



**CITY OF URBANA, ILLINOIS**  
**DEPARTMENT OF PUBLIC WORKS**  
**ENGINEERING DIVISION**

**MEMORANDUM**

**TO: Mayor Laurel L. Prussing and Members of the City Council**  
**FROM: William R. Gray, Public Works Director**  
**Gale L. Jamison, Assistant City Engineer**  
**Bradley M. Bennett, Civil Engineer**  
**DATE: December 8, 2011**  
**RE: Boneyard Creek Improvements Project (Griggs Street to Broadway Avenue)**  
**Broadway Avenue and Race Street Streetscape Projects**

**Introduction**

The purpose of this memo is to present the final design to the Mayor and City Council for the:

- 1.) Boneyard Creek Improvements from Griggs Street to Broadway Avenue.
- 2.) Race Street Streetscape Improvements between Griggs Street and University Avenue.
- 3.) Broadway Avenue Streetscape Improvements between Water Street and University Avenue.

**Background and Facts**

Late in 2006 it was determined that a master planning effort would be desirable and appropriate for the downtown Urbana stretch of the Boneyard Creek. In the Spring of 2007 a contact with Wenk Associates was executed for the preparation of a Master Planning Document for the Boneyard Creek through downtown Urbana between Main Street and University Avenue. Wenk completed the Master Planning Document in April 2008 and it was adopted by the City Council on May 19, 2008. The Boneyard Creek Master Planning Document is available at the following link on the City website <http://www.urbanainllinois.us/departments/public-works/about-public-works/engineering/boneyard-creek-master-plan>.

The design team of Foth Infrastructure & Environment and Wenk Associates was retained in March 2010 to prepare concept-level designs for the Boneyard Creek between Griggs Street and Broadway Avenue along with the Race Street and Broadway Streetscape Projects. The concept-level design effort for the Boneyard Creek Improvements included the following key elements:

- Public gathering spaces.
- Enhanced public access and connectivity to Boneyard Creek.
- New bicycle and pedestrian pathways along Boneyard Creek.
- New green space and lineal park features along Boneyard Creek.
- Public art opportunities.
- Replacement of the Race Street Bridge.
- Site lighting improvements.

The design team also performed hydraulic and hydrologic modeling to verify that the proposed improvements would not adversely impact the existing flow capacity of Boneyard Creek.

The Race Street and Broadway Avenue Streetscape projects were designed to extend the current streetscape on Race Street south of Griggs Street and south of Water Street on Broadway Avenue up to University Avenue. The pavement cross section on Broadway Avenue will be reduced through a road “diet” and the parkways will be widened to provide additional green space along the corridor. Additionally a stormwater bioretention cell will be incorporated into the widened parkway on Broadway Avenue providing a demonstration project for stormwater quality and sustainable design.

Project informational meetings were held on August 10, 2010, October 12, 2010, and March 15, 2011 at the Urbana Civic Center where input from adjacent property owners and the public was solicited regarding the concept-level design. City staff and the design team also solicited input from the Public Arts Commission on incorporating public art into the project.

The concept level design was presented and accepted by motion at the May 9, 2011 Committee of the Whole Meeting. The Public Works Department was also authorized by motion to proceed with entering into a final engineering design agreement with the design team of Foth Infrastructure & Environment and WENK Associates for the Boneyard Creek Improvements and Race Street/Broadway Avenue Streetscape projects.

City staff has been negotiating with all the property owners along the Boneyard Creek where it is necessary to acquire property, right-of-way, or easements for the projects. All those property owners have indicated their support for the project and a willingness to negotiate with the City for the property acquisitions, right-of-way, and easements necessary to construct the proposed improvements.

Selected components of the final design plans for the Boneyard Creek Improvements between Griggs Street and Broadway Avenue are presented in Exhibit A. Selected components of the final design plans for the Race Street Streetscape project are presented in Exhibit B. Selected components of the final design plans for the Broadway Avenue Streetscape project are presented in Exhibit C.

A proposed project schedule is presented in Exhibit D. Construction on the Boneyard Creek and Race Street Streetscape projects could start as early as the spring of 2012 and be completed by the fall of 2014 assuming all the required property is quickly acquired. The Broadway Avenue Streetscape project would be staged to delay construction until after the Boneyard Creek and Race Streets Streetscape projects are complete to minimize the traffic impacts to downtown Urbana.

### **Financial Impact**

The final engineering design cost estimate for the project is \$8.2 million dollars. The project costs for each individual project are:

- Boneyard Creek Improvements - \$5.4 Million.
- Race Street Streetscape - \$1.8 Million.
- Broadway Avenue Streetscape - \$1.0 Million.

The City's Capital Improvement Plan budgeted \$1.1 million from TIF Districts I/II for the Broadway Avenue Streetscape project, \$2.1 million from TIF District II for the Race Streetscape project, and \$6.0 million from TIF District I for the Boneyard Creek Improvement projects for a total of \$9.2 million. The City would have to issue bonds for the proposed projects which would be paid back from the revenues generated by the TIF Districts. Future Boneyard Creek improvements to the segments upstream and downstream of this segment will be funded with remaining TIF revenues and Capital Improvement Funds to be identified.

### **Recommended Action**

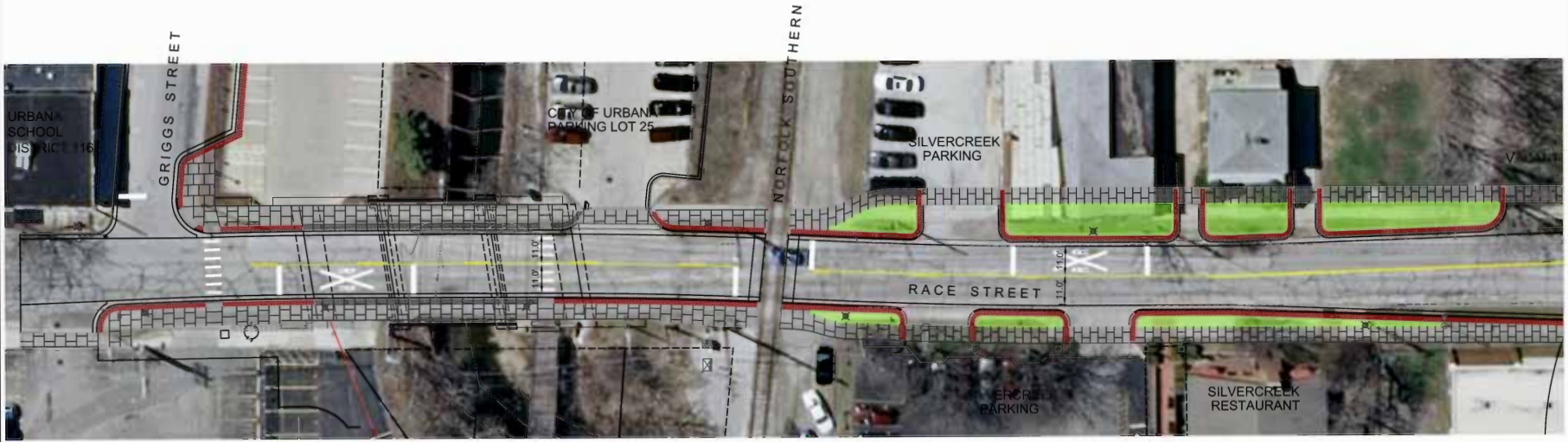
The Public Works Department seeks acceptance by motion of the final design for the Boneyard Creek Improvements and Race Street/Broadway Avenue Streetscape projects.

The Public Works Department also seeks by motion, direction to proceed with entering into a project bid and construction phase engineering services agreement with the design team of Foth Infrastructure & Environment and WENK Associates for the Boneyard Creek Improvements and Race Street/Broadway Avenue Streetscape projects. The estimated project bid and construction phase engineering services for the three projects are \$295,000 and sufficient funds are available in the TIF I and II Districts fund balances.

# EXHIBIT A - BONEYARD CREEK IMPROVEMENTS



EXHIBIT B - RACE STREET STREETScape



**Foth**  
 Foth Infrastructure & Environment, LLC  
 100 Independence Drive  
 Chesapeake, VA 23041  
 Phone: 757-532-0905  
 Fax: 757-532-0905  
 License: Professional Design Firm No. 154-006913

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 THIS DOCUMENT HAS BEEN REPRODUCED FOR GENERAL USE. THEREFORE IT MAY NOT BE USED WITHOUT THE WRITTEN APPROVAL OF FOTH INFRASTRUCTURE & ENVIRONMENT, LLC FOR THE EXCLUSIVE RESPONSIBILITY OF THE CLIENT/ORDER USER.

**w e n k**  
 ASSOCIATES  
 PLANNERS &  
 LANDSCAPE  
 ARCHITECTS

BONEYARD CREEK  
 IMPROVEMENTS  
 SEGMENT 3  
 CITY OF URBANA

NO.	BY	DATE	DESCRIPTION

RECORD DRAWING OF COMPLETED CONSTRUCTION BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 RECORD DRAWINGS OF COMPLETED CONSTRUCTION BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 REVISIONS BY: \_\_\_\_\_ DATE: \_\_\_\_\_

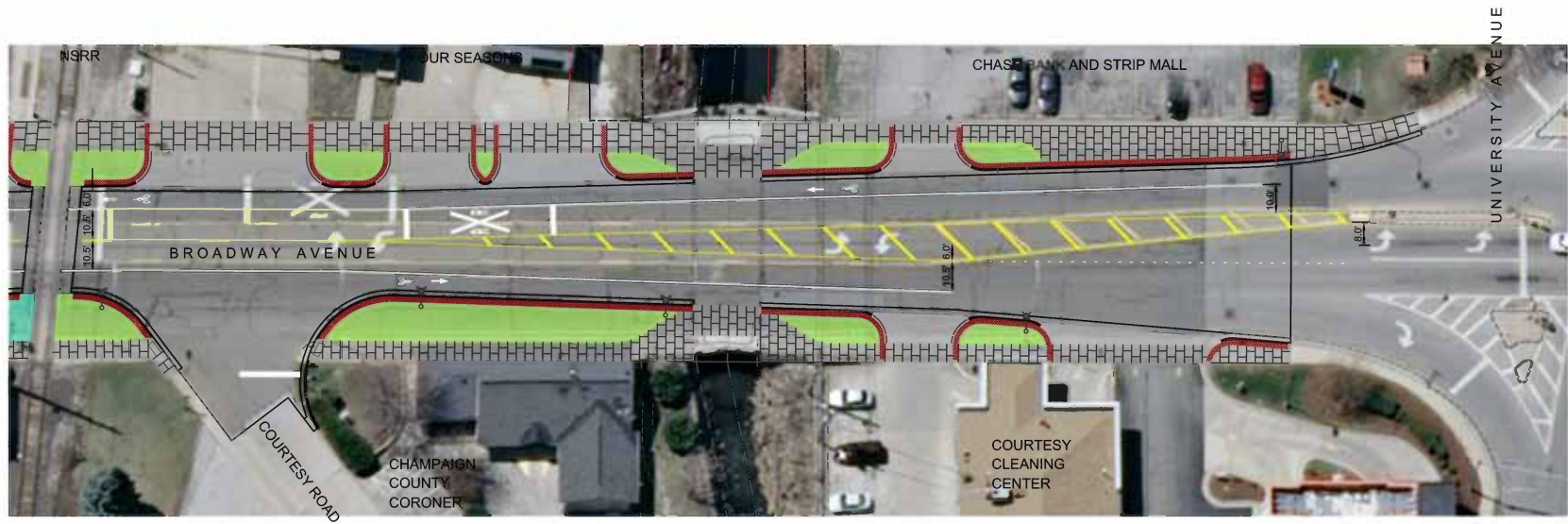
Date of Preparation:	
SURVEYED	BY DATE

RACE STREET  
 STREETScape

HORIZONTAL SCALE:  
 0 20 40  
 PROJECT ID: 1110009.00

**1**  
 SHEET 1 OF 2

EXHIBIT C - BROADWAY AVENUE STREETScape



**Foth**  
 Foth Infrastructure & Environment, LLC  
 Chicago, IL 60621  
 Phone: 312.450.0808  
 Illinois Professional Design Firm No. 184.004813

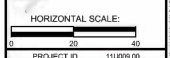
**w e n k**  
 ASSOCIATES  
 PLANNERS &  
 LANDSCAPE  
 ARCHITECTS

BONEYARD CREEK  
 IMPROVEMENTS  
 SEGMENT 3  
 CITY OF URBANA

NO.	BY	DATE	DESCRIPTION

DATE OF PREPARATION:	
SURVEYED BY:	
DRAWN BY:	
DESIGNED BY:	
CHECKED BY:	

BROADWAY AVENUE STREETScape

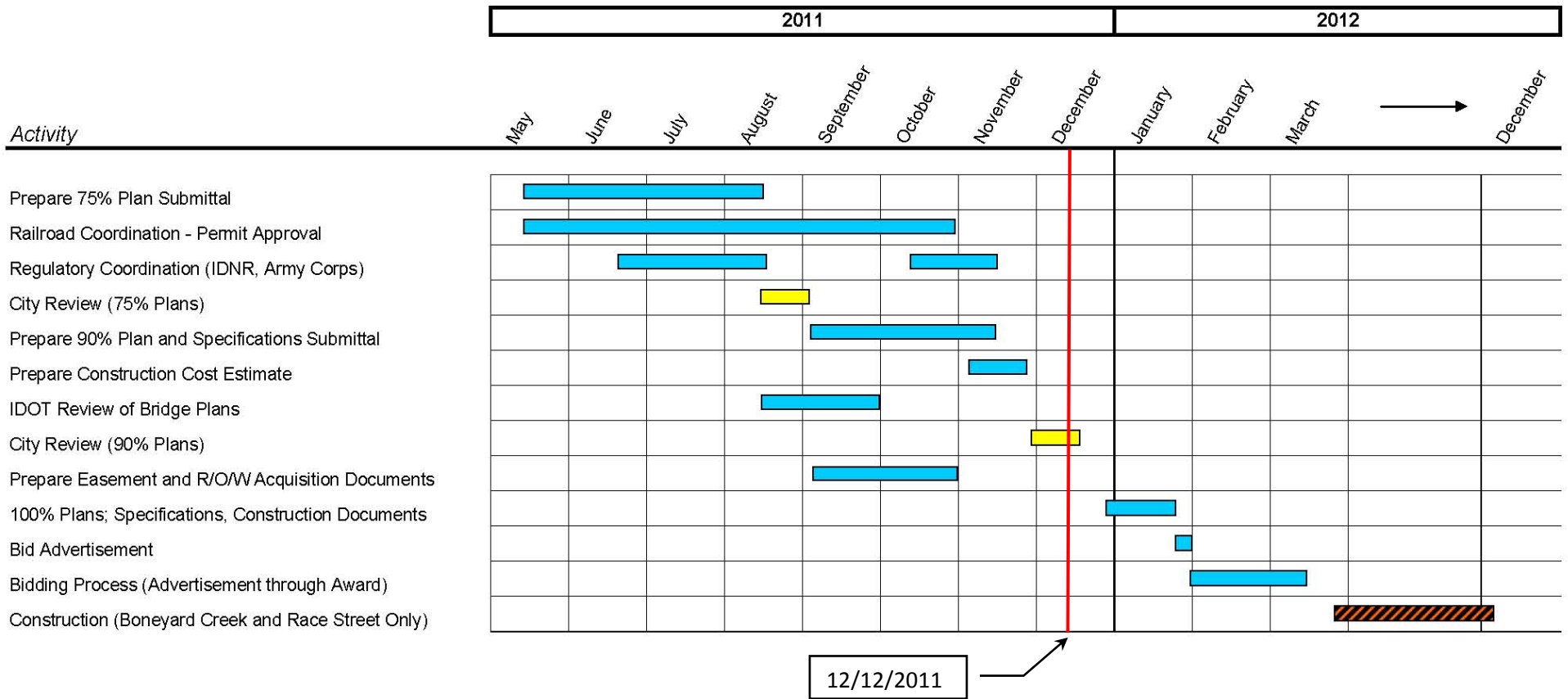


PROJECT ID: 1110009-03  
 SHEET 2 OF 2

AS-CR-10-031 (1110009-03) 12/20/10  
 © 2011 Foth Infrastructure & Environment, LLC  
 Dec 07, 2011 11:10:09 AM  
 This drawing was prepared under contract for the City of Urbana. It is not to be used without the written approval of Foth Infrastructure & Environment, LLC. The user assumes all responsibility for the use of this drawing.

# EXHIBIT D PROJECT SCHEDULE

## BONEYARD CREEK SEGMENT 3 PRELIMINARY SCHEDULE: FINAL DESIGN AND CONSTRUCTION





**DEPARTMENT OF COMMUNITY DEVELOPMENT SERVICES**

*Economic Development Division*

**m e m o r a n d u m**

**TO:** Laurel Lunt Prussing, Mayor

**FROM:** Elizabeth H. Tyler, FAICP, Director, Community Development Services

**DATE:** December 6, 2011

**SUBJECT:** **Boneyard Creek Improvements Project Public Art Design**

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**Introduction and Background**

The City and Public Arts Commission have been working with Foth Consultants and Wenk Associates on plans to incorporate public art into the Boneyard Creek Improvements Plan, which will create a pedestrian-friendly urban park in the downtown section of Boneyard Creek. A public meeting was held on March 15, 2011 to solicit input about public art for the project and resulted in the identification of the following themes: the natural environment, local materials, and representing the community in Urbana. After reviewing several Calls for Artists from other cities, the Boneyard Creek subcommittee recommended that a Request for Qualifications (RFQ) process be used to identify an artist to work on the project. The resulting RFQ was approved by the Public Arts Commission during their April 12, 2011 meeting.

To respond to the RFQ, artists submitted a cover sheet form, letter of interest, resume, up to ten digital images of previous work, and an image identification sheet. Thirty-nine applications from all over the country were received and reviewed by a panel of City staff and engineers, representatives from Foth and Wenk, the Public Arts Commission subcommittee, and local sculptor Christiane Martens. The selection panel met on July 8, 2011 and considered each of the applicants against the criteria and program goals laid out in the RFQ. The panel chose three top finalists to invite to Urbana for interviews on July 27 and 28, 2011.

Following these interviews, the panel was unanimous in its recommendation of Jack Mackie to work with the design team to develop public art in the Boneyard. Mr. Mackie has many years of experience creating public art projects that show a high level of artistic quality, as well as particular consideration of environmental factors and sustainability issues. Selection was approved by the Public Arts Commission at their August 9, 2011 meeting. City staff, in consultation with Foth Infrastructure & Environment and Wenk Associates, reached an agreement for design services with Jack Mackie that was approved by City Council on October 4, 2011.



## **Discussion**

Mr. Mackie has been working closely with City staff, Foth Infrastructure & Environment, and Wenk Associates to design public art for the Boneyard project. As outlined in his agreement with the City, Mr. Mackie submitted a Phase I Preliminary Project Briefing that summarized his initial research on the Boneyard Beautification Project and documented interviews with community members, stakeholders, City Staff, and the design team during his trip to Urbana on September 14-16, 2011. Subsequently, he presented his Phase II Research and Concept Design, which broadly outlined his ideas for wall treatments, tile work, and creek edge stone elements in the project, to the Urbana Public Arts Commission during their October 11, 2011 meeting. The Public Arts Commission approved this initial concept and directed Mr. Mackie to continue developing these designs in collaboration with the design team.

Mr. Mackie's proposed design identifies public art elements to enhance the surfaces of the structural perimeter walls, walls associated with the Race Street and Railroad Trestle Bridges, and the Broadway Street Bridge; and to embed native diatom images into the limestone blocks set along the creek edge (Exhibit A). Structural and bridge walls would carry images derived from botanical elements fundamental to the Creek's ecosystem, inset into the walls in relief through the use of concrete formliners. One formliner image is based on the seed shape of the Common Sedge Plant, an indigenous Prairie woodland creek-edge foundation plant. The other formliner image is based on the Springtail (Collembola), which are very small hexapods that play an important positive role in the establishment of plant-fungal symbioses in Prairie top soil. Two walls, Wall 2 along the western edge of the park and Wall 19, the Broadway Bridge, at the eastern edge of the park, would receive applied tile treatments that are also reflective of the common sedge plant. The tiles in these treatments are partially composed of recycled material.

Diatoms, a major group of the Boneyard Creek algae and phytoplankton, play a key role in the regulation of the biogeochemical cycle of silicon in the Boneyard aquatic systems. For the Boneyard Creek Improvements Project, images of diatoms native to the creek will be substantially enlarged and sandblasted into limestone blocks set along the creek edge. These images will provide an opportunity for discovery as park visitors walk along and engage the creek edge.

Mr. Mackie's design incorporates the public's feedback by representing the natural environment in the Boneyard Creek and the ecologically conscious community in Urbana. By bringing attention to integral native species that often go unnoticed, such as the Common Sedge, Springtail, and various diatoms, his work will both celebrate the Boneyard ecosystem, provide an opportunity for ecological education for all ages, and create an attraction for Downtown Urbana.

## **Fiscal Impact**

The inclusion of public art in this project reflects the City's ongoing commitment to the role of the arts in beautification efforts throughout Urbana. The costs of public art proposed here are included within the overall project budget for the Boneyard Creek Improvements Project, which

is funded through TIF 2 funds.

The project has operated with an initial budget of \$45,000, \$17,000 of which has already been applied to the public art design phase as outlined in the design services agreement with Mr. Mackie approved by Council on October 4, 2011. This leaves \$28,000 for the production of public art within the project.

The concrete liners (sedge seed and springtail designs) and diatom images on the creek edge have an estimated cost of \$29,000. Color tile work for walls 2 and 19 would add an additional \$14,000 to this cost, bringing projected public art production costs to \$43,000, \$15,000 more than the original budgeted amount. These additional costs can be accommodated within the larger Boneyard Creek Improvements Project, as presented by Brad Bennett. A summary of public art costs follow:

<b>Initial Public Art Budget</b>	<b>\$45,000</b>
Artist Fees	\$12,000
Artist Expenses	\$5,000
<b>Total Artist Design Development</b>	<b>\$17,000</b>
<b>Public Art Production</b>	
Sedge & Springtail Form-liners, Diatoms	\$29,000
Colored Tile on Walls 2 & 19	\$14,000
<b>Total Public Art Production</b>	<b>\$43,000</b>
<b>PUBLIC ART TOTAL</b>	<b>\$60,000</b>

According to the City's agreement with Mr. Mackie, public art designs will be incorporated into Construction Bid Documents and will be constructed by the General Contractor. The artist will be contracted by separate agreement or by amendment of the current contract to provide Construction Oversight.

### **Recommendation**

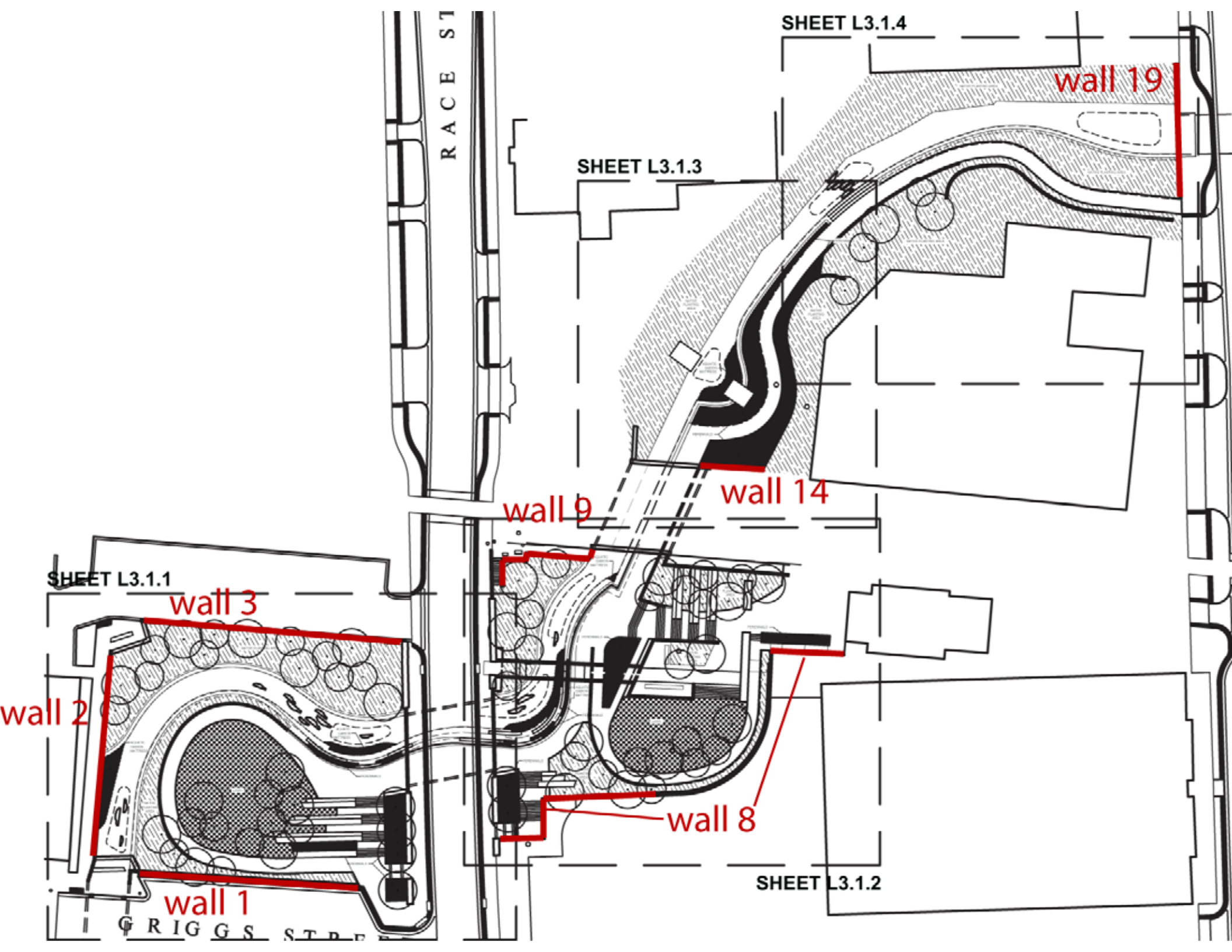
Consistent with the Boneyard Creek Improvements Project Memo presented by Brad Bennett, staff recommends acceptance by motion of Jack Mackie's Public Art Design as part of the final design for the Boneyard Creek Improvements and Race Street/Broadway Avenue Streetscape projects.

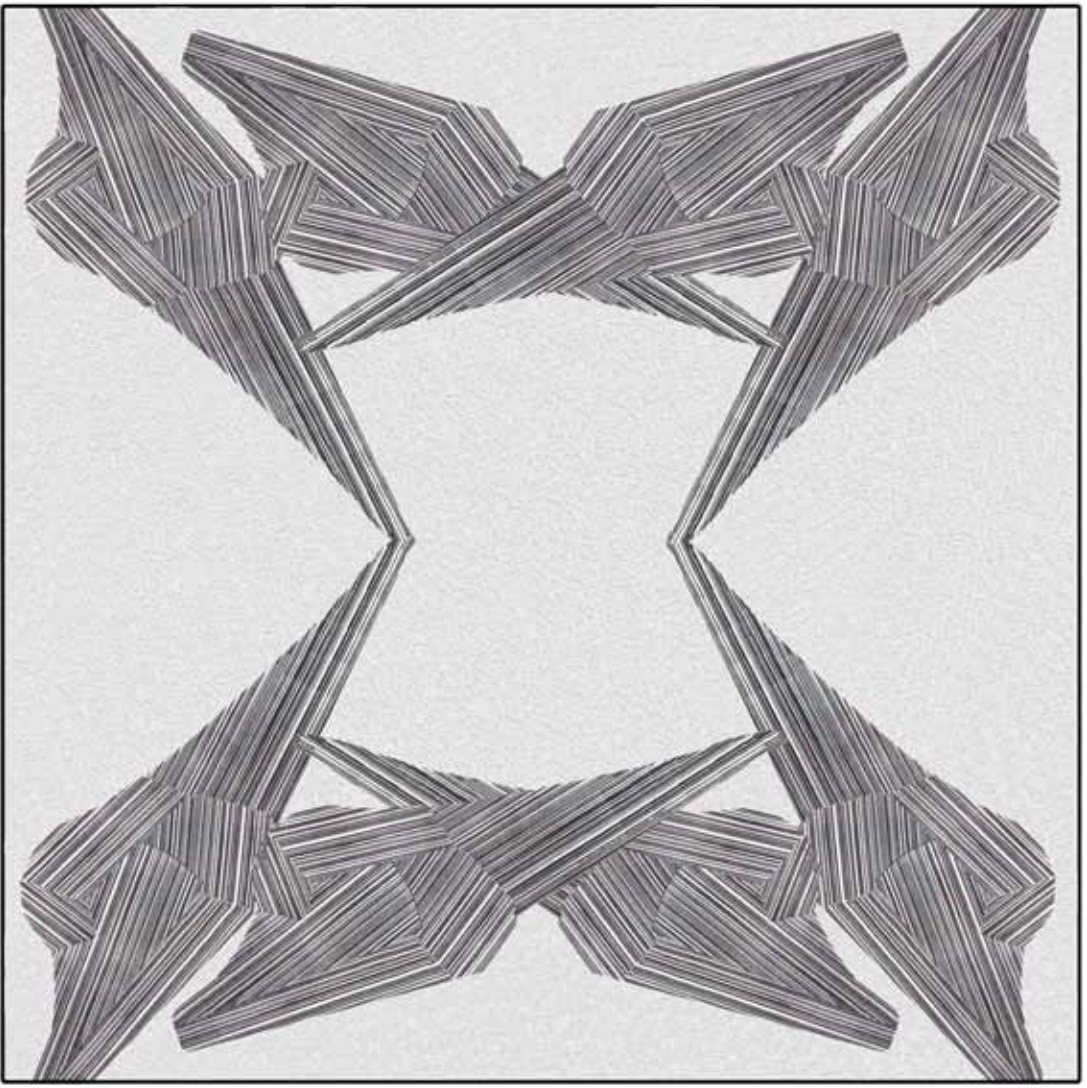
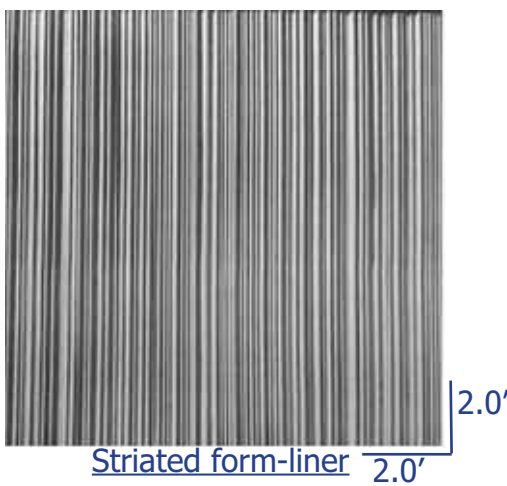
Prepared by:

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Christina McClelland, Public Arts Coordinator

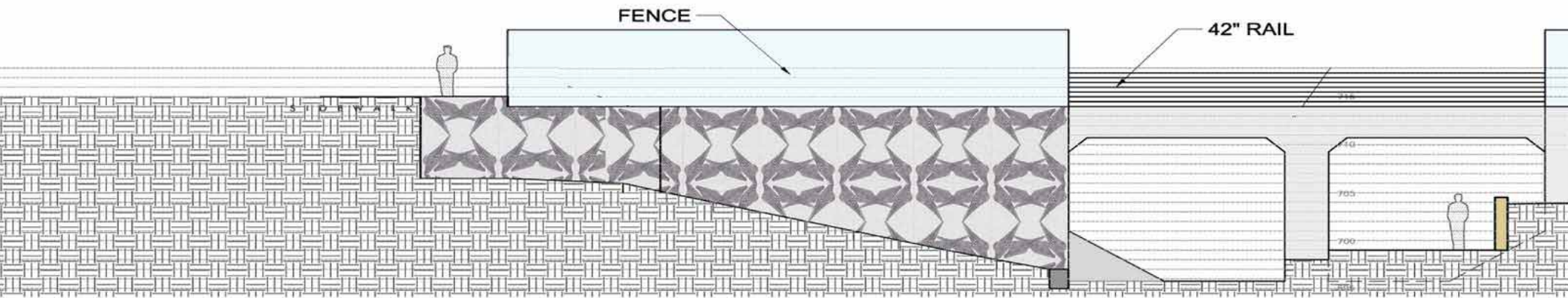
Attachments: Exhibit A: Jack Mackie Public Art Presentation Slides



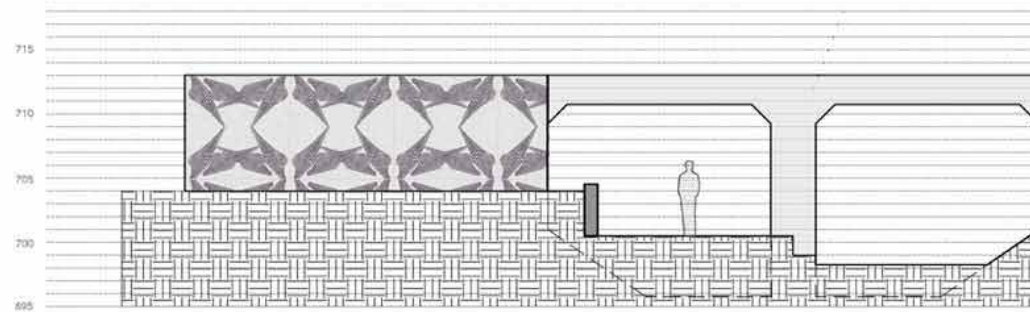


Common Sedge Plant  
The seeds of the common sedge, a foundation plant for the Boneyard Creek edge, provides the image and shape for structural wall form-liners.

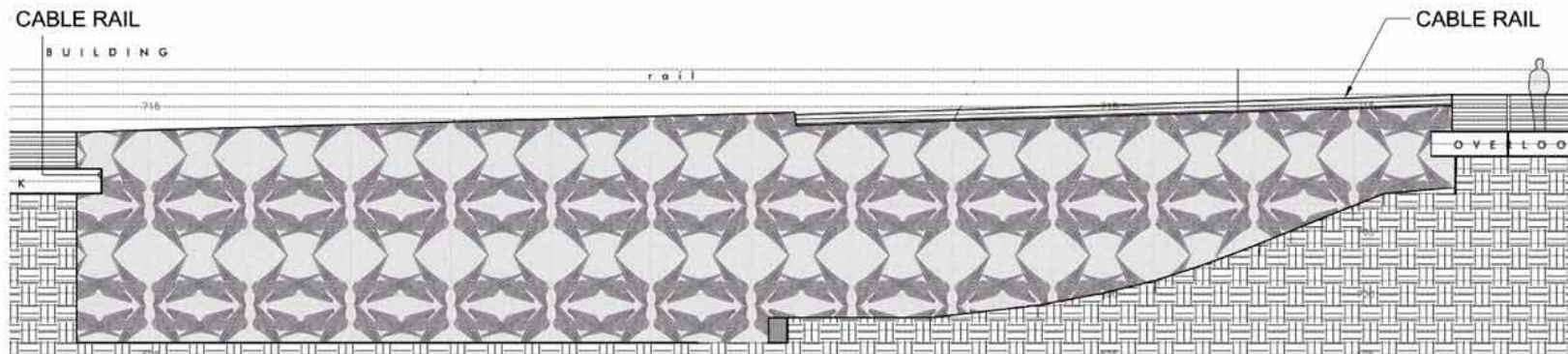




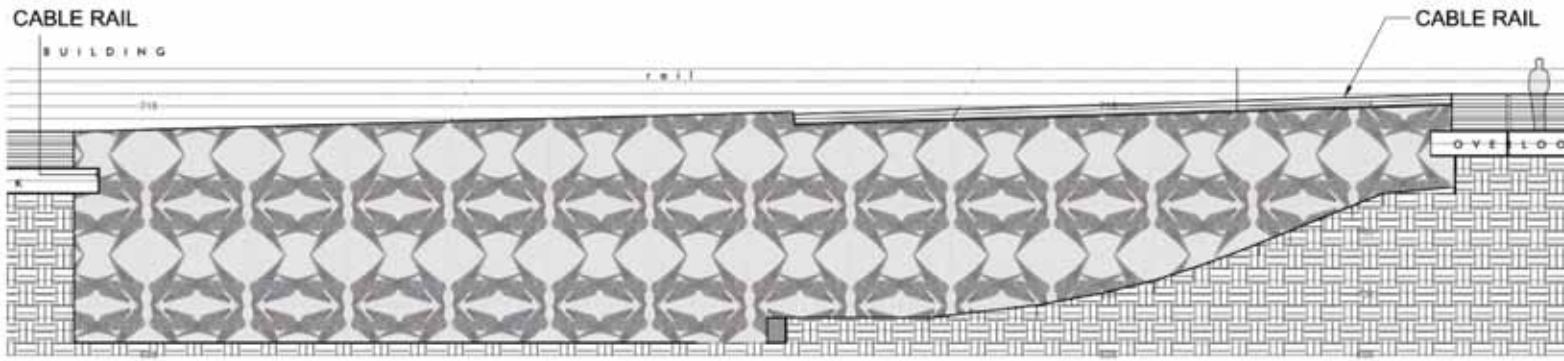
PERIMETER WALL 9



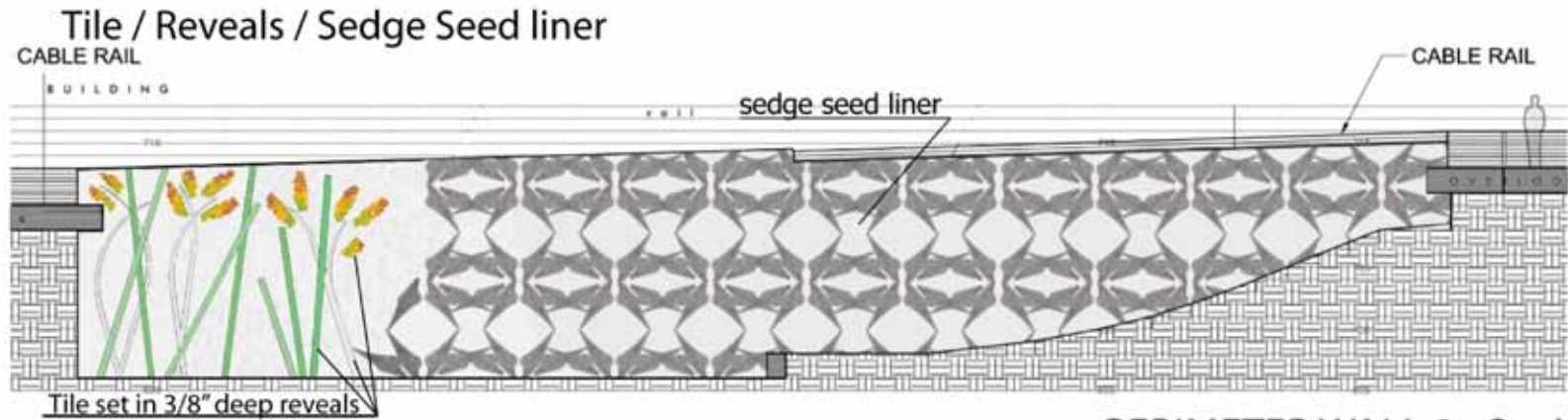
PERIMETER WALL 4



PERIMETER WALL 2~Option A



PERIMETER WALL 2~Option A

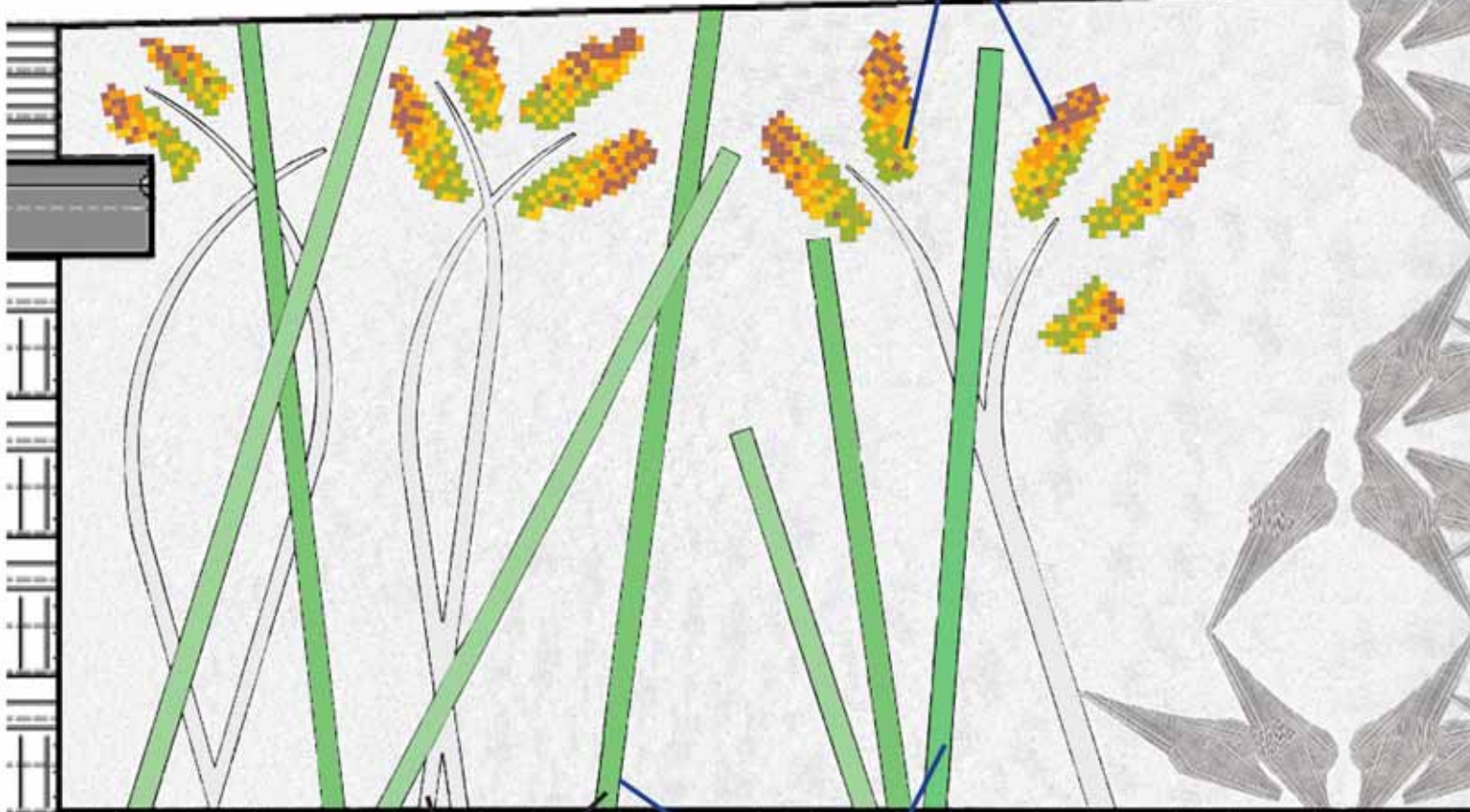


PERIMETER WALL 2~Option B

# WALL 2 ~ Option B

715

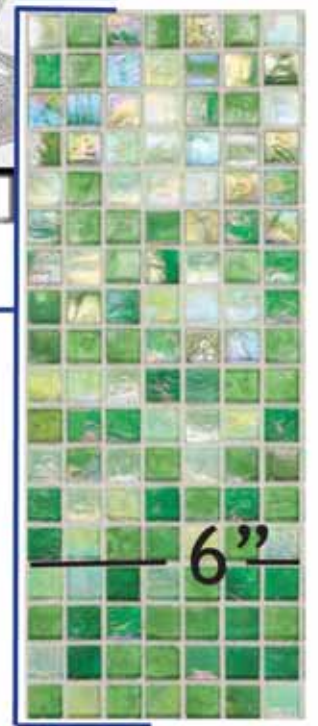
DalTile Natural Hues  
2"X2" tile



695

3/8" Reveals

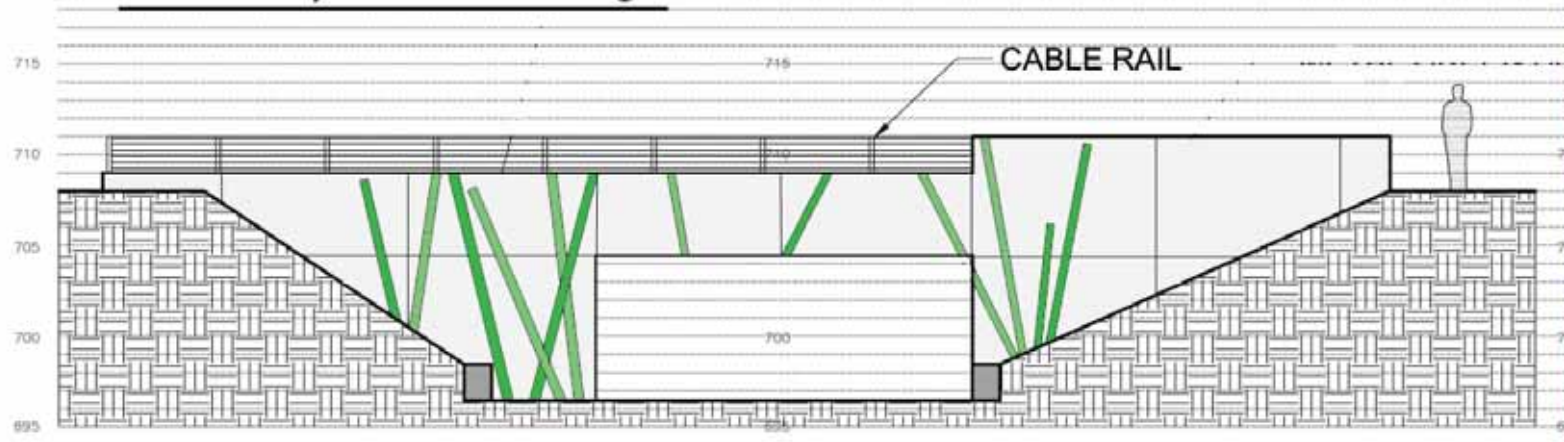
A.SACKS Trend/Brillante  
.85"X.85"



6"



# Broadway Avenue Bridge



6  
L4.1.2

**SITE WALL 19**  
ELEVATION

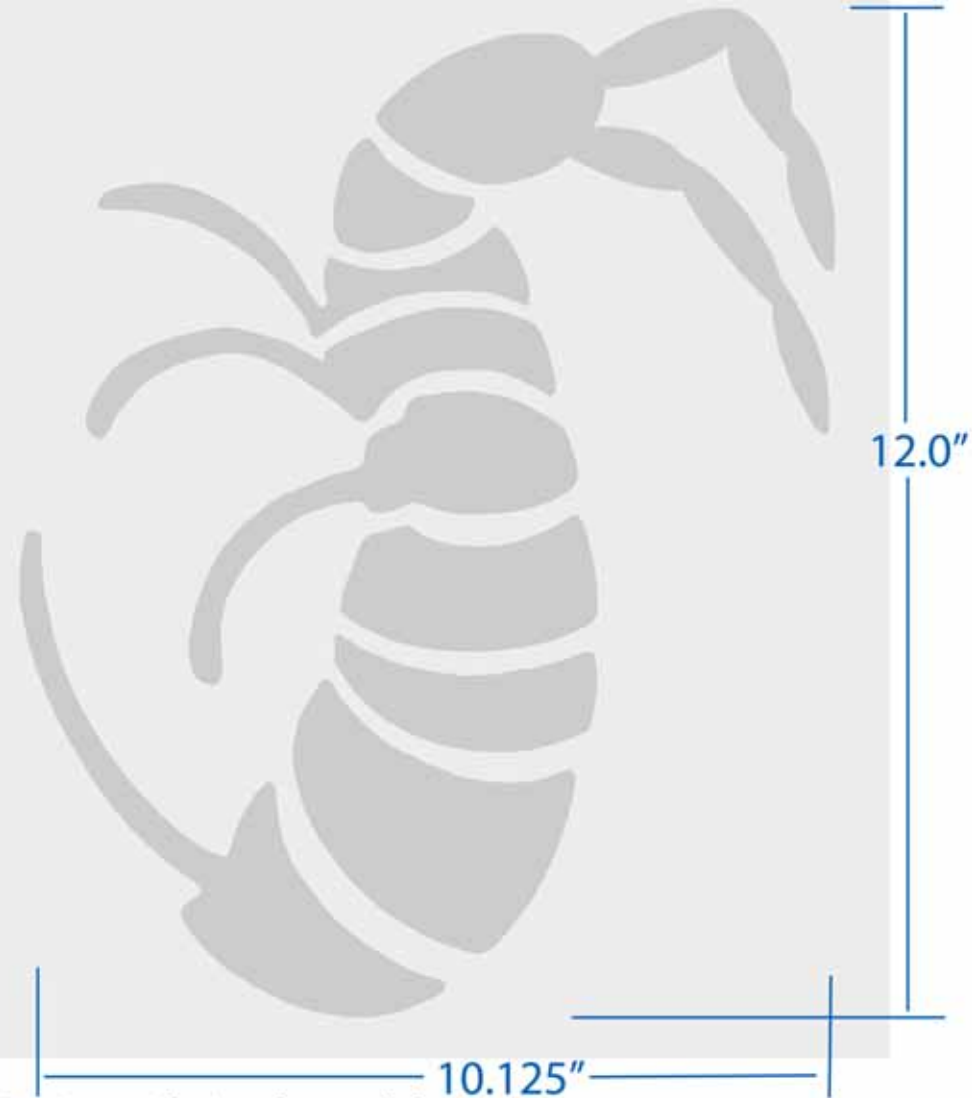
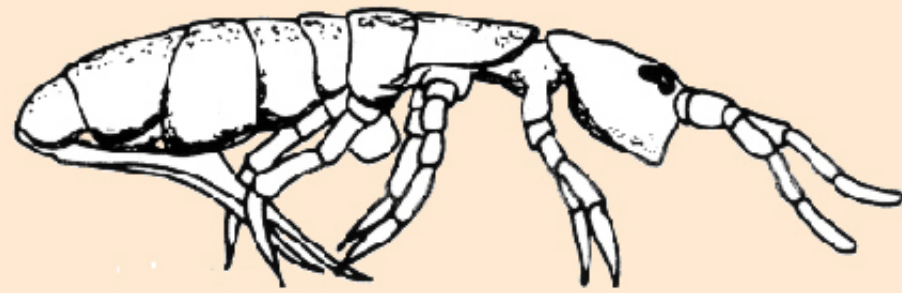
Option 1

Tile strips applied to patched and cleaned concrete wall.

A.Sacks Trend Brilliante

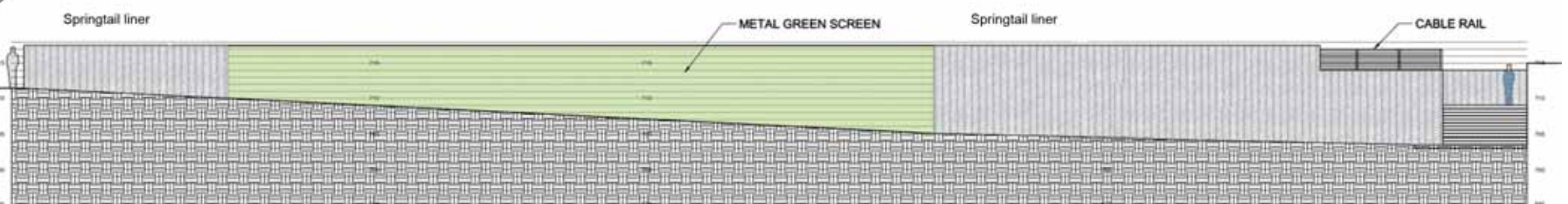
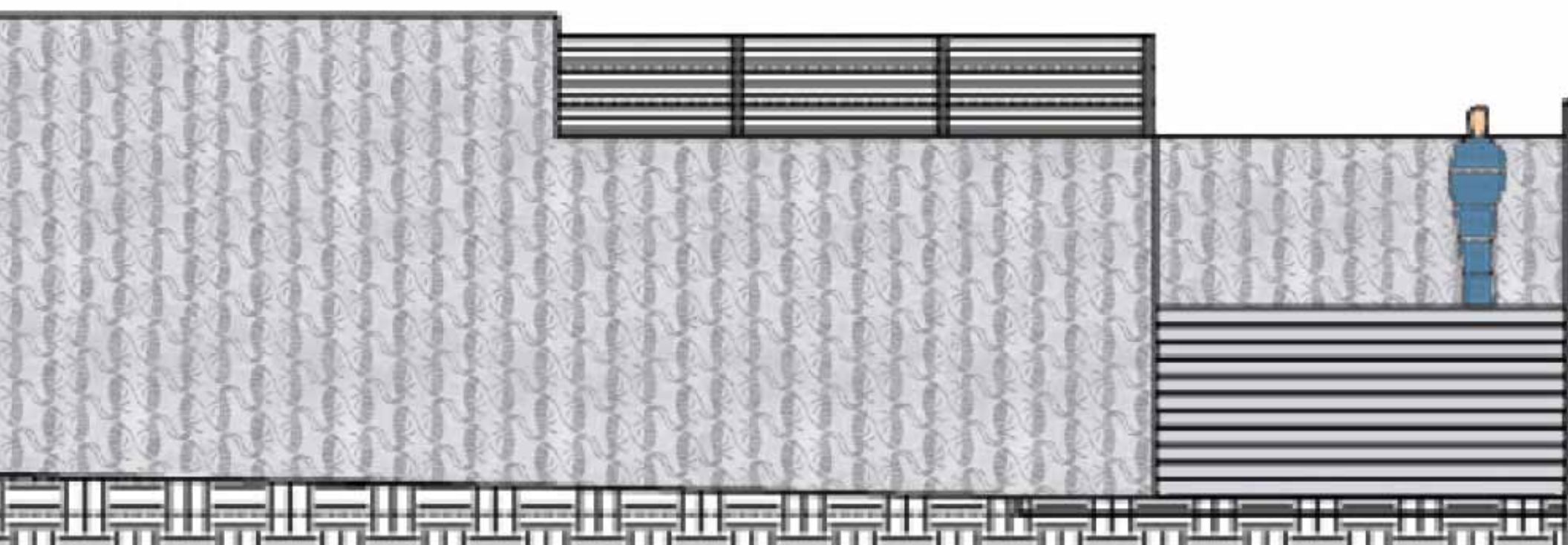
# Springtail

The Springtail, very small hexapods that play an important positive role in the establishment of plant-fungal symbioses in Prairie top soil, will provide formliner image for low concrete walls in the Boneyard Creek Park.



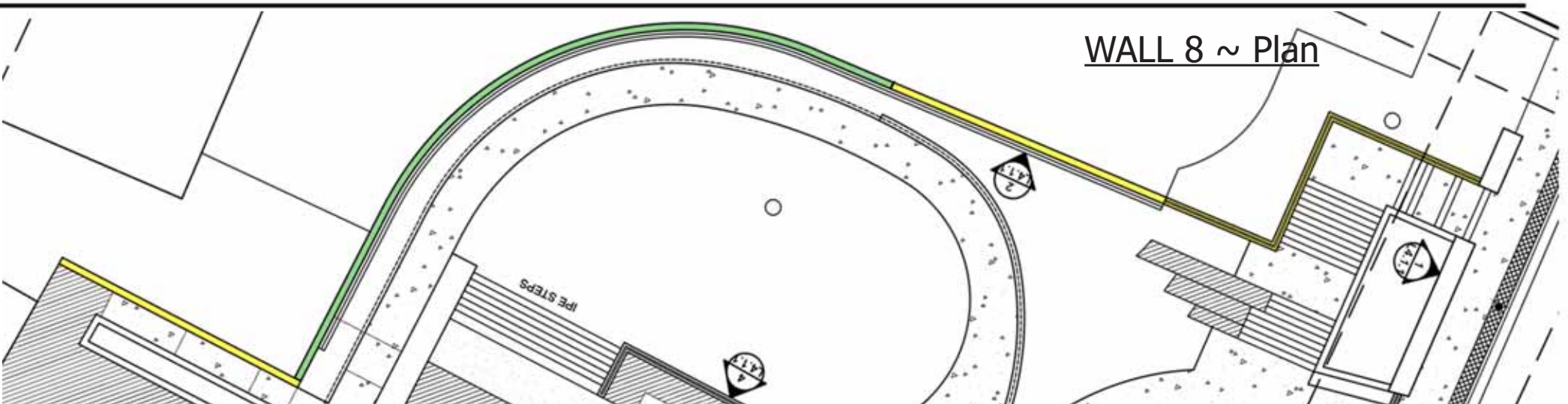
Springtail single mold  
BONEYARD CREEK

Background texture Scott Systems  
120 Sandblast #2

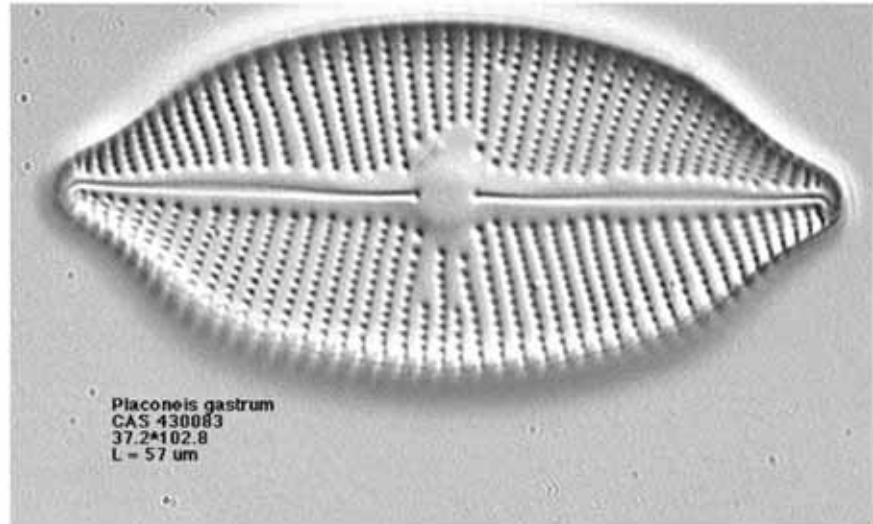


**SPRINGTAIL LINER**

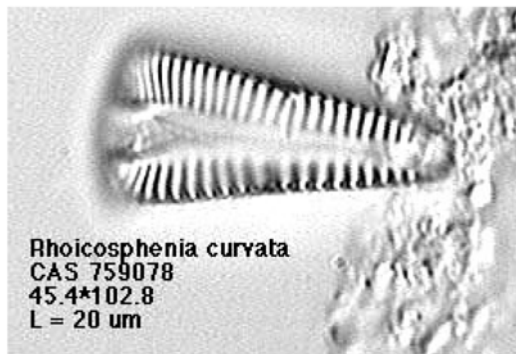
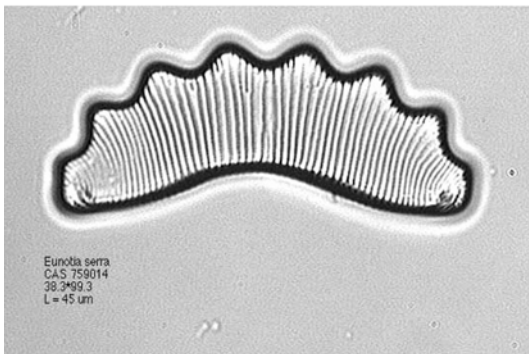
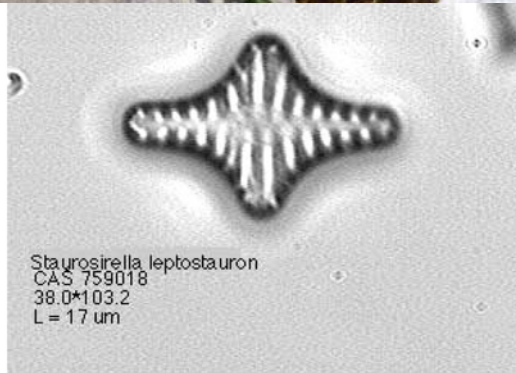
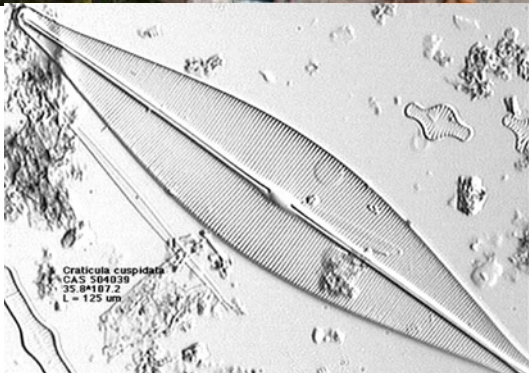
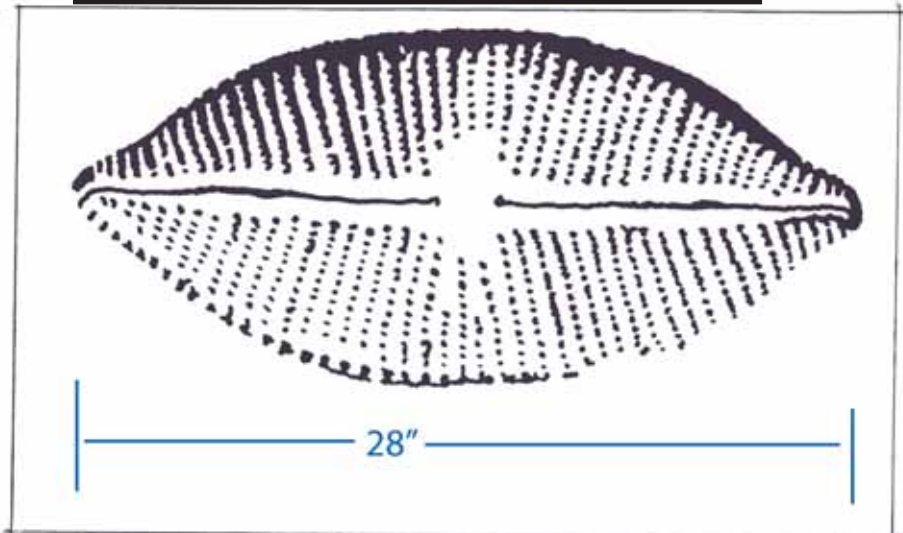
WALL 8 ~ Elevation



WALL 8 ~ Plan



## **BONEYARD DIATOMS**



Diatoms, a major group of the Boneyard Creek algae and phytoplankton, play a key role in the regulation of the biogeochemical cycle of silicon in the Boneyard aquatic systems. Extremely small, diatoms show in fossil record dating to the Jurassic period. For the Boneyard restoration, images of diatoms native to the creek will be substantially enlarged and sandblasted into limestone blocks set along the creek edge. These images will provide opportunity for discovery as park visitors walk along and engage the creek edge.