

**CONCEPT STUDY**  
**SR95/Mt. Gilead State Park**  
**Shared Use Path**  
PID 112714

*Submitted to ODOT District 6:  
January 19, 2023*

Prepared by:  
Korda/Nemeth Engineering, Inc.



OHIO DEPARTMENT OF  
TRANSPORTATION

1 Introduction

1.1 Introduction

The purpose of the study is to identify planning level alignments and costs to extend pedestrian facilities from the Village of Mount Gilead, thru Mt. Gilead State Park, to the KOA campground south of SR95.

1.2 Alternatives Considered

**Alternatives & Segments** (See Appendix B for Concept Plans)

**Alternative 1 – Parallel to Park Drive**

Right of way acquisition from Whiston Foundation and ODNR anticipated to be in-kind. Acquisition from other parcels as noted below.

Beginning at the existing walk on the north side of North Street:

1.A - 5’ walk south along the east side of Marion Street to SR95. Potential for minor right-of-way acquisition on east side of Marion Street.

1.B - 10’ shared use path (SUP) east along the north side of SR95, over the bridge over Whetstone Creek (see *Bridge over Whetstone Creek* section below), continuing east along the north side of SR95 to the existing gravel drive at the Whiston Foundation property. Section will widen shoulder with 2:1 slope from edge of SUP shoulder to existing ground. *NOTE: Providing a 10’ wide SUP a minimum of 5’ off of the existing paved shoulder places the north side of the SUP within the front steps of the residence at 4101 State Route 95, so going behind the residence within the Whiston property is necessary.* Minor right-of-way acquisition likely required from Strait parcel east of Marion Street.

1.C - 10’ SUP north and east along existing gravel drive thru the Whiston Foundation parcel, east thru the existing State Park parking lot.

1.D - 10’ SUP extending east along the Lake.

1.E.1 - 10’ SUP with switchbacks at 5% grade up to 180° bend in park drive with significant retaining walls.

1.E.2 – 10’ SUP without switchbacks at 5% grade up to 180° bend in park drive (eliminates most retaining walls; increases park disturbance)

1.F - 10’ SUP directly adjacent to existing park drive and parking lots to gazebo

1.G – 10’ SUP from gazebo to SR95. Alignment thru trees perpendicular to SR95 results in significant tree clearing and excavation. Alignment west of gazebo less impactful to environment.

**Alternative 2 – Shared Use Facility Within Park Drive**

2.A – 2.E – Same as 1.A – 1.E

2.F – Shared facility using sharrows and signage to allow pedestrians on park drive.

2.G – Same as 1.G

**Alternative 3 – Parallel to SR95**

3.A – 3.C – Same as 1.A – 1.C

3.D - 10’ SUP from existing State Park parking lot to SR95. Switchbacks required from SR95 (near Park sign) to “tee” intersection of trails northeast of parking lot to maintain ADA compliant slopes.

3.E.1 - 10’ SUP along and behind guardrail on north side of SR95 with retaining wall to avoid sliver fills to bottom of ravine.

3.E.2 – 10’ SUP along and behind guardrail on north side of SR95 without retaining wall (eliminates most retaining wall; greatly increases fill & park disturbance, potentially creating environmental concerns with fill into ravine)

3.G - 10’ SUP from gazebo to SR95 to gain trail access into park. Alignment thru trees perpendicular to SR95 results in significant tree clearing and excavation.

**Bridge over Whetstone Creek**

4.A – Minor Bridge Rehabilitation: Replace corroded fascia beams and *replace edges of deck*, widen piers/abutments to north, add additional beam line for SUP, widen deck to north for 10' SUP, add concrete vehicular barrier at 8' lateral offset, pedestrian rail at north edge of deck for SUP, bridge rail on south side, overlay center of deck that isn’t replaced, paint structural steel.

*Estimated costs:     \$2,242,252 (including inflation and contingency)*  
*(\$795,036 attributable to SUP widening – funded by Others)*  
*(\$1,447,216 attributable/funded by ODOT bridge preservation)*

4.B – Major Bridge Rehabilitation: Replace corroded fascia beams, *replace entire deck*, widen piers/abutments to north, add additional beam line for SUP, widen deck to north for 10' SUP, add concrete vehicular barrier at 8' lateral offset, pedestrian rail at north edge of deck for SUP, bridge rail on south side, paint structural steel.

*Estimated costs:     \$2,532,470 (including inflation and contingency)*  
*(\$794,254 attributable to SUP widening – funded by Others)*  
*(\$1,738,000 attributable/funded by ODOT bridge preservation)*

1.3 Cost Estimates

**Alternatives & Segments** (See Appendix A for detailed cost breakdowns)

Summary of anticipated construction costs by responsible jurisdiction:

| MRW-95-Mount Gilead State Park Shared Use Path              |                                                 | Mt. Gilead Share<br>(Portion in City limits) | ODOT Share*<br>(Bridge Preservation) | ODNR Share<br>(Portion on ODNR property) | Morrow County<br>(Whiston Parcel) | Others (SUP along SR95 + Bridge Widening) | TOTAL       |
|-------------------------------------------------------------|-------------------------------------------------|----------------------------------------------|--------------------------------------|------------------------------------------|-----------------------------------|-------------------------------------------|-------------|
| <b>Alternative 1</b><br>Parallel to Park Drive              | Total Project Costs - Without Switchbacks/Walls | \$103,575                                    | \$1,447,216                          | \$575,185                                | \$55,240                          | \$855,454                                 | \$3,036,670 |
|                                                             | Total Project Costs - With Switchbacks/Walls    | \$103,575                                    | \$1,447,216                          | \$725,104                                | \$55,240                          | \$871,202                                 | \$3,202,337 |
| <b>Alternative 2</b><br>Shared Use Facility with Park Drive | Total Project Costs - Without Switchbacks/Walls | \$103,575                                    | \$1,447,216                          | \$352,933                                | \$55,240                          | \$879,527                                 | \$2,838,491 |
|                                                             | Total Project Costs - With Switchbacks/Walls    | \$103,575                                    | \$1,447,216                          | \$487,724                                | \$55,240                          | \$911,796                                 | \$3,005,550 |
| <b>Alternative 3</b><br>Parallel to SR95                    | Total Project Costs - Without Switchbacks/Walls | \$103,575                                    | \$1,447,216                          | \$167,549                                | \$55,240                          | \$1,551,708                               | \$3,325,287 |
|                                                             | Total Project Costs - With Switchbacks/Walls    | \$103,575                                    | \$1,447,216                          | \$158,278                                | \$55,240                          | \$2,061,261                               | \$3,825,570 |

\*NOTE: Major Bridge Rehabilitation adds \$290,784 in ODOT Bridge Maintenance Costs to each Alternative

## Appendix

# A Preliminary Construction Cost Estimates

| MRW-95-Mount Gilead State Park Shared Use Path              |                          | Trail Costs - Without Switchbacks/Walls | Trail Costs - With Switchbacks/Walls | Bridge Costs - Minor Rehab* | Subtotals - Without Switchbacks/Walls* | Subtotal - With Switchbacks/Walls* | Total - Without Switchbacks/Walls (SUP Funding + Bridge Preservation Costs)* | Total - With Switchbacks/Walls (SUP Funding + Bridge Preservation Costs)* |
|-------------------------------------------------------------|--------------------------|-----------------------------------------|--------------------------------------|-----------------------------|----------------------------------------|------------------------------------|------------------------------------------------------------------------------|---------------------------------------------------------------------------|
| <b>Alternative 1</b><br>Parallel to Park Drive              | SUP Funding Costs        | \$794,418                               | \$960,085                            | \$795,035                   | \$1,589,453                            | \$1,755,120                        | \$3,036,670                                                                  | \$3,202,337                                                               |
|                                                             | Bridge Maintenance Costs | --                                      | --                                   | \$1,447,216                 | \$1,447,216                            | \$1,447,216                        |                                                                              |                                                                           |
| <b>Alternative 2</b><br>Shared Use Facility with Park Drive | SUP Funding Costs        | \$596,239                               | \$763,298                            | \$795,035                   | \$1,391,275                            | \$1,558,334                        | \$2,838,491                                                                  | \$3,005,550                                                               |
|                                                             | Bridge Maintenance Costs |                                         |                                      | \$1,447,216                 | \$1,447,216                            | \$1,447,216                        |                                                                              |                                                                           |
| <b>Alternative 3</b><br>Parallel to SR95                    | SUP Funding Costs        | \$1,083,035                             | \$1,583,318                          | \$795,035                   | \$1,878,071                            | \$2,378,354                        | \$3,325,287                                                                  | \$3,825,570                                                               |
|                                                             | Bridge Maintenance Costs |                                         |                                      | \$1,447,216                 | \$1,447,216                            | \$1,447,216                        |                                                                              |                                                                           |

\*NOTE: Major Bridge Rehabilitation adds \$290,784 in Bridge Maintenance Costs to each Alternative

| MRW-95-Mount Gilead State Park Shared Use Path              |                                                 | Mt. Gilead Share (Portion in City limits) | ODOT Share* (Bridge Preservation) | ODNR Share (Portion on ODNR property) | Morrow County (Whiston Parcel) | Others (SUP along SR95 + Bridge Widening) | TOTAL       |
|-------------------------------------------------------------|-------------------------------------------------|-------------------------------------------|-----------------------------------|---------------------------------------|--------------------------------|-------------------------------------------|-------------|
| <b>Alternative 1</b><br>Parallel to Park Drive              | Total Project Costs - Without Switchbacks/Walls | \$103,575                                 | \$1,447,216                       | \$575,185                             | \$55,240                       | \$855,454                                 | \$3,036,670 |
|                                                             | Total Project Costs - With Switchbacks/Walls    | \$103,575                                 | \$1,447,216                       | \$725,104                             | \$55,240                       | \$871,202                                 | \$3,202,337 |
| <b>Alternative 2</b><br>Shared Use Facility with Park Drive | Total Project Costs - Without Switchbacks/Walls | \$103,575                                 | \$1,447,216                       | \$352,933                             | \$55,240                       | \$879,527                                 | \$2,838,491 |
|                                                             | Total Project Costs - With Switchbacks/Walls    | \$103,575                                 | \$1,447,216                       | \$487,724                             | \$55,240                       | \$911,796                                 | \$3,005,550 |
| <b>Alternative 3</b><br>Parallel to SR95                    | Total Project Costs - Without Switchbacks/Walls | \$103,575                                 | \$1,447,216                       | \$167,549                             | \$55,240                       | \$1,551,708                               | \$3,325,287 |
|                                                             | Total Project Costs - With Switchbacks/Walls    | \$103,575                                 | \$1,447,216                       | \$158,278                             | \$55,240                       | \$2,061,261                               | \$3,825,570 |

\*NOTE: Major Bridge Rehabilitation adds \$290,784 in ODOT Bridge Maintenance Costs to each Alternative

BRIDGE - OPTION 4.A

Replace fascia beams, widen piers/abutments, widen deck for 10' SUP, add barrier at 8', pedestrian rail at SUP, bridge rail, deck overlay, paint structural steel.

| ITEM      | UNIT | DESCRIPTION                                                    | UNITS  | UNIT COST   | TOTAL COST     | BRIDGE<br>MAINTENANCE<br>ATTRIBUTABLE | SUP ATTRIBUTABLE |
|-----------|------|----------------------------------------------------------------|--------|-------------|----------------|---------------------------------------|------------------|
| 202E11203 | LS   | PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN  | 1      | \$33,870.00 | \$33,870.00    | \$33,870.00                           | \$0.00           |
| 503E21100 | LS   | UNCLASSIFIED EXCAVATION                                        | 1      | \$8,468.00  | \$8,468.00     | \$0.00                                | \$8,468.00       |
| 509E10000 | LB   | EPOXY COATED REINFORCING STEEL                                 | 70000  | \$2.00      | \$140,000.00   | \$63,000.00                           | \$77,000.00      |
| 510E10000 | EACH | DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT                  | 350    | \$19.00     | \$6,650.00     | \$5,120.50                            | \$1,529.50       |
| 511E34412 | CY   | CLASS QC2 CONCRETE WITH QC/QA, SUPERSTRUCTURE                  | 140    | \$1,017.00  | \$142,380.00   | \$85,428.00                           | \$56,952.00      |
| 511E45710 | CY   | CLASS QC1 CONCRETE, ABUTMENT                                   | 150    | \$1,129.00  | \$169,350.00   | \$0.00                                | \$169,350.00     |
| 511E45710 | CY   | CLASS QC1 CONCRETE, PIERS                                      | 20     | \$1,129.00  | \$22,580.00    | \$0.00                                | \$22,580.00      |
| 512E10050 | SY   | SEALING OF CONCRETE SURFACES (NON-EPOXY)                       | 310    | \$10.00     | \$3,100.00     | \$2,015.00                            | \$1,085.00       |
| 512E10400 | SY   | TREATING OF CONCRETE BRIDGE DECK WITH SRS                      | 950    | \$12.00     | \$11,400.00    | \$9,006.00                            | \$2,394.00       |
| 513E10261 | LB   | STRUCTURAL STEEL MEMBERS                                       | 145000 | \$4.00      | \$580,000.00   | \$382,800.00                          | \$197,200.00     |
| 513E20000 | EACH | WELDED STUD SHEAR CONNECTORS                                   | 2000   | \$5.00      | \$10,000.00    | \$6,600.00                            | \$3,400.00       |
| 514E00050 | SF   | SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL               | 6000   | \$16.00     | \$96,000.00    | \$96,000.00                           | \$0.00           |
| 514E00056 | SF   | FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT        | 6000   | \$4.00      | \$24,000.00    | \$24,000.00                           | \$0.00           |
| 514E00060 | SF   | FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT             | 12000  | \$5.00      | \$60,000.00    | \$60,000.00                           | \$0.00           |
| 514E00066 | SF   | FIELD PAINTING STRUCTURAL STEEL, FINISH COAT                   | 12000  | \$4.00      | \$48,000.00    | \$48,000.00                           | \$0.00           |
| 514E00504 | MNHR | GRINDING FINIS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL    | 10     | \$170.00    | \$1,700.00     | \$1,700.00                            | \$0.00           |
| 514E10000 | EACH | FINAL INSPECTION REPAIR                                        | 10     | \$283.00    | \$2,830.00     | \$2,830.00                            | \$0.00           |
| 516E01300 | FT   | ELASTOMERIC STRIP SEAL WITHOUT STEEL EXTRUSIONS                | 204    | \$113.00    | \$23,052.00    | \$17,980.56                           | \$5,071.44       |
| 516E14600 | FT   | STRUCTURAL JOINT OR JOINT SEALER SEAL                          | 85     | \$226.00    | \$19,210.00    | \$9,220.80                            | \$9,989.20       |
| 516E46001 | EACH | BEARINGS                                                       | 12     | \$5,645.00  | \$67,740.00    | \$44,708.40                           | \$23,031.60      |
| 517E74501 | FT   | RAILING, CONCRETE BR-2-15                                      | 165.00 | \$198.00    | \$32,670.00    | \$0.00                                | \$32,670.00      |
| 517E76300 | FT   | RAILING, MISC.: TST-2-21                                       | 183.00 | \$170.00    | \$31,110.00    | \$31,110.00                           | \$0.00           |
| 517E76300 | FT   | RAILING, MISC.: TST-2-21 MOD (PEDESTRIAN RAIL)                 | 183.00 | \$249.00    | \$45,567.00    | \$45,567.00                           | \$0.00           |
| 518E22300 | FT   | SPECIAL - STEEL DRIP STRIP                                     | 330    | \$12.00     | \$3,960.00     | \$3,960.00                            | \$0.00           |
| 518E40000 | FT   | 6" PERFORATED CORRUGATED PLASTIC PIPE                          | 30     | \$9.00      | \$270.00       | \$0.00                                | \$270.00         |
| 518E40010 | FT   | 6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIAL S | 25     | \$23.00     | \$575.00       | \$0.00                                | \$575.00         |
| 847E10200 | SY   | SUPERPLASTICIZED DENSE CONCRETE OVERLAY                        | 735    | \$175.00    | \$128,625.00   | \$128,625.00                          | \$0.00           |
| 847E30000 | LS   | TEST SLAB                                                      | 1      | \$1,412.00  | \$1,412.00     | \$1,412.00                            | \$0.00           |
| 847E50000 | SY   | HAND CHIPPING                                                  | 70     | \$147.00    | \$10,290.00    | \$10,290.00                           | \$0.00           |
|           |      | INFLATION (2026 CONSTRUCTION YEAR)                             | 20%    |             | \$344,961.80   | \$222,648.65                          | \$122,313.15     |
|           |      | CONTINGENCY                                                    | 10%    |             | \$172,480.90   | \$111,324.33                          | \$61,156.57      |
|           |      | OPINION OF PROBABLE CONSTRUCTION COST TOTAL                    |        |             | \$2,242,251.70 | \$1,447,216.24                        | \$795,035.46     |

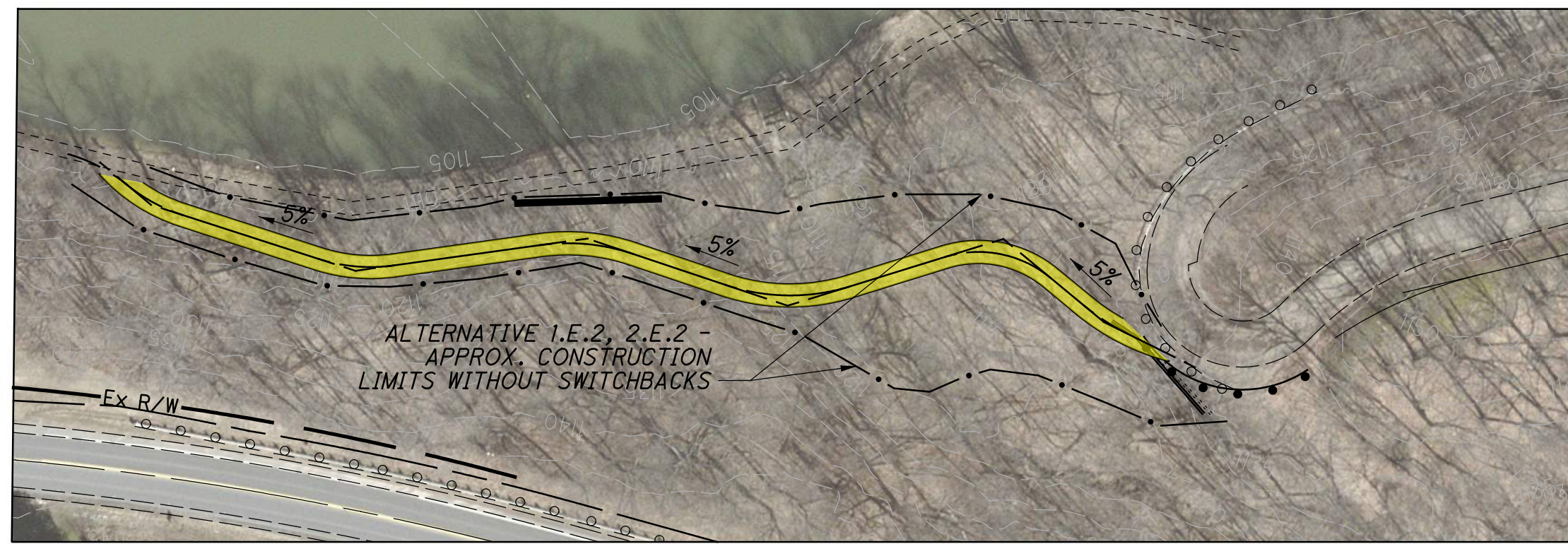
BRIDGE - OPTION 4.B

Replace fascia beams, widen piers/abutments, widen deck for 10' SUP & *replace all of existing deck* , add barrier at 8', pedestrian rail at SUP, bridge rail, deck overlay, paint structural steel.

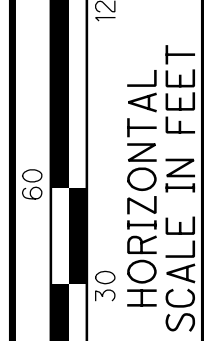
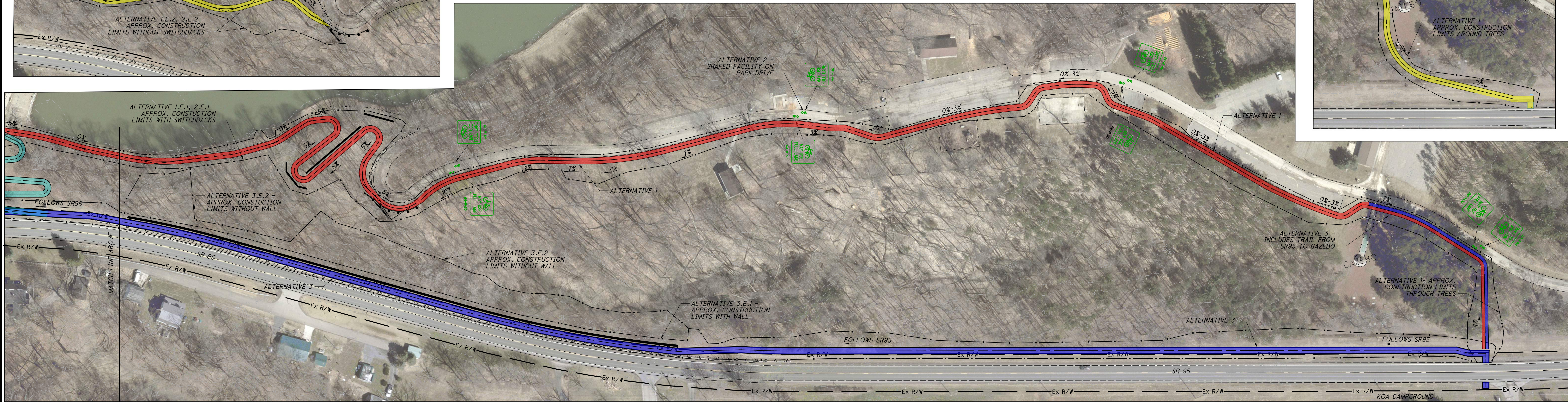
| ITEM      | UNIT | DESCRIPTION                                                    | UNITS  | UNIT COST    | TOTAL COST     | BRIDGE<br>MAINTENANCE<br>ATTRIBUTABLE | SUP ATTRIBUTABLE |
|-----------|------|----------------------------------------------------------------|--------|--------------|----------------|---------------------------------------|------------------|
| 202E11203 | LS   | PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN  | 1      | \$112,900.00 | \$112,900.00   | \$112,900.00                          | \$0.00           |
| 503E21100 | LS   | UNCLASSIFIED EXCAVATION                                        | 1      | \$8,468.00   | \$8,468.00     | \$0.00                                | \$8,468.00       |
| 509E10000 | LB   | EPOXY COATED REINFORCING STEEL                                 | 120000 | \$2.00       | \$240,000.00   | \$163,200.00                          | \$76,800.00      |
| 510E10000 | EACH | DOWEL HOLES WITH NON-SHRINK, NONMETTALIC GROUT                 | 80     | \$19.00      | \$1,520.00     | \$0.00                                | \$1,520.00       |
| 511E34412 | CY   | CLASS QC2 CONCRETE WITH QC/QA, SUPERSTRUCTURE                  | 290    | \$1,017.00   | \$294,930.00   | \$238,893.30                          | \$56,036.70      |
| 511E45710 | CY   | CLASS QC1 CONCRETE, ABUTMENT                                   | 150    | \$1,129.00   | \$169,350.00   | \$0.00                                | \$169,350.00     |
| 511E45710 | CY   | CLASS QC1 CONCRETE, PIERS                                      | 20     | \$1,129.00   | \$22,580.00    | \$0.00                                | \$22,580.00      |
| 512E10100 | SY   | SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)                  | 310    | \$10.00      | \$3,100.00     | \$2,015.00                            | \$1,085.00       |
| 513E10261 | LB   | STRUCTURAL STEEL MEMBERS                                       | 145000 | \$4.00       | \$580,000.00   | \$382,800.00                          | \$197,200.00     |
| 513E20000 | EACH | WELDED STUD SHEAR CONNECTORS                                   | 4000   | \$5.00       | \$20,000.00    | \$16,400.00                           | \$3,600.00       |
| 514E00050 | SF   | SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL               | 6000   | \$16.00      | \$96,000.00    | \$96,000.00                           | \$0.00           |
| 514E00056 | SF   | FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT        | 6000   | \$4.00       | \$24,000.00    | \$24,000.00                           | \$0.00           |
| 514E00060 | SF   | FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT             | 12000  | \$5.00       | \$60,000.00    | \$60,000.00                           | \$0.00           |
| 514E00066 | SF   | FIELD PAINTING STRUCTURAL STEEL, FINISH COAT                   | 12000  | \$4.00       | \$48,000.00    | \$48,000.00                           | \$0.00           |
| 514E00504 | MNHR | GRINDING FINs, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL     | 10     | \$170.00     | \$1,700.00     | \$1,700.00                            | \$0.00           |
| 514E10000 | EACH | FINAL INSPECTION REPAIR                                        | 10     | \$283.00     | \$2,830.00     | \$2,830.00                            | \$0.00           |
| 516E11210 | FT   | STRUCTURAL EXPANSION JOINT INCLUDING ELASTOMERIC STRIP SEAL    | 204    | \$396.00     | \$80,784.00    | \$63,011.52                           | \$17,772.48      |
| 516E46001 | EACH | BEARINGS                                                       | 12     | \$5,645.00   | \$67,740.00    | \$44,708.40                           | \$23,031.60      |
| 517E74501 | FT   | RAILING, CONCRETE BR-2-15                                      | 165.00 | \$198.00     | \$32,670.00    | \$0.00                                | \$32,670.00      |
| 517E76300 | FT   | RAILING, MISC.: TST-2-21                                       | 183.00 | \$170.00     | \$31,110.00    | \$31,110.00                           | \$0.00           |
| 517E76300 | FT   | RAILING, MISC.: TST-2-21 MOD (PEDESTRIAN RAIL)                 | 183.00 | \$249.00     | \$45,567.00    | \$45,567.00                           | \$0.00           |
| 518E22300 | FT   | SPECIAL - STEEL DRIP STRIP                                     | 330    | \$12.00      | \$3,960.00     | \$3,960.00                            | \$0.00           |
| 518E40000 | FT   | 6" PERFORATED CORRUGATED PLASTIC PIPE                          | 30     | \$9.00       | \$270.00       | \$0.00                                | \$270.00         |
| 518E40010 | FT   | 6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIAL S | 25     | \$23.00      | \$575.00       | \$0.00                                | \$575.00         |
|           |      | INFLATION (2026 CONSTRUCTION YEAR)                             | 20%    |              | \$389,610.80   | \$267,419.04                          | \$122,191.76     |
|           |      | CONTINGENCY                                                    | 10%    |              | \$194,805.40   | \$133,709.52                          | \$61,095.88      |
|           |      | OPINION OF PROBABLE CONSTRUCTION COST TOTAL                    |        |              | \$2,532,470.20 | \$1,738,223.79                        | \$794,246.41     |

Appendix

# B Concept Plan



- ALTERNATIVE 1
- ALTERNATIVE 1 OTHER OPTIONS
- ALTERNATIVE 2
- ALTERNATIVE 3
- ALTERNATIVE 3 OTHER OPTIONS



CALCULATED  
MTS  
CHECKED  
BMV

## CONCEPT PLAN

MRW-95 MT. GILEAD STATE PARK TRAIL

