STONECREST
ENGINEERING INC.
EST. 1995

May 30, 2025

55 Thunderbird Dr.
Courtland, Ontario

Attn: Fabian Serra

Re: SPPL2024378 – 2nd Submission Agency Comments and Schedule B Conditions

Dear Fabian Serra,

Thank you for your email enclosing the reviewers' comments for the above noted project. We have carefully reviewed the comments and have revised the drawings accordingly. The following chart provides responses to how the comments provided were addressed. The responder represents the organization responsible for the item based on the original comment, as follows:

- SEI - Stonecrest Engineering Inc.
- TVL - Trackless Vehicles Limited

If you have any questions or wish to further discuss this matter, please do not hesitate to contact me.

Sincerely,
STONECREST ENGINEERING INC.

Enclosure (1)

Isaac Easey

Isaac Easey,
Project Designer
Commercial·Residential·Agricultural
P·519·625·8025
C·226·808·2822

Planning

No.	Comment	Comment Response	Responder
1	Agreement information required this includes: o Securities Schedule Required o Land appraisal required	Owner to provide	TVL

Development Engineering

No.	Comment	Comment Response	Responder
1	Please revise note #24 to indicate 10 AWG gauge tracer Wire as the approved Norfolk County Material instead of 12 AWG.	No new services are proposed	SEI
2	Please label size and inverts of proposed sanitary monitoring manhole 2. Per Norfolk County Design Criteria Section 9.7.00, minimum slope for sanitary infrastructure within the ROW should be 2%.	No services proposed	SEI
3	The site plan lacks sufficient lane width for safe delivery truck maneuvering at the rear of the property. Furthermore, angled parking results in limited turning radii forcing customers/employees to reverse into a negative turn near a highly sloped area (31.0%) creating safety hazards. It is recommended to revise the design to provide adequate lane widths, turning radii, and/or reconfigure parking to ensure safe truck access and maneuverability on the parking area.	Noted	

Development Engineering:

No.	Comment	Comment Response	Responder
1.	Include location and specification of all existing and proposed services.	No new services proposed	SEI
2.	Include a section and grades through the side yard swale	Sectional detail provided	SEI
3.	Provide interior gravel driveway and asphalt entrance specifications.	Note added for Granular A and B	SEI
4.	Silt fence is to reference Ontario Provincial Standards for material and installation details	Added Silt fence	SEI
5.	Note #7 references the County of Oxford. This is to be revised to reference Norfolk County	Revised	SEI
6.	Functional Servicing Report: Not submitted. Please include this report in your next submission.	No new services proposed	SEI

7.	Please confirm the water supply source for the proposed dry hydrant and storage tank.	Dry hydrant not required	SEI
8.	Please confirm the existing connection to the municipal drain outlet. Specifically, is it an existing ditch, swale, or pipe structure? Current Norfolk County mapping does not show any infrastructure in this area.	No services serve/ connects municipal outlets	SEI
9.	Please confirm, through calculations, post-development runoff does not exceed Pre-development rates because of the proposed building. Please demonstrate there is negligible impact on neighboring properties and the municipal drain outlet	Change in imperviousness is minimal. The proposed building is located at the rear (northeast) corner of the property, away from the existing municipal outlet, and will not introduce any additional flow to municipal infrastructure. Runoff is onto existing landscaped areas, promoting natural infiltration and preventing impacts offsite.	SEI
10.	Please confirm if the building is required to be sprinklered and if the proposed hydrant requires an extension of the existing fire service.	Not applicable to the proposed type of the building	SEI

Ministry of Transportation

No.	Comment	Comment Response	Responder
1	MTO Building and Land Use Permit will be required.	MTO has been submitted	TVL

To be Satisfied Prior to Site Plan Agreement

No.	Comment	Comment Response	Responder
1	THAT the Owner shall submit a revised security schedule including landscape costs as per the County Staff's comments to the satisfaction of Norfolk County;	Understood and supplied	TVL
2	AND FURTHER THAT the Owner shall submit a revised appraisal as per the County Staff's comments to the satisfaction of Norfolk County; Only the appraisal of the lands are required to calculate the cash-in-lieu of Parkland Dedication.	Understood and supplied	TVL
3	AND FURTHER THAT prior to final plan approval, the Owner shall complete the required Stormwater Management Plan and Report; carry out the recommendations and any necessary mitigation to the satisfaction of appropriate Ministry and Norfolk County	The Stormwater Management Plan and Brief have been completed and provided.	SEI
4	AND FURTHER THAT the Owner shall agree, prior to final plan approval, to confirm that water capacity remains available for the development proposed site plan or any phase thereof	The proposed development does not require waterline	SEI
5	AND FURTHER THAT if the proposed design is to connect to the Municipal Water System, then prior to Site Plan approval the applicant must conduct Water Modelling through the County's 3rd Party Modelling consultant. This will be at the expense of the Applicant/Owner.	The proposed design will not be connecting to the Municipal Water System	SEI
6	AND FURTHER THAT the Owner shall agree, prior to final plan approval, to complete all requirements of the MTO and that Norfolk County will receive a copy of MTO approval prior to Site Plan Agreement.	MTO permit has been submitted and ongoing	TVL

To be Satisfied Prior to Building Permit

No.	Comment	Comment Response	Responder
1	AND FURTHER THAT provided water supply for firefighting with storage calculations, type of storage and dry hydrant details to the satisfaction of the Building Department. [OBC 3.2.5.7, A-3.2.5.7]	There is no proposed on-site water supply or dry hydrant	SEI
2	AND FURTHER THAT indicate barrier free path of travel from parking area to building entrance to the satisfaction of the Building Department. Construction of curb cuts and location of tactile attention indicators is required. [OBC 3.8.1.3, & 3.8.3.2], ***If 2025 permit*** Location and design of barrier-free path of travel to 2024 OBC requirements. This includes exterior barrier-free path of travel to designated accessible parking spaces, exterior passenger loading areas; if applicable, and a public thoroughfare.	The building is designed as non-barrier free. No barrier free entrance is required	SEI
3	Additional comments: Building is to meet the requirements of OBC Division B 3.2.2. Building to have a 45 minute fire-resistance rating on the roof and supporting construction, fire-retardant treated roof system or face 2 streets, with fire access panels. [OBC Division B 3.2.2.71 or 3.2.2.72, ***If 2025 permit, OBC Division B 3.2.2.78, or 3.2.2.80] Changes to the design may require a site plan amendment.	The building has been designed to meet the requirements under 3.2.2.87. and as such the roof does not require a fire-resistance rating	SEI

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Re: SPPL2024378 – Agency Comments

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Thank you for your email enclosing the reviewers' comments for the above noted project. We have carefully reviewed the comments and have revised the drawings accordingly. The following chart provides responses to how the comments provided were addressed. The responder represents the organization responsible for the item based on the original comment, as follows:

- SEI - Stonecrest Engineering Inc.
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If you have any questions or wish to further discuss this matter, please do not hesitate to contact me.

Sincerely,
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Enclosure (1)

Isaac Easey

Isaac Easey,
Project Designer
Commercial·Residential·Agricultural
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Planning

No.	Comment	Comment Response	Responder
1	Parking spaces to be dimensioned (both standard and accessible spaces) • The proposed regular parking spaces do not meet the minimum size of 3m x 5.8m • The minimum accessible space size is 3.3m x 5.8m for type A and 2.4m x 5.8m for type B with a 1.5-meter-wide access aisle beside the space.	Parking space dimensions have been added for the existing / proposed regular and accessible spaces.	SEI

Zoning

No.	Comment	Comment Response	Responder
1	The proposed building height is 9.51m, building height is measured from average grade at the front of the building to the peak of the roof. This meets the provision for MG zone.	Noted.	SEI
2	The required number of parking spaces is 15 for the new building + 105 for the existing building. 2 type A and 3 type B accessible parking spaces are required. The site plan is showing a total of 124 parking spaces which meets the minimum required in section 4.0. The site plan is showing 5 existing accessible parking spaces.	Noted.	SEI
3	The proposed regular parking spaces do not meet the minimum size of 3m x 5.8m	The proposed parking sizes have been adjusted to meet the minimum size requirements.	SEI
4	The minimum accessible parking space size is 3.3m x 5.8m for type A and 2.4m x 5.8m for type B with a 1.5m meter wide access aisle beside the space. The existing accessible spaces should be dimensioned to verify the size.	The existing accessible parking spaces have been dimensioned to verify compliance.	SEI

Ministry of Transportation

No.	Comment	Comment Response	Responder
1	The subject property is located adjacent to Highway 3, which is classified as Arterial and designated as a Controlled Access Highway (CAH). As such, all requirements, guidelines, and best practices in accordance with this classification and designation shall apply.	Noted.	SEI
2	The owner should be aware that the property does fall within the MTO's Permit Control Area, and as such, MTO Permits are required before	Noted.	SEI

	any demolition, grading, construction, or alteration to the site commences. In accordance with the Ontario Building Code, municipal permits may not be issued until such time as all other applicable requirements (i.e.: MTO permits/approvals) are satisfied. As a condition of MTO permit(s) MTO will require the following for review approval:		
3	Traffic Impact Brief. Typically, on a company letter head stating any proposed increase to traffic. (Please also include an explanation for the 14 additional parking spots).	Trackless Vehicles Limited has provided a letter in regard to the traffic and additional parking spots	TVL
4	A grading plan showing the flow / direction of drainage for the entire site. Once these items have been addressed and resubmitted to MTO for review, the proponent can then apply for the following permits: 1-MTO Building and Land Use Permit will be required for the site	Existing condition plan provided.	SEI
5	Individual Encroachment Permits may be required, should any servicing connections/infrastructure be required within MTO property limits, where connections are not possible from Thunderbird Drive.	Noted.	SEI

Agreement Coordinator

No.	Comment	Comment Response	Responder
1	If performance securities for your development's infrastructure and landscaping works are determined to be necessary by your planner and/or development engineering technologist a site plan agreement will be required. If an agreement is a requirement of site plan approval, please reach out and I will assist you with submission and ultimate registration.	Noted.	SEI

Building

No.	Comment	Comment Response	Responder
To be satisfied prior to building permit.			
1	The Owner shall agree to make application for a Building Permit, and obtain the necessary Building Permits prior to commencing construction.	Noted.	SEI
2	AND FURTHR THAT all applicable law approvals as required by the Ontario Building	Noted.	SEI

	Code and supporting documentation from approval agencies re submitted with a building permit application. [OBC Division A 1.4.1.3] Specifically: Site Plan Approval, MTO corridor management.		
3	AND FURTHER THAT the Ontario Building Code requires that the project described above be designed and reviewed during construction by an architect, professional engineer or both that are licensed to practice in Ontario, including Site Servicing. NOW THEREFORE, the Owner, being the person who intends to construct or have the building constructed hereby warrants that: 1. The undersigned architect and/or professional engineers have been retained to provide general reviews of the construction of the building to determine whether the construction is in general conformity with the plans and other documents that form the basis for the issuance of a building permit, in accordance with the performance standards of the Ontario Association of Architects (OAA) and/or Professional Engineers Ontario (PEO); 2. All general review reports by the architect and/or professional engineers will be forwarded promptly to the Chief Building Official, and 3. Should any retained architect or professional engineers cease to provide general reviews for any reason during construction, the Chief Building Official will be notified in writing immediately, and another architect or engineer will be appointed so that general review continues without interruption during construction.	Noted.	SEI
4	AND FURTHER THAT provided water supply for firefighting with storage calculations, type of storage and dry hydrant details to the satisfaction of the building Department. [OBC 3.2.5.7, A-3.2.5.7] Comments: a) dry hydrant is to be within 3.0m of dry hydrant connection in accordance with Norfolk County Fire Department - dry hydrant detail.	Noted.	SEI

	b) water supply numbers not provided at time of site plan approval. Changes to the design may require a site plan amendment.		
5	AND FURTHER THAT indicate barrier free path of travel from parking area to building entrance to the satisfaction of the Building Department. Construction of curb cuts and location of tactile attention indicators is required. [OBC 3.8.1.3, & 3.8.3.2], ***If 2025 permit*** Location and design of barrier-free path of travel to 2024 OBC requirements. This includes exterior barrier-free path of travel to designated accessible parking spaces, exterior passenger loading areas; if applicable, and a public thoroughfare.	Noted.	SEI
To be satisfied prior to occupancy inspection.			
1	AND FURTHER THAT all final letters of general conformity by the architect and/or professional engineers will be forwarded promptly to the Chief Building Official, including site services.	Noted.	SEI
2	Additional comments. Building is to meet the requirements of OBC Division B 3.2.2. Building to have a 45-minute fire-resistance rating on the roof and supporting construction, fire-retardant treated roof system or face 2 streets, with fire access panels. [OBC Division B 3.2.2.71 or 3.2.2.72, ***If 2025 permit, OBC Division B 3.2.2.78, or 3.2.2.80] Changes to the design may require a site plan amendment.	The proposed building will be designated F-3 Low hazard and will not require a 45-minute rating on the roof. This has been updated in the OBC matrix	SEI

No.	Comment	Comment Response	Responder
1	If performance securities for your development's infrastructure and landscaping works are determined to be necessary by your planner and/or development engineering technologist a site plan agreement will be required. If an agreement is a requirement of site plan approval, please reach out and I will assist you with submission and ultimate registration.	Noted.	SEI

Norfolk Fire

No.	Comment	Comment Response	Responder
1	Ensure that there is adequate space and access provided for the fire department dry hydrant and for fire apparatus	Noted.	SEI
2	Ensure all required fire protection and detection systems stipulated in the OBC are provided	Noted.	SEI
3	If battery storage or electric vehicle charging infrastructure is being installed please notify NCFD	Noted.	SEI

Enbridge Gas

No.	Comment	Comment Response	Responder
1	Zoning Notices: Enbridge Gas does not object to the proposed application(s), however, we reserve the right to amend or remove development conditions.	Noted.	SEI
2	Draft plan of Condo or Subdivision: All Ontario except City of Hamilton: Thank you for your correspondence with regards to draft plan of approval for the above noted project. It is Enbridge Gas Inc.'s request that prior to registration of the plan, the Owner shall make satisfactory arrangements with Enbridge Gas Inc. (Enbridge Gas) to provide the necessary easements and/or agreements required by Enbridge Gas for the provision of local gas service for this project. Once registered, the owner shall provide these easements to Enbridge Gas at no cost, in a form agreeable and satisfactory to Enbridge Gas. City of Hamilton: Please contact gdssoutheastnewbusinesshamilton@enbridge.com to receive formal comment.	Noted.	SEI
3	Site Plan-All Ontario except the City of Hamilton: Thank you for your correspondence regarding the proposed Site Plan Application. Enbridge Gas Inc. (Enbridge Gas), does have service lines running within	Noted.	SEI

	the area which may or may not be affected by the proposed Site Plan. Should the proposed site plan impact these services, it may be necessary to terminate the gas service and relocate the line according to the new property boundaries. Any service relocation required would be at the cost of the property owner. If there is any work (i.e. underground infrastructure rebuild or grading changes…) at our easement and on/near any of our existing facilities, please contact us as early as possible (minimum 1 month in advance) so we can exercise engineering assessment of your work to ensure the integrity of our main is maintained and protected. Confirmation of our natural gas pipeline location should be made through Ontario One Call 1-800-400-2255 prior to any activity. We trust the foregoing is satisfactory. City of Hamilton: Please contact gdssoutheastnewbusinesshamilton@enbridge.com to receive formal comment.		
	Severance Application: It is the responsibility of the applicant to verify the existing gas servicing does not encroach on more than one property when subdividing or severing an existing land parcel. Any service relocation required due to a severance would be at the cost of the property owner. For any encroachments, please contact ONTLands@enbridge.com	Noted.	

Drainage

No.	Comment	Comment Response	Responder
1	The application is within the watershed of the Mills-South Norwich Drain and the drain is located North of the existing chain link fence on the North end of the property. However according to the plans the proposed building is within the required distance from the drain (9 meters from top of bank) and therefore I do not see any issues.	Noted.	SEI

Realty Services

No.	Comment	Comment Response	Responder

1	Should a Development Agreement be required for your project, then the Couty will require postponements of all charges/mortgages (if any) registered on title to your property, in favour of the County's Development Agreement. We recommend that you contact your Lender(s) (if any) and/or your solicitors as early as possible to avoid any delays in your project.	Noted.	TVL

Hydro One

No.	Comment	Comment Response	Responder
1	Reviewed. No comments from Hydro Onne.	Noted.	SEI

GIS

No.	Comment	Comment Response	Responder
1	Reviewed. No comments from GIS.	Noted.	SEI

Paramedic Services

No.	Comment	Comment Response	Responder
1	Reviewed. No comments from Paramedic Services.	Noted.	SEI

Accessibility

No.	Comment	Comment Response	Responder
1	Reviewed. No comments.	Noted.	SEI

STONECREST ENGINEERING INC.
EST. 1995

P·519·625·8025 *stonecrestengineering.com*

May 29, 2025

To:
Norfolk County
60 Colborne St. S.
Simcoe, ON
N3Y 4H3

Attn: *Andrew Wallace*

Stormwater Brief

Trackless Vehicles Cold Storage Barn

Stonecrest Engineering has been retained to review the impacts on the site grading, drainage and stormwater runoff resulting from the construction of a 371m^2 (4,000ft^2) cold storage barn at the Trackless Vehicles site, located at 55 Thunderbird Dr., Courtland, ON. The proposed barn will be constructed to the north-east of the existing site. The proposed area is currently a grassed area. The proposed building will be accessed via a gravel driveway extending off the existing parking lot.

A site area of 106,850 m^2 has been used to compare the existing and proposed site. The existing conditions of the site include: 9400 m^2 of buildings, 14,974 m^2 of gravel/asphalt/concrete and 82,475 m^2 of grassed and landscaped areas. This results in a 22.8% of the site being impervious. The proposed conditions of the site include: 10,700 m^2 of buildings, 18,067 m^2 of gravel/asphalt/concrete and 78,082m^2 of grassed and landscaped areas. This results in a 26.9 % of the site being impervious.

This change in impervious coverage is minor and therefore it is assumed that no measurable increase in stormwater runoff will occur because of the proposed development. The proposed building will be serviced exclusively with electrical utilities; no connections to municipal water, sanitary, or storm drainage infrastructure are proposed as part of this development.

A substantial portion of the site remains as landscaped and grassed open space, which currently facilitates the infiltration of sheet runoff. The proposed building is located at the rear (northeast) corner of the property, away from the existing municipal outlet, and will not introduce any additional flow to municipal infrastructure.

To maintain existing drainage conditions, a shallow side yard swale is proposed to intercept and convey runoff from the new structure toward the existing overland slope within the property. This swale directs flow away from adjacent neighboring property and into the existing landscaped areas, promoting natural infiltration and preventing impacts offsite.

Summary of existing and proposed site characteristics:

Total area of the site:	Approx. 106,850m^2 (10.7ha)
Existing Conditions:	
Total Building area	9,400m^2
Total Pavements area	14,974 m^2
% impervious surfaces	22.8%
Proposed Conditions:	
Total Building area	10,700m^2
Total Pavements area	18,067 m^2
% impervious surfaces	26.9%

Prior to the start of site work, it is recommended that a light duty silt fence is to be installed surrounding the areas where runoff is affected by the addition. As there will be minimal change to the existing site runoff because of the building addition, no additional stormwater quantity or quality measures have been proposed under this submission.

We trust that this meets your approval, should any further questions arise please do not hesitate to reach-out at your convenience.

Kind regards,

Nick Hendry, P. Eng
President

DRAWINGS PROVIDED FOR

TRACKLESS VEHICLES

LOW FIRE LOAD F-3 WAREHOUSE

55 THUNDERBIRD DR. COURTLAND, ONTARIO

FOOTING SCHEDULE

No.	SIZE	REINFORCEMENT	MIN. 28 DAY STRENGTH
PF1	36" x 8"	• (4) 15M E.W. BOT.	25MPa
SF1	24" x 8"	• (2) 15M CONT.	25MPa

FOUNDATION WALL SCHEDULE

No.	THICKNESS	REINFORCEMENT	MIN. 28 DAY STRENGTH
FW1	8"	• 15M VERT. REBAR AT 48"o.c. • 15M HORIZ. REBAR AT 24"o.c. • (1) 15M AT TOP OF WALL	25MPa

CONCRETE NOTES:
1. REFER TO CONCRETE PROPERTIES CHART FOR CONCRETE MIX SPECIFICATIONS MINIMUM COMPRESSIVE STRENGTH MEASURED AT 28 DAYS.
2. GC / CONCRETE CONTRACTOR TO REVIEW CONCRETE STRENGTH CHART AND ENSURE STRENGTH MATCHES ON-SITE CONDITIONS.

FLOOR SCHEDULE

No.	ASSEMBLY	MIN. 28 DAY STRENGTH
FL1	• 6" (MIN.) POURED IN PLACE CONCRETE FLOOR SLAB • 6mil. POLY VAPOUR BARRIER (RECOMMENDED) • 6" (MIN.) COMPACTED GRANULAR BASE • COMPACTED NATIVE SOIL OR ENGINEER APPROVED MATERIAL	25MPa

WALL SCHEDULE

No.	ASSEMBLY	FIRE RATING
EW1	• 29ga. HI-RIB STEEL c/w SCREW FASTENERS • 2x4 WOOD STRAPPING AT 24"c/c • TYVEK AIR BARRIER OR EQUIV. (TAPE ALL SEAMS) • 2x8 WOOD STUDS SPACED AT 24"c/c	N/A
EW2	• 29ga. HI-RIB STEEL c/w SCREW FASTENERS • 2x4 WOOD STRAPPING AT 24"c/c • TYVEK AIR BARRIER OR EQUIV. (TAPE ALL SEAMS) • 2x6 WOOD STUDS SPACED AT 16"c/c	N/A
EW3	• 29ga. HI-RIB STEEL c/w SCREW FASTENERS • 2x4 WOOD STRAPPING AT 24"c/c • TYVEK AIR BARRIER OR EQUIV. (TAPE ALL SEAMS) • 2x8 WOOD STUDS SPACED AT 24"c/c • MIN. R-22 FIBREGLASS BATT INSULATION • 6mil POLY VAPOUR BARRIER(TAPE ALL SEAMS) • 5/8" TYPE 'X' DRYWALL (TAPED AND SANDED)	3/4hr

LINTEL / BEAM / HEADER SCHEDULE

No.	SIZE	END BEARING
L1	(2) 2x6	(1) 2x8 J & (2) 2x8 K
L2	(3) 2x12	(2) 2x8 J & (5) 2x8 K

ROOF SCHEDULE

No.	ASSEMBLY
RF1	• 29ga. HI-RIB COLOURED STEEL CLADDING c/w SCREW FASTENERS • 2x4 WOOD STRAPPING AT 24"c/c • PRE-ENGINEERED WOOD TRUSSES SPACED AS PER MFRS SPECS

STRUCTURAL DESIGN DATA MATRIX

1.	DEAD LOADS:	REFER TO FRAMING PLAN
2.	LIVE LOADS:	REFER TO FRAMING PLAN
3.	CLIMATIC DATA:	TILLSONBURG
4.	SNOW/RAIN LOADS:	
	IMPORTANCE FACTOR (Is)	Is (SLS) = 0.90 Is (ULS) = 1.00
	GROUND SNOW LOAD (S_S1/50)	1.30 kPa — REFER TO DEISGN LOADS ON FRAMING PLANS FOR APPLICABLE DRIFT LOADING
	GROUND RAIN LOAD (S_R1/50)	0.40 kPa
	Cb	0.80
	Cw	1.00
	Cs	0.92
	Ca	1.00
	S (kPa)	1.36 kPa
	ROOF DRAINAGE	EXTERNAL ROOF DRAINS
5.	WIND LOAD:	
	IMPORTANCE FACTOR (Iw)	Iw (SLS) = 0.75 Iw (ULS) = 1.00
	WIND LOAD ($q_{1/50}$)	0.44 kPa
	BUILDING CATEGORY	2
6.	SEISMIC LOAD:	
	IMPORTANCE FACTOR (Ie)	Ie (ULS) = 1.00
	SEISMIC DATA (TILLSONBURG)	Sa(0.2) = 0.264 Sa(0.5) = 0.247 Sa(1.0) = 0.144 Sa(2.0) = 0.067 Sa(5.0) = 0.0175 Sa(10.0) = 0.0055
	SITE DATA	SITE CLASS: D Rd = 1.5 Ro = 1.5 IeFaSa(0.20) = 0.264
	DESIGN METHOD	EQUIVALENT STATIC FORCE PROCEDURE
7.	FOUNDATIONS:	
	DESCRIPTION	POURED CONC. FDN WALLS (SEE FDN PLAN)
	BEARING (SLS)	144 kPa (3000 psf)
	BEARING (ULS)	215 kPa (4500 psf)
8.	FUTURE CONSTRUCTION:	
	FUTURE ALLOWANCES	N/A
	FUTURE ADDITIONS	REFER TO PLAN

Item	Ontario Building Code Data Matrix Parts 3 & 9		OBC Reference	
1	Project Description: ☐ Change of Use ☑ New ☐ Addition ☐ Alteration Low Fire Load F-3 Warehouse	☐ Part 11	☑ Part 3	☐ Part 9 9.10.1.3.
2	Major Occupancy(s) F-3 Low Hazard Industrial		3.1.2.1.(1)	9.10.2.
3	Building Area (m²) Existing 0.00 New 1,300.60 Total 1,300.60		1.3.3.4.	1.1.3. & 1.3.3.3.
4	Gross Area Existing 0.00 New 1,300.60 1,300.60		1.3.3.4.	1.1.3. & 1.3.3.3.
5	Number of Storeys Above grade 1 Below grade 0		3.2.1.1 & 1.3.3.4.	1.1.2.4.
6	Height of Building (m) 5.5m (18'-0") (Finished Grade to Mean Ridge/Eave)			1.1.2.4.
7	Number of Streets/Access Routes ☑ 1 Street ☐ 2 Streets ☐ 3 Streets		3.2.2.10. & 3.2.5.4.	
8	Building Classification Group: F, Division: 2		3.2.2.87	9.10.2.1.
9	Sprinkler System Proposed ☐ Entire Building ☐ Basement Only ☐ In Lieu of Roof Rating ☑ Not Required		3.2.2.87 3.2.1.5. 3.2.2.18.	9.10.8.
10	Standpipe required ☐ Yes ☑ No		3.2.5.8.	
11	Fire Alarm required ☐ Yes ☑ No		3.2.4.	9.10.18.
12	Water Service/Supply is Adequate ☐ Yes ☐ No ☑ N/A		Exempt	
13	High Building ☐ Yes ☑ No		3.2.6.	
14	Permitted Construction ☑ Combustible ☑ Non-Combustible Actual Construction ☑ Combustible ☐ Non-Combustible		3.2.2.87	9.10.6 .
15	Mezzanine(s) Area m² N/A		3.2.1.1.(3)-(8)	9.10.4.1.
16	Occupant Load Based on ☐ m²/Person ☑ Design of Building Total: N/A		3.1.17. Not to be Occupied on a Regular Basis	9.9.1.3.
17	Barrier-free Design ☐ Yes ☑ No (Explain)		3.8.	9.5.2.
18	Hazardous Substances ☐ Yes ☑ No		3.3.1.2.(1)	9.10.1.3.
19	Required Fire Resistance Rating (FRR) — Horizontal Assemblies FRR (Hours): Floors N/A Hours; Roof N/A Hours; Mezzanine N/A	Listed Design No. or Description (ULC/SB): N/A; N/A; N/A	3.2.2.20. - 3.2.2.93. & 3.2.1.4. & SB-2 N/A - Single Storey	9.10.8-.9. & SB-2 / SB-3
	FRR of Supporting Members: Floors N/A Hours; Roof N/A Hours; Mezzanine N/A Hours	Listed Design No. Or Description (ULC/SB): N/A; N/A; N/A	N/A - Single Storey	
20	Spatial Separation – Construction of Exterior Walls		3.2.3.	9.10.14.-15.
21	Other – Describe Facility desigend for intended low fire load warehouseing only, owner understands limitations of the usage of this facility under this designation (Refer to signed paperwork)			

	Wall	Area of EBF (m²)	L.D. (m)	L/H or H/L	Permitted Max. % of Openings	Proposed % of Openings	FRR (Hours)	Listed Design or Description	Non-Combustible Required Construction	Non-Combustible Required Cladding
Based on Project North	North	344.13	11	10.81	53	0	3/4	SB-2	No	Yes
	South	344.13	234.16	10.81	100	0	N/A	N/A	No	No
	East	18.6	239.87	3.78	100	0.48	N/A	N/A	No	No
	West	18.6	199.37	3.78	100	9.71	N/A	N/A	No	No

GENERAL NOTES

1. THIS BUILDING IS DESIGNATED COMMERCIAL, LOW HAZARD OCCUPANCY
2. ALL WORK TO BE COMPLETED AS PER ONTARIO BUILDING CODE, BUILDING CODE ACT, PLANNING ACT, ENVIRONMENTAL PROTECTION ACT, CONSERVATION AUTHORITIES ACT, CLEAN WATER ACT, FIRE PROTECTION AND PREVENTION ACT, ESA, SITE SERVICING APPROVALS, APPLICABLE ZONING AND SITE SPECIFIC RELATIVE BYLAWS, THIRD PARTY REGULATIONS (CONSERVATION AUTHORITY & MTO) SEPARATELY FROM ANY REQUIRED INSURANCE, WORK PLACE SAFETY (WORKPLACE SAFETY AND INSURANCE ACT & OCCUPATIONAL HEALTH AND SAFETY ACT), MINISTRY OF LABOUR AND OTHER CONTRACTUAL ITEMS THAT REMAIN THE RESPONSIBILITY OF OTHERS. ADDITIONAL ITEMS MAYBE APPLICABLE, ITEMS MENTIONED ARE NOT LIMITED TO THE LIST PROVIDED.
3. THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL RELATED CONTRACT DOCUMENTS.
4. DO NOT SCALE THESE DRAWINGS.
5. THESE DRAWINGS ARE BASED ON INFORMATION PROVIDED BY THE CLIENT. IF DRAWINGS ARE NOT REFLECTIVE OF EXISTING CONDITIONS, THE ENGINEER IS TO BE CONTACTED IMMEDIATELY.
6. THE CONTRACTOR SHALL MAKE ADEQUATE PROVISIONS FOR CONSTRUCTION LOADS AND TEMPORARY BRACING TO ENSURE THE BUILDING IS PLUMB AND IN TRUE ALIGNMENT AT ALL PHASES OF CONSTRUCTION AS PER O.REG 213/91. ALL BRACING MEMBERS SHOWN ON THE DRAWINGS ARE DESIGNED FOR THE FINISHED STRUCTURE AND MAY NOT BE SUFFICIENT FOR ERECTION PURPOSES.
7. FIELD REVIEW REQUIRED BY QUALIFIED ENGINEER IN ACCORDANCE WITH REQUIREMENTS FOR FIELD REVIEW UNDER OBC DIV B 4.2.2.
8. SOILS INCONSISTENT WITH STATED BEARING CAPACITY / ASSUMPTIONS TO BE REMOVED AND REPLACED WITH ENGINEERED FILL IN ACCORDANCE WITH OBC DIV B 4.2.2.2. IN CASE OF ANY CHANGES THE ENGINEER IS TO BE CONTACTED. REFER TO COMPLETE PROJECT NOTES FOR DETAILS
9. WHEN IN DOUBT AS TO THE INTERPRETATION OF THE DRAWINGS, THE ENGINEER IS TO BE CONTACTED.
10. OWNER TO ENSURE THAT ALL PATHS OF TRAVEL TO EXITS (REMAIN UNOBSTRUCTED BY WAREHOUSE MATERIAL STORAGE, AND ALL OTHER POSSIBLE OBSTRUCTIONS, AT ALL TIMES.
11. OWNER TO ENSURE THAT ALL ILLUMINATION REQUIRED FOR EXITS AND EGRESS REMAIN UNOBSTRUCTED BY WAREHOUSE MATERIAL STORAGE, AND ALL OTHER POSSIBLE OBSTRUCTIONS, AT ALL TIMES.
12. MEP ENGINEER TO CONFIRM FINAL PLACEMENT OF ALL PROPOSED EMERGENCY LIGHTING AND ENSURE ADEQUATE LIGHTING LEVELS ARE ACHIEVED AS PER 3.2.7.3.
13. THIS DRAWING SET IS THE PROPERTY OF STONECREST ENGINEERING AND MAY NOT BE DUPLICATED OR SHARED IN ANY FORM WITHOUT WRITTEN CONSENT FROM STONECREST ENGINEERING.
14. ANY PRELIMINARY DRAWINGS ARE NOT TO BE USED FOR FINAL COST ESTIMATES UNLESS INDICATED IN THE REVISIONS COLUMN. PRICING OR ESTIMATIONS COMPLETED FROM PRELIMINARY DRAWINGS SHOULD INCLUDE ADDITIONAL ALLOWANCES AND ALL SPECIFICATIONS TO BE RE-CHECKED BY THE OWNER / CONTRACTOR ON THE "ISSUED FOR PERMIT/CONSTRUCTION" DRAWING SET.
15. FINAL STAMPED ENGINEER/ARCHITECT-ISSUED PLANS ARE TO BE PROVIDED ONSITE AND TO ALL REQUIRED SUB-CONTRACTORS. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR OR OWNER TO DISTRIBUTE THE FINAL STAMPED PLANS. ANY TOWNSHIP OR CITY REDLINED/REVISED PLANS AFTER SUBMISSION FOR PERMIT, EITHER BE PROVIDED ONSITE THROUGHOUT THE DURATION OF CONSTRUCTION OR BE PROVIDED TO STONECREST ENGINEERING TO ISSUE REVISED “ISSUED FOR CONSTRUCTION” PLANS THAT IMPLEMENT THESE NOTATIONS. (IF THE TOWNSHIP CHANGES ARE SUBSTANTIAL, ADDITIONAL CHARGES MAY APPLY)
16. ALL PRODUCT AND MATERIALS TO BE INSTALLED AS PER THE SUPPLIER OR MANUFACTURER GUIDELINES. IMPROPER INSTALLATION, RESULTING IN DAMAGES, ARE NOT THE RESPONSIBILITY OF STONECREST ENGINEERING.
17. SUBSTITUTIONS OF THE SPECIFIED PRODUCT AND MATERIALS IS NOT PERMITTED WITHOUT WRITTEN CONSENT APPROVAL OF THE ENGINEER.

GENERAL REVIEW

1. IT IS THE RESPONSIBILITY OF THE APPLICANT / OWNER / CONTRACTOR TO CONTACT THE MUNICIPALITY FOR REVIEWS PERFORMED BY THE LOCAL BUILDING DEPARTMENT OR AHJ.
2. THE ENGINEER SHALL BE GIVEN MINIMUM 24 HOURS NOTICE BY THE CONTRACTOR FOR ALL CONSTRUCTION REVIEWS. SITE VISITS AND REVIEWS BY THE ENGINEER OR REPRESENTATIVE ARE INTENDED FOR THE SOLE PURPOSE OF ASCERTAINING GENERAL CONFORMANCE WITH THE DESIGN CONCEPT / CONTRACT DOCUMENTS. THE REVIEWS SHALL NOT MEAN THAT THE ENGINEER HAS SEEN ALL CONSTRUCTION METHODS AND PROCEDURES. REVIEW BY THE ENGINEER SHALL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY FOR ERRORS AND OMISSIONS AND FOR MEETING ALL THE REQUIREMENTS OF THE CONSTRUCTION AND CONTRACT DOCUMENTS.
3. WHEN REQUIRED BY O.B.C. DIVISION C 1.2.2.1. THE OWNER / CONTRACTOR MUST RETAIN THE SERVICES OF A PROFESSIONAL ENGINEER TO PERFORM A GENERAL REVIEW TO ENSURE THAT THE CONSTRUCTION IS IN GENERAL CONFORMITY WITH THE PLANS.
4. WHERE STONECREST ENGINEERING IS NOT PROVIDING GENERAL REVIEW, BUT HAS PROVIDED ENGINEERING COMPONENT DESIGN, THE OWNER / CONTRACTOR MUST PROVIDE THIRD PARTY REVIEW OR CONFIRM WITH THE AHJ IF THE COMPONENT IS REQUIRED TO BE REVIEWED.
5. STONECREST ENGINEERING REQUIRES THAT THE FOLLOWING COMPONENTS (NOT LIMITED TO) BE REVIEWED BY THE DESIGNER OR BY ANOTHER SUITABLY QUALIFIED PERSON(S):
   - SOIL CONDITIONS / FOOTINGS
   - CONCRETE REINFORCEMENT
   - COMPLETION OF FRAMING, AND OTHER SIMILAR COMPONENTS
   - FINAL REVIEW
   - ADDITIONAL REVIEWS MAY BE REQUIRED. CONTACT STONECREST ENGINEERING FOR CLARIFICATION PRIOR TO CONSTRUCTION.
6. THE CLIENT MUST REQUEST ADDITIONAL REVIEWS BE PERFORMED IF THERE IS ANY CONCERN ABOUT, OR CHANGES TO, ANY COMPONENT OF THE FACILITY. FAILURE TO NOTIFY THE ENGINEER IN SUCH SITUATIONS RELEASES THE ENGINEER OF LIABILITY FOR SUCH CHANGES OR COMPONENTS.
7. ADDITIONAL COMPONENTS TESTING MAY BE REQUIRED. CONTACT STONECREST ENGINEERING FOR CLARIFICATION PRIOR TO CONSTRUCTION. TESTING TO BE COMPLETED BY THIRD PARTY OR BY ANOTHER SUITABLY QUALIFIED PERSON(S) AND COPIES OF REPORTS TO BE PROVIDED. ADDITIONAL TESTING MAY INCLUDE (NOT LIMITED TO):
   - SOIL BEARING CAPACITY
   - SOIL COMPACTION
   - CONCRETE COMPRESSIVE STRENGTH TESTS (MIN. 2 SETS PER POUR OR 100m³)
   - CONCRETE AIR ENTRAINMENT
   - MORTAR CUBES (3 SETS PER FLOOR)
   - GROUT CUBES (3 SETS PER FLOOR)
   - STRUCTURAL STEEL FRAMING
   - EXTERIOR LIGHT WEIGHT STEEL FRAMING
8. P.ENG STAMPED SHOP DRAWINGS TO BE SUBMITTED TO STONECREST ENGINEERING FOR REVIEW PRIOR TO CONSTRUCTION INCLUDE, BUT NOT LIMITED TO:
   - CONCRETE MIX DESIGN
   - REBAR (INCLUDING FOR MASONRY WALLS)
   - PRE-ENGINEERED METAL BUILDING DRAWINGS
   - PRE-ENGINEERED WOOD TRUSS (INCLUDING HURRICANE / TIE-DOWN CLIPS)
   - STRUCTURAL STEEL (CONNECTIONS ONLY)
   - METAL DECK
   - LOAD BEARING / WIND BEARING STEELS STUDS
   - MISCELLANEOUS METALS
   - SHOP FABRICATED LUMBER (LVLs, PSLs, TJIs)
   - ACM PANELS AND EXTERIOR CLADDING
   - MASONRY MORTAR MIX DESIGN
   - MASONRY GROUT MIX DESIGN
   - SPRINKLER SYSTEM SHOP DRAWINGS
   - ELEVATOR SHOP DRAWINGS
   - PRECAST ELEMENTS
   - OPEN WEB STEEL JOISTS (INCL. CALC PACKAGE)
   - STOREFRONT WINDOWS AND GLAZING (INCL. CONNECTIONS)

EXCAVATION AND BACKFILL

1. ALL TOPSOIL AND OTHER FOREIGN MATERIAL TO BE REMOVED FROM BELOW BUILDINGS.
2. A GEOTECHNICAL ENGINEER IS REQUIRED TO BE RETAINED TO COMPLETE A SITE CHARACTERIZATION. A COPY OF THE REPORT MUST BE PROVIDED TO STONECREST ENGINEERING PRIOR TO THE RELEASE OF ENGINEER-STAMPED PLANS. THE CONTRACTOR IS TO READ AND FAMILIARIZE THEMSELVES WITH THIS DOCUMENT.
3. FOUNDATION DESIGN IS BASED ON GEOTECHNICAL REPORT INDICATED IN THE STRUCTURAL DESIGN DATA AND FOUNDATIONS HAVE BEEN DESIGNED FOR THE SOIL BEARING CAPACITY INDICATED. IF NO GEOTECHNICAL ENGINEER RETAINED, SOIL TYPE AND BEARING HAS BEEN ASSUMED AND IS TO BE VERIFIED PRIOR TO CONSTRUCTION.
4. REFER TO GEOTECHNICAL REPORT FOR REQUIRED FINISHED ELEVATION OF FOUNDATIONS.
5. SHOULD UNUSUALLY SOFT SOILS BE ENCOUNTERED DURING EXCAVATION, NOTIFY STONECREST ENGINEERING AND GEOTECHNICAL ENGINEER BEFORE PROCEEDING WITH CONSTRUCTION. CONTRACTOR MUST NOTIFY THE ENGINEER OF ANY CONCERNS WITH REGARDS TO, BUT NOT LIMITED TO, SOIL BEARING CAPACITY, SLOPE STABILITY, GROUNDWATER AND DRAINAGE.
6. SUBGRADE FOR SLAB-ON-GRADE TO BE PROOF-ROLLED AND ANY LOOSE AREA DETECTED TO BE SUB-EXCAVATED AND REPLACED WITH APPROVED COMPACTED FILL. GRANULAR FILL UNDER THE SLAB-ON-GRADE SHALL BE COMPACTED TO A MINIMUM 98% STANDARD PROCTOR DENSITY AT OPTIMUM MOISTURE.
7. COMPACTED FILL BENEATH FOOTINGS AND FLOOR SLABS SHALL BE COMPACTED IN MAXIMUM 150mm (6") LAYERS.
8. ALL BACKFILL MATERIAL TO BE FREE DRAINING GEOTECHNICAL APPROVED MATERIAL. IF SUITABILITY OF BACKFILL MATERIAL IS QUESTIONABLE, THE PROJECT ENGINEER AND GEOTECHNICAL ENGINEER IS TO BE CONTACTED IMMEDIATELY.
9. ALL BACKFILL SHALL BE PLACED SIMULTANEOUSLY AGAINST BOTH SIDES OF FOUNDATION WALLS. AT NO TIME SHALL THE DIFFERENCE IN ELEVATION BE GREATER THAN 24" EXCEPT WHERE TEMPORARY SUPPORT IS PROVIDED OR THE WALL IS DESIGNED FOR UNEVEN N PRESSURES.
10. FOOTING ELEVATIONS, IF SHOWN ON THE DRAWINGS, ARE FOR BIDDING PURPOSES ONLY. FOOTINGS MAY BE RAISED OR LOWERED DEPENDING ON BEARING CONDITIONS AND MUST BE RE-REVIEWED IN THE FIELD WITH THE CONTRACTOR WHEN NECESSARY.
11. ALL FOOTINGS TO BE FOUNDED ON FIRM UNDISTURBED GROUND CAPABLE OF SUPPORTING SPECIFIED BEARING CAPACITY AND TO HAVE A MINIMUM OF 48" OF COVER FOR FROST PROTECTION U.N.O.
12. MAXIMUM RATIO OF A STEPPED FOOTING SHALL BE 2:3 (i.e 2' DROP = 4' HORIZ.), UNLESS SPECIFIED OTHERWISE BY THE GEOTECHNICAL ENGINEER, AND TO BE FOUNDED ON FIRM BEARING.
13. IN THE EVENT THAT FILL IS REQUIRED UNDER FOOTINGS, FILL SHALL BE FREE-DRAINING CLEAN GRANULAR MATERIAL COMPACTED TO A MINIMUM 100% STANDARD PROCTOR DENSITY AT OPTIMUM MOISTURE AND AS DIRECTED BY THE GEOTECHNICAL ENGINEER.
14. ANY FILL MATERIAL USED IS TO BE REVIEWED AND APPROVED BY A QUALIFIED GEOTECHNICAL PROFESSIONAL AND A REPORT TO BE SUBMITTED TO STONECREST ENGINEERING.
15. IN AREAS SUBJECT TO FLOODING, ALL PROPOSED WORK TO MEET THE REQUIREMENTS OF THE MINISTRY OF THE ENVIRONMENT REGARDING FLOOD PROOFING.
16. CONTACT THE LOCAL BUILDING DEPARTMENT FOR INFORMATION.
17. SOIL CONDITIONS AND REINFORCING STEEL SHALL BE REVIEWED BY ENGINEER. CONTRACTOR SHALL GIVE THE ENGINEER A MINIMUM OF 24 HOURS NOTICE TO CARRY OUT REVIEW PRIOR TO POURING CONCRETE.
18. FINAL GRADING TO SLOPE AWAY FROM THE BUILDING.
19. DO NOT DISTURB OR UNDERMINE EXISTING FOOTINGS DURING CONSTRUCTION. CONTACT ENGINEER ACTUAL TD SHOULD UNDERPINNING DESIGN BE REQUIRED.
20. WHEN BACKFILLING, GC TO ENSURE LEVEL OF BACKFILL ON ONE SIDE OF THE WALL IS NEVER MORE THAN 500mm (20") HIGHER THAN THE LEVEL ON THE LOWER SIDE OF THE WALL EXCEPT WHERE TEMPORARY SUPPORT FOR THE WALL IS PROVIDED OR THE WALLS ARE DESIGNED FOR SUCH UNEVEN PRESSURES.
21. LOCATE ALL PIERS AND FOOTINGS CONCENTRIC UNDER COLUMNS AND WALLS UNLESS OTHERWISE NOTED.
22. HORIZONTAL CONSTRUCTION JOINTS SHALL NOT OCCUR IN CONCRETE WALLS UNLESS APPROVED BY THE ENGINEER.

CONCRETE

1. ALL CONCRETE MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE MOST RECENT CAN/CSA-A23.1, A23.2 AND A23.3.
2. REFER TO CONCRETE PROPERTIES CHART FOR MINIMUM COMPRESSIVE STRENGTH MEASURED AT 28 DAYS.
3. ALL CONCRETE SHALL BE TESTED BY A CSA CERTIFIED CONCRETE TESTING LABORATORY. CONTRACTOR TO PROVIDE COPIES OF TESTING REPORTS TO THE ENGINEER. NOT LESS THAN TWO TESTS SHALL BE MADE FOR EACH 100m³ OF CONCRETE WITH AT LEAST ONE TEST FOR EACH CLASS OF CONCRETE USED. A MINIMUM OF THREE TESTS IS REQUIRED FOR EACH CLASS.
4. ALL CONCRETE TO HAVE A MAXIMUM 4" SLUMP. WHERE INCREASED WORKABILITY IS REQUIRED, PLASTICIZER IS TO BE ADDED. WATER IS NOT TO BE ADDED ON SITE.
5. ALL FOOTINGS EXPOSED TO FROST ACTION SHALL BE PROTECTED DURING CONSTRUCTION.
6. ALL PIERS TO BE POURED INTEGRALLY WITH FOUNDATION WALLS. PROVIDE DOUBLE 10M STIRRUPS AT TOP OF ALL PIERS.
7. ALL PIERS AND FOUNDATION WALLS TO BE CENTERED ON PAD FOOTINGS, U.N.O.
8. WHERE APPROPRIATE, USE VIBRATION EQUIPMENT TO PLACE CONCRETE.
9. INSTALLATION, LOCATION AND AMOUNT OF SAWCUTS FOR FLOOR TO BE DETERMINED BY OWNER AND CONTRACTOR. SAWCUT PANELS ARE NOT TO EXCEED 15' IN ANY DIRECTION. SAWCUT DEPTH TO 25% OF THE SLAB THICKNESS AND TO BE MADE WITHIN 16 HOURS OF POURING CONCRETE.
10. ALL REINFORCING STEEL SHALL BE DEFORMED BARS WITH A MINIMUM YIELD STRENGTH OF 400 MPa AND SHALL CONFORM TO CAN/CSA G30.18-M2009. (CAN/CSA-G30.5 FOR WELDED WIRE MESH)
11. FABRICATE, PLACE & SUPPORT REINFORCING STEEL IN ACCORDANCE WITH CSA CAN3-A23.1.
12. REINFORCING STEEL IS TO BE FREE OF ALL DIRT, EXCESSIVE RUST AND SCALE AT THE TIME OF PLACING, AND IS TO BE SECURELY WIRED IN PLACE PRIOR TO PLACING ANY CONCRETE. NO BARS ARE TO BE WET DOWELED WITH THE EXCEPTION OF ANCHOR BOLTS.
13. MINIMUM RADIUS FOR BENT REBAR IS 60mm FOR 10M REBAR AND 90mm FOR 15M REBAR. ALL BARS SHOWN AS BEING BENT ON THE DRAWINGS ARE TO BE BENT PRIOR TO BEING PLACED.
14. UNLESS OTHERWISE NOTED MINIMUM BAR LAPS IN NORMAL DENSITY CONCRETE TO BE AS FOLLOWS:

REINFORCING STEEL MINIMUM LAP LENGTHS

BAR SIZE \ CONCRETE	TENSION SPLICE 20 MPa	TENSION SPLICE 25 MPa	TENSION SPLICE 30 MPa	TENSION SPLICE 35 MPa	COMPRESSION EMBEDMENT 20 MPa	REINFORCED MASONRY 20 MPa GROUT
10M	460 (18")	405 (16")	405 (16")	405 (16")	460 (18")	510 (20")
15M	660 (26")	610 (24")	610 (24")	610 (24")	660 (26")	765 (30")
20M	870 (34")	815 (32")	815 (32")	815 (32")	915 (36")	915 (36")
25M	1320 (52")	1220 (48")	1120 (44")	1015 (40")	1370 (54")	1370 (54")
30M	1575 (62")	1425 (56")	1320 (52")	1220 (48")	1625 (64")	N/A
35M	1880 (74")	1675 (66")	1525 (60")	1425 (56")	1880 (74")	N/A

NOTE:
INCREASE HORIZ. SPLICE LENGTH BY 1.3 WHERE MORE THAN 300mm (12") OF FRESH CONCRETE IS CAST BELOW THE SPLICE

15. LAP REINFORCING STEEL AS PER CHART. LAP ALL HORIZONTAL BARS AT CORNERS WITH BENT DOWELS MEETING THE MINIMUM LAP REQUIREMENTS IN BOTH DIRECTIONS. SHOP FABRICATE ALL REINFORCING STEEL TO INCLUDE HOOKS AND BENDS.
16. UNLESS OTHERWISE NOTED MINIMUM CONCRETE COVER TO REINFORCEMENT TO BE AS FOLLOWS:
    - 3" (75mm) - CAST AGAINST EARTH
    - 1-1/2" (38mm) - CAST AGAINST FORMWORK
    - 2-1/2" (64mm) - EXPOSED TO DE-ICING CHEMICALS
    - 2" (51mm) - ALL OTHER STRUCTURAL COMPONENTS
17. ALL CONDUITS, DUCTS, PIPES AND FITTINGS THAT ARE TO BE EMBEDDED IN THE STRUCTURAL CONCRETE TO BE LOCATED BY ELECTRICAL AND MECHANICAL DESIGNERS AND APPROVED BY THE STRUCTURAL ENGINEER PRIOR TO POURING CONCRETE.
18. ALL DIMENSIONS, FLOOR SLOPES, & ELEVATIONS TO BE VERIFIED BY CONTRACTOR PRIOR TO POURING INTERIOR CONCRETE.
19. ALL INTERIOR CONCRETE WORK SHOWN INCLUDING STRIP FOOTINGS, CURBS, FLOOR SLOPES AND FLOOR DRAINS ARE FOR REPRESENTATION ONLY. THE DESIGN OF THESE SYSTEMS IS THE RESPONSIBILITY OF THE OWNER, CONTRACTOR AND EQUIPMENT SUPPLIER.
20. ALL DOOR BUCK SIZES AND LOCATIONS TO BE VERIFIED BY CONTRACTOR & OWNER PRIOR TO POURING CONCRETE. DOOR SIZES SHOWN ON PLANS REPRESENT FINISHED OPENING SIZES ONLY. CONTRACTOR IS RESPONSIBLE FOR CONFIRMING ALL OPENING REQUIREMENTS WITH DOOR SUPPLIERS.
21. NO CORING OF CONCRETE IS PERMITTED WITHOUT WRITTEN CONSENT FROM THE STRUCTURAL ENGINEER.
22. ANCHOR RODS TO CONFORM TO CSA 640.21 GRADE 300W (Fy = 300 MPa) OR ASTM F1554 GRADE 36 (Fy = 248MPa) UNLESS OTHERWISE NOTED ON THE STRUCTURAL DRAWINGS OR PRE-ENGINEERED SHOP DRAWINGS.

CONCRETE DESCRIPTION \ CONCRETE PROPERTIES	CLASS OF CONC.	MIN. 28 DAY STRENGTH	MAX. W/CM	MAX. AGGREGATE (mm)	AIR CONTENT %	SLUMP mm
FOOTINGS	N	20 MPa	N/A	20	N/A	80 (+/- 30)
INTERIOR PIERS AND WALLS	N	25 MPa	N/A	20	N/A	80 (+/- 30)
ICF WALLS	N	20 MPa	N/A	10	N/A	80 (+/- 30)
INTERIOR CONCRETE SLABS	N	25 MPa	0.50	20	N/A	80 (+/- 30)
CONCRETE EXPOSED TO FREEZING AND THAWING IN A SATURATED CONDITION BUT NOT TO CHLORIDES (UNDERGROUND WATER TANKS, FRESHWATER POOLS AND FRESHWATER CONTROL STRUCTURES	F-1	30 MPa	0.50	20	5-8	80 (+/- 30)
UNSATURATED CONDITION EXPOSED TO FREEZE/THAW BUT NO CHLORIDES (EXTERIOR PIERS AND WALLS)	F-2	25 MPa	0.55	20	4-7	80 (+/- 30)
STRUCTURALLY REINFORCED EXPOSED TO CHLORIDES WITH OR WITHOUT FREEZE/THAW (EXTERIOR SLABS, EXT. WALLS & PIERS ADJACENT TO SURFACES EXPECTED TO BE SALTED, PARKING GARAGE STRUCTURES)	C-1	35 MPa	0.40	20	5-8	80 (+/- 30)
NON-STRUCTURALLY REINFORCED EXPOSED TO CHLORIDES AND FREEZE/THAW (SIDEWALKS, EXT. UNREINFORCED SLABS,)	C-2	32 MPa	0.45	20	5-8	80 (+/- 30)

NOTE:
THIS BUILIDING IS DEEMED EXCEMPT FROM SB-10

WOOD FRAMING, BRACING AND TRUSSES

1. WOOD FRAMING DESIGN AND CONSTRUCTION SHALL CONFORM TO THE LATEST EDITION VERSIONS OF CSA O86.
2. ALL LUMBER TO CONFORM TO LATEST STANDARD O141 AND BE SPF NO. 2 OR BETTER, UNLESS OTHERWISE NOTED
3. ALL LUMBER IN CONTACT WITH THE EARTH OR CONCRETE, OR EXPOSED TO WEATHER ELEMENTS TO BE PRESSURE TREATED IN CONFORMANCE WITH CAN/CSA-O80-M97. PRESSURE TREATED WOOD TO BE CLASSIFIED AS CSA UC4.1 OR UC4.2.
4. ALL GLUED-LAMINATED MEMBERS SHALL BE FABRICATED IN PLANTS CONFORMING TO CSA O177, "QUALIFICATION CODE FOR MANUFACTURERS OF STRUCTURAL GLUED-LAMINATED TIMBER".
5. ALL CONNECTORS USED FOR ACQ OR CA TREATED WOOD SHALL BE GALVANIZED STEEL AS PER ASTM A653. ALL FASTENERS FOR ACQ OR CA TREATED WOOD SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153.
6. CONTRACTOR / TRUSS FABRICATOR TO SUBMIT SHOP DRAWINGS FOR THE DESIGN OF THE PRE-ENGINEERED WOOD TRUSSES PRIOR TO FABRICATION OF TRUSSES (DESIGNED BY A LICENSED PROFESSIONAL ENGINEER REGISTERED IN THE PROVINCE OF ONTARIO). DESIGN TO BEAR THE SIGNED STAMP OF THE DESIGN ENGINEER. THIS DESIGN SHALL REFLECT UNBALANCED LOAD CONDITIONS, AND THE NEED FOR HORIZONTAL BRIDGING FOR TOP AND BOTTOM CHORDS OF THE TRUSSES.
7. TRUSS DESIGNER TO ACCOUNT FOR INCREASED SNOW LOADS DUE TO ROOF VALLEYS AND SNOW SHADOWS. TRUSS SUPPLIER IS TO VISIT THE SITE TO DETERMINE SNOW SHADOW CONDITIONS AND COMMUNICATE THIS INFORMATION TO TRUSS DESIGNER.
8. ADDITIONAL LOADS REQUIRED FOR MECHANICAL OR OTHER EQUIPMENT TO BE PROVIDED TO THE TRUSS DESIGNER BY THE CONTRACTOR AND/OR OWNER.
9. ADDITIONAL LOADS TO BE APPLIED TO THE TRUSS DESIGN WHEN A SPRINKLER SYSTEM IS APPLICABLE
10. CONTRACTOR TO SUPPLY AND INSTALL DIAGONAL WEB BRACING AS SPECIFIED. REFER TO PRE-ENGINEERED TRUSS DRAWINGS FOR LOCATIONS OF PURLINS IN ORDER TO DETERMINE QUANTITY AND SPACING.
11. PROVIDE CONTINUOUS BLOCKING AS PER JOIST DESIGNER'S SPECIFICATIONS.
12. SOLID BLOCKING TO BE INSTALLED AT EQUAL SPACES ON ALL WOOD STUDS WALL NOT SHEATHED BOTH SIDES OR AS PER SPECS BELOW, U.N.O. CONSULT ENGINEERED DRAWINGS FOR BLOCKING AT SHEAR WALL LOCATIONS AND WALLS GREATER THAN 20' - 0" IN HEIGHT.
    - LESS THAN OR EQUAL TO 10' - 0" = 1 ROW EQUALLY SPACED
    - 10' - 1" TO 13' - 0" = 2 ROWS EQUALLY SPACED
    - 13' - 1" TO 16' - 0" = 3 ROWS EQUALLY SPACED
    - 16' - 1" TO 20' - 0" = 4 ROWS EQUALLY SPACED
13. TEMPORARY BRACING OF THE STRUCTURE DURING THE COURSE OF CONSTRUCTION IS THE RESPONSIBILITY OF THE CONTRACTOR UNLESS OTHERWISE NOTED.
14. ALL BEARING WALLS FOR TRUSSES AND JOISTS TO HAVE A DOUBLE TOP PLATE.
15. PROVIDE ACCESS TO EACH ATTIC SPACE AS PER O.B.C. 3.6.4.4 AND 9.19.2.
16. IN STRUCTURES WHERE THE TRUSSES ARE EXPOSED TO A HIGH MOISTURE ENVIRONMENT IT IS STRONGLY RECOMMENDED THAT A PROTECTIVE COATING BE APPLIED TO THE STEEL TRUSS PLATES, AND THAT THE TRUSSES BE REGULARLY REVIEWED.
17. NAILS SHALL CONFORM TO STEEL WIRE NAILS AND SPIKES AS DEFINED IN CSA B111 UNLESS NOTED OTHERWISE.
18. LATERALLY SUPPORT ALL STEEL BEAMS BY PRE-DRILLING FLANGES FOR 13mm (1/2") BOLTED ATTACHMENT OF WOOD NAILERS WITH 16mm (5/8") HOLES STAGGERED AT 600mm (24") O.C.
19. ALL NAILS AND FASTENERS IN CONTACT WITH PRESSURE TREATED WOOD ARE TO BE HOT DIP GALVANIZED OR STAINLESS STEEL.
20. ALL STUD WALLS TO BE ANCHORED TO THE FOUNDATION WALL OR FLOOR SLAB WITH 1/2" DIAMETER ANCHORS AT 800mm (32") o.c.. ANCHOR BOLTS SHALL BE PLACED WITHIN 400mm (16") OF THE EXTERIOR EDGE OF ALL STUD WALLS.
21. RETIGHTEN ALL BOLTED CONNECTIONS SIX MONTHS AFTER FIRST INSTALLATION AND EVERY SIX MONTHS THEREAFTER UNTIL NO APPRECIABLE CHANGE IS EVIDENT.

NAILING REQUIREMENTS

MEMBER CONNECTION	NAIL LENGTH	NUMBER OF NAILS
1. STUD TO WALL PLATE (2x4 & 2x6)	89mm (3 1/2")	3
2. STUD TO WALL PLATE (2x8)	89mm (3 1/2")	4
3. BOTTOM WALL PLATE TO FLOOR JOISTS	89mm (3 1/2")	2
4. BUILT-UP LINTELS	89mm (3 1/2")	300mm x 64mm (12"x3" c/c)
5. BUILT-UP POST	89mm (3 1/2")	300mm (12") o.c
6. FLOOR / CEILING JOIST TO TOP PLATE	89mm (3 1/2")	2
7. ROOF RAFTER TO TOP PLATE	89mm (3 1/2")	3
8. LINTEL TO KING POST	89mm (3 1/2")	50mm (2") o.c
9. JOIST TO BUILT UP BEAM	89mm (3 1/2")	2
10. ROOF RAFTER TO RIDGE BEAM	89mm (3 1/2")	3
11. COLLAR TIE TO ROOF RAFTER	89mm (3 1/2")	3
12. WALL SHEATHING U.N.O. • PERIMETER (BOTH DBL TOP PLATES) • PERIMETER (BOTTOM PLATE) • PERIMETER • INTERIOR	64mm (2 1/2")	150mm (6") o.c. 76mm (3") o.c. 150mm (6") o.c. 300mm (12") o.c.
13. ROOF SHEATHING • PERIMETER • INTERIOR	64mm (2 1/2")	300mm (12") c/c 300mm (12") c/c
14. FLOOR SHEATHING • PERIMETER • INTERIOR	64mm (2 1/2")	300mm (12") c/c 300mm (12") c/c

NOTES
WHERE PLYWOOD IS FASTENED TO WALL THROUGH DRYWALL, INCREASE NAIL LENGTH BY THICKNESS OF DRYWALL.

REFERENCE DRAWINGS AND REPORTS

1. INTENDED USE LETTER DATED AND SIGNED 2025-02-06
2. SITE TRAFFIC LETTER DATED AND SIGNED 2025-01-30
3. STORM WATER BRIEF PROVIDED BY STONECREST ENGINEERING, STAMPED SEPTEMBER 7, 2025
4. SITE PLAN PROVIDED BY STONECREST ENGINEERING DATED AND STAMPED 2025-01-30
5. EXISTING CONDITIONS PLAN PROVIDED BY STONECREST ENGINEERING STAMPED 2025-01-28
6. GRADING PLAN PROVIDED BY STONECREST ENGINEERING DATED AND STAMPED 2024-10-03

NOTES:

PLEASE READ NOTE PAGE AT BEGINNING OF DRAWING SET FOR ALL NOTES REGARDING THIS PROJECT

NO.	DATE:	DESCRIPTION:
1	2025-05-06	ISSUED FOR PERMIT
2	2025-05-14	RE-ISSUED FOR PERMIT

PROJECT NORTH

TRUE NORTH

8586 - REV
2025 05 14
Licensed Engineering Technologist

PROFESSIONAL ENGINEER'S SEAL

STONECREST ENGINEERING INC.
EST. 1995
PO Box 39, 201-66 Woodstock Street North
Tavistock, Ontario, N0B 2R0
519-625-8025 – www.stonecrestengineering.com

CONTRACTOR TO CHECK ALL DIMENSIONS AND ELEVATIONS AND REPORT ANY DISCREPANCIES TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK

DO NOT SCALE THE DRAWINGS

CLIENT:
TRACKLESS VEHICLES

LOCATION:
55 THUNDERBIRD DR. COURTLAND, ONTARIO

PROJECT NAME:
LOW FIRE LOAD F-3 WAREHOUSE

PROJECT STATUS AND VERSION:
PERMIT DRAWINGS

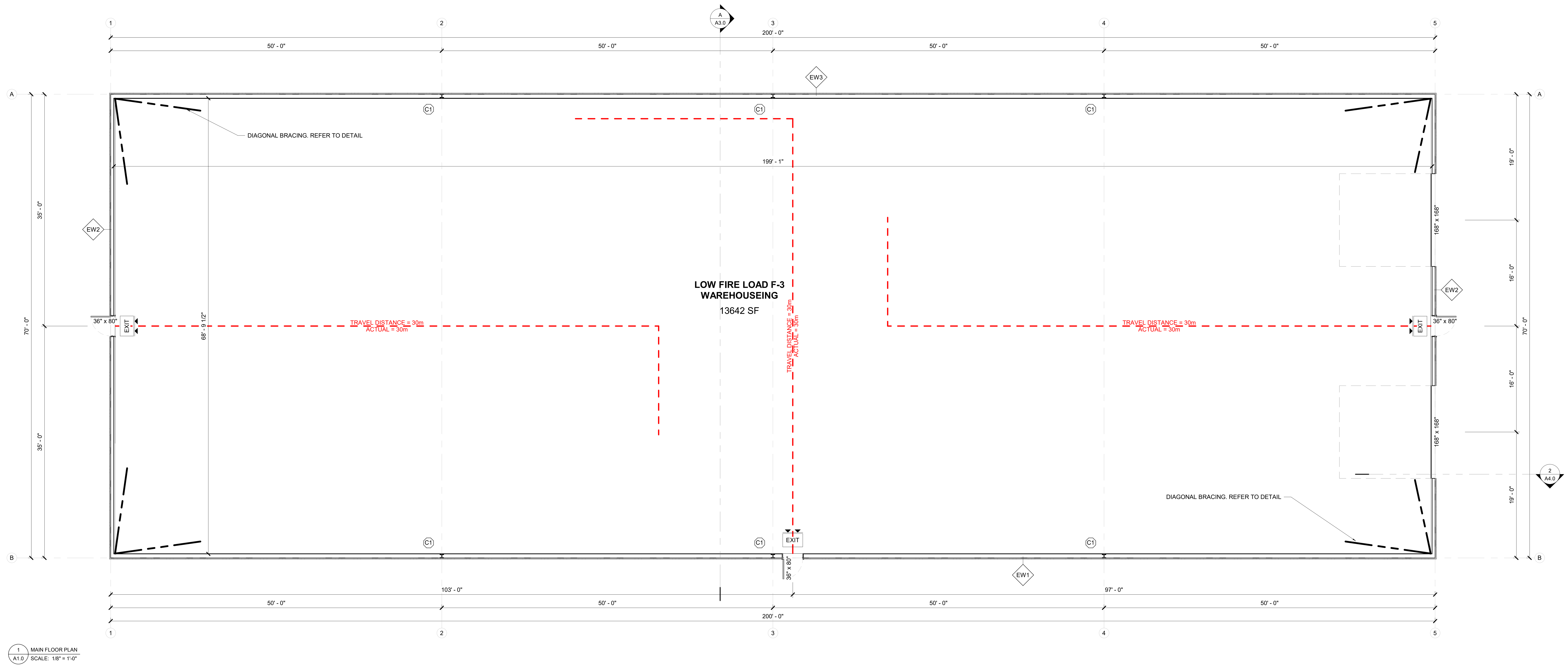
DESIGNED BY: I.E.
PRINT DATE: MAY 14, 2025

PAGE DESCRIPTION:
TITLE PAGE, GENERAL NOTES AND SCHEDULES

SCALE:
AS NOTED

FILE:
8586-1

PAGE NUMBER:
A0.0



1 MAIN FLOOR PLAN
A1.0 SCALE: 1/8" = 1'-0"

NOTES:

1. ALL DIMENSIONS, FLOOR SLOPES, & ELEVATIONS TO BE VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION.
2. ALL WINDOW & DOOR SIZES, LOCATIONS TO BE VERIFIED BY CONTRACTOR & OWNER PRIOR TO CONSTRUCTION
3. ALL EXITING TO CONFORM TO ONTARIO BUILDING CODE. EMERGENCY LIGHTING AND ILLUMINATED EXIT SIGNS TO BE INSTALLED. INSTALL SMOKE / CO DETECTORS, AND FIRE EXTINGUISHERS AS REQUIRED.
4. ALL ELECTRICAL / EMERGENCY LIGHTING SHOWN IS FOR PRESENTATION ONLY. REFER TO PLUMBING, MECHANICAL AND ELECTRICAL DESIGN DRAWINGS FOR DETAILS.
5. ENGINEER OF RECORD TO BE CONTACTED FOR REVIEW AND APPROVAL OF ALL MODIFICATIONS FROM THIS DRAWING SET PRIOR TO PROCEEDING.
6. INTERIOR FIRE SEPARATIONS AND ASSEMBLIES REQUIRED TO HAVE A FIRE RESISTANCE RATING (FRR) ARE TO MAINTAIN THE FRR FROM BOTH SIDES OF THE ASSEMBLY.
7. EXTERIOR FIRE SEPARATIONS AND ASSEMBLIES REQUIRED TO HAVE FIRE RESISTANCE RATING (FRR) ARE TO MAINTAIN THE FRR FROM THE INTERIOR FACE OF THE ASSEMBLY.
8. ALL FIRE SEPARATIONS (FS) ARE REQUIRED TO HAVE PENETRATIONS FIRE STOPPED AS PER OBC. ALL DOORS AND OPENINGS IN A FS ARE REQUIRED TO BE RATED AND EQUIPPED WITH A SELF CLOSING DEVICE.
9. NO SHELF AND RACKING LAYOUTS HAVE BEEN PROPOSED. IF FUTURE INSTALLATION OF SHELVING OR RACKING IS EXPECTED, THE DESIGN AND LAYOUT SHALL CONFORM TO OBC AND AN ENGINEERED DESIGN AND LAYOUT MAY BE REQUIRED.
10. THIS FACILITY HAS BEEN DESIGNED FOR THE INTENDED USAGE OF A LOW FIRE LOAD WAREHOUSE (F-3 LOW HAZARD INDUSTRIAL OCCUPANCY). THE STORAGE WILL BE STRICTLY LIMITED TO NON COMBUSTIBLE COMPONENTS ONLY. THIS IS TO BE MONITORED BY THE AHJ, ANY CHANGES ARE TO BE COMMUNICATED IMMEDIATELY TO THE ENGINEER. REFER TO SIGNED DOCUMENTATION PROVIDED BY OWNER IN CONJUNCTION WITH THESE PERMIT DRAWINGS.

COLUMN SCHEDULE

No.	SIZE	BASE PLATE	ANCHORAGE
C1	W6x25	REFER TO DETAIL	REFER TO DETAIL

WALL SCHEDULE

No.	ASSEMBLY	FIRE RATING
EW1	• 29ga. HI-RIB STEEL c/w SCREW FASTENERS • 2x4 WOOD STRAPPING AT 24"c/c • TYVEK AIR BARRIER OR EQUIV. (TAPE ALL SEAMS) • 2x8 WOOD STUDS SPACED AT 24"c/c	N/A
EW2	• 29ga. HI-RIB STEEL c/w SCREW FASTENERS • 2x4 WOOD STRAPPING AT 24"c/c • TYVEK AIR BARRIER OR EQUIV. (TAPE ALL SEAMS) • 2x6 WOOD STUDS SPACED AT 16"c/c	N/A
EW3	• 29ga. HI-RIB STEEL c/w SCREW FASTENERS • 2x4 WOOD STRAPPING AT 24"c/c • TYVEK AIR BARRIER OR EQUIV. (TAPE ALL SEAMS) • 2x8 WOOD STUDS SPACED AT 24"c/c • MIN. R-22 FIBREGLASS BATT INSULATION • 6mil POLY VAPOUR BARRIER(TAPE ALL SEAMS) • 5/8" TYPE 'X' DRYWALL (TAPED AND SANDED)	3/4hr

NOTES:
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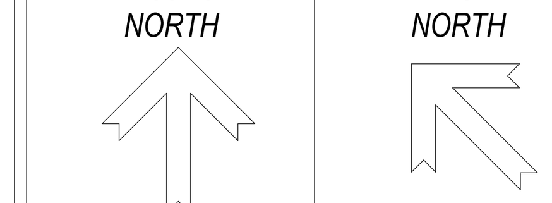
LEGEND:

- SPOT ELEVATION (T/O FFE, T/O FTG U.N.O.)
- 001 DOOR IDENTIFICATION TAG
- W1 WALL IDENTIFICATION TAG
- WN1 WINDOW IDENTIFICATION TAG
- C1 PIER / COLUMN IDENTIFICATION TAG
- F1 FOOTING / LINTEL IDENTIFICATION TAG



Professional Engineers Ontario
8586 - REV
2025 05 14
Licensed Engineering Technologist
Name: B. A. VAN DEN HEUVEL
Number: 100146181
Limitations: Limited to the design of foundations, steel, and wood structural components for agricultural and industrial buildings up to 6 m (20 ft) in height, excluding trusses or frames.
Association of Professional Engineers of Ontario

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CLIENT:
TRACKLESS VEHICLES

LOCATION:
55 THUNDERBIRD DR. COURTLAND, ONTARIO

PROJECT NAME:
LOW FIRE LOAD F-3 WAREHOUSE

PROJECT STATUS AND VERSION:
PERMIT DRAWINGS

DESIGNED BY:
I.E.

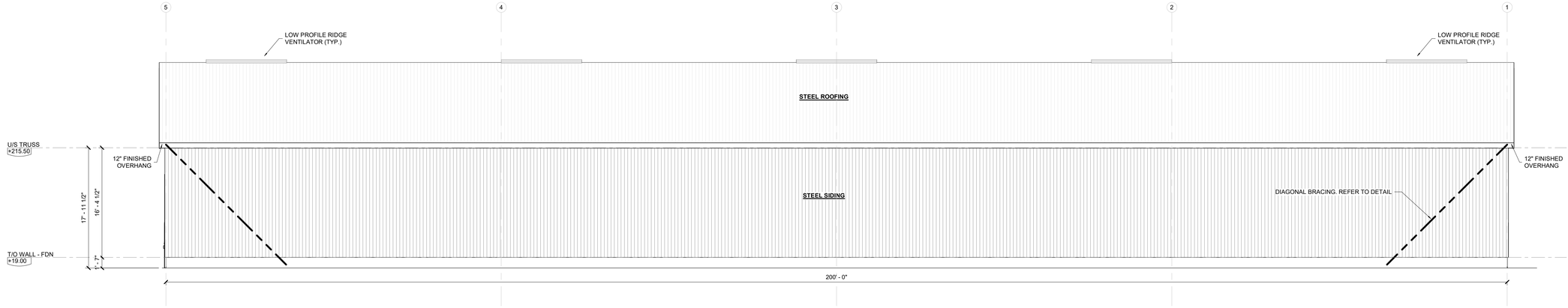
PRINT DATE:
MAY 14, 2025

PAGE DESCRIPTION:
FLOOR PLAN

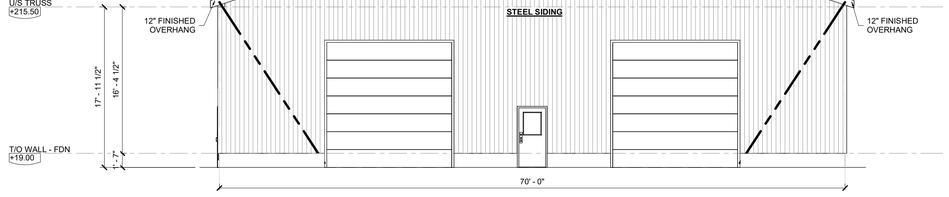
SCALE:
AS NOTED

FILE:
8586-1

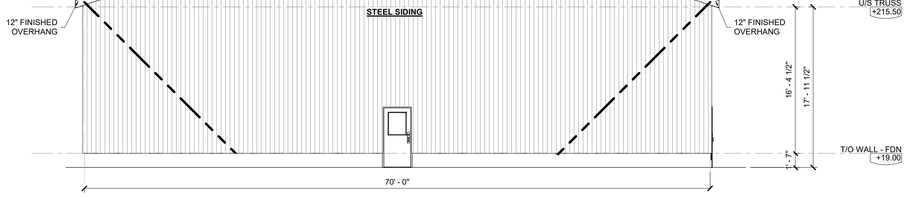
PAGE NUMBER:
A1.0



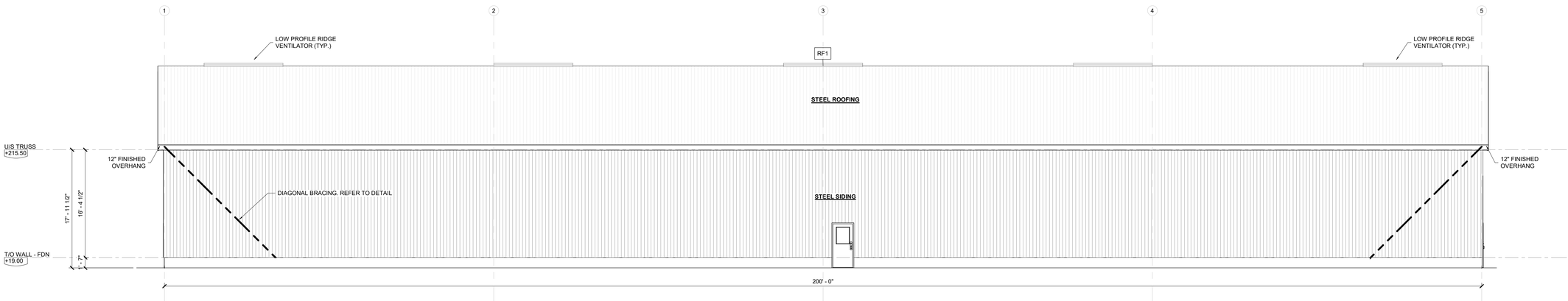
1 / A2.0 NORTH ELEVATION
SCALE: 1/8" = 1'-0"



2 / A2.0 EAST ELEVATION
SCALE: 1/8" = 1'-0"



3 / A2.0 WEST ELEVATION
SCALE: 1/8" = 1'-0"



4 / A2.0 SOUTH ELEVATION
SCALE: 1/8" = 1'-0"

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- W1 — WALL IDENTIFICATION TAG
- WN1 — WINDOW IDENTIFICATION TAG
- C1 — PIER / COLUMN IDENTIFICATION TAG
- F1 — FOOTING / LINTEL IDENTIFICATION TAG

PROJECT NORTH	TRUE NORTH

Professional Engineers Ontario
8586 - REV
2025 05 14
Licensed Engineering Technologist
Name: [illegible]
Number: [illegible]
Limited to the design of foundations, steel, and wood structural components for agricultural and industrial buildings up to 6 m (20 ft.) in height, excluding trusses or frames.
Association of Professional Engineers of Ontario

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DO NOT SCALE THE DRAWINGS

CLIENT: TRACKLESS VEHICLES

LOCATION: 55 THUNDERBIRD DR. COURTLAND, ONTARIO

PROJECT NAME: LOW FIRE LOAD F-3 WAREHOUSE

PROJECT STATUS AND VERSION: PERMIT DRAWINGS

DESIGNED BY:	PRINT DATE:
I.E.	MAY 14, 2025

PAGE DESCRIPTION: BUILDING ELEVATIONS

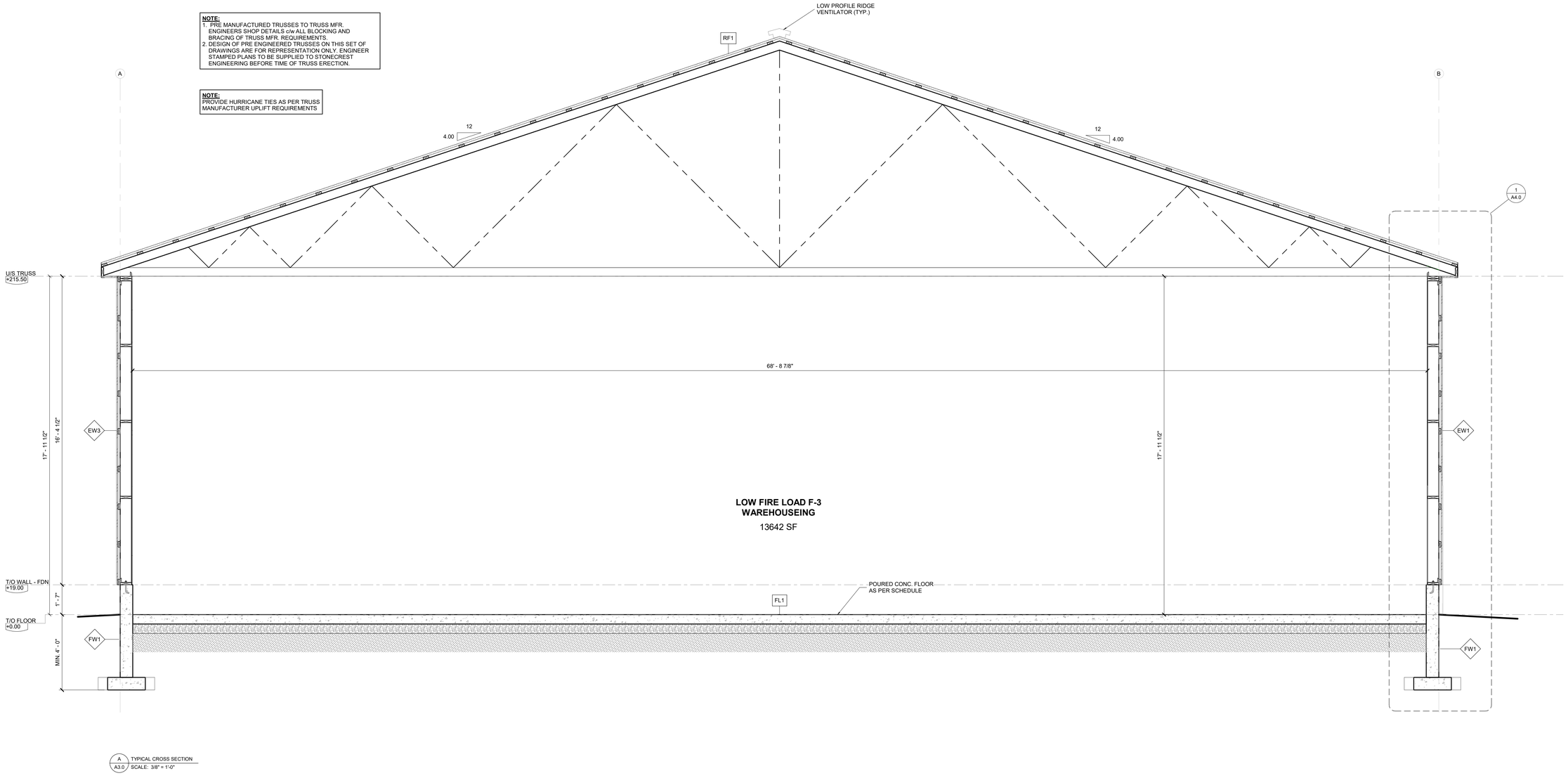
SCALE: AS NOTED

FILE: 8586-1

PAGE NUMBER: A2.0

NOTE:
1. PRE MANUFACTURED TRUSSES TO TRUSS MFR. ENGINEERS SHOP DETAILS c/w ALL BLOCKING AND BRACING OF TRUSS MFR. REQUIREMENTS.
2. DESIGN OF PRE ENGINEERED TRUSSES ON THIS SET OF DRAWINGS ARE FOR REPRESENTATION ONLY. ENGINEER STAMPED PLANS TO BE SUPPLIED TO STONECREST ENGINEERING BEFORE TIME OF TRUSS ERECTION.

NOTE:
PROVIDE HURRICANE TIES AS PER TRUSS MANUFACTURER UPLIFT REQUIREMENTS



A / A3.0 TYPICAL CROSS SECTION
SCALE: 3/8" = 1'-0"

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PROJECT NORTH	TRUE NORTH

Professional Engineers Ontario
8586 - REV 2025 05 14
Licensed Engineering Technologist
Name: [illegible]
Signature:
Limited to the design of foundations, steel, and wood structural components for agricultural and industrial buildings up to 6 m (19.7 ft) in height, excluding trusses or frames.
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PROJECT NAME: LOW FIRE LOAD F-3 WAREHOUSE

PROJECT STATUS AND VERSION: PERMIT DRAWINGS

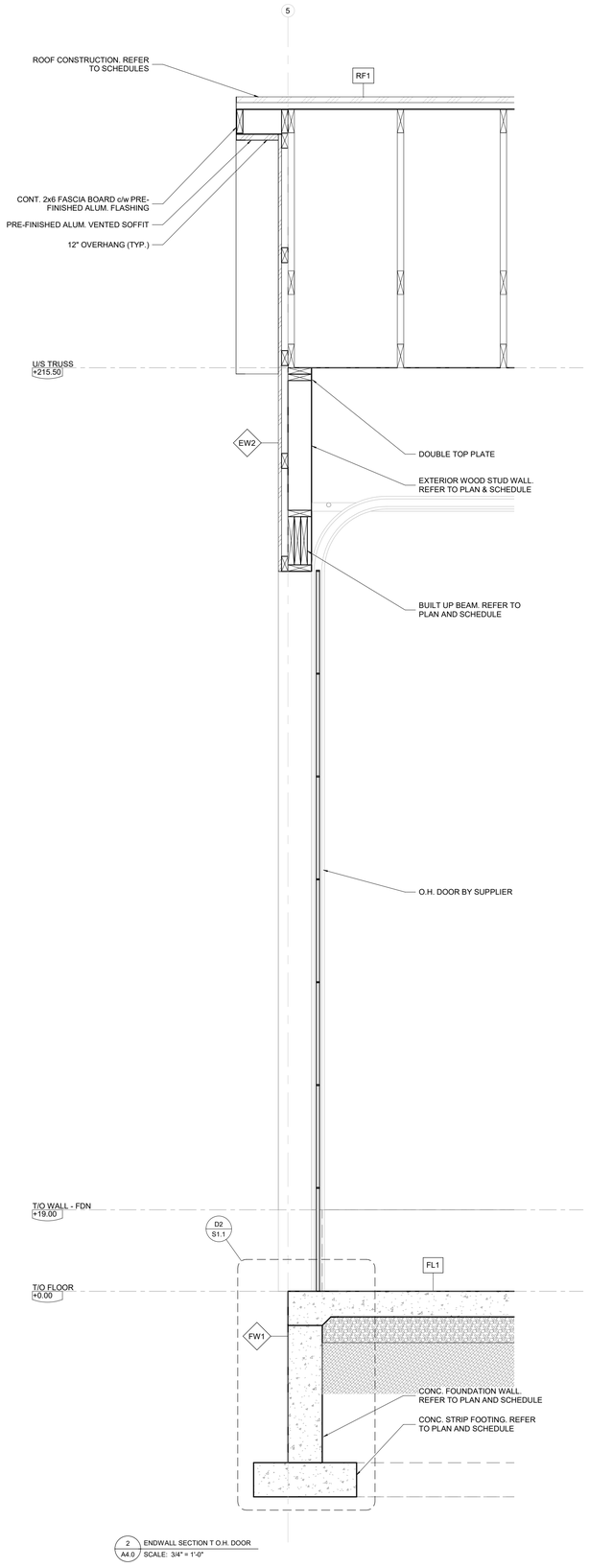
DESIGNED BY:	PRINT DATE:
I.E.	MAY 14, 2025

PAGE DESCRIPTION: CROSS SECTIONS

SCALE: AS NOTED

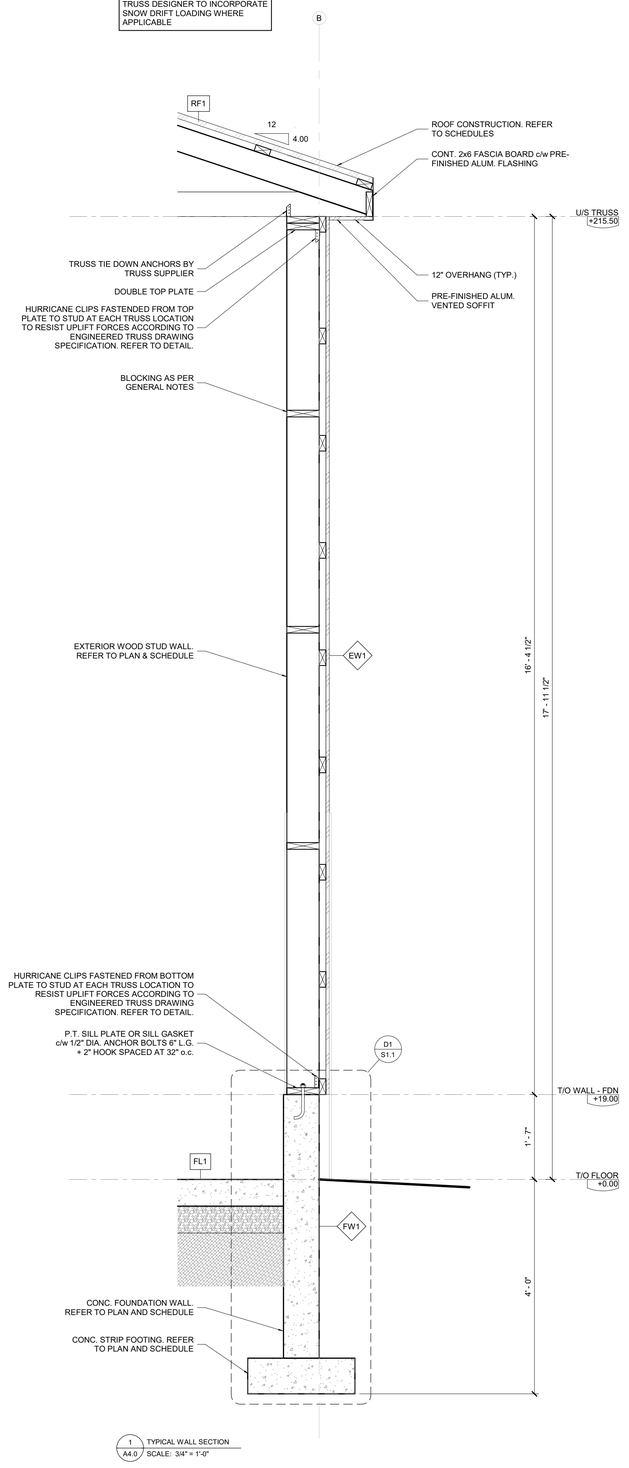
FILE: 8586-1

PAGE NUMBER: A3.0



2 A4.0 ENDWALL SECTION T O.H. DOOR
SCALE: 3/4" = 1'-0"

NOTE:
TRUSS DESIGNER TO INCORPORATE SNOW DRIFT LOADING WHERE APPLICABLE



1 A4.0 TYPICAL WALL SECTION
SCALE: 3/4" = 1'-0"

NOTES:

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PROJECT NORTH | *TRUE NORTH*

Professional Engineers Ontario
8586 - REV 2025 05 14
Licensed Engineering Technologist
Name: [illegible]
Signature: [signature]
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PROJECT NAME: LOW FIRE LOAD F-3 WAREHOUSE

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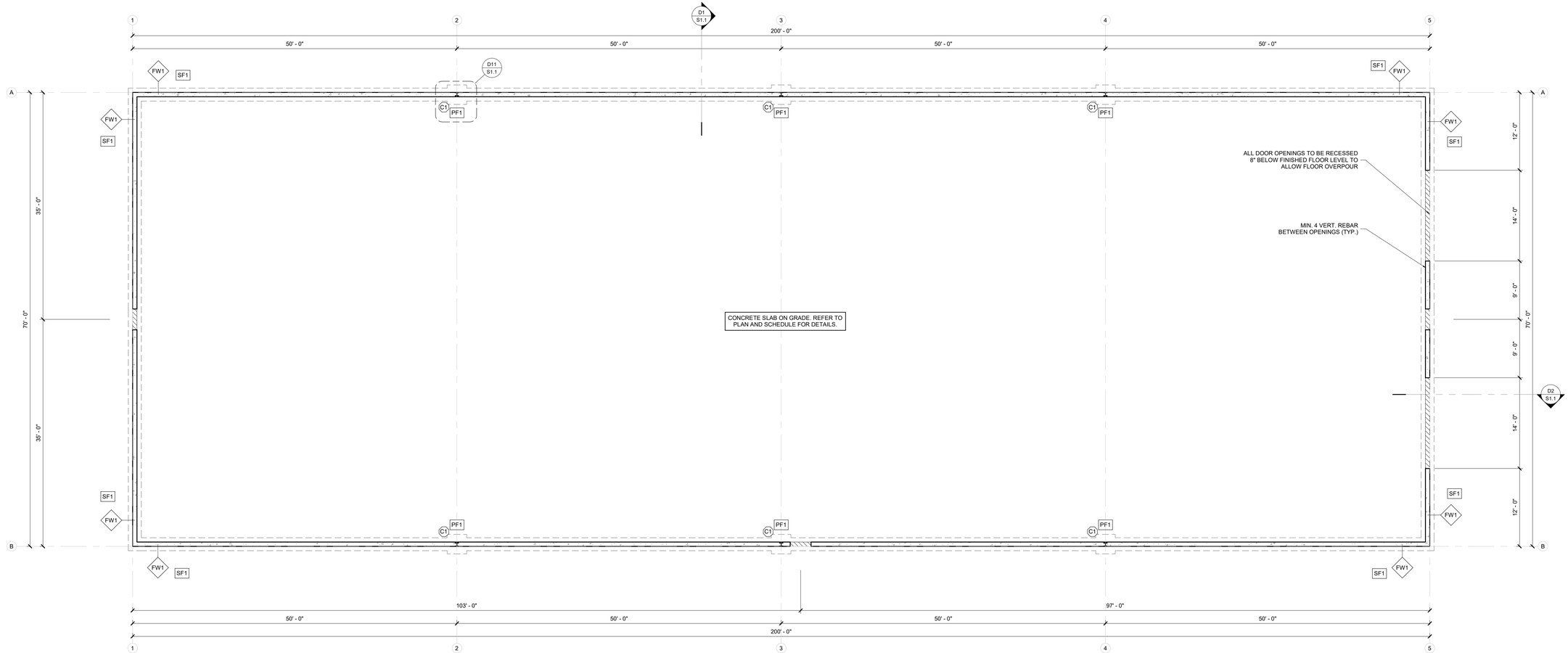
DESIGNED BY: I.E.
PRINT DATE: MAY 14, 2025

PAGE DESCRIPTION: SECTIONS AND DETAILS

SCALE: AS NOTED

FILE: 8586-1

PAGE NUMBER: A4.0



3 / S1.0 FOUNDATION PLAN
SCALE: 1/8" = 1'-0"

NOTES:

1. RELATIVE FINISHED FLOOR = +0.00. REFER TO SITE PLAN FOR GEODETIC ELEVATION
2. ALL DOOR OPENINGS TO BE RECESSED 8" BELOW FINISHED FLOOR LEVEL TO ALLOW FOR FLOOR OVERPOUR. COORDINATE EXACT LOCATIONS w/ ARCHITECTURAL DRAWINGS AND RSOs TO BE PROVIDED BY GC AND DOOR SUPPLIER.
3. ALL FOUNDATIONS TO BEAR DIRECTLY ON UNDISTURBED SOIL OR ENGINEERED FILL WITH A MINIMUM BEARING CAPACITY AS NOTED ON THE STRUCTURAL DESIGN MATRIX. GEOTECHNICAL ENGINEER TO CONFIRM ON-SITE PRIOR TO CONSTRUCTION.
4. THE CONTRACTOR SHALL REPORT ANY UNSTABLE SOIL CONDITIONS TO THE ENGINEER PRIOR TO POURING CONCRETE.
5. EXCAVATION SHALL CONFORM TO THE LATEST EDITIONS OF THE OSHA AND THE MOL REGULATIONS FOR CONSTRUCTION PROJECTS.
6. ALL BACKFILL SHALL BE APPROVED MATERIAL COMPACTED TO 100% STANDARD PROCTOR DRY DENSITY (S.P.D.D.) BELOW FOOTINGS U.N.O. OR AS SPECIFIED BY GEOTECHNICAL ENGINEER.
7. DO NOT REMOVE EXCAVATION TO UNDERMINE OR UNDERPIN EXISTING FOUNDATIONS WITHOUT THE WRITTEN CONSENT OF THE ENGINEER.
8. MAINTAIN UNSUPPORTED SIDES OF EXCAVATION ONLY IF SAFE INCLINATION OF THE SIDES OF THE EXCAVATION IS PROVIDED IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER AND / OR MUNICIPAL OR PROVINCIAL REGULATIONS.
9. SOFT AREAS UNCOVERED DURING EXCAVATION SHALL BE SUB-EXCAVATED TO SOUND MATERIAL AND FILLED WITH CLEAN FREE DRAINING GRANULAR MATERIAL COMPACTED TO 100% S.P.D.D.
10. KEEP ALL EXCAVATED MATERIALS AN ACCEPTABLE DISTANCE AWAY FROM OPEN EXCAVATION.

FOOTING SCHEDULE

No.	SIZE	REINFORCEMENT	MIN. 28 DAY STRENGTH
PF1	36" x 8"	• (4) 15M E.W. BOT.	25MPa
SF1	24" x 8"	• (2) 15M CONT.	25MPa

FOUNDATION WALL SCHEDULE

No.	THICKNESS	REINFORCEMENT	MIN. 28 DAY STRENGTH
FW1	8"	• 15M VERT. REBAR AT 48"o.c. • 15M HORIZ. REBAR AT 24"o.c. • (1) 15M AT TOP OF WALL	25MPa

NOTES:

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PROJECT NORTH

TRUE NORTH

Professional Engineers Ontario
8586 - REV
2025 05 14

Licensed Engineering Technologist

Name: [illegible]

Limitations: Limited to the design of foundations, steel, and wood structural components for agricultural and industrial buildings up to 6 m (20 ft.) in height, excluding trusses or frames.

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CLIENT: TRACKLESS VEHICLES

LOCATION: 55 THUNDERBIRD DR. COURTLAND, ONTARIO

PROJECT NAME: LOW FIRE LOAD F-3 WAREHOUSE

PROJECT STATUS AND VERSION: PERMIT DRAWINGS

DESIGNED BY: I.E.

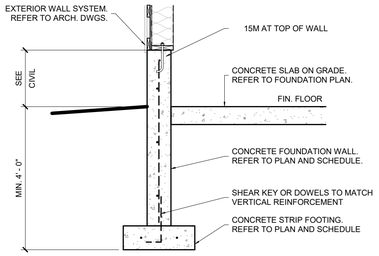
PRINT DATE: MAY 14, 2025

PAGE DESCRIPTION: FOUNDATION PLAN

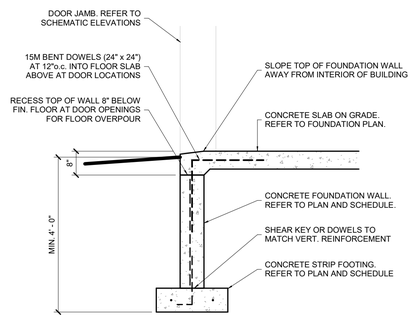
SCALE: AS NOTED

FILE: 8586-1

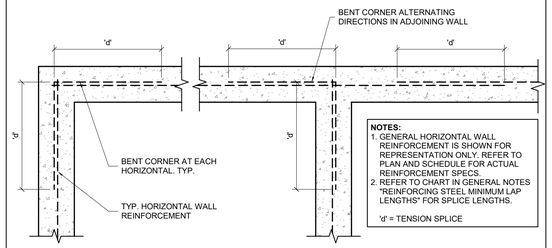
PAGE NUMBER: S1.0



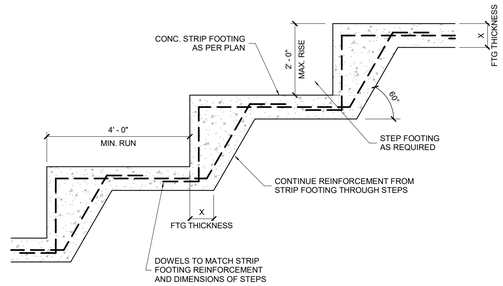
D1 / S1.1 EXTERIOR FOUNDATION WALL
SCALE: 1/2" = 1'-0"



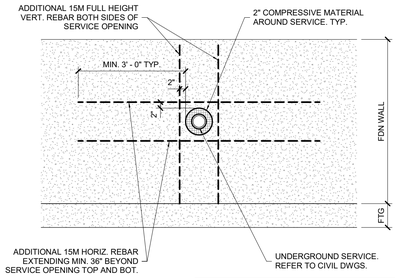
D2 / S1.1 EXTERIOR FOUNDATION WALL AT OH DOOR
SCALE: 1/2" = 1'-0"



D3 / S1.1 CORNER / INTERSECT REINFORCEMENT DETAIL
SCALE: N.T.S.

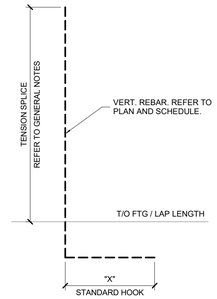


D4 / S1.1 STEPPED FOOTING DETAIL
SCALE: N.T.S.



DO NOT INSTALLED SERVICES THROUGH PIERS. GC TO COORDINATE EXACT LOCATION ON-SITE.

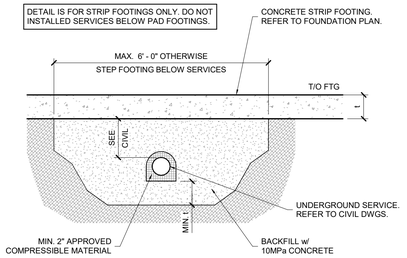
D5 / S1.1 SITE SERVICES THRU FOUNDATION WALL
SCALE: N.T.S.



STANDARD 90° HOOK DIMENSIONS	
BAR SIZE	"X"
10M	203mm (8")
15M	254mm (10")
20M	305mm (12")
25M	406mm (16")
30M	508mm (20")
35M	610mm (24")

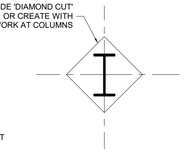
NOTE:
HOOK DIMENSIONS ARE SHOWN FOR REFERENCE ONLY. SUBMIT REBAR SHOP DRAWINGS FOR REVIEW. ALL REINFORCEMENT IS TO BE DETAILED IN ACCORDANCE WITH THE REINFORCING STEEL INSTITUTE OF CANADA MANUAL OF STANDARD PRACTICE.

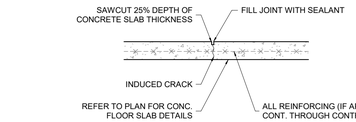
D6 / S1.1 STANDARD HOOK DIMENSIONS
SCALE: N.T.S.



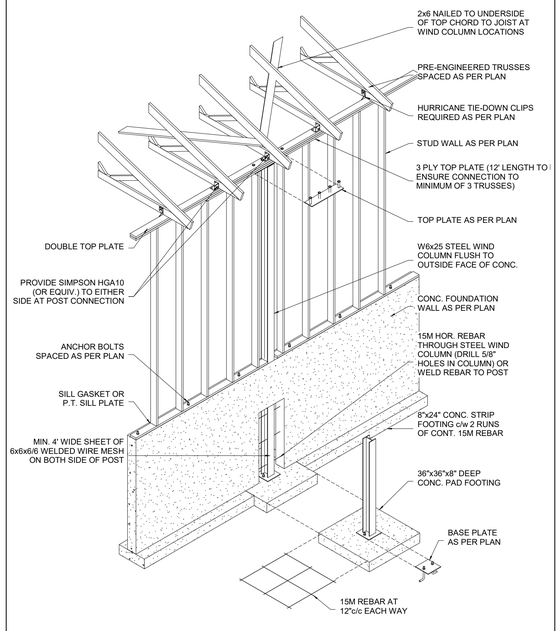
D7 / S1.1 SITE SERVICES CROSSING BELOW CONTINUOUS WALL FOOTING
SCALE: N.T.S.

NOTE:
1. SAW CUT CONTROL JOINTS SHALL BE PLACED AT A 30x THE SLAB THICKNESS AND NOT TO EXCEED MAXIMUM SPACING OF 4.5m (15'-0") IN EACH DIRECTION, UNLESS NOTED OTHERWISE.
2. SAW CUTTING SHALL BE COMPLETED WITHIN 6 TO 18 HOURS OF PLACING CONCRETE.
3. AFTER THE SLAB IS 30 DAYS OLD, REMOVE ALL DEBRIS FROM THE SAWCUT AND FILL IN WITH MORTAR CONTAINING CEMENT, SAND AND LATEX BONDING AGENT OR AS NOTED IN SPECIFICATIONS.
4. COORDINATE LOCATIONS OF SAWCUTS IN SLAB ON GRADE WITH ARCHITECTURAL FLOOR FINISHES.
5. SAWCUT SLAB ON GRADE AT COLUMNS AS SHOWN. ALTERNATE DETAILS SHALL BE SUBMITTED TO ENGINEER FOR REVIEW PRIOR TO OF POURING SLAB ON GRADE.

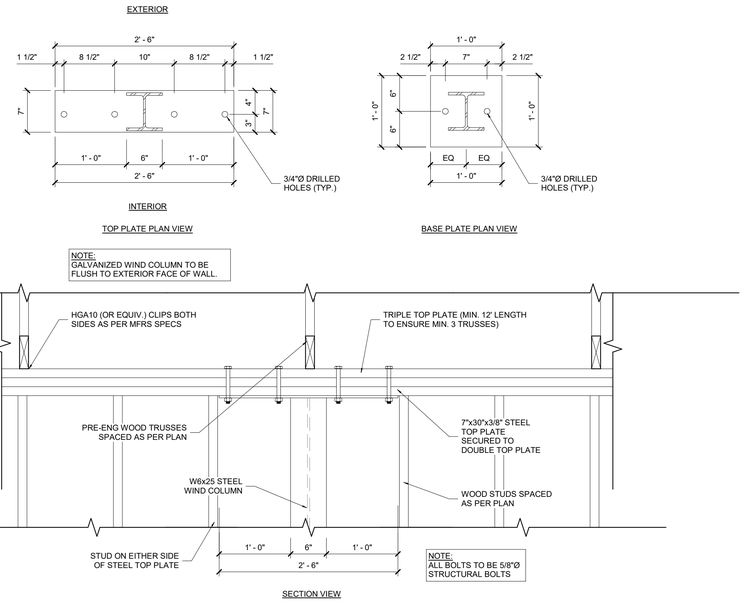




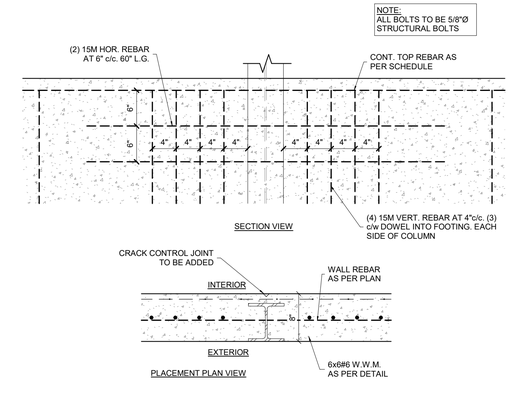
D8 / S1.1 CONCRETE FLOOR SAW CUT CONTROL JOINT
SCALE: N.T.S.



D9 / S1.1 STEEL WIND COLUMN
SCALE: N.T.S.



D10 / S1.1 W6x25 BASE & TOP PLATE DETAIL
SCALE: N.T.S.



D11 / S1.1 WIND COLUMN W BASE & TOP PLATE DETAIL
SCALE: N.T.S.

NOTES:

PLEASE READ NOTE PAGE AT BEGINNING OF DRAWING SET FOR ALL NOTES REGARDING THIS PROJECT

NO.	DATE:	DESCRIPTION:
1	2025-05-06	ISSUED FOR PERMIT
2	2025-05-14	RE-ISSUED FOR PERMIT

PROJECT NORTH | TRUE NORTH

Professional Engineers Ontario
8586 - REV 2025 05 14
Licensed Engineering Technologist
Name: [illegible]
Discipline: Civil
Limited to the design of foundations, steel, and wood structural components for agricultural and industrial buildings up to 6 m (20 ft.) in height, excluding trusses or frames.
Association of Professional Engineers of Ontario

PROFESSIONAL ENGINEER'S SEAL

STONECREST ENGINEERING INC.
EST. 1995
PO Box 39, 201-66 Woodstock Street North
Tavistock, Ontario, N0B 2R0
519-625-8025 ~ www.stonecrestengineering.com

CONTRACTOR TO CHECK ALL DIMENSIONS AND ELEVATIONS AND REPORT ANY DISCREPANCIES TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK

DO NOT SCALE THE DRAWINGS

CLIENT: TRACKLESS VEHICLES

LOCATION: 55 THUNDERBIRD DR. COURTLAND, ONTARIO

PROJECT NAME: LOW FIRE LOAD F-3 WAREHOUSE

PROJECT STATUS AND VERSION: PERMIT DRAWINGS

DESIGNED BY: I.E.

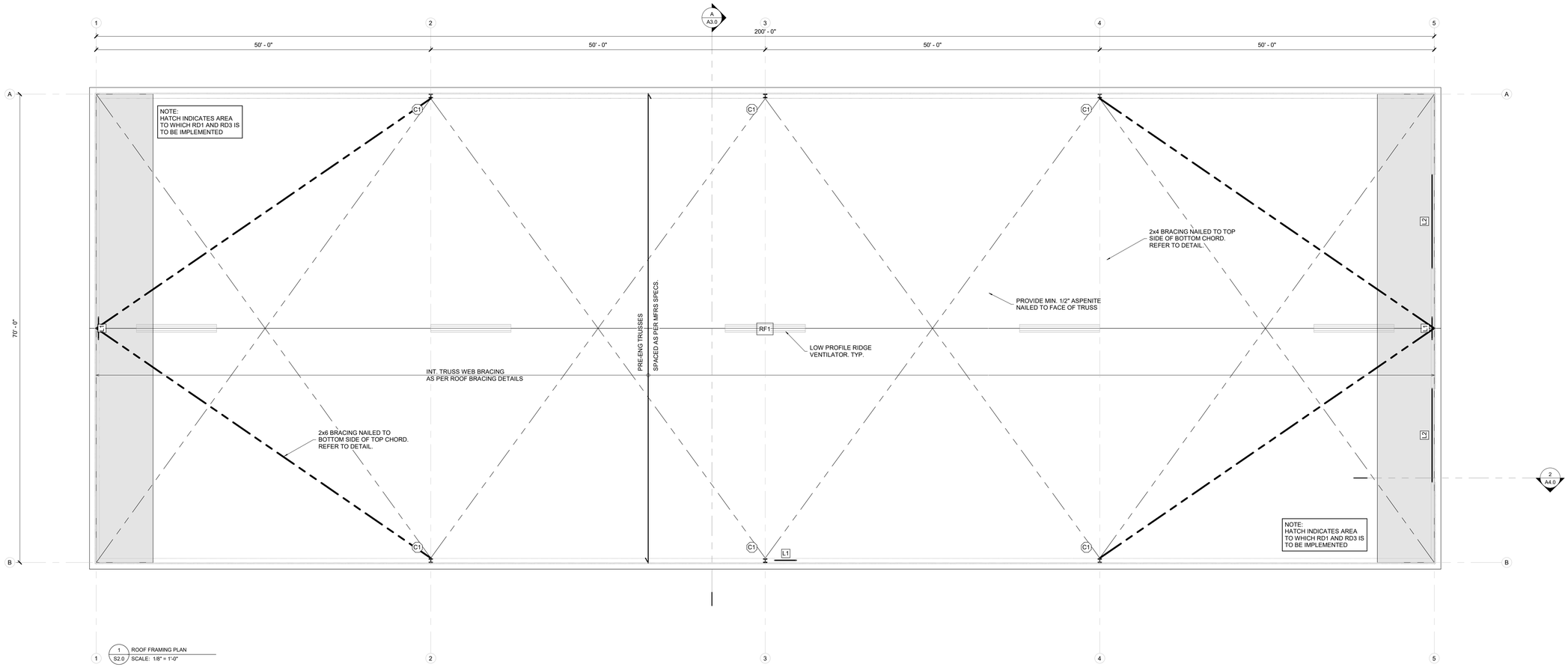
PRINT DATE: MAY 14, 2025

PAGE DESCRIPTION: FOUNDATION DETAILS

SCALE: AS NOTED

FILE: 8586-1

PAGE NUMBER: S1.1



1 / S2.0 ROOF FRAMING PLAN
SCALE: 1/8" = 1'-0"

COLUMN SCHEDULE

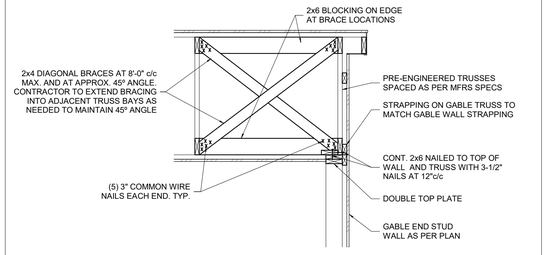
No.	SIZE	BASE PLATE	ANCHORAGE
C1	W6x25	REFER TO DETAIL	REFER TO DETAIL

LINTEL / BEAM / HEADER SCHEDULE

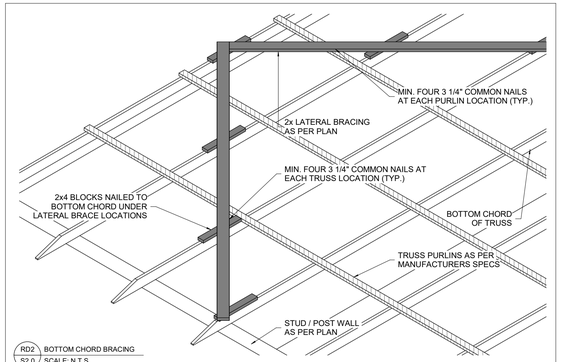
No.	SIZE	END BEARING
L1	(2) 2x6	(1) 2x8 J & (2) 2x8 K
L2	(3) 2x12	(2) 2x8 J & (5) 2x8 K

WOOD FRAMING / TRUSS FRAMING NOTES:

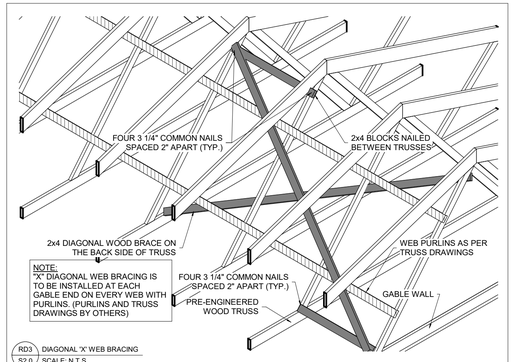
1. REFER TO ENGINEERED TRUSS LAYOUT DESIGNED BY SUPPLIER. ANY DISCREPANCIES OR OMISSIONS TO BE BROUGHT TO THE ATTENTION OF STONECREST ENGINEERING IMMEDIATELY FOR REVIEW.
2. REFER TO GENERAL NOTES AND ROOF FRAMING DETAILS FOR ALL ROOF TRUSS BRACING DETAILS.
3. REFER TO PLAN FOR LOCATION OF ATTIC FIRESTOPS.
4. REFER TO ENGINEERED TRUSS DRAWINGS FOR LOCATION OF WEB PURLINS AND COORDINATE WITH ROOF FRAMING DETAILS.
5. TYPICAL DRIFT LOADING CONDITIONS TO BE APPLIED WHERE APPLICABLE.
6. PROVIDE ATTIC ACCESS TO EACH ATTIC SPACE AS REQUIRED BY OBC.
7. TOTAL VENTILATION AREA TO BE 1/300th OF INSULATED ATTIC SPACE



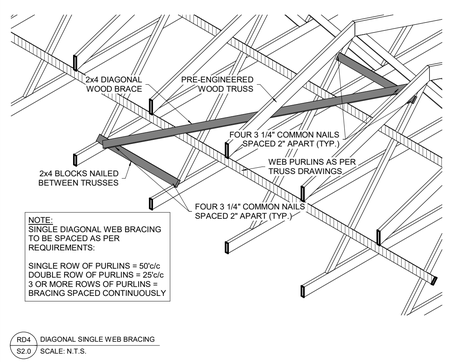
RD1 / S2.0 GABLE END 'X' TRUSS CONNECTION
SCALE: N.T.S.



RD2 / S2.0 BOTTOM CHORD BRACING
SCALE: N.T.S.



RD3 / S2.0 DIAGONAL 'X' WEB BRACING
SCALE: N.T.S.



RD4 / S2.0 DIAGONAL SINGLE WEB BRACING
SCALE: N.T.S.

NOTES:

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1	2025-05-06	ISSUED FOR PERMIT
2	2025-05-14	RE-ISSUED FOR PERMIT

LEGEND:

- SPOT ELEVATION (T/O FFE, T/O FTG U.N.O.)
- 001 — DOOR IDENTIFICATION TAG
- W1 — WALL IDENTIFICATION TAG
- WN1 — WINDOW IDENTIFICATION TAG
- C1 — PIER / COLUMN IDENTIFICATION TAG
- F1 — FOOTING / LINTEL IDENTIFICATION TAG

PROJECT NORTH

TRUE NORTH

Professional Engineers Ontario
8586 - REV
2025 05 14

Licensed Engineering Technologist

Name: [illegible]
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CLIENT: TRACKLESS VEHICLES

LOCATION: 55 THUNDERBIRD DR. COURTLAND, ONTARIO

PROJECT NAME: LOW FIRE LOAD F-3 WAREHOUSE

PROJECT STATUS AND VERSION: PERMIT DRAWINGS

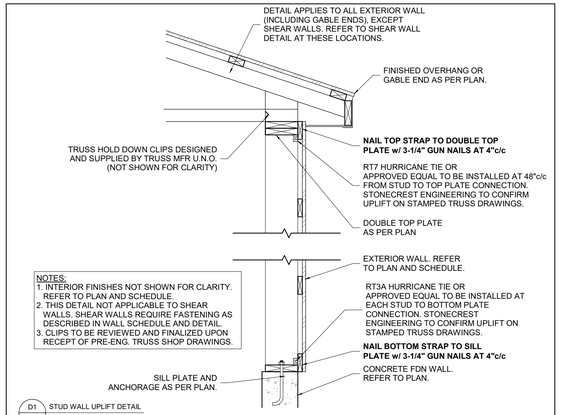
DESIGNED BY:	PRINT DATE:
I.E.	MAY 14, 2025

PAGE DESCRIPTION: ROOF FRAMING PLAN

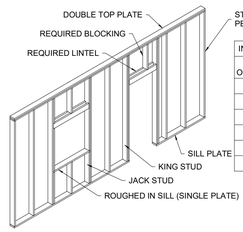
SCALE: AS NOTED

FILE: 8586-1

PAGE NUMBER: S2.0

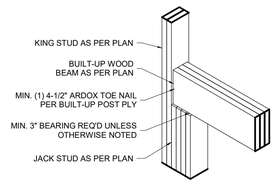


D1 / S4.0 STUD WALL UPLIFT DETAIL
SCALE: N.T.S.

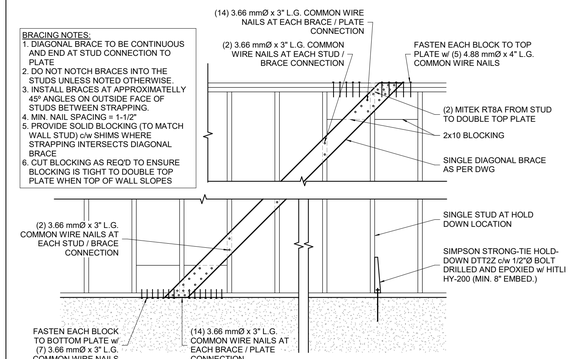


INTERIOR NON-LB LINTEL SCHEDULE	
DOOR/WINDOW OPENING SCHEDULE	LINTEL SIZE
UP TO 4'-0"	2 PLY 2x4
4'-0" TO 6'-0"	2 PLY 2x6
6'-0" TO 8'-0"	2 PLY 2x8
8'-0" TO 10'-0"	2 PLY 2x10
10'-0" TO 12'-0"	2 PLY 2x12
12'-0" TO 16'-0"	3 PLY 2x12

D2 / S4.0 TYPICAL LINTEL DETAIL
SCALE: N.T.S.



D3 / S4.0 BUILT UP WOOD POST TO WOOD HEADER DETAIL
SCALE: N.T.S.



1 / S4.0 SINGLE DIAGONAL WIND BRACING DETAIL
SCALE: N.T.S.

NOTES:

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PROJECT NORTH

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8586 - REV 2025 05 14
Licensed Engineering Technologist
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LOCATION: 55 THUNDERBIRD DR. COURTLAND, ONTARIO

PROJECT NAME: LOW FIRE LOAD F-3 WAREHOUSE

PROJECT STATUS AND VERSION: PERMIT DRAWINGS

DESIGNED BY: I.E.

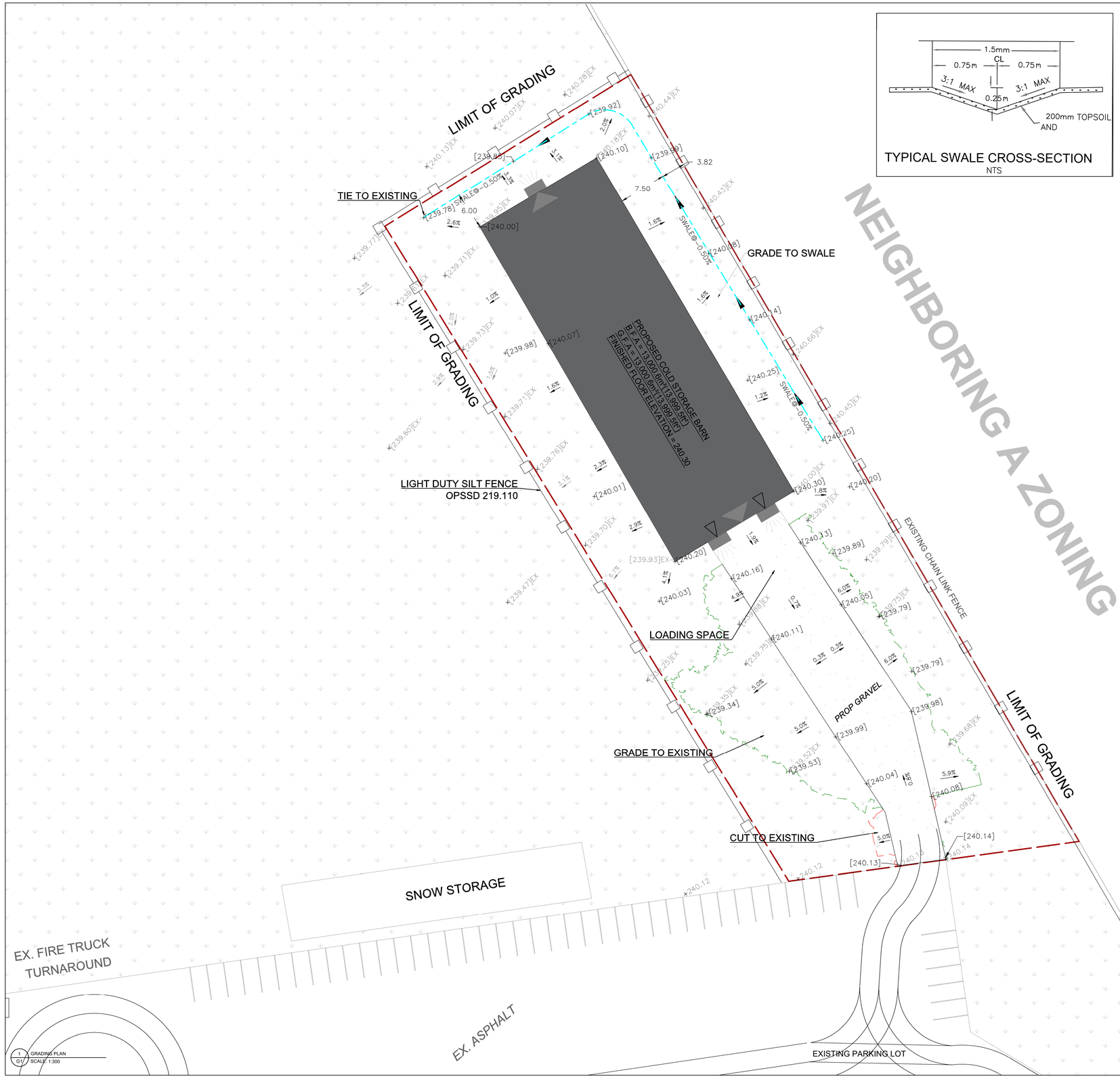
PRINT DATE: MAY 14, 2025

PAGE DESCRIPTION: FRAMING DETAILS

SCALE: AS NOTED

FILE: 8586-1

PAGE NUMBER: S4.0



1 GRADING PLAN
G1 SCALE 1:300

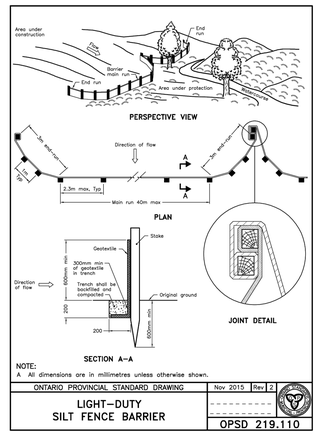
TYPICAL SWALE CROSS-SECTION
NTS

NOTES

1. DIMENSIONS ARE IN METERS UNLESS OTHERWISE NOTED.
2. STONECREST ENGINEERING IS NOT AN ONTARIO LAND SURVEYOR (OLS). ALL PROPERTY LINES AND SETBACKS ARE AS PER THE LEGAL SURVEY REFERENCED ON THIS DRAWING OR APPROXIMATE IF THE LEGAL SURVEY IS NOT SPECIFICALLY REFERENCED. PROPERTY OWNERS ARE TO VERIFY PROPERTY BOUNDARIES AND SETBACKS WITH LEGAL SURVEY BY AN APPROPRIATELY QUALIFIED LAND SURVEYOR PRIOR TO CONSTRUCTION.
3. ALL GRADES SHOULD BE SLOPED AWAY FROM BUILDINGS AT A MINIMUM OF1.0%
4. DURING THE CONSTRUCTION, THE CONTRACTOR ASSUMES ALL LIABILITY FOR DAMAGE TO ALL EXISTING FEATURES AND STRUCTURES. THE CONTRACTOR WILL BE RESPONSIBLE FORM ALL RESTORATION AND RESTORED TO EXISTING CONDITION OR BETTER.
5. AS SHOWN ON THE DRAWING, MATCH ALL THE PROPOSED ELEVATIONS AND SLOPES TO EXISTING ELEVATIONS.
6. CONTRACTOR IS RESPONSIBLE FOR ACQUIRING ALL INSPECTIONS ON ALL SERVICES AND ALL CONNECTIONS TO THE BUILDINGS.
7. GRANULAR STRUCTURE REQUIREMENTS:
   GRANULAR A BASE -150mm (COMPACTED)
   GRANULAR B TYPE II SUBBASE -450mm (COMPACTED)
8. TYPICAL GRAVEL STRUCTURE TO BE CONFIRMED BY A SOILS CONSULTANT.

EROSION AND SEDIMENT CONTROL

1. SITE WORKS ARE TO BE STAGED IN SUCH A MANNER THAT EROSION WILL BE MINIMIZED AND THAT BARRIERS AND SEDIMENTATION FACILITIES WITHIN THE SITE ARE PROVIDED TO CONTROL ANY EROSION THAT DOES OCCUR
2. STOCKPILES SHOULD BE LOCATED AND PROTECTED TO MINIMIZE ENVIRONMENTAL INTERFERENCE. STOCKPILES SHOULD NOT BE LOCATED IMMEDIATELY ADJACENT TO DITCHES OR ROAD ALLOWANCES. EROSION CONTROL FENCING IS TO BE INSTALLED AROUND THE BASE OF ALL STOCKPILES.
3. A PERIMETER DITCH LEADING TO A SETTLING AREA OR SEDIMENTATION TRAP SHOULD BE INSTALLED AROUND THE STOCKPILE.
4. EROSION PROTECTION (SILT FENCE) TO BE PROVIDED AROUND ALL EXISTING DITCHES, SWALES AND WATERCOURSES.
5. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED AS SITE DEVELOPMENT PROGRESSES. THE CONTRACTOR IS TO PROVIDE ALL ADDITIONAL EROSION CONTROL STRUCTURES.
6. NO ALTERNATIVE METHODS OF EROSION PROTECTION SHALL BE PERMITTED UNLESS APPROVED BY THE APPLICABLE MUNICIPALITY.
7. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT MUNICIPAL ROADWAYS ARE CLEANED OF ALL SEDIMENTS FROM VEHICULAR TRACKING ETC. TO AND FROM THE SITE AT THE END OF EACH WORK DAY.



NOTES:
PLEASE READ NOTE PAGE AT BEGINNING OF DRAWING SET FOR ALL NOTES REGARDING THIS PROJECT

NO.	DATE:	DESCRIPTION:
B	2025-05-29	ISSUED FOR PERMIT
A	2024-10-03	ISSUED FOR SPA

SITE INFORMATION:
1. LEGAL DESCRIPTION:
PART OF LOT 55
THUNDERBIRD DRIVE
GEOGRAPHIC TOWNSHIP OF NORFOLK
TOWNSHIP OF COURTLAND
COUNTY OF NORFOLK

2. ZONING:
MG - GENERAL INDUSTRIAL
(REFER APPLICABLE AHJ ZONING LAW)

3.LEGAL AND TOPOGRAPHICAL SURVEY INFORMATION PROVIDED BY KIM HUSTED SURVEYING LTD

4. SITE PLAN PROVIDED BY STONECREST ENGINEERING

LEGEND:

- PROPERTY LINE
- SILT FENCE
- +[285.00] PROP. ELEVATION
- +285.00EX EXIST. ELEVATION
- 2.8% PROP. SLOPE
- 2.8% EXIST. SLOPE
- 285.00 EXIST. CONTOUR
- SWALE
- EXTERIOR BUILDING LIGHT
- EXTERIOR DOOR / B.F. ENTRANCE
- LIMIT OF GRADING

PROJECT NORTH	TRUE NORTH

PROFESSIONAL ENGINEER'S SEAL

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EST. 1995
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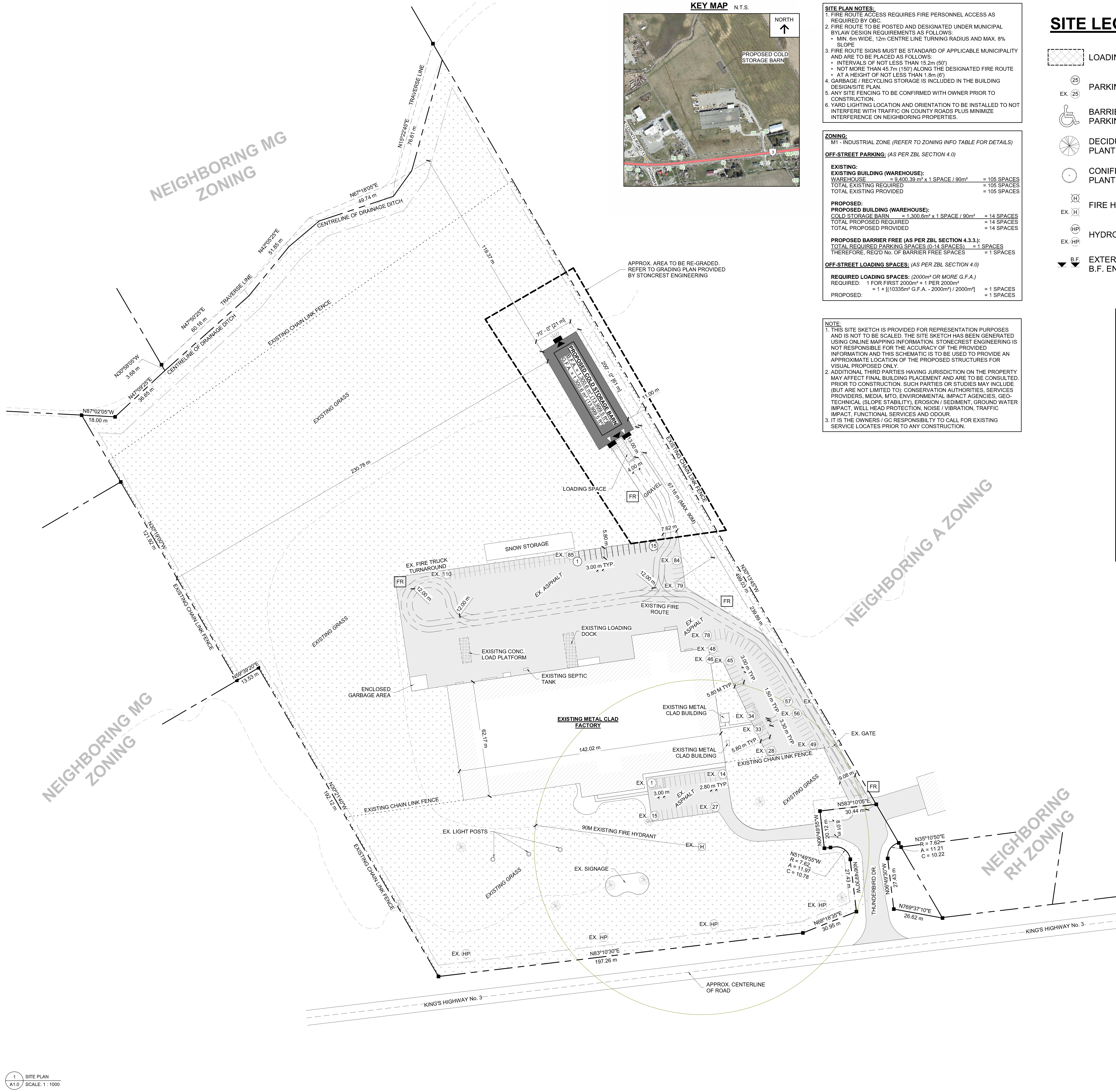
DO NOT SCALE THE DRAWINGS

CLIENT: TRACKLESS VEHICLES
LOCATION: 55 THUNDERBIRD DR. COURTLAND, ONTARIO
PROJECT TYPE: COLD STORAGE BARN
PROJECT STATUS AND VERSION: SITE PLAN APPROVAL DRAWING
DRAWN BY: SG
PRINT DATE: 2025-05-29
PAGE DESCRIPTION: GRADING PLAN
SCALE: AS NOTED
FILE: 8586
PAGE NUMBER: G1



KEY MAP N.T.S.

SITE PLAN NOTES:

1. FIRE ROUTE ACCESS REQUIRES FIRE PERSONNEL ACCESS AS REQUIRED BY OBC.
2. FIRE ROUTE TO BE POSTED AND DESIGNATED UNDER MUNICIPAL BYLAW DESIGN REQUIREMENTS AS FOLLOWS:
   - MIN. 6m WIDE, 12m CENTRE LINE TURNING RADIUS AND MAX. 8% SLOPE
3. FIRE ROUTE SIGNS MUST BE STANDARD OF APPLICABLE MUNICIPALITY AND ARE TO BE PLACED AS FOLLOWS:
   - INTERVALS OF NOT LESS THAN 15.2m (50')
   - NOT MORE THAN 45.7m (150') ALONG THE DESIGNATED FIRE ROUTE
   - AT A HEIGHT OF NOT LESS THAN 1.8m (6')
4. GARBAGE / RECYCLING STORAGE IS INCLUDED IN THE BUILDING DESIGN/SITE PLAN.
5. ANY SITE FENCING TO BE CONFIRMED WITH OWNER PRIOR TO CONSTRUCTION.
6. YARD LIGHTING LOCATION AND ORIENTATION TO BE INSTALLED TO NOT INTERFERE WITH TRAFFIC ON COUNTY ROADS PLUS MINIMIZE INTERFERENCE ON NEIGHBORING PROPERTIES.

ZONING:
M1 - INDUSTRIAL ZONE *(REFER TO ZONING INFO TABLE FOR DETAILS)*

OFF-STREET PARKING: *(AS PER ZBL SECTION 4.0)*

EXISTING:
EXISTING BUILDING (WAREHOUSE):
WAREHOUSE = 9,400.39 m² x 1 SPACE / 90m² = 105 SPACES
TOTAL EXISTING REQUIRED = 105 SPACES
TOTAL EXISTING PROVIDED = 105 SPACES

PROPOSED:
PROPOSED BUILDING (WAREHOUSE):
COLD STORAGE BARN = 1,300.6m² x 1 SPACE / 90m² = 14 SPACES
TOTAL PROPOSED REQUIRED = 14 SPACES
TOTAL PROPOSED PROVIDED = 14 SPACES

PROPOSED BARRIER FREE (AS PER ZBL SECTION 4.3.3.):
TOTAL REQUIRED PARKING SPACES (0-14 SPACES) = 1 SPACES
THEREFORE, REQ'D No. OF BARRIER FREE SPACES = 1 SPACES

OFF-STREET LOADING SPACES: *(AS PER ZBL SECTION 4.0)*

REQUIRED LOADING SPACES: *(2000m² OR MORE G.F.A.)*
REQUIRED: 1 FOR FIRST 2000m² + 1 PER 2000m²
= 1 + [(10335m² G.F.A. - 2000m²) / 2000m²] = 1 SPACES
PROPOSED: = 1 SPACES

NOTE:

1. THIS SITE SKETCH IS PROVIDED FOR REPRESENTATION PURPOSES AND IS NOT TO BE SCALED. THE SITE SKETCH HAS BEEN GENERATED USING ONLINE MAPPING INFORMATION. STONECREST ENGINEERING IS NOT RESPONSIBLE FOR THE ACCURACY OF THE PROVIDED INFORMATION AND THIS SCHEMATIC IS TO BE USED TO PROVIDE AN APPROXIMATE LOCATION OF THE PROPOSED STRUCTURES FOR VISUAL PROPOSED ONLY.
2. ADDITIONAL THIRD PARTIES HAVING JURISDICTION ON THE PROPERTY MAY AFFECT FINAL BUILDING PLACEMENT AND ARE TO BE CONSULTED. PRIOR TO CONSTRUCTION. SUCH PARTIES OR STUDIES MAY INCLUDE (BUT ARE NOT LIMITED TO): CONSERVATION AUTHORITIES, SERVICES PROVIDERS, MEDIA, MTO, ENVIRONMENTAL IMPACT AGENCIES, GEO-TECHNICAL (SLOPE STABILITY), EROSION / SEDIMENT, GROUND WATER IMPACT, WELL HEAD PROTECTION, NOISE / VIBRATION, TRAFFIC IMPACT, FUNCTIONAL SERVICES AND ODOUR.
3. IT IS THE OWNERS / GC RESPONSIBILTY TO CALL FOR EXISTING SERVICE LOCATES PRIOR TO ANY CONSTRUCTION.

SITE LEGEND

LOADING SPACE
PARKING SPACE TAGS
BARRIER FREE PARKING SPACE
DECIDUOUS TREE / PLANTING
CONIFEROUS TREE / PLANTING
FIRE HYDRANT
HYDROPOLE
EXTERIOR DOOR / B.F. ENTRANCE
OVERHEAD DOOR
EXTERIOR BUILDING LIGHT
PROPERTY LINE
ZONING SETBACKS
FIRE TRUCK ROUTE
FIRE HOSE LINE
FENCE LINE

ZONING BY-LAW INFORMATION TABLE

	ZONING BY-LAW	EXISTING	PROPOSED	CONFORMS
LOT AREA (MIN.)	1,855 m²	106,850.24 m² (26.4 ac)	106,850.24 m² (26.4 ac)	YES
LOT FRONTAGE (MIN.)	30 m	254.8 m	254.8 m	YES
FRONT YARD SETBACK	6.0 m	86.48 m	239.87 m	YES
INT. SIDE YARD SETBACK	3.0 m	63.37 m	11 m	YES
EXT. SIDE YARD SETBACK	6.0 m	N/A	N/A	YES
REAR YARD SETBACK	9.0 m	267.74 m	119.37 m	YES
LOT DEPTH (MIN.)	NO PROVISIONS	499.03 m	499.03 m	YES
BUILDING FLOOR AREA	NO PROVISIONS	9,400.39 m² (101,185 ft²)	1,300.6 m² (13,999.5 ft²)	YES
GROSS FLOOR AREA	NO PROVISIONS	9,400.39 m² (101,185 ft²)	1,300.6 m² (13,999.5 ft²)	YES
LOT COVERAGE (ALL BLDGs)	NO PROVISIONS	8.8 %	1.2 %	YES
LOT COVERAGE (ACCESSORY)	NO PROVISIONS	N/A	N/A	YES
BUILDING HEIGHT (MAX.)	NO PROVISIONS	5.5 m	5.5 m	YES
NUMBER OF PARKING SPACES	SEE 4.9. (Z) OF ZBL	REFER TO CALC'S	REFER TO CALC'S	YES
BARRIER FREE SPACES	SEE 4.3.3. OF ZBL	REFER TO CALC'S	REFER TO CALC'S	YES
NUMBER OF LOADING SPACES	SEE 6.16 OF ZBL	1	1	YES
LANDSCAPED AREA	NO PROVISIONS	83,982.56 m²	82,670.46 m²	N/A
GRANULAR AREA	NO PROVISIONS	N/A	3,092.3 m²	N/A
PAVED AREA	NO PROVISIONS	14,974.4 m²	14,974.4 m²	N/A

NOTES:
PLEASE READ NOTE PAGE AT BEGINNING OF DRAWING SET FOR ALL NOTES REGARDING THIS PROJECT

NO.	DATE:	DESCRIPTION:
1	2024-10-03	ISSUED FOR SPA
2	2025-01-30	RE-ISSEUD FOR SPA
3	2025-05-30	RE-ISSUED FOR SPA

SITE INFORMATION:

1. **LEGAL DESCRIPTION:**
   PART OF LOT 162
   THUNDERBIRD DRIVE
   GEOGRAPHIC TOWNSHIP OF NORFOLK
   TOWNSHIP OF MIDDLETON
   COUNTY OF NORFOLK
2. **OFFICIAL PLAN:**
   OP - PROTECTED INDUSTRIAL
   (REFER TO APPLICABLE LAND USE PLANNING AND DESIGNATION FOR DETAILS)
3. **ZONING:**
   MG - GENERAL INDUSTRIAL
   (REFER TO APPLICABLE AHJ ZONING BY LAW)
4. LEGAL AND TOPOGRAPHICAL SURVEY INFORMATION PROVIDED BY KIM HUSTED SURVEYING LTD.
5. GRADING PROVIDED BY STONECREST ENGINEERING

PROJECT NORTH
TRUE NORTH

PROFESSIONAL ENGINEER'S SEAL

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DO NOT SCALE THE DRAWINGS

CLIENT: TRACKLESS VEHICLES
LOCATION: 55 THUNDERBIRD DR. COURTLAND, ONTARIO
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