

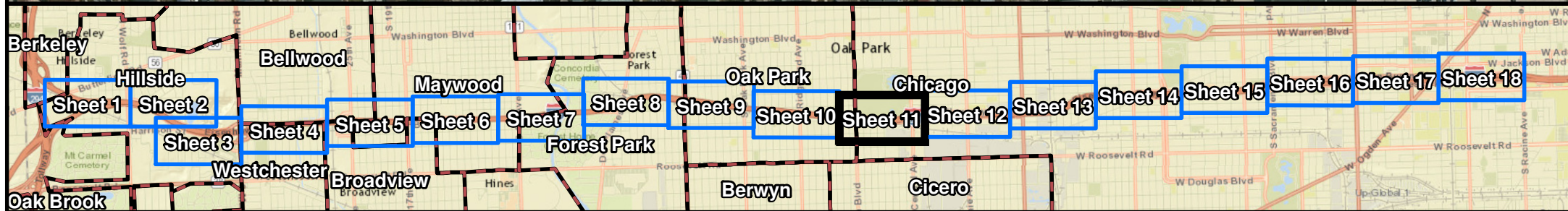
Name: B40
 Height: 17'
 Length: 1,303'
 Benefitted Receptors: 156
 Cost Per Benefitted Receptor: \$3,550
 Cost Effective Stand Alone

Name: B43
 Height: 11'
 Length: 2,631'
 Benefitted Receptors: 6
 Cost Per Benefitted Receptor: \$120,588
 Not cost-effective (not reasonable)

Name: B44
 Height: 15'
 Length: 3,254'
 Benefitted Receptors: 310
 Cost Per Benefitted Receptor: \$3,936
 Cost Effective Stand Alone

Name: B41
 Height: 17'
 Length: 1,278'
 Benefitted Receptors: 82
 Cost Per Benefitted Receptor: \$6,624
 Cost Effective Stand Alone

Name: B42
 Height: 15'
 Length: 1,650'
 Benefitted Receptors: 118
 Cost Per Benefitted Receptor: \$5,244
 Cost Effective Stand Alone



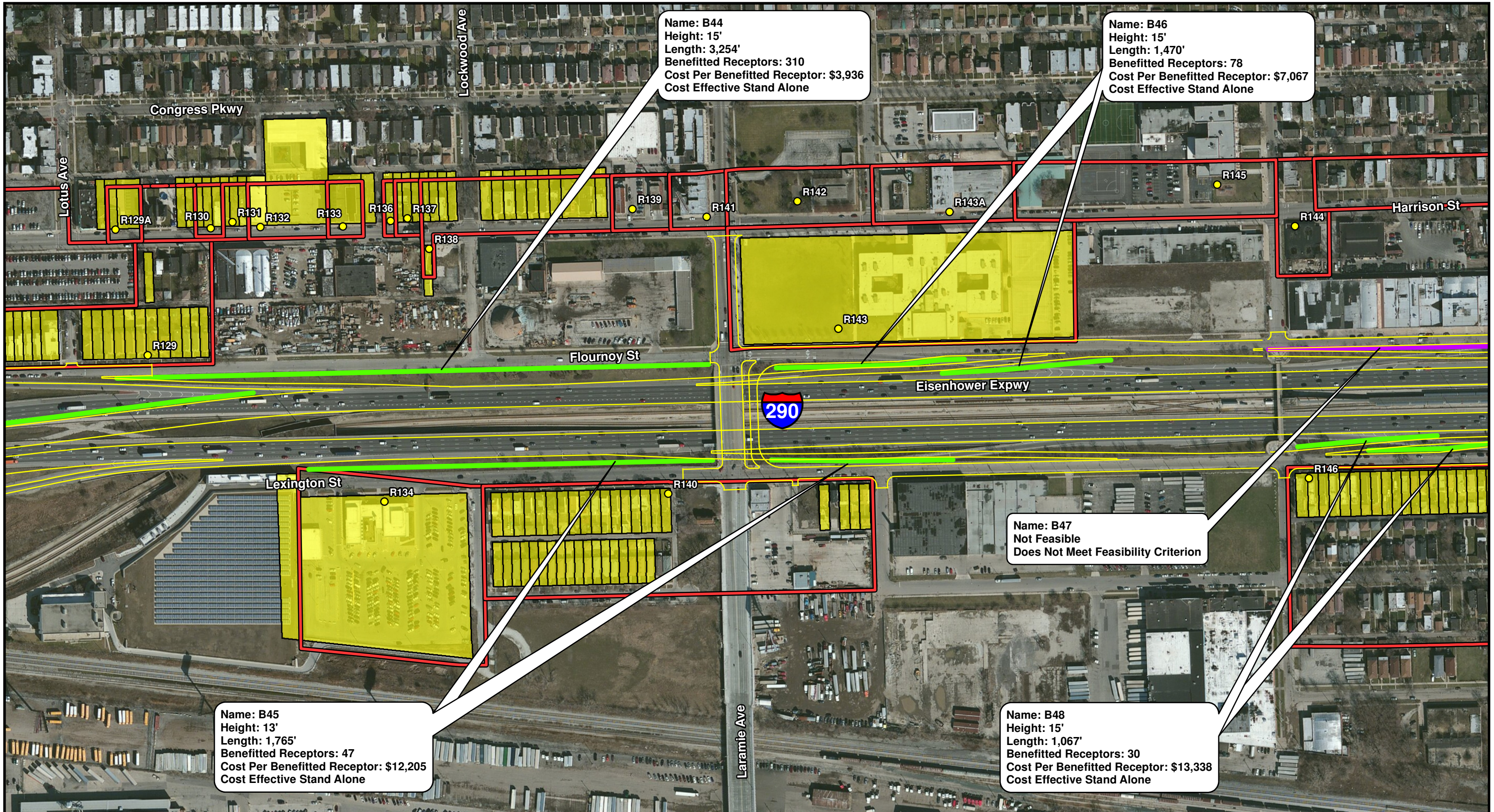
0 250 500 Feet

Aerial Source: USDA-FSA-APFO NAIP MrSID Mosaic, 2012

● Noise Receptor	Existing Noise Barrier
■ Benefitted by Noise Wall	Cost Effective Noise Barrier
□ Common Noise Environment	Barrier Studied, Not Reasonable and Feasible
▭ Municipal Boundary	Proposed Edge of Pavement

Huff & Huff, Inc.

Figure 2
 Analyzed Noise Wall Location Map
 I-290 (IL56/Butterfield Rd to Racine Ave)
 Cook County, Illinois
 Sheet 11 of 18
 NRDG: Noise Reduction Design Plan



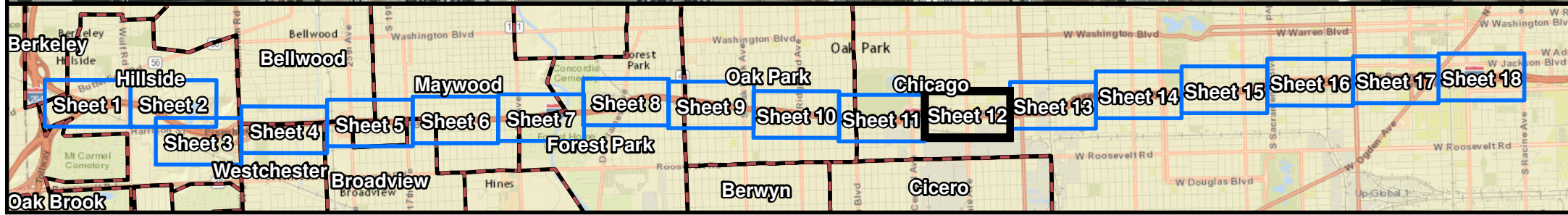
Name: B44
 Height: 15'
 Length: 3,254'
 Benefitted Receptors: 310
 Cost Per Benefitted Receptor: \$3,936
 Cost Effective Stand Alone

Name: B46
 Height: 15'
 Length: 1,470'
 Benefitted Receptors: 78
 Cost Per Benefitted Receptor: \$7,067
 Cost Effective Stand Alone

Name: B47
 Not Feasible
 Does Not Meet Feasibility Criterion

Name: B45
 Height: 13'
 Length: 1,765'
 Benefitted Receptors: 47
 Cost Per Benefitted Receptor: \$12,205
 Cost Effective Stand Alone

Name: B48
 Height: 15'
 Length: 1,067'
 Benefitted Receptors: 30
 Cost Per Benefitted Receptor: \$13,338
 Cost Effective Stand Alone



0 250 500
 Feet

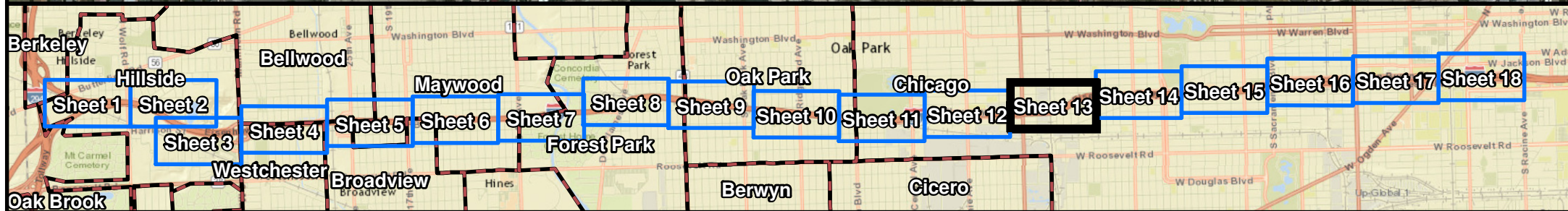
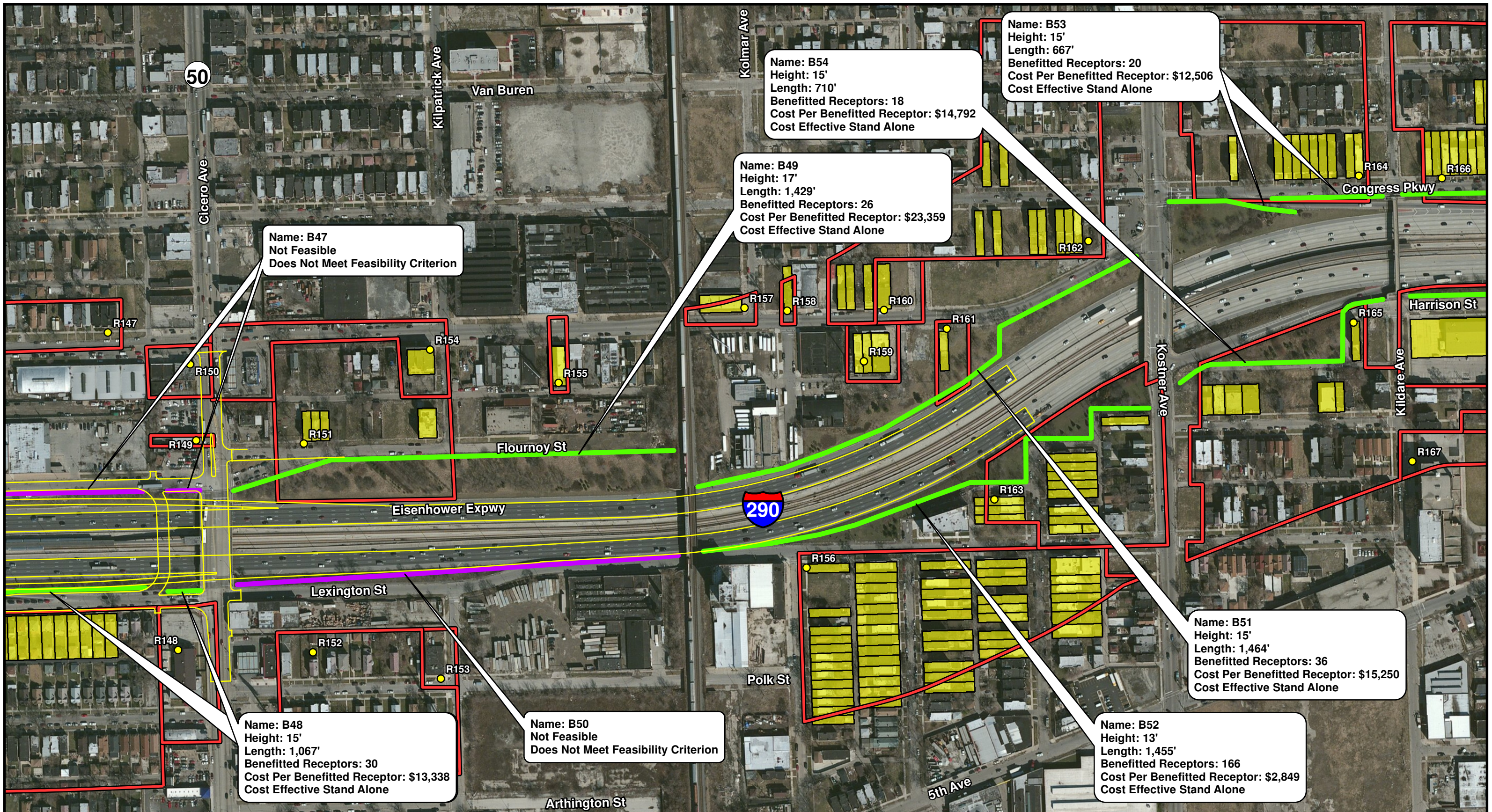
Aerial Source: USDA-FSA-APFO NAIP MrSID Mosaic, 2012

Legend

- Noise Receptor
- Benefitted by Noise Wall
- Common Noise Environment
- Municipal Boundary
- Existing Noise Barrier
- Cost Effective Noise Barrier
- Barrier Studied, Not Reasonable and Feasible
- Proposed Edge of Pavement

Huff & Huff, Inc.

Figure 2
 Analyzed Noise Wall Location Map
 I-290 (IL56/Butterfield Rd to Racine Ave)
 Cook County, Illinois
 Sheet 12 of 18
 NRDG: Noise Reduction Design Plan



Aerial Source: USDA-FSA-APFO NAIP MrSID Mosaic, 2012

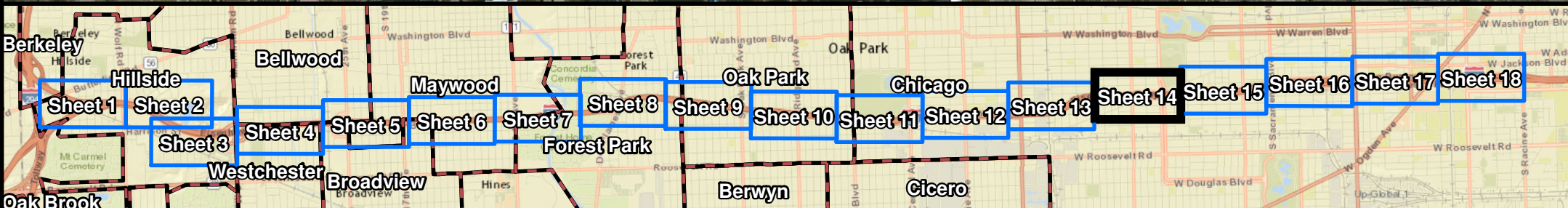
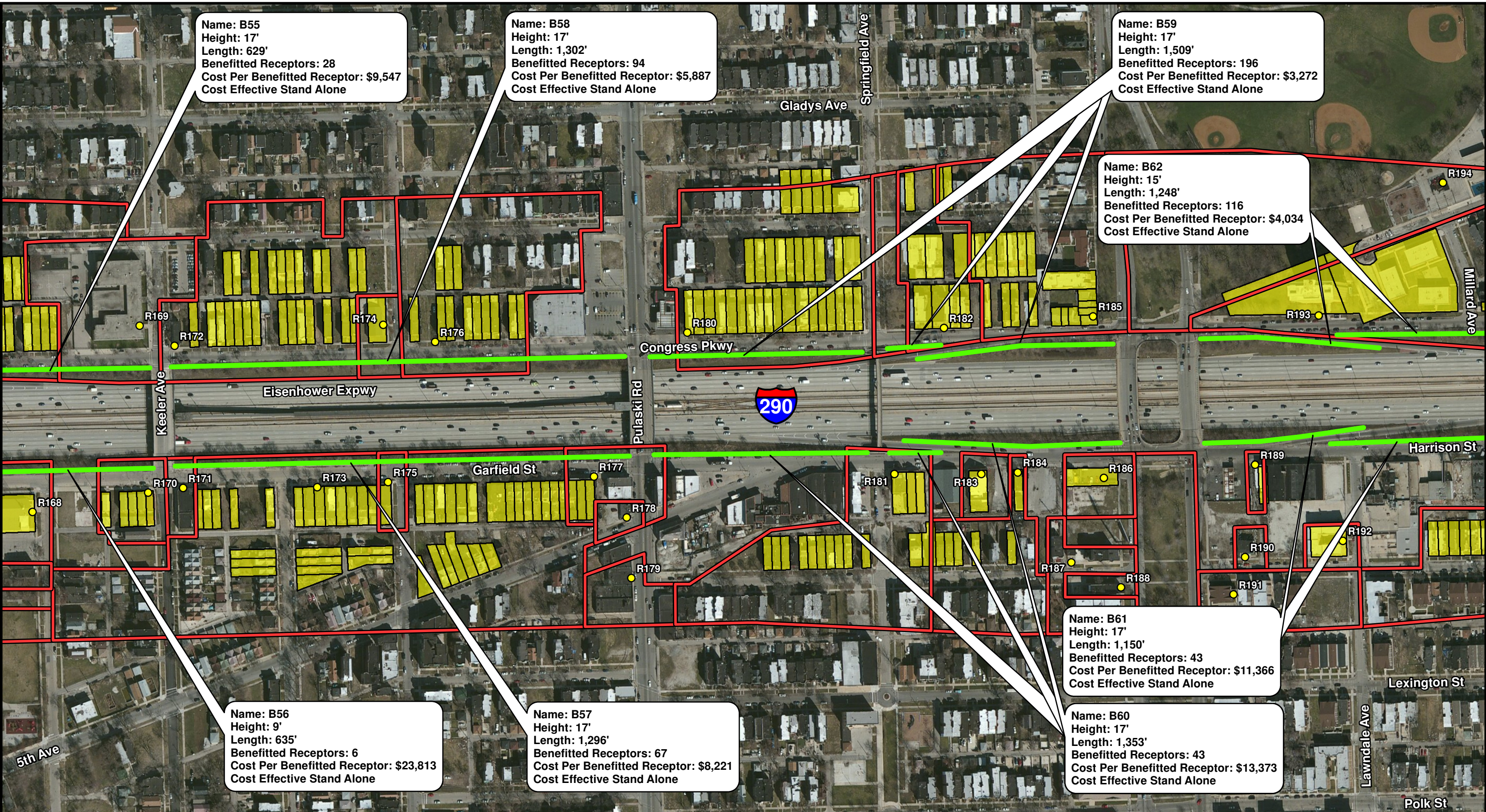
0 250 500 Feet

Legend

- Noise Receptor
- Benefitted by Noise Wall
- Common Noise Environment
- Municipal Boundary
- Existing Noise Barrier
- Cost Effective Noise Barrier
- Barrier Studied, Not Reasonable and Feasible
- Proposed Edge of Pavement

Huff & Huff, Inc.

Figure 2
Analyzed Noise Wall Location Map
I-290 (IL56/Butterfield Rd to Racine Ave)
Cook County, Illinois
Sheet 13 of 18
NRDG: Noise Reduction Design Plan



Aerial Source: USDA-FSA-APFO NAIP MrSID Mosaic, 2012

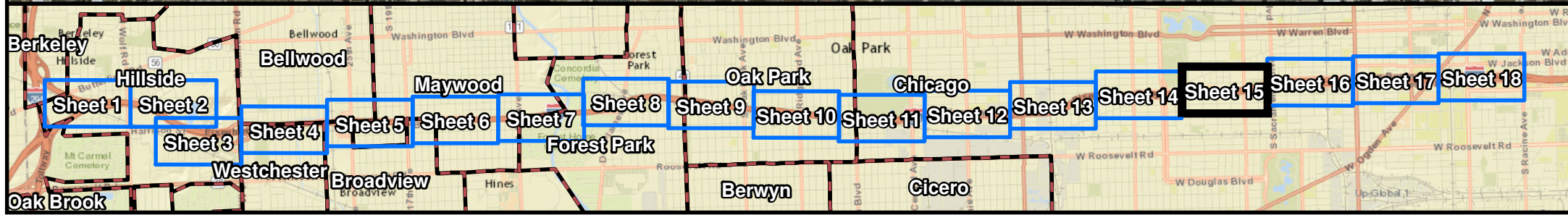
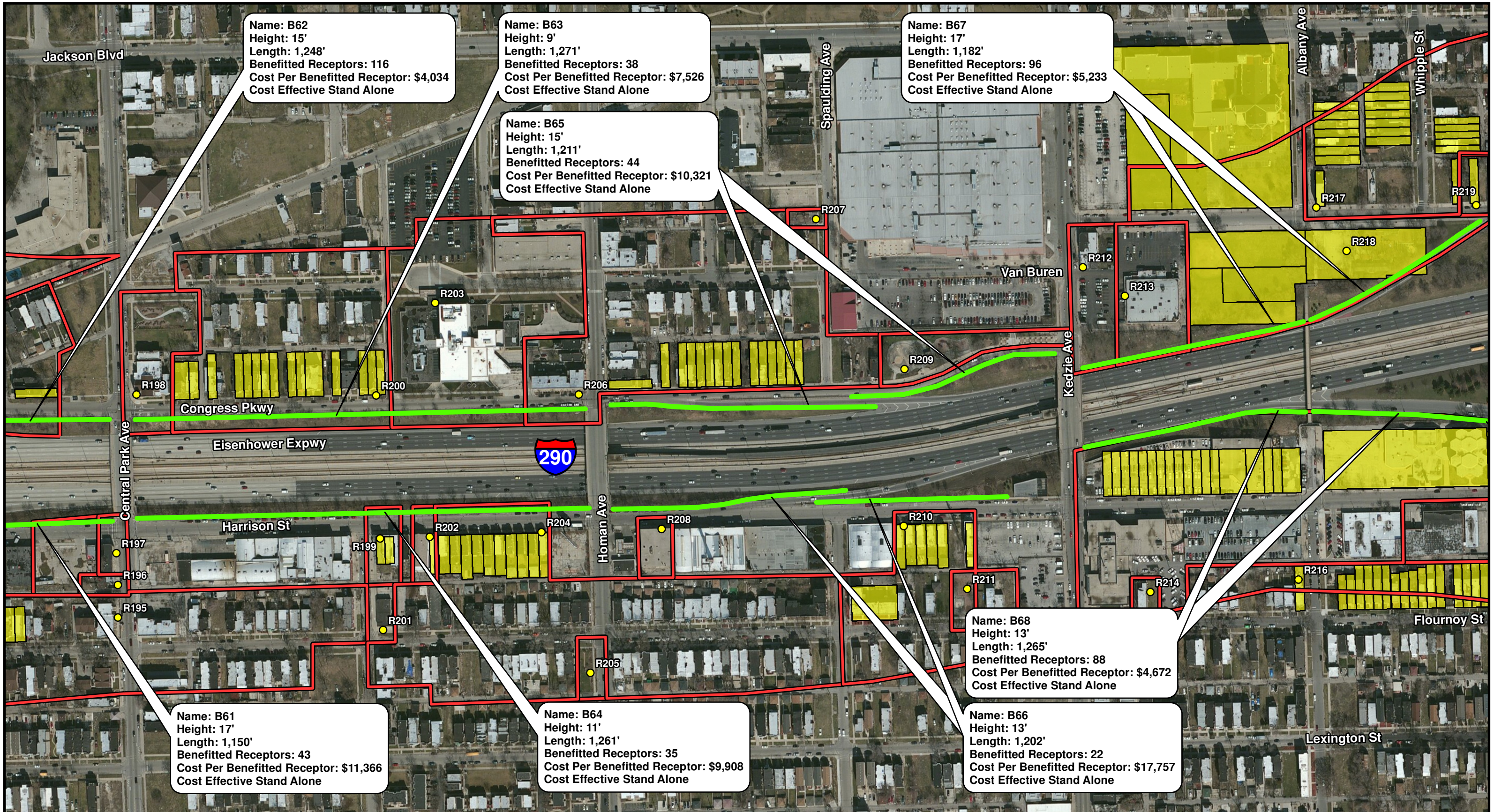
0 250 500 Feet

Legend

- Noise Receptor
- Benefitted by Noise Wall
- Common Noise Environment
- Municipal Boundary
- Existing Noise Barrier
- Cost Effective Noise Barrier Studied,
- Not Reasonable and Feasible
- Proposed Edge of Pavement

Huff & Huff, Inc.

Figure 2
 Analyzed Noise Wall Location Map
 I-290 (IL56/Butterfield Rd to Racine Ave)
 Cook County, Illinois
 Sheet 14 of 18
 NRDG: Noise Reduction Design Plan



Aerial Source: USDA-FSA-APFO NAIP MrSID Mosaic, 2012

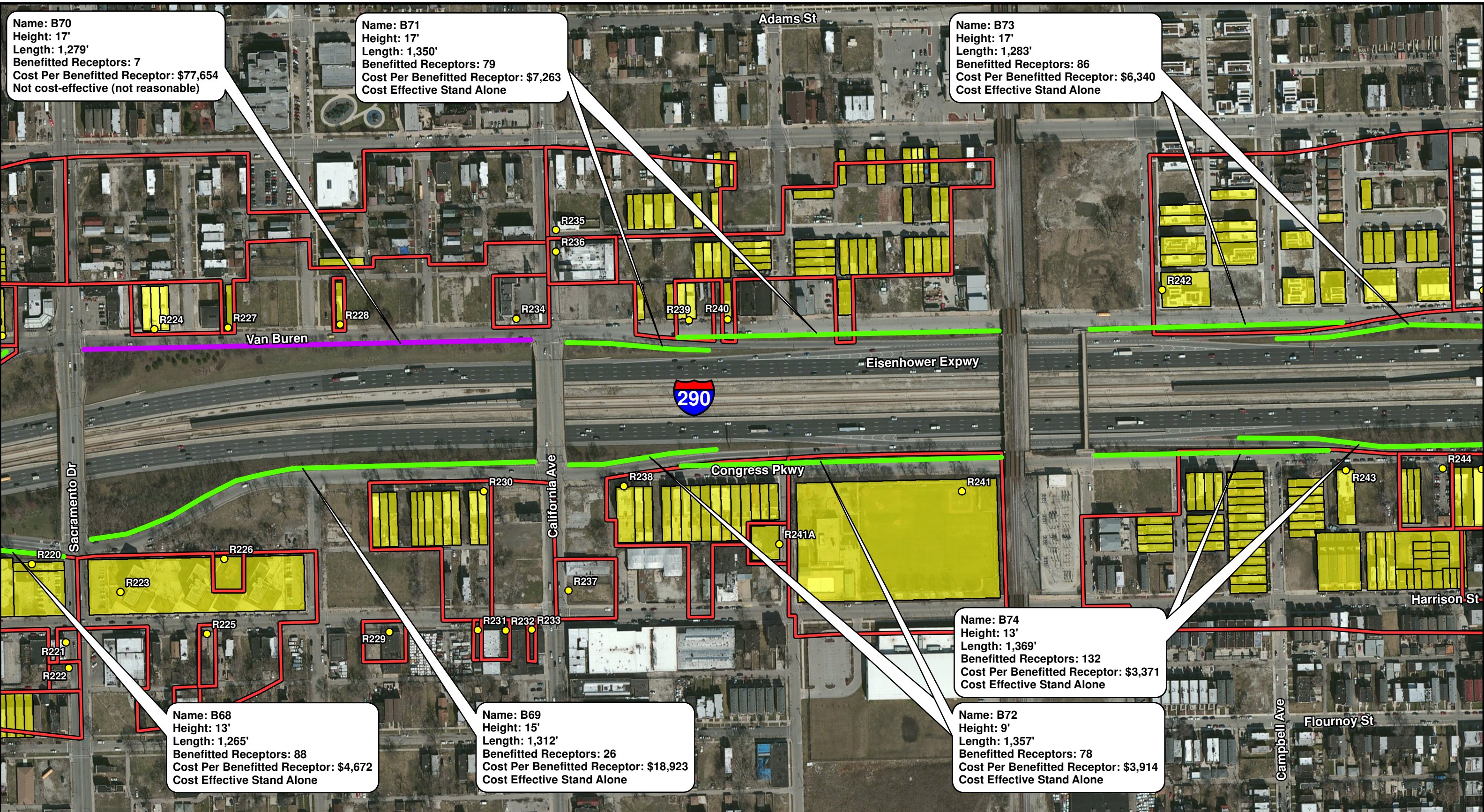
0 250 500
 Feet

Legend

- Noise Receptor
- Benefitted by Noise Wall
- Common Noise Environment
- Municipal Boundary
- Existing Noise Barrier
- Cost Effective Noise Barrier
- Barrier Studied, Not Reasonable and Feasible
- Proposed Edge of Pavement

Huff & Huff, Inc.

Figure 2
 Analyzed Noise Wall Location Map
 I-290 (IL56/Butterfield Rd to Racine Ave)
 Cook County, Illinois
 Sheet 15 of 18
 NRDG: Noise Reduction Design Plan



Name: B70
 Height: 17'
 Length: 1,279'
 Benefitted Receptors: 7
 Cost Per Benefitted Receptor: \$77,654
 Not cost-effective (not reasonable)

Name: B71
 Height: 17'
 Length: 1,350'
 Benefitted Receptors: 79
 Cost Per Benefitted Receptor: \$7,263
 Cost Effective Stand Alone

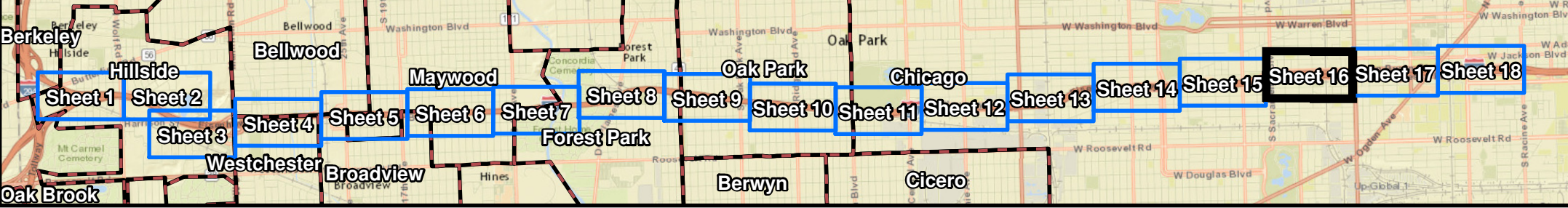
Name: B73
 Height: 17'
 Length: 1,283'
 Benefitted Receptors: 86
 Cost Per Benefitted Receptor: \$6,340
 Cost Effective Stand Alone

Name: B68
 Height: 13'
 Length: 1,265'
 Benefitted Receptors: 88
 Cost Per Benefitted Receptor: \$4,672
 Cost Effective Stand Alone

Name: B69
 Height: 15'
 Length: 1,312'
 Benefitted Receptors: 26
 Cost Per Benefitted Receptor: \$18,923
 Cost Effective Stand Alone

Name: B74
 Height: 13'
 Length: 1,369'
 Benefitted Receptors: 132
 Cost Per Benefitted Receptor: \$3,371
 Cost Effective Stand Alone

Name: B72
 Height: 9'
 Length: 1,357'
 Benefitted Receptors: 78
 Cost Per Benefitted Receptor: \$3,914
 Cost Effective Stand Alone



0 250 500 Feet

Aerial Source: USDA-FSA-APFO NAIP MrSID Mosaic, 2012

● Noise Receptor	Existing Noise Barrier
■ Benefitted by Noise Wall	Cost Effective Noise Barrier
□ Common Noise Environment	Barrier Studied, Not Reasonable and Feasible
▭ Municipal Boundary	Proposed Edge of Pavement

Huff & Huff, Inc.

Figure 2
 Analyzed Noise Wall Location Map
 I-290 (IL56/Butterfield Rd to Racine Ave)
 Cook County, Illinois
 Sheet 16 of 18
 NRDG: Noise Reduction Design Plan

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Name: B76
 Height: 9'
 Length: 589'
 Benefitted Receptors: 12
 Cost Per Benefitted Receptor: \$11,044
 Cost Effective Stand Alone

Name: B77
 Height: 9'
 Length: 706'
 Benefitted Receptors: 30
 Cost Per Benefitted Receptor: \$5,295
 Cost Effective Stand Alone

Name: B80
 Height: 11'
 Length: 1,453'
 Benefitted Receptors: 77
 Cost Per Benefitted Receptor: \$5,189
 Cost Effective Stand Alone

Name: B81
 Height: 9'
 Length: 1,249'
 Benefitted Receptors: 75
 Cost Per Benefitted Receptor: \$3,747
 Cost Effective Stand Alone

Name: B84
 Not Feasible
 Does Not Meet Feasibility Criterion

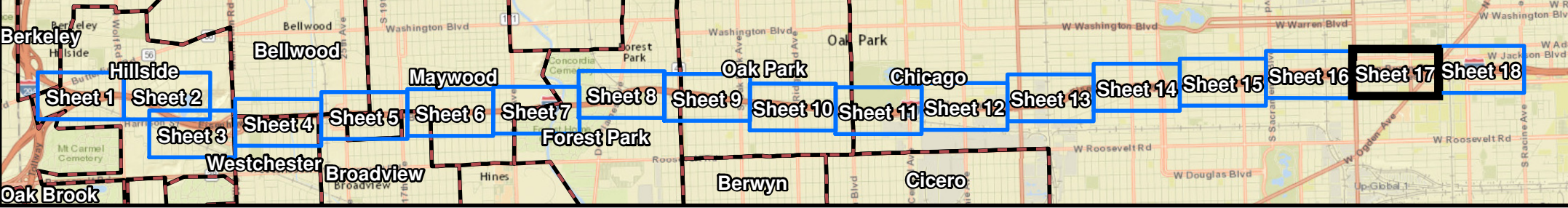
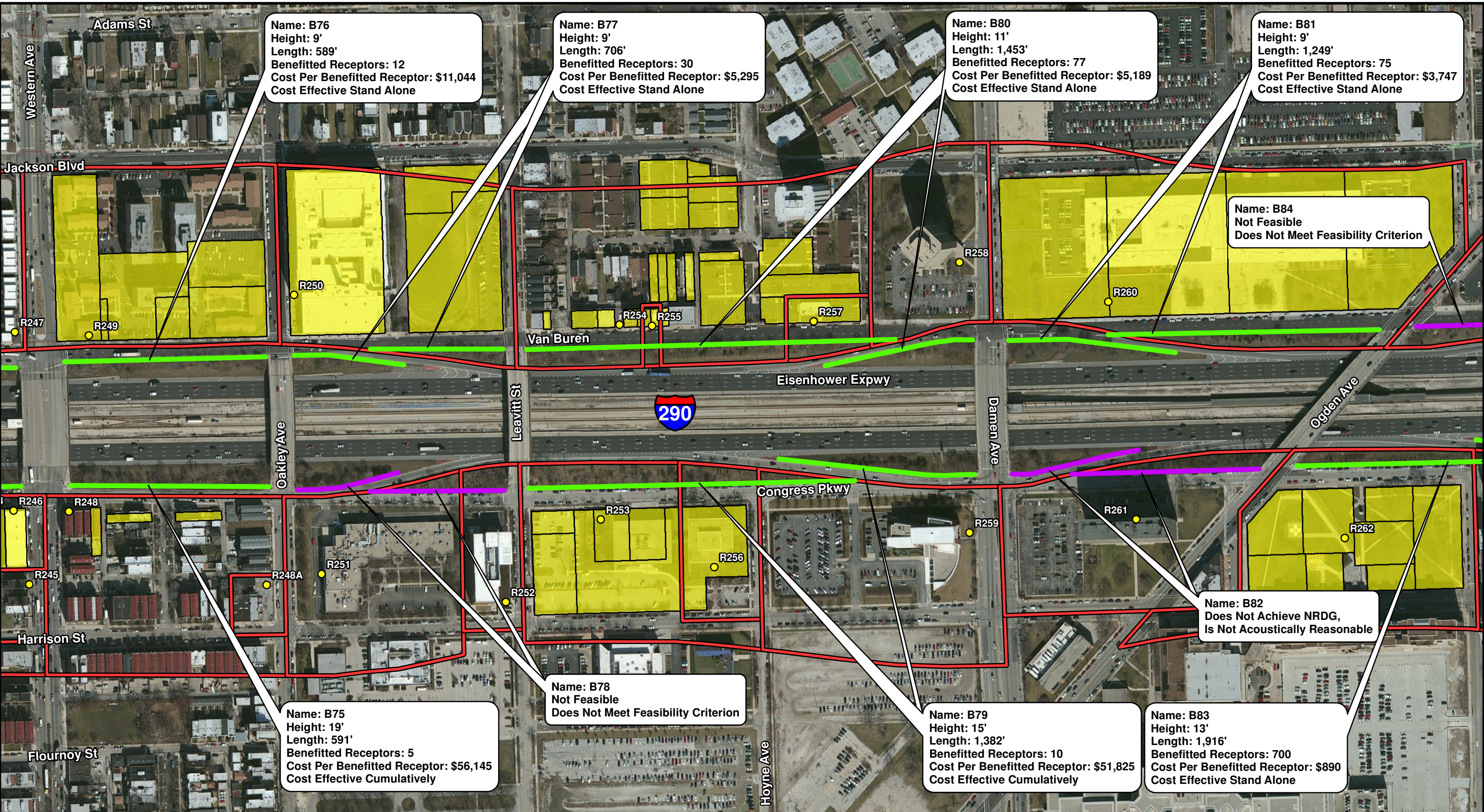
Name: B82
 Does Not Achieve NRDG,
 Is Not Acoustically Reasonable

Name: B78
 Not Feasible
 Does Not Meet Feasibility Criterion

Name: B79
 Height: 15'
 Length: 1,382'
 Benefitted Receptors: 10
 Cost Per Benefitted Receptor: \$51,825
 Cost Effective Cumulatively

Name: B83
 Height: 13'
 Length: 1,916'
 Benefitted Receptors: 700
 Cost Per Benefitted Receptor: \$890
 Cost Effective Stand Alone

Name: B75
 Height: 19'
 Length: 591'
 Benefitted Receptors: 5
 Cost Per Benefitted Receptor: \$56,145
 Cost Effective Cumulatively

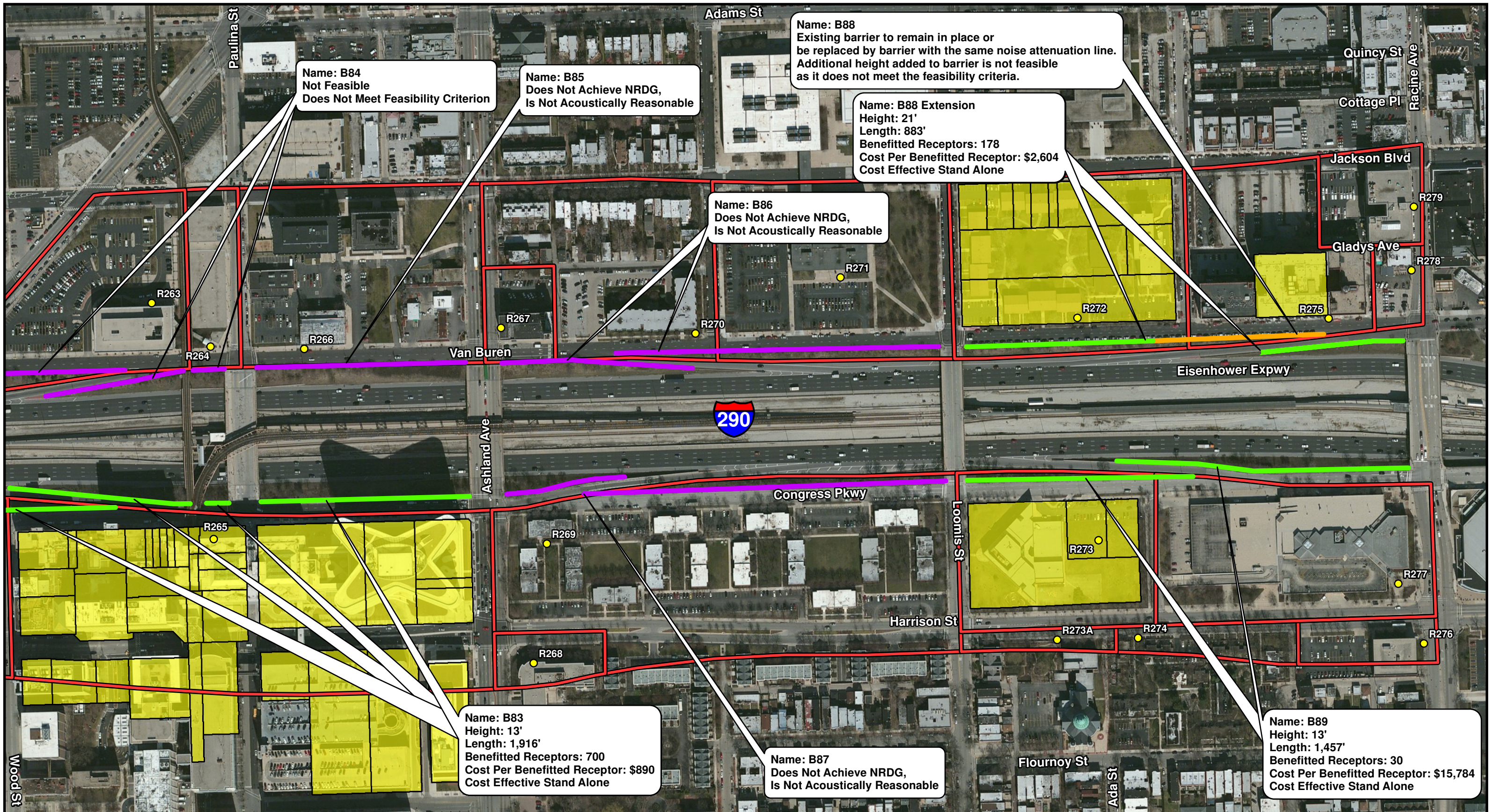


Aerial Source: USDA-FSA-APFO NAIP MrSID Mosaic, 2012

● Noise Receptor	Existing Noise Barrier
■ Benefitted by Noise Wall	Cost Effective Noise Barrier
□ Common Noise Environment	Barrier Studied, Not Reasonable and Feasible
▭ Municipal Boundary	Proposed Edge of Pavement

Huff & Huff, Inc.
 Figure 2
 Analyzed Noise Wall Location Map
 I-290 (IL56/Butterfield Rd to Racine Ave)
 Cook County, Illinois
 Sheet 17 of 18
 NRDG: Noise Reduction Design Plan

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Name: B84
Not Feasible
Does Not Meet Feasibility Criterion

Name: B85
Does Not Achieve NRDG,
Is Not Acoustically Reasonable

Name: B88
Existing barrier to remain in place or
be replaced by barrier with the same noise attenuation line.
Additional height added to barrier is not feasible
as it does not meet the feasibility criteria.

Name: B88 Extension
Height: 21'
Length: 883'
Benefitted Receptors: 178
Cost Per Benefitted Receptor: \$2,604
Cost Effective Stand Alone

Name: B86
Does Not Achieve NRDG,
Is Not Acoustically Reasonable

Name: B83
Height: 13'
Length: 1,916'
Benefitted Receptors: 700
Cost Per Benefitted Receptor: \$890
Cost Effective Stand Alone

Name: B87
Does Not Achieve NRDG,
Is Not Acoustically Reasonable

Name: B89
Height: 13'
Length: 1,457'
Benefitted Receptors: 30
Cost Per Benefitted Receptor: \$15,784
Cost Effective Stand Alone



Aerial Source: USDA-FSA-APFO NAIP MrSID Mosaic, 2012

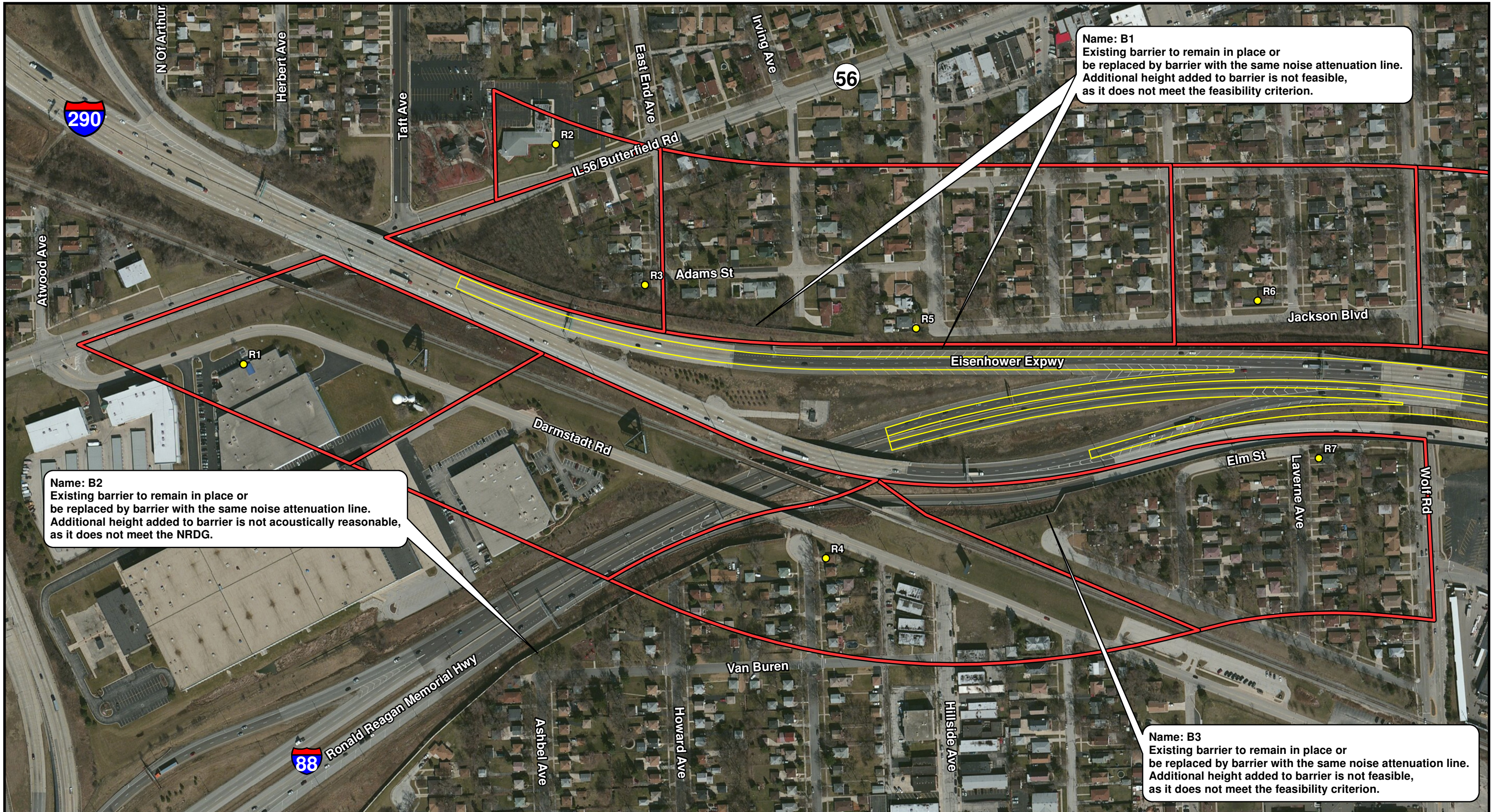
0 250 500 Feet

Legend

- Noise Receptor
- Benefitted by Noise Wall
- Common Noise Environment
- Municipal Boundary
- Existing Noise Barrier
- Cost Effective Noise Barrier
- Barrier Studied, Not Reasonable and Feasible
- Proposed Edge of Pavement

Huff & Huff, Inc.

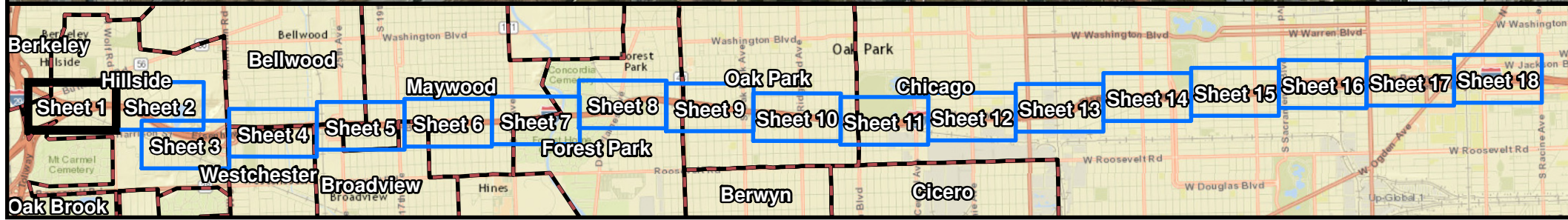
Figure 2
Analyzed Noise Wall Location Map
I-290 (IL56/Butterfield Rd to Racine Ave)
Cook County, Illinois
Sheet 18 of 18
NRDG: Noise Reduction Design Plan



Name: B1
 Existing barrier to remain in place or be replaced by barrier with the same noise attenuation line. Additional height added to barrier is not feasible, as it does not meet the feasibility criterion.

Name: B2
 Existing barrier to remain in place or be replaced by barrier with the same noise attenuation line. Additional height added to barrier is not acoustically reasonable, as it does not meet the NRDG.

Name: B3
 Existing barrier to remain in place or be replaced by barrier with the same noise attenuation line. Additional height added to barrier is not feasible, as it does not meet the feasibility criterion.



Aerial Source: USDA-FSA-APFO NAIP MrSID Mosaic, 2012

Legend

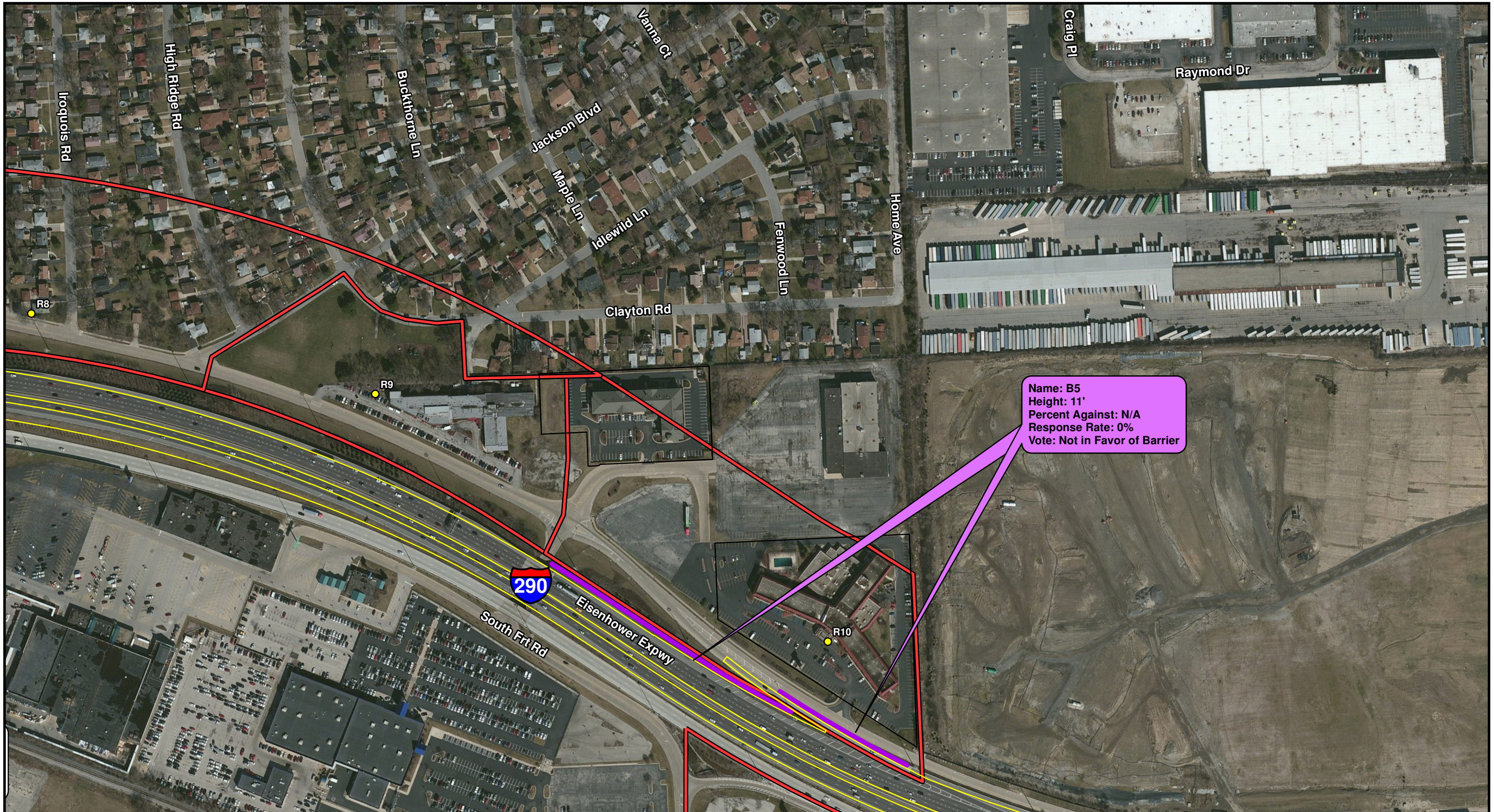
- Noise Receptor
- Common Noise Environment
- Municipal Boundary
- Noise Barrier Likely to be Implemented
- Noise Barrier Not Likely to be Implemented
- Proposed Edge of Pavement

0 250 500 Feet

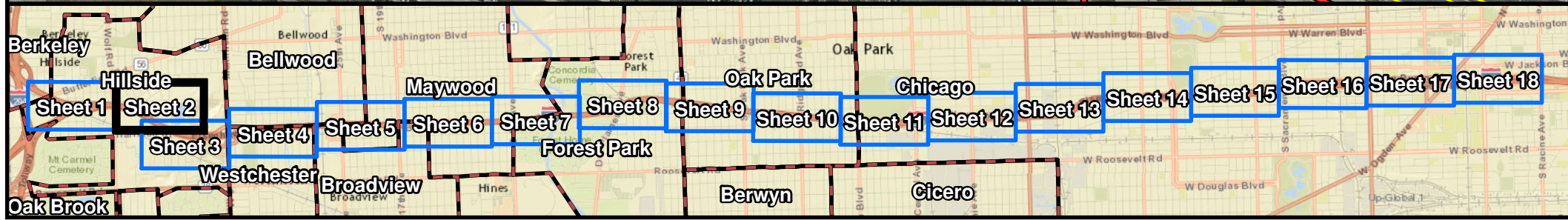
* Callout Colored to Match Trending Results of Vote

Huff & Huff, Inc.

Figure 3 - Noise Barriers Recommended for Construction
 I-290 (IL56/Butterfield Rd to Racine Ave)
 Cook County, Illinois
 Sheet 1 of 18
 NRDG: Noise Reduction Design Plan



Name: B5
 Height: 11'
 Percent Against: N/A
 Response Rate: 0%
 Vote: Not in Favor of Barrier



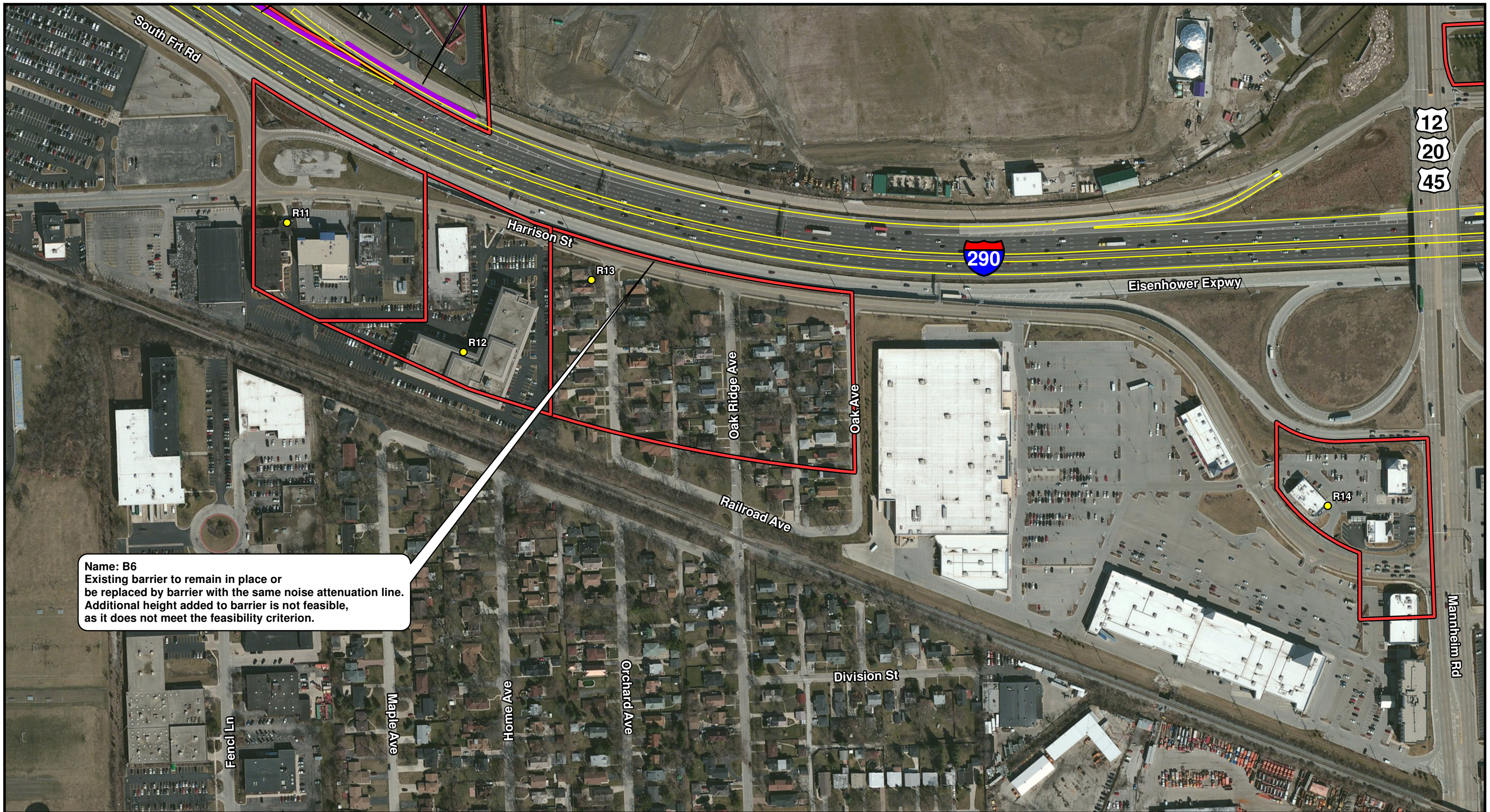
Aerial Source: USDA-FSA-APFO NAIP MrSID Mosaic, 2012

- Legend**
- Noise Receptor
 - ▭ Common
 - ▭ Noise Environment
 - ▭ Municipal Boundary
 - ▬ Noise Barrier Likely to be Implemented
 - ▬ Noise Barrier Not Likely to be Implemented
 - ▬ Proposed Edge of Pavement

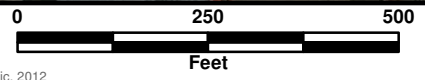
* Callout Colored to Match Trending Results of Vote

Huff & Huff, Inc.

Figure 3 - Noise Barriers Recommended for Construction
 I-290 (IL56/Butterfield Rd to Racine Ave)
 Cook County, Illinois
 Sheet 2 of 18
 NRDG: Noise Reduction Design Plan



Name: B6
 Existing barrier to remain in place or be replaced by barrier with the same noise attenuation line. Additional height added to barrier is not feasible, as it does not meet the feasibility criterion.



Aerial Source: USDA-FSA-APFO NAIP MrSID Mosaic, 2012

Legend

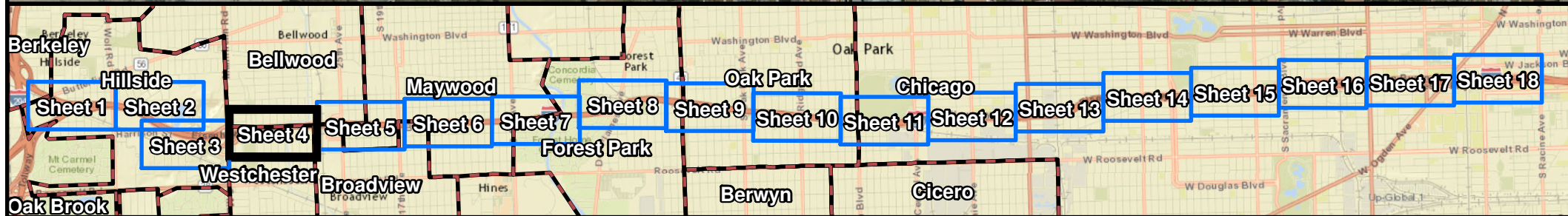
- Noise Receptor
- Common Noise Environment
- Municipal Boundary
- Noise Barrier Likely to be Implemented
- Noise Barrier Not Likely to be Implemented
- Proposed Edge of Pavement

* Callout Colored to Match Trending Results of Vote

Huff & Huff, Inc.

Figure 3 - Noise Barriers Recommended for Construction I-290 (IL56/Butterfield Rd to Racine Ave) Cook County, Illinois Sheet 3 of 18

NRDG: Noise Reduction Design Plan



Aerial Source: USDA-FSA-APFO NAIP MrSID Mosaic, 2012

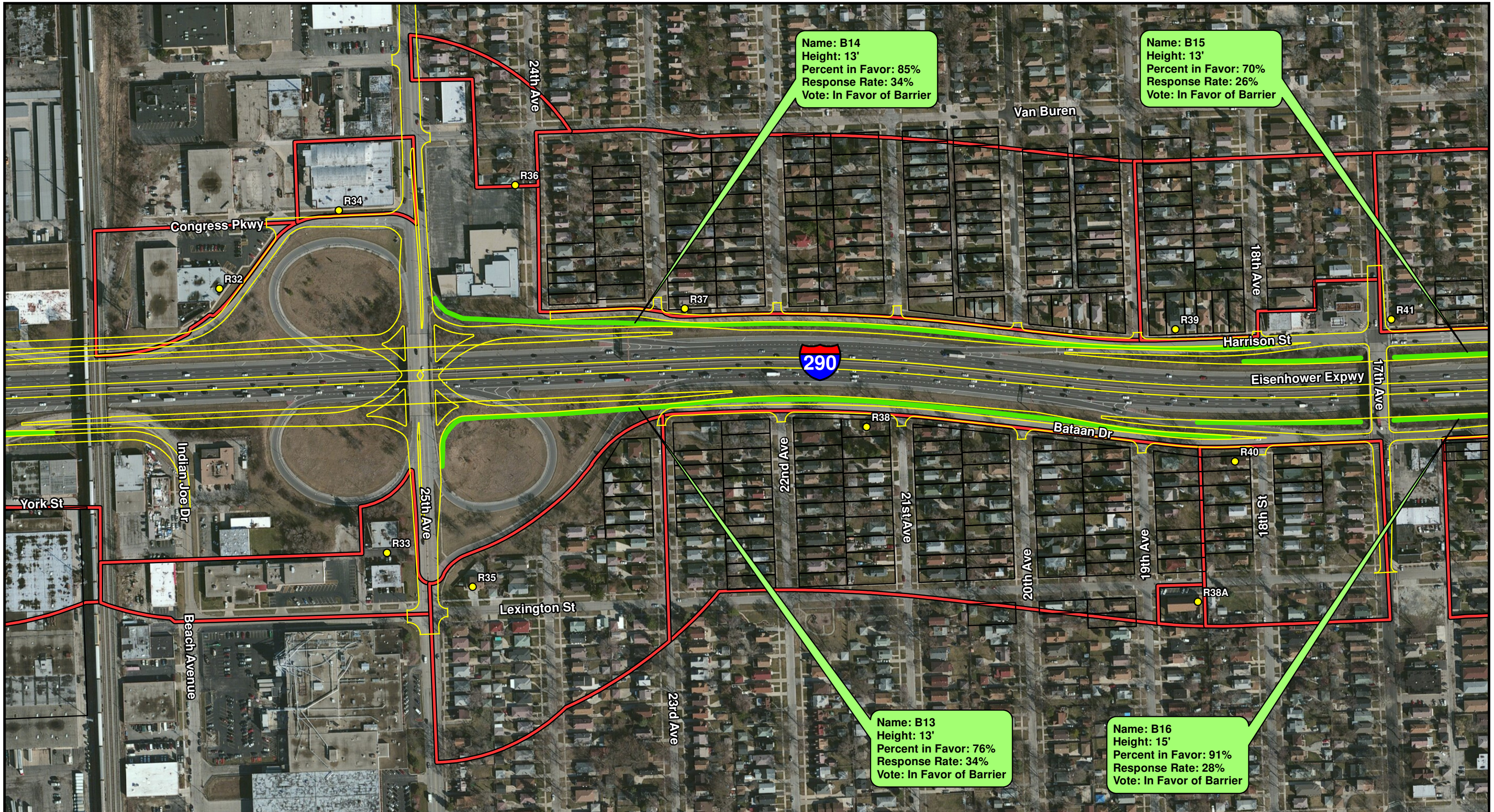
Legend

- Noise Receptor
- Common Noise Environment
- Municipal Boundary
- Noise Barrier Likely to be Implemented
- Noise Barrier Not Likely to be Implemented
- Proposed Edge of Pavement

* Callout Colored to Match Trending Results of Vote

Huff & Huff, Inc.

Figure 3 - Noise Barriers Recommended for Construction I-290 (IL56/Butterfield Rd to Racine Ave) Cook County, Illinois Sheet 4 of 18 NRDG: Noise Reduction Design Plan

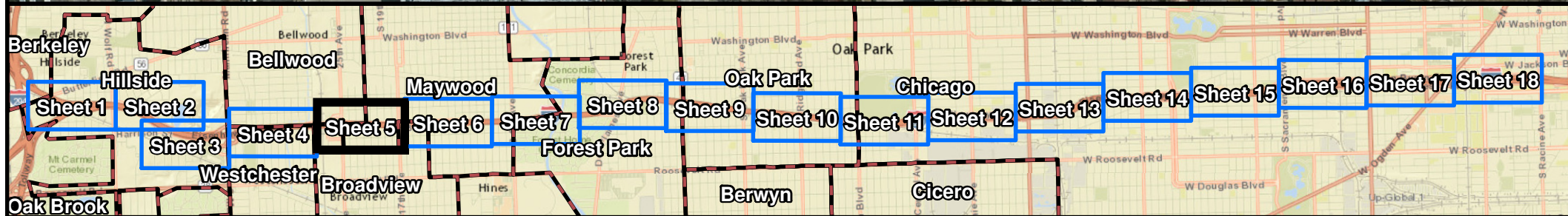


Name: B14
 Height: 13'
 Percent in Favor: 85%
 Response Rate: 34%
 Vote: In Favor of Barrier

Name: B15
 Height: 13'
 Percent in Favor: 70%
 Response Rate: 26%
 Vote: In Favor of Barrier

Name: B13
 Height: 13'
 Percent in Favor: 76%
 Response Rate: 34%
 Vote: In Favor of Barrier

Name: B16
 Height: 15'
 Percent in Favor: 91%
 Response Rate: 28%
 Vote: In Favor of Barrier



0 250 500
 Feet

Aerial Source: USDA-FSA-APFO NAIP MrSID Mosaic, 2012

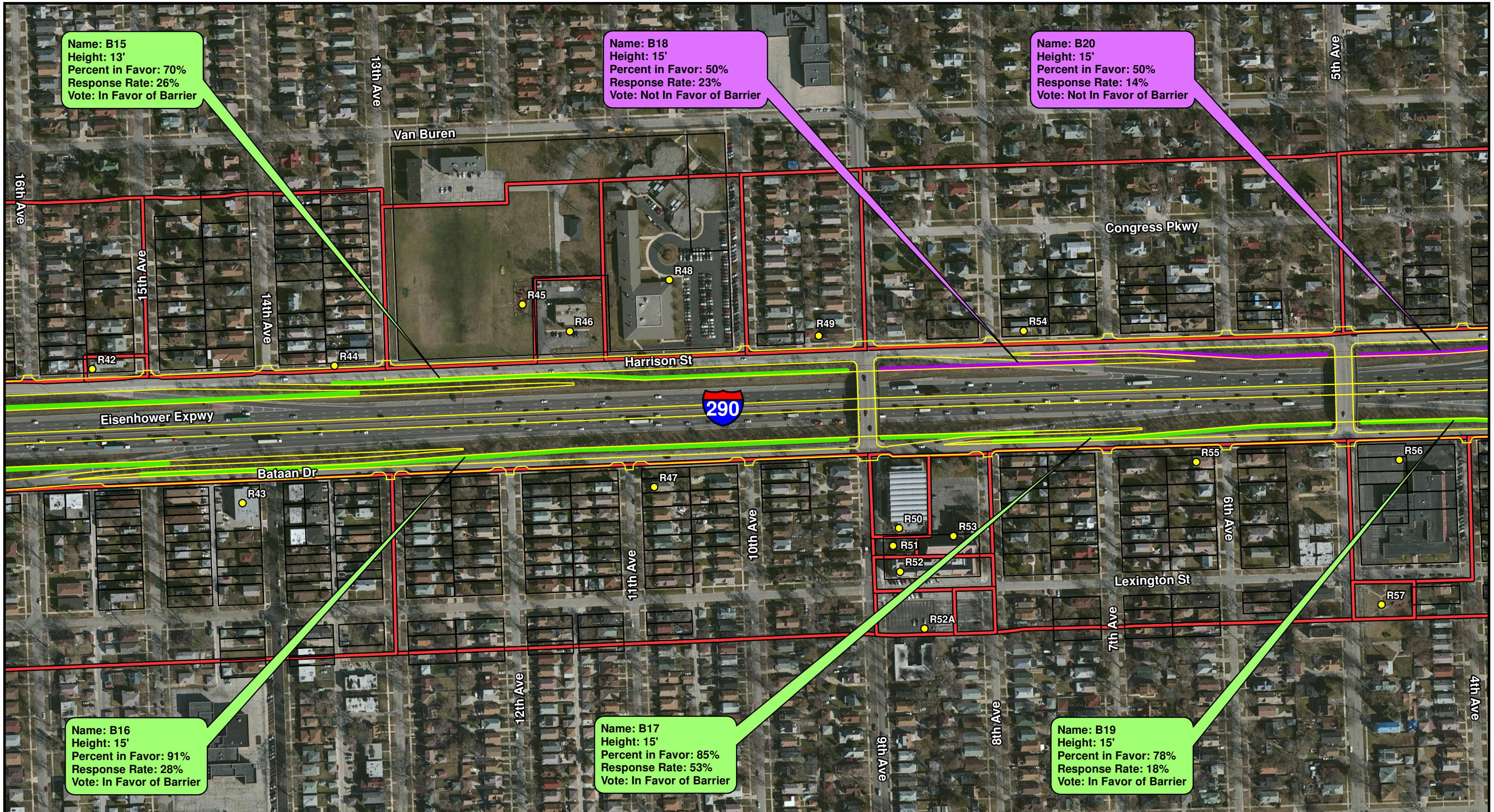
Legend

- Noise Receptor
- Common Noise Environment
- Municipal Boundary
- Noise Barrier Likely to be Implemented
- Noise Barrier Not Likely to be Implemented
- Proposed Edge of Pavement

* Callout Colored to Match Trending Results of Vote

Huff & Huff, Inc.

Figure 3 - Noise Barriers Recommended for Construction I-290 (IL56/Butterfield Rd to Racine Ave) Cook County, Illinois Sheet 5 of 18 NRDG: Noise Reduction Design Plan



Name: B15
 Height: 13'
 Percent in Favor: 70%
 Response Rate: 26%
 Vote: In Favor of Barrier

Name: B18
 Height: 15'
 Percent in Favor: 50%
 Response Rate: 23%
 Vote: Not In Favor of Barrier

Name: B20
 Height: 15'
 Percent in Favor: 50%
 Response Rate: 14%
 Vote: Not In Favor of Barrier

Name: B16
 Height: 15'
 Percent in Favor: 91%
 Response Rate: 28%
 Vote: In Favor of Barrier

Name: B17
 Height: 15'
 Percent in Favor: 85%
 Response Rate: 53%
 Vote: In Favor of Barrier

Name: B19
 Height: 15'
 Percent in Favor: 78%
 Response Rate: 18%
 Vote: In Favor of Barrier



Legend

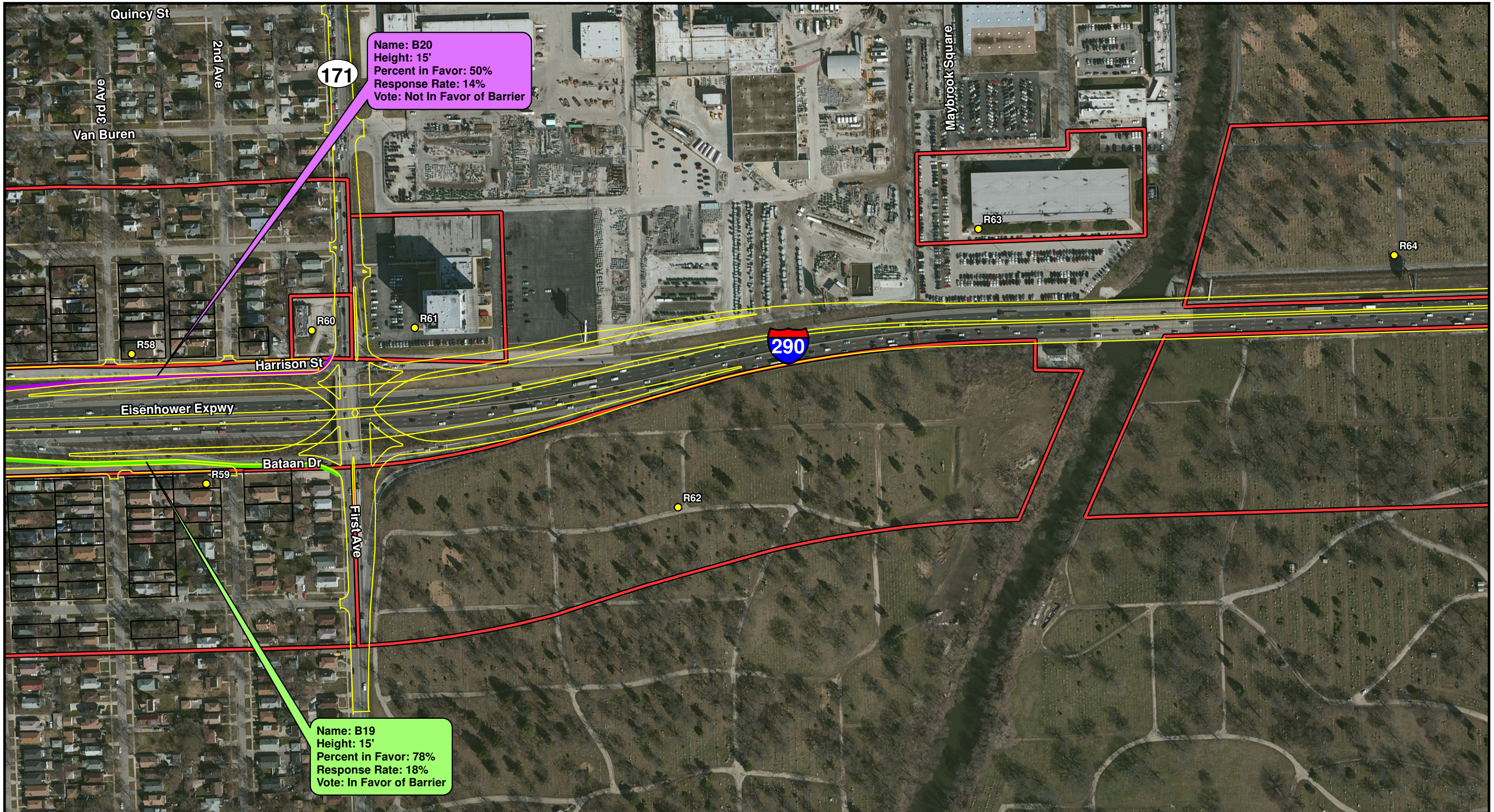
- Noise Receptor
- Common Noise Environment
- Municipal Boundary
- Noise Barrier Likely to be Implemented
- Noise Barrier Not Likely to be Implemented
- Proposed Edge of Pavement

* Callout Colored to Match Trending Results of Vote

Huff & Huff, Inc.

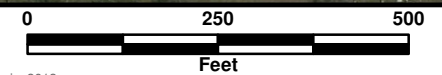
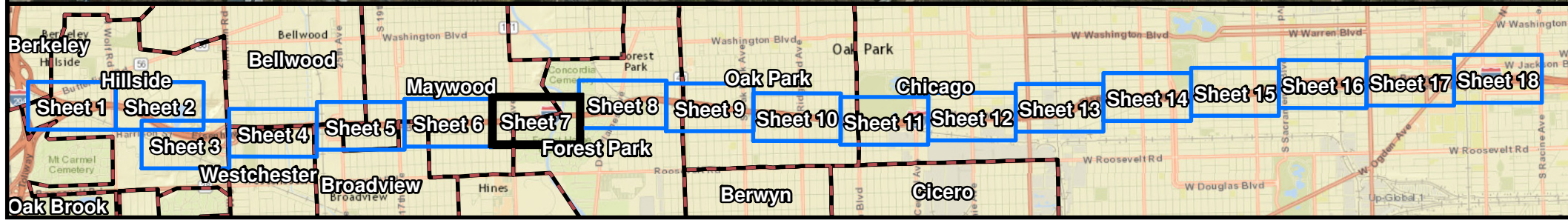
Figure 3 - Noise Barriers Recommended for Construction I-290 (IL56/Butterfield Rd to Racine Ave) Cook County, Illinois Sheet 6 of 18

NRDG: Noise Reduction Design Plan



Name: B20
Height: 15'
Percent in Favor: 50%
Response Rate: 14%
Vote: Not In Favor of Barrier

Name: B19
Height: 15'
Percent in Favor: 78%
Response Rate: 18%
Vote: In Favor of Barrier



- Legend**
- Noise Receptor
 - Common Noise Environment
 - Municipal Boundary
 - Noise Barrier Likely to be Implemented
 - Noise Barrier Not Likely to be Implemented
 - Proposed Edge of Pavement
- * Callout Colored to Match Trending Results of Vote

Huff & Huff, Inc.

Figure 3 - Noise Barriers Recommended for Construction I-290 (IL56/Butterfield Rd to Racine Ave) Cook County, Illinois Sheet 7 of 18 NRDG: Noise Reduction Design Plan