

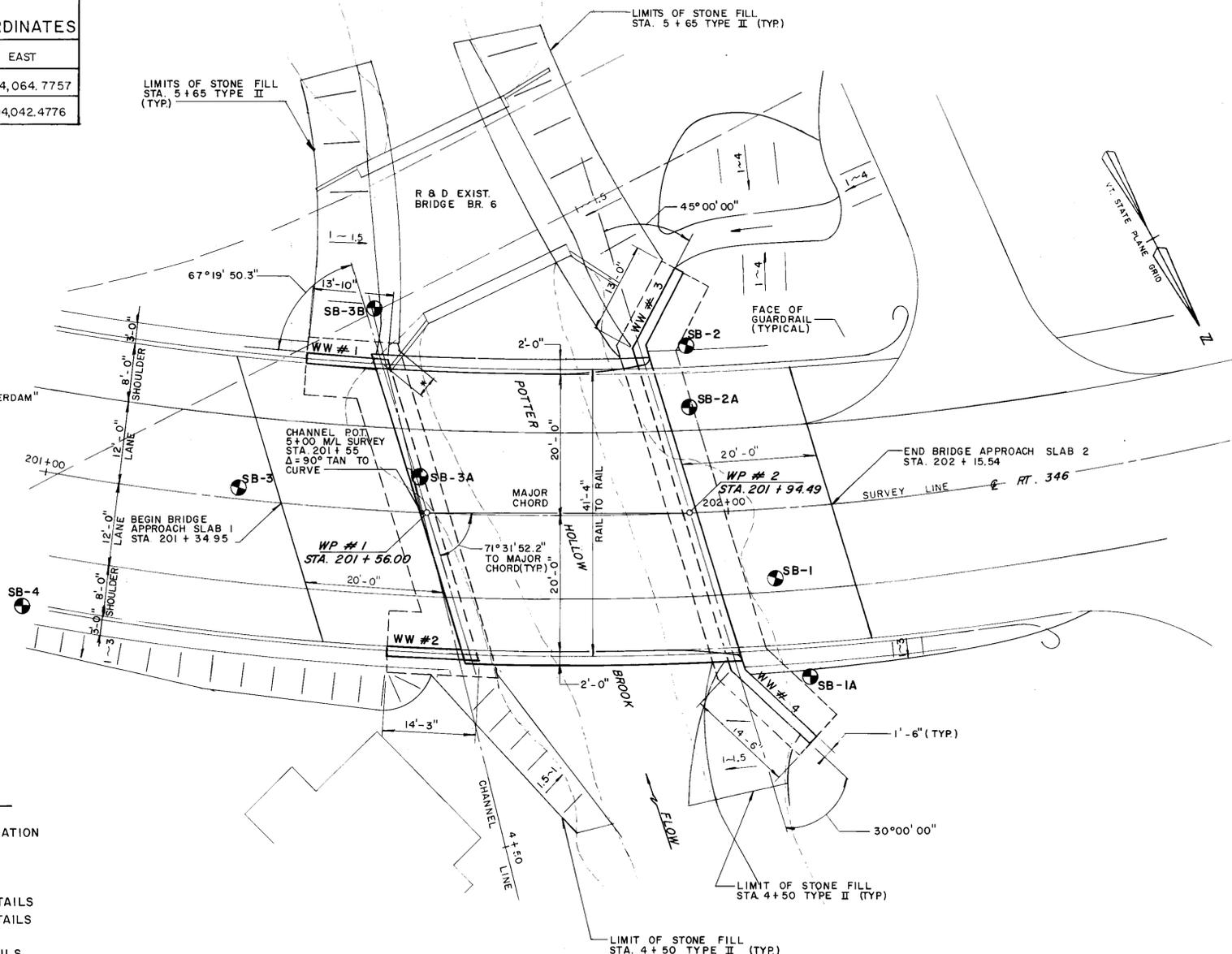
WORKING POINT COORDINATES

	NORTH	EAST
WP 1	112,261.4062	294,064.7757
WP 2	112,292.7709	294,042.4776

CURVE DATA

Δ 81°02'01" LT.
 D 12° 30'
 R 458.37'
 T 391.72'
 L 648.27'
 E 144.58'
 BNK 0.067 FT/FT

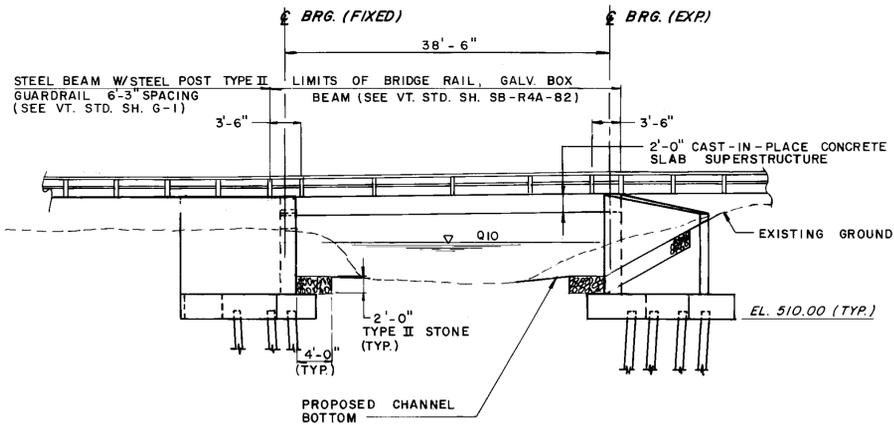
* LIMITS OF R & D PORTION OF EXISTING WINGWALL. COST TO BE SUBSIDIARY TO THE ITEM "LUMP SUM COFFERDAM" ABUTMENT NO. 1



PLAN
SCALE: 1" = 10'

INDEX OF SHEETS

- BR600 PRELIMINARY INFORMATION
- BR601 QUANTITY
- BR602 BORING LOGS
- BR603 BORING LOGS
- BR604 SUPERSTRUCTURE DETAILS
- BR605 APPROACH SLAB DETAILS
- BR606 PILE LAYOUT PLAN
- BR607 ABUTMENT No. 1 DETAILS
- BR608 ABUTMENT No. 2 DETAILS
- BR609 WINGWALL DETAILS
- BR610 REINFORCING SCHEDULE
- BR611 CHANNEL X- SECTIONS
- BR612 CHANNEL X- SECTIONS



ELEVATION
SCALE: 1" = 10'

530
520
510
NOTE:
1. FOR BORING LOGS, SEE SHEETS 139 & 140

EXISTING STRUCTURE

- STRUCTURE TYPE REINFORCED CONCRETE SLAB OVERALL LENGTH 23'-0" INVENTORY RATING
- SPAN LENGTH(S) CENTER TO CENTER OF BEARINGS 22'-6"
- CLEAR SPAN LENGTH(S) NORMAL TO STREAM 22'-0"
- WATERWAY AREA OF FULL OPENING (NORMAL TO STREAM) 22' x 5' VERTICAL CLEARANCE ABOVE STREAMBED 5'
- WATER SURFACE ELEVATION @ Q 2.33 WATER SURFACE ELEVATION @ Q
- WATER SURFACE ELEVATION AT FLOOD OF RECORD YEAR ESTIMATED DISCHARGE
- DOES ALL WATER PASS THROUGH EXISTING STRUCTURE? IF NOT, AT WHAT FREQUENCY AND ELEVATION DOES RELIEF OCCUR?
- ADDITIONAL WATERWAY AREA PROVIDED BY RELIEF
- TYPE OF SUBSTRUCTURE FOUNDATION MATERIAL STEEL H-PILES / CONCRETE FOOTING
- DISPOSITION OF STRUCTURE REMOVE & DISPOSE

NEW STRUCTURE

- STRUCTURE GEOMETRY:
- STRUCTURE TYPE REINFORCED CONCRETE SLAB OVERALL LENGTH 40'-6"
 - SPAN LENGTH(S) CENTER TO CENTER OF BEARINGS 38'-6"
 - VERTICAL CLEARANCE ABOVE STREAMBED OR ROAD UNDER VARIES
 - CLEAR SPAN LENGTH(S) NORMAL TO STREAM 34'-6"
 - WATERWAY AREA OF FULL OPENING (NORMAL TO STREAM) 207 SF
 - ARE PROVISIONS TO BE MADE FOR PUBLIC UTILITIES? NO

HYDRAULIC DATA:

- Q 2.33 360 WATER ELEVATION 517.2 VELOCITY 7.1
- Q 10 805 WATER ELEVATION 519.0 VELOCITY 10.0
- Q 25 1046 WATER ELEVATION 519.7 VELOCITY 11.0
- Q 50 1261 WATER ELEVATION 520.5 VELOCITY 11.8
- Q 100 1442 WATER ELEVATION 521.0 VELOCITY 12.4
- DRAINAGE AREA 5.47sq.mi. (3,500 Ac.) CHARACTER OF TERRAIN NOT REQUIRED
- ARE THERE OBJECTIONS TO A PIER IN THE STREAM? NO
- DOES STREAM REACH ITS MAXIMUM HIGH WATER ELEVATION RAPIDLY? NO IS ORDINARY RISE R? MID? YES
- NATURE OF NATURAL STREAMBED GENTLY SLOPING PROFILE WITH GRAVEL BED
- ESTIMATED SCOUR DEPTH 2± COMMENT ON: DRIFT ICE NORMAL CONDITIONS
- WILL ALL WATER PASS THROUGH NEW STRUCTURE? YES IF NOT, WHAT FREQUENCY AND ELEVATION WILL RELIEF OCCUR?
- ADDITIONAL WATERWAY AREA PROVIDED BY RELIEF
- VERTICAL CLEARANCE ABOVE Q 50 0.87' AT INLET
- ALLOWABLE WATER SURFACE ELEVATION 521.37 LIMITED BY
- IS DESIGN STAGE AFFECTED BY UPSTREAM OR DOWNSTREAM CONDITIONS? NO IF YES, DESCRIBE
- AVERAGE DAILY LOW FLOW N/A DEPTH N/A AVERAGE DAILY HIGH FLOW N/A DEPTH N/A
- STREAMBANK OR CHANNEL PROTECTION REQUIRED YES REFER TO PLAN FOR LIMITS
- DISTANCE TO EXISTING UPSTREAM STRUCTURE SPAN 50 WATERWAY AREA OF FULL OPENING 0
- DISTANCE TO EXISTING DOWNSTREAM STRUCTURE 1450 SPAN 50 WATERWAY AREA OF FULL OPENING 0

ALLOWABLE STRESSES:

- DESIGN LIVE LOAD AASHTO HS25
- ALLOWABLE LOAD FOR SPREAD FOOTINGS ON SOIL N/A ON LEDGE N/A
- ALLOWABLE LOAD FOR PILING 100 K TYPE HPI2 x 53 ESTIMATED LENGTH 69'±
- ALLOWABLE STRESS FOR STRUCTURAL STEEL ASTM A N/A TENSION N/A
- ALLOWABLE STRESS FOR REINFORCING STEEL GRADE 60 TENSION 24,000 PSI COMPRESSION 20,000 PSI
- ALLOWABLE STRESS FOR CONCRETE CLASS A f_c 3,500 PSI CLASS B f_c 3,500 PSI f_c 1,400 PSI

TRAFFIC MAINTENANCE:

- IS TRAFFIC TO BE MAINTAINED? YES IF YES, ON EXISTING STRUCTURE YES OR ON TEMPORARY BRIDGE
- TEMPORARY BRIDGE REQUIREMENTS: ONE OR TWO WAY TRAFFIC CONTROL SIGNALS REQUIRED MINIMUM CLEAR SPAN MINIMUM CLEAR HEIGHT MINIMUM WATERWAY AREA ARE SIDEWALKS REQUIRED? IF SO, ON WHAT SIDE?

ADDITIONAL DESIGN CONSIDERATIONS

STRESS LEVELS	LOAD RATING (TONS)				
	H	HS	3S2	6 AXLE	3A. STR. 4A. STR. 5A. SEMI
INVENTORY 0.55 Fy =					
POSTED 0.67 Fy =					
OPERATING 0.75 Fy =					

PARE ENGINEERING CORPORATION
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RECOMMENDED FOR APPROVAL STRUCTURES ENGINEER DATE
 RECOMMENDED FOR APPROVAL CHIEF OF DESIGN DATE
 APPROVED BY DIRECTOR OF ENGINEERING & CONSTRUCTION DATE

STATE OF VERMONT AGENCY OF TRANSPORTATION

TOWN OF POWNAL Bridge No. 6
 HIGHWAY NO. ROUTE 346 Log Sta. Surv. Sta.

REVISIONS

NO.	DESCRIPTION	BY & DATE

PRELIMINARY INFORMATION
 ROUTE 346-OVER POTTER HOLLOW BROOK
 Designed by J.S.J. Drawn by K.M.B.
 Checked by Bridge Design Supervisor date date
 PROJECT POWNAL PROJECT NO. RSO107(7)
 Bridge Sheet No. BR600 Sheet 137 of 319