

# Airport Master Plan

Summary Report

12 December 2022



**Northwest Regional Airport**  
Terrace-Kitimat

## Introduction

### Master Plan Purpose

The purpose of the Northwest Regional Airport Master Plan is to provide a long term planning framework for the airport. It is intended to act as a guide for future development, allowing the airport to grow in a way that is consistent with community goals and strategic objectives.

Master Plans are fundamentally long-term infrastructure plans. They should be strategic in nature to ensure that growth is aligned with the vision and strategic directives of the airport business.

This Master Plan is intended to provide a platform from which the Northwest Regional Airport can be expanded in a comprehensive, cost effective and efficient manner, and responding to the needs of their community. While the Master Plan is intended to be flexible, it should be updated on a regular basis to ensure it continues to accurately guide all airport infrastructure developments and financial plans.

### Airport Vision

*“Provide a safe, reliable aviation facility for the use of all stakeholders. This facility will be self-supporting, will foster growth of the communities it serves and improve the overall economic value of the area.”*

The vision is an important guiding principle for the development and operation of an airport. It plays an important role in the master planning process. The airport has always accommodated more traffic than others in Northern BC as it is positioned as a regional airport. The board of directors and the management team have grown the airport through strategic thinking and investment.

### Strategic Directives

The following Key Strategic Directions are based on the airport's vision and guide the development of this Master Plan:

- Manage and operate the airport in a safe, secure and efficient manner **(Always #1 Priority)**
- Provide a true regional airport to Northwest BC
- Advance economic and community development in the region
- Maximize commercial revenue
- Achieve ongoing financial viability

# Master Plan 2022 Summary

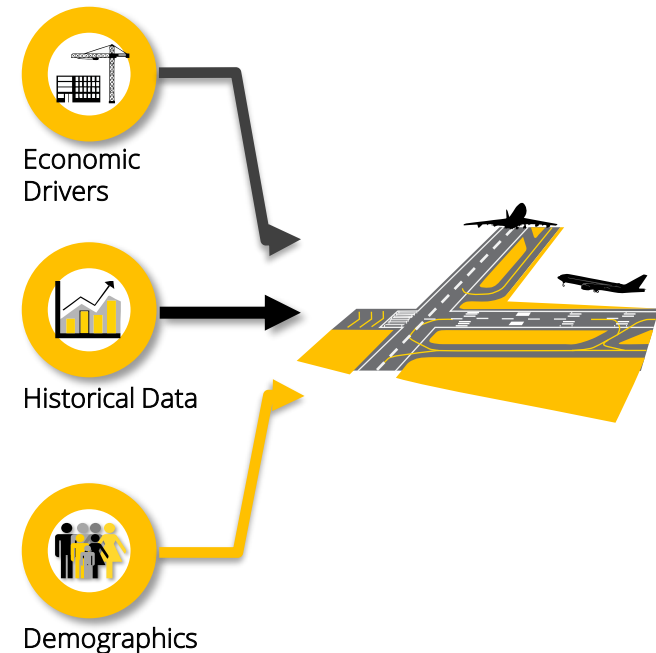
## Aviation Forecast

Aviation forecasts are driven by historical data from airport operations, regional economic drivers and demographics. Terrace and Kitimat have been the focus of many Oil and Gas companies for potential large scale investments. LNG Canada was one of many potential projects and it has proven to be a large driver of aviation demand at Northwest Regional Airport. Many other LNG and mining projects in the region will likely add to the demand for more aviation growth in the region for the next 5 to 10 years. Northwest Regional Airport remains the closest and best equipped airport in the region to handle the expected increase in aviation demand for the majority of large scale projects.

Aviation forecasts include annual passengers and annual aircraft movements. Hourly passenger and aircraft demand forecasts are also developed, which are key determinants of facility requirements on the airfield, in the terminal and on roads and parking areas.

In 2021, Northwest Regional Airport handled 261,534 passengers. In many regards the COVID-19 pandemic had less impact on demand than observed at other airports in the province due to impact of the LNG Canada project. Strong growth is expected in the next 5 to 10 years with leisure and business travel returning to normal levels and with ongoing construction projects in the region.

It is expected the short term will see a peak of approximately 320,000 annual passengers. Once the construction phase of the large projects in the region is completed, it is expected that demand at the airport will decrease and growth will continue at a gradual pace. Annual passengers will reach approximately 260,000 by the planning horizon – 2042.



# Master Plan 2022 Summary

## Airfield

The proposed taxiway developments will only provide benefit to airfield efficiency as aircraft movements increase. Within this Master Plan it is not expected that the number of aircraft movements will require the taxiway and de-icing facility improvements. It is still good planning practice to identify the ideal location for taxiway enhancements in order to retain the flexibility to implement these in the future. A provisional change to Runway 03-21 is also included within the Master Plan as the constraints it creates may limit airport commercial growth. Possible options for the modification of Runway 03-21 include reduced length and/or width or conversion to a taxiway.

The development of the apron is also identified as a provision should airline operations change that would require additional aircraft parking positions. The apron should provide sufficient space for design aircraft (Bombardier Q400, Boeing 737 and Airbus A220). Additional capacity will only be required should scheduled aircraft continue to add services at similar times throughout the day.

Airfield expansion also requires more service equipment to maintain facilities. The Master Plan has provided provision for increased maintenance facilities to the west of the terminal building. A critical feature of this reserve area is its access to all operational facilities.

### 2023-2027

- No major airfield developments

### 2028-2032

- No major airfield developments

### 2033-2042

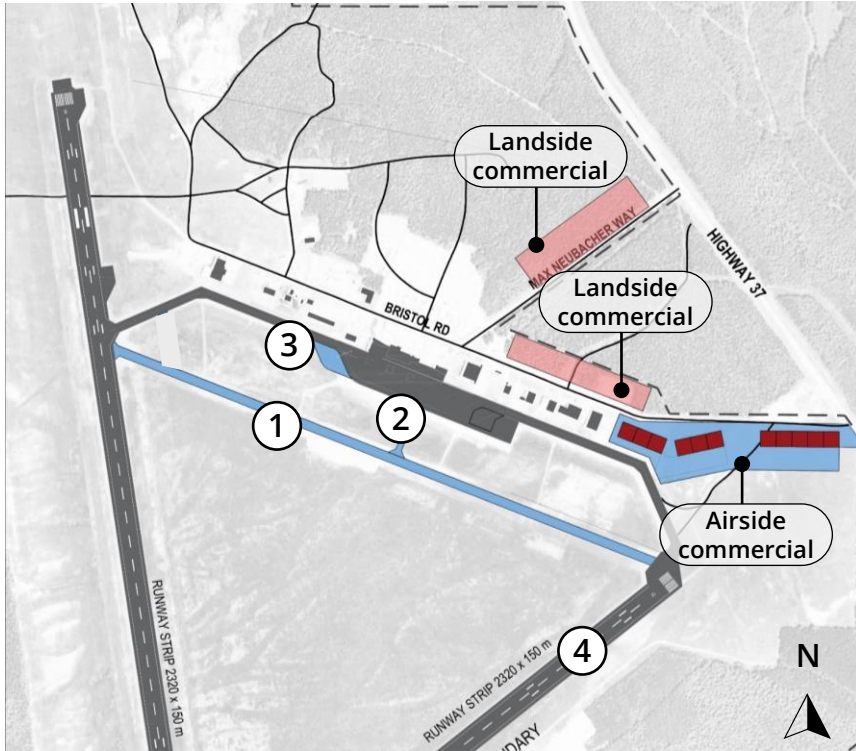
- Expansion of main apron to allow for an extra power-in and power-out stand for design aircraft (including jets)
- Development of taxiway to provide link between Runway 21 and Taxiway A
- Development of taxiway link between main apron and new taxiway
- Possible Runway 03-21 modifications

### Beyond 2042

- Proposed parallel taxiway providing link between Taxiway A and Runway 15
- Centralized De-icing Facility (CDF)

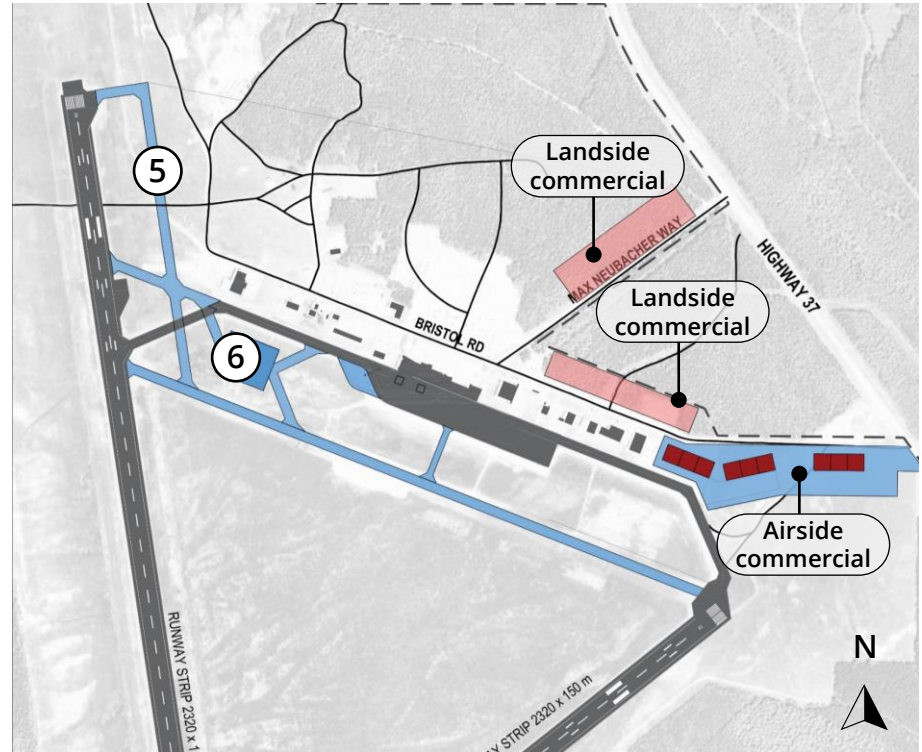
# Airfield

2042



Ref.	Taxiway
1	Taxiway to replace decommissioned runway
2	Taxiway providing link between apron and new taxiway
3	Expanded apron
4	Possible Runway 03-21 modifications

Long Term Development



Ref.	Taxiway
5	Proposed parallel taxiway providing link between Taxiway A and Runway 15
6	Centralized De-icing Facility (CDF)

# Master Plan 2022 Summary

## Terminal

The passenger terminal building was constructed in 1967 with major additions to the west being undertaken in 1995, 2008 and 2018. The most recent development expanded the departures hall, security screening and holdroom areas.

Functional areas within the terminal were assessed based on level of service and passenger experience for the forecast busy hour passengers.

### Terminal Development

The terminal building expansion concept plans for incremental processor expansions that can be realized while maintaining operations within the terminal building. This approach is consistent with the project directives, specifically providing a safe, secure, efficient operation that is also financially viable.

### 2022-2027

- Expanded reclaim belt (20m effective presentation length)
- Expanded arrivals/dwell area
- Reconfigured office + relocated man trap
- New canopy over arrivals terminal curb

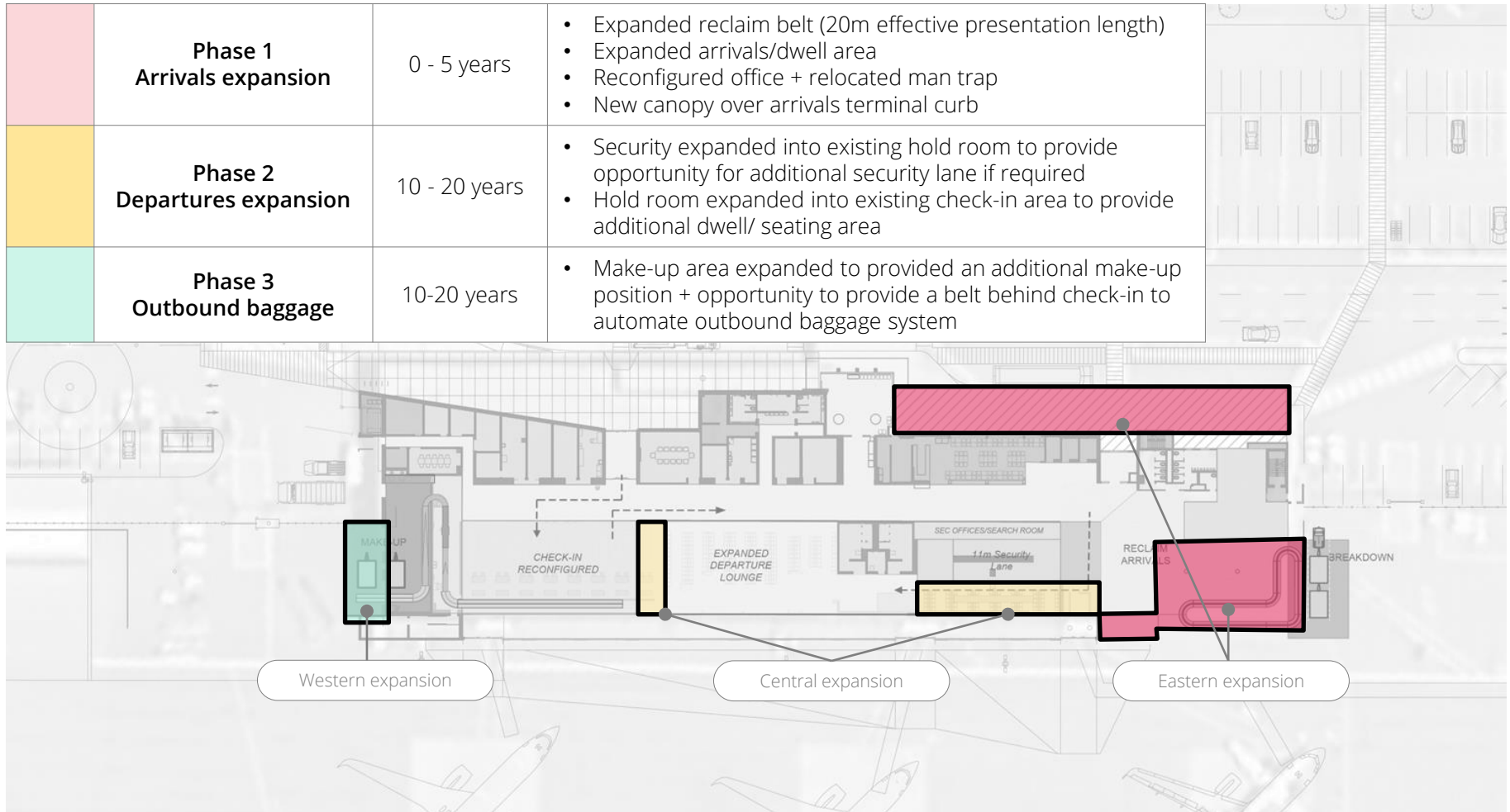
### 2028-2032

- No major airfield developments

### 2033-2042

- Security expanded into existing hold room to provide opportunity for additional security lane if required
- Hold room expanded into existing check-in area to provide additional dwell/ seating area
- Make-up area expanded to provided an additional make-up position + opportunity to provide a belt behind check-in to automate outbound baggage system

# Terminal



## 7. Master Plan 2022 Summary

# Ground Access and Parking

### Airport Access

Max Neubacher Way is expected to continue to be the main access point to the main facilities at Northwest Regional Airport. The existing approach to the terminal building provides adequate traffic flow features to ensure access to the terminal building. Important features in planning ground access to the terminal building include:

- Minimize traffic using terminal curb and provide one-way flow across terminal curb
- Divert parking and other (non-traveller) traffic away from the terminal curb achieved through strategic placement of entry and exit to parking lots
- Provide alternate access to terminal to avoid a single point of failure
- Provide area for parking growth

### Ground Access and Parking Development

As it is critical to the master planning process, conceptual plans need to consider the growth of all airport facilities. Most critical to the growth of parking is the relative growth of the terminal building that it serves.

The proposed parking layout is based upon work done in 2014 which featured the introduction of a ring road to track around the short and long-term lots. This is considered best practice for ground access at airports. Parking demand requirements were developed based on benchmarking similar sized airports across North America.

### 2022-2027

- New ring road to be cleared and paved for access to terminal building
- Paving of long-term parking lot (already cleared)
- Gravel area of long-term parking lot for overflow and snow dump
- Expansion of short-term, corporate and rental storage parking lots
- Covered walkways through short-term, corporate and long-term parking lots

### 2028-2042

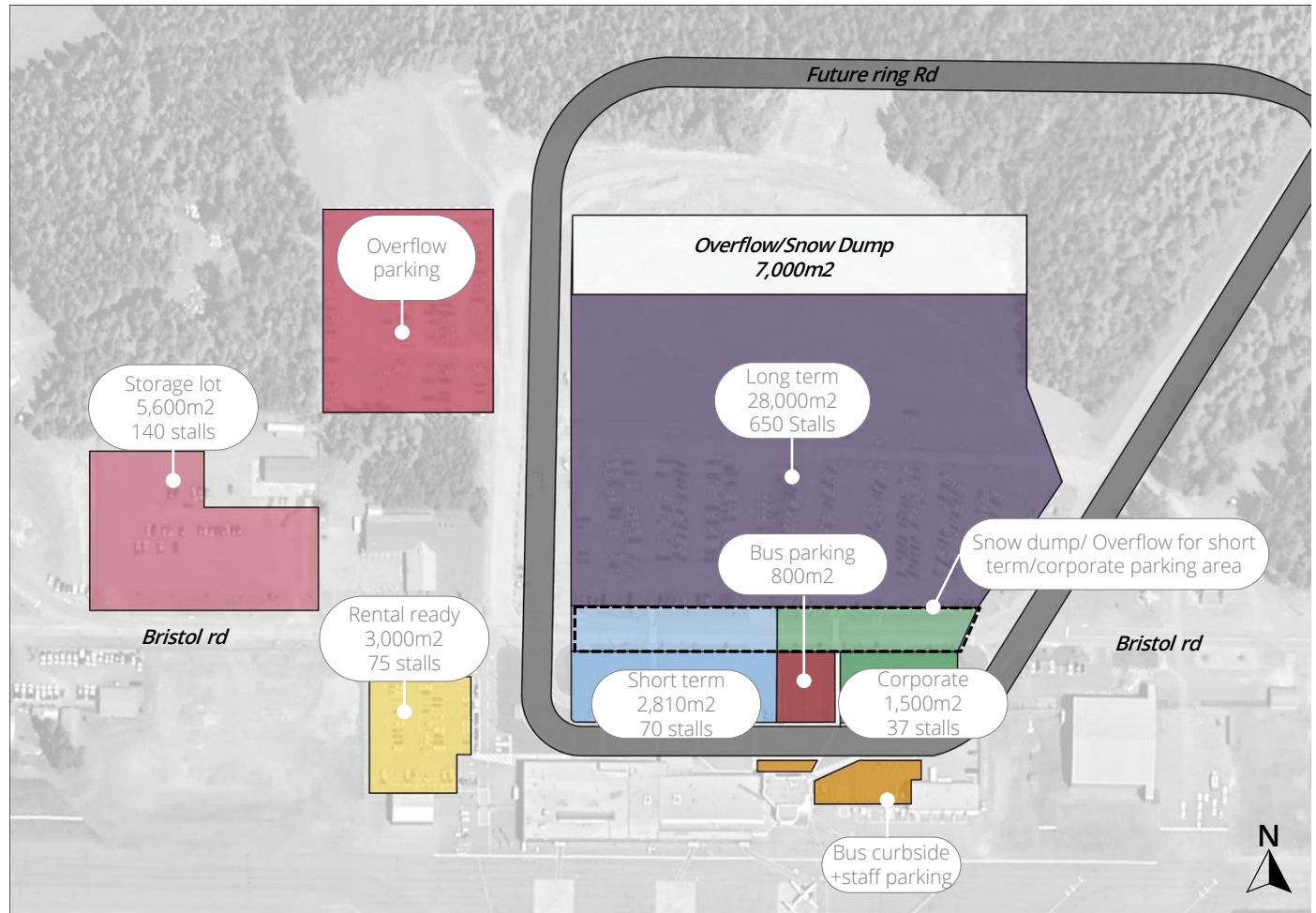
- No expansion required



# Master Plan 2022 Summary

## Ground Access and Parking

Phase 1 (2022-2027)



## Commercial Development

It is recommended that commercial development land be leased by the airport where possible to achieve the strategic directives. Specifically, commercial development can advance community and economic development, maximize commercial revenue and achieve ongoing financial viability.

### Airside Commercial Expansion

The initial opportunity to expand airside commercial lands is to extend east of the existing lots on Bristol Road. The benefit of expansion in this area is that commercial development will be kept to one precinct of the airport while core airport maintenance services that require access to the airfield and terminal will have a dedicated precinct to the west of the terminal building (defined as Airfield and Terminal Support in the Land Use Plan).

This eastern development on Bristol Road would create an isolated area for private operations that would not impact the scheduled service operations using the terminal building and main apron. This development area is constrained by Runway 03-21. This area would require the extension of utilities (power and water), which currently run along Bristol Road.

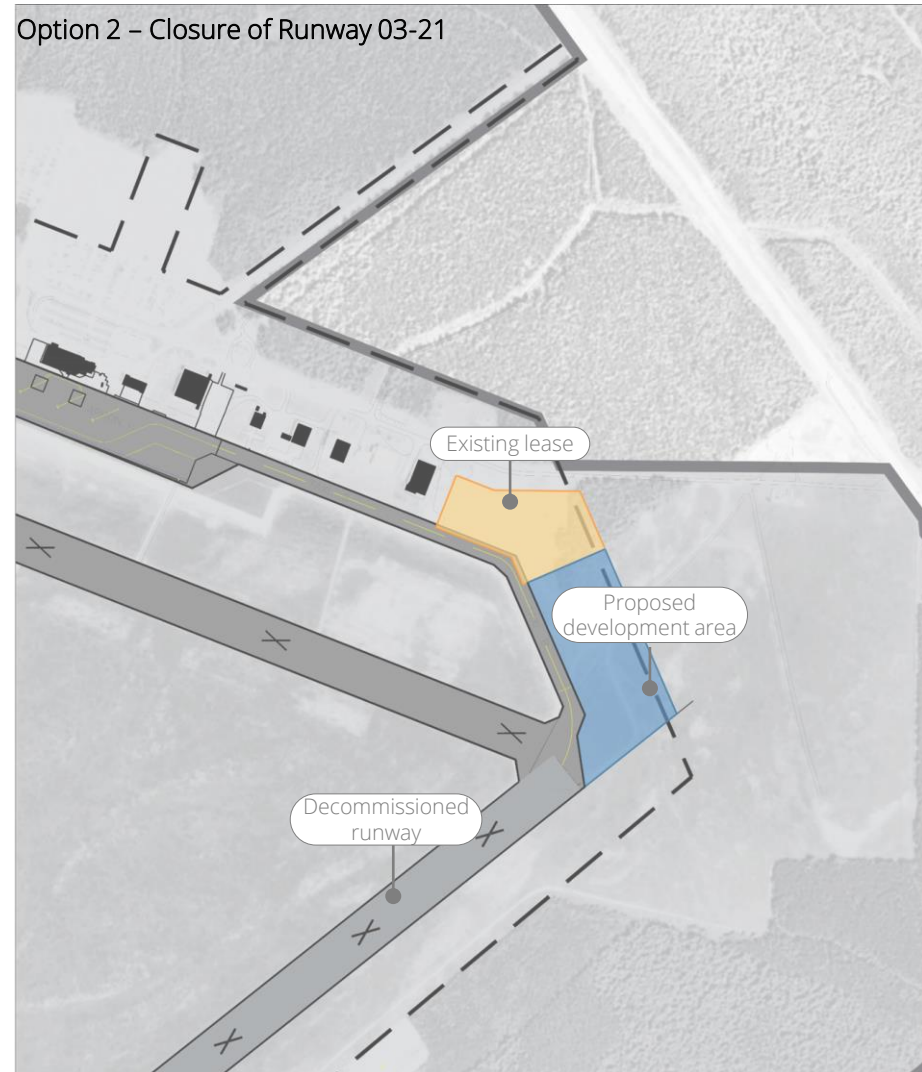
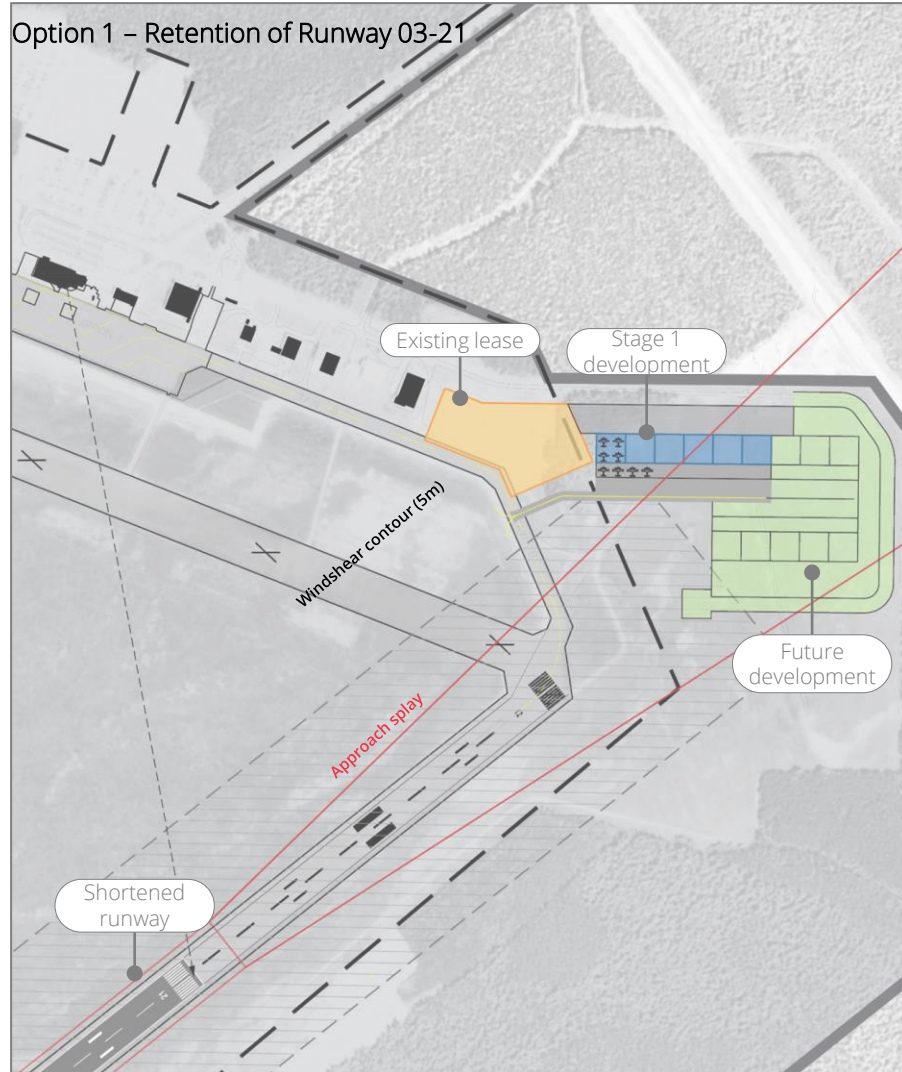
Two options (to be explored further) have been presented for the expansion of airside commercial lots:

1. Retention of Runway 03-21
2. Closure of Runway 03-21

Typical uses that would be developed within this airside commercial district include:

- Commercial hangars / aircraft maintenance facilities
- Charter airline terminal
- Fixed Based Operator (FBO) – typically providing aircraft services (e.g. fueling) or charter operations
- Aircraft sales, leasing, rentals
- Aircraft manufacturing and assembly
- Aircraft cargo
- Private aircraft hangars
- Flight training schools

# Commercial Development



# Master Plan 2022 Summary

## Commercial Development

### Airside Commercial Expansion

Groundside Commercial areas are those without access to the airfield. The intent would be to promote developments within this area which are synergistic to the airport and would benefit from an airport location. Two main areas are considered to be possible to develop within the planning horizon of the Master Plan:

- Bristol Road Development
- Airport Entrance Development

### Bristol Road Development

An area of land which does not have airside access has been identified as suitable for light industrial purposes. These lands are located on the north side of Bristol Road which is consistent with the OCP. This is a logical location for groundside development as it is in close proximity to existing lots which have utilities. The intent would be to promote developments within this area that are synergistic to the airport. Typical uses which could be developed within this district include:

- Airport maintenance and operational facilities
- Car rental facilities
- Self-storage facilities
- Light manufacturing and fabricating
- Nurseries, greenhouses

- Outdoor storage facilities
- Vehicle sales, repair, service, rental
- Tourism services
- Warehousing

### Airport Entrance Development

The western side of Max Neubacher Way is defined in the City of Terrace OCP to be designated as Groundside Commercial. The area of focus at the intersection of Max Neubacher Way and Highway 37 has direct exposure to all airport road traffic and also exposure to traffic on the Highway that links the cities of Terrace and Kitimat. As development in Kitimat grows it is expected that the traffic volume between Terrace and Kitimat will increase.

Access to the Airport Entrance Development lands would be off Max Neubacher Way via a dedicated access road. Access to the area would be required to pass the right of way allocated for Max Neubacher Way and beyond the Open Space/Natural Areas defined in the OCP. The area could be developed to accommodate uses such as:

- Interpretive Centre and trail head parking area leading into the airport recreational area
- Service Station with car wash facility (for passengers, car rental and passing traffic)

# Master Plan 2022 Summary

## Land Use Plan

The Official Community Plan (OCP) and the relevant zoning bylaws define the approved land uses for the airport property and have been considered in development of the land use plan for the Airport Master Plan.










	Terminal reserve
	Parking reserve
	Terminal support reserve
	Airside commercial
	Infield airside commercial
	Airfield reserve
	Groundside commercial
	Nav Can ATV reserve
	Existing gravel pit

Figure 11.1: Land Use Plan

