

| DATE REVISED | DATE FILMED | DATE REVISED | DATE FILMED | FED. ROAD DIST. NO. | STATE  | FED. AID PROJ. NO. | SHEET NO. | TOTAL SHEETS |
|--------------|-------------|--------------|-------------|---------------------|--------|--------------------|-----------|--------------|
|              |             |              |             | 6                   | ARK.   |                    |           |              |
|              |             |              |             | JOB NO.             |        | 050063             | 67        | 200          |
|              |             |              |             | 06805               | LAYOUT |                    | 41093     |              |

For R/W Data-See Rdwy. Plans

### HORIZONTAL CURVE DATA

P.I. Sta. 417+23.839  
 $\Delta = 60^\circ 23' 34''$  Lt.  
 $D = 3^\circ 30' 00''$   
 $T = 952.630'$   
 $L = 1725.505'$   
P.C. Sta. 407+71.210  
P.T. Sta. 424+96.714

### HYDRAULIC DATA

| FLOOD DESCRIPTION | FREQUENCY | DISCHARGE | *NATURAL WATER SURFACE ELEVATION | WATER SURFACE ELEV. WITH BACKWATER |
|-------------------|-----------|-----------|----------------------------------|------------------------------------|
|                   | YEARS     | CFS       | FEET                             | FEET                               |
| Design            | 50        | 7960      | 482.3                            | 483.7                              |
| Base              | 100       | 9390      | 482.9                            | 484.7                              |
| Extreme           | 500       | 13,000    | 484.2                            | 487.0                              |
| Overtopping       | >500      | N.A.      |                                  |                                    |

\* Unconstricted water surface without structure or roadway approaches.  
Drainage area = 14.5 sq. mi.  
Historical H.W. Elev. 486.8

### GENERAL NOTES

BENCH MARK: TBM #915 Gov. Bench Mark TT4RWS 1959 100.93' Rt. Sta. 424+16.324, Elev. 487.71

CONSTRUCTION SPECIFICATIONS: Arkansas State Highway and Transportation Department Standard Specifications for Highway Construction, (1996 edition) with applicable supplemental specifications and special provisions. Section and Subsection refer to the Standard Construction Specification unless otherwise noted in the Plans.

DESIGN SPECIFICATIONS: AASHTO Standard Specifications for Highway Bridges, (1996 edition) with current interim specifications.

LIVE LOADING: HS20 METHOD OF DESIGN: Load Factor  
SEISMIC PERFORMANCE CATEGORY: A

### MATERIALS AND STRENGTHS:

Class S(AE) Concrete (superstructure)  $f'_c = 4,000$  psi  
Class S Concrete (substructure)  $f'_c = 3,500$  psi  
Reinforcing Steel (AASHTO M31 or M53, Gr. 60)  $f_y = 60,000$  psi  
Structural Steel (AASHTO M270, Gr. 36)  $f_y = 36,000$  psi  
Structural Steel (AASHTO M270, Gr. 50W)  $f_y = 50,000$  psi

BORING LOGS: Boring logs may be obtained from the Programs and Contracts Division.

STEEL PILING: All piling shall be HP12 x 53 and shall be driven with an approved air, steam or diesel hammer to a minimum safe bearing capacity of 55 tons per pile and into the material designated as hard dolomite on the boring legend. Lengths shown are for estimating quantities and for use in determining payment for cut-off and build-up in accordance with the specifications. Piles in end bents to be driven after embankment to bottom of cap is in place. On all piles the contractor shall use approved steel H- Pile driving points. Actual pile lengths to be determined in the field.

FOOTINGS: Footings shall be set a minimum of 1'-6" into material designated as hard dolomite on the boring legend and shall have a min. cover above top of footings of 2'-0". Foundations for footings shall be prepared in accordance with Section 801.04 of the Standard Specifications. Rock excavations shall be made to neat lines of the concrete footings. Care shall be exercised to avoid shattering of rock faces by excessive blasting. Concrete in footings shall be poured directly against excavated surfaces of rock.

BRIDGE DECK: The concrete bridge deck shall be given a fine finish as specified for final finishing in subsection 802.19 for Class 5 Tined Bridge Roadway Surface Finish.

SURFACE TREATMENT: A Class I Protective Surface treatment shall be applied to the roadway surface and to the face and top of the concrete parapet rail.

DETAIL DRAWINGS:  
160' Cont. Comp. W-Beam Unit  
End Bents  
Int. Bents

DRAWING NO.  
41098 - 41102  
41094-41096  
41097

EXISTING BRIDGE: The existing bridge no. 2618 is 26' wide and 120' long and consists of continuous concrete slab units and supported by concrete substructure.

REMOVAL AND SALVAGE: After the new bridge is opened to traffic, existing bridge No. 2618 shall be removed in accordance with Section 205 of the Standard Specifications. All material from the existing bridge shall become the property of the Contractor.

### LAYOUT OF BRIDGE OVER BIG CREEK COLD SPRINGS CURVE-SOUTH (SAFETY IMPROVEMENT) (S)

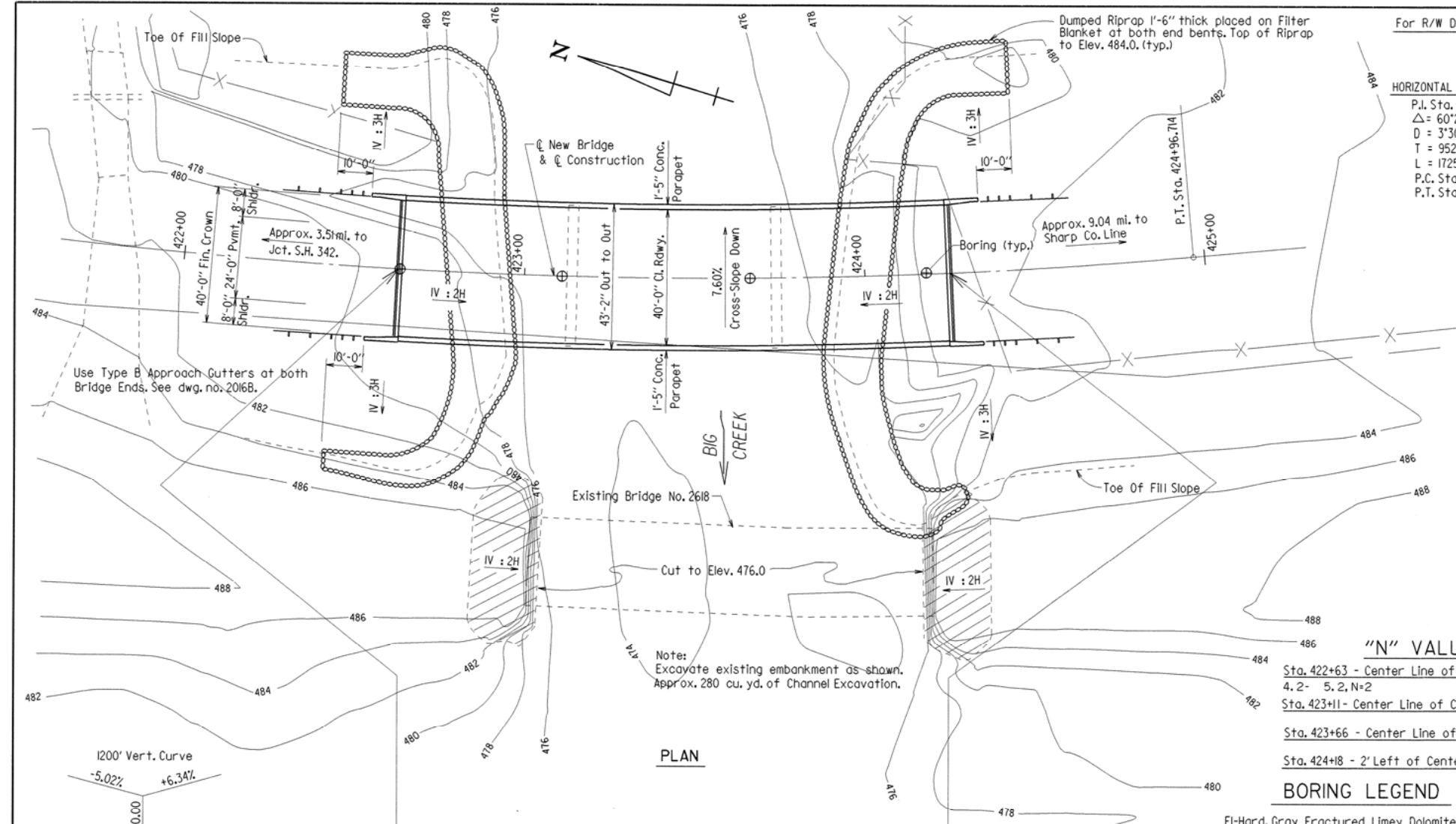
FULTON COUNTY  
ROUTE 63 SEC. I  
ARKANSAS STATE HIGHWAY COMMISSION  
LITTLE ROCK, ARK.

DRAWN BY: W.M.J. DATE: 1-6-2000 FILENAME: B050063X.LIA  
CHECKED BY: GVA DATE: 4-20-00 SCALE: 1" = 20'  
DESIGNED BY: B.E.F. DATE: 12-16-99  
BRIDGE NO. 06805 DRAWING NO. 41093



BRIDGE ENGINEER

1, 550, 3001, 050063, RWME548, B050063X.LIA



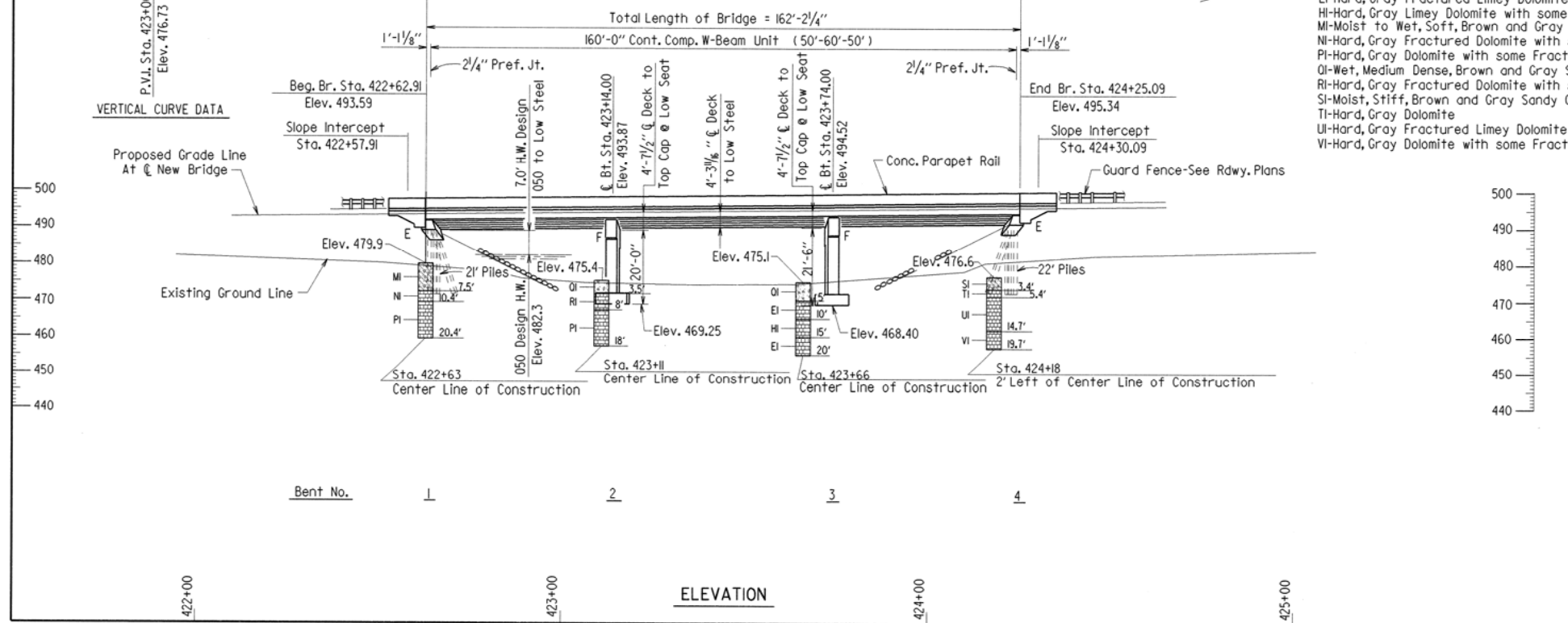
### PLAN

### "N" VALUES

- Sta. 422+63 - Center Line of Construction  
4.2- 5.2, N=2
- Sta. 423+11 - Center Line of Construction
- Sta. 423+66 - Center Line of Construction
- Sta. 424+18 - 2' Left of Center Line of Construction

### BORING LEGEND

- El-Hard, Gray Fractured Limey Dolomite
- Hi-Hard, Gray Limey Dolomite with some Fractured Seams
- Mi-Moist to Wet, Soft, Brown and Gray Sandy Clay with Gravel
- Ni-Hard, Gray Fractured Dolomite with some Chert Seams
- Pi-Hard, Gray Dolomite with some Fractured Seams
- Qi-Wet, Medium Dense, Brown and Gray Sand and Gravel
- Ri-Hard, Gray Fractured Dolomite with some Clay Seams
- Si-Moist, Stiff, Brown and Gray Sandy Clay with Gravel
- Ti-Hard, Gray Dolomite
- Ui-Hard, Gray Fractured Limey Dolomite
- Vi-Hard, Gray Dolomite with some Fractured Seams



### ELEVATION

MICROFILMED  
JUN 21 2000