

INDEX OF SHEETS

SHEET NO.	1	TITLE PAGE
2	TYPICAL CROSS-SECTION OF IMPROVEMENT (2 LANE GRADE-SEPARATED ROAD-NO. PLAGE)	
3	TYPICAL CROSS-SECTION OF IMPROVEMENT (SURFACE COURSE WITH OUTSIDE SHOULDER, ITEM 243)	
4	BANKING AND WIDENING TABLE	
5-7	EARTHWORK SHEETS	
8	QUANTITY SHEET	
9-11	PLAN AND PROFILE	
12	GENERAL PLAN AND PROFILE OF PROJECT (BRIDGE SHEET ONLY)	
13	PLAN AND ELEVATION OF BRIDGE	
14	DETAILS OF ABUTMENTS NOS. 1 AND 2	
15	PLAN AND ELEVATION OF PIERS	
16	SECTION AND ELEVATION OF PIERS	
17	CONTROL HOUSE AND LADDERS	
18	MATERIAL LIST AND NOTES OF PIERS	
19	DETAILS OF APPROACH SPANS	
20	PLAN OF BASCULE AND TRUNNION GIRDERS	
21	DETAILS OF BASCULE GIRDERS	
22	DETAILS OF TRUNNION GIRDER	
23	DETAILS OF BREAK IN SIDEWALK (BRIDGE FLOOR)	
24	DETAILS OF PIN	
25	STEEL PLAN AT CENTER	
26	DETAILS OF BEARING PEDESTALS	
27	LAYOUT OF MACHINERY	
28	LAYOUT OF HAND OPERATING MACHINERY	
29	LAYOUT OF CENTER SHEAR LOCK MECHANISM	
30	DETAILS OF NAVIGATION LIGHTS	
31	DETAILS OF WARNING GATES	
32	WIRING DIAGRAM	
33-34	SPECIFICATIONS OF ELECTRICAL EQUIPMENT AND OPERATOR'S HOUSE	
35	DETAILS OF OPERATOR'S HOUSE	
36	LAYOUT OF WATER SUPPLY AND SANITARY SERVICES (OPERATOR'S HOUSE)	
37	STANDARD STRUCTURE SHEET SB-20 DETAIL (L) (BEARING DETAILS)	
38-43	CHANNEL SECTIONS	
44	STANDARD STRUCTURE SHEET SS-11 BARRICADES, SIGNS AND LIGHTS (BRIDGE)	
45	STANDARD STRUCTURE SHEET SS-40 BARRICADES, SIGNS AND LIGHTS (ROADWAY)	
46	STANDARD STRUCTURE SHEET S-48-46 THREE CABLE GUARD RAIL WITH STEEL POSTS	
47	DETAILS OF BRIDGE ANCHORAGE	
48	STANDARD STRUCTURE SHEET S-46-45 BOUNDARY MARKERS	
49	STANDARD STRUCTURE SHEET S-47-45 PIPE CULVERTS	
50-72	CROSS SECTIONS	

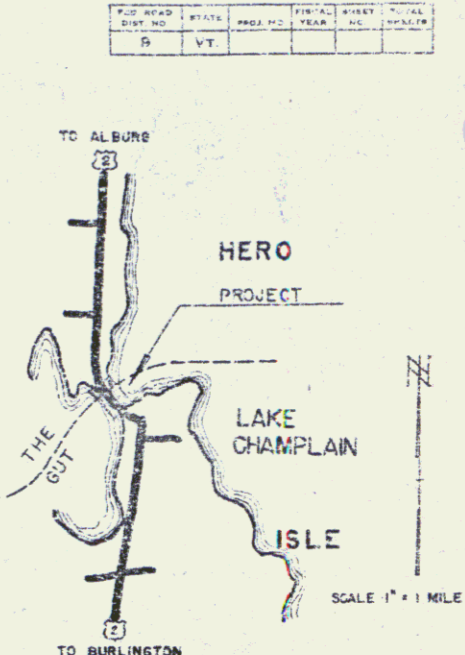
STATE OF VERMONT  
STATE HIGHWAY DEPARTMENT

PLAN AND PROFILE OF PROPOSED  
STATE HIGHWAY  
FEDERAL PROJECT  
TOWNS OF GRAND ISLE-NORTH HERO  
COUNTY OF GRAND ISLE  
ISLAND ROAD  
U. S. ROUTE 2

BEGINNING AT A POINT 2,296.1 FEET SOUTHERLY OF THE GRAND ISLE-NORTH HERO TOWN LINE AND EXTENDING NORTHERLY 3,817.8 FEET.

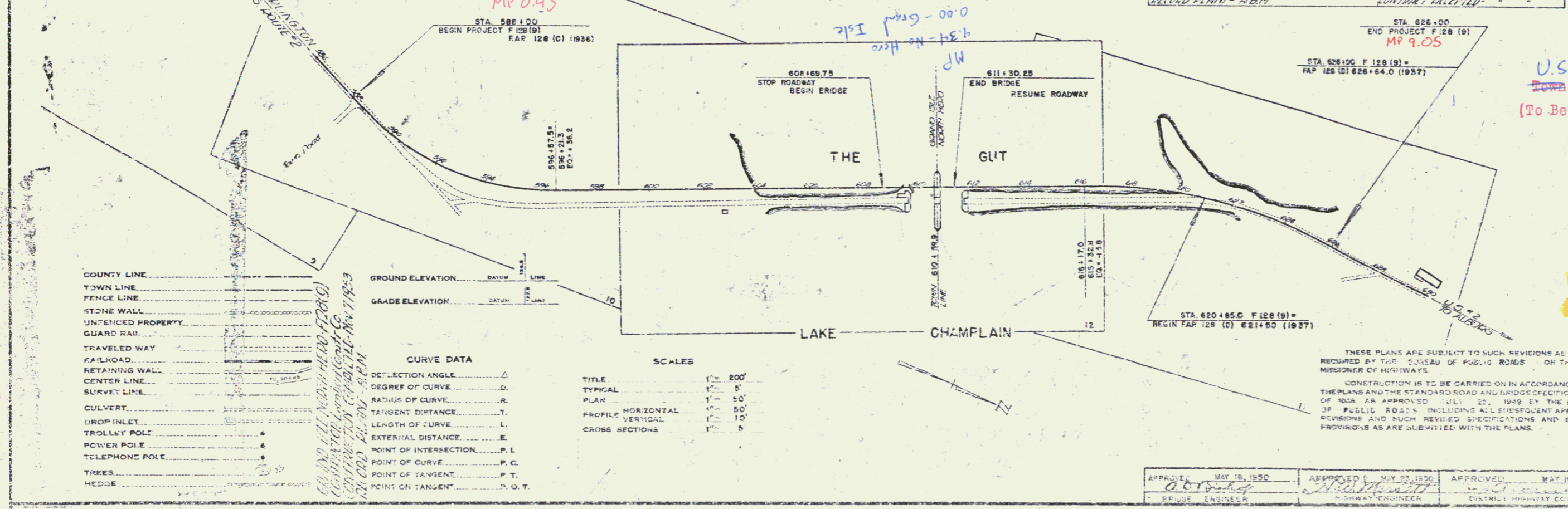
LENGTH OF ROADWAY 3,557.3 FEET = 0.6737 MILE  
LENGTH OF BRIDGE 260.5 FEET = 0.0493 MILE  
LENGTH OF PROJECT 3,817.8 FEET = 0.7230 MILE

PROJECT NAME & NUMBER	TYPE	PREVIOUS WORK
GRAND ISLE-NORTH HERO TOWNSHIP	STATE HIGHWAY	11,380 ft. x 11 ft.
ISLAND ROAD	STATE HIGHWAY	11,380 ft. x 11 ft.
CONTRACTOR	CONTRACTOR	CONTRACTOR
CONTRACT NO.	CONTRACT NO.	CONTRACT NO.
CONTRACT DATE	CONTRACT DATE	CONTRACT DATE
CONTRACT VALUE	CONTRACT VALUE	CONTRACT VALUE
CONTRACTOR'S NAME	CONTRACTOR'S NAME	CONTRACTOR'S NAME
CONTRACTOR'S ADDRESS	CONTRACTOR'S ADDRESS	CONTRACTOR'S ADDRESS
CONTRACTOR'S PHONE NO.	CONTRACTOR'S PHONE NO.	CONTRACTOR'S PHONE NO.
CONTRACTOR'S LICENSE NO.	CONTRACTOR'S LICENSE NO.	CONTRACTOR'S LICENSE NO.
CONTRACTOR'S EXPIRES	CONTRACTOR'S EXPIRES	CONTRACTOR'S EXPIRES
CONTRACTOR'S RATING	CONTRACTOR'S RATING	CONTRACTOR'S RATING
CONTRACTOR'S RECORD	CONTRACTOR'S RECORD	CONTRACTOR'S RECORD
CONTRACTOR'S REFERENCES	CONTRACTOR'S REFERENCES	CONTRACTOR'S REFERENCES
CONTRACTOR'S NOTES	CONTRACTOR'S NOTES	CONTRACTOR'S NOTES
CONTRACTOR'S COMMENTS	CONTRACTOR'S COMMENTS	CONTRACTOR'S COMMENTS
CONTRACTOR'S SIGNATURE	CONTRACTOR'S SIGNATURE	CONTRACTOR'S SIGNATURE
CONTRACTOR'S DATE	CONTRACTOR'S DATE	CONTRACTOR'S DATE



STANDARD STRUCTURE SHEETS, APPROVED BY THE CHIEF ENGINEER, VERMONT STATE DEPARTMENT OF HIGHWAYS

S-40	FEB 28, 1949
S-46-45	FEB 28, 1949
S-47-45	FEB 28, 1949
S-48-46	MAY 13, 1946



RIGHT-OF-WAY DIVISION  
TOWN FILE  
PERPETUAL  
Town of Rtc #2  
(To Be Returned To R.O.W. Division)

APPROVED: MAY 22, 1950  
H. E. Sargent  
CHIEF ENGINEER  
SUBMITTED BY ORDER OF THE STATE HIGHWAY BOARD

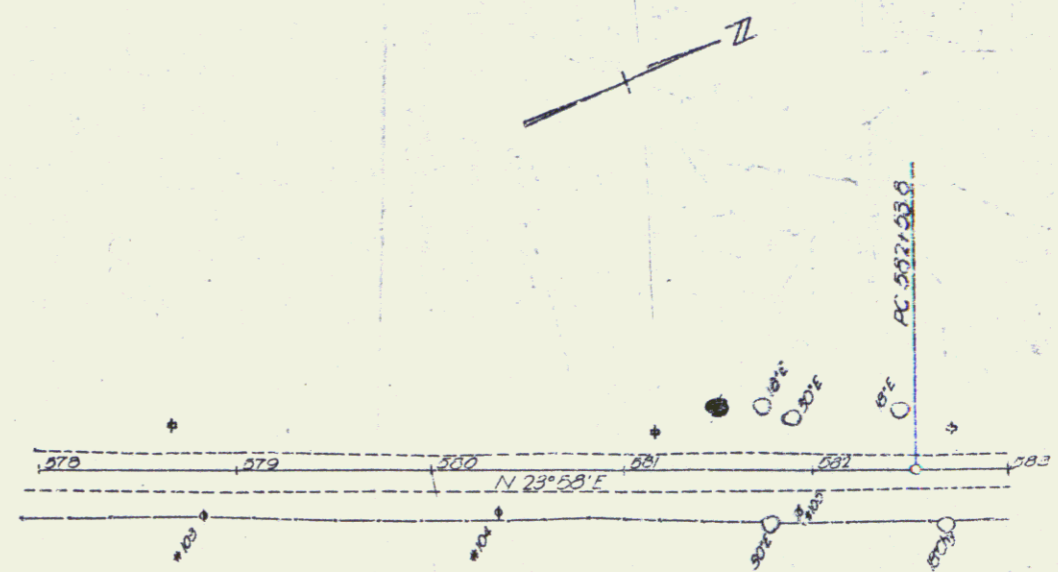
Pin # 009922 3/30/54  
Project No. F 128(C9)

DEPARTMENT OF COMMERCE  
BUREAU OF PUBLIC ROADS  
RECOMMENDED FOR APPROVAL  
DISTRICT ENGINEER  
APPROVED  
DIVISION ENGINEER

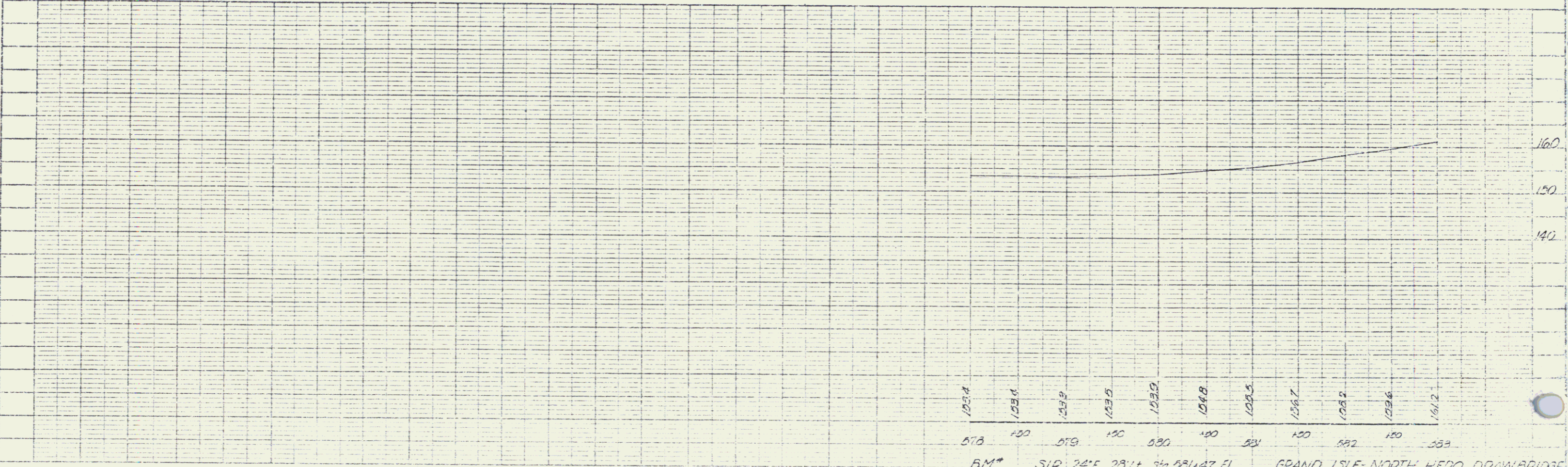
APPROVED: MAY 18, 1950 R. C. [Signature] DISTRICT ENGINEER	APPROVED: MAY 22, 1950 H. E. Sargent CHIEF ENGINEER	APPROVED: MAY 19, 1950 [Signature] DISTRICT HIGHWAY COMMISSIONER	SERIES F NO. 25 (9) FILED SHEET 1 OF 72
------------------------------------------------------------------	-----------------------------------------------------------	------------------------------------------------------------------------	--------------------------------------------

PLAN	DATE	BY
PROJECT		
DATE		
BY		

PROFILE	DATE	BY
PROJECT		
DATE		
BY		



WRIGHT EST  
See Jas. Landusky Est.



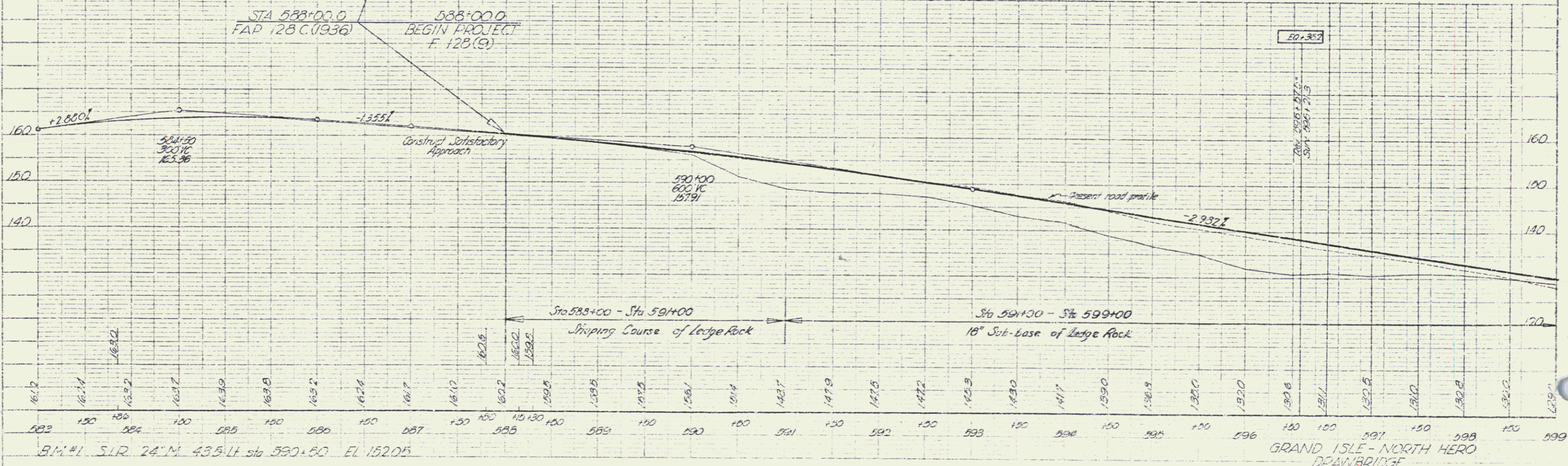
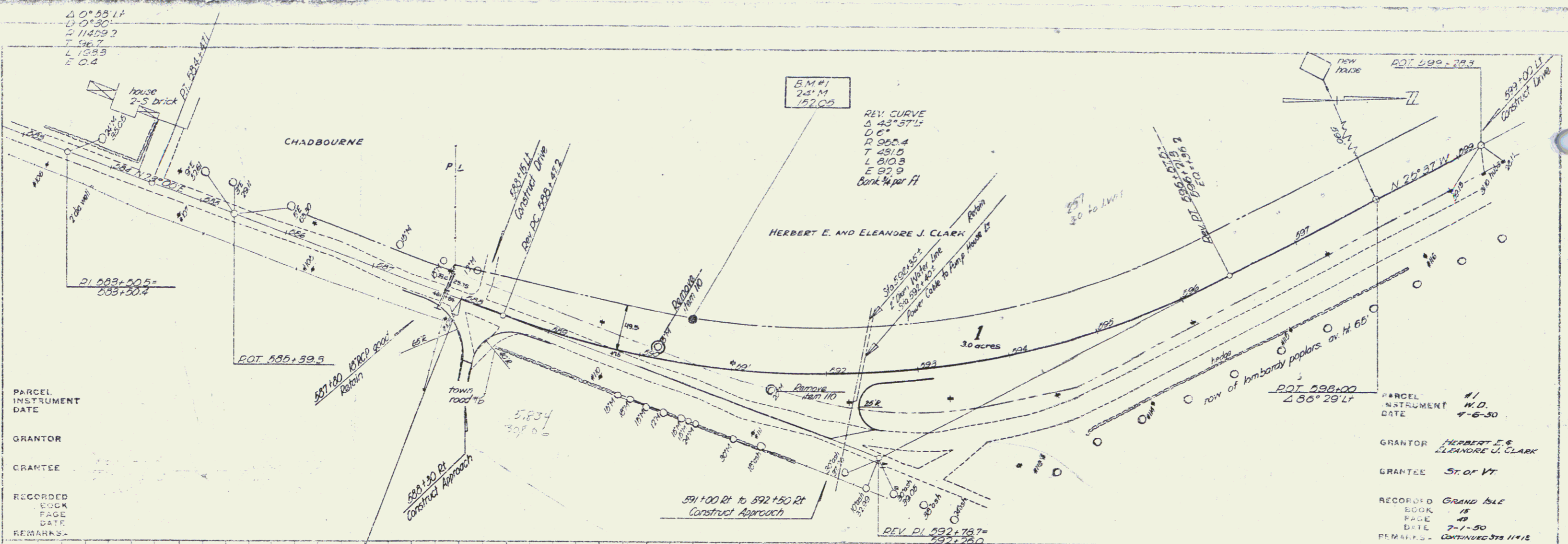
12314  
12315  
12316  
12317  
12318  
12319  
12320  
12321  
12322  
12323  
12324  
12325  
12326  
12327

570 100 579 190 580 400 581 100 582 100 583

BM# S1R 24°E 28'14 3/4 581.47 EI GRAND ISLE-NORTH HERO DRAW BRIDGE  
Sheet 2 of 12

PLAN	DATE	BY
5/28/50	1950	J.M.C.
REVISED	DATE	BY

FILE	NO.
599-28.3	10
DATE	
7-1-50	



B.M. #1 S.I.R. 24' M 43.5' LT sta 590+60 El. 152.05

GRAND ISLE - NORTH HERO  
DRAWN BY BRIDGE  
Sheet 10 of 72

PARCEL INSTRUMENT DATE #1 W.D. 7-6-30

GRANTOR HERBERT E. & ELEANORE J. CLARK

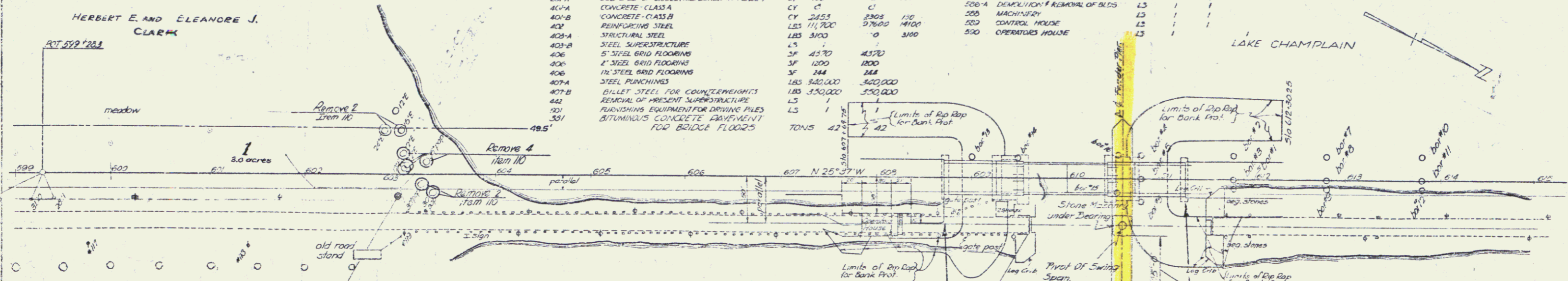
GRANTEE ST. OF VT

RECORDED GRAND ISLE BOOK 15 PAGE 49 DATE 7-1-50 PERMITS - CONTINUED 598 11+12

HERBERT E. AND ELEANORE J. CLARK

LIST OF QUANTITIES (BRIDGE ONLY)

ITEM NO	DESCRIPTION	UNIT	QTY	UNIT PRICE	TOTAL	ITEM NO	DESCRIPTION	UNIT	QTY	UNIT PRICE	TOTAL
102-A	BORROW (MODIFIED)	CY	7000	0.90	6300	504	STEEL PILING	LF	1080	1.50	1620
103-A	TRENCH EXCAVATION OF EARTH	CY	162	1.80	291.60	504-1	CUT OFF FOR STEEL PILING	LF	54	3.00	162.00
104	CHANNEL EXCAVATION	CY	192	1.50	288.00	505	STANDARD STRUCTURAL TIMBER (MODIFIED)	MBM	16	16	256.00
105	STRUCTURE EXCAVATION	CY	97	1.00	97.00	506	PIPPAP FOR BANK PROTECTION	CY	1802	1.50	2703.00
106	MAINTENANCE OF TRAFFIC FOR BRIDGE PROJECT	LS	1	1.00	1.00	507	ELECTRICAL EQUIPMENT	LS	1	1.00	1.00
201-A	SUB-BASE OF GRAVEL (MEASURED IN PLACE)	CY	100	6.00	600.00	508-A	DEMOLITION & REMOVAL OF BLDGS	LS	1	1.00	1.00
401-A	CONCRETE - CLASS A	CY	5	1.00	5.00	509	MACHINERY	LS	1	1.00	1.00
401-B	CONCRETE - CLASS B	CY	2455	2.50	6137.50	510	CONTROL HOUSE	LS	1	1.00	1.00
402	REINFORCING STEEL	LBS	11,700	41.00	480,000.00	511	OPERATOR'S HOUSE	LS	1	1.00	1.00
403-A	STRUCTURAL STEEL	LBS	3100	0.00	3100.00						
403-B	STEEL SUPERSTRUCTURE	LS	1	4570	4570.00						
406	5" STEEL GRID FLOORING	SF	1200	1.67	2004.00						
406	4" STEEL GRID FLOORING	SF	144	1.67	240.48						
406	1 1/2" STEEL GRID FLOORING	SF	144	1.67	240.48						
407-A	STEEL PUNCHING	LBS	340,000	1.50	510,000.00						
407-B	BILLET STEEL FOR COUNTERWEIGHTS	LBS	350,000	1.50	525,000.00						
442	REMOVAL OF PRESENT SUPERSTRUCTURE	LS	1	1.00	1.00						
501	REMOVING EQUIPMENT FOR DRIVING PILES	LS	1	1.00	1.00						
501	BITUMINOUS CONCRETE PAVEMENT FOR BRIDGE FLOORS	TONS	42	1.00	42.00						



**GENERAL OPERATING PROCEDURE**  
 The operation shall be controlled from the control house on the right of Pier #2 and shall be interlocked for the following procedure in raising:  
 The flashing red lights on all posts shall go together with the warning bells. A time interval of 45 sec shall elapse before the gates start to lower. The flashing red lights on gate arms shall go on when gate starts to lower. A time interval of 30 sec shall elapse from start of lowering of gate to start of the movement to with draw center lock pins. After the center lock shear pins are with drawn the bascule spans are raised.  
 The reverse procedure shall be followed in closing the bridge.

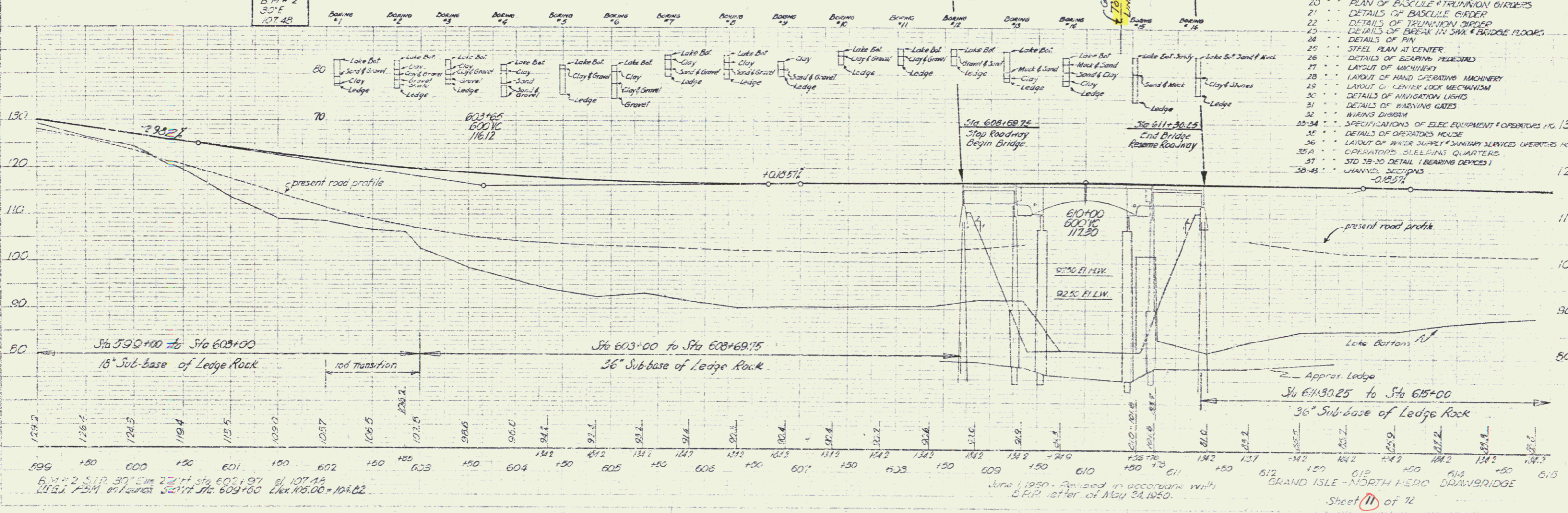
LAKE CHAMPLAIN

This portion of tender pier to be removed to lake bottom before any other work is started to allow for laying of submarine cables by the Telephone & Utility Company.

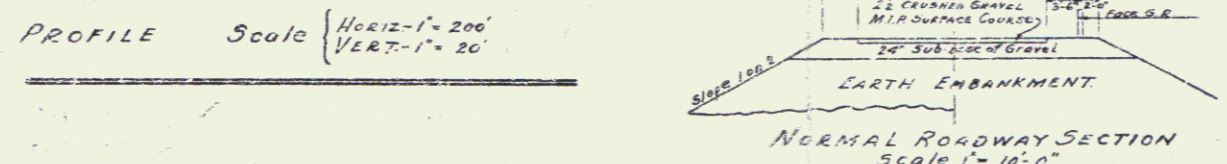
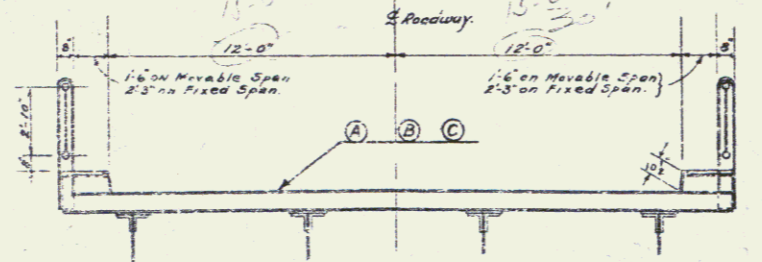
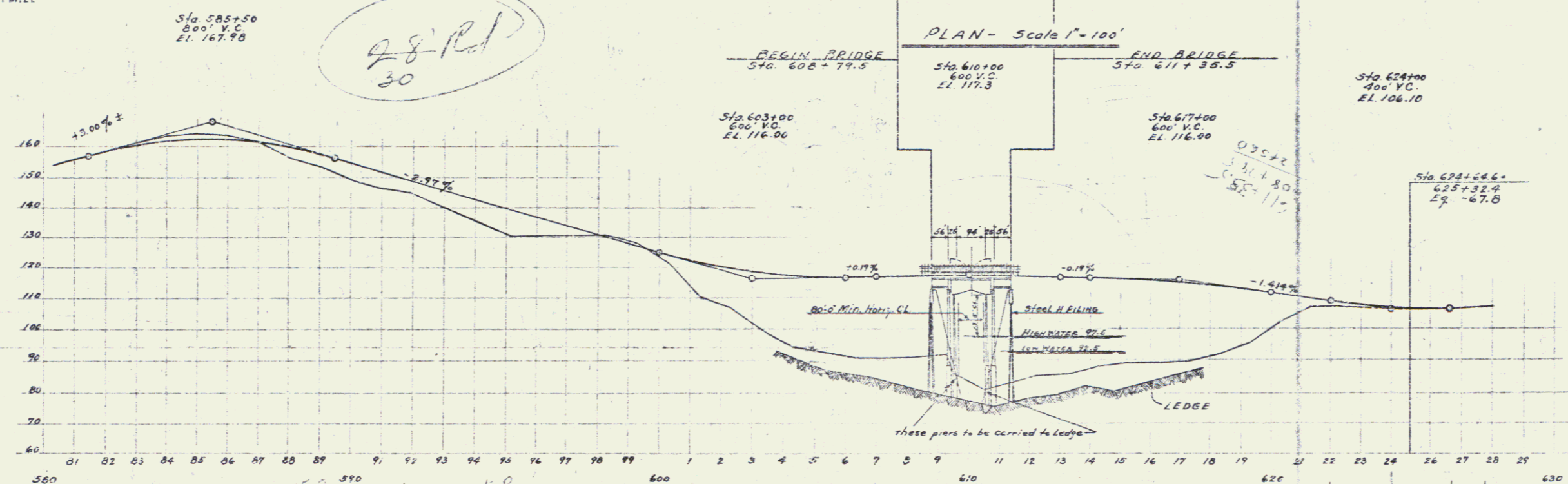
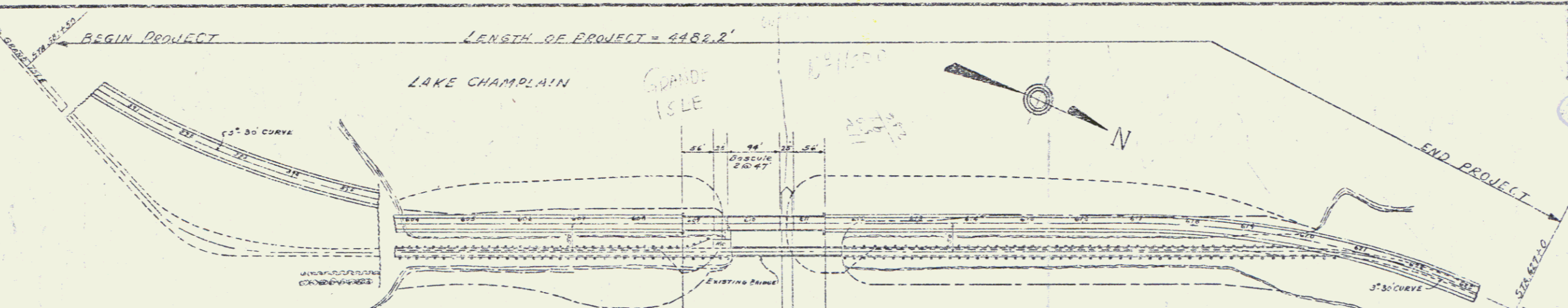
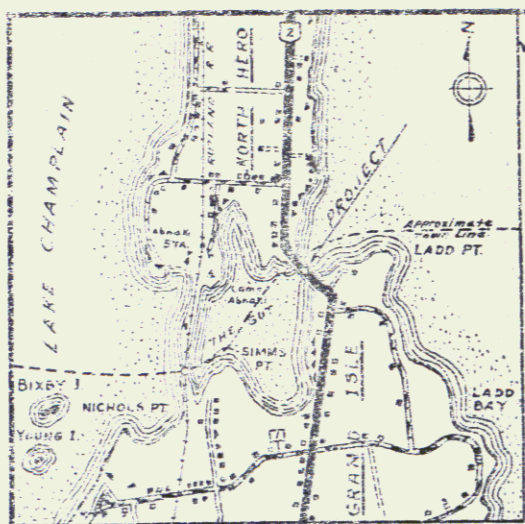
LAKE CHAMPLAIN

LIST OF SHEETS (BRIDGE ONLY)

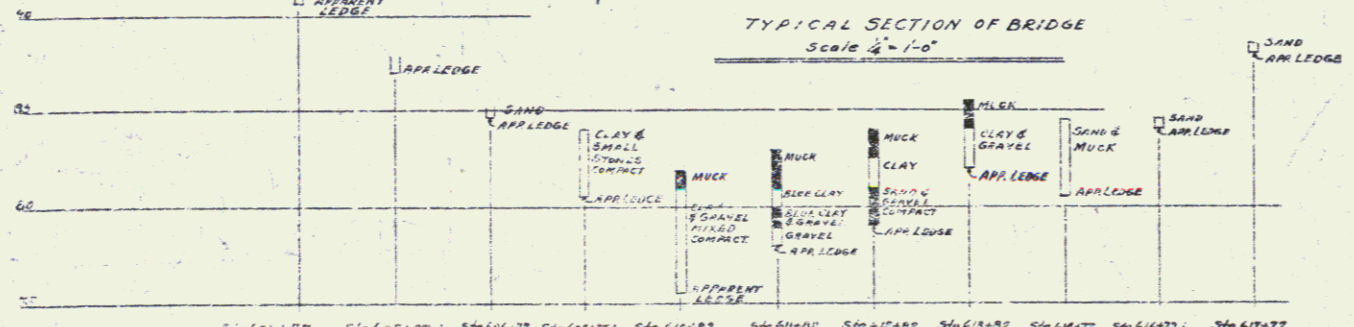
- 11 OF 12 GENERAL PLAN & PROFILE
- 12 PLAN & ELEVATION OF BRIDGE
- 13 DETAILS OF ABUTMENT
- 14 PLAN & ELEVATION OF PIERS
- 15 SECTION & ELEVATION OF PIERS
- 16 CONTROL HOUSE & LADDERS
- 17 MATERIAL LIST & NOTES - PIERS
- 18 DETAILS OF APPROACH SEAS
- 19 PLAN OF BASCULE & TRUNION GIRDERS
- 20 DETAILS OF BASCULE GIRDER
- 21 DETAILS OF TRUNION GIRDER
- 22 DETAILS OF BREAK IN SHK & BRIDGE FLOOR
- 23 DETAILS OF PIN
- 24 STEEL PLAN AT CENTER
- 25 DETAILS OF BEARING PEDASTALS
- 26 LAYOUT OF MACHINERY
- 27 LAYOUT OF HAND OPERATED MACHINERY
- 28 LAYOUT OF CENTER LOCK MECHANISM
- 29 DETAILS OF NAVIGATION LIGHTS
- 30 DETAILS OF WARNING GATES
- 31 WORKS DISSEM
- 32-34 SPECIFICATIONS OF ELEC EQUIPMENT & OPERATORS HG. 130
- 35 DETAILS OF OPERATOR'S HOUSE
- 36 LAYOUT OF WATER SUPPLY & SANITARY SERVICES OPERATOR'S HOUSE
- 37 OPERATOR'S SLEEPING QUARTERS
- 38-43 STD 38-30 DETAIL BEARING DEVICES
- 38-43 CHANNEL SECTIONS







BRIDGE DATA		
	PRESENT BRIDGE	PROPOSED BRIDGE
TYPE	1 Span Steel Truss	Double Leaf Bascule Bridge
OVERALL LENGTH	105.0 FT	36'-5.74'-25'-04" = 256'
CLEAR HEIGHT	5.8 FT @ H.W. EL. 97.5	15.5 FT @ H.W. EL. 97.5
ROADWAY WIDTH	14.0 FT	29.0 FT
WATERWAY		
STREAM VELOCITY	NONE	NONE
SCOUR	NONE	NONE



**NOTES**

Bridge Designed in Accordance with A.A.S.H.O. Spec. Dated 1944, with Live Load of 120 (1844) & 25% Allowance.

Piling shall be Steel H-Piling of sufficient size and shall be driven into Ledge approx. 3 to 5 FT. Max. load per pile shall be 40 tons.

Earth embankments shall be protected with Stone Fill or Rip-Rap to an elevation of existing bridge shall be retained during construction, and shall then be dismantled. Piers and abutments shall be removed to Lake bed.

Navigation Lights of approved design shall be installed on bridge.

Types of Bridge Floor:

- Approach spans (A) 12' Span Support (16") Max. Concrete Floor
- Bascule Span (B) 4' - (7'-4") 1/2" Open Grid Steel Floor
- Bascule Support Span (C) 8' - (4'-11") 1/2" Filled Grid Steel Floor

CORRECT: 1946  
*A. D. Fisher*  
 BRIDGE ENGINEER  
 APPROVED: Dec. 11, 1946  
*T. B. ...*  
 COMMISSIONER OF HIGHWAYS

PRELIMINARY LAYOUT  
**GRAND ISLE - NORTH HERO BRIDGE**  
 BRIDGE OVER THE "GUT" LAKE CHAMPLAIN,  
 ON ROUTE U.S. 2  
 STATE OF VERMONT  
 DEPT. OF HIGHWAYS

ESTIMATED QUANTITIES


Surveyed by  
 Designed by  
 Drawn by H.R.C. 12/6/46  
 Traced by H.R.C.  
 Checked by L.S.P.  
 Series F.A.P. No. 122 (7) Filed  
 Sheet 1 of 1 Series

POOR ORIGINAL COPY