

Appendix 4.10 Predicted Construction Noise Levels (Mitigated)

Predicted Construction Noise Levels due to TKOLTT Project

| NSR    | Noise Criteria | 2016 |     |     |     |     |     |     |     |     |     |     |     |
|--------|----------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|        |                | Jan  | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| N1102  | 75             |      | 50  | 50  | 50  | 60  | 60  | 60  | 57  | 57  | 73  | 73  | 73  |
| N1204  | 75             |      | 51  | 51  | 51  | 62  | 62  | 62  | 59  | 59  | 75  | 75  | 75  |
| N2105  | 75             |      | 53  | 53  | 53  | 62  | 62  | 62  | 59  | 59  | 75  | 75  | 75  |
| N3101a | 75             |      | 72  | 72  | 72  | 63  | 63  | 64  | 63  | 63  | 73  | 73  | 73  |
| N3104  | 75             |      | 54  | 54  | 54  | 55  | 55  | 72  | 72  | 72  | 74  | 74  | 74  |
| N4101  | 70             |      | 56  | 56  | 56  | 57  | 57  | 58  | 56  | 56  | 70  | 70  | 70  |
| N5012  | 75             |      | 49  | 52  | 52  | 70  | 70  | 71  | 73  | 74  | 72  | 72  | 72  |
| N5072  | 75             |      | 48  | 53  | 53  | 64  | 64  | 64  | 66  | 66  | 65  | 65  | 67  |
| N6101  | 75             |      | 45  | 55  | 55  | 60  | 59  | 60  | 61  | 61  | 60  | 60  | 63  |
| N7603  | 75             |      | 43  | 70  | 70  | 70  | 64  | 65  | 65  | 68  | 65  | 65  | 66  |

| NSR    | Noise Criteria | 2017 |     |     |     |     |     |     |     |     |     |     |     | 2018 |     |     |     |     |     |     |     |     |     |     |     |
|--------|----------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|        |                | Jan  | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan  | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| N1102  | 75             | 73   | 73  | 73  | 50  | 50  | 50  | 51  | 47  | 68  | 68  | 68  | 68  | 70   | 70  | 70  | 70  | 70  | 70  | 70  | 70  | 70  | 70  | 70  |     |
| N1204  | 75             | 75   | 75  | 75  | 50  | 50  | 50  | 51  | 47  | 70  | 70  | 70  | 70  | 72   | 72  | 72  | 72  | 72  | 72  | 72  | 73  | 72  | 73  | 73  |     |
| N2105  | 75             | 75   | 75  | 75  | 51  | 51  | 51  | 52  | 48  | 71  | 71  | 71  | 71  | 72   | 72  | 72  | 72  | 72  | 72  | 74  | 73  | 74  | 74  | 74  |     |
| N3101a | 75             | 73   | 73  | 73  | 61  | 61  | 61  | 62  | 61  | 69  | 69  | 69  | 69  | 70   | 70  | 70  | 70  | 70  | 70  | 73  | 73  | 73  | 73  | 73  |     |
| N3104  | 75             | 74   | 74  | 74  | 72  | 72  | 72  | 73  | 68  | 69  | 69  | 69  | 69  | 70   | 70  | 70  | 70  | 70  | 70  | 70  | 69  | 70  | 70  | 70  |     |
| N4101  | 70             | 70   | 70  | 70  | 52  | 52  | 52  | 52  | 49  | 66  | 66  | 66  | 66  | 67   | 67  | 67  | 67  | 67  | 67  | 71  | 70  | 71  | 71  | 71  |     |
| N5012  | 75             | 72   | 72  | 72  | 74  | 72  | 74  | 71  | 74  | 73  | 71  | 71  | 71  | 71   | 71  | 70  | 73  | 74  | 75  | 75  | 75  | 75  | 75  | 75  |     |
| N5072  | 75             | 67   | 67  | 67  | 67  | 68  | 67  | 67  | 65  | 68  | 68  | 67  | 67  | 67   | 67  | 66  | 68  | 68  | 68  | 68  | 69  | 68  | 68  | 68  |     |
| N6101  | 75             | 63   | 63  | 63  | 63  | 63  | 63  | 63  | 60  | 64  | 64  | 64  | 64  | 64   | 64  | 63  | 63  | 63  | 64  | 64  | 64  | 64  | 64  | 64  |     |
| N7603  | 75             | 66   | 68  | 66  | 66  | 66  | 66  | 61  | 58  | 68  | 68  | 68  | 68  | 68   | 68  | 68  | 64  | 65  | 65  | 65  | 66  | 65  | 65  | 65  |     |

| NSR    | Noise Criteria | 2019 |     |     |     |     |     |     |     |     |     |     |     | 2020 |     |     |     |     |     |     |     |     |     |     |     |
|--------|----------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|        |                | Jan  | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan  | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| N1102  | 75             | 70   | 70  | 70  | 70  | 69  | 71  | 68  | 68  | 70  | 70  | 70  | 70  | 69   | 68  | 68  | 65  | 65  | 60  | 60  | 60  | 58  | 58  | 58  |     |
| N1204  | 75             | 73   | 73  | 73  | 72  | 71  | 73  | 70  | 72  | 72  | 72  | 72  | 72  | 71   | 71  | 71  | 67  | 68  | 62  | 62  | 60  | 60  | 60  | 60  |     |
| N2105  | 75             | 74   | 74  | 74  | 73  | 71  | 73  | 71  | 71  | 72  | 72  | 72  | 72  | 71   | 71  | 71  | 68  | 68  | 62  | 62  | 60  | 60  | 60  | 60  |     |
| N3101a | 75             | 73   | 73  | 73  | 73  | 69  | 71  | 68  | 68  | 70  | 70  | 70  | 70  | 69   | 68  | 68  | 65  | 66  | 60  | 60  | 60  | 58  | 58  | 58  |     |
| N3104  | 75             | 72   | 70  | 70  | 69  | 69  | 70  | 69  | 69  | 70  | 70  | 70  | 70  | 69   | 63  | 63  | 60  | 61  | 55  | 55  | 55  | 53  | 53  | 53  |     |
| N4101  | 70             | 71   | 71  | 71  | 70  | 66  | 68  | 66  | 67  | 67  | 67  | 67  | 67  | 66   | 66  | 66  | 63  | 63  | 57  | 57  | 57  | 55  | 55  | 55  |     |
| N5012  | 75             | 75   | 75  | 75  | 74  | 74  | 74  | 71  | 72  | 70  | 70  | 67  | 67  | 67   | 67  | 69  | 69  | 70  | 70  | 68  | 68  | 62  | 62  | 62  |     |
| N5072  | 75             | 68   | 68  | 68  | 66  | 66  | 66  | 64  | 63  | 63  | 63  | 60  | 61  | 60   | 59  | 61  | 61  | 62  | 62  | 60  | 60  | 58  | 58  | 57  |     |
| N6101  | 75             | 64   | 64  | 64  | 60  | 60  | 61  | 59  | 58  | 58  | 56  | 58  | 57  | 56   | 56  | 56  | 57  | 59  | 58  | 58  | 57  | 57  | 57  | 57  |     |
| N7603  | 75             | 65   | 65  | 66  | 63  | 63  | 65  | 62  | 62  | 62  | 62  | 62  | 62  | 64   | 61  | 61  | 61  | 61  | 61  | 65  | 64  | 63  | 63  | 63  |     |

Predicted Cumulative Construction Noise Levels due to TKOLTT Project & T2 Project (Mitigated)

NSR AP: N2105

| NSR   | Project           | 2016 |     |     |     |     |     |     |     |     |     |     |     |
|-------|-------------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|       |                   | Jan  | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| N2105 | TKOLTT            |      | 53  | 53  | 53  | 62  | 62  | 62  | 59  | 59  | 75  | 75  | 75  |
| N2105 | T2 <sup>(1)</sup> |      |     |     |     |     |     |     |     |     |     |     |     |
| N2105 | Cumulative        |      | 53  | 53  | 53  | 62  | 62  | 62  | 59  | 59  | 75  | 75  | 75  |

| NSR   | Project           | 2017 |     |     |     |     |     |     |     |     |     |     |     | 2018 |     |     |     |     |     |     |     |     |     |     |     |
|-------|-------------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|       |                   | Jan  | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan  | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| N2105 | TKOLTT            | 75   | 75  | 75  | 51  | 51  | 51  | 52  | 48  | 71  | 71  | 71  | 71  | 72   | 72  | 72  | 72  | 72  | 72  | 74  | 73  | 74  | 74  | 74  |     |
| N2105 | T2 <sup>(1)</sup> |      |     |     |     |     |     |     |     |     |     |     |     |      |     |     |     |     |     |     |     | 65  | 65  | 65  | 65  |
| N2105 | Cumulative        | 75   | 75  | 75  | 51  | 51  | 51  | 52  | 48  | 71  | 71  | 71  | 71  | 72   | 72  | 72  | 72  | 72  | 72  | 74  | 73  | 74  | 74  | 74  |     |

| NSR   | Project           | 2019 |     |     |     |     |     |     |     |     |     |     |     | 2020 |     |     |     |     |     |     |     |     |     |     |     |
|-------|-------------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|       |                   | Jan  | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan  | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| N2105 | TKOLTT            | 74   | 74  | 74  | 73  | 71  | 73  | 71  | 72  | 72  | 72  | 72  | 72  | 71   | 71  | 71  | 68  | 68  | 62  | 62  | 60  | 60  | 60  | 60  |     |
| N2105 | T2 <sup>(1)</sup> | 65   | 65  | 65  | 65  | 65  | 65  | 65  | 65  |     |     |     |     |      |     |     |     |     |     |     |     |     |     |     |     |
| N2105 | Cumulative        | 74   | 74  | 74  | 74  | 72  | 74  | 72  | 72  | 73  | 72  | 72  | 72  | 71   | 71  | 71  | 68  | 68  | 62  | 62  | 60  | 60  | 60  | 60  |     |

NSR AP: N3101a

| NSR    | Project           | 2016 |     |     |     |     |     |     |     |     |     |     |     |
|--------|-------------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|        |                   | Jan  | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| N3101a | TKOLTT            |      | 72  | 72  | 72  | 63  | 63  | 64  | 63  | 63  | 73  | 73  | 73  |
| N3101a | T2 <sup>(1)</sup> | 48   | 48  |     |     |     |     |     |     |     |     |     |     |
| N3101a | Cumulative        | 48   | 72  | 72  | 72  | 63  | 63  | 64  | 63  | 63  | 73  | 73  | 73  |

| NSR    | Project           | 2017 |     |     |     |     |     |     |     |     |     |     |     | 2018 |     |     |     |     |     |     |     |     |     |     |     |
|--------|-------------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|        |                   | Jan  | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan  | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| N3101a | TKOLTT            | 73   | 73  | 73  | 61  | 61  | 61  | 62  | 61  | 69  | 69  | 69  | 69  | 70   | 70  | 70  | 70  | 70  | 70  | 73  | 73  | 73  | 73  | 73  |     |
| N3101a | T2 <sup>(1)</sup> |      |     |     |     |     |     |     |     |     |     |     |     |      |     |     |     |     |     |     |     | 54  | 54  | 54  | 58  |
| N3101a | Cumulative        | 73   | 73  | 73  | 61  | 61  | 61  | 62  | 61  | 69  | 69  | 69  | 69  | 70   | 70  | 70  | 70  | 70  | 70  | 73  | 73  | 73  | 73  | 73  |     |

| NSR    | Project           | 2019 |     |     |     |     |     |     |     |     |     |     |     | 2020 |     |     |     |     |     |     |     |     |     |     |     |
|--------|-------------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|        |                   | Jan  | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan  | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| N3101a | TKOLTT            | 73   | 73  | 73  | 73  | 69  | 71  | 68  | 68  | 70  | 70  | 70  | 70  | 69   | 68  | 68  | 65  | 66  | 60  | 60  | 60  | 58  | 58  | 58  |     |
| N3101a | T2 <sup>(1)</sup> | 58   | 58  | 57  | 57  | 57  | 57  | 57  |     |     |     |     |     |      |     |     |     |     |     |     |     |     |     |     |     |
| N3101a | Cumulative        | 73   | 73  | 73  | 73  | 70  | 71  | 69  | 68  | 70  | 70  | 70  | 70  | 69   | 68  | 68  | 65  | 66  | 60  | 60  | 60  | 58  | 58  | 58  |     |

NSR AP: N3104

| NSR   | Project           | 2016 |     |     |     |     |     |     |     |     |     |     |     |
|-------|-------------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|       |                   | Jan  | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| N3104 | TKOLTT            |      | 54  | 54  | 54  | 55  | 55  | 72  | 72  | 72  | 74  | 74  | 74  |
| N3104 | T2 <sup>(1)</sup> | 59   | 59  |     |     |     |     | 69  | 69  | 69  | 69  | 69  | 69  |
| N3104 | Cumulative        | 59   | 60  | 54  | 54  | 55  | 69  | 74  | 74  | 74  | 75  | 75  | 75  |

| NSR   | Project           | 2017 |     |     |     |     |     |     |     |     |     |     |     | 2018 |     |     |     |     |     |     |     |     |     |     |     |
|-------|-------------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|       |                   | Jan  | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan  | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| N3104 | TKOLTT            | 74   | 74  | 74  | 72  | 72  | 72  | 73  | 68  | 69  | 69  | 69  | 69  | 70   | 70  | 70  | 70  | 70  | 70  | 70  | 69  | 70  | 70  | 70  |     |
| N3104 | T2 <sup>(1)</sup> | 69   | 69  | 69  | 69  | 69  | 69  | 69  |     |     |     |     |     | 67   | 71  | 71  | 71  | 68  | 68  | 68  |     |     |     |     |     |
| N3104 | Cumulative        | 75   | 75  | 75  | 74  | 74  | 74  | 75  | 68  | 69  | 69  | 69  | 69  | 71   | 73  | 73  | 73  | 72  | 72  | 72  | 70  | 70  | 70  | 70  |     |

| NSR   | Project           | 2019 |     |     |     |     |     |     |     |     |     |     |     | 2020 |     |     |     |     |     |     |     |     |     |     |     |
|-------|-------------------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|       |                   | Jan  | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan  | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
| N3104 | TKOLTT            | 72   | 70  | 70  | 69  | 69  | 70  | 69  | 69  | 70  | 70  | 70  | 70  | 69   | 63  | 63  | 60  | 61  | 55  | 55  | 55  | 53  | 53  | 53  |     |
| N3104 | T2 <sup>(1)</sup> | 69   | 69  | 68  | 68  | 68  | 68  | 68  | 68  |     |     |     |     |      |     |     |     |     |     |     |     |     |     |     |     |
| N3104 | Cumulative        | 74   | 72  | 72  | 72  | 72  | 72  | 72  | 70  | 70  | 70  | 70  | 70  | 69   | 63  | 63  | 60  | 61  | 55  | 55  | 55  | 53  | 53  | 53  |     |

Note: (1) Predicted Construction Noise Levels for T2 Project provided by T2 Consultant