How Omni-Channel and **Autonomous Vehicles Will Impact Commercial Real Estate**

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Need for Retail Space is Shrinking

Omni-channel is impacting in-store shopping and need for store space

- Online shopping
- Click and collect



Driverless vehicles:

- Create parking space take-back
- Impact distribution first
- Change shopping patterns







Autonomous Vehicles' Impact is Around the Corner

- Speed of change to mass use is about 15 years
- Faster in 2020s?









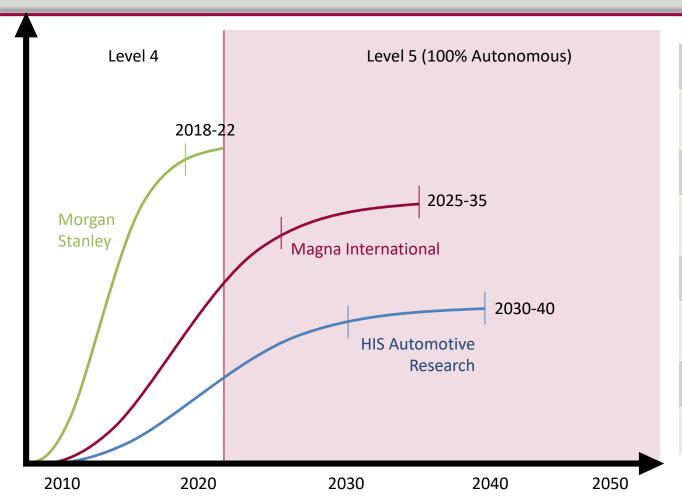
What...? Give up my car?

- Some people cannot grasp the idea of not:
 - owning,
 - insuring,
 - maintaining,
 - fuelling,
 - trading-in,
 - worrying about kids driving,
 - having a garage, etc.
 - driving the commute,
 - paying for parking
 - but only using their car ≈3% of the time





When will AV Happen?



Audi	2020
Nvidia Technology	2018/20
Delphi	2019
Ford	2020 (level 4)
Volkswagen	2019
GM	2020 – or sooner
BMW	2021
Tesla	2023

Level 4: car needs no driver, but will not be capable of driving everywhere.







Parking Space Take-Back: Large Community Centre

- The B or C class mall is often referred to as being "under threat," particularly if in the trade area of A or AA mall.
- Actual Case Study:

Site is 30 acres or	1,306,800 feet ²
Current retail is Sobeys, Walmart, mall area, pad restaurant	405,000 feet ²
Park, circulation, services	900,800 feet ²

• So ±70% of the site is not directly revenue producing, but it is "tied up" in parking spaces-to-retail area ratio requirements







Parking Space Take-Back: Large Community Centre

 Reclaim the 20 acres for residential, office and retail space as the market can absorb it

Space plans

– Parking and circulation270,000 feet2

• 30% of net space

Available for re-use630,000 feet2





Parking Space Take-Back: Proposed Space Use

Residential	70% of Take Back	440,000 feet ²
Low use	1/3	147,000 feet ²
Mid	1/3	147,000 feet ²
Tower	1/3	147,000 feet ²

- Residential Income
 - If coverage is three times 440,000 feet² or 1,320,000 and net square foot rent is \$2.50 income:
 - New net income \$3,300,000
- Land value if sold: \$16,500,000







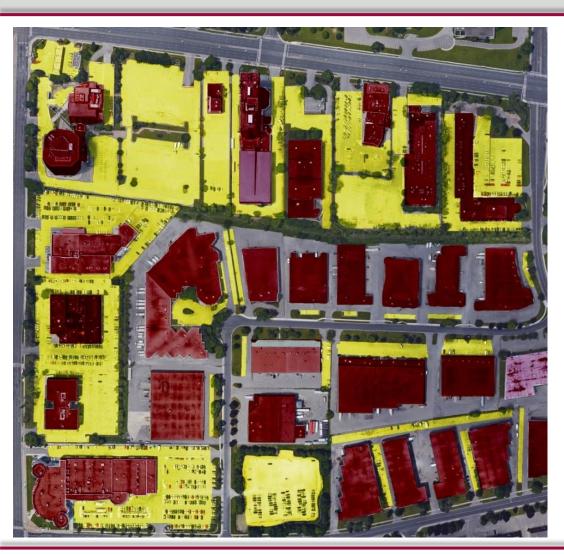
Suburban Office Tower

- Scenario: Suburban Office
 - − 1 tower, 20,000 SF per floor
 - -20 floors = 400,000 SF
 - Present parking at 2 spaces per 1,000 SF
 - 400 spaces x \$300 per space per month
 - Loss of \$1,440,000 or \$6,000,000 capital value





Parking Space Take-Back Potential



Example: Woodbine and Steeles

- There is a 1:1.13 ratio between building space and parking space
- 35% of the entire area is dedicated to parking space
- More than 40% of the office space is dedicated to parking
- Only 4.85% of the warehouse land is dedicated to parking
 - Parking space
 Buildings







Ramifications of Parking Take-Back

Retail Direct Impact and Wipeout:

- 1. Auto dealers and auto malls
- 2. Auto parts and tire stores
- 3. Gas stations, local service garages
- 4. On-street parking, commercial parking
- 5. Auto-rental and car share rental at airports
- 6. Offices for rental, insurance, legal
- 7. Revenue airports, hospitals, campuses, clubs



