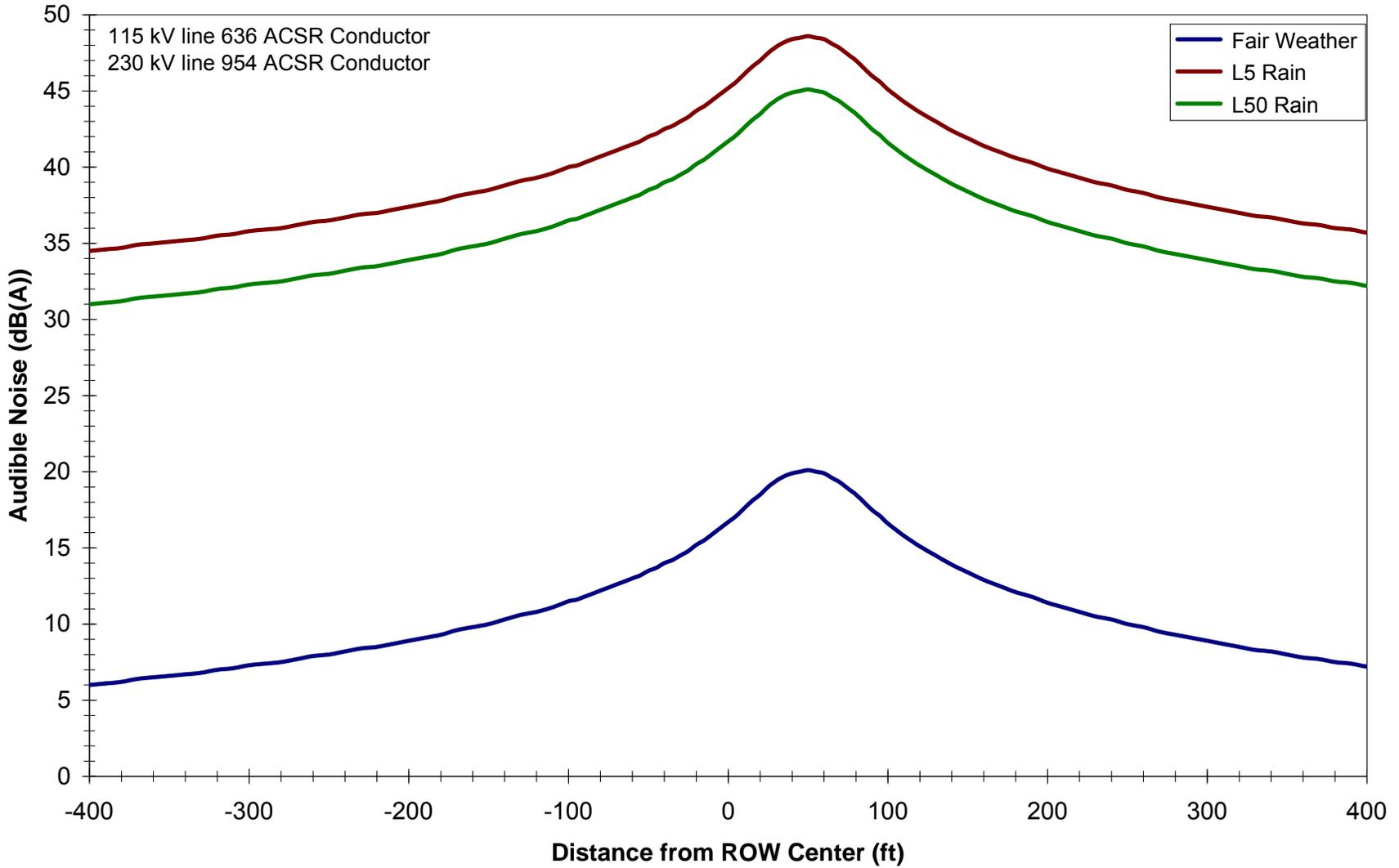


Appendix E

Noise Figures and Graphs

115kV Line #28 Reroute - Eastern Segment Audible Noise Level

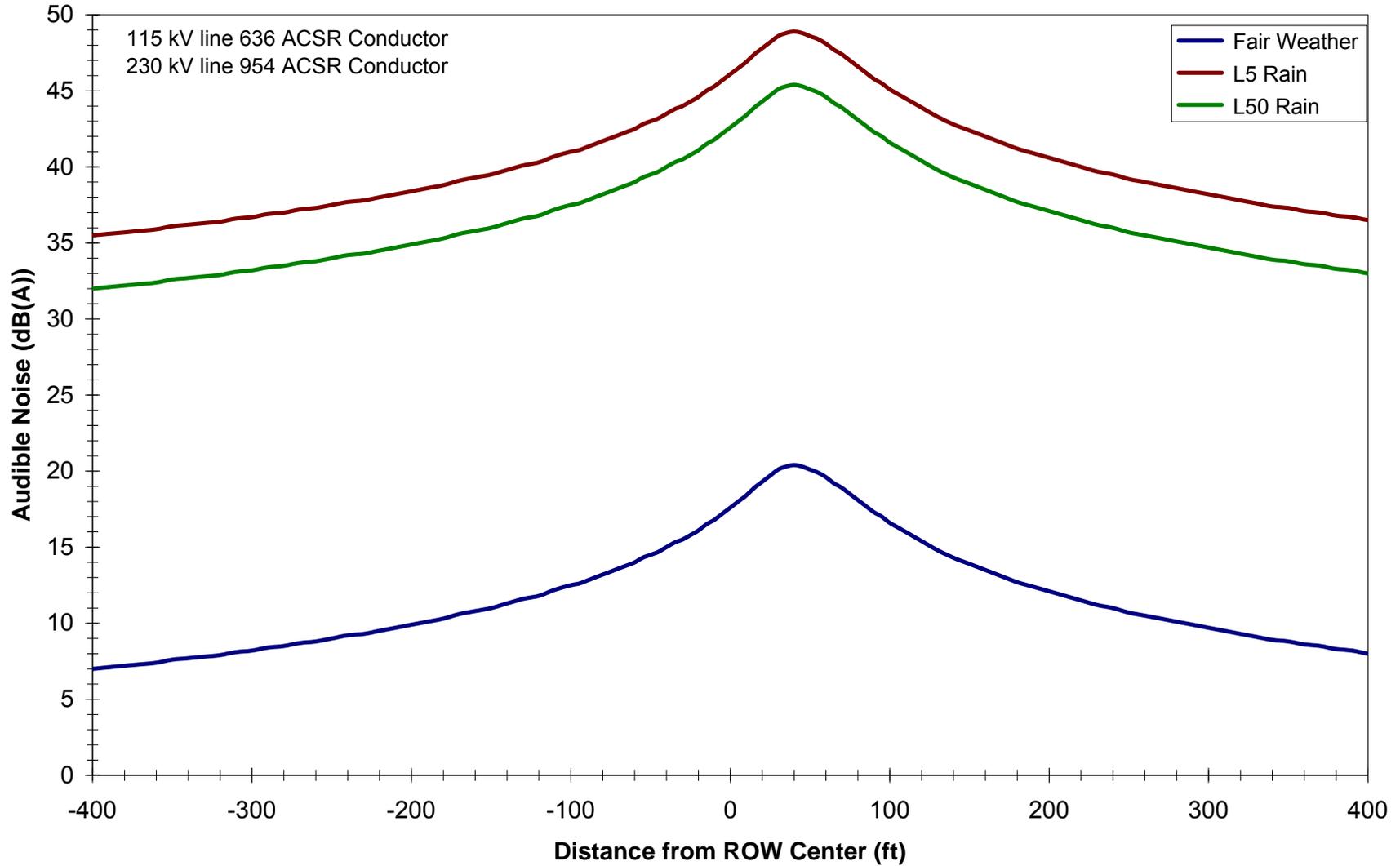
Typical 115kV H-Frame on Shared Right-of-Way with proposed 230kV H-Frame



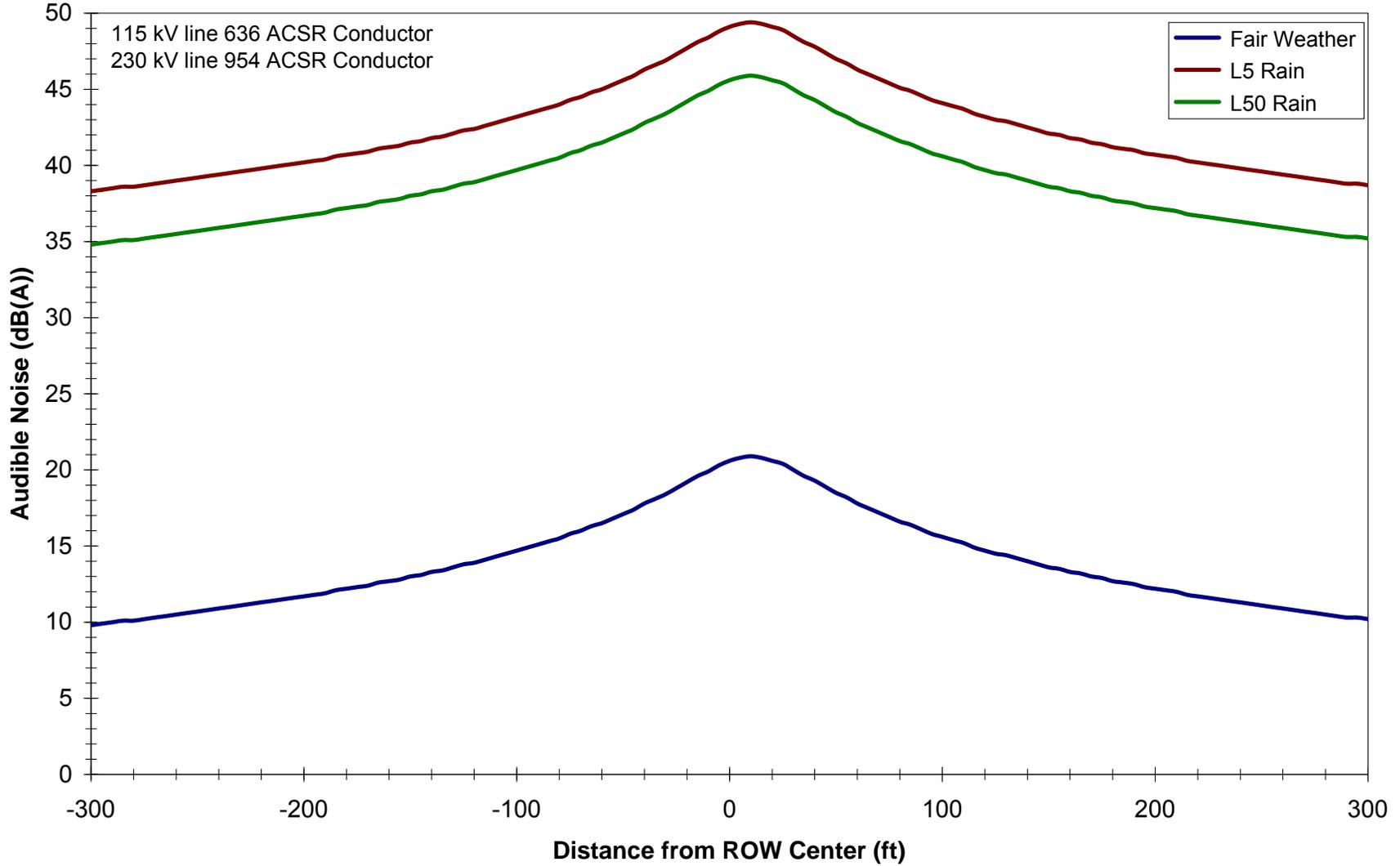
115kV Line #28 Reroute - Eastern Segment

Audible Noise Level

Typical 115kV H-Frame on Shared Right-of-Way with proposed 230kV Single Pole



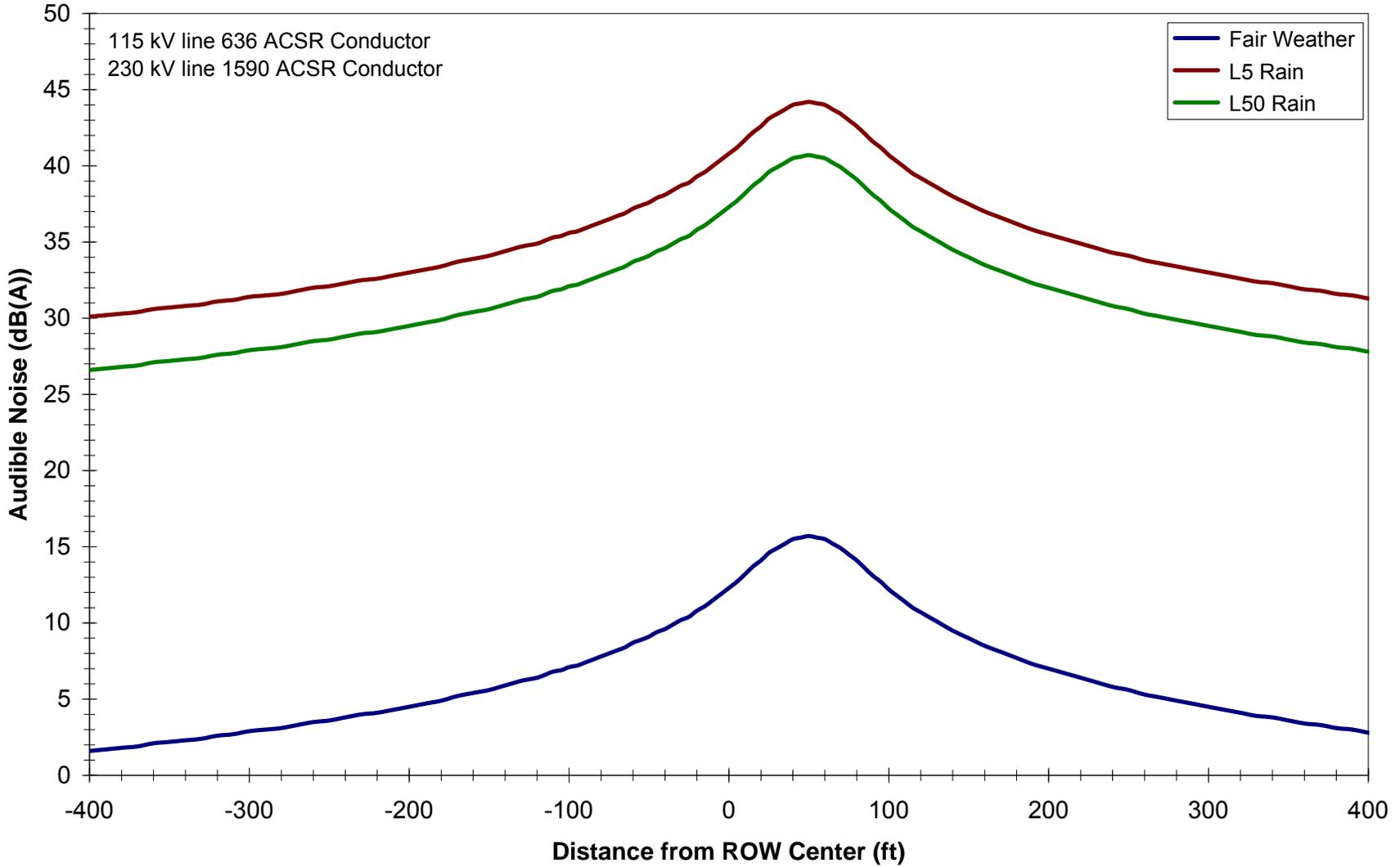
115kV Line #28 Reroute - Eastern Segment
Audible Noise Level
Typical 230/115 kV Single Pole Double Circuit



115kV Line #28 Reroute - Western Segment

Audible Noise Level

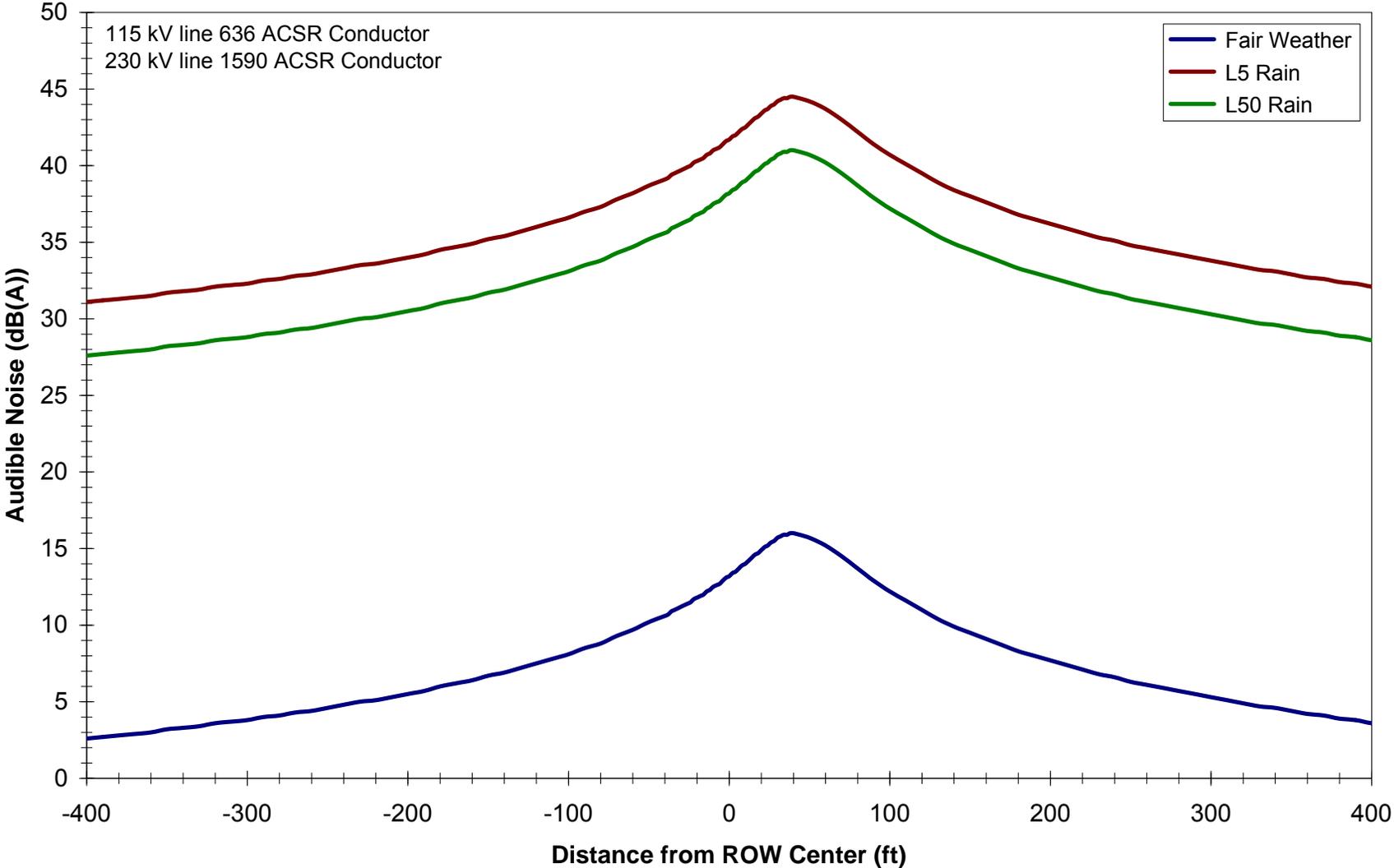
Typical 115kV H-Frame on Shared Right-of-Way with proposed 230kV H-Frame



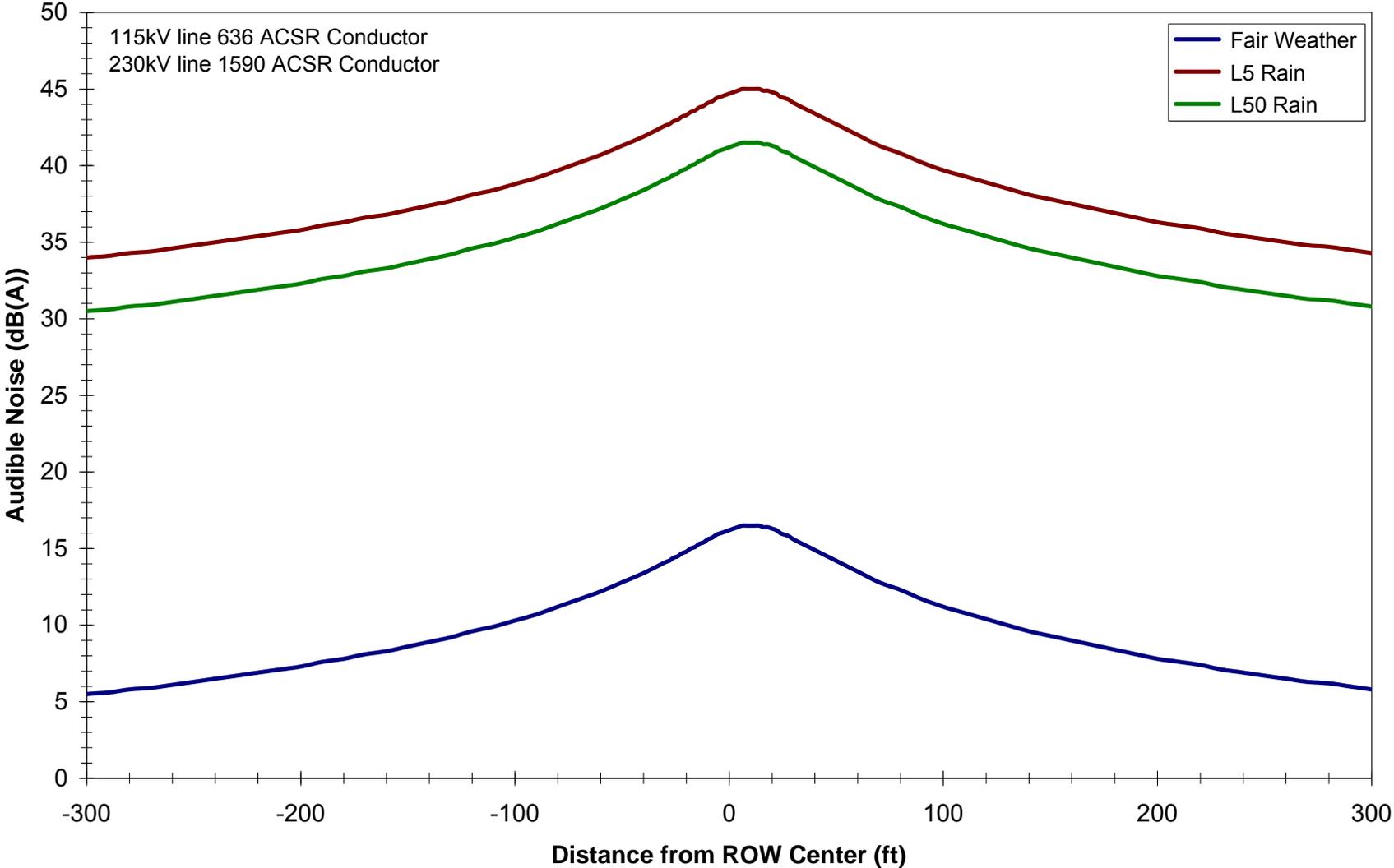
115kV Line #28 Reroute - Western Segment

Audible Noise Level

Typical 115kV H-Frame on Shared Right-of-Way with proposed 230kV Single Pole



115kV Line #28 Reroute - Western Segment
Audible Noise Level
Typical 230/115 kV Single Pole Double Circuit

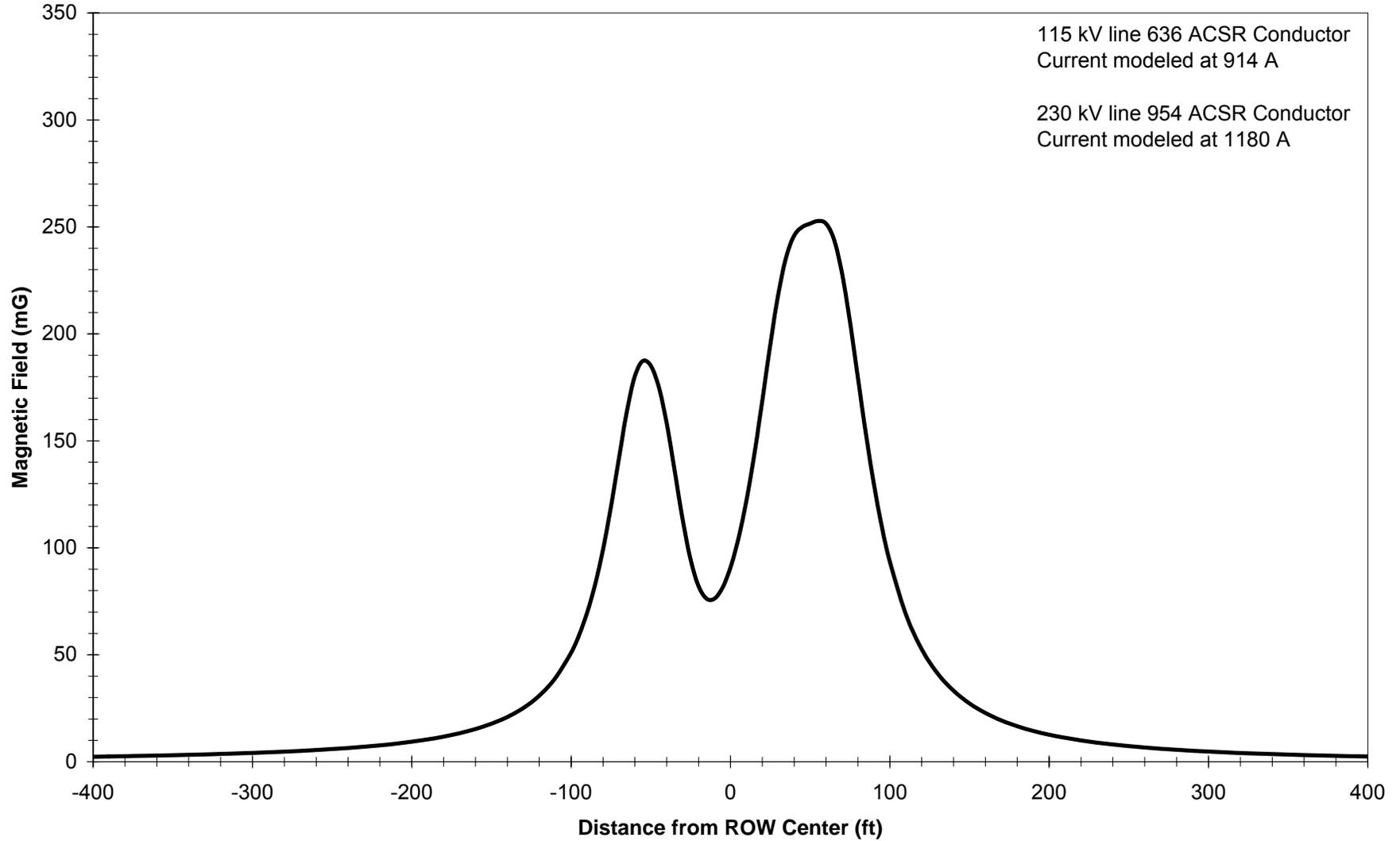


Appendix F

EMF Figures and Graphs

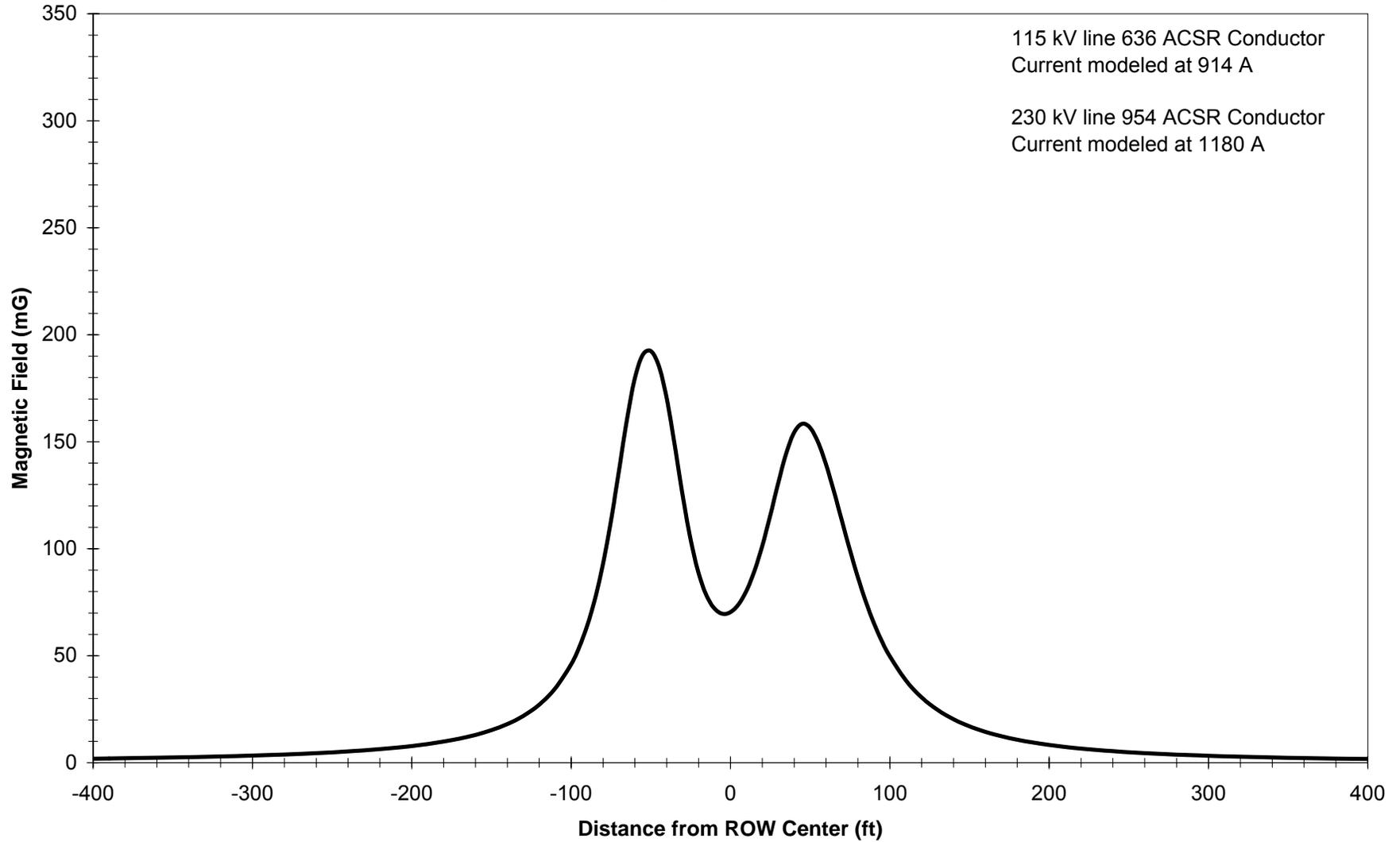
115kV Line #28 Reroute - Eastern Segment Magnetic Field Profile

Typical 115kV H-Frame on Shared Right-of-Way with proposed 230kV H-Frame

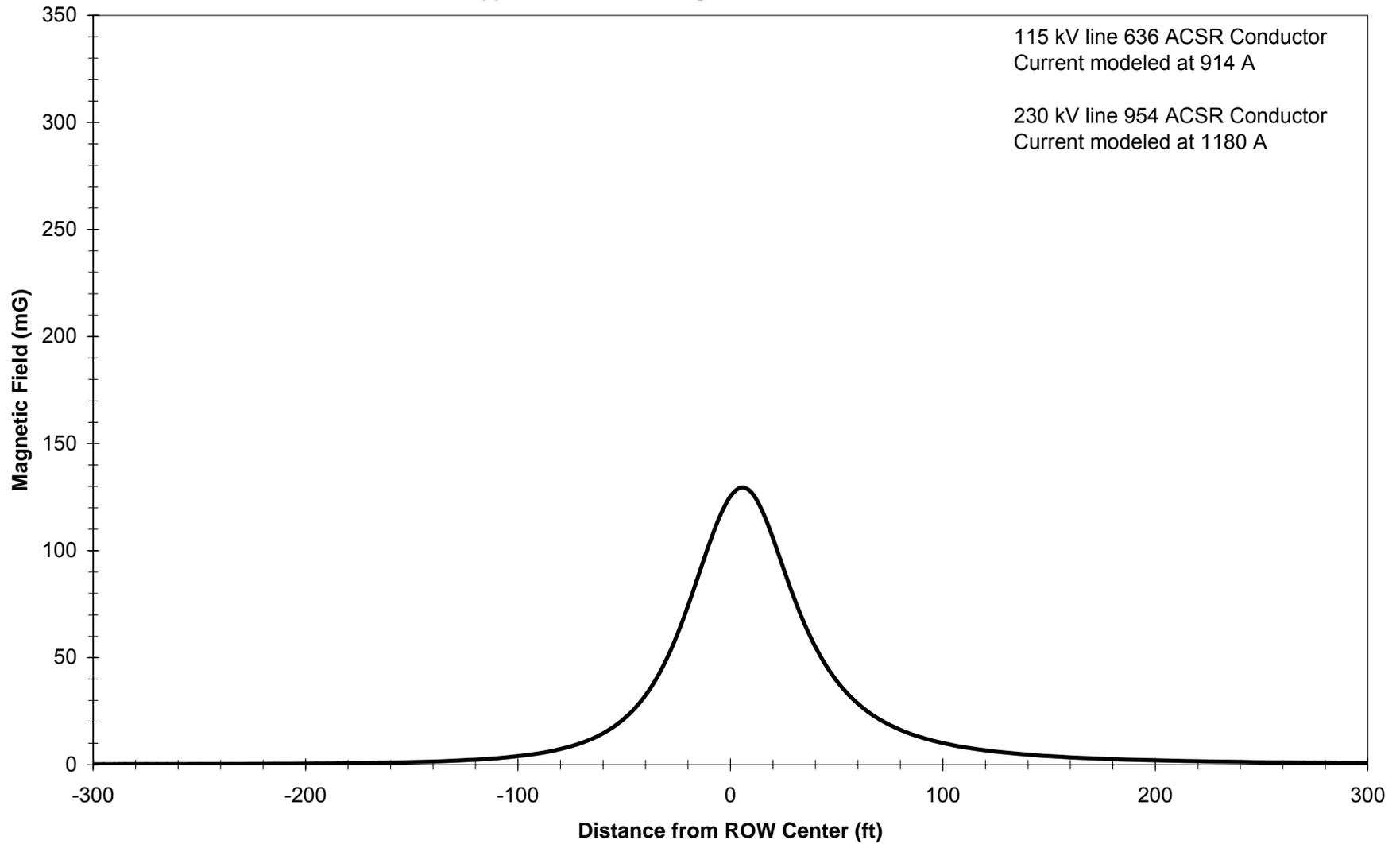


115kV Line #28 Reroute - Eastern Segment Magnetic Field Profile

Typical 115kV H-Frame on Shared Right-of-Way with proposed 230kV Single Pole



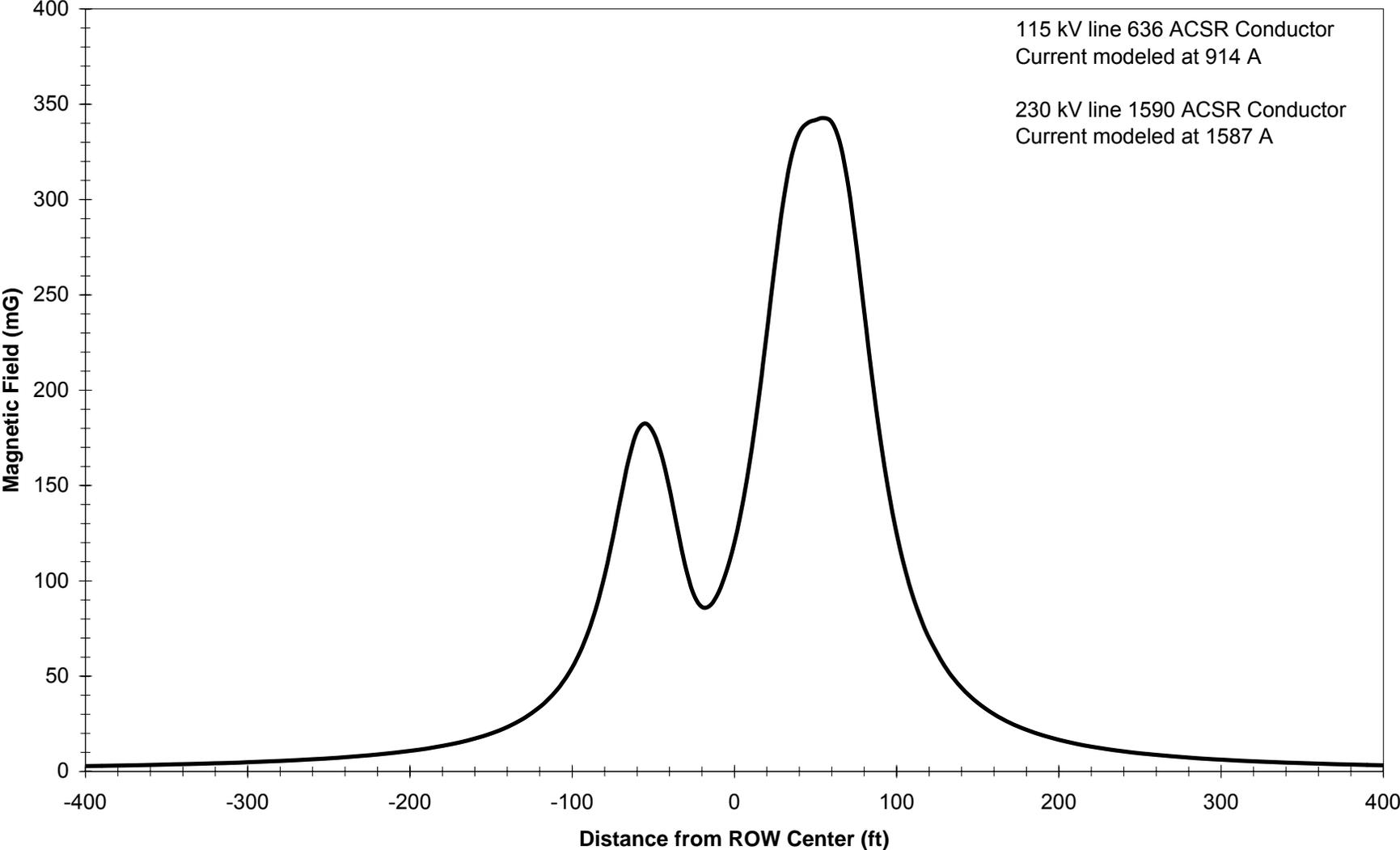
115kV Line #28 Reroute - Eastern Segment
Magnetic Field Profile
Typical 230/115 kV Single Pole Double Circuit



115kV Line #28 Reroute - Western Segment

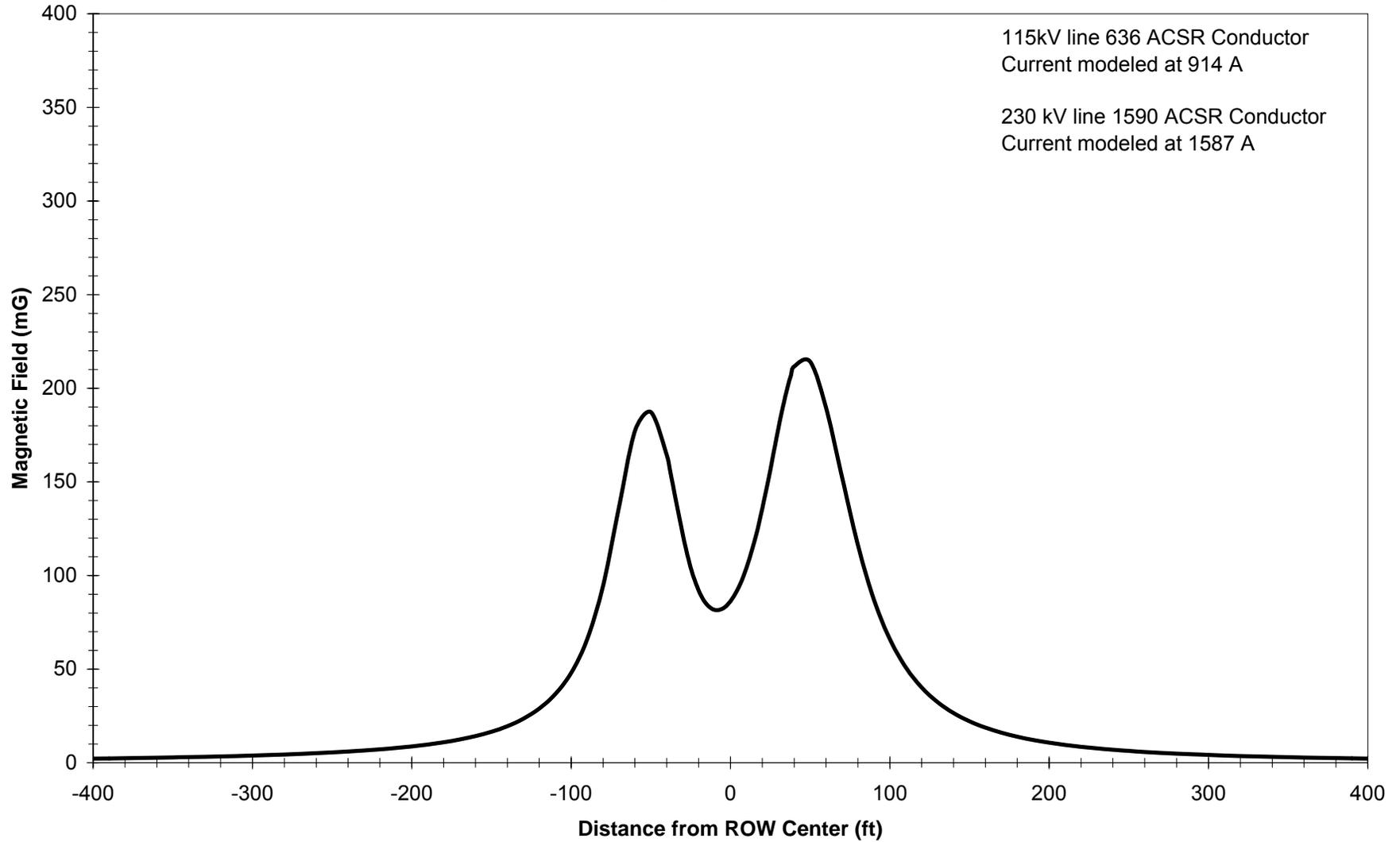
Magnetic Field Profile

Typical 115kV H-Frame on Shared Right-of-Way with proposed 230kV H-Frame

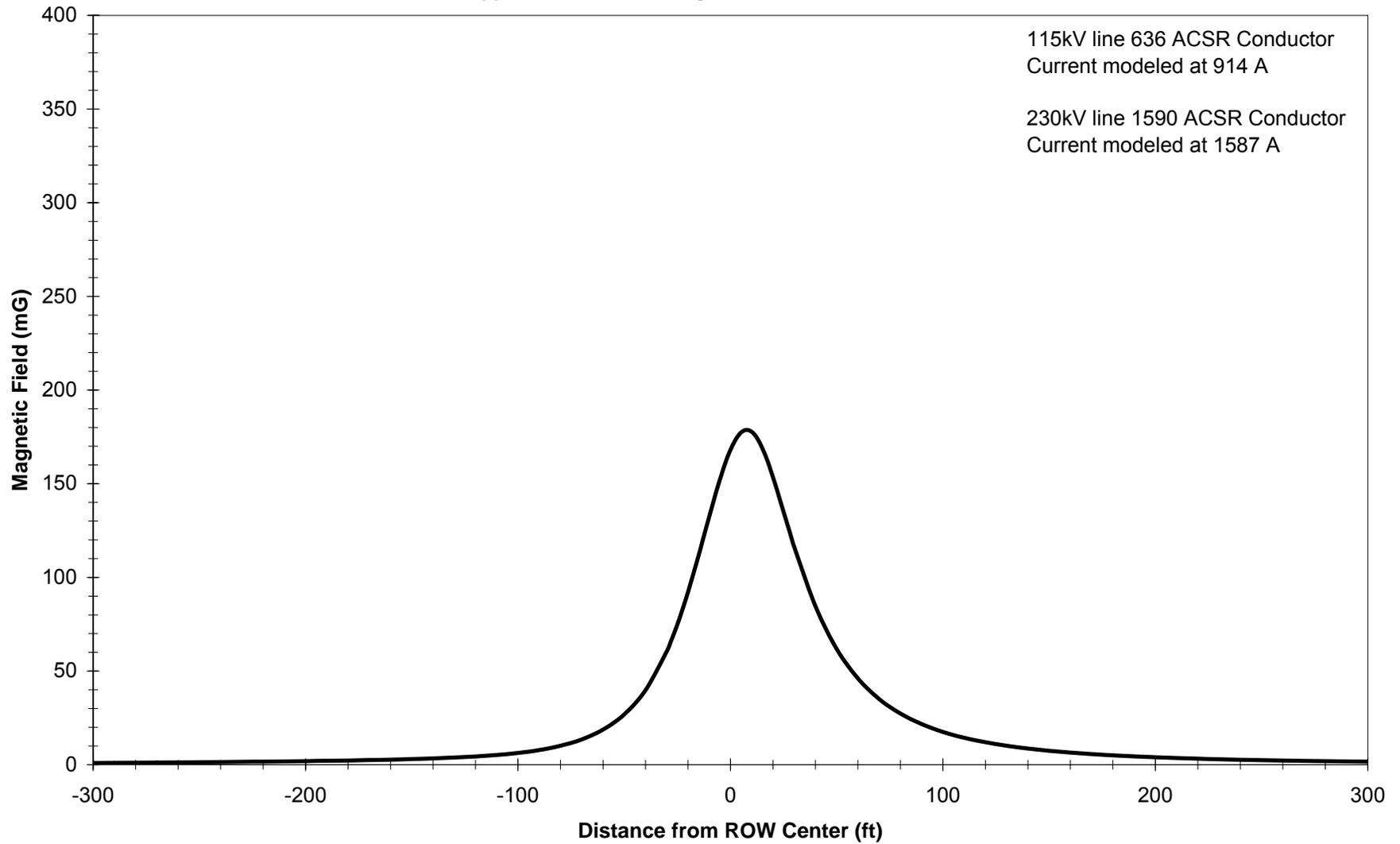


**115kV Line #28 Reroute - Western Segment
Magnetic Field Profile**

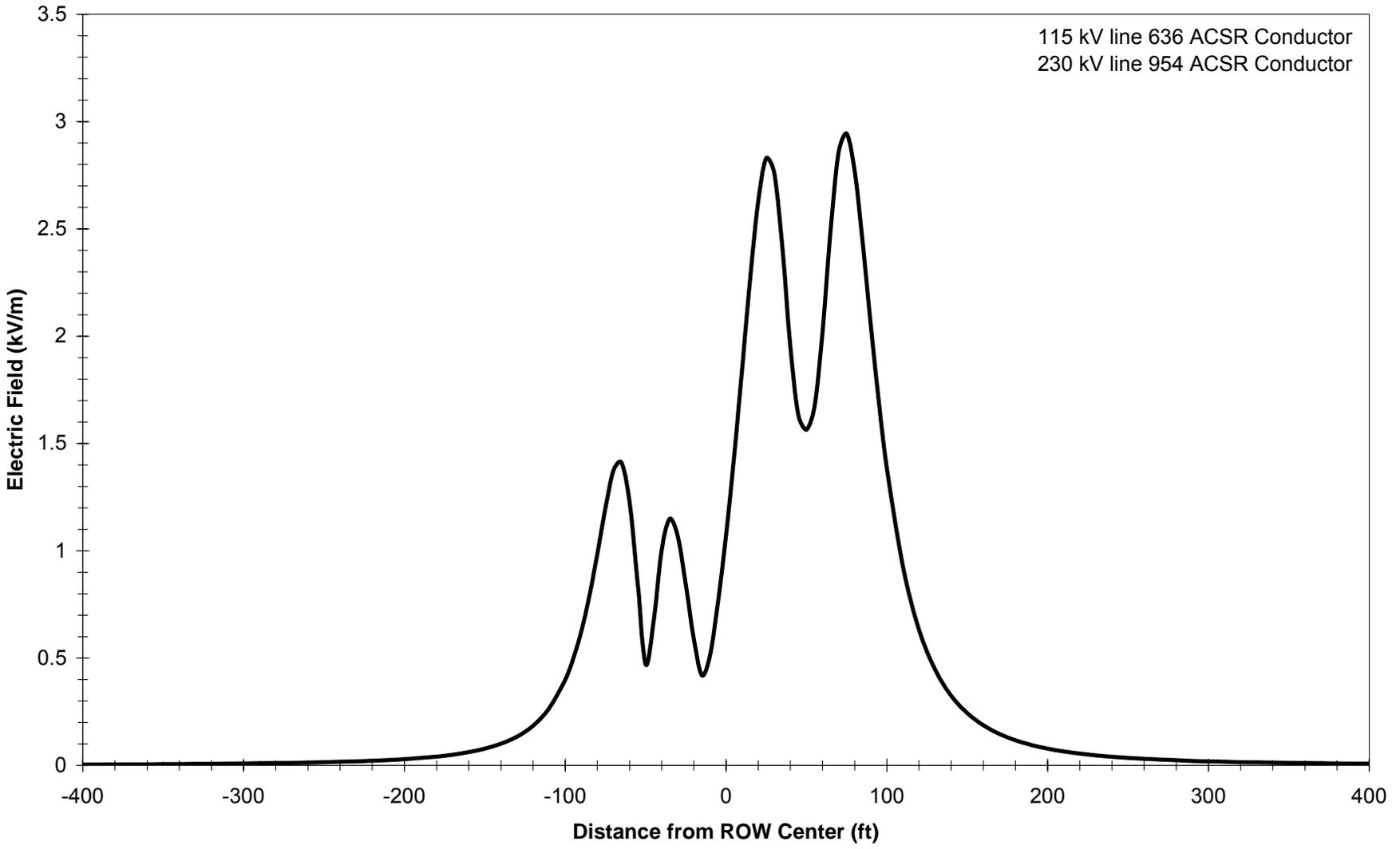
Typical 115kV H-Frame on Shared Right-of-Way with proposed 230kV Single Pole



115kV Line #28 Reroute - Western Segment
Magnetic Field Profile
Typical 230/115 kV Single Pole Double Circuit

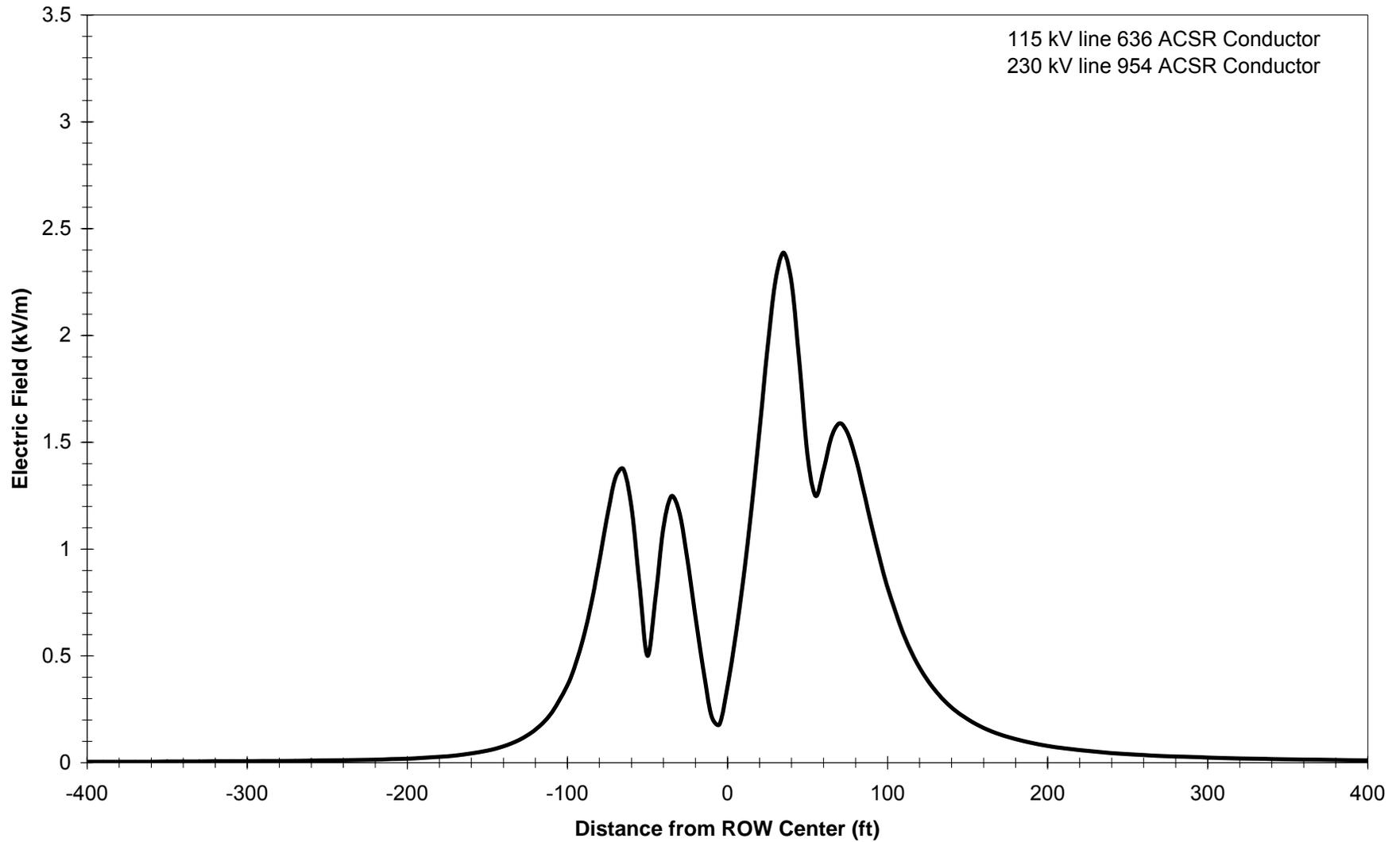


115kV Line #28 Reroute - Eastern Segment
AC Electric Field Profile
Typical 115kV H-Frame on Shared Right-of-Way with proposed 230kV H-Frame

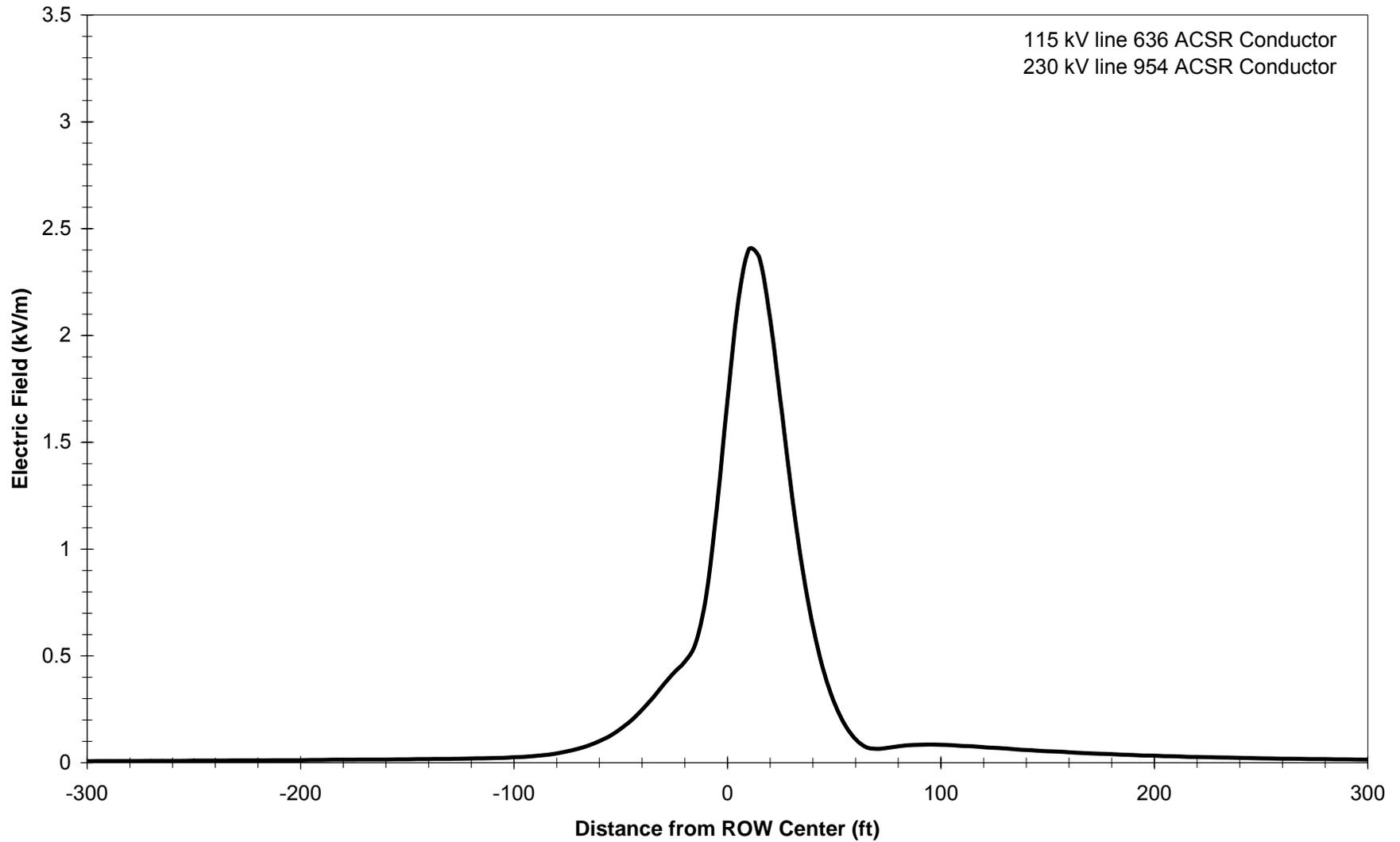


115 kV line 636 ACSR Conductor
230 kV line 954 ACSR Conductor

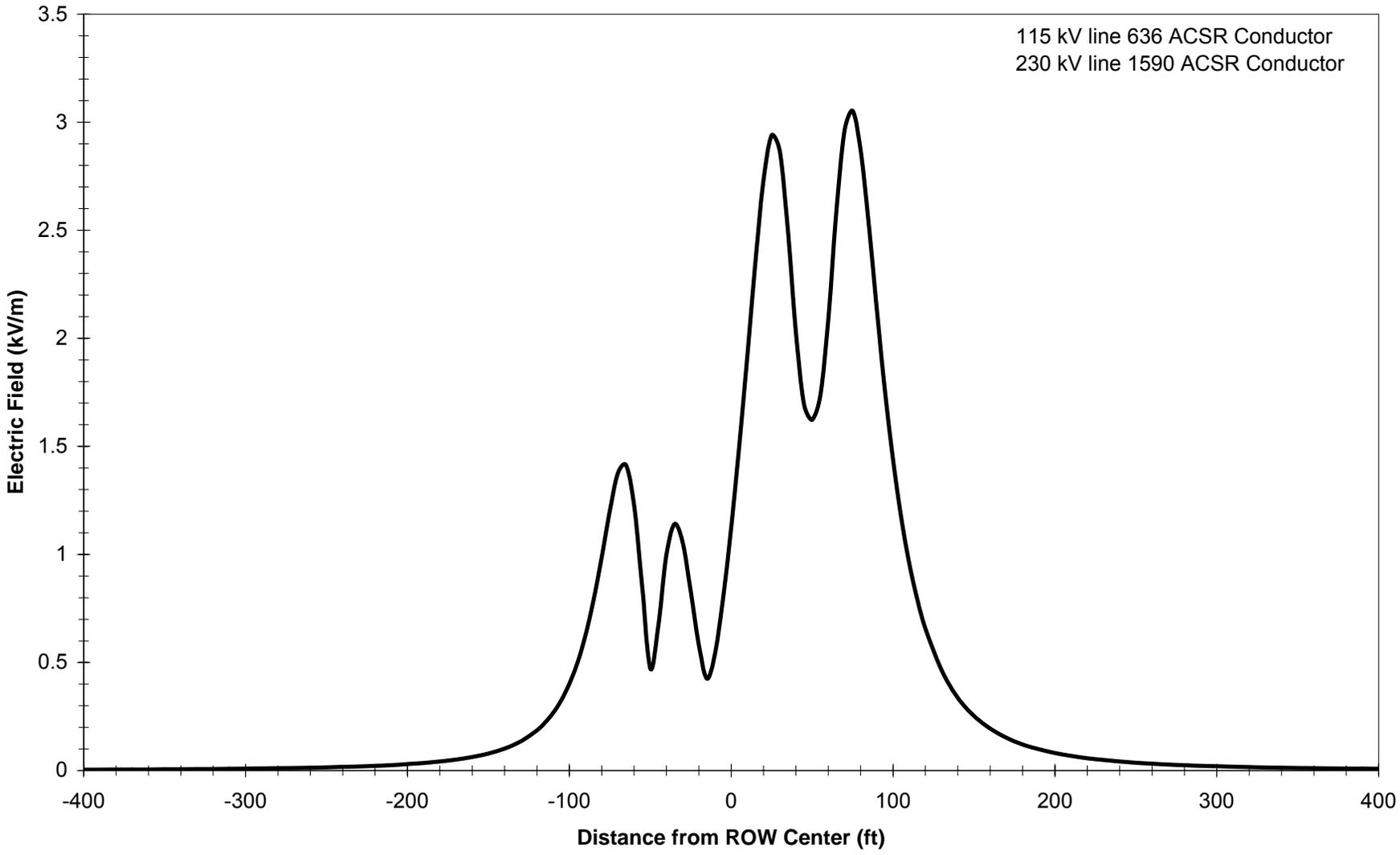
115kV Line #28 Reroute - Eastern Segment
AC Electric Field Profile
Typical 115kV H-Frame on Shared Right-of-Way with proposed 230kV Single Pole



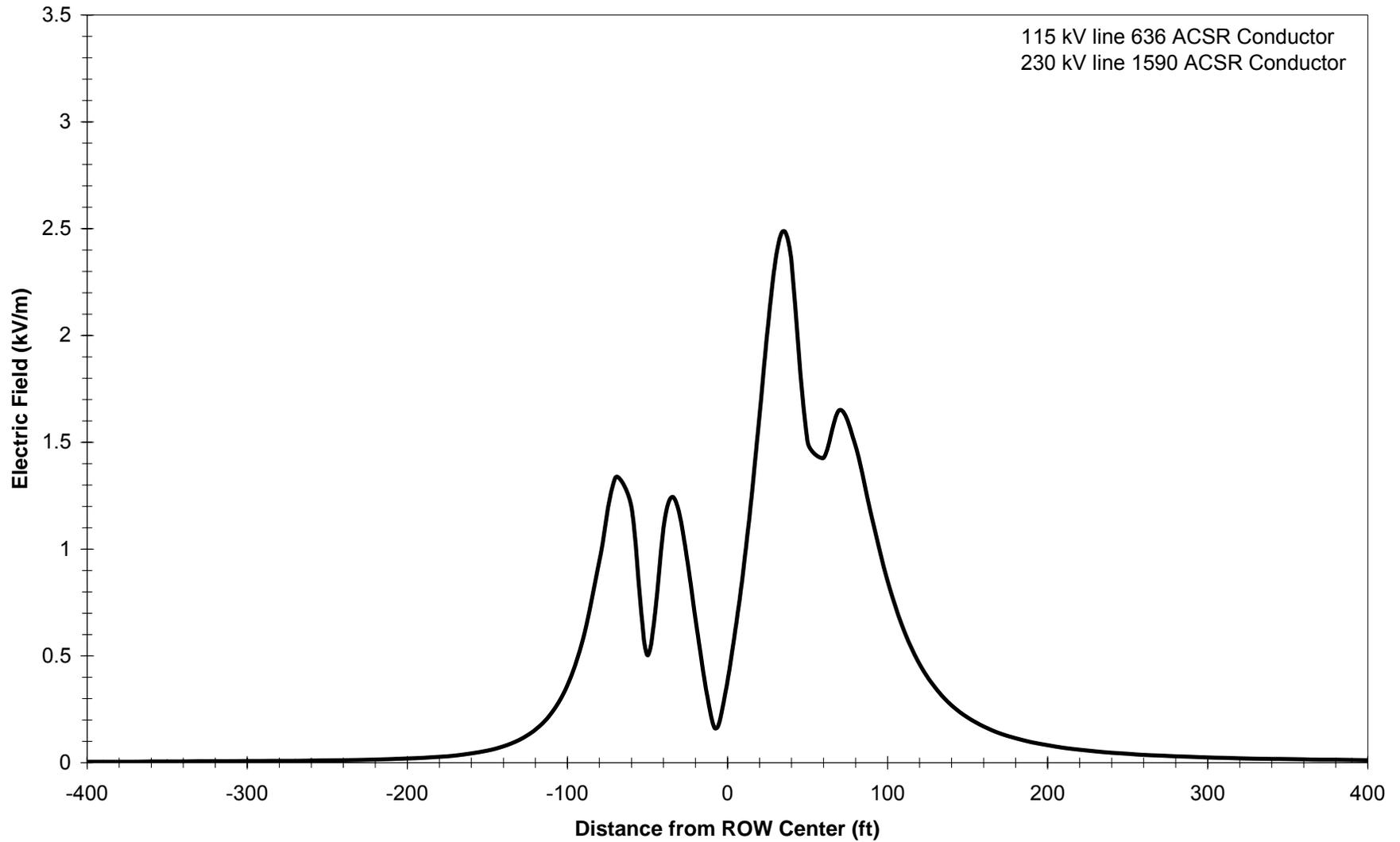
115kV Line #28 Reroute - Eastern Segment
AC Electric Field Profile
Typical 230/115 kV Single Pole Double Circuit



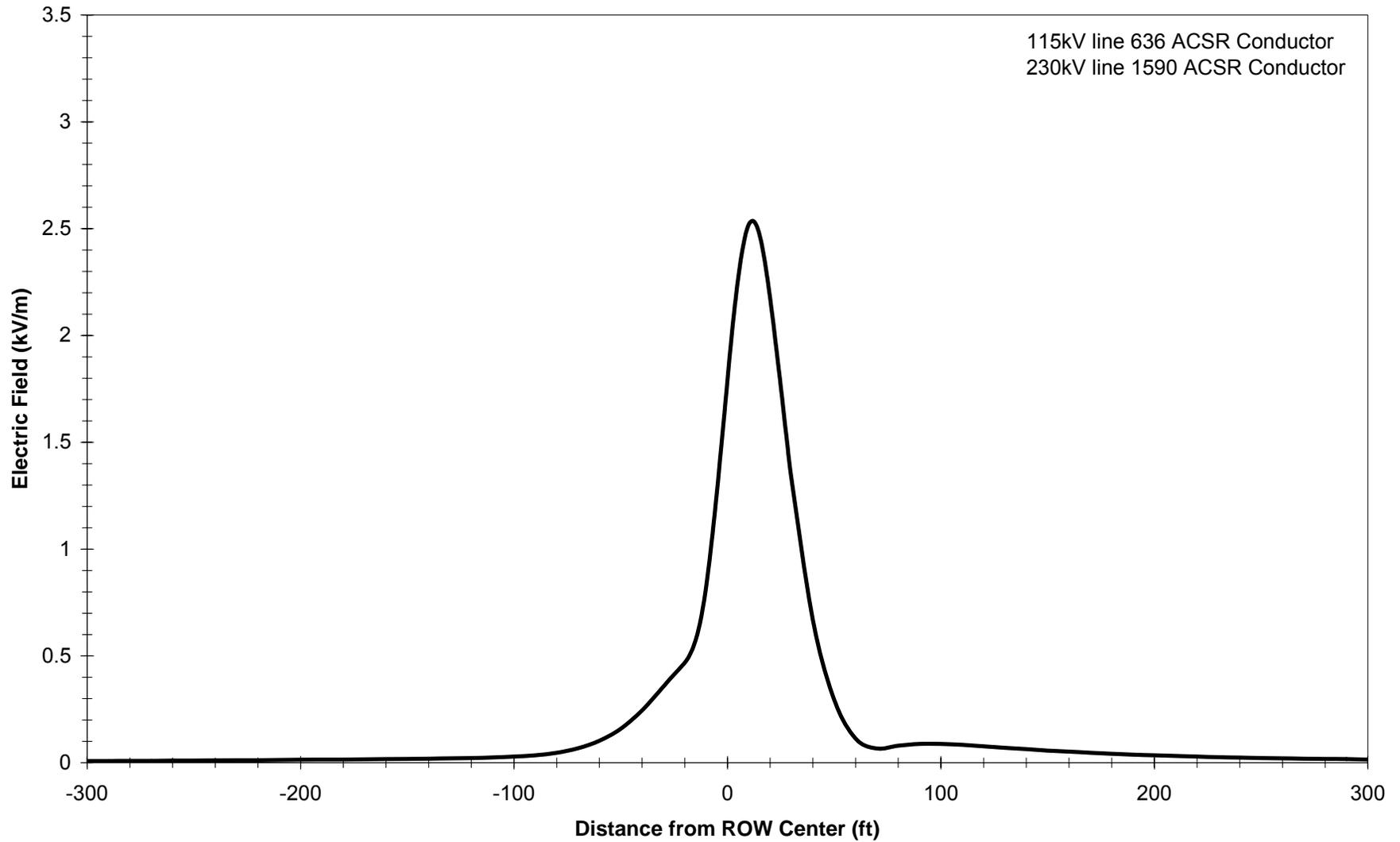
115kV Line #28 Reroute - Western Segment
AC Electric Field Profile
Typical 115kV H-Frame on Shared Right-of-Way with proposed 230kV H-Frame



115kV Line #28 Reroute - Western Segment
AC Electric Field Profile
Typical 115kV H-Frame on Shared Right-of-Way with proposed 230kV Single Pole



115kV Line #28 Reroute - Western Segment
AC Electric Field Profile
Typical 230/115 kV Single Pole Double Circuit



Appendix G

Agency Consultation

Open House Public Information Meeting

Proposed Electric Power Delivery Project
for Essar Steel Minnesota

February 11, 2009 • 4:30 to 7:30 pm

Nashwauk City Hall
301 Central Ave
Nashwauk, MN 55769

Property owners and others who have an interest in the area around Nashwauk (see study area map) are invited to an open house information sharing meeting about the electric power delivery project being proposed by the Nashwauk Public Utilities Commission (NPUC) and Minnesota Power (MP).

To provide adequate, reliable electric power to the Essar Steel Minnesota Project, the project partners propose to permit and construct three

230-kilovolt transmission lines from existing MP facilities to be connected to two new 230-kilovolt substations located on the Essar project site.

NPUC and MP (the Applicants) will be developing a Route Permit Application for submission to the Minnesota Public Utilities Commission (MPUC) this summer. Additionally, the partners are proposing a realignment of an existing MP 115-kilovolt transmission line at the Essar project site.

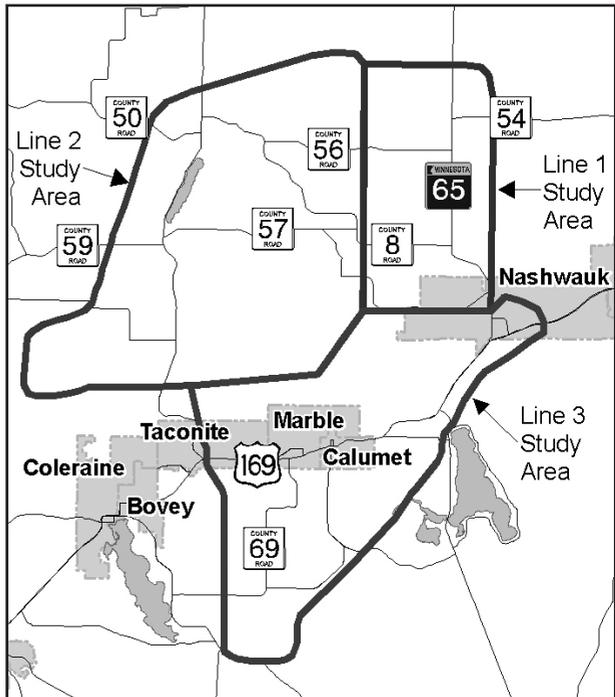
Open House:

- View maps of the project study area and discuss the proposed project and possible routes.
- Provide input and ask questions of project representatives.
- Learn how the MPUC routing process works.

If you'd like to know more about the Essar Electric Power Delivery Project but are unable to attend the open house, please contact:

Bob Lindholm—MP
218-355-3342
rlindholm@allete.com

**Lydia Nelson—HDR
Engineering, Inc**
651-278-5909
lydia.nelson@hdrinc.com



**Open House Public Information Meeting
Proposed Electric Power Delivery Project
For Essar Steel Minnesota**

Where: Nashwauk City Hall, 301 Central Avenue
When: Wednesday, February 11, 2009
Time: 4:30 to 7:30 p.m.

You are receiving this Open House invitation because you own property or may have other interests in areas where Nashwauk Public Utilities Commission (NPUC) and Minnesota Power (MP) are studying options for the Electric Power Delivery Project necessary to support the proposed Essar Steel Minnesota facility. NPUC and MP (the Applicants) will be developing a Route Permit Application for submission to the Minnesota Public Utilities Commission (MPUC).

The Project:

The Applicants are evaluating construction of three 230 kV transmission lines and two 230 kV substations that would connect to the proposed Essar Steel Minnesota facilities. See Figure 1 on the back of this announcement depicting the project study area.

- Line 1 would connect with the existing 230 kV Boswell to Shannon 94 Line (owned by MP) and travel south to the proposed Essar Steel Plant Substation.
- Line 2 would connect with the same existing transmission line (94 Line), travel east to the proposed Essar Taconite Plant Substation and continue to the proposed Essar Steel Plant Substation.
- Line 3 would connect with the existing Blackberry Substation and travel north to the proposed Essar Steel Plant Substation.

The Process:

The Applicants expect to file a Route Permit Application using the Full Process with the MPUC in the summer of 2009. The MPUC will work with the public, the Minnesota Office of Energy Security, and the Applicants to determine the best routes for the three 230 kV lines and sites for two substations. Following filing of the Route Permit Application, the MPUC may take approximately one year to complete the environmental review process, including the development of an Environmental Impact Statement, conduct public information meetings and public hearings.

The Purpose:

This Open House is a voluntary meeting sponsored by the Applicants. The primary purposes are to provide the public with information about the project and to identify issues and concerns important to the local community.

At this Open House you will have an opportunity to:

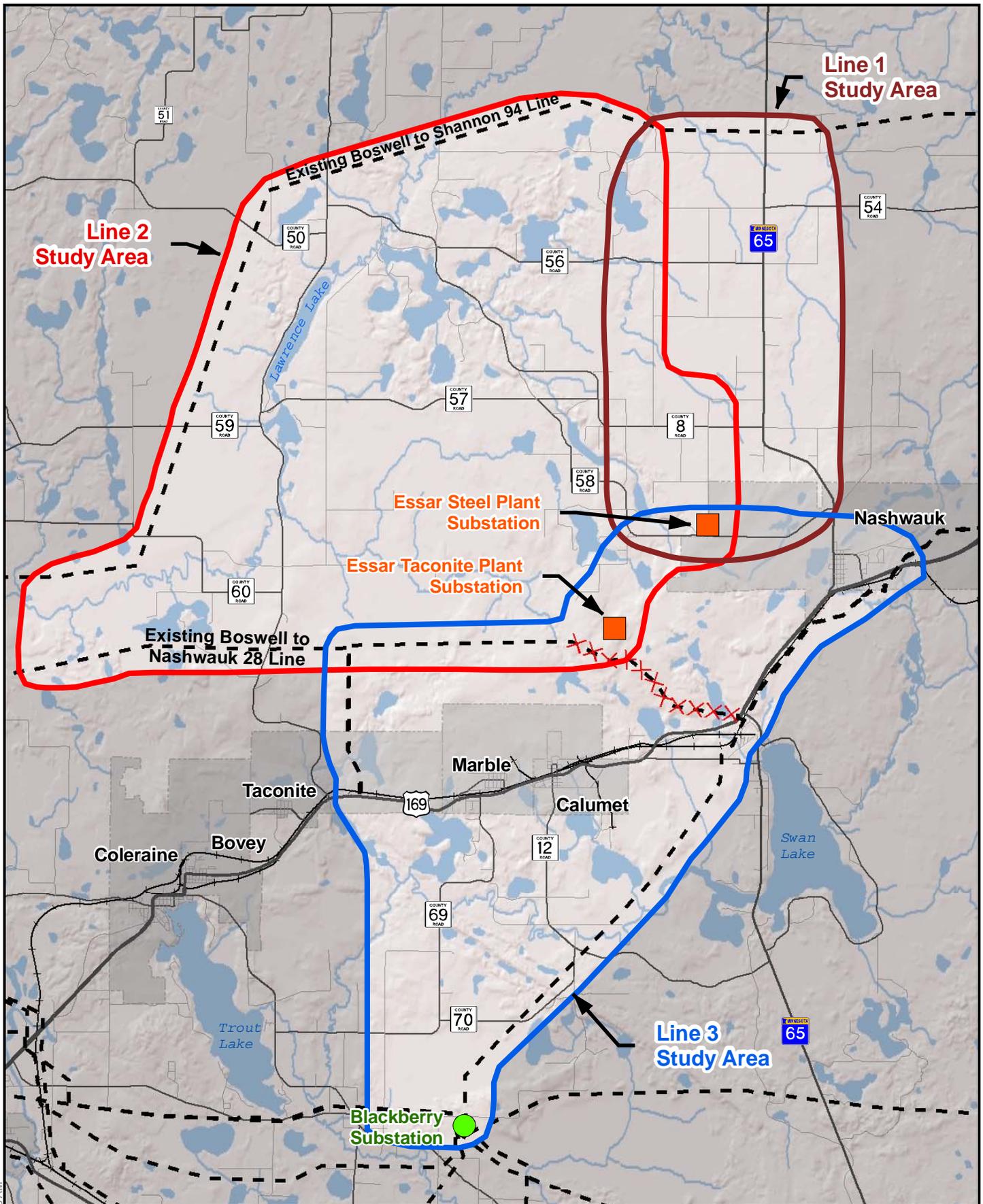
- See maps of the study area and discuss the proposed project with the Applicants
- Understand how the MPUC routing process works
- Provide your suggestions, issues and concerns for the proposed project

COME ANYTIME during the Open House hours and share your insights about this project. The project applicants will be available to listen to your input and answer your questions.

Contacts:

If you would like to know more about the Electric Power Delivery Project or are unable to attend this Open House, please contact: Bob Lindholm (MP) at 218-355-3342, rlindholm@allete.com or Lydia Nelson (HDR Engineering) at 651-278-5909, lydia.nelson@hdrinc.com.

Map Document: (\\M\spe-gis-file\gis\proj\Nashwauk\8143\map_docs\8x11_Public_Notice_Figure.mxd) 01/23/2009 -- 9:31:23 AM



- Existing Substation
- Proposed Substation
- XXX Remove Existing Transmission
- - - Existing Transmission

Figure 1
Project Study Area
0 1 2 Miles

December 22, 2008

Name & Address

Re: Proposed construction of transmission facilities to provide electric power to the Essar Steel Facility currently under construction.

Dear:

On behalf of the Nashwauk Public Utilities Commission (NPUC), Essar Steel Minnesota (Essar) and Minnesota Power (MP), HDR Engineering, Inc. (HDR) is seeking your comments on two High Voltage Transmission Line (HVTL) projects described below.

230 kV Project

NPUC and MP, as co-applicants, will be submitting a route permit application which will include the proposed construction of three 230 kV transmission lines and two 230 kV substations (230 kV Project). This proposal is subject to the Full Permitting Process with the Minnesota Public Utilities Commission (MPUC) under Minn. Rule 7849.5200. Minn. Statutes 116C.57, subd. 2c. requires that an Environmental Impact Statement be prepared prior to the MPUC granting a route permit for the 230 kV Project. The study area for the three 230 kV transmission lines and two substations is identified on the attached project location map and is shown in Table 1.

115 kV Project

NPUC and/or MP will be applying for a route permit application for reroute of a 115 kV HVTL (115 kV Project) under the Local Review process included in Minn. Rules 7849.6200. We are anticipating that the local authority to approve the route application will be the City of Nashwauk. In accordance with the rule, an Environmental Assessment will need to be completed before the Route Permit application can be approved. The 115 kV transmission line study area is identified on the attached project location map and is shown in Table 2.

HDR is currently gathering information for the Applicants as they prepare to apply for the Full Permitting process with the MPUC and the Local Permitting Process. Both of these projects are located in Itasca County in Northern Minnesota. The Applicants and HDR would like you to provide information, issues, concerns, and comments on the proposed study areas for each of the projects.

Table 1. Location of Proposed 230 kV Project.

County	Township Name	Township	Range	Sections
Itasca	NA	55	23	1-9, 17-20
	Trout Lake	55	24	1-2, 11-14, 23-24
	Lone Pine	56	22	5-7, 18
	Greenway	56	23	1-35
	Iron Range	56	24	1-15, 22-26, 35-36
	Arbo	56	25	1-2, 11-12
	Nashwauk	57	22	6-7, 18-19, 30-31
	Nashwauk	57	23	1-2, 5-36
	Lawrence	57	24	1-5, 8-17, 19-36
	Wabana	57	25	35-36
	N/A	58	22	19, 30-31
	Balsam	58	23	23-26, 30-31, 35-36
	Balsam	58	24	25-28, 33-36

Table 2. Location of Proposed 115 kV Project.

County	Township Name	Township	Range	Sections
Itasca	Lone Pine	56	22	4-6
	Greenway	56	23	3-4
	Nashwauk	57	22	30-33
	Nashwauk	57	23	25-27, 34-36

We would appreciate receiving information/comments from you by January 26, 2009. Your information will be used as we compile data for the route applications, including route locations and route alternatives. The Applicants intend to hold a public information meeting in the project area in mid-February 2009.

The Applicants expect to file a route application to the MPUC in June of 2009 and will be seeking on-going feedback from you and your agency as this project proceeds through review. If you require further information or have questions regarding this matter, please do not hesitate to contact Lydia Nelson or Kelly Garvey at 763-591-5400. Thank you for your assistance.

Sincerely,

HDR Engineering, Inc.

A handwritten signature in black ink that reads "Lydia C. Nelson". The signature is written in a cursive style with a long horizontal flourish at the end.

Lydia Nelson
Project Manager

Attachment: Project Study Area

	Agency	First Name	Last Name	Title	Address1	Address2	City	State	Zip	Phone	Fax	email	Notes
Federal	Dept of the Army Corps of Engineers; St. Paul District	Tamara	Cameron	Project Manager Team Leader	190 Fifth St. E		St. Paul	MN	55101-1638	(651) 290-5197		Tamara.J.Cameron@mvp02.usace.army.mil	
	Dept of the Army Corps of Engineers; St. Paul District, Bemidji Regulatory Office	Bill	Baer	Regional Permitting Staff Member	4111 Technology Drive	Suite 295	Bemidji	MN	56601	(218) 444-6381	(218)444-9328	William.A.Baer@mvp02.usace.army.mil	Cass, Hubbard, Itasca
	Federal Aviation Administration	Barry	Cooper	Regional Administrator	O'Hare Lake Office Center	2300 East Devon Avenue	Des Plaines	IL	60018	(847) 294-7294	(847) 294-8490		
	Federal Highway Administration	Robin	Schroeder	Assistant Division Administrator	380 Jackson St.	Gallier Plaza, Suite 500	St. Paul	MN	55101-4802	(651) 291-6105		ROBIN.SCHROEDER@FHWA.DOT.GOV	
	U.S. Environmental Protection Agency	Ken	Westlake	Region V	77 West Jackson Blvd		Chicago	IL	60604			westlake.kenneth@epa.gov	
	US Fish and Wildlife Service - Twin Cities Field	Tony	Sullins	Field Office Supervisor	USFWS	4101 East 80th Street	Bloomington	MN	55425	(612) 725-3548 x201	(612) 725-3609	Tony_Sullins@fws.gov	Laurie Fairchild X 214. Big Stone, Chippewa, Lac
	Mississippi Headwaters Board	Janet	Ekholm	Executive Director	Cass County Courthouse	PO Box 3000	Walker	MN	56484	(218) 547-7263	(218) 547-5376	cass.mhb@co.cass.mn.us	
State	Minnesota Dept of Natural Resources	Perry	Loegering	Area Wildlife Manager-Grand Rapids	1201 E. Hwy 2		Grand Rapids	MN	55744	(218) 999-7940	(218) 327-4263	perry.loegering@dnr.state.mn.us	
	Minnesota Dept of Natural Resources	Maya	Hamady	non-game manager Grand Rapids	1201 E. Hwy 2		Grand Rapids	MN	55744	(218) 327-4267	(218)-999-7915	gaea.crozier@dnr.state.mn.us	
	Minnesota Dept of Natural Resources	Dave	Holmbeck	Environmental Review Staff	1201 E. Hwy 2		Grand Rapids	MN	55744	(218) 999-7805		dave.holmbeck@dnr.state.mn.us	
	Minnesota Dept. of Agriculture	Bob	Patton	Local Govmt Outreach Coordinator	625 Robert Street North		St. Paul	MN	55155	(651) 201-6226		Bob.Patton@state.mn.us	
	Minnesota Dept. of Commerce	Deborah	Pile	Director of Energy Facility Permitting	85 7th Place East	Suite 500	St. Paul	MN	55101-2198			deborah.pile@state.mn.us	
	Minnesota Dept. of Natural Resources	Matt	Langan	Environmental Planner	500 Lafayette Road	Suite 500	St. Paul	MN	56601	(651) 259-5115		matt.langan@dnr.state.mn.us	
	Minnesota Dept. of Transportation (Aeronautics)	Dick	Thiesen	Environmental Cordination	Office of Aeronautics	222 E. Plato Boulevard	St. Paul	MN	55107-1618	651-234-7192			
	Minnesota Public Utilities Commission	Bob	Cupit	Manager, Energy Facility Permitting	121 7th Place East	Suite 350	St. Paul	MN	55101-2147	(651) 201-2255		bob.cupit@state.mn.us	
	Minnesota Public Utilities Commission	Janet	Gonzalez	Energy Manager	121 7th Place East	Suite 350	St. Paul	MN	55101-2147	(651) 201-2231	(651)297-7073	janet.gonzalez@state.mn.us	
	Minnesota State Farm Service Agency	Perry	Aasness	Executive Director	375 Jackson Street	Suite 400	St. Paul	MN	55101	(651) 602-7700	(651) 602-7744		
	Minnesota State Historic Preservation Office	Dennis	Gimmestad	Government Programs & Compliance Officer	345 Kellogg Blvd West		St. Paul	MN	55102			dennis.gimmestad@mnhs.org	
	MN Dept. of Natural Resources Natural Heritage & Nongame Research Program	Lisa	Joyal		500 Lafayette Road	Box 25	St. Paul	MN	55155	(651) 296-7863	(651) 296-1811	sarah.wren@dnr.state.mn.us	
	MN Dept. of Transportation - District 1	Mike	Robinson	District Engineer	1123 Mesaba Avenue		Duluth	MN	55811	(218) 725-2704	(218) 725-2800	mike.robinson@dot.state.mn.us	
	Natural Resource Conservation Service	Bill	Lorenzen	Biologist	375 Jackson Street	Suite 600	St. Paul	MN	55101	(651) 602-7883		bill.lorenzen@mn.usda.gov	
Itasca County	Itasca County	Amanda	Schultz	Deputy Clerk of the Itasca County Board	123 NE 4th St.		Grand Rapids	MN	55744	(218) 327-2847	(218) 327-2848	amanda.schultz@co.itasca.mn.us	Cell phone: (218) 244-1049
	Itasca County Zoning Department	Dan	Hahn	Zoning Technician	123 NE 4th St.		Grand Rapids	MN	55744	(218) 327-2857	(218) 327-7331		
	Itasca County Highway Department	Dave	Christy	County Highway Engineer	123 NE 4th St.		Grand Rapids	MN	55744	(218) 327-2853	(218) 327-0688	dave.christy@co.itasca.mn.us	
	Itasca County SWCD	Jim	Gustafson	District Manager	1889 East Highway 2		Grand Rapids	MN	55744	218-326-0017	218-326-8938	jim.gustafson@mn.nacdnet.net	
Municipal	City of Coleraine	Sandy	Bluntach	Clerk	PO Box 670		Coleraine	MN	55722	(218) 245-2112			
	City of Bovey	Tiffany	Johnson	Clerk	PO Box 399		Bovey	MN	55709-0399	(218) 245-1633			
	City of Taconite	Mike	Troubly	Clerk	PO Box 142		Taconite	MN	55786-0137	(218) 245-1831			
	City of Marble	Randi Rollins	Jurganson	Clerk	PO Box 264		Marble	MN	55764	(218) 247-0180			
	City of Calumnet	April	Serich	Clerk	PO Box 154		Calumet	MN	55716	(218) 247-7187			
	City of Keewatin	Julie	Bardine	Clerk	PO Box 190		Keewatin	MN	55723	(218) 778-6517			
	Trout Lake Township	Jeanne	Newstrom	Clerk	24951 Co Rd 10		Bovey	MN	55709	(218) 245 1100			
	Lone Pine Township	Karen	Strege	Clerk	29215 Kaleva Beach Rd		Penngilly	MN	55775	(218) 885-2310			
	Greenway Township	Jay	Kolar	Clerk	Box 173		Marble	MN	55764	(218) 247-7318			
	Iron Range Township	Pat	Fillbrandt	Clerk	32423 Scenic Hwy		Bovey	MN	55709	(218) 245-2346			
	Lawrence Township	Catherine	Castle	Clerk	35201 Scenic Hwy		Bovey	MN	55709	(218) 245-1531			
	Balsam Township	Sue	Stish	Clerk	42852 Scenic Highway		Bovey	MN	55709	(218) 245-1549			
	Naskwauk Township	Warren	Stolp	Chairman	131 4th Street		Nashwauk	MN	55769	(218) 885-1042			
Great River Energy (GRE)	Carole	Schmidt	Supervisor, Transmission Permitting	12300 Elm Creek Boulevard		Maple Grove	MN	55369					
Arrowhead Regional Development Commission	Catherine	McLynn	Itasca County Commission			Grand Rapis	MN	55744					

Source:
Date: December 2008



DEPARTMENT OF THE ARMY
ST. PAUL DISTRICT, CORPS OF ENGINEERS
SIBLEY SQUARE AT MEARS PARK
190 FIFTH STREET EAST, SUITE 401
ST. PAUL MINNESOTA 55101-1638

RECEIVED

JAN 22 2009

HDR Engineering, Inc.

January 20, 2009

REPLY TO
ATTENTION

Operations
Regulatory (2009-00043-WAB)

Ms. Lydia Nelson
HDR Engineering, Inc.
701 Xenia Avenue South
Minneapolis, Minnesota 55416-3636

Dear Ms. Nelson:

We have received a letter from you dated December 22, 2008 concerning a proposal by the Nashwauk Public Utilities Commission and Minnesota Power to reroute a 115 kV high voltage transmission line (115 kV project), and construct three 230 kV transmission lines and two 230 kV substations (230 kV project) near Nashwauk, Minnesota. The project will provide electrical power to the Essar Steel Facility currently under construction. Due to the very general nature of the information provided to us, and the limited number of staff, the U.S. Army Corps of Engineers Regulatory Program will not be able to offer a specific response to your proposal. In lieu of a specific response, please consider the following general information concerning our regulatory program that may apply to the proposed project.

If the proposal involves activity in navigable waters of the United States, it may be subject to the Corps of Engineers' jurisdiction under Section 10 of the Rivers and Harbors Act of 1899 (Section 10). Section 10 prohibits the construction, excavation, or deposition of materials in, over, or under navigable waters of the United States, or any work that would affect the course, location, condition, or capacity of those waters, unless the work has been authorized by a Department of the Army permit.

If the proposal involves deposition of dredged or fill material into waters of the United States, including discharges associated with mechanical land clearing, it may be subject to the Corps of Engineers' jurisdiction under Section 404 of the Clean Water Act (CWA Section 404). Waters of the United States include navigable waters, their tributaries, and adjacent wetlands (33 CFR § 328.3). CWA Section 301(a) prohibits discharges of dredged or fill material into waters of the United States, unless the work has been authorized by a Department of the Army permit under Section 404. Information about the Corps permitting process can be obtained online at <http://www.mvp.usace.army.mil/regulatory>.

The Corps' evaluation of a Section 10 and/or a Section 404 permit application involves multiple analyses, including (1) evaluating the proposal's impacts in accordance with the National Environmental Policy Act (NEPA) (33 CFR part 325), (2) determining whether the proposal is contrary to the public interest (33 CFR § 320.4), and (3) in the case of a Section 404

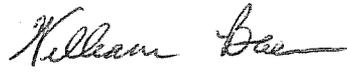
permit, determining whether the proposal complies with the Section 404(b)(1) Guidelines (Guidelines) (40 CFR part 230).

If the project requires a Section 404 permit, the 404(b)(1) Guidelines require that a discharge can not be permitted if there is a practicable alternative with less adverse impact on the aquatic environment, unless the alternative has other significant adverse effects on the natural environment (40 CFR § 230.10(a)). In addition, no discharge can be permitted under the Guidelines if it would, individually or cumulatively, cause or contribute to significant degradation of waters of the United States, or violate other applicable laws, such as State water quality standards, toxic effluent standards, or the Endangered Species Act. The 404(b)(1) Guidelines also prohibit discharges in wetlands unless appropriate and practicable steps have been taken which will minimize potential adverse impacts of the discharge on the aquatic ecosystem. Time and money spent on a proposal prior to applying for a Section 404 permit cannot be factored into the Corps' decision whether there is a less damaging practicable alternative to the proposal.

A project proposer may request a pre-application consultation meeting with the Corps to obtain information regarding the data, studies or other information that will be necessary for the permit evaluation process. A pre-application consultation meeting is strongly recommended if a proposal has substantial impacts to waters of the United States, or if it is a large or controversial project.

For further information or to request a pre-application consultation meeting, please contact Bill Baer at 218-444-6381, the Corps' project manager for Itasca County in which this proposal is located.

Sincerely,


for Robert J. Whiting
Chief, Regulatory Branch

Cf: Matt Johnson, Itasca County SWCD



Natural Resources Conservation Service
375 Jackson Street, Suite 600
St. Paul, MN 55101-1854

Phone: (651) 602-7900
FAX: (651) 602-7914

JAN 14 2009

HDR Engineering, Inc.

File Code: 190-15-13

January 12, 2009

Re: Proposed construction of transmission facilities to provide electric power to the Essar Steel Facility currently under construction, Nashwauk, MN.

Lydia Nelson, Project Manager
HDR Engineering, Inc.
701 Xenia Avenue South, Ste. 600
Minneapolis, MN 55416-3636

Dear Ms. Nelson:

I'm pleased that our agency had the opportunity to review the subject project. NRCS appreciates the opportunity to have discussed this subject project with all you.

However, since no federal sponsoring agency is involved, and neither federal financial nor technical assistance will be involved in the implementation of this project, the Federal Farmland Policy Protection Act (FPPA) assessment will not apply. Therefore, FPPA review and compliance will not be required because the project is exempt from federal review by NRCS.

Sincerely,

A handwritten signature in black ink, appearing to read "William E. Lorenzen".

WILLIAM E. LORENZEN
Environmental Review/Justice Coordinator

RECEIVED

JAN 22 2009

 Minnesota
Historical Society
STATE HISTORIC PRESERVATION OFFICE

HDR Engineering, Inc.

January 21, 2009

Lydia Nelson
HDR Engineering, Inc.
701 Xenia Avenue South, Suite 600
Minneapolis, MN 55416

RE: Construction of High Voltage Transmission Lines to Essar Steel Facility
Itasca County
SHPO Number: 2009-0739

Dear Ms. Nelson:

Thank you for the opportunity to review and comment on the above project. It has been reviewed pursuant to the responsibilities given the Minnesota Historical Society by the Minnesota Historic Sites Act and the Minnesota Field Archaeology Act.

Due to the nature of the proposed project, we recommend that an archaeological survey be completed. The survey must meet the requirements of the Secretary of the Interior's Standards for Identification and Evaluation, and should include an evaluation of National Register eligibility for any properties that are identified. For your information, we have enclosed a list of consultants who have expressed an interest in undertaking such surveys.

If the project area can be documented as previously disturbed or previously surveyed, we will re-evaluate the need for survey. Previously disturbed areas are those where the naturally occurring post-glacial soils and sediments have been recently removed. Any previous survey work must meet contemporary standards.

Please note that this comment letter does not address the requirements of Section 106 of the National Historic Preservation Act of 1966 and 36CFR800, procedures of the Advisory Council on Historic Preservation for the protection of historic properties. If this project is considered for federal assistance, or requires a federal license or permit, it should be submitted to our office with reference to the appropriate federal agency.

If you have any questions on our review of this project, please contact me at (651) 259-3456.

Sincerely,



Dennis A. Gimmestad
Government Programs and Compliance Officer

Enclosure: List of Consultants



Minnesota Department of Transportation

Office of Aeronautics
Mail Stop 410
222 East Plato Boulevard
St. Paul, MN 55107-1618

Phone: 651/234-7200
Fax: 651/234-7261

RECEIVED
DEC 31 2008
HDR Engineering, Inc.

December 29, 2008

Lydia Nelson
HDR Engineering, Inc.
701 Xenia Avenue South
Minneapolis, MN 55416-3636

Dear Ms. Nelson:

Thank you for your letter to Dick Thiesen dated December 22, 2008 requesting comments to the proposed construction of transmission facilities to provide electric power to the Essar Steel Facility.

We have reviewed the proposed projects and determined that the transmission lines have no substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or to public airports and licensed private use airports in the surrounding area.

We appreciate your cooperation with this office by providing advance notice of future construction and alteration projects.

Sincerely,

A handwritten signature in cursive script that reads 'Darlene Dahlseide'.

Darlene Dahlseide
Aviation Representative

Cc: Dick Thiesen

Lujdia .

1-9-09

Mn/DOT's general HVTL
placement guidelines
for your information &
records.

* In reference to the
NPUC 230 KV (w/ Essar
Steel & MN Power)



Minnesota Department of Transportation

Office of Technical Support
Utility Permits and Agreements Unit
Mailstop 678
395 John Ireland Blvd
St. Paul, MN 55155

Telephone: 651-366-4635
Fax: 651-366-4667

January 14, 2008

This letter is intended to provide guidelines for transmission line routing on or near Minnesota trunk highways. Please consider these factors when reviewing and planning new lines.

Clearance for existing structures

For all appurtenances within the right of way such as light standards, type-A traffic signs, Road Weather Information Systems (RWIS) stations, etc., Mn/DOT will require a minimum vertical access zone of 10 feet plus an OSHA safety zone of 25 feet to allow for overhead maintenance of these structures. This 35 foot minimum vertical clearance is needed to accommodate boomed equipment.

Clear zone Requirements

Clear zone requirements must be met for any structure on Mn/DOT right of way.

Interchanges and separated grade crossings

Interchange areas are particularly important to keep clear of utilities due to bridge maintenance and construction requirements, increased presence of highway facilities, and traffic considerations. At ramped interchanges lateral crossings will be allowed at a minimum distance of 50 feet outside the interchange ramps. At interchanges with bridges over the highway, a safe distance for possible reconstruction or maintenance would need to be determined on a bridge by bridge basis. When bridges run parallel with the road, a minimum distance of 50 feet from the structures is required.

Conductor Movement Envelope a.k.a. "blow out" zone or area of influence

(The area that is affected by the sway of the line under wind and heat conditions)

Mn/DOT would prefer to keep all lines far enough from the right of way that this has no influence on the highway.

Crossings

As a general rule crossings are allowed. Mn/DOT prefers that they are perpendicular to the roadway.

Vegetation

Anywhere inside the right of way, whether vegetation exists or not, as a minimum requirement, vegetation must be allowed to attain a minimum height of 35 feet. A vegetation management plan must be worked out with each District.

Safety rest areas

Mn/DOT will not permit the physical location of utility lines or structures to encroach. The vegetation requirements remain in force at rest areas and may be of a more strict nature for aesthetic reasons.

Additional Factors

A Utility Permit from Mn/DOT is required for any line that would affect Mn/DOT right of way.

General placement for aerial lines is within the outer 5 feet of trunk highway right of way.

By Policy any utility placed within Mn/DOT trunk highway right of way by permit would be required to relocate at the owner's expense if future highway construction necessitated.

The entire Mn/DOT Utility Accommodation Policy is available at www.dot.state.mn.us/utility/files/pdf/appendix-b.pdf and needs to be adhered too.

For lines around rest areas contact the Safety Rest Area Program Manager at 651-366-4702.

For issues involving airports and their height clearances and restrictions contact Rick Braunig at 651-234-7230 or email at rick.braunig@dot.state.mn.us.

Mn/DOT's main contact for Transmission Line Route Coordination is Stacy Kotch. I can be reached at 651-366-4635 or by email at Stacy.Kotch@dot.state.mn.us.

Mn/DOT District contacts are:

District 1

WAYNE SCHEER (218) 725-2780

District 2A

STEPHEN FRISCO (218) 755-6553

District 2B

EARL HILL (218) 277-7964

District 3

TERRY HUMBERT (320) 223-6527

CLAUDIA DUMONT (320) 223-6530

District 4

JIM UTECHT (218) 846-7949

JODY MARTINSON (218) 846-7964

District 6

CHRIS MOATES (507) 286-7594

PETER WASKIW (507) 286-7680

District 7

JIM FOX (507) 831-8012

RICHARD "KENT" PURRIER (507) 304-6151

District 8

GERI VICK (320) 214-6364

JARRETT HUBBARD (320) 214-6362

METRO

CURT FAKLER (651) 582-1382

Sincerely,

A handwritten signature in black ink, appearing to read "Stacy M. Kotch". The signature is fluid and cursive, with a large initial "S" and "K".

Stacy Kotch

Utility Transmission Line Coordinator



Minnesota Department of Natural Resources

Division of Ecological Resources, Box 25

500 Lafayette Road

St. Paul, Minnesota 55155-4025

Phone: (651) 259-5109 Fax: (651) 296-1811 E-mail: lisa.joyal@dnr.state.mn.us

April 15, 2009

Correspondence# ERDB 20090731

Kelly Garvey
HDR Engineering, Inc.
701 Xenia Avenue South, Suite 600
Minneapolis, MN 55416

RE: Natural Heritage information in the vicinity of the proposed Nashwauk Public Utilities Commission – Three 230 kV Transmission Lines, Itasca County

Dear Ms. Garvey,

As requested, the Minnesota Natural Heritage Information System has been queried to determine if any rare species or other significant natural features are known to occur within an approximate one-mile radius of the proposed project. Based on this query, several rare features have been documented within the search area (for details, see the enclosed database reports; please visit the DNR Rare Species Guide at <http://www.dnr.state.mn.us/rsg/index.html> for more information on the biology, habitat use, and conservation measures of these rare species). Please note that the following **rare features may be impacted** by the proposed project:

- A bald eagle (*Haliaeetus leucocephalus*) nesting area has been documented south of Upper Panaca Lake in T56N R23W Section 28. Eagles often build several nests in a territory and use different nests in different years, so the potential exists for eagles to use these nests again in the future. Bald eagles are a state-listed species of special concern, and they are federally protected under the Migratory Bird Treaty Act and under the Bald and Golden Eagle Protection Act. Both acts prohibit killing, selling, or otherwise harming eagles, their nests or eggs. For assistance in determining whether an activity may disturb nesting bald eagles, please refer to the following USFWS website: <http://www.fws.gov/midwest/eagle/guidelines/index.html>.
- Several mussel species, including state-listed species of special concern, have been documented in the rivers and creeks within the area of interest. As mussels are particularly vulnerable to deterioration in water quality, especially increased siltation, it is important that effective erosion and sediment control practices be implemented and maintained near these waterways. In addition, **please contact me if any riverbeds will be disturbed by the proposed utility construction, as a mussel survey may be required**. We will need to discuss potential surveyors, survey protocol, and other requirements before any survey work is initiated.
- Several rare plants have been identified within the area of interest. Every effort should be made to avoid known locations of these plants, as provided to HDR under License Agreement #488. **Please contact me if avoidance of the known location of any threatened or endangered species is not feasible**. Minnesota's endangered species law (*Minnesota Statutes*, section 84.0895) and associated rules (*Minnesota Rules*, part 6212.1800 to 6212.2300 and 6134) prohibit the taking of threatened or endangered species without a permit.
- State-listed threatened and endangered plants documented in the area include blunt-lobed grapefern (*Botrychium oneidense*), pale moonwort (*B. pallidum*), St. Lawrence grapefern (*B. rugulosum*), and turbercled rein-orchid (*Platanthera flave* var. *herbiola*). Although many of these records are associated

with mine tailings, these species have the potential to occur in other suitable habitat within the project boundaries. **Please contact me when more definitive alignments have been selected, as botanical surveys may be required.** We will need to discuss potential contractors, survey protocol, and other requirements before any survey work is initiated.

- Forest stands designated as old growth, defined as stands containing trees more than 120 years in age, have been documented in T57N R25W Section 36 and T57N R24W Sections 28 & 31 (please see attached map). A century and a half ago, Minnesota had 13.9 million acres of old growth forest. Currently, less than 610,000 acres remain, representing a loss of 96-99%. Given the rarity of these features, we recommend that disturbance to the old growth stands be avoided.
- The above information, along with any proposed avoidance or mitigation measures, should be addressed in the PUC route permit application.

The Natural Heritage Information System (NHIS), a collection of databases that contains information about Minnesota's rare natural features, is maintained by the Division of Ecological Resources, Department of Natural Resources. The NHIS is continually updated as new information becomes available, and is the most complete source of data on Minnesota's rare or otherwise significant species, native plant communities, and other natural features. However, the NHIS is not an exhaustive inventory and thus does not represent all of the occurrences of rare features within the state. Therefore, ecologically significant features for which we have no records may exist within the project area.

The enclosed results include an Index Report and a Detailed Report of records in the Rare Features Database, the main database of the NHIS. To control the release of specific location information, which might result in the destruction of a rare feature, both reports are copyrighted.

The Index Report provides rare feature locations only to the nearest section, and may be reprinted, unaltered, in an environmental review document (e.g., EAW or EIS), municipal natural resource plan, or report compiled by your company for the project listed above. If you wish to reproduce the index report for any other purpose, please contact me to request written permission. **The Detailed Report is for your personal use only as it may include specific location information that is considered nonpublic data under *Minnesota Statutes*, section 84.0872, subd. 2. If you wish to reprint or publish the Detailed Report for any purpose, please contact me to request written permission.**

This letter does not constitute review or approval by the Department of Natural Resources as a whole. Instead, it identifies issues regarding known occurrences of rare features and potential effects to these rare features. Additional rare features for which we have no data may be present in the project area, or there may be other natural resource concerns associated with the proposed project. For these concerns, please contact your DNR Regional Environmental Assessment Ecologist, Rian Reed at 218-999-7826. Please be aware that additional site assessments or review may be required.

Thank you for consulting us on this matter, and for your interest in preserving Minnesota's rare natural resources. An invoice will be mailed to you under separate cover.

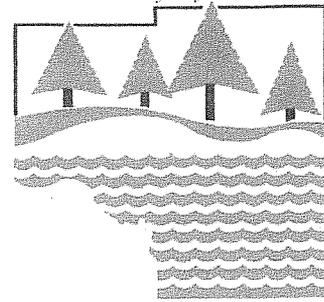
Sincerely,



Lisa Joyal
Endangered Species Environmental Review Coordinator

enc. Rare Features Database: Index Report
Rare Features Database: Detail Report
Rare Features Database Reports: An Explanation of Fields
Map

cc: Rian Reed
Matt Langan



ITASCA COUNTY
Department of Surveying and Mapping
123 NE 4th Street Room 156
Grand Rapids, MN 55744-2600
Hours: Monday thru Friday 8:00AM to 4:30PM
Telephone: 218-327-2854 Fax: 218-327-2895
Website: www.co.itasca.mn.us

November 12th, 2008

TO: Chuck Michael
Utility Management Corporation
16612 Saddle Horn Court
Eden Prairie, MN 55347

RE: Knowledge of Burial Site; Little Sucker Lake Are, Section 34 Township 57 North,
Range 23 West of the 4th PM.

Dear Mr. Michael,

On May 22nd 2008, Deputy County Surveyor Guy Carlson was recovering Bench Marks in Township 57 North, Range 23 West along County Highway 58 in Itasca County. He had a short conversation with Mr. Roy Belanger, 18499 Sucker Lake Road, Naswauk, MN, 55769. Mr. Belanger informed Deputy County Surveyor Carlson of having personal knowledge of the location of two Native American burial sites that were shown to him by his father some years back in the Little Sucker Lake area. I tried to contact Mr. Belanger at 218-885-2007 a number of times and was not successful. I write this note to inform you of what knowledge we have in hope that the protection of the burial sites are insured and that the gas line serving the Minnesota Steel project proceeds.

I would hope that you contact Mr. Belanger concerning your construction project. Minnesota Statute 307.08 DAMAGES; ILLEGAL MOLESTATION OF HUMAN REMAINS; BURIAL; CEMETERIES; PENALTY is the statue that covers burial sites.

Thank You,

A handwritten signature in black ink, appearing to read 'Timothy J. Wotzka', written over a horizontal line.

Timothy J. Wotzka
Itasca County Surveyor

CC: Guy Carlson, Deputy County Surveyor
Roy Belanger, 18499 Sucker Lake Road, Naswauk MN 55769

Appendix H

References

REFERENCES**Text References**

- Avian Power Line Interaction Committee (APLIC). 1994. *Migrating Bird Collisions with Power Lines: The State of the Art in 1994*. Edison Electric Institute. Washington, D.C.
- Avian Power Line Interaction Committee (APLIC). 2006. *Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006*. Edison Electric Institute, APLIC, and the California Energy Commission. Washington, D.C and Sacramento, CA.
- Essar Steel. *Essar lays foundation of first steel facility in Iron Range*.
http://www.essarsteel.com/steel/pr/2008_09_19.htm. Accessed January 2009.
- Environmental Protection Agency. 1992. *EMF in Your Environment: Magnetic Field Measurements of Everyday Electrical Devices*. U.S. Environmental Protection Agency, Office of Radiation and Indoor Air, 402-R-92-008, December, 1992. Washington, D.C.: Environmental Protection Agency.
- Itasca County Zoning Ordinance. 2009.
<http://www.co.itasca.mn.us/Zoning/Zoning%20Ordinance.pdf> Accessed March 2009.
- Itasca County Environmental Services Department. *Official Zoning District Map of Itasca County*. Received from Don Dewey, Itasca County Environmental Services Administrator, March 26, 2009.
- Minnesota Department of Natural Resources. 2000. *Minnesota's watershed basins*.
<http://www.dnr.state.mn.us/watersheds/map.html>. Accessed April, 2009.
- Minnesota Department of Natural Resources. 2003. *Field Guide to the Native Plant Communities of Minnesota. The Laurentian Mixed Forest Province*.
- Minnesota Department of Natural Resources, 2006. *Tomorrow's Habitat for the Wild and Rare: An Action Plan for Minnesota Wildlife, Comprehensive Wildlife Conservation Strategy*. Division of Ecological Services, Minnesota Department of Natural Resources.
- Minnesota Department of Natural Resources and US Army Corps of Engineers, 2007. *Minnesota Steel Project Final Environmental Impact Statement*, June 2007.
- Minnesota Department of Natural Resources. 2008. *Public Waters Inventory (PWI) Watercourse Delineations*. <http://deli.dnr.state.mn.us>. Accessed April, 2009.
- Minnesota Department of Natural Resources. 2009a. *Ecological Classification System – Nashwauk Uplands Subsection*. <http://www.dnr.state.mn.us/ecs/212Lc/index.html>. Accessed January 2009

- Minnesota Department of Natural Resources. 2009b. *Ecological Classification System – St. Louis Moraines Subsection*. <http://www.dnr.state.mn.us/ecs/212Nb/index.html>. Accessed January 2009.
- Minnesota Department of Natural Resources. 2009c. *The Minnesota Department of Natural Resources Web Site (online). Park Info: Hill Annex Mine State Park* http://www.dnr.state.mn.us/state_parks/hill_annex_mine/narrative.html Accessed January 2009.
- Minnesota Pollution Control Agency, 2008. *A Guide to Noise Control in Minnesota: Acoustical Properties, Measurement, Analysis, Regulation*. <http://www.pca.state.mn.us/publications/p-gen6-01.pdf> Accessed April, 2009.
- Minnesota Pollution Control Agency, 2009. *Minnesota's Impaired Waters and Total Maximum Daily Loads*. <http://www.pca.state.mn.us/water/tmdl/>. Accessed January, 2009.
- Minnesota Steel Industries, LLC. 2007. *2007 Canada Lynx Assessment: Final Report*. Prepared by ENSR Corporation Document No. 00738-001-120. http://files.dnr.state.mn.us/input/environmentalreview/minnsteel/feis/appendix_d.pdf Accessed March, 2009.
- Minnesota Steel Incorporated, LLC. *Steel Mill and Taconite Mine Project: Record of Decision. August 10, 2007*. <http://www.dnr.state.mn.us/input/environmentalreview/minnsteel/index.html> Accessed April, 2009.
- National Institute of Environmental Health Services (NIEHS), 1992. *NIEHS Report on Health Effects from Exposure to Power-Line Frequency Electric and Magnetic Fields*. Prepared by NIEHS EMF-RAPID Staff in Response to the 1992 Energy Policy Act (PL 102-486, Section 2218). NIH Publication No. 99-4493.
- National Institute of Environmental Health Sciences EMF-RAPID Program Staff, 1999. *NIEHS Report on Health Effects from Exposure to Power Line Frequency Electric and Magnetic Fields*. Research Triangle Park, NC.
- US Department of Agriculture. 2008. *2008 Minnesota Agricultural Statistics*. http://www.nass.usda.gov/Statistics_by_State/Minnesota/Publications/Annual_Statistical_Bulletin/agstatbk2008/agstat08.htm. Accessed January, 2009.
- United States Department of Agriculture. *Minnesota 2007 Agricultural Statistics*. 2007. http://www.nass.usda.gov/Statistics_by_State/Minnesota/Publications/Annual_Statistical_Bulletin/agstatbk2007/agstat07.htm Retrieved January, 2009.
- United States Department of Agriculture. 2008. *National Agricultural Statistics Service*. <http://www.nass.usda.gov/> Accessed January, 2009.
- University of Minnesota, 2007. *Electromagnetic Compatibility of Active Implantable Medical Devices (AIMD) and Their Interaction with High Voltage Power Lines*. Minnesota Power Systems Conference Proceeding.

Figure and Map References

Aerial Photography. USDA Farm Service Agency (FSA) National Agriculture Imagery Program (NAIP), Minnesota. 2006. (http://www.lmic.state.mn.us/chouse/airphoto_usda.html)

Aviation Facilities. Bureau of Transportation and Safety. 2007.
(http://www.bts.gov/publications/national_transportation_atlas_database/2007/)

County Boundaries. Minnesota Department of Natural Resources. (<http://deli.dnr.stat.mn.us/>)

Cultural Resource Data, Archaeological and Historic Structures. Minnesota State Historical Preservation Office Database. 2009.

Ecological Classification System. Minnesota Department of Natural Resources. 1999.
(<http://deli.dnr.stat.mn.us/>)

Electric Substations. Land Management Information Center. 2008.
(http://www.lmic.state.mn.us/chouse/metadata/elec_trans07.html).

FCC Telecom Towers. Federal Communications Commission Licensing Database Extracts, Communication Towers. 2009.
(http://wireless.fcc.gov/geographic/index.htm?job=licensing_database_extracts)

Flood Plains. United States Federal Emergency Management Agency ("FEMA"). 1986. Digital Flood Insurance Rate Maps, Minnesota.
(<http://msc.fema.gov/webapp/wcs/stores/servlet/StoreCatalogDisplay?storeId=10001&catalogId=10001&langId=-1&userType=G>)

Gap Analysis Program Data. U.S. Geological Survey Gap Analysis Program.
(<http://deli.dnr.stat.mn.us/>)

Impaired Waters. Minnesota Pollution Control Agency, 2009. Inventory of Impaired Waters. 2009.
(<http://www.pca.state.mn.us/water/tmdl/tmdl-maps.html>).

Itasca County Parcel Data. October, 2000.

Lakes. Minnesota Department of Natural Resources, 24K and 100K Lakes.
(<http://deli.dnr.stat.mn.us/>)

Mesabi Minelands. Minnesota Department of Natural Resources Division of Lands and Minerals. 2007.

Minnesota State Parks. Minnesota Department of Natural Resources. 2007
(<http://deli.dnr.state.mn.us/>).

Municipalities. 2008. Minnesota Department of Transportation.

National Wetlands Inventory. United States Fish and Wildlife Service. National Wetlands Inventory Polygon. 2007. (<http://www.fws.gov/wetlands/data/DataDownload.html>).

National Wildlife Refuge. United States Fish and Wildlife Service.

Rare and Natural Features. Minnesota Department of Natural Resources, The Natural Heritage and Nongame Research Program. Natural Heritage Information System. 2008. (<http://www.dnr.state.mn.us/ecs/index.html>).

Occupied Residences. Based upon HDR fieldwork, Aerials and Public Comments. 2008-2009.

Pipelines. Land Management Information Center and Minnesota Public Utilities Commission. 1996-2008.

Public Waters Inventory. Minnesota Department of Natural Resources. 2008. (<http://deli.dnr.stat.mn.us/>)

Railroads. Minnesota Department of Transportation. (<http://deli.dnr.stat.mn.us/>)

Roads. Minnesota Department of Transportation. (<http://deli.dnr.stat.mn.us/>)

Scientific and Natural Areas. 2007. Minnesota Department of Natural Resources. (<http://deli.dnr.stat.mn.us/>.)

Streams. Minnesota Department of Natural Resources, 24K and 100K Streams. (<http://deli.dnr.stat.mn.us/>)

Trails, State. Minnesota Department of Natural Resources. (<http://deli.dnr.stat.mn.us/>.)

Trails, Snowmobile. Minnesota Department of Natural Resources. 2006-2007. (<http://deli.dnr.stat.mn.us/>)

Trout Streams. Minnesota Department of Natural Resources, Legally Designated Trout Streams. (<http://deli.dnr.stat.mn.us/>)

Wild and Scenic Rivers. Created based upon Minnesota Department of Natural Resources, Wild & Scenic Rivers Program. 2008. (http://www.dnr.state.mn.us/waters/watermgmt_section/wild_scenic/index.html).

Water Access Points. Minnesota Department of Natural Resources. (<http://deli.dnr.stat.mn.us/>)

Waterfowl Production Areas. 2007. United States Fish and Wildlife Service.

Wildlife Management Areas. Minnesota Department of Natural Resources. 2008. <http://deli.dnr.stat.mn.us/>.