

RESULTS: SOUND-LEVEL DIAGNOSIS BY BARRIER SEGMENT**I-20 Widening**

ICA Engineering				20 April 2015		
Will Kerr/Wayne Hall				TNM 2.5		
				Calculated with TNM 2.5		
RESULTS: SOUND-LEVEL DIAGNOSIS BY BARRIER SEGMENT						
PROJECT/CONTRACT:	I-20 Widening					
RUN:	2037 SC 6 to Longs Pond Road - Wall 3					
BARRIER DESIGN:	INPUT HEIGHTS					
ATMOSPHERICS:	68 deg F, 50% RH					
Selected Receivers						
Name	No.	Total	Important Barriers	Important Segments		
		LAeq1h	Name	Name	No.	Partial
						LAeq1h
		dBA				dBA
Receiver54	54	71.30				
Receiver56	56	73.90				
Receiver58	58	73.20				
Receiver60	60	73.10				
Receiver61	61	72.00				
Receiver62	62	70.60				
Receiver63	63	71.60				
Receiver65	65	69.30				
Receiver67	67	69.00				
Receiver68	68	67.40				
Receiver70	70	69.00				
Receiver74	74	71.50				
Receiver75	75	72.00				
Receiver76	76	73.80				
Receiver77	77	75.00				
Receiver78	78	72.30				
Receiver80	80	74.70				
Receiver82	82	73.60				
Receiver83	83	76.80				
Receiver84	84	69.80				

RESULTS: SOUND-LEVEL DIAGNOSIS BY BARRIER SEGMENT**I-20 Widening**

Receiver85	85	71.60				
Receiver87	87	66.90				
Receiver89	89	77.00				
Receiver90	90	70.40	Wall3	454+50.00	35	25.00
			Wall3	453+50.00	34	23.10
			Wall3	455+50.00	36	22.30
			Wall3	452+50.00	33	20.30
			Wall3	451+50.00	32	14.80
Receiver91	91	68.30	Wall3	454+50.00	35	28.20
			Wall3	453+50.00	34	28.00
			Wall3	452+50.00	33	27.70
			Wall3	451+50.00	32	27.40
			Wall3	450+50.00	31	27.20
			Wall3	449+50.00	30	27.00
			Wall3	448+50.00	29	26.70
			Wall3	447+50.00	28	26.10
			Wall3	455+50.00	36	25.40
			Wall3	446+50.00	27	25.00
Receiver92	92	76.10				
Receiver93	93	74.00				
Receiver95	95	68.00	Wall3	454+50.00	35	31.40
			Wall3	453+50.00	34	31.00
			Wall3	452+50.00	33	30.70
			Wall3	451+50.00	32	30.30
			Wall3	450+50.00	31	29.90
			Wall3	449+50.00	30	29.60
			Wall3	448+50.00	29	29.20
			Wall3	447+50.00	28	28.90
			Wall3	455+50.00	36	28.70
			Wall3	446+50.00	27	28.70
Receiver96	96	71.40	Wall3	454+50.00	35	33.30
			Wall3	453+50.00	34	32.80
			Wall3	452+50.00	33	31.80
			Wall3	455+50.00	36	30.90
			Wall3	451+50.00	32	30.00
			Wall3	450+50.00	31	28.50

RESULTS: SOUND-LEVEL DIAGNOSIS BY BARRIER SEGMENT
I-20 Widening

			Wall3	449+50.00	30	28.10
			Wall3	448+50.00	29	27.30
			Wall3	447+50.00	28	25.10
			Wall3	446+50.00	27	21.80
Receiver97	97	72.00	Wall3	454+50.00	35	34.10
			Wall3	453+50.00	34	32.50
			Wall3	455+50.00	36	31.90
			Wall3	452+50.00	33	30.80
			Wall3	451+50.00	32	29.80
			Wall3	450+50.00	31	28.60
			Wall3	449+50.00	30	25.90
			Wall3	448+50.00	29	21.20
Receiver98	98	68.10	Wall3	454+50.00	35	36.60
			Wall3	453+50.00	34	35.90
			Wall3	452+50.00	33	35.20
			Wall3	451+50.00	32	34.50
			Wall3	455+50.00	36	34.20
			Wall3	450+50.00	31	33.90
			Wall3	449+50.00	30	33.40
			Wall3	448+50.00	29	32.90
			Wall3	447+50.00	28	32.40
			Wall3	446+50.00	27	32.00
Receiver99	99	74.40				
Receiver100	100	74.20	Wall3	454+50.00	35	40.70
			Wall3	455+50.00	36	39.00
			Wall3	453+50.00	34	37.70
			Wall3	452+50.00	33	35.10
			Wall3	451+50.00	32	29.80
Receiver101	101	69.70	Wall3	454+50.00	35	43.80
			Wall3	453+50.00	34	42.50
			Wall3	455+50.00	36	41.80
			Wall3	452+50.00	33	41.20
			Wall3	451+50.00	32	40.00
			Wall3	450+50.00	31	39.00
			Wall3	449+50.00	30	38.10
			Wall3	448+50.00	29	37.20

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I-20 Widening

			Wall3	447+50.00	28	36.30
			Wall3	446+50.00	27	35.60
Receiver102	102	73.40				
Receiver103	103	66.70				
Receiver104	104	72.40				
Receiver105	105	68.30				
Receiver106	106	69.30				
Receiver107	107	55.40	Wall3	450+50.00	31	55.10
			Wall3	451+50.00	32	42.60
			Wall3	452+50.00	33	28.90
			Wall3	449+50.00	30	26.80
			Wall3	453+50.00	34	23.30
			Wall3	454+50.00	35	20.50
			Wall3	455+50.00	36	14.50
Receiver108	108	60.60	Wall3	450+50.00	31	50.30
			Wall3	449+50.00	30	49.70
			Wall3	451+50.00	32	49.60
			Wall3	448+50.00	29	48.20
			Wall3	452+50.00	33	48.10
			Wall3	447+50.00	28	46.60
			Wall3	453+50.00	34	46.50
			Wall3	446+50.00	27	45.30
			Wall3	454+50.00	35	44.80
			Wall3	445+50.00	26	44.10
Receiver109	109	59.60	Wall3	447+50.00	28	49.20
			Wall3	448+50.00	29	48.90
			Wall3	446+50.00	27	48.70
			Wall3	449+50.00	30	48.00
			Wall3	445+50.00	26	47.50
			Wall3	450+50.00	31	46.60
			Wall3	444+50.00	25	46.20
			Wall3	451+50.00	32	45.20
			Wall3	443+50.00	24	45.00
			Wall3	452+50.00	33	43.90
Receiver110	110	59.50	Wall3	446+50.00	27	50.10
			Wall3	445+50.00	26	49.80

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I-20 Widening

			Wall3	447+50.00	28	49.10
			Wall3	444+50.00	25	48.60
			Wall3	448+50.00	29	47.50
			Wall3	443+50.00	24	47.10
			Wall3	449+50.00	30	46.00
			Wall3	442+50.00	23	45.70
			Wall3	450+50.00	31	44.50
			Wall3	441+50.00	22	44.50
Receiver111	111	66.20				
Receiver112	112	60.20	Wall3	444+50.00	25	53.60
			Wall3	443+50.00	24	52.70
			Wall3	445+50.00	26	50.90
			Wall3	442+50.00	23	49.50
			Wall3	446+50.00	27	48.00
			Wall3	441+50.00	22	47.20
			Wall3	447+50.00	28	45.80
			Wall3	440+50.00	21	45.50
			Wall3	448+50.00	29	44.00
			Wall3	439+50.00	20	43.90
Receiver113	113	59.40	Wall3	444+50.00	25	49.80
			Wall3	443+50.00	24	49.70
			Wall3	445+50.00	26	49.10
			Wall3	442+50.00	23	48.60
			Wall3	446+50.00	27	47.70
			Wall3	441+50.00	22	47.10
			Wall3	447+50.00	28	46.10
			Wall3	440+50.00	21	45.80
			Wall3	448+50.00	29	44.60
			Wall3	439+50.00	20	44.60
Receiver114	114	60.10	Wall3	442+50.00	23	56.10
			Wall3	443+50.00	24	53.40
			Wall3	441+50.00	22	50.60
			Wall3	444+50.00	25	47.90
			Wall3	440+50.00	21	46.80
			Wall3	445+50.00	26	45.00
			Wall3	439+50.00	20	44.50

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I-20 Widening

			Wall3	446+50.00	27	42.90
			Wall3	438+50.00	19	42.10
			Wall3	447+50.00	28	40.90
Receiver115	115	60.30	Wall3	441+50.00	22	56.00
			Wall3	440+50.00	21	52.90
			Wall3	442+50.00	23	51.60
			Wall3	439+50.00	20	48.60
			Wall3	443+50.00	24	47.50
			Wall3	438+50.00	19	45.70
			Wall3	444+50.00	25	44.90
			Wall3	437+50.00	18	43.50
			Wall3	445+50.00	26	42.90
			Wall3	436+50.00	17	41.50
Receiver116	116	68.10				
Receiver117	117	60.50	Wall3	440+50.00	21	56.10
			Wall3	439+50.00	20	53.20
			Wall3	441+50.00	22	51.60
			Wall3	438+50.00	19	48.70
			Wall3	442+50.00	23	47.60
			Wall3	437+50.00	18	45.80
			Wall3	443+50.00	24	45.20
			Wall3	436+50.00	17	43.70
			Wall3	444+50.00	25	43.20
			Wall3	435+50.00	16	41.60
Receiver118	118	59.90	Wall3	439+50.00	20	56.40
			Wall3	438+50.00	19	53.50
			Wall3	440+50.00	21	49.90
			Wall3	437+50.00	18	47.60
			Wall3	441+50.00	22	45.70
			Wall3	436+50.00	17	44.30
			Wall3	442+50.00	23	43.10
			Wall3	435+50.00	16	41.70
			Wall3	443+50.00	24	40.90
			Wall3	434+50.00	15	39.50
Receiver119	119	60.10	Wall3	438+50.00	19	55.60
			Wall3	437+50.00	18	53.00

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I-20 Widening

			Wall3	439+50.00	20	51.30
			Wall3	436+50.00	17	48.40
			Wall3	440+50.00	21	47.40
			Wall3	435+50.00	16	45.40
			Wall3	441+50.00	22	44.80
			Wall3	434+50.00	15	42.90
			Wall3	442+50.00	23	42.90
			Wall3	443+50.00	24	41.20
Receiver120	120	58.70	Wall3	439+50.00	20	48.80
			Wall3	438+50.00	19	48.80
			Wall3	440+50.00	21	48.00
			Wall3	437+50.00	18	48.00
			Wall3	436+50.00	17	46.70
			Wall3	441+50.00	22	46.60
			Wall3	435+50.00	16	45.10
			Wall3	442+50.00	23	45.10
			Wall3	443+50.00	24	43.70
			Wall3	434+50.00	15	43.60
Receiver121	121	57.80	Wall3	439+50.00	20	47.00
			Wall3	438+50.00	19	46.80
			Wall3	440+50.00	21	46.50
			Wall3	437+50.00	18	46.30
			Wall3	441+50.00	22	45.50
			Wall3	436+50.00	17	45.40
			Wall3	442+50.00	23	44.30
			Wall3	435+50.00	16	44.10
			Wall3	443+50.00	24	43.10
			Wall3	434+50.00	15	42.80
Receiver122	122	59.80	Wall3	436+50.00	17	55.00
			Wall3	437+50.00	18	54.90
			Wall3	438+50.00	19	49.00
			Wall3	435+50.00	16	48.70
			Wall3	439+50.00	20	45.60
			Wall3	434+50.00	15	44.90
			Wall3	440+50.00	21	43.40
			Wall3	433+50.00	14	42.40

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I-20 Widening

			Wall3	441+50.00	22	41.20
			Wall3	432+50.00	13	40.40
Receiver123	123	58.90	Wall3	436+50.00	17	49.30
			Wall3	437+50.00	18	49.10
			Wall3	435+50.00	16	48.40
			Wall3	438+50.00	19	48.30
			Wall3	439+50.00	20	47.20
			Wall3	434+50.00	15	46.90
			Wall3	440+50.00	21	45.80
			Wall3	433+50.00	14	45.40
			Wall3	432+50.00	13	44.20
			Wall3	441+50.00	22	44.20
Receiver124	124	59.90	Wall3	435+50.00	16	53.80
			Wall3	436+50.00	17	53.40
			Wall3	434+50.00	15	50.10
			Wall3	437+50.00	18	49.70
			Wall3	438+50.00	19	47.20
			Wall3	433+50.00	14	47.10
			Wall3	439+50.00	20	45.30
			Wall3	432+50.00	13	44.80
			Wall3	440+50.00	21	43.60
			Wall3	431+50.00	12	42.80
Receiver125	125	59.80	Wall3	434+50.00	15	53.00
			Wall3	435+50.00	16	52.30
			Wall3	433+50.00	14	50.60
			Wall3	436+50.00	17	49.50
			Wall3	432+50.00	13	47.90
			Wall3	437+50.00	18	47.30
			Wall3	431+50.00	12	45.70
			Wall3	438+50.00	19	45.60
			Wall3	439+50.00	20	44.10
			Wall3	430+50.00	11	43.40
Receiver126	126	58.70	Wall3	434+50.00	15	48.40
			Wall3	435+50.00	16	48.30
			Wall3	433+50.00	14	47.80
			Wall3	436+50.00	17	47.70

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I-20 Widening

			Wall3	432+50.00	13	46.90
			Wall3	437+50.00	18	46.50
			Wall3	431+50.00	12	45.40
			Wall3	438+50.00	19	45.30
			Wall3	439+50.00	20	44.20
			Wall3	430+50.00	11	43.80
Receiver127	127	57.90	Wall3	435+50.00	16	46.30
			Wall3	434+50.00	15	46.10
			Wall3	436+50.00	17	46.00
			Wall3	433+50.00	14	45.70
			Wall3	437+50.00	18	45.30
			Wall3	432+50.00	13	45.20
			Wall3	438+50.00	19	44.40
			Wall3	431+50.00	12	44.20
			Wall3	439+50.00	20	43.60
			Wall3	430+50.00	11	42.80
Receiver128	128	60.10	Wall3	433+50.00	14	54.50
			Wall3	432+50.00	13	53.90
			Wall3	434+50.00	15	50.30
			Wall3	431+50.00	12	49.60
			Wall3	435+50.00	16	47.40
			Wall3	430+50.00	11	46.20
			Wall3	436+50.00	17	45.50
			Wall3	437+50.00	18	43.70
			Wall3	429+50.00	10	43.70
			Wall3	438+50.00	19	42.20
Receiver129	129	67.20				
Receiver130	130	75.10				
Receiver131	131	59.50	Wall3	432+50.00	13	52.80
			Wall3	431+50.00	12	52.10
			Wall3	433+50.00	14	50.30
			Wall3	430+50.00	11	48.90
			Wall3	434+50.00	15	47.70
			Wall3	429+50.00	10	46.20
			Wall3	435+50.00	16	46.00
			Wall3	436+50.00	17	44.60

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I-20 Widening

			Wall3	428+50.00	9	43.80
			Wall3	437+50.00	18	43.10
Receiver132	132	58.90	Wall3	432+50.00	13	49.10
			Wall3	431+50.00	12	48.90
			Wall3	433+50.00	14	48.10
			Wall3	430+50.00	11	47.60
			Wall3	434+50.00	15	46.80
			Wall3	429+50.00	10	45.80
			Wall3	435+50.00	16	45.60
			Wall3	436+50.00	17	44.50
			Wall3	428+50.00	9	44.10
			Wall3	437+50.00	18	43.30
Receiver133	133	59.80	Wall3	431+50.00	12	55.50
			Wall3	430+50.00	11	54.00
			Wall3	432+50.00	13	49.80
			Wall3	429+50.00	10	47.90
			Wall3	433+50.00	14	46.10
			Wall3	428+50.00	9	44.40
			Wall3	434+50.00	15	43.80
			Wall3	435+50.00	16	42.10
			Wall3	427+50.00	8	41.90
			Wall3	436+50.00	17	40.60
Receiver134	134	58.20	Wall3	432+50.00	13	46.80
			Wall3	431+50.00	12	46.70
			Wall3	433+50.00	14	46.20
			Wall3	430+50.00	11	46.00
			Wall3	434+50.00	15	45.40
			Wall3	429+50.00	10	44.80
			Wall3	435+50.00	16	44.60
			Wall3	436+50.00	17	43.80
			Wall3	428+50.00	9	43.30
			Wall3	437+50.00	18	42.70
Receiver135	135	58.60	Wall3	430+50.00	11	46.90
			Wall3	431+50.00	13	46.60
			Wall3	429+50.00	10	46.60
			Wall3	432+50.00	13	45.80

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I-20 Widening

			Wall3	428+50.00	9	45.70
			Wall3	433+50.00	14	44.60
			Wall3	427+50.00	8	44.40
			Wall3	434+50.00	15	43.50
			Wall3	426+50.00	7	42.90
			Wall3	435+50.00	16	42.60
Receiver136	136	73.20				
Receiver137	137	74.20	Wall3	421+50.00	1	43.60
			Wall3	422+50.00	3	41.50
			Wall3	423+50.00	4	39.70
			Wall3	424+50.00	5	38.00
			Wall3	425+50.00	6	35.70
			Wall3	426+50.00	7	33.00
			Wall3	427+50.00	8	29.70
			Wall3	428+50.00	9	21.30
Receiver138	138	72.60	Wall3	421+50.00	1	35.80
			Wall3	422+50.00	3	34.60
			Wall3	423+50.00	4	33.50
			Wall3	424+50.00	5	31.70
			Wall3	425+50.00	6	29.90
			Wall3	426+50.00	7	28.60
			Wall3	427+50.00	8	26.50
			Wall3	428+50.00	9	22.20
Receiver139	139	69.30	Wall3	421+50.00	1	37.70
			Wall3	422+50.00	3	36.60
			Wall3	423+50.00	4	35.50
			Wall3	424+50.00	5	34.60
			Wall3	425+50.00	6	33.80
			Wall3	426+50.00	7	33.10
			Wall3	427+50.00	8	32.50
			Wall3	428+50.00	9	32.10
			Wall3	429+50.00	10	31.70
			Wall3	430+50.00	11	31.30
Receiver140	140	66.40	Wall3	421+50.00	1	37.70
			Wall3	422+50.00	3	36.70
			Wall3	423+50.00	4	35.80

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I-20 Widening

			Wall3	424+50.00	5	35.00
			Wall3	425+50.00	6	34.20
			Wall3	426+50.00	7	33.50
			Wall3	427+50.00	8	33.00
			Wall3	428+50.00	9	32.60
			Wall3	429+50.00	10	32.20
			Wall3	430+50.00	11	31.90
Receiver141	141	71.10				
Receiver142	142	71.00	Wall3	421+50.00	1	32.80
			Wall3	422+50.00	3	31.90
			Wall3	423+50.00	4	31.10
			Wall3	424+50.00	5	30.40
			Wall3	425+50.00	6	29.40
			Wall3	426+50.00	7	27.80
			Wall3	427+50.00	8	26.30
			Wall3	428+50.00	9	25.90
			Wall3	429+50.00	10	25.00
			Wall3	430+50.00	11	22.70
Receiver143	143	68.10	Wall3	421+50.00	1	35.00
			Wall3	422+50.00	3	34.10
			Wall3	423+50.00	4	33.30
			Wall3	424+50.00	5	32.50
			Wall3	425+50.00	6	31.90
			Wall3	426+50.00	7	31.30
			Wall3	427+50.00	8	30.80
			Wall3	428+50.00	9	30.50
			Wall3	429+50.00	10	30.20
			Wall3	430+50.00	11	29.90
Receiver144	144	65.40	Wall3	421+50.00	1	35.50
			Wall3	422+50.00	3	34.60
			Wall3	423+50.00	4	33.80
			Wall3	424+50.00	5	33.10
			Wall3	425+50.00	6	32.50
			Wall3	426+50.00	7	32.00
			Wall3	427+50.00	8	31.50
			Wall3	428+50.00	9	31.20

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			Wall3	429+50.00	10	30.90
			Wall3	430+50.00	11	30.60
Receiver145	145	66.70				
Receiver146	146	77.00				
Receiver147	147	71.80				
Receiver148	148	68.10				
Receiver149	149	68.60				
Receiver150	150	74.20				
Receiver151	151	66.90				
Receiver153	153	68.20				
Receiver154	154	76.30				