

TEAM F

# JEFFERSON DRAINAGE CANAL DESIGN COMPETITION

APRIL 2011

JEFFERSON DRAINAGE CANAL:

THE LIFELINE OF OUR COMMUNITY:



## CONCEPT:

# THE LIFELINE OF OUR COMMUNITY: FILTERING LIFE THROUGH THE CITY

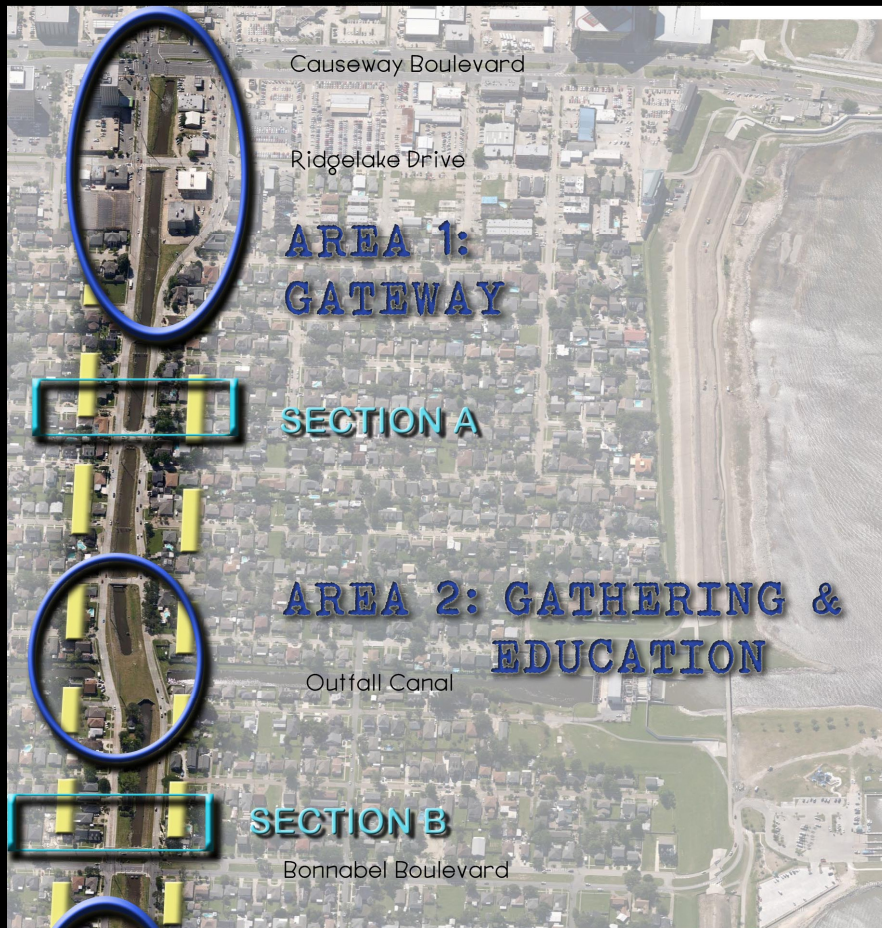
The canals have a deep history in the development and survival of the city. This project is about improving the quality of life for the people of the community and also improving the quality of the canal itself. Without them working properly, the city would not exist. It is important for people to understand the significance of the drainage canals and how these lifelines work for our city. With this design, the function, water quality, plantings, and wildlife associated with these canals will be emphasized and enhanced while creating aesthetically pleasing parks and educational opportunities for the public.

The design not only promotes the improved water quality and drainage issues, but also incorporates the assortment of conditions along the embankments for the enjoyment of the adjacent communities. The varying widths and slopes of the canal embankments demand unique improvements including slope stabilization and restoration. The main improvement needed is a method to stabilize the embankments that are eroding into the canal. Not only unsightly, but it is also detrimental to the function of the drainage system. With stabilization at the waterline, the erosion will end and the embankments can be re-graded into more attractive and more easily maintained slopes. The design embraces the sites constraints, such as the drainage pipes, and utilizes them as opportunities for positive improvements.

The total Right of Way, including the land on the residential edges of the streets, needs to be included. Street Trees on each side of the roadways will unify the overall streetscape. Due to the high level power lines, there is room to plant trees in the ROW while keeping the canopies below the power lines. This will result in a major visual improvement for the West Esplanade Canal Corridor.

The canals not only connect different communities within the city, but they also provide unique urban park and educational opportunities. It is time to appreciate and utilize these lifelines of our community. With the increased awareness of health concerns, this will be an excellent way to encourage residents to get out and exercise. The healthful benefits of walking have been well documented by Dr. Tim Church of the Pennington Biomedical Research Center in Baton Rouge. The trails are continuous from one gateway to the next. There will be exercise markers along the way to help monitor distances and encourage movement. We want to promote people to get out and use our parks and public spaces. Active, educated, healthy lifestyles are important for our survival just as the waterways' health and function are critical for our communities.

# SITE MASTER PLAN



MATCHLINE/ THIS SHEET

MATCHLINE/ THIS SHEET



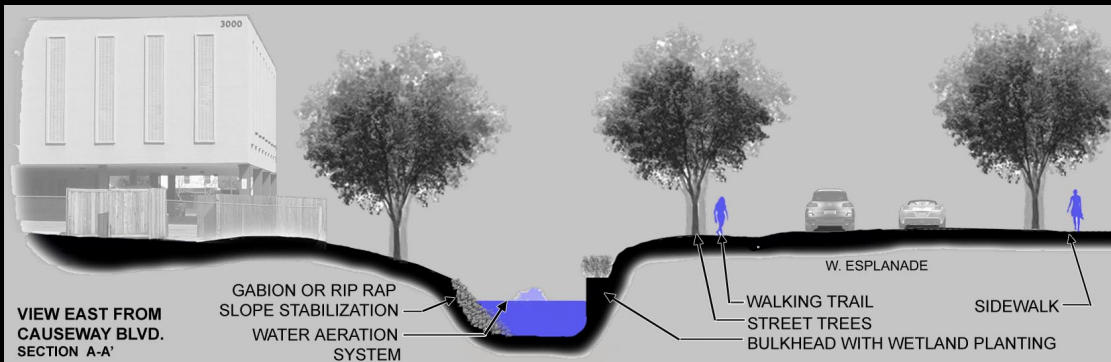
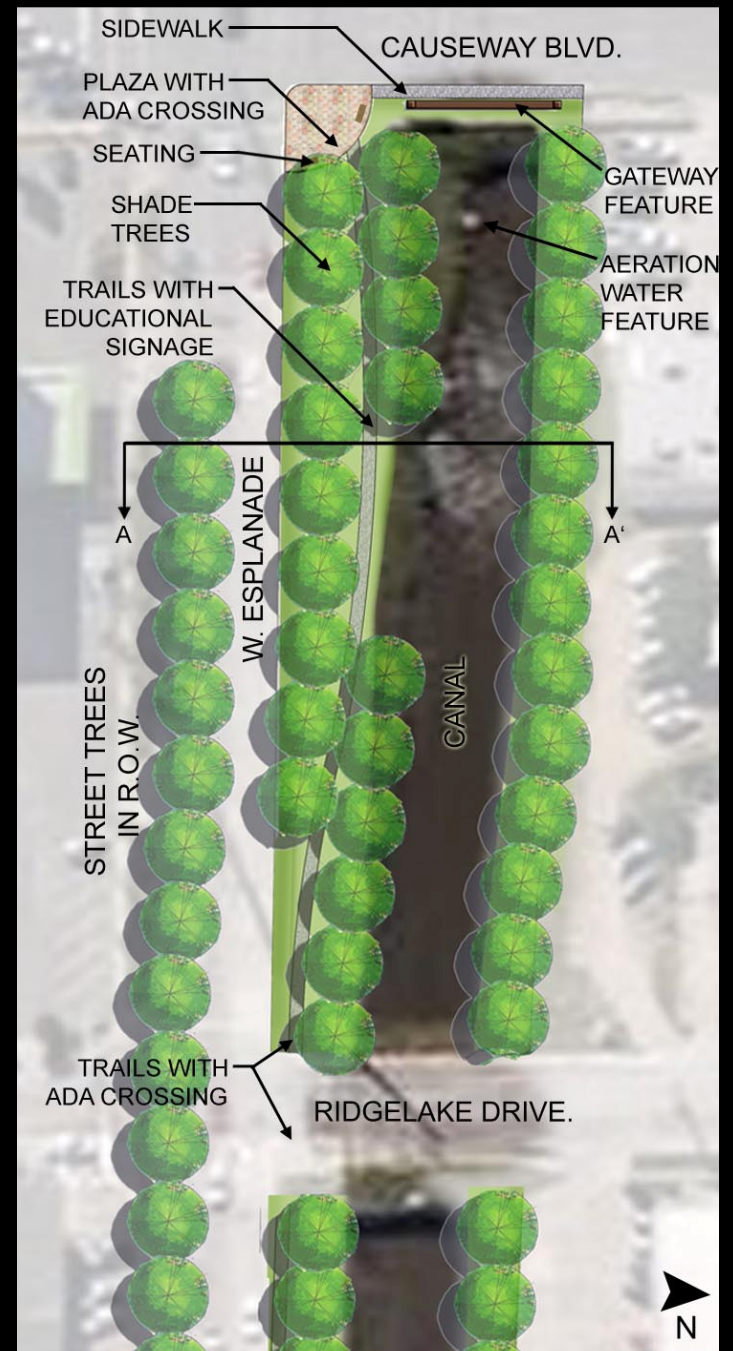
SITE MASTER PLAN 

## Area 1: GATEWAY

AT CAUSEWAY BLVD, A SPECIAL ENTRANCE TO THE PARKWAY IS DESIGNED TO PROVIDE PROPER INTRODUCTION TO THE CANAL CORRIDOR. THE ENTRY FEATURE AND PLAZA WILL BE DESIGNED WITH NATURAL CHARACTER AND RECYCLED AND INDEGINOUS MATERIALS SUCH AS STONE, WOOD, AND METAL TO BE CARRIED THROUGHOUT THE PROJECT.

THE BANK ON THE SOUTHERN SIDE OF THE CANAL IS LARGER; THEREFORE, WILL ACCOMMODATE WALKWAYS AND DOUBLE ROWS OF SHADE TREES. THE NORTHERN SIDE OF THE CANAL WILL HAVE ENHANCEMENT PLANTINGS AND SLOPE STABILIZATION.

INTERPRETIVE SIGNAGE ALONG THE CANAL TRAILS WILL EXPLAIN CANAL HISTORY, SIGNIFICANCE, AND WATER QUALITY.



## Area 1:



EXISTING CONDITIONS



PROPOSED ENTRY : ESPLANADE PARK GATEWAY



ENHANCEMENT PLANTINGS



AERATOR FOUNTAINS



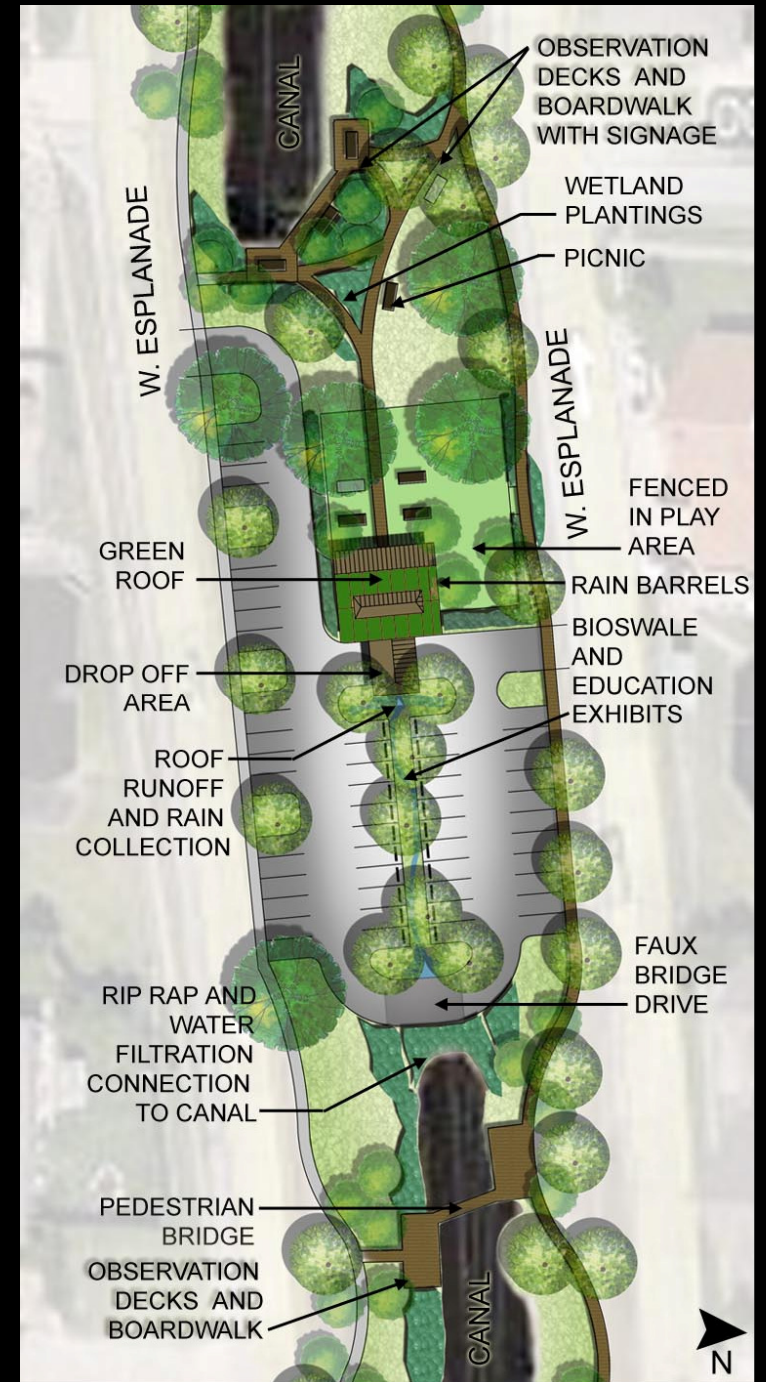
LIGHTING



RECYCLED MATERIALS FOR FURNISHINGS

## Area 2: GATHERING AND EDUCATION

AT THE CROSSING OF THE TWO CANALS, A CENTRAL GATHERING AND EDUCATION STATION IS PROPOSED. A GREENROOF PAVILION WITH A COVERED DROP OFF AND PARKING AREA WILL UTILIZE BEST MANAGEMENT PRACTICES FOR A SUSTAINABLE DESIGN. THESE PRACTICES WOULD INCLUDE CATCHING SURFACE FLOW IN BIOSWALES AND ROOF RUNOFF IN RAIN BARRELS. STUDENTS AND VISITORS WILL LEARN HOW CANALS ARE ESSENTIAL TO OUR COMMUNITY WATER QUALITY. EDUCATIONAL EXHIBITS WILL SHOW THE USE OF WATER AERATION, WETLAND PLANT MATERIALS AND DIAGRAMS SHOWING HOW THE WATER CAN BE NATURALLY TREATED ON SITE. STUDENTS CAN TAKE SAMPLES OF THE CANAL WATER TO THE PAVILION FOR ANALYSIS AND TO EDUCATE THESE FUTURE CITIZENS ABOUT THE IMPORTANCE OF PREVENTING POLLUTION OF OUR WATERWAYS. THE EXHIBITS WILL ALSO ILLUSTRATE THE IMPORTANCE OF THESE CANALS TO THE LIFELINE OF THE COMMUNITY BY PREVENTING FLOODING. A WORKING MODEL CAN BE DISPLAYED AND USED BY THE STUDENTS TO UNDERSTAND HOW OVERALL DRAINAGE OPERATES.



## Area 2:



OBSERVATION BOARDWALKS : GABION SLOPE STABILIZATION AND AERATOR FOUNTAINS

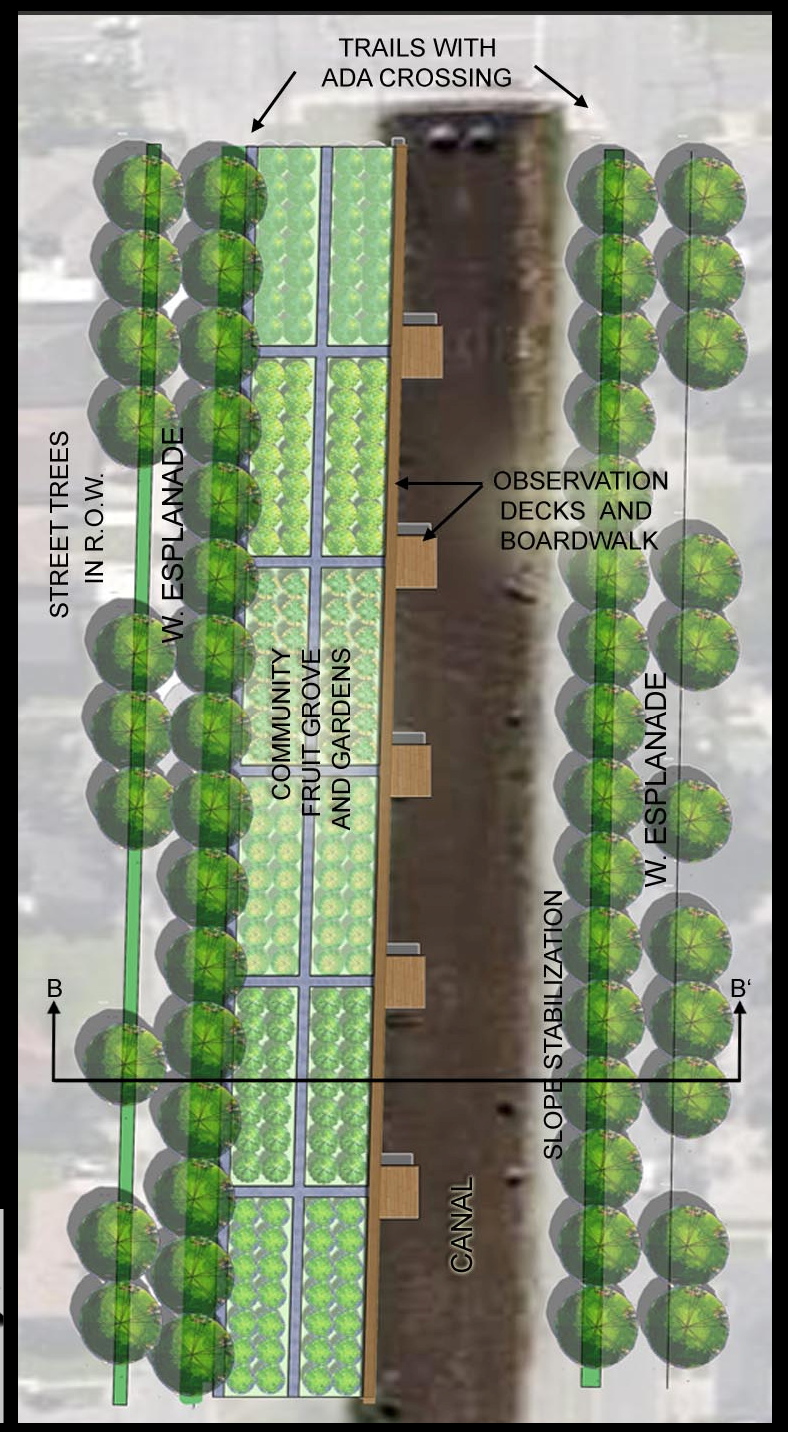
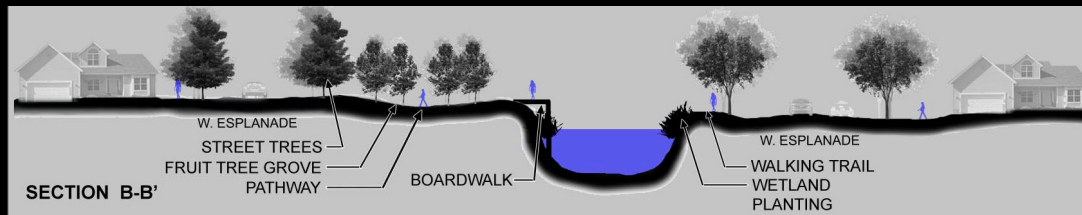
## Area 3: THE GROVE and

### COMMUNITY GARDENS

THE KEY TO THE IMPROVEMENT OF THE CANAL AESTHETICS IS THE REINFORCEMENT OF THE EMBANKMENTS ALONG THE WATER'S EDGE. UNSTABLE SOILS ARE COLLAPSING INTO THE CANAL. THEY ARE NOT ONLY LOWERING THE EFFICIENCY OF THE DRAINAGE CAPACITY, BUT ARE ALSO UNATTRACTIVE. REGRADING THE SLOPES AFTER THE EDGE REINFORCEMENTS ARE INSTALLED WILL RESULT IN IMPORTANT AESTHETIC IMPROVEMENTS. AT THIS TIME, SELECTED PLANTINGS WILL BE INSTALLED. IN PLACES WITH NARROW EMBANKMENTS, SPECIAL PROVISIONS WILL BE REQUIRED TO CREATE THE CONDITIONS NEEDED TO SUPPORT TREES. IN AREAS SUCH AS THIS (AREA 3) WE HAVE A LARGE RIGHT OF WAY AND AMPLE ROOM FOR PLANTING. WE SUGGEST A GROVE OF FRUIT TREES ALONG WITH COMMUNITY GARDENS TO PROMOTE ACTIVITY, INTERACTION, A HEALTHY LIFESTYLE AND EDUCATION.

COMMUNITY PARTICIPATION AND INVOLVMENT IS NEEDED FOR THE COMMUNITY GARDENS SUCCESS. COMMUNITY GARDENS ARE PROVEN TO INCREASE SAFETY AND ACTIVITY IN THE AREAS AND PROMOTE HEALTHY INTERACTIVE LIFESTYLES WITH YOUR NEIGHBORS.

INTERPRETIVE SIGNAGE ALONG THIS AREA WILL DISCUSS THE SUSTAINABILITY OF GARDENING, RAIN HARVESTING, IRRIGATION AND THEIR IMPACTS ON WATER QUALITY.



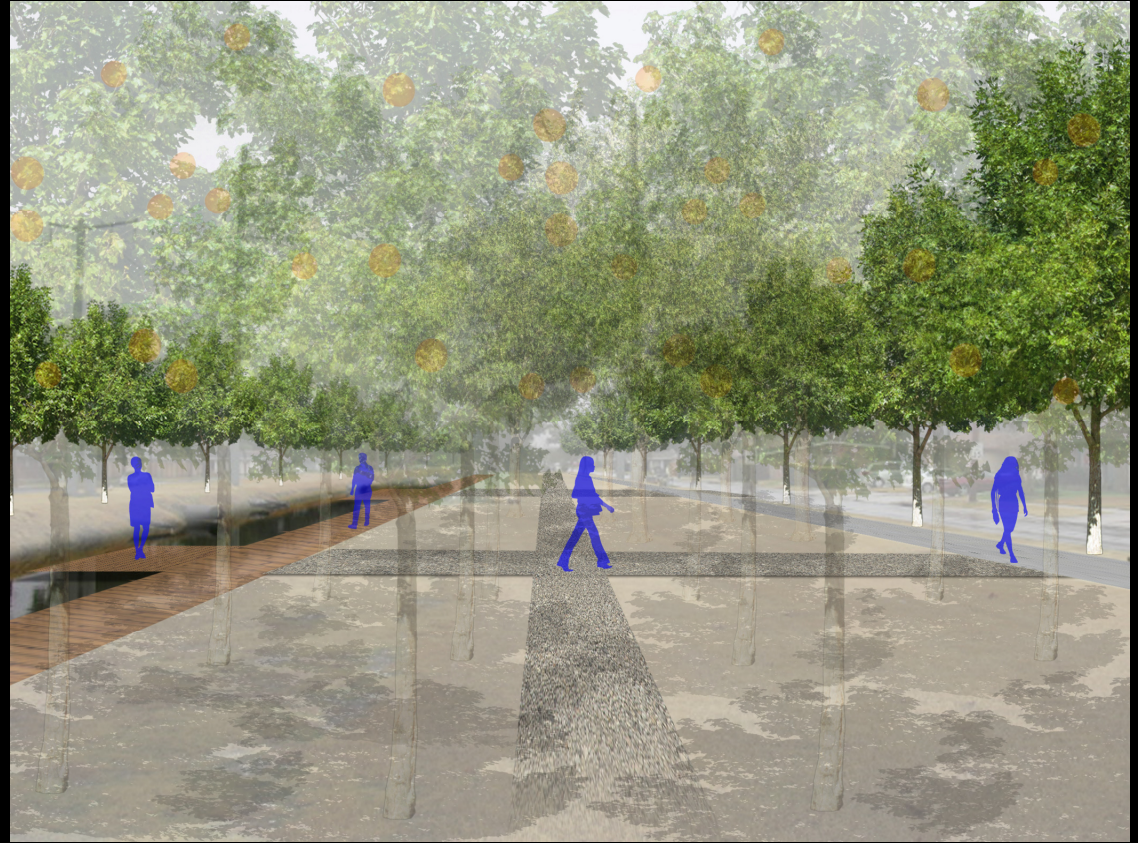


## Area 3:



### EXISTING CONDITIONS

THE FRUIT TREE GROVES AND THE COMMUNITY GARDENS PROMOTE SOCIALIZATION WITHIN SOCIETY AND AN APPRECIATION FOR HEALTHY LIVING. THE FRUITS OF EVERYONES LABOR CAN BE SHARED BY THE COMMUNITY WHILE LEARNING SUSTAINABLE LIVING PRINCIPLES AND GARDENING TECHNIQUES.



## Area 4: GATEWAY AND RECREATION

THE RIGHT OF WAY IS GENEROUSLY WIDE AT THE EASTERN END OF THE CORRIDOR . THE CANAL IS COMPLETELY CULVERTED IN THIS AREA WHICH ALLOWS FOR GREAT OPEN PLAY AREAS.

NEIGHBORHOOD MINI-PARKS CAN BE CREATED WITH THREE DIFFERENT LEVELS OF PLAY OR INTENDED USE:

- 1) AT SEMINOLE AVENUE, THE PARK WILL HAVE PAVILIONS AND SEATING AREAS WITH OPEN FIELDS FOR PLAY.
- 2) AT CARROLTON AVENUE, THE PARK HAS MEANDERING TRAILS AND LARGE EARTH BERMS FOR NATURAL AND PASSIVE PLAY AREAS
- 3) AT LAKE AVENUE, THE PARK HAS A STRUCTURED PLAY AREA WITH EQUIPMENT AND SAFETY RUBBER SURFACING. THERE WILL ALSO BE ENTRY FEATURES COORDINATING WITH THE GATEWAY AT CAUSEWAY BLVD.

THE TRAILS ARE CONTINUOUS FROM ONE GATEWAY TO THE OTHER. THERE WILL BE MILE MARKERS ALONG THE WAY FOR EXERCISING AND INTERPRETIVE SIGNAGE IDENTIFYING PLANTINGS.

WE WANT TO PROMOTE PEOPLE TO GET OUT AND USE OUR PARKS AND PUBLIC SPACES. ACTIVE, EDUCATED, HEALTHY LIFESTYLES ARE IMPORTANT FOR SURVIVAL JUST AS OUR WATERWAYS ARE THE LIFELINES OF OUR COMMUNITIES.

“BLUE” SYMBOLIZES TRANQUILITY AND CALMNESS WHICH IS BENEFICIAL FOR MIND AND BODY. IT ALSO REPRESENTS CLEANLINESS AND PURIFICATION WHICH IS WHAT WE ARE PROMOTING IN OUR DESIGN.



## Area 4:



THE GATEWAY RECREATION AREA AT LAKE AVENUE HAS LARGE EXPANSSES OF OPEN LAND AND EXISTING SHADE TREES DUE TO THE CULVERTED CANAL. THIS AREA IS IDEAL FOR RECREATIONAL COMMUNITY PLAY INCLUDING STRUCUTRED PLAYGROUNDS, PASSIVE PLAY AREAS, AND PAVILIONS. ALL PAVILIONS WILL HAVE GREEN ROOFS IN THE DESIGN AND SITE FURNISHINGS CONSTRUCTED WITH RECYCLED MATERIALS



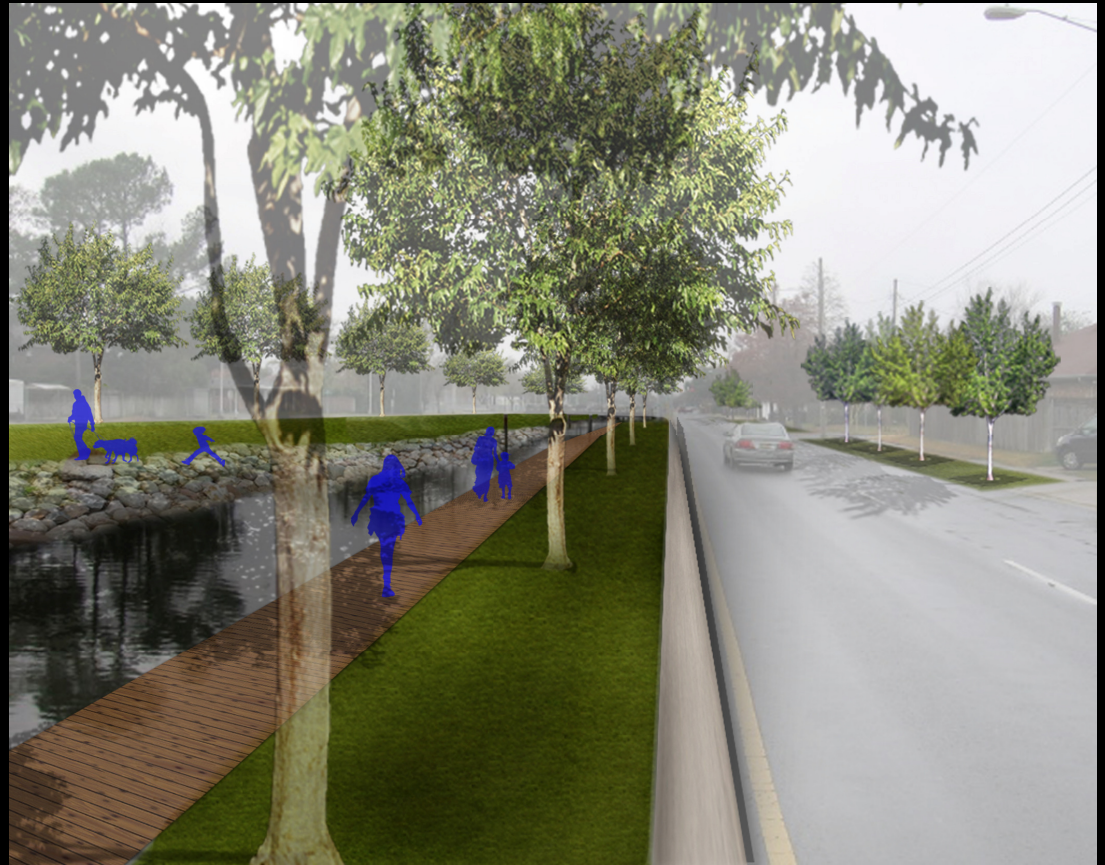
## SECTION A



EXISTING CONDITIONS

SLOPE EROSION AND LIMITED EMBANKMENT AREA ARE COMMON IN THIS AREA.

BOARDWALKS WILL BE BUILT ONTO SIDE SLOPES AND CANTILEVER PART OF THE WATER. THIS ALLOWS FOR STREET TREE AND WETLAND PLANTINGS AS WELL AS RIP RAP OR SLOPE STABILIZATION METHODS.



## SECTION B

THERE IS WIDE AREAS ON THE CANAL EMBANKMENTS AND ROOM FOR DEVELOPMENT.

TRAILS AND WALKS WILL BE BUILT ON GRADE, MEANDERING ALONG THE CANAL. THERE WILL BE STREET TREE PLANTINGS AS WELL AS A GENTLE SLOPE TRANSITION DOWN TO THE WATERS EDGE.



EXISTING CONDITIONS



THE TOTAL RIGHT OF WAY, INCLUDING THE LAND ON THE RESIDENTIAL EDGES OF THE STREETS, NEEDS TO BE INCLUDED. STREET TREES ON EACH SIDE OF THE ROADWAYS WILL UNIFY THE OVERALL STREETScape. DUE TO THE HIGH LEVEL POWER LINES, THERE IS ROOM TO PLANT TREES IN THE ROW WHILE KEEPING THE CANOPIES BELOW THE POWER LINES. THIS WILL RESULT IN A MAJOR VISUAL IMPROVEMENT FOR THE WEST ESPLANADE CANAL CORRIDOR.

## SECTION C

THE DRAINAGE PIPES OFFER A UNIQUE OPPORTUNITY FOR AN IMAGINATIVE ART APPLICATION. LOCAL ARTISTS, RESIDENTS, SCHOOL GROUPS, OR COMMERCIAL ENTITIES CAN ADOPT SECTIONS OF THE CANAL CORRIDOR TO SHOWCASE THEIR UNIQUE NEW ORLEANS FLAIR. JUST AS A TURTLE WOULD CLIMB OUT TO SUN HIMSELF, THOSE PLAYFUL CRITTERS COULD ADD FUN AND EXCITEMENT.



EXISTING CONDITIONS



ART WORK EXHIBITS

AN ART COMPETITION WOULD INVITE ARTISTS AND CRAFTSMEN TO DEVELOP STURDY, COLORFUL "CREATURES" TO MOUNT ATOP THE PIPES. THERE COULD BE SEPARATE ART DISTRICTS AND THEMES THROUGHOUT THE CANAL SYSTEMS.

LET YOUR IMAGINATION RUN WILD!



# SLOPE TREATMENTS AND PIPES:

## COMMON PROBLEMS:



ERODING EDGE



IRREGULAR EDGES AND PIPE LENGTHS



NO EMBANKMENT OR STEEP SLOPES

## PRACTICAL SOLUTIONS:



ROCK AND WIRE GABIONS OR PILING AND BULKHEAD TO CREATE SOLID EDGES AND STABLE SLOPES



BOARDWALKS TO CANTILEVER WATERS EDGE CREATE A MORE PEDESTRIAN FRIENDLY ENVIRONMENT



RIP RAP FOR SLOPE STABILIZATION AND MORE UNIFORM PIPE LENGTHS. CUT PIPES AT ANGLES TO CONFORM TO BANKS.

## Section D



EXISTING CONDITIONS

IN SEVERE SLOPE SITUATIONS, LOW BULKHEADS AND WETLAND PLANTINGS WILL BE INSTALLED AND ALLOWED TO FLOOD WITH WATER LEVELS. THE CONTINUOUS BOARDWALKS AT STREET LEVEL COMPLETE THE PEDESTRIAN ACCESS ALONG THE CANAL.





## WETLAND PLANTING:

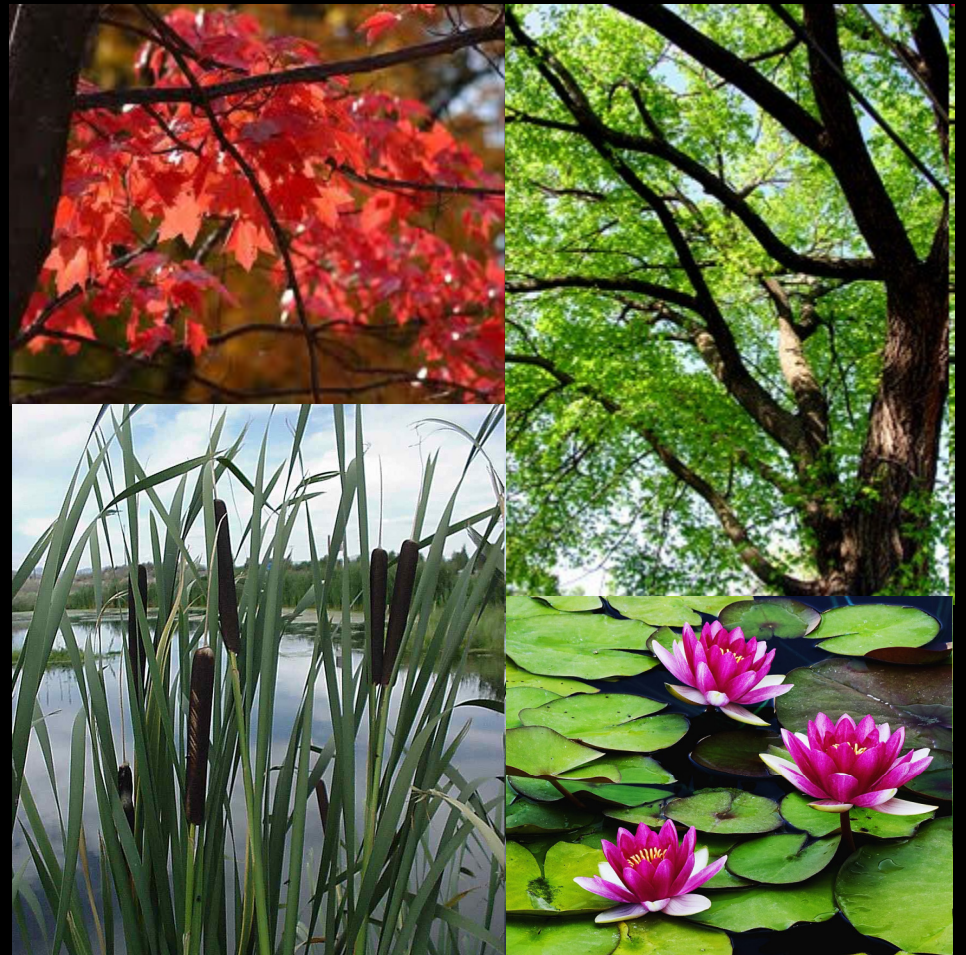
Wetland plants act as natural filters, helping to remove heavy metals, sewage, and pesticides from polluted water before reaching the Gulf of Mexico. It is vital to improve water quality in our canals which are draining into our larger watersheds and eventually the Gulf of Mexico.

### TREES:

- BALD CYPRESS
- SWAMP RED MAPLES
- WILLOWS
- COTTON WOODS
- TUPELO
- ELMS
- ELDERBERRY
- ASH
- HACKBERRY

### SHRUBS AND GROUNCOVERS:

- WAX MYRTLE
- IRIS
- DWARF PALMETTO
- GIANT CUTGRASS
- PICKERELRUSH
- UMBRELLA PLANT
- CATTAILS
- WATER LILIES
- MUHLY GRASS
- SPARTINA SPP.
- SPANISH MOSS
- RUDBEDKIA



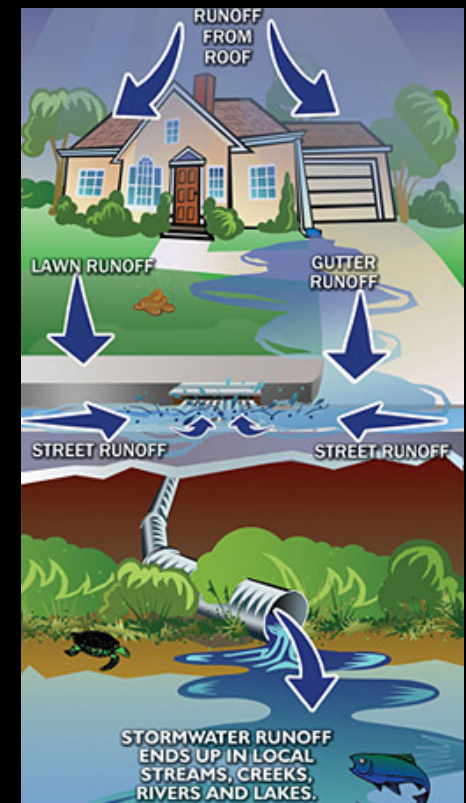
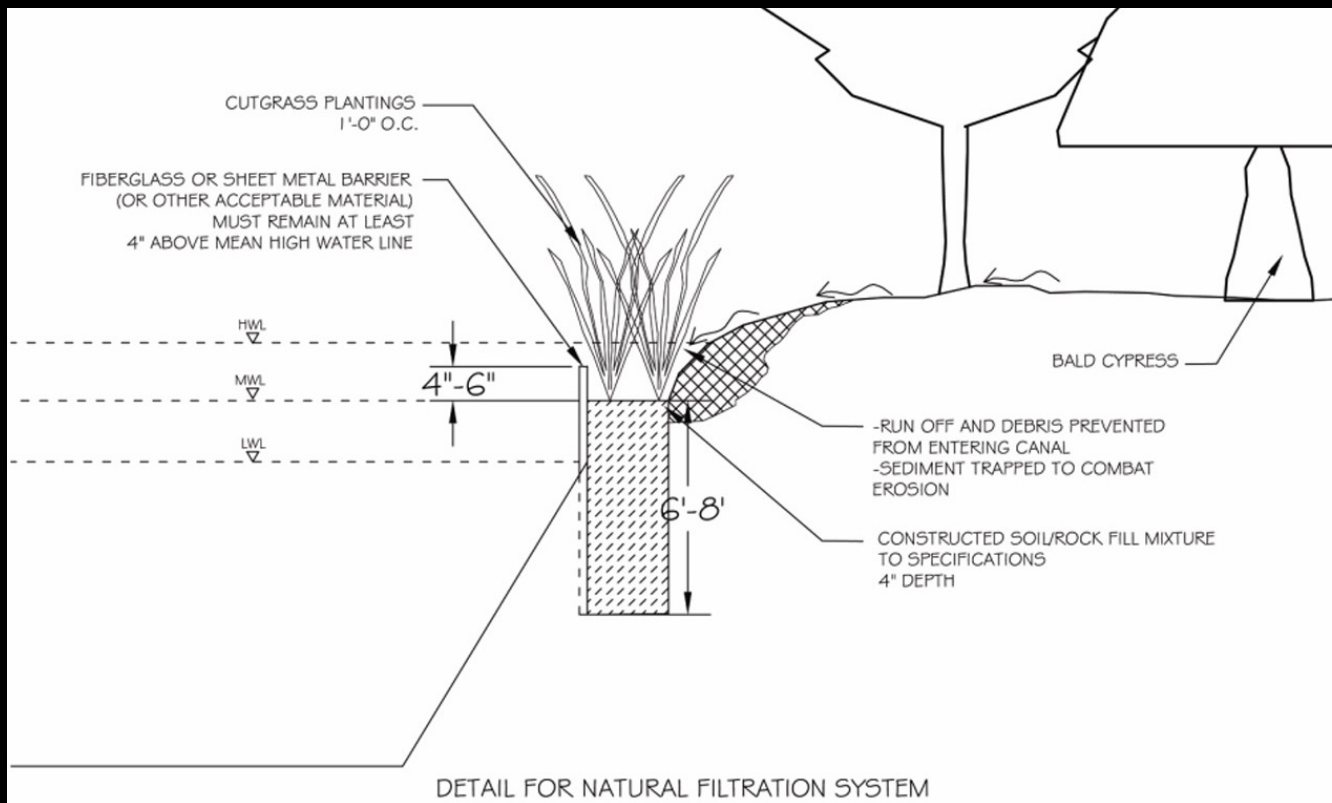
# WATER FILTRATION:

JEFFERSON PARISH HAS CONSISTENTLY HIGH GROUNDWATER TABLES AND AN EXTENSIVE STORMWATER COLLECTION SYSTEM THAT RELIES ON PUMPING SYSTEMS, AND SOILS THAT ALLOW FOR LIMITED INFILTRATION.

INCORPORATING STORMWATER INFRASTRUCTURE BEST MANAGEMENT PRACTICES (BMPs) THROUGH IMPLEMENTATION OF SUCH TECHNIQUES AS BIOFILTER, VEGETATED DETENTION BASINS, URBAN GREENWAYS, STREET TREES, RAIN GARDENS, POROUS PAVEMENT, BIOSWALES AND RAIN HARVESTING DEVICES SHOULD BE INTEGRATED INTO PUBLIC STREET AND CANAL RIGHT-OF-WAYS. THE AFFECT OF THE COMPONENTS THROUGHOUT THE PARISH WILL HAVE A SIGNIFICANT POSITIVE IMPACT ON THE OVERALL WATER QUALITY.

WE WANT TO ENCOURAGE AND PROMOTE THE GREEN INFRASTRUCTURE ALONG THE PUBLIC CANAL/STREET GREENWAY CORRIDORS. BMPs HELP IN THE REDUCTION OF POLLUTANT LOADS AND CONCENTRATIONS TO THE RECEIVING WATERS. OVERALL QUALITY OF LIFE IS ALSO IMPROVED BY THE ADDITIONAL BENEFITS OF PROVIDING IMPROVED RESILIENCE TO FLOODING AND CLIMATE CHANGE. IT WILL ALSO PROVIDE COMMUNITY ACCESS TO PASSIVE AND ACTIVE RECREATIONAL AND EDUCATIONAL OPPORTUNITIES.

WE SHOULD DESIGN AND MAINTAIN COST EFFECTIVE FACILITIES TO MANAGE STORMWATER AT THE SOURCE AND UTILIZE INDIGENOUS PLANTINGS AND SOILS THAT WILL ABSORB, SLOWLY CLEANSE, AND FILTER RUNOFF IN A NATURAL WAY.



# Jefferson Drainage Canal

Apr-11

## AREA 1: Gateway

Features	Quantity	Unit	Cost per Unit	
5' Concrete Walks	550	LF	27.50	\$ 15,125.00
Bike Rack	1	EA	500.00	\$ 500.00
Pavers	800	SF	20.00	\$ 16,000.00
Entry Feature	1	LS		\$ 35,000.00
Interpretive and Wayfinding Signage	1	LS		\$ 10,000.00
Benches	6	EA	800.00	\$ 4,800.00
Lighting	4	EA	3,500.00	\$ 14,000.00
Aeration Fountain	3	EA	3,000.00	\$ 9,000.00
Slope Stabilization (rip rap)	350	SY	60.00	\$ 21,000.00
Shade Trees	60	EA	300.00	\$ 18,000.00
Flowering Trees	30	EA	150.00	\$ 4,500.00
Irrigation 20 gal.gator bags	90	EA	35.00	\$ 3,150.00
Shrubs / Groundcover	1,000	SF	3.50	\$ 3,500.00
<b>Subtotal</b>				<b>\$ 154,575.00</b>

## AREA 2: Gathering & Education

Features	Quantity	Unit	Cost per Unit	
Large Multi-Use Pavilion & Storage (40'x50')	1	EA	100,000.00	\$ 100,000.00
Green Roof on Pavilion	2000	SF	20.00	\$ 40,000.00
Fence 4' picket	300	LF	25.00	\$ 7,500.00
Interpretive and Wayfinding Signage	1	LS		\$ 25,000.00
Bike Rack	2	EA	500.00	\$ 1,000.00
Picnic Tables	9	EA	1,000.00	\$ 9,000.00
Trash Receptacles/ Recycle Bins	4	EA	600.00	\$ 2,400.00
Benches	6	EA	800.00	\$ 4,800.00
Lighting	10	EA	3,500.00	\$ 35,000.00
Aeration Fountain	3	EA	3,000.00	\$ 9,000.00
Parking Spaces (50sp)	1	LS	35,000.00	\$ 35,000.00
5' Concrete Walks	1,000	LF	27.50	\$ 27,500.00
Faux Bridge/Drive	1	LS	20,000.00	\$ 20,000.00
Pedestrian Bridge	1	LS	10,000.00	\$ 10,000.00
Observation Decks	4	EA	5,000.00	\$ 20,000.00
6' Wooden Boardwalks	1,200	LF	45.00	\$ 54,000.00
Slope Stabilization (Gabions) (face s.f.)	4500	SF	15.00	\$ 67,500.00
Bioswale	1500	SF	10.00	\$ 15,000.00
Swamp Red Maple 'Autumn Blaze'	40	EA	400.00	\$ 16,000.00
Saucer Magnolia	30	EA	200.00	\$ 6,000.00
Live Oak	5	EA	400.00	\$ 2,000.00
Irrigation 20 gal.gator bags	75	EA	35.00	\$ 2,625.00
Shrubs / Groundcover	6,500	SF	3.50	\$ 22,750.00
<b>Subtotal</b>				<b>\$ 532,075.00</b>

## AREA 3: Community Gardens

Features	Quantity	Unit	Cost per Unit	
Bike Rack	1	EA	500.00	\$ 500.00
Benches	6	EA	800.00	\$ 4,800.00
6' Wooden Boardwalks	1,800	LF	45.00	\$ 81,000.00
Slope Stabilization (Gabions) (face s.f.)	6000	SF	15.00	\$ 90,000.00
5' Concrete Walks	4,700	LF	27.50	\$ 129,250.00
Observation Decks	20	EA	2,000.00	\$ 40,000.00
Interpretive and Wayfinding Signage	1	LS		\$ 10,000.00
Trash Receptacles/ Recycle Bins	4	EA	600.00	\$ 2,400.00
Fruit Trees	500	EA	150.00	\$ 75,000.00
Lighting	40	EA	3,500.00	\$ 140,000.00
Shade Trees	210	EA	300.00	\$ 63,000.00
Irrigation 20 gal.gator bags	500	EA	35.00	\$ 17,500.00
Community Gardens:				
18" Wooden Planters + Soil	20000	SF	10.00	\$ 200,000.00
<b>Subtotal</b>				<b>\$ 853,450.00</b>

## AREA 4: Gateway & Recreation

Features	Quantity	Unit	Cost per Unit	
Bike Rack	2	EA	500.00	\$ 1,000.00
Earth Berm	250	CY	20.00	\$ 5,000.00
Rubber playground Surfacing	1,800	SF	18.00	\$ 32,400.00
5-12 YRS Play structure	1	LS		\$ 30,000.00
5' Concrete Walks	1,900	LF	27.50	\$ 52,250.00
Pavers	1,400	SF	20.00	\$ 28,000.00
Small Pavilion (20'x24')	2	EA	25,000.00	\$ 50,000.00
Green Roof on Pavilions	1000	SF	20.00	\$ 20,000.00

Picnic Tables	12	EA	1,000.00	\$ 12,000.00
Entry Feature	3	LS	25,000.00	\$ 75,000.00
Interpretive and Wayfinding Signage	1	LS		\$ 10,000.00
Benches	14	EA	800.00	\$ 11,200.00
Trash Receptacles/ Recycle Bins	4	EA	600.00	\$ 2,400.00
Dog Waste Station	3	EA	250.00	\$ 750.00
Lighting	10	EA	3,500.00	\$ 35,000.00
Flowering Trees	50	EA	150.00	\$ 7,500.00
Shade Tree	15	EA	300.00	\$ 4,500.00
Irrigation 20 gal.gator bags	65	EA	35.00	\$ 2,275.00
Shrubs / Groundcover	2,000	SF	3.50	\$ 7,000.00
<b>Subtotal</b>				<b>\$ 386,275.00</b>

## Section A

Features	Quantity	Unit	Cost per Unit	
6' Wooden Boardwalks	1,200	LF	45.00	\$ 54,000.00
Slope Stabilization (rip rap)	3200	SY	60.00	\$ 192,000.00
Trash Receptacles/ Recycle Bins	2	EA	600.00	\$ 1,200.00
Interpretive and Wayfinding Signage	1	LS		\$ 5,000.00
Benches	6	EA	800.00	\$ 4,800.00
Dog Waste Station	2	EA	250.00	\$ 500.00
Lighting	10	EA	3,500.00	\$ 35,000.00
Trees	40	EA	300.00	\$ 12,000.00
<b>Subtotal</b>				<b>\$ 304,500.00</b>

## Section B

Features	Quantity	Unit	Cost per Unit	
pipe cuts	1	LS		\$ 15,000.00
5' Concrete Walks	2,000	LF	1.00	\$ 2,000.00
Trash Receptacles/ Recycle Bins	2	EA	600.00	\$ 1,200.00
Dog Waste Station	2	EA	250.00	\$ 500.00
Interpretive and Wayfinding Signage	1	LS		\$ 5,000.00
Benches	6	EA	800.00	\$ 4,800.00
Lighting	20	EA	3,500.00	\$ 70,000.00
Trees	60	EA	300.00	\$ 18,000.00
Shrubs / Groundcover	5,000	SF	3.50	\$ 17,500.00
Slope Stabilization (rip rap)	820	SY	60.00	\$ 49,200.00
<b>Subtotal</b>				<b>\$ 183,200.00</b>

## Section C

Features	Quantity	Unit	Cost per Unit	
Artwork for Pipes (Donations)	0		0.00	\$ -
Pedestrian Bridges	2	EA	15,000.00	\$ 30,000.00
Trash Receptacles/ Recycle Bins	2	EA	600.00	\$ 1,200.00
Dog Waste Station	2	EA	250.00	\$ 500.00
Interpretive and Wayfinding Signage	1	LS		\$ 5,000.00
Benches	6	EA	800.00	\$ 4,800.00
Lighting	20	EA	3,500.00	\$ 70,000.00
Trees	60	EA	300.00	\$ 18,000.00
Shrubs / Groundcover	10,000	SF	3.50	\$ 35,000.00
Slope Stabilization (Gabions) (face s.f.)	25000	SF	15.00	\$ 375,000.00
<b>Subtotal</b>				<b>\$ 539,500.00</b>

## Section D

Features	Quantity	Unit	Cost per Unit	
6' Wooden Boardwalks	3,000	LF	45.00	\$ 135,000.00
Slope Stabilization (Bulkhead)	1,500	LF	250.00	\$ 375,000.00
Trash Receptacles/ Recycle Bins	2	EA	600.00	\$ 1,200.00
Dog Waste Station	2	EA	250.00	\$ 500.00
Interpretive and Wayfinding Signage	1	LS		\$ 5,000.00
Benches	6	EA	800.00	\$ 4,800.00
Lighting	20	EA	3,500.00	\$ 70,000.00
Trees	100	EA	300.00	\$ 30,000.00
Shrubs / Groundcover	9,500	SF	3.50	\$ 33,250.00
<b>Subtotal</b>				<b>\$ 654,750.00</b>

## Magnitude Cost

Cost Breakdown	Phase 1
<b>Total</b>	<b>\$ 3,608,325.00</b>
Contingency 10%	\$ 360,832.50
<b>Project Totals</b>	<b>\$ 3,969,157.50</b>

\* all furnishings to be made with recycled materials

\*\*planting and labor can be donated through volunteer programs to help reduce cost

## FUNDING OPPORTUNITIES:

There are many avenues of public funds that can be used to promote education, recreation, and improved water quality.

- Groundwork USA – Programs for community gardens, education on environmental improvements, trail restoration, and youth leadership programs. [www.groundworkusa.com](http://www.groundworkusa.com)
- New Orleans Neighborhood Partnership Network – Giving neighborhoods a combined voice in civic processes as well as joint resources between areas. [www.npnnola.com](http://www.npnnola.com)
- Lake Pontchartrain Basin Foundation – Provides programs on restoration, education, and preservation of the Lake Pontchartrain Basin in its entirety. [www.saveourlake.org](http://www.saveourlake.org)
- National Fish and Wildlife Foundation – Provides funding for projects that sustain, restore, and enhance fish, plant, and wildlife habitats. [www.nfwf.org](http://www.nfwf.org)
- Louisiana Department of Transportation – Provides grants and programs that integrate bicycle and pedestrian trails into the state's transportation system. [www.dotd.la.gov](http://www.dotd.la.gov)
- Louisiana Department of Environmental Quality – Provides grants for small communities promoting environmental regulatory assistance. [www.deq.louisiana.gov](http://www.deq.louisiana.gov)
- Louisiana Department of Natural Resources – Provides programs for wetland conservation of local estuaries and waterways. [www.dnr.louisiana.gov](http://www.dnr.louisiana.gov)
- Sustainable Sites Initiative – Promotes land development and managements practices that include buffer zones, easements, and transportation right of ways. [www.sustainableites.org](http://www.sustainableites.org)
- Land & Water Conservation Fund – Provides matching grants to local governments for the development of public outdoor recreation areas and facilities. [www.nps.gov/lwcf](http://www.nps.gov/lwcf)

Private Funding from hospitals, medical groups, universities, churches, local artists, and citizens are also viable options for monetary support.



# Jefferson Drainage Canal

Apr-11

## **AREA 1: Gateway**

<b>Features</b>	<b>Quantity</b>	<b>Unit</b>	<b>Cost per Unit</b>	
5' Concrete Walks	550	LF	27.50 \$	15,125.00
Bike Rack	1	EA	500.00 \$	500.00
Pavers	800	SF	20.00 \$	16,000.00
Entry Feature	1	LS	\$	35,000.00
Interpretive and Wayfinding Signage	1	LS	\$	10,000.00
Benches	6	EA	800.00 \$	4,800.00
Lighting	4	EA	3,500.00 \$	14,000.00
Aeration Fountain	3	EA	3,000.00 \$	9,000.00
Slope Stabilization (rip rap)	350	SY	60.00 \$	21,000.00
Shade Trees	60	EA	300.00 \$	18,000.00
Flowering Trees	30	EA	150.00 \$	4,500.00
Irrigation 20 gal.gator bags	90	EA	35.00 \$	3,150.00
Shrubs / Groundcover	1,000	SF	3.50 \$	3,500.00
<b>Subtotal</b>			<b>\$</b>	<b>154,575.00</b>

## **AREA 2: Gathering and Education**

<b>Features</b>	<b>Quantity</b>	<b>Unit</b>	<b>Cost per Unit</b>	
Large Multi-Use Pavilion & Storage (40'x50')	1	EA	100,000.00 \$	100,000.00
Green Roof on Pavilion	2000	SF	20.00 \$	40,000.00
Fence 4' picket	300	LF	25.00 \$	7,500.00
Interpretive and Wayfinding Signage	1	LS	\$	25,000.00
Bike Rack	2	EA	500.00 \$	1,000.00
Picnic Tables	9	EA	1,000.00 \$	9,000.00
Trash Receptacles/ Recycle Bins	4	EA	600.00 \$	2,400.00
Benches	6	EA	800.00 \$	4,800.00
Lighting	10	EA	3,500.00 \$	35,000.00
Aeration Fountain	3	EA	3,000.00 \$	9,000.00
Parking Spaces (50sp)	1	LS	35,000.00 \$	35,000.00
5' Concrete Walks	1,000	LF	27.50 \$	27,500.00
Faux Bridge/Drive	1	LS	20,000.00 \$	20,000.00
Pedestrian Bridge	1	LS	10,000.00 \$	10,000.00
Observation Decks	4	EA	5,000.00 \$	20,000.00
6' Wooden Boardwalks	1,200	LF	45.00 \$	54,000.00
Slope Stabilization (Gabions) (face s.f.)	4500	SF	15.00 \$	67,500.00
Bioswale	1500	SF	10.00 \$	15,000.00
Swamp Red Maple 'Autumn Blaze'	40	EA	400.00 \$	16,000.00
Saucer Magnolia	30	EA	200.00 \$	6,000.00
Live Oak	5	EA	400.00 \$	2,000.00
Irrigation 20 gal.gator bags	75	EA	35.00 \$	2,625.00
Shrubs / Groundcover	6,500	SF	3.50 \$	22,750.00
<b>Subtotal</b>			<b>\$</b>	<b>532,075.00</b>

## **AREA 3: The Grove**

<b>Features</b>	<b>Quantity</b>	<b>Unit</b>	<b>Cost per Unit</b>	
Bike Rack	1	EA	500.00 \$	500.00
Benches	6	EA	800.00 \$	4,800.00

6' Wooden Boardwalks	1,800	LF	45.00 \$	81,000.00
Slope Stabilization (Gabions) (face s.f.)	6000	SF	15.00 \$	90,000.00
5' Concrete Walks	4,700	LF	27.50 \$	129,250.00
Observation Decks	20	EA	2,000.00 \$	40,000.00
Interpretive and Wayfinding Signage	1	LS	\$	10,000.00
Trash Receptacles/ Recycle Bins	4	EA	600.00 \$	2,400.00
Fruit Trees	500	EA	150.00 \$	75,000.00
Lighting	40	EA	3,500.00 \$	140,000.00
Shade Trees	210	EA	300.00 \$	63,000.00
Irrigation 20 gal.gator bags	500	EA	35.00 \$	17,500.00
Community Gardens:				
18" Wooden Planters + Soil	20000	SF	10.00 \$	200,000.00
<b>Subtotal</b>			<b>\$</b>	<b>853,450.00</b>

### **AREA 4: Gateway Recreation**

<b>Features</b>	<b>Quantity</b>	<b>Unit</b>	<b>Cost per Unit</b>	
Bike Rack	2	EA	500.00 \$	1,000.00
Earth Berm	250	CY	20.00 \$	5,000.00
Rubber playground Surfacing	1,800	SF	18.00 \$	32,400.00
5-12 YRS Play structure	1	LS	\$	30,000.00
5' Concrete Walks	1,900	LF	27.50 \$	52,250.00
Pavers	1,400	SF	20.00 \$	28,000.00
Small Pavilion (20'x24')	2	EA	25,000.00 \$	50,000.00
Green Roof on Pavilions	1000	SF	20.00 \$	20,000.00
Picnic Tables	12	EA	1,000.00 \$	12,000.00
Entry Feature	3	LS	25,000.00 \$	75,000.00
Interpretive and Wayfinding Signage	1	LS	\$	10,000.00
Benches	14	EA	800.00 \$	11,200.00
Trash Receptacles/ Recycle Bins	4	EA	600.00 \$	2,400.00
Dog Waste Station	3	EA	250.00 \$	750.00
Lighting	10	EA	3,500.00 \$	35,000.00
Flowering Trees	50	EA	150.00 \$	7,500.00
Shade Tree	15	EA	300.00 \$	4,500.00
Irrigation 20 gal.gator bags	65	EA	35.00 \$	2,275.00
Shrubs / Groundcover	2,000	SF	3.50 \$	7,000.00
<b>Subtotal</b>			<b>\$</b>	<b>386,275.00</b>

### **Section A**

<b>Features</b>	<b>Quantity</b>	<b>Unit</b>	<b>Cost per Unit</b>	
6' Wooden Boardwalks	1,200	LF	45.00 \$	54,000.00
Slope Stabilization (rip rap)	3200	SY	60.00 \$	192,000.00
Trash Receptacles/ Recycle Bins	2	EA	600.00 \$	1,200.00
Interpretive and Wayfinding Signage	1	LS	\$	5,000.00
Benches	6	EA	800.00 \$	4,800.00
Dog Waste Station	2	EA	250.00 \$	500.00
Lighting	10	EA	3,500.00 \$	35,000.00
Trees	40	EA	300.00 \$	12,000.00
<b>Subtotal</b>			<b>\$</b>	<b>304,500.00</b>

### **Section B**

<b>Features</b>	<b>Quantity</b>	<b>Unit</b>	<b>Cost per Unit</b>	
pipe cuts	1	LS	\$	15,000.00

5' Concrete Walks	2,000	LF	1.00 \$	2,000.00
Trash Receptacles/ Recycle Bins	2	EA	600.00 \$	1,200.00
Dog Waste Station	2	EA	250.00 \$	500.00
Interpretive and Wayfinding Signage	1	LS	\$	5,000.00
Benches	6	EA	800.00 \$	4,800.00
Lighting	20	EA	3,500.00 \$	70,000.00
Trees	60	EA	300.00 \$	18,000.00
Shrubs / Groundcover	5,000	SF	3.50 \$	17,500.00
Slope Stabilization (rip rap)	820	SY	60.00 \$	49,200.00
<b>Subtotal</b>			<b>\$</b>	<b>183,200.00</b>

### Section C

Features	Quantity	Unit	Cost per Unit	
Artwork for Pipes (Donations)	0		0.00 \$	-
Pedestrian Bridges	2	EA	15,000.00 \$	30,000.00
Trash Receptacles/ Recycle Bins	2	EA	600.00 \$	1,200.00
Dog Waste Station	2	EA	250.00 \$	500.00
Interpretive and Wayfinding Signage	1	LS	\$	5,000.00
Benches	6	EA	800.00 \$	4,800.00
Lighting	20	EA	3,500.00 \$	70,000.00
Trees	60	EA	300.00 \$	18,000.00
Shrubs / Groundcover	10,000	SF	3.50 \$	35,000.00
Slope Stabilization (Gabions) (face s.f.)	25000	SF	15.00 \$	375,000.00
<b>Subtotal</b>			<b>\$</b>	<b>539,500.00</b>

### Section D

Features	Quantity	Unit	Cost per Unit	
6' Wooden Boardwalks	3,000	LF	45.00 \$	135,000.00
Slope Stabilization (Bulkhead)	1,500	LF	250.00 \$	375,000.00
Trash Receptacles/ Recycle Bins	2	EA	600.00 \$	1,200.00
Dog Waste Station	2	EA	250.00 \$	500.00
Interpretive and Wayfinding Signage	1	LS	\$	5,000.00
Benches	6	EA	800.00 \$	4,800.00
Lighting	20	EA	3,500.00 \$	70,000.00
Trees	100	EA	300.00 \$	30,000.00
Shrubs / Groundcover	9,500	SF	3.50 \$	33,250.00
<b>Subtotal</b>			<b>\$</b>	<b>654,750.00</b>

### Magnitude Cost

Cost Breakdown	Phase 1
<b>Total</b>	<b>\$ 3,608,325.00</b>
<b>Contingency 10%</b>	<b>\$ 360,832.50</b>
<b>Project Totals</b>	<b>\$ 3,969,157.50</b>

\* all furnishings to be made with recycled materials

\*\*planting and labor can be donated through volunteer programs to help reduce cost





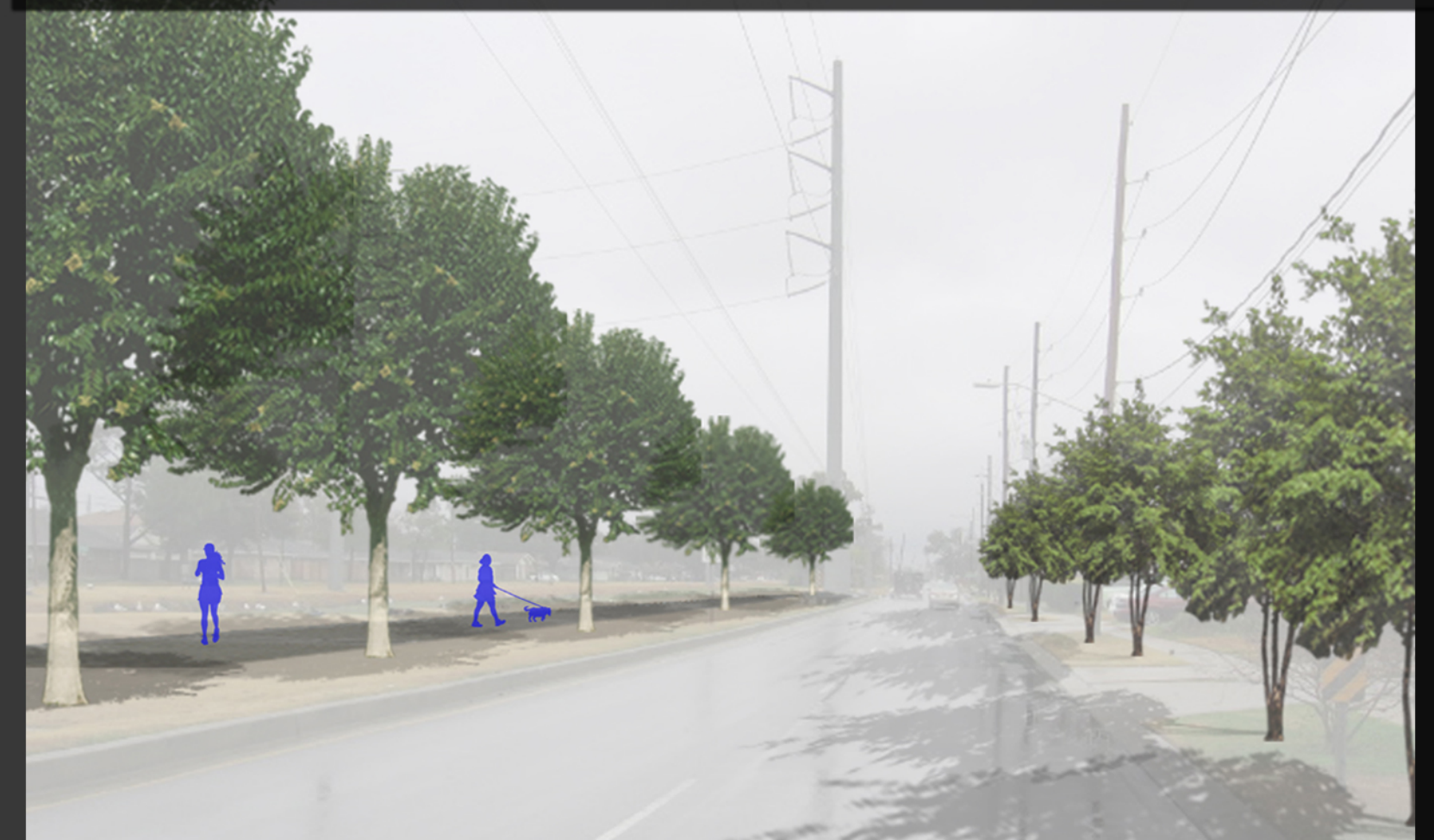
# JEFFERSON DRAINAGE CANAL:

# THE LIFELINE OF OUR COMMUNITY:

THE CANAL SYSTEMS THROUGHOUT NEW ORLEANS ARE CRITICAL FOR ITS FUNCTION AND SURVIVAL. CONNECTING DIFFERENT COMMUNITIES WITHIN THE CITY, THEY PROVIDE UNIQUE URBAN PARK AND EDUCATIONAL OPPORTUNITIES. IT IS TIME TO APPRECIATE AND UTILIZE THESE LIFELINES OF OUR COMMUNITY.



IN LIMITED BANK AREAS, BOARDWALKS WILL BE BUILT ONTO SIDE SLOPES AND CANTILEVER SECTION OF THE CANAL. THIS ALLOWS FOR STREET TREE, WETLAND PLANTINGS AND RIP RAP FOR SLOPE STABILIZATION.



BY ENHANCING THE GREENWAY WITH STREET TREES ALONG BOTH SIDES OF ESPLANADE AND CREATING SHADE/VISUAL APPEAL, THIS AREA WILL BECOME A MORE USEFUL COMMUNITY SPACE. INTERPRETIVE SIGNAGE ALONG ENTIRE TRAIL SYSTEM WILL EXPLAIN CANAL HISTORY, WETLAND PLANTINGS, AND WATER QUALITY.



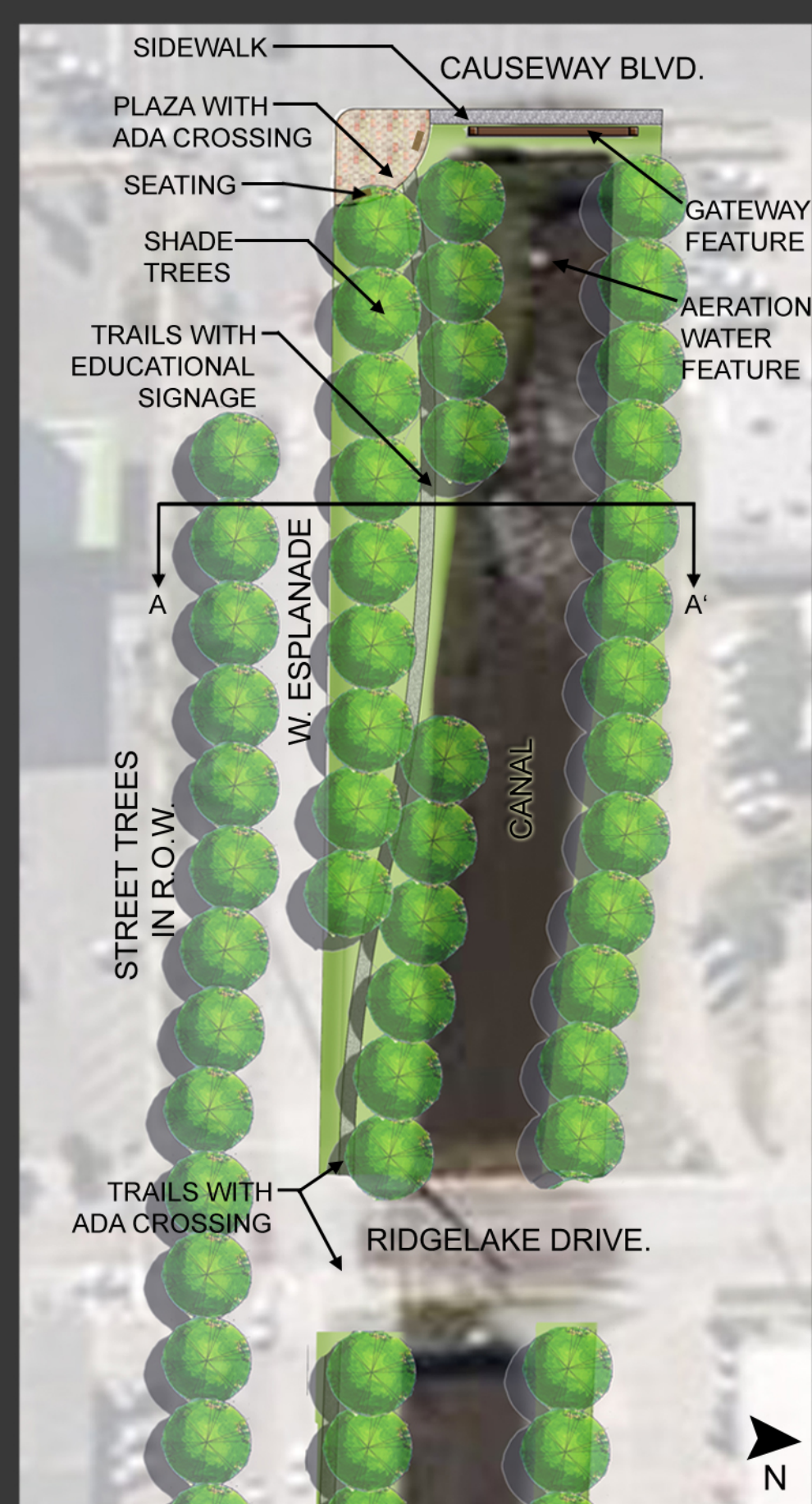
THE DRAINAGE PIPES OFFER A UNIQUE OPPORTUNITY FOR AN IMAGINATIVE ART APPLICATION. LOCAL ARTISTS, RESIDENTS, SCHOOL GROUPS, OR COMMERCIAL ENTITIES CAN ADOPT SECTIONS OF THE CANAL CORRIDOR TO SHOWCASE THEIR UNIQUE NEW ORLEANS FLAIR. JUST AS A TURTLE WOULD CLIMB OUT TO SUN HIMSELF, THOSE PLAYFUL CRITTERS COULD ADD FUN AND EXCITEMENT.



IN SEVERE SLOPE SITUATIONS, LOW BULKHEADS AND WETLAND PLANTINGS WILL BE INSTALLED AND ALLOWED TO FLOOD WITH WATER LEVELS. THE CONTINUOUS BOARDWALKS AT STREET LEVEL COMPLETE THE PEDESTRIAN ACCESS ALONG THE CANAL.

# FILTERING LIFE THROUGH THE CITY

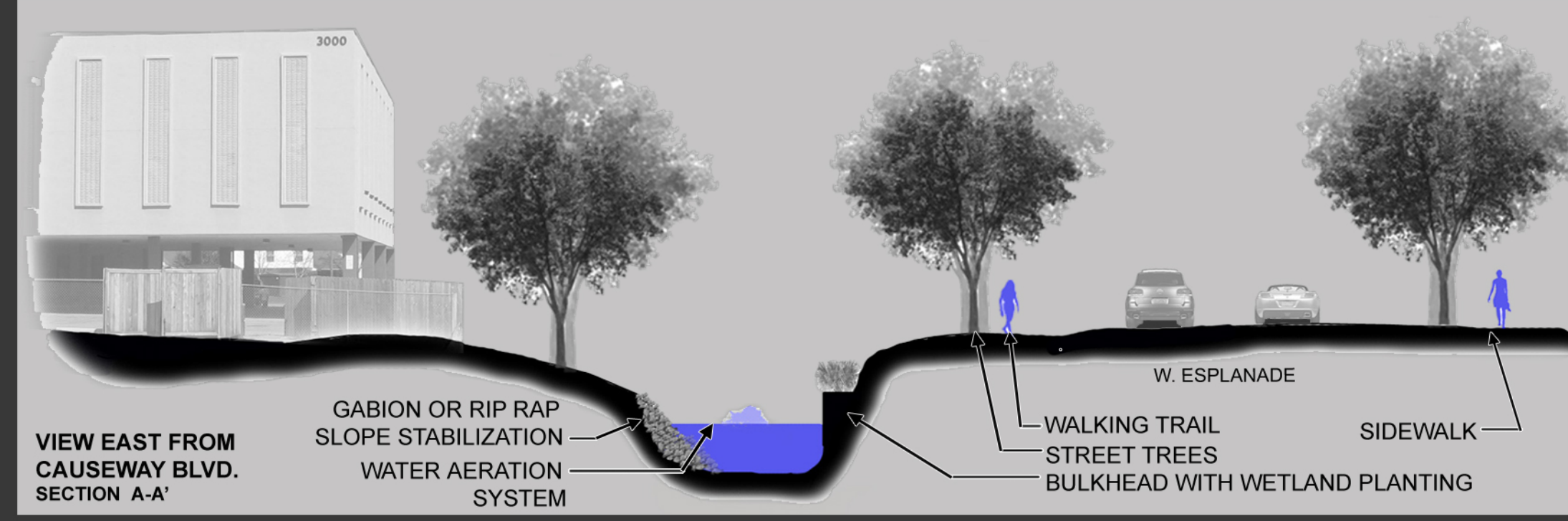
## AREA 1: GATEWAY



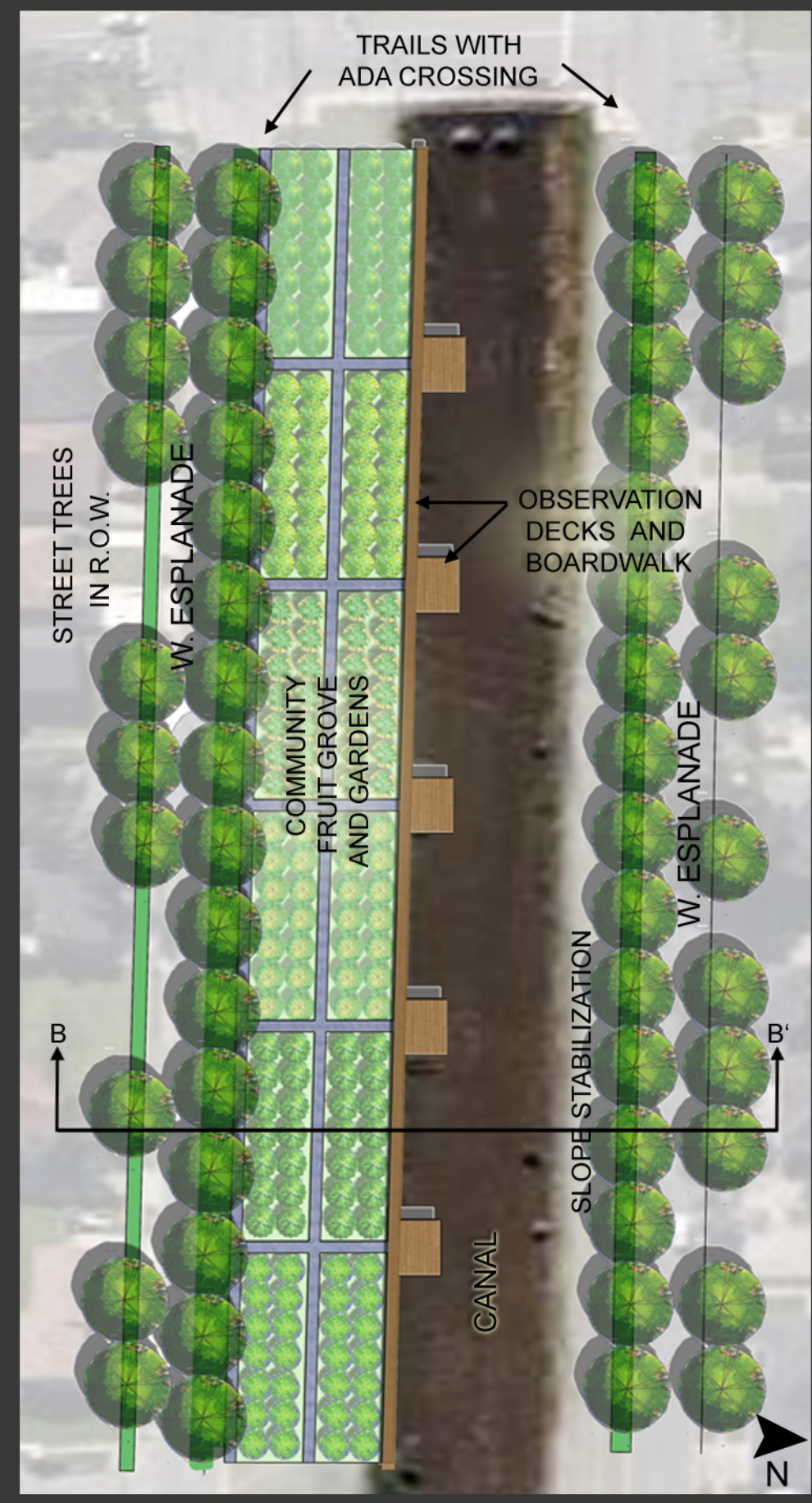
**ESPLANADE PARK GATEWAY**

AT CAUSEWAY BLVD, A SPECIAL ENTRANCE TO THE PARKWAY IS DESIGNED TO PROVIDE PROPER INTRODUCTION TO THE CANAL CORRIDOR. THE ENTRY FEATURE AND PLAZA WILL BE DESIGNED WITH NATURAL CHARACTER AND MATERIALS SUCH AS STONE, WOOD, AND METAL TO BE CARRIED THROUGHOUT THE PROJECT.

THE BANK ON THE SOUTHERN SIDE OF THE CANAL IS LARGER; THEREFORE, WILL ACCOMMODATE WALKWAYS AND DOUBLE ROWS OF SHADE TREES. THE NORTHERN SIDE OF THE CANAL WILL HAVE ENHANCEMENT PLANTINGS AND SLOPE STABILIZATION. INTERPRETIVE SIGNAGE ALONG THE CANAL WILL EXPLAIN CANAL HISTORY, SIGNIFICANCE, AND WATER QUALITY.



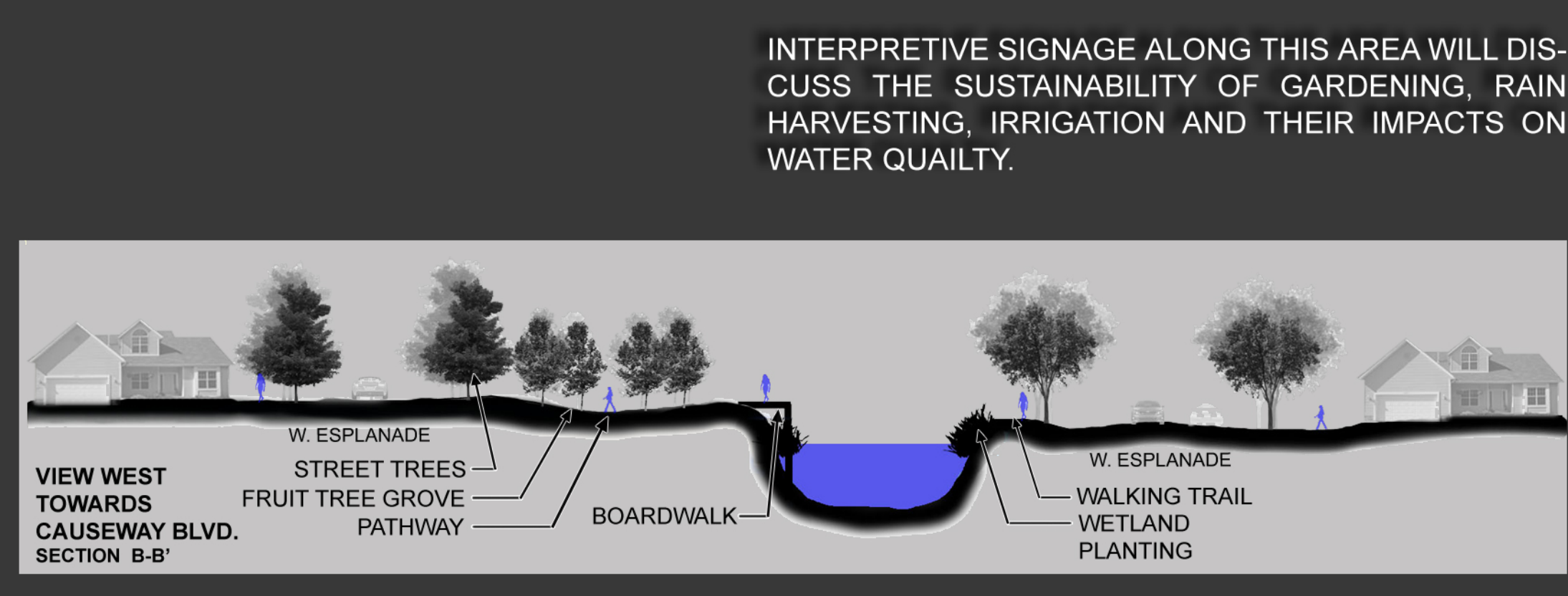
## AREA 3: COMMUNITY GARDENS



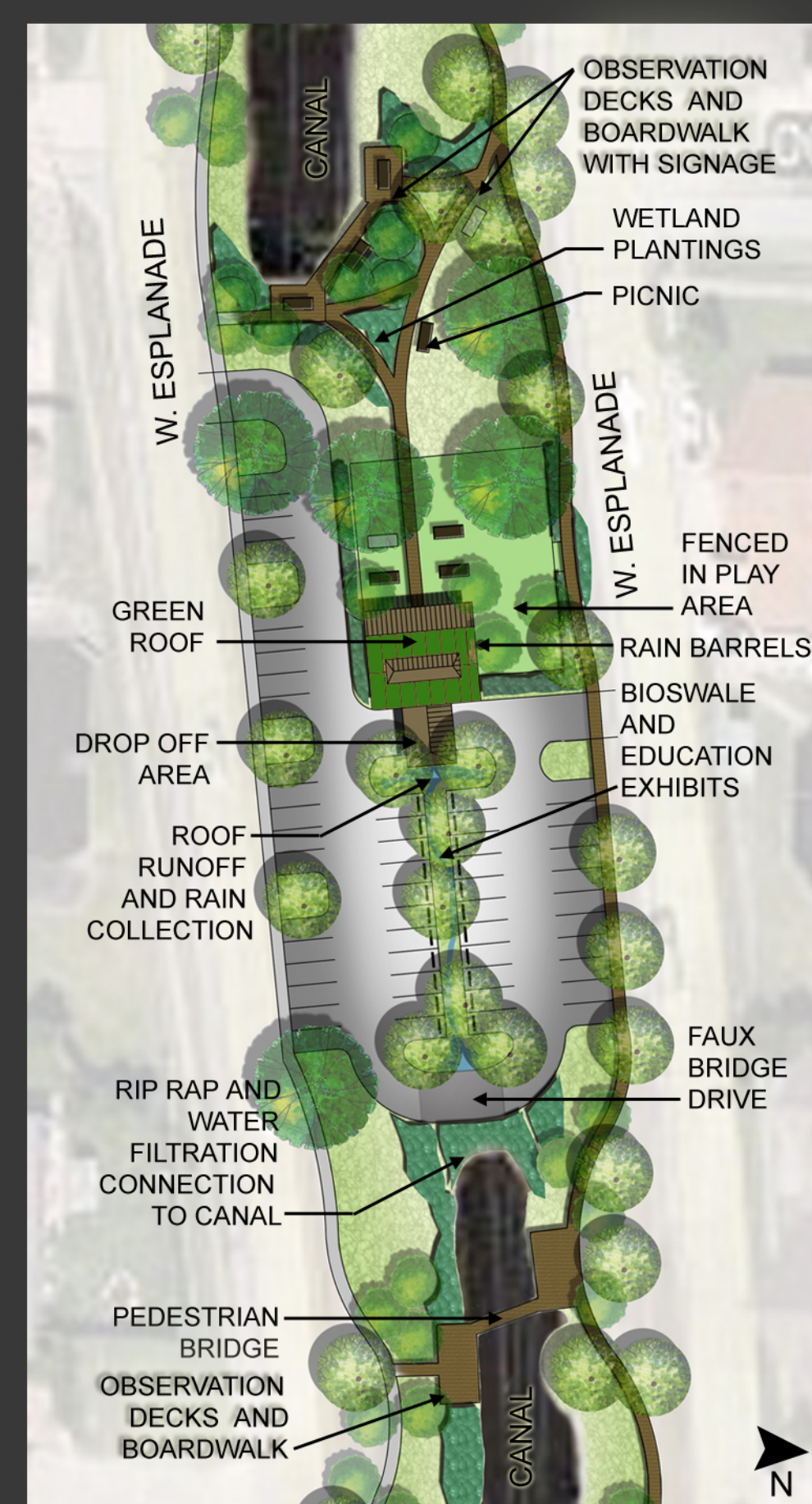
**COMMUNITY FRUIT ORCHARD**

THE KEY TO THE IMPROVEMENT OF THE CANAL AESTHETICS IS THE REINFORCEMENT OF THE EMBANKMENTS ALONG THE WATER'S EDGE. UNSTABLE SOILS ARE COLLAPSING INTO THE CANAL. THEY ARE NOT ONLY LOWERING THE EFFICIENCY OF THE DRAINAGE CAPACITY, BUT ARE ALSO UNATTRACTIVE. REGRADING THE SLOPES AFTER THE EDGE REINFORCEMENTS ARE INSTALLED WILL RESULT IN IMPORTANT AESTHETIC IMPROVEMENTS. AT THIS TIME, SELECTED PLANTINGS WILL BE INSTALLED. IN PLACES WITH NARROW EMBANKMENTS, SPECIAL PROVISIONS WILL BE REQUIRED TO CREATE THE CONDITIONS NEEDED TO SUPPORT TREES. IN AREAS SUCH AS THIS (AREA 3) WE HAVE A LARGE RIGHT OF WAY AND AMPLE ROOM FOR PLANTING. WE SUGGEST A GROVE OF FRUIT TREES ALONG WITH COMMUNITY GARDENS TO PROMOTE ACTIVITY, INTERACTION, A HEALTHY LIFESTYLE AND EDUCATION.

INTERPRETIVE SIGNAGE ALONG THIS AREA WILL DISCUSS THE SUSTAINABILITY OF GARDENING, RAIN HARVESTING, IRRIGATION AND THEIR IMPACTS ON WATER QUALITY.



## AREA 2: GATHERING AND EDUCATION



**OBSERVATION BOARDWALKS**

AT THE CROSSING OF THE TWO CANALS, A CENTRAL GATHERING AND EDUCATION STATION IS PROPOSED. A GREENROOF PAVILION WITH A COVERED DROP OFF AND PARKING AREA WILL UTILIZE BEST MANAGEMENT PRACTICES FOR A SUSTAINABLE DESIGN. THESE PRACTICES WOULD INCLUDE CATCHING SURFACE FLOW IN BIOSWALES AND ROOF RUNOFF IN RAIN BARRELS. STUDENTS AND VISITORS WILL LEARN HOW CANALS ARE ESSENTIAL TO OUR COMMUNITY WATER QUALITY. EDUCATIONAL EXHIBITS WILL SHOW THE USE OF WATER AERATION, WETLAND PLANT MATERIALS AND DIAGRAMS SHOWING HOW THE WATER CAN BE NATURALLY TREATED ON SITE. STUDENTS CAN TAKE SAMPLES OF THE CANAL WATER TO THE PAVILION FOR ANALYSIS AND TO EDUCATE THESE FUTURE CITIZENS ABOUT THE IMPORTANCE OF PREVENTING POLLUTION OF OUR WATERWAYS. THE EXHIBITS WILL ALSO ILLUSTRATE THE IMPORTANCE OF THESE CANALS TO THE LIFELINE OF THE COMMUNITY BY PREVENTING FLOODING. A WORKING MODEL CAN BE DISPLAYED AND USED BY THE STUDENTS TO UNDERSTAND HOW OVERALL DRAINAGE OPERATES.

## AREA 4: GATEWAY RECREATION



**PASSIVE PLAY AREA**

THE RIGHT OF WAY IS GENEROUSLY WIDE AT THE EASTERN END OF THE CORRIDOR. THE CANAL IS COMPLETELY CULVERTED IN THIS AREA WHICH ALLOWS FOR GREAT OPEN PLAY AREAS.

NEIGHBORHOOD MINI-PARKS CAN BE CREATED WITH THREE DIFFERENT LEVELS OF PLAY OR INTENDED USE:

- 1) AT SEMINOLE AVENUE, THE PARK WILL HAVE PAVILIONS AND SEATING AREAS WITH OPEN FIELDS FOR PLAY.
- 2) AT CAROLTON AVENUE, THE PARK HAS MEANDERING TRAILS AND LARGE EARTH BERMS FOR NATURAL AND PASSIVE PLAY AREAS
- 3) AT LAKE AVENUE, THE PARK HAS A STRUCTURED PLAY AREA WITH EQUIPMENT AND SAFETY RUBBER SURFACING. THERE WILL ALSO BE ENTRY FEATURES MIRRORING THE GATEWAY AT CAUSEWAY BLVD.

THE TRAILS ARE CONTINUOUS FROM ONE GATEWAY TO THE OTHER. THERE WILL BE MILE MARKERS ALONG THE WAY FOR EXERCISING AND INTERPRETIVE SIGNAGE, SUCH AS, PLANT IDENTIFICATION, ENVIRONMENTAL EDUCATION, AND CANAL HISTORY.

WE WANT TO PROMOTE PEOPLE TO GET OUT AND USE OUR PARKS AND PUBLIC SPACES. ACTIVE, EDUCATED, HEALTHY LIFESTYLES ARE IMPORTANT FOR SURVIVAL JUST AS OUR WATERWAYS ARE THE LIFELINES OF OUR COMMUNITIES.

"BLUE" SYMBOLIZES TRANQUILITY AND CALMNESS WHICH IS BENEFICIAL FOR MIND AND BODY. IT ALSO REPRESENTS CLEANLINESS AND PURIFICATION WHICH IS WHAT WE ARE PROMOTING IN THE DESIGN AND WITHIN THE COMMUNITY.