

Toronto Pearson

Master Plan 2017-2037

Greater Toronto Airports Authority
October 4, 2017

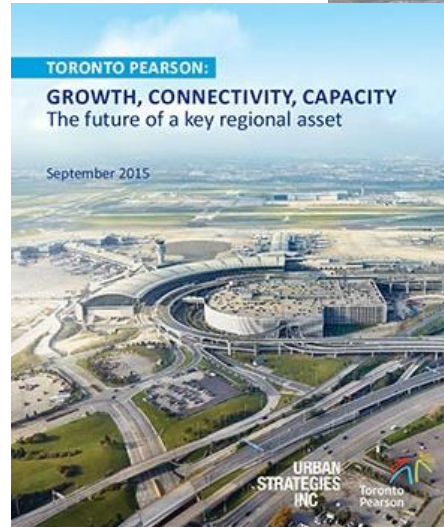


Toronto Pearson

Stakeholder engagement

The GTAA has been proactively engaging stakeholders to outline how it is preparing to meet growing demand for the past two years.

Our Master Plan update in 2017 will explain our infrastructure and planning needs to achieve this vision over the next 20 years.



Engagement activities



Toronto Pearson

- Industry and community consultative committees
- Public workshops
- One-on-one meetings and briefings
- External organizations and committee presentation
- Public meetings
- Employee forums
- Public tours
- Social media outreach
- Community events
- Community investments
- Public Surveys
- Residents Reference Panel
- Open houses



Key components of our Master Plan

**Executive Summary,
Retrospective,
Guiding Principles,
Strategic Context
and Demand
Forecasts**

Chapters 1-5

Infrastructure Plans

Chapters 6-11

**Land Use Plan,
Conclusions and
Recommendation**

Chapters 12&19-20

**Impacts and
Mitigation**

Chapters 13-18

Our world has changed since 2007



Toronto Pearson

Characteristic	2007	2017	Key Takeaway
GTA Population	5.9 M	6.9M	There's a million more people in the GTA
Percentage of population with cellphones	60%	83%	We're much more mobile and connected
Number of ultra-long haul nonstop (+6,000 miles) destinations from YYZ	5	13	Aircraft can fly further than ever before
Real cost of airline ticket to Vancouver	\$284 (2017 dollars)	\$215 (2017 dollars)	It's getting cheaper to fly
Median age of Ontario resident	39	41	We're getting older
G7% of Global GDP	53%	47%	Emerging economies are growing faster
Years since the Leafs won the Stanley Cup	40	50	Whatever...

Key Chapter Updates



Toronto Pearson

Master Plan Key Chapters 2008 v. 2017 Key Difference

5. Demand Forecast	Faster increase in passengers, slower increase in cargo and aircraft movements Why? <i>More demand but in bigger, fuller planes</i>
6. Airside System	Do not see need for sixth runway in next 20 years Why? <i>Advancements in air navigation technology and bigger, fuller planes</i>
7. Passenger Terminal System	Focus on technology advancements which have altered movement through terminal Why? <i>Decreases the need for terminal space per passenger.</i>
8. Ground Access System	Moving to high capacity, low emission ground access model concept of a Regional Transit Centre Why? <i>Increase speed and reliability of access, improve regional connectivity, reduce congestion and emissions</i>
9. Cargo & Logistics	More belly cargo vs freighters and the airport as part of an integrated logistics network Why? <i>More wide body aircraft, multi-modal nature of air cargo, supporting exports</i>

Key Chapter Updates



Toronto Pearson

Master Plan Key Chapters 2008 v. 2017 Key Difference

10. Aviation Fuel	Review of the full supply chain and consideration of future power sources Why? <i>Longer stage lengths, ensuring a resilient supply chain and advent of alternative fuels</i>
11. Utilities	Focus on ensuring feeder capacity keeps up with our projected growth. Why: <i>Identify and resolve potential blockages to our growth</i>
12. Land Uses	Focus on densification Why: <i>Toronto Pearson is relatively land constrained and to support transit ridership</i>
13. Interface with Surrounding Area Plans	Recognition that Toronto Pearson anchors the second largest employment zone in Canada Why: <i>Better outcomes from integrated land use and transportation planning with neighbours.</i>

Key Chapter Updates



Toronto Pearson

Master Plan Key Chapters 2008 v. 2017 Key Difference

14. Regional Airports Network

Recognition that we operate in a network of regional airports, similar to large metropolitan regions worldwide, and a formal coalition has been established

Why: *Framework for optimal use of regional airport capacity and ground access investments*

15. Corporate Responsibility

Commitment to economic, social and environmental impact on region and country

Updated 30 NEF contour

Why: *To reaffirm commitment to mitigating our impacts*

An aerial photograph of a large airport terminal and a complex multi-level highway interchange. The terminal is a large, modern building with a curved facade and a flat roof. The highway interchange consists of numerous overpasses and ramps, creating a dense network of roads. In the background, the airport's runways and taxiways are visible, along with a city skyline in the distance under a clear sky. A semi-transparent white banner is overlaid across the center of the image, containing the text "Demand Forecast" in a bold, dark blue font.

Demand Forecast

Toronto Pearson in 2037

2016

44 million
passengers

456,000
total aircraft movements

106
passengers / air carrier movement

450,000
tonnes of cargo

2037

85 million
passengers

632,000
total aircraft movements

140
passengers / air carrier movement

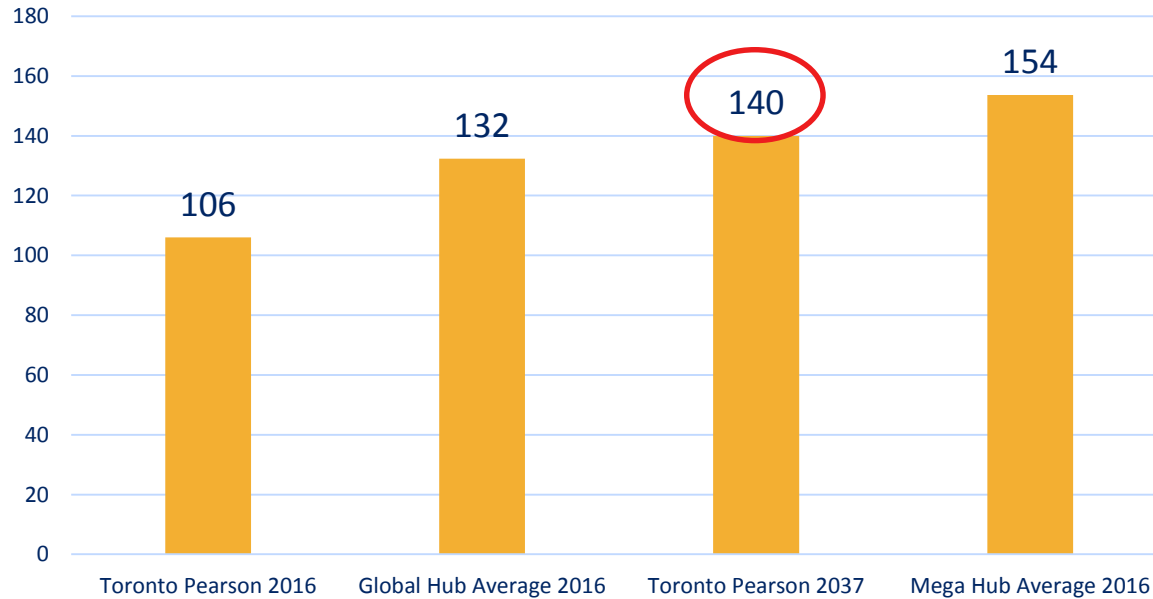
950,000
tonnes of cargo

Passengers Per Movement: How Do We/Will We Compare?



Toronto Pearson

Passengers/Air Carrier Movement



Accommodating regional demand: Southern Ontario Airport Network



Toronto Pearson

Other airports will have an increasingly important role to play as the demand for air services grows



Better transit connectivity between airports will reduce road congestion and support goods movement


**SOUTHERN ONTARIO
AIRPORT NETWORK**

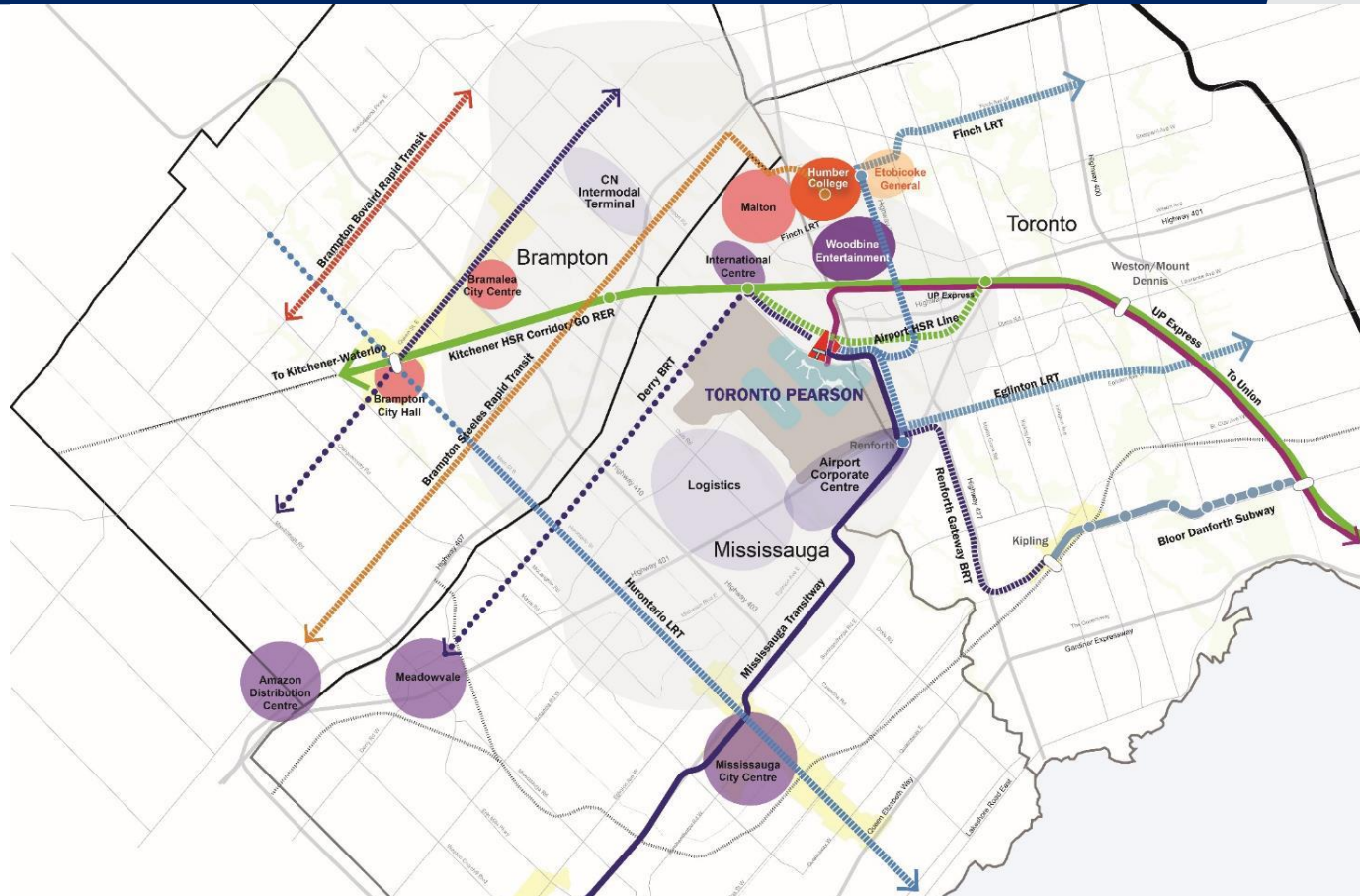
An aerial photograph showing a large airport terminal and tarmac area in the middle ground, with a complex multi-level highway interchange in the foreground. The background shows a city skyline under a hazy sky. A semi-transparent white trapezoidal box is overlaid in the center, containing the title text.

Infrastructure & Land Use Plan

Toronto Pearson's regional transit centre: strategically located to support a more integrated transit network



Toronto Pearson



Concept rendering: Regional transit centre and passenger processing facility



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Connectivity and frequent service attracts new firms, increases property value



Toronto Pearson

More than half of companies consider international transport links to be an essential factor when locating a business in Europe (*European Cities Monitor survey*)



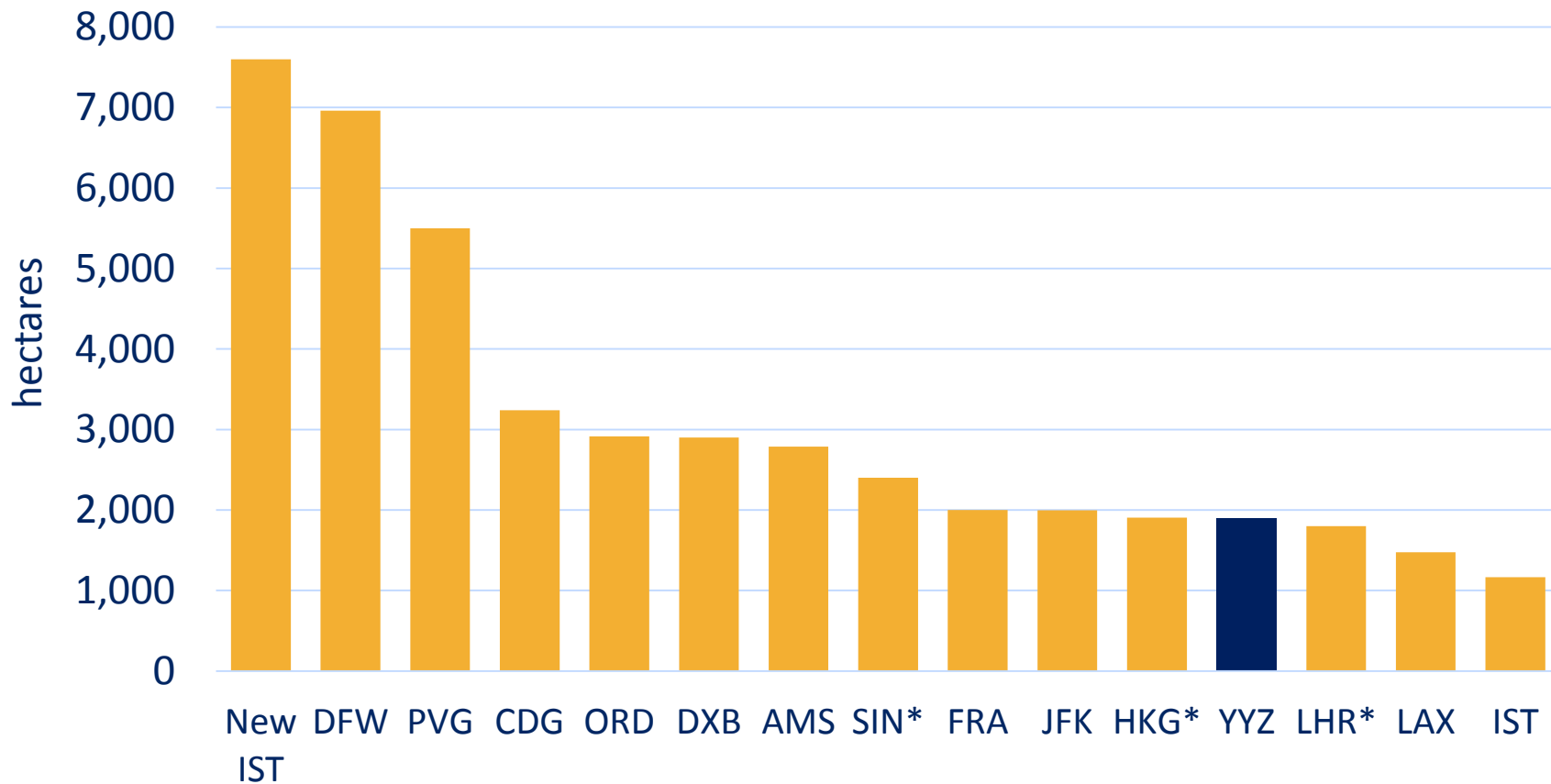
Frankfurt Airport



Schiphol



Airport Land Area (ha) Benchmarking



Toronto Pearson vs. Pickering Land Area



Toronto Pearson



Land Use Categories

- 1) Airfield
- 2) Passenger Terminal
- 3) Ground Access
- 4) Other Airport Development e.g. such as cargo facilities, flight kitchens, hangars, car rental facilities and hotels
- 5) Environmental Protection Areas

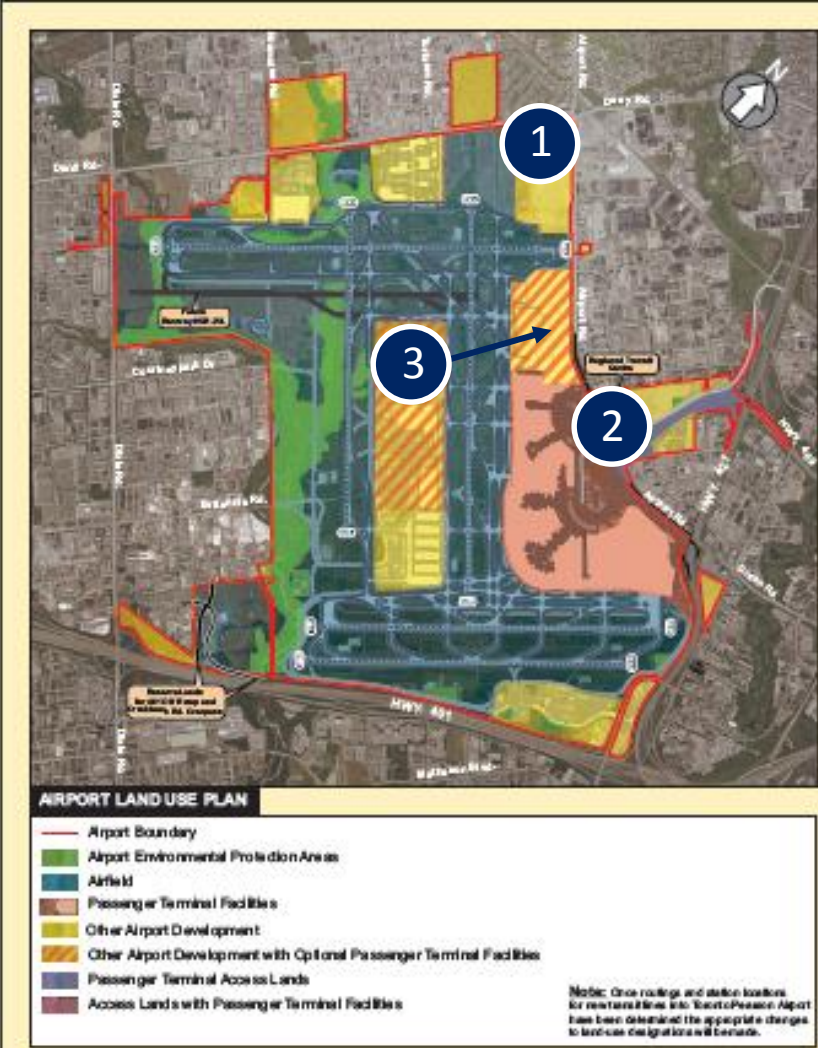
Cross-hatching, that is dual designation of land, is permitted. No changes proposed to land-use categories.



Land Use Plan to 2037

Minimal changes from current LUP

1. Addition of ~30 ha of Boeing Lands at Derry and Airport Roads
2. Regional Transit Centre and processor
3. North and midfield terminal expansion options protected
4. Phased terminal expansion including additional gates, more baggage capacity, with eventual single contiguous terminal
5. Plan still protects for sixth runway but does not anticipate a new runway is needed to accommodate capacity



Noise Exposure Forecast and Land Uses



Toronto Pearson

- GTAA has established an Airport Operating Area (AOA) based on the NEF 30 contour which is embedded in Municipal official plans.
- For new, non-urban airports it is recommended to avoid residential developments within NEF 25 noise contour.
- Current modeling of the future noise exposure scenarios is underway.

An aerial photograph of an airport terminal and a complex multi-level highway interchange. The terminal is a large, modern building with a curved facade. The highway interchange consists of numerous overpasses and ramps, with several cars visible on the roads. In the background, a city skyline is visible under a clear sky. A semi-transparent white banner is overlaid across the center of the image, containing the text "Impacts & Mitigation".

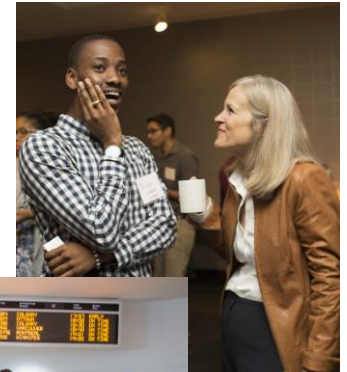
Impacts & Mitigation

Impacts and Mitigation



Toronto Pearson

Achieving our vision to be the best airport in the world relies on managing the airport responsibly. We are working to maximize the economic benefits that Toronto Pearson brings, while carefully managing our environmental responsibilities and being a good neighbour to our local communities.



Environmental program



34%
reduction in
GHG
emissions since
2006

74% waste
diversion

- Partners in Project Green
- On-site apiary, YYbeeZ
- Waste diversion
- Air Quality Study
- Electric Vehicle (EV) charging stations
- Level 3 (Optimization) Airport Carbon Accreditation

Community Investment: Propeller Project



Toronto Pearson



\$493,380

on community
investment in
2016

Signature Program - Uplift Fund:

Championing access to employment for our neighbours by supporting research, advocacy work and public-facing programs that enable local area residents to gain the skills, connections and opportunities to be meaningfully employed in communities near the airport and beyond.

Nest Fund:

Supports programs and organizations that have a positive impact on communities surrounding Toronto Pearson with priorities in: environment, community and employment.



- Residents' Reference Panel
- New Noise Monitoring Terminal installations
- Noise Management Benchmarking Study
- GTAA & NAV CANADA's Toronto Noise Mitigation Initiatives (The 6 Ideas)
- Survey on Noise Fairness & Airport Growth
- Community Environment and Noise Advisory Committee (CENAC)
- **5-Year Noise Management Action Plan (late 2017)**

An aerial photograph of Toronto Pearson International Airport. The image shows the extensive runway system, taxiways, and parking lots. In the foreground, a complex multi-level highway interchange is visible. A large white banner with a slight shadow is centered over the middle of the image, containing the text "Questions & Comments" in a bold, dark blue font. The background shows a hazy city skyline under a clear sky.

Questions & Comments



Toronto Pearson