



**Western Massachusetts  
Electric**

The Northeast Utilities System

NEW ENGLAND  
**EAST**  **WEST  
SOLUTION**

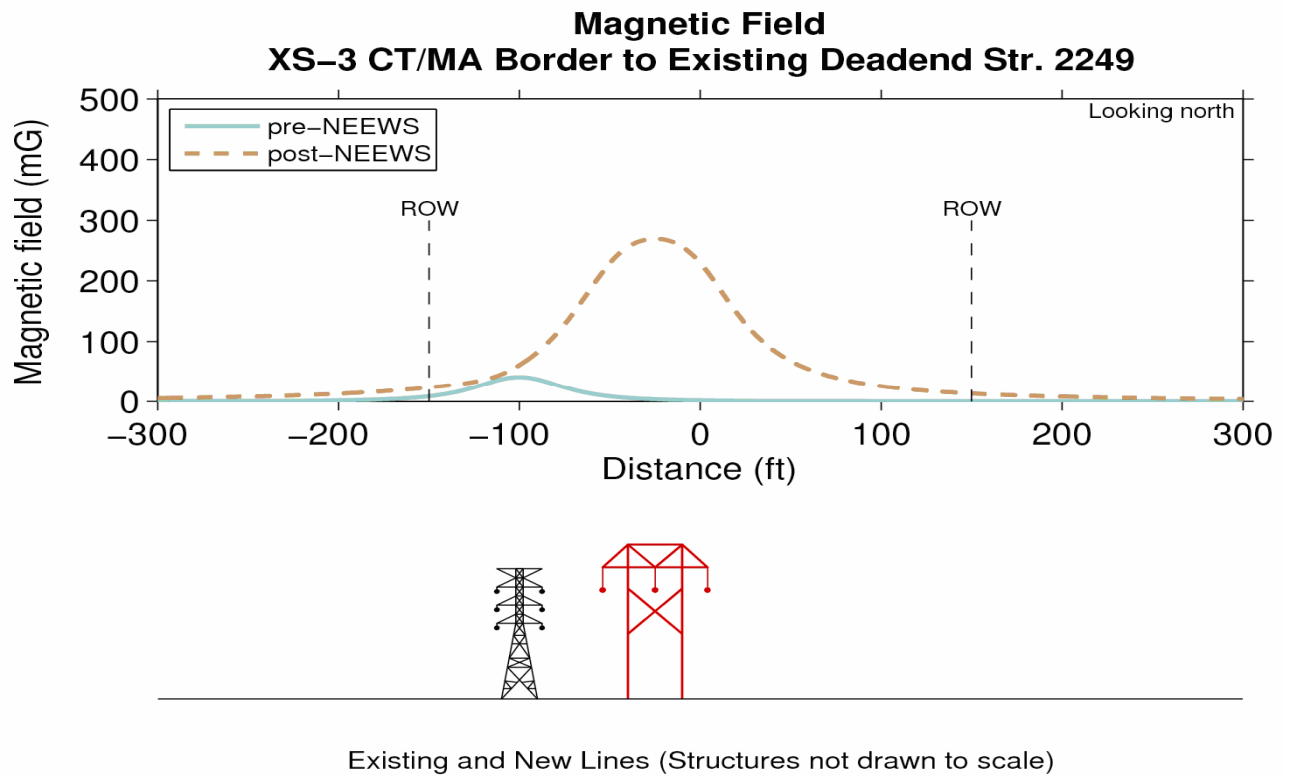
## **EX. 5.5: Electric and Magnetic Fields: Profiles**



---

Massachusetts Energy Facilities Siting Board Petition for  
The Greater Springfield Reliability Project

Figure 1. Profile XS-3:CT/MA Border to Existing Deadend Str. 2249– Magnetic fields for Preferred Northern Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at AAL



**Figure 2. Profile XS-4: Existing Deadend Str. 2249 to Existing Angle Str. 2252 - Magnetic fields for Preferred Northern Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at AAL**

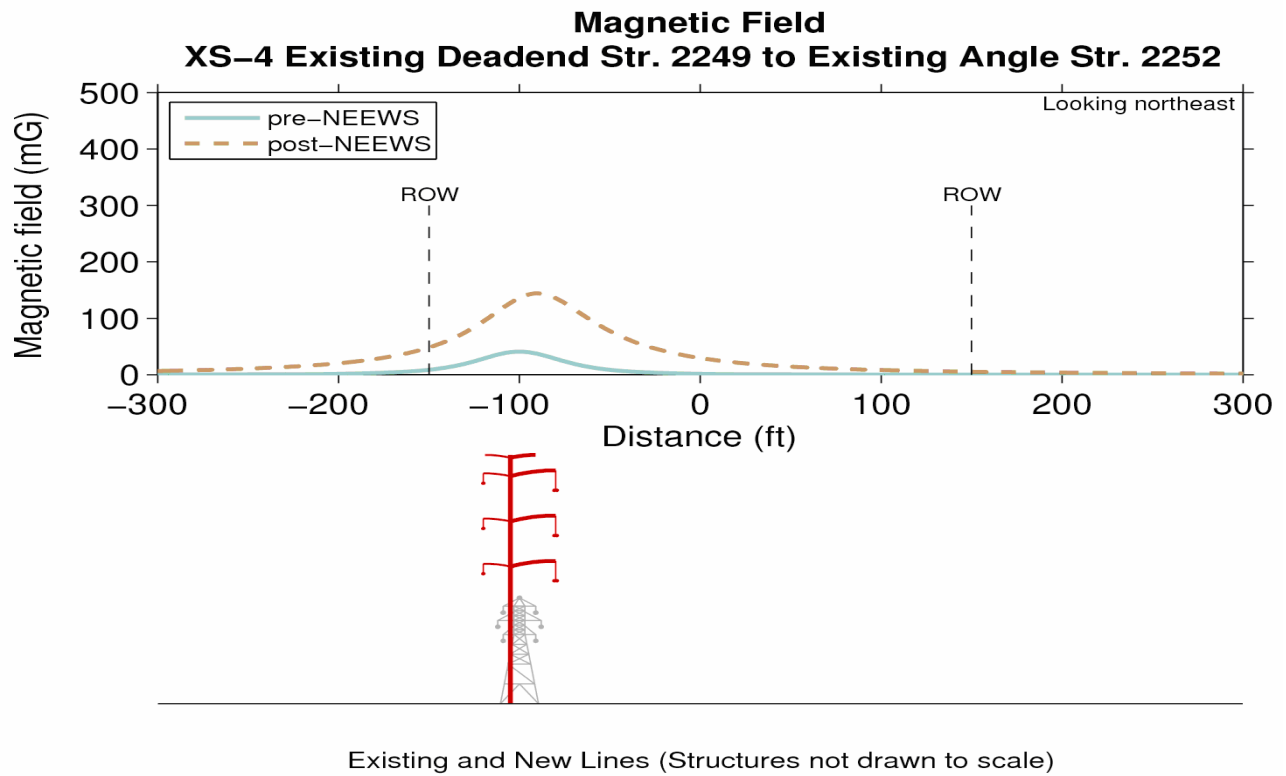


Figure 3. Profile XS-5 Existing Angle Str. 2252 to Existing Angle Str. 2267- Magnetic fields for Preferred Northern Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at AAL

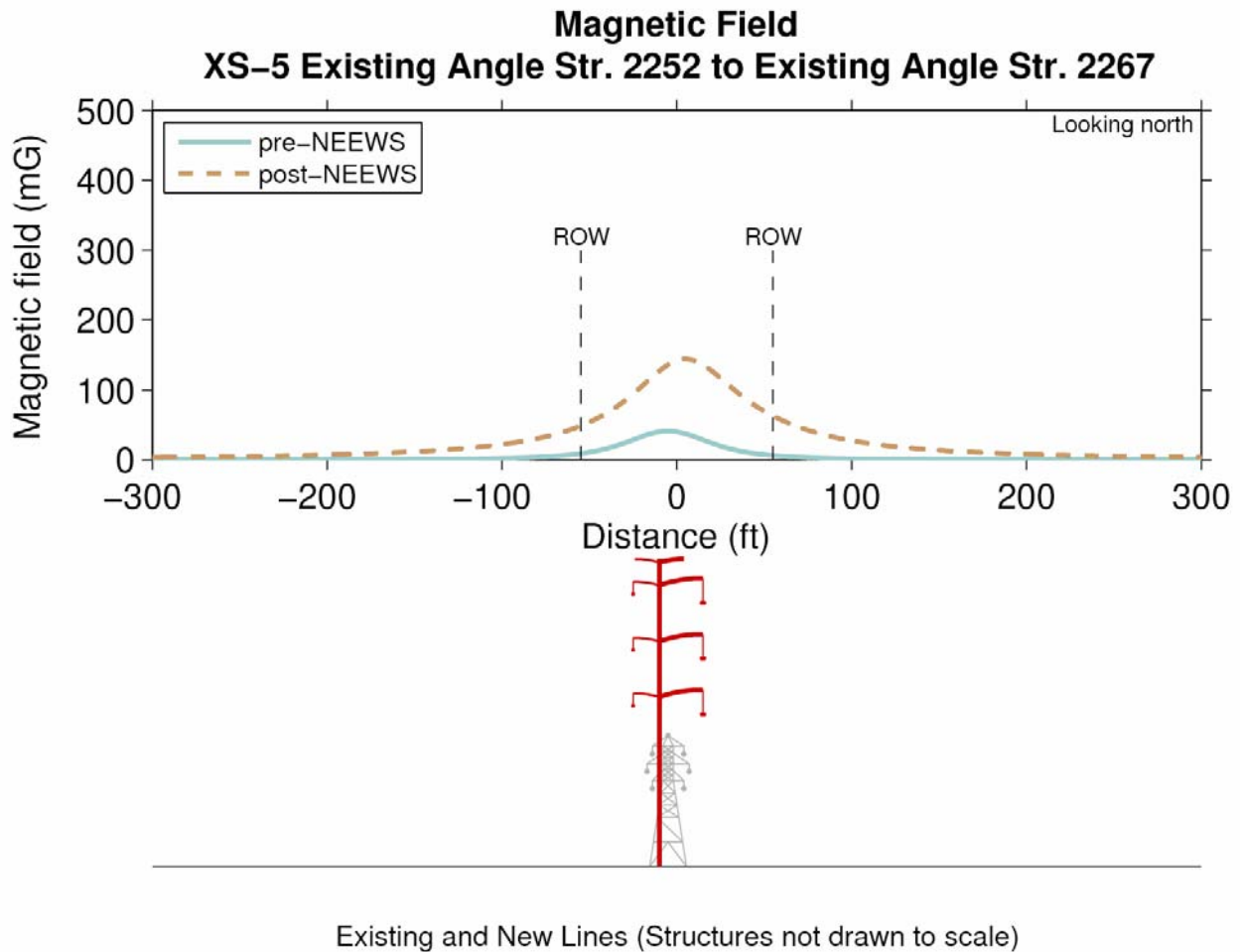


Figure 4. Profile XS-6 Existing Angle Str. 2267 to South Agawam Substation - Magnetic fields for Preferred Northern Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at AAL

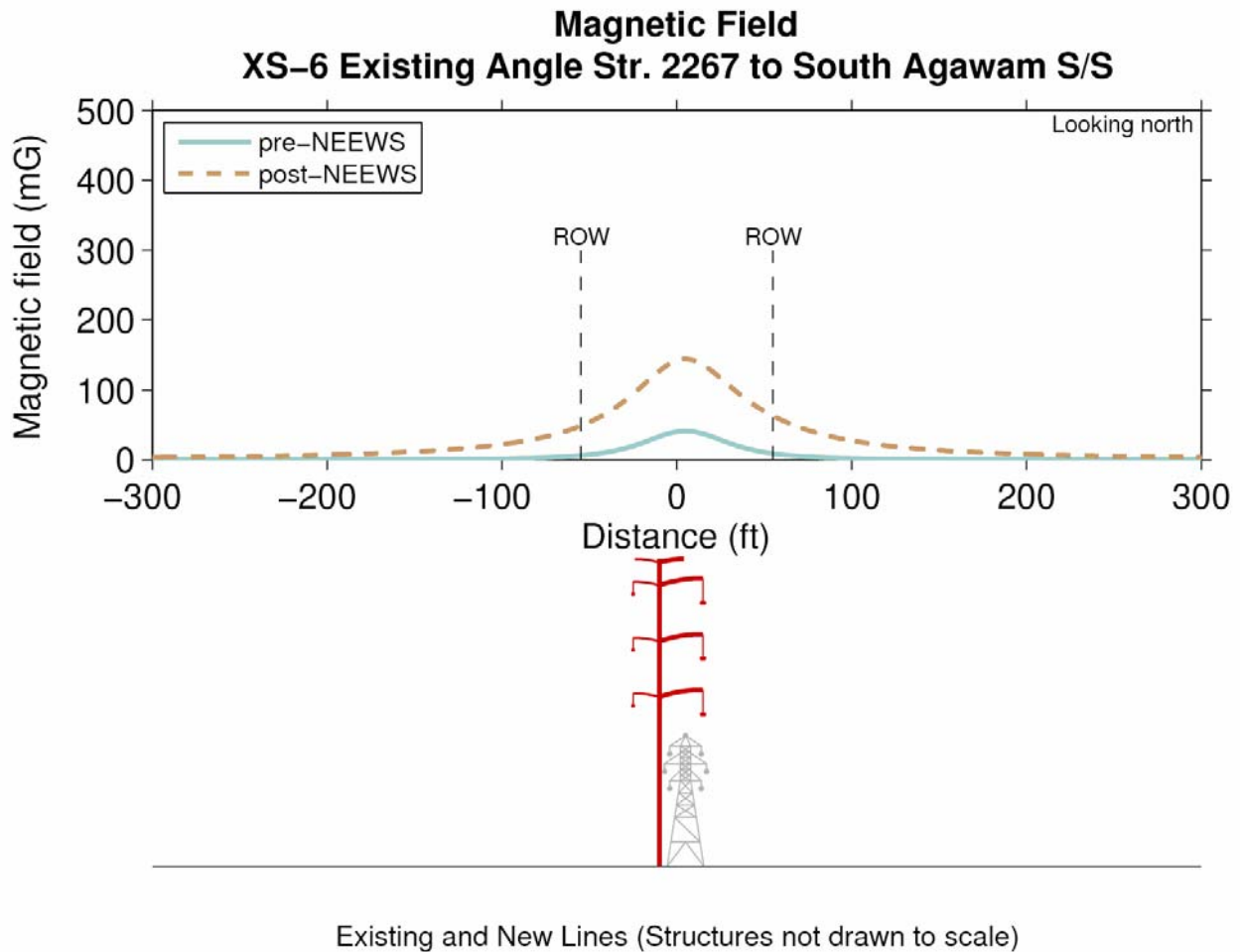


Figure 5. Profile XS-7 South Agawam Substation to Silver Substation - Magnetic fields for Preferred Northern Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at AAL

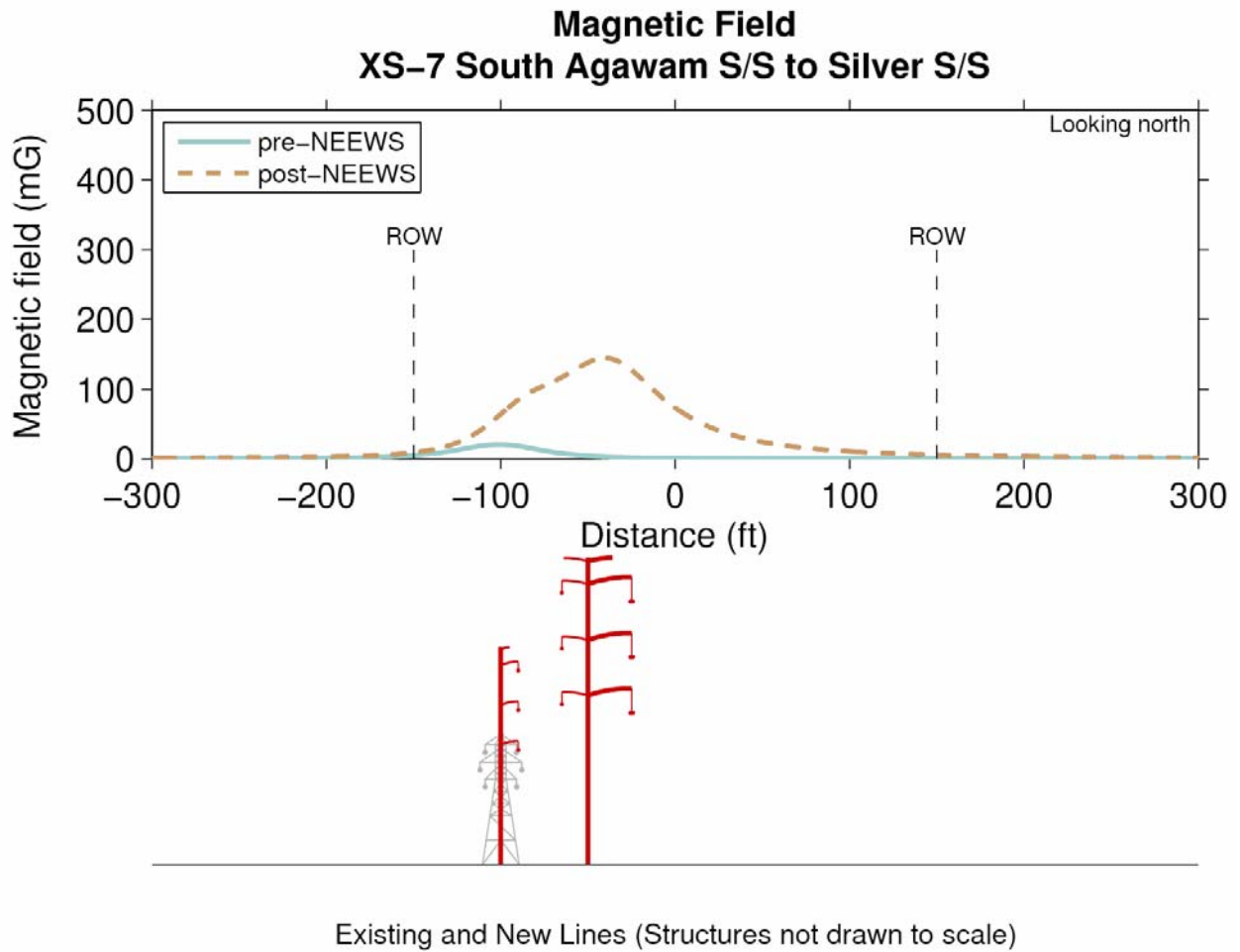


Figure 6. Profile XS-8 Silver Substation to Existing Str. 2286 - Magnetic fields for Preferred Northern Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at AAL

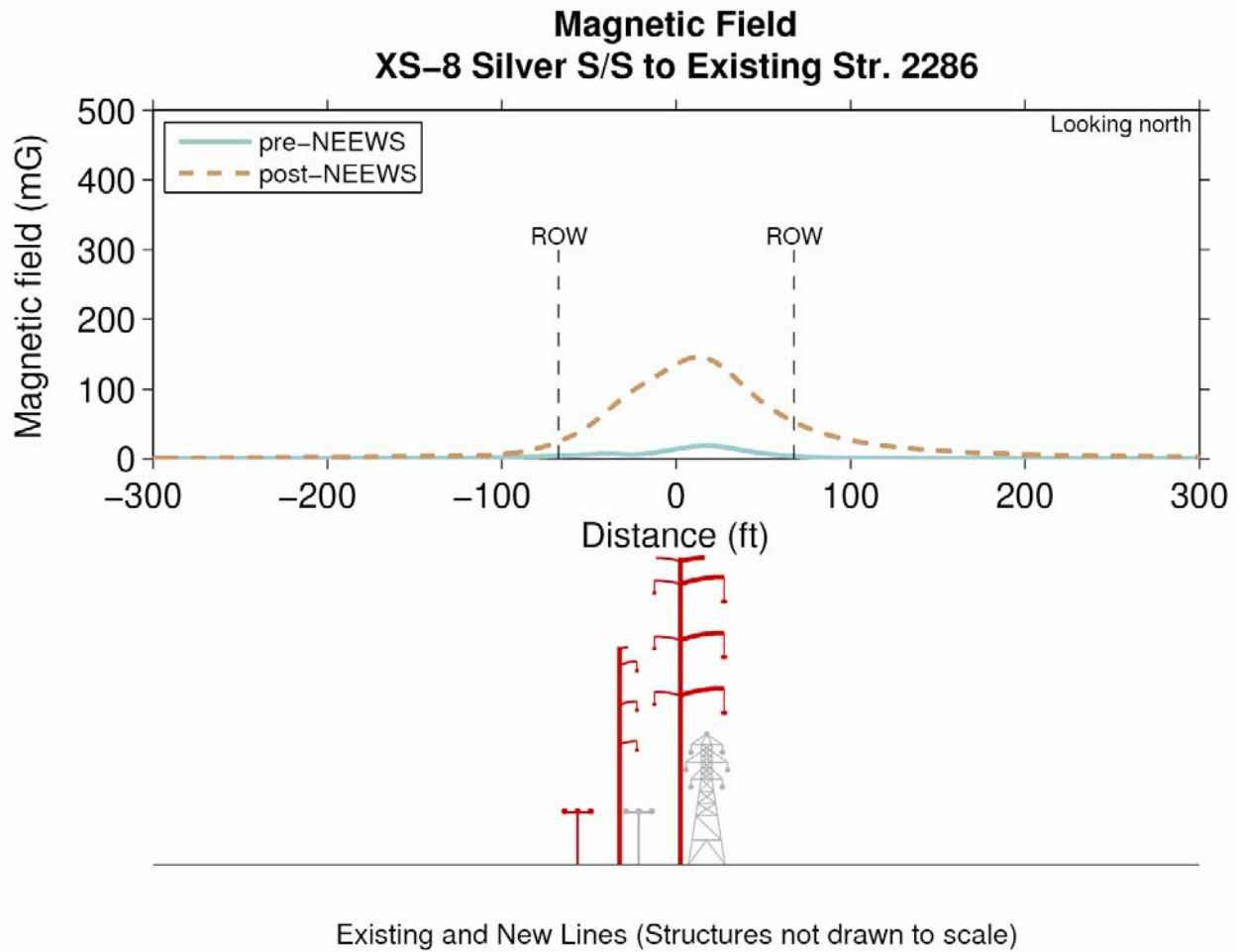
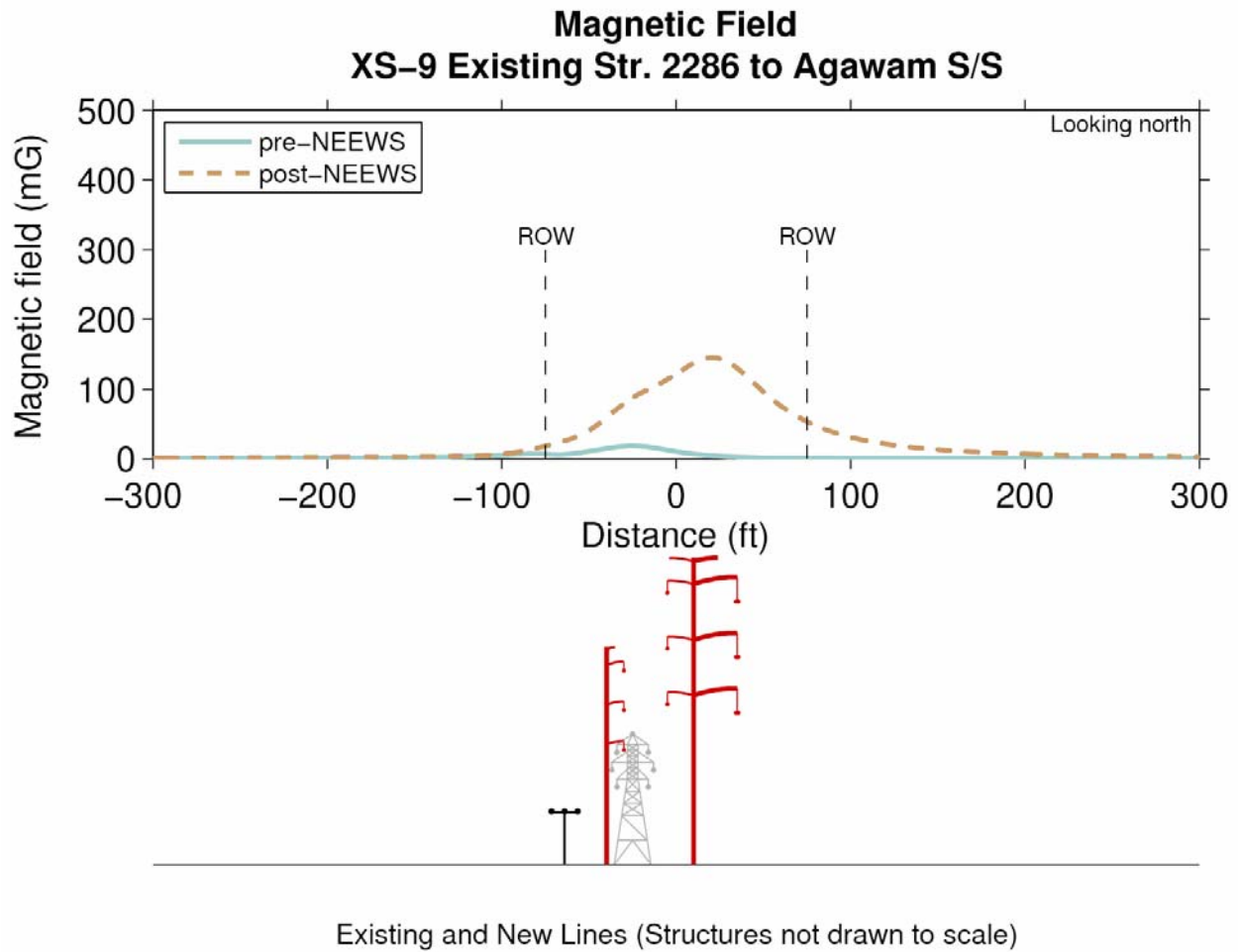
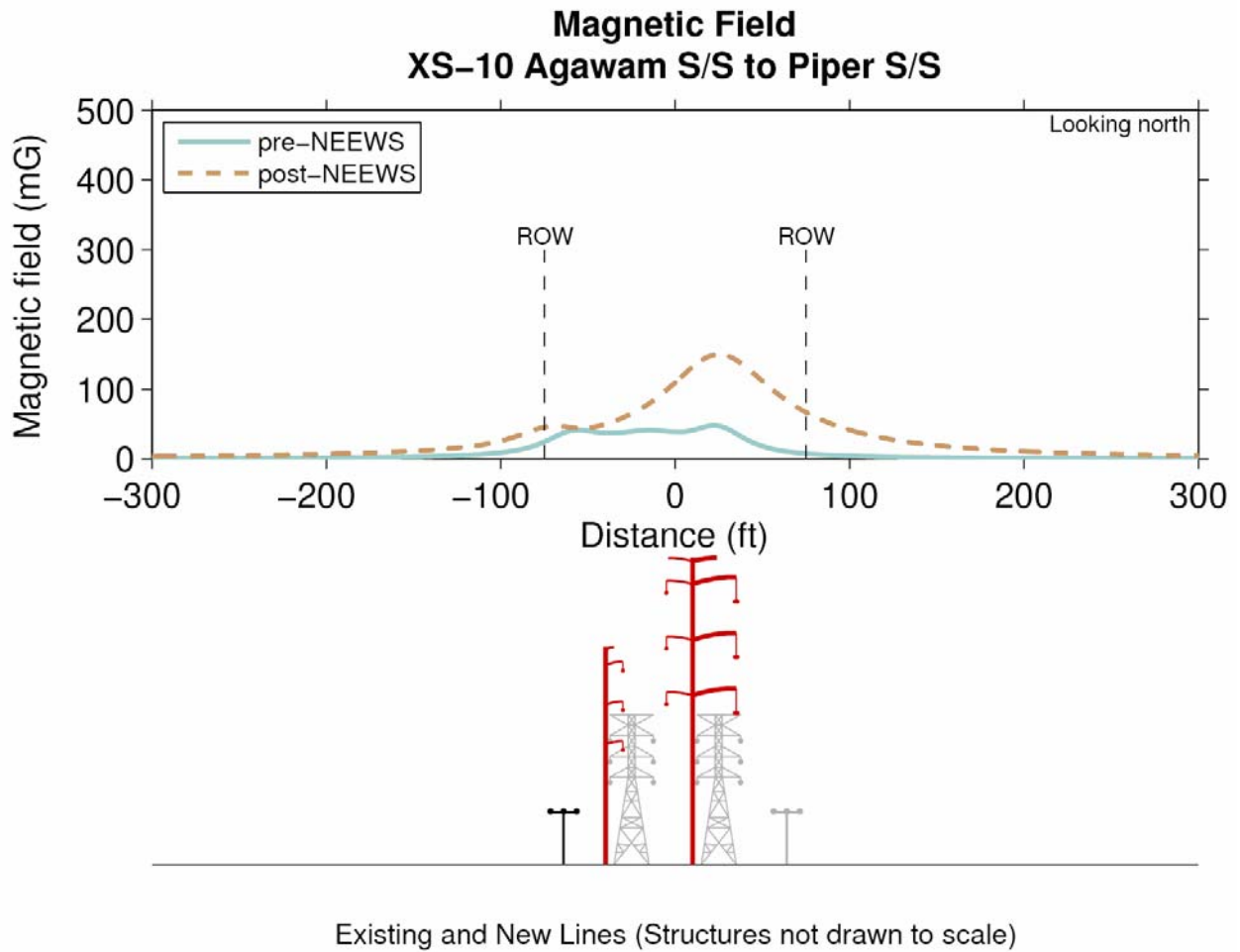


Figure 7. Profile XS-9 Existing Str. 2286 to Agawam Substation - Magnetic fields for Preferred Northern Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at AAL





**Figure 8. Profile XS-10 Agawam Substation to Piper Substation - Magnetic fields for Preferred Northern Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at AAL**



**Figure 9. Profile XS-11 Piper Substation to Chicopee Substation - Magnetic fields for Preferred Northern Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at AAL**

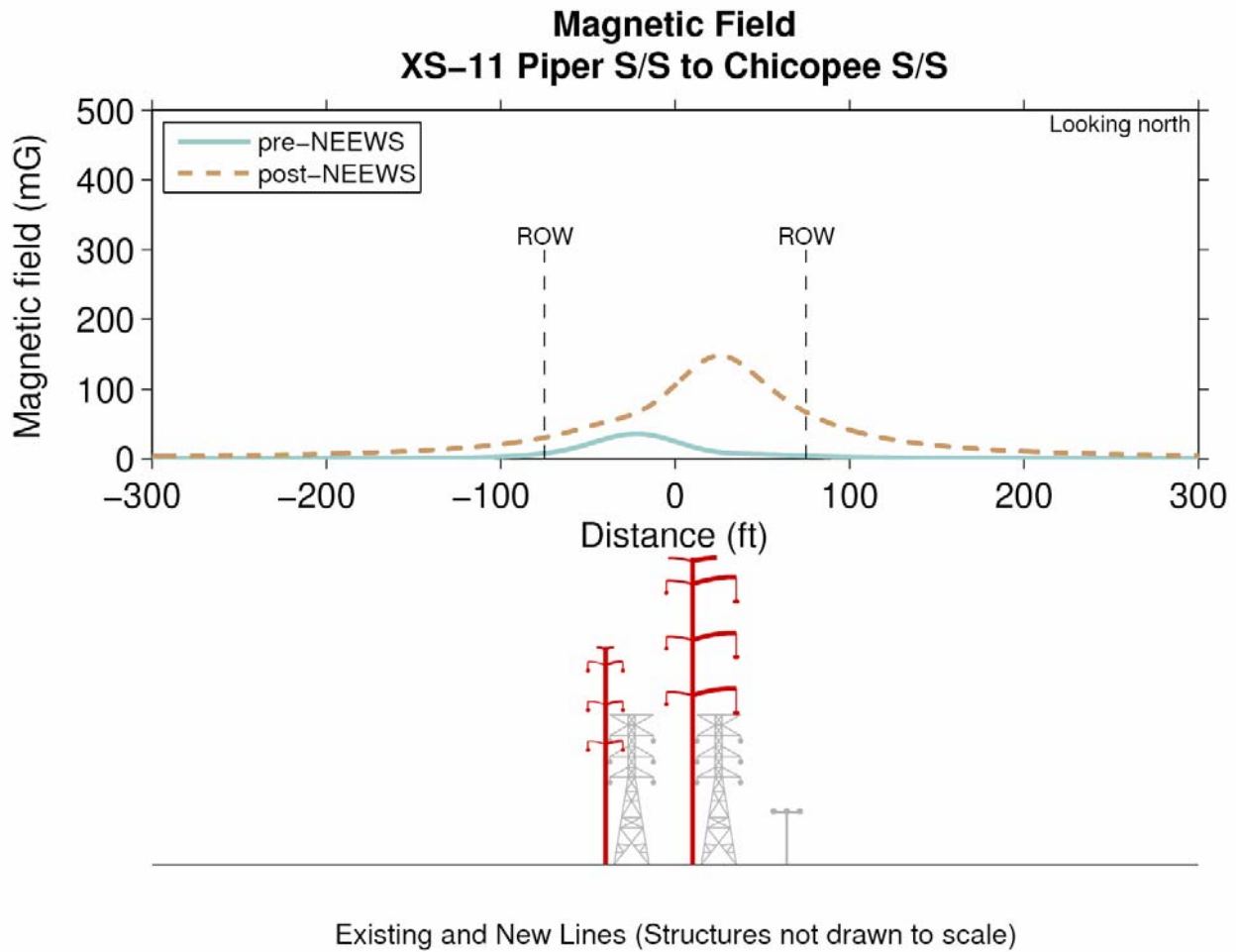


Figure 10. Profile XS-12 Chicopee Substation to East Springfield Junction - Magnetic fields for Preferred Northern Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at AAL

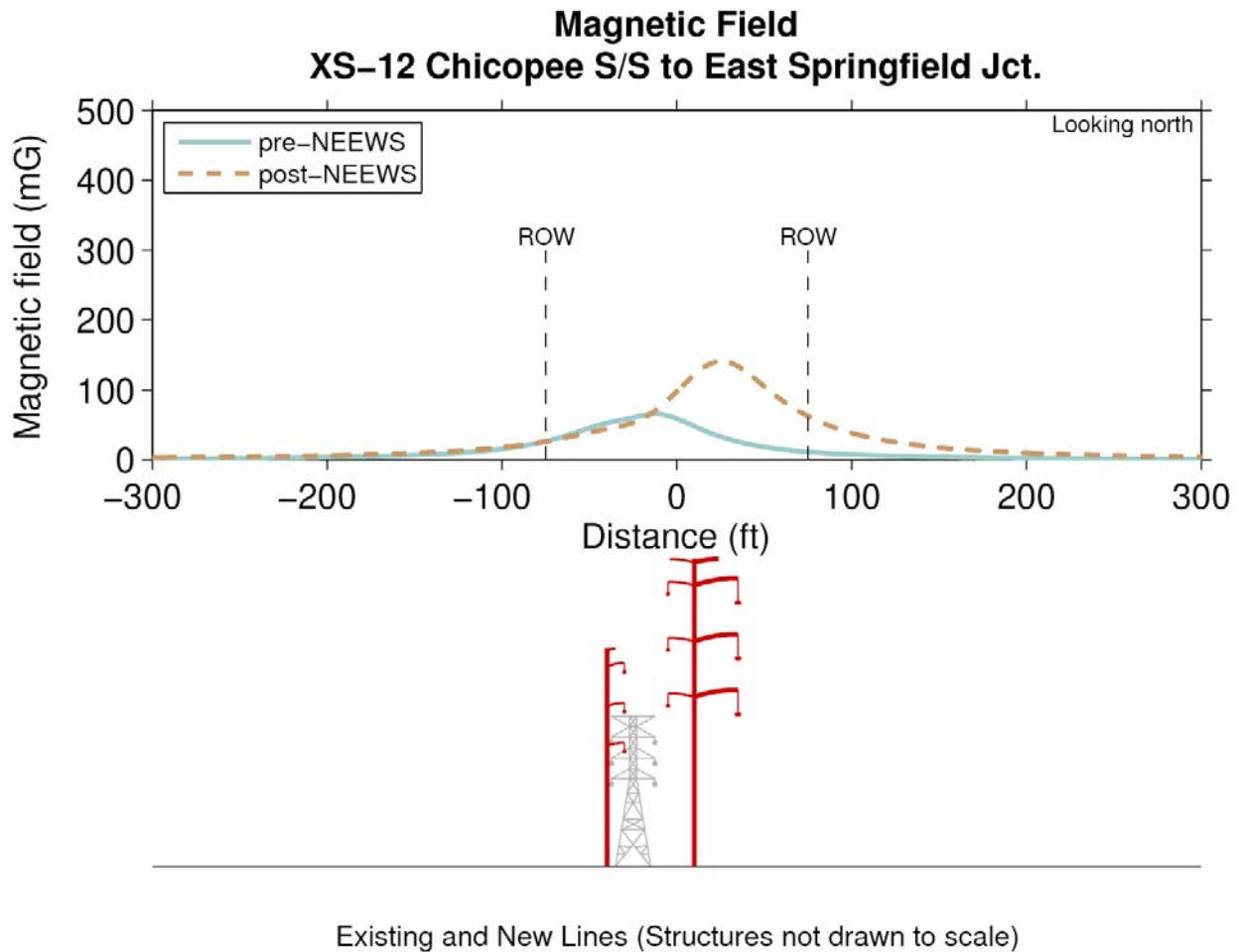


Figure 11. Profile XS-13 East Springfield Junction to Existing Str. 49091 - Magnetic fields for Preferred Northern Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at AAL

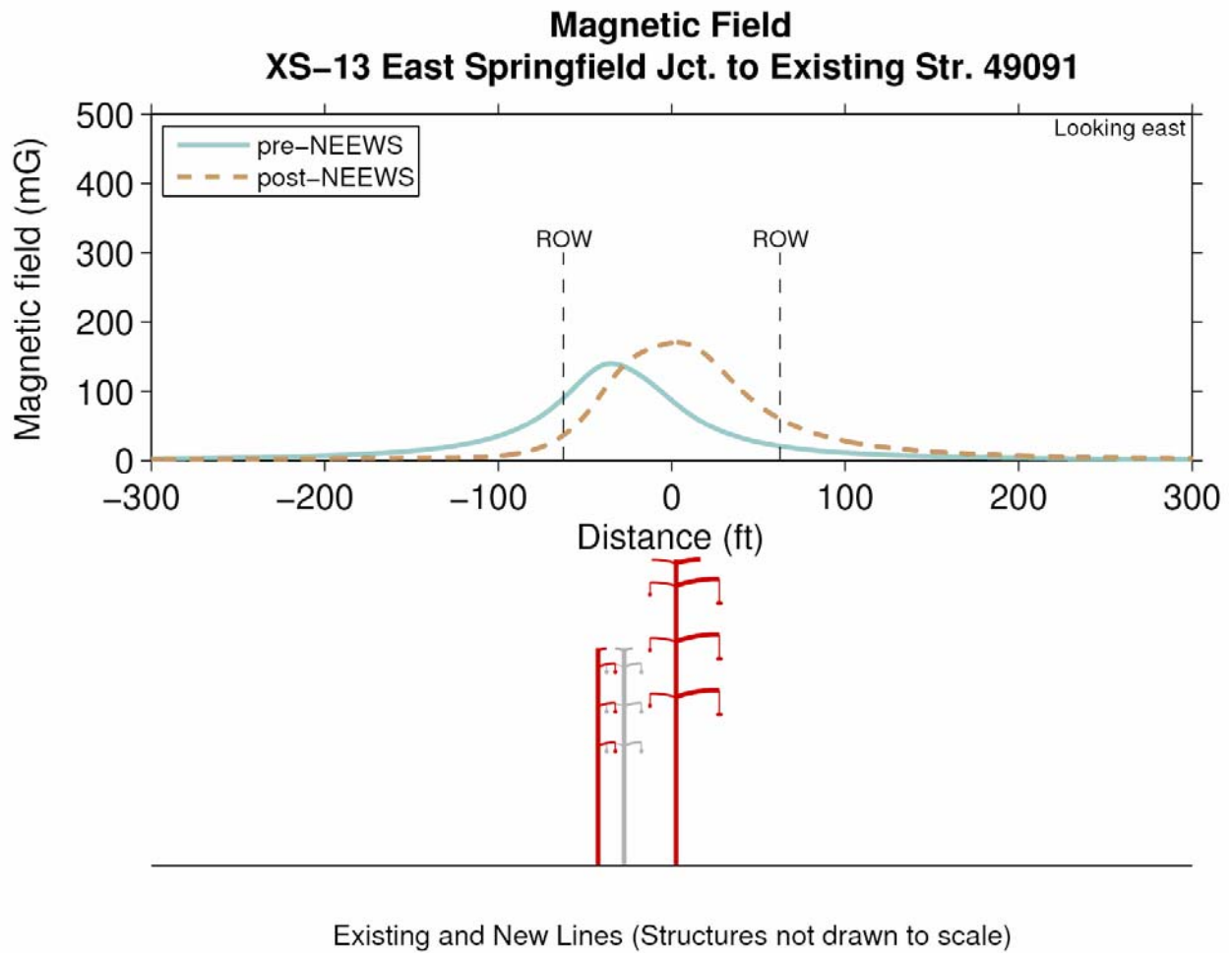


Figure 12. Profile XS-14 Existing Str. 49091 to Exit 6 Jct. - Magnetic fields for Preferred Northern Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at AAL

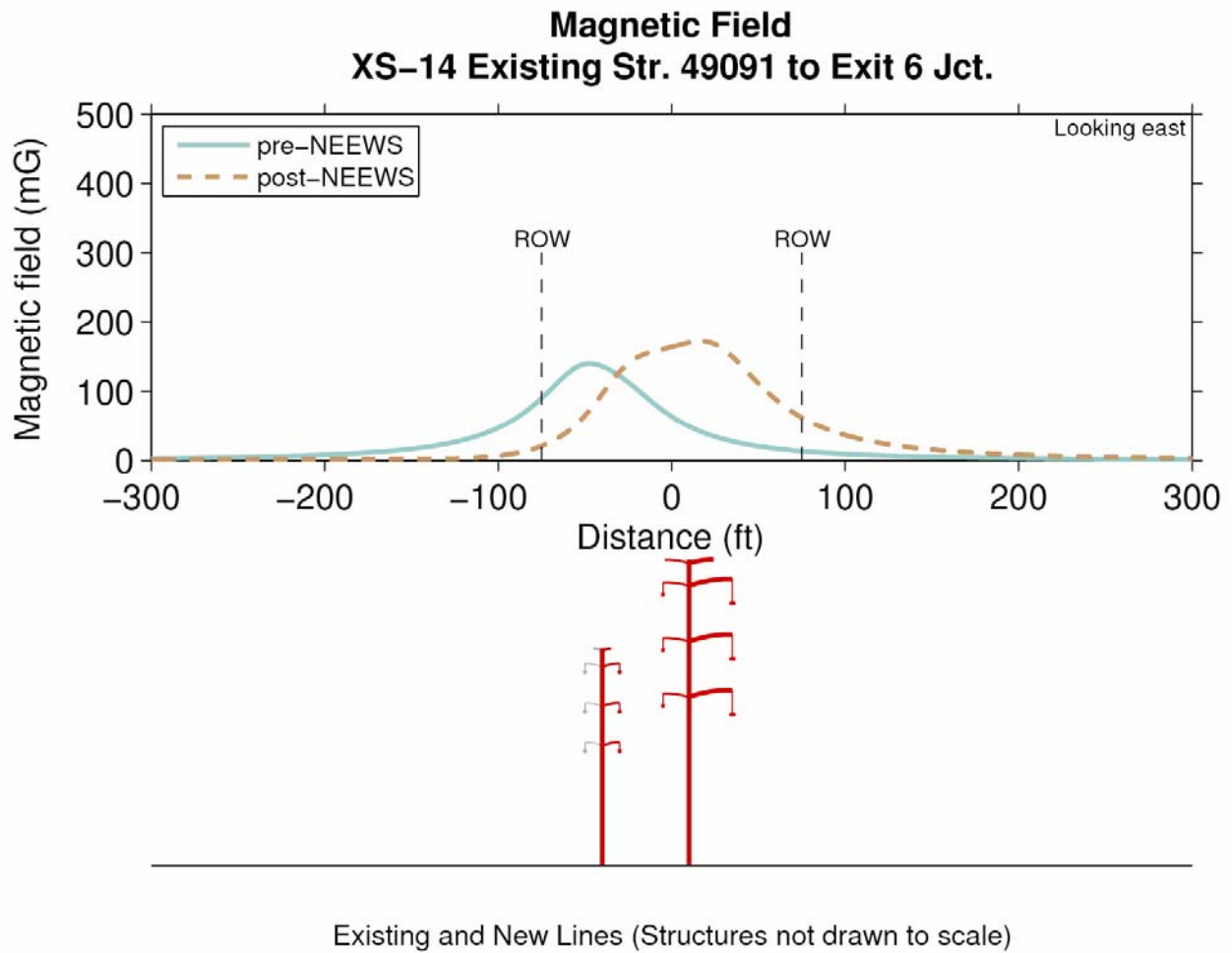


Figure 13. Profile XS-15 Exit 6 Jct. To Shawinigan Substation - Magnetic fields for Preferred Northern Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at AAL

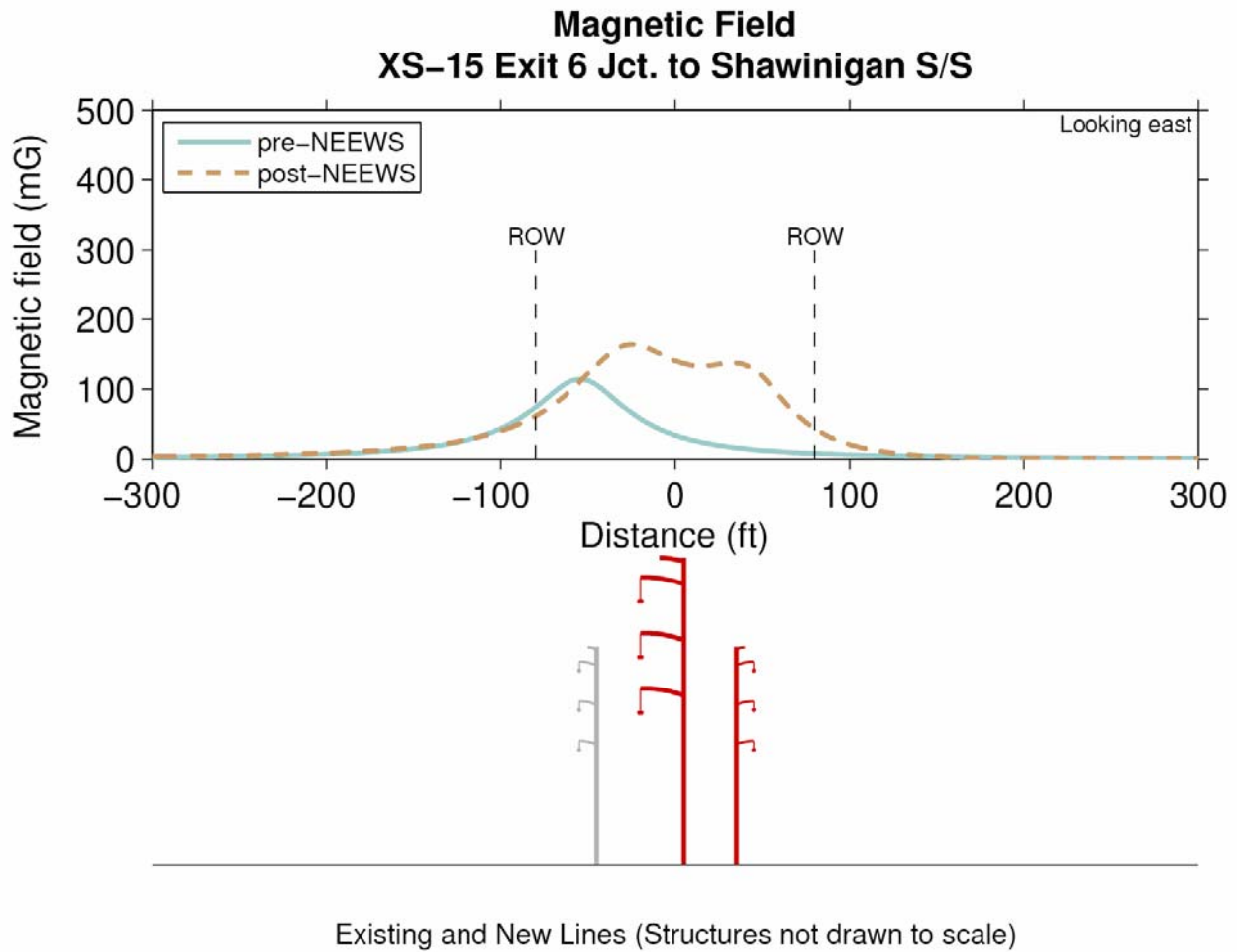


Figure 14. Profile XS-16 Shawinigan Substation to Orchard Jct. - Magnetic fields for Preferred Northern Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at AAL

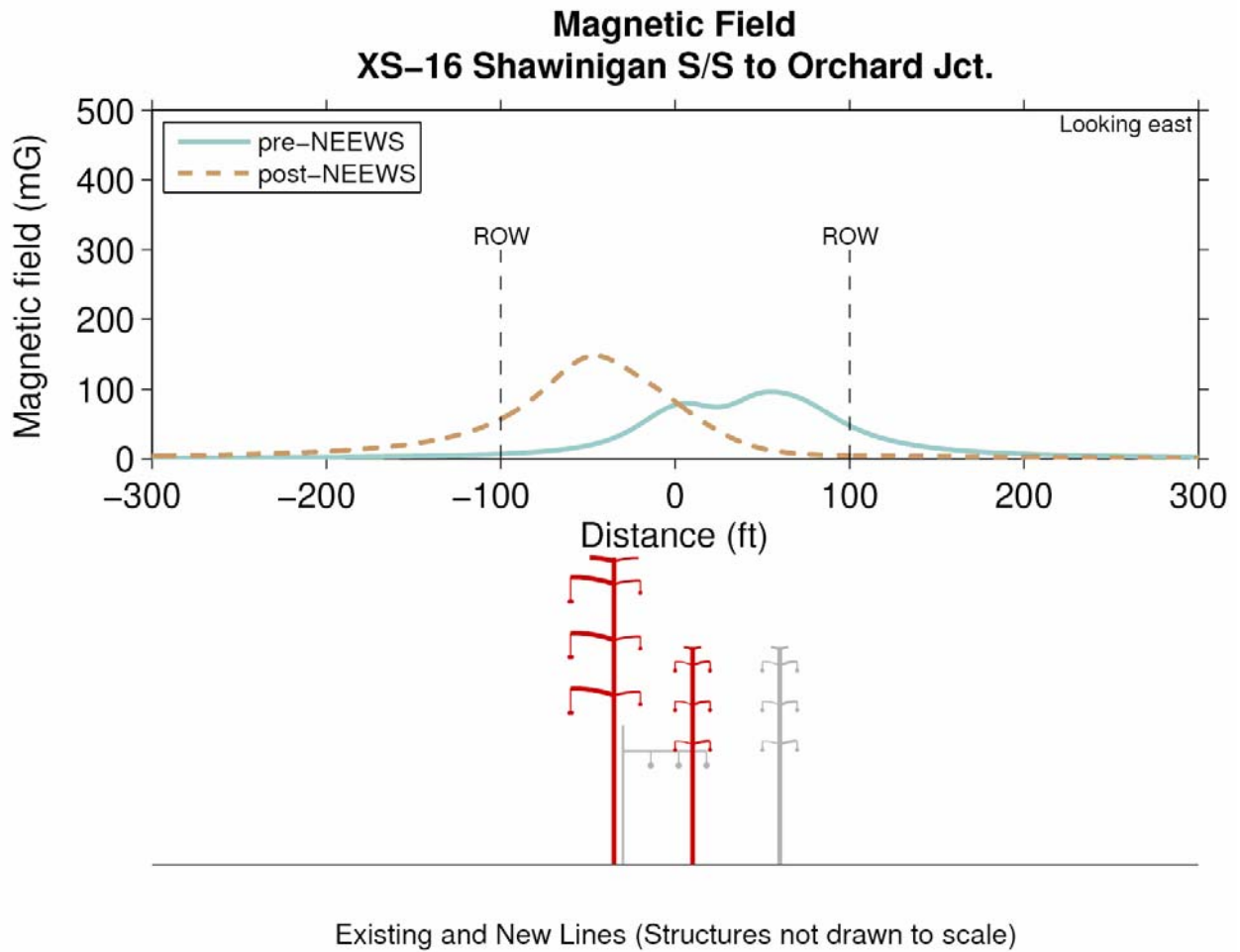


Figure 15. Profile XS-17 Orchard Jct. To Ludlow Substation - Magnetic fields for Preferred Northern Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at AAL

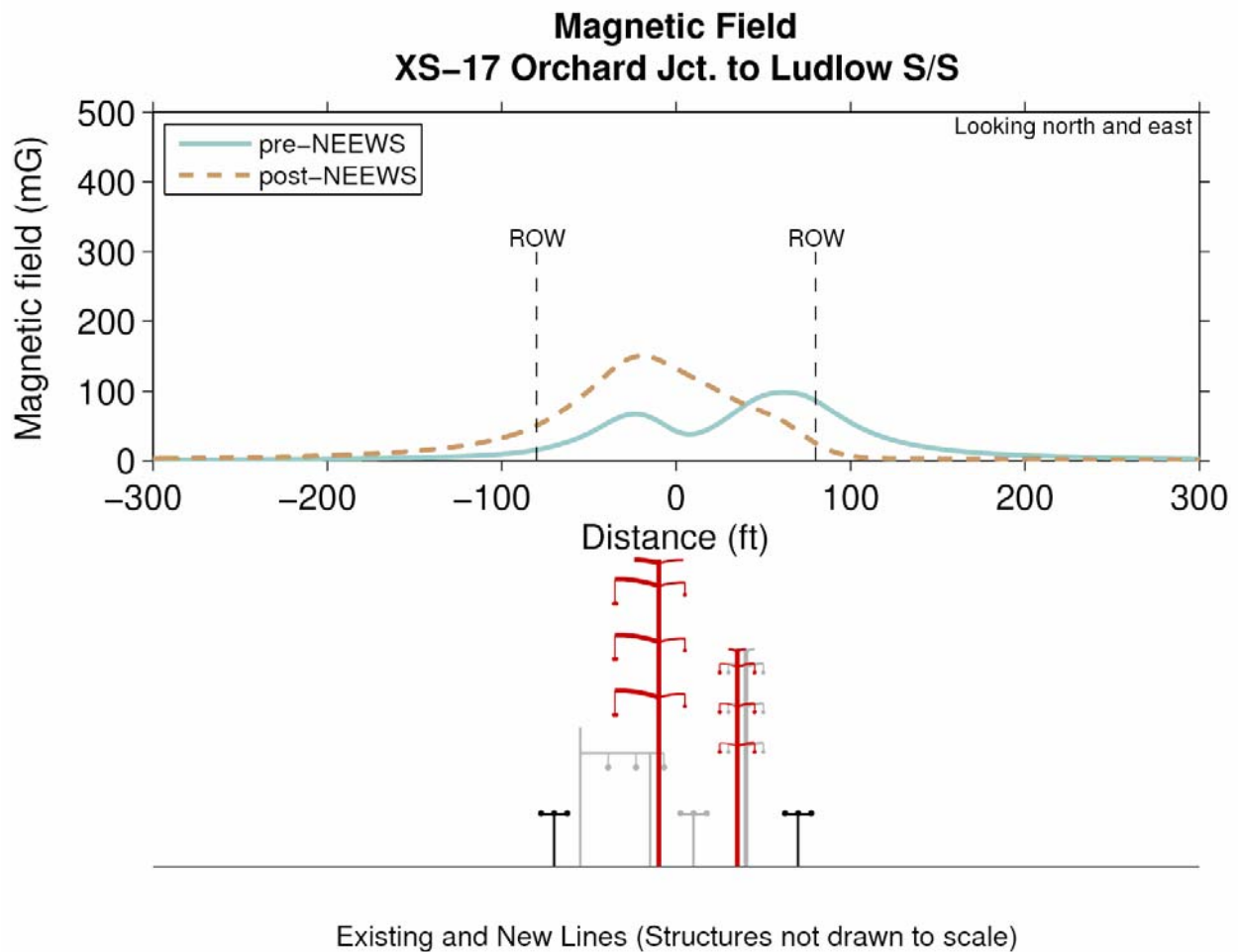




Figure 16. Profile XS-18 East Springfield Jct. to Fairmont Substation - Magnetic fields for Preferred Northern Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at AAL

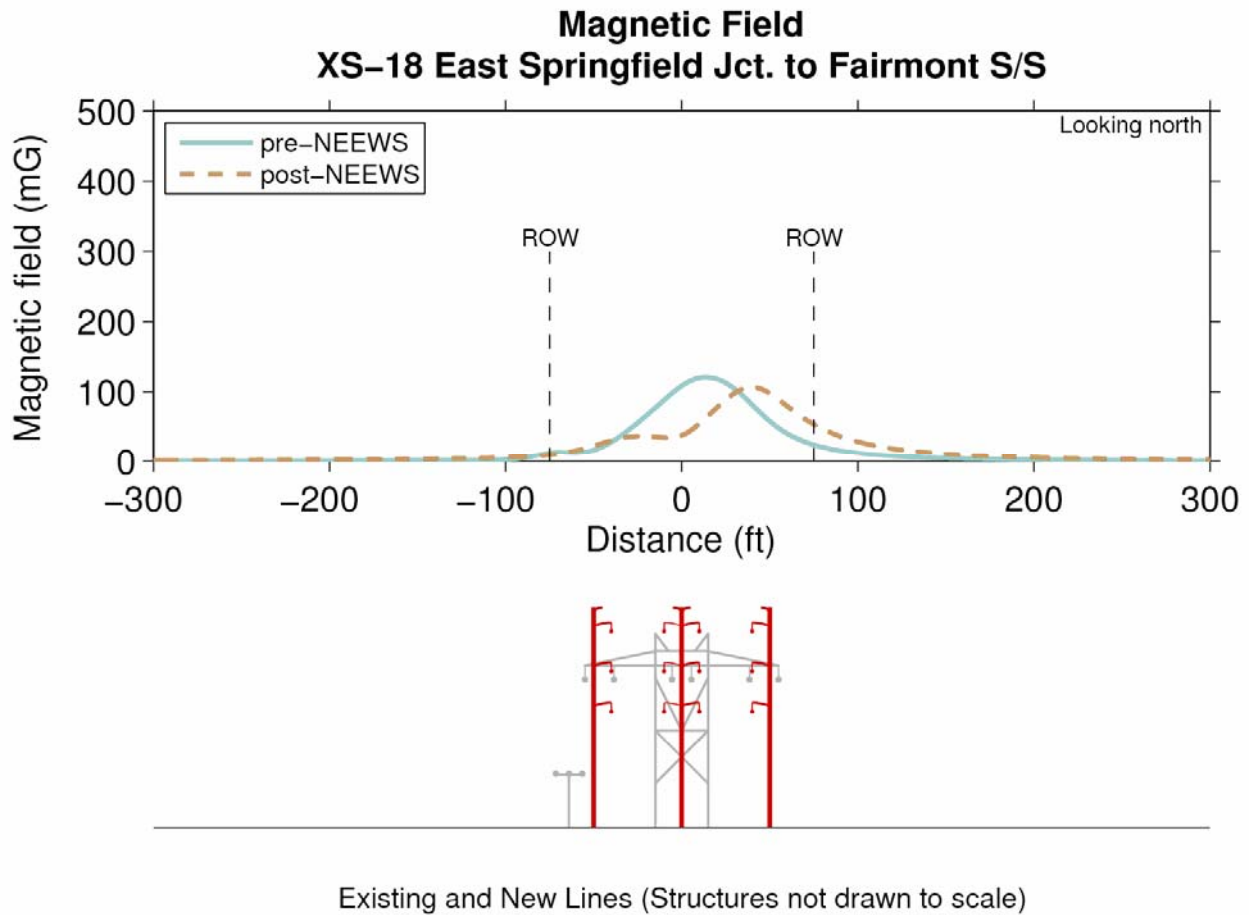


Figure 17. Profile XS-19 Cadwell Substation to Shawinigan Substation - Magnetic fields for Preferred Northern Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at AAL

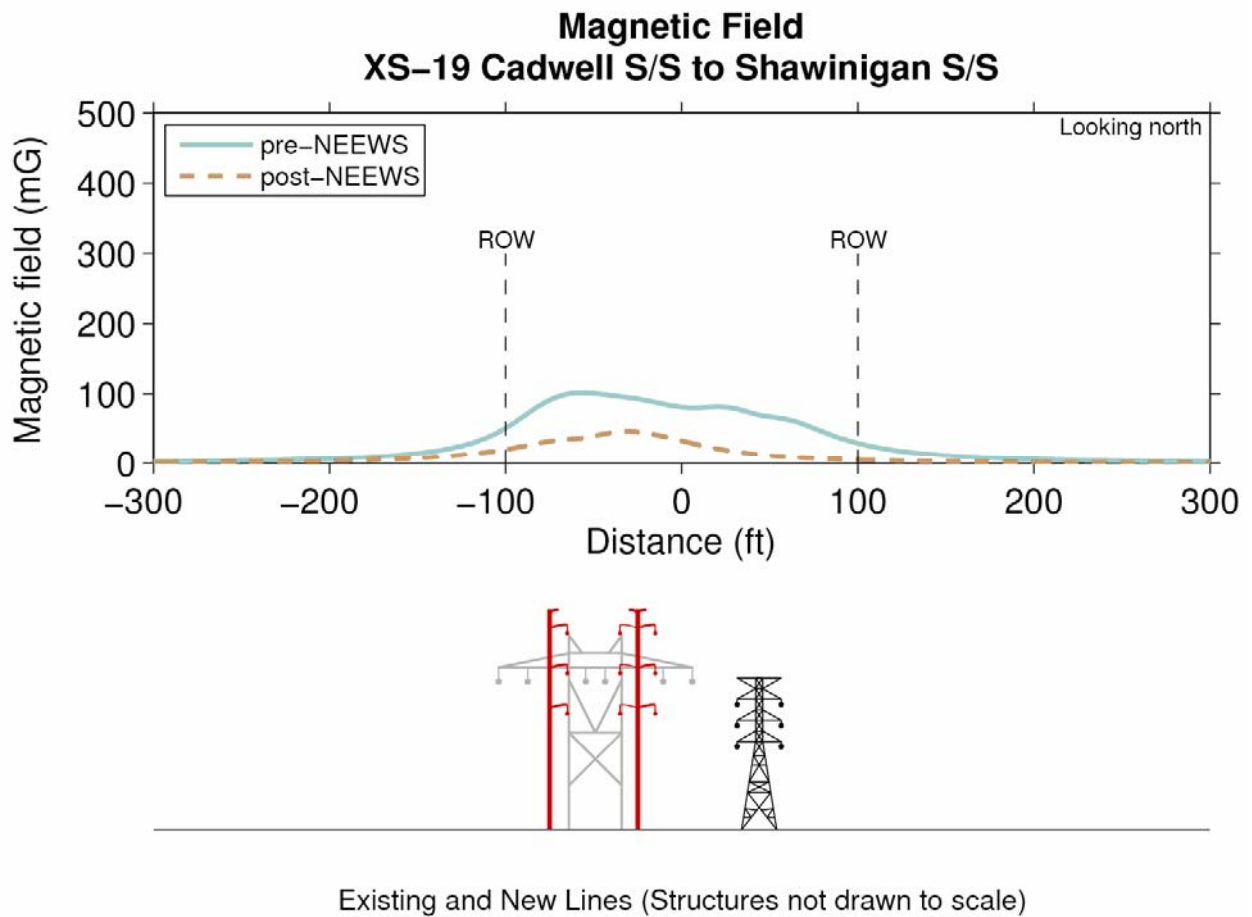
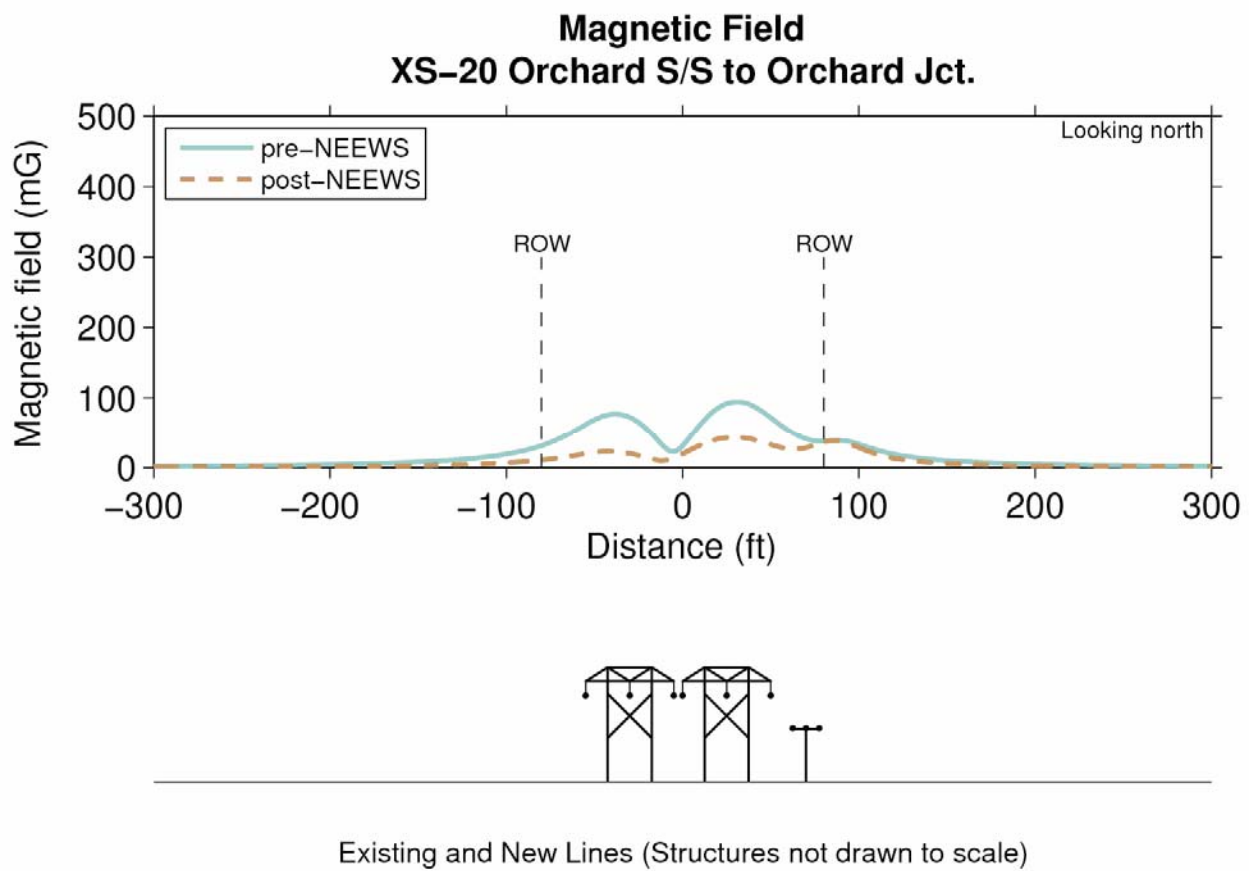
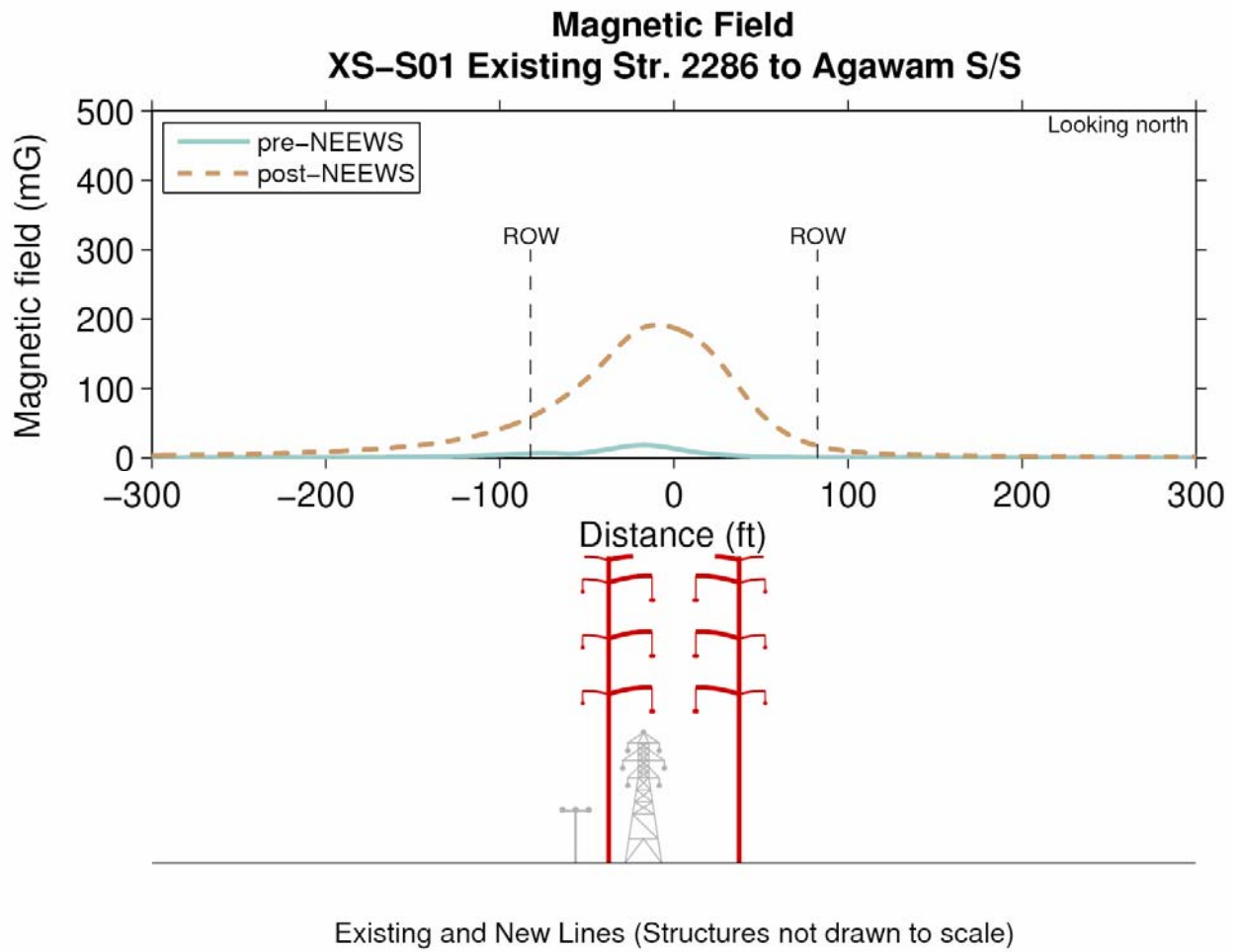


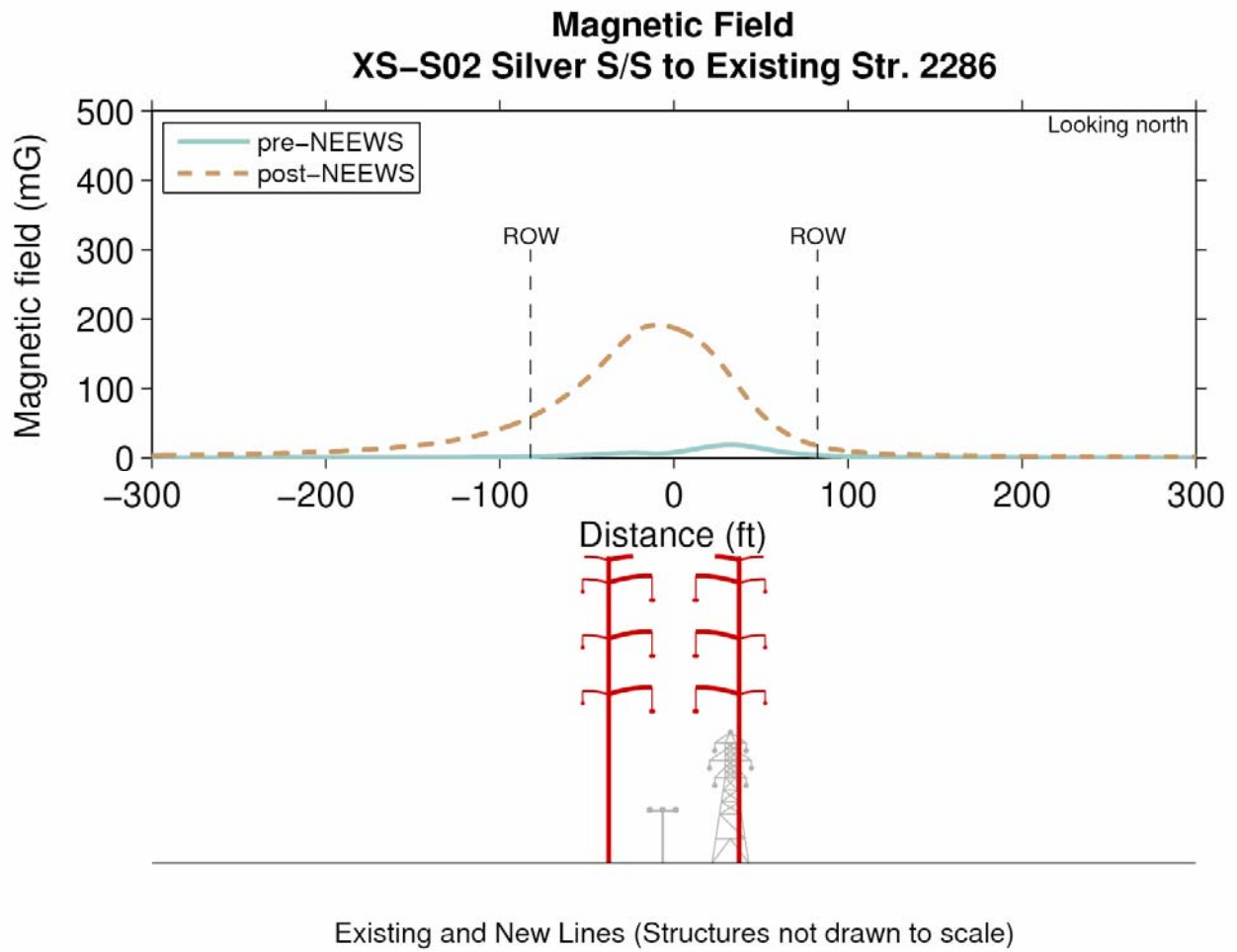
Figure 18. Profile XS-20 Orchard Substation to Orchard Jct. - Magnetic fields for Preferred Northern Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at AAL



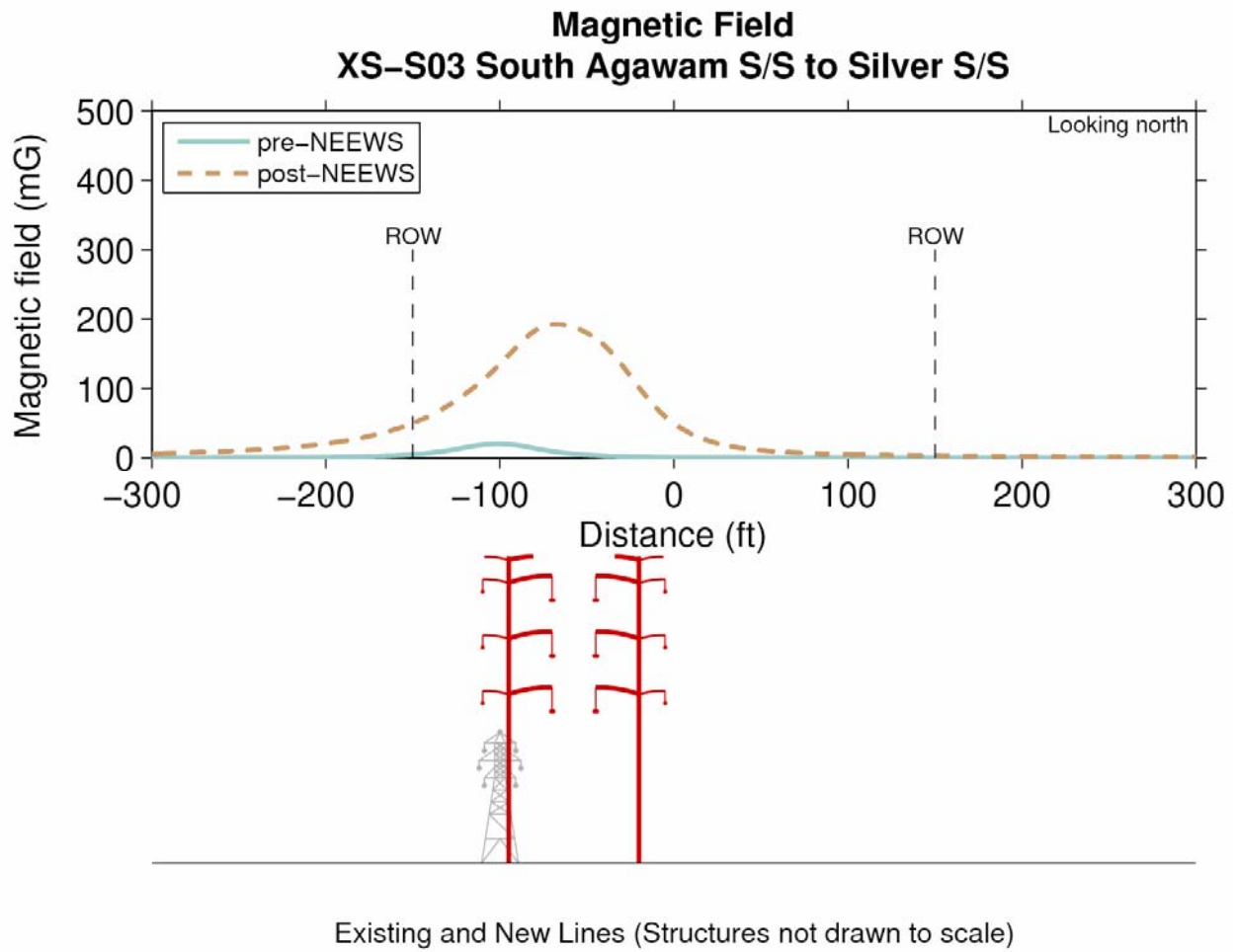
**Figure 19. Profile XS-S01 Existing Str. 2286 to Agawam Substation – Magnetic fields for Southern Noticed Alternative Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at AAL**



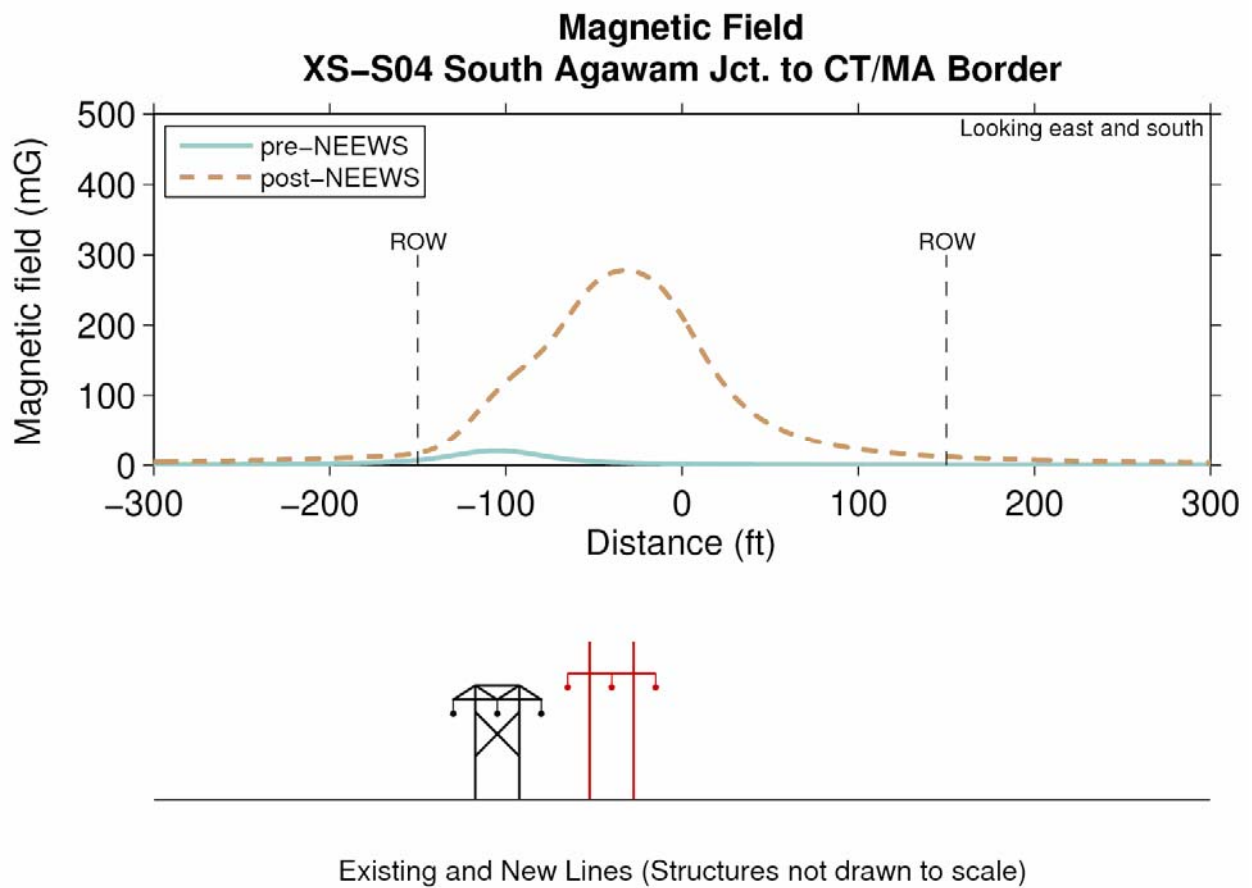
**Figure 20. Profile XS-S02 Silver Substation to Existing Str. 2286 – Magnetic fields for Southern Noticed Alternative Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at AAL**



**Figure 21. Profile XS-S03 South Agawam Substation to Silver Substation – Magnetic fields for Southern Noticed Alternative Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at AAL**



**Figure 22. Profile XS-S04 South Agawam Jct. to CT/MA Border – Magnetic fields for Southern Noticed Alternative Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at AAL**



**Figure 23. Profile XS-S06 CT River to MA Border – Magnetic fields for Southern Noticed Alternative Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at AAL**

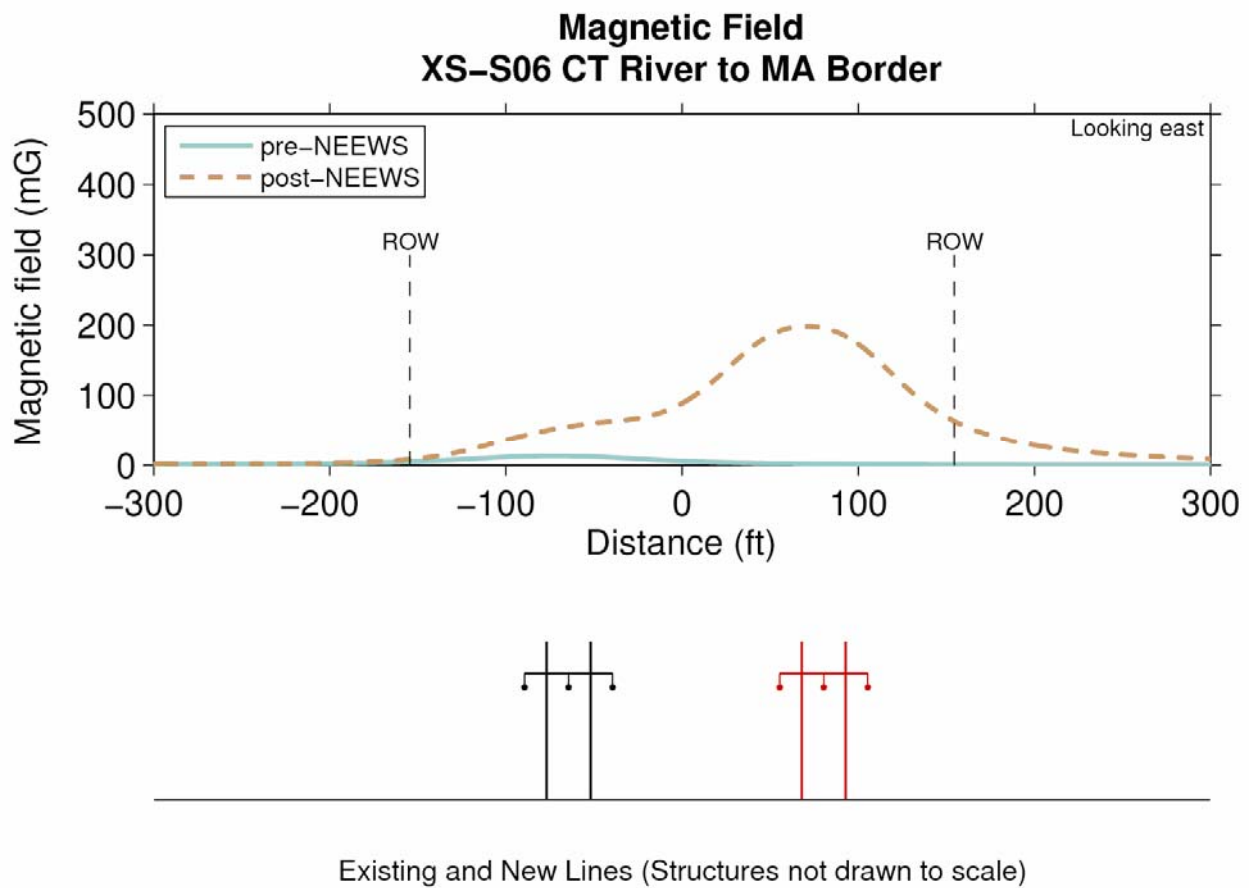
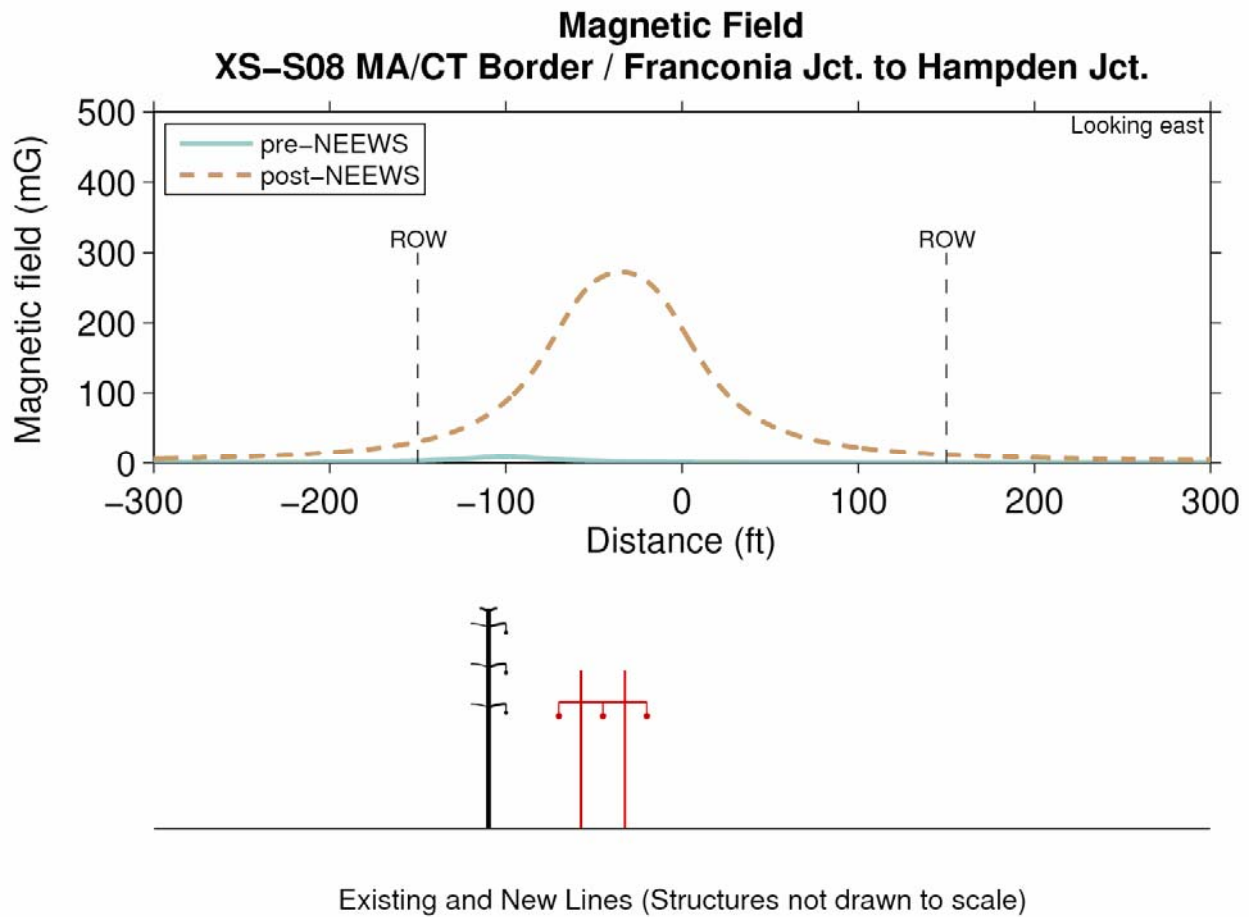




Figure 24. XS-S08 MA/CT Border/Franconia Jct. to Hamden Jct. – Magnetic fields for Southern Noticed Alternative Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at AAL



**Figure 25. Profile XS-S09 Hampden Jct. to Ludlow Substation – Magnetic fields for Southern Noticed Alternative Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at AAL**

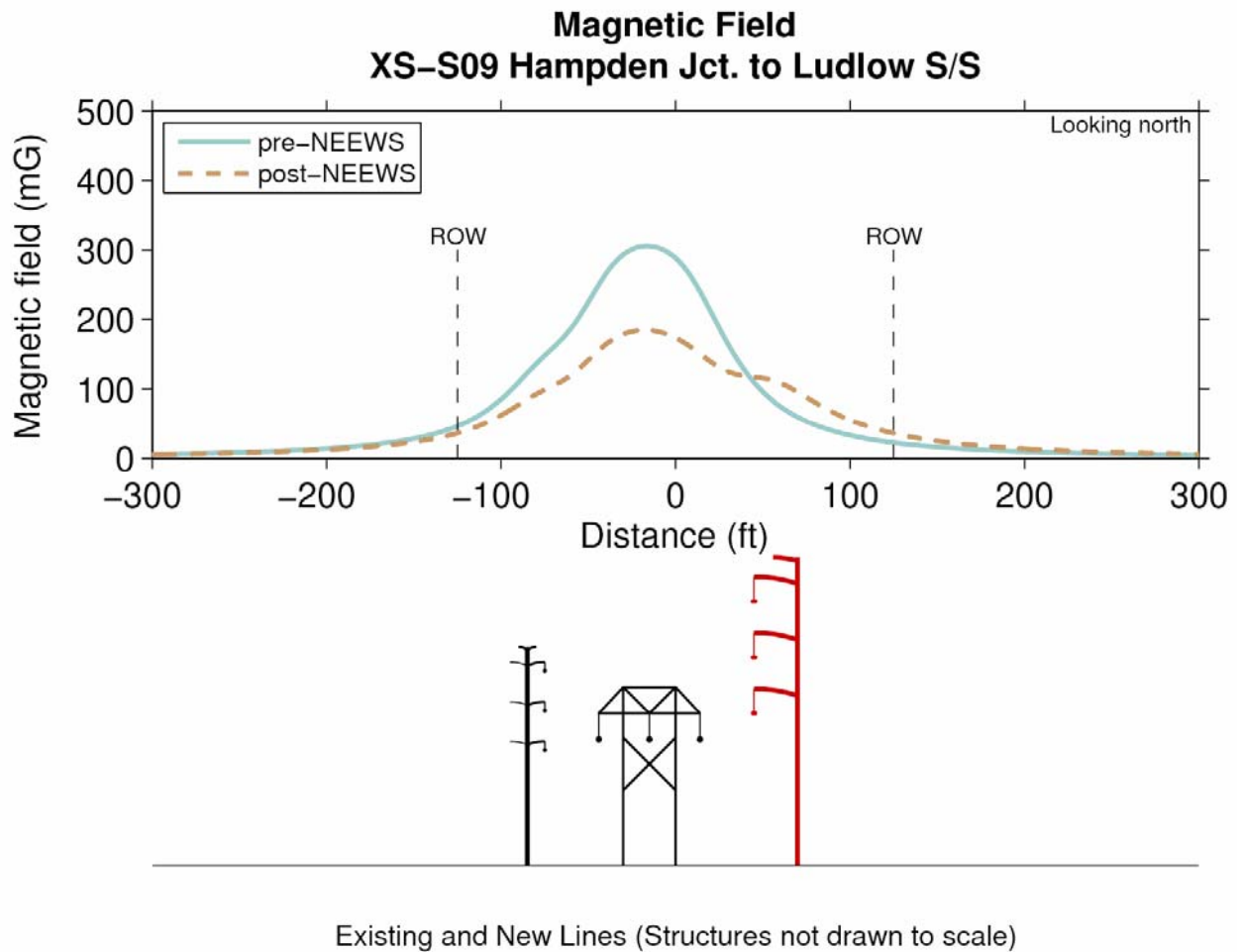


Figure 26. Profile XS-S10 Orchard Jct. to Ludlow Substation – Magnetic fields for Southern Noticed Alternative Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at AAL

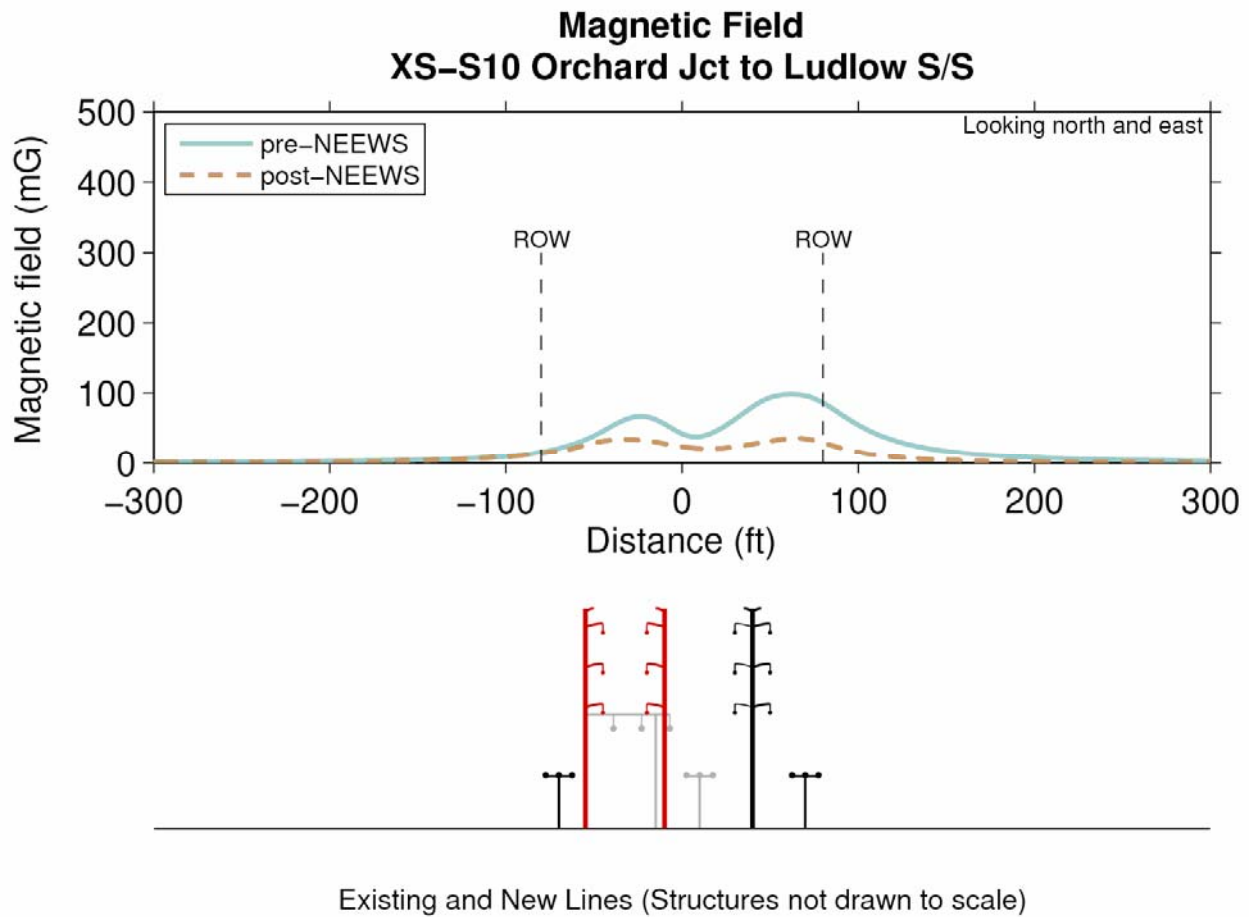


Figure 27. Profile XS-S11 Shawinigan Substation to Orchard Jct. – Magnetic fields for Southern Noticed Alternative Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at AAL

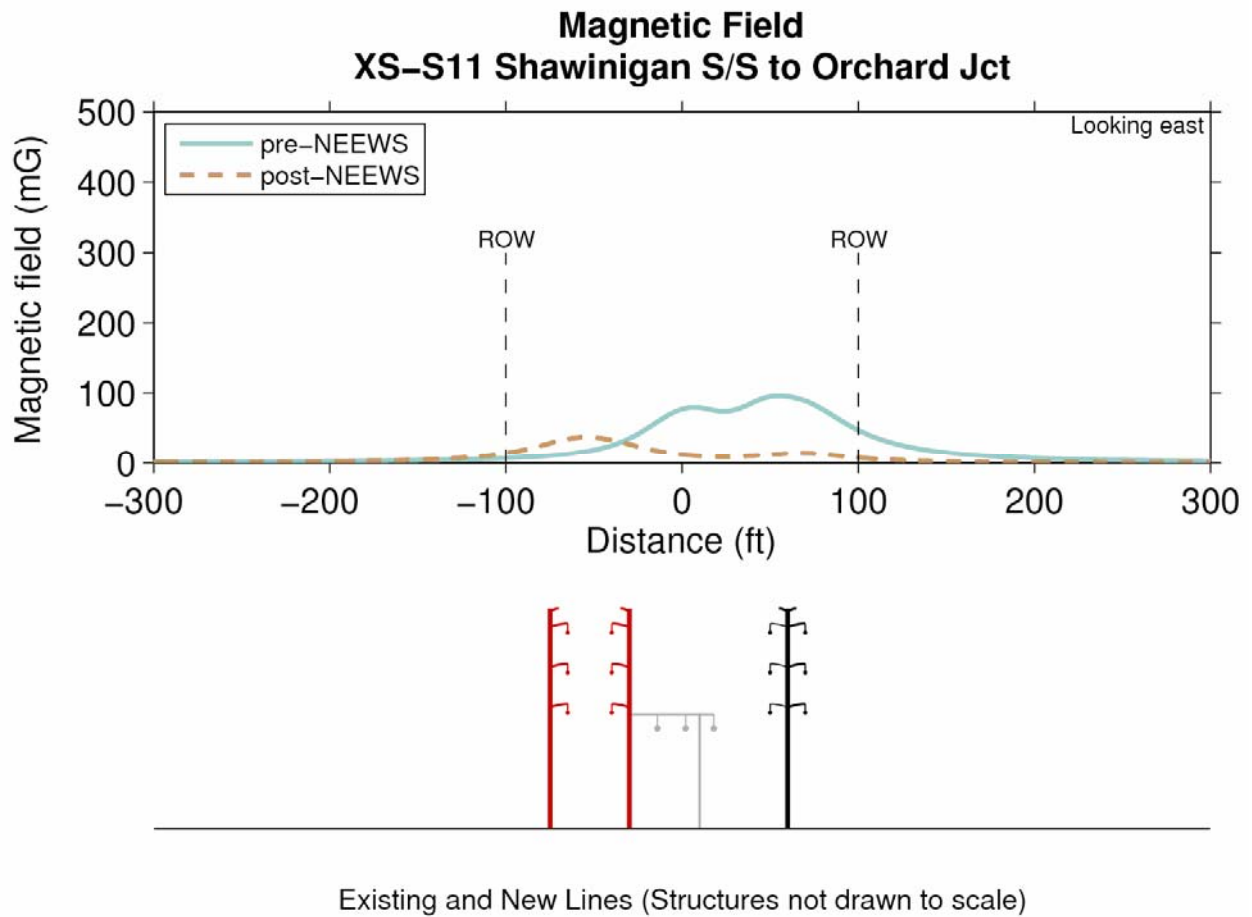


Figure 28. Profile XS-S12 Exit 6 Jct. to Shawinigan Substation – Magnetic fields for Southern Noticed Alternative Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at AAL

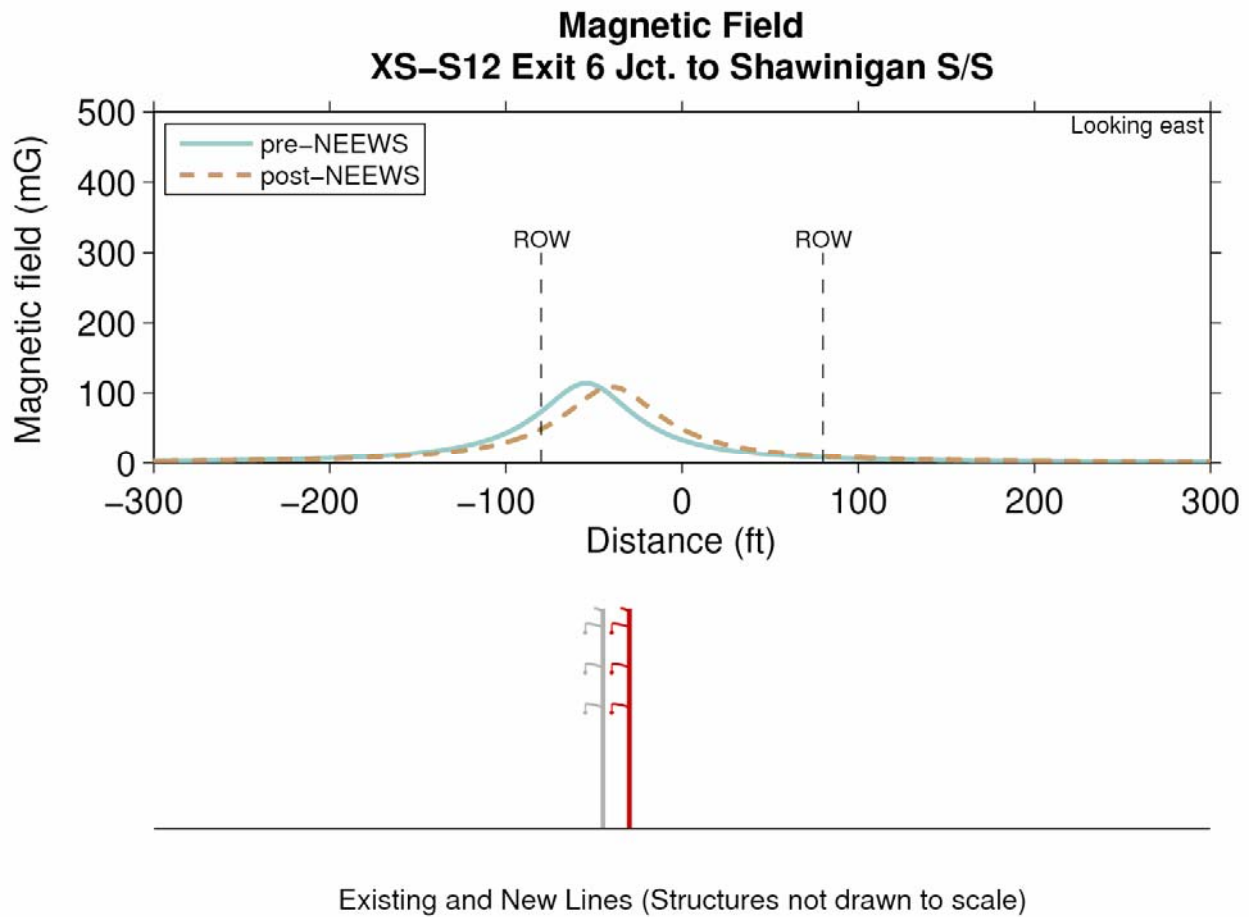


Figure 29. Profile XS-S13 Existing Str. 49091 to Exit 6 Jct. – Magnetic fields for Southern Noticed Alternative Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at AAL

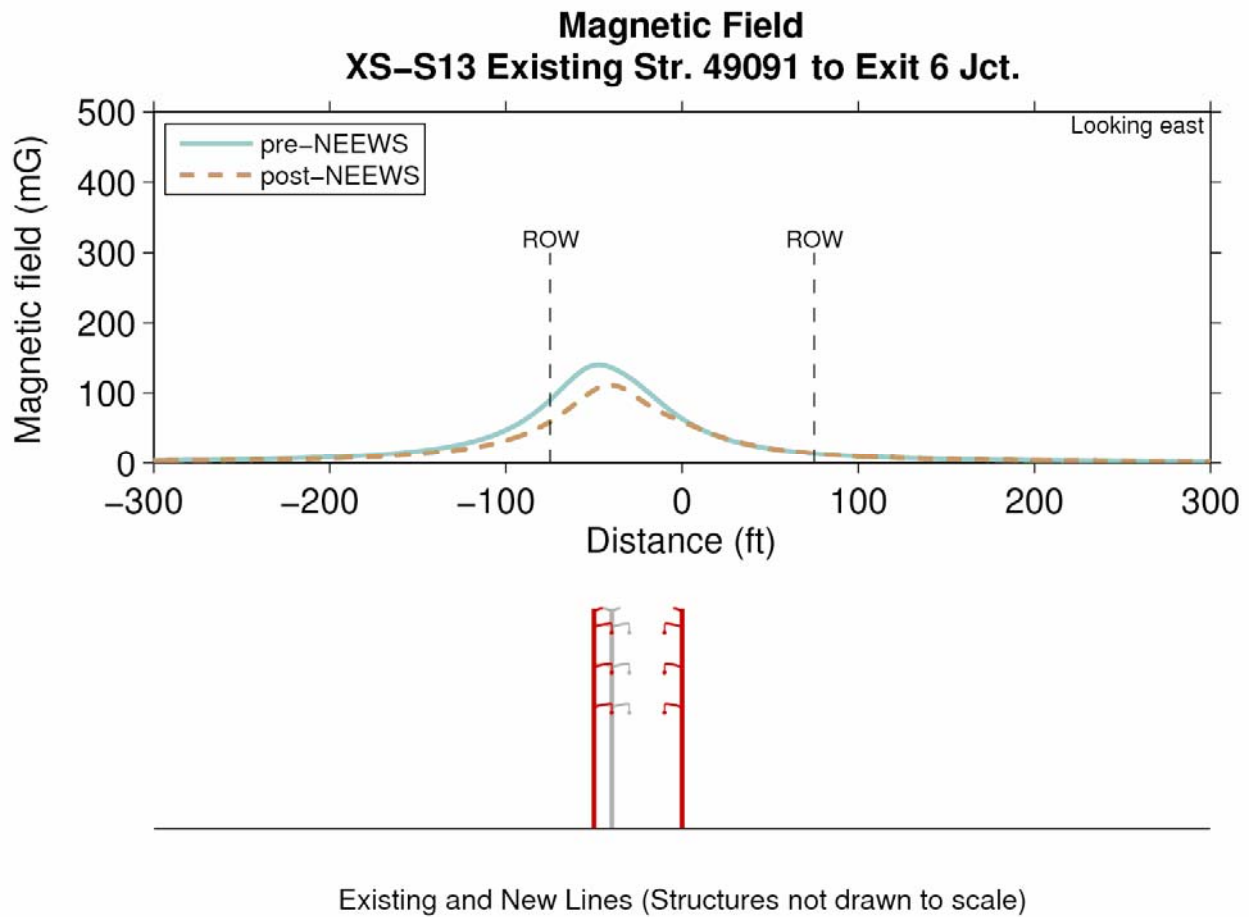


Figure 30. Profile XS-S14 East Springfield Jct. to Existing Str. 49091 – Magnetic fields for Southern Noticed Alternative Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at AAL

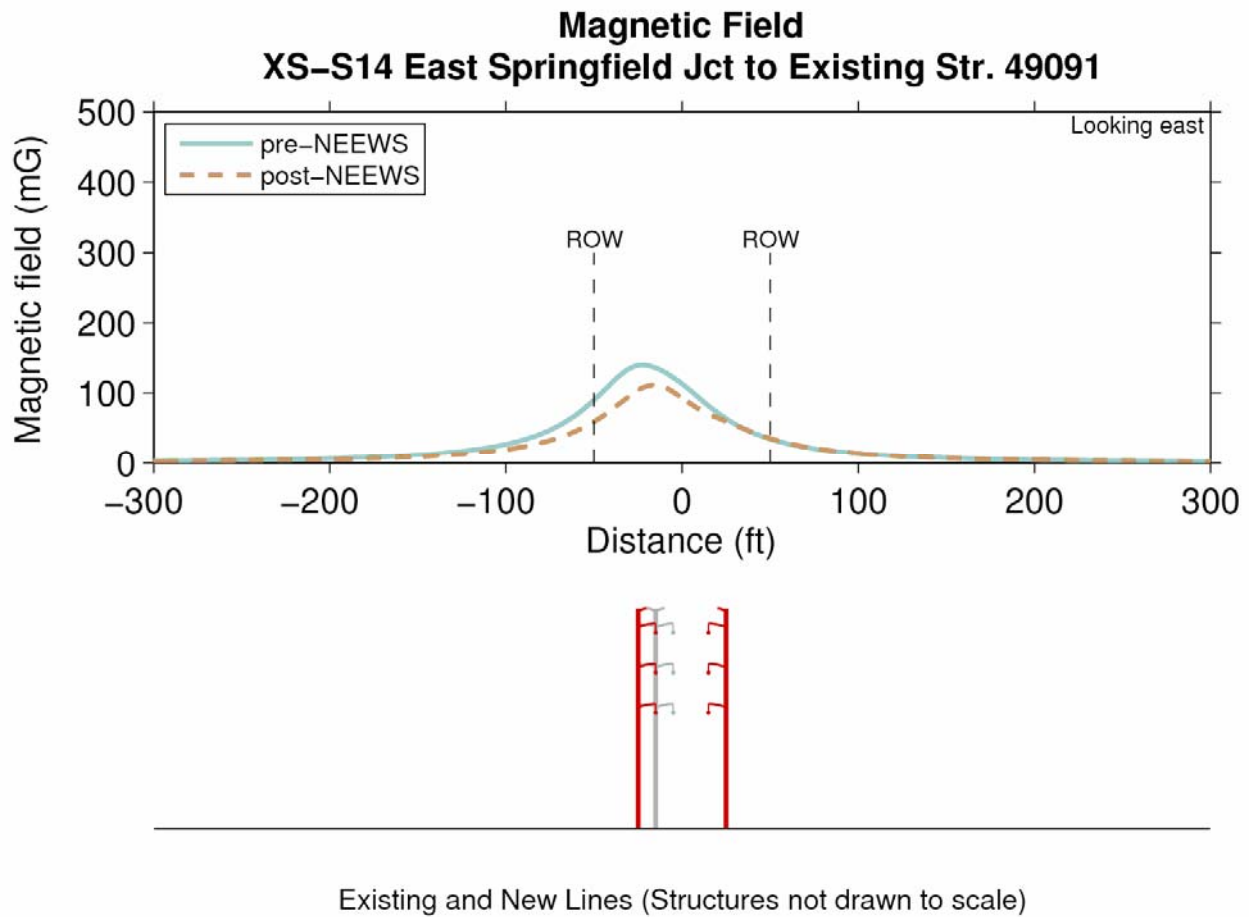


Figure 31. Profile XS-S15 Chicopee Substation to E. Springfield Jct. – Magnetic fields for Southern Noticed Alternative Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at AAL

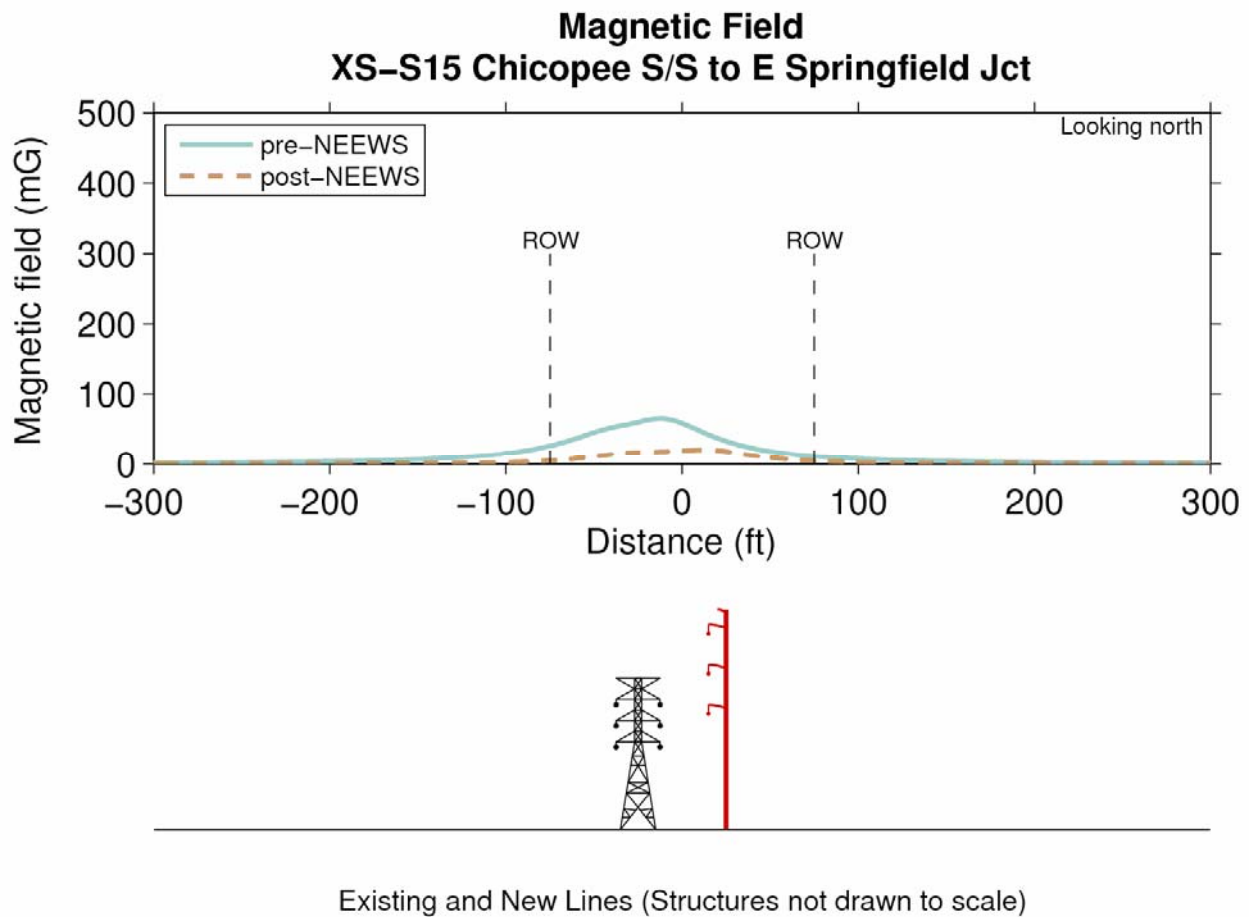




Figure 32. Profile XS-S16 Piper Substation to Chicopee Substation – Magnetic fields for Southern Noticed Alternative Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at AAL

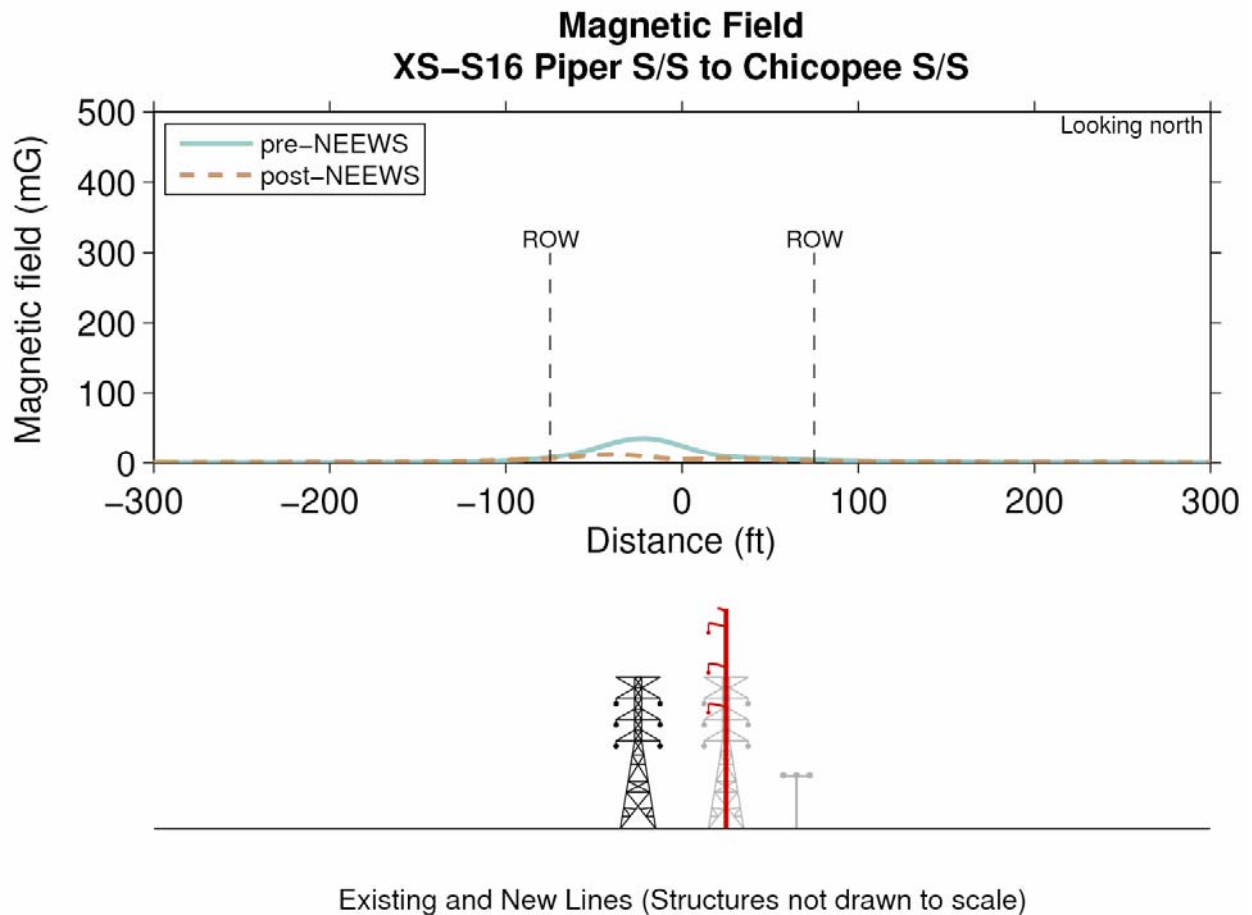


Figure 33. Profile XS-S17 Agawam Substation to Piper Substation – Magnetic fields for Southern Noticed Alternative Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at AAL

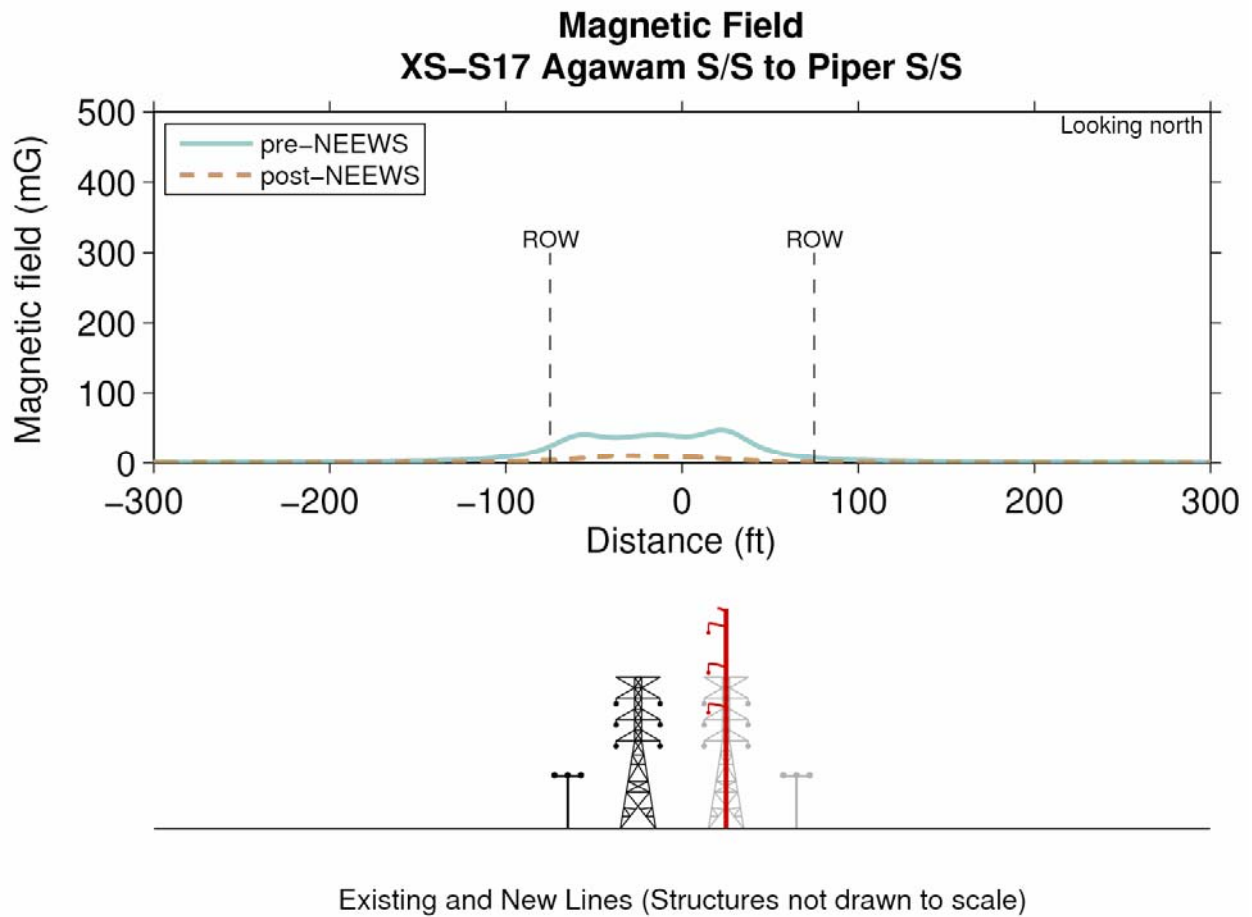


Figure 34. Profile XS-S18 East Springfield Jct. to Fairmont Substation – Magnetic fields for Southern Noticed Alternative Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at AAL

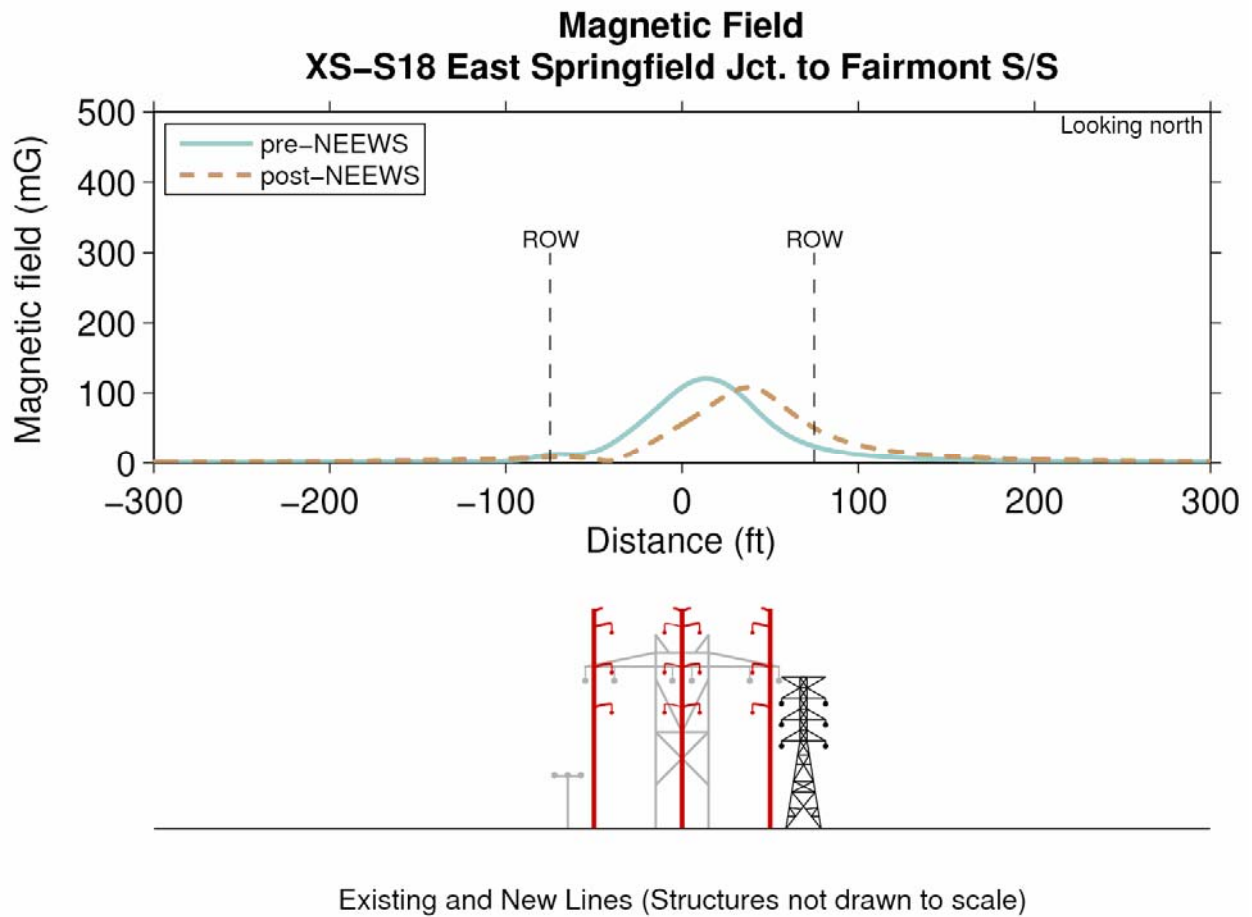
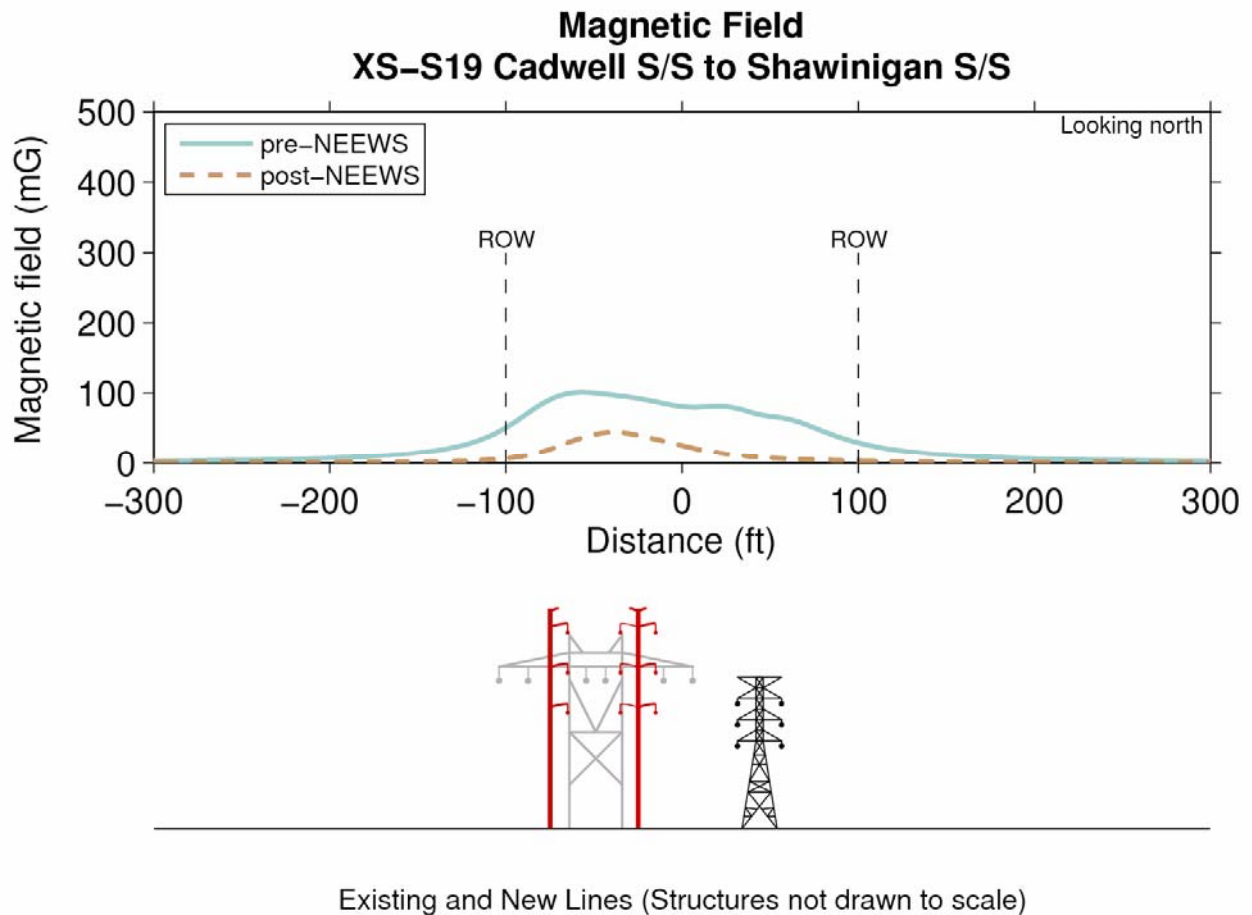


Figure 35. Profile XS-S19 Cadwell Substation to Shawinigan Substation – Magnetic fields for Southern Noticed Alternative Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at AAL



**Figure 36. Profile XS-S20 Orchard Substation to Orchard Jct. – Magnetic fields for Southern Noticed Alternative Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at AAL**

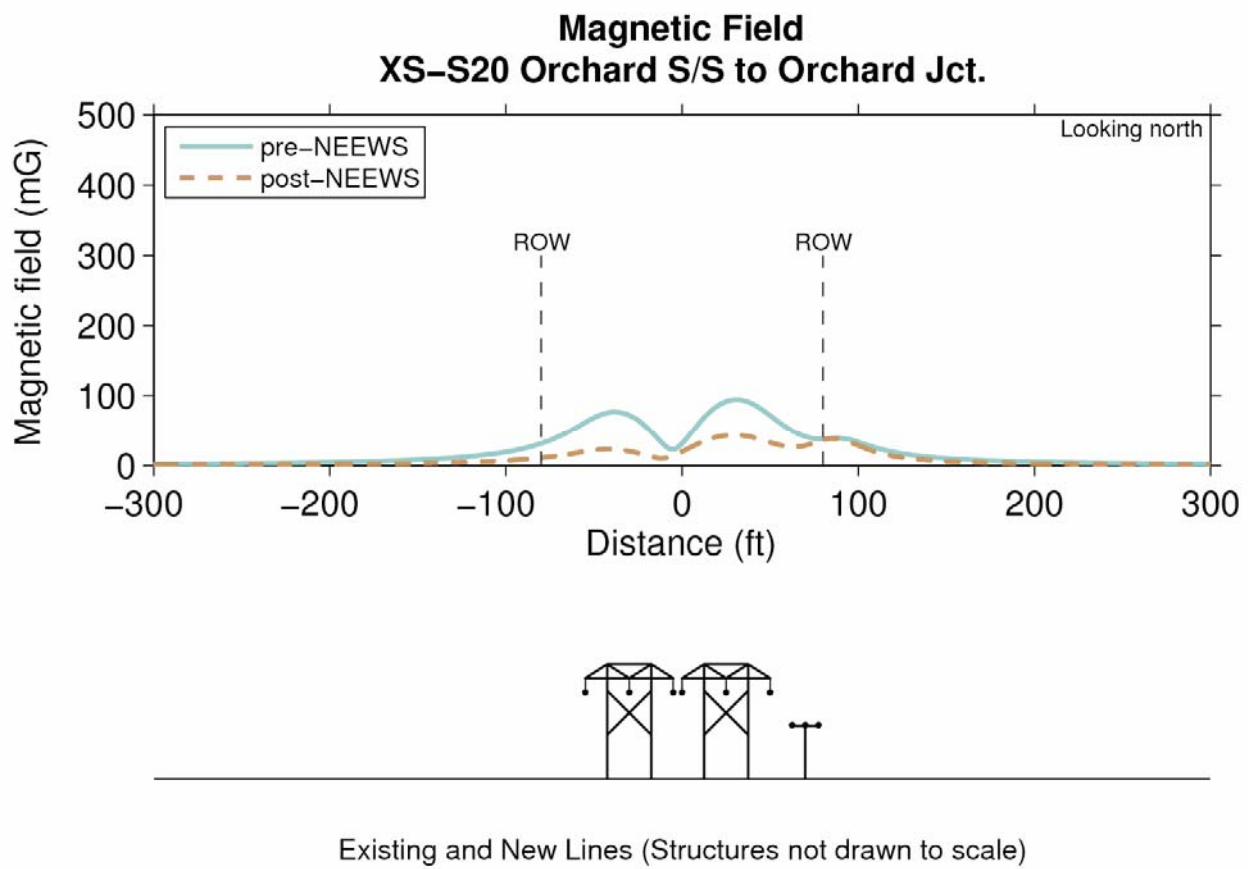


Figure 37. Profile XS-3:CT/MA Border to Existing Deadend Str. 2249– Magnetic fields for Preferred Northern Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at APL

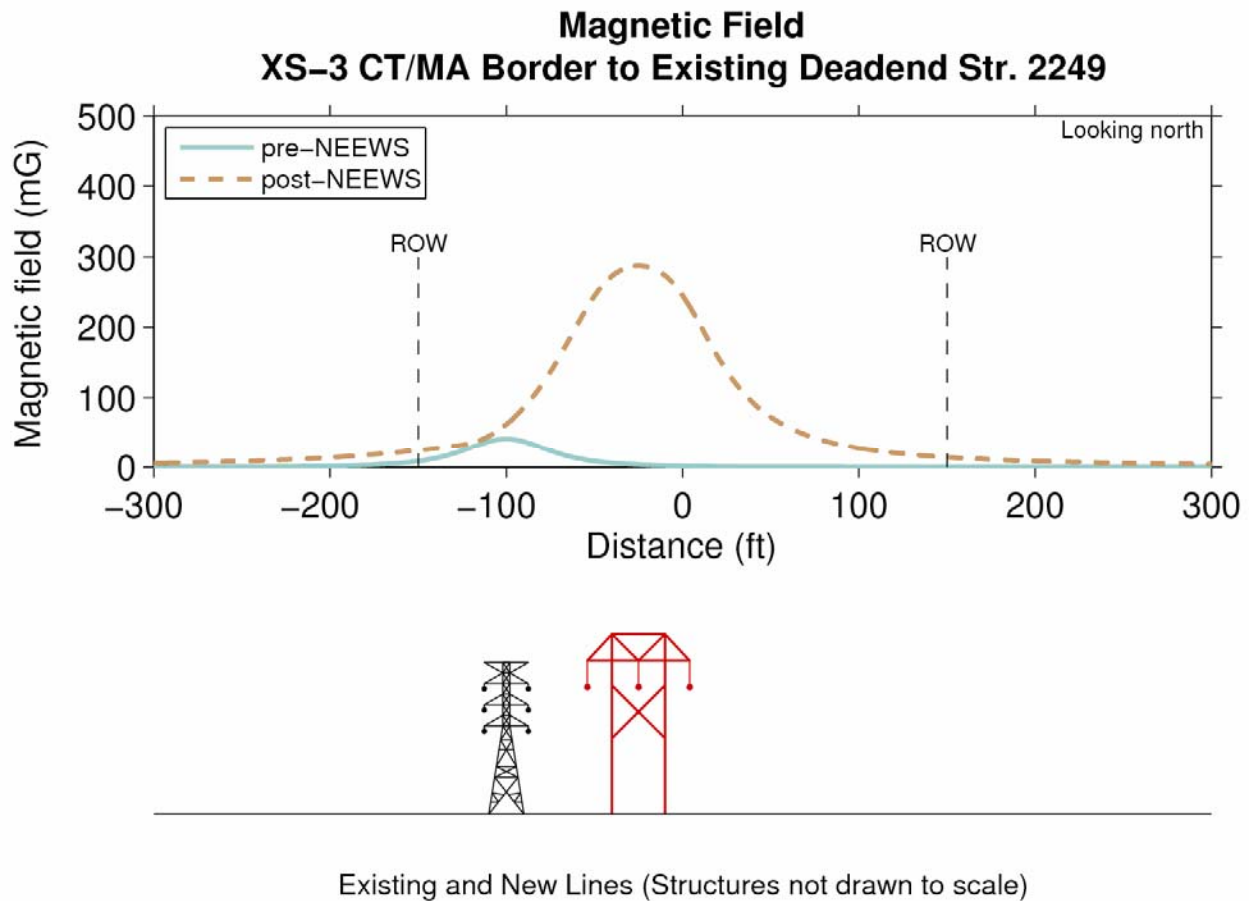
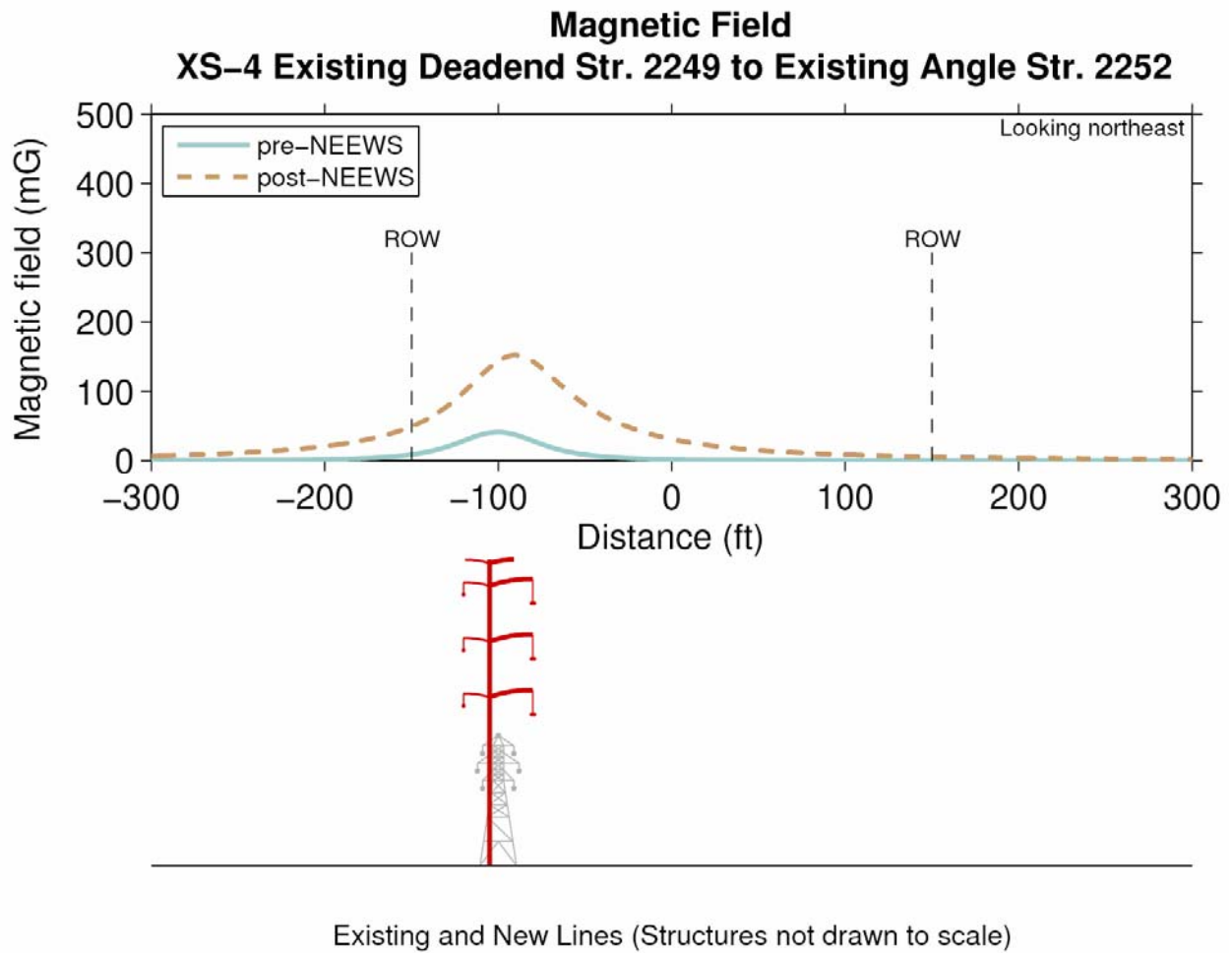


Figure 38. Profile XS-4: Existing Deadend Str. 2249 to Existing Angle Str. 2252 - Magnetic fields for Preferred Northern Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at APL



**Figure 39. Profile XS-5 Existing Angle Str. 2252 to Existing Angle Str. 2267- Magnetic fields for Preferred Northern Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at APL**

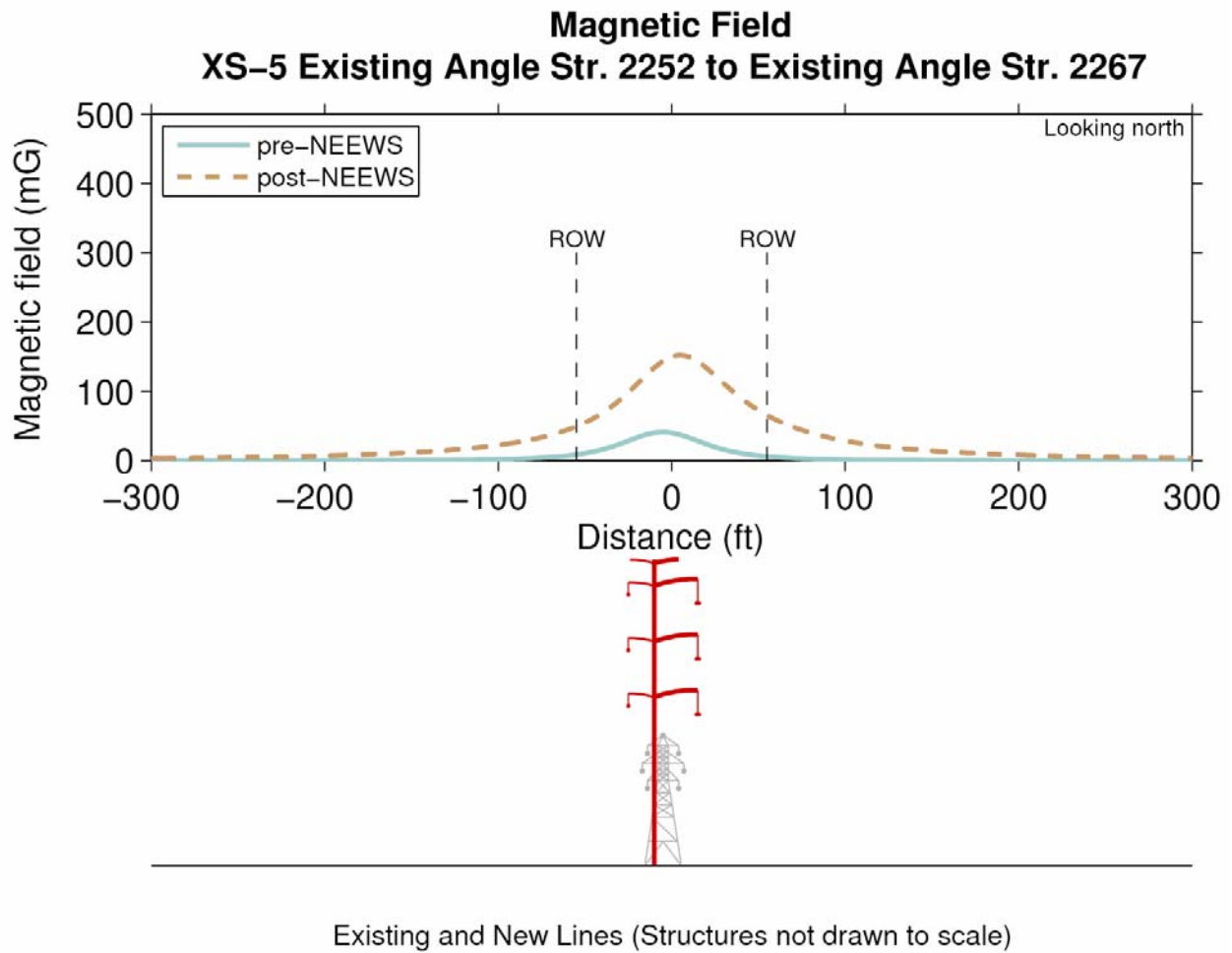




Figure 40. Profile XS-6 Existing Angle Str. 2267 to South Agawam Substation - Magnetic fields for Preferred Northern Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at APL

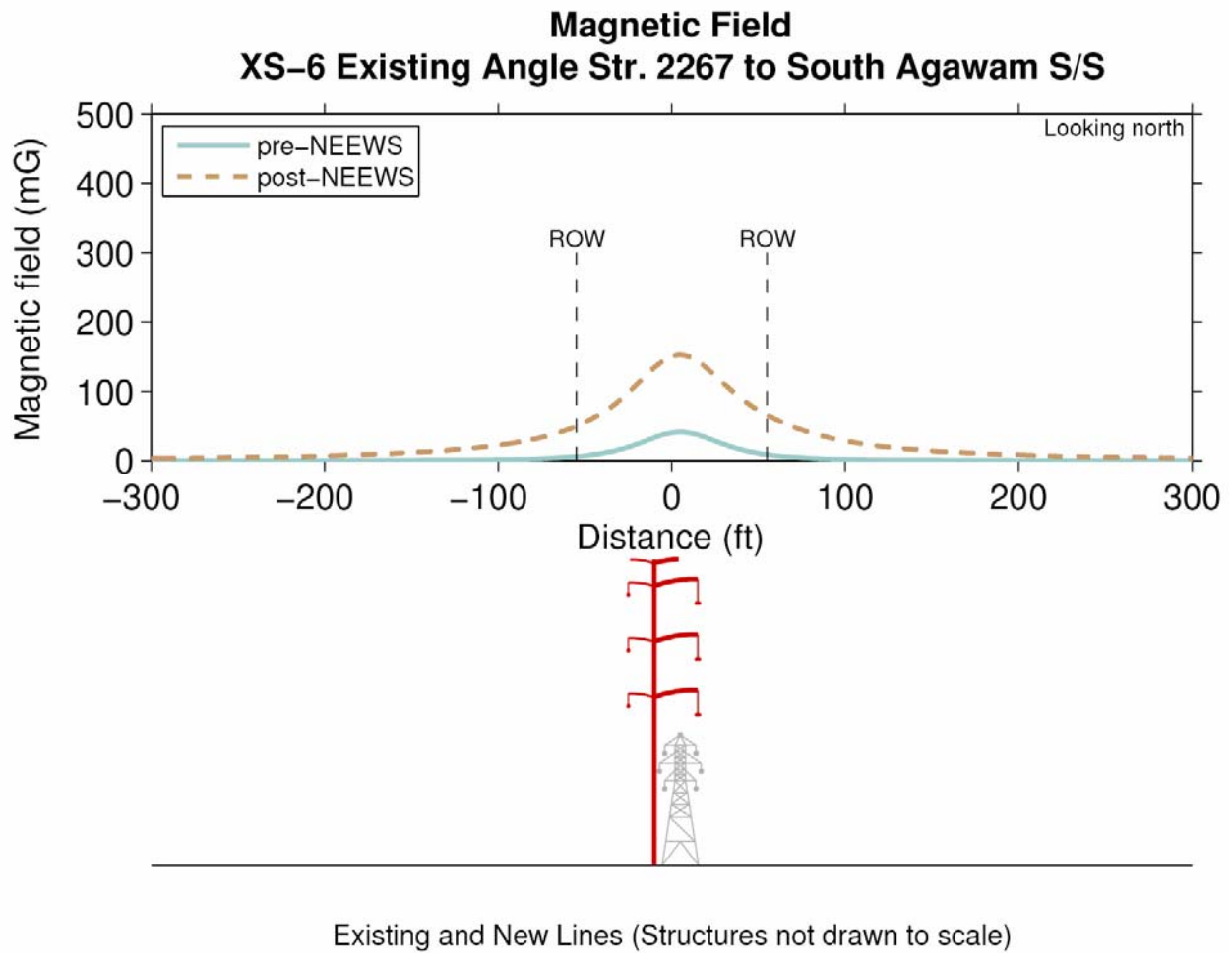


Figure 41. Profile XS-7 South Agawam Substation to Silver Substation - Magnetic fields for Preferred Northern Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at APL

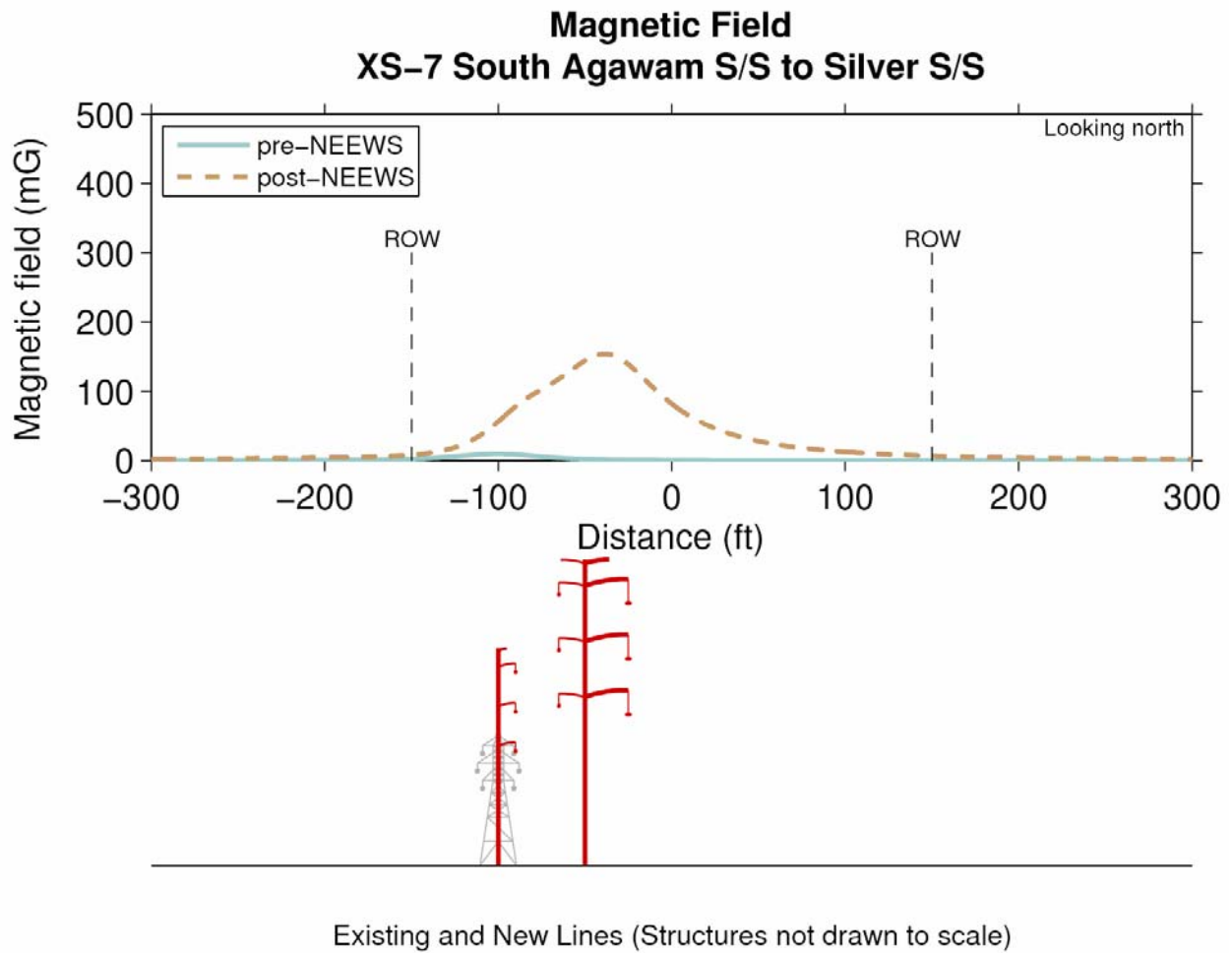
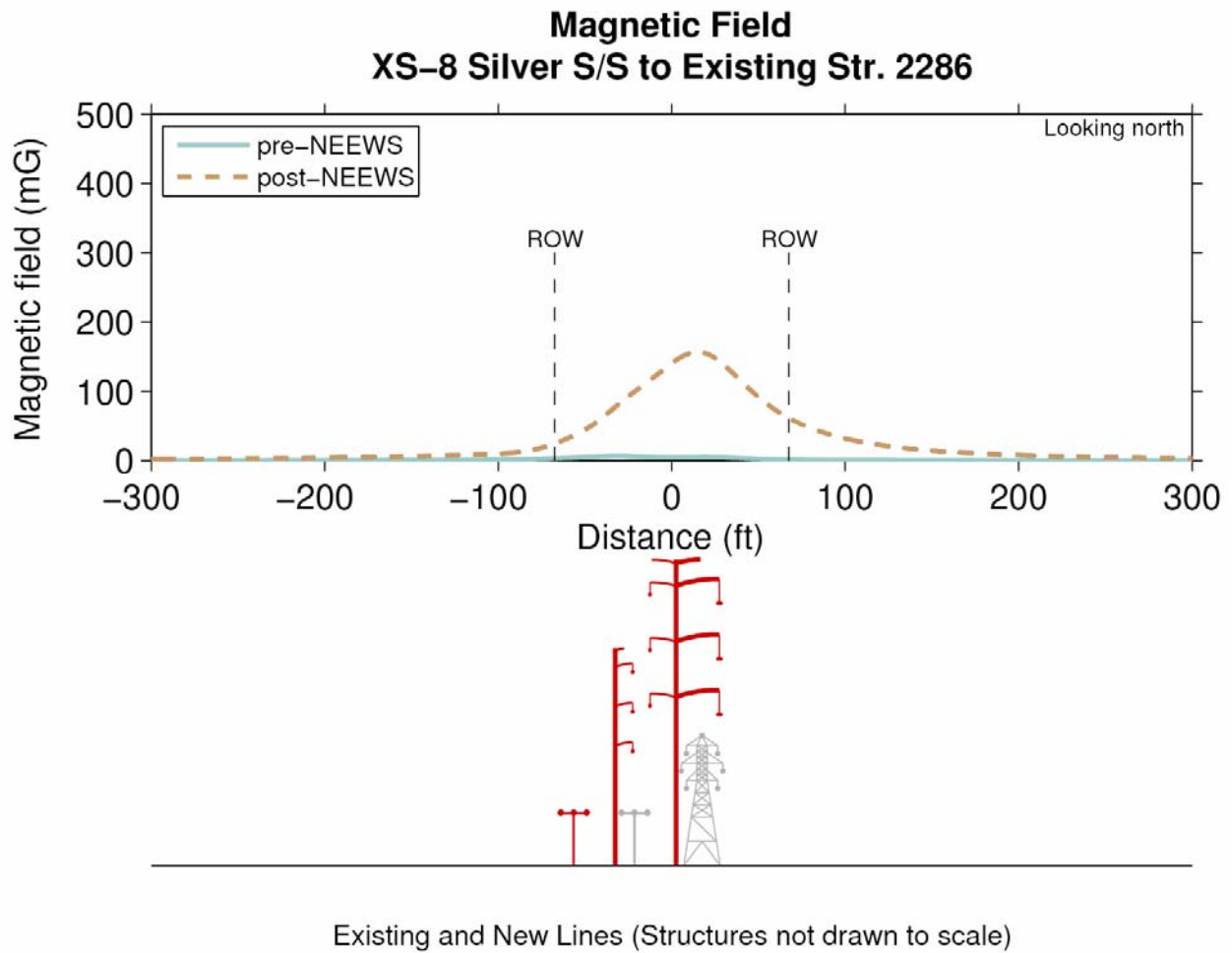


Figure 42. Profile XS-8 Silver Substation to Existing Str. 2286 - Magnetic fields for Preferred Northern Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at APL



**Figure 43. Profile XS-9 Existing Str. 2286 to Agawam Substation - Magnetic fields for Preferred Northern Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at APL**

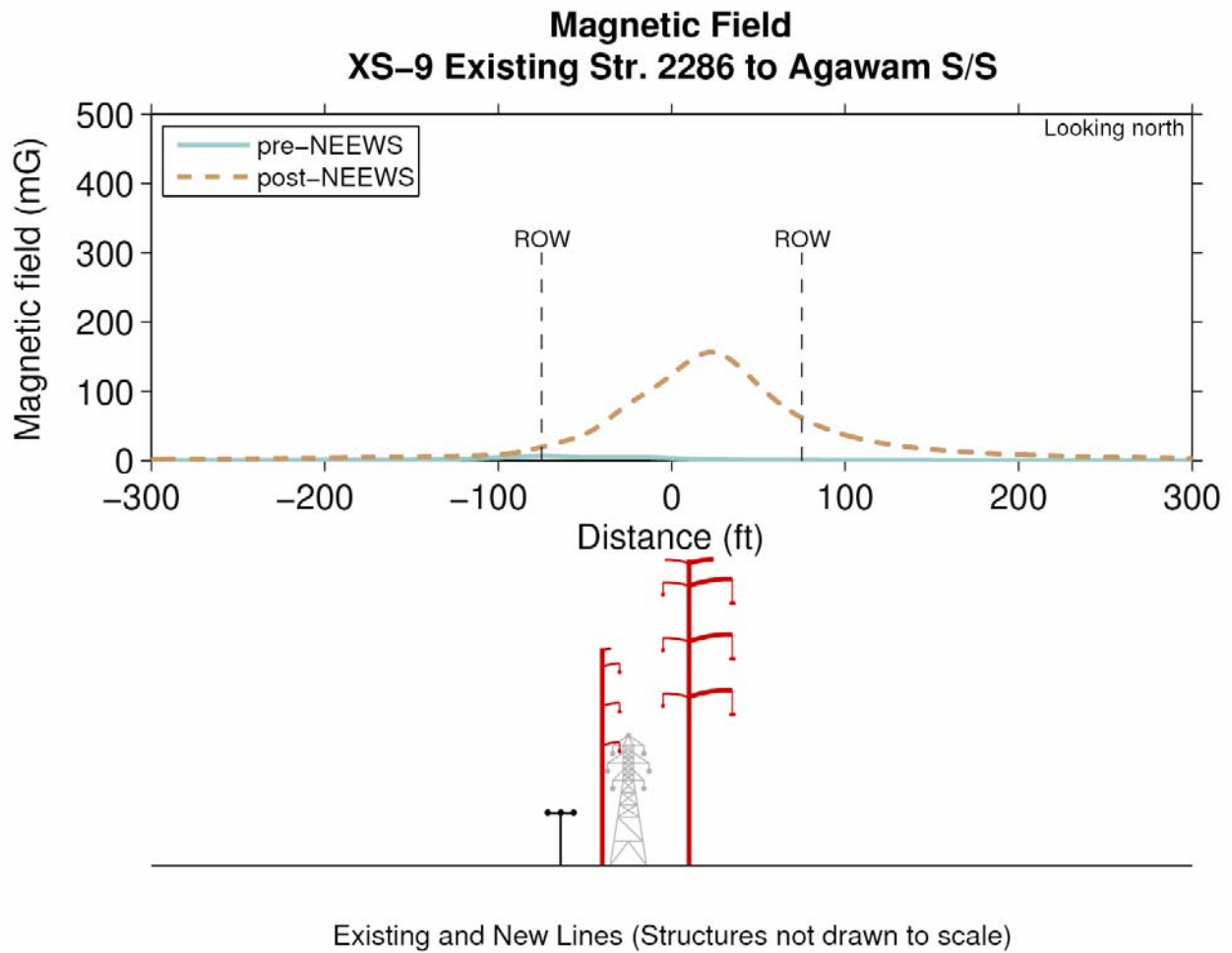
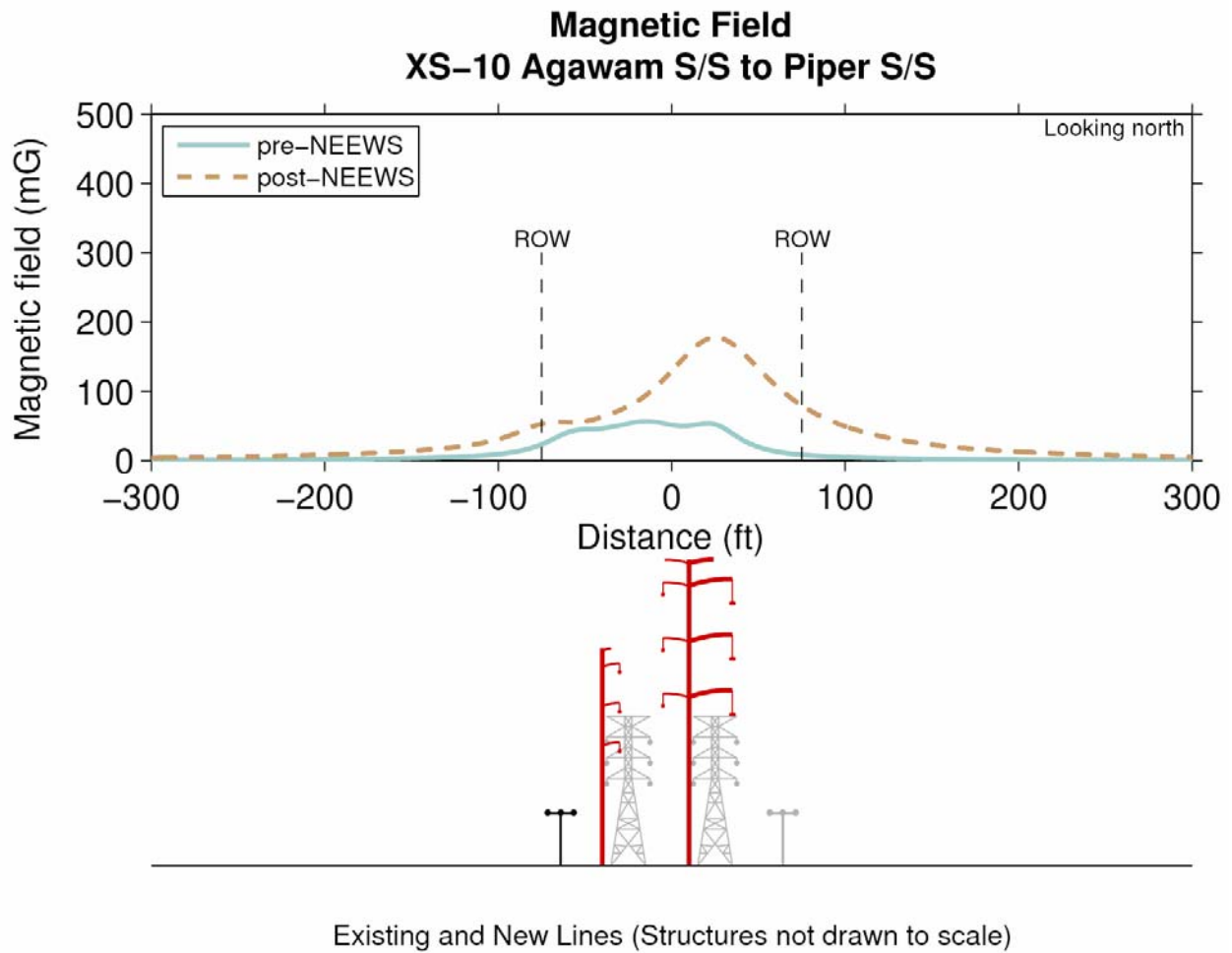


Figure 44. Profile XS-10 Agawam Substation to Piper Substation - Magnetic fields for Preferred Northern Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at APL



**Figure 45. Profile XS-11 Piper Substation to Chicopee Substation - Magnetic fields for Preferred Northern Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at APL**

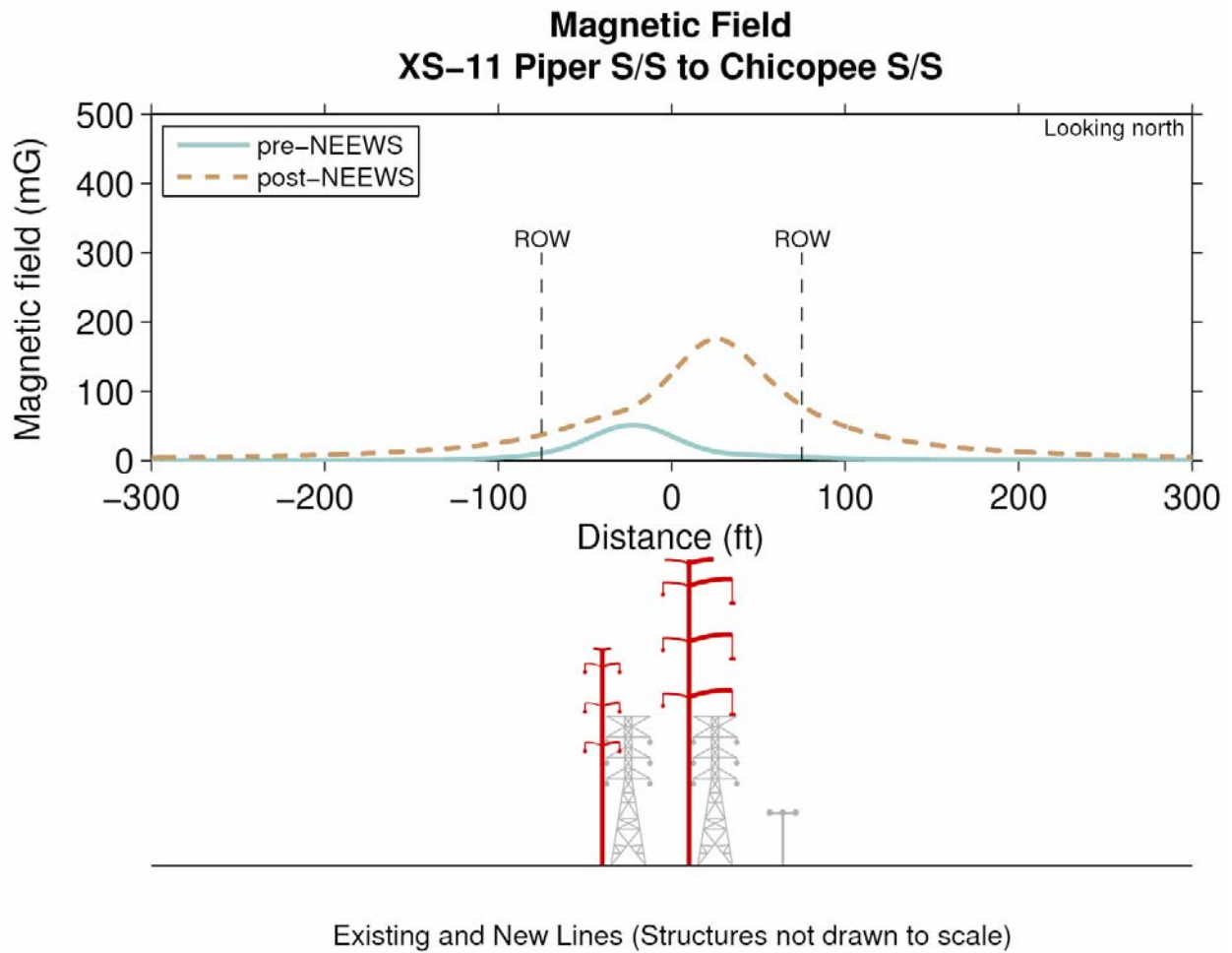


Figure 46. Profile XS-12 Chicopee Substation to East Springfield Junction - Magnetic fields for Preferred Northern Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at APL

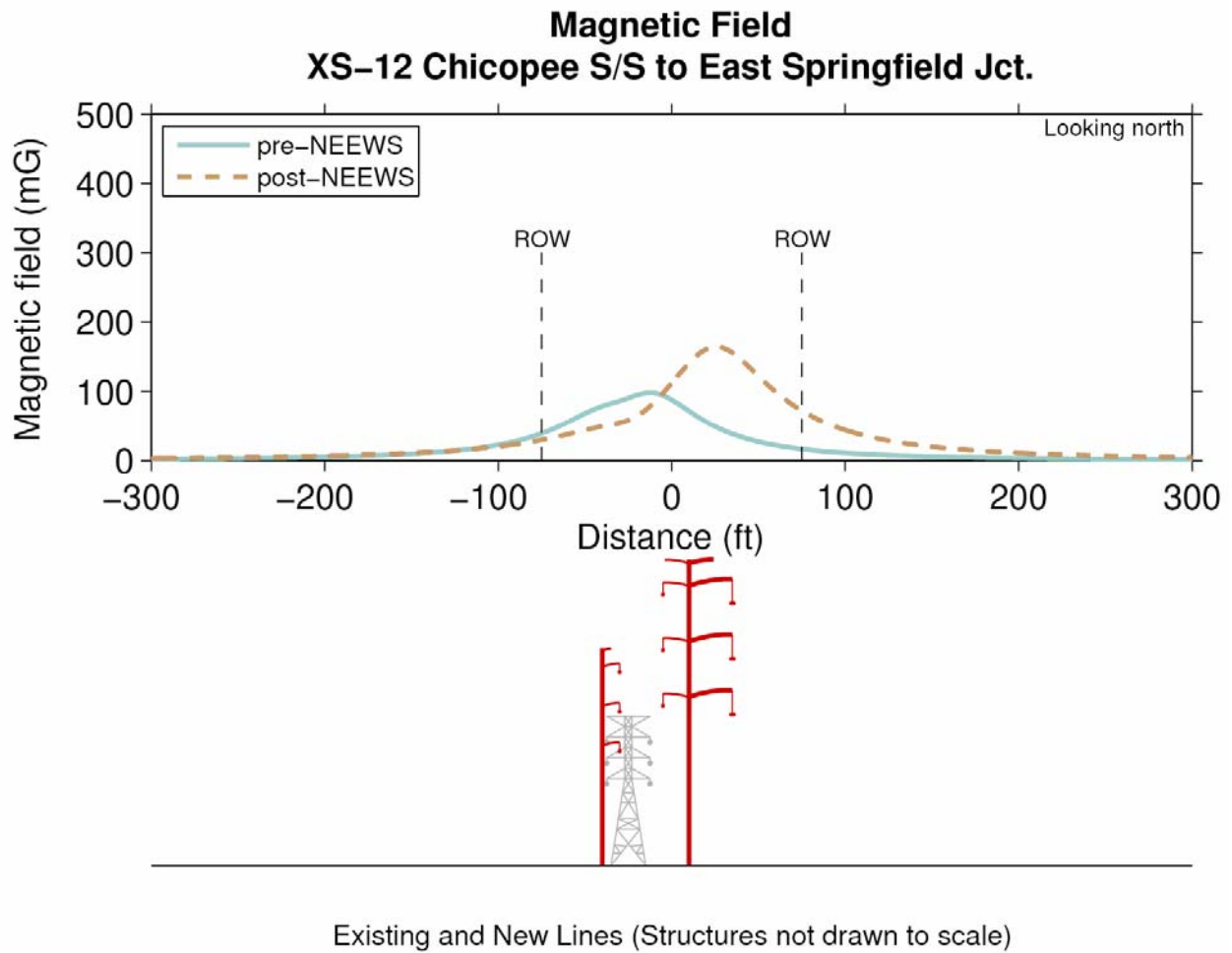


Figure 47. Profile XS-13 East Springfield Junction to Existing Str. 49091 - Magnetic fields for Preferred Northern Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at APL

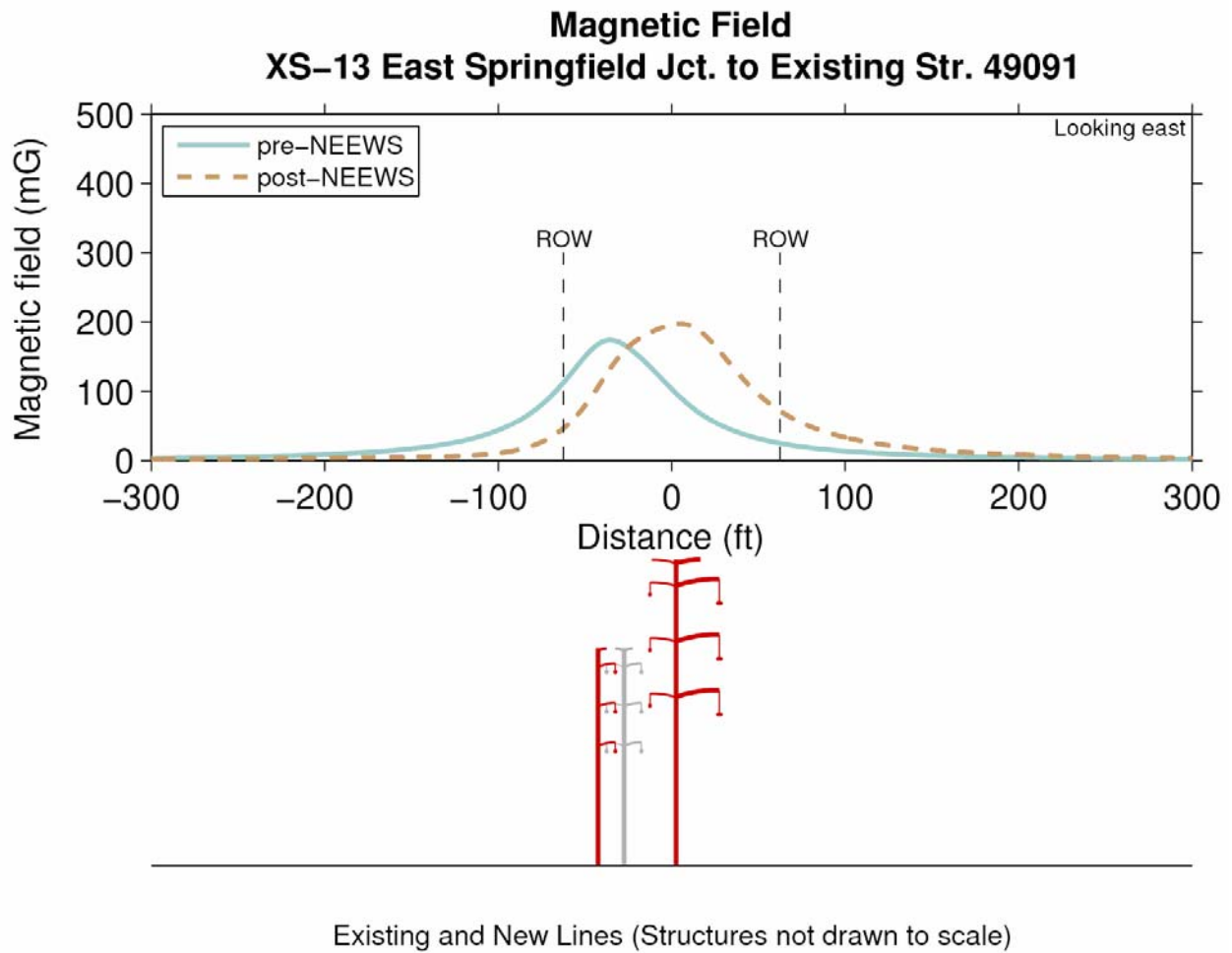




Figure 48. Profile XS-14 Existing Str. 49091 to Exit 6 Jct. - Magnetic fields for Preferred Northern Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at APL

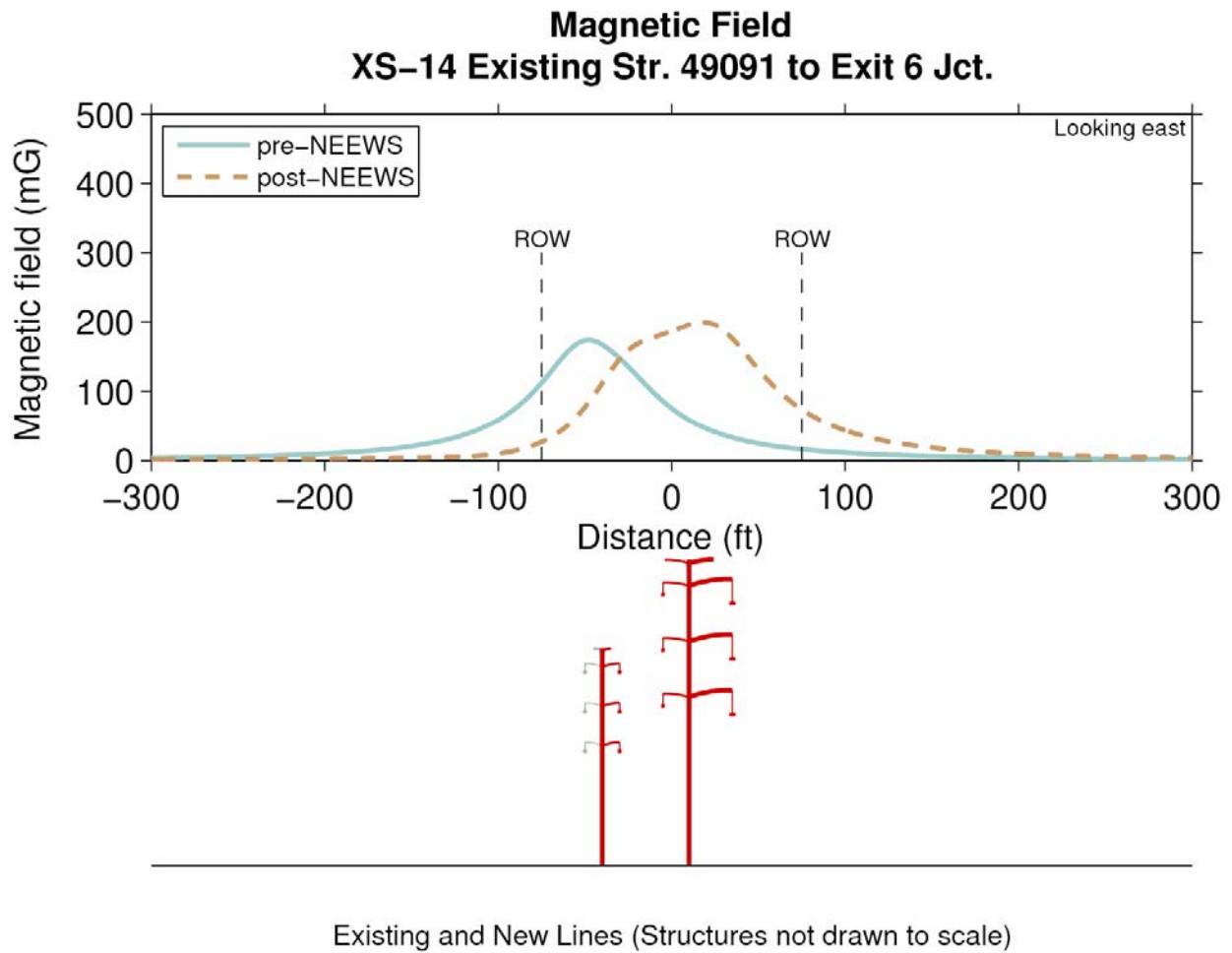
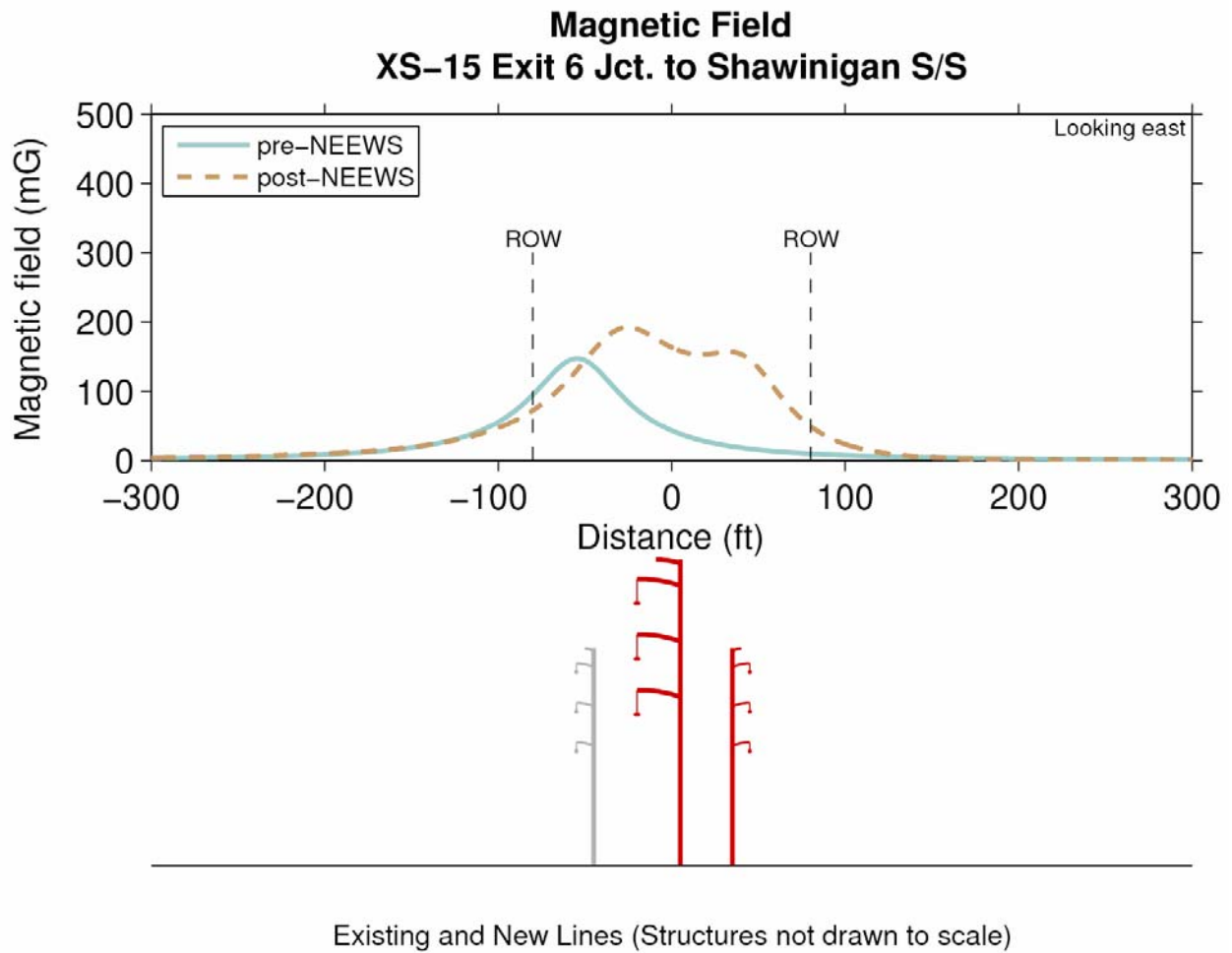


Figure 49. Profile XS-15 Exit 6 Jct. To Shawinigan Substation - Magnetic fields for Preferred Northern Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at APL



**Figure 50. Profile XS-16 Shawinigan Substation to Orchard Jct. - Magnetic fields for Preferred Northern Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at APL**

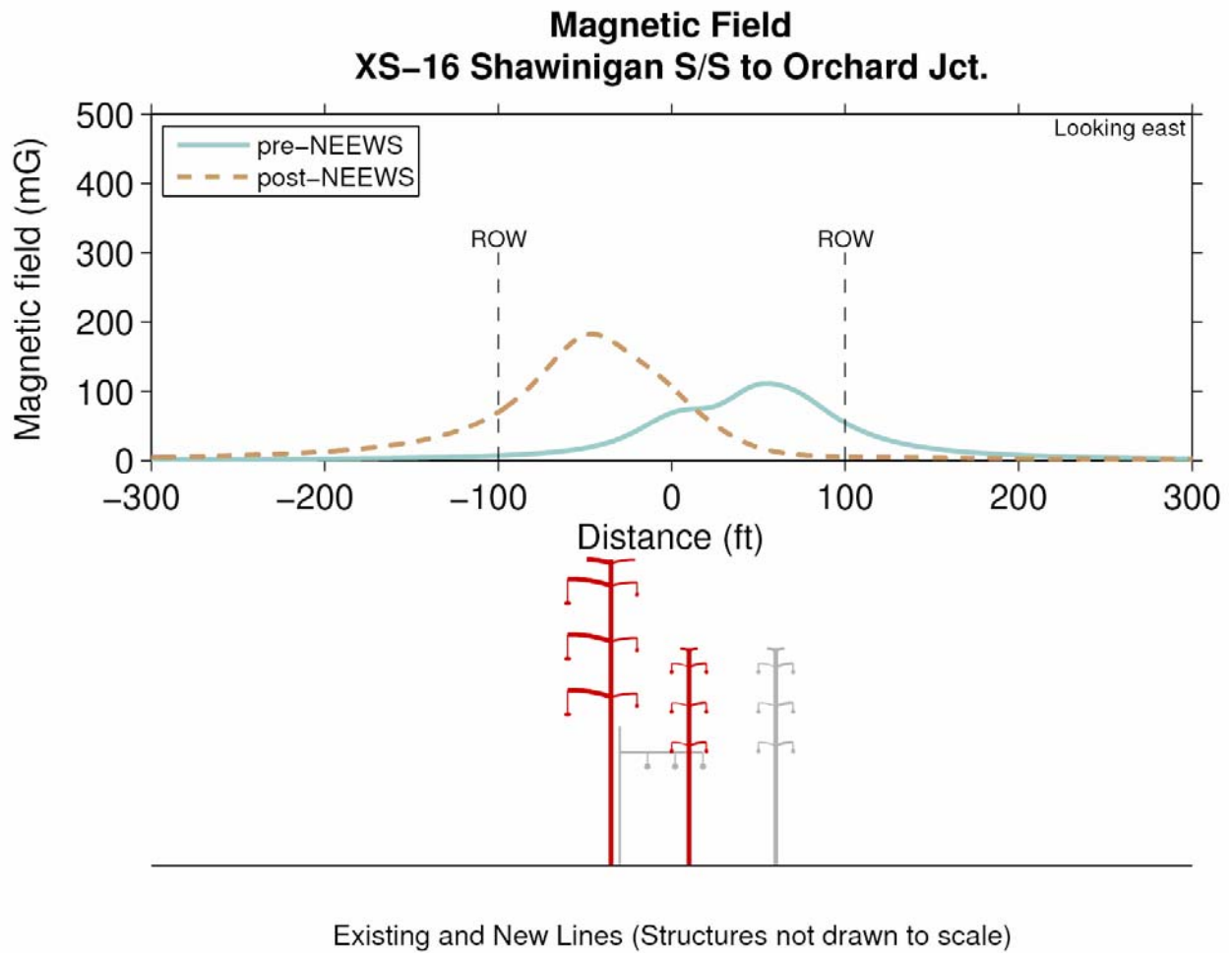


Figure 51. Profile XS-17 Orchard Jct. To Ludlow Substation - Magnetic fields for Preferred Northern Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at APL

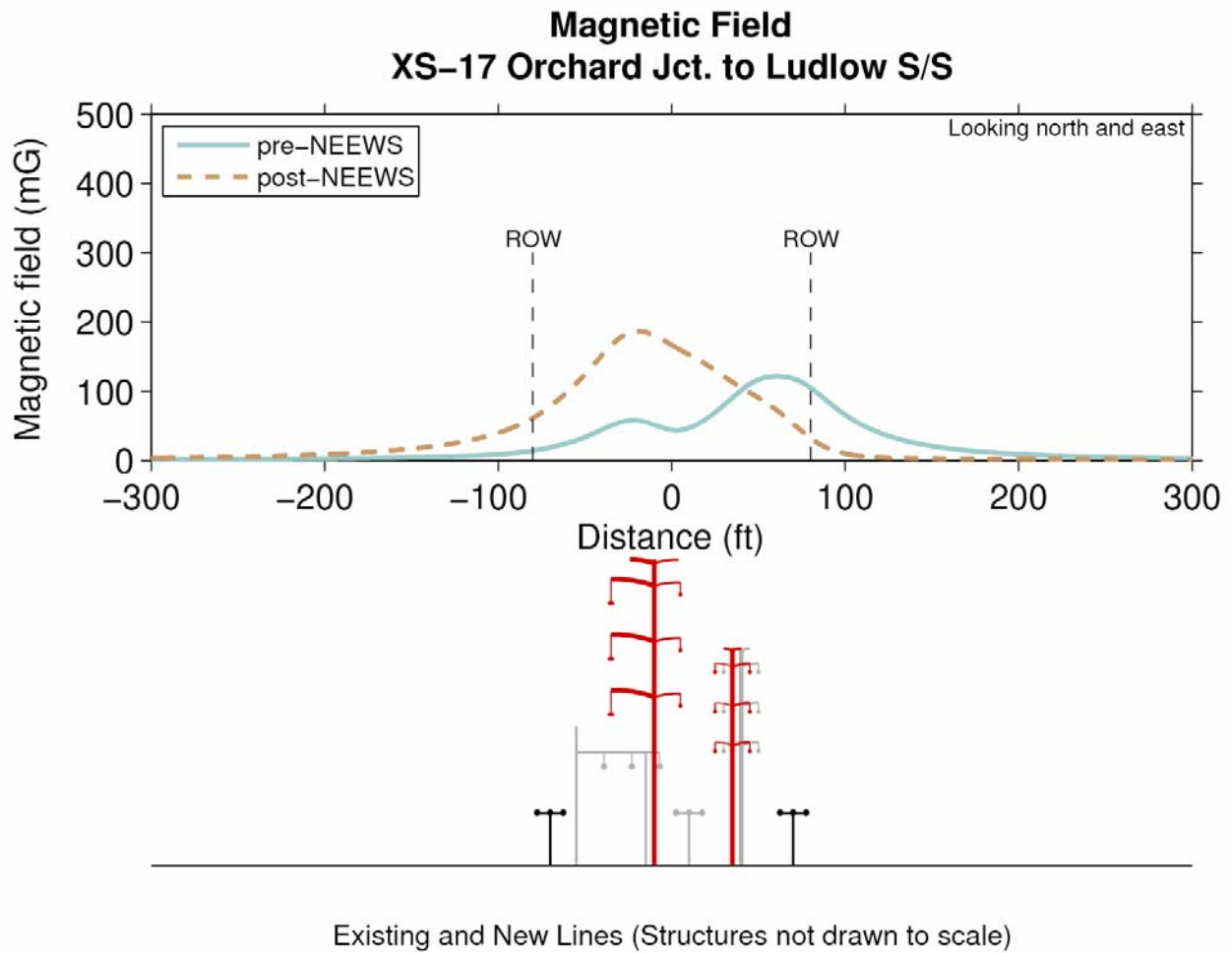
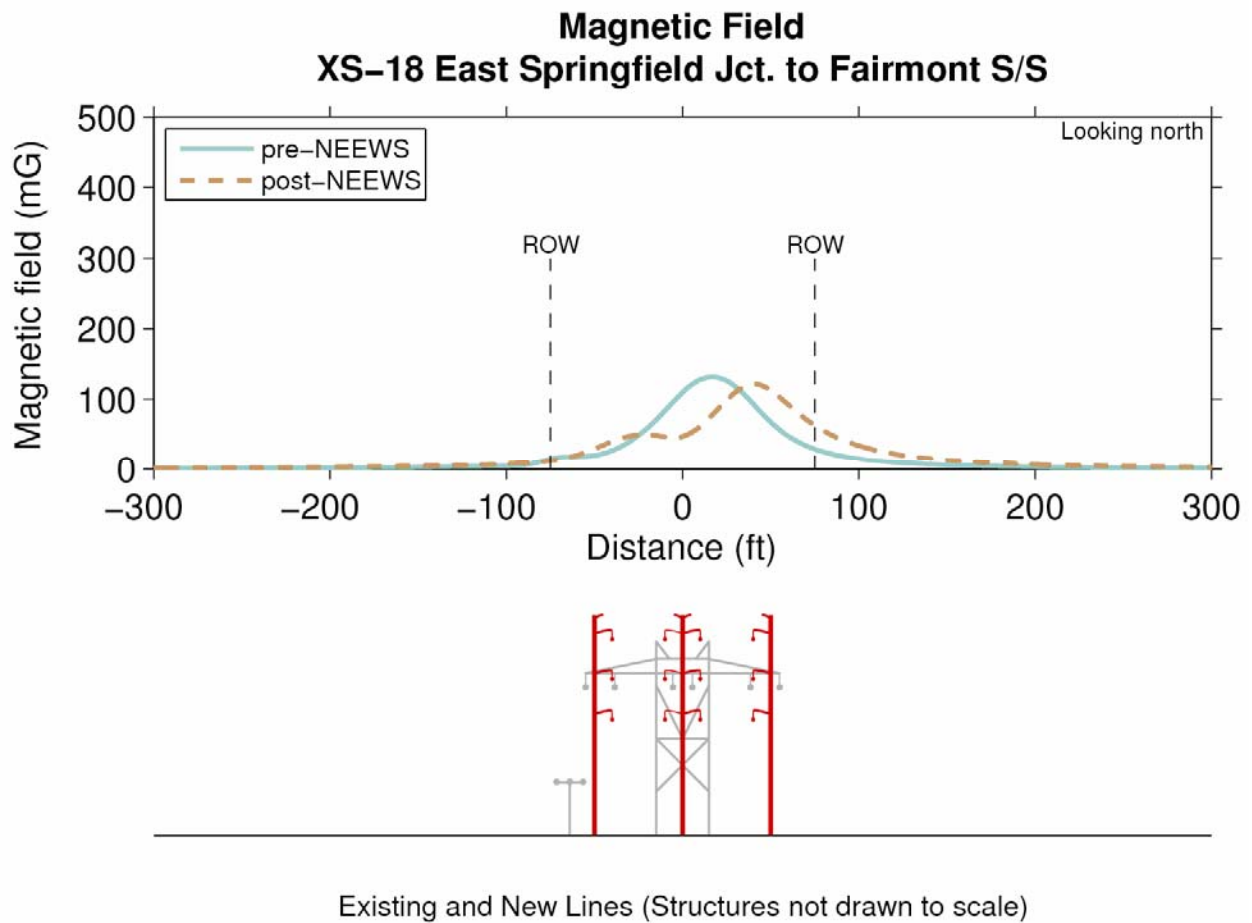


Figure 52. Profile XS-18 East Springfield Jct. to Fairmont Substation - Magnetic fields for Preferred Northern Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at APL



**Figure 53. Profile XS-19 Cadwell Substation to Shawinigan Substation - Magnetic fields for Preferred Northern Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at APL**

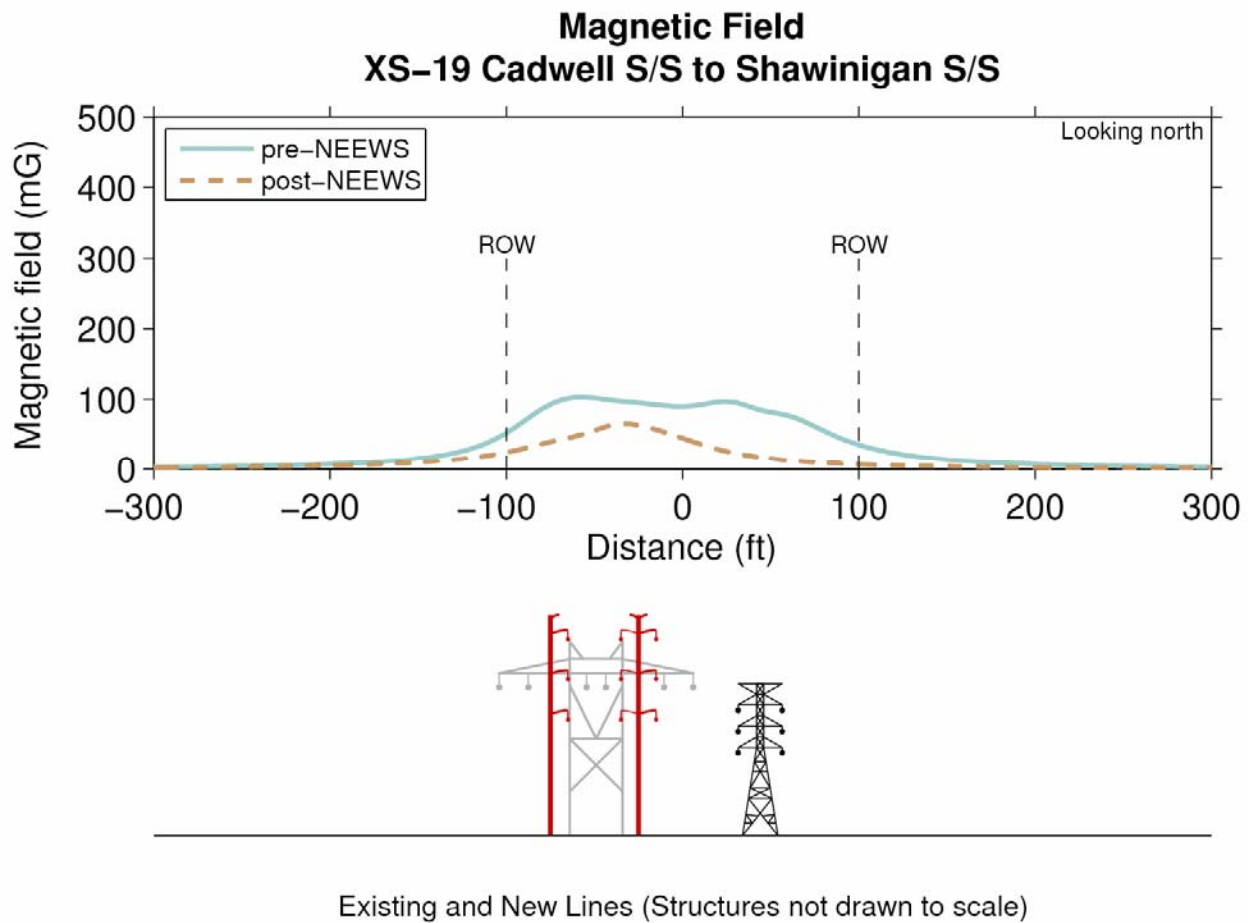
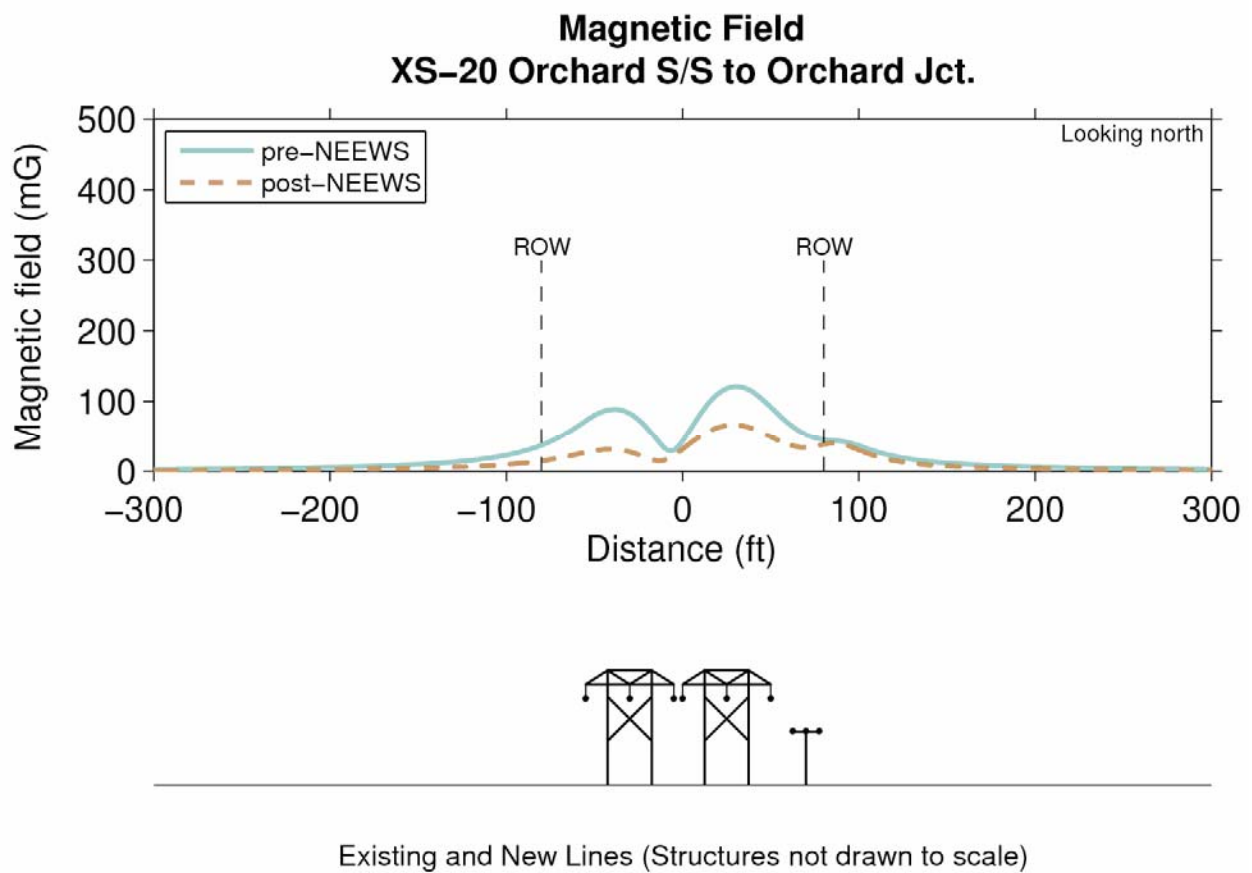
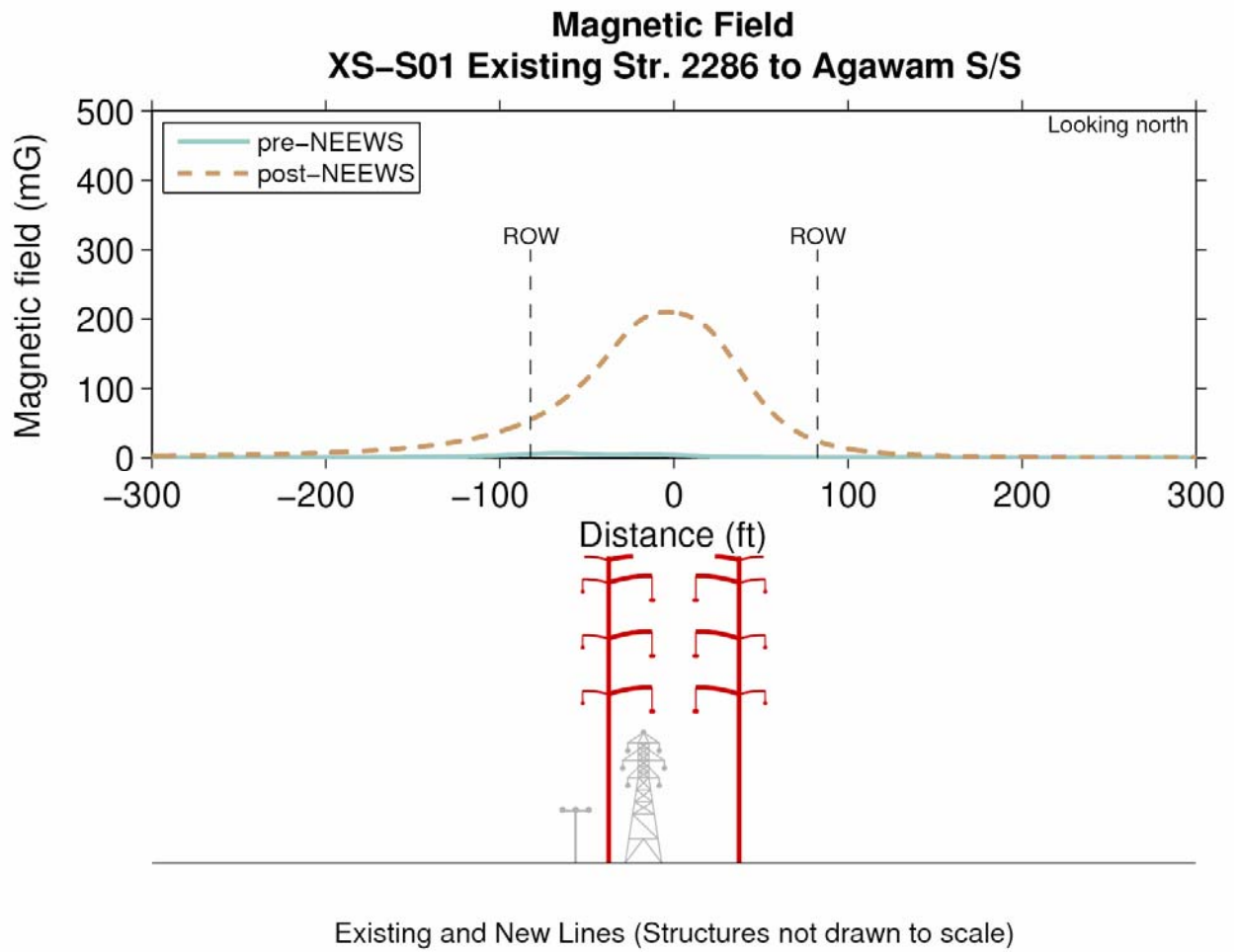


Figure 54. Profile XS-20 Orchard Substation to Orchard Jct. - Magnetic fields for Preferred Northern Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at APL

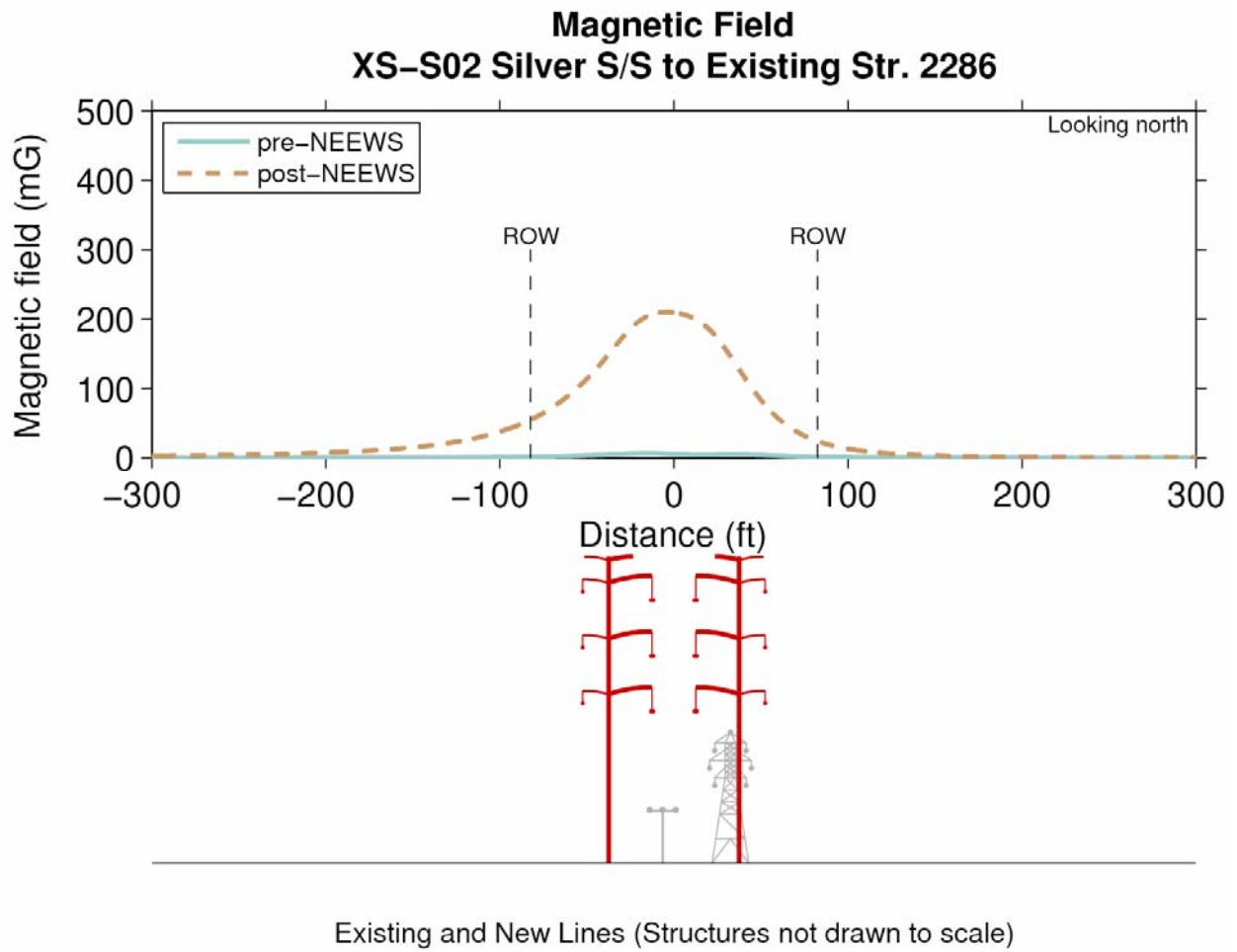


**Figure 55. Profile XS-S01 Existing Str. 2286 to Agawam Substation – Magnetic fields for Southern Noticed Alternative Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at APL**





**Figure 56. Profile XS-S02 Silver Substation to Existing Str. 2286 – Magnetic fields for Southern Noticed Alternative Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at APL**



**Figure 57. Profile XS-S03 South Agawam Substation to Silver Substation – Magnetic fields for Southern Noticed Alternative Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at APL**

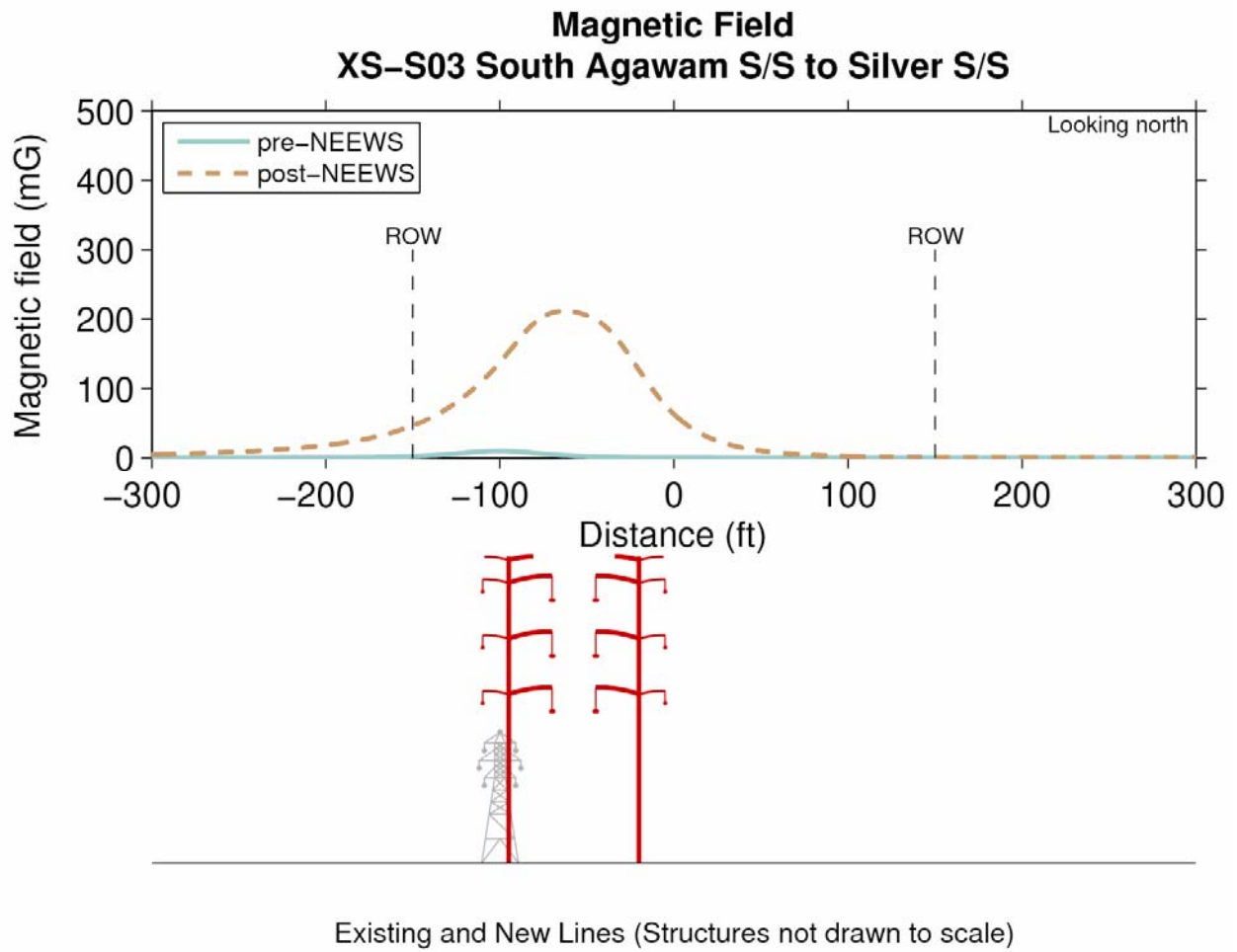
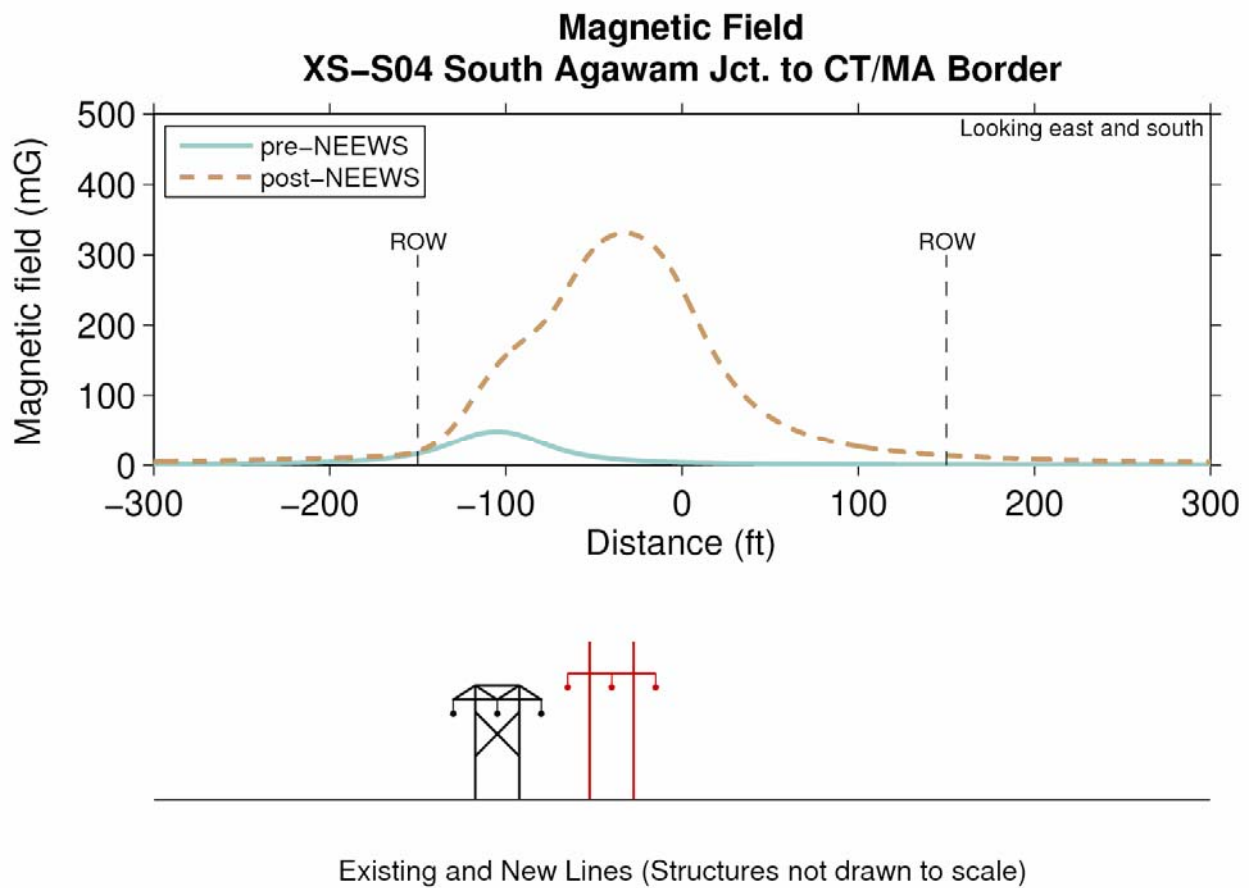


Figure 58. Profile XS-S04 South Agawam Jct. to CT/MA Border – Magnetic fields for Southern Noticed Alternative Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at APL



**Figure 59. Profile XS-S06 CT River to MA Border – Magnetic fields for Southern Noticed Alternative Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at APL**

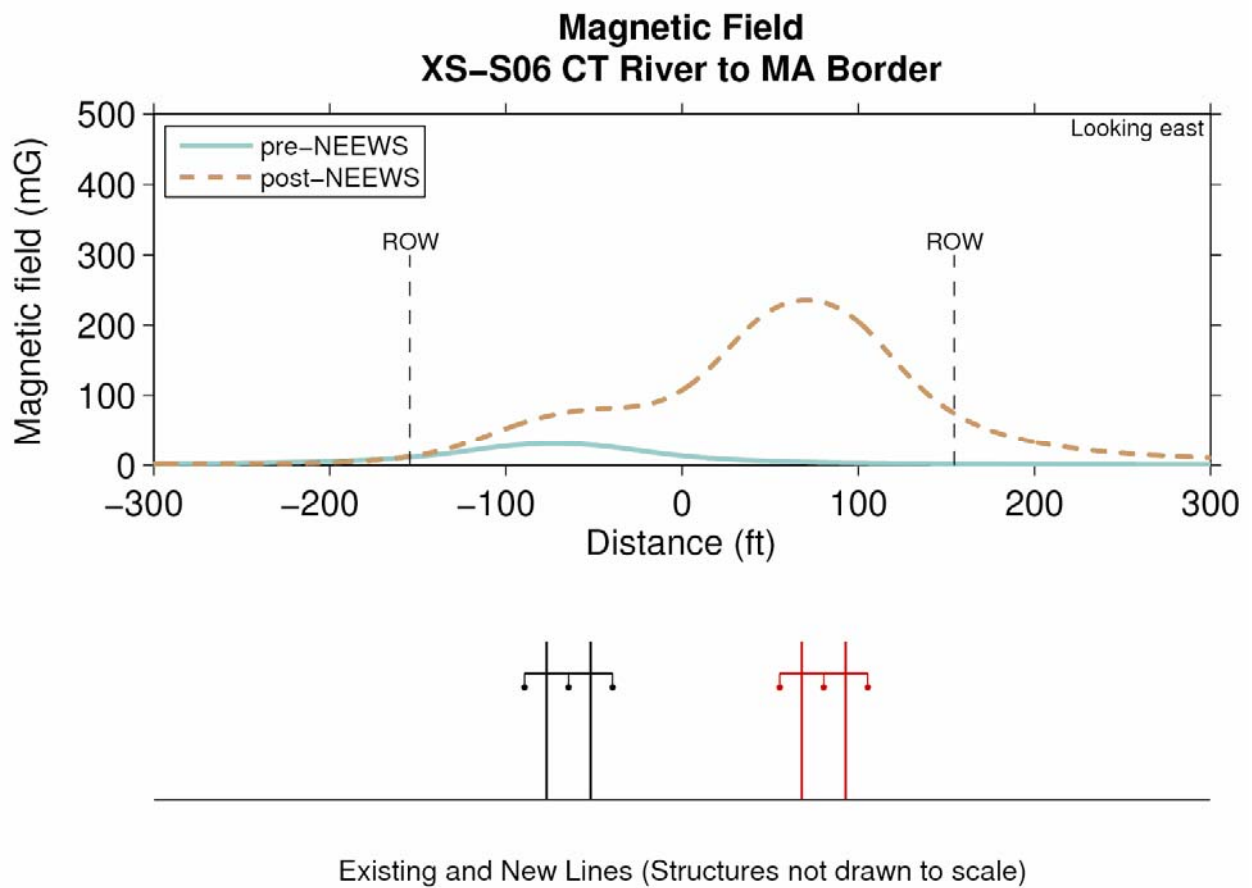


Figure 60. XS-S08 MA/CT Border/Franconia Jct. to Hamden Jct. – Magnetic fields for Southern Noticed Alternative Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at APL

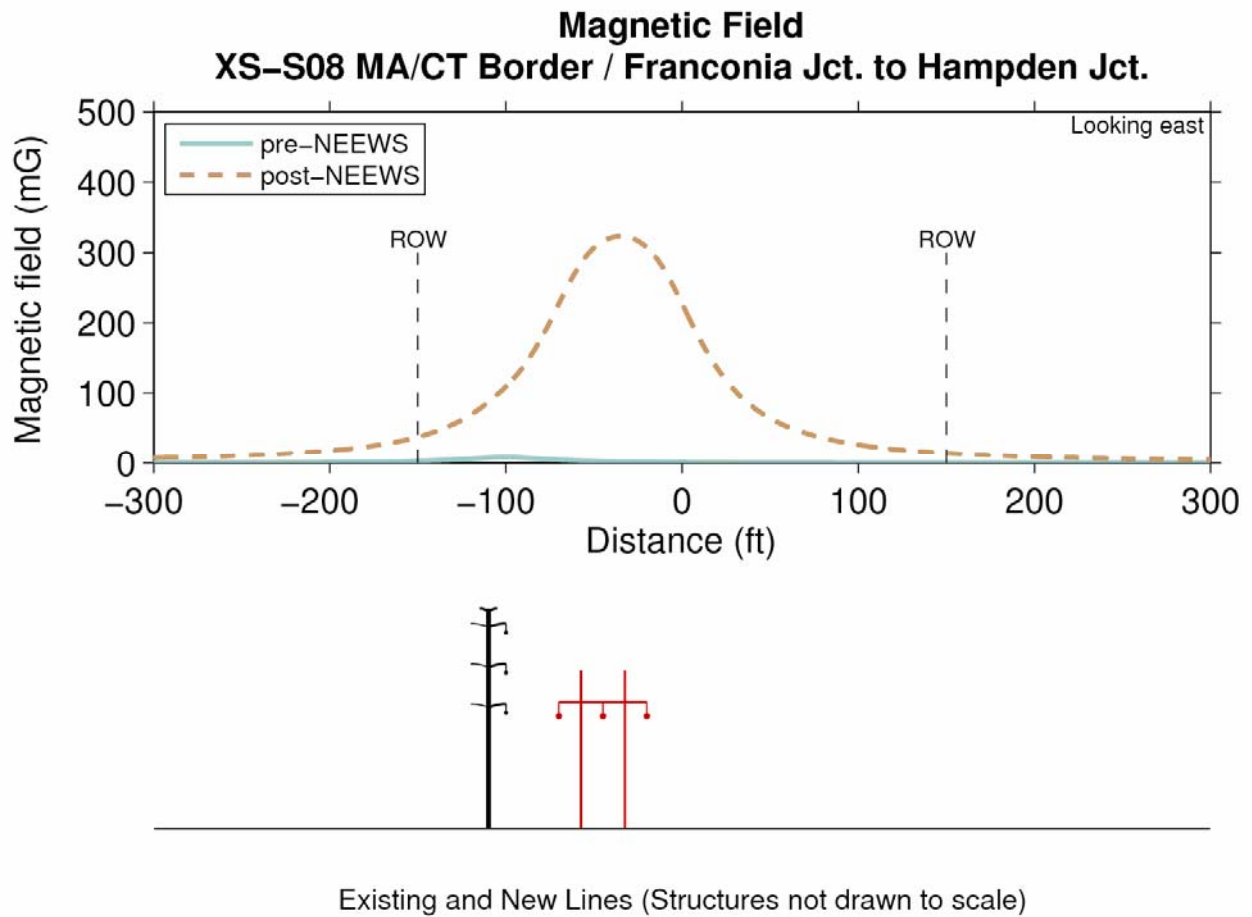


Figure 61. Profile XS-S09 Hampden Jct. to Ludlow Substation – Magnetic fields for Southern Noticed Alternative Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at APL

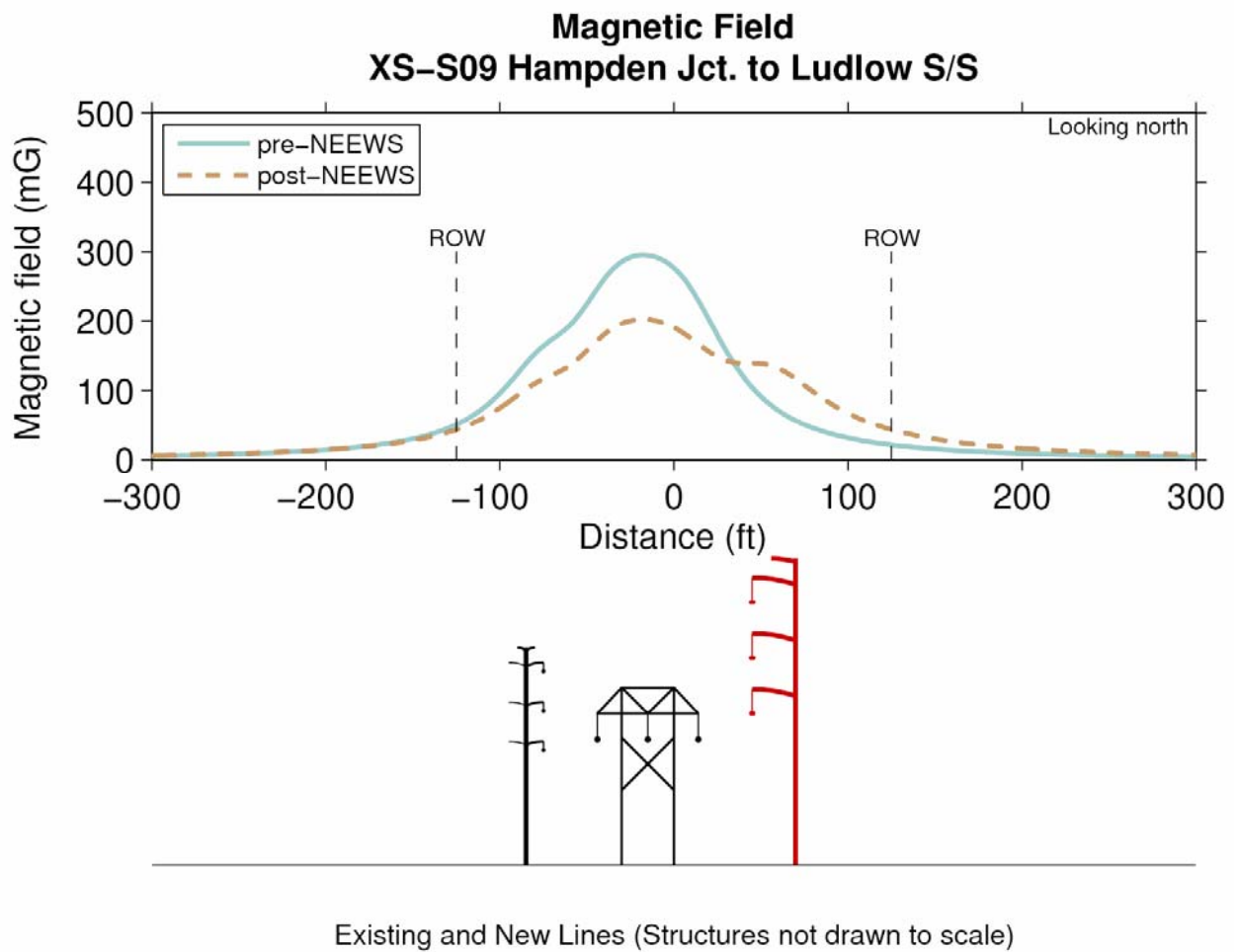


Figure 62. Profile XS-S10 Orchard Jct. to Ludlow Substation – Magnetic fields for Southern Noticed Alternative Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at APL

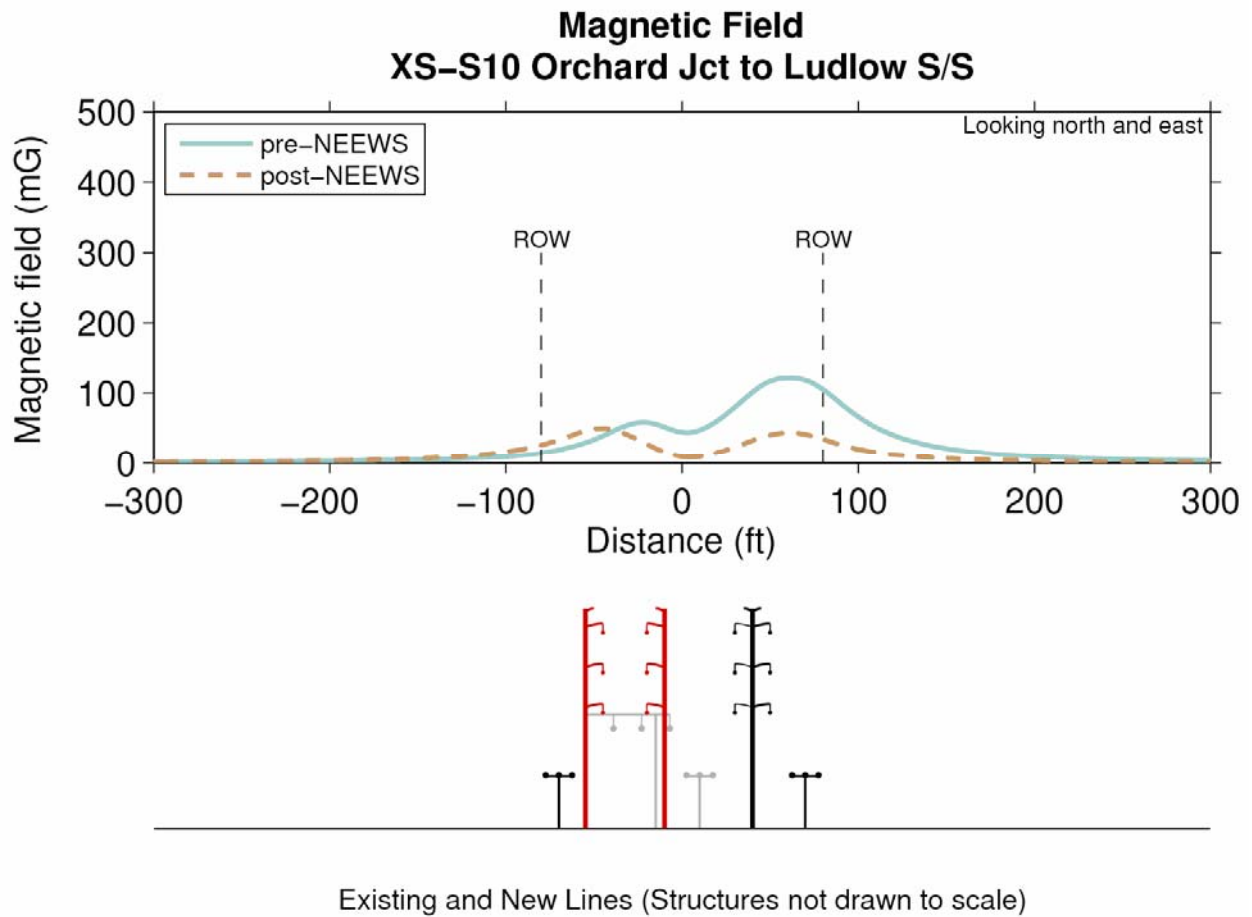


Figure 63. Profile XS-S11 Shawinigan Substation to Orchard Jct. – Magnetic fields for Southern Noticed Alternative Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at APL

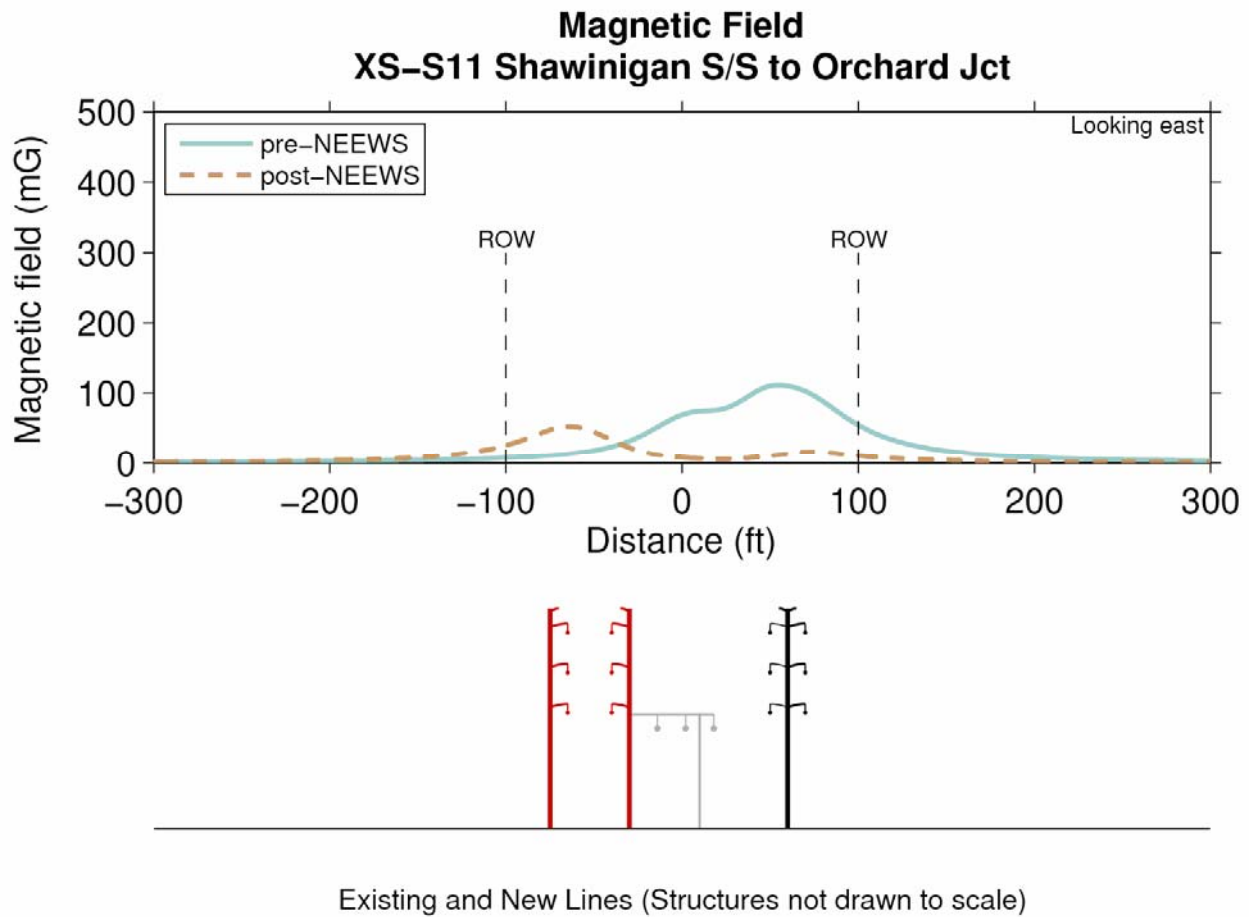




Figure 64. Profile XS-S12 Exit 6 Jct. to Shawinigan Substation – Magnetic fields for Southern Noticed Alternative Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at APL

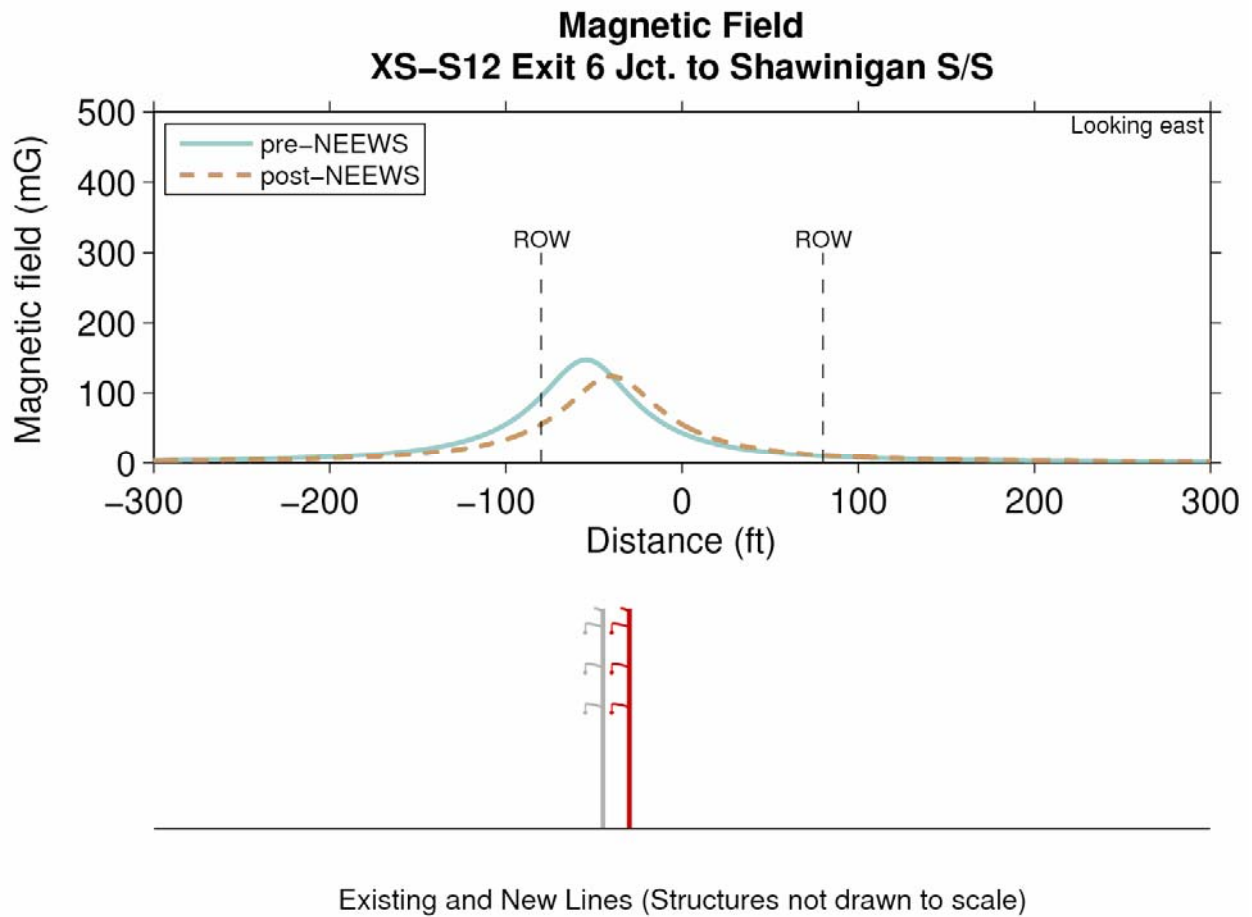


Figure 65. Profile XS-S13 Existing Str. 49091 to Exit 6 Jct. – Magnetic fields for Southern Noticed Alternative Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at APL

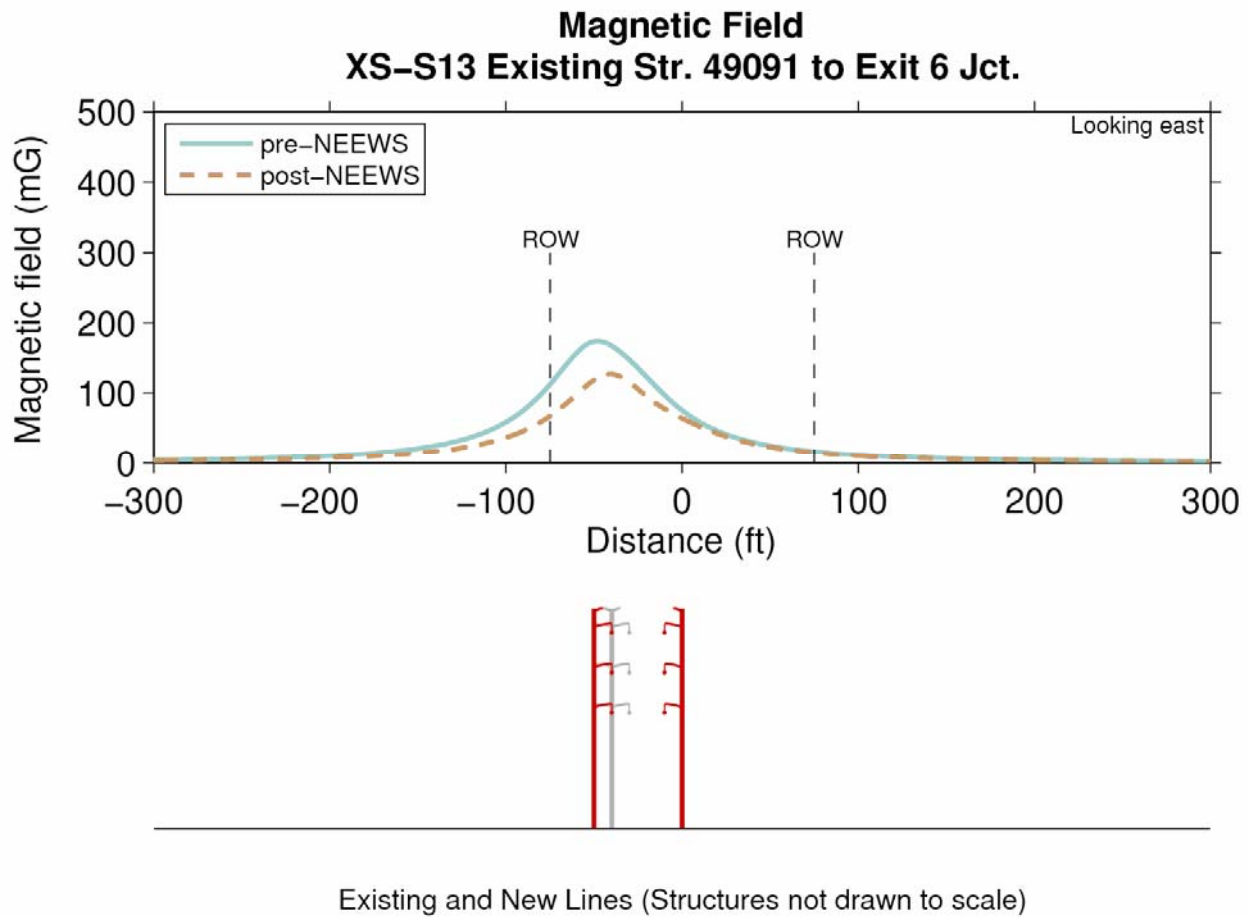


Figure 66. Profile XS-S14 East Springfield Jct. to Existing Str. 49091 – Magnetic fields for Southern Noticed Alternative Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at APL

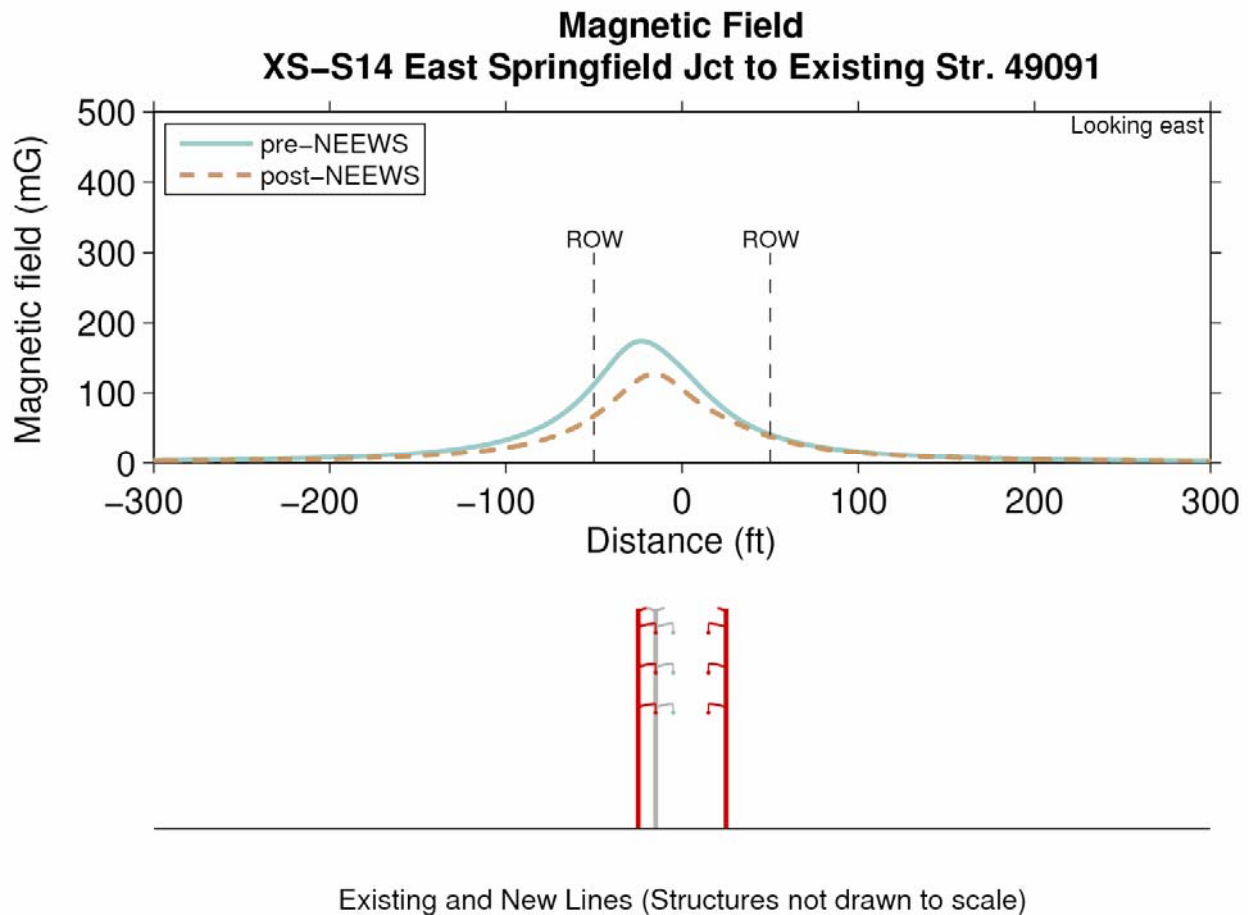


Figure 67. Profile XS-S15 Chicopee Substation to E. Springfield Jct. – Magnetic fields for Southern Noticed Alternative Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at APL

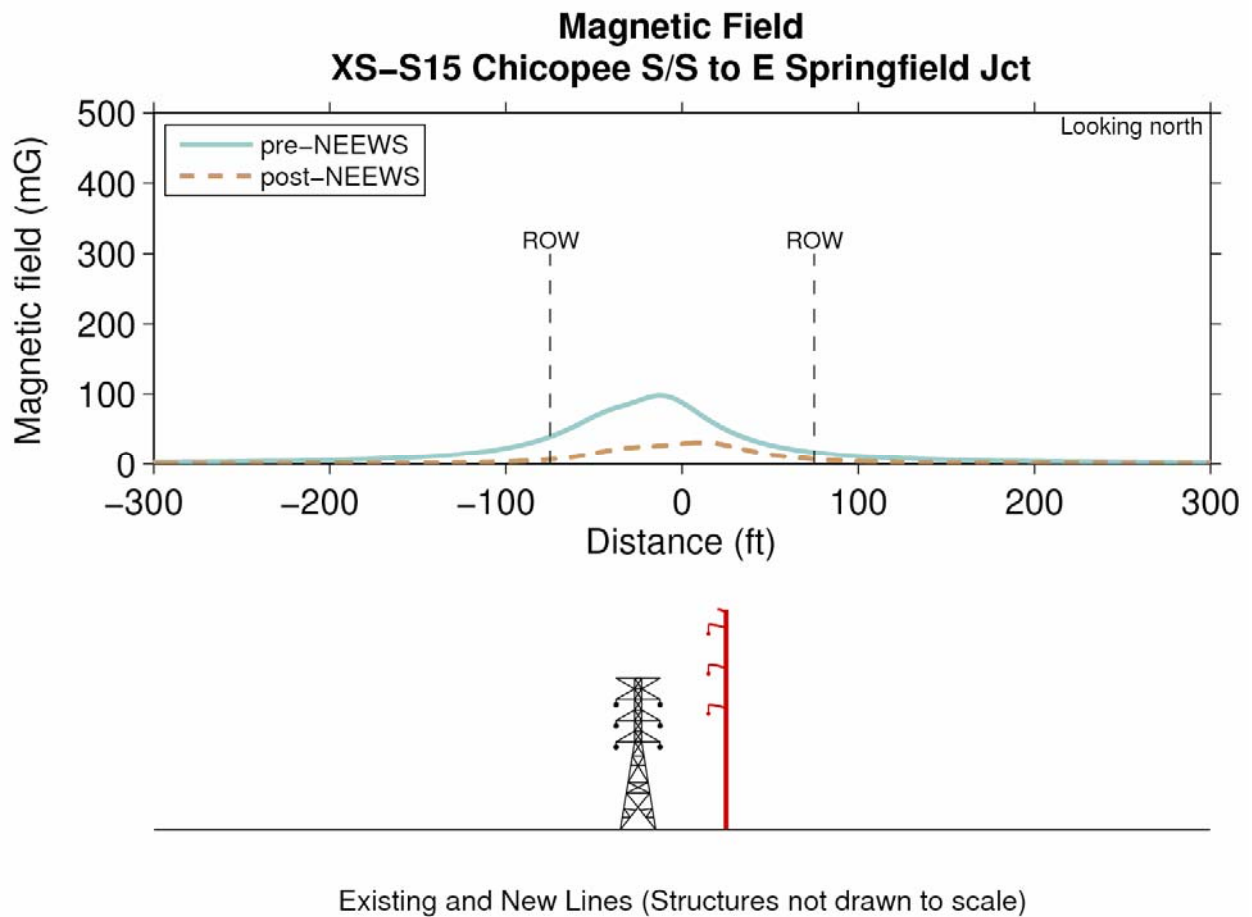


Figure 68. Profile XS-S16 Piper Substation to Chicopee Substation – Magnetic fields for Southern Noticed Alternative Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at APL

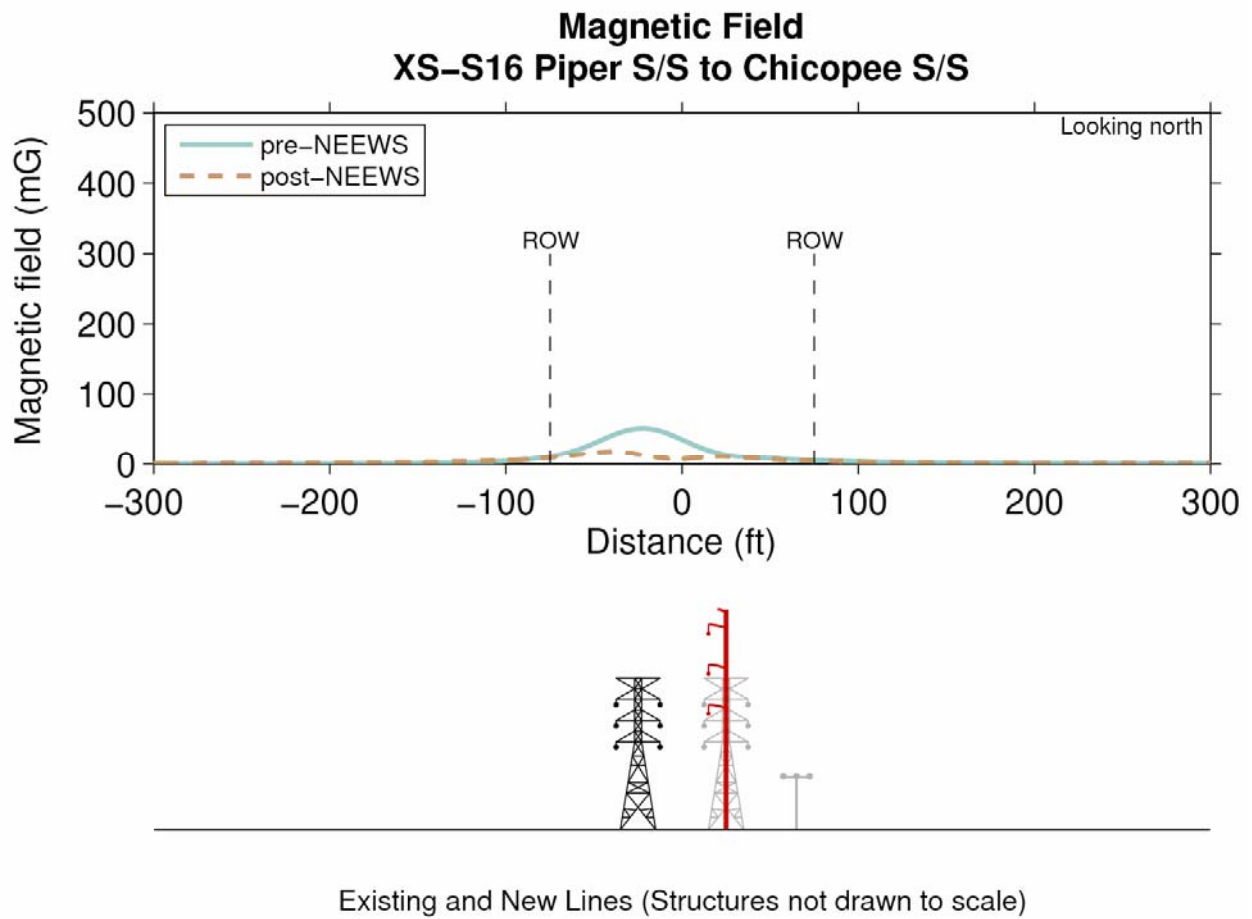


Figure 69. Profile XS-S17 Agawam Substation to Piper Substation – Magnetic fields for Southern Noticed Alternative Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at APL

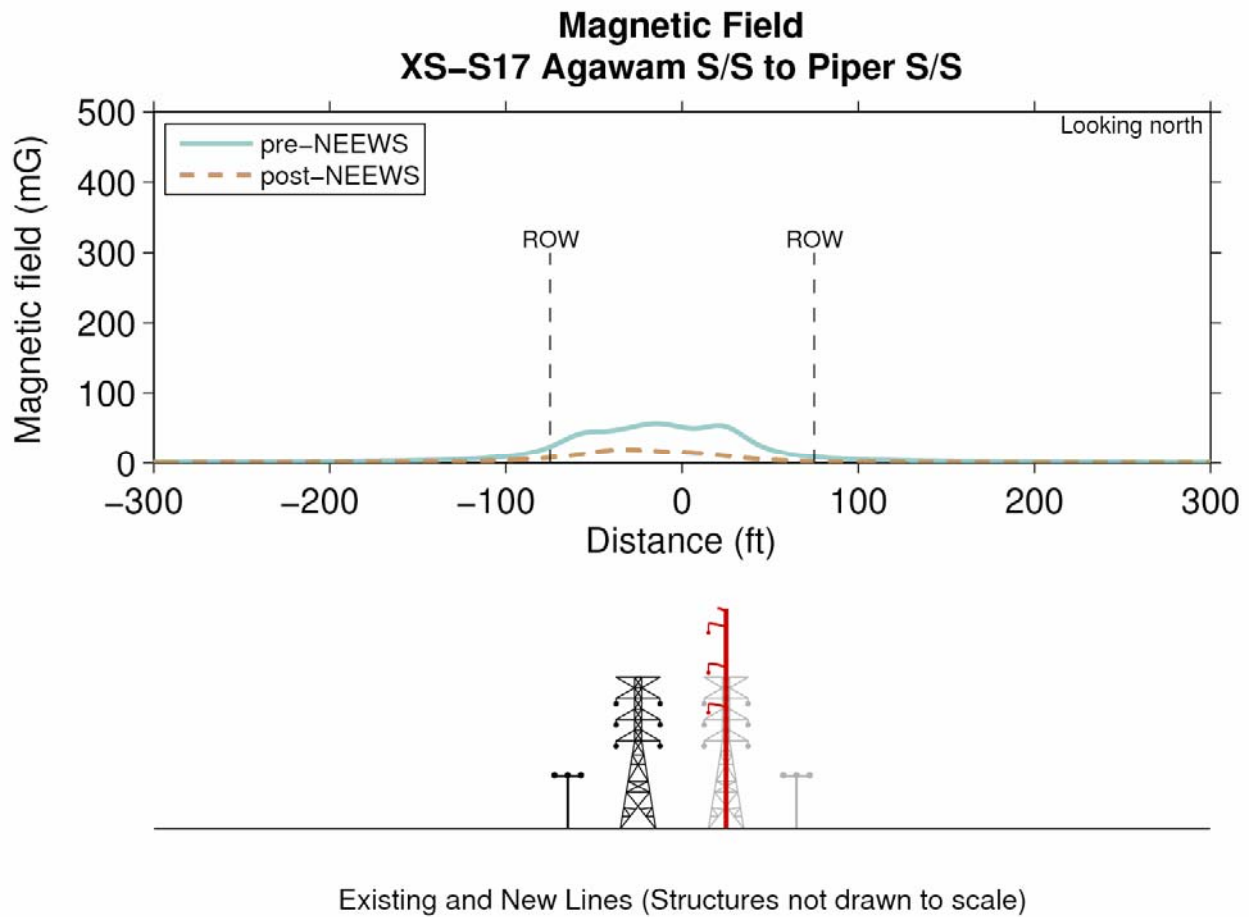


Figure 70. Profile XS-S18 East Springfield Jct. to Fairmont Substation – Magnetic fields for Southern Noticed Alternative Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at APL

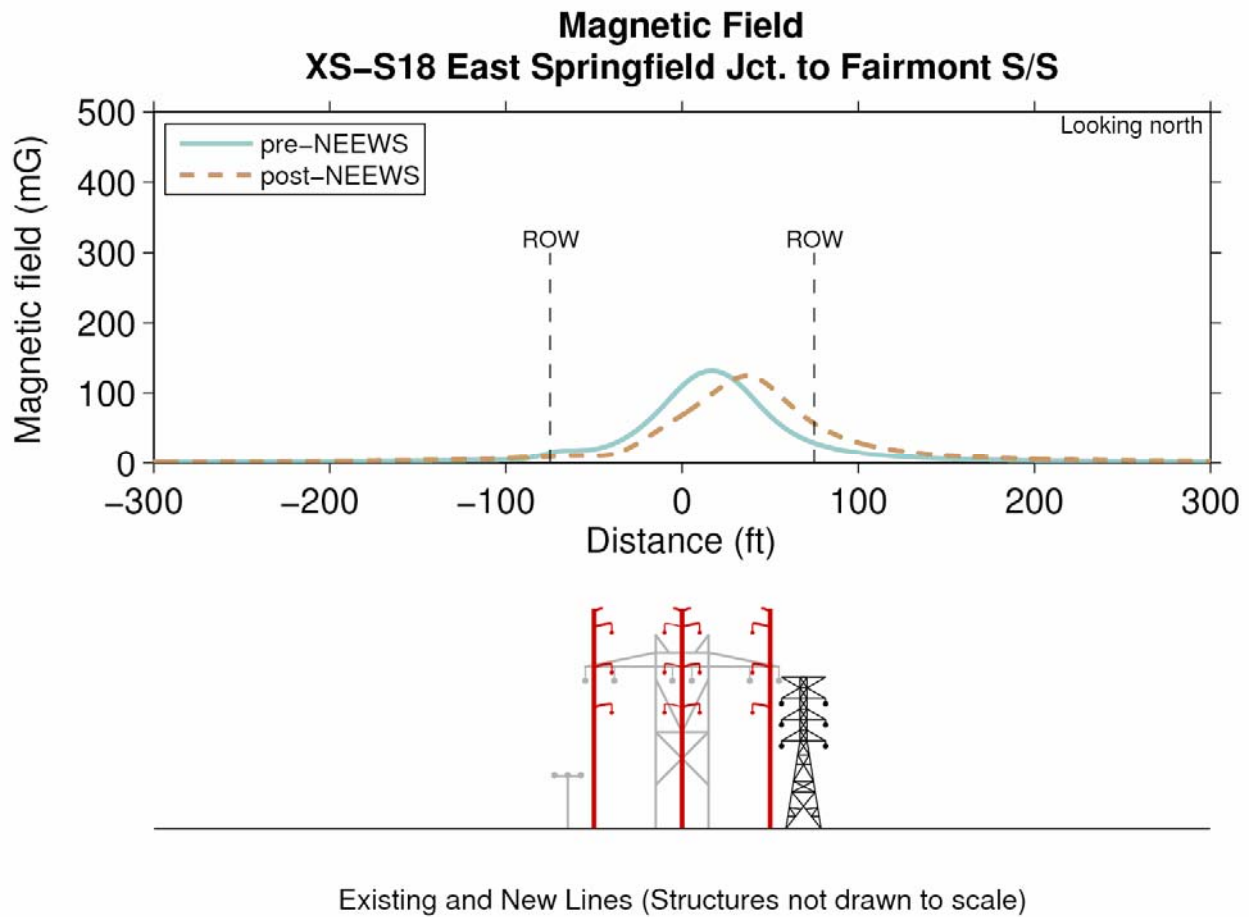
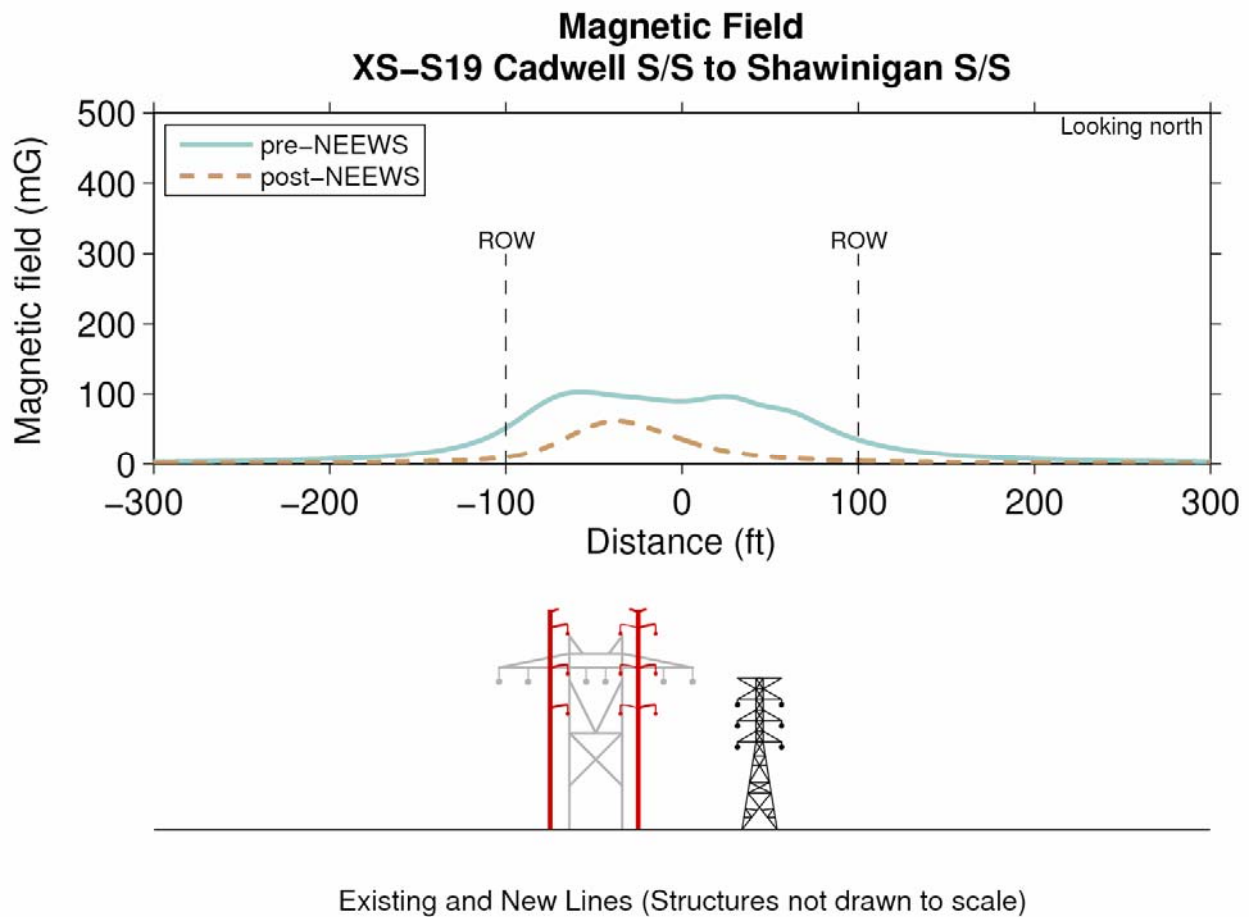


Figure 71. Profile XS-S19 Cadwell Substation to Shawinigan Substation – Magnetic fields for Southern Noticed Alternative Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at APL





**Figure 72. Profile XS-S20 Orchard Substation to Orchard Jct. – Magnetic fields for Southern Noticed Alternative Route under pre-NEEWS (2012) and post-NEEWS (2017) conditions at APL**

