



City of
Richmond

Report to Development Permit Panel

To: Development Permit Panel

Date: December 18, 2024

From: Joshua Reis
Director, Development

File: DP 21-944022

Re: **Application by Coast Construction for a Development Permit at
18840 River Road**

Staff Recommendation

That a Development Permit be issued to permit the construction of a single-family dwelling at 18840 River Road on a site zoned "Agriculture (AG1)" and designated as an Environmentally Sensitive Area (ESA).

Joshua Reis, MCIP, RPP, AICP
Director, Development
(604-247-4625)

BB:cas
Att. 2

Staff Report

Origin

Coast Construction, on behalf of Angelina Margaret Priatel, the owner of the subject property, has applied to the City of Richmond for permission to develop a single-family dwelling with one secondary suite at 18840 River Road on a site zoned “Agriculture (AG1)” and designated as an Environmentally Sensitive Area (ESA). The subject site is a hooked property with a small portion of the southern end of the property being separated by a Railway Right-of-Way (RRW) and an unopened road allowance. The site is currently unoccupied and does not contain any buildings or structures.

Utility connections for water and drainage and frontage improvements will be addressed at the Building Permit stage via Work Order.

Development Information

Please refer to attached Development Application Data Sheet (Attachment 1) for a comparison of the proposed development data with the relevant Bylaw requirements.

Background

The subject site and the surrounding area are located within the Agricultural Land Reserve (ALR). Development surrounding the subject site is as follows:

- To the North: Across River Road, four lots along the foreshore of the north arm of Fraser, zoned “Agriculture (AG1)” and each containing a single-family dwelling;
- To the East: Agricultural operation on an approximately 4.2 acres (1.7 ha) property zoned “Agriculture (AG1)”;
- To the South: A RRW property owned by Canadian National (CN) containing railway infrastructure; and
- To the West: A property with an area of approximately 2.1 acres (0.8 ha), zoned “Agriculture (AG1)”, containing a farmhouse and designated Riparian Management Area (RMA) along the 15 m northern section of the site and the rest of the site being designated as ESA.

Staff Comments

The owner is proposing to establish a lavender farming operation and to build a single-family dwelling with one secondary suite within a farm home plate close to in the northeast corner of the site. An Environmentally Sensitive Development Permit (ESA DP) is required due to the proposed farm home plate containing a single-family dwelling encroaching into portions of the site that are designated as Environmentally Sensitive. As such, the purpose of this ESA DP is to allow the construction of the proposed single-family dwelling on the site and to secure the proposed ESA compensation and restoration efforts. Proposed farming operations and associated uses are not subject to this application.

The proposed scheme attached to this report has satisfactorily addressed the staff comments identified as part of the review of the subject ESA DP application. In addition, it complies with the intent of the applicable sections of the OCP and is in compliance with the “Agriculture (AG1)” zone.

Analysis

Site Planning

- The proposed single-family dwelling is proposed to be located within the farm home plate which has been identified as in close proximity to the northeast corner of the site. The proposed building complies with the maximum floor area of 400 m² (4,306 ft²) in the “Agriculture (AG1)” zone.
- The required farm home plate for the single-family dwelling is located within an area designated as an ESA on the property (shown on DP Plan #2).
- There is a 15.0 m wide RMA on the site along the property’s River Road frontage.
- The farm home plate is required to be contiguous and rectangular in shape, with one side on the front property line or the delineation of a RMA and on one side property line.
- The farm home plate is setback from the front property line and the RMA in order to accommodate future City diking infrastructure upgrades. Future diking upgrades along River Road will require granting of SRWs and will encompass the existing RMA as well as additional lands south of the RMA, within the site, to a maximum width of 21.4 m (13.9 m future dike superstructure and 7.5 m dike service and access area).
- The proposed single-family dwelling will contain a one-bedroom 65m² (700 ft²) secondary suite, intended for the future farm manager. Prior to Council’s issuance of the DP, the owner is required to register a legal agreement on Title to ensure that no final BP inspection is granted until a minimum one-bedroom secondary suite is constructed on the property, to the satisfaction of the City in accordance with the BC Building Code and the City’s Zoning Bylaw.
- Vehicular access is to be provided via an existing driveway from River Road, which also serves as a farm access road to the subject property and the proposed future lavender farming operation on site.
- The owner has submitted a farm plan, prepared by a Professional Agrologist, indicating that the soil on site is not suitable for a diverse range of agricultural uses, but is more specifically suitable for the planting of lavender. Growing lavender requires establishing raised planting beds and would involve a less intensive site preparation and soil fill, and not require extensive irrigation.
- Lavender farming is proposed to be situated in a central space (lavender planting beds) and would be further augmented via a farm building to incorporate lavender processing operations on-site. The lavender beds and planting would cover an area of approximately 4,000 m². The applicant has proposed a farm building (a barn) that would house lavender processing operations to support the future farm. The farm building is not subject to the ESA DP and is to be reviewed separately for compliance with City zoning through the City’s BP review process.
- The area along the southern portion of the site, approximately 4,000 m² in size, is less suitable for lavender farming due to the low elevation and wet ground conditions as a result of water run-off from the north.

This area is also more prone to flooding due to its elevation being lower relative to the existing elevation along River Road (approximately, an elevation drop of 1.8 m) as well as due to specific ground characteristics, presenting significant challenges for future farming of any type of crops.

- The south portions of the lot, not planned to be farmed, have been proposed by the applicant and their Qualified Environmental Professional (QEP) to be set aside for ecological retention, restoration and landscaping in order to both provide ecological compensation, but also to better manage and improve the property's overall site conditions through water run-off management north-south and provide long-term stability for the proposed farm.

Environmentally Sensitive Area and Riparian Management Area

- The property is partially designated ESA, specifically "Freshwater Wetland (FRWT)", which typically includes areas with vegetation and soils influenced by the presence of freshwater in the rooting zone for plants; includes open, forested, and shrub bogs, swamps, marshes, wet meadows, seasonally flooded fields and shallow ponds and ditches. The total area of the ESA designation on the property is approximately 3.7 acres (1.5 ha) or 86 per cent of the entire property area.
- As per the ESA DP exemption criteria specified in the OCP, agricultural activities are not subject to the ESA DP requirements.
- The property also includes a 15 m wide RMA along the north property line associated with a drainage canal along River Road. The farm plan confirms that no development and no farming activity is proposed to occur within the RMA.

Environmentally Sensitive Area Assessment

- An Environmental Impact Assessment (the "Report") was submitted by Ecologic Consultants Limited, who were retained by the applicant as the project's QEP. The Report characterizes the site as not recently farmed, being comprised of overgrowth of mostly invasive species of shrubs, grass and small plants as well as a number of non-native and native trees (deciduous and coniferous types) in various locations throughout the ESA designated lands.
- The subject site has not been actively farmed since 2005. The Report indicates no vegetation on the site in the late 1990's followed by attempts at establishing a tree nursery with associated land preparation through the importation of fill in the early 2000's. This activity ceased around 2005 and the property was left fallow. As a result, the site was naturalized and vegetation in the form of various shrubs and trees, including invasive and native species, have taken cover over most of the site and the portions designated as ESA.
- No sensitive habitat ecological features in the form of wildlife and associated nesting that would be considered at risk and subject to provincial protection mechanisms have been observed on the property. Additionally, no amphibians or associated active habitat features were observed on the site.
- The area proposed to be developed for the single-family dwelling and farm home plate area is within the ESA which covers the majority of the site and as noted earlier, would be located 21.4 m from the north property line, ensuring non-encroachment into both the RMA as well as the SRW for diking and dike access.

Ecological Compensation

To compensate for proposed residential uses and the encroachment of the farm home plate of 1,000 m² (10,764 ft²) into the designated ESA, the owner, via a prescribed set of recommendations by the QEP, has proposed to focus ecological compensation and restoration efforts within a total area of 3,734 m² on the south portion of the site as follows:

- Protect and retain existing coniferous trees within an area of 330 m² and have this area both fenced as well as conduct invasive species removal to ensure long term retention of the trees.
- Remove and manage invasive species of shrubs and plants within an area, approximately 794 m² in size, identified as having wetland ecological characteristics in order to enhance ecological function of this wetland zone. This area has been classified as a wetland which has been inundated with invasive species and invasive species removal and management has been ascribed as the best methodology to bring this portion of the site to a higher ecological function.
- Conduct invasive species management in an area which contains deciduous trees and plants on the extreme southeast corner of the site, having an approximate area of 672 m² and to not remove any of the existing bylaw and non-bylaw sized trees in this space.
- Planting of native species of shrubs and herbs in an area of approximately 579 m² size through the following prescription:
 - 170 shrubs and herbs, namely of the species such as Tall Oregon grape, Nootka, Red Flowering currant, Thimbleberry, Oceanspray, and Sword fern; and
 - Eight trees, a mix of coniferous and deciduous types, namely comprised of Douglas fir and Bigleaf maple.
- Planting of native species of shrubs, and herbs in an area of approximately 1,293 m² through the following prescription:
 - 390 shrubs and herbs comprised of species such as Common snowberry, Osoberry, Red elderberry, Salmonberry and Sword fern; and
 - 16 trees, a mix of coniferous and deciduous types, namely comprised of Grand fir, Sitka spruce, Western Red cedar, Black cottonwood, Red alder, and Vine maple.
- Planting of native species in area with riparian and wetland ecological features, approximately 860 m² in size through the following prescription:
 - 370 shrubs and herbs comprised of species such as Pacific Ninebark, Pacific crabapple, Hardhack, Pacific willow, Sitka willow, Red Osier Dogwood and Black Twinberry.
- The restoration and planting areas associated planting material are detailed on the DP Plan# 4 and 5.

The aforementioned proposed tree and plant species to be planted in the enhancement area were recommended by the QEP and are consistent with the “Freshwater Wetland (FRWT)” ESA designation and the “Suitable Trees for Replanting in the City of Richmond” list.

The proposal recommended by the QEP represents a ~3.7:1 ratio in habitat area as proposed and recommended by the QEP in the Environmental Impact Assessment Report. The compensation ratio is measured in terms of the total amount of land dedicated to ecologically oriented undertaking.

At 3,734 m² when compared with the maximum 1,000 m² of land dedicated to the proposed farm home plate, this would result in a net gain in ecological function by enhancing a relatively low-quality habitat in an area designated as ESA in the southern portion of the site (including a significant amount of invasive species) and replacing the area with a densely planted natural landscape to be protected with fencing. The location of the ESA compensation was considered in the context of farming opportunities on the site as a priority. It was determined this location would function better for the ESA compensation in part due to its current wetland ecological characteristics and the fact this approach would enhance site conditions for lavender farming by ensuring surface water runoff is directed into this portion and away from lavender farming area in the center of the property. Ecological enhancement works will help support habitation of the site by a variety of terrestrial and aquatic species, including small mammals, birds and invertebrates. The southern area, which is at the lowest elevation within the property, and which already contains some degree of wetland ecological characteristics, would become a valuable and high ecologically functioning ESA.

To ensure that the proposed enhancements have the best chance of survival and that invasive species are controlled, monitoring and annual reporting to the City by a QEP will be required for a five year period.

DP considerations (Attachment 2) include bonding for the landscape costs, in the amount of \$39,316.00, a contract between the owner and a QEP to provide monitoring and reporting for a period of five years and registration of a legal agreement identifying the ecological compensation area to ensure protection and retention of the area denoted for ESA compensation.

Flood Protection

- The proposed development must meet the requirements of the Flood Plain Designation and Protection Bylaw 8204. Registration of a floodplain covenant on Title identifying a maximum habitable elevation of 3.5 m GSC is required prior to DP issuance.

Site Servicing

Utility connections for water and drainage and frontage improvements will be addressed at the BP stage via Work Order. These improvements are detailed in the DP Considerations in Attachment 2.

Future diking upgrades along River Road will require a 13.9 m wide Statutory Right-of-Way (SRW) along the northern portion of the site to allow dike construction, as well as another 7.5 m wide SRW to accommodate future access to the dike for repair and routine maintenance of diking infrastructure. The total area for diking related design, construction, repair and maintenance would be 21.4 m in width, measured from the north property line, as noted under the Flood Protection section of this report earlier. The owner has agreed to register diking related SRWs as a consideration of the DP, detailed in Attachment 2.

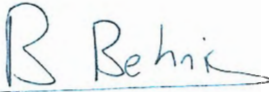
Financial Impact

This development application results in an insignificant Operational Budget Impact (OBI) for the off-site City infrastructure (such as roadworks, waterworks, storm sewers, sanitary sewers, street lights, street lights and traffic lights).

Conclusions

As the proposed development would meet applicable policies and Development Permit Guidelines, staff recommend that the Development Permit be endorsed, and issuance by Council be recommended.

The list of Development Permit Considerations is included in Attachment 2, which has been agreed to by the owner (signed concurrence on file).



Babak Behnia
Planner 2
(604-204-8639)

BB:cas

- Att. 1: Development Application Data Sheet
- 2: Development Permit Considerations



DP DP 21-944022

Attachment 1

Address: 18840 River Road

Applicant: Coast Construction Ltd.

Owner: Angelina M. Priatel

Planning Area(s): East Richmond

	Existing	Proposed
Site Area:	17,570 m ² (1.8 ha)	No change
Land Uses:	Single-family residential and agriculture	No change
OCP Designation:	Agriculture (AGR)	No change
Zoning:	Agriculture 1 (AG1)	No change
Number of Units:	Vacant	1 Single Family Dwelling plus secondary suite

	Bylaw Requirement	Proposed	Variance
Floor Area Ratio:	Max. 400 m ² (4,306 ft ²)	400 m ² (4,306 ft ²)	None permitted
Farm Home Plate Area:	Max. 1,000 m ² (10,764 ft ²)	1,000 m ² (10,764 ft ²)	None
Farm House Footprint:	Max. 60%	60%	None
Setback – to rear of Farm Home Plate:	Max. 75 m	Complies (55 m)	None
Setback –Single Detached Housing Building	Max. 50 m	Complies (21.6 m)	None
Setback – Front Yard:	Min. 6.0 m	Complies (21.6 m)	None
Setback – Side Yard:	Min. 1.2 m	Complies (5.6 m) to east P/L	None
Setback – Side Yard:	Min. 6.0 m	Complies (44.4 m) to west P/L	None
Setback – Rear Yard:	Min. 10.0 m	Complies (218 m)	None
Height (m):	Max. 9.0 m (2 storeys)	8.2 m (2 storeys)	None



Development Permit Considerations

Development Applications Department
6911 No. 3 Road, Richmond, BC V6Y 2C1

Address: 18840 River Road

File No.: DP 21-944022

Prior to approval of the Development Permit, the developer is required to complete the following:

1. Receipt of a Letter of Credit for landscaping and monitoring of the Environmentally Sensitive Area (ESA) over a 5 year period in the amount of \$39,316. The Letter of Credit may be reduced annually, up to maximum of 20% of the original value, upon receipt of monitoring reports from the Qualified Environmental Professional (QEP) to the satisfaction of the City's Director, Development.
2. Submission of a Contract entered into between the owner and a Qualified Environmental Professional (QEP) to monitor and provide annual reporting to the City on the ESA for 5 years following City approval of substantial completion.
3. Registration of a legal agreement on title to identify the ESA Enhancement and Compensation area and register a Statutory Right-of-Way (SRW) denoting the ESA Enhancement and Compensation area in lieu of proposed non-farm residential development to ensure that landscaping is planted and retained as identified in the submitted Environmental Impact Assessment (EIA) report prepared by Ecologic Environmental Consulting, dated September 7, 2023 as well as an associated Memorandum by Ecologic Environmental Consulting, dated October 4, 2024, and will not be abandoned or removed. The agreement would also note that the Riparian Management Area (RMA) would not be disturbed in association with the proposed development and would be protected via fencing, as to be prescribed by the QEP through a Construction Environmental Management Plan (CEMP), to be submitted at the Building Permit Stage, throughout the duration of construction and development of the site and would be left undisturbed into the future until such time when the City would be initiating dike-related works and upgrades. The legal agreement will also include language to allow City access to the property in case the enhancement works identified in the submitted EIA are not completed, maintained or monitored as proposed. Should the owner wish to modify the existing driveway over the RMA in the future, their proposal, at that time, may be subject to additional Environmental Review and/or Approval from the Senior Regulatory Agency(s).
4. Registration of a flood plain covenant on title identifying a minimum habitable elevation of 3.5 m GSC.
5. Registration of a 13.9 m wide statutory right-of-way along the River Road frontage portion of the lot covering an approximate area of 860 m² for the future dike development by the City. Future roles and responsibilities in terms of design and construction of the future dike will be provided by City's Engineering Department and appended into the agreement.
6. Registration of a 7.5 m wide statutory right-of-way to accommodate future access to dike for repair and routine maintenance of diking infrastructure. covering approximately area of 465 m². Future roles and responsibilities in terms of dike repair, monitoring and routine maintenance via the dike access SRW by the City will be provided by the City's Engineering Department and appended into the agreement.
7. Registration of a legal agreement on Title to ensure that no final Building Permit inspection is granted for the proposed farm home until a one bedroom secondary suite is constructed in the proposed single-family dwelling.
8. Payment of all fees in full for the cost associated with the Development Permit Panel Meeting Notices, consistent with the City's Consolidated Fees Bylaw No 8636, as amended.

Prior to Building Permit Issuance, the developer must complete the following requirements:

1. At the Owner's cost via City Work Order*, design and construct/install utility connections and frontage improvements, works include, but not be limited to water works and storm sewer works.

Initial: _____

2. No connection to the City's sanitary sewer system is permitted to properties within the Agricultural Land Reserve (ALR). An On-site Sanitary Disposal System is required as per the City of Richmond Policy 7401, to be designed by a Professional Engineer at the owner's cost.
3. The owner is required to review street lighting levels along all road frontages and upgrade as required.
4. Submission of a Construction Parking and Traffic Management Plan to the Transportation Department. Management Plan shall include location for parking for services, deliveries, workers, loading, application for any lane closures, and proper construction traffic controls as per Traffic Control Manual for works on Roadways (by Ministry of Transportation) and MMCD Traffic Regulation Section 01570.
5. Obtain a Building Permit (BP) for any construction hoarding. If construction hoarding is required to temporarily occupy a public street, the air space above a public street, or any part thereof, additional City approvals and associated fees may be required as part of the Building Permit. For additional information, contact the Building Approvals Department at 604-276-4285.
6. Installation of appropriate Environmentally Sensitive Area (ESA) and Riparian Management Area (RMA) protection fencing, according to a Construction Environmental Management Plan approved by staff and as per the recommendations of and specifications listed by the Qualified Environmental Professional (QEP).

Note:

- * This requires a separate application.
- Where the Director of Development deems appropriate, the preceding agreements are to be drawn not only as personal covenants of the property owner but also as covenants pursuant to Section 219 of the Land Title Act.
All agreements to be registered in the Land Title Office shall have priority over all such liens, charges and encumbrances as is considered advisable by the Director of Development. All agreements to be registered in the Land Title Office shall, unless the Director of Development determines otherwise, be fully registered in the Land Title Office prior to enactment of the appropriate bylaw.
The preceding agreements shall provide security to the City including indemnities, warranties, equitable/rent charges, letters of credit and withholding permits, as deemed necessary or advisable by the Director of Development. All agreements shall be in a form and content satisfactory to the Director of Development.
- Additional legal agreements, as determined via the subject development's Servicing Agreement(s) and/or Development Permit(s), and/or Building Permit(s) to the satisfaction of the Director of Engineering may be required including, but not limited to, site investigation, testing, monitoring, site preparation, de-watering, drilling, underpinning, anchoring, shoring, piling, pre-loading, ground densification or other activities that may result in settlement, displacement, subsidence, damage or nuisance to City and private utility infrastructure.
- Applicants for all City Permits are required to comply at all times with the conditions of the Provincial *Wildlife Act* and Federal *Migratory Birds Convention Act*, which contains prohibitions on the removal or disturbance of both birds and their nests. Issuance of Municipal permits does not give an individual authority to contravene these legislations. The City of Richmond recommends that where significant trees or vegetation exists on site, the services of a Qualified Environmental Professional (QEP) be secured to perform a survey and ensure that development activities are in compliance with all relevant legislation.

[Signed copy on file]

Signed

Date



No. DP 21-944022

To the Holder: Angelina Margaret. Priatel

Property Address: 18840 River Road

Address: 1118 MAPLE STREET
VANCOUVER, BC
V6J 3R6

1. This Development Permit is issued subject to compliance with all of the Bylaws of the City applicable thereto, except as specifically varied or supplemented by this Permit.
2. This Development Permit applies to and only to those lands shown cross-hatched on the attached Schedule "A" and any and all buildings, structures and other development thereon.
3. Sanitary systems, water, drainage, highways, street lighting, underground wiring, and sidewalks, shall be provided as required.
4. Subject to Section 692 of the Local Government Act, R.S.B.C.: buildings and structures; off-street parking and loading facilities; roads and parking areas; and landscaping and screening shall be constructed generally in accordance with Plans #1 to #9 attached hereto.
5. As a condition of the issuance of this Permit, the City is holding the security in the amount of \$39,316 to ensure that development is carried out in accordance with the terms and conditions of this Permit. Should any interest be earned upon the security, it shall accrue to the Holder if the security is returned. The condition of the posting of the security is that should the Holder fail to carry out the development hereby authorized, according to the terms and conditions of this Permit within the time provided, the City may use the security to carry out the work by its servants, agents or contractors, and any surplus shall be paid over to the Holder. Should the Holder carry out the development permitted by this permit within the time set out herein, the security shall be returned to the Holder. The City may retain the security for up to one year after inspection of the completed landscaping in order to ensure that plant material has survived.
6. If the Holder does not commence the construction permitted by this Permit within 24 months of the date of this Permit, this Permit shall lapse and the security shall be returned in full.

Development Permit
No. DP 21-944022

To the Holder: Angelina M. Priatel

Property Address: 18840 River Road

Address: 1118 MAPLE STREET
VANCOUVER, BC
V6J 3R6

7. The land described herein shall be developed generally in accordance with the terms and conditions and provisions of this Permit and any plans and specifications attached to this Permit which shall form a part hereof.

This Permit is not a Building Permit.

AUTHORIZING RESOLUTION NO.
DAY OF , .

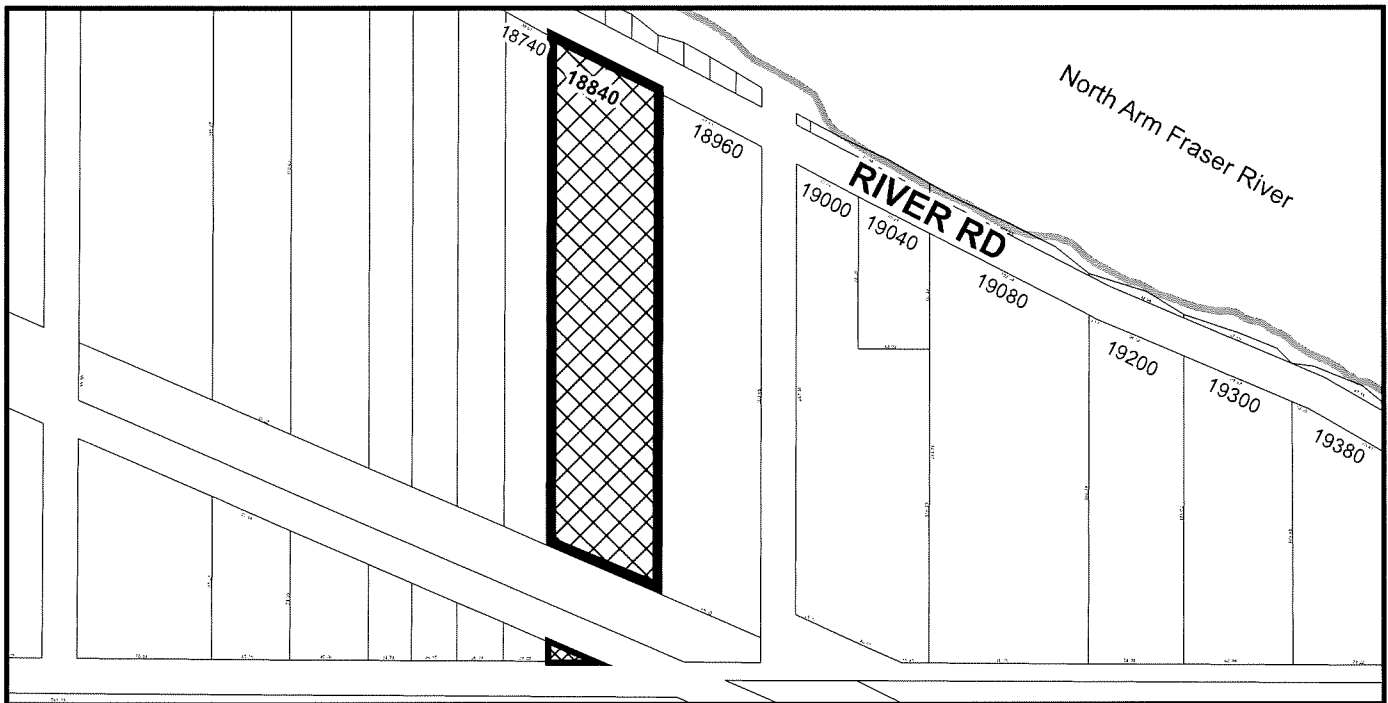
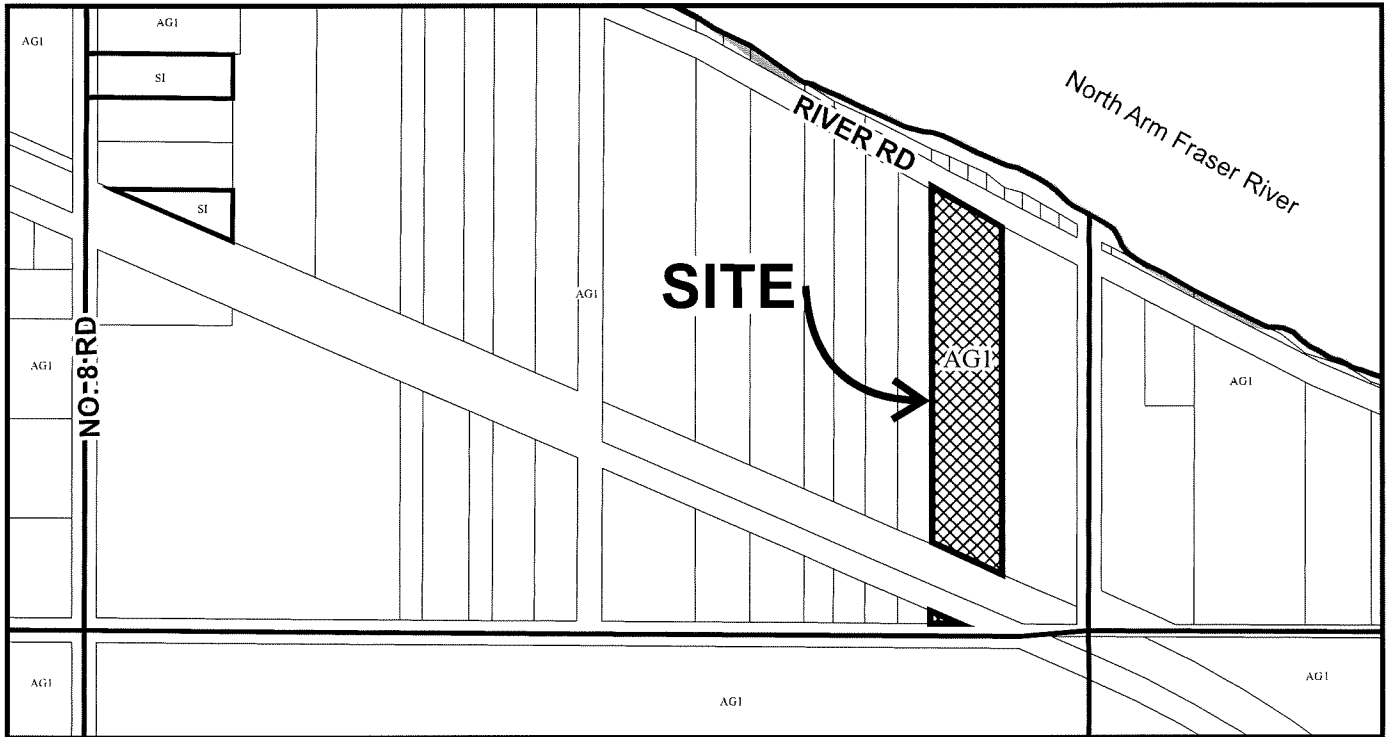
ISSUED BY THE COUNCIL THE

DELIVERED THIS DAY OF , .

MAYOR



City of Richmond



DP 21-944022
SCHEDULE "A"

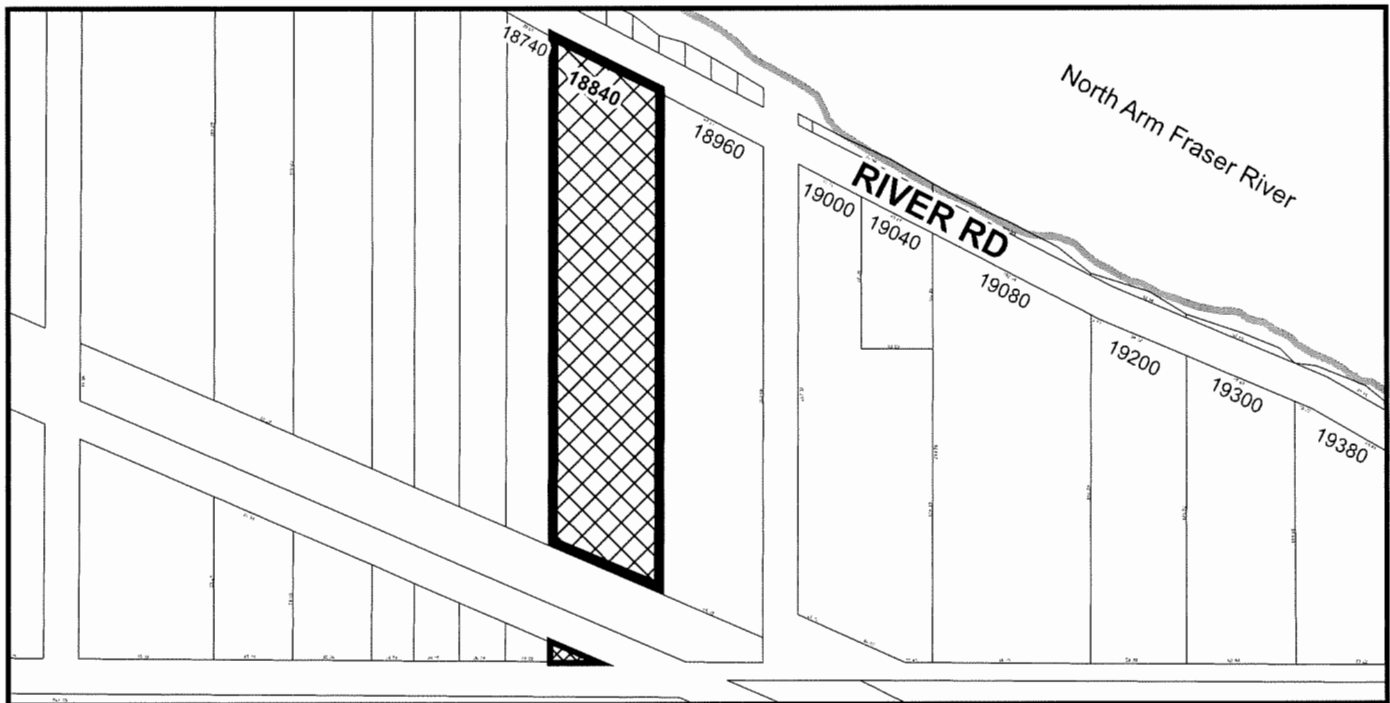
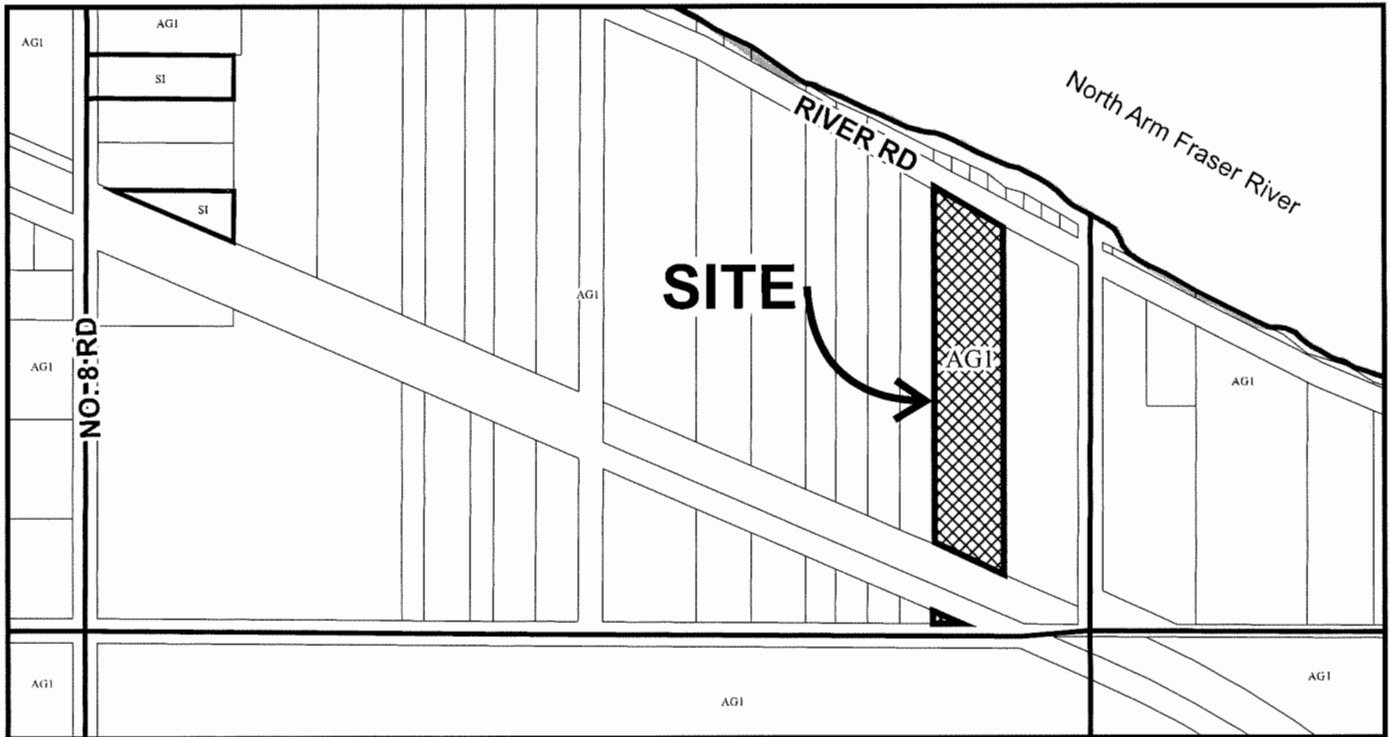
Original Date: 11/16/21

Revision Date:

Note: Dimensions are in METRES



City of Richmond



DP 21-944022

Original Date: 11/16/21

Revision Date:

Note: Dimensions are in METRES

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ISSUE DATES:		ISSUED FOR:
1	FEB 14/23	CLIENT REVIEW
2	AUG 15/23	COORDINATION
3	SEP 06/23	DP AMENDMENT
4	JUN 20/24	MEETING DIKE REQUIREMENT
5	/24	
6	/24	
7	/24	
8	/24	

REVISION SCHEDULE		
NO	DATE	DESCRIPTION
1	JUN20-24	FILL FOR DIKE

SEAL:

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 THE CONTRACTOR MUST CHECK AND VERIFY ALL DETAILS AND DIMENSIONS OF THE JOB AND BE RESPONSIBLE FOR SAME REPORTING ANY DISCREPANCIES TO THE ARCHITECT BEFORE COMMENCING WORK.
 ALL DRAWINGS, DETAILS AND SPECIFICATIONS ARE TO BE USED FOR CONSTRUCTION ONLY WHEN SIGNED BY ATA ARCHITECTURAL DESIGN.

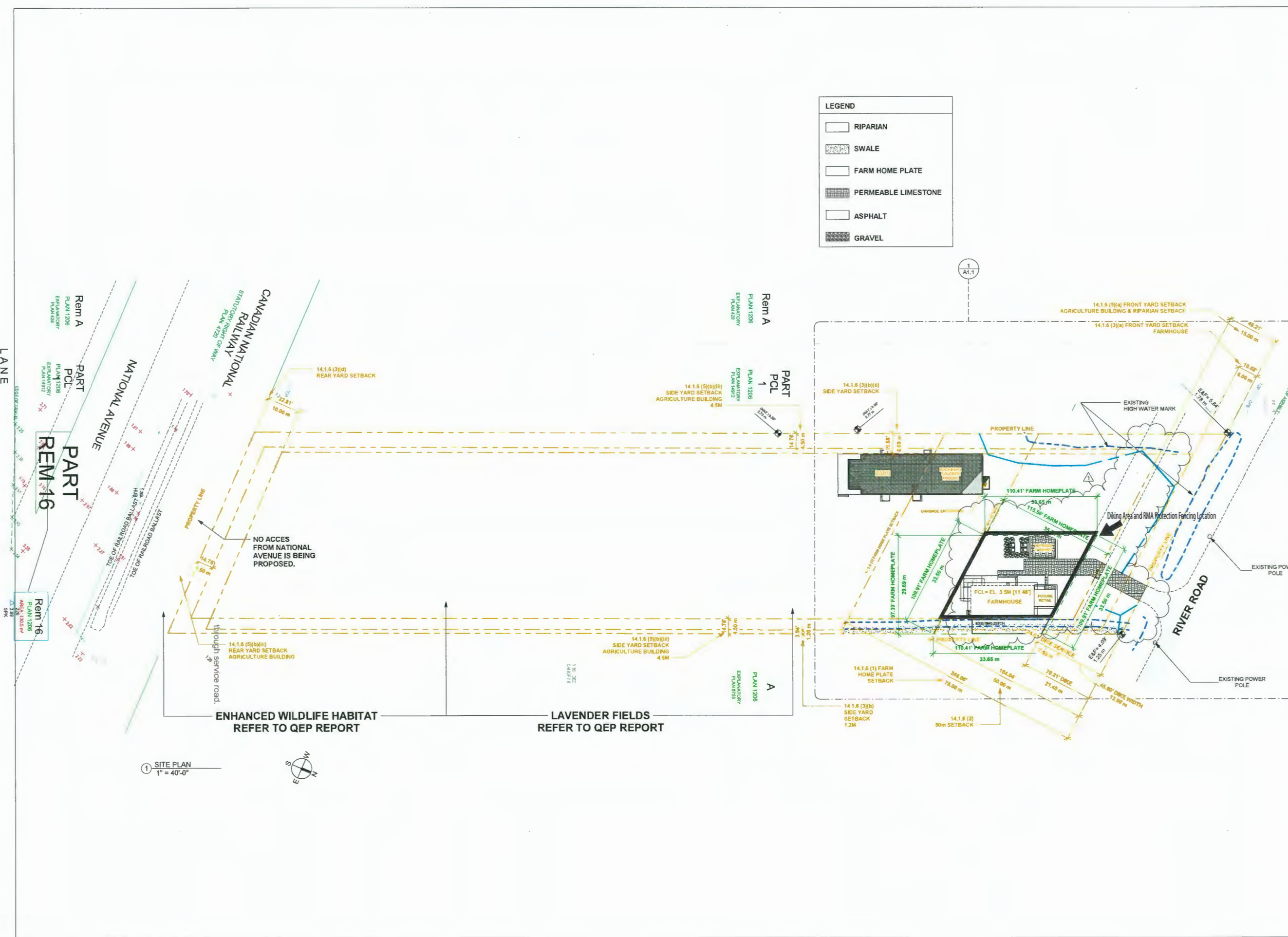
PROJECT:
18840 RIVER ROAD RICHMOND

SHEET TITLE:
SITE PLAN

CHECKED BY: ATA
 DRAWN BY: Author
 START DATE: FEB 01/23
 SCALE: As indicated
 PROJECT NO. 21-33 DRAWING NO. A1.2

LEGEND

- RIPARIAN
- SWALE
- FARM HOME PLATE
- PERMEABLE LIMESTONE
- ASPHALT
- GRAVEL



① SITE PLAN
 1" = 40'-0"



5448900

5449000



Canadian National Railroad

DITCH 2

Nelson Rd

5448900

5449000

5448900

5449000



DITCH 2

DITCH

Nelson Rd

5448900

5449000

Existing Coniferous Woodland

Approximate area = 330 m²
 Invasive species management only

Existing Wetland

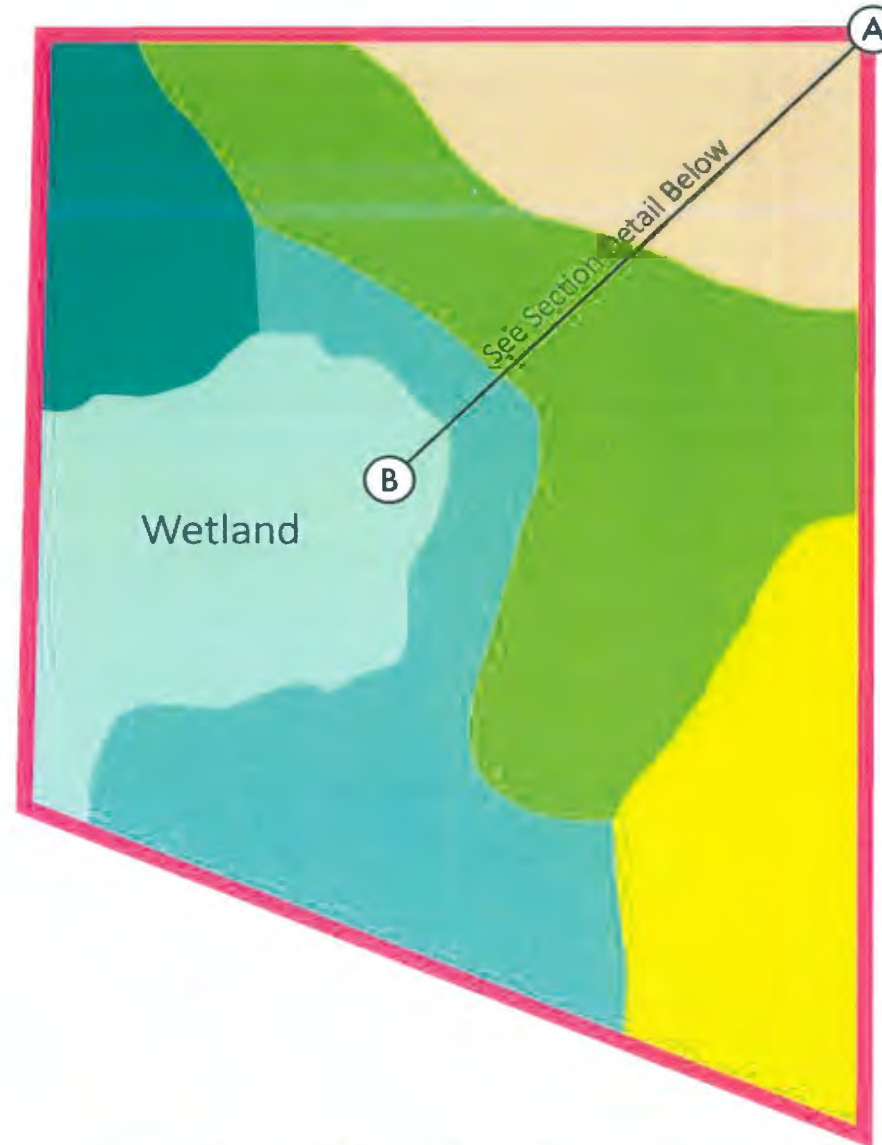
Approximate area = 794 m²
 Invasive species management only

Wet/Riparian Areas

Approximate area = 860 m²
 Number of shrubs/herbs = 370

Recommended Species Group 3:

- Shrubs:
 Pacific Ninebark (*Physocarpus capitatus*)
 Pacific Crabapple (*Malus fusca*)
 Hardhack (*Spiraea douglasii*)
 Pacific Willow (*Salix lasiandra*)
 Sitka Willow (*Salix sitchensis*)
 Red-osier Dogwood (*Cornus sericea*)
 Black Twinberry (*Lonicera involucrata*)



Existing Deciduous Woodland

Approximate area = 672 m²
 Invasive species management only

Drier Uplands

Approximate area = 579 m²
 Number of shrubs/herbs = 170
 Number of trees = 8

Recommended Species Group 1:

- Trees:
 Douglas-fir (*Pseudotsuga menziesii*)
 Bigleaf Maple (*Acer macrophyllum*)
- Shrubs/herbaceous:
 Tall Oregon-grape (*Mahonia aquifolium*)
 Red-flowering Currant (*Ribes sanguineum*)
 Thimbleberry (*Rubus parviflorus*)
 Nootka Rose (*Rose nutkana*)
 Oceanspray (*Holodiscus discolor*)
 Sword Fern (*Polystichum munitum*)

Mesic Uplands

Approximate area = 1,293 m²
 Number of shrubs/herbs = 390
 Number of trees = 16

Recommended Species Group 2:

- Trees/large shrubs:
 Grand Fir (*Abies grandis*)
 Sitka Spruce (*Picea sitchensis*)
 Western Redcedar (*Thuja plicata*)
 Black Cottonwood (*Populus trichocarpa*)
 Red Alder (*Alnus rubra*)
 Vine Maple (*Acer circinatum*)
- Shrub/herbaceous:
 Common Snowberry (*Symphoricarpos albus*)
 Osoberry (*Oemleria cerasiformis*)
 Red Elderberry (*Sambucus racemosa*)
 Salmonberry (*Rubus spectabilis*)
 Sword Fern (*Polystichum munitum*)

Estimated plant numbers based on 5 m spacing for trees and large shrubs, and 1.5 m spacing for smaller shrubs/herbs. Due to greater sizes at maturity for trees and large shrubs, the tree to smaller shrub ratio is set to 30% to 70% respectively.

800 5448900 5449000

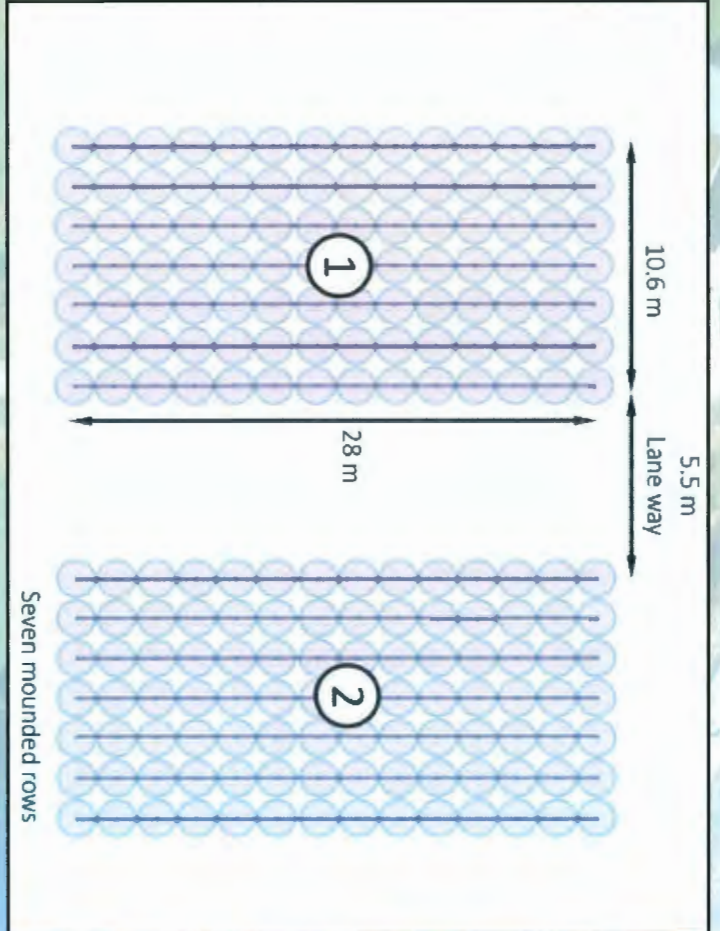
Canadian National Railroad

WETLAND

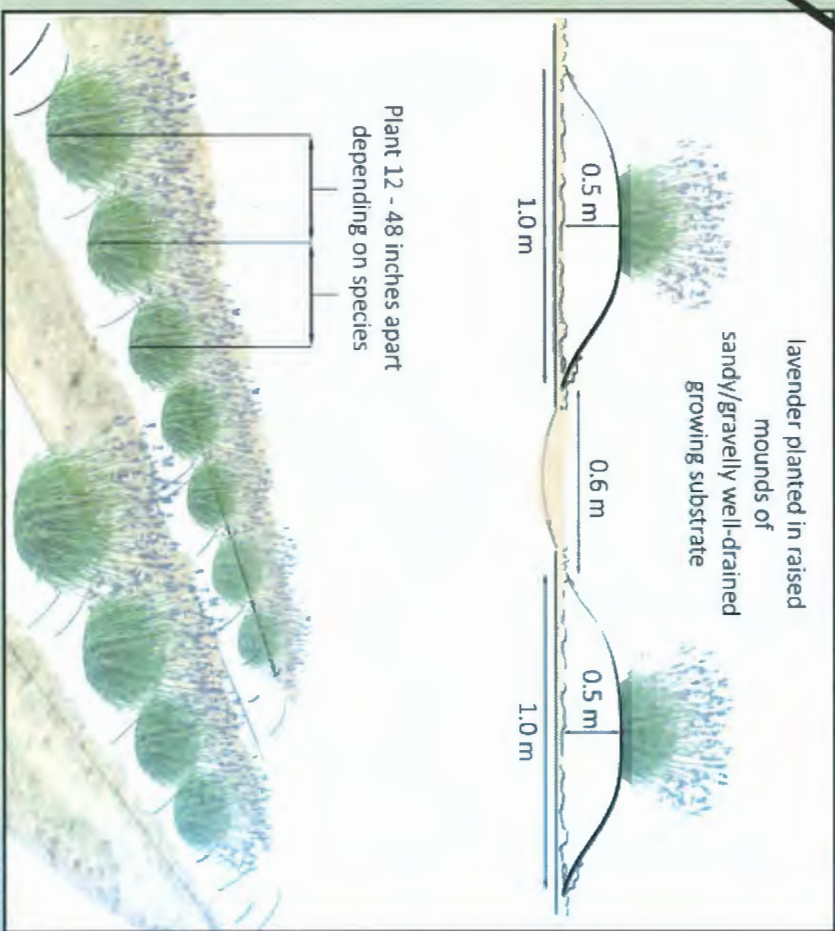
ENHANCED WILDLIFE COMPENSATION AREA



Lavendar Farming Area



(ESA Compensation Area Protection Fencing)



0 10 20 30 40 m 1:1,200

800 5448900 5449000

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 731 Donegal Place
 North Vancouver, BC V7N 2X6
 Tel: (604) 736-3730
 www.atarchitect.ca

18840 RIVER ROAD RICHMOND DEVELOPMENT PERMIT APPLICATION

PROJECT CONTACT:

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 AAA, MRAIC, LEED® AP
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 #320 - 11120 HORSESHOE WAY
 RICHMOND, BC V7A 5H7
 T: 604-270-9331 | M: 604-312-4267
 EGBC PERMIT TO PRACTICE 1001557

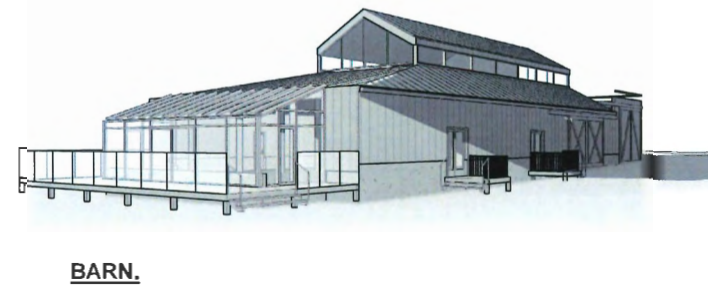
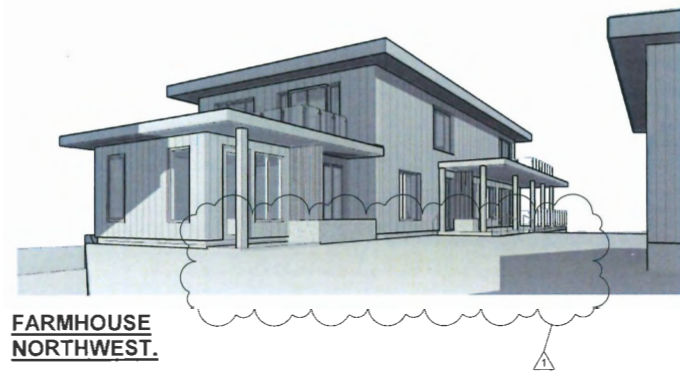
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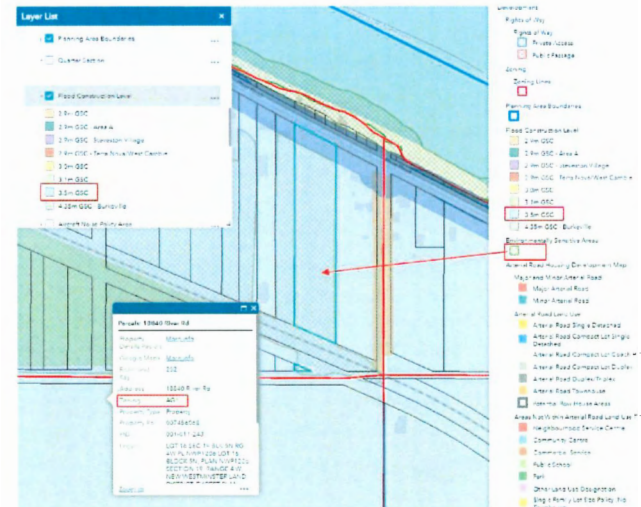
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ISSUE DATES:	ISSUED FOR:
1 FEB 14/23	CLIENT REVIEW
2 AUG 15/23	COORDINATION
3 SEP 06/23	DP AMENDMENT
4 JUN 20/24	MEETING DIKE REQUIREMENT
5 AUG 06/24	DIKE REQUIREMENT
6 /24	
7 /24	
8 /24	

REVISION SCHEDULE		
NO	DATE	DESCRIPTION
1	JUN20-24	FILL FOR DIKE



CIVIC ADDRESS	18840 RIVER ROAD RICHMOND
LEGAL DESCRIPTION	LOT 15 SEC 19 BLK 5N RG 4W PL NWP1206 LOT 15, BLOCK 5N, PLAN NWP1206, SECTION 19, RANGE 4 W, NEW WESTMINSTER LAND DISTRICT, EXCEPT PLAN 4720, 8577
ZONING	AG1
LOT AREA SQ.FT.	167,917.00 SF
14.1.4 PERMITTED DENSITY (1)(a) ALL BUILDINGS AND STRUCTURE	
PERMITTED	0.60 FSR 100,750.20 SF
PROVIDED	0.60 FSR 60,450.12 SF
FLOOR AREA BREAK DOWN	
BARN L1 - MAIN FLOOR AREA	5,287.00 SF
DWELLING	4,145.00 SF
CARPORT	531.00 SF
PROVIDED	9,963.00 SF
14.1.4 PERMITTED DENSITY (1)(b)(i) DWELLING	
PERMITTED (DWELLING)	400 SM OR 4,306.00 SF
FLOOR AREA BREAK DOWN	
FARMHOUSE L1 - MAIN FLOOR AREA	1,901.00 SF
FARMHOUSE L2 - UPPER FLOOR AREA	1,901.00 SF
FUTURE RETAIL	343.00 SF
PROVIDED (DWELLING)	4,145.00 SF
14.1.5 (1)(b) LOT COVERAGE	
PERMITTED	35% 58,771 SF
FLOOR AREA BREAK DOWN	
DWELLING PLUS RETAIL	1,901.00 SF
BARN	5,287.00 SF
CARPORT	531.00 SF
PROVIDED	7,719.00 SF
14.1.5 (3) LOT COVERAGE (FARMHOUSE FOOTPRINT)	
PERMITTED	60% 2,584 SF
FLOOR AREA BREAK DOWN	
DWELLING	1,901.00 SF
FUTURE RETAIL	343.00 SF
PROVIDED	2,244.00 SF
14.1.7 (1) PERMITTED HEIGHT (SINGLE DETACHED HOUSING)	
PERMITTED	2 STOREYS 9M
PROVIDED	2 STOREYS 8.17M
14.1.7 (2) PERMITTED HEIGHT (ACCESSORY BUILDING CARPORT)	
PERMITTED	1 1/2 STOREYS (16.4 FT)
PROVIDED	1 STOREY 3.29M (10.79 FT)
14.1.7 (2) PERMITTED HEIGHT (AGRICULTURE BUILDING)	
PERMITTED	35M (114.8 FT)
PROVIDED	8.90M (29.20 FT)
7.7.2.1 PARKING	
MIN REQUIRED	2
PROVIDED	2



SEAL:

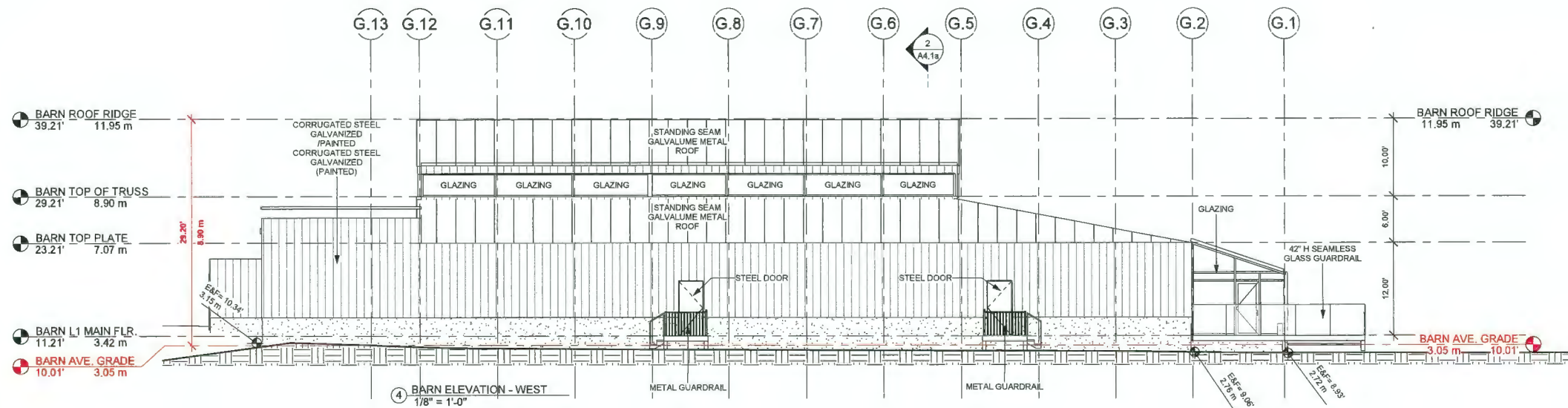
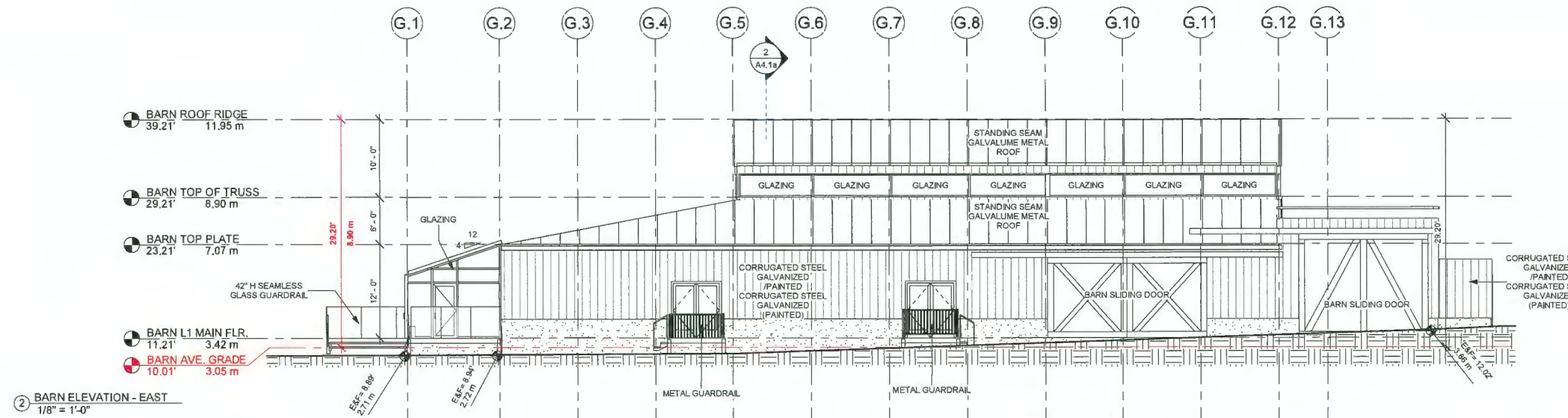
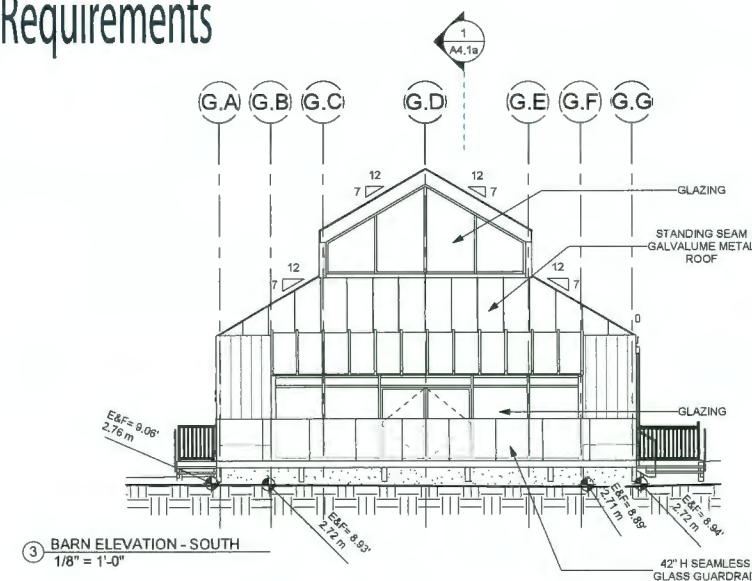
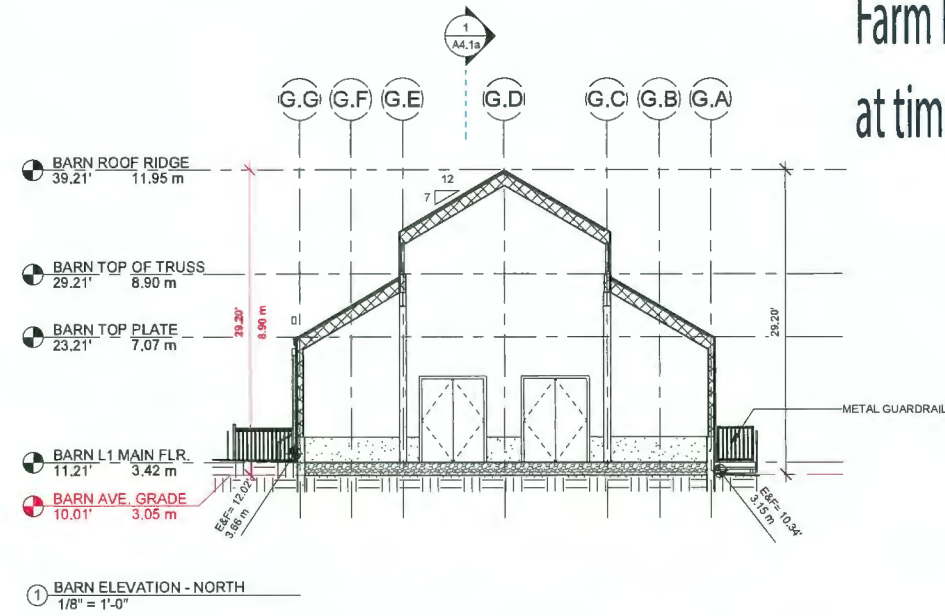
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 3- ALL DRAWINGS, DETAILS AND SPECIFICATIONS ARE TO BE USED FOR CONSTRUCTION ONLY AND SHALL BE THE PROPERTY OF ATA ARCHITECTURAL DESIGN.

PROJECT:
 18840 RIVER ROAD RICHMOND

SHEET TITLE:
 COVER PAGE

CHECKED BY: ATA
DRAWN BY: Author
START DATE: FEB 01/23
SCALE: 12" = 1'-0"
PROJECT NO.: 21-33
DRAWING NO.: A0.0

Farm Building Subject to Zoning Requirements at time of Building Permit



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5 AUG 06/24	DIKE REQUIREMENT
6	/24
7	/24
8	/24

REVISION SCHEDULE		
NO	DATE	DESCRIPTION

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PROJECT:
**18840 RIVER ROAD
 RICHMOND**

SHEET TITLE:
**BARN
 ELEVATIONS**

CHECKED BY:	ATA
DRAWN BY:	Author
START DATE:	FEB 01/23
SCALE:	1/8" = 1'-0"
PROJECT NO.	DRAWING NO.
21-33	A3.1a

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ISSUE DATES: ISSUED FOR:

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4	JUN 20/24	MEETING DIKE REQUIREMENT
5	AUG 06/24	DIKE REQUIREMENT
6	/24	
7	/24	
8	/24	

REVISION SCHEDULE

NO	DATE	DESCRIPTION

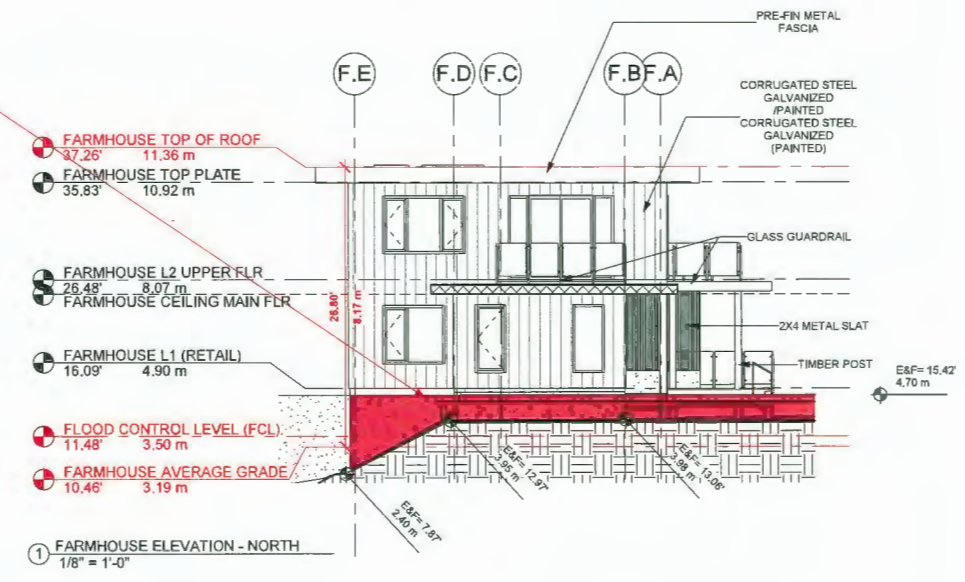
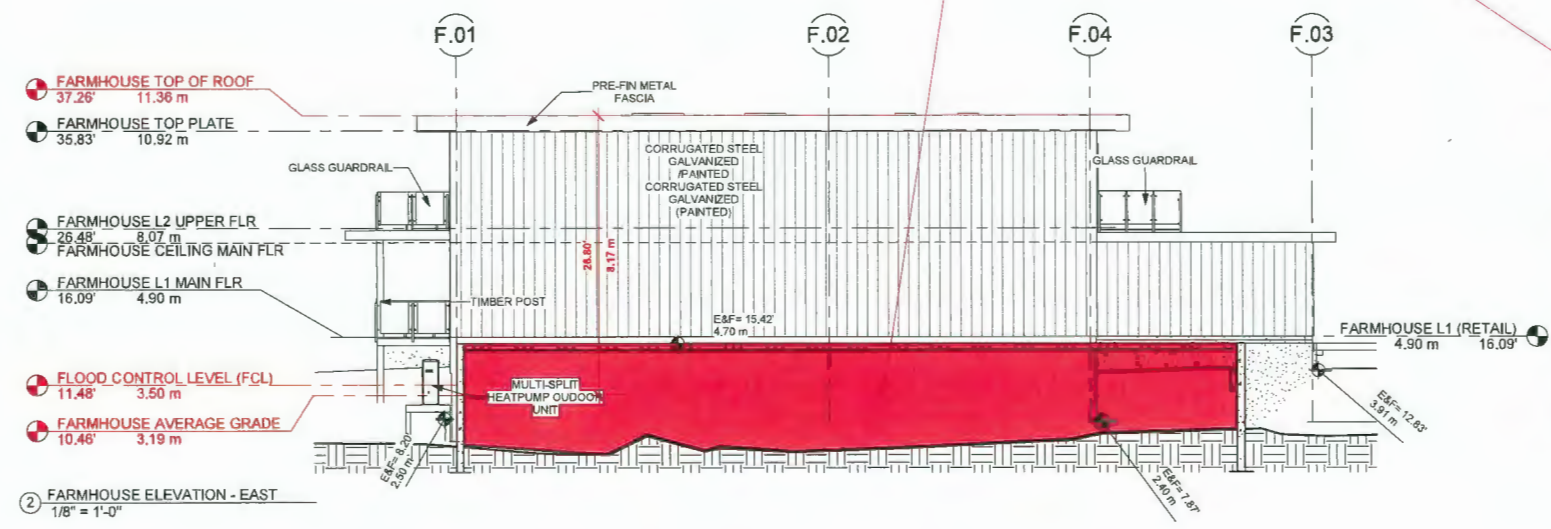
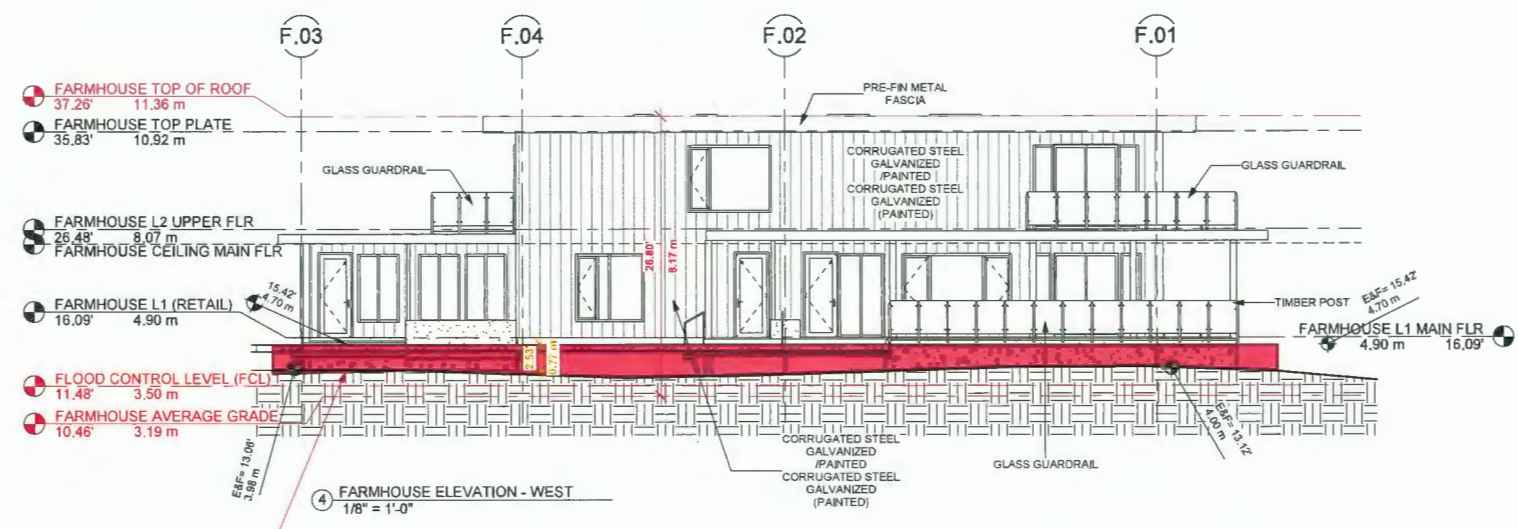
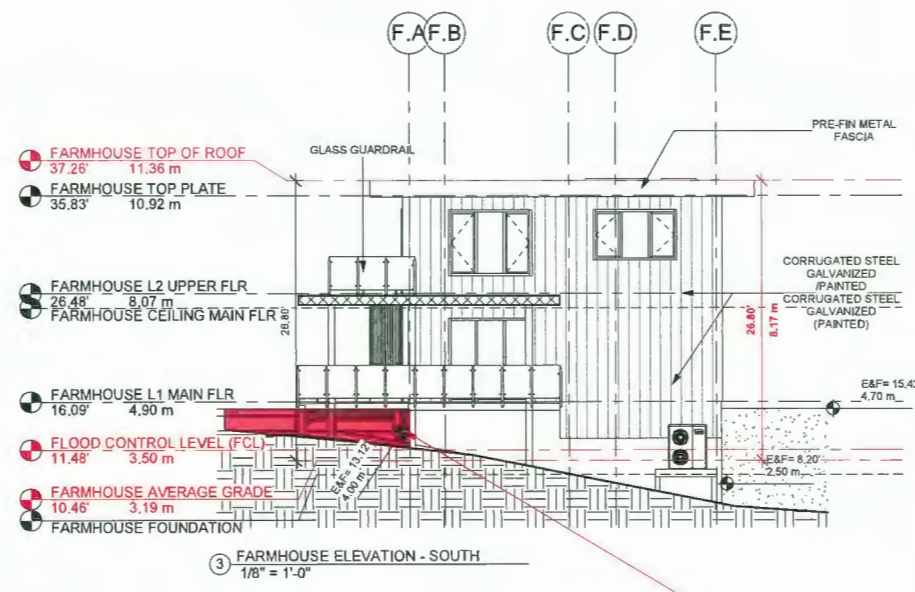
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PROJECT:
18840 RIVER ROAD RICHMOND

SHEET TITLE:
FARMHOUSE ELEVATIONS

CHECKED BY: ATA
 DRAWN BY: Author
 START DATE: FEB 01/23
 SCALE: 1/8" = 1'-0"
 PROJECT NO. 21-33 DRAWING NO. A3.2a



FILL FOR DIKE TO BE DETERMINED

Reference Plan

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6	/24	
7	/24	
8	/24	

REVISION SCHEDULE

NO	DATE	DESCRIPTION
1	JUN20-24	FILL FOR DIKE

SEAL:

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PROJECT:
**18840 RIVER ROAD
RICHMOND**

SHEET TITLE:

ZONING

CHECKED BY: ATA

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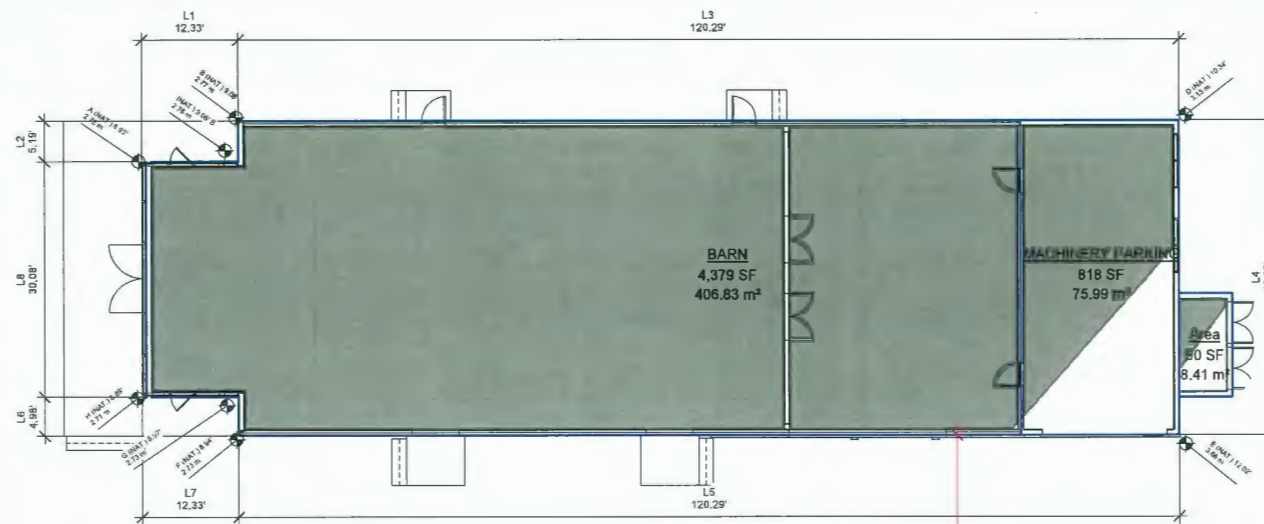
START DATE: FEB 01/23

SCALE: As indicated

PROJECT NO. DRAWING NO.

21-33 A1.0

Elevation in Ft.	Length in Ft.	Grade Calculations in Ft.
A 13.12	L1 62.07	Z = A-B / L1 = 13.12 / 62.07 = 0.2115
B 12.99	L2 3.92	Z = B-C / L2 = 12.99 / 3.92 = 3.3138
C 13.03	L3 20.71	Z = C-D / L3 = 13.03 / 20.71 = 0.6292
D 13.06	L4 16.58	Z = D-E / L4 = 13.06 / 16.58 = 0.7877
E 12.81	L5 20.71	Z = E-F / L5 = 12.81 / 20.71 = 0.6186
F 12.97	L6 10.12	Z = F-G / L6 = 12.97 / 10.12 = 1.2816
G 7.87	L7 62.07	Z = G-H / L7 = 7.87 / 62.07 = 0.1268
H 8.20	L8 30.63	Z = H-A / L8 = 8.20 / 30.63 = 0.2677
Total (ft.)		L1 = 226.81
Total (ft.)		L2 = 2,543.60
Total (ft.)		L3 = 226.81
Total (ft.)		L4 = 69.88



14.1.5 LOT COVERAGE	
14.1.5 (1)(a) GREENHOUSE MAX LOT COVERAGE ALLOWED 75%...	75% OF LOT AREA 167,917 SF = 125,938 SF
14.1.5 (1)(b) AGR. BLDG/STRUCTURE MAX LOT COVERAGE ALLOWED 35%	35% OF LOT AREA 167,917 SF = 58,770 SF
14.1.5 (3) FARMHOUSE FOOTPRINT MAX 60% OF ALLOWED F.A.R.	4,305.6 SF [400sm] * 60% = 2,583 SF
DESCRIPTION	AREAS
CARPORT	531 SF
MACHINERY PARKING	818 SF
FARMHOUSE	2,244 SF
BARN	4,379 SF
TOTAL SITE COVERAGE PROVIDED	8,063 SF

GROSS FLOOR AREA	
MAX ALLOWED	400 SM [4,306 SF]
STEP 5 INCENTIVE	400SM+5%=4,520.8 SF
NAME	AREA
FUTURE RETAIL	343 SF
FARMHOUSE L1 - MAIN FLOOR AREA	1,901 SF
FARMHOUSE L2 - UPPER FLOOR AREA	1,901 SF
TOTAL	4,145 SF

CIVIC ADDRESS: 18840 RIVER ROAD RICHMOND
LEGAL DESCRIPTION: LOT 16 SEC 19 BLK 5N RG 4W PL WWP1206 LOT 16, BLOCK 5N, PLAN NWP1206, SECTION 19, RANGE 4 W, NEW WESTMINSTER LAND DISTRICT, EXCEPT PLAN 4720, 8577

ZONING: AG1
LOT AREA SQ.FT.: 167,917.00 SF

14.1.4 PERMITTED DENSITY (1)(a) ALL BUILDINGS AND STRUCTURE
PERMITTED: 0.60 FSR
100,750.20 SF
60,450.12 SF

FLOOR AREA BREAK DOWN
BARN L1 - MAIN FLOOR AREA: 5,287.00 SF
DWELLING: 531.00 SF
CARPORT: 531.00 SF
PROVIDED: 9,963.00 SF

14.1.4 PERMITTED DENSITY (1)(b) DWELLING
PERMITTED (DWELLING): 400 SM OR
4,306.00 SF

FLOOR AREA BREAK DOWN
FARMHOUSE L1 - MAIN FLOOR AREA: 1,901.00 SF
FARMHOUSE L2 - UPPER FLOOR AREA: 1,901.00 SF
FUTURE RETAIL: 343.00 SF
PROVIDED (DWELLING): 4,145.00 SF

14.1.5 (1)(b) LOT COVERAGE
PERMITTED: 35%
58,771 SF

FLOOR AREA BREAK DOWN
DWELLING PLUS RETAIL: 1,901.00 SF
BARN: 5,287.00 SF
CARPORT: 531.00 SF
PROVIDED: 7,719.00 SF

14.1.5 (3) LOT COVERAGE (FARMHOUSE FOOTPRINT)
PERMITTED: 60%
2,584 SF

FLOOR AREA BREAK DOWN
DWELLING: 1,901.00 SF
FUTURE RETAIL: 343.00 SF
PROVIDED: 2,244.00 SF

14.1.7 (1) PERMITTED HEIGHT (SINGLE DETACHED HOUSING)
PERMITTED: 2 STOREYS 5M
PROVIDED: 2 STOREYS 8.17M

14.1.7 (2) PERMITTED HEIGHT (ACCESSORY BUILDING CARPORT)
PERMITTED: 1 1/2 STOREYS 5M [16.4 FT]
PROVIDED: 1 STOREY 3.28M [10.76 FT]

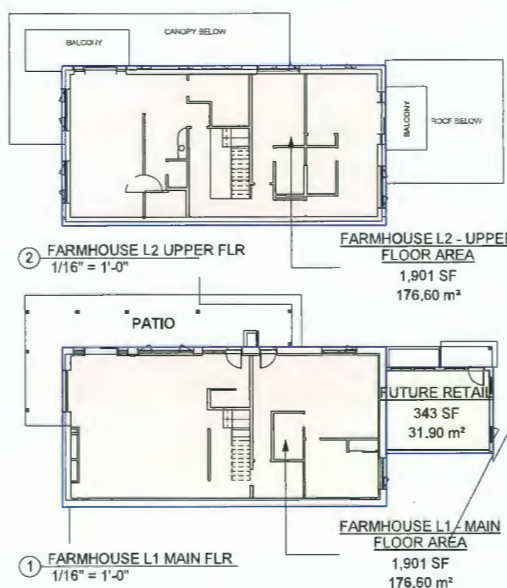
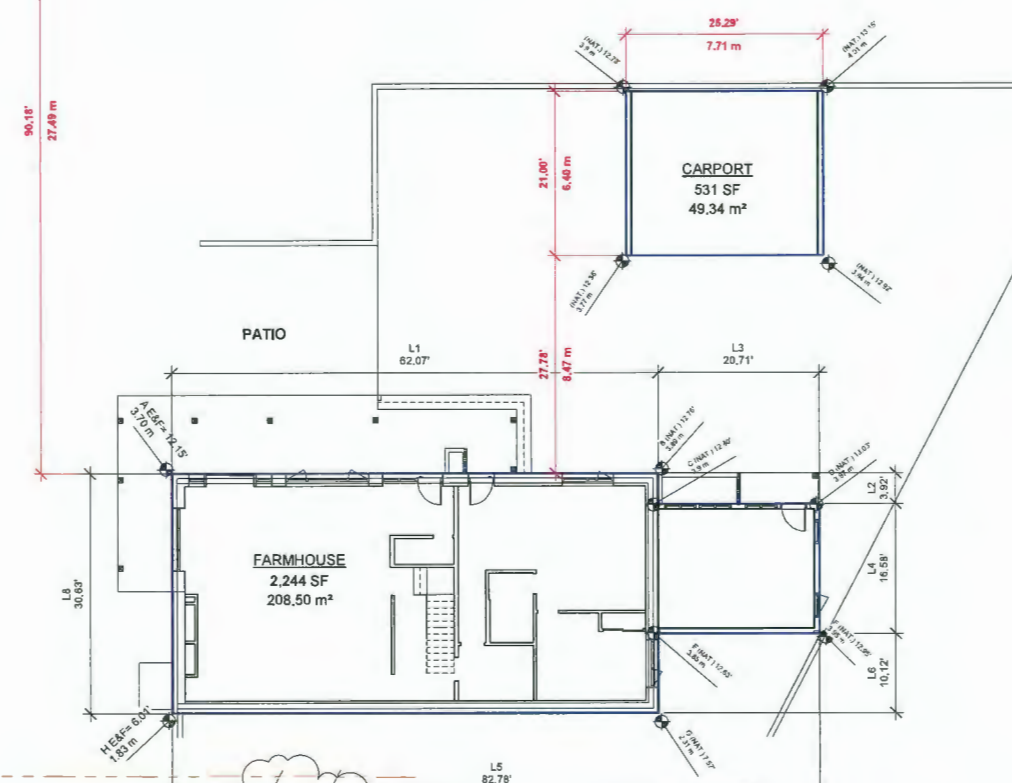
14.1.7 (2) PERMITTED HEIGHT (AGRICULTURE BUILDING)
PERMITTED: 35M [114.8 FT]
PROVIDED: 8.90M [29.20 FT]

MIN REQUIRED: 7.321 PARKING: 2
PROVIDED: 2

FILL PLACEMENT AREA	
MAX FILL AREA...	1000 SM [10,764 SF]
Name	Area
BARN	5,528 SF
FARMHOUSE	2,397 SF
PERMEABLE LIMESTONE	2,785 SF
TOTAL	10,710 SF

FARMHOUSE	2,397 SF
PERMEABLE LIMESTONE	2,785 SF
TOTAL	5,182 SF

3 FILL PLACEMENT AREA
1" = 40'-0"



Elevation in Ft.	Length in Ft.	Grade Calculations in Ft.
A 12.15	L1 62.07	Z = A-B / L1 = 12.15 / 62.07 = 0.1958
B 12.76	L2 3.92	Z = B-C / L2 = 12.76 / 3.92 = 3.2551
C 13.09	L3 20.71	Z = C-D / L3 = 13.09 / 20.71 = 0.6321
D 12.95	L4 16.58	Z = D-E / L4 = 12.95 / 16.58 = 0.7813
E 12.95	L5 20.71	Z = E-F / L5 = 12.95 / 20.71 = 0.6253
F 12.88	L6 10.12	Z = F-G / L6 = 12.88 / 10.12 = 1.2727
G 7.97	L7 62.07	Z = G-H / L7 = 7.97 / 62.07 = 0.1284
H 8.01	L8 30.63	Z = H-A / L8 = 8.01 / 30.63 = 0.2618
Total (ft.)		L1 = 226.81
Total (ft.)		L2 = 2,543.60
Total (ft.)		L3 = 226.81
Total (ft.)		L4 = 69.88

Reference Plan

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REVISION SCHEDULE

NO	DATE	DESCRIPTION
1	JUN20-24	FILL FOR DIKE

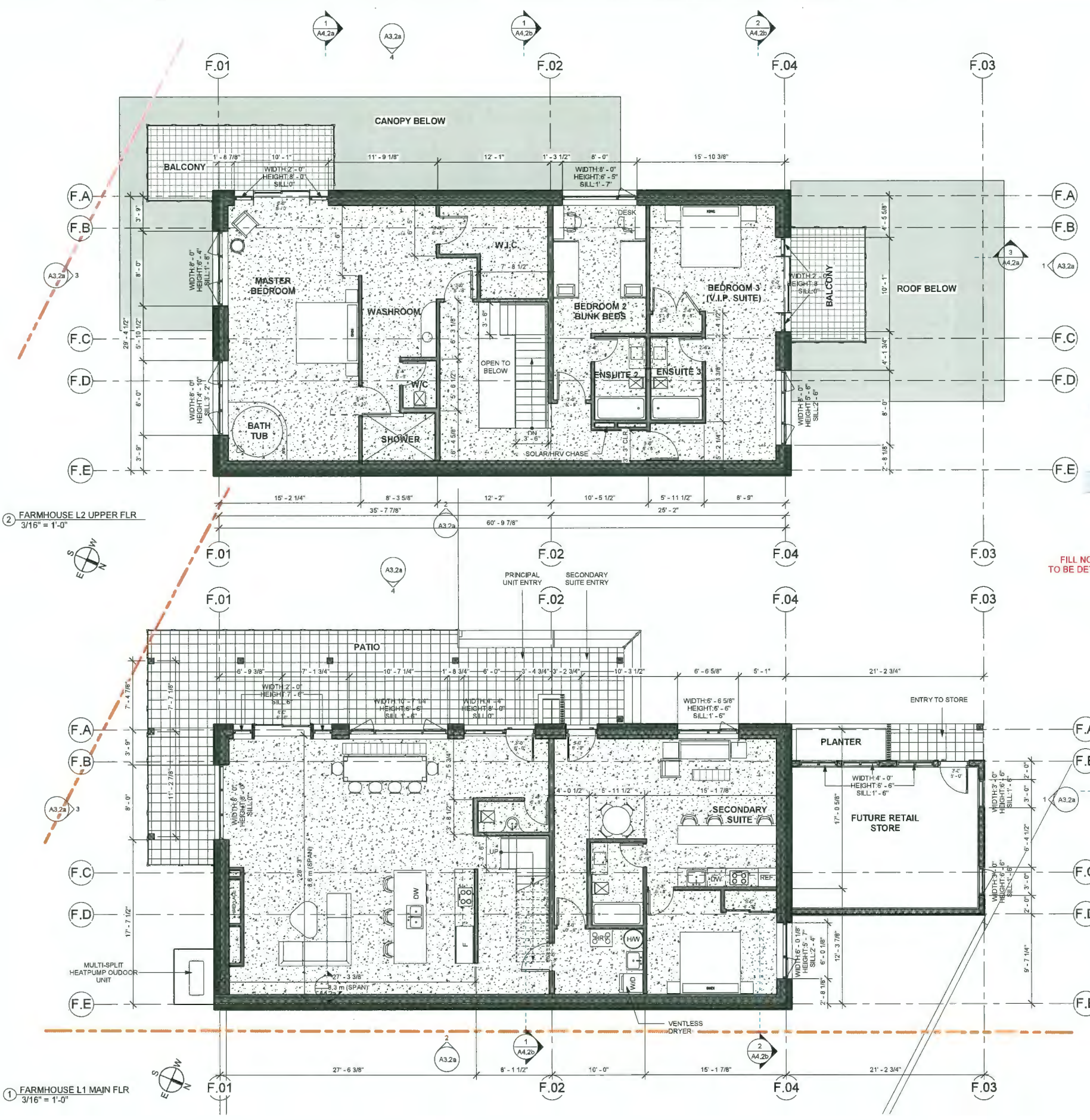
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PROJECT:
**18840 RIVER ROAD
 RICHMOND**

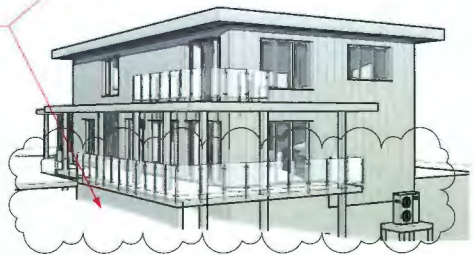
SHEET TITLE:
FARMHOUSE FLOOR PLANS

CHECKED BY: ATA
 DRAWN BY: Author
 START DATE: FEB 01/23
 SCALE: 3/16" = 1'-0"
 PROJECT NO. 21-33 DRAWING NO. A2.2a



FRAMHOUSE NORTHWEST

FILL NOT SHOWN TO BE DETERMINED



FARMHOUSE SOUTHWEST

② FARMHOUSE L2 UPPER FLR
 3/16" = 1'-0"

① FARMHOUSE L1 MAIN FLR
 3/16" = 1'-0"

Reference Plan

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REVISION SCHEDULE

NO	DATE	DESCRIPTION

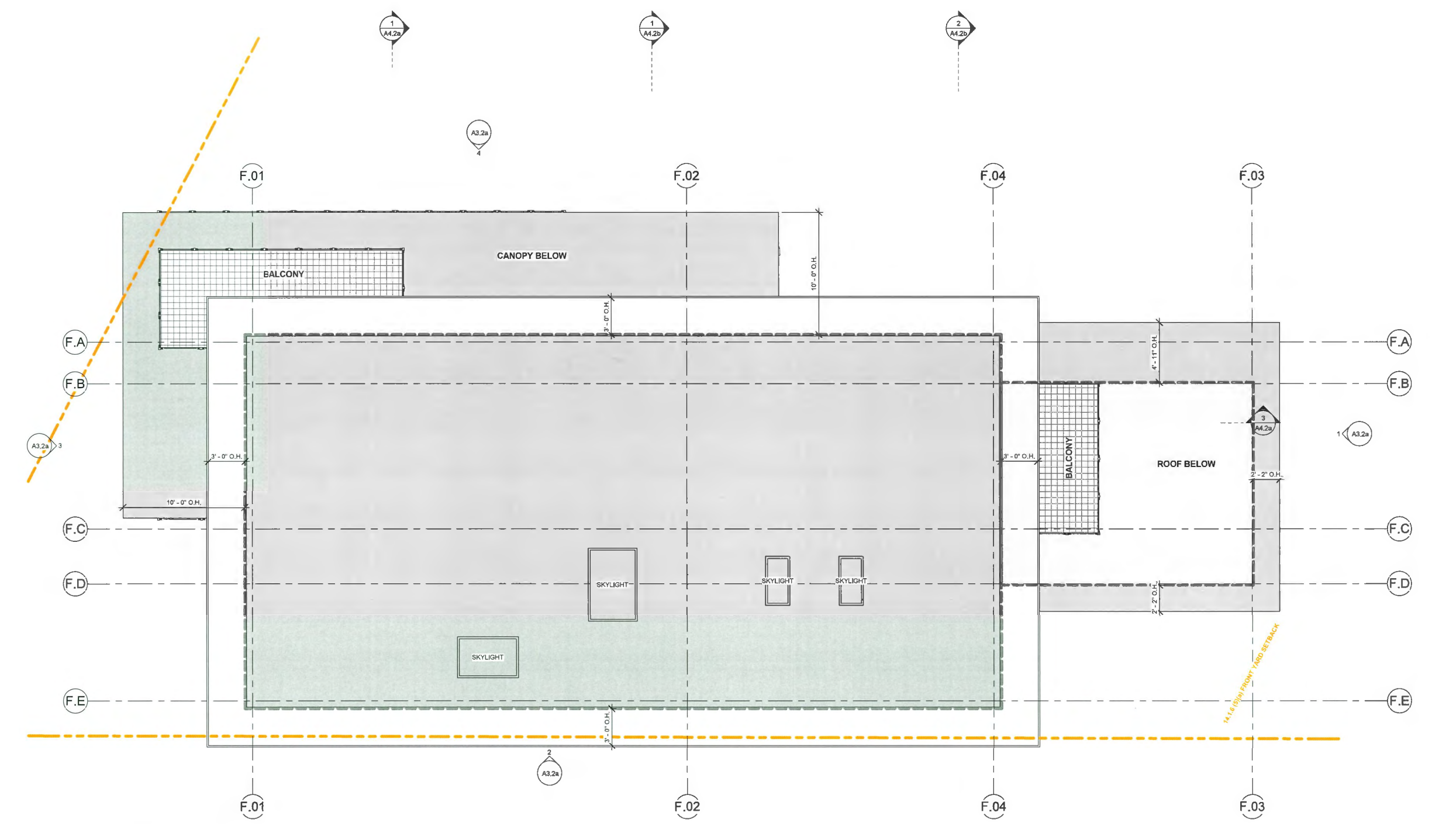
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PROJECT:
**18840 RIVER ROAD
 RICHMOND**

SHEET TITLE:
**FARMHOUSE
 ROOF PLAN**

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 DRAWN BY: Author
 START DATE: FEB 01/23
 SCALE: 1/4" = 1'-0"
 PROJECT NO. 21-33 DRAWING NO. A2.2b



1 FARMHOUSE TOP OF ROOF
 1/4" = 1'-0"

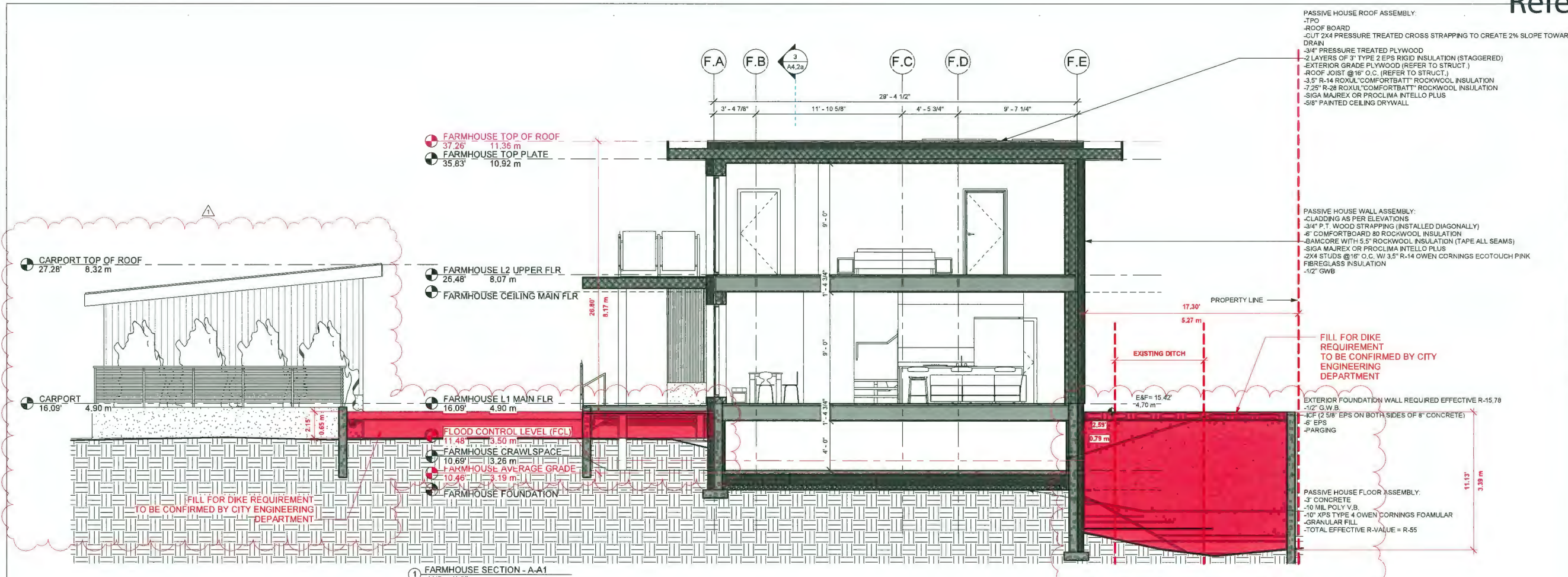
Reference Plan

ATA ARCHITECTURAL DESIGN LTD
 731 Donegal Place
 North Vancouver, BC V7N 2X6
 Tel: (604) 736-3730
 www.ataarchitect.ca

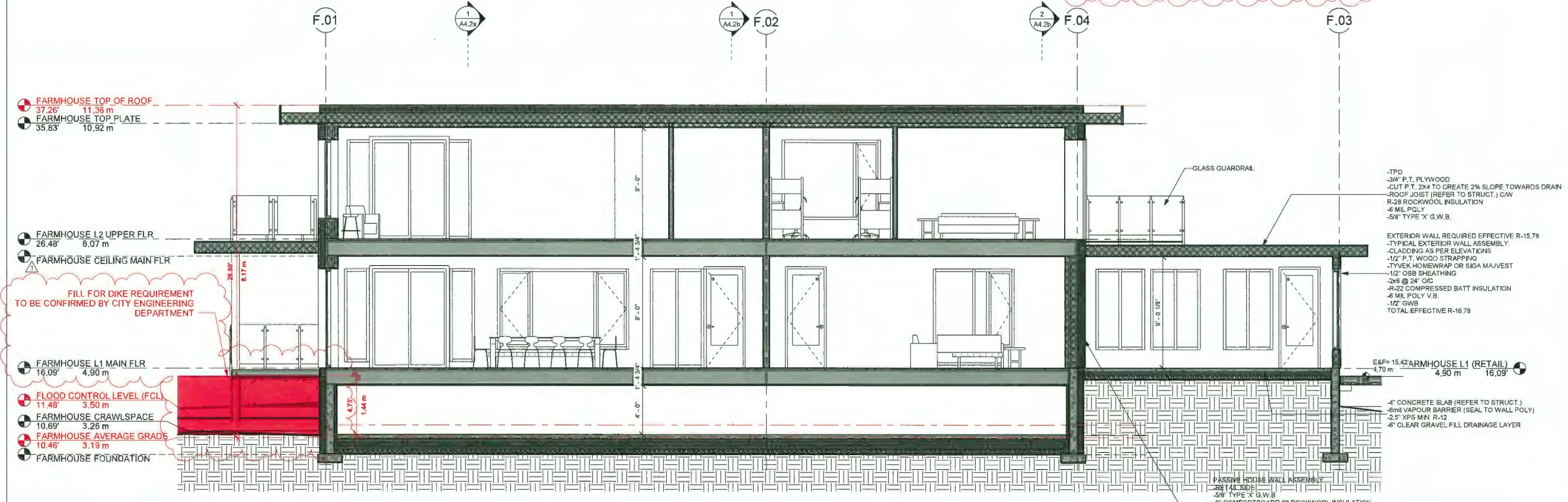
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ISSUE DATES:		ISSUED FOR:
1	FEB 14/23	CLIENT REVIEW
2	AUG 15/23	COORDINATION
3	SEP 06/23	DP AMENDMENT
4	JUN 20/24	MEETING DIKE REQUIREMENT
5	AUG 06/24	DIKE REQUIREMENT
6	/24	
7	/24	
8	/24	

REVISION SCHEDULE		
NO	DATE	DESCRIPTION
1	JUN20-24	FILL FOR DIKE



1 FARMHOUSE SECTION - A-A1
 1/4" = 1'-0"



3 FARMHOUSE SECTION - B-B1
 1/4" = 1'-0"

PASSIVE HOUSE ROOF ASSEMBLY:
 -TPO
 -ROOF BOARD
 -CUT 2X4 PRESSURE TREATED CROSS STRAPPING TO CREATE 2% SLOPE TOWARD DRAIN
 -3/4" PRESSURE TREATED PLYWOOD
 -2 LAYERS OF 3" TYPE 2 EPS RIGID INSULATION (STAGGERED)
 -EXTERIOR GRADE PLYWOOD (REFER TO STRUCT.)
 -ROOF JOIST @16" O.C. (REFER TO STRUCT.)
 -3.5" R-14 ROXUL COMFORTBATT ROCKWOOL INSULATION
 -7.25" R-38 ROXUL COMFORTBATT ROCKWOOL INSULATION
 -SIGA MAJREX OR PROCLIMA INTELLO PLUS
 -SIGA MAJREX OR PROCLIMA INTELLO PLUS
 -5/8" PAINTED CEILING DRYWALL

PASSIVE HOUSE WALL ASSEMBLY:
 -CLADDING AS PER ELEVATIONS
 -3/4" P.T. WOOD STRAPPING (INSTALLED DIAGONALLY)
 -6" COMFORTBOARD 80 ROCKWOOL INSULATION
 -BAMCORE WITH 5.5" ROCKWOOL INSULATION (TAPE ALL SEAMS)
 -SIGA MAJREX OR PROCLIMA INTELLO PLUS
 -2X4 STUDS @16" O.C. W/ 3.5" R-14 OWEN CORNING'S ECOTOUCH PINK FIBREGLASS INSULATION
 -1/2" G.W.B.

EXTERIOR FOUNDATION WALL REQUIRED EFFECTIVE R-15.78
 -1/2" G.W.B.
 -ICF (2 5/8" EPS ON BOTH SIDES OF 8" CONCRETE)
 -6" EPS
 -PARGING

PASSIVE HOUSE FLOOR ASSEMBLY:
 -3" CONCRETE
 -10 MIL POLY V.B.
 -10" XPS TYPE 4 OWEN CORNING'S FOAMULAR
 -GRANULAR FILL
 -TOTAL EFFECTIVE R-VALUE = R-55

EXTERIOR WALL REQUIRED EFFECTIVE R-15.78
 -TYPICAL EXTERIOR WALL ASSEMBLY:
 -CLADDING AS PER ELEVATIONS
 -1/2" P.T. WOOD STRAPPING
 -TYVEK HOMEWRAP OR SIGA MAJVEST
 -1/2" OSB SHEATHING
 -2x6 @ 24" O/C
 -R-22 COMPRESSED BATT INSULATION
 -6 MIL POLY V.B.
 -1/2" G.W.B.
 TOTAL EFFECTIVE R-15.78

PASSIVE HOUSE WALL ASSEMBLY (ALL SIDES):
 -5/8" TYPE X G.W.B.
 -6" COMFORTBOARD 80 ROCKWOOL INSULATION
 -SIGA MAJVEST (TAPE ALL SEAMS)
 -BAMCORE WITH 5.5" ROCKWOOL INSULATION (TAPE ALL SEAMS)
 -SIGA MAJREX OR PROCLIMA INTELLO PLUS
 -2X4 STUDS @16" O.C. W/ 3.5" R-14 OWEN CORNING'S ECOTOUCH PINK FIBREGLASS INSULATION
 -1/2" G.W.B.

SEAL:

NOTES:
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PROJECT:
18840 RIVER ROAD RICHMOND

SHEET TITLE:
FARMHOUSE SECTIONS

CHECKED BY:	ATA
DRAWN BY:	CV
START DATE:	FEB 01/23
SCALE:	1/4" = 1'-0"
PROJECT NO.	21-33
DRAWING NO.	A4.2a