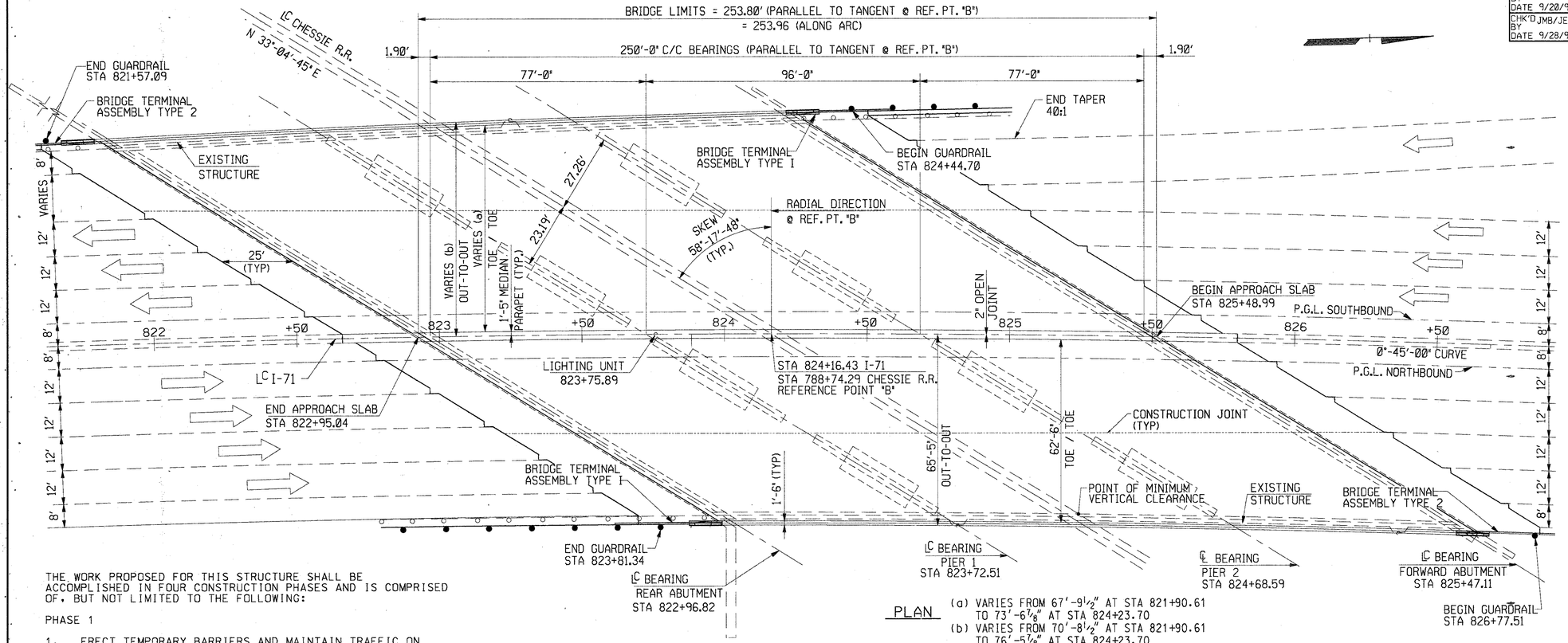
CALC. TSB/KRW BY DATE 9/20/93	CUYAHOGA COUNTY CUY-71-5.72	OHIO	187/376
CHK'D JMB/JEH BY DATE 9/28/93		FHWA REGION 5	

IM-71-5(79)
PID 8195



PLAN

(a) VARIES FROM 67'-9½" AT STA 821+90.61 TO 73'-6⅞" AT STA 824+23.70
(b) VARIES FROM 70'-8½" AT STA 821+90.61 TO 76'-5⅞" AT STA 824+23.70

THE WORK PROPOSED FOR THIS STRUCTURE SHALL BE ACCOMPLISHED IN FOUR CONSTRUCTION PHASES AND IS COMPRISED OF, BUT NOT LIMITED TO THE FOLLOWING:

PHASE 1

1. ERECT TEMPORARY BARRIERS AND MAINTAIN TRAFFIC ON THE LEFT SIDE OF THE NORTHBOUND BRIDGE
2. REMOVE THE EXISTING STRUCTURE TO THE LIMITS SHOWN
3. CONSTRUCT THE RIGHT PORTION OF THE NORTHBOUND BRIDGE TO THE LIMITS SHOWN

PHASE 2

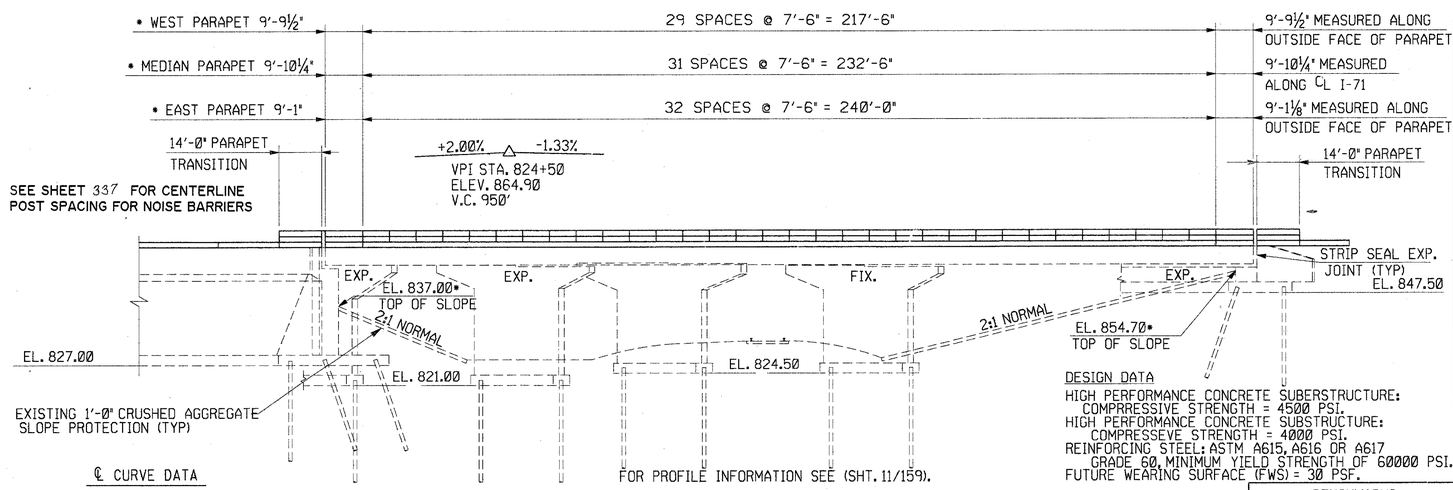
4. MOVE TEMPORARY BARRIERS TO THE RIGHT SIDE OF THE NORTHBOUND BRIDGE AND MAINTAIN TRAFFIC ON THE COMPLETED SIDE OF THE BRIDGE.
5. PERFORM REMAINDER OF STRUCTURE REMOVAL
6. CONSTRUCT THE LEFT PORTION OF THE NORTHBOUND BRIDGE TO THE LIMITS SHOWN
7. REMOVE BARRIERS AND OPEN NORTHBOUND BRIDGE TO FULL WIDTH TRAFFIC

PHASE 3

8. MOVE TEMPORARY BARRIERS TO THE RIGHT SIDE OF THE SOUTHBOUND BRIDGE AND MAINTAIN TRAFFIC ON THE RIGHT SIDE OF THE BRIDGE
9. REMOVE THE EXISTING STRUCTURE TO THE LIMITS SHOWN
10. CONSTRUCT THE LEFT PORTION OF THE SOUTHBOUND BRIDGE TO THE LIMITS SHOWN

PHASE 4

11. MOVE TEMPORARY BARRIERS TO THE LEFT SIDE OF THE SOUTHBOUND BRIDGE AND MAINTAIN TRAFFIC ON THE LEFT SIDE OF THE BRIDGE
12. PERFORM REMAINDER OF STRUCTURE REMOVAL
13. CONSTRUCT THE RIGHT PORTION OF THE SOUTHBOUND BRIDGE TO THE LIMITS SHOWN
14. REMOVE BARRIERS AND OPEN SOUTHBOUND BRIDGE TO FULL WIDTH TRAFFIC
15. COMPLETE ALL ITEMS OF WORK WHICH DO NOT REQUIRE PERMANENT LANE CLOSURES



SEE SHEET 337 FOR CENTERLINE POST SPACING FOR NOISE BARRIERS

ELEVATION

℄ CURVE DATA

PI = STA. 822+07.40
Δ = 22°-11'-11"
D = 00°-45'-00"
R = 7639.44'
T = 1497.86'
L = 2958.19'
E = 145.46'

MINIMUM VERTICAL CLEARANCE = 23'-0"
MINIMUM HORIZONTAL CLEARANCE = 21'-8¼"

• DENOTES CRACK CONTROL JOINT SPACING.

FOR PROFILE INFORMATION SEE (SHT. 11/159).

SEE GENERAL NOTES FOR ABBREVIATIONS. (SHT. 2/159).

CONCRETE PARAPETS: WITHIN 48 HOURS AFTER PLACEMENT OF PARPET CONCRETE SAWCUT ONE INCH DEEP JOINTS INTO THE CONCRETE PARAPET AT LOCATIONS AS DETAILED IN THE PLANS. THE SAW CUT SHALL BE MADE IN THE COMPLETE PERIMETER OF THE PARAPET, STARTING AND ENDING AT THE ELEVATION OF THE CONCRETE DECK, AND THE COMPLETE SAW CUT SHALL BE FILLED WITH A CAULKING MATERIAL CONFORMING TO FEDERAL SPECIFICATION TT-S-00227E. THE BOTTOM HALF INCH OF THE ONE INCH DEEP SAWED JOINT IN BOTH THE INSIDE AND OUTSIDE FACES OF THE PARAPET SHOULD BE LEFT UNSEALED TO ALLOW ANY WATER WHICH MAY ENTER THE JOINT TO ESCAPE.

DESIGN DATA

HIGH PERFORMANCE CONCRETE SUBERSTRUCTURE: COMPRESSIVE STRENGTH = 4500 PSI.
HIGH PERFORMANCE CONCRETE SUBSTRUCTURE: COMPRESSEVE STRENGTH = 4000 PSI.
REINFORCING STEEL: ASTM A615, A616 OR A617 GRADE 60, MINIMUM YIELD STRENGTH OF 60000 PSI.
FUTURE WEARING SURFACE (FWS) = 30 PSF.

BENCHMARKS

CHISELED ☐ IN N.E. WINGWALL EL. 860.54
TOP OF NAIL IN N.E. FACE OF SECOND R.R. COMMUNICATION POLE N.E. OF BRIDGE ON S.E. SIDE OF R.R. EL. 829.12

EXISTING STRUCTURE

TYPE: 3 SPAN CONTINUOUS STEEL GIRDERS WITH REINFORCED CONCRETE DECK AND SUBSTRUCTURE

SPANS: 77'-0"±; 96'-0"±; 77'-0"± C/C BEARINGS

ROADWAY: 131'-3⅛"± MIN. F/F CURB

SKEW: 58°-17'-48" LEFT REAR

LOADING: CF=2000

WEARING SURFACE: CONCRETE

APPROACH SLABS: AS-1-54, 25'-0"

ALIGNMENT: 0°-45' CURVE RT.

SUPERELEVATION: 0.018'/FT.

DATE BUILT: 1966

STRUCTURE FILE NUMBER: 1804200

PROPOSED STRUCTURE

- REMOVE THE EXISTING DECKS AND REPLACE WITH WIDENED DECKS.
- REPLACE THE EXISTING APPROACH SLABS
- ELIMINATE ALL DRAINAGE STRUCTURES FROM BRIDGE
- INSTALL NEW TYPE C PRESSURE RELIEF JOINTS
- REPAIR EXISTING ABUTMENTS AND PIERS
- SEAL TRANSVERSE EXPANSION JOINTS
- MAKE EXISTING BEAMS COMPOSITE WITH NEW DECK

TYPE: A36 PAINTED CONTINUOUS STEEL GIRDERS COMPOSITE WITH NEW REINFORCED CONCRETE DECK

SUBSTRUCTURE: REINFORCED CONCRETE ABUTMENTS AND REINFORCED CONCRETE PIERS.

SPANS: 77'-0", 96'-0", 77'-0" C/C BEARINGS

ROADWAY WIDTH: 133'-3½" MIN. T/T PARAPETS

SKEW: 58°-17'-48" LEFT REAR

LOADING: HS-20-44 & ALTERNATE MILITARY CASE I

WEARING SURFACE: MONOLITHIC CONCRETE

APPROACH SLABS: AS-1-81, 25'-0"

ALIGNMENT: 0°-45' CURVE

SUPERELEVATION: 0.018'/FT.

ADT (1993): 160,880

ADT (2013): 160,880

ADTT (2013): 6,435

GREINER ENGINEERING INC. - OHIO
MIDDLEBURG HTS., OHIO 44130

62\159

GENERAL PLAN & ELEVATION

BRIDGE NO. CUY-71-0637
OVER CHESSIE RAILROAD

DESIGNED	DRAWN	CHECKED	REVIEWED	DATE	REVISED
TSB/KRW	JL/NS	JB/JEH	WRF	11-23-93	

BGPE0300