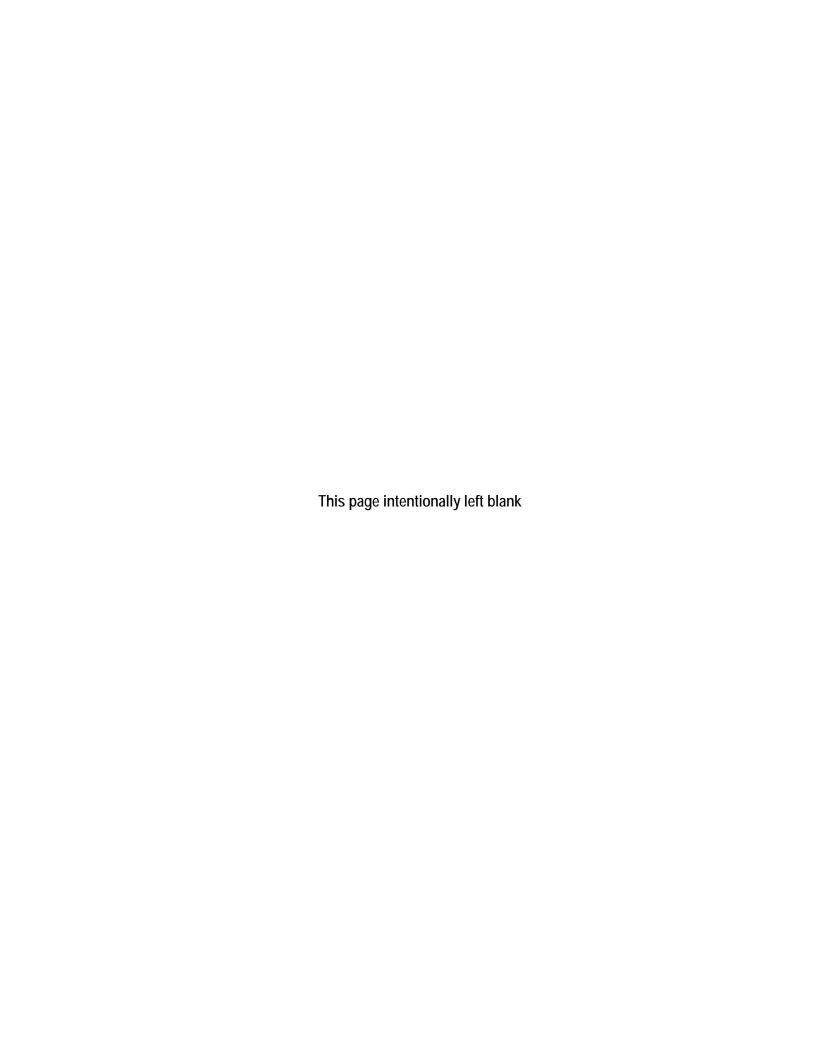
APPENDIX E

NOISE AND VIBRATION



Reference Vibration Curve Adjustment Factors

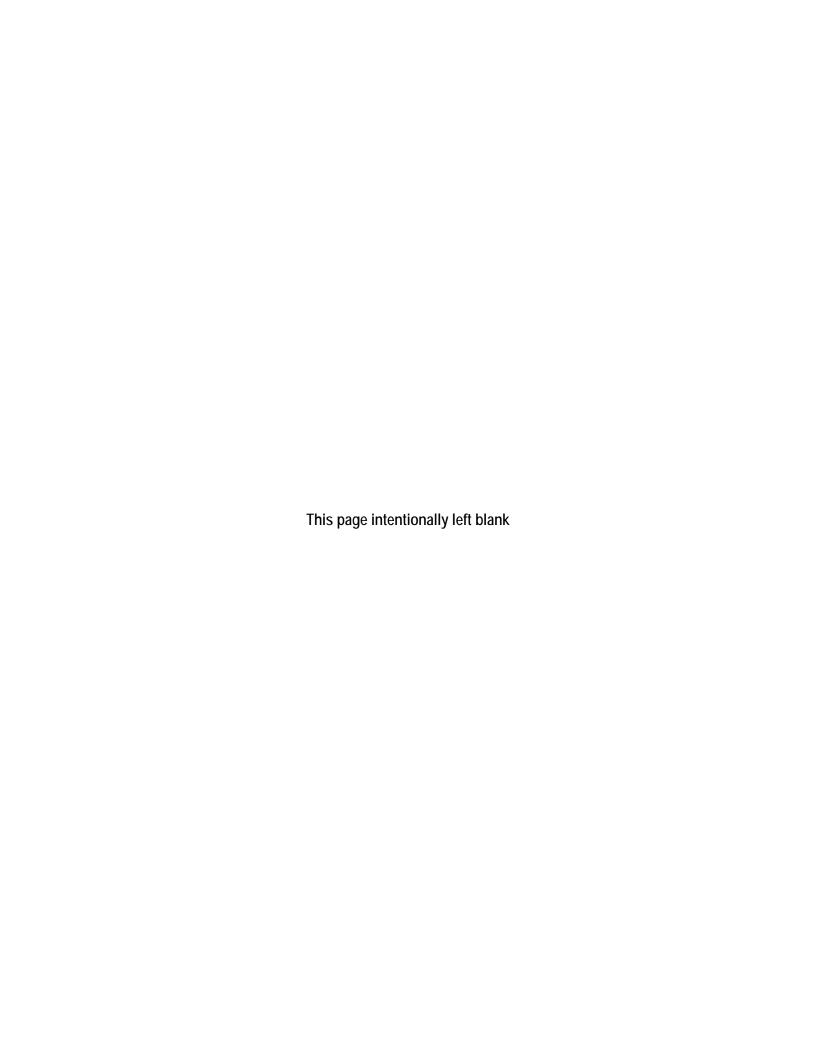


Table 1
Reference Vibration Curve Adjustment Factors (Existing Use)

| Reference Curve Assumptions: | | | |
|---|--|---|--|
| Vehicle Type: | | red Passenger or Freight | |
| Speed (mph): | 50 | | |
| Track: | Continuously Welded Rail (CWR) | | |
| Geology: | Normal soil, ineffi | cient at transmitting vibration | |
| Traffic Condition A (| Chicago to Aurora |): | |
| Train Type: | Locomotive Power | red Freight and Passenger | |
| Speed (mph): | 60 | | |
| Track: | CWR (same as refe | erence case) | |
| Geology: | Till | 149,704 Linear Ft | |
| | Sand/Gravel/Sed | 31,583 Linear Ft | |
| | Total | 181,287 Linear Ft | |
| Reference Curve Adjus | stment Factors: | | |
| Increased Speed: | 1.6 | dB, calc. per FTA guidance | |
| Track: | 0 | dB | |
| Geology: | 10 | dB, for till (efficient soil) | |
| | 0 | dB, for sand/gravel/sediment (inefficient soil) | |
| | 8.3 | dB, weighted average over section | |
| Total Adjustments: | 9.8 | dB | |
| Traffic Condition B (Aurora to Wyanet): | | | |
| Train Type: | Locomotive Powered Freight and Passenger | | |
| Speed (mph): | 70 | | |
| Track: | CWR (same as refe | · | |
| Geology: | Till | 299,141 Linear Ft | |
| | Sand/Gravel/Sed | 105,188 Linear Ft | |
| | Total | 404,329 Linear Ft | |
| Reference Curve Adjus | | | |
| Increased Speed: | 2.9 | dB, calc. per FTA guidance | |
| Track: | 0 | dB | |
| Geology: | 10 | dB, for till (efficient soil) | |
| | 0 | dB, for sand/gravel/sediment (inefficient soil) | |
| | 7.4 | dB, weighted average over section | |
| Total Adjustments: | 10.3 | dB | |

Table 1 (continued)

| | Table 1 (continued) | | | |
|-----------------------------------|---|---|--|--|
| Traffic Condition C (| Wyanet to Silvis): | | | |
| Train Type: | Locomotive Powered Freight (no existing passenger trains) | | | |
| Speed (mph): | 35 | | | |
| Track: | CWR (same as reference case) | | | |
| Geology: | Till | 118,423 Linear Ft | | |
| 63 | Sand/Gravel/Sed | 110,877 Linear Ft | | |
| | Total | 229,300 Linear Ft | | |
| Reference Curve Adjus | | 22),500 Emedi 1 t | | |
| Increased Speed: | -3.1 | dB, calc. per FTA guidance | | |
| Track: | 0 | dB | | |
| Geology: | 10 | dB, for till (efficient soil) | | |
| Geology. | 0 | dB, for sand/gravel/sediment (inefficient soil) | | |
| | 5.2 | dB, weighted average over section | | |
| Total Adjustments: | 2.1 | dB | | |
| • | | | | |
| Traffic Condition D (Train Type: | | red Freight (no existing passenger trains) | | |
| Speed (mph): | 5 | red Preight (no existing passenger trains) | | |
| Track: | | ioronoo ooso) | | |
| | CWR (same as ref | | | |
| Geology: | Till | , | | |
| | Sand/Gravel/Sed | | | |
| D C | Total | 56,371 Linear Ft | | |
| Reference Curve Adjus | | ID 1 FYEA '1 | | |
| Increased Speed: | -20.0 | dB, calc. per FTA guidance | | |
| Track: | 0 | dB | | |
| Geology: | 10 | dB, for till (efficient soil) | | |
| | 0 | dB, for sand/gravel/sediment (inefficient soil) | | |
| | 7.4 | dB, weighted average over section | | |
| Total Adjustments: | -12.6 | dB | | |
| Traffic Condition E (| | | | |
| Train Type: | | red Freight (no existing passenger trains) | | |
| Speed (mph): | 35 | | | |
| Track: | CWR (same as ref | erence case) | | |
| Geology: | Till | 0 Linear Ft | | |
| | Sand/Gravel/Sed | 268,415 Linear Ft | | |
| | Total | 268,415 Linear Ft | | |
| Reference Curve Adjus | stment Factors: | | | |
| Increased Speed: | -3.1 | dB, calc. per FTA guidance | | |
| Track: | 0 | dB | | |
| Geology: | 10 | dB, for till (efficient soil) | | |
| | 0 | dB, for sand/gravel/sediment (inefficient soil) | | |
| | 0.0 | dB, weighted average over section | | |
| Total Adjustments: | -3.1 | dB | | |

Table 1 (continued)

| Table 1 (Continued) | | | |
|------------------------------|---|---|--|
| Traffic Condition F (| <u> Iowa City):</u> | | |
| Train Type: | Locomotive Powered Freight (no existing passenger trains) | | |
| Speed (mph): | 5 | | |
| Track: | CWR (same as refe | erence case) | |
| Geology: | Till | 0 Linear Ft | |
| | Sand/Gravel/Sed | 14,129 Linear Ft | |
| | Total | 14,129 Linear Ft | |
| Reference Curve Adju | stment Factors: | , | |
| Increased Speed: | -20.0 | dB, calc. per FTA guidance | |
| Track: | 0 | dB | |
| Geology: | 10 | dB, for till (efficient soil) | |
| | 0 | dB, for sand/gravel/sediment (inefficient soil) | |
| | 0.0 | dB, weighted average over section | |
| Total Adjustments: | -20.0 | dB | |
| Traffic Condition G (| | | |
| Train Type: | | red Freight (no existing passenger trains) | |
| Speed (mph): | 35 | red Freight (no emoting passenger trains) | |
| Track: | CWR (same as refe | erence case) | |
| Geology: | Till | 0 Linear Ft | |
| Geology. | Sand/Gravel/Sed | 589,517 Linear Ft | |
| | Total | 589,517 Linear Ft | |
| Reference Curve Adju | | 307,317 Emedi 1 t | |
| Increased Speed: | -3.1 | dB, calc. per FTA guidance | |
| Track: | 0 | dB | |
| Geology: | 10 | dB, for till (efficient soil) | |
| Geology. | 0 | dB, for sand/gravel/sediment (inefficient soil) | |
| | 0.0 | dB, weighted average over section | |
| Total Adjustments: | -3.1 | dB | |
| Traffic Condition H (| | UD . | |
| Train Type: | | red Freight (no existing passenger trains) | |
| Speed (mph): | 10 | red Freight (no existing passenger trains) | |
| Track: | | oranga aasa) | |
| | CWR (same as reformed Till | | |
| Geology: | Sand/Gravel/Sed | 0 Linear Ft 73,699 Linear Ft | |
| | | | |
| Deference Comme Adding | Total | 73,699 Linear Ft | |
| Reference Curve Adju | | dD colo nor ETA quidence | |
| Increased Speed: | -14.0 | dB, calc. per FTA guidance | |
| Track: | 0 | dB | |
| Geology: | 10 | dB, for till (efficient soil) | |
| | 0 | dB, for sand/gravel/sediment (inefficient soil) | |
| TD + 1 A 1' | 0.0 | dB, weighted average over section | |
| Total Adjustments: | -14.0 | dB | |

Table 1 (continued)

| | Table 1 (continued) | | | |
|--|---|------------------------------|-----------------------------------|--|
| Traffic Condition I (W. I | Traffic Condition I (W. Des Moines to Council Bluffs): | | | |
| Train Type: | Locomotive Power | ed Freight (no e | existing passenger trains) | |
| Speed (mph): | 35 | | | |
| Track: | CWR (same as refe | erence case) | | |
| Geology: | Till | 0 I | Linear Ft | |
| | Sand/Gravel/Sed | 653,157 I | Linear Ft | |
| | Total | 653,157 I | Linear Ft | |
| Reference Curve Adjus | stment Factors: | | | |
| Increased Speed: | -3.1 | dB, calc. per F | TA guidance | |
| Track: | 0 | dB | - | |
| Geology: | 10 | dB, for till (eff | ficient soil) | |
| | 0 | dB, for sand/gr | ravel/sediment (inefficient soil) | |
| | 0.0 | dB, weighted a | average over section | |
| Total Adjustments: | -3.1 | dB | _ | |
| Traffic Condition J (Council Bluffs to Omaha): | | | | |
| Train Type: | Locomotive Powered Freight (no existing passenger trains) | | | |
| Speed (mph): | 10 | | | |
| Track: | CWR (same as refe | CWR (same as reference case) | | |
| Geology: | Till | 16,353 I | Linear Ft | |
| | Sand/Gravel/Sed | 86,094 I | Linear Ft | |
| | Total | 102,447 I | Linear Ft | |
| Reference Curve Adjus | stment Factors: | | | |
| Increased Speed: | -14.0 | dB, calc. per F | TA guidance | |
| Track: | 0 | dB | | |
| Geology: | 10 | dB, for till (eff | ficient soil) | |
| | 0 | dB, for sand/gr | ravel/sediment (inefficient soil) | |
| | 1.6 | dB, weighted a | average over section | |
| Total Adjustments: | -12.4 | dB | | |

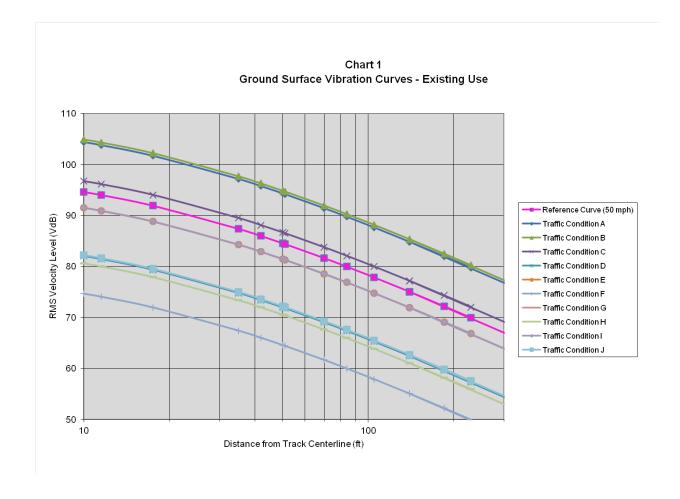


Table 2
Reference Vibration Curve Adjustment Factors (Future No-build Condition)

| Reference Curve Ass | Reference Curve Assumptions: | | |
|-----------------------|--|--|--|
| Vehicle Type: | • | red Passenger or Freight | |
| Speed (mph): | 50 | | |
| Track: | Continuously Welded Rail (CWR) | | |
| Geology: | | Normal soil, inefficient at transmitting vibration | |
| Traffic Condition A (| | • | |
| Train Type: | Locomotive Powered Freight and Passenger | | |
| Speed (mph): | 60 | | |
| Track: | CWR (same as ref | erence case) | |
| Geology: | Till | 149,704 Linear Ft | |
| | Sand/Gravel/Sed | 31,583 Linear Ft | |
| | Total | 181,287 Linear Ft | |
| Reference Curve Adju | stment Factors: | * | |
| Increased Speed: | 1.6 | dB, calc. per FTA guidance | |
| Track: | 0 | dB | |
| Geology: | 10 | dB, for till (efficient soil) | |
| | 0 | dB, for sand/gravel/sediment (inefficient soil) | |
| | 8.3 | dB, weighted average over section | |
| Total Adjustments: | 9.8 | dB | |
| Traffic Condition B (| Aurora to Wyanet) | • | |
| Train Type: | Locomotive Powered Freight and Passenger | | |
| Speed (mph): | 70 | | |
| Track: | CWR (same as ref | erence case) | |
| Geology: | Till | 299,141 Linear Ft | |
| | Sand/Gravel/Sed | 105,188 Linear Ft | |
| | Total | 404,329 Linear Ft | |
| Reference Curve Adju | stment Factors: | | |
| Increased Speed: | 2.9 | dB, calc. per FTA guidance | |
| Track: | 0 | dB | |
| Geology: | 10 | dB, for till (efficient soil) | |
| | 0 | dB, for sand/gravel/sediment (inefficient soil) | |
| | 7.4 | dB, weighted average over section | |
| Total Adjustments: | 10.3 | dB | |

Table 2 (continued)

| | rable 2 (continued) | | | |
|------------------------------|---|--|--|--|
| Traffic Condition C (| Traffic Condition C (Wyanet to Silvis): | | | |
| Train Type: | Locomotive Powered Freight (no existing passenger trains) | | | |
| Speed (mph): | 35 | | | |
| Track: | CWR (same as reference case) | | | |
| Geology: | Till | 118,423 Linear Ft | | |
| | Sand/Gravel/Sed | , and the second | | |
| | Total | 229,300 Linear Ft | | |
| Reference Curve Adjus | | | | |
| Increased Speed: | -3.1 | dB, calc. per FTA guidance | | |
| Track: | 0 | dB | | |
| Geology: | 10 | dB, for till (efficient soil) | | |
| | 0 | dB, for sand/gravel/sediment (inefficient soil) | | |
| | 5.2 | dB, weighted average over section | | |
| Total Adjustments: | 2.1 | dB | | |
| Traffic Condition D (| | = - | | |
| Train Type: | | red Freight (no existing passenger trains) | | |
| Speed (mph): | 5 | red Freight (no existing passenger trains) | | |
| Track: | CWR (same as refe | erence case) | | |
| Geology: | Till | 41,934 Linear Ft | | |
| Geology. | Sand/Gravel/Sed | • | | |
| | Total | 56,371 Linear Ft | | |
| Reference Curve Adjus | | 50,571 Emeal 1 t | | |
| Increased Speed: | -20.0 | dB, calc. per FTA guidance | | |
| Track: | -20.0 | dB guidance | | |
| Geology: | 10 | dB, for till (efficient soil) | | |
| Geology. | 0 | dB, for sand/gravel/sediment (inefficient soil) | | |
| | 7.4 | | | |
| Total Adington anto. | | dB, weighted average over section | | |
| Total Adjustments: | -12.6 | dB | | |
| Traffic Condition E | | | | |
| Train Type: | | red Freight (no existing passenger trains) | | |
| Speed (mph): | 35 CWD (| , | | |
| Track: | CWR (same as refe | | | |
| Geology: | Till | 0 Linear Ft | | |
| | Sand/Gravel/Sed | 268,415 Linear Ft | | |
| D.C. C. A. | Total | 268,415 Linear Ft | | |
| Reference Curve Adjus | | 1D 1 17774 '1 | | |
| Increased Speed: | -3.1 | dB, calc. per FTA guidance | | |
| Track: | 0 | dB | | |
| Geology: | 10 | dB, for till (efficient soil) | | |
| | 0 | dB, for sand/gravel/sediment (inefficient soil) | | |
| | 0.0 | dB, weighted average over section | | |
| Total Adjustments: | -3.1 | dB | | |

Table 2 (continued)

| Table 2 (Continued) | | |
|------------------------------|---|---|
| Traffic Condition F (| <u> Iowa City):</u> | |
| Train Type: | Locomotive Powered Freight (no existing passenger trains) | |
| Speed (mph): | 5 | |
| Track: | CWR (same as refe | erence case) |
| Geology: | Till | 0 Linear Ft |
| | Sand/Gravel/Sed | 14,129 Linear Ft |
| | Total | 14,129 Linear Ft |
| Reference Curve Adjus | stment Factors: | |
| Increased Speed: | -20.0 | dB, calc. per FTA guidance |
| Track: | 0 | dB |
| Geology: | 10 | dB, for till (efficient soil) |
| | 0 | dB, for sand/gravel/sediment (inefficient soil) |
| | 0.0 | dB, weighted average over section |
| Total Adjustments: | -20.0 | dB |
| Traffic Condition G (| | |
| Train Type: | | red Freight (no existing passenger trains) |
| Speed (mph): | 35 | 81 |
| Track: | CWR (same as refe | erence case) |
| Geology: | Till | 0 Linear Ft |
| | Sand/Gravel/Sed | 589,517 Linear Ft |
| | Total | 589,517 Linear Ft |
| Reference Curve Adjus | | |
| Increased Speed: | -3.1 | dB, calc. per FTA guidance |
| Track: | 0 | dB |
| Geology: | 10 | dB, for till (efficient soil) |
| | 0 | dB, for sand/gravel/sediment (inefficient soil) |
| | 0.0 | dB, weighted average over section |
| Total Adjustments: | -3.1 | dB |
| Traffic Condition H (| | |
| Train Type: | | red Freight (no existing passenger trains) |
| Speed (mph): | 10 | passenger trains) |
| Track: | CWR (same as refe | erence case) |
| Geology: | Till | 0 Linear Ft |
| | Sand/Gravel/Sed | 73,699 Linear Ft |
| | Total | 73,699 Linear Ft |
| Reference Curve Adjus | | , - , - , - , - , - , - , - , - , - |
| Increased Speed: | -14.0 | dB, calc. per FTA guidance |
| Track: | 0 | dB |
| Geology: | 10 | dB, for till (efficient soil) |
| 200087. | 0 | dB, for sand/gravel/sediment (inefficient soil) |
| | 0.0 | dB, weighted average over section |
| Total Adjustments: | -14.0 | dB |
| Total Aujustilielits. | -14.0 | uр |

Table 2 (continued)

| Traffic Condition I (W. I | Des Moines to Counc | il Bluffs): | |
|--|---|---|--|
| Traffic Condition I (W. Des Moines to Council Bluffs): | | | |
| Train Type: | Locomotive Powered Freight (no existing passenger trains) | | |
| Speed (mph): | 35 | | |
| Track: | CWR (same as ref | erence case) | |
| Geology: | Till | 0 Linear Ft | |
| | Sand/Gravel/Sed | 653,157 Linear Ft | |
| | Total | 653,157 Linear Ft | |
| Reference Curve Adjus | stment Factors: | | |
| Increased Speed: | -3.1 | dB, calc. per FTA guidance | |
| Track: | 0 | dB | |
| Geology: | 10 | dB, for till (efficient soil) | |
| | 0 | dB, for sand/gravel/sediment (inefficient soil) | |
| | 0.0 | dB, weighted average over section | |
| Total Adjustments: | -3.1 | dB | |
| Traffic Condition J (Council Bluffs to Omaha): | | | |
| Train Type: | Locomotive Power | red Freight (no existing passenger trains) | |
| Speed (mph): | 10 | | |
| Track: | CWR (same as refe | erence case) | |
| Geology: | Till | 16,353 Linear Ft | |
| | Sand/Gravel/Sed | 86,094 Linear Ft | |
| | Total | 102,447 Linear Ft | |
| Reference Curve Adjus | stment Factors: | | |
| Increased Speed: | -14.0 | dB, calc. per FTA guidance | |
| Track: | 0 | dB | |
| Geology: | 10 | dB, for till (efficient soil) | |
| | 0 | dB, for sand/gravel/sediment (inefficient soil) | |
| | 1.6 | dB, weighted average over section | |
| Total Adjustments: | -12.4 | dB | |

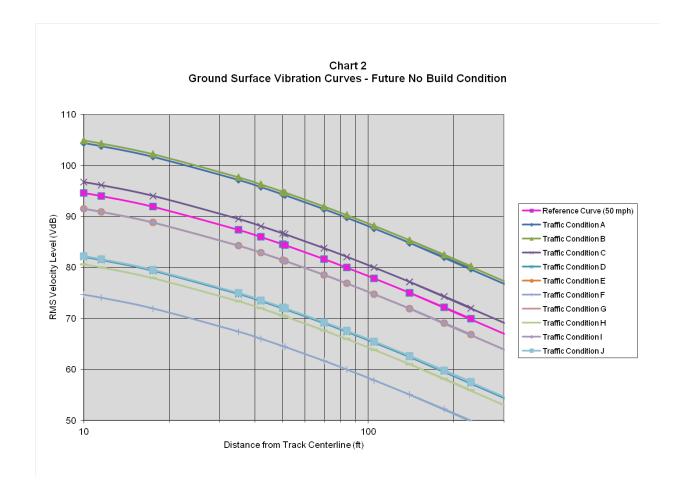


Table 3
Reference Vibration Curve Adjustment Factors (Future Build Condition)

| Reference Curve Assumptions: | | | |
|---|--|---|--|
| Vehicle Type: | | red Passenger or Freight | |
| Speed (mph): | 50 | | |
| Track: | Continuously Welded Rail (CWR) | | |
| Geology: | Normal soil, ineffic | cient at transmitting vibration | |
| Traffic Condition A (| Chicago to Aurora |): | |
| Train Type: | Locomotive Powered Freight and Passenger | | |
| Speed (mph): | 60 | | |
| Track: | CWR (same as refe | erence case) | |
| Geology: | Till | 149,704 Linear Ft | |
| | Sand/Gravel/Sed | 31,583 Linear Ft | |
| | Total | 181,287 Linear Ft | |
| Reference Curve Adjus | stment Factors: | | |
| Increased Speed: | 1.6 | dB, calc. per FTA guidance | |
| Track: | 0 | dB | |
| Geology: | 10 | dB, for till (efficient soil) | |
| | 0 | dB, for sand/gravel/sediment (inefficient soil) | |
| | 8.3 | dB, weighted average over section | |
| Total Adjustments: | 9.8 | dB | |
| Traffic Condition B (Aurora to Wyanet): | | | |
| Train Type: | Locomotive Powered Freight and Passenger | | |
| Speed (mph): | 100 | | |
| Track: | CWR (same as refe | · · · · · · · · · · · · · · · · · · · | |
| Geology: | Till | 299,141 Linear Ft | |
| | Sand/Gravel/Sed | 105,188 Linear Ft | |
| | Total | 404,329 Linear Ft | |
| Reference Curve Adjus | stment Factors: | | |
| Increased Speed: | 6.0 | dB, calc. per FTA guidance | |
| Track: | 0 | dB | |
| Geology: | 10 | dB, for till (efficient soil) | |
| | 0 | dB, for sand/gravel/sediment (inefficient soil) | |
| | 7.4 | dB, weighted average over section | |
| Total Adjustments: | 13.4 | dB | |

Table 3 (continued)

| | rable 3 (continued) | | | |
|---|--|---|--|--|
| Traffic Condition C (Wyanet to Silvis): | | | | |
| Train Type: | Locomotive Powered Freight and Passenger | | | |
| Speed (mph): | 100 | | | |
| Track: | CWR (same as reference case) | | | |
| Geology: | Till | 118,423 Linear Ft | | |
| | Sand/Gravel/Sed | 110,877 Linear Ft | | |
| | Total | 229,300 Linear Ft | | |
| Reference Curve Adju | stment Factors: | , | | |
| Increased Speed: | 6.0 | dB, calc. per FTA guidance | | |
| Track: | 0 | dB | | |
| Geology: | 10 | dB, for till (efficient soil) | | |
| | 0 | dB, for sand/gravel/sediment (inefficient soil) | | |
| | 5.2 | dB, weighted average over section | | |
| Total Adjustments: | 11.2 | dB | | |
| Traffic Condition D | | = | | |
| Train Type: | | red Freight and Passenger | | |
| Speed (mph): | 40 | 100 1 101811 | | |
| Track: | CWR (same as ref | erence case) | | |
| Geology: | Till | 41,934 Linear Ft | | |
| Georogy. | Sand/Gravel/Sed | , | | |
| | Total | 56,371 Linear Ft | | |
| Reference Curve Adju | | 30,371 Emedi 1 t | | |
| Increased Speed: | -1.9 | dB, calc. per FTA guidance | | |
| Track: | 0 | dB | | |
| Geology: | 10 | dB, for till (efficient soil) | | |
| Geology. | 0 | dB, for sand/gravel/sediment (inefficient soil) | | |
| | 7.4 | dB, weighted average over section | | |
| Total Adjustments: | 5.5 | dB | | |
| Traffic Condition E (| | | | |
| Train Type: | | red Freight and Passenger | | |
| Speed (mph): | 100 | red i leight and i assenger | | |
| Track: | CWR (same as ref | erence case) | | |
| Geology: | Till | 0 Linear Ft | | |
| Geology. | Sand/Gravel/Sed | 268,415 Linear Ft | | |
| | Total | 268,415 Linear Ft | | |
| Reference Curve Adju | | 200,710 Linear I t | | |
| Increased Speed: | 6.0 | dB, calc. per FTA guidance | | |
| Track: | 0.0 | dB guidance | | |
| Geology: | 10 | dB, for till (efficient soil) | | |
| Geology. | 0 | dB, for sand/gravel/sediment (inefficient soil) | | |
| | 0.0 | dB, weighted average over section | | |
| Total Adjustments | | | | |
| Total Adjustments: | 6.0 | dB | | |

Table 3 (continued)

| rable 3 (continued) | | |
|------------------------------|--|---|
| Traffic Condition F (| Iowa City): | |
| Train Type: | Locomotive Powered Freight and Passenger | |
| Speed (mph): | 40 | |
| Track: | CWR (same as reference case) | |
| Geology: | Till | 0 Linear Ft |
| | Sand/Gravel/Sed | 14,129 Linear Ft |
| | Total | 14,129 Linear Ft |
| Reference Curve Adjus | | - ',', |
| Increased Speed: | -1.9 | dB, calc. per FTA guidance |
| Track: | 0 | dB |
| Geology: | 10 | dB, for till (efficient soil) |
| | 0 | dB, for sand/gravel/sediment (inefficient soil) |
| | 0.0 | dB, weighted average over section |
| Total Adjustments: | -1.9 | dB |
| Traffic Condition G (| | |
| Train Type: | | red Freight and Passenger |
| Speed (mph): | 100 | red i reight und i ussenger |
| Track: | CWR (same as ref | erence case) |
| Geology: | Till | 0 Linear Ft |
| deology. | Sand/Gravel/Sed | 589,517 Linear Ft |
| | Total | 589,517 Linear Ft |
| Poforonco Curvo Adina | | 369,317 Linear 1 t |
| Reference Curve Adjust | 6.0 | dD colo per ETA quidence |
| Increased Speed: Track: | 0.0 | dB, calc. per FTA guidance dB |
| | | |
| Geology: | 10 | dB, for till (efficient soil) |
| | 0 | dB, for sand/gravel/sediment (inefficient soil) |
| TD 4 1 A 1' 4 | 0.0 | dB, weighted average over section |
| Total Adjustments: | 6.0 | dB |
| Traffic Condition H (| | |
| Train Type: | | red Freight and Passenger |
| Speed (mph): | 40 | |
| Track: | CWR (same as ref | · · · · · · · · · · · · · · · · · · · |
| Geology: | Till | 0 Linear Ft |
| | Sand/Gravel/Sed | 73,699 Linear Ft |
| | Total | 73,699 Linear Ft |
| Reference Curve Adjus | stment Factors: | |
| Increased Speed: | -1.9 | dB, calc. per FTA guidance |
| Track: | 0 | dB |
| Geology: | 10 | dB, for till (efficient soil) |
| | 0 | dB, for sand/gravel/sediment (inefficient soil) |
| | 0.0 | dB, weighted average over section |
| Total Adjustments: | -1.9 | dB |

Table 3 (continued)

| Traffic Condition I (W F | Traffic Condition I (W. Des Moines to Council Bluffs): | | | |
|---|--|---|--|--|
| Traine Condition I (W. Des Moines to Council Biulis). | | | | |
| Train Type: | Locomotive Powered Freight and Passenger | | | |
| Speed (mph): | 100 | | | |
| Track: | CWR (same as refe | ference case) | | |
| Geology: | Till | 0 Linear Ft | | |
| | Sand/Gravel/Sed | 653,157 Linear Ft | | |
| | Total | 653,157 Linear Ft | | |
| Reference Curve Adjus | stment Factors: | | | |
| Increased Speed: | 6.0 | dB, calc. per FTA guidance | | |
| Track: | 0 | dB | | |
| Geology: | 10 | dB, for till (efficient soil) | | |
| | 0 | dB, for sand/gravel/sediment (inefficient soil) | | |
| | 0.0 | dB, weighted average over section | | |
| Total Adjustments: | 6.0 | dB | | |
| Traffic Condition J (Council Bluffs to Omaha): | | | | |
| Train Type: | Locomotive Powered Freight and Passenger | | | |
| Speed (mph): | 40 | | | |
| Track: | CWR (same as refe | erence case) | | |
| Geology: | Till | 16,353 Linear Ft | | |
| | Sand/Gravel/Sed | 86,094 Linear Ft | | |
| | Total | 102,447 Linear Ft | | |
| Reference Curve Adjus | stment Factors: | | | |
| Increased Speed: | -1.9 | dB, calc. per FTA guidance | | |
| Track: | 0 | dB | | |
| Geology: | 10 | dB, for till (efficient soil) | | |
| | 0 | dB, for sand/gravel/sediment (inefficient soil) | | |
| | 1.6 | dB, weighted average over section | | |
| Total Adjustments: | -0.3 | dB | | |

