

CITY OF CALGARY
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JUN 21 2017

ITEM: 3.3 TT2017-0534

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LEWIS LOFTS AND GREEN LINE LRT PROJECT

Concerns and Request

June 2017



EXECUTIVE SUMMARY

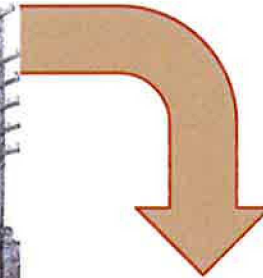
- ❖ Green Line Project Team is proposing to construct an LRT tunnel beneath, or right adjacent to, the footprint of the Lewis Lofts building on 240 11th Avenue SW.
- ❖ The Lewis Lofts Condo Board has several concerns with the Project Team's proposal regarding our building's structural integrity and the damage to our resident's quality of life.
- ❖ This is the first boring project of this magnitude in Calgary, the first tunnel to run under a residential building in Calgary and Lewis Lofts is one of the oldest residential buildings in Calgary.
- ❖ The Lewis Lofts Condo Board is requesting the final decision on the alignment approval be deferred until alternate alignment options are presented to Council.

THE LEWIS LOFTS

- Originally built in 1910 as a warehouse
- Converted to 59 residential condo units in 1995
- Combination of a concrete side and wood side - built at different times with different techniques
- Building envelope and foundation are old, heterogeneous and undocumented
- Not built on stable bedrock
- Level A Municipal Heritage Designation
 - Notable, unique and rare; worthy for consideration under the Historical Resource Act
- **Impacts on the building due to tunneling have not been assessed and are unknown**



From 1910...

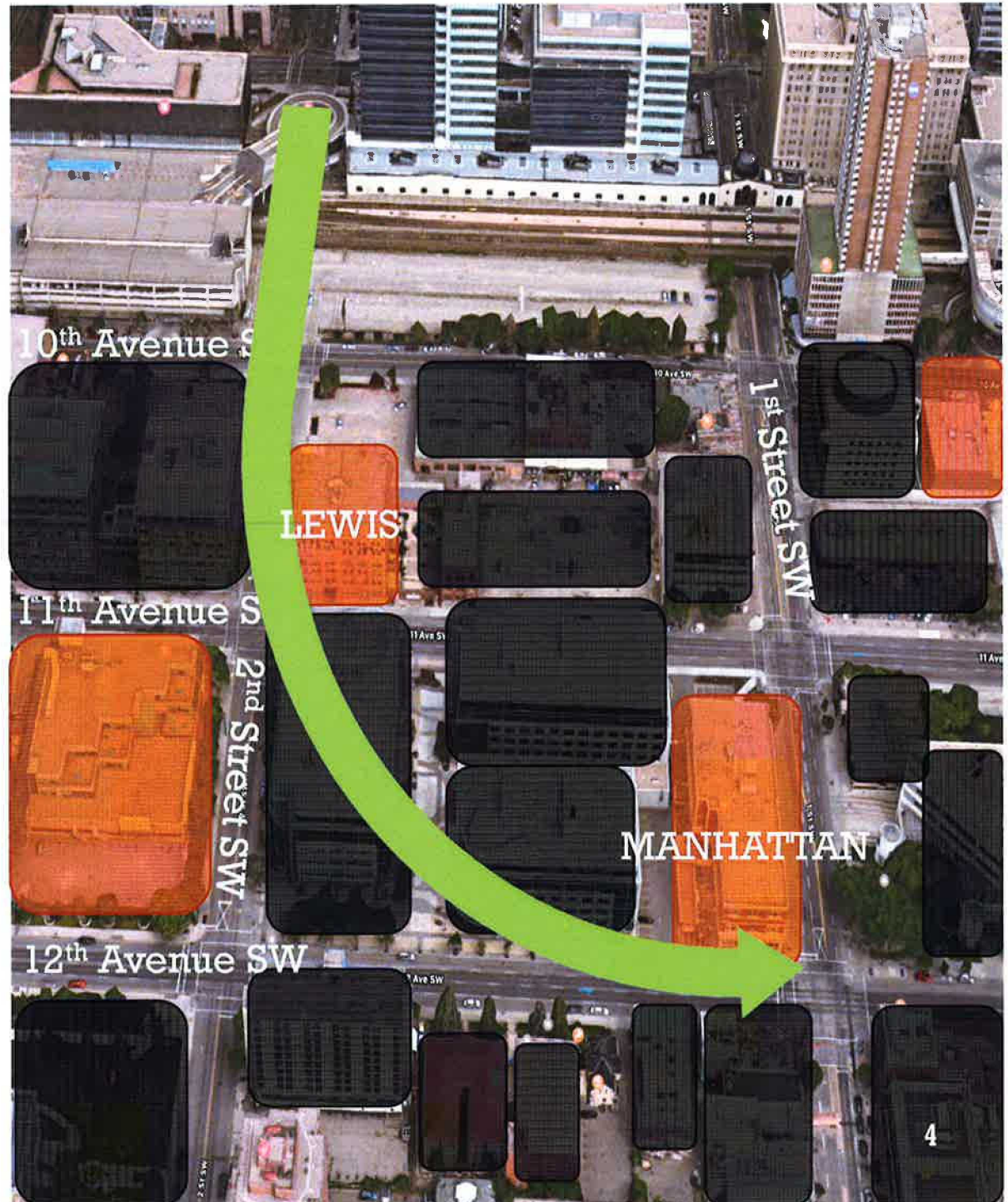


... to 2017



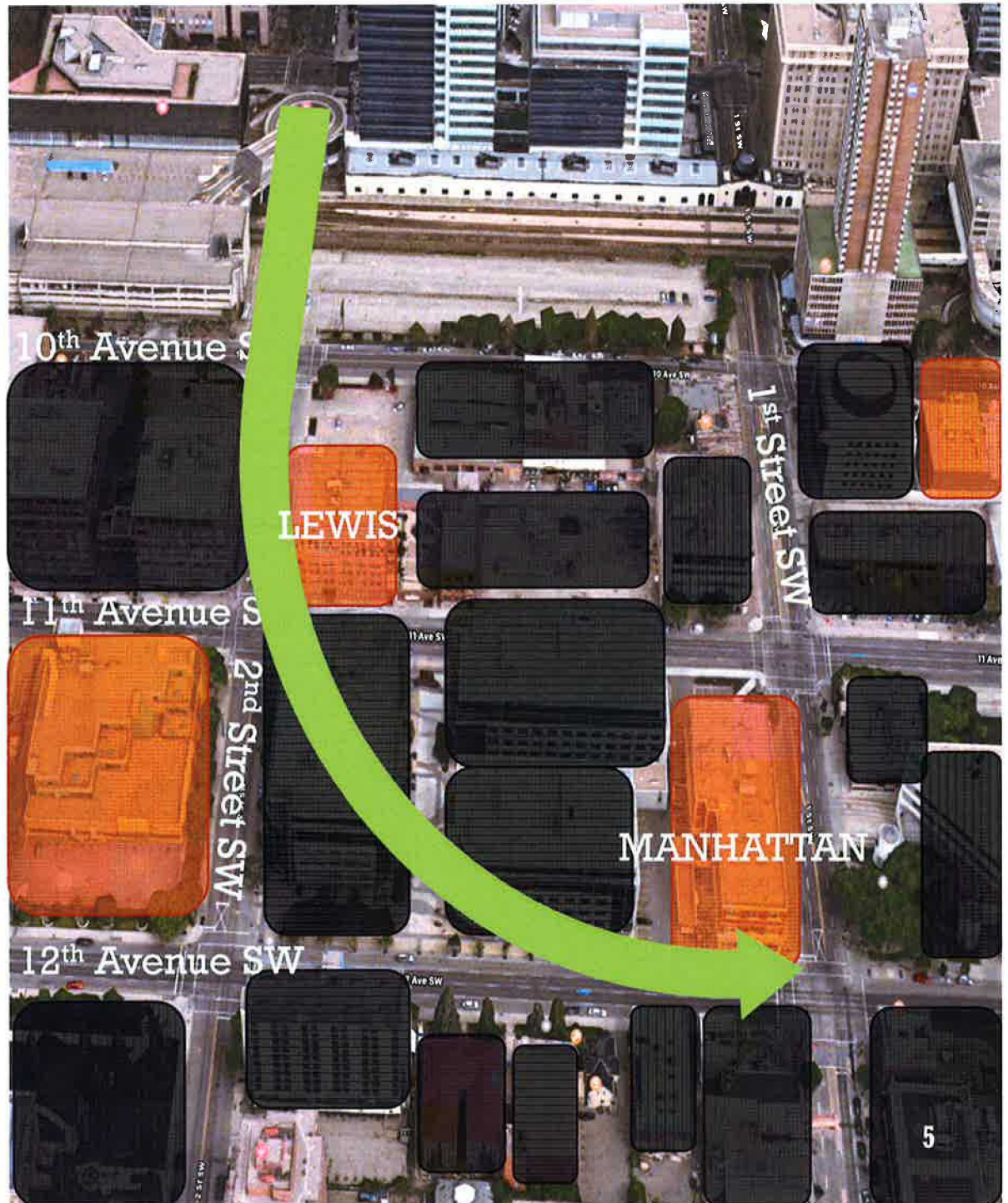
PROPOSED ALIGNMENT (1 OF 3)

- Legend:
 - Green – Planned alignment of line
 - Black – Commercial buildings
 - Red – Residential buildings
- Green Line route hits 2 of the 5 residential buildings on a 3 block radius (both Historical Era; Lewis and Manhattan Lofts)
- Potential for ground settling causing structural and cosmetic damage to buildings
- Possible noise and vibration issues once train is operational



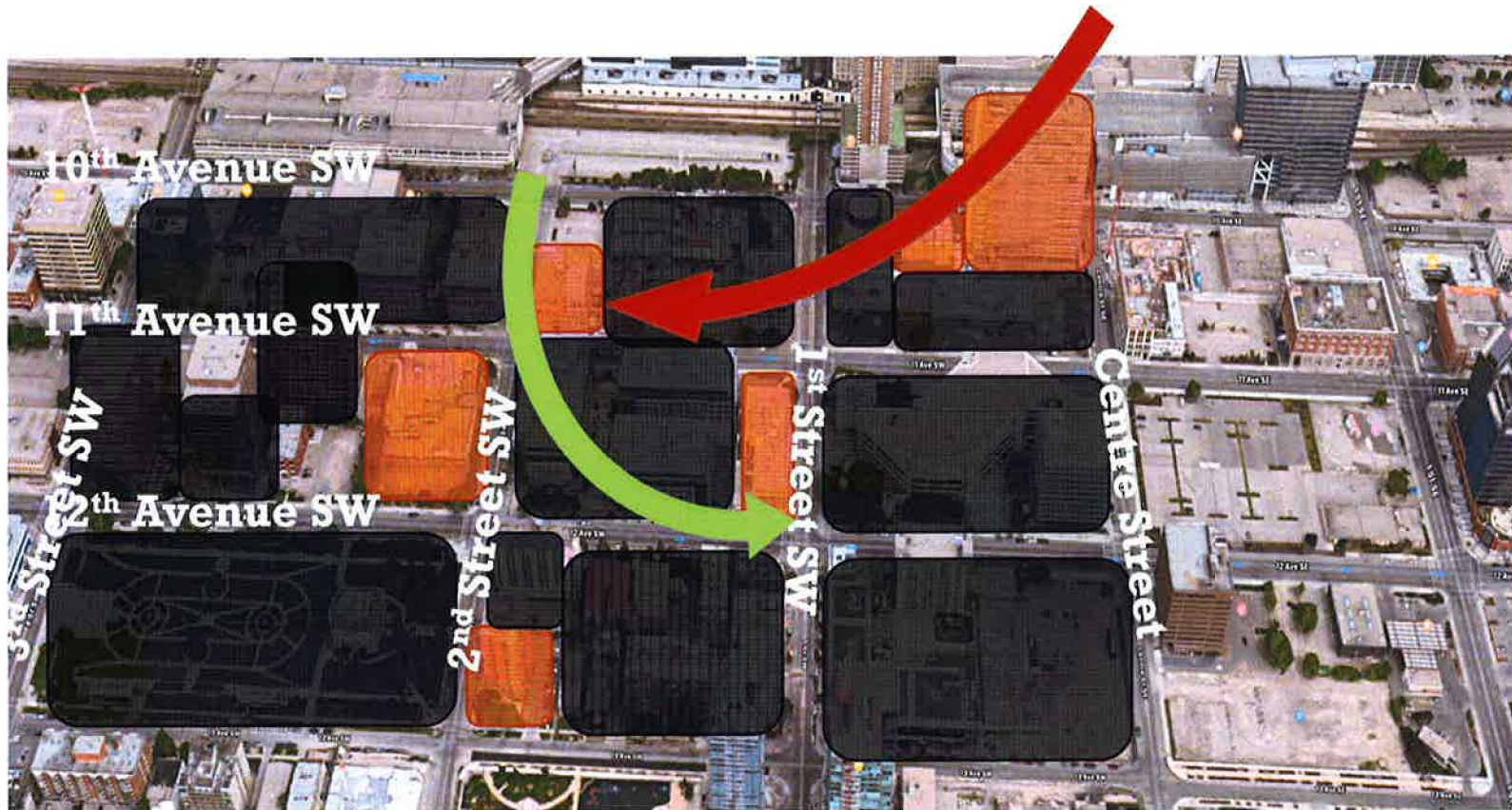
PROPOSED ALIGNMENT (2 OF 3)

- Negotiation with 59 Lewis Lofts stakeholders may be difficult. Disruption to quality of life and property value will be higher for residential buildings
- Commercial properties typically have one owner which may make negotiations more manageable for project milestones



PROPOSED ALIGNMENT (3 OF 3)

NUMEROUS COMMERCIAL BUILDINGS SURROUND LEWIS LOFTS



TRACK RECORD OF DAMAGE TO HISTORICAL WAREHOUSES

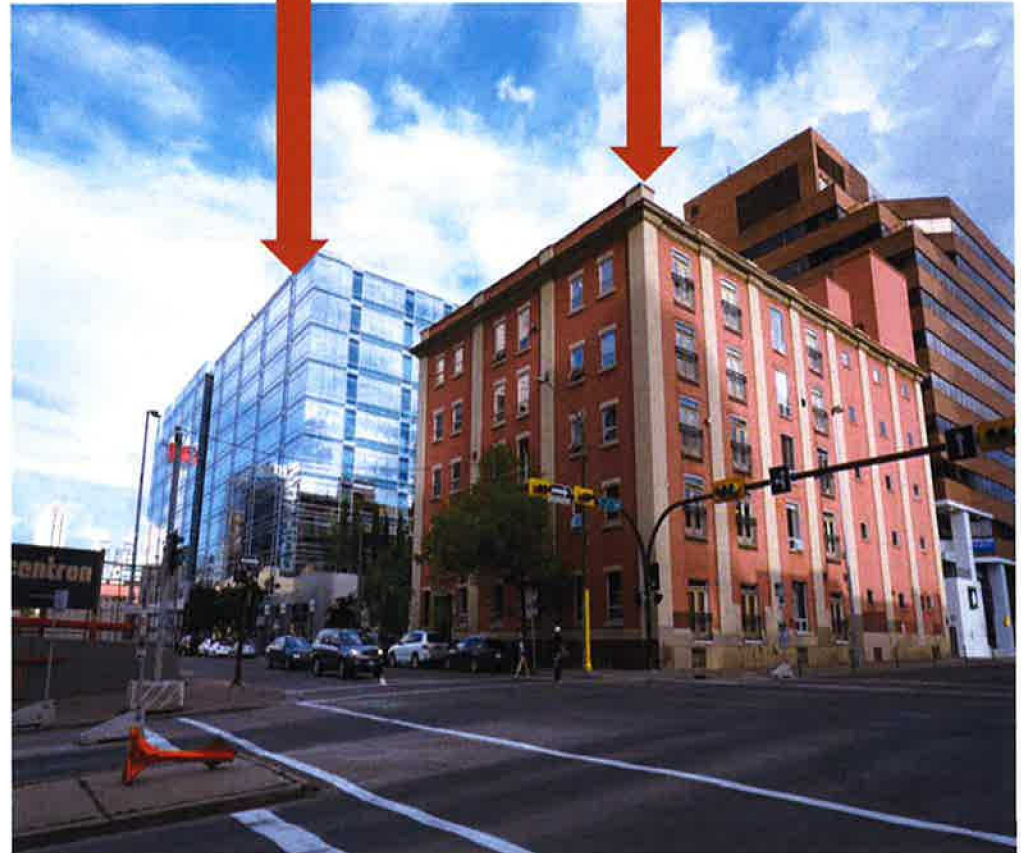
- Beltline area was built on loose sand and gravel
- Historical buildings have been damaged due to nearby new construction
- Calgary has a limited inventory of heritage grade buildings – protection is critical to the few left

HUDSON LOFTS

- Built in 1909
- 535 – 10th Ave SW
- Brick and post and beam construction
- Sink hole opened in parkade caused by new building construction next door

NEW
BUILD

HUDSON
LOFTS



ALBERTA PAINT

- Built in early 1900's
- 224 – 11th Ave SW
- Brick and post and beam construction
- Major structural damage due to new building construction next door – multi-year repair work required

ALBERTA
PAINT

NEW
BUILD



IMPERIAL LOFTS

IMPERIAL

NEW
BUILD

- Built in 1929
- 220 – 11th Ave SW
- Brick and concrete construction
- Structural damage due to new building construction on north side



HERITAGE BUILDINGS

- 3 out of 4 heritage buildings damaged by new construction
- All built on sand/gravel river bed soil conditions
- New builds well engineered – still had settling issues
- Potential for damage to Lewis Lofts is greater as it involves tunneling under the building



SUMMARY OF CONCERNS BY LEWIS LOFTS

- Tunnel construction causes structural or cosmetic damage to Lewis Lofts
- Tunnel operation causes noise and vibration in Lewis Lofts – loss of quality of life
- Either issue creates a loss of market value – possibly not fully recognized in compensation
- A Calgary landmark in the beltline is damaged – repairs may detract from currently undamaged state
- All of the above can be avoided by utilizing alternate routes for the proposed tunnel segment

EXPOSURE TO CITY

Knowns

- Heritage buildings in the Beltline area are very susceptible to damage from soil disruption
- Good geotechnical engineering has still failed to prevent damage to Heritage buildings
- Tunneled transit lines are new to Calgary and have never been used under residential buildings
- Lewis Lofts is built on very unfavourable soil conditions for tunneling
- A failure by the city to prevent damage or loss to quality of life has significant societal effects

Unknowns

- Design of the Lewis Lofts building – no foundation or structural drawings exist of the structure
- Lewis Lofts is constructed as two conjoined structures with different designs – significantly more difficult to understand the reaction due to new construction
- How extensive any damage to settling could be – how long could home owners be displaced or disrupted
- If remedial efforts will fully repair damage or restore the quality of life for residents

CITY APPROACH TO ALIGNMENT PROPOSAL

- Project team proposed various alignment options to council for the Beltline area and Victoria Park into Ramsey – each option included feasibility details and cost projections
- Council is only being given one alignment proposal from 10th Ave to 12th Ave: bring the tunnel under two of the oldest residential buildings in Calgary

Stated by the Project Team to Lewis Board Members:

- The proposed alignment near or under the Lewis building was the most feasible and budget friendly
- The train will not stop if there are negative impacts (noise, vibration, structural issues, property value loss) to the Lewis building

LEWIS LOFTS' GOALS

- Protect the safety and interests of the Lewis Lofts owners
- Protect one of the few remaining historical buildings in Calgary
- Remove the alignment option of running the tunnel near our building
- Be respectful to all parties involved in the process

LEWIS LOFTS REQUEST

The City postpone the alignment approval until:

There are alternate alignment routes presented to Council that fully avoid the Lewis Lofts building – Council needs to have the option to avoid exposure to residents.

The project team reassess the route near, or under, the Lewis building addressing issues and providing certainty to Council and the Lewis residents that the quality life for residents will not be jeopardized if Council approves this alignment option.

Council is certain they have all the information required to make an alignment decision that protects our homes and ensures the Green Line Project is seen as a success without irreversible loss.