

July 5, 2021

**New Horizon Development Group
 c/o 256 First Road West Inc.
 200-3170 Harvester Road
 Burlington, ON L7N 3W8**

**Re: Addendum #1 - Noise Feasibility Study,
 250-256 First Road West, Hamilton, Ontario**

As requested, HGC Engineering has prepared this letter as an addendum to our noise study titled “Noise Feasibility Study, 250-256 First Road West, Hamilton, Ontario” dated April 13, 2020 to reflect the latest site plan dated May 12, 2021, as attached. Refer to the noise study for site description, noise sources, applicable guideline limits, assessment method and warning clauses. The revised analysis and recommendations are summarized below.

Traffic Noise Assessment Results

Updated analysis was conducted based on the latest site plan and the results are summarized in Table I. The prediction locations are show on Figure 1.

Table I: Predicted Road Traffic Sound Levels, Without Mitigation, [dBA]

Prediction Location	Daytime – in OLA, L _{EQ} (16)	Daytime – At Façade, L _{EQ} (16)	Nighttime – At Façade, L _{EQ} (8)
A	65	65	58
B	64	66	59
C	57	58	52
D	55	57	51
E	<55	55	49
F	<55	56	50
G	<55	56	50

The predictions indicate that the future traffic sound levels will exceed the MECP guidelines at all lots in the proposed development and noise control measures are required. Further details are discussed below.

Outdoor Living Areas

For the two blocks of townhouses adjacent to Mud Street (Locations [A] and [B]), the predicted sound levels in the OLAs will be in the range from 56 dBA to 65 dBA. Noise barriers are required to reduce the sound

levels in the OLAs to less 60 dBA. A table of barrier heights to meet 55, 57, 58 and 59 dBA is provided below.

Table II: Summary of Barrier Heights Required to Meet 55, 57, 58 and 59 dBA

Prediction Location	Noise Barrier Height (m)			
	55 dBA	57 dBA	58 dBA	59 dBA
A	3.0	2.5	2.2	2.0
B	2.6	2.2	2.0	--
C	2.0	--	--	--

The heights and extents of the barriers should be chosen, subject to the approval of the municipality and respecting any applicable fence height by-laws.

The location and extent of the acoustical barriers are shown on Figure 2. All noise barriers must return back to the dwelling units so that the rear yards are entirely shielded from the roadway. The acoustic barrier can be a combination of an acoustic wall on top of an earth berm. The wall component of the barrier should be of a solid construction with a surface density of no less than 20 kg/m². The walls may be constructed from a variety of materials such as wood, brick, pre-cast concrete or other concrete/wood composite systems provided that it is free of gaps or cracks.

The remaining units in the development do not have any noise barrier requirements.

Ventilation Requirements

For the unit adjacent to Mud Street (Location [B]), central air conditioning is required. For the remaining units, forced air ventilation systems with ducts sized to accommodate the future installation of air conditioning by the occupant are required.

Building Façade Constructions

For the unit adjacent to Mud Street (Location [B]), upgraded glazing constructions are required for the windows on the north façade, facing Mud Street. Preliminary calculations indicated that a glazing construction with an STC Rating of 28 will provide adequate sound insulation for the bedrooms and living rooms. When floor plans and building elevations are available for this unit, the glazing construction requirement shall be refined.

For all remaining lots in the development, any exterior wall and double-glazed window construction meeting the minimum requirements of the Ontario Building Code (OBC) will provide adequate sound insulation for the remaining dwelling units.

A revised summary table of the noise control requirements is provided below.

Table III: Summary of Noise Control Requirements and Noise Warning Clauses

Prediction Location	Acoustic Barrier	Ventilation Requirements	Type of Warning Clause	Upgraded Building Façade Constructions
A	✓ *	Forced Air Ventilation	A, B, C, E	OBC
B	✓ *	Central A/C	A, B, D, E	✓
C	2.0m	Forced Air Ventilation	A, B, C, E	OBC
D, E	--	Forced Air Ventilation	A, C, E	OBC
F, G	--	Forced Air Ventilation	A, C, E	OBC

Note: -- no specific requirement

OBC – Ontario Building Code

* Noise barrier heights should be selected subject to the approval of City of Hamilton

✓ When floor plans/building elevations and grading information are available, the acoustic requirements shall be refined.

Limitations


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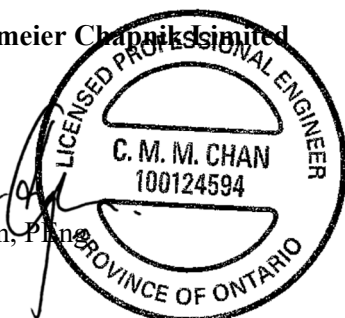
Any conclusions and/or recommendations herein reflect the judgment of HGC Engineering based on information available at the time of preparation and were developed in good faith on information provided by others, as noted in the report, which has been assumed to be factual and accurate. Changed conditions or information occurring or becoming known after the date of this report could affect the results and conclusions presented.

We trust that this is sufficient information for your present needs. Please do not hesitate to call if you have any further questions or require additional information.

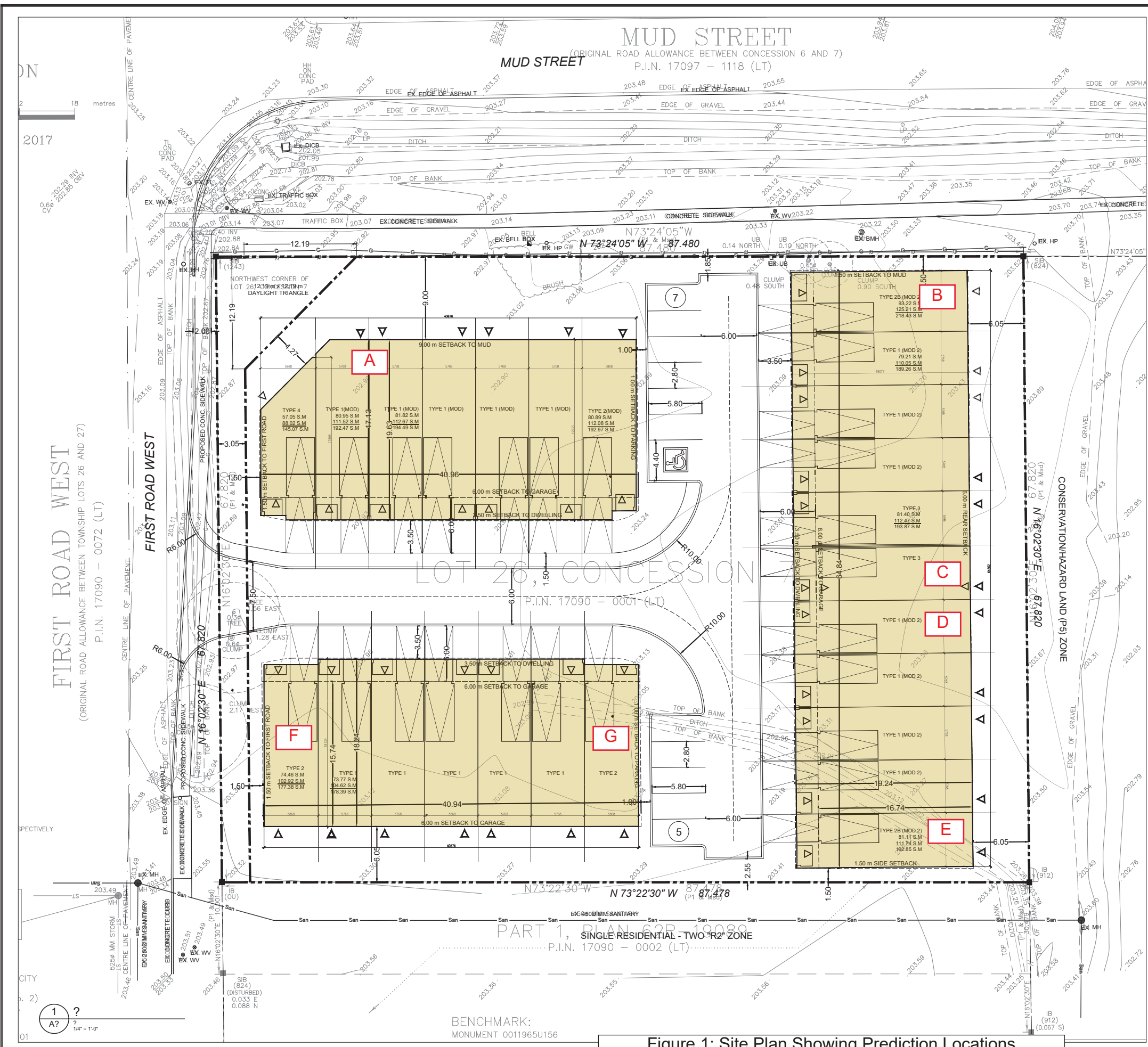
Yours truly,

Howe Gastmeier Chanukh Limited


Mandy Chan, P.Eng.



Attach: Figures 1 and 2



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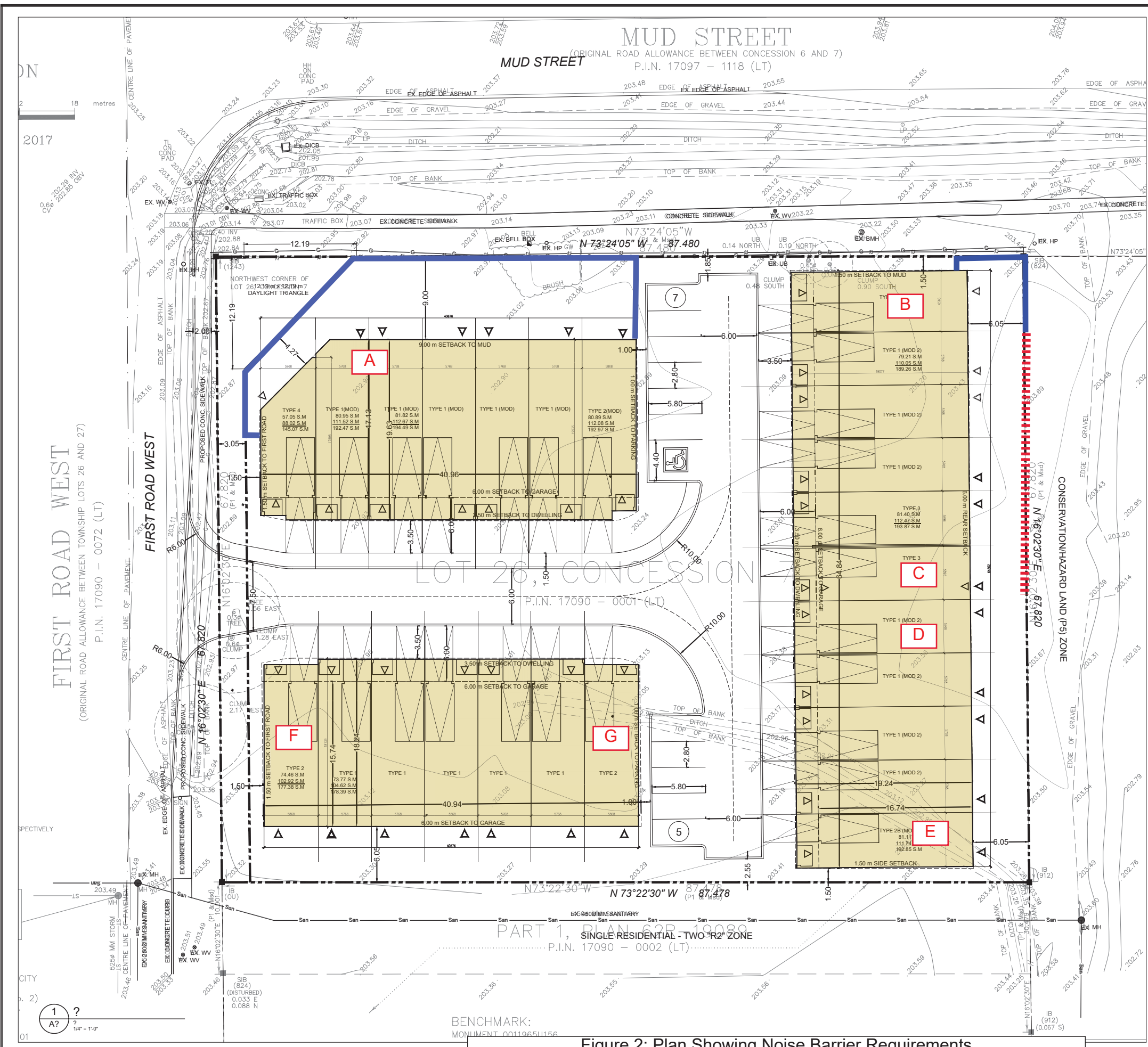
PROJECT NORTH

NHDG TOWNHOMES

250-256 FIRST ROAD, HAMILTON ONTARIO

DRAWING SHEET TITLE:
SITE PLAN OPTION 2

DRAWING SCALE: 1:200	PROJECT NUMBER: 21307
DRAWN BY: CHECKED BY:	DRAWING SHEET NUMBER: SP2
DRAWING VERSION: 001	
PLOT DATE: May 12, 2021	



Noise Barrier Requirements

- Noise Barrier*
- 2.0 m high Noise Barrier

* Noise barrier height as approved by the City of Hamilton

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Figure 2: Plan Showing Noise Barrier Requirements