

# **NAVIGATING CONSTRUCTION CHALLENGES**

**WHEN NOTHING IS GOING  
ACCORDING TO PLAN**



# EXISTING: 1 – LANE BRIDGE AND ROADWAY





# EXISTING: 1 - LANE BRIDGE AND ROADWAY





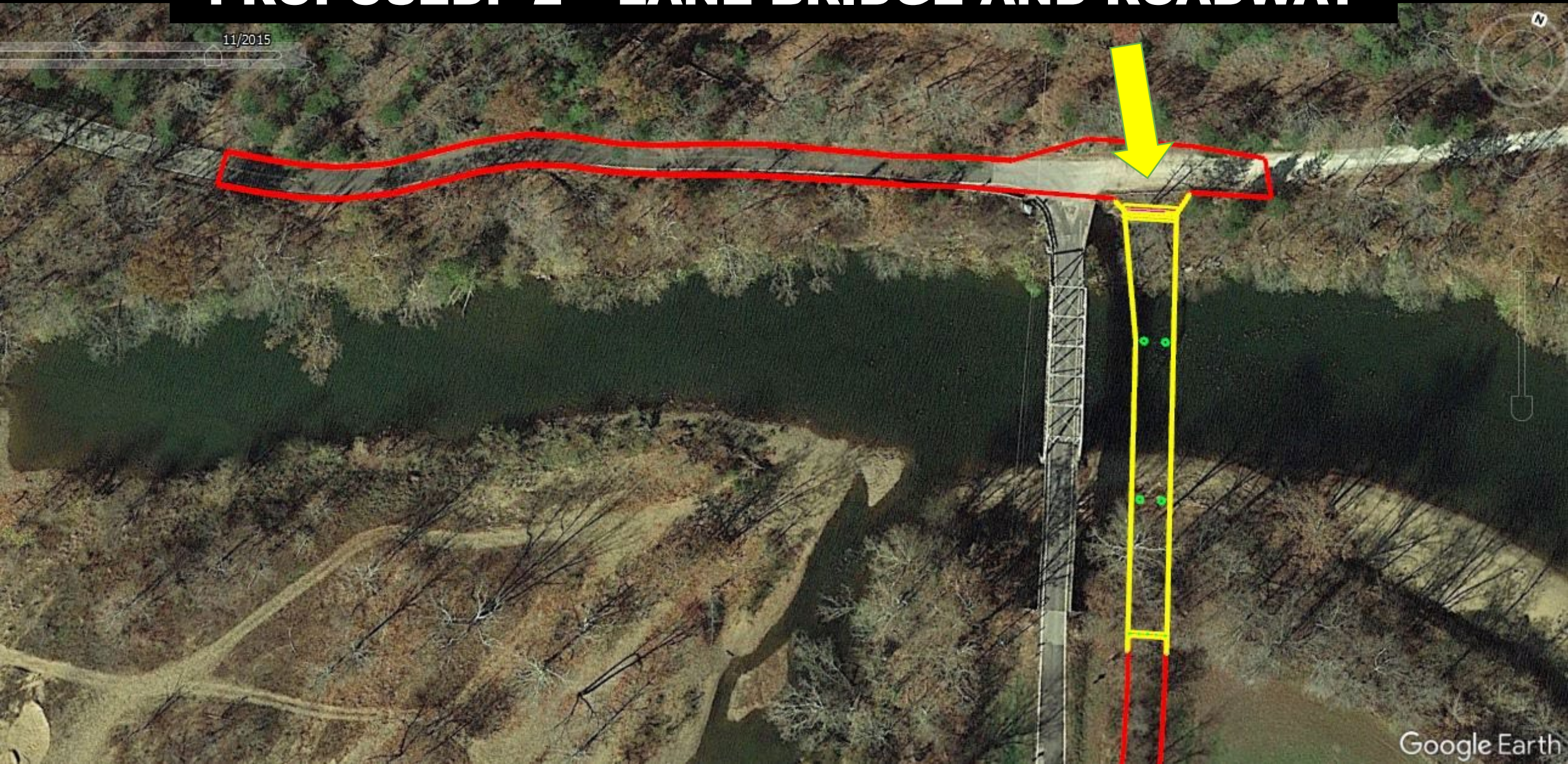
# EXISTING: 1 - LANE BRIDGE AND ROADWAY





# PROPOSED: 2 - LANE BRIDGE AND ROADWAY

11/2015

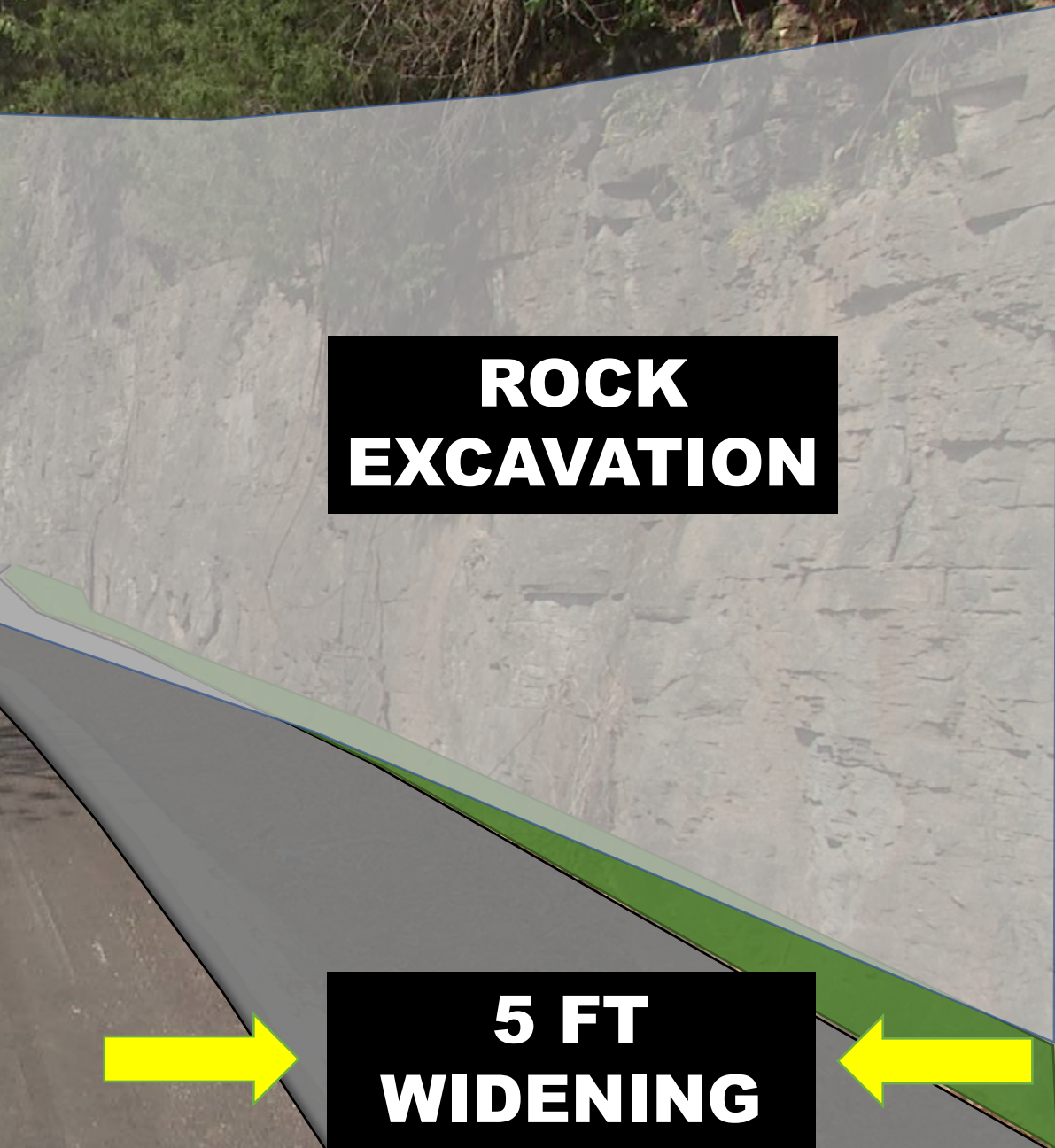


Google Earth





**PROPOSED:  
TWO - LANE**



**ROCK  
EXCAVATION**

**5 FT  
WIDENING**



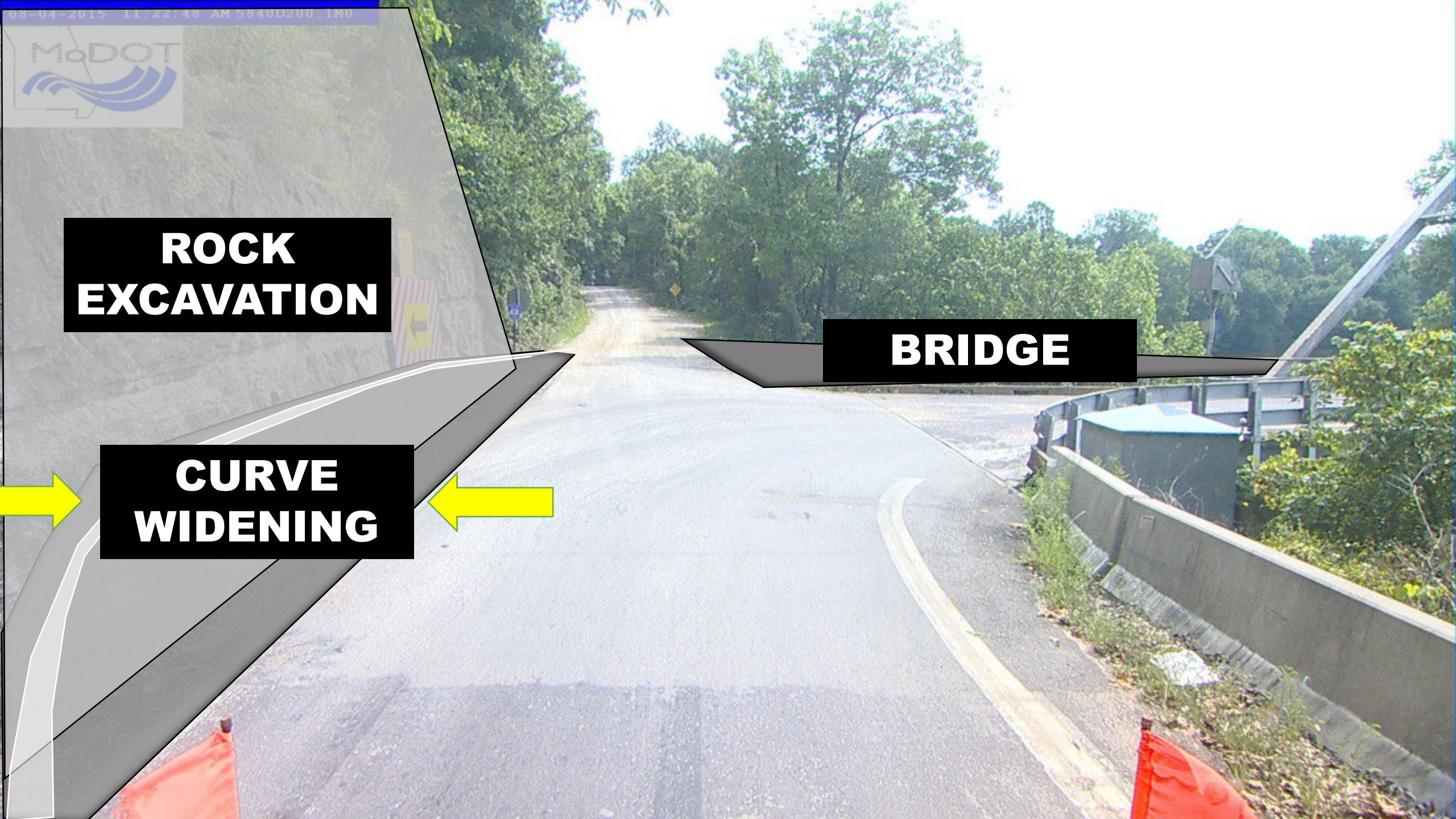




**ROCK  
EXCAVATION**

**BRIDGE**

**CURVE  
WIDENING**







# ANTICIPATED CONSTRUCTION CHALLENGES

**DEAD  
END  
ROAD**

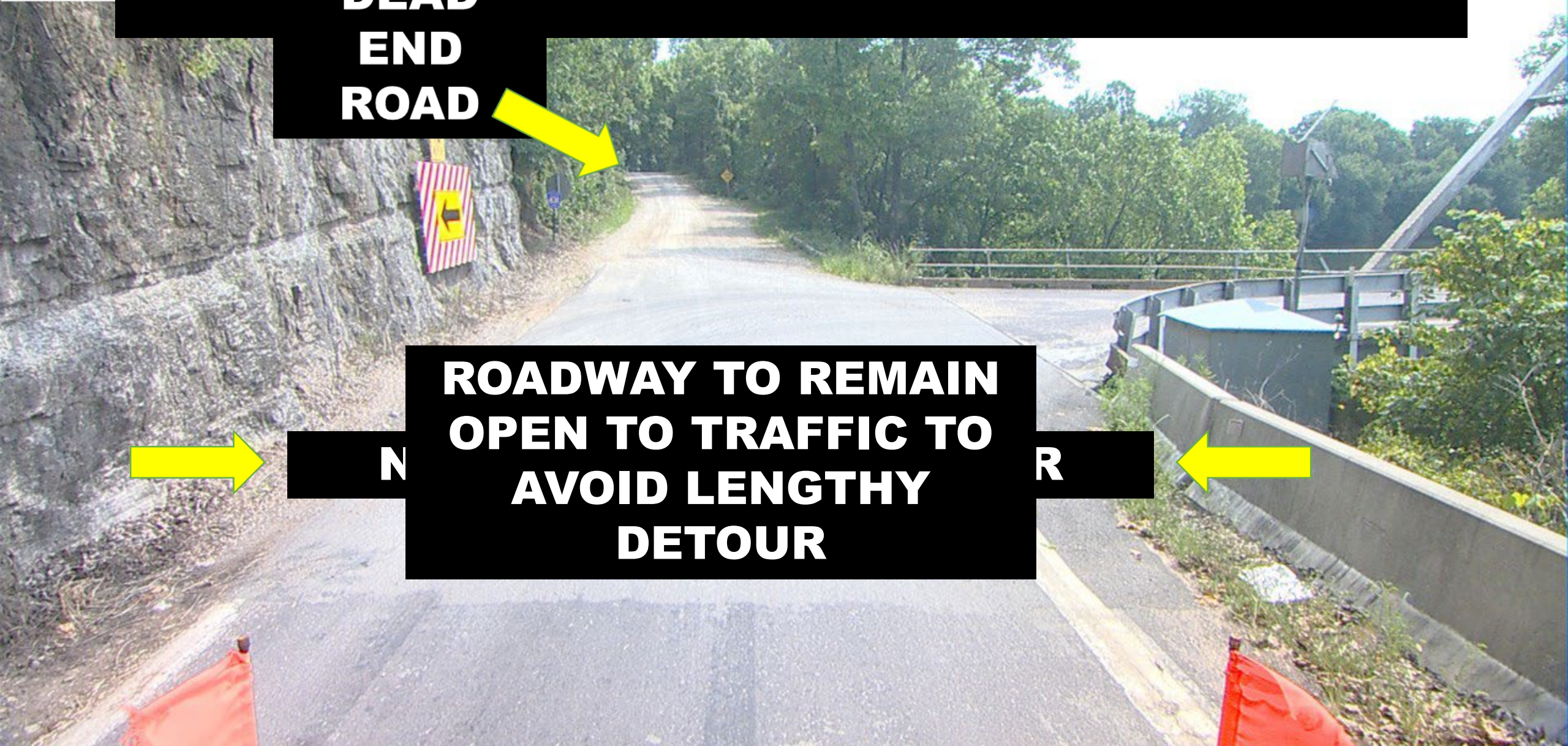


**ROADWAY TO REMAIN  
OPEN TO TRAFFIC TO  
AVOID LENGTHY  
DETOUR**



**N**

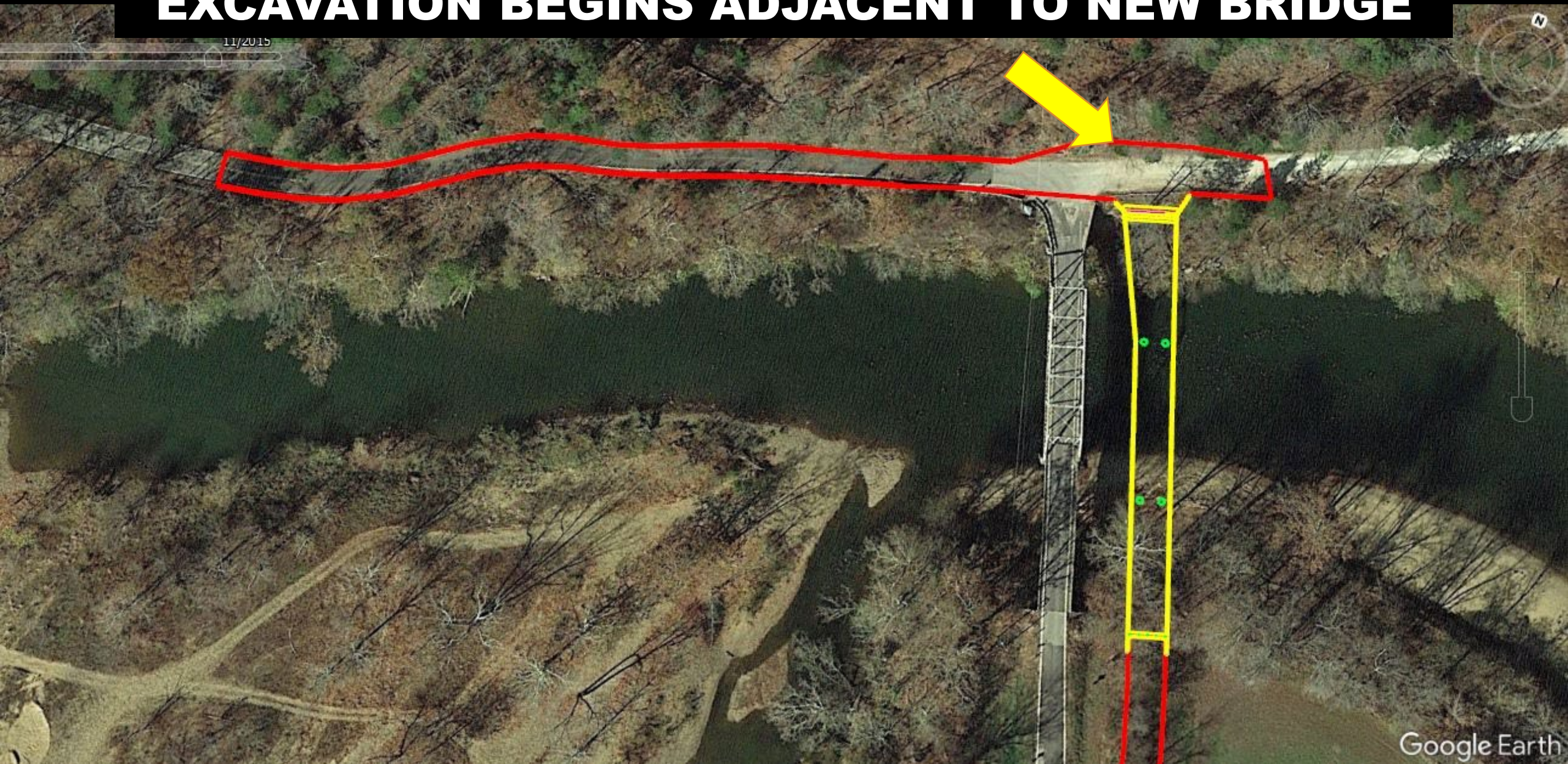
**R**





# EXCAVATION BEGINS ADJACENT TO NEW BRIDGE

11/2015





**CONTRACTOR  
IS CREATING  
ACCESS  
ROUTE FOR  
BLASTING  
OPERATIONS**





# EXCAVATION PERFORMED USING 4 HOUR CLOSURES OF RTE C AND CRD 431







**FIRST BLAST**

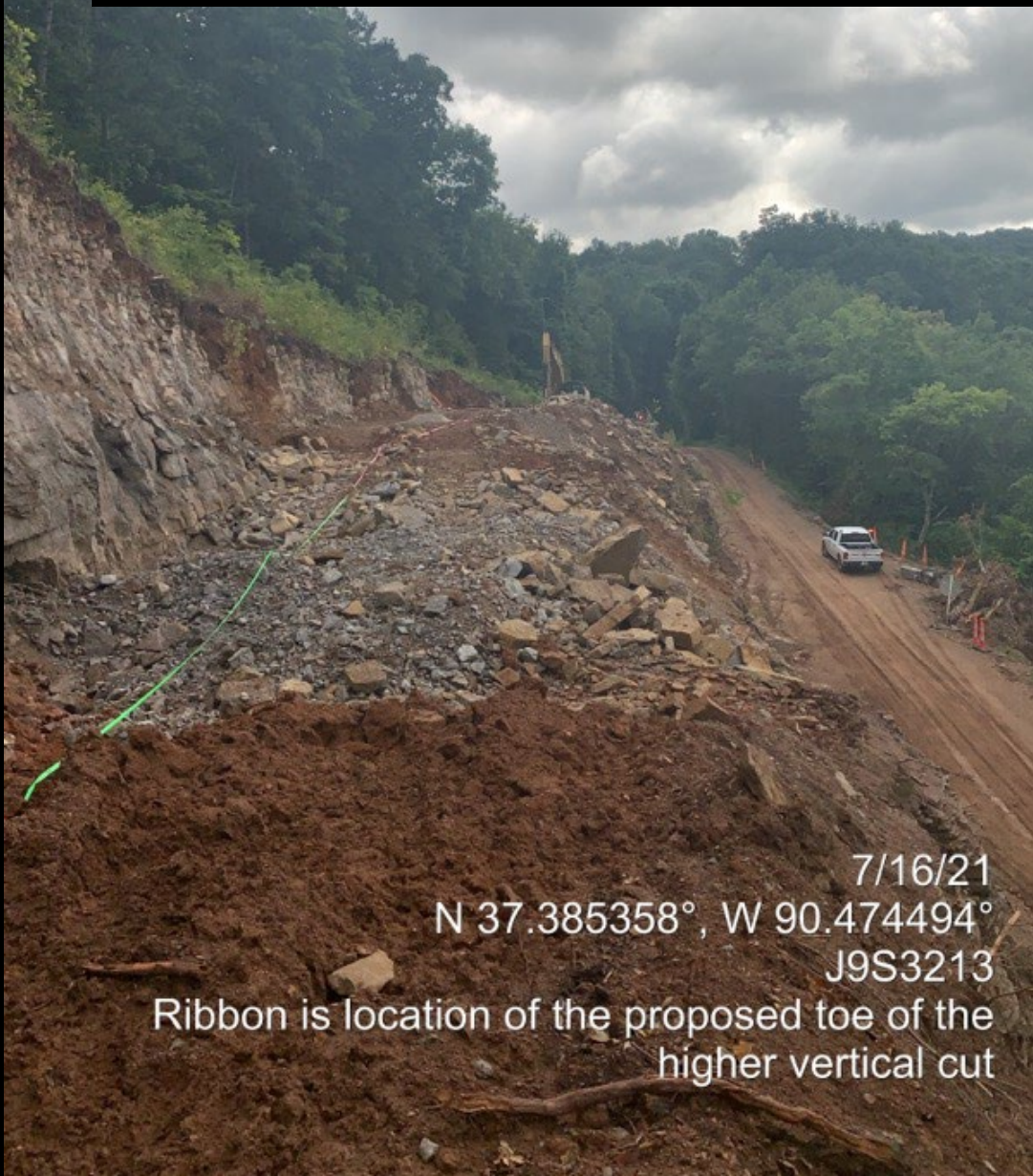


**THE ROCK IN  
THE UPPER  
BENCH WAS  
DISECTED BY  
CLAY VEINS**





# DUE TO THE CLAY ... WIDENING WAS HALTED WHILE THE CROSS-SECTIONS WERE REDESIGNED



7/16/21

N 37.385358°, W 90.474494°

J9S3213

Ribbon is location of the proposed toe of the higher vertical cut



7/16/21

N 37.385609°, W 90.474049°

J9S3213

Ribbon is location of the proposed toe of the higher vertical cut



# EXCAVATION BEGINS AT WEST END OF PROJECT

11/2015





**YELLOW IS  
PROPOSED  
VERTICAL  
CUT.**

**RED IS RIGHT-  
OF-WAY**





**NEXT  
PICTURE IS  
DOWN HERE**







**ROAD IS UP  
HERE**



7/28/21, 4:06 PM

N 37° 23' 6", W 90° 28' 32"

Madison County

**WEST END  
... AFTER  
THE BLAST**





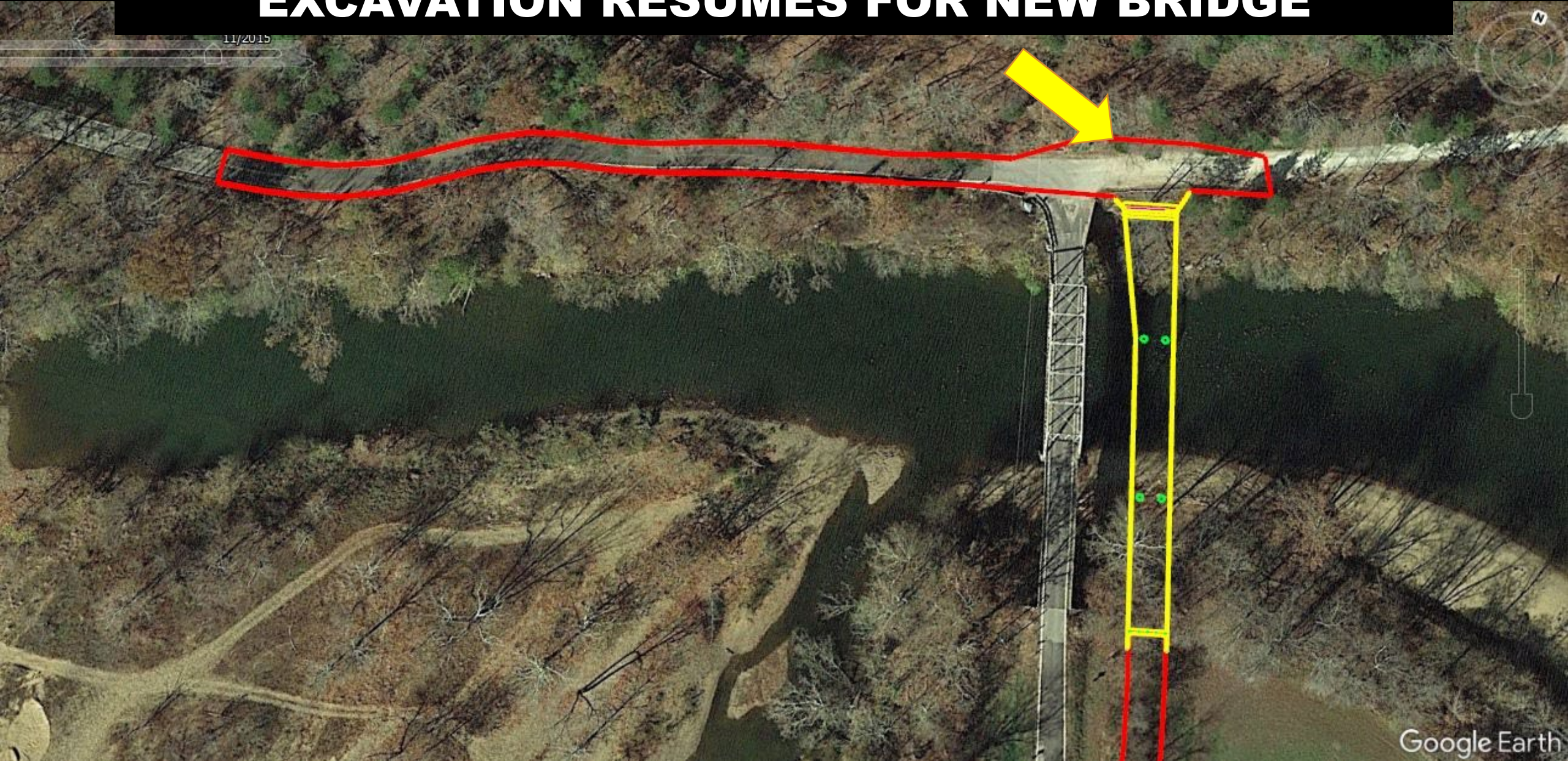
# DUE TO CLAY ... WIDENING WAS HALTED AGAIN





# EXCAVATION RESUMES FOR NEW BRIDGE

11/2015







**SECOND BLAST**





FACE

14-4





**RTE C**



**CRD 431**



9/15/21, 1:25 PM  
N 37° 23' 4", W 90° 28' 25"  
Madison County

9/15/21, 1:25 PM  
N 37° 23' 4", W 90° 28' 25"  
Madison County



**OVERHANGING  
LEDGES**



**BUCKLED  
PAVEMENT**





# BRIDGE DECK

**MOVED 18 INCHES  
SOUTH**





**BENT 2 PILING  
AFTER BLAST**

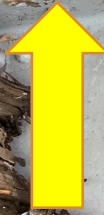




**ABUTMENT 1**



**DECK JUMPED  
OFF OF  
GIRDERS**





**DUE TO BLASTING  
DAMAGE THE EXISTING  
BRIDGE IS CLOSED**

**THE PROJECT  
SCHEDULE IS  
ACCELERATED**

**PROPOSED OPEN TO  
TRAFFIC DATE OF  
JANUARY 5<sup>TH</sup> 2022**





# BRIDGE WORK BEGINS







**ACCESS TO BLUFF BANK WAS LIMITED**

**CORP OF ENGINEERS REVISED THE PERMIT TO ALLOW A LARGER WORK PAD WITHIN THE RIVER**

11/2/21  
W 90.473849°  
J9S3213  
Rte C



**HOPE THE  
STRAPS DON'T  
BREAK!**







**EXCAVATING  
FOR  
ABUTMENT**

10/28/21  
N:37.385170°, W 90.474082°  
J9S3213  
Rte C



**A FEW MOMENTS LATER!**

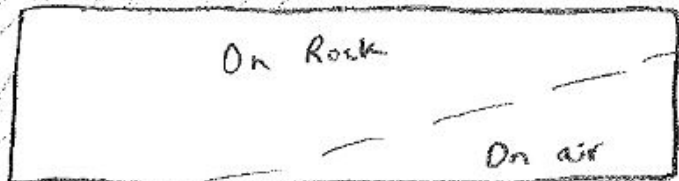
**ABUTMENT  
FOOTPRINT**





Plan View

↑ North



Vertical Bluff

Slope

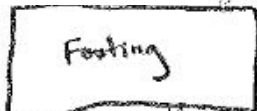
River ←

Profile View

North →

CRD 431

**WHERE'S THE ROCK?**

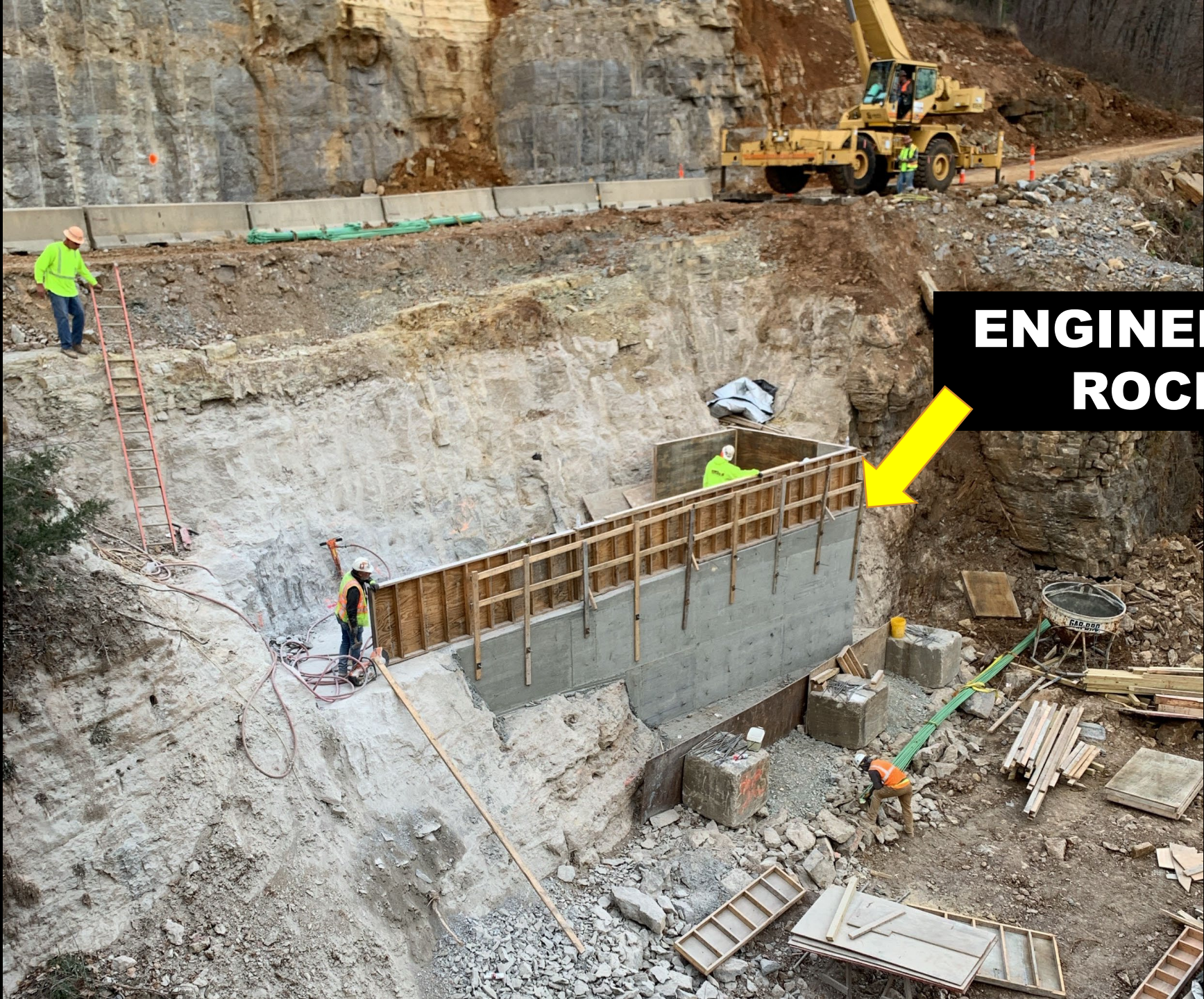


↑ Air Gap  
Approx 6-10 feet

Rock

River





**ENGINEERED  
ROCK!**



# A CLOSER LOOK

#6 DOWELS



11/17/21  
N 37.385347°, W 90.474093°  
J9S3213



# A CLOSER LOOK



11/18/21

N 37.385343°, W 90.474106°

J9S3213



**IT WORKED!**



Nov 20, 2021 at 8:00:03 AM

07-2252210 N 00-1710000 W





**FORMING  
BEAM SEAT**

11/30/21  
N 37.385371°, W 90.473986°  
J9S3213





**READY TO SET  
GIRDERS**



11/19/21 3:56 PM  
28' 27"  
County

**NOVEMBER 19TH**

**SETTING SPANS  
1 AND 2**





**DECEMBER 6<sup>TH</sup>**

**JUST A MINOR  
INCONVENIENCE!**



Dec 6, 2021 at 9:32:15 AM  
37.384458° N, 90.474214° W  
9887 SSR-C  
Annapolis MO 63620  
United States



**DECEMBER 9<sup>TH</sup>**

**FINAL SPAN!**



Dec 9, 2021 at 11:34:33 AM  
37.325524° N, 90.486634° W  
Des Arc MO  
United States



**DECEMBER 9<sup>TH</sup>**

**THEY FIT!**



Dec 9, 2021 at 1:12:13 PM  
37.385379° N, 90.474104° W  
Annapolis MO  
United States



12/18/21 12:42 PM  
28' 26"  
County

**DECEMBER 18<sup>TH</sup>**

**THAT WAS  
CLOSE!**





**DECEMBER 23<sup>RD</sup>**

**SPANS 1 AND 2  
POURED**



Dec 23, 2021 at 3:47:15 PM  
37.384840° N, 90.473812° W  
9714 SSR-C  
Annapolis MO 63620  
United States



**DECEMBER 31<sup>ST</sup>**



**ALMOST THERE!**

Dec 31, 2021 at 9:56:07 AM  
37.385338° N, 90.474063° W  
1001-1799 CR-431  
Annapolis MO 63620  
United States



**DECEMBER 31<sup>ST</sup>**

**BEAUTIFUL!**



Dec 31, 2021 at 10:17:34 AM  
37.385346° N, 90.474091° W  
1001-1799 CR-431  
Annapolis MO 63620  
United States



**JANUARY 8<sup>TH</sup> 2022  
OPEN TO TRAFFIC**





**DEMO DAY!**





1/12/22, 11:30 AM

N 37° 23' 5" W 90° 28' 26"

# GOODBYE OLD FRIEND!



1/12/22, 11:30 AM

N 37° 23' 5" W 90° 28' 26"

Madison County





**I'M STARTING TO  
THINK THIS JOB  
IS CURSED**





# THE JOYS OF MAINTAINING A DIRT ROAD!





**THOUGHT THIS  
DAY WOULD  
NEVER COME!**





**VICTORY...ISH**







# BEFORE



# AFTER





**FEBRUARY 2024**





**FEBRUARY 2024**





**THE END**

