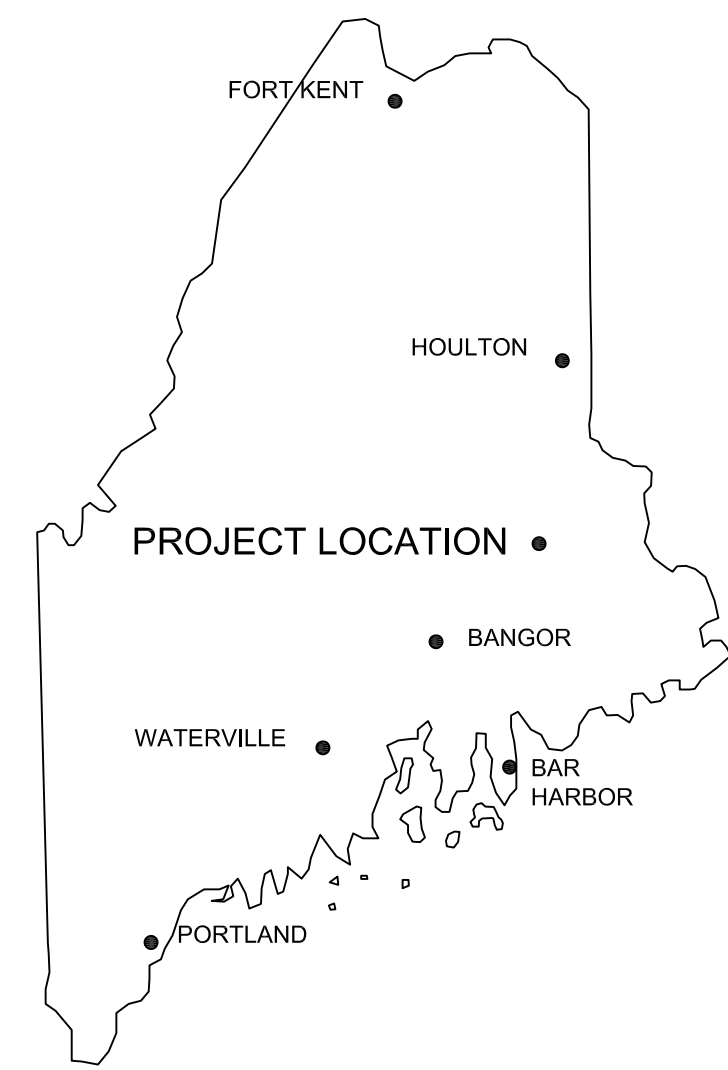


# 34.5 kV COLLECTOR LINE

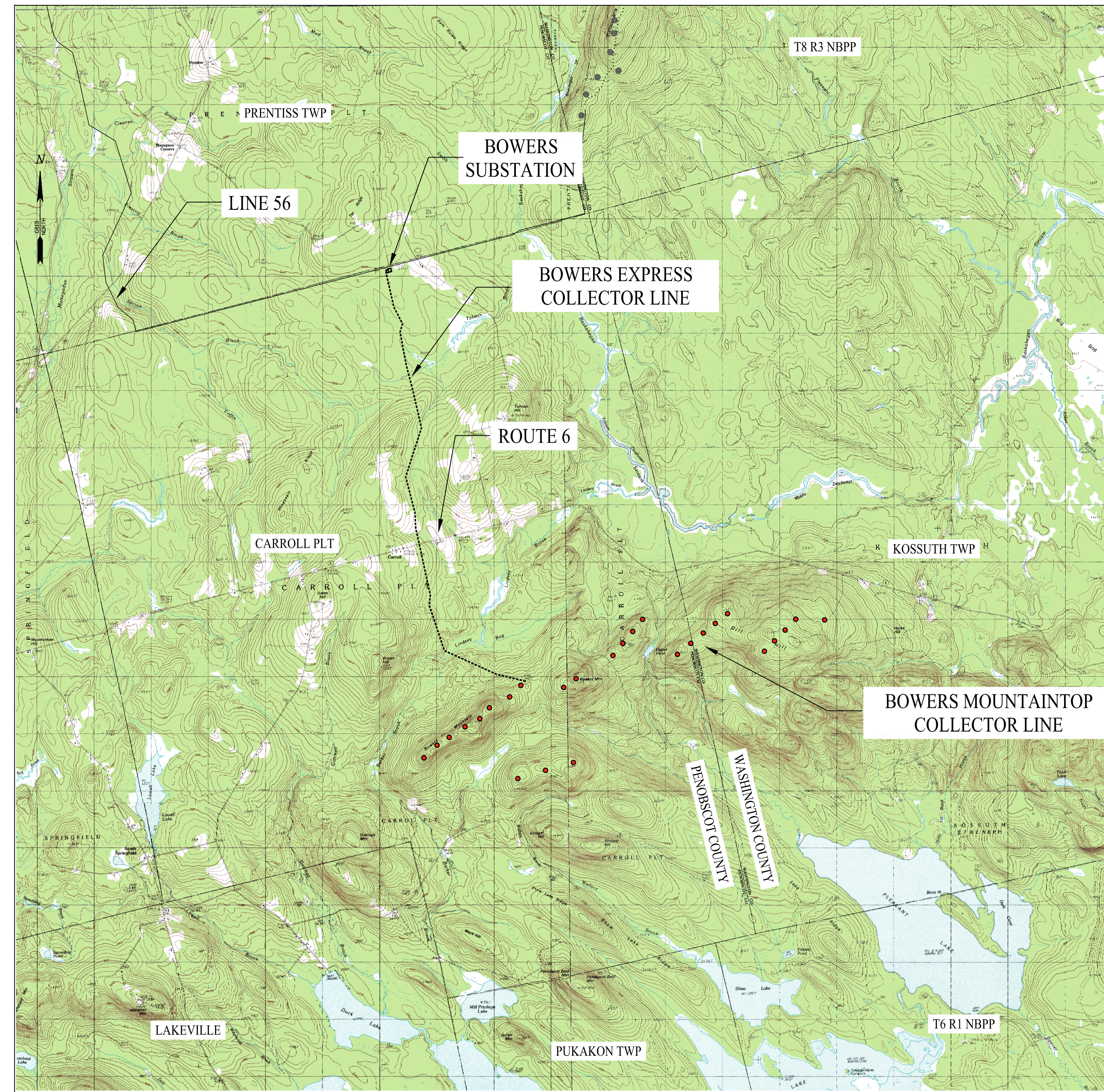
## EXPRESS COLLECTOR PLAN AND PROFILE

### BOWERS WIND PROJECT

LOCATED IN:  
CARROLL PLANTATION  
PENOBSCOT COUNTY, MAINE



**VICINITY MAP**  
SCALE: 1" = 320,000±



**LOCATION PLAN**  
SCALE: 1" = 4,500±

- LEGEND:**
- PROPOSED WIND TURBINE LOCATIONS
  - EXPRESS COLLECTOR LINE
  - TOWN LINE

NO.	A	REVISIONS:	ISSUED FOR PERMIT	APPD:	AUG	DATE:	01/13/11
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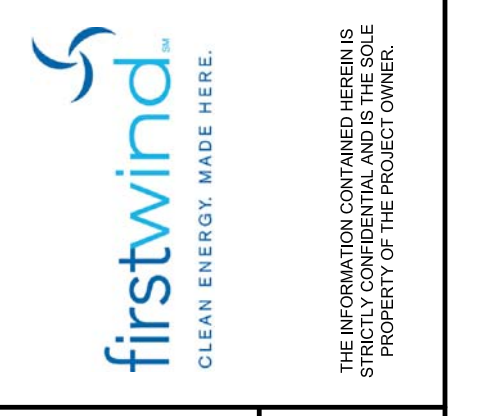
**SGC ENGINEERING, LLC**  
 • Civil Design & Survey Engineering  
 • Environmental & Regulatory Permitting  
 • Electrical Power Systems Engineering  
 Offices - South Berwick, Vermont  
 Farmington, New Mexico

SGC Project:	780001	Date:	DECEMBER 8, 2010	Scale:	AS NOTED	Drawn:	MGL	Design:	AJG	Appr:	AJG
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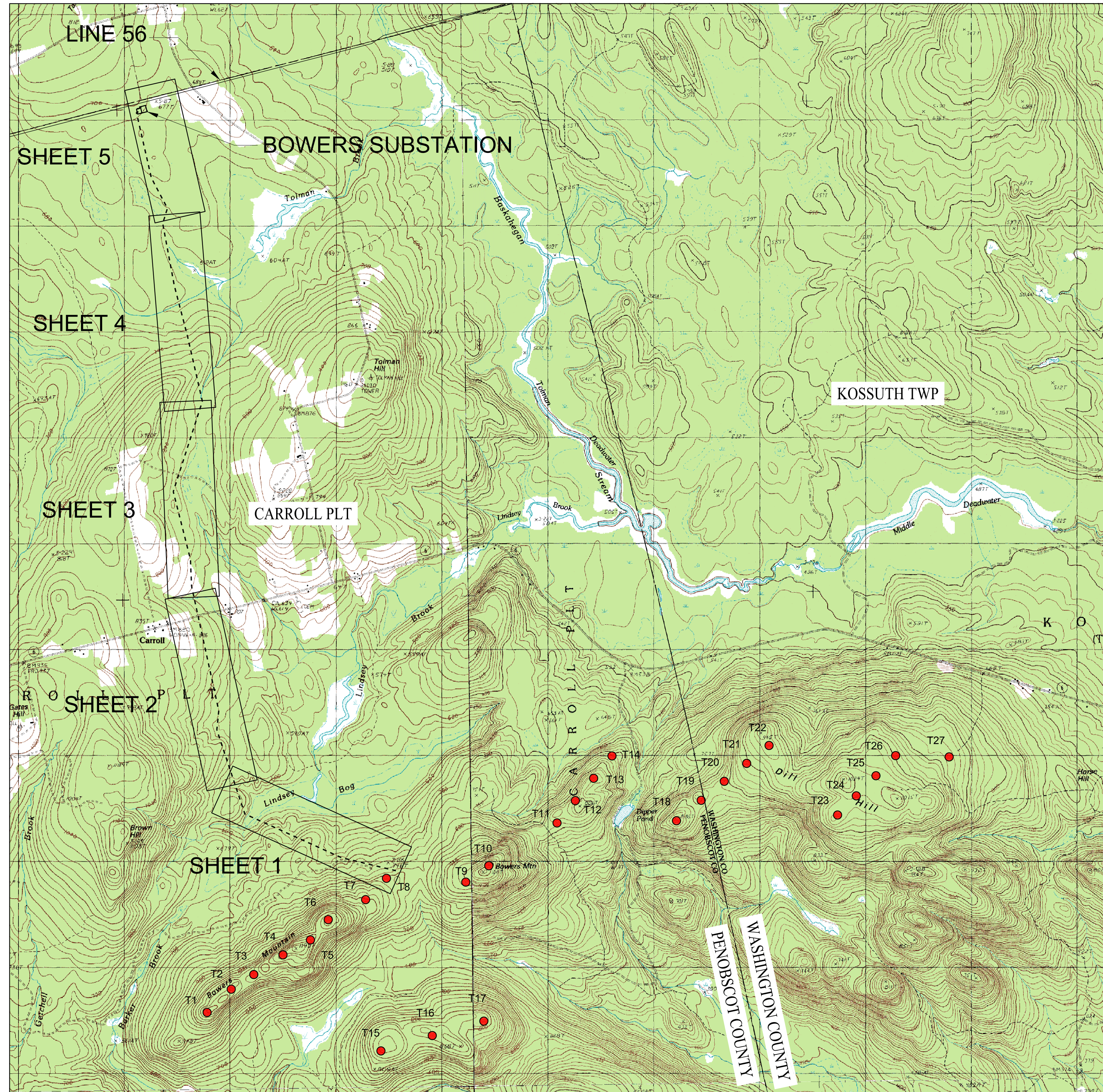
**Title:** 34.5 kV COLLECTOR LINE COVER

**Project:** BOWERS WIND PROJECT  
PENOBSCOT COUNTY, MAINE

**Client:** CHAMPLAIN WIND, LLC  
129 MIDDLE ST., 3rd FLOOR, PORTLAND, MAINE 04101





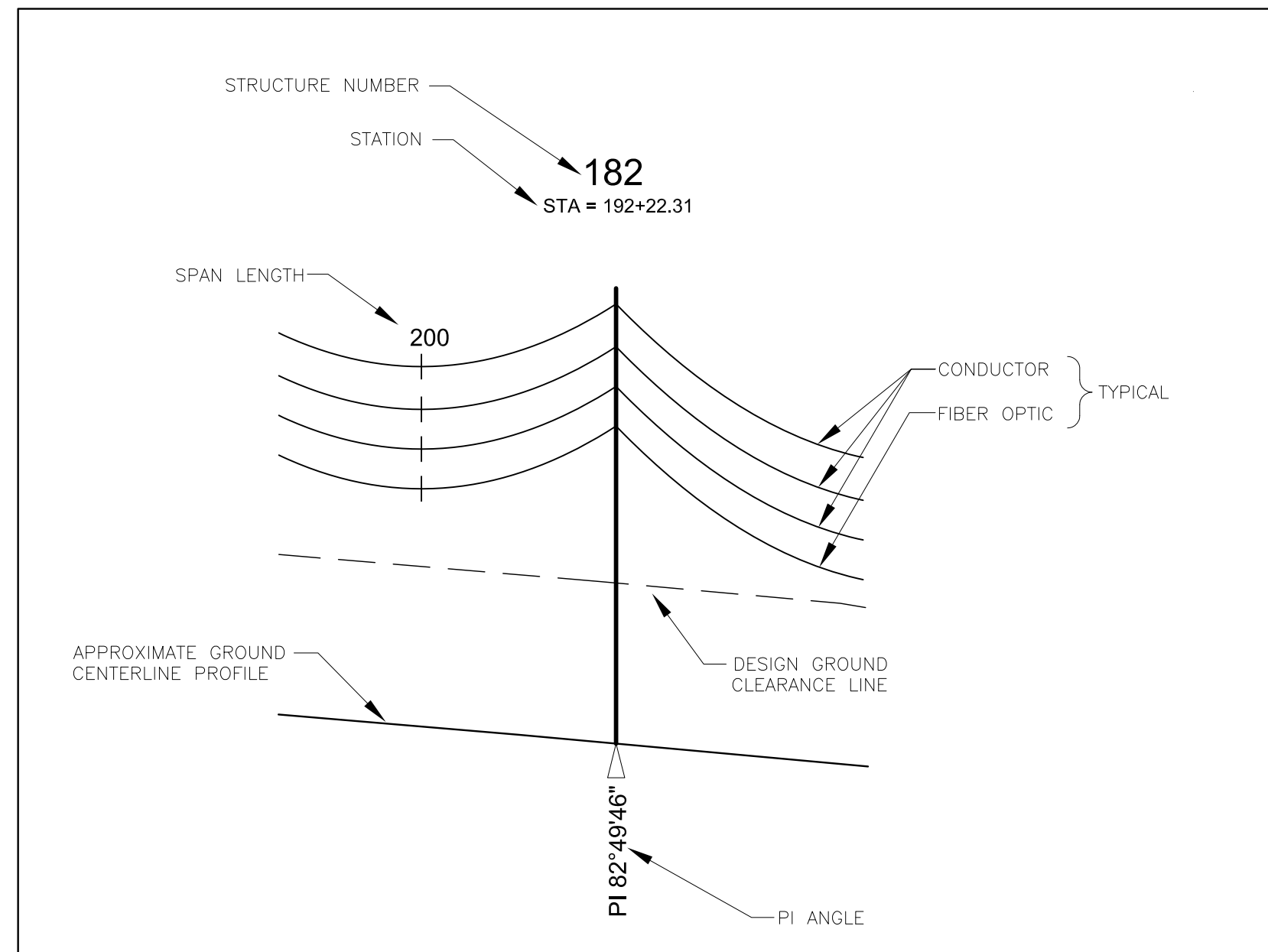


**INDEX PLAN**  
SCALE: 1" = 2,000'±

- INDEX PLAN LEGEND**
- PROPOSED WIND TURBINE LOCATIONS
  - EXPRESS COLLECTOR LINE
  - TOWN LINE

**GENERAL NOTES:**

1. CONDUCTOR SHALL BE 1113 kcm 45/7 ACSR "BLUEJAY". FIBER OPTIC CABLE SHALL BE 48 SMF OSB.
2. ALL CLEARING ACTIVITIES AND CONSTRUCTION ACTIVITIES IN WETLANDS SHALL BE PERFORMED IN ACCORDANCE WITH THE LURC PERMIT REQUIREMENTS AND THE PROJECT SPECIFICATIONS.
3. ENVIRONMENTAL RESOURCES DELINEATED BY STANTEC INC.
4. MAPPING DATA BY JAMES W. SEWALL AND SGC ENGINEERING, LLC.
5. SEE CIVIL PLANS BY JAMES W. SEWALL CO. FOR MOUNTAIN TOP COLLECTOR DESIGN.
6. SEE DRAWING 106-12-1100 FOR TYPICAL STRUCTURE DETAILS AND DETAILED NOTES ON THE EXPRESS LINE LAYOUT AND STRUCTURES.



**PROFILE STRUCTURE INFORMATION DETAIL**  
NOT TO SCALE

**PLAN AND PROFILE LEGEND**

- PROPOSED STRUCTURE
- RIGHT-OF-WAY
- OVERHEAD 34.5 kV COLLECTOR LINE
- UNDERGROUND 34.5 kV COLLECTOR LINE
- PROPOSED CLEARING LIMITS
- EXISTING TREELINE
- WETLAND
- VERNAL POOL
- STREAM/BROOK

NO.	REVISIONS:	APPD:	DATE:
A	ISSUED FOR PERMIT	AUG	01/13/11

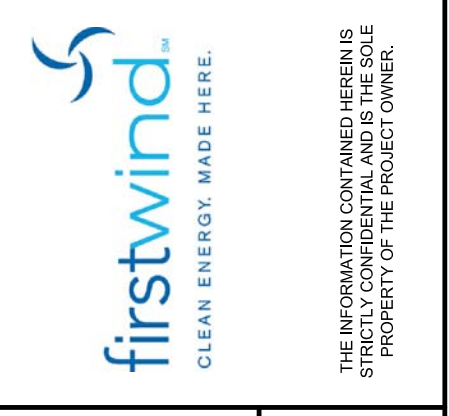
February 28, 2011

**SGC ENGINEERING, LLC**  
 • Civil Design & Survey Engineering  
 • Environmental & Regulatory Permitting  
 • Electrical Power Systems Engineering  
 Offices - South Burlington, Vermont  
 Farmington, New Mexico

**SGC**

SGC Project: 780001  
 Date: DECEMBER 8, 2010  
 Scale: AS NOTED  
 Drawn: MGL  
 Design: AJG  
 Appr: AJG

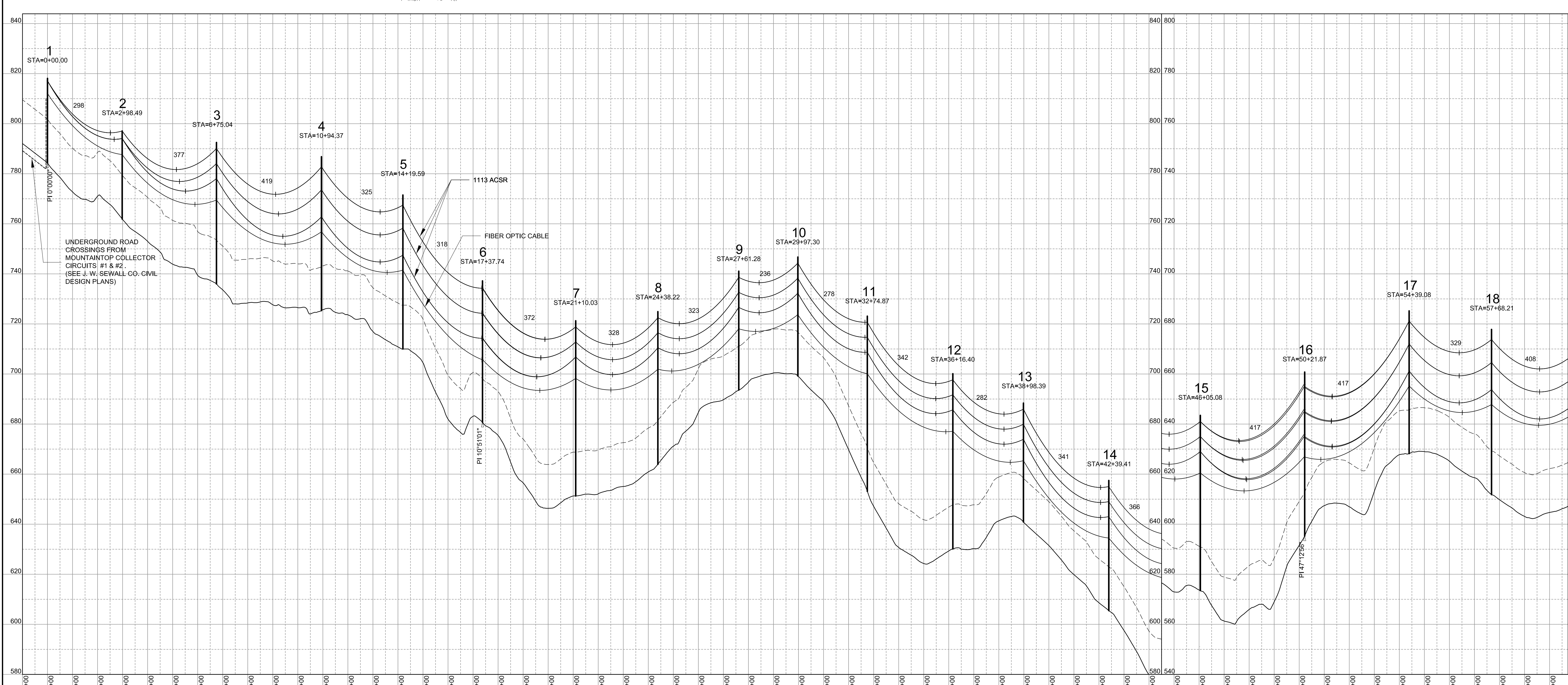
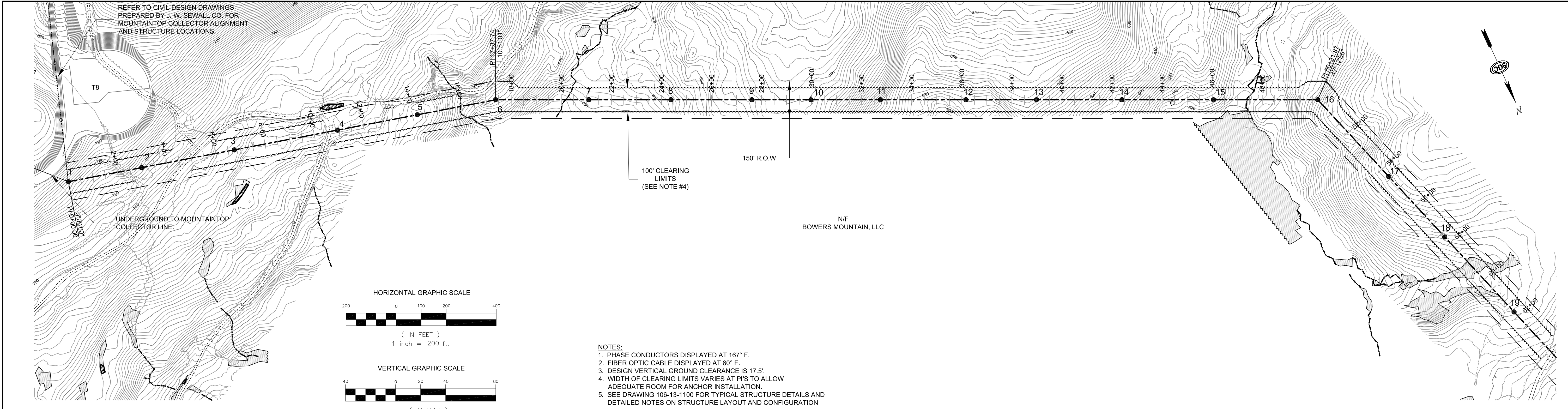
Title: 34.5 kV COLLECTOR LINE INDEX  
 Project: BOWERS WIND PROJECT  
 PENOBSCOT COUNTY, MAINE  
 Client: CHAMPLAIN WIND, LLC  
 129 MIDDLE ST., 3RD FLOOR, PORTLAND, MAINE 04101











NO.	REVISIONS:	DATE:
A	ISSUED FOR PERMIT	01/15/11

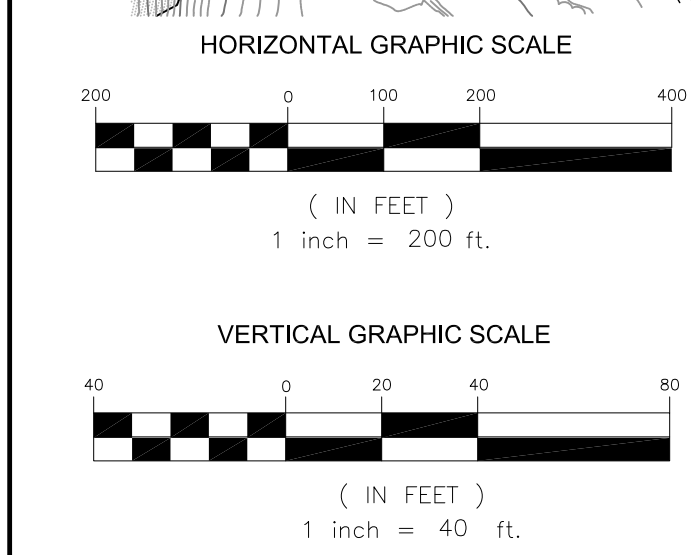
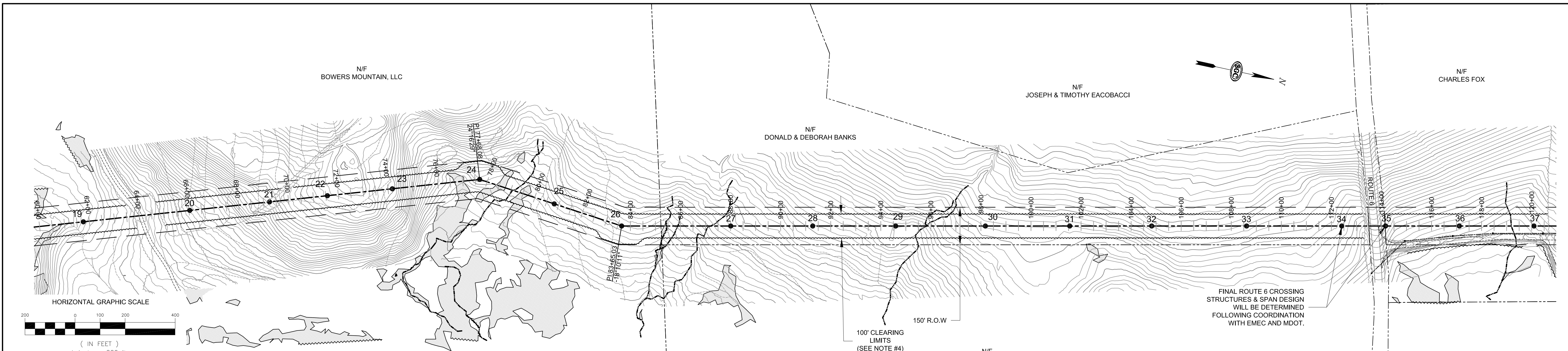
SGC ENGINEERING, LLC  
 Civil Design & Survey Engineering  
 Electrical Power System Engineering  
 Offices: Westbrook & Orono, Maine  
 South Burlington, Vermont  
 Farmington, New Mexico

Date: DECEMBER 8, 2010  
 Scale: AS NOTED  
 Drawn: JTF  
 Design: AJG  
 SGC Project: 780001

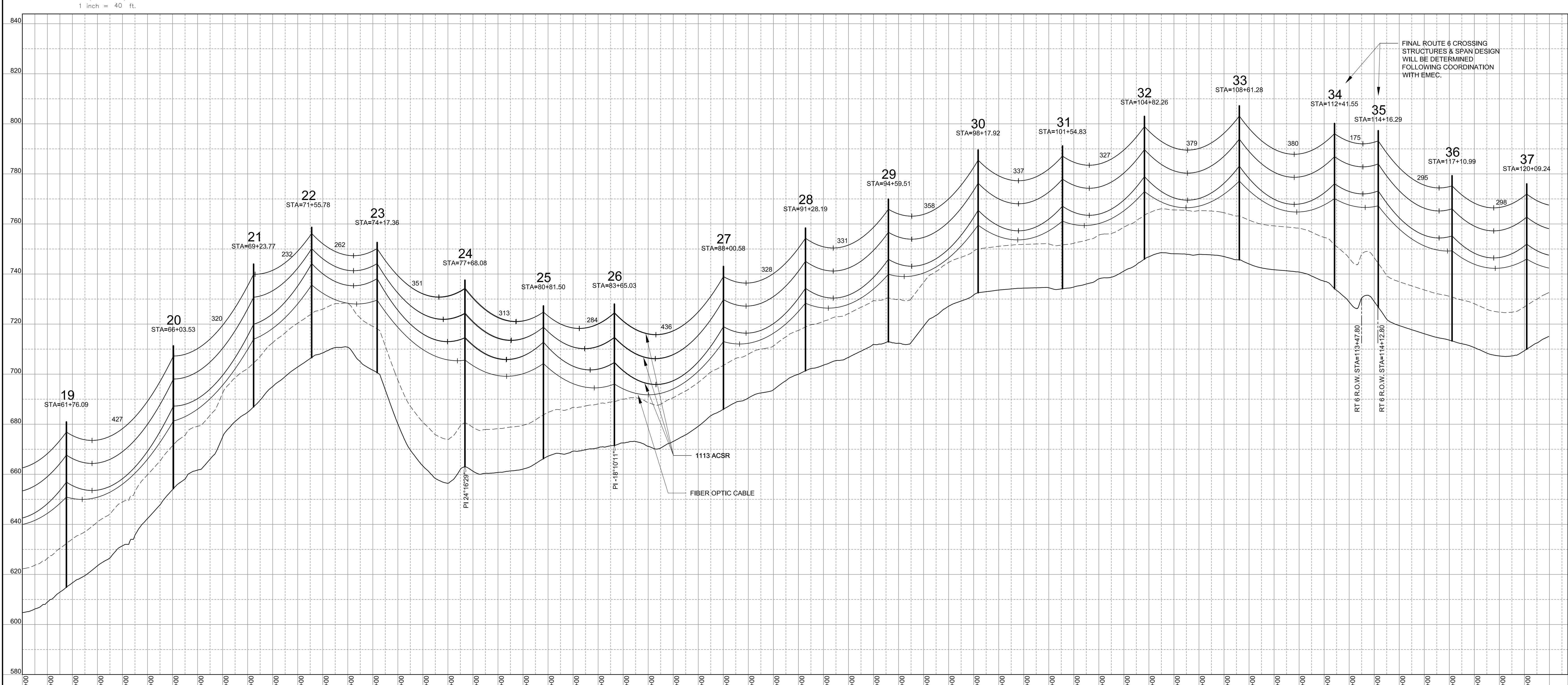
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 EXPRESS PLAN AND PROFILE  
 Project: BOWERS WIND PROJECT  
 PENOBSCOT COUNTY, MAINE  
 Client: CHAMPLAIN WIND, LLC  
 129 MIDDLE ST., 3rd FLOOR, PORTLAND, MAINE 04101

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 PROPERTY OF THE PROJECT OWNER.

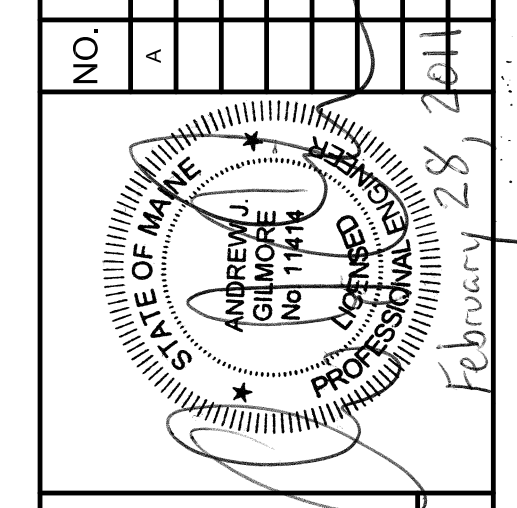




- NOTES:
1. PHASE CONDUCTORS DISPLAYED AT 167' F.
  2. FIBER OPTIC CABLE DISPLAYED AT 60' F.
  3. DESIGN VERTICAL GROUND CLEARANCE IS 17.5'.
  4. WIDTH OF CLEARING LIMITS VARIES AT PIS TO ALLOW ADEQUATE ROOM FOR ANCHOR INSTALLATION.
  5. SEE DRAWING 106-13-1100 FOR TYPICAL STRUCTURE DETAILS AND DETAILED NOTES ON STRUCTURE LAYOUT AND CONFIGURATION



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SGC ENGINEERING, LLC  
 Civil Design & Survey Engineering  
 Electrical Power System Engineering  
 Offices: Westbrook & Orono, Maine  
 South Burlington, Vermont  
 Farmington, New Mexico

SGC PROJECT: 780001  
 DATE: DECEMBER 8, 2010  
 AS NOTED  
 JTF  
 AUG

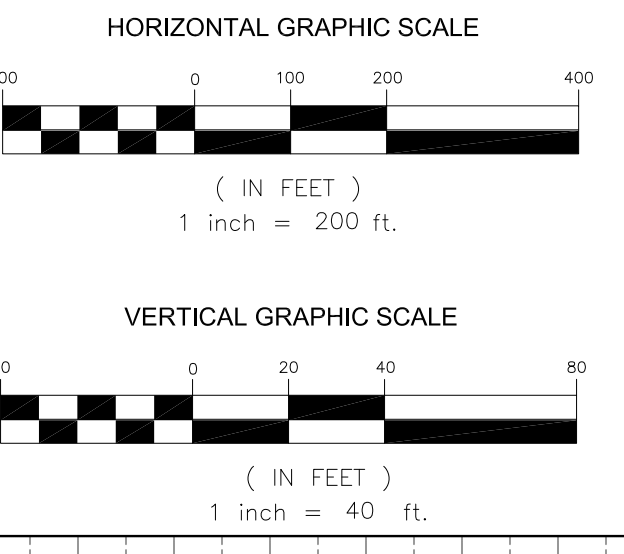
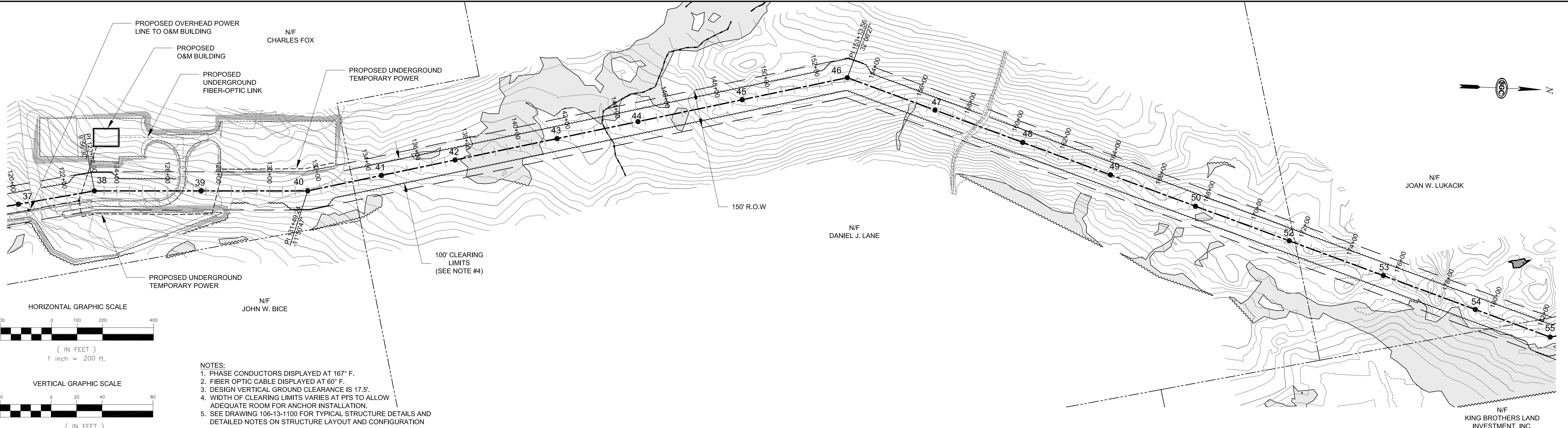
Client: CHAMPLAIN WIND, LLC  
 129 MIDDLE ST., 3rd FLOOR, PORTLAND, MAINE 04101

Project: BOWERS WIND PROJECT  
 PENOBSCOT COUNTY, MAINE

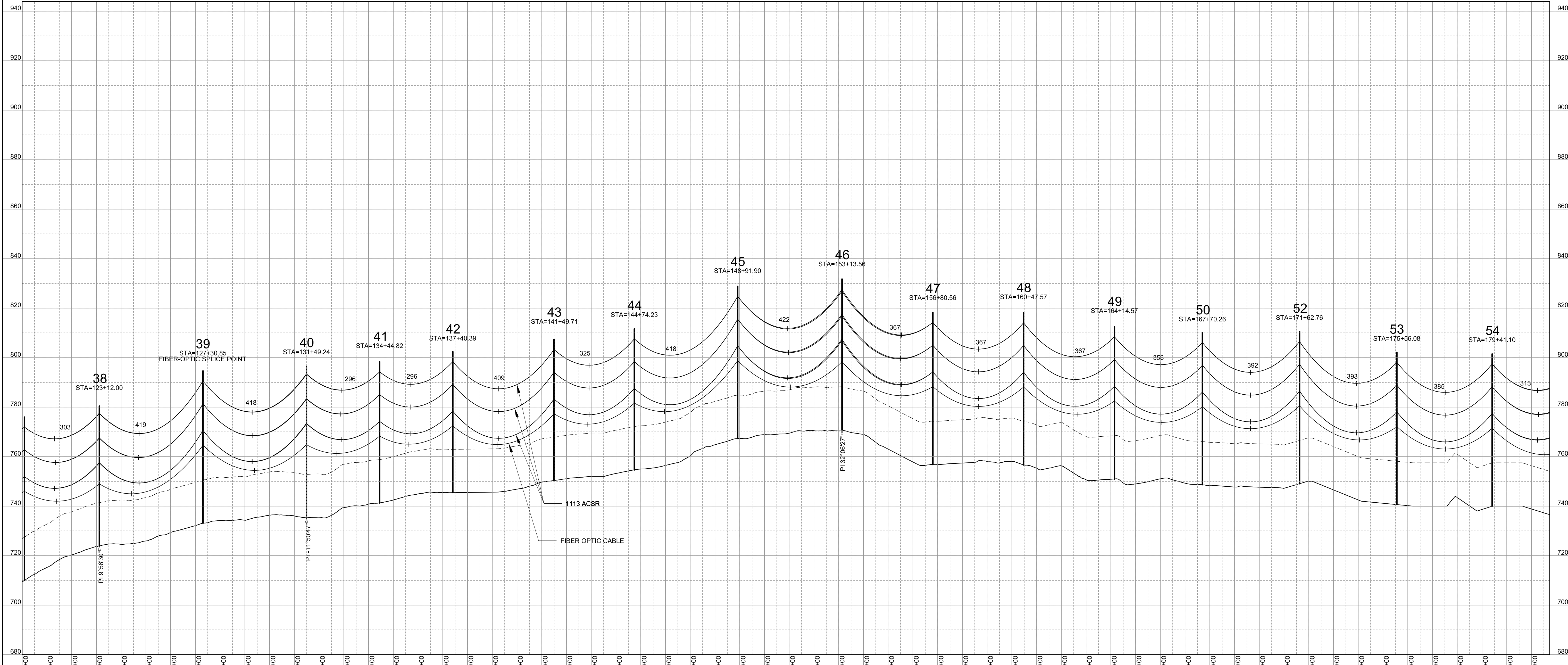
Title: 34.5 KV COLLECTOR LINE  
 EXPRESS PLAN AND PROFILE

ISSUED FOR PERMIT - NOT FOR CONSTRUCTION





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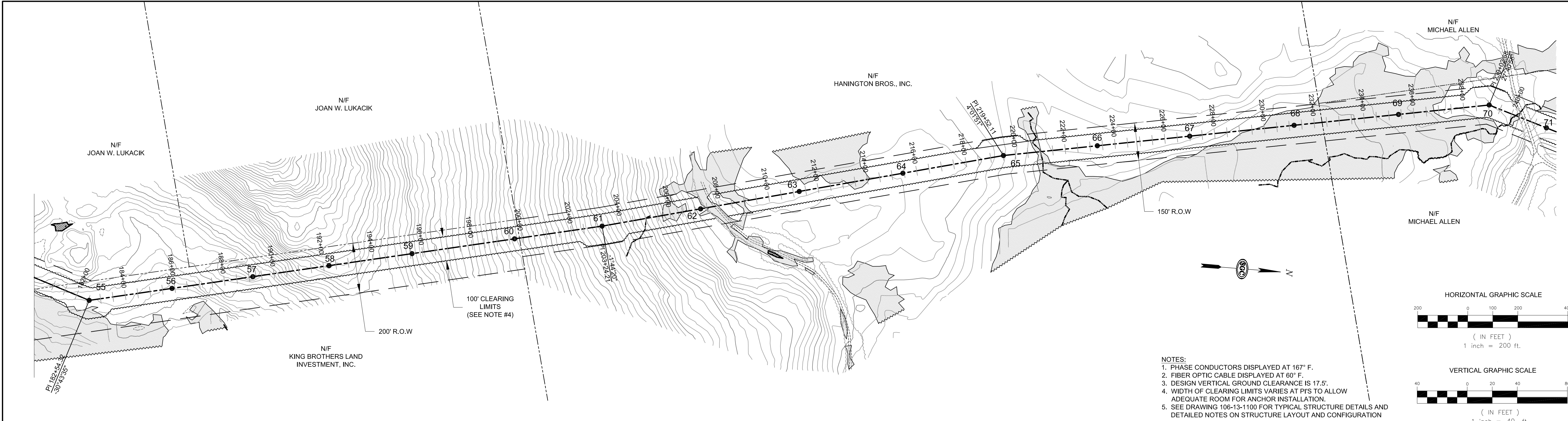
SGC PROJECT: 780001  
 DATE: DECEMBER 8, 2010  
 SCALE: AS NOTED  
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 CHECKED: AJG  
 DESIGN: AJG

SGC ENGINEERING, LLC  
 Civil Design & Survey Engineering  
 Electrical Power System Engineering  
 Offices: Westbrook & Orono, Maine  
 South Burlington, Vermont  
 Farmington, New Mexico

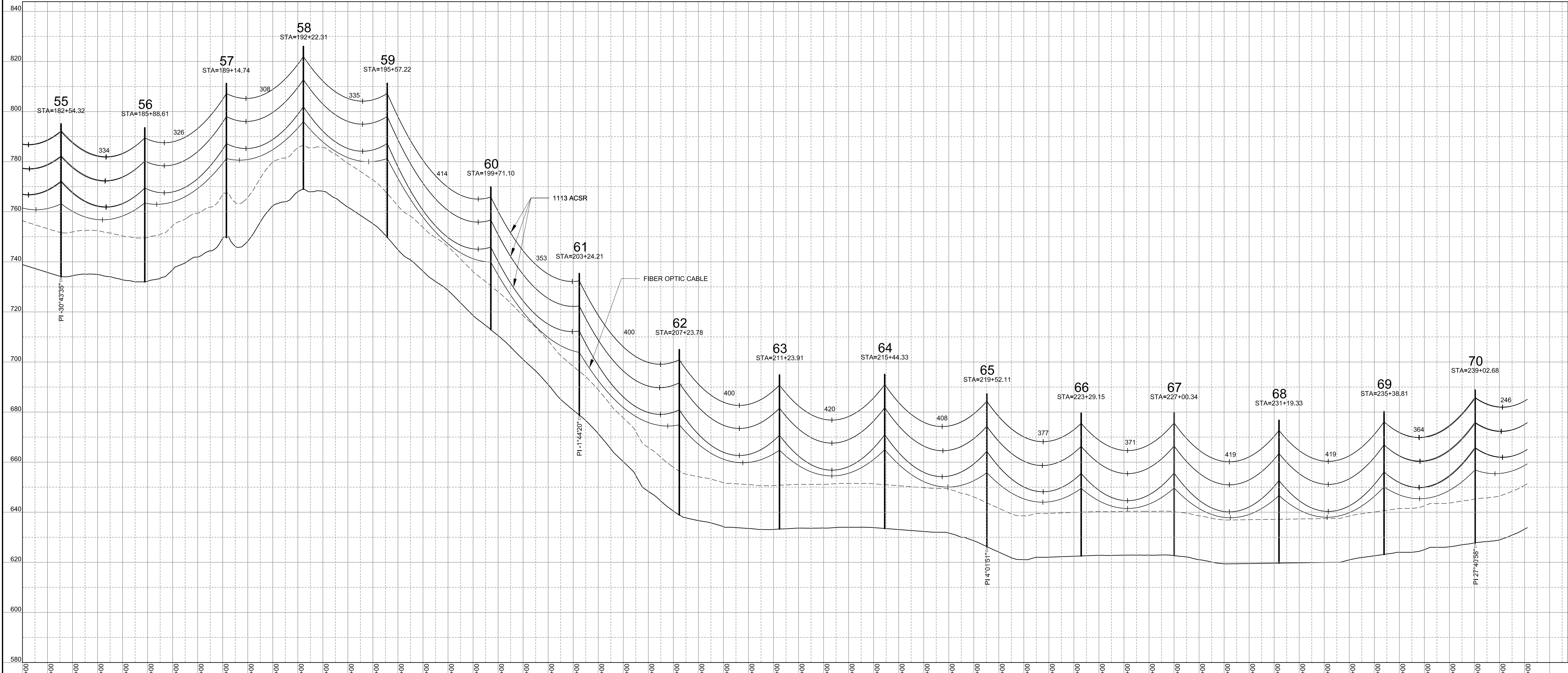
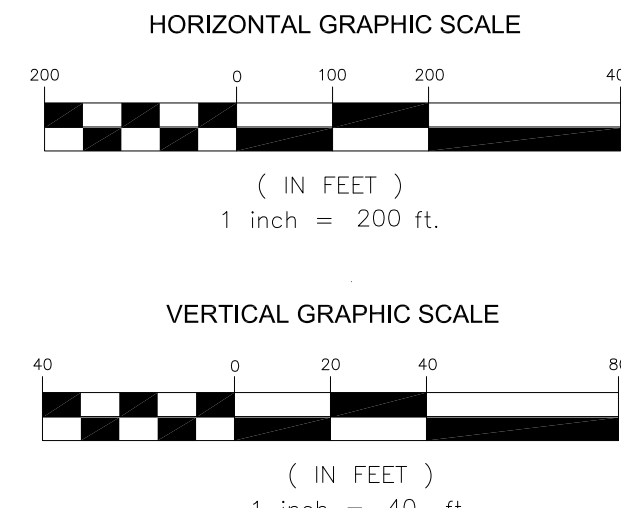
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 EXPRESS PLAN AND PROFILE  
 Project: BOWERS WIND PROJECT  
 PENOBSCOT COUNTY, MAINE  
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 Farmington, New Mexico

firstwind.  
 CLEAN ENERGY MADE HERE.  
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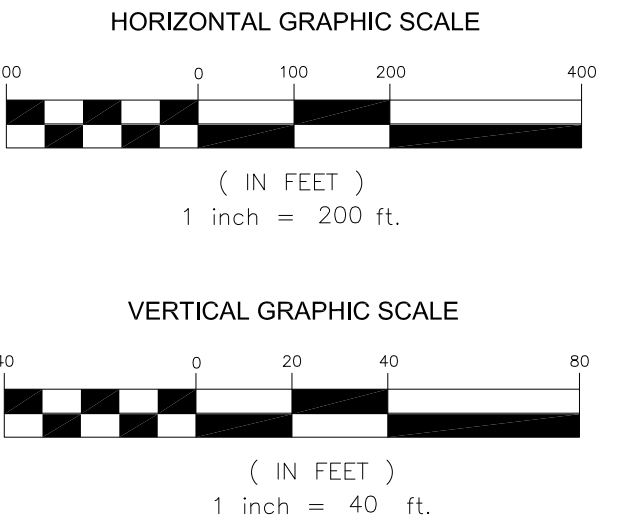
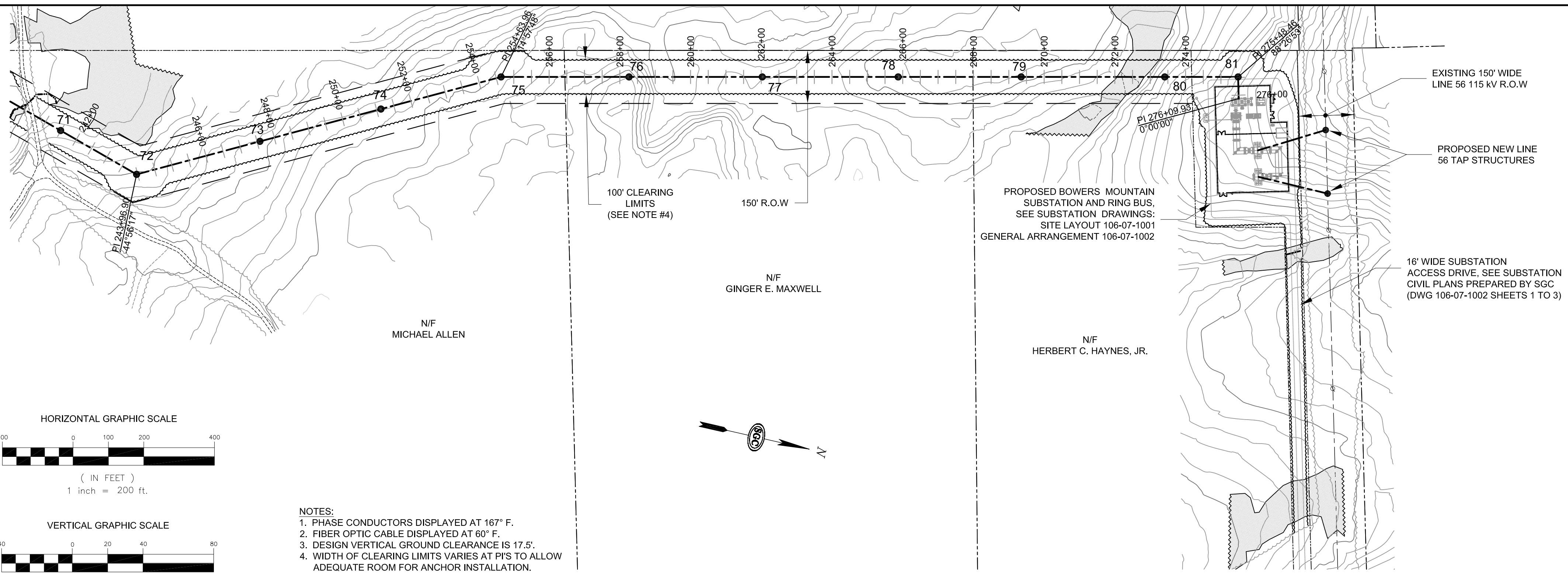
Client: CHAMPLAIN WIND, LLC  
 129 MIDDLE ST., 3rd FLOOR, PORTLAND, MAINE 04101

Project: BOWERS WIND PROJECT  
 PENOBSCOT COUNTY, MAINE

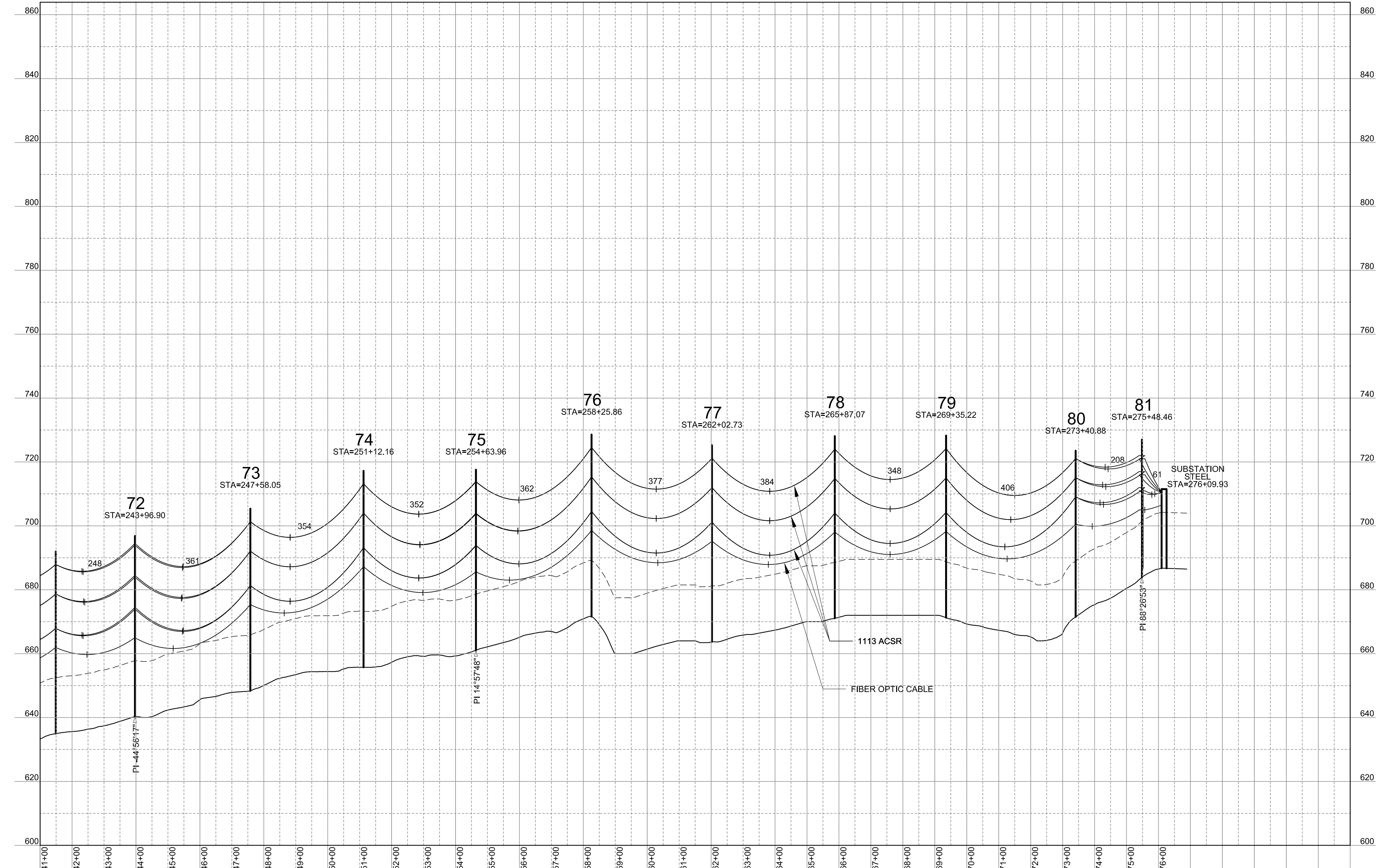
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SGC PROJECT: 780001

DATE: DECEMBER 8, 2010

AS NOTED

SCALE: AS NOTED

DRAWN: JTF

DESIGN: AJG

APPROVED: AJG

SGC ENGINEERING, LLC

Civil Design & Survey Engineering  
Professional Engineering  
Electrical Power System Engineering

Offices: Westbrook & Orono, Maine  
South Burlington, Vermont  
Farmington, New Mexico

Title: 34.5 kV COLLECTOR LINE EXPRESS PLAN AND PROFILE

Project: BOWERS WIND PROJECT PENOBSCOT COUNTY, MAINE

Client: CHAMPLAIN WIND, LLC  
129 MIDDLE ST., 3rd FLOOR, PORTLAND, MAINE 04101



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