

Appendix E

Noise Supporting Information

- Construction Noise Calculations
- Operation Noise Calculations

Construction Phase: *Phase 1 (India Basin Open Space and 700 Innes)
Demolition/Site Preparation*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Rubber Tired Loader	2	79	40%	985	0

Receptor: *R2*

Results:
1-hour Leq: 52.1
Lmax: 53.1

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *Phase 1 (India Basin Open Space and 700 Innes)*
Grading

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Scrapers	1	84	40%	985	0
Grader	1	85	40%	985	0

Receptor: **R2**

Results:

1-hour Leq: **57.7**
Lmax: **59.1**

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *Phase 1 (India Basin Open Space and 700 Innes)
Foundation*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Pile Driver (Impact)	1	101	20%	985	0

Receptor: *R2*

Results:
1-hour Leq: 68.1
Lmax: 75.1

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *Phase 1 (India Basin Open Space and 700 Innes)
Building Construction*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Cranes	1	81	16%	985	0
Generator Sets	1	81	50%	985	0

Receptor: **R2**

Results:
1-hour Leq: **53.3**
Lmax: **55.1**

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *Phase 1 (India Basin Open Space and 700 Innes)
Paving*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Pavers	1	77	50%	985	0
Rollers	1	80	20%	985	0

Receptor: **R2**

Results:
1-hour Leq: **50.6**
Lmax: **54.1**

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *Phase 2 (India Basin Open Space and 700 Innes)*
Demolition/Site Preparation

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Rubber Tired Loader	2	79	40%	1840	0

Receptor: *R2*

Results:
1-hour Leq: **46.7**
Lmax: **47.7**

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *Phase 2 (India Basin Open Space and 700 Innes)*
Grading

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Scrapers	1	84	40%	1840	0
Grader	1	85	40%	1840	0

Receptor: *R2*

Results:
1-hour Leq: **52.2**
Lmax: **53.7**

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *Phase 2 (India Basin Open Space and 700 Innes)
Foundation*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Pile Driver (Impact)	1	101	20%	1840	0

Receptor: *R2*

Results:
1-hour Leq: 62.7
Lmax: 69.7

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *Phase 2 (India Basin Open Space and 700 Innes)
Building Construction*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Cranes	1	81	16%	1840	0
Generator Sets	1	81	50%	1840	0

Receptor: **R2**

Results:

1-hour Leq:	47.9
Lmax:	49.7

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *Phase 2 (India Basin Open Space and 700 Innes)
Paving*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Pavers	1	77	50%	1840	0
Rollers	1	80	20%	1840	0

Receptor: **R2**

Results:
1-hour Leq: **45.2**
Lmax: **48.7**

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *India Basin Shoreline Park and 900 Innes - Phase 1
Demolition/Site Preparation*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Rubber Tired Loader	2	79	40%	425	0

Receptor: *R2*

Results:
1-hour Leq: 59.4
Lmax: 60.4

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *India Basin Shoreline Park and 900 Innes - Phase 1 Grading*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Scrapers	1	84	40%	425	0
Grader	1	85	40%	425	0

Receptor: **R2**

Results:

1-hour Leq:	65.0
Lmax:	66.4

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *India Basin Shoreline Park and 900 Innes - Phase 1 Foundation*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Pile Driver (Impact)	1	101	20%	425	0

Receptor: *R2*

Results:
1-hour Leq: 75.4
Lmax: 82.4

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *India Basin Shoreline Park and 900 Innes - Phase 1 Building Construction*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Cranes	1	81	16%	425	0
Generator Sets	1	81	50%	425	0

Receptor: **R2**

Results:
1-hour Leq: **60.6**
Lmax: **62.4**

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *India Basin Shoreline Park and 900 Innes - Phase 1 Paving*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Pavers	1	77	50%	425	0
Rollers	1	80	20%	425	0

Receptor: **R2**

Results:

1-hour Leq:	57.9
Lmax:	61.4

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *India Basin Shoreline Park and 900 Innes - Phase 2
Demolition/Site Preparation*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Rubber Tired Loader	2	79	40%	420	0

Receptor: *R2*

Results:
1-hour Leq: **59.5**
Lmax: **60.5**

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *India Basin Shoreline Park and 900 Innes - Phase 2 Grading*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Scrapers	1	84	40%	420	0
Grader	1	85	40%	420	0

Receptor: **R2**

Results:

1-hour Leq:	65.1
Lmax:	66.5

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *India Basin Shoreline Park and 900 Innes - Phase 2 Foundation*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Pile Driver (Impact)	1	101	20%	420	0

Receptor: **R2**

Results:

1-hour Leq:	75.5
Lmax:	82.5

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *India Basin Shoreline Park and 900 Innes - Phase 2 Building Construction*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Cranes	1	81	16%	420	0
Generator Sets	1	81	50%	420	0

Receptor: **R2**

Results:
1-hour Leq: **60.7**
Lmax: **62.5**

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *India Basin Shoreline Park and 900 Innes - Phase 2 Paving*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Pavers	1	77	50%	420	0
Rollers	1	80	20%	420	0

Receptor: **R2**

Results:
1-hour Leq: **58.1**
Lmax: **61.5**

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *Phase 1 (India Basin Open Space and 700 Innes)*
Demolition/Site Preparation

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Rubber Tired Loader	2	79	40%	140	0

Receptor: *R3*

Results:
1-hour Leq: 69.1
Lmax: 70.1

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *Phase 1 (India Basin Open Space and 700 Innes)*
Grading

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Scrapers	1	84	40%	140	0
Grader	1	85	40%	140	0

Receptor: *R3*

Results:
1-hour Leq: **74.6**
Lmax: **76.1**

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *Phase 1 (India Basin Open Space and 700 Innes)
Foundation*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Pile Driver (Impact)	1	101	20%	140	0

Receptor: *R3*

Results:
1-hour Leq: 85.1
Lmax: 92.1

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *Phase 1 (India Basin Open Space and 700 Innes)
Building Construction*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Cranes	1	81	16%	140	0
Generator Sets	1	81	50%	140	0

Receptor: **R3**

Results:

1-hour Leq:	70.3
Lmax:	72.1

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *Phase 1 (India Basin Open Space and 700 Innes)
Paving*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Pavers	1	77	50%	140	0
Rollers	1	80	20%	140	0

Receptor: **R3**

Results:
1-hour Leq: **67.6**
Lmax: **71.1**

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *Phase 2 (India Basin Open Space and 700 Innes)*
Demolition/Site Preparation

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Rubber Tired Loader	2	79	40%	1050	10

Receptor: *R3*

Results:
1-hour Leq: 41.6
Lmax: 42.6

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *Phase 2 (India Basin Open Space and 700 Innes)*
Grading

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Scrapers	1	84	40%	1050	10
Grader	1	85	40%	1050	10

Receptor: **R3**

Results:

1-hour Leq: **47.1**
Lmax: **48.6**

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *Phase 2 (India Basin Open Space and 700 Innes)
Foundation*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Pile Driver (Impact)	1	101	20%	1050	10

Receptor: *R3*

Results:
1-hour Leq: **57.6**
Lmax: **64.6**

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *Phase 2 (India Basin Open Space and 700 Innes)
Building Construction*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Cranes	1	81	16%	1050	10
Generator Sets	1	81	50%	1050	10

Receptor: **R3**

Results:

1-hour Leq:	42.8
Lmax:	44.6

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *Phase 2 (India Basin Open Space and 700 Innes)
Paving*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Pavers	1	77	50%	1050	10
Rollers	1	80	20%	1050	10

Receptor: **R3**

Results:

1-hour Leq:	40.1
Lmax:	43.6

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *India Basin Shoreline Park and 900 Innes - Phase 1
Demolition/Site Preparation*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Rubber Tired Loader	2	79	40%	110	0

Receptor: **R3**

Results:

1-hour Leq:	71.2
Lmax:	72.2

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *India Basin Shoreline Park and 900 Innes - Phase 1 Grading*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Scrapers	1	84	40%	110	0
Grader	1	85	40%	110	0

Receptor: **R3**

Results:
1-hour Leq: **76.7**
Lmax: **78.2**

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *India Basin Shoreline Park and 900 Innes - Phase 1 Foundation*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Pile Driver (Impact)	1	101	20%	110	0

Receptor: *R3*

Results:
1-hour Leq: 87.2
Lmax: 94.2

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *India Basin Shoreline Park and 900 Innes - Phase 1 Building Construction*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Cranes	1	81	16%	110	0
Generator Sets	1	81	50%	110	0

Receptor: **R3**

Results:

1-hour Leq:	72.3
Lmax:	74.2

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *India Basin Shoreline Park and 900 Innes - Phase 1 Paving*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Pavers	1	77	50%	110	0
Rollers	1	80	20%	110	0

Receptor: **R3**

Results:
1-hour Leq: **69.7**
Lmax: **73.2**

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *India Basin Shoreline Park and 900 Innes - Phase 2
Demolition/Site Preparation*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Rubber Tired Loader	2	79	40%	425	0

Receptor: *R3*

Results:
1-hour Leq: 59.4
Lmax: 60.4

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *India Basin Shoreline Park and 900 Innes - Phase 2 Grading*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Scrapers	1	84	40%	425	0
Grader	1	85	40%	425	0

Receptor: **R3**

Results:

1-hour Leq: **65.0**
Lmax: **66.4**

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *India Basin Shoreline Park and 900 Innes - Phase 2 Foundation*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Pile Driver (Impact)	1	101	20%	425	0

Receptor: **R3**

Results:

1-hour Leq:	75.4
Lmax:	82.4

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *India Basin Shoreline Park and 900 Innes - Phase 2 Building Construction*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Cranes	1	81	16%	425	0
Generator Sets	1	81	50%	425	0

Receptor: **R3**

Results:
1-hour Leq: **60.6**
Lmax: **62.4**

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *India Basin Shoreline Park and 900 Innes - Phase 2 Paving*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Pavers	1	77	50%	425	0
Rollers	1	80	20%	425	0

Receptor: **R3**

Results:

1-hour Leq:	57.9
Lmax:	61.4

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *Phase 1 (India Basin Open Space and 700 Innes)*
Demolition/Site Preparation

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Rubber Tired Loader	2	79	40%	50	0

Receptor: *R5*

Results:
1-hour Leq: **78.0**
Lmax: **79.0**

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *Phase 1 (India Basin Open Space and 700 Innes)*
Grading

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Scrapers	1	84	40%	50	0
Grader	1	85	40%	75	0

Receptor: *R5*

Results:
1-hour Leq: **82.0**
Lmax: **84.0**

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *Phase 1 (India Basin Open Space and 700 Innes)
Foundation*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Pile Driver (Impact)	1	101	20%	50	0

Receptor: *R5*

Results:
1-hour Leq: **94.0**
Lmax: **101.0**

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *Phase 1 (India Basin Open Space and 700 Innes)
Building Construction*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Cranes	1	81	16%	50	0
Generator Sets	1	81	50%	75	0

Receptor: **R5**

Results:

1-hour Leq:	76.8
Lmax:	81.0

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *Phase 1 (India Basin Open Space and 700 Innes)
Paving*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Pavers	1	77	50%	50	0
Rollers	1	80	20%	75	0

Receptor: **R5**

Results:

1-hour Leq:	75.3
Lmax:	77.0

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *Phase 2 (India Basin Open Space and 700 Innes)*
Demolition/Site Preparation

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Rubber Tired Loader	2	79	40%	300	10

Receptor: *R5*

Results:
1-hour Leq: **52.5**
Lmax: **53.4**

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *Phase 2 (India Basin Open Space and 700 Innes)*
Grading

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Scrapers	1	84	40%	300	10
Grader	1	85	40%	300	10

Receptor: *R5*

Results:
1-hour Leq: **58.0**
Lmax: **59.4**

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *Phase 2 (India Basin Open Space and 700 Innes)
Foundation*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Pile Driver (Impact)	1	101	20%	300	10

Receptor: *R5*

Results:
1-hour Leq: 68.4
Lmax: 75.4

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *Phase 2 (India Basin Open Space and 700 Innes)
Building Construction*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Cranes	1	81	16%	300	10
Generator Sets	1	81	50%	300	10

Receptor: **R5**

Results:

1-hour Leq:	53.6
Lmax:	55.4

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *Phase 2 (India Basin Open Space and 700 Innes)
Paving*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Pavers	1	77	50%	300	10
Rollers	1	80	20%	300	10

Receptor: **R5**

Results:

1-hour Leq:	51.0
Lmax:	54.4

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *India Basin Shoreline Park and 900 Innes - Phase 1
Demolition/Site Preparation*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Rubber Tired Loader	2	79	40%	1280	0

Receptor: *R5*

Results:
1-hour Leq: **49.9**
Lmax: **50.8**

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *India Basin Shoreline Park and 900 Innes - Phase 1 Grading*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Scrapers	1	84	40%	1280	0
Grader	1	85	40%	1280	0

Receptor: **R5**

Results:

1-hour Leq: **55.4**
Lmax: **56.8**

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *India Basin Shoreline Park and 900 Innes - Phase 1 Foundation*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Pile Driver (Impact)	1	101	20%	1280	0

Receptor: *R5*

Results:

1-hour Leq:	65.8
Lmax:	72.8

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *India Basin Shoreline Park and 900 Innes - Phase 1 Building Construction*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Cranes	1	81	16%	1280	0
Generator Sets	1	81	50%	1280	0

Receptor: **R5**

Results:
1-hour Leq: **51.0**
Lmax: **52.8**

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *India Basin Shoreline Park and 900 Innes - Phase 1 Paving*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Pavers	1	77	50%	1280	0
Rollers	1	80	20%	1280	0

Receptor: **R5**

Results:
1-hour Leq: **48.4**
Lmax: **51.8**

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *India Basin Shoreline Park and 900 Innes - Phase 2
Demolition/Site Preparation*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Rubber Tired Loader	2	79	40%	1500	0

Receptor: *R5*

Results:
1-hour Leq: **48.5**
Lmax: **49.5**

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *India Basin Shoreline Park and 900 Innes - Phase 2 Grading*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Scrapers	1	84	40%	1500	0
Grader	1	85	40%	1500	0

Receptor: **R5**

Results:

1-hour Leq:	54.0
Lmax:	55.5

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *India Basin Shoreline Park and 900 Innes - Phase 2 Foundation*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Pile Driver (Impact)	1	101	20%	1500	0

Receptor: *R5*

Results:
1-hour Leq: **64.5**
Lmax: **71.5**

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *India Basin Shoreline Park and 900 Innes - Phase 2 Building Construction*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Cranes	1	81	16%	1500	0
Generator Sets	1	81	50%	1500	0

Receptor: **R5**

Results:
1-hour Leq: **49.7**
Lmax: **51.5**

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *India Basin Shoreline Park and 900 Innes - Phase 2 Paving*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Pavers	1	77	50%	1500	0
Rollers	1	80	20%	1500	0

Receptor: **R5**

Results:
1-hour Leq: **47.0**
Lmax: **50.5**

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *Phase 1 (India Basin Open Space and 700 Innes)*
Demolition/Site Preparation

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Rubber Tired Loader	2	79	40%	320	0

Receptor: *R6*

Results:
1-hour Leq: **61.9**
Lmax: **62.9**

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *Phase 1 (India Basin Open Space and 700 Innes)*
Grading

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Scrapers	1	84	40%	320	0
Grader	1	85	40%	320	0

Receptor: *R6*

Results:
1-hour Leq: **67.4**
Lmax: **68.9**

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *Phase 1 (India Basin Open Space and 700 Innes)
Foundation*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Pile Driver (Impact)	1	101	20%	320	0

Receptor: *R6*

Results:
1-hour Leq: **77.9**
Lmax: **84.9**

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *Phase 1 (India Basin Open Space and 700 Innes)
Building Construction*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Cranes	1	81	16%	320	0
Generator Sets	1	81	50%	320	0

Receptor: **R6**

Results:
1-hour Leq: **63.1**
Lmax: **64.9**

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *Phase 1 (India Basin Open Space and 700 Innes)
Paving*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Pavers	1	77	50%	320	0
Rollers	1	80	20%	320	0

Receptor: **R6**

Results:
1-hour Leq: **60.4**
Lmax: **63.9**

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *Phase 2 (India Basin Open Space and 700 Innes)*
Demolition/Site Preparation

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Rubber Tired Loader	2	79	40%	540	0

Receptor: *R6*

Results:
1-hour Leq: **57.4**
Lmax: **58.3**

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *Phase 2 (India Basin Open Space and 700 Innes)*
Grading

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Scrapers	1	84	40%	540	0
Grader	1	85	40%	540	0

Receptor: *R6*

Results:
1-hour Leq: **62.9**
Lmax: **64.3**

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *Phase 2 (India Basin Open Space and 700 Innes)
Foundation*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Pile Driver (Impact)	1	101	20%	540	0

Receptor: *R6*

Results:
1-hour Leq: **73.3**
Lmax: **80.3**

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *Phase 2 (India Basin Open Space and 700 Innes)
Building Construction*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Cranes	1	81	16%	540	0
Generator Sets	1	81	50%	540	0

Receptor: **R6**

Results:
1-hour Leq: **58.5**
Lmax: **60.3**

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *Phase 2 (India Basin Open Space and 700 Innes)
Paving*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Pavers	1	77	50%	540	0
Rollers	1	80	20%	540	0

Receptor: **R6**

Results:
1-hour Leq: **55.9**
Lmax: **59.3**

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *India Basin Shoreline Park and 900 Innes - Phase 1
Demolition/Site Preparation*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Rubber Tired Loader	2	79	40%	1450	0

Receptor: *R6*

Results:
1-hour Leq: 48.8
Lmax: 49.8

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *India Basin Shoreline Park and 900 Innes - Phase 1 Grading*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Scrapers	1	84	40%	1450	0
Grader	1	85	40%	1450	0

Receptor: **R6**

Results:

1-hour Leq:	54.3
Lmax:	55.8

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *India Basin Shoreline Park and 900 Innes - Phase 1 Foundation*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Pile Driver (Impact)	1	101	20%	1450	0

Receptor: **R6**

Results:

1-hour Leq:	64.8
Lmax:	71.8

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *India Basin Shoreline Park and 900 Innes - Phase 1 Building Construction*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Cranes	1	81	16%	1450	0
Generator Sets	1	81	50%	1450	0

Receptor: **R6**

Results:
1-hour Leq: **49.9**
Lmax: **51.8**

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *India Basin Shoreline Park and 900 Innes - Phase 1 Paving*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Pavers	1	77	50%	1450	0
Rollers	1	80	20%	1450	0

Receptor: **R6**

Results:
1-hour Leq: **47.3**
Lmax: **50.8**

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *India Basin Shoreline Park and 900 Innes - Phase 2
Demolition/Site Preparation*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Rubber Tired Loader	2	79	40%	1685	0

Receptor: *R6*

Results:
1-hour Leq: **47.5**
Lmax: **48.4**

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *India Basin Shoreline Park and 900 Innes - Phase 2*
Grading

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Scrapers	1	84	40%	1685	0
Grader	1	85	40%	1685	0

Receptor: *R6*

Results:
1-hour Leq: **53.0**
Lmax: **54.4**

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *India Basin Shoreline Park and 900 Innes - Phase 2 Foundation*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Pile Driver (Impact)	1	101	20%	1685	0

Receptor: **R6**

Results:

1-hour Leq:	63.5
Lmax:	70.4

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *India Basin Shoreline Park and 900 Innes - Phase 2 Building Construction*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Cranes	1	81	16%	1685	0
Generator Sets	1	81	50%	1685	0

Receptor: **R6**

Results:

1-hour Leq: **48.6**
Lmax: **50.4**

Source for Ref. Noise Levels: FHWA RCNM, 2006

Construction Phase: *India Basin Shoreline Park and 900 Innes - Phase 2 Paving*

Equipment

Description	No. of Equip.	Reference Noise Level at 50ft, Lmax	Acoustical Usage Factor	Distance to Receptor, ft	Estimated Noise Shielding, dBA
Pavers	1	77	50%	1685	0
Rollers	1	80	20%	1685	0

Receptor: **R6**

Results:

1-hour Leq: **46.0**
Lmax: **49.4**

Source for Ref. Noise Levels: FHWA RCNM, 2006

INPUT: ROADWAYS

India Basin

AECOM				22 February 2017							
SKB				TNM 2.5							
INPUT: ROADWAYS										Average pavement type shall be used unless a State highway agency substantiates the use of a different type with the approval of FHWA	
PROJECT/CONTRACT:		India Basin									
RUN:		India Basin Open Space and 700 Innes									
Roadway		Points									
Name	Width	Name	No.	Coordinates (pavement)		Flow Control				Segment	
				X	Y	Z	Control Device	Speed Constraint	Percent Vehicles Affected	Pvmt Type	On Struct?
	ft			ft	ft	ft		mph	%		
Truck Route	12.0	point1	1	0.0	0.0	0.00	Stop	0.00	100	Average	
		point2	2	750.0	0.0	0.00					

INPUT: TRAFFIC FOR LAeq1h Volumes

India Basin

AECOM		22 February 2017										
SKB		TNM 2.5										
INPUT: TRAFFIC FOR LAeq1h Volumes												
PROJECT/CONTRACT:		India Basin										
RUN:		India Basin Open Space and 700 Innes										
Roadway	Points											
Name	Name	No.	Segment									
			Autos		MTrucks		HTrucks		Buses		Motorcycles	
			V	S	V	S	V	S	V	S	V	S
			veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph
Truck Route	point1	1	0	0	0	0	40	35	0	0	0	0
	point2	2										

INPUT: RECEIVERS

India Basin

							22 February 2017					
AECOM							TNM 2.5					
SKB												
INPUT: RECEIVERS												
PROJECT/CONTRACT:		India Basin										
RUN:		India Basin Open Space and 700 Innes										
Receiver												
Name	No.	#DUs	Coordinates (ground)			Height	Input Sound Levels and Criteria				Active	
			X	Y	Z		above	Existing	Impact Criteria			NR
						Ground	L _{Aeq} 1h	L _{Aeq} 1h	Sub'l	Goal	Calc.	
			ft	ft	ft	ft	dBA	dBA	dB	dB		
Receiver1	1	1	375.0	50.0	0.00	4.92	0.00	66	10.0	8.0	Y	

RESULTS: SOUND LEVELS

India Basin

AECOM													22 February 2017	
SKB													TNM 2.5	
													Calculated with TNM 2.5	
RESULTS: SOUND LEVELS														
PROJECT/CONTRACT:			India Basin											
RUN:			India Basin Open Space and 700 Innes											
BARRIER DESIGN:			INPUT HEIGHTS						Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.					
ATMOSPHERICS:			68 deg F, 50% RH											
Receiver														
Name		No.	#DUs	Existing LAeq1h	No Barrier LAeq1h		Increase over existing		Type	With Barrier		Noise Reduction		
					Calculated	Crit'n	Calculated	Crit'n	Impact	Calculated LAeq1h	Calculated	Goal	Calculated minus Goal	
				dB	dB	dB	dB	dB		dB	dB	dB	dB	
Receiver1		1	1	0.0	66.2	66	66.2	10	Snd Lvl	66.2	0.0	8	-8.0	
Dwelling Units			# DUs	Noise Reduction										
				Min	Avg	Max								
				dB	dB	dB								
All Selected			1	0.0	0.0	0.0								
All Impacted			1	0.0	0.0	0.0								
All that meet NR Goal			0	0.0	0.0	0.0								

INPUT: ROADWAYS

India Basin

AECOM				22 February 2017							
SKB				TNM 2.5							
INPUT: ROADWAYS										Average pavement type shall be used unless a State highway agency substantiates the use of a different type with the approval of FHWA	
PROJECT/CONTRACT:		India Basin									
RUN:		IB Shoreline Park and 900 Innes - Export									
Roadway		Points									
Name	Width	Name	No.	Coordinates (pavement)		Flow Control				Segment	
				X	Y	Z	Control Device	Speed Constraint	Percent Vehicles Affected	Pvmt Type	On Struct?
	ft			ft	ft	ft		mph	%		
Truck Route	12.0	point1	1	0.0	0.0	0.00	Stop	0.00	100	Average	
		point2	2	750.0	0.0	0.00					

INPUT: TRAFFIC FOR LAeq1h Volumes

India Basin

AECOM				22 February 2017									
SKB				TNM 2.5									
INPUT: TRAFFIC FOR LAeq1h Volumes													
PROJECT/CONTRACT:		India Basin											
RUN:		IB Shoreline Park and 900 Innes - Export											
Roadway		Points											
Name		Name		No.		Segment							
						Autos		MTrucks		HTrucks		Buses	
						V		S		V		S	
						veh/hr		mph		veh/hr		mph	
Truck Route		point1		1		0		0		0		0	
		point2		2									

INPUT: RECEIVERS

India Basin

							22 February 2017					
AECOM							TNM 2.5					
SKB												
INPUT: RECEIVERS												
PROJECT/CONTRACT:		India Basin										
RUN:		IB Shoreline Park and 900 Innes - Export										
Receiver												
Name	No.	#DUs	Coordinates (ground)			Height	Input Sound Levels and Criteria				Active	
			X	Y	Z	above	Existing	Impact Criteria		NR	in	
						Ground	LAeq1h	LAeq1h	Sub'l	Goal	Calc.	
			ft	ft	ft	ft	dBA	dBA	dB	dB		
Receiver1	1	1	375.0	50.0	0.00	4.92	0.00	66	10.0	8.0	Y	

RESULTS: SOUND LEVELS

India Basis

AECOM													22 February 2017	
SKB													TNM 2.5	
													Calculated with TNM 2.5	
RESULTS: SOUND LEVELS														
PROJECT/CONTRACT:			India Basis											
RUN:			IB Shoreline Park and 900 Innes - Export											
BARRIER DESIGN:			INPUT HEIGHTS						Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.					
ATMOSPHERICS:			68 deg F, 50% RH											
Receiver														
Name		No.	#DUs	Existing LAeq1h	No Barrier			Increase over existing		Type	With Barrier			
					LAeq1h	Crit'n	Calculated	Crit'n	Impact	Calculated LAeq1h	Noise Reduction		Calculated	Calculated minus Goal
								Sub'l Inc			Calculated	Goal	Calculated	Goal
				dB	dB	dB	dB	dB		dB	dB	dB	dB	dB
Receiver1		1	1	0.0	53.2	66	53.2	10	Snd Lvl	53.2	0.0	8	-8.0	
Dwelling Units			# DUs	Noise Reduction										
				Min	Avg	Max								
				dB	dB	dB								
All Selected			1	0.0	0.0	0.0								
All Impacted			0	0.0	0.0	0.0								
All that meet NR Goal			0	0.0	0.0	0.0								

INPUT: ROADWAYS

India Basin

AECOM					22 February 2017						
SKB					TNM 2.5						
INPUT: ROADWAYS					Average pavement type shall be used unless a State highway agency substantiates the use of a different type with the approval of FHWA						
PROJECT/CONTRACT:		India Basin									
RUN:		IB Shoreline Park and 900 Innes - Import									
Roadway		Points									
Name	Width	Name	No.	Coordinates (pavement)		Flow Control			Segment		
				X	Y	Z	Control Device	Speed Constraint	Percent Vehicles Affected	Pvmt Type	On Struct?
	ft			ft	ft	ft		mph	%		
Truck Route	12.0	point1	1	0.0	0.0	0.00	Stop	0.00	100	Average	
		point2	2	750.0	0.0	0.00					

INPUT: TRAFFIC FOR LAeq1h Volumes

India Basin

AECOM		22 February 2017										
SKB		TNM 2.5										
INPUT: TRAFFIC FOR LAeq1h Volumes												
PROJECT/CONTRACT:		India Basin										
RUN:		IB Shoreline Park and 900 Innes - Import										
Roadway	Points											
Name	Name	No.	Segment									
			Autos		MTrucks		HTrucks		Buses		Motorcycles	
			V	S	V	S	V	S	V	S	V	S
			veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph
Truck Route	point1	1	0	0	0	0	4	35	0	0	0	0
	point2	2										

INPUT: RECEIVERS

India Basin

							22 February 2017					
AECOM							TNM 2.5					
SKB												
INPUT: RECEIVERS												
PROJECT/CONTRACT:		India Basin										
RUN:		IB Shoreline Park and 900 Innes - Import										
Receiver												
Name	No.	#DUs	Coordinates (ground)			Height	Input Sound Levels and Criteria				Active	
			X	Y	Z		above	Existing	Impact Criteria			NR
						Ground	L _{Aeq} 1h	L _{Aeq} 1h	Sub'l	Goal	in	
			ft	ft	ft	ft	dBA	dBA	dB	dB		
Receiver1	1	1	375.0	50.0	0.00	4.92	0.00	66	10.0	8.0	Y	

RESULTS: SOUND LEVELS

India Basin

AECOM													22 February 2017		
SKB													TNM 2.5		
													Calculated with TNM 2.5		
RESULTS: SOUND LEVELS															
PROJECT/CONTRACT:			India Basin												
RUN:			IB Shoreline Park and 900 Innes - Import												
BARRIER DESIGN:			INPUT HEIGHTS						Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.						
ATMOSPHERICS:			68 deg F, 50% RH												
Receiver															
Name		No.	#DUs	Existing LAeq1h	No Barrier LAeq1h			Increase over existing		Type	With Barrier		Noise Reduction		
					Calculated	Crit'n	Calculated	Crit'n	Impact	Calculated LAeq1h	Calculated	Goal	Calculated minus Goal		
				dB	dB	dB	dB	dB		dB	dB	dB	dB		
Receiver1		1	1	0.0	56.2	66	56.2	10	Snd Lvl	56.2	0.0	8	-8.0		
Dwelling Units			# DUs	Noise Reduction											
				Min	Avg	Max									
				dB	dB	dB									
All Selected			1	0.0	0.0	0.0									
All Impacted			0	0.0	0.0	0.0									
All that meet NR Goal			0	0.0	0.0	0.0									

INPUT: ROADWAYS

India Basin

AECOM				22 February 2017							
SKB				TNM 2.5							
INPUT: ROADWAYS										Average pavement type shall be used unless a State highway agency substantiates the use of a different type with the approval of FHWA	
PROJECT/CONTRACT:		India Basin									
RUN:		Cumulative Construction									
Roadway		Points									
Name	Width	Name	No.	Coordinates (pavement)		Flow Control				Segment	
				X	Y	Z	Control Device	Speed Constraint	Percent Vehicles Affected	Pvmt Type	On Struct?
	ft			ft	ft	ft		mph	%		
Truck Route	12.0	point1	1	0.0	0.0	0.00	Stop	0.00	100	Average	
		point2	2	750.0	0.0	0.00					

INPUT: TRAFFIC FOR LAeq1h Volumes

India Basin

AECOM		22 February 2017										
SKB		TNM 2.5										
INPUT: TRAFFIC FOR LAeq1h Volumes												
PROJECT/CONTRACT:		India Basin										
RUN:		Cumulative Construction										
Roadway	Points											
Name	Name	No.	Segment									
			Autos		MTrucks		HTrucks		Buses		Motorcycles	
			V	S	V	S	V	S	V	S	V	S
			veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph	veh/hr	mph
Truck Route	point1	1	0	0	0	0	111	35	0	0	0	0
	point2	2										

INPUT: RECEIVERS

India Basin

							22 February 2017					
AECOM							TNM 2.5					
SKB												
INPUT: RECEIVERS												
PROJECT/CONTRACT:		India Basin										
RUN:		Cumulative Construction										
Receiver												
Name	No.	#DUs	Coordinates (ground)			Height	Input Sound Levels and Criteria				Active	
			X	Y	Z		above	Existing	Impact Criteria			NR
						Ground	L _{Aeq} 1h	L _{Aeq} 1h	Sub'l	Goal	in	
			ft	ft	ft	ft	dBA	dBA	dB	dB		
Receiver1	1	1	375.0	50.0	0.00	4.92	0.00	66	10.0	8.0	Y	

RESULTS: SOUND LEVELS

India Basin

AECOM													22 February 2017		
SKB													TNM 2.5		
													Calculated with TNM 2.5		
RESULTS: SOUND LEVELS															
PROJECT/CONTRACT:			India Basin												
RUN:			Cumulative Construction												
BARRIER DESIGN:			INPUT HEIGHTS												
Average pavement type shall be used unless a State highway agency substantiates the use of a different type with approval of FHWA.															
ATMOSPHERICS:			68 deg F, 50% RH												
Receiver															
Name		No.	#DUs	Existing LAeq1h	No Barrier LAeq1h			Increase over existing		Type	With Barrier		Noise Reduction		
					Calculated	Crit'n	Calculated	Crit'n	Impact	Calculated LAeq1h	Calculated	Goal	Calculated minus Goal		
				dB	dB	dB	dB	dB		dB	dB	dB	dB		
Receiver1		1	1	0.0	70.7	66	70.7	10	Snd Lvl	70.7	0.0	8	-8.0		
Dwelling Units			# DUs	Noise Reduction											
				Min	Avg	Max									
				dB	dB	dB									
All Selected			1	0.0	0.0	0.0									
All Impacted			1	0.0	0.0	0.0									
All that meet NR Goal			0	0.0	0.0	0.0									

Traffic Noise Prediction Model, (FHWA RD-77-108)
Model Input Sheet



Project Name : India Basin Mixed-Use Project EIR
Project Number :
Modeling Condition : EXISTING
Ground Type : Hard
Metric (L_{eq}, L_{dn}, CNEL) : Ldn
K Factor : 10
Traffic Desc. (Peak or ADT) : Peak

Segment	Roadway	From	To	Traffic Vol.	Speed (Mph)	Distance to CL	% Autos	%MT	% HT	Day %	Eve %	Night %	Offset (dB)
1	Evans Street	West of	Third Street	701	35	40	98	1	1	80	0	20	0
2	Evans Street	Third Street	Jennings Street	658	35	50	98	1	1	80	0	20	0
3	Hunters Point Boulevard	Jennings Street	Innes Avenue	359	35	50	98	1	1	80	0	20	0
4	Innes Avenue	Hunters Point Blvd.	New Griffith Street	253	35	35	98	1	1	80	0	20	0
5	Innes Avenue	New Griffith Street	Aerlious Walker Drive	258	35	35	98	1	1	80	0	20	0
6	Innes Avenue	Aerlious Walker Drive	Earl Street	237	35	35	98	1	1	80	0	20	0
7	Innes Avenue	East of	Earl Street	264	35	35	98	1	1	80	0	20	0
8	Innes Avenue	West of	Hunters Point Blvd.	69	35	30	98	1	1	80	0	20	0
9	Griffith Street	North of	Innes Avenue	20	25	30	98	1	1	80	0	20	0
10	Aerlious Walker Drive	North of	Innes Avenue	26	25	30	98	1	1	80	0	20	0
11	Earl Street	North of	Innes Avenue	20	25	30	98	1	1	80	0	20	0
12	Third Street	North of	Evans Avenue	1,180	35	50	98	1	1	80	0	20	0
13	Third Street	South of	Evans Avenue	863	35	50	98	1	1	80	0	20	0
14	Jennings Street	North of	Evans Avenue	141	25	35	98	1	1	80	0	20	0
15	Jennings Street	South of	Evans Avenue	503	25	30	98	1	1	80	0	20	0
16													
17													
18													
19													
20													

Traffic Noise Prediction Model, (FHWA RD-77-108)



Predicted Noise Levels

Project Name : India Basin Mixed-Use Project EIR

Project Number :

Modeling Condition : EXISTING

Metric (Leq, Ldn, CNEL) : Ldn

Segment	Roadway	Segment		Noise Levels, dB Ldn				Distance to Traffic Noise Contours, Feet				
		From	To	Auto	MT	HT	Total	70 dB	65 dB	60 dB	55 dB	50 dB
1	Evans Street	West of	Third Street	64.3	54.1	59.3	65.8	15	48	152	480	1517
2	Evans Street	Third Street	Jennings Street	63.1	52.8	58.0	64.5	14	45	142	450	1424
3	Hunters Point Boulevard	Jennings Street	Innes Avenue	60.4	50.2	55.4	61.9	8	25	78	246	777
4	Innes Avenue	Hunters Point Blvd	New Griffith Street	60.4	50.2	55.4	61.9	5	17	55	173	546
5	Innes Avenue	New Griffith Street	Aerlious Walker Drive	60.5	50.3	55.5	62.0	6	18	56	176	557
6	Innes Avenue	Aerlious Walker Drive	Earl Street	60.2	49.9	55.1	61.6	5	16	51	162	512
7	Innes Avenue	East of	Earl Street	60.6	50.4	55.6	62.1	6	18	57	181	571
8	Innes Avenue	West of	Hunters Point Blvd	55.5	45.3	50.5	57.0	1	5	15	47	149
9	Griffith Street	North of	Innes Avenue	45.9	37.6	45.2	48.9	0	1	2	7	23
10	Aerlious Walker Drive	North of	Innes Avenue	47.0	38.7	46.4	50.1	0	1	3	10	30
11	Earl Street	North of	Innes Avenue	45.9	37.6	45.2	48.9	0	1	2	7	23
12	Third Street	North of	Evans Avenue	65.6	55.4	60.6	67.1	26	81	255	807	2553
13	Third Street	South of	Evans Avenue	64.2	54.0	59.2	65.7	19	59	187	591	1867
14	Jennings Street	North of	Evans Avenue	53.7	45.4	53.0	56.7	2	5	16	52	165
15	Jennings Street	South of	Evans Avenue	59.9	51.6	59.2	62.9	6	19	59	186	588
16												
17												
18												
19												
20												

Traffic Noise Prediction Model, (FHWA RD-77-108)

Model Input Sheet



Project Name : India Basin Mixed-Use Project EIR

Project Number :

Modeling Condition : BASELINE NO PROJECT

Ground Type : Hard

K Factor : 10

Metric (L_{eq}, L_{dnt}, CNEL) : Ldn

Traffic Desc. (Peak or ADT) : Peak

Segment	Roadway	Segment		Traffic Vol.	Speed (Mph)	Distance to CL	% Autos	%MT	% HT	Day %	Eve %	Night %	Offset (dB)
		From	To										
1	Evans Street	West of	Third Street	719	35	40	98	1	1	80	0	20	0
2	Evans Street	Third Street	Jennings Street	743	35	50	98	1	1	80	0	20	0
3	Hunters Point Boulevard	Jennings Street	Innes Avenue	469	35	50	98	1	1	80	0	20	0
4	Innes Avenue	Hunters Point Blvd.	New Griffith Street	384	35	35	98	1	1	80	0	20	0
5	Innes Avenue	New Griffith Street	Aerlious Walker Drive	366	35	35	98	1	1	80	0	20	0
6	Innes Avenue	Aerlious Walker Drive	Earl Street	350	35	35	98	1	1	80	0	20	0
7	Innes Avenue	East of	Earl Street	354	35	35	98	1	1	80	0	20	0
8	Innes Avenue	West of	Hunters Point Blvd.	90	35	30	98	1	1	80	0	20	0
9	Griffith Street	North of	Innes Avenue	20	25	30	98	1	1	80	0	20	0
10	Aerlious Walker Drive	North of	Innes Avenue	26	25	30	98	1	1	80	0	20	0
11	Earl Street	North of	Innes Avenue	20	25	30	98	1	1	80	0	20	0
12	Third Street	North of	Evans Avenue	1,235	35	50	98	1	1	80	0	20	0
13	Third Street	South of	Evans Avenue	953	35	50	98	1	1	80	0	20	0
14	Jennings Street	North of	Evans Avenue	155	25	35	98	1	1	80	0	20	0
15	Jennings Street	South of	Evans Avenue	608	25	30	98	1	1	80	0	20	0
16													
17													
18													
19													
20													

Traffic Noise Prediction Model, (FHWA RD-77-108)



Predicted Noise Levels

Project Name : India Basin Mixed-Use Project EIR

Project Number :

Modeling Condition : BASELINE NO PROJECT

Metric (Leq, Ldn, CNEL) : Ldn

Segment	Roadway	Segment		Noise Levels, dB Ldn				Distance to Traffic Noise Contours, Feet				
		From	To	Auto	MT	HT	Total	70 dB	65 dB	60 dB	55 dB	50 dB
1	Evans Street	West of	Third Street	64.4	54.2	59.4	65.9	16	49	156	492	1556
2	Evans Street	Third Street	Jennings Street	63.6	53.4	58.6	65.1	16	51	161	508	1608
3	Hunters Point Boulevard	Jennings Street	Innes Avenue	61.6	51.4	56.6	63.1	10	32	101	321	1015
4	Innes Avenue	Hunters Point Blvd	New Griffith Street	62.3	52.0	57.2	63.7	8	26	83	262	830
5	Innes Avenue	New Griffith Street	Aerlious Walker Drive	62.1	51.8	57.0	63.5	8	25	79	250	791
6	Innes Avenue	Aerlious Walker Drive	Earl Street	61.9	51.6	56.8	63.3	8	24	76	239	756
7	Innes Avenue	East of	Earl Street	61.9	51.7	56.9	63.4	8	24	77	242	766
8	Innes Avenue	West of	Hunters Point Blvd	56.6	46.4	51.6	58.1	2	6	19	62	195
9	Griffith Street	North of	Innes Avenue	45.9	37.6	45.2	48.9	0	1	2	7	23
10	Aerlious Walker Drive	North of	Innes Avenue	47.0	38.7	46.4	50.1	0	1	3	10	30
11	Earl Street	North of	Innes Avenue	45.9	37.6	45.2	48.9	0	1	2	7	23
12	Third Street	North of	Evans Avenue	65.8	55.6	60.8	67.3	27	85	267	845	2672
13	Third Street	South of	Evans Avenue	64.7	54.4	59.6	66.2	21	65	206	652	2062
14	Jennings Street	North of	Evans Avenue	54.1	45.8	53.5	57.1	2	6	18	57	181
15	Jennings Street	South of	Evans Avenue	60.7	52.4	60.1	63.7	7	22	71	225	711
16												
17												
18												
19												
20												

Traffic Noise Prediction Model, (FHWA RD-77-108)

Model Input Sheet



Project Name : India Basin Mixed-Use Project EIR

Project Number :

Modeling Condition : CUMULATIVE + PROJECT

Ground Type : Hard

K Factor : 10

Metric (L_{eq}, L_{dn}, CNEL) : Ldn

Traffic Desc. (Peak or ADT) : Peak

Segment	Roadway	Segment		Traffic Vol.	Speed (Mph)	Distance to CL	% Autos	%MT	% HT	Day %	Eve %	Night %	Offset (dB)
		From	To										
1	Evans Street	West of	Third Street	2,207	35	40	98	1	1	80	0	20	0
2	Evans Street	Third Street	Jennings Street	3,008	35	50	98	1	1	80	0	20	0
3	Hunters Point Boulevard	Jennings Street	Innes Avenue	3,458	35	50	98	1	1	80	0	20	0
4	Innes Avenue	Hunters Point Blvd.	New Griffith Street	3,653	35	35	98	1	1	80	0	20	0
5	Innes Avenue	New Griffith Street	Aerlious Walker Drive	3,537	35	35	98	1	1	80	0	20	0
6	Innes Avenue	Aerlious Walker Drive	Earl Street	2,625	35	35	98	1	1	80	0	20	0
7	Innes Avenue	East of	Earl Street	2,177	35	35	98	1	1	80	0	20	0
8	Innes Avenue	West of	Hunters Point Blvd.	403	35	30	98	1	1	80	0	20	0
9	Griffith Street	North of	Innes Avenue	389	25	30	98	1	1	80	0	20	0
10	Aerlious Walker Drive	North of	Innes Avenue	968	25	30	98	1	1	80	0	20	0
11	Earl Street	North of	Innes Avenue	723	25	30	98	1	1	80	0	20	0
12	Third Street	North of	Evans Avenue	2,542	35	50	98	1	1	80	0	20	0
13	Third Street	South of	Evans Avenue	3,181	35	50	98	1	1	80	0	20	0
14	Jennings Street	North of	Evans Avenue	928	25	35	98	1	1	80	0	20	0
15	Jennings Street	South of	Evans Avenue	3,645	25	30	98	1	1	80	0	20	0
16								1	1	80	0		0
17								1	1	80	0		0
18								1	1	80	0		0
19								1	1	80	0		0
20								1	1	80	0		0

Traffic Noise Prediction Model, (FHWA RD-77-108)



Predicted Noise Levels

Project Name : India Basin Mixed-Use Project EIR

Project Number :

Modeling Condition : CUMULATIVE + PROJECT

Metric (Leq, Ldn, CNEL) : Ldn

Segment	Roadway	Segment		Noise Levels, dB Ldn				Distance to Traffic Noise Contours, Feet				
		From	To	Auto	MT	HT	Total	70 dB	65 dB	60 dB	55 dB	50 dB
1	Evans Street	West of	Third Street	69.3	59.1	64.3	70.8	48	151	478	1510	4775
2	Evans Street	Third Street	Jennings Street	69.7	59.4	64.6	71.1	65	206	651	2058	6508
3	Hunters Point Boulevard	Jennings Street	Innes Avenue	70.3	60.0	65.2	71.8	75	237	748	2366	7481
4	Innes Avenue	Hunters Point Blvd	New Griffith Street	72.0	61.8	67.0	73.5	79	250	790	2500	7904
5	Innes Avenue	New Griffith Street	Aerlious Walker Drive	71.9	61.7	66.9	73.4	77	242	765	2420	7652
6	Innes Avenue	Aerlious Walker Drive	Earl Street	70.6	60.4	65.6	72.1	57	180	568	1796	5680
7	Innes Avenue	East of	Earl Street	69.8	59.6	64.8	71.3	47	149	471	1490	4711
8	Innes Avenue	West of	Hunters Point Blvd	63.1	52.9	58.1	64.6	9	28	87	276	872
9	Griffith Street	North of	Innes Avenue	58.8	50.5	58.1	61.8	5	14	45	144	455
10	Aerlious Walker Drive	North of	Innes Avenue	62.7	54.4	62.1	65.8	11	36	113	358	1132
11	Earl Street	North of	Innes Avenue	61.5	53.2	60.8	64.5	8	27	85	267	845
12	Third Street	North of	Evans Avenue	68.9	58.7	63.9	70.4	55	174	550	1739	5500
13	Third Street	South of	Evans Avenue	69.9	59.7	64.9	71.4	69	218	688	2177	6883
14	Jennings Street	North of	Evans Avenue	61.9	53.6	61.2	64.9	11	34	108	343	1085
15	Jennings Street	South of	Evans Avenue	68.5	60.2	67.8	71.5	43	135	426	1348	4261
16												
17												
18												
19												
20												

Traffic Noise Prediction Model, (FHWA RD-77-108)

Model Input Sheet



Project Name : India Basin Mixed-Use Project EIR

Project Number :

Modeling Condition : CUMULATIVE + PROJECT VARIANT

Ground Type : Hard

K Factor : 10

Metric (L_{eq}, L_{dn}, CNEL) : Ldn

Traffic Desc. (Peak or ADT) : Peak

Segment	Roadway	Segment		Traffic Vol.	Speed (Mph)	Distance to CL	% Autos	%MT	% HT	Day %	Eve %	Night %	Offset (dB)
		From	To										
1	Evans Street	West of	Third Street	2,253	35	40	98	1	1	80	0	20	0
2	Evans Street	Third Street	Jennings Street	3,336	35	50	98	1	1	80	0	20	0
3	Hunters Point Boulevard	Jennings Street	Innes Avenue	4,151	35	50	98	1	1	80	0	20	0
4	Innes Avenue	Hunters Point Blvd.	New Griffith Street	4,243	35	35	98	1	1	80	0	20	0
5	Innes Avenue	New Griffith Street	Aerlious Walker Drive	4,328	35	35	98	1	1	80	0	20	0
6	Innes Avenue	Aerlious Walker Drive	Earl Street	2,977	35	35	98	1	1	80	0	20	0
7	Innes Avenue	East of	Earl Street	2,183	35	35	98	1	1	80	0	20	0
8	Innes Avenue	West of	Hunters Point Blvd.	491	35	30	98	1	1	80	0	20	0
9	Griffith Street	North of	Innes Avenue	484	25	30	98	1	1	80	0	20	0
10	Aerlious Walker Drive	North of	Innes Avenue	1,329	25	30	98	1	1	80	0	20	0
11	Earl Street	North of	Innes Avenue	899	25	30	98	1	1	80	0	20	0
12	Third Street	North of	Evans Avenue	2,687	35	50	98	1	1	80	0	20	0
13	Third Street	South of	Evans Avenue	3,548	35	50	98	1	1	80	0	20	0
14	Jennings Street	North of	Evans Avenue	1,135	25	35	98	1	1	80	0	20	0
15	Jennings Street	South of	Evans Avenue	4,529	25	30	98	1	1	80	0	20	0
16								1	1	80	0		0
17								1	1	80	0		0
18								1	1	80	0		0
19								1	1	80	0		0
20								1	1	80	0		0

Traffic Noise Prediction Model, (FHWA RD-77-108)



Predicted Noise Levels

Project Name : India Basin Mixed-Use Project EIR

Project Number :

Modeling Condition : CUMULATIVE + PROJECT VARIANT

Metric (Leq, Ldn, CNEL) : Ldn

Segment	Roadway	Segment		Noise Levels, dB Ldn				Distance to Traffic Noise Contours, Feet				
		From	To	Auto	MT	HT	Total	70 dB	65 dB	60 dB	55 dB	50 dB
1	Evans Street	West of	Third Street	69.4	59.1	64.3	70.9	49	154	487	1542	4875
2	Evans Street	Third Street	Jennings Street	70.1	59.9	65.1	71.6	72	228	722	2282	7217
3	Hunters Point Boulevard	Jennings Street	Innes Avenue	71.1	60.8	66.0	72.5	90	284	898	2840	8981
4	Innes Avenue	Hunters Point Blvd	New Griffith Street	72.7	62.5	67.7	74.2	92	290	918	2903	9181
5	Innes Avenue	New Griffith Street	Aerlious Walker Drive	72.8	62.6	67.8	74.3	94	296	936	2961	9364
6	Innes Avenue	Aerlious Walker Drive	Earl Street	71.2	60.9	66.1	72.6	64	204	644	2037	6442
7	Innes Avenue	East of	Earl Street	69.8	59.6	64.8	71.3	47	149	472	1494	4724
8	Innes Avenue	West of	Hunters Point Blvd	64.0	53.8	59.0	65.5	11	34	106	336	1062
9	Griffith Street	North of	Innes Avenue	59.7	51.4	59.1	62.8	6	18	57	179	566
10	Aerlious Walker Drive	North of	Innes Avenue	64.1	55.8	63.5	67.1	16	49	155	491	1554
11	Earl Street	North of	Innes Avenue	62.4	54.1	61.8	65.4	11	33	105	332	1051
12	Third Street	North of	Evans Avenue	69.2	58.9	64.1	70.7	58	184	581	1839	5814
13	Third Street	South of	Evans Avenue	70.4	60.2	65.3	71.9	77	243	768	2428	7677
14	Jennings Street	North of	Evans Avenue	62.8	54.5	62.1	65.8	13	42	133	420	1327
15	Jennings Street	South of	Evans Avenue	69.4	61.1	68.8	72.5	53	167	529	1674	5295
16												
17												
18												
19												
20												

Traffic Noise Prediction Model, (FHWA RD-77-108)
Model Input Sheet



Project Name : India Basin Mixed-Use Project EIR
Project Number :
Modeling Condition : BASELINE + PROJECT
Ground Type : Hard **K Factor :** 10
Metric (L_{eq}, L_{dn}, CNEL) : Ldn **Traffic Desc. (Peak or ADT) :** Peak

Segment	Roadway	Segment		Traffic Vol.	Speed (Mph)	Distance to CL	% Autos	%MT	% HT	Day %	Eve %	Night %	Offset (dB)
		From	To										
1	Evans Street	West of	Third Street	868	35	40	98	1	1	80	0	20	0
2	Evans Street	Third Street	Jennings Street	1,773	35	50	98	1	1	80	0	20	0
3	Hunters Point Boulevard	Jennings Street	Innes Avenue	2,231	35	50	98	1	1	80	0	20	0
4	Innes Avenue	Hunters Point Blvd.	New Griffith Street	2,498	35	35	98	1	1	80	0	20	0
5	Innes Avenue	New Griffith Street	Aerlious Walker Drive	2,101	35	35	98	1	1	80	0	20	0
6	Innes Avenue	Aerlious Walker Drive	Earl Street	1,105	35	35	98	1	1	80	0	20	0
7	Innes Avenue	East of	Earl Street	397	35	35	98	1	1	80	0	20	0
8	Innes Avenue	West of	Hunters Point Blvd.	407	35	30	98	1	1	80	0	20	0
9	Griffith Street	North of	Innes Avenue	411	25	30	98	1	1	80	0	20	0
10	Aerlious Walker Drive	North of	Innes Avenue	1,041	25	30	98	1	1	80	0	20	0
11	Earl Street	North of	Innes Avenue	793	25	30	98	1	1	80	0	20	0
12	Third Street	North of	Evans Avenue	1,716	35	50	98	1	1	80	0	20	0
13	Third Street	South of	Evans Avenue	1,964	35	50	98	1	1	80	0	20	0
14	Jennings Street	North of	Evans Avenue	849	25	35	98	1	1	80	0	20	0
15	Jennings Street	South of	Evans Avenue	2,338	25	30	98	1	1	80	0	20	0
16													
17													
18													
19													
20													

Traffic Noise Prediction Model, (FHWA RD-77-108)



Predicted Noise Levels

Project Name : India Basin Mixed-Use Project EIR

Project Number :

Modeling Condition : BASELINE + PROJECT

Metric (Leq, Ldn, CNEL) : Ldn

Segment	Roadway	Segment		Noise Levels, dB Ldn				Distance to Traffic Noise Contours, Feet				
		From	To	Auto	MT	HT	Total	70 dB	65 dB	60 dB	55 dB	50 dB
1	Evans Street	West of	Third Street	65.2	55.0	60.2	66.7	19	59	188	594	1878
2	Evans Street	Third Street	Jennings Street	67.4	57.1	62.3	68.8	38	121	384	1213	3835
3	Hunters Point Boulevard	Jennings Street	Innes Avenue	68.4	58.1	63.3	69.8	48	153	483	1526	4826
4	Innes Avenue	Hunters Point Blvc	New Griffith Street	70.4	60.2	65.4	71.9	54	171	540	1709	5404
5	Innes Avenue	New Griffith Street	Aerlious Walker D	69.6	59.4	64.6	71.1	45	144	455	1438	4546
6	Innes Avenue	Aerlious Walker D	Earl Street	66.9	56.6	61.8	68.3	24	76	239	756	2391
7	Innes Avenue	East of	Earl Street	62.4	52.2	57.4	63.9	9	27	86	272	859
8	Innes Avenue	West of	Hunters Point Blvc	63.2	53.0	58.2	64.7	9	28	88	278	881
9	Griffith Street	North of	Innes Avenue	59.0	50.7	58.4	62.0	5	15	48	152	480
10	Aerlious Walker Drive	North of	Innes Avenue	63.1	54.8	62.4	66.1	12	38	122	385	1217
11	Earl Street	North of	Innes Avenue	61.9	53.6	61.2	64.9	9	29	93	293	927
12	Third Street	North of	Evans Avenue	67.2	57.0	62.2	68.7	37	117	371	1174	3713
13	Third Street	South of	Evans Avenue	67.8	57.6	62.8	69.3	42	134	425	1344	4250
14	Jennings Street	North of	Evans Avenue	61.5	53.2	60.8	64.5	10	31	99	314	993
15	Jennings Street	South of	Evans Avenue	66.6	58.3	65.9	69.6	27	86	273	864	2733
16												
17												
18												
19												
20												

Traffic Noise Prediction Model, (FHWA RD-77-108)
Model Input Sheet



Project Name : India Basin Mixed-Use Project EIR

Project Number :

Modeling Condition : CUMULATIVE NO PROJECT **Ground Type :** Hard

K Factor : 10

Metric (L_{eq}, L_{dn}, CNEL) : CNEL

Traffic Desc. (Peak or ADT) : Peak

Segment	Roadway	Segment		Traffic Vol.	Speed (Mph)	Distance to CL	% Autos	%MT	% HT	Day %	Eve %	Night %	Offset (dB)
		From	To										
1	Evans Street	West of	Third Street	2,027	35	50	98	1	1	80	0	20	0
2	Evans Street	Third Street	Jennings Street	2,055	35	50	98	1	1	80	0	20	0
3	Hunters Point Boulevard	Jennings Street	Innes Avenue	1,880	35	50	98	1	1	80	0	20	0
4	Innes Avenue	Hunters Point Blvd.	New Griffith Street	1,767	35	50	98	1	1	80	0	20	0
5	Innes Avenue	New Griffith Street	Aerlious Walker Drive	1,984	35	50	98	1	1	80	0	20	0
6	Innes Avenue	Aerlious Walker Drive	Earl Street	1,961	35	50	98	1	1	80	0	20	0
7	Innes Avenue	East of	Earl Street	2,140	35	50	98	1	1	80	0	20	0
8	Innes Avenue	West of	Hunters Point Blvd.	122	35	50	98	1	1	80	0	20	0
9	Griffith Street	North of	Innes Avenue	40	25	50	98	1	1	80	0	20	0
10	Aerlious Walker Drive	North of	Innes Avenue	68	25	50	98	1	1	80	0	20	0
11	Earl Street	North of	Innes Avenue	40	25	50	98	1	1	80	0	20	0
12	Third Street	North of	Evans Avenue	2,080	35	50	98	1	1	80	0	20	0
13	Third Street	South of	Evans Avenue	2,234	35	50	98	1	1	80	0	20	0
14	Jennings Street	North of	Evans Avenue	340	25	50	98	1	1	80	0	20	0
15	Jennings Street	South of	Evans Avenue	2,094	25	50	98	1	1	80	0	20	0
16								1	1	80	0		0
17								1	1	80	0		0
18								1	1	80	0		0
19								1	1	80	0		0
20								1	1	80	0		0

Traffic Noise Prediction Model, (FHWA RD-77-108)



Predicted Noise Levels

Project Name : India Basin Mixed-Use Project EIR

Project Number :

Modeling Condition : CUMULATIVE NO PROJECT

Metric (Leq, Ldn, CNEL) : CNEL

Segment	Roadway	Segment		Noise Levels, dB CNEL				Distance to Traffic Noise Contours, Feet				
		From	To	Auto	MT	HT	Total	70 dB	65 dB	60 dB	55 dB	50 dB
1	Evans Street	West of	Third Street	67.9	57.7	62.9	69.4	44	139	439	1387	4386
2	Evans Street	Third Street	Jennings Street	68.0	57.8	63.0	69.5	44	141	445	1406	4447
3	Hunters Point Boulevard	Jennings Street	Innes Avenue	67.6	57.4	62.6	69.1	41	129	407	1286	4068
4	Innes Avenue	Hunters Point Blvc	New Griffith Street	67.3	57.1	62.3	68.8	38	121	382	1209	3823
5	Innes Avenue	New Griffith Street	Aerlious Walker D	67.8	57.6	62.8	69.3	43	136	429	1358	4293
6	Innes Avenue	Aerlious Walker D	Earl Street	67.8	57.6	62.8	69.3	42	134	424	1341	4242
7	Innes Avenue	East of	Earl Street	68.2	58.0	63.2	69.7	46	146	463	1464	4630
8	Innes Avenue	West of	Hunters Point Blvc	55.7	45.5	50.7	57.2	3	8	26	83	264
9	Griffith Street	North of	Innes Avenue	46.7	38.4	46.0	49.7	0	1	5	15	47
10	Aerlious Walker Drive	North of	Innes Avenue	49.0	40.7	48.3	52.0	1	3	8	25	79
11	Earl Street	North of	Innes Avenue	46.7	38.4	46.0	49.7	0	1	5	15	47
12	Third Street	North of	Evans Avenue	68.1	57.8	63.0	69.5	45	142	450	1423	4501
13	Third Street	South of	Evans Avenue	68.4	58.1	63.3	69.9	48	153	483	1529	4834
14	Jennings Street	North of	Evans Avenue	56.0	47.7	55.3	59.0	4	13	40	126	397
15	Jennings Street	South of	Evans Avenue	63.9	55.6	63.2	66.9	24	77	245	774	2448
16												
17												
18												
19												
20												

Traffic Noise Prediction Model, (FHWA RD-77-108)
Model Input Sheet



Project Name : India Basin Mixed-Use Project EIR
Project Number :
Modeling Condition : BASELINE + PROJECT VARIANT
Ground Type : Hard **K Factor :** 10
Metric (L_{eq}, L_{dn}, CNEL) : Ldn **Traffic Desc. (Peak or ADT) :** Peak

Segment	Roadway	Segment		Traffic Vol.	Speed (Mph)	Distance to CL	% Autos	%MT	% HT	Day %	Eve %	Night %	Offset (dB)
		From	To										
1	Evans Street	West of	Third Street	919	35	40	98	1	1	80	0	20	0
2	Evans Street	Third Street	Jennings Street	2,161	35	50	98	1	1	80	0	20	0
3	Hunters Point Boulevard	Jennings Street	Innes Avenue	3,010	35	50	98	1	1	80	0	20	0
4	Innes Avenue	Hunters Point Blvd.	New Griffith Street	3,158	35	35	98	1	1	80	0	20	0
5	Innes Avenue	New Griffith Street	Aerlious Walker Drive	3,021	35	35	98	1	1	80	0	20	0
6	Innes Avenue	Aerlious Walker Drive	Earl Street	1,500	35	35	98	1	1	80	0	20	0
7	Innes Avenue	East of	Earl Street	400	35	35	98	1	1	80	0	20	0
8	Innes Avenue	West of	Hunters Point Blvd.	506	35	30	98	1	1	80	0	20	0
9	Griffith Street	North of	Innes Avenue	520	25	30	98	1	1	80	0	20	0
10	Aerlious Walker Drive	North of	Innes Avenue	1,453	25	30	98	1	1	80	0	20	0
11	Earl Street	North of	Innes Avenue	984	25	30	98	1	1	80	0	20	0
12	Third Street	North of	Evans Avenue	1,919	35	50	98	1	1	80	0	20	0
13	Third Street	South of	Evans Avenue	2,416	35	50	98	1	1	80	0	20	0
14	Jennings Street	North of	Evans Avenue	1,084	25	35	98	1	1	80	0	20	0
15	Jennings Street	South of	Evans Avenue	3,335	25	30	98	1	1	80	0	20	0
16													
17													
18													
19													
20													

Traffic Noise Prediction Model, (FHWA RD-77-108)



Predicted Noise Levels

Project Name : India Basin Mixed-Use Project EIR

Project Number :

Modeling Condition : BASELINE + PROJECT VARIANT

Metric (Leq, Ldn, CNEL) : Ldn

Segment	Roadway	Segment		Noise Levels, dB Ldn				Distance to Traffic Noise Contours, Feet				
		From	To	Auto	MT	HT	Total	70 dB	65 dB	60 dB	55 dB	50 dB
1	Evans Street	West of	Third Street	65.5	55.3	60.4	67.0	20	63	199	629	1989
2	Evans Street	Third Street	Jennings Street	68.2	58.0	63.2	69.7	47	148	467	1478	4675
3	Hunters Point Boulevard	Jennings Street	Innes Avenue	69.7	59.4	64.6	71.1	65	206	651	2059	6512
4	Innes Avenue	Hunters Point Blvc	New Griffith Street	71.4	61.2	66.4	72.9	68	216	683	2160	6832
5	Innes Avenue	New Griffith Street	Aerlious Walker D	71.2	61.0	66.2	72.7	65	207	654	2067	6536
6	Innes Avenue	Aerlious Walker D	Earl Street	68.2	58.0	63.2	69.7	32	103	325	1026	3246
7	Innes Avenue	East of	Earl Street	62.4	52.2	57.4	63.9	9	27	87	274	866
8	Innes Avenue	West of	Hunters Point Blvc	64.1	53.9	59.1	65.6	11	35	109	346	1095
9	Griffith Street	North of	Innes Avenue	60.0	51.7	59.4	63.1	6	19	61	192	608
10	Aerlious Walker Drive	North of	Innes Avenue	64.5	56.2	63.8	67.5	17	54	170	537	1699
11	Earl Street	North of	Innes Avenue	62.8	54.5	62.2	65.8	12	36	115	364	1150
12	Third Street	North of	Evans Avenue	67.7	57.5	62.7	69.2	42	131	415	1313	4152
13	Third Street	South of	Evans Avenue	68.7	58.5	63.7	70.2	52	165	523	1653	5228
14	Jennings Street	North of	Evans Avenue	62.6	54.3	61.9	65.6	13	40	127	401	1267
15	Jennings Street	South of	Evans Avenue	68.1	59.8	67.5	71.1	39	123	390	1233	3899
16												
17												
18												
19												
20												