

Appendix 3-9 Detailed Breakdown from Background, Road and Chimney Emissions for "Without Project" Scenario in Year 2021
Grid[25,30]

NO₂

1.5mAG

| ASR | X | Y | Z | NO ₂ Concentration, µg/m ³ | | | | | | | |
|------|--------|--------|------|--|----------------|--|----------------|-------------------------------------|----------------|---------------------------------------|----------------|
| | | | | Cumulative Impact | | Impact from Background Emission (PATH) | | Impact from Road Emission (CALINE4) | | Impact from Chimney Emission (ISCST3) | |
| | | | | 19th Highest 1-Hour | Annual Average | 19th Highest 1-Hour | Annual Average | 19th Highest 1-Hour | Annual Average | 19th Highest 1-Hour | Annual Average |
| A017 | 831029 | 823438 | 1.5 | 190.3 | 45.5 | 183.7 | 38.7 | 6.6 | 6.8 | 0.00 | 0.03 |
| A018 | 831099 | 823436 | 1.5 | 191.0 | 46.3 | 189.7 | 38.7 | 1.3 | 7.6 | 0.00 | 0.03 |
| A019 | 831031 | 823405 | 1.5 | 189.0 | 44.8 | 183.7 | 38.7 | 5.3 | 6.1 | 0.00 | 0.03 |
| A020 | 831038 | 823364 | 1.5 | 188.0 | 43.8 | 183.7 | 38.7 | 4.3 | 5.2 | 0.00 | 0.03 |
| A021 | 831015 | 823355 | 1.5 | 186.8 | 43.6 | 186.1 | 38.7 | 0.7 | 4.9 | 0.00 | 0.03 |
| A023 | 831142 | 823291 | 1.5 | 192.1 | 42.2 | 189.7 | 38.7 | 2.4 | 3.5 | 0.00 | 0.03 |
| A024 | 831146 | 823206 | 1.5 | 191.2 | 41.7 | 153.3 | 38.7 | 32.3 | 3.0 | 5.64 | 0.03 |
| A025 | 831032 | 823143 | 1.5 | 187.7 | 44.0 | 174.2 | 38.7 | 13.6 | 5.3 | 0.00 | 0.02 |
| A026 | 831007 | 823097 | 1.5 | 187.8 | 43.3 | 177.4 | 38.7 | 10.3 | 4.7 | 0.00 | 0.02 |
| A027 | 830996 | 823048 | 1.5 | 186.5 | 41.9 | 177.4 | 38.7 | 9.1 | 3.2 | 0.00 | 0.02 |
| A028 | 831002 | 822964 | 1.5 | 183.7 | 40.7 | 153.3 | 38.7 | 30.4 | 2.0 | 0.02 | 0.02 |
| A029 | 831102 | 823086 | 1.5 | 187.4 | 43.4 | 153.3 | 38.7 | 32.4 | 4.7 | 1.67 | 0.02 |
| A030 | 831112 | 823014 | 1.5 | 187.0 | 42.2 | 186.1 | 38.7 | 0.9 | 3.5 | 0.00 | 0.02 |
| A031 | 831131 | 822963 | 1.5 | 186.4 | 41.6 | 153.3 | 38.7 | 32.4 | 2.9 | 0.72 | 0.01 |
| A032 | 830865 | 822981 | 1.5 | 186.2 | 61.1 | 183.7 | 38.7 | 2.4 | 22.4 | 0.00 | 0.02 |
| A033 | 830756 | 823064 | 1.5 | 183.7 | 54.2 | 183.7 | 38.7 | 0.0 | 15.5 | 0.00 | 0.02 |
| A034 | 830761 | 823119 | 1.5 | 183.7 | 55.2 | 183.7 | 38.7 | 0.0 | 16.5 | 0.00 | 0.02 |
| A035 | 830687 | 823361 | 16.5 | 183.7 | 49.4 | 183.7 | 38.7 | 0.0 | 10.7 | 0.00 | 0.05 |
| A036 | 830701 | 823494 | 16.5 | 184.4 | 50.4 | 184.0 | 38.7 | 0.4 | 11.6 | 0.00 | 0.07 |
| A060 | 831240 | 823247 | 1.5 | 192.0 | 40.8 | 189.7 | 38.7 | 2.3 | 2.1 | 0.00 | 0.02 |
| A061 | 831225 | 823116 | 1.5 | 190.3 | 41.0 | 184.0 | 38.7 | 6.3 | 2.3 | 0.00 | 0.02 |
| A062 | 831158 | 823053 | 1.5 | 190.6 | 41.3 | 153.3 | 38.7 | 33.1 | 2.6 | 4.21 | 0.02 |
| A063 | 831044 | 823078 | 1.5 | 196.7 | 46.9 | 139.5 | 38.7 | 57.2 | 8.2 | 0.00 | 0.02 |
| A066 | 831080 | 823350 | 1.5 | 188.3 | 44.5 | 174.2 | 38.7 | 14.2 | 5.8 | 0.00 | 0.03 |
| A067 | 831076 | 823318 | 1.5 | 187.9 | 44.3 | 177.4 | 38.7 | 10.5 | 5.6 | 0.00 | 0.03 |
| A070 | 831181 | 823410 | 1.5 | 189.0 | 42.1 | 180.0 | 38.7 | 9.0 | 3.5 | 0.00 | 0.03 |

5mAG

| ASR | X | Y | Z | NO ₂ Concentration, µg/m ³ | | | | | | | |
|------|--------|--------|----|--|----------------|--|----------------|-------------------------------------|----------------|---------------------------------------|----------------|
| | | | | Cumulative Impact | | Impact from Background Emission (PATH) | | Impact from Road Emission (CALINE4) | | Impact from Chimney Emission (ISCST3) | |
| | | | | 19th Highest 1-Hour | Annual Average | 19th Highest 1-Hour | Annual Average | 19th Highest 1-Hour | Annual Average | 19th Highest 1-Hour | Annual Average |
| A017 | 831029 | 823438 | 5 | 189.3 | 44.8 | 153.3 | 38.7 | 27.2 | 6.1 | 8.81 | 0.03 |
| A018 | 831099 | 823436 | 5 | 189.6 | 45.3 | 153.3 | 38.7 | 31.8 | 6.6 | 4.48 | 0.03 |
| A019 | 831031 | 823405 | 5 | 187.9 | 44.2 | 153.3 | 38.7 | 25.2 | 5.5 | 9.37 | 0.03 |
| A021 | 831015 | 823355 | 5 | 186.6 | 43.1 | 177.4 | 38.7 | 9.2 | 4.4 | 0.00 | 0.03 |
| A023 | 831142 | 823291 | 5 | 192.3 | 41.7 | 189.7 | 38.7 | 2.6 | 3.0 | 0.00 | 0.03 |
| A024 | 831146 | 823206 | 5 | 191.3 | 41.4 | 153.3 | 38.7 | 32.4 | 2.7 | 5.56 | 0.02 |
| A025 | 831032 | 823143 | 5 | 187.1 | 43.2 | 186.1 | 38.7 | 1.0 | 4.6 | 0.00 | 0.02 |
| A026 | 831007 | 823097 | 5 | 186.7 | 42.6 | 186.1 | 38.7 | 0.6 | 3.9 | 0.00 | 0.02 |
| A027 | 830996 | 823048 | 5 | 184.9 | 41.4 | 177.4 | 38.7 | 7.5 | 2.7 | 0.00 | 0.02 |
| A028 | 831002 | 822964 | 5 | 182.4 | 40.5 | 181.8 | 38.7 | 0.6 | 1.8 | 0.00 | 0.02 |
| A029 | 831102 | 823086 | 5 | 186.9 | 42.2 | 153.3 | 38.7 | 31.9 | 3.5 | 1.66 | 0.02 |
| A030 | 831112 | 823014 | 5 | 186.8 | 41.4 | 177.4 | 38.7 | 9.4 | 2.8 | 0.00 | 0.02 |
| A031 | 831131 | 822963 | 5 | 186.3 | 40.9 | 153.3 | 38.7 | 32.2 | 2.2 | 0.72 | 0.01 |
| A032 | 830865 | 822981 | 5 | 183.2 | 58.9 | 180.0 | 38.7 | 3.3 | 20.2 | 0.00 | 0.02 |
| A033 | 830756 | 823064 | 5 | 183.7 | 53.7 | 183.7 | 38.7 | 0.0 | 15.0 | 0.00 | 0.02 |
| A034 | 830761 | 823119 | 5 | 183.7 | 54.6 | 183.7 | 38.7 | 0.0 | 16.0 | 0.00 | 0.02 |
| A035 | 830687 | 823361 | 20 | 182.7 | 48.6 | 173.9 | 38.7 | 8.8 | 9.9 | 0.00 | 0.05 |
| A036 | 830701 | 823494 | 20 | 184.2 | 49.1 | 184.0 | 38.7 | 0.2 | 10.4 | 0.00 | 0.07 |
| A060 | 831240 | 823247 | 5 | 191.6 | 40.6 | 189.7 | 38.7 | 1.9 | 1.9 | 0.00 | 0.02 |
| A061 | 831225 | 823116 | 5 | 190.3 | 40.6 | 157.5 | 38.7 | 32.8 | 2.0 | 0.00 | 0.02 |
| A062 | 831158 | 823053 | 5 | 190.1 | 40.9 | 184.0 | 38.7 | 6.1 | 2.2 | 0.00 | 0.02 |
| A063 | 831044 | 823078 | 5 | 195.5 | 46.5 | 139.5 | 38.7 | 56.0 | 7.8 | 0.00 | 0.02 |
| A066 | 831080 | 823350 | 5 | 187.5 | 43.7 | 177.4 | 38.7 | 10.1 | 5.1 | 0.00 | 0.03 |
| A067 | 831076 | 823318 | 5 | 187.5 | 43.6 | 177.4 | 38.7 | 10.1 | 4.9 | 0.00 | 0.03 |

10mAG

| ASR | X | Y | Z | NO ₂ Concentration, µg/m ³ | | | | | | | |
|------|--------|--------|----|--|----------------|--|----------------|-------------------------------------|----------------|---------------------------------------|----------------|
| | | | | Cumulative Impact | | Impact from Background Emission (PATH) | | Impact from Road Emission (CALINE4) | | Impact from Chimney Emission (ISCST3) | |
| | | | | 19th Highest 1-Hour | Annual Average | 19th Highest 1-Hour | Annual Average | 19th Highest 1-Hour | Annual Average | 19th Highest 1-Hour | Annual Average |
| A017 | 831029 | 823438 | 10 | 186.9 | 43.8 | 177.4 | 38.7 | 9.5 | 5.1 | 0.00 | 0.03 |
| A018 | 831099 | 823436 | 10 | 188.7 | 43.8 | 174.2 | 38.7 | 14.5 | 5.1 | 0.00 | 0.03 |
| A019 | 831031 | 823405 | 10 | 186.7 | 43.2 | 177.4 | 38.7 | 9.3 | 4.5 | 0.00 | 0.03 |
| A021 | 831015 | 823355 | 10 | 185.8 | 42.3 | 177.4 | 38.7 | 8.4 | 3.6 | 0.00 | 0.03 |
| A023 | 831142 | 823291 | 10 | 192.2 | 40.9 | 153.3 | 38.7 | 32.4 | 2.2 | 6.45 | 0.03 |
| A024 | 831146 | 823206 | 10 | 191.3 | 40.8 | 153.3 | 38.7 | 32.6 | 2.1 | 5.38 | 0.02 |
| A025 | 831032 | 823143 | 10 | 186.8 | 42.2 | 186.1 | 38.7 | 0.7 | 3.5 | 0.00 | 0.02 |
| A026 | 831007 | 823097 | 10 | 186.5 | 41.7 | 177.4 | 38.7 | 9.1 | 3.0 | 0.00 | 0.02 |
| A027 | 830996 | 823048 | 10 | 183.6 | 40.8 | 180.0 | 38.7 | 3.6 | 2.1 | 0.00 | 0.02 |
| A028 | 831002 | 822964 | 10 | 182.3 | 40.3 | 181.8 | 38.7 | 0.5 | 1.6 | 0.00 | 0.02 |
| A029 | 831102 | 823086 | 10 | 186.4 | 40.9 | 177.4 | 38.7 | 9.0 | 2.2 | 0.00 | 0.02 |
| A030 | 831112 | 823014 | 10 | 186.1 | 40.4 | 153.3 | 38.7 | 31.9 | 1.8 | 0.87 | 0.02 |
| A031 | 831131 | 822963 | 10 | 185.0 | 40.1 | 180.0 | 38.7 | 5.0 | 1.4 | 0.00 | 0.01 |
| A032 | 830865 | 822981 | 10 | 181.2 | 55.6 | 172.4 | 38.7 | 8.7 | 16.9 | 0.00 | 0.02 |
| A033 | 830756 | 823064 | 10 | 183.3 | 52.4 | 172.4 | 38.7 | 10.9 | 13.7 | 0.00 | 0.02 |
| A034 | 830761 | 823119 | 10 | 183.3 | 53.2 | 172.4 | 38.7 | 10.8 | 14.5 | 0.00 | 0.02 |
| A035 | 830687 | 823361 | 25 | 181.1 | 47.3 | 173.9 | 38.7 | 7.3 | 8.6 | 0.00 | 0.05 |
| A036 | 830701 | 823494 | 25 | 183.6 | 47.4 | 173.9 | 38.7 | 9.8 | 8.7 | 0.00 | 0.08 |
| A060 | 831240 | 823247 | 10 | 191.2 | 40.2 | 189.7 | 38.7 | 1.5 | 1.5 | 0.00 | 0.02 |
| A061 | 831225 | 823116 | 10 | 190.4 | 40.2 | 157.5 | 38.7 | 32.9 | 1.5 | 0.00 | 0.02 |
| A062 | 831158 | 823053 | 10 | 188.4 | 40.3 | 145.5 | 38.7 | 40.0 | 1.6 | 2.95 | 0.02 |
| A063 | 831044 | 823078 | 10 | 193.8 | 45.4 | 145.5 | 38.7 | 47.4 | 6.7 | 0.89 | 0.02 |
| A066 | 831080 | 823350 | 10 | 187.0 | 42.6 | 177.4 | 38.7 | 9.6 | 3.9 | 0.00 | 0.03 |
| A067 | 831076 | 823318 | 10 | 187.0 | 42.4 | 177.4 | 38.7 | 9.5 | 3.7 | 0.00 | 0.03 |

Appendix 3-9 Detailed Breakdown from Background, Road and Chimney Emissions for "Without Project" Scenario in Year 2021
Grid[25,30]

RSP

1.5mAG

| ASR | X | Y | Z | RSP Concentration, $\mu\text{g}/\text{m}^3$ | | | | | | | |
|------|--------|--------|------|---|----------------|--|----------------|-------------------------------------|----------------|---------------------------------------|----------------|
| | | | | Cumulative Impact | | Impact from Background Emission (PATH) | | Impact from Road Emission (CALINE4) | | Impact from Chimney Emission (ISCST3) | |
| | | | | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average |
| A017 | 831029 | 823438 | 1.5 | 79.6 | 43.0 | 78.8 | 42.7 | 0.7 | 0.4 | 0.02 | 0.002 |
| A018 | 831099 | 823436 | 1.5 | 79.6 | 43.1 | 78.8 | 42.7 | 0.8 | 0.4 | 0.01 | 0.002 |
| A019 | 831031 | 823405 | 1.5 | 79.5 | 43.0 | 78.8 | 42.7 | 0.7 | 0.3 | 0.03 | 0.002 |
| A020 | 831038 | 823364 | 1.5 | 79.4 | 42.9 | 78.8 | 42.7 | 0.5 | 0.3 | 0.04 | 0.003 |
| A021 | 831015 | 823355 | 1.5 | 79.4 | 42.9 | 78.8 | 42.7 | 0.5 | 0.2 | 0.04 | 0.003 |
| A023 | 831142 | 823291 | 1.5 | 79.4 | 42.9 | 78.8 | 42.7 | 0.6 | 0.2 | 0.03 | 0.003 |
| A024 | 831146 | 823206 | 1.5 | 79.4 | 42.9 | 78.8 | 42.7 | 0.5 | 0.2 | 0.03 | 0.002 |
| A025 | 831032 | 823143 | 1.5 | 79.5 | 43.0 | 78.8 | 42.7 | 0.7 | 0.3 | 0.02 | 0.002 |
| A026 | 831007 | 823097 | 1.5 | 79.5 | 42.9 | 78.8 | 42.7 | 0.7 | 0.2 | 0.01 | 0.002 |
| A027 | 830996 | 823048 | 1.5 | 79.4 | 42.8 | 78.8 | 42.7 | 0.6 | 0.2 | 0.01 | 0.002 |
| A028 | 831002 | 822964 | 1.5 | 79.3 | 42.8 | 78.8 | 42.7 | 0.5 | 0.1 | 0.01 | 0.001 |
| A029 | 831102 | 823086 | 1.5 | 79.5 | 42.9 | 78.8 | 42.7 | 0.6 | 0.2 | 0.02 | 0.002 |
| A030 | 831112 | 823014 | 1.5 | 79.4 | 42.8 | 78.8 | 42.7 | 0.6 | 0.2 | 0.02 | 0.002 |
| A031 | 831131 | 822963 | 1.5 | 79.4 | 42.8 | 78.8 | 42.7 | 0.5 | 0.1 | 0.02 | 0.001 |
| A032 | 830865 | 822981 | 1.5 | 81.0 | 44.0 | 80.4 | 42.7 | 0.6 | 1.3 | 0.01 | 0.001 |
| A033 | 830756 | 823064 | 1.5 | 80.0 | 43.5 | 78.8 | 42.7 | 1.2 | 0.8 | 0.02 | 0.001 |
| A034 | 830761 | 823119 | 1.5 | 80.0 | 43.5 | 78.8 | 42.7 | 1.2 | 0.9 | 0.02 | 0.001 |
| A035 | 830687 | 823361 | 16.5 | 79.6 | 43.2 | 78.8 | 42.7 | 0.7 | 0.5 | 0.06 | 0.003 |
| A036 | 830701 | 823494 | 16.5 | 79.7 | 43.3 | 78.8 | 42.7 | 0.8 | 0.6 | 0.08 | 0.004 |
| A060 | 831240 | 823247 | 1.5 | 79.4 | 42.8 | 78.8 | 42.7 | 0.5 | 0.1 | 0.02 | 0.002 |
| A061 | 831225 | 823116 | 1.5 | 79.4 | 42.8 | 78.8 | 42.7 | 0.5 | 0.1 | 0.02 | 0.002 |
| A062 | 831158 | 823053 | 1.5 | 79.4 | 42.8 | 78.8 | 42.7 | 0.5 | 0.1 | 0.03 | 0.002 |
| A063 | 831044 | 823078 | 1.5 | 80.2 | 43.2 | 78.6 | 42.7 | 1.6 | 0.5 | 0.00 | 0.002 |
| A066 | 831080 | 823350 | 1.5 | 79.4 | 43.0 | 78.8 | 42.7 | 0.6 | 0.3 | 0.03 | 0.002 |
| A067 | 831076 | 823318 | 1.5 | 79.4 | 42.9 | 78.8 | 42.7 | 0.6 | 0.3 | 0.03 | 0.002 |
| A070 | 831181 | 823410 | 1.5 | 79.5 | 42.9 | 78.8 | 42.7 | 0.6 | 0.2 | 0.01 | 0.003 |

5mAG

| ASR | X | Y | Z | RSP Concentration, $\mu\text{g}/\text{m}^3$ | | | | | | | |
|------|--------|--------|----|---|----------------|--|----------------|-------------------------------------|----------------|---------------------------------------|----------------|
| | | | | Cumulative Impact | | Impact from Background Emission (PATH) | | Impact from Road Emission (CALINE4) | | Impact from Chimney Emission (ISCST3) | |
| | | | | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average |
| A017 | 831029 | 823438 | 5 | 79.5 | 43.0 | 78.8 | 42.7 | 0.6 | 0.3 | 0.02 | 0.002 |
| A018 | 831099 | 823436 | 5 | 79.5 | 43.0 | 78.8 | 42.7 | 0.7 | 0.3 | 0.01 | 0.002 |
| A019 | 831031 | 823405 | 5 | 79.4 | 43.0 | 78.8 | 42.7 | 0.6 | 0.3 | 0.03 | 0.002 |
| A021 | 831015 | 823355 | 5 | 79.4 | 42.9 | 78.8 | 42.7 | 0.5 | 0.2 | 0.04 | 0.003 |
| A023 | 831142 | 823291 | 5 | 79.4 | 42.9 | 78.8 | 42.7 | 0.6 | 0.2 | 0.03 | 0.003 |
| A024 | 831146 | 823206 | 5 | 79.4 | 42.8 | 78.8 | 42.7 | 0.5 | 0.2 | 0.03 | 0.002 |
| A025 | 831032 | 823143 | 5 | 79.5 | 42.9 | 78.8 | 42.7 | 0.6 | 0.2 | 0.02 | 0.002 |
| A026 | 831007 | 823097 | 5 | 79.4 | 42.9 | 78.8 | 42.7 | 0.6 | 0.2 | 0.01 | 0.002 |
| A027 | 830996 | 823048 | 5 | 79.3 | 42.8 | 78.8 | 42.7 | 0.5 | 0.1 | 0.01 | 0.002 |
| A028 | 831002 | 822964 | 5 | 79.3 | 42.8 | 78.8 | 42.7 | 0.4 | 0.1 | 0.01 | 0.001 |
| A029 | 831102 | 823086 | 5 | 79.4 | 42.9 | 78.8 | 42.7 | 0.5 | 0.2 | 0.02 | 0.002 |
| A030 | 831112 | 823014 | 5 | 79.4 | 42.8 | 78.8 | 42.7 | 0.5 | 0.1 | 0.02 | 0.002 |
| A031 | 831131 | 822963 | 5 | 79.3 | 42.8 | 78.8 | 42.7 | 0.5 | 0.1 | 0.02 | 0.001 |
| A032 | 830865 | 822981 | 5 | 80.9 | 43.8 | 80.4 | 42.7 | 0.5 | 1.1 | 0.01 | 0.001 |
| A033 | 830756 | 823064 | 5 | 80.0 | 43.4 | 78.8 | 42.7 | 1.1 | 0.7 | 0.02 | 0.001 |
| A034 | 830761 | 823119 | 5 | 80.0 | 43.5 | 78.8 | 42.7 | 1.1 | 0.8 | 0.02 | 0.001 |
| A035 | 830687 | 823361 | 20 | 79.5 | 43.2 | 78.8 | 42.7 | 0.6 | 0.5 | 0.06 | 0.003 |
| A036 | 830701 | 823494 | 20 | 79.6 | 43.2 | 78.8 | 42.7 | 0.7 | 0.5 | 0.08 | 0.004 |
| A060 | 831240 | 823247 | 5 | 79.3 | 42.8 | 78.8 | 42.7 | 0.5 | 0.1 | 0.02 | 0.002 |
| A061 | 831225 | 823116 | 5 | 79.3 | 42.8 | 78.8 | 42.7 | 0.5 | 0.1 | 0.02 | 0.002 |
| A062 | 831158 | 823053 | 5 | 79.4 | 42.8 | 78.8 | 42.7 | 0.5 | 0.1 | 0.03 | 0.002 |
| A063 | 831044 | 823078 | 5 | 80.1 | 43.2 | 78.6 | 42.7 | 1.5 | 0.5 | 0.00 | 0.002 |
| A066 | 831080 | 823350 | 5 | 79.4 | 42.9 | 78.8 | 42.7 | 0.5 | 0.2 | 0.03 | 0.002 |
| A067 | 831076 | 823318 | 5 | 79.4 | 42.9 | 78.8 | 42.7 | 0.5 | 0.2 | 0.03 | 0.002 |

10mAG

| ASR | X | Y | Z | RSP Concentration, $\mu\text{g}/\text{m}^3$ | | | | | | | |
|------|--------|--------|----|---|----------------|--|----------------|-------------------------------------|----------------|---------------------------------------|----------------|
| | | | | Cumulative Impact | | Impact from Background Emission (PATH) | | Impact from Road Emission (CALINE4) | | Impact from Chimney Emission (ISCST3) | |
| | | | | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average |
| A017 | 831029 | 823438 | 10 | 79.4 | 42.9 | 78.8 | 42.7 | 0.5 | 0.2 | 0.02 | 0.002 |
| A018 | 831099 | 823436 | 10 | 79.4 | 42.9 | 78.8 | 42.7 | 0.6 | 0.3 | 0.01 | 0.002 |
| A019 | 831031 | 823405 | 10 | 79.3 | 42.9 | 78.8 | 42.7 | 0.5 | 0.2 | 0.03 | 0.003 |
| A021 | 831015 | 823355 | 10 | 79.3 | 42.9 | 78.8 | 42.7 | 0.4 | 0.2 | 0.04 | 0.003 |
| A023 | 831142 | 823291 | 10 | 79.4 | 42.8 | 78.8 | 42.7 | 0.5 | 0.1 | 0.03 | 0.003 |
| A024 | 831146 | 823206 | 10 | 79.4 | 42.8 | 78.8 | 42.7 | 0.5 | 0.1 | 0.03 | 0.002 |
| A025 | 831032 | 823143 | 10 | 79.4 | 42.9 | 78.8 | 42.7 | 0.5 | 0.2 | 0.02 | 0.002 |
| A026 | 831007 | 823097 | 10 | 79.4 | 42.8 | 78.8 | 42.7 | 0.5 | 0.1 | 0.01 | 0.002 |
| A027 | 830996 | 823048 | 10 | 79.3 | 42.8 | 78.8 | 42.7 | 0.4 | 0.1 | 0.01 | 0.002 |
| A028 | 831002 | 822964 | 10 | 79.2 | 42.8 | 78.8 | 42.7 | 0.4 | 0.1 | 0.01 | 0.001 |
| A029 | 831102 | 823086 | 10 | 79.3 | 42.8 | 78.8 | 42.7 | 0.5 | 0.1 | 0.02 | 0.002 |
| A030 | 831112 | 823014 | 10 | 79.3 | 42.8 | 78.8 | 42.7 | 0.5 | 0.1 | 0.02 | 0.002 |
| A031 | 831131 | 822963 | 10 | 79.3 | 42.8 | 78.8 | 42.7 | 0.4 | 0.1 | 0.02 | 0.001 |
| A032 | 830865 | 822981 | 10 | 80.8 | 43.6 | 80.4 | 42.7 | 0.4 | 0.9 | 0.01 | 0.001 |
| A033 | 830756 | 823064 | 10 | 79.9 | 43.4 | 78.8 | 42.7 | 1.0 | 0.7 | 0.02 | 0.001 |
| A034 | 830761 | 823119 | 10 | 79.9 | 43.4 | 78.8 | 42.7 | 1.0 | 0.7 | 0.02 | 0.001 |
| A035 | 830687 | 823361 | 25 | 79.4 | 43.1 | 78.8 | 42.7 | 0.5 | 0.4 | 0.06 | 0.003 |
| A036 | 830701 | 823494 | 25 | 79.5 | 43.1 | 78.8 | 42.7 | 0.5 | 0.4 | 0.08 | 0.004 |
| A060 | 831240 | 823247 | 10 | 79.3 | 42.8 | 78.8 | 42.7 | 0.4 | 0.1 | 0.02 | 0.002 |
| A061 | 831225 | 823116 | 10 | 79.3 | 42.8 | 78.8 | 42.7 | 0.5 | 0.1 | 0.02 | 0.002 |
| A062 | 831158 | 823053 | 10 | 79.3 | 42.8 | 78.8 | 42.7 | 0.5 | 0.1 | 0.03 | 0.002 |
| A063 | 831044 | 823078 | 10 | 79.9 | 43.1 | 78.6 | 42.7 | 1.3 | 0.4 | 0.00 | 0.002 |
| A066 | 831080 | 823350 | 10 | 79.3 | 42.9 | 78.8 | 42.7 | 0.5 | 0.2 | 0.03 | 0.002 |
| A067 | 831076 | 823318 | 10 | 79.3 | 42.9 | 78.8 | 42.7 | 0.5 | 0.2 | 0.03 | 0.002 |

Appendix 3-9 Detailed Breakdown from Background, Road and Chimney Emissions for "Without Project" Scenario in Year 2021
Grid[25,30]

FSP

1.5mAG

| ASR | X | Y | Z | FSP Concentration, $\mu\text{g}/\text{m}^3$ | | | | | | | |
|------|--------|--------|------|---|----------------|--|----------------|-------------------------------------|----------------|---------------------------------------|----------------|
| | | | | Cumulative Impact | | Impact from Background Emission (PATH) | | Impact from Road Emission (CALINE4) | | Impact from Chimney Emission (ISCST3) | |
| | | | | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average |
| A017 | 831029 | 823438 | 1.5 | 59.8 | 30.6 | 59.1 | 30.3 | 0.7 | 0.3 | 0.01 | 0.001 |
| A018 | 831099 | 823436 | 1.5 | 59.8 | 30.7 | 59.1 | 30.3 | 0.7 | 0.3 | 0.00 | 0.001 |
| A019 | 831031 | 823405 | 1.5 | 59.7 | 30.6 | 59.1 | 30.3 | 0.6 | 0.3 | 0.01 | 0.001 |
| A020 | 831038 | 823364 | 1.5 | 59.6 | 30.5 | 59.1 | 30.3 | 0.5 | 0.2 | 0.01 | 0.001 |
| A021 | 831015 | 823355 | 1.5 | 59.6 | 30.5 | 59.1 | 30.3 | 0.5 | 0.2 | 0.01 | 0.001 |
| A023 | 831142 | 823291 | 1.5 | 59.7 | 30.5 | 59.1 | 30.3 | 0.5 | 0.2 | 0.01 | 0.001 |
| A024 | 831146 | 823206 | 1.5 | 59.6 | 30.5 | 59.1 | 30.3 | 0.5 | 0.2 | 0.01 | 0.001 |
| A025 | 831032 | 823143 | 1.5 | 59.8 | 30.6 | 59.1 | 30.3 | 0.6 | 0.2 | 0.00 | 0.000 |
| A026 | 831007 | 823097 | 1.5 | 59.8 | 30.5 | 59.1 | 30.3 | 0.6 | 0.2 | 0.00 | 0.000 |
| A027 | 830996 | 823048 | 1.5 | 59.6 | 30.5 | 59.1 | 30.3 | 0.5 | 0.1 | 0.00 | 0.000 |
| A028 | 831002 | 822964 | 1.5 | 59.5 | 30.4 | 59.1 | 30.3 | 0.4 | 0.1 | 0.00 | 0.000 |
| A029 | 831102 | 823086 | 1.5 | 59.7 | 30.5 | 59.1 | 30.3 | 0.6 | 0.2 | 0.01 | 0.000 |
| A030 | 831112 | 823014 | 1.5 | 59.7 | 30.5 | 59.1 | 30.3 | 0.5 | 0.1 | 0.00 | 0.000 |
| A031 | 831131 | 822963 | 1.5 | 59.6 | 30.4 | 59.1 | 30.3 | 0.5 | 0.1 | 0.00 | 0.000 |
| A032 | 830865 | 822981 | 1.5 | 60.8 | 31.5 | 60.3 | 30.3 | 0.5 | 1.2 | 0.00 | 0.000 |
| A033 | 830756 | 823064 | 1.5 | 60.2 | 31.0 | 59.1 | 30.3 | 1.1 | 0.7 | 0.01 | 0.000 |
| A034 | 830761 | 823119 | 1.5 | 60.2 | 31.1 | 59.1 | 30.3 | 1.1 | 0.8 | 0.01 | 0.000 |
| A035 | 830687 | 823361 | 16.5 | 59.8 | 30.8 | 59.1 | 30.3 | 0.6 | 0.5 | 0.01 | 0.001 |
| A036 | 830701 | 823494 | 16.5 | 59.8 | 30.8 | 59.1 | 30.3 | 0.7 | 0.5 | 0.02 | 0.001 |
| A060 | 831240 | 823247 | 1.5 | 59.6 | 30.4 | 59.1 | 30.3 | 0.5 | 0.1 | 0.00 | 0.001 |
| A061 | 831225 | 823116 | 1.5 | 59.6 | 30.4 | 59.1 | 30.3 | 0.5 | 0.1 | 0.01 | 0.000 |
| A062 | 831158 | 823053 | 1.5 | 59.6 | 30.4 | 59.1 | 30.3 | 0.5 | 0.1 | 0.01 | 0.001 |
| A063 | 831044 | 823078 | 1.5 | 60.3 | 30.8 | 59.4 | 30.3 | 1.0 | 0.5 | 0.00 | 0.000 |
| A066 | 831080 | 823350 | 1.5 | 59.7 | 30.6 | 59.1 | 30.3 | 0.5 | 0.2 | 0.01 | 0.001 |
| A067 | 831076 | 823318 | 1.5 | 59.6 | 30.5 | 59.1 | 30.3 | 0.5 | 0.2 | 0.01 | 0.001 |
| A070 | 831181 | 823410 | 1.5 | 59.7 | 30.5 | 59.1 | 30.3 | 0.6 | 0.2 | 0.00 | 0.001 |

5mAG

| ASR | X | Y | Z | FSP Concentration, $\mu\text{g}/\text{m}^3$ | | | | | | | |
|------|--------|--------|----|---|----------------|--|----------------|-------------------------------------|----------------|---------------------------------------|----------------|
| | | | | Cumulative Impact | | Impact from Background Emission (PATH) | | Impact from Road Emission (CALINE4) | | Impact from Chimney Emission (ISCST3) | |
| | | | | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average |
| A017 | 831029 | 823438 | 5 | 59.7 | 30.6 | 59.1 | 30.3 | 0.6 | 0.3 | 0.01 | 0.001 |
| A018 | 831099 | 823436 | 5 | 59.8 | 30.6 | 59.1 | 30.3 | 0.6 | 0.3 | 0.00 | 0.001 |
| A019 | 831031 | 823405 | 5 | 59.7 | 30.6 | 59.1 | 30.3 | 0.5 | 0.2 | 0.01 | 0.001 |
| A021 | 831015 | 823355 | 5 | 59.6 | 30.5 | 59.1 | 30.3 | 0.4 | 0.2 | 0.01 | 0.001 |
| A023 | 831142 | 823291 | 5 | 59.6 | 30.5 | 59.1 | 30.3 | 0.5 | 0.2 | 0.01 | 0.001 |
| A024 | 831146 | 823206 | 5 | 59.6 | 30.5 | 59.1 | 30.3 | 0.5 | 0.1 | 0.01 | 0.001 |
| A025 | 831032 | 823143 | 5 | 59.7 | 30.5 | 59.1 | 30.3 | 0.6 | 0.2 | 0.00 | 0.000 |
| A026 | 831007 | 823097 | 5 | 59.7 | 30.5 | 59.1 | 30.3 | 0.6 | 0.2 | 0.00 | 0.000 |
| A027 | 830996 | 823048 | 5 | 59.6 | 30.4 | 59.1 | 30.3 | 0.5 | 0.1 | 0.00 | 0.000 |
| A028 | 831002 | 822964 | 5 | 59.5 | 30.4 | 59.1 | 30.3 | 0.4 | 0.1 | 0.00 | 0.000 |
| A029 | 831102 | 823086 | 5 | 59.6 | 30.5 | 59.1 | 30.3 | 0.5 | 0.2 | 0.01 | 0.000 |
| A030 | 831112 | 823014 | 5 | 59.6 | 30.4 | 59.1 | 30.3 | 0.5 | 0.1 | 0.00 | 0.000 |
| A031 | 831131 | 822963 | 5 | 59.6 | 30.4 | 59.1 | 30.3 | 0.4 | 0.1 | 0.00 | 0.000 |
| A032 | 830865 | 822981 | 5 | 60.7 | 31.4 | 60.3 | 30.3 | 0.5 | 1.0 | 0.00 | 0.000 |
| A033 | 830756 | 823064 | 5 | 60.2 | 31.0 | 59.1 | 30.3 | 1.0 | 0.7 | 0.01 | 0.000 |
| A034 | 830761 | 823119 | 5 | 60.2 | 31.1 | 59.1 | 30.3 | 1.0 | 0.8 | 0.01 | 0.000 |
| A035 | 830687 | 823361 | 20 | 59.7 | 30.7 | 59.1 | 30.3 | 0.6 | 0.4 | 0.01 | 0.001 |
| A036 | 830701 | 823494 | 20 | 59.8 | 30.8 | 59.1 | 30.3 | 0.6 | 0.5 | 0.02 | 0.001 |
| A060 | 831240 | 823247 | 5 | 59.6 | 30.4 | 59.1 | 30.3 | 0.4 | 0.1 | 0.00 | 0.001 |
| A061 | 831225 | 823116 | 5 | 59.6 | 30.4 | 59.1 | 30.3 | 0.5 | 0.1 | 0.01 | 0.000 |
| A062 | 831158 | 823053 | 5 | 59.6 | 30.4 | 59.1 | 30.3 | 0.5 | 0.1 | 0.01 | 0.001 |
| A063 | 831044 | 823078 | 5 | 60.3 | 30.7 | 59.4 | 30.3 | 0.9 | 0.4 | 0.00 | 0.000 |
| A066 | 831080 | 823350 | 5 | 59.6 | 30.5 | 59.1 | 30.3 | 0.5 | 0.2 | 0.01 | 0.001 |
| A067 | 831076 | 823318 | 5 | 59.6 | 30.5 | 59.1 | 30.3 | 0.5 | 0.2 | 0.01 | 0.001 |

10mAG

| ASR | X | Y | Z | FSP Concentration, $\mu\text{g}/\text{m}^3$ | | | | | | | |
|------|--------|--------|----|---|----------------|--|----------------|-------------------------------------|----------------|---------------------------------------|----------------|
| | | | | Cumulative Impact | | Impact from Background Emission (PATH) | | Impact from Road Emission (CALINE4) | | Impact from Chimney Emission (ISCST3) | |
| | | | | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average |
| A017 | 831029 | 823438 | 10 | 59.6 | 30.5 | 59.1 | 30.3 | 0.5 | 0.2 | 0.01 | 0.001 |
| A018 | 831099 | 823436 | 10 | 59.7 | 30.5 | 59.1 | 30.3 | 0.6 | 0.2 | 0.00 | 0.001 |
| A019 | 831031 | 823405 | 10 | 59.6 | 30.5 | 59.1 | 30.3 | 0.4 | 0.2 | 0.01 | 0.001 |
| A021 | 831015 | 823355 | 10 | 59.5 | 30.5 | 59.1 | 30.3 | 0.4 | 0.2 | 0.01 | 0.001 |
| A023 | 831142 | 823291 | 10 | 59.6 | 30.4 | 59.1 | 30.3 | 0.5 | 0.1 | 0.01 | 0.001 |
| A024 | 831146 | 823206 | 10 | 59.6 | 30.4 | 59.1 | 30.3 | 0.5 | 0.1 | 0.01 | 0.001 |
| A025 | 831032 | 823143 | 10 | 59.6 | 30.5 | 59.1 | 30.3 | 0.5 | 0.2 | 0.00 | 0.000 |
| A026 | 831007 | 823097 | 10 | 59.6 | 30.4 | 59.1 | 30.3 | 0.5 | 0.1 | 0.00 | 0.000 |
| A027 | 830996 | 823048 | 10 | 59.5 | 30.4 | 59.1 | 30.3 | 0.4 | 0.1 | 0.00 | 0.000 |
| A028 | 831002 | 822964 | 10 | 59.5 | 30.4 | 59.1 | 30.3 | 0.4 | 0.1 | 0.00 | 0.000 |
| A029 | 831102 | 823086 | 10 | 59.6 | 30.4 | 59.1 | 30.3 | 0.4 | 0.1 | 0.01 | 0.000 |
| A030 | 831112 | 823014 | 10 | 59.6 | 30.4 | 59.1 | 30.3 | 0.4 | 0.1 | 0.00 | 0.000 |
| A031 | 831131 | 822963 | 10 | 59.5 | 30.4 | 59.1 | 30.3 | 0.4 | 0.1 | 0.00 | 0.000 |
| A032 | 830865 | 822981 | 10 | 60.7 | 31.1 | 60.3 | 30.3 | 0.4 | 0.8 | 0.00 | 0.000 |
| A033 | 830756 | 823064 | 10 | 60.1 | 30.9 | 59.1 | 30.3 | 1.0 | 0.6 | 0.01 | 0.000 |
| A034 | 830761 | 823119 | 10 | 60.1 | 31.0 | 59.1 | 30.3 | 1.0 | 0.7 | 0.01 | 0.000 |
| A035 | 830687 | 823361 | 25 | 59.6 | 30.7 | 59.1 | 30.3 | 0.5 | 0.4 | 0.01 | 0.001 |
| A036 | 830701 | 823494 | 25 | 59.6 | 30.7 | 59.1 | 30.3 | 0.5 | 0.4 | 0.02 | 0.001 |
| A060 | 831240 | 823247 | 10 | 59.5 | 30.4 | 59.1 | 30.3 | 0.4 | 0.1 | 0.00 | 0.001 |
| A061 | 831225 | 823116 | 10 | 59.6 | 30.4 | 59.1 | 30.3 | 0.4 | 0.1 | 0.01 | 0.000 |
| A062 | 831158 | 823053 | 10 | 59.6 | 30.4 | 59.1 | 30.3 | 0.4 | 0.1 | 0.01 | 0.000 |
| A063 | 831044 | 823078 | 10 | 60.2 | 30.7 | 58.9 | 30.3 | 1.2 | 0.4 | 0.00 | 0.000 |
| A066 | 831080 | 823350 | 10 | 59.6 | 30.5 | 59.1 | 30.3 | 0.4 | 0.2 | 0.01 | 0.001 |
| A067 | 831076 | 823318 | 10 | 59.5 | 30.5 | 59.1 | 30.3 | 0.4 | 0.2 | 0.01 | 0.001 |

Appendix 3-9 Detailed Breakdown from Background, Road and Chimney Emissions for "Without Project" Scenario in Year 2021
Grid[25,31]

NO₂

1.5mAG

| ASR | X | Y | Z | NO ₂ Concentration, µg/m ³ | | | | | | | |
|------|--------|--------|------|--|----------------|--|----------------|-------------------------------------|----------------|---------------------------------------|----------------|
| | | | | Cumulative Impact | | Impact from Background Emission (PATH) | | Impact from Road Emission (CALINE4) | | Impact from Chimney Emission (ISCST3) | |
| | | | | 19th Highest 1-Hour | Annual Average | 19th Highest 1-Hour | Annual Average | 19th Highest 1-Hour | Annual Average | 19th Highest 1-Hour | Annual Average |
| A001 | 831042 | 824135 | 1.5 | 191.1 | 40.8 | 177.2 | 29.8 | 13.9 | 10.7 | 0.000 | 0.32 |
| A003 | 831350 | 824183 | 1.5 | 188.7 | 39.6 | 173.7 | 29.8 | 15.0 | 9.7 | 0.000 | 0.16 |
| A004 | 831363 | 824098 | 1.5 | 187.6 | 46.4 | 177.2 | 29.8 | 10.4 | 16.5 | 0.002 | 0.14 |
| A005 | 831291 | 824014 | 16.4 | 187.8 | 37.3 | 173.7 | 29.8 | 14.2 | 7.4 | 0.000 | 0.15 |
| A006 | 831263 | 823971 | 1.5 | 190.0 | 49.7 | 177.2 | 29.8 | 12.8 | 19.8 | 0.052 | 0.15 |
| A007 | 831371 | 824034 | 1.5 | 196.6 | 42.7 | 173.7 | 29.8 | 23.0 | 12.8 | 0.000 | 0.13 |
| A011 | 831161 | 823771 | 1.5 | 197.3 | 43.3 | 177.2 | 29.8 | 20.1 | 13.5 | 0.004 | 0.07 |
| A012 | 831130 | 823752 | 1.5 | 198.2 | 44.3 | 177.2 | 29.8 | 20.9 | 14.5 | 0.026 | 0.06 |
| A013 | 831224 | 823707 | 1.5 | 197.1 | 42.0 | 177.2 | 29.8 | 19.5 | 12.2 | 0.343 | 0.08 |
| A014 | 831179 | 823605 | 1.5 | 193.9 | 43.5 | 178.1 | 29.8 | 15.8 | 13.7 | 0.000 | 0.06 |
| A015 | 831121 | 823592 | 1.5 | 194.6 | 41.9 | 190.3 | 29.8 | 4.3 | 12.0 | 0.000 | 0.04 |
| A016 | 831068 | 823562 | 1.5 | 193.7 | 41.0 | 120.5 | 29.8 | 72.7 | 11.2 | 0.462 | 0.05 |
| A037 | 830624 | 823624 | 1.5 | 189.1 | 50.5 | 178.1 | 29.8 | 10.9 | 20.5 | 0.000 | 0.22 |
| A038 | 830714 | 823729 | 1.5 | 187.4 | 47.7 | 177.2 | 29.8 | 10.2 | 17.9 | 0.000 | 0.03 |
| A039 | 830767 | 823705 | 1.5 | 188.4 | 48.7 | 177.2 | 29.8 | 11.2 | 19.0 | 0.000 | 0.03 |
| A040 | 830794 | 823681 | 21.3 | 181.7 | 39.7 | 176.2 | 29.8 | 5.5 | 9.9 | 0.000 | 0.05 |
| A041 | 830873 | 823701 | 47.9 | 180.2 | 33.3 | 173.7 | 29.8 | 6.5 | 3.4 | 0.000 | 0.09 |
| A042 | 830905 | 823798 | 47.9 | 180.0 | 33.2 | 178.1 | 29.8 | 1.8 | 3.2 | 0.000 | 0.23 |
| A043 | 830863 | 823846 | 1.5 | 186.8 | 53.2 | 178.1 | 29.8 | 8.7 | 23.3 | 0.000 | 0.11 |
| A044 | 830819 | 823864 | 1.5 | 185.7 | 49.0 | 178.1 | 29.8 | 7.5 | 19.1 | 0.000 | 0.07 |
| A045 | 830839 | 823901 | 1.5 | 185.8 | 49.2 | 173.7 | 29.8 | 12.1 | 19.2 | 0.000 | 0.25 |
| A046 | 830822 | 823934 | 1.5 | 185.7 | 48.7 | 173.7 | 29.8 | 12.0 | 18.7 | 0.000 | 0.29 |
| A047 | 830788 | 823924 | 1.5 | 185.3 | 48.8 | 161.2 | 29.8 | 24.1 | 18.9 | 0.000 | 0.11 |
| A048 | 830872 | 823971 | 1.5 | 196.6 | 44.8 | 178.1 | 29.8 | 18.5 | 14.5 | 0.000 | 0.48 |
| A049 | 830959 | 823953 | 1.5 | 196.6 | 47.0 | 135.9 | 29.8 | 60.7 | 16.9 | 0.000 | 0.38 |
| A050 | 830985 | 823920 | 1.5 | 197.4 | 44.1 | 177.2 | 29.8 | 20.2 | 14.1 | 0.000 | 0.28 |
| A051 | 830815 | 824046 | 5.5 | 197.6 | 44.8 | 177.2 | 29.8 | 20.4 | 14.8 | 0.000 | 0.23 |
| A052 | 830775 | 824161 | 7.5 | 186.7 | 42.6 | 173.7 | 29.8 | 13.0 | 12.7 | 0.000 | 0.13 |
| A053 | 830744 | 824375 | 1.5 | 177.2 | 37.6 | 177.2 | 29.8 | 0.0 | 7.7 | 0.000 | 0.10 |
| A054 | 830811 | 824336 | 1.5 | 184.9 | 38.8 | 177.2 | 29.8 | 7.7 | 8.9 | 0.000 | 0.10 |
| A055 | 830940 | 824258 | 1.5 | 187.4 | 45.0 | 177.2 | 29.8 | 10.2 | 15.1 | 0.000 | 0.17 |
| A056 | 831136 | 824345 | 1.5 | 189.3 | 38.3 | 178.1 | 29.8 | 11.2 | 8.4 | 0.004 | 0.19 |
| A057 | 831184 | 824087 | 1.5 | 191.8 | 41.9 | 161.2 | 29.8 | 30.5 | 11.9 | 0.003 | 0.22 |
| A058 | 830903 | 824410 | 5.1 | 178.1 | 35.2 | 178.1 | 29.8 | 0.0 | 5.3 | 0.000 | 0.11 |
| A064 | 830882 | 824035 | 1.5 | 194.7 | 43.8 | 190.3 | 29.8 | 4.3 | 13.6 | 0.000 | 0.41 |
| A065 | 831049 | 824242 | 1.5 | 187.6 | 38.9 | 177.2 | 29.8 | 10.4 | 8.9 | 0.000 | 0.24 |
| A068 | 830932 | 824126 | 6.5 | 188.6 | 41.8 | 178.1 | 29.8 | 10.5 | 11.7 | 0.000 | 0.31 |
| A069 | 831019 | 824036 | 1.8 | 190.6 | 46.2 | 178.1 | 29.8 | 12.5 | 16.0 | 0.000 | 0.37 |

5mAG

| ASR | X | Y | Z | NO ₂ Concentration, µg/m ³ | | | | | | | |
|------|--------|--------|------|--|----------------|--|----------------|-------------------------------------|----------------|---------------------------------------|----------------|
| | | | | Cumulative Impact | | Impact from Background Emission (PATH) | | Impact from Road Emission (CALINE4) | | Impact from Chimney Emission (ISCST3) | |
| | | | | 19th Highest 1-Hour | Annual Average | 19th Highest 1-Hour | Annual Average | 19th Highest 1-Hour | Annual Average | 19th Highest 1-Hour | Annual Average |
| A001 | 831042 | 824135 | 5 | 190.6 | 40.2 | 178.1 | 29.8 | 12.5 | 10.1 | 0.000 | 0.32 |
| A003 | 831350 | 824183 | 5 | 188.1 | 39.1 | 177.2 | 29.8 | 10.9 | 9.1 | 0.000 | 0.16 |
| A004 | 831363 | 824098 | 5 | 187.5 | 43.1 | 177.2 | 29.8 | 10.3 | 13.2 | 0.002 | 0.14 |
| A005 | 831291 | 824014 | 19.9 | 184.4 | 36.2 | 161.2 | 29.8 | 23.1 | 6.3 | 0.048 | 0.15 |
| A007 | 831371 | 824034 | 5 | 192.2 | 39.9 | 190.3 | 29.8 | 1.9 | 10.0 | 0.000 | 0.13 |
| A011 | 831161 | 823771 | 5 | 196.8 | 42.7 | 177.2 | 29.8 | 19.6 | 12.9 | 0.005 | 0.07 |
| A012 | 831130 | 823752 | 5 | 197.2 | 43.6 | 177.2 | 29.8 | 20.0 | 13.7 | 0.028 | 0.06 |
| A013 | 831224 | 823707 | 5 | 192.9 | 38.9 | 190.3 | 29.8 | 2.6 | 9.1 | 0.000 | 0.08 |
| A015 | 831121 | 823592 | 5 | 193.8 | 40.8 | 178.1 | 29.8 | 15.7 | 11.0 | 0.000 | 0.05 |
| A016 | 831068 | 823562 | 5 | 188.8 | 39.8 | 173.7 | 29.8 | 15.2 | 10.0 | 0.000 | 0.05 |
| A037 | 830624 | 823624 | 5 | 188.4 | 47.9 | 178.1 | 29.8 | 10.3 | 17.9 | 0.000 | 0.22 |
| A038 | 830714 | 823729 | 5 | 187.3 | 45.7 | 177.2 | 29.8 | 10.0 | 15.9 | 0.000 | 0.04 |
| A039 | 830767 | 823705 | 5 | 187.3 | 46.9 | 173.7 | 29.8 | 13.6 | 17.1 | 0.000 | 0.03 |
| A040 | 830794 | 823681 | 24.8 | 181.3 | 38.3 | 178.1 | 29.8 | 3.2 | 8.5 | 0.000 | 0.05 |
| A041 | 830873 | 823701 | 51.4 | 180.3 | 33.1 | 176.2 | 29.8 | 4.2 | 3.2 | 0.000 | 0.09 |
| A042 | 830905 | 823798 | 51.4 | 180.2 | 33.0 | 178.1 | 29.8 | 2.1 | 3.0 | 0.000 | 0.24 |
| A043 | 830863 | 823846 | 5 | 185.4 | 49.8 | 178.1 | 29.8 | 7.3 | 19.9 | 0.000 | 0.11 |
| A044 | 830819 | 823864 | 5 | 184.8 | 47.2 | 176.2 | 29.8 | 8.6 | 17.4 | 0.000 | 0.08 |
| A045 | 830839 | 823901 | 5 | 185.6 | 49.5 | 176.2 | 29.8 | 9.4 | 19.5 | 0.000 | 0.26 |
| A047 | 830788 | 823924 | 5 | 184.2 | 47.5 | 176.2 | 29.8 | 8.0 | 17.6 | 0.000 | 0.12 |
| A048 | 830872 | 823971 | 5 | 196.2 | 45.3 | 178.1 | 29.8 | 18.1 | 15.0 | 0.000 | 0.49 |
| A049 | 830959 | 823953 | 5 | 195.6 | 44.9 | 135.9 | 29.8 | 59.7 | 14.8 | 0.001 | 0.38 |
| A050 | 830985 | 823920 | 5 | 196.5 | 43.5 | 177.2 | 29.8 | 19.3 | 13.4 | 0.000 | 0.28 |
| A051 | 830815 | 824046 | 9 | 194.6 | 43.1 | 178.1 | 29.8 | 16.4 | 13.1 | 0.000 | 0.24 |
| A052 | 830775 | 824161 | 11 | 186.1 | 40.8 | 173.7 | 29.8 | 12.5 | 10.9 | 0.000 | 0.14 |
| A053 | 830744 | 824375 | 5 | 177.2 | 37.0 | 177.2 | 29.8 | 0.0 | 7.1 | 0.000 | 0.10 |
| A056 | 831136 | 824345 | 5 | 187.8 | 37.2 | 177.2 | 29.8 | 10.5 | 7.2 | 0.000 | 0.19 |
| A057 | 831184 | 824087 | 5 | 189.6 | 40.4 | 173.7 | 29.8 | 15.9 | 10.5 | 0.000 | 0.22 |
| A058 | 830903 | 824410 | 8.6 | 178.1 | 35.0 | 178.1 | 29.8 | 0.0 | 5.1 | 0.000 | 0.12 |
| A064 | 830882 | 824035 | 5 | 194.6 | 42.9 | 190.3 | 29.8 | 4.2 | 12.7 | 0.000 | 0.42 |
| A065 | 831049 | 824242 | 5 | 187.4 | 38.6 | 177.2 | 29.8 | 10.1 | 8.6 | 0.000 | 0.24 |
| A068 | 830932 | 824126 | 10 | 188.1 | 40.3 | 178.1 | 29.8 | 10.0 | 10.2 | 0.000 | 0.31 |
| A069 | 831019 | 824036 | 5.3 | 189.4 | 43.8 | 178.1 | 29.8 | 11.2 | 13.7 | 0.000 | 0.37 |

10mAG

| ASR | X | Y | Z | NO ₂ Concentration, µg/m ³ | | | | | | | |
|------|--------|--------|------|--|----------------|--|----------------|-------------------------------------|----------------|---------------------------------------|----------------|
| | | | | Cumulative Impact | | Impact from Background Emission (PATH) | | Impact from Road Emission (CALINE4) | | Impact from Chimney Emission (ISCST3) | |
| | | | | 19th Highest 1-Hour | Annual Average | 19th Highest 1-Hour | Annual Average | 19th Highest 1-Hour | Annual Average | 19th Highest 1-Hour | Annual Average |
| A001 | 831042 | 824135 | 10 | 189.2 | 38.8 | 178.1 | 29.8 | 11.0 | 8.7 | 0.0000 | 0.32 |
| A003 | 831350 | 824183 | 10 | 185.4 | 37.7 | 135.9 | 29.8 | 49.5 | 7.7 | 0.0013 | 0.16 |
| A004 | 831363 | 824098 | 10 | 187.3 | 39.1 | 177.2 | 29.8 | 10.1 | 9.2 | 0.0023 | 0.14 |
| A005 | 831291 | 824014 | 24.9 | 180.6 | 35.2 | 161.2 | 29.8 | 19.3 | 5.2 | 0.0648 | 0.16 |
| A007 | 831371 | 824034 | 10 | 187.9 | 37.5 | 177.2 | 29.8 | 10.7 | 7.6 | 0.0185 | 0.13 |
| A011 | 831161 | 823771 | 10 | 195.6 | 41.2 | 177.2 | 29.8 | 18.3 | 11.4 | 0.0058 | 0.07 |
| A012 | 831130 | 823752 | 10 | 195.5 | 41.8 | 178.1 | 29.8 | 16.5 | 12.0 | 0.8986 | 0.06 |
| A013 | 831224 | 823707 | 10 | 187.6 | 36.5 | 173.7 | 29.8 | 13.9 | 6.6 | 0.0000 | 0.08 |
| A015 | 831121 | 823592 | 10 | 188.0 | 38.8 | 173.7 | 29.8 | 14.3 | 8.9 | 0.0000 | 0.05 |
| A016 | 831068 | 823562 | 10 | 187.0 | 38.2 | 173.7 | 29.8 | 13.3 | 8.4 | 0.0000 | 0.05 |
| A037 | 830624 | 823624 | 10 | 183.5 | 46.7 | 178.5 | 29.8 | 5.0 | 16.7 | 0.0000 | 0.24 |
| A038 | 830714 | 823729 | 10 | 186.9 | 44.1 | 173.7 | 29.8 | 13.3 | 14.3 | 0.0000 | 0.05 |
| A039 | 830767 | 823705 | 10 | 186.7 | 44.9 | 173.7 | 29.8 | 13.0 | 15.1 | 0.0000 | 0.03 |
| A040 | 830794 | 823681 | 29.8 | 180.8 | 36.7 | 178.1 | 29.8 | 2.7 | 6.8 | 0.0000 | 0.06 |
| A041 | 830873 | 823701 | 56.4 | 181.0 | 33.0 | 176.2 | 29.8 | 4.8 | 3.2 | 0.0000 | 0.09 |
| A042 | 830905 | 823798 | 56.4 | 180.8 | 32.9 | 178.1 | 29.8 | 2.7 | 2.9 | 0.0000 | 0.23 |
| A043 | 830863 | 823846 | 10 | 183.6 | 46.3 | 178.1 | 29.8 | 5.5 | 16.4 | 0.0000 | 0.13 |
| A044 | 830819 | 823864 | 10 | 183.6 | 45.2 | 176.2 | 29.8 | 7.4 | 15.3 | 0.0000 | 0.11 |
| A045 | 830839 | 823901 | 10 | 184.2 | 47.1 | 176.2 | 29.8 | 8.0 | 17.0 | 0.0000 | 0.32 |
| A047 | 830788 | 823924 | 10 | 182.9 | 45.3 | 176.2 | 29.8 | 6.7 | 15.4 | 0.0000 | 0.16 |
| A048 | 830872 | 823971 | 10 | 194.7 | 43.5 | 190.3 | 29.8 | 4.3 | 13.2 | 0.0000 | 0.52 |
| A049 | 830959 | 823953 | 10 | 189.9 | 42.4 | 178.1 | 29.8 | 11.8 | 12.3 | 0.0001 | 0.39 |
| A050 | 830985 | 823920 | 10 | 191.4 | 42.0 | 178.1 | 29.8 | 13.3 | 11.9 | 0.0446 | 0.29 |
| A051 | 830815 | 824046 | 14 | 187.8 | 40.4 | 173.7 | 29.8 | 14.2 | 10.3 | 0.0000 | 0.25 |
| A052 | 830775 | 824161 | 16 | 185.2 | 38.4 | 173.7 | 29.8 | 11.6 | 8.5 | 0.0000 | 0.14 |
| A053 | 830744 | 824375 | 10 | 177.2 | 35.9 | 177.2 | 29.8 | 0.0 | 6.0 | 0.0000 | 0.11 |
| A056 | 831136 | 824345 | 10 | 179.4 | 35.8 | 154.9 | 29.8 | 24.4 | 5.9 | 0.0569 | 0.19 |
| A057 | 831184 | 824087 | 10 | 188.8 | 38.8 | 177.2 | 29.8 | 11.6 | 8.9 | 0.0065 | 0.23 |
| A058 | 830903 | 824410 | 13.6 | 178.1 | 34.6 | 178.1 | 29.8 | 0.0 | 4.7 | 0.0000 | 0.12 |
| A064 | 830882 | 824035 | 10 | 191.2 | 41.5 | 178.1 | 29.8 | 13.1 | 11.3 | 0.0000 | 0.43 |
| A065 | 831049 | 824242 | 10 | 186.8 | 37.7 | 177.2 | 29.8 | 9.6 | 7.7 | 0.0000 | 0.24 |
| A068 | 830932 | 824126 | 15 | 179.8 | 38.4 | 178.1 | 29.8 | 1.7 | 8.3 | 0.0000 | 0.32 |
| A069 | 831019 | 824036 | 10.3 | 187.6 | 40.8 | 173.7 | 29.8 | 13.9 | 10.7 | 0.0000 | 0.38 |

Appendix 3-9 Detailed Breakdown from Background, Road and Chimney Emissions for "Without Project" Scenario in Year 2021
Grid[25,31]

RSP

1.5mAG

| ASR | X | Y | Z | RSP Concentration, $\mu\text{g}/\text{m}^3$ | | | | | | | |
|------|--------|--------|------|---|----------------|--|----------------|-------------------------------------|----------------|---------------------------------------|----------------|
| | | | | Cumulative Impact | | Impact from Background Emission (PATH) | | Impact from Road Emission (CALINE4) | | Impact from Chimney Emission (ISCST3) | |
| | | | | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average |
| A001 | 831042 | 824135 | 1.5 | 76.0 | 41.3 | 75.2 | 40.7 | 0.8 | 0.6 | 0.01 | 0.016 |
| A003 | 831350 | 824183 | 1.5 | 75.9 | 41.2 | 75.2 | 40.7 | 0.7 | 0.4 | 0.00 | 0.008 |
| A004 | 831363 | 824098 | 1.5 | 76.2 | 41.5 | 75.2 | 40.7 | 1.0 | 0.7 | 0.00 | 0.008 |
| A005 | 831291 | 824014 | 16.4 | 75.8 | 41.1 | 75.2 | 40.7 | 0.6 | 0.4 | 0.00 | 0.008 |
| A006 | 831263 | 823971 | 1.5 | 76.4 | 41.7 | 76.0 | 40.7 | 0.3 | 0.9 | 0.00 | 0.008 |
| A007 | 831371 | 824034 | 1.5 | 76.4 | 41.5 | 76.0 | 40.7 | 0.4 | 0.8 | 0.00 | 0.007 |
| A011 | 831161 | 823771 | 1.5 | 76.4 | 41.5 | 76.0 | 40.7 | 0.4 | 0.7 | 0.00 | 0.004 |
| A012 | 831130 | 823752 | 1.5 | 76.5 | 41.6 | 76.0 | 40.7 | 0.4 | 0.8 | 0.00 | 0.003 |
| A013 | 831224 | 823707 | 1.5 | 76.3 | 41.4 | 76.0 | 40.7 | 0.3 | 0.7 | 0.00 | 0.006 |
| A014 | 831179 | 823605 | 1.5 | 76.5 | 41.3 | 75.2 | 40.7 | 1.3 | 0.6 | 0.00 | 0.005 |
| A015 | 831121 | 823592 | 1.5 | 76.2 | 41.3 | 75.2 | 40.7 | 1.0 | 0.6 | 0.01 | 0.003 |
| A016 | 831068 | 823562 | 1.5 | 76.3 | 41.4 | 76.0 | 40.7 | 0.2 | 0.6 | 0.00 | 0.003 |
| A037 | 830624 | 823624 | 1.5 | 77.0 | 41.7 | 76.0 | 40.7 | 0.9 | 1.0 | 0.06 | 0.011 |
| A038 | 830714 | 823729 | 1.5 | 76.5 | 41.6 | 76.0 | 40.7 | 0.5 | 0.9 | 0.00 | 0.002 |
| A039 | 830767 | 823705 | 1.5 | 76.6 | 41.7 | 76.0 | 40.7 | 0.5 | 0.9 | 0.00 | 0.001 |
| A040 | 830794 | 823681 | 21.3 | 76.0 | 41.2 | 75.2 | 40.7 | 0.8 | 0.4 | 0.00 | 0.002 |
| A041 | 830873 | 823701 | 47.9 | 75.6 | 40.9 | 75.2 | 40.7 | 0.4 | 0.2 | 0.00 | 0.005 |
| A042 | 830905 | 823798 | 47.9 | 75.4 | 40.9 | 75.2 | 40.7 | 0.2 | 0.2 | 0.00 | 0.015 |
| A043 | 830863 | 823846 | 1.5 | 76.9 | 41.9 | 76.0 | 40.7 | 0.8 | 1.1 | 0.00 | 0.006 |
| A044 | 830819 | 823864 | 1.5 | 76.7 | 41.6 | 75.2 | 40.7 | 1.5 | 0.9 | 0.00 | 0.004 |
| A045 | 830839 | 823901 | 1.5 | 76.6 | 41.6 | 76.0 | 40.7 | 0.6 | 0.9 | 0.00 | 0.013 |
| A046 | 830822 | 823934 | 1.5 | 76.6 | 41.6 | 76.0 | 40.7 | 0.6 | 0.9 | 0.00 | 0.015 |
| A047 | 830788 | 823924 | 1.5 | 76.7 | 41.6 | 76.0 | 40.7 | 0.6 | 0.9 | 0.00 | 0.006 |
| A048 | 830872 | 823971 | 1.5 | 76.2 | 41.6 | 76.0 | 40.7 | 0.2 | 0.9 | 0.00 | 0.024 |
| A049 | 830959 | 823953 | 1.5 | 76.3 | 41.7 | 76.0 | 40.7 | 0.3 | 1.0 | 0.00 | 0.019 |
| A050 | 830985 | 823920 | 1.5 | 76.3 | 41.6 | 76.0 | 40.7 | 0.3 | 0.8 | 0.00 | 0.015 |
| A051 | 830815 | 824046 | 5.5 | 76.3 | 41.6 | 76.0 | 40.7 | 0.2 | 0.9 | 0.00 | 0.012 |
| A052 | 830775 | 824161 | 7.5 | 76.0 | 41.4 | 75.2 | 40.7 | 0.8 | 0.7 | 0.00 | 0.007 |
| A053 | 830744 | 824375 | 1.5 | 75.7 | 41.2 | 75.2 | 40.7 | 0.5 | 0.4 | 0.00 | 0.006 |
| A054 | 830811 | 824336 | 1.5 | 75.9 | 41.3 | 75.2 | 40.7 | 0.7 | 0.6 | 0.00 | 0.006 |
| A055 | 830940 | 824258 | 1.5 | 76.1 | 41.6 | 76.0 | 40.7 | 0.1 | 0.8 | 0.00 | 0.009 |
| A056 | 831136 | 824345 | 1.5 | 75.9 | 41.2 | 75.2 | 40.7 | 0.7 | 0.5 | 0.01 | 0.010 |
| A057 | 831184 | 824087 | 1.5 | 76.2 | 41.4 | 76.0 | 40.7 | 0.1 | 0.7 | 0.00 | 0.012 |
| A058 | 830903 | 824410 | 5.1 | 75.5 | 41.0 | 75.2 | 40.7 | 0.3 | 0.3 | 0.00 | 0.006 |
| A064 | 830882 | 824035 | 1.5 | 76.2 | 41.5 | 76.0 | 40.7 | 0.2 | 0.8 | 0.00 | 0.021 |
| A065 | 831049 | 824242 | 1.5 | 75.9 | 41.2 | 75.2 | 40.7 | 0.7 | 0.5 | 0.01 | 0.013 |
| A068 | 830932 | 824126 | 6.5 | 76.1 | 41.3 | 75.2 | 40.7 | 0.9 | 0.6 | 0.02 | 0.016 |
| A069 | 831019 | 824036 | 1.8 | 76.3 | 41.5 | 76.0 | 40.7 | 0.3 | 0.8 | 0.00 | 0.019 |

5mAG

| ASR | X | Y | Z | RSP Concentration, $\mu\text{g}/\text{m}^3$ | | | | | | | |
|------|--------|--------|------|---|----------------|--|----------------|-------------------------------------|----------------|---------------------------------------|----------------|
| | | | | Cumulative Impact | | Impact from Background Emission (PATH) | | Impact from Road Emission (CALINE4) | | Impact from Chimney Emission (ISCST3) | |
| | | | | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average |
| A001 | 831042 | 824135 | 5 | 76.0 | 41.3 | 75.2 | 40.7 | 0.8 | 0.5 | 0.01 | 0.016 |
| A003 | 831350 | 824183 | 5 | 75.9 | 41.2 | 75.2 | 40.7 | 0.7 | 0.4 | 0.00 | 0.008 |
| A004 | 831363 | 824098 | 5 | 76.1 | 41.3 | 75.2 | 40.7 | 0.9 | 0.6 | 0.00 | 0.008 |
| A005 | 831291 | 824014 | 19.9 | 75.7 | 41.1 | 75.2 | 40.7 | 0.5 | 0.3 | 0.00 | 0.009 |
| A007 | 831371 | 824034 | 5 | 76.3 | 41.3 | 76.0 | 40.7 | 0.2 | 0.6 | 0.00 | 0.007 |
| A011 | 831161 | 823771 | 5 | 76.4 | 41.4 | 76.0 | 40.7 | 0.3 | 0.7 | 0.00 | 0.004 |
| A012 | 831130 | 823752 | 5 | 76.4 | 41.5 | 76.0 | 40.7 | 0.4 | 0.8 | 0.00 | 0.003 |
| A013 | 831224 | 823707 | 5 | 76.2 | 41.2 | 75.2 | 40.7 | 1.0 | 0.5 | 0.00 | 0.006 |
| A015 | 831121 | 823592 | 5 | 76.2 | 41.3 | 75.2 | 40.7 | 0.9 | 0.6 | 0.01 | 0.003 |
| A016 | 831068 | 823562 | 5 | 76.2 | 41.3 | 75.2 | 40.7 | 1.0 | 0.5 | 0.02 | 0.003 |
| A037 | 830624 | 823624 | 5 | 76.9 | 41.6 | 76.0 | 40.7 | 0.8 | 0.8 | 0.06 | 0.011 |
| A038 | 830714 | 823729 | 5 | 76.4 | 41.5 | 75.2 | 40.7 | 1.2 | 0.8 | 0.02 | 0.002 |
| A039 | 830767 | 823705 | 5 | 76.5 | 41.6 | 76.0 | 40.7 | 0.5 | 0.8 | 0.00 | 0.001 |
| A040 | 830794 | 823681 | 24.8 | 75.9 | 41.1 | 75.2 | 40.7 | 0.7 | 0.4 | 0.00 | 0.003 |
| A041 | 830873 | 823701 | 51.4 | 75.6 | 40.9 | 75.2 | 40.7 | 0.4 | 0.2 | 0.00 | 0.005 |
| A042 | 830905 | 823798 | 51.4 | 75.4 | 40.9 | 75.2 | 40.7 | 0.2 | 0.1 | 0.00 | 0.016 |
| A043 | 830863 | 823846 | 5 | 76.7 | 41.7 | 75.2 | 40.7 | 1.5 | 0.9 | 0.00 | 0.006 |
| A044 | 830819 | 823864 | 5 | 76.5 | 41.5 | 75.2 | 40.7 | 1.3 | 0.8 | 0.00 | 0.004 |
| A045 | 830839 | 823901 | 5 | 76.7 | 41.6 | 76.0 | 40.7 | 0.6 | 0.9 | 0.00 | 0.013 |
| A047 | 830788 | 823924 | 5 | 76.6 | 41.5 | 75.2 | 40.7 | 1.4 | 0.8 | 0.01 | 0.006 |
| A048 | 830872 | 823971 | 5 | 76.2 | 41.7 | 76.0 | 40.7 | 0.2 | 1.0 | 0.00 | 0.025 |
| A049 | 830959 | 823953 | 5 | 76.3 | 41.6 | 76.0 | 40.7 | 0.2 | 0.8 | 0.00 | 0.020 |
| A050 | 830985 | 823920 | 5 | 76.3 | 41.5 | 76.0 | 40.7 | 0.3 | 0.8 | 0.00 | 0.015 |
| A051 | 830815 | 824046 | 9 | 76.2 | 41.5 | 76.0 | 40.7 | 0.2 | 0.8 | 0.00 | 0.013 |
| A052 | 830775 | 824161 | 11 | 75.9 | 41.3 | 75.2 | 40.7 | 0.7 | 0.6 | 0.00 | 0.007 |
| A053 | 830744 | 824375 | 5 | 75.6 | 41.1 | 75.2 | 40.7 | 0.4 | 0.4 | 0.00 | 0.006 |
| A056 | 831136 | 824345 | 5 | 75.8 | 41.1 | 75.2 | 40.7 | 0.6 | 0.4 | 0.01 | 0.010 |
| A057 | 831184 | 824087 | 5 | 76.1 | 41.3 | 75.2 | 40.7 | 0.9 | 0.6 | 0.00 | 0.012 |
| A058 | 830903 | 824410 | 8.6 | 75.5 | 41.0 | 75.2 | 40.7 | 0.3 | 0.3 | 0.00 | 0.006 |
| A064 | 830882 | 824035 | 5 | 76.2 | 41.5 | 75.2 | 40.7 | 1.0 | 0.7 | 0.03 | 0.021 |
| A065 | 831049 | 824242 | 5 | 75.9 | 41.2 | 75.2 | 40.7 | 0.7 | 0.4 | 0.01 | 0.013 |
| A068 | 830932 | 824126 | 10 | 76.0 | 41.3 | 75.2 | 40.7 | 0.8 | 0.5 | 0.02 | 0.016 |
| A069 | 831019 | 824036 | 5.3 | 76.2 | 41.4 | 75.2 | 40.7 | 1.0 | 0.7 | 0.00 | 0.019 |

10mAG

| ASR | X | Y | Z | RSP Concentration, $\mu\text{g}/\text{m}^3$ | | | | | | | |
|------|--------|--------|------|---|----------------|--|----------------|-------------------------------------|----------------|---------------------------------------|----------------|
| | | | | Cumulative Impact | | Impact from Background Emission (PATH) | | Impact from Road Emission (CALINE4) | | Impact from Chimney Emission (ISCST3) | |
| | | | | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average |
| A001 | 831042 | 824135 | 10 | 75.9 | 41.2 | 75.2 | 40.7 | 0.7 | 0.4 | 0.01 | 0.017 |
| A003 | 831350 | 824183 | 10 | 75.8 | 41.1 | 75.2 | 40.7 | 0.6 | 0.4 | 0.00 | 0.008 |
| A004 | 831363 | 824098 | 10 | 75.9 | 41.2 | 75.2 | 40.7 | 0.7 | 0.4 | 0.00 | 0.008 |
| A005 | 831291 | 824014 | 24.9 | 75.7 | 41.0 | 75.2 | 40.7 | 0.5 | 0.3 | 0.00 | 0.009 |
| A007 | 831371 | 824034 | 10 | 76.0 | 41.2 | 75.2 | 40.7 | 0.8 | 0.4 | 0.00 | 0.007 |
| A011 | 831161 | 823771 | 10 | 76.2 | 41.3 | 75.2 | 40.7 | 1.0 | 0.6 | 0.01 | 0.004 |
| A012 | 831130 | 823752 | 10 | 76.3 | 41.4 | 76.0 | 40.7 | 0.3 | 0.7 | 0.00 | 0.004 |
| A013 | 831224 | 823707 | 10 | 75.9 | 41.1 | 75.2 | 40.7 | 0.7 | 0.3 | 0.00 | 0.006 |
| A015 | 831121 | 823592 | 10 | 76.0 | 41.2 | 75.2 | 40.7 | 0.8 | 0.4 | 0.01 | 0.003 |
| A016 | 831068 | 823562 | 10 | 76.0 | 41.2 | 75.2 | 40.7 | 0.8 | 0.4 | 0.03 | 0.003 |
| A037 | 830624 | 823624 | 10 | 76.7 | 41.5 | 75.2 | 40.7 | 1.4 | 0.8 | 0.06 | 0.012 |
| A038 | 830714 | 823729 | 10 | 76.3 | 41.4 | 75.2 | 40.7 | 1.1 | 0.7 | 0.02 | 0.002 |
| A039 | 830767 | 823705 | 10 | 76.4 | 41.5 | 75.2 | 40.7 | 1.2 | 0.7 | 0.00 | 0.002 |
| A040 | 830794 | 823681 | 29.8 | 75.8 | 41.0 | 75.2 | 40.7 | 0.6 | 0.3 | 0.01 | 0.004 |
| A041 | 830873 | 823701 | 56.4 | 75.6 | 40.9 | 75.2 | 40.7 | 0.4 | 0.2 | 0.00 | 0.005 |
| A042 | 830905 | 823798 | 56.4 | 75.5 | 40.9 | 75.2 | 40.7 | 0.3 | 0.1 | 0.00 | 0.016 |
| A043 | 830863 | 823846 | 10 | 76.4 | 41.5 | 75.2 | 40.7 | 1.2 | 0.7 | 0.00 | 0.007 |
| A044 | 830819 | 823864 | 10 | 76.3 | 41.4 | 75.2 | 40.7 | 1.1 | 0.7 | 0.00 | 0.006 |
| A045 | 830839 | 823901 | 10 | 76.5 | 41.5 | 75.2 | 40.7 | 1.3 | 0.8 | 0.00 | 0.016 |
| A047 | 830788 | 823924 | 10 | 76.4 | 41.4 | 75.2 | 40.7 | 1.2 | 0.7 | 0.01 | 0.008 |
| A048 | 830872 | 823971 | 10 | 76.2 | 41.6 | 76.0 | 40.7 | 0.1 | 0.8 | 0.00 | 0.026 |
| A049 | 830959 | 823953 | 10 | 76.1 | 41.4 | 75.2 | 40.7 | 0.9 | 0.7 | 0.00 | 0.020 |
| A050 | 830985 | 823920 | 10 | 76.1 | 41.4 | 75.2 | 40.7 | 0.9 | 0.7 | 0.00 | 0.015 |
| A051 | 830815 | 824046 | 14 | 76.0 | 41.3 | 75.2 | 40.7 | 0.8 | 0.6 | 0.02 | 0.013 |
| A052 | 830775 | 824161 | 16 | 75.7 | 41.2 | 75.2 | 40.7 | 0.5 | 0.4 | 0.00 | 0.008 |
| A053 | 830744 | 824375 | 10 | 75.6 | 41.1 | 75.2 | 40.7 | 0.4 | 0.3 | 0.00 | 0.006 |
| A056 | 831136 | 824345 | 10 | 75.7 | 41.0 | 75.2 | 40.7 | 0.4 | 0.3 | 0.01 | 0.010 |
| A057 | 831184 | 824087 | 10 | 75.9 | 41.2 | 75.2 | 40.7 | 0.7 | 0.4 | 0.00 | 0.012 |
| A058 | 830903 | 824410 | 13.6 | 75.4 | 41.0 | 75.2 | 40.7 | 0.2 | 0.3 | 0.00 | 0.006 |
| A064 | 830882 | 824035 | 10 | 76.1 | 41.4 | 75.2 | 40.7 | 0.8 | 0.6 | 0.03 | 0.022 |
| A065 | 831049 | 824242 | 10 | 75.8 | 41.1 | 75.2 | 40.7 | 0.6 | 0.4 | 0.01 | 0.013 |
| A068 | 830932 | 824126 | 15 | 75.8 | 41.2 | 75.2 | 40.7 | 0.6 | 0.4 | 0.02 | 0.017 |
| A069 | 831019 | 824036 | 10.3 | 76.0 | 41.3 | 75.2 | 40.7 | 0.8 | 0.5 | 0.00 | 0.019 |

Appendix 3-9 Detailed Breakdown from Background, Road and Chimney Emissions for "Without Project" Scenario in Year 2021
Grid[25,31]

FSP

1.5mAG

| ASR | X | Y | Z | FSP Concentration, µg/m3 | | | | | | | |
|------|--------|--------|------|--------------------------|----------------|--|----------------|-------------------------------------|----------------|---------------------------------------|----------------|
| | | | | Cumulative Impact | | Impact from Background Emission (PATH) | | Impact from Road Emission (CALINE4) | | Impact from Chimney Emission (ISCST3) | |
| | | | | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average |
| A001 | 831042 | 824135 | 1.5 | 57.1 | 29.5 | 57.0 | 28.9 | 0.1 | 0.5 | 0.000 | 0.004 |
| A003 | 831350 | 824183 | 1.5 | 57.1 | 29.3 | 56.4 | 28.9 | 0.7 | 0.4 | 0.000 | 0.002 |
| A004 | 831363 | 824098 | 1.5 | 57.3 | 29.6 | 57.0 | 28.9 | 0.3 | 0.7 | 0.000 | 0.002 |
| A005 | 831291 | 824014 | 16.4 | 56.9 | 29.3 | 56.4 | 28.9 | 0.5 | 0.3 | 0.000 | 0.002 |
| A006 | 831263 | 823971 | 1.5 | 57.3 | 29.8 | 57.0 | 28.9 | 0.3 | 0.9 | 0.000 | 0.002 |
| A007 | 831371 | 824034 | 1.5 | 57.4 | 29.6 | 57.0 | 28.9 | 0.3 | 0.7 | 0.000 | 0.002 |
| A011 | 831161 | 823771 | 1.5 | 57.4 | 29.6 | 57.0 | 28.9 | 0.3 | 0.7 | 0.000 | 0.001 |
| A012 | 831130 | 823752 | 1.5 | 57.4 | 29.7 | 57.0 | 28.9 | 0.4 | 0.8 | 0.000 | 0.001 |
| A013 | 831224 | 823707 | 1.5 | 57.3 | 29.5 | 57.0 | 28.9 | 0.3 | 0.6 | 0.000 | 0.001 |
| A014 | 831179 | 823605 | 1.5 | 57.5 | 29.5 | 57.0 | 28.9 | 0.4 | 0.6 | 0.000 | 0.001 |
| A015 | 831121 | 823592 | 1.5 | 57.3 | 29.5 | 57.0 | 28.9 | 0.2 | 0.6 | 0.000 | 0.001 |
| A016 | 831068 | 823562 | 1.5 | 57.2 | 29.5 | 57.0 | 28.9 | 0.2 | 0.6 | 0.000 | 0.001 |
| A037 | 830624 | 823624 | 1.5 | 57.9 | 29.8 | 57.0 | 28.9 | 0.8 | 0.9 | 0.016 | 0.003 |
| A038 | 830714 | 823729 | 1.5 | 57.5 | 29.7 | 57.0 | 28.9 | 0.5 | 0.8 | 0.000 | 0.000 |
| A039 | 830767 | 823705 | 1.5 | 57.5 | 29.8 | 57.0 | 28.9 | 0.5 | 0.9 | 0.000 | 0.000 |
| A040 | 830794 | 823681 | 21.3 | 57.1 | 29.3 | 56.4 | 28.9 | 0.7 | 0.4 | 0.001 | 0.001 |
| A041 | 830873 | 823701 | 47.9 | 56.8 | 29.1 | 56.4 | 28.9 | 0.4 | 0.1 | 0.000 | 0.001 |
| A042 | 830905 | 823798 | 47.9 | 56.6 | 29.1 | 56.4 | 28.9 | 0.2 | 0.1 | 0.000 | 0.004 |
| A043 | 830863 | 823846 | 1.5 | 57.8 | 30.0 | 57.0 | 28.9 | 0.8 | 1.0 | 0.000 | 0.001 |
| A044 | 830819 | 823864 | 1.5 | 57.6 | 29.7 | 57.0 | 28.9 | 0.6 | 0.8 | 0.000 | 0.001 |
| A045 | 830839 | 823901 | 1.5 | 57.6 | 29.7 | 57.0 | 28.9 | 0.5 | 0.8 | 0.000 | 0.003 |
| A046 | 830822 | 823934 | 1.5 | 57.5 | 29.7 | 57.0 | 28.9 | 0.5 | 0.8 | 0.000 | 0.004 |
| A047 | 830788 | 823924 | 1.5 | 57.6 | 29.7 | 57.0 | 28.9 | 0.6 | 0.8 | 0.000 | 0.001 |
| A048 | 830872 | 823971 | 1.5 | 57.2 | 29.7 | 57.0 | 28.9 | 0.2 | 0.8 | 0.000 | 0.006 |
| A049 | 830959 | 823953 | 1.5 | 57.3 | 29.8 | 57.0 | 28.9 | 0.3 | 0.9 | 0.000 | 0.005 |
| A050 | 830985 | 823920 | 1.5 | 57.3 | 29.7 | 57.0 | 28.9 | 0.3 | 0.8 | 0.000 | 0.004 |
| A051 | 830815 | 824046 | 5.5 | 57.3 | 29.7 | 57.0 | 28.9 | 0.2 | 0.8 | 0.000 | 0.003 |
| A052 | 830775 | 824161 | 7.5 | 57.2 | 29.5 | 57.0 | 28.9 | 0.1 | 0.6 | 0.000 | 0.002 |
| A053 | 830744 | 824375 | 1.5 | 56.8 | 29.3 | 56.4 | 28.9 | 0.4 | 0.4 | 0.000 | 0.001 |
| A054 | 830811 | 824336 | 1.5 | 57.0 | 29.4 | 56.4 | 28.9 | 0.6 | 0.5 | 0.000 | 0.001 |
| A055 | 830940 | 824258 | 1.5 | 57.1 | 29.7 | 57.0 | 28.9 | 0.1 | 0.8 | 0.000 | 0.002 |
| A056 | 831136 | 824345 | 1.5 | 57.1 | 29.3 | 56.4 | 28.9 | 0.7 | 0.4 | 0.002 | 0.002 |
| A057 | 831184 | 824087 | 1.5 | 57.1 | 29.6 | 57.0 | 28.9 | 0.1 | 0.6 | 0.000 | 0.003 |
| A058 | 830903 | 824410 | 5.1 | 56.7 | 29.2 | 56.4 | 28.9 | 0.3 | 0.3 | 0.001 | 0.002 |
| A064 | 830882 | 824035 | 1.5 | 57.2 | 29.6 | 57.0 | 28.9 | 0.2 | 0.7 | 0.000 | 0.005 |
| A065 | 831049 | 824242 | 1.5 | 57.1 | 29.3 | 56.4 | 28.9 | 0.7 | 0.4 | 0.002 | 0.003 |
| A068 | 830932 | 824126 | 6.5 | 57.2 | 29.5 | 57.0 | 28.9 | 0.2 | 0.5 | 0.000 | 0.004 |
| A069 | 831019 | 824036 | 1.8 | 57.3 | 29.7 | 57.0 | 28.9 | 0.3 | 0.7 | 0.000 | 0.005 |

5mAG

| ASR | X | Y | Z | FSP Concentration, µg/m3 | | | | | | | |
|------|--------|--------|------|--------------------------|----------------|--|----------------|-------------------------------------|----------------|---------------------------------------|----------------|
| | | | | Cumulative Impact | | Impact from Background Emission (PATH) | | Impact from Road Emission (CALINE4) | | Impact from Chimney Emission (ISCST3) | |
| | | | | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average |
| A001 | 831042 | 824135 | 5 | 57.1 | 29.4 | 57.0 | 28.9 | 0.06 | 0.5 | 0.000 | 0.004 |
| A003 | 831350 | 824183 | 5 | 57.0 | 29.3 | 56.4 | 28.9 | 0.65 | 0.4 | 0.000 | 0.002 |
| A004 | 831363 | 824098 | 5 | 57.2 | 29.5 | 56.4 | 28.9 | 0.82 | 0.6 | 0.000 | 0.002 |
| A005 | 831291 | 824014 | 19.9 | 56.9 | 29.2 | 56.4 | 28.9 | 0.48 | 0.3 | 0.000 | 0.002 |
| A007 | 831371 | 824034 | 5 | 57.2 | 29.4 | 57.0 | 28.9 | 0.22 | 0.5 | 0.000 | 0.002 |
| A011 | 831161 | 823771 | 5 | 57.3 | 29.6 | 57.0 | 28.9 | 0.31 | 0.6 | 0.000 | 0.001 |
| A012 | 831130 | 823752 | 5 | 57.4 | 29.6 | 57.0 | 28.9 | 0.36 | 0.7 | 0.000 | 0.001 |
| A013 | 831224 | 823707 | 5 | 57.2 | 29.3 | 57.0 | 28.9 | 0.20 | 0.4 | 0.000 | 0.001 |
| A015 | 831121 | 823592 | 5 | 57.3 | 29.4 | 57.0 | 28.9 | 0.23 | 0.5 | 0.000 | 0.001 |
| A016 | 831068 | 823562 | 5 | 57.2 | 29.4 | 57.0 | 28.9 | 0.19 | 0.5 | 0.000 | 0.001 |
| A037 | 830624 | 823624 | 5 | 57.7 | 29.7 | 57.0 | 28.9 | 0.70 | 0.8 | 0.016 | 0.003 |
| A038 | 830714 | 823729 | 5 | 57.4 | 29.6 | 57.0 | 28.9 | 0.39 | 0.7 | 0.000 | 0.000 |
| A039 | 830767 | 823705 | 5 | 57.5 | 29.7 | 57.0 | 28.9 | 0.43 | 0.8 | 0.000 | 0.000 |
| A040 | 830794 | 823681 | 24.8 | 57.1 | 29.3 | 56.4 | 28.9 | 0.65 | 0.3 | 0.001 | 0.001 |
| A041 | 830873 | 823701 | 51.4 | 56.8 | 29.1 | 56.4 | 28.9 | 0.36 | 0.1 | 0.000 | 0.001 |
| A042 | 830905 | 823798 | 51.4 | 56.6 | 29.1 | 56.4 | 28.9 | 0.22 | 0.1 | 0.000 | 0.004 |
| A043 | 830863 | 823846 | 5 | 57.6 | 29.8 | 57.0 | 28.9 | 0.62 | 0.9 | 0.000 | 0.001 |
| A044 | 830819 | 823864 | 5 | 57.5 | 29.6 | 57.0 | 28.9 | 0.49 | 0.7 | 0.000 | 0.001 |
| A045 | 830839 | 823901 | 5 | 57.6 | 29.7 | 57.0 | 28.9 | 0.58 | 0.8 | 0.000 | 0.003 |
| A047 | 830788 | 823924 | 5 | 57.6 | 29.6 | 57.0 | 28.9 | 0.53 | 0.7 | 0.000 | 0.002 |
| A048 | 830872 | 823971 | 5 | 57.2 | 29.8 | 57.0 | 28.9 | 0.17 | 0.9 | 0.000 | 0.006 |
| A049 | 830959 | 823953 | 5 | 57.2 | 29.7 | 57.0 | 28.9 | 0.22 | 0.8 | 0.000 | 0.005 |
| A050 | 830985 | 823920 | 5 | 57.3 | 29.6 | 57.0 | 28.9 | 0.26 | 0.7 | 0.000 | 0.004 |
| A051 | 830815 | 824046 | 9 | 57.2 | 29.6 | 57.0 | 28.9 | 0.20 | 0.7 | 0.000 | 0.003 |
| A052 | 830775 | 824161 | 11 | 57.0 | 29.4 | 56.4 | 28.9 | 0.64 | 0.5 | 0.001 | 0.002 |
| A053 | 830744 | 824375 | 5 | 56.8 | 29.3 | 56.4 | 28.9 | 0.40 | 0.4 | 0.000 | 0.001 |
| A056 | 831136 | 824345 | 5 | 57.0 | 29.3 | 56.4 | 28.9 | 0.56 | 0.3 | 0.002 | 0.002 |
| A057 | 831184 | 824087 | 5 | 57.1 | 29.4 | 57.0 | 28.9 | 0.10 | 0.5 | 0.000 | 0.003 |
| A058 | 830903 | 824410 | 8.6 | 56.7 | 29.2 | 56.4 | 28.9 | 0.26 | 0.3 | 0.001 | 0.002 |
| A064 | 830882 | 824035 | 5 | 57.2 | 29.6 | 57.0 | 28.9 | 0.17 | 0.6 | 0.000 | 0.005 |
| A065 | 831049 | 824242 | 5 | 57.0 | 29.3 | 56.4 | 28.9 | 0.63 | 0.4 | 0.002 | 0.003 |
| A068 | 830932 | 824126 | 10 | 57.1 | 29.4 | 56.4 | 28.9 | 0.70 | 0.5 | 0.005 | 0.004 |
| A069 | 831019 | 824036 | 5.3 | 57.3 | 29.5 | 57.0 | 28.9 | 0.23 | 0.6 | 0.000 | 0.005 |

10mAG

| ASR | X | Y | Z | FSP Concentration, µg/m3 | | | | | | | |
|------|--------|--------|------|--------------------------|----------------|--|----------------|-------------------------------------|----------------|---------------------------------------|----------------|
| | | | | Cumulative Impact | | Impact from Background Emission (PATH) | | Impact from Road Emission (CALINE4) | | Impact from Chimney Emission (ISCST3) | |
| | | | | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average |
| A001 | 831042 | 824135 | 10 | 57.0 | 29.3 | 56.4 | 28.9 | 0.6 | 0.4 | 0.002 | 0.004 |
| A003 | 831350 | 824183 | 10 | 57.0 | 29.3 | 56.4 | 28.9 | 0.6 | 0.3 | 0.000 | 0.002 |
| A004 | 831363 | 824098 | 10 | 57.0 | 29.3 | 56.4 | 28.9 | 0.6 | 0.4 | 0.000 | 0.002 |
| A005 | 831291 | 824014 | 24.9 | 56.8 | 29.2 | 56.4 | 28.9 | 0.4 | 0.2 | 0.000 | 0.002 |
| A007 | 831371 | 824034 | 10 | 57.1 | 29.3 | 56.4 | 28.9 | 0.7 | 0.4 | 0.000 | 0.002 |
| A011 | 831161 | 823771 | 10 | 57.3 | 29.5 | 57.0 | 28.9 | 0.3 | 0.5 | 0.000 | 0.001 |
| A012 | 831130 | 823752 | 10 | 57.3 | 29.5 | 57.0 | 28.9 | 0.3 | 0.6 | 0.000 | 0.001 |
| A013 | 831224 | 823707 | 10 | 57.0 | 29.2 | 56.4 | 28.9 | 0.6 | 0.3 | 0.001 | 0.001 |
| A015 | 831121 | 823592 | 10 | 57.1 | 29.3 | 56.4 | 28.9 | 0.7 | 0.4 | 0.002 | 0.001 |
| A016 | 831068 | 823562 | 10 | 57.1 | 29.3 | 56.4 | 28.9 | 0.7 | 0.4 | 0.007 | 0.001 |
| A037 | 830624 | 823624 | 10 | 57.7 | 29.6 | 57.0 | 28.9 | 0.7 | 0.7 | 0.017 | 0.003 |
| A038 | 830714 | 823729 | 10 | 57.4 | 29.5 | 57.0 | 28.9 | 0.3 | 0.6 | 0.000 | 0.001 |
| A039 | 830767 | 823705 | 10 | 57.4 | 29.6 | 57.0 | 28.9 | 0.4 | 0.7 | 0.000 | 0.000 |
| A040 | 830794 | 823681 | 29.8 | 56.9 | 29.2 | 56.4 | 28.9 | 0.5 | 0.3 | 0.003 | 0.001 |
| A041 | 830873 | 823701 | 56.4 | 56.8 | 29.1 | 56.4 | 28.9 | 0.4 | 0.1 | 0.000 | 0.001 |
| A042 | 830905 | 823798 | 56.4 | 56.7 | 29.1 | 56.4 | 28.9 | 0.3 | 0.1 | 0.000 | 0.004 |
| A043 | 830863 | 823846 | 10 | 57.5 | 29.6 | 56.4 | 28.9 | 1.1 | 0.7 | 0.000 | 0.002 |
| A044 | 830819 | 823864 | 10 | 57.4 | 29.5 | 56.4 | 28.9 | 1.0 | 0.6 | 0.000 | 0.001 |
| A045 | 830839 | 823901 | 10 | 57.5 | 29.6 | 57.0 | 28.9 | 0.5 | 0.7 | 0.000 | 0.004 |
| A047 | 830788 | 823924 | 10 | 57.5 | 29.5 | 56.4 | 28.9 | 1.1 | 0.6 | 0.003 | 0.002 |
| A048 | 830872 | 823971 | 10 | 57.2 | 29.7 | 57.0 | 28.9 | 0.1 | 0.7 | 0.000 | 0.007 |
| A049 | 830959 | 823953 | 10 | 57.2 | 29.5 | 57.0 | 28.9 | 0.2 | 0.6 | 0.000 | 0.005 |
| A050 | 830985 | 823920 | 10 | 57.2 | 29.5 | 57.0 | 28.9 | 0.2 | 0.6 | 0.000 | 0.004 |
| A051 | 830815 | 824046 | 14 | 57.1 | 29.4 | 56.4 | 28.9 | 0.7 | 0.5 | 0.005 | 0.003 |
| A052 | 830775 | 824161 | 16 | 56.9 | 29.3 | 56.4 | 28.9 | 0.5 | 0.4 | 0.001 | 0.002 |
| A053 | 830744 | 824375 | 10 | 56.7 | 29.2 | 56.4 | 28.9 | 0.3 | 0.3 | 0.000 | 0.001 |
| A056 | 831136 | 824345 | 10 | 56.8 | 29.2 | 56.4 | 28.9 | 0.4 | 0.3 | 0.002 | 0.003 |
| A057 | 831184 | 824087 | 10 | 57.1 | 29.3 | 56.4 | 28.9 | 0.7 | 0.4 | 0.000 | 0.003 |
| A058 | 830903 | 824410 | 13.6 | 56.6 | 29.1 | 56.4 | 28.9 | 0.2 | 0.2 | 0.001 | 0.002 |
| A064 | 830882 | 824035 | 10 | 57.2 | 29.5 | 57.0 | 28.9 | 0.1 | 0.6 | 0.000 | 0.006 |
| A065 | 831049 | 824242 | 10 | 57.0 | 29.3 | 56.4 | 28.9 | 0.6 | 0.4 | 0.002 | 0.003 |
| A068 | 830932 | 824126 | 15 | 57.0 | 29.3 | 56.4 | 28.9 | 0.6 | 0.4 | 0.005 | 0.004 |
| A069 | 831019 | 824036 | 10.3 | 57.1 | 29.4 | 56.4 | 28.9 | 0.7 | 0.5 | 0.001 | 0.005 |

Appendix 3-9 Detailed Breakdown from Background, Road and Chimney Emissions for "Without Project" Scenario in Year 2021
Grid[26,30]

NO₂

1.5mAG

| ASR | X | Y | Z | NO ₂ Concentration, µg/m ³ | | | | | | | |
|------|--------|--------|-----|--|----------------|--|----------------|-------------------------------------|----------------|---------------------------------------|----------------|
| | | | | Cumulative Impact | | Impact from Background Emission (PATH) | | Impact from Road Emission (CALINE4) | | Impact from Chimney Emission (ISCST3) | |
| | | | | 19th Highest 1-Hour | Annual Average | 19th Highest 1-Hour | Annual Average | 19th Highest 1-Hour | Annual Average | 19th Highest 1-Hour | Annual Average |
| A059 | 831427 | 823491 | 3.3 | 184.4 | 29.7 | 164.9 | 28.4 | 19.5 | 1.3 | 0.0 | 0.015 |

5mAG

| ASR | X | Y | Z | NO ₂ Concentration, µg/m ³ | | | | | | | |
|------|--------|--------|-----|--|----------------|--|----------------|-------------------------------------|----------------|---------------------------------------|----------------|
| | | | | Cumulative Impact | | Impact from Background Emission (PATH) | | Impact from Road Emission (CALINE4) | | Impact from Chimney Emission (ISCST3) | |
| | | | | 19th Highest 1-Hour | Annual Average | 19th Highest 1-Hour | Annual Average | 19th Highest 1-Hour | Annual Average | 19th Highest 1-Hour | Annual Average |
| A059 | 831427 | 823491 | 6.8 | 184.2 | 29.7 | 164.9 | 28.4 | 19.3 | 1.3 | 0.0 | 0.015 |

10mAG

| ASR | X | Y | Z | NO ₂ Concentration, µg/m ³ | | | | | | | |
|------|--------|--------|------|--|----------------|--|----------------|-------------------------------------|----------------|---------------------------------------|----------------|
| | | | | Cumulative Impact | | Impact from Background Emission (PATH) | | Impact from Road Emission (CALINE4) | | Impact from Chimney Emission (ISCST3) | |
| | | | | 19th Highest 1-Hour | Annual Average | 19th Highest 1-Hour | Annual Average | 19th Highest 1-Hour | Annual Average | 19th Highest 1-Hour | Annual Average |
| A059 | 831427 | 823491 | 11.8 | 184.2 | 29.6 | 164.9 | 28.4 | 19.3 | 1.2 | 0.0 | 0.015 |

Appendix 3-9 Detailed Breakdown from Background, Road and Chimney Emissions for "Without Project" Scenario in Year 2021
Grid[26,30]

RSP

1.5mAG

| ASR | X | Y | Z | RSP Concentration, $\mu\text{g}/\text{m}^3$ | | | | | | | |
|------|--------|--------|-----|---|----------------|--|----------------|-------------------------------------|----------------|---------------------------------------|----------------|
| | | | | Cumulative Impact | | Impact from Background Emission (PATH) | | Impact from Road Emission (CALINE4) | | Impact from Chimney Emission (ISCST3) | |
| | | | | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average |
| A059 | 831427 | 823491 | 3.3 | 75.51 | 40.14 | 75.3 | 40.05 | 0.232 | 0.090 | 0.01 | 0.001 |

5mAG

| ASR | X | Y | Z | RSP Concentration, $\mu\text{g}/\text{m}^3$ | | | | | | | |
|------|--------|--------|-----|---|----------------|--|----------------|-------------------------------------|----------------|---------------------------------------|----------------|
| | | | | Cumulative Impact | | Impact from Background Emission (PATH) | | Impact from Road Emission (CALINE4) | | Impact from Chimney Emission (ISCST3) | |
| | | | | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average |
| A059 | 831427 | 823491 | 6.8 | 75.51 | 40.13 | 75.3 | 40.05 | 0.227 | 0.088 | 0.01 | 0.001 |

10mAG

| ASR | X | Y | Z | RSP Concentration, $\mu\text{g}/\text{m}^3$ | | | | | | | |
|------|--------|--------|------|---|----------------|--|----------------|-------------------------------------|----------------|---------------------------------------|----------------|
| | | | | Cumulative Impact | | Impact from Background Emission (PATH) | | Impact from Road Emission (CALINE4) | | Impact from Chimney Emission (ISCST3) | |
| | | | | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average |
| A059 | 831427 | 823491 | 11.8 | 75.50 | 40.13 | 75.3 | 40.05 | 0.221 | 0.082 | 0.01 | 0.001 |

Appendix 3-9 Detailed Breakdown from Background, Road and Chimney Emissions for "Without Project" Scenario in Year 2021
Grid[26,30]

FSP

1.5mAG

| ASR | X | Y | Z | FSP Concentration, µg/m3 | | | | | | | |
|------|--------|--------|-----|--------------------------|----------------|--|----------------|-------------------------------------|----------------|---------------------------------------|----------------|
| | | | | Cumulative Impact | | Impact from Background Emission (PATH) | | Impact from Road Emission (CALINE4) | | Impact from Chimney Emission (ISCST3) | |
| | | | | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average |
| A059 | 831427 | 823491 | 3.3 | 56.7 | 28.5 | 56.45 | 28.4 | 0.21 | 0.08 | 0.003 | 0.0003 |

5mAG

| ASR | X | Y | Z | FSP Concentration, µg/m3 | | | | | | | |
|------|--------|--------|-----|--------------------------|----------------|--|----------------|-------------------------------------|----------------|---------------------------------------|----------------|
| | | | | Cumulative Impact | | Impact from Background Emission (PATH) | | Impact from Road Emission (CALINE4) | | Impact from Chimney Emission (ISCST3) | |
| | | | | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average |
| A059 | 831427 | 823491 | 6.8 | 56.7 | 28.5 | 56.64 | 28.4 | 0.02 | 0.08 | 0.000 | 0.0003 |

10mAG

| ASR | X | Y | Z | FSP Concentration, µg/m3 | | | | | | | |
|------|--------|--------|------|--------------------------|----------------|--|----------------|-------------------------------------|----------------|---------------------------------------|----------------|
| | | | | Cumulative Impact | | Impact from Background Emission (PATH) | | Impact from Road Emission (CALINE4) | | Impact from Chimney Emission (ISCST3) | |
| | | | | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average |
| A059 | 831427 | 823491 | 11.8 | 56.7 | 28.5 | 56.45 | 28.4 | 0.20 | 0.08 | 0.003 | 0.0003 |

Appendix 3-9 Detailed Breakdown from Background, Road and Chimney Emissions for "Without Project" Scenario in Year 2021
Grid[26,31]

NO₂

1.5mAG

| ASR | X | Y | Z | NO ₂ Concentration, µg/m ³ | | | | | | | |
|------|--------|--------|-----|--|----------------|--|----------------|-------------------------------------|----------------|---------------------------------------|----------------|
| | | | | Cumulative Impact | | Impact from Background Emission (PATH) | | Impact from Road Emission (CALINE4) | | Impact from Chimney Emission (ISCST3) | |
| | | | | 19th Highest 1-Hour | Annual Average | 19th Highest 1-Hour | Annual Average | 19th Highest 1-Hour | Annual Average | 19th Highest 1-Hour | Annual Average |
| A008 | 831431 | 823909 | 1.5 | 182.92 | 30.39 | 171.8 | 25.8 | 11.1 | 4.4 | 0.0 | 0.12 |
| A009 | 831411 | 823811 | 1.5 | 182.76 | 29.51 | 171.8 | 25.8 | 10.9 | 3.6 | 0.0 | 0.10 |
| A010 | 831448 | 823709 | 1.5 | 181.80 | 28.77 | 171.8 | 25.8 | 10.0 | 2.9 | 0.0 | 0.06 |

5mAG

| ASR | X | Y | Z | NO ₂ Concentration, µg/m ³ | | | | | | | |
|------|--------|--------|---|--|----------------|--|----------------|-------------------------------------|----------------|---------------------------------------|----------------|
| | | | | Cumulative Impact | | Impact from Background Emission (PATH) | | Impact from Road Emission (CALINE4) | | Impact from Chimney Emission (ISCST3) | |
| | | | | 19th Highest 1-Hour | Annual Average | 19th Highest 1-Hour | Annual Average | 19th Highest 1-Hour | Annual Average | 19th Highest 1-Hour | Annual Average |
| A008 | 831431 | 823909 | 5 | 182.95 | 30.07 | 171.8 | 25.8 | 11.1 | 4.1 | 0.0 | 0.12 |
| A009 | 831411 | 823811 | 5 | 182.69 | 29.32 | 171.8 | 25.8 | 10.9 | 3.4 | 0.0 | 0.10 |
| A010 | 831448 | 823709 | 5 | 181.70 | 28.53 | 171.8 | 25.8 | 9.9 | 2.6 | 0.0 | 0.06 |

10mAG

| ASR | X | Y | Z | NO ₂ Concentration, µg/m ³ | | | | | | | |
|------|--------|--------|----|--|----------------|--|----------------|-------------------------------------|----------------|---------------------------------------|----------------|
| | | | | Cumulative Impact | | Impact from Background Emission (PATH) | | Impact from Road Emission (CALINE4) | | Impact from Chimney Emission (ISCST3) | |
| | | | | 19th Highest 1-Hour | Annual Average | 19th Highest 1-Hour | Annual Average | 19th Highest 1-Hour | Annual Average | 19th Highest 1-Hour | Annual Average |
| A008 | 831431 | 823909 | 10 | 182.87 | 29.41 | 171.8 | 25.8 | 11.1 | 3.5 | 0.0 | 0.12 |
| A009 | 831411 | 823811 | 10 | 182.50 | 28.87 | 171.8 | 25.8 | 10.7 | 2.9 | 0.0 | 0.10 |
| A010 | 831448 | 823709 | 10 | 181.54 | 28.08 | 171.8 | 25.8 | 9.7 | 2.2 | 0.0 | 0.06 |

Appendix 3-9 Detailed Breakdown from Background, Road and Chimney Emissions for "Without Project" Scenario in Year 2021
Grid[26,31]

RSP

1.5mAG

| ASR | X | Y | Z | RSP Concentration, $\mu\text{g}/\text{m}^3$ | | | | | | | |
|------|--------|--------|-----|---|----------------|--|----------------|-------------------------------------|----------------|---------------------------------------|----------------|
| | | | | Cumulative Impact | | Impact from Background Emission (PATH) | | Impact from Road Emission (CALINE4) | | Impact from Chimney Emission (ISCST3) | |
| | | | | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average |
| A008 | 831431 | 823909 | 1.5 | 74.74 | 39.87 | 74.3 | 39.6 | 0.37 | 0.23 | 0.02 | 0.008 |
| A009 | 831411 | 823811 | 1.5 | 74.71 | 39.84 | 74.3 | 39.6 | 0.34 | 0.20 | 0.02 | 0.007 |
| A010 | 831448 | 823709 | 1.5 | 74.68 | 39.81 | 74.3 | 39.6 | 0.32 | 0.18 | 0.01 | 0.004 |

5mAG

| ASR | X | Y | Z | RSP Concentration, $\mu\text{g}/\text{m}^3$ | | | | | | | |
|------|--------|--------|---|---|----------------|--|----------------|-------------------------------------|----------------|---------------------------------------|----------------|
| | | | | Cumulative Impact | | Impact from Background Emission (PATH) | | Impact from Road Emission (CALINE4) | | Impact from Chimney Emission (ISCST3) | |
| | | | | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average |
| A008 | 831431 | 823909 | 5 | 74.72 | 39.86 | 74.3 | 39.6 | 0.35 | 0.22 | 0.02 | 0.008 |
| A009 | 831411 | 823811 | 5 | 74.70 | 39.83 | 74.3 | 39.6 | 0.33 | 0.19 | 0.02 | 0.007 |
| A010 | 831448 | 823709 | 5 | 74.67 | 39.80 | 74.3 | 39.6 | 0.31 | 0.16 | 0.01 | 0.004 |

10mAG

| ASR | X | Y | Z | RSP Concentration, $\mu\text{g}/\text{m}^3$ | | | | | | | |
|------|--------|--------|----|---|----------------|--|----------------|-------------------------------------|----------------|---------------------------------------|----------------|
| | | | | Cumulative Impact | | Impact from Background Emission (PATH) | | Impact from Road Emission (CALINE4) | | Impact from Chimney Emission (ISCST3) | |
| | | | | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average |
| A008 | 831431 | 823909 | 10 | 74.69 | 39.82 | 74.3 | 39.6 | 0.32 | 0.18 | 0.02 | 0.008 |
| A009 | 831411 | 823811 | 10 | 74.68 | 39.81 | 74.3 | 39.6 | 0.31 | 0.17 | 0.02 | 0.007 |
| A010 | 831448 | 823709 | 10 | 74.64 | 39.77 | 74.3 | 39.6 | 0.29 | 0.13 | 0.01 | 0.004 |

Appendix 3-9 Detailed Breakdown from Background, Road and Chimney Emissions for "Without Project" Scenario in Year 2021
Grid[26,31]

FSP

1.5mAG

| ASR | X | Y | Z | FSP Concentration, $\mu\text{g}/\text{m}^3$ | | | | | | | |
|------|--------|--------|-----|---|----------------|--|----------------|-------------------------------------|----------------|---------------------------------------|----------------|
| | | | | Cumulative Impact | | Impact from Background Emission (PATH) | | Impact from Road Emission (CALINE4) | | Impact from Chimney Emission (ISCST3) | |
| | | | | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average |
| A008 | 831431 | 823909 | 1.5 | 56.10 | 28.35 | 55.8 | 28.1 | 0.34 | 0.21 | 0.005 | 0.002 |
| A009 | 831411 | 823811 | 1.5 | 56.08 | 28.32 | 55.8 | 28.1 | 0.31 | 0.18 | 0.005 | 0.002 |
| A010 | 831448 | 823709 | 1.5 | 56.06 | 28.30 | 55.8 | 28.1 | 0.30 | 0.16 | 0.003 | 0.001 |

5mAG

| ASR | X | Y | Z | FSP Concentration, $\mu\text{g}/\text{m}^3$ | | | | | | | |
|------|--------|--------|---|---|----------------|--|----------------|-------------------------------------|----------------|---------------------------------------|----------------|
| | | | | Cumulative Impact | | Impact from Background Emission (PATH) | | Impact from Road Emission (CALINE4) | | Impact from Chimney Emission (ISCST3) | |
| | | | | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average |
| A008 | 831431 | 823909 | 5 | 56.09 | 28.34 | 55.8 | 28.1 | 0.32 | 0.20 | 0.005 | 0.002 |
| A009 | 831411 | 823811 | 5 | 56.07 | 28.31 | 55.8 | 28.1 | 0.30 | 0.17 | 0.005 | 0.002 |
| A010 | 831448 | 823709 | 5 | 56.05 | 28.29 | 55.8 | 28.1 | 0.28 | 0.15 | 0.003 | 0.001 |

10mAG

| ASR | X | Y | Z | FSP Concentration, $\mu\text{g}/\text{m}^3$ | | | | | | | |
|------|--------|--------|----|---|----------------|--|----------------|-------------------------------------|----------------|---------------------------------------|----------------|
| | | | | Cumulative Impact | | Impact from Background Emission (PATH) | | Impact from Road Emission (CALINE4) | | Impact from Chimney Emission (ISCST3) | |
| | | | | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average | 10th Highest Daily | Annual Average |
| A008 | 831431 | 823909 | 10 | 56.06 | 28.31 | 55.8 | 28.1 | 0.29 | 0.17 | 0.005 | 0.002 |
| A009 | 831411 | 823811 | 10 | 56.05 | 28.29 | 55.8 | 28.1 | 0.29 | 0.15 | 0.005 | 0.002 |
| A010 | 831448 | 823709 | 10 | 56.02 | 28.26 | 55.8 | 28.1 | 0.26 | 0.12 | 0.003 | 0.001 |