

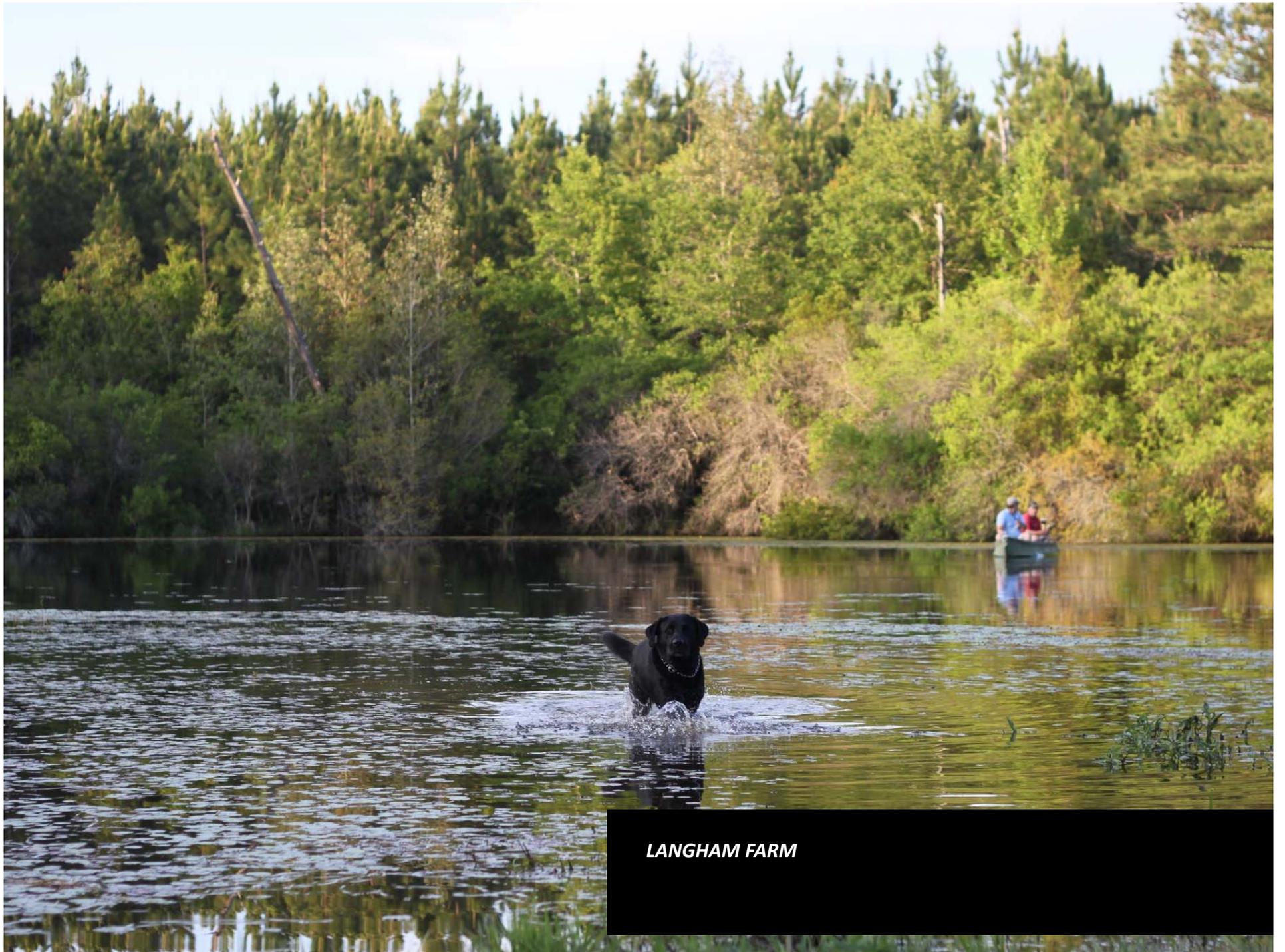


**CREATIVE STORMWATER DESIGN &  
GREEN INFRASTRUCTURE:  
THE GENETTA PARK PROJECT**



**Presented by:  
Presented to:**

**Judd Langham, PLA, ASLA, LEED AP  
NPS Conference  
January 22, 2014**



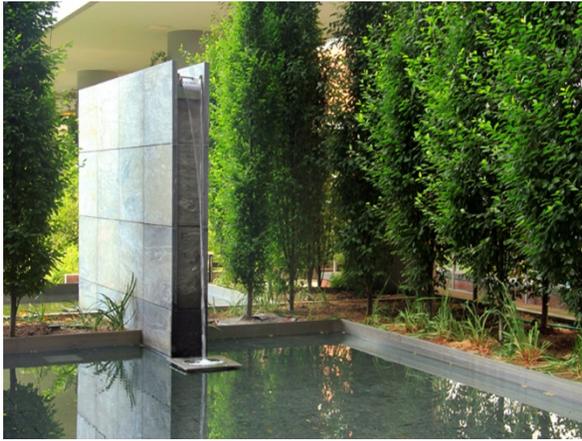
***LANGHAM FARM***



**DAVIS ARBORETUM AT AUBURN UNIVERSITY: 2006-2007**



*DAVIS ARBORETUM AT AUBURN UNIVERSITY: 2006-2007*



***PROJECT EXPERIENCE***



## CREATIVE STORMWATER DESIGN & GREEN INFRASTRUCTURE



- design principles
- project site overview & history
- phase I: constructed wetland
- phase II: park & green infrastructure

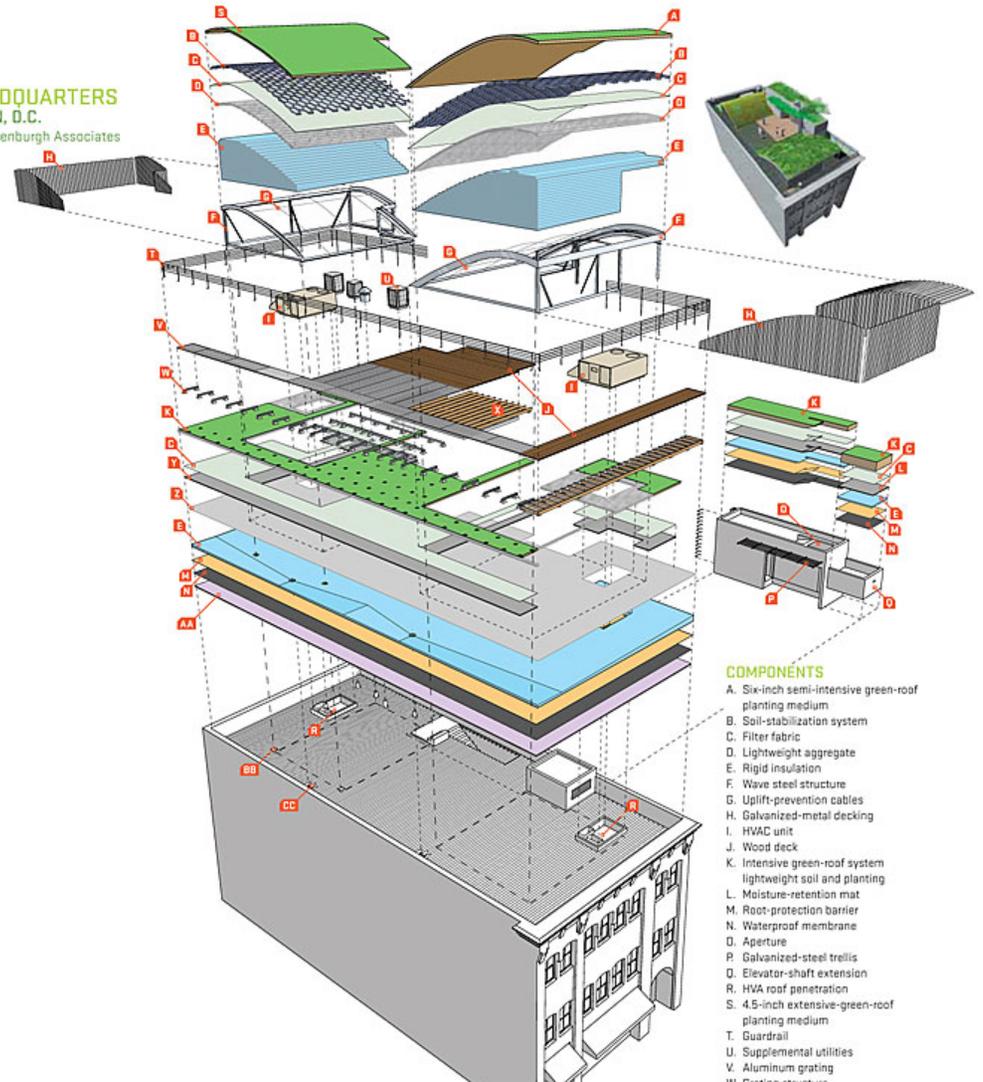
**GREEN INFRASTRUCTURE = USING LANDSCAPE  
AS INFRASTRUCTURE**

**Regional Vision**

**Everyone Gets Involved**

**GREEN INFRASTRUCTURE *DEFINITION***

**ASLA HEADQUARTERS**  
**WASHINGTON, D.C.**  
 Michael Van Valkenburgh Associates



- COMPONENTS**
- A. Six-inch semi-intensive green-roof planting medium
  - B. Soil-stabilization system
  - C. Filter fabric
  - D. Lightweight aggregate
  - E. Rigid insulation
  - F. Wave steel structure
  - G. Uplift-prevention cables
  - H. Galvanized-metal decking
  - I. HVAC unit
  - J. Wood deck
  - K. Intensive green-roof system lightweight soil and planting
  - L. Moisture-retention mat
  - M. Root-protection barrier
  - N. Waterproof membrane
  - O. Aperture
  - P. Galvanized-steel trellis
  - Q. Elevator-shaft extension
  - R. HVA roof penetration
  - S. 4.5-inch extensive-green-roof planting medium
  - T. Guardrail
  - U. Supplemental utilities
  - V. Aluminum grating
  - W. Grating structure
  - X. Wood deck structure
  - Y. Water-retention component
  - Z. Aeration layer
  - AA. Dense deck
  - BB. Wave structural connections
  - CC. Relocated roof drains

**GREEN INFRASTRUCTURE GREENROOFS**



**GREEN INFRASTRUCTURE *POUROS*/PERMEABLE PAVING**



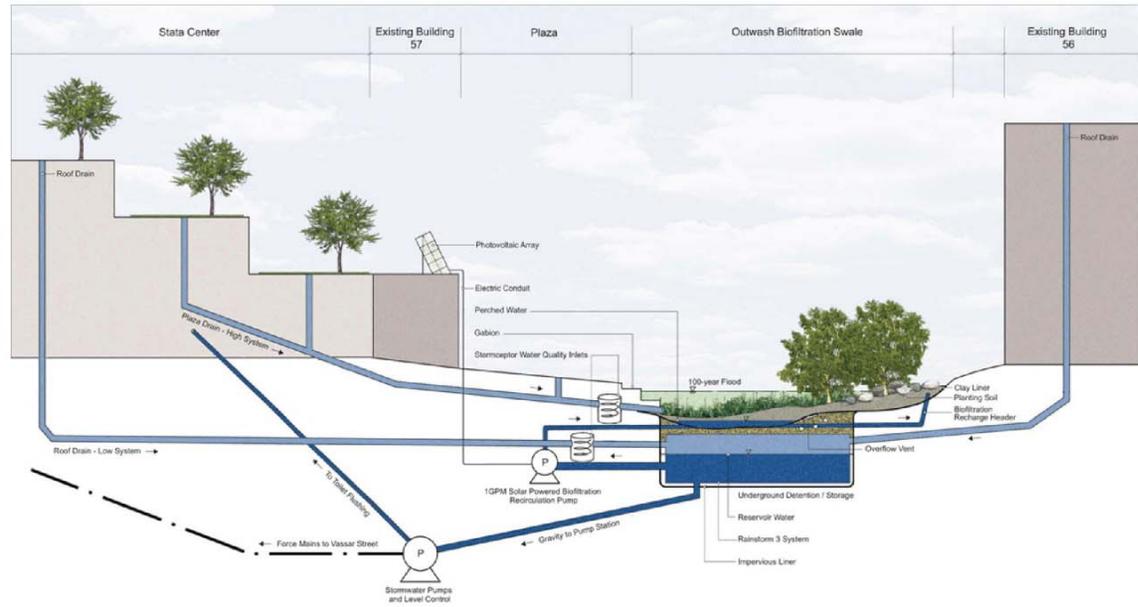
**GREEN INFRASTRUCTURE *BIO-SWALES***



**GREEN INFRASTRUCTURE RAIN GARDENS**



Stata Cener Stormwater Schematic Cross-Section, provided by The Olin Studio



Yale FES - The Olin Studio



University of British Columbia - The Olin Studio



Alterra Institute for Environmental Research - Michael Singer



Parc Andre Citroen - or Gilles Clement and Alain Provost

## *Additional infrastructure*

# GREEN INFRASTRUCTURE CISTERNS



*Additional infrastructure*

**GREEN INFRASTRUCTURE GREEN STREETS**



*Additional infrastructure*

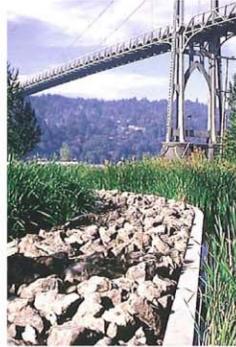
**GREEN INFRASTRUCTURE GREEN WALLS**

# Benefits

- Improve health, specifically mental health;
- Boost education/awareness, specifically for children;
- Reduce energy usage through passive heating and cooling;
- Less crime, green spaces have less crime;
- Filter air and water pollutants;
- Decrease solar heat gain;
- Provide wildlife habitat;
- Reduce the public cost of stormwater management infrastructure and provide flood control;
- Offer food sources;
- Combating climate change, creating healthy built environments, and improving quality of life.

<http://www.asla.org/greeninfrastructure.aspx>

**GREEN INFRASTRUCTURE *BENEFITS***

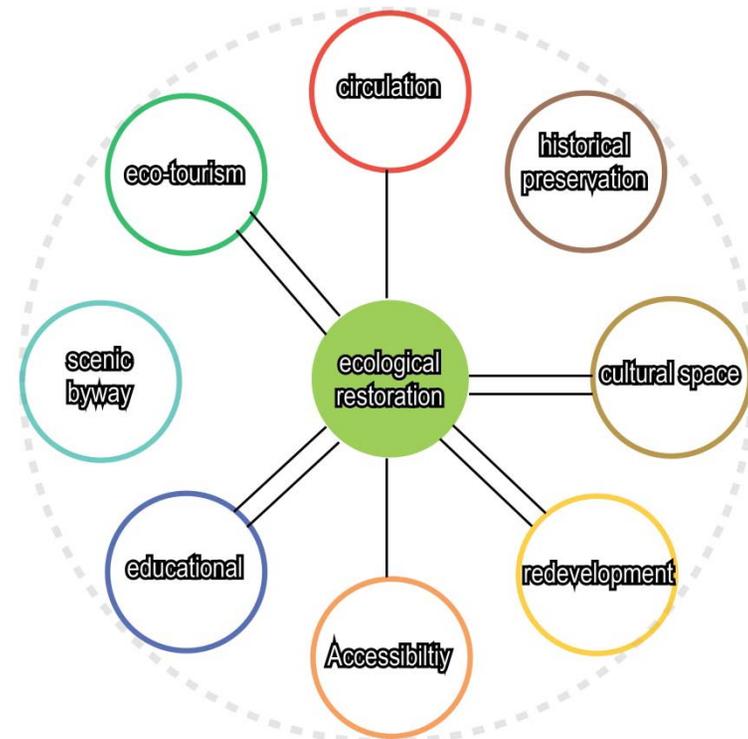


**CREATIVE STORMWATER DESIGN *STORMWATER ART***

## CREATIVE STORMWATER DESIGN



DIAGRAM COURTESY OF ARTFULRAINWATERDESIGN.NET



circle diagram

**CREATIVE STORM WATER DESIGN *DIAGRAM***



**Design Intent** – Incorporate sustainable design principles by utilizing innovative technologies, preserve existing ecologies, and use natural processes to remediate containments and restore habitat within an urban setting.

1. **INTRODUCE GREEN INFRASTRUCTURE TO THE SITE TO MEET SOCIAL, ECONOMIC, AND ENVIORNMENTAL GOALS**
2. **REMEDiate STORMWATER AND ALLEVIATE SITE DEBRIS**
3. **MAKE GREEN INFRASTRUCTURE VISIBLE THROUGH CREATIVE DESIGN**

**GENETTA PARK DESIGN INTENT**



## CREATIVE STORMWATER DESIGN & GREEN INFRASTRUCTURE

- o design principles
- o project site overview & history
- o phase I: constructed wetland
- o phase II: park & green infrastructure

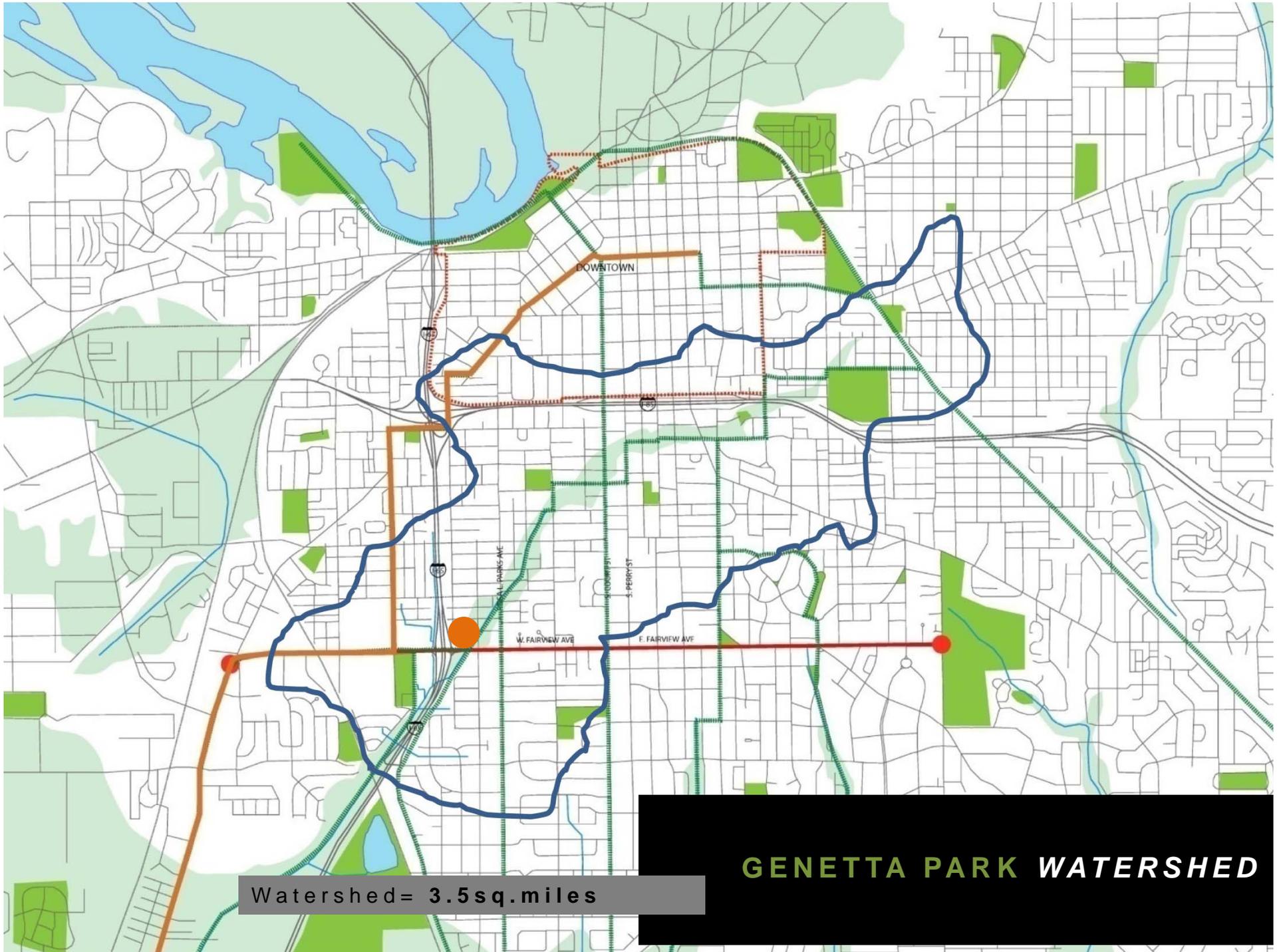
**CONSULTING TEAM:**



**SPECIAL THANKS TO:**

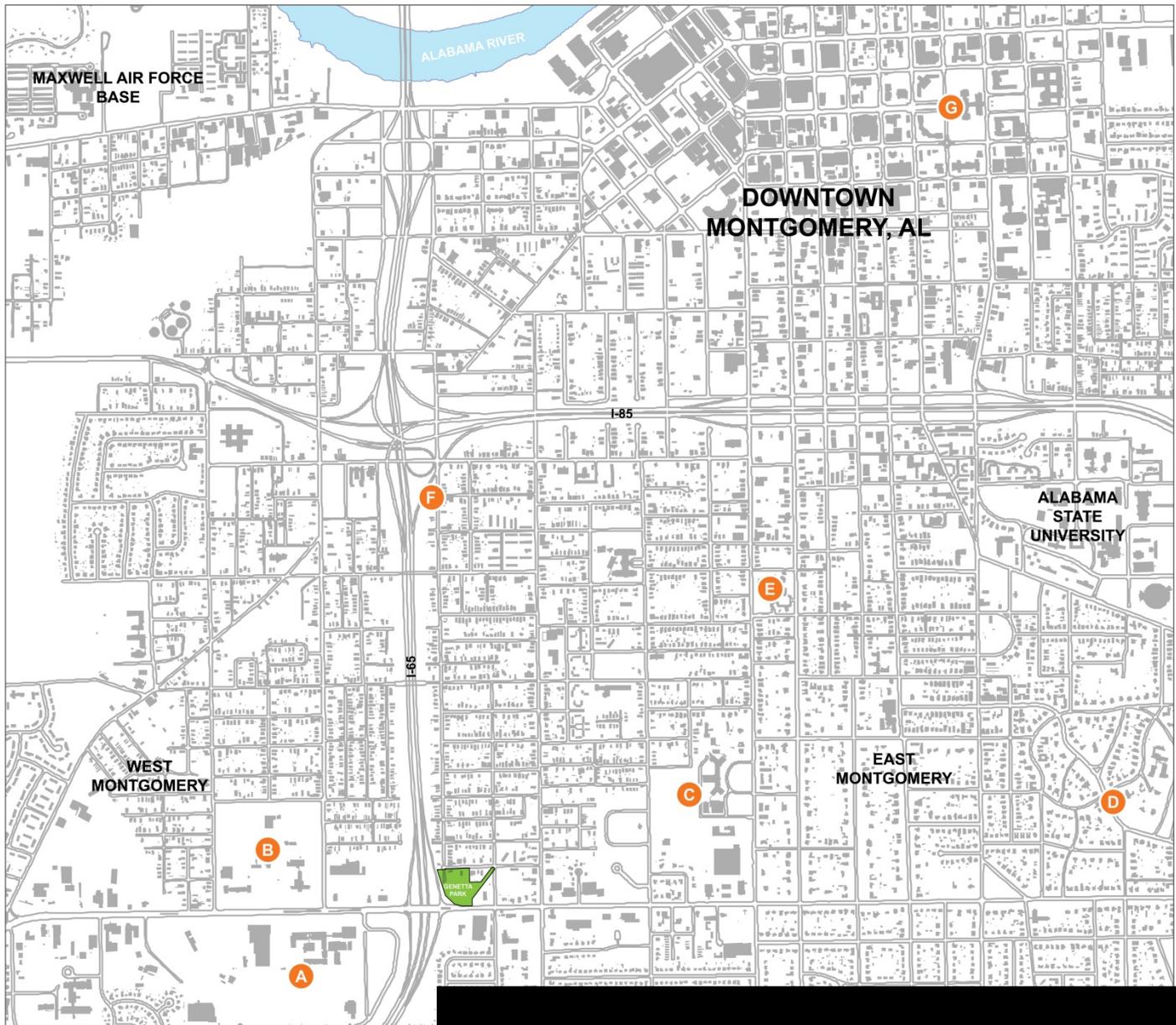


**GENETTA PARK PROJECT TEAM**



Watershed = 3.5sq.miles

**GENETTA PARK WATERSHED**



- CULTURAL SITES
- A. Carver High School
  - B. Historic City of St. Jude
  - C. Lanier High School
  - D. Old Cloverdale and Huntingdon College
  - E. Governor's Mansion
  - F. Historic Mt. Zion Church
  - G. State Capitol

GENETTA PARK

Site Context- City of Montgomery, AL

# GENETTA PARK CULTURAL SITES



**GENETTA PARK SITE CONTEXT**

**GENETTA PARK**  
*500 LF OF STREAM*

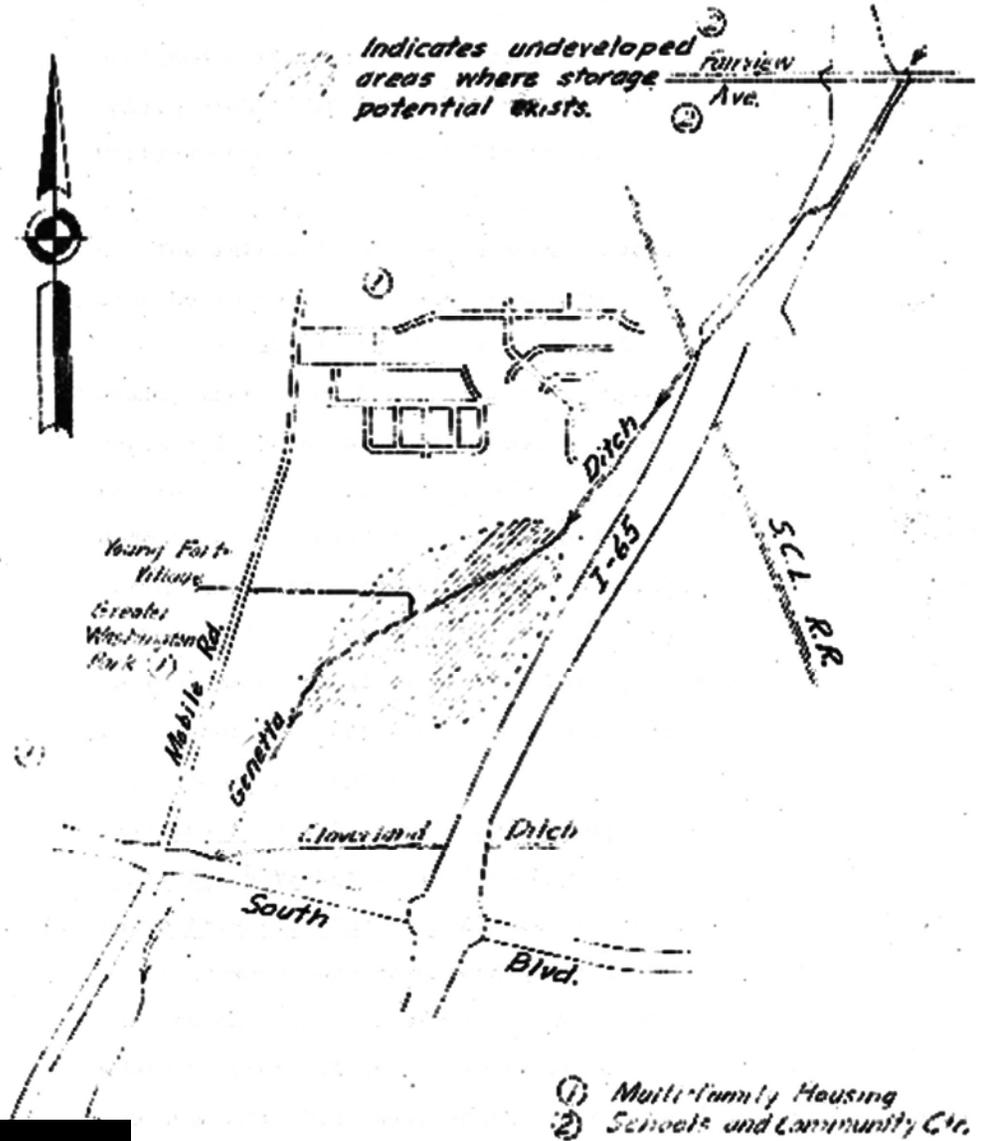


**GENETTA STREAM**  
*2,000 LF OF STREAM*

key

-  naturalized stream bed
-  channelized stream bed
-  piped stream
-  areas of un-natural constraint
-  genetta ditch

**GENETTA PARK EXISTING  
CONDITIONS**



**GENETTA PARK 1970'S CONCEPT**



**GENETTA PARK EARLY CONCEPT**

**2007**



## CREATIVE STORMWATER DESIGN & GREEN INFRASTRUCTURE

- o design principles
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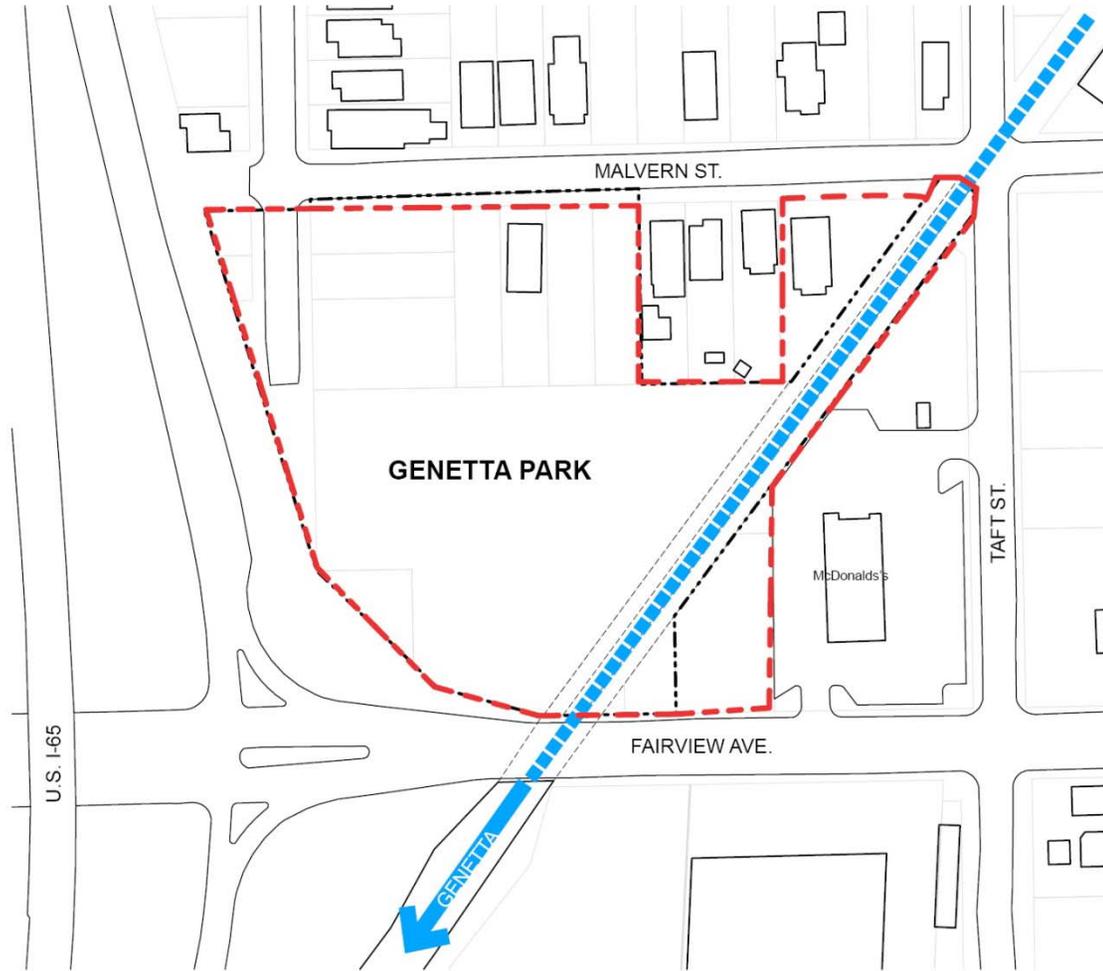


Planning  
Land and Farms  
AG CITY

**GENETTA PARK SITE PRIOR TO  
CONSTRUCTION**



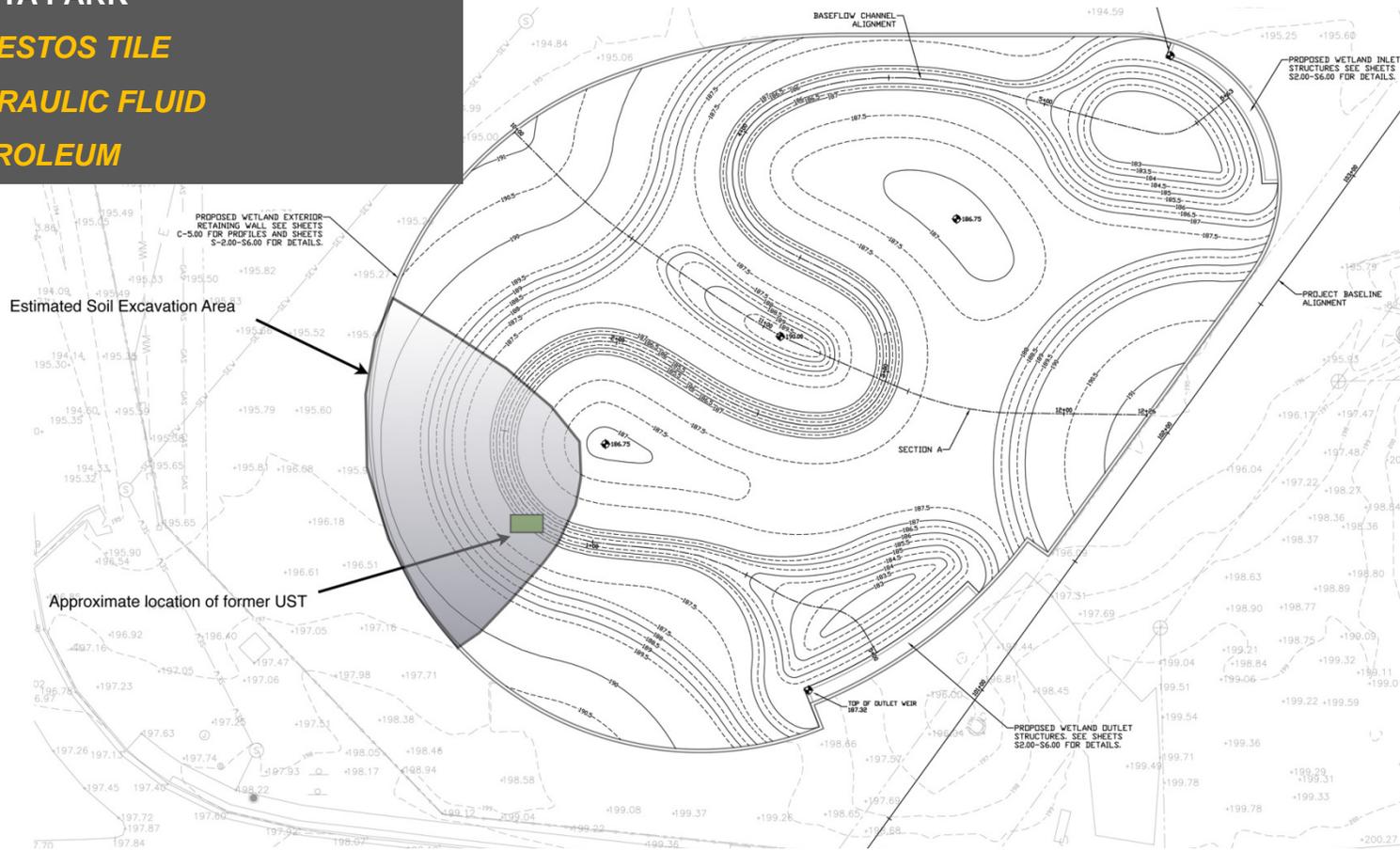
**GENETTA PARK SITE PRIOR TO  
CONSTRUCTION**



**GENETTA PARK SITE CONTEXT**  
**JURBAN ENVIORNMENT**

# GENETTA PARK

- ASBESTOS TILE
- HYDRAULIC FLUID
- PETROLEUM

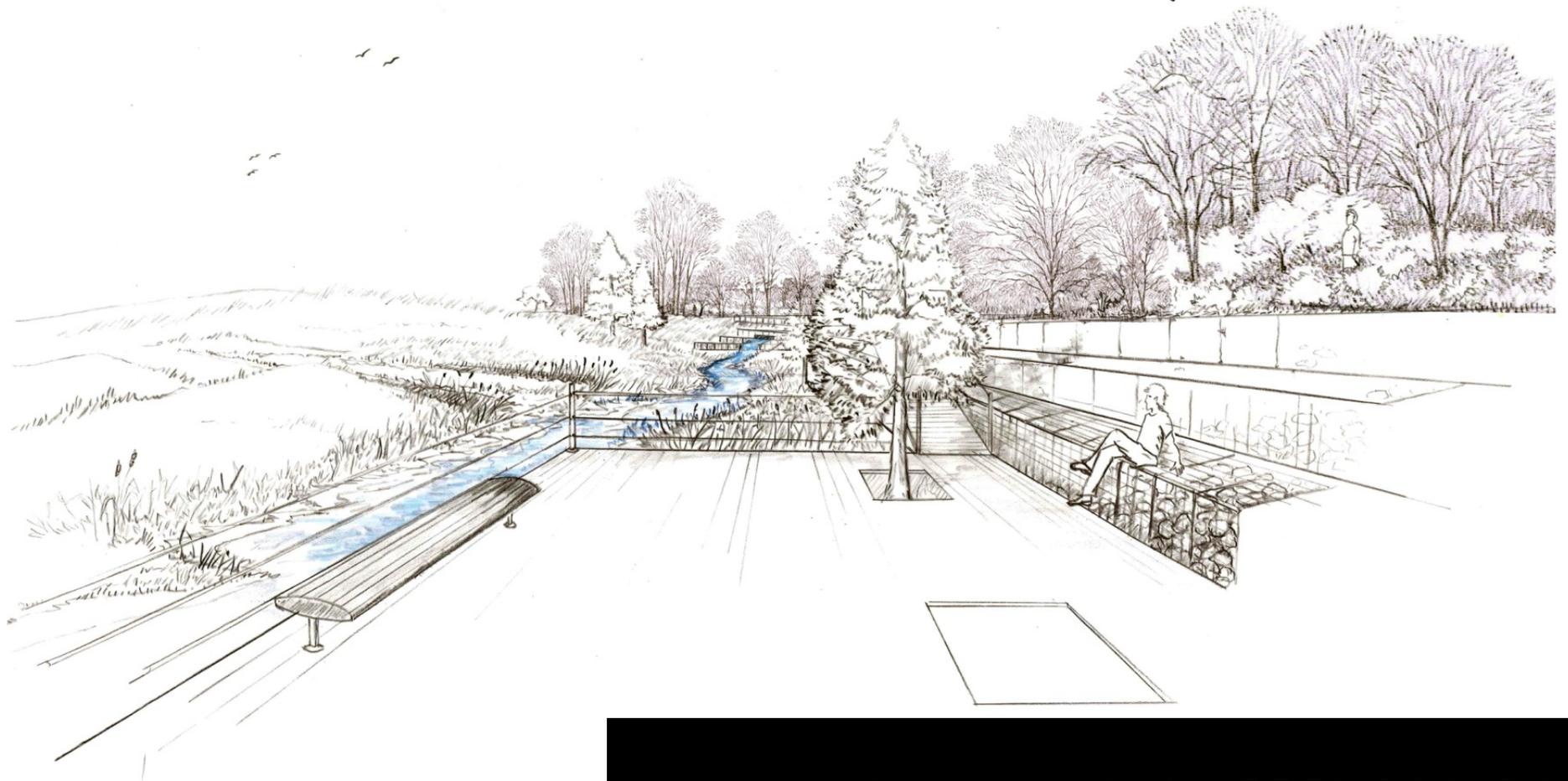


\*Image not to scale

# GENETTA PARK BROWNFIELD



**GENETTA PARK PRELIMINARY  
DESIGN**



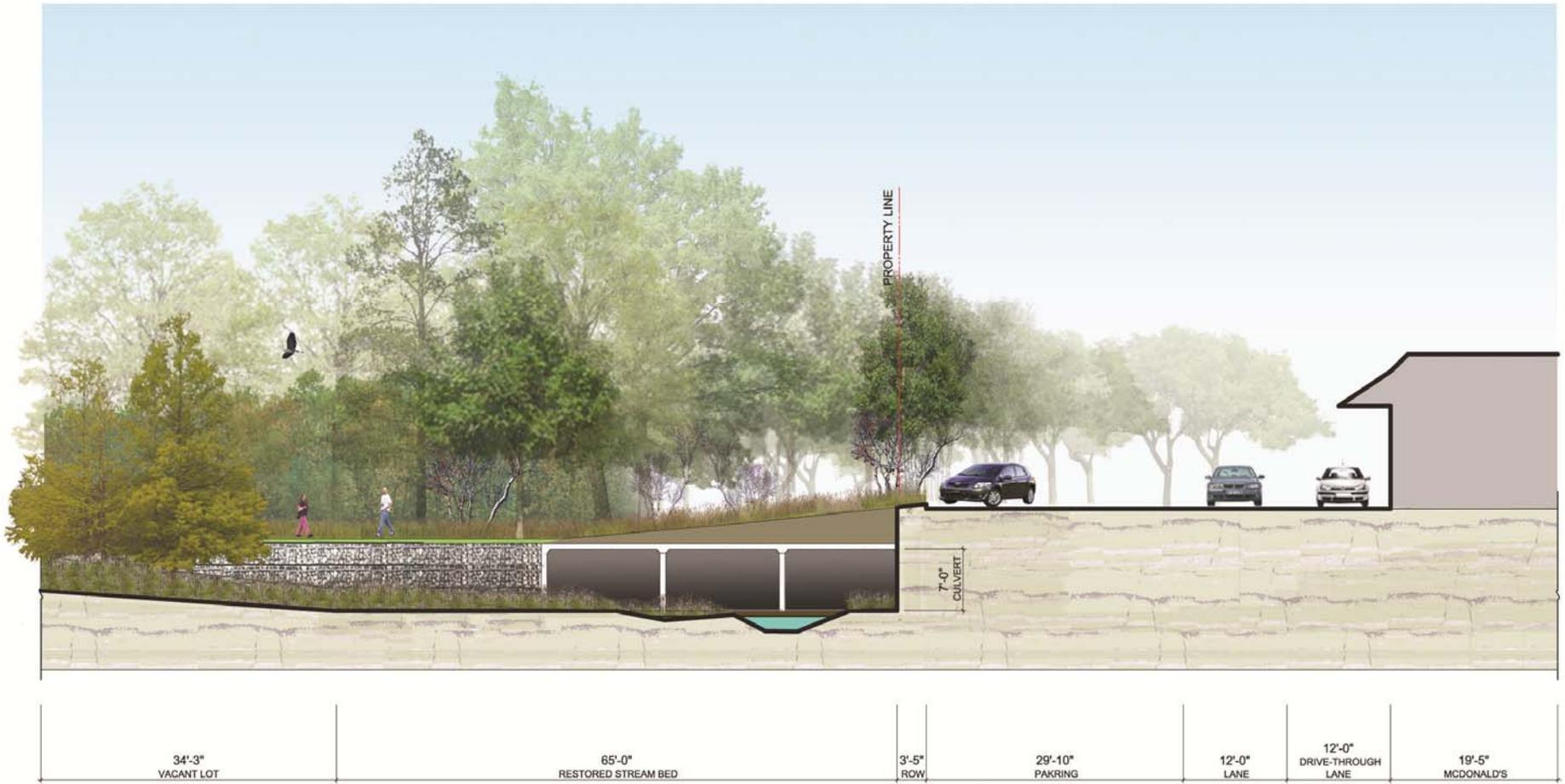
**GENETTA PARK PRELIMINARY  
DESIGN**



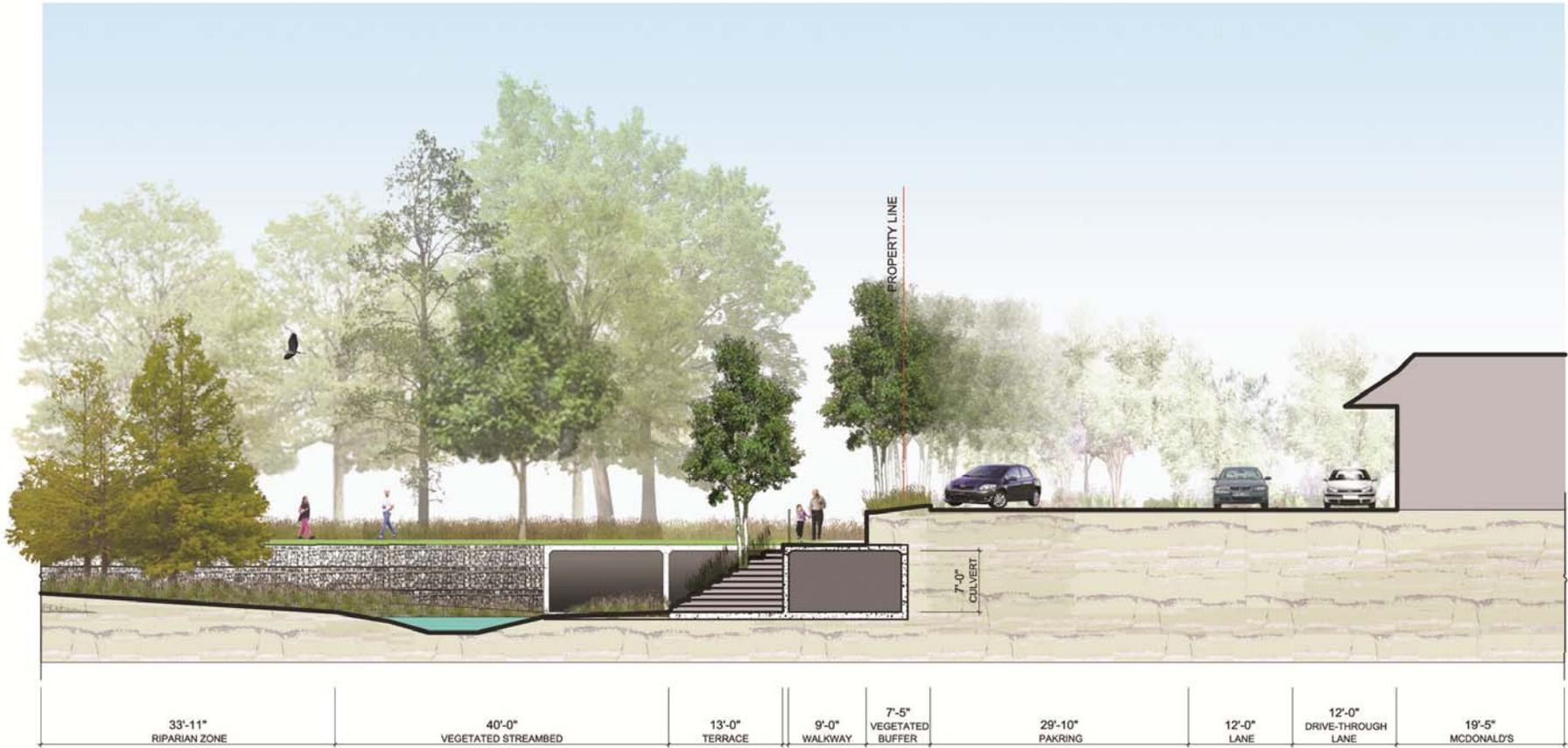
**GENETTA PARK PRELIMINARY DESIGN**



**GENETTA PARK EXISTING CULVERT**



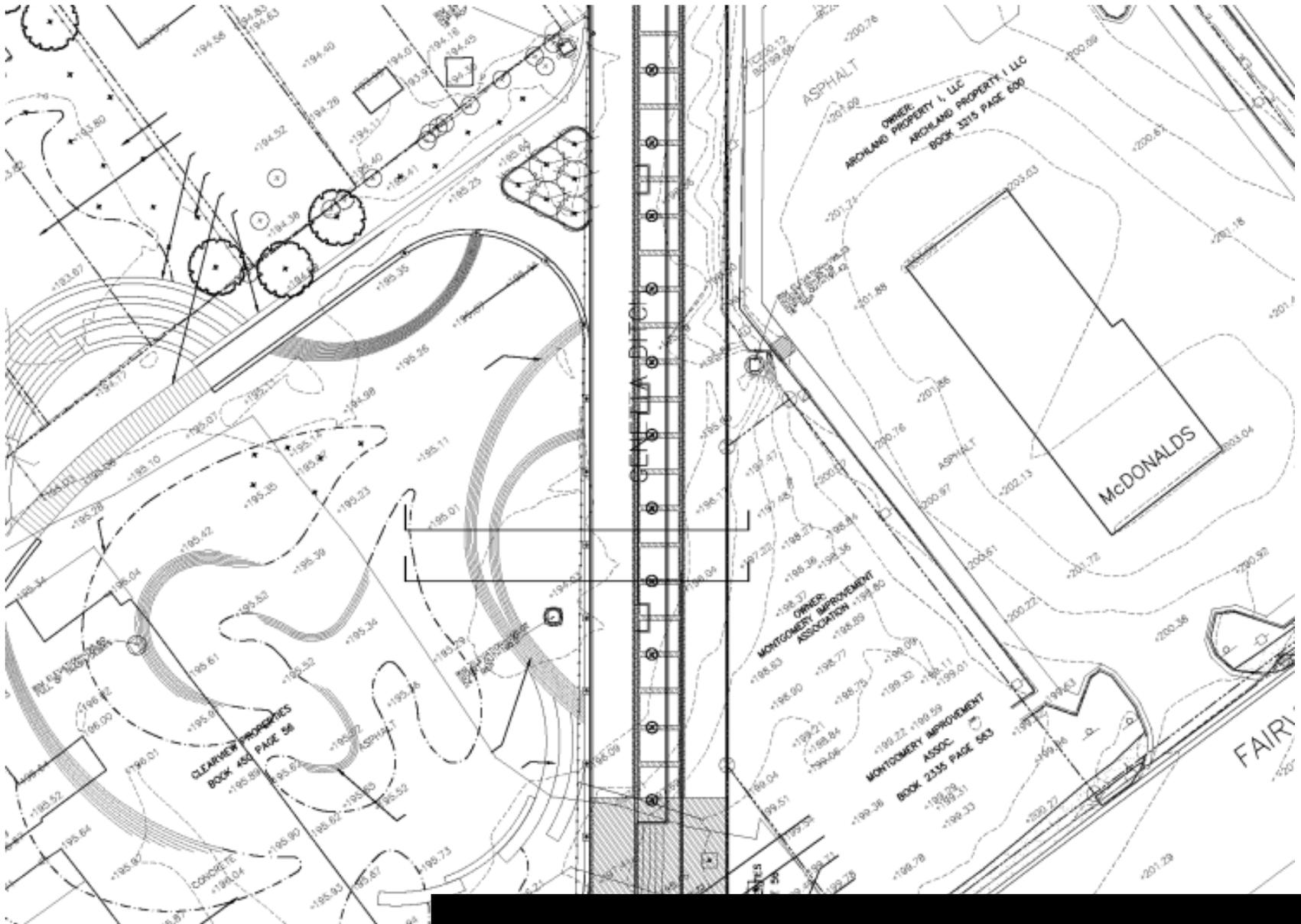
**GENETTA PARK REMOVE ALL CULVERTS**



**GENETTA PARK TWO CULVERTS**

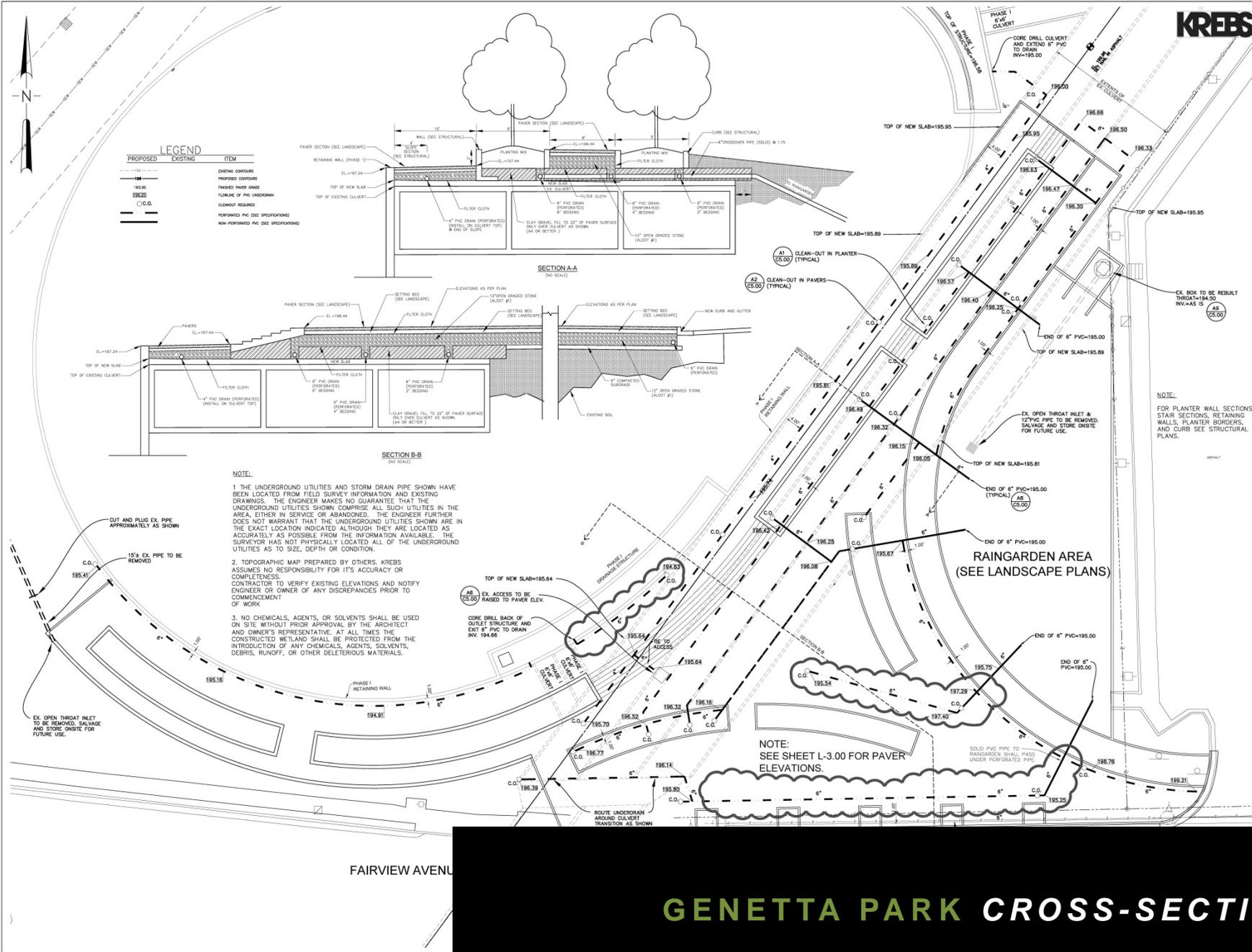


## GENETTA PARK ONE CULVERTS



**GENETTA PARK RETAIN ALL CULVERTS**

NO.	DATE	DESCRIPTION
1	JAN 18, 2021	ISSUED FOR PERMIT
2	MARCH 22, 2021	CONSTRUCTION SET
3	APRIL 22, 2021	AS BUILT



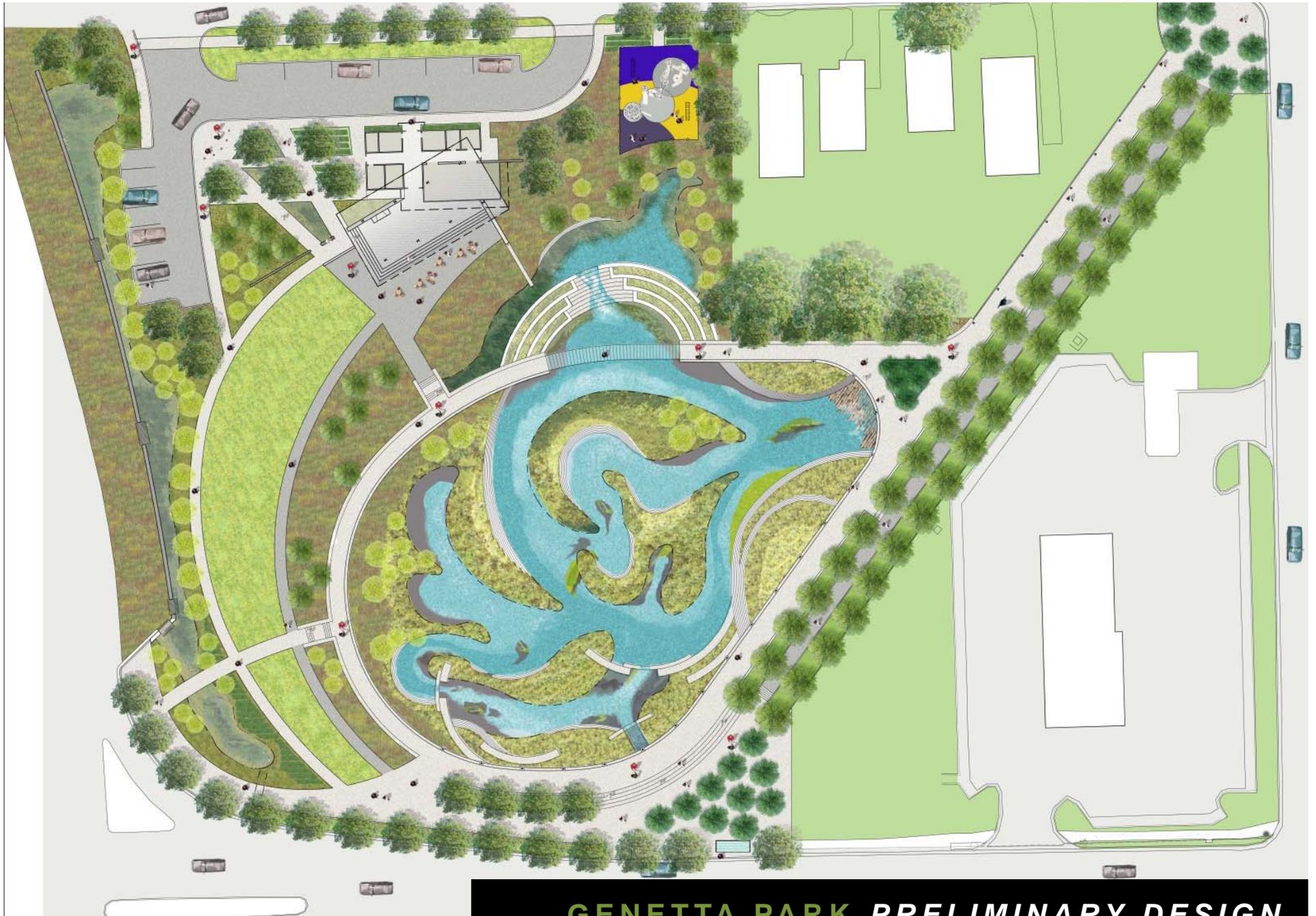
**NOTE:**

1. THE UNDERGROUND UTILITIES AND STORM DRAIN PIPE SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE ENGINEER MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE ENGINEER FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM THE INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED ALL OF THE UNDERGROUND UTILITIES AS TO SIZE, DEPTH OR CONDITION.
2. TOPOGRAPHIC MAP PREPARED BY OTHERS, KREBS ASSUMES NO RESPONSIBILITY FOR ITS ACCURACY OR COMPLETENESS. CONTRACTOR TO VERIFY EXISTING ELEVATIONS AND NOTIFY ENGINEER OR OWNER OF ANY DISCREPANCIES PRIOR TO COMMENCEMENT OF WORK.
3. NO CHEMICALS, AGENTS, OR SOLVENTS SHALL BE USED ON SITE WITHOUT PRIOR APPROVAL BY THE ARCHITECT AND OWNER'S REPRESENTATIVE. AT ALL TIMES THE CONSTRUCTED WETLAND SHALL BE PROTECTED FROM THE INTRODUCTION OF ANY CHEMICALS, AGENTS, SOLVENTS, DEBRIS, RUNOFF, OR OTHER DELETERIOUS MATERIALS.

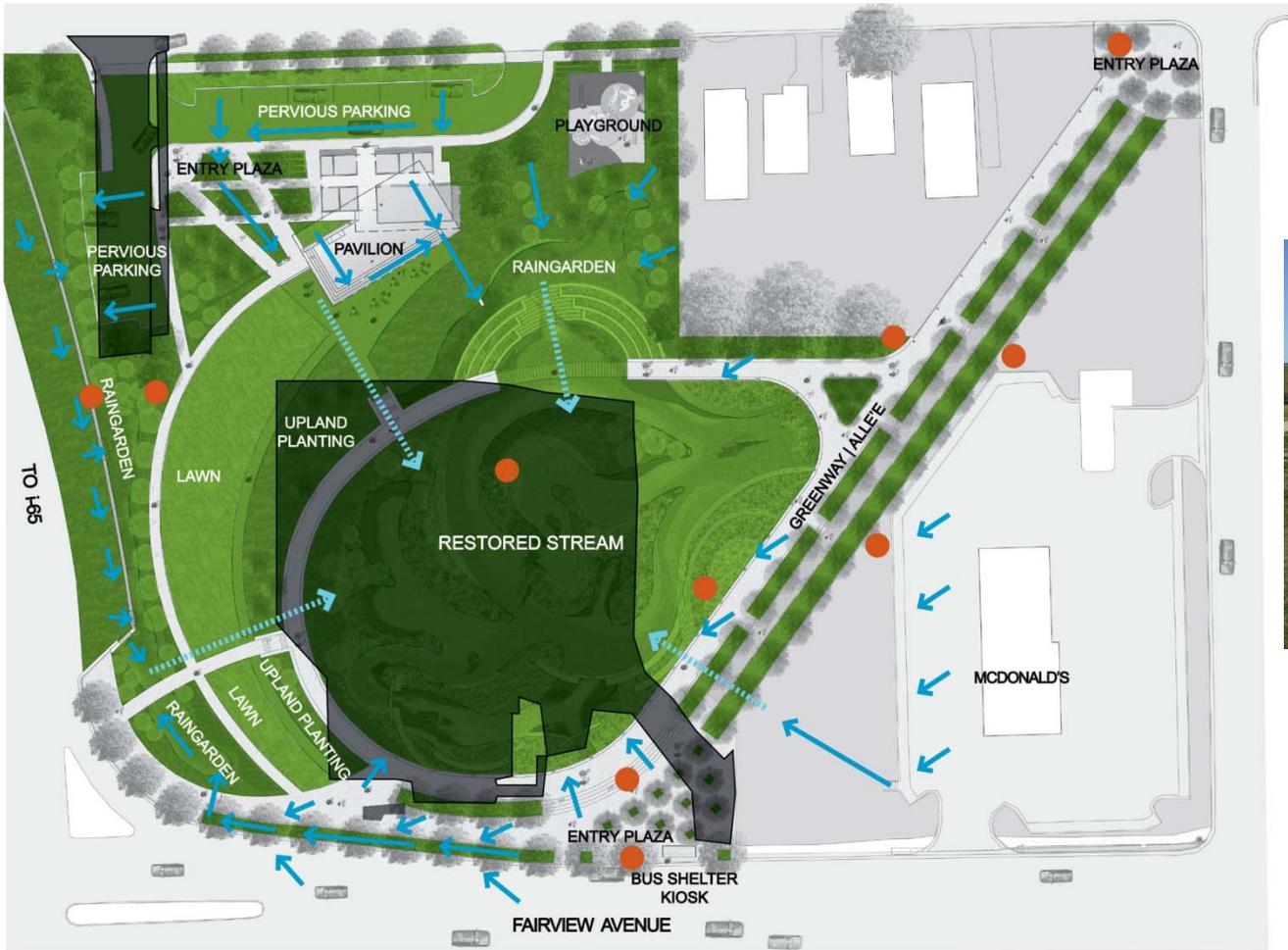
**NOTE:**  
 FOR PLANTER WALL SECTIONS, STAIR SECTIONS, RETAINING WALLS, PLANTER BORDERS, AND CURB SEE STRUCTURAL PLANS.

**NOTE:**  
 SEE SHEET L-3.00 FOR PAVES ELEVATIONS.

**GENETTA PARK CROSS-SECTION**



**GENETTA PARK PRELIMINARY DESIGN**



PERVIOUS PLAN

- KEY
- PROPOSED PERVIOUS SURFACE
  - EXISTING IMPERVIOUS SURFACE
  - PROPOSED SURFACE RUNOFF REMEDIATED
  - PROPOSED STORMWATER ENTERING STREAM
  - EXISTING DRAIN INLETS | STORM SEWER

NOTE: All stormwater on site will be directed to the proposed green infrastructure for remediation before entering the restored stream.

# GENETTA PARK PRELIMINARY DESIGN



**GENETTA PARK *PRELIMINARY DESIGN***



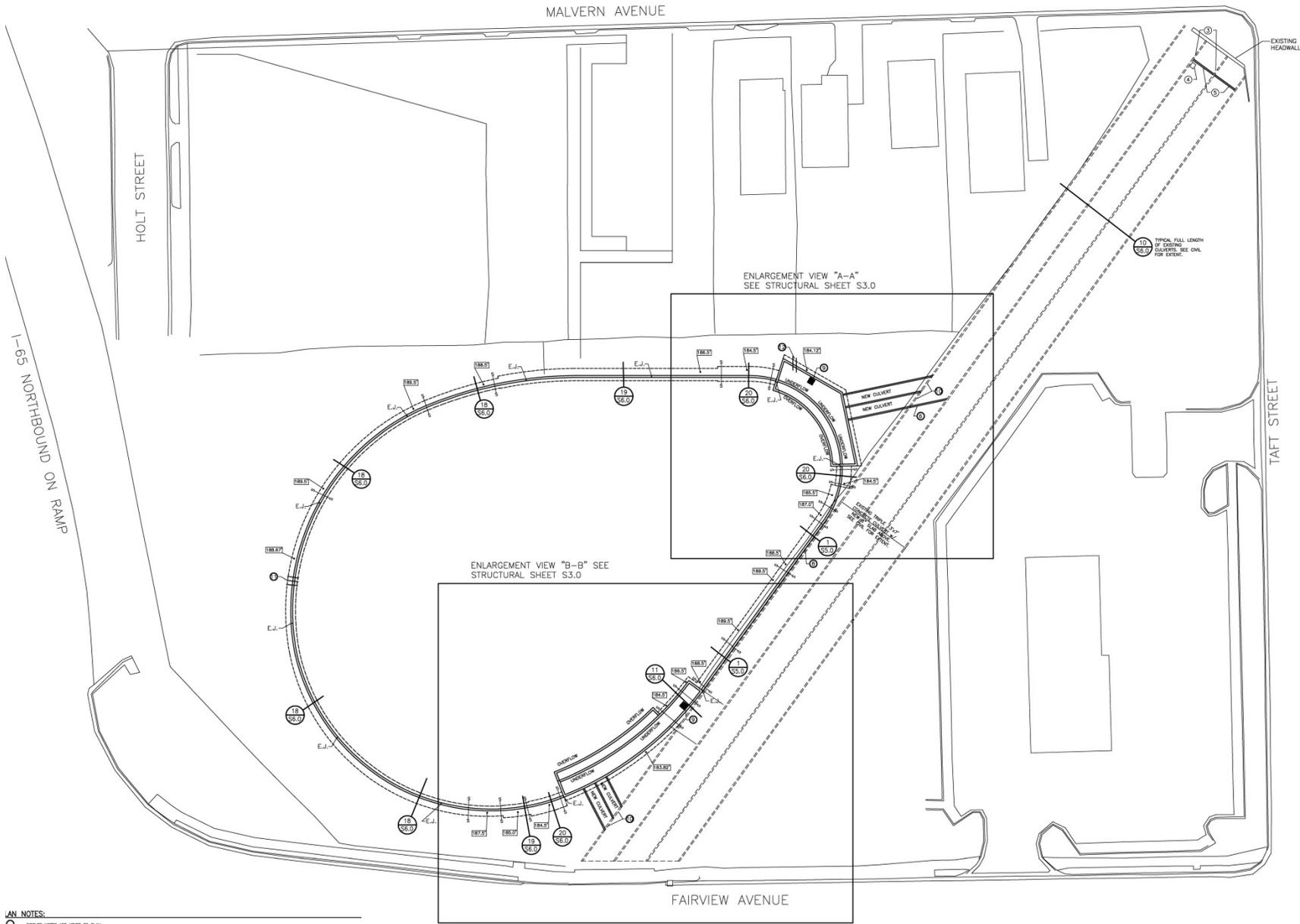
**GENETTA PARK *PRELIMINARY DESIGN***



**GENETTA PARK *PRELIMINARY DESIGN***

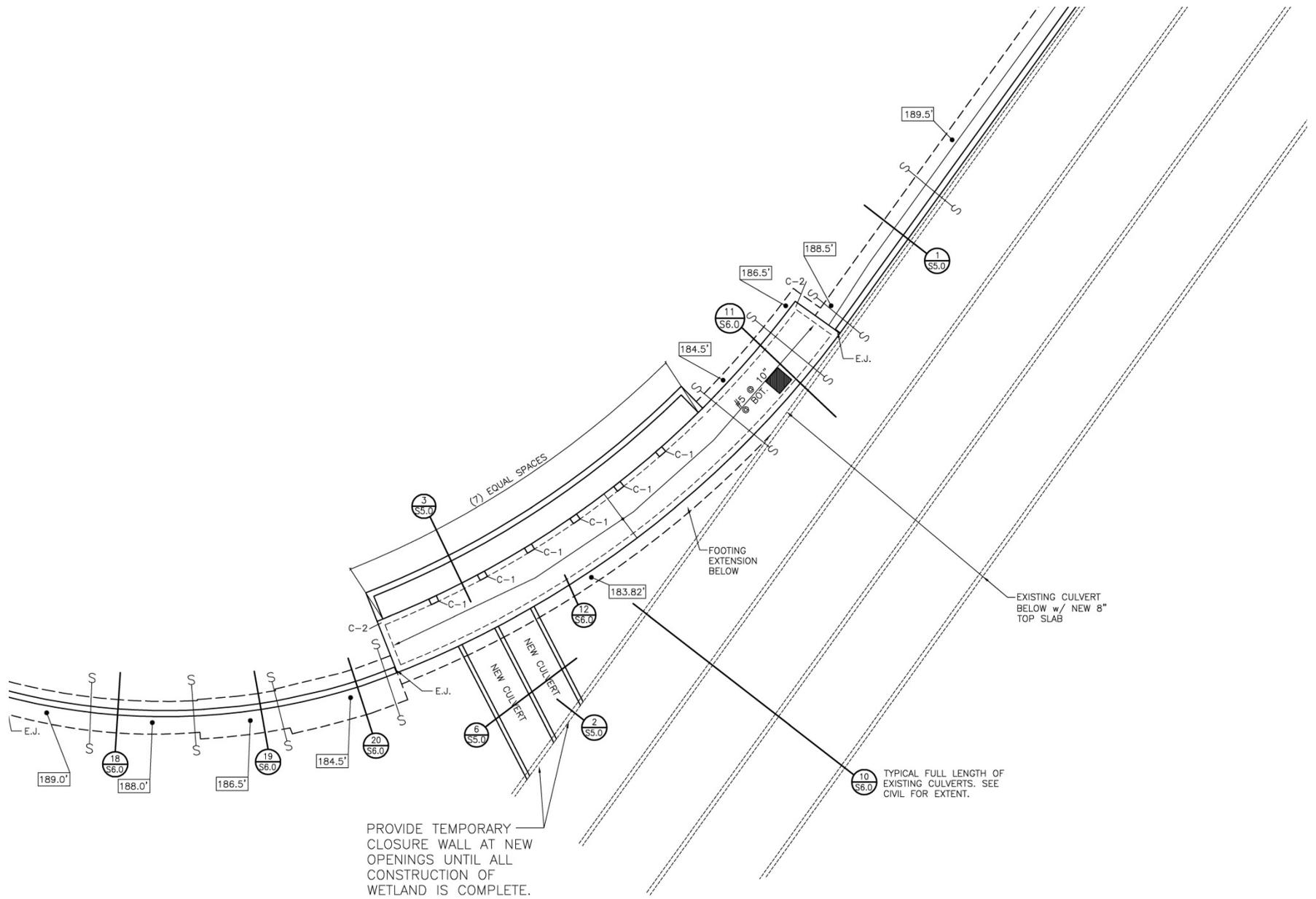


**GENETTA PARK REVISED SITE PLAN**



# GENETTA PARK CULVERT STRUCTURES





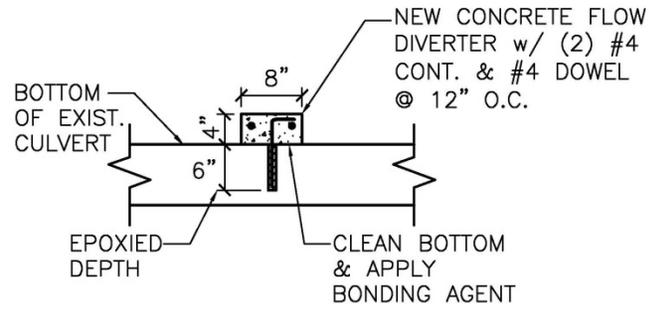
# GENETTA PARK OUTLET CULVERT STRUCTURE

PARKVIEW AVENUE

**GENETTA PARK**

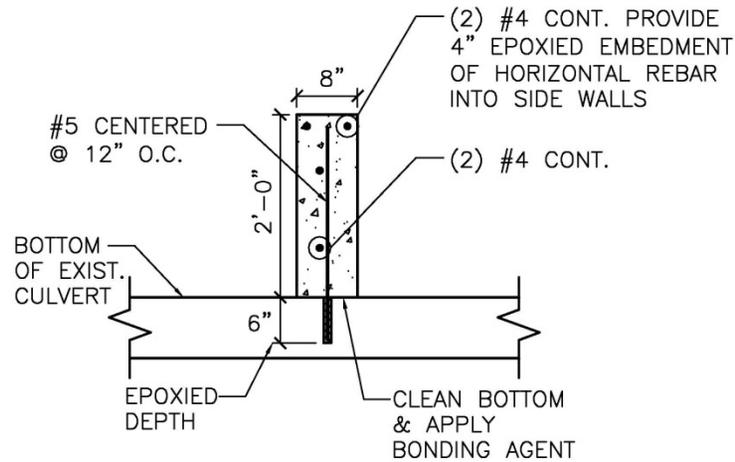
**WEIR | DIVERTERS**

**UPSTREAM & DOWN**



DETAIL 14

SCALE: 3/4" = 1'-0"



DETAIL 15

SCALE: 3/4" = 1'-0"



**GENETTA PARK**

**STRUCTURES:**

- **DEBRIS CATCHMENT**
- **PEDESTRIAN SAFETY**
- **VELOCITY REDUCTION**
- **AESTHETIC**



**GENETTA PARK DEBRIS REMOVAL**

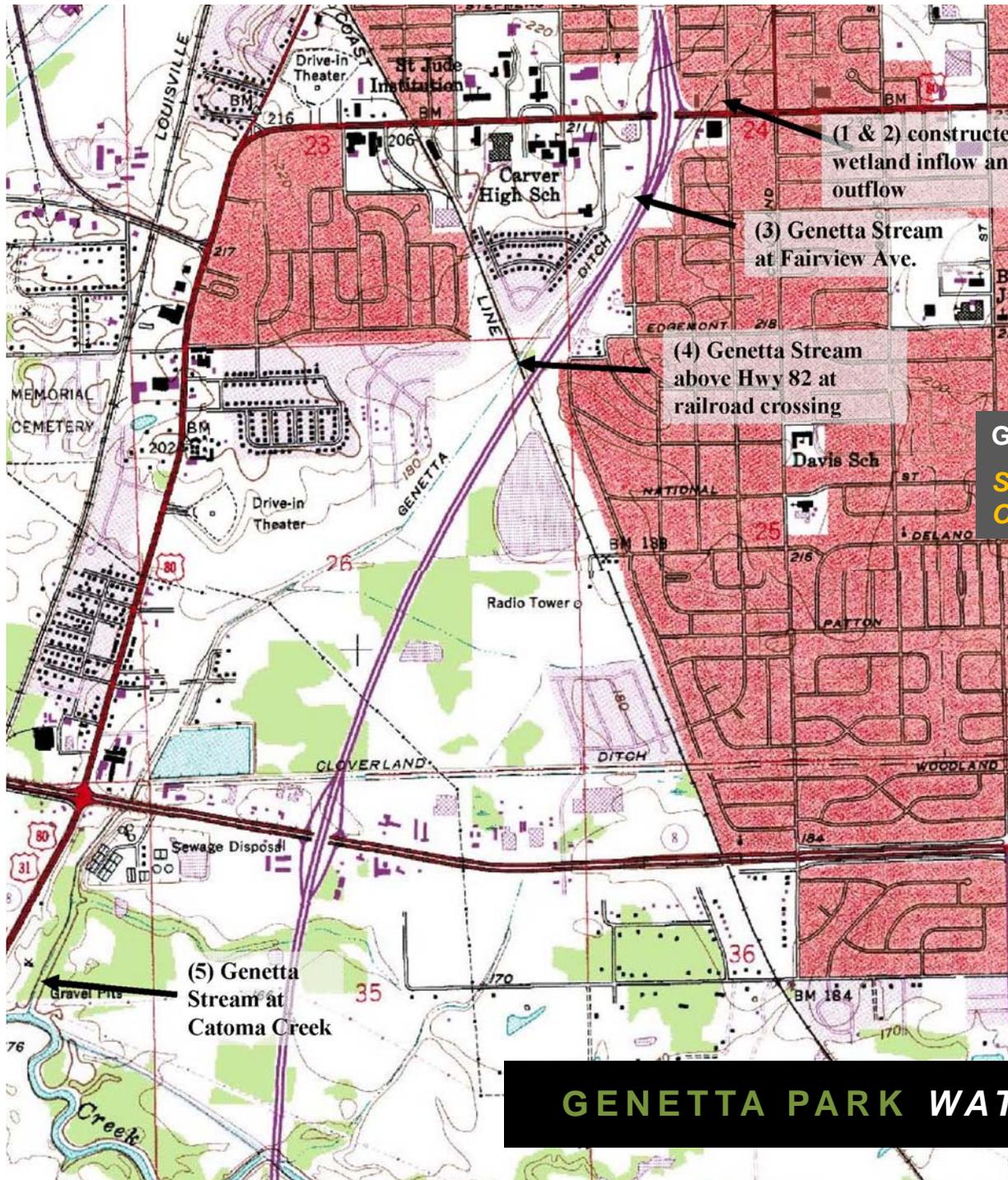
**TABLE 1**  
**WATER QUALITY MONITORING RESULTS**  
**GENETTA STREAM RESTORATION**  
**MONTGOMERY, ALABAMA**  
**S&ME PROJECT 1824-11-084**  
**FEBRUARY 27, 2013**

Site Location	Parameters													
	Temperature (°C)	Dissolved Oxygen	Specific Conductance (mhos/cm)	Turbidity (ntu)	pH (s.u.)	Stream flow (ft <sup>3</sup> /sec)	E. Coli (#/100ml)	Biochemical Oxygen Demand	Nitrate	Nitrite	Oil & Grease	Total Kjeldahl Nitrogen	Total Phosphorous	Total Suspended Solids
(1) Inflow to the constructed Wetland	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
(2) Outflow to the constructed wetland	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
(3) Genetta Stream at Fairview Avenue	15.84	13.95	0.260	13.1	8.62	2.48	685	2	0.10	<0.050	<5	<0.500	<0.250	24
(4) Genetta Stream above Hwy 82 at railroad crossing	16.87	11.07	0.210	30.6	8.44	5.98	960	2	0.70	<0.050	<5	<0.500	<0.250	2
(5) Genetta Stream at Catoma Creek	14.03	9.42	0.163	36.4	8.25	NA	4425	2	1.19	<0.050	<5	0.771	0.256	16

NM – Not Monitored until after wetland construction

NA – Area flooded

All data reported in ppm (mg/L) unless otherwise specified above



(1 & 2) constructed wetland inflow and outflow

(3) Genetta Stream at Fairview Ave.

(4) Genetta Stream above Hwy 82 at railroad crossing

(5) Genetta Stream at Catoma Creek

**GENETTA PARK**  
**SAMPLING STARTED 2012 AND IS ONGOING**

**GENETTA PARK WATER QUALITY SAMPLING**

GENETTA PARK

2012

GENETTA PARK DURING CONSTRUCTION

Imagery Date: 9/23/2012 32°21'07.62" N 86°19'08.29" W





**GENETTA PARK DURING CONSTRUCTION**



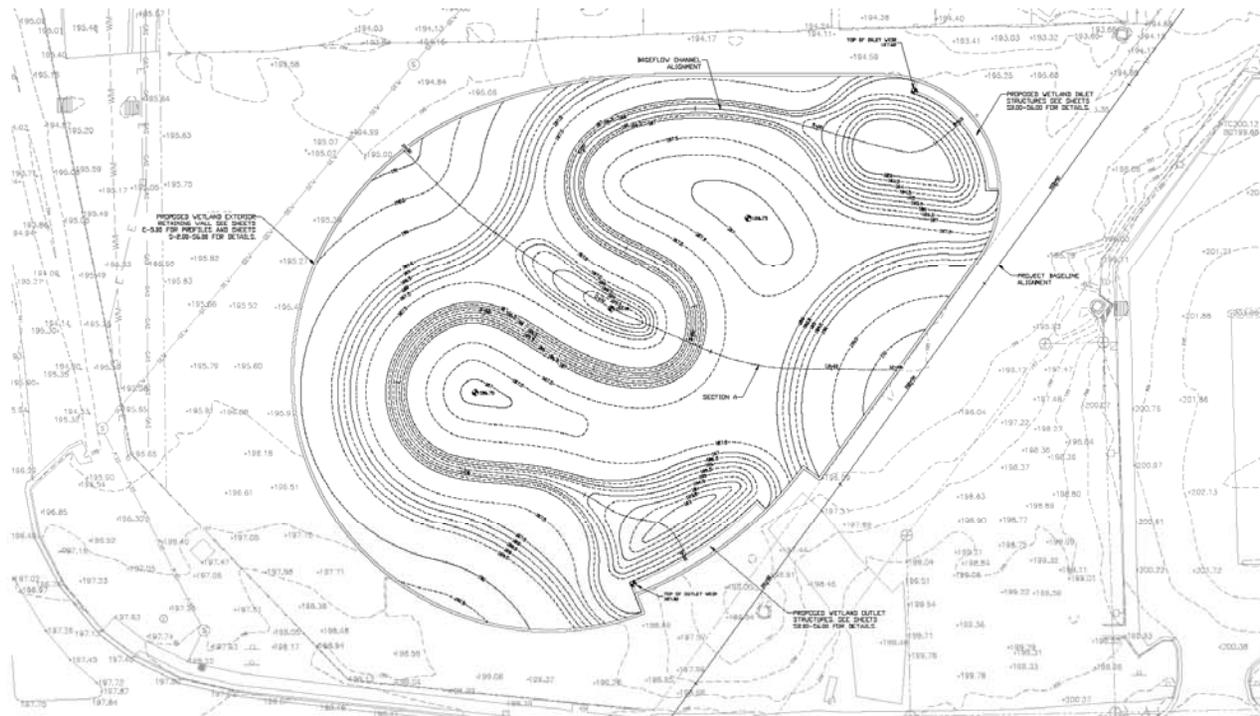
**GENETTA PARK DURING CONSTRUCTION**



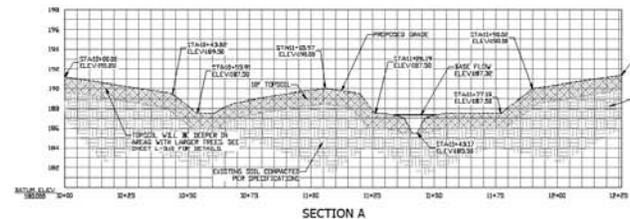
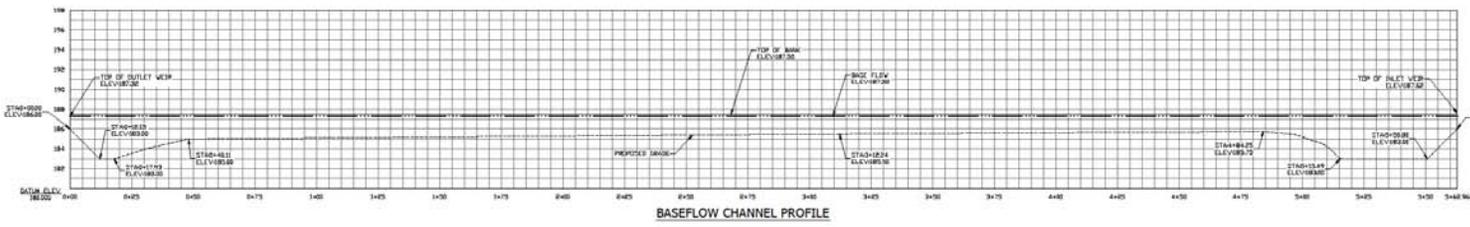
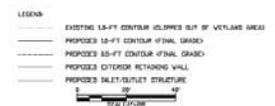
GENETTA PARK

2013

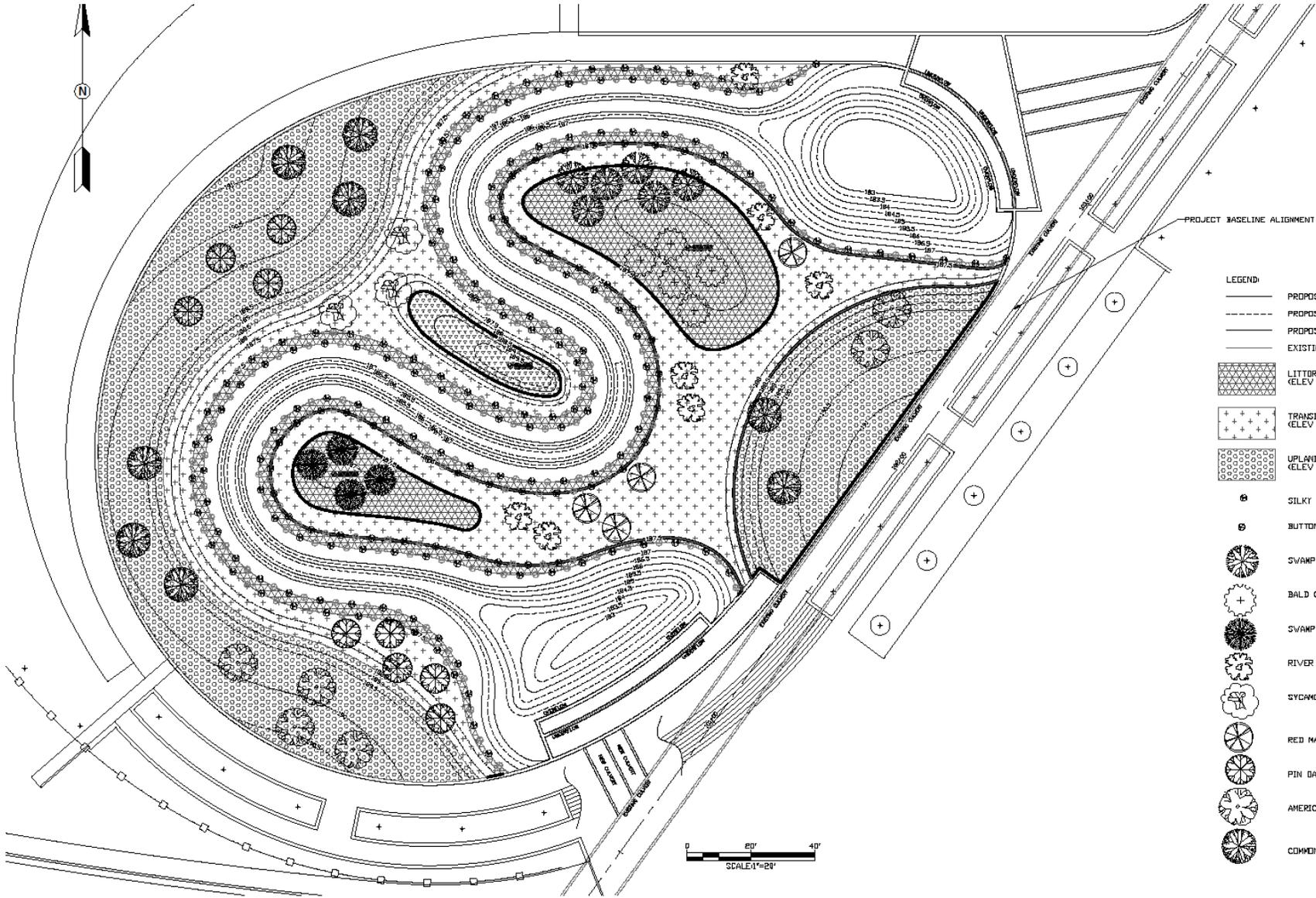
GENETTA PARK DURING CONSTRUCTION



- NOTES**
- CONTRACTOR SHALL STAKE THE CENTERLINE OF THE STREAM CHANNEL AND TOP OF BANK MARKS AND THE ENGINEER OR ARCHITECT SHALL APPROVE THE LOCATIONS PRIOR TO CONSTRUCTION.
  - BASE DRAWINGS FOR THE PROJECT PROVIDED BY S&M STUDIOS, LLC.
  - LOCATIONS, ELEVATIONS, AND DIMENSIONS OF EXISTING AND PLANNED UTILITIES, STRUCTURES, AND OTHER FEATURES ARE SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE AT THE TIME OF PREPARATION OF THESE DRAWINGS AND IS NOT PROMISED TO BE ACCURATE. VERIFY AND AGREE TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE TO UTILITIES OR OTHER FEATURES AFFECTING THE WORK. ANYTHING NOT SHOWN ON THESE DRAWINGS SHALL BE REGARDED AS NOT EXISTING UNLESS SPECIFICALLY INDICATED OTHERWISE AND SHALL NOT CONSTITUTE AN EXTRA UNLESS APPROVED BY THE OWNER.
  - THE CONTRACTOR SHALL CONTACT THE OWNER IMMEDIATELY CONCERNING ANY COMPLETELY UNKNOWN, UNUSUAL, OR UNEXPECTED CONDITIONS FOUND ON THESE DRAWINGS.
  - LOCATION OF EXISTING UTILITIES, PUBLIC OR PRIVATE, ARE APPROXIMATE ONLY. ALL UTILITIES ARE NOT TO BE SHOWN ON THESE DRAWINGS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL CONTACT THE UTILITY OWNERS TO VERIFY THEM AT THE TIME OF WORK IN THE AREA AND REQUEST THEM TO LOCATE THEIR RESPECTIVE UTILITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO UTILITIES. VERIFY AND AGREE TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE TO UTILITIES OR OTHER FEATURES AFFECTING THE WORK. ANYTHING NOT SHOWN ON THESE DRAWINGS SHALL BE REGARDED AS NOT EXISTING UNLESS SPECIFICALLY INDICATED OTHERWISE AND SHALL NOT CONSTITUTE AN EXTRA UNLESS APPROVED BY THE OWNER.
  - IN THE EVENT OF DAMAGE TO EXISTING UTILITIES, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL REPAIRS TO ORIGINAL CONDITIONS AND RELATED EXPENSES.
  - ALL CONSTRUCTION ACTIVITIES AND MATERIALS IN RIGHT-OF-WAY SHALL COMPLY WITH ALL APPLICABLE REQUIREMENTS OF REGS.-OF-WAY HOLDINGS.
  - APPROPRIATE STOPS SHALL BE TAKEN TO ENSURE THAT DEVELOPMENT PROHIBITS OF OTHER DESIGNER, POLLUTANTS ARE PREVENTED FROM EXISTING WETLANDS OF THE STATE. ALL SITES MUST BE REPORTED IMMEDIATELY AND MEASURES SHALL BE TAKEN TO PREVENT THE POLLUTION OF WATERS OF THE STATE.
  - MEASURES SHALL BE IMPLEMENTED TO MEET LOCAL, STATE, AND FEDERAL REQUIREMENTS FOR SAFETY.
  - LANDS AND ENCUMBRANCES SHALL BE OBTAINED BY S&M STUDIOS, INC. ENGINEERING AND ARCHITECTURE, INC. AND THE CITY OF MONTGOMERY, THE ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT, OR OTHER ENTITIES BEFORE THE CONTRACTOR AND THEIR SUBCONTRACTORS BE ALLOWED TO BE RESPONSIBLE FOR SITE SAFETY DURING CONSTRUCTION.
  - REFER TO THE SPECIFICATIONS FOR ADDITIONAL INFORMATION NOT SHOWN ON THESE DRAWINGS.
  - CONDUCT WORK ON THESE ENVIRONMENTAL DRAWINGS WITH OTHER DRAWINGS FOR THE PROJECT.
  - DISAPPROPRIATE VISITS TO THE JOB SITE BY FIELD REPRESENTATIVES OF THE ENGINEER SHALL WITHIN 48 HOURS OF INSPECTION BE APPROVED BY CONSTRUCTION.
  - IF THE CONTRACTOR DISCOVERS ANY ERRORS, OMISSIONS, OR DISCREPANCIES IN THE DRAWINGS, SPECIFICATIONS, OR OTHER CONTRACT DOCUMENTS, HE SHALL CONTACT THE ENGINEER PRIOR TO PROCEEDING. THE ENGINEER WILL THEN ISSUE INSTRUCTIONS ON HOW TO PROCEED.



# GENETTA PARK WETLAND GRADING PLAN



- LEGEND:
- PROPOSED 1.0-FT CONTOUR (FINAL)
  - - - PROPOSED 0.5-FT CONTOUR (FINAL)
  - PROPOSED CONCRETE
  - EXISTING CULVERT
  - [Cross-hatched pattern] LITTORAL PLANTING ZONE (ELEV 187.32 - 187.50)
  - [Dotted pattern] TRANSITIONAL PLANTING ZONE (ELEV 187.50 - 188.50)
  - [Grid pattern] UPLAND PLANTING ZONE (ELEV 188.50 - 191.40)
  - [Symbol: circle with cross] SILKY DOGWOOD LIVE STAKE
  - [Symbol: circle with dot] BUTTONBUUGH LIVE STAKE
  - [Symbol: circle with radiating lines] SWAMP TUPELO
  - [Symbol: circle with cross in center] BALD CYPRESS
  - [Symbol: circle with radiating lines and center dot] SWAMP WHITE OAK
  - [Symbol: circle with radiating lines and center dot] RIVER BIRCH
  - [Symbol: circle with radiating lines and center dot] SYCAMORE
  - [Symbol: circle with radiating lines and center dot] RED MAPLE
  - [Symbol: circle with radiating lines and center dot] PIN OAK
  - [Symbol: circle with radiating lines and center dot] AMERICAN HOLLY
  - [Symbol: circle with radiating lines and center dot] COMMON HACKBERRY

PROPOSED WETLAND PLANTING ZONES PLAN

**GENETTA PARK WETLAND PLANTING PLAN**



**GENETTA PARK WETLAND POST CONSTRUCTION**



**GENETTA PARK WETLAND POST CONSTRUCTION**



## CREATIVE STORMWATER DESIGN & GREEN INFRASTRUCTURE

- design principles
- project site overview & history
- phase I: constructed wetland
- phase II: park & green infrastructure

**GENETTA PARK**  
***FUTURE PAVILION & AMENITIES***

**KEY**

- FEATURES IN URBAN STORMWATER PLAZA**  
 A. Transit Stop  
 B. Wetland Overlook with Amphitheater Seating  
 C. Southern Entry Portal with Proposed Sculpture  
 D. Rainingarden Feature  
 E. Tree-lined Allée and Path  
 F. Northeastern Entry Portal

- PROPOSED SITE FEATURES FOR SACRED GARDEN**  
 G. Wetland Overlook and Interior Plaza  
 H. Teaching Garden and Sacred Grove  
 I. Lawn and Recreational Space  
 J. Northwestern Entry Portal  
 K. Children's Sensory Garden and Playground  
 L. Native Habitat Garden- Upland Planting Zone  
 M. Native Habitat Garden- Upland Transition Zone  
 N. Native Garden Portal

- FEATURES IN PAVILION DESTINATION**  
 O. Outdoor Educational Center, Trail Head, and Pavilion  
 COMMUNITY GARDEN



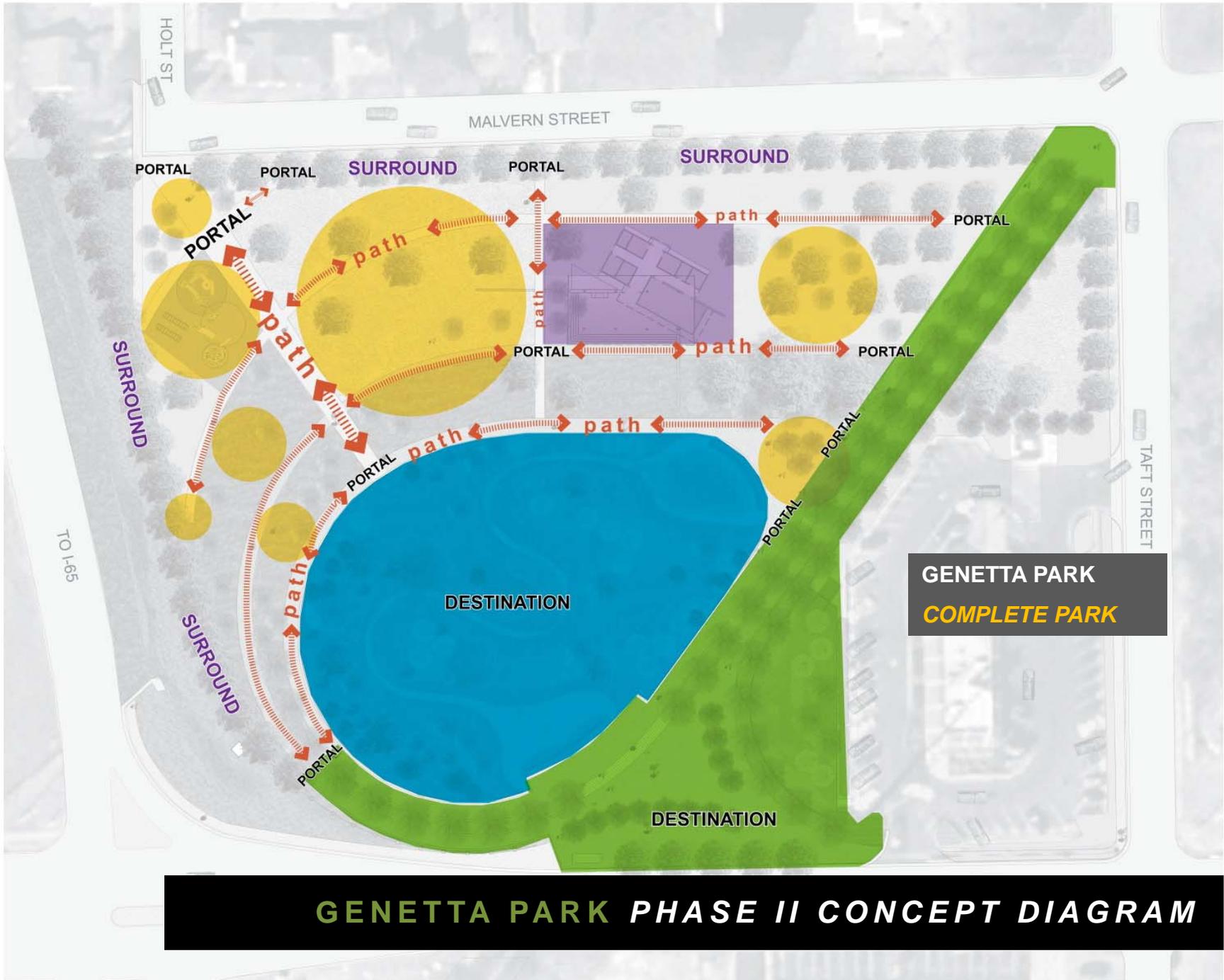
**GENETTA PARK PHASE II SITE PLAN**



Proposed Genetta Implementation Plan

# GENETTA PARK PHASE II PHASING DIAGRAM



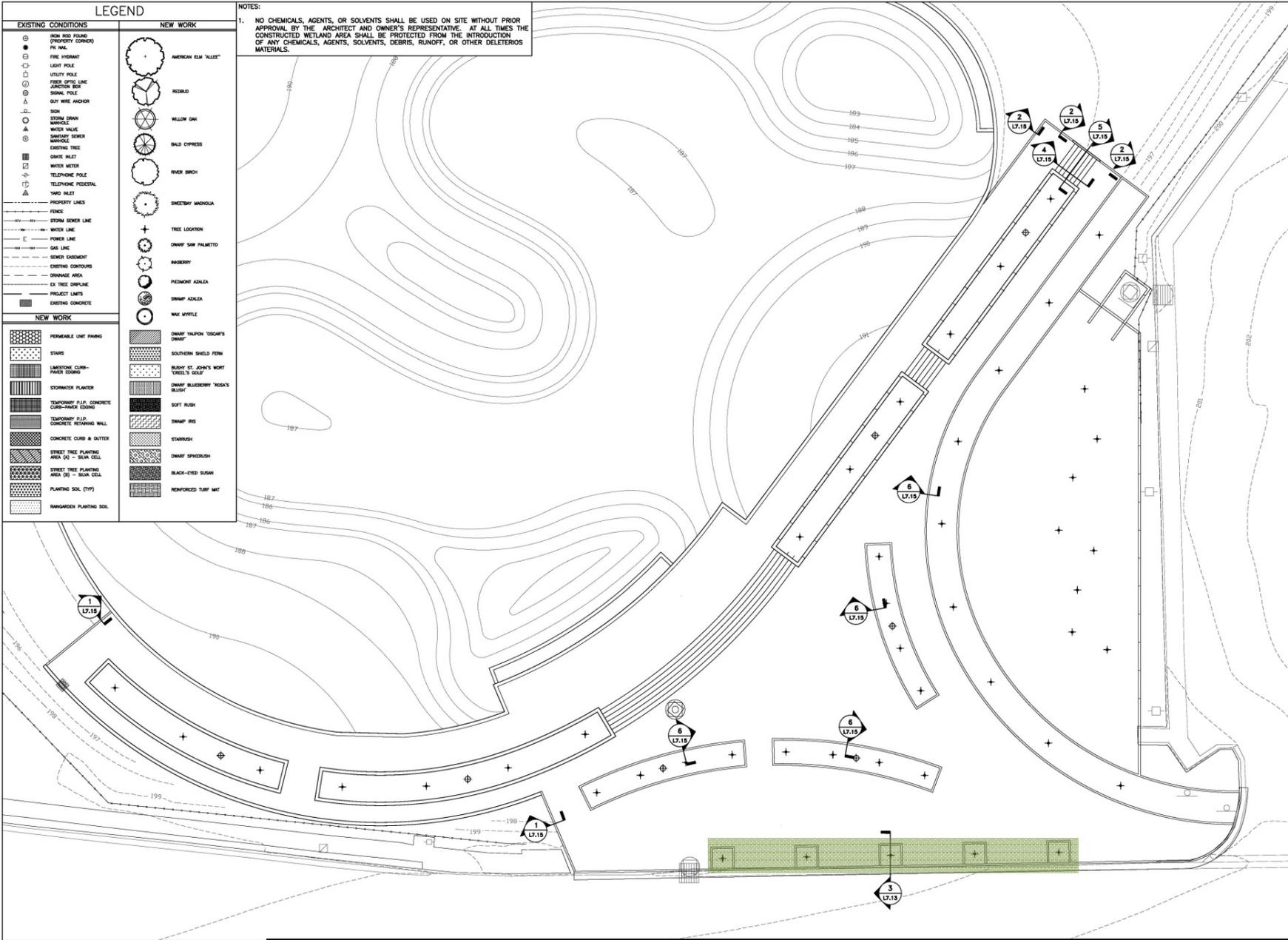


**GENETTA PARK**  
**COMPLETE PARK**

**GENETTA PARK PHASE II CONCEPT DIAGRAM**

LEGEND	
EXISTING CONDITIONS	NEW WORK
<ul style="list-style-type: none"> <li>IRON AND FRAMES (PROPERTY CORNER)</li> <li>PIVOT</li> <li>FIRE HYDRANT</li> <li>LIGHT POLE</li> <li>UTILITY POLE</li> <li>FIRE SPECIFIC LINE</li> <li>JUNCTION BOX</li> <li>DRINKING POLE</li> <li>GUY WIRE ANCHOR</li> <li>SIKH</li> <li>STEEL SIGN</li> <li>WOOD SIGN</li> <li>WOOD SIGN</li> <li>SANITARY SEWER MANHOLE</li> <li>EXISTING TREE</li> <li>GRAVE MARK</li> <li>WATER METER</li> <li>TELEPHONE POLE</li> <li>TELEPHONE FEEDER</li> <li>TWO INLET</li> <li>PROPERTY LINES</li> <li>FENCE</li> <li>STORM SEWER LINE</li> <li>WATER LINE</li> <li>POWER LINE</li> <li>Gas LINE</li> <li>SEWER EASEMENT</li> <li>EXISTING CONTOURS</li> <li>DRAINAGE AREA</li> <li>DI TREE DRAINAGE</li> <li>PROJECT LIMITS</li> <li>EXISTING CONCRETE</li> </ul>	<ul style="list-style-type: none"> <li>AMERICAN ELM "XELLE"</li> <li>REBUD</li> <li>WILLOW ONE</li> <li>BALD CYPRESS</li> <li>RIVER BIRCH</li> <li>SWEETGUM MANHOLE</li> <li>TREE LOCATION</li> <li>DRAWN SAW PALMETTO</li> <li>HAWKBIT</li> <li>FRENCHY AZALEA</li> <li>SWAMP AZALEA</li> <li>WAX MYRTLE</li> <li>DRAWN "YALPON" "ODDIE'S" SWAMP</li> <li>SOUTHERN SHIELD FERN</li> <li>SLIGHT ST. JOHN'S WORT</li> <li>ORCHID'S GOLF</li> <li>SWAMP BLUEBERRY "KOSKA'S" SLIGHT</li> <li>SOFT RUSH</li> <li>SWAMP IRIS</li> <li>SWAMP IRIS</li> <li>SWAMP SPERDUGH</li> <li>BLACK-EYED SUSAN</li> <li>REINFORCED TURF MAT</li> </ul>
NEW WORK	
<ul style="list-style-type: none"> <li>PERMEABLE LINE FRAMING</li> <li>STAIRS</li> <li>LIMESTONE CURB-FASER EDGING</li> <li>STONEWATER PLANTER</li> <li>TEMPORARY P.I.P. CONCRETE CURB-FASER EDGING</li> <li>TEMPORARY P.I.P. CONCRETE RETAINING WALL</li> <li>CONCRETE CURB &amp; BUTTER</li> <li>STREET TREE PLANTING AREA (A) - SILK CELL</li> <li>STREET TREE PLANTING AREA (B) - SILK CELL</li> <li>PLANTING SOIL (199)</li> <li>RAINWATER PLANTING SOIL</li> </ul>	<ul style="list-style-type: none"> <li>DRAWN "YALPON" "ODDIE'S" SWAMP</li> <li>SOUTHERN SHIELD FERN</li> <li>SLIGHT ST. JOHN'S WORT</li> <li>ORCHID'S GOLF</li> <li>SWAMP BLUEBERRY "KOSKA'S" SLIGHT</li> <li>SOFT RUSH</li> <li>SWAMP IRIS</li> <li>SWAMP IRIS</li> <li>SWAMP SPERDUGH</li> <li>BLACK-EYED SUSAN</li> <li>REINFORCED TURF MAT</li> </ul>

NOTES:  
 1. NO CHEMICALS, AGENTS, OR SOLVENTS SHALL BE USED ON SITE WITHOUT PRIOR APPROVAL BY THE ARCHITECT AND OWNER'S REPRESENTATIVE. AT ALL TIMES THE CONSTRUCTED WETLAND AREA SHALL BE PROTECTED FROM THE INTRODUCTION OF ANY CHEMICALS, AGENTS, SOLVENTS, DEBRIS, RUNOFF, OR OTHER DELETERIOUS MATERIALS.



1 PHASE TWO SRF - COORDINATION  
 SCALE 1" = 10'-0"

# 2D

2DStudio, LLC  
 2081 STUDIO, LLC  
 10000 RIMMINGTON, AL 36118  
 U.S.E.L. 2 8 2 8 2 8 2 8 2 8  
 CITY OF MONTGOMERY  
 Project Owner:  
 2081 STUDIO, LLC  
 10000 RIMMINGTON, AL 36118  
 LAI-SOUTH INC  
 10000 RIMMINGTON, AL 36118  
 KRISTEN  
 Civil Engineer  
 GRANT ENGINEERING  
 SAHAR  
 Environmental Engineer  
 SBOE  
 Licensed Professional Engineer

ADEM

PROFESSIONAL SEAL  
 STATE OF ALABAMA  
 PROFESSIONAL ENGINEER  
 SBOE  
 License No. 10000

GENETTA STREAM RESTORATION PROJECT  
 PHASE II - SRF  
 MONTGOMERY, ALABAMA

NO.	DATE	DESCRIPTION	BY	CHKD BY
1	AUGUST 20, 2015	COORDINATION		

MONTGOMERY PROJECT #:  
 CITY OF MONTGOMERY PROJECT #:  
 SHEET  
 DATE: AUGUST 20, 2015  
 DRAWN BY:  
 CHECKED BY:  
 SHEET TITLE:  
 COORDINATION PLAN  
 SHEET NUMBER:

# GENETTA PARK PHASE II STORMWATER PLAZA







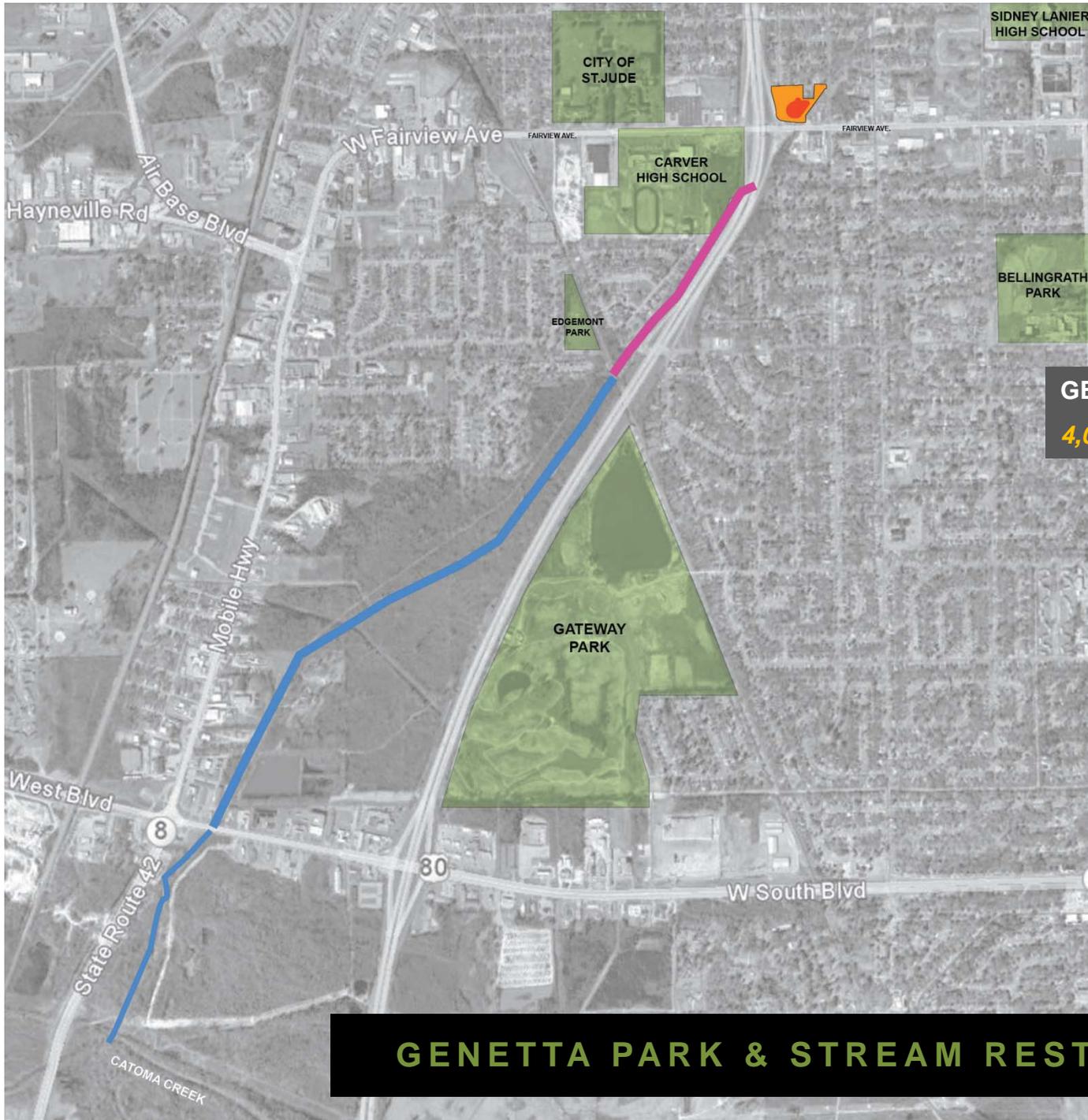
**GENETTA PARK PHASE II STORMWATER PLAZA**



**GENETTA PARK PHASE II STORMWATER PLAZA**



**GENETTA PARK PHASE II STORMWATER PLAZA**



**GENETTA STREAM**  
**4,000+ LF OF STREAM**

**KEY**

- PHASE 1- GENETTA PARK AND STREAM RESTORATION
- PHASE 2- GENETTA PARK
- PHASE 3- GENETTA STREAM RESTORATION
- PHASE 4- GENETTA STREAM RESTORATION
- EXISTING GREENSPACE

**GENETTA PARK & STREAM RESTORATION FUTURE**

COMING SOON

# GENETTA PARK

STREAM  
RESTORATION  
PROJECT

*building on a*  
**DREAM**



Montgomery. CAPITAL OF DREAMS.



**ADEM**

Montgomery County

THIS PROJECT AND COSTS ARE PARTIALLY FUNDED BY THE ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT THROUGH A GRANT PROVIDED BY THE STATE OF ALABAMA FROM SOURCE QUALITY IMPROVEMENT GRANTS TO THE MONTGOMERY COUNTY WATER PURIFICATION DISTRICT.

**QUESTIONS???**