

REC'D SEP 9 1955 DCA-111



State of New Hampshire
PUBLIC UTILITIES COMMISSION
CONCORD

COMMISSIONERS
HAROLD K. DAVISON
CHAIRMAN
EDWARD R. THORNTON
BLAYLOCK ATHERTON

September 7, 1955 NOTED SEP 9 1955 A.R.S.

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NOTED SEP 9 1955 A.L.

Legal

Avery R. Schiller, President
Public Service Company of New Hampshire
Manchester, New Hampshire

Dear Sir:

D-E3442 Public Service Company of New Hampshire.
Petition for a license to cross public
waters.

We are enclosing copy of Order No. 6668 issued
by the Commission in connection with the above entitled
matter.

Very truly yours,

N. H. PUBLIC UTILITIES COMMISSION

James W. Doon
Secretary

J

Engineering Plans D-7649-33, D-7649-49 & D-7649-50
missing

GCA-111

D-E3442

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE

Petition for a license to cross public waters.

..00..

Appearances: for the petitioner, Irving H. Soden.

..00..

ORDER NO. 6668

WHEREAS, R. L. c. 294, s. 17, was amended by Laws of 1953, c. 52, in such manner as to more clearly define the jurisdiction of this Commission with respect to the crossing of public waters by public utilities; and

WHEREAS, the Public Service Company of New Hampshire petitioned this Commission for licenses to construct and maintain water crossings below listed, thereby legalizing existing crossings; and

WHEREAS, after hearing held upon said petition in Concord on August 17, 1955, at which no opposition appeared, this Commission finds that, in order to meet the reasonable requirements of service to the public, it is necessary that said water crossings should be constructed and maintained, and that the licenses petitioned for may be exercised without substantially affecting the public rights in the waters crossed, and hereby renders judgment granting said licenses; it is

ORDERED, that licenses be, and hereby are, granted to the Public Service Company of New Hampshire to construct and maintain lines of wires, or submarine cables, across public waters, at the sites specified as follows:

1. Over Silver Lake from Jamestown Road, in the Town of Belmont, to Clarke Island in the Town of Tilton, as shown on Drawing No. D-7649-1.
2. Over Lake Winnepesaukee from Varney Point to Emery Island in the Town of Gilford, as shown on Drawing No. D-7649-2.

3. Over East end of Lake Wicwas in the Town of Meredith, as shown on Drawing No. D-7649-3.
4. Over Lake Winnisquam from Daniel Webster Highway Route No. 3 to Mohawk Island in the Town of Tilton, as shown on Drawing No. D-7649-5.
5. Over outlet of Conway Lake from Conway Center to Hill's Camp in the Town of Conway, as shown on Drawing No. D-7649-6.
6. Over outlet of Conway Lake from Conway Center to Mudgett Line in the Town of Conway, as shown on Drawing No. D-7649-7.
7. Over Conway Lake from Morrill's Shore in the Town of Conway, as shown on Drawing No. D-7578.
8. Over Ossipee River between Broad Bay and Ossipee Lake in the Towns of Eppingham and Freedom, as shown on Drawing No. D-7649-4. *Ossipee*
9. Over Berry Bay in the Town of Freedom, as shown on Drawing D-7649-10.
10. Over Conway Lake to Scribners in the Town of Conway, as shown on Drawing No. D-7649-8.
11. Over Opechee Lake in the City of Laconia from Messer Street Sub-station to the Northwest Shore, as shown on Drawing No. D-7649-9.
12. Over Piscataqua River at Portsmouth Sub-station in the City of Portsmouth, as shown on Drawing No. D-7649-11.
13. Over the Piscataqua River west of Gould Corner in the City of Dover and Town of Eliot, Maine, as shown on Drawing No. D-7649-13.
14. Over the Cocheco River at Dover Sub-station in the City of Dover, as shown on Drawing No. D-7649-14.
15. Over the Cocheco River at Dover Sub-station in the City of Dover, as shown on Drawing No. D-7649-15.
16. Over the Cocheco River at Dover Sub-station in the City of Dover, as shown on Drawing No. D-7649-16.
17. Over the Bellamy River 1/4 mile north of Cushing Station in the City of Dover, as shown on Drawing No. D-7649-17.
18. Over the Winnicut River in the Town of Greenland, as shown on Drawing No. D-7649-18.

*Supplemental
des. - relates to
right of crossing*

→

*3 7649-12 is for
wasting in Maine
Perry's Canal,
So Eliot.*

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*Fact Div =
#12-35*

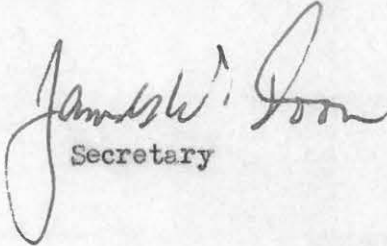
see GA 102

- 19. Over the Winnicut River in the Town of Greenland, as shown by Drawing No. D-7649-19.
- 20. Over the Swanscott River, 4,000 feet south of the Exeter-Newfield Town Lines in the Town of Exeter, as shown on Drawing No. D-7649-20.
- 21. Over the Swanscott River 3,900 feet south of the Exeter-Newfield Town Lines in the Town of Exeter, as shown on Drawing No. D-7649-21.
- 22. Over the Cochecho River at the Power Station in the City of Dover, as shown on Drawing No. D-7629-22.
- 23. Over the Cochecho River at Young Street in the City of Dover, as shown on Drawing No. D-7629-23.
- 24. Over the west end of Swains Pond to Harpers Island in the Town of Barrington, as shown on Drawing No. D-7580.
- 25. Over the Cochecho River at Cochecho Street in the City of Dover, as shown on Drawing No. D-6983. See Oct 10/2
- 26. Over north end of Ayers Pond in the Town of Barrington, as shown on Drawing No. D-7649-24.
- 27. Over Bow Lake to Caswell Island in the Town of Strafford, as shown on Drawing No. D-6899. See also D-7649-56.1 →
- 28. Over the Cochecho River at Pacific Mills in the City of Dover, as shown on Drawing No. D-7649-25.
- 29. Over the Cochecho River at Washington Street in the City of Dover, as shown on Drawing No. D-7649-26.
- 30. Over the Cochecho River at Washington Street Lower Bridge in the City of Dover, as shown on Drawing No. D-7649-27.-28.
- 31. Over Wheelwright Pond in the Town of Lee, as shown on Drawing No. D-7649-29.
- 32. Under Milton Village Pond to Tamers Island in the Town of Milton.
- 33. Over the north end of Lily Pond in the City of Somersworth, as shown on Drawing No. D-7649-30.
- 34. Over southwest Cove of Balch Pond in the Town of Wakefield, as shown on Drawing No. D-7649-31.
- 35. Over Lovell Lake to Big Island in the Town of Wakefield, as shown on Drawing No. D-7649-32.
- 36. Over east end of Glen Lake in the Town of Goffstown, as shown on Drawing No. D-7649-33. /

37. Over the Merrimack River .5 mile north of Martins Ferry in the Town of Hooksett, as shown on Drawing No. D-7649-34.
38. Over the Merrimack River .5 mile south of Martins Ferry in the City of Manchester, as shown on Drawing No. D-7649-35.
39. Over the east end of Glen Lake in the Town of Goffstown, as shown on Drawing No. D-7649-36.
40. Over Weare Reservoir in the Town of Weare, as shown on Drawing No. D-7649-37.
41. Over Franklin Pierce Lake in the Town of Antrim, as shown on Drawing No. D-7649-38.
42. Over Goodell Pond in the Town of Antrim, as shown on Drawing No. D-7649-39.
43. Over Howes Reservoir in the Town of Dublin, as shown on Drawing No. D-7649-40.
44. Over Howes Reservoir in the Town of Dublin, as shown on Drawing No. D-7649-41.
45. Under Lake Sunapee from Bowles Road to Great Island in the Town of Newbury, as shown on Drawing No. D-6829.
46. Over east side of Gregg Lake in the Town of Antrim, as shown on Drawing No. D-7649-42.
47. Over south end of Pleasant Pond in the Town of Frances-town, as shown on Drawing No. D-7649-43.
48. Over the southeast end of Millen Lake in the Town of Washington, as shown on Drawing No. D-7649-44.
49. Under Lake Sunapee from Burkhaven Harbor to Emerald Island in the Town of Sunapee, as shown on Drawing No. D-7649-49.
50. Under Lake Sunapee from Emerald Island to Star Island in the Town of Sunapee, as shown on Drawing No. D-7649-50.
51. Over Dodge Pond in the Town of Lyman, as shown on Drawing No. D-7649-45.
52. Over Dodge Pond in the Town of Lyman, as shown on Drawing No. D-7649-46.
53. Over Lake Winnisquam at Ephraim Cove in the Town of Belmont, as shown on Drawing No. D-7649-47.
54. Over Lake Winnisquam at Ephraim Cove in the Town of Belmont, as shown on Drawing No. D-7649-48;

said licenses to remain in full force and effect until revoked by this Commission.

By order of the Public Utilities Commission of New Hampshire this thirty-first day of August, 1955.


Secretary



~~HDR~~
~~BHA~~
Files

State of New Hampshire
PUBLIC UTILITIES COMMISSION
CONCORD

RECD SEP 21 1956

COMMISSIONERS
HAROLD K. DAVISON
CHAIRMAN
EDWARD R. THORNTON
BLAYLOCK ATHERTON

September 20, 1956

NOTED SEP 21 1956 A.R.S.

NOTED SEP 21 1956 H.D.R.

NOTED SEP 21 1956 H.D.R.

Avery R. Schiller, President
Public Service Company of New Hampshire
Manchester, New Hampshire

Dear Sir:

D-E3442 Public Service Company of New Hampshire.
Petition for a license to cross public
waters.

We are enclosing copy of Supplemental Order No.
6887 issued by the Commission in connection with the above
entitled matter.

Very truly yours,

N. H. PUBLIC UTILITIES COMMISSION

James W. Don
Secretary

J

REC'D SEP 21 1956

D-83442

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE

Petition for a license to cross public waters.

..00..

S U P P L E M E N T A L O R D E R N O. 6887

WHEREAS, our Order No. 6668, dated August 31, 1955, issued, following public hearing, authorized the Public Service Company of New Hampshire, inter alia, to construct and maintain lines of wires over and across Ossipee River from the Town of Effingham to the Town of Freedom, in accordance with a plan on file with this Commission, which plan specified a minimum clearance between the overhead wire and the minimum water level of twenty-four and four tenths (24.4) feet; and

WHEREAS, it now appears that the crossing will be from the Town of Effingham to the Town of Ossipee, and that the requirements of navigation require a clearance greater than that originally specified; and

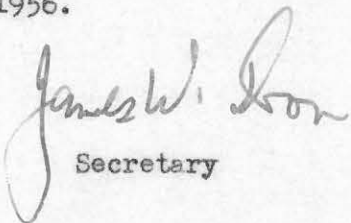
WHEREAS, the Public Service Company of New Hampshire has now requested that said Order No. 6668 be amended to bring it into compliance with the actual situation; and

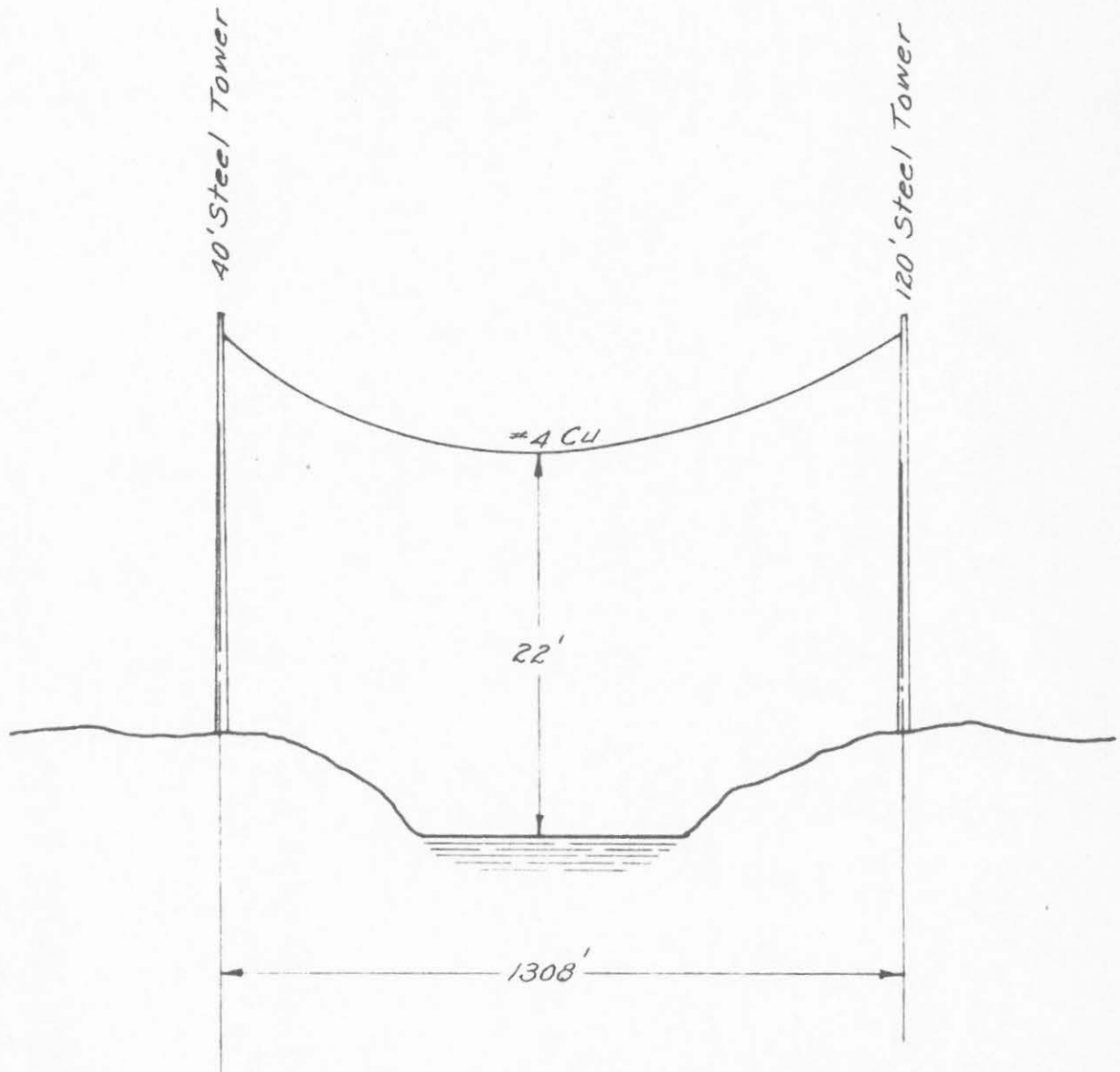
WHEREAS, upon investigation and consideration, this Commission is satisfied that the granting of the petition would be in the public interest; it is

ORDERED, that Paragraph 8 of Order No. 6668 of this Commission be, and hereby is, amended to read as follows:

8. Over Ossipee River between Broad Bay and Ossipee Lake in the Towns of Freedom and Ossipee, as shown on Drawing No. D-7649-4A.

By order of the Public Utilities Commission of New Hampshire
this twentieth day of September, 1956.


Secretary



A 111
DWG #11

DES	NO	REVISION	DATE	BY
DR	1			
TR	2			
CK	3			
APPR	4			
	5			
	6			

33 KV. WIRE CROSSING OPECHEE LAKE LACONIA, N.H	
PUBLIC SERVICE CO. OF NEW HAMPSHIRE ENGINEERING DEPARTMENT	
SCALE NONE	DATE 11-53
D-7649-9	

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
OPECHEE BAY CROSSING - LACONIA, NEW HAMPSHIRE
34.5 KV LINE #338 - MESSER STREET - BEECH HILL

The 34.5 KV line crossing at Opechee Lake, Laconia, New Hampshire on Line #338 was measured by a Public Service Company survey crew on May 25, 1962. The three conductors in this line are 336,400 C.M. 26/7 A.C.S.R. in these two spans. Temperature at the time of the survey was 74° F.

The span distance between the first two steel towers westerly from Messer St. Substation is 1,308 feet.

Clearance above Opechee Bay to the lowest wire was 23.00 feet, to the middle wire 31.88 feet and to the highest wire 37.19 feet.

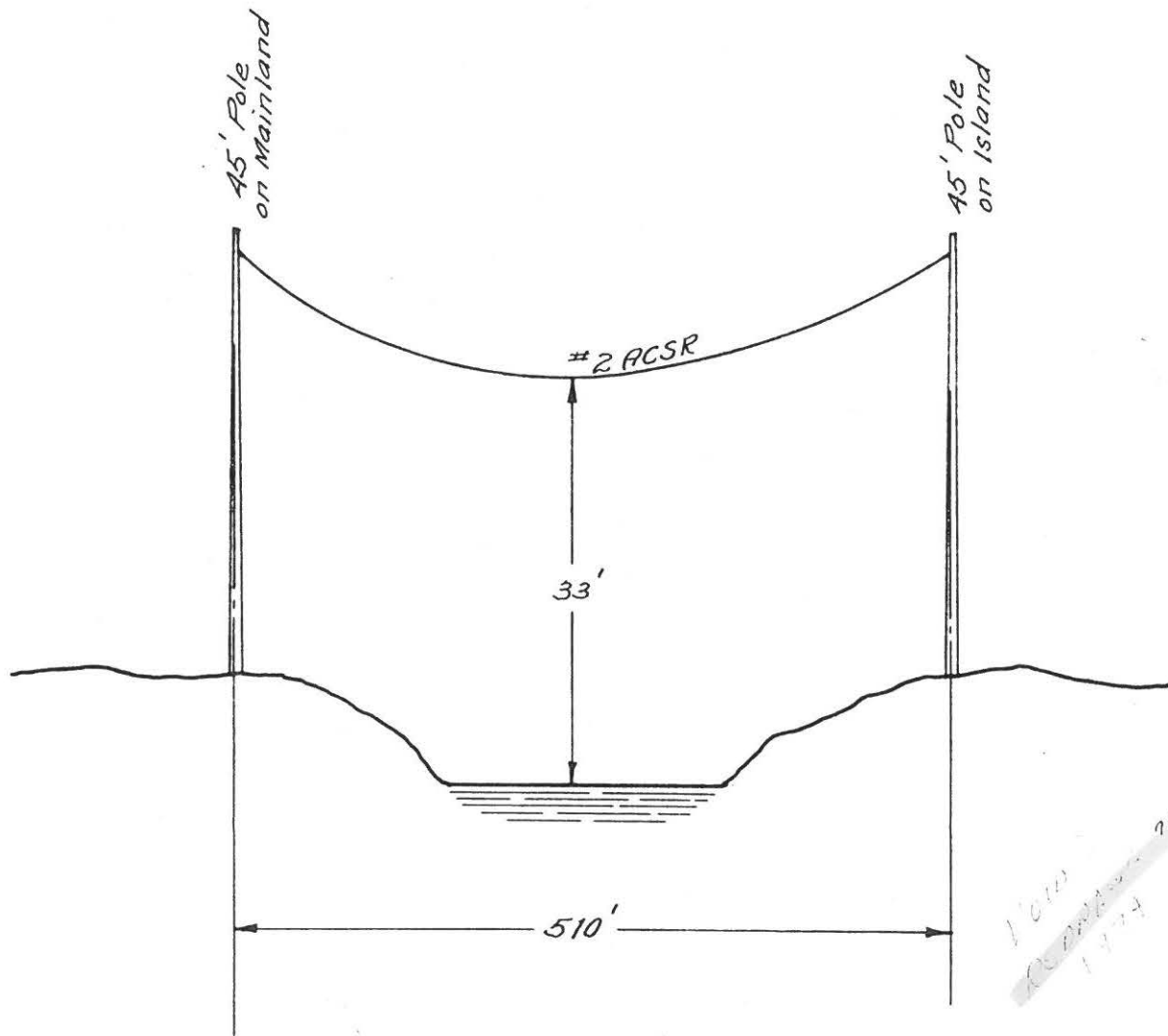
The span distance between the second and third steel towers westerly from Messer St. Substation is 1,182 feet.

Clearance above Opechee Bay in this span was 35.98 feet to the lowest wire, 42.67 feet to the middle wire and 49.70 feet to the highest wire.

The span distances were obtained from N.E.P.S.Co. survey of September 1937 and Public Service Company of New Hampshire survey of January, 1961.

May 29, 1962
KSA:erp

Item # 11
ECC 111



*10/10
 7649-151
 1/1/54*

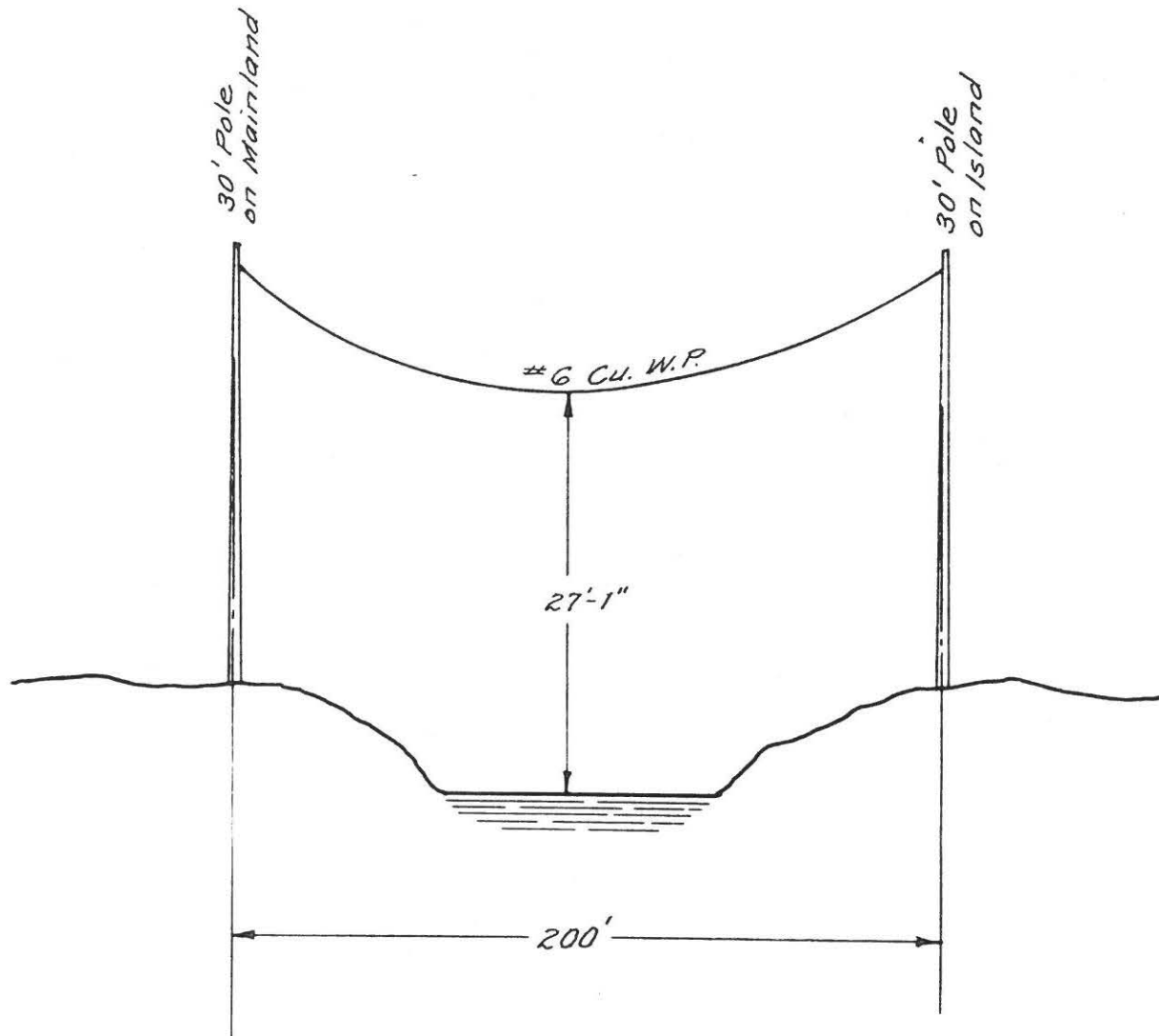
DES.	NO.	REVISION	DATE	BY
DR.	1			
TR.	2			
CK.	3			
APPR.	4			
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120/240 VOLT WIRE CROSSING SILVER LK.
 FROM JAMESTOWN RD. TO CLARKE IS.
 BELMONT-TILTON

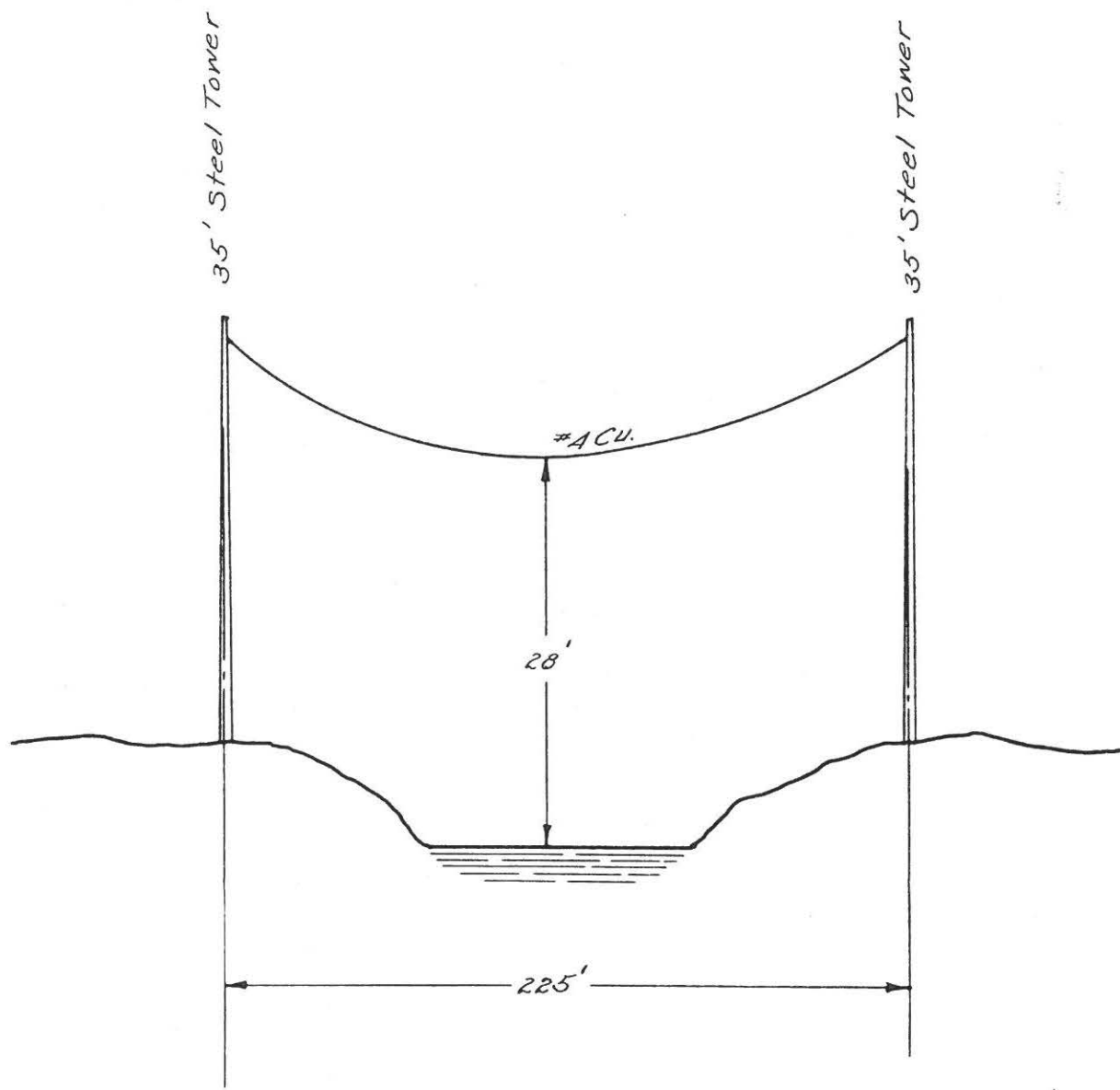
PUBLIC SERVICE CO. OF NEW HAMPSHIRE
 ENGINEERING DEPARTMENT

SCALE NONE DATE 11-53

D-7649-1

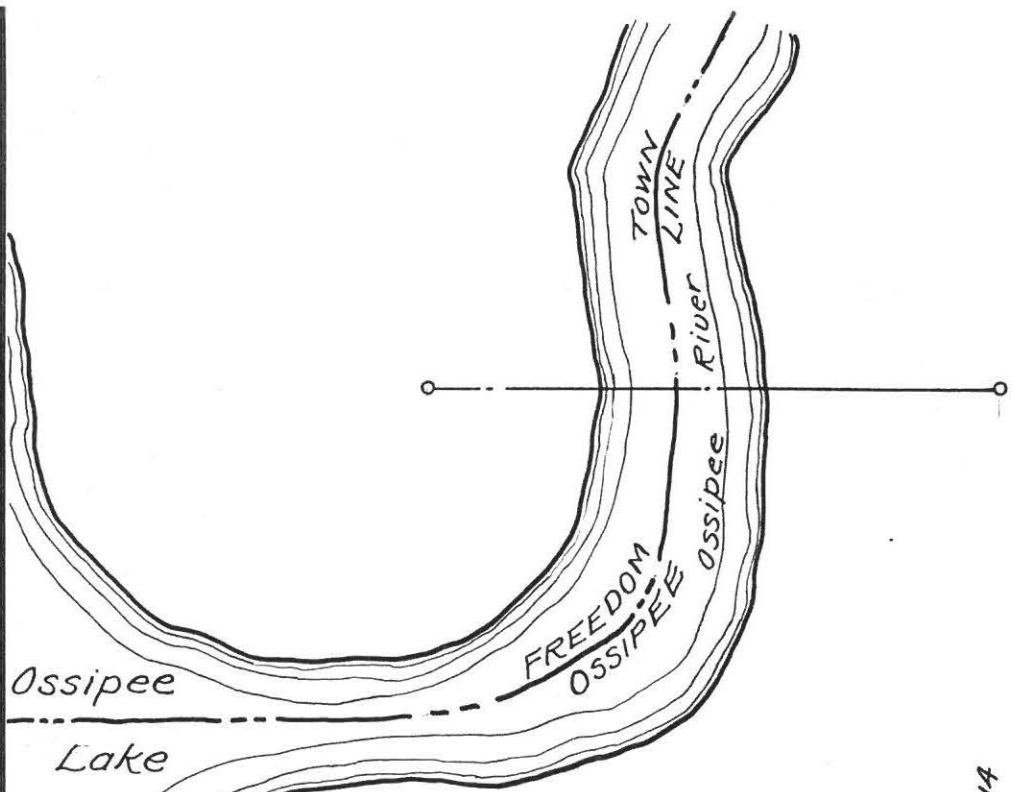


					REDDMAN	
DES.	NO	REVISION	DATE	BY	2300VOLT WIRE CROSSING LAKE WINNI- PESAUKEE-VARNEY PT. TO EMERY IS. GILFORD, N.H.	
DR.	1					
TR.	2					
CK.	3					
APPR.	4					
	5					
	6				PUBLIC SERVICE CO. OF NEW HAMPSHIRE ENGINEERING DEPARTMENT SCALE <i>NONE</i> DATE <i>11-53</i>	D-7649-2



DES.	NO	REVISION	DATE	BY
DR.	1			
TR.	2			
CK.	3			
APPR.	4			
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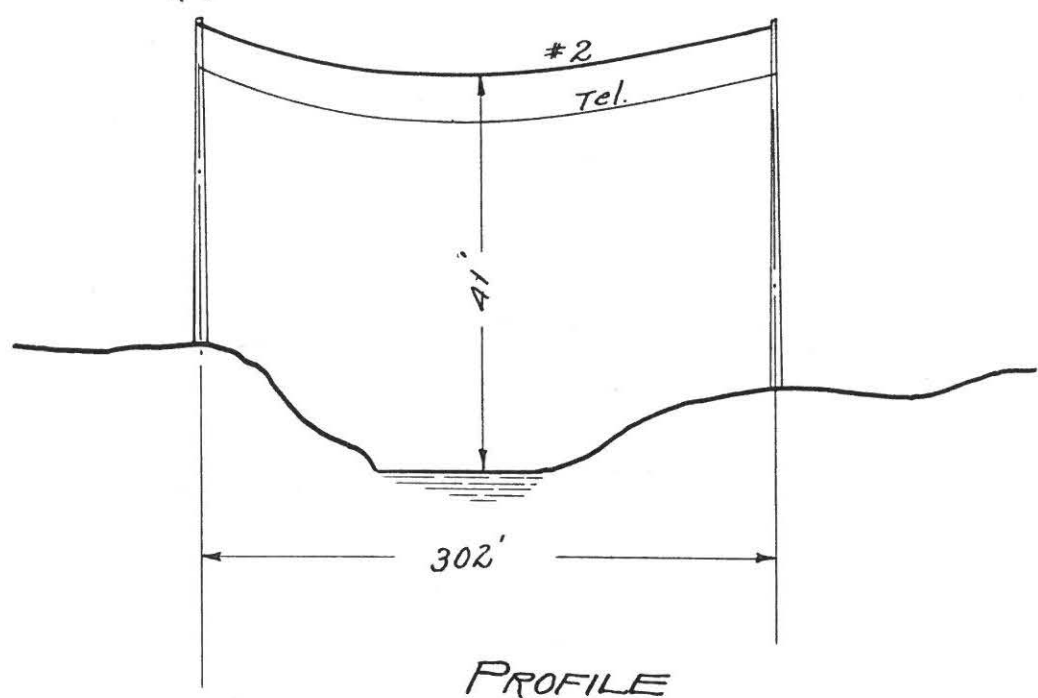
<p>33 KV. WIRE CROSSING EAST END OF LAKE WICKWAS MEREDITH, N. H.</p>	
PUBLIC SERVICE CO. OF NEW HAMPSHIRE ENGINEERING DEPARTMENT SCALE NONE	DATE 11-53 D-7649-3



PLAN

Pole No. 15
40'-C1.5

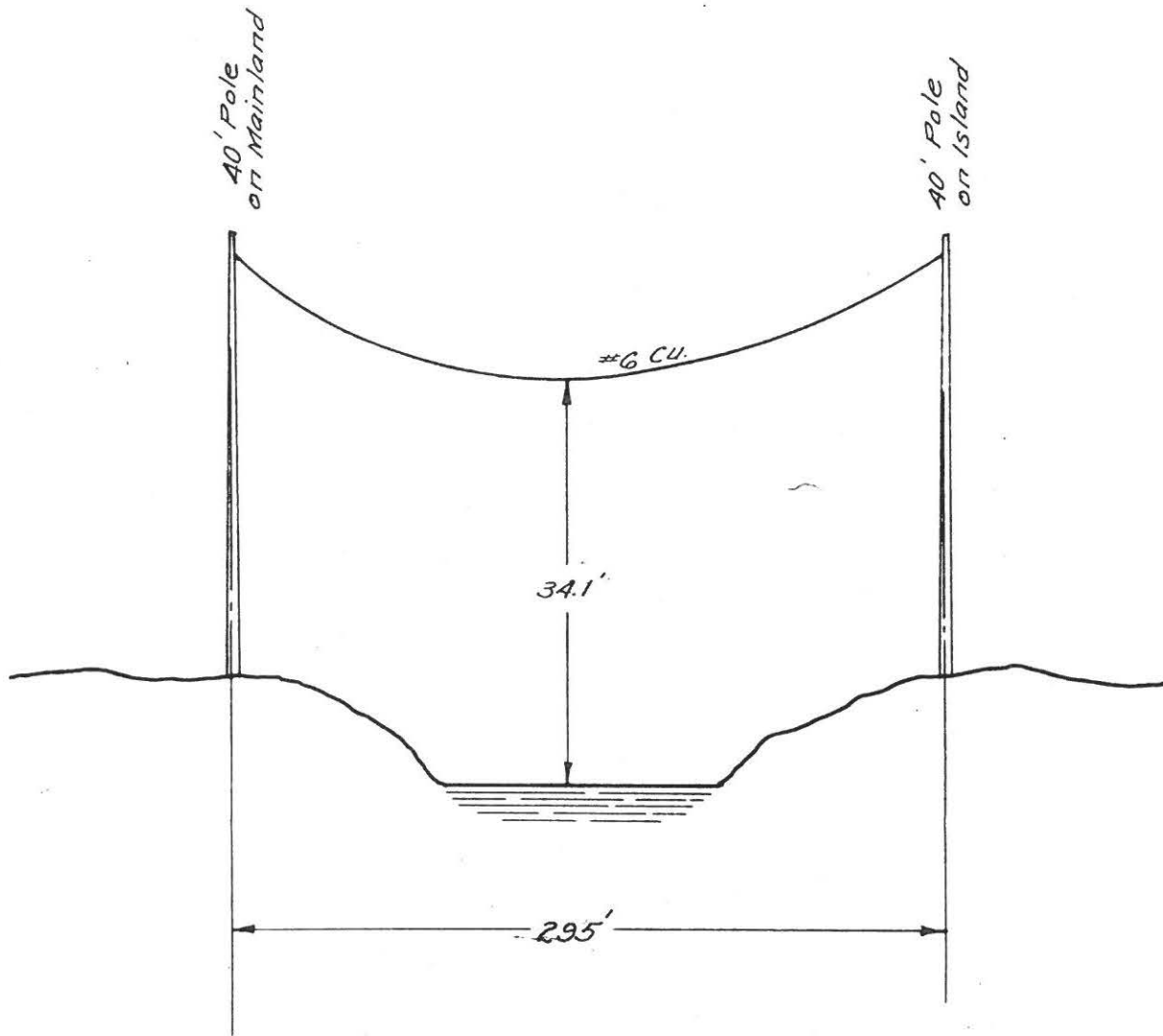
Pole No. 14
45'-C1.4



PROFILE

DES.	NO.	REVISION	DATE	BY
DR. E.C.	1	REDRAWN	9-18-56	
TR.	2			
CK.	3			
APPR.	4			
	5			
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<p>2300 VOLT WIRE CROSSING OSSIPEE RIVER BETWEEN BROAD BAY & OSSIPEE LAKE OSSIPEE-FREEDOM</p>	
<p>PUBLIC SERVICE CO. OF NEW HAMPSHIRE ENGINEERING DEPARTMENT SCALE NONE</p>	<p>DATE 11-53</p>
<p>D-7649-4</p>	



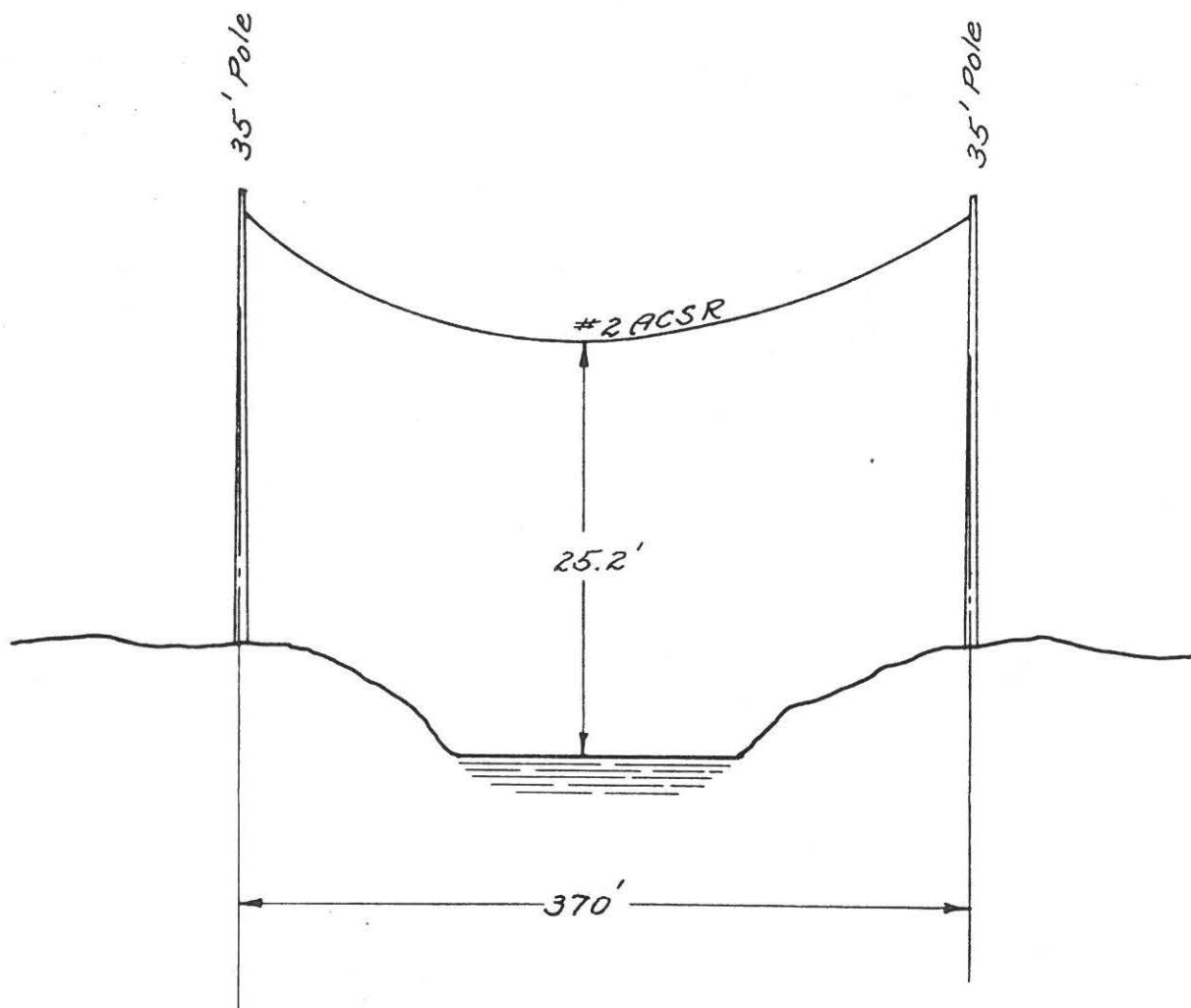
REWORK TO 7649-150

DES.	NO.	REVISION	DATE	BY
DR	1			
TR	2			
CK.	3			
APPR	4			
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2300 VOLT WIRE CROSSING LAKE WINNISQUAM
 ROUTE #3 TO MOHAWK ISLAND
 TILTON, N. H.

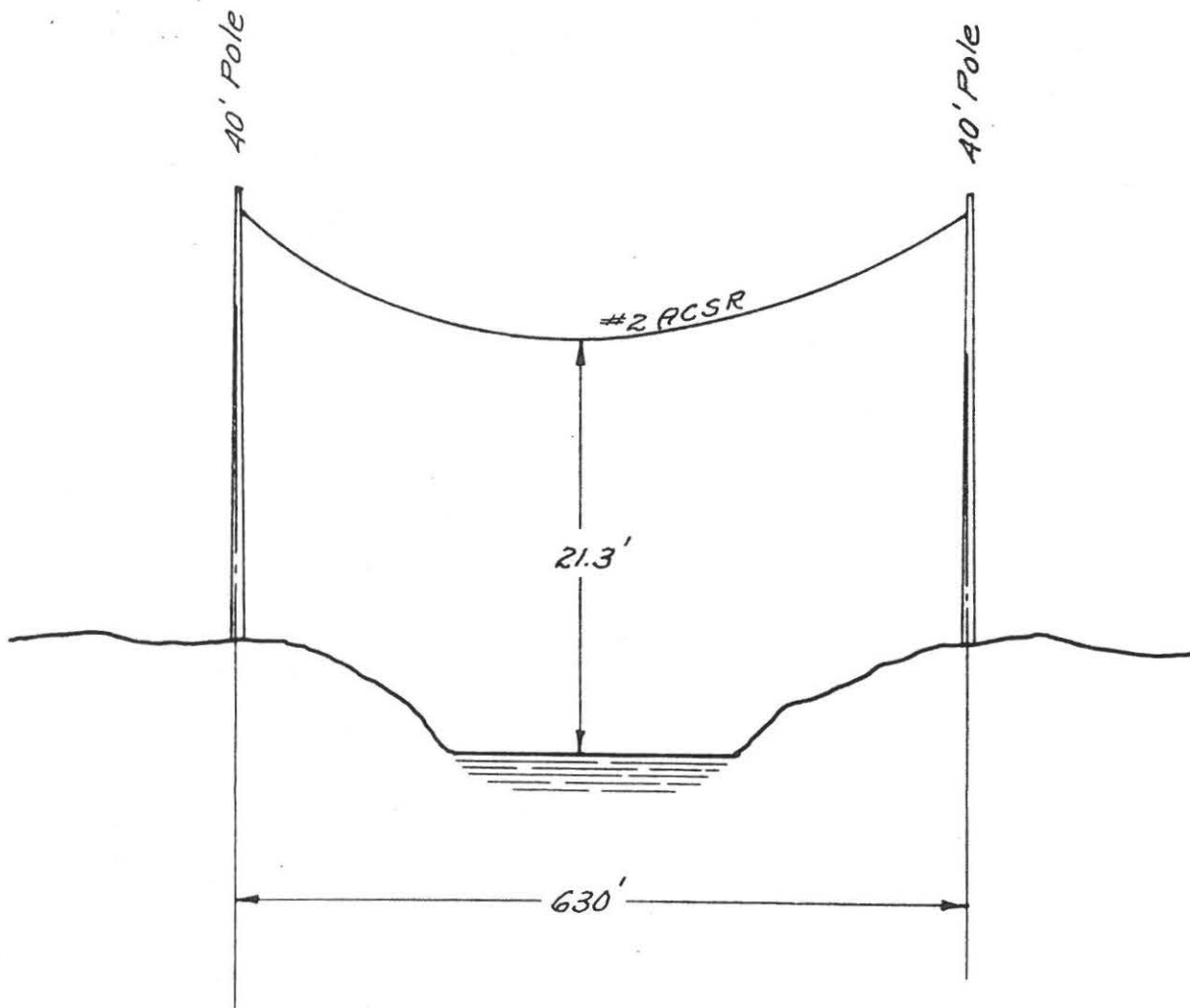
PUBLIC SERVICE CO. OF NEW HAMPSHIRE
 ENGINEERING DEPARTMENT
 SCALE NONE DATE 11-53

D-7649-5



				ELIMINATED	
				2300 VOLT WIRE CROSSING LAKE CONWAY AT OUTLET - HILLS CAMP CONWAY CENTER	
				PUBLIC SERVICE CO. OF NEW HAMPSHIRE ENGINEERING DEPARTMENT	
				SCALE NONE DATE 11-53	
				D-7649-6	

DES.	NO.	REVISION	DATE	BY
DR.	1			
TR.	2			
CK.	3			
APPR.	4			
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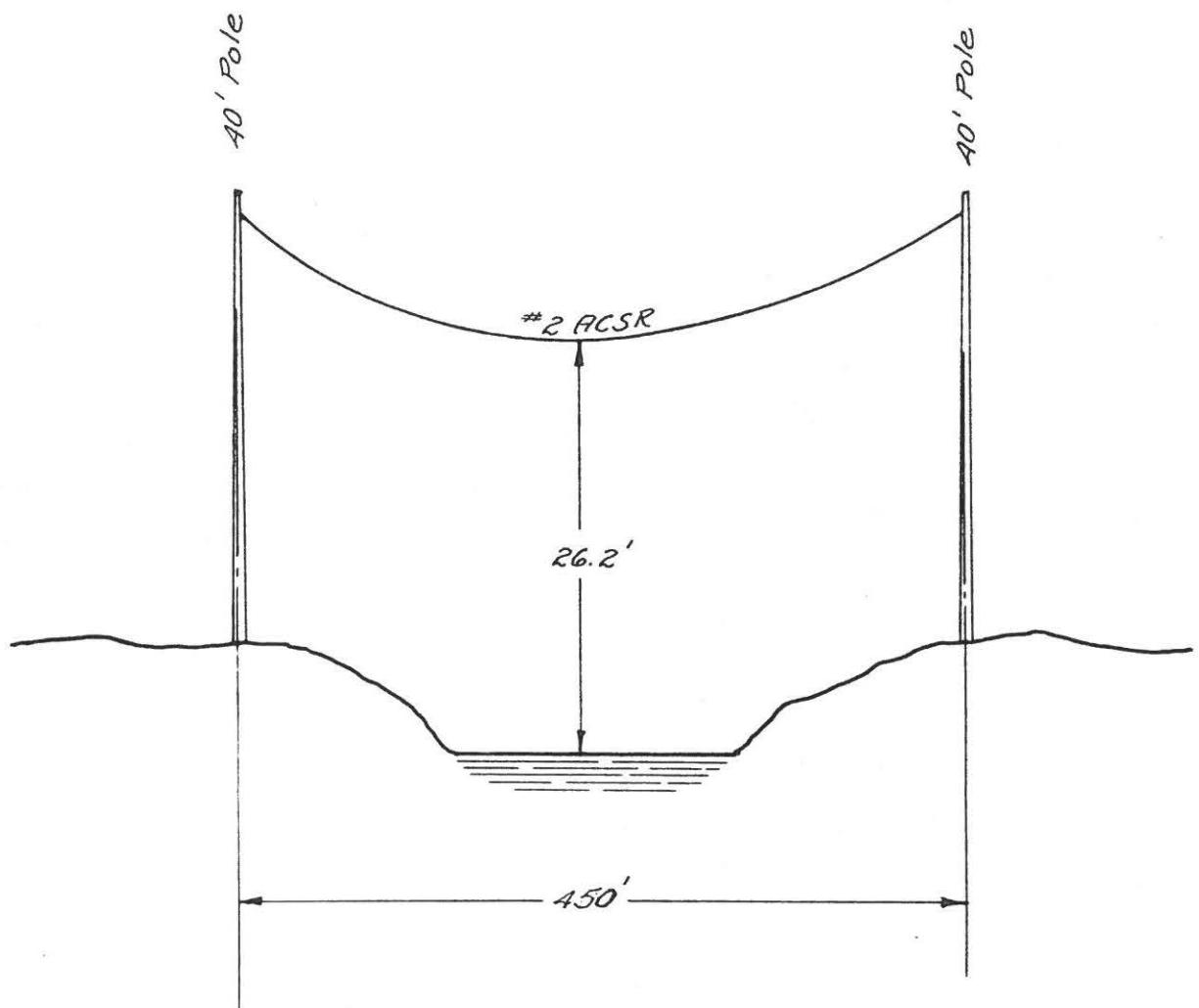
ELIMINATED

DES.	NO	REVISION	DATE	BY
DR.	1			
TR.	2			
CK.	3			
APPR.	4			
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2300 VOLT WIRE CROSSING LAKE CONWAY
AT OUTLET-MUDGETT LINE
CONWAY CENTER

PUBLIC SERVICE CO. OF NEW HAMPSHIRE
ENGINEERING DEPARTMENT
SCALE NONE DATE 11-53

D-7649-7



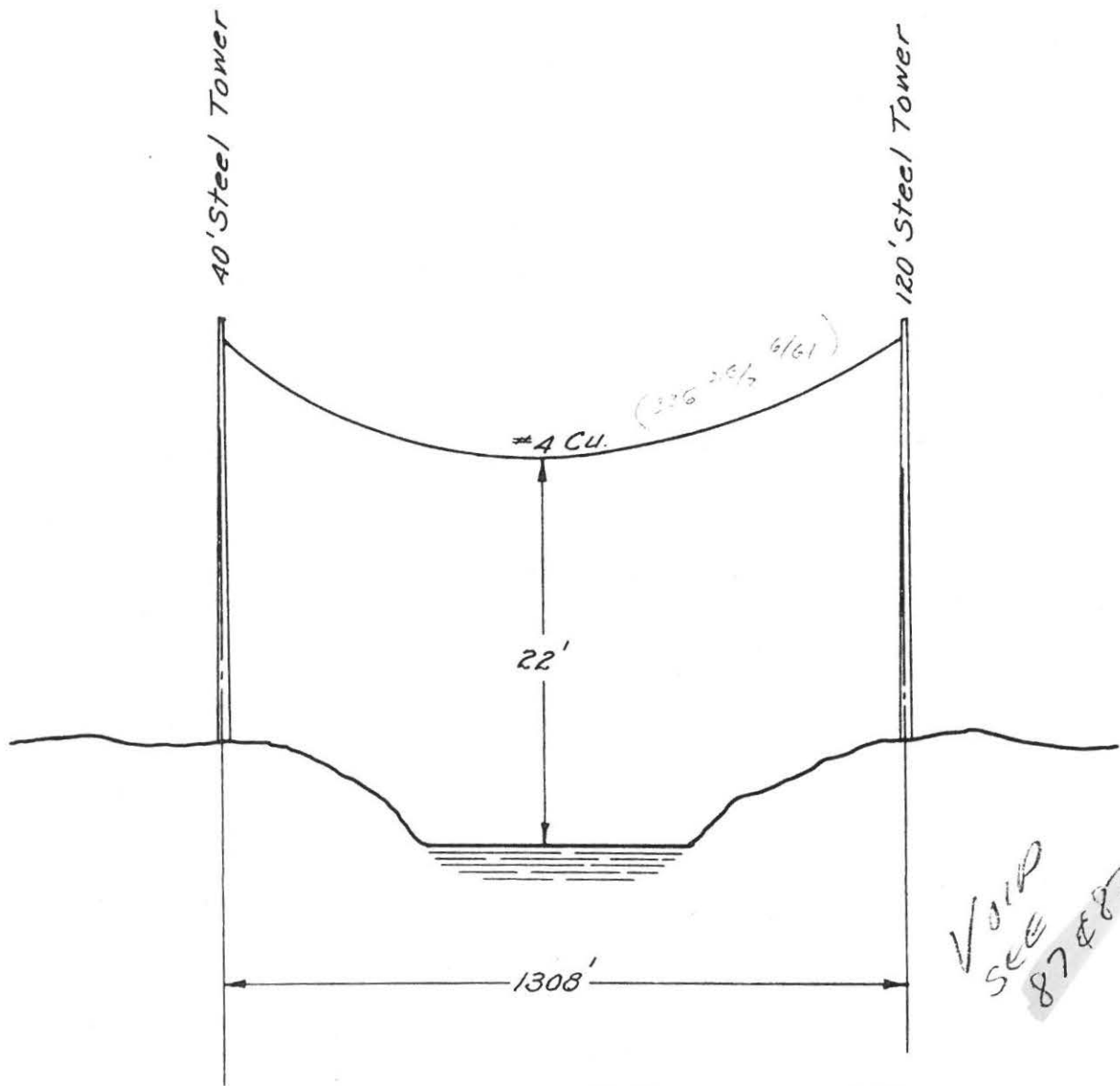
ELIMINATED

DES.	NO	REVISION	DATE	BY
DR.	1			
TR.	2			
CK.	3			
APPR.	4			
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**2300 VOLT WIRE CROSSING LAKE CONWAY
AT SCHRIBNERS POINT
CONWAY, N.H.**

PUBLIC SERVICE CO. OF NEW HAMPSHIRE
ENGINEERING DEPARTMENT
SCALE NONE DATE 11-53

D-7649-8



VOID
SEE
87 & 87A

DES.	NO	REVISION	DATE	BY
DR	1			
TR	2			
CK.	3			
APPR	4			
	5			
	6			

**33 KV. WIRE CROSSING
OPECHEE LAKE
LACONIA, N.H**

PUBLIC SERVICE CO. OF NEW HAMPSHIRE
ENGINEERING DEPARTMENT
SCALE NONE DATE 11-53

D-7649-9

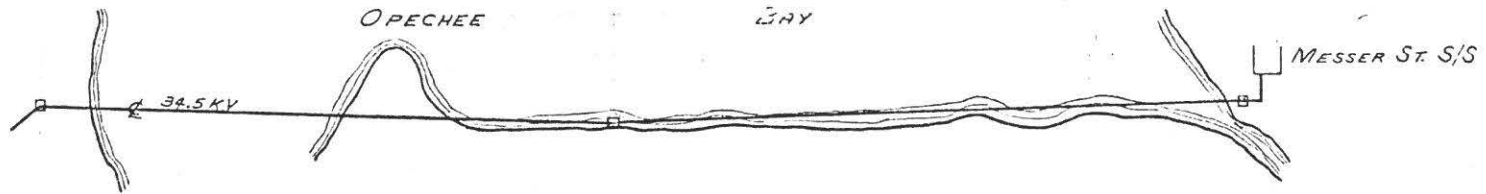
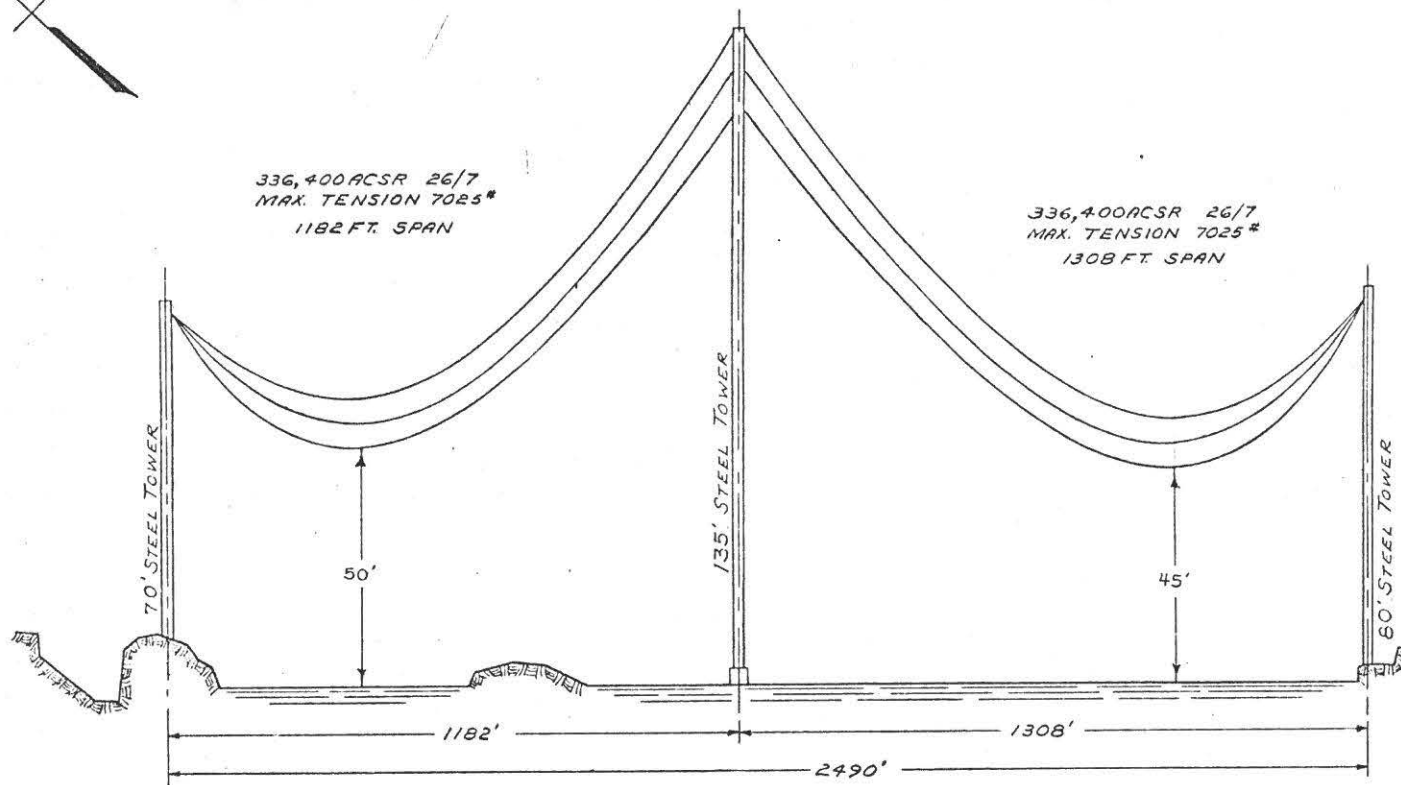
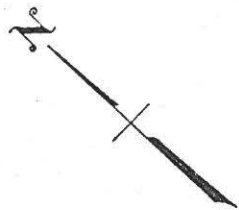


EXHIBIT 2



- NOTES:
1. CONDUCTOR CLEARANCE INDICATED IS BASED ON A 212°F MAXIMUM CONDUCTOR EMERGENCY OPERATING TEMPERATURE.
 2. WATER ELEVATION INDICATED IS THAT ELEVATION WITH 2 FT OF WATER FLOWING OVER FLASHBOARDS AT MESSER ST. DAM.
 3. EXISTING DEAD END TOWER ON MESSER ST. SIDE OF CROSSING TO BE RAISED 20 FT.
 4. EXISTING DEAD END TOWER ON NORTHWESTERLY SIDE TO BE RAISED 16 FT.

NOTE: PRELIMINARY DESIGN SUBJECT TO CHANGE.

DES.	NO.	REVISION	DATE	BY
DR.	1			
T.L.S.P.	2			
CK.	3			
AL.	4			
	5			
	6			

34.5KV LINE CROSSING
OPECHEE BAY
LACONIA, N.H.

PUBLIC SERVICE CO. OF NEW HAMPSHIRE
ENGINEERING DEPARTMENT
SCALE 1/2" = 10' OR 1/2" = 40' DATE 7/16/75

A-7649-87

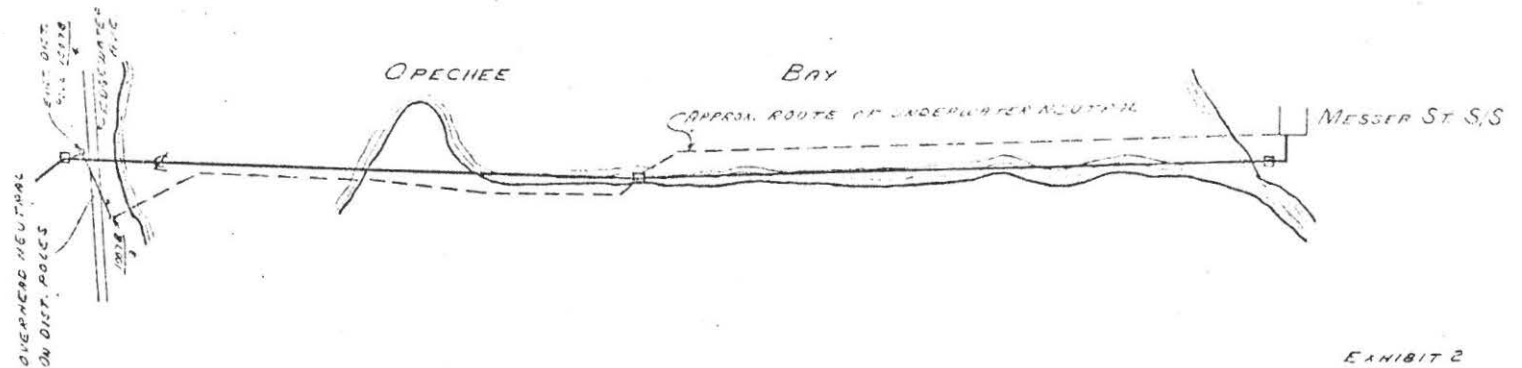
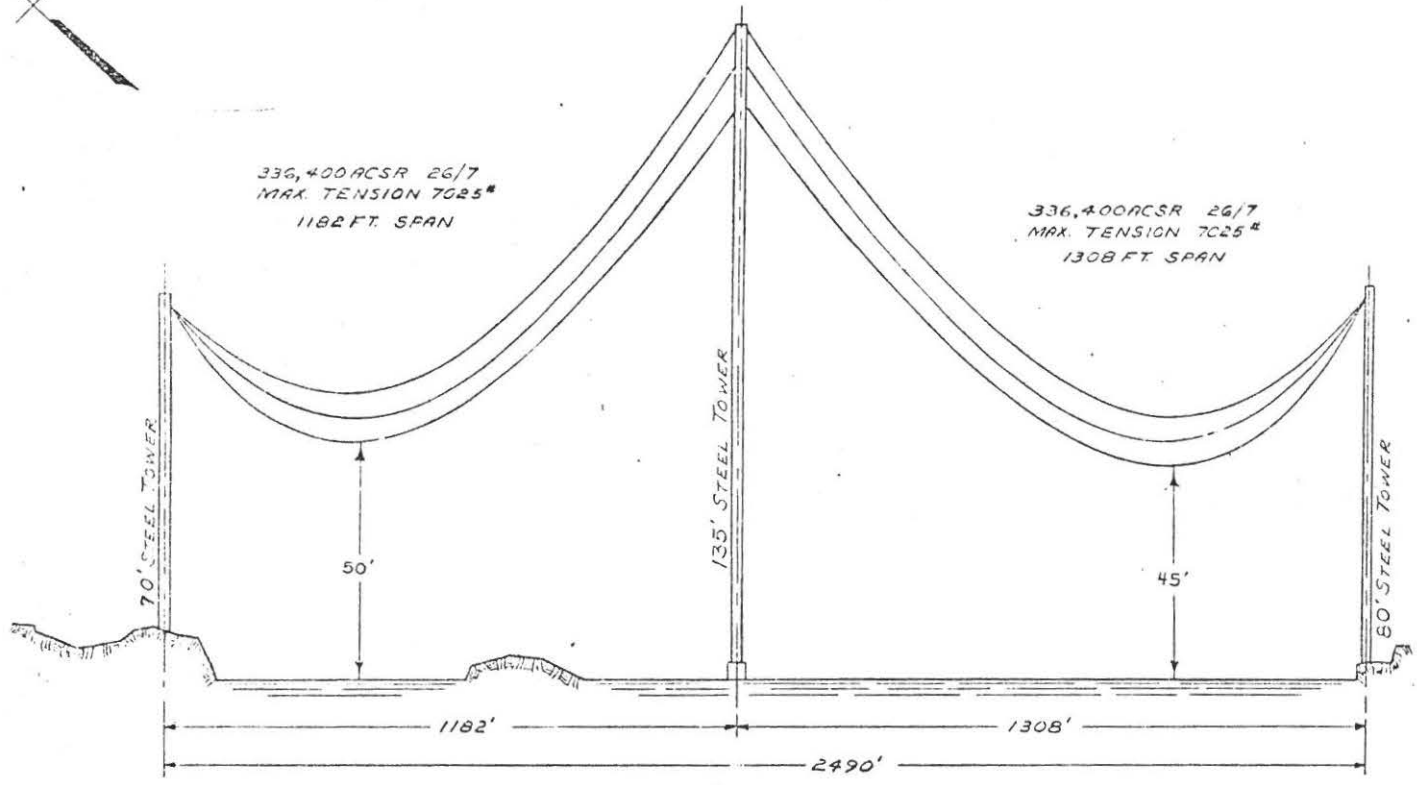


EXHIBIT 2



- NOTES:
1. CONDUCTOR CLEARANCE INDICATED IS BASED ON A 210°F MAXIMUM CONDUCTOR EMERGENCY OPERATING TEMPERATURE.
 2. WATER ELEVATION INDICATED IS THAT ELEVATION WITH 2 FT OF WATER FLOWING OVER FLASHBOARDS AT AVLEY DAM.
 3. REVISED TO SHOW ADDITION OF UNDERGROUND NEUTRAL WIRE.

NOTE: PRELIMINARY DESIGN

DATE	NO.	REVISION	DATE	BY
	1			
	2			
	3			
	4			
	5			
	6			

UNDERWATER NEUTRAL CROSSING
 OPECHEE BAY
 LACONIA, N. H.

PUBLIC SERVICE CO. OF NEW HAMPSHIRE
 ENGINEERING DEPARTMENT
 1000 W. WASHINGTON ST. LACONIA, N. H. 03240

D-7-13-87A



LEGEND
WIRE CROSSING
— MESSER ST. - ASHLAND 34.5 KVL LINE

EXHIBIT I

PROPOSED WIRE CROSSING

**PROPOSED NEUTRAL
UNDERWATER CROSSING
OPECHEE BAY
LACONIA, N.H.
APRIL, 1976**

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
OPECHEE BAY CROSSING - LACONIA, NEW HAMPSHIRE
34.5 KV LINE #338 - MESSER STREET - BEECH HILL

The 34.5 KV line crossing at Opechee Lake, Laconia, New Hampshire on Line #338 was measured by a Public Service Company survey crew on May 25, 1962. The three conductors in this line are 336,400 C.M. 26/7 A.C.S.R. in these two spans. Temperature at the time of the survey was 74° F.

The span distance between the first two steel towers westerly from Messer St. Substation is 1,308 feet.

Clearance above Opechee Bay to the lowest wire was 23.00 feet, to the middle wire 31.88 feet and to the highest wire 37.19 feet.

The span distance between the second and third steel towers westerly from Messer St. Substation is 1,182 feet.

Clearance above Opechee Bay in this span was 35.98 feet to the lowest wire, 42.67 feet to the middle wire and 49.70 feet to the highest wire.

The span distances were obtained from N.E.P.S.Co. survey of September 1937 and Public Service Company of New Hampshire survey of January, 1961.

May 29, 1962
KSA:erp

PUBLIC SERVICE COMPANY OF NEW HAMPSHIRE
MOULTONBORO BAY CROSSING - MOULTONBORO, NEW HAMPSHIRE
34.5 KV LINE #346 - CENTER HARBOR - MELVIN VILLAGE

The 34.5 KV wire crossing at Moultonboro Bay, Lake Winnepesaukee, on Line #346, was measured by a Public Service Company survey crew on May 25, 1962. The three conductors in this line are 211,300 C.M. 12/7 A.C.S.R. in these two spans.

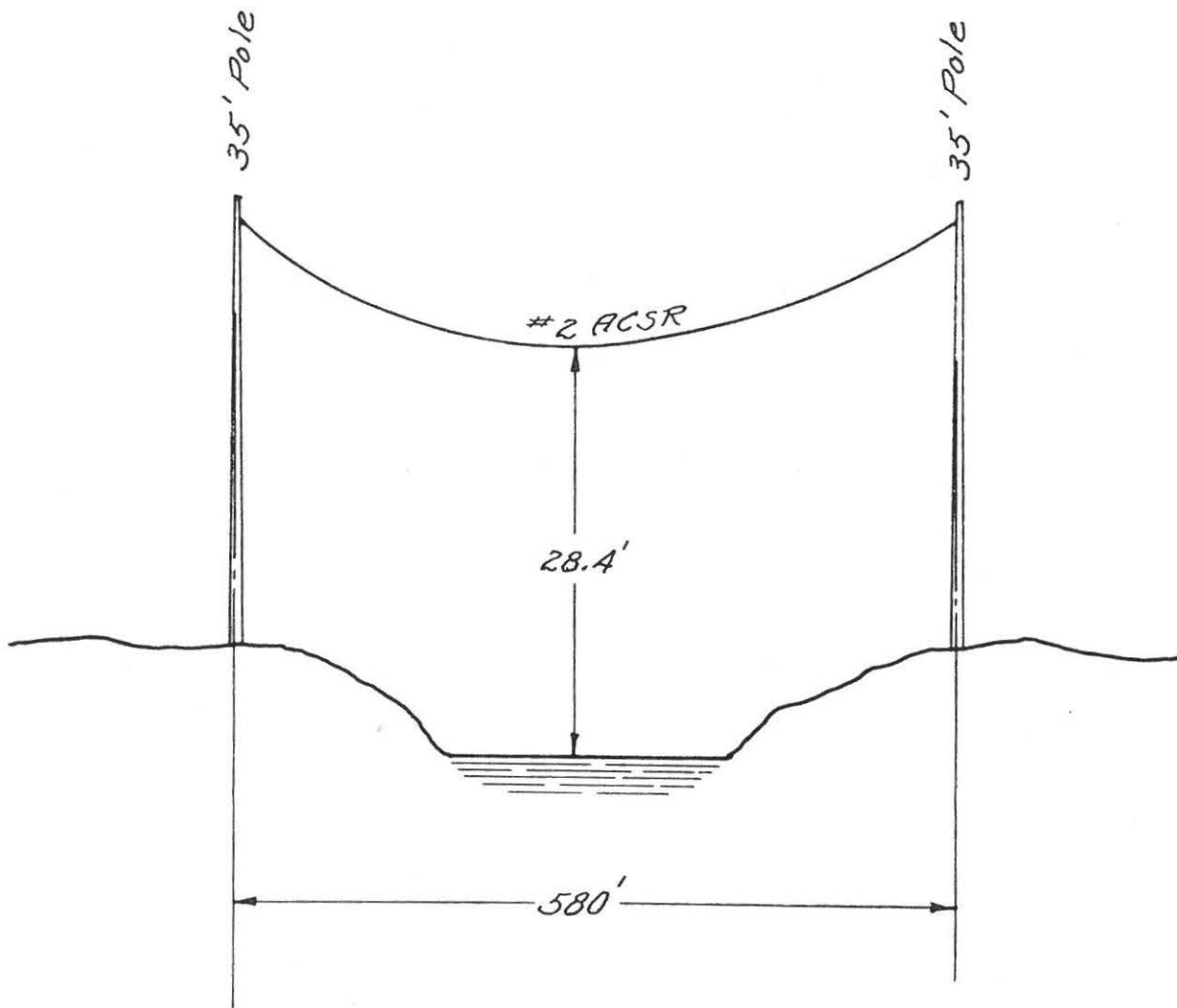
Temperature at the time of this survey was 74°F.

The stadia distance from the 3-Pole wooden structure on Moultonboro Neck to the steel pole on the island is 1,130 feet. Clearance above the lake was 30.48 feet to the north wire, 30.38 feet to the middle wire and 28.11 feet to the south wire.

The stadia distance from the steel pole on the island to the 3-pole wooden structure on the Melvin Village shore is 792 feet.

Clearance over the lake in this span was 44.23 feet to the north wire, 44.23 feet to the middle wire and 42.71 feet to the south wire.

May 29, 1962
KSA/erp



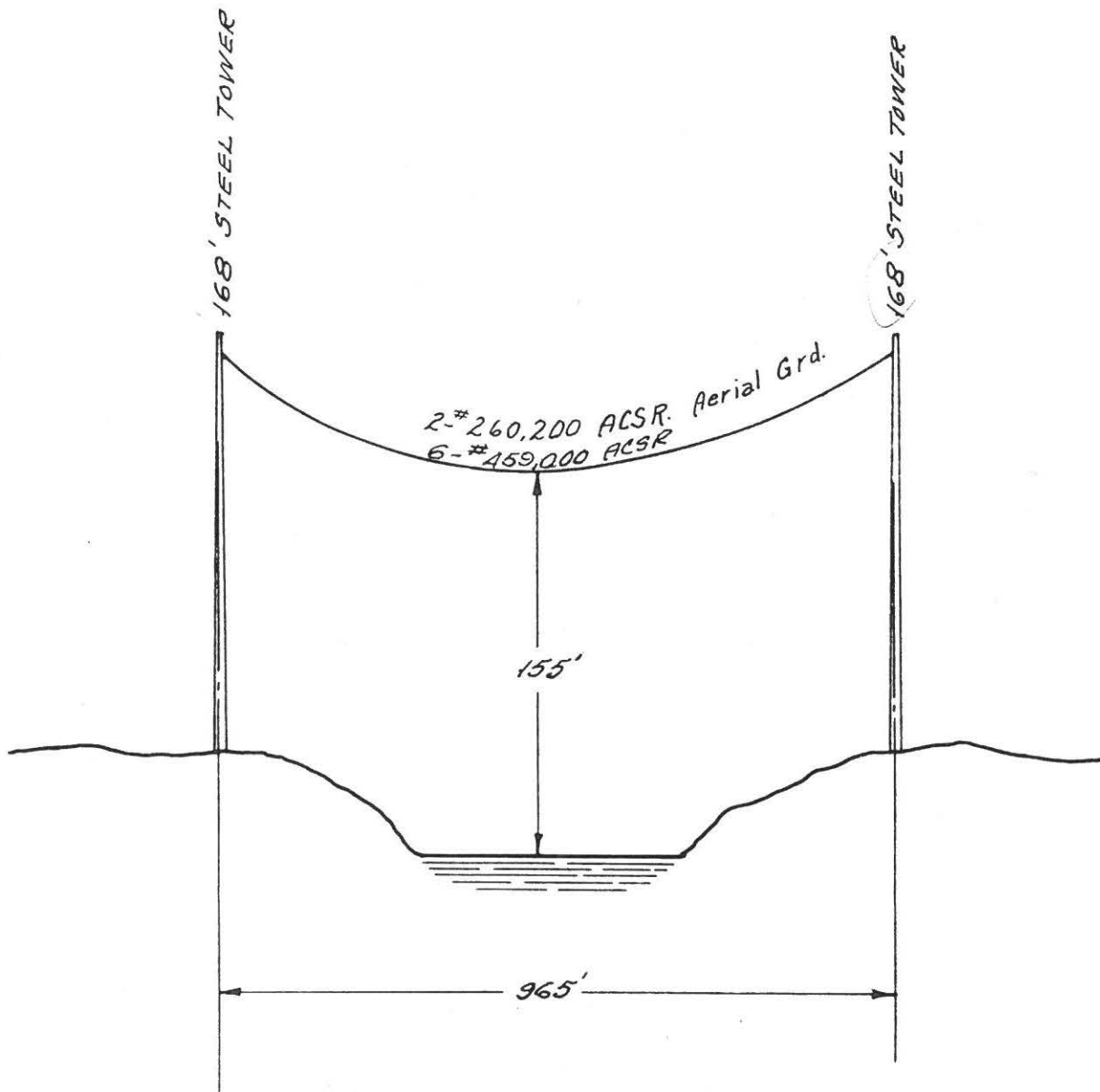
ELIMINATED
VOID

DES.	NO.	REVISION	DATE	BY
DR.	1			
TR.	2			
CK.	3			
APPR.	4			
	5			
	6			

2300 VOLT WIRE CROSSING
BERRY BAY
FREEDOM, N.H.

PUBLIC SERVICE CO. OF NEW HAMPSHIRE
ENGINEERING DEPARTMENT
SCALE NONE DATE 11-53

D-7649-10



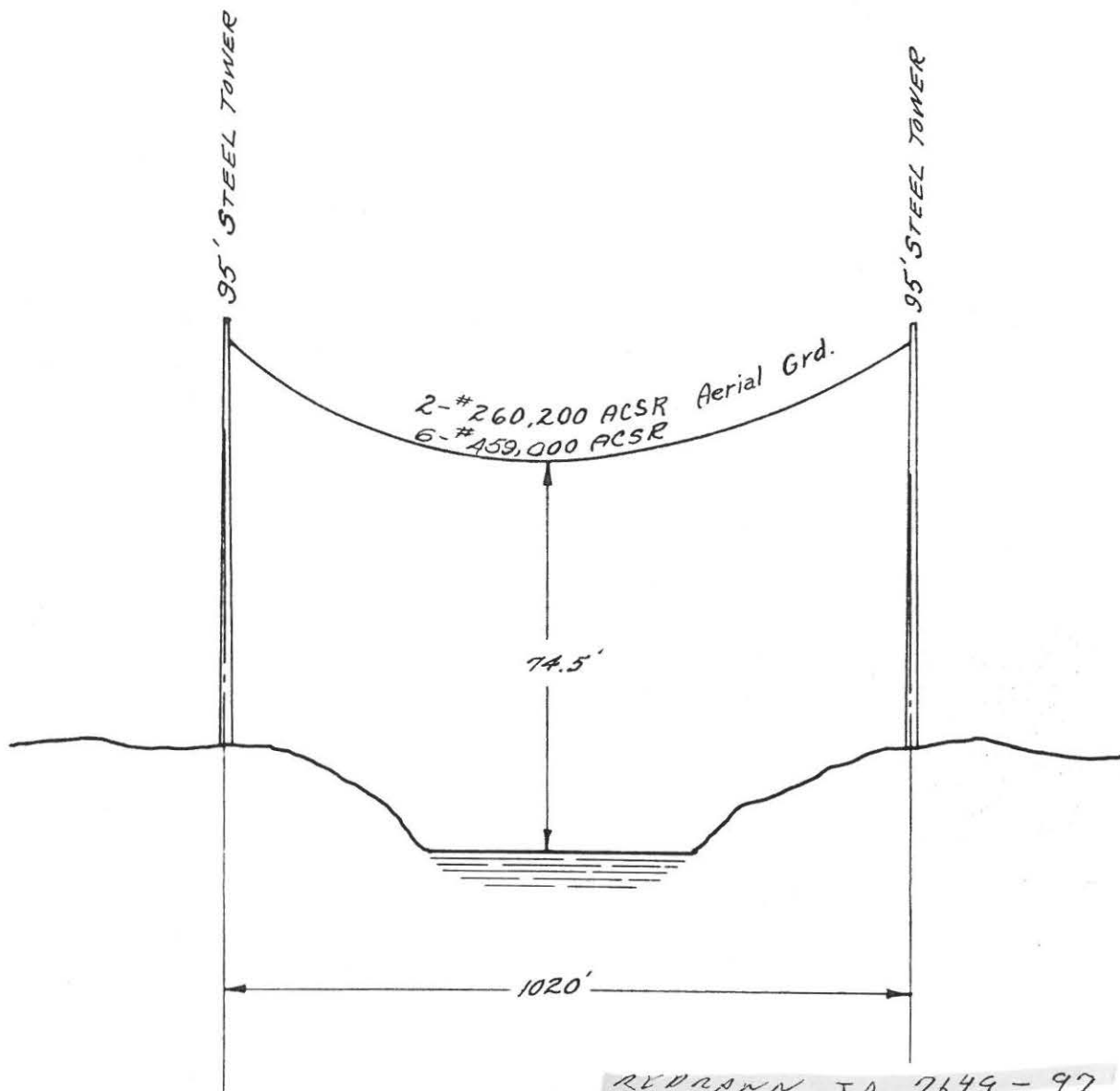
	Schiller - Garvins
	Schiller - Dover

DES.	NO.	REVISION	DATE	BY
DR.	1	Add 1 Cir. Chg Wire	9-54	
TR.	2			
CK.	3			
APPR.	4			
	5			
	6			

**115 KV. LINE CROSSING
PISCATAQUA RIVER AT STATION
PORTSMOUTH, N. H.**

PUBLIC SERVICE CO. OF NEW HAMPSHIRE
ENGINEERING DEPARTMENT
SCALE NONE DATE 11-53

D-7649-11



REDRAWN TO 7649-97

Schiller-Garvins

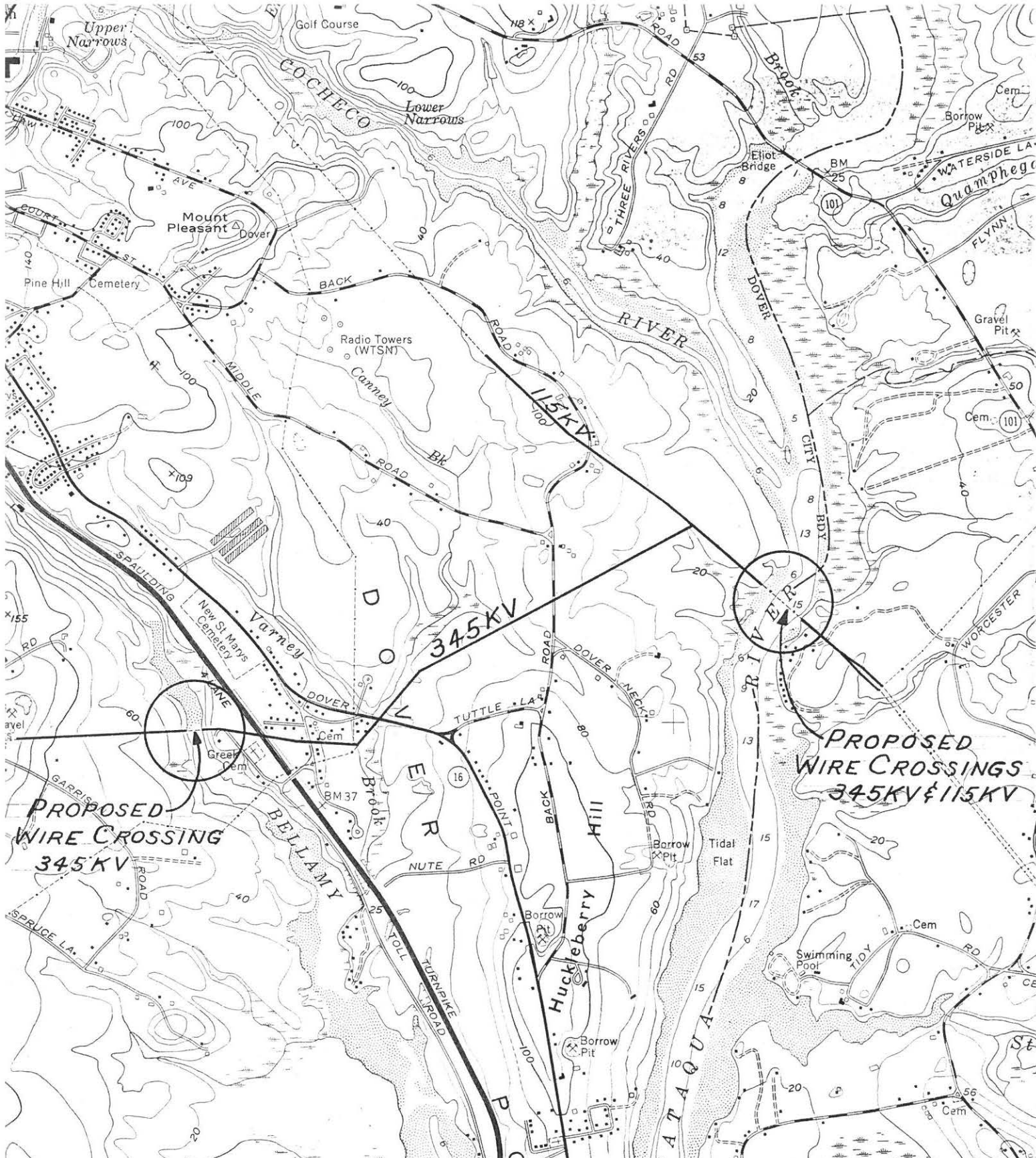
Schiller-Dover

DES.	NO.	REVISION	DATE	BY
DR.	1	Add. 1 Cir. Chgd. Wire	9-54	
TR.	2			
CK.	3			
APPR	4			
	5			
	6			

**115 KV. LINE CROSSING
PISCATAQUA RIVER-WEST OF GOULD COR.
DOVER-ELIOT**

PUBLIC SERVICE CO. OF NEW HAMPSHIRE
ENGINEERING DEPARTMENT
SCALE NONE DATE 11-53

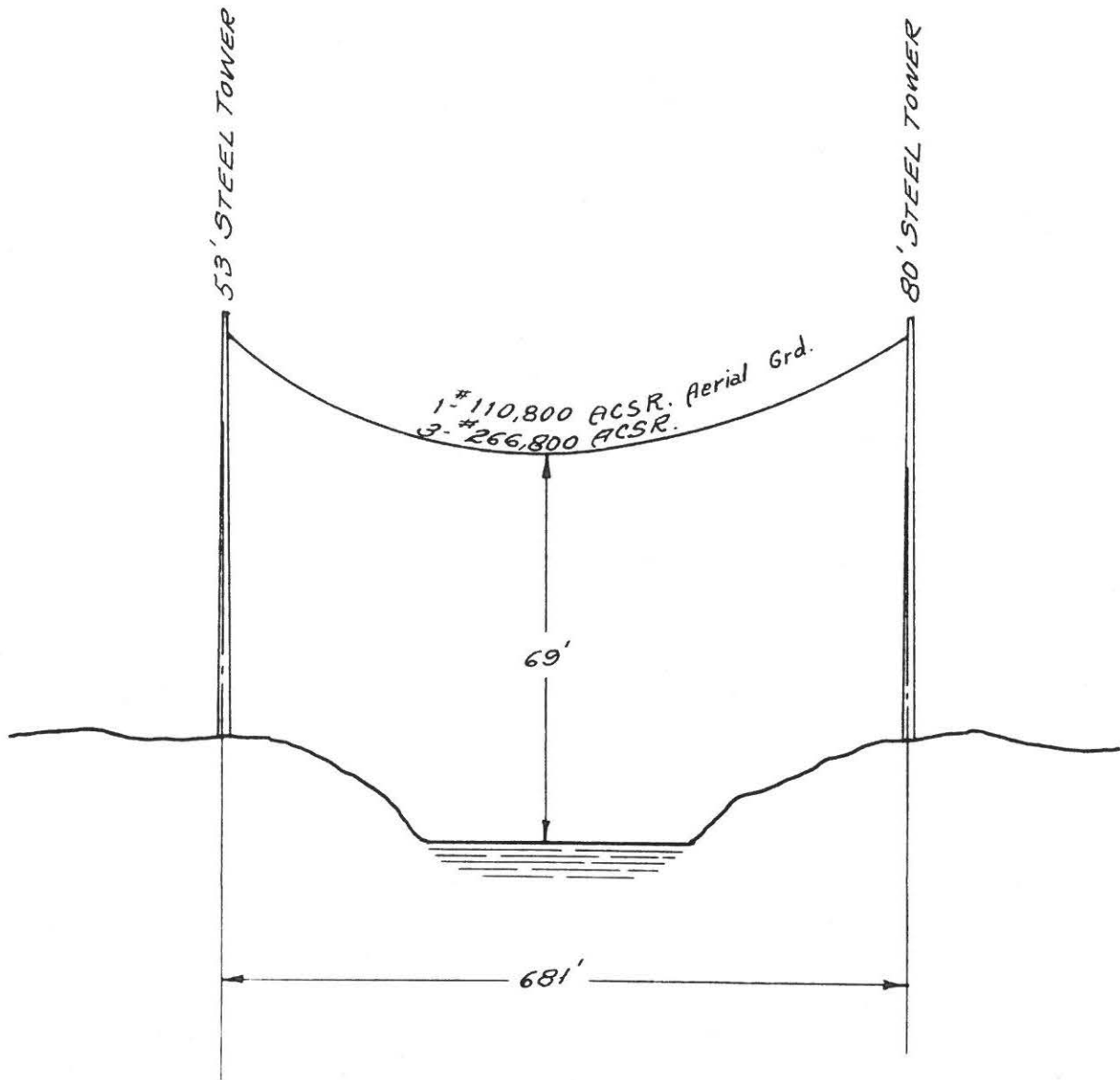
D-7649-13



PROPOSED WIRE CROSSING
345KV

PROPOSED WIRE CROSSINGS
345KV & 115KV

PROPOSED 345KV & 115KV CROSSINGS
PISCATAQUA RIVER
DOVER, N.H. & ELIOT, MAINE
PROPOSED 345KV CROSSING
BELLAMY RIVER
DOVER, N.H.
NOVEMBER, 1971



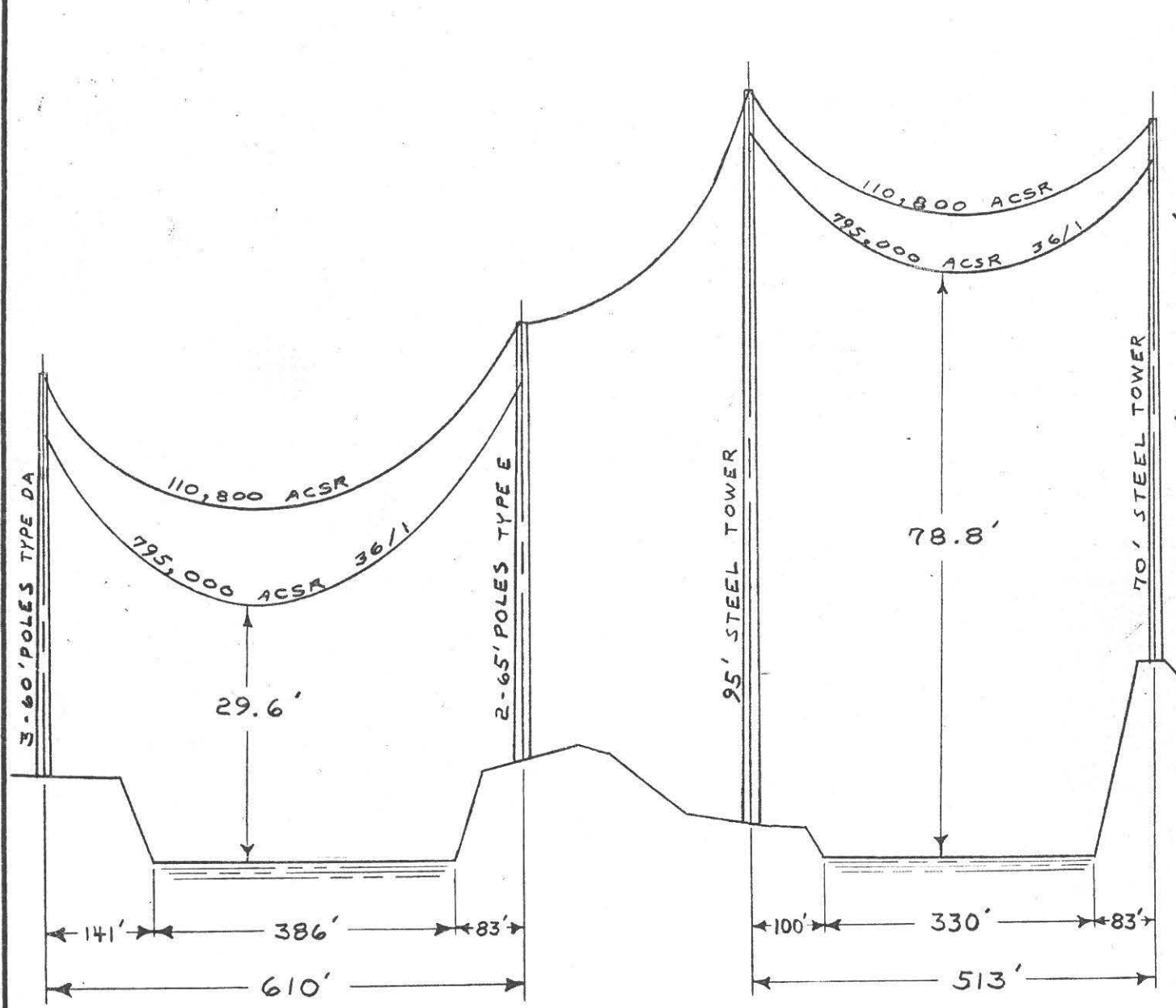
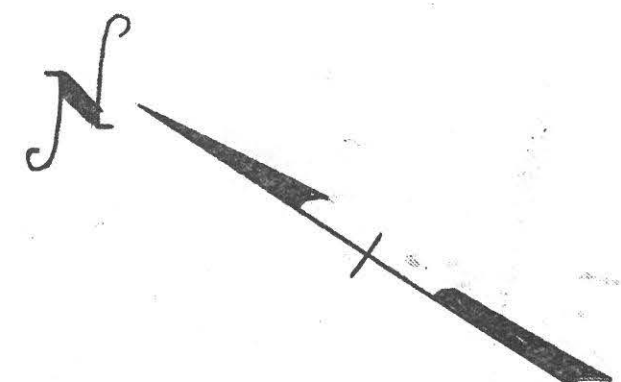
DESIGNED BY 7549-177
Dover - Portsmouth

DES.	NO.	REVISION	DATE	BY
DR.	1			
TR.	2			
CK.	3			
APPR	4			
	5			
	6			

115 KV. LINE CROSSING
COCHECO RIVER AT DOVER S/S
DOVER, N. H.

PUBLIC SERVICE CO. OF NEW HAMPSHIRE
ENGINEERING DEPARTMENT
SCALE NONE DATE 11-53

D-7649-1A



110 KV TRANSF. LOT

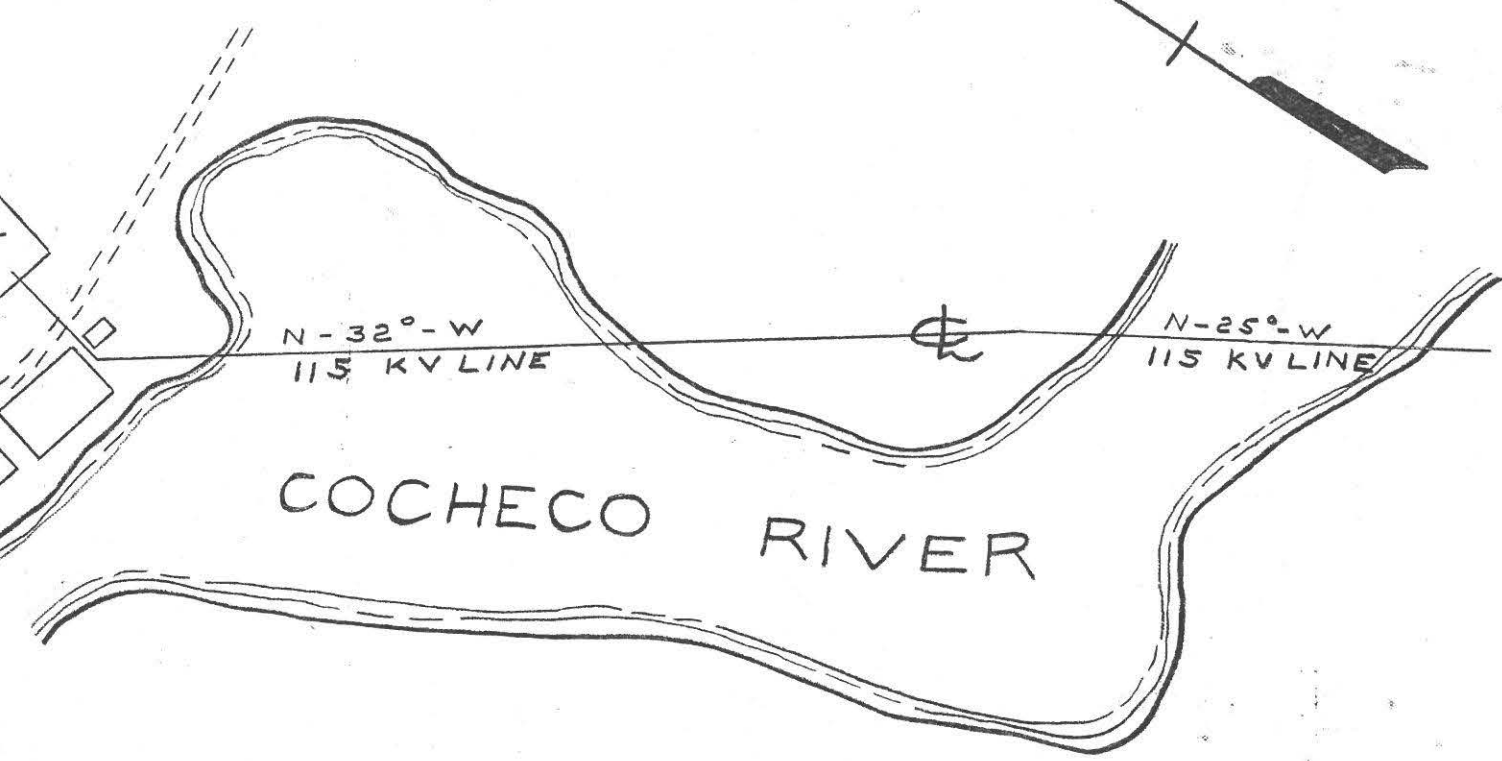
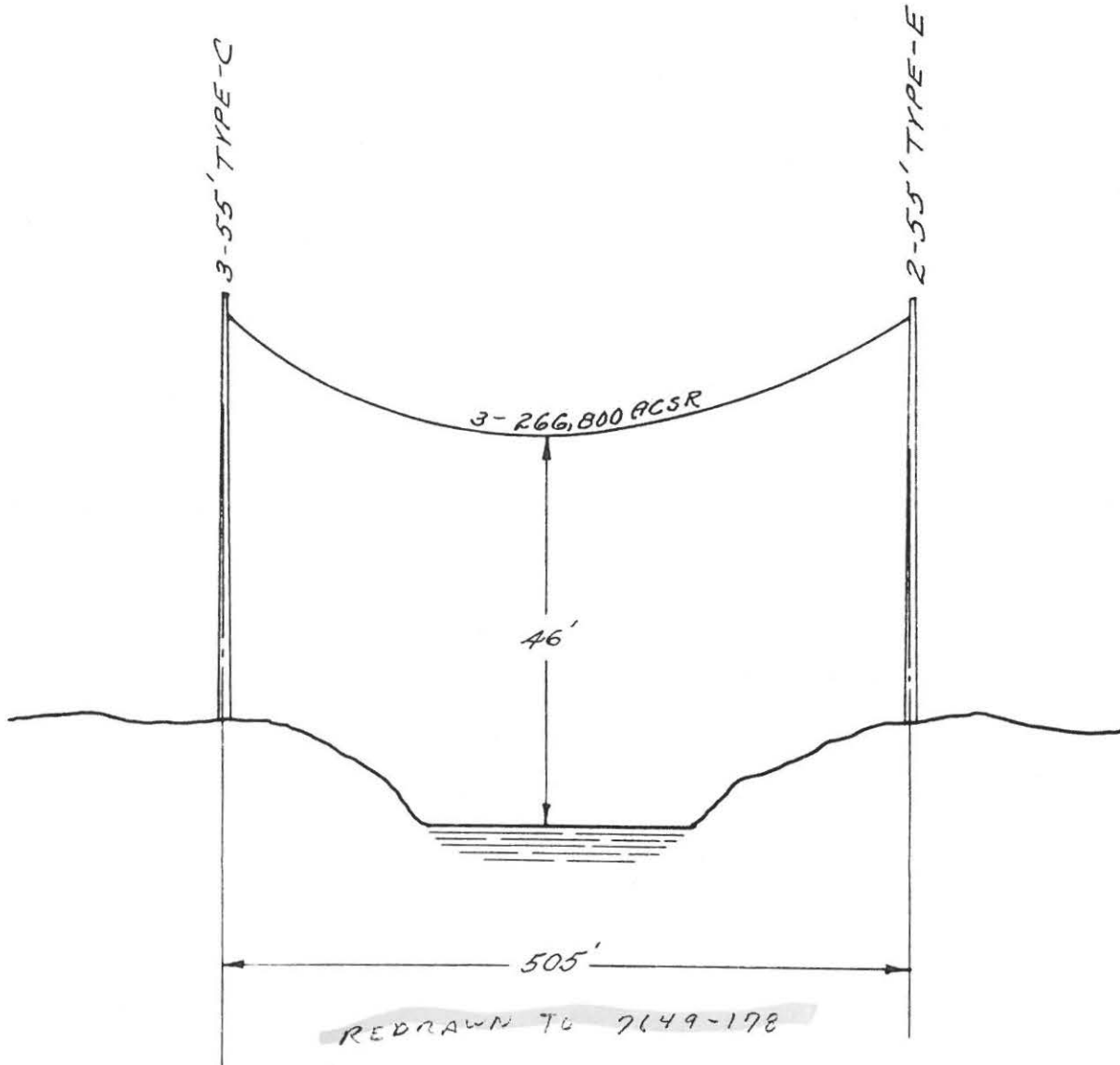


EXHIBIT 14A2

DES.	NO.	REVISION	DATE	BY
DR. MAS	1			
TR.	2			
CK. ERP	3			
APPR.	4			
	5			
	6			

115 KV WATER CROSSINGS	
COCHECO RIVER	
DOVER, NH	
PUBLIC SERVICE CO. OF NEW HAMPSHIRE ENGINEERING DEPARTMENT SCALE: 1"=20' VERT. 1"=200' HOR. DATE 2/24/76	D-7649-177



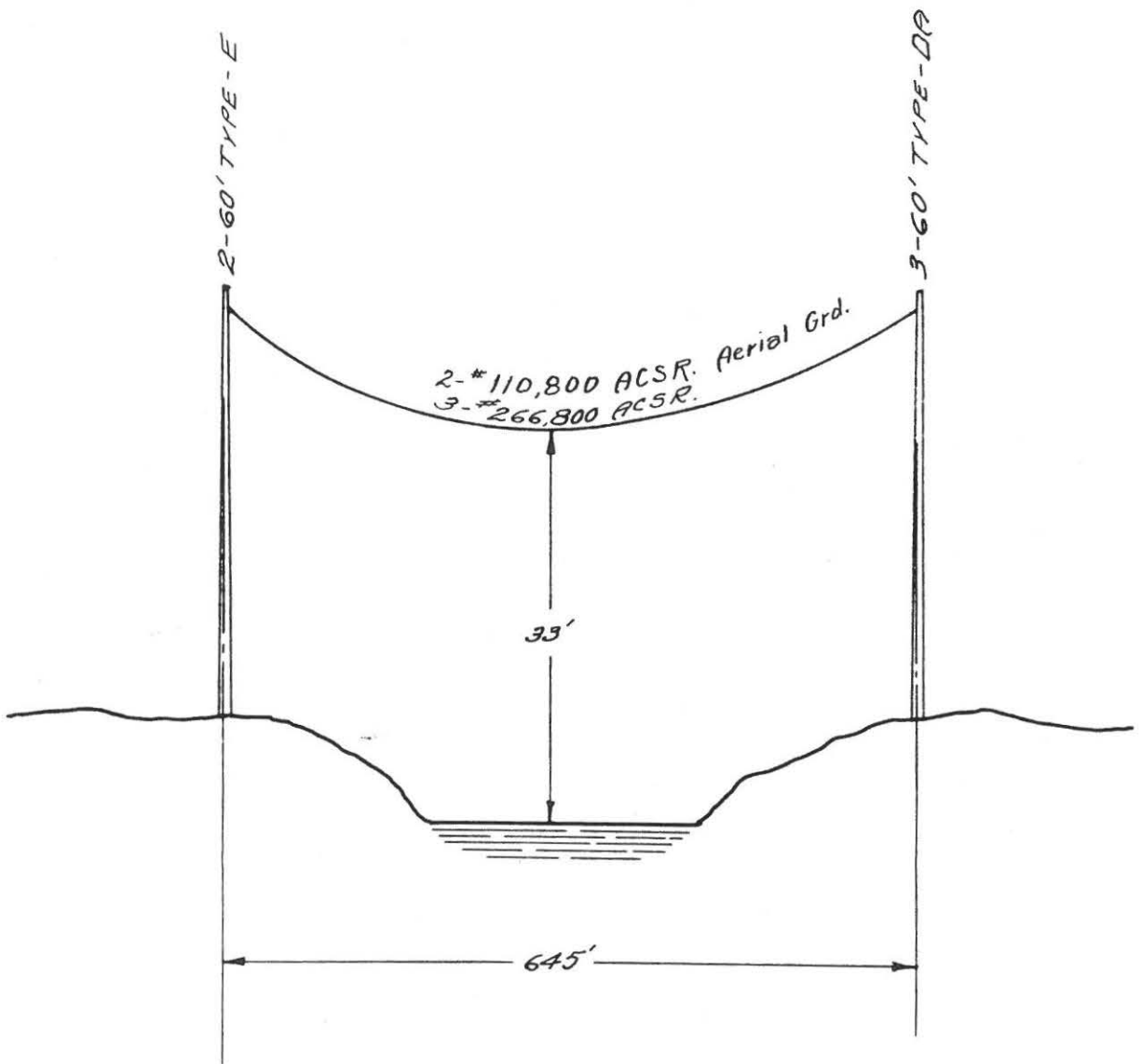
Dover - Greys

**115 KV. LINE CROSSING
COCHECO RIVER AT DOVER S/S
DOVER, N.H.**

PUBLIC SERVICE CO. OF NEW HAMPSHIRE
ENGINEERING DEPARTMENT
SCALE *NONE* DATE *11-53*

D-7649-15

DES	NO	REVISION	DATE	BY
DR	1			
TR.	2			
CK.	3			
APPR	4			
	5			
	6			



REVISION TO 7649-177

Dover - Portsmouth

DES.	NO	REVISION	DATE	BY
DR.	1			
TR.	2			
CK.	3			
APPR.	4			
	5			
	6			

**115 KV. LINE CROSSING
COCHECO RIVER AT DOVER S/S
DOVER, N.H.**

PUBLIC SERVICE CO. OF NEW HAMPSHIRE
ENGINEERING DEPARTMENT
SCALE: NONE DATE 11-53

D-7649-16

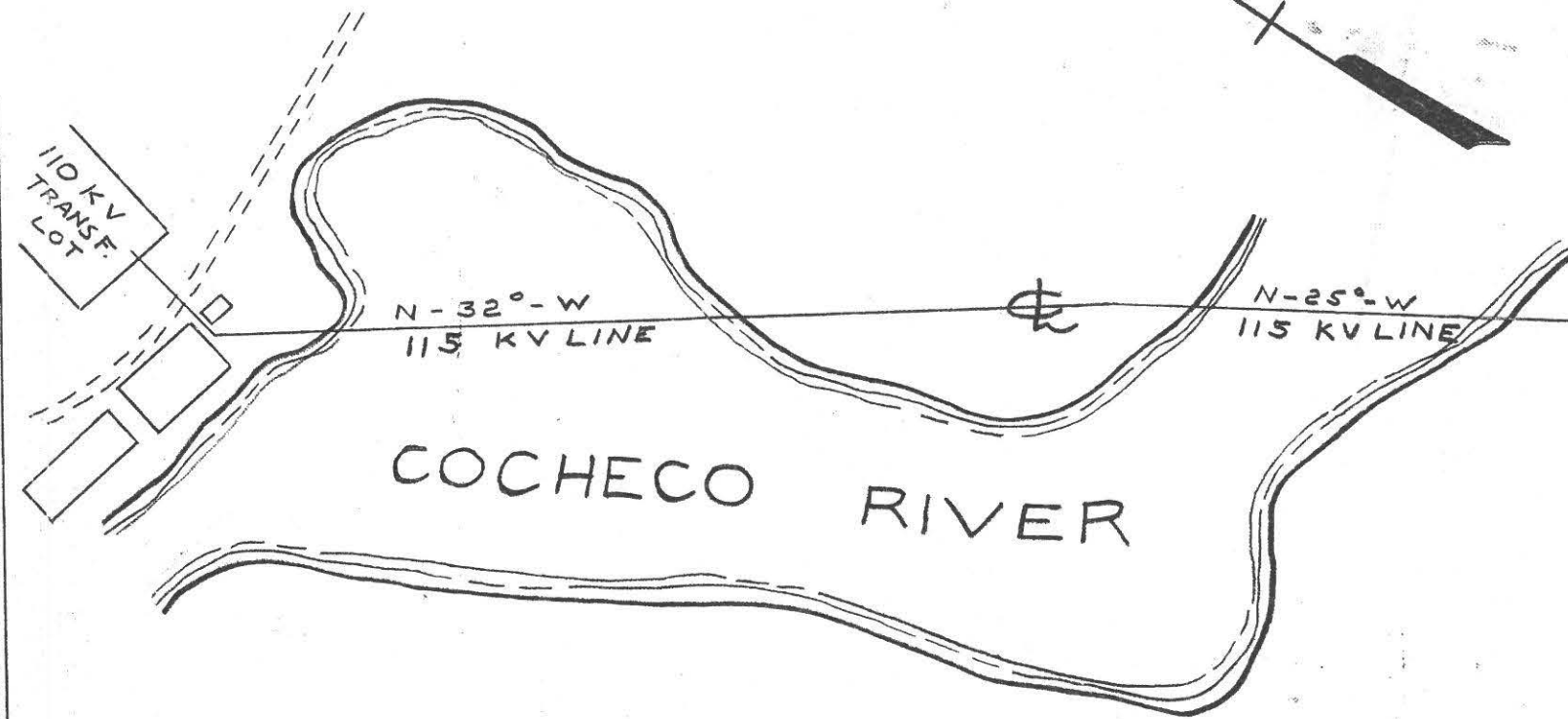
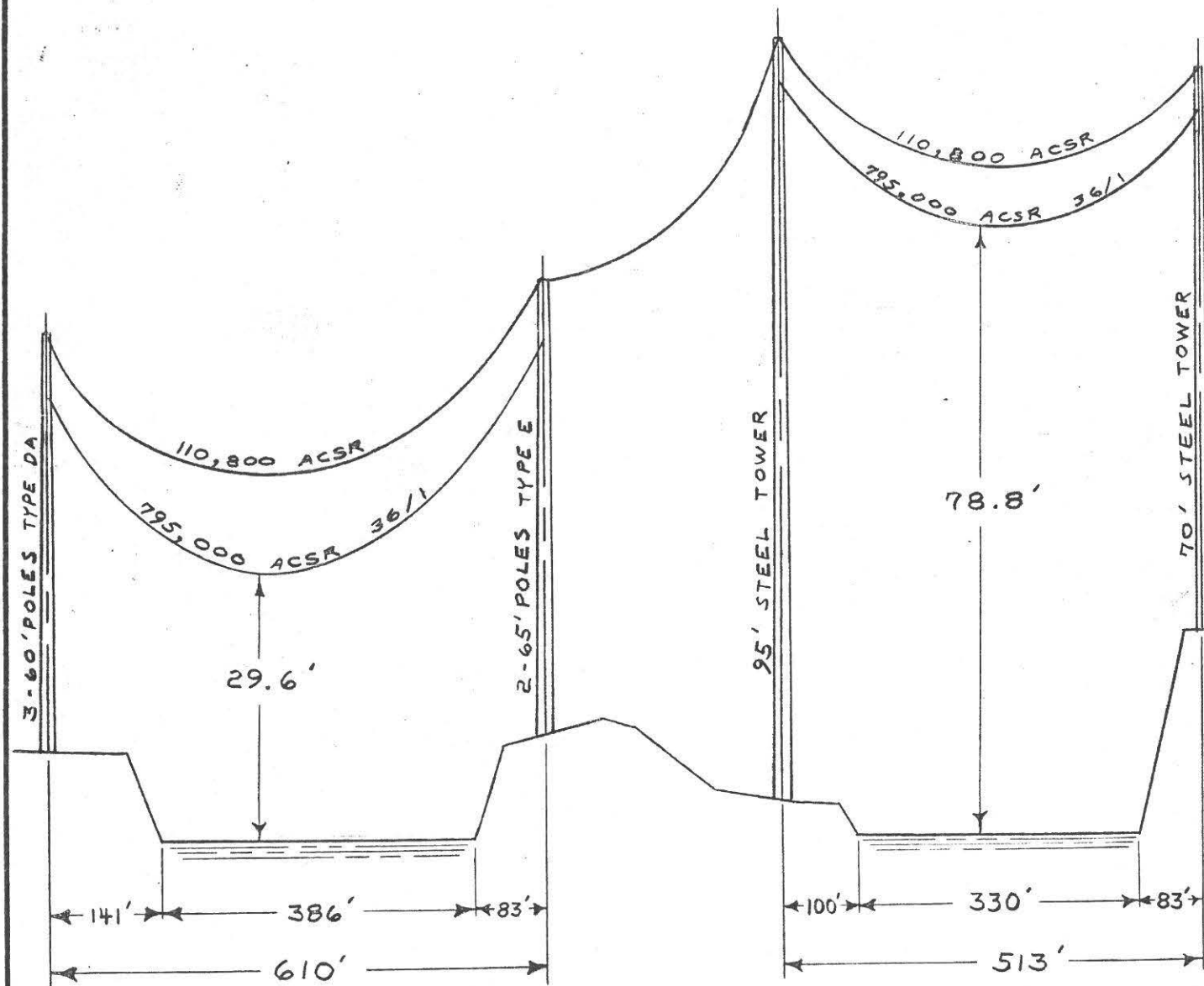
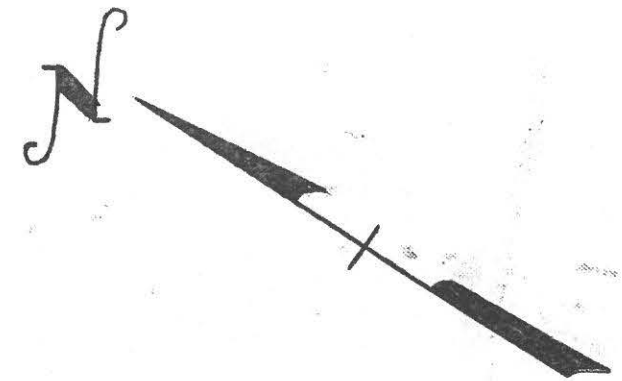
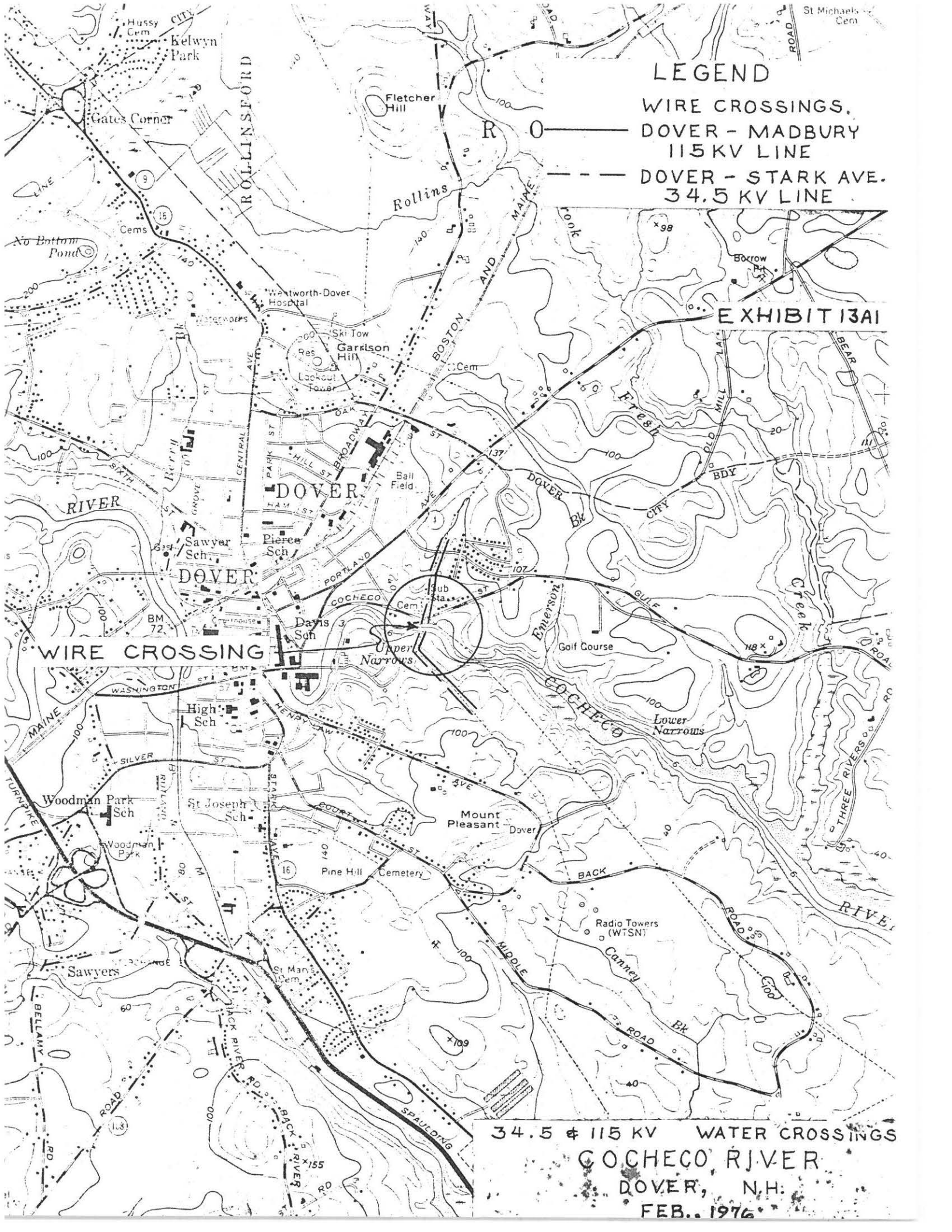


EXHIBIT 14A2

DES.	NO.	REVISION	DATE	BY
DR. MAS	1			
TR.	2			
CK. ERP	3			
APPR.	4			
	5			
	6			

115 KV WATER CROSSINGS	
COCHECO RIVER	
DOVER, NH	
PUBLIC SERVICE CO. OF NEW HAMPSHIRE ENGINEERING DEPARTMENT	D-7649-177
SCALE: 1" = 20' VERT. 1" = 200' HOR. DATE 2/24/76	



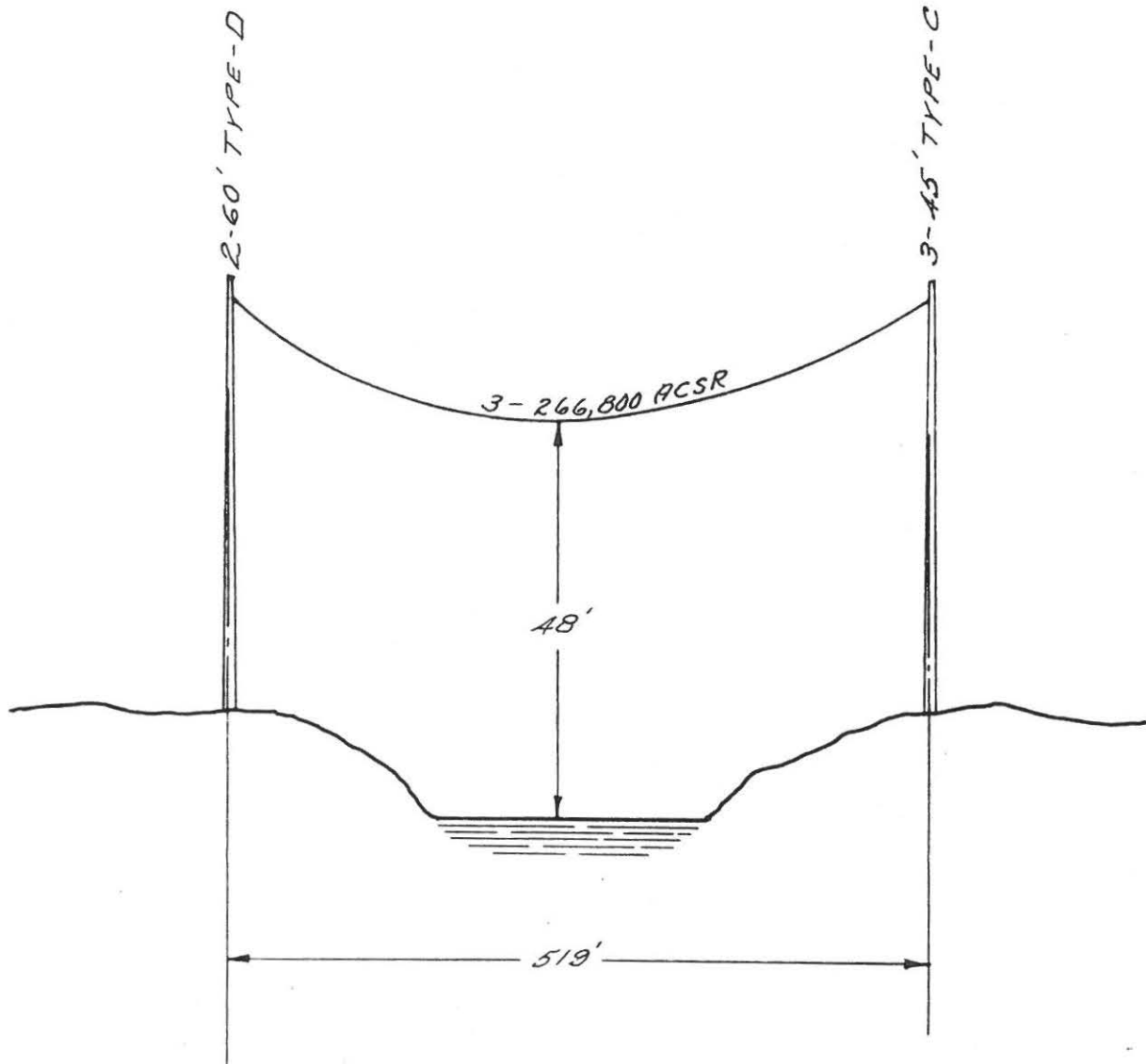
LEGEND

- WIRE CROSSINGS,
- DOVER - MADBURY 115 KV LINE
- - - DOVER - STARK AVE. 34.5 KV LINE

EXHIBIT 13A1

WIRE CROSSING

34.5 & 115 KV WATER CROSSINGS
 COCHECO RIVER
 DOVER, N.H.
 FEB. 1976

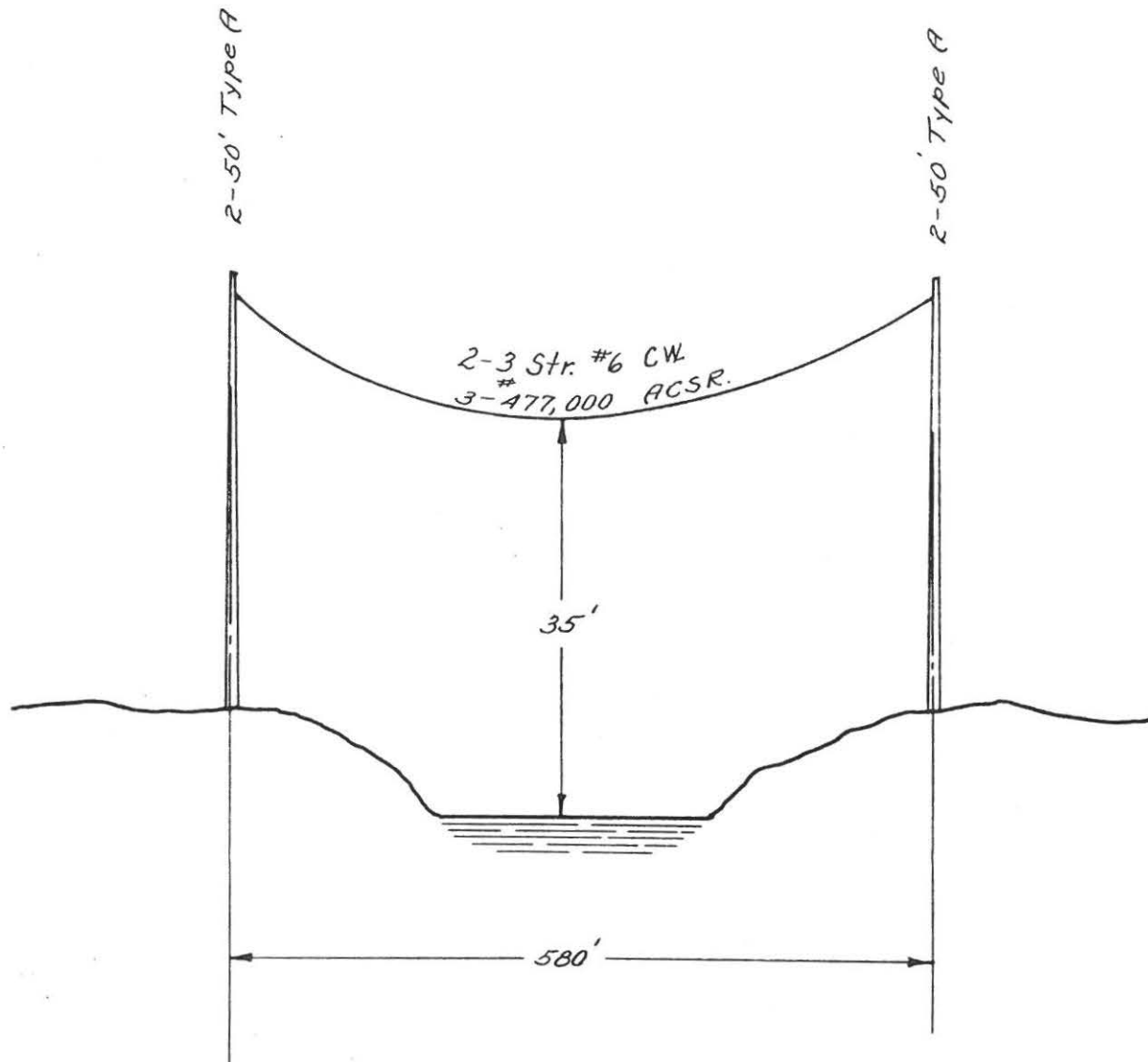


Dover - Gregg

DES.	NO	REVISION	DATE	BY
DR.	1			
TR.	2			
CK.	3			
APPR.	4			
	5			
	6			

**115 KV. LINE CROSSING
BELLAMY RIVER 1/4 MI. NO. CUSHING STA.
DOVER, N.H.**

PUBLIC SERVICE CO. OF NEW HAMPSHIRE ENGINEERING DEPARTMENT	D-7649-17
SCALE <i>NONE</i>	DATE <i>11-53</i>



Schiller - Garvins

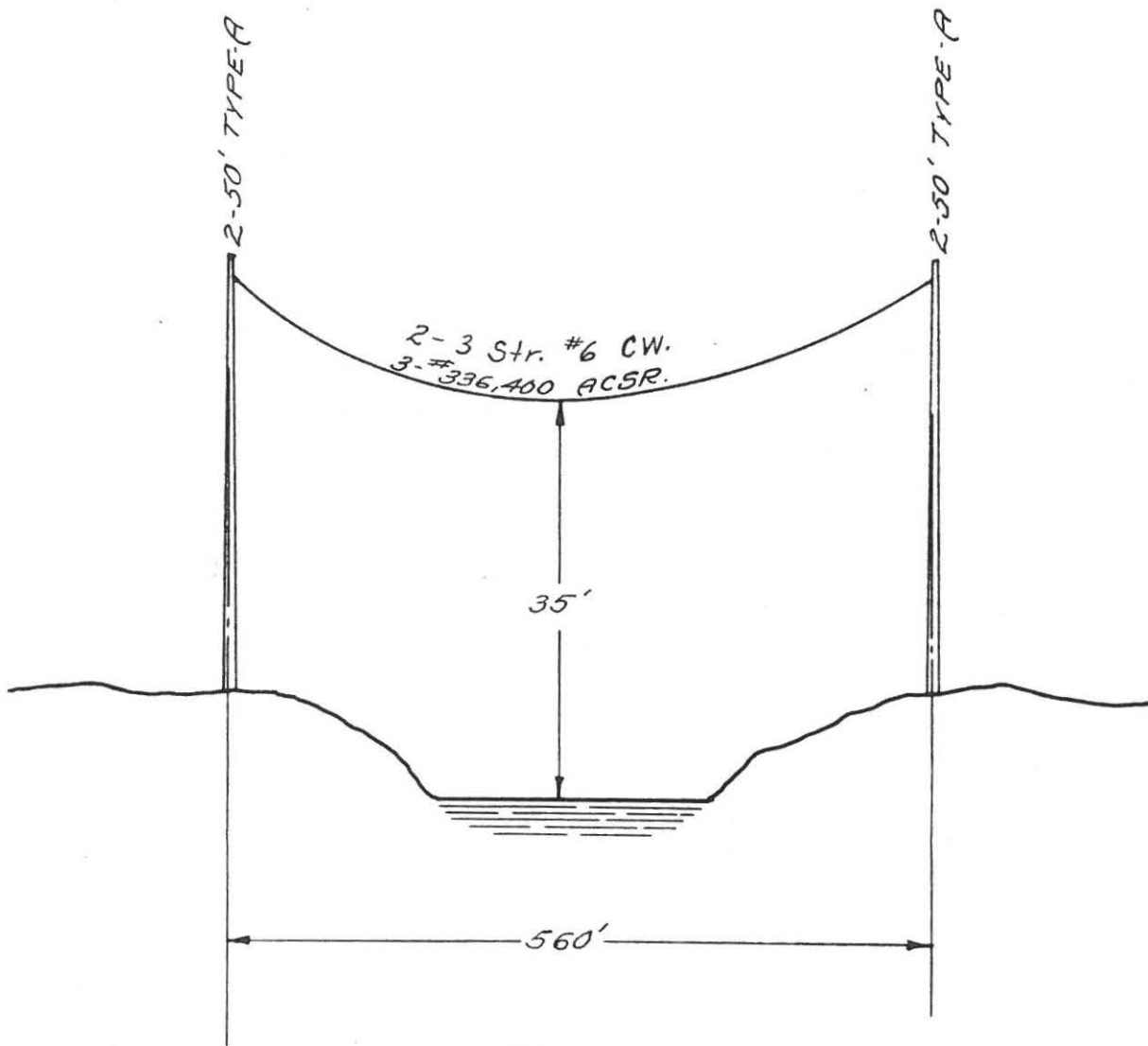
DES	NO	REVISION	DATE	BY
DR.	1			
TR.	2			
CK.	3			
APPR.	4			
	5			
	6			

**115 KV. WIRE CROSSING
WINNICUT RIVER
GREENLAND, N.H.**

PUBLIC SERVICE CO. OF NEW HAMPSHIRE
ENGINEERING DEPARTMENT

SCALE *NONE* DATE *11-53*

D-7649-18



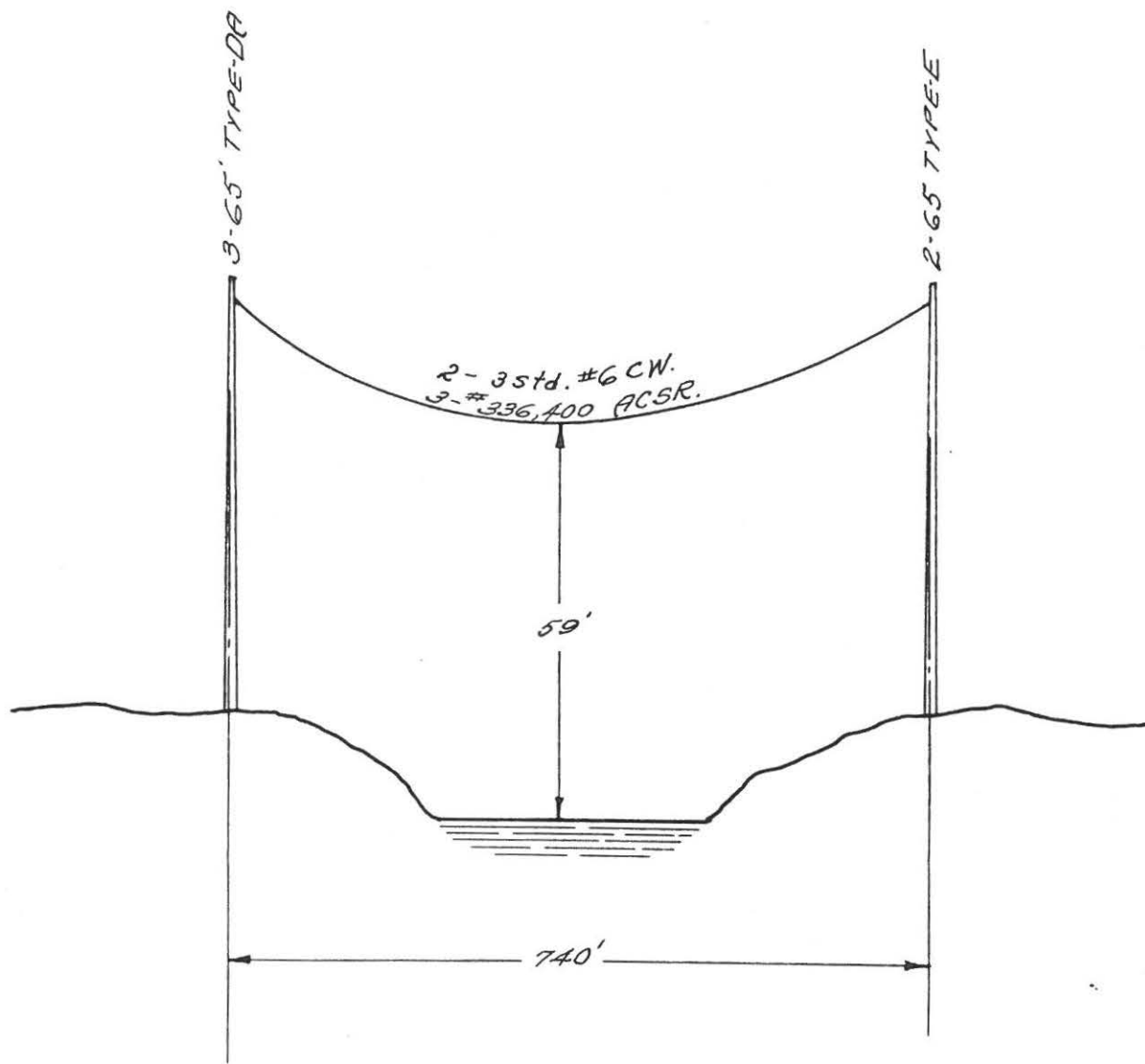
Schiller - Hudson

**115 KV. WIRE CROSSING
WINNICUT RIVER
GREENLAND, N.H.**

PUBLIC SERVICE CO. OF NEW HAMPSHIRE
ENGINEERING DEPARTMENT
SCALE *NONE* DATE *11-53*

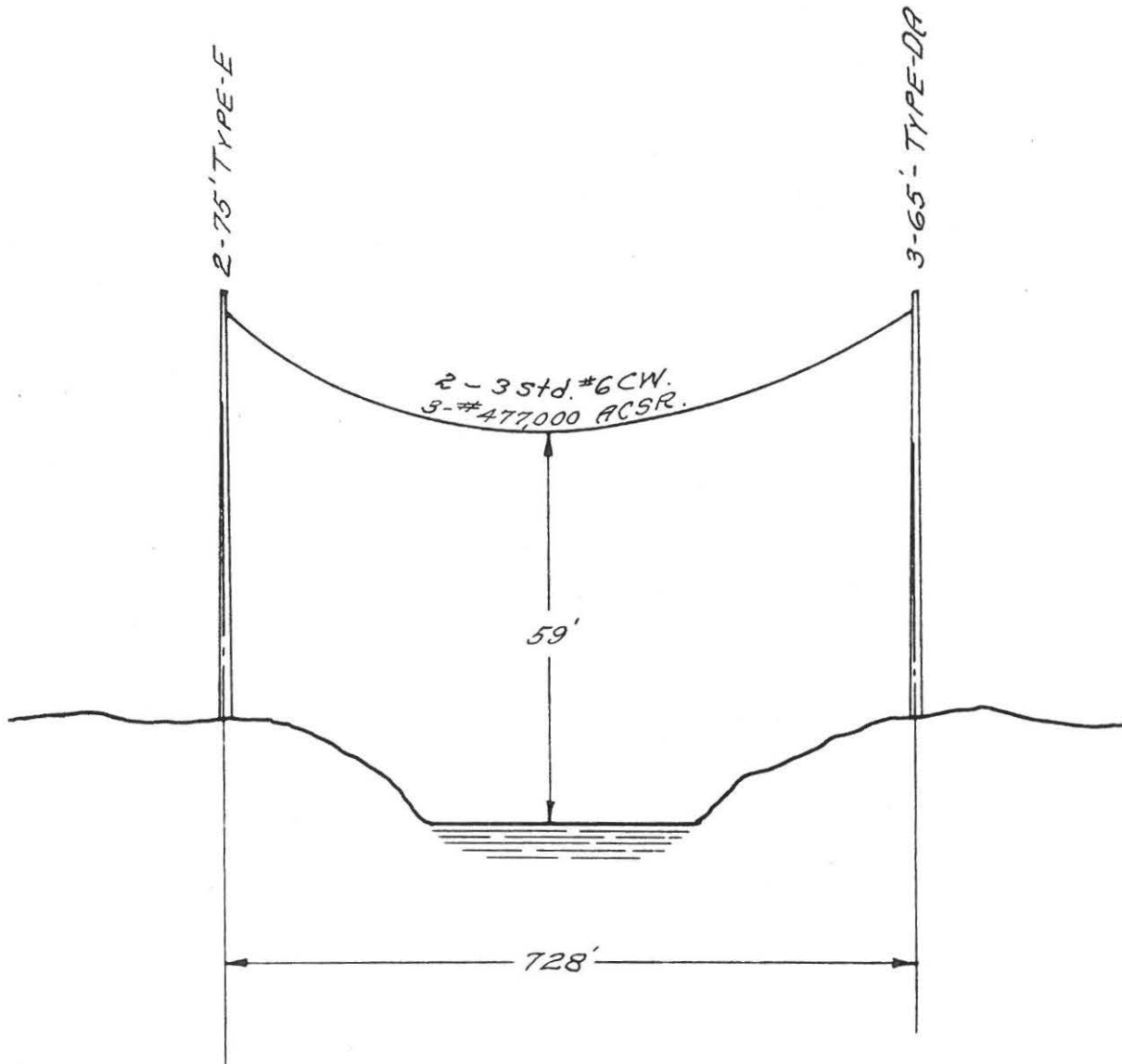
D-7649-19

DES.	NO.	REVISION	DATE	BY
DR.	1			
TR.	2			
CK.	3			
APPR.	4			
	5			
	6			



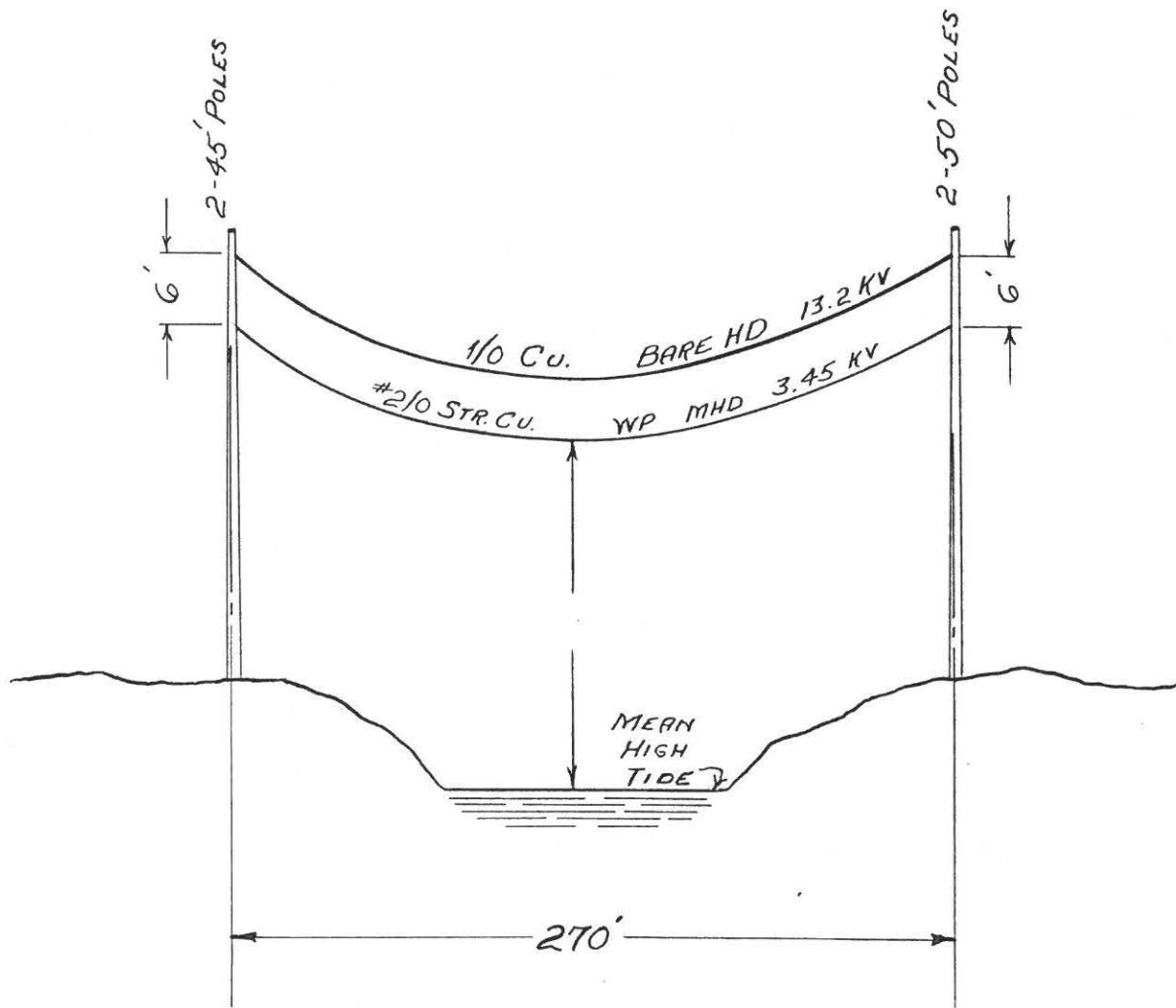
					Schiller - Greggs	
					115 KV. WIRE CROSSING SWAMSCOTT RIVER, 4000' SO. OF EXETER - NEWFIELDS TOWNLINE EXETER, N.H.	
					PUBLIC SERVICE CO. OF NEW HAMPSHIRE ENGINEERING DEPARTMENT	
					SCALE NONE DATE 11-53	
					D-7649-20	

DES.	NO	REVISION	DATE	BY
DR	1			
TR	2			
CK	3			
APPR	4			
	5			
	6			



				Schiller - Garvins	
				115 KV. WIRE CROSSING SWAMSCOTT RIVER 3900 So. OF EXETER NEWFIELDS TOWNLINE EXETER, N.H.	
				PUBLIC SERVICE CO. OF NEW HAMPSHIRE ENGINEERING DEPARTMENT	
				SCALE NONE DATE 11-53	
				D-7649-21	

DES.	NO	REVISION	DATE	BY
DR.	1			
TR.	2			
CK.	3			
APPR.	4			
	5			
	6			



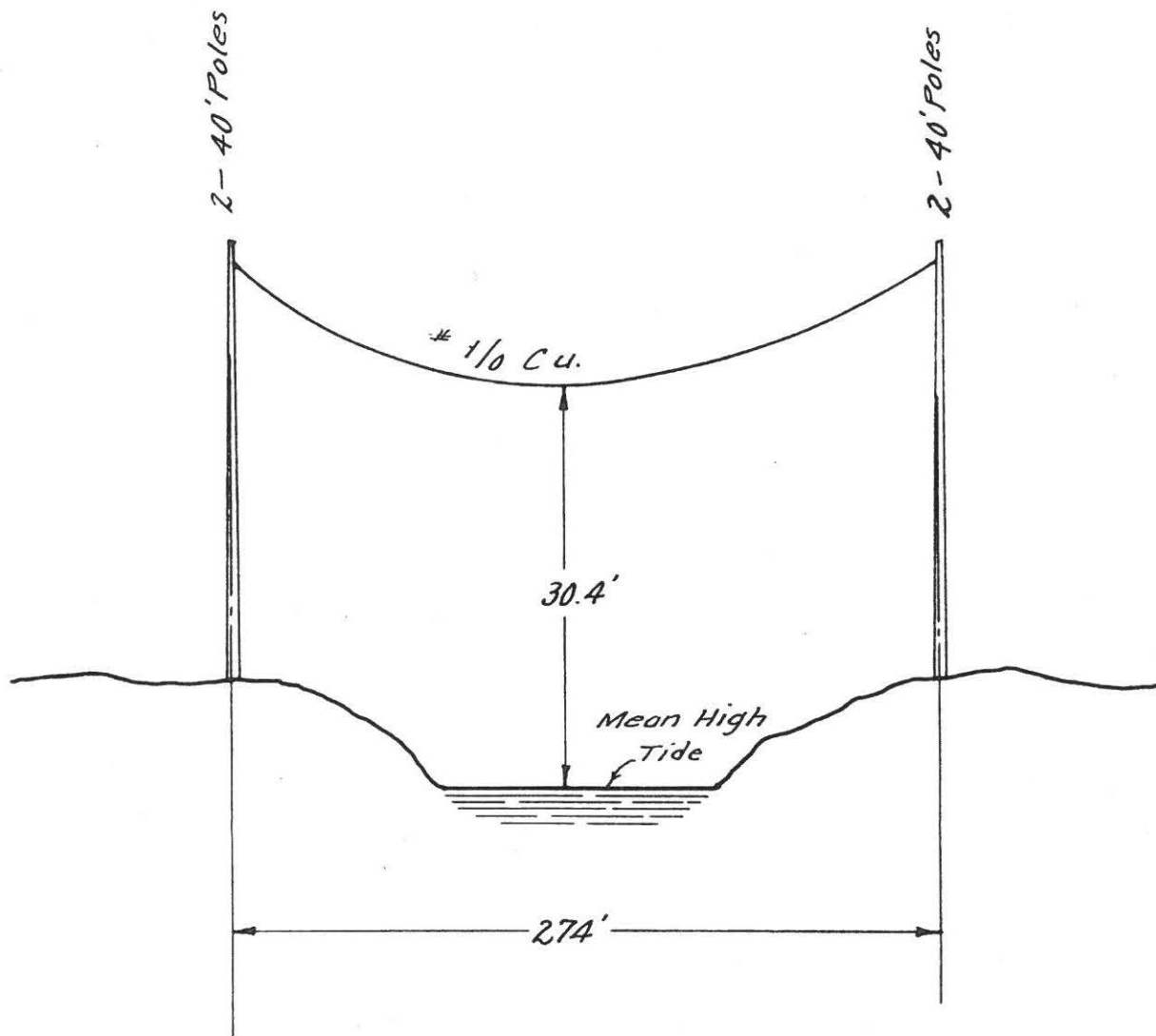
REDRAWN TO 7649-180

DES.	NO.	REVISION	DATE	BY
DR.	1		8-22-56	J.F.
TR. JF	2			
CK.	3			
APPR.	4			
	5			
	6			

**13.2 KV WIRE CROSSING
COCHECO RIVER AT POWER STA.
DOVER, N.H.**

PUBLIC SERVICE CO. OF NEW HAMPSHIRE
ENGINEERING DEPARTMENT
SCALE NONE DATE 4-53

D-7649-22

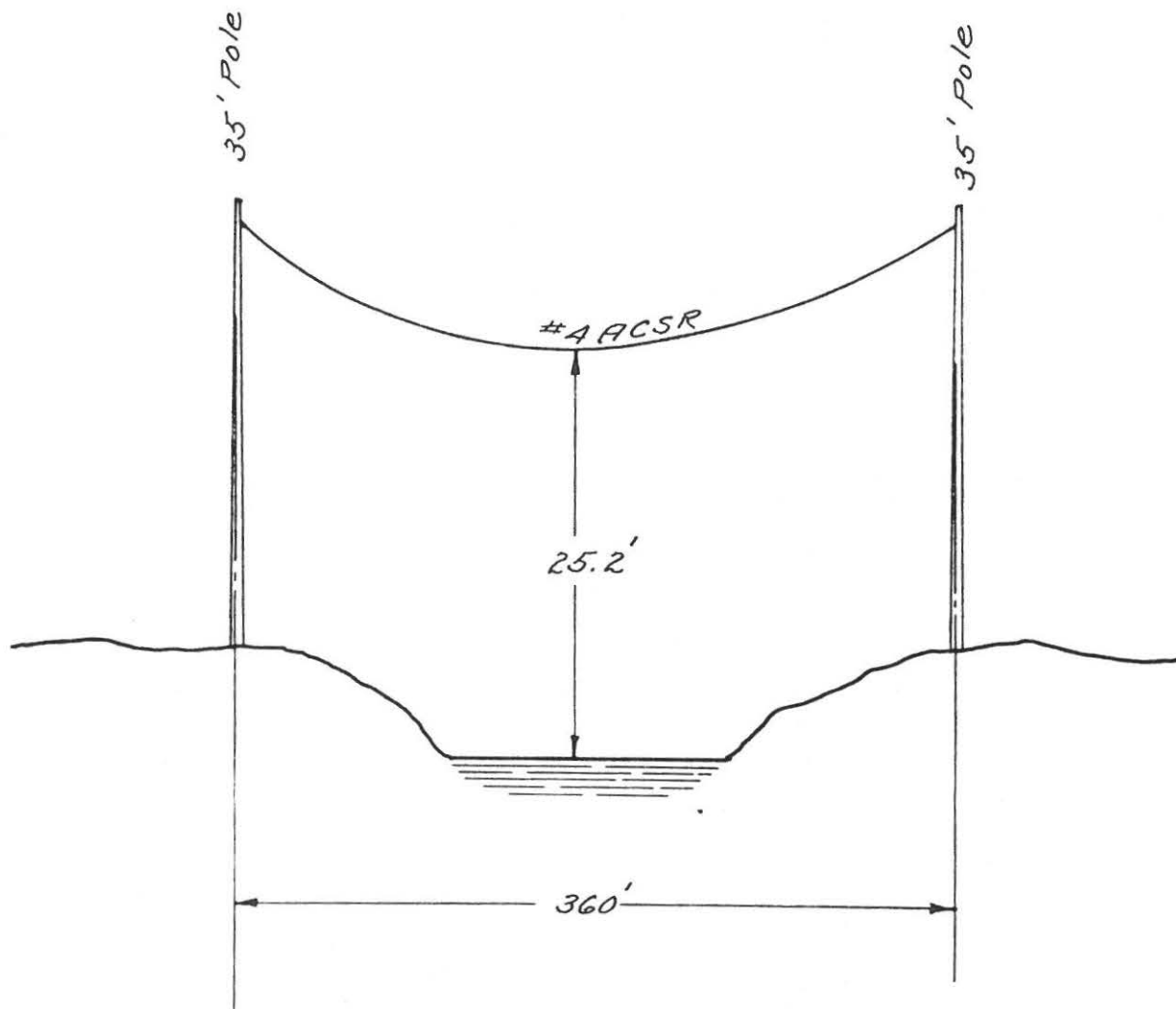


DES.	NO	REVISION	DATE	BY
DR.	1			
TR.	2			
CK.	3			
APPR	4			
	5			
	6			

13.2KV. WIRE CROSSING
 COCHECO RIVER AT YOUNG ST.
 DOVER, N. H.

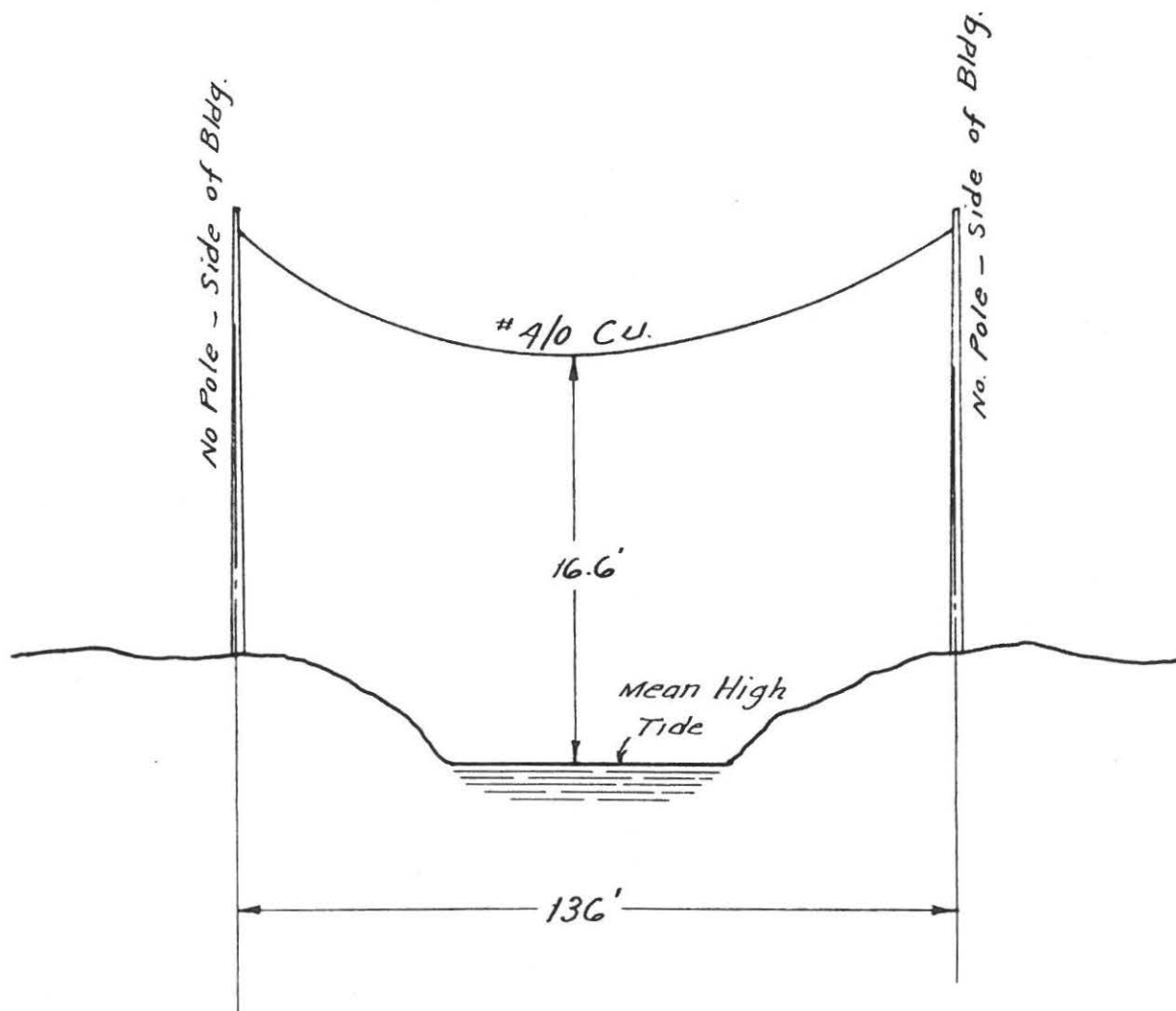
PUBLIC SERVICE CO. OF NEW HAMPSHIRE
 ENGINEERING DEPARTMENT
 SCALE NONE DATE 11-53

D-7649-23



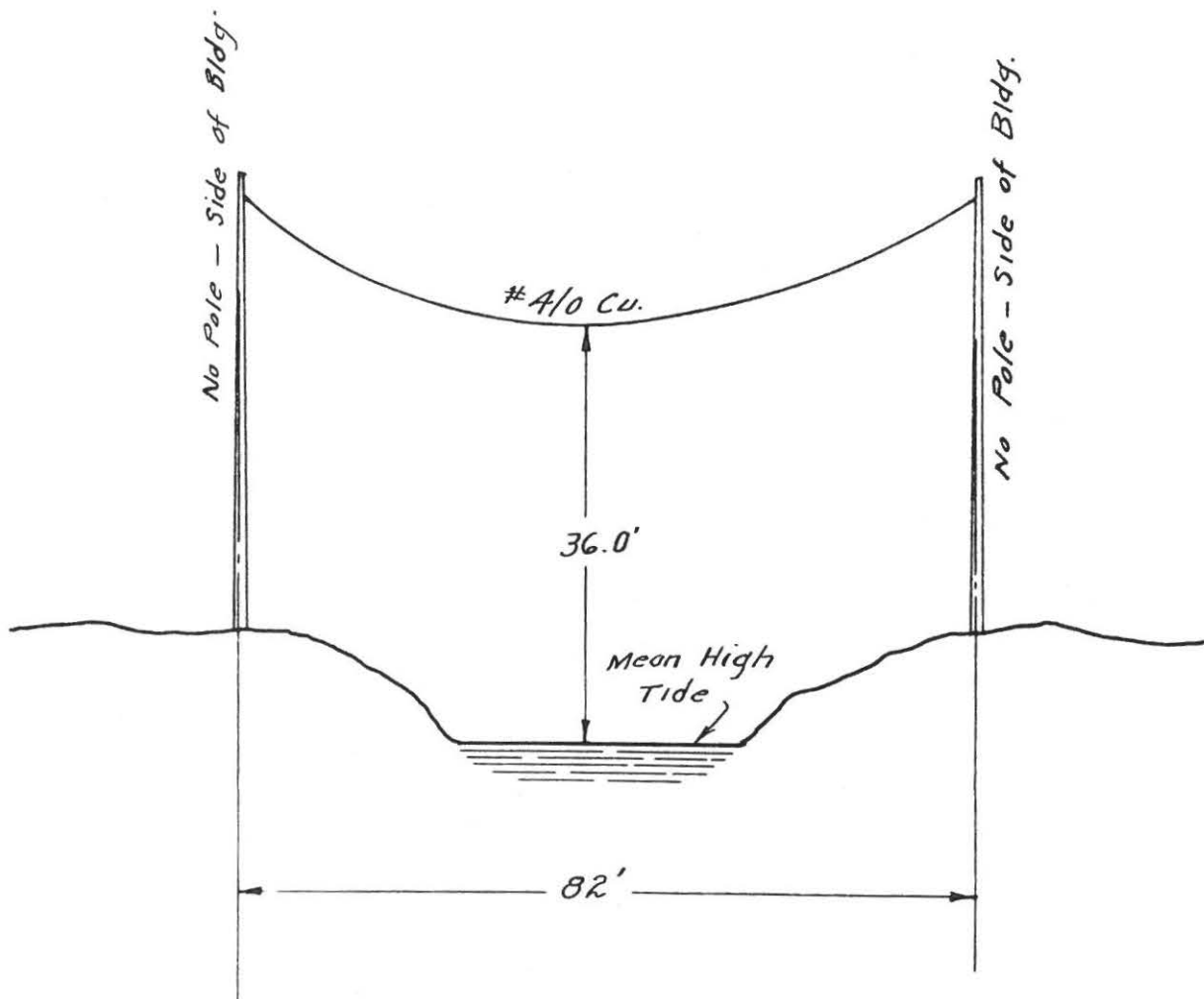
DES.	NO.	REVISION	DATE	BY
DR.	1			
TR.	2			
CK.	3			
APPR	4			
	5			
	6			

<p>120/240 VOLT WIRE CROSSING NORTH END OF AYERS POND BARRINGTON, N.H.</p>	
<p>PUBLIC SERVICE CO. OF NEW HAMPSHIRE ENGINEERING DEPARTMENT</p>	<p>D-7649-2A</p>
<p>SCALE NONE</p>	<p>DATE 11-53</p>



DES.	NO.	REVISION	DATE	BY
DR.	1			
TR.	2			
CK.	3			
APPR	4			
	5			
	6			

600 VOLT WIRE CROSSING COCHECO RIVER AT PACIFIC MILLS DOVER, N. H.	
PUBLIC SERVICE CO. OF NEW HAMPSHIRE ENGINEERING DEPARTMENT SCALE NONE	D-7649-25 DATE 11-53

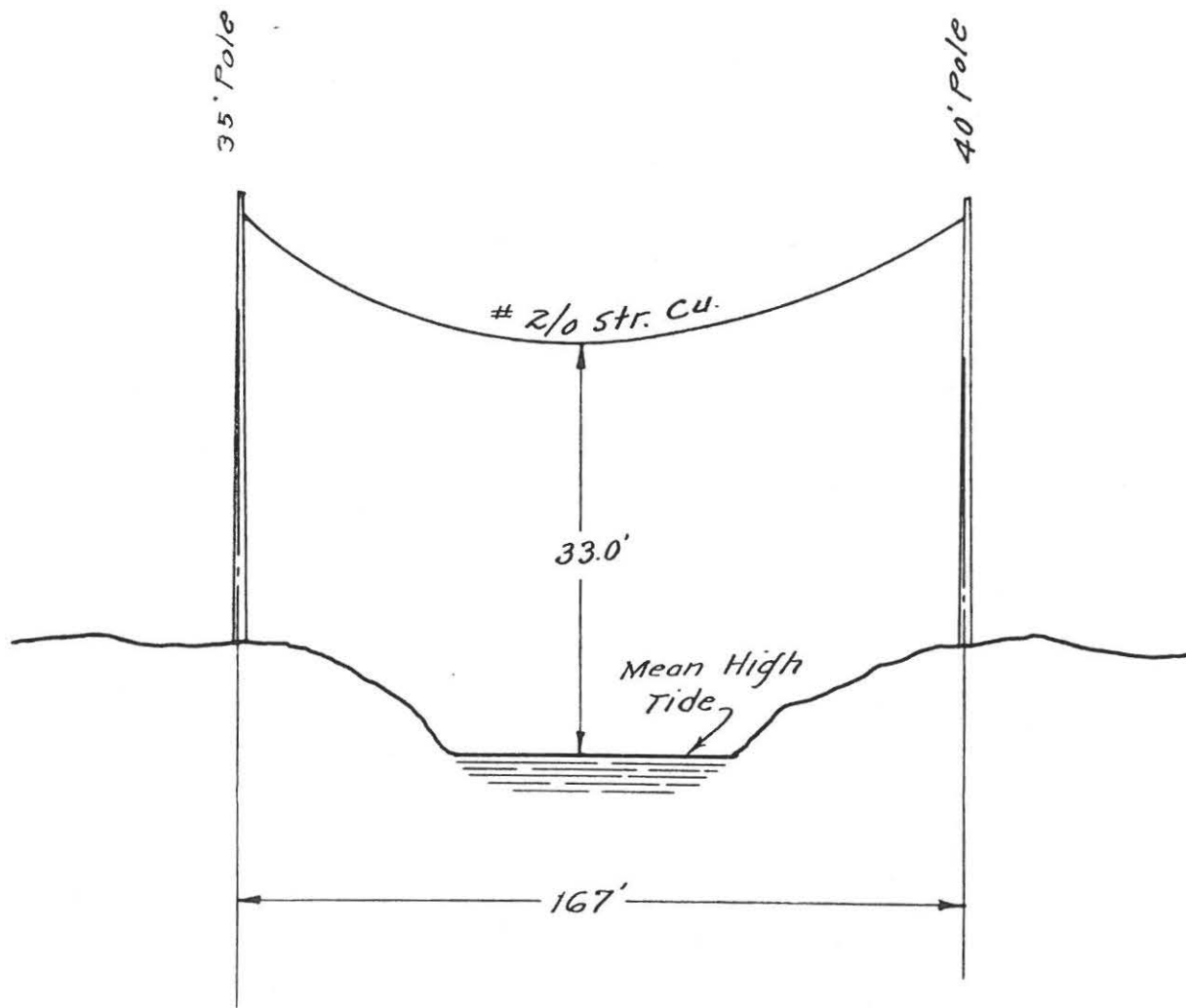


DES.	NO.	REVISION	DATE	BY
DR.	1			
TR.	2			
CK.	3			
APPR.	4			
	5			
	6			

600 VOLT WIRE CROSSING
 COCHECO RIVER AT WASHINGTON ST.,
 UPPER BRIDGE, DOVER, N. H.

PUBLIC SERVICE CO. OF NEW HAMPSHIRE
 ENGINEERING DEPARTMENT
 SCALE NONE DATE 11-53

D-7649-20



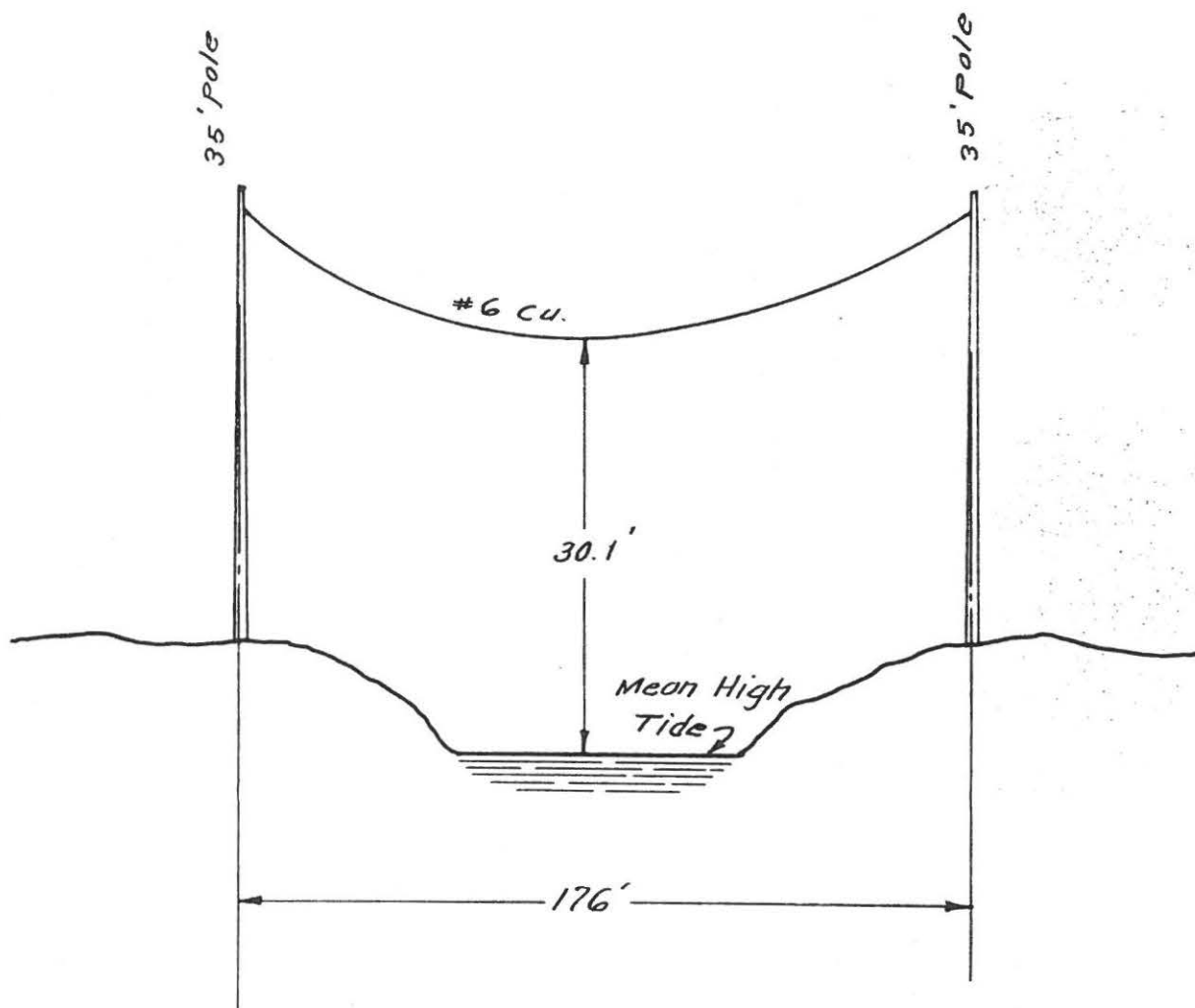
DES.	NO.	REVISION	DATE	BY
DR.	1			
TR.	2			
CK.	3			
APPR.	4			
	5			
	6			

**3300 VOLT WIRE CROSSING
 COCHECO RIVER AT WASHINGTON ST.,
 LOWER BRIDGE, DOVER, N.H.**

PUBLIC SERVICE CO. OF NEW HAMPSHIRE
 ENGINEERING DEPARTMENT

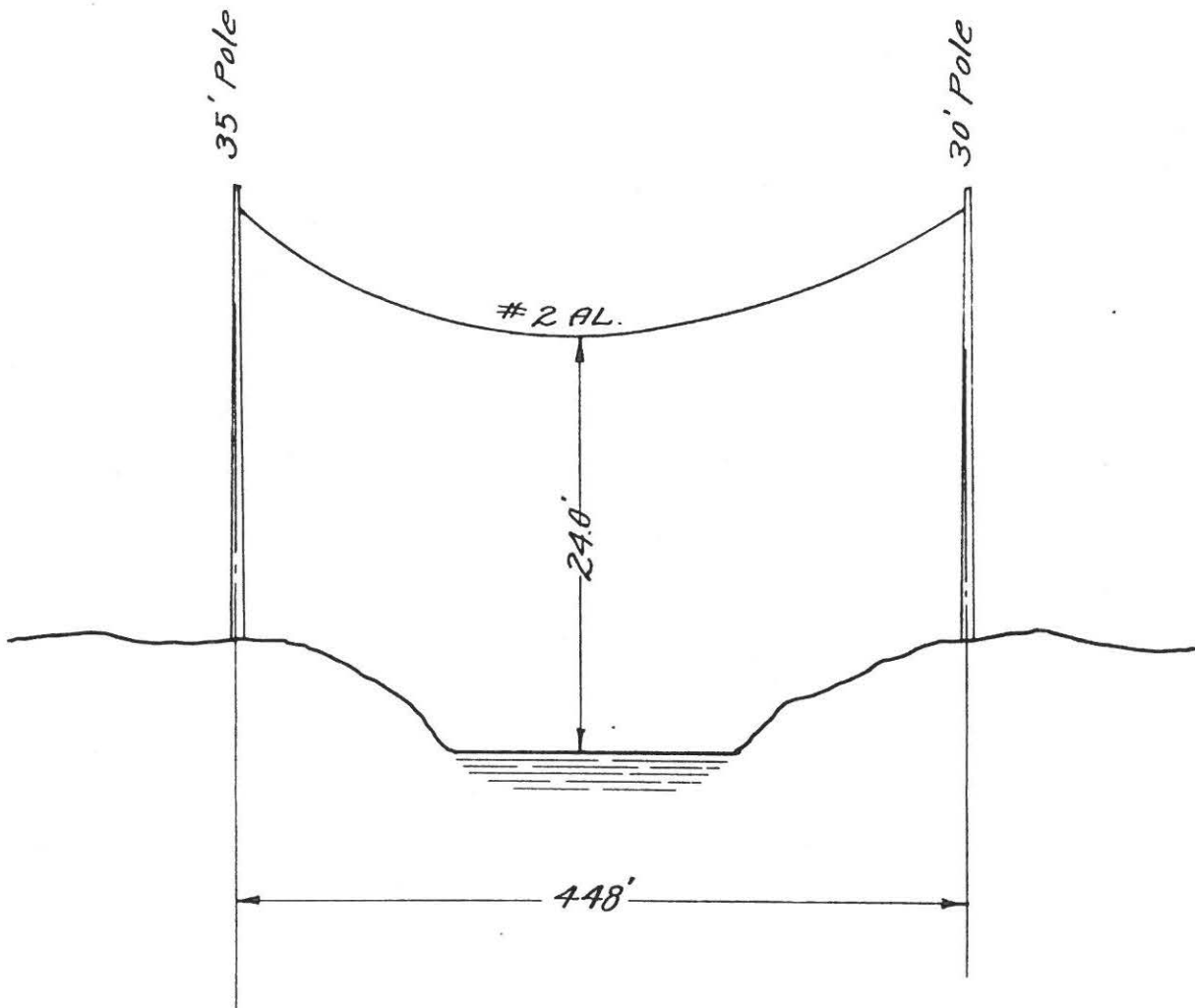
SCALE NONE DATE 11-53

D-7649-27



DES.	NO.	REVISION	DATE	BY
DR.	1			
TR.	2			
CK.	3			
APPR.	4			
	5			
	6			

ST. LT. CIRCUIT CROSSING COCHECO RIVER AT WASHINGTON ST., LOWER BRIDGE, DOVER, N.H.	
PUBLIC SERVICE CO. OF NEW HAMPSHIRE ENGINEERING DEPARTMENT SCALE <i>NONE</i>	D-7649-28 DATE 11-53



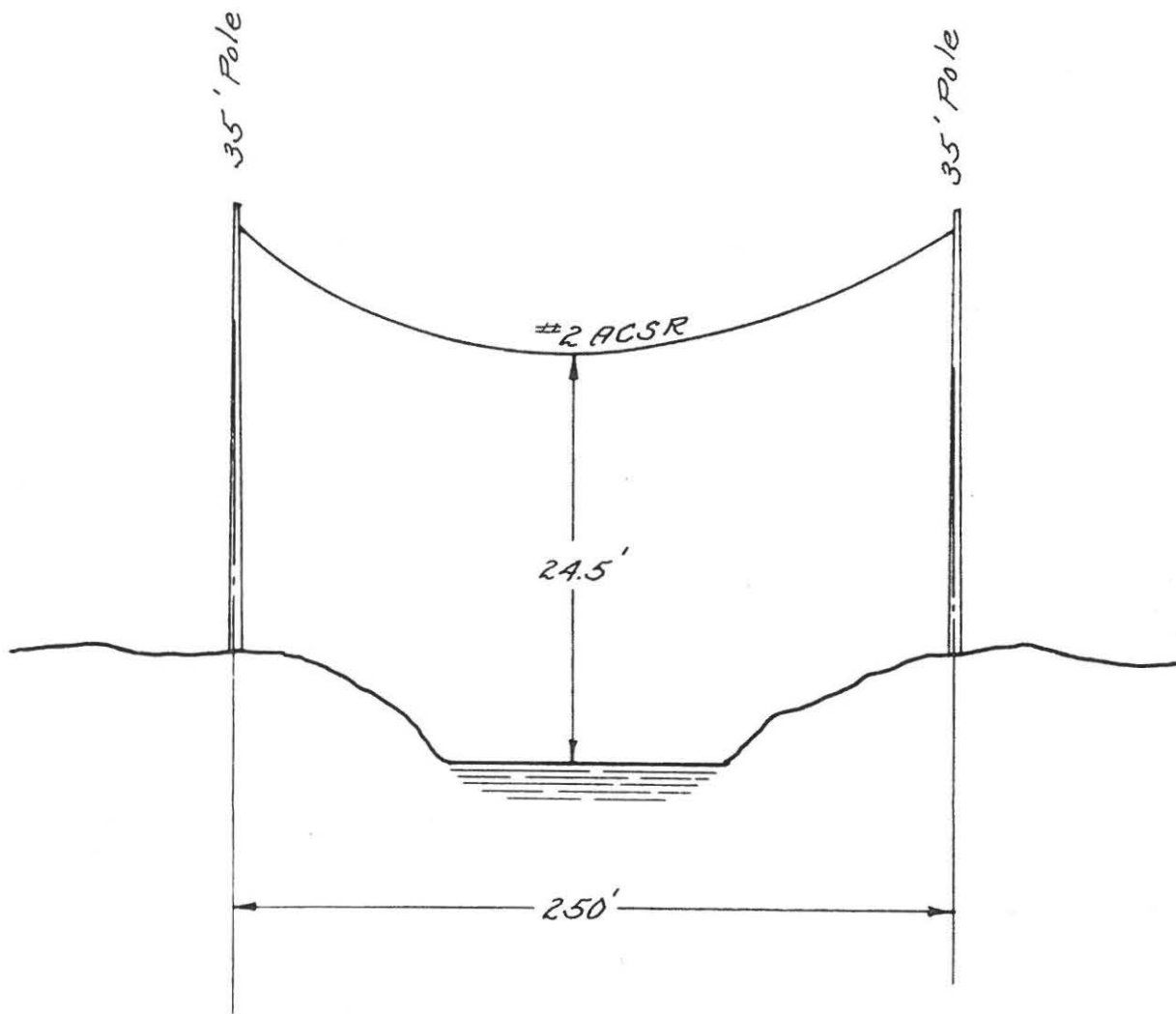
REDRAWN TO 7649-210

DES.	NO	REVISION	DATE	BY
DR.	1			
TR.	2			
CK.	3			
APPR.	4			
	5			
	6			

**3300VOLT WIRE CROSSING
WHEELWRIGHT POND, NEAR CALEF
HIGHWAY, LEE, N.H.**

PUBLIC SERVICE CO. OF NEW HAMPSHIRE
ENGINEERING DEPARTMENT
SCALE NONE DATE 11-53

D-7649-29



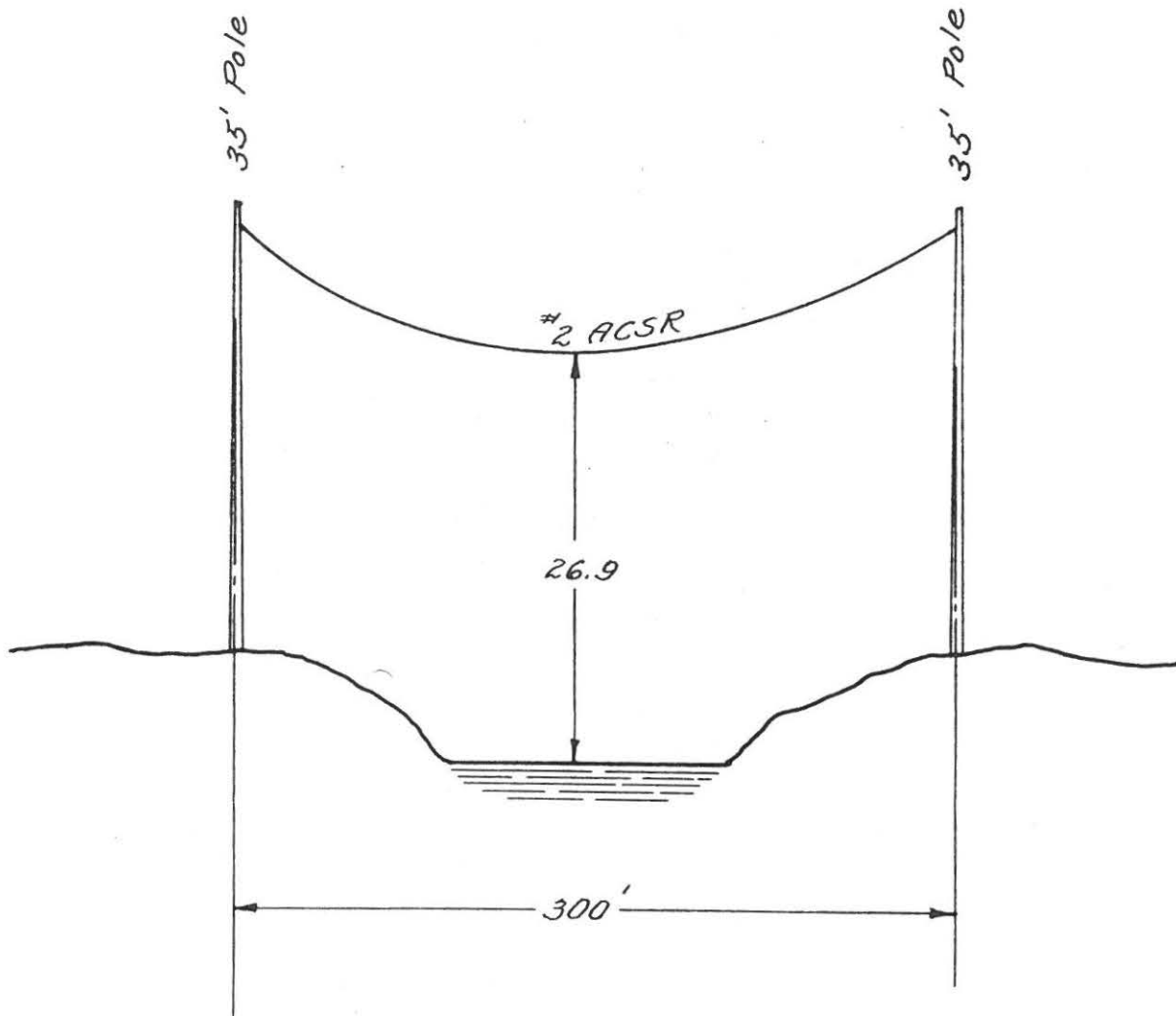
ELIMINATED

DES.	NO	REVISION	DATE	BY
DR.	1			
TR.	2			
CK.	3			
APPR	4			
	5			
	6			

**3300 VOLT WIRE CROSSING
NORTH END OF LILY POND
SOMERSWORTH, N.H.**

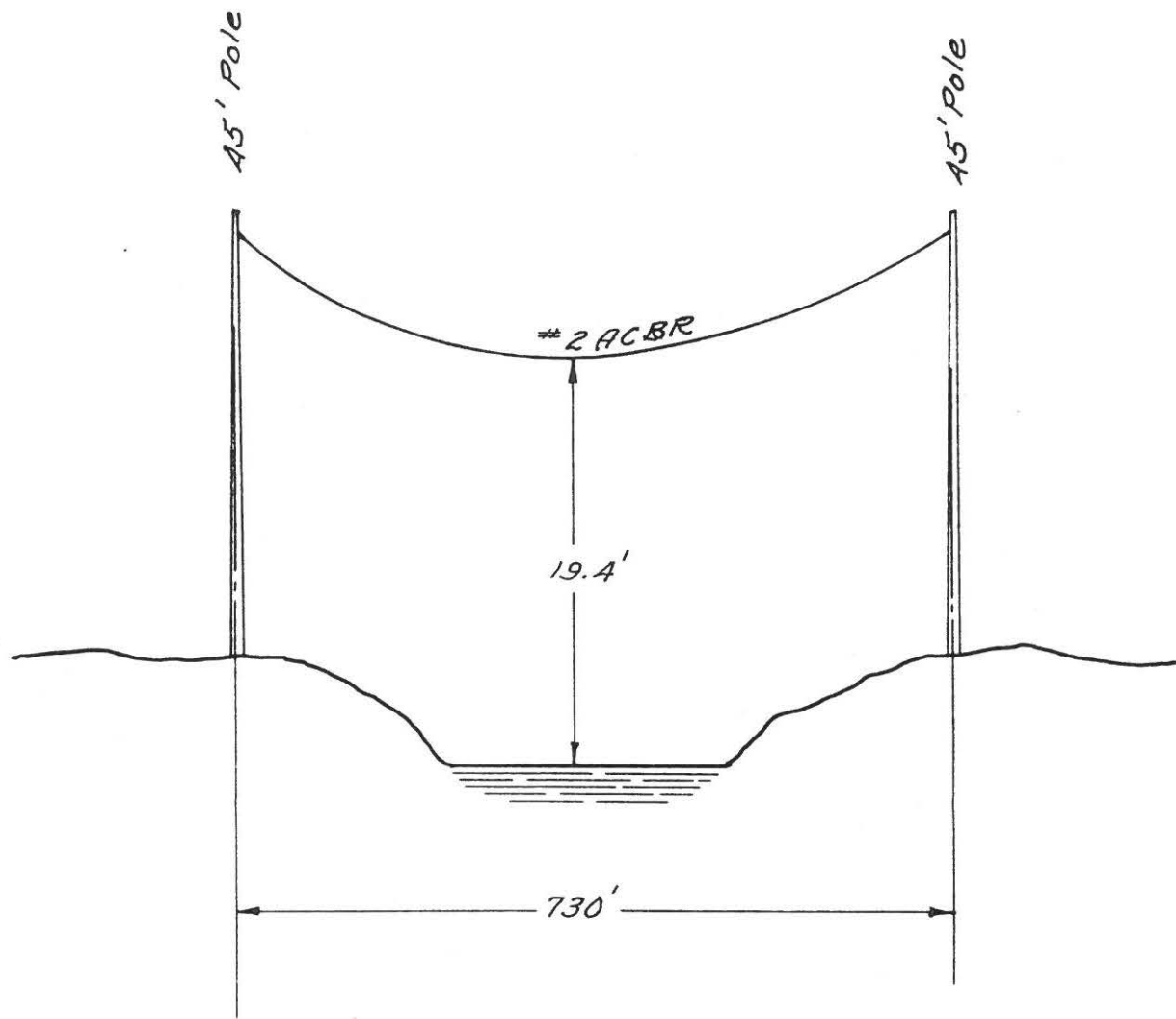
PUBLIC SERVICE CO. OF NEW HAMPSHIRE
ENGINEERING DEPARTMENT
SCALE *NONE* DATE *11-53*

D-7649-30



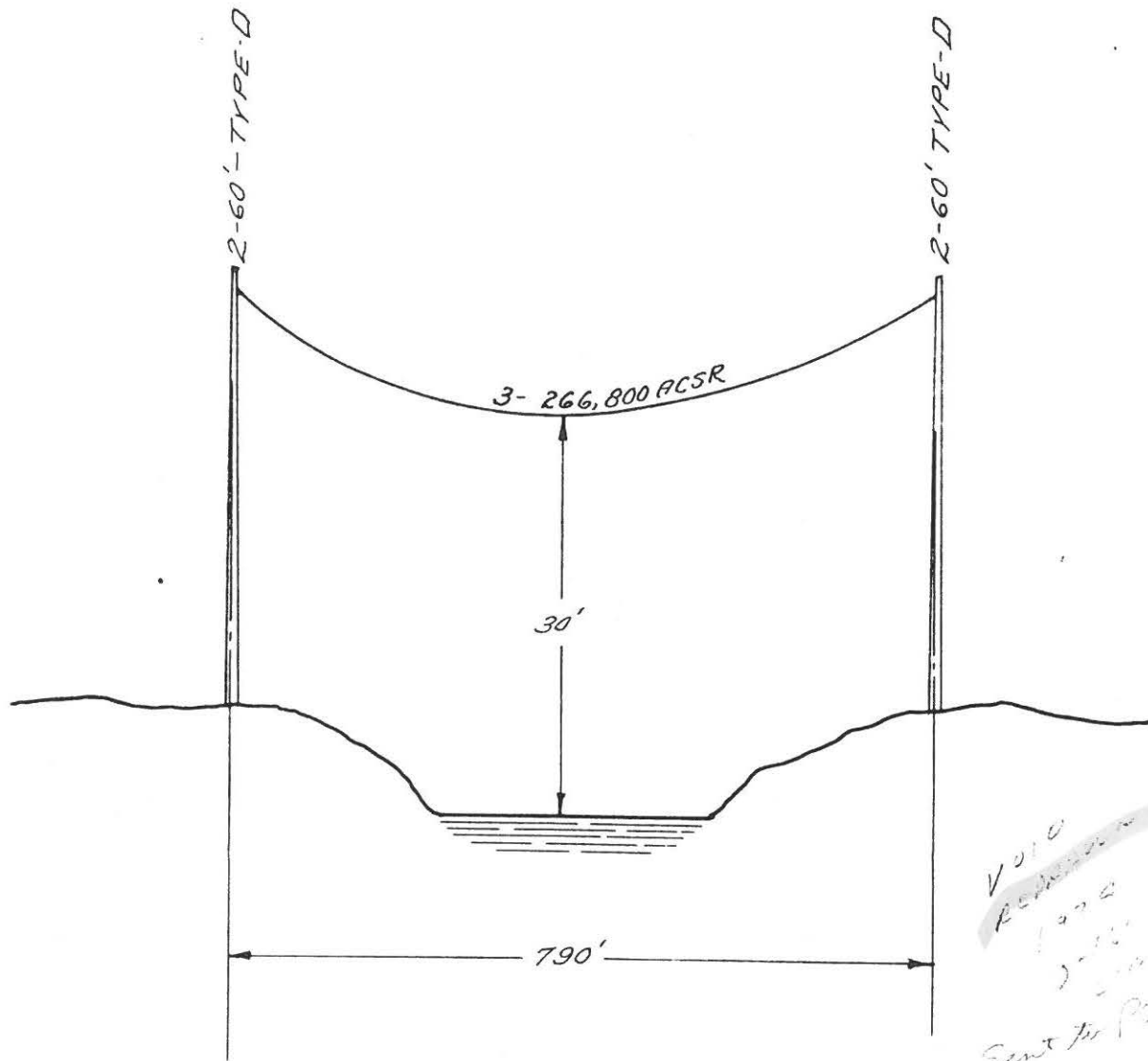
DES.	NO.	REVISION	DATE	BY
DR.	1			
TR.	2			
CK.	3			
APPR.	4			
	5			
	6			

4800 VOLT WIRE CROSSING BALCH POND - SOUTHWEST COVE WAKEFIELD, N. H.	
PUBLIC SERVICE CO. OF NEW HAMPSHIRE ENGINEERING DEPARTMENT SCALE <i>NONE</i>	DATE <i>11-53</i> D-7649-31



DES.	NO	REVISION	DATE	BY
DR.	1			
TR.	2			
CK.	3			
APPR.	4			
	5			
	6			

2400 VOLT WIRE CROSSING LOVELL LAKE-TO BIG ISLAND WAKEFIELD, N.H	
PUBLIC SERVICE CO. OF NEW HAMPSHIRE ENGINEERING DEPARTMENT	D-7649-32
SCALE <i>NONE</i>	DATE <i>11-53</i>



V010
 Revision - 7649-124
 1992
 2-11-92
 2-11-92
 Sent to P&E

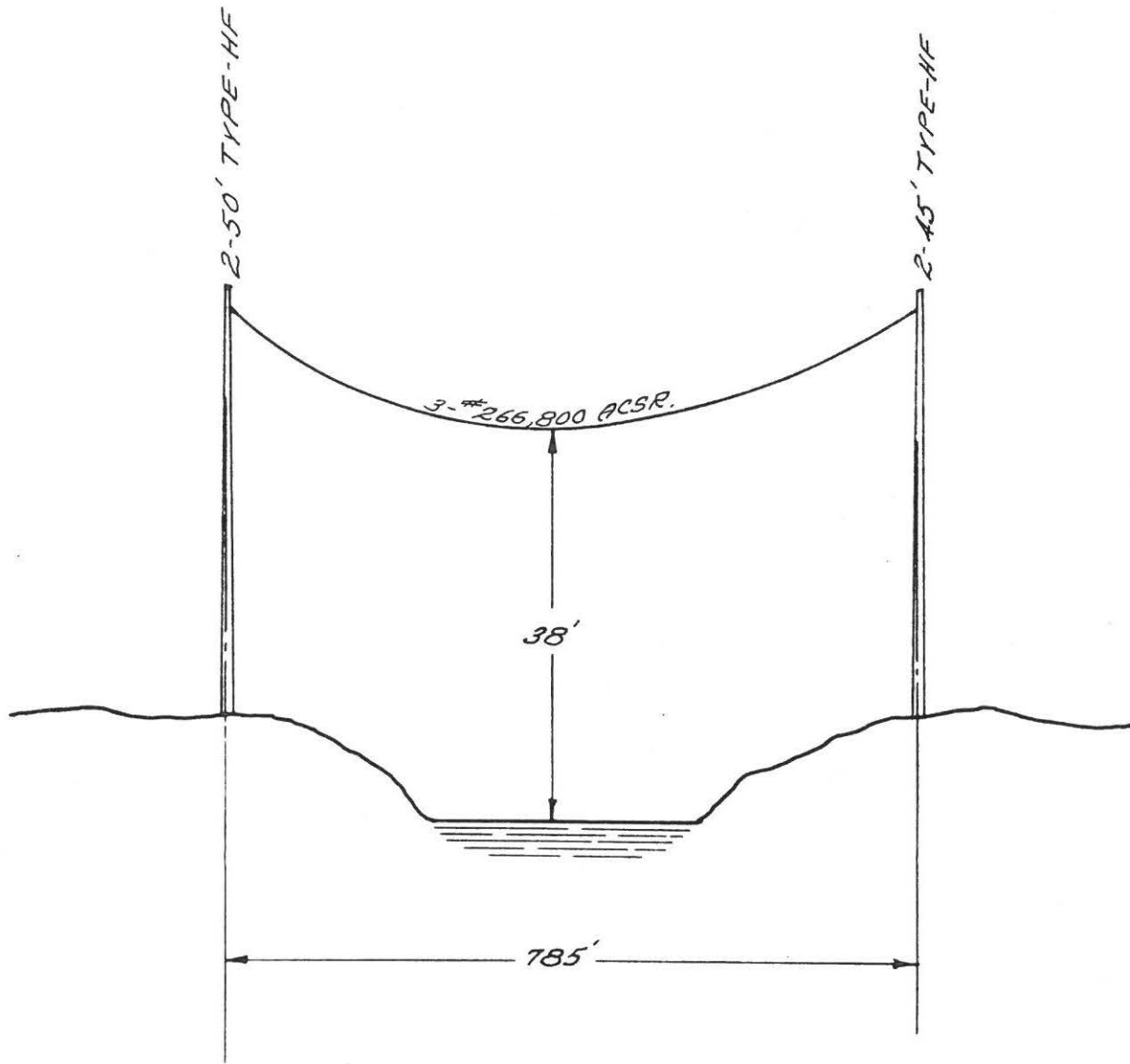
Dover - Gregg

DES.	NO.	REVISION	DATE	BY
DR.	1			
TR.	2			
CK.	3			
APPR	4			
	5			
	6			

**115 KV. WIRE CROSSING
 MERRIMACK RIVER
 .5 MI. NO. OF MARTINS FERRY
 HOOKSETT, N.H.**

PUBLIC SERVICE CO. OF NEW HAMPSHIRE
 ENGINEERING DEPARTMENT
 SCALE _____ DATE _____

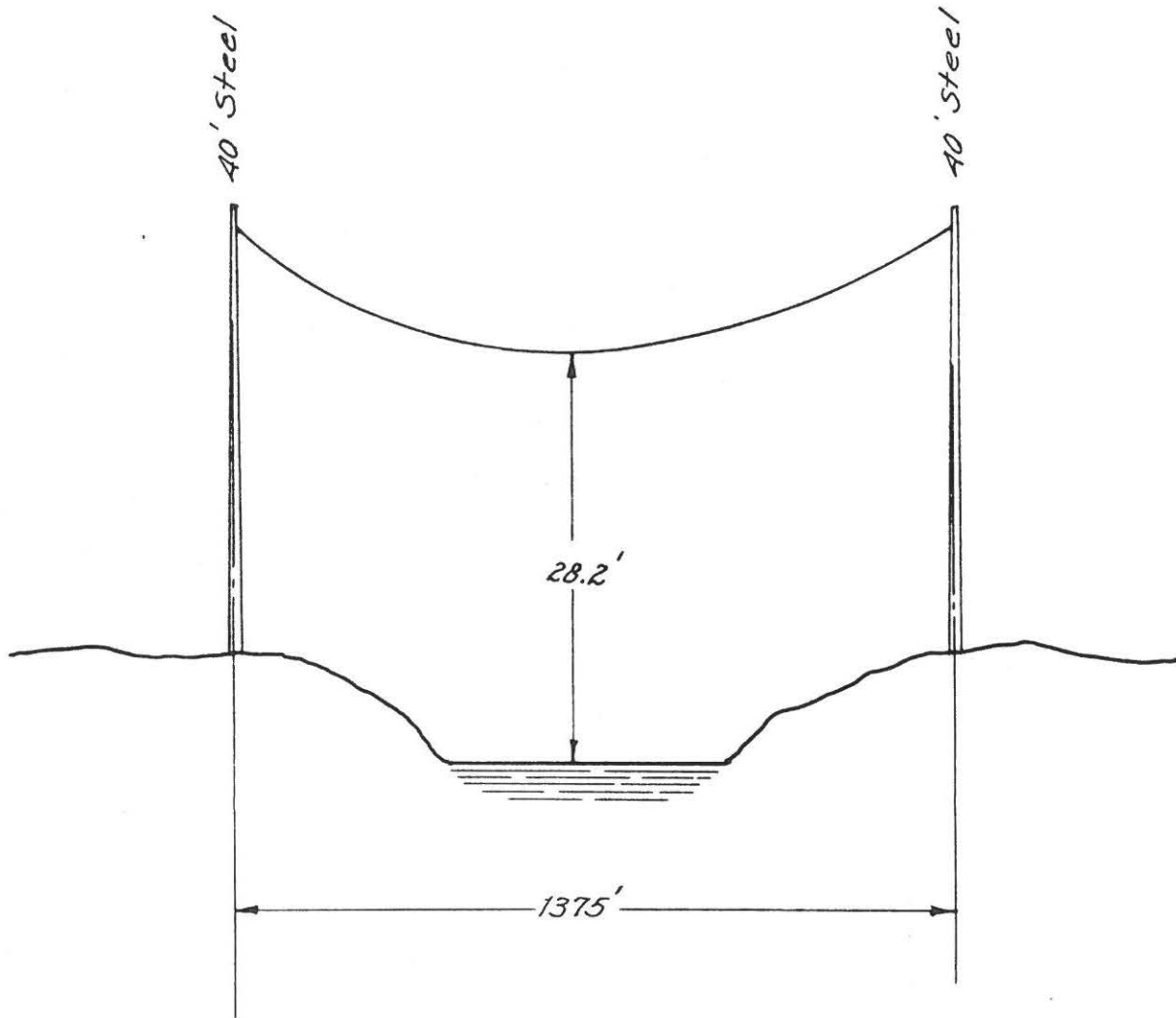
D-7649-34



					<i>REDRAWN</i>	
					33 KV. WIRE CROSSING MERRIMACK RIVER - .5 MI. So. MARTIN FER. MANCHESTER, N.H.	
					PUBLIC SERVICE CO. OF NEW HAMPSHIRE ENGINEERING DEPARTMENT	
					SCALE	DATE
					D-7649-35	

DES.	NO.	REVISION	DATE	BY
DR.	1			
TR.	2			
CK.	3			
APPR.	4			
	5			
	6			

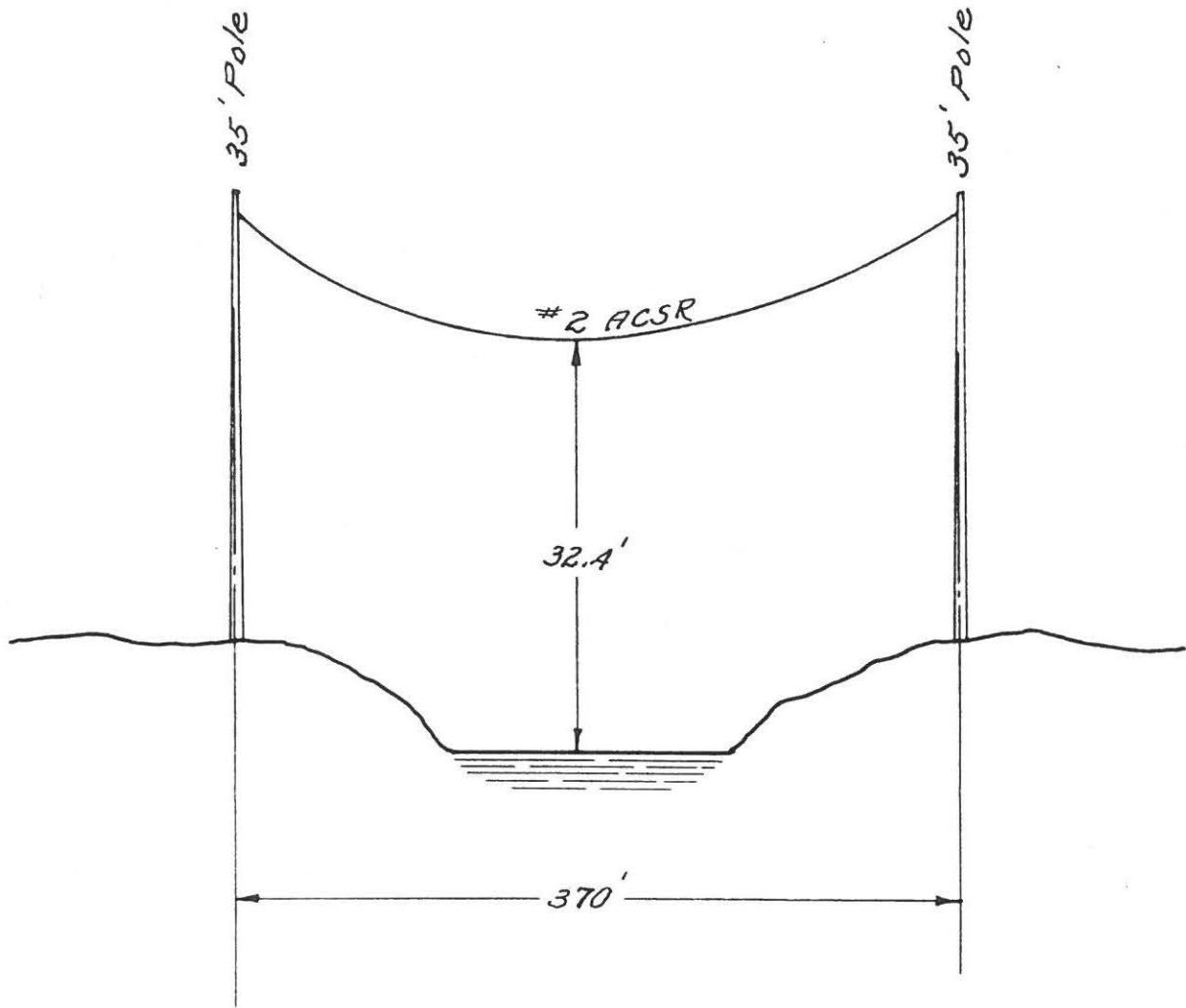
OLD RIVERDALE FEED
 ABANDONED



DES.	NO.	REVISION	DATE	BY		
DR	1				11KV. WIRE CROSSING GLEN LAKE GOFFSTOWN, N.H	
TR.	2					
CK.	3					
APPR.	4					
	5					
	6				PUBLIC SERVICE CO. OF NEW HAMPSHIRE ENGINEERING DEPARTMENT SCALE <i>NONE</i> DATE <i>11-53</i>	

D-7649-36

WESTERN
DIVISION



DES.	NO.	REVISION	DATE	BY
DR.	1			
TR.	2			
CK.	3			
APPR.	4			
	5			
	6			

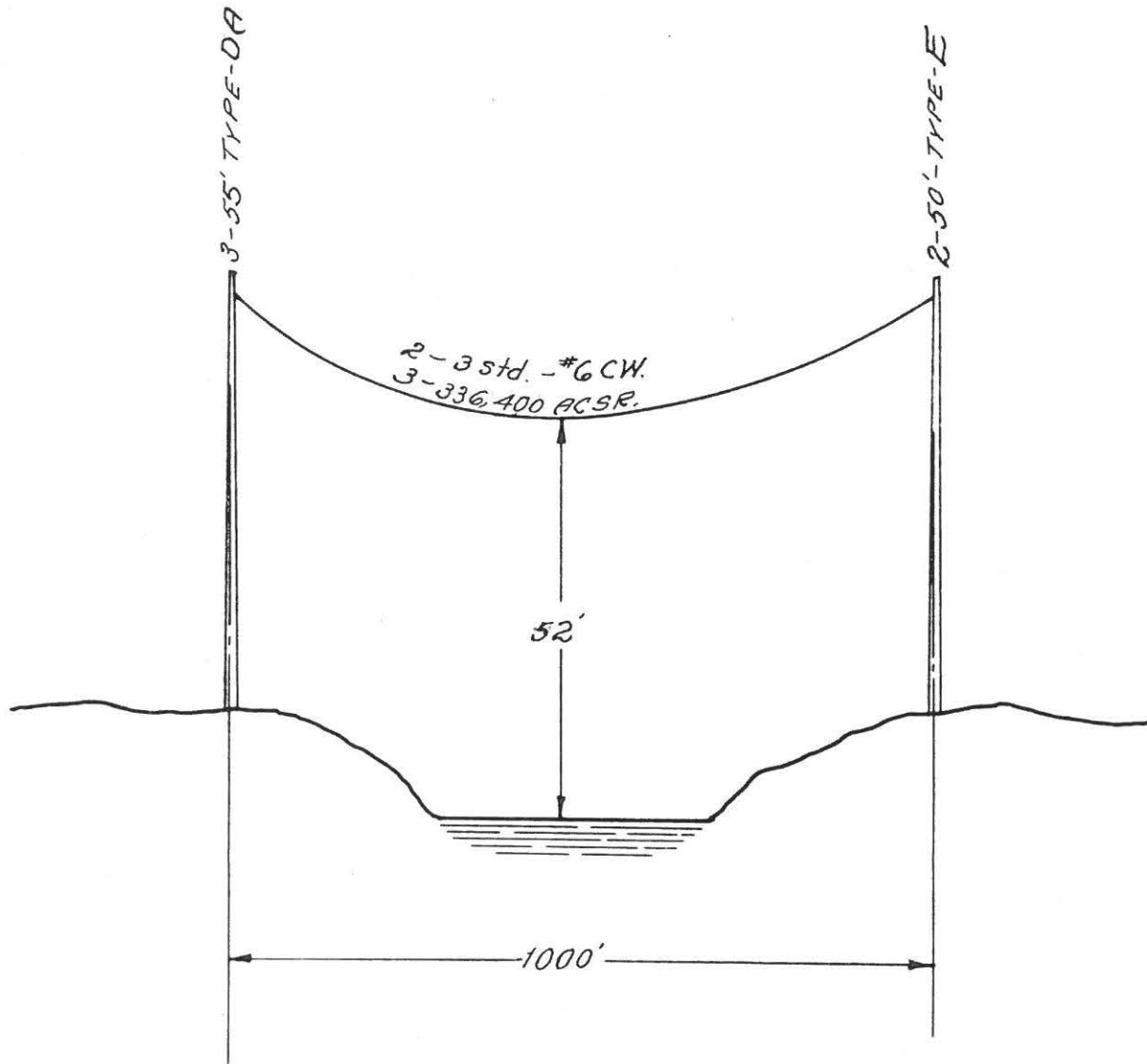
2400 VOLT WIRE CROSSING
WEARE RESERVOIR - UPPER NECK
WEARE, N.H.

PUBLIC SERVICE CO. OF NEW HAMPSHIRE
ENGINEERING DEPARTMENT

SCALE NONE

DATE 11-53

D-7649-37



Jackman - Keene

**115 KV. LINE CROSSING
FRANKLIN PIERCE LAKE
ANTRIM, N.H.**

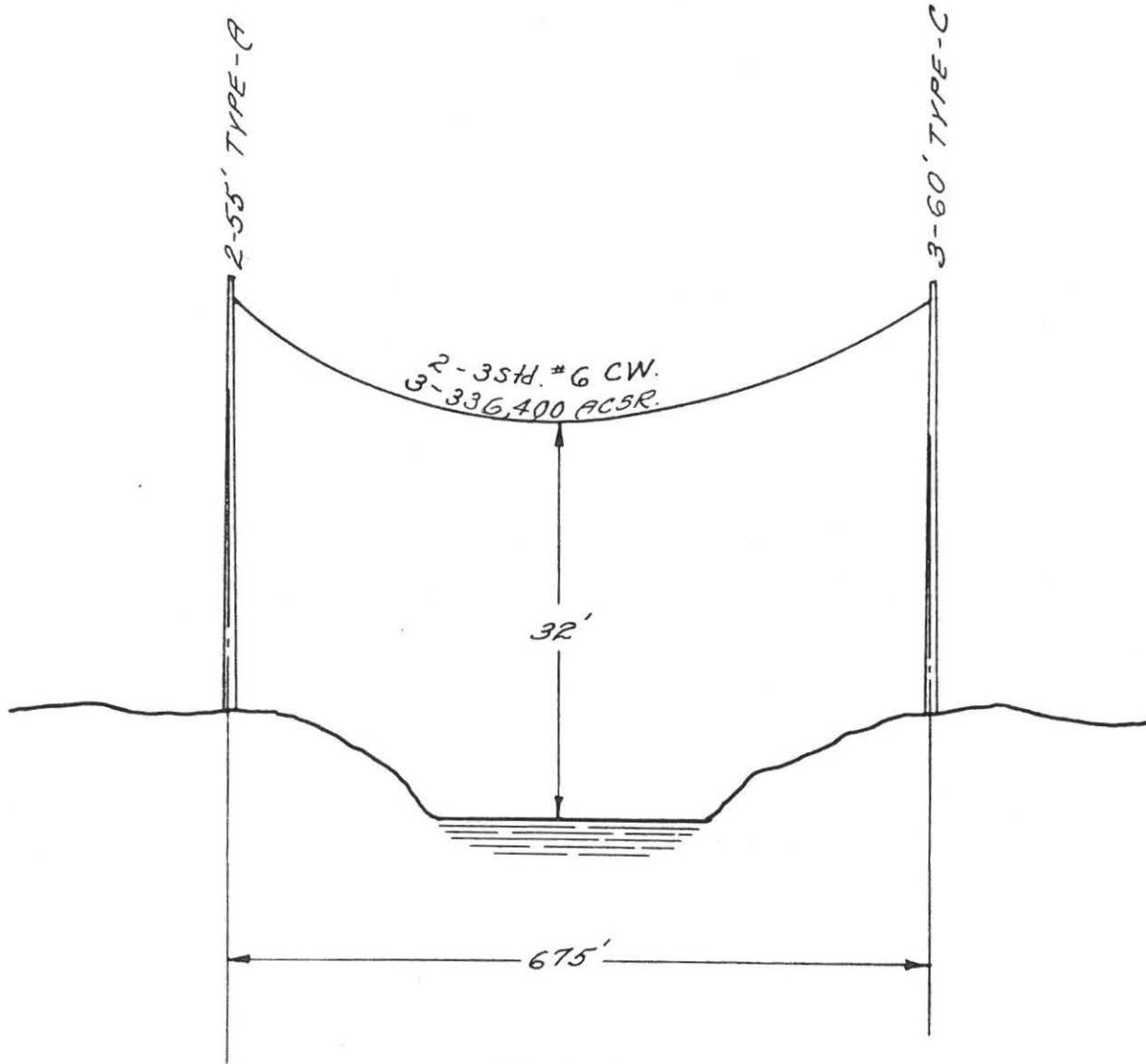
PUBLIC SERVICE CO. OF NEW HAMPSHIRE
ENGINEERING DEPARTMENT

D-7649-38

SCALE

DATE

DES.	NO.	REVISION	DATE	BY
DR.	1			
TR.	2			
CK	3			
APPR	4			
	5			
	6			



Jackman - Keene

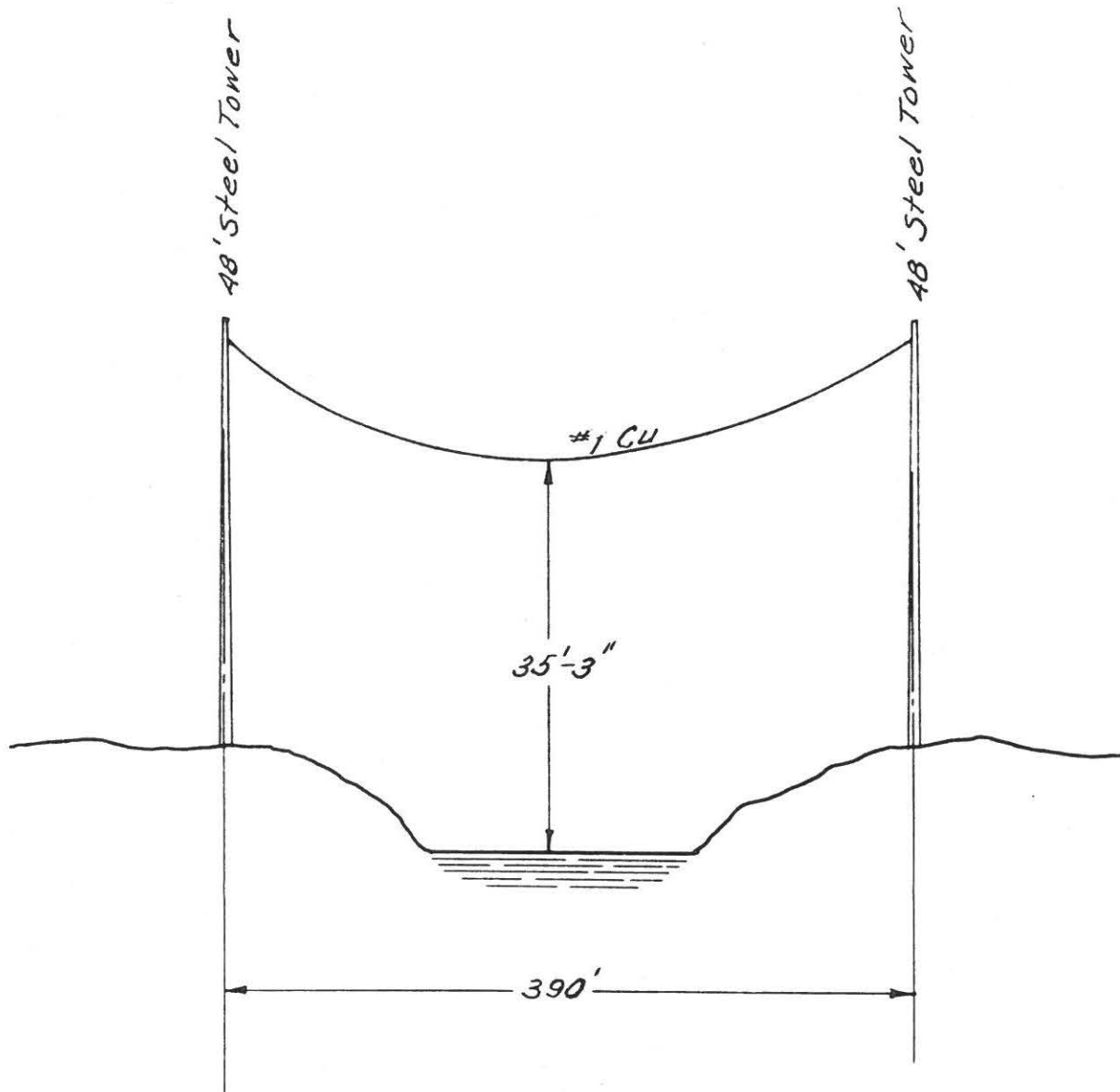
DES.	NO	REVISION	DATE	BY
DR.	1			
TR.	2			
CK.	3			
APPR.	4			
	5			
	6			

**115KV. LINE CROSSING
GOODSELL POND
ANTRIM, N.H.**

PUBLIC SERVICE CO. OF NEW HAMPSHIRE
ENGINEERING DEPARTMENT

SCALE _____ DATE _____

D-7649-39

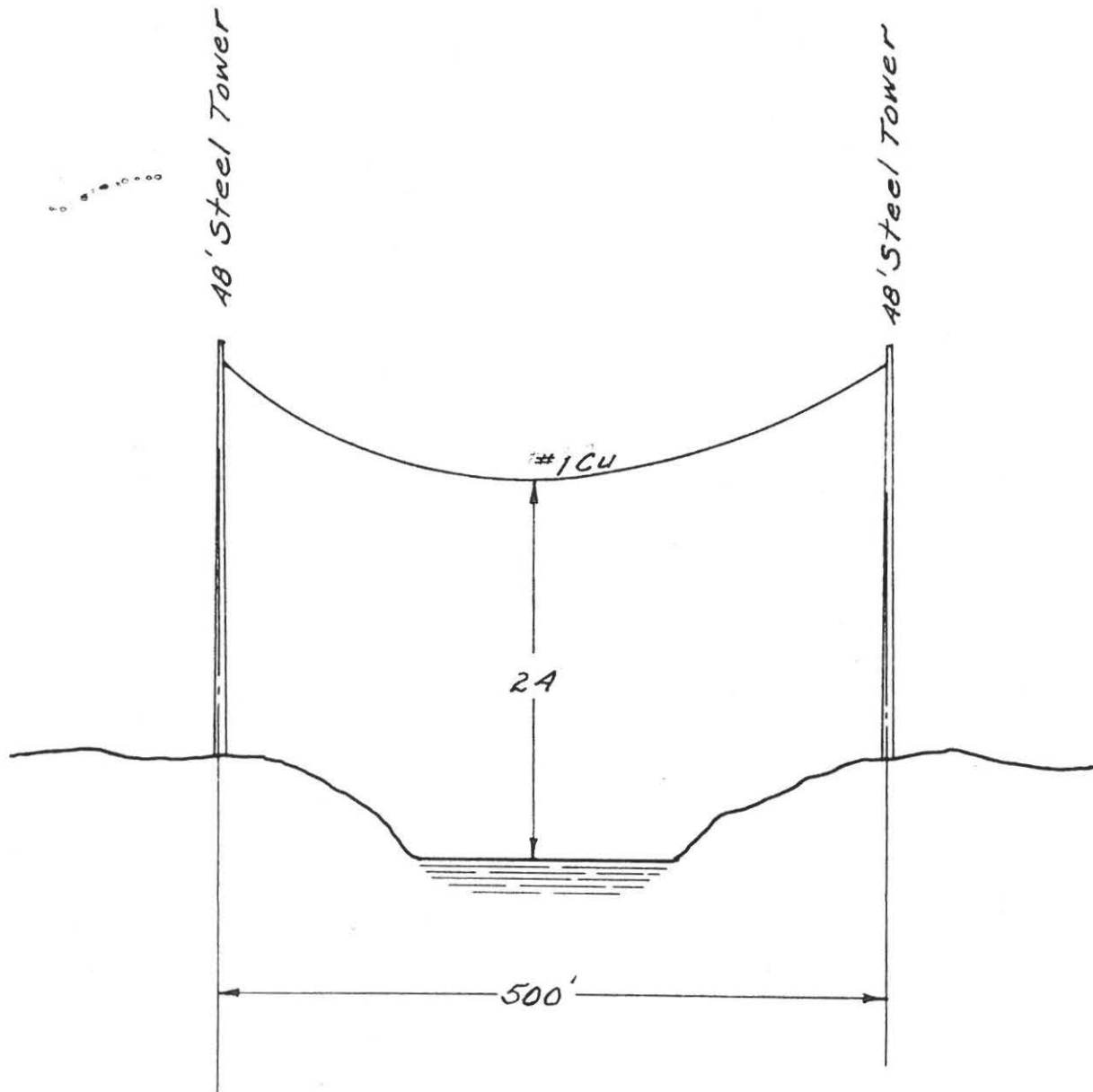


DES.	NO	REVISION	DATE	BY
DR.	1			
TR.	2			
CK.	3			
APPR.	4			
	5			
	6			

12.47KV. WIRE CROSSING
 HOWES RESERVOIR
 DUBLIN, N.H.

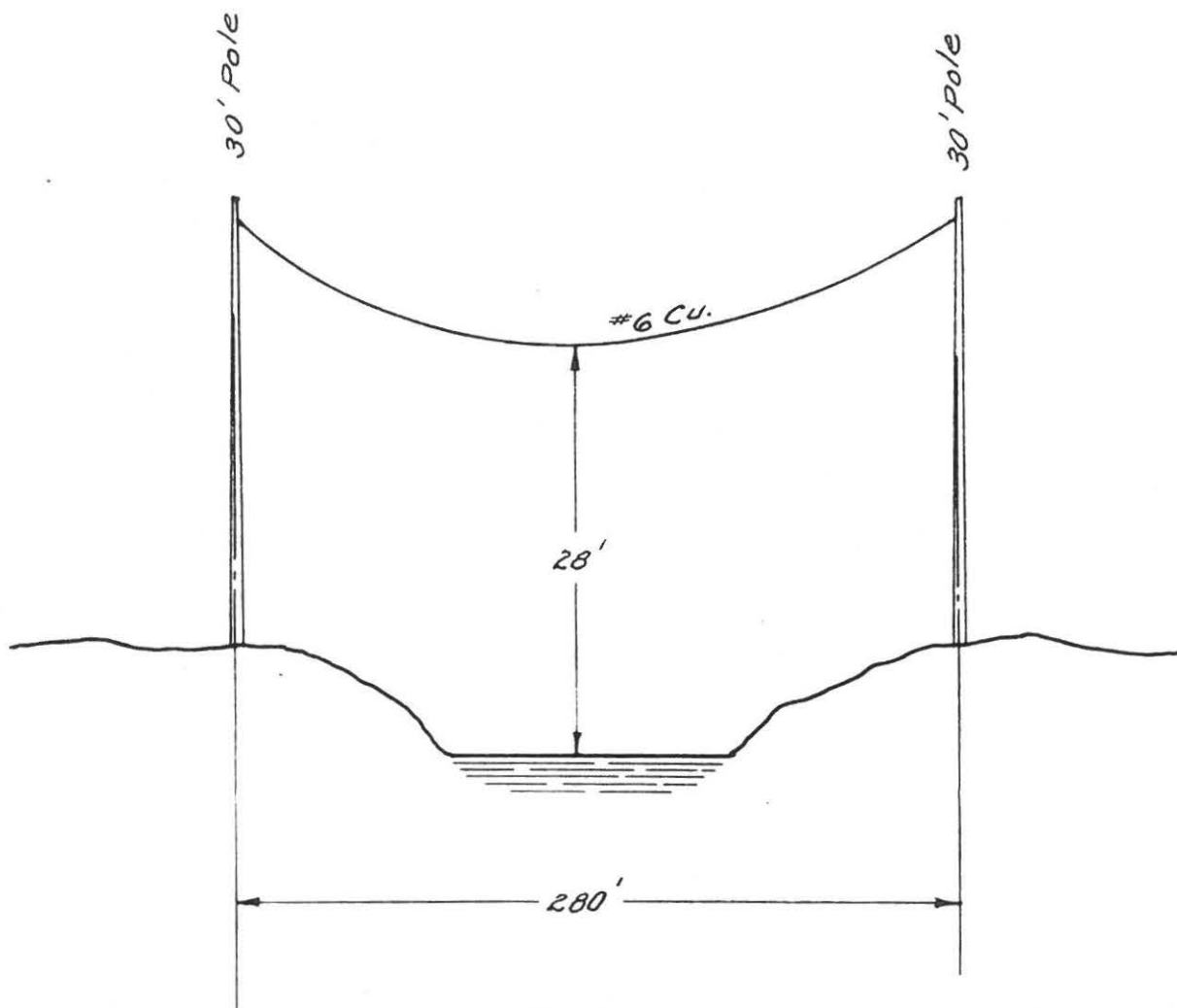
PUBLIC SERVICE CO. OF NEW HAMPSHIRE
 ENGINEERING DEPARTMENT
 SCALE NONE DATE 11-53

D-7649-40



DES.	NO.	REVISION	DATE	BY
DR.	1			
TR.	2			
CK.	3			
APPR.	4			
	5			
	6			

12.47 KV WIRE CROSSING HOWES RESERVOIR DUBLIN, N.H.	
PUBLIC SERVICE CO. OF NEW HAMPSHIRE ENGINEERING DEPARTMENT SCALE <i>NONE</i>	DATE <i>11-53</i> D-7649-41



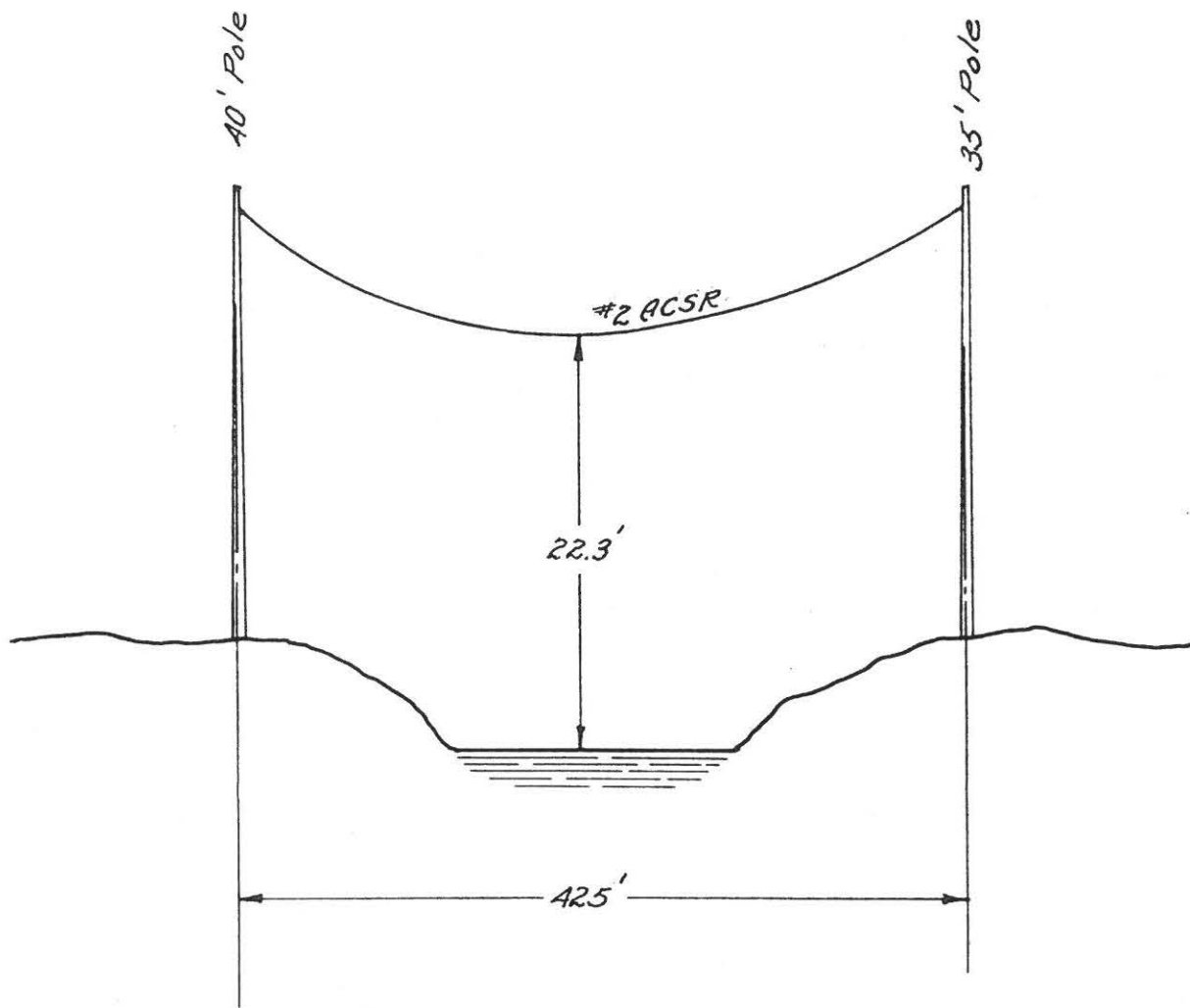
ELIMINATED

DES.	NO	REVISION	DATE	BY
DR.	1			
TR.	2			
CK.	3			
APPR.	4			
	5			
	6			

**2400 VOLT WIRE CROSSING
GREGG LAKE - EAST SIDE
ANTRIM, N.H.**

PUBLIC SERVICE CO. OF NEW HAMPSHIRE
ENGINEERING DEPARTMENT
SCALE *NONE* DATE *11-53*

D-7649-42

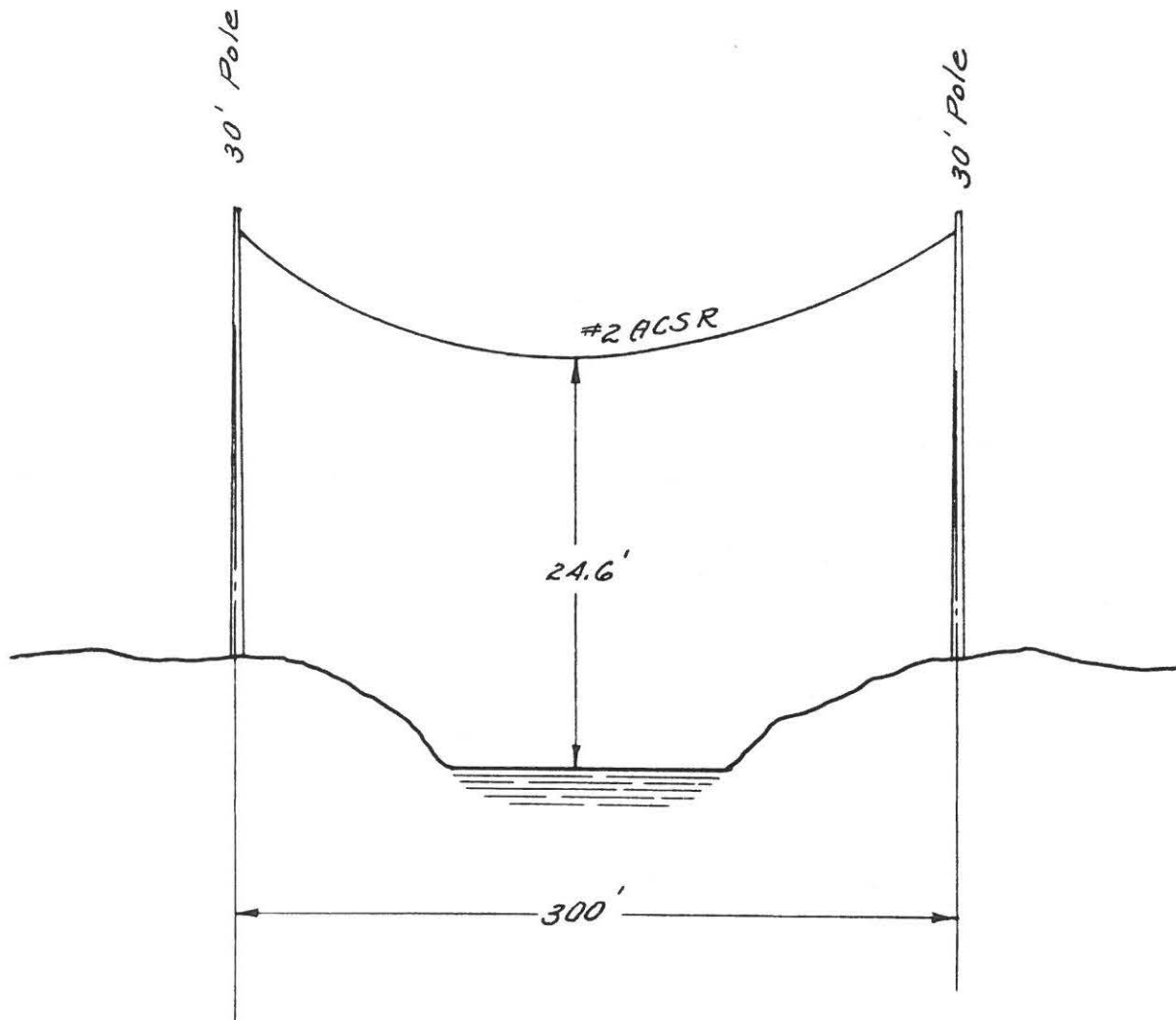


DES.	NO.	REVISION	DATE	BY
DR.	1			
TR	2			
CK.	3			
APPR	4			
	5			
	6			

7200 VOLT WIRE CROSSING
 PLEASANT POND - SOUTH END
 FRANCESSTOWN, N.H.

PUBLIC SERVICE CO. OF NEW HAMPSHIRE
 ENGINEERING DEPARTMENT
 SCALE NONE DATE 11-53.

D-7649-43

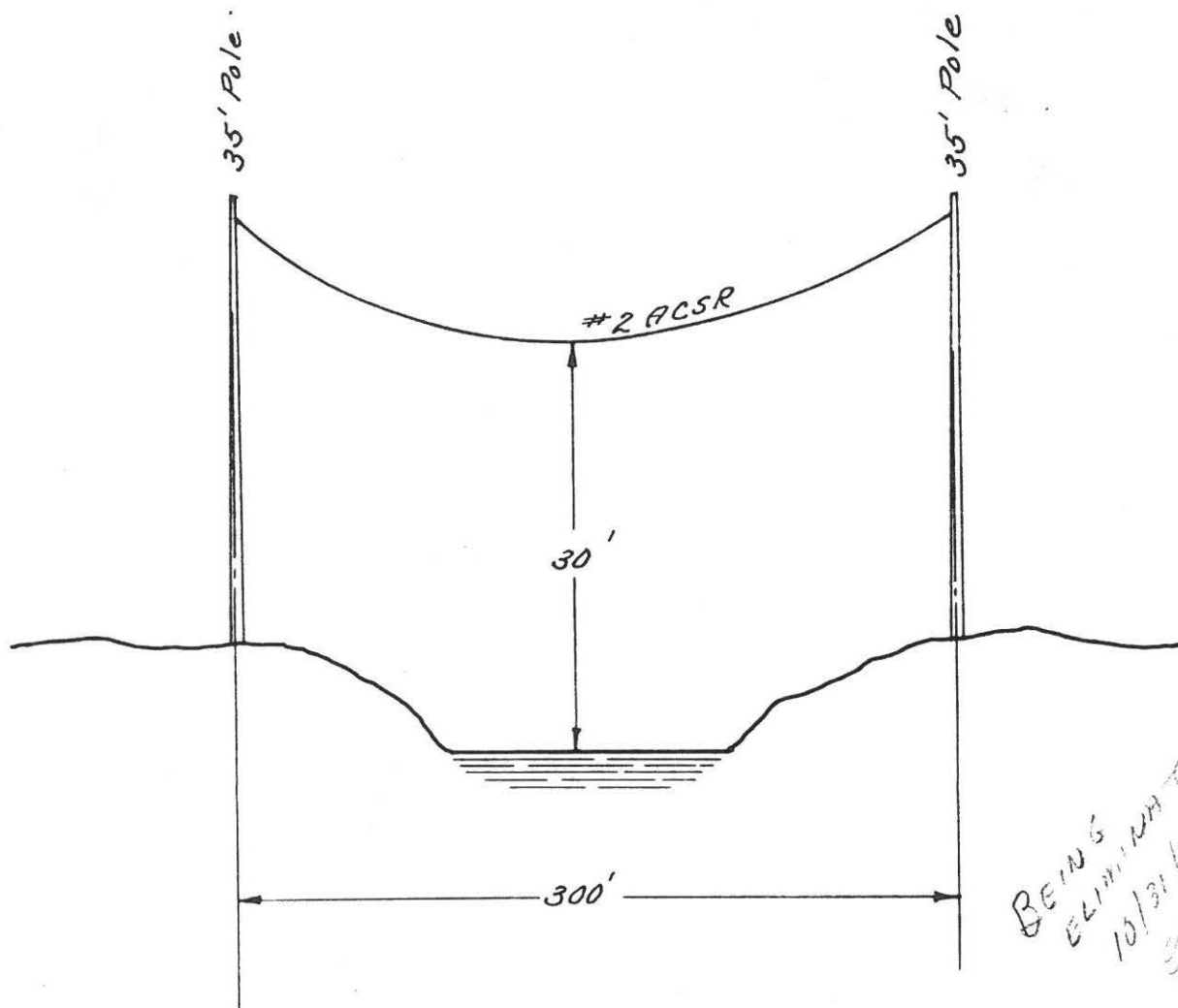


	ILLUMINATION

DES.	NO	REVISION	DATE	BY
DR	1			
TR.	2			
CK.	3			
APPR.	4			
	5			
	6			

**7200 VOLT WIRE CROSSING
MILLEN LAKE-SW. END
WASHINGTON, N. H.**

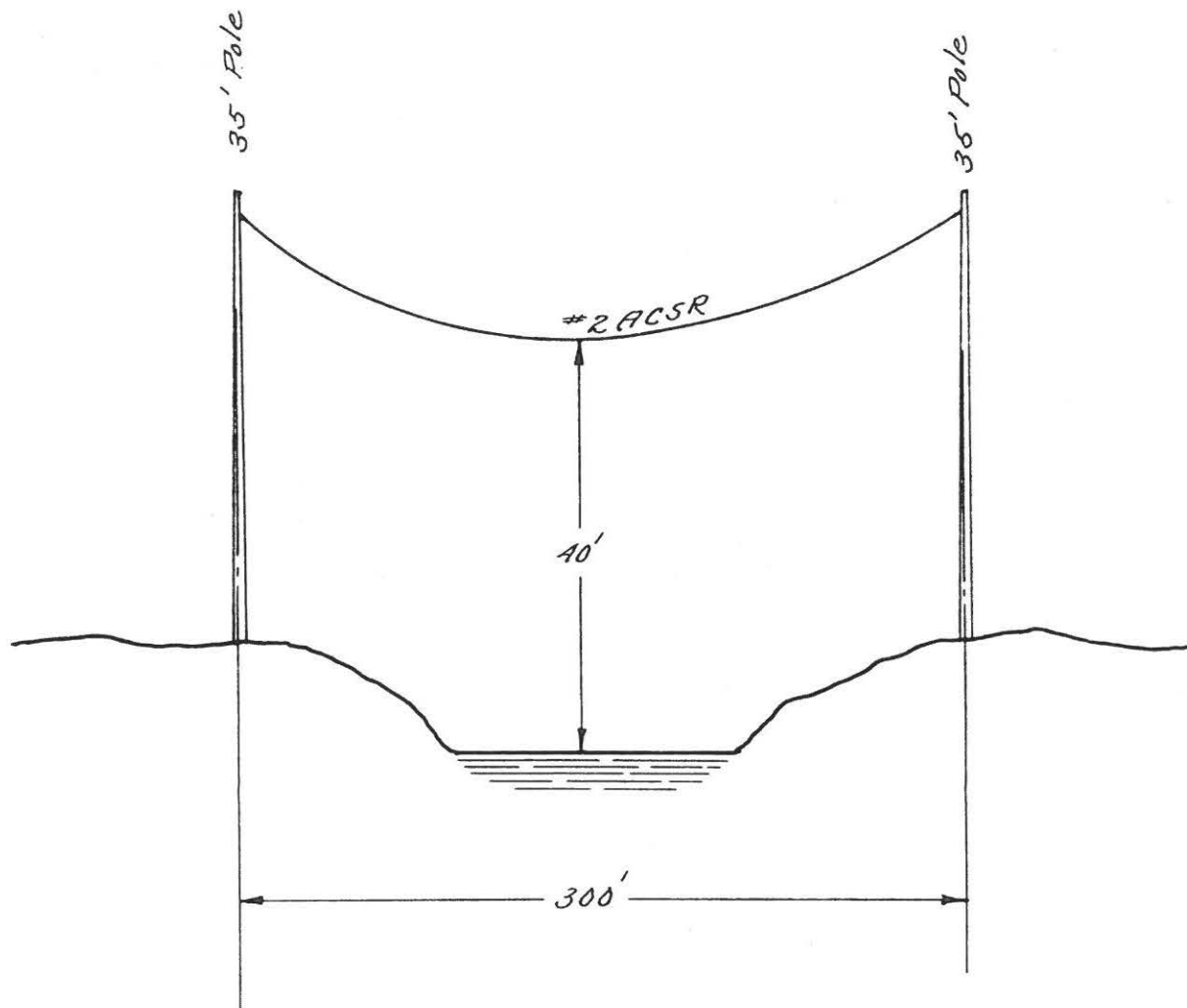
PUBLIC SERVICE CO. OF NEW HAMPSHIRE ENGINEERING DEPARTMENT SCALE <i>NONE</i> DATE <i>11-63</i>	D-7649-AA
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BEING ELIMINATED
10/31/73
SP/8
POND LOW WATER

DES.	NO.	REVISION	DATE	BY
DR.	1			
TR.	2			
CK.	3			
APPR.	4			
	5			
	6			

2300 VOLT WIRE CROSSING DODGE POND LYMAN, N.H.	
PUBLIC SERVICE CO. OF NEW HAMPSHIRE ENGINEERING DEPARTMENT	
SCALE NONE	DATE 11-53
D-7649-45	

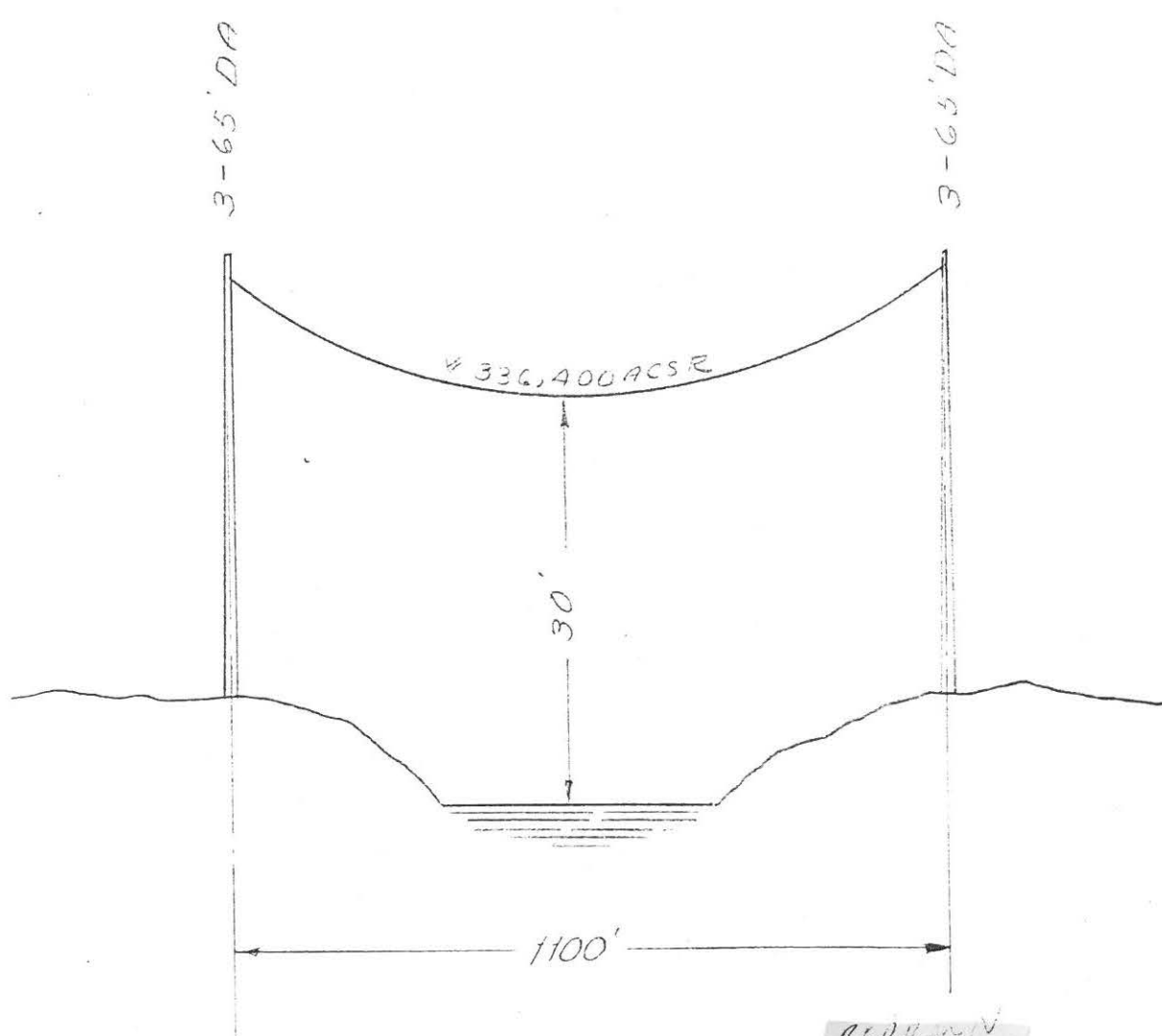


RE DRAWN 1649-216

DES.	NO	REVISION	DATE	BY
DR.	1			
TR	2			
CK	3			
APPR	4			
	5			
	6			

120/240 VOLT WIRE CROSSING
 DODGE POND
 LYMAN, N. H.

PUBLIC SERVICE CO. OF NEW HAMPSHIRE
 ENGINEERING DEPARTMENT
 SCALE NONE DATE 11-53
 D-7649-46



DES.	NO.	REVISION	DATE	BY
DR. E.C.	1			
TR.	2			
CK.	3			
APPR.	4			
	5			
	6			

<p>33 KV. LINE CROSSING EPHRAMS COVE - LAKE WINNISQUAM BELMONT, N.H.</p>	
<p>PUBLIC SERVICE CO. OF NEW HAMPSHIRE ENGINEERING DEPARTMENT</p>	<p>D-7649-47</p>
<p>SCALE N.T.S.</p>	<p>DATE 8-17-55</p>

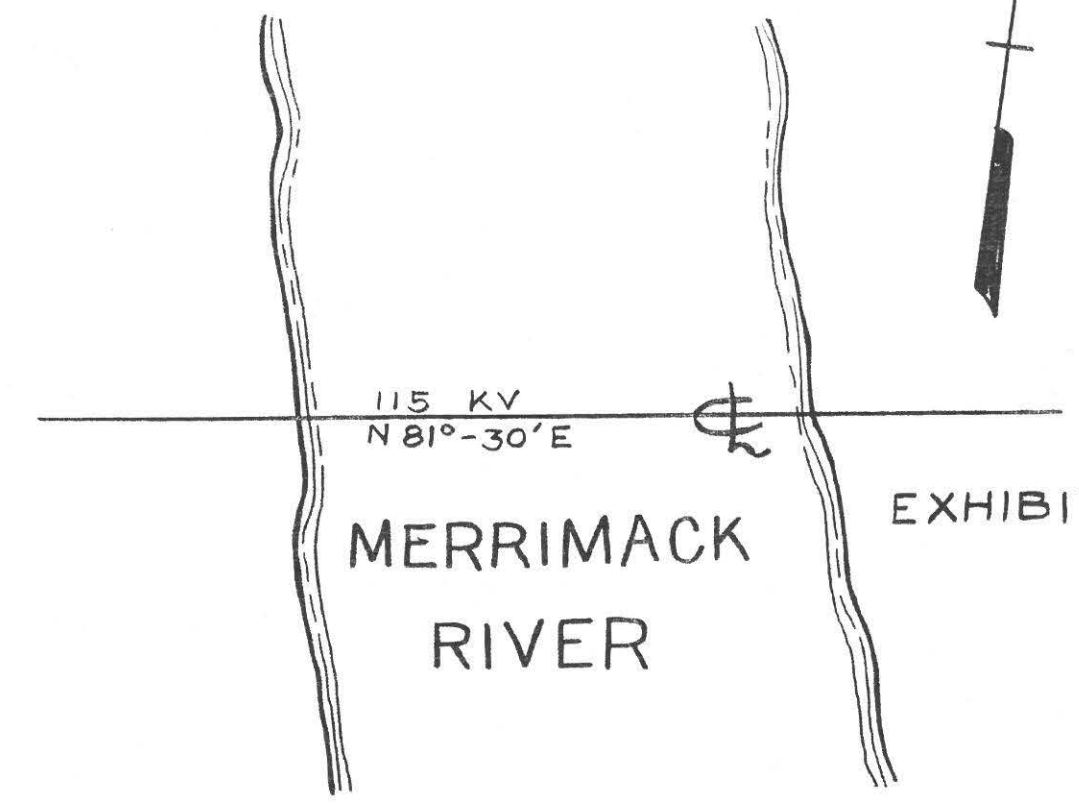
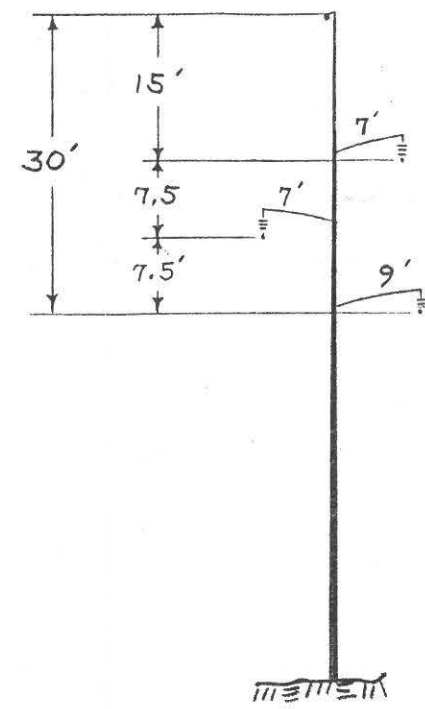
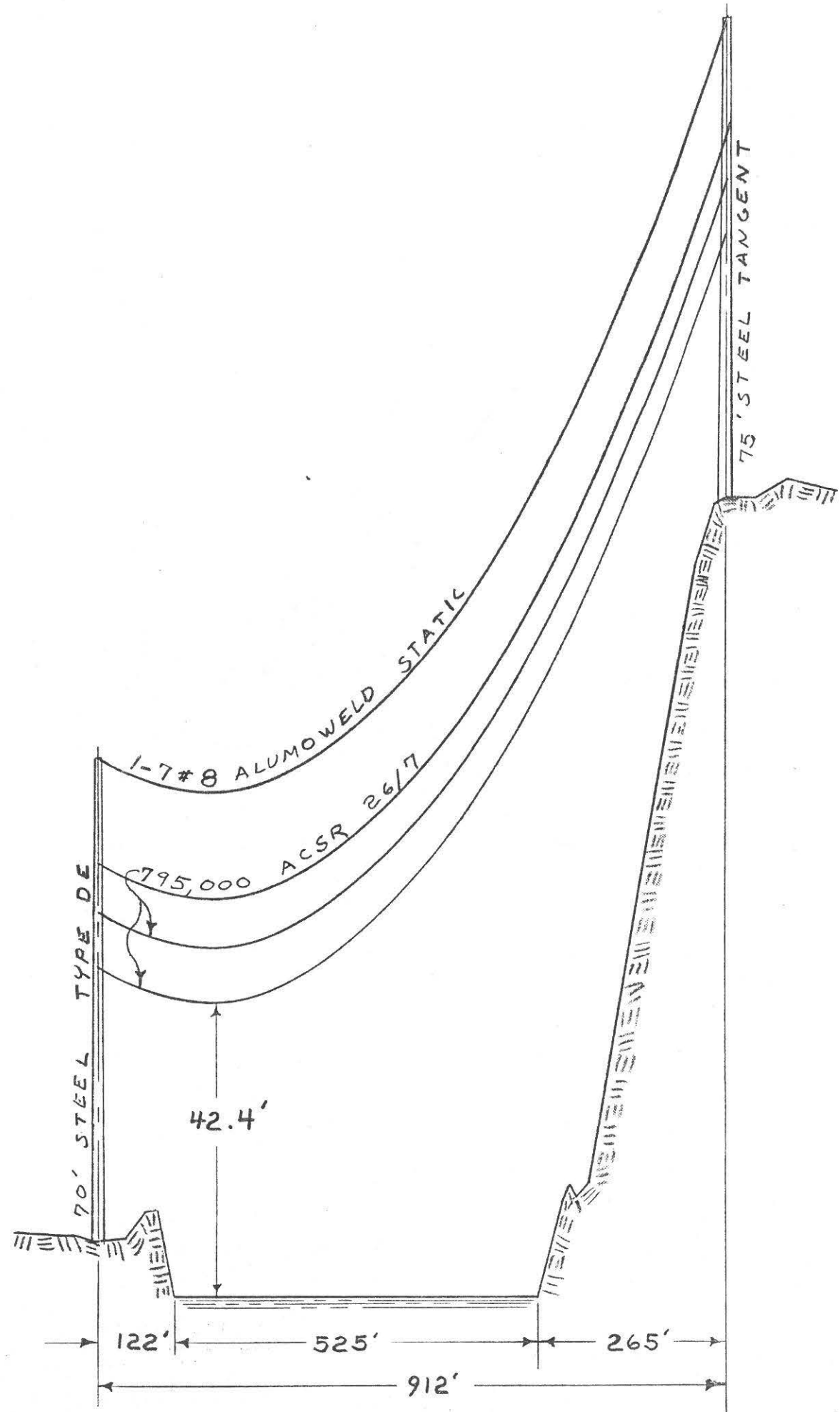
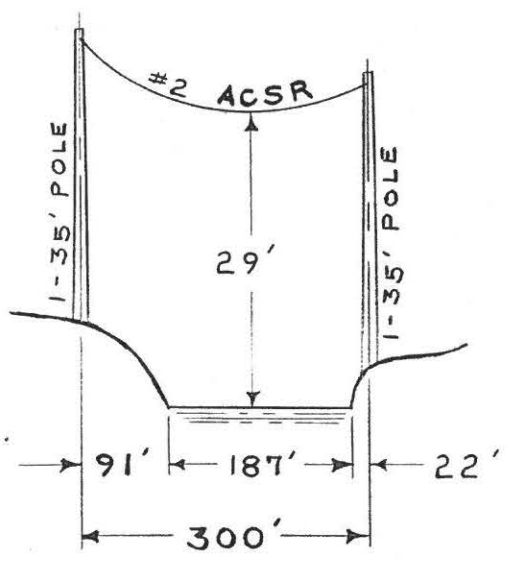
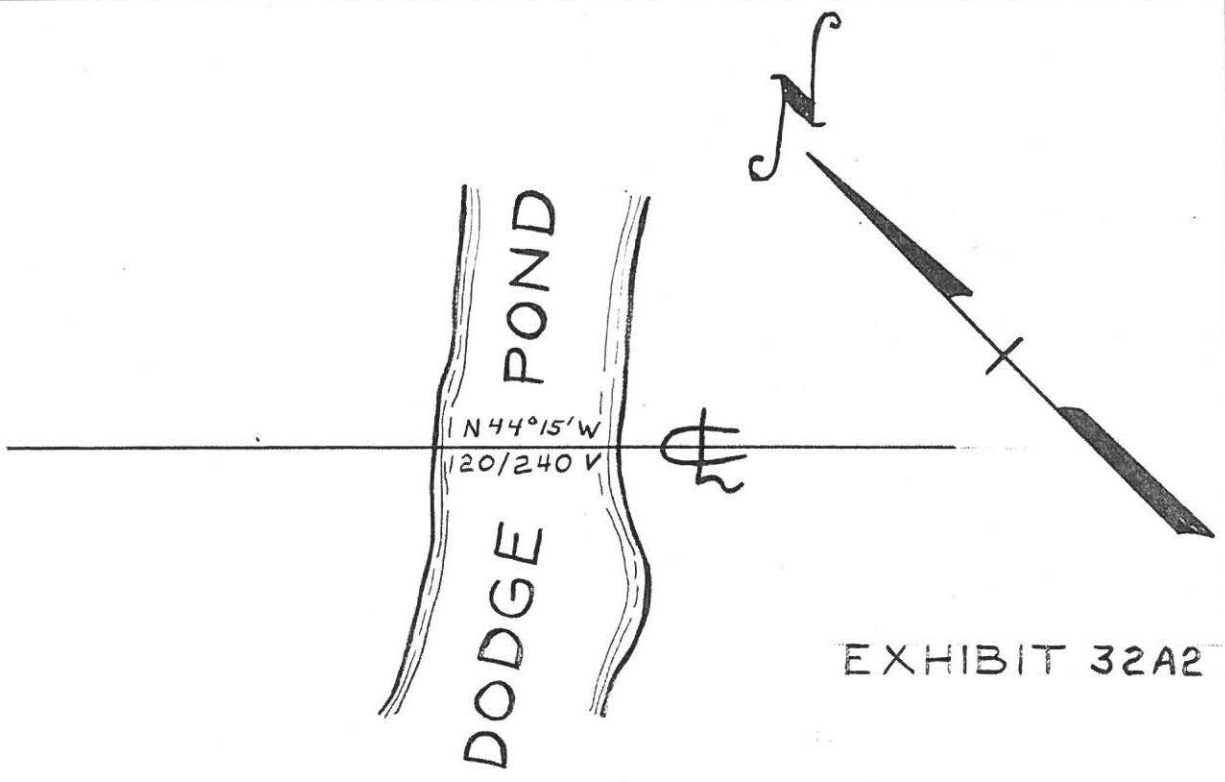


EXHIBIT 2

DES.	NO.	REVISION	DATE	BY
DR. MAS	1			
TR.	2			
CK.	3			
APPR.	4			
	5			
	6			

115 KV LINE CROSSING MERRIMACK RIVER HOOKSETT, N. H.	
PUBLIC SERVICE CO. OF NEW HAMPSHIRE ENGINEERING DEPARTMENT	D-7649-124
SCALE 1/4" = 20' VERT. 1" = 200' HOR. DATE 6/26/74	



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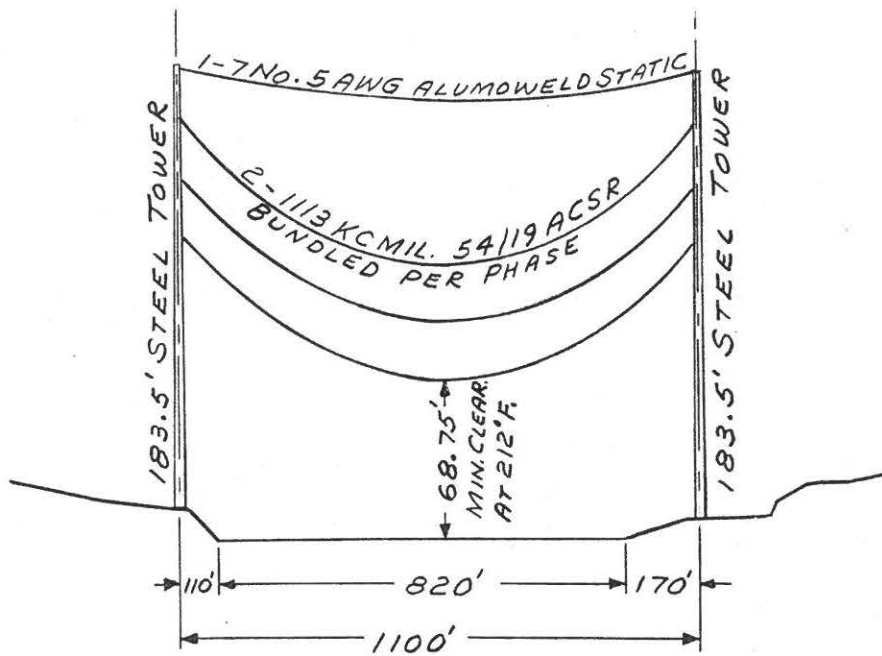
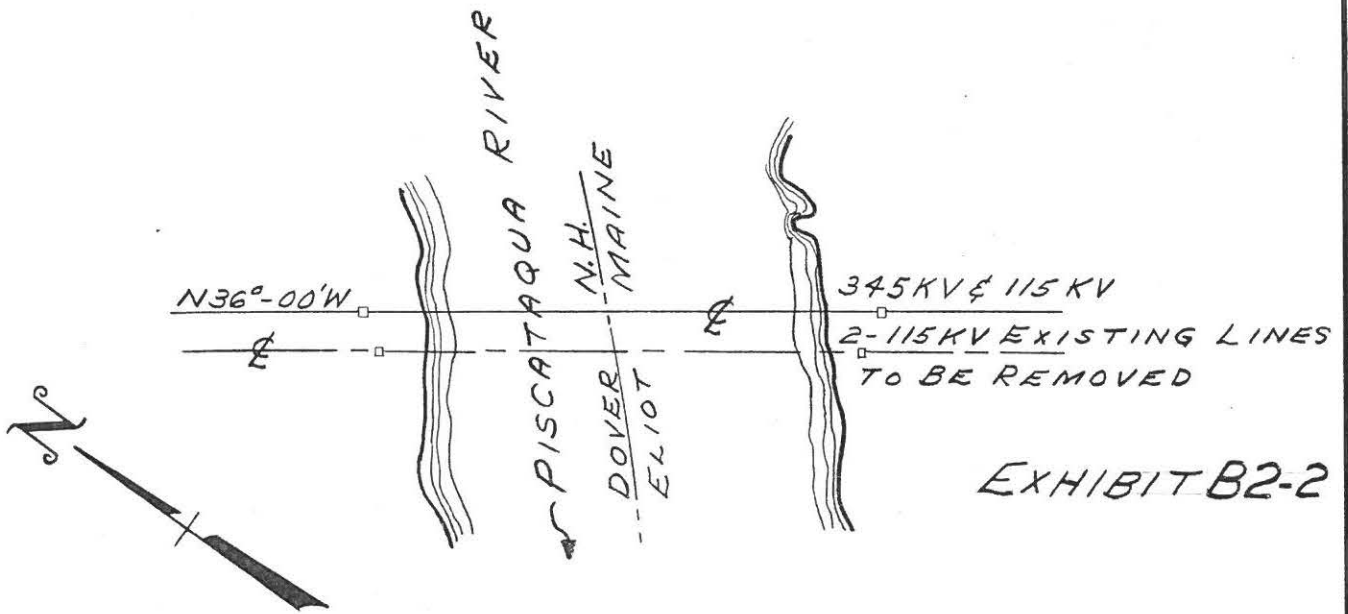
DES.	NO.	REVISION	DATE	BY
DR. MAS	1			
TR.	2			
CK. ERP	3			
APPR.	4			
	5			
	6			

120/240 V WATER CROSSING
 DODGE POND
 LYMAN, N.H.

PUBLIC SERVICE CO. OF NEW HAMPSHIRE
 ENGINEERING DEPARTMENT

SCALE 1" = 20' VERT. 1" = 200' HOR. DATE 2/24/76

D-7649-216



DES.	NO.	REVISION	DATE	BY
DR. ERP	1			
TR.	2			
CK.	3			
APPR.	4			
	5			
	6			

<p>115KV & 345KV LINE CROSSINGS PISCATAQUA RIVER DOVER, N.H. & ELIOT, MAINE</p>	
<p>PUBLIC SERVICE CO. OF NEW HAMPSHIRE ENGINEERING DEPARTMENT SCALE 1"=80' VERT. 1"=400' HOR. DATE 11-23-71</p>	
<p>D-7649-97</p>	

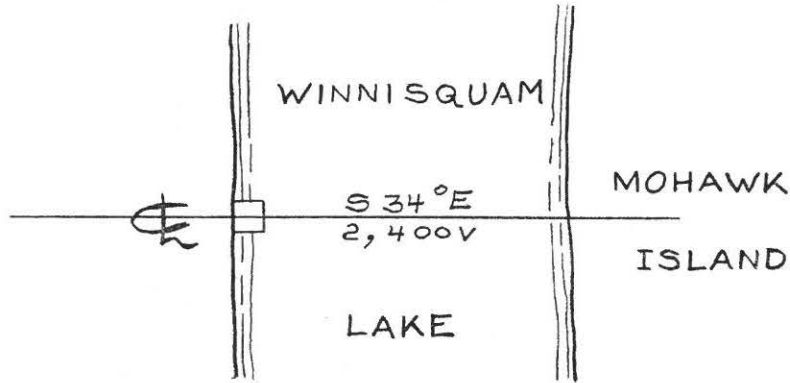
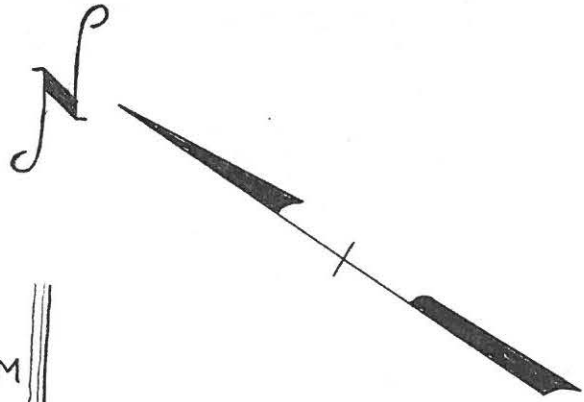
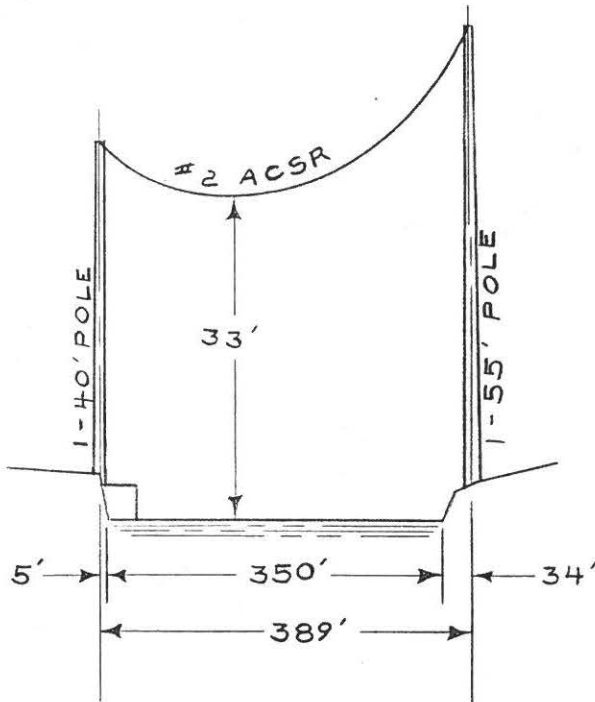


EXHIBIT 4A2



DES.	NO.	REVISION	DATE	BY
DR. MAS	1			
TR.	2			
CK. ERP	3			
APPR.	4			
	5			
	6			

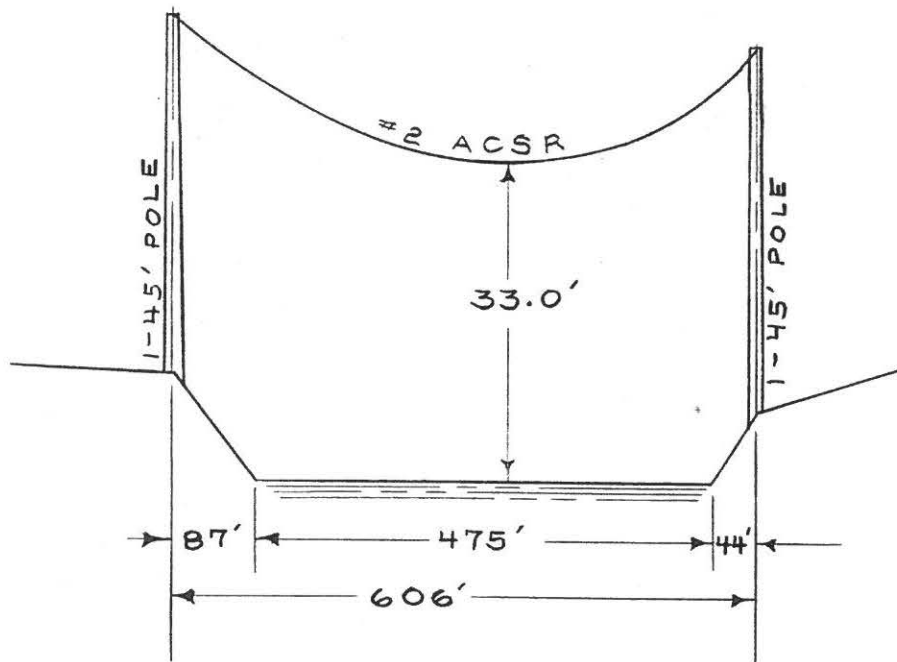
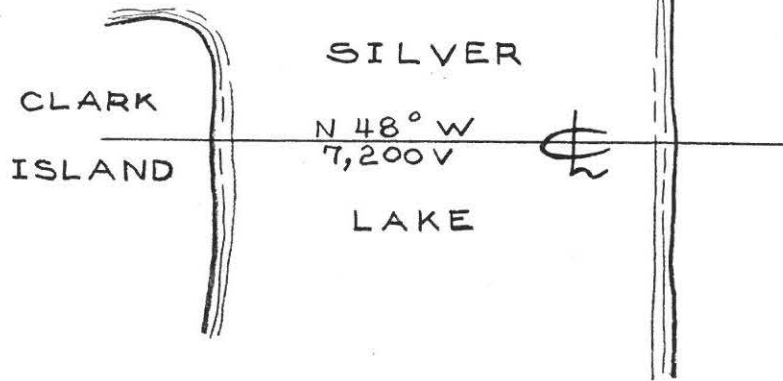
2,400 V	WATER CROSSING
WINNISQUAM	LAKE
BELMONT - TILTON, N.H.	
PUBLIC SERVICE CO. OF NEW HAMPSHIRE	
ENGINEERING DEPARTMENT	
SCALE 1" = 20' VERT. 1" = 200' HOR.	DATE 2/24/76
	D-7649-150



LEGEND
WIRE CROSSING
DISTRIBUTION
2,400 VOLTS

WIRE CROSSING





DES.	NO.	REVISION	DATE	BY
DR. MAS	1			
TR.	2			
CK. ERP	3			
APPR.	4			
	5			
	6			

7,200 V WATER CROSSING	
SILVER LAKE	
BELMONT - TILTON, N.H.	
PUBLIC SERVICE CO. OF NEW HAMPSHIRE ENGINEERING DEPARTMENT	
SCALE 1" = 20' VERT. 1" = 200' HOR. DATE 2/24/76	
D-7649-151	



LEGEND
WIRE CROSSING
DISTRIBUTION
7,200 V

EXHIBIT 4B1

WIRE CROSSING

7,200 V WATER CROSSING
SILVER LAKE
CLARK ISLAND - BELMONT, N.H.
FEB., 1976

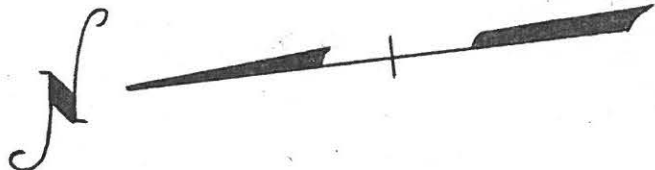
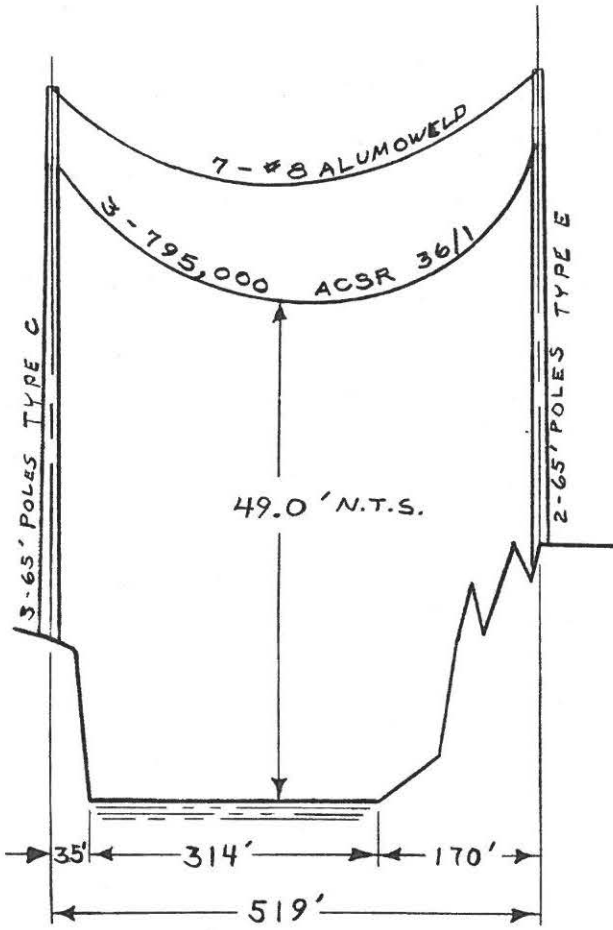
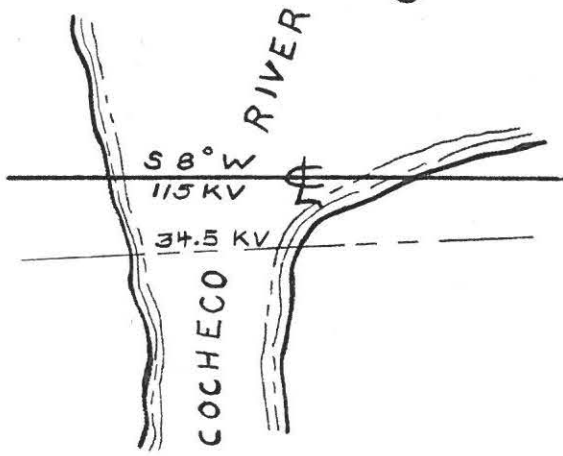


EXHIBIT 14B2



DES.	NO.	REVISION	DATE	BY
DR. MAS	1	CHANGED CLEARANCE	4/7/76	MAS ERP
TR.	2			
CK. ERP	3			
APPR.	4			
	5			
	6			

<p>115 KV WATER CROSSING COCHECO RIVER DOVER, N.H.</p>	
<p>PUBLIC SERVICE CO. OF NEW HAMPSHIRE ENGINEERING DEPARTMENT</p>	
<p>SCALE: 1" = 20' VERT. 1" = 200' HOR. DATE 2/24/76</p>	<p>D-7649-178</p>

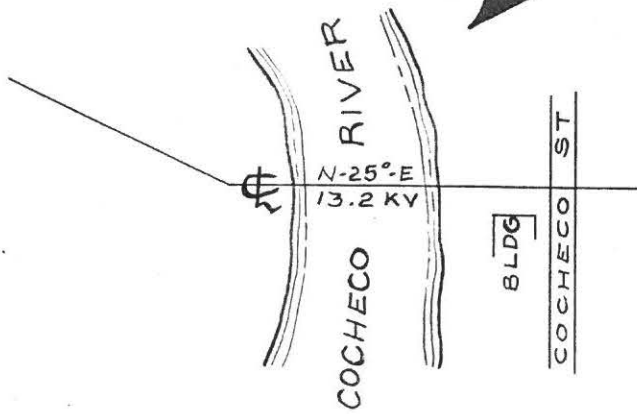
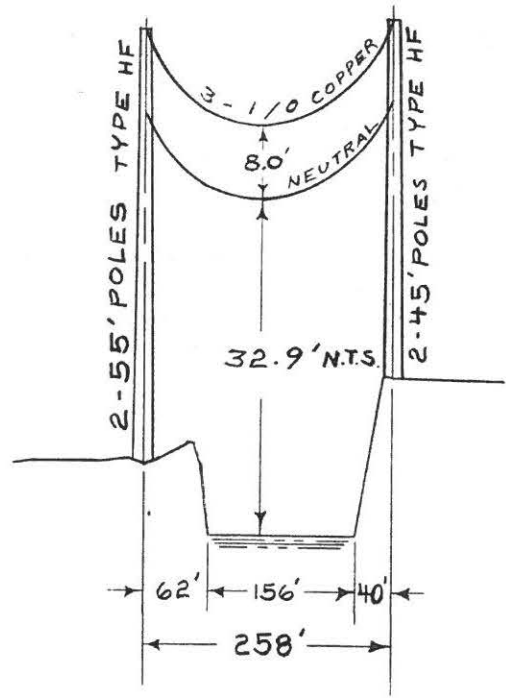


EXHIBIT 1402

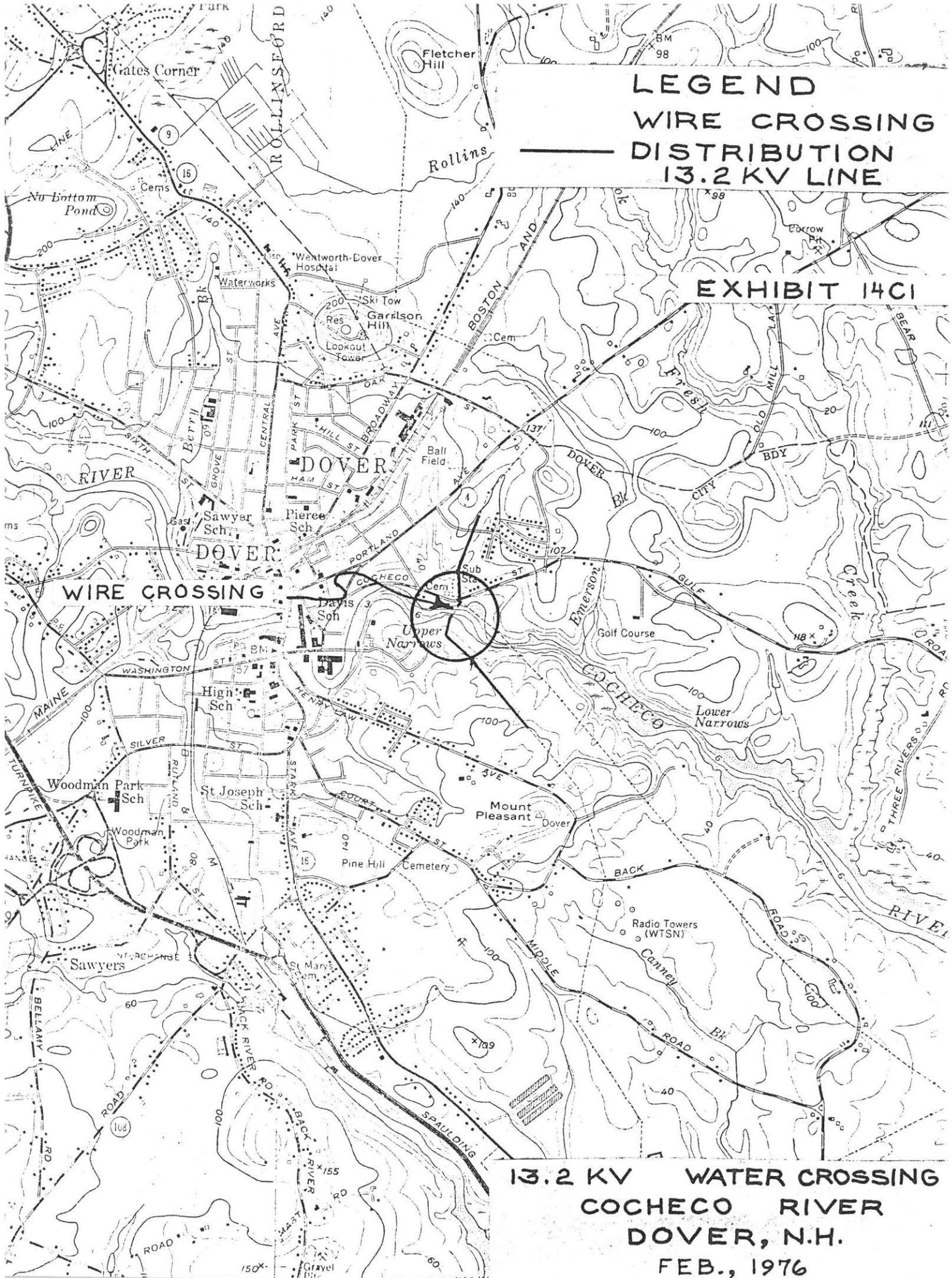


DES.	NO.	REVISION	DATE	BY
DR. MAS	1	CHANGED CLEARANCE	4/7/76	ERP/MAS
TR.	2			
CK. ERP	3			
APPR.	4			
	5			
	6			

13.2 KV		WATER CROSSING	
COCHECO		RIVER	
DOVER, N.H.			
PUBLIC SERVICE CO. OF NEW HAMPSHIRE			
ENGINEERING DEPARTMENT			
SCALE: 1" = 20' VERT. 1" = 200' HOR. DATE 2/24/76			D-7649-180

LEGEND
WIRE CROSSING
DISTRIBUTION
13.2 KV LINE

EXHIBIT 14C1



13.2 KV WATER CROSSING
COCHECO RIVER
DOVER, N.H.
FEB., 1976

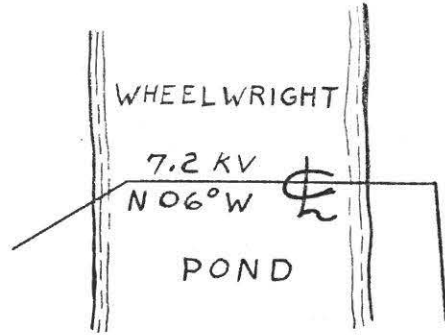
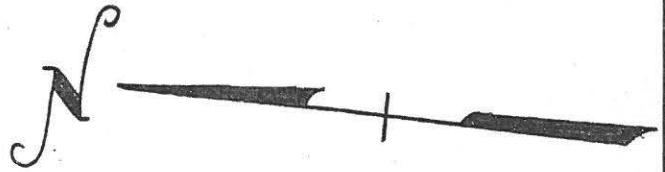
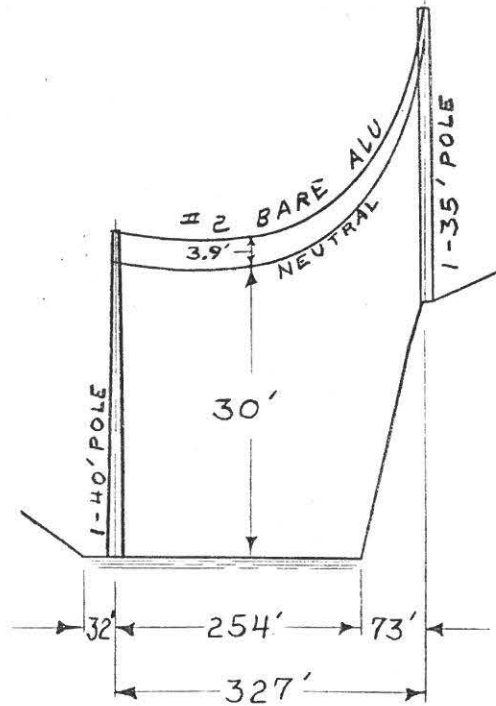
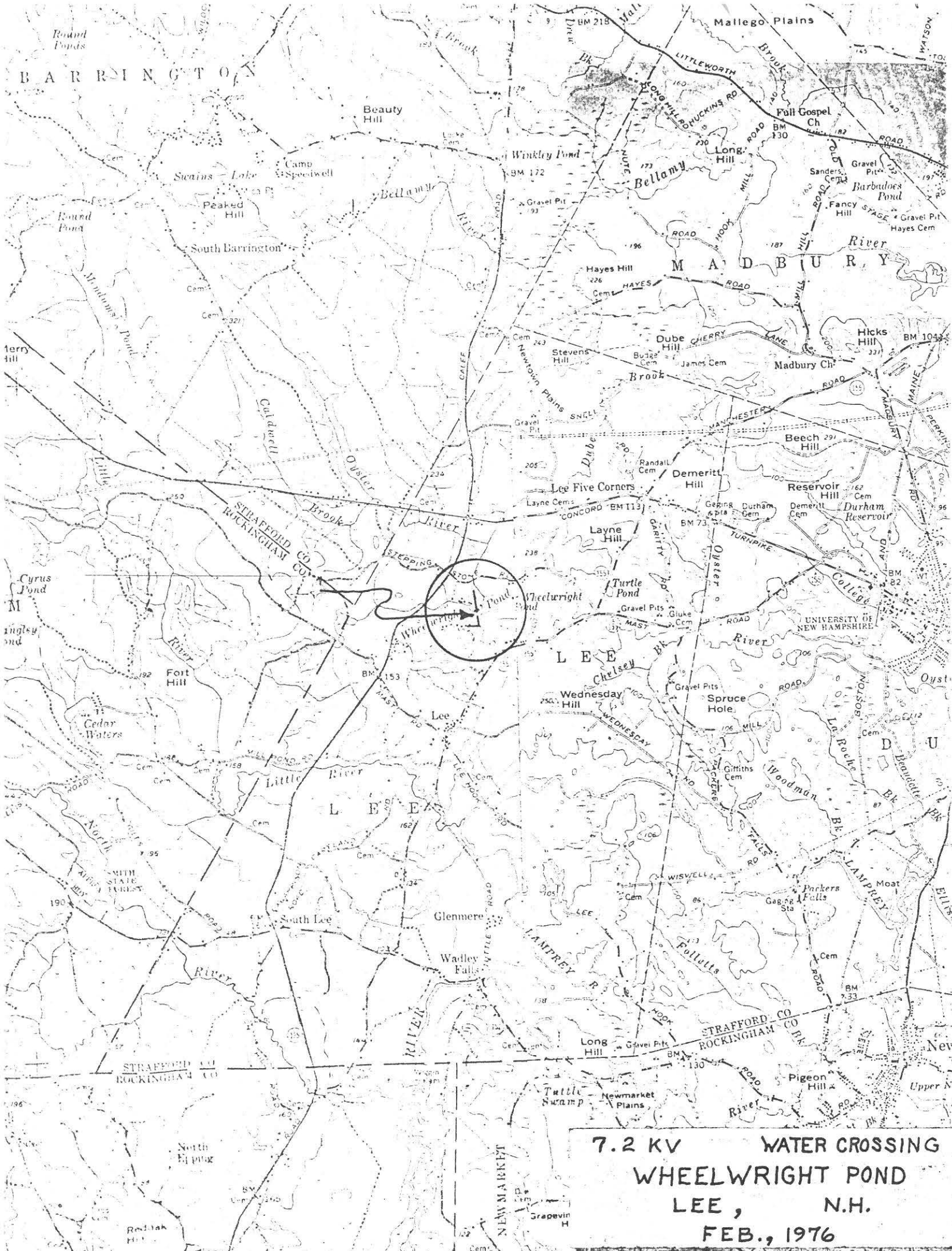


EXHIBIT 29A2



DES.	NO.	REVISION	DATE	BY	7.2 KV WATER CROSSING WHEELWRIGHT POND LEE, N.H.	
DR. MAS	1					
TR.	2					
CK. ERP	3					
APPR.	4					
	5				PUBLIC SERVICE CO. OF NEW HAMPSHIRE ENGINEERING DEPARTMENT	
	6				SCALE 1"=20' VERT. 1"=200' HOR. DATE 2/24/76	D-7649-210



7.2 KV WATER CROSSING
 WHEELWRIGHT POND
 LEE, N.H.
 FEB., 1976