

Adverse Soils Conditions

Address(&lot): 1500 Thomas Argue

Subdivision, Phase, Builder: Carp Rd Phase 2A Phoenix Homes

Geotechnical Memo (s) & Report (s): PG2450-MEMO.12

Notes:

Date:

Permit Approvals - requirements at permit application		
Site Class A,B,C,D,E or F		
	A, B, C, D - Standard Procedure unless dictated by other factors	
Bearing Capacity Kpa		
	75 kPa or greater, part 9 fdtn - Standard Procedure unless dictated by other factors	
Maximum Permissible Grade Raise Identified	Part 4/9	Part 9 & 4 Foundation Requirements Geotechnical Engineer <ul style="list-style-type: none">• Confirmation of part 9/4 foundation• Part 9 only - Lot specific bearing capacity values at the USF as a function of founding elevation, including footing restrictions• Part 4 only - Soil design bearing capacity, SLS and ULS at USF as a function of founding elevation, including footing restrictions• Footing sizes and the effects of long term groundwater lowering accounted for• Existing grade elevation, proposed finished grade elevation, maximum allowable grade raise, actual grade raise, proposed USF elevation• Calculated post construction settlements (include special requirements for foundation construction where calculated settlements are more than 25mm total and 20mm differential)
	Additional for part 4	Part 4 Foundation Additional Requirements Note: Requirements are in addition to geotechnical engineer where part 4 foundation design required. Structural Engineer <ul style="list-style-type: none">• Lot specific foundation design in accordance with current OBC, part 4• Confirm foundation design is in accordance with recommendations provided by geotechnical engineer (indentify report and date) to limit the post construction settlements to within acceptable limits• Footing, foundation wall details including reinforcing requirements• Foundation design to include concrete compressive strength, footing, including reinforcing requirements.
Light Weight Fill Required		Part 9&4 Foundation Requirements Geotechnical Engineer <ul style="list-style-type: none">• Confirmation of part 9 Foundation (site conditions may dictate part 4 design as determined by geotechnical engineer)• Lot Specific, backfill, engineered fill details• Calculated post construction settlements, (include special requirements for footing and foundation wall construction where calculated settlements are more than 25mm total and 20mm differential).

Adverse Soils Conditions

Address(&lot): 1500 Thomas Argue

Subdivision, Phase, Builder: Carp Rd Phase 2A Phoenix Homes

Geotechnical Memo (s) & Report (s): PG2450-MEMO.12

Notes:

Date:

Building Inspection - requirements at key inspection stages		
Site Class A,B,C,D,E or F	A, B, C, D - Standard Procedure unless dictated by other factors	
Bearing Capacity Kpa	75 kPa or greater, part 9 fdtn - Standard Procedure unless dictated by other factors	
Maximum Permissible Grade Raise Identified	Part 4/9	Part 9 or 4 fdtn Excavation Inspection - Geotechnical Engineer Confirm bearing capacity at USF meets/exceeds minimum design requirements. Final Inspection - Geotechnical Engineer • Lot specific letter signed under professional seal confirming that the grade raise, is as recommended (reference all geotechnical reports) • Expected post construction settlement limits of 25 mm total and 20 mm differential will not be exceeded.
	Additional for part 4	Part 4 foundation additional requirements Framing Inspection - Structural Engineer/designate Lot specific site review memo confirming foundation materials, reinforcing and construction is in accordance with the permit drawings and current OBC part 4. Final Inspection - Structural Engineer • Lot specific letter signed under professional seal confirming foundation materials, reinforcing and construction is in accordance with permit drawings and current OBC part 4, • Constructed to accommodate post construction settlement limits of 25 mm total and 20 mm differential to minimize foundation cracking, • Constructed in accordance with the geotechnical recommendations (reference all reports). • Confirm that the design SLS and ULS bearing pressure at USF does not exceed those specified by Geotechnical Engineer.
Light Weight Fill Required	Part 9 or 4 foundation design Excavation Inspection - Geotechnical Engineer Confirm bearing capacity at USF meets/exceeds minimum design requirements. Framing Inspection - Geotechnical Engineer/Designate Lot specific site review memo confirming light weight fill has been placed in accordance with geotechnical engineers recommendations. Final Inspection - Geotechnical Engineer • Lot specific letter signed under professional seal confirming that the installed backfill, lightweight fill, granular fill are installed as recommended (reference all geotechnical reports) • Expected post construction settlement limits of 25 mm total and 20 mm differential will not be exceeded.	

re: Geotechnical Design Summary Details
Carp Airport Residential Development – Phase 1B
Diamondview Road – Ottawa
to: West Capital Developments – Mr. Sandy Pollock – spollock@phoenixhomes.ca
date: November 9, 2022
file: PG2450-MEMO.12

Further to your request and authorization, Paterson Group (Paterson) prepared the current memorandum to provide the geotechnical design summary details for the proposed residential development at the aforementioned site. Reference should be made to Paterson Group report PG2450-2 dated July 22, 2013.

Relevant design information is presented in Table 1 – Summary Design Details for the subject blocks and lots. The relevant design and inspection information includes the following:

- ☐ Legal lot/block number and Civic Address
- ☐ Original ground surface elevation
- ☐ Proposed finished grade elevations
- ☐ Maximum allowable grade raise
- ☐ Proposed USF elevation
- ☐ Bearing resistance values at SLS
- ☐ Seismic Site Class
- ☐ Estimated engineered fill thickness beneath footings.
- ☐ Lightweight Fill (LWF) recommendations

Grading Plan Review

Paterson reviewed the following grading plan prepared by IBI Group for the aforementioned development:

- ☐ Project No. 102085-01 – Grading Plan – Drawing No. 102085-GR2, Revision 15, dated December 1, 2021.

Based on the grading plan provided, the proposed grades are generally in compliance with our permissible grade raise recommendations for the current development phase. Where significant grade raise exceedances have occurred, lightweight fill, such as expanded polystyrene (EPS) geofam blocks, is recommended for specific areas adjacent to the subject buildings.



Table 1 attached provides a grading summary and lightweight fill (LWF) requirements for the subject buildings based on our grading plan review. LWF material specifications and cover recommendations are provided in Table 1 and Figure 1 attached.

Protection of Footings Against Frost Action

Perimeter footings of heated structures are required to be insulated against the deleterious effect of frost action. A minimum of 1.5 m thick soil cover (or equivalent) should be provided in this regard.

Based on our review of the grading plan, sufficient soil cover was provided to all units. The estimated frost cover for each unit is shown on Table 1 - Summary of Design Details, attached to this memorandum.

We trust that the current submission meets your immediate requirements.

Best Regards,

Paterson Group Inc.

Kevin A. Pickard, EIT

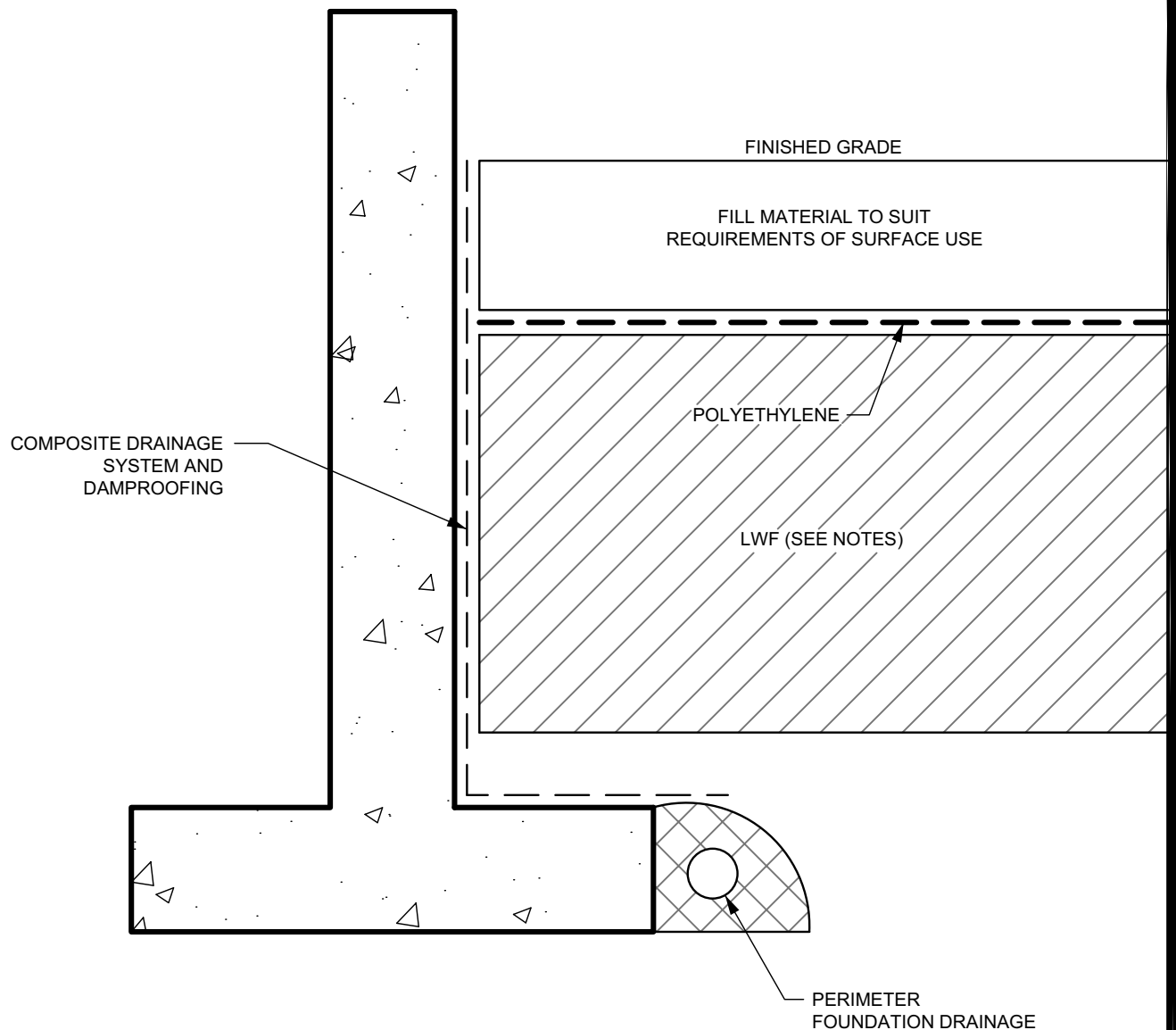


David J. Gilbert, P.Eng.

Attachments

- ☐ Figure 1 – EPS Block Installation Around Residential Buildings
- ☐ Table 1 – Summary of Design Details





NOTES:

1. USE EPS12 BELOW FRONT PORCH AND LANDSCAPED AREAS
2. USE EPS15 BELOW GARAGE AND DRIVEWAY
3. MINIMUM GRANULAR THICKNESS OVER LWF SHOULD BE AS FOLLOWS:

FRONT PORCH	150mm OF OPSS GRANULAR A
GARAGE	300mm OF OPSS GRANULAR A
DRIVEWAY	450mm OF OPSS GRANULAR A
LANDSCAPED	500mm OF APPROVED BACKFILL SOIL
4. PLACEMENT OF LWF SHOULD BE ON A LEVELED SURFACE (SAND CAN BE USED TO PROVIDE AN ADEQUATE LEVELLING SURFACE).



Title:

**EPS BLOCK INSTALLATION
AROUND RESIDENTIAL BUILDINGS**

Scale:

N.T.S.

Date:

07/2022

Drawn by:

NFRV

Checked by:

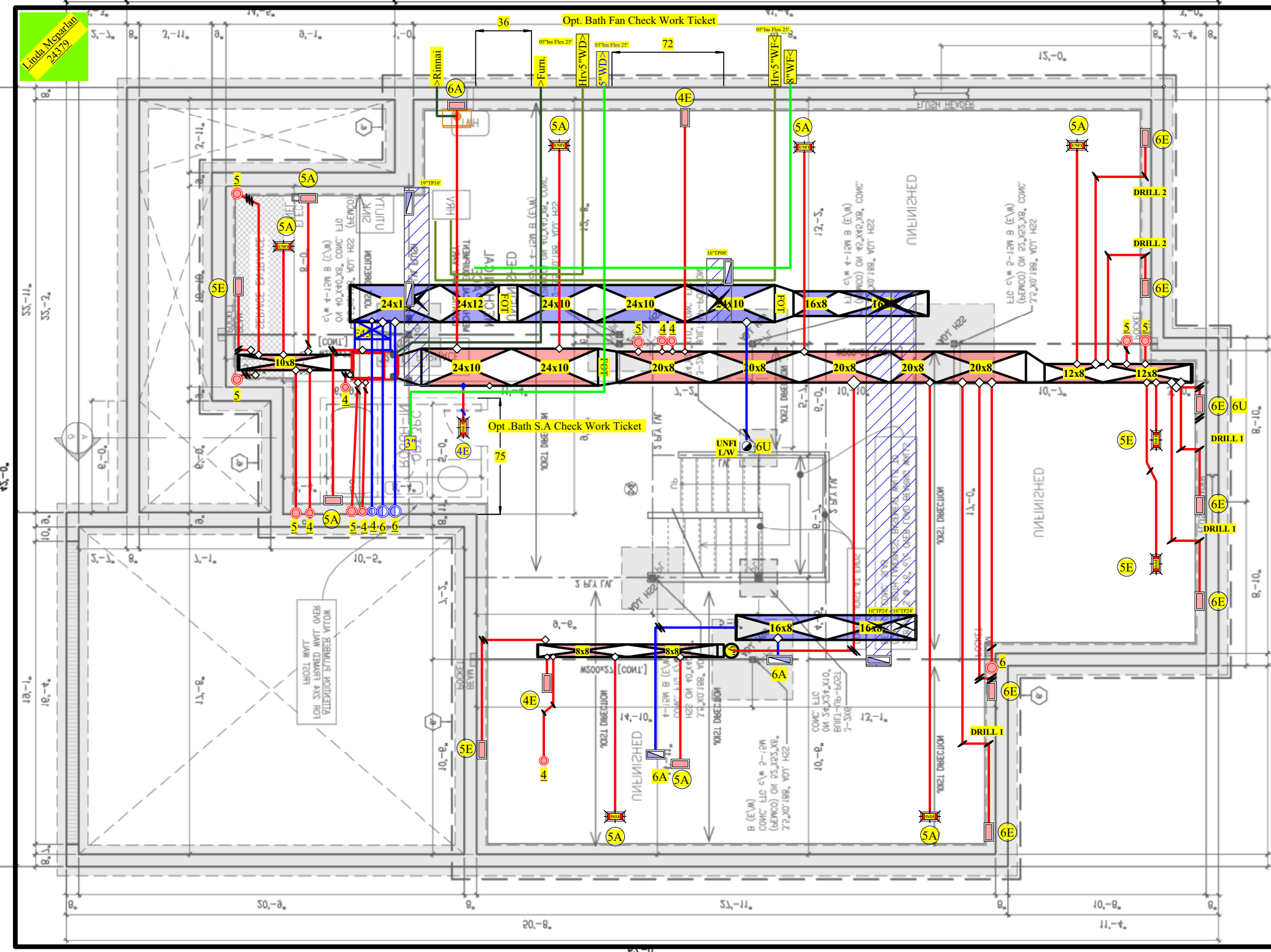
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Drawing No.:

FIGURE 1

Block Number	Lot Number	Civic Address	Dwelling Type	Original GS Front	Proposed GS Front	Original GS Rear	Proposed GS Rear	Underside of Footing Elevation	Minimum Underside of Footing Elevation	*Bearing Resistance Value at SLS	Seismic Site Class	Frost Protection Front	Frost Protection rear	Permissible Grade Raise	Above Permissible Grade Raise Front	Above Permissible Grade Raise Rear	Engineered Fill Thickness	Minimum Thickness LWF in Garage and Front Porch	Minimum Thickness LWF and Extents
				(m)	(m)	(m)	(m)	(m)		(kPa)		(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)
n/a	Lot 77	108 Chandelle Private	Single	115.86	116.94	115.32	116.05	114.55	114.25	60	D	2.39	1.80	1.50	0.00	0.00	0.00	0.0	n/a
n/a	Lot 78	106 Chandelle Private	Single	115.92	116.97	115.25	116.08	114.58	114.28	60	D	2.39	1.80	1.50	0.00	0.00	0.00	0.0	n/a
n/a	Lot 79	104 Chandelle Private	Single	116.00	117.15	115.25	116.26	114.76	114.46	60	D	2.39	1.80	1.50	0.00	0.00	0.00	0.0	n/a
n/a	Lot 80	102 Chandelle Private	Single	116.08	117.19	115.20	116.30	114.82	114.50	60	D	2.37	1.80	1.50	0.00	0.00	0.00	0.0	n/a
n/a	Lot 81	100 Chandelle Private	Single	116.23	117.33	116.00	116.44	114.94	114.64	60	D	2.39	1.80	1.50	0.00	0.00	0.00	0.0	n/a
n/a	Lot 82	98 Chandelle Private	Single	116.37	117.40	116.00	116.51	115.01	114.71	60	D	2.39	1.80	1.50	0.00	0.00	0.00	0.0	n/a
n/a	Lot 83	96 Chandelle Private	Single	116.50	117.56	115.70	116.67	115.17	114.87	60	D	2.39	1.80	1.50	0.00	0.00	0.00	0.0	n/a
n/a	Lot 84	94 Chandelle Private	Single	116.50	117.59	115.99	116.70	115.20	114.90	60	D	2.39	1.80	1.50	0.00	0.00	0.00	0.0	n/a
n/a	Lot 85	92 Chandelle Private	Single	116.50	117.76	116.17	116.87	115.37	115.07	60	D	2.39	1.80	1.50	0.00	0.00	0.00	0.0	n/a
n/a	Lot 86	90 Chandelle Private	Single	116.58	117.77	116.17	116.88	115.38	115.08	60	D	2.39	1.80	1.50	0.00	0.00	0.00	0.0	n/a
n/a	Lot 87	88 Chandelle Private	Single	116.58	117.96	116.38	117.07	115.57	115.27	60	D	2.39	1.80	1.50	0.00	0.00	0.00	0.0	n/a
n/a	Lot 88	86 Chandelle Private	Single	116.81	117.99	116.38	117.10	115.60	115.30	60	D	2.39	1.80	1.50	0.00	0.00	0.00	0.0	n/a
n/a	Lot 89	212 Silver Dart Private	Single	117.00	118.19	116.50	117.30	115.80	115.50	100	D	2.39	1.80	1.50	0.00	0.00	0.00	0.0	n/a
n/a	Lot 90	210 Silver Dart Private	Single	116.86	118.41	116.63	117.52	116.02	115.72	100	D	2.39	1.80	1.50	0.05	0.00	0.00	0.0	n/a
n/a	Lot 91	208 Silver Dart Private	Single	116.86	118.41	117.00	117.52	116.02	115.72	100	D	2.39	1.80	1.50	0.05	0.00	0.00	0.0	n/a
n/a	Lot 92	206 Silver Dart Private	Single	117.02	118.40	117.02	117.51	116.01	115.71	100	D	2.39	1.80	1.50	0.00	0.00	0.00	0.0	n/a
n/a	Lot 93	204 Silver Dart Private	Single	117.12	118.53	117.05	117.64	116.14	115.84	100	D	2.39	1.80	1.50	0.00	0.00	0.00	0.0	n/a
n/a	Lot 94	202 Silver Dart Private	Single	117.50	118.54	117.50	117.99	116.15	115.85	100	D	2.39	2.14	1.50	0.00	0.00	0.00	0.0	n/a
n/a	Lot 95	200 Silver Dart Private	Single	117.53	118.47	117.64	118.47	116.08	115.78	100	D	2.39	2.69	1.50	0.00	0.00	0.00	0.0	n/a
n/a	Lot 111	114 Chandelle Private	Single	115.59	116.73	115.03	115.84	114.34	114.04	100	D	2.39	1.80	1.50	0.00	0.00	0.00	0.0	n/a
n/a	Lot 112	116 Chandelle Private	Single	115.51	116.64	115.13	115.75	114.25	113.95	100	D	2.39	1.80	1.50	0.00	0.00	0.00	0.0	n/a
n/a	Lot 113	118 Chandelle Private	Single	115.51	116.50	114.87	115.61	114.11	113.81	100	D	2.39	1.80	1.50	0.00	0.00	0.00	0.0	n/a
n/a	Lot 114	120 Chandelle Private	Single	115.37	116.40	114.87	115.51	114.01	113.71	100	D	2.39	1.80	1.20	0.00	0.00	0.00	0.0	n/a
n/a	Lot 115	122 Chandelle Private	Single	115.34	116.26	114.51	115.37	113.87	113.64	100	D	2.39	1.73	1.20	0.00	0.00	0.00	0.0	n/a
n/a	Lot 116	124 Chandelle Private	Single	115.18	116.19	114.51	115.30	113.80	113.55	100	D	2.39	1.75	1.20	0.00	0.00	0.00	0.0	n/a
n/a	Lot 117	126 Chandelle Private	Single	114.83	115.99	114.83	115.29	113.60	113.50	100	D	2.39	1.79	1.20	0.00	0.00	0.00	0.0	n/a
n/a	Lot 118	128 Chandelle Private	Single	114.00	115.89	114.83	115.10	113.50	113.34	100	D	2.39	1.76	1.20	0.69	0.00	0.00	1.5	0.7m thick LWF along front extending 2.4 m beyond building face, 0.7m thick LWF along sides extending to a max. of 1.2 m or property line
n/a	Lot 119	130 Chandelle Private	Single	113.33	115.78	112.89	114.88	113.38	113.22	100	D	2.40	1.66	1.20	1.25	0.79	0.35	1.5	1.3m thick LWF along front extending 2.4 m beyond building face, 1.3m thick LWF along sides extending to a max. of 1.2 m or property line, 0.8m thick LWF along rear extending 2.4 m beyond building rear face
Notes: - Proposed grade raise information was based on the following grading plan prepared by Novatech: Project No. 102085-01 - Grading Plan - Drawing No. 102085-GR2, Revision 15, dated December 1, 2021 - Current Block and Lot numbers assigned based on above noted grading plans.																			

Linda McFarlane
24279



Furn GM9C960804CNA
Plenum 63" & CAE 12"x23 1/4" x5

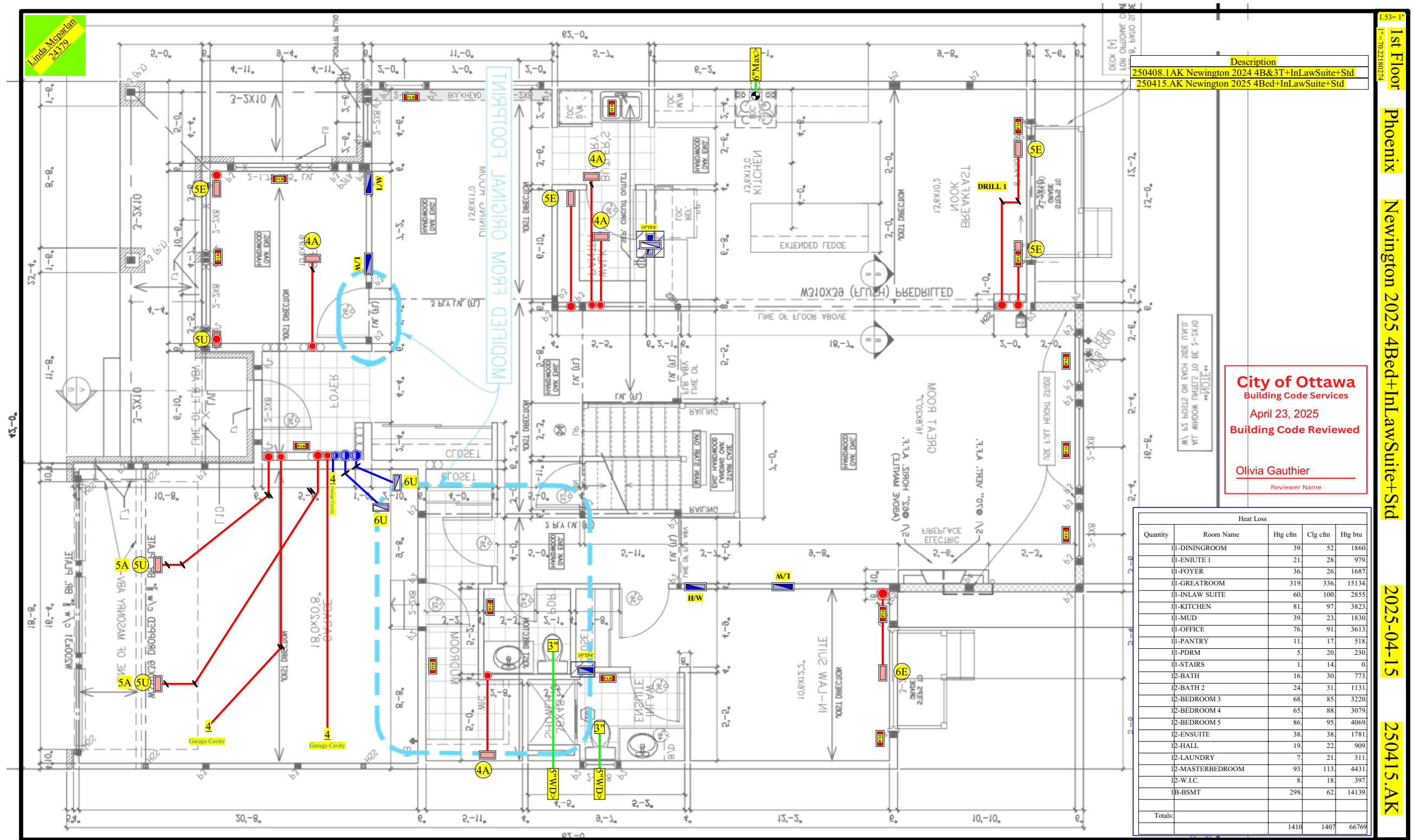
Description
250408.1AK Newington 2024 4B&3T+InLawSuite+Std
250415.AK Newington 2025 4Bed+InLawSuite+Std

MODIFIED FROM ORIGINAL

City of Ottawa
Building Code Services
April 23, 2025
Building Code Reviewed
Olivia Gauthier
Reviewer Name

Heat Loss				
Quantity	Room Name	Htg cfm	Clg cfm	Htg btu
11	DININGROOM	39	52	1860
11	ENIUTE 1	21	28	979
11	FOYER	36	26	1687
11	GREATROOM	319	336	15134
11	INLAW SUITE	60	100	2855
11	KITCHEN	81	97	3823
11	MUD	39	23	1830
11	OFFICE	76	91	3613
11	PANTRY	11	17	518
11	PDRM	5	20	230
11	STAIRS	1	14	0
12	BATH	16	30	773
12	BATH 2	24	31	1131
12	BEDROOM 3	68	85	3220
12	BEDROOM 4	65	88	3079
12	BEDROOM 5	86	95	4069
12	ENSUITE	38	38	1781
12	HALL	19	22	909
12	LAUNDRY	7	21	311
12	MASTERBEDROOM	93	113	4431
12	W.I.C.	8	18	397
1B	BSMT	298	62	14139
Totals:		1410	1407	66769

Linda Mcparlan
24379

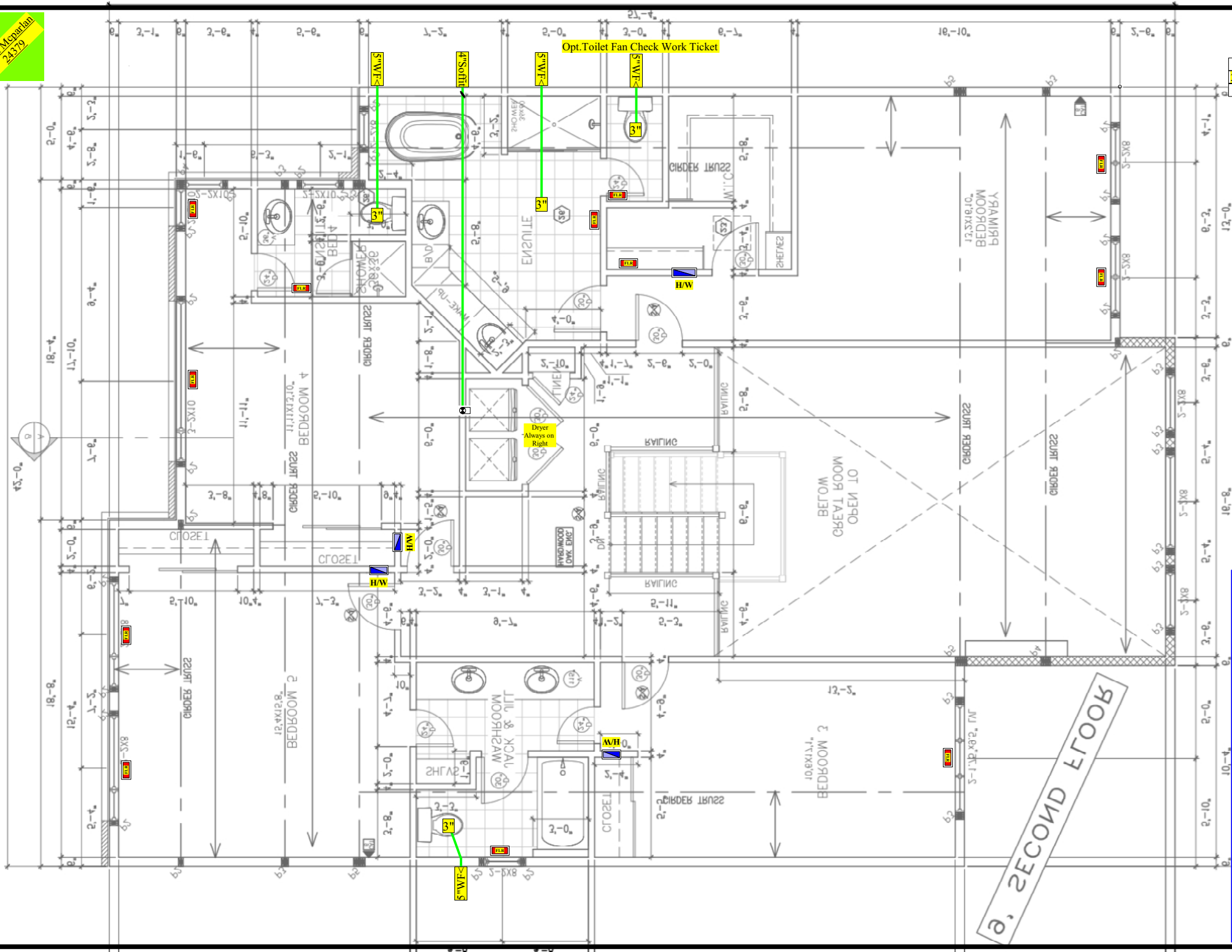


Heat Loss				
Quantity	Room Name	Htg cfm	Clg cfm	Htg btu
	11-DININGROOM	39.	52.	1860.
	11-ENIUTE 1	21.	28.	979.
	11-FOYER	36.	26.	1687.
	11-GREATROOM	319.	336.	15134.
	11-INLAW SUITE	60.	100.	2855.
	11-KITCHEN	81.	97.	3823.
	11-MUD	39.	23.	1830.
	11-OFFICE	76.	91.	3613.
	11-PANTRY	11.	17.	518.
	11-PDRM	5.	20.	230.
	11-STAIRS	1.	14.	0.
	12-BATH	16.	30.	773.
	12-BATH 2	24.	31.	1131.
	12-BEDROOM 3	68.	85.	3220.
	12-BEDROOM 4	65.	88.	3079.
	12-BEDROOM 5	86.	95.	4069.
	12-ENSUITE	38.	38.	1781.
	12-HALL	19.	22.	909.
	12-LAUNDRY	7.	21.	311.
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	12-W.L.C.	8.	18.	397.
	1B-BSMT	298.	62.	14139.
	Totals:			
		1410	1407	66769

City of Ottawa
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April 23, 2025
Building Code Reviewed

Olivia Gauthier
Reviewer Name

Linda Mcparlan
24279



Opt.Toilet Fan Check Work Ticket

Dryer
Always on
Right

Description
250408.1AK Newington 2024 4B&3T+InLawSuite+Std
250415.AK Newington 2025 4Bed+InLawSuite+Std

City of Ottawa
Building Code Services
April 23, 2025
Building Code Reviewed
Olivia Gauthier
Reviewer Name

Heat Loss				
Quantity	Room Name	Htg cfm	Clg cfm	Htg btu
11-1	DININGROOM	39	52	1860
11-1	ENIUTE 1	21	28	979
11-1	FOYER	36	26	1687
11-1	GREATROOM	319	336	15134
11-1	INLAW SUITE	60	100	2855
11-1	KITCHEN	81	97	3823
11-1	MUD	39	23	1830
11-1	OFFICE	76	91	3613
11-1	PANTRY	11	17	518
11-1	PDRM	5	20	230
11-1	STAIRS	1	14	0
12-2	BATH	16	30	773
12-2	BATH 2	24	31	1131
12-2	BEDROOM 3	68	85	3220
12-2	BEDROOM 4	65	88	3079
12-2	BEDROOM 5	86	95	4069
12-2	ENSUITE	38	38	1781
12-2	HALL	19	22	909
12-2	LAUNDRY	7	21	311
12-2	MASTERBEDROOM	93	113	4431
12-2	W.L.C.	8	18	397
12-2	BSMT	298	62	14139
Totals:		1410	1407	66769



Kollaard Associates

Engineers

210 Prescott Street
P.O. Box 189
Kemptville, Ontario K0G 1J0

Civil • Geotechnical •
Structural • Environmental •
Hydrogeology •

(613) 860-0923

FAX: (613) 258-0475

January 23, 2025

Kollaard File # 250021 – LOT87

Phoenix Homes
18A Bentley Avenue
Ottawa, Ontario
K2E 6T8

Attn: Sandy Pollock
Tel: 613-723-9227 x 165
Email: spollock@phoenixhomes.ca



Re: Proposed Single Family Dwelling, Lot # 87 Chandelle Private, Diamondview Estates, Carp, City of Ottawa, Kollaard Associates File # 250021

With regard to structural issues only, Kollaard Associates has reviewed the following drawings:

- Phoenix Homes, 88 Chandelle Private, Pages # 1M to 8M, Dated" 07/12/2024
- Grandor Lumber Inc., Roof Truss Layout, Newington "M", Dated: 21/07/2021
- Grandor Lumber Inc., 2nd Floor Joist Layout, Lot DV3-87, Newington M, Dated: 2025/01/14
- Grandor Lumber Inc., 1st Floor Joist Layout, Lot DV3-87, Newington M, Dated: 2025/01/14

Kollaard Associates offers the following comments:

Second Floor Plan – Page # 4M:

1. It is the opinion of Kollaard Associates that the proposed lintels and supporting posts shown on Phoenix Homes Pages # 4M are adequate.
2. The proposed tall wall noted on Phoenix Homes Pages # 1M is adequate.
3. Posts supporting girders may consist of built up 2x6 posts as indicated on Phoenix Homes Pages # 4M and are laterally supported by plywood or OSB sheathing (i.e. posts form part of sheathed exterior walls unless noted).
4. Roof truss and girder truss designs are by the manufacturer.

Ground Floor Plan – Page # 3M:

5. It is the opinion of Kollaard Associates that the proposed lintels, beams and supporting posts shown on Phoenix Homes Pages # 3M are adequate.
6. Ramset a 2x6 to the top flange of all steel beams to attach the above framing, floor joists and flush LVL beams.

7. The proposed web packing of the web of the steel beam to fasten the face mounted hangers shown on Phoenix Homes Pages # 8M is adequate.
8. Roof truss designs are by others.
9. Floor joist design and flush LVL beams within the floor structure are by the manufacturer.

Basement Plan – Page # 2M:

10. It is the opinion of Kollaard Associates that the proposed steel beams steel posts shown on Phoenix Homes Pages # 2M are adequate.
11. The front porch slab reinforcement described on Phoenix Homes Pages # 1M is adequate.
12. The remaining proposed foundation walls conform to 2012 OBC Table 9.15.4.2.A. ensuring that the grade difference between the basement slab and the exterior grade (including the garage slab) does not exceed 7'-6½" for the full height 7'-10" foundation walls.
13. The proposed strip footings, interior pad footings and exterior pad footings shown on Phoenix Homes Page # 2M and noted on Phoenix Homes Page # 1M are adequate.
14. The proposed deck and steel bracket support are designed and approved by others (DS Structural Design, Dwg. # SK-1, Dated December 2019).
15. Floor joist design, flush LVL beams within the floor structure and LVL lintels are by the manufacturer. The posts supporting the flush LVL lintels shown on Phoenix Homes Pages # 2M are adequate.

General Notes:

16. All gravity loads to be carried to foundation through solid blocking.
17. Roof truss and girder truss designs are by the manufacturer. Note that the roof truss manufacturer has designed the girder trusses mentioned in this report. The comments provided by Kollaard Associates in this report are based in part on the design indicated in the roof truss layout. If a different roof truss layout is used in construction, comments made in this report may no longer be valid. Provide Kollaard Associates with the full truss package prior to construction.
18. Floor joist design and flush LVL beams/lintels are by the manufacturer. Note that the floor joist supplier has designed the flush LVL beams/lintels shown on the building drawings and shown on the floor joist layouts. The comments provided by Kollaard Associates in this report are based in part on the design indicated in the floor joist layouts. If different floor joist layouts are used in construction, comments made in this report may no longer be valid.
19. The self supporting stairs are to be designed by the stair manufacturer.
20. All dimension lumber, except non-load bearing 8 ft 2x6 studs to be No.2 grade SPF or better.
21. Non-load bearing 8 ft 2x6 studs to be No.3 or Stud grade SPF or better.
22. All guards to be as per OBC SB-7, unless otherwise mentioned and designed by others.
23. All brick lintels to be as per OBC Table 9.20.5.2.B.

City of Ottawa
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April 23, 2025
Building Code Reviewed

Olivia Gauthier
Reviewer Name

24. Unless otherwise noted, LVL to be 1.8E 3000Fb LVL (Canadian Limit States bending strength of at least 39.5 MPa) with 1¾" nominal width or better.
25. Pemco Steel adjustable posts are designed and approved by the manufacturer. The adjustable steel posts are designed for a maximum allowable load of 106.8 kN at a maximum height of 9'-3".
26. All 3" x 3" x 3/16" HSS posts c/w 6" x 6" x 3/8" top and bottom bearing plates.
27. The assumed soil bearing resistance of 60 kPa is to be verified prior to construction.
28. Comments provided in this report are made in consideration of Part 9 and Part 4 (where applicable) of the 2024 OBC as amended.
29. This report constitutes a review of the structural information indicated on the building plans cited in this report for the client indicated above.

We trust this letter provides sufficient information for your present purposes. If you have any questions concerning this letter please do not hesitate to contact our office.

Sincerely,
Kollaard Associates Inc.



Christopher Cogliati, P.Eng.





Mechanical Design Report Low rise residential

Location of Installation	Address	House Builder PHOENIX
	Application Number	House Model (if applicable) NEWINGTON 4BED IN-LAW SUITE
Installing Contractor	Name	
	Address	
	City	Postal Code
	Telephone Number	Fax Number

SYSTEM DESIGN PARAMETERS

Combustion Appliances 9.32.3.1.(1) a) <input checked="" type="checkbox"/> Direct vent (sealed combustion) only b) <input type="checkbox"/> Positive venting induced draft (except fireplaces) c) <input type="checkbox"/> Natural draft, B-vent or induced draft fireplace d) <input type="checkbox"/> Solid Fuel (including fireplaces) e) <input type="checkbox"/> No Combustion Appliances	Heating System <input checked="" type="checkbox"/> Forced Air <input type="checkbox"/> Non Forced Air <input type="checkbox"/> Electric Space Heat <input type="checkbox"/> Radiant Floor Heat (attach pipe details) <input type="checkbox"/> Geothermal (attach loop, pipe & well details) <input type="checkbox"/> High Velocity Residential (attach duct details) <input type="checkbox"/> Other:
House Type 9.32.3.1.(2) <input checked="" type="checkbox"/> I Type a) or b) appliances only, no solid fuel <input type="checkbox"/> II Type I except with solid fuel (including fireplace) <input type="checkbox"/> III Any Type c) appliance = Part 6 Design <input type="checkbox"/> IV Electric space heat <input type="checkbox"/> Other: No forced air = Option 4	System Design Option <input type="checkbox"/> Exhaust Only/Forced Air System <input checked="" type="checkbox"/> HRV with Exhaust Ducts/Forced Air System <input type="checkbox"/> HRV Simplified Connection to Forced Air System <input type="checkbox"/> HRV – Full Ducting/Not Coupled to Forced Air System <input type="checkbox"/> Part 6 Design <input type="checkbox"/> Other:

EQUIPMENT DESIGN REQUIREMENTS

Total Ventilation Capacity 9.32.3.3.(1)					TOTAL	
Master Bedroom	1	x	10 L/s	=	10 L/s	
Unfinished Basement	1	x	10 L/s	=	10	
Other Habitable Rooms	14	x	5 L/s	=	70	90 T.V.C.
Principal Ventilation Capacity 9.32.3.4.(1)						
Master Bedroom	1	x	15 L/s	=	15 L/s	
Other Bedrooms	4	x	7.5 L/s	=	30	45 P.V.C.
Required Supplemental Ventilation Capacity (T.V.C. less P.V.C.) =					45	
Furnace size: _____ KJ or <u>80,000</u> BTU						
Air conditioner size: _____ KJ or _____ BTU or <u>3.5 TON</u> Tonnes (If provided / applicable)						
Heating / Cooling Equipment sized according to heat loss/gain calculations of CAN/CSA F280-12:						<input checked="" type="radio"/> Yes <input type="radio"/> No
Geothermal Equipment designed according to CAN/CSA-C448.2:						<input type="radio"/> Yes <input checked="" type="radio"/> No
Hydronic Equipment designed according to CAN/CSA-B214:						<input type="radio"/> Yes <input checked="" type="radio"/> No
Duct (and pipe) schematic attached including sizes, runs and material used:						<input checked="" type="radio"/> Yes <input type="radio"/> No

VENTILATION EQUIPMENT**Heat Recovery Ventilator**Model: CLEAN COMFORT VH30120TRP HRV90 L/s High 45 L/s Low 64 % Sensible Efficiency @ -25°C**Proposed Exhaust Fans**

	Location	Model	L/s	Sones	Principal or Supplemental
1	PDRM	DX90	45	2.5	PRINCIPAL
2	ENSUITE	EC50	25	3.	SUPPLEMENTAL
3	BATH	EC50	25	3.	SUPPLEMENTAL
4	BATH 2/BATH 3	EC50/EC50	25/25	3./3.	SUPPLEMENTAL

EQUIPMENT EFFICIENCIES (Please also refer to Energy Efficiency Design Summary)Heating system: GOODMAN GM9C960804CNACooling system (if applicable): GOODMAN GSXN3042

Water heater:

HRV: % sensible efficiency at 0 degrees: 80% sensible efficiency at -25 degrees: 64**DESIGNER CERTIFICATION**

I hereby certify that this ventilation system has been designed in accordance with the 2012 Ontario Building Code.

Name: LINDA MCPARLANCompany Name: HARDING MECHANICALSignature: Date: APR 15/25BCIN 24379HRAI # 6080**City of Ottawa**
Building Code ServicesApril 23, 2025
Building Code ReviewedOlivia Gauthier

Reviewer Name