JLR No.: 26610-001.1
Revision: 0

May 15, 2018

Minto Communities Inc. Quinn's Pointe Stage 2

Noise Control Feasibility Study

J.L.Richards
ENGINEERS · ARCHITECTS · PLANNERS

Value through service and commitment

Table of Contents

List of Tables

List of Figures

List of Appendices

1.0 INTRODUCTION

Minto Communities Inc. (Minto) has retained the services of J.L. Richards & Associates Limited (JLR) to prepare a Noise Control Feasibility Study for their development known as Quinn's Pointe Stage 2, located in the Barrhaven South Urban Expansion Area (BSUEA), within the City of Ottawa. The legal description of the subject property is Part of Lots 6 and 7, Concession 3 (Rideau Front) Geographic Township of Nepean, City of Ottawa. The purpose of this study is to assess the potential environmental noise impact on the Development, due to vehicular traffic on existing Greenbank Road, Realigned Greenbank Road, Barnsdale Road, Street No. 1 (Extension of Kilbirnie Road), Street No. 2, and Street No. 11 (Extension of River Mist Road). This Noise Control Feasibility Study develops a strategy for subdivision development that minimizes the reliance upon noise barriers, ventilation requirements and air conditioning as a means of addressing roadway noise and instead examines land use, roadway layout and building orientation as a principal means to mitigate roadway noise. Land use and building orientation identified in this study will then be examined in detail as part of the Noise Control Detailed Design Study prepared for the subdivision application.

This report is prepared to satisfy the Ministry of the Environment (MOE) Environmental Noise Guidelines NPC-300 and the City of Ottawa Environmental Noise Control Guidelines (approved by City Council January 2016) and in particular Part 4 Section 3.1 Noise Control Feasibility Study Requirements.

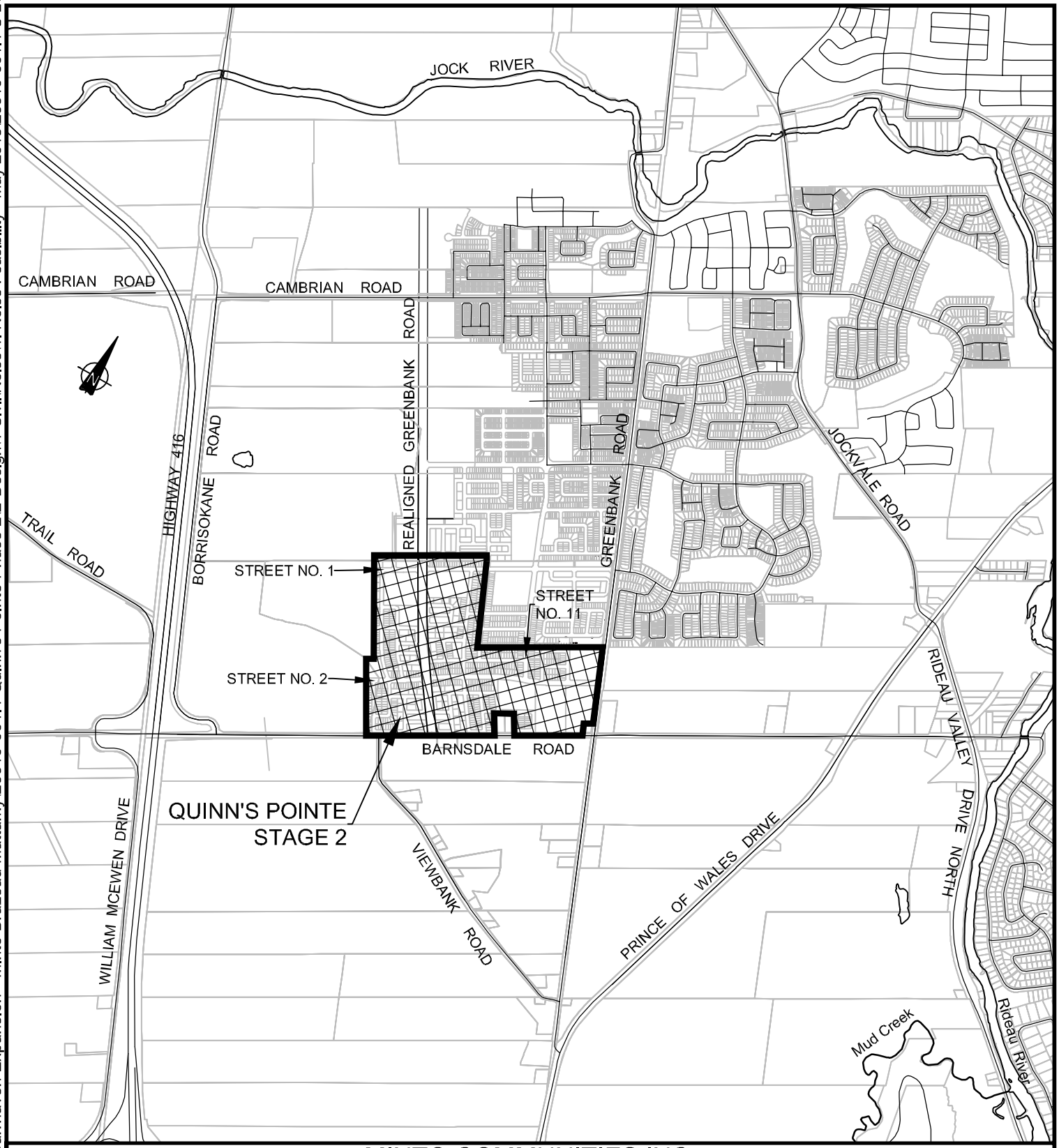
2.0 PROJECT DESCRIPTION

The proposed Quinn's Pointe Stage 2 development is situated on a ±64.5 ha parcel of land that is bounded by existing Greenbank Road to the east and Barnsdale Road as well as the new City of Ottawa (City) urban boundary to the south, as shown on Figure 1 - Location Plan. The subject site is also bounded by the new City urban boundary to the west (approximately 900 m from Borrisokane Road) and by future BSUEA development lands to the north. Minto's existing Quinn's Pointe Stage 1 residential subdivision is also located to the northeast of the subject property.

Minto's proposed Quinn's Pointe Stage 2 development consists of 548 single family dwellings, townhouse blocks, back-to-back townhouse blocks, and a future condo block. Two blocks have been provided for future schools (2.36 ha and 2.55 ha) and three blocks have been provided for park uses (totaling 4.25 ha). The development also consists of 0.32 ha of commercial development and a 2.55 ha future park and ride facility, as shown on the Draft Plan of Subdivision provided in Appendix 'A'. The future realigned Greenbank Road, also bisects the property extending from the northern to the southern property limits.

3.0 TRANSPORTATION NOISE SOURCE

The transportation noise sources include existing Greenbank Road, Realigned Greenbank Road, Barnsdale Road, Street No. 1 (Extension of Kilbirnie Road), Street No. 2, and Street No. 11 (Extension of River Mist Road). Drawing N1 shows the location of the existing and proposed roadways in relation to the proposed development.



PROJECT:

MINTO COMMUNITIES INC.
QUINN'S POINTE STAGE 2
BARRHAVEN SOUTH URBAN EXPANSION AREA

DRAWING:

LOCATION PLAN

J.L.Richards
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DESIGN: LJ	JLR NO: 26610–001.1
DRAWN: TB	DRAWING NO.: FIGURE 1
CHECKED: LJ	

File Location: R:\26000\26610 - Barrhaven Expansion - Minto Brazeau Mattamy\26610-001.1 Quinn's Pointe Phase 2\2-Design\1-Civil\Noise\1. Noise Feasibility - May 2018\26610-001.1 C LOC

3.1 Transportation Sound Level Criteria

For the purpose of determining the predicted noise levels, and based on the sound level criteria established by the City of Ottawa Environmental Noise Control Guidelines (ENCG), the following will be used as the maximum acceptable sound levels (Leq) for residential development and other land uses, such as nursing homes, schools and daycare centres:

Receiver Location	**Criteria**	**Time Period**
Outdoor Living Area:	55 dBA	Daytime (0700 - 2300 hrs.)
Indoor Living/Dining Rooms (inside):	45 dBA	Daytime (0700 - 2300 hrs.)
General Office, Reception Area (inside):	50 dBA	Daytime (0700 - 2300 hrs.)
Sleeping Quarters (inside):	40 dBA	Nighttime (2300 - 0700 hrs.)

Outdoor Living Areas (OLA) are defined as that portion of the outdoor amenity area of a dwelling for the quiet enjoyment of the outdoor environment during the daytime period. Typically, the point of assessment in an OLA is 3.0 m from the building façade mid-point and 1.5 m above the ground within the designated OLA for each individual unit. OLAs commonly include backyards, balconies (with a minimum depth of 4 m as per NPC-300), common outdoor living areas, and passive recreational areas.

3.2 Transportation Noise Attenuation Requirements

When the sound levels are equal to or less than the specified criteria, per the City of Ottawa ENCG and/or MOE NPC-300, no noise attenuation (control) measures are required.

The following tables outline noise attenuation measures to achieve required dBA Leq for surface transportation noise, per the City of Ottawa ENCG.

Table 1: Outdoor Noise Control Measures for Surface Transportation Noise

<table>
<tr><th rowspan="2">Primary Mitigation Measure
(in order of preference)</th><th colspan="2">Secondary Mitigation Measures</th></tr>
<tr><th>Landscape Plantings and/or Non-acoustic Fence to Obscure Noise Source</th><th>Warning Clauses</th></tr>
<tr><td>Distance setback with soft ground</td><td rowspan="2">Recommended</td><td rowspan="2"></td></tr>
<tr><td>Insertion of Noise insensitive land uses between the source and receiver receptor</td></tr>
<tr><td>Orientation of buildings to provide sheltered zones in rear yards</td><td rowspan="4">Required</td><td rowspan="4">Warning Clauses necessary and to include:
- Reference to specific noise mitigation measures in the development.
- Whether noise is expected to increase in the future.
- That there is a need to maintain mitigation.</td></tr>
<tr><td>Shared outdoor amenity areas</td></tr>
<tr><td>Earth berms (sound barriers)</td></tr>
<tr><td>Acoustic barriers (acoustic barriers)</td></tr>
</table>

Table 2: Indoor Noise Control Measures for Surface Transportation Noise

Primary Mitigation Measure (in order of preference)	Secondary Mitigation Measures	
	Landscape Plantings and/or Non-acoustic Fence to Obscure Noise Source	Warning Clauses
Distance setback with soft ground	Recommended	Not necessary
Insertion of Noise insensitive land uses between the source and receiver receptor		
Orientation of buildings to provide sheltered zones or modified interior spaces and amenity areas	Required	Warning Clauses necessary and to include: - Reference to specific noise mitigation measures in the development. - Whether noise is expected to increase in the future. - That there is a need to maintain mitigation.
Enhanced construction techniques and construction quality		
Earth berms (sound barriers)		
Indoor isolation – air conditioning and ventilation, enhanced dampening materials (indoor isolation)		

The following tables outline the noise level limits per the MOE NPC-300 and City of Ottawa ENCG.

Table 3: Outdoor Living Area (OLA) Noise Limit for Surface Transportation

Time Period	Leq (16 hr) (dBA)
16 hr., 07:00 am - 23:00	55

Table 4: Indoor Noise Limit for Surface Transportation

Type of Space	Time Period	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

In addition to the implementation of noise attenuation features, if required, and depending on the severity of the noise problem, warning clauses may be recommended to advise the prospective purchasers/tenants of affected units of the potential environmental noise. These warning clauses should be included in the Site Plan and Subdivision Agreements, in the Offers of Purchase and Sale, and should be registered on Title. Warning clauses may be included for any development, irrespective of whether it is considered a noise sensitive land use.

Where site measures are required to mitigate noise levels, the City of Ottawa requires that notices be placed on Title informing potential buyers and/or tenants of the site conditions. Sample templates of the notices that could be registered on Title are included in Appendix 'B' as presented in the City of Ottawa ENCG.

Detailed wording for clauses should be provided as part of a detailed Noise Impact Study to be completed in support of the Subdivision Application. Clauses are to be worded to describe the mitigation measures and noise conditions applicable where MOE and City of Ottawa noise criteria are exceeded.

3.3 Prediction of Noise Levels (Transportation)

3.3.1 Road Traffic Data

The following traffic data was used to predict noise levels:

Table 5: Road Traffic Data to Predict Noise Levels

	Realigned Greenbank Road	Existing Greenbank Road	Barnsdale Road	Street No. 1 (Extension of Kilbirnie)	Street No. 2	Street No. 11 (Extension of River Mist)
Total Traffic Volume (AADT)	35,000	15,000	15,000	8,000	8,000	8,000
Day/Night Split (%)	92/8	92/8	92/8	92/8	92/8	92/8
Medium Trucks (%)	7	7	7	7	7	7
Heavy Trucks (%)	5	5	5	5	5	5
Posted Speed (km/hr.)	80	60	80	50	50	50
Road Gradient (%)	1	1	1	1	1	1
Road Classification	4-Lane Urban Arterial-Divided (4-UAD)	2-Lane Urban Arterial (2-UAU)	2-Lane Rural Arterial (2-(RAU)	2-Lane Urban Collector (2-UCU)	2-Lane Urban Collector (2-UCU)	2-Lane Urban Collector (2-UCU)

Schedule 'E' and Annex 1 of the City of Ottawa Official Plan (May 2003) were utilized to determine the correct road classification and protected right-of-way. These road classifications were compared to Map 6 of the City of Ottawa Transportation Master Plan (Road Network – Urban). All findings were then compared to Table B1 (Part 4, Appendix 'B') of the City of Ottawa Environmental Noise Control Guidelines in order to determine an appropriate AADT value. For the purposes of this report, the future realigned Greenbank Road is conservatively considered a 4-Lane Urban Divided Arterial with an AADT of 35,000 and a speed limit of 80 km/hr. This was determined using the conceptual alignment from the Greenbank Road Class Environmental Assessment dated July 2014 (as shown on the Draft Plan of Subdivision).

3.3.2 Bus Rapid Transit Corridor Data

Drawing N1 shows the location of the Bus Rapid Transit (BRT) Corridor in relation to the proposed residential development. The BRT shares the same corridor as the proposed Realigned Greenbank Road. The following data was used to predict BRT noise levels:

Table 6: Bus Rapid Transit Corridor Data to Predict Noise Levels

	Bus Rapid Transit Corridor
Total Traffic Volume (AADT)	270
Day/Night Split (%)	74/26
Medium Trucks (%)	100
Heavy Trucks (%)	0
Posted Speed (km/hr)	80
Road Gradient (%)	1

Appendix 'C' includes confirmation from the City specific to the Bus Rapid Transit Corridor, including the speed limit, AADT value and the day/night split.

The computer program Stamson is used to predict noise levels associated with the bus rapid transit corridor.

3.3.3 Noise Level Calculations (Transportation)

Noise contours for the daytime periods were developed using the MOE Road Traffic Noise Computer program STAMSON, Version 5.03. The following procedure was used to establish the contours:

1. Distances were calculated from the centre of the roadway to even 5 dBA freefield noise levels ranging from 50 dBA to 70 dBA for each of the roadways. Table 6 below presents this information. Computer printouts are included in Appendix 'D'. Drawing N1 identifies the receiver locations as contours for the calculations of the roadway freefield noise levels.

2. Additional calculations were conducted to generate freefield noise levels where two roadways intersect to establish the distances along a 45 degree angle from the centre of the intersection. For example, receiver locations were identified along the bisecting angle between Realigned Greenbank Road and Street No. 2. These receiver locations are identified on Drawing N1.

3. These calculations were then compiled to prepare freefield composite noise level contours for each of Realigned Greenbank Road, Existing Greenbank Road, Barnsdale Road, Street No. 1, Street No. 2, and Street No. 11. Drawing N1 presents these contours. For the purpose of this study, only

the daytime freefield noise levels are presented. Computer printouts are included in Appendix 'E' for each of the receivers presented on Drawing N1.

4. The above procedure was used to establish freefield noise levels for the BRT. Receiver locations and contours for the BRT are identified on Figure N2. Computer printouts are included in Appendix 'F'. It is anticipated that noise levels generated from the BRT will be in the range of 50 to 55 dBA. The noise from the BRT (55 dBA) will have minimal effect on the noise generated from Realigned Greenbank Road (71 dBA). The difference between the BRT and Realigned Greenbank Road noise levels is approximately 16 dBA. Using the Nomograph method of adding noise levels together, the noise difference results in an additional 0.1 dBA.

Table 7: Predicted Freefield Noise Levels and Distances from Individual Noise Sources

Roads	Contour (dBA)	OLA (Freefield) Distance (m)
		Daytime
4-UAD (Realigned Greenbank Road) 80 km/hr.	50	462.11
	55	230.98
	60	115.41
	65	57.69
	70	28.82
2-UAU (Existing Greenbank Road) 60 km/hr.	50	196.40
	55	98.12
	60	49.04
	65	24.50
	70	n/a
2-RAU (Barnsdale Road) 80 km/hr.	50	277.39
	55	138.62
	60	69.23
	65	34.63
	70	17.31
2-UCU (Street No. 1, Street No. 2, & Street No. 11) 50 km/hr.	50	108.90
	55	54.43

Roads	Contour (dBA)	OLA (Freefield) Distance (m)
		Daytime
	60	27.20
	65	n/a
	70	n/a
BRT 80 km/hr.	50	46.50
	55	23.23
	60	n/a
	65	n/a
	70	n/a

3.4 Summary of Findings (Transportation

Quinn's Pointe Stage 2 will result in multiple blocks of residential units that will be impacted by roadway traffic noise.

Due to their proximity to the Quinn's Pointe Stage 2 development, Realigned Greenbank Road, Existing Greenbank Road and Barnsdale Road have the highest noise impact on the development. To help mitigate the noise impact of these transportation noise sources, Minto has designed a subdivision layout to include single loaded "window" streets to minimize the number of lots backing onto Realigned Greenbank Road, Existing Greenbank Road and Barnsdale Road. Minto also positioned, where possible, non-sensitive land uses adjacent to the transportation noise sources (i.e., Park & Ride, Schools, SWM Blocks, and Parks). Finally, Minto also orientated the back-to-back stacked units and a condo block to flank on to the transportation noise sources to mitigate the noise for the development and reduce the need for noise barriers. Despite Minto's efforts to passively mitigate the transportation noise, barriers will be required.

Freefield noise levels at the property lines are estimated to be approximately 60-70 dBA as presented on Drawing N1. Noise barriers and berms are projected to be required to mitigate outdoor living area noise levels. As a minimum, a 2.2 m high noise barrier will be required along the rear and side lot lines. In some locations the noise barriers will be 2.5m high. Other locations will require a berm in addition to a 2.5m high noise barrier. Resulting noise levels will be approximately 60 dBA for the outdoor living area. The location of receivers and potential noise barriers, based on freefield noise calculations, are presented on Drawing N3. It is recommended that a Noise Control Detailed Study be completed to review and confirm the height and location of required noise barriers and/or berms.

Setback buffers could be created to reduce or eliminate noise barriers. However, in some locations units flanking arterial roads may have to be eliminated. This is not financially practical.

Warning clauses similar to those presented in Appendix 'B' will be required to highlight the exceedance of MOE and City of Ottawa noise criteria and to identify mitigation measures integrated into the subdivision design. Warning clauses could be required until it can be demonstrated that the noise guideline criteria is not exceeded. It is recommended that specific wording be developed for each unit and/or block in the Noise Control Detailed Study prepared to support the subdivision application.

Predicted mitigated noise levels were calculated based on 2.2m and 2.5m high noise barriers. A 2.2m high noise barrier will not mitigate noise levels below the MOE and City's criteria. It is recommended that a 2.5 m high noise barrier be constructed for R1a (Blocks 569, 570, 594, 627, 628), R2 (Lots 285, 286, 301, 302, 331, 430; Blocks 588, 601, 603), and R3 (Lots 24, 55, 163, 176, 177, 217, 449; Block 565) receiver locations as shown on Drawing N3. To mitigate freefield noise levels to below 60 dBA for receiver R1 (Lots 1, 344, 345, 371, 393; Blocks 577, 581, 610, 613, 620, 629) a barrier/berm combination up to 3.5m (max.) high will be required.

At the time this study was completed, a detailed grading plan was not available. For the purposes of this analysis, JLR used the preliminary elevations provided in the "Realigned Greenbank Road and Southwest Transitway Extension Planning and Environmental Assessment Study" (dated July 2014) and assumed the barrier base to be min. 0.35 m above the noise source. Noise barrier heights and placement should be reviewed and confirmed during the detailed design phase.

The following Table 7 summarizes the predicted freefield daytime noise levels at selected locations and the potential mitigated noise levels resulting from the inclusion of the noise attenuation barriers, as shown on Drawing N2.

Computer printouts are included in Appendix 'G'.

Table 8: Potential Noise Attenuation Due to Barriers

Receiver Location	Daytime Noise Level (dBA) Freefield	Attenuation Leq 16 (dBA) with a 2.2 m High Barrier	Attenuation Leq 16 (dBA) with a 2.5 m High Barrier	Attenuation Leq 16 (dBA) with a 3.5 m High Barrier/Berm Combination	Recommended Height of Barrier/Berm Combination (m)
R1 – Lots 1, 344, 345, 371, 393; Blocks 577, 581, 610, 613, 620, 629	70.58	63.59	62.63	**59.95**	3.5
R1a – Blocks 569, 570, 594, 627, 628	66.89	60.44	**59.58**	n/a	2.5
R2 – Lots 285, 286, 301, 302, 331, 430; Blocks 588, 601, 603	69.50	60.77	**59.76**	n/a	2.5
R3 – Lots 24, 55, 163, 176, 177, 217, 449; Block 565	62.50	**55.12**	54.09	n/a	2.2

Note: At the time this study was completed, a detailed grading plan was not available. Noise barrier details, such as, height and placement will need to be reviewed and confirmed during the detailed design phase

Based on the freefield noise contours, as presented on Drawing N1, the following Lots and Blocks have the potential of requiring a noise barrier:

- 2.2 m High Barrier: Lots 24, 55, 163, 176, 177, 217, 449; Block 565
- 2.5 m High Barrier: Lots 285, 286, 301, 302, 331, 430; Blocks 569, 570, 588, 594, 601, 603, 627, 628
- 3.5 m High Barrier/Berm: Lots 1, 344, 345, 371, 393; Blocks 577, 581, 610, 613, 620, 629.

Based on the freefield noise contours, as presented on Drawing N1, the following Lots and Blocks have the potential of requiring the warning clauses as provided in Appendix 'B'.

Generic:

- Lots 8-284, 287-299, 301, 303-330, 332-336, 353-367, 372, 385, 401-420, 433-548
- Blocks 561-568, 571, 576, 578, 579, 583-587, 595-600, 604-609, 614-619, 623-627.

Extensive Mitigation of Indoor and Outdoor Amenity Area:

- Lots 1-7, 285, 286, 300, 302, 331, 337-352, 368-371, 386-400, 421-432
- Blocks 569, 570, 577, 580-582, 588, 593, 594, 601, 603, 610-613, 620, 628, 629

No Outdoor Amenity Area:

- Blocks 572-575, 589-592, 621, 622

3.5 Summary of Findings (Building Component)

This study provides a high level building component analysis. It is recommended that details concerning building components, be confirmed in a Detailed Building Components Study prepared for building permits.

A Building Components Study is recommended if sound levels exceed the requirements of the MOE NPC-300, Section C7.1.3. JLR completed preliminary analysis of a Minto Single Family home, Executive townhome, a back-to-back townhome, and condos to determine if sufficient acoustical insulation is provided with a 'typical' building construction to mitigate interior noise levels to MOECC and City of Ottawa criteria. The Acoustical Insulation Factor (AIF) Method, as described in the Ministry of the Environment Ontario, Ontario Publication, Environmental Noise Assessment in Land Use Planning, (ENALUP) 1987 (Page 10-29), was used; to assess the building construction required to mitigate exterior noise to meet interior noise criteria. Exterior freefield noise levels at the plane of the windows were calculated individually for each unit type. A freefield noise level, of 71 dBA, was conservatively utilized to determine wall and window construction.

Minto provided floor plan and building elevation drawings, for the 'Jasper', 'Venice', 'Madison', and 'Infusion' units. Floor and elevation drawings are included in Appendix 'H'. These units are considered representative units for a typical Minto development. The 'Jasper' is a single family home which could be expected to be constructed on Lots 1 to 548. The 'Venice' is an executive townhome which could be expected to be constructed on Blocks 561 to 571, 576 to 588, 593 to 601, 603 to 620, and 623 to 629. The 'Madison' is a back-to-back townhome which could be expected to be constructed on 572 to 575, 589 to 592, and 621, 622. The 'Infusion' unit is a Condo model which could be expected to be constructed on Block 630. Using Minto's drawings JLR calculated the window areas, floor areas and wall areas for the each of the rooms within the each of the units. This data was then used to calculate either the window to floor area ratios or the wall to floor area ratios. Design tables provided in ENALUP were then utilized to identify either minimum window construction or wall construction requirements to mitigate the exterior noise levels. Tables 11, 12, 13 and 14 in Appendix 'I' present the working calculations for the window and wall requirements necessary to acoustically insulate each of the principal rooms within each of the representative units. The following table presents a summary of the analysis with the minimum standard window and wall construction required per unit type.

Table 9: Minimum Window and Wall Construction Types

Unit Type	Window Type Glass Thickness (Spacing) Glass Thickness (Spacing) Glass Thickness	Exterior Wall Type	Exterior Door Type
Back-to-Back Townhome (i.e., Madison)	3(6)3(65)3 Triple Pane	EW1 – EW4	-
Executive Townhome (i.e., Venice)	3(6)3(50)3 Triple Pane	EW1 – EW4	-
Single Family Home (i.e., Jasper)	3(6)3(40)3 Triple Pane	EW1 – EW4	-
Condo (i.e., Infusion)	3(6)3(30)3 Triple Pane	EW1 – EW2	D4

For this analysis, the sliding glass door identified on the plans is treated as a window. The acoustic insulation factor methodology does not account for sliding glass doors as a door type. It is noted that no additional doors are identified with a connection to the principal interior rooms such as the living room, bedroom or kitchen area.

A standard wall construction detail with a 38 x 89 mm complete with siding, sheathing, insulation and 12.7 mm gypsum board will provide satisfactory acoustic insulation to achieve indoor noise requirements.

Exterior wall type construction notes:

EW1 – Standard wall construction (noted above), with sheathing, wood or metal siding and fibre backer board.

EW2 – Standard wall construction (noted above), with rigid insulation (25-30 mm), wood or metal siding, and fibre backer board.

EW3 – Standard wall construction (noted above), with sheathing, 28 x 89 mm framing, sheathing and asphalt roofing material.

EW4 – Standard wall construction (noted above), with sheathing and 20 mm stucco.

Minto's standard exterior wall construction is 38 x 148 mm complete with 140 mm fibre insulation, siding, 19 mm sheathing, 12.7 mm gypsum board, and occasionally brick veneer on the exterior lower level wall.

It should be noted that other types of window and wall construction could be chosen to achieve the same minimum noise mitigation. These details will be established during the detailed building component study in consultation with Minto.

Tables A2 and A3 from Canada Mortgage and Housing's (CMHC) publication, Airport Noise, revised 1981 were used to convert AIF values to the more widely recognized Sound Transmission Class (STC) values. Appendix 'J' presents these CMHC tables.

AIF and equivalent STC values are presented on Table 10 for the town unit bedroom with the highest AIF requirement. It is recommended that at the time of building permit application that the AIF/STC be confirmed to suit the specific unit proposed for the Block.

Table 10: AIF Value Conversion to STC Value

Type of Unit	**AIF Required**	**Windows**			**Walls**		
		Window/Floor Area Ratio	**AIF Conversion Formula**	**STC**	**Wall/Floor Area Ratio**	**AIF Conversion Formula**	**STC**
Back-to-Back	38	28%	STC	38	148%	STC – 9	47
Town Unit	38	21%	STC + 1	37	125%	STC – 8	46
Singles	38	29%	STC – 1	39	132%	STC – 8	46
Condo	36	27%	STC	36	43%	STC – 3	39

4.0 CONCLUSION AND RECOMMENDATIONS

Predicted noise levels are expected to exceed the City of Ottawa ENCG and MOE criteria for the proposed units adjacent to Realigned Greenbank Road, Existing Greenbank Road, and Barnsdale Road. To address these exceedances, Minto has revised the subdivision plan to reduce the reliance of noise barriers as the primary noise mitigation tool. Building orientation and increased separation to the transportation noise source have been used to reduce noise levels for residential units in close proximity to a significant transportation noise source. Noise barriers will still be required to protect outdoor living areas. However, the resulting noise levels are expected to be approximate to the criteria established by the City for each of the proposed residential blocks proposed. Preliminary calculations indicate that 2.5 m high noise barriers will satisfactorily mitigate noise levels for the outdoor living areas for each of the residential blocks.

It is recommended that the City of Ottawa accept the draft plan subdivision submitted and include a condition for the proponent to complete a Noise Control Detailed Study as per the City of Ottawa ENCG 2016 for Quinn's Pointe Stage 2 development as well as a Detailed Building Components Study, where required, for building permits.

It is further recommended that the following be addressed as part of the Noise Control Detailed Study:

- Noise barrier details, such as height and location are to be identified for each:
    - 2.2 m High Barrier: Lots 24, 55, 163, 176, 177, 217, 449; Block 565
    - 2.5 m High Barrier: Lots 285, 286, 301, 302, 331, 430; Blocks 569, 570, 588, 594, 601, 603, 627, 628
    - 3.5 m High Barrier/Berm: Lots 1, 344, 345, 371, 393; Blocks 577, 581, 610, 613, 620, 629

- Noise levels should be assessed at the building façade of units nearest the transportation noise sources.

- If it is determined that the noise level at the façade of a building exceeds 60.49 dBA, then the Acoustical Insulation Factor (AIF) method should be utilized to review building acoustic measures to be incorporated into the building construction. This method is described in the Ministry of the Environment of Ontario document, *Environmental Noise Assessment in Land Use Planning*, 1987 and 1999.

This report has been prepared for the exclusive use of Minto Communities Inc., for the stated purpose, for the named facility. Its discussions and conclusions are summary in nature and cannot be properly used, interpreted or extended to other purposes without a detailed understanding and discussions with the client as to its mandated purpose, scope and limitations. This report was prepared for the sole benefit and use of Minto Communities and may not be used or relied on by any other party without the express written consent of J.L. Richards & Associates Limited.

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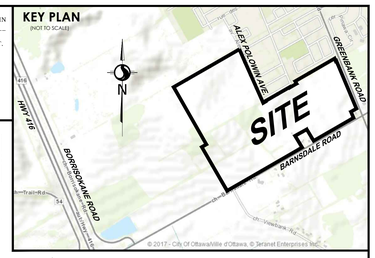
Appendix A

Draft Plan of Subdivision
Demonstration Plan
Conceptual Grading Plan
Freefield Daytime Noise Contours (Roads) – N1
Freefield Daytime Noise Contours (Bus Rapid Transit (BRT) Corridor - N2
Potential Noise Wall Locations – N3

SUBJECT TO THE CONDITIONS, IF ANY, SET FORTH IN OUR LETTER DATED _____ 20____
THIS DRAFT PLAN IS APPROVED BY THE CITY OF OTTAWA UNDER SECTION 51 OF THE PLANNING ACT. THIS ____DAY OF_____2017.

ADAM BROWN
MANAGER, DEVELOPMENT REVIEW- RURAL
PLANNING, INFRASTRUCTURE AND ECONOMIC DEVELOPMENT DEPARTMENT, CITY OF OTTAWA

KEY PLAN
(NOT TO SCALE)



DRAFT PLAN OF SUBDIVISION

PART OF LOTS 6 AND 7
CONCESSION 3 (RIDEAU FRONT)
(GEOGRAPHIC TOWNSHIP OF NEPEAN)
CITY OF OTTAWA

Scale 1:1250
0 10 20 30 40 50 METRES

METRIC CONVERSION
DISTANCES AND COORDINATES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048

INFORMATION: REQUIRED UNDER SECTION 51 (17) OF THE PLANNING ACT R.S.O. 1990

a. SEE PLAN
b. SEE PLAN
c. SEE PLAN
d. SEE PROPOSED LAND USE SCHEDULE (ABOVE)
e. SEE PLAN
f. SEE PLAN
g. SEE PLAN
h. CITY WATER AVAILABLE \ WELL
i. SEE SOIL REPORT
j. SEE TOPOGRAPHICAL INFORMATION
k. ALL CITY SERVICES AVAILABLE
l. NO EASEMENTS REGISTERED ON TITLE \ SUBJECT TO

300m MINERAL RESOURCE INFLUENCE AREA

OWNER'S CERTIFICATE

I HEREBY AUTHORIZE STANTEC GEOMATICS LTD. TO SUBMIT THIS DRAFT PLAN ON MY BEHALF.

MINTO COMMUNITIES INC.

DATED : _____ DATED : _____

SUSAN MURPHY
VICE PRESIDENT
I HAVE THE AUTHORITY
TO BIND THE CORPORATION

BRENT STRACHAN
SENIOR VICE PRESIDENT
I HAVE THE AUTHORITY
TO BIND THE CORPORATION

MINTO GREENFIELD GP INC.

DATED : _____ DATED : _____

SUSAN MURPHY
VICE PRESIDENT
I HAVE THE AUTHORITY
TO BIND THE CORPORATION

BRENT STRACHAN
SENIOR VICE PRESIDENT
I HAVE THE AUTHORITY
TO BIND THE CORPORATION

MINTO GREENFIELD GP INC., as general partner for and on behalf of Greenfield Limited Partnership

DATED : _____ DATED : _____

SUSAN MURPHY
VICE PRESIDENT
I HAVE THE AUTHORITY
TO BIND THE CORPORATION

BRENT STRACHAN
SENIOR VICE PRESIDENT
I HAVE THE AUTHORITY
TO BIND THE CORPORATION

SURVEYOR'S CERTIFICATE

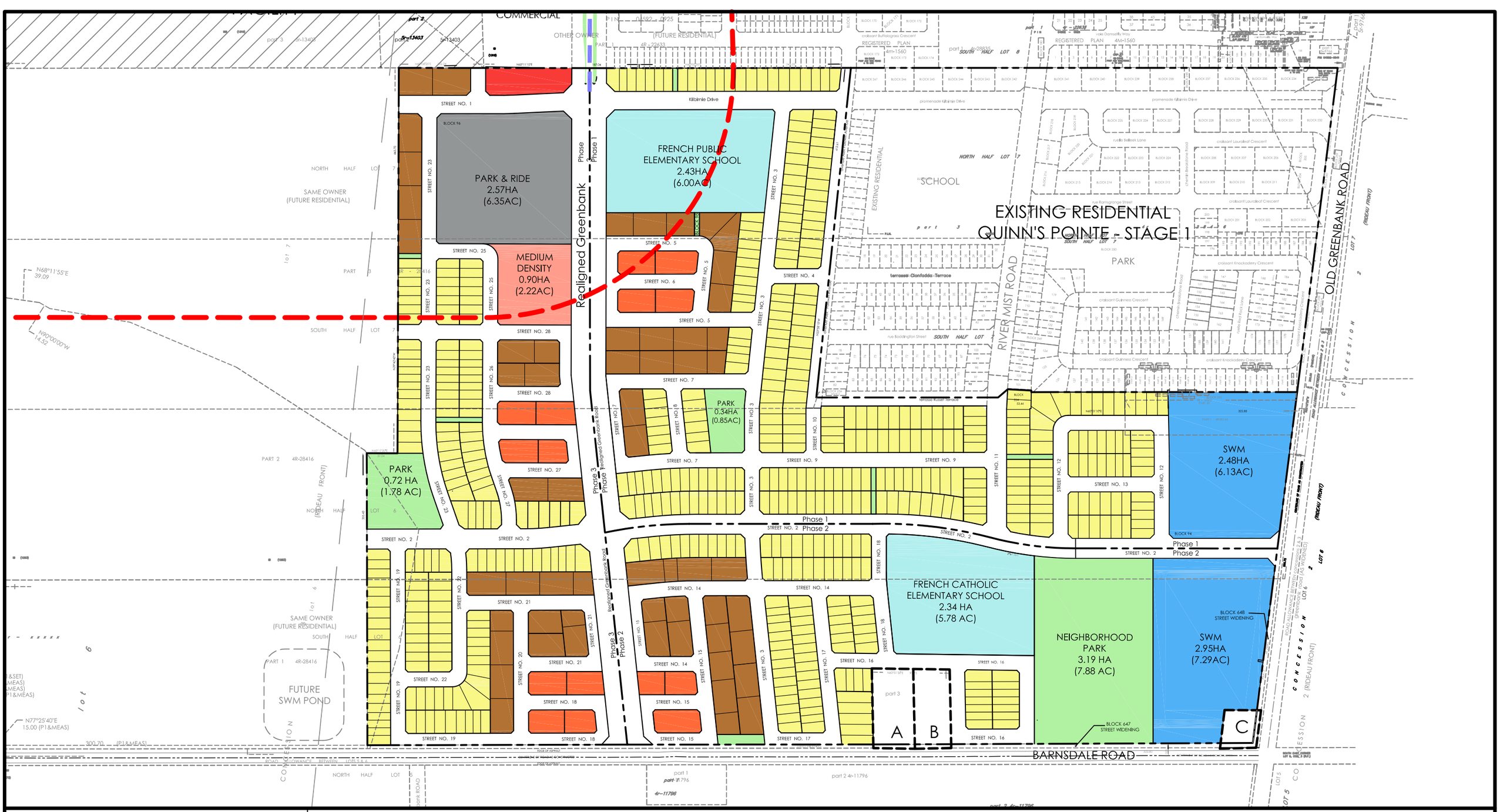
I HEREBY CERTIFY THAT THE BOUNDARIES OF THE SUBJECT LANDS AND THEIR RELATIONSHIP TO ADJOINING LANDS HAVE BEEN ACCURATELY AND CORRECTLY SHOWN.

DATE

BRIAN J. WEBSTER
ONTARIO LAND SURVEYOR

Stantec Geomatics Ltd.
CANADA LANDS SURVEYORS
ONTARIO LAND SURVEYORS
1331 CLYDE AVENUE, SUITE 400
OTTAWA, ONTARIO, K2C 3G4
TEL. 613.722.4420 FAX. 613.722.2799
stantec.com

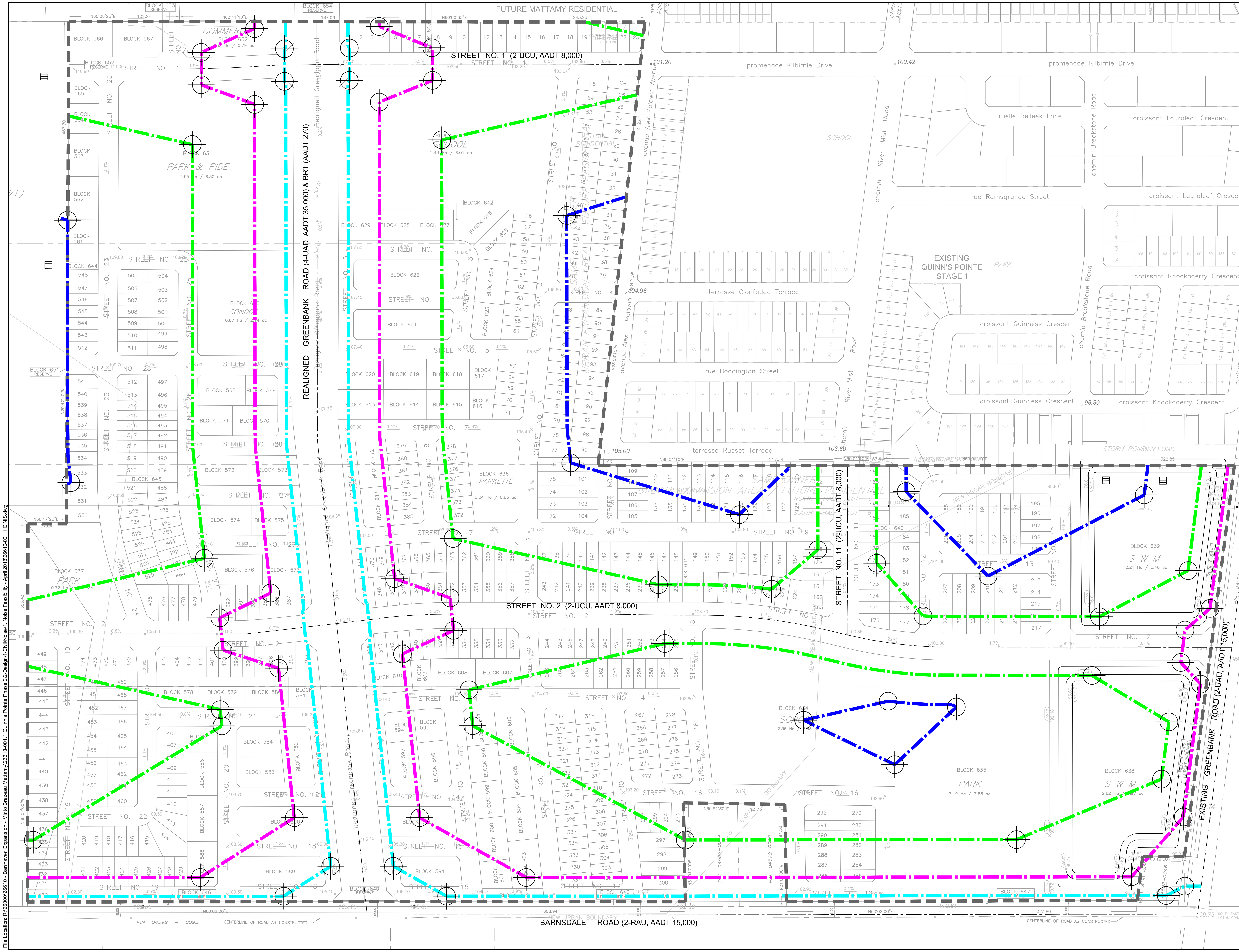
DRAWN: CEC | CHECKED: * | PM: FP | FILED: * | PROJECT No.: 161613795-131



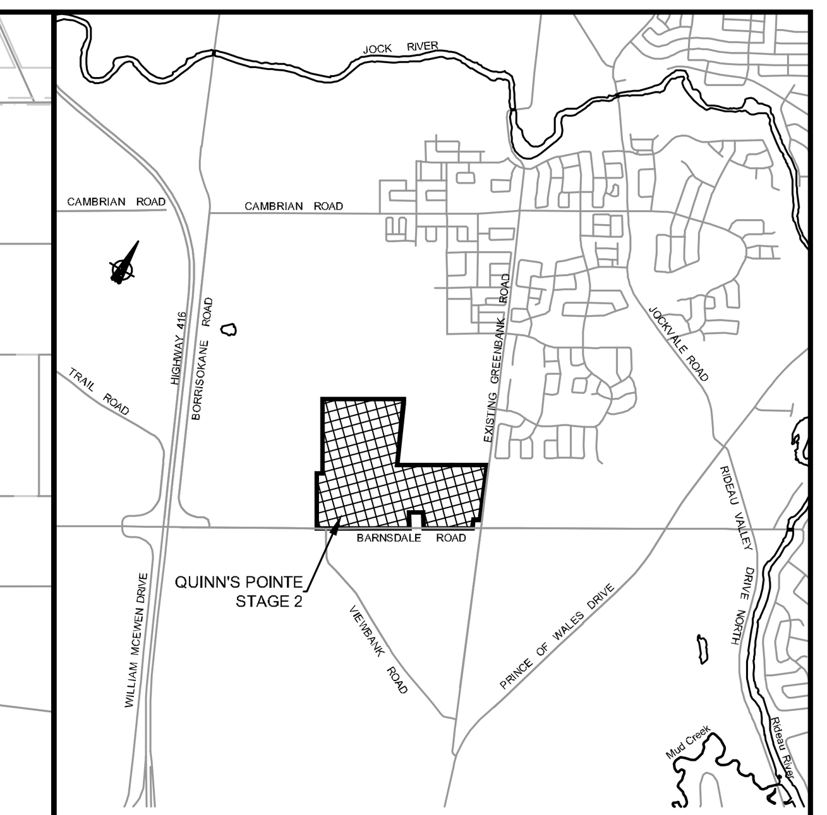
Unit Count	
Singles	556
Executive Towns	297
Avenue Towns	170
Medium Density	80
Total	1103

Quinn's Pointe Stage 2+

April 10, 2018



File Location: R:\26000\26610 - Barrhaven Expansion - Minto Brazeau Mattamy\26610-001.1 Quinn's Pointe Phase 2\2-Design\1-Civil\Noise\1. Noise Feasibility - April 2018\26610-001.1 C NIS.dwg



KEY PLAN

LEGEND

NOISE CONTOURS

- 50 dBA
- 55 dBA
- 60 dBA
- 65 dBA
- 70 dBA
- APPROXIMATE RECEIVER LOCATION REFER TO APPENDIX 'D' & 'E' FOR DETAILED NOISE LEVEL CALCULATIONS.

No.	ISSUE / REVISION	DD/MM/YY
1	ISSUED WITH NOISE CONTROL FEASIBILITY STUDY	14/05/18

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SCALE: 1:1,500

CLIENT:
MINTO COMMUNITIES INC.
200-180 KENT STREET
OTTAWA, ON
K1P 0B6

CONSULTANT: www.jlrichards.ca
J.L.Richards
ENGINEERS · ARCHITECTS · PLANNERS

CONSULTANT:

PROFESSIONAL STAMP

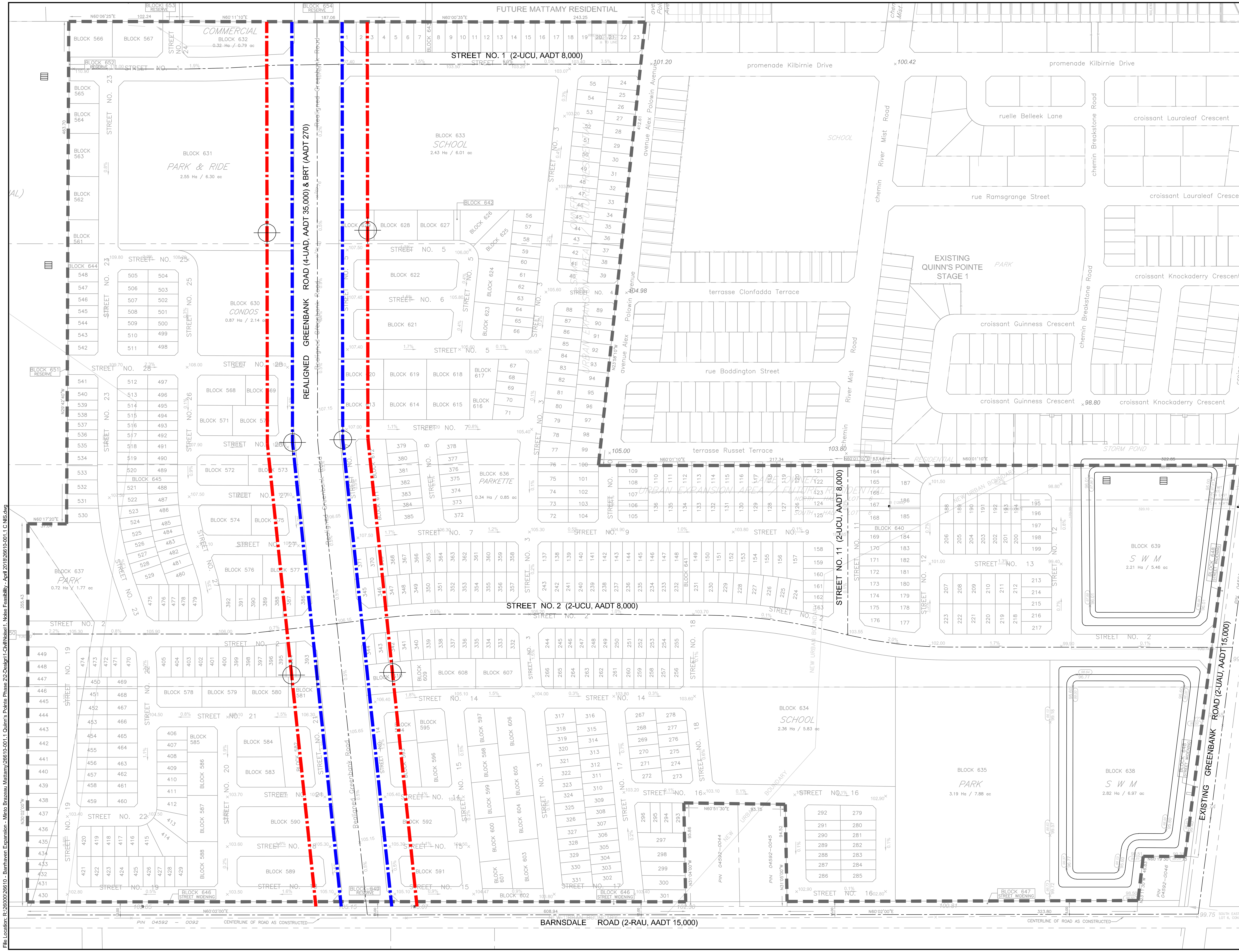
PROJECT NORTH

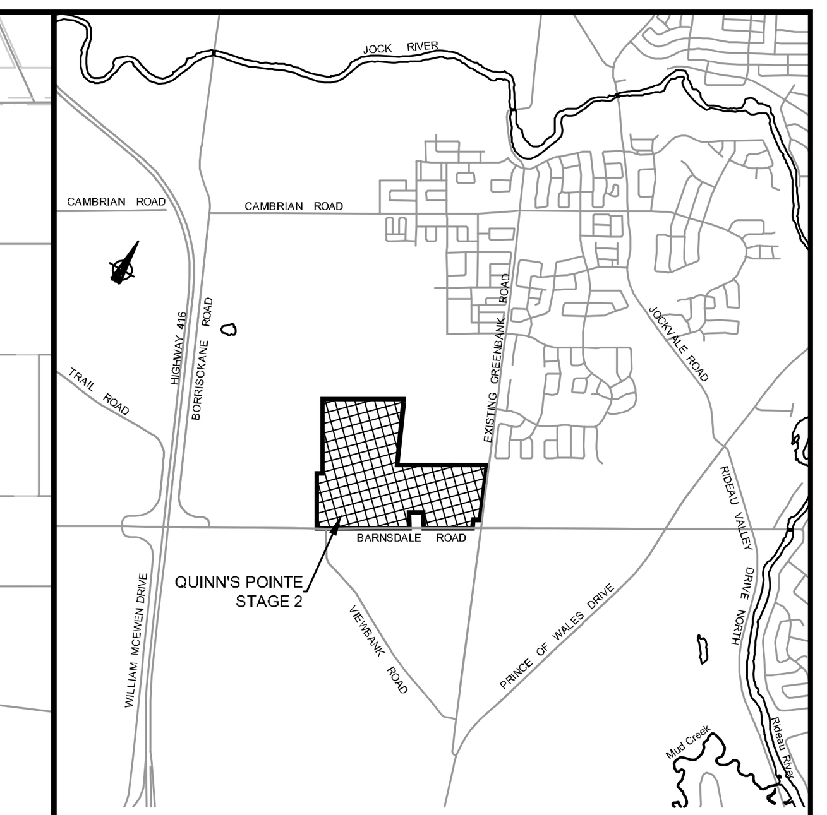
PROJECT:
MINTO COMMUNITIES INC.
QUINN'S POINTE PHASE 2
NOISE CONTROL FEASIBILITY STUDY
BARRHAVEN SOUTH

DRAWING:
FREEFIELD DAYTIME NOISE CONTOURS (ROADS)

DESIGN: LJ/TB
DRAWN: TB
CHECKED: LJ
JLR #: 26610-001.1
DRAWING #: N1

PLOT DATE: May 11, 2018 10:31:51 AM





LEGEND

NOISE CONTOURS

50 dBA

55 dBA

APPROXIMATE RECEIVER LOCATION REFER TO APPENDIX "F" FOR DETAILED NOISE LEVEL CALCULATIONS.

No.	ISSUE / REVISION	DD/MM/YY
1	ISSUED WITH NOISE CONTROL FEASIBILITY STUDY	14/05/18

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SCALE: 1:1,500

CLIENT:
MINTO COMMUNITIES INC.
200-180 KENT STREET
OTTAWA, ON
K1P 0B6

CONSULTANT: www.jlrichards.ca
J.L.Richards ENGINEERS · ARCHITECTS · PLANNERS

CONSULTANT:

PROFESSIONAL STAMP

PROJECT NORTH

PROJECT:
MINTO COMMUNITIES INC.
QUINN'S POINTE PHASE 2
NOISE CONTROL FEASIBILITY STUDY
BARRHAVEN SOUTH

DRAWING:
FREEFIELD DAYTIME NOISE CONTOURS (BRT)

DESIGN: LJ/TB
DRAWN: TB
CHECKED: LJ
JLR #: 26610-001.1

DRAWING #: N2

PLOT DATE: May 11, 2018 10:31:26 AM

File Location: R:\26000\26610 - Barrhaven Expansion - Minto Brazeau Mattamy\26610-001.1 Quinn's Pointe Phase 2\2-Design\1-Civil\Noise\1. Noise Feasibility - April 2018\26610-001.1 C NS.dwg

FUTURE MATTAMY RESIDENTIAL

STREET NO. 1 (2-UCU, AADT 8,000)

REALIGNED GREENBANK ROAD (4-UAD, AADT 35,000) & BRT (AADT 270)

STREET NO. 11 (2-UCU, AADT 8,000)

STREET NO. 2 (2-UCU, AADT 8,000)

BARNSDALE ROAD (2-RAU, AADT 15,000)

EXISTING GREENBANK ROAD (2-UAU, AADT 15,000)

promenade Kilbirnie Drive

terrasse Clonfadda Terrace

rue Boddington Street

terrasse Russet Terrace

ruelle Belleek Lane

croissant Lauraleaf Crescent

croissant Guinness Crescent

croissant Knockaderry Crescent

rue Ramsgrange Street

chemin River Mist Road

chemin Breakstone Road

avenue Alex Polowin Avenue

EXISTING QUINN'S POINTE STAGE 1

BLOCK 631 PARK & PARK 2.55 Ha / 6.30 ac

BLOCK 633 SCHOOL 2.43 Ha / 6.01 ac

BLOCK 634 SCHOOL 2.36 Ha / 5.83 ac

BLOCK 635 PARK 3.19 Ha / 7.88 ac

BLOCK 636 PARKETTE 0.34 Ha / 0.85 ac

BLOCK 637 PARK 0.72 Ha / 1.77 ac

BLOCK 638 S W M 2.82 Ha / 6.97 ac

BLOCK 639 S W M 2.21 Ha / 5.46 ac

BLOCK 630 CONDOS 0.87 Ha / 2.14 ac

BLOCK 632 COMMERCIAL 0.32 Ha / 0.79 ac

R1 — 26.6m

R1a — 44.4m

R2 — 18.6m

R3 — 19.3m

NEW URBAN BOUNDARY

PIN 04592 – 0044

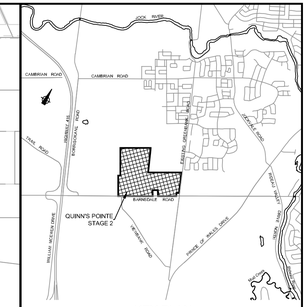
PIN 04592 – 0045

PIN 04592 – 0046

PIN 04592 – 0092

CENTERLINE OF ROAD AS CONSTRUCTED

KEY PLAN



LEGEND

- APPROXIMATE RECEIVER LOCATIONS REFER TO APPENDIX 'G' FOR DETAILED NOISE LEVEL CALCULATIONS.
- POTENTIAL PERMANENT NOISE FENCE (2.2m HIGH)
- POTENTIAL PERMANENT NOISE FENCE (2.5m HIGH)
- POTENTIAL PERMANENT NOISE FENCE/BERM COMBINATION (3.5m HIGH)

No.	ISSUE / REVISION	DD/MM/YY
1	ISSUED WITH NOISE CONTROL FEASIBILITY STUDY	14/05/18

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SCALE: 1:1,500

CLIENT:
MINTO COMMUNITIES INC.
200-180 KENT STREET
OTTAWA, ON
K1P 0B6

CONSULTANT:
J.L.Richards
ENGINEERS · ARCHITECTS · PLANNERS
www.jlrichards.ca

CONSULTANT:

PROFESSIONAL STAMP

PROJECT NORTH

PROJECT:
MINTO COMMUNITIES INC.
QUINN'S POINTE PHASE 2
NOISE CONTROL FEASIBILITY STUDY
BARRHAVEN SOUTH

DRAWING:
POTENTIAL NOISE FENCE LOCATIONS

DESIGN:	LJ/TB
DRAWN:	TB
CHECKED:	LJ
JLR #:	26610-001.1

DRAWING #: N3

File Location: R:\26000\26610 - Barrhaven Expansion - Minto Brazeau Mattamy\26610-001\1 Quinn's Pointe Phase 2\2-Design\1-Civil\Noise\1 - Noise Feasibility - May 2018\26610-001-1 C N15.dwg

PLOT DATE: May 14, 2018 9:18:07 AM

Appendix B

City of Ottawa Surface Transportation Sample Warning Clauses

City of Ottawa Environmental Noise Control Guidelines Sample Warning Clauses

Generic

Purchasers/tenants are advised that sound levels due to increasing road/rail/Light Rail/transitway traffic may occasionally interfere with some outdoor activities as the sound levels may exceed the sound level limits of the City and the Ministry of the Environment.

To help address the need for sound attenuation this development has been designed so as to provide an outdoor amenity area that is within provincial guidelines. Measures for sound attenuation could include:

- A setback of buildings from the noise source and/or
- An acoustic barrier.

To ensure that provincial sound level limits are not exceeded it is important to maintain sound attenuation features.

The acoustic barrier shall be maintained and kept in good repair by the property owner. Any maintenance, repair or replacement is the responsibility of the owner and shall be with the same material or to the same standards, having the same colour, appearance and function of the original.

Additionally this development includes trees and shrubs to screen the source of noise from occupants.

Extensive mitigation of indoor and outdoor amenity area

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/rail/Light Rail/transitway traffic may, on occasion, interfere with some activities of the dwelling occupants as the sound levels exceed the sound level limits of the City and the Ministry of the Environment.

To help address the need for sound attenuation this development includes:

- multi-pane glass;
- double brick veneer;
- an earth berm; and
- an acoustic barrier.

To ensure that provincial sound level limits are not exceeded it is important to maintain these sound attenuation features.

The acoustic barrier shall be maintained and kept in good repair by the property owner. Any maintenance, repair or replacement is the responsibility of the owner and shall be with the same material or to the same standards, having the same colour, appearance and function of the original.

This dwelling unit has also been designed with the provision for adding central air conditioning at the occupant's discretion. Installation of central air conditioning will allow windows and exterior doors to remain closed, thereby ensuring that the indoor sound levels are within the sound level limits of the City and the Ministry of the Environment.

Additionally this development includes trees and shrubs to screen the source of noise from occupants.

No Outdoor amenity area

Purchasers/tenants are advised that sound levels due to increasing road/rail/Light Rail/transitway traffic will interfere with outdoor activities as the sound levels exceed the sound level limits of the City and the Ministry of the Environment.
To help address the need for sound attenuation this development includes:

- multi-pane glass;
- double brick veneer;
- high sound transmission class walls.

To ensure that provincial sound level limits are not exceeded it is important to maintain these sound attenuation features.
This dwelling unit has been supplied with a central air conditioning system and other measures 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 City and the Ministry of the Environment

Appendix C

City of Ottawa Bus Rapid Transit Corridor Data

Thomas Blais

From: Baggs, Rosanna <Rosanna.Baggs@ottawa.ca>
Sent: May 1, 2018 2:07 PM
To: Thomas Blais
Subject: RE: Quinn's Pointe Stage 2 Noise Feasibility - BRT Criteria

Hi Tom,

I confirmed with OC Transpo on the criteria to use for the Re-aligned Greenbank BRT. Please use the following:

- In examining existing transit service in the Barrhaven South community, as well as future development and transit demand, it is estimated future bus volumes along the Transitway are approximately 270 buses per day.
- Use a speed of 80 km/h for the BRT (this was the planned roadway speed in the EA, and 60km/h as it approaches Cambrian) and a day/night split of 74/26 (%).

Please let me know if you have any questions or concerns.

Regards,

Rosanna Baggs, C.E.T.
Project Manager, Infrastructure Approvals | GPRJ Approbation demandes infrastructure
Development Review West Branch | Dir Services d'exam des dem d'amgt
Tel |Tél. : 613-580- 2424 ext. | poste 26388

From: Thomas Blais <tblais@jlrichards.ca>
Sent: Tuesday, April 17, 2018 9:12 AM
To: Baggs, Rosanna <Rosanna.Baggs@ottawa.ca>
Subject: Quinn's Pointe Stage 2 Noise Feasibility

Hi Rosanna,

JLR is preparing the Noise Control Feasibility Study for Minto's Quinn's Pointe Stage 2, located in the Barrhaven South Urban Expansion Area (BSUEA). Attached is a plan to show the road locations. Can you please confirm that the following transportation noise sources as well as the road and BRT data.

	Existing Greenbank Road	Realigned Greenbank Road	Barnsdale Road	Street No. 1 (Extension of Kilbirnie)	Street No. 2	Street No. 11 (Extension of River Mist)
Total Traffic Volume (AADT)	15,000	35,000	12,000	8,000	8,000	8,000
Day/Night Split (%)	92/8	92/8	92/8	92/8	92/8	92/8
Medium Trucks (%)	7	7	7	7	7	7
Heavy Trucks (%)	5	5	5	5	5	5

Posted Speed (km/hr.)	60	80	60	50	50	50
Road Gradient (%)	1	1	1	1	1	1
Road Classification	2-Lane Urban Arterial (2-UAU)	4-Lane Urban Arterial-Divided (4-UAD)	2-Lane Major Collector (2-UMCU)	2-Lane Urban Collector (2-UCU)	2-Lane Urban Collector (2-UCU)	2-Lane Urban Collector (2-UCU)

	Bus Rapid Transit Corridor
Total Traffic Volume (AADT)	258
Day/Night Split (%)	74/26
Medium Trucks (%)	100
Heavy Trucks (%)	0
Posted Speed (km/hr)	80
Road Gradient (%)	1

Please let me know if the City requires any changes to the above data.

Thanks
Tom

Thomas Blais, A.Sc.T.
Geographic Information Systems Technologist

J.L. Richards & Associates Limited
864 Lady Ellen Place, Ottawa, ON K1Z 5M2
Tel: 613-728-3571 Fax: 613-728-6012

'

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'

Appendix D

Transportation Noise Source Predictions

- Detailed Predicted Freefield Noise Level Calculations (Individual Noise Sources)

STAMSON 5.0 NORMAL REPORT Date: 24-04-2018 15:43:41
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: 4uad_70d.te Time Period: Day/Night 16/8 hours
Description: 4-UAD ola freefield 70 dBA

Road data, segment # 1: 4-UAD (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 : 80 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: 4-UAD (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 28.82 / 15.00 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: 4-UAD (day)

Source height = 1.50 m

ROAD (0.00 + 70.00 + 0.00) = 70.00 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.66	76.17	0.00	-4.71	-1.46	0.00	0.00	0.00	70.00

Segment Leq : 70.00 dBA

Total Leq All Segments: 70.00 dBA

Results segment # 1: 4-UAD (night)

Source height = 1.50 m

ROAD (0.00 + 67.27 + 0.00) = 67.27 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.57	68.57	0.00	0.00	-1.30	0.00	0.00	0.00	67.27

Segment Leq : 67.27 dBA

Total Leq All Segments: 67.27 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 70.00
(NIGHT): 67.27

STAMSON 5.0 NORMAL REPORT Date: 24-04-2018 15:42:38
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: 4uad 65d.te Time Period: Day/Night 16/8 hours
Description: 4-UAD ola freefield 65 dBA

Road data, segment # 1: 4-UAD (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 : 80 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: 4-UAD (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)

No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 57.69 / 20.92 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: 4-UAD (day)

Source height = 1.50 m

ROAD (0.00 + 65.00 + 0.00) = 65.00 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.66	76.17	0.00	-9.71	-1.46	0.00	0.00	0.00	65.00

Segment Leq : 65.00 dBA

Total Leq All Segments: 65.00 dBA

Results segment # 1: 4-UAD (night)

Source height = 1.50 m

ROAD (0.00 + 65.00 + 0.00) = 65.00 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.57	68.57	0.00	-2.27	-1.30	0.00	0.00	0.00	65.00

Segment Leq : 65.00 dBA

Total Leq All Segments: 65.00 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 65.00
(NIGHT): 65.00

STAMSON 5.0 NORMAL REPORT Date: 24-04-2018 15:41:12
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: 4uad 60d.te Time Period: Day/Night 16/8 hours
Description: 4-UAD ola freefield 60 dBA

Road data, segment # 1: 4-UAD (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 : 80 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: 4-UAD (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 115.41 / 43.54 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: 4-UAD (day)

Source height = 1.50 m

ROAD (0.00 + 60.00 + 0.00) = 60.00 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.66	76.17	0.00	-14.71	-1.46	0.00	0.00	0.00	60.00

Segment Leq : 60.00 dBA

Total Leq All Segments: 60.00 dBA

Results segment # 1: 4-UAD (night)

Source height = 1.50 m

ROAD (0.00 + 60.00 + 0.00) = 60.00 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.57	68.57	0.00	-7.27	-1.30	0.00	0.00	0.00	60.00

Segment Leq : 60.00 dBA

Total Leq All Segments: 60.00 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 60.00
(NIGHT): 60.00

STAMSON 5.0 NORMAL REPORT Date: 24-04-2018 15:40:09
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: 4uad_55d.te Time Period: Day/Night 16/8 hours
Description: 4-UAD ola freefield 55 dBA

Road data, segment # 1: 4-UAD (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 : 80 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: 4-UAD (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg

Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 230.98 / 90.66 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: 4-UAD (day)

Source height = 1.50 m

ROAD (0.00 + 55.00 + 0.00) = 55.00 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.66	76.17	0.00	-19.71	-1.46	0.00	0.00	0.00	55.00

Segment Leq : 55.00 dBA

Total Leq All Segments: 55.00 dBA

Results segment # 1: 4-UAD (night)

Source height = 1.50 m

ROAD (0.00 + 55.00 + 0.00) = 55.00 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.57	68.57	0.00	-12.27	-1.30	0.00	0.00	0.00	55.00

Segment Leq : 55.00 dBA

Total Leq All Segments: 55.00 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 55.00
(NIGHT): 55.00

STAMSON 5.0 NORMAL REPORT Date: 24-04-2018 15:39:23
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: 4uad 50d.te Time Period: Day/Night 16/8 hours
Description: 4-UAD ola freefield 50 dBA

Road data, segment # 1: 4-UAD (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 : 80 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: 4-UAD (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 462.11 / 188.82 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: 4-UAD (day)

Source height = 1.50 m

ROAD (0.00 + 50.00 + 0.00) = 50.00 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.66	76.17	0.00	-24.71	-1.46	0.00	0.00	0.00	50.00

Segment Leq : 50.00 dBA

Total Leq All Segments: 50.00 dBA

Results segment # 1: 4-UAD (night)

Source height = 1.50 m

ROAD (0.00 + 50.00 + 0.00) = 50.00 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.57	68.57	0.00	-17.27	-1.30	0.00	0.00	0.00	50.00

Segment Leq : 50.00 dBA

Total Leq All Segments: 50.00 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 50.00
(NIGHT): 50.00

STAMSON 5.0 NORMAL REPORT Date: 24-04-2018 15:58:29
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: 2uau_65d.te Time Period: Day/Night 16/8 hours
Description: 2-UAU ola freefield 65 dba

Road data, segment # 1: 2-UAU (day/night)

Car traffic volume : 12144/1056 veh/TimePeriod *
Medium truck volume : 966/84 veh/TimePeriod *
Heavy truck volume : 690/60 veh/TimePeriod *
Posted speed limit : 60 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): 15000
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: 2-UAU (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg

Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 24.50 / 15.00 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: 2-UAU (day)

Source height = 1.50 m

ROAD (0.00 + 65.00 + 0.00) = 65.00 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.66	70.00	0.00	-3.54	-1.46	0.00	0.00	0.00	65.00

Segment Leq : 65.00 dBA

Total Leq All Segments: 65.00 dBA

Results segment # 1: 2-UAU (night)

Source height = 1.50 m

ROAD (0.00 + 61.10 + 0.00) = 61.10 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.57	62.40	0.00	0.00	-1.30	0.00	0.00	0.00	61.10

Segment Leq : 61.10 dBA

Total Leq All Segments: 61.10 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 65.00
(NIGHT): 61.10

STAMSON 5.0 NORMAL REPORT Date: 24-04-2018 16:00:12
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: 2uau 60d.te Time Period: Day/Night 16/8 hours
Description: 2-UAU ola freefield 60 dba

Road data, segment # 1: 2-UAU (day/night)

Car traffic volume : 12144/1056 veh/TimePeriod *
Medium truck volume : 966/84 veh/TimePeriod *
Heavy truck volume : 690/60 veh/TimePeriod *
Posted speed limit : 60 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): 15000
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: 2-UAU (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 49.04 / 17.62 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: 2-UAU (day)

Source height = 1.50 m

ROAD (0.00 + 60.00 + 0.00) = 60.00 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.66	70.00	0.00	-8.54	-1.46	0.00	0.00	0.00	60.00

Segment Leq : 60.00 dBA

Total Leq All Segments: 60.00 dBA

Results segment # 1: 2-UAU (night)

Source height = 1.50 m

ROAD (0.00 + 60.00 + 0.00) = 60.00 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.57	62.40	0.00	-1.10	-1.30	0.00	0.00	0.00	60.00

Segment Leq : 60.00 dBA

Total Leq All Segments: 60.00 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 60.00
(NIGHT): 60.00

STAMSON 5.0 NORMAL REPORT Date: 24-04-2018 16:01:55
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: 2uau_55d.te Time Period: Day/Night 16/8 hours
Description: 2-UAU ola freefield 55 dba

Road data, segment # 1: 2-UAU (day/night)

Car traffic volume : 12144/1056 veh/TimePeriod *
Medium truck volume : 966/84 veh/TimePeriod *
Heavy truck volume : 690/60 veh/TimePeriod *
Posted speed limit : 60 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): 15000
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: 2-UAU (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 98.12 / 36.67 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: 2-UAU (day)

Source height = 1.50 m

ROAD (0.00 + 55.00 + 0.00) = 55.00 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.66	70.00	0.00	-13.54	-1.46	0.00	0.00	0.00	55.00

Segment Leq : 55.00 dBA

Total Leq All Segments: 55.00 dBA

Results segment # 1: 2-UAU (night)

Source height = 1.50 m

ROAD (0.00 + 55.00 + 0.00) = 55.00 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.57	62.40	0.00	-6.10	-1.30	0.00	0.00	0.00	55.00

Segment Leq : 55.00 dBA

Total Leq All Segments: 55.00 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 55.00
(NIGHT): 55.00

STAMSON 5.0 NORMAL REPORT Date: 24-04-2018 16:05:09
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: 2uau_50d.te Time Period: Day/Night 16/8 hours
Description: 2-UAU ola freefield 50 dba

Road data, segment # 1: 2-UAU (day/night)

Car traffic volume : 12144/1056 veh/TimePeriod *
Medium truck volume : 966/84 veh/TimePeriod *
Heavy truck volume : 690/60 veh/TimePeriod *
Posted speed limit : 60 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): 15000
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: 2-UAU (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 196.40 / 76.34 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: 2-UAU (day)

Source height = 1.50 m

ROAD (0.00 + 50.00 + 0.00) = 50.00 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.66	70.00	0.00	-18.54	-1.46	0.00	0.00	0.00	50.00

Segment Leq : 50.00 dBA

Total Leq All Segments: 50.00 dBA

Results segment # 1: 2-UAU (night)

Source height = 1.50 m

ROAD (0.00 + 50.00 + 0.00) = 50.00 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.57	62.40	0.00	-11.10	-1.30	0.00	0.00	0.00	50.00

Segment Leq : 50.00 dBA

Total Leq All Segments: 50.00 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 50.00
(NIGHT): 50.00

STAMSON 5.0 NORMAL REPORT Date: 03-05-2018 07:34:00
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: 2rau70d.te Time Period: Day/Night 16/8 hours
Description: 2-RAU ola freefield 70 dba

Road data, segment # 1: 2-RAU (day/night)

Car traffic volume : 12144/1056 veh/TimePeriod *
Medium truck volume : 966/84 veh/TimePeriod *
Heavy truck volume : 690/60 veh/TimePeriod *
Posted speed limit : 80 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): 15000
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: 2-RAU (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 17.31 / 15.00 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: 2-RAU (day)

Source height = 1.50 m

ROAD (0.00 + 70.00 + 0.00) = 70.00 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.66	72.49	0.00	-1.03	-1.46	0.00	0.00	0.00	70.00

Segment Leq : 70.00 dBA

Total Leq All Segments: 70.00 dBA

Results segment # 1: 2-RAU (night)

Source height = 1.50 m

ROAD (0.00 + 63.59 + 0.00) = 63.59 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.57	64.89	0.00	0.00	-1.30	0.00	0.00	0.00	63.59

Segment Leq : 63.59 dBA

Total Leq All Segments: 63.59 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 70.00
(NIGHT): 63.59

STAMSON 5.0 NORMAL REPORT Date: 03-05-2018 07:40:29
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: 2rau65d.te Time Period: Day/Night 16/8 hours
Description: 2-RAU ola freefield 65 dba

Road data, segment # 1: 2-RAU (day/night)

Car traffic volume : 12144/1056 veh/TimePeriod *
Medium truck volume : 966/84 veh/TimePeriod *
Heavy truck volume : 690/60 veh/TimePeriod *
Posted speed limit : 80 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): 15000
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: 2-RAU (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 34.63 / 15.00 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: 2-RAU (day)

Source height = 1.50 m

ROAD (0.00 + 65.00 + 0.00) = 65.00 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.66	72.49	0.00	-6.03	-1.46	0.00	0.00	0.00	65.00

Segment Leq : 65.00 dBA

Total Leq All Segments: 65.00 dBA

Results segment # 1: 2-RAU (night)

Source height = 1.50 m

ROAD (0.00 + 63.59 + 0.00) = 63.59 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.57	64.89	0.00	0.00	-1.30	0.00	0.00	0.00	63.59

Segment Leq : 63.59 dBA

Total Leq All Segments: 63.59 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 65.00
(NIGHT): 63.59

STAMSON 5.0 NORMAL REPORT Date: 03-05-2018 07:41:44
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: 2rau60d.te Time Period: Day/Night 16/8 hours
Description: 2-RAU ola freefield 60 dba

Road data, segment # 1: 2-RAU (day/night)

Car traffic volume : 12144/1056 veh/TimePeriod *
Medium truck volume : 966/84 veh/TimePeriod *
Heavy truck volume : 690/60 veh/TimePeriod *
Posted speed limit : 80 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): 15000
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: 2-RAU (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 69.23 / 25.39 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: 2-RAU (day)

Source height = 1.50 m

ROAD (0.00 + 60.00 + 0.00) = 60.00 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.66	72.49	0.00	-11.03	-1.46	0.00	0.00	0.00	60.00

Segment Leq : 60.00 dBA

Total Leq All Segments: 60.00 dBA

Results segment # 1: 2-RAU (night)

Source height = 1.50 m

ROAD (0.00 + 60.00 + 0.00) = 60.00 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.57	64.89	0.00	-3.59	-1.30	0.00	0.00	0.00	60.00

Segment Leq : 60.00 dBA

Total Leq All Segments: 60.00 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 60.00
(NIGHT): 60.00

STAMSON 5.0 NORMAL REPORT Date: 03-05-2018 07:42:36
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: 2rau55d.te Time Period: Day/Night 16/8 hours
Description: 2-RAU ola freefield 55 dba

Road data, segment # 1: 2-RAU (day/night)

Car traffic volume : 12144/1056 veh/TimePeriod *
Medium truck volume : 966/84 veh/TimePeriod *
Heavy truck volume : 690/60 veh/TimePeriod *
Posted speed limit : 80 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): 15000
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: 2-RAU (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 138.62 / 52.83 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: 2-RAU (day)

Source height = 1.50 m

ROAD (0.00 + 55.00 + 0.00) = 55.00 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.66	72.49	0.00	-16.03	-1.46	0.00	0.00	0.00	55.00

Segment Leq : 55.00 dBA

Total Leq All Segments: 55.00 dBA

Results segment # 1: 2-RAU (night)

Source height = 1.50 m

ROAD (0.00 + 55.00 + 0.00) = 55.00 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.57	64.89	0.00	-8.59	-1.30	0.00	0.00	0.00	55.00

Segment Leq : 55.00 dBA

Total Leq All Segments: 55.00 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 55.00
(NIGHT): 55.00

STAMSON 5.0 NORMAL REPORT Date: 03-05-2018 07:43:42
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: 2rau50d.te Time Period: Day/Night 16/8 hours
Description: 2-RAU ola freefield 50 dba

Road data, segment # 1: 2-RAU (day/night)

Car traffic volume : 12144/1056 veh/TimePeriod *
Medium truck volume : 966/84 veh/TimePeriod *
Heavy truck volume : 690/60 veh/TimePeriod *
Posted speed limit : 80 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): 15000
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: 2-RAU (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 277.39 / 109.96 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: 2-RAU (day)

Source height = 1.50 m

ROAD (0.00 + 50.00 + 0.00) = 50.00 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.66	72.49	0.00	-21.03	-1.46	0.00	0.00	0.00	50.00

Segment Leq : 50.00 dBA

Total Leq All Segments: 50.00 dBA

Results segment # 1: 2-RAU (night)

Source height = 1.50 m

ROAD (0.00 + 50.00 + 0.00) = 50.00 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.57	64.89	0.00	-13.58	-1.30	0.00	0.00	0.00	50.00

Segment Leq : 50.00 dBA

Total Leq All Segments: 50.00 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 50.00
(NIGHT): 50.00

STAMSON 5.0 NORMAL REPORT Date: 25-04-2018 09:04:54
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: 2ucu60d.te Time Period: Day/Night 16/8 hours
Description: 2-UCU ola freefield 60 dba

Road data, segment # 1: 2-ucu (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 # 1: 2-ucu (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 27.20 / 15.00 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: 2-ucu (day)

Source height = 1.50 m

ROAD (0.00 + 60.00 + 0.00) = 60.00 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.66	65.75	0.00	-4.29	-1.46	0.00	0.00	0.00	60.00

Segment Leq : 60.00 dBA

Total Leq All Segments: 60.00 dBA

Results segment # 1: 2-ucu (night)

Source height = 1.50 m

ROAD (0.00 + 56.85 + 0.00) = 56.85 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.57	58.16	0.00	0.00	-1.30	0.00	0.00	0.00	56.85

Segment Leq : 56.85 dBA

Total Leq All Segments: 56.85 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 60.00
(NIGHT): 56.85

STAMSON 5.0 NORMAL REPORT Date: 25-04-2018 09:05:52
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: 2ucu55d.te Time Period: Day/Night 16/8 hours
Description: 2-UCU ola freefield 55 dba

Road data, segment # 1: 2-ucu (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 # 1: 2-ucu (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 54.43 / 19.68 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: 2-ucu (day)

Source height = 1.50 m

ROAD (0.00 + 55.00 + 0.00) = 55.00 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.66	65.75	0.00	-9.29	-1.46	0.00	0.00	0.00	55.00

Segment Leq : 55.00 dBA

Total Leq All Segments: 55.00 dBA

Results segment # 1: 2-ucu (night)

Source height = 1.50 m

ROAD (0.00 + 55.00 + 0.00) = 55.00 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.57	58.16	0.00	-1.85	-1.30	0.00	0.00	0.00	55.00

Segment Leq : 55.00 dBA

Total Leq All Segments: 55.00 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 55.00
(NIGHT): 55.00

STAMSON 5.0 NORMAL REPORT Date: 25-04-2018 09:06:58
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: 2ucu50d.te Time Period: Day/Night 16/8 hours
Description: 2-UCU ola freefield 50 dba

Road data, segment # 1: 2-ucu (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 # 1: 2-ucu (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 108.90 / 40.99 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: 2-ucu (day)

Source height = 1.50 m

ROAD (0.00 + 50.00 + 0.00) = 50.00 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.66	65.75	0.00	-14.29	-1.46	0.00	0.00	0.00	50.00

Segment Leq : 50.00 dBA

Total Leq All Segments: 50.00 dBA

Results segment # 1: 2-ucu (night)

Source height = 1.50 m

ROAD (0.00 + 50.00 + 0.00) = 50.00 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.57	58.16	0.00	-6.86	-1.30	0.00	0.00	0.00	50.00

Segment Leq : 50.00 dBA

Total Leq All Segments: 50.00 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 50.00
(NIGHT): 50.00

Appendix E

Transportation Noise Source Predictions

- Detailed Predicted Freefield Noise Level Calculations (Combined Road Noise Sources)

STAMSON 5.0 NORMAL REPORT Date: 02-05-2018 09:48:51
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: ucucu60.te Time Period: Day/Night 16/8 hours
Description: 2-UCU & 2-UCU ola freefield composite 60 dba

Road data, segment # 1: 2-ucu (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 # 1: 2-ucu (day/night)

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 27.20 / 27.20 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

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

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 70.00 / 70.00 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: 2-ucu (day)

Source height = 1.50 m

ROAD (0.00 + 59.17 + 0.00) = 59.17 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	65.75	0.00	-4.29	-2.29	0.00	0.00	0.00	59.17

Segment Leq : 59.17 dBA

Results segment # 2: 2-ucu (day)

Source height = 1.50 m

ROAD (0.00 + 52.36 + 0.00) = 52.36 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	65.75	0.00	-11.11	-2.29	0.00	0.00	0.00	52.36

Segment Leq : 52.36 dBA

Total Leq All Segments: 59.99 dBA

Results segment # 1: 2-ucu (night)

Source height = 1.50 m

ROAD (0.00 + 51.92 + 0.00) = 51.92 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	58.16	0.00	-4.06	-2.18	0.00	0.00	0.00	51.92

Segment Leq : 51.92 dBA

Results segment # 2: 2-ucu (night)

Source height = 1.50 m

ROAD (0.00 + 45.47 + 0.00) = 45.47 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	58.16	0.00	-10.50	-2.18	0.00	0.00	0.00	45.47

Segment Leq : 45.47 dBA

Total Leq All Segments: 52.81 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 59.99
(NIGHT): 52.81

STAMSON 5.0 NORMAL REPORT Date: 02-05-2018 09:59:18
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: ucucu55.te Time Period: Day/Night 16/8 hours
Description: 2-UCU & 2-UCU ola free field composite 55 dba

Road data, segment # 1: 2-ucu (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 # 1: 2-ucu (day/night)

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 54.43 / 54.43 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

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

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 140.00 / 140.00 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: 2-ucu (day)

Source height = 1.50 m

ROAD (0.00 + 54.17 + 0.00) = 54.17 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	65.75	0.00	-9.29	-2.29	0.00	0.00	0.00	54.17

Segment Leq : 54.17 dBA

Results segment # 2: 2-ucu (day)

Source height = 1.50 m

ROAD (0.00 + 47.36 + 0.00) = 47.36 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	65.75	0.00	-16.10	-2.29	0.00	0.00	0.00	47.36

Segment Leq : 47.36 dBA

Total Leq All Segments: 54.99 dBA

Results segment # 1: 2-ucu (night)

Source height = 1.50 m

ROAD (0.00 + 47.19 + 0.00) = 47.19 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	58.16	0.00	-8.79	-2.18	0.00	0.00	0.00	47.19

Segment Leq : 47.19 dBA

Results segment # 2: 2-ucu (night)

Source height = 1.50 m

ROAD (0.00 + 40.75 + 0.00) = 40.75 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	58.16	0.00	-15.23	-2.18	0.00	0.00	0.00	40.75

Segment Leq : 40.75 dBA

Total Leq All Segments: 48.08 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 54.99
(NIGHT): 48.08

STAMSON 5.0 NORMAL REPORT Date: 02-05-2018 08:50:00
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: ucuau65b.te Time Period: Day/Night 16/8 hours
Description: 2-UCU & 2-UAU ola freefield composite 65 dba

Road data, segment # 1: 2-ucu (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 # 1: 2-ucu (day/night)

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 15.00 / 15.00 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

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

Car traffic volume : 12144/1056 veh/TimePeriod *
Medium truck volume : 966/84 veh/TimePeriod *
Heavy truck volume : 690/60 veh/TimePeriod *

Posted speed limit : 60 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): 15000
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: 2-uau (day/night)

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 45.00 / 45.00 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: 2-ucu (day)

Source height = 1.50 m

ROAD (0.00 + 63.46 + 0.00) = 63.46 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	65.75	0.00	0.00	-2.29	0.00	0.00	0.00	63.46

Segment Leq : 63.46 dBA

Results segment # 2: 2-uau (day)

Source height = 1.50 m

ROAD (0.00 + 59.79 + 0.00) = 59.79 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	70.00	0.00	-7.92	-2.29	0.00	0.00	0.00	59.79

Segment Leq : 59.79 dBA

Total Leq All Segments: 65.01 dBA

Results segment # 1: 2-ucu (night)

Source height = 1.50 m

ROAD (0.00 + 55.98 + 0.00) = 55.98 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	58.16	0.00	0.00	-2.18	0.00	0.00	0.00	55.98

Segment Leq : 55.98 dBA

Results segment # 2: 2-uau (night)

Source height = 1.50 m

ROAD (0.00 + 52.73 + 0.00) = 52.73 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	62.40	0.00	-7.49	-2.18	0.00	0.00	0.00	52.73

Segment Leq : 52.73 dBA

Total Leq All Segments: 57.66 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 65.01
(NIGHT): 57.66

STAMSON 5.0 NORMAL REPORT Date: 02-05-2018 08:47:37
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: ucuau65.te Time Period: Day/Night 16/8 hours
Description: 2-UCU & 2-UAU ola freefield composite 65 dba

Road data, segment # 1: 2-ucu (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 # 1: 2-ucu (day/night)

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 35.00 / 35.00 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

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

Car traffic volume : 12144/1056 veh/TimePeriod *
Medium truck volume : 966/84 veh/TimePeriod *
Heavy truck volume : 690/60 veh/TimePeriod *
Posted speed limit : 60 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): 15000
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: 2-uau (day/night)

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 24.50 / 24.50 m
Receiver height : 1.50 / 4.50 m

Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: 2-ucu (day)

Source height = 1.50 m

ROAD (0.00 + 57.35 + 0.00) = 57.35 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	65.75	0.00	-6.11	-2.29	0.00	0.00	0.00	57.35

Segment Leq : 57.35 dBA

Results segment # 2: 2-uau (day)

Source height = 1.50 m

ROAD (0.00 + 64.17 + 0.00) = 64.17 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	70.00	0.00	-3.54	-2.29	0.00	0.00	0.00	64.17

Segment Leq : 64.17 dBA

Total Leq All Segments: 64.99 dBA

Results segment # 1: 2-ucu (night)

Source height = 1.50 m

ROAD (0.00 + 50.20 + 0.00) = 50.20 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	58.16	0.00	-5.78	-2.18	0.00	0.00	0.00	50.20

Segment Leq : 50.20 dBA

Results segment # 2: 2-uau (night)

Source height = 1.50 m

ROAD (0.00 + 56.88 + 0.00) = 56.88 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	62.40	0.00	-3.35	-2.18	0.00	0.00	0.00	56.88

Segment Leq : 56.88 dBA

Total Leq All Segments: 57.72 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 64.99
(NIGHT): 57.72

STAMSON 5.0 NORMAL REPORT Date: 02-05-2018 09:22:59
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: ucuau60b.te Time Period: Day/Night 16/8 hours
Description: 2-UCU & 2-UAU ola freefield composite 60 dba

Road data, segment # 1: 2-ucu (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 # 1: 2-ucu (day/night)

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 27.20 / 27.20 m
Receiver height : 1.50 / 4.50 m

Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

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

Car traffic volume : 12144/1056 veh/TimePeriod *
Medium truck volume : 966/84 veh/TimePeriod *
Heavy truck volume : 690/60 veh/TimePeriod *
Posted speed limit : 60 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): 15000
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: 2-uau (day/night)

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 125.00 / 125.00 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: 2-ucu (day)

Source height = 1.50 m

ROAD (0.00 + 59.17 + 0.00) = 59.17 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	65.75	0.00	-4.29	-2.29	0.00	0.00	0.00	59.17

Segment Leq : 59.17 dBA

Results segment # 2: 2-uau (day)

Source height = 1.50 m

ROAD (0.00 + 52.42 + 0.00) = 52.42 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	70.00	0.00	-15.29	-2.29	0.00	0.00	0.00	52.42

Segment Leq : 52.42 dBA

Total Leq All Segments: 60.00 dBA

Results segment # 1: 2-ucu (night)

Source height = 1.50 m

ROAD (0.00 + 51.92 + 0.00) = 51.92 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	58.16	0.00	-4.06	-2.18	0.00	0.00	0.00	51.92

Segment Leq : 51.92 dBA

Results segment # 2: 2-uau (night)

Source height = 1.50 m

ROAD (0.00 + 45.76 + 0.00) = 45.76 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	62.40	0.00	-14.46	-2.18	0.00	0.00	0.00	45.76

Segment Leq : 45.76 dBA

Total Leq All Segments: 52.86 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 60.00
(NIGHT): 52.86

STAMSON 5.0 NORMAL REPORT Date: 02-05-2018 09:21:02
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: ucuau60.te Time Period: Day/Night 16/8 hours
Description: 2-UCU & 2-UAU ola freefield composite 60 dba

Road data, segment # 1: 2-ucu (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 # 1: 2-ucu (day/night)

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 70.00 / 70.00 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

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

Car traffic volume : 12144/1056 veh/TimePeriod *
Medium truck volume : 966/84 veh/TimePeriod *
Heavy truck volume : 690/60 veh/TimePeriod *
Posted speed limit : 60 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): 15000
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: 2-uau (day/night)

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 49.04 / 49.04 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: 2-ucu (day)

Source height = 1.50 m

ROAD (0.00 + 52.36 + 0.00) = 52.36 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	65.75	0.00	-11.11	-2.29	0.00	0.00	0.00	52.36

Segment Leq : 52.36 dBA

Results segment # 2: 2-uau (day)

Source height = 1.50 m

ROAD (0.00 + 59.17 + 0.00) = 59.17 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	70.00	0.00	-8.54	-2.29	0.00	0.00	0.00	59.17

Segment Leq : 59.17 dBA

Total Leq All Segments: 59.99 dBA

Results segment # 1: 2-ucu (night)

Source height = 1.50 m

ROAD (0.00 + 45.47 + 0.00) = 45.47 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	58.16	0.00	-10.50	-2.18	0.00	0.00	0.00	45.47

Segment Leq : 45.47 dBA

Results segment # 2: 2-uau (night)

Source height = 1.50 m

ROAD (0.00 + 52.14 + 0.00) = 52.14 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	62.40	0.00	-8.08	-2.18	0.00	0.00	0.00	52.14

Segment Leq : 52.14 dBA

Total Leq All Segments: 52.99 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 59.99
(NIGHT): 52.99

STAMSON 5.0 NORMAL REPORT Date: 02-05-2018 09:33:43
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: ucuau55b.te Time Period: Day/Night 16/8 hours
Description: 2-UCU & 2-UAU ola freefield composite 55 dba

Road data, segment # 1: 2-ucu (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 # 1: 2-ucu (day/night)

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 54.43 / 54.43 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

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

Car traffic volume : 12144/1056 veh/TimePeriod *
Medium truck volume : 966/84 veh/TimePeriod *
Heavy truck volume : 690/60 veh/TimePeriod *
Posted speed limit : 60 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): 15000
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: 2-uau (day/night)

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 250.00 / 250.00 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: 2-ucu (day)

Source height = 1.50 m

ROAD (0.00 + 54.17 + 0.00) = 54.17 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	65.75	0.00	-9.29	-2.29	0.00	0.00	0.00	54.17

Segment Leq : 54.17 dBA

Results segment # 2: 2-uau (day)

Source height = 1.50 m

ROAD (0.00 + 47.43 + 0.00) = 47.43 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	70.00	0.00	-20.28	-2.29	0.00	0.00	0.00	47.43

Segment Leq : 47.43 dBA

Total Leq All Segments: 55.00 dBA

Results segment # 1: 2-ucu (night)

Source height = 1.50 m

ROAD (0.00 + 47.19 + 0.00) = 47.19 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	58.16	0.00	-8.79	-2.18	0.00	0.00	0.00	47.19

Segment Leq : 47.19 dBA

Results segment # 2: 2-uau (night)

Source height = 1.50 m

ROAD (0.00 + 41.04 + 0.00) = 41.04 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	62.40	0.00	-19.18	-2.18	0.00	0.00	0.00	41.04

Segment Leq : 41.04 dBA

Total Leq All Segments: 48.13 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 55.00
(NIGHT): 48.13

STAMSON 5.0 NORMAL REPORT Date: 02-05-2018 09:29:14
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: ucuau55.te Time Period: Day/Night 16/8 hours
Description: 2-UCU & 2-UAU ola freefield composite 55 dba

Road data, segment # 1: 2-ucu (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 # 1: 2-ucu (day/night)

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 140.00 / 140.00 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

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

Car traffic volume : 12144/1056 veh/TimePeriod *
Medium truck volume : 966/84 veh/TimePeriod *
Heavy truck volume : 690/60 veh/TimePeriod *

Posted speed limit : 60 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): 15000
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: 2-uau (day/night)

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 98.12 / 98.12 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: 2-ucu (day)

Source height = 1.50 m

ROAD (0.00 + 47.36 + 0.00) = 47.36 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	65.75	0.00	-16.10	-2.29	0.00	0.00	0.00	47.36

Segment Leq : 47.36 dBA

Results segment # 2: 2-uau (day)

Source height = 1.50 m

ROAD (0.00 + 54.17 + 0.00) = 54.17 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	70.00	0.00	-13.54	-2.29	0.00	0.00	0.00	54.17

Segment Leq : 54.17 dBA

Total Leq All Segments: 54.99 dBA

Results segment # 1: 2-ucu (night)

Source height = 1.50 m

ROAD (0.00 + 40.75 + 0.00) = 40.75 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	58.16	0.00	-15.23	-2.18	0.00	0.00	0.00	40.75

Segment Leq : 40.75 dBA

Results segment # 2: 2-uau (night)

Source height = 1.50 m

ROAD (0.00 + 47.41 + 0.00) = 47.41 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	62.40	0.00	-12.81	-2.18	0.00	0.00	0.00	47.41

Segment Leq : 47.41 dBA

Total Leq All Segments: 48.26 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 54.99
(NIGHT): 48.26

STAMSON 5.0 NORMAL REPORT Date: 02-05-2018 09:40:44
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: ucuau50b.te Time Period: Day/Night 16/8 hours
Description: 2-UCU & 2-UAU ola freefield composite 50 dba

Road data, segment # 1: 2-ucu (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 # 1: 2-ucu (day/night)

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 108.90 / 108.90 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

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

Car traffic volume : 12144/1056 veh/TimePeriod *
Medium truck volume : 966/84 veh/TimePeriod *
Heavy truck volume : 690/60 veh/TimePeriod *
Posted speed limit : 60 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): 15000
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: 2-uau (day/night)

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 500.00 / 500.00 m
Receiver height : 1.50 / 4.50 m

Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: 2-ucu (day)

Source height = 1.50 m

ROAD (0.00 + 49.17 + 0.00) = 49.17 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	65.75	0.00	-14.29	-2.29	0.00	0.00	0.00	49.17

Segment Leq : 49.17 dBA

Results segment # 2: 2-uau (day)

Source height = 1.50 m

ROAD (0.00 + 42.43 + 0.00) = 42.43 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	70.00	0.00	-25.28	-2.29	0.00	0.00	0.00	42.43

Segment Leq : 42.43 dBA

Total Leq All Segments: 50.00 dBA

Results segment # 1: 2-ucu (night)

Source height = 1.50 m

ROAD (0.00 + 42.46 + 0.00) = 42.46 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	58.16	0.00	-13.52	-2.18	0.00	0.00	0.00	42.46

Segment Leq : 42.46 dBA

Results segment # 2: 2-uau (night)

Source height = 1.50 m

ROAD (0.00 + 36.31 + 0.00) = 36.31 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	62.40	0.00	-23.91	-2.18	0.00	0.00	0.00	36.31

Segment Leq : 36.31 dBA

Total Leq All Segments: 43.40 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 50.00
(NIGHT): 43.40

STAMSON 5.0 NORMAL REPORT Date: 02-05-2018 09:38:08
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: ucuau50.te Time Period: Day/Night 16/8 hours
Description: 2-UCU & 2-UAU ola freefield composite 50 dba

Road data, segment # 1: 2-ucu (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 # 1: 2-ucu (day/night)

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 275.00 / 275.00 m
Receiver height : 1.50 / 4.50 m

Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

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

Car traffic volume : 12144/1056 veh/TimePeriod *
Medium truck volume : 966/84 veh/TimePeriod *
Heavy truck volume : 690/60 veh/TimePeriod *
Posted speed limit : 60 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): 15000
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: 2-uau (day/night)

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 196.40 / 196.40 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: 2-ucu (day)

Source height = 1.50 m

ROAD (0.00 + 42.49 + 0.00) = 42.49 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	65.75	0.00	-20.97	-2.29	0.00	0.00	0.00	42.49

Segment Leq : 42.49 dBA

Results segment # 2: 2-uau (day)

Source height = 1.50 m

ROAD (0.00 + 49.17 + 0.00) = 49.17 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	70.00	0.00	-18.54	-2.29	0.00	0.00	0.00	49.17

Segment Leq : 49.17 dBA

Total Leq All Segments: 50.01 dBA

Results segment # 1: 2-ucu (night)

Source height = 1.50 m

ROAD (0.00 + 36.14 + 0.00) = 36.14 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	58.16	0.00	-19.83	-2.18	0.00	0.00	0.00	36.14

Segment Leq : 36.14 dBA

Results segment # 2: 2-uau (night)

Source height = 1.50 m

ROAD (0.00 + 42.68 + 0.00) = 42.68 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	62.40	0.00	-17.54	-2.18	0.00	0.00	0.00	42.68

Segment Leq : 42.68 dBA

Total Leq All Segments: 43.55 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 50.01
(NIGHT): 43.55

STAMSON 5.0 NORMAL REPORT Date: 02-05-2018 10:14:02
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: uaduc70.te Time Period: Day/Night 16/8 hours
Description: 4-UAD & 2-UCU ola free field composite 70 dba

Road data, segment # 1: 4-UAD (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 : 80 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: 4-UAD (day/night)

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 30.00 / 30.00 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

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

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 15.00 / 15.00 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: 4-UAD (day)

Source height = 1.50 m

ROAD (0.00 + 68.88 + 0.00) = 68.88 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	76.17	0.00	-5.00	-2.29	0.00	0.00	0.00	68.88

Segment Leq : 68.88 dBA

Results segment # 2: 2-UCU (day)

Source height = 1.50 m

ROAD (0.00 + 63.46 + 0.00) = 63.46 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	65.75	0.00	0.00	-2.29	0.00	0.00	0.00	63.46

Segment Leq : 63.46 dBA

Total Leq All Segments: 69.98 dBA

Results segment # 1: 4-UAD (night)

Source height = 1.50 m

ROAD (0.00 + 61.67 + 0.00) = 61.67 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	68.57	0.00	-4.73	-2.18	0.00	0.00	0.00	61.67

Segment Leq : 61.67 dBA

Results segment # 2: 2-UCU (night)

Source height = 1.50 m

ROAD (0.00 + 55.98 + 0.00) = 55.98 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	58.16	0.00	0.00	-2.18	0.00	0.00	0.00	55.98

Segment Leq : 55.98 dBA

Total Leq All Segments: 62.71 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 69.98
(NIGHT): 62.71

STAMSON 5.0 NORMAL REPORT Date: 02-05-2018 10:09:43
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: uaduc70.te Time Period: Day/Night 16/8 hours
Description: 4-UAD & 2-UCU ola free field composite 70 dba

Road data, segment # 1: 4-UAD (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 : 80 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: 4-UAD (day/night)

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 28.82 / 28.82 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

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

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 17.00 / 17.00 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: 4-UAD (day)

Source height = 1.50 m

ROAD (0.00 + 69.17 + 0.00) = 69.17 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	76.17	0.00	-4.71	-2.29	0.00	0.00	0.00	69.17

Segment Leq : 69.17 dBA

Results segment # 2: 2-UCU (day)

Source height = 1.50 m

ROAD (0.00 + 62.56 + 0.00) = 62.56 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	65.75	0.00	-0.90	-2.29	0.00	0.00	0.00	62.56

Segment Leq : 62.56 dBA

Total Leq All Segments: 70.03 dBA

Results segment # 1: 4-UAD (night)

Source height = 1.50 m

ROAD (0.00 + 61.94 + 0.00) = 61.94 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	68.57	0.00	-4.45	-2.18	0.00	0.00	0.00	61.94

Segment Leq : 61.94 dBA

Results segment # 2: 2-UCU (night)

Source height = 1.50 m

ROAD (0.00 + 55.13 + 0.00) = 55.13 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	58.16	0.00	-0.85	-2.18	0.00	0.00	0.00	55.13

Segment Leq : 55.13 dBA

Total Leq All Segments: 62.76 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 70.03
(NIGHT): 62.76

STAMSON 5.0 NORMAL REPORT Date: 02-05-2018 10:25:08
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: uaduc65b.te Time Period: Day/Night 16/8 hours
Description: 4-UAD & 2-UCU ola free field composite 65 dba

Road data, segment # 1: 4-UAD (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 : 80 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: 4-UAD (day/night)

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 107.00 / 107.00 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

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

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 15.00 / 15.00 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: 4-UAD (day)

Source height = 1.50 m

ROAD (0.00 + 59.71 + 0.00) = 59.71 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	76.17	0.00	-14.16	-2.29	0.00	0.00	0.00	59.71

Segment Leq : 59.71 dBA

Results segment # 2: 2-UCU (day)

Source height = 1.50 m

ROAD (0.00 + 63.46 + 0.00) = 63.46 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	65.75	0.00	0.00	-2.29	0.00	0.00	0.00	63.46

Segment Leq : 63.46 dBA

Total Leq All Segments: 64.99 dBA

Results segment # 1: 4-UAD (night)

Source height = 1.50 m

ROAD (0.00 + 52.99 + 0.00) = 52.99 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	68.57	0.00	-13.40	-2.18	0.00	0.00	0.00	52.99

Segment Leq : 52.99 dBA

Results segment # 2: 2-UCU (night)

Source height = 1.50 m

ROAD (0.00 + 55.98 + 0.00) = 55.98 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	58.16	0.00	0.00	-2.18	0.00	0.00	0.00	55.98

Segment Leq : 55.98 dBA

Total Leq All Segments: 57.75 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 64.99
(NIGHT): 57.75

STAMSON 5.0 NORMAL REPORT Date: 02-05-2018 10:19:58
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: uaduc65.te Time Period: Day/Night 16/8 hours
Description: 4-UAD & 2-UCU ola free field composite 65 dba

Road data, segment # 1: 4-UAD (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 : 80 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: 4-UAD (day/night)

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 57.69 / 57.69 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

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

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 35.00 / 35.00 m
Receiver height : 1.50 / 4.50 m

Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: 4-UAD (day)

Source height = 1.50 m

ROAD (0.00 + 64.17 + 0.00) = 64.17 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	76.17	0.00	-9.71	-2.29	0.00	0.00	0.00	64.17

Segment Leq : 64.17 dBA

Results segment # 2: 2-UCU (day)

Source height = 1.50 m

ROAD (0.00 + 57.35 + 0.00) = 57.35 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	65.75	0.00	-6.11	-2.29	0.00	0.00	0.00	57.35

Segment Leq : 57.35 dBA

Total Leq All Segments: 64.99 dBA

Results segment # 1: 4-UAD (night)

Source height = 1.50 m

ROAD (0.00 + 57.21 + 0.00) = 57.21 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	68.57	0.00	-9.19	-2.18	0.00	0.00	0.00	57.21

Segment Leq : 57.21 dBA

Results segment # 2: 2-UCU (night)

Source height = 1.50 m

ROAD (0.00 + 50.20 + 0.00) = 50.20 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	58.16	0.00	-5.78	-2.18	0.00	0.00	0.00	50.20

Segment Leq : 50.20 dBA

Total Leq All Segments: 58.00 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 64.99
(NIGHT): 58.00

STAMSON 5.0 NORMAL REPORT Date: 02-05-2018 10:34:47
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: uaduc60b.te Time Period: Day/Night 16/8 hours
Description: 4-UAD & 2-UCU ola free field composite 60 dba

Road data, segment # 1: 4-UAD (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 : 80 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: 4-UAD (day/night)

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 300.00 / 300.00 m

Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

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

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 27.20 / 27.20 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: 4-UAD (day)

Source height = 1.50 m

ROAD (0.00 + 52.28 + 0.00) = 52.28 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	76.17	0.00	-21.60	-2.29	0.00	0.00	0.00	52.28

Segment Leq : 52.28 dBA

Results segment # 2: 2-UCU (day)

Source height = 1.50 m

ROAD (0.00 + 59.17 + 0.00) = 59.17 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	65.75	0.00	-4.29	-2.29	0.00	0.00	0.00	59.17

Segment Leq : 59.17 dBA

Total Leq All Segments: 59.98 dBA

Results segment # 1: 4-UAD (night)

Source height = 1.50 m

ROAD (0.00 + 45.96 + 0.00) = 45.96 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	68.57	0.00	-20.43	-2.18	0.00	0.00	0.00	45.96

Segment Leq : 45.96 dBA

Results segment # 2: 2-UCU (night)

Source height = 1.50 m

ROAD (0.00 + 51.92 + 0.00) = 51.92 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	58.16	0.00	-4.06	-2.18	0.00	0.00	0.00	51.92

Segment Leq : 51.92 dBA

Total Leq All Segments: 52.90 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 59.98
(NIGHT): 52.90

STAMSON 5.0 NORMAL REPORT Date: 02-05-2018 10:31:00
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: uaduc60.te Time Period: Day/Night 16/8 hours
Description: 4-UAD & 2-UCU ola free field composite 60 dba

Road data, segment # 1: 4-UAD (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 : 80 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: 4-UAD (day/night)

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 115.41 / 115.41 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

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

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 70.00 / 70.00 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: 4-UAD (day)

Source height = 1.50 m

ROAD (0.00 + 59.17 + 0.00) = 59.17 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	76.17	0.00	-14.71	-2.29	0.00	0.00	0.00	59.17

Segment Leq : 59.17 dBA

Results segment # 2: 2-UCU (day)

Source height = 1.50 m

ROAD (0.00 + 52.36 + 0.00) = 52.36 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	65.75	0.00	-11.11	-2.29	0.00	0.00	0.00	52.36

Segment Leq : 52.36 dBA

Total Leq All Segments: 59.99 dBA

Results segment # 1: 4-UAD (night)

Source height = 1.50 m

ROAD (0.00 + 52.48 + 0.00) = 52.48 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	68.57	0.00	-13.91	-2.18	0.00	0.00	0.00	52.48

Segment Leq : 52.48 dBA

Results segment # 2: 2-UCU (night)

Source height = 1.50 m

ROAD (0.00 + 45.47 + 0.00) = 45.47 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	58.16	0.00	-10.50	-2.18	0.00	0.00	0.00	45.47

Segment Leq : 45.47 dBA

Total Leq All Segments: 53.27 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 59.99
(NIGHT): 53.27

STAMSON 5.0 NORMAL REPORT Date: 02-05-2018 10:49:08
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: uaduc55b.te Time Period: Day/Night 16/8 hours
Description: 4-UAD & 2-UCU ola free field composite 55 dba

Road data, segment # 1: 4-UAD (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 : 80 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: 4-UAD (day/night)

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 500.00 / 500.00 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

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

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 54.43 / 54.43 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: 4-UAD (day)

Source height = 1.50 m

ROAD (0.00 + 48.60 + 0.00) = 48.60 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	76.17	0.00	-25.28	-2.29	0.00	0.00	0.00	48.60

Segment Leq : 48.60 dBA

Results segment # 2: 2-UCU (day)

Source height = 1.50 m

ROAD (0.00 + 54.17 + 0.00) = 54.17 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	65.75	0.00	-9.29	-2.29	0.00	0.00	0.00	54.17

Segment Leq : 54.17 dBA

Total Leq All Segments: 55.23 dBA

Results segment # 1: 4-UAD (night)

Source height = 1.50 m

ROAD (0.00 + 42.48 + 0.00) = 42.48 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	68.57	0.00	-23.91	-2.18	0.00	0.00	0.00	42.48

Segment Leq : 42.48 dBA

Results segment # 2: 2-UCU (night)

Source height = 1.50 m

ROAD (0.00 + 47.19 + 0.00) = 47.19 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	58.16	0.00	-8.79	-2.18	0.00	0.00	0.00	47.19

Segment Leq : 47.19 dBA

Total Leq All Segments: 48.45 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 55.23
(NIGHT): 48.45

STAMSON 5.0 NORMAL REPORT Date: 02-05-2018 10:45:03
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: uaduc55.te Time Period: Day/Night 16/8 hours
Description: 4-UAD & 2-UCU ola free field composite 55 dba

Road data, segment # 1: 4-UAD (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 : 80 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: 4-UAD (day/night)

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 230.98 / 230.98 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

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

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 140.00 / 140.00 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: 4-UAD (day)

Source height = 1.50 m

ROAD (0.00 + 54.17 + 0.00) = 54.17 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	76.17	0.00	-19.71	-2.29	0.00	0.00	0.00	54.17

Segment Leq : 54.17 dBA

Results segment # 2: 2-UCU (day)

Source height = 1.50 m

ROAD (0.00 + 47.36 + 0.00) = 47.36 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	65.75	0.00	-16.10	-2.29	0.00	0.00	0.00	47.36

Segment Leq : 47.36 dBA

Total Leq All Segments: 54.99 dBA

Results segment # 1: 4-UAD (night)

Source height = 1.50 m

ROAD (0.00 + 47.75 + 0.00) = 47.75 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	68.57	0.00	-18.65	-2.18	0.00	0.00	0.00	47.75

Segment Leq : 47.75 dBA

Results segment # 2: 2-UCU (night)

Source height = 1.50 m

ROAD (0.00 + 40.75 + 0.00) = 40.75 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	58.16	0.00	-15.23	-2.18	0.00	0.00	0.00	40.75

Segment Leq : 40.75 dBA

Total Leq All Segments: 48.54 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 54.99
(NIGHT): 48.54

STAMSON 5.0 NORMAL REPORT Date: 03-05-2018 08:41:12
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: rauau70b.te Time Period: Day/Night 16/8 hours
Description: 2-RAU & 2-UAU ola freefield composite 70 dba

Road data, segment # 1: 2-RAU (day/night)

Car traffic volume : 12144/1056 veh/TimePeriod *
Medium truck volume : 966/84 veh/TimePeriod *

Heavy truck volume : 690/60 veh/TimePeriod *
Posted speed limit : 80 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): 15000
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: 2-RAU (day/night)

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 26.00 / 26.00 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

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

Car traffic volume : 12144/1056 veh/TimePeriod *
Medium truck volume : 966/84 veh/TimePeriod *
Heavy truck volume : 690/60 veh/TimePeriod *
Posted speed limit : 60 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): 15000
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: 2-UAU (day/night)

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 15.00 / 15.00 m

Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: 2-RAU (day)

Source height = 1.50 m

ROAD (0.00 + 66.23 + 0.00) = 66.23 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	72.49	0.00	-3.97	-2.29	0.00	0.00	0.00	66.23

Segment Leq : 66.23 dBA

Results segment # 2: 2-UAU (day)

Source height = 1.50 m

ROAD (0.00 + 67.71 + 0.00) = 67.71 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	70.00	0.00	0.00	-2.29	0.00	0.00	0.00	67.71

Segment Leq : 67.71 dBA

Total Leq All Segments: 70.04 dBA

Results segment # 1: 2-RAU (night)

Source height = 1.50 m

ROAD (0.00 + 58.96 + 0.00) = 58.96 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	64.89	0.00	-3.75	-2.18	0.00	0.00	0.00	58.96

Segment Leq : 58.96 dBA

Results segment # 2: 2-UAU (night)

Source height = 1.50 m

ROAD (0.00 + 60.22 + 0.00) = 60.22 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	62.40	0.00	0.00	-2.18	0.00	0.00	0.00	60.22

Segment Leq : 60.22 dBA

Total Leq All Segments: 62.65 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 70.04
(NIGHT): 62.65

STAMSON 5.0 NORMAL REPORT Date: 03-05-2018 08:35:58
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: rauau70.te Time Period: Day/Night 16/8 hours
Description: 2-RAU & 2-UAU ola freefield composite 70 dba

Road data, segment # 1: 2-RAU (day/night)

Car traffic volume : 12144/1056 veh/TimePeriod *
Medium truck volume : 966/84 veh/TimePeriod *
Heavy truck volume : 690/60 veh/TimePeriod *
Posted speed limit : 80 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): 15000
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: 2-RAU (day/night)

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 17.31 / 17.31 m

Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

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

Car traffic volume : 12144/1056 veh/TimePeriod *
Medium truck volume : 966/84 veh/TimePeriod *
Heavy truck volume : 690/60 veh/TimePeriod *
Posted speed limit : 60 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): 15000
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: 2-UAU (day/night)

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 31.00 / 31.00 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: 2-RAU (day)

Source height = 1.50 m

ROAD (0.00 + 69.17 + 0.00) = 69.17 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	72.49	0.00	-1.03	-2.29	0.00	0.00	0.00	69.17

Segment Leq : 69.17 dBA

Results segment # 2: 2-UAU (day)

Source height = 1.50 m

ROAD (0.00 + 62.48 + 0.00) = 62.48 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	70.00	0.00	-5.23	-2.29	0.00	0.00	0.00	62.48

Segment Leq : 62.48 dBA

Total Leq All Segments: 70.01 dBA

Results segment # 1: 2-RAU (night)

Source height = 1.50 m

ROAD (0.00 + 61.74 + 0.00) = 61.74 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	64.89	0.00	-0.98	-2.18	0.00	0.00	0.00	61.74

Segment Leq : 61.74 dBA

Results segment # 2: 2-UAU (night)

Source height = 1.50 m

ROAD (0.00 + 55.27 + 0.00) = 55.27 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	62.40	0.00	-4.95	-2.18	0.00	0.00	0.00	55.27

Segment Leq : 55.27 dBA

Total Leq All Segments: 62.62 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 70.01
(NIGHT): 62.62

STAMSON 5.0 NORMAL REPORT Date: 03-05-2018 08:45:12
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: rauau65b.te Time Period: Day/Night 16/8 hours
Description: 2-RAU & 2-UAU ola freefield composite 65 dba

Road data, segment # 1: 2-RAU (day/night)

Car traffic volume : 12144/1056 veh/TimePeriod *
Medium truck volume : 966/84 veh/TimePeriod *
Heavy truck volume : 690/60 veh/TimePeriod *
Posted speed limit : 80 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): 15000
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: 2-RAU (day/night)

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 90.00 / 90.00 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

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

Car traffic volume : 12144/1056 veh/TimePeriod *
Medium truck volume : 966/84 veh/TimePeriod *
Heavy truck volume : 690/60 veh/TimePeriod *
Posted speed limit : 60 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): 15000
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: 2-UAU (day/night)

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 24.50 / 24.50 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: 2-RAU (day)

Source height = 1.50 m

ROAD (0.00 + 57.28 + 0.00) = 57.28 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	72.49	0.00	-12.92	-2.29	0.00	0.00	0.00	57.28

Segment Leq : 57.28 dBA

Results segment # 2: 2-UAU (day)

Source height = 1.50 m

ROAD (0.00 + 64.17 + 0.00) = 64.17 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	70.00	0.00	-3.54	-2.29	0.00	0.00	0.00	64.17

Segment Leq : 64.17 dBA

Total Leq All Segments: 64.98 dBA

Results segment # 1: 2-RAU (night)

Source height = 1.50 m

ROAD (0.00 + 50.49 + 0.00) = 50.49 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	64.89	0.00	-12.22	-2.18	0.00	0.00	0.00	50.49

Segment Leq : 50.49 dBA

Results segment # 2: 2-UAU (night)

Source height = 1.50 m

ROAD (0.00 + 56.88 + 0.00) = 56.88 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	62.40	0.00	-3.35	-2.18	0.00	0.00	0.00	56.88

Segment Leq : 56.88 dBA

Total Leq All Segments: 57.78 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 64.98
(NIGHT): 57.78

STAMSON 5.0 NORMAL REPORT Date: 03-05-2018 08:43:10
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: rauau65.te Time Period: Day/Night 16/8 hours
Description: 2-RAU & 2-UAU ola freefield composite 65 dba

Road data, segment # 1: 2-RAU (day/night)

Car traffic volume : 12144/1056 veh/TimePeriod *
Medium truck volume : 966/84 veh/TimePeriod *
Heavy truck volume : 690/60 veh/TimePeriod *
Posted speed limit : 80 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): 15000
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: 2-RAU (day/night)

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 34.63 / 34.63 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

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

Car traffic volume : 12144/1056 veh/TimePeriod *
Medium truck volume : 966/84 veh/TimePeriod *
Heavy truck volume : 690/60 veh/TimePeriod *
Posted speed limit : 60 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): 15000
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: 2-UAU (day/night)

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 65.00 / 65.00 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: 2-RAU (day)

Source height = 1.50 m

ROAD (0.00 + 64.17 + 0.00) = 64.17 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	72.49	0.00	-6.03	-2.29	0.00	0.00	0.00	64.17

Segment Leq : 64.17 dBA

Results segment # 2: 2-UAU (day)

Source height = 1.50 m

ROAD (0.00 + 57.14 + 0.00) = 57.14 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	70.00	0.00	-10.57	-2.29	0.00	0.00	0.00	57.14

Segment Leq : 57.14 dBA

Total Leq All Segments: 64.96 dBA

Results segment # 1: 2-RAU (night)

Source height = 1.50 m

ROAD (0.00 + 57.01 + 0.00) = 57.01 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	64.89	0.00	-5.71	-2.18	0.00	0.00	0.00	57.01

Segment Leq : 57.01 dBA

Results segment # 2: 2-UAU (night)

Source height = 1.50 m

ROAD (0.00 + 50.22 + 0.00) = 50.22 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	62.40	0.00	-10.00	-2.18	0.00	0.00	0.00	50.22

Segment Leq : 50.22 dBA

Total Leq All Segments: 57.84 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 64.96
(NIGHT): 57.84

STAMSON 5.0 NORMAL REPORT Date: 03-05-2018 09:15:04
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: rauau60b.te Time Period: Day/Night 16/8 hours
Description: 2-RAU & 2-UAU ola freefield composite 60 dba

Road data, segment # 1: 2-RAU (day/night)

Car traffic volume : 12144/1056 veh/TimePeriod *
Medium truck volume : 966/84 veh/TimePeriod *
Heavy truck volume : 690/60 veh/TimePeriod *
Posted speed limit : 80 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): 15000
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: 2-RAU (day/night)

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 69.23 / 69.23 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

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

Car traffic volume : 12144/1056 veh/TimePeriod *

Medium truck volume : 966/84 veh/TimePeriod *
Heavy truck volume : 690/60 veh/TimePeriod *
Posted speed limit : 60 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): 15000
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: 2-UAU (day/night)

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 125.00 / 125.00 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: 2-RAU (day)

Source height = 1.50 m

ROAD (0.00 + 59.17 + 0.00) = 59.17 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	72.49	0.00	-11.03	-2.29	0.00	0.00	0.00	59.17

Segment Leq : 59.17 dBA

Results segment # 2: 2-UAU (day)

Source height = 1.50 m

ROAD (0.00 + 52.42 + 0.00) = 52.42 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	70.00	0.00	-15.29	-2.29	0.00	0.00	0.00	52.42

Segment Leq : 52.42 dBA

Total Leq All Segments: 60.00 dBA

Results segment # 1: 2-RAU (night)

Source height = 1.50 m

ROAD (0.00 + 52.28 + 0.00) = 52.28 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	64.89	0.00	-10.43	-2.18	0.00	0.00	0.00	52.28

Segment Leq : 52.28 dBA

Results segment # 2: 2-UAU (night)

Source height = 1.50 m

ROAD (0.00 + 45.76 + 0.00) = 45.76 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	62.40	0.00	-14.46	-2.18	0.00	0.00	0.00	45.76

Segment Leq : 45.76 dBA

Total Leq All Segments: 53.15 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 60.00
(NIGHT): 53.15

STAMSON 5.0 NORMAL REPORT Date: 03-05-2018 08:47:16
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: rauau60.te Time Period: Day/Night 16/8 hours
Description: 2-RAU & 2-UAU ola freefield composite 60 dba

Road data, segment # 1: 2-RAU (day/night)

Car traffic volume : 12144/1056 veh/TimePeriod *
Medium truck volume : 966/84 veh/TimePeriod *
Heavy truck volume : 690/60 veh/TimePeriod *
Posted speed limit : 80 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): 15000
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: 2-RAU (day/night)

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 175.00 / 175.00 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

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

Car traffic volume : 12144/1056 veh/TimePeriod *
Medium truck volume : 966/84 veh/TimePeriod *
Heavy truck volume : 690/60 veh/TimePeriod *
Posted speed limit : 60 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): 15000
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: 2-UAU (day/night)

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0

Surface : 1 (Absorptive ground surface)
Receiver source distance : 49.04 / 49.04 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: 2-RAU (day)

Source height = 1.50 m

ROAD (0.00 + 52.49 + 0.00) = 52.49 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	72.49	0.00	-17.71	-2.29	0.00	0.00	0.00	52.49

Segment Leq : 52.49 dBA

Results segment # 2: 2-UAU (day)

Source height = 1.50 m

ROAD (0.00 + 59.17 + 0.00) = 59.17 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	70.00	0.00	-8.54	-2.29	0.00	0.00	0.00	59.17

Segment Leq : 59.17 dBA

Total Leq All Segments: 60.01 dBA

Results segment # 1: 2-RAU (night)

Source height = 1.50 m

ROAD (0.00 + 45.96 + 0.00) = 45.96 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	64.89	0.00	-16.75	-2.18	0.00	0.00	0.00	45.96

Segment Leq : 45.96 dBA

Results segment # 2: 2-UAU (night)

Source height = 1.50 m

ROAD (0.00 + 52.14 + 0.00) = 52.14 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	62.40	0.00	-8.08	-2.18	0.00	0.00	0.00	52.14

Segment Leq : 52.14 dBA

Total Leq All Segments: 53.08 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 60.01
(NIGHT): 53.08

STAMSON 5.0 NORMAL REPORT Date: 03-05-2018 09:18:52
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: rauau55b.te Time Period: Day/Night 16/8 hours
Description: 2-RAU & 2-UAU ola freefield composite 55 dba

Road data, segment # 1: 2-RAU (day/night)

Car traffic volume : 12144/1056 veh/TimePeriod *
Medium truck volume : 966/84 veh/TimePeriod *
Heavy truck volume : 690/60 veh/TimePeriod *
Posted speed limit : 80 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): 15000
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: 2-RAU (day/night)

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)

No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 350.00 / 350.00 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

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

Car traffic volume : 12144/1056 veh/TimePeriod *
Medium truck volume : 966/84 veh/TimePeriod *
Heavy truck volume : 690/60 veh/TimePeriod *
Posted speed limit : 60 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): 15000
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: 2-UAU (day/night)

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 98.12 / 98.12 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: 2-RAU (day)

Source height = 1.50 m

ROAD (0.00 + 47.49 + 0.00) = 47.49 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	72.49	0.00	-22.71	-2.29	0.00	0.00	0.00	47.49

Segment Leq : 47.49 dBA

Results segment # 2: 2-UAU (day)

Source height = 1.50 m

ROAD (0.00 + 54.17 + 0.00) = 54.17 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	70.00	0.00	-13.54	-2.29	0.00	0.00	0.00	54.17

Segment Leq : 54.17 dBA

Total Leq All Segments: 55.01 dBA

Results segment # 1: 2-RAU (night)

Source height = 1.50 m

ROAD (0.00 + 41.23 + 0.00) = 41.23 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	64.89	0.00	-21.48	-2.18	0.00	0.00	0.00	41.23

Segment Leq : 41.23 dBA

Results segment # 2: 2-UAU (night)

Source height = 1.50 m

ROAD (0.00 + 47.41 + 0.00) = 47.41 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	62.40	0.00	-12.81	-2.18	0.00	0.00	0.00	47.41

Segment Leq : 47.41 dBA

Total Leq All Segments: 48.35 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 55.01
(NIGHT): 48.35

STAMSON 5.0 NORMAL REPORT Date: 03-05-2018 09:16:50
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: rauau55.te Time Period: Day/Night 16/8 hours
Description: 2-RAU & 2-UAU ola freefield composite 55 dba

Road data, segment # 1: 2-RAU (day/night)

Car traffic volume : 12144/1056 veh/TimePeriod *
Medium truck volume : 966/84 veh/TimePeriod *
Heavy truck volume : 690/60 veh/TimePeriod *
Posted speed limit : 80 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): 15000
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: 2-RAU (day/night)

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 138.62 / 138.62 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

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

Car traffic volume : 12144/1056 veh/TimePeriod *
Medium truck volume : 966/84 veh/TimePeriod *
Heavy truck volume : 690/60 veh/TimePeriod *
Posted speed limit : 60 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): 15000
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: 2-UAU (day/night)

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 250.00 / 250.00 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: 2-RAU (day)

Source height = 1.50 m

ROAD (0.00 + 54.17 + 0.00) = 54.17 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	72.49	0.00	-16.03	-2.29	0.00	0.00	0.00	54.17

Segment Leq : 54.17 dBA

Results segment # 2: 2-UAU (day)

Source height = 1.50 m

ROAD (0.00 + 47.43 + 0.00) = 47.43 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	70.00	0.00	-20.28	-2.29	0.00	0.00	0.00	47.43

Segment Leq : 47.43 dBA

Total Leq All Segments: 55.00 dBA

Results segment # 1: 2-RAU (night)

Source height = 1.50 m

ROAD (0.00 + 47.55 + 0.00) = 47.55 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	64.89	0.00	-15.16	-2.18	0.00	0.00	0.00	47.55

Segment Leq : 47.55 dBA

Results segment # 2: 2-UAU (night)

Source height = 1.50 m

ROAD (0.00 + 41.04 + 0.00) = 41.04 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	62.40	0.00	-19.18	-2.18	0.00	0.00	0.00	41.04

Segment Leq : 41.04 dBA

Total Leq All Segments: 48.43 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 55.00
(NIGHT): 48.43

STAMSON 5.0 NORMAL REPORT Date: 03-05-2018 08:00:08
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: rauad70b.te Time Period: Day/Night 16/8 hours
Description: 2-RAU & 4-UAD ola freefield composite 70 dba

Road data, segment # 1: 2-RAU (day/night)

Car traffic volume : 12144/1056 veh/TimePeriod *
Medium truck volume : 966/84 veh/TimePeriod *
Heavy truck volume : 690/60 veh/TimePeriod *
Posted speed limit : 80 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): 15000
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: 2-RAU (day/night)

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 17.31 / 17.31 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Road data, segment # 2: 4-UAD (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 : 80 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: 4-UAD (day/night)

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 75.00 / 75.00 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: 2-RAU (day)

Source height = 1.50 m

ROAD (0.00 + 69.17 + 0.00) = 69.17 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	72.49	0.00	-1.03	-2.29	0.00	0.00	0.00	69.17

Segment Leq : 69.17 dBA

Results segment # 2: 4-UAD (day)

Source height = 1.50 m

ROAD (0.00 + 62.28 + 0.00) = 62.28 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	76.17	0.00	-11.60	-2.29	0.00	0.00	0.00	62.28

Segment Leq : 62.28 dBA

Total Leq All Segments: 69.98 dBA

Results segment # 1: 2-RAU (night)

Source height = 1.50 m

ROAD (0.00 + 61.74 + 0.00) = 61.74 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	64.89	0.00	-0.98	-2.18	0.00	0.00	0.00	61.74

Segment Leq : 61.74 dBA

Results segment # 2: 4-UAD (night)

Source height = 1.50 m

ROAD (0.00 + 55.42 + 0.00) = 55.42 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	68.57	0.00	-10.97	-2.18	0.00	0.00	0.00	55.42

Segment Leq : 55.42 dBA

Total Leq All Segments: 62.65 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 69.98
(NIGHT): 62.65

STAMSON 5.0 NORMAL REPORT Date: 03-05-2018 07:58:11
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: rauad70.te Time Period: Day/Night 16/8 hours
Description: 2-RAU & 4-UAD ola freefield composite 70 dba

Road data, segment # 1: 2-RAU (day/night)

Car traffic volume : 12144/1056 veh/TimePeriod *
Medium truck volume : 966/84 veh/TimePeriod *
Heavy truck volume : 690/60 veh/TimePeriod *
Posted speed limit : 80 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): 15000
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: 2-RAU (day/night)

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 45.00 / 45.00 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Road data, segment # 2: 4-UAD (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 : 80 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: 4-UAD (day/night)

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 28.82 / 28.82 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: 2-RAU (day)

Source height = 1.50 m

ROAD (0.00 + 62.28 + 0.00) = 62.28 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	72.49	0.00	-7.92	-2.29	0.00	0.00	0.00	62.28

Segment Leq : 62.28 dBA

Results segment # 2: 4-UAD (day)

Source height = 1.50 m

ROAD (0.00 + 69.17 + 0.00) = 69.17 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	76.17	0.00	-4.71	-2.29	0.00	0.00	0.00	69.17

Segment Leq : 69.17 dBA

Total Leq All Segments: 69.98 dBA

Results segment # 1: 2-RAU (night)

Source height = 1.50 m

ROAD (0.00 + 55.22 + 0.00) = 55.22 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	64.89	0.00	-7.49	-2.18	0.00	0.00	0.00	55.22

Segment Leq : 55.22 dBA

Results segment # 2: 4-UAD (night)

Source height = 1.50 m

ROAD (0.00 + 61.94 + 0.00) = 61.94 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	68.57	0.00	-4.45	-2.18	0.00	0.00	0.00	61.94

Segment Leq : 61.94 dBA

Total Leq All Segments: 62.78 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 69.98
(NIGHT): 62.78

STAMSON 5.0 NORMAL REPORT Date: 03-05-2018 08:06:50
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: rauad65b.te Time Period: Day/Night 16/8 hours
Description: 2-RAU & 4-UAD ola freefield composite 65 dba

Road data, segment # 1: 2-RAU (day/night)

Car traffic volume : 12144/1056 veh/TimePeriod *

Medium truck volume : 966/84 veh/TimePeriod *
Heavy truck volume : 690/60 veh/TimePeriod *
Posted speed limit : 80 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): 15000
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: 2-RAU (day/night)

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 34.63 / 34.63 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Road data, segment # 2: 4-UAD (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 : 80 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: 4-UAD (day/night)

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)

Receiver source distance : 150.00 / 150.00 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: 2-RAU (day)

Source height = 1.50 m

ROAD (0.00 + 64.17 + 0.00) = 64.17 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	72.49	0.00	-6.03	-2.29	0.00	0.00	0.00	64.17

Segment Leq : 64.17 dBA

Results segment # 2: 4-UAD (day)

Source height = 1.50 m

ROAD (0.00 + 57.28 + 0.00) = 57.28 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	76.17	0.00	-16.60	-2.29	0.00	0.00	0.00	57.28

Segment Leq : 57.28 dBA

Total Leq All Segments: 64.98 dBA

Results segment # 1: 2-RAU (night)

Source height = 1.50 m

ROAD (0.00 + 57.01 + 0.00) = 57.01 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	64.89	0.00	-5.71	-2.18	0.00	0.00	0.00	57.01

Segment Leq : 57.01 dBA

Results segment # 2: 4-UAD (night)

Source height = 1.50 m

ROAD (0.00 + 50.69 + 0.00) = 50.69 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	68.57	0.00	-15.70	-2.18	0.00	0.00	0.00	50.69

Segment Leq : 50.69 dBA

Total Leq All Segments: 57.92 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 64.98
(NIGHT): 57.92

STAMSON 5.0 NORMAL REPORT Date: 03-05-2018 08:04:42
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: rauad65.te Time Period: Day/Night 16/8 hours
Description: 2-RAU & 4-UAD ola freefield composite 65 dba

Road data, segment # 1: 2-RAU (day/night)

Car traffic volume : 12144/1056 veh/TimePeriod *
Medium truck volume : 966/84 veh/TimePeriod *
Heavy truck volume : 690/60 veh/TimePeriod *
Posted speed limit : 80 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): 15000
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: 2-RAU (day/night)

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0

Surface : 1 (Absorptive ground surface)
Receiver source distance : 90.00 / 90.00 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Road data, segment # 2: 4-UAD (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 : 80 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: 4-UAD (day/night)

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 57.69 / 57.69 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: 2-RAU (day)

Source height = 1.50 m

ROAD (0.00 + 57.28 + 0.00) = 57.28 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	72.49	0.00	-12.92	-2.29	0.00	0.00	0.00	57.28

Segment Leq : 57.28 dBA

Results segment # 2: 4-UAD (day)

Source height = 1.50 m

ROAD (0.00 + 64.17 + 0.00) = 64.17 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	76.17	0.00	-9.71	-2.29	0.00	0.00	0.00	64.17

Segment Leq : 64.17 dBA

Total Leq All Segments: 64.98 dBA

Results segment # 1: 2-RAU (night)

Source height = 1.50 m

ROAD (0.00 + 50.49 + 0.00) = 50.49 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	64.89	0.00	-12.22	-2.18	0.00	0.00	0.00	50.49

Segment Leq : 50.49 dBA

Results segment # 2: 4-UAD (night)

Source height = 1.50 m

ROAD (0.00 + 57.21 + 0.00) = 57.21 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	68.57	0.00	-9.19	-2.18	0.00	0.00	0.00	57.21

Segment Leq : 57.21 dBA

Total Leq All Segments: 58.05 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 64.98
(NIGHT): 58.05

STAMSON 5.0 NORMAL REPORT Date: 03-05-2018 08:10:05
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: rauad60b.te Time Period: Day/Night 16/8 hours
Description: 2-RAU & 4-UAD ola freefield composite 60 dba

Road data, segment # 1: 2-RAU (day/night)

Car traffic volume : 12144/1056 veh/TimePeriod *
Medium truck volume : 966/84 veh/TimePeriod *
Heavy truck volume : 690/60 veh/TimePeriod *
Posted speed limit : 80 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): 15000
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: 2-RAU (day/night)

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 69.23 / 69.23 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Road data, segment # 2: 4-UAD (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 : 80 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: 4-UAD (day/night)

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 300.00 / 300.00 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: 2-RAU (day)

Source height = 1.50 m

ROAD (0.00 + 59.17 + 0.00) = 59.17 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	72.49	0.00	-11.03	-2.29	0.00	0.00	0.00	59.17

Segment Leq : 59.17 dBA

Results segment # 2: 4-UAD (day)

Source height = 1.50 m

ROAD (0.00 + 52.28 + 0.00) = 52.28 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	76.17	0.00	-21.60	-2.29	0.00	0.00	0.00	52.28

Segment Leq : 52.28 dBA

Total Leq All Segments: 59.98 dBA

Results segment # 1: 2-RAU (night)

Source height = 1.50 m

ROAD (0.00 + 52.28 + 0.00) = 52.28 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	64.89	0.00	-10.43	-2.18	0.00	0.00	0.00	52.28

Segment Leq : 52.28 dBA

Results segment # 2: 4-UAD (night)

Source height = 1.50 m

ROAD (0.00 + 45.96 + 0.00) = 45.96 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	68.57	0.00	-20.43	-2.18	0.00	0.00	0.00	45.96

Segment Leq : 45.96 dBA

Total Leq All Segments: 53.19 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 59.98
(NIGHT): 53.19

STAMSON 5.0 NORMAL REPORT Date: 03-05-2018 08:08:14
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: rauad60.te Time Period: Day/Night 16/8 hours
Description: 2-RAU & 4-UAD ola freefield composite 60 dba

Road data, segment # 1: 2-RAU (day/night)

Car traffic volume : 12144/1056 veh/TimePeriod *
Medium truck volume : 966/84 veh/TimePeriod *
Heavy truck volume : 690/60 veh/TimePeriod *
Posted speed limit : 80 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): 15000
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: 2-RAU (day/night)

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 175.00 / 175.00 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Road data, segment # 2: 4-UAD (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 : 80 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: 4-UAD (day/night)

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 115.41 / 115.41 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: 2-RAU (day)

Source height = 1.50 m

ROAD (0.00 + 52.49 + 0.00) = 52.49 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	72.49	0.00	-17.71	-2.29	0.00	0.00	0.00	52.49

Segment Leq : 52.49 dBA

Results segment # 2: 4-UAD (day)

Source height = 1.50 m

ROAD (0.00 + 59.17 + 0.00) = 59.17 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	76.17	0.00	-14.71	-2.29	0.00	0.00	0.00	59.17

Segment Leq : 59.17 dBA

Total Leq All Segments: 60.01 dBA

Results segment # 1: 2-RAU (night)

Source height = 1.50 m

ROAD (0.00 + 45.96 + 0.00) = 45.96 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	64.89	0.00	-16.75	-2.18	0.00	0.00	0.00	45.96

Segment Leq : 45.96 dBA

Results segment # 2: 4-UAD (night)

Source height = 1.50 m

ROAD (0.00 + 52.48 + 0.00) = 52.48 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	68.57	0.00	-13.91	-2.18	0.00	0.00	0.00	52.48

Segment Leq : 52.48 dBA

Total Leq All Segments: 53.35 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 60.01
(NIGHT): 53.35

STAMSON 5.0 NORMAL REPORT Date: 03-05-2018 08:16:39
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: rauad55b.te Time Period: Day/Night 16/8 hours
Description: 2-RAU & 4-UAD ola freefield composite 55 dba

Road data, segment # 1: 2-RAU (day/night)

Car traffic volume : 12144/1056 veh/TimePeriod *
Medium truck volume : 966/84 veh/TimePeriod *
Heavy truck volume : 690/60 veh/TimePeriod *
Posted speed limit : 80 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): 15000
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: 2-RAU (day/night)

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 138.62 / 138.62 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Road data, segment # 2: 4-UAD (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 : 80 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: 4-UAD (day/night)

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 500.00 / 500.00 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: 2-RAU (day)

Source height = 1.50 m

ROAD (0.00 + 54.17 + 0.00) = 54.17 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	72.49	0.00	-16.03	-2.29	0.00	0.00	0.00	54.17

Segment Leq : 54.17 dBA

Results segment # 2: 4-UAD (day)

Source height = 1.50 m

ROAD (0.00 + 48.60 + 0.00) = 48.60 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	76.17	0.00	-25.28	-2.29	0.00	0.00	0.00	48.60

Segment Leq : 48.60 dBA

Total Leq All Segments: 55.23 dBA

Results segment # 1: 2-RAU (night)

Source height = 1.50 m

ROAD (0.00 + 47.55 + 0.00) = 47.55 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	64.89	0.00	-15.16	-2.18	0.00	0.00	0.00	47.55

Segment Leq : 47.55 dBA

Results segment # 2: 4-UAD (night)

Source height = 1.50 m

ROAD (0.00 + 42.48 + 0.00) = 42.48 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	68.57	0.00	-23.91	-2.18	0.00	0.00	0.00	42.48

Segment Leq : 42.48 dBA

Total Leq All Segments: 48.73 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 55.23
(NIGHT): 48.73

STAMSON 5.0 NORMAL REPORT Date: 03-05-2018 08:13:55
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: rauad55.te Time Period: Day/Night 16/8 hours
Description: 2-RAU & 4-UAD ola freefield composite 55 dba

Road data, segment # 1: 2-RAU (day/night)

Car traffic volume : 12144/1056 veh/TimePeriod *

Medium truck volume : 966/84 veh/TimePeriod *
Heavy truck volume : 690/60 veh/TimePeriod *
Posted speed limit : 80 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): 15000
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: 2-RAU (day/night)

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 350.00 / 350.00 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Road data, segment # 2: 4-UAD (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 : 80 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: 4-UAD (day/night)

Angle1 Angle2 : -90.00 deg 45.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)

Receiver source distance : 230.98 / 230.98 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: 2-RAU (day)

Source height = 1.50 m

ROAD (0.00 + 47.49 + 0.00) = 47.49 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	72.49	0.00	-22.71	-2.29	0.00	0.00	0.00	47.49

Segment Leq : 47.49 dBA

Results segment # 2: 4-UAD (day)

Source height = 1.50 m

ROAD (0.00 + 54.17 + 0.00) = 54.17 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.66	76.17	0.00	-19.71	-2.29	0.00	0.00	0.00	54.17

Segment Leq : 54.17 dBA

Total Leq All Segments: 55.01 dBA

Results segment # 1: 2-RAU (night)

Source height = 1.50 m

ROAD (0.00 + 41.23 + 0.00) = 41.23 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	64.89	0.00	-21.48	-2.18	0.00	0.00	0.00	41.23

Segment Leq : 41.23 dBA

Results segment # 2: 4-UAD (night)

Source height = 1.50 m

ROAD (0.00 + 47.75 + 0.00) = 47.75 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	45	0.57	68.57	0.00	-18.65	-2.18	0.00	0.00	0.00	47.75

Segment Leq : 47.75 dBA

Total Leq All Segments: 48.62 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 55.01
(NIGHT): 48.62

Appendix F

Transportation Noise Source Predictions

- Detailed Predicted Freefield Noise Level Calculations (Bus Rapid Transit Noise Source)

STAMSON 5.0 NORMAL REPORT Date: 02-05-2018 13:16:56
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: brt55d.te Time Period: Day/Night 16/8 hours
Description: BRT ola free field 55 dba

RT/Custom data, segment # 1: BRT (day/night)
---
1 - Bus:
Traffic volume : 200/70 veh/TimePeriod
Speed : 80 km/h

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

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 23.23 / 19.17 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: BRT (day)

Source height = 0.50 m

RT/Custom (0.00 + 55.00 + 0.00) = 55.00 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.66	59.61	-3.15	-1.46	0.00	0.00	0.00	55.00

Segment Leq : 55.00 dBA

Total Leq All Segments: 55.00 dBA

Results segment # 1: BRT (night)

Source height = 0.50 m

RT/Custom (0.00 + 55.01 + 0.00) = 55.01 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.60	58.06	-1.70	-1.35	0.00	0.00	0.00	55.01

Segment Leq : 55.01 dBA

Total Leq All Segments: 55.01 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 55.00
(NIGHT): 55.01

STAMSON 5.0 NORMAL REPORT Date: 02-05-2018 13:19:44
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: brt50d.te Time Period: Day/Night 16/8 hours
Description: BRT ola freefield 50 dba

RT/Custom data, segment # 1: BRT (day/night)
---
1 - Bus:
Traffic volume : 200/70 veh/TimePeriod
Speed : 80 km/h

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

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 46.50 / 39.39 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: BRT (day)

Source height = 0.50 m

RT/Custom (0.00 + 50.00 + 0.00) = 50.00 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.66	59.61	-8.16	-1.46	0.00	0.00	0.00	50.00

Segment Leq : 50.00 dBA

Total Leq All Segments: 50.00 dBA

Results segment # 1: BRT (night)

Source height = 0.50 m

RT/Custom (0.00 + 50.00 + 0.00) = 50.00 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.60	58.06	-6.71	-1.35	0.00	0.00	0.00	50.00

Segment Leq : 50.00 dBA

Total Leq All Segments: 50.00 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 50.00
(NIGHT): 50.00

Appendix G

Transportation Noise Source Predictions

- Detailed Predicted Mitigated Noise Level Calculations

STAMSON 5.0 NORMAL REPORT Date: 10-05-2018 08:47:50
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r1 22.te Time Period: Day/Night 16/8 hours
Description: Quinns Pointe Stage 2 r1 ola with 2.2m barrier

Road data, segment # 1: 4-UAD (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 : 80 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: 4-UAD (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 26.60 / 26.60 m
Receiver height : 1.50 / 4.50 m
Topography : 2 (Flat/gentle slope; with barrier)
Barrier angle1 : -90.00 deg Angle2 : 90.00 deg
Barrier height : 2.20 m
Barrier receiver distance : 7.00 / 7.00 m
Source elevation : 107.15 m
Receiver elevation : 107.15 m
Barrier elevation : 107.50 m
Reference angle : 0.00

Results segment # 1: 4-UAD (day)

Source height = 1.50 m

Barrier height for grazing incidence

Source ! Receiver ! Barrier ! Elevation of

Height (m) ! Height (m) ! Height (m) ! Barrier Top (m)

1.50 ! 1.50 ! 1.15 ! 108.65

ROAD (0.00 + 63.59 + 0.00) = 63.59 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.53	76.17	0.00	-3.80	-1.23	0.00	0.00	-7.54	63.59

Segment Leq : 63.59 dBA

Total Leq All Segments: 63.59 dBA

Results segment # 1: 4-UAD (night)

Source height = 1.50 m

Barrier height for grazing incidence

Source ! Receiver ! Barrier ! Elevation of
Height (m) ! Height (m) ! Height (m) ! Barrier Top (m)

1.50 ! 4.50 ! 3.36 ! 110.86

ROAD (0.00 + 63.36 + 0.00) = 63.36 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.44	68.57	0.00	-3.58	-1.06	0.00	0.00	-0.72	63.21*
-90	90	0.57	68.57	0.00	-3.91	-1.30	0.00	0.00	0.00	63.36

* Bright Zone !

Segment Leq : 63.36 dBA

Total Leq All Segments: 63.36 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 63.59
(NIGHT): 63.36

STAMSON 5.0 NORMAL REPORT Date: 10-05-2018 08:45:42
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r1 25.te Time Period: Day/Night 16/8 hours
Description: Quinns Pointe Stage 2 r1 ola with 2.5m barrier

Road data, segment # 1: 4-UAD (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 : 80 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: 4-UAD (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 26.60 / 26.60 m
Receiver height : 1.50 / 4.50 m
Topography : 2 (Flat/gentle slope; with barrier)
Barrier angle1 : -90.00 deg Angle2 : 90.00 deg
Barrier height : 2.50 m
Barrier receiver distance : 7.00 / 7.00 m
Source elevation : 107.15 m
Receiver elevation : 107.15 m
Barrier elevation : 107.50 m
Reference angle : 0.00

Results segment # 1: 4-UAD (day)

Source height = 1.50 m

Barrier height for grazing incidence

Source ! Receiver ! Barrier ! Elevation of

Height (m) ! Height (m) ! Height (m) ! Barrier Top (m)

1.50 ! 1.50 ! 1.15 ! 108.65

ROAD (0.00 + 62.63 + 0.00) = 62.63 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.51	76.17	0.00	-3.76	-1.19	0.00	0.00	-8.58	62.63

Segment Leq : 62.63 dBA

Total Leq All Segments: 62.63 dBA

Results segment # 1: 4-UAD (night)

Source height = 1.50 m

Barrier height for grazing incidence

Source ! Receiver ! Barrier ! Elevation of
Height (m) ! Height (m) ! Height (m) ! Barrier Top (m)

1.50 ! 4.50 ! 3.36 ! 110.86

ROAD (0.00 + 63.36 + 0.00) = 63.36 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.42	68.57	0.00	-3.53	-1.02	0.00	0.00	-1.61	62.41*
-90	90	0.57	68.57	0.00	-3.91	-1.30	0.00	0.00	0.00	63.36

* Bright Zone !

Segment Leq : 63.36 dBA

Total Leq All Segments: 63.36 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 62.63
(NIGHT): 63.36

STAMSON 5.0 NORMAL REPORT Date: 10-05-2018 08:44:57
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r1 35.te Time Period: Day/Night 16/8 hours
Description: Quinns Pointe Stage 2 r1 ola with 3.5m barrier

Road data, segment # 1: 4-UAD (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 : 80 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: 4-UAD (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 26.60 / 26.60 m
Receiver height : 1.50 / 4.50 m
Topography : 2 (Flat/gentle slope; with barrier)
Barrier angle1 : -90.00 deg Angle2 : 90.00 deg
Barrier height : 3.50 m
Barrier receiver distance : 7.00 / 7.00 m
Source elevation : 107.15 m
Receiver elevation : 107.15 m
Barrier elevation : 107.50 m
Reference angle : 0.00

Results segment # 1: 4-UAD (day)

Source height = 1.50 m

Barrier height for grazing incidence

Source ! Receiver ! Barrier ! Elevation of

Height (m) ! Height (m) ! Height (m) ! Barrier Top (m)

1.50 ! 1.50 ! 1.15 ! 108.65

ROAD (0.00 + 59.95 + 0.00) = 59.95 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.45	76.17	0.00	-3.61	-1.08	0.00	0.00	-11.53	59.95

Segment Leq : 59.95 dBA

Total Leq All Segments: 59.95 dBA

Results segment # 1: 4-UAD (night)

Source height = 1.50 m

Barrier height for grazing incidence

Source ! Receiver ! Barrier ! Elevation of
Height (m) ! Height (m) ! Height (m) ! Barrier Top (m)

1.50 ! 4.50 ! 3.36 ! 110.86

ROAD (0.00 + 59.22 + 0.00) = 59.22 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.36	68.57	0.00	-3.38	-0.90	0.00	0.00	-5.06	59.22

Segment Leq : 59.22 dBA

Total Leq All Segments: 59.22 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 59.95
(NIGHT): 59.22

STAMSON 5.0 NORMAL REPORT Date: 10-05-2018 08:43:43
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r1a_22.te Time Period: Day/Night 16/8 hours
Description: Quinns Pointe Stage 2 r1a ola with 2.2m barrier

Road data, segment # 1: 4-UAD (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 : 80 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: 4-UAD (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 44.40 / 44.40 m
Receiver height : 1.50 / 4.50 m
Topography : 2 (Flat/gentle slope; with barrier)
Barrier angle1 : -90.00 deg Angle2 : 90.00 deg
Barrier height : 2.20 m
Barrier receiver distance : 7.00 / 7.00 m
Source elevation : 107.15 m
Receiver elevation : 107.15 m
Barrier elevation : 107.50 m
Reference angle : 0.00

Results segment # 1: 4-UAD (day)

Source height = 1.50 m

Barrier height for grazing incidence

Source ! Receiver ! Barrier ! Elevation of

Height (m) ! Height (m) ! Height (m) ! Barrier Top (m)

1.50 ! 1.50 ! 1.15 ! 108.65

ROAD (0.00 + 60.44 + 0.00) = 60.44 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.53	76.17	0.00	-7.20	-1.23	0.00	0.00	-7.30	60.44

Segment Leq : 60.44 dBA

Total Leq All Segments: 60.44 dBA

Results segment # 1: 4-UAD (night)

Source height = 1.50 m

Barrier height for grazing incidence

Source ! Receiver ! Barrier ! Elevation of
Height (m) ! Height (m) ! Height (m) ! Barrier Top (m)

1.50 ! 4.50 ! 3.68 ! 111.18

ROAD (0.00 + 59.87 + 0.00) = 59.87 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.44	68.57	0.00	-6.78	-1.06	0.00	0.00	-0.48	60.25*
-90	90	0.57	68.57	0.00	-7.40	-1.30	0.00	0.00	0.00	59.87

* Bright Zone !

Segment Leq : 59.87 dBA

Total Leq All Segments: 59.87 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 60.44
(NIGHT): 59.87

STAMSON 5.0 NORMAL REPORT Date: 10-05-2018 08:42:51
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r1a_25.te Time Period: Day/Night 16/8 hours
Description: Quinns Pointe Stage 2 r1a ola with 2.5m barrier

Road data, segment # 1: 4-UAD (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 : 80 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: 4-UAD (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 44.40 / 44.40 m
Receiver height : 1.50 / 4.50 m
Topography : 2 (Flat/gentle slope; with barrier)
Barrier angle1 : -90.00 deg Angle2 : 90.00 deg
Barrier height : 2.50 m
Barrier receiver distance : 7.00 / 7.00 m
Source elevation : 107.15 m
Receiver elevation : 107.15 m
Barrier elevation : 107.50 m
Reference angle : 0.00

Results segment # 1: 4-UAD (day)

Source height = 1.50 m

Barrier height for grazing incidence

Source ! Receiver ! Barrier ! Elevation of

Height (m) ! Height (m) ! Height (m) ! Barrier Top (m)

1.50 ! 1.50 ! 1.15 ! 108.65

ROAD (0.00 + 59.58 + 0.00) = 59.58 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.51	76.17	0.00	-7.12	-1.19	0.00	0.00	-8.28	59.58

Segment Leq : 59.58 dBA

Total Leq All Segments: 59.58 dBA

Results segment # 1: 4-UAD (night)

Source height = 1.50 m

Barrier height for grazing incidence

Source ! Receiver ! Barrier ! Elevation of
Height (m) ! Height (m) ! Height (m) ! Barrier Top (m)

1.50 ! 4.50 ! 3.68 ! 111.18

ROAD (0.00 + 59.87 + 0.00) = 59.87 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.42	68.57	0.00	-6.69	-1.02	0.00	0.00	-0.81	60.05*
-90	90	0.57	68.57	0.00	-7.40	-1.30	0.00	0.00	0.00	59.87

* Bright Zone !

Segment Leq : 59.87 dBA

Total Leq All Segments: 59.87 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 59.58
(NIGHT): 59.87

STAMSON 5.0 NORMAL REPORT Date: 10-05-2018 08:50:03
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r2 22.te Time Period: Day/Night 16/8 hours
Description: Quinns Pointe Stage 2 r2 ola with 2.2m barrier

Road data, segment # 1: 2-RAU (day/night)

Car traffic volume : 12144/1056 veh/TimePeriod *
Medium truck volume : 966/84 veh/TimePeriod *
Heavy truck volume : 690/60 veh/TimePeriod *
Posted speed limit : 80 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): 15000
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: 2-RAU (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 18.60 / 18.60 m
Receiver height : 1.50 / 4.50 m
Topography : 2 (Flat/gentle slope; with barrier)
Barrier angle1 : -90.00 deg Angle2 : 90.00 deg
Barrier height : 2.20 m
Barrier receiver distance : 6.00 / 6.00 m
Source elevation : 102.30 m
Receiver elevation : 103.00 m
Barrier elevation : 103.40 m
Reference angle : 0.00

Results segment # 1: 2-RAU (day)

Source height = 1.50 m

Barrier height for grazing incidence

Source ! Receiver ! Barrier ! Elevation of

Height (m) ! Height (m) ! Height (m) ! Barrier Top (m)

1.50 ! 1.50 ! 0.87 ! 104.27

ROAD (0.00 + 60.77 + 0.00) = 60.77 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.53	72.49	0.00	-1.43	-1.23	0.00	0.00	-9.06	60.77

Segment Leq : 60.77 dBA

Total Leq All Segments: 60.77 dBA

Results segment # 1: 2-RAU (night)

Source height = 1.50 m

Barrier height for grazing incidence

Source ! Receiver ! Barrier ! Elevation of
Height (m) ! Height (m) ! Height (m) ! Barrier Top (m)

1.50 ! 4.50 ! 2.90 ! 106.30

ROAD (0.00 + 62.12 + 0.00) = 62.12 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.44	64.89	0.00	-1.34	-1.06	0.00	0.00	-2.40	60.09*
-90	90	0.57	64.89	0.00	-1.47	-1.30	0.00	0.00	0.00	62.12

* Bright Zone !

Segment Leq : 62.12 dBA

Total Leq All Segments: 62.12 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 60.77
(NIGHT): 62.12

STAMSON 5.0 NORMAL REPORT Date: 10-05-2018 08:50:47
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r2 25.te Time Period: Day/Night 16/8 hours
Description: Quinns Pointe Stage 2 r2 ola with 2.5m barrier

Road data, segment # 1: 2-RAU (day/night)

Car traffic volume : 12144/1056 veh/TimePeriod *
Medium truck volume : 966/84 veh/TimePeriod *
Heavy truck volume : 690/60 veh/TimePeriod *
Posted speed limit : 80 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): 15000
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: 2-RAU (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 18.60 / 18.60 m
Receiver height : 1.50 / 4.50 m
Topography : 2 (Flat/gentle slope; with barrier)
Barrier angle1 : -90.00 deg Angle2 : 90.00 deg
Barrier height : 2.50 m
Barrier receiver distance : 6.00 / 6.00 m
Source elevation : 102.30 m
Receiver elevation : 103.00 m
Barrier elevation : 103.40 m
Reference angle : 0.00

Results segment # 1: 2-RAU (day)

Source height = 1.50 m

Barrier height for grazing incidence

Source ! Receiver ! Barrier ! Elevation of

Height (m) ! Height (m) ! Height (m) ! Barrier Top (m)

1.50 ! 1.50 ! 0.87 ! 104.27

ROAD (0.00 + 59.76 + 0.00) = 59.76 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.51	72.49	0.00	-1.41	-1.19	0.00	0.00	-10.12	59.76

Segment Leq : 59.76 dBA

Total Leq All Segments: 59.76 dBA

Results segment # 1: 2-RAU (night)

Source height = 1.50 m

Barrier height for grazing incidence

Source ! Receiver ! Barrier ! Elevation of
Height (m) ! Height (m) ! Height (m) ! Barrier Top (m)

1.50 ! 4.50 ! 2.90 ! 106.30

ROAD (0.00 + 62.12 + 0.00) = 62.12 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.42	64.89	0.00	-1.33	-1.02	0.00	0.00	-4.31	58.24*
-90	90	0.57	64.89	0.00	-1.47	-1.30	0.00	0.00	0.00	62.12

* Bright Zone !

Segment Leq : 62.12 dBA

Total Leq All Segments: 62.12 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 59.76
(NIGHT): 62.12

STAMSON 5.0 NORMAL REPORT Date: 10-05-2018 08:51:31
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r3 22.te Time Period: Day/Night 16/8 hours
Description: Quinns Pointe Stage 2 r3 ola with 2.2m barrier

Road data, segment # 1: 2-ucu (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 # 1: 2-ucu (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 19.30 / 19.30 m
Receiver height : 1.50 / 4.50 m
Topography : 2 (Flat/gentle slope; with barrier)
Barrier angle1 : -90.00 deg Angle2 : 90.00 deg
Barrier height : 2.20 m
Barrier receiver distance : 8.00 / 8.00 m
Source elevation : 102.75 m
Receiver elevation : 102.75 m
Barrier elevation : 103.10 m
Reference angle : 0.00

Results segment # 1: 2-ucu (day)

Source height = 1.50 m

Barrier height for grazing incidence

Source ! Receiver ! Barrier ! Elevation of

Height (m) ! Height (m) ! Height (m) ! Barrier Top (m)

1.50 ! 1.50 ! 1.15 ! 104.25

ROAD (0.00 + 55.12 + 0.00) = 55.12 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.53	65.75	0.00	-1.67	-1.23	0.00	0.00	-7.73	55.12

Segment Leq : 55.12 dBA

Total Leq All Segments: 55.12 dBA

Results segment # 1: 2-ucu (night)

Source height = 1.50 m

Barrier height for grazing incidence

Source ! Receiver ! Barrier ! Elevation of
Height (m) ! Height (m) ! Height (m) ! Barrier Top (m)

1.50 ! 4.50 ! 2.90 ! 106.00

ROAD (0.00 + 55.14 + 0.00) = 55.14 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.44	58.16	0.00	-1.57	-1.06	0.00	0.00	-2.77	52.76*
-90	90	0.57	58.16	0.00	-1.72	-1.30	0.00	0.00	0.00	55.14

* Bright Zone !

Segment Leq : 55.14 dBA

Total Leq All Segments: 55.14 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 55.12
(NIGHT): 55.14

STAMSON 5.0 NORMAL REPORT Date: 10-05-2018 08:52:21
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r3_25.te Time Period: Day/Night 16/8 hours
Description: Quinns Pointe Stage 2 r3 ola with 2.5m barrier

Road data, segment # 1: 2-ucu (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 # 1: 2-ucu (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 19.30 / 19.30 m
Receiver height : 1.50 / 4.50 m
Topography : 2 (Flat/gentle slope; with barrier)
Barrier angle1 : -90.00 deg Angle2 : 90.00 deg
Barrier height : 2.50 m
Barrier receiver distance : 8.00 / 8.00 m
Source elevation : 102.75 m
Receiver elevation : 102.75 m
Barrier elevation : 103.10 m
Reference angle : 0.00

Results segment # 1: 2-ucu (day)

Source height = 1.50 m

Barrier height for grazing incidence

Source ! Receiver ! Barrier ! Elevation of

Height (m) ! Height (m) ! Height (m) ! Barrier Top (m)

1.50 ! 1.50 ! 1.15 ! 104.25

ROAD (0.00 + 54.09 + 0.00) = 54.09 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.51	65.75	0.00	-1.65	-1.19	0.00	0.00	-8.81	54.09

Segment Leq : 54.09 dBA

Total Leq All Segments: 54.09 dBA

Results segment # 1: 2-ucu (night)

Source height = 1.50 m

Barrier height for grazing incidence

Source ! Receiver ! Barrier ! Elevation of
Height (m) ! Height (m) ! Height (m) ! Barrier Top (m)

1.50 ! 4.50 ! 2.90 ! 106.00

ROAD (0.00 + 55.14 + 0.00) = 55.14 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.42	58.16	0.00	-1.55	-1.02	0.00	0.00	-4.39	51.19*
-90	90	0.57	58.16	0.00	-1.72	-1.30	0.00	0.00	0.00	55.14

* Bright Zone !

Segment Leq : 55.14 dBA

Total Leq All Segments: 55.14 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 54.09
(NIGHT): 55.14

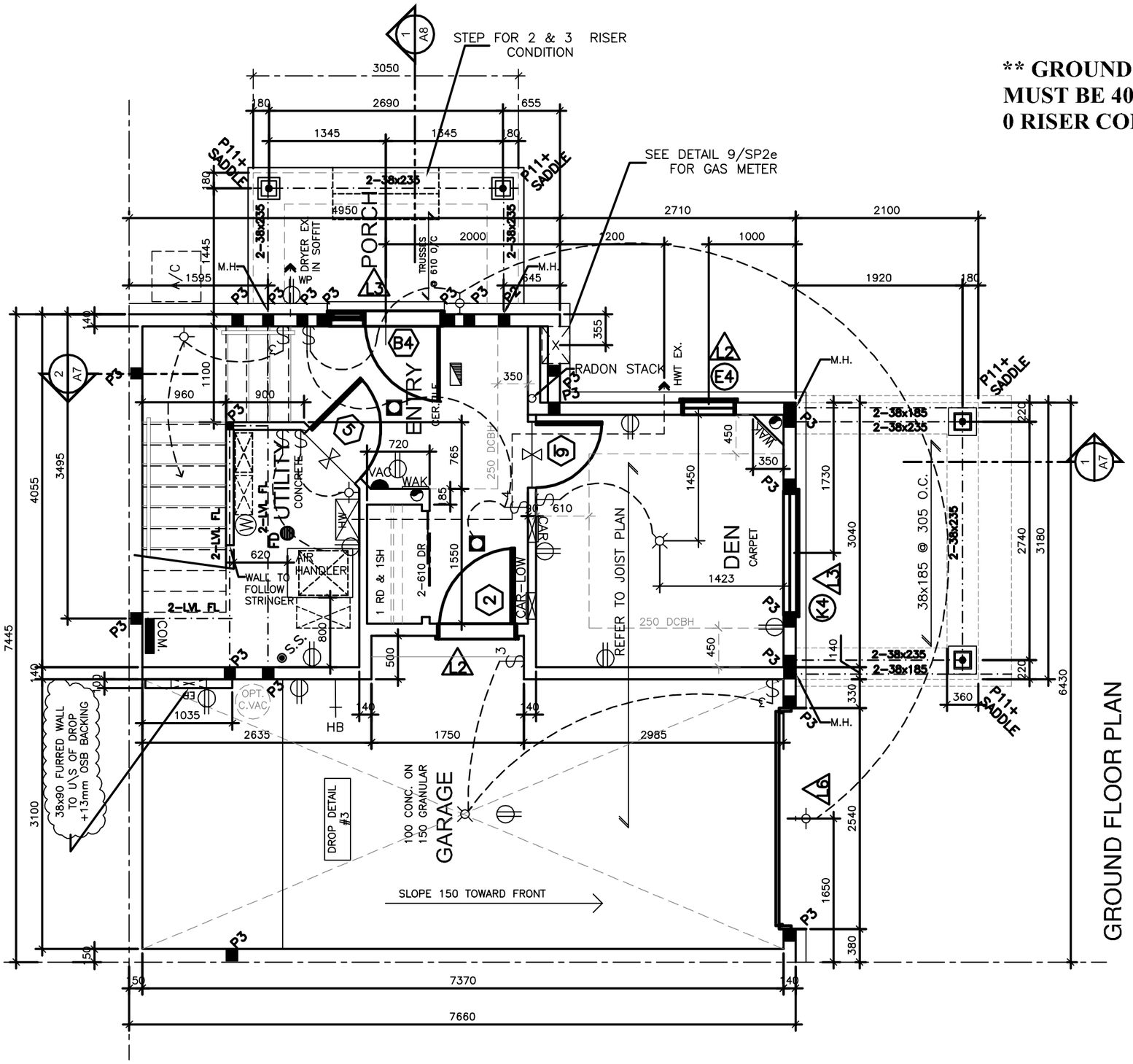
Appendix H

Building Elevation Drawings

- The Jasper – 2017
- The Venice – 2015
- The Madison
- Infusion Terrace – 2016

REFER TO SP-3d/SP-3e/SP-3f FOR FIRE RATING DETAILS

**** GROUND FLOOR WALL STUDS MUST BE 40mm SHORTER FOR THE 0 RISER CONDITION ****



GROUND FLOOR PLAN

No	Revision	Date	By
19	CLARIFIED EP WALL FURRING	OCT 24/16	KO
18	WALL REVISED FOR MECH.	AUG 08/16	MC
17	A/C LOCATION REVISED	JUL 07/16	MC
16	ENTRY DOORS REVERSED	JUL 06/16	MC
15	RISERS ADDED	NOV 27/15	MC
14	REVISED P3 LOCATION FOR GIRDER TRUSS	NOV 18/15	PS
13	GAS METER REFERENCE REVISED	NOV 17/15	MC
12	CLARIFIED LIGHT SWITCH FOR GARAGE	OCT 9/15	PS
11	STEP ADDED FOR 2 RISER	SEP 03/15	MC
10	REVISED ENTRY CLOSET DOORS	AUG 4/15	PS
9	ADDED WARM AIR	JUN 17/15	KO
8	REVISED HANDRAIL	JUN 15/15	PS
7	REMOVED WATER METRE READER	APR 16/15	PS
6	POST ADDED AT GARAGE WALL	MAR 23/15	MC
5	ADDED RADON STACK	NOV 06/14	KO
4	ISSUED FOR CONSTRUCTION	JUL 02/14	KO
3	ISSUED FOR STRUCTURAL LETTER ISSUED FOR BUILDING PERMIT	JUN 24/14	KO
2	ISSUED FOR STRUCTURAL REVIEW ISSUED FOR TRUSSES & HVAC	APR 29/14	KO
1	ISSUED FOR PRICING	APR 25/14	KO

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CONFIDENTIAL

STRUCTURAL FRAMING LEGEND:	SEE DWG A3
ELEVATION LEGEND:	SEE DWG A5
FLOOR PLAN LEGEND:	SEE DWG SP-1
DR/WIN LEGEND:	SEE DWG SP-7*
FOR ADDED INFO., ABBREV'S, SYMBOLS:	SEE SPECS. SP-*

TITLE
GROUND FLOOR PLAN

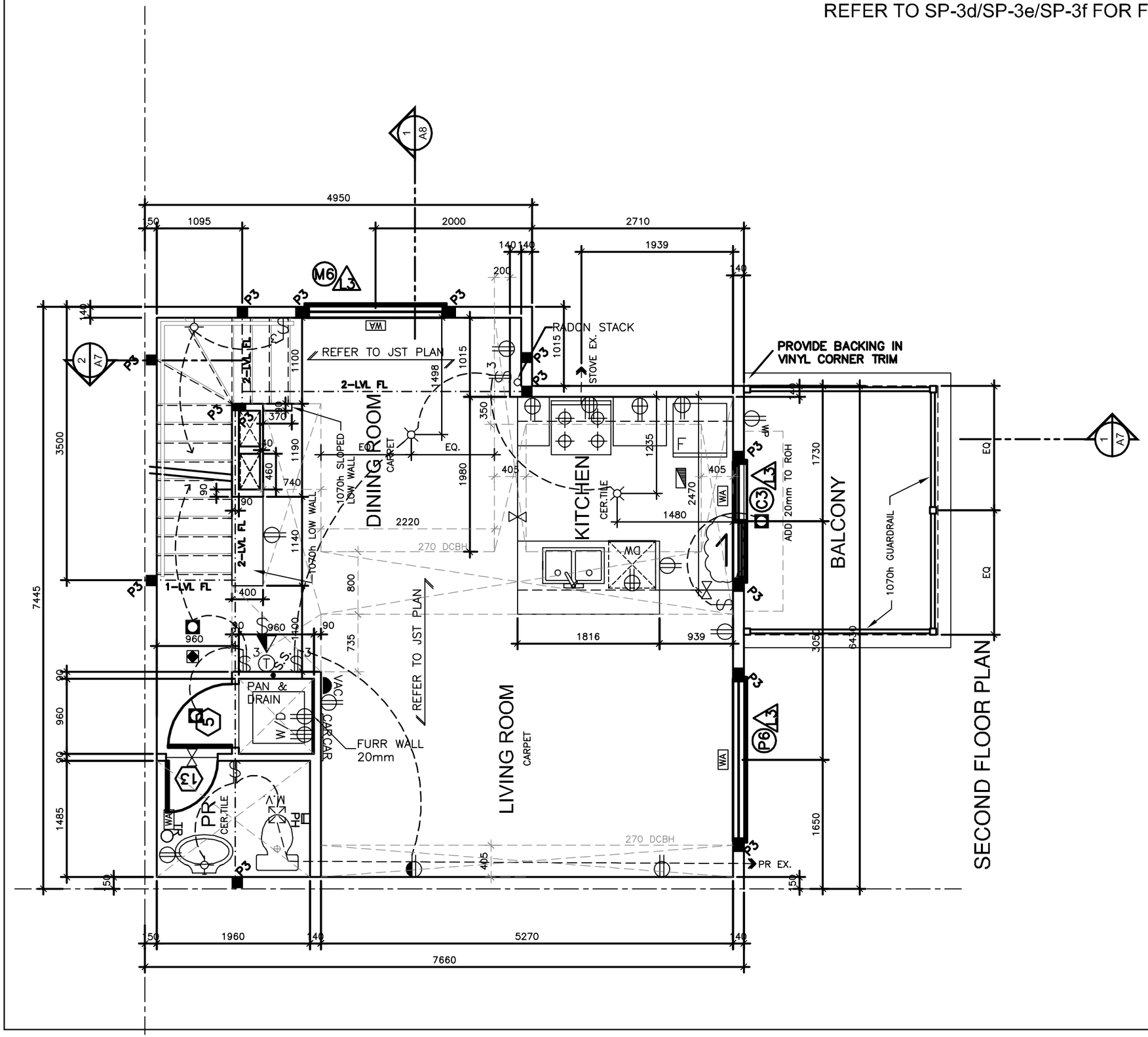
FILENAME: the madison-flr-2014.dwg

2014-BACK TO BACK TOWNHOMES
THE MADISON -
ELEV. A & B
(2014 STANDARD DRAWING)

Scale 1:50

dwg # A-2

REFER TO SP-3d/SP-3e/SP-3f FOR FIRE RATING DETAILS



STRUCTURAL FRAMING SCHEDULE

For Steel Framing Layout, Beam/Column/Plate Connection Details, see Structural Dwgs ST- * (Also Specs SP-1 & SP-4).

STEEL LINTEL

- S1 – L 90x90x6
- S2 – L 90x90x8
- S3 – L 100x90x6
- S4 – L 125x90x8
- S5 – L 125x90x10
- S6 – L 200x100x12
- S7 – L 150x100x10 (L.L.V.) 200mm BEARING
- S8 – L 100x90x8

WOOD LINTEL

- L1 – 2–38x235 w/ 12.7 PLYWOOD SPACER
- L2 – 2–38x235
- L3 – 3–38x235
- L4 – 3–38x235 c/w 2–12.7 PLYWOOD SPACERS & 2 ROWS OF 90mm C.W.N. @ 200 c/c B/S
- L5 – 3–38x286 c/w 2–12.7 PLYWOOD SPACERS & 2 ROWS OF 90mm C.W.N. @ 200 c/c B/S
- L6 – 2–45x240 M.L.
- L7 – 3–45x240 M.L.
- L8 – 2–38x286
- L9 – 3–38x286

PROVIDE 'P2' POST BOTH ENDS OF LINTEL UNLESS NOTED OTHERWISE

POSTS

- P1(8) – 75 ø STEEL TELEPOST (8 Feet Max)
- P1(9) – 75 ø STEEL TELEPOST (9 Feet Max)
- P2 – 2–38x89 or 2–38x140
- P3 – 3–38x89 or 3–38x140
- P4 – 4–38x89 or 4–38x140
- P5 – 5–38x89 or 5–38x140
- P6 – 6–38x89 or 6–38x140
- P11 – HEAVY DUTY STEEL POST, CAPACITY = 55 KN
- P12 – ADJUSTABLE HSS, CAPACITY 100 KN

- HSS 73 OD – HSS 73 O.D. X 4.8 + 12mm PLATE TOP & BOTT.
- HSS 89 OD – HSS 89 O.D. X 4.8 + 12mm PLATE TOP & BOTT.
- HSS 76 – HSS 76.2 X 76.2 X 4.8 + 12mm PLATE TOP & BOTT.
- HSS 89 – HSS 89 X 89 X 4.8 + 12mm PLATE TOP & BOTT.
- HSS 102 – HSS 102 X 102 X 4.8 + 12mm PLATE TOP & BOTT.

ANCHOR POST TO FOUNDATION W\ 2–12ø WEDGE ANCHORS
PROVIDE 'P2' UNDER ALL DOUBLE JOISTS & TRUSSES U.N.O.

FOOTINGS

ALL FOOTINGS DESIGNED FOR ALLOWABLE SOIL CAP.= 100kpa

No	Revision	Date	By
16	REVISED PATIO DOOR DIRECTION	OCT 19/16	PS
15	WALL REVISED FOR MECH/CV RELO'D.	AUG 08/16	MC
14	CLARIFIED PRINCIPAL EXH. SWITCH LOCATION	JUL 25/16	PS
13	REVISED DCBH ON 2ND FLOOR	DEC 23/15	PS
12	NOTE FOR PAN UNDER WASHER ADDED	NOV 19/15	MC
11	REVISED P3 LOCATION FOR GIRDER TRUSS	NOV 18/15	PS
10	GUARD REVISED	JUL 29/15	MC
9	ADDED FRAMING	JUN 17/15	KO
8	REVISED HANDRAIL	JUN 15/15	PS
7	FURRED WALL @ RADON STACK	MAR 27/15	PS
6	BEAM AT STAIR EXTENDED POST DEL'D	MAR 23/15	MC
5	ADDED RADON STACK	NOV 06/14	KO
4	ISSUED FOR CONSTRUCTION	JUL 02/14	KO
3	ISSUED FOR STRUCTURAL LETTER ISSUED FOR BUILDING PERMIT	JUN 24/14	KO
2	ISSUED FOR STRUCTURAL REVIEW ISSUED FOR TRUSSES & HVAC	APR 29/14	KO
1	ISSUED FOR PRICING	APR 25/14	KO

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CONFIDENTIAL

STRUCTURAL FRAMING LEGEND:	SEE DWG A3
ELEVATION LEGEND:	SEE DWG A5
FLOOR PLAN LEGEND:	SEE DWG SP–1
DR/WIN LEGEND:	SEE DWG SP–7*
FOR ADDED INFO., ABBREV'S, SYMBOLS:	SEE SPECS. SP–*

TITLE

SECOND FLOOR PLAN

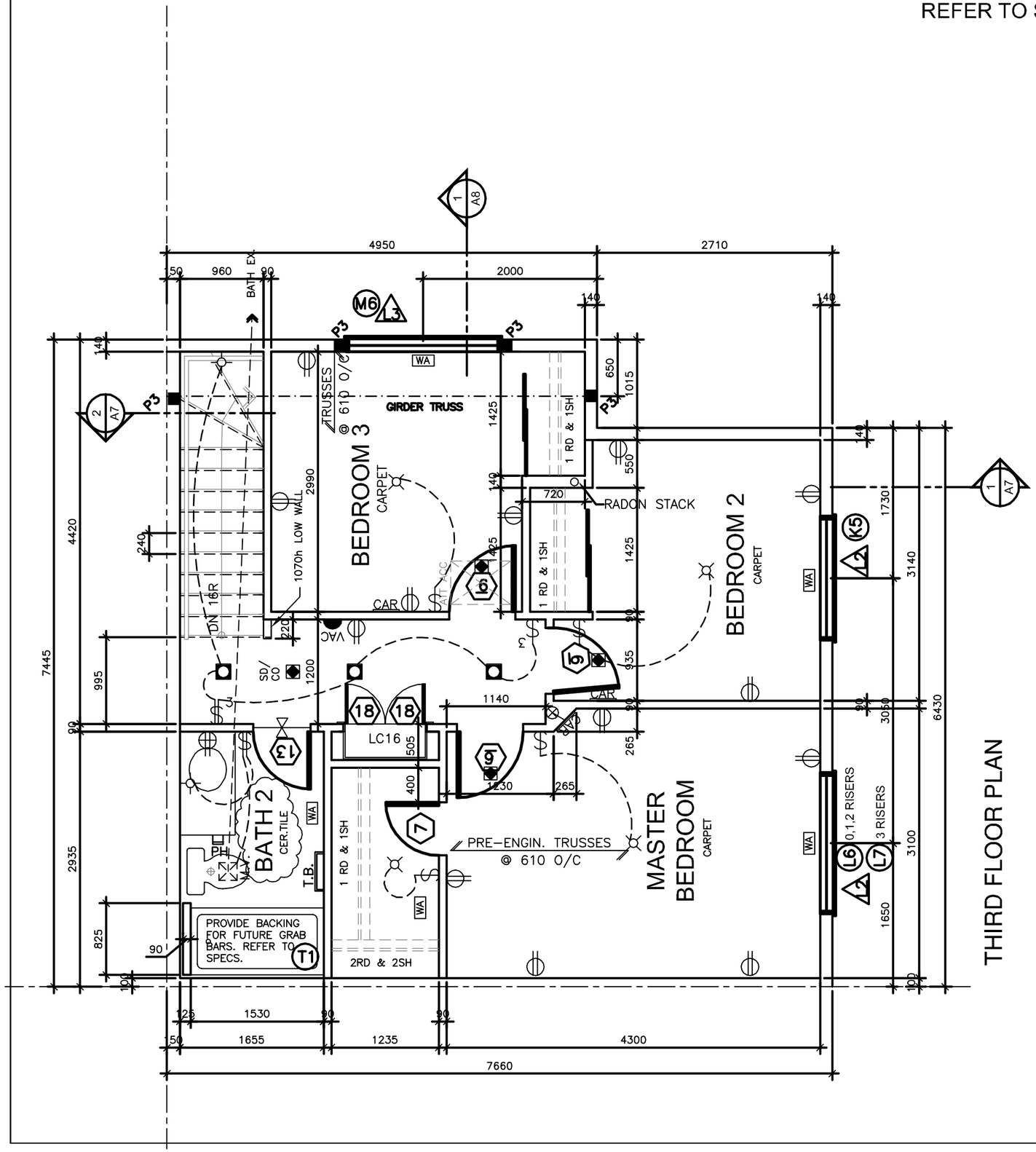
FILENAME: the madison–flr–2014.dwg

2014–BACK TO BACK TOWNHOMES
THE MADISON -
ELEV. A & B
(2014 STANDARD DRAWING)

Scale 1:50

dwg # A-3

REFER TO SP-3d/SP-3e/SP-3f FOR FIRE RATING DETAILS



THIRD FLOOR PLAN

No	Revision	Date	By
11	REVISED ROOM NAME FOR SAP	FEB 10/16	KO
10	WINDOW REVISED FOR 3 RISERS	NOV 27/15	MC
9	REVISED P3 LOCATION FOR GIRDER TRUSS	NOV 18/15	PS
8	ADDED PLUMBING CODES	JUN 17/15	KO
7	REVISED HANDRAIL	JUN 15/15	PS
6	ATTIC ACCESS RELOCATED AS PER SITE	FEB 17/15	MC
5	ADDED RADON STACK	NOV 06/14	KO
4	ISSUED FOR CONSTRUCTION	JUL 02/14	KO
3	ISSUED FOR STRUCTURAL LETTER ISSUED FOR BUILDING PERMIT	JUN 24/14	KO
2	ISSUED FOR STRUCTURAL REVIEW ISSUED FOR TRUSSES & HVAC	APR 29/14	KO
1	ISSUED FOR PRICING	APR 25/14	KO

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CONFIDENTIAL

STRUCTURAL FRAMING LEGEND:	SEE DWG A3
ELEVATION LEGEND:	SEE DWG A5
FLOOR PLAN LEGEND:	SEE DWG SP-1
DR/WIN LEGEND:	SEE DWG SP-7*
FOR ADDED INFO., ABBREV'S, SYMBOLS:	SEE SPECS. SP-*

TITLE
THIRD FLOOR PLAN

FILENAME: the madison-flr-2014.dwg

2014-BACK TO BACK TOWNHOMES
THE MADISON -
ELEV. A & B
(2014 STANDARD DRAWING)

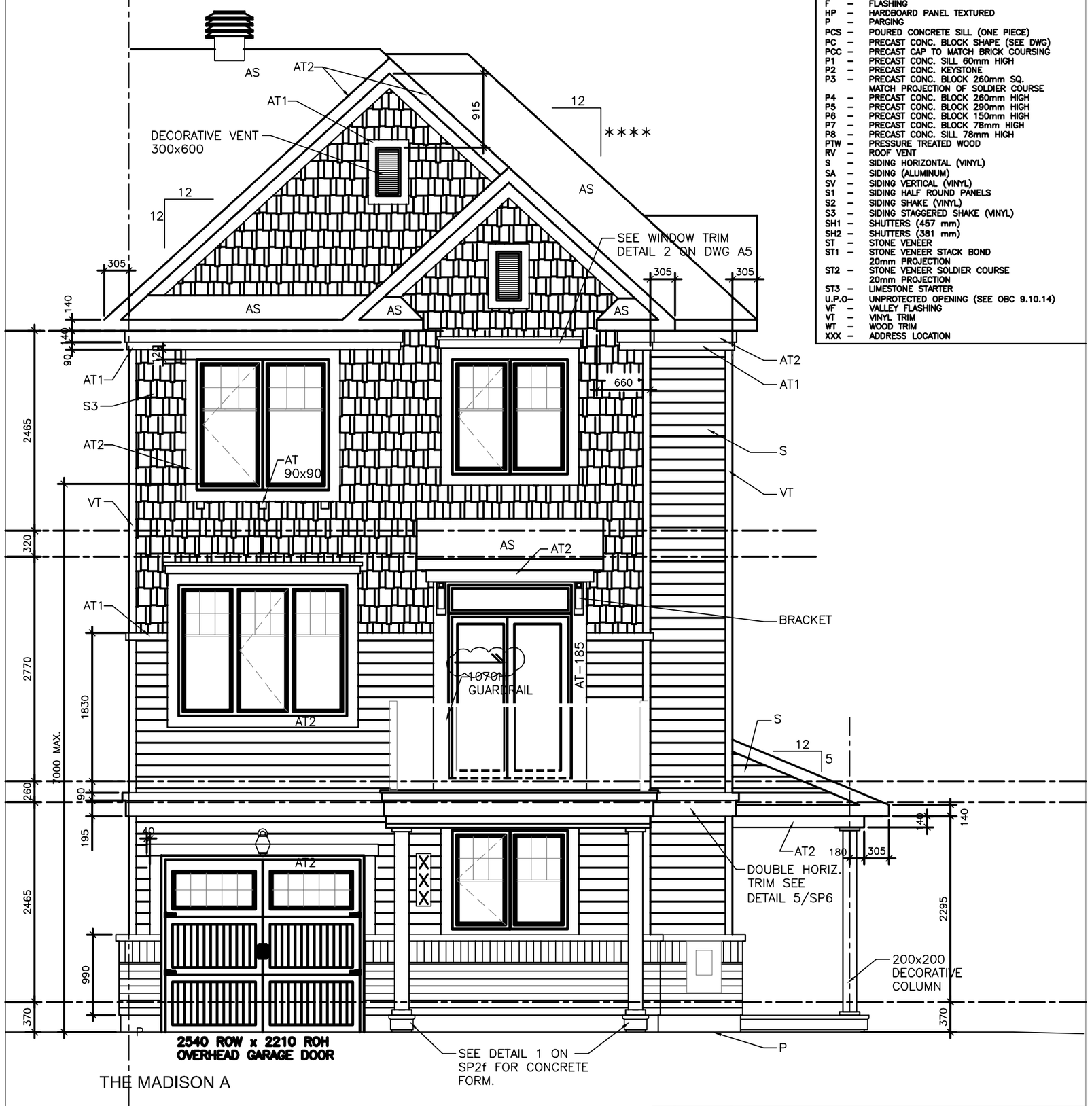
Scale 1:50

dwg # A-4

EXTERIOR FINISHES

AC	–	ACRYLIC FINISH
ACT1	–	ACRYLIC FINISH TRIM (90mm)
ACT2	–	ACRYLIC FINISH TRIM (140mm)
AL	–	ALUMINUM
AT1	–	ALUMINUM TRIM (90mm)
AT2	–	ALUMINUM TRIM (140mm)
AS	–	ASPHALT SHINGLES
B	–	BRICK VENEER (nominal size = 260x80)
B1	–	BRICK SOLDIER COURSE
B2	–	BRICK SOLDIER COURSE (20mm projection)
B3	–	BRICK STRETCHER COURSE
B4	–	BRICK STACK BOND
B5	–	BRICK SILL ROWLOCK (SLOPED)
B6	–	BRICK ROWLOCK
B7	–	BRICK CORBELLING
B8	–	BRICK COINING (20mm projection)
B9	–	BRICK HERRINGBONE
+20	–	MASONRY PROJECTING 20mm
–20	–	MASONRY RECESSED 20mm
CB	–	CEMENT BOARD PANEL
CBT	–	CEMENT BOARD TRIM
CBS	–	CEMENT BOARD SIDING
EB	–	EXTRA BRICK
F	–	FLASHING
HP	–	HARDBOARD PANEL TEXTURED
P	–	PARGING
PCS	–	POURED CONCRETE SILL (ONE PIECE)
PC	–	PRECAST CONC. BLOCK SHAPE (SEE DWG)
PCC	–	PRECAST CAP TO MATCH BRICK COURSING
P1	–	PRECAST CONC. SILL 60mm HIGH
P2	–	PRECAST CONC. KEYSTONE
P3	–	PRECAST CONC. BLOCK 260mm SQ. MATCH PROJECTION OF SOLDIER COURSE
P4	–	PRECAST CONC. BLOCK 260mm HIGH
P5	–	PRECAST CONC. BLOCK 290mm HIGH
P6	–	PRECAST CONC. BLOCK 150mm HIGH
P7	–	PRECAST CONC. BLOCK 78mm HIGH
P8	–	PRECAST CONC. SILL 78mm HIGH
PTW	–	PRESSURE TREATED WOOD
RV	–	ROOF VENT
S	–	SIDING HORIZONTAL (VINYL)
SA	–	SIDING (ALUMINUM)
SV	–	SIDING VERTICAL (VINYL)
S1	–	SIDING HALF ROUND PANELS
S2	–	SIDING SHAKE (VINYL)
S3	–	SIDING STAGGERED SHAKE (VINYL)
SH1	–	SHUTTERS (457 mm)
SH2	–	SHUTTERS (381 mm)
ST	–	STONE VENEER
ST1	–	STONE VENEER STACK BOND 20mm PROJECTION
ST2	–	STONE VENEER SOLDIER COURSE 20mm PROJECTION
ST3	–	LIMESTONE STARTER
U.P.O	–	UNPROTECTED OPENING (SEE OBC 9.10.14)
VF	–	VALLEY FLASHING
VT	–	VINYL TRIM
WT	–	WOOD TRIM
XXX	–	ADDRESS LOCATION

****12/12 AVALON WEST BLK 34,35,36
11/12 ALL OTHER BLOCKS



THE MADISON A

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CONFIDENTIAL

STRUCTURAL FRAMING LEGEND:	SEE DWG A3
ELEVATION LEGEND:	SEE DWG A5
FLOOR PLAN LEGEND:	SEE DWG SP–1
DR/WIN LEGEND:	SEE DWG SP–7*
FOR ADDED INFO., ABBREV'S, SYMBOLS:	SEE SPECS. SP–*

TITLE
FRONT ELEVATION A

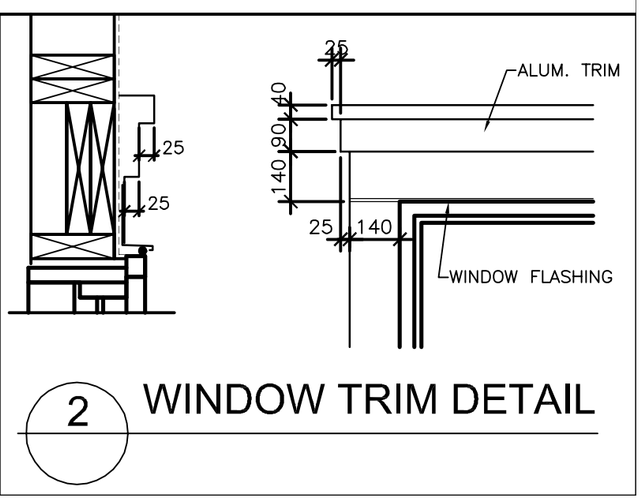
FILENAME: the madison–elev–2014.dwg

Scale 1:50

dwg # A-5

2014–BACK TO BACK TOWNHOMES
THE MADISON - ELEV. A & B
(2014 STANDARD DRAWING)

No	Revision	Date	By
7	REVISED PATIO DOOR DIRECTION	OCT 19/16	PS
6	ADDED DETAIL NOTE	JUL 29/16	KO
5	ROOF SLOPE REVISED	MAR 10/15	MC
4	ISSUED FOR CONSTRUCTION	JUL 02/14	KO
3	ISSUED FOR STRUCTURAL LETTER ISSUED FOR BUILDING PERMIT	JUN 24/14	KO
2	ISSUED FOR STRUCTURAL REVIEW ISSUED FOR TRUSSES & HVAC	APR 29/14	KO
1	ISSUED FOR PRICING	APR 25/14	KO

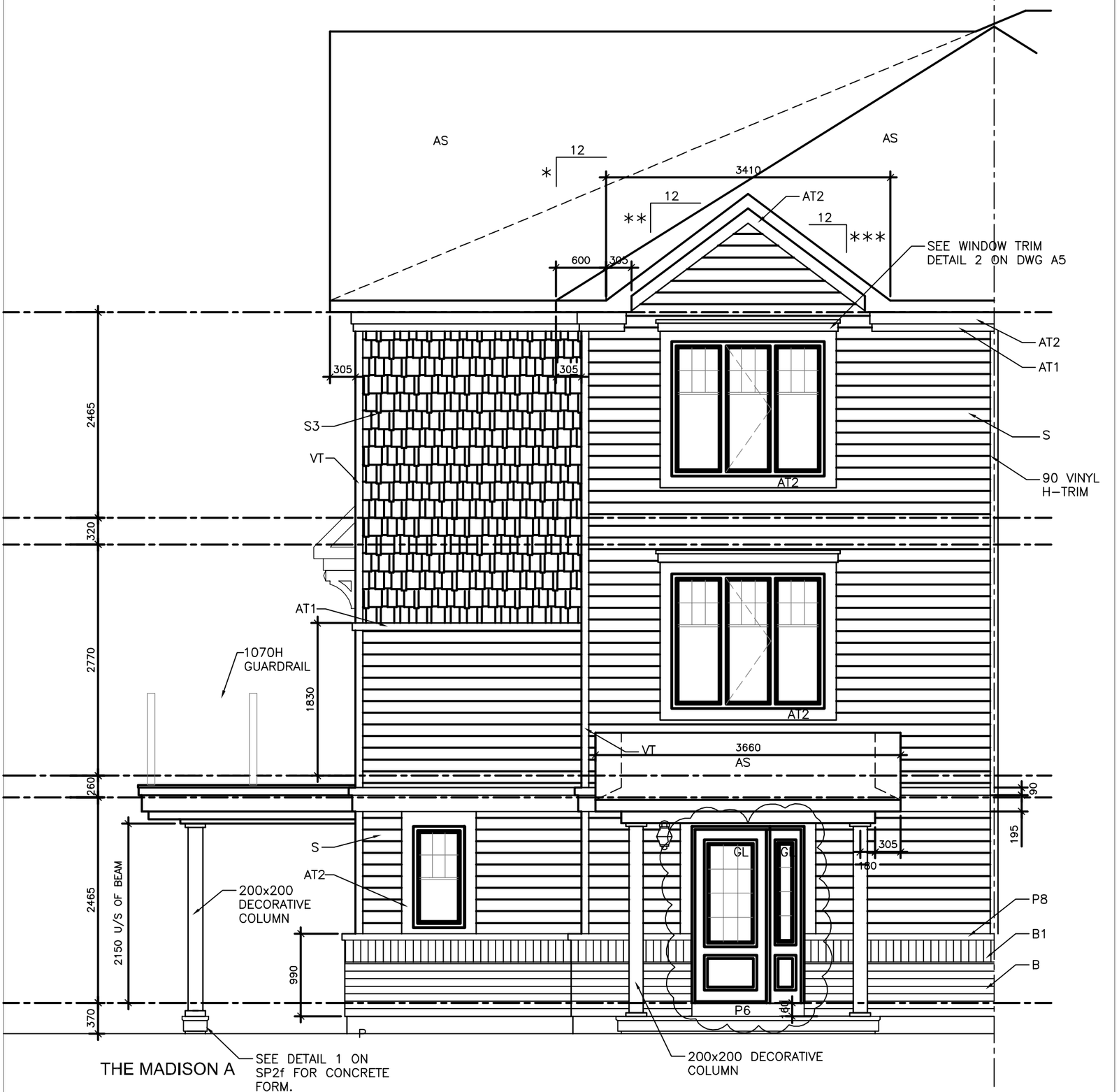


2 WINDOW TRIM DETAIL

∗ 7/12 AVALON WEST BLK 34,35,36
5/12 ALL OTHER BLOCKS

∗∗ 10/12 AVALON WEST BLK 34,35,36
7.5/12 ALL OTHER BLOCKS

∗∗∗ 10/12 AVALON WEST BLK 34,35,36
9/12 ALL OTHER BLOCKS



AREA OF EXPOSED BUILDING FACE	66.25 m²
x13% (LIMITING DISTANCE @ 3.0m)	x 0.13%
MAX. UNPROTECTED AREA ALLOWED	8.61 m²
UNPROTECTED AREA PROVIDED	8.07 m²

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CONFIDENTIAL

STRUCTURAL FRAMING LEGEND:	SEE DWG A3
ELEVATION LEGEND:	SEE DWG A5
FLOOR PLAN LEGEND:	SEE DWG SP-1
DR/WIN LEGEND:	SEE DWG SP-7*
FOR ADDED INFO., ABBREV'S, SYMBOLS:	SEE SPECS. SP-*

TITLE
SIDE ELVATION A

FILENAME: the madison-elev-2014.dwg

Scale 1:50

dwg # A-6

2014-BACK TO BACK TOWNHOMES
THE MADISON -
ELEV. A & B
(2014 STANDARD DRAWING)

No	Revision	Date	By
7	REVISED ENTRY DOOR SWING/ SIDE-LITE	SEPT 19/16	PS
6	ADDED DETAIL NOTE	JUL 29/16	KO
5	ROOF SLOPE REVISED	MAR 10/15	MC
4	ISSUED FOR CONSTRUCTION	JUL 02/14	KO
3	ISSUED FOR STRUCTURAL LETTER ISSUED FOR BUILDING PERMIT	JUN 24/14	KO
2	ISSUED FOR STRUCTURAL REVIEW ISSUED FOR TRUSSES & HVAC	APR 29/14	KO
1	ISSUED FOR PRICING	APR 25/14	KO

F1

TYPICAL 45 MIN. RATED FLOOR
FRR 45MIN., N1/FCA 45-01
UNDERLAY FOR:
VINYL FLOOR- 6.3mm
CERAMIC TILE- 15.9mm w\4mm GAP BETWEEN SHEETS
CARPET- UNDERPAD

19mm T&G SUBFLOOR (HIGH DENSITY)
JOISTS AS PER NASCOR DRAWINGS
RESILIENT CHANNELS @ 405mm O.C.
15.9 FIRECODE 'C' DRYWALL

F2

TYPICAL 1 HR. RATED FLOOR
FRR 1HR, STC 61, IIC 30, OBC SB3-F15c
UNDERLAY FOR:
VINYL FLOOR -6.3mm
CERAMIC TILE- 15.9mm w\4mm GAP BETWEEN SHEETS
CARPET - UNDERPAD
25mm GYPCRETE
6mm ACCOUSTIC MAT
19mm T&G SUBFLOOR (HIGH DENSITY)
JOISTS AS PER NASCOR DRAWINGS
90mm SOUND BATTS
RESILIENT CHANNELS @ 405mm O.C.
2-15.9 TYPE 'X' GYPSUM BD., BOTH LAYERS
JOINTS TO BE TAPED

W1

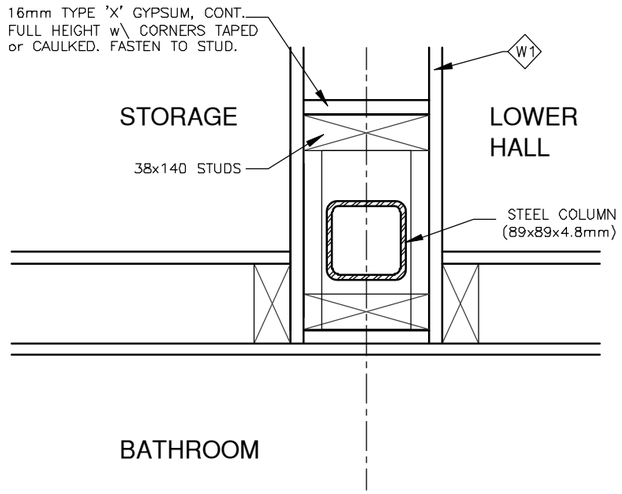
RATED WALL-
FRR 1HR, OBC SB3-W1d
15.8 TYPE 'X' GYPSUM BD.
38x90/ 38x140 FRAMING @405 O/C
15.8 TYPE 'X' GYPSUM BD.

W2

STAIR WALL-
FRR 1HR, STC 55, OBC SB3-W8a
2-15.8 TYPE 'X' GYPSUM BD.
RESILIENT CHANNEL @405 O.C.
(ON KITCHEN SIDE)
38x90 or 38x140 FRAMING @405 O/C
90mm ACCOUSTIC BATTS,
FLEXIBATT
2-15.8 TYPE 'X' GYPSUM BD.

W3

RATED WALL-
FRR 1HR, OBC SB3-W1d
15.8 TYPE 'X' GYPSUM BD.
38x90 FRAMING @405 O/C
2-15.8 TYPE 'X' GYPSUM BD.
ON STAIR SIDE



PW1

90 PARTY WALL-
FRR 1HR, OBC SB3-W15a
O.B.C. ASSEMBLY - W15a
2-15.9mm TYPE 'X' GYPSUM BD.
38x89 FRAMING @ 405 O.C. w\
90mm SOUND BATTS
25mm AIR SPACE
38x89 FRAMING @ 405 O.C. w\
90mm SOUND BATTS
2-15.9mm TYPE 'X' GYPSUM BD.
GROUND FLOOR FRAMING @ 305 O.C.

PW2

140 PARTY WALL-
FRR 1HR, OBC SB3-W15a
O.B.C. ASSEMBLY - W15a
2-15.9mm TYPE 'X' GYPSUM BD.
38x140 FRAMING @ 405 O.C. w\
90mm SOUND BATTS
25mm AIR SPACE
38x140 FRAMING @ 405 O.C. w\
90mm SOUND BATTS
2-15.9mm TYPE 'X' GYPSUM BD.

NOTES
1.DRYWALL AT PARTY WALLS AND EXTERIOR WALLS SHALL EXTEND THRU ALL PARTITIONS AND POSTS TO MAINTAIN FIRE RATING.
2. PROVIDE 15.9mm FIRECODE DRYWALL ON ALL EXTERIOR WALLS (1 HR RATING CONTINUOUS)
3. PROVIDE 1HR RATED CEILING CONTINUOUS UNLESS NOTED OTHERWISE.
4. ELECTRICAL BOXES ON PARTY WALLS TO BE SEALED TYPE BOXES.
5. REFER TO TERRACE HOME DRAWING SPECIFICATIONS, SP-* FOR ADDITIONAL INFORMATION.

No	Revision	Date	By
12	REVISED W2 FRAMING	NOV 23/16	KO
11	REVISED F1 LABEL	OCT 17/16	KO
10	ISSUED FOR PERMIT	JUN 09/16	KO
9	W4 ASSEMBLY REMOVED	APR 26/16	KO
8	REISSUED FOR CONSTRUCTION	APR 14/16	KO
7	ISSUED FOR PERMIT	APR 01/16	KO
6	REVISED FRAMING SIZES	MAY 21/15	KO
5	ISSUED FOR FOOTPRINT	MAY 20/15	KO
4	ISSUED FOR CONSTRUCTION	FEB 06/15	KO
3	ISSUED FOR STRUCTURAL LETTER & PERMIT	OCT 10/14	KO
2	ISSUED FOR TENDER	OCT 06/14	KO
1	ISSUED FOR STRUCTURAL REVIEW	SEP 10/14	KO

OTTAWA-CARLETON STANDARD CONDOMINIUM PLAN NO.938
PART 3 , SHEET ___ OF _____ SHEETS

minto beinspired

CONFIDENTIAL

STRUCTURAL FRAMING LEGEND:	SEE DWG A5
ELEVATION FINISHES LEGEND:	SEE DWG A6
FLOOR PLAN LEGEND:	SEE DWG SP-1
DR/WIN LEGEND:	SEE DWG SP-7*
FOR ADDED INFO., ABBREV'S, SYMBOLS:	SEE SPECS. SP-*

TITLE
NOTES

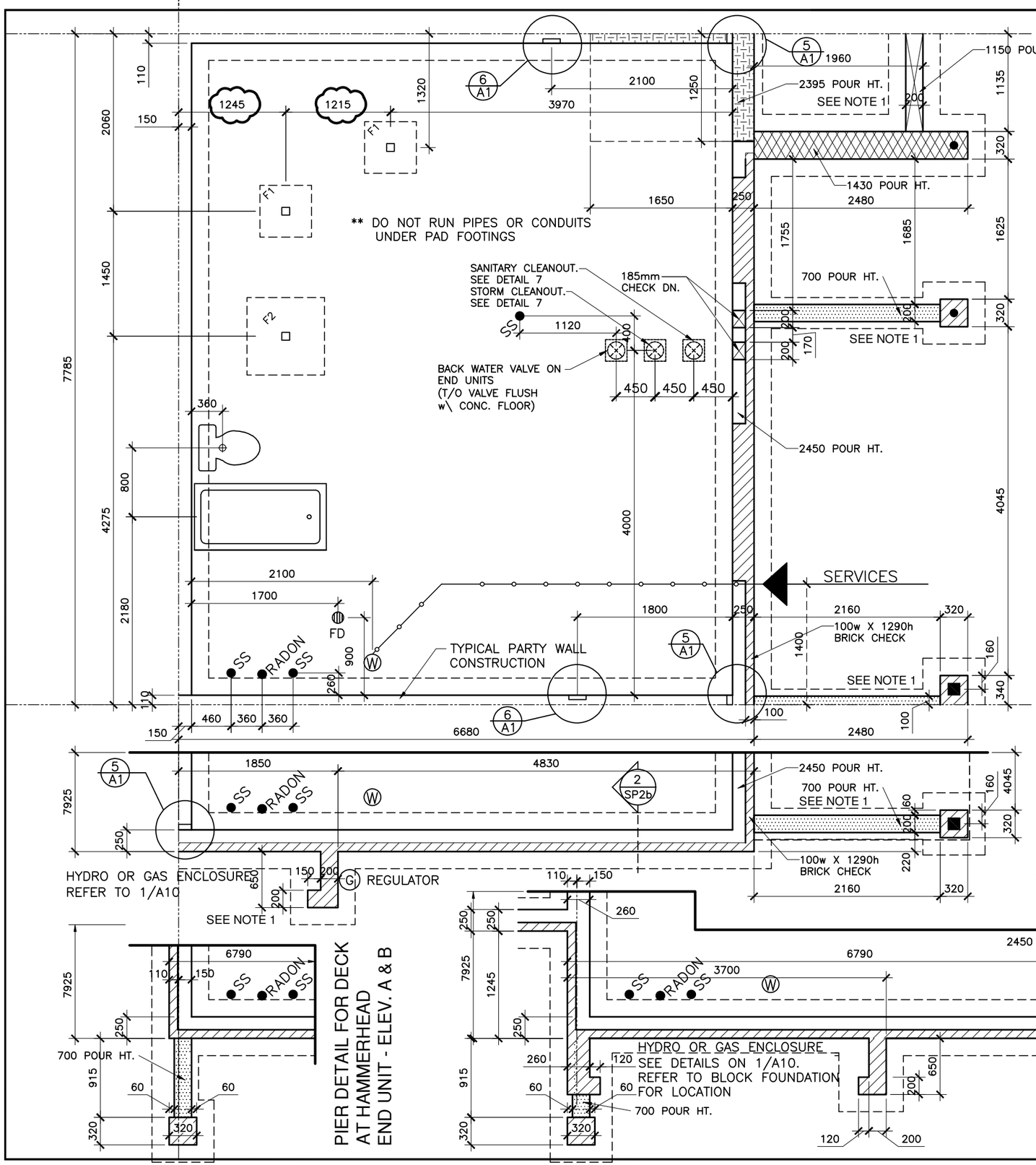
FILENAME: infusion-flr.dwg

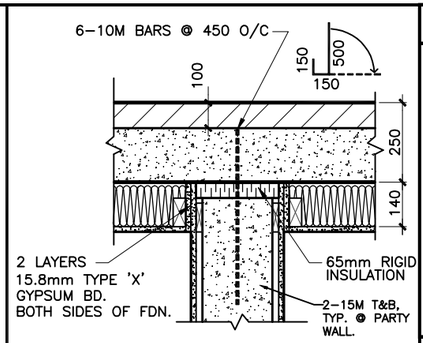
2016-INFUSION TERRACE
THE MATCHA,
THE ROOIBOS,
THE JASMINE, THE CHAI
ELEV. A & B
(2016 STANDARD DRAWING)

Scale 1:50

dwg # A-0

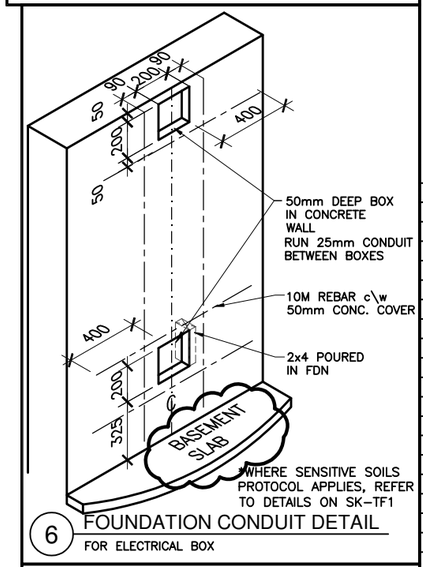
ONTARIO ASSOCIATION OF ARCHITECTS
ROBERT J. SMITH
LICENCE
5949





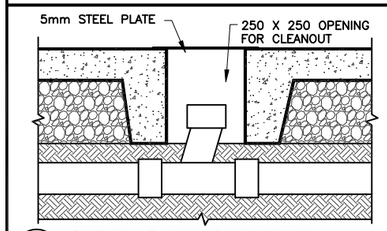
*WHERE SENSITIVE SOILS PROTOCOL APPLIES, REFER TO DETAILS ON SK–TF1

5 FOUNDATION CONNECTION DTL. @ PARTY WALL



WHERE SENSITIVE SOILS PROTOCOL APPLIES, REFER TO DETAILS ON SK–TF1

6 FOUNDATION CONDUIT DETAIL FOR ELECTRICAL BOX



7 STORM CLEANOUT DETAIL

FOOTING SCHEDULE

–ALL WALL FOOTINGS TO BE 600x200 DP UNLESS NOTED OTHERWISE
–FOUNDATION WALLS TO HAVE 2–15M (T&B) CONT'S + CORNER BARS
–PROVIDE 75mm CONCRETE COVER TO BOTTOM BARS
–FOR FROST PROTECTION AND INSULATION REQUIREMENTS, SEE GEOTECHNICAL REPORTS AND RECOMMENDATIONS.

600 / 600

F1 – 600x600x300 dp
2–15M(B)x450lg. E.W.
F2 – 965x965x300 dp
3–15M(B)x815lg. E.W.

NOTES

1. WHERE SENSITIVE SOILS PROTOCOL APPLIES, REFER TO FOOTING SIZES AND SCHEDULE ON FOUNDATION PLAN SK-TF1 AND THE GEOTECHNICAL REPORT AND MEMO PREPARED BY THE GEOTECHNICAL CONSULTANT.
2. ALL WING WALLS TO HAVE 2000mm COVERAGE or USE 50mm HI60 RIGID INSULATION, EXTEND 600mm BEYOND EDGE OF FOOTING ALL SIDES.
3. CONCRETE STRENGTH FOR FOUNDATION WALLS & FOOTINGS TO BE 20MPa @ 28 DAYS (MIN.) EXTERIOR CONCRETE TO HAVE 7% ±1% AIR ENTRAINMENT.
4. REFER TO ENGINEER'S DETAIL FOR PIPES THROUGH FOOTINGS.

No	Revision	Date	By
20	DETAIL 6 CLARIFIED	OCT 18/16	MC
19	REVISED CENTRE OF POST DIMENSION	OCT 17/16	KO
18	REVISED\ADD DIMENSION @ PORCH PIER	JUN 22/16	KO
17	ISSUED FOR PERMIT	JUN 09/16	KO
16	ADDED RATED DRYWALL TO DETAIL 5	APR 26/16	KO
15	REISSUED FOR CONSTRUCTION	APR 14/16	KO
14	ISSUED FOR PERMIT	APR 01/16	KO
13	ADDED SENSITIVE SOILS REFERENCE	MAR 31/16	KO
12	REVISED POUR HT. FOR PRECAST STEP	DEC 18/15	KO
11	RELOCATED WATER METER	OCT 19/15	KO
10	ISSUED FOR FOOTPRINT	MAY 20/15	KO
9	ADDED SOIL STACK	APR 13/15	KO
8	ADDED DIMENSIONS, CLARIFIED PIERS	APR 09/15	KO
7	ADDED PIER	APR 07/15	KO
6	REVISED DIMENSION, ADDED POUR HT.	APR 02/15	KO
5	REVISED POUR HT.	MAR 17/15	KO
4	ISSUED FOR CONSTRUCTION	FEB 06/15	KO
3	ISSUED FOR STRUCTURAL LETTER & PERMIT	OCT 10/14	KO
2	ISSUED FOR TENDER	OCT 06/14	KO
1	ISSUED FOR STRUCTURAL REVIEW	SEP 10/14	KO

OTTAWA–CARLETON STANDARD CONDOMINIUM PLAN NO.938
PART 3 , SHEET ____ OF _____ SHEETS

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CONFIDENTIAL

STRUCTURAL FRAMING LEGEND:	SEE DWG A5
ELEVATION FINISHES LEGEND:	SEE DWG A6
FLOOR PLAN LEGEND:	SEE DWG SP–1
DR/WIN LEGEND:	SEE DWG SP–7*
FOR ADDED INFO., ABBREV'S, SYMBOLS:	SEE SPECS. SP–*

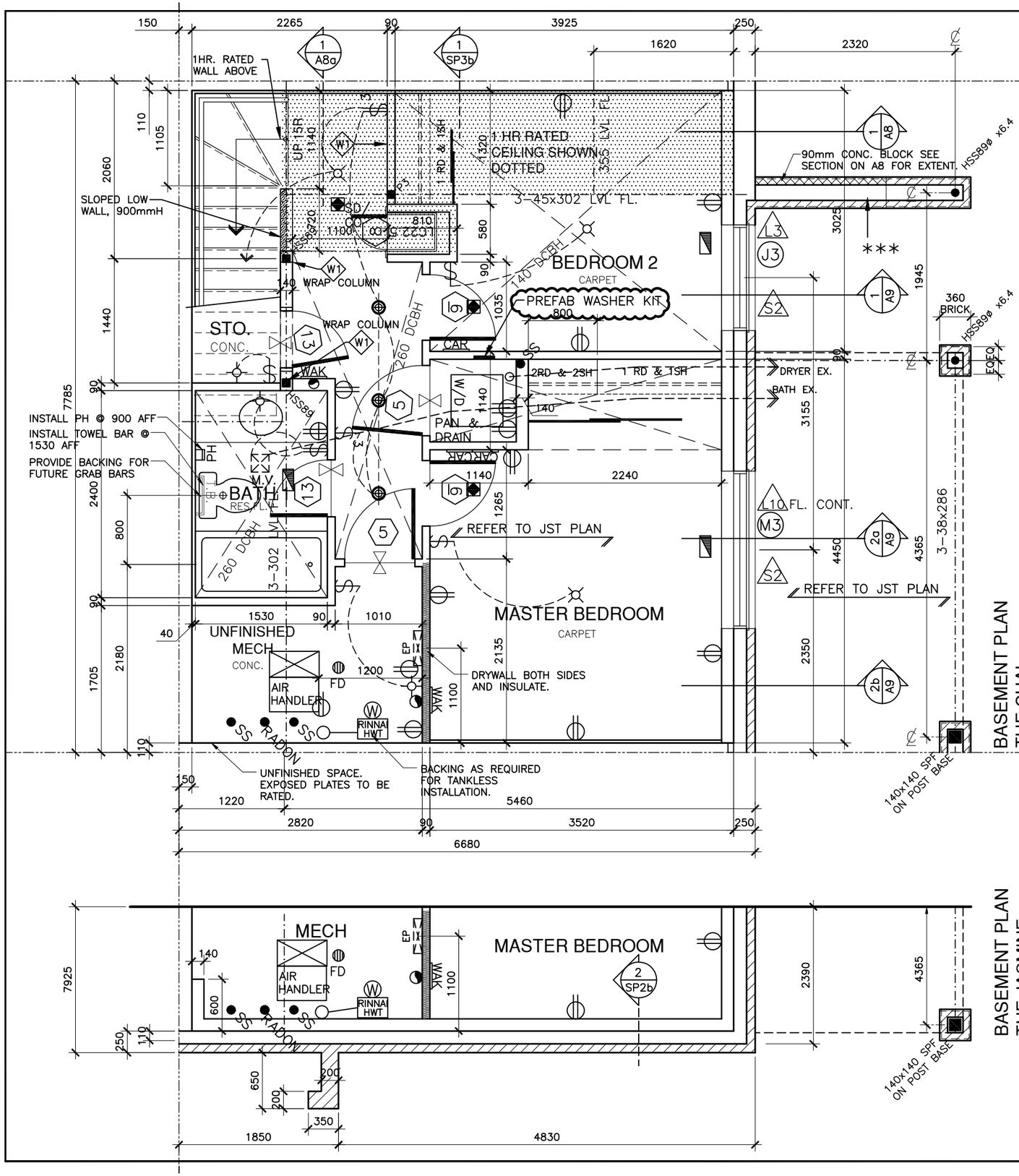
TITLE
FOUNDATION PLANS

FILENAME: infusion–flr.dwg

2016–INFUSION TERRACE
THE MATCHA,
THE ROOIBOS,
THE JASMINE, THE CHAI
ELEV. A & B
(2016 STANDARD DRAWING)

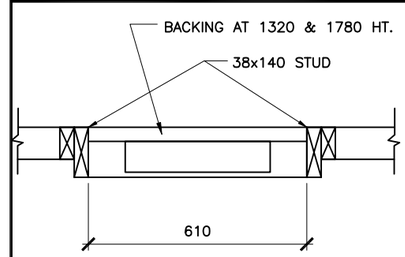
Scale 1:50

dwg # A-1



NOTES

1. DRYWALL AT PARTY WALLS AND EXTERIOR WALLS SHALL EXTEND THRU ALL PARTITIONS AND POSTS TO MAINTAIN FIRE RATING.
2. PROVIDE 15.9mm FIRECODE DRYWALL ON ALL EXTERIOR WALLS (1 HR RATING CONTINUOUS)
3. PROVIDE 1HR RATED CEILING CONTINUOUS UNLESS NOTED OTHERWISE.
4. ELECTRICAL BOXES ON PARTY WALLS TO BE SEALED TYPE BOXES.



ELECT. PANEL DETAIL

*** BRICK CAVITY WALL C/W DUR-O-WAL GALVANIZED AT EACH 4TH COURSE (FIRE-RESTANCE RATING 72 min.) AS PER SB-2-TABLE 2.1.1

No	Revision	Date	By
26	ADDED LOCATION FOR WASHER KIT	NOV 18/16	KO
25	MOVED WARM AIR IN HALLWAY	OCT 19/16	KO
24	REVISED STAIR WALL TO 140	OCT 17/16	KO
23	ADDED DIMENSIONS	SEP 26/16	KO
22	ADDED LAUNDRY PAN, ADDED DIMENSIONS, REMOVED EP NOTE	AUG 30/16	KO
21	REVISED POST TO HSS	AUG 09/16	KO
20	ISSUED FOR PERMIT	JUN 09/16	KO
19	REISSUED FOR CONSTRUCTION	APR 14/16	KO
18	ISSUED FOR PERMIT	APR 01/16	KO
17	TOWEL BAR INSTALL HEIGHT ADDED	FEB 08/16	KO
16	TOILET PAPER HOLDER HEIGHT ADDED	DEC 11/15	KO
15	ELEVATION B DETAIL ADDED	NOV 20/15	MC

OTTAWA-CARLETON STANDARD CONDOMINIUM PLAN NO.938
PART 3 , SHEET ___ OF _____ SHEETS

minto beinspired

CONFIDENTIAL

STRUCTURAL FRAMING LEGEND:	SEE DWG A5
ELEVATION FINISHES LEGEND:	SEE DWG A6
FLOOR PLAN LEGEND:	SEE DWG SP-1
DR/WIN LEGEND:	SEE DWG SP-7*
FOR ADDED INFO., ABBREV'S, SYMBOLS:	SEE SPECS. SP-*

TITLE

BASEMENT PLANS

FILENAME: infusion-flr.dwg

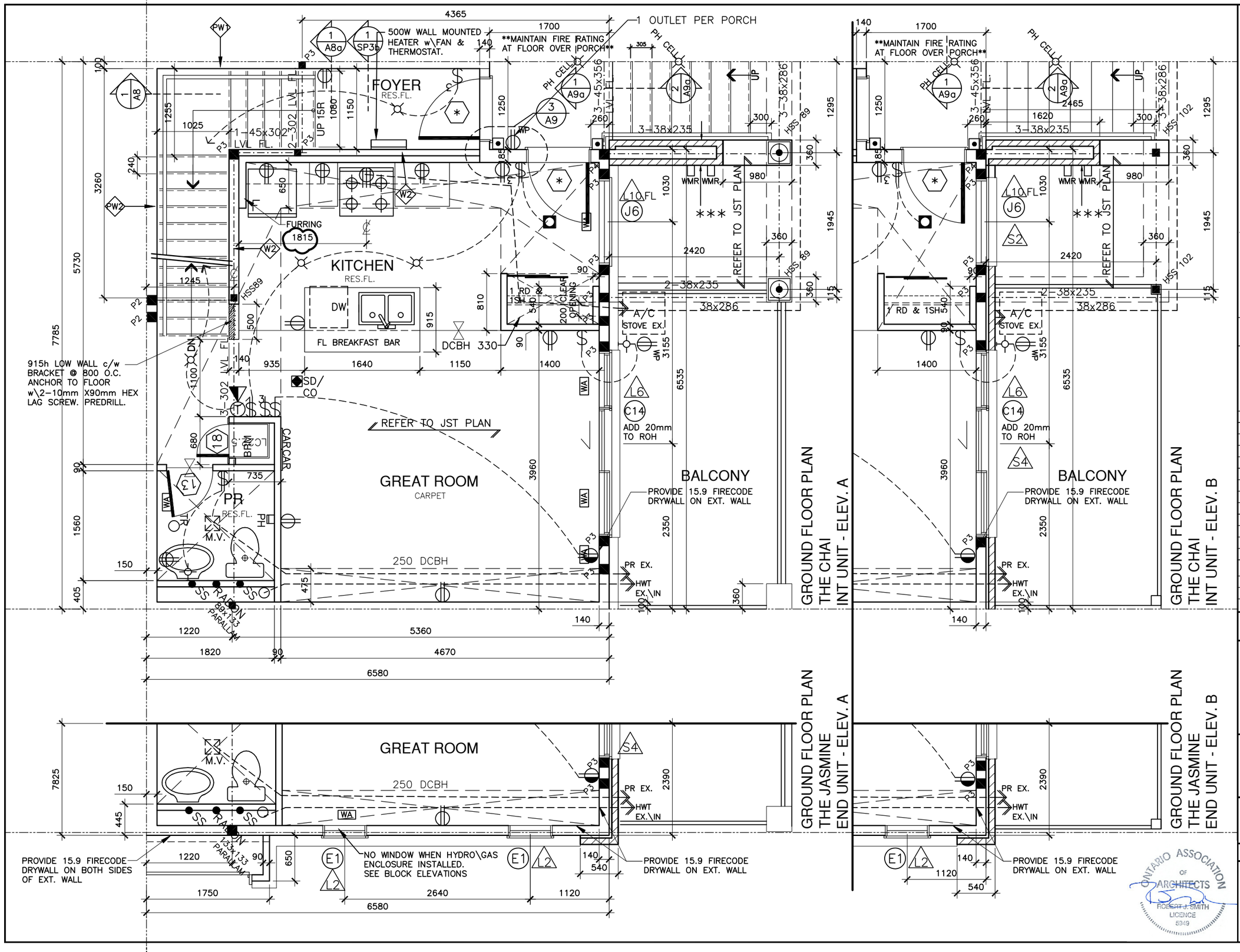
2016-INFUSION TERRACE

THE MATCHA, THE ROOIBOS, THE JASMINE, THE CHAI ELEV. A & B

(2016 STANDARD DRAWING)

Scale 1:50

dwg # A-2



NOTES:
1. 1 HOUR CONTINUOUS RATED CEILING WITH BOTH LAYERS OF DRYWALL TAPED. THIS FLOOR.
2. RATED DRYWALL SHALL BE CONTINUOUS AND EXTEND THROUGH ALL PARTITIONS AND BULKHEADS ABUTTING PARTY WALL AND EXTERIOR WALLS.
3. INSULATE ALL PLUMBING DRAINS AND STACKS FOR SOUND.
4. PROVIDE 15.9mm FIRECODE DRYWALL ON ALL EXTERIOR WALLS CONTINUOUS (1HR RATING).
5. ELECTRICAL AND PHONE\CABLE BOXES IN PARTY WALLS AND CEILING TO BE SEALED TYPE BOXES.
6. EXIT STAIR AND PORCH DESIGNED FOR LIVE LOAD OF 100psf AS PER PART 4 REQUIREMENTS.

(*) PROVIDE A 865mm 45min RATED DOOR & FRAME COMPLETE WITH CLOSER, R.O. 900 w x 2095 h. SEE SP-3b

*** BRICK CAVITY WALL C/W DUR-O-WAL 140 TWIN TRUSS EHGALVANIZED AT EACH 4TH COURSE (FIRE-RESTANCE RATING 72 min.) AS PER SB-2-TABLE 2.1.1

OTTAWA-CARLETON STANDARD CONDOMINIUM PLAN NO.938
PART 3 , SHEET ___ OF _____ SHEETS

No	Revision	Date	By
25	ADDED CENTRE OF STOVE DIMENSION	JAN 05/17	KO
24	REVISED WALL THK, RECENTER HSS	NOV 23/16	KO
	4-23 COMPRESSED		
3	ISSUED FOR STRUCTURAL LETTER & PERMIT	OCT 10/14	KO
2	ISSUED FOR TENDER	OCT 06/14	KO
1	ISSUED FOR STRUCTURAL REVIEW	SEP 10/14	KO

OTTAWA-CARLETON STANDARD CONDOMINIUM PLAN NO.938
PART 3 , SHEET ___ OF _____ SHEETS

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CONFIDENTIAL

STRUCTURAL FRAMING LEGEND:	SEE DWG A5
ELEVATION FINISHES LEGEND:	SEE DWG A6
FLOOR PLAN LEGEND:	SEE DWG SP-1
DR/WIN LEGEND:	SEE DWG SP-7*
FOR ADDED INFO., ABBREV'S, SYMBOLS:	SEE SPECS. SP-*

TITLE
GROUND FLOOR PLANS

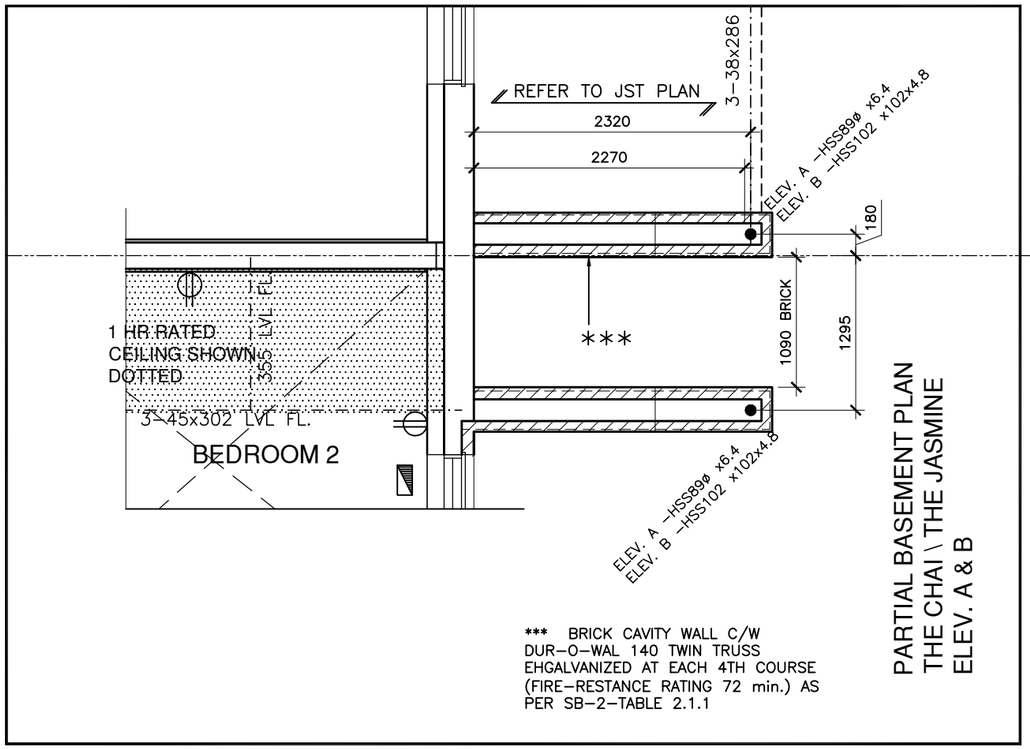
FILENAME: infusion-flr.dwg

2016-INFUSION TERRACE
THE MATCHA,
THE ROOIBOS,
THE JASMINE, THE CHAI
ELEV. A & B
(2016 STANDARD DRAWING)

Scale 1:50

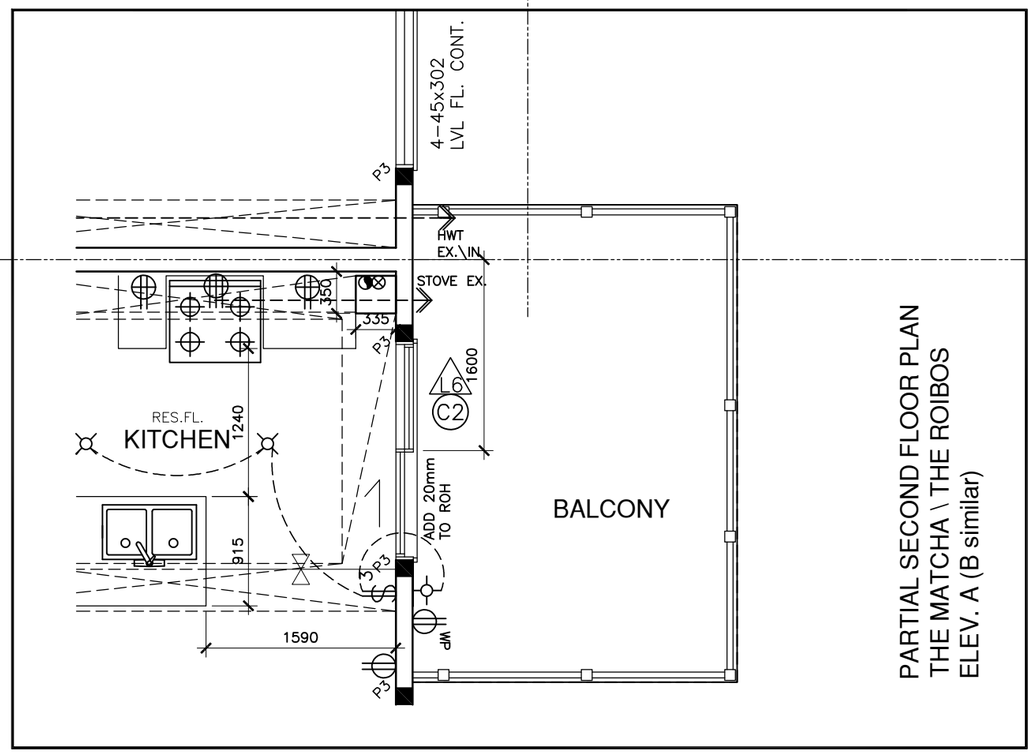
dwg # A-3

ONTARIO ASSOCIATION OF ARCHITECTS
ROBERT J. SMITH
LICENCE
5949



*** BRICK CAVITY WALL C/W DUR-O-WAL 140 TWIN TRUSS EHGALVANIZED AT EACH 4TH COURSE (FIRE-RESTANCE RATING 72 min.) AS PER SB-2-TABLE 2.1.1

PARTIAL BASEMENT PLAN
THE CHAI \ THE JASMINE
ELEV. A & B

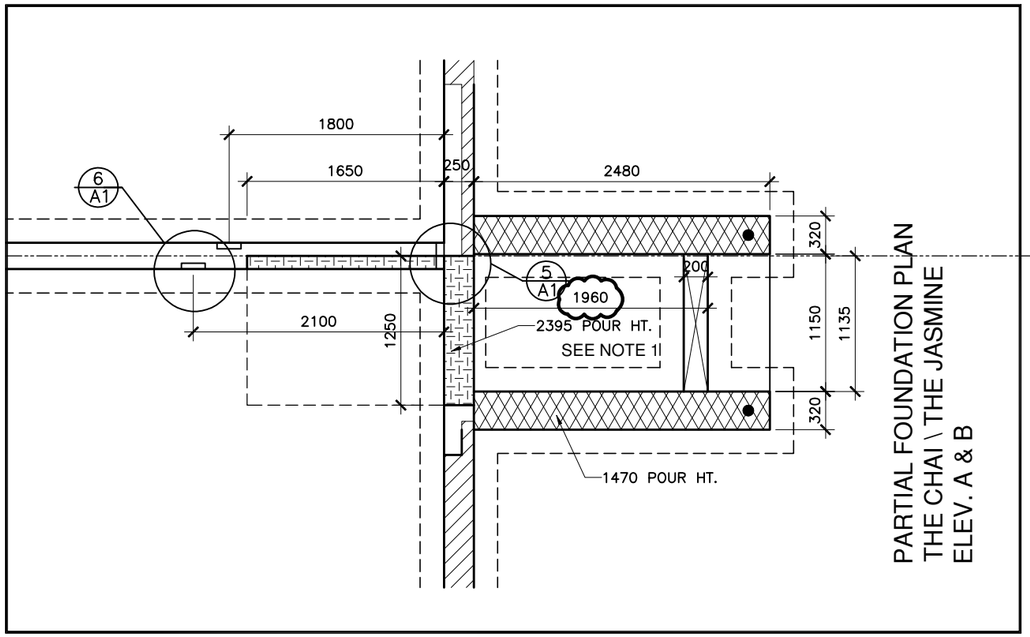


PARTIAL SECOND FLOOR PLAN
THE MATCHA \ THE ROIBOS
ELEV. A (B similar)

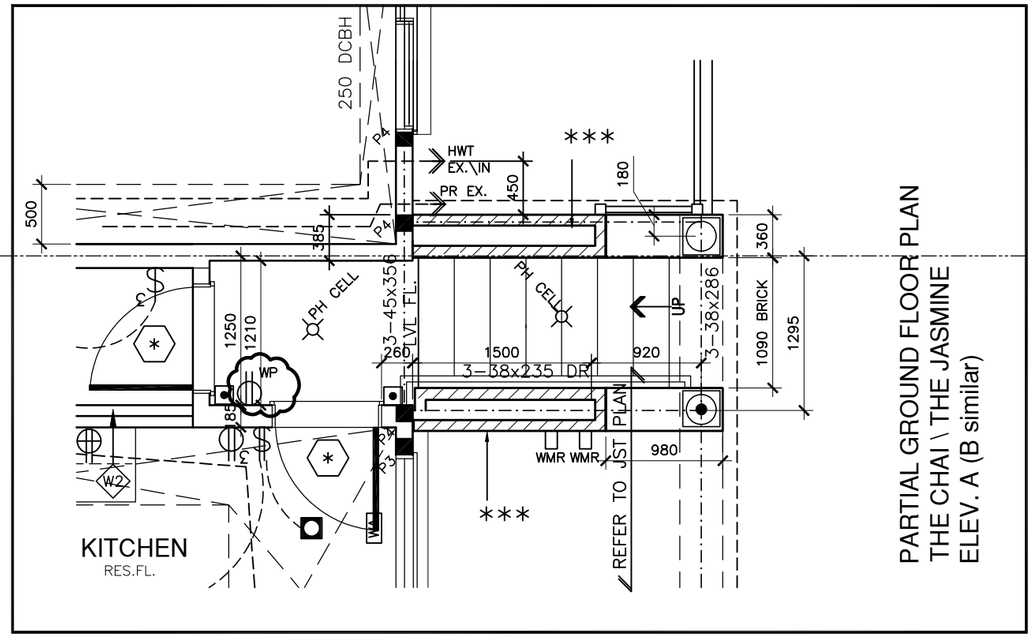
NOTES:
1. 1 HOUR CONTINUOUS RATED CEILING WITH BOTH LAYERS OF DRYWALL TAPED. THIS FLOOR.
2. RATED DRYWALL SHALL BE CONTINUOUS AND EXTEND THROUGH ALL PARTITIONS AND BULKHEADS ABUTTING PARTY WALL AND EXTERIOR WALLS.
3. INSULATE ALL PLUMBING DRAINS AND STAKCS FOR SOUND.
4. PROVIDE 15.9mm FIRECODE DRYWALL ON ALL EXTERIOR WALLS CONTINUOUS (1HR RATING).
5. ELECTRICAL AND PHONE\CABLE BOXES IN PARTY WALLS AND CEILING TO BE SEALED TYPE BOXES.
6. EXIT STAIR AND PORCH DESIGNED FOR LIVE LOAD OF 100psf AS PER PART 4 REQUIREMENTS.

(*) PROVIDE A 865mm 45min RATED DOOR & FRAME COMPLETE WITH CLOSER, R.O. 900 w x 2095 h. SEE SP-3b

*** BRICK CAVITY WALL C/W DUR-O-WAL 140 TWIN TRUSS EHGALVANIZED AT EACH 4TH COURSE (FIRE-RESTANCE RATING 72 min.) AS PER SB-2-TABLE 2.1.1



PARTIAL FOUNDATION PLAN
THE CHAI \ THE JASMINE
ELEV. A & B



PARTIAL GROUND FLOOR PLAN
THE CHAI \ THE JASMINE
ELEV. A (B similar)

No	Revision	Date	By
11	REVISED FOUNDATION DIMENSION	NOV 15/16	KO
10	ADDED OUTLET AT PORCH	JUL 05/16	KO
9	ISSUED FOR PERMIT	JUN 09/16	KO
8	REISSUED FOR CONSTRUCTION	APR 14/16	KO
7	ISSUED FOR PERMIT	APR 01/16	KO
6	EXTENDED LVL, REVISED POSTS	DEC 11/15	KO
5	FOYERMASONRY WALL REVISED	DEC 02/15	KO
4	REDUCED BRICK OPENING TO ALLOW FOR 1 HANDRAIL	NOV 24/15	KO
3	ISSUED FOR FOOTPRINT	MAY 20/15	KO
2	ISSUED FOR CONSTRUCTION	FEB 06/15	KO
1	ISSUED FOR STRUCTURAL REVIEW	JAN 20/15	KO

OTTAWA-CARLETON STANDARD CONDOMINIUM PLAN NO.938
PART 3 , SHEET ___ OF _____ SHEETS

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CONFIDENTIAL

STRUCTURAL FRAMING LEGEND:	SEE DWG A5
ELEVATION FINISHES LEGEND:	SEE DWG A6
FLOOR PLAN LEGEND:	SEE DWG SP-1
DR/WIN LEGEND:	SEE DWG SP-7*
FOR ADDED INFO., ABBREV'S, SYMBOLS:	SEE SPECS. SP-*

TITLE
PARTIAL FLOOR PLANS
FOR SINGLE WIDE FOYER

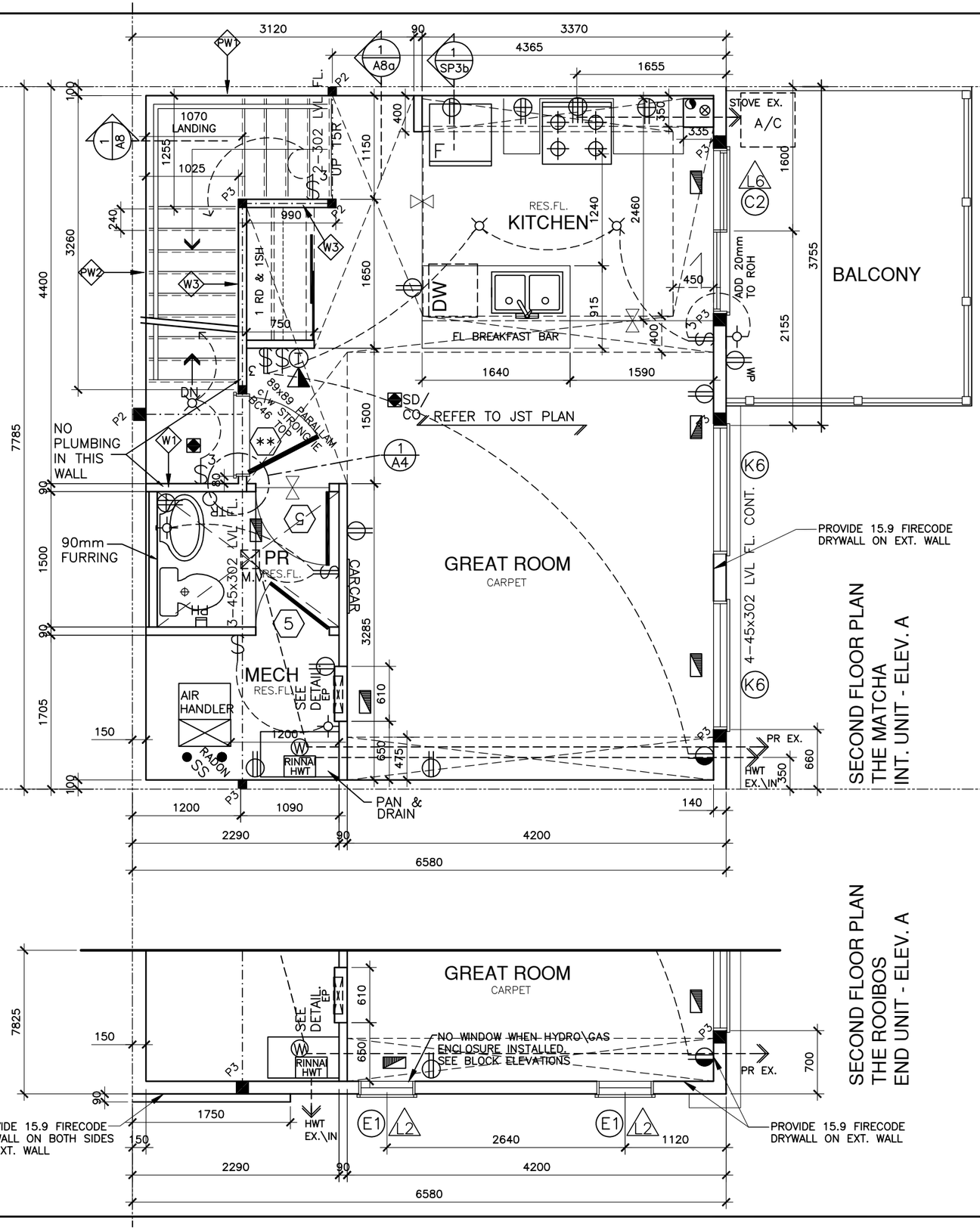
FILENAME: infusion-flr.dwg

ONTARIO ASSOCIATION OF ARCHITECTS
ROBERT J. SMITH
LICENCE 5949

2016-INFUSION TERRACE
THE MATCHA,
THE ROOIBOS,
THE JASMINE, THE CHAI
ELEV. A & B
(2016 STANDARD DRAWING)

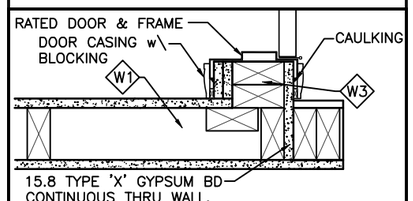
Scale 1:50

dwg # A-3a



NOTES:
1. 45 MIN. CONTINUOUS RATED CEILING THIS FLOOR.
2. RATED DRYWALL SHALL BE CONTINUOUS AND EXTEND THROUGH ALL PARTITIONS AND BULKHEADS ABUTTING PARTY WALL AND EXTERIOR WALLS.
3. INSULATE ALL PLUMBING DRAINS AND STACKS FOR SOUND.
4. PROVIDE 15.9mm FIRECODE DRYWALL ON ALL EXTERIOR WALLS CONTINUOUS (1HR RATING).
5. ELECTRICAL AND PHONE\CABLE BOXES IN PARTY WALLS AND CEILING TO BE SEALED TYPE BOXES.

** PROVIDE A 865mm 45min RATED DOOR & FRAME COMPLETE WITH CLOSER, R.O. 900 w x 2095 h



1 STAIR WALL AT DOOR RATING DETAIL

No	Revision	Date	By
23	ADDED WINDOW R.O.	MAR 24/17	PS
22	ADDED P3	NOV 30/16	KO
21	ADDED DETAIL 1	SEP 26/16	KO
20	RELOCATED LIGHT	SEP 06/16	KO
19	ADDED DIMENSION	AUG 30/16	KO
18	ADDED POST CONNECTOR CLIP	AUG 09/16	KO
17	ISSUED FOR PERMIT	JUN 09/16	KO
16	REISSUED FOR CONSTRUCTION	APR 14/16	KO
15	ISSUED FOR PERMIT	APR 01/16	KO
14	ADD FURRING IN POWDER ROOM	JAN 26/16	KO
13	OUTLETS & PLUGS RELOCATED	DEC 21/15	MC
12	REVISED WINDOW DIMENSIONS, ADDED DCBH FOR END, REVISED LANDING	DEC 18/15	KO
11	REVISED DIMENSION	DEC 14/15	KO
10	CLARIFIED WINDOW HT, MOVED WATER METER	OCT 19/15	KO
9	REVISED DCBH, ADDED FLOORING DIMENSION	JUL 29/15	KO
8	ADDED P2 NOTE	MAY 27/15	KO
7	ISSUED FOR FOOTPRINT	MAY 20/15	KO

OTTAWA-CARLETON STANDARD CONDOMINIUM PLAN NO.938
PART 3 , SHEET ___ OF _____ SHEETS

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CONFIDENTIAL

STRUCTURAL FRAMING LEGEND:	SEE DWG A5
ELEVATION FINISHES LEGEND:	SEE DWG A6
FLOOR PLAN LEGEND:	SEE DWG SP-1
DR/WIN LEGEND:	SEE DWG SP-7*
FOR ADDED INFO., ABBREV'S, SYMBOLS:	SEE SPECS. SP-*

TITLE
SECOND FLOOR PLANS

FILENAME: infusion-flr.dwg

2016-INFUSION TERRACE
THE MATCHA,
THE ROOIBOS,
THE JASMINE, THE CHAI
ELEV. A & B
(2016 STANDARD DRAWING)

Scale 1:50

dwg # A-4

ONTARIO ASSOCIATION OF ARCHITECTS
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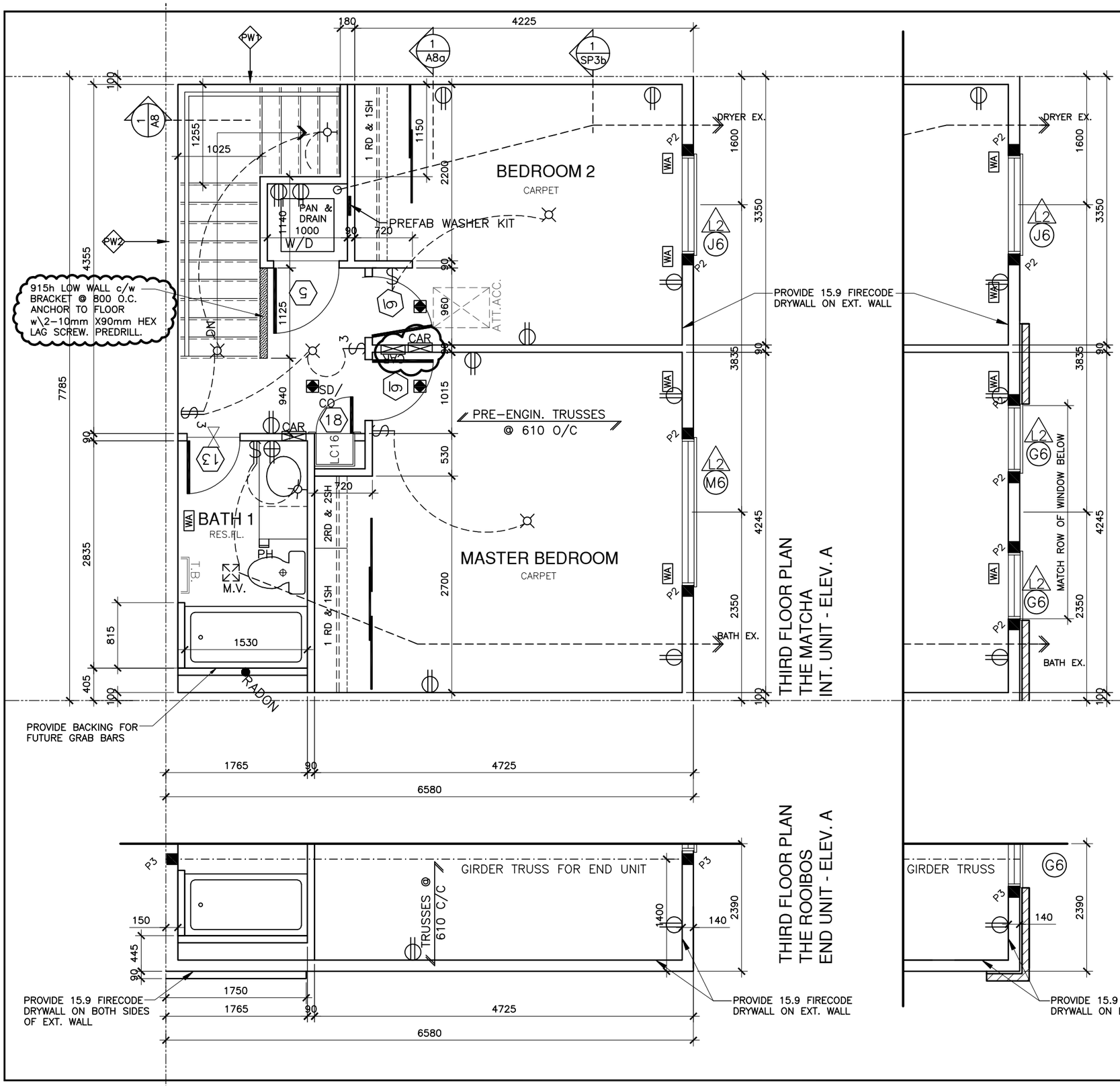

STRUCTURAL FRAMING SCHEDULE

For Steel Framing Layout, Beam/Column/Plate Connection Details, see Structural Dwgs ST- * (Also Specs SP-1 & SP-4).

STEEL LINTEL

- S1 – L 90x90x6
- S2 – L 90x90x8
- S3 – L 100x90x6
- S4 – L 125x90x8
- S5 – L 125x90x10
- S6 – L 200x100x12
- S7 – L 150x100x10 (L.L.V.) 200mm BEARING
- S8 – L 100x90x8

WOOD LINTEL

- L1 – 2–38x235 w/ 12.7 PLYWOOD SPACER
- L2 – 2–38x235
- L3 – 3–38x235
- L4 – 3–38x235 c/w 2–12.7 PLYWOOD SPACERS & 2 ROWS OF 90mm C.W.N. @ 200 c/c B/S
- L5 – 3–38x286 c/w 2–12.7 PLYWOOD SPACERS & 2 ROWS OF 90mm C.W.N. @ 200 c/c B/S
- L6 – 2–45x240 M.L.
- L7 – 3–45x240 M.L.
- L8 – 2–38x286
- L9 – 3–38x286
- L10 – 2–45x302 M.L.

PROVIDE 'P2' POST BOTH ENDS OF LINTEL UNLESS NOTED OTHERWISE

POSTS

- P1(8) – 75 ø STEEL TELEPOST (8 Feet Max)
- P1(9) – 75 ø STEEL TELEPOST (9 Feet Max)
- P2 – 2–38x89 or 2–38x140
- P3 – 3–38x89 or 3–38x140
- P4 – 4–38x89 or 4–38x140
- P5 – 5–38x89 or 5–38x140
- P6 – 6–38x89 or 6–38x140
- P11 – HEAVY DUTY STEEL POST, CAPACITY = 55 KN
- P12 – ADJUSTABLE HSS, CAPACITY 100 KN
- HSS 73 OD – HSS 73 O.D. X 4.8 + 12mm PLATE TOP & BOTT.
- HSS 89 OD – HSS 89 O.D. X 6.4 + 12mm PLATE TOP & BOTT.
- HSS 76 – HSS 76.2 X 76.2 X 4.8 + 12mm PLATE TOP & BOTT.
- HSS 89 – HSS 89 X 89 X 4.8 + 12mm PLATE TOP & BOTT.
- HSS 102 – HSS 102 X 102 X 4.8 + 12mm PLATE TOP & BOTT.

ANCHOR POST TO FOUNDATION W\ 2–12ø WEDGE ANCHORS
PROVIDE 'P2' UNDER ALL DOUBLE JOISTS & TRUSSES U.N.O.

FOOTINGS

ALL FOOTINGS DESIGNED FOR ALLOWABLE SOIL CAP.= 100kpa UNLESS NOTED OTHERWISE ON THE GEOTECHNICAL REPORT.

No	Revision	Date	By
14	ADDED FASTENING INFO FOR BRACKET	NOV 09/16	KO
13	ADDED DIMENSION	AUG 30/16	KO
12	ISSUED FOR PERMIT	JUN 09/16	KO
11	REISSUED FOR CONSTRUCTION	APR 14/16	KO
10	ISSUED FOR PERMIT	APR 01/16	KO
9	MOVED WASHER KIT	DEC 14/15	KO
8	REVISED DIMENSION	NOV 06/15	KO
7	REVISED HVAC, MOVED OUTLET, ADDED WASHER KIT, LOW WALL BRACKET	JUL 29/15	KO
6	ADDED WARM AIR	MAY 27/15	KO
5	ISSUED FOR FOOTPRINT	MAY 20/15	KO
4	ISSUED FOR CONSTRUCTION	FEB 06/15	KO
3	ISSUED FOR STRUCTURAL LETTER & PERMIT	OCT 10/14	KO
2	ISSUED FOR TENDER	OCT 06/14	KO
1	ISSUED FOR STRUCTURAL REVIEW	SEP 10/14	KO

OTTAWA–CARLETON STANDARD CONDOMINIUM PLAN NO.938
PART 3 , SHEET ___ OF _____ SHEETS

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CONFIDENTIAL

STRUCTURAL FRAMING LEGEND:	SEE DWG A5
ELEVATION FINISHES LEGEND:	SEE DWG A6
FLOOR PLAN LEGEND:	SEE DWG SP–1
DR/WIN LEGEND:	SEE DWG SP–7*
FOR ADDED INFO., ABBREV'S, SYMBOLS:	SEE SPECS. SP–*

TITLE
THIRD FLOOR PLANS

FILENAME: infusion–flr.dwg

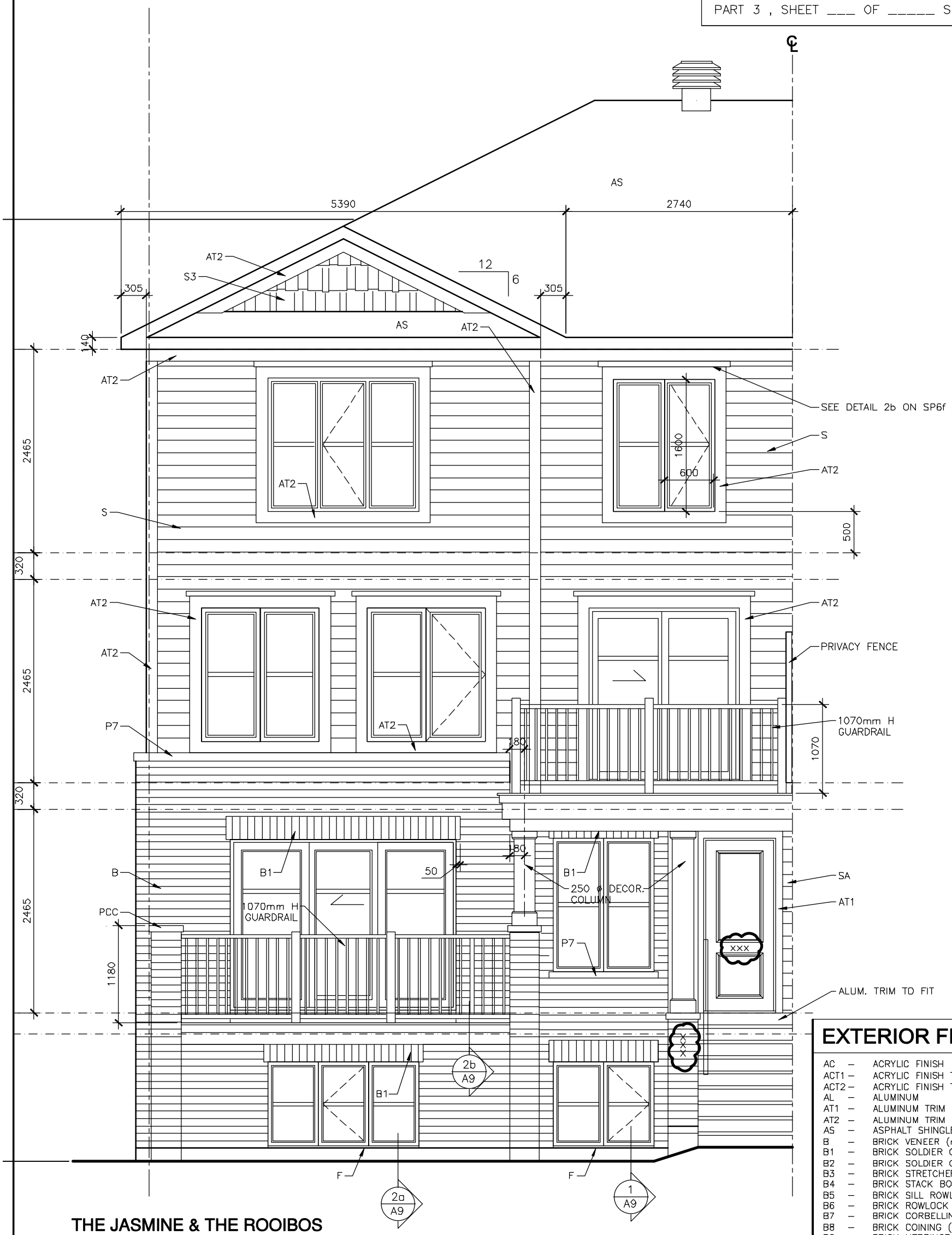
2016–INFUSION TERRACE
THE MATCHA,
THE ROOIBOS,
THE JASMINE, THE CHAI
ELEV. A & B
(2016 STANDARD DRAWING)

Scale 1:50

dwg # A-5

ONTARIO ASSOCIATION OF ARCHITECTS
ROBERT J. SMITH
LICENCE
5949

OTTAWA–CARLETON STANDARD CONDOMINIUM PLAN NO.938
PART 3 , SHEET ___ OF _____ SHEETS



THE JASMINE & THE ROOIBOS
FRONT ELEVATION A -END UNIT

EXTERIOR FINISHES

AC	–	ACRYLIC FINISH
ACT1	–	ACRYLIC FINISH TRIM (90mm)
ACT2	–	ACRYLIC FINISH TRIM (140mm)
AL	–	ALUMINUM
AT1	–	ALUMINUM TRIM (90mm)
AT2	–	ALUMINUM TRIM (140mm)
AS	–	ASPHALT SHINGLES
B	–	BRICK VENEER (nominal size = 260x80)
B1	–	BRICK SOLDIER COURSE
B2	–	BRICK SOLDIER COURSE (20mm projection)
B3	–	BRICK STRETCHER COURSE
B4	–	BRICK STACK BOND
B5	–	BRICK SILL ROWLOCK (SLOPED)
B6	–	BRICK ROWLOCK
B7	–	BRICK CORBELLING
B8	–	BRICK COINING (20mm projection)
B9	–	BRICK HERRINGBONE
+20	–	MASONRY PROJECTING 20mm
–20	–	MASONRY RECESSED 20mm
CBP1	–	CEMENT BOARD PANEL
CBT*	–	CEMENT BOARD TRIM – WIDTH AS NOTED
CBT1	–	CEMENT BOARD TRIM – 90mm
CBS	–	CEMENT BOARD SIDING
EB	–	EXTRA BRICK
F	–	FLASHING
HP	–	HARDBOARD PANEL TEXTURED
P	–	PARGING
PCS	–	POURED CONCRETE SILL (ONE PIECE)
PC	–	PRECAST CONC. BLOCK SHAPE (SEE DWG)
PCC	–	PRECAST CAP TO MATCH BRICK COURSING
P1	–	PRECAST CONC. SILL 60mm HIGH
P2	–	PRECAST CONC. KEYSTONE
P3	–	PRECAST CONC. BLOCK 260mm SQ. MATCH PROJECTION OF SOLDIER COURSE
P4	–	PRECAST CONC. BLOCK 260mm HIGH
P5	–	PRECAST CONC. BLOCK 290mm HIGH
P6	–	PRECAST CONC. BLOCK 150mm HIGH
P7	–	PRECAST CONC. BLOCK 78mm HIGH
P8	–	PRECAST CONC. SILL 78mm HIGH
PTW	–	PRESSURE TREATED WOOD
RV	–	ROOF VENT
S	–	SIDING HORIZONTAL (VINYL)
SA	–	SIDING (ALUMINUM)
SV	–	SIDING VERTICAL (VINYL)
S1	–	SIDING HALF ROUND PANELS
S2	–	SIDING SHAKE (VINYL)
S3	–	SIDING STAGGERED SHAKE (VINYL)
SH1	–	SHUTTERS (500 mm)
SH2	–	SHUTTERS (350 mm)
ST	–	STONE VENEER
ST1	–	STONE VENEER STACK BOND 20mm PROJECTION
ST2	–	STONE VENEER SOLDIER COURSE 20mm PROJECTION
ST3	–	LIMESTONE STARTER
U.P.O	–	UNPROTECTED OPENING (SEE OBC 9.10.14)
VF	–	VALLEY FLASHING
VT	–	VINYL TRIM
WT	–	WOOD TRIM
XXX	–	ADDRESS LOCATION

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CONFIDENTIAL

STRUCTURAL FRAMING LEGEND:	SEE DWG A5
ELEVATION FINISHES LEGEND:	SEE DWG A6
FLOOR PLAN LEGEND:	SEE DWG SP–1
DR/WIN LEGEND:	SEE DWG SP–7*
FOR ADDED INFO., ABBREV'S, SYMBOLS:	SEE SPECS. SP–*

TITLE
THE JASMINE & THE ROOIBOS
FRONT ELEVATION A -END UNIT

FILENAME: infusion–elev.dwg

Scale 1:50

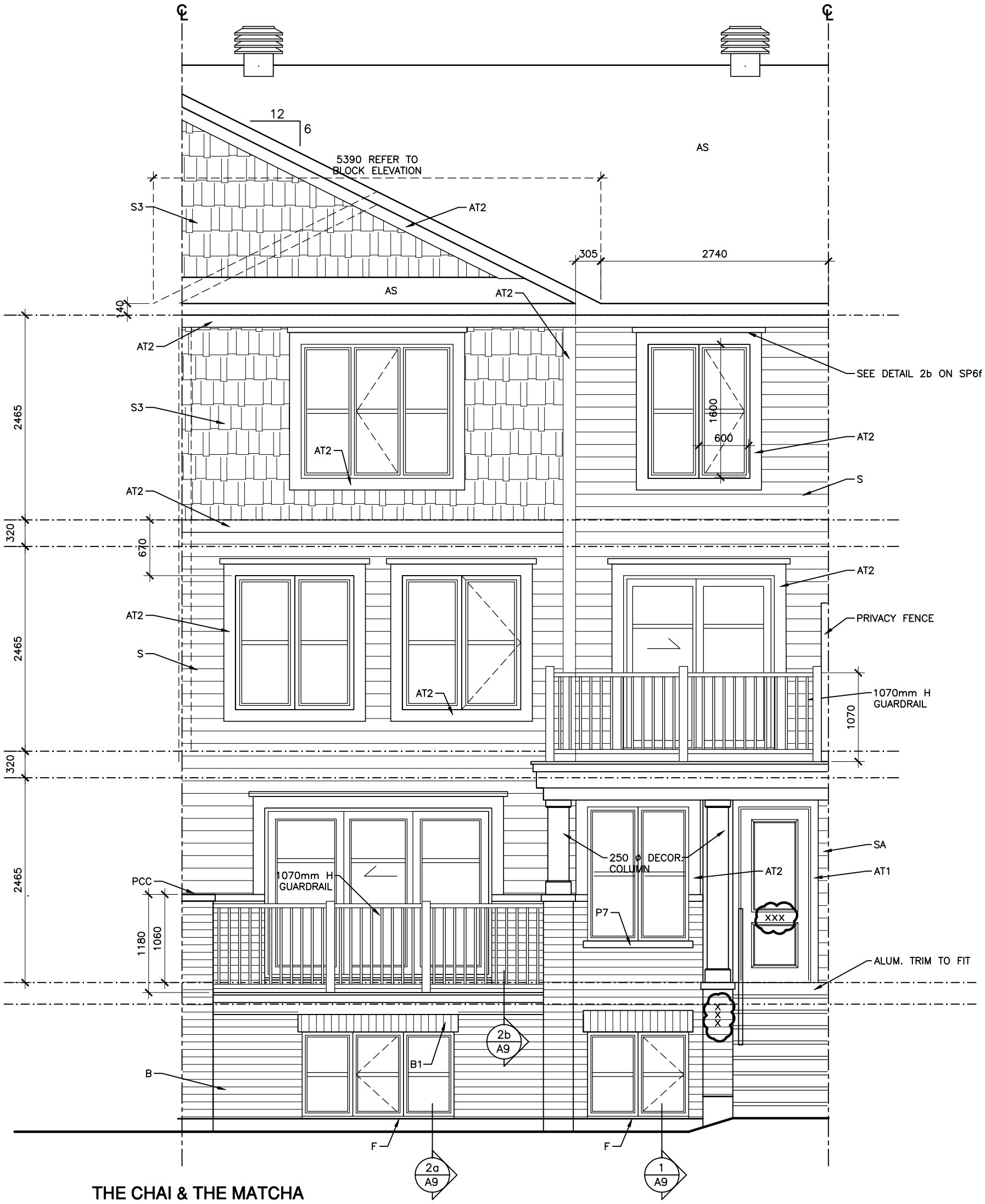
dwg # **A-6**

2016–INFUSION TERRACE
THE MATCHA,
THE ROOIBOS,
THE JASMINE, THE CHAI
ELEV. A & B
(2016 STANDARD DRAWING)

No	Revision	Date	By
14	ISSUED FOR PERMIT	JUN 09/16	KO
13	ADDRESS LOCATION ADDED	JUN 07/16	MC
12	REISSUED FOR CONSTRUCTION	APR 14/16	KO
11	ISSUED FOR PERMIT	APR 01/16	KO
10	ADDED DIMENSION BRICK EXTENT	DEC 04/15	KO
9	CLARIFIED MATERIALS ON LEGEND	OCT 26/15	KO
8	MOVED WINDOW OPERATORS	JUL 29/15	KO
7	ADDED ROOF VENTS	JUN 23/15	KO
6	REVISED EXTERIOR FINISH LEGEND	MAY 21/15	KO
5	ISSUED FOR FOOTPRINT	MAY 20/15	KO
4	ISSUED FOR CONSTRUCTION	FEB 06/15	KO
3	ISSUED FOR STRUCTURAL LETTER & PERMIT	OCT 10/14	KO
2	ISSUED FOR TENDER	OCT 06/14	KO
1	ISSUED FOR STRUCTURAL REVIEW	SEP 10/14	KO

OTTAWA–CARLETON STANDARD CONDOMINIUM PLAN NO._____
PART III , SHEET ___ OF _____ SHEETS

ONTARIO ASSOCIATION OF ARCHITECTS
ROBERT J. SMITH
LICENCE
5949



THE CHAI & THE MATCHA
FRONT ELEVATION A - INT. UNIT

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CONFIDENTIAL

STRUCTURAL FRAMING LEGEND:	SEE DWG A5
ELEVATION FINISHES LEGEND:	SEE DWG A6
FLOOR PLAN LEGEND:	SEE DWG SP–1
DR/WIN LEGEND:	SEE DWG SP–7*
FOR ADDED INFO., ABBREV'S, SYMBOLS:	SEE SPECS. SP–*

TITLE
THE CHAI & THE MATCHA
FRONT ELEVATION A - INT. UNIT

FILENAME: infusion–elev.dwg

Scale 1:50

dwg # **A-6a**

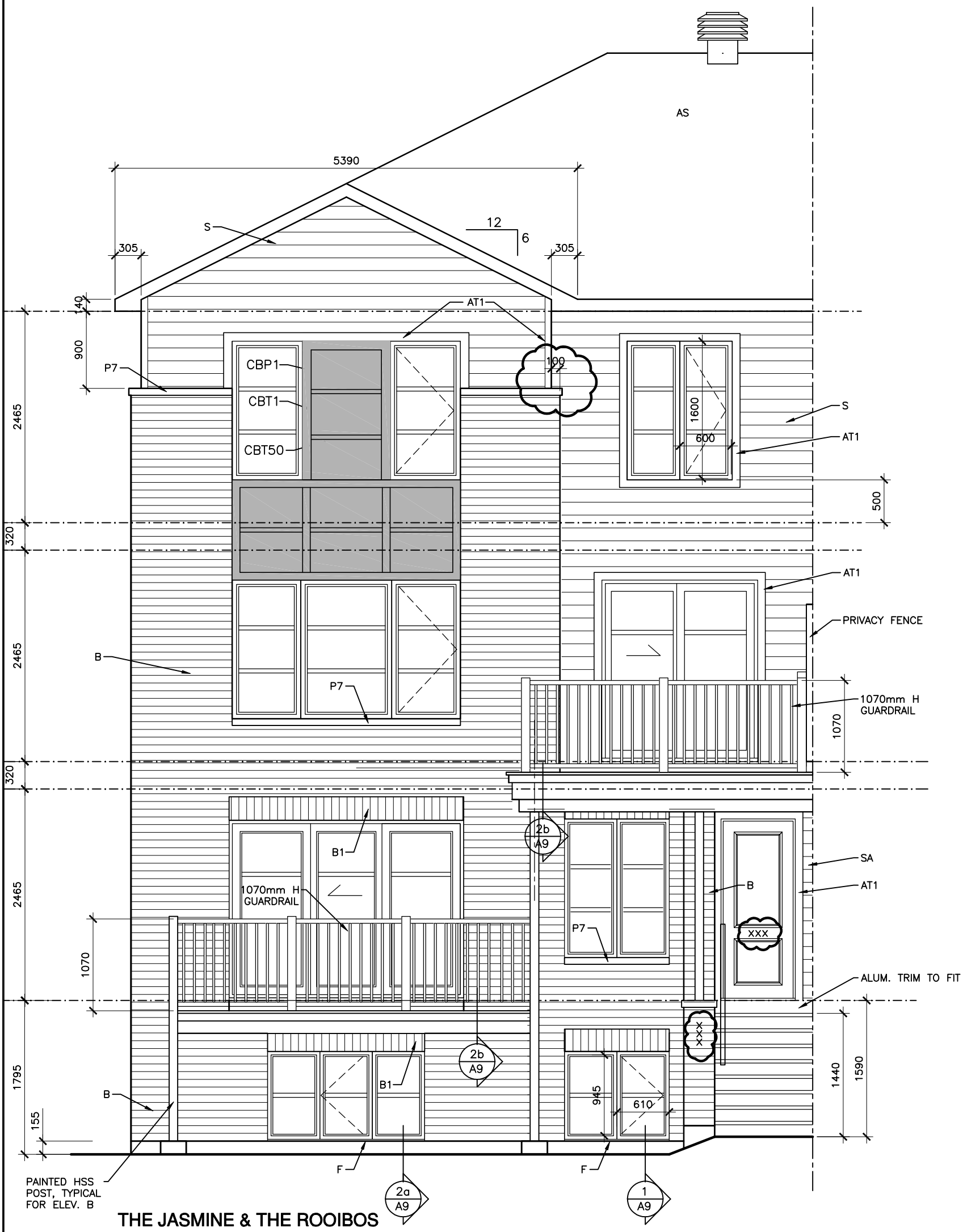
2016–INFUSION TERRACE
THE MATCHA, THE ROOIBOS, THE JASMINE, THE CHAI
ELEV. A & B
(2016 STANDARD DRAWING)

No	Revision	Date	By
12	ISSUED FOR PERMIT	JUN 09/16	KO
11	ADDRESS LOCATION ADDED	JUN 07/16	MC
10	REISSUED FOR CONSTRUCTION	APR 14/16	KO
9	ISSUED FOR PERMIT	APR 01/16	KO
8	ADDED GABLE DIMENSION	SEP 02/15	KO
7	MOVED WINDOW OPERATORS	JUL 29/15	KO
6	ADDED ROOF VENTS	JUN 23/15	KO
5	ISSUED FOR FOOTPRINT	MAY 20/15	KO
4	ISSUED FOR CONSTRUCTION	FEB 06/15	KO
3	ISSUED FOR STRUCTURAL LETTER & PERMIT	OCT 10/14	KO
2	ISSUED FOR TENDER	OCT 06/14	KO
1	ISSUED FOR STRUCTURAL REVIEW	SEP 10/14	KO

OTTAWA–CARLETON STANDARD CONDOMINIUM PLAN NO._____
PART III , SHEET ___ OF _____ SHEETS

ONTARIO ASSOCIATION OF ARCHITECTS
ROBERT J. SMITH
LICENCE
5949

OTTAWA–CARLETON STANDARD CONDOMINIUM PLAN NO.938
PART 3 , SHEET ___ OF _____ SHEETS



THE JASMINE & THE ROOIBOS
FRONT ELEVATION B -END UNIT

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CONFIDENTIAL

STRUCTURAL FRAMING LEGEND:	SEE DWG A5
ELEVATION FINISHES LEGEND:	SEE DWG A6
FLOOR PLAN LEGEND:	SEE DWG SP–1
DR/WIN LEGEND:	SEE DWG SP–7*
FOR ADDED INFO., ABBREV'S, SYMBOLS:	SEE SPECS. SP–*

TITLE
THE JASMINE & THE ROOIBOS FRONT ELEVATION B -END UNIT

FILENAME: infusion–elev.dwg

Scale 1:50

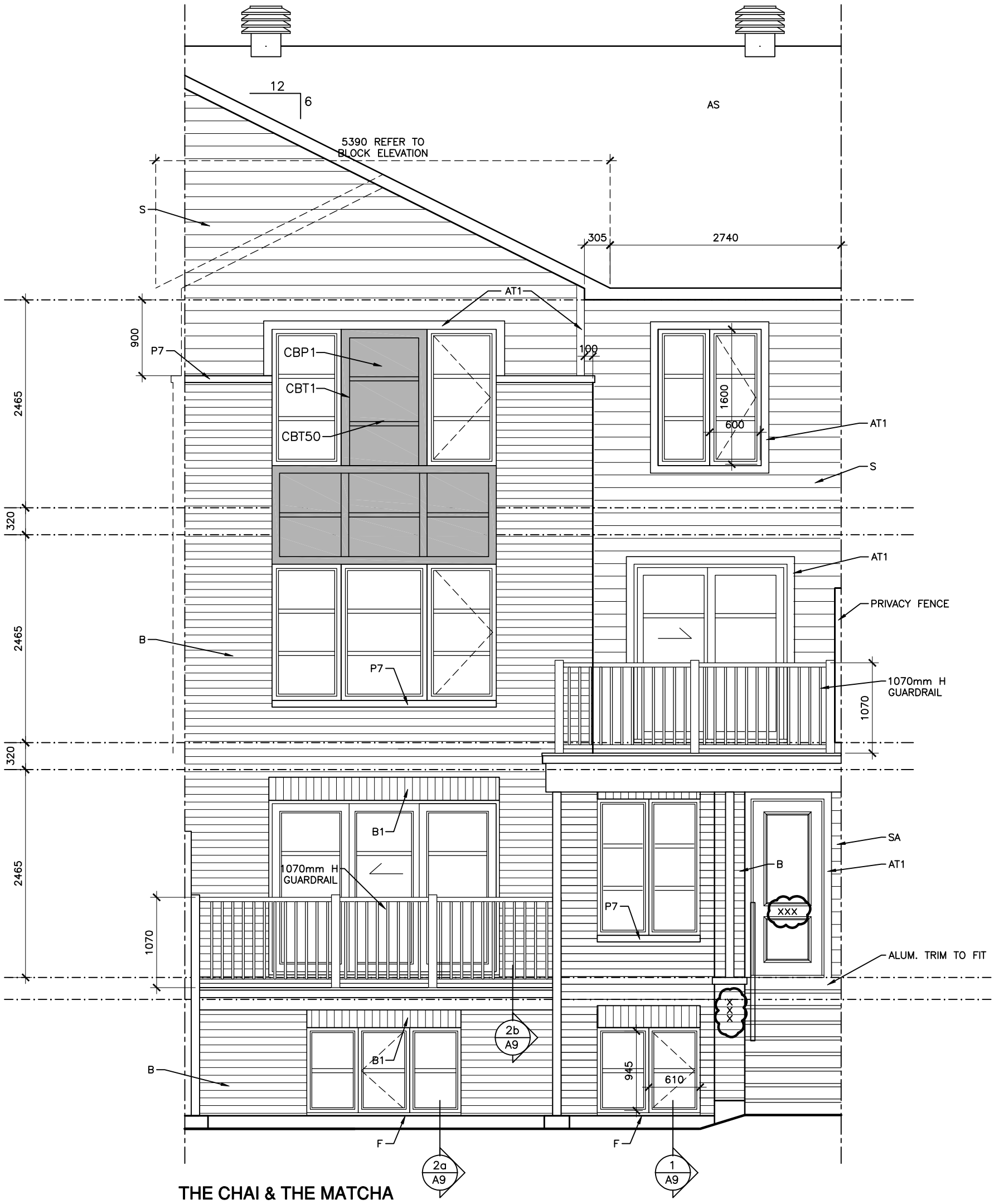
dwg # **A-6b**

2016–INFUSION TERRACE
THE MATCHA, THE ROOIBOS, THE JASMINE, THE CHAI ELEV. A & B
(2016 STANDARD DRAWING)

No	Revision	Date	By
13	ADDED DIMENSION FOR BRICK	SEP 13/16	KO
12	ISSUED FOR PERMIT	JUN 09/16	KO
11	ADDRESS LOCATION ADDED	JUN 07/16	MC
10	REISSUED FOR CONSTRUCTION	APR 14/16	KO
9	ISSUED FOR PERMIT	APR 01/16	KO
8	MOVED WINDOW OPERATORS	JUL 29/15	KO
7	ADDED ROOF VENTS	JUN 23/15	KO
6	ADDED WINDOW OPERATOR	MAY 21/15	KO
5	ISSUED FOR FOOTPRINT	MAY 20/15	KO
4	ISSUED FOR CONSTRUCTION	FEB 06/15	KO
3	ISSUED FOR STRUCTURAL LETTER & PERMIT	OCT 10/14	KO
2	ISSUED FOR TENDER	OCT 06/14	KO
1	ISSUED FOR STRUCTURAL REVIEW	SEP 10/14	KO

OTTAWA–CARLETON STANDARD CONDOMINIUM PLAN NO._____
PART III , SHEET ___ OF _____ SHEETS

ONTARIO ASSOCIATION OF ARCHITECTS
ROBERT J. SMITH
LICENCE
5949



THE CHAI & THE MATCHA
FRONT ELEVATION B - INT. UNIT

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CONFIDENTIAL

STRUCTURAL FRAMING LEGEND:	SEE DWG A5
ELEVATION FINISHES LEGEND:	SEE DWG A6
FLOOR PLAN LEGEND:	SEE DWG SP–1
DR/WIN LEGEND:	SEE DWG SP–7*
FOR ADDED INFO., ABBREV'S, SYMBOLS:	SEE SPECS. SP–*

TITLE
THE CHAI & THE MATCHA
FRONT ELEVATION B - INT. UNIT

FILENAME: infusion–elev.dwg

Scale 1:50

dwg # A-6c

2016–INFUSION TERRACE
THE MATCHA,
THE ROOIBOS,
THE JASMINE, THE CHAI
ELEV. A & B
(2016 STANDARD DRAWING)

No	Revision	Date	By
12	ISSUED FOR PERMIT	JUN 09/16	KO
11	ADDRESS LOCATION ADDED	JUN 07/16	MC
10	REISSUED FOR CONSTRUCTION	APR 14/16	KO
9	ISSUED FOR PERMIT	APR 01/16	KO
8	ADDED GABLE DIMENSION	SEP 02/15	KO
7	MOVED WINDOW OPERATORS	JUL 29/15	KO
6	ADDED ROOF VENTS	JUN 23/15	KO
5	ISSUED FOR FOOTPRINT	MAY 20/15	KO
4	ISSUED FOR CONSTRUCTION	FEB 06/15	KO
3	ISSUED FOR STRUCTURAL LETTER & PERMIT	OCT 10/14	KO
2	ISSUED FOR TENDER	OCT 06/14	KO
1	ISSUED FOR STRUCTURAL REVIEW	SEP 10/14	KO

OTTAWA–CARLETON STANDARD CONDOMINIUM PLAN NO._____
PART III , SHEET ___ OF _____ SHEETS

ONTARIO ASSOCIATION OF ARCHITECTS
ROBERT J. SMITH
LICENCE
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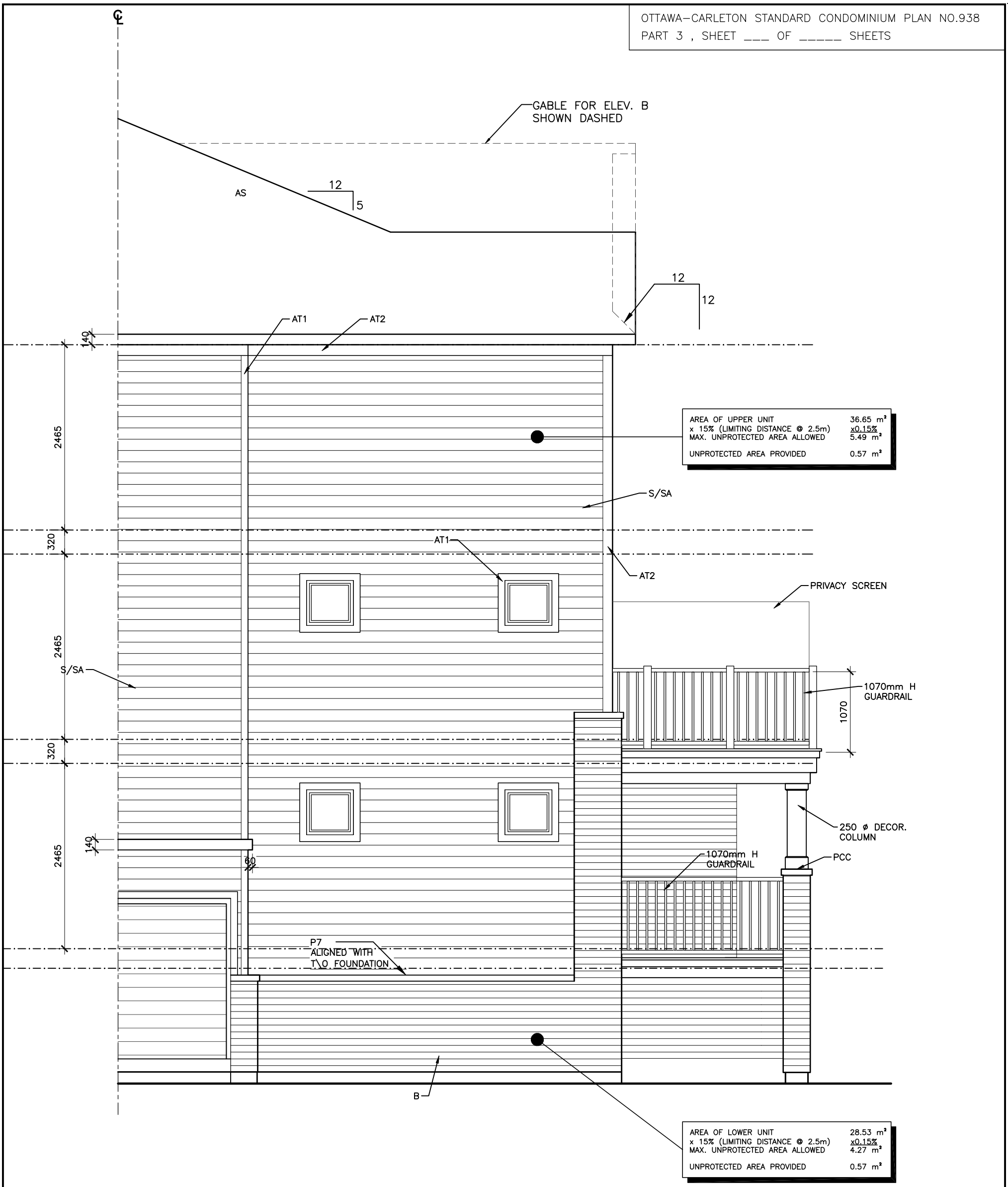

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CONFIDENTIAL

STRUCTURAL FRAMING LEGEND:	SEE DWG A5
ELEVATION FINISHES LEGEND:	SEE DWG A6
FLOOR PLAN LEGEND:	SEE DWG SP–1
DR/WIN LEGEND:	SEE DWG SP–7*
FOR ADDED INFO., ABBREV'S, SYMBOLS:	SEE SPECS. SP–*

TITLE

THE JASMINE & THE ROOIBOS
SIDE ELEVATION A - END UNIT

FILENAME: infusion–elev.dwg

Scale 1:50

dwg # A-7

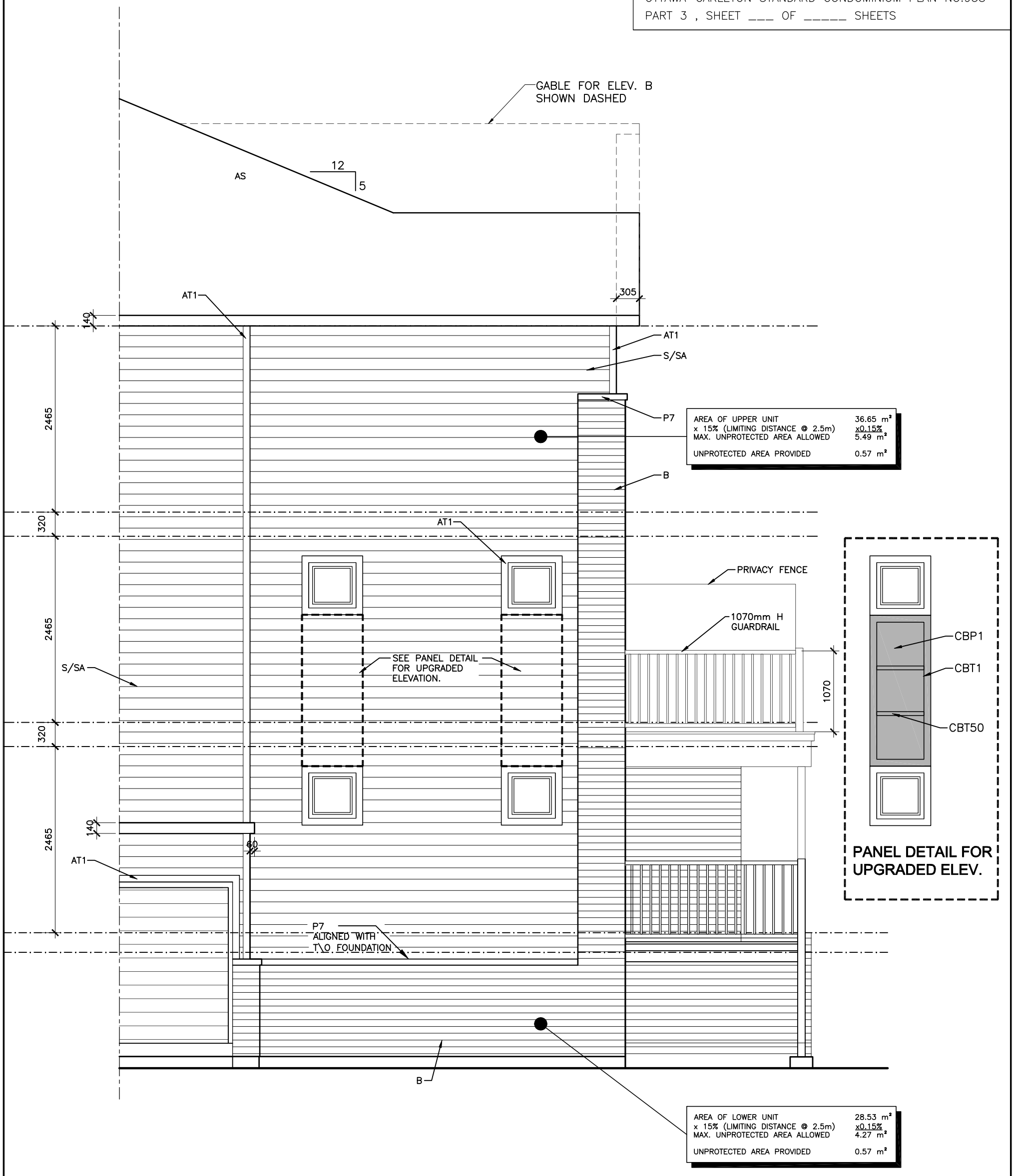
2016–INFUSION TERRACE

THE MATCHA,
THE ROOIBOS,
THE JASMINE, THE CHAI
ELEV. A & B
(2016 STANDARD DRAWING)

No	Revision	Date	By
10	ISSUED FOR PERMIT	JUN 09/16	KO
9	REISSUED FOR CONSTRUCTION	APR 14/16	KO
8	ISSUED FOR PERMIT	APR 01/16	KO
7	REVISED ROOF SLOPE	JUL 29/15	KO
6	ADDED NOTE FOR P7 HEIGHT	MAY 27/15	KO
5	ISSUED FOR FOOTPRINT	MAY 20/15	KO
4	ISSUED FOR CONSTRUCTION	FEB 06/15	KO
3	ISSUED FOR STRUCTURAL LETTER & PERMIT	OCT 10/14	KO
2	ISSUED FOR TENDER	OCT 06/14	KO
1	ISSUED FOR STRUCTURAL REVIEW	SEP 10/14	KO

OTTAWA–CARLETON STANDARD CONDOMINIUM PLAN NO._____
PART III , SHEET ___ OF _____ SHEETS

ONTARIO ASSOCIATION OF ARCHITECTS
ROBERT J. SMITH
LICENCE
5949



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CONFIDENTIAL

STRUCTURAL FRAMING LEGEND:	SEE DWG A5
ELEVATION FINISHES LEGEND:	SEE DWG A6
FLOOR PLAN LEGEND:	SEE DWG SP–1
DR/WIN LEGEND:	SEE DWG SP–7*
FOR ADDED INFO., ABBREV'S, SYMBOLS:	SEE SPECS. SP–*

TITLE

THE JASMINE & THE ROOIBOS
SIDE ELEVATION B - END UNIT

FILENAME: infusion–elev.dwg

Scale 1:50

dwg # A-7a

2016–INFUSION TERRACE
THE MATCHA,
THE ROOIBOS,
THE JASMINE, THE CHAI
ELEV. A & B
(2016 STANDARD DRAWING)

No	Revision	Date	By
10	ISSUED FOR PERMIT	JUN 09/16	KO
9	REISSUED FOR CONSTRUCTION	APR 14/16	KO
8	ISSUED FOR PERMIT	APR 01/16	KO
7	REVISED ROOF SLOPE	JUL 29/15	KO
6	ADDED NOTE FOR P7 HEIGHT	MAY 27/15	KO
5	ISSUED FOR FOOTPRINT	MAY 20/15	KO
4	ISSUED FOR CONSTRUCTION	FEB 06/15	KO
3	ISSUED FOR STRUCTURAL LETTER & PERMIT	OCT 10/14	KO
2	ISSUED FOR TENDER	OCT 06/14	KO
1	ISSUED FOR STRUCTURAL REVIEW	SEP 10/14	KO

OTTAWA–CARLETON STANDARD CONDOMINIUM PLAN NO._____
PART III , SHEET ___ OF _____ SHEETS

ONTARIO ASSOCIATION OF ARCHITECTS
ROBERT J. SMITH
LICENCE
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OTTAWA–CARLETON STANDARD CONDOMINIUM PLAN NO.938
PART 3 , SHEET ___ OF _____ SHEETS

ONTARIO ASSOCIATION OF ARCHITECTS
ROBERT J. SMITH
LICENCE
5949

GABLE FOR ELEV. B
SHOWN DASHED

12
5

305

BEDROOM 2

2465

2170

320

F1

KITCHEN

1070
LANDING

3
A8b

2755 15 RISERS @183.667

455

240

PW2

1
A9a

2
A9a

286

658

320

2170

2134

F2

2465

1
A8b

2785 15 RISERS @ 185.667

2013

ENTRY

SA

2210 SOFFIT

EXTEND HANDRAIL PAST
BRICK & RETURN TO WALL

200

1HR. RATING

1
A8

F2

750

900

320

305

COMPOSITE VINYL DECKING
38x90 SLEEPER @ 305 O.C., INSTALLED
ON GASKETS ON TOP OF
2–PLY MOD. BIT. MEMBRANE
20mmPLYWOOD SHEATHING
38x185 JOIST TAPER DN TO 140
R24 BATTS
19x65 STRAPPING
50mm RIGID INSUL.,
VAPOUR BARRIER
2 LAYERS OF 16mm TYPE X GYPSUM.

BEDROOM 2

2465

2785

3060

2395 POUR HT.

180

1360

300

150 MIN.

1590

PARGING ON
90mm CONCRETE BLOCK

PROVIDE DIFFERENT
COLOUR\PATTERN AT FRONT OF
EACH TREAD, 9.8.9.6(3)

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CONFIDENTIAL

STRUCTURAL FRAMING LEGEND: SEE DWG A5
ELEVATION FINISHES LEGEND: SEE DWG A6
FLOOR PLAN LEGEND: SEE DWG SP–1
DR/WIN LEGEND: SEE DWG SP–7*
FOR ADDED INFO., ABBREV'S, SYMBOLS: SEE SPECS. SP–*

TITLE
CROSS SECTION
ELEVATION A (B similar)

FILENAME: infusion–sect.dwg

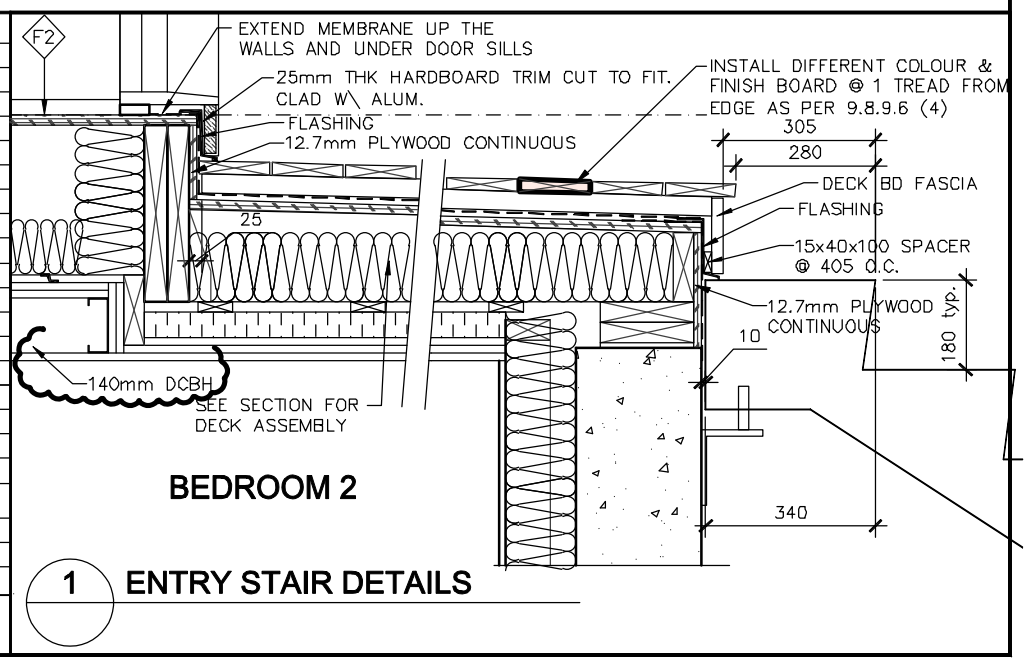
Scale 1:50

2016–INFUSION TERRACE
THE MATCHA, THE ROOIBOS, THE JASMINE, THE CHAI
ELEV. A & B
(2016 STANDARD DRAWING)

dwg # A-8

No	Revision	Date	By
21	ADDED DROP DIMENSION	SEP 26/16	KO
20	CLARIFIED DROP CEILING	SEP 20/16	KO
19	ADDED PLYWOOD	SEP 07/16	KO
18	CLARIFIED REFERENCE	AUG 30/16	KO
17	ADDED DIMENSION	JUL 28/16	KO
16	REVISED DETAIL REFERENCE	JUL 21/16	KO
15	ISSUED FOR PERMIT	JUN 09/16	KO
14	REVISED ROOF SLOPE TO MATCH ELEV.	MAY 05/16	KO
13	ADDED TREAD & LANDING NOTE	APR 29/16	KO
12	ISSUED FOR PERMIT	APR 01/16	KO
11	CLARIFIED HANDRAIL EXTENSIONS	NOV 20/15	KO
10	ADDED CONC. BLOCK NOTE	OCT 29/15	KO
9	DETAILS ADDED, MATERIALS REVISED	JUL 10/15	KO
8	REVISED PORCH ASSEMBLY	JUL 02/15	BS
7	REMOVED MAILBOXES	MAY 27/15	KO
6	ISSUED FOR FOOTPRINT	MAY 20/15	KO
5	REVISED PRECAST STAIR DIMENSIONS	APR 02/15	KO
4	ISSUED FOR CONSTRUCTION	FEB 06/15	KO
3	ISSUED FOR STRUCTURAL LETTER & PERMIT	OCT 10/14	KO
2	ISSUED FOR TENDER	OCT 06/14	KO
1	ISSUED FOR STRUCTURAL REVIEW	SEP 10/14	KO

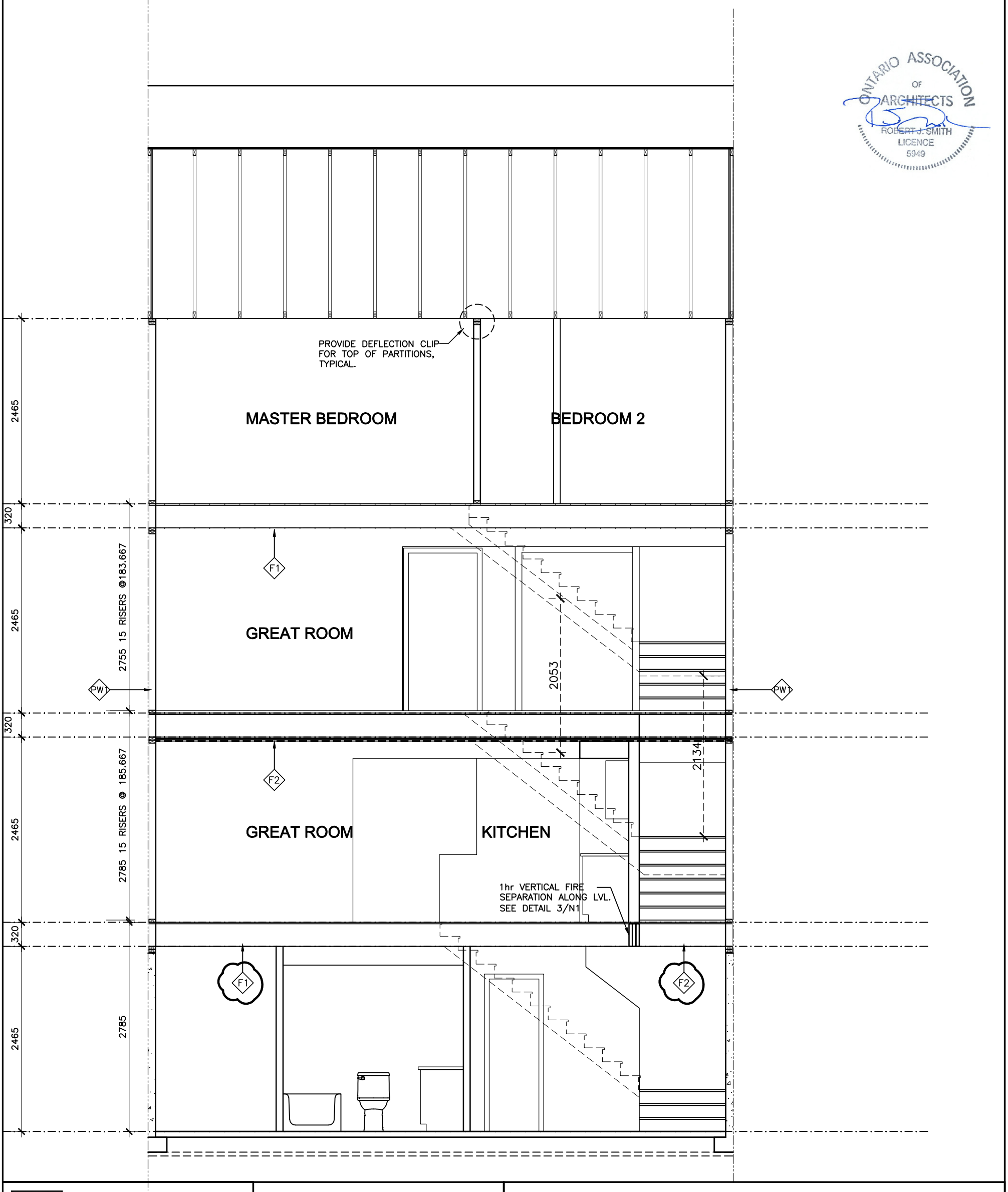
OTTAWA–CARLETON STANDARD CONDOMINIUM PLAN NO.____
PART III , SHEET ___ OF _____ SHEETS



1 ENTRY STAIR DETAILS

OTTAWA–CARLETON STANDARD CONDOMINIUM PLAN NO.938
PART 3 , SHEET ___ OF _____ SHEETS

ONTARIO ASSOCIATION OF ARCHITECTS
ROBERT J. SMITH
LICENCE
5949



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CONFIDENTIAL

STRUCTURAL FRAMING LEGEND:	SEE DWG A5
ELEVATION FINISHES LEGEND:	SEE DWG A6
FLOOR PLAN LEGEND:	SEE DWG SP–1
DR/WIN LEGEND:	SEE DWG SP–7*
FOR ADDED INFO., ABBREV'S, SYMBOLS:	SEE SPECS. SP–*

TITLE
CROSS SECTION ELEVATION A & B

FILENAME: infusion–sect.dwg

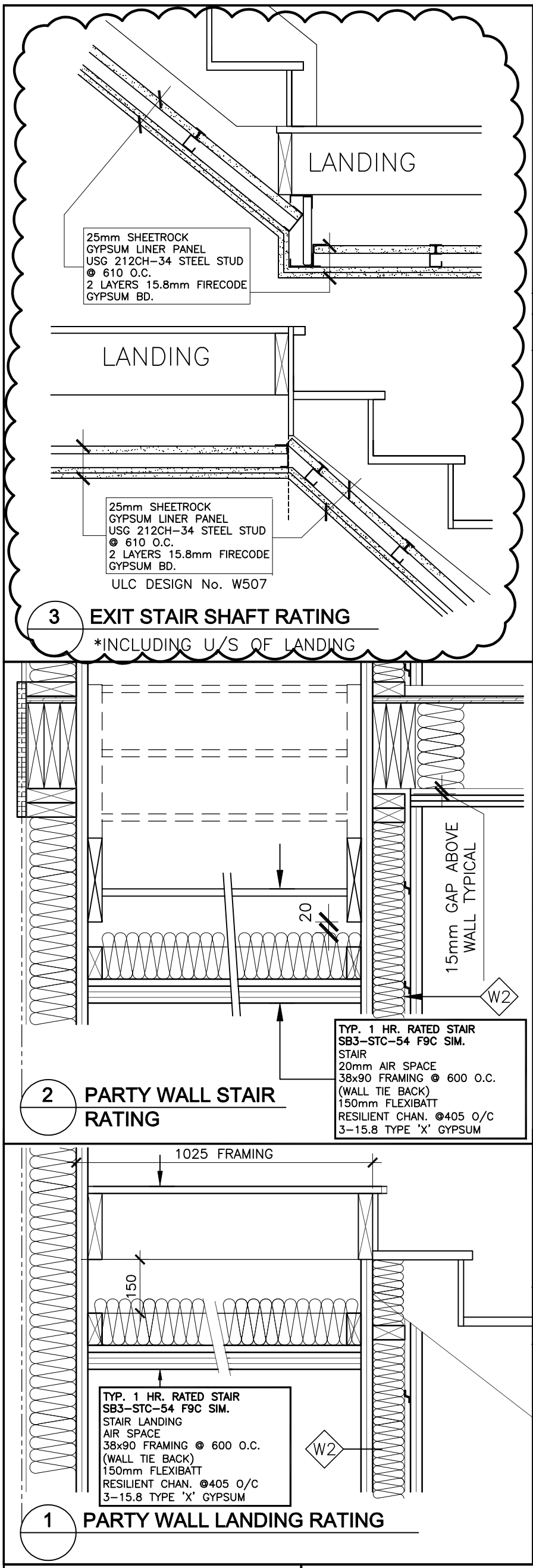
Scale 1:50

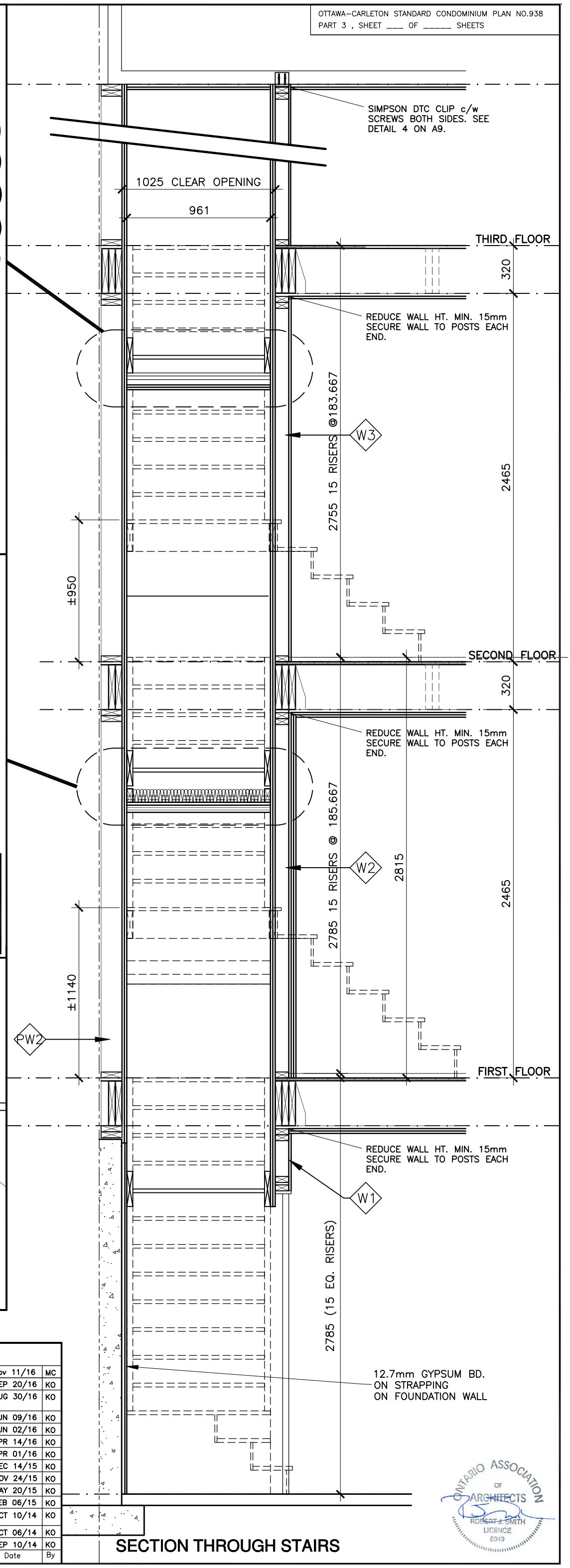
dwg # A-8a

2016–INFUSION TERRACE
THE MATCHA, THE ROOIBOS, THE JASMINE, THE CHAI
ELEV. A & B
(2016 STANDARD DRAWING)

No	Revision	Date	By
9	ISSUED FOR PERMIT	JUN 09/16	KO
8	REISSUED FOR CONSTRUCTION	APR 14/16	KO
7	ISSUED FOR PERMIT	APR 01/16	KO
6	CLARIFIED FIRE SEPARATION	MAY 27/15	KO
5	ISSUED FOR FOOTPRINT	MAY 20/15	KO
4	ISSUED FOR CONSTRUCTION	FEB 06/15	KO
3	ISSUED FOR STRUCTURAL LETTER & PERMIT	OCT 10/14	KO
2	ISSUED FOR TENDER	OCT 06/14	KO
1	ISSUED FOR STRUCTURAL REVIEW	SEP 10/14	KO

OTTAWA–CARLETON STANDARD CONDOMINIUM PLAN NO._____
PART III , SHEET ___ OF _____ SHEETS





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CONFIDENTIAL

TITLE
STAIR SECTION
ELEVATION A & B

FILENAME: infusion–sect.dwg

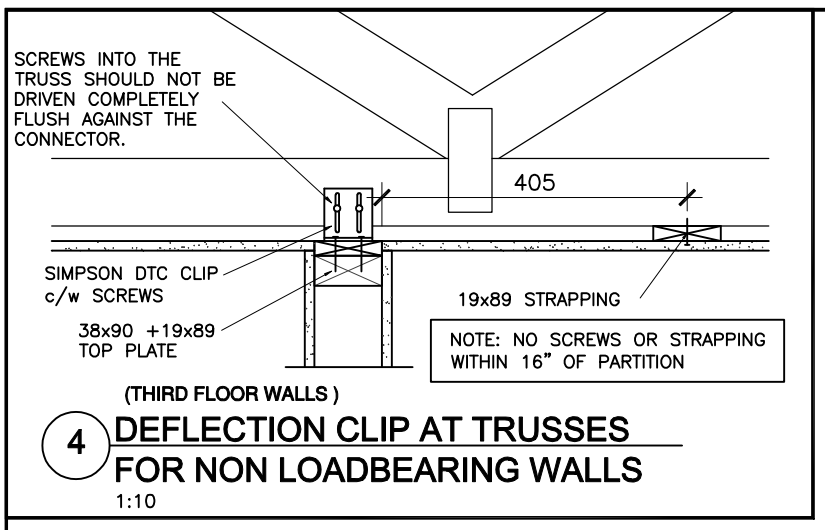
Scale 1:25

dwg # **A-8b**

2016–INFUSION TERRACE
THE MATCHA,
THE ROOIBOS,
THE JASMINE, THE CHAI
ELEV. A & B
(2016 STANDARD DRAWING)

No	Revision	Date	By
14	RATING DETAIL AT LANDING CLARIFIED	nov 11/16	MC
13	REMOVED DEFLECTION CLIP AT FLOORS	SEP 20/16	KO
12	CLARIFIED DEFLECTION CLIP & RATING & WALL HT.	AUG 30/16	KO
11	ISSUED FOR PERMIT	JUN 09/16	KO
10	INCREASE SOUND INSUL THICKNESS	JUN 02/16	KO
9	REISSUED FOR CONSTRUCTION	APR 14/16	KO
8	ISSUED FOR PERMIT	APR 01/16	KO
7	HEIGHT OF LANDING ADDED	DEC 14/15	KO
6	ADDED DETAIL 1	NOV 24/15	KO
5	ISSUED FOR FOOTPRINT	MAY 20/15	KO
4	ISSUED FOR CONSTRUCTION	FEB 06/15	KO
3	ISSUED FOR STRUCTURAL LETTER & PERMIT	OCT 10/14	KO
2	ISSUED FOR TENDER	OCT 06/14	KO
1	ISSUED FOR STRUCTURAL REVIEW	SEP 10/14	KO

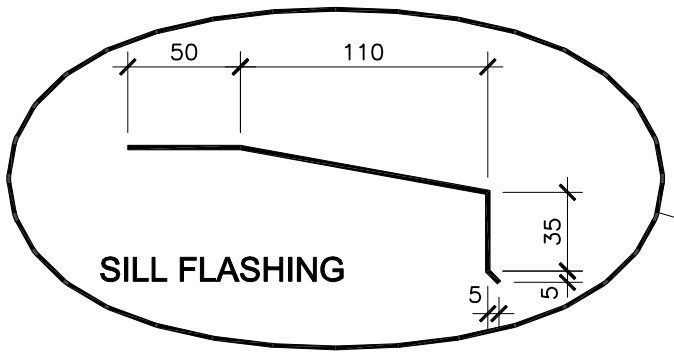
ONTARIO ASSOCIATION OF ARCHITECTS
ROBERT J. SMITH
LICENCE
5949

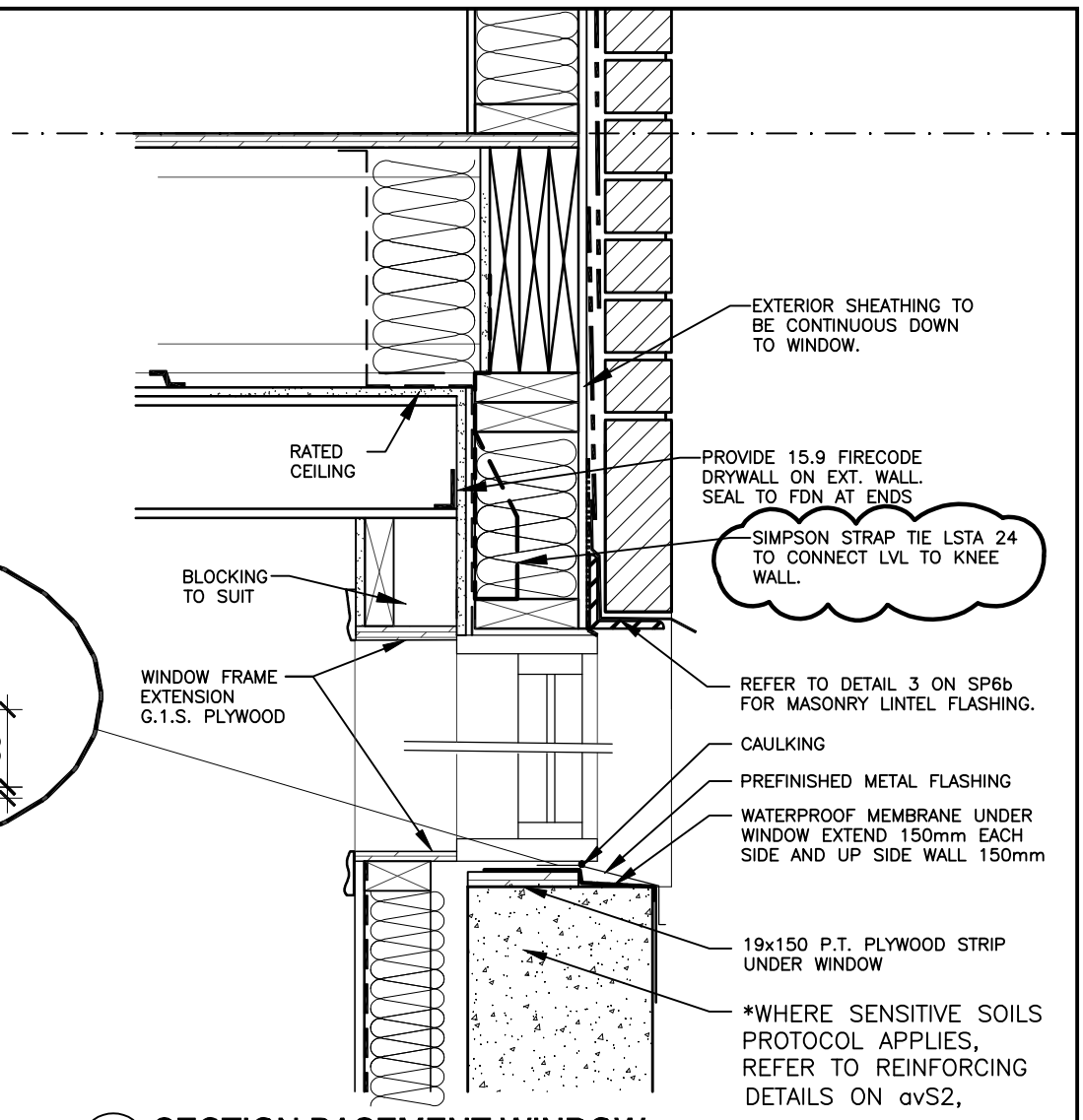


(THIRD FLOOR WALLS)

4 DEFLECTION CLIP AT TRUSSES FOR NON LOADBEARING WALLS

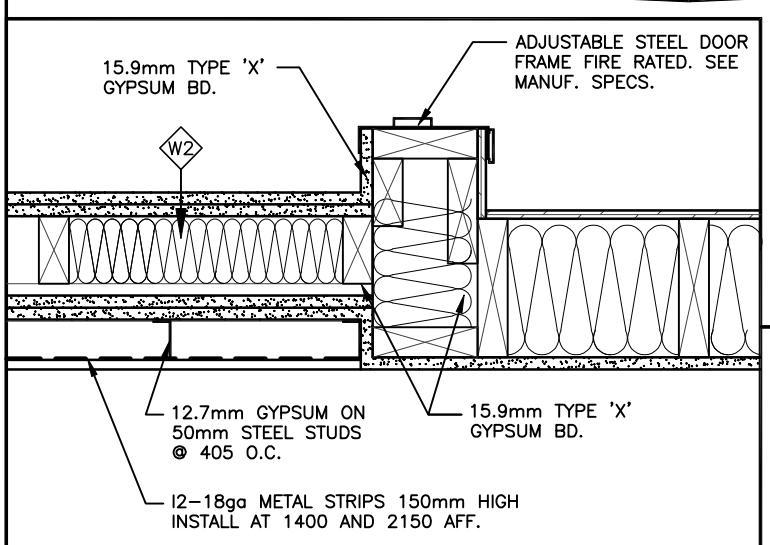
1:10





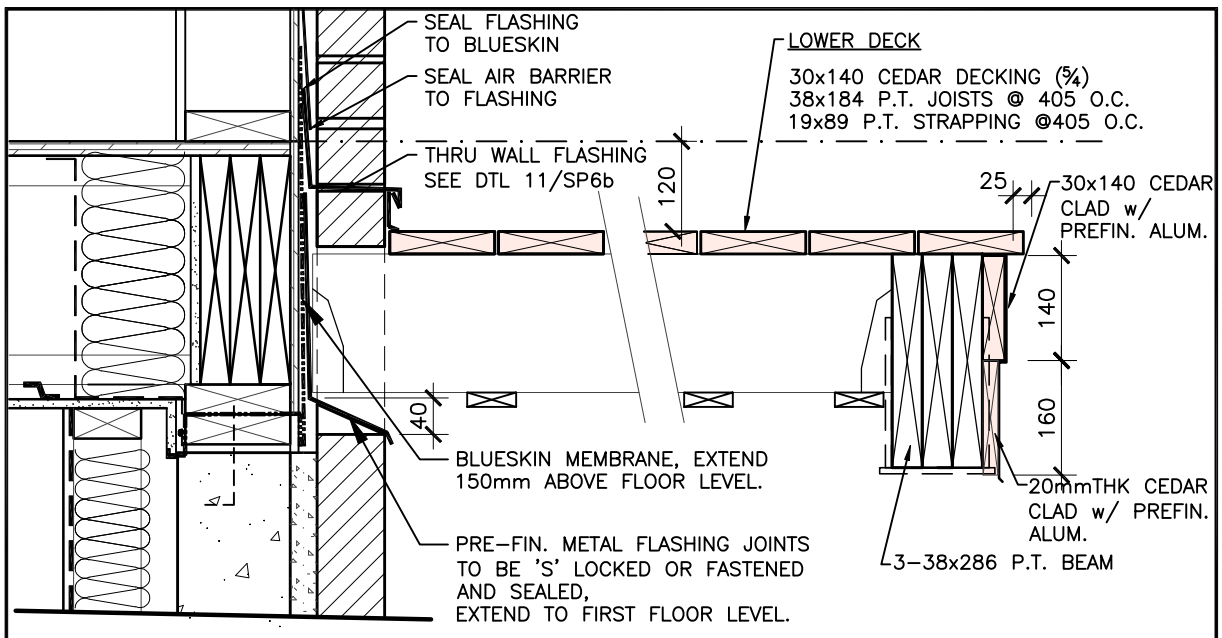
1 SECTION BASEMENT WINDOW

1:10



3 PLAN DETAIL AT ENTRY DOOR

1:10



2b SECTION THROUGH LOWER DECK AT BRICK

1:10

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ROBERT J. SMITH
LICENCE
5949

OTTAWA–CARLETON STANDARD CONDOMINIUM PLAN NO.938 PART 3 , SHEET ___ OF _____ SHEETS			
13	REVISED STRAP TIE OVER WINDOW, CLARIFIED DCBH	SEP 20/16	KO
12	ISSUED FOR PERMIT	JUN 09/16	KO
11	ADDED STRAP TIE OVER WINDOWS	JUN 02/16	KO
10	REISSUED FOR CONSTRUCTION	APR 14/16	KO
9	ISSUED FOR CONSTRUCTION	APR 01/16	KO
8	REVISED LOWER DECK BEAM DETAIL	MAR 08/16	KO
7	ADDED NOTE FOR METAL STRIPS	JAN 05/15	KO
6	ISSUED FOR FOOTPRINT	MAY 20/15	KO
5	CLARIFIED DETAILS	MAY 08/15	KO
4	ISSUED FOR CONSTRUCTION	FEB 06/15	KO
3	ISSUED FOR STRUCTURAL LETTER & PERMIT	OCT 10/14	KO
2	ISSUED FOR TENDER	OCT 06/14	KO
1	ISSUED FOR STRUCTURAL REVIEW	SEP 10/14	KO
No	Revision	Date	By

OTTAWA–CARLETON STANDARD CONDOMINIUM PLAN NO._____ PART III , SHEET ___ OF _____ SHEETS

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CONFIDENTIAL

STRUCTURAL FRAMING LEGEND:	SEE DWG A5
ELEVATION FINISHES LEGEND:	SEE DWG A6
FLOOR PLAN LEGEND:	SEE DWG SP–1
DR/WIN LEGEND:	SEE DWG SP–7*
FOR ADDED INFO., ABBREV'S, SYMBOLS:	SEE SPECS. SP–*

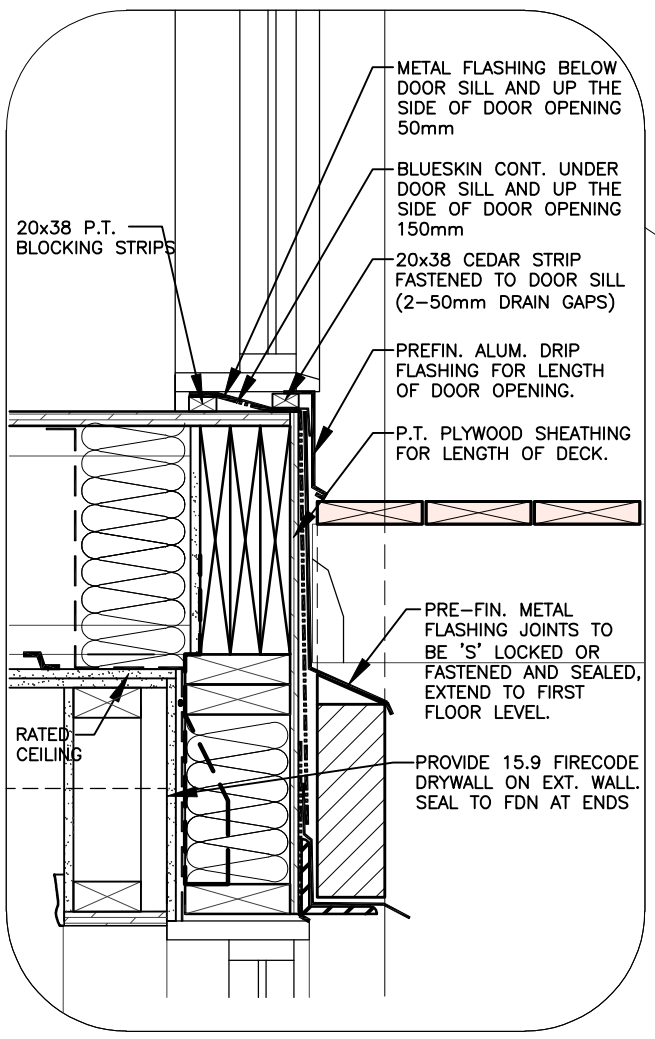
TITLE
DETAILS ELEVATION A & B

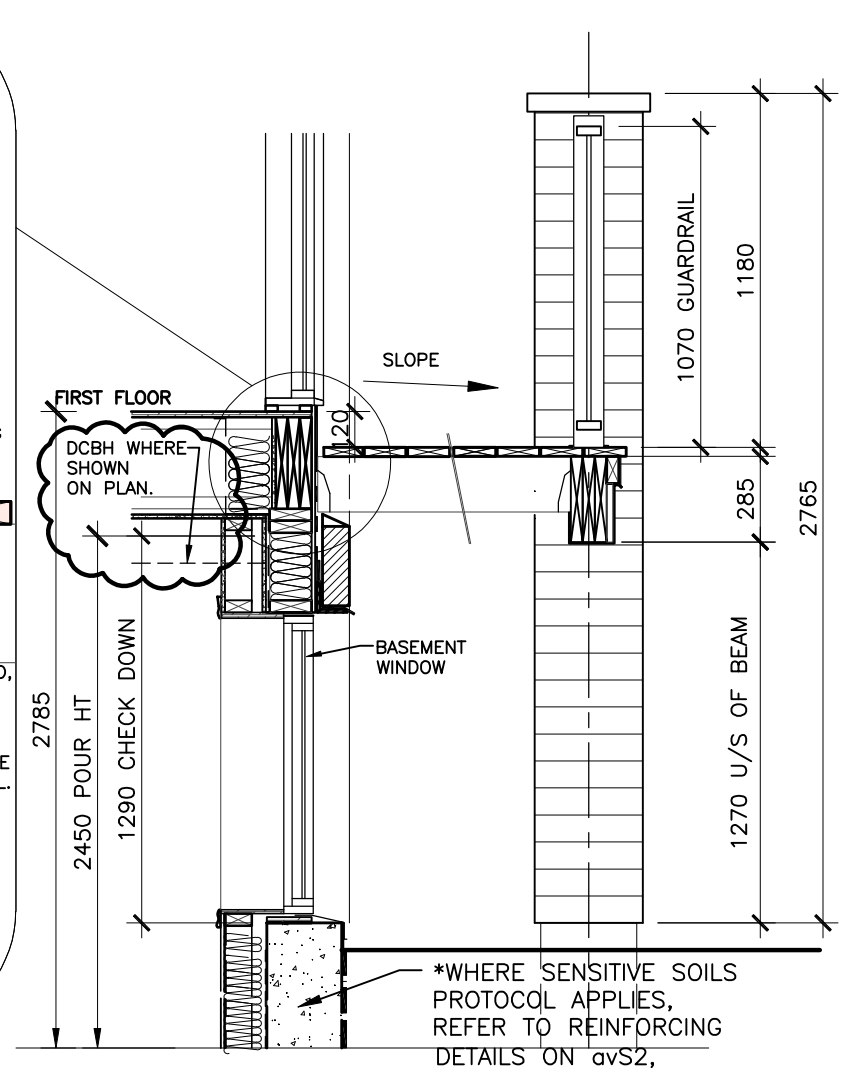
FILENAME: infusion–sect.dwg

Scale NTS

dwg # **A-9**

2016–INFUSION TERRACE
THE MATCHA, THE ROOIBOS, THE JASMINE, THE CHAI ELEV. A & B
(2016 STANDARD DRAWING)

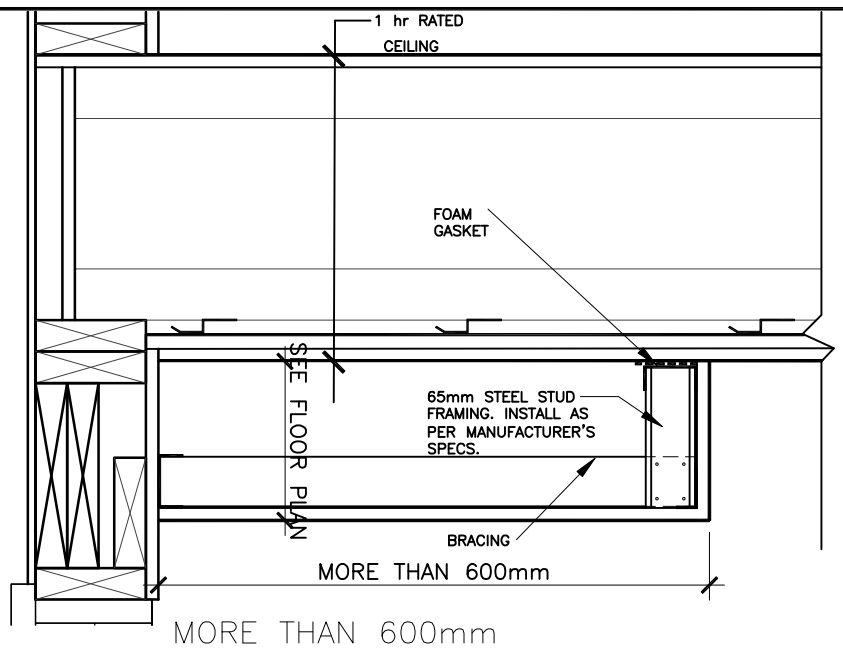




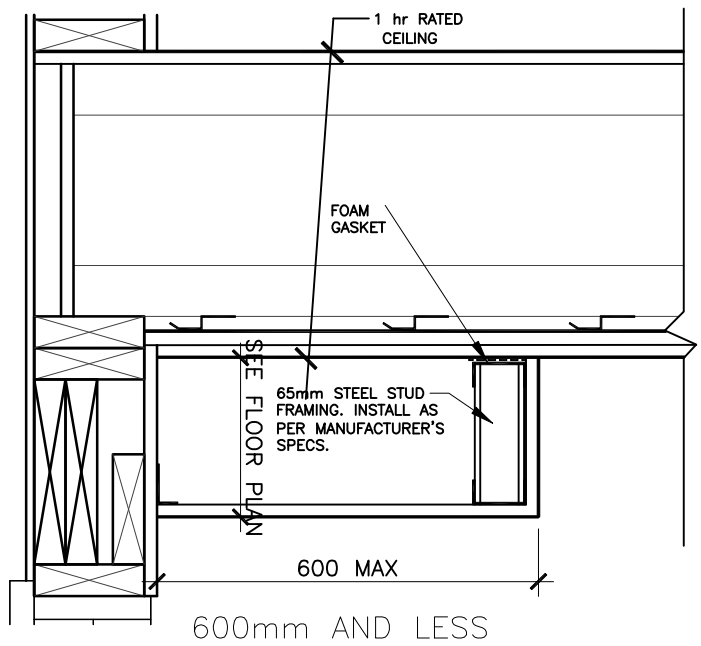
2a SECTION THROUGH LOWER DECK AT PATIO DOOR

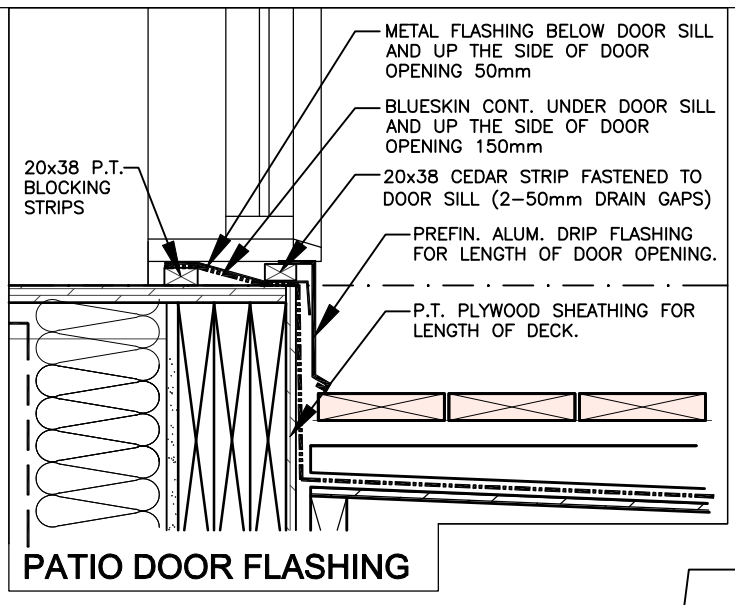
1:25

OTTAWA–CARLETON STANDARD CONDOMINIUM PLAN NO.938
PART 3 , SHEET ___ OF _____ SHEETS

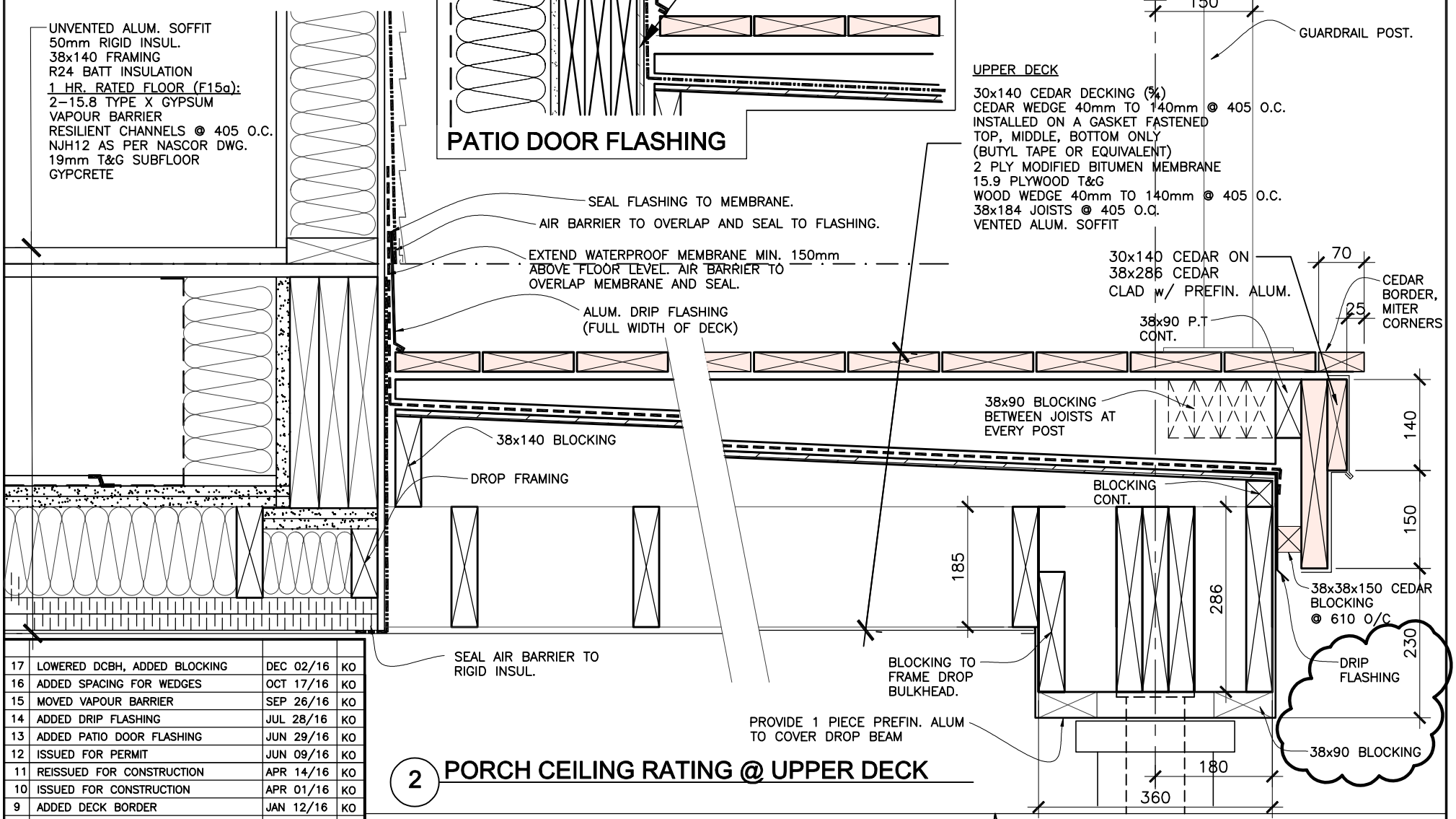


3 BULKHEAD DETAILS





PATIO DOOR FLASHING



2 PORCH CEILING RATING @ UPPER DECK

No	Revision	Date	By
17	LOWERED DCBH, ADDED BLOCKING	DEC 02/16	KO
16	ADDED SPACING FOR WEDGES	OCT 17/16	KO
15	MOVED VAPOUR BARRIER	SEP 26/16	KO
14	ADDED DRIP FLASHING	JUL 28/16	KO
13	ADDED PATIO DOOR FLASHING	JUN 29/16	KO
12	ISSUED FOR PERMIT	JUN 09/16	KO
11	REISSUED FOR CONSTRUCTION	APR 14/16	KO
10	ISSUED FOR CONSTRUCTION	APR 01/16	KO
9	ADDED DECK BORDER	JAN 12/16	KO
8	ADDED DECK RAILING DIMENSIONS	DEC 04/15	KO
7	ADDED BLOCKING, CLARIFIED DCBH	JUL 29/15	KO
6	ISSUED FOR FOOTPRINT	MAY 20/15	KO
5	CLARIFIED DETAILS	MAY 08/15	KO
4	ISSUED FOR CONSTRUCTION	FEB 06/15	KO
3	ISSUED FOR STRUCTURAL LETTER & PERMIT	OCT 10/14	KO
2	ISSUED FOR TENDER	OCT 06/14	KO
1	ISSUED FOR STRUCTURAL REVIEW	SEP 10/14	KO

OTTAWA–CARLETON STANDARD CONDOMINIUM PLAN NO._____
PART III , SHEET ___ OF _____ SHEETS

minto beinspired

CONFIDENTIAL

STRUCTURAL FRAMING LEGEND:	SEE DWG A5
ELEVATION FINISHES LEGEND:	SEE DWG A6
FLOOR PLAN LEGEND:	SEE DWG SP–1
DR/WIN LEGEND:	SEE DWG SP–7*
FOR ADDED INFO., ABBREV'S, SYMBOLS:	SEE SPECS. SP–*

TITLE
DETAILS ELEVATION A & B

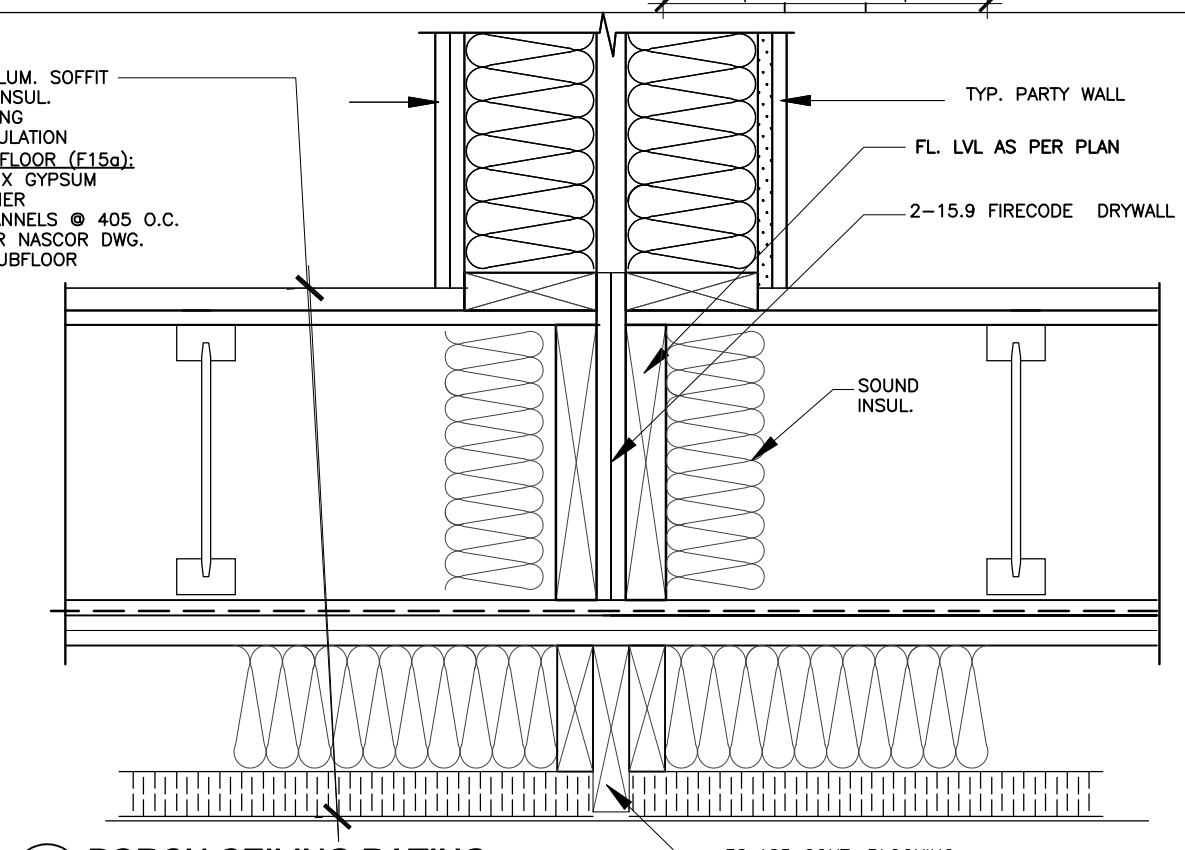
FILENAME: infusion–sect.dwg

Scale: NTS

dwg #: **A-9a**

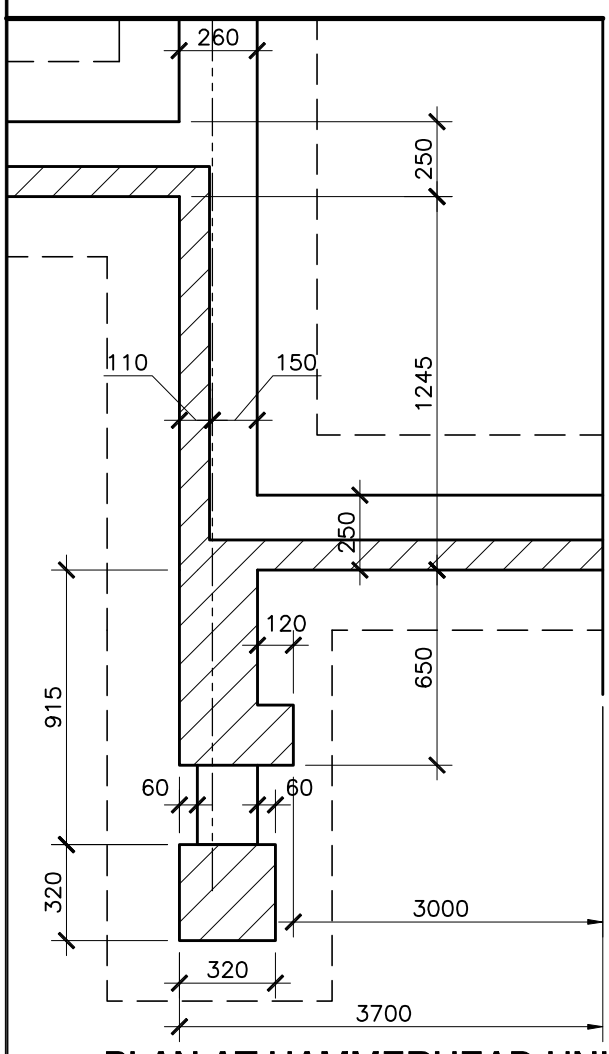
2016–INFUSION TERRACE
THE MATCHA, THE ROOIBOS, THE JASMINE, THE CHAI
ELEV. A & B
(2016 STANDARD DRAWING)

ONTARIO ASSOCIATION OF ARCHITECTS
ROBERT J. SMITH
LICENCE
5949

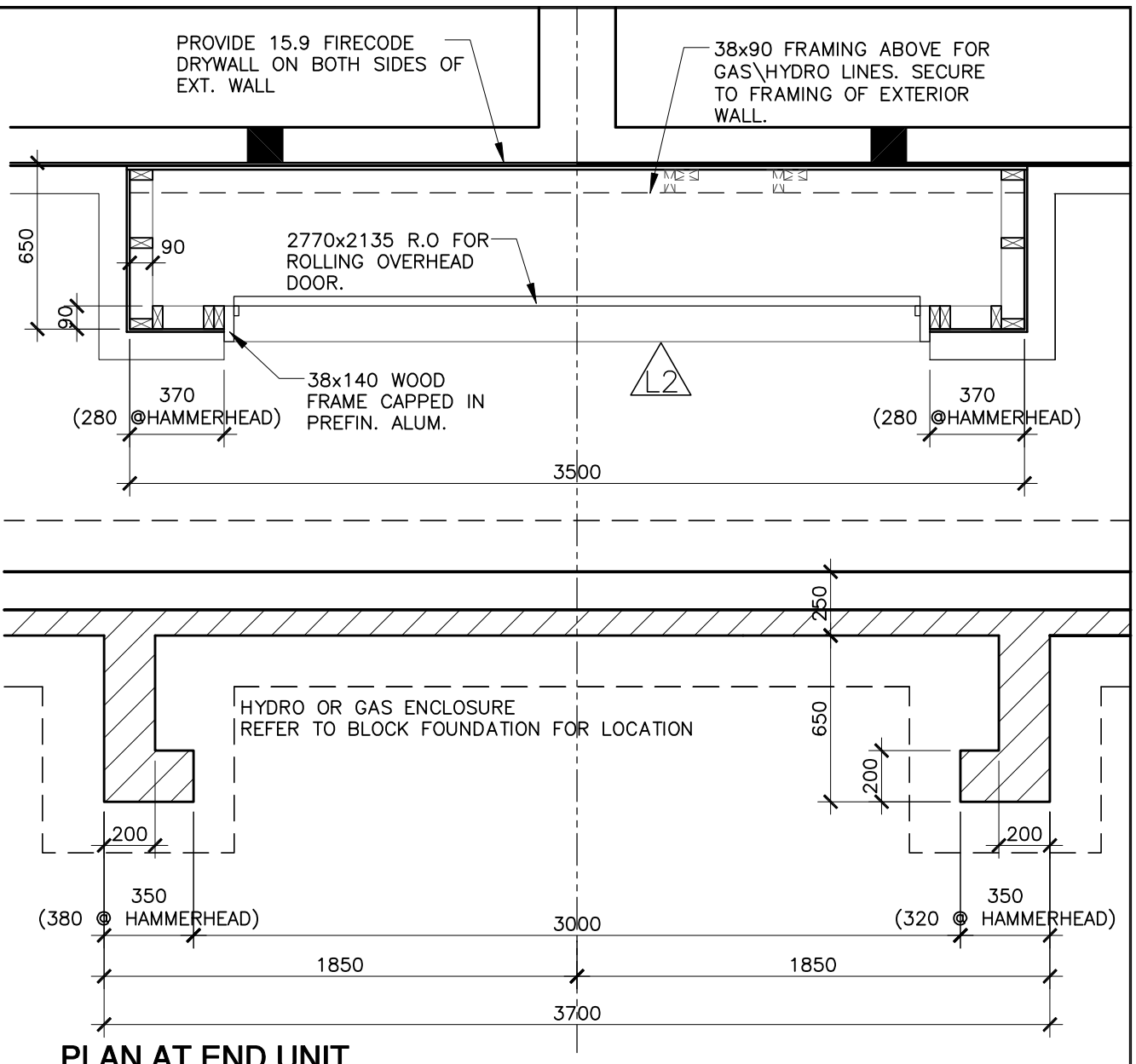


1 PORCH CEILING RATING

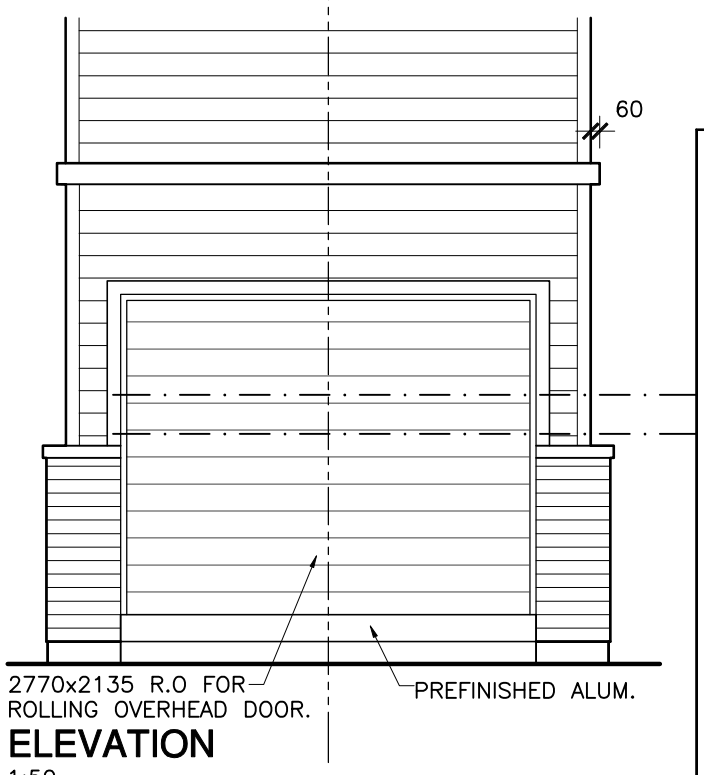
OTTAWA–CARLETON STANDARD CONDOMINIUM PLAN NO.938
PART 3 , SHEET ___ OF _____ SHEETS



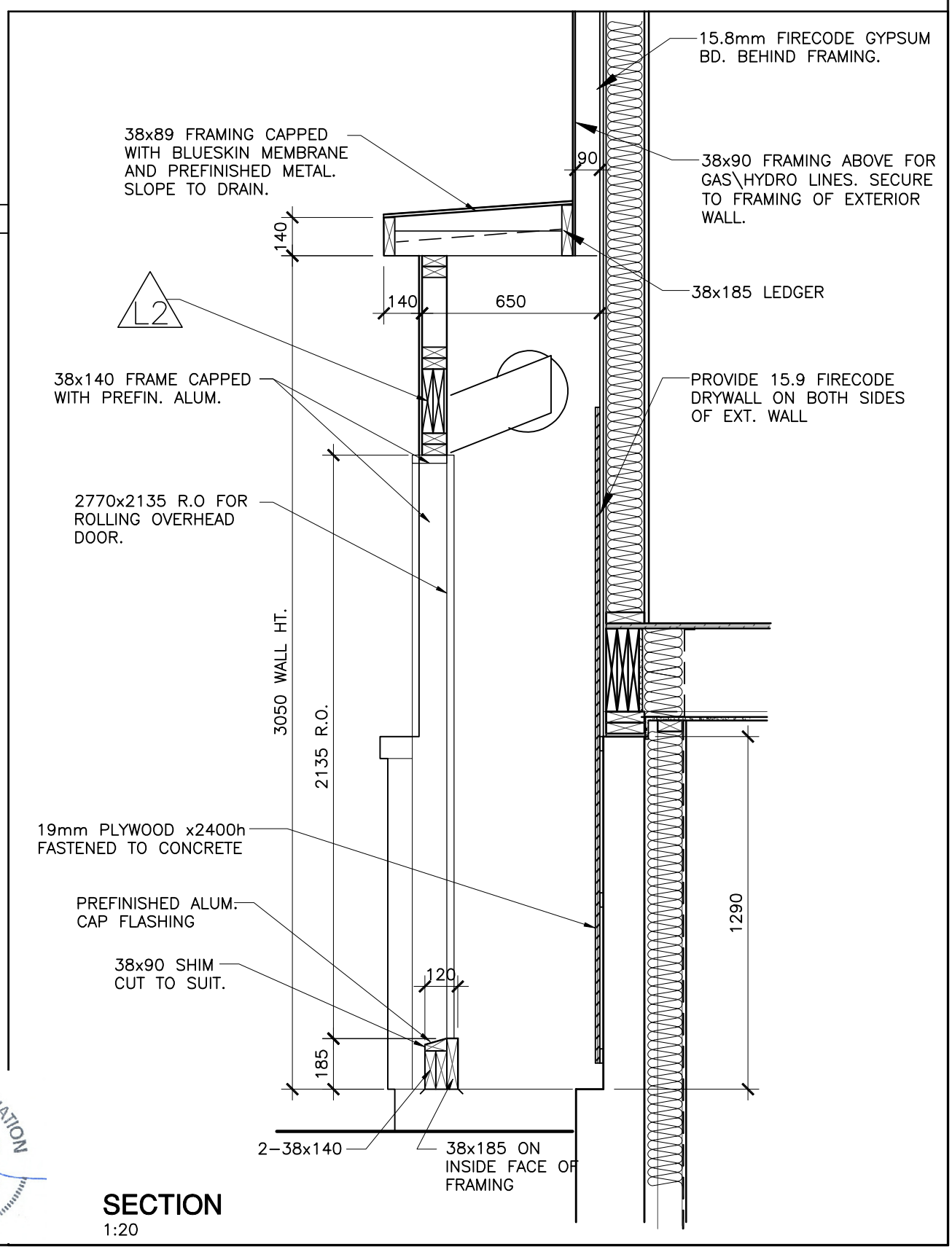
PLAN AT HAMMERHEAD UNIT
1:25



PLAN AT END UNIT
1:25



ELEVATION
1:50



SECTION
1:20

9	ISSUED FOR PERMIT	JUN 09/16	KO
8	REISSUED FOR CONSTRUCTION	APR 14/16	KO
7	ISSUED FOR CONSTRUCTION	APR 01/16	KO
6	ISSUED FOR FOOTPRINT	MAY 20/15	KO
5	CLARIFIED FOUNDATION DETAILS	APR 09/15	KO
4	ISSUED FOR CONSTRUCTION	FEB 06/15	KO
3	ISSUED FOR STRUCTURAL LETTER & PERMIT	OCT 10/14	KO
2	ISSUED FOR TENDER	OCT 06/14	KO
1	ISSUED FOR STRUCTURAL REVIEW	SEP 10/14	KO
No	Revision	Date	By

OTTAWA–CARLETON STANDARD CONDOMINIUM PLAN NO._____
PART III , SHEET ___ OF _____ SHEETS

minto beinspired

CONFIDENTIAL

STRUCTURAL FRAMING LEGEND:	SEE DWG A5
ELEVATION FINISHES LEGEND:	SEE DWG A6
FLOOR PLAN LEGEND:	SEE DWG SP–1
DR/WIN LEGEND:	SEE DWG SP–7*
FOR ADDED INFO., ABBREV'S, SYMBOLS:	SEE SPECS. SP–*

TITLE
HYDRO\GAS ENCLOSURE DETAILS ELEVATION A & B

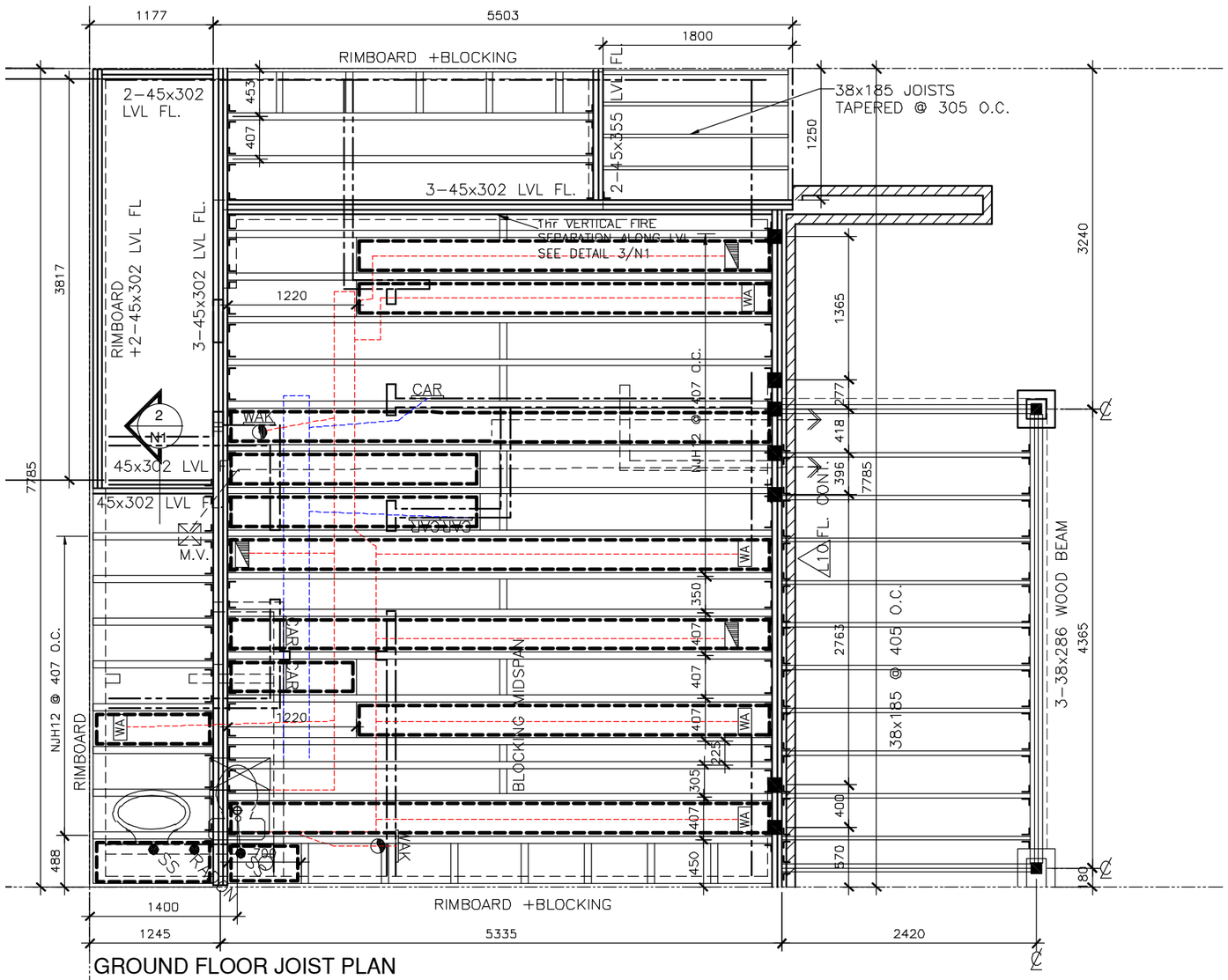
FILENAME: infusion–sect.dwg

Scale: NTS

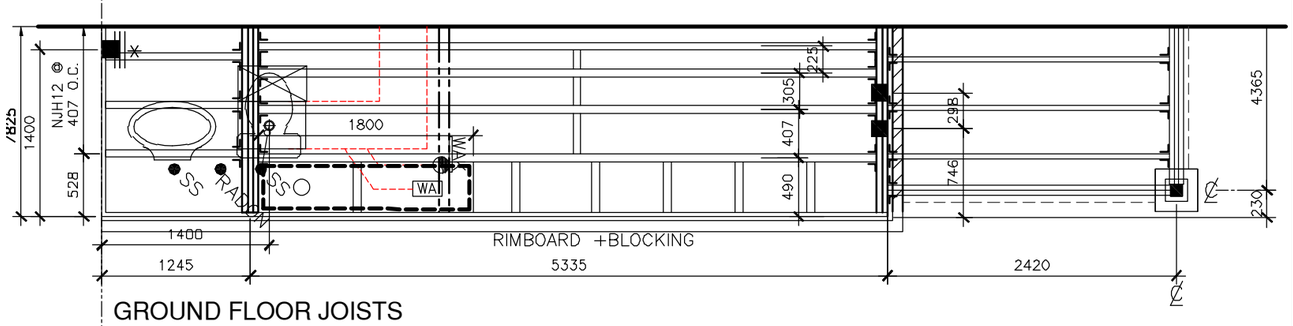
2016–INFUSION TERRACE
THE MATCHA, THE ROOIBOS, THE JASMINE, THE CHAI ELEV. A & B
(2016 STANDARD DRAWING)

dwg # **A-10**

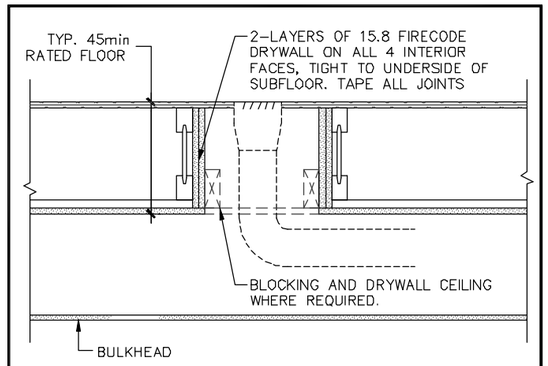
ONTARIO ASSOCIATION OF ARCHITECTS
ROBERT J. SMITH
LICENCE
5949



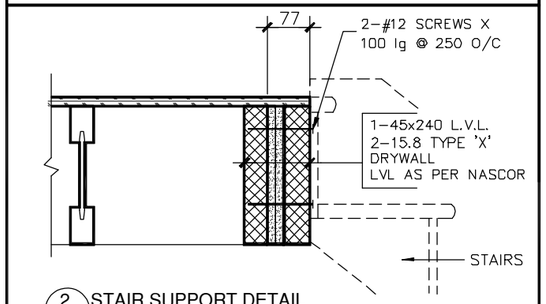
GROUND FLOOR JOIST PLAN
THE CHAI
INT UNIT - ELEV. A & B



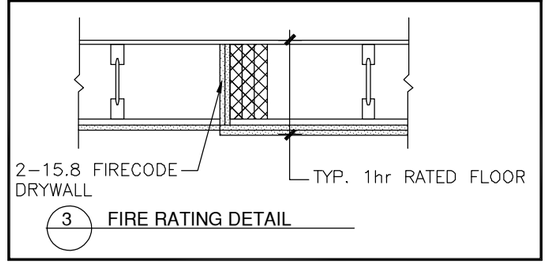
GROUND FLOOR JOISTS
THE JASMINE
END UNIT - ELEV. A & B



1 TYPICAL RATED BOX IN FLOOR FOR DUCT

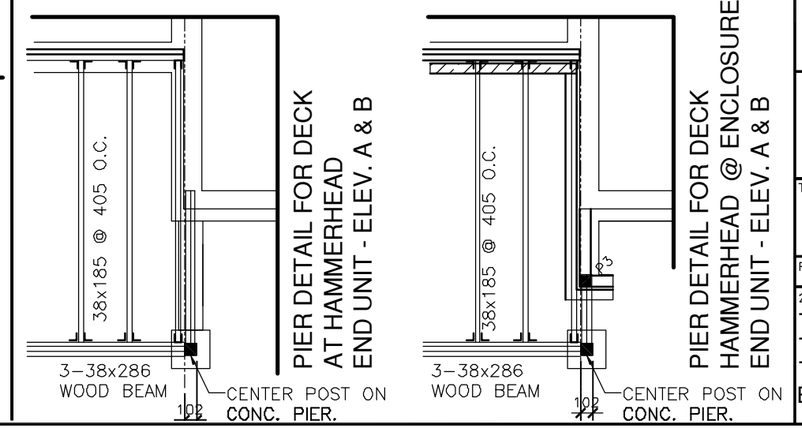


2 STAIR SUPPORT DETAIL



3 FIRE RATING DETAIL

OTTAWA-CARLETON STANDARD CONDOMINIUM PLAN NO.938
PART 3 , SHEET ___ OF _____ SHEETS



NASCOR NOTES

DESIGN ASSUMPTIONS :
LOADS :
Live : Floors – 40 psf
Decks –3.6 kPa
Dead :26 psf (15 dead +11 gypcrete)
DEFLETION CRITERIA : L/360 LIVE
L/240 TOTAL

EXIT STAIR AND PORCH DESIGNED FOR LIVE LOAD OF 100psf AS PER PART 4 REQUIREMENTS.

SOLID BLOCKING REQUIRED UNDER ALL POSTS.

PROVIDE SOLID BLOCKING @ 405 O/C UNDER ALL NON LOAD BEARING PARTITIONS PARALLEL TO JOISTS

JOISTS – NJH12 @ 405 O/C U.N.O.

SUBFLOOR – 3/4" OSB GLUED AND NAILED U.N.O

ALL LVL'S TO BE 45x302 LVL 2.0E WEST FRASER CCMC 12904-R U.N.O.

FASTEN 2 PLY 12" 2.0E LVL WITH 2 ROWS OF 3.5" NAILS STAGGERED @ 12"c/c.
FASTEN 3 PLY LVL WITH 2 ROWS OF 3.5" NAILS @ 10" O.C. BOTH SIDES.
FASTEN ALL DJ AND TJ WITH 3.5" NAILS 8"c/c TOP AND BOTTOM CHORDS - ALTERNATE SIDES

REFER TO KOTT TABLE FOR MULTIPLE MEMBER CONNECTIONS

NASCOR
KOTT LUMBER COMPANY
3228 MOODIE DRIVE
NEPEAN ONTARIO
TELEPHONE 1-613-838-2775

No	Revision	Date	By
22	REVISED LVL FASTENING	JAN 18/17	KO
21	DRYWALL PREP EXTENDED	NOV 16/16	MC
20	ADDED WARM AIR, LVL BOLTING	OCT 20/16	KO
19	ADDED DRYWALL IN JOIST SPACE	SEP 26/16	KO
18	REVISED DIMENSION	SEP 06/16	KO
17	ADDED BLOCKING DIMENSIONS & NOTE	AUG 30/16	KO
16	DRYWALL PREP ADDED	JUN 30/16	MC
15	ADDED DIMENSIONS & CAR CHASE	JUN 29/16	KO
14	ADDED DIMENSIONS FOR BLOCKING	JUN 22/16	KO
13	REISSUED FOR CONSTRUCTION	APR 14/16	KO
12	ISSUED FOR PERMIT	APR 01/16	KO
11	ADDED JOIST SPACING DIMENSIONS	OCT 13/15	KO
10	ADDED DECK DETAILS	JUL 29/18	KO
9	ADDED JOIST SPACING	JUL 10/18	KO
8	ADDED LVL'S AT STAIRS	MAY 27/15	KO
7	ISSUED FOR FOOTPRINT	MAY 20/15	KO
6	MOVED DOUBLE JOIST AT DECK	APR 07/15	KO
5	COORDINATION w\ HVAC SHOP DWG	MAR 17/15	KO
4	ISSUED FOR CONSTRUCTION	FEB 06/15	KO
3	ISSUED FOR STRUCTURAL LETTER & PERMIT	OCT 10/14	KO
2	ISSUED FOR TENDER	OCT 06/14	KO
1	ISSUED FOR STRUCTURAL REVIEW	SEP 10/14	KO

minto beinspired

CONFIDENTIAL

STRUCTURAL FRAMING LEGEND:	SEE DWG A5
ELEVATION LEGEND:	SEE DWG A5
FLOOR PLAN LEGEND:	SEE DWG SP-1
DR/WIN LEGEND:	SEE DWG SP-7*
FOR ADDED INFO., ABBREV'S, SYMBOLS:	SEE SPECS. SP-*

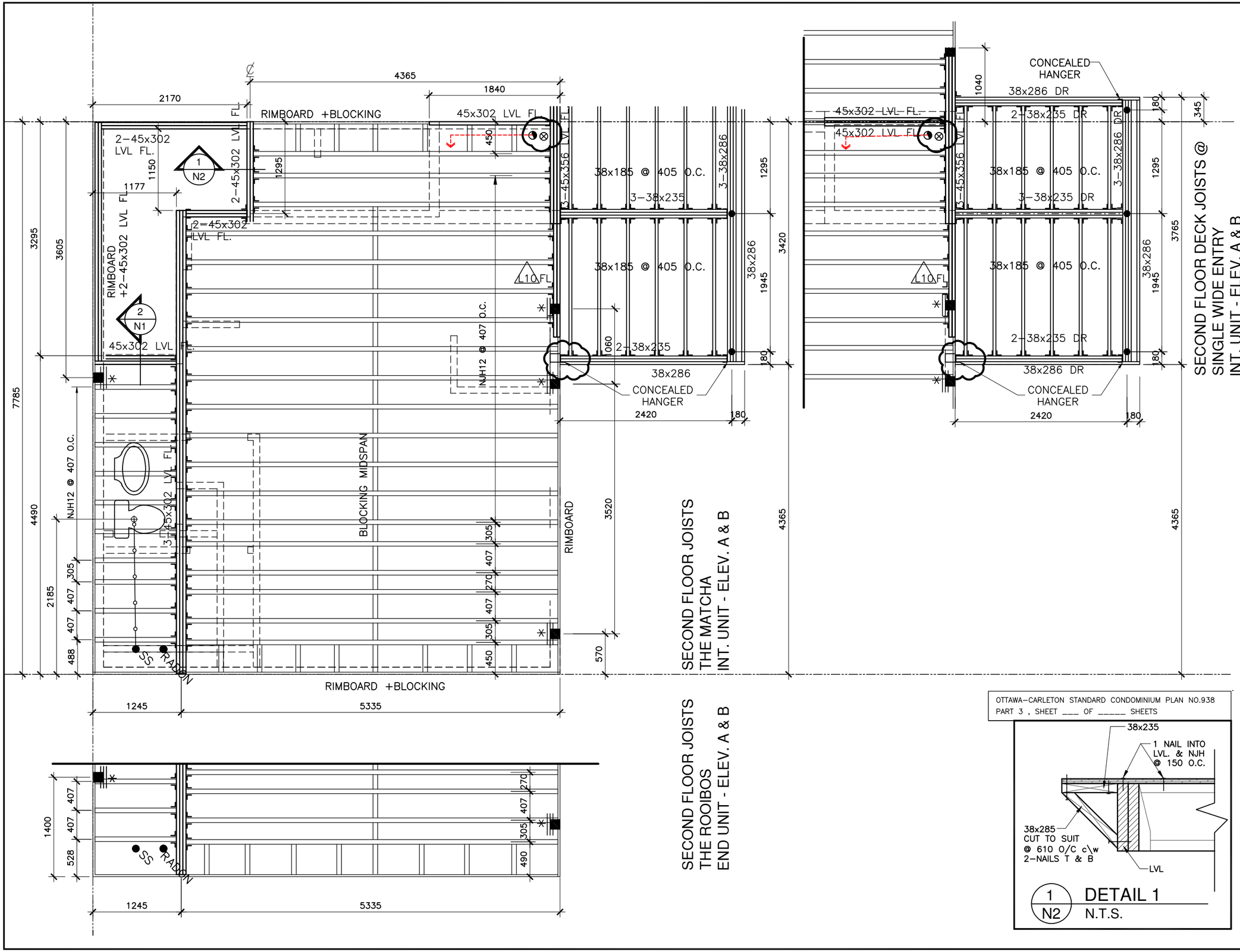
TITLE
GROUND FLOOR JOIST PLANS

FILENAME: infusion-nasc.dwg

2014-INFUSION TERRACE
THE MATCHA,
THE ROOIBOS,
THE JASMINE, THE CHAI
ELEV. A & B
(2014 STANDARD DRAWING)

Scale 1:50

dwg # N1



OTTAWA-CARLETON STANDARD CONDOMINIUM PLAN NO.938
PART 3 , SHEET ___ OF _____ SHEETS

1 / N2 DETAIL 1
N.T.S.

NASCOR NOTES

DESIGN ASSUMPTIONS :
LOADS :
Live : Floors - 40 psf
Decks -3.6 kPa
Dead :26 psf (15 dead +11 gypcrete)
DEFLETION CRITERIA : L/360 LIVE
L/240 TOTAL

SOLID BLOCKING REQUIRED UNDER ALL POSTS.

PROVIDE SOLID BLOCKING @ 405 O/C UNDER ALL NON LOAD BEARING PARTITIONS PARALLEL TO JOISTS

JOISTS - NJH12 @ 405 O/C U.N.O.

SUBFLOOR - 3/4" OSB GLUED AND NAILED U.N.O

ALL LVL'S TO BE 45X302 LVL 2.0E WEST FRASER: CCMC 12904-R U.N.O.

FASTEN 2 PLY 12" 2.0E LVL WITH 2 ROWS OF 3.5" NAILS STAGGERED AT 12"c/c.
FASTEN 3 PLY LVL WITH 2 ROWS 3.5" NAILS @ 10" O.C. BOTH SIDES.

FASTEN ALL DJ AND TJ WITH 3.5" NAILS 8"c/c TOP AND BOTTOM CHORDS - ALTERNATE SIDES

REFER TO KOTT TABLE FOR MULTIPLE MEMBER CONNECTIONS

NASCOR
KOTT LUMBER COMPANY
3228 MOODIE DRIVE
NEPEAN ONTARIO
TELEPONE 1-613-838-2775
FAX 1-613-838-4751

No	Revision	Date	By
17	REVISED LVL FASTENING	JAN 18/17	KO
16	LVL BOLTING NOTE	OCT 20/16	KO
15	ADDED CONCEALED HANGERS	OCT 17/16	KO
14	CLARFIED DETAIL 1, HVAC	SEP 26/16	KO
13	HANGERS CLARIFIED	SEP 08/16	MC
12	ADDED BLOCKING DIMENSIONS & NOTE	AUG 30/16	KO
11	REISSUED FOR CONSTRUCTION	APR 14/16	KO
10	ISSUED FOR PERMIT	APR 01/16	KO
9	CLARIFIED DECK FRAMING FOR SINGLE WIDTH ENTRY, EXTENDED LVL	DEC 11/15	KO
8	ADDED L10 LINTEL AS PER FLOOR PLAN ADDED LVL AS PER KOTT LAYOUT	OCT 19/15	KO
7	CLARIFIED DECK FRAMING	JUL 29/15	KO
6	ADDED LVL'S AT STAIRS	MAY 27/15	KO
5	ISSUED FOR FOOTPRINT	MAY 20/15	KO
4	ISSUED FOR CONSTRUCTION	FEB 06/15	KO
3	ISSUED FOR STRUCTURAL LETTER & PERMIT	OCT 10/14	KO
2	ISSUED FOR TENDER	OCT 06/14	KO
1	ISSUED FOR STRUCTURAL REVIEW	SEP 10/14	KO

OTTAWA-CARLETON STANDARD CONDOMINIUM PLAN NO._____
PART III , SHEET ___ OF _____ SHEETS

minto beinspired

CONFIDENTIAL

STRUCTURAL FRAMING LEGEND:	SEE DWG A5
ELEVATION LEGEND:	SEE DWG A5
FLOOR PLAN LEGEND:	SEE DWG SP-1
DR/WIN LEGEND:	SEE DWG SP-7*
FOR ADDED INFO., ABBREV'S, SYMBOLS:	SEE SPECS. SP-*

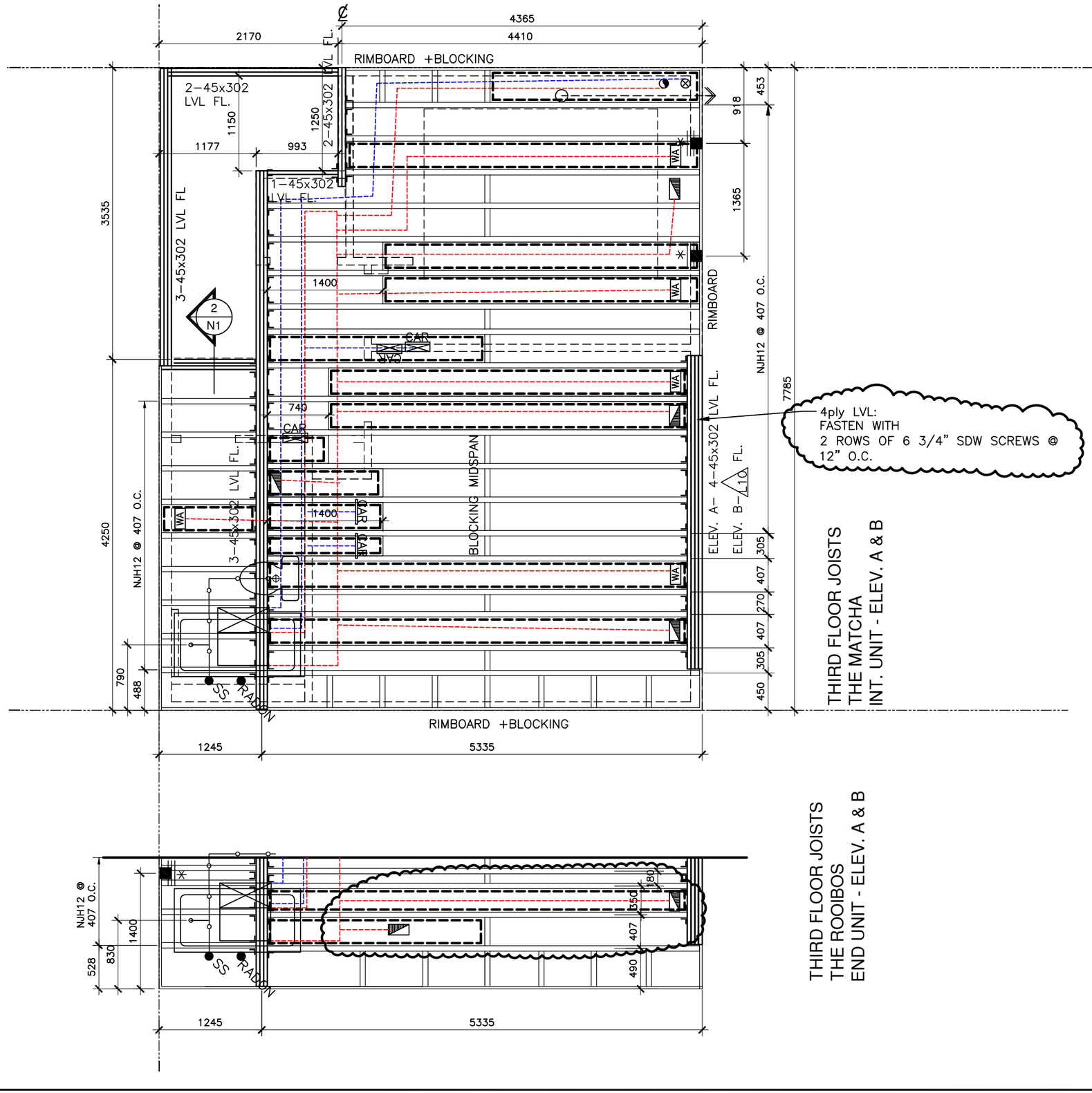
TITLE
SECOND FLOOR JOIST PLANS

FILENAME: infusion-nasc.dwg

2014-INFUSION TERRACE
THE MATCHA,
THE ROOIBOS,
THE JASMINE, THE CHAI
ELEV. A & B
(2014 STANDARD DRAWING)

Scale 1:50

dwg # N2



OTTAWA–CARLETON STANDARD CONDOMINIUM PLAN NO.938
PART 3 , SHEET ___ OF _____ SHEETS

NASCOR NOTES

DESIGN ASSUMPTIONS :
LOADS :
Live : Floors – 40 psf
Decks –3.6 kPa
Dead :15psf
DEFLETION CRITERIA : L/360 LIVE
L/240 TOTAL

SOLID BLOCKING REQUIRED UNDER ALL POSTS.

PROVIDE SOLID BLOCKING @ 405 O/C UNDER ALL NON LOAD BEARING PARTITIONS PARALLEL TO JOISTS

JOISTS – NJH12 @ 405 O/C U.N.O.

SUBFLOOR – 3/4" OSB GLUED AND NAILED U.N.O

ALL LVL'S TO BE 45X302 LVL 2.0E WEST FRASER: CCMC 12904–R U.N.O.

FASTEN 2 PLY 12" 2.0E LVL WITH 2 ROWS OF 3.5" NAILS STAGGERED AT 12"c/c.
FASTEN 3 PLY WITH 2 ROWS OF 3.5" NAILS @ 10" O.C., BOTH SIDES.

FASTEN ALL DJ AND TJ WITH 3.5" NAILS 8"c/c TOP AND BOTTOM CHORDS – ALTERNATE SIDES

REFER TO KOTT TABLE FOR MULTIPLE MEMBER CONNECTIONS

NASCOR
KOTT LUMBER COMPANY
3228 MOODIE DRIVE
NEPEAN ONTARIO
TELEPONE 1–613–838–2775
FAX 1–613–838–4751

No	Revision	Date	By
19	REVISED LVL FASTENING	JAN 18/17	KO
18	CLARIFIED LVL BOLTING NOTE	NOV 18/16	KO
17	LVL BOLTING NOTE	OCT 21/16	KO
16	MOVED WARM AIR	SEP 26/16	KO
15	ADDED BLOCKING DIMENSIONS & HVAC	AUG 30/16	KO
14	ADDED DIMENSIONS FOR BLOCKING	JUN 22/16	KO
13	REISSUED FOR CONSTRUCTION	APR 14/16	KO
12	ISSUED FOR PERMIT	APR 01/16	KO
11	CLARIFIED LVL's	NOV 10/15	KO
10	ADDED LVL NOTE	OCT 26/15	KO
9	REVISED HVAC FROM SITE MEETING	JUL 29/15	KO
8	REVISED TO TRIPLE LVL	JUN 01/15	KO
7	ADDED LVL'S AT STAIRS, ADDED WA	MAY 27/15	KO
6	ISSUED FOR FOOTPRINT	MAY 20/15	KO
5	COORDINATION w\ HVAC SHOP DWG	MAR 17/15	KO
4	ISSUED FOR CONSTRUCTION	FEB 06/15	KO
3	ISSUED FOR STRUCTURAL LETTER & PERMIT	OCT 10/14	KO
2	ISSUED FOR TENDER	OCT 06/14	KO
1	ISSUED FOR STRUCTURAL REVIEW	SEP 10/14	KO

OTTAWA–CARLETON STANDARD CONDOMINIUM PLAN NO._____
PART III , SHEET ___ OF _____ SHEETS

minto beinspired

CONFIDENTIAL

STRUCTURAL FRAMING LEGEND:	SEE DWG A5
ELEVATION LEGEND:	SEE DWG A5
FLOOR PLAN LEGEND:	SEE DWG SP–1
DR/WIN LEGEND:	SEE DWG SP–7*
FOR ADDED INFO., ABBREV'S, SYMBOLS:	SEE SPECS. SP–*

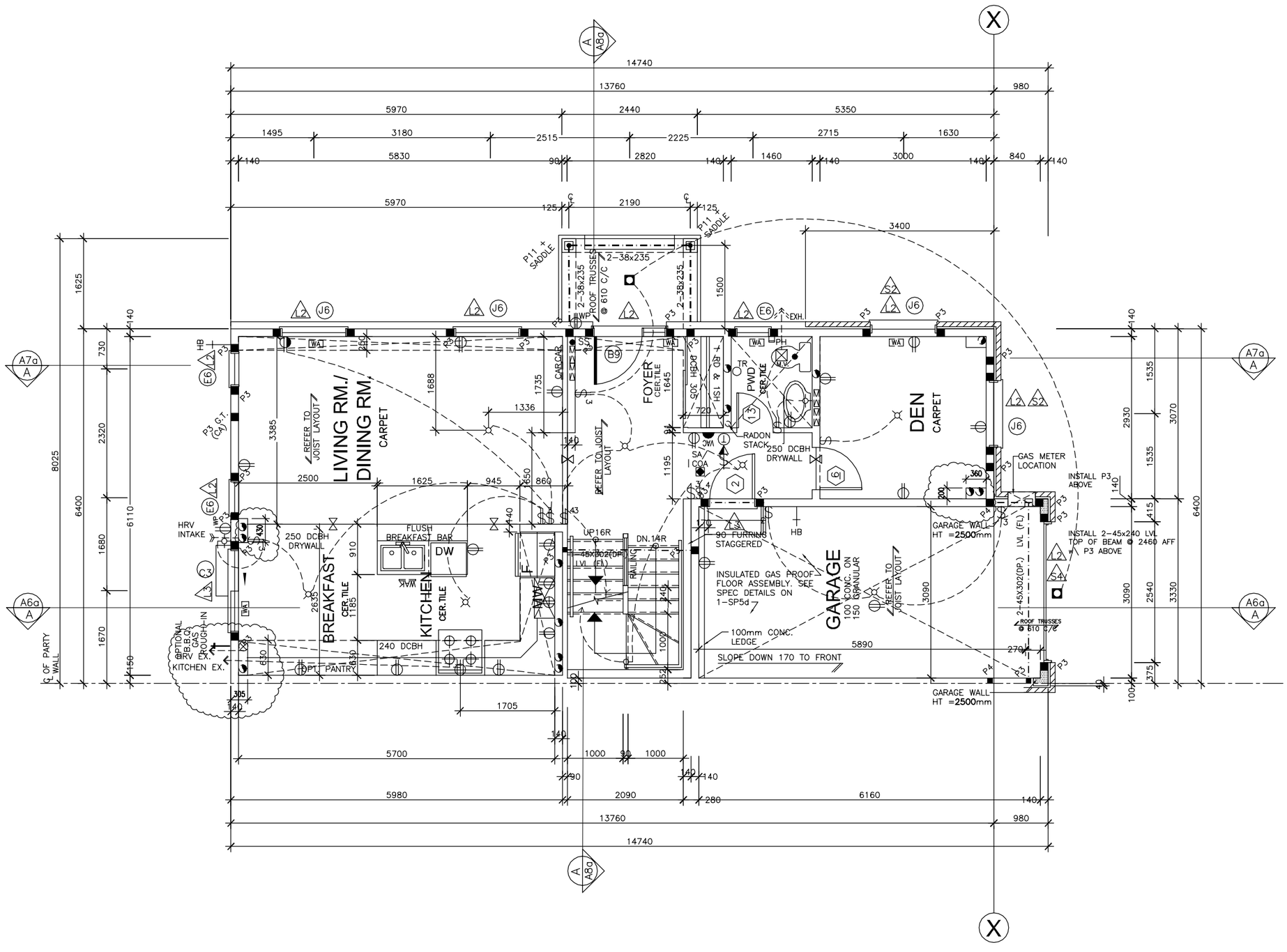
TITLE
THIRD FLOOR JOIST PLANS

FILENAME: infusion–nasc.dwg

2014–INFUSION TERRACE
THE MATCHA,
THE ROOIBOS,
THE JASMINE, THE CHAI
ELEV. A & B
(2014 STANDARD DRAWING)

Scale 1:50

dwg # N3



GROUND FLOOR PLAN ELEVATION 'CA'

STRUCTURAL FRAMING SCHEDULE

For Steel Framing Layout, Beam/Column/Plate Connection Details, see Structural Dwgs ST- * (Also Specs SP-1 & SP-4).

STEEL LINTEL

- S1 – L 90x90x6
- S2 – L 90x90x8
- S3 – L 100x90x6
- S4 – L 125x90x8
- S5 – L 125x90x10
- S6 – L 200x100x12
- S7 – L 150x100x10 (L.L.V.) 200mm BEARING
- S8 – L 100x90x8

WOOD LINTEL

- L1 – 2–38x235 w/ 12.7 PLYWOOD SPACER
- L2 – 2–38x235
- L3 – 3–38x235
- L4 – 3–38x235 c/w 2–12.7 PLYWOOD SPACERS & 2 ROWS OF 90mm C.W.N. @ 200 c/c B/S
- L5 – 3–38x286 c/w 2–12.7 PLYWOOD SPACERS & 2 ROWS OF 90mm C.W.N. @ 200 c/c B/S
- L6 – 2–45x240 M.L.
- L7 – 3–45x240 M.L.
- L8 – 2–38x286
- L9 – 3–38x286

PROVIDE MINIMUM 'P2' POST BOTH ENDS OF LINTEL

POSTS

- P1(8) – 75 ø STEEL TELEPOST (8 Feet Max)
- P1(9) – 75 ø STEEL TELEPOST (9 Feet Max)
- P2 – 2–38x89 or 2–38x140
- P3 – 3–38x89 or 3–38x140
- P4 – 4–38x89 or 4–38x140
- P5 – 5–38x89 or 5–38x140
- P6 – 6–38x89 or 6–38x140
- P11 – HEAVY DUTY STEEL POST, CAPACITY = 55 KN
- P12 – ADJUSTABLE HSS, CAPACITY 100 KN
- HSS 73 OD – HSS 73 O.D. X 4.8 + 12mm PLATE TOP & BOTT.
- HSS 89 OD – HSS 89 O.D. X 4.8 + 12mm PLATE TOP & BOTT.
- HSS 76 – HSS 76.2 X 76.2 X 4.8 + 12mm PLATE TOP & BOTT.
- HSS 89 – HSS 89 X 89 X 4.8 + 12mm PLATE TOP & BOTT.
- HSS 102 – HSS 102 X 102 X 4.8 + 12mm PLATE TOP & BOTT.

FOOTINGS

ALL CONC. FOOTINGS DESIGNED FOR AN ALLOWABLE SOIL CAP.= 100kpa

No	Revision	Date	By
10	ADDED DIMENSIONS FOR MECH. CHASES	FEB 19/16	KO
9	CLARIFIED BEAM HT. AT GAS METER	JAN 26/16	KO
8	GARAGE SLOPE REVISED	JAN 18/16	MC
7	REVISED LVL @ GAS METRE	NOV 9/15	PS
6	REVISED LVL @ GAS METRE	NOV 4/15	PS
5	KITCHEN DCBH REVISED	OCT 01/15	MC
4	ISSUED FOR CONSTRUCTION	AUG 17/15	MC
3	COORDINATED & ISSUED FOR BUILDING PERMIT	6JULY2015	MGC
2	ISSUED PRELIMINARY WORKING TO CLIENT FOR 2ND REVIEW	14MAY2015	MGC
1	ISSUED PRELIMINARY WORKING TO CLIENT FOR REVIEW	07MAY2015	MGC

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STRCT'L FRM'G LEGEND: SEE DWG A3 ELEVATION LEGEND: SEE DWG A4 FLOOR PLAN LEGEND:SEE DWG SP-1 DR/WIN LEGEND:SEE DWG SP-7* FOR ADDT'L INFORMATION, ABBREV'S, SYMBOLS,SEE SPECS. SP-*,SD-*,W-*

Title: GROUND FLOOR PLAN ELEV.: 'CA'

Acad File W:\15\15-18 MINTO OTTAWA\MODELS\6.2m PRODUCT\WORKING DRAWINGS\20-05.dwg

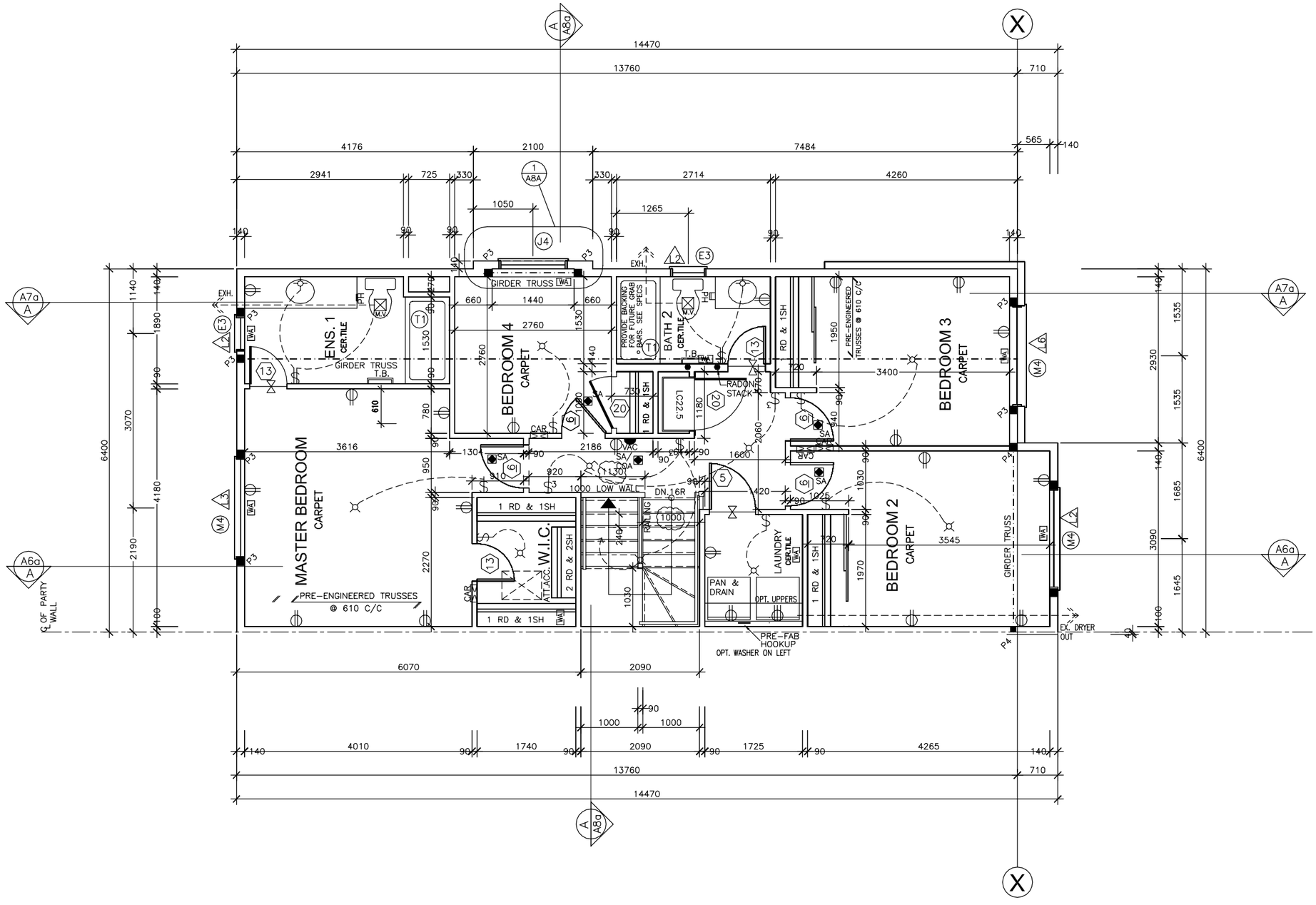
Scale 1:75

2015-20ft Excutive Townhomes

THE VENICE-2015-CA
THE VENICE-2015-PA

(2015 STANDARD DRAWING)

dwg A-2a



SECOND FLOOR PLAN ELEVATION 'CA'

STRUCTURAL FRAMING SCHEDULE

For Steel Framing Layout, Beam/Column/Plate Connection Details, see Structural Dwgs ST- * (Also Specs SP-1 & SP-4).

STEEL LINTEL

- S1 – L 90x90x6
- S2 – L 90x90x8
- S3 – L 100x90x6
- S4 – L 125x90x8
- S5 – L 125x90x10
- S6 – L 200x100x12
- S7 – L 150x100x10 (L.L.V.) 200mm BEARING
- S8 – L 100x90x8

WOOD LINTEL

- L1 – 2–38x235 w/ 12.7 PLYWOOD SPACER
- L2 – 2–38x235
- L3 – 3–38x235
- L4 – 3–38x235 c/w 2–12.7 PLYWOOD SPACERS & 2 ROWS OF 90mm C.W.N. @ 200 c/c B/S
- L5 – 3–38x286 c/w 2–12.7 PLYWOOD SPACERS & 2 ROWS OF 90mm C.W.N. @ 200 c/c B/S
- L6 – 2–45x240 M.L.
- L7 – 3–45x240 M.L.
- L8 – 2–38x286
- L9 – 3–38x286

PROVIDE MINIMUM 'P2' POST BOTH ENDS OF LINTEL

POSTS

- P1(8) – 75 ø STEEL TELEPOST (8 Feet Max)
- P1(9) – 75 ø STEEL TELEPOST (9 Feet Max)
- P2 – 2–38x89 or 2–38x140
- P3 – 3–38x89 or 3–38x140
- P4 – 4–38x89 or 4–38x140
- P5 – 5–38x89 or 5–38x140
- P6 – 6–38x89 or 6–38x140
- P11 – HEAVY DUTY STEEL POST, CAPACITY = 55 KN
- P12 – ADJUSTABLE HSS, CAPACITY 100 KN
- HSS 73 OD – HSS 73 O.D. X 4.8 + 12mm PLATE TOP & BOTT.
- HSS 89 OD – HSS 89 O.D. X 4.8 + 12mm PLATE TOP & BOTT.
- HSS 76 – HSS 76.2 X 76.2 X 4.8 + 12mm PLATE TOP & BOTT.
- HSS 89 – HSS 89 X 89 X 4.8 + 12mm PLATE TOP & BOTT.
- HSS 102 – HSS 102 X 102 X 4.8 + 12mm PLATE TOP & BOTT.

FOOTINGS

ALL CONC. FOOTINGS DESIGNED FOR AN ALLOWABLE SOIL CAP.= 100kpa

No	Revision	Date	By	Proj.
9	REVISED LOW WALL DIMENSION	OCT 28/16	KO	
8	REVISED W.I.C. DIMENSIONS	MAR 08/16	KO	
7	ROTATED WARM AIR IN W.I.C.	FEB 17/16	KO	
6	LAUNDRY ROOM WALL FURRED	JAN 29/16	MC	
5	ROOMS RELABELLED	NOV 23/15	MC	
4	ISSUED FOR CONSTRUCTION	AUG 17/15	MC	
3	COORDINATED & ISSUED FOR BUILDING PERMIT	6JULY2015	MGC	
2	ISSUED PRELIMINARY WORKING TO CLIENT FOR 2ND REVIEW	14MAY2015	MGC	
1	ISSUED PRELIMINARY WORKING TO CLIENT FOR REVIEW	07MAY2015	MGC	

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STRCT'L FRM'G LEGEND: SEE DWG A3 ELEVATION LEGEND: SEE DWG A4 FLOOR PLAN LEGEND:SEE DWG SP-1 DR/WIN LEGEND:SEE DWG SP-7* FOR ADDT'L INFORMATION, ABBREV'S, SYMBOLS,SEE SPECS. SP-*,SD-*,W-*

Title: SECOND FLOOR PLAN ELEV.: 'CA'

Acad File W:\15\15-18 MINTO OTTAWA\MODELS\6.2m PRODUCT\WORKING DRAWINGS\20-05.dwg

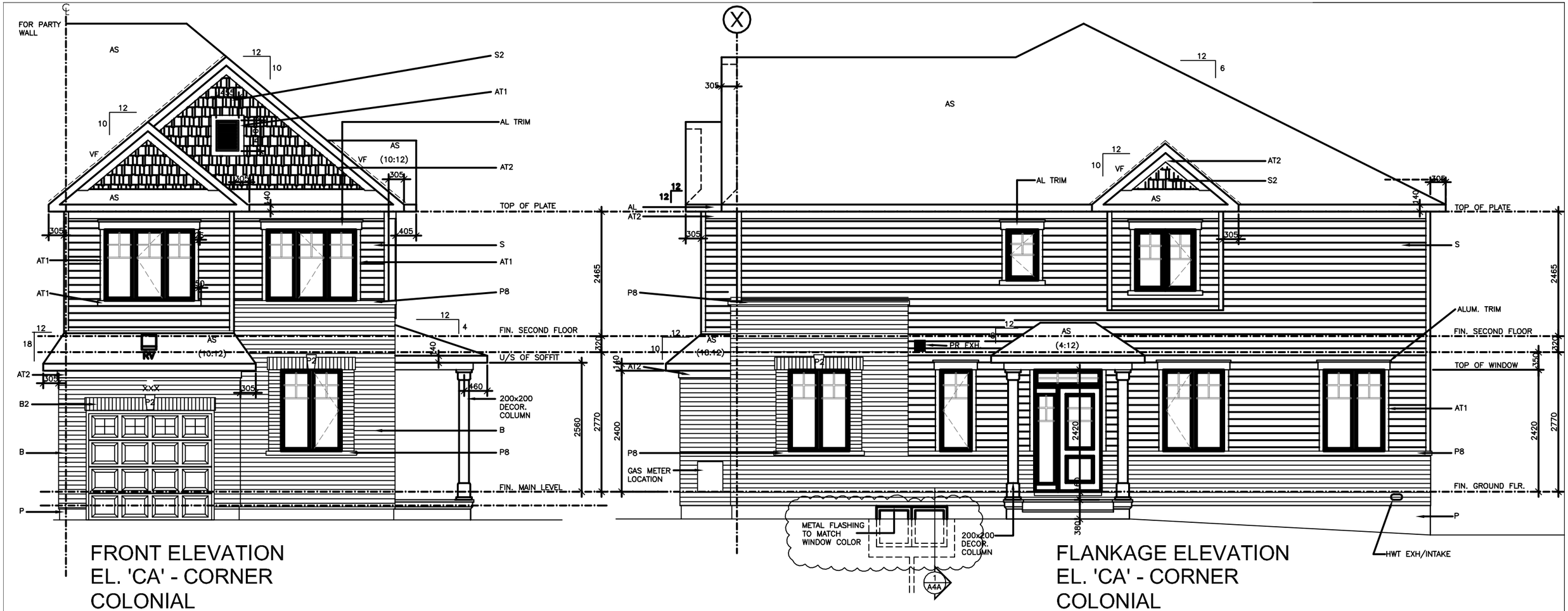
Scale 1:75

2015-20ft Excutive Townhomes

THE VENICE-2015-CA
THE VENICE-2015-PA

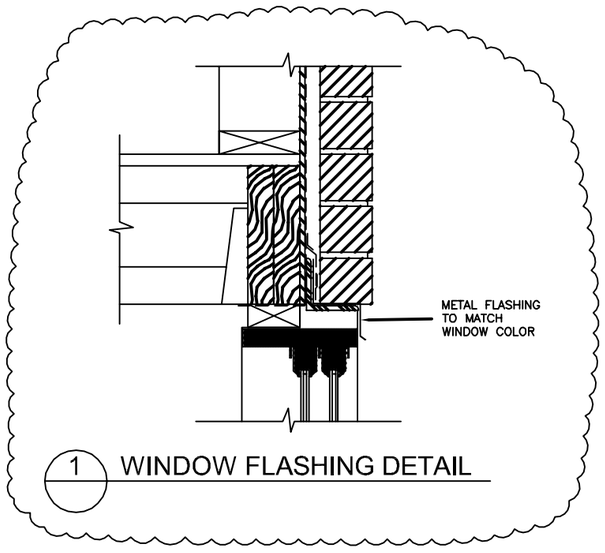
(2015 STANDARD DRAWING)

dwg A-3a



FRONT ELEVATION
EL. 'CA' - CORNER
COLONIAL

FLANKAGE ELEVATION
EL. 'CA' - CORNER
COLONIAL



1 WINDOW FLASHING DETAIL

** ALL FASCIA BOARD 140mm **

EXTERIOR FINISHES

AC	–	ACRYLIC FINISH
ACT1	–	ACRYLIC FINISH TRIM (90mm)
ACT2	–	ACRYLIC FINISH TRIM (140mm)
AL	–	ALUMINUM
AT1	–	ALUMINUM TRIM (90mm)
AT2	–	ALUMINUM TRIM (140mm)
AS	–	ASPHALT SHINGLES
B	–	BRICK VENEER (nominal size = 260x80)
B1	–	BRICK SOLDIER COURSE
B2	–	BRICK SOLDIER COURSE (20mm projection)
B3	–	BRICK STRETCHER COURSE
B4	–	BRICK STACK BOND
B5	–	BRICK SILL ROWLOCK (SLOPED)
B6	–	BRICK ROWLOCK
B7	–	BRICK CORBELLING
B8	–	BRICK COINING (20mm projection)
B9	–	BRICK HERRINGBONE
+20	–	BRICK PROJECTING 20mm
–20	–	BRICK RECESSED 20mm
CB	–	CEMENT BOARD PANEL
EB	–	EXTRA BRICK
F	–	FLASHING
HP	–	HARDBOARD PANEL TEXTURED
P	–	PARGING
PCS	–	POURED CONCRETE SILL (ONE PIECE)
PC	–	PRECAST CONC. BLOCK SHAPE (SEE DWG)
PCC	–	PRECAST CAP – 90mm
P1	–	PRECAST CONC. SILL 60mm HIGH
P2	–	PRECAST CONC. KEYSTONE
P3	–	PRECAST CONC. BLOCK 260mm SQ. PROJECTION TO MATCH SOLDIER COURSE
P4	–	PRECAST CONC. BLOCK 260mm HIGH PROJECTION TO MATCH SOLDIER COURSE
P5	–	****
P6	–	PRECAST CONC. BLOCK 150mm HIGH
P8	–	PRECAST CONC. BLOCK 78mm HIGH
P8	–	PRECAST CONC. SILL 78mm HIGH
PTW	–	PRESSURE TREATED WOOD
RV	–	ROOF VENT
S	–	SIDING HORIZONTAL
SA	–	SIDING (ALUMINUM)
SV	–	SIDING VERTICAL (VINYL)
S1	–	SIDING HALF ROUND PANELS
S2	–	SIDING SHAKE
S3	–	SIDING STAGGERED SHAKE
SH1	–	SHUTTERS (305mm)
SH2	–	SHUTTERS (380 mm)
ST	–	STONE VENEER
ST1	–	STONE VENEER STACK BOND 20mm PROJECTION
ST2	–	STONE VENEER SOLDIER COURSE 20mm PROJECTION
ST3	–	LIMESTONE STARTER
U.P.O	–	UNPROTECTED OPENING (SEE OBC 9.10.14)
VF	–	VALLEY FLASHING
WT1	–	WOOD TRIM (100mm)
WT2	–	WOOD TRIM (150mm)
WT3	–	WOOD TRIM (200mm)
WT4	–	WOOD TRIM (250mm – 20mm THICK)
WT5	–	WOOD TRIM (250mm – 30mm THICK)
XXX	–	ADDRESS LOCATION

FOR PRECAST ANGLESTONE SEE SPECS.

No	Revision	Date	By	Proj.
7	BSMT WINDOW DETAIL ADDED	NOV 04/16	MC	
6	ADDRESS LOCATION ADDED	JUN 02/16	MC	
5	GARAGE DOOR REVISED	SEP 18/15	MC	
4	ISSUED FOR CONSTRUCTION	AUG 17/15	MC	
3	COORDINATED & ISSUED FOR BUILDING PERMIT	6JULY2015	MGC	
2	ISSUED PRELIMINARY WORKING TO CLIENT FOR 2ND REVIEW	14MAY2015	MGC	
1	ISSUED PRELIMINARY WORKING TO CLIENT FOR REVIEW	07MAY2015	MGC	

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STRCT'L FRM'G LEGEND: SEE DWG A3 ELEVATION LEGEND: SEE DWG A4 FLOOR PLAN LEGEND:SEE DWG SP-1 DR/WIN LEGEND:SEE DWG SP-7* FOR ADDT'L INFORMATION, ABBREV'S, SYMBOLS,SEE SPECS. SP-*,SD-*,W-*

Title: FRONT & SIDE ELEVATION ELEV.: 'CA'

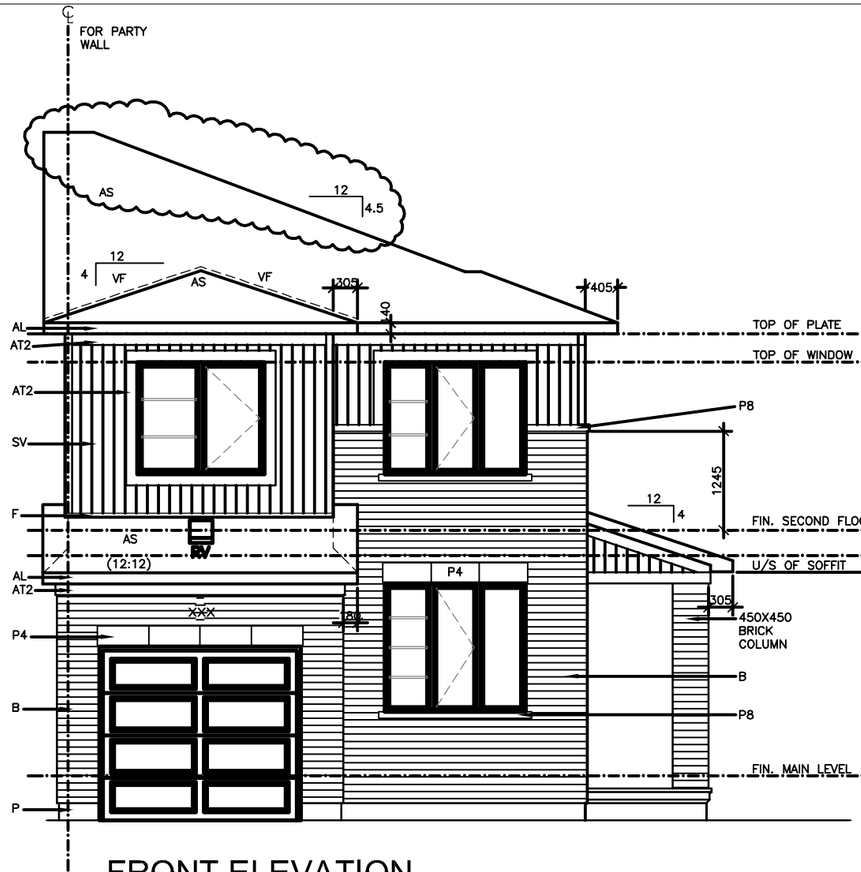
Acad File W:\15\15-18 MINTO OTTAWA\MODELS\6.2m PRODUCT\WORKING DRAWINGS\20-05.dwg

Scale 1:75

2015-36ft Singles

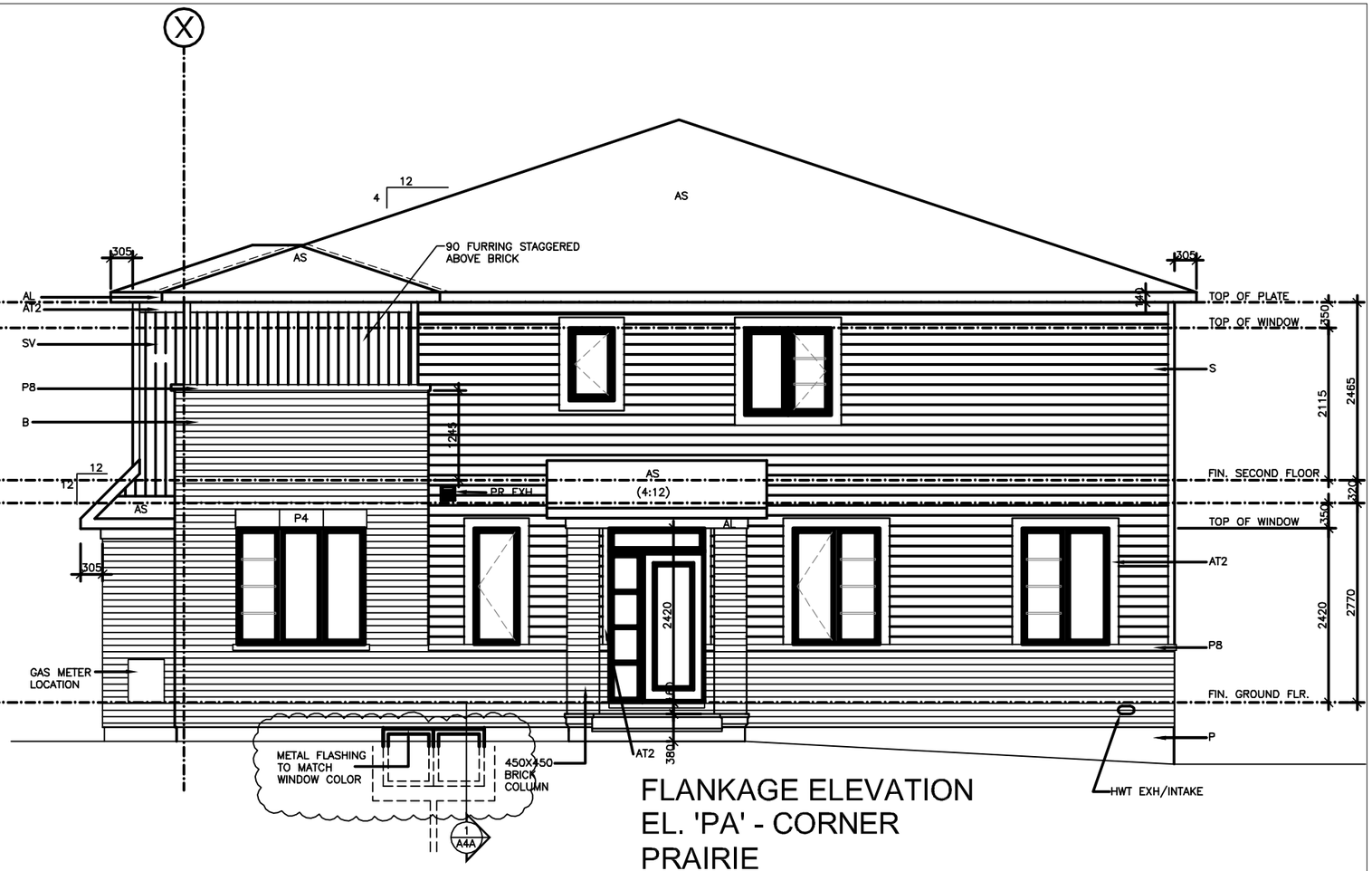
THE VENICE-2015-CA
THE VENICE-2015-PA

(2015 STANDARD DRAWING)



FRONT ELEVATION
EL. 'PA' - CORNER
PRAIRIE

** USE 19mm SHEATHING BEHIND VERTICLE SIDING **



FLANKAGE ELEVATION
EL. 'PA' - CORNER
PRAIRIE

** ALL FASCIA BOARD 140mm **

EXTERIOR FINISHES

AC	–	ACRYLIC FINISH	
ACT1	–	ACRYLIC FINISH TRIM (90mm)	
ACT2	–	ACRYLIC FINISH TRIM (140mm)	
AL	–	ALUMINUM	
AT1	–	ALUMINUM TRIM (90mm)	
AT2	–	ALUMINUM TRIM (140mm)	
AS	–	ASPHALT SHINGLES	
B	–	BRICK VENEER (nominal size = 260x80)	
B1	–	BRICK SOLDIER COURSE	
B2	–	BRICK SOLDIER COURSE (20mm projection)	
B3	–	BRICK STRETCHER COURSE	
B4	–	BRICK STACK BOND	
B5	–	BRICK SILL ROWLOCK (SLOPED)	
B6	–	BRICK ROWLOCK	
B7	–	BRICK CORBELLING	
B8	–	BRICK COINING (20mm projection)	
B9	–	BRICK HERRINGBONE	
+20	–	BRICK PROJECTING 20mm	
–20	–	BRICK RECESSED 20mm	
CB	–	CEMENT BOARD PANEL	
EB	–	EXTRA BRICK	
F	–	FLASHING	
HP	–	HARDBOARD PANEL TEXTURED	
P	–	PARGING	
PCS	–	POURED CONCRETE SILL (ONE PIECE)	
PC	–	PRECAST CONC. BLOCK SHAPE (SEE DWG)	
PCC	–	PRECAST CAP – 90mm	
P1	–	PRECAST CONC. SILL 60mm HIGH	
P2	–	PRECAST CONC. KEYSTONE	
P3	–	PRECAST CONC. BLOCK 260mm SQ. PROJECTION TO MATCH SOLDIER COURSE	
P4	–	PRECAST CONC. BLOCK 260mm HIGH PROJECTION TO MATCH SOLDIER COURSE	
P5	–	****	
P6	–	PRECAST CONC. BLOCK 150mm HIGH	
P8	–	PRECAST CONC. BLOCK 78mm HIGH	
P8	–	PRECAST CONC. SILL 78mm HIGH	
PTW	–	PRESSURE TREATED WOOD	
RV	–	ROOF VENT	
S	–	SIDING HORIZONTAL	
SA	–	SIDING (ALUMINUM)	
SV	–	SIDING VERTICAL (VINYL)	
S1	–	SIDING HALF ROUND PANELS	
S2	–	SIDING SHAKE	
S3	–	SIDING STAGGERED SHAKE	
SH1	–	SHUTTERS (305mm)	
SH2	–	SHUTTERS (380 mm)	
ST	–	STONE VENEER	
ST1	–	STONE VENEER STACK BOND 20mm PROJECTION	
ST2	–	STONE VENEER SOLDIER COURSE 20mm PROJECTION	
ST3	–	LIMESTONE STARTER	
U.P.O	–	UNPROTECTED OPENING (SEE OBC 9.10.14)	
VF	–	VALLEY FLASHING	
WT1	–	WOOD TRIM (100mm)	
WT2	–	WOOD TRIM (150mm)	
WT3	–	WOOD TRIM (200mm)	
WT4	–	WOOD TRIM (250mm – 20mm THICK)	
WT5	–	WOOD TRIM (250mm – 30mm THICK)	
XXX	–	ADDRESS LOCATION	

FOR PRECAST ANGLESTONE SEE SPECS.

No	Revision	Date	By	Proj.
7	BSMT WINDOW DETAIL ADDED	NOV 04/16	MC	
6	ADDRESS LOCATION ADDED	JUN 02/16	MC	
5	ROOF SLOPE REVISED	AUG 25/15	MC	
4	ISSUED FOR CONSTRUCTION	AUG 17/15	MC	
3	COORDINATED & ISSUED FOR BUILDING PERMIT	6JULY2015	MGC	
2	ISSUED PRELIMINARY WORKING TO CLIENT FOR 2ND REVIEW	14MAY2015	MGC	
1	ISSUED PRELIMINARY WORKING TO CLIENT FOR REVIEW	07MAY2015	MGC	

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Title: FRONT & SIDE ELEVATION
ELEV.: 'PA'

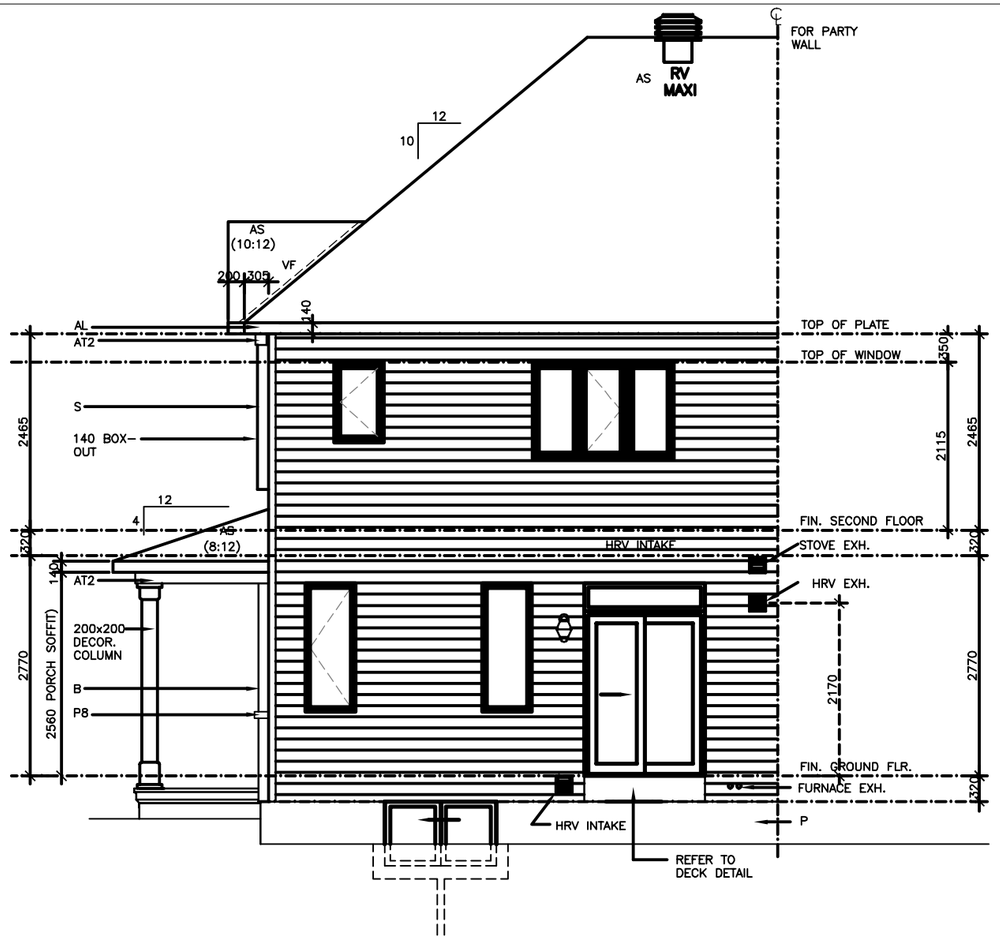
Acad File W:\15\15-18 MINTO OTTAWA\MODELS\6.2m PRODUCT\WORKING DRAWINGS\20-05.dwg

Scale 1:75

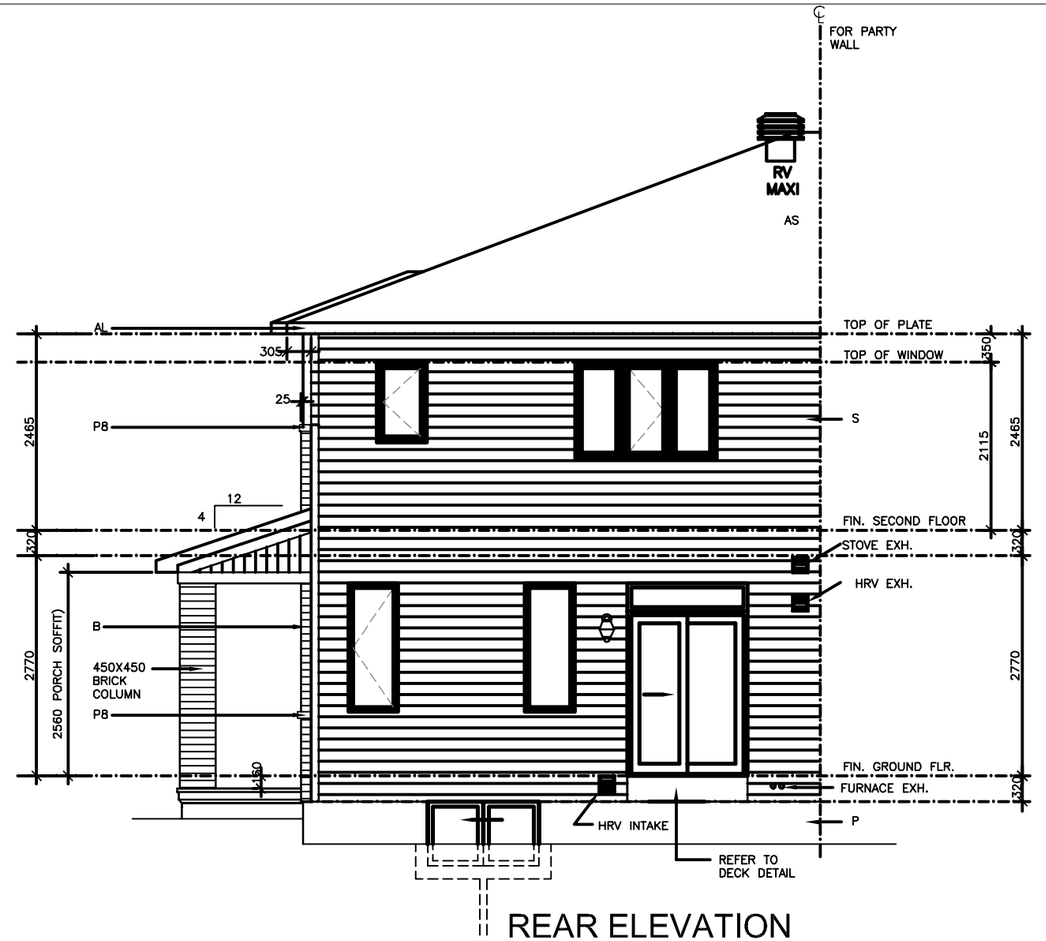
2015-36ft Singles

THE VENICE-2015-CA
THE VENICE-2015-PA

(2015 STANDARD DRAWING)



REAR ELEVATION
EL. 'CA' - CORNER
COLONIAL



REAR ELEVATION
EL. 'PA' - CORNER
PRAIRIE

** ALL FASCIA BOARD 140mm **

EXTERIOR FINISHES

AC	–	ACRYLIC FINISH	
ACT1	–	ACRYLIC FINISH TRIM (90mm)	
ACT2	–	ACRYLIC FINISH TRIM (140mm)	
AL	–	ALUMINUM	
AT1	–	ALUMINUM TRIM (90mm)	
AT2	–	ALUMINUM TRIM (140mm)	
AS	–	ASPHALT SHINGLES	
B	–	BRICK VENEER (nominal size = 260x80)	
B1	–	BRICK SOLDIER COURSE	
B2	–	BRICK SOLDIER COURSE (20mm projection)	
B3	–	BRICK STRETCHER COURSE	
B4	–	BRICK STACK BOND	
B5	–	BRICK SILL ROWLOCK (SLOPED)	
B6	–	BRICK ROWLOCK	
B7	–	BRICK CORBELLING	
B8	–	BRICK COINING (20mm projection)	
B9	–	BRICK HERRINGBONE	
+20	–	BRICK PROJECTING 20mm	
-20	–	BRICK RECESSED 20mm	
CB	–	CEMENT BOARD PANEL	
EB	–	EXTRA BRICK	
F	–	FLASHING	
HP	–	HARDBOARD PANEL TEXTURED	
P	–	PARGING	
PCS	–	POURED CONCRETE SILL (ONE PIECE)	
PC	–	PRECAST CONC. BLOCK SHAPE (SEE DWG)	
PCC	–	PRECAST CAP – 90mm	
P1	–	PRECAST CONC. SILL 60mm HIGH	
P2	–	PRECAST CONC. KEYSTONE	
P3	–	PRECAST CONC. BLOCK 260mm SQ. PROJECTION TO MATCH SOLDIER COURSE	
P4	–	PRECAST CONC. BLOCK 260mm HIGH PROJECTION TO MATCH SOLDIER COURSE	
P5	–	****	
P6	–	PRECAST CONC. BLOCK 150mm HIGH	
P8	–	PRECAST CONC. BLOCK 78mm HIGH	
P8	–	PRECAST CONC. SILL 78mm HIGH	
PTW	–	PRESSURE TREATED WOOD	
RV	–	ROOF VENT	
S	–	SIDING HORIZONTAL	
SA	–	SIDING (ALUMINUM)	
SV	–	SIDING VERTICAL (VINYL)	
S1	–	SIDING HALF ROUND PANELS	
S2	–	SIDING SHAKE	
S3	–	SIDING STAGGERED SHAKE	
SH1	–	SHUTTERS (305mm)	
SH2	–	SHUTTERS (380 mm)	
ST	–	STONE VENEER	
ST1	–	STONE VENEER STACK BOND 20mm PROJECTION	
ST2	–	STONE VENEER SOLDIER COURSE 20mm PROJECTION	
ST3	–	LIMESTONE STARTER	
U.P.O	–	UNPROTECTED OPENING (SEE OBC 9.10.14)	
VF	–	VALLEY FLASHING	
WT1	–	WOOD TRIM (100mm)	
WT2	–	WOOD TRIM (150mm)	
WT3	–	WOOD TRIM (200mm)	
WT4	–	WOOD TRIM (250mm – 20mm THICK)	
WT5	–	WOOD TRIM (250mm – 30mm THICK)	
XXX	–	ADDRESS LOCATION	

FOR PRECAST ANGLESTONE SEE SPECS.

No	Revision	Date	By	Proj.
4	ISSUED FOR CONSTRUCTION	AUG 17/15	MC	
3	COORDINATED & ISSUED FOR BUILDING PERMIT	6JULY2015	MGC	
2	ISSUED PRELIMINARY WORKING TO CLIENT FOR 2ND REVIEW	14MAY2015	MGC	
1	ISSUED PRELIMINARY WORKING TO CLIENT FOR REVIEW	07MAY2015	MGC	

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STRCT'L FRM'G LEGEND: SEE DWG A3 ELEVATION LEGEND: SEE DWG A4 FLOOR PLAN LEGEND:SEE DWG SP-1 DR/WIN LEGEND:SEE DWG SP-7* FOR ADDT'L INFORMATION, ABBREV'S, SYMBOLS,SEE SPECS. SP-*,SD-*,W-*

Title: REAR ELEVATION ELEV.: 'CA' & 'PA'

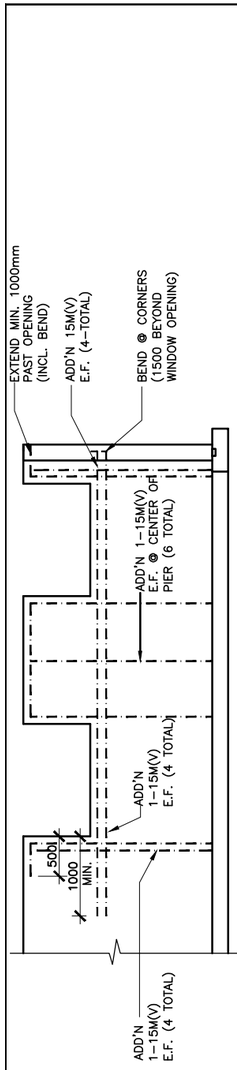
Acad File W:\15\15-18 MINTO OTTAWA\MODELS\6.2m PRODUCT\WORKING DRAWINGS\20-05.dwg

Scale 1:75

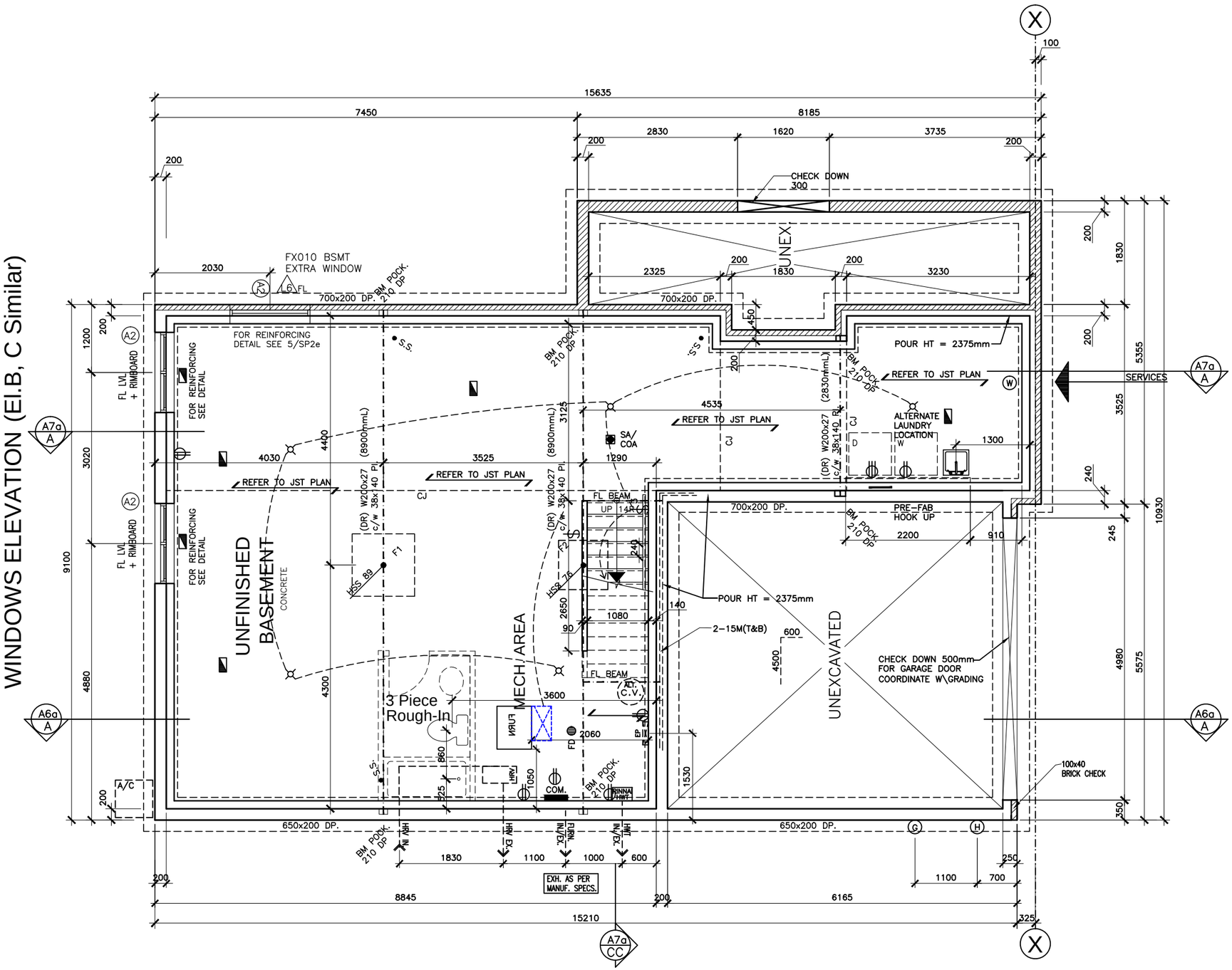
2015-36ft Singles

THE VENICE-2015-CA
THE VENICE-2015-PA

(2015 STANDARD DRAWING)



FOUNADTION WALL REINFORCEMENT AT WINDOWS ELEVATION (El.B, C Similar)



BASEMENT PLAN ELEVATION 'A'

F1 – 1300 x 1300 x 300 DP.
5–15M(B) x 1150 lg E.W.

F2 – 1200 x 1200 x 250 DP.
4–15M(B) x 1050 lg E.W.

WF2 – 1100 x 250 DP.
15M(T&B) x 1000Lg. @ 400 c.c.
+ 3–10M (T&B)

ALL FOOTINGS TO BE 600X200dp. U/N

** REFER TO JST PLAN FOR LVL SIZE & QUANTITY**

No	Revision	Date	By
1	ISSUED FOR 2017 TENDER	AUG 15/16	

minto beinspired

CONFIDENTIAL

STRUCTURAL FRAMING LEGEND:	SEE DWG A3
ELEVATION LEGEND:	SEE DWG A4
FLOOR PLAN LEGEND:	SEE DWG SP–1
DR/WIN LEGEND:	SEE DWG SP–7*
FOR ADDED INFO., ABBREV'S, SYMBOLS:	SEE SPECS. SP–*

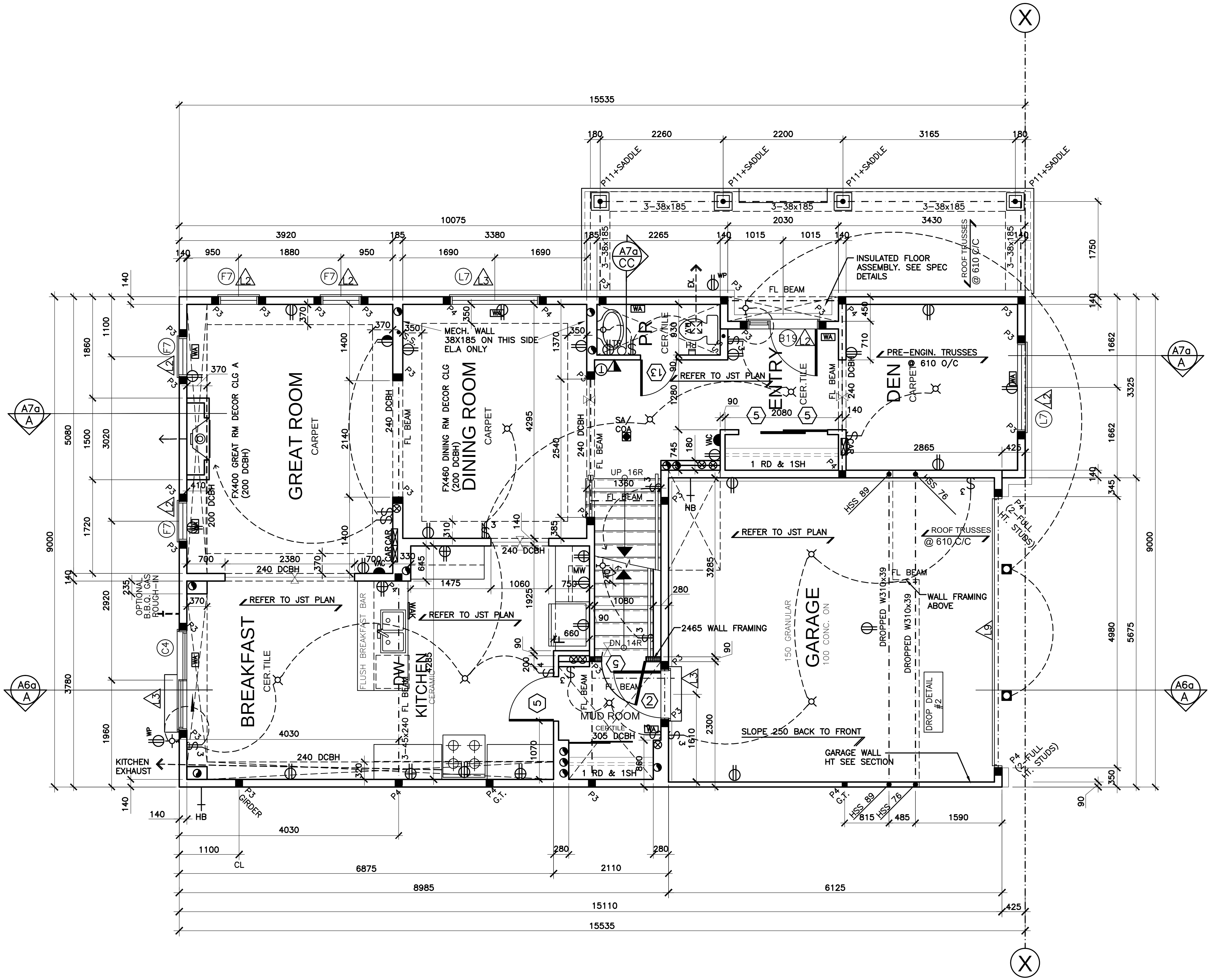
TITLE BASEMENT FLOOR PLAN ELEV. - A

FILENAME: ABD–THE JASPER–2017–FLR.dwg

36ft Singles
THE JASPER–2017
ELEV. – A, B, & D
(2017 STANDARD DRAWING)

Scale 1:75

dwg # A-1a



GROUND FLOOR PLAN
ELEVATION 'A'

** REFER TO JST PLAN FOR LVL SIZE & QUANTITY**

No	Revision	Date	By
1	ISSUED FOR 2017 TENDER	AUG 15/16	

minto beinspired

CONFIDENTIAL

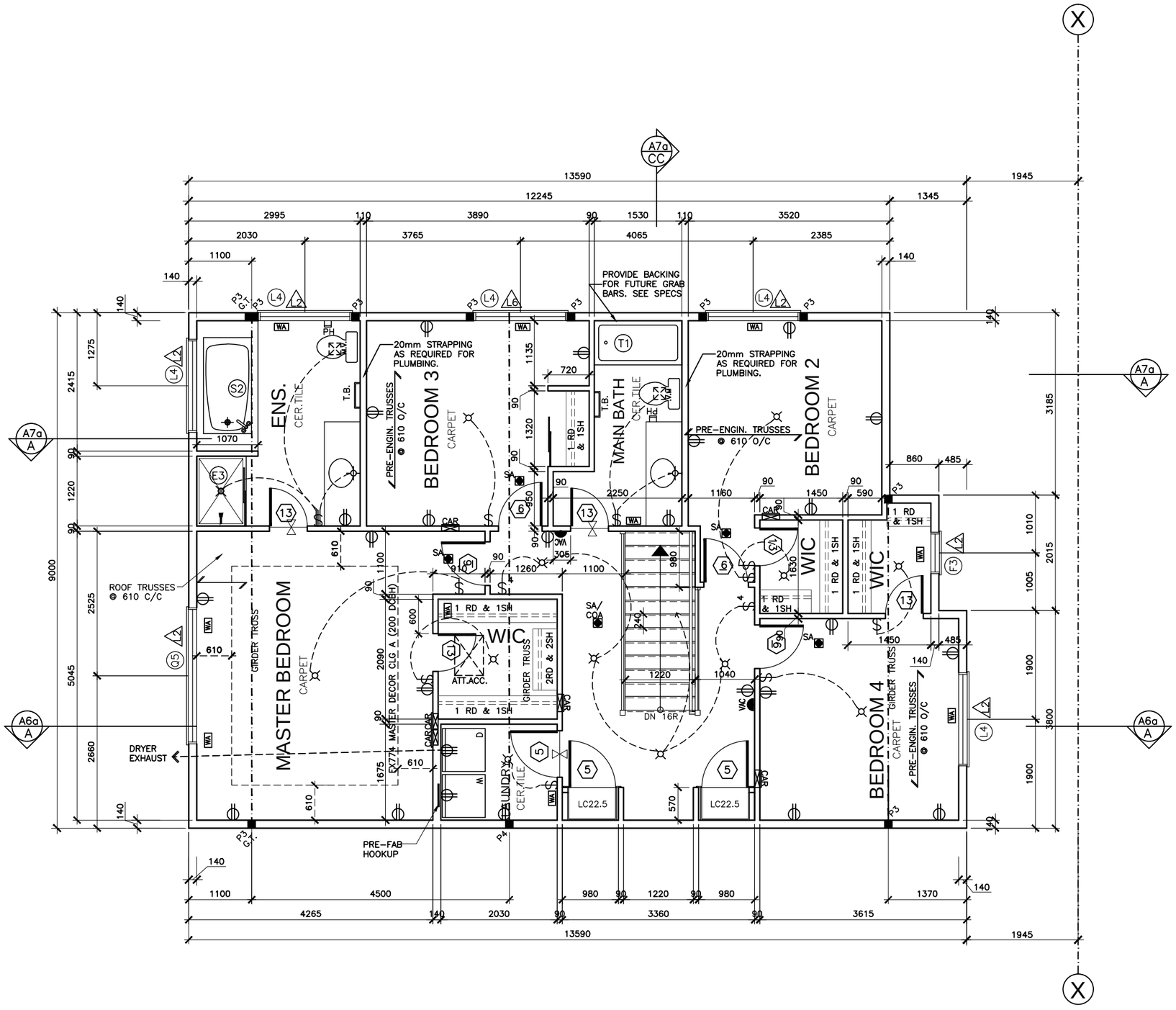
STRUCTURAL FRAMING LEGEND: SEE DWG A3
ELEVATION LEGEND: SEE DWG A4
FLOOR PLAN LEGEND: SEE DWG SP-1
DR/WIN LEGEND: SEE DWG SP-7*
FOR ADDED INFO., ABBREV'S, SYMBOLS: SEE SPECS. SP-*

TITLE GROUND FLOOR PLAN
ELEV. - A

FILENAME: ABD-THE JASPER-2017-FLR.dwg

36ft Singles
THE JASPER-2017
ELEV. - A, B, & D
(2017 STANDARD DRAWING)

Scale 1:75
dwg # A-2a



No	Revision	Date	By
1	ISSUED FOR 2017 TENDER	AUG 15/16	

mintō beinspired

CONFIDENTIAL

STRUCTURAL FRAMING LEGEND:	SEE DWG A3
ELEVATION LEGEND:	SEE DWG A4
FLOOR PLAN LEGEND:	SEE DWG SP-1
DR/WIN LEGEND:	SEE DWG SP-7*
FOR ADDED INFO., ABBREV'S, SYMBOLS:	SEE SPECS. SP-*

TITLE SECOND FLOOR PLAN
ELEV. - A

FILENAME: ABD-THE JASPER-2017-FLR.dwg

36ft Singles
THE JASPER-2017
ELEV. - A, B, & D
(2017 STANDARD DRAWING)

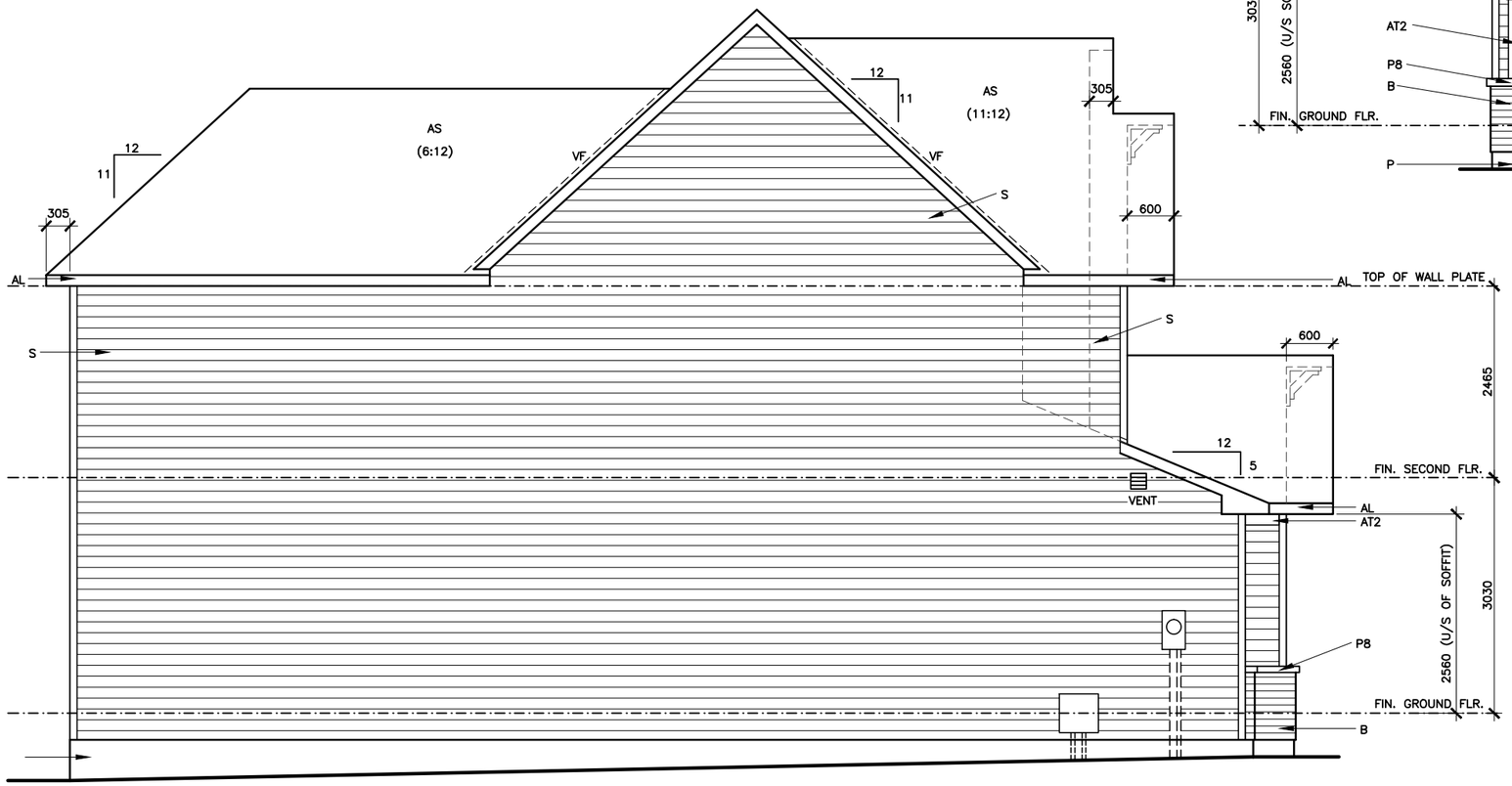
Scale 1:75

dwg # A-3a

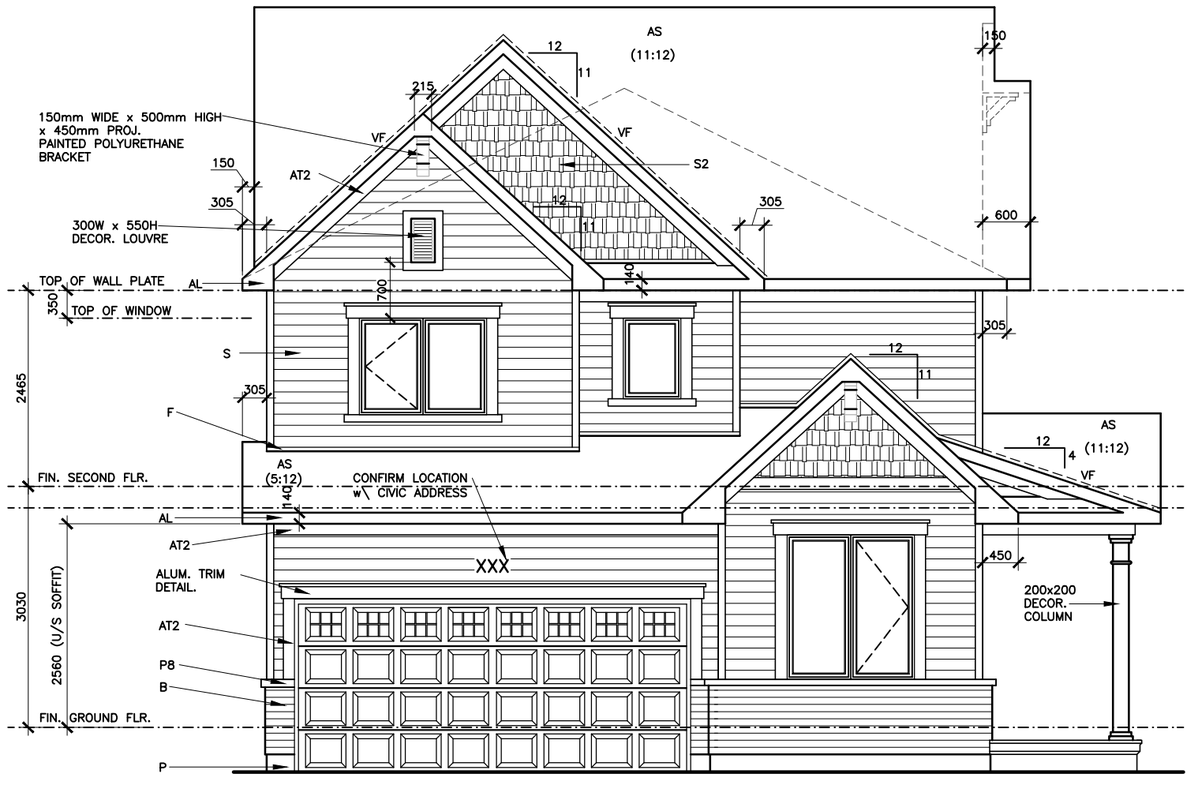
EXTERIOR FINISHES

AC	ACRYLIC FINISH	P3	PRECAST CONC. BLOCK 260mm SQ. PROJECTION TO MATCH SOLDIER COURSE
ACT1	ACRYLIC FINISH TRIM (90mm)	P4	PRECAST CONC. BLOCK 260mm HIGH PROJECTION TO MATCH SOLDIER COURSE
ACT2	ACRYLIC FINISH TRIM (140mm)	P5	****
AL	ALUMINUM	P6	PRECAST CONC. BLOCK 150mm HIGH
AT1	ALUMINUM TRIM (90mm)	P7	PRECAST CONC. BLOCK 78mm HIGH
AT2	ALUMINUM TRIM (140mm)	P8	PRECAST CONC. SILL 78mm HIGH
AS	ASPHALT SHINGLES	PTW	PRESSURE TREATED WOOD
B	BRICK VENEER (nominal size = 260x80)	RV	ROOF VENT
B1	BRICK SOLDIER COURSE	S	SIDING HORIZONTAL
B2	BRICK SOLDIER COURSE (20mm projection)	SA	SIDING (ALUMINUM)
B3	BRICK STRETCHER COURSE	SV	SIDING VERTICAL (VINYL)
B4	BRICK STACK BOND	S1	SIDING HALF ROUND PANELS
B5	BRICK SILL ROWLOCK (SLOPED)	S2	SIDING SHAKE
B6	BRICK ROWLOCK	S3	SIDING STAGGERED SHAKE
B7	BRICK CORBELLING	SH1	SHUTTERS (305mm)
B8	BRICK COINING (20mm projection)	SH2	SHUTTERS (380 mm)
B9	BRICK HERRINGBONE	ST	STONE VENEER
+20	BRICK PROJECTING 20mm	ST1	STONE VENEER STACK BOND 20mm PROJECTION
−20	BRICK RECESSED 20mm	ST2	STONE VENEER SOLDIER COURSE 20mm PROJECTION
CB	CEMENT BOARD PANEL	ST3	LIMESTONE STARTER
EB	EXTRA BRICK	U.P.O	UNPROTECTED OPENING (SEE OBC 9.10.14)
F	FLASHING	VF	VALLEY FLASHING
HP	HARDBOARD PANEL TEXTURED	WT1	WOOD TRIM (100mm)
P	PARGING	WT2	WOOD TRIM (150mm)
PCS	POURED CONCRETE SILL (ONE PIECE)	WT3	WOOD TRIM (200mm)
PC	PRECAST CONC. BLOCK SHAPE (SEE DWG)	WT4	WOOD TRIM (250mm − 20mm THICK)
PCC	PRECAST CAP − 90mm	WT5	WOOD TRIM (250mm − 30mm THICK)
P1	PRECAST CONC. SILL 60mm HIGH	XXX	ADDRESS LOCATION
P2	PRECAST CONC. KEYSTONE		

FOR PRECAST ANGLESTONE SEE SPECS.



LEFT SIDE ELEVATION
EL. 'A'



FRONT ELEVATION
EL. 'A'

No	Revision	Date	By
1	ISSUED FOR 2017 TENDER	AUG 15/16	

minto | beinspired

CONFIDENTIAL

STRUCTURAL FRAMING LEGEND:	SEE DWG A3
ELEVATION LEGEND:	SEE DWG A4
FLOOR PLAN LEGEND:	SEE DWG SP−1
DR/WIN LEGEND:	SEE DWG SP−7*
FOR ADDED INFO., ABBREV'S, SYMBOLS:	SEE SPECS. SP−*

TITLE: FRONT & LEFT SIDE ELEVATION A

FILENAME: ABD−THE JASPER−2017−ELEV.dwg

36ft Singles

THE JASPER−2017
ELEV. − A, B, & D
(2017 STANDARD DRAWING)

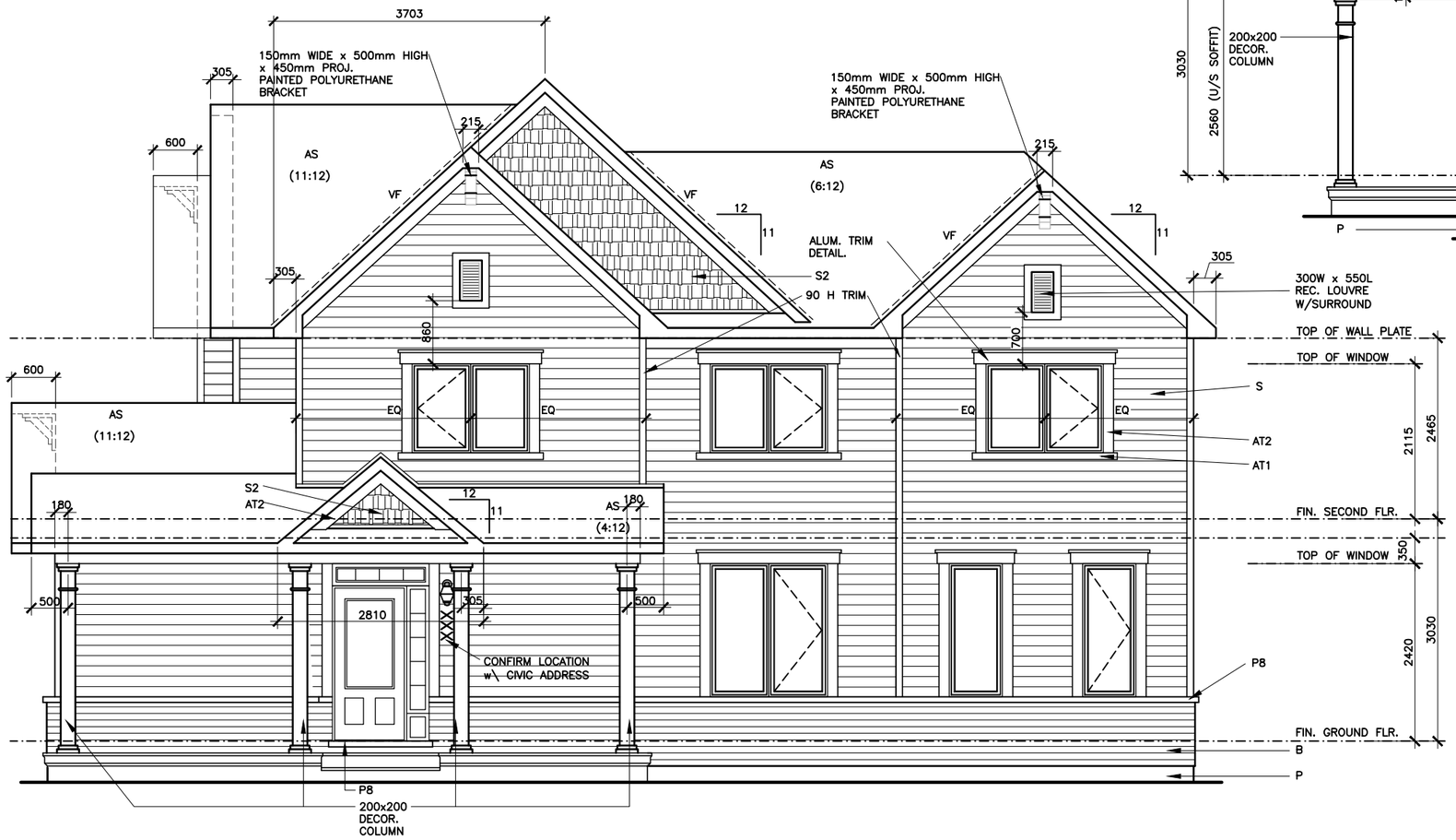
Scale 1:75

dwg # A-4a

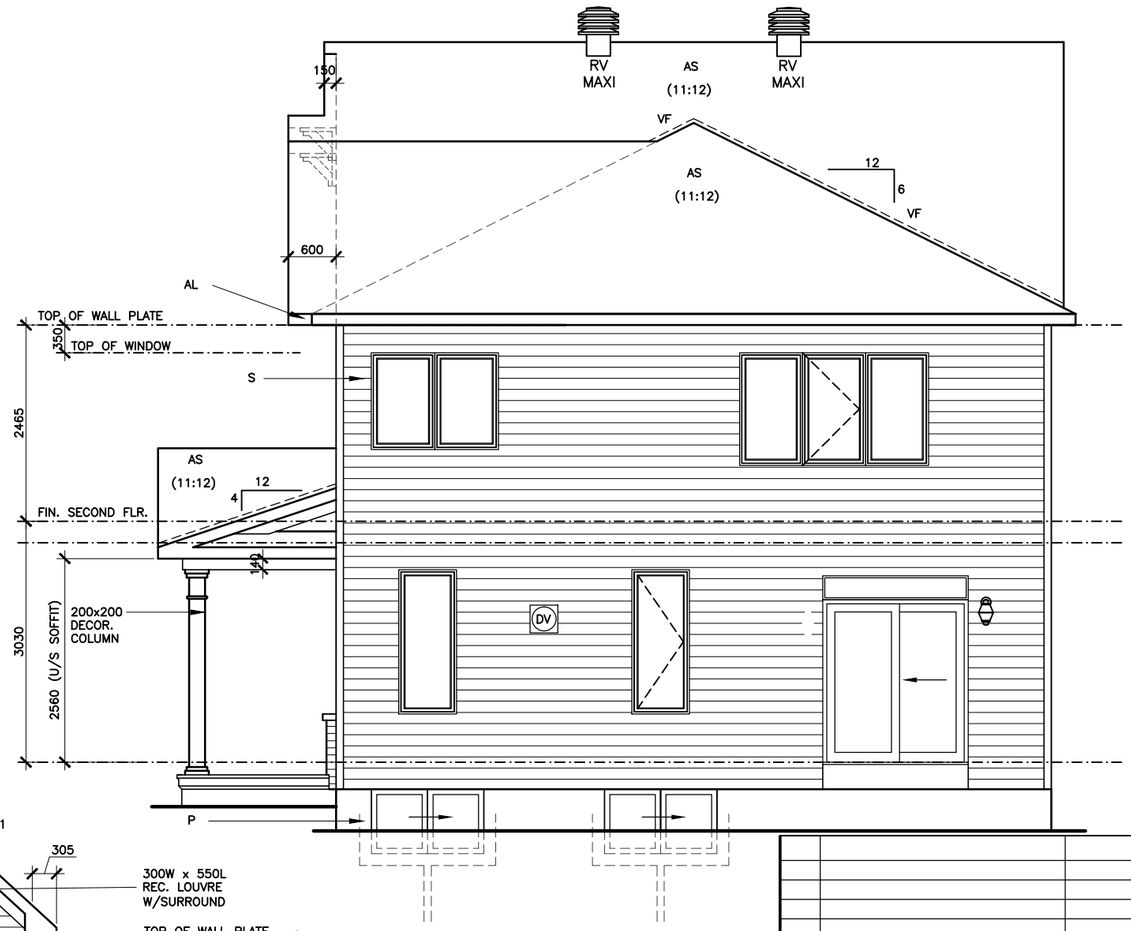
EXTERIOR FINISHES

AC	ACRYLIC FINISH	P3	PRECAST CONC. BLOCK 260mm SQ. PROJECTION TO MATCH SOLDIER COURSE
ACT1	ACRYLIC FINISH TRIM (90mm)	P4	PRECAST CONC. BLOCK 260mm HIGH PROJECTION TO MATCH SOLDIER COURSE
ACT2	ACRYLIC FINISH TRIM (140mm)	P5	****
AL	ALUMINUM	P6	PRECAST CONC. BLOCK 150mm HIGH
AT1	ALUMINUM TRIM (90mm)	P7	PRECAST CONC. BLOCK 78mm HIGH
AT2	ALUMINUM TRIM (140mm)	P8	PRECAST CONC. SILL 78mm HIGH
AS	ASPHALT SHINGLES	PTW	PRESSURE TREATED WOOD
B	BRICK VENEER (nominal size = 260x80)	RV	ROOF VENT
B1	BRICK SOLDIER COURSE	S	SIDING HORIZONTAL
B2	BRICK SOLDIER COURSE (20mm projection)	SA	SIDING (ALUMINUM)
B3	BRICK STRETCHER COURSE	SV	SIDING VERTICAL (VINYL)
B4	BRICK STACK BOND	S1	SIDING HALF ROUND PANELS
B5	BRICK SILL ROWLOCK (SLOPED)	S2	SIDING SHAKE
B6	BRICK ROWLOCK	S3	SIDING STAGGERED SHAKE
B7	BRICK CORBELLING	SH1	SHUTTERS (305mm)
B8	BRICK COINING (20mm projection)	SH2	SHUTTERS (380 mm)
B9	BRICK HERRINGBONE	ST	STONE VENEER
+20	BRICK PROJECTING 20mm	ST1	STONE VENEER STACK BOND 20mm PROJECTION
−20	BRICK RECESSED 20mm	ST2	STONE VENEER SOLDIER COURSE 20mm PROJECTION
CB	CEMENT BOARD PANEL	ST3	LIMESTONE STARTER
EB	EXTRA BRICK	U.P.O	UNPROTECTED OPENING (SEE OBC 9.10.14)
F	FLASHING	VF	VALLEY FLASHING
HP	HARDBOARD PANEL TEXTURED	WT1	WOOD TRIM (100mm)
P	PARGING	WT2	WOOD TRIM (150mm)
PCS	POURED CONCRETE SILL (ONE PIECE)	WT3	WOOD TRIM (200mm)
PC	PRECAST CONC. BLOCK SHAPE (SEE DWG)	WT4	WOOD TRIM (250mm − 20mm THICK)
PCC	PRECAST CAP − 90mm	WT5	WOOD TRIM (250mm − 30mm THICK)
P1	PRECAST CONC. SILL 60mm HIGH	XXX	ADDRESS LOCATION
P2	PRECAST CONC. KEYSTONE		

FOR PRECAST ANGLESTONE SEE SPECS.



RIGHT SIDE ELEVATION
ELEV. A



REAR ELEVATION
EL. 'A'

No	Revision	Date	By
1	ISSUED FOR 2017 TENDER	AUG 15/16	

minto beinspired

CONFIDENTIAL

STRUCTURAL FRAMING LEGEND:	SEE DWG A3
ELEVATION LEGEND:	SEE DWG A4
FLOOR PLAN LEGEND:	SEE DWG SP−1
DR/WIN LEGEND:	SEE DWG SP−7*
FOR ADDED INFO., ABBREV'S, SYMBOLS:	SEE SPECS. SP−*

TITLE REAR & RIGHT SIDE ELEVATION A

FILENAME: ABD−THE JASPER−2017−ELEV.dwg

36ft Singles

THE JASPER−2017
ELEV. − A, B, & D
(2017 STANDARD DRAWING)

Scale 1:75

dwg # A-5a

Appendix I

Building Component Calculations

- Room Calculations
- Table 11: Building Component Template (Jasper)
- Table 12: Building Component Template (Venice)
- Table 13: Building Component Template (Madison)
- Table 14: Building Component Template (Infusion Terrace)

ROOM BY ROOM CALCULATIONS - JASPER

Note: Ceiling Height 9' 1" (first floor) and 8' 1" (second floor)

Kitchen / Breakfast / Great Room / Dining Room

Floor Area (sq.m) 62.8

	Width	Height	Area	
Window 1 (Patio door)	1.8	2.4	4.3	
Window 2 (rear)	0.7	1.8	1.3	
Window 3 (rear)	0.7	1.8	1.3	
Window 4 (side)	0.7	1.8	1.3	
Window 5 (side)	0.7	1.8	1.3	
Window 6 (side)	1.6	1.8	2.9	
			12.50	Total Window Area
			19.91%	% of Floor Area

	Width	Height	Area	
Exterior Door	0	0	0	
			0	Total Door Area
			0.00%	% of Floor Area

	Width	Height	Area	Area minus windows/doors	
Exterior Wall (rear)	8.7	2.8	24.07	18.41	
Exterior Wall (side)	6.4	2.8	17.65	14.75	
				33.16	Total Exterior Wall Area
				52.80%	% of Floor Area

Den

Floor Area (sq.m) 9.59

	Width	Height	Area	
Window 1 (front)	1.6	1.8	2.74	
			2.74	Total Window Area
			28.61%	% of Floor Area

	Width	Height	Area	
Exterior Door	0.0	0.0	0	
	0.0	0.0	0	
			0	Total Door Area
			0.00%	% of Floor Area

	Width	Height	Area	Area minus windows/doors	
Exterior Wall (front)	3.2	2.8	8.69	5.95	
Exterior Wall (side)	2.9	2.8	7.89	7.89	
				13.84	Total Exterior Wall Area
				144.36%	% of Floor Area

Bedroom 3

Floor Area (sq.m) 12.2

	Width	Height	Area	
Window 1 (side)	1.6	1.2	1.94	
			1.94	Total Window Area
			15.93%	% of Floor Area

	Width	Height	Area	
Exterior Door	0	0	0	
			0	Total Door Area
			0.00%	% of Floor Area

	Width	Height	Area	Area minus windows/doors	
Exterior Wall (side)	3.9	2.5	9.59	7.64	
				7.64	Total Exterior Wall Area
				62.66%	% of Floor Area

Master Bedroom

Floor Area (sq.m) 21.8

	Width	Height	Area	
Window 1 (rear)	2.4	1.4	3.36	
			3.36	Total Window Area
			15.42%	% of Floor Area

	Width	Height	Area	
Exterior Door	0	0	0	
			0	Total Door Area
			0.00%	% of Floor Area

	Width	Height	Area	Area minus windows/doors	
Exterior Wall (rear)	5.0	2.5	12.44	9.08	
				9.08	Total Exterior Wall Area
				41.63%	% of Floor Area

Bedroom 2

Floor Area (sq.m) 12.6

	Width	Height	Area	
Window 1 (side)	1.6	1.2	1.95	
			1.95	Total Window Area
			15.49%	% of Floor Area

	Width	Height	Area	
Exterior Door	0	0	0	
			0	Total Door Area
			0.00%	% of Floor Area

	Width	Height	Area	Area minus windows/doors	
Exterior Wall (front)	3.0	2.5	7.30	7.30	
Exterior Wall (side)	4.6	2.5	11.33	9.37	
				16.67	Total Exterior Wall Area
				132.31%	% of Floor Area

Bedroom 4

Floor Area (sq.m) 12.2

	Width	Height	Area	
Window 1 (front)	1.6	1.2	1.95	
			1.95	Total Window Area
			16.00%	% of Floor Area

	Width	Height	Area	
Exterior Door	0	0	0	
			0	Total Door Area
			0.00%	% of Floor Area

	Width	Height	Area	Area minus windows/doors	
Exterior Wall (side)	3.5	2.5	8.57	8.57	
Exterior wall (front)	3.8	2.5	9.24	7.29	
				15.86	Total Exterior Wall Area
				129.98%	% of Floor Area

ROOM BY ROOM CALCULATIONS - VENICE

Note: Ceiling Height 9' 1" (first floor) and 8' 1" (second floor)

Kitchen / Breakfast / Living / Dining Room

Floor Area (sq.m) 35.6

	Width	Height	Area	
Window 1 (side)	1.2	1.6	1.9	
Window 2 (side)	1.2	1.6	1.9	
			3.8	Total Window Area
			10.79%	% of Floor Area

	Width	Height	Area	
Exterior Door	0	0	0	
			0	Total Door Area
			0.00%	% of Floor Area

	Width	Height	Area	Area minus windows/doors	
Exterior Wall (side)	5.7	2.8	15.79	11.95	
				11.95	Total Exterior Wall Area
				33.56%	% of Floor Area

Den

Floor Area (sq.m) 9.61

	Width	Height	Area	
Window 1	1.2	1.6	1.938	
			1.938	Total Window Area
			20.17%	% of Floor Area

	Width	Height	Area	
Exterior Door	0.0	0.0	0	
			0	Total Door Area
			0.00%	% of Floor Area

	Width	Height	Area	Area minus windows/doors	
Exterior Wall (side)	3.3	2.8	9.09	7.15	
				7.15	Total Exterior Wall Area
				74.38%	% of Floor Area

Bedroom 4

Floor Area (sq.m) 7.6

	Width	Height	Area	
Window 1	1.2	1.2	1.44	
			1.44	Total Window Area
			18.95%	% of Floor Area

	Width	Height	Area	
Exterior Door	0	0	0	
			0	Total Door Area
			0.00%	% of Floor Area

	Width	Height	Area	Area minus windows/doors	
Exterior Wall (side)	2.8	2.5	7.00	5.56	
				5.56	Total Exterior Wall Area
				73.16%	% of Floor Area

Bedroom 2

Floor Area (sq.m) 12

	Width	Height	Area	
Window 1	1.8	1.4	2.52	
			2.52	Total Window Area
			21.00%	% of Floor Area

	Width	Height	Area	
Exterior Door	0	0	0	
			0	Total Door Area
			0.00%	% of Floor Area

	Width	Height	Area	Area minus windows/doors	
Exterior Wall (front)	3.4	2.5	8.50	5.98	
Exterior Wall (side)	0.7	2.5	1.75	1.75	
				7.73	Total Exterior Wall Area
				64.42%	% of Floor Area

Bedroom 3

Floor Area (sq.m) 11.9

	Width	Height	Area	
Window 1 (front)	1.8	1.4	2.52	
			2.52	Total Window Area
			21.18%	% of Floor Area

	Width	Height	Area	
Exterior Door	0	0	0	
			0	Total Door Area
			0.00%	% of Floor Area

	Width	Height	Area	Area minus windows/doors	
Exterior Wall (front)	3.0	2.5	7.50	4.98	
Exterior Wall (side)	4.1	2.5	10.25	10.25	
				15.23	Total Exterior Wall Area
				127.98%	% of Floor Area

ROOM BY ROOM CALCULATIONS - MADISON

Note: Ceiling Height 8' 1" (first floor) and 9' 1" (second floor) and 8' 1" (tl

Kitchen / Living Room / Dining Room

Floor Area (sq.m) 44.32

	Width	Height	Area	
Window 1 (Patio door)	2.3	1.4	3.2	
Window 2 (front)	1.9	1.5	2.8	
Window 3 (side)	1.7	1.5	2.5	
			8.49	Total Window Area
			19.16%	% of Floor Area

	Width	Height	Area	
Exterior Door	0	0	0	
			0	Total Door Area
			0.00%	% of Floor Area

	Width	Height	Area	Area minus windows/doors	
Exterior Wall (front)	7.445	2.8	20.62	14.59	
Exterior Wall (side)	7.51	2.8	20.80	18.35	
				32.93	Total Exterior Wall Area
				74.31%	% of Floor Area

Master Bedroom

Floor Area (sq.m) 12.96

	Width	Height	Area	
Window 1	1.5	1.5	2.15	
			2.15	Total Window Area
			16.63%	% of Floor Area

	Width	Height	Area	
Exterior Door	0	0	0	
			0	Total Door Area
			0.00%	% of Floor Area

	Width	Height	Area	Area minus windows/doors	
Exterior Wall (front)	3.1	2.5	7.64	5.49	
				5.49	Total Exterior Wall Area
				42.33%	% of Floor Area

Den

Floor Area (sq.m) 8.25

	Width	Height	Area	
Window 1 (front)	1.3	1.1	1.35	
Window 1 (side)	0.5	1.1	0.49	
			1.83	Total Window Area
			22.23%	% of Floor Area

	Width	Height	Area	
Exterior Door	0.0	0.0	0	
	0.0	0.0	0	
			0	Total Door Area
			0.00%	% of Floor Area

	Width	Height	Area	Area minus windows/doors	
Exterior Wall (front)	2.1	2.8	5.95	4.61	
Exterior Wall (side)	2.9	2.8	8.08	7.59	
				12.20	Total Exterior Wall Area
				147.87%	% of Floor Area

Bedroom 2

Floor Area (sq.m) 8.28

	Width	Height	Area	
Window 1 (front)	1.3	1.3	1.61	
			1.61	Total Window Area
			19.42%	% of Floor Area

	Width	Height	Area	
Exterior Door	0	0	0	
			0	Total Door Area
			0.00%	% of Floor Area

	Width	Height	Area	Area minus windows/doors	
Exterior Wall (front)	3.0	2.5	7.40	5.79	
Exterior Wall (side)	2.62	2.5	6.46	6.46	
				12.25	Total Exterior Wall Area
				147.89%	% of Floor Area

Bedroom 3

Floor Area (sq.m) 8.64

	Width	Height	Area	
Window 1 (side)	1.7	1.5	2.45	
			2.45	Total Window Area
			28.41%	% of Floor Area

	Width	Height	Area	
Exterior Door	0	0	0	
			0	Total Door Area
			0.00%	% of Floor Area

	Width	Height	Area	Area minus windows/doors	
Exterior Wall (side)	2.9	2.5	7.12	4.67	
Exterior wall (front)	1.0	2.5	2.50	2.50	
				7.17	Total Exterior Wall Area
				82.97%	% of Floor Area

ROOM BY ROOM CALCULATIONS -
Condo Stacked Towns

Note: Ceiling Height 8' 1" on all floors

Kitchen / Great Room

Floor Area (sq.m) 33.5

	Width	Height	Area	
Window 1 (front)	1.6	1.2	1.9	
Window 2 (front) (Patio door)	2.8	2.1	5.9	
Window 3 (side)	0.8	0.8	0.6	
Window 4 (side)	0.8	0.8	0.6	
			9.1	Total Window Area
			27.10%	% of Floor Area

	Width	Height	Area	
Exterior Door	0.9	2.2	1.98	
			1.98	Total Door Area
			5.91%	% of Floor Area

	Width	Height	Area	Area minus windows/doors	
Exterior Wall (Front)	6.5	2.5	16.25	6.47	
Exterior Wall (Side)	6.6	2.5	16.50	8.00	
				14.47	Total Exterior Wall Area
				43.19%	% of Floor Area

Master Bedroom

Floor Area (sq.m) 15.7

	Width	Height	Area	
Window 1	1.8	0.95	1.71	
			1.71	Total Window Area
			10.89%	% of Floor Area

	Width	Height	Area	
Exterior Door	0	0	0	
			0	Total Door Area
			0.00%	% of Floor Area

	Width	Height	Area	Area minus windows/doors	
Exterior Wall (front)	4.5	1.8	8.10	6.39	
				6.39	Total Exterior Wall Area
				40.70%	% of Floor Area

Bedroom 2

Floor Area (sq.m) 11.9

	Width	Height	Area	
Window 1	1.2	0.95	1.14	
			1.14	Total Window Area
			9.58%	% of Floor Area

	Width	Height	Area	
Exterior Door	0	0	0	
			0	Total Door Area
			0.00%	% of Floor Area

	Width	Height	Area	Area minus windows/doors	
Exterior Wall (front)	3	1.8	5.40	4.26	
				4.26	
				35.80%	Total Exterior Wall Area
					% of Floor Area

TABLE 11: BUILDING COMPONENT TEMPLATE

Architect:
Location: Barrhaven South Urban Expansion Area
Building Type: Single Unit (Jasper)
Lot Number: 1 to 548
Front Façade Noise Level (dBA) 71

JLR No: 26610-001.1
Prepared by: Thomas Blais
Checked by: Lee Jablonski

ROOM	# OF COMPONENTS	ROOM FLOOR AREA (M^2)	WINDOW AREA (M^2)	W/RFA %	DOOR AREA (M^2)	D/RFA %	EXT. WALL AREA (M^2)	EW/RFA %	REQUIRED AIF*	WINDOW		EXT. DOOR		EXT. WALL		CEILING/ROOF	
										Type	AIF**	Type	AIF***	Type	AIF****	Type	AIF*****
Master Bedroom	2	21.8	3.4	15%	-	-	9.1	42%	36	3(6)3(20)3	36	-	-	EW2	36	-	-
Kitchen / Breakfast / Great Room / Dining Room	4	62.8	12.5	20%	-	-	33.2	53%	34	3(6)3(15)3	34	-	-	EW1	34	-	-
Bedroom 2	3	12.6	2.0	15%	-	-	16.7	132%	38	3(6)3(40)3	38	-	-	EW4	38	-	-
Bedroom 3	2	12.2	1.9	16%	-	-	7.6	63%	36	3(6)3(20)3	34	-	-	EW3	38	-	-
Bedroom 4	2	12.2	2.0	16%	-	-	15.9	130%	36	3(6)3(20)3	36	-	-	EW4	38		
Den	3	9.6	2.7	29%	-	-	13.8	144%	33	3(6)3(20)3	33	-	-	EW3	34	-	-

** Taken from Table 10.5: AIF required for Road and Rail Traffic Noise Cases*
*** Taken from Table 10.6: Acoustic Insulation Factor for various types of windows (example: 2(100)2 denotes 2 mm glass (100 mm space) 2 mm glass).*
**** Taken from Table 10.9: Acoustic Insulation Factor for various types of exterior doors*
***** Taken from Table 10.7: Acoustic Insulation Factor for various types of exterior walls*
****** Taken from Table 10.8: Acoustic Insulation Factor for various ceiling-roof combinations (only for aircraft noise)*

Exterior Door Details
All prime doors should be fully weatherstripped. Except as noted specifically below, doors shall not have inset glazing:
D1 denotes 44 mm hollow-core wood door (up to 20% of area glazed).
D2 denotes 44 mm glass-fibre reinforced plastic door with foam or glass-fibre insulated core (up to 20% area glazed).
D3 denotes 35 mm in solid slab wood door.
D4 denotes 44 mm steel door with foam or glass-fibre insulated core.
D5 denotes 44 mm solid slab door.
sd denotes storm door of wood or aluminum with openable glazed sections.

Exterior Wall Details
The common structure of walls EW1 to EW5 is composed of 12.7 mm gypsum board, vapour barrier, and 38x89 mm studs with 50 mm (or thicker) mineral wool or glass fibre batts in the inter-stud cavities.
EW1 denotes the above plus sheathing, plus wood siding or metal siding and fibre backer board.
EW2 denotes the above plus rigid insulation (25-50mm), and wood siding or metal siding and fibre backer board.
EW2 also denotes exterior wall described in EW1 with the addition of rigid insulation (25-50mm) between the sheathing and the external finish.
EW3 denotes simulated mansard with structure as the above plus sheathing, 38 x 89 mm framing, sheathing and asphalt roofing material.
EW4 denotes the above plus sheathing and 20 mm stucco.
EW5 denotes the above plus sheathing, 25 mm air space, 100 mm brick veneer.
EW6 denotes exterior wall composed of 12.7 mm gypsum board, rigid insulation (25-50mm), 100 mm back-up block, 100 mm face brick.
EW6 also denotes an exterior wall conforming to rainscreen design principles and composed of same gypsum board and rigid insulation with 100 mm concrete block, 25 mm air space, and 100 mm brick veneer.
EW7 denotes exterior wall composed of 12.7 mm gypsum board, rigid insulation (25-50mm), 140 mm back-up block, 100 mm face brick.
EW8 denotes exterior wall composed of 12.7 mm gypsum board, rigid insulation (25-50mm), 200 mm concrete.
R denotes the mounting of the interior gypsum board on resilient clips

TABLE 12: BUILDING COMPONENT TEMPLATE

Architect:
Location: Barrhaven South Urban Expansion Area
Building Type: Executive Townhouse (Venice)
Block Number: 561 to 571, 576 to 588, 593 to 601, 603 to 620, 623 to 629
Front Façade Noise Level (dBA) 71

JLR No: 26610-001.1
Prepared by: Thomas Blais
Checked by: Lee Jablonski

ROOM	# OF COMPONENTS	ROOM FLOOR AREA (M^2)	WINDOW AREA (M^2)	W/RFA %	DOOR AREA (M^2)	D/RFA %	EXT. WALL AREA (M^2)	EW/RFA %	REQUIRED AIF*	WINDOW		EXT. DOOR		EXT. WALL		CEILING/ROOF	
										Type	AIF**	Type	AIF***	Type	AIF****	Type	AIF*****
Master Bedroom	2	17.3	2.2	12%	-	-	8.3	48%	36	3(6)3(15)3	36			EW2	36		
Bedroom 2	3	12.0	2.5	21%	-	-	7.7	64%	38	3(6)3(50)3	38	-	-	EW3	38	-	-
Kitchen / Breakfast / Living / Dining Room	2	35.6	3.8	11%	-	-	11.9	34%	31	2(6)2	31	-	-	EW1	36	-	-
Bedroom 3	3	11.9	2.5	21%	-	-	15.2	128%	38	3(6)3(50)3	38	-	-	EW4	38	-	-
Bedroom 4	2	7.6	1.4	19%	-	-	5.6	73%	36	3(6)3(50)3	38	-	-	EW3	37	-	-
Den	4	9.6	1.9	20%	-	-	7.1	74%	34	3(6)3(15)3	34	-	-	EW2	34	-	-

** Taken from Table 10.5: AIF required for Road and Rail Traffic Noise Cases*
*** Taken from Table 10.6: Acoustic Insulation Factor for various types of windows (example: 2(100)2 denotes 2 mm glass (100 mm space) 2 mm glass).*
**** Taken from Table 10.9: Acoustic Insulation Factor for various types of exterior doors*
***** Taken from Table 10.7: Acoustic Insulation Factor for various types of exterior walls*
****** Taken from Table 10.8: Acoustic Insulation Factor for various ceiling-roof combinations (only for aircraft noise)*

Exterior Door Details
All prime doors should be fully weatherstripped. Except as noted specifically below, doors shall not have inset glazing:
D1 denotes 44 mm hollow-core wood door (up to 20% of area glazed).
D2 denotes 44 mm glass-fibre reinforced plastic door with foam or glass-fibre insulated core (up to 20% area glazed).
D3 denotes 35 mm in solid slab wood door.
D4 denotes 44 mm steel door with foam or glass-fibre insulated core.
D5 denotes 44 mm solid slab door.
sd denotes storm door of wood or aluminum with openable glazed sections.

Exterior Wall Details
The common structure of walls EW1 to EW5 is composed of 12.7 mm gypsum board, vapour barrier, and 38x89 mm studs with 50 mm (or thicker) mineral wool or glass fibre batts in the inter-stud cavities.
EW1 denotes the above plus sheathing, plus wood siding or metal siding and fibre backer board.
EW2 denotes the above plus rigid insulation (25-50mm), and wood siding or metal siding and fibre backer board.
EW2 also denotes exterior wall described in EW1 with the addition of rigid insulation (25-50mm) between the sheathing and the external finish.
EW3 denotes simulated mansard with structure as the above plus sheathing, 38 x 89 mm framing, sheathing and asphalt roofing material.
EW4 denotes the above plus sheathing and 20 mm stucco.
EW5 denotes the above plus sheathing, 25 mm air space, 100 mm brick veneer.
EW6 denotes exterior wall composed of 12.7 mm gypsum board, rigid insulation (25-50mm), 100 mm back-up block, 100 mm face brick.
EW6 also denotes an exterior wall conforming to rainscreen design principles and composed of same gypsum board and rigid insulation with 100 mm concrete block, 25 mm air space, and 100 mm brick veneer.
EW7 denotes exterior wall composed of 12.7 mm gypsum board, rigid insulation (25-50mm), 140 mm back-up block, 100 mm face brick.
EW8 denotes exterior wall composed of 12.7 mm gypsum board, rigid insulation (25-50mm), 200 mm concrete.
R denotes the mounting of the interior gypsum board on resilient clips

TABLE 13: BUILDING COMPONENT TEMPLATE

Architect:
Location: Barrhaven South Urban Expansion Area
Building Type: Back to Back Townhouse (Madison)
Block Number: 572 to 575, 589 to 592, 621, 622
Front Façade Noise Level (dBA) 71

JLR No: 26610-001.1
Prepared by: Thomas Blais
Checked by: Lee Jablonski

ROOM	# OF COMPONENTS	ROOM FLOOR AREA (M^2)	WINDOW AREA (M^2)	W/RFA %	DOOR AREA (M^2)	D/RFA %	EXT. WALL AREA (M^2)	EW/RFA %	REQUIRED AIF*	WINDOW		EXT. DOOR		EXT. WALL		CEILING/ROOF	
										Type	AIF**	Type	AIF***	Type	AIF****	Type	AIF*****
Master Bedroom	2	13.0	2.2	17%	-	-	5.5	42%	36	3(6)3(20)3	36	-	-	EW2	37	-	-
Kitchen / Living Room / Dining Room	4	44.3	8.5	19%	-	-	32.9	74%	34	3(6)3(15)3	34	-	-	EW2	34	-	-
Bedroom 2	3	8.3	1.6	19%	-	-	12.2	148%	38	3(6)3(50)3	38	-	-	EW1R	38	-	-
Bedroom 3	3	8.6	2.5	28%	-	-	7.2	83%	38	3(6)3(65)3	38	-	-	EW4	40	-	-
Den	4	8.3	1.8	22%	-	-	12.2	148%	34	3(6)3(15)3	34	-	-	EW3	34	-	-

** Taken from Table 10.5: AIF required for Road and Rail Traffic Noise Cases*
*** Taken from Table 10.6: Acoustic Insulation Factor for various types of windows (example: 2(100)2 denotes 2 mm glass (100 mm space) 2 mm glass).*
**** Taken from Table 10.9: Acoustic Insulation Factor for various types of exterior doors*
***** Taken from Table 10.7: Acoustic Insulation Factor for various types of exterior walls*
****** Taken from Table 10.8: Acoustic Insulation Factor for various ceiling-roof combinations (only for aircraft noise)*

Exterior Door Details
All prime doors should be fully weatherstripped. Except as noted specifically below, doors shall not have inset glazing:
D1 denotes 44 mm hollow-core wood door (up to 20% of area glazed).
D2 denotes 44 mm glass-fibre reinforced plastic door with foam or glass-fibre insulated core (up to 20% area glazed).
D3 denotes 35 mm in solid slab wood door.
D4 denotes 44 mm steel door with foam or glass-fibre insulated core.
D5 denotes 44 mm solid slab door.
sd denotes storm door of wood or aluminum with openable glazed sections.

Exterior Wall Details
The common structure of walls EW1 to EW5 is composed of 12.7 mm gypsum board, vapour barrier, and 38x89 mm studs with 50 mm (or thicker) mineral wool or glass fibre batts in the inter-stud cavities.
EW1 denotes the above plus sheathing, plus wood siding or metal siding and fibre backer board.
EW2 denotes the above plus rigid insulation (25-50mm), and wood siding or metal siding and fibre backer board.
EW2 also denotes exterior wall described in EW1 with the addition of rigid insulation (25-50mm) between the sheathing and the external finish.
EW3 denotes simulated mansard with structure as the above plus sheathing, 38 x 89 mm framing, sheathing and asphalt roofing material.
EW4 denotes the above plus sheathing and 20 mm stucco.
EW5 denotes the above plus sheathing, 25 mm air space, 100 mm brick veneer.
EW6 denotes exterior wall composed of 12.7 mm gypsum board, rigid insulation (25-50mm), 100 mm back-up block, 100 mm face brick.
EW6 also denotes an exterior wall conforming to rainscreen design principles and composed of same gypsum board and rigid insulation with 100 mm concrete block, 25 mm air space, and 100 mm brick veneer.
EW7 denotes exterior wall composed of 12.7 mm gypsum board, rigid insulation (25-50mm), 140 mm back-up block, 100 mm face brick.
EW8 denotes exterior wall composed of 12.7 mm gypsum board, rigid insulation (25-50mm), 200 mm concrete.
R denotes the mounting of the interior gypsum board on resilient clips

TABLE 14: BUILDING COMPONENT TEMPLATE

Architect:
Location: Barrhaven South Urban Expansion Area
Building Type: Condo Stacked Towns
Block Number: Block 631
Front Façade Noise Level (dBA) 71

JLR No: 26610-001.1
Prepared by: Thomas Blais
Checked by: Lee Jablonski

ROOM	# OF COMPONENTS	ROOM FLOOR AREA (M^2)	WINDOW AREA (M^2)	W/RFA %	DOOR AREA (M^2)	D/RFA %	EXT. WALL AREA (M^2)	EW/RFA %	REQUIRED AIF*	WINDOW		EXT. DOOR		EXT. WALL		CEILING/ROOF	
										Type	AIF**	Type	AIF***	Type	AIF****	Type	AIF*****
Master Bedroom	2	15.7	1.7	11%	-	-	6.4	41%	36	3(6)3(10)3	36	-	-	EW2	37	-	-
Bedroom 2	2	11.9	1.1	10%	-	-	4.3	36%	36	3(6)3(10)3	36	-	-	EW2	37	-	-
Kitchen / Great Room	5	33.5	9.1	27%	2.0	6%	14.5	43%	35	3(6)3(30)3	35	D4	35	EW1	35	-	-

** Taken from Table 10.5: AIF required for Road and Rail Traffic Noise Cases*
*** Taken from Table 10.6: Acoustic Insulation Factor for various types of windows (example: 2(100)2 denotes 2 mm glass (100 mm space) 2 mm glass).*
**** Taken from Table 10.9: Acoustic Insulation Factor for various types of exterior doors*
***** Taken from Table 10.7: Acoustic Insulation Factor for various types of exterior walls*
****** Taken from Table 10.8: Acoustic Insulation Factor for various ceiling-roof combinations (only for aircraft noise)*

Exterior Door Details
All prime doors should be fully weatherstripped. Except as noted specifically below, doors shall not have inset glazing:
D1 denotes 45 mm hollow-core wood door (up to 20% of area glazed).
D2 denotes 45 mm glass-fibre reinforced plastic door with foam or glass-fibre insulated core (up to 20% area glazed).
D3 denotes 35 mm in solid slab wood door.
D4 denotes 45 mm steel door with foam or glass-fibre insulated core.
D5 denotes 45 mm solid slab door.
sd denotes storm door of wood or aluminum with openable glazed sections.

Exterior Wall Details
The common structure of walls EW1 to EW5 is composed of 12.7 mm gypsum board, vapour barrier, and 38x89 mm studs with 50 mm (or thicker) mineral wool or glass fibre batts in the inter-stud cavities.
EW1 denotes the above plus sheathing, plus wood siding or metal siding and fibre backer board.
EW2 denotes the above plus rigid insulation (25-50mm), and wood siding or metal siding and fibre backer board.
EW2 also denotes exterior wall described in EW1 with the addition of rigid insulation (25-50mm) between the sheathing and the external finish.
EW3 denotes simulated mansard with structure as the above plus sheathing, 38 x 89 mm framing, sheathing and asphalt roofing material.
EW4 denotes the above plus sheathing and 20 mm stucco.
EW5 denotes the above plus sheathing, 25 mm air space, 100 mm brick veneer.
EW6 denotes exterior wall composed of 12.7 mm gypsum board, rigid insulation (25-50mm), 100 mm back-up block, 100 mm face brick.
EW6 also denotes an exterior wall conforming to rainscreen design principles and composed of same gypsum board and rigid insulation with 100 mm concrete block, 25 mm air space, and 100 mm brick veneer.
EW7 denotes exterior wall composed of 12.7 mm gypsum board, rigid insulation (25-50mm), 140 mm back-up block, 100 mm face brick.
EW8 denotes exterior wall composed of 12.7 mm gypsum board, rigid insulation (25-50mm), 200 mm concrete.

Appendix J

Canada Mortgage and Housing (CMHC) Table A2 and A3

- Approximate Conversion from STC to AIF for Windows and Doors
- Approximate Conversion from STC to AIF for Exterior Walls and Ceiling-Roof System

Table A1: Standard source spectrum for calculating Acoustic Insulation Factor (AIF)

Frequency (Hz)	Source Sound Pressure Level	A-weighted Source Sound Pressure Level
100	66.1	47
125	69.1	53
160	71.4	58
200	71.9	61
250	71.6	63
315	71.6	65
400	71.8	67
500	71.2	68
630	70.9	69
800	70.8	70
1000	70.0	70
1250	69.4	70
1600	69.0	70
2000	68.8	70
2500	68.7	70
3150	67.8	69
4000	67.0	68
5000	65.5	66

Note: Values in the second and third columns of this table are $\frac{1}{3}$-octave band sound pressure levels expressed in dB.

Table A2: 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)
80.0	STC-5
63.0	STC-4
50.0	STC-3
40.0	STC-2
32.0	STC-1
25.0	STC
20.0	STC+1
16.0	STC+2
12.5	STC+3
10.0	STC+4
8.0	STC+5
6.3	STC+6
5.0	STC+7
4.0	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.

Table A3: Approximate conversion from STC to AIF for exterior walls and ceiling-roof systems.

Exterior Wall Area Expressed as Percentage of Room Floor Area	Acoustic Insulation Factor (AIF)
200.0	STC-10
160.0	STC-9
125.0	STC-8
100.0	STC-7
80.0	STC-6
63.0	STC-5
50.0	STC-4
40.0	STC-3
32.0	STC-2
25.0	STC-1
20.0	STC
16.0	STC+1
12.5	STC+2
10.0	STC+3
8.0	STC+4

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.

Note: For ceiling-roof systems, AIF = STC - 7.

Figure A1: Worksheet for Calculating AIF from Transmission Loss Data

Frequency (Hz)	A-weighted Source Sound Pressure Level (dB)	Sound Transmission Loss (dB)	A-weighted Indoor Sound Pressure Level (dB)	Energy Equivalent of Indoor SPL
	(A)	(B)	(C = A-B)	(D = $10^{C/10}$)
100	47	24	23	200
125	53	26	27	501
160	58	19	39	7 943
200	61	21	40	10 000
250	63	20	43	19 953
315	65	20	45	31 623
400	67	25	42	15 849
500	68	30	38	6 310
630	69	33	36	3 981
800	70	37	33	1 995
1000	70	39	31	1 259
1250	70	41	29	794
1600	70	43	27	501
2000	70	44	26	398
2500	70	45	25	316
3150	69	43	26	398
4000	68	37	31	1 259
5000	66	35	31	1 259
			Sum of values in column D:	104 539=E

Calculated indoor A-weighted sound level: $10 \log_{10}$ (E) = 50.2 = F

AIF (component area = 80% of floor area): (77 - F) = 26.8 = G

Component Area as a Percentage of Room Floor Area	Acoustic Insulation Factor (AIF)
6.3	(G + 11) = 38
8.0	(G + 10) = 37
10.0	(G + 9) = 36
12.5	(G + 8) = 35
16.0	(G + 7) = 34
20.0	(G + 6) = 33
25.0	(G + 5) = 32
32.0	(G + 4) = 31
40.0	(G + 3) = 30
50.0	(G + 2) = 29
63.0	(G + 1) = 28
80.0	(G) = 27
100.0	(G - 1) = 26
125.0	(G - 2) = 25
160.0	(G - 3) = 24

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