Coonpath Rd and Election House Rd

Intersection Feasibility Study

Appendix C

ECAT Analysis

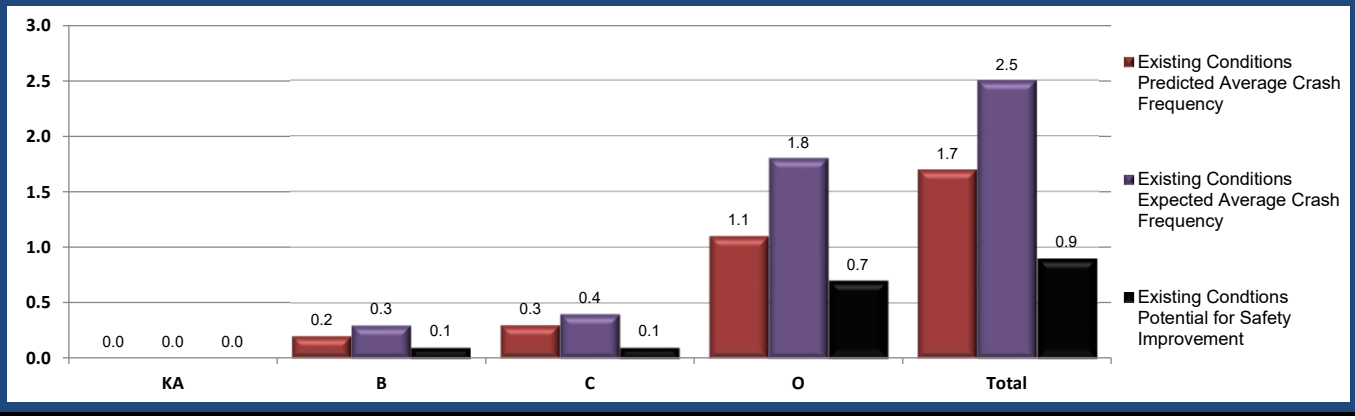
BURGESS & NIPLE

Project Safety Performance Report

General Information

Project Name	Coonpath Road at Election House Road	Contact Email	megan.valentine@burgessniple.com
Project Description	Intersection Feasibility Study - Existing Analyis	Contact Phone	
Reference Number	-	Date Performed	6/11/2024
Analyst	MLV	Analysis Year	2024
Agency/Company	B&N		

Summary of Anticipated Safety Performance of the Project (average crashes/year)



Project Summary Results (Without Animal Crashes)

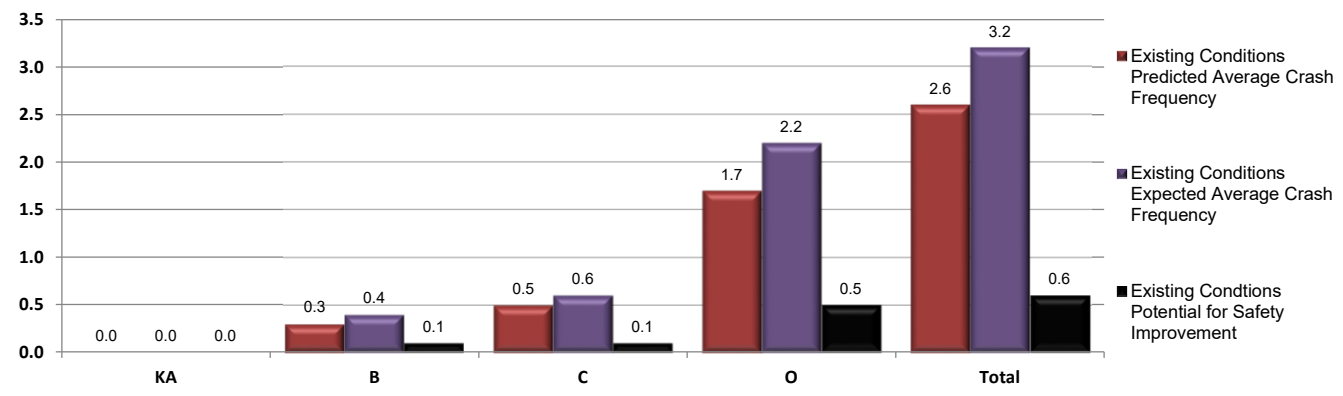
	KA	B	C	O	Total
$N_{predicted}$ - Existing Conditions	0.0200	0.2041	0.2985	1.1361	1.6587
$N_{expected}$ - Existing Conditions	0.0292	0.2679	0.3883	1.8303	2.5157
$N_{potential\ for\ improvement}$ - Existing Conditions	**0.0092**	**0.0638**	**0.0898**	**0.6942**	**0.8570**

Project Safety Performance Report

General Information

Project Name	Coonpath Road at Election House Road	Contact Email	megan.valentine@burgessniple.com
Project Description	Intersection Feasibility Study - No Build Analyis	Contact Phone	
Reference Number	-	Date Performed	6/11/2024
Analyst	MLV	Analysis Year	2048
Agency/Company	B&N		

Summary of Anticipated Safety Performance of the Project (average crashes/year)



Project Summary Results (Without Animal Crashes)

	KA	B	C	O	Total
$N_{predicted}$ - Existing Conditions	0.0339	0.3418	0.5047	1.7377	2.6181
$N_{expected}$ - Existing Conditions	0.0424	0.3932	0.5646	2.2418	3.2420
$N_{potential\ for\ improvement}$ - Existing Conditions	**0.0085**	**0.0514**	**0.0599**	**0.5041**	**0.6239**

Project Safety Performance Report

General Information

Project Name	Coonpath Road at Election House Road	Contact Email	megan.valentine@burgessniple.com
Project Description	Intersection Feasibility Study - No Build Analyis	Contact Phone	
Reference Number	-	Date Performed	6/11/2024
Analyst	MLV	Analysis Year	2048
Agency/Company	B&N		

Existing Conditions Project Element Predicted Crash Summary (Without Animal Crashes)

Project Element ID	Common Name	Crash Severity Level				
		KA	B	C	O	Total
CR31; 3.099	Coonpath at Election House	0.0339	0.3418	0.5047	1.7377	2.6181

Existing Conditions Project Element Expected Crash Summary (Without Animal Crashes)

Project Element ID	Common Name	Crash Severity Level				
		KA	B	C	O	Total
CR31; 3.099	Coonpath at Election House	0.0424	0.3932	0.5646	2.2418	3.242

Existing Conditions Project Element Potential for Safety Improvement Summary (Without Animal Crashes)

Project Element ID	Common Name	Crash Severity Level				
		KA	B	C	O	Total
CR31; 3.099	Coonpath at Election House	**0.0085**	**0.0514**	**0.0599**	**0.5041**	**0.6239**

Summary by Crash Type

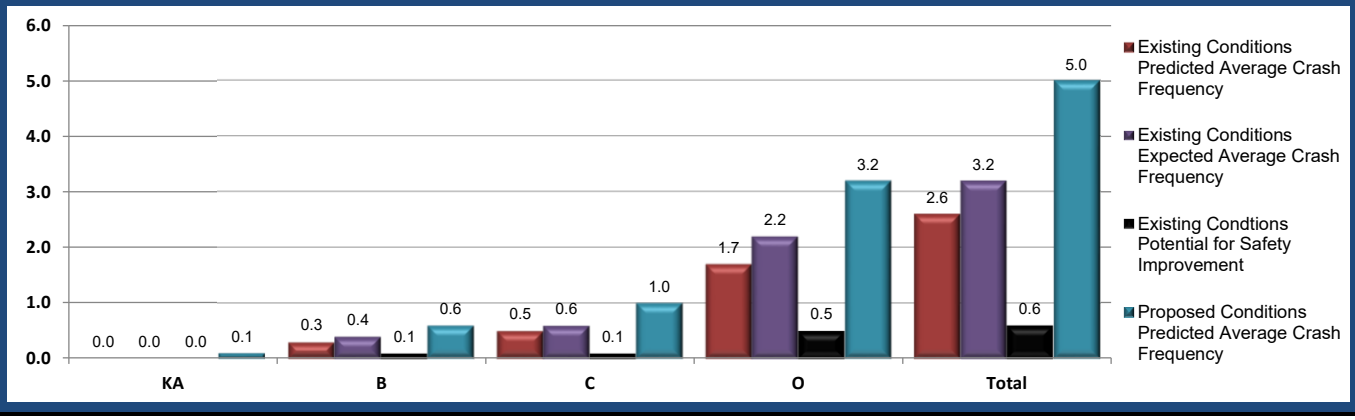
Crash Type	Existing			Proposed
	Predicted Crash Frequency	Expected Crash Frequency	PSI	Expected Crash Frequency
Unknown	0.0002	0.0000	-0.0002	
Head On	0.0143	0.0226	**0.0083**	
Rear End	0.3849	0.6583	**0.2734**	
Backing	0.1136	0.2106	**0.0970**	
Sideswipe - Meeting	0.0000	0.0000	0.0000	
Sideswipe - Passing	0.0743	0.1377	**0.0634**	
Angle	0.7465	1.2775	**0.5310**	
Parked Vehicle	0.0711	0.0000	-0.0711	
Pedestrian	0.0242	0.0242	0.0000	
Animal	0.0000	0.0000	0.0000	
Train	0.0000	0.0000	0.0000	
Pedalcycles	0.0178	0.0178	0.0000	
Other Non-Vehicle	0.0000	0.0000	0.0000	
Fixed Object	0.1131	0.0000	-0.1131	
Other Object	0.0000	0.0000	0.0000	
Overturning	0.0000	0.0000	0.0000	
Other Non-Collision	0.0043	0.0000	-0.0043	
Left Turn	0.0362	0.0632	**0.0270**	
Right Turn	0.0581	0.1037	**0.0456**	

Project Safety Performance Report

General Information

Project Name	Coonpath Road at Election House Road	Contact Email	megan.valentine@burgessniple.com
Project Description	Intersection Feasibility Study - Build Analyis, Proposed Signal	Contact Phone	
Reference Number	-	Date Performed	6/11/2024
Analyst	MLV	Analysis Year	2048
Agency/Company	B&N		

Summary of Anticipated Safety Performance of the Project (average crashes/year)



Project Summary Results (Without Animal Crashes)

	KA	B	C	O	Total
$N_{predicted}$ - Existing Conditions	0.0339	0.3418	0.5047	1.7377	2.6181
$N_{expected}$ - Existing Conditions	0.0424	0.3932	0.5646	2.2418	3.2420
$N_{potential\ for\ improvement}$ - Existing Conditions	**0.0085**	**0.0514**	**0.0599**	**0.5041**	**0.6239**
$N_{expected}$ - Proposed Conditions	0.1340	0.6377	0.9565	3.2498	4.9780

Project Safety Performance Report

General Information

Project Name	Coonpath Road at Election House Road	Contact Email	megan.valentine@burgessniple.com
Project Description	Intersection Feasibility Study - Build Analyis, Proposed Signal	Contact Phone	
Reference Number	-	Date Performed	6/11/2024
Analyst	MLV	Analysis Year	2048
Agency/Company	B&N		

Existing Conditions Project Element Predicted Crash Summary (Without Animal Crashes)

Project Element ID	Common Name	Crash Severity Level				
		KA	B	C	O	Total
CR31; 3.099	Coonpath at Election House	0.0339	0.3418	0.5047	1.7377	2.6181

Existing Conditions Project Element Expected Crash Summary (Without Animal Crashes)

Project Element ID	Common Name	Crash Severity Level				
		KA	B	C	O	Total
CR31; 3.099	Coonpath at Election House	0.0424	0.3932	0.5646	2.2418	3.242

Existing Conditions Project Element Potential for Safety Improvement Summary (Without Animal Crashes)

Project Element ID	Common Name	Crash Severity Level				
		KA	B	C	O	Total
CR31; 3.099	Coonpath at Election House	**0.0085**	**0.0514**	**0.0599**	**0.5041**	**0.6239**

Proposed Conditions Project Element Predicted Crash Summary (Without Animal Crashes)

Project Element ID	Common Name	Crash Severity Level				
		KA	B	C	O	Total
CR31; 3.099	Coonpath at Election House	0.134	0.6377	0.9565	3.2498	4.978

Summary by Crash Type

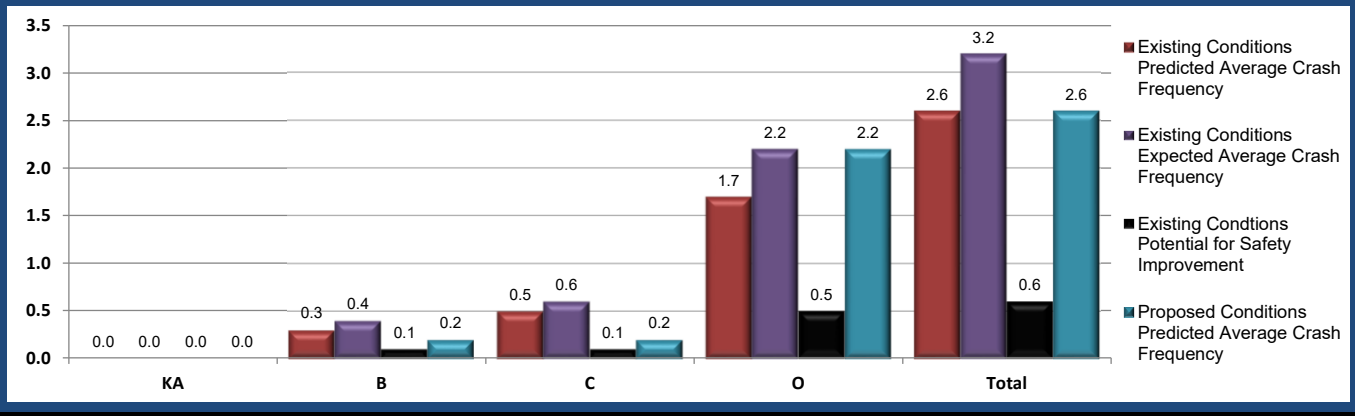
Crash Type	Existing			Proposed
	Predicted Crash Frequency	Expected Crash Frequency	PSI	Predicted Crash Frequency
Unknown	0.0002	0.0000	-0.0002	0.0098
Head On	0.0143	0.0226	**0.0083**	0.0923
Rear End	0.3849	0.6583	**0.2734**	2.3087
Backing	0.1136	0.2106	**0.0970**	0.0914
Sideswipe - Meeting	0.0000	0.0000	0.0000	0.0036
Sideswipe - Passing	0.0743	0.1377	**0.0634**	0.4573
Angle	0.7465	1.2775	**0.5310**	0.8015
Parked Vehicle	0.0711	0.0000	-0.0711	0.0413
Pedestrian	0.0242	0.0242	0.0000	0.0134
Animal	0.0000	0.0000	0.0000	0.0000
Train	0.0000	0.0000	0.0000	0.0007
Pedalcycles	0.0178	0.0178	0.0000	0.0035
Other Non-Vehicle	0.0000	0.0000	0.0000	0.0000
Fixed Object	0.1131	0.0000	-0.1131	0.3508
Other Object	0.0000	0.0000	0.0000	0.0139
Overturning	0.0000	0.0000	0.0000	0.0193
Other Non-Collision	0.0043	0.0000	-0.0043	0.0283
Left Turn	0.0362	0.0632	**0.0270**	0.5164
Right Turn	0.0581	0.1037	**0.0456**	0.2256

Project Safety Performance Report

General Information

Project Name	Coonpath Road at Election House Road	Contact Email	megan.valentine@burgessniple.com
Project Description	Intersection Feasibility Study - Build Analyis, Proposed Roundabout	Contact Phone	
Reference Number	-	Date Performed	6/11/2024
Analyst	MLV	Analysis Year	2048
Agency/Company	B&N		

Summary of Anticipated Safety Performance of the Project (average crashes/year)



Project Summary Results (Without Animal Crashes)

	KA	B	C	O	Total
$N_{predicted}$ - Existing Conditions	0.0339	0.3418	0.5047	1.7377	2.6181
$N_{expected}$ - Existing Conditions	0.0424	0.3932	0.5646	2.2418	3.2420
$N_{potential\ for\ improvement}$ - Existing Conditions	**0.0085**	**0.0514**	**0.0599**	**0.5041**	**0.6239**
$N_{expected}$ - Proposed Conditions	0.0231	0.1947	0.2413	2.1897	2.6488

Project Safety Performance Report

General Information

Project Name	Coonpath Road at Election House Road	Contact Email	megan.valentine@burgessniple.com
Project Description	Intersection Feasibility Study - Build Analyis, Proposed Roundabout	Contact Phone	
Reference Number	-	Date Performed	6/11/2024
Analyst	MLV	Analysis Year	2048
Agency/Company	B&N		

Existing Conditions Project Element Predicted Crash Summary (Without Animal Crashes)

Project Element ID	Common Name	Crash Severity Level				
		KA	B	C	O	Total
CR31; 3.099	Coonpath at Election House	0.0339	0.3418	0.5047	1.7377	2.6181

Existing Conditions Project Element Expected Crash Summary (Without Animal Crashes)

Project Element ID	Common Name	Crash Severity Level				
		KA	B	C	O	Total
CR31; 3.099	Coonpath at Election House	0.0424	0.3932	0.5646	2.2418	3.242

Existing Conditions Project Element Potential for Safety Improvement Summary (Without Animal Crashes)

Project Element ID	Common Name	Crash Severity Level				
		KA	B	C	O	Total
CR31; 3.099	Coonpath at Election House	**0.0085**	**0.0514**	**0.0599**	**0.5041**	**0.6239**

Proposed Conditions Project Element Predicted Crash Summary (Without Animal Crashes)

Project Element ID	Common Name	Crash Severity Level				
		KA	B	C	O	Total
CR31; 3.099	Coonpath at Election House	0.0231	0.1947	0.2413	2.1897	2.6488

Summary by Crash Type

Crash Type	Existing			Proposed
	Predicted Crash Frequency	Expected Crash Frequency	PSI	Predicted Crash Frequency
Unknown	0.0002	0.0000	-0.0002	0.0710
Head On	0.0143	0.0226	**0.0083**	0.0046
Rear End	0.3849	0.6583	**0.2734**	0.4350
Backing	0.1136	0.2106	**0.0970**	0.0221
Sideswipe - Meeting	0.0000	0.0000	0.0000	0.0000
Sideswipe - Passing	0.0743	0.1377	**0.0634**	0.8052
Angle	0.7465	1.2775	**0.5310**	0.7446
Parked Vehicle	0.0711	0.0000	-0.0711	0.0000
Pedestrian	0.0242	0.0242	0.0000	0.0046
Animal	0.0000	0.0000	0.0000	0.0267
Train	0.0000	0.0000	0.0000	0.0000
Pedalcycles	0.0178	0.0178	0.0000	0.0046
Other Non-Vehicle	0.0000	0.0000	0.0000	0.0000
Fixed Object	0.1131	0.0000	-0.1131	0.2676
Other Object	0.0000	0.0000	0.0000	0.0000
Overturning	0.0000	0.0000	0.0000	0.0046
Other Non-Collision	0.0043	0.0000	-0.0043	0.0488
Left Turn	0.0362	0.0632	**0.0270**	0.0627
Right Turn	0.0581	0.1037	**0.0456**	0.1734

Project Safety Performance Report

General Information

Project Name	Coonpath Road at Election House Road	Contact Email	megan.valentine@burgessniple.com
Project Description	Intersection Feasibility Study - Existing Analyis	Contact Phone	
Reference Number	-	Date Performed	6/11/2024
Analyst	MLV	Analysis Year	2024
Agency/Company	B&N		

Existing Conditions Project Element Predicted Crash Summary (Without Animal Crashes)

Project Element ID	Common Name	Crash Severity Level				
		KA	B	C	O	Total
CR31; 3.099	Coonpath at Election House	0.02	0.2041	0.2985	1.1361	1.6587

Existing Conditions Project Element Expected Crash Summary (Without Animal Crashes)

Project Element ID	Common Name	Crash Severity Level				
		KA	B	C	O	Total
CR31; 3.099	Coonpath at Election House	0.0292	0.2679	0.3883	1.8303	2.5157

Existing Conditions Project Element Potential for Safety Improvement Summary (Without Animal Crashes)

Project Element ID	Common Name	Crash Severity Level				
		KA	B	C	O	Total
CR31; 3.099	Coonpath at Election House	**0.0092**	**0.0638**	**0.0898**	**0.6942**	**0.857**

Summary by Crash Type

Crash Type	Existing			Proposed
	Predicted Crash Frequency	Expected Crash Frequency	PSI	Expected Crash Frequency
Unknown	0.0002	0.0000	-0.0002	
Head On	0.0143	0.0226	**0.0083**	
Rear End	0.3849	0.6583	**0.2734**	
Backing	0.1136	0.2106	**0.0970**	
Sideswipe - Meeting	0.0000	0.0000	0.0000	
Sideswipe - Passing	0.0743	0.1377	**0.0634**	
Angle	0.7465	1.2775	**0.5310**	
Parked Vehicle	0.0711	0.0000	-0.0711	
Pedestrian	0.0242	0.0242	0.0000	
Animal	0.0000	0.0000	0.0000	
Train	0.0000	0.0000	0.0000	
Pedalcycles	0.0178	0.0178	0.0000	
Other Non-Vehicle	0.0000	0.0000	0.0000	
Fixed Object	0.1131	0.0000	-0.1131	
Other Object	0.0000	0.0000	0.0000	
Overturning	0.0000	0.0000	0.0000	
Other Non-Collision	0.0043	0.0000	-0.0043	
Left Turn	0.0362	0.0632	**0.0270**	
Right Turn	0.0581	0.1037	**0.0456**	