Appendix J
Noise Monitoring Results



Appendices

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The Planning Center July 2011

Sound Levels - Little League Drive

The Planning Center 1-Aug-09

TNM 2.5

Calculated with TNM 2.5

RESULTS: SOUND LEVELS PROJECT/CONTRACT:

RUN: MEL-01

BARRIER DESIGN: Little League Drive

ATMOSPHERICS: 68 deg F, 50% RH

| | | LAeq1h dBA | | Change in Noise | e Levels |
|------------------|----------|-------------------|---------------------|-----------------|----------------|
| | Existing | Future No Project | Future With Project | From Existing | Due to Project |
| no Kendall_East | 59.4 | 67.3 | n/a | 7.9 | 0.0 |
| no Kendall_West | 59.4 | 67.3 | | 7.9 | -67.3 |
| no Frontage_East | 62.2 | 68.3 | | 6.1 | -68.3 |
| no Frontage_West | 61.3 | 67.4 | | 6.1 | -67.4 |
| no Belmont_East | 55.8 | 65.6 | | 9.8 | -65.6 |
| no Belmont_West | 55.9 | 65.7 | | 9.8 | -65.7 |
| no Meyers_East | 48.2 | 65.0 | | 16.8 | -65.0 |
| no Meyers_West | 48.2 | 65.0 | | 16.8 | -65.0 |

Receivers - Little League Drive The Planning Center

The Planning Center 1-Aug-09 TNM 2.5

INPUT: RECEIVERS

PROJECT/CONTRACT: MEL-01

RUN: Little League Drive

Receiver Name

| | Coordinates (g | round) | | Height above |
|------------------|----------------|---------|----|--------------|
| | Х | Υ | Z | Ground |
| | ft | ft | ft | ft |
| no Kendall_East | 50.0 | - | 0 | 4.92 |
| no Kendall_West | -50.0 | - | 0 | 4.92 |
| no Frontage_East | 50.0 | 1,000.0 | 0 | 4.92 |
| no Frontage_West | -50.0 | 1,000.0 | 0 | 4.92 |
| no Belmont_East | 50.0 | 2,000.0 | 0 | 4.92 |
| no Belmont_West | -50.0 | 2,000.0 | 0 | 4.92 |
| no Meyers_East | 50.0 | 3,000.0 | 0 | 4.92 |
| no Meyers_West | -50.0 | 3,000.0 | 0 | 4.92 |

Roadway - Little League Drive The Planning Center

1-Aug-09 TNM 2.5

INPUT: ROADWAYS PROJECT/CONTRACT:

MEL-01

RUN: Little League Drive

Average pavement type shall be used unless a State highway agency substantiates the use of a different type with the approval of FHWA

Roadway

| | | Coordinates (| pavomoni | | Segment |
|-------|---|--|--|--|---|
| | Points | X | Υ | Z | Pvmt |
| Width | Name | ft | ft | ft | Type |
| 20.0 | Point 4 | 10.0 | -500.0 | 0 | Average |
| | Point 5 | 10.0 | 500.0 | 0 | |
| 20.0 | Point 6 | -10.0 | 500.0 | 0 | Average |
| | Point 7 | -10.0 | -500.0 | 0 | |
| 30.0 | Point 14 | 15.0 | 500.1 | 0 | Average |
| | Point 15 | 15.0 | 1,500.0 | 0 | |
| 12.0 | Point 16 | -6.0 | 1,500.0 | 0 | Average |
| | Point 17 | -6.0 | 500.1 | 0 | |
| 20.0 | Point 18 | 10.0 | 1500.1 | 0 | Average |
| | Point 19 | 10.0 | 2500 | 0 | |
| 22.0 | Point 20 | -11.0 | 2500 | 0 | Average |
| | Point 21 | -11.0 | 1500.1 | 0 | |
| 9.0 | Point 22 | 4.5 | 2500.1 | 0 | Average |
| | Point 23 | 4.5 | 3500 | 0 | |
| 9.0 | Point 24 | -4.5 | 3500 | 0 | Average |
| | Point 25 | -4.5 | 2500.1 | 0 | |
| | 20.0 20.0 30.0 12.0 20.0 22.0 9.0 | Width Name 20.0 Point 4 Point 5 Point 6 Point 7 Point 14 Point 15 Point 15 12.0 Point 16 Point 17 Point 18 Point 19 Point 20 Point 21 Point 22 Point 23 Point 24 | Width Name ft 20.0 Point 4 Point 5 Point 6 Point 7 10.0 -10.0 Point 7 30.0 Point 14 Point 15 15.0 15.0 -6.0 Point 17 -6.0 20.0 Point 18 Point 19 Point 19 22.0 10.0 Point 20 Point 21 Point 21 Point 23 Point 23 Point 24 -11.0 -4.5 | Width Name ft ft 20.0 Point 4 10.0 -500.0 20.0 Point 6 -10.0 500.0 20.0 Point 6 -10.0 500.0 Point 7 -10.0 -500.0 30.0 Point 14 15.0 500.1 Point 15 15.0 1,500.0 Point 16 -6.0 1,500.0 Point 17 -6.0 500.1 20.0 Point 18 10.0 1500.1 Point 19 10.0 2500 22.0 Point 20 -11.0 2500 Point 21 -11.0 1500.1 9.0 Point 22 4.5 2500.1 Point 23 4.5 3500 9.0 Point 24 -4.5 3500 | Width Name ft ft <t< td=""></t<> |

Traffic - Little League Drive The Planning Center

DATE 8/1/2009 TNM 2.5

INPUT: TRAFFIC FOR LAeq1h Volumes

Little League Drive

PROJECT/CONTRACT: RUN: MEL-01

| | ADT veh/24 h | nrs | | A | uto | | | Mtr | ucks | | | Htru | ucks | | | Bu | ses | | | Motor | cycles | |
|----------------|--------------|----------|-----|-----|-----|-----|-----|-----|------|-----|-----|------|------|-----|-----|-----|-----|-----|-----|-------|--------|-----|
| Roadway | Points | Existing | % D | % E | % N | S | % D | % E | % N | S | % D | % E | % N | S | % D | % E | % N | S | % D | % E | % N | S |
| Name | Name | _ | | | | mph | | | | mph | | | | mph | | | | mph | | | | mph |
| no Kendall NB | Point 4 | 500 | 97 | 97 | 97 | 40 | 2 | 2 | 2 | 40 | 1 | 1 | 1 | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Point 5 | | | | | | | | | | | | | | | | | | | | | |
| no Kendall SB | Point 6 | 500 | 97 | 97 | 97 | 40 | 2 | 2 | 2 | 40 | 1 | 1 | 1 | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Point 7 | | | | | | | | | | | | | | | | | | | | | |
| no Frontage NB | Point 14 | 850 | 97 | 97 | 97 | 40 | 2 | 2 | 2 | 40 | 1 | 1 | 1 | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Point 15 | | | | | | | | | | | | | | | | | | | | | |
| no Frontage SB | Point 16 | 850 | 97 | 97 | 97 | 40 | 2 | 2 | 2 | 40 | 1 | 1 | 1 | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Point 17 | | | | | | | | | | | | | | | | | | | | | |
| no Belmont NB | Point 18 | 650 | 97 | 97 | 97 | 25 | 2 | 2 | 2 | 25 | 1 | 1 | 1 | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Point 19 | | | | | | | | | | | | | | | | | | | | | |
| no Belmont SB | Point 20 | 650 | 97 | 97 | 97 | 25 | 2 | 2 | 2 | 25 | 1 | 1 | 1 | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Point 21 | | | | | | | | | | | | | | | | | | | | | |
| no Meyers NB | Point 22 | 100 | 97 | 97 | 97 | 25 | 2 | 2 | 2 | 25 | 1 | 1 | 1 | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Point 23 | | | | | | | | | | | | | | | | | | | | | |
| no Meyers SB | Point 24 | 100 | 97 | 97 | 97 | 25 | 2 | 2 | 2 | 25 | 1 | 1 | 1 | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Point 25 | | | | | | | | | | | | | | | | | | | | | |

| | FutureNP | ADT | | Aı | uto | | | Mtr | ucks | | | Htru | ıcks | | | Bu | ses | | | Motor | cycles | |
|----------------|----------|----------|-----|-----|-----|-----|-----|-----|------|-----|-----|------|------|-----|-----|-----|-----|-----|-----|-------|--------|-----|
| Roadway | Points | V | % D | % E | % N | S | % D | % E | % N | S | % D | % E | % N | S | % D | % E | % N | S | % D | % E | % N | S |
| Name | Name | veh/24hr | | | | mph | | | | mph | | | | mph | | | | mph | | | | mph |
| no Kendall NB | Point 4 | 742 | 65 | 65 | 65 | 40 | 1 | 1 | 1 | 40 | 33 | 33 | 33 | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Point 5 | | | | | | | | | | | | | | | | | | | | | |
| no Kendall SB | Point 6 | 742 | 65 | 65 | 65 | 40 | 1 | 1 | 1 | 40 | 33 | 33 | 33 | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Point 7 | | | | | | | | | | | | | | | | | | | | | |
| no Frontage NB | Point 14 | 1,092 | 75 | 75 | 75 | 40 | 2 | 2 | 2 | 40 | 23 | 23 | 23 | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Point 15 | | | | | | | | | | | | | | | | | | | | | |
| no Frontage SB | Point 16 | 1,092 | 75 | 75 | 75 | 40 | 2 | 2 | 2 | 40 | 23 | 23 | 23 | 40 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Point 17 | | | | | | | | | | | | | | | | | | | | | |
| no Belmont NB | Point 18 | 892 | 71 | 71 | 71 | 25 | 1 | 1 | 1 | 25 | 28 | 28 | 28 | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Point 19 | | | | | | | | | | | | | | | | | | | | | |
| no Belmont SB | Point 20 | 892 | 71 | 71 | 71 | 25 | 1 | 1 | 1 | 25 | 28 | 28 | 28 | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Point 21 | | | | | | | | | | | | | | | | | | | | | |
| no Meyers NB | Point 22 | 342 | 28 | 28 | 28 | 25 | 1 | 1 | 1 | 25 | 71 | 71 | 71 | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Point 23 | | | | | | | | | | | | | | | | | | | | | |
| no Meyers SB | Point 24 | 342 | 28 | 28 | 28 | 25 | 1 | 1 | 1 | 25 | 71 | 71 | 71 | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Point 25 | | | | | | | | | | | | | | | | | | | | | |

Construction Generated Average Noise - Spring Trails

| Construction Generated Average Noise - | Spring Trails | | | |
|---|---|--|--------------------|---|
| Construction Noise at 50 Feet (dBA Leq) | | | hard or soft 50 | 0 |
| Construction Phase | All Applicable Equipment in Use 1 | Minimum Required Equipment in Use 1 | | |
| Ground Clearing/Demolition | 83 | 83 | | |
| Excavation | 88 | 75 | | |
| Foundation Construction | 81 | 81 | | |
| Building Construction | 81 | 65 | | |
| Finishing and Site Cleanup | 88 | 72 | | |
| , | | | | |
| Construction Noise at 199 Feet (dBA Leq) | Receptor Location 1 | | 1210 | |
| Construction Phase | All Applicable Equipment in Use 1 | Minimum Required Equipment in Use 1 | | |
| Ground Clearing/Grading | 55 | 55 | | |
| Excavation | 60 | 47 | | |
| Foundation Construction | 53 | 53 | | |
| Building Construction | 53 | 37 | | |
| Finishing and Site Cleanup | 60 | 44 | | |
| Construction Noise at 151 Feet (dBA Leq) | Receptor Location 2 | | 1382 | |
| Constitution reside at 1911 cet (abril 204) | recopior Economic | | 1002 | |
| Construction Phase | All Applicable Equipment in Use 1 | Minimum Required Equipment in Use 1 | | |
| Ground Clearing/Grading | 54 | 54 | | |
| Excavation | 59 | 46 | | |
| Foundation Construction | 52 | 52 | | |
| Building Construction | 52 | 36 | | |
| Finishing and Site Cleanup | 59 | 43 | | |
| | | | | |
| Construction Noise at 25 Feet (dBA Leq) | Receptor Location 3 | | 710 | |
| Ownstruction Phase | All Annibodie Fordon antic Hoof | Minimum Demained Environment in Head | | |
| Construction Phase | All Applicable Equipment in Use 1 | Minimum Required Equipment in Use 1 | | |
| Ground Clearing/Demolition | 60 | 60 | | |
| Excavation | 65 | 52 | | |
| Foundation Construction | 58 | 58 | | |
| Building Construction | 58 | 42 | | |
| Finishing and Site Cleanup | 65 | 49 | | |
| Construction Noise at 783 Feet (dBA Leq) | Receptor Location 4 | | 1321 | |
| | | | | |
| Construction Phase | All Applicable Equipment in Use 1 | Minimum Required Equipment in Use 1 | | |
| | All Applicable Equipment in Use 1 | Minimum Required Equipment in Use 1 55 | | |
| Ground Clearing/Demolition | 55 | 55 | | |
| Ground Clearing/Demolition Excavation | 55 60 | 55 47 | | |
| Ground Clearing/Demolition Excavation Foundation Construction | 55 60 53 | 55 47 53 | | |
| Ground Clearing/Demolition Excavation Foundation Construction Building Construction | 55 60 | 55 47 | | |
| Ground Clearing/Demolition Excavation Foundation Construction Building Construction Finishing and Site Cleanup | 55 60 53 53 60 | 55 47 53 37 | 2607 | |
| Ground Clearing/Demolition Excavation Foundation Construction Building Construction | 55 60 53 53 | 55 47 53 37 | 2507 | |
| Ground Clearing/Demolition Excavation Foundation Construction Building Construction Finishing and Site Cleanup Construction Noise at 783 Feet (dBA Leq) | 55 60 53 53 60 Receptor Location 6 | 55 47 53 37 44 | 2507 | |
| Ground Clearing/Demolition Excavation Foundation Construction Building Construction Finishing and Site Cleanup | 55 60 53 53 60 | 55 47 53 37 | 2507 | |
| Ground Clearing/Demolition Excavation Foundation Construction Building Construction Finishing and Site Cleanup Construction Noise at 783 Feet (dBA Leq) Construction Phase Ground Clearing/Demolition | 55 60 53 53 60 Receptor Location 6 All Applicable Equipment in Use 1 49 | 55 47 53 37 44 Minimum Required Equipment in Use 1 | 2507 | |
| Ground Clearing/Demolition Excavation Foundation Construction Building Construction Finishing and Site Cleanup Construction Noise at 783 Feet (dBA Leq) Construction Phase Ground Clearing/Demolition Excavation | 55 60 53 53 60 Receptor Location 6 All Applicable Equipment in Use 1 49 54 | 55 47 53 37 44 Minimum Required Equipment in Use 1 49 41 | 2507 | |
| Ground Clearing/Demolition Excavation Foundation Construction Building Construction Finishing and Site Cleanup Construction Noise at 783 Feet (dBA Leq) Construction Phase Ground Clearing/Demolition Excavation Foundation Construction | 55 60 53 53 60 Receptor Location 6 All Applicable Equipment in Use 1 49 54 47 | 55 47 53 37 44 Minimum Required Equipment in Use 1 49 41 47 | 2507 | |
| Ground Clearing/Demolition Excavation Foundation Construction Building Construction Finishing and Site Cleanup Construction Noise at 783 Feet (dBA Leq) Construction Phase Ground Clearing/Demolition Excavation | 55 60 53 53 60 Receptor Location 6 All Applicable Equipment in Use 1 49 54 | 55 47 53 37 44 Minimum Required Equipment in Use 1 49 41 | 2507 | |
| Ground Clearing/Demolition Excavation Foundation Construction Building Construction Finishing and Site Cleanup Construction Noise at 783 Feet (dBA Leq) Construction Phase Ground Clearing/Demolition Excavation Foundation Construction Building Construction Finishing and Site Cleanup | 55 60 53 53 60 Receptor Location 6 All Applicable Equipment in Use 1 49 54 47 54 | 55 47 53 37 44 Minimum Required Equipment in Use 1 49 41 47 31 | | |
| Ground Clearing/Demolition Excavation Foundation Construction Building Construction Finishing and Site Cleanup Construction Noise at 783 Feet (dBA Leq) Construction Phase Ground Clearing/Demolition Excavation Foundation Construction Building Construction Building Construction Finishing and Site Cleanup Construction Noise at 783 Feet (dBA Leq) | 55 60 53 53 60 Receptor Location 6 All Applicable Equipment in Use 1 49 54 47 47 54 Receptor Location 8 | 55 47 53 37 44 Minimum Required Equipment in Use 1 49 41 47 31 38 | 2507 | |
| Ground Clearing/Demolition Excavation Foundation Construction Building Construction Finishing and Site Cleanup Construction Noise at 783 Feet (dBA Leq) Construction Phase Ground Clearing/Demolition Excavation Foundation Construction Building Construction Finishing and Site Cleanup | 55 60 53 53 60 Receptor Location 6 All Applicable Equipment in Use 1 49 54 47 54 | 55 47 53 37 44 Minimum Required Equipment in Use 1 49 41 47 31 | | |
| Ground Clearing/Demolition Excavation Foundation Construction Building Construction Finishing and Site Cleanup Construction Noise at 783 Feet (dBA Leq) Construction Phase Ground Clearing/Demolition Excavation Foundation Construction Building Construction Finishing and Site Cleanup Construction Noise at 783 Feet (dBA Leq) Construction Noise at 783 Feet (dBA Leq) | 55 60 53 53 60 Receptor Location 6 All Applicable Equipment in Use 1 49 54 47 47 54 Receptor Location 8 All Applicable Equipment in Use 1 | 55 47 53 37 44 Minimum Required Equipment in Use 1 49 41 47 31 38 Minimum Required Equipment in Use 1 | | |
| Ground Clearing/Demolition Excavation Foundation Construction Building Construction Finishing and Site Cleanup Construction Noise at 783 Feet (dBA Leq) Construction Phase Ground Clearing/Demolition Excavation Foundation Construction Building Construction Finishing and Site Cleanup Construction Noise at 783 Feet (dBA Leq) Construction Phase Ground Clearing/Demolition | 55 60 53 53 60 Receptor Location 6 All Applicable Equipment in Use 1 49 54 47 47 54 Receptor Location 8 All Applicable Equipment in Use 1 50 | 55 47 53 37 44 Minimum Required Equipment in Use 1 49 41 47 31 38 Minimum Required Equipment in Use 1 50 | | |
| Ground Clearing/Demolition Excavation Foundation Construction Building Construction Finishing and Site Cleanup Construction Noise at 783 Feet (dBA Leq) Construction Phase Ground Clearing/Demolition Excavation Foundation Construction Building Construction Building Construction Finishing and Site Cleanup Construction Noise at 783 Feet (dBA Leq) Construction Phase Ground Clearing/Demolition Excavation | 55 60 53 53 60 Receptor Location 6 All Applicable Equipment in Use 1 49 54 47 47 54 Receptor Location 8 All Applicable Equipment in Use 1 50 55 | 55 47 53 37 44 Minimum Required Equipment in Use 1 49 41 47 31 38 Minimum Required Equipment in Use 1 50 42 | | |
| Ground Clearing/Demolition Excavation Foundation Construction Building Construction Finishing and Site Cleanup Construction Noise at 783 Feet (dBA Leq) Construction Phase Ground Clearing/Demolition Excavation Foundation Construction Building Construction Finishing and Site Cleanup Construction Noise at 783 Feet (dBA Leq) Construction Phase Ground Clearing/Demolition Excavation Foundation Construction Finishing Construction Foundation Construction | 55 60 53 53 60 Receptor Location 6 All Applicable Equipment in Use 1 49 54 47 47 54 Receptor Location 8 All Applicable Equipment in Use 1 50 55 48 | 55 47 53 37 44 Minimum Required Equipment in Use 1 49 41 47 31 38 Minimum Required Equipment in Use 1 50 42 48 | | |
| Ground Clearing/Demolition Excavation Foundation Construction Building Construction Finishing and Site Cleanup Construction Noise at 783 Feet (dBA Leq) Construction Phase Ground Clearing/Demolition Excavation Foundation Construction Building Construction Finishing and Site Cleanup Construction Noise at 783 Feet (dBA Leq) Construction Noise at 783 Feet (dBA Leq) Construction Phase Ground Clearing/Demolition Excavation Foundation Construction Building Construction Building Construction | 55 60 53 53 53 60 Receptor Location 6 All Applicable Equipment in Use 1 49 54 47 47 54 Receptor Location 8 All Applicable Equipment in Use 1 50 55 48 48 | 55 47 53 37 44 Minimum Required Equipment in Use 1 49 41 47 31 38 Minimum Required Equipment in Use 1 50 42 48 32 | | |
| Ground Clearing/Demolition Excavation Foundation Construction Building Construction Finishing and Site Cleanup Construction Noise at 783 Feet (dBA Leq) Construction Phase Ground Clearing/Demolition Excavation Foundation Construction Building Construction Finishing and Site Cleanup Construction Noise at 783 Feet (dBA Leq) Construction Phase Ground Clearing/Demolition Excavation Foundation Construction Building Construction Building Construction Finishing and Site Cleanup Construction Noise at 783 Feet (dBA Leq) Construction Noise at 783 Feet (dBA Leq) | 55 60 53 53 60 Receptor Location 6 All Applicable Equipment in Use 1 49 54 47 47 54 Receptor Location 8 All Applicable Equipment in Use 1 50 55 48 48 55 Receptor Location 11 | 55 47 53 37 44 Minimum Required Equipment in Use 1 49 41 47 31 38 Minimum Required Equipment in Use 1 50 42 48 32 39 | 2332 | |
| Ground Clearing/Demolition Excavation Foundation Construction Building Construction Finishing and Site Cleanup Construction Noise at 783 Feet (dBA Leq) Construction Phase Ground Clearing/Demolition Excavation Foundation Construction Building Construction Finishing and Site Cleanup Construction Noise at 783 Feet (dBA Leq) Construction Phase Ground Clearing/Demolition Excavation Foundation Construction Building Construction Building Construction Foundation Construction Building Construction Finishing and Site Cleanup Construction Noise at 783 Feet (dBA Leq) Construction Noise at 783 Feet (dBA Leq) | 55 60 53 53 60 Receptor Location 6 All Applicable Equipment in Use 1 49 54 47 47 54 Receptor Location 8 All Applicable Equipment in Use 1 50 55 48 48 48 55 Receptor Location 11 All Applicable Equipment in Use 1 | 55 47 53 37 44 Minimum Required Equipment in Use 1 49 41 47 31 38 Minimum Required Equipment in Use 1 50 42 48 32 39 Minimum Required Equipment in Use 1 | 2332 | |
| Ground Clearing/Demolition Excavation Foundation Construction Building Construction Finishing and Site Cleanup Construction Noise at 783 Feet (dBA Leq) Construction Phase Ground Clearing/Demolition Excavation Foundation Construction Building Construction Finishing and Site Cleanup Construction Noise at 783 Feet (dBA Leq) Construction Phase Ground Clearing/Demolition Excavation Foundation Construction Building Construction Building Construction Finishing and Site Cleanup Construction Noise at 783 Feet (dBA Leq) Construction Phase Ground Clearing/Demolition Finishing and Site Cleanup Construction Noise at 783 Feet (dBA Leq) Construction Noise at 783 Feet (dBA Leq) | 55 60 53 53 60 Receptor Location 6 All Applicable Equipment in Use 1 49 54 47 47 54 Receptor Location 8 All Applicable Equipment in Use 1 50 55 48 48 55 Receptor Location 11 All Applicable Equipment in Use 1 49 | 55 47 53 37 44 Minimum Required Equipment in Use 1 49 41 47 31 38 Minimum Required Equipment in Use 1 50 42 48 32 39 Minimum Required Equipment in Use 1 49 | 2332 | |
| Ground Clearing/Demolition Excavation Foundation Construction Building Construction Finishing and Site Cleanup Construction Noise at 783 Feet (dBA Leq) Construction Phase Ground Clearing/Demolition Excavation Foundation Construction Building Construction Building Construction Finishing and Site Cleanup Construction Noise at 783 Feet (dBA Leq) Construction Phase Ground Clearing/Demolition Excavation Foundation Construction Building Construction Building Construction Building Construction Finishing and Site Cleanup Construction Noise at 783 Feet (dBA Leq) Construction Phase Ground Clearing/Demolition Excavation Foundation Construction Finishing and Site Cleanup | 55 60 53 53 60 Receptor Location 6 All Applicable Equipment in Use 1 49 54 47 47 54 Receptor Location 8 All Applicable Equipment in Use 1 50 55 48 48 55 Receptor Location 11 All Applicable Equipment in Use 1 49 54 | 55 47 53 37 44 Minimum Required Equipment in Use 1 49 41 47 31 38 Minimum Required Equipment in Use 1 50 42 48 32 39 Minimum Required Equipment in Use 1 49 41 41 | 2332 | |
| Ground Clearing/Demolition Excavation Foundation Construction Building Construction Finishing and Site Cleanup Construction Noise at 783 Feet (dBA Leq) Construction Phase Ground Clearing/Demolition Excavation Foundation Construction Building Construction Finishing and Site Cleanup Construction Noise at 783 Feet (dBA Leq) Construction Phase Ground Clearing/Demolition Excavation Foundation Construction Building Construction Building Construction Building Construction Foundation Construction Building Construction Foundation Construction Foundation Construction Foundation Construction Phase Ground Clearing/Demolition Excavation Foundation Construction Phase Ground Clearing/Demolition Excavation Foundation Construction Foundation Construction | 55 60 53 53 60 Receptor Location 6 All Applicable Equipment in Use 1 49 54 47 47 54 Receptor Location 8 All Applicable Equipment in Use 1 50 55 48 48 48 55 Receptor Location 11 All Applicable Equipment in Use 1 49 54 47 | 55 47 53 37 44 Minimum Required Equipment in Use 1 49 41 47 31 38 Minimum Required Equipment in Use 1 50 42 48 32 39 Minimum Required Equipment in Use 1 49 41 47 | 2332 | |
| Ground Clearing/Demolition Excavation Foundation Construction Building Construction Finishing and Site Cleanup Construction Noise at 783 Feet (dBA Leq) Construction Phase Ground Clearing/Demolition Excavation Foundation Construction Building Construction Finishing and Site Cleanup Construction Noise at 783 Feet (dBA Leq) Construction Phase Ground Clearing/Demolition Excavation Foundation Construction Building Construction Building Construction Building Construction Finishing and Site Cleanup Construction Noise at 783 Feet (dBA Leq) Construction Noise at 783 Feet (dBA Leq) Construction Phase Ground Clearing/Demolition Excavation Foundation Construction Phase Ground Clearing/Demolition Excavation | 55 60 53 53 60 Receptor Location 6 All Applicable Equipment in Use 1 49 54 47 47 54 Receptor Location 8 All Applicable Equipment in Use 1 50 55 48 48 55 Receptor Location 11 All Applicable Equipment in Use 1 49 54 | 55 47 53 37 44 Minimum Required Equipment in Use 1 49 41 47 31 38 Minimum Required Equipment in Use 1 50 42 48 32 39 Minimum Required Equipment in Use 1 49 41 41 | 2332 | |

| Construction Noise at 783 Feet (dBA Leq) | Receptor Location 12 | |
|--|-----------------------------------|-------------------------------------|
| Construction Phase | All Applicable Equipment in Use 1 | Minimum Required Equipment in Use1 |
| Ground Clearing/Demolition | 46 | 46 |
| Excavation | 51 | 38 |
| oundation Construction | 44 | 44 |
| Building Construction | 44 | 28 |
| inishing and Site Cleanup | 51 | 35 |
| Construction Noise at 783 Feet (dBA Leq) | Receptor Location 15 | |
| Construction Phase | All Applicable Equipment in Use 1 | Minimum Required Equipment in Use1 |
| Ground Clearing/Demolition | 44 | 44 |
| xcavation | 49 | 36 |
| oundation Construction | 42 | 42 |
| Building Construction | 42 | 26 |
| Finishing and Site Cleanup | 49 | 33 |
| Construction Noise at 783 Feet (dBA Leq) | Receptor Location 18 | |
| Construction Phase | All Applicable Equipment in Use 1 | Minimum Required Equipment in Use 1 |
| Ground Clearing/Demolition | 44 | 44 |
| excavation | 49 | 36 |
| oundation Construction | 42 | 42 |
| uilding Construction | 42 | 26 |
| inishing and Site Cleanup | 49 | 33 |
| onstruction Noise at 783 Feet (dBA Leq) | Receptor Location 19 | |
| Construction Phase | All Applicable Equipment in Use 1 | Minimum Required Equipment in Use1 |
| Fround Clearing/Demolition | 40 | 40 |
| xcavation | 45 | 32 |
| oundation Construction | 38 | 38 |
| uilding Construction | 38 | 22 |
| inishing and Site Cleanup | 45 | 29 |
| Construction Noise at 783 Feet (dBA Leq) | North Verdemont Elementary School | |
| Construction Phase | All Applicable Equipment in Use 1 | Minimum Required Equipment in Use 1 |
| Ground Clearing/Demolition | 40 | 40 |
| xcavation | 45 | 32 |
| oundation Construction | 38 | 38 |
| Building Construction | 38 | 22 |
| inishing and Site Cleanup | 45 | 29 |
| onstruction Noise at 783 Feet (dBA Leq) | Existing On-Site Residence | |
| Construction Phase | All Applicable Equipment in Use 1 | Minimum Required Equipment in Use 1 |
| Ground Clearing/Demolition | 55 | 55 |
| xcavation | 60 | 47 |
| oundation Construction | 53 | 53 |
| uilding Construction | 53 | 37 |
| inishing and Site Cleanup | 60 | 44 |

Construction Generated Maximum Noise - Spring Trails

| Construction Generated Maximum Nois | se - Spring Trails | | | | |
|---|-------------------------------------|---|-----|--------------|---|
| Construction Noise at 50 Feet (dBA Leq) | | | 50 | hard or soft | 0 |
| Construction Phase | All Applicable Equipment in Use1 | Minimum Required Equipment in Use 1 | | | |
| Ground Clearing/Demolition | 83 | 83 | | | |
| Excavation | 88 | 75 | | | |
| Foundation Construction | 81 | 81 | | | |
| Building Construction | 81 | 65 | | | |
| Finishing and Site Cleanup | 88 | 72 | | | |
| Construction Noise at 199 Feet (dBA Leq) | Receptor Location 1 | | 38 | | |
| Construction Phase | All Applicable Equipment in Use1 | Minimum Required Equipment in Use 1 | | | |
| Ground Clearing/Grading | 85 | 85 | | | |
| Excavation | 90 | 77 | | | |
| Foundation Construction | 83 | 83 | | | |
| Building Construction | 83 | 67 | | | |
| Finishing and Site Cleanup | 90 | 74 | | | |
| Construction Noise at 151 Feet (dBA Leq) | Receptor Location 2 | | 176 | | |
| Construction Phase | All Applicable Equipment in Use1 | Minimum Required Equipment in Use 1 | | | |
| Ground Clearing/Grading | 72 | 72 | | | |
| Excavation | 72 77 | 64 | | | |
| Foundation Construction | 70 | 70 | | | |
| Building Construction | 70 | 70 54 | | | |
| Finishing and Site Cleanup | 77 | 61 | | | |
| · | | | | | |
| Construction Noise at 25 Feet (dBA Leq) | Receptor Location 3 | | 57 | | |
| Construction Phase | All Applicable Equipment in Use1 | Minimum Required Equipment in Use 1 | | | |
| Ground Clearing/Demolition | 82 | 82 | | | |
| Excavation | 87 | 74 | | | |
| Foundation Construction | 80 | 80 | | | |
| Building Construction | 80 | 64 | | | |
| Finishing and Site Cleanup | 87 | 71 | | | |
| Construction Noise at 783 Feet (dBA Leq) | Receptor Location 4 | | 372 | | |
| Construction Phase | All Applicable Equipment in Heat | Minimum Deguired Equipment in Head | | | |
| Ground Clearing/Demolition | All Applicable Equipment in Use1 66 | Minimum Required Equipment in Use 1 66 | | | |
| Excavation | 71 | 58 | | | |
| Foundation Construction | 64 | 64 | | | |
| Building Construction | 64 | 48 | | | |
| Finishing and Site Cleanup | 71 | 55 | | | |
| Construction Noise at 783 Feet (dBA Leq) | Receptor Location 6 | | 467 | | |
| Solistiaction Noise at 700 Feet (abs Leg) | receptor Education o | | 401 | | |
| Construction Phase | All Applicable Equipment in Use1 | Minimum Required Equipment in Use 1 | | | |
| Ground Clearing/Demolition | 64 | 64 | | | |
| Excavation | 69 | 56 | | | |
| Foundation Construction | 62 | 62 | | | |
| Building Construction | 62 | 46 | | | |
| Finishing and Site Cleanup | 69 | 53 | | | |
| Construction Noise at 783 Feet (dBA Leq) | Receptor Location 8 | | 295 | | |
| Construction Phase | All Applicable Equipment in Use1 | Minimum Required Equipment in Use 1 | | | |
| Ground Clearing/Demolition | 68 73 | 68 60 | | | |
| Excavation Foundation Construction | 73 66 | 66 | | | |
| Building Construction | 66 | 50 | | | |
| Finishing and Site Cleanup | 73 | 50 57 | | | |
| | | | 22 | | |
| Construction Noise at 783 Feet (dBA Leq) | Receptor Location 11 | | 88 | | |
| Construction Phase Ground Clearing/Demolition | All Applicable Equipment in Use1 78 | Minimum Required Equipment in Use 1 78 | | | |
| Excavation | 83 | 78 70 | | | |
| Foundation Construction | 83 76 | 70 76 | | | |
| Building Construction | 76 76 | 60 | | | |
| Dunung Construction | / U | UU | | | |
| Finishing and Site Cleanup | 83 | 67 | | | |

Construction Generated Maximum Noise - Spring Trails

| Construction Noise at 783 Feet (dBA Leq) | Receptor Location 12 | | : |
|---|---|---|---|
| Construction Phase | All Applicable Equipment in Use1 | Minimum Required Equipment in Use 1 | |
| Ground Clearing/Demolition | 69 | 69 | |
| Excavation | 74 | 61 | |
| Foundation Construction | 67 | 67 | |
| Building Construction | 67 | 51 | |
| Finishing and Site Cleanup | 74 | 58 | |
| Construction Noise at 783 Feet (dBA Leq) | Receptor Location 15 | | |
| Construction Phase | All Applicable Equipment in Use1 | Minimum Required Equipment in Use 1 | |
| Ground Clearing/Demolition | 61 | 61 | |
| Excavation | 66 | 53 | |
| | | 59 | |
| Foundation Construction | 59 | | |
| Building Construction | 59 | 43 | |
| Finishing and Site Cleanup | 66 | 50 | |
| Construction Noise at 783 Feet (dBA Leq) | Receptor Location 18 | | 3 |
| Construction Phase | All Applicable Equipment in Use1 | Minimum Required Equipment in Use 1 | |
| Ground Clearing/Demolition | 47 | 47 | |
| Excavation | 52 | 39 | |
| Foundation Construction | 45 | 45 | |
| Building Construction | 45 | 29 | |
| Finishing and Site Cleanup | 52 | 36 | |
| misning and one oreandp | SZ. | 30 | |
| Construction Noise at 783 Feet (dBA Leq) | Receptor Location 19 | | 2 |
| Construction Phase | All Applicable Equipment in Use1 | Minimum Required Equipment in Use 1 | |
| Ground Clearing/Demolition | 48 | 48 | |
| Excavation | 53 | 40 | |
| Foundation Construction | 46 | 46 | |
| Building Construction | 46 | 30 | |
| Finishing and Site Cleanup | 53 | 37 | |
| Construction Noise at 783 Feet (dBA Leq) | North Verdemont Elementary School | | 3 |
| Construction Phase | All Applicable Equipment in Use1 | Minimum Required Equipment in Use 1 | |
| Ground Clearing/Demolition | 47 | 47 | |
| Excavation | 52 | 39 | |
| | | | |
| oundation Construction | 45 | 45 | |
| | 45 45 | 45 29 | |
| Building Construction | | | |
| Building Construction Finishing and Site Cleanup | 45 52 | 29 | |
| Building Construction Finishing and Site Cleanup Construction Noise at 783 Feet (dBA Leq) | 45 52 Existing On-Site Residence | 29 36 | |
| Building Construction Finishing and Site Cleanup Construction Noise at 783 Feet (dBA Leq) Construction Phase | 45 52 Existing On-Site Residence All Applicable Equipment in Use1 | 29 36 Minimum Required Equipment in Use 1 | |
| Building Construction Finishing and Site Cleanup Construction Noise at 783 Feet (dBA Leq) Construction Phase Ground Clearing/Demolition | 45 52 Existing On-Site Residence All Applicable Equipment in Use1 75 | 29 36 Minimum Required Equipment in Use 1 | |
| Building Construction Finishing and Site Cleanup Construction Noise at 783 Feet (dBA Leq) Construction Phase Ground Clearing/Demolition Excavation | 45 52 Existing On-Site Residence All Applicable Equipment in Use1 75 80 | 29 36 Minimum Required Equipment in Use 1 75 67 | |
| Building Construction Finishing and Site Cleanup Construction Noise at 783 Feet (dBA Leq) Construction Phase Ground Clearing/Demolition Excavation Foundation Construction | 45 52 Existing On-Site Residence All Applicable Equipment in Use1 75 80 73 | 29 36 Minimum Required Equipment in Use 1 75 67 73 | |
| Foundation Construction Building Construction Finishing and Site Cleanup Construction Noise at 783 Feet (dBA Leq) Construction Phase Ground Clearing/Demolition Excavation Foundation Construction Building Construction Finishing and Site Cleanup | 45 52 Existing On-Site Residence All Applicable Equipment in Use1 75 80 | 29 36 Minimum Required Equipment in Use 1 75 67 | |

Roadway Construction Generated Average Noise - Spring Trails

| Construction Phase | All Applicable Equipment in Use1 | Minimum Required Equipment in Use1 |
|--|--|--|
| Ground Clearing/Demolition | 84 | 84 |
| Excavation | 88 | 78 |
| Foundation Construction | 88 | 88 |
| Building Construction | 79 | 78 |
| Finishing and Site Cleanup | 84 | 84 |
| Construction Noise at 199 Feet (dBA Leq) | Receptor Location 1 | |
| Construction Phase | All Applicable Equipment in Use1 | Minimum Required Equipment in Use1 |
| Ground Clearing/Grading | 48 | 48 |
| Excavation | 52 | 42 |
| Foundation Construction | 52 | 52 |
| Construction Noise at 151 Feet (dBA Leq) | Receptor Location 2 | |
| Construction Phase | All Applicable Equipment in Use1 | Minimum Required Equipment in Use1 |
| Ground Clearing/Grading | 48 | 48 |
| Excavation | 52 | 42 |
| Foundation Construction | 52 | 52 |
| Construction Noise at 25 Feet (dBA Leg) | Receptor Location 3 | |
| , , , , | | Minimum Demokratis 1 4 4 4 4 |
| Construction Phase | All Applicable Equipment in Use1 | Minimum Required Equipment in Use1 |
| Ground Clearing/Demolition | 48 | 48 |
| Excavation | 52 53 | 42 |
| Foundation Construction | 52 | 52 |
| Construction Noise at 783 Feet (dBA Leq) | Receptor Location 4 | |
| Construction Phase | All Applicable Equipment in Use1 | Minimum Required Equipment in Use1 |
| Ground Clearing/Demolition | 50 | 50 |
| Excavation | 54 | 44 |
| Foundation Construction | 54 | 54 |
| Construction Noise at 783 Feet (dBA Leq) | Receptor Location 5 | |
| Construction Phase | All Applicable Equipment in Use1 | Minimum Required Equipment in Use1 |
| Ground Clearing/Demolition | 52 | 52 |
| Excavation | 56 | 46 |
| Foundation Construction | 56 | 56 |
| | Receptor Location 6 | |
| Construction Noise at 783 Feet (dBA Leq) | | Minimum Described Continuent in Heat |
| Construction Noise at 783 Feet (dBA Leq) Construction Phase Ground Clearing/Demolition | All Applicable Equipment in Use1 | Minimum Required Equipment in Use1 |
| Construction Phase Ground Clearing/Demolition | 56 | 56 |
| Construction Phase Ground Clearing/Demolition Excavation | | |
| Construction Phase Ground Clearing/Demolition Excavation Foundation Construction | 56 60 | 56 50 |
| Construction Phase Ground Clearing/Demolition Excavation Foundation Construction | 56 60 60 | 56 50 60 |
| Construction Phase Ground Clearing/Demolition Excavation Foundation Construction Construction Noise at 783 Feet (dBA Leq) Construction Phase | 56 60 60 Receptor Location 7 | 56 50 |
| Construction Phase Ground Clearing/Demolition Excavation Conduction Construction Construction Noise at 783 Feet (dBA Leq) Construction Phase Ground Clearing/Demolition | 56 60 60 Receptor Location 7 | 56 50 60 Minimum Required Equipment in Use1 |
| Construction Phase Ground Clearing/Demolition Excavation Foundation Construction Construction Noise at 783 Feet (dBA Leq) | 56 60 60 Receptor Location 7 All Applicable Equipment in Use1 | 56 50 60 Minimum Required Equipment in Use1 55 |
| Construction Phase Ground Clearing/Demolition Excavation Foundation Construction Construction Noise at 783 Feet (dBA Leq) Construction Phase Ground Clearing/Demolition Excavation | 56 60 60 Receptor Location 7 All Applicable Equipment in Use1 55 59 | 56 50 60 Minimum Required Equipment in Use1 55 49 |
| Construction Phase Ground Clearing/Demolition Excavation Foundation Construction Construction Noise at 783 Feet (dBA Leq) Construction Phase Ground Clearing/Demolition Excavation Foundation Construction | 56 60 60 Receptor Location 7 All Applicable Equipment in Use1 55 59 59 | 56 50 60 Minimum Required Equipment in Use1 55 49 |
| Construction Phase Ground Clearing/Demolition Excavation Foundation Construction Construction Noise at 783 Feet (dBA Leq) Construction Phase Ground Clearing/Demolition Excavation Foundation Construction Construction Noise at 783 Feet (dBA Leq) Construction Phase | 56 60 60 Receptor Location 7 All Applicable Equipment in Use1 55 59 59 59 Receptor Location 10 | 56 50 60 Minimum Required Equipment in Use1 55 49 59 |
| Construction Phase Ground Clearing/Demolition Excavation Foundation Construction Construction Noise at 783 Feet (dBA Leq) Construction Phase Ground Clearing/Demolition Excavation Foundation Construction Construction Noise at 783 Feet (dBA Leq) | 56 60 60 Receptor Location 7 All Applicable Equipment in Use1 55 59 59 Receptor Location 10 All Applicable Equipment in Use1 | 56 50 60 Minimum Required Equipment in Use1 55 49 59 |

| Construction Noise at 783 Feet (dBA Leq) | Receptor Location 13 | |
|--|-----------------------------------|------------------------------------|
| Construction Phase | All Applicable Equipment in Use1 | Minimum Required Equipment in Use1 |
| Ground Clearing/Demolition | 74 | 74 |
| Excavation | 78 | 68 |
| Foundation Construction | 78 | 78 |
| Construction Noise at 783 Feet (dBA Leq) | Receptor Location 15 | |
| Construction Phase | All Applicable Equipment in Use1 | Minimum Required Equipment in Use1 |
| Ground Clearing/Demolition | 52 | 52 |
| Excavation | 56 | 46 |
| Foundation Construction | 56 | 56 |
| Construction Noise at 783 Feet (dBA Leq) | Receptor Location 16 | |
| Construction Phase | All Applicable Equipment in Use1 | Minimum Required Equipment in Use1 |
| Ground Clearing/Demolition | 54 | 54 |
| Excavation | 58 | 48 |
| Foundation Construction | 58 | 58 |
| Construction Noise at 783 Feet (dBA Leq) | Receptor Location 17 | |
| Construction Phase | All Applicable Equipment in Use1 | Minimum Required Equipment in Use1 |
| Ground Clearing/Demolition | 53 | 53 |
| Excavation | 57 | 47 |
| Foundation Construction | 57 | 57 |
| Construction Noise at 783 Feet (dBA Leq) | Receptor Location 19 | |
| Construction Phase | All Applicable Equipment in Use1 | Minimum Required Equipment in Use1 |
| Ground Clearing/Demolition | 45 | 45 |
| Excavation | 49 | 39 |
| Foundation Construction | 49 | 49 |
| Construction Noise at 783 Feet (dBA Leq) | Receptor Location 20 | |
| Construction Phase | All Applicable Equipment in Use1 | Minimum Required Equipment in Use1 |
| Ground Clearing/Demolition | 47 | 47 |
| Excavation | 51 | 41 |
| Foundation Construction | 51 | 51 |
| Construction Noise at 783 Feet (dBA Leq) | North Verdemont Elementary School | |
| Construction Phase | All Applicable Equipment in Use1 | Minimum Required Equipment in Use1 |
| Ground Clearing/Demolition | 44 | 44 |
| Excavation | 48 | 38 |
| Foundation Construction | 48 | 48 |
| | | |

Roadway Construction Generated Maximum Noise - Spring Trails

| , <i>u</i> | | | 50 |
|---|---|--|-----|
| Construction Phase Ground Clearing/Demolition Excavation Foundation Construction Building Construction Finishing and Site Cleanup | All Applicable Equipment in Use1 84 88 88 79 84 | Minimum Required Equipment in Use1 84 78 88 78 84 | |
| Construction Noise at 25 Feet (dBA Leq) | Receptor Location 1 | | 25 |
| Construction Phase Ground Clearing/Grading Excavation Foundation Construction | All Applicable Equipment in Use1 90 94 94 | Minimum Required Equipment in Use1 90 84 94 | |
| Construction Noise at 40 Feet (dBA Leq) | Receptor Location 2 | | 40 |
| Construction Phase Ground Clearing/Grading Excavation Foundation Construction | All Applicable Equipment in Use1 86 90 90 | Minimum Required Equipment in Use1 86 80 90 | |
| Construction Noise at 255 Feet (dBA Leq) | Receptor Location 3 | | 255 |
| Construction Phase Ground Clearing/Demolition Excavation Foundation Construction | All Applicable Equipment in Use1 70 74 74 | Minimum Required Equipment in Use1 70 64 74 | |
| Construction Noise at 36 Feet (dBA Leq) | Receptor Location 4 | | 36 |
| Construction Phase Ground Clearing/Demolition Excavation Foundation Construction | All Applicable Equipment in Use1 87 91 91 | Minimum Required Equipment in Use1 87 81 91 | |
| Construction Noise at 200 Feet (dBA Leq) | Receptor Location 5 | | |
| | | | 200 |
| Construction Phase Ground Clearing/Demolition Excavation Foundation Construction | All Applicable Equipment in Use1 72 76 76 | Minimum Required Equipment in Use1 72 66 76 | 200 |
| Ground Clearing/Demolition Excavation | 72 76 | 72 66 | 100 |
| Ground Clearing/Demolition Excavation Foundation Construction | 72 76 76 | 72 66 | |
| Ground Clearing/Demolition Excavation Foundation Construction Construction Noise at 100 Feet (dBA Leq) Construction Phase Ground Clearing/Demolition Excavation | 72 76 76 Receptor Location 6 All Applicable Equipment in Use1 78 82 | 72 66 76 Minimum Required Equipment in Use1 78 72 | |
| Ground Clearing/Demolition Excavation Foundation Construction Construction Noise at 100 Feet (dBA Leq) Construction Phase Ground Clearing/Demolition Excavation Foundation Construction | 72 76 76 Receptor Location 6 All Applicable Equipment in Use1 78 82 82 | 72 66 76 Minimum Required Equipment in Use1 78 72 | 100 |
| Ground Clearing/Demolition Excavation Foundation Construction Construction Noise at 100 Feet (dBA Leq) Construction Phase Ground Clearing/Demolition Excavation Foundation Construction Construction Noise at 450 Feet (dBA Leq) Construction Phase Ground Clearing/Demolition Excavation | 72 76 76 76 Receptor Location 6 All Applicable Equipment in Use1 78 82 82 82 Receptor Location 7 All Applicable Equipment in Use1 65 69 | 72 66 76 Minimum Required Equipment in Use1 78 72 82 Minimum Required Equipment in Use1 65 59 | 100 |

| Construction Noise at 110 Feet (dBA Leq) | Receptor Location 13 | | |
|--|-----------------------------------|------------------------------------|--|
| Construction Phase | All Applicable Equipment in Use1 | Minimum Required Equipment in Use1 | |
| Ground Clearing/Demolition | 77 | 77 | |
| Excavation | 81 | 71 | |
| Foundation Construction | 81 | 81 | |
| Construction Noise at 722 Feet (dBA Leq) | Receptor Location 15 | | |
| Construction Phase | All Applicable Equipment in Use1 | Minimum Required Equipment in Use1 | |
| Ground Clearing/Demolition | 61 | 61 | |
| Excavation | 65 | 55 | |
| Foundation Construction | 65 | 65 | |
| Construction Noise at 215 Feet (dBA Leq) | Receptor Location 16 | | |
| Construction Phase | All Applicable Equipment in Use1 | Minimum Required Equipment in Use1 | |
| Ground Clearing/Demolition | 71 | 71 | |
| Excavation | 75 | 65 | |
| Foundation Construction | 75 | 75 | |
| Construction Noise at 1,407 Feet (dBA Leq) | Receptor Location 17 | | |
| Construction Phase | All Applicable Equipment in Use1 | Minimum Required Equipment in Use1 | |
| Ground Clearing/Demolition | 55 | 55 | |
| Excavation | 59 | 49 | |
| Foundation Construction | 59 | 59 | |
| Construction Noise at 2,226 Feet (dBA Leq) | Receptor Location 19 | | |
| Construction Phase | All Applicable Equipment in Use1 | Minimum Required Equipment in Use1 | |
| Ground Clearing/Demolition | 51 | 51 | |
| Excavation | 55 | 45 | |
| Foundation Construction | 55 | 55 | |
| Construction Noise at 805 Feet (dBA Leq) | Receptor Location 20 | | |
| Construction Phase | All Applicable Equipment in Use1 | Minimum Required Equipment in Use1 | |
| Ground Clearing/Demolition | 60 | 60 | |
| Excavation | 64 | 54 | |
| Foundation Construction | 64 | 64 | |
| Construction Noise at 2,180 Feet (dBA Leq) | North Verdemont Elementary School | | |
| Construction Phase | All Applicable Equipment in Use1 | Minimum Required Equipment in Use1 | |
| Ground Clearing/Demolition | 51 | 51 | |
| Excavation | 55 | 45 | |
| Foundation Construction | 55 | 55 | |
| i dandation donatidotton | 00 | 00 | |

Construction Generated Vibration at Nearest Structures

| Receptor: | Average Vibration Level - Existing On-Site Residence | Average Distance (feet): | 1272 |
|-------------------------------|---|------------------------------------|------|
| | goaioc.coiiiig on one nooidende | Block is the second | 12/2 |
| | Approximate Velocity | Approximate Velocity | |
| Equipment | Level at 25 ft, VdB | Level, VdB | |
| Caisson Drill | 87 | 53 | |
| Large bulldozer | 87 | 53 | |
| Small bulldozer Jackhammer | 58 79 | 24 45 | |
| Loaded trucks | 79 86 | 45 52 | |
| Loaded Hucks | Criteria Criteria | 78 | |
| Receptor: | Maximum Vibration Levels - Existing On-Site Residence | Closest Distance (feet): | 133 |
| receptor. | Maximum vibration Levels - Existing On-Site Residence | Closest Distance (reet). | 133 |
| | Approximate Velocity | Approximate Velocity | |
| Equipment | Level at 25 ft, VdB | Level, VdB | |
| Caisson Drill | 87 | 72 | |
| Large bulldozer | 87 | 72 | |
| Small bulldozer | 58 | 43 | |
| Jackhammer | 79 | 64 | |
| Loaded trucks | 86 | 71 | |
| | Criteria | 78 | |
| Receptor: | Average Vibration Level - Receptor Location 1 | Average Distance (feet): | 124 |
| | Annyovimato Valocity | Approximate Valenity | |
| Equipment | Approximate Velocity Level at 25 ft, VdB | Approximate Velocity Level, VdB | |
| Large bulldozer | 87 | 53 | |
| Small bulldozer | 58 | 24 | |
| Jackhammer | 79 | 45 | |
| Loaded trucks | 86 | 52 | |
| | Criteria | 78 | |
| Receptor: | Maximum Vibration Levels -Receptor Location 1 | Closest Distance (feet): | 65 |
| | Ammanimata Valasitu | Ammanimata Valacitu | |
| Faulnmont | Approximate Velocity | Approximate Velocity | |
| Equipment Large bulldozer | Level at 25 ft, VdB | Level, VdB | |
| • | 87 | | |
| Small bulldozer Jackhammer | 58 79 | 50 71 | |
| | 79 86 | 7 i 78 | |
| Loaded trucks | Criteria | 78 | |
| Danamian. | | - | 704 |
| Receptor: | Average Vibration Level - Receptor Location 3 | Closest Distance (feet): | 761 |
| | Approximate Velocity | Approximate Velocity | |
| Equipment | Level at 25 ft, VdB | Level, VdB | |
| Large bulldozer | 87 | 57 | |
| Small bulldozer | 58 | 28 | |
| Jackhammer | 79 | 49 | |
| Loaded trucks | 86 Criteria | 56 78 | |
| Pagantari. | Maximum Vibration Levels -Receptor Location 3 | | 75 |
| Receptor: | Maximum vibration Levels -Receptor Location 3 | Average Distance (feet): | 75 |
| Equipment | Approximate Velocity Level at 25 ft, VdB | Approximate Velocity | |
| Equipment | , | Level, VdB | |
| Large bulldozer | 87 59 | 77 | |
| Small bulldozer Jackhammer | 58 79 | 48 69 | |
| Jacknammer Loaded trucks | 79 86 | 76 | |
| Louded Hucks | Criteria | 78 | |

Construction Generated Vibration at Nearest Structures

Structural Damage Criteria

| Receptor: | Maximum Vibration Levels -Receptor Location 1 | Closest Distance (feet): | 65 |
|-----------------|---|------------------------------------|----|
| | Approximate RMS a Velocity at 25 ft, | Approximate RMS Velocity Level, | |
| Equipment | inch/second | inch/second | |
| Large bulldozer | 0.089 | 0.021 | |
| Small bulldozer | 0.003 | 0.001 | |
| Jackhammer | 0.035 | 0.008 | |
| Loaded trucks | 0.076 | 0.018 | |
| | Criteria | 0.500 | |

| Receptor: | Maximum Vibration Levels - On-Site Existing Residence | Closest Distance (feet): | 133 |
|-----------------|---|--------------------------|-----|
| | Approximate RMS a | Approximate RMS | |
| | Velocity at 25 ft, | Velocity Level, | |
| Equipment | inch/second | inch/second | |
| Large bulldozer | 0.089 | 0.007 | |
| Small bulldozer | 0.003 | 0.0002 | |
| Jackhammer | 0.035 | 0.003 | |
| Loaded trucks | 0.076 | 0.006 | |
| | Criteria | 0.500 | |

^{1.} Determined based on use of jackhammers or pneumatic hammers that may be used for pavement demolition at a distance of 25 feet

 $\label{thm:condition} \mbox{Notes: RMS velocity calculated from vibration level (VdB) using the reference of one microinch/second.}$

Source: Based on methodology from the United States Department of Transportation Federal Transit Administration, *Transit Noise and Vibration Impact Assessment* (2006).

Construction Generated Vibration at Off-ste Receptors from Roadways

| Receptor: | Average Vibration Level - Receptor Location 1 | Average Distance (feet): | 3174 |
|---|---|--|------|
| cooptor. | Attrage visitation better incoopior bounding | Average Distance (recty. | 011- |
| | Approximate Velocity | Approximate Velocity | |
| quipment | Level at 25 ft, VdB | Level, VdB | |
| arge bulldozer | 87 | 45 | |
| Small bulldozer | 58 | 16 | |
| Jackhammer | 79 | 37 | |
| _oaded trucks | 86 Criteria | 44 78 | |
| | Gilleria | 76 | |
| Receptor: | Maximum Vibration Levels - Receptor Location 1 | Closest Distance (feet): | 55 |
| | Approximate Velocity | Approximate Velocity | |
| quipment | Level at 25 ft, VdB | Level, VdB | |
| arge bulldozer | 87 | 80 | |
| Small bulldozer | 58 | 51 | |
| lackhammer | 79 | 72 | |
| _oaded trucks | 86 | 79 | |
| | Criteria | 78 | |
| Receptor: | Average Vibration Level - Receptor Location 2 | Closest Distance (feet): | 3056 |
| | Approximate Velocity | Approximate Velocity | |
| Equipment | Level at 25 ft, VdB | Level, VdB | |
| arge bulldozer | 87 | 45 | |
| Small bulldozer | 58 | 16 | |
| lackhammer | 79 | 37 | |
| _oaded trucks | 86 | 44 | |
| | Criteria | 78 | |
| Receptor: | Maximum Vibration Levels - Receptor Location 2 | Average Distance (feet): | 188 |
| сосрют. | Maximum Vibration Ecocito Recopios Ecocation E | Average Distance (1661). | 100 |
| | Approximate Velocity | Approximate Velocity | |
| Equipment | Level at 25 ft, VdB | Level, VdB | |
| arge bulldozer | 87 | 69 | |
| Small bulldozer | 58 | 40 | |
| Jackhammer | 79 | 61 | |
| oaded trucks | 86 | 68 | |
| | Criteria | 78 | |
| Receptor: | Average Vibration Level - Receptor Location 3 | Average Distance (feet): | 3274 |
| | Approximate Velocity | Approximate Velocity | |
| | | Level, VdB | |
| Equipment | Level at 25 ft, VdB | Level, vub | |
| | Level at 25 ft, VdB 87 | 45 | |
| arge bulldozer | 87 | 45 | |
| Large bulldozer Small bulldozer | | | |
| arge bulldozer Small bulldozer Jackhammer | 87 58 79 | 45 16 | |
| arge bulldozer Small bulldozer Jackhammer | 87 58 | 45 16 37 | |
| .arge bulldozer Small bulldozer Jackhammer .oaded trucks | 87 58 79 86 Criteria | 45 16 37 44 78 | 180 |
| arge bulldozer Small bulldozer Jackhammer Loaded trucks | 87 58 79 86 Criteria Maximum Vibration Levels - Receptor Location 3 | 45 16 37 44 78 Closest Distance (feet): | 180 |
| arge bulldozer small bulldozer lackhammer .oaded trucks | 87 58 79 86 Criteria Maximum Vibration Levels - Receptor Location 3 Approximate Velocity | 45 16 37 44 78 Closest Distance (feet): | 180 |
| arge bulldozer Small bulldozer Jackhammer Loaded trucks Receptor: | 87 58 79 86 Criteria Maximum Vibration Levels - Receptor Location 3 Approximate Velocity Level at 25 ft, VdB | 45 16 37 44 78 Closest Distance (feet): Approximate Velocity Level, VdB | 180 |
| arge bulldozer small bulldozer lackhammer .oaded trucks Receptor: Equipment .arge bulldozer | 87 58 79 86 Criteria Maximum Vibration Levels - Receptor Location 3 Approximate Velocity Level at 25 ft, VdB | 45 16 37 44 78 Closest Distance (feet): Approximate Velocity Level, VdB 70 | 180 |
| arge bulldozer small bulldozer lackhammer .oaded trucks Receptor: Equipment .arge bulldozer | 87 58 79 86 Criteria Maximum Vibration Levels - Receptor Location 3 Approximate Velocity Level at 25 ft, VdB 87 58 | 45 16 37 44 78 Closest Distance (feet): Approximate Velocity Level, VdB | 180 |
| arge bulldozer Small bulldozer Jackhammer Loaded trucks Receptor: Equipment Large bulldozer Small bulldozer | 87 58 79 86 Criteria Maximum Vibration Levels - Receptor Location 3 Approximate Velocity Level at 25 ft, VdB | 45 16 37 44 78 Closest Distance (feet): Approximate Velocity Level, VdB 70 | 180 |
| Equipment Large bulldozer Small bulldozer Jackhammer Loaded trucks Receptor: Equipment Large bulldozer Small bulldozer Jackhammer Loaded trucks | 87 58 79 86 Criteria Maximum Vibration Levels - Receptor Location 3 Approximate Velocity Level at 25 ft, VdB 87 58 | 45 16 37 44 78 Closest Distance (feet): Approximate Velocity Level, VdB 70 41 | 180 |
| arge bulldozer Small bulldozer Jackhammer Loaded trucks Receptor: Equipment Large bulldozer Small bulldozer Jackhammer | 87 58 79 86 Criteria Maximum Vibration Levels - Receptor Location 3 Approximate Velocity Level at 25 ft, VdB 87 58 79 | 45 16 37 44 78 Closest Distance (feet): Approximate Velocity Level, VdB 70 41 62 | 180 |

| Construction | Congrated Vibratio | n at Off-ste Recentors | e from Doadwaye |
|--------------|--------------------|------------------------|-----------------|
| | | | |

| | Approximate Velocity | Approximate Velocity |
|-----------------|----------------------|----------------------|
| Equipment | Level at 25 ft, VdB | Level, VdB |
| Large bulldozer | 87 | 47 |
| Small buildozer | 58 | 18 |
| Jackhammer | 79 | 39 |
| Loaded trucks | 86 | 46 |
| | Criteria | 78 |

| Receptor: | Maximum Vibration Levels - Receptor Location 4 | Average Distance (feet): | 70 |
|-----------------|--|--------------------------|----|
| | Approximate Velocity | Approximate Velocity | |
| Equipment | Level at 25 ft, VdB | Level, VdB | |
| Large bulldozer | 87 | 78 | |
| Small bulldozer | 58 | 49 | |
| Jackhammer | 79 | 70 | |
| Loaded trucks | 86 | 77 | |
| | Criteria | 78 | |

| Receptor: | Average Vibration Level - Receptor Location 13 | Closest Distance (feet): | 152 |
|-----------------|--|------------------------------------|-----|
| Equipment | Approximate Velocity Level at 25 ft, VdB | Approximate Velocity Level, VdB | |
| Large bulldozer | 87 | 71 | |
| Small bulldozer | 58 | 42 | |
| Jackhammer | 79 | 63 | |
| Loaded trucks | 86 | 70 | |
| | Criteria | 78 | |

| Receptor: | Maximum Vibration Levels - Receptor Location 13 | Average Distance (feet): | 134 |
|-----------------|---|--------------------------|-----|
| | Approximate Velocity | Approximate Velocity | |
| Equipment | Level at 25 ft, VdB | Level, VdB | |
| Large bulldozer | 87 | 72 | |
| Small bulldozer | 58 | 43 | |
| Jackhammer | 79 | 64 | |
| Loaded trucks | 86 | 71 | |
| | Criteria | 78 | |

Structural Damage Criteria

| Receptor: | Maximum Vibration Levels - Receptor Location 1 | Closest Distance (feet): | 55 |
|-----------------|--|---------------------------------|----|
| | Approximate RMS a Velocity at 25 ft, | Approximate RMS Velocity Level, | |
| Equipment | inch/second | inch/second | |
| Large bulldozer | 0.089 | 0.027 | |
| Small bulldozer | 0.003 | 0.001 | |
| Jackhammer | 0.035 | 0.011 | |
| Loaded trucks | 0.076 | 0.023 | |
| | Criteria | 0.200 | |

| Receptor: | Maximum Vibration Levels - Receptor Location 4 | Closest Distance (feet): | 70 |
|-----------------|--|---|----|
| Equipment | Approximate RMS a Velocity at 25 ft, inch/second | Approximate RMS Velocity Level, inch/second | |
| Large bulldozer | 0.089 | 0.019 | |
| Small bulldozer | 0.003 | 0.001 | |
| Jackhammer | 0.035 | 0.007 | |
| Loaded trucks | 0.076 | 0.016 | |
| | Criteria | 0.200 | |

| Receptor: | Maximum Vibration Levels - Receptor Location 3 Approximate RMS a Velocity at 25 ft, | Closest Distance (feet): Approximate RMS Velocity Level, | 0 | | | | |
|-----------------|---|--|---|---------------|-------------|-------------|--|
| | | | | Equipment | inch/second | inch/second | |
| | | | | Caisson Drill | 0.089 | #DIV/0! | |
| Large bulldozer | 0.089 | #DIV/0! | | | | | |
| Small bulldozer | 0.003 | #DIV/0! | | | | | |
| Jackhammer | 0.035 | #DIV/0! | | | | | |
| Loaded trucks | 0.076 | #DIV/0! | | | | | |
| | Criteria | 0.200 | | | | | |
| | | | | | | | |

^{1.} Determined based on use of jackhammers or pneumatic hammers that may be used for pavement demolition at a distance of 25 feet

Notes: RMS velocity calculated from vibration level (VdB) using the reference of one microinch/second.

Source: Based on methodology from the United States Department of Transportation Federal Transit Administration, Transit Noise and Vibration Impact Assessment (2006).