

# GRS-IBS Bridge and Approaches Cochran Road at Turkey Creek

BRZ-4814(251)

Marshall County , AL

Old bridge



Old bridge-  
Super/Substructure



- Let to bid: 2-24-17
- Contract awarded: 3-7-17 to Miller and Miller, Huntsville, AL
- Contract amount: \$ 650,068.00
- Roadway portion: \$ 333,258
- Bridge portion: \$ 316,810
- Begin Work(road closed):7-14-17

# Bridge cost

- 2 concrete leveling pads- \$21,600
- 2 GRS abutments- \$115,600(blocks,stone,fabric,incidentals)
- 7 beams- \$172,410
- 240 pounds of structural steel- \$7,200

# Mesa Blocks



# Corner Blocks



ALDOT(AASHTO) 89  
Stone





# Geosynthetic fabric

Biaxial



# Removal of Old Bridge



# Abutment 1 Dewatering Excavation

(Abutment 2 dry)



# Abutment 2 Leveling Pad

Same as Abutment 1



Abutment 2  
Checking Grade and  
Line



Abutment 2  
1<sup>st</sup> Course(10-26-  
2017)



Abutment 2  
5<sup>th</sup> Course



# Abutment 2 5<sup>th</sup> Course





Abutment 2  
10<sup>th</sup> Course



# Abutment 2 Bearing Bed Reinforcement

Courses 12 thru 16



Abutment 2  
First of top 3 rows  
(15<sup>th</sup> Course)



Abutment 2  
13<sup>th</sup> Course



Abutment 2  
16<sup>th</sup> Course of 17



# Abutment 2

Substantially complete except for beam seat and parapet walls



# Abutment 1 Sandbags



Check dam  
SW corner





Abutment 1  
Earth Pressure Cell  
(same as Abutment 2)



# Abutment 1



Abutment 1  
2<sup>nd</sup> Course



# Abutment 1 3<sup>rd</sup> Course



# Abutment 1 6<sup>th</sup> Course



Abutment 1  
Checking Line and Grade  
6<sup>th</sup> Course (typical)



# Abutment 1 13<sup>th</sup> Course



Abutment 1  
15<sup>th</sup> Course  
Bearing bed  
reinforcement





Abutment 1  
Sandstone Re-  
purposing



Abutment 1  
Looking east  
11-28-2017

Both abutments substantially complete



Abutment 1  
11-28-2017



Abutment 2  
Beginning cap block  
placement



Security



Abutment 1  
Preparing Beam Seat



# Styrofoam board and spacer blocks



Abutment 1  
Styrofoam and Spacer  
Block





Beam Seat prep



Abutment 1  
Completed Beam Seat



Turkey Creek after 2  
inch rain(12-5-2017)



# Abutment 1 Crane placement

12-7-2017



First beam placement  
View from Abutment 2



# Abutment 1



# Abutment 1



# Abutment 2

## Placing final beam

43 calendar days to construct 2 abutments  
and set beams





Shear key(typical)



# Snow!

12-8-2017



View from the beams  
12-8-2017



Abutment 1  
Parapet wall(typical)



Bituminous coating  
Beam Ends



Abutment 1  
Integrated approach  
First lift of 2



Abutment 2  
Integrated approach  
First lift of 2



# Tensioning threaded rods





Post-tension rod



Post-tension rod



Grouted shear keys



Grouted shear  
key(typical)



# Grouting ducts



Parapet wall and  
2<sup>nd</sup>(final) integrated  
approach layer



Parapet wall with cap blocks

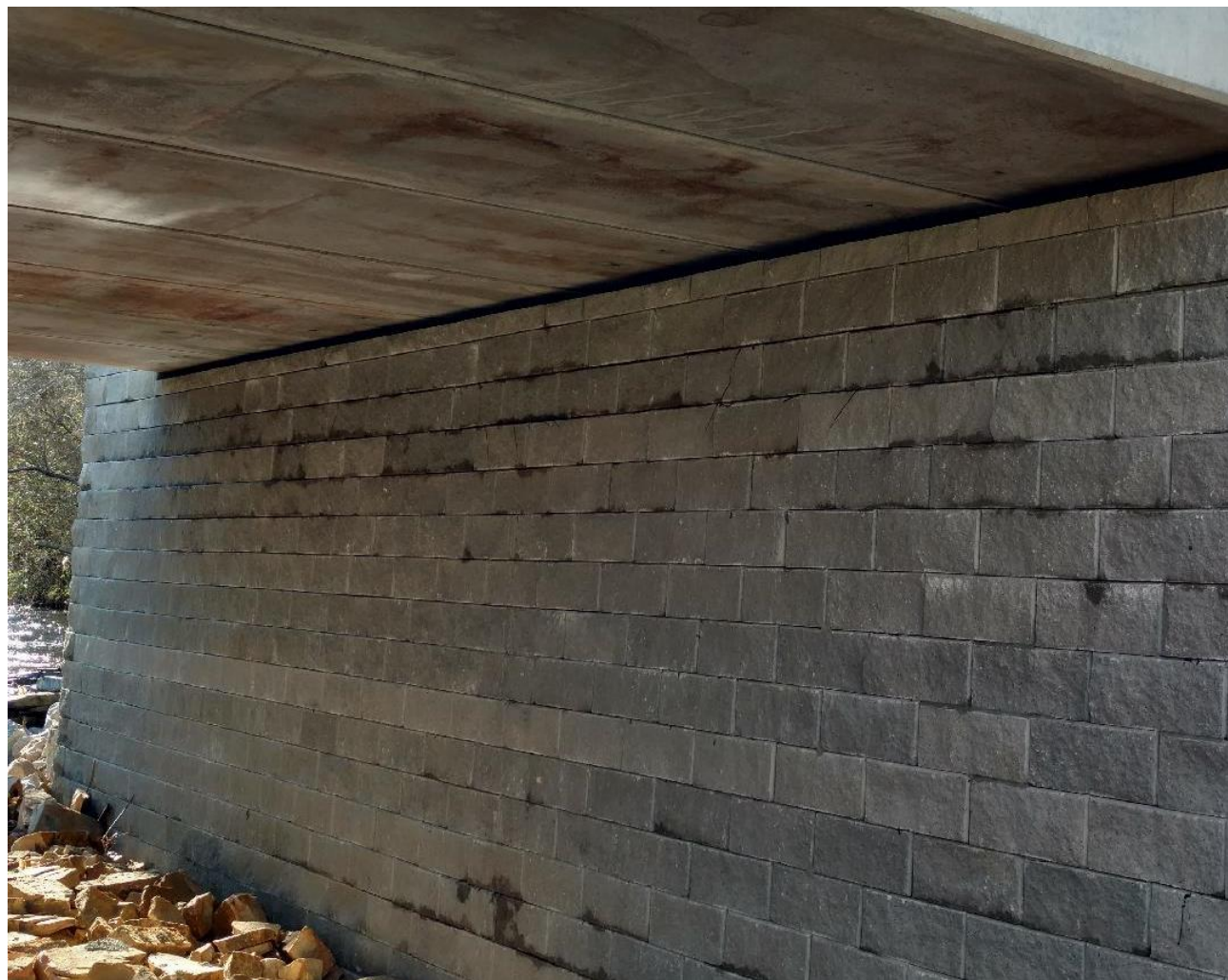


# Abutment 1





# Abutment 1



# Abutment 2

