



I-94 Aesthetic Concepts Development Stakeholders Meeting – October 29, 2015



I-94 FROM THE M-60 INTERCHANGE TO THE SARGENT ROAD INTERCHANGE
BLACKMAN AND LEONI TOWNSHIPS - JACKSON COUNTY, MICHIGAN

PARSONS





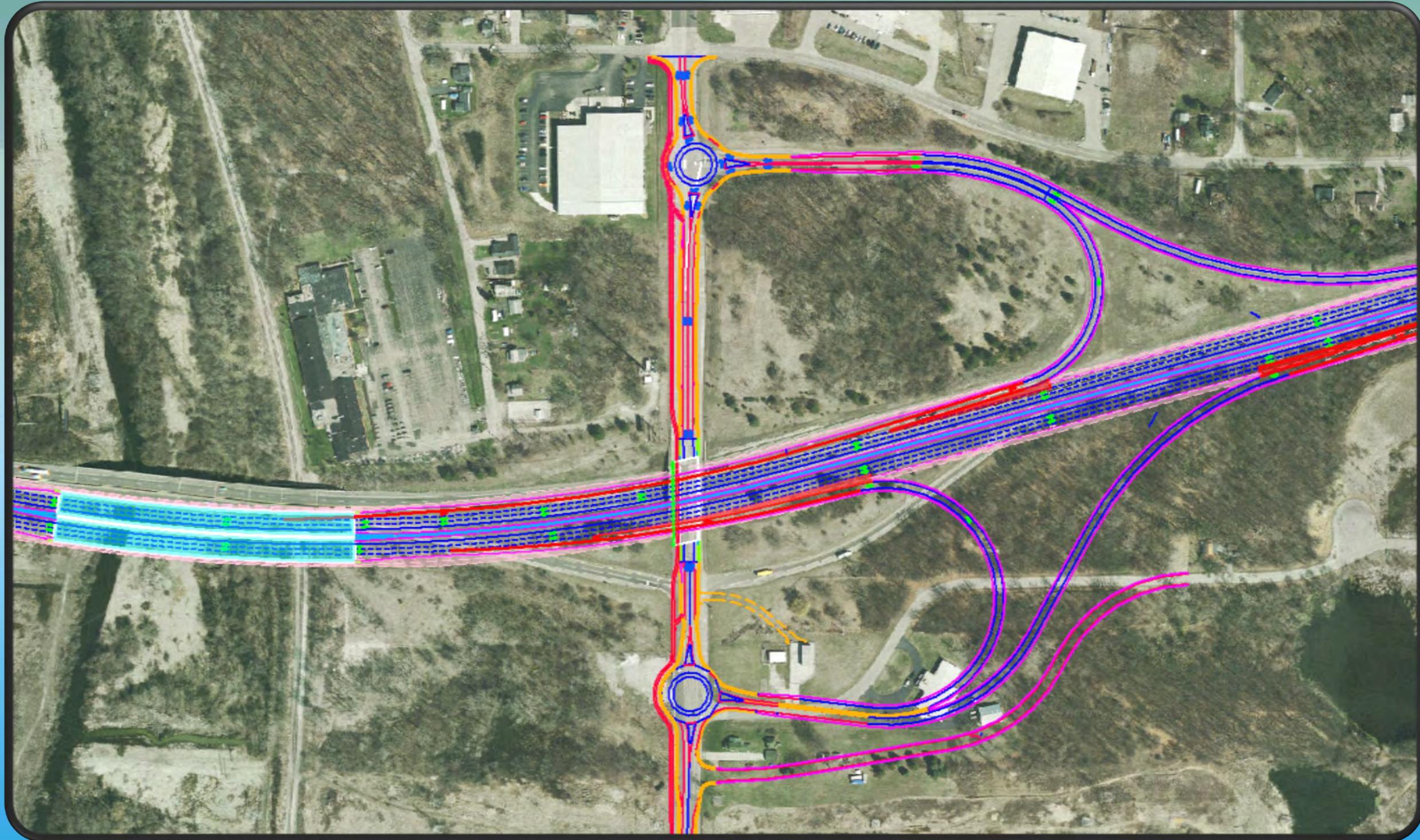
AGENDA

- **Cooper Street Interchange Update**
- **Project Overview**
- **Presentation of Concepts**
- **Stakeholders' Input**
- **Next Steps**
- **Questions and Answers**

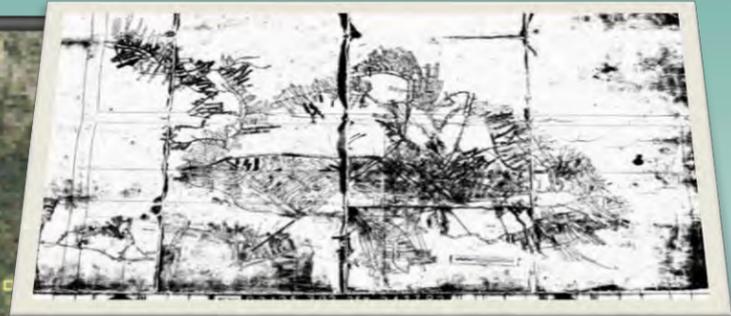
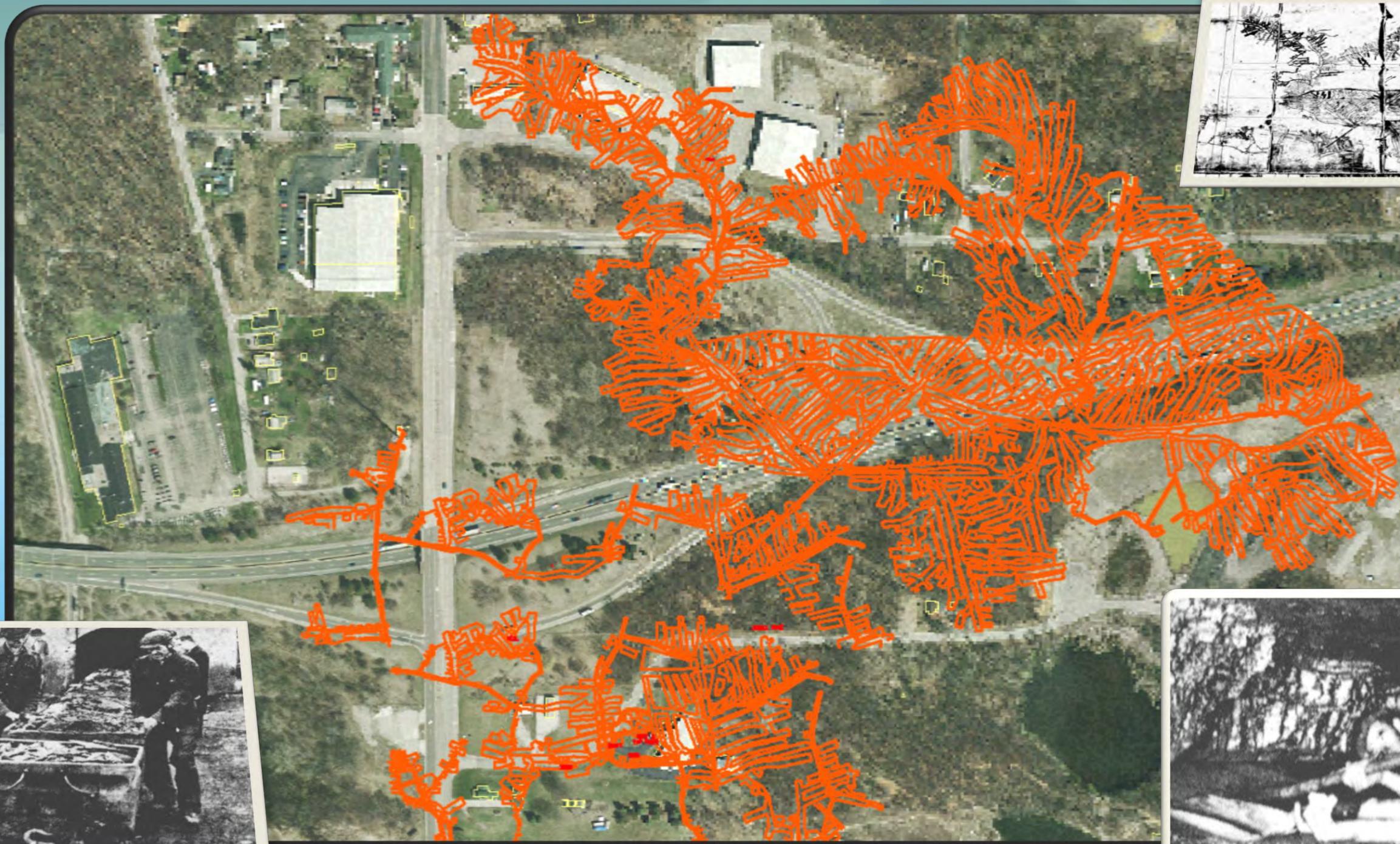
I-94 Modernization Cooper Street Interchange Update



2013 Cooper Interchange



Mine Investigation



Slope and Porter/Connable Mines

Mine Facts:

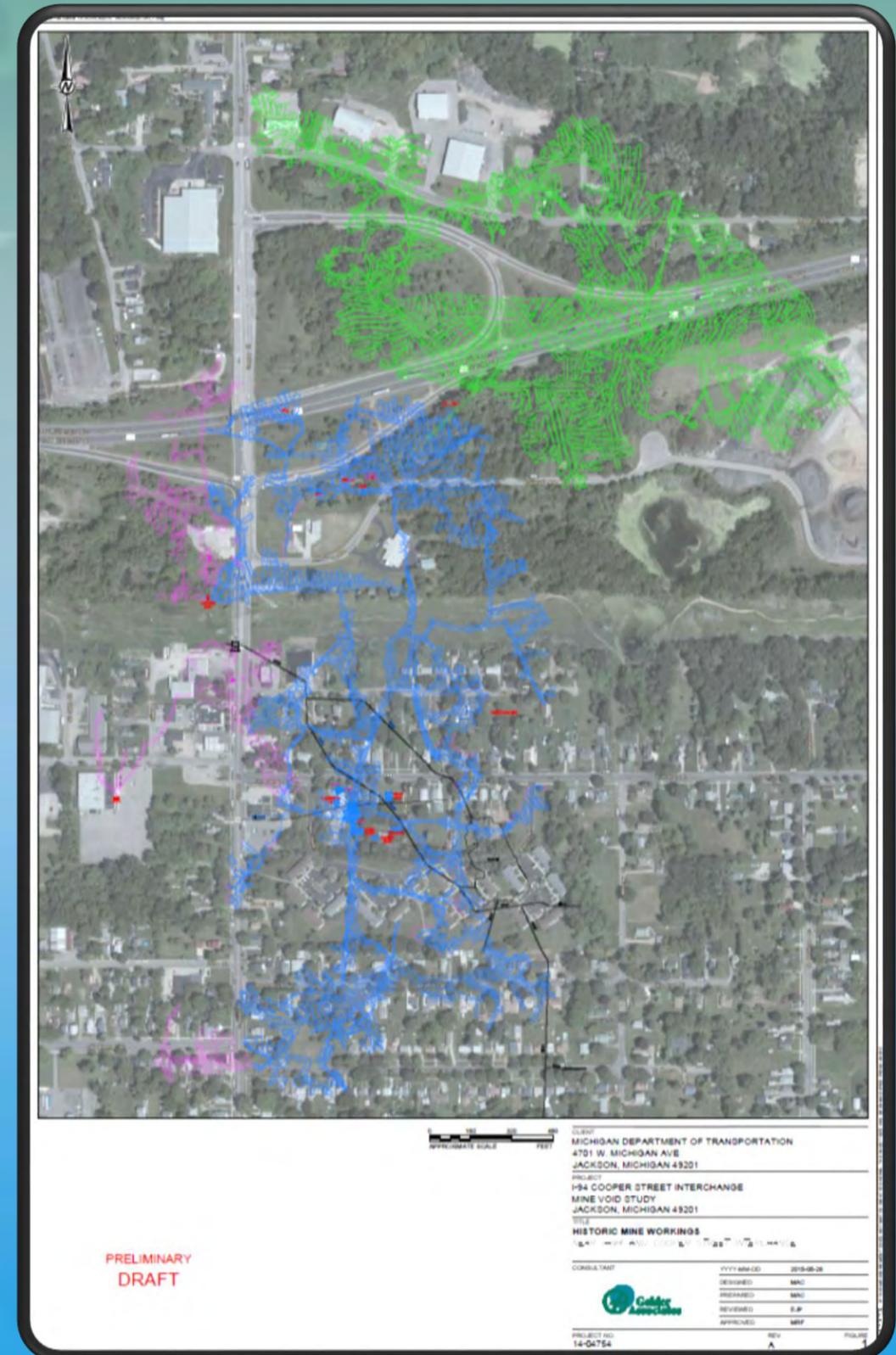
Mining occurred in late 1800's

Porter Connable mine approx. 30' down

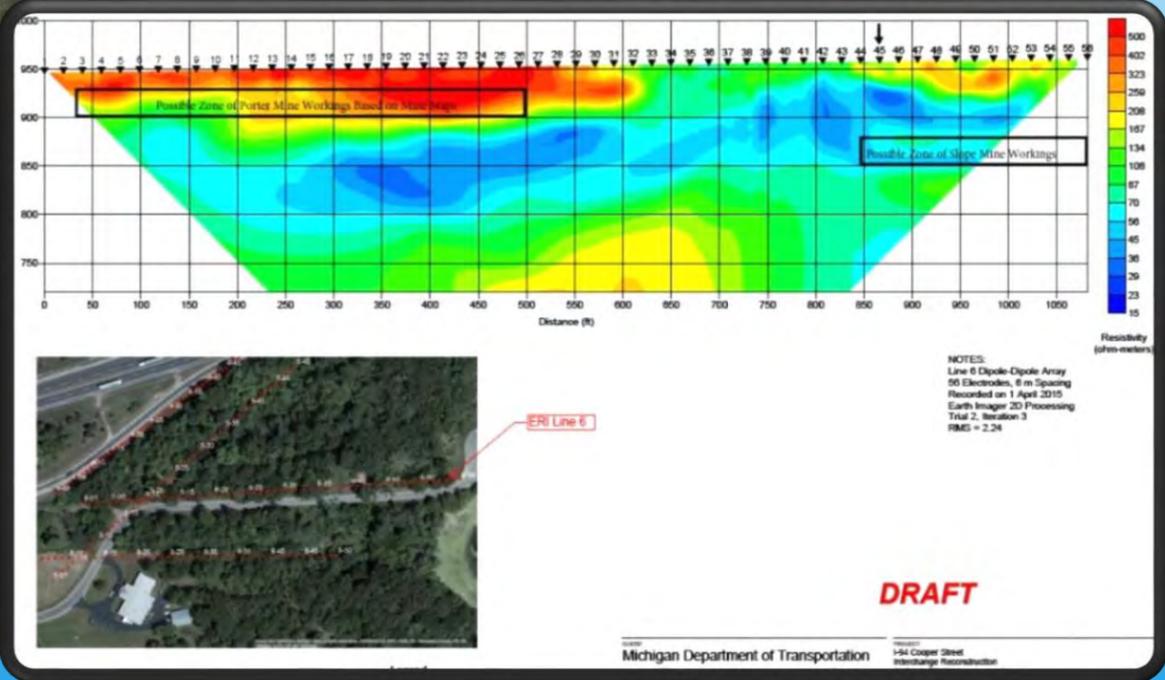
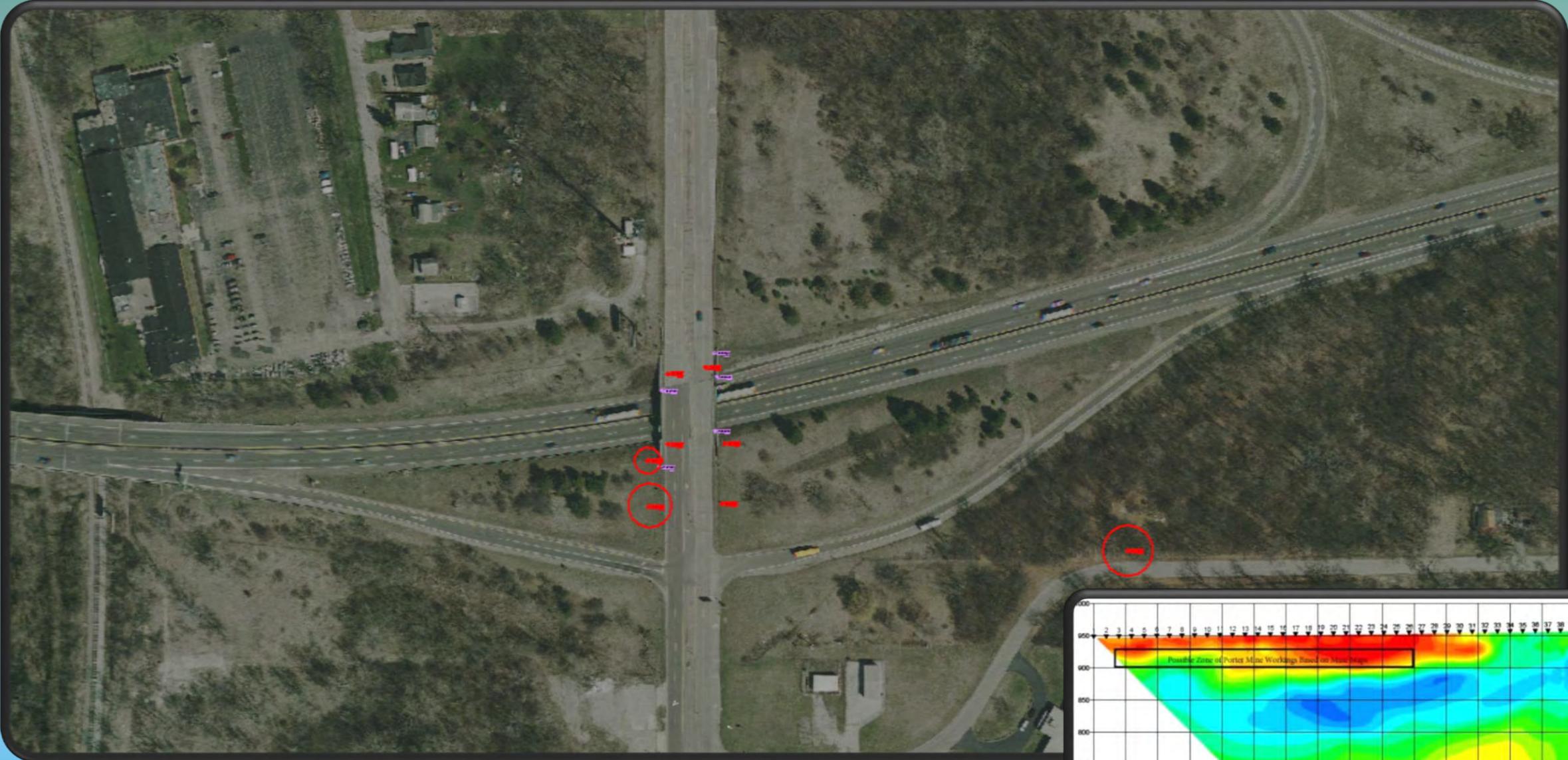
Slope mine approx. 70' down

Mine Findings:

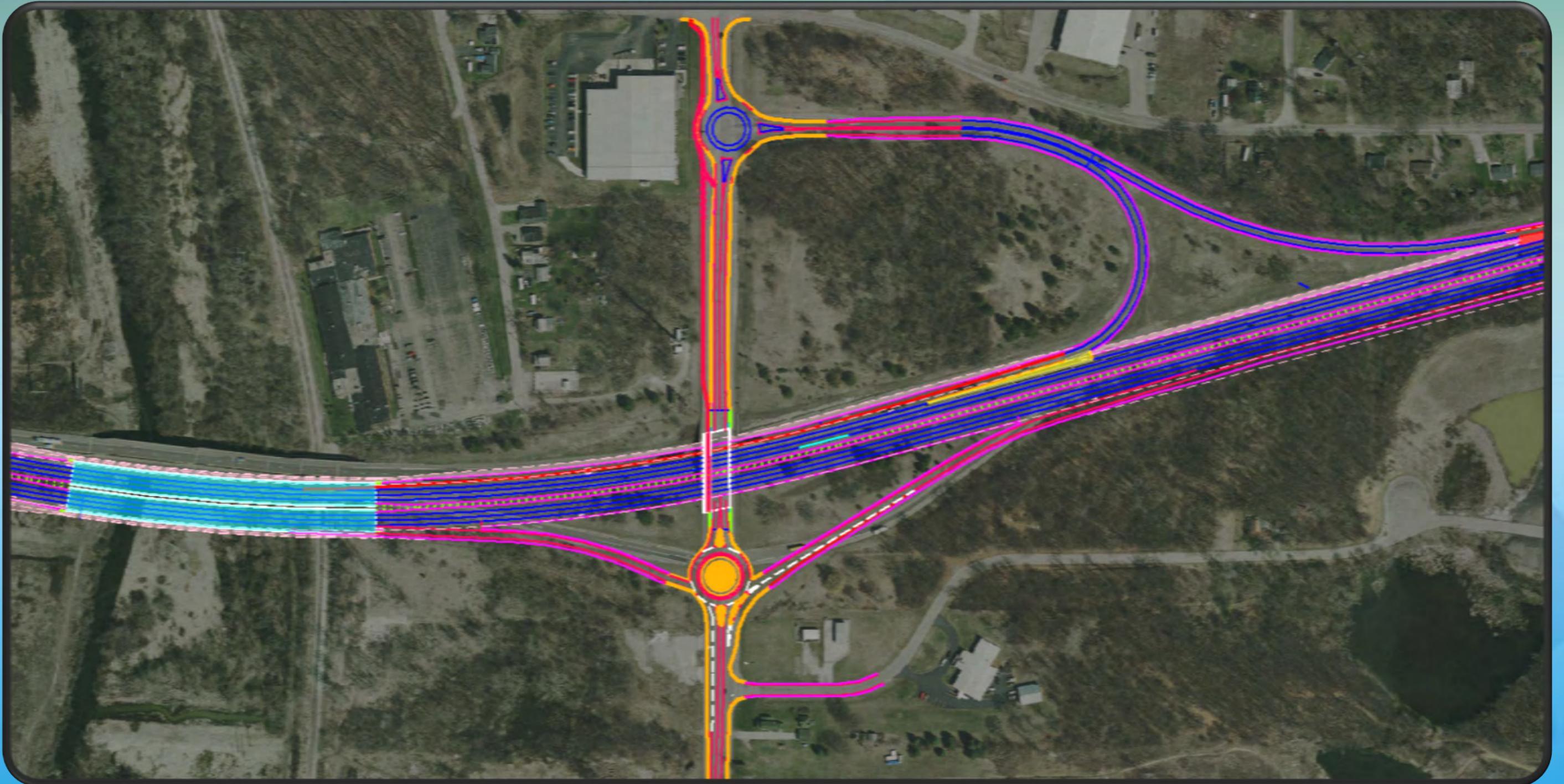
- Three mines within the area
- Larger footprint than in the original area
- MDOT Bridge borings at Cooper found two voids
- Mine Consultant found additional void



Borings to date



Updated Cooper Layout

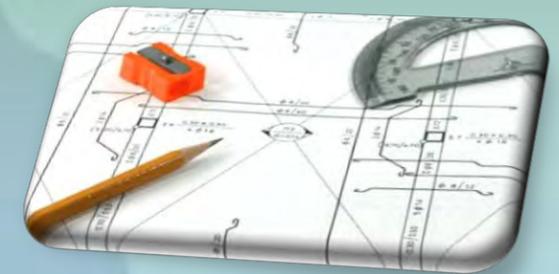


Impacts of Revised Design

- Minimizes potential mine remediation
- Minimizes ROW impact
- Shortens the length of the Cooper (M-106) Bridge over I-94
- Falls within the original footprint of the original ROD
- Eliminates the need to have a private utility facility within future MDOT limited access ROW

Timeline

- Environmental Classification (Complete)
- Design (Ongoing – 2016)
- Right of Way Acquisition (2014 – 2016)
- Geotechnical Evaluation (2015 – 2016)
- Utility Relocations (2015 - 2016)
- Let Date (December 2017)
- Construction (2017 – 2019)





QUESTIONS WAY WHY BLVD

Jackson County



WOODLAND & WETLAND THEME

Elements for the Woodland and Wetland theme:

- Structural forms reference biological organization and used in an abstract manner;
- Emphasis placed on arrangement of materials to referencing woodland density and wetland variety;
- Materials, textures and forms more organic with meandering lines and edges;
- Land form incorporated with structural elements;
- Built features look more natural; and
- Color palettes include earthtones, wetland, woodland, and water.

Elements for a more natural landscape:

- Large free-flowing planting areas;
- Meandering, soft curve planting edges;
- Minimal disruption to existing vegetation;
- Lack of order and placement of plantings to mimic the natural landscape;
- Large masses of native grasses, wildflowers and low-growing seed mixes; and
- Contrasting forms from wetlands transitioning into woodlands.



AGRICULTURAL & MANUFACTURING THEME

Elements for the agricultural and manufacturing theme:

- Structural forms imitate regular patterns and are used in a rhythmic manner;
- Emphasis placed on arrangement of materials to appear orthogonal, rectilinear, or geometric;
- Materials, textures, and forms create hard edges, smooth surfaces, and clean appearances; and
- Built forms look mechanized and ordered.

Elements of the landscape:

- Regular patterns of linear plantings interwoven with sculpted landforms or structural elements;
- Side slopes to sculpt landforms in regular geometric solids;
- Stormwater channels and retention/detention ponds to be naturally lined, but with rectilinear organization and clean slopes;
- Plantings organized with the creation of small groves; and
- Large shade trees and evergreens placed to represent wind breaks along the open fields and used as visual screens.



URBAN GATEWAY THEME

Elements for the urban gateway theme:

- Structural forms and lines imitate regular architectural patterns and are used in a rhythmic manner;
- Materials, textures and forms more in keeping with the local fabric;
- Incorporate stand alone gateway features or integrate these elements within the structural design; and
- Built features look more historic and rigid.

Elements of the landscape:

- Uniform and symmetrical patterns of plantings rich in color and texture;
- Planting forms appear to be manicured and sculpted;
- Density and massing to open up at structural/gateway elements to draw attention to the structural feature rather than compete; and
- Stormwater channels and retention/detention ponds may be combined with structural element/gateway features but with rectilinear organization and clean lines.



SELECTED THEMES AT COOPER STREET BRIDGE

- Options were presented to Stakeholders for a tied-arch structure and a standard bridge structure with enhancements
- The standard bridge structure with enhancement received the most votes
- The tied-arch was a very close second
- Public comments indicated a desire for smaller bridge elements (i.e. railings) to be given an organic aesthetic treatment which would also apply to the to the character of other structures along the corridor
- Future structures in the corridor will receive a similar , less detailed, aesthetic treatment

TIED-ARCH BRIDGE - 15 VOTES



**COLUMN-FRAMED
SUBSTRUCTURE - 20 VOTES**



Jackson County

BEGIN
M-60
Interchange

END
Sargent Rd
Interchange

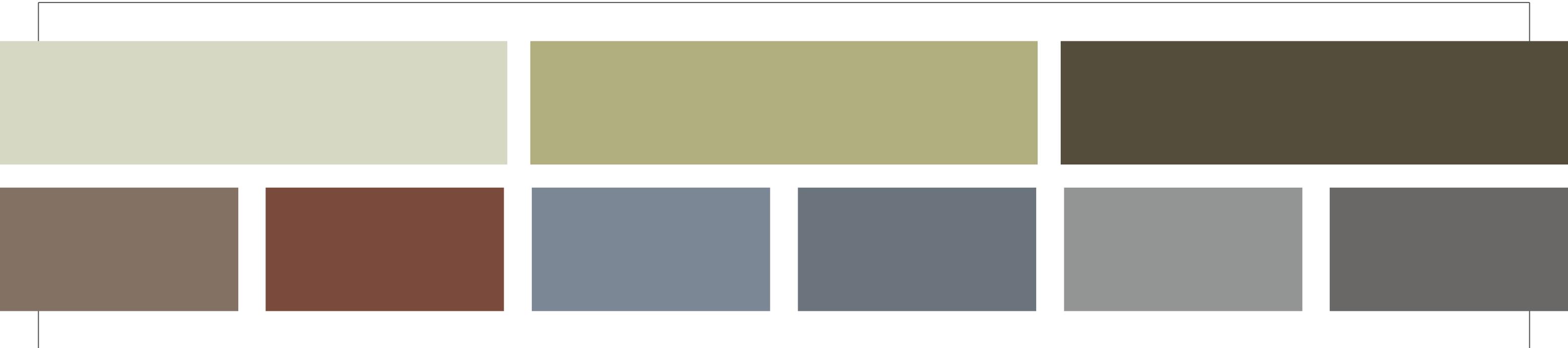
Legend

-  Project Limits | Approx. 8.9 miles
-  Woodland and Wetland Theme | *Naturalistic Style*
-  Agricultural and Manufacturing Theme | *Productive Style*
-  Urban Gateway Theme | *Architectural Style*



**URBAN GATEWAY THEME
COOPER SREET INTERCHANGE**

STRUCTURE PALETTE



LANDSCAPE PALETTE



COOPER STREET INTERCHANGE (Architectural Pylon Gateway) – Overall Aerial View



COOPER STREET INTERCHANGE (Architectural Pylon Gateway) – Overall Aerial View 2



COOPER STREET INTERCHANGE (Architectural Pylon Gateway) – Southwest Birdseye View



COOPER STREET INTERCHANGE (Base Only) – Southwest Birdseye View



COOPER STREET INTERCHANGE (Base Only) – Eastbound I-94 View



COOPER STREET INTERCHANGE (Base only) – Southbound Deck View



COOPER STREET INTERCHANGE (Architectural Pylon Gateway) – Southbound Deck View

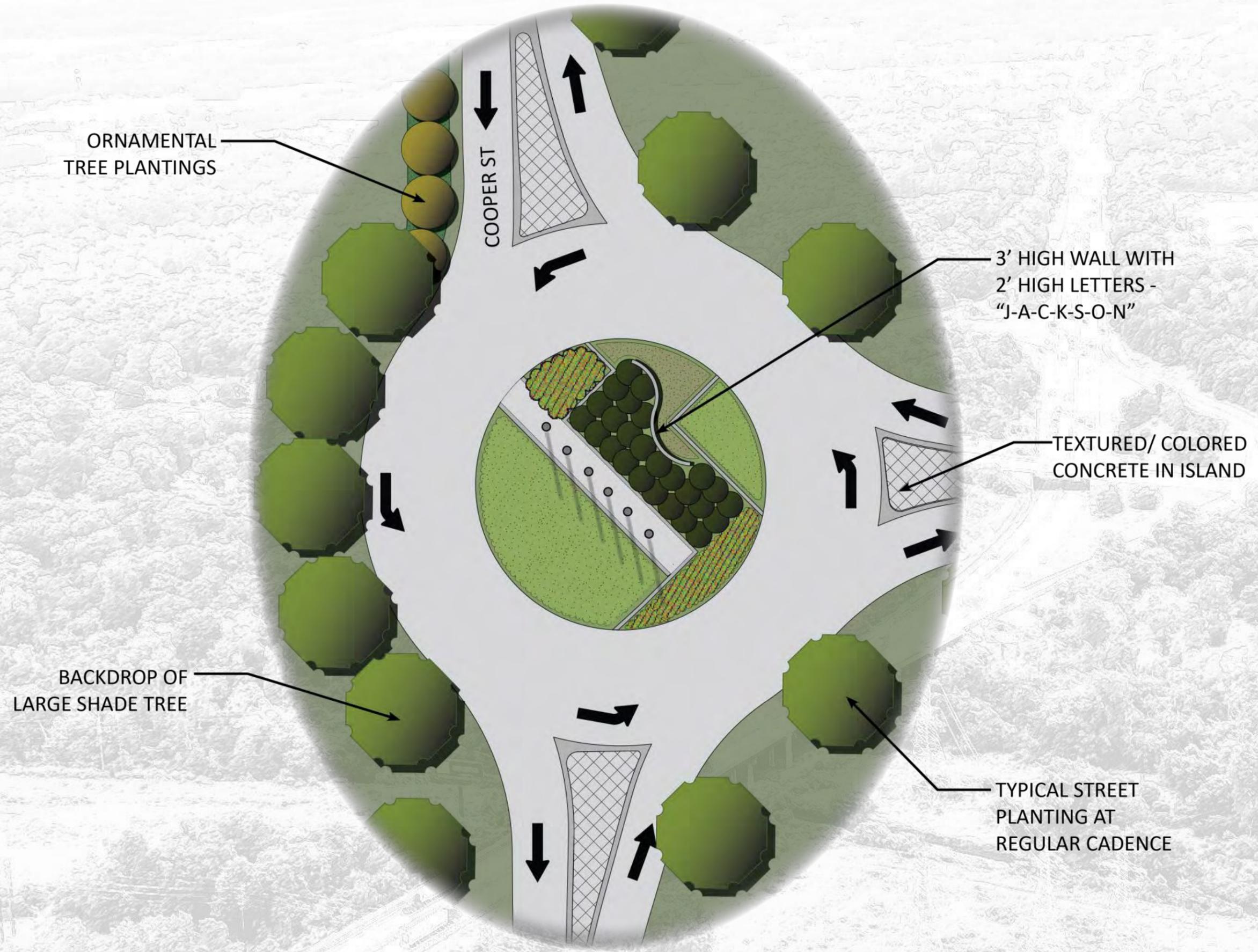


COOPER STREET INTERCHANGE (Architectural Pylon Gateway) – Tower Details



COOPER STREET INTERCHANGE (Architectural Pylon Gateway) – Eastbound I-94 View









PAVING ALTERNATIVES

EVERGREEN
SCREEN PLANTING

4' HIGH SCULPTURAL
ELEMENTS

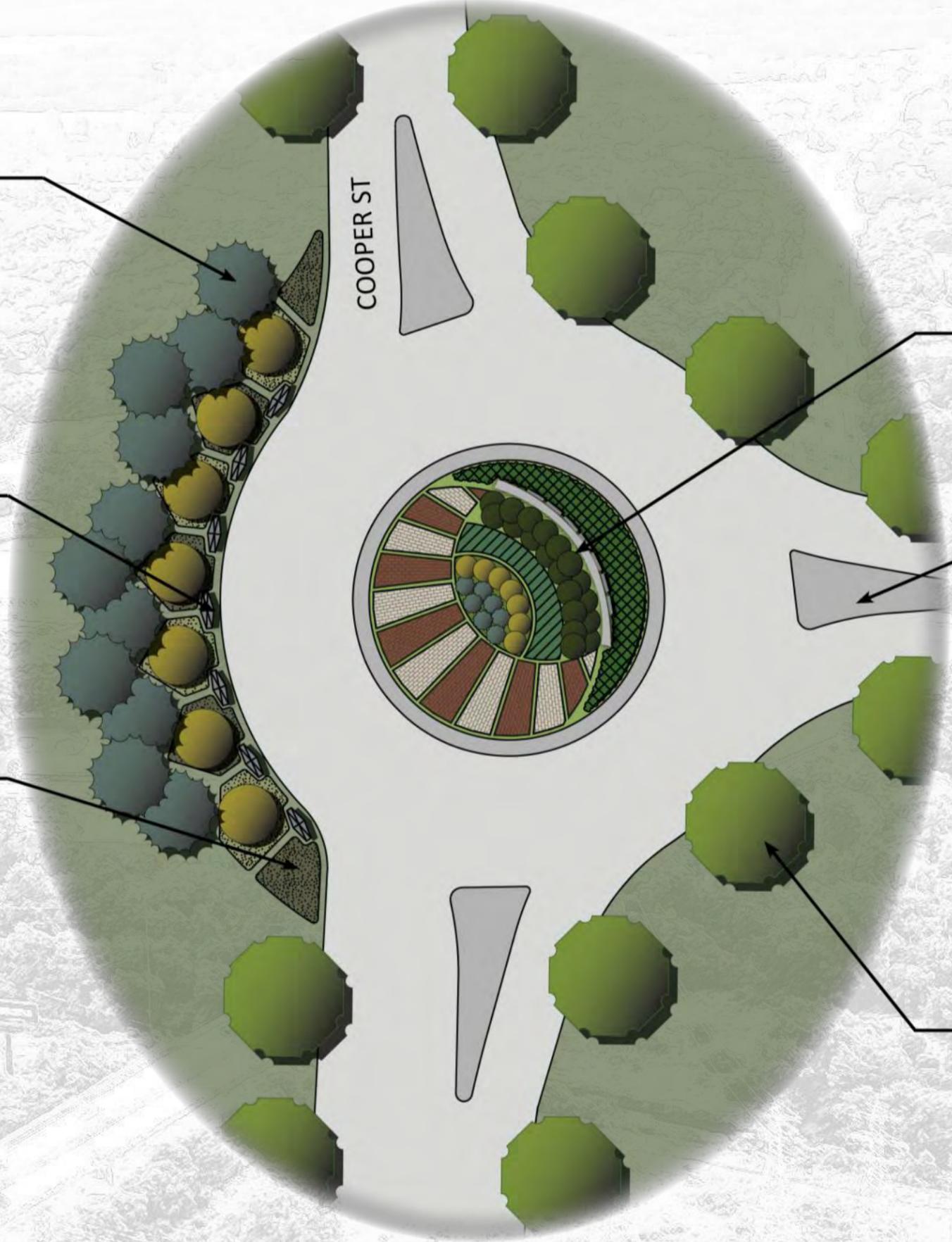
COLOR PLANTINGS IN
A RADIAL PATTERN

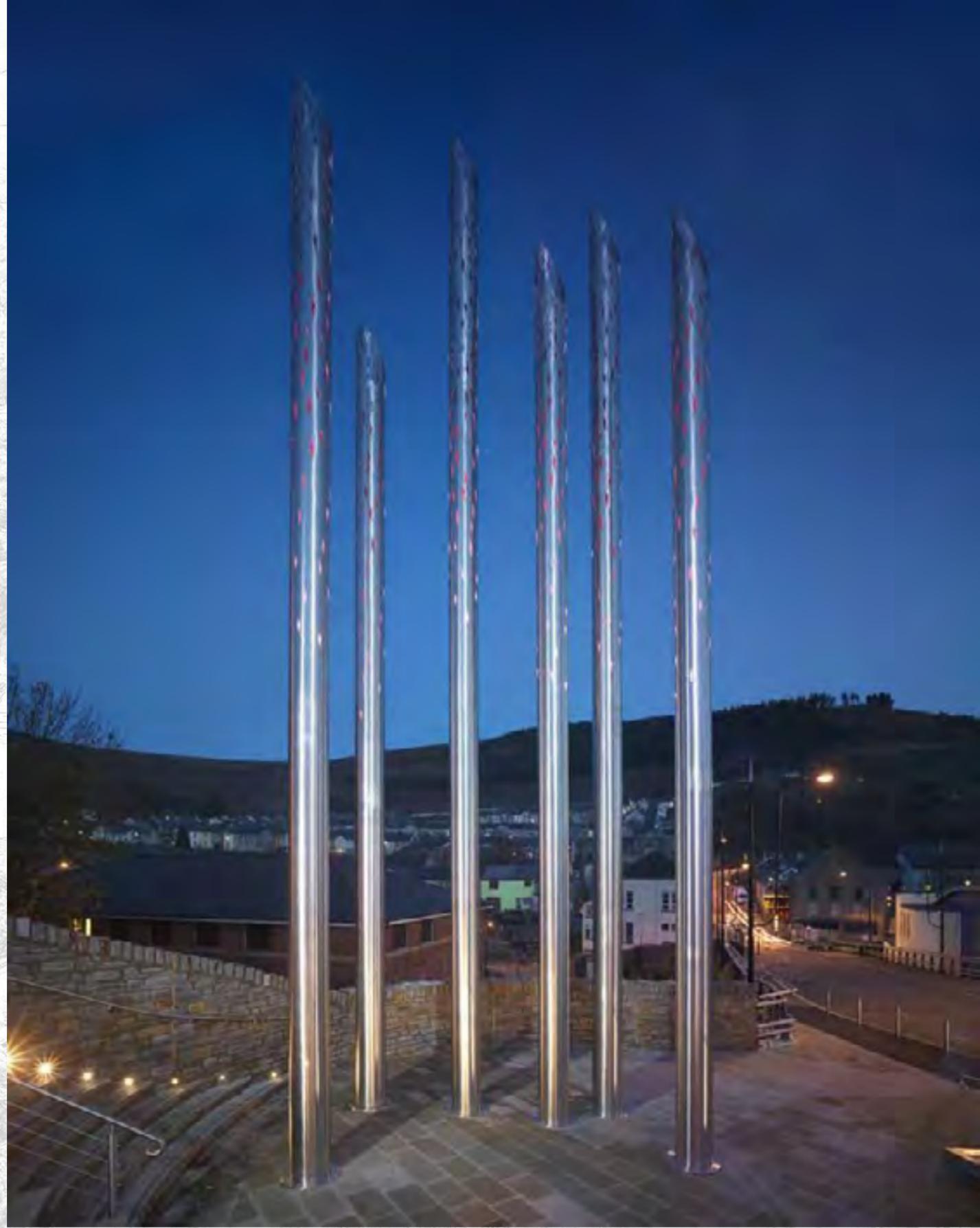
COOPER ST

3' HIGH WALL WITH
2' HIGH LETTERS -
"J-A-C-K-S-O-N"

PAVED ISLAND

TYPICAL STREET
PLANTING AT
REGULAR CADENCE







**URBAN GATEWAY THEME
GRAND RIVER RAILROAD BRIDGE**

STRUCTURE PALETTE



LANDSCAPE PALETTE



GRAND RIVER RAILROAD BRIDGE (Base only) – Overall Aerial View



GRAND RIVER RAILROAD BRIDGE (Base only) – West Gateway Birdseye View



GRAND RIVER RAILROAD BRIDGE (Base Only) – East Gateway Birdseye View



GRAND RIVER RAILROAD BRIDGE (Base Only) – I-94 Eastbound Deck View



**AGRICULTURAL & MANUFACTURING THEME
ELM AVE INTERCHANGE**

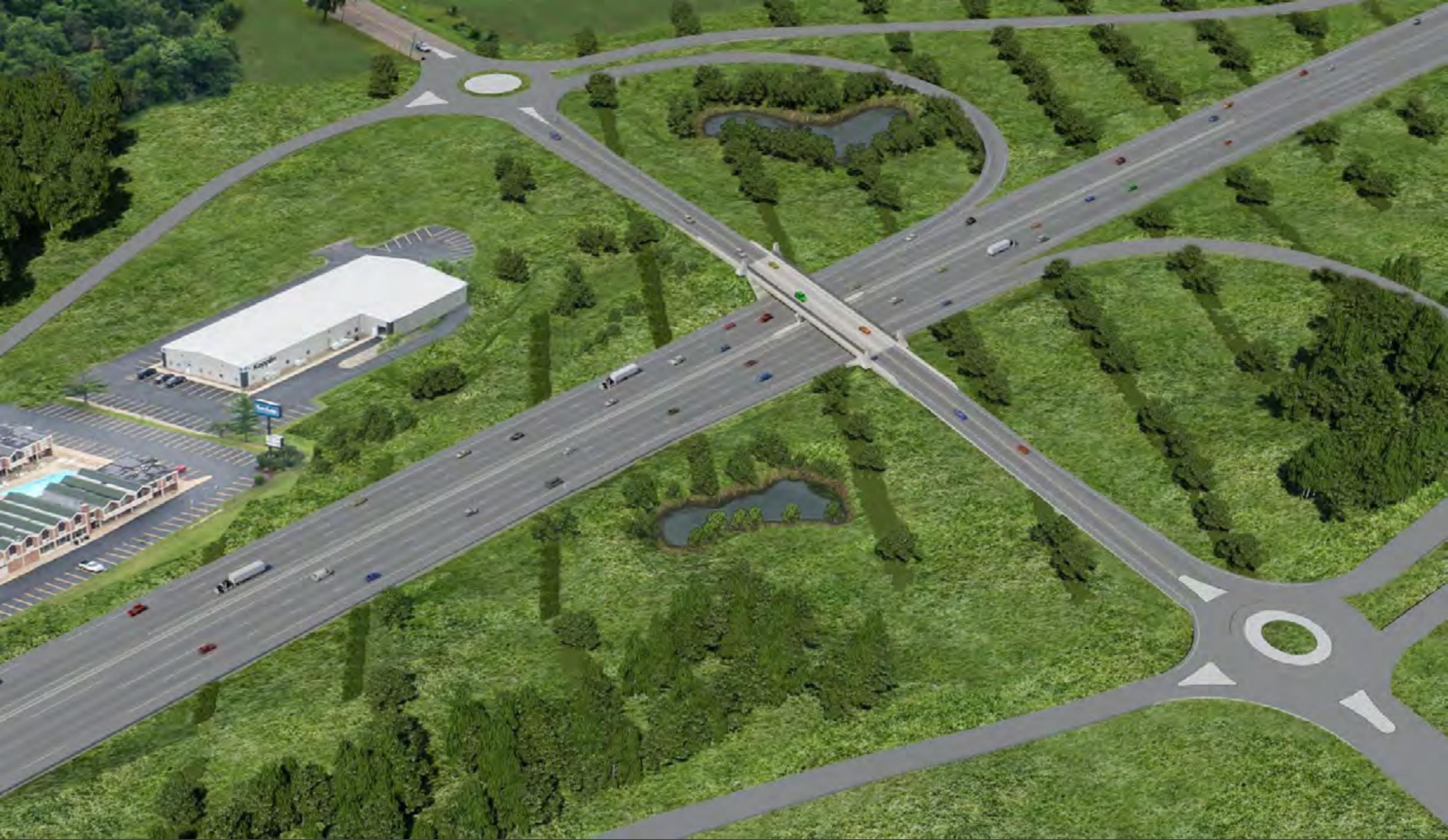
ARCHITECTURAL PYLON GATEWAY & BASE OPTION

BASE OPTION (STEEL GIRDER)



LANDSCAPE PALETTE





ELM AVE INTERCHANGE (Architectural Pylon Gateway) – Overall Aerial View



ELM AVE INTERCHANGE (Base only) – Southwest Birdseye View



ELM AVE INTERCHANGE (Base only) – Northbound Deck View



ELM AVE INTERCHANGE (Base only) – Eastbound I-94 View



ELM AVE INTERCHANGE (Base only – Steel Girder) – Eastbound I-94 View



ELM AVE INTERCHANGE (Architectural Pylon Gateway) – Southwest Birdseye View



ELM AVE INTERCHANGE (Architectural Pylon Gateway) – Northbound Deck View



ELM AVE INTERCHANGE (Architectural Pylon Gateway) – Eastbound I-94 View



ELM AVE INTERCHANGE (Architectural Pylon Gateway – Arched Fence)– Eastbound I-94 View



ELM AVE INTERCHANGE (Architectural Pylon Gateway – No Fence)– Eastbound I-94 View

CANOPY



Autumn Blaze Maple
Acer fremanii 'Autumn 'Blaze'



Shumard Red Oak
Quercus shumardii



Skyline Honeylocust
Gleditsia tricanthos 'Skyline'



American Hornbeam
Quercus macrocarpa

ORNAMENTAL



Purple Robe Locust
Robinia pseudoaccia 'Purple Robe'



Striped Maple
Acer pennsylvanicum

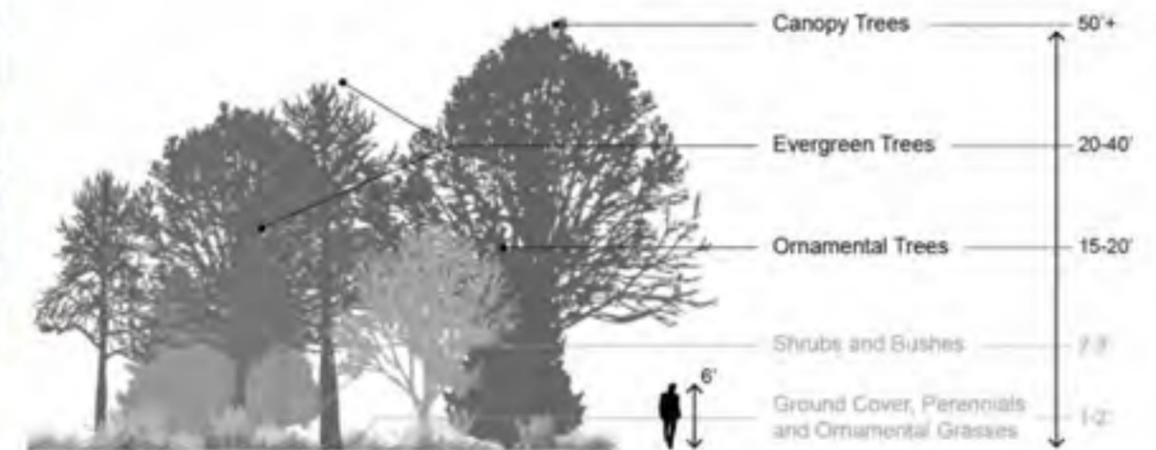
EVERGREEN



Wichita Blue Juniper
Juniperus scopulorum 'Whicita Blue'



Canadian Hemlock
Tsuga canadensis



MEDIUM SHRUB



Kumson Variegated Forsythia
Forsythia viridissima 'Kumson'



Pucker Up Redtwig Dogwood
Cornus stolonifera 'Pucker Up'



Royal Purple/ Velvet Cloak Smokebush
Cotinus 'Royal Purple/Velvet Cloak'

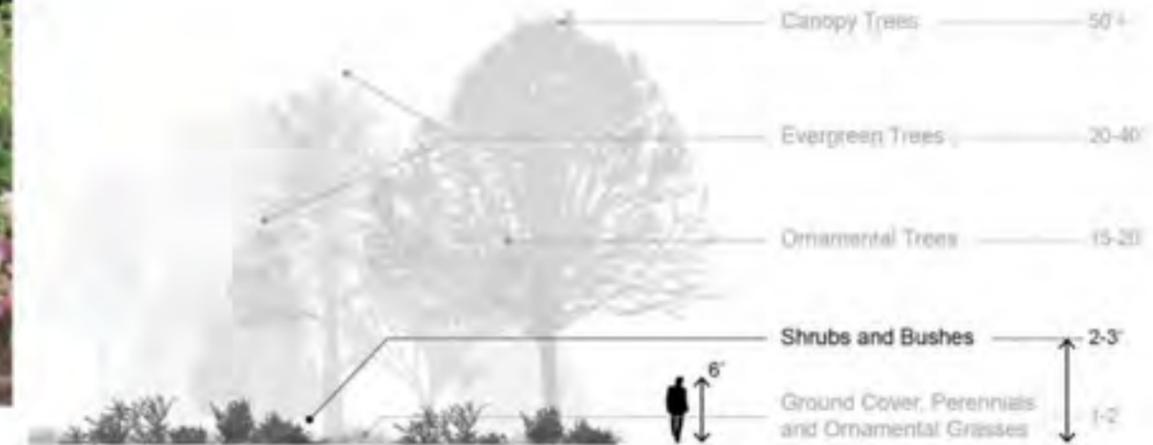
SMALL SHRUB



St. Johnswort- Ames
Hypericum frondosum 'Ames'



Little Princess Spirea
Spiraea japonica 'Little Princess'



PERENNIALS



Moonbeam Tickseed
Coreopsis verticillata 'Moonbeam'



Francis Williams Hosta
Hosta 'Francis Williams'



Russian Sage
Perovskia atriplicifolia

ORNAMENTAL GRASS



Compact Japanese Silver Grass
Miscanthus sinensis 'Adagio'



Karl Forester's Feather Reed Grass
Calamagrostis acutiflora 'Karl Forester'



Autumn Red Silver Grass
Miscanthus sinensis 'Purpurescens'

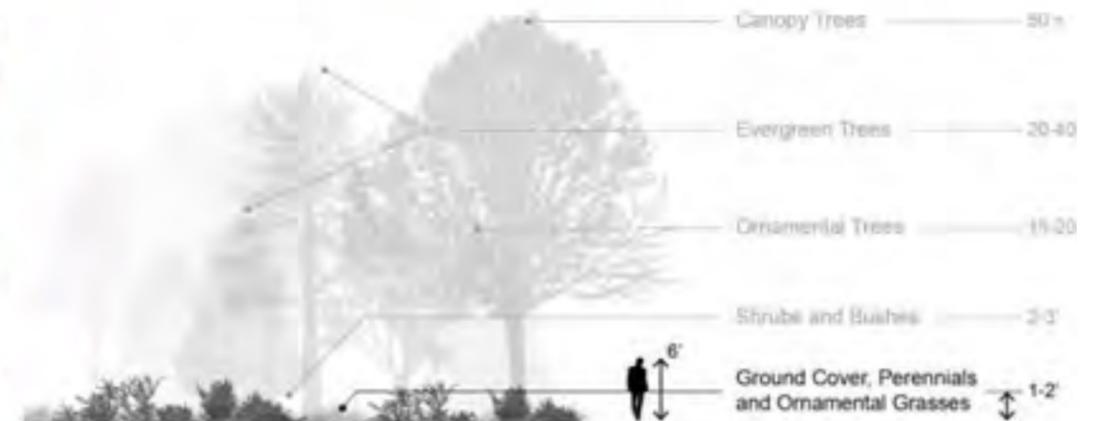
GROUND COVER



Blue Carpet
Juniperus horizontalis 'Wiltonii'



Sweet Woodruff
Gallicum odoratum



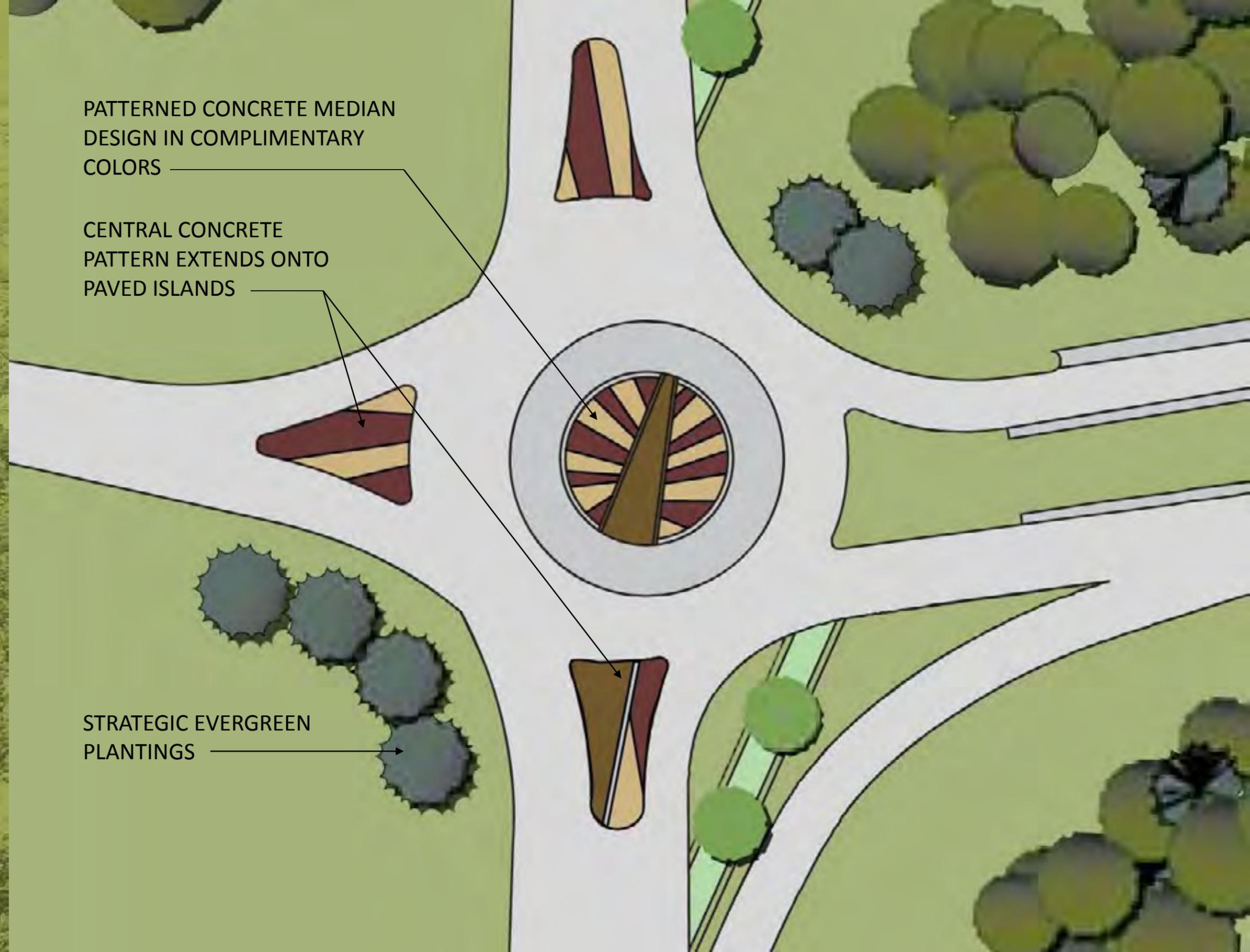


PAVING ALTERNATIVES

PATTERNED CONCRETE MEDIAN
DESIGN IN COMPLIMENTARY
COLORS

CENTRAL CONCRETE
PATTERN EXTENDS ONTO
PAVED ISLANDS

STRATEGIC EVERGREEN
PLANTINGS



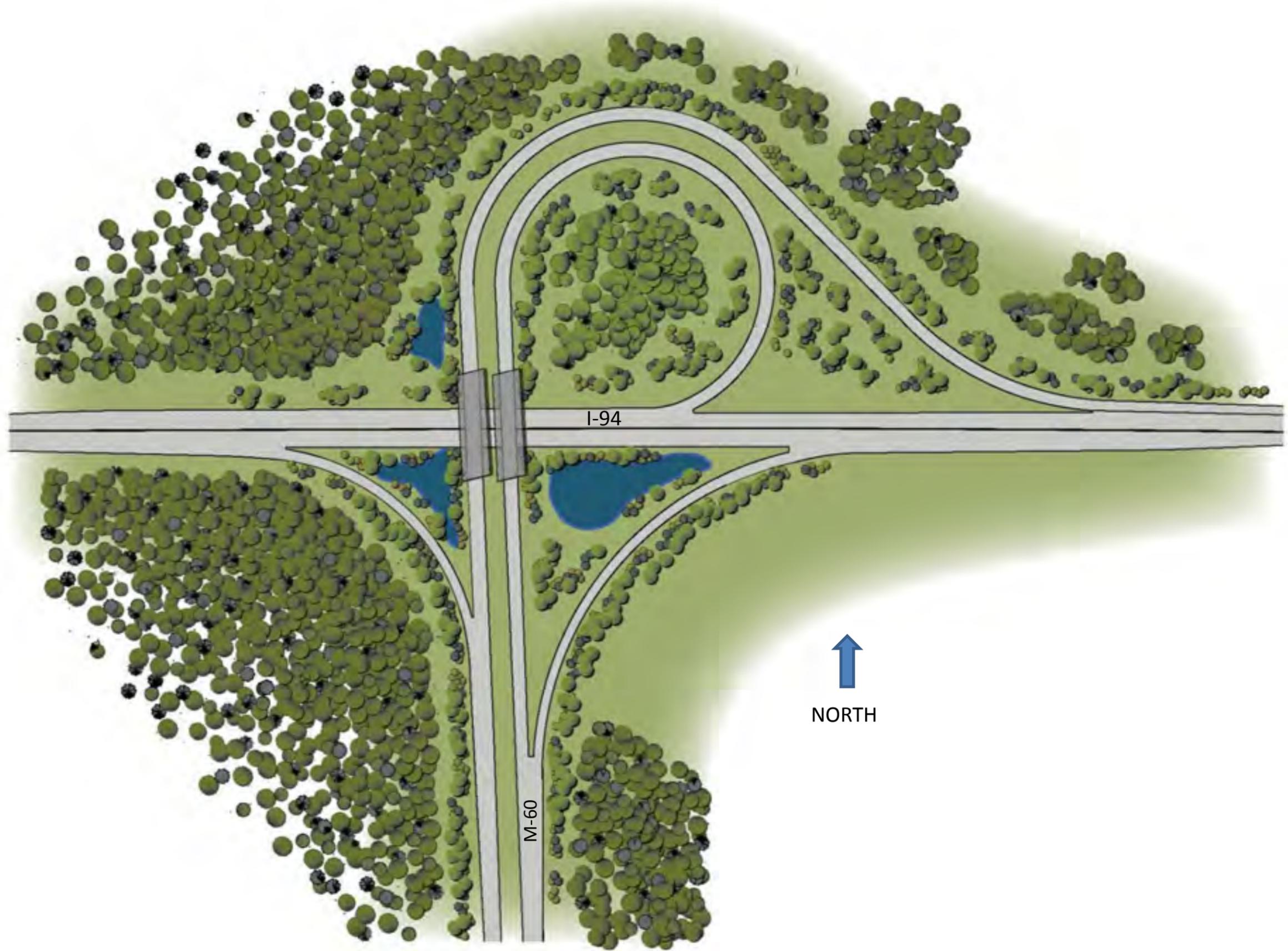


**WOODLAND & WETLAND THEME
M-60 INTERCHANGE**

STRUCTURE PALETTE



LANDSCAPE PALETTE





M-60 INTERCHANGE (Architectural Pylon Gateway) – Overall Aerial View



M-60 INTERCHANGE (Base only) – Southwest Birdseye View



M-60 INTERCHANGE (Base only) – Eastbound I-94 View



M-60 INTERCHANGE (Base only) – Northbound Deck View



M-60 INTERCHANGE (Architectural Pylon Gateway) – Southwest Birdseye View



M-60 INTERCHANGE (Architectural Pylon Gateway – Arched Fence) – Southwest Birdseye View



M-60 INTERCHANGE (Architectural Pylon Gateway) – Northbound Deck View



M-60 INTERCHANGE (Architectural Pylon Gateway – Arched Fence) – Northbound Deck View



M-60 INTERCHANGE (Architectural Pylon Gateway) – Eastbound I-94 View



M-60 INTERCHANGE (Architectural Pylon Gateway – Arched Fence) – Eastbound I-94 View

CANOPY



Sun Valley Red Maple
Acer rubrum 'Sun Valley'



Burr Oak
Quercus macrocarpa



Shademaster Honeylocust
Gleditsia tricanthos 'Shademaster'

ORNAMENTAL



Ivory Silk Japanese Lilac
Syringa reticulata 'Ivory Silk'



Red Flowering Dogwood
Cornus florida 'Cherokee Brave'

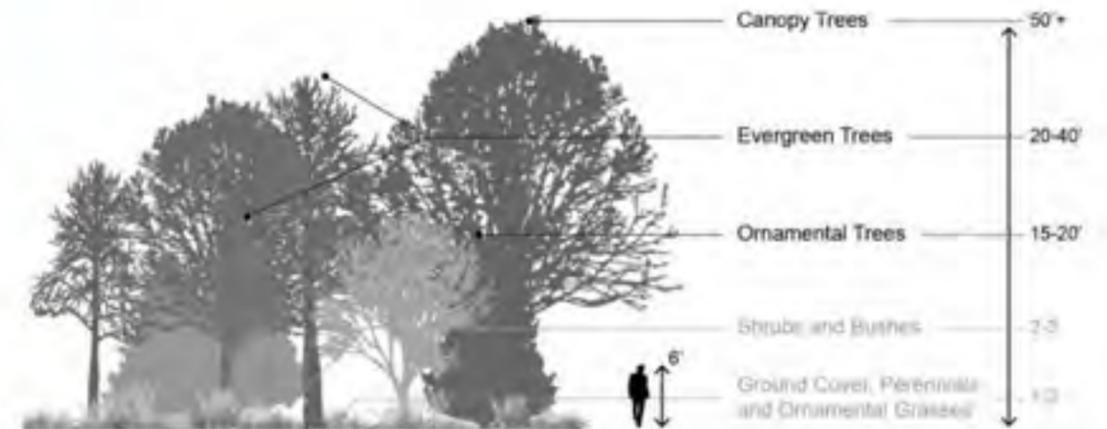
EVERGREEN



Colorado Blue Spruce
Picea pungens 'Glauca'



Norway Spruce
Picea abies



MEDIUM SHRUB



Vintage Gold Fernleaf
Chamaecyparis pisifera 'Vintage Gold'



Deutzia Nikko
Deutzia crenata nakaiana 'Nikko'



Compact Burning Bush
Euonymus alata 'Compacta'

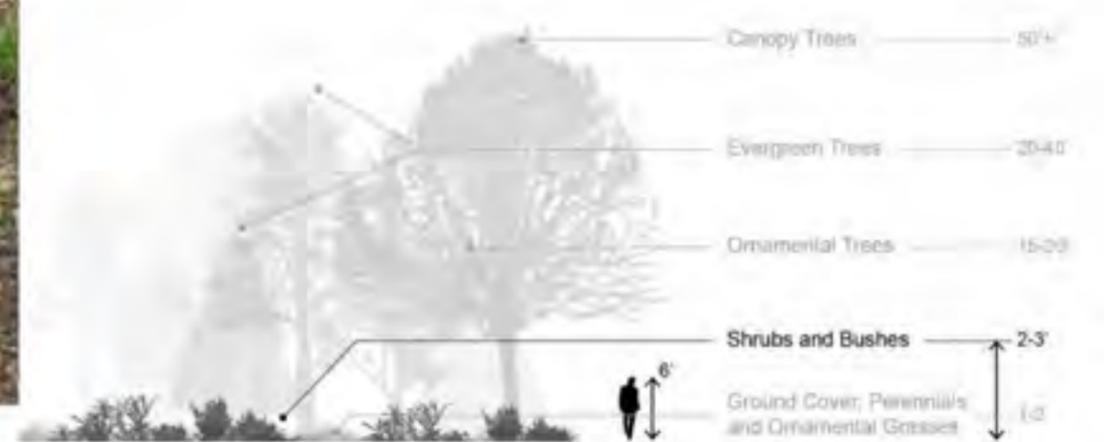
SMALL SHRUB



Little Henry Sweetspire
Itea virginica 'Little Henry'



Deutzia Nikko
Deutzia crenata nakaiana 'Nikko'



PERENNIALS



Purple Dome Aster
Aster 'Professor Purple Dome'



Fire Witch Dianthus
Dianthus 'Fire Witch'



Becky Shasta Daisy
Leucanthemum 'Becky'

ORNAMENTAL GRASS



Autumn Red Silver Grass
Miscanthus sinensis 'Purpurescens'



Karl Forester's Feather Reed Grass
Calamagrostis acutiflora 'Karl Forester'



Compact Japanese Silver Grass
Miscanthus sinensis 'Adagio'

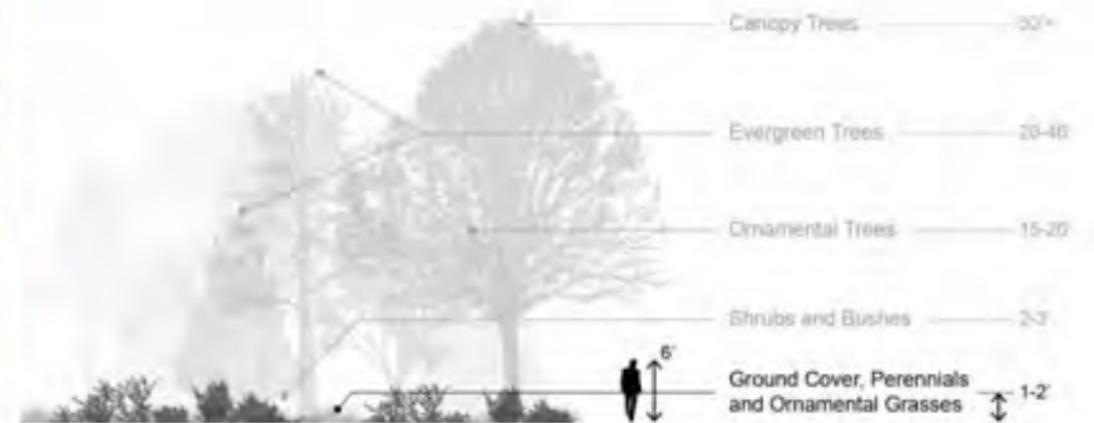
GROUND COVER



Sweet Woodruff
Gallicum odoratum

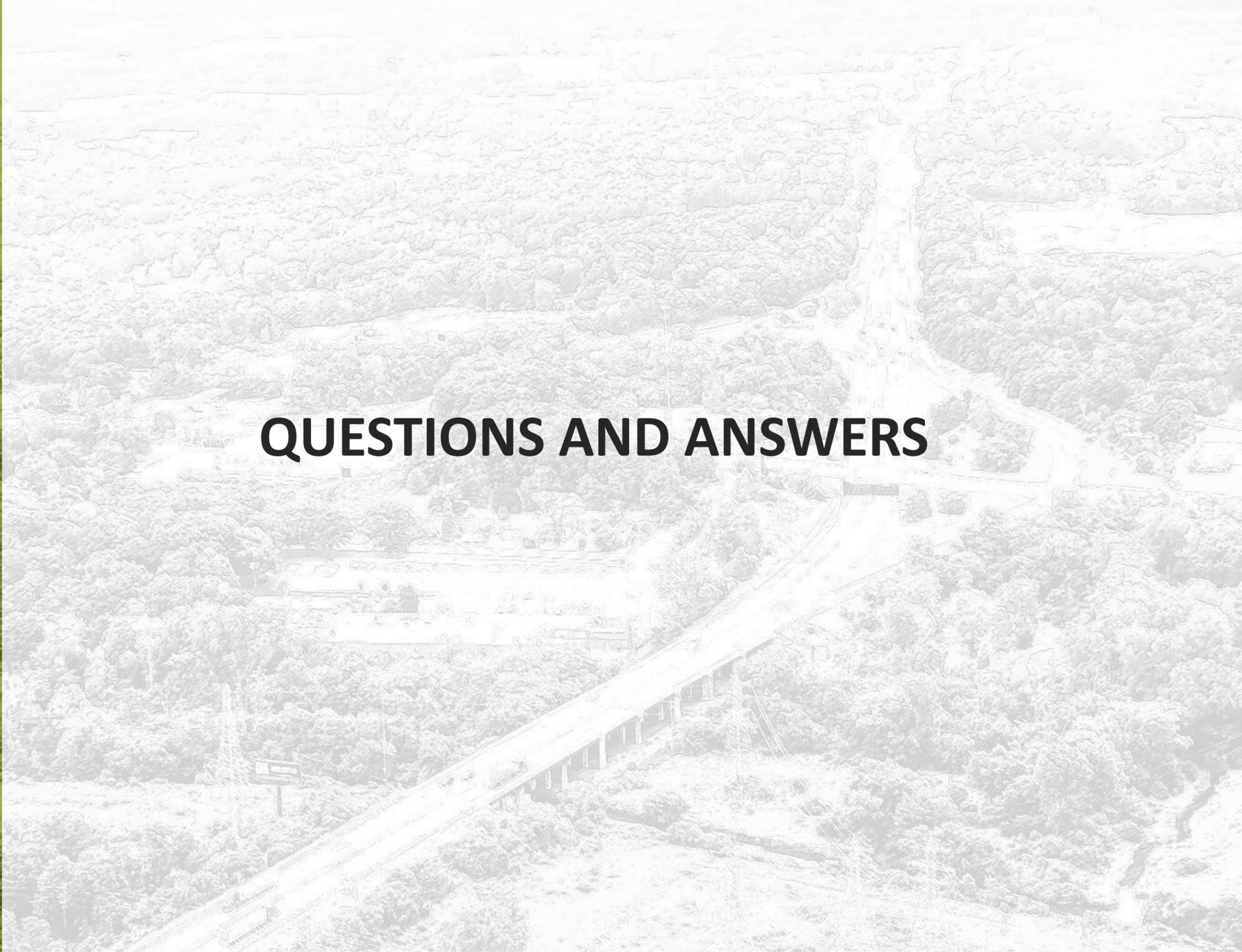


Blue Carpet
Juniperus horizontalis 'Wiltonii'





NEXT STEPS



QUESTIONS AND ANSWERS



Jason Pittman, PE – Cost & Scheduling Engineer
Michigan Department of Transportation
Jackson Transportation Service Center

2750 N. Elm Road
Jackson, MI 49201
(517) 403-1858

pittmanj@michigan.gov