



**To:** Members of Dublin City Council

**From:** Marsha I. Grigsby, City Manager *MLG*

**Date:** November 14, 2013

**Initiated By:** Sara G. Ott, Sr. Project Manager

**Re: I-270/U.S. 33 Interchange Aesthetics Master Plan – Artwork Conceptual Design**

## Background

On November 13, 2013, 45 Dublin community members attended a presentation by Steven Weitzman, artist, CEO and Founder of Creative Design Resolutions (CDR). Mr. Weitzman presented attendees and the I-270/U.S. 33 Aesthetics Design Selection Committee three conceptual design proposals for artwork to be incorporated into the design of the new interchange. The proposals drew upon the engagement of 79 residents in focus groups, 49 comments submitted online and extensive site and community research by CDR in September and October 2013. Further, the designs respond to the project goal of delivering implementable design that is welcoming, sustainable, authentic, timeless, signature to Dublin and location appropriate.

At Monday's Council meeting, staff will provide an abbreviated introduction to the design proposals through video presentation. The Selection Committee seeks Council member feedback on elements of the designs that are particularly appealing towards the community realizing its identity through this project.

There are several resources attached to assist in your review of the proposals. These resources include a summary of the input from focus groups, summary of the online feedback, the conceptual design of the landscape elements and CDR's conceptual design submission. Please note as the designs are modular in nature, Mr. Weitzman is open to considering mixing elements from different design themes together, if desired.

Simultaneous with the community's review of the aesthetics, a technical review is occurring by the project lead engineering firm CH2M HILL, the Ohio Department of Transportation and City staff.

On Wednesday, November 20, 2013, the Selection Committee will meet to review feedback from the public meeting, online, Council members, and any technical issues that could significantly alter a design. Based upon this feedback and the unique perspectives of each Committee member, the Selection Committee will select which elements to recommend to the Ohio Department of Transportation for approval and advancement into intermediate design.

## Recommendation

The Selection Committee looks forward to receiving your feedback on Monday.

# 270/33 FOCUS GROUPS



Route 216, Baltimore, Maryland.

## SUMMARY

*On Monday, September 30<sup>th</sup>, 2013, the City of Dublin, in partnership with the Dublin Arts Council, held two community focus groups to inform the aesthetics of the upcoming I-270/U.S. 33 Northwest Interchange Improvement Project.*



# 270/33 FOCUS GROUPS

## SUMMARY

### INTRODUCTION

On Monday, September 30th, 2013, The City of Dublin held two community focus groups to inform the aesthetics of the upcoming I-270/U.S. 33 Northwest Interchange Improvement Project.

The goal of the focus groups was for Steven Weitzman, President and CEO of Creative Design Resolutions, Inc. (CDR) to cull input from residents and stakeholders about the ideas and imagery that comprise Dublin's identity. Weitzman and CDR have been hired to work with landscape architects in developing an aesthetic master plan for the interchange.

The first meeting had 49 attendees, while the second had 30. Of the 79 total attendees, 55 completed demographic response cards. Of this group, 89% reported being over the age of 45. Just two reported being under 35, and of those, one reported being under 25. The largest age group represented was ages 55-64, comprising over 30% of respondents. Mr. Weitzman would later note that most attendees were Caucasian. 31 respondents were female, and 24 were male.

When asked the question, "How long have you lived/worked in Dublin?" attendees responded with a wide range of answers. The shortest amount

of time reported was one year and the longest, 90 years. The median number of years attendees reported having lived or worked in Dublin was 14, and the average was 19.

The meetings each began with Sara Ott, Senior Project Manager with the City of Dublin, providing background information on the interchange expansion project, which will take shape in two phases over the next ten years.

Next, David Guion, Executive Director of the Dublin Arts Council, made a few remarks emphasizing the importance of public art.

Mr. Weitzman then gave a 20 to 30-minute presentation to each focus group. The presentation introduced Mr. Weitzman professionally, while providing visual examples of similar projects he has worked on throughout the country, including the Big Rock Interchange in Little Rock, Arkansas.

Weitzman explained his community engagement process for these projects, and introduced some relevant technical terminology: *MSE wall, parapet, form liner, pier,*

*modularity.*

Weitzman then addressed the group: "What is Dublin to you? . . . Give me two or three words about who, or what, is Dublin."

### DEMOGRAPHIC SURVEY

Total Attendees: 79

Total Survey Respondents: 55

- Men: 24
- Women: 31

Respondents age 45 & up: 49

Highest age reported: 90+

Lowest age reported: Under 24

"Do you live or work in Dublin?"

- Live: 28
- Work: 8
- Both: 17
- Neither: 2

"How long have you lived/worked in Dublin?"

- Longest time reported: 90 years
- Shortest time reported: 1 year
- Average: 19 years
- Median: 14 years

## SESSION I

The tone of each meeting was unique. During the first meeting, attendees engaged in a discussion that focused on points of identity and iconic imagery.

A number of different ideas were presented. While several residents took pride in Dublin's "Irish" identity, others voiced concerns that the label was not a genuine representation of the city. One attendee said he worried the image was more of a marketing ploy than an accurate portrayal of Dublin's history and culture. Several others echoed his concerns, noting that historically, Dublin's largest immigrant group has been German, not Irish.

Mr. Weitzman took an informal survey: "How many would feel comfortable with Irish being part of the theme?" Roughly a quarter of attendees raised their hands.

A concept nearly as contentious as the Irish theme was that of Dublin as a "Golf City." Some residents cited Jack Nicklaus and The Memorial Tournament as reasons golf should be considered in the theme, while others were less convinced of its centrality in Dublin's identity.

Other ideas that seemed to garner wide support were the themes of nature, wildlife, the Scioto River, bike trails, community planning and green space. When asked if they supported the idea of flora and fauna as part of the aesthetics, roughly three fourths of attendees raised their hands.

An idea on which there was wide agreement was that of Dublin being an active and engaged community, characterized by generosity and

volunteerism. Family-friendliness was another point of pride for many.

One idea that was mentioned briefly, but was met with relative enthusiasm, was the idea of Dublin as a symbolic and literal crossroads. Progress, fluidity, and the future were also brief but popular topics of discussion.

One resident mentioned decorative lighting as an option for aesthetic design. Weitzman explained that due to the fast-tracked nature of the project, lighting would not be an option for Phase I. He noted, however, that it was not off the table for Phase II.

## SESSION II

The second meeting—which was held in the evening and had fewer attendees—saw a discussion that addressed Mr. Weitzman's prompts, in addition to posing some questions. For example, a couple attendees wanted to know the exact price of the project, a number that was not readily available.

Another citizen asked to know where the funding for the project was coming from. At this point, Sara Ott stepped in and explained to the group that the project has two funding sources—the hotel/motel tax and tax increment financing.

Residents had logistical questions about the landscape and hardscape as well. If there were going to be ten MSE walls, where would they be?

Who would take care of the landscaping? If an existing bridge was expanded, how would the "new" and "old" sides be reconciled? What did "modularity" have to do with aesthetics?

After addressing each of these concerns briefly, Mr. Weitzman turned the focus back to



*The Big Rock Interchange in Little Rock, Arkansas is an example of Creative Design Resolutions' previous work.*

aesthetics.

A variety of ideas were offered up in the second round. Dublin's meticulous community planning was mentioned more than once as a point of pride for residents. Natural beauty and green space, again, were popular ideas.

Once again, Weitzman asked the group what they thought of "Irish" as an important theme. This time, roughly a third of attendees raised their hands.

Weitzman then asked if the group thought agriculture was important as a theme. Again, about a third raised their hands.

As with the first session, there were a few dominant, recurring themes, including: family, children, schools, bike trails and green space. One idea that was popular in the second session was the idea that Dublin is welcoming, and "a great place to live and work." More than one resident expressed a desire for this "welcoming" attribute to be included somehow in the theme.

Decorative lighting was again brought up as a possible enhancement to the interchange.

## CONCLUSION

The focus groups saw a number of ideas, and a range of different perspectives. While some saw golf and "Irish-ness" as points of identity to be reinforced, others were hesitant to embrace them as aesthetic themes.

Two concepts that were largely popular in both groups were nature and wildlife. Related to these were green space, community planning and bike trails. Family, community, volunteerism and overall quality of life were all fairly popular as points of pride in Dublin.

## WHAT IS DUBLIN TO YOU?

*"We are stewards. Of knowledge, of people . . . we're volunteers, bike ambassadors. We're a very hands-on community, very involved with each other. We help each other in times of need."*

*"Dublin has the largest population of Japanese nationals in Ohio. There is a very high amount of Japanese investment in this community. I'd like to see a nod to that."*

*"Our ability to change. We're a little over 200 years old. For 150 years, we were a German community. Now we're Irish."*

*"Beautiful flowers. Trees, birds, animals . . . we're very nature-related. Maybe that's better than Irish or German."*

*"Daily, I see families. Moms and dads playing with their kids. Kids playing soccer."*

*"Very family friendly."*

*"Heron, along the waterway. So many of them. Eagles, deer, foxes . . . there's rich wildlife in this community."*

*"75,000 people work here. We're a huge business community."*



#### INTRODUCTION

Following the public input sessions on September 30<sup>th</sup>, 2013, a four-question survey was posted to the City's website. The survey sought additional input on Dublin residents' perceptions of Dublin's history and identity, as well as what residents are most proud of in Dublin. Focus group participants and invitees who did not attend were notified and invited via email to respond to the questionnaire. Additionally, the survey was advertised to the general public. The survey was live for two weeks, during which time 49 individuals submitted responses. 6 of these respondents had attended a focus group.

The survey consisted of the following questions:

1. *How would you define the history of Dublin in one word? Can you associate a place, object or word that best illustrates this history?*

2. *What three words do you think describe the identity of the city of Dublin?*
3. *Dublin is a rapidly growing community: is it more important for the city to keep its small town roots or modernize itself for the future?*
4. *What are you most proud of in your city?*

#### SUMMARY BY QUESTION

*How would you define the history of Dublin in one word? Can you associate a place, object or word that best describes this history?*

For this question, the most common response was "Scioto" or "Scioto River." A total of 11 respondents used "Scioto," "river," or both in their responses. The words "Irish" and "golf" are each mentioned in a positive context four times.



However, each of these words is also mentioned at least twice in a negative context. Example: "PLEASE no shamrocks or golf balls! We are so much more than these overused icons." Other popular words: *Shamrock, farm/farming, family, stone, green.*

Some respondents described a contrast between the old and the new—a juxtaposition between the city's history and its future. The coexistence of these seemingly opposite elements was a point of pride for more than one respondent.

An appreciation for Dublin's community planning, an idea that had been voiced during the focus groups, was also mentioned in this section.

***What three words do you think describe the identity of Dublin?***

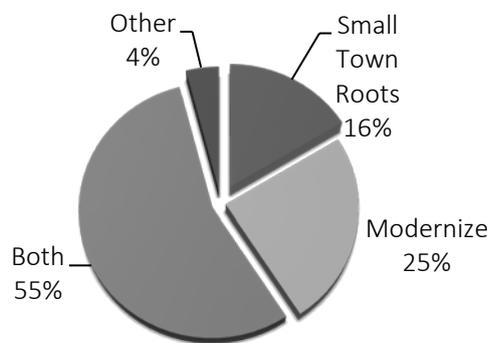
The most common responses to this question were variations on the Irish theme; eleven respondents included either "Irish" or "shamrocks" in their answers. The next most common word was "golf," with eight individuals including it in responses. Five individuals included the phrase "community" (as in, the abstract concept as opposed to part of a larger phrase or sentence.) Five included either "schools" or "education;" the color green was mentioned four times, and "parks," "nature" and "green space" were mentioned six times, collectively.

Generally, the ideas of community service and volunteerism were at play in this section, as well as those growth and progress.

Again, community planning was brought up by at least one resident.

***Dublin is a rapidly growing community: is it more important for the city to keep its small town roots or modernize itself for the future?***

Like all of the survey questions, this question was left open-ended, and a number of residents crafted thoughtful responses. However, the vast majority of answers could be classified in one of the following three categories: "Small Town Roots," "Modernize," or "Both."



*"Is it important for Dublin to keep its small town roots, or modernize for the future?"*

Of these, 27 respondents replied with either a short or lengthy version of "Both." Some examples of the lengthier responses:

*I think both are absolutely necessary. Dublin has done a wonderful job of keeping its historical integrity and yet*

*adding all the latest communication, business and residential elements needed to thrive and grow.*

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*I don't think these are mutually exclusive. Dublin isn't a small town now and hasn't been for a long time, and it can't go back no matter what. The key is to grow in a smart way that maximizes opportunities for all. The history of Dublin is one of planning and accommodating change and growth. This will continue long into the future if we are true to our roots.*

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*We must value the past but reach for the future. We aren't farmers and millers anymore and few can relate to this past experience. I hope we keep our physical borders small but our cultural possibilities infinite.*

The next most popular response was "Modernize," with 12 responses. "Small Town Roots" had eight responses, and "Other" had two responses.

From the "Other" category:

*We should keep residential, residential and commercial, commercial. Muirfield tried the commercial in the middle—this is a distractor to consistency, aesthetics, and quality of living there. Mixed developments over time turn into rotten cores. These cores end up being hair salons, low end restaurants, dog grooming, etc...*

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*Whichever path makes it sustainable for the future.*

### ***What are you most proud of in your city?***

This question generated some of the wordiest responses. It also exhibited the most prominent recurring theme: parks, green space, trees and trails. Of the 49 responses, nearly half mentioned one or more of these concepts. This included a reference to the Scioto River, and a reference to a forested ravine.

Very much related to this is residents' pride in Dublin's community planning. Including several of the previously-mentioned responses about



parks and green space, community planning was either directly or indirectly referenced by 16 respondents.

In addition to nature and planning, several respondents reported being proud of Dublin's citizenry in general: successful, intelligent and engaged in the community.

Other notable points of pride included safety, cleanliness and a prominent, overall satisfaction with City services.

## **CONCLUSION**

Despite still being contentious ideas among many, "Irish-ness" and golf both made their way onto the survey as points of identity for a handful of City residents. If there was one overall theme that seemed to dominate the responses, it was that of nature, parks, and green space. Linked to this was a pervasive sense of pride in Dublin's community planning.

Other common points of pride and identity include: family, schools, safety and quality of life. Public art was mentioned several times throughout. Volunteerism and community engagement were also noted by several respondents as points of identity in Dublin.

An overwhelming majority of respondents were interested in maintaining a mixture of Dublin's small-town roots while keeping an eye toward the future. Variations of the words "history" and "progress" were found in answers throughout the survey.



LEGEND

- A. Tilted plane (slope) with limestone
- B. Flat infield of gridded crushed stone & alternating fields of manicured lawn, no-mow fescue & meadow
- C. Plant bed shelf of low plantings & tree massing

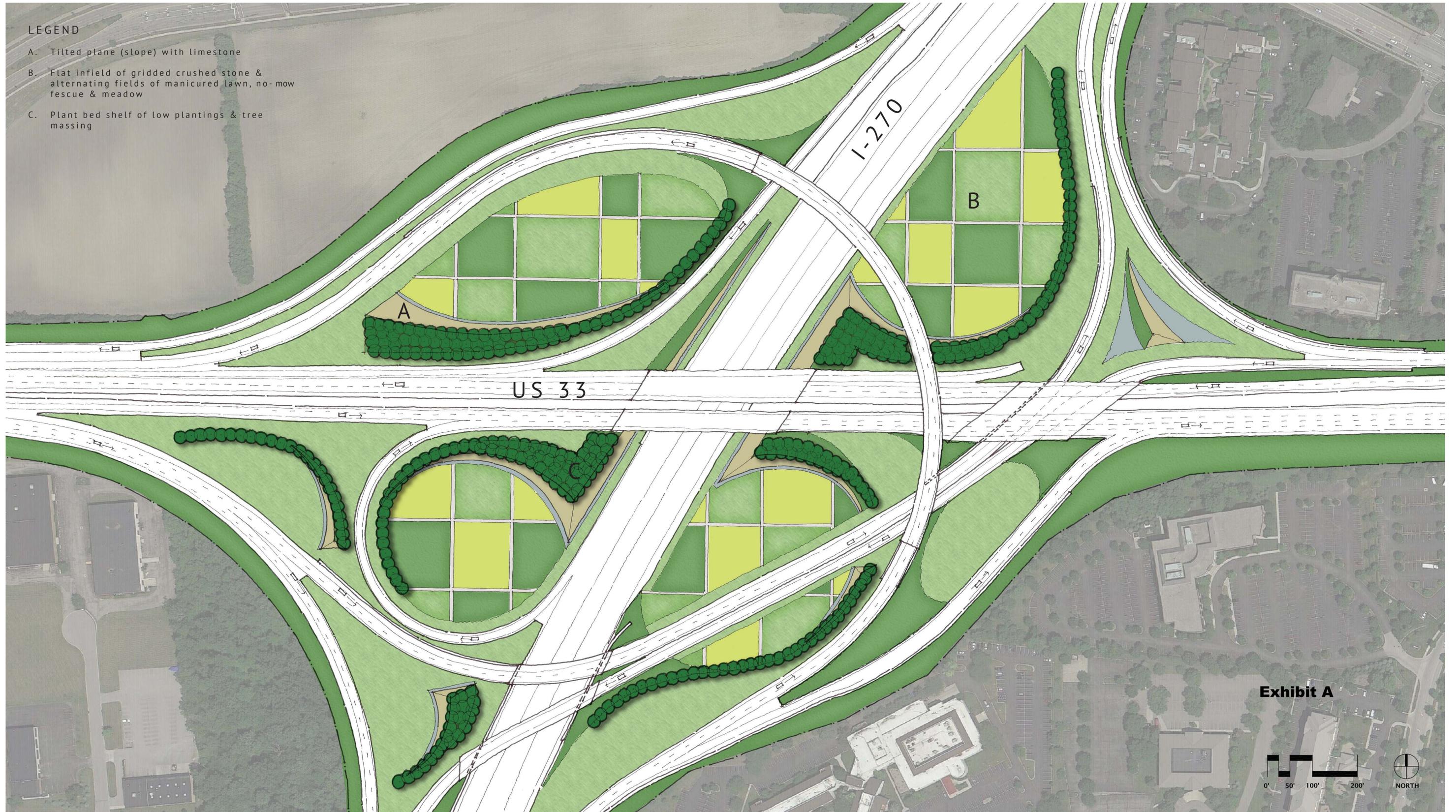


Exhibit A

Implementable

Welcoming

Sustainable

Authentic

Timeless

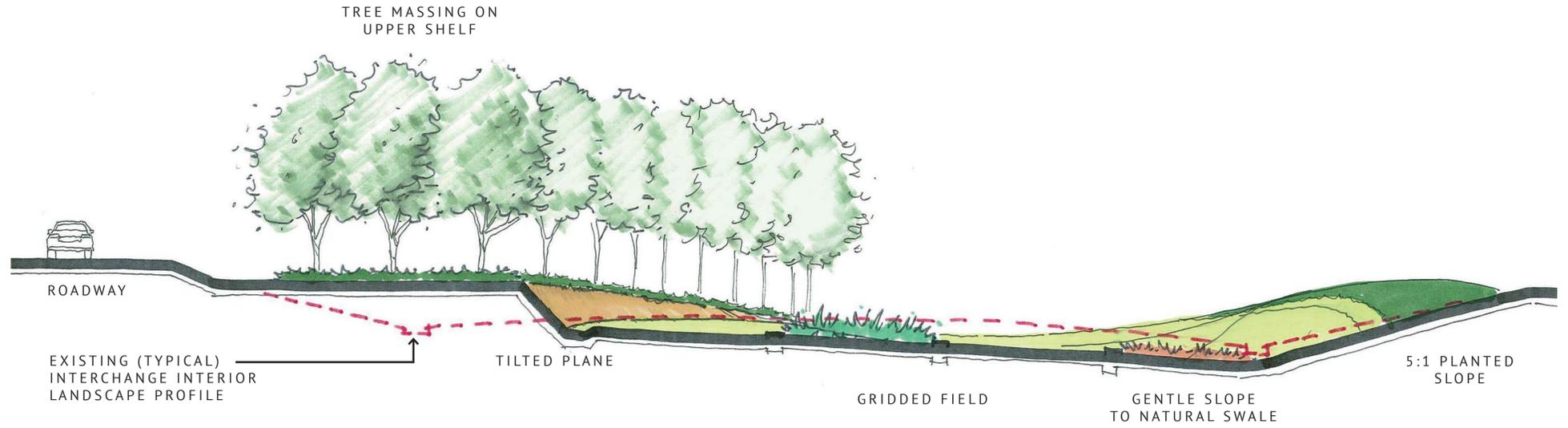
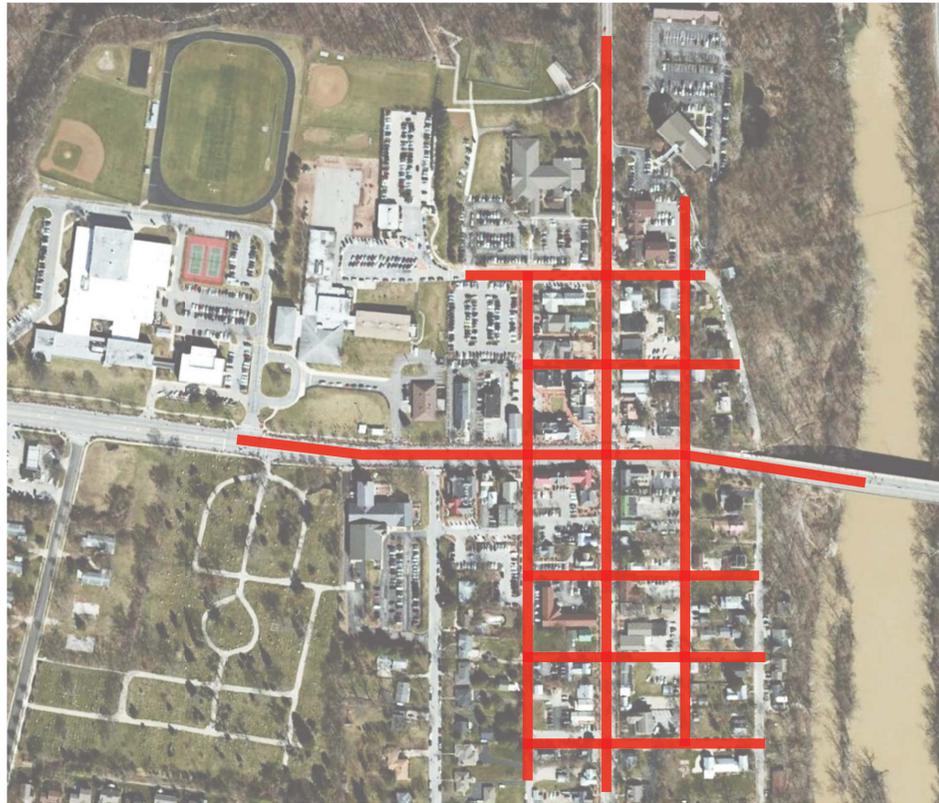
Signature



# 270/33 INTERCHANGE LANDSCAPE ENHANCEMENT CONCEPTS

Dublin, Ohio  
September 16, 2013





Implementable

Welcoming

Sustainable

Authentic

Timeless

Signature

**270/33 INTERCHANGE LANDSCAPE ENHANCEMENT CONCEPTS**  
 Dublin, Ohio  
 September 16, 2013



## A Modern Twist

This concept utilizes similar elements and materials with abstract forms and clean lines of **'Modern Dublin'**. Essentially, the concept takes advantage of the multiple slopes and broad views created by the interchange ramps with tilted planes of hardscape which create an opportunity for a contained plant bed of trees and potential understory plants as well. Along the four flatter portions of the interchange infield areas a grid of hardscaped lines give organization to the various 'fields' containing different plant monocultures and/or levels of maintenance. The grid pays tribute to the settlement of the area and the fields of course honor the rural history of Dublin.

### Plant Beds on the Slopes:

**Tilted Planes:** As a part of any major interchange, several shallow slopes are produced with the stacking of lanes for uninterrupted travels. The tilted planes are envisioned to be faced with limestone, respecting the Avery Rd. Interchange and the limestone that is used throughout Dublin. The tilted planes would be at a steeper slope (2:1) than the engineered slopes and would taper along their face from approximately 2' in height to upwards of 15' or 20' making broad gestures for travelers passing by at speeds of 50 to 70 mph. The stone treatment minimizes the maintenance requirements of these steepened slopes and alternative treatments can be explored as the design develops.

**Plant Beds:** The tilted planes will create a flat shelf (perpendicular to the engineered slopes) that gradually arises vertically across the engineered slope. These plant beds provide opportunities for larger tree masses or groves that are visible from a distance yet they have been placed adjacent to other portions of the roads which would allow for smaller plantings to be seen as one travels through the interchange.

### Flat Infield Areas:

**Grids:** The grids are envisioned to be similar to a crush stone drive and roughly 8' wide. These grids act as both a design element and to assist with maintenance and access. The grid will contain the various 'fields' providing a clean edge for areas that have weekly mowing for manicured turf as well as a clean line for fields with various maintenance schedules. The maintenance of the grids themselves will be minimal and alternative construction methods can be explored through design development.

**Fields:** Currently, the fields are envisioned to be an even mixture of manicured and no-mow fescue to provide a contrast to one another while honoring the manicured and links-style open spaces throughout Dublin. We also envision a few panels to be monoculture of a different plant species (to be determined) but feel that introducing more than these three might lose the desired effect. These fields could also be incorporated into bio-retention/rain gardens that water could be channeled toward them and then detained in the various cells or fields.

### Other Considerations:

**Art Walls:** At this point, the art motif/character has not been discussed. If this concept were chosen, the design team would work with the artist to adjust the concept to compliment the art in any way possible. Views of the major walls & pier opportunities has been considered when placing the sloped planters/vegetation within this conceptual plan. Other art opportunities such as glowing structures were discussed with this concept however, we do not want to compete with the walls. The landscape should complement/support the Art Walls and if it is deemed worthy, art elements within the landscape would be welcome.

**Drainage Swales:** At the moment, the drainage swales have be discussed as being non-descript to appear as the bottom of the engineered slopes meeting the very flat infield area. We realize this will need to be a function of a good grading plan and field execution. Typically, the interchange areas consist of engineered swales/ditches and we are thinking this would be more sculptural and possibly manicured. These modified swales might also provide opportunities to slow and even capture storm water to allow for bio-retention given the broadening of the actual surface area that might be inundated with storm water.

**Engineered Slopes:** Most of the slopes on the project appear to be in the gentle 6:1 range however there are a few steeper slopes of 2:1 to 3:1 near many of the bridges. We have envisioned the gentle slopes as having some routine maintenance program and be treated in a consistent fashion. The steeper slope areas that do not fall within the contrived plant beds mentioned above would likely have a consistent plant material to secure the slope while not creating a maintenance nuisance. The exact plant materials have not been determined and would be open for discussion/exploration as the design development progresses. One other consideration related to the slope treatment would be to incorporate some 'Contour Farming' practices into the plant beds on the slopes and possibly increase the amount of 'terraces' to capture/slow more storm water on site vs. getting it to the ditch as quick as possible.

**Sustainability:** Several Sustainable elements have been discussed and could be implemented into the final design of the landscape around the interchange. Storm Water considerations have already been mentioned above in the Swales, Slopes, and Fields sections. Other Storm Water considerations to be explored are 1.) Utilize the storm water for irrigation which would likely consist of an underground cistern to store water for the dry portions of summer and fall and 2.) Detain as much water in each quadrant to allow for the water to percolate/infiltrate which would reduce the impact on the surrounding streams (and the low area in the NE quadrant).

Other elements to be considered are the potential for Wind Turbines/Generators and or Solar Fields. These elements may be incorporated to assist or even power in full the various design lighting, and/or irrigation throughout the project.

### **Misc. Terms:**

Modern , 21<sup>st</sup> Century, Future, Forward, Progressive, Entry, Advancing, Onward, Contemporary, Gateway, Innovative, Timeless, Authentic, Signature, Enduring, Sustainable



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## I-270 & US 33 Interchange Project Cost Comparison

The estimate listed below indicates the per square foot charge of five of the leading form liner manufacturers. Please note that of the five listed companies, Creative Form Liners, Inc. (CFL) is the only fabricator that offers multi-use form liners. As a result, as indicated below, the square foot charge for CFL's liner is divided by the number of estimated pulls per liner in order to provide an accurate cost comparison with the other four companies listed.

### For Single Use

#### Fitzgerald Form Liners

Florida Ashlar Stone  
(Styrene) \$6.20/sq ft + .85/sq ft freight

#### Scott System

Random Ashlar Stone  
Heat Formed Plastic \$2.75/sq ft + freight

#### Greenstreak, Inc.

Ashlar Stone \$4.68/sq ft

#### Spec Formliners, Inc.

Ashlar  
1000 sq ft order \$2.45/sq ft

### For Multi-Use

#### Creative Form Liners, Inc.

Ashlar Stone  
Urethane-approx. 50 Uses ~\$65/sq ft divided by 50=  
\$1.30/sq ft

# **I-270 & US 33 Interchange Project Aesthetic Master Plan**

Creative Design Resolutions, Inc.



# **I-270 & US 33 Interchange Project**

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# I-270 & US 33 Interchange Project Team

## Client

The City of Dublin Ohio  
Sara Ott, Project Manager

## Owners

Ohio Department of Transportation  
Jerry Wray, ODOT Director  
Dave Mengerink, District 6 Project Manager

City of Dublin, Ohio  
Mayor Tim Lecklider, Mayor of Dublin  
Marsha Grisby, City Manager

## Project Lead

CH2M HILL  
Andy Wolpert, Project Manager

## Aesthetic Master Plan Design Consultant

Creative Design Resolutions, Inc.  
Steven Weitzman, President/CEO  
Becky Borlan, Project Manager  
Jae Hwang, Technical Director

## Landscape Architects

CT Consultants  
Gary Schmidt, Director  
Edge Group  
Tedd Hardesty, Partner  
Ryan Pearson, Associate



## Introduction to the I-270 & US 33 Interchange Project

*Integrated environments that represent the community and promote community identity.*

The City of Dublin Ohio engaged Creative Design Resolutions, Inc. (CDR) to develop an Aesthetic Master Plan for the Interstate 270 and US 33 Northwest Interchange. The intention of this Aesthetic Master Plan is to promote community identity through the implementation of aesthetics throughout the interchange and serve as a gateway for the variety of users the interchange serves daily.

The introduction of aesthetics into the transportation system is an important step in enhancing the quality of life for both the community and for people visiting the city. The exploration and development of context sensitive solutions and aesthetic transportation design is an increasingly essential component of successful transportation projects. In increasing numbers, Departments of Transportation across the country have collaborated with designers to integrate aesthetics into their transportation infrastructure.

Dublin is a prosperous community north-west of Columbus, Ohio. The city enjoys lush green space, premier cultural and sporting events, and a well-educated and engaged population. Dublin has been recognized nationally with numerous honors for its quality of

life. By undertaking this project, ODOT and the City of Dublin desire to address gridlock issues that have accompanied the City's rapid development and economic growth

Parapets, piers and walls along the I-270 & US 33 Interchange have been considered in the Aesthetic Master Plan Design. The 1<sup>st</sup> phase of the project includes aesthetics for five bridges and 53,000 square feet of wall. All designs have been inspired by Dublin culture, history, natural environment and their goals for the future.

Former Acting Federal Highway Administrator Jane F. Garvey purports on the FHWA CSS website, "We believe that design can and must play a major role in enhancing the quality of our journeys and of the communities traveled." The I-270 & US 33 Interchange Project will prove to be a seminal effort in this field of context sensitive solutions because of the importance of the interchange as a focal point and entrance for the community. Vehicular traffic will gradually discover and visually read the story of the city as they travel. The hope is that this intersection will become a gateway marker for the City of Dublin.

## Introduction to Creative Design Resolutions

Since its incorporation in 1998, CDR has provided aesthetic design consulting services for transportation and urban environment projects across the country. CDR works directly with communities, stakeholders and project teams to develop site-specific aesthetic treatments that respect a community's history, values, environment and architecture.

Our founder and CEO, Steven Weitzman, has worked in the design transportation and public art industries since 1971. In 1998, Creative Design Resolutions, Inc. was created to focus solely on highway and transportation projects.

Since that time, CDR has worked with dozens of DOT's, architectural firms, engineering companies and developers nationwide, becoming an industry forerunner in transportation and infrastructure design / development.

We believe the most successful civic projects employ:

- Context sensitive design solutions
- A variety of design options right from the start of the project
- Consistent communication and collaboration between all parties involved in a project
- Solutions that are site-specific, low-maintenance, cost-appropriate and safe
- Aesthetics that are integrated into the normal construction process
- Enhancements that increase the quality of life and promote community involvement

CDR makes this process seamless by acting as the liaison between the project team, the community and all other stakeholders. Context sensitive solutions works best when the public is involved from the onset, and when open and honest communication is maintained with all stakeholders throughout the entire process.

Together, with its sister company, Creative Form Liners, Inc., CDR has supplied aesthetic designs and form liners to DOT projects in fifteen states and the District of Columbia.



*Wright B. Flyer MSE Walls, Dayton, Ohio*

## Community Engagement Process

***The Federal Highway Administration defines Context Sensitive Solutions (“CSS”) as “a collaborative, interdisciplinary approach that involves all stakeholders to develop a transportation facility that fits its physical setting and preserves scenic, aesthetic, historic and environmental resources, while maintaining safety and mobility. CSS is an approach that considers the total context within which a transportation improvement project will exist.”***

The most successful transportation projects employ CSS during the initial design phase and throughout each step in the development process, thus making available a variety of design options from the beginning. For the I-270 & US 33 Interchange, the community, project team, and other interested stakeholders were assembled before any designs were implemented.

In September 2013, the City of Dublin organized a representative group of community members to participate in initial meetings to collect the community’s interests, visions and goals for the I-270 & US 33 interchange. At the same time, CH2M HILL also contracted CDR to develop designs and serve as the liaison between the project team and community.

At these meetings, examples of previously designed projects were shown to community members and stakeholders, with the intention of illustrating what has been done with similar projects CDR has designed across the country. Through this process, CDR received guidance for the direction the community and stake-holders wanted to see the project go in.

A wide range of themes and topics were brought up by those present at the meeting, sometimes in contradiction to one another, but the most consistent pieces of feedback heard were the importance and strength of fellow Dubliners to one another, along with the active and outdoor nature of the community.

CDR used the information from these community engagement meetings, gathered additional research, developed potential themes for the corridor, and created conceptual designs that could be used for the bridge elements and walls.

The city also asked CDR to develop questions that would elicit feedback from the general public through social media and the City’s website. The survey consisted of the following questions:

- How would you define the history of Dublin in one word? Can you associate a place, object or word that best illustrates this history?
- What three words do you think describe the identity of the city of Dublin?
- Dublin is a rapidly growing community: is it more important for the city to keep its small town roots or modernize itself for the future?
- What are you most proud of in your city?

Feedback from the citizens of Dublin has been plentiful and thoughtful. It is clear that this is an extremely engaged community, which cares a great deal about all aspects of their City. CDR has worked hard to use the thoughts, comments and suggestions of citizens to guide the design process.

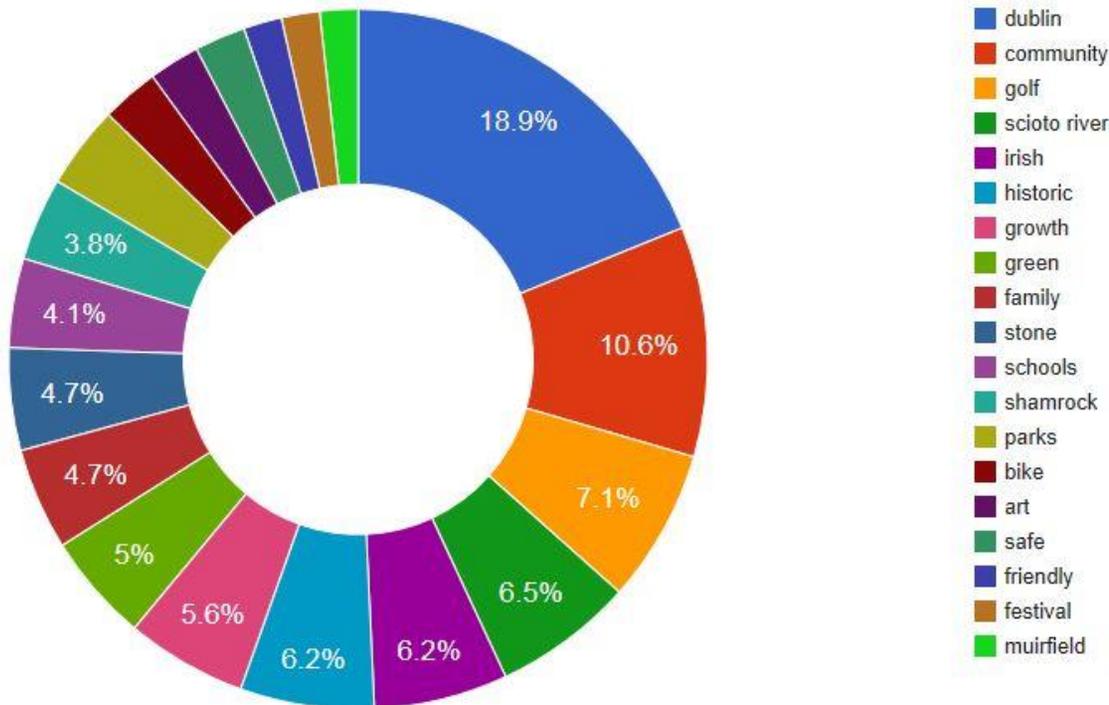
## Community Engagement Process Results

Weitzman and his staff had a chance to meet with 79 Dublin residents over the course of two meetings. There was a diverse range of topics covered, but also commonalities in theme that emerged in from the two discussions.

As stated in the City’s official summary of the meetings: “Two concepts that were largely popular in both groups were nature and wildlife. Related to these were green space, community planning and bike trails. Family, community, volunteerism and overall quality of life were all fairly popular as points of pride in Dublin.”

The group was more divided on themes like Irish motifs and golf, both things the city is already known for. Some viewed these themes as inauthentic or unintentionally lampooning the city, while other supported the continuation of using these themes to represent Dublin.

In addition to the in person focus groups, CDR was supplied with responses from the community to an online survey. Approximately 50 surveys were submitted, and largely echoed sentiments expressed at the focus groups except there was more support for themes like golf and Irish iconography. In fact, these were some of the most mentioned themes, almost entirely in a positive context.



The chart on the left shows the frequency of certain keywords related to Dublin as tabulated from the survey responses.

# Vision and Goals

## Vision

The Aesthetic Master Plan aims to capitalize on two of Dublin's most trafficked roadways, I-270 and US 33 in order to transform this area into a gateway for the city. Dublin is known throughout the region for their attention to detail regarding streets and roadways and defines their approach as such:

Roadway character is defined by the visual experience created by the design of the roadway as well as the physical elements adjacent to it. Character types vary greatly and can evoke a variety of responses that create an immediate psychological effect on motorists and pedestrians. These effects can persist to create long-lasting impressions for residents and visitors about the city and Dublin's community values. For example, many visitors to the region travel I-270 through the city, and their impression of Dublin may be formed solely by their experience driving that freeway segment.

Components that contribute to the definition of roadway character include: road design and construction standards; setbacks and buffering between adjacent uses; building types and architectural styles; signs; landscaping within the right-of-way and adjacent areas, design quality of the pedestrian realm, and the natural qualities of the area.

The designs for this Interchange should speak to the uniqueness of Dublin and signal to travelers that they are passing through a special place. The City has set forth a set of characteristics that they hope the interchange will achieve: **implementable, sustainable, timeless, authentic, welcoming** and **signature** to Dublin. The successful

designs will touch all of these aspects, integrate seamlessly with the landscape and capture the spirit of Dublin.

## Goals

- *Enhance* infrastructure development by using site-specific approaches that consider the needs, values and visions of the community, users, project team, and other interested stakeholders
- *Establish* a signature gateway particular to the City of Dublin
- *Create* gateway and place making aesthetics that will underscore the event of arriving and leaving the City of Dublin
- *Include* low-maintenance, cost-effective and safe designs that increase the quality of life, foster access for motorists, promote community involvement and integrate easily using normal construction methods
- *Engage* the public and maintain open and honest communication with all stakeholders throughout the entire process
- *Define* the City of Dublin's character by considering its surrounding architecture, philosophy, history, and natural environment
- *Distill* Dublin's character into themes, concepts, and/or styles to serve as the aesthetic fabric to be used throughout the Interchange project

## Design Constraints and Opportunities

**CDR sees many ways in which constraints can be viewed as opportunities:**

**Constraint:** Bridge #8 will only have the bridge deck and parapets replaced, while the existing piers remain.

**Opportunity:** In cases like this, CDR will recommend specialty staining to help tie in older elements with new construction.

**Constraint:** Because Phase I of the Project is set to begin construction in Fall 2014, a strong emphasis is placed on buildable designs and their ease of integration into the construction process.

**Opportunity:** CDR is striving to preemptively anticipate and mitigate technical concerns.

**Constraint:** Lighting is another design aspect that is not being considered at this point of the project.

**Opportunity:** Strategically placed color will add visual impact in lieu of extra lighting effects.

**Constraint:** The weight of the bridges cannot be affected, because the timeline is too short to re-engineer bridges with aesthetic elements that may add weight to the structure.

**Opportunity:** Designs can conform to normal construction methods and seamlessly integrate into the bridge as engineered.

**Constraint:** Limited budget available for the amount of piers, parapets, and walls that need to be affected by design.

**Opportunity:** To mitigate costs associated with affecting so many highway elements, CDR will use modular designs as much as possible, as well as off the shelf liners, configured into unique designs.

**Constraint:** Finding designs that will be inclusive to Dublin's diverse tastes and population.

**Opportunity:** CDR will work with Dublin's community engagement feedback to incorporate many facets of Dublin into designs.

**Constraint:** Scale of structure relative to the surrounding environment is at odds with the landscape.

**Opportunity:** CDR will collaborate with landscape architects to create seamless integration of bridge elements and natural landscape.

**Constraint:** Because of the layout of the interchange, there are varied vantage points to view aesthetics and it will be difficult to create seamless consistent designs throughout the highway and bridge structures.

**Opportunity:** By using the layout to our advantage, CDR can make each quadrant of the interchange a slightly different color or design, effectively creating way-making and aesthetics that convey to the driver their orientation within the interchange.

**Constraint:** Existing pier columns on the Interchange are round and can be very costly to affect with design.

**Opportunity:** CDR recommends making the new piers square. Square molds are simpler and less expensive to make than round ones. This style change opens up many more possibilities in terms of affecting piers with aesthetics. Interchangeable square panels make it simple to affect as much or as little of the pier as desired.

**Constraint:** Affecting the Phase 2 fly-over pier caps can be prohibitively expensive due to their large size.

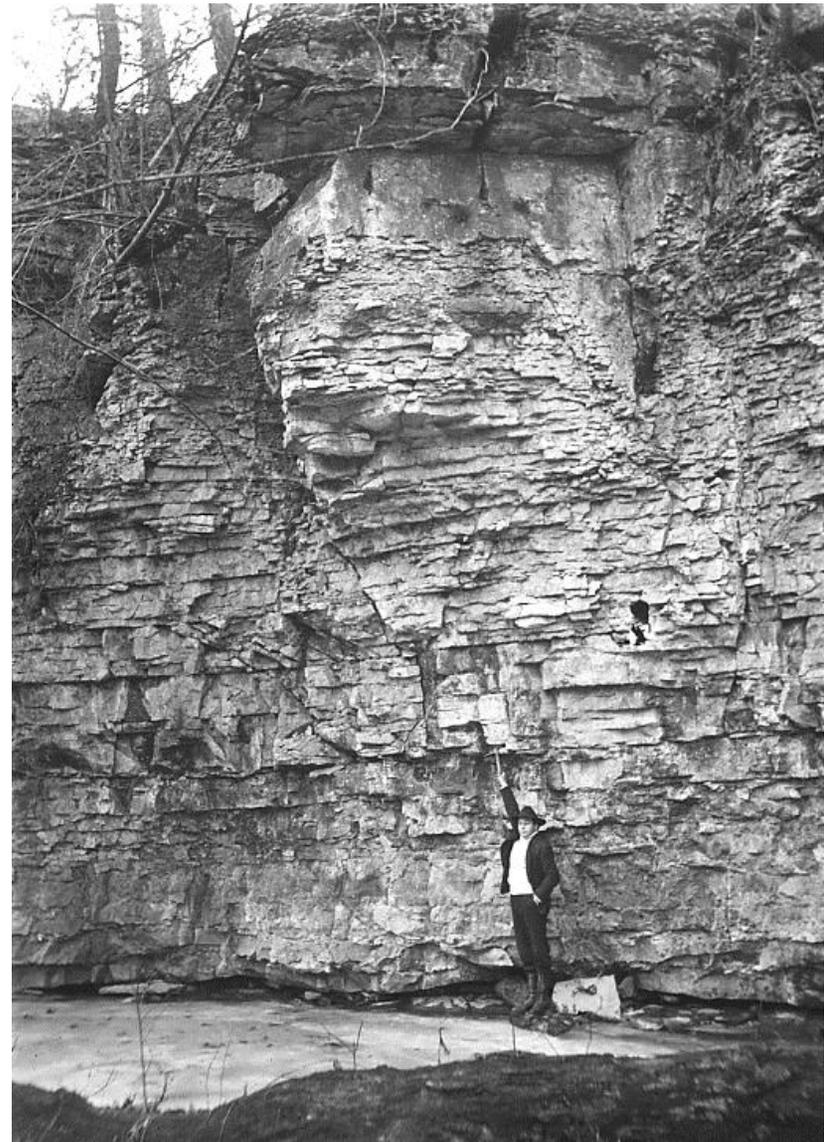
**Opportunity:** Designs will take into account how to create maximum impact with the least amount of cost. Focus will be directed to highlighting the linear rhythm and height that is created by the flyover bridge piers.

## Existing Conditions

### Location

The city of Dublin reaches into Franklin, Delaware, and Union counties and is a suburb of Columbus, Ohio. According to the United States Census Bureau, the city has a total area of 24.80 square miles (64.23 km<sup>2</sup>), of which, 24.44 square miles (63.30 km<sup>2</sup>) is land and 0.36 square miles (0.93 km<sup>2</sup>) is water. The Scioto River passes through Dublin and is an important part of the area's history and current culture. In this area the river and its tributaries cut deep gorges through the limestone bedrock, and the riverbed is stony. Elevations range from 780 feet (238 m) above sea level where the Scioto River leaves the city at Hayden Run Road, while the high point is 1000 feet (305 m) at Glacier Ridge Metro Park. Falling within the Glaciated Alleghany Plateau, a relatively flat ecoregion, there are numerous ravines surrounding the tributaries of the Scioto River, which make for steep cliffs in some areas.

The Scioto River is Dublin's most prominent natural feature, flowing north to south from the O'Shaughnessy Dam through the eastern third of the city. The river not only serves as a focal point for citizens, but its orientation creates an important wildlife migration corridor for birds and other animals within the region. The Scioto River and its tributaries also play other important roles by providing a riparian habitat for a variety of flora and fauna, as well as open spaces along the streams for views and recreational amenities. The River also plays a key role in providing the water supply for the entire Columbus region, both historically and today. Stream buffers serve as natural filters for stormwater runoff and pollutants.



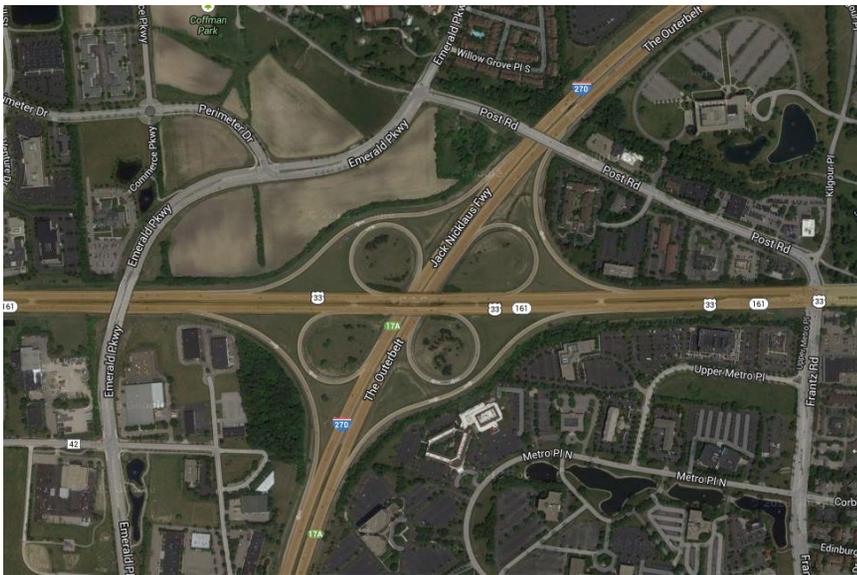
*Deer Run, 3 1/4 miles North of Dublin, Ohio, on S. edge of Delaware Co., West of Scioto River. <http://geology.cwru.edu/~huwig/catalog/ohiogeology.html>*

## Project Site

Interstate 270 is the beltway loop freeway in the Columbus metropolitan area, commonly known locally as "The Outerbelt," or the "Jack Nicklaus Freeway." The "western" (and "eastern") terminus of I-270, at least in terms of the zero-milepost, is at the junction with I-71 east of Grove City, Ohio. I-270, along with I-670, provides access to Port Columbus International Airport. The entire length of I-270 is 54.97 miles (88.47 km).

Construction of The Outerbelt began in 1962, and work was begun on various disconnected sections.

In late 1970, sections opened on the east side between US 33 and I-70, and between State Route 3 (SR 3) in Westerville and SR 161 on the east side. It was now possible to bypass Columbus using I-270 by going around the south side of the city.



*I-270 & US 33 Interchange Site*

## Demographics

With the completion of the I-270 Outerbelt, Dublin's population has boomed from less than 1000 people in 1960 to 41,751 at the time of the 2010 census, more than 61 times the original population in 1960. This dramatic growth in such a short time has brought with it more diversity to the area.

The racial makeup of the area is predominately white, representing 80.5% of the population; 15.3% Asian; 1.8% African American, 1.8% Latino, 0.1% Native American, 0.5% from other races, and 1.8% from two or more races.

According to research by the city of Dublin, beyond the static population, the number of people in the city balloons to 75,000 on weekdays with commuters coming in to the many businesses along the I-270/US 33 corridor. At full build-out, Dublin is projected to have a population of approximately 65,000, not including potential expansion areas to the northwest. The city is also expected to have over 30,000 dwelling units and will be home to approximately 90,000 jobs with the interchange being a key access point.

## Economics

Employment in Dublin is heavily centered around the I-270 and US 33 Interchange. It offers accessibility to commuters from around the central Ohio to reach their workplaces in Dublin. Development grew in earnest with the completion of the interchange in 1973, and it was just a few years after when the first major corporation, Ashland Inc. made Dublin home. Since then many other internationally known corporations have settled in Dublin, creating a professional and technology driven corridor around the Interchange site. Some of the top employers include Nationwide, Cardinal Health and Medco Health Solutions. The success of Dublin's economy and the I-270 and US 33 Interchange

are dependent on one another, the Northwest Freeway Study shows that the interchange replacement is essential in protecting 1.2 billion dollars in current economic activity, and to ensure 32,000 new jobs and 2.3 billion in further investments.

### **Traffic Assessment**

The I-270 & US 33 Interchange is a key access point to and from Dublin. But the structure is outdated, obsolete geometries pose safety concerns, and the interchange contributes to widespread traffic congestion.

Driving is a crucial mode of transportation to the citizens of Dublin. More than 86 percent of Dublin's residents drive to work alone. With an estimated 17,599 employed Dublin residents age 16 years and over in 2010, approximately 83 percent work outside of the city. Approximately 41 percent are employed in Columbus, while 55 percent work elsewhere within the Columbus MSA. Less than three percent commute outside the region. As an automobile commuting region, travel times throughout Central Ohio generally range between 21 and 23 minutes. Commuting times for Dublin residents range from under five minutes to over 90 minutes, with an average travel time of 23 minutes.

Beyond residents and commuters, the interchange is an important freight route for companies in the area, notably the Honda plant in Marysville.

Data compiled by the Mid-Ohio Regional Planning Commission (MORPC) shows that I-270 and US 33 are the most heavily used thoroughfares with an average of 100,000 and 40,000 cars per day respectively.

With the integration of aesthetics into the transportation infrastructure along this highway corridor, there is a potential to reach tens of thousands of people daily and to convey to them an

identity that characterizes the City of Dublin that would otherwise be lost in a vast concrete canyon. Aesthetics are a way to draw motorists off the interstate and into the historic downtown area to experience Dublin. With the majority of cars passing through Dublin on I-270 NS, the bridge under US 33 becomes a significant gateway and an important place to highlight passing through the Dublin area.

### **General Historic Overview**

Present-day Dublin is a community that has rapidly expanded in the past decades, working to keep intact its small-town heritage while also becoming a beacon for economic and technical development. Forward thinking city planning has allowed Dublin to maintain both of these aspects of its character.

***Native American Heritage*** – The first inhabitants to what is present day Dublin were the Adena and Hopewell peoples. The Adena have been linked to the area as early as 1000 BCE and the Hopewell, 200 BCE. Both groups left earthworks and mounds, but the Hopewell's are better documented, perhaps because they are more recent. Several early farmers reported finding what are thought to be Hopewell mounds. Some were destroyed due to clearing land for cultivation, and the few that remain are now protected sites or on private land. After the decline of the Adena and Hopewell civilizations, other tribes filtered



*Carved Sandstone Table-Adena, Source: Ohio Historical Society*

through the area: Shawnee, Seneca, Delaware and the Wyandot. The Wyandot specifically are more well-known because they interacted with early white settlers. According to legend, one of Dublin's founders, Benjamin Sells, and Wyandot Chief known as Leatherlips were friends. Chief Leatherlips was later executed by his own tribe for trying to cooperate with white settlers and is now memorialized by a popular public sculpture in Scioto Park. Earthworks and mounds from these peoples still dot the local landscape, a physical reminder of inhabitants that lived nearly 3000 years ago.

**Pioneer Settlement** – After the Revolutionary War, the United States government gave 2,000 acres of land along the Scioto River to Lieutenant James Holt as payment for his service. In 1802, Pennsylvanians Peter and Benjamin Sells purchased 400 acres of this land for their brother, John. Today, the site of the Sells Brothers' original purchase is known as Historic Dublin. In 1808, John Sells and his family traveled to Ohio to claim the land. Two years later, Sells and an Irish gentleman, John Shields, began surveying lots for the future town. According to legend, Sells requested that Shields choose its name. Shields reportedly said: "If I have the honor conferred upon me to name your village, with the brightness of the morn and the beaming sun on the hills and dales surrounding this beautiful valley, it would give me great pleasure to name your new town after my birthplace, Dublin, Ireland." But beyond the name, early Dublin had little connection to the Irish. The first settlers to the area were German, or had come from other surrounding states to settle the new territory.

**Farming Village** – Many of the early villagers of Dublin were engaged in farming of some kind, as were the Native American tribes. The fertile land along the Scioto river was used to produce wheat and hay, and later other staple crops like corn, potatoes and beans. Most early farming was subsistence, because the lack of transportation networks to move crops to larger cities. Most of Dublin was at one time under farmland cultivation or used as

pasture for livestock. In the early part of the 1800's the majority of settlers were engaged in farming of some kind, with the major crops being wheat and hay. By 1849, Ohio produced more corn than any other state, and it ranked second in wheat production. In 1885, the most commonly grown crop was corn, followed by wheat, oats, potatoes, barley, rye, and buckwheat. Currently the state's agricultural output consists primarily of soybeans, corn for grain and nursery plants.

While farming is no longer a focus in Dublin, most of the barns and fields have been replaced by newer development, some reminders remain. The still standing Coffman Homestead is a testament to early farm life in Dublin, and maintained as a historical landmark.

A more recent landmark was created through Dublin's Art in Public Places, *Field of Corn (with Osage Orange Trees)*, commemorates Dublin's agricultural past as well as the efforts of Sam Frantz, a pioneer in corn hybridization who worked at nearby Ohio State University. Though now a thriving city with robust tech and business centers, Dublin still strives to maintain a connection with its agricultural heritage.

**Cultural Growth** –Up until the completion of I-270 beltway around Columbus in 1973, Dublin remained a quaint village of less than one thousand people. With the new access to Columbus and surrounding region, Dublin's population skyrocketed. Another factor for Dublin's increased presence in the region was the building of the Muirfield Village Golf Club by champion golfer Jack Nicklaus. The course is now considered one of the best in the country and plays host to some of golf's biggest events, most recently the Memorial Tournament and the President's Cup.

Dublin was incorporated into a city in 1987, and has focused on thoughtful, community oriented city planning and growth. In the past few decades many major regional and national companies

have chosen to place their headquarters in the Dublin area. This has contributed to a solid economic base for the city, and continued development of the area.

## **Irish Culture**

With the capital city of Ireland as its namesake, the City of Dublin has continued to adopt Irish themes and imagery into their logos, schools and celebrations. In 1949 the local high school adopted green and white as their school colors. Today, all three high schools in Dublin have Irish themed mascots.

The shamrock, though previously used, was voted as the official emblem in 1973 for the then village. It now adorns all city buildings, vehicles and signs. A more subtle but equally important feature that identifies Dublin are the distinctive stone walls, made from limestone. Some walls date back to the early 1800's and a current city ordinance ensures that new constructions adopt the same style of building walls to achieve a cohesive look throughout the city. These walls have an ancient history in Dublin, Ireland, where they have demarcated fields and shaped the landscape for thousands of years. In both locations, the walls were originally a practical way to use the stone that was being cleared out of fields. Now the walls serve mostly an aesthetic purpose for Dublin, Ohio, a testament to the Irish influence.

Dublin may be best known for their yearly Irish Festival, a tradition that started in 1988 and has grown each subsequent year. The 2013 festival attracted over 100,000 attendees. Now run by the City, with corporate sponsorship and international acts, it is another major source of pride and identity for Dubliners. Tourists from all over the country experience Dublin through the Irish Festival.

Despite the lack of Irish or Irish Americans in Dublin, the city has created a strong connection to Ireland. One of the city's slogans,

“Irish is an Attitude” sums up the relationship between the two Dublins.



*Official Flag of Dublin, Ohio. Source: City of Dublin*

## Modularity

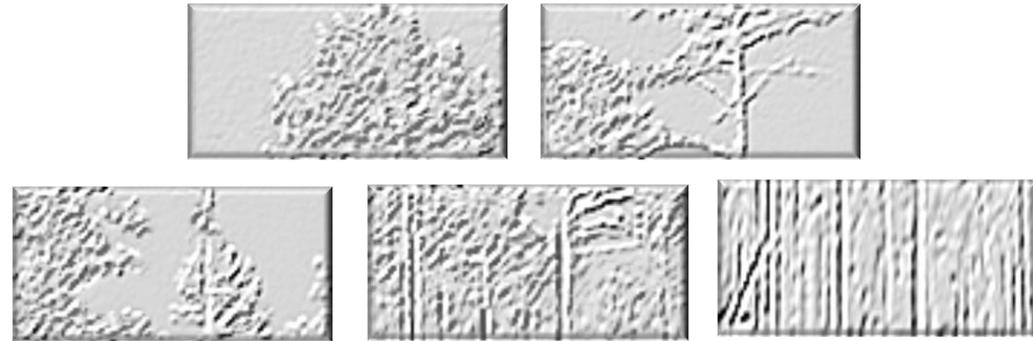
**Modular**, *-adj.*: constructed with standardized units or dimensions allowing flexibility and variety in use

CDR aims to integrate aesthetics into the bridge construction itself rather than create appliques or a free-standing artwork that would not cost effectively scale to this 100 acre site. This approach utilizes a limited budget most effectively because aesthetics are already a part of ODOT's construction budget, and all designs are incorporated into the bridge casting itself by using form liners. By making these form liners modular, more designs for less cost is possible. CDR has had great success with applying the principal of modularity to past projects. This approach can be a boon to both aesthetics and budget.

CDR designs many form liners as modular so that a limited number of liners can be combined to create unlimited patterns and designs. For pictorial liners, many pieces can be exchanged with other pieces. Sky can have birds in one sequence and then clouds in the next. Taking this idea even further, bushes in one scene can become treetops in the next.

When the designs utilize abstract patterns or singular objects, liners can rotate the pieces 360 degrees so that designs and textures can have new original patterns depending on the angle the liner is rotated. Individual leaves can appear to be blowing in the wind or lines can spiral outwards. By using a finite number of modular form liners, you are able to create unique and exciting designs for many miles, all the while saving time and money.

An additional advantage to modular designs is that the final scope of construction work can expand or contract based on the City's choice, budget, etc.



*Example of design made with modular elements. Copyright Creative Form Liners, Inc.*

## Designs with Off the Shelf Form Liners

Beyond what is possible with custom modular designs, CDR is able to create equally impressive effects using off the shelf form liners, put together to create new design configurations.

Applying unique designs to standard form liners is a very budget friendly approach to affecting highway aesthetics. To give the city of Dublin more options for design and price point, CDR has created a number of designs using off the shelf liners.

With this in mind, one way to approach the situation would be to have the fabrication cost of any approved patterns and form liner designs absorbed within the construction budget by the Contractor. Most concrete work requires form liners, which is a standard aggregate cost of casting concrete. If the contractor pays for the fabrication of form liners made from the approved designs, the contractor would merely absorb that cost within the construction budget, part of which is already accounted for in the standard costs of casting concrete. This saves money from the art budget.

A cost comparison using the readily available typical pattern of Ashlar Stone is included at the end of this document.



*Weave design made with fractured fin form liners*

## Design Approach

Based on the feedback at both the community engagement meetings and through responses to online surveys, it became clear that an appreciation for the natural environment and scenic beauty are what connects Dublin residents. Many expressed the ways in which Dublin was an ideal place to raise a family and how the access to outdoor green space plays a large role in that.

*What attracted me first to this community 12 years ago was the family/community atmosphere. I saw families out on the bike trails, the commitment to excellent parks and the stellar educational system that I wanted my family to be a part of.*

–Dublin Resident

One of Dublin’s mottos is “It’s greener in Dublin.” Comments from Dubliners at both the Community Engagement Meeting and from online surveys reflected this. Most mentioned some aspect of Dublin’s natural environment, the landscaping, the Scioto River, the parks. The pride that the city has in its natural surroundings cannot be denied. Beyond numerous well-appointed parks, even roadways and commercial landscaping are thoughtfully manicured and contribute to an overall aesthetic for the town. It was mentioned that while there are not necessarily unique flora and fauna in Dublin, most of which can be found in the Ohio region and beyond, what is unique is Dublin’s approach to preserving and cultivating their green spaces. It is a distinctive experience to be in a city of Dublin’s size and still feel so connected to nature.

Part of what makes the landscape of Dublin so noteworthy is the presence of exposed limestone bedrock throughout the city. Delaware Limestone, in particular, fosters the presence of several rare plants, including the Blue Ash and Spreading Rock Cress that would otherwise not be found in this portion of Ohio. The distinctive topography and subsurface features are characterized by sinkholes, underground drainage joints and caves. The majority of these landforms found in the city lead directly to the Scioto River, helping to drain the larger Scioto watershed and creating habitat for river-dwelling flora and fauna.

The topography of Dublin varies from being relatively flat to having significant topographic changes associated with stream valleys. Before the first settlers, Dublin was mostly forested with pockets of prairie and wetland habitat. This unique habitat facilitates the growth of endangered plant species like Rock Cress, Drummond’s Aster, Rattlesnake Fern, and Marsh Marigold, along with a more common, but diverse list of plants.

Today, approximately eight percent of Dublin is wooded with isolated areas of deciduous trees primarily on steep slopes, along fencerows and adjacent to stream and river corridors. Tree types include: oak, maple, buckeye, tulip and crabapple.

The visual quality and richness of flora and fauna is one reason many people historically choose to reside in the Scioto River basin. Area river and stream corridors provide a natural path for both migrating and resident wildlife and are invaluable to maintaining diversity. Dublin lies in the path of a north-south migration route for many species of birds. Many notable species use Dublin’s waterways including: Warblers, Bald Eagles, fresh water mussels and turtles. Deer, coyotes, skunks, raccoons and foxes are some of the mammals commonly found in wooded land between the river and suburban areas.

The importance of the Scioto River to Dublin's environment and people cannot be overestimated. It was one of the original draws to both Native Americans and early settlers. The natural beauty that so many enjoy is created primarily by the proximity of the Scioto River.

*The Scioto divides our town and is sometimes a challenge to cross (physically and economically), but its banks invited many Native American cultures and our town's earliest settlers.*

-Dublin Resident

Because of the beautiful setting most Dubliners take advantage of the outdoors with a variety of activities. Numerous bike paths make it easy to enjoy woods and river as well as traverse the community without the environmental impact of a car. Sports such as golf, soccer, and baseball at well-appointed facilities are enjoyed by young and old. Golfing, a major part of Dublin's culture since the late 1970's has made an indelible mark on Dublin and the surrounding region.

Because of the forethought of Dublin's city planners and continued sensitivity to the environment, Dublin has ample park space and recreational opportunities to enjoy the outdoors. Over one hundred miles of bike trails weave throughout the community. There are 56 parks that offer a wide variety of outdoor experience. One of the most consistent pieces of feedback CDR received from constituents is their pride for Dublin's natural spaces and enjoyment in participating in outdoor activities. This pride is also reflected in the meticulous landscaping that can be seen along roadways, shopping plazas, as well as parks. Residents stress that these outdoor amenities set Dublin apart and are essential to the character of the city. Dublin continues to invest in the city's outdoor space with integration of features like a pedestrian bridge, riverside parks, and walkable sidewalks in future development projects, like the Bridge Street Corridor.

The sport of golf has played a major role in Dublin's development and continues to be a source of pride and revenue for the city. Major tournaments are hosted in Dublin, attracting a national and international audience. Muirfield is the first course anywhere to have hosted the Ryder Cup, Solheim Cup, and Presidents Cup. Tens of thousands of golf fans streamed into Dublin, when the city recently played host to the President's Cup in early October 2013. CDR heard from many Dubliners who strongly associate golf with their city. In celebration of the recent tournament, oversized fiberglass golf balls were purchased by local businesses and placed around the city. A bronze statue of Jack Nicklaus resides in the median of Avery/Muirfield Dr at Brand Rd.

Beyond golf, soccer is another sport that is popular in Dublin, and also has its own public art tribute: Out of Bounds, located in Avery Park, it depicts several large modular soccer balls strewn throughout the landscape.

The Scioto River also provides recreational opportunities to Dublin residents from kayaking to bird watching. Areas around the river have been targeted in Dublin's community plan to help preserve green space and improve access for residents.

*I appreciate the way that Dublin is taken care of by its community. People care about each other and about the space they live in and it shows.*

-Dublin Resident

If the access to nature and parks are a main draw to attracting residents, it's the strong sense of community that pervades every aspect of Dublin that keeps people there. Many respondents spoke about the closeness between neighbors, and willingness to help out each other in times of need. Dublin is serious about all aspects of their local community, but there is also a sense of levity and willingness to have fun together. The scale and scope of the annual Irish Festival speaks to a group of people who appreciate

celebrating arts and culture and sharing it with others. Though some may argue that Dublin's Irish leanings are an adopted heritage- it also speaks to the camaraderie and joyfulness that tie together the residents of Dublin. The Irish connection is not a genetic one but a shared philosophy of kinship to the land and one another. It's no wonder the thoughtful residents of Dublin embrace this Irish sentiment so readily.



*Crowds at Dublin's annual Irish Festival. Source: <http://www.columbusunderground.com>*

## Knot History and Symbolism

From time immemorial, man has been making his presence known and speaking to the world around him, through artifice, craft, and language. In exploring the diverse cultures of the world, as different as their experiences might be relative to their history, their location, and their religious beliefs etc., what begins to come into focus is the resonance of those things that at first appearance seem different but are in fact very similar.

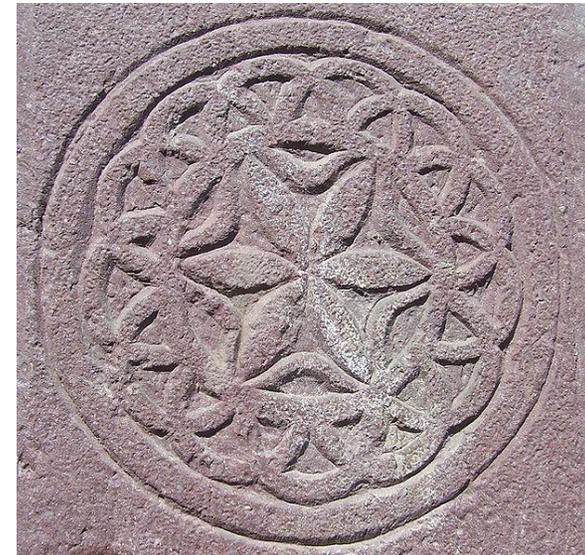
Dublin's slogan "Irish is an Attitude" is an acknowledgement of this idea of how people can find and adopt universal ideas and/or symbols from other cultures that are worthy of celebration and practice. Specifically, in the case of aesthetics, there is symbology that seems to pervade most all cultures and appears more like a shared human expression of universal themes.

CDR chose to focus on the idea of universal symbols as seen in many different culture's symbols as a way to both highlight connections and create something that is unique to Dublin. By starting with the Irish culture, but also looking beyond it to include visual inspiration from Native American, Asian and other European cultures, CDR underscores the inclusiveness and welcoming spirit of Dublin Ohio.

The use of the knot as a design motif and symbol has been found in various cultures throughout the world since ancient times. Precursors to knot design are found in ancient Egyptian art, in the outlines of the ankh and cartouche symbols. Chinese handicrafts document use of knots as both decorative motifs and physical objects. Chinese culture now primarily uses elaborate knots as decorations and symbols of good luck. In the third and fourth centuries, Romans began to use the knot motif heavily in mosaics and church ornamentation. What is commonly known as the Celtic knot actually has its origins in Italian culture, when Romans occupied what are now parts of England, Ireland and Scotland. An

example of this influence in the British Isles that can still be seen today is *The Great Pavement*, a Roman mosaic laid in AD 325 at Woodchester, in Gloucestershire, England. The Celts combined this knot imagery with their own dominant motifs of spirals, step and key patterns to create the characteristics of Celtic design that we are familiar with today. By the time Celtic art was at its peak, developments in the artistic use of interlaced knot patterns were to be found all over the world: Byzantine architecture and book illumination, Coptic art, Islamic art, Medieval Russian book illumination, Ethiopian art, and European architecture and book illumination.

The multi-cultural history of the knot informs why it was chosen as a design to represent Dublin. Not only does the knot carry a rich history as a cultural icon all over the world, but it symbolically implies the strength of a community like Dublin, where individuals have come together and are stronger than they would otherwise be by themselves.



*Flower of Life-  
Roman carving*

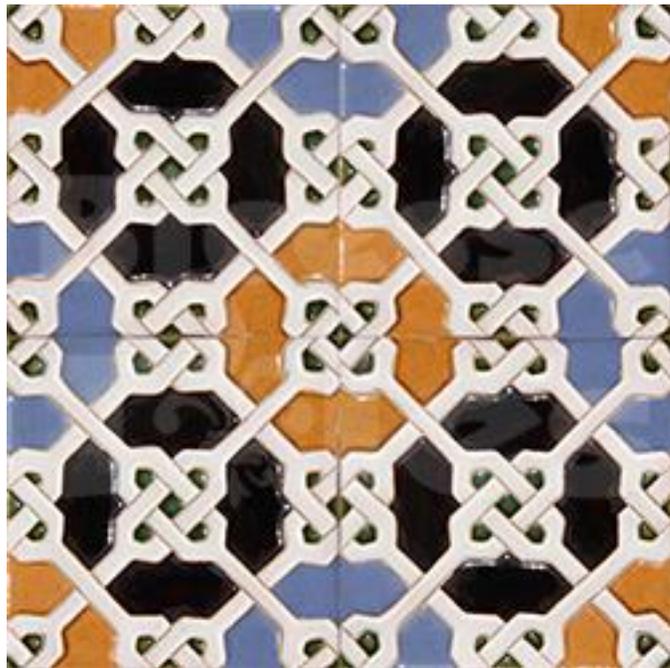
**Knot Examples from around the world:**



*Chinese Knot*



*Celtic Knot Jewelry*



*Arabesque Knot Tile work*



*Roman Tile work*



*Ethiopian Cross*



*Mexican Tile work*



*Celtic Stone Cross*



*Armenian Stone work*

## Design Options

*Dublin has taken great care to keep its growth in check, attract quality businesses, and create lush parks and diverse cultural experiences for its residents. The community is deservedly proud of their city. One of CDR's challenges was how to express this community to drivers passing by at 65mph on busy highways. If Dublin had a front door, what would it look like?*

### Theme 1

#### **Context:**

The Scioto River remains one of the most important features of the Dublin area. It rises in Auglaize County in west central Ohio, flows through Columbus, Ohio, where it collects its largest tributary, the Olentangy River, and meets the Ohio River at Portsmouth. Too small for modern commercial shipping, its primary economic importance is for recreation and drinking water.

The Scioto River valley was home to many Native American cultures. The best known group is the Mound Builders of the Hopewell tradition. Numerous burial mounds can be seen near Chillicothe at the Hopewell Culture National Historic Park. The name Scioto is derived from the Wyandot word skenq·tq' 'deer'

During the antebellum years, the Scioto River provided a route to freedom for many slaves escaping from the South, as they continued north after crossing the Ohio River. Towns such as Chillicothe became important stops on the Underground Railroad.

#### **MSE Wall Design:**

In this one design, CDR synthesizes what Dubliners celebrate and cherish the most about their city – its natural environment. As drivers pass by this monumental landscape, they will see a pictorial representation of the beauty of the Scioto River and the activities that take place there. Kayakers can be seen paddling and enjoying the scenic outdoors. Ducks dot the river, and a blue heron serves as a reminder that this river is an important migration corridor for wildlife. Part of the historic Dublin bridge can be seen and serves as a familiar local marker. This wall uses modular elements to create the riverscape scene. Using only a few unique liners, CDR can create hundreds of feet of custom walls. The scene can also be scaled down or up in cost by subtracting or adding elements to suit the city's needs.

#### **Parapet Design**

This simple and elegant parapet underscores the strength of community in Dublin. The knot illustrates the strength of individuals coming together for a common cause. The Celtic style of the knot is a nod to Dublin's affinity for all things Irish. In between interspersed knots is a flourish that resembles two hands clasping, furthering the themes of community spirit and Irish motifs.

## **Pier Design**

This multi faced pier features an inset stone design terminating with a Celtic knot inspired medallion on the top edge. This graphic can be read many ways: it references a tree, a shamrock or a knot. For piers on either end of the pier bent, the shamrock medallion located on the pier's bull nose, will face oncoming traffic. For the other three sides of each column, the design will be simplified, showing only the inset stone.

## **Theme 2**

### **Context:**

In 1986, the Ohio General Assembly made the white trillium Ohio's official wildflower. The white trillium is also known as the wake robin, the snow trillium, the great white trillium, or the large white trillium. The General Assembly selected this flower because it exists in all of Ohio's eighty-eight counties.

Another Ohio symbol is their state tree, the buckeye. Buckeye is the American version of the European horse chestnut tree. It blooms in late spring and produces white and orange flowers. Buckeye seeds mature into glossy brown nuts, bitter to the taste. Claims of health benefits from the buckeye tree stretch back to ancient European medicine, and an old folklore cure says that keeping a buckeye nut in a clothes pocket cures arthritis.

### **MSE Wall Design:**

Celebrating nature in a more poetic, but still representational way, this wall highlights leaves of Ohio's state tree, the buckeye, interspersed with the state wildflower, the white trillium, in varying sizes. The natural elements seem to effortlessly float on invisible air currents when flanked by tree top silhouettes at the bottom of the wall or conversely, can be grounded when these silhouettes are placed at the top of the wall. Because designs are modular, flowers and leaves can be clustered or spread further apart to create different designs.

### **Parapet Design**

From a distance, this parapet reads as a graphic architectural design set in stone. However, as the driver approaches, they may notice a subtle nod to Dublin's favorite sport: a pair of golf clubs is embedded within the design, only appearing at close distance. This design mirrors the way that golf is an important part of Dublin's identity, but does not define it, instead contributing to the overall uniqueness of the community.

### **Pier Design**

Echoing the columns that can be found at the pavilions in Scioto Park, these tapered stone columns add a simple geometry and weight to the underside of the bridges. Using an off the shelf stone liner, these piers are cost effective while alluding to Dublin's architectural style

## **Theme 3**

### **Context:**

The shamrock has long been a symbol for Dublin. As early as the 1930's it has been used as a logo for schools, community events and other Dublin activities. Because of its consistent use, the meaning of the shamrock symbol has expanded, no longer strictly an Irish reference, it alludes to Dublin's natural and landscaped greenery as well as the strength of the community.

### **Design:**

This MSE Wall design meshes two of the City's most prominent and enduring symbols: the shamrock and stone walls. Taking inspiration from Dublin's City logo, the shamrock, CDR recontextualizes this symbol by enlarging it to create a more abstract reference. The shapes are filled with stacked cut stone as a way to reference the City's use of stone walls. The scale and non-linear nature of this design conveys a sense of fun and levity, one in keeping with Dublin's reputation as a destination for well executed festivals, parades and events.

### **Parapet Design**

This design also takes inspiration from the knot, but in a more relaxed and free-flowing way. On the parapet the individual threads are more visible and cross over and under one another, a subtle reference to idea of this Interchange as both a literal and figurative crossroads.

### **Pier Design**

Oversized Buckeye tree leaves connect this pier design to Dublin's natural beauty. The choice of tree represents Ohio, but the focus on foliage instead of the buckeye seed, offers a fresh perspective on the state tree and keeps this design from being too immediately recognizable.

## Conclusion

History, culture, tradition, architecture, and various other community-oriented inspirations have guided CDR to develop the necessary aesthetic enhancements for the I-270 & US 33 Interchange Project. As set forth through the supervision of CH2M HILL, the City of Dublin and the Ohio Department of Transportation, all designs originate from thorough research of the region, from community suggestions and responses, as well as from consulting the published studies offered by other project stakeholders seeking to develop aesthetic themes that speak to Dublin's identity, satisfies all the goals set forth by the City including those relating to timeline and budget.

The introduction of aesthetics into the transportation system helps to bridge the gap of a city once transected by the interstate. The resulting Master Plan Design represents as a seminal effort designed around a common goal to integrate aesthetic solutions as a way to signal to drivers that they are passing through Dublin. The project should reinforce the pride that Dubliners feel about their city and share it with other users of the Interchange.

CDR's challenge was to represent Dublin with themes specific to the city, yet in a way that would be accessible to all its residents and the commuters and travelers who pass through. With our initial research into the city, common themes emerged: natural landscape, outdoor activities, and Irish imagery. Through the process of developing context sensitive designs, it became apparent that these themes could work together harmoniously, giving the City greater flexibility and customizable options.

CDR has worked to create designs and options that are a mirror of the Dublin community paying tribute to its diversity, open-mindedness, and their obvious appreciation for the bounties of friends, family, and nature. Applied to the Interchange, these designs will signal to motorists that they have arrived at a special place, and

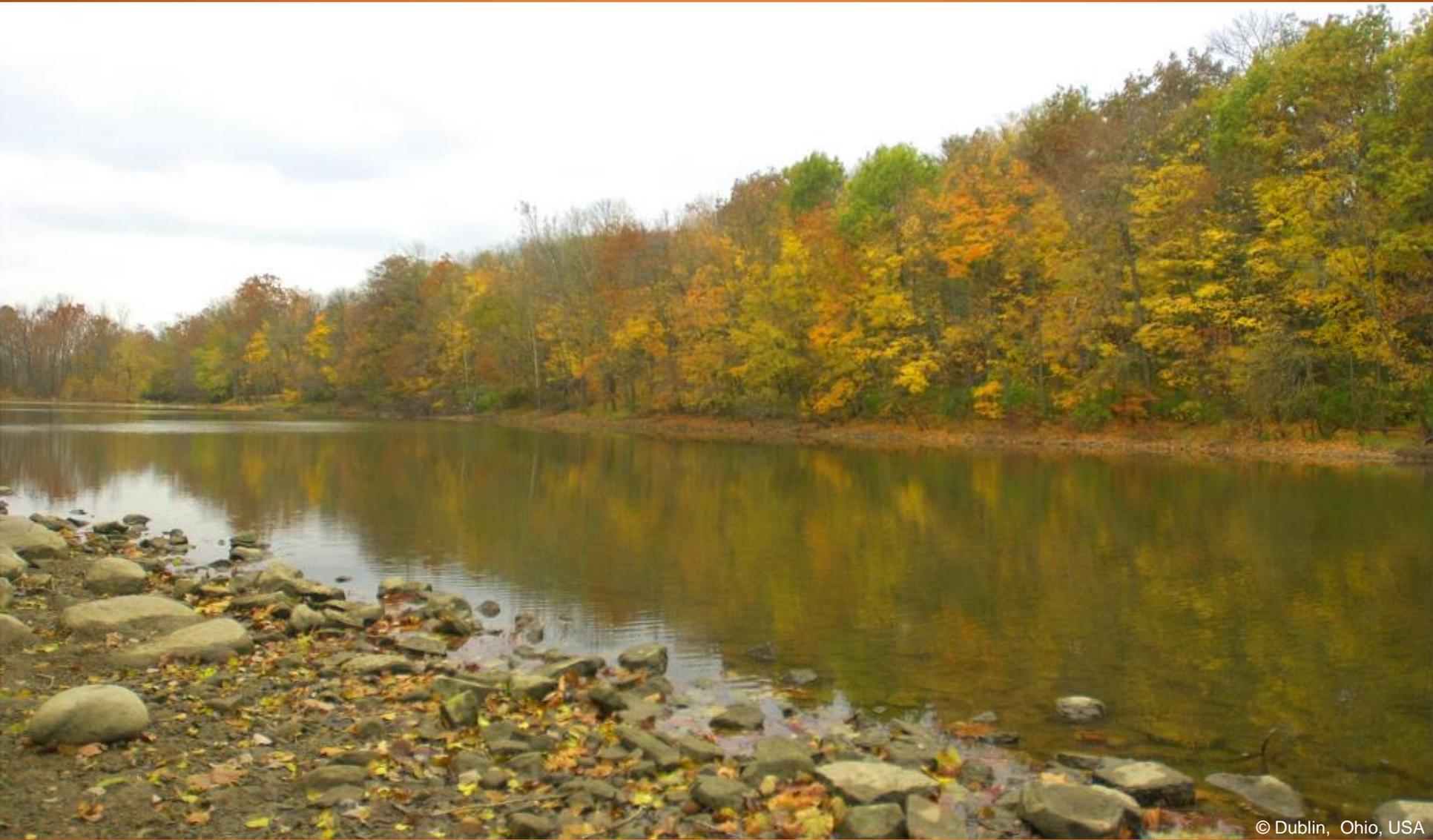
serve as a gateway, setting the tone of what one will encounter once in Dublin.

Throughout this design process CDR has used the universal knot as a metaphor to convey the spirit of Dublin: like the knot, a city created by the many individual threads woven together to become a stronger and more beautiful community.

# Visual References by Theme

# Natural Surroundings









White Trillium



Geranium



Hepatica













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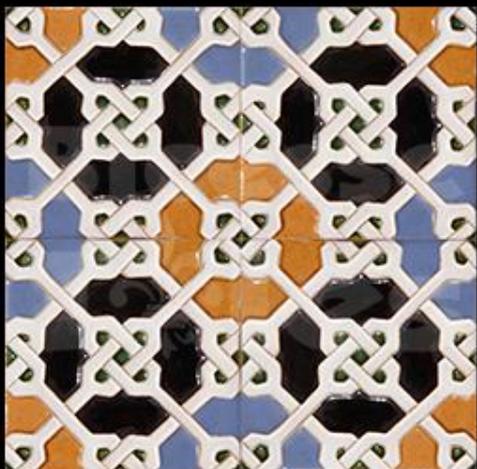












Arabic



Ethiopian



Hopewell



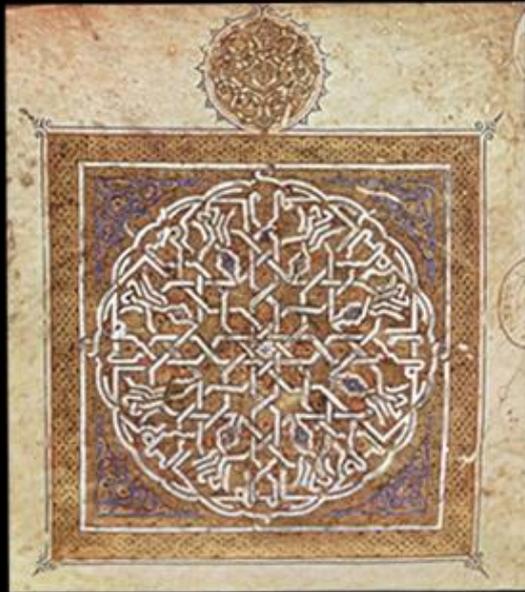
Chinese



Celtic/Irish



Roman



Arabic



Mexican



Celtic

# Theme 1



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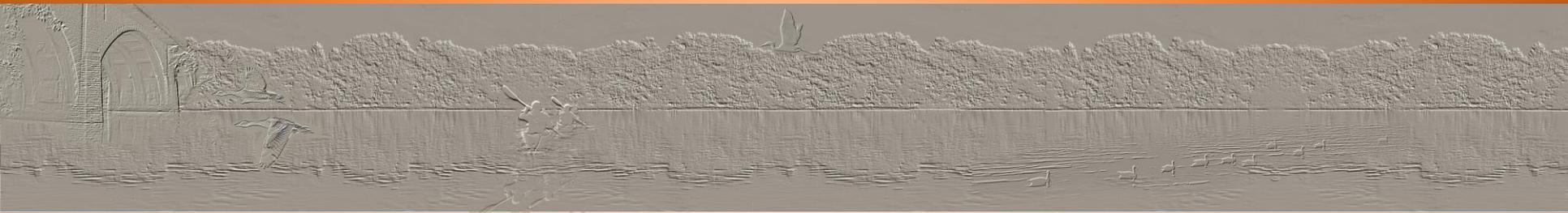




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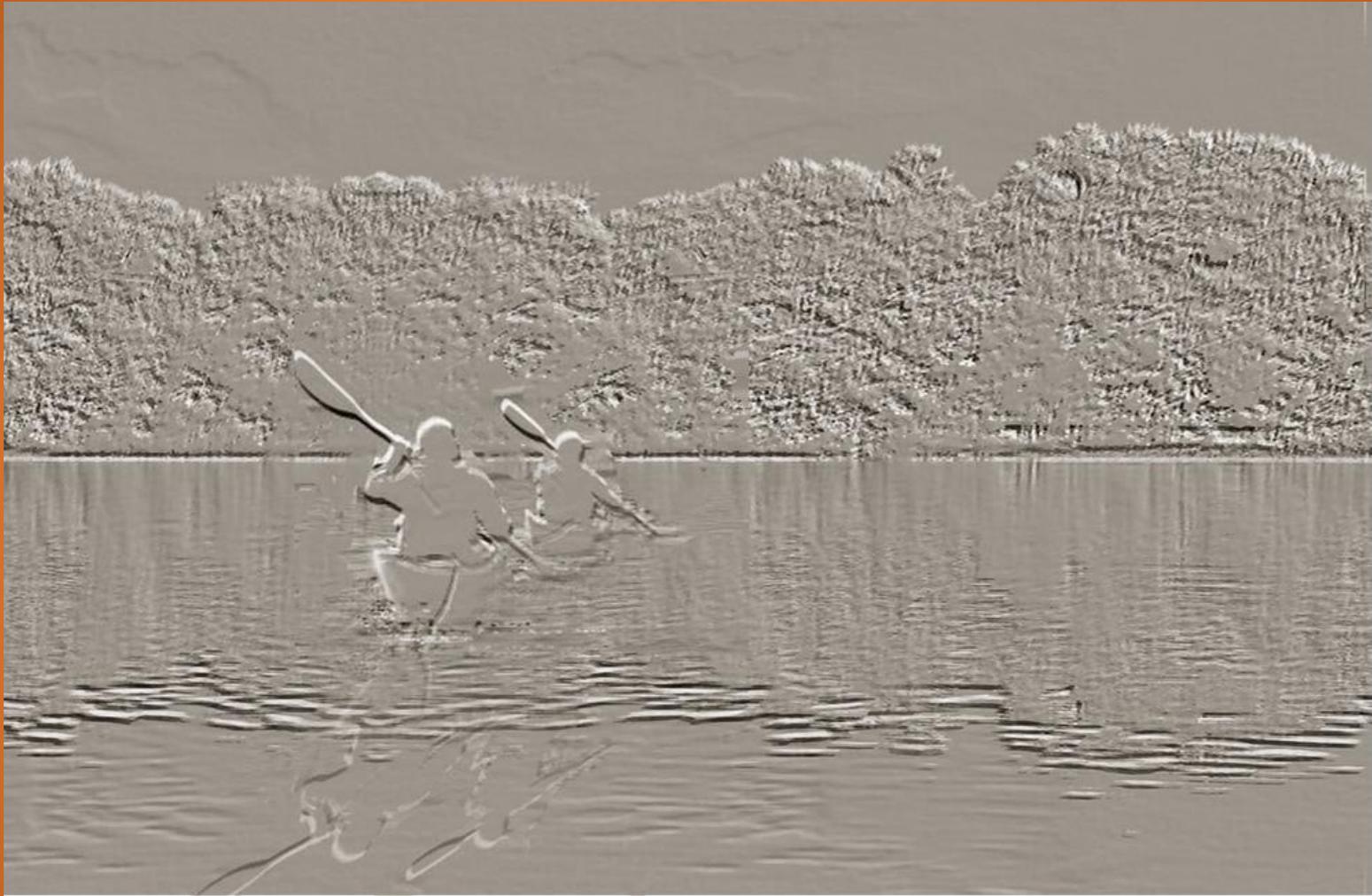


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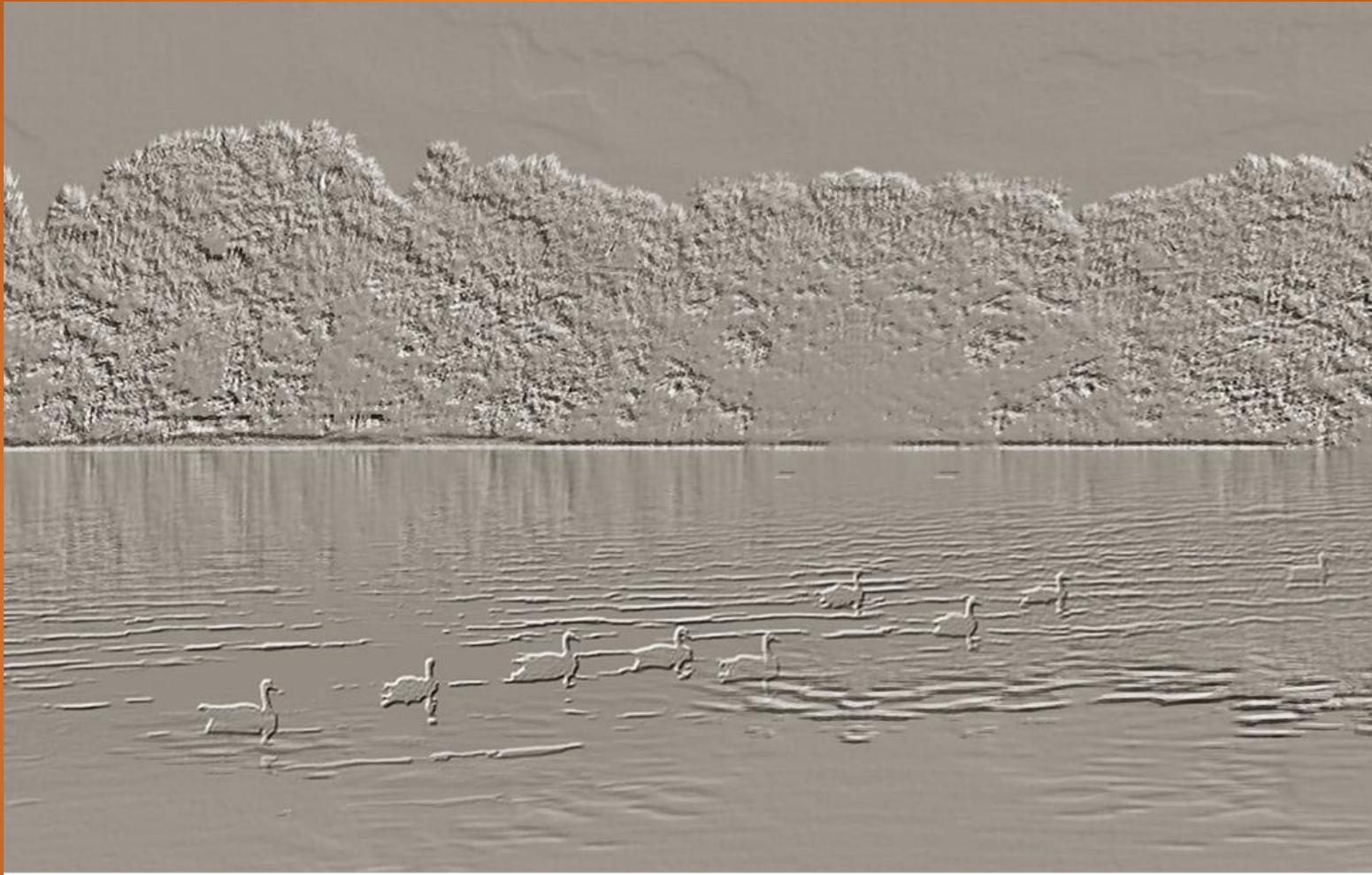
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# Theme 1: MSE Wall



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# Theme 1: MSE Wall Detail



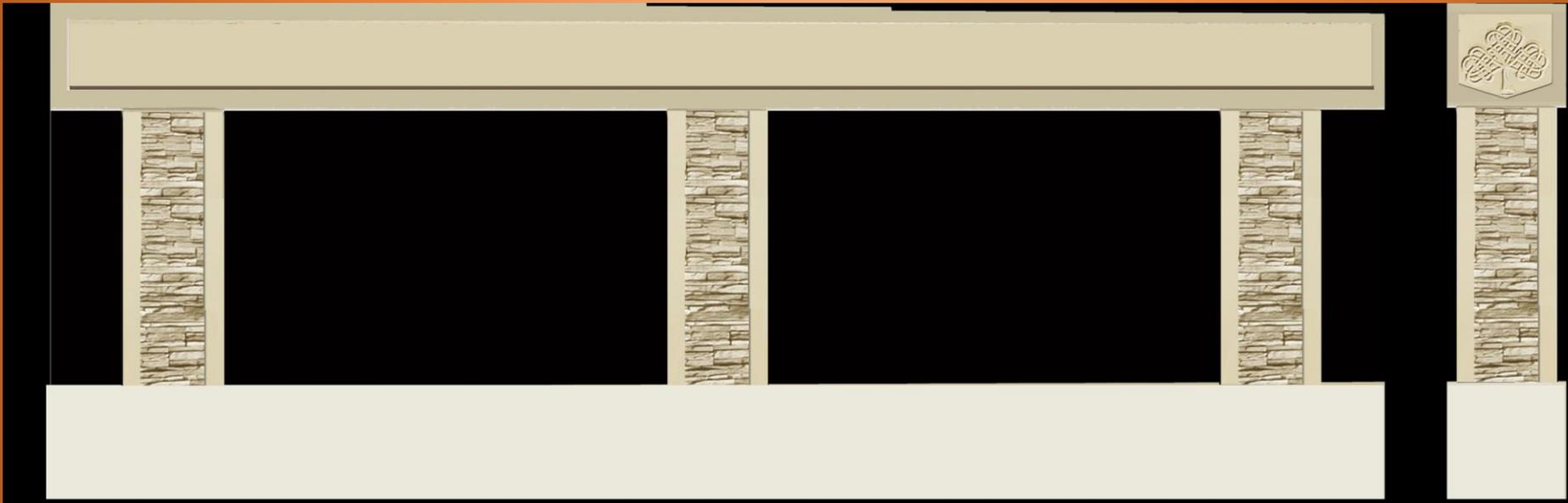
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# Theme 1: MSE Wall Detail



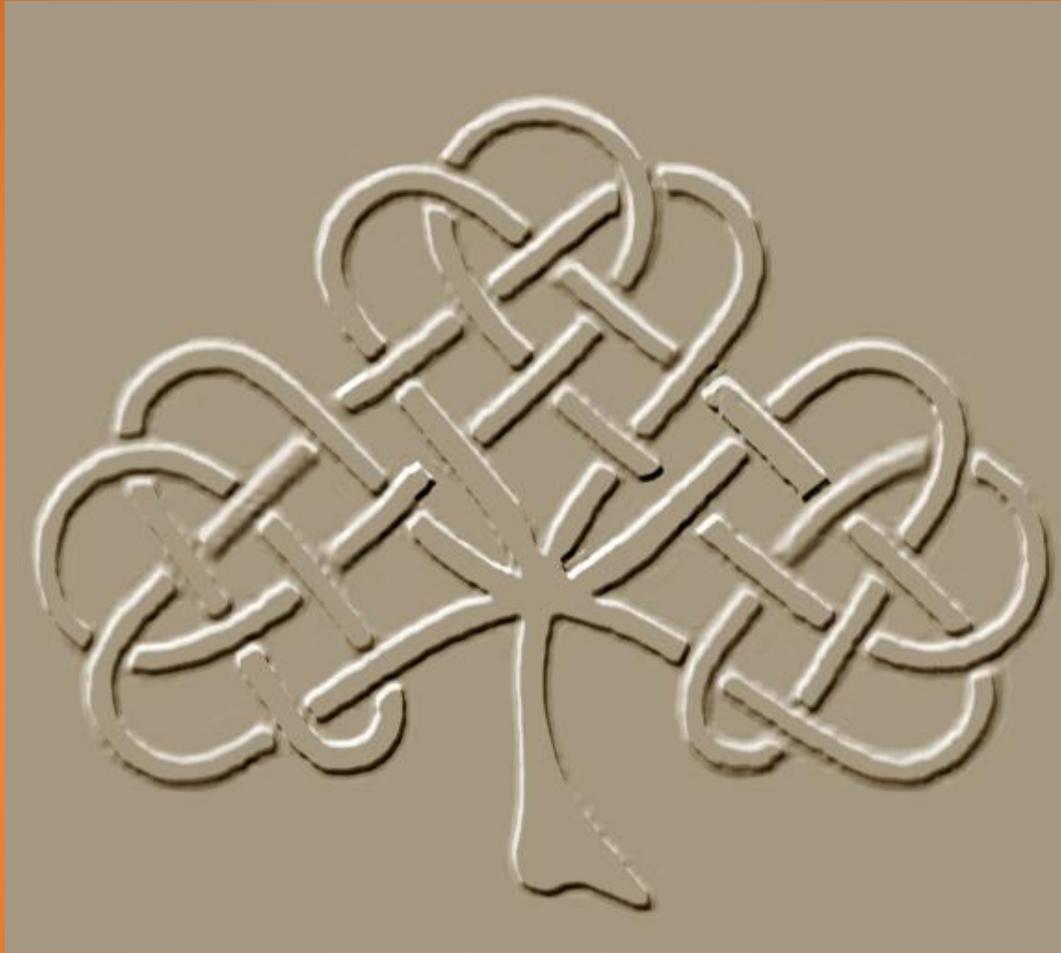
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# Theme 1: MSE Wall Detail



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# Theme 1: Piers



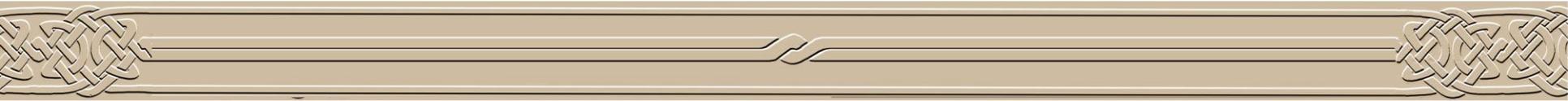
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# Theme 1: Pier Bull Nose



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# Theme 1: Fly-over Piers for Phase 2



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# Theme 1: Parapet



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# Theme 1: Parapet Detail

# Theme 2





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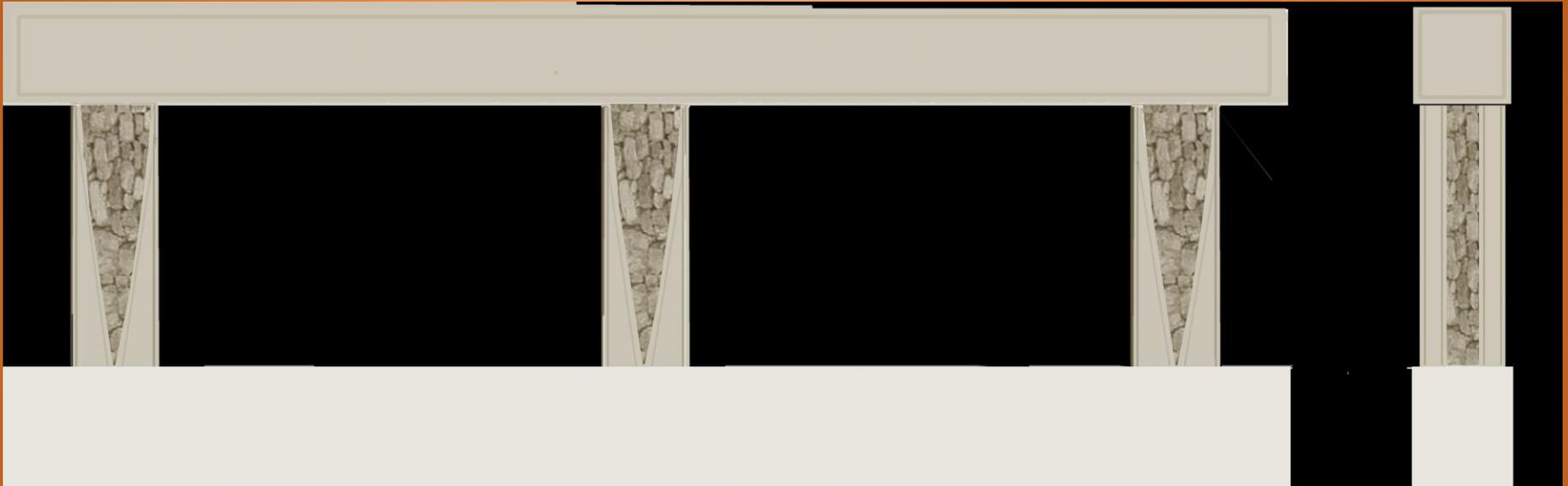


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## Theme 2: MSE Wall



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## Theme 2: Piers A



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## Theme 2: Piers B



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# Theme 2: Fly-over Piers for Phase 2



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# Theme 2: Parapet Option A



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## Theme 2: Parapet Option B

# Theme 3







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# Theme 3: MSE Wall



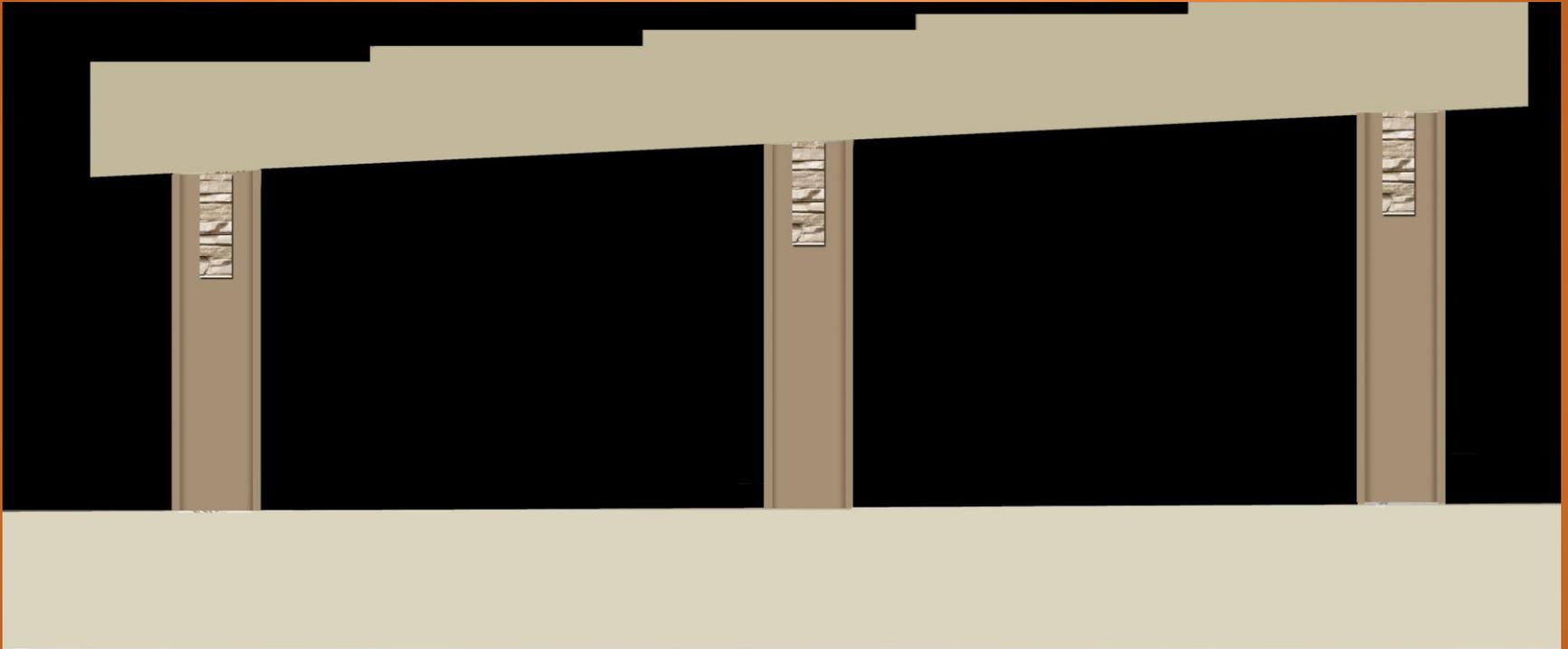
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# Theme 3: Pier Option A



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## Theme 3: Pier Option B



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# Theme 3: Pier Option C



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## Theme 3: Fly-over Piers A for Phase 2



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## Theme 3: Fly-over Piers B for Phase 2



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## Theme 3: Fly-over Pier B Detail



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# Theme 3: Parapet A



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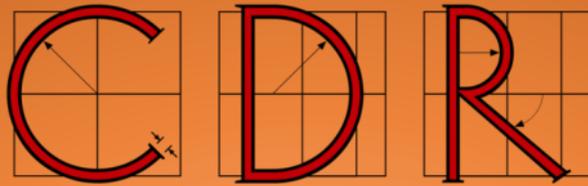
# Theme 3: Parapet B



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# Theme 3: Parapet C





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A graphic titled 'MASTER PLANNING' featuring a topographic map on the left with a red line tracing a route through various points. On the right, three photographs show different bridge designs: a bridge with a large concrete arch and a green embankment; a bridge with a concrete pier and a green embankment; and a bridge with a concrete pier and a road barrier. Below the map and photos, the text reads: 'MASTER PLANNING' in large, bold, black letters, followed by 'Designing one bridge is tough enough, how about 8 bridges, all at the same time, all unique, all within miles of each other. When you have projects like this, turn to CDR for all your planning needs.' in smaller black text.

Thank you!