West Roxbury-Needham 115-kV Transmission Line Project Town of Needham Pre-construction Magnetic Field (MF) Measurements

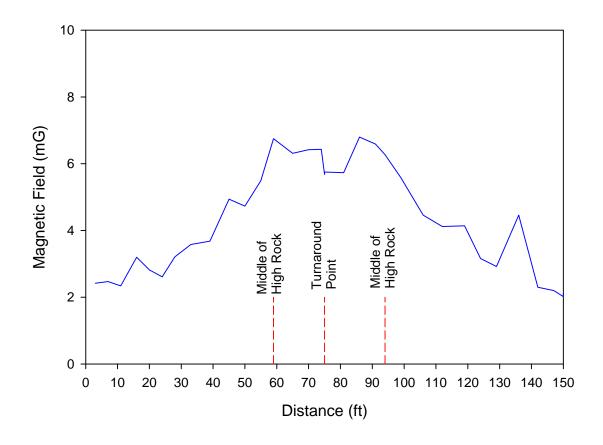
- MF measurements were made on August 7, 2018, for 7 transects per the July 25, 2018, West Roxbury to Needham 115-kV Line Project Magnetic Field Measurement Plan.
 - o The resultant MF (B-resultant) was measured with an EMDEX II at a height of approximately one meter above the ground surface.
 - o The LINear Data Acquisition ("LINDA") Wheel accessory was used to log distance.
 - o Temperatures were approximately 91-92 degrees Fahrenheit at the times the measurements were made (approximately 11:05 AM to 1:10 PM).
 - o For the six transects that were made across roads perpendicular to the project underground transmission line route (Locations #1 to #6; see Table below), measurements were made walking across the road and then back, with the turnaround point consisting of the road edge. Measurements were made on public spaces and ways, and not on private property outside the roadway.
 - The 7th transect consisted of the route from the intersection of High Rock Street and the existing overhead transmission right-of-way to the end of Valley Road near where the line will transition to overhead construction. The measurement path followed along sidewalks and on the shoulder of roads on the side of the road with overhead distribution lines (when the distribution lines shifted from one side of the street to the other side, we crossed the road to continue following them).

MF Measurement Transects Perpendicular to the West Roxbury to Needham 115-kV Line Project Route

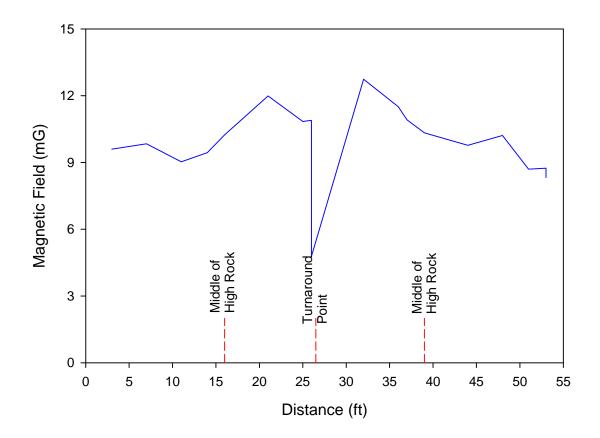
Site	Municipality	P&P Sheet #	Configuration	Location
1	Needham	5	Inverted Delta	High Rock/Richardson
2	Needham	9	Splice Vault	84 High Rock St
3	Needham	14	Inverted Delta	South St/Canterbury Ln
4	Needham	18	Horizontal	300 South St (Culvert)
5	Needham	23	Splice Vault	130 South St
6	Needham	32	Inverted Delta	43 Valley Rd

Location # 1	High Rock/Richardson	Measurement	8/7/18 11:05 AM
		Date/Time	
Ambient Temperature	91	115-kV Line Current	N/A
(°F)		(amps/φ)	
Notes: Walked from stone planter on sidewalk on Richardson St. across High Rock Street and			

Notes: Walked from stone planter on sidewalk on Richardson St. across High Rock Street and back.

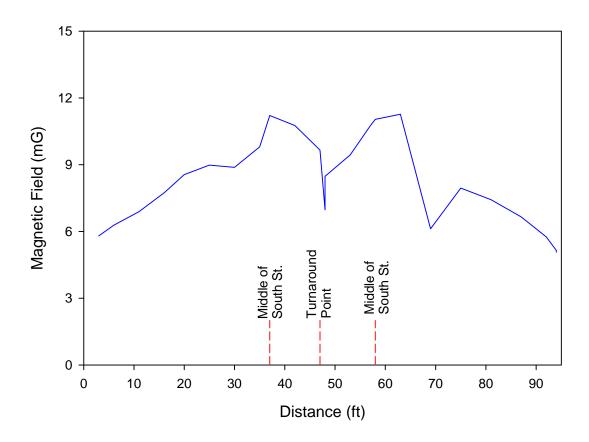


Location # 2	84 High Rock St.	Measurement	8/7/18 11:12 AM
	_	Date/Time	
Ambient Temperature	91	115-kV Line Current	N/A
(°F)		(amps/φ)	
Notes: Started at driveway to 84 High Rock, walked across High Rock and back			

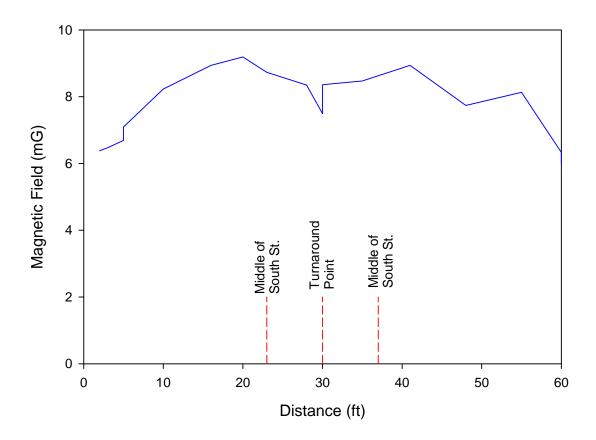


Location # 3	South	St./Canterbury	Measurement	8/7/18 11:20 AM
	Ln		Date/Time	
Ambient Temperature	91		115-kV Line Current	N/A
(°F)			(amps/φ)	

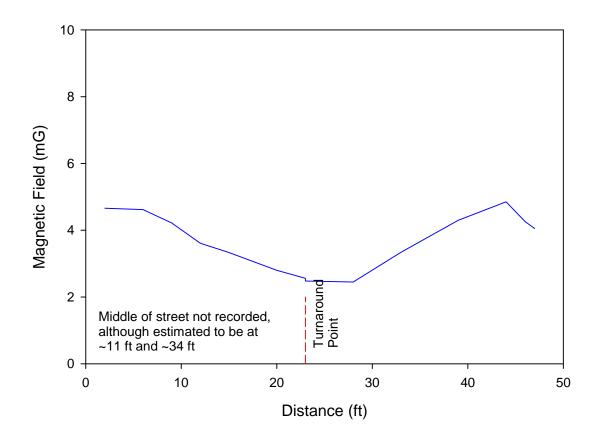
Notes: Started on Canterbury Lane by several tree stumps, walked across High Rock Street and back.



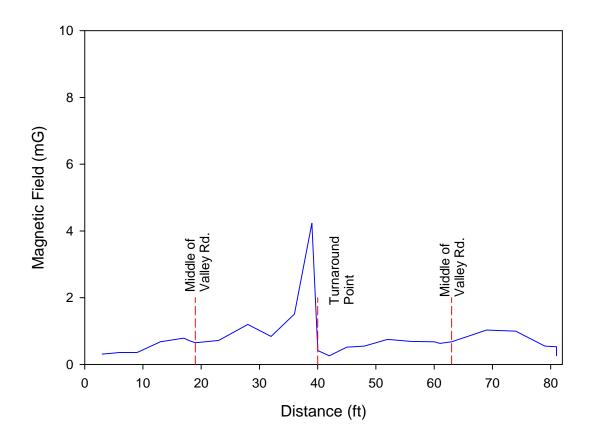
Location # 4	300 South St.	Measurement	8/7/18 11:28 AM
	(culvert)	Date/Time	
Ambient Temperature	91	115-kV Line Current	N/A
(°F)		(amps/φ)	
Notes: Walked from south side (side with Edgewater Drive) of South Street across and back.			



Location # 5	130 South Street	Measurement	8/7/18 11:35 AM
		Date/Time	
Ambient Temperature	91	115-kV Line Current	N/A
(°F)		(amps/φ)	
Notes: Walked from stone wall by 130 South Street across South Street and back.			

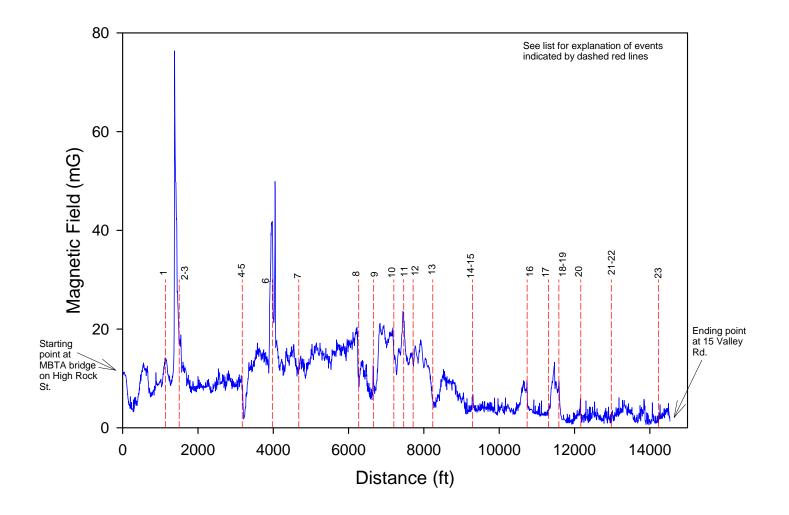


Location # 6	43 Valley Road	Measurement	8/7/18 11:55 AM
	-	Date/Time	
Ambient Temperature	92	115-kV Line Current	N/A
(°F)		(amps/φ)	
Notes: Walked from side of Valley Road opposite 43 Valley Road across Valley Road and back.			



Location # 7	MTBA Bridge on High Rock St. to end of Valley Road	Measurement Date/Time	8/7/18 12:10 PM to 1:10 PM
Ambient Temperature (°F)	92	115-kV Line Current (amps/φ)	N/A

Notes: Generally walked on side of road with distribution lines, crossing over High Rock St. and South St. several times to follow the distribution lines. Event markers indicate these street crossings, as well as intersecting streets.



Event Markers:

Start	MBTA bridge on High Rock
1.	High Rock at Emerson Road

- 2-3. High Rock at Chestnut St.
- 4-5. High Rock merges with South Street
- 6. South Street at Webster Street
- 7. South Street at Canterbury Lane
- 8. South Street at Edgewater Drive
- 9. South Street at Dedham Avenue
- 10. South Street at Livingston Circle
- 11. South Street at Smith Court
- 12. South Street at Livingston Circle
- 13. South Street at Green Street
- 14-15. 130 South Street
- 16. South Street ends at Great Plain Avenue
- 17. Great Plain Avenue at Greendale Avenue
- 18-19. Great Plain Avenue at Peacedale Road
- 20. Peacedale Road at Sterling Road
- 21-22. Peacedale Road ends at Valley Road
- 23. Light pole on Valley Road as enter circle at end of road
- Stop By 15 Valley Road after walking around circle