

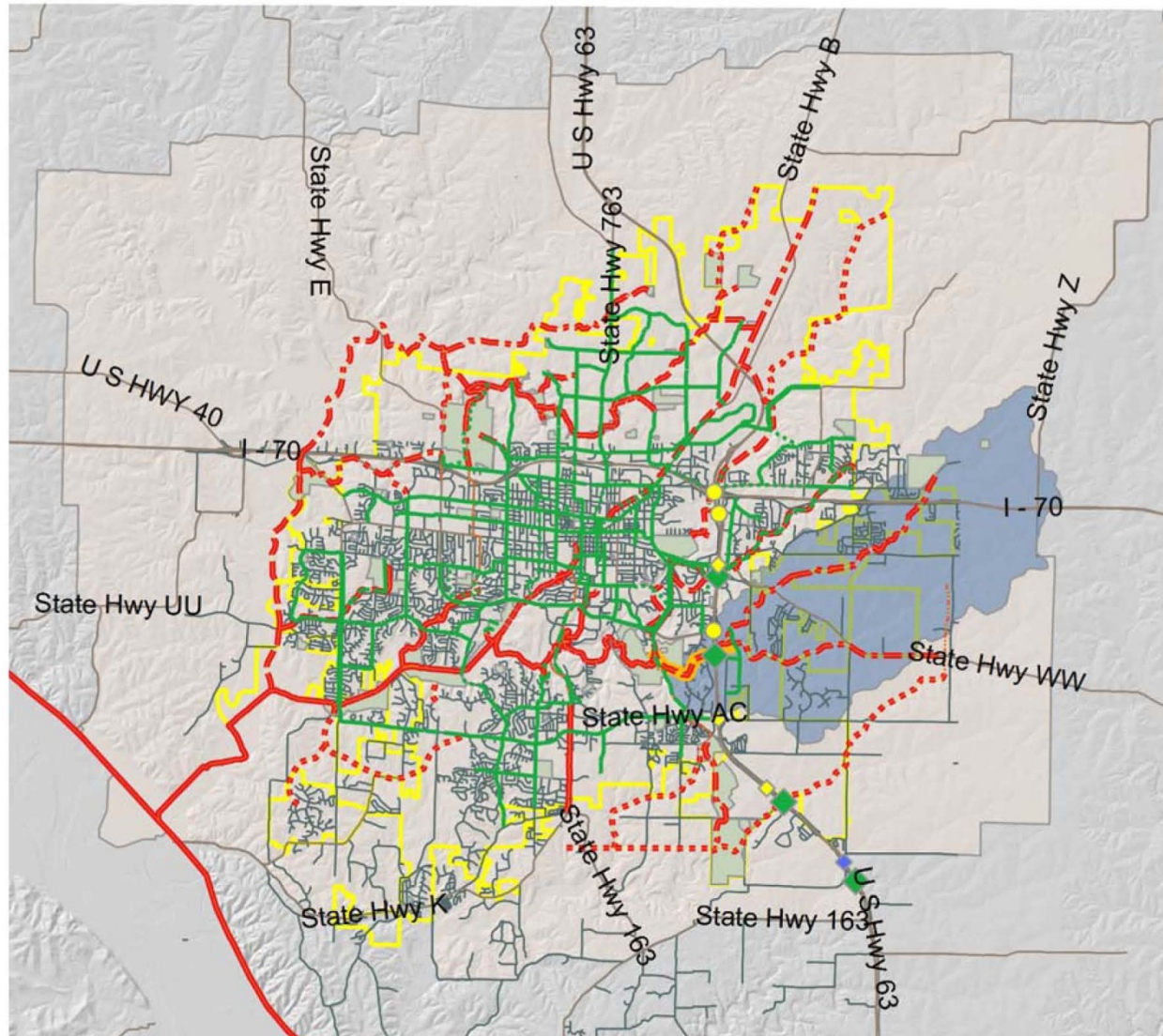


# **Grindstone Trail Project Alternatives Analysis November 14, 2012**

**John Holmes  
Allstate Consultants LLC**



# Grindstone Trail Service Area



## Possible Hwy 63 Crossing Points



### Categories

- Existing Roadway Overpass
- Existing Roadway Underpass
- Through Existing Culvert
- Under Existing Creek Bridge

## Getabout Bike System

### Categories

- Existing
- Funded
- Proposed

## Parks - Trails Plan

### Categories

- Existing
- By Others
- Proposed Primary
- Proposed Secondary
- Proposed Tertiary

## Proposed\_Grindstone\_Trail



## Parks



## MoDOT Roads



## CARES\_N\_COLUMBIA\_ROADS.NA



## Approx. Trail Service Area



## Columbia City Limits



## Columbia Metro. Area



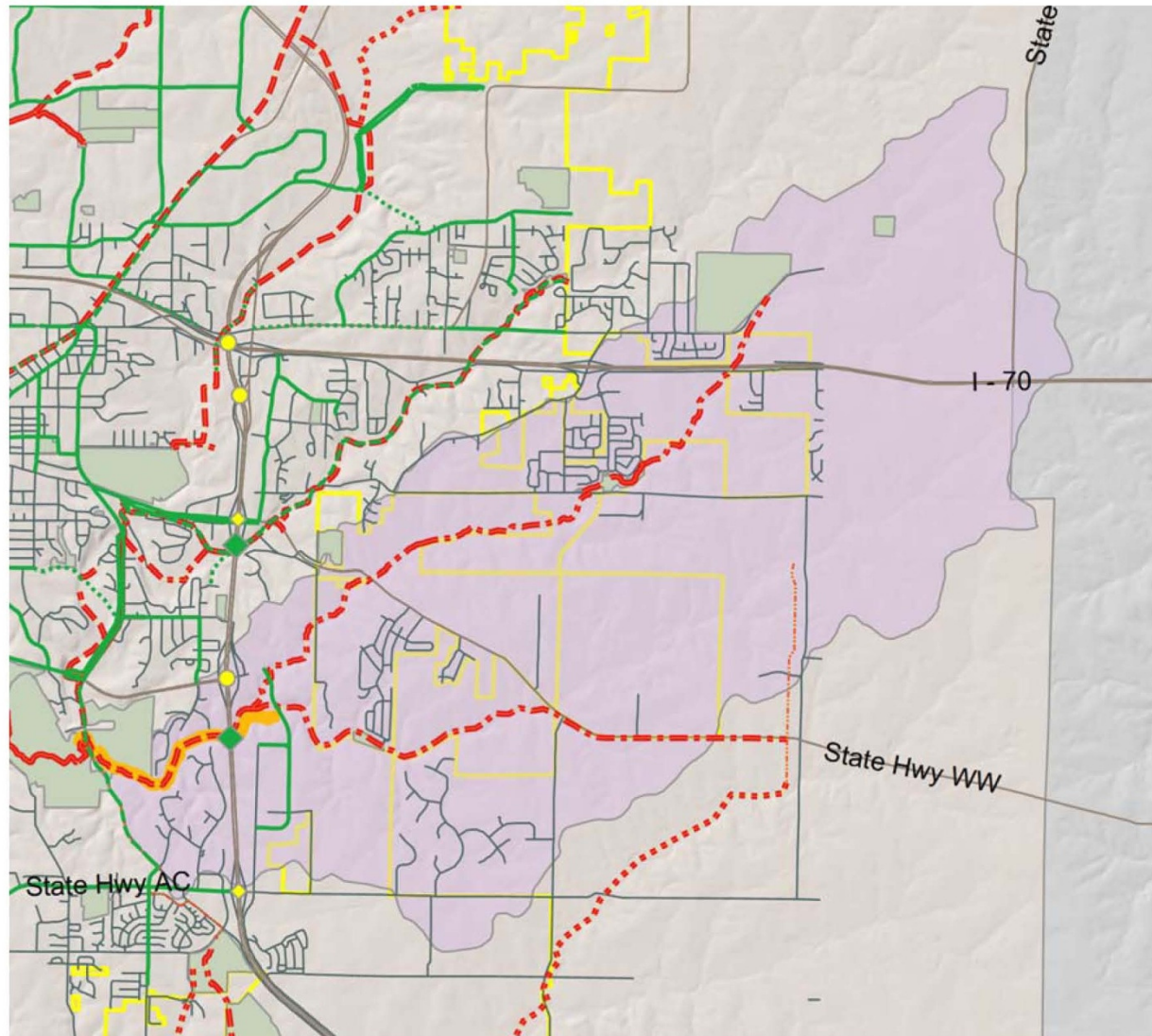
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MAPWINDOW



# Grindstone Trail Service Area



Possible Hwy 63 Crossing Points	
Categories	
Existing Roadway Overpass	
Existing Roadway Underpass	
Through Existing Culvert	
Under Existing Creek Bridge	
Getabout Bike System	
Categories	
Existing	
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Proposed	
Parks - Trails Plan	
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Proposed_Grindstone_Trail	
Parks	
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CARES_N_COLUMBIA_ROADS.NA	
Approx. Trail Service Area	
Columbia City Limits	
Columbia Metro. Area	

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MAPWINDOW



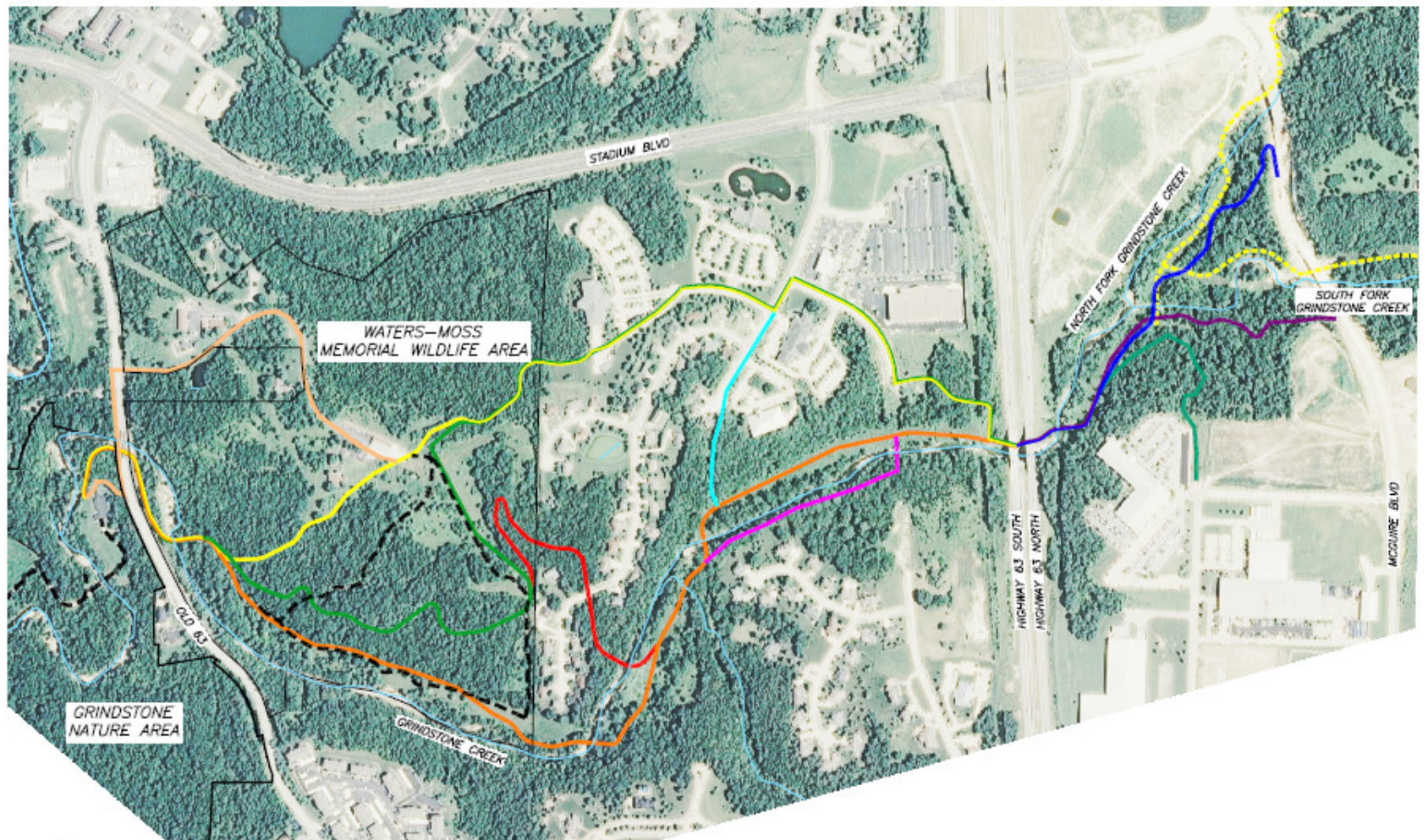
# Grindstone Trail

## Purpose and Need

- A review of the Vision Plan, the Parks and Rec. Needs Assessment, and other sources led us to the following purpose and need statements that guided alignment selection and design criteria
  - The project must result in a safe and useable facility for the full range of users
  - The project must encourage non-motorized transportation
  - The project must encourage recreational use
  - The project must be designed to fit into the larger network efficiently
  - The project must be mindful of environmental impacts



# 10 Separate Routes were Originally Considered



- RED ALIGNMENT
- ORANGE ALIGNMENT
- YELLOW ALIGNMENT
- GREEN ALIGNMENT
- BLUE ALIGNMENT
- VIOLET ALIGNMENT
- MAGENTA ALIGNMENT
- CYAN ALIGNMENT
- BLUE-GREEN ALIGNMENT
- MANILA ALIGNMENT
- FUTURE TRAILS
- EXISTING TRAILS IMPROVED SURFACE
- EXISTING MINOR NATURAL SURFACE

FIGURE 1  
TRAIL ALTERNATES  
GRINDSTONE TRAIL PROJECT  
COLUMBIA, MISSOURI

DESIGNED



DATE OF PRELIMINARY DESIGN  
DATE OF FINAL DESIGN

DATE  
8-28-2012

DATE  
11/12/02

SCALE  
1" = 250'

SHEET  
1



# 5 Routes Were Carried Forward to Detailed Review (3 Western)

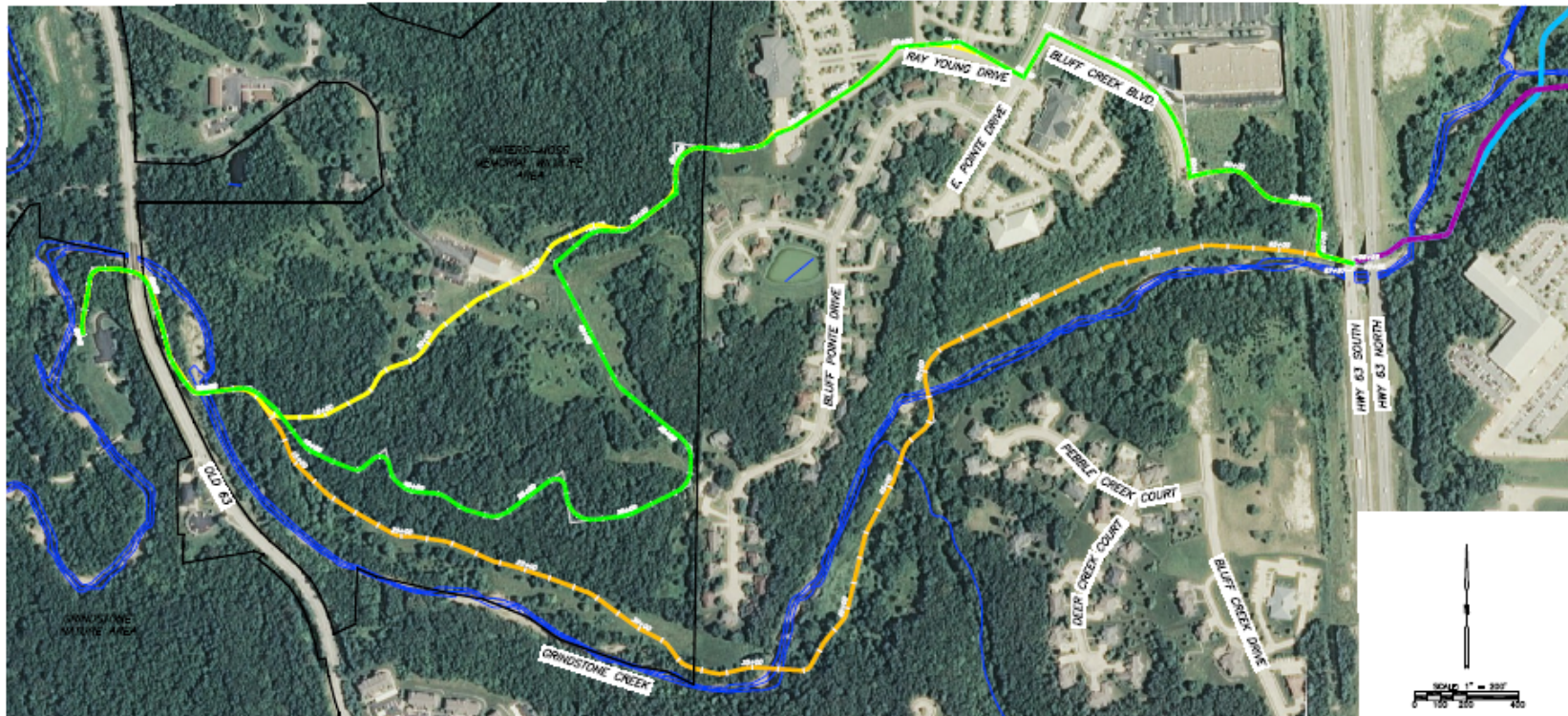
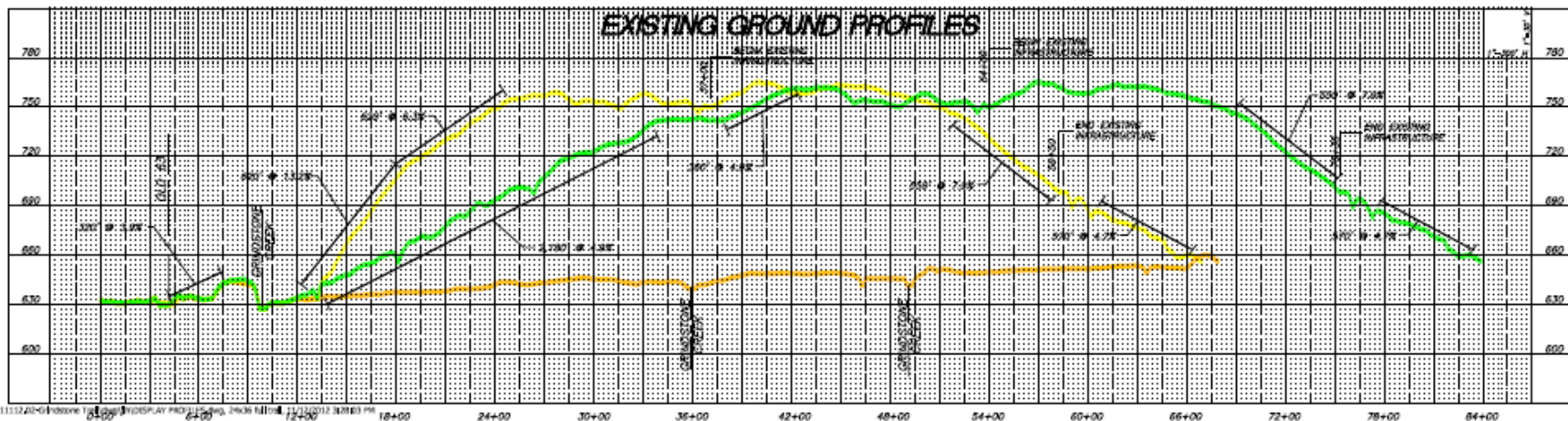


FIGURE 2  
ALTERNATE TRAIL ALIGNMENT COMPARISON  
WESTERN PORTION (ORANGE, YELLOW & GREEN) GRINDSTONE TRAIL  
COLUMBIA, MO



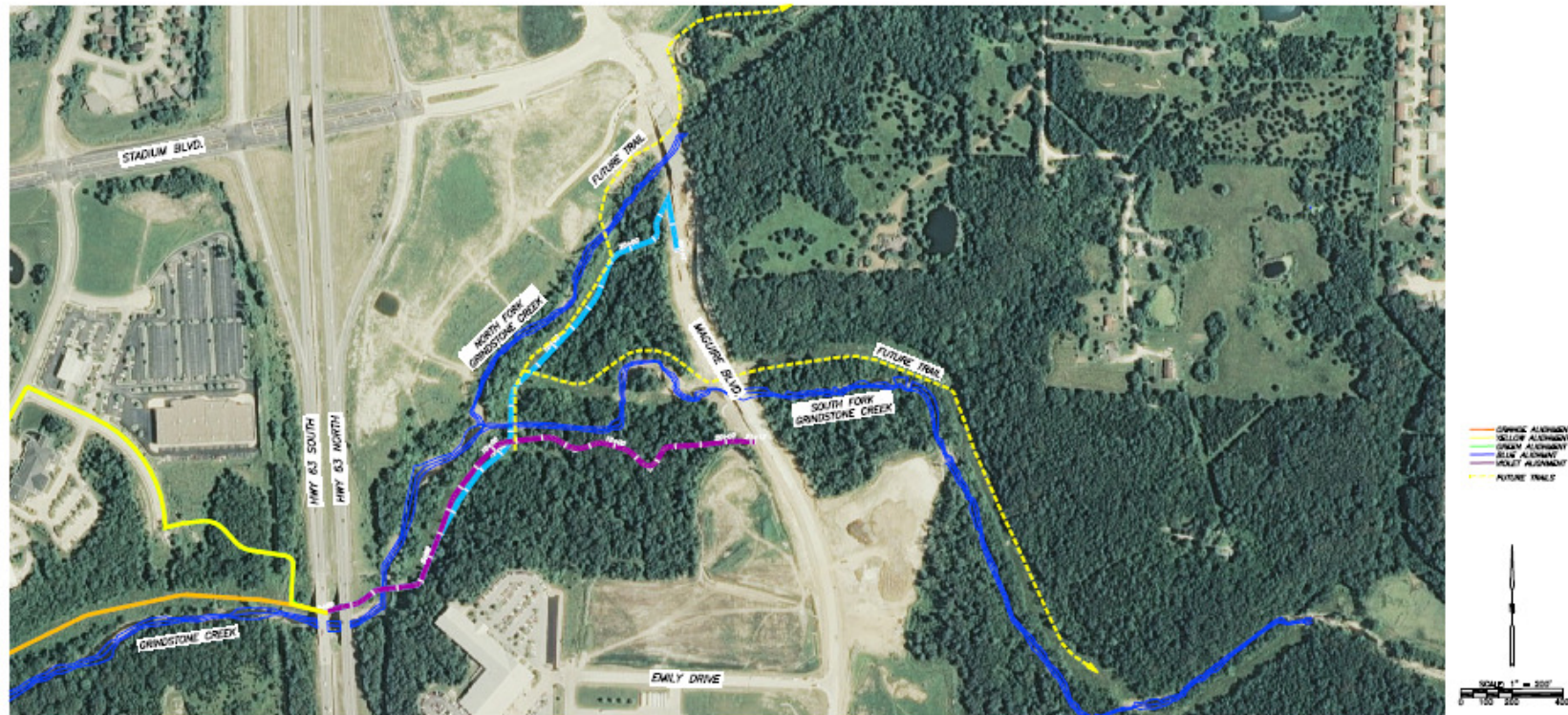
ALISTATE  
CONSULTANTS  
2010 L.L. 11112.02  
COLUMBIA, MO  
ALISTATE CONSULTANTS  
2010 L.L. 11112.02  
COLUMBIA, MO

DATE  
8-20-12  
JOB NUMBER  
11112.02  
SCALE  
AS SHOWN

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2



# 5 Routes Were Carried Forward to Detailed Review (2 Eastern)



EXISTING GROUND PROFILES

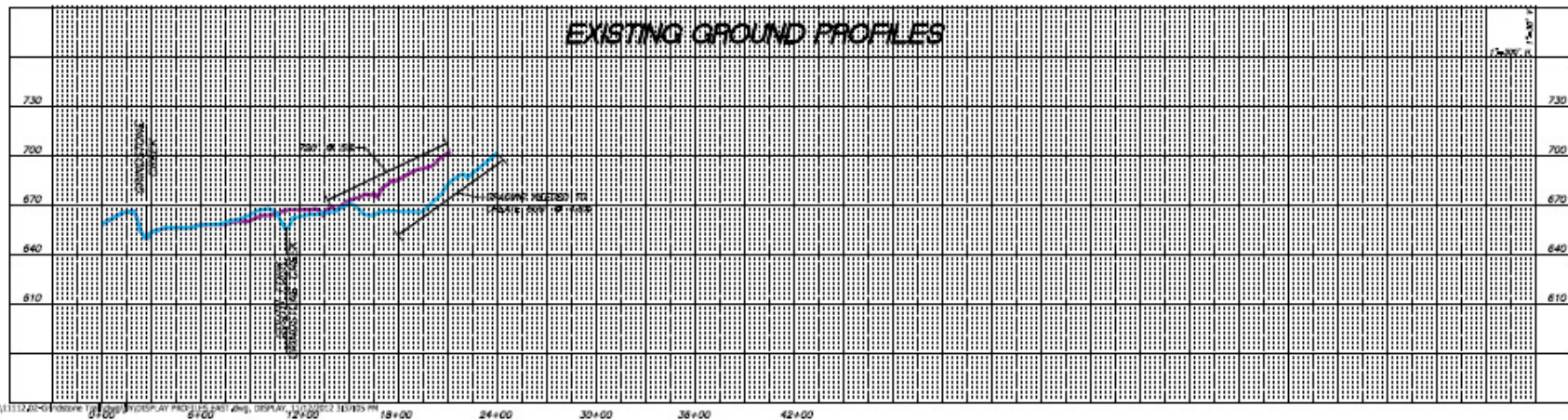


FIGURE 3  
ALTERNATE TRAIL ALIGNMENT COMPARISON  
EASTERN PORTION (BLUE AND VIOLET) GRINDSTONE TRAIL  
COLUMBIA, MO

DATE: 11-28-11

JOB NUMBER: 11112.02

SCALE: AS SHOWN

SHEET 3

ALISTATE  
CONSULTANTS  
INCORPORATED  
(877) 831-8799  
DESIGNING THE FUTURE

DATE: 11-28-11  
JOB NUMBER: 11112.02  
SCALE: AS SHOWN

SHEET 3



# Alternates Were Evaluated for:

- Impacts on adjacent properties
- Impacts on specific destinations
- Impacts relative to trail users in adjacent neighborhoods
- Terrain
- Public safety
- Environment and sustainability
- Maintenance and operations
- Initial construction cost

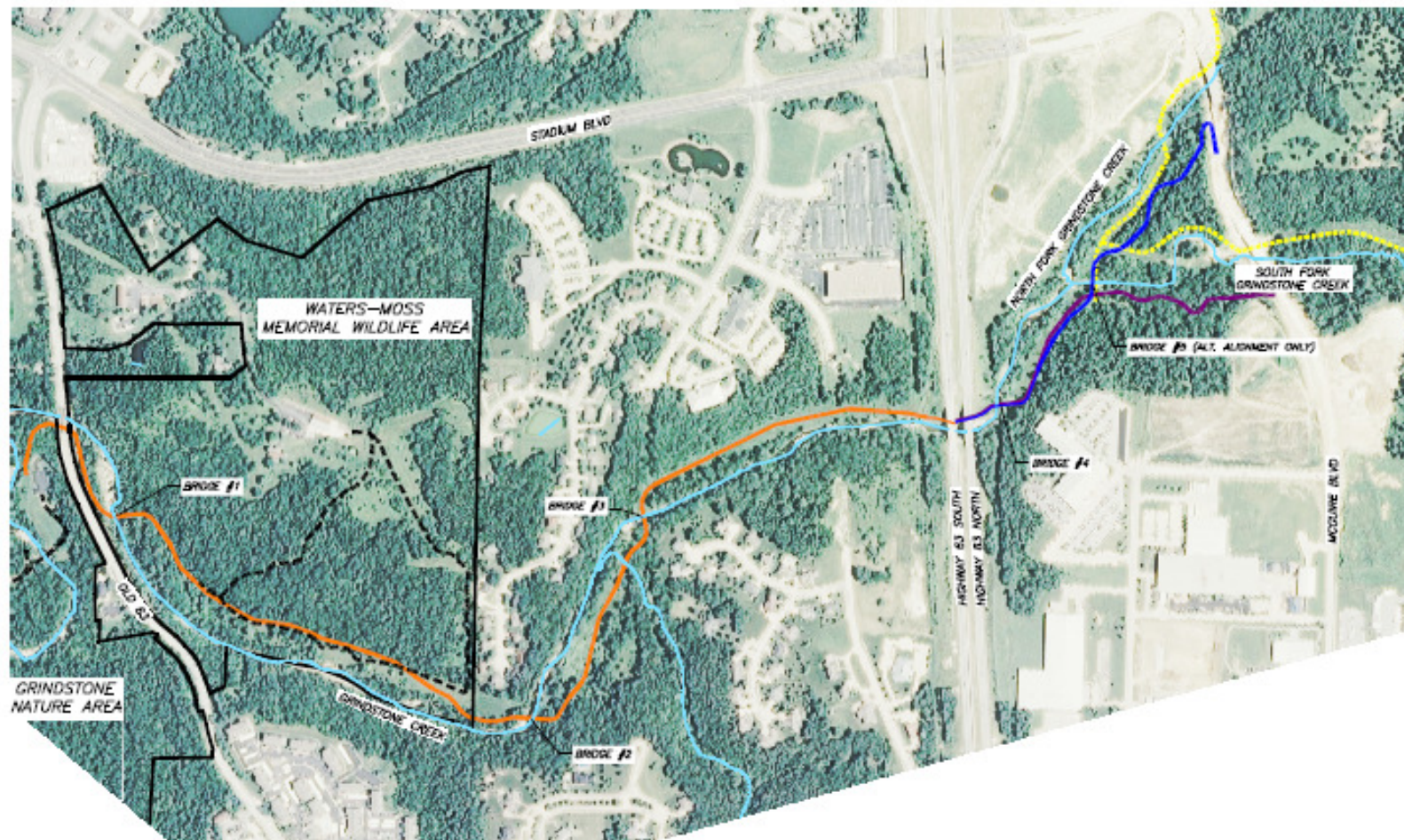


# Recommendations

- West Side – Orange Alignment
  - Safest
  - Most accessible to the full range of users
  - Most likely to encourage regular use
- East Side – Blue alignment recommended due to a slight advantage in long term costs, but the Violet alignment is acceptable because it has lower initial costs.



# PROPOSED TRAIL ALIGNMENT GRINDSTONE TRAIL PROJECT COLUMBIA, MISSOURI

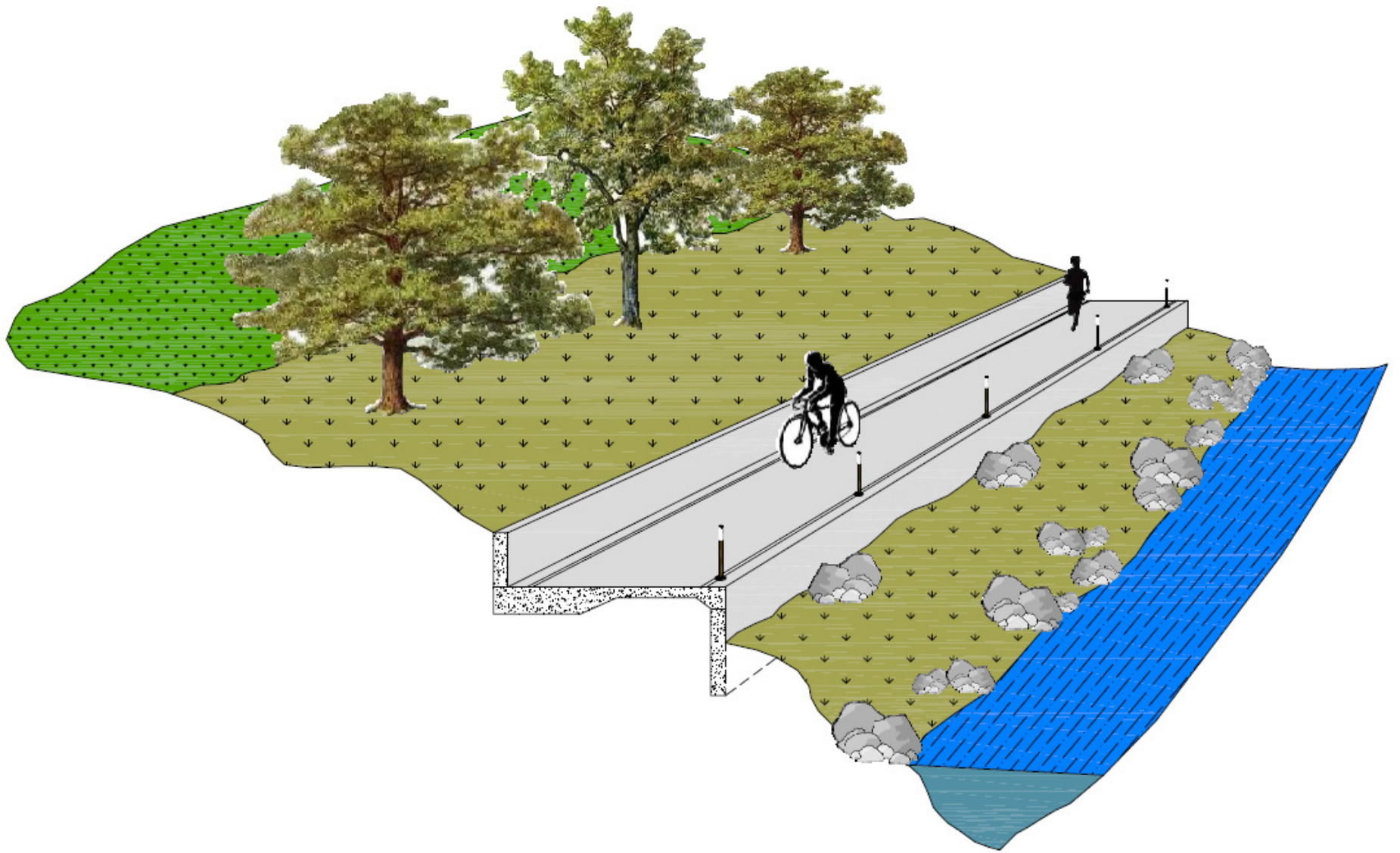


- ORANGE ALIGNMENT (PROPOSED ALIGNMENT)
- VIOLET ALIGNMENT (PROPOSED ALIGNMENT)
- BLUE ALIGNMENT (PROPOSED ALTERNATE TO THE VIOLET ALIGNMENT IF ADDITIONAL FUNDING BECOMES AVAILABLE)
- FUTURE TRAILS
- EXISTING TRAILS IMPROVED SURFACE
- EXISTING MINOR NATURAL SURFACE



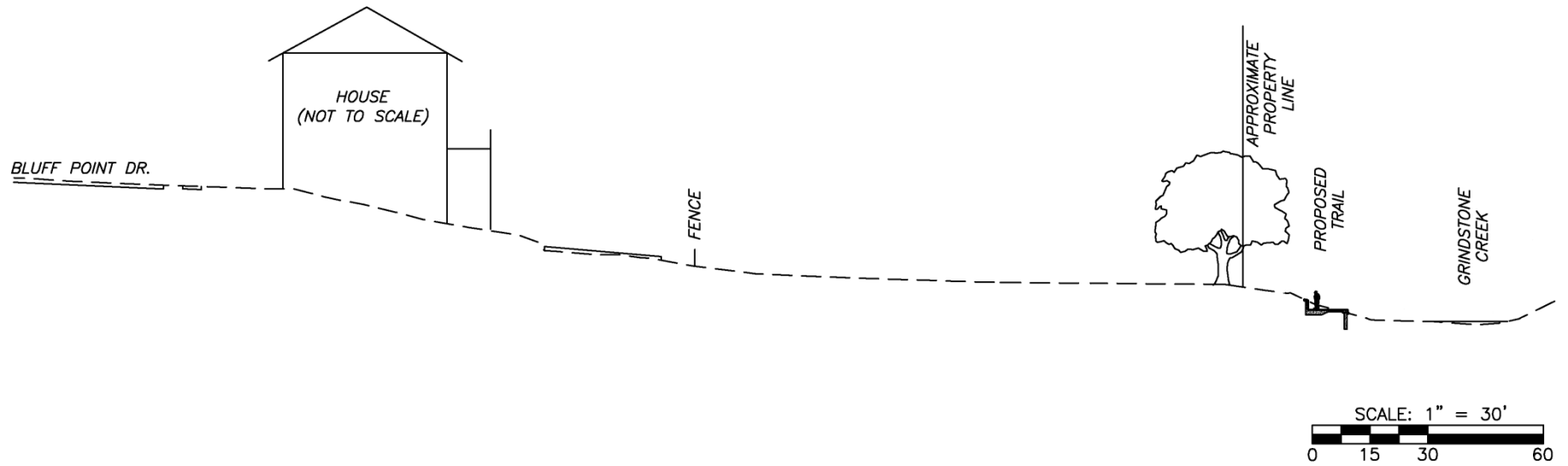




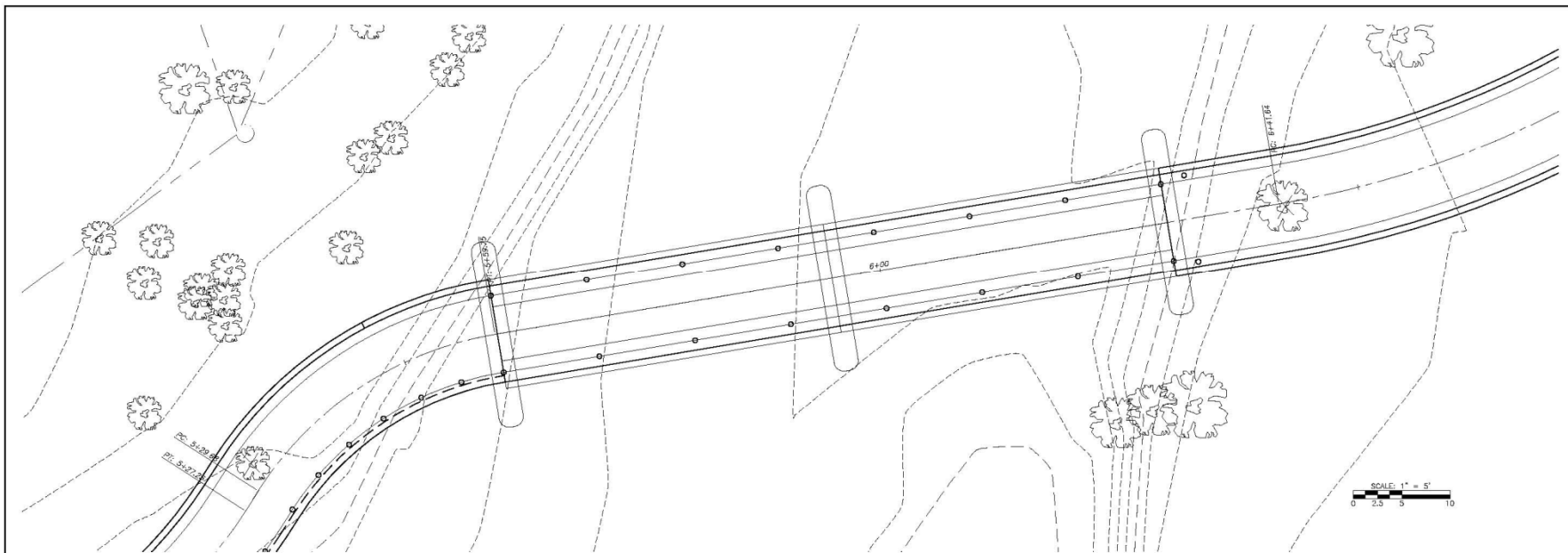




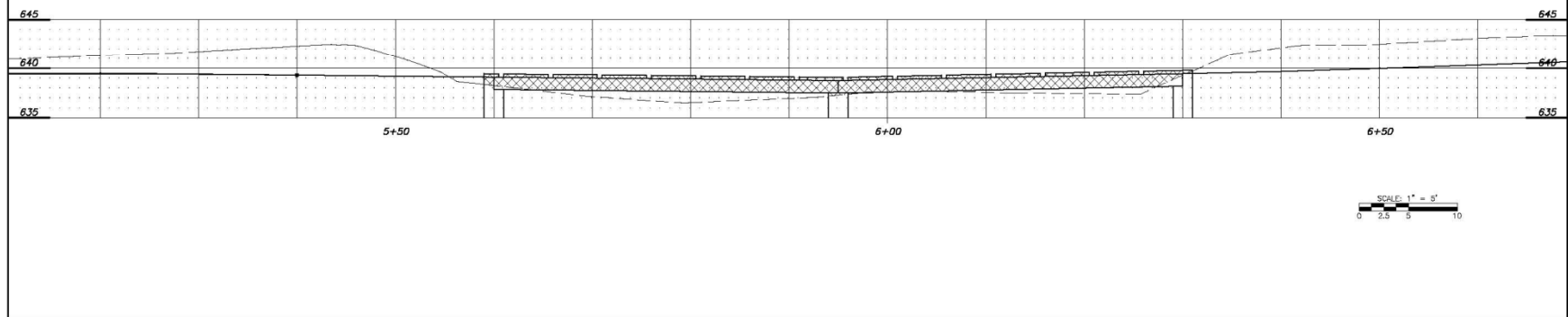
*TYPICAL CROSS SECTION THROUGH CREEK, TRAIL, AND RESIDENTIAL LOT*







PRELIMINARY BRIDGE O2 LOCATION AND LAYOUT



GRINDSTONE TRAIL  
PRELIMINARY  
BRIDGE ORANGE 2 PLAN PROFILE  
CITY, STATE

REVISED:



SCALE OF THIS DRAWING IS NOT TO BE USED FOR CONSTRUCTION. IT IS FOR PRELIMINARY DESIGN ONLY. CONSULT WITH THE DESIGNER FOR CONSTRUCTION DETAILS.

DATE: 11-14-2012

JOB NUMBER: 11112.02

SHEET

1



## Similar Bridge, County House Trail

