Toronto Waterfront Revitalization & Redpath Sugar

Environmental Noise Aspects

A. D. Lightstone PhD, P. Eng





Environmental Noise Issues

- Objective:
 - Redevelopment, largely residential + other sensitive uses
- Ramifications:
 - Introduce sensitive receptors close to Redpath
- Concern:
 - Maintaining Redpath ECA compliance
- MOE D-6 Guideline:
 - Redpath is Class III industry
 - Recommends minimum 300 m separation
- MOE Noise Guidelines (NPC-205/LU-131)
 - By using outdoor plane of window noise limits, discourage or preclude sensitive receptors near to stationary source (Redpath)



Environmental Noise Issues

- Proposed revitalization violated basic principles of MOE noise & land use compatibility guidelines.
- Major disconnect between land use approvals & environmental approvals

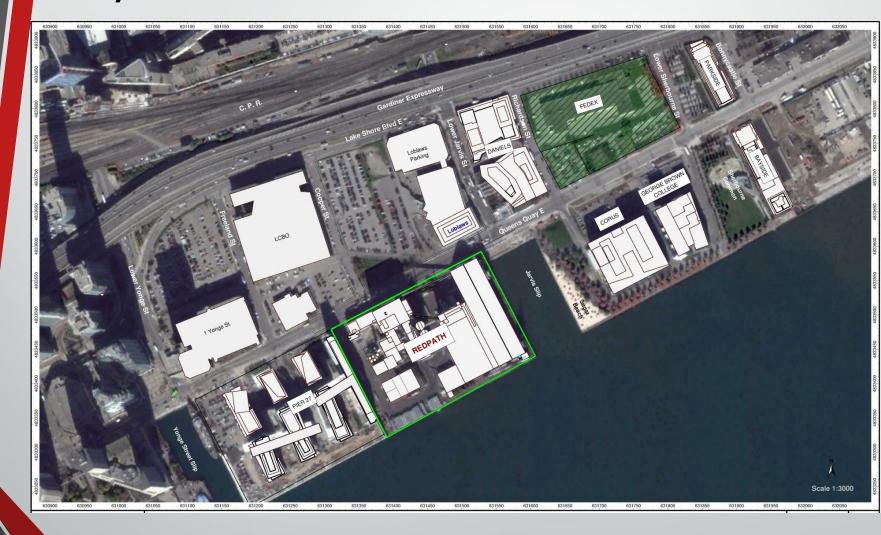


Proposed First Development

- MT 27/Pier 27:
 - MT27/Pier 27 separation from Redpath is Zero
 - 1996: resolved 3 party settlement Redpath, Developer, City
 - Noise mitigation at source (at developer's cost)
 - Zoning bylaw with elaborate noise control provisions; single-loaded corridor, barrier building along common property line + other screening measures to meet MOE outdoor plane of window noise limits
 - Pier 27 came forward for development in 2005 with quite different design concept – "minor variance"
 - Required ZBA & renegotiating amended agreement



Key Plan





Environmental Noise – Unique Situation

- Early on, determined cannot comply with noise guidelines by atsource mitigation alone; need receptor mitigation precluded by the MOE noise guidelines
- Needed MOE buy-in
- Ultimately MOE came to table (pressure from the top) 2006/2007
- MOE agreed to more flexible approach & to allow a "toolbox " of atreceptor mitigation (called the "Matrix"), otherwise prohibited, on a non-precedent setting basis
- Several developments approved since 2007, using Matrix approach



Environmental Noise - Solutions

Noise Matrix:

- Allows 5 dBA excess with no mitigation
- Allows sealed windows for residential not POR's re Redpath

• End Result:

- Development can proceed
- Redpath protected (same rules for Redpath compliance as for development)



Environmental Noise

MOE Guideline Update

- 2009: MOE commissioned update to NPC-205/LU-131
- 2013: MOE issued NPC-300 replacing NPC-205/LU-131
- NPC-300:
 - New provisions for allowing sensitive receptors close to stationary sources
 - Much is modelled on Redpath/Toronto Waterfront experience
 - Ensures same "rules" apply to stationary source as to receptors
 - New Class 4 receptor area introduced: for new sensitive development near to existing stationary source – less stringent noise limits
 - Does not recognize sealed windows for residential outdoor plane of window still POR
- Future:
 - Waterfront: not sure if Matrix can continue to be used vs NPC-300
 - Elsewhere: NPC-300