# **Visual Impact Assessment**

# **Preserving the Natural Setting**

A visual impact assessment was prepared by Placemark using 1m LiDAR contour data within a Civil 3D terrain model reflecting hillside topography, existing canopy heights and proposed neighbourhood layout and building massing.

The Anmore South is designed to minimize visual impacts on the existing natural landscape and maintain Anmore's semi-rural character. The Preferred Plan incorporates the following mitigations:

## **Conservation Framework**

Dedicates 35% (21.52 ha | 53.18 ac) of Anmore South as Protected Natural Area to preserve the forested character and mitigate the scale of visual impact.

## **Forest Buffer**

Retains a minimum 15m | 50ft forest buffer along Sunnyside Road to maintain Anmore's forested arrival sequence.

## **Natural Interface**

Retains a 15m | 50ft forest buffer between future development and adjacent residential neighbourhoods.

# Natural Topography

Aligns future development and infrastructure with existing landforms and topography to reduce extent of clearing and grading.

# **Clustered Development**

Limits future development to defined areas to reduce clearing and ensure natural landscape connections.

# **Building Heights**

Limits future apartment buildings to six storeys to minimize visual impact above the forest ridgeline.

# Sports Park Commercial Crossing Community Content Forest Buffer Village Greenwey Greenwey Sportslad Scient Scient

**Aerial view looking south west from Anmore Community Hub** (in foreground) showing connection to Anmore Elementary, with retention of forest buffer adjacent existing neighbourhoods.

# Native Screening

Employs native plant palette within public spaces and streetscapes to establish new habitat and screen the appearance of buildings.

## **Street Trees**

Incorporates street tree within new public boulevards to provide shade, canopy habitat, pedestrian comfort and safety.

# **Minimize Light Pollution**

Adopts Dark Sky standards with public street lighting that uses shielded and downward-facing lights to reduce glare and preserve night skies.



**Aerial view looking south from Crystal Creek Drive** (in foreground) shows retention of forested edge with public street access from Crystal Creek and Fern Drive.



**Aerial view looking north from First Avenue** (along left side) shows the design of clustered development, terracing hillside design, building massing and heights, and extent of the Conservation Framework.



# **Transportation Impact Assessment**

# **Technical Review**



A detailed Transportation Impact Assessment of the Preferred Plan was prepared by Bunt & Associates to assess the capacity of the street network proposed within Anmore South and its effect on the wider area, along with traffic management and alternative transportation.

## **Analysis**

At full project buildout, Anmore South is expected to add 750-850 new vehicle trips during peak travel hours to the regional corridors of East Road and Ioco Road serving Anmore (12-14 vehicles per minute).

Road and intersection capacity were analyzed using these ultimate traffic volumes, along with an additional 1% growth in background traffic (from other future development in the area), to yield the following:

- Anmore South new intersections and internal neighbourhood streets were found to operate acceptably with stop signs only.
- Three existing Anmore intersections were found to have operational constraints, which may require upgrades, comprising East Rd + Sunnyside Rd, 1st Ave + Bedwell Bay Rd + Sunnyside Rd, and 1st Ave + Ioco Rd.
- Regional corridors (East Rd and Ioco Rd) and specific intersections were found to be over capacity at full build out. Future improvements would involve discussions with TransLink and neighbouring municipalities.
- 40% of the proposed density at Anmore South can be constructed without the need for new road capacity on regional corridors leading to Anmore.

## Assessment

Anmore South will fundamentally change Anmore from a transportation perspective. It will support viability of increased transit, improve connections for active modes, and introduce new commercial space that will provide Anmore residents with new options within their community, while also substantially increasing the number of vehicle trips to and from the Village over the 20-year build out.

# Management

Proposed Transportation Demand Management measures will expand travel mode choice and reduce reliance on private vehicles through neighbourhood commercial services, walking and cycling facilities, car share programs, reduced new development parking ratios and enhanced public transit.

# Monitorina

Updated Transportation Impact Assessments are recommended following every 300 new housing units built, allowing for phased upgrades to reduce the effects of traffic and increase regional corridor capacity, such as:

- Small scale upgrades on East Road and Ioco Road including left turn lanes and bus pullouts
- Intersection upgrades within Anmore
- Further collaboration with stakeholders including TransLink to develop a coordinated approach to transit improvements.





















icona

# **Transportation Network**

# **Technical Review**

# STREET HIERARCHY

- Anmore South is linked through a unified network of livable streets to create an accessible, safe community.
- New public street connections from Crystal Creek, Fernwood Drive, and First Avenue through Anmore South, enhance community connectivity.



LEGEND

Existing Collector | Sunnyside + First Avenue

Collecto

Local

O Potential Trailhead

# PEDESTRIAN + CYCLE NETWORK

- The Preferred Plan encourages walkability and active transportation through a comprehensive network of pedestrian + cycling routes.
- The network of pedestrian sidewalks, greenways and trails provides local connections to community destinations, reducing car dependency within Anmore.
- 5km of recreational greenways and trails provide public access to neighbourhood parks and community centre.



### LEGEND

■■■ 4m Multi-Use Greenway

- - 3m Multi-Use Trail

3m Mu**l**ti**-**Use Pathway

Potential Stream Crossing

Underpass Crossing

Pavilion

Public Parking

# **PUBLIC TRANSPORTATION**

- Collaboration with TransLink on transit improvements.
- The Preferred Plan supports future enhancement of the public transit system through more direct and frequent service with the extension of Bus Route #181.
- At full build out the Preferred Plan supports enhancements of bus shelter facilities, greater bus frequency (15-min intervals), along with potential express service to Port Moody rapid transit locations.



EGEND

--- Existing Route 182

Proposed Route 181 Extension

# **Environmental Impact Assessment**



# **Technical Review**

An Environmental Impact Assessment of the Preferred Plan was completed by AquaTerra Environmental Ltd to inventory and assess the site's environmental features, identify potentially adverse impacts in the absence of appropriate mitigation, and develop site-specific mitigation measures and strategies to avoid, reduce, and/or offset potential environmental impacts.

## Terrestrial + Wildlife Habitat

Variably suitable habitats are present throughout the site for a variety of terrestrial species groups, including invertebrates, mammals, birds, amphibians and reptiles, and native plant communities.

- Mature second and third growth coniferous forests dominate the site, consisting primarily of Western Hemlock with lesser amounts of Western Redcedar and Douglas-fir. The area south of Sunnyside Road has more varied habitat types due to historical land use (e.g., gun range) and regenerating forest, as well as several invasive species.
- Species at risk that were confirmed as being present on-site, or historically documented within close proximity (i.e., 1-2 km), include the Pacific Water Shrew, Northern Red-legged Frog, Olive-sided Flycatcher, and Coastal Tailed Frog.

# **Aquatic + Fish Habitat**

Sixteen watercourses have been identified in Anmore South, consisting of Schoolhouse Creek and Doctors Creek, and their associated tributaries.

 Development will require the crossing of 3 fish-bearing watercourses and 10 non-fish bearing watercourses, which contribute to aquatic habitats both on-site and downgradient of the site. Identified fish include Coho Salmon and Cutthroat Trout.

# **Impact Assessment**

The following Valued Ecosystem Components (VECs) were identified in the Impact Assessment: terrestrial and aquatic species (including habitat loss), surface water and storm runoff, soils and local geology, air quality, and noise and light, and were assessed for both the construction and operational phases.

# **Proposed Mitigation**

To address the identified potential adverse effects, detailed projectspecific mitigation measures and recommendations are proposed for the detailed design and construction phases to effectively reduce their significance, including:

- Implement and adhere to a site-specific Construction Environmental Management Plan (CEMP), including but not limited to, a Sensitive Species Management Plan, Emergency Spill Response Plan and Erosion Control Plan.
- · Habitat restoration or offsetting, where loss has been identified.
- Design and implementation of an Invasive Species Management Plan.
- Wildlife-Friendly Designs for stream crossings and riparian zone buffers.
- Monitoring sensitive species and ensuring compliance with environmental regulations, including the Riparian Areas Protection Regulation
- Conduct baseline and on-going water quality monitoring prior to, during and following construction.



























# **Environmental Impact Assessment**



# **Technical Review**

# The Anmore South Preferred Plan incorporates the following environmental design considerations:

- A total of 22-hectares (35%) of the land is proposed for dedication as Natural Protection Areas, with 11-hectares (18%) retained as riparian area buffer zones, and an additional 4-hectares (7%) proposed for neighborhood parks.
- Public streets have been designed to minimize the number of stream crossings. The greenway and trail network, including the 4 metre wide multi-use greenway was developed to link public destinations with walkways as an attempt to reduce car use and minimize wildlife interactions during the operational phase.
- Designed to expand environmental setback areas exceeding the minimum requirements of the Riporian Area Protection Regulation and the Anmore Official Community Plan. This extends an additional 10-20m beyond the top-of-bank to provide additional habitat area for aquatic and terrestrial species.

# **Terrestrial Areas / Wildlife Design Elements**

- Development is limited to a clustered form which does not require clear cutting, and reduces tree and habitat loss, while maintaining core habitat corridors, buffer / setback areas, and habitat nodes.
- Design of neighbourhood considers hillside conditions including soils and local geology.
- Underpass / oversized crossings providing wildlife / movement corridors.
- Proposed public street cross section with planted and tree lined boulevards as part of urban canopy response.
- Lighting that adheres to dark sky lighting principles.
- Forested buffered areas retained along existing neighbourhoods and existing roads.
- Phased development allows for adaptive management and monitoring of mitigation approaches.

# Aquatic Areas / Fish and Fish Habitat Design Elements

- The Preferred Plan avoids watercourses and associated riparian areas with the exception of proposed crossings.
- Rainwater management plan including detention measures such as bioswales to manage both quantity and quality of rainwater before it is discharged to natural systems mirroring pre-development base and peak flow conditions.
- The Preferred Plan provides a 'Conservation Framework' in conjunction with the riparian areas as well as buffers to existing neighbourhoods (35% of total area).
- Comparison with existing subdivision plan:
  - Anmore South more than doubles the total lands dedicated to green space (including parks) in comparison to the current approved subdivision plan using RS-1 zoning (42% vs 20%).
  - The Anmore South Neighbourhood Plan is subject to higher development standards and will ensure improved environmental outcomes than what is required.

## TERRESTRIAL HABITAT



Wetland Forest

Public Road ROW

Invasive Species Dominated Area

38% Mature Second-Growth Coniferous Forest
45% Second-Growth Mixed Forest

Deciduous Woods

Regenerating Forest

# WATERCOURSES

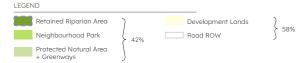
Class C Streams | Ditch



# LEGEND Class A Streams | Fish Bearing Streamside Protection and Enhancement Area (SPEA) Setback Class B Streams | Non-Fish Bearing

# **ENVIRONMENTAL NETWORK**





# **Municipal Servicing Infrastructure**



# **Technical Review**

The Infrastructure Servicing Report was prepared by Aplin Martin to determine the proposed water, sanitary, and drainage infrastructure servicing strategy and cost estimates for the Anmore South Preferred Plan.

The infrastructure systems were designed to service the Anmore South neighbourhood at full build-out, reflecting the land's topographical constraints and providing adequate sizing for long-term resiliency.

# WATER INFRASTRUCTURE

The comprehensive water system, designed to improve supply and redundancy of distribution, is composed of two booster pumps, a feeder main, a reservoir, distribution mains, and three pressure reducing valves (PRVs).

Four water pressure zones were designed to ensure reliable and safe system operating pressures, as well as fire flow capacity across the neighbourhood.

# SANITARY INFRASTRUCTURE

The comprehensive sanitary system, with direct connection to the Metro Vancouver Sewerage + Drainage District, is composed of a gravity-based system, leveraging the hillside grades to maintain efficient flow without backwater effects.

Use of a low-pressure sewer system may be required off the lower collector street in a specific area to convey waste to the gravity system.

LEGEND

Sanitary Main

Proposed Tie-In Point

# DRAINAGE PLAN

Streams (Major System)

Drainage Main (Minor System)

The comprehensive drainage management system focuses on redundancy, ecological sustainability, and alignment with long-term climate conditions, integrating storm sewers (minor system) with existing watercourses (major system) to maintain pre-development flow patterns while addressing infrastructure needs.

The systems are sized for future conditions, with minor systems designed for 1:10-year events and major systems handling 1:100-year flows for flood risk reduction and public safety.



190m Zone
150m Zone
125m Zone
95m Zone

Existing Distribution Main

Proposed Distribution Main
 Proposed Feeder Line

Proposed Reservoir
Proposed Tie-in Point
Proposed Pump Station

Proposed Pressure Reducing Valve

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LEGEND

# **Fiscal Impact Analysis**

# **Technical Review**

The Fiscal Impact Analysis was prepared by Deloitte to summarize the net fiscal impacts of the Anmore South Preferred Plan on the Village of Anmore. The analysis is designed to test the financial feasibility of the project from the Village perspective.



# **REVENUE**

The total revenue estimated with Anmore South is an increase of \$3.9 million (~70% increase) above the Anmore 2024 Financial Plan.



# COSTS

The total cost impact estimated with Anmore South is an increase of \$2.6 million from the current Anmore 2024 Financial Plan. Costs are spread across several categories, including police and fire services, which are not currently part of the Village budget, but represent an additional cost for local taxpayers.



# **NET FISCAL IMPACT**

The net impact on Village finances from Anmore South is positive. The result is a net annual fiscal improvement of ~\$1.3 million for the Village.

Deloitte.

After accounting for the elimination of the Police Service Tax with Anmore South, and the increase in fire servicing costs, the net fiscal benefit is reduced to \$696,000 per year for the Village.

\$696,000

yearly net benefit



# **Municipal Property Tax**

## ~92% of Total Revenue

The main driver for increased revenue for the Village of Anmore from Anmore South is through Property Tax.

Total Property Tax revenue reflects the 2,202 residential units and 55,000sq ft of commercial space, using the current 2024 tax rates on the estimated value of properties.



The business tax rate is maintained at the residential rate to be conservative. If Anmore charged a business rate equivalent to the Tri-Cities at 2.6x higher, Anmore South would generate an additional \$80,000 per year in property tax revenue for the Village.



## Other Revenue Items

# ~8% of Total Revenue

Permits, Fees, Charges (business licenses), Grants (BC government, utility and telecom companies), and other miscellaneous income (penalties and interest).



## **General Government**

Day-to-day costs of operating the Village, as well as community events which are indirectly affected by Anmore South, like servicing a larger population.



## **Public Works**

Operational spending for regular maintenance and repair of existing municipal assets and facilities, as well as new infrastructure, including roads, multi-use paths, and water and sewer infrastructure.



## **Amortization of New Assets**

Average annual lifecycle cost for new municipal infrastructure (roads, water and sewer), to cover costs of replacement or refurbishment.



# **Police Servicing**

The Anmore South development will cause Anmore's population to exceed 5,000, resulting in the municipality becoming responsible for paying 70% of its policing costs

An average policing cost per capita was calculated and estimated to have a net annual increase of \$766,000.



# Fire Servicing

Fire service in Anmore is provided by the Sasamat Volunteer Fire Department (SVFD), which is a Metro Vancouver service and cost shared between Anmore and Belcarra.

While fire service costs are not part of the Village budget, they represent an additional cost for local taxpayers, with an estimated annual increase of \$914,000 due to Anmore South.

# Net Revenue Impacts from Anmore South

Financial Categories	2024 Financial Plan	With Anmore South	Net Impact of Anmore South
Total of relevant costs	\$5,461,302	\$9,392,440	\$3,931,138
Total of relevant costs (including Police with Anmore South)	\$2,933,997	\$5,568,016	\$2,634,019
Net Impact (Village Budget)			\$1,297,119
Less Police Service Tax (Paid directly by Anmore taxpayers, is eliminated with Anmore South)	\$313,255	\$0	-\$313,255
Less Fire Service Costs (Paid directly by Anmore taxpayers, including operating costs + new capital amortization)	\$341,160	\$1,255,425	\$914,265
Net (Including Police + Fire Service Costs)			\$696,109



# **Economic Impact Analysis**

# Deloitte.

# **Technical Review**

The Economic Impact Analysis was prepared by Deloitte to summarize the economic impacts of Anmore South Preferred Plan in terms of Employment, Demographics and Housing on the Village of Anmore.













New Anmore South employment was estimated and analyzed for how it contributes to Anmore's current employment situation.



# **Current Situation**

Anmore provides few employment opportunities outside the home. Nearly half of residents commute outside the Village for work.

While daily commuting is required for Anmore's current concentration of highly skilled and paid workers, residents wanting to work closer to home, such as students or seniors seeking part-time work, have limited opportunities.



# **Job Creation**

Anmore South at full buildout is calculated to support 397 new jobs through the commercial and public spaces, new home-based employment, and increased demand for public services resulting in additional jobs in local government and education.

~400

new jobs within Anmore South long term



# **Business Opportunities**

Anmore South's proposed population can support 55,000 sq ft commercial and 10,000 sq ft professional office.

It provides the critical population to sustain an anchor grocery store, and ability to support retail and small offices, such as insurance, real estate, or health services - capitalizing on the cluster of health professionals residing in the community.



## Construction

Anmore South is calculated to support significant constructionrelated employment during project development estimated at 3,500 person-years of work.

3,500

person-years of work to construct Anmore South



# **DEMOGRAPHICS AND HOUSING**

Anmore South population and age demographics were analysed and compared to housing opportunities currently available in Anmore.



## **Current Situation**

Anmore's current housing stock is almost entirely comprised of large, high-cost, singlefamily housing resulting in a poor fit with typical housing demand over a lifetime.

This poor fit is particularly evident for young adults and seniors, as Anmore has a notably lower population in these two age ranges.



# **Housing Options**

Anmore South Townhomes and Apartments expand the range of housing options available in Anmore, supporting a greater diversity and balance of lifestyles, life-stages, and incomes.

The diversity of housing provides residents the opportunity to stay in the community and meet their changing housing needs over the course of their lifetime.

# **Retail Market Analysis**

# **Technical Review**

The Retail Market Analysis was prepared by City Squared Consulting to assess the demand for retail space based on Anmore South's population at build-out and demographic profile.

It identifies the total commercial floorspace and store types that could be supported by Anmore South residents.

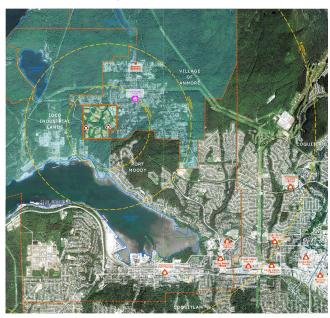
## **Demand Assessment**

A commercial Trade Area (geographic area from which a business draws its customers) was analyzed to include Belcarra, Anmore, Anmore South, and part of Port Moody. The addition of Anmore South generates a sufficient population threshold to support a neighbourhood commercial

# Supportable Retail

Case study analysis indicated that neighbourhood retail centres in other Metro Vancouver communities capture about one third of locally serving retail demand, ranging between 5.7 and 6.3 sq ft per capita.

# **RETAIL TRADING AREA**

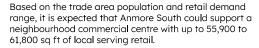


LEGEND

Anmore South Retail Nodes Distance from Anmore South Retail Retail Trading Area

Anmore Community Hub Shopping Centre

# **Commercial Crossina**





 Grocery stores are important drivers of retail demand in a community, anchoring a range of other local serving retail which will co-locate with the grocery destination. With Anmore South, a Grocery Store of 15,000-24,500 sq ft would be supportable.



With Anmore South, other supportable retail uses such as food & beverage, services (medical, fitness, financial), pharmacy, specialty food, liquor store, pet store, and small retail (clothing, hobby) would be supportable.



With Anmore South, office space of 10,000 sq ft for local servina professional services would also be supportable.

## **Anmore South Commercial Crossing**



# First Avenue Retail Node



In addition to the Commercial Crossing at the centre of Anmore South, there is the opportunity for an additional 3,000-4,500 sq ft of convenience, food and beverage

This would be located along First Avenue and would capture inflow spending from Belcarra residents and day visitors to the area's parks.

## First Avenue Retail



# **Visitor Impact**



There is also significant visitor inflow to the area's parks and trails, which could further support convenience retail, larger food and beverage retail and some region serving retail stores.

