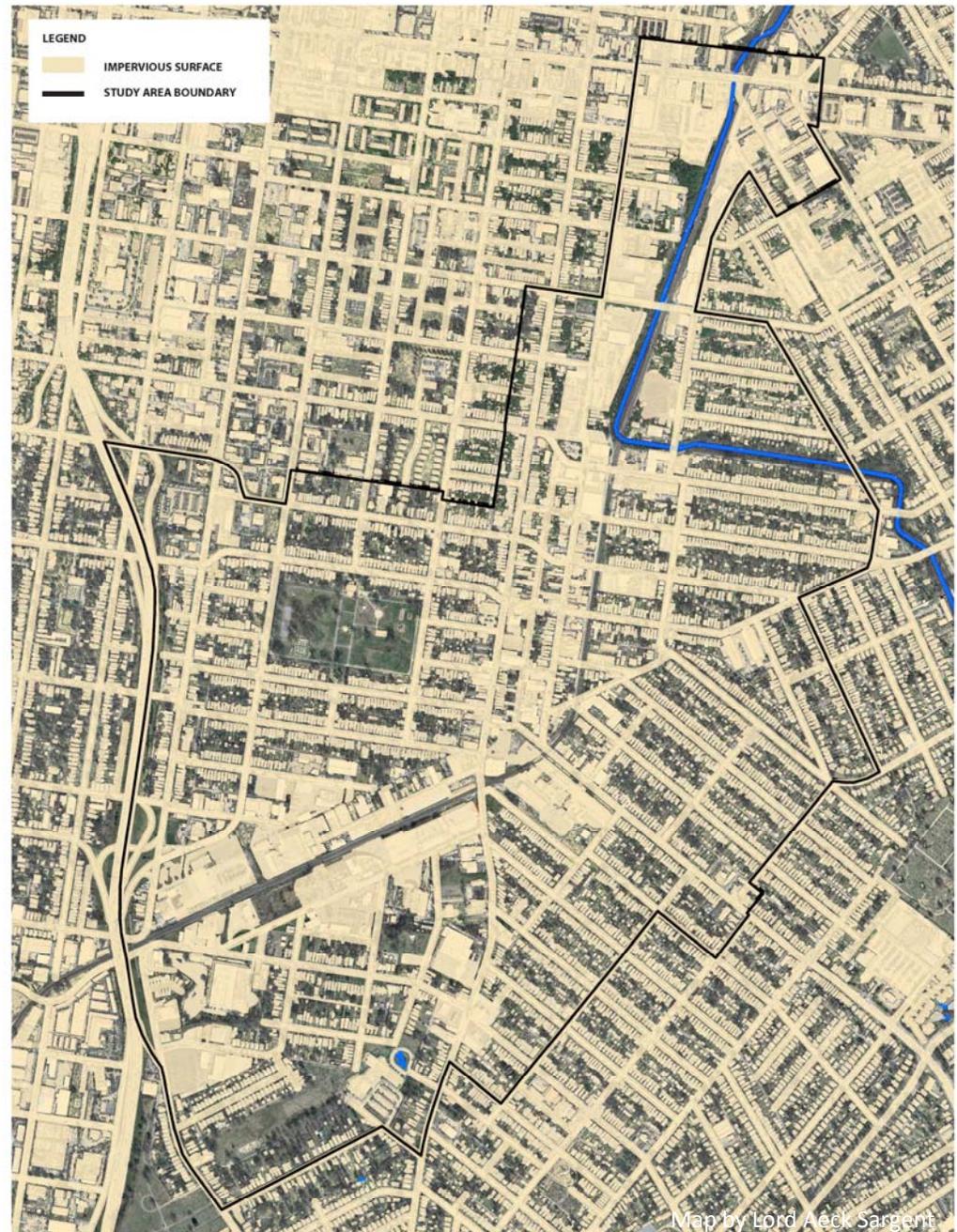
Reduce impervious surfaces

Increase stormwater filtration

Enhance habitat connectivity

Increase biodiversity

Reduce flooding



TODAY'S DIALOGUE

Revitalizing an Urban Ecosystem

turning beargrass creek into an asset

Restoring Neighborhood Icons

connecting historic mills to the community

Building a Green Jobs Anchor

imagining a zero waste future

REVITALIZING AN URBAN ECOSYSTEM



ENVIRONMENT#5: Improve waterway quality

Develop a pilot project to restore ten miles of riparian vegetation

Beargrass Creek is an important part of the story of Louisville, but it has absorbed many of the negative impacts that came with city growth.

The creek is beginning to see positive changes in other neighborhoods.

Could that happen here?

FOR CONSIDERATION:

- If you could imagine a future where Beargrass Creek became a natural landscape in the spirit of the Olmsted system, what would that future look like?
- If enough land was made available, is there a scenario where Beargrass Creek could contribute to – or even replace – contemporary stormwater management practices?
- How can the Beargrass Creek environment be made more accessible to the public?



RESTORING NEIGHBORHOOD ICONS



COMMUNITY#17: Expand green infrastructure incentives citywide

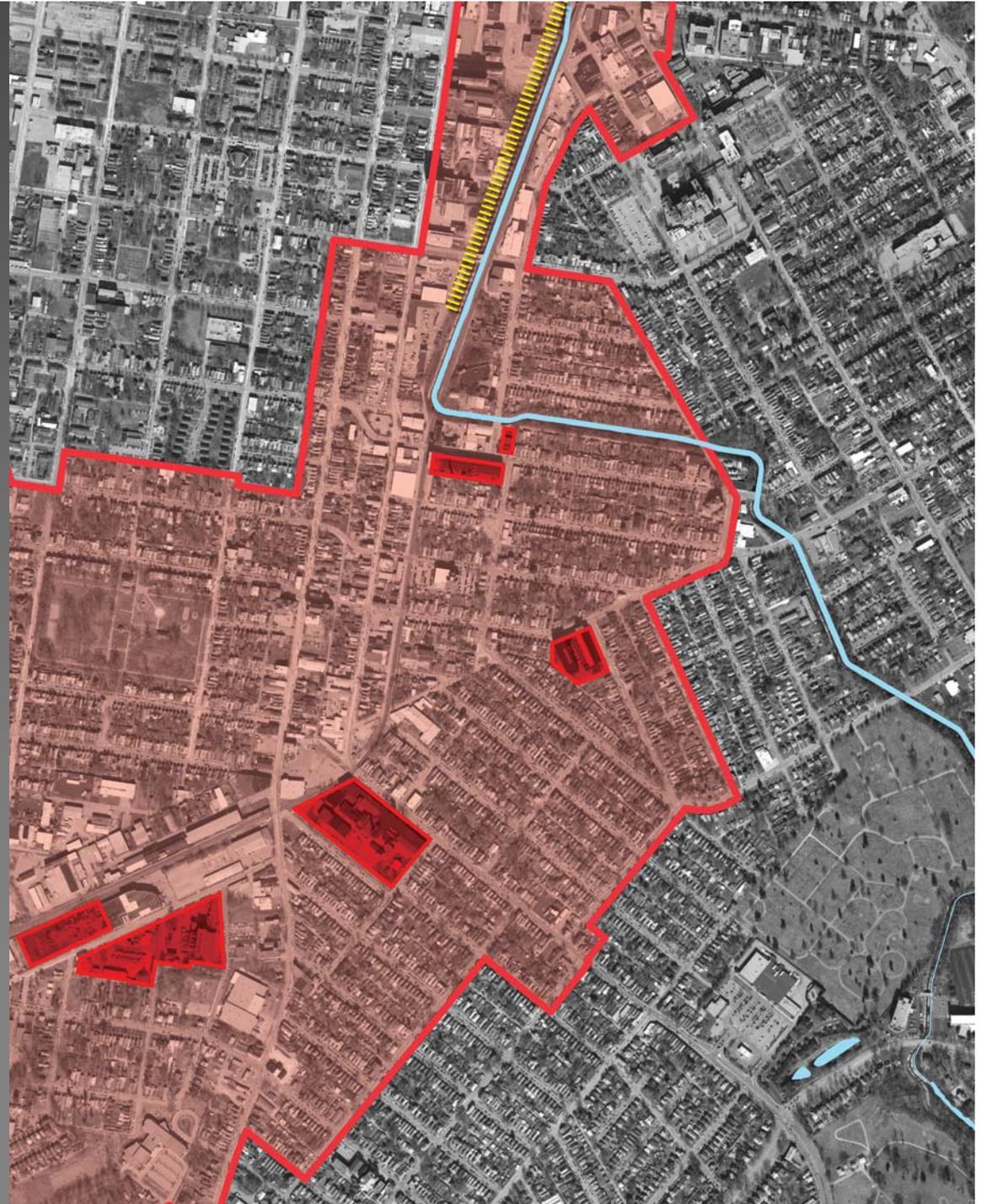
Identify green infrastructure best practices and launch an incentive program

The Germantown Mill Lofts promises to be an exciting project and a new mixed-use destination for the area's neighborhoods and beyond. How can the other catalytic sites replicate this model and leverage other improvements?



FOR CONSIDERATION:

- How could the Germantown Mill project serve as a template for the other two historic mills? What are the similarities and what are the differences?
- In what ways might the Germantown Mill Lofts contribute to raising awareness of the area and strengthening the surrounding neighborhoods?
- Are there any ways in which the Germantown Mill project could be a driving force in the creation of a larger “eco-district” around the rail corridor? What development or business incentives might be possible?



BUILDING A GREEN JOBS ANCHOR



ENVIRONMENT#8: Divert 50% of solid waste away from the landfill by 2025 and 90% by 2042

Investigate alternatives to landfill waste disposal practices

The Solid Waste Management Division of Metro Public Works has a plan to undertake a waste survey and feasibility study to see if more recyclables can be pulled from the waste stream. Could the corridor become a full-blown resource recovery eco-district?



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FOR CONSIDERATION:

- If you rethink the long-term future of the waste recovery center as a source of raw materials, what should those raw materials ideally include?
- Is there any potential for clean energy generation as part of the waste reduction / recovery program?
- Could a more ambitious reprocessing program be the basis for innovative business / green industry attraction?
- What role could the Exmet site play in transitioning to a more complete resource recovery campus?

