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1883 Stittsville Main Street, Ottawa

Noise Impact Feasibility Report

STITTSVILLE SOUTH SUBDIVISION

Block 349

1883 Stittsville Main Street

City of Ottawa

Noise Impact Feasibility Report

Prepared By:

NOVATECH

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Novatech File: 124097

Ref: R-2024-109

November 13, 2024

November 13, 2024

City of Ottawa
Planning, Development and Building Services Department
Development Review – West
110 Laurier Street West, 4th Floor
Ottawa, ON, K1P 1J1

Attention: Mike Giampa, P.Eng.
Project Manager, Infrastructure Approvals

Reference: Stittsville South Subdivision – Block 349 / 1883 Stittsville Main Street
Noise Impact Feasibility Report
Novatech File No.: 124097

Please find enclosed the 'Noise Impact Feasibility Report' for the above-noted development located at 1883 Stittsville Main Street in the City of Ottawa. This report is being submitted in support of a site plan control application for the proposed development.

This report evaluates the environmental impact of noise from traffic and assesses the feasibility of mitigation measures to attenuate noise to acceptable levels.

Please contact the undersigned should you have any questions or comments on this report.

Yours truly,

NOVATECH



Ben Sweet, P. Eng.
Project Manager | Land Development Engineering

cc: Sam Bahia, Novatech
Olivia Hughes / Lina Ramirez, Mattamy Homes (Monarch) Ltd.

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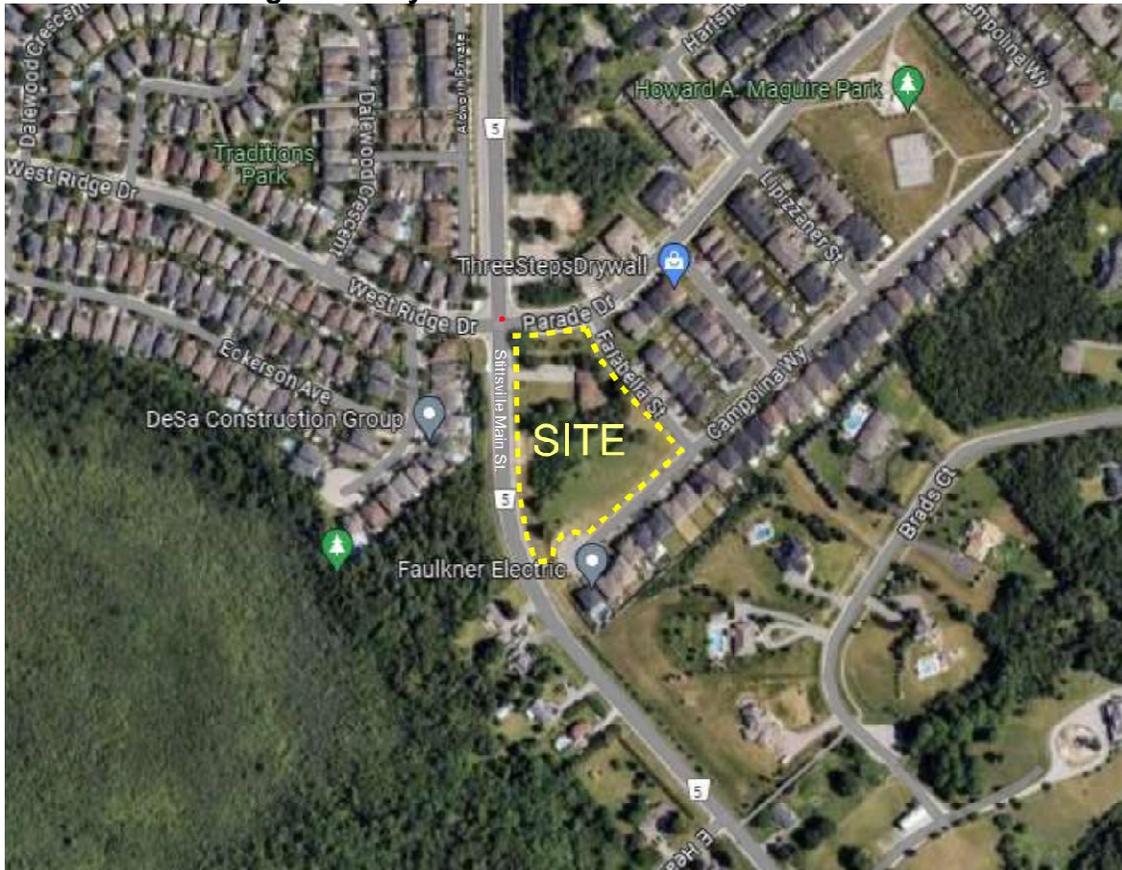
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1.0 INTRODUCTION

Novatech has been retained to prepare a Noise Impact Feasibility Report on behalf of Mattamy Homes (Monarch) Ltd. to assess the impact of traffic noise for the proposed site plan at Block 349 within the Stittsville South Subdivision, located at 1883 Stittsville Main Street within the City of Ottawa. The report is in support of a site plan application for the subject development. **Figure 1 - Key Plan** shows an aerial image of the site location.

Figure 1: Key Plan – 1883 Stittsville Main Street



The proposed 1.05 ha development includes 7 stacked townhomes with a total of 84 units, 109 surface parking stalls, and an amenity area. The locations of all nodes used to determine the predicted noise levels are included in **Figure 2 – Receiver Location Plan**.

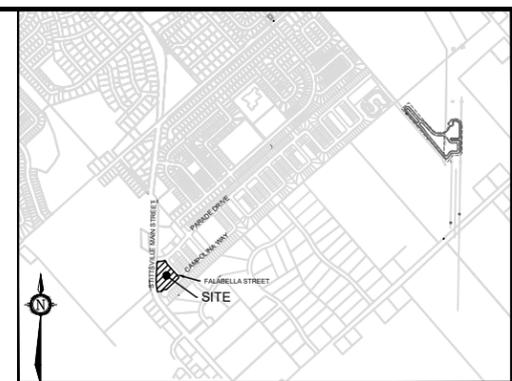
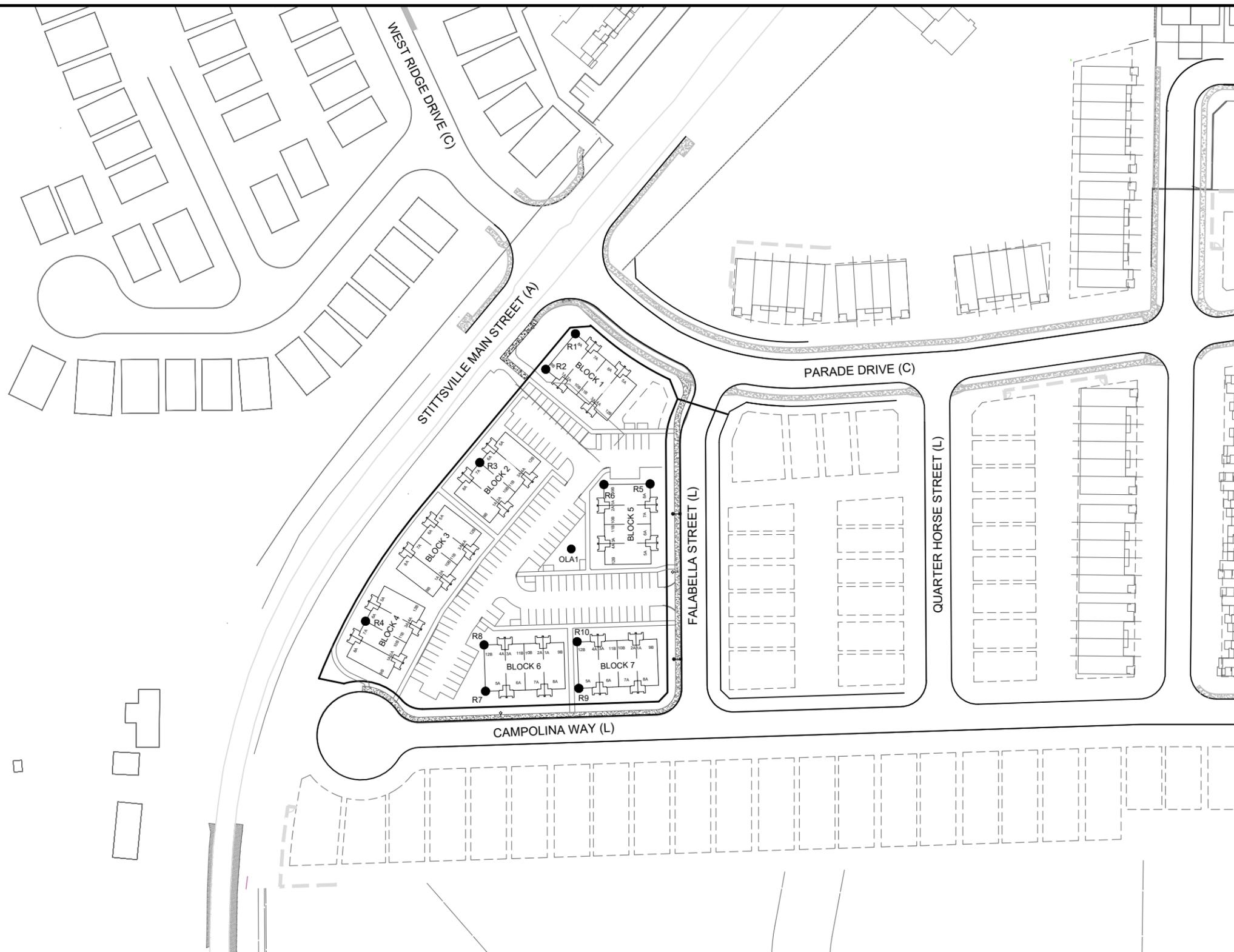
The only Outdoor Living Area (OLA) noise levels that needs to be considered is the designated amenity area, selected 1.5m above finished grade.

The following Indoor Living Areas (ILE's) noise levels are considered:

- Units 9B-12B for all Blocks, both daytime and nighttime are selected 1.5m above the first-floor grade.
- Units 1A-8A for all Blocks, daytime is selected 1.5m above the second-floor grade, which is 4.65m total, and nighttime is selected 1.5m above the third-floor grade, which is 7.80m total.

This report follows recommendations of the City of Ottawa's Environmental Noise Control Guidelines (ENCG) and the MOE NPC-300 Environmental Noise Guideline.

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LEGEND

- (A) ARTERIAL ROAD CLASSIFICATION
- (C) COLLECTOR ROAD CLASSIFICATION
- (L) LOCAL ROAD CLASSIFICATION
- R1 RECEPTOR NODE LOCATION WITH NUMBER
- OLA1 OLA NODE LOCATION WITH NODE NUMBER

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CITY OF OTTAWA
1883 STITTSVILLE MAIN STREET

RECEIVER LOCATION PLAN

SCALE 1 : 1500

DATE OCT 2024 JOB 124097 FIGURE FIGURE 2

2.0 NOISE CRITERIA, NOISE SOURCES AND NOISE ATTENUATION METHODS

The City of Ottawa criteria for noise from aircraft, roads, transitways, and railways is outlined in **Tables 2.2a: Sound Level Limit for Outdoor Living Areas – Road and Rail**, **Table 2.2b: Sound Level Limit for Indoor Living Areas Road and Rail**, and **Table 2.2c: Supplementary Sound Level Limits for Indoor Spaces – Road and Rail** of the ENCG. The maximum suggested sound levels for OLAs and ILE's between 7am and 11pm are 55 dBA and 45 dBA, respectively. The maximum suggested sound level for sleeping quarters is 40 dBA between 11pm and 7am. For reference, **Tables 2.2a, 2.2b and 2.2c** of the ENCG are included in **Appendix A**.

OLA and ILE receivers are defined as:

- **OLA:** The outdoor living area is provided for the quiet enjoyment of the outdoor environment during the day-time period. These amenity areas are typically backyards, gardens, shared terraces and patios of a substantial size.
- **ILE:** The indoor living area is provided for the quiet enjoyment of the living/ dining and sleeping quarters within a dwelling, during both the day-time and night-time periods.

The noise level criteria are summarized in **Table 1** below.

Table 1: Noise Level Criteria

Time Period	Receiver Location	Noise Level Criteria (Leq)
Daytime (07:00 – 23:00)	OLA	55 dBA
Daytime (07:00 – 23:00)	ILE - living/ dining rooms	45 dBA
Nighttime (23:00 – 07:00)	ILE - sleeping quarters	40 dBA

For modelling purposes, predicted noise levels for ILE's are taken at the Plane of Window (POW) with noise attenuation being provided by the building envelope. This will be discussed further in the following sections of this report.

2.1 Noise Sources

The City of Ottawa Official Plan stipulates that a noise study shall be prepared when a new development is proposed within 100 metres of an arterial, major collector or collector roadway, or a rapid-transit corridor. There are no railway, airport, or stationary noise sources that affect this site.

Stittsville Main Street is intended to be classified as 4-Lane Urban Arterial – Divided (4-UAD) roadway in the future, as a 37.5m ROW allowance has been allocated for this roadway. Parade Drive can be considered as extension of West Ridge Drive (classified as Urban Collector in City of Ottawa Official Plan) is an Urban Collector (2-UCU) for the purpose of this report. Refer to **Appendix A** for the excerpt from the Official Plan. **Table 2** outlines the road noise sources for the site.

Table 2: Traffic and Roadway Parameters

	Stittsville Main St.	Parade Dr. (West Ridge Dr.)
Roadway Classification	4-Lane Arterial Undivided	2-Lane Urban Collector Undivided
Annual Average Daily Traffic (AADT)	35,000 vehicles/day	8,000 vehicles/day
Day/Night Split (%)	92/8	92/8
Medium Trucks (%)	7	7
Heavy Trucks (%)	5	5
Posted Speed	50 km/hr	50 km/hr

2.2 Methods for Noise Attenuation

When OLA or ILE predicted sound levels are approximately equal to or less than the maximum suggested levels in the ENCG (Table 1), attenuation measures are not required. If the predicted noise levels are found to exceed the limits, noise mitigation and/ or warning clauses are required. Warning clauses are discussed in section 2.5. The City of Ottawa's preferred noise mitigation methods are:

- Increasing the amount of soft ground between the noise sources and noise receptor;
- Inserting noise insensitive land between the noise source and the noise receptor;
- Orientate the building to provide shelter to noise sensitive areas;
- Install acoustic (noise) barriers;
- Install air conditioning and forced air ventilation; and
- Enhance construction techniques and construction quality.

2.3 Ventilation Requirements

A forced air heating system with provisions for a central air conditioning system is required if the POW daytime noise level is between 55 dBA and 65 dBA and/ or the nighttime noise level is between 50 dBA and 60 dBA.

The installation of a central air conditioning system is required when the daytime noise level exceeds 65 dBA and/ or the nighttime noise level exceeds 60 dBA.

2.4 Building Components

When POW noise levels exceed 65 dBA (day-time) or 60 dBA (night-time) the exterior cladding system of the building envelope must be acoustically assessed to ensure indoor sound criteria are achieved. In practice, the exterior shell is comprised of primarily two to four components; exterior walls, windows and patio doors, roofs and ceilings, and exterior doors.

2.5 Warning Clauses

If predicted noise levels are expected to exceed the applicable sound level criteria, the City of Ottawa and the MOE recommends a warning clause(s) be registered on title and incorporated

into the development agreement and the lease/ rental/ sale agreements. The warning clause serves to alert potential purchaser/ buyers/ tenants of the possible noise condition and of any limitations that may exist on his/ her property rights.

Generic warning clauses from the ENCG for surface transportation are listed below.

Warning Clause Type 'A'

“Purchasers/ tenants are advised that sound levels due to increasing road traffic may occasionally interfere with some activities of the dwelling occupants as the sound levels exceed the City’s and the Ministry of the Environment’s noise criteria.”

Warning Clause Type 'B'

“Purchasers/ tenants are advised that despite the inclusion of noise control features in the development and within the building units, sound levels due to increasing road and transitway traffic may on occasion interfere with some activities of the dwelling occupants as the sound levels exceed the City’s and the Ministry of the Environment’s noise criteria.”

Warning Clause Type 'C'

“This dwelling unit has been fitted with a forced air heating system and the ducting, etc. was sized to accommodate central air conditioning. Installation of central air conditioning by the occupant will allow windows and exterior doors to remain closed, thereby ensuring that the indoor sound levels are within the City’s and the Ministry of the Environment’s noise criteria. (Note: The location and installation of the outdoor air conditioning device should be done so as to comply with noise criteria of MOE Publication NPC-216, Residential Air Conditioning Devices and thus minimize the noise impacts both on and in the immediate vicinity of the subject property.)”

Warning Clause Type 'D'

“This dwelling unit has been supplied with a central air conditioning system which will allow windows and exterior doors to remain closed, thereby ensuring that the indoor sound levels are within the City’s and the Ministry of the Environment’s noise criteria.”

2.6 Summary of Attenuation Requirements

Table 3 summarizes the required noise attenuation measures and warning clauses should sound criteria be exceeded. Excerpts from the ENCG and MOE documents are included in **Appendix A** for reference.

Table 3: Noise Attenuation Measure Requirements

Assessment Location	Leq (dBA)	Outdoor Control Measures	Indoor Control Measures		Warning Clause
			Ventilation Requirements	Building Components	
Outdoor Living Area (OLA)	Less than 55	None required	N/A	N/A	None required
	Between 55 and 60	Control measures (barriers) may not be required but should be considered	N/A	N/A	Required if resultant Leq exceeds 55 dBA Type A* or Type B**
	More than 60	Barriers required	N/A	N/A	Required if resultant Leq exceeds 55 dBA Type A* or Type B*
Plane of Living Room Window (POW)	Less than 55	N/A	None Required	None Required	None Required
	Between 55 and 65	N/A	Forced air heating with provision for central air conditioning	None Required	Required Type C
	More Than 65	N/A	Central Air Conditioning	Acoustical performance of the windows and walls should be specified	Required Type D
Plane of Sleeping Quarters Window (POW)	Less than 50	N/A	None Required	None Required	None Required
	Between 50 and 60	N/A	Forced air heating with provision for central air conditioning	None Required	Required Type C
	More than 60	N/A	Central Air Conditioning	Acoustical performance of the windows and walls should be specified	Required Type D

*Type A warning clause refers to units requiring a noise barrier that mitigates noise below 55 dBA.

**Type B warning clause refers to units requiring a noise barrier but is technically or economically not feasible to reduce levels below 55 dBA and a tolerance of up to 5dBA can be granted by the City.

3.0 PREDICTED NOISE LEVELS

Noise levels were analyzed using Version 5.03 of the STAMSON computer program. The predicted noise levels for the OLA and ILE's are provided in **Table 4** and **Table 5**, respectively.

Table 4: Simulation Results – Outdoor Living Area

Receiver Location*	Calculated Noise Level (dBa) 7:00-23:00		Outdoor Mitigation Method
	Un-attenuated	Attenuated	
OLA 1	51.49	-	N/A

*Locations found on **Figure 2 – Receiver Location Plan**

From **Table 4**, the predicted noise levels of OLA 1 are lower than 55 dBA and therefore no attenuated measures are required. Refer to **Appendix B** for noise calculations.

Table 5: Simulation Results – Plane of Window

Receiver Location*	Predicted Noise Level 7:00-23:00 (dBa)	Predicted Noise Level 23:00-7:00 (dBa)	Mitigation Method
	Un-attenuated	Un-attenuated	
R1 (Block1 8A)	71.49	63.89	<ul style="list-style-type: none"> • Installation of Central Air Conditioning • Warning Clauses Type D • Building Component Assessment
R1 (Block1 9B)	71.49	63.89	<ul style="list-style-type: none"> • Installation of Central Air Conditioning • Warning Clauses Type D • Building Component Assessment
R2 (Block1 1A)	70.76	63.16	<ul style="list-style-type: none"> • Installation of Central Air Conditioning • Warning Clauses Type D • Building Component Assessment
R3 (Block2 6A)	70.19	62.65	<ul style="list-style-type: none"> • Installation of Central Air Conditioning • Warning Clauses Type D • Building Component Assessment
R3 (Block2 10B)	70.19	62.59	<ul style="list-style-type: none"> • Installation of Central Air Conditioning • Warning Clauses Type D • Building Component Assessment
R4 (Block4 6A)	69.96	62.40	<ul style="list-style-type: none"> • Installation of Central Air Conditioning • Warning Clauses Type D • Building Component Assessment
R4 (Block4 10B)	69.95	62.35	<ul style="list-style-type: none"> • Installation of Central Air Conditioning • Warning Clauses Type D • Building Component Assessment
R5 (Block5 8A)	61.94	55.01	<ul style="list-style-type: none"> • Installation of Forced Heating with provisions for Central Air Conditioning • Warning Clauses Type C

Table 5: Simulation Results – Plane of Window

Receiver Location*	Predicted Noise Level 7:00-23:00 (dBa)	Predicted Noise Level 23:00-7:00 (dBa)	Mitigation Method
	Un-attenuated	Un-attenuated	
R5 (Block5 9B)	61.88	54.29	<ul style="list-style-type: none"> • Installation of Forced Heating with provision for Central Air Conditioning • Warning Clauses Type C
R6 (Block5 1A)	62.17	55.12	<ul style="list-style-type: none"> • Installation of Forced Heating with provision for Central Air Conditioning • Warning Clauses Type C
R7 (Block6 5A)	58.91	53.76	<ul style="list-style-type: none"> • Installation of Forced Heating with provision for Central Air Conditioning • Warning Clauses Type C
R7 (Block6 12B)	58.65	51.06	<ul style="list-style-type: none"> • Installation of Forced Heating with provision for Central Air Conditioning • Warning Clauses Type C
R8 (Block6 4A)	55.77	52.31	<ul style="list-style-type: none"> • Installation of Forced Heating with provision for Central Air Conditioning • Warning Clauses Type C
R9 (Block7 5A)	54.86	51.03	<ul style="list-style-type: none"> • Installation of Forced Heating with provision for Central Air Conditioning • Warning Clauses Type C
R9 (Block7 12B)	54.58	46.99	<ul style="list-style-type: none"> • None Required
R10 (Block7 4A)	47.58	44.47	<ul style="list-style-type: none"> • None Required

*Locations found on **Figure 2 – Receiver Location Plan**

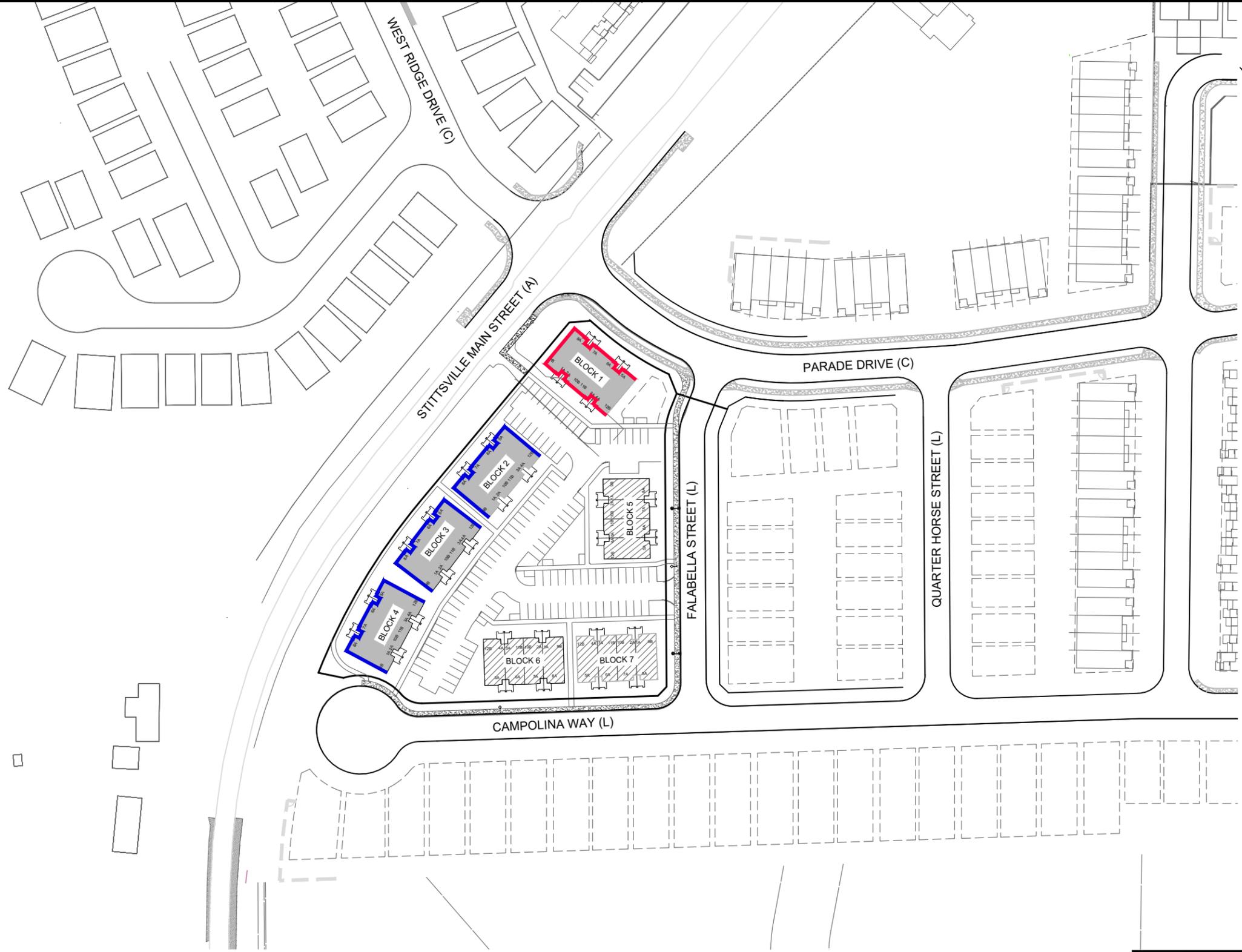
From **Table 5**, the predicted noise levels at the POW's are expected to exceed the sound level criteria. As such, the following is recommended:

- Installation of Central Air Conditioning and the inclusion of warning clause Type D to be registered on title and incorporated into the development agreement and the lease/ rental/ sale agreements of all units in Blocks 1, 2, 3 and 4. Further building component assessment is required for these specific blocks.
- Installation of Forced Air Heating with provision for Central Air Conditioning and the inclusion of warning clause Type C to be registered on title and incorporated into the development agreement and the lease/ rental/ sale agreements of all units in Blocks 5, 6 and 7.

Refer to **Appendix B** for noise calculations.

Refer to **Figure 3 – Noise Attenuation Measures Plan** for all proposed noise attenuation measures.

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LEGEND

- MITIGATION METHODS INCLUDE:**
 - INSTALLATION OF CENTRAL AIR CONDITIONING
 - WARNING CLAUSE TYPE D TO BE REGISTERED ON TITLE AND INCORPORATED INTO THE AGREEMENT OF PURCHASE AND SALES

- MITIGATION METHODS INCLUDE:**
 - INSTALLATION OF FORCED AIR HEATING WITH PROVISION TO CENTRAL AIR CONDITIONING
 - WARNING CLAUSE TYPE C TO BE REGISTERED ON TITLE AND INCORPORATED INTO THE AGREEMENT OF PURCHASE AND SALES

- STC REQUIREMENTS:**
 - EXTERIOR WALL 38
 - WINDOW (LIVING ROOM) 30
 - WINDOW (SLEEPING QUARTER) 28

- STC REQUIREMENTS:**
 - EXTERIOR WALL 37
 - WINDOW (LIVING ROOM) 29
 - WINDOW (SLEEPING QUARTER) 27

- (A)** ARTERIAL ROAD CLASSIFICATION

- (C)** COLLECTOR ROAD CLASSIFICATION

- (L)** LOCAL ROAD CLASSIFICATION

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CITY OF OTTAWA
 1883 STITTSVILLE MAIN STREET

NOISE ATTENUATION MEASURES PLAN

SCALE 1 : 1500

DATE OCT 2024 JOB 124097 FIGURE FIGURE 3

4.0 BUILDING COMPONENT ASSESSMENT

As outlined in section 2.4, the ENCG requires that the exterior cladding system of the building envelope be assessed when the predicted noise levels at the POW exceed the minimum requirements outlined in **Table 3**.

Based on the results in **Table 5**, additional assessment of the exterior cladding system is warranted. To comply with the ENCG policies the building envelope will require a minimum Acoustic Insulation Factor (AIF) or Sound Transmission Class (STC) rating to provide the desired indoor noise levels.

AIF Method

The required AIF is based on the outdoor mitigated noise levels (Outdoor L_{eq}), ENCG indoor noise criterion indoor (Indoor L_{eq}), and the number of building components that make up the exterior shell. In practice, the exterior shell is comprised of primarily two to four components; comprised of exterior walls, windows and patio doors, roofs and ceilings, and exterior doors. The Canada Mortgage and Housing Corporation (CMHC) Standards¹ provide guidance on the desired AIF ratings for different exterior shell components, based on research completed by the National Research Council of Canada (NRC). Tables from the document entitled "Acoustic Insulation Factor: A Rating for the Insulation of Buildings Against Outdoor Noise", produced by the Division of Building Research, NRC, June 1980 (J.D. Quirt) were used to assess the building components against the required AIF. This reference material is included in **Appendix C**.

The required AIF is calculated as follows:

$$\text{Required AIF} = \text{Outdoor } L_{eq} - \text{Indoor } L_{eq} + \{10 \log_{10} (N)\} + 2$$

Where, N = Number of components (walls and windows).

L = Sound Level Equivalent expressed on a common decibel scale.

R1 (Worst Case Scenario) are calculated as follows:

- $\text{AIF}_{(\text{day})} = 71.49 \text{ dBA} - 45 \text{ dBA} + \{10 \log_{10} (2)\} \text{ dBA} + 2 \text{ dBA} = 31$
- $\text{AIF}_{(\text{night})} = 63.89 \text{ dBA} - 40 \text{ dBA} + \{10 \log_{10} (2)\} \text{ dBA} + 2 \text{ dBA} = 29$

Based on the above results and to comply with the ENCG policies, the building components will require a minimum AIF rating of 31 and 29 within living/ dining room and sleeping quarters, respectively, to provide the appropriate indoor noise levels.

Approximate STC Equivalent

The AIF can further be approximated to an STC equivalent, if building floor plans are available.

Architect Plans were provided for the subject site and reviewed to calculate the percentage of window to room area and exterior wall to room area for the living/ dining rooms and sleeping quarters for the various units. Architect Plans are included in **Appendix A**.

Table 11 of the referenced material was then used to determine the approximate STC equivalent based on the calculated percentages of window to room area and exterior wall to room areas for

¹ *New Housing and Airport Noise, CMHC, Ottawa, Canada. Publication NHA 5185 1/78 (1978) and Road and Rail Noise: Effects on Housing, CMHC, Ottawa, Canada. Publication NHA #5156 12/77 (1977).*

living/ dining room and sleeping quarters. The approximate STC equivalent for the exterior walls and windows are summarized below for the various units within the subject site (see Figure 3):

- Living/ Dining Room Windows
 - Living/ dining room windows of Block 1 (facing north, east and west) require a minimum STC of 30.
 - Living/ dining room windows of Blocks 2, 3, and 4 (facing north, east and west) require a minimum STC of 29.
 - All other living/ dining room windows are to satisfy Ontario Building Code requirements.
- Sleeping Quarter Windows
 - Sleeping quarter windows of Blocks 1 (facing north, east and west) require a minimum STC of 28.
 - Sleeping quarter windows of Blocks 2, 3, and 4 (facing north, east and west) require a minimum STC of 27.
 - All other living/ dining room windows are to satisfy Ontario Building Code requirements.
- Exterior Walls
 - Exterior wall components of Block 1 (facing north, east and west) will require a minimum STC of 38.
 - Exterior wall components of Blocks 2, 3, and 4 (facing north, east and west) require a minimum STC of 37.
 - All other exterior walls are to satisfy Ontario Building Code Requirements.

The AIF to STC approximate equivalency tables can also be found in **Appendix C**.

5.0 CONCLUSION

This study confirms the predicted noise levels from the adjacent Stittsville Main Street and Parade Drive are in excess of the City of Ottawa's required criteria. As such, the following mitigation measures are being proposed:

- Blocks 1, 2, 3 and 4
 - The inclusion of Central Air Conditioning.
 - For the aforementioned blocks, the inclusion of the warning clause below is recommended:

“This dwelling unit has been supplied with a central air conditioning system which will allow windows and exterior doors to remain closed, thereby ensuring that the indoor sound levels are within the City's and the Ministry of the Environment's noise criteria.”
- Blocks 5, 6 and 7
 - The inclusion of Forced Air Heating with provisions for Central Air Conditioning.
 - For the aforementioned blocks, the inclusion of the warning clause below is recommended:

“This dwelling unit has been fitted with a forced air heating system and the ducting, etc. was sized to accommodate central air conditioning. Installation of central air conditioning by the occupant will allow windows and exterior doors to remain closed, thereby ensuring that the indoor sound levels are within the City's and the Ministry of the Environment's noise criteria. (Note: The location and installation of the outdoor air conditioning device should be done so as to comply with noise criteria of MOE Publication NPC-216, Residential Air Conditioning Devices and thus minimize the noise impacts both on and in the immediate vicinity of the subject property.)”
- Upgraded building components (exterior walls and windows) will be required where predicted noise levels exceed the sound level criteria for the indoor living environments as illustrated in Figure 3. Building components compliant with the Ontario Building Code will be sufficient for the remaining exterior walls and windows within the subject site.

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APPENDIX A:

Excerpts from City of Ottawa Environmental Noise Control Guidelines, MOE NPC-300, City of Ottawa Transportation Master Plan and Official Plan, and Architect Plans

ENVIRONMENTAL NOISE CONTROL GUIDELINES: Introduction and Glossary

January 2016

Table 2.2a: Sound Level Limit for Outdoor Living Areas - Road and Rail
(from NPC-300, 2013 Table C-1)

Time Period	Required Leq (16) (dBA)
16-hour, 07:00 – 23:00	55

Table 2.2b: Sound Level Limit for Indoor Living Areas Road and Rail
(from NPC-300, 2013 Table C-2)

Type of Space	Time Period	Required Leq (dBA)	
		Road	Rail
Living/dining, den areas of residences, hospitals, nursing homes, schools, daycare centres, etc.	07:00 – 23:00	45	40
Living/dining, den areas of residences, hospitals, nursing homes, etc. (except schools or daycare centres)	23:00 – 07:00	45	40
Sleeping quarters	07:00 – 23:00	45	40
	23:00 – 07:00	40	35

The Province also provides for supplementary indoor sound level limits for land uses not generally considered noise sensitive (see Table 2.2c below). These good practice design objectives should be addressed in any noise study prepared for the City. These supplementary sound level limits are based on the windows and doors to an indoor space being closed.

Table 2.2c: Supplementary Sound Level Limits for Indoor Spaces - Road and Rail (adapted from NPC-300 Table C-9)

Type of Space	Time Period	Required Leq (dBA)	
		Road	Rail
General offices, reception areas, retail stores, etc.	16 hours between 07:00 – 23:00	50	45
Theatres, places of worship, libraries, individual or semi-private offices, conference rooms, reading rooms, etc.	16 hours between 07:00 – 23:00	45	40
Sleeping quarters of hotels/motels	8 hours between 23:00 – 07:00	45	40
Sleeping quarters of residences, hospitals, nursing/retirement homes, etc.	8 hours between 23:00 – 07:00	40	35

Appendix B: Table of Traffic and Road Parameters To Be Used For Sound Level Predictions

Table B1 Traffic And Road Parameters To Be Used For Sound Level Predictions

Row Width (m)	Implied Roadway Class	AADT Vehicles/Day	Posted Speed Km/Hr	Day/Night Split %	Medium Trucks %	Heavy Trucks % ¹
NA ²	Freeway, Queensway, Highway	18,333 per lane	100	92/8	7	5
37.5-44.5	6-Lane Urban Arterial-Divided (6 UAD)	50,000	50-80	92/8	7	5
34-37.5	4-Lane Urban Arterial-Divided (4-UAD)	35,000	50-80	92/8	7	5
23-34	4-Lane Urban Arterial-Undivided (4-UAU)	30,000	50-80	92/8	7	5
23-34	4-Lane Major Collector (4-UMCU)	24,000	40-60	92/8	7	5
30-35.5	2-Lane Rural Arterial (2-RAU)	15,000	50-80	92/8	7	5
20-30	2-Lane Urban Arterial (2-UAU)	15,000	50-80	92/8	7	5
20-30	2-Lane Major Collector (2-UMCU)	12,000	40-60	92/8	7	5
30-35.5	2-Lane Outer Rural Arterial (near the extremities of the City) (2-RAU)	10,000	50-80	92/8	7	5
20-30	2-Lane Urban Collector (2-UCU)	8,000	40-50	92/8	7	5

¹ The MOE Vehicle Classification definitions should be used to estimate automobiles, medium trucks and heavy trucks.

² The number of lanes is determined by the future mature state of the roadway.

Environmental Noise Guideline

Stationary and Transportation Sources –
Approval and Planning

Publication NPC-300

Table C-10
Supplementary Indoor Aircraft Noise Limits
(Applicable over 24-hour period)

Type of Space	Indoor NEF/NEP*
General offices, reception areas, retail stores, etc.	15
Individual or semi-private offices, conference rooms, etc.	10
Living/dining areas of residences, sleeping quarters of hotels/motels, theatres, libraries, schools, daycare centres, places of worship, etc.	5
Sleeping quarters of residences, hospitals, nursing/retirement homes, etc.	0

* The indoor NEF/NEP values listed in Table C-10 are not obtained from NEF/NEP contour maps. The values are representative of the indoor sound levels and are used as assessment criteria for the evaluation of acoustical insulation requirements.

C7 Noise Control Measures

The following sections provide MOE guidance for appropriate noise control measures. These sections constitute requirements that are applied to MOE approvals for stationary sources. This information is also provided as guidance which land use planning authorities may consider adopting.

The definition in Part A describes the various types and application of noise control measures. All the noise control measures described in the definition are appropriate to address the impact of noise of transportation sources (road, rail and aircraft) on planned sensitive land uses. Only some of the noise control measures described in the definition are appropriate to address the noise impact of stationary sources on planned sensitive land uses.

C7.1 Road Noise Control Measures

C7.1.1 Outdoor Living Areas

If the 16-Hour Equivalent Sound Level, $L_{eq}(16)$ in the OLA is greater than 55 dBA and less than or equal to 60 dBA, noise control measures may be applied to reduce the sound level to 55 dBA. If measures are not provided, prospective purchasers or tenants should be informed of potential noise problems by a warning clause Type A.

If the 16-Hour Equivalent Sound Level, $L_{eq}(16)$ in the OLA is greater than 60 dBA, noise control measures should be implemented to reduce the level to 55 dBA. Only in cases where the required noise control measures are not feasible for technical, economic or administrative reasons would an excess above the limit (55 dBA) be acceptable with a warning clause Type B. In the above situations, any excess above the limit will not be acceptable if it exceeds 5 dBA.

C7.1.2 Plane of a Window – Ventilation Requirements

C7.1.2.1 Daytime Period, 07:00 – 23:00 Hours

Noise control measures may not be required if the L_{eq} (16) daytime sound level in the plane of a bedroom or living/dining room window is less than or equal to 55 dBA. If the sound level in the plane of a bedroom or living/dining room window is greater than 55 dBA and less than or equal to 65 dBA, the dwelling should be designed with a provision for the installation of central air conditioning in the future, at the occupant's discretion. Warning clause Type C is also recommended.

If the daytime sound level in the plane of a bedroom or living/dining room window is greater than 65 dBA, installation of central air conditioning should be implemented with a warning clause Type D. In addition, building components including windows, walls and doors, where applicable, should be designed so that the indoor sound levels comply with the sound level limits in Table C-2. The location and installation of the outdoor air conditioning device should comply with sound level limits of Publication NPC-216, Reference [32], and guidelines contained in Environmental Noise Guidelines for Installation of Residential Air Conditioning Devices, Reference [6], or should comply with other criteria specified by the municipality.

C7.1.2.2 Nighttime Period, 23:00 – 07:00 Hours

Noise control measures may not be required if the L_{eq} (8) nighttime sound level in the plane of a bedroom or living/dining room window is less than or equal to 50 dBA. If the sound level in the plane of a bedroom or living/dining room window is greater than 50 dBA and less than or equal to 60 dBA, the dwelling should be designed with a provision for the installation of central air conditioning in the future, at the occupant's discretion. Warning clause Type C is also recommended.

If the nighttime sound level in the plane of a bedroom or living/dining room window is greater than 60 dBA, installation of central air conditioning should be implemented, with a warning clause Type D. In addition, building components including windows, walls and doors, where applicable, should be designed so that the indoor sound levels comply with the sound level limits in Table C-2. The location and installation of the outdoor air conditioning device should comply with sound level limits of Publication NPC-216, Reference [32], and guidelines contained in Environmental Noise Guidelines for Installation of Residential Air Conditioning Devices, Reference [6], or should comply with other criteria specified by the municipality.

C7.1.3 Indoor Living Areas – Building Components

If the nighttime sound level outside the bedroom or living/dining room windows exceeds 60 dBA or the daytime sound level outside the bedroom or living/dining area windows exceeds 65 dBA, building components including windows, walls and doors, where applicable, should be designed so that the indoor sound levels comply with the

sound level limits in Table C-2. The acoustical performance of the building components (windows, doors and walls) should be specified.

C7.2 Rail Noise Control Measures

C7.2.1 Outdoor Living Areas

Whistle noise is not included in the determination of the outdoor daytime sound level due to railway trains. All the provisions of Section C7.1.1 apply also to noise control requirements for rail noise.

C7.2.2 Plane of a Window – Ventilation Requirements

Whistle noise is not included in the determination of the sound level in the plane of a window. All the provisions of Section C7.1.2 apply also to noise control requirements for rail noise.

C7.2.3 Indoor Living Areas – Building Components

The sound level, L_{eq} , during the daytime (16-hour) and nighttime (8-hour) periods is determined using the prediction method STEAM, Reference [34], immediately outside the dwelling envelope. Whistle noise is included in the determination of the sound level.

If the nighttime sound level outside the bedroom or living/dining room windows exceeds 55 dBA or the daytime sound level outside the bedroom or living/dining area windows exceeds 60 dBA, building components including windows, walls and doors, where applicable, need to be designed so that the indoor sound levels comply with the sound level limits in Table C-2. The acoustical performance of the building components (windows, doors and walls) needs to be specified.

In addition, the exterior walls of the first row of dwellings next to railway tracks are to be built to a minimum of brick veneer or masonry equivalent construction, from the foundation to the rafters when the rail traffic L_{eq} (24-hour), estimated at a location of a nighttime receptor, is greater than 60 dBA, and when the first row of dwellings is within 100 metres of the tracks.

C7.3 Combination of Road and Rail Noise

The noise impact in the OLA and in the plane of a window, and the requirements for outdoor measures, ventilation measures and warning clauses, should be determined by combining road and rail traffic sound levels.

The assessment of the indoor sound levels and the resultant requirement for the acoustical descriptors of the building components should be done separately for road

In Class 4 areas, where windows for noise sensitive spaces are assumed to be closed, the use of central air conditioning may be acceptable if it forms an essential part of the overall building designs.

C7.9 Verification of Noise Control Measures

It is recommended that the implementation of noise control measures be verified by qualified individuals with experience in environmental acoustics.

C8 Warning Clauses

The use of warning clauses or easements in respect of noise are recommended when circumstances warrant. Noise warning clauses may be used to warn of potential annoyance due to an existing source of noise and/or to warn of excesses above the sound level limits. Direction on the use of warning clauses should be included in agreements that are registered on title to the lands in question. The warning clauses would be included in agreements of Offers of Purchase and Sale, lease/rental agreements and condominium declarations. Alternatively, the use of easements in respect of noise may be appropriate in some circumstances. Additional guidance on the use of noise warning clauses is provided in Section C7.1.1, Section C7.1.2.1, Section C7.1.2.2, Section C7.3 and Section C7.4.

C8.1 Transportation Sources

The following warning clauses may be used individually or in combination:

TYPE A: (see Section C7.1.1)

“Purchasers/tenants are advised that sound levels due to increasing road traffic (rail traffic) (air traffic) may occasionally interfere with some activities of the dwelling occupants as the sound levels exceed the sound level limits of the Municipality and the Ministry of the Environment.”

TYPE B: (see Section C7.1.1 and Section C7.4)

“Purchasers/tenants are advised that despite the inclusion of noise control features in the development and within the building units, sound levels due to increasing road traffic (rail traffic) (air traffic) may on occasions interfere with some activities of the dwelling occupants as the sound levels exceed the sound level limits of the Municipality and the Ministry of the Environment.”

TYPE C: (see Section C7.1.2.1, Section C7.1.2.2 and Section C7.4)

“This dwelling unit has been designed with the provision for adding central air conditioning at the occupant’s discretion. Installation of

central air conditioning by the occupant in low and medium density developments will allow windows and exterior doors to remain closed, thereby ensuring that the indoor sound levels are within the sound level limits of the Municipality and the Ministry of the Environment.”

TYPE D: (see Section C7.1.2.1, Section C7.1.2.2 and Section C7.4)

“This dwelling unit has been supplied with a central air conditioning system which will allow windows and exterior doors to remain closed, thereby ensuring that the indoor sound levels are within the sound level limits of the Municipality and the Ministry of the Environment.”

C8.2 Stationary Sources

It is not acceptable to use warning clauses in place of physical noise control measures to identify an excess over the MOE sound level limits. Warning clause (Type E) for stationary sources may identify a potential concern due to the proximity of the facility but it is not acceptable to justify exceeding the sound level limits.

TYPE E: (see Section C7.6)

“Purchasers/tenants are advised that due to the proximity of the adjacent industry (facility) (utility), noise from the industry (facility) (utility) may at times be audible.”

C8.3 Class 4 Area Notification

TYPE F: (see Section B9.2 and Section C4.4.2)

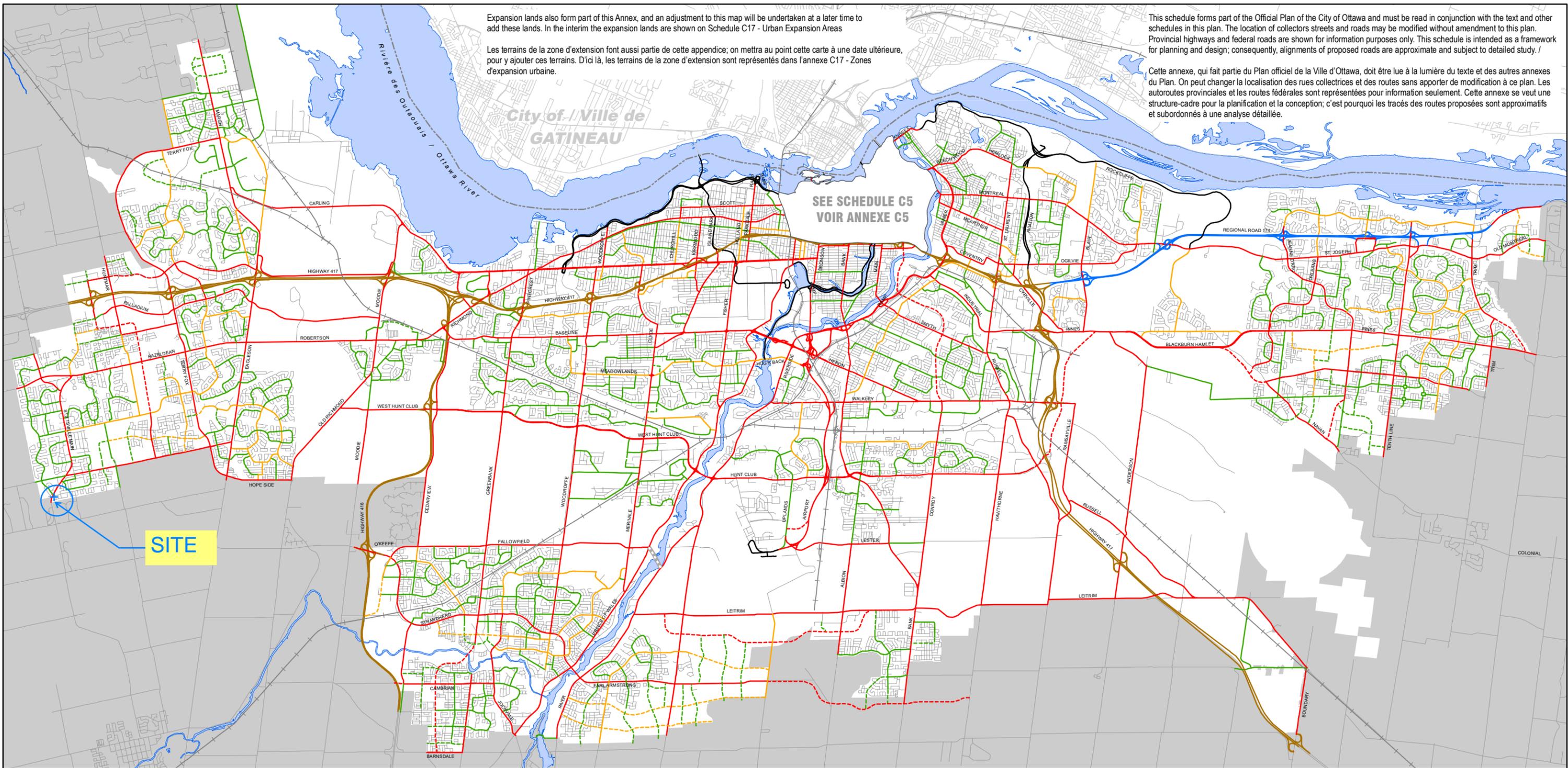
“Purchasers/tenants are advised that sound levels due to the adjacent industry (facility) (utility) are required to comply with sound level limits that are protective of indoor areas and are based on the assumption that windows and exterior doors are closed. This dwelling unit has been supplied with a ventilation/air conditioning system which will allow windows and exterior doors to remain closed.”

Expansion lands also form part of this Annex, and an adjustment to this map will be undertaken at a later time to add these lands. In the interim the expansion lands are shown on Schedule C17 - Urban Expansion Areas

Les terrains de la zone d'extension font aussi partie de cette annexe; on mettra au point cette carte à une date ultérieure, pour y ajouter ces terrains. D'ici là, les terrains de la zone d'extension sont représentés dans l'annexe C17 - Zones d'expansion urbaine.

This schedule forms part of the Official Plan of the City of Ottawa and must be read in conjunction with the text and other schedules in this plan. The location of collectors streets and roads may be modified without amendment to this plan. Provincial highways and federal roads are shown for information purposes only. This schedule is intended as a framework for planning and design; consequently, alignments of proposed roads are approximate and subject to detailed study. /

Cette annexe, qui fait partie du Plan officiel de la Ville d'Ottawa, doit être lue à la lumière du texte et des autres annexes du Plan. On peut changer la localisation des rues collectrices et des routes sans apporter de modification à ce plan. Les autoroutes provinciales et les routes fédérales sont représentées pour information seulement. Cette annexe se veut une structure-cadre pour la planification et la conception; c'est pourquoi les tracés des routes proposées sont approximatifs et subordonnés à une analyse détaillée.



SITE

SEE SCHEDULE C5
VOIR ANNEXE C5

- Arterial - Existing ———— Artère - Établie
- Arterial - Future (alignment defined) - - - - - Artère - Future (alignement déterminée)
- Major Collector - Existing ———— Grande collectrice - Établie
- Major Collector - Future - - - - - Grande collectrice - Future
- Collector - Existing ———— Collectrice - Établie
- Collector - Future - - - - - Collectrice - Future
- River Crossing (corridor undefined) - - - - - Traversée de rivière (couloir non défini)

- Provincial Highway ———— Route provinciale
- Federally Owned Road ———— Chemins de propriété fédéral
- City Freeway ———— Autoroute municipale



Official Plan / Plan officiel

Schedule C4 - Urban Road Network Annexe C4 Réseau routier urbain

Approved on November 4, 2022
Approuvé le 4 novembre 2022

Consolidation and Amendments / Consolidation et amendements



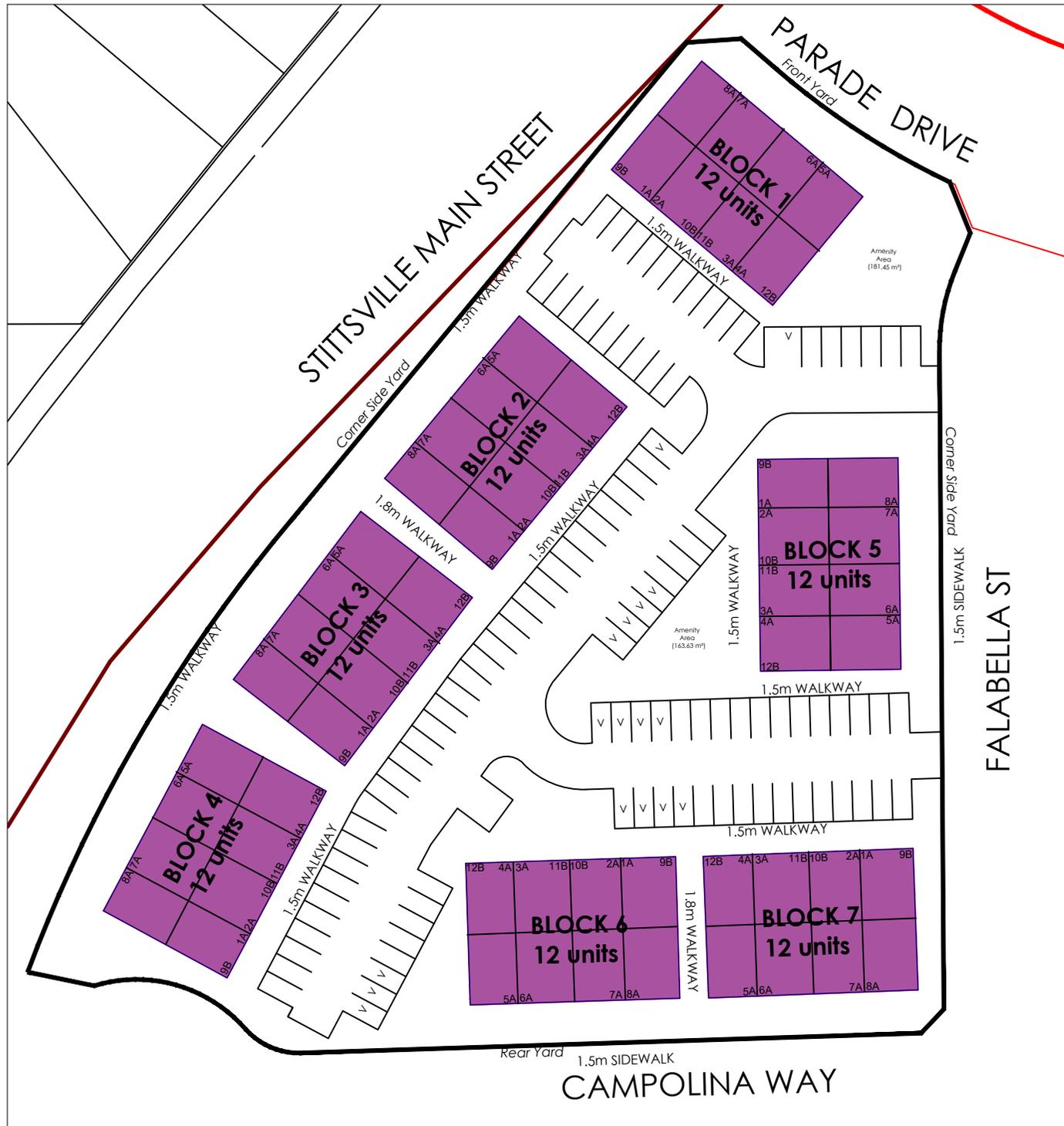
Road	From	To	ROW to be Protected (m)	Classification	Sector
West Hunt Club	Old Richmond	Highway 416	44 Note: subject to the varying widening requirements of the Hope Side Road/Old Richmond Road Corridor (Terry Fox Drive to Highway 416) ESR	arterial	urban
West Hunt Club	Highway 416	Greenbelt boundary	G	arterial	urban
West Hunt Club	Greenbelt boundary	Cleopatra	44.5 Note: An additional 5.0 m on the Greenbelt side may be required to construct a rural cross-section.	arterial	urban
West Hunt Club	Cleopatra	Prince of Wales	44.5	arterial	urban
West Ridge	Hazeldean	Fernbank	24	collector	urban
Westcliffe	Robertson	Seyton	24	collector	urban
Whitby	Churchill	Winona	15 Note: North side	local	urban
Winston	Richmond	Dead end at Wilmont	15	local	urban
Withrow	Meadowlands	Merivale	24	collector	urban
Woodfield	Medhurst	Merivale	24	collector	urban
Woodridge	Bayshore	Bayshore	24	collector	urban

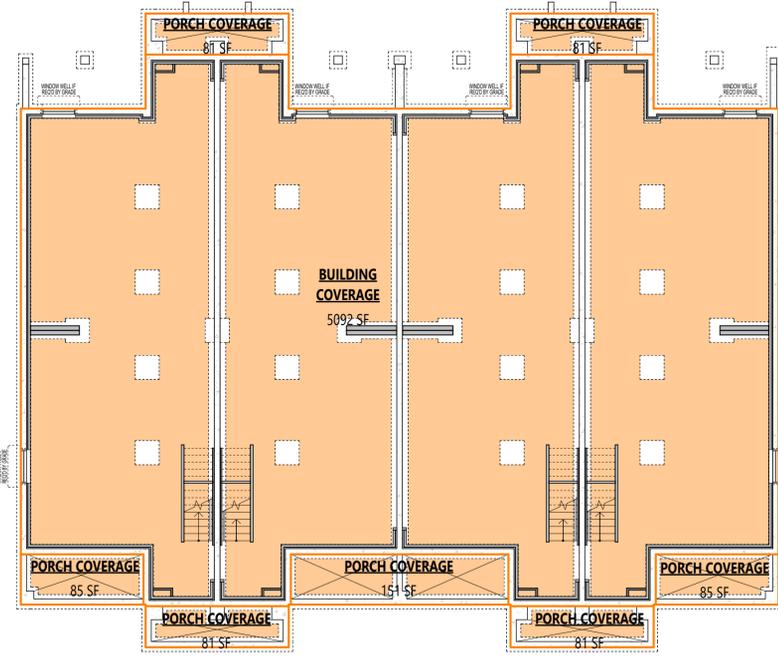


Stittsville - Traditions II
Phase 1
 Colour Plan

Legend

-  Phase Boundary
-  Stacked Towns
- ##** Legal Lot Number

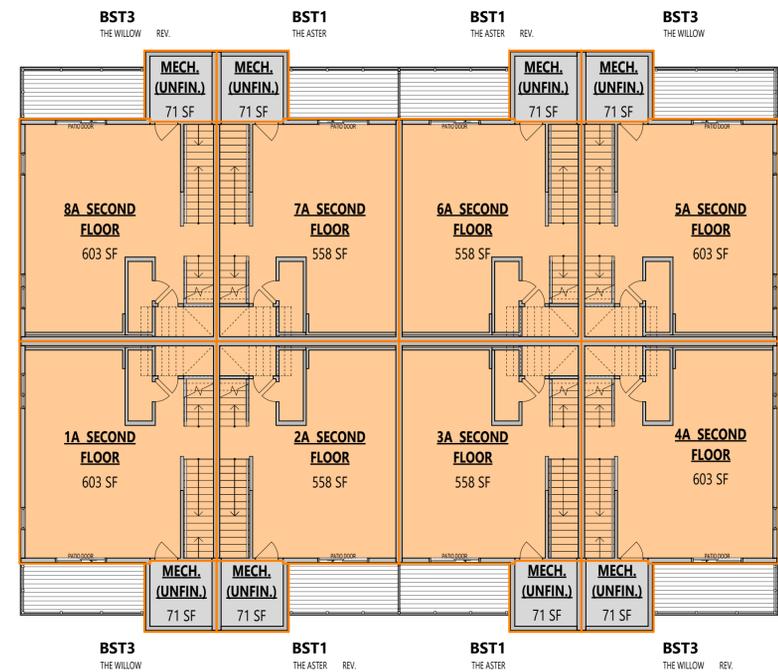




COVERAGE

COVERAGE CALCULATIONS

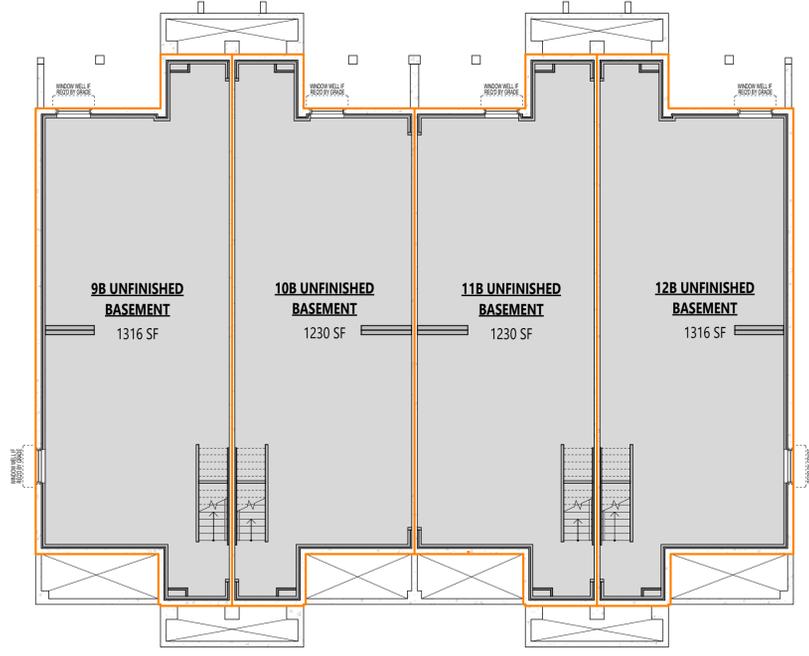
BUILDING COVERAGE	5092 SF	473.10 m ²
PORCH COVERAGE	647 SF	60.10 m ²
TOTAL	5739 SF	533.20 m ²



SECOND FLOOR

SECOND FLOOR GFA CALCULATIONS

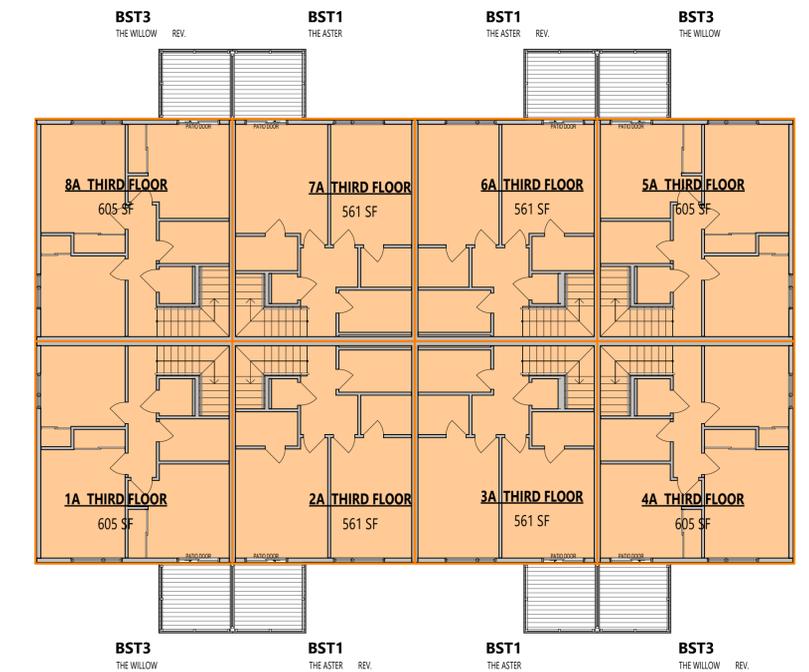
1A SECOND FLOOR	603 SF	56.00 m ²
2A SECOND FLOOR	558 SF	51.86 m ²
3A SECOND FLOOR	558 SF	51.86 m ²
4A SECOND FLOOR	603 SF	56.00 m ²
5A SECOND FLOOR	603 SF	56.00 m ²
6A SECOND FLOOR	558 SF	51.86 m ²
7A SECOND FLOOR	558 SF	51.86 m ²
8A SECOND FLOOR	603 SF	56.00 m ²
MECH. (UNFIN.)	565 SF	52.45 m ²
TOTAL	5209 SF	483.89 m ²



BASEMENT

BASEMENT AREA CALCULATIONS

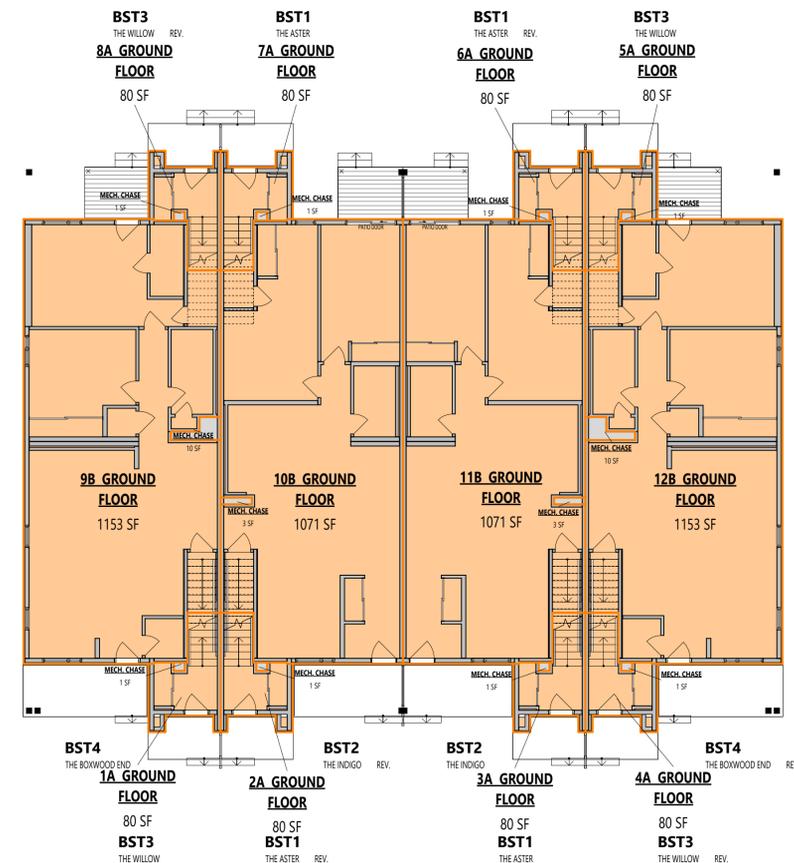
9B UNFINISHED BASEMENT	1316 SF	122.26 m ²
10B UNFINISHED BASEMENT	1230 SF	114.29 m ²
11B UNFINISHED BASEMENT	1230 SF	114.29 m ²
12B UNFINISHED BASEMENT	1316 SF	122.26 m ²
TOTAL	5092 SF	473.10 m ²



THIRD FLOOR

THIRD FLOOR GFA CALCULATIONS

1A THIRD FLOOR	605 SF	56.24 m ²
2A THIRD FLOOR	561 SF	52.10 m ²
3A THIRD FLOOR	561 SF	52.10 m ²
4A THIRD FLOOR	605 SF	56.24 m ²
5A THIRD FLOOR	605 SF	56.24 m ²
6A THIRD FLOOR	561 SF	52.10 m ²
7A THIRD FLOOR	561 SF	52.10 m ²
8A THIRD FLOOR	605 SF	56.24 m ²
TOTAL	4665 SF	433.35 m ²



GROUND FLOOR

GROUND FLOOR GFA CALCULATIONS

1A GROUND FLOOR	80 SF	7.42 m ²
2A GROUND FLOOR	80 SF	7.42 m ²
3A GROUND FLOOR	80 SF	7.42 m ²
4A GROUND FLOOR	80 SF	7.42 m ²
5A GROUND FLOOR	80 SF	7.42 m ²
6A GROUND FLOOR	80 SF	7.42 m ²
7A GROUND FLOOR	80 SF	7.42 m ²
8A GROUND FLOOR	80 SF	7.42 m ²
9B GROUND FLOOR	1153 SF	107.09 m ²
10B GROUND FLOOR	1071 SF	99.47 m ²
11B GROUND FLOOR	1071 SF	99.47 m ²
12B GROUND FLOOR	1153 SF	107.09 m ²
MECH. CHASE	36 SF	3.37 m ²
TOTAL	5122 SF	475.82 m ²

GFA CALCULATION - STD

01 Ground Floor	5122 SF	475.82 m ²
02 Second Floor	5209 SF	483.89 m ²
03 Third Floor	4665 SF	433.35 m ²
TOTAL	14996 SF	1393.07 m ²

AREA CALCULATIONS UNIT BST 1 (THE ASTER)

GROUND FLOOR AREA	80 SF	[7.43 m ²]
SECOND FLOOR AREA	558 SF	[51.84 m ²]
THIRD FLOOR AREA	561 SF	[52.12 m ²]
TOTAL NET AREA	1199 SF	[111.39 m ²]

COVERAGE W/OUT PORCH	629 SF	[58.44 m ²]
COVERAGE W/ PORCH	657 SF	[61.04 m ²]

AREA CALCULATIONS UNIT BST 3 (THE WILLOW)

GROUND FLOOR AREA	80 SF	[7.43 m ²]
SECOND FLOOR AREA	603 SF	[56.02 m ²]
THIRD FLOOR AREA	605 SF	[56.21 m ²]
TOTAL NET AREA	1288 SF	[119.66 m ²]

COVERAGE W/OUT PORCH	674 SF	[62.62 m ²]
COVERAGE W/ PORCH	702 SF	[65.22 m ²]

AREA CALCULATIONS UNIT BST 2 (THE INDIGO)

GROUND FLOOR AREA	1071 SF	[99.50 m ²]
SECOND FLOOR AREA	0 SF	[0.00 m ²]
THIRD FLOOR AREA	0 SF	[0.00 m ²]
TOTAL NET AREA	1071 SF	[99.50 m ²]

COVERAGE W/OUT PORCH	1074 SF	[99.78 m ²]
COVERAGE W/ PORCH	1155 SF	[107.30 m ²]

AREA CALCULATIONS UNIT BST 4 (THE BOXWOOD END)

GROUND FLOOR AREA	1153 SF	[107.12 m ²]
SECOND FLOOR AREA	0 SF	[0.00 m ²]
THIRD FLOOR AREA	0 SF	[0.00 m ²]
TOTAL NET AREA	1153 SF	[107.12 m ²]

COVERAGE W/OUT PORCH	1163 SF	[108.05 m ²]
COVERAGE W/ PORCH	1255 SF	[116.59 m ²]



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ISSUED / REVISION CHART

01	ISSUED FOR PERMIT	2022-08-30
02	ISSUED FOR PERMIT REVISION 01	2022-12-08
03	ISSUED FOR PERMIT REVISION 02	2023-03-02
04	ISSUED FOR PERMIT REVISION 03	2023-11-03

AREA CALCULATIONS

DECOEUR TRANSITIONAL (TN)

Orleans
2376 TENTH LINE RD
CITY OF OTTAWA
CITY PLAN NO. 18688 CITY FILE NO. D07-12-21-0224



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FRONT ELEVATION



LEFT ELEVATION

1A LIMITING DISTANCE CALCULATIONS

LIMITING DISTANCE	4.5M
UNPROTECTED OPENINGS PERMITTED %	31%
WALL AREA	537.47 sqft [49.93 m ²]
OPENINGS ALLOWED	166.62 sqft [15.48 m ²]
OPENINGS PROVIDED	122.17 sqft [11.35 m ²]
OPENINGS BALANCE	44.45 sqft [4.13 m ²]

2A LIMITING DISTANCE CALCULATIONS

LIMITING DISTANCE	4.5M
UNPROTECTED OPENINGS PERMITTED %	31%
WALL AREA	503.89 sqft [46.81 m ²]
OPENINGS ALLOWED	156.21 sqft [14.51 m ²]
OPENINGS PROVIDED	122.17 sqft [11.35 m ²]
OPENINGS BALANCE	34.04 sqft [3.16 m ²]

3A LIMITING DISTANCE CALCULATIONS

LIMITING DISTANCE	4.5M
UNPROTECTED OPENINGS PERMITTED %	31%
WALL AREA	503.89 sqft [46.81 m ²]
OPENINGS ALLOWED	156.21 sqft [14.51 m ²]
OPENINGS PROVIDED	122.17 sqft [11.35 m ²]
OPENINGS BALANCE	34.04 sqft [3.16 m ²]

4A LIMITING DISTANCE CALCULATIONS

LIMITING DISTANCE	4.5M
UNPROTECTED OPENINGS PERMITTED %	31%
WALL AREA	537.47 sqft [49.93 m ²]
OPENINGS ALLOWED	166.62 sqft [15.48 m ²]
OPENINGS PROVIDED	122.17 sqft [11.35 m ²]
OPENINGS BALANCE	44.45 sqft [4.13 m ²]

8A LIMITING DISTANCE CALCULATIONS

LIMITING DISTANCE	2.5M
UNPROTECTED OPENINGS PERMITTED %	13%
WALL AREA	683.15 sqft [63.47 m ²]
OPENINGS ALLOWED	88.81 sqft [8.25 m ²]
OPENINGS PROVIDED	43.40 sqft [4.03 m ²]
OPENINGS BALANCE	45.41 sqft [4.22 m ²]

9B LIMITING DISTANCE CALCULATIONS

LIMITING DISTANCE	2.5M
UNPROTECTED OPENINGS PERMITTED %	13%
WALL AREA	584.71 sqft [54.32 m ²]
OPENINGS ALLOWED	76.01 sqft [7.06 m ²]
OPENINGS PROVIDED	42.54 sqft [3.95 m ²]
OPENINGS BALANCE	33.47 sqft [3.11 m ²]

1A LIMITING DISTANCE CALCULATIONS

LIMITING DISTANCE	2.5M
UNPROTECTED OPENINGS PERMITTED %	13%
WALL AREA	676.05 sqft [62.81 m ²]
OPENINGS ALLOWED	87.89 sqft [8.16 m ²]
OPENINGS PROVIDED	43.40 sqft [4.03 m ²]
OPENINGS BALANCE	44.49 sqft [4.13 m ²]

9B LIMITING DISTANCE CALCULATIONS

LIMITING DISTANCE	6.9M
UNPROTECTED OPENINGS PERMITTED %	66%
WALL AREA	170.19 sqft [15.81 m ²]
OPENINGS ALLOWED	112.33 sqft [10.44 m ²]
OPENINGS PROVIDED	40.74 sqft [3.78 m ²]
OPENINGS BALANCE	71.59 sqft [6.65 m ²]

10B LIMITING DISTANCE CALCULATIONS

LIMITING DISTANCE	6.9M
UNPROTECTED OPENINGS PERMITTED %	66%
WALL AREA	151.19 sqft [14.05 m ²]
OPENINGS ALLOWED	99.79 sqft [9.27 m ²]
OPENINGS PROVIDED	52.45 sqft [4.87 m ²]
OPENINGS BALANCE	47.34 sqft [4.40 m ²]

11B LIMITING DISTANCE CALCULATIONS

LIMITING DISTANCE	6.9M
UNPROTECTED OPENINGS PERMITTED %	66%
WALL AREA	151.19 sqft [14.05 m ²]
OPENINGS ALLOWED	99.79 sqft [9.27 m ²]
OPENINGS PROVIDED	52.45 sqft [4.87 m ²]
OPENINGS BALANCE	47.34 sqft [4.40 m ²]

12B LIMITING DISTANCE CALCULATIONS

LIMITING DISTANCE	6.9M
UNPROTECTED OPENINGS PERMITTED %	66%
WALL AREA	170.19 sqft [15.81 m ²]
OPENINGS ALLOWED	112.33 sqft [10.44 m ²]
OPENINGS PROVIDED	40.74 sqft [3.78 m ²]
OPENINGS BALANCE	71.59 sqft [6.65 m ²]



REAR ELEVATION



RIGHT ELEVATION

5A LIMITING DISTANCE CALCULATIONS

LIMITING DISTANCE	4.5M
UNPROTECTED OPENINGS PERMITTED %	31%
WALL AREA	537.47 sqft [49.93 m ²]
OPENINGS ALLOWED	166.62 sqft [15.48 m ²]
OPENINGS PROVIDED	122.17 sqft [11.35 m ²]
OPENINGS BALANCE	44.45 sqft [4.13 m ²]

6A LIMITING DISTANCE CALCULATIONS

LIMITING DISTANCE	4.5M
UNPROTECTED OPENINGS PERMITTED %	31%
WALL AREA	503.89 sqft [46.81 m ²]
OPENINGS ALLOWED	156.21 sqft [14.51 m ²]
OPENINGS PROVIDED	122.17 sqft [11.35 m ²]
OPENINGS BALANCE	34.04 sqft [3.16 m ²]

7A LIMITING DISTANCE CALCULATIONS

LIMITING DISTANCE	4.5M
UNPROTECTED OPENINGS PERMITTED %	31%
WALL AREA	503.89 sqft [46.81 m ²]
OPENINGS ALLOWED	156.21 sqft [14.51 m ²]
OPENINGS PROVIDED	122.17 sqft [11.35 m ²]
OPENINGS BALANCE	34.04 sqft [3.16 m ²]

8A LIMITING DISTANCE CALCULATIONS

LIMITING DISTANCE	4.5M
UNPROTECTED OPENINGS PERMITTED %	31%
WALL AREA	537.47 sqft [49.93 m ²]
OPENINGS ALLOWED	166.62 sqft [15.48 m ²]
OPENINGS PROVIDED	122.17 sqft [11.35 m ²]
OPENINGS BALANCE	44.45 sqft [4.13 m ²]

4A LIMITING DISTANCE CALCULATIONS

LIMITING DISTANCE	2.5M
UNPROTECTED OPENINGS PERMITTED %	13%
WALL AREA	676.05 sqft [62.81 m ²]
OPENINGS ALLOWED	87.89 sqft [8.16 m ²]
OPENINGS PROVIDED	43.40 sqft [4.03 m ²]
OPENINGS BALANCE	44.49 sqft [4.13 m ²]

12B LIMITING DISTANCE CALCULATIONS

LIMITING DISTANCE	2.5M
UNPROTECTED OPENINGS PERMITTED %	13%
WALL AREA	584.71 sqft [54.32 m ²]
OPENINGS ALLOWED	76.01 sqft [7.06 m ²]
OPENINGS PROVIDED	42.54 sqft [3.95 m ²]
OPENINGS BALANCE	33.47 sqft [3.11 m ²]

5A LIMITING DISTANCE CALCULATIONS

LIMITING DISTANCE	2.5M
UNPROTECTED OPENINGS PERMITTED %	13%
WALL AREA	683.15 sqft [63.47 m ²]
OPENINGS ALLOWED	88.81 sqft [8.25 m ²]
OPENINGS PROVIDED	43.40 sqft [4.03 m ²]
OPENINGS BALANCE	45.41 sqft [4.22 m ²]

12B LIMITING DISTANCE CALCULATIONS

LIMITING DISTANCE	6.9M
UNPROTECTED OPENINGS PERMITTED %	66%
WALL AREA	186.15 sqft [17.29 m ²]
OPENINGS ALLOWED	122.86 sqft [11.41 m ²]
OPENINGS PROVIDED	43.35 sqft [4.03 m ²]
OPENINGS BALANCE	79.51 sqft [7.39 m ²]

11B LIMITING DISTANCE CALCULATIONS

LIMITING DISTANCE	6.9M
UNPROTECTED OPENINGS PERMITTED %	66%
WALL AREA	166.42 sqft [15.46 m ²]
OPENINGS ALLOWED	109.84 sqft [10.20 m ²]
OPENINGS PROVIDED	56.96 sqft [5.29 m ²]
OPENINGS BALANCE	52.88 sqft [4.91 m ²]

10B LIMITING DISTANCE CALCULATIONS

LIMITING DISTANCE	6.9M
UNPROTECTED OPENINGS PERMITTED %	66%
WALL AREA	166.42 sqft [15.46 m ²]
OPENINGS ALLOWED	109.84 sqft [10.20 m ²]
OPENINGS PROVIDED	56.96 sqft [5.29 m ²]
OPENINGS BALANCE	52.88 sqft [4.91 m ²]

9B LIMITING DISTANCE CALCULATIONS

LIMITING DISTANCE	6.9M
UNPROTECTED OPENINGS PERMITTED %	66%
WALL AREA	186.15 sqft [17.29 m ²]
OPENINGS ALLOWED	122.86 sqft [11.41 m ²]
OPENINGS PROVIDED	43.35 sqft [4.03 m ²]
OPENINGS BALANCE	79.51 sqft [7.39 m ²]

OBC TABLE 9.10.14.4.

EXPOSING BUILDING FACE (EBF) (m ²)	LIMITING DISTANCE (m)						
	2.0	2.5	4.0	4.5	6.0	6.9	8.0
50	10%	14%	28%	35%	57%	70%	100%
65	10%	13%	25%	31%	50%	66%	87%
100	9%	11%	18%	22%	34%	44%	56%

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NO.	DESCRIPTION	DATE
01	ISSUED FOR PERMIT	2022-08-30
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04	ISSUED FOR PERMIT REVISION 03	2023-11-03

LIMITING DISTANCE

DECOEUR TRANSITIONAL (TN)

Orleans

2370 TENTH LINE RD
CITY OF OTTAWA

CITY PLAN NO. 18688 CITY FILE NO. 007-12-21-0224

SHEET SIZE: 24"x36"
SCALE: 1/8" = 1'-0"
ISSUE DATE: DEC 05, 2023 **PAGE A0.03**



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PLAN NOTES:
1. ALL WORK ON ARCHITECTURAL DRAWINGS IS PROPOSED LOCATION ONLY. MECHANICAL AND ELECTRICAL ENGINEERS ARE RESPONSIBLE FOR THE DESIGN AND LOCATION OF ALL MECHANICAL, VENTILATION, GAS PIPING, SEWER, HVAC, GAS, WATER, HYDROPOWER, ELECTRICAL AND ANY MECHANICAL EQUIPMENT. RAIDER AND SUBCONTRACTOR TO ENSURE THE INSTALLATION ADHERES TO ALL APPLICABLE CODES AND LOCAL UTILITY AUTHORITIES.
FLOOR FINISHES:
FLOOR FINISHES TO BE PROVIDED BY OTHER CONTRACTORS. SEE FINISH SCHEDULE FOR LOCATION & NUMBER OF HOLES (H) TYP.
FLOOR FRAMING:
FOR FLOOR FRAMING REFER TO FLOOR JOIST MANUFACTURER'S SHOP DRAWINGS FOR ALL TRUSS JOIST INFORMATION AND DETAILS UNLESS OTHERWISE NOTED.
FRAMEWORK CONSTRUCTION:
45 MINUTE OR 1 HOUR FIRE RATED WALL:
PROVIDE A CONTINUOUS LAYER OF 15mm (5/8") TYPE 'X' GYPSUM BOARD INTERIOR SIDE INSTALLED SO THAT ALL EDGES ARE SUPPORTED. TAPE AND FILL JOINTS BETWEEN WOOD JOISTS TO BE FILLED WITH PERFORMED MINERAL FIBRE INSULATION WITH A MASS OF NOT LESS THAN 12 kg/m² AND MUST FILL AT LEAST 90% OF THE CAVITY THICKNESS. THE TYPE 'X' INSULATION MUST BE RUN CONTINUOUSLY BEHIND ALL INTERSECTING PARTITIONS, MECHANICAL CHASES, BATHS, SHOWERS, ETC. ENGINE INSULATION & TYPE 'X' IS INSTALLED IN GARAGE EXTERIOR WALLS.
REFER TO SECTION 08.20 OF SUPPLEMENTARY STANDARDS.
PROVIDE 1/2" EXTERIOR GRADE GYPSUM BOARD SHEATHING BEHIND SINGING.
REFER TO B.A.C. 614-100.
BACK FLOOR CONSTRUCTION:
45 MINUTE OR 1 HOUR FIRE RATED WALL:
PROVIDE A CONTINUOUS LAYER OF 15mm (5/8") TYPE 'X' GYPSUM BOARD INTERIOR SIDE INSTALLED SO THAT ALL EDGES ARE SUPPORTED. TAPE AND FILL JOINTS BETWEEN WOOD JOISTS TO BE FILLED WITH PERFORMED MINERAL FIBRE INSULATION WITH A MASS OF NOT LESS THAN 12 kg/m² AND MUST FILL AT LEAST 90% OF THE CAVITY THICKNESS. THE TYPE 'X' INSULATION MUST BE RUN CONTINUOUSLY BEHIND ALL INTERSECTING PARTITIONS, MECHANICAL CHASES, BATHS, SHOWERS, ETC. ENGINE INSULATION & TYPE 'X' IS INSTALLED IN GARAGE EXTERIOR WALLS.
REFER TO SECTION 08.20 OF SUPPLEMENTARY STANDARDS.
PROVIDE 1/2" EXTERIOR GRADE GYPSUM BOARD SHEATHING BEHIND SINGING.
REFER TO B.A.C. 614-100.
HEADER / JAM JOIST LEVELS:
45 MINUTE OR 1 HOUR FIRE RATED ASSEMBLY:
PROVIDE 15mm (5/8") TYPE 'X' GYPSUM BOARD BETWEEN JOIST JOISTS AT THE HEADER OR CONTINUOUSLY ALONG THE JAM JOIST WHEN FLOOR JOISTS ARE PARALLEL TO JAM JOIST TO MAINTAIN 45 MINUTE OR 1 HOUR FIRE RATING.

WALL LEGEND
LOAD BEARING WALL
MECHANICAL WALL
1 HR FIRE RATED ASSEMBLY
45 MIN FIRE RATED ASSEMBLY
ENSURE THE PROTECTION OF LOAD BEARING ELEMENTS BY 15.8.3.1 OF THE CODE & IS INSTALLED BEHIND THE CONTINUITY OF THE FIRE SEPARATION.
IF FIRE SEPARATIONS OR RESISTANCE RATINGS ARE OTHER THAN "STANDARD" PROVIDE SPEC TO INSPECTOR ON SITE.
ENSURE MANUAL SWITCH FOR VENTILATION IS PROVIDED AS PER S.9.3.3.4 O.C.20.2 PER UNIT.
THESE DRAWINGS MUST BE READ IN CONJUNCTION WITH CONSTRUCTION DETAILS DO TO 017.
THESE DRAWINGS MUST BE READ IN CONJUNCTION WITH STRUCTURAL DRAWINGS BY ATA ENGINEERING INC. - S-01 TO S-07.
REFER TO HVAC DRAWINGS FOR LAYOUT OF MECHANICAL ROOMS, RIGS AND LOCATIONS.



BST4 'TN' UPG.
THE BOWWOOD END

9B - BST4 'TN'
THE BOWWOOD END

10B - BST2 'TN'
REV
THE INDIGO

11B - BST2 'TN'
REV
THE INDIGO

12B - BST4 'TN'
REV
THE BOWWOOD END

BST4 'TN' UPG.
REV
THE BOWWOOD END

GROUND FLOOR PLAN - STANDARD

PARTIAL GROUND FLOOR PLAN (UPG OPTION)

PARTIAL GROUND FLOOR PLAN (UPG OPTION)

ARCHITECT STAMP

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04	ISSUED FOR PERMIT REVISION 03	2023-11-03

GROUND FLOOR PLAN

DECOEUR
TRANSITIONAL (TN)

Orleans
2370 TENTH LINE RD
CITY OF OTTAWA
CITY PLAN NO. 18688
CITY FILE NO. D07-12-21-0224

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PLAN NOTES:

1. ALL WORK ON ARCHITECTURAL DRAWINGS IS PROPOSED UNLESS OTHERWISE NOTED.

2. MECHANICAL AND ELECTRICAL ENGINEERS ARE RESPONSIBLE FOR THE DESIGN AND LOCATION OF ALL MECHANICAL, VENTILATION, GAS PIPING, WIRING, GAS, WATER, FIBER OPTIC, ELECTRICAL AND ANY MECHANICAL EQUIPMENT, RADIATOR AND SUBCONTRACTOR TO ENSURE THE INSTALLATION ADHERES TO ALL APPLICABLE CODES AND LOCAL UTILITY AUTHORITIES.

FLOOR TRUSSES:

FLOOR TRUSSES TO BE PROVIDED BY CONTRACTOR. PRE-CUT HOLES @ 8" APART FOR 1/2" DIA. (2" DIA. FOR HANGING) USE HANGING DIMS FOR LOCATION & NUMBER OF HOLES (E.G. 11P).

FLOOR FRAMING:

FOR FLOOR FRAMING REFER TO FLOOR JOIST MANUFACTURER'S SHOP DRAWINGS FOR ALL TRUSS INFORMATION AND DETAILS UNLESS OTHERWISE NOTED.

FRAMEWORK CONSTRUCTION:

45 MINUTE OR 1 HOUR FIRE RATED ASSEMBLY

PROVIDE A CONTINUOUS LAYER OF 15mm (5/8") TYPE 'X' Gypsum BOARD INTERIOR SIDE INSTALLED SO THAT ALL EDGES ARE SUPPORTED. BOARD AND JOISTS: SPACE BETWEEN WOOD JOISTS TO BE FILLED WITH PERFORMED MINERAL FIBRE INSULATION WITH A MASS OF NOT LESS THAN 1.22 kg/m³ AND MUST FILL AT LEAST 90% OF THE CAVITY THICKNESS. THE TYPE 'X' INSULATION MUST BE RAIN CONTAINING AND BE ALL INTERSECTING PARTITIONS, MECHANICAL CHASES, BATHUBS, SHOWERS, ETC. ENGINE INSULATION & TYPE 'X' IS INSTALLED IN GARAGE EXTERIOR WALLS.

REFER TO SECTION 9.2.2 OF SUPPLEMENTARY STANDARDS PROVIDE 7/16" EXTERIOR GRADE GYPSUM BOARD SHEATHING BEHIND SILING (REFER TO S.A.I.C. #14-103)

BRICK EXTERIOR CONSTRUCTION:

45 MINUTE OR 1 HOUR FIRE RATED ASSEMBLY

PROVIDE A CONTINUOUS LAYER OF 15mm (5/8") TYPE 'X' Gypsum BOARD INTERIOR SIDE INSTALLED SO THAT ALL EDGES ARE SUPPORTED. BOARD AND JOISTS: SPACE BETWEEN WOOD JOISTS TO BE FILLED WITH PERFORMED MINERAL FIBRE INSULATION WITH A MASS OF NOT LESS THAN 1.22 kg/m³ AND MUST FILL AT LEAST 90% OF THE CAVITY THICKNESS. THE TYPE 'X' INSULATION MUST BE RAIN CONTAINING AND BE ALL INTERSECTING PARTITIONS, MECHANICAL CHASES, BATHUBS, SHOWERS, ETC. ENGINE INSULATION & TYPE 'X' IS INSTALLED IN GARAGE EXTERIOR WALLS.

REFER TO SECTION 9.2.2 OF SUPPLEMENTARY STANDARDS PROVIDE 7/16" EXTERIOR GRADE GYPSUM BOARD SHEATHING BEHIND SILING (REFER TO S.A.I.C. #14-103)

HEADER / RIM JOIST LEVEL:

45 MINUTE OR 1 HOUR FIRE RATED ASSEMBLY

PROVIDE 15mm (5/8") TYPE 'X' Gypsum BOARD BETWEEN WOOD JOIST AT THE HEADER OR CONTINUOUSLY ALONG THE RIM JOIST WHEN FLOOR JOISTS ARE PARALLEL TO RIM JOIST TO MAINTAIN 45 MINUTE OR 1 HOUR FIRE RATING.

WALL LEGEND

- LOAD BEARING WALL
- MECHANICAL WALL
- 1 HR FIRE RATED ASSEMBLY
- 45 MIN FIRE RATED ASSEMBLY

ENSURE THE PROTECTION OF LOAD BEARING ELEMENTS BY 45 MINUTE OR 1 HOUR FIRE RATED ASSEMBLY TO MAINTAIN THE CONTINUITY OF THE FIRE SEPARATION.

IF FIRE SEPARATIONS OR RESISTANCE RATINGS ARE OTHER THAN 'DETAILS' PROVIDE SPECIES TO INSPECTOR ON SITE.

ENSURE MANUAL SWITCH FOR VENTILATION IS PROVIDED AS PER S.B.3.4 (OC2) PER UNIT.

THESE DRAWINGS MUST BE READ IN CONNECTION WITH CONSTRUCTION DETAILS ON TOIT.

THESE DRAWINGS MUST BE READ IN CONNECTION WITH STRUCTURAL DRAWINGS BY ATA ENGINEERING INC. - 5-01 TO 5-07

REFER TO HVAC DRAWINGS FOR LAYOUT OF MECHANICAL ROOMS, RIGS AND LOCATIONS.

ARCHITECT STAMP

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04	ISSUED FOR PERMIT REVISION 03	2023-11-03

SECOND FLOOR PLAN

DECOEUR TRANSITIONAL (TN)

Orleans
2370 TENTH LINE RD
CITY OF OTTAWA

CITY PLAN NO. 18688 CITY FILE NO. D07-12-21-0224



PARTIAL SECOND FLOOR PLAN (UPG OPTION)

SECOND FLOOR PLAN - STANDARD

PARTIAL SECOND FLOOR PLAN (UPG OPTION)



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PLAN NOTES:
ALL WORK SHOWN ON ARCHITECTURAL DRAWINGS IS PROPOSED LOCATION ONLY. MECHANICAL AND ELECTRICAL ENGINEERS ARE RESPONSIBLE FOR THE DESIGN AND LOCATION OF ALL MECHANICAL, VENTILATION, GAS PIPING, SEWER, HVAC, GAS, FIBER, PHOTOVOLTAIC, ELECTRICAL AND ANY MECHANICAL EQUIPMENT. RAIDER AND SUBCONTRACTOR TO ENSURE THE INSTALLATION ADHERES TO ALL APPLICABLE CODES AND LOCAL UTILITY AUTHORITIES.
FLOOR TRUSSES:
FLOOR TRUSSES TO BE PROVIDED W/ 4" DIA. PRE-CUT HOLES @ 8" APART FOR 1/2" DIA. DUCTS PER HANG DOWN. SEE HANG DOWNS FOR LOCATION & NUMBER OF HOLES (SEE) TYP.
FLOOR FRAMING:
FOR FLOOR FRAMING REFER TO FLOOR JOIST MANUFACTURER'S SHOP DRAWINGS FOR ALL TRUSS JOIST INFORMATION AND DETAILS UNLESS OTHERWISE NOTED.
ROOF FRAMING:
ALL LAMINATED VENEER LUMBER (LVL) BEAMS, RUIT-UP BEAMS, GIRDERS, TRUSSES AND METAL HANGER CONNECTIONS SUPPORTING ROOF FRAMING TO BE DESIGNED AND CERTIFIED BY ROOF TRUSS MANUFACTURER. REFER TO ROOF TRUSS SHOP DRAWINGS FOR ALL ROOF FRAMING INFORMATION UNLESS OTHERWISE NOTED ON ARCHITECTURAL DRAWINGS.

FRAME WALL SING CONSTRUCTION:
45 MINUTE OR 1 HOUR FIRE RATED WALL
PROVIDE A CONTINUOUS LAYER OF 15mm (5/8") TYPE 'X' Gypsum BOARD INTERIOR SIDE INSTALLED SO THAT ALL EDGES ARE SUPPORTED. TAPE AND FILL SPACE BETWEEN WOOD STUDS TO BE FILLED WITH PERFORMED MINERAL FIBRE INSULATION WITH A MASS OF NOT LESS THAN 120 kg/m² AND MUST FILL AT LEAST 90% OF THE CAVITY THICKNESS. THE TYPE 'X' INSULATION MUST BE RAIN CONTINUOUSLY BEHIND ALL INTERSECTING PARTITIONS, MECHANICAL CHASES, BATHS, SHOWERS, ETC. ENGINE INSULATION & TYPE 'X' IS INSTALLED IN GARAGE EXTERIOR WALLS.
(REFER TO SECTION 9B-2.3 OF SUPPLEMENTARY STANDARDS)
PROVIDE 7/16" EXTERIOR GRADE GYPSUM BOARD SHEATHING BEHIND SING.
(REFER TO S.M.C. 814-105)

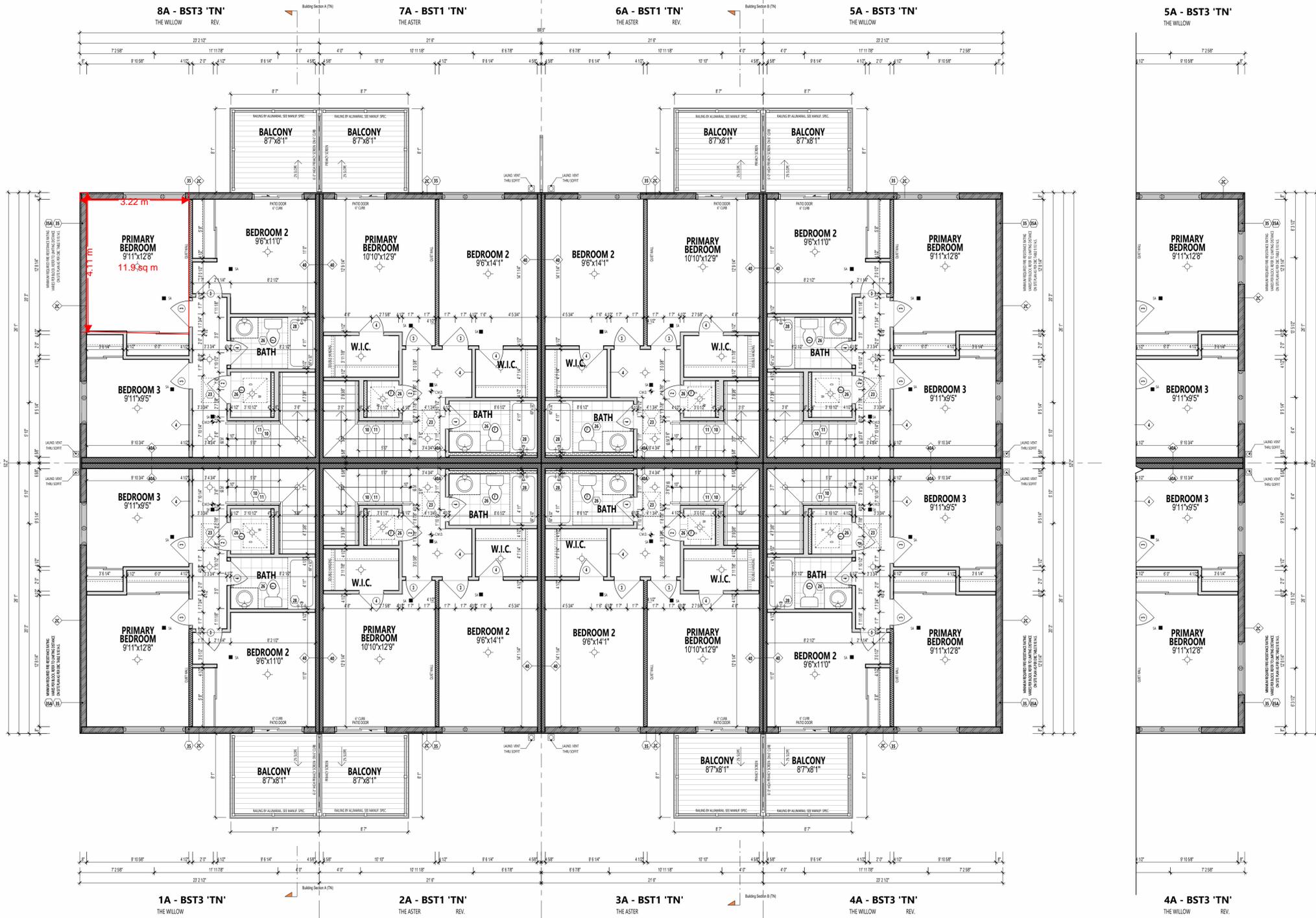
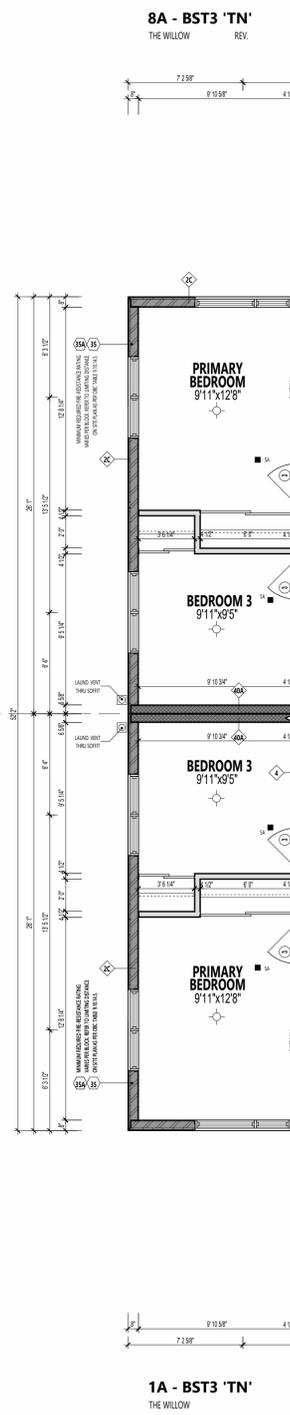
ROOF FLOOR CONSTRUCTION:
45 MINUTE OR 1 HOUR FIRE RATED WALL
PROVIDE A CONTINUOUS LAYER OF 15mm (5/8") TYPE 'X' Gypsum BOARD INTERIOR SIDE INSTALLED SO THAT ALL EDGES ARE SUPPORTED. TAPE AND FILL SPACE BETWEEN WOOD STUDS TO BE FILLED WITH PERFORMED MINERAL FIBRE INSULATION WITH A MASS OF NOT LESS THAN 120 kg/m² AND MUST FILL AT LEAST 90% OF THE CAVITY THICKNESS. THE TYPE 'X' INSULATION MUST BE RAIN CONTINUOUSLY BEHIND ALL INTERSECTING PARTITIONS, MECHANICAL CHASES, BATHS, SHOWERS, ETC. ENGINE INSULATION & TYPE 'X' IS INSTALLED IN GARAGE EXTERIOR WALLS.
(REFER TO SECTION 9B-2.3 OF SUPPLEMENTARY STANDARDS)

HEADERS / RIM JOIST LEVEL:
45 MINUTE OR 1 HOUR FIRE RATED WALL
PROVIDE 15mm (5/8") TYPE 'X' Gypsum BOARD BETWEEN FLOOR JOIST AT THE HEADER OR CONTINUOUSLY ALONG THE RIM JOIST WHEN FLOOR JOISTS ARE SPACED TO MAINTAIN 45 MINUTE OR 1 HOUR FIRE RATING.

WALL LEGEND

[Symbol]	LOAD BEARING WALL
[Symbol]	MECHANICAL WALL
[Symbol]	1 HR FIRE RATED ASSEMBLY
[Symbol]	45 MIN FIRE RATED ASSEMBLY

ENSURE THE PROTECTION OF LOAD BEARING ELEMENTS REQ. BY 9.10.3.1 (1) OF THE O.C.P.C. IS INSTALLED INCLUDING THE CONTINUITY OF THE FIRE SEPARATION.
IF FIRE SEPARATIONS OR RESISTANCE RATINGS ARE OTHER THAN DETAILED PROVIDE SPECS TO INSPECTOR ON SITE.
ENSURE MANUAL SWITCH FOR VENTILATION IS PROVIDED AS PER 9.33.3.4 O.C.P.C. 2012 PER UNIT.
THESE DRAWINGS MUST BE READ IN CONJUNCTION WITH CONSTRUCTION DETAILS 02 TO 017.
THESE DRAWINGS MUST BE READ IN CONJUNCTION WITH STRUCTURAL DRAWINGS BY AEA ENGINEERING INC. - 5-01 TO 5-07.
REFER TO HVAC DRAWINGS FOR LAYOUT OF MECHANICAL ROOMS, RIGS AND LOCATIONS.



PARTIAL THIRD FLOOR PLAN (UPG OPTION)

THIRD FLOOR PLAN - STANDARD

PARTIAL THIRD FLOOR PLAN (UPG OPTION)

THIRD FLOOR PLAN

DECOEUR TRANSITIONAL (TN)

Orleans
2370 TENTH LINE RD
CITY OF OTTAWA
CITY PLAN NO. 18688 CITY FILE NO. D07-12-21-0224

APPENDIX B

Sound Level Calculations

Filename: OLA1.te Time Period: Day/Night 16/8 hours
Description: Outdoor Amenity

Road data, segment # 1: Stittsvile (day/night)

Car traffic volume : 28336/2464 veh/TimePeriod *
Medium truck volume : 2254/196 veh/TimePeriod *
Heavy truck volume : 1610/140 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 1 %
Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 35000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: Stittsvile (day/night)

Angle1 Angle2 : -90.00 deg -86.00 deg
Wood depth : 0 (No woods.)
No of house rows : 1 / 1
House density : 20 %
Surface : 1 (Absorptive ground surface)
Receiver source distance : 68.00 / 68.00 m
Receiver height : 1.50 / 1.50 m
Topography : 2 (Flat/gentle slope; with barrier)
Barrier angle1 : -90.00 deg Angle2 : -86.00 deg
Barrier height : 10.57 m
Barrier receiver distance : 3.00 / 3.00 m
Source elevation : 124.30 m
Receiver elevation : 122.40 m
Barrier elevation : 123.60 m
Reference angle : 0.00

↑
Road data, segment # 2: Stittsvile (day/night)

Car traffic volume : 28336/2464 veh/TimePeriod *
Medium truck volume : 2254/196 veh/TimePeriod *
Heavy truck volume : 1610/140 veh/TimePeriod *
Posted speed limit : 50 km/h

Road gradient : 1 %
Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 35000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 2: Stittsville (day/night)

Angle1 Angle2 : -86.00 deg -74.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 68.00 / 68.00 m
Receiver height : 1.50 / 1.50 m
Topography : 2 (Flat/gentle slope; with barrier)
Barrier angle1 : -86.00 deg Angle2 : -82.00 deg
Barrier height : 7.00 m
Barrier receiver distance : 3.00 / 3.00 m
Source elevation : 124.30 m
Receiver elevation : 122.40 m
Barrier elevation : 123.60 m
Reference angle : 0.00

↑

Road data, segment # 3: Stittsville (day/night)

Car traffic volume : 28336/2464 veh/TimePeriod *
Medium truck volume : 2254/196 veh/TimePeriod *
Heavy truck volume : 1610/140 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 1 %
Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 35000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 3: Stittsville (day/night)

Angle1 Angle2 : -74.00 deg 44.00 deg
 Wood depth : 0 (No woods.)
 No of house rows : 0 / 0
 Surface : 1 (Absorptive ground surface)
 Receiver source distance : 68.00 / 68.00 m
 Receiver height : 1.50 / 1.50 m
 Topography : 2 (Flat/gentle slope; with barrier)
 Barrier angle1 : -74.00 deg Angle2 : 35.00 deg
 Barrier height : 10.57 m
 Barrier receiver distance : 27.00 / 27.00 m
 Source elevation : 124.30 m
 Receiver elevation : 122.40 m
 Barrier elevation : 124.80 m
 Reference angle : 0.00

↑

Road data, segment # 4: Stittsville (day/night)

Car traffic volume : 28336/2464 veh/TimePeriod *
 Medium truck volume : 2254/196 veh/TimePeriod *
 Heavy truck volume : 1610/140 veh/TimePeriod *
 Posted speed limit : 50 km/h
 Road gradient : 1 %
 Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 35000
 Percentage of Annual Growth : 0.00
 Number of Years of Growth : 0.00
 Medium Truck % of Total Volume : 7.00
 Heavy Truck % of Total Volume : 5.00
 Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 4: Stittsville (day/night)

Angle1 Angle2 : 44.00 deg 74.00 deg
 Wood depth : 0 (No woods.)
 No of house rows : 0 / 0
 Surface : 1 (Absorptive ground surface)
 Receiver source distance : 68.00 / 68.00 m
 Receiver height : 1.50 / 1.50 m
 Topography : 2 (Flat/gentle slope; with barrier)
 Barrier angle1 : 44.00 deg Angle2 : 74.00 deg
 Barrier height : 10.57 m
 Barrier receiver distance : 20.00 / 20.00 m
 Source elevation : 124.30 m
 Receiver elevation : 122.40 m
 Barrier elevation : 124.80 m
 Reference angle : 0.00

↑

Road data, segment # 5: Stittsville (day/night)

Car traffic volume : 28336/2464 veh/TimePeriod *
Medium truck volume : 2254/196 veh/TimePeriod *
Heavy truck volume : 1610/140 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 1 %
Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 35000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 5: Stittsville (day/night)

Angle1 Angle2 : 74.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 68.00 / 68.00 m
Receiver height : 1.50 / 1.50 m
Topography : 2 (Flat/gentle slope; with barrier)
Barrier angle1 : 74.00 deg Angle2 : 90.00 deg
Barrier height : 10.57 m
Barrier receiver distance : 3.00 / 3.00 m
Source elevation : 124.30 m
Receiver elevation : 122.40 m
Barrier elevation : 123.30 m
Reference angle : 0.00

↑

Road data, segment # 6: Parade Dr. (day/night)

Car traffic volume : 6477/563 veh/TimePeriod *
Medium truck volume : 515/45 veh/TimePeriod *
Heavy truck volume : 368/32 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 1 %
Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 8000

Percentage of Annual Growth : 0.00
 Number of Years of Growth : 0.00
 Medium Truck % of Total Volume : 7.00
 Heavy Truck % of Total Volume : 5.00
 Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 6: Parade Dr. (day/night)

Angle1 Angle2 : -90.00 deg -34.00 deg
 Wood depth : 0 (No woods.)
 No of house rows : 0 / 0
 Surface : 1 (Absorptive ground surface)
 Receiver source distance : 78.00 / 78.00 m
 Receiver height : 1.50 / 1.50 m
 Topography : 2 (Flat/gentle slope; with barrier)
 Barrier angle1 : -90.00 deg Angle2 : -43.00 deg
 Barrier height : 10.57 m
 Barrier receiver distance : 3.00 / 3.00 m
 Source elevation : 124.30 m
 Receiver elevation : 123.40 m
 Barrier elevation : 124.80 m
 Reference angle : 0.00

↑

Road data, segment # 7: Parade Dr. (day/night)

Car traffic volume : 6477/563 veh/TimePeriod *
 Medium truck volume : 515/45 veh/TimePeriod *
 Heavy truck volume : 368/32 veh/TimePeriod *
 Posted speed limit : 50 km/h
 Road gradient : 1 %
 Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 8000
 Percentage of Annual Growth : 0.00
 Number of Years of Growth : 0.00
 Medium Truck % of Total Volume : 7.00
 Heavy Truck % of Total Volume : 5.00
 Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 7: Parade Dr. (day/night)

Angle1 Angle2 : -34.00 deg 0.00 deg
 Wood depth : 0 (No woods.)
 No of house rows : 0 / 0
 Surface : 1 (Absorptive ground surface)
 Receiver source distance : 78.00 / 78.00 m
 Receiver height : 1.50 / 1.50 m

Topography : 2 (Flat/gentle slope; with barrier)
 Barrier angle1 : -34.00 deg Angle2 : -4.00 deg
 Barrier height : 10.57 m
 Barrier receiver distance : 20.00 / 20.00 m
 Source elevation : 124.30 m
 Receiver elevation : 123.40 m
 Barrier elevation : 124.80 m
 Reference angle : 0.00

↑

Road data, segment # 8: Parade Dr. (day/night)

Car traffic volume : 6477/563 veh/TimePeriod *
 Medium truck volume : 515/45 veh/TimePeriod *
 Heavy truck volume : 368/32 veh/TimePeriod *
 Posted speed limit : 50 km/h
 Road gradient : 1 %
 Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 8000
 Percentage of Annual Growth : 0.00
 Number of Years of Growth : 0.00
 Medium Truck % of Total Volume : 7.00
 Heavy Truck % of Total Volume : 5.00
 Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 8: Parade Dr. (day/night)

Angle1 Angle2 : 0.00 deg 66.00 deg
 Wood depth : 0 (No woods.)
 No of house rows : 0 / 0
 Surface : 1 (Absorptive ground surface)
 Receiver source distance : 78.00 / 78.00 m
 Receiver height : 1.50 / 1.50 m
 Topography : 2 (Flat/gentle slope; with barrier)
 Barrier angle1 : 0.00 deg Angle2 : 66.00 deg
 Barrier height : 10.57 m
 Barrier receiver distance : 3.00 / 3.00 m
 Source elevation : 124.30 m
 Receiver elevation : 123.40 m
 Barrier elevation : 123.30 m
 Reference angle : 0.00

↑

Result summary (day)

! source ! Road ! Total

	! height !	! Leq !	! Leq !
	! (m) !	! (dBA) !	! (dBA) !
1.Stittsvile	! 1.50 !	! 34.00 !	! 34.00 !
2.Stittsville	! 1.50 !	! 43.47 !	! 43.47 !
3.Stittsvile	! 1.50 !	! 48.93 !	! 48.93 !
4.Stittsville	! 1.50 !	! 37.89 !	! 37.89 !
5.Stittsville	! 1.50 !	! 39.78 !	! 39.78 !
6.Parade Dr.	! 1.50 !	! 41.25 !	! 41.25 !
7.Parade Dr.	! 1.50 !	! 38.17 !	! 38.17 !
8.Parade Dr.	! 1.50 !	! 34.02 !	! 34.02 !
	Total		51.49 dBA

↑
Result summary (night)

	! source !	! Road !	! Total !
	! height !	! Leq !	! Leq !
	! (m) !	! (dBA) !	! (dBA) !
1.Stittsvile	! 1.50 !	! 26.40 !	! 26.40 !
2.Stittsville	! 1.50 !	! 35.87 !	! 35.87 !
3.Stittsvile	! 1.50 !	! 41.34 !	! 41.34 !
4.Stittsville	! 1.50 !	! 30.30 !	! 30.30 !
5.Stittsville	! 1.50 !	! 32.18 !	! 32.18 !
6.Parade Dr.	! 1.50 !	! 33.66 !	! 33.66 !
7.Parade Dr.	! 1.50 !	! 30.58 !	! 30.58 !
8.Parade Dr.	! 1.50 !	! 26.42 !	! 26.42 !
	Total		43.90 dBA

↑

TOTAL Leq FROM ALL SOURCES (DAY): 51.49
(NIGHT): 43.90

↑
↑

Filename: R1.te Time Period: Day/Night 16/8 hours
Description: R1 - Block 1-8A

Road data, segment # 1: Stittsvile (day/night)

Car traffic volume : 28336/2464 veh/TimePeriod *
Medium truck volume : 2254/196 veh/TimePeriod *
Heavy truck volume : 1610/140 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 1 %
Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 35000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: Stittsvile (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 22.00 / 22.00 m
Receiver height : 4.65 / 7.80 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

↑
Road data, segment # 2: Parade Dr. (day/night)

Car traffic volume : 6477/563 veh/TimePeriod *
Medium truck volume : 515/45 veh/TimePeriod *
Heavy truck volume : 368/32 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 1 %
Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 8000
Percentage of Annual Growth : 0.00

Number of Years of Growth : 0.00
 Medium Truck % of Total Volume : 7.00
 Heavy Truck % of Total Volume : 5.00
 Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 2: Parade Dr. (day/night)

 Angle1 Angle2 : -90.00 deg 66.00 deg
 Wood depth : 0 (No woods.)
 No of house rows : 0 / 0
 Surface : 2 (Reflective ground surface)
 Receiver source distance : 17.00 / 17.00 m
 Receiver height : 4.65 / 7.80 m
 Topography : 1 (Flat/gentle slope; no barrier)
 Reference angle : 0.00

↑
 Result summary (day)

	! source ! height ! (m)	! Road ! Leq ! (dBA)	! Total ! Leq ! (dBA)
1.Stittsville	! 1.50	! 70.50	! 70.50
2.Parade Dr.	! 1.50	! 64.58	! 64.58
	Total		71.49 dBA

↑
 Result summary (night)

	! source ! height ! (m)	! Road ! Leq ! (dBA)	! Total ! Leq ! (dBA)
1.Stittsville	! 1.50	! 62.90	! 62.90
2.Parade Dr.	! 1.50	! 56.99	! 56.99
	Total		63.89 dBA

↑
 TOTAL Leq FROM ALL SOURCES (DAY): 71.49
 (NIGHT): 63.89

↑
 ↑

Filename: r1.te Time Period: Day/Night 16/8 hours
Description: R1 - Block 1-9B

Road data, segment # 1: Stittsvile (day/night)

Car traffic volume : 28336/2464 veh/TimePeriod *
Medium truck volume : 2254/196 veh/TimePeriod *
Heavy truck volume : 1610/140 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 1 %
Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 35000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: Stittsvile (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 22.00 / 22.00 m
Receiver height : 1.50 / 1.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

↑
Road data, segment # 2: Parade Dr. (day/night)

Car traffic volume : 6477/563 veh/TimePeriod *
Medium truck volume : 515/45 veh/TimePeriod *
Heavy truck volume : 368/32 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 1 %
Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 8000
Percentage of Annual Growth : 0.00

Number of Years of Growth : 0.00
 Medium Truck % of Total Volume : 7.00
 Heavy Truck % of Total Volume : 5.00
 Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 2: Parade Dr. (day/night)

 Angle1 Angle2 : -90.00 deg 66.00 deg
 Wood depth : 0 (No woods.)
 No of house rows : 0 / 0
 Surface : 2 (Reflective ground surface)
 Receiver source distance : 17.00 / 17.00 m
 Receiver height : 1.50 / 1.50 m
 Topography : 1 (Flat/gentle slope; no barrier)
 Reference angle : 0.00

↑
 Result summary (day)

	! source !	Road !	Total !
	! height !	Leq !	Leq !
	! (m) !	(dBA) !	(dBA) !
1.Stittsville	! 1.50 !	70.50 !	70.50
2.Parade Dr.	! 1.50 !	64.58 !	64.58
	Total		71.49 dBA

↑
 Result summary (night)

	! source !	Road !	Total !
	! height !	Leq !	Leq !
	! (m) !	(dBA) !	(dBA) !
1.Stittsville	! 1.50 !	62.90 !	62.90
2.Parade Dr.	! 1.50 !	56.99 !	56.99
	Total		63.89 dBA

↑
 TOTAL Leq FROM ALL SOURCES (DAY): 71.49
 (NIGHT): 63.89

↑
 ↑

Filename: r2.te Time Period: Day/Night 16/8 hours
Description: R2 - Block 1-1A

Road data, segment # 1: Stittsville (day/night)

Car traffic volume : 28336/2464 veh/TimePeriod *
Medium truck volume : 2254/196 veh/TimePeriod *
Heavy truck volume : 1610/140 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 1 %
Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 35000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: Stittsville (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 22.00 / 22.00 m
Receiver height : 4.65 / 7.80 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

↑

Road data, segment # 2: Parade Dr. (day/night)

Car traffic volume : 6477/563 veh/TimePeriod *
Medium truck volume : 515/45 veh/TimePeriod *
Heavy truck volume : 368/32 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 1 %
Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 8000
Percentage of Annual Growth : 0.00

Number of Years of Growth : 0.00
 Medium Truck % of Total Volume : 7.00
 Heavy Truck % of Total Volume : 5.00
 Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 2: Parade Dr. (day/night)

 Angle1 Angle2 : -73.00 deg 0.00 deg
 Wood depth : 0 (No woods.)
 No of house rows : 0 / 0
 Surface : 2 (Reflective ground surface)
 Receiver source distance : 33.00 / 33.00 m
 Receiver height : 4.65 / 7.80 m
 Topography : 1 (Flat/gentle slope; no barrier)
 Reference angle : 0.00

↑
 Result summary (day)

	! source ! height ! (m)	! Road ! Leq ! (dBA)	! Total ! Leq ! (dBA)
1.Stittsville	! 1.50	! 70.50	! 70.50
2.Parade Dr.	! 1.50	! 58.41	! 58.41
	Total		70.76 dBA

↑
 Result summary (night)

	! source ! height ! (m)	! Road ! Leq ! (dBA)	! Total ! Leq ! (dBA)
1.Stittsville	! 1.50	! 62.90	! 62.90
2.Parade Dr.	! 1.50	! 50.81	! 50.81
	Total		63.16 dBA

↑
 TOTAL Leq FROM ALL SOURCES (DAY): 70.76
 (NIGHT): 63.16

↑
 ↑

Filename: R3 .te Time Period: Day/Night 16/8 hours
Description: R3 - Block 2 - 6A

Road data, segment # 1: Stittsvile (day/night)

Car traffic volume : 28336/2464 veh/TimePeriod *
Medium truck volume : 2254/196 veh/TimePeriod *
Heavy truck volume : 1610/140 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 1 %
Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 35000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: Stittsvile (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 24.00 / 24.00 m
Receiver height : 4.65 / 7.80 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

↑
Road data, segment # 2: Parade Dr. (day/night)

Car traffic volume : 6477/563 veh/TimePeriod *
Medium truck volume : 515/45 veh/TimePeriod *
Heavy truck volume : 368/32 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 1 %
Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 8000
Percentage of Annual Growth : 0.00

Number of Years of Growth : 0.00
 Medium Truck % of Total Volume : 7.00
 Heavy Truck % of Total Volume : 5.00
 Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 2: Parade Dr. (day/night)

 Angle1 Angle2 : -90.00 deg -1.00 deg
 Wood depth : 0 (No woods.)
 No of house rows : 1 / 1
 House density : 20 %
 Surface : 2 (Reflective ground surface)
 Receiver source distance : 71.00 / 71.00 m
 Receiver height : 4.65 / 7.80 m
 Topography : 2 (Flat/gentle slope; with barrier)
 Barrier angle1 : -90.00 deg Angle2 : -46.00 deg
 Barrier height : 7.00 m
 Barrier receiver distance : 3.00 / 3.00 m
 Source elevation : 124.30 m
 Receiver elevation : 124.02 m
 Barrier elevation : 124.40 m
 Reference angle : 0.00

↑
 Result summary (day)

	! source !	Road	Total
	! height !	Leq	Leq
	! (m) !	(dBA)	(dBA)
1.Stittsville	! 1.50 !	70.12	70.12
2.Parade Dr.	! 1.50 !	52.38	52.38
	Total		70.19 dBA

↑
 Result summary (night)

	! source !	Road	Total
	! height !	Leq	Leq
	! (m) !	(dBA)	(dBA)
1.Stittsville	! 1.50 !	62.52	62.52
2.Parade Dr.	! 1.50 !	47.45	47.45 *
	Total		62.65 dBA

* Bright Zone !



TOTAL Leq FROM ALL SOURCES (DAY): 70.19
(NIGHT): 62.65



Filename: R3 .te Time Period: Day/Night 16/8 hours
Description: R3 - Block 2 10B

Road data, segment # 1: Stittsvile (day/night)

Car traffic volume : 28336/2464 veh/TimePeriod *
Medium truck volume : 2254/196 veh/TimePeriod *
Heavy truck volume : 1610/140 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 1 %
Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 35000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: Stittsvile (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 24.00 / 24.00 m
Receiver height : 1.50 / 1.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

↑
Road data, segment # 2: Parade Dr. (day/night)

Car traffic volume : 6477/563 veh/TimePeriod *
Medium truck volume : 515/45 veh/TimePeriod *
Heavy truck volume : 368/32 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 1 %
Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 8000
Percentage of Annual Growth : 0.00

Number of Years of Growth : 0.00
 Medium Truck % of Total Volume : 7.00
 Heavy Truck % of Total Volume : 5.00
 Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 2: Parade Dr. (day/night)

 Angle1 Angle2 : -90.00 deg -1.00 deg
 Wood depth : 0 (No woods.)
 No of house rows : 1 / 1
 House density : 20 %
 Surface : 2 (Reflective ground surface)
 Receiver source distance : 71.00 / 71.00 m
 Receiver height : 1.50 / 1.50 m
 Topography : 2 (Flat/gentle slope; with barrier)
 Barrier angle1 : -90.00 deg Angle2 : -46.00 deg
 Barrier height : 7.00 m
 Barrier receiver distance : 3.00 / 3.00 m
 Source elevation : 124.30 m
 Receiver elevation : 124.02 m
 Barrier elevation : 124.40 m
 Reference angle : 0.00

↑
 Result summary (day)

	! source !	Road !	Total !
	! height !	Leq !	Leq !
	! (m) !	(dBA) !	(dBA) !
1.Stittsville	! 1.50 !	70.12 !	70.12 !
2.Parade Dr.	! 1.50 !	52.22 !	52.22 !
	Total		70.19 dBA

↑
 Result summary (night)

	! source !	Road !	Total !
	! height !	Leq !	Leq !
	! (m) !	(dBA) !	(dBA) !
1.Stittsville	! 1.50 !	62.52 !	62.52 !
2.Parade Dr.	! 1.50 !	44.62 !	44.62 !
	Total		62.59 dBA

↑

TOTAL Leq FROM ALL SOURCES (DAY): 70.19
(NIGHT): 62.59



Filename: R4 .te Time Period: Day/Night 16/8 hours
Description: R4 - Block 4 - 6A

Road data, segment # 1: Stittsvile (day/night)

Car traffic volume : 28336/2464 veh/TimePeriod *
Medium truck volume : 2254/196 veh/TimePeriod *
Heavy truck volume : 1610/140 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 1 %
Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 35000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: Stittsvile (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 25.00 / 25.00 m
Receiver height : 4.65 / 7.80 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

↑
Road data, segment # 2: Parade Dr. (day/night)

Car traffic volume : 6477/563 veh/TimePeriod *
Medium truck volume : 515/45 veh/TimePeriod *
Heavy truck volume : 368/32 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 1 %
Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 8000
Percentage of Annual Growth : 0.00

Number of Years of Growth : 0.00
 Medium Truck % of Total Volume : 7.00
 Heavy Truck % of Total Volume : 5.00
 Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 2: Parade Dr. (day/night)

 Angle1 Angle2 : -90.00 deg -13.00 deg
 Wood depth : 0 (No woods.)
 No of house rows : 1 / 1
 House density : 20 %
 Surface : 2 (Reflective ground surface)
 Receiver source distance : 138.00 / 138.00 m
 Receiver height : 4.65 / 7.80 m
 Topography : 2 (Flat/gentle slope; with barrier)
 Barrier angle1 : -90.00 deg Angle2 : -27.00 deg
 Barrier height : 7.00 m
 Barrier receiver distance : 3.00 / 3.00 m
 Source elevation : 124.30 m
 Receiver elevation : 124.52 m
 Barrier elevation : 124.50 m
 Reference angle : 0.00

↑
 Result summary (day)

	! source !	Road	Total
	! height !	Leq	Leq
	! (m) !	(dBA)	(dBA)
1.Stittsville	! 1.50 !	69.94	69.94
2.Parade Dr.	! 1.50 !	45.39	45.39
	Total		69.96 dBA

↑
 Result summary (night)

	! source !	Road	Total
	! height !	Leq	Leq
	! (m) !	(dBA)	(dBA)
1.Stittsville	! 1.50 !	62.34	62.34
2.Parade Dr.	! 1.50 !	43.95	43.95 *
	Total		62.40 dBA

* Bright Zone !



TOTAL Leq FROM ALL SOURCES (DAY): 69.96
(NIGHT): 62.40



Filename: R4 .te Time Period: Day/Night 16/8 hours
Description: R4 - Block 4 10B

Road data, segment # 1: Stittsvile (day/night)

Car traffic volume : 28336/2464 veh/TimePeriod *
Medium truck volume : 2254/196 veh/TimePeriod *
Heavy truck volume : 1610/140 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 1 %
Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 35000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: Stittsvile (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 25.00 / 25.00 m
Receiver height : 1.50 / 1.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

↑
Road data, segment # 2: Parade Dr. (day/night)

Car traffic volume : 6477/563 veh/TimePeriod *
Medium truck volume : 515/45 veh/TimePeriod *
Heavy truck volume : 368/32 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 1 %
Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 8000
Percentage of Annual Growth : 0.00

Number of Years of Growth : 0.00
 Medium Truck % of Total Volume : 7.00
 Heavy Truck % of Total Volume : 5.00
 Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 2: Parade Dr. (day/night)

 Angle1 Angle2 : -90.00 deg -13.00 deg
 Wood depth : 0 (No woods.)
 No of house rows : 1 / 1
 House density : 20 %
 Surface : 2 (Reflective ground surface)
 Receiver source distance : 138.00 / 138.00 m
 Receiver height : 1.50 / 1.50 m
 Topography : 2 (Flat/gentle slope; with barrier)
 Barrier angle1 : -90.00 deg Angle2 : -27.00 deg
 Barrier height : 7.00 m
 Barrier receiver distance : 3.00 / 3.00 m
 Source elevation : 124.30 m
 Receiver elevation : 124.52 m
 Barrier elevation : 124.50 m
 Reference angle : 0.00

↑
 Result summary (day)

	! source !	Road !	Total !
	! height !	Leq !	Leq !
	! (m) !	(dBA) !	(dBA) !
1.Stittsville	! 1.50 !	69.94 !	69.94 !
2.Parade Dr.	! 1.50 !	44.66 !	44.66 !
	Total		69.95 dBA

↑
 Result summary (night)

	! source !	Road !	Total !
	! height !	Leq !	Leq !
	! (m) !	(dBA) !	(dBA) !
1.Stittsville	! 1.50 !	62.34 !	62.34 !
2.Parade Dr.	! 1.50 !	37.07 !	37.07 !
	Total		62.35 dBA

↑

TOTAL Leq FROM ALL SOURCES (DAY): 69.95
(NIGHT): 62.35



Filename: r5.te Time Period: Day/Night 16/8 hours
Description: R5 - Block 5-8A

Road data, segment # 1: Stittsville (day/night)

Car traffic volume : 28336/2464 veh/TimePeriod *
Medium truck volume : 2254/196 veh/TimePeriod *
Heavy truck volume : 1610/140 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 1 %
Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 35000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: Stittsville (day/night)

Angle1 Angle2 : -40.00 deg 8.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 74.00 / 74.00 m
Receiver height : 4.65 / 7.80 m
Topography : 2 (Flat/gentle slope; with barrier)
Barrier angle1 : -40.00 deg Angle2 : -20.00 deg
Barrier height : 10.57 m
Barrier receiver distance : 47.00 / 47.00 m
Source elevation : 124.30 m
Receiver elevation : 123.60 m
Barrier elevation : 124.40 m
Reference angle : 0.00

↑
Road data, segment # 2: Stittsville (day/night)

Car traffic volume : 28336/2464 veh/TimePeriod *
Medium truck volume : 2254/196 veh/TimePeriod *
Heavy truck volume : 1610/140 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 1 %

Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 35000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 2: Stittsville (day/night)

Angle1 Angle2 : 8.00 deg 71.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 74.00 / 74.00 m
Receiver height : 4.65 / 7.80 m
Topography : 2 (Flat/gentle slope; with barrier)
Barrier angle1 : 8.00 deg Angle2 : 40.00 deg
Barrier height : 10.57 m
Barrier receiver distance : 40.00 / 40.00 m
Source elevation : 124.30 m
Receiver elevation : 123.60 m
Barrier elevation : 124.87 m
Reference angle : 0.00

↑

Road data, segment # 3: Stittsville (day/night)

Car traffic volume : 28336/2464 veh/TimePeriod *
Medium truck volume : 2254/196 veh/TimePeriod *
Heavy truck volume : 1610/140 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 1 %
Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 35000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 3: Stittsville (day/night)

Angle1 Angle2 : 71.00 deg 90.00 deg

Wood depth : 0 (No woods.)
 No of house rows : 0 / 0
 Surface : 2 (Reflective ground surface)
 Receiver source distance : 74.00 / 74.00 m
 Receiver height : 4.65 / 7.80 m
 Topography : 2 (Flat/gentle slope; with barrier)
 Barrier angle1 : 71.00 deg Angle2 : 90.00 deg
 Barrier height : 7.00 m
 Barrier receiver distance : 3.00 / 3.00 m
 Source elevation : 124.30 m
 Receiver elevation : 123.60 m
 Barrier elevation : 124.20 m
 Reference angle : 0.00

↑

Road data, segment # 4: Parade Dr. (day/night)

 Car traffic volume : 6477/563 veh/TimePeriod *
 Medium truck volume : 515/45 veh/TimePeriod *
 Heavy truck volume : 368/32 veh/TimePeriod *
 Posted speed limit : 50 km/h
 Road gradient : 1 %
 Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 8000
 Percentage of Annual Growth : 0.00
 Number of Years of Growth : 0.00
 Medium Truck % of Total Volume : 7.00
 Heavy Truck % of Total Volume : 5.00
 Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 4: Parade Dr. (day/night)

 Angle1 Angle2 : -64.00 deg 31.00 deg
 Wood depth : 0 (No woods.)
 No of house rows : 0 / 0
 Surface : 2 (Reflective ground surface)
 Receiver source distance : 47.00 / 47.00 m
 Receiver height : 4.65 / 7.80 m
 Topography : 2 (Flat/gentle slope; with barrier)
 Barrier angle1 : -64.00 deg Angle2 : -32.00 deg
 Barrier height : 10.57 m
 Barrier receiver distance : 3.00 / 3.00 m
 Source elevation : 124.30 m
 Receiver elevation : 123.60 m
 Barrier elevation : 124.87 m
 Reference angle : 0.00

↑

Road data, segment # 5: Parade Dr. (day/night)

```

-----
Car traffic volume : 6477/563 veh/TimePeriod *
Medium truck volume : 515/45 veh/TimePeriod *
Heavy truck volume : 368/32 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 1 %
Road pavement : 1 (Typical asphalt or concrete)

```

* Refers to calculated road volumes based on the following input:

```

24 hr Traffic Volume (AADT or SADT): 8000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

```

Data for Segment # 5: Parade Dr. (day/night)

```

-----
Angle1 Angle2 : 31.00 deg 65.00 deg
Wood depth : 0 (No woods.)
No of house rows : 1 / 1
House density : 20 %
Surface : 2 (Reflective ground surface)
Receiver source distance : 47.00 / 47.00 m
Receiver height : 4.65 / 7.80 m
Topography : 2 (Flat/gentle slope; with barrier)
Barrier angle1 : 31.00 deg Angle2 : 65.00 deg
Barrier height : 7.00 m
Barrier receiver distance : 3.00 / 3.00 m
Source elevation : 124.30 m
Receiver elevation : 123.60 m
Barrier elevation : 124.03 m
Reference angle : 0.00

```

↑

Result summary (day)

```

-----

```

	!	source	!	Road	!	Total
	!	height	!	Leq	!	Leq
	!	(m)	!	(dBA)	!	(dBA)
1.Stittsville	!	1.50	!	57.18	!	57.18
2.Stittsville	!	1.50	!	57.64	!	57.64
3.Stittsville	!	1.50	!	45.32	!	45.32
4.Parade Dr.	!	1.50	!	56.25	!	56.25
5.Parade Dr.	!	1.50	!	36.64	!	36.64

-----+-----+-----+-----
Total 61.94 dBA

↑
Result summary (night)

	!	source	!	Road	!	Total
	!	height	!	Leq	!	Leq
	!	(m)	!	(dBA)	!	(dBA)
1.Stittsvile	!	1.50	!	49.59	!	49.59
2.Stittsvile	!	1.50	!	50.06	!	50.06
3.Stittsvile	!	1.50	!	42.87	!	42.87
4.Parade Dr.	!	1.50	!	48.66	!	48.66
5.Parade Dr.	!	1.50	!	45.06	!	45.06 *
	!		!		!	
		Total				55.01 dBA

* Bright Zone !

↑

TOTAL Leq FROM ALL SOURCES (DAY): 61.94
(NIGHT): 55.01

↑

↑

Filename: r5b.te Time Period: Day/Night 16/8 hours
Description: R5 - Block 5-9B

Road data, segment # 1: Stittsville (day/night)

Car traffic volume : 28336/2464 veh/TimePeriod *
Medium truck volume : 2254/196 veh/TimePeriod *
Heavy truck volume : 1610/140 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 1 %
Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 35000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: Stittsville (day/night)

Angle1 Angle2 : -40.00 deg 8.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 74.00 / 74.00 m
Receiver height : 1.50 / 1.50 m
Topography : 2 (Flat/gentle slope; with barrier)
Barrier angle1 : -40.00 deg Angle2 : -20.00 deg
Barrier height : 10.57 m
Barrier receiver distance : 47.00 / 47.00 m
Source elevation : 124.30 m
Receiver elevation : 123.60 m
Barrier elevation : 124.40 m
Reference angle : 0.00

↑
Road data, segment # 2: Stittsville (day/night)

Car traffic volume : 28336/2464 veh/TimePeriod *
Medium truck volume : 2254/196 veh/TimePeriod *
Heavy truck volume : 1610/140 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 1 %

Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 35000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 2: Stittsville (day/night)

Angle1 Angle2 : 8.00 deg 71.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 74.00 / 74.00 m
Receiver height : 1.50 / 1.50 m
Topography : 2 (Flat/gentle slope; with barrier)
Barrier angle1 : 8.00 deg Angle2 : 40.00 deg
Barrier height : 10.57 m
Barrier receiver distance : 40.00 / 40.00 m
Source elevation : 124.30 m
Receiver elevation : 123.60 m
Barrier elevation : 124.87 m
Reference angle : 0.00

↑

Road data, segment # 3: Stittsville (day/night)

Car traffic volume : 28336/2464 veh/TimePeriod *
Medium truck volume : 2254/196 veh/TimePeriod *
Heavy truck volume : 1610/140 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 1 %
Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 35000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 3: Stittsville (day/night)

Angle1 Angle2 : 71.00 deg 90.00 deg

Wood depth : 0 (No woods.)
 No of house rows : 0 / 0
 Surface : 2 (Reflective ground surface)
 Receiver source distance : 74.00 / 74.00 m
 Receiver height : 1.50 / 1.50 m
 Topography : 2 (Flat/gentle slope; with barrier)
 Barrier angle1 : 71.00 deg Angle2 : 90.00 deg
 Barrier height : 7.00 m
 Barrier receiver distance : 3.00 / 3.00 m
 Source elevation : 124.30 m
 Receiver elevation : 123.60 m
 Barrier elevation : 124.20 m
 Reference angle : 0.00

↑

Road data, segment # 4: Parade Dr. (day/night)

Car traffic volume : 6477/563 veh/TimePeriod *
 Medium truck volume : 515/45 veh/TimePeriod *
 Heavy truck volume : 368/32 veh/TimePeriod *
 Posted speed limit : 50 km/h
 Road gradient : 1 %
 Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 8000
 Percentage of Annual Growth : 0.00
 Number of Years of Growth : 0.00
 Medium Truck % of Total Volume : 7.00
 Heavy Truck % of Total Volume : 5.00
 Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 4: Parade Dr. (day/night)

Angle1 Angle2 : -64.00 deg 31.00 deg
 Wood depth : 0 (No woods.)
 No of house rows : 0 / 0
 Surface : 2 (Reflective ground surface)
 Receiver source distance : 47.00 / 47.00 m
 Receiver height : 1.50 / 1.50 m
 Topography : 2 (Flat/gentle slope; with barrier)
 Barrier angle1 : -64.00 deg Angle2 : -32.00 deg
 Barrier height : 10.57 m
 Barrier receiver distance : 3.00 / 3.00 m
 Source elevation : 124.30 m
 Receiver elevation : 123.60 m
 Barrier elevation : 124.87 m
 Reference angle : 0.00

↑

Road data, segment # 5: Parade Dr. (day/night)

```

-----
Car traffic volume : 6477/563 veh/TimePeriod *
Medium truck volume : 515/45 veh/TimePeriod *
Heavy truck volume : 368/32 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 1 %
Road pavement : 1 (Typical asphalt or concrete)

```

* Refers to calculated road volumes based on the following input:

```

24 hr Traffic Volume (AADT or SADT): 8000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

```

Data for Segment # 5: Parade Dr. (day/night)

```

-----
Angle1 Angle2 : 31.00 deg 65.00 deg
Wood depth : 0 (No woods.)
No of house rows : 1 / 1
House density : 20 %
Surface : 2 (Reflective ground surface)
Receiver source distance : 47.00 / 47.00 m
Receiver height : 1.50 / 1.50 m
Topography : 2 (Flat/gentle slope; with barrier)
Barrier angle1 : 31.00 deg Angle2 : 65.00 deg
Barrier height : 7.00 m
Barrier receiver distance : 3.00 / 3.00 m
Source elevation : 124.30 m
Receiver elevation : 123.60 m
Barrier elevation : 124.03 m
Reference angle : 0.00

```

↑

Result summary (day)

```

-----

```

	!	source	!	Road	!	Total
	!	height	!	Leq	!	Leq
	!	(m)	!	(dBA)	!	(dBA)
1.Stittsville	!	1.50	!	57.18	!	57.18
2.Stittsville	!	1.50	!	57.63	!	57.63
3.Stittsville	!	1.50	!	42.19	!	42.19
4.Parade Dr.	!	1.50	!	56.25	!	56.25
5.Parade Dr.	!	1.50	!	33.55	!	33.55

```

-----+-----+-----+-----
                Total                61.88 dBA

```

↑
Result summary (night)

```

-----+-----+-----+-----
                ! source !   Road !   Total
                ! height !   Leq !   Leq
                !   (m)  !   (dBA) !   (dBA)
-----+-----+-----+-----
1.Stittsvile   !   1.50 !   49.58 !   49.58
2.Stittsvile   !   1.50 !   50.04 !   50.04
3.Stittsvile   !   1.50 !   34.60 !   34.60
4.Parade Dr.   !   1.50 !   48.66 !   48.66
5.Parade Dr.   !   1.50 !   25.96 !   25.96
-----+-----+-----+-----
                Total                54.29 dBA

```

↑

TOTAL Leq FROM ALL SOURCES (DAY): 61.88
(NIGHT): 54.29

↑
↑

Filename: r6.te Time Period: Day/Night 16/8 hours
Description: R6 - Block 5 1A

Road data, segment # 1: Stittsvile (day/night)

Car traffic volume : 28336/2464 veh/TimePeriod *
Medium truck volume : 2254/196 veh/TimePeriod *
Heavy truck volume : 1610/140 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 1 %
Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 35000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: Stittsvile (day/night)

Angle1 Angle2 : -90.00 deg -82.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 62.00 / 62.00 m
Receiver height : 4.65 / 7.80 m
Topography : 2 (Flat/gentle slope; with barrier)
Barrier angle1 : -90.00 deg Angle2 : -85.00 deg
Barrier height : 7.00 m
Barrier receiver distance : 3.00 / 3.00 m
Source elevation : 124.30 m
Receiver elevation : 123.60 m
Barrier elevation : 124.00 m
Reference angle : 0.00

↑
Road data, segment # 2: Stittsvile (day/night)

Car traffic volume : 28336/2464 veh/TimePeriod *
Medium truck volume : 2254/196 veh/TimePeriod *
Heavy truck volume : 1610/140 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 1 %

Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 35000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 2: Stittsville (day/night)

Angle1 Angle2 : -82.00 deg 23.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 62.00 / 62.00 m
Receiver height : 4.65 / 7.80 m
Topography : 2 (Flat/gentleslope; with barrier)
Barrier angle1 : -82.00 deg Angle2 : -11.00 deg
Barrier height : 10.57 m
Barrier receiver distance : 20.00 / 20.00 m
Source elevation : 124.30 m
Receiver elevation : 123.60 m
Barrier elevation : 124.60 m
Reference angle : 0.00

↑

Road data, segment # 3: Stittsville (day/night)

Car traffic volume : 28336/2464 veh/TimePeriod *
Medium truck volume : 2254/196 veh/TimePeriod *
Heavy truck volume : 1610/140 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 1 %
Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 35000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 3: Stittsville (day/night)

Angle1 Angle2 : 23.00 deg 90.00 deg

Wood depth : 0 (No woods.)
 No of house rows : 0 / 0
 Surface : 2 (Reflective ground surface)
 Receiver source distance : 62.00 / 62.00 m
 Receiver height : 4.65 / 7.80 m
 Topography : 2 (Flat/gentle slope; with barrier)
 Barrier angle1 : 23.00 deg Angle2 : 67.00 deg
 Barrier height : 10.57 m
 Barrier receiver distance : 3.00 / 3.00 m
 Source elevation : 124.30 m
 Receiver elevation : 123.60 m
 Barrier elevation : 124.87 m
 Reference angle : 0.00

↑

Road data, segment # 4: Parade Dr. (day/night)

Car traffic volume : 6477/563 veh/TimePeriod *
 Medium truck volume : 515/45 veh/TimePeriod *
 Heavy truck volume : 368/32 veh/TimePeriod *
 Posted speed limit : 50 km/h
 Road gradient : 1 %
 Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 8000
 Percentage of Annual Growth : 0.00
 Number of Years of Growth : 0.00
 Medium Truck % of Total Volume : 7.00
 Heavy Truck % of Total Volume : 5.00
 Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 4: Parade Dr. (day/night)

Angle1 Angle2 : -60.00 deg 36.00 deg
 Wood depth : 0 (No woods.)
 No of house rows : 0 / 0
 Surface : 2 (Reflective ground surface)
 Receiver source distance : 54.00 / 54.00 m
 Receiver height : 4.65 / 7.80 m
 Topography : 2 (Flat/gentle slope; with barrier)
 Barrier angle1 : -60.00 deg Angle2 : -9.00 deg
 Barrier height : 10.57 m
 Barrier receiver distance : 20.00 / 20.00 m
 Source elevation : 124.30 m
 Receiver elevation : 123.60 m
 Barrier elevation : 124.87 m
 Reference angle : 0.00

↑

Road data, segment # 5: Parade Dr. (day/night)

```

-----
Car traffic volume : 6477/563 veh/TimePeriod *
Medium truck volume : 515/45 veh/TimePeriod *
Heavy truck volume : 368/32 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 1 %
Road pavement : 1 (Typical asphalt or concrete)

```

* Refers to calculated road volumes based on the following input:

```

24 hr Traffic Volume (AADT or SADT): 8000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

```

Data for Segment # 5: Parade Dr. (day/night)

```

-----
Angle1 Angle2 : 36.00 deg 59.00 deg
Wood depth : 0 (No woods.)
No of house rows : 1 / 1
House density : 20 %
Surface : 2 (Reflective ground surface)
Receiver source distance : 54.00 / 54.00 m
Receiver height : 4.65 / 7.80 m
Topography : 2 (Flat/gentle slope; with barrier)
Barrier angle1 : 36.00 deg Angle2 : 59.00 deg
Barrier height : 7.00 m
Barrier receiver distance : 3.00 / 3.00 m
Source elevation : 124.30 m
Receiver elevation : 123.60 m
Barrier elevation : 124.03 m
Reference angle : 0.00

```

↑

Result summary (day)

```

-----

```

	! source !	Road !	Total !
	! height !	Leq !	Leq !
	! (m) !	(dBA) !	(dBA) !
1.Stittsville	! 1.50 !	49.44 !	49.44
2.Stittsville	! 1.50 !	58.90 !	58.90
3.Stittsville	! 1.50 !	57.14 !	57.14
4.Parade Dr.	! 1.50 !	54.22 !	54.22
5.Parade Dr.	! 1.50 !	34.27 !	34.27

-----+-----+-----+-----
Total 62.17 dBA

↑
Result summary (night)

	! source !	Road !	Total !
	! height !	Leq !	Leq !
	! (m) !	(dBA) !	(dBA) !
1.Stittsvile	! 1.50 !	44.88 !	44.88 *
2.Stittsvile	! 1.50 !	51.42 !	51.42
3.Stittsvile	! 1.50 !	49.56 !	49.56
4.Parade Dr.	! 1.50 !	46.65 !	46.65
5.Parade Dr.	! 1.50 !	42.76 !	42.76 *
	Total		55.12 dBA

* Bright Zone !

↑

TOTAL Leq FROM ALL SOURCES (DAY): 62.17
(NIGHT): 55.12

↑
↑

Filename: r7.te Time Period: Day/Night 16/8 hours
Description: R7 - Block 6 5A

Road data, segment # 1: Stittsvile (day/night)

Car traffic volume : 28336/2464 veh/TimePeriod *
Medium truck volume : 2254/196 veh/TimePeriod *
Heavy truck volume : 1610/140 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 1 %
Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 35000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: Stittsvile (day/night)

Angle1 Angle2 : -90.00 deg -19.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 73.00 / 73.00 m
Receiver height : 4.65 / 7.80 m
Topography : 2 (Flat/gentle slope; with barrier)
Barrier angle1 : -90.00 deg Angle2 : -56.00 deg
Barrier height : 7.00 m
Barrier receiver distance : 3.00 / 3.00 m
Source elevation : 124.30 m
Receiver elevation : 124.37 m
Barrier elevation : 124.00 m
Reference angle : 0.00

↑
Road data, segment # 2: Stittsvile (day/night)

Car traffic volume : 28336/2464 veh/TimePeriod *
Medium truck volume : 2254/196 veh/TimePeriod *
Heavy truck volume : 1610/140 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 1 %

Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 35000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 2: Stittsville (day/night)

Angle1 Angle2 : -19.00 deg 62.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 73.00 / 73.00 m
Receiver height : 4.65 / 7.80 m
Topography : 2 (Flat/gentle slope; with barrier)
Barrier angle1 : -19.00 deg Angle2 : 62.00 deg
Barrier height : 10.57 m
Barrier receiver distance : 31.00 / 31.00 m
Source elevation : 124.30 m
Receiver elevation : 124.37 m
Barrier elevation : 124.70 m
Reference angle : 0.00

↑
Result summary (day)

	! source !	Road !	Total !
	! height !	Leq !	Leq !
	! (m) !	(dBA) !	(dBA) !
1.Stittsville	! 1.50 !	58.80 !	58.80 !
2.Stittsville	! 1.50 !	43.00 !	43.00 !
	Total		58.91 dBA

↑
Result summary (night)

	! source !	Road !	Total !
	! height !	Leq !	Leq !
	! (m) !	(dBA) !	(dBA) !
1.Stittsville	! 1.50 !	53.65 !	53.65 *

2.Stittsvile	!	1.50	!	37.75	!	37.75
-----+						-----+
Total						53.76 dBA

↑

TOTAL Leq FROM ALL SOURCES (DAY): 58.91
(NIGHT): 53.76

↑

↑

Filename: r7b.te Time Period: Day/Night 16/8 hours
Description: R7 - Block 6 12B

Road data, segment # 1: Stittsvile (day/night)

Car traffic volume : 28336/2464 veh/TimePeriod *
Medium truck volume : 2254/196 veh/TimePeriod *
Heavy truck volume : 1610/140 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 1 %
Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 35000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: Stittsvile (day/night)

Angle1 Angle2 : -90.00 deg -19.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 73.00 / 73.00 m
Receiver height : 1.50 / 1.50 m
Topography : 2 (Flat/gentle slope; with barrier)
Barrier angle1 : -90.00 deg Angle2 : -56.00 deg
Barrier height : 7.00 m
Barrier receiver distance : 3.00 / 3.00 m
Source elevation : 124.30 m
Receiver elevation : 124.37 m
Barrier elevation : 124.00 m
Reference angle : 0.00

↑
Road data, segment # 2: Stittsvile (day/night)

Car traffic volume : 28336/2464 veh/TimePeriod *
Medium truck volume : 2254/196 veh/TimePeriod *
Heavy truck volume : 1610/140 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 1 %

Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 35000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 2: Stittsville (day/night)

Angle1 Angle2 : -19.00 deg 62.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 73.00 / 73.00 m
Receiver height : 1.50 / 1.50 m
Topography : 2 (Flat/gentle slope; with barrier)
Barrier angle1 : -19.00 deg Angle2 : 62.00 deg
Barrier height : 10.57 m
Barrier receiver distance : 31.00 / 31.00 m
Source elevation : 124.30 m
Receiver elevation : 124.37 m
Barrier elevation : 124.70 m
Reference angle : 0.00

↑
Result summary (day)

! source ! Road ! Total
! height ! Leq ! Leq
! (m) ! (dBA) ! (dBA)
-----+-----+-----
1.Stittsville ! 1.50 ! 58.56 ! 58.56
2.Stittsville ! 1.50 ! 42.00 ! 42.00
-----+-----+-----
Total 58.65 dBA

↑
Result summary (night)

! source ! Road ! Total
! height ! Leq ! Leq
! (m) ! (dBA) ! (dBA)
-----+-----+-----
1.Stittsville ! 1.50 ! 50.96 ! 50.96

2.Stittsvile	!	1.50	!	34.41	!	34.41
-----+-----+-----+						
		Total				51.06 dBA

↑

TOTAL Leq FROM ALL SOURCES (DAY): 58.65
(NIGHT): 51.06

↑

↑

Filename: r8.te Time Period: Day/Night 16/8 hours
Description: R8 - Block 6 4A

Road data, segment # 1: Stittsvile (day/night)

Car traffic volume : 28336/2464 veh/TimePeriod *
Medium truck volume : 2254/196 veh/TimePeriod *
Heavy truck volume : 1610/140 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 1 %
Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 35000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: Stittsvile (day/night)

Angle1 Angle2 : -90.00 deg -52.00 deg
Wood depth : 0 (No woods.)
No of house rows : 2 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 64.00 / 64.00 m
Receiver height : 4.65 / 7.80 m
Topography : 2 (Flat/gentle slope; with barrier)
Barrier angle1 : -90.00 deg Angle2 : -72.00 deg
Barrier height : 7.00 m
Barrier receiver distance : 3.00 / 3.00 m
Source elevation : 124.30 m
Receiver elevation : 124.37 m
Barrier elevation : 124.00 m
Reference angle : 0.00

↑
Road data, segment # 2: Stittsvile (day/night)

Car traffic volume : 28336/2464 veh/TimePeriod *
Medium truck volume : 2254/196 veh/TimePeriod *
Heavy truck volume : 1610/140 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 1 %

Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 35000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 2: Stittsville (day/night)

Angle1 Angle2 : -52.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 2 / 2
House density : 20 %
Surface : 2 (Reflective ground surface)
Receiver source distance : 64.00 / 64.00 m
Receiver height : 4.65 / 7.80 m
Topography : 2 (Flat/gentle slope; with barrier)
Barrier angle1 : -52.00 deg Angle2 : 90.00 deg
Barrier height : 10.57 m
Barrier receiver distance : 14.00 / 14.00 m
Source elevation : 124.30 m
Receiver elevation : 124.37 m
Barrier elevation : 124.73 m
Reference angle : 0.00

↑

Road data, segment # 3: Parade Dr. (day/night)

Car traffic volume : 6477/563 veh/TimePeriod *
Medium truck volume : 515/45 veh/TimePeriod *
Heavy truck volume : 368/32 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 1 %
Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 8000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 3: Parade Dr. (day/night)

Angle1 Angle2 : -60.00 deg 6.00 deg
 Wood depth : 0 (No woods.)
 No of house rows : 1 / 1
 House density : 20 %
 Surface : 2 (Reflective ground surface)
 Receiver source distance : 121.00 / 121.00 m
 Receiver height : 4.65 / 7.80 m
 Topography : 2 (Flat/gentle slope; with barrier)
 Barrier angle1 : -60.00 deg Angle2 : 0.00 deg
 Barrier height : 10.57 m
 Barrier receiver distance : 3.00 / 3.00 m
 Source elevation : 124.30 m
 Receiver elevation : 124.37 m
 Barrier elevation : 124.50 m
 Reference angle : 0.00

↑

Road data, segment # 4: Parade Dr. (day/night)

Car traffic volume : 6477/563 veh/TimePeriod *
 Medium truck volume : 515/45 veh/TimePeriod *
 Heavy truck volume : 368/32 veh/TimePeriod *
 Posted speed limit : 50 km/h
 Road gradient : 1 %
 Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 8000
 Percentage of Annual Growth : 0.00
 Number of Years of Growth : 0.00
 Medium Truck % of Total Volume : 7.00
 Heavy Truck % of Total Volume : 5.00
 Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 4: Parade Dr. (day/night)

Angle1 Angle2 : 6.00 deg 34.00 deg
 Wood depth : 0 (No woods.)
 No of house rows : 1 / 1
 House density : 20 %
 Surface : 2 (Reflective ground surface)
 Receiver source distance : 121.00 / 121.00 m
 Receiver height : 4.65 / 7.80 m
 Topography : 2 (Flat/gentle slope; with barrier)
 Barrier angle1 : 6.00 deg Angle2 : 34.00 deg
 Barrier height : 10.57 m
 Barrier receiver distance : 30.00 / 30.00 m
 Source elevation : 124.30 m
 Receiver elevation : 124.37 m

Barrier elevation : 123.60 m
Reference angle : 0.00

↑
Road data, segment # 5: Parade Dr. (day/night)

Car traffic volume : 6477/563 veh/TimePeriod *
Medium truck volume : 515/45 veh/TimePeriod *
Heavy truck volume : 368/32 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 1 %
Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 8000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 5: Parade Dr. (day/night)

Angle1 Angle2 : 34.00 deg 54.00 deg
Wood depth : 0 (No woods.)
No of house rows : 2 / 2
House density : 20 %
Surface : 2 (Reflective ground surface)
Receiver source distance : 121.00 / 121.00 m
Receiver height : 4.65 / 7.80 m
Topography : 2 (Flat/gentle slope; with barrier)
Barrier angle1 : 34.00 deg Angle2 : 54.00 deg
Barrier height : 7.00 m
Barrier receiver distance : 3.00 / 3.00 m
Source elevation : 124.30 m
Receiver elevation : 124.37 m
Barrier elevation : 124.03 m
Reference angle : 0.00

↑
Result summary (day)

! source ! Road ! Total
! height ! Leq ! Leq
! (m) ! (dBA) ! (dBA)
-----+-----+-----+-----
1.Stittsvile ! 1.50 ! 54.78 ! 54.78
2.Stittsvile ! 1.50 ! 47.75 ! 47.75

3.Parade Dr.	!	1.50	!	41.52	!	41.52
4.Parade Dr.	!	1.50	!	32.36	!	32.36
5.Parade Dr.	!	1.50	!	32.61	!	32.61
-----+-----+-----+-----						
Total						55.77 dBA

↑

Result summary (night)

	!	source	!	Road	!	Total
	!	height	!	Leq	!	Leq
	!	(m)	!	(dBA)	!	(dBA)
-----+-----+-----+-----						
1.Stittsvile	!	1.50	!	51.51	!	51.51 *
2.Stittsvile	!	1.50	!	42.98	!	42.98
3.Parade Dr.	!	1.50	!	34.19	!	34.19
4.Parade Dr.	!	1.50	!	28.97	!	28.97
5.Parade Dr.	!	1.50	!	37.15	!	37.15 *
-----+-----+-----+-----						
Total						52.31 dBA

* Bright Zone !

↑

TOTAL Leq FROM ALL SOURCES (DAY): 55.77
(NIGHT): 52.31

↑

↑

Filename: r9.te Time Period: Day/Night 16/8 hours
Description: R9 - Block 7 - 5A

Road data, segment # 1: Stittsvile (day/night)

Car traffic volume : 28336/2464 veh/TimePeriod *
Medium truck volume : 2254/196 veh/TimePeriod *
Heavy truck volume : 1610/140 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 1 %
Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 35000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: Stittsvile (day/night)

Angle1 Angle2 : -90.00 deg -38.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 100.00 / 100.00 m
Receiver height : 4.65 / 7.80 m
Topography : 2 (Flat/gentle slope; with barrier)
Barrier angle1 : -90.00 deg Angle2 : -57.00 deg
Barrier height : 7.00 m
Barrier receiver distance : 3.00 / 3.00 m
Source elevation : 124.30 m
Receiver elevation : 123.45 m
Barrier elevation : 124.00 m
Reference angle : 0.00

↑

Road data, segment # 2: Stittsvile (day/night)

Car traffic volume : 28336/2464 veh/TimePeriod *
Medium truck volume : 2254/196 veh/TimePeriod *
Heavy truck volume : 1610/140 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 1 %

Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 35000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 2: Stittsville (day/night)

Angle1 Angle2 : -38.00 deg 35.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 100.00 / 100.00 m
Receiver height : 4.65 / 7.80 m
Topography : 2 (Flat/gentleslope; with barrier)
Barrier angle1 : -38.00 deg Angle2 : 35.00 deg
Barrier height : 10.57 m
Barrier receiver distance : 3.00 / 3.00 m
Source elevation : 124.30 m
Receiver elevation : 123.45 m
Barrier elevation : 124.37 m
Reference angle : 0.00

↑

Road data, segment # 3: Stittsville (day/night)

Car traffic volume : 28336/2464 veh/TimePeriod *
Medium truck volume : 2254/196 veh/TimePeriod *
Heavy truck volume : 1610/140 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 1 %
Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 35000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 3: Stittsville (day/night)

Angle1 Angle2 : 35.00 deg 51.00 deg

Wood depth : 0 (No woods.)
 No of house rows : 0 / 0
 Surface : 2 (Reflective ground surface)
 Receiver source distance : 100.00 / 100.00 m
 Receiver height : 4.65 / 7.80 m
 Topography : 2 (Flat/gentle slope; with barrier)
 Barrier angle1 : 35.00 deg Angle2 : 51.00 deg
 Barrier height : 10.57 m
 Barrier receiver distance : 40.00 / 40.00 m
 Source elevation : 124.30 m
 Receiver elevation : 123.45 m
 Barrier elevation : 124.70 m
 Reference angle : 0.00

↑

Result summary (day)

	! source !	Road	! Total
	! height !	Leq	! Leq
	! (m) !	(dBA)	! (dBA)
1.Stittsvile	! 1.50 !	54.66	! 54.66
2.Stittsvile	! 1.50 !	40.00	! 40.00
3.Stittsvile	! 1.50 !	35.86	! 35.86
Total			54.86 dBA

↑

Result summary (night)

	! source !	Road	! Total
	! height !	Leq	! Leq
	! (m) !	(dBA)	! (dBA)
1.Stittsvile	! 1.50 !	50.93	! 50.93 *
2.Stittsvile	! 1.50 !	32.42	! 32.42
3.Stittsvile	! 1.50 !	30.54	! 30.54
Total			51.03 dBA

↑

TOTAL Leq FROM ALL SOURCES (DAY): 54.86
 (NIGHT): 51.03

↑

↑

Filename: r9b.te Time Period: Day/Night 16/8 hours
Description: R9 - Block 7 - 12B

Road data, segment # 1: Stittsvile (day/night)

Car traffic volume : 28336/2464 veh/TimePeriod *
Medium truck volume : 2254/196 veh/TimePeriod *
Heavy truck volume : 1610/140 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 1 %
Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 35000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: Stittsvile (day/night)

Angle1 Angle2 : -90.00 deg -38.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 100.00 / 100.00 m
Receiver height : 1.50 / 1.50 m
Topography : 2 (Flat/gentle slope; with barrier)
Barrier angle1 : -90.00 deg Angle2 : -57.00 deg
Barrier height : 7.00 m
Barrier receiver distance : 3.00 / 3.00 m
Source elevation : 124.30 m
Receiver elevation : 123.45 m
Barrier elevation : 124.00 m
Reference angle : 0.00

↑
Road data, segment # 2: Stittsvile (day/night)

Car traffic volume : 28336/2464 veh/TimePeriod *
Medium truck volume : 2254/196 veh/TimePeriod *
Heavy truck volume : 1610/140 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 1 %

Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 35000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 2: Stittsville (day/night)

Angle1 Angle2 : -38.00 deg 35.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 100.00 / 100.00 m
Receiver height : 1.50 / 1.50 m
Topography : 2 (Flat/gentle slope; with barrier)
Barrier angle1 : -38.00 deg Angle2 : 35.00 deg
Barrier height : 10.57 m
Barrier receiver distance : 3.00 / 3.00 m
Source elevation : 124.30 m
Receiver elevation : 123.45 m
Barrier elevation : 124.37 m
Reference angle : 0.00

↑

Road data, segment # 3: Stittsville (day/night)

Car traffic volume : 28336/2464 veh/TimePeriod *
Medium truck volume : 2254/196 veh/TimePeriod *
Heavy truck volume : 1610/140 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 1 %
Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 35000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 3: Stittsville (day/night)

Angle1 Angle2 : 35.00 deg 51.00 deg

Wood depth : 0 (No woods.)
 No of house rows : 0 / 0
 Surface : 2 (Reflective ground surface)
 Receiver source distance : 100.00 / 100.00 m
 Receiver height : 1.50 / 1.50 m
 Topography : 2 (Flat/gentle slope; with barrier)
 Barrier angle1 : 35.00 deg Angle2 : 51.00 deg
 Barrier height : 10.57 m
 Barrier receiver distance : 40.00 / 40.00 m
 Source elevation : 124.30 m
 Receiver elevation : 123.45 m
 Barrier elevation : 124.70 m
 Reference angle : 0.00

↑

Result summary (day)

	! source !	Road	! Total
	! height !	Leq	! Leq
	! (m) !	(dBA)	! (dBA)
1.Stittsvile	! 1.50 !	54.39	! 54.39
2.Stittsvile	! 1.50 !	40.00	! 40.00
3.Stittsvile	! 1.50 !	34.06	! 34.06
	Total		54.58 dBA

↑

Result summary (night)

	! source !	Road	! Total
	! height !	Leq	! Leq
	! (m) !	(dBA)	! (dBA)
1.Stittsvile	! 1.50 !	46.80	! 46.80
2.Stittsvile	! 1.50 !	32.40	! 32.40
3.Stittsvile	! 1.50 !	26.46	! 26.46
	Total		46.99 dBA

↑

TOTAL Leq FROM ALL SOURCES (DAY): 54.58
 (NIGHT): 46.99

↑

↑

Filename: r10.te Time Period: Day/Night 16/8 hours
Description: R10 - Block 7 - 4A

Road data, segment # 1: Stittsvile (day/night)

Car traffic volume : 28336/2464 veh/TimePeriod *
Medium truck volume : 2254/196 veh/TimePeriod *
Heavy truck volume : 1610/140 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 1 %
Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 35000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 1: Stittsvile (day/night)

Angle1 Angle2 : -90.00 deg -38.00 deg
Wood depth : 0 (No woods.)
No of house rows : 2 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 90.00 / 90.00 m
Receiver height : 4.65 / 7.80 m
Topography : 2 (Flat/gentle slope; with barrier)
Barrier angle1 : -90.00 deg Angle2 : -38.00 deg
Barrier height : 10.57 m
Barrier receiver distance : 3.00 / 3.00 m
Source elevation : 124.30 m
Receiver elevation : 123.45 m
Barrier elevation : 124.37 m
Reference angle : 0.00

↑
Road data, segment # 2: Stittsvile (day/night)

Car traffic volume : 28336/2464 veh/TimePeriod *
Medium truck volume : 2254/196 veh/TimePeriod *
Heavy truck volume : 1610/140 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 1 %

Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 35000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 2: Stittsville (day/night)

Angle1 Angle2 : -38.00 deg 63.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 90.00 / 90.00 m
Receiver height : 4.65 / 7.80 m
Topography : 2 (Flat/gentle slope; with barrier)
Barrier angle1 : -38.00 deg Angle2 : 63.00 deg
Barrier height : 10.57 m
Barrier receiver distance : 40.00 / 40.00 m
Source elevation : 124.30 m
Receiver elevation : 123.45 m
Barrier elevation : 124.73 m
Reference angle : 0.00

↑

Road data, segment # 3: Stittsville (day/night)

Car traffic volume : 28336/2464 veh/TimePeriod *
Medium truck volume : 2254/196 veh/TimePeriod *
Heavy truck volume : 1610/140 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 1 %
Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 35000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 3: Stittsville (day/night)

Angle1 Angle2 : 63.00 deg 90.00 deg

Wood depth : 0 (No woods.)
 No of house rows : 0 / 0
 Surface : 2 (Reflective ground surface)
 Receiver source distance : 90.00 / 90.00 m
 Receiver height : 4.65 / 7.80 m
 Topography : 2 (Flat/gentle slope; with barrier)
 Barrier angle1 : 63.00 deg Angle2 : 90.00 deg
 Barrier height : 10.57 m
 Barrier receiver distance : 3.00 / 3.00 m
 Source elevation : 124.30 m
 Receiver elevation : 123.45 m
 Barrier elevation : 123.60 m
 Reference angle : 0.00

↑

Road data, segment # 4: Parade Dr. (day/night)

 Car traffic volume : 6477/563 veh/TimePeriod *
 Medium truck volume : 515/45 veh/TimePeriod *
 Heavy truck volume : 368/32 veh/TimePeriod *
 Posted speed limit : 50 km/h
 Road gradient : 1 %
 Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 8000
 Percentage of Annual Growth : 0.00
 Number of Years of Growth : 0.00
 Medium Truck % of Total Volume : 7.00
 Heavy Truck % of Total Volume : 5.00
 Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 4: Parade Dr. (day/night)

 Angle1 Angle2 : -50.00 deg -12.00 deg
 Wood depth : 0 (No woods.)
 No of house rows : 1 / 1
 House density : 20 %
 Surface : 2 (Reflective ground surface)
 Receiver source distance : 106.00 / 106.00 m
 Receiver height : 4.65 / 7.80 m
 Topography : 2 (Flat/gentle slope; with barrier)
 Barrier angle1 : -50.00 deg Angle2 : -12.00 deg
 Barrier height : 10.57 m
 Barrier receiver distance : 3.00 / 3.00 m
 Source elevation : 124.30 m
 Receiver elevation : 123.45 m
 Barrier elevation : 124.60 m
 Reference angle : 0.00

↑

Road data, segment # 5: Parade Dr. (day/night)

Car traffic volume : 6477/563 veh/TimePeriod *
Medium truck volume : 515/45 veh/TimePeriod *
Heavy truck volume : 368/32 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 1 %
Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 8000
Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
Medium Truck % of Total Volume : 7.00
Heavy Truck % of Total Volume : 5.00
Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 5: Parade Dr. (day/night)

Angle1 Angle2 : -12.00 deg 21.00 deg
Wood depth : 0 (No woods.)
No of house rows : 1 / 1
House density : 20 %
Surface : 2 (Reflective ground surface)
Receiver source distance : 106.00 / 106.00 m
Receiver height : 4.65 / 7.80 m
Topography : 2 (Flat/gentle slope; with barrier)
Barrier angle1 : -12.00 deg Angle2 : 21.00 deg
Barrier height : 10.57 m
Barrier receiver distance : 28.00 / 28.00 m
Source elevation : 124.30 m
Receiver elevation : 123.45 m
Barrier elevation : 123.60 m
Reference angle : 0.00

↑

Road data, segment # 6: Parade Dr. (day/night)

Car traffic volume : 6477/563 veh/TimePeriod *
Medium truck volume : 515/45 veh/TimePeriod *
Heavy truck volume : 368/32 veh/TimePeriod *
Posted speed limit : 50 km/h
Road gradient : 1 %
Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 8000
 Percentage of Annual Growth : 0.00
 Number of Years of Growth : 0.00
 Medium Truck % of Total Volume : 7.00
 Heavy Truck % of Total Volume : 5.00
 Day (16 hrs) % of Total Volume : 92.00

Data for Segment # 6: Parade Dr. (day/night)

 Angle1 Angle2 : 21.00 deg 57.00 deg
 Wood depth : 0 (No woods.)
 No of house rows : 2 / 2
 House density : 20 %
 Surface : 2 (Reflective ground surface)
 Receiver source distance : 106.00 / 106.00 m
 Receiver height : 4.65 / 7.80 m
 Topography : 2 (Flat/gentle slope; with barrier)
 Barrier angle1 : 21.00 deg Angle2 : 57.00 deg
 Barrier height : 7.00 m
 Barrier receiver distance : 3.00 / 3.00 m
 Source elevation : 124.30 m
 Receiver elevation : 123.45 m
 Barrier elevation : 124.03 m
 Reference angle : 0.00

↑
 Result summary (day)

	! source !	Road !	Total !
	! height !	Leq !	Leq !
	! (m) !	(dBA) !	(dBA) !
1.Stittsvile	! 1.50 !	42.24 !	42.24 !
2.Stittsvile	! 1.50 !	43.30 !	43.30 !
3.Stittsvile	! 1.50 !	41.64 !	41.64 !
4.Parade Dr.	! 1.50 !	30.50 !	30.50 !
5.Parade Dr.	! 1.50 !	32.03 !	32.03 !
6.Parade Dr.	! 1.50 !	32.76 !	32.76 !
	Total		47.58 dBA

↑
 Result summary (night)

	! source !	Road !	Total !
	! height !	Leq !	Leq !
	! (m) !	(dBA) !	(dBA) !

1.Stittsvile	!	1.50 !	37.07 !	37.07
2.Stittsvile	!	1.50 !	37.77 !	37.77
3.Stittsvile	!	1.50 !	37.34 !	37.34
4.Parade Dr.	!	1.50 !	23.03 !	23.03
5.Parade Dr.	!	1.50 !	28.06 !	28.06
6.Parade Dr.	!	1.50 !	40.28 !	40.28 *
-----+-----+-----+-----				
		Total		44.47 dBA

* Bright Zone !

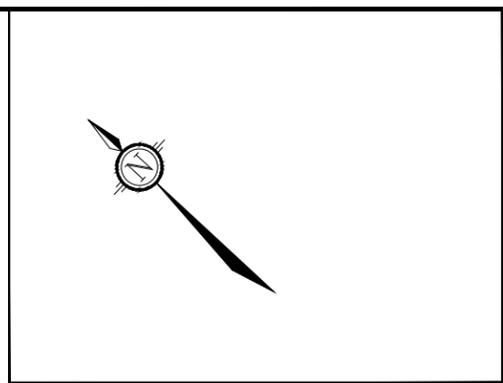
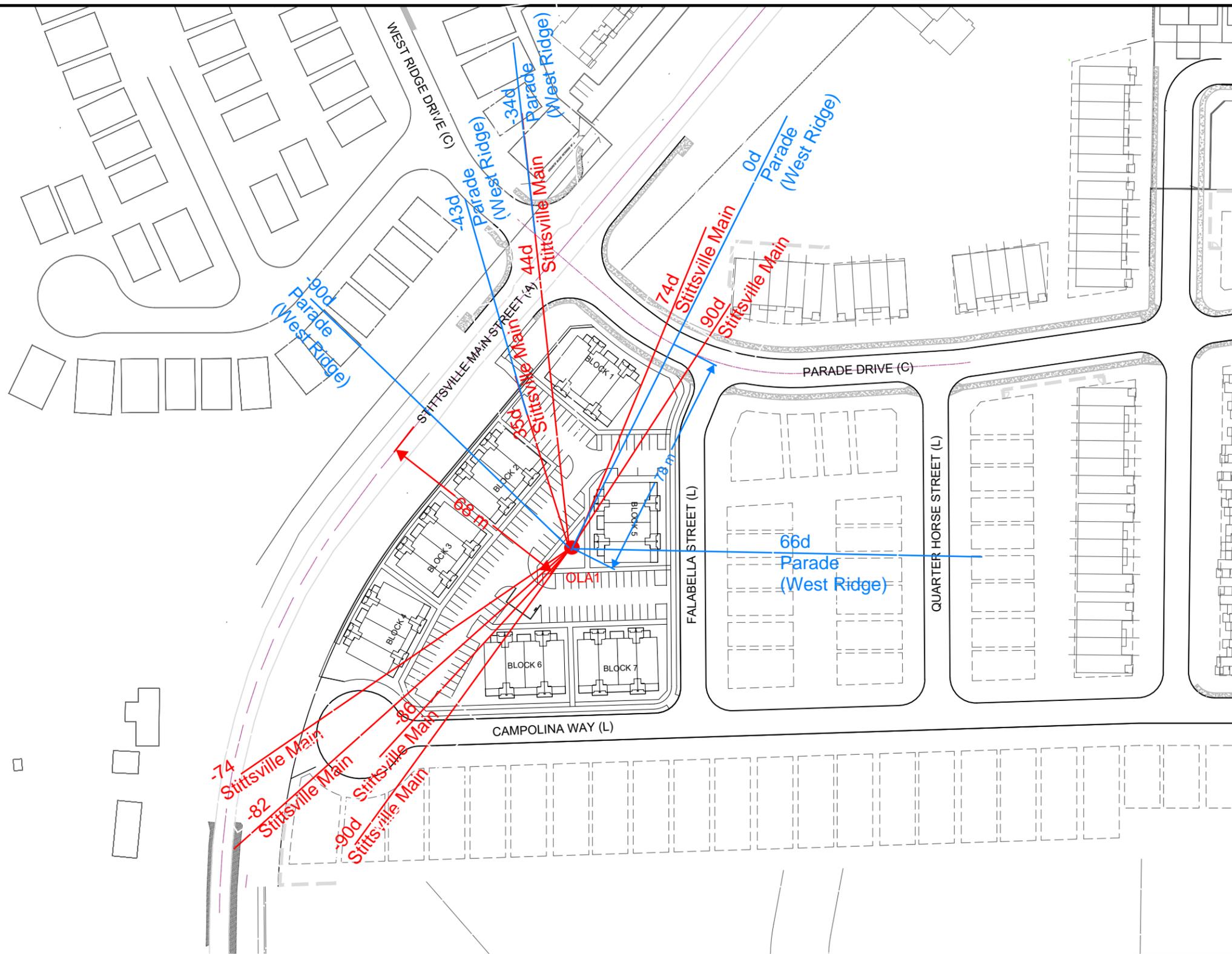
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TOTAL Leq FROM ALL SOURCES (DAY): 47.58
(NIGHT): 44.47

↑

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LEGEND

● OLA1

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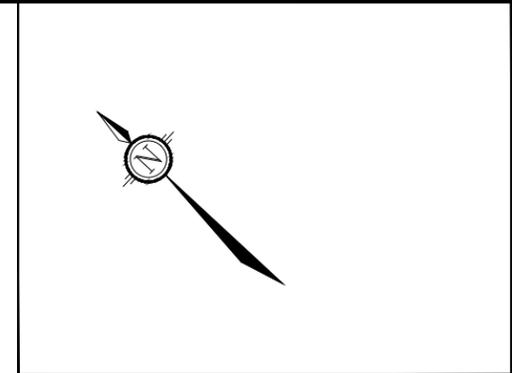
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OLA1 ANGLES AND DISTANCES

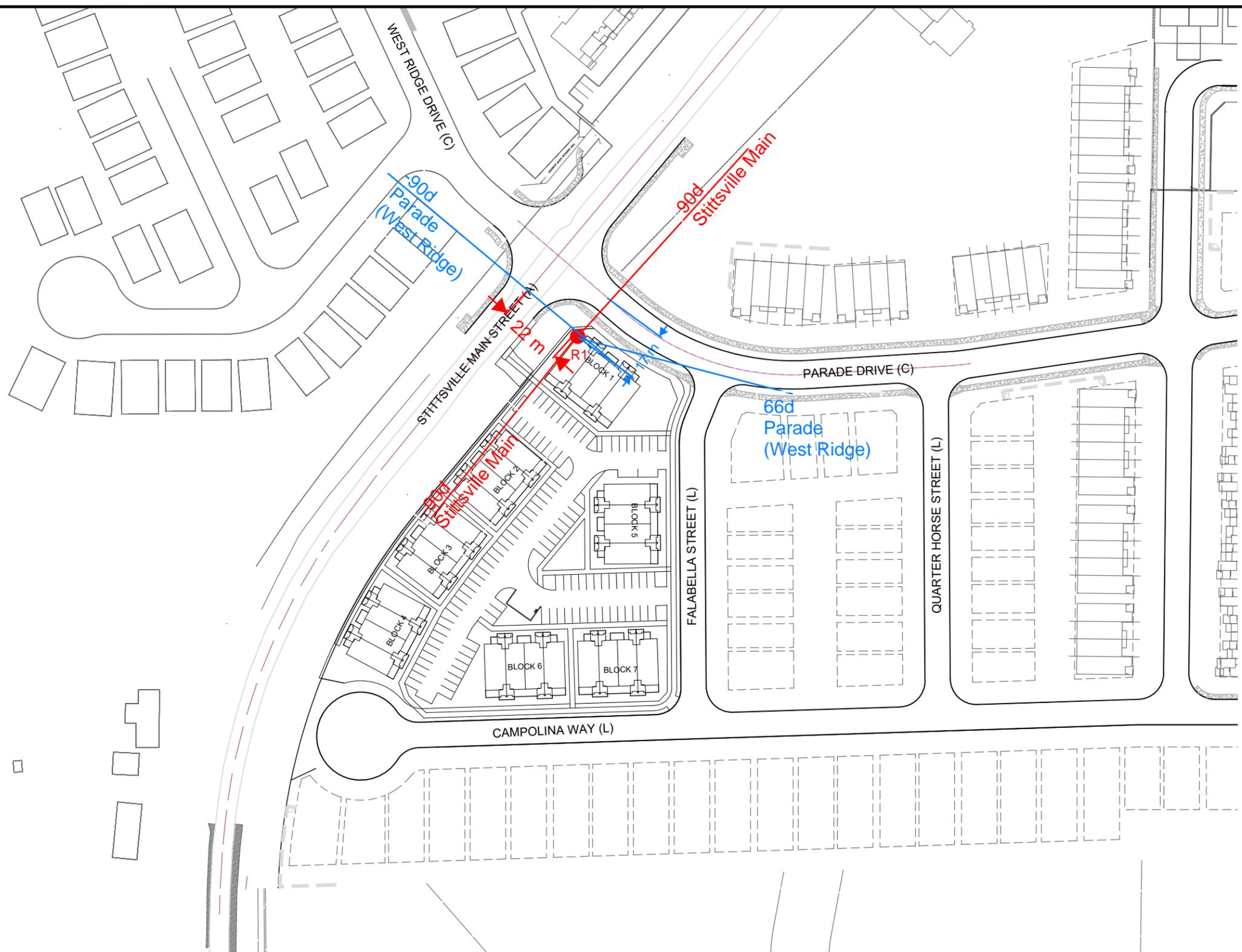
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● R1 8A



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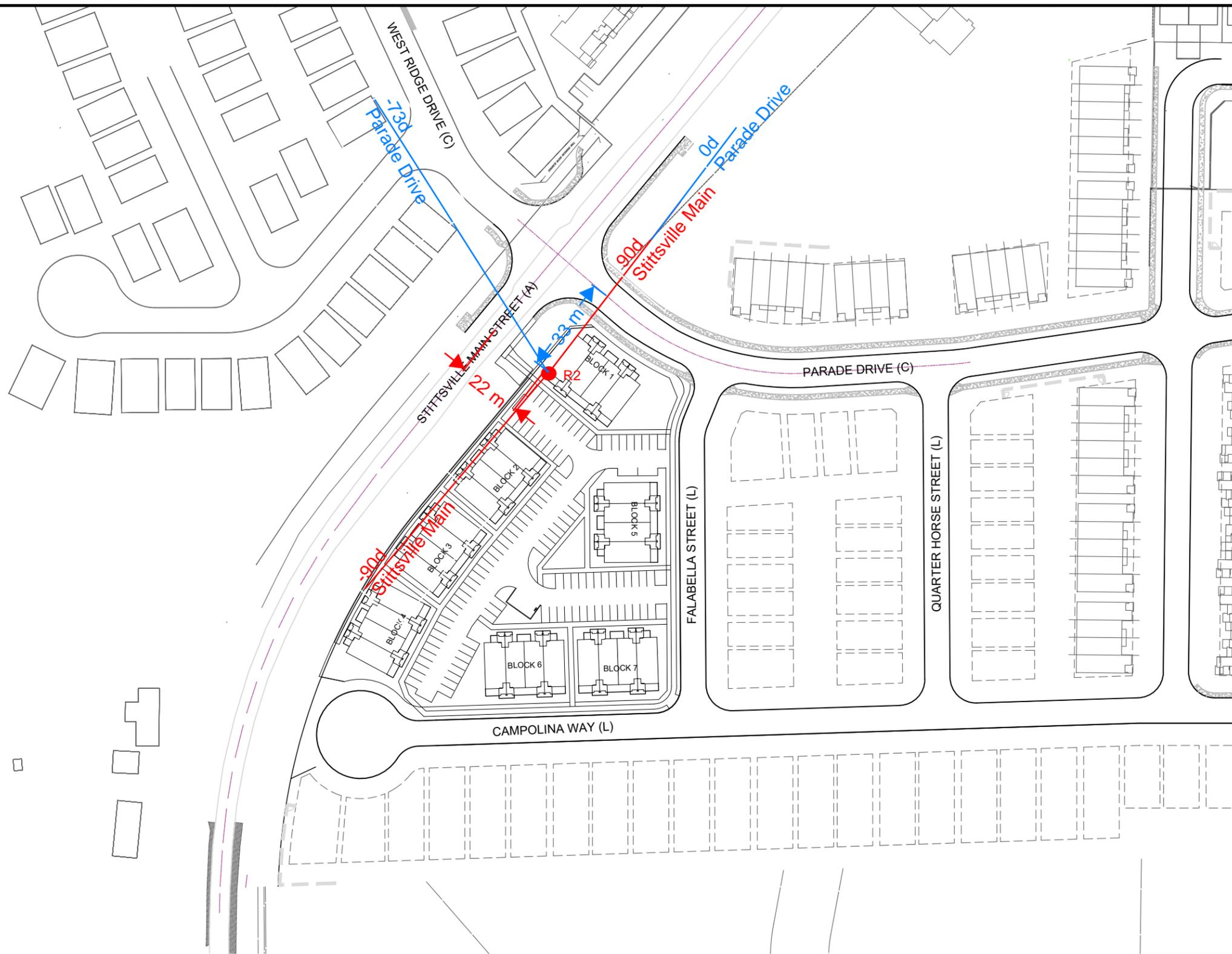
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R1 ANGLES AND DISTANCES

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● R2 - 1A

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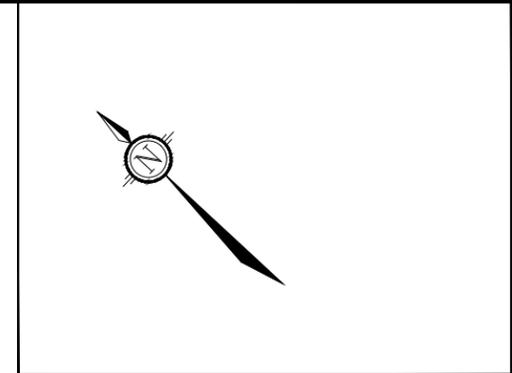
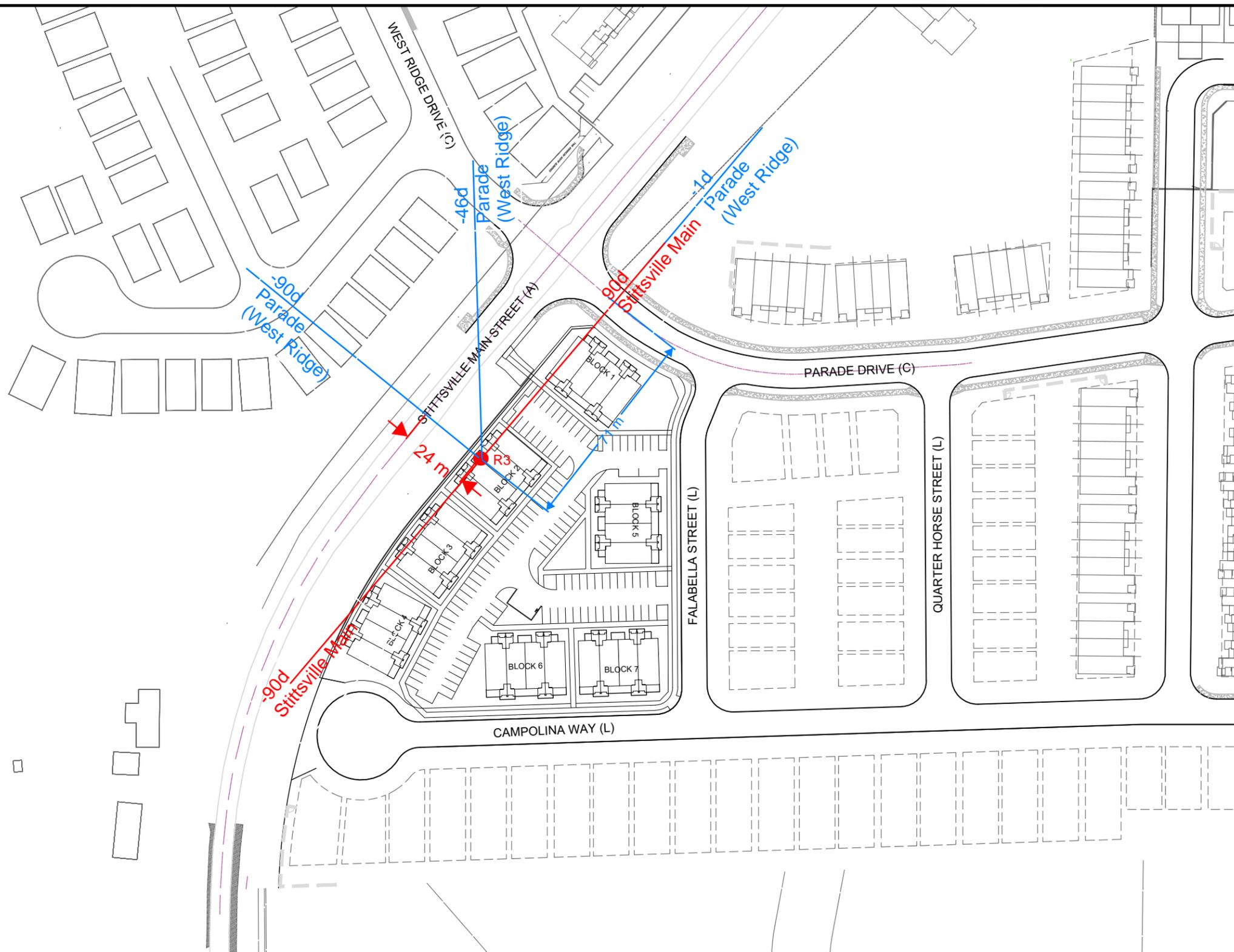
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R2 ANGLES AND DISTANCES

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● R3

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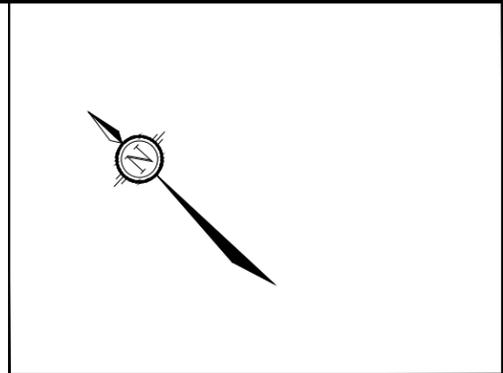
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POW3 ANGLES AND DISTANCES

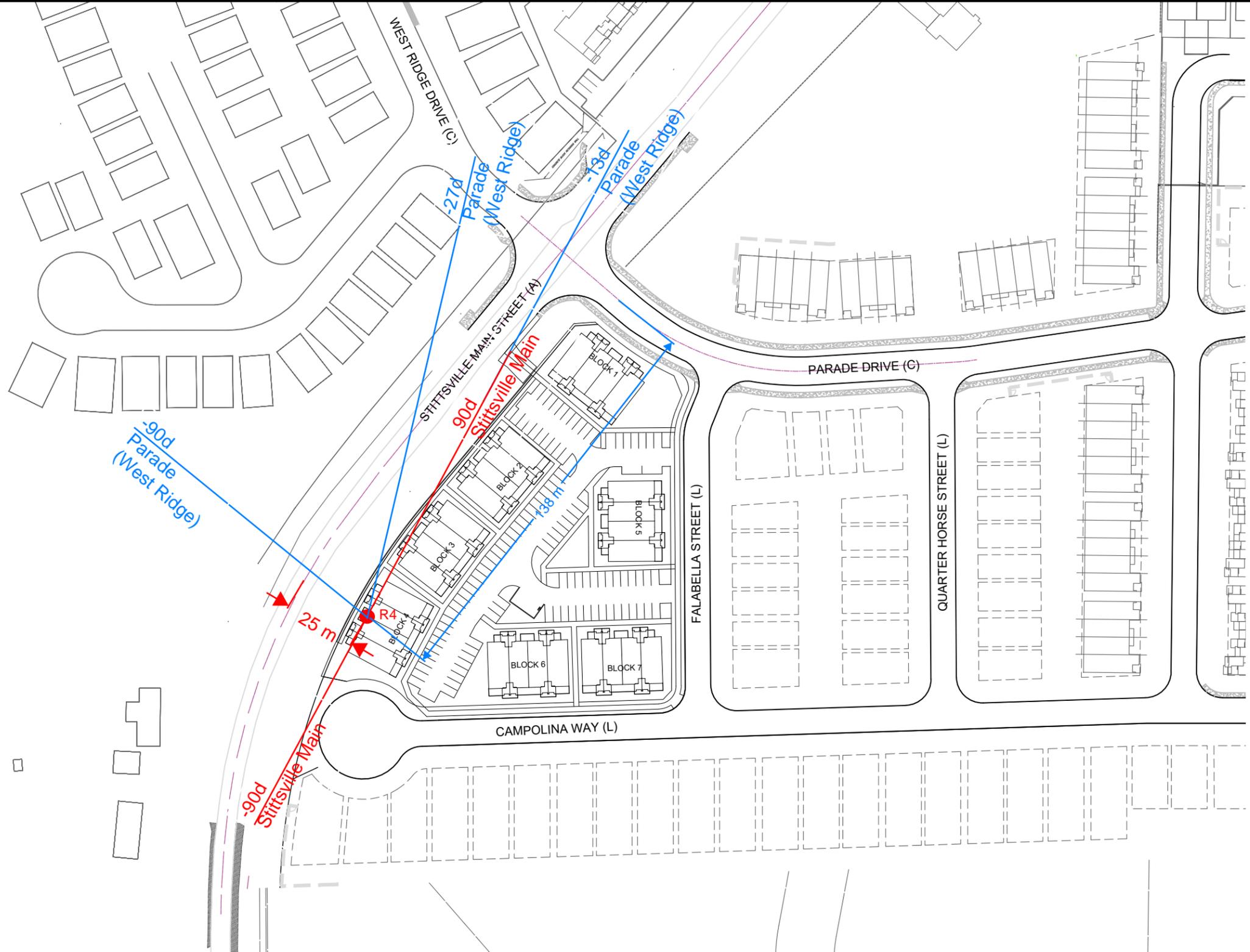
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● R4



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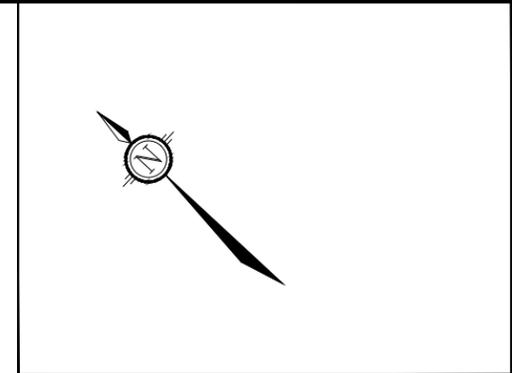
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POW1 ANGLES AND DISTANCES

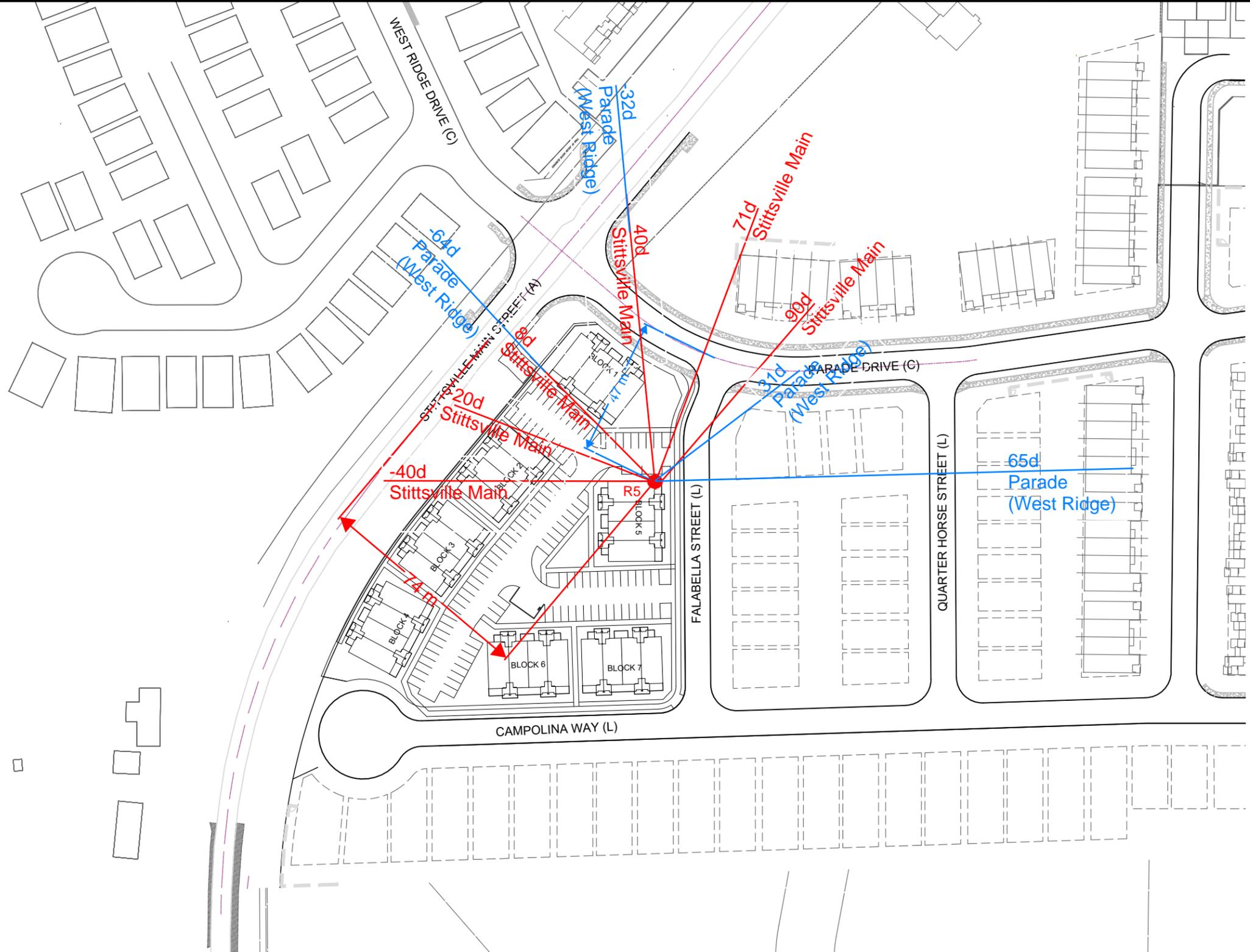
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● R5



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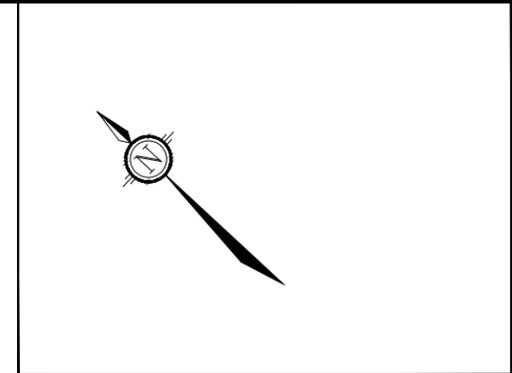
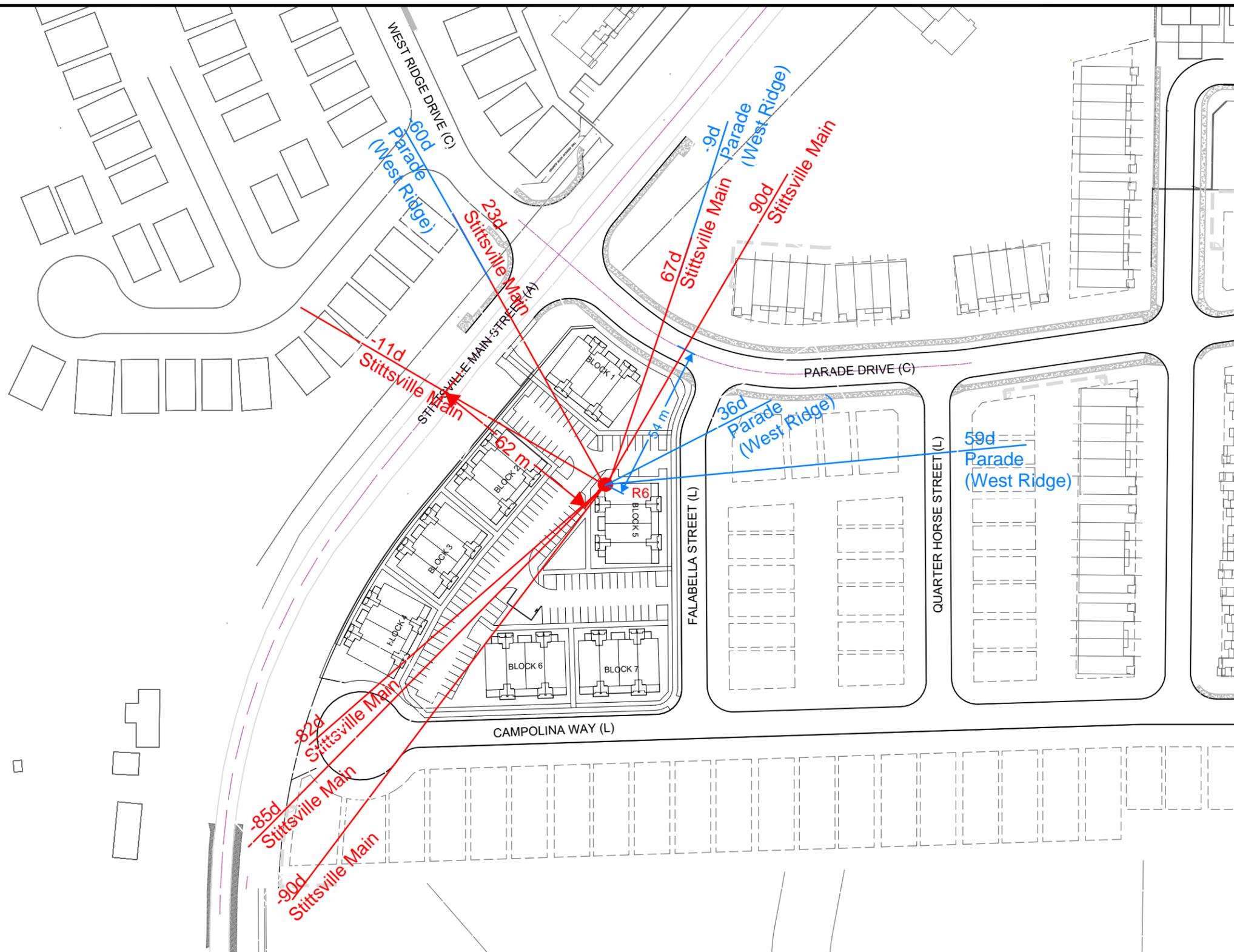
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R5 ANGLES AND DISTANCES

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● R6

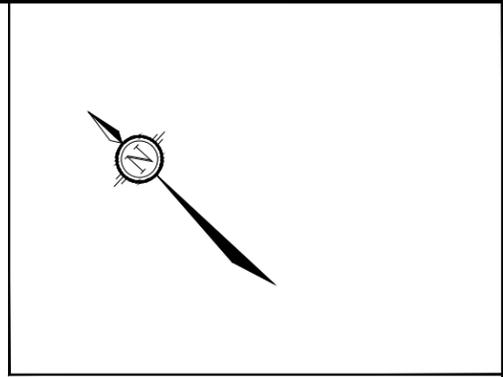
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R6 ANGLES AND DISTANCES

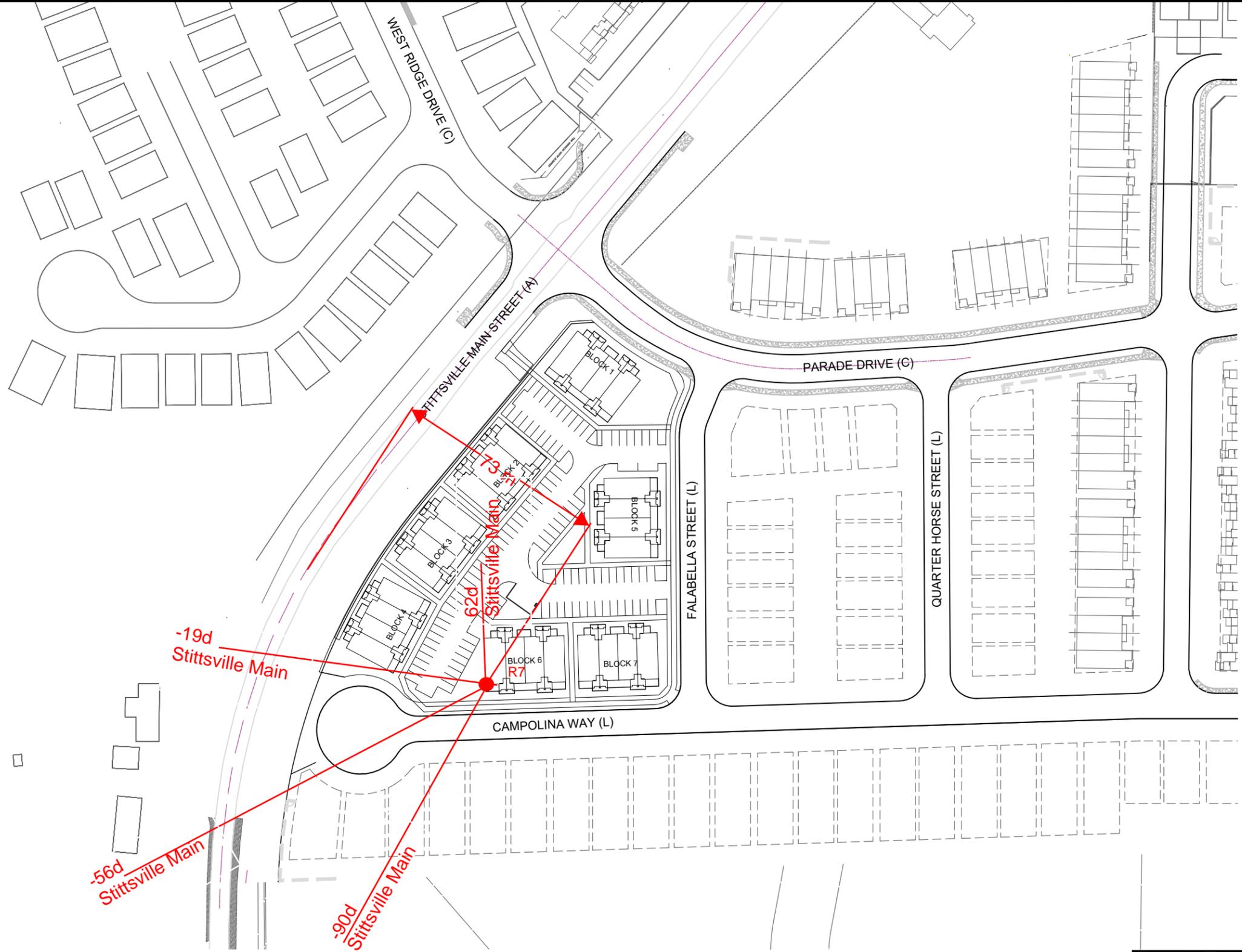
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AUG 2024	124097	R6



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● R7



-19d
Stittsville Main

-56d
Stittsville Main

-90d
Stittsville Main

62d
Stittsville Main

R7

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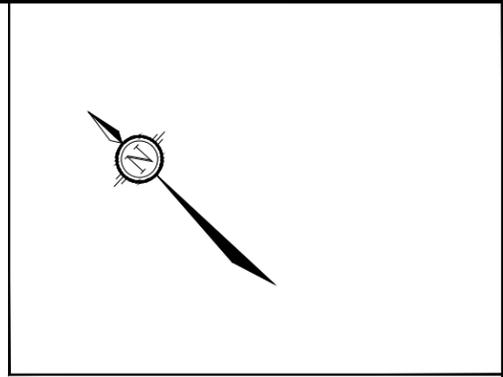
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R7 ANGLES AND DISTANCES

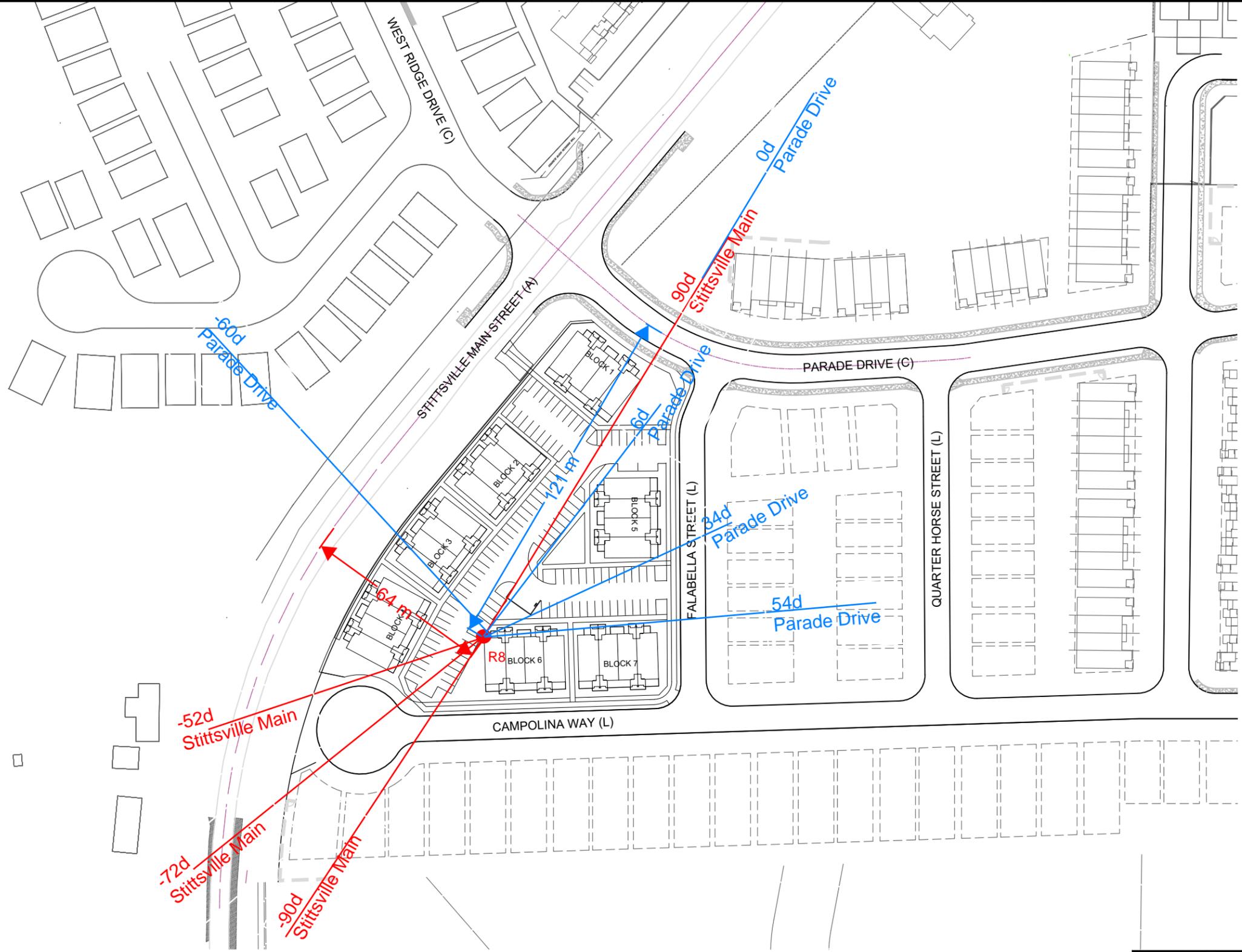
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● R8



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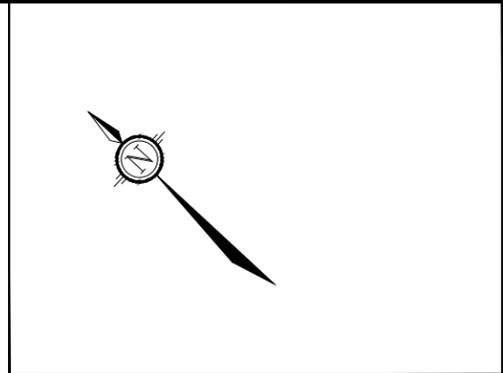
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R8 ANGLES AND DISTANCES

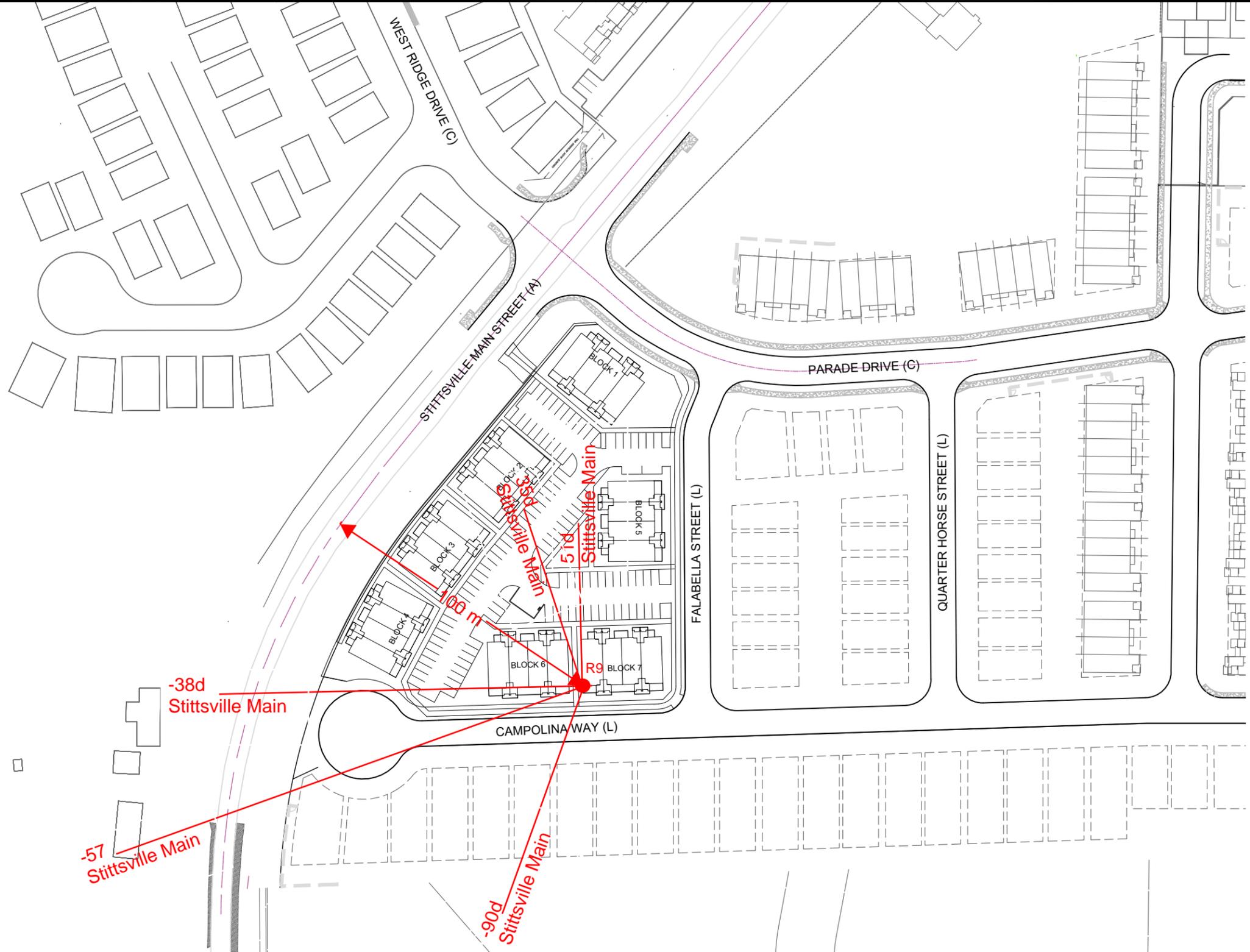
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DATE AUG 2024 JOB 124097 FIGURE R8



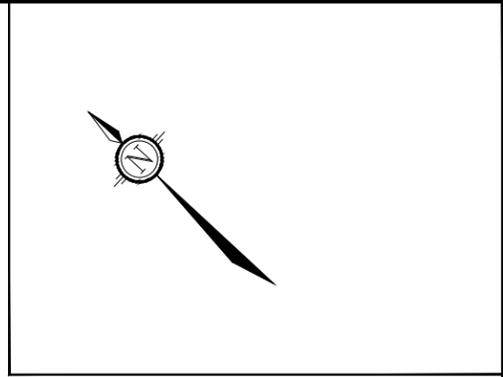
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● R9



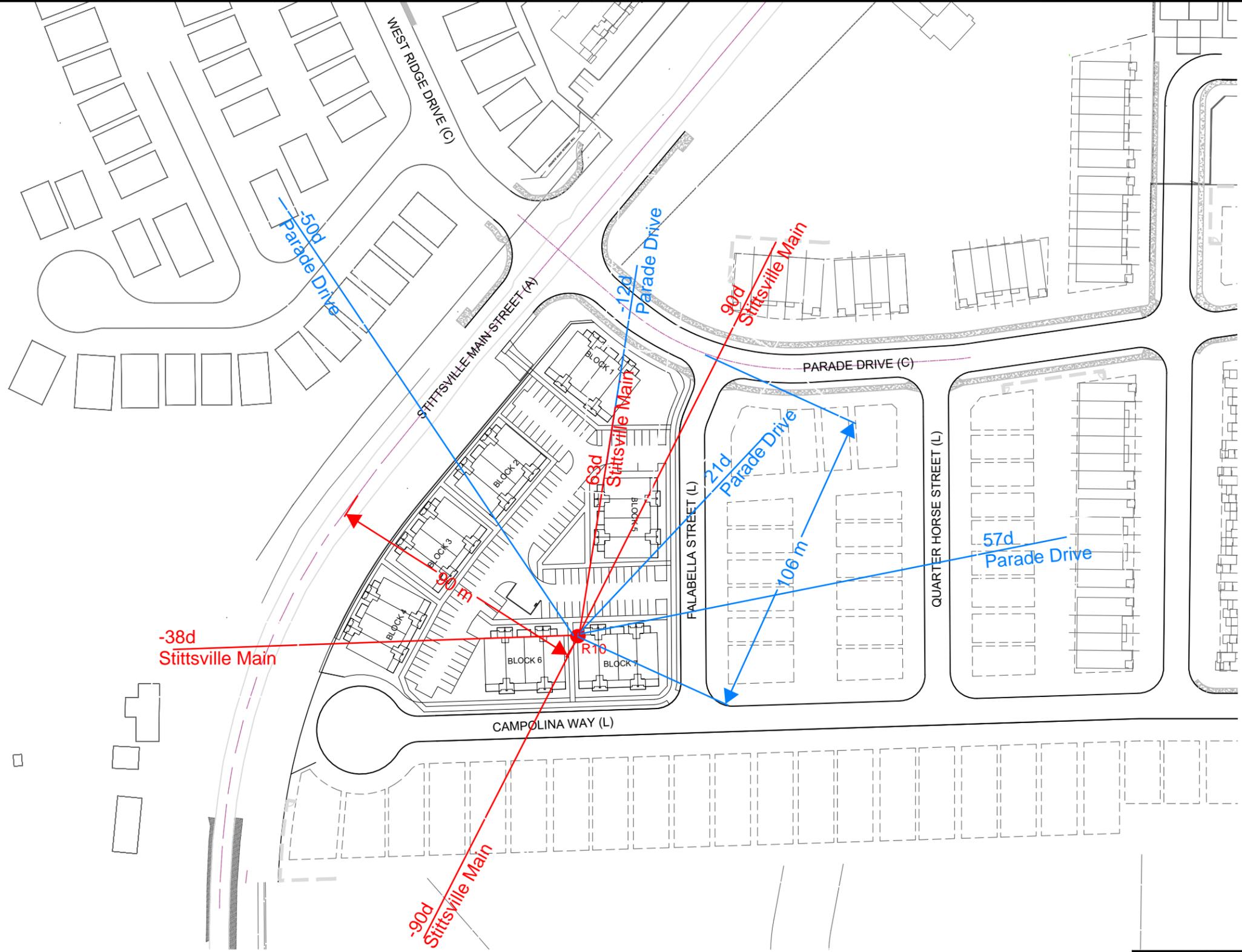
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	R9 ANGLES AND DISTANCES	
SCALE 1 : 1500		
DATE AUG 2024	JOB 124097	FIGURE R9



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● R10



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R10 ANGLES AND DISTANCES

SCALE 1 : 1500

DATE AUG 2024 JOB 124097 FIGURE R10

APPENDIX C

Acoustic Insulation Factor Tables

R₁ (5A-8A) Bedroom

Table 6.3 - Acoustic Insulation Factor for Various Types of Exterior Wall

	Percentage of exterior wall area to total floor area of room											Type of Exterior Wall
	16	20	25	32	40	50	63	80	100	125	160	
Acoustic	39	38	37	36	35	34	33	32	31	30	29	EW1
Insulation	41	40	39	38	37	36	35	34	33	32	31	EW2
Factor	44	43	42	41	40	39	38	37	36	35	34	EW3
	47	46	45	44	43	42	41	40	39	38	37	EW4
	48	47	46	45	44	43	42	41	40	39	38	EW1R
	49	48	47	46	45	44	43	42	41	40	39	EW2R
	50	49	48	47	46	45	44	43	42	41	40	EW3R
	55	54	53	52	51	50	49	48	47	46	45	EW5
	56	55	54	53	52	51	50	49	48	47	46	EW4R
	58	57	56	55	54	53	52	51	50	49	48	EW6
	59	58	57	56	55	54	53	52	51	50	49	EW7 or EW5R
	63	62	61	60	59	58	57	56	55	54	53	EW8

Source : National Research Council, Division of Building Research, December 1980.

Explanatory Notes :

- 1) Where the calculated percentage wall area is not presented as a column heading, the nearest percentage column in the table should be used.
- 2) The common structure of walls EW1 to EW5 is composed of 12.7 mm gypsum board, vapour barrier, and 38 x 89 mm studs with 50 mm (or thicker) mineral wool or glass fibre batts in inter-stud cavities.
- 3) EW1 denotes exterior wall as in Note 2), plus sheathing, plus wood siding or metal siding and fibre backer board.
 EW2 denotes exterior wall as in Note 2), plus rigid insulation (25-30 mm), and wood siding or metal siding and fibre backer board.
 EW3 denotes simulated mansard with structure as in Note 2), plus sheathing, 28 x 89 mm framing, sheathing, and asphalt roofing material.
 EW4 denotes exterior wall as in Note 2), plus sheathing and 20 mm stucco.
 EW5 denotes exterior wall as in Note 2), plus sheathing, 25 mm air space, 100 mm brick veneer.
 EW6 denotes exterior wall composed of 12.7 mm gypsum board, rigid insulation (25-50 mm), 100 mm back-up block, 100 mm face brick.
 EW7 denotes exterior wall composed of 12.7 mm gypsum board, rigid insulation (25-50 mm), 140 mm back-up block, 100 mm face brick.
 EW8 denotes exterior wall composed of 12.7 mm gypsum board, rigid insulation (25-50 mm), 200 mm concrete.
- 4) R signifies the mounting of the interior gypsum board on resilient clips.
- 5) An exterior wall conforming to rainscreen design principles and composed of 12.7 mm gypsum board, 100 mm concrete block, rigid insulation (25-50 mm), 25 mm air space, and 100 mm brick veneer has the same AIF as EW6.
- 6) An exterior wall described in EW1 with the addition of rigid insulation (25-50 mm) between the sheathing and the external finish has the same AIF as EW2.

R1 (5A-8A) Bedroom

TABLE 12: Approximate conversion from STC to AIF for exterior walls:

Exterior wall area expressed as percentage of room floor area	Acoustic Insulation Factor (AIF)
200	STC-10
160	STC-9
125	STC-8
100	STC-7
80	STC-6
63	STC-5
50	STC-4
40	STC-3
32	STC-2
25	STC-1
20	STC
16	STC+1
12.5	STC+2
10	STC+3
8	

Note: For area percentages not listed in the table use the nearest listed value.

Example: For a wall whose area = 120% of room floor area and STC = 48 the AIF is $48 - 8 = 40$.

$$STC = AIF + 9 = 29 + 9 = 38 \text{ dBA}$$

R1 (5A-8A) Bedroom

TABLE 11: Approximate conversion from STC to AIF for windows and doors:

Window (or door) area expressed as percentage of room floor area	Acoustic Insulation Factor (AIF)
80	STC-5
63	STC-4
50	STC-3
40	STC-2
32	STC-1
25	STC
20	STC+1
16	STC+2
12.5	STC+3
10	STC+4
8	STC+5
6.3	STC+6
5	STC+7
4	STC+8

Note: For area percentages not listed in the table use the nearest listed value.

Examples: For a window whose area = 20% of the room floor area and STC = 32 the AIF is $32 + 1 = 33$.

For a window whose area = 60% of the room floor area and STC = 29 the AIF is $29 - 4 = 25$.

$$STC = AIF - 1 = 29 - 1 = 28 \text{ dBA}$$

R₁ (5A-8A) Living room

Table 6.3 - Acoustic Insulation Factor for Various Types of Exterior Wall

Percentage of exterior wall area to total floor area of room	16 20 25 32 40 50 63 80 100 125 160											Type of Exterior Wall
	16	20	25	32	40	50	63	80	100	125	160	
Acoustic Insulation Factor	39	38	37	36	35	34	33	32	31	30	29	EW1
	41	40	39	38	37	36	35	34	33	32	31	EW2
	44	43	42	41	40	39	38	37	36	35	34	EW3
	47	46	45	44	43	42	41	40	39	38	37	EW4
	48	47	46	45	44	43	42	41	40	39	38	EW1R
	49	48	47	46	45	44	43	42	41	40	39	EW2R
	50	49	48	47	46	45	44	43	42	41	40	EW3R
	55	54	53	52	51	50	49	48	47	46	45	EW5
	56	55	54	53	52	51	50	49	48	47	46	EW4R
	58	57	56	55	54	53	52	51	50	49	48	EW6
	59	58	57	56	55	54	53	52	51	50	49	EW7 or EW5R
	63	62	61	60	59	58	57	56	55	54	53	EW8

Source : National Research Council, Division of Building Research, December 1980.

Explanatory Notes :

- 1) Where the calculated percentage wall area is not presented as a column heading, the nearest percentage column in the table should be used.
- 2) The common structure of walls EW1 to EW5 is composed of 12.7 mm gypsum board, vapour barrier, and 38 x 89 mm studs with 50 mm (or thicker) mineral wool or glass fibre batts in inter-stud cavities.
- 3) EW1 denotes exterior wall as in Note 2), plus sheathing, plus wood siding or metal siding and fibre backer board.
 EW2 denotes exterior wall as in Note 2), plus rigid insulation (25-30 mm), and wood siding or metal siding and fibre backer board.
 EW3 denotes simulated mansard with structure as in Note 2), plus sheathing, 28 x 89 mm framing, sheathing, and asphalt roofing material.
 EW4 denotes exterior wall as in Note 2), plus sheathing and 20 mm stucco.
 EW5 denotes exterior wall as in Note 2), plus sheathing, 25 mm air space, 100 mm brick veneer.
 EW6 denotes exterior wall composed of 12.7 mm gypsum board, rigid insulation (25-50 mm), 100 mm back-up block, 100 mm face brick.
 EW7 denotes exterior wall composed of 12.7 mm gypsum board, rigid insulation (25-50 mm), 140 mm back-up block, 100 mm face brick.
 EW8 denotes exterior wall composed of 12.7 mm gypsum board, rigid insulation (25-50 mm), 200 mm concrete.
- 4) R signifies the mounting of the interior gypsum board on resilient clips.
- 5) An exterior wall conforming to rainscreen design principles and composed of 12.7 mm gypsum board, 100 mm concrete block, rigid insulation (25-50 mm), 25 mm air space, and 100 mm brick veneer has the same AIF as EW6.
- 6) An exterior wall described in EW1 with the addition of rigid insulation (25-50 mm) between the sheathing and the external finish has the same AIF as EW2.

R_i (5A-8A) Living room

TABLE 12: Approximate conversion from STC to AIF for exterior walls:

Exterior wall area expressed as percentage of room floor area	Acoustic Insulation Factor (AIF)
200	STC-10
160	STC-9
125	STC-8
100	STC-7
80	STC-6
63	STC-5
50	STC-4
40	STC-3
32	STC-2
25	STC-1
20	STC
16	STC+1
12.5	STC+2
10	STC+3
8	

Note: For area percentages not listed in the table use the nearest listed value.

Example: For a wall whose area = 120% of room floor area and STC = 48 the AIF is $48 - 8 = 40$.

$$STC = AIF + 7 = 31 + 7 = 38 \text{ dBA}$$

R1 (SA-8A) Living room

TABLE 5: Acoustic Insulation Factor for Various Types of Windows

Window area as a percentage of total floor area of room (1)										Single glazing		Double glazing of indicated glass thickness				Triple Glazing						
										Thickness		2mm and 3mm glass		4mm and 5mm glass		3mm, 3mm and 3mm glass		3mm, 3mm and 6mm glass				
Acoustic Insulation Factor (AIF) (2)										2mm, 6mm		3mm and 4mm glass		4mm glass		5mm glass		6mm glass		Interpane spacing in mm (5)		
										9mm (4)		1.2mm (4)		Interpane spacing in mm (3)		Interpane spacing in mm (3)		Interpane spacing in mm (5)		Interpane spacing in mm (5)		
4	5	6	8	10	13	16	20	25	32	40	50	63	80	2mm	6	2mm and 3mm glass	4mm and 5mm glass	4mm glass	5mm glass	6mm and 6mm glass	3mm, 3mm and 3mm glass	3mm, 3mm and 6mm glass
35	36	37	38	39	40	41	42	43	44	45	46	47	48	3mm	13	3mm and 4mm glass	4mm glass	5mm glass	6mm glass	6mm and 6mm glass	3mm, 3mm and 3mm glass	3mm, 3mm and 6mm glass
39	40	41	42	43	44	45	46	47	48	49	50	51	52	6mm, 6mm	13	6mm and 6mm glass	6mm glass	6mm glass	6mm glass	6mm and 6mm glass	3mm, 3mm and 3mm glass	3mm, 3mm and 6mm glass
53	54	55	56	57	58	59	60	61	62	63	64	65	66	9mm (4)	16	9mm and 9mm glass	9mm glass	9mm glass	9mm glass	9mm and 9mm glass	3mm, 3mm and 3mm glass	3mm, 3mm and 6mm glass
69	70	71	72	73	74	75	76	77	78	79	80	81	82	1.2mm (4)	20	1.2mm and 1.2mm glass	1.2mm glass	1.2mm glass	1.2mm glass	1.2mm and 1.2mm glass	3mm, 3mm and 3mm glass	3mm, 3mm and 6mm glass
85	86	87	88	89	90	91	92	93	94	95	96	97	98		25						3mm, 3mm and 3mm glass	3mm, 3mm and 6mm glass
101	102	103	104	105	106	107	108	109	110	111	112	113	114		32						3mm, 3mm and 3mm glass	3mm, 3mm and 6mm glass
119	120	121	122	123	124	125	126	127	128	129	130	131	132		40						3mm, 3mm and 3mm glass	3mm, 3mm and 6mm glass
137	138	139	140	141	142	143	144	145	146	147	148	149	150		50						3mm, 3mm and 3mm glass	3mm, 3mm and 6mm glass
155	156	157	158	159	160	161	162	163	164	165	166	167	168		63						3mm, 3mm and 3mm glass	3mm, 3mm and 6mm glass
173	174	175	176	177	178	179	180	181	182	183	184	185	186		80						3mm, 3mm and 3mm glass	3mm, 3mm and 6mm glass
191	192	193	194	195	196	197	198	199	200	201	202	203	204		100						3mm, 3mm and 3mm glass	3mm, 3mm and 6mm glass
211	212	213	214	215	216	217	218	219	220	221	222	223	224		125						3mm, 3mm and 3mm glass	3mm, 3mm and 6mm glass
231	232	233	234	235	236	237	238	239	240	241	242	243	244		150						3mm, 3mm and 3mm glass	3mm, 3mm and 6mm glass
251	252	253	254	255	256	257	258	259	260	261	262	263	264		150						3mm, 3mm and 3mm glass	3mm, 3mm and 6mm glass
271	272	273	274	275	276	277	278	279	280	281	282	283	284		125						3mm, 3mm and 3mm glass	3mm, 3mm and 6mm glass
291	292	293	294	295	296	297	298	299	300	301	302	303	304		150						3mm, 3mm and 3mm glass	3mm, 3mm and 6mm glass
311	312	313	314	315	316	317	318	319	320	321	322	323	324		150						3mm, 3mm and 3mm glass	3mm, 3mm and 6mm glass
331	332	333	334	335	336	337	338	339	340	341	342	343	344		125						3mm, 3mm and 3mm glass	3mm, 3mm and 6mm glass
351	352	353	354	355	356	357	358	359	360	361	362	363	364		150						3mm, 3mm and 3mm glass	3mm, 3mm and 6mm glass
371	372	373	374	375	376	377	378	379	380	381	382	383	384		125						3mm, 3mm and 3mm glass	3mm, 3mm and 6mm glass
391	392	393	394	395	396	397	398	399	400	401	402	403	404		150						3mm, 3mm and 3mm glass	3mm, 3mm and 6mm glass
411	412	413	414	415	416	417	418	419	420	421	422	423	424		125						3mm, 3mm and 3mm glass	3mm, 3mm and 6mm glass
431	432	433	434	435	436	437	438	439	440	441	442	443	444		150						3mm, 3mm and 3mm glass	3mm, 3mm and 6mm glass
451	452	453	454	455	456	457	458	459	460	461	462	463	464		125						3mm, 3mm and 3mm glass	3mm, 3mm and 6mm glass
471	472	473	474	475	476	477	478	479	480	481	482	483	484		150						3mm, 3mm and 3mm glass	3mm, 3mm and 6mm glass
491	492	493	494	495	496	497	498	499	500	501	502	503	504		125						3mm, 3mm and 3mm glass	3mm, 3mm and 6mm glass
511	512	513	514	515	516	517	518	519	520	521	522	523	524		150						3mm, 3mm and 3mm glass	3mm, 3mm and 6mm glass
531	532	533	534	535	536	537	538	539	540	541	542	543	544		125						3mm, 3mm and 3mm glass	3mm, 3mm and 6mm glass
551	552	553	554	555	556	557	558	559	560	561	562	563	564		150						3mm, 3mm and 3mm glass	3mm, 3mm and 6mm glass
571	572	573	574	575	576	577	578	579	580	581	582	583	584		125						3mm, 3mm and 3mm glass	3mm, 3mm and 6mm glass
591	592	593	594	595	596	597	598	599	600	601	602	603	604		150						3mm, 3mm and 3mm glass	3mm, 3mm and 6mm glass
611	612	613	614	615	616	617	618	619	620	621	622	623	624		125						3mm, 3mm and 3mm glass	3mm, 3mm and 6mm glass
631	632	633	634	635	636	637	638	639	640	641	642	643	644		150						3mm, 3mm and 3mm glass	3mm, 3mm and 6mm glass
651	652	653	654	655	656	657	658	659	660	661	662	663	664		125						3mm, 3mm and 3mm glass	3mm, 3mm and 6mm glass
671	672	673	674	675	676	677	678	679	680	681	682	683	684		150						3mm, 3mm and 3mm glass	3mm, 3mm and 6mm glass
691	692	693	694	695	696	697	698	699	700	701	702	703	704		125						3mm, 3mm and 3mm glass	3mm, 3mm and 6mm glass
711	712	713	714	715	716	717	718	719	720	721	722	723	724		150						3mm, 3mm and 3mm glass	3mm, 3mm and 6mm glass
731	732	733	734	735	736	737	738	739	740	741	742	743	744		125						3mm, 3mm and 3mm glass	3mm, 3mm and 6mm glass
751	752	753	754	755	756	757	758	759	760	761	762	763	764		150						3mm, 3mm and 3mm glass	3mm, 3mm and 6mm glass
771	772	773	774	775	776	777	778	779	780	781	782	783	784		125						3mm, 3mm and 3mm glass	3mm, 3mm and 6mm glass
791	792	793	794	795	796	797	798	799	800	801	802	803	804		150						3mm, 3mm and 3mm glass	3mm, 3mm and 6mm glass
811	812	813	814	815	816	817	818	819	820	821	822	823	824		125						3mm, 3mm and 3mm glass	3mm, 3mm and 6mm glass
831	832	833	834	835	836	837	838	839	840	841	842	843	844		150						3mm, 3mm and 3mm glass	3mm, 3mm and 6mm glass
851	852	853	854	855	856	857	858	859	860	861	862	863	864		125						3mm, 3mm and 3mm glass	3mm, 3mm and 6mm glass
871	872	873	874	875	876	877	878	879	880	881	882	883	884		150						3mm, 3mm and 3mm glass	3mm, 3mm and 6mm glass
891	892	893	894	895	896	897	898	899	900	901	902	903	904		125						3mm, 3mm and 3mm glass	3mm, 3mm and 6mm glass
911	912	913	914	915	916	917	918	919	920	921	922	923	924		150						3mm, 3mm and 3mm glass	3mm, 3mm and 6mm glass
931	932	933	934	935	936	937	938	939	940	941	942	943	944		125						3mm, 3mm and 3mm glass	3mm, 3mm and 6mm glass
951	952	953	954	955	956	957	958	959	960	961	962	963	964		150						3mm, 3mm and 3mm glass	3mm, 3mm and 6mm glass
971	972	973	974	975	976	977	978	979	980	981	982	983	984		125						3mm, 3mm and 3mm glass	3mm, 3mm and 6mm glass
991	992	993	994	995	996	997	998	999	1000	1001	1002	1003	1004		150						3mm, 3mm and 3mm glass	3mm, 3mm and 6mm glass

Source: National Research Council, Division of Building Research, June 1980.

Explanatory Notes:

- 1) Where the calculated percentage window area is not presented as a column heading, the nearest percentage column in the table values should be used.
- 2) AIF data listed in the table are for well-fitted weatherstripped units that can be opened. The AIF values apply only when the windows are closed. For windows fixed and sealed to the frame, add three (3) to the AIF given in the table.
- 3) If the interpane spacing or glass thickness for a specific double-glazed window is not listed in the table, the nearest listed values should be used.
- 4) The AIF ratings for 9mm and 12mm glass are for laminated glass only; for solid glass subtract two (2) from the AIF values listed in the table.
- 5) If the interpane spacings for a specific triple-glazed window are not listed in the table, use the listed case whose combined spacings are nearest the actual combined spacing.
- 6) The AIF data listed in the table are for typical windows, but details of glass mounting, window seals, etc. may result in slightly different performance for some manufacturers' products. If laboratory sound transmission loss data (conforming to ASTM test method E-90) are available, these should be used to calculate the A.S.F.

R1 (5A-8A) Living room

TABLE 11: Approximate conversion from STC to AIF for windows and doors:

Window (or door) area expressed as percentage of room floor area	Acoustic Insulation Factor (AIF)
80	STC-5
63	STC-4
50	STC-3
40	STC-2
32	STC-1
25	STC
20	STC+1
16	STC+2
12.5	STC+3
10	STC+4
8	STC+5
6.3	STC+6
5	STC+7
4	STC+8

Note: For area percentages not listed in the table use the nearest listed value.

Examples: For a window whose area = 20% of the room floor area and STC = 32 the AIF is $32 + 1 = 33$.

For a window whose area = 60% of the room floor area and STC = 29 the AIF is $29 - 4 = 25$.

$$STC = AIF - 1 = 31 - 1 = 30 \text{ dBA}$$

R₁ (9B-12B) Bedroom

Table 6.3 - Acoustic Insulation Factor for Various Types of Exterior Wall

Percentage of exterior wall area to total floor area of room											Type of Exterior Wall	
	16	20	25	32	40	50	63	80	100	125		160
Acoustic	39	38	37	36	35	34	33	32	31	30	29	EW1
Insulation	41	40	39	38	37	36	35	34	33	32	31	EW2
Factor	44	43	42	41	40	39	38	37	36	35	34	EW3
	47	46	45	44	43	42	41	40	39	38	37	EW4
	48	47	46	45	44	43	42	41	40	39	38	EW1R
	49	48	47	46	45	44	43	42	41	40	39	EW2R
	50	49	48	47	46	45	44	43	42	41	40	EW3R
	55	54	53	52	51	50	49	48	47	46	45	EW5
	56	55	54	53	52	51	50	49	48	47	46	EW4R
	58	57	56	55	54	53	52	51	50	49	48	EW6
	59	58	57	56	55	54	53	52	51	50	49	EW7 or EW5R
	63	62	61	60	59	58	57	56	55	54	53	EW8

Source : National Research Council, Division of Building Research, December 1980.

Explanatory Notes :

- 1) Where the calculated percentage wall area is not presented as a column heading, the nearest percentage column in the table should be used.
- 2) The common structure of walls EW1 to EW5 is composed of 12.7 mm gypsum board, vapour barrier, and 38 x 89 mm studs with 50 mm (or thicker) mineral wool or glass fibre batts in inter-stud cavities.
- 3) EW1 denotes exterior wall as in Note 2), plus sheathing, plus wood siding or metal siding and fibre backer board.
 EW2 denotes exterior wall as in Note 2), plus rigid insulation (25-30 mm), and wood siding or metal siding and fibre backer board.
 EW3 denotes simulated mansard with structure as in Note 2), plus sheathing, 28 x 89 mm framing, sheathing, and asphalt roofing material.
 EW4 denotes exterior wall as in Note 2), plus sheathing and 20 mm stucco.
 EW5 denotes exterior wall as in Note 2), plus sheathing, 25 mm air space, 100 mm brick veneer.
 EW6 denotes exterior wall composed of 12.7 mm gypsum board, rigid insulation (25-50 mm), 100 mm back-up block, 100 mm face brick.
 EW7 denotes exterior wall composed of 12.7 mm gypsum board, rigid insulation (25-50 mm), 140 mm back-up block, 100 mm face brick.
 EW8 denotes exterior wall composed of 12.7 mm gypsum board, rigid insulation (25-50 mm), 200 mm concrete.
- 4) R signifies the mounting of the interior gypsum board on resilient clips.
- 5) An exterior wall conforming to rainscreen design principles and composed of 12.7 mm gypsum board, 100 mm concrete block, rigid insulation (25-50 mm), 25 mm air space, and 100 mm brick veneer has the same AIF as EW6.
- 6) An exterior wall described in EW1 with the addition of rigid insulation (25-50 mm) between the sheathing and the external finish has the same AIF as EW2.

R1 (9B-12B) Bedroom

TABLE 12: Approximate conversion from STC to AIF for exterior walls:

Exterior wall area expressed as percentage of room floor area	Acoustic Insulation Factor (AIF)
200	STC-10
160	STC-9
125	STC-8
100	STC-7
80	STC-6
63	STC-5
50	STC-4
40	STC-3
32	STC-2
25	STC-1
20	STC
16	STC+1
12.5	STC+2
10	STC+3
8	

Note: For area percentages not listed in the table use the nearest listed value.

Example: For a wall whose area = 120% of room floor area and STC = 48 the AIF is $48 - 8 = 40$.

$$STC = AIF + 9 = 29 + 9 = 38 \text{ dBA}$$

R1 (93-128) Bedroom

TABLE 5: Acoustic Insulation Factor for Various Types of Windows

Window area as a percentage of total floor area of room (1)		Acoustic Insulation Factor (AIF) (2)										Single glazing		Double glazing of indicated glass thickness						Triple Glazing																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
												Thickness		2mm and 3mm glass		4mm and 3mm glass		6mm and 6mm glass		3mm, 3mm and 3mm glass		Interpane spacings in mm (5)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
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35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	2mm	6	13	16	20	25	32	40	50	63	80	100	125	150	180	210	240	270	300	330	360	390	420	450	480	510	540	570	600	630	660	690	720	750	780	810	840	870	900	930	960	990	1020	1050	1080	1110	1140	1170	1200	1230	1260	1290	1320	1350	1380	1410	1440	1470	1500	1530	1560	1590	1620	1650	1680	1710	1740	1770	1800	1830	1860	1890	1920	1950	1980	2010	2040	2070	2100	2130	2160	2190	2220	2250	2280	2310	2340	2370	2400	2430	2460	2490	2520	2550	2580	2610	2640	2670	2700	2730	2760	2790	2820	2850	2880	2910	2940	2970	3000	3030	3060	3090	3120	3150	3180	3210	3240	3270	3300	3330	3360	3390	3420	3450	3480	3510	3540	3570	3600	3630	3660	3690	3720	3750	3780	3810	3840	3870	3900	3930	3960	3990	4020	4050	4080	4110	4140	4170	4200	4230	4260	4290	4320	4350	4380	4410	4440	4470	4500	4530	4560	4590	4620	4650	4680	4710	4740	4770	4800	4830	4860	4890	4920	4950	4980	5010	5040	5070	5100	5130	5160	5190	5220	5250	5280	5310	5340	5370	5400	5430	5460	5490	5520	5550	5580	5610	5640	5670	5700	5730	5760	5790	5820	5850	5880	5910	5940	5970	6000	6030	6060	6090	6120	6150	6180	6210	6240	6270	6300	6330	6360	6390	6420	6450	6480	6510	6540	6570	6600	6630	6660	6690	6720	6750	6780	6810	6840	6870	6900	6930	6960	6990	7020	7050	7080	7110	7140	7170	7200	7230	7260	7290	7320	7350	7380	7410	7440	7470	7500	7530	7560	7590	7620	7650	7680	7710	7740	7770	7800	7830	7860	7890	7920	7950	7980	8010	8040	8070	8100	8130	8160	8190	8220	8250	8280	8310	8340	8370	8400	8430	8460	8490	8520	8550	8580	8610	8640	8670	8700	8730	8760	8790	8820	8850	8880	8910	8940	8970	9000	9030	9060	9090	9120	9150	9180	9210	9240	9270	9300	9330	9360	9390	9420	9450	9480	9510	9540	9570	9600	9630	9660	9690	9720	9750	9780	9810	9840	9870	9900	9930	9960	9990	10020	10050	10080	10110	10140	10170	10200	10230	10260	10290	10320	10350	10380	10410	10440	10470	10500	10530	10560	10590	10620	10650	10680	10710	10740	10770	10800	10830	10860	10890	10920	10950	10980	11010	11040	11070	11100	11130	11160	11190	11220	11250	11280	11310	11340	11370	11400	11430	11460	11490	11520	11550	11580	11610	11640	11670	11700	11730	11760	11790	11820	11850	11880	11910	11940	11970	12000	12030	12060	12090	12120	12150	12180	12210	12240	12270	12300	12330	12360	12390	12420	12450	12480	12510	12540	12570	12600	12630	12660	12690	12720	12750	12780	12810	12840	12870	12900	12930	12960	12990	13020	13050	13080	13110	13140	13170	13200	13230	13260	13290	13320	13350	13380	13410	13440	13470	13500	13530	13560	13590	13620	13650	13680	13710	13740	13770	13800	13830	13860	13890	13920	13950	13980	14010	14040	14070	14100	14130	14160	14190	14220	14250	14280	14310	14340	14370	14400	14430	14460	14490	14520	14550	14580	14610	14640	14670	14700	14730	14760	14790	14820	14850	14880	14910	14940	14970	15000	15030	15060	15090	15120	15150	15180	15210	15240	15270	15300	15330	15360	15390	15420	15450	15480	15510	15540	15570	15600	15630	15660	15690	15720	15750	15780	15810	15840	15870	15900	15930	15960	15990	16020	16050	16080	16110	16140	16170	16200	16230	16260	16290	16320	16350	16380	16410	16440	16470	16500	16530	16560	16590	16620	16650	16680	16710	16740	16770	16800	16830	16860	16890	16920	16950	16980	17010	17040	17070	17100	17130	17160	17190	17220	17250	17280	17310	17340	17370	17400	17430	17460	17490	17520	17550	17580	17610	17640	17670	17700	17730	17760	17790	17820	17850	17880	17910	17940	17970	18000	18030	18060	18090	18120	18150	18180	18210	18240	18270	18300	18330	18360	18390	18420	18450	18480	18510	18540	18570	18600	18630	18660	18690	18720	18750	18780	18810	18840	18870	18900	18930	18960	18990	19020	19050	19080	19110	19140	19170	19200	19230	19260	19290	19320	19350	19380	19410	19440	19470	19500	19530	19560	19590	19620	19650	19680	19710	19740	19770	19800	19830	19860	19890	19920	19950	19980	20010	20040	20070	20100	20130	20160	20190	20220	20250	20280	20310	20340	20370	20400	20430	20460	20490	20520	20550	20580	20610	20640	20670	20700	20730	20760	20790	20820	20850	20880	20910	20940	20970	21000	21030	21060	21090	21120	21150	21180	21210	21240	21270	21300	21330	21360	21390	21420	21450	21480	21510	21540	21570	21600	21630	21660	21690	21720	21750	21780	21810	21840	21870	21900	21930	21960	21990	22020	22050	22080	22110	22140	22170	22200	22230	22260	22290	22320	22350	22380	22410	22440	22470	22500	22530	22560	22590	22620	22650	22680	22710	22740	22770	22800	22830	22860	22890	22920	22950	22980	23010	23040	23070	23100	23130	23160	23190	23220	23250	23280	23310	23340	23370	23400	23430	23460	23490	23520	23550	23580	23610	23640	23670	23700	23730	23760	23790	23820	23850	23880	23910	23940	23970	24000	24030	24060	24090	24120	24150	24180	24210	24240	24270	24300	24330	24360	24390	24420	24450	24480	24510	24540	24570	24600	24630	24660	24690	24720	24750	24780	24810	24840	24870	24900	24930	24960	24990	25020	25050	25080	25110	25140	25170	25200	25230	25260	25290	25320	25350	25380	25410	25440	25470	25500	25530	25560	25590	25620	25650	25680	25710	25740	25770	25800	25830	25860	25890	25920	25950	25980	26010	26040	26070	26100	26130	26160	26190	26220	26250	26280	26310	26340	26370	26400	26430	26460	26490	26520	26550	26580	26610	26640	26670	26700	26730	26760	26790	26820	26850	26880	26910	26940	26970	27000	27030	27060	27090	27120	27150	27180	27210	27240	27270	27300	27330	27360	27390	27420	27450	27480	27510	27540	27570	27600	27630	27660	27690	27720	27750	27780	27810	27840	27870	27900	27930	27960	27990	28020	28050	28080	28110	28140	28170	28200	28230	28260	28290	28320	28350	28380	28410	28440	28470	28500	28530	28560	28590	28620	28650	28680	28710	28740	28770	28800	28830	28860	28890	28920	28950	28980	29010	29040	29070	29100	29130	29160	29190	29220	29250	29280	29310	29340	29370	29400	29430	29460	29490	29520	29550	29580	29610	29640	29670	29700	29730	29760	29790	29820	29850	29880	29910	29940	29970	30000

Source: National Research Council, Division of Building Research, June 1980.

Explanatory Notes:

- 1) Where the calculated percentage window area is not presented as a column heading, the nearest percentage column in the table values should be used.
- 2) AIF data listed in the table are for well-fitted weatherstripped units that can be opened. The AIF values apply only when the windows are closed. For windows fixed and sealed to the frame, add three (3) to the AIF given in the table.
- 3) If the interpane spacing or glass thickness for a specific double-glazed window is not listed in the table, the nearest listed values should be used.
- 4) The AIF ratings for 9mm and 12mm glass are for laminated glass only; for solid glass subtract two (2) from the AIF values listed in the table.
- 5) If the interpane spacings for a specific triple-glazed window are not listed in the table, use the listed case whose combined spacings are nearest the actual combined spacing.
- 6) The AIF data listed in the table are for typical windows, but details of glass mounting, window seals, etc., may result in slightly different performance for some manufacturers' products. If laboratory sound transmission loss data (conforming to ASTM test method E-90) are available, these should be used to calculate the AIF.

R₁ (9B-12B) Bedroom

TABLE 11: Approximate conversion from STC to AIF for windows and doors:

Window (or door) area expressed as percentage of room floor area	Acoustic Insulation Factor (AIF)
80	STC-5
63	STC-4
50	STC-3
40	STC-2
32	STC-1
25	STC
20	STC+1
16	STC+2
12.5	STC+3
10	STC+4
8	STC+5
6.3	STC+6
5	STC+7
4	STC+8

Note: For area percentages not listed in the table use the nearest listed value.

Examples: For a window whose area = 20% of the room floor area and STC = 32 the AIF is $32 + 1 = 33$.

For a window whose area = 60% of the room floor area and STC = 29 the AIF is $29 - 4 = 25$.

$$STC = AIF - 3 = 29 - 3 = 26 \text{ dBA}$$

R3 (5A-8A) Bedroom

Table 6.3 - Acoustic Insulation Factor for Various Types of Exterior Wall

Acoustic Insulation Factor	Percentage of exterior wall area to total floor area of room											Type of Exterior Wall	
	16	20	25	32	40	50	63	80	100	125	160		
	39	38	37	36	35	34	33	32	31	30	29	28	EW1
	41	40	39	38	37	36	35	34	33	32	31		EW2
	44	43	42	41	40	39	38	37	36	35	34		EW3
	47	46	45	44	43	42	41	40	39	38	37		EW4
	48	47	46	45	44	43	42	41	40	39	38		EW1R
	49	48	47	46	45	44	43	42	41	40	39		EW2R
	50	49	48	47	46	45	44	43	42	41	40		EW3R
	55	54	53	52	51	50	49	48	47	46	45		EW5
	56	55	54	53	52	51	50	49	48	47	46		EW4R
	58	57	56	55	54	53	52	51	50	49	48		EW6
	59	58	57	56	55	54	53	52	51	50	49		EW7 or EW5R
	63	62	61	60	59	58	57	56	55	54	53		EW8

Source : National Research Council, Division of Building Research, December 1980.

Explanatory Notes :

- 1) Where the calculated percentage wall area is not presented as a column heading, the nearest percentage column in the table should be used.
- 2) The common structure of walls EW1 to EW5 is composed of 12.7 mm gypsum board, vapour barrier, and 38 x 89 mm studs with 50 mm (or thicker) mineral wool or glass fibre batts in inter-stud cavities.
- 3) EW1 denotes exterior wall as in Note 2), plus sheathing, plus wood siding or metal siding and fibre backer board.
 EW2 denotes exterior wall as in Note 2), plus rigid insulation (25-30 mm), and wood siding or metal siding and fibre backer board.
 EW3 denotes simulated mansard with structure as in Note 2), plus sheathing, 28 x 89 mm framing, sheathing, and asphalt roofing material.
 EW4 denotes exterior wall as in Note 2), plus sheathing and 20 mm stucco.
 EW5 denotes exterior wall as in Note 2), plus sheathing, 25 mm air space, 100 mm brick veneer.
 EW6 denotes exterior wall composed of 12.7 mm gypsum board, rigid insulation (25-50 mm), 100 mm back-up block, 100 mm face brick.
 EW7 denotes exterior wall composed of 12.7 mm gypsum board, rigid insulation (25-50 mm), 140 mm back-up block, 100 mm face brick.
 EW8 denotes exterior wall composed of 12.7 mm gypsum board, rigid insulation (25-50 mm), 200 mm concrete.
- 4) R signifies the mounting of the interior gypsum board on resilient clips.
- 5) An exterior wall conforming to rainscreen design principles and composed of 12.7 mm gypsum board, 100 mm concrete block, rigid insulation (25-50 mm), 25 mm air space, and 100 mm brick veneer has the same AIF as EW6.
- 6) An exterior wall described in EW1 with the addition of rigid insulation (25-50 mm) between the sheathing and the external finish has the same AIF as EW2.

R 3. (5A-8A) Bedroom

TABLE 12: Approximate conversion from STC to AIF for exterior walls:

Exterior wall area expressed as percentage of room floor area	Acoustic Insulation Factor (AIF)
200	STC-10
160	STC-9
125	STC-8
100	STC-7
80	STC-6
63	STC-5
50	STC-4
40	STC-3
32	STC-2
25	STC-1
20	STC
16	STC+1
12.5	STC+2
10	STC+3
8	

Note: For area percentages not listed in the table use the nearest listed value.

Example: For a wall whose area = 120% of room floor area and STC = 48 the AIF is $48 - 8 = 40$.

$$STC = AIF + 9 = 28 + 9 = 37 \text{ dBA}$$

R3 (5A-8A) Bedroom

TABLE 5: Acoustic Insulation Factor for Various Types of Windows

Window area as a percentage of total floor area of room (1)										Single glazing		Double glazing of indicated glass thickness						Triple Glazing																																																																																																																																																																																																																																																																																																																																																																																																															
										Thickness		2mm and 2mm glass		3mm and 3mm glass		4mm and 4mm glass		5mm and 5mm glass		3mm, 3mm and 3mm glass																																																																																																																																																																																																																																																																																																																																																																																																													
Acoustic Insulation Factor (AIF) (2)										Thickness		Interpane spacing in mm (3)		Interpane spacing in mm (3)		Interpane spacing in mm (3)		Interpane spacing in mm (3)		Interpane spacing in mm (5)																																																																																																																																																																																																																																																																																																																																																																																																													
20	25	32	40	50	63	80	2mm	6	13	15	6	13	16	20	25	32	40	50	63	80	100	125	150	175	200	225	250	275	300	325	350	375	400	425	450	475	500	525	550	575	600	625	650	675	700	725	750	775	800	825	850	875	900	925	950	975	1000	1025	1050	1075	1100	1125	1150	1175	1200	1225	1250	1275	1300	1325	1350	1375	1400	1425	1450	1475	1500	1525	1550	1575	1600	1625	1650	1675	1700	1725	1750	1775	1800	1825	1850	1875	1900	1925	1950	1975	2000	2025	2050	2075	2100	2125	2150	2175	2200	2225	2250	2275	2300	2325	2350	2375	2400	2425	2450	2475	2500	2525	2550	2575	2600	2625	2650	2675	2700	2725	2750	2775	2800	2825	2850	2875	2900	2925	2950	2975	3000	3025	3050	3075	3100	3125	3150	3175	3200	3225	3250	3275	3300	3325	3350	3375	3400	3425	3450	3475	3500	3525	3550	3575	3600	3625	3650	3675	3700	3725	3750	3775	3800	3825	3850	3875	3900	3925	3950	3975	4000	4025	4050	4075	4100	4125	4150	4175	4200	4225	4250	4275	4300	4325	4350	4375	4400	4425	4450	4475	4500	4525	4550	4575	4600	4625	4650	4675	4700	4725	4750	4775	4800	4825	4850	4875	4900	4925	4950	4975	5000	5025	5050	5075	5100	5125	5150	5175	5200	5225	5250	5275	5300	5325	5350	5375	5400	5425	5450	5475	5500	5525	5550	5575	5600	5625	5650	5675	5700	5725	5750	5775	5800	5825	5850	5875	5900	5925	5950	5975	6000	6025	6050	6075	6100	6125	6150	6175	6200	6225	6250	6275	6300	6325	6350	6375	6400	6425	6450	6475	6500	6525	6550	6575	6600	6625	6650	6675	6700	6725	6750	6775	6800	6825	6850	6875	6900	6925	6950	6975	7000	7025	7050	7075	7100	7125	7150	7175	7200	7225	7250	7275	7300	7325	7350	7375	7400	7425	7450	7475	7500	7525	7550	7575	7600	7625	7650	7675	7700	7725	7750	7775	7800	7825	7850	7875	7900	7925	7950	7975	8000	8025	8050	8075	8100	8125	8150	8175	8200	8225	8250	8275	8300	8325	8350	8375	8400	8425	8450	8475	8500	8525	8550	8575	8600	8625	8650	8675	8700	8725	8750	8775	8800	8825	8850	8875	8900	8925	8950	8975	9000	9025	9050	9075	9100	9125	9150	9175	9200	9225	9250	9275	9300	9325	9350	9375	9400	9425	9450	9475	9500	9525	9550	9575	9600	9625	9650	9675	9700	9725	9750	9775	9800	9825	9850	9875	9900	9925	9950	9975	10000

Source: National Research Council, Division of Building Research, June 1980.

Explanatory Notes:

- 1) Where the calculated percentage window area is not presented as a column heading, the nearest percentage column in the table values should be used.
- 2) AIF data listed in the table are for well-fitted weatherstripped units that can be opened. The AIF values apply only when the windows are closed. For windows fixed and sealed to the frame, add three (3) to the AIF given in the table.
- 3) If the interpane spacing or glass thickness for a specific double-glazed window is not listed in the table, the nearest listed values should be used.
- 4) The AIF ratings for 9mm and 12mm glass are for laminated glass only; for solid glass subtract two (2) from the AIF values listed in the table.
- 5) If the interpane spacings for a specific triple-glazed window are not listed in the table, use the listed case whose combined spacings are nearest the actual combined spacing.
- 6) The AIF data listed in the table are for typical windows, but details of glass mounting, window seals, etc. may result in slightly different performance for some manufacturers' products. If laboratory sound transmission loss data (conforming to ASTM test method E-90) are available, these should be used to calculate the AIF.

R3 (5A-8A) Bedroom

TABLE 11: Approximate conversion from STC to AIF for windows and doors:

Window (or door) area expressed as percentage of room floor area	Acoustic Insulation Factor (AIF)
80	STC-5
63	STC-4
50	STC-3
40	STC-2
32	STC-1
25	STC
20	STC+1
16	STC+2
12.5	STC+3
10	STC+4
8	STC+5
6.3	STC+6
5	STC+7
4	STC+8

Note: For area percentages not listed in the table use the nearest listed value.

Examples: For a window whose area = 20% of the room floor area and STC = 32 the AIF is $32 + 1 = 33$.

For a window whose area = 60% of the room floor area and STC = 29 the AIF is $29 - 4 = 25$.

$$STC = AIF - 1 = 28 - 1 = 27 \text{ dBA}$$

R 3 (5A-8A) Living room

Table 6.3 - Acoustic Insulation Factor for Various Types of Exterior Wall

Percentage of exterior wall area to total floor area of room	16 20 25 32 40 50 63 80 100 125 160											Type of Exterior Wall
	16	20	25	32	40	50	63	80	100	125	160	
Acoustic Insulation Factor	39	38	37	36	35	34	33	32	31	30	29	EW1
	41	40	39	38	37	36	35	34	33	32	31	EW2
	44	43	42	41	40	39	38	37	36	35	34	EW3
	47	46	45	44	43	42	41	40	39	38	37	EW4
	48	47	46	45	44	43	42	41	40	39	38	EW1R
	49	48	47	46	45	44	43	42	41	40	39	EW2R
	50	49	48	47	46	45	44	43	42	41	40	EW3R
	55	54	53	52	51	50	49	48	47	46	45	EW5
	56	55	54	53	52	51	50	49	48	47	46	EW4R
	58	57	56	55	54	53	52	51	50	49	48	EW6
	59	58	57	56	55	54	53	52	51	50	49	EW7 or EW5R
	63	62	61	60	59	58	57	56	55	54	53	EW8

Source : National Research Council, Division of Building Research, December 1980.

Explanatory Notes :

- 1) Where the calculated percentage wall area is not presented as a column heading, the nearest percentage column in the table should be used.
- 2) The common structure of walls EW1 to EW5 is composed of 12.7 mm gypsum board, vapour barrier, and 38 x 89 mm studs with 50 mm (or thicker) mineral wool or glass fibre batts in inter-stud cavities.
- 3) EW1 denotes exterior wall as in Note 2), plus sheathing, plus wood siding or metal siding and fibre backer board.
 EW2 denotes exterior wall as in Note 2), plus rigid insulation (25-30 mm), and wood siding or metal siding and fibre backer board.
 EW3 denotes simulated mansard with structure as in Note 2), plus sheathing, 28 x 89 mm framing, sheathing, and asphalt roofing material.
 EW4 denotes exterior wall as in Note 2), plus sheathing and 20 mm stucco.
 EW5 denotes exterior wall as in Note 2), plus sheathing, 25 mm air space, 100 mm brick veneer.
 EW6 denotes exterior wall composed of 12.7 mm gypsum board, rigid insulation (25-50 mm), 100 mm back-up block, 100 mm face brick.
 EW7 denotes exterior wall composed of 12.7 mm gypsum board, rigid insulation (25-50 mm), 140 mm back-up block, 100 mm face brick.
 EW8 denotes exterior wall composed of 12.7 mm gypsum board, rigid insulation (25-50 mm), 200 mm concrete.
- 4) R signifies the mounting of the interior gypsum board on resilient clips.
- 5) An exterior wall conforming to rainscreen design principles and composed of 12.7 mm gypsum board, 100 mm concrete block, rigid insulation (25-50 mm), 25 mm air space, and 100 mm brick veneer has the same AIF as EW6.
- 6) An exterior wall described in EW1 with the addition of rigid insulation (25-50 mm) between the sheathing and the external finish has the same AIF as EW2.

R3 (5A-8A) Living room

TABLE 12: Approximate conversion from STC to AIF for exterior walls:

Exterior wall area expressed as percentage of room floor area	Acoustic Insulation Factor (AIF)
200	STC-10
160	STC-9
125	STC-8
100	STC-7
80	STC-6
63	STC-5
50	STC-4
40	STC-3
32	STC-2
25	STC-1
20	STC
16	STC+1
12.5	STC+2
10	STC+3
8	

Note: For area percentages not listed in the table use the nearest listed value.

Example: For a wall whose area = 120% of room floor area and STC = 48 the AIF is $48 - 8 = 40$.

$$STC = AIF + 7 = 30 + 7 = 37 \text{ dBA}$$

R3 (5A-8A) Living room

TABLE 5: Acoustic Insulation Factor for Various Types of Windows

Window area as a percentage of total floor area of room (1)										Single glazing		Double glazing of indicated glass thickness						Triple Glazing									
4	5	6	8	10	13	16	20	25	32	40	50	63	80	Thickness		2mm and 2mm glass	3mm and 3mm glass	4mm and 4mm glass	3mm and 6mm glass	6mm and 6mm glass	3mm, 3mm and 3mm glass	3mm, 3mm and 6mm glass					
Acoustic Insulation Factor (AIF) (2)										Thickness		Interpane spacing in mm (3)						Interpane spacings in mm (5)									
35	34	33	32	31	30	29	28	27	26	25	24	23	22	2mm	6	6	6	6	6	6	6	6	6	6,6	6,6		
36	35	34	33	32	31	30	29	28	27	26	25	24	23	3mm	13	13	13	13	13	13	13	13	13	13	13	6,10	6,10
37	35	35	34	33	32	31	30	29	28	27	26	25	24	3mm, 6mm	15	15	15	15	15	15	15	15	15	15	15	6,15	6,15
38	37	36	35	34	33	32	31	30	29	28	27	26	25	9mm (4)	17	17	17	17	17	17	17	17	17	17	17	6,20	6,20
39	38	37	36	35	34	33	32	31	30	29	28	27	26	12mm (4)	22	22	22	22	22	22	22	22	22	22	22	6,30	6,30
40	39	38	37	36	35	34	33	32	31	30	29	28	27		28	28	28	28	28	28	28	28	28	28	28	6,40	6,40
41	40	39	38	37	36	35	34	33	32	31	30	29	28		35	35	35	35	35	35	35	35	35	35	35	6,50	6,50
42	41	40	39	38	37	36	35	34	33	32	31	30	29		42	42	42	42	42	42	42	42	42	42	42	6,65	6,65
43	42	41	40	39	38	37	36	35	34	33	32	31	30		50	50	50	50	50	50	50	50	50	50	50	6,80	6,80
44	43	42	41	40	39	38	37	36	35	34	33	32	31		63	63	63	63	63	63	63	63	63	63	63	6,100	6,100
45	44	43	42	41	40	39	38	37	36	35	34	33	32		80	80	80	80	80	80	80	80	80	80	80	6,50	6,50
46	45	44	43	42	41	40	39	38	37	36	35	34	33		100	100	100	100	100	100	100	100	100	100	100	6,65	6,65
47	46	45	44	43	42	41	40	39	38	37	36	35	34		125	125	125	125	125	125	125	125	125	125	125	6,80	6,80
48	47	46	45	44	43	42	41	40	39	38	37	36	35		150	150	150	150	150	150	150	150	150	150	150	6,100	6,100
49	48	47	46	45	44	43	42	41	40	39	38	37	36		150	150	150	150	150	150	150	150	150	150	150	6,100	6,100
50	49	48	47	46	45	44	43	42	41	40	39	38	37		150	150	150	150	150	150	150	150	150	150	150	6,100	6,100

Source: National Research Council, Division of Building Research, June 1960.

Explanatory Notes:

- 1) Where the calculated percentage window area is not presented as a column heading, the nearest percentage column in the table values should be used.
- 2) AIF data listed in the table are for well-fitted weatherstripped units that can be opened. The AIF values apply only when the windows are closed. For windows fixed and sealed to the frame, add three (3) to the AIF given in the table.
- 3) If the interpane spacing or glass thickness for a specific double-glazed window is not listed in the table, the nearest listed values should be used.
- 4) The AIF ratings for 9mm and 12mm glass are for laminated glass only; for solid glass subtract two (2) from the AIF values listed in the table.
- 5) If the interpane spacings for a specific triple-glazed window are not listed in the table, use the listed case whose combined spacings are nearest the actual combined spacing.
- 6) The AIF data listed in the table are for typical windows, but details of glass mounting, window seals, etc. may result in slightly different performance for some manufacturers' products. If laboratory sound transmission loss data (conforming to ASTM test method E-90) are available, these should be used to calculate the AIF.

R3 (5A-8A) Livingroom

TABLE 11: Approximate conversion from STC to AIF for windows and doors:

Window (or door) area expressed as percentage of room floor area	Acoustic Insulation Factor (AIF)
80	STC-5
63	STC-4
50	STC-3
40	STC-2
32	STC-1
25	STC
20	STC+1
16	STC+2
12.5	STC+3
10	STC+4
8	STC+5
6.3	STC+6
5	STC+7
4	STC+8

Note: For area percentages not listed in the table use the nearest listed value.

Examples: For a window whose area = 20% of the room floor area and STC = 32 the AIF is $32 + 1 = 33$.

For a window whose area = 60% of the room floor area and STC = 29 the AIF is $29 - 4 = 25$.

$$STC = AIF - 1 = 30 - 1 = 29 \text{ dBA}$$

R3 (9B-12B) Bedroom

Table 6.3 - Acoustic Insulation Factor for Various Types of Exterior Wall

Acoustic Insulation Factor	Percentage of exterior wall area to total floor area of room											Type of Exterior Wall	
	16	20	25	32	40	50	63	80	100	125	160		
	39	38	37	36	35	34	33	32	31	30	29	28	EW1
	41	40	39	38	37	36	35	34	33	32	31		EW2
	44	43	42	41	40	39	38	37	36	35	34		EW3
	47	46	45	44	43	42	41	40	39	38	37		EW4
	48	47	46	45	44	43	42	41	40	39	38		EW1R
	49	48	47	46	45	44	43	42	41	40	39		EW2R
	50	49	48	47	46	45	44	43	42	41	40		EW3R
	55	54	53	52	51	50	49	48	47	46	45		EW5
	56	55	54	53	52	51	50	49	48	47	46		EW4R
	58	57	56	55	54	53	52	51	50	49	48		EW6
	59	58	57	56	55	54	53	52	51	50	49		EW7 or EW5R
	63	62	61	60	59	58	57	56	55	54	53		EW8

Source : National Research Council, Division of Building Research, December 1980.

Explanatory Notes :

- 1) Where the calculated percentage wall area is not presented as a column heading, the nearest percentage column in the table should be used.
- 2) The common structure of walls EW1 to EW5 is composed of 12.7 mm gypsum board, vapour barrier, and 38 x 89 mm studs with 50 mm (or thicker) mineral wool or glass fibre batts in inter-stud cavities.
- 3) EW1 denotes exterior wall as in Note 2), plus sheathing, plus wood siding or metal siding and fibre backer board.
 EW2 denotes exterior wall as in Note 2), plus rigid insulation (25-30 mm), and wood siding or metal siding and fibre backer board.
 EW3 denotes simulated mansard with structure as in Note 2), plus sheathing, 28 x 89 mm framing, sheathing, and asphalt roofing material.
 EW4 denotes exterior wall as in Note 2), plus sheathing and 20 mm stucco.
 EW5 denotes exterior wall as in Note 2), plus sheathing, 25 mm air space, 100 mm brick veneer.
 EW6 denotes exterior wall composed of 12.7 mm gypsum board, rigid insulation (25-50 mm), 100 mm back-up block, 100 mm face brick.
 EW7 denotes exterior wall composed of 12.7 mm gypsum board, rigid insulation (25-50 mm), 140 mm back-up block, 100 mm face brick.
 EW8 denotes exterior wall composed of 12.7 mm gypsum board, rigid insulation (25-50 mm), 200 mm concrete.
- 4) R signifies the mounting of the interior gypsum board on resilient clips.
- 5) An exterior wall conforming to rainscreen design principles and composed of 12.7 mm gypsum board, 100 mm concrete block, rigid insulation (25-50 mm), 25 mm air space, and 100 mm brick veneer has the same AIF as EW6.
- 6) An exterior wall described in EW1 with the addition of rigid insulation (25-50 mm) between the sheathing and the external finish has the same AIF as EW2.

R3 (9B-12B) Bedroom

TABLE 12: Approximate conversion from STC to AIF for exterior walls:

Exterior wall area expressed as percentage of room floor area	Acoustic Insulation Factor (AIF)
200	STC-10
160	STC-9
125	STC-8
100	STC-7
80	STC-6
63	STC-5
50	STC-4
40	STC-3
32	STC-2
25	STC-1
20	STC
16	STC+1
12.5	STC+2
10	STC+3
8	

Note: For area percentages not listed in the table use the nearest listed value.

Example: For a wall whose area = 120% of room floor area and STC = 48 the AIF is $48 - 8 = 40$.

$$STC = AIF + 9 = 28 + 9 = 37 \text{ dBA}$$

R3 (9B-12B) Bedroom

TABLE 11: Approximate conversion from STC to AIF for windows and doors:

Window (or door) area expressed as percentage of room floor area	Acoustic Insulation Factor (AIF)
80	STC-5
63	STC-4
50	STC-3
40	STC-2
32	STC-1
25	STC
20	STC+1
16	STC+2
12.5	STC+3
10	STC+4
8	STC+5
6.3	STC+6
5	STC+7
4	STC+8

Note: For area percentages not listed in the table use the nearest listed value.

Examples: For a window whose area = 20% of the room floor area and STC = 32 the AIF is $32 + 1 = 33$.

For a window whose area = 60% of the room floor area and STC = 29 the AIF is $29 - 4 = 25$.

$$STC = AIF - 3 = 28 - 3 = 25 \text{ dBA}$$